

DVSA

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In Service Exhaust Emission Standards for Road Vehicles

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Working for a cleaner environment

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IN SERVICE VEHICLE EMISSIONS STANDARDS

INTRODUCTION

This booklet explains the test procedures used to check vehicle exhaust emissions which Testers and Vehicle Examiners will follow whether at the roadside or during the MOT test. It contains, in the Annex, emissions limits for vehicles fitted with advanced emissions control systems such as three way catalytic converters, and offers general advice to motorists and vehicle operators on submitting vehicles for test. The booklet deals separately with petrol-engined vehicles and those with diesel engines.

The limit values contained in the Annex to this booklet form part of the Road Vehicles (Construction & Use) Regulations 1986 (as amended) and these will be used for the in-use emissions testing of vehicles fitted with advanced emissions control systems. The information contained in Tables 1 & 2 detail the legal requirements for vehicles not fitted with these advanced systems and for the few model types not included in the Annex. For diesel vehicles, the requirements are outlined in Table 3.

The test procedures described in this booklet are included solely as a guide; they do not form part of the Regulations. Detailed test procedures are described in the:

- MOT Inspection Manual, Private Passenger and Light Commercial Vehicle Testing
- HGV Inspection Manual and PSV Inspection Manual

For members of the public, free on-line versions of the manuals are available via the VOSA website <http://www.motinfo.gov.uk/htdocs/>

WARNING TO VEHICLE OWNERS

It is important for owners of vehicles fitted with catalytic converters to understand that the catalyst is only one in a number of components, which collectively make up the emissions control system.

Where replacement parts are necessary, costs can increase significantly and it is important, therefore, that defects are accurately diagnosed. Incorrect diagnosis may lead to high cost items (such as fuel injection pumps, fuel injectors, catalytic converters, etc) being replaced unnecessarily. For day-to-day use of the vehicle, and care of the emissions control system, owners are advised to consult the vehicle handbook or seek advice from the manufacturer's agent/dealer.

Accurate diagnosis of engine management systems often requires the use of diagnostic equipment and appropriately trained vehicle technicians. Motorists should, therefore, seek advice from reputable vehicle repairers before agreeing to repairs.

PETROL AND GAS POWERED VEHICLES

Vehicles to be tested

In-use exhaust emissions testing is applied to all petrol and gas-powered vehicles with four or more wheels.

The test does not apply to vehicles fitted with 2-stroke engines.

The following types of vehicle will be considered as first used before 1 August 1975 (Visual Test):

- Wankel rotary engined vehicles first used before 1 August 1987.
- All kit-cars and amateur built vehicles first used before 1 August 1998.

1.1 Types of test

The emissions test to which a vehicle is subject will depend upon its date of first use (i.e. date of registration or date of manufacture if used abroad before first registration in the UK) as follows:

- For vehicles first used before 1 August 1975 a visual test will be applied.
- For vehicles first used on or after 1 August 1975 a metered test will be applied.

On 1 January 1996 a new test was introduced for petrol fuelled passenger cars fitted with advanced emissions control systems such as three way catalytic converters. The test was extended to include large petrol fuelled passenger cars and petrol fuelled light goods vehicles from 1 August 1997.

The test applies to:

- Passenger cars⁽¹⁾ first used on or after 1 August 1992 and mentioned in the Annex to this publication.
- All passenger cars first used on or after 1 August 1995.⁽²⁾
- Other vehicles, such as large passenger cars and light goods vehicles⁽³⁾, first used on or after 1 August 1994 and mentioned in the Annex to this publication.

1. The Road Vehicles (Construction and Use) Regulations 1986 (as amended) define a passenger car as a motor vehicle which is:
a) constructed or adapted for use for the carriage of passengers and is not a goods vehicle;
b) has no more than five seats in addition to the driver's seat and;
c) has a maximum gross weight not exceeding 2,500kg.

2. Passenger cars first used before 1 August 1995, not mentioned in the Annex and which at date of engine manufacture were incapable of passing the catalyst test will be tested to non-catalyst standards

3. Large passenger cars with more than six seats including the driver's seat. Light goods vehicles not exceeding 3,500kg.

For all petrol engined vehicles first used before 1 August 1992, all gas engined vehicles and vehicles other than passenger cars first used before 1 August 1994 the test procedure consists of a metered check at the normal idle speed, the so-called 'non-catalyst' test.

Some passenger cars first used during the "*transition*" period (i.e. 1 August 1992 to 1 August 1995) and some light goods vehicles and large passenger cars first used on or after 1 August 1994 were not required to be manufactured to the EC standards requiring advanced emissions control systems to be fitted. For these vehicles the non-catalyst test will be applied. Owners of vehicles which were first used during this transition period, are advised to check the entries in the Annex to this booklet or contact the vehicle manufacturer.

1.2 Checks on the vehicle before the test

As a general precaution motorists are advised to check that the vehicle has enough engine oil, the coolant level is correctly topped-up and there is enough fuel to carry out the test. If defects are known or suspected it is advisable to seek advice from a qualified service engineer and have the defects rectified in advance of the test appointment.

Wherever possible vehicles should arrive at the test station with the engine at its normal operating temperature (e.g. after a drive of approximately 5 miles). Before carrying out the test, the Tester will confirm that the engine is at its normal operating temperature which, in some cases, will require the use of an oil temperature probe inserted into the dipstick tube. Before proceeding, the tester will also check that the engine has sufficient oil and fuel to complete the test.

For vehicles with manual transmission the test will be carried out with the gear lever in the 'neutral' position and with the clutch engaged. For vehicles with automatic transmission the gear selector will be in either the 'neutral' or 'park' position.

1.3 Test Procedure

Visual inspection (all vehicles)

Once the preliminary checks have been completed, the tester will raise the engine speed to around 2500rpm or half the maximum engine speed if this is lower. The engine speed will be held steady for approximately 20 seconds after which the engine will be allowed to return to its natural idle speed. Once the emissions have stabilised the tester will assess the smoke emitted from the tailpipe. If the exhaust is emitting dense blue or clearly visible black smoke then the vehicle will fail the test. In exceptional cases, especially on certain vehicles manufactured before 1960 where emissions of smoke are unavoidable due to the engine design, these vehicles will not fail the test.

Standard emissions test

For vehicles first used on or after 1 August 1975, emissions will also be checked using an approved analyser. After completing the visual test, the tester will use the analyser to assess the concentration of carbon monoxide (CO) and hydrocarbons (HC) in the exhaust gases by inserting a sample probe into the exhaust tailpipe. The test is carried out with the engine at its normal idling speed and the analyser displays the results continuously. Once a stabilised figure is achieved the tester will record the result.

The vehicle must comply with the appropriate emissions limits set out in Table 1 or Table 2 in this booklet. This test (the so-called “non-catalyst” test) is used for petrol-fuelled cars and light goods vehicles which are not equipped with advance emission control systems such as catalytic converters.

Basic Emissions Test procedure (BET)

The basic emissions test is applied to all petrol fuelled vehicles first used on or after 1 August 1992. Despite its name this test is primarily aimed at identifying, and assessing emissions from, vehicles with advanced emissions control systems such as three-way catalytic converters. The test uses EC minimum in service emission limits for modern cars.

For cars subject to this procedure emissions are assessed during two separate tests. As the procedure is more complicated than the non-catalyst test, the emissions analysers include computer software aimed at guiding the Tester through the test sequence. The primary reason for the introduction of these meters is to ensure that the car is tested accurately.

The first test consists of checking the emissions at ‘fast-idle speed’ which involves running the engine at a speed of 2500 - 3000 rpm. During this test the emissions of CO and HC will be checked and a further check will be made on the lambda⁽¹⁾ value. The second test consists of a check of emissions at ‘normal idle speed’ in which the engine will idle between 450 and 1500rpm, but in this case only the CO emissions are assessed.

The emissions limits to be met are specified for both the fast and normal idle tests. At fast idle, CO must be at or less than 0.2%, HC at or less than 200 parts per million (ppm), and the lambda value⁽¹⁾ must be between 0.97 and 1.03. At normal idle, CO must be at or less than 0.3%.

Where these limits are not met, a check will be made to identify vehicles (e.g. those without a catalyst) which should only be required to meet the non-catalyst emissions check requirements. If the vehicle does not fall into this category then the analyser will automatically schedule an extended emissions test using the values quoted in Table 1 or Table 2 and the listings in the Annex in this booklet.

⁽¹⁾ Lambda is the ratio of the mass of air/mass of fuel divided by 14.7.

Extended emissions test

As indicated above, an extended emissions test will be applied where the limits are not met under the basic emissions test and where the vehicle has been identified as needing to meet the “catalyst” test requirements. These will include petrol-fuelled cars fitted with advanced emissions control systems (e.g. vehicles with catalytic converters) first used on or after 1 August 1995, ⁽²⁾ petrol fuelled cars first used on or after 1 August 1992 which are listed in the Annex to this booklet and large passenger cars and light goods vehicles first used on or after 1 August 1994 and listed in the Annex to this booklet.

As in the basic test procedure, emissions are assessed during two separate tests. The “fast-idle” test in this case involves running the engine at the speed specified in the Annex to this publication (typically 2500 - 3000 rpm), and the emissions of CO, HC and Lambda values are checked. A check of CO emissions at ‘normal idle’ speed is also carried out.

The analyser will require the tester to complete each stage of the test before proceeding to the next. In addition, where a failure is recorded during the fast idle test, the analyser will automatically schedule a repeat test.

⁽²⁾ Passenger cars first used before 1 August 1995 and not mentioned in the Annex to this publication are tested to non-catalyst standards.

This is to ensure, as far as practicable, that the catalytic converter has reached its normal operating temperature.

Before starting the emissions test, the Tester will check the engine oil temperature to ensure that the engine is at the manufacturer's stated operating temperature. This will require an oil temperature probe to be inserted into the dipstick tube.

Once the preliminary checks have been carried out and the Tester has identified the vehicle model in the Annex to this booklet (stored on the emissions analyser database) the Tester will begin the fast idle emissions test.

This test requires the engine speed to be increased to that specified in the Annex. Once the engine speed has stabilised between the upper and lower limits, the emissions will be measured for a continuous 30-second period. At the end of this period, the analyser will automatically compare the results of the test with those specified in this booklet. Provided the results are equal to or below the specified limits, the vehicle will have passed this section of the test and the analyser will automatically proceed to the normal idle test. As indicated above where a failure is recorded during the fast idle test, the analyser will automatically schedule a repeat test.

The "normal idle" test is the same as that described above for the basic emissions test.

The vehicle must pass both the fast and the normal idle emissions tests to secure a pass result.

Test procedures may be amended at any time. You are advised to refer to the relevant VOSA Inspection Manual for details of the test procedure which will be applied to a vehicle undergoing examination.

DIESEL ENGINED VEHICLES

Vehicles to be tested

This inspection applies to all diesel engined vehicles with four or more wheels.

2.1 Checks on the vehicle before the test

As a general precaution motorists and vehicle operators are advised to check that the vehicle has enough engine oil, the coolant level is correctly topped-up and there is sufficient fuel to carry out the test. If defects are known or suspected it is advisable to seek advice from a qualified service engineer and have the defects rectified in advance of the test appointment.

Wherever possible vehicles should arrive at the test station with the engine at its normal operating temperature (e.g. after a drive of approximately 5 miles).

Before carrying out the test for cars and light goods vehicles the Tester must confirm that the engine is at its normal operating temperature. In most cases this will require the use of an oil temperature probe inserted into the dipstick tube. The Tester will also check that the engine has adequate oil and fuel to complete the test before proceeding. In addition the Tester will check the condition of the camshaft drive belt (where visible) and the fuel injection pump (governor) anti-tampering seals.

For vehicles with manual transmission the test will be carried out with the gear lever in the 'neutral' position and with the clutch engaged. For vehicles with automatic transmission the gear selector will be in either the 'neutral' or 'park' position.

2.2 Test Procedure

Visual Inspection

For all private cars and light goods vehicles up to and including 3500kg design gross weight first used before 1 August 1979, a visual test will be carried out. The Tester will check the smoke emissions by raising the engine speed to around 2500rpm or half the maximum engine speed if this is lower. This speed will be maintained for 30 seconds to ensure that the inlet and exhaust system has been fully purged. The Tester will then allow the engine to return to idle. Once the engine has stabilised at this speed, the emissions from the exhaust tailpipe will be assessed. If the exhaust is emitting dense blue or clearly visible black smoke for a period of 5 seconds or more the vehicle will fail the test.

The Tester will then rapidly increase the engine speed to around 2500 rpm or half the maximum engine speed if this is lower and assess whether the smoke emitted from the exhaust is likely to obscure the vision of other road users. If it is likely to do so, in the Tester's opinion, the vehicle will fail the test.

However, cars and light goods vehicles manufactured before 1960 will not be failed if the smoke is unavoidable due to the engine design.

Metered smoke test

For all private cars and light goods vehicles up to and including 3500kg design gross weight first used on or after 1 August 1979, a metered smoke test will be carried out.

Before checking the smoke emissions the Tester will firstly ensure that the engine inlet and exhaust system is fully purged, and the engine speed governor is functioning correctly. The engine speed will be raised to around 2500rpm or half the maximum engine speed if this is lower¹. Upon reaching this speed, the Tester will hold the engine speed steady for 30 seconds to purge the inlet and exhaust systems, then the engine speed will be slowly increased to maximum to check the operation of the fuel pump governor. Where the engine speed stabilises at its maximum speed indicating that the governor is working, the engine will then be returned to idle speed. Where it is clear that the governor is not working, the engine will be returned to idle speed and stopped, the smoke test will not be carried out and the Tester will be unable to pass the vehicle.

Provided the preliminary checks are completed satisfactorily, the Tester will prepare the smoke meter and insert the sampling probe into the exhaust tailpipe. Having re-started the engine the tester will start the smoke test.

Diesel Fast Pass

Since 1 August 2002 a metered 'fast pass' procedure has been used to help simplify and reduce the time taken for the test, allowing vehicles with low smoke emissions to pass the metered test after one acceleration of the engine. If, after the first acceleration, the meter reading is at or below 1.5m^{-1} , the vehicle will pass the meter test.

The smoke meter will indicate to the Tester to accelerate the engine. The accelerator pedal will be depressed quickly and continuously but not violently, to reach the full fuel position in less than 1 second. After the release prompt is given, the Tester will immediately release the throttle. The meter will calculate the maximum smoke emission during the acceleration and display the result. If the smoke level reading is at or below 1.5m^{-1} , the vehicle has passed the metered test, and a pass result will be displayed on the meter.

¹ Procedures differ for heavy goods vehicles and large passenger vehicles: further details may be found in the relevant Inspection Manual

Standard diesel test

If the smoke level reading is greater than 1.5m^{-1} , a further two accelerations will be requested by the meter. Provided the average of the 3 tests is at or below the appropriate limit in Table 3, and the three results are within a specified tolerance of each other, the vehicle will have passed the test. The Tester will stop the engine and remove the smoke meter probe from the tailpipe.

Where the average smoke emission at the end of the third acceleration exceeds the limit in Table 3, the meter will request further tests. This will continue until either the average of the three preceding accelerations is at or below the limit in the Table or a maximum of six accelerations have been completed. Once the vehicle has either passed the test or a maximum of six accelerations have been completed the Tester will stop the test and remove the smoke meter probe from the exhaust tailpipe.

As a final check the Tester will assess visually whether the smoke emitted from the exhaust, regardless of measured smoke density, is likely to obscure the vision of other road users. If it is likely to do so the vehicle will fail the test.

Test procedures may be amended at any time. You are advised to refer to the relevant VOSA Inspection Manual for details of the test procedure which will be applied to a vehicle undergoing examination.

TABLE 1
PETROL FUELLED CARS

LIMIT	Maximum measured values at natural engine idle speed			Maximum measured values at raised engine speed and with the gearbox in neutral			
Date of first use ¹	Carbon monoxide (CO)	Hydrocarbon (HC) ³	Engine idle speed (rpm)	Carbon monoxide (CO)	Hydrocarbon (HC)	Lambda ²	Engine speed (rpm)
Before 1/8/75	No requirement	No requirement	No requirement	No requirement	No requirement	No requirement	No requirement
From 1/8/75 and before 1/8/86	4.5% vol	0.12% vol (1200ppm) ⁴	No specific requirement but engine must not be clearly above its normal idling speed	No requirement	No requirement	No requirement	No requirement
From 1/8/86 and before 1/8/92	3.5% vol	0.12% vol (1200ppm)	No specific requirement but engine must not be clearly above its normal idling speed	No requirement	No requirement	No requirement	No requirement
From 1/8/92 and before 1/8/95 but are not included in the Annex	3.5% vol	0.12% vol (1200ppm)	No specific requirement but engine must not be clearly above its normal idling speed	No requirement	No requirement	No requirement	No requirement
From 1/8/95 and before 31/8/2 but are not included in the Annex	0.5% vol	No requirement	No specific requirement but engine must not be clearly above its normal idling speed	0.3%	0.02% vol (200ppm)	1±0.03	>2500rpm <3000rpm
From 1/9/2 but are not included in the Annex	0.3% vol	No requirement	No specific requirement but engine must not be clearly above its normal idling speed	0.2%	0.02% vol (200ppm)	1±0.03	>2500rpm <3000rpm
From 1/8/92 and that are included in the Annex	As stated in the Annex	As stated in the Annex	As stated in the Annex	As stated in the Annex	As stated in the Annex	As stated in the Annex	As stated in the Annex

Notes

1. Date of first use is as defined in Regulation 3(3) of the Road vehicles (Construction and Use) Regulations.
2. Lambda is the ratio of the mass of air/mass of fuel divided by 14.7
3. HC is normally measured during the natural idle test. However, where a vehicle meets the CO limit but exceeds the HC limit at this speed, the tester must carry out a further test at 2000rpm. Provided the HC limit is met at this higher speed then the vehicle meets the requirement.
4. PPM refers to "parts per million" which is how MOT meters display the result.

TABLE 2

OTHER PETROL FUELLED VEHICLES

LIMIT	Maximum measured values at natural engine idle speed			Maximum measured values at raised engine speed and with the gearbox in neutral			
Date of first use ¹	Carbon monoxide (CO)	Hydrocarbon (HC) ³	Engine idle speed (rpm)	Carbon monoxide (CO)	Hydrocarbon (HC)	Lambda ²	Engine speed (rpm)
Before 1/8/75	No requirement	No requirement	No requirement	No requirement	No requirement	No requirement	No requirement
From 1/8/75 and before 1/8/86	4.5% vol	0.12% vol (1200ppm) ⁴	No specific requirement but engine must not be clearly above its normal idling speed	No requirement	No requirement	No requirement	No requirement
From 1/8/86 and before 1/8/94	3.5% vol	0.12% vol (1200ppm)	No specific requirement but engine must not be clearly above its normal idling speed	No requirement	No requirement	No requirement	No requirement
From 1/8/94 but not included in the Annex	3.5% vol	0.12% vol (1200ppm)	No specific requirement but engine must not be clearly above its normal idling speed	No requirement	No requirement	No requirement	No requirement
From 1/8/94 and included in the Annex	As stated in the Annex	As stated in the Annex	As stated in the Annex	As stated in the Annex	As stated in the Annex	As stated in the Annex	As stated in the Annex
From 1/7/02 but not included in the Annex	0.3% vol	No requirement	No specific requirement but engine must not be clearly above its normal idling speed	0.2% vol	0.02% vol (200ppm)	1±0.03	>2500rpm <3000rpm

Notes

1. Date of first use is as defined in Regulation 3(3) of the Road vehicles (Construction and Use) Regulations.
2. Lambda is the ratio of the mass of air/mass of fuel divided by 14.7
3. HC is normally measured during the natural idle test. However, where a vehicle meets the CO limit but exceeds the HC limit at this speed, the tester must carry out a further test at 2000rpm. Provided the HC limit is met at this higher speed then the vehicle meets the requirement.
4. PPM refers to "parts per million" which is how MOT meters display the result.

TABLE 3
ALL DIESEL FUELLED VEHICLES

LIMIT	Maximum smoke value (absorption coefficient) measured under free acceleration	
Vehicle type	Turbocharged engines	Naturally aspirated engines
Passenger cars and light commercial vehicles (<3,500kg) and first used ¹ before 1 August 1979	Visual assessment	Visual Assessment
Passenger cars and light commercial vehicles – first used on or after 1 August 1979 and before 1 July 2008	3.0m ⁻¹	2.5m ⁻¹
Passenger cars and light commercial vehicles – first used on or after 1 July 2008	1.5m ⁻¹	1.5m ⁻¹

Notes

1. Date of first use is as defined in Regulation 3(3) of the Road Vehicles (Construction and Use) Regulations

ANNEX

REQUIREMENTS FOR VEHICLES EQUIPPED WITH ADVANCED EMISSION CONTROL SYSTEMS

SECTION I

REQUIREMENTS FOR

PASSENGER CARS ¹

FIRST USED FROM 1 AUGUST 1992

AND

EQUIPPED WITH ADVANCED EMISSION

CONTROL SYSTEMS

1 REGULATION 61 OF THE ROAD VEHICLES (CONSTRUCTION AND USE) REGULATIONS 1986 (AS AMENDED) DEFINES A PASSENGER CAR AS:

“a motor vehicle which

(a) is constructed or adapted for use for the carriage of passengers and is not a goods vehicle;

(b) has no more than five seats in addition to the driver’s seat; and

(c) has a maximum gross weight not exceeding 2,500kg.”

1 Manufacturer/Marque	2			3						4 Min Oil Temp(°C)
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
Section I										
ABARTH										
Abarth 500 and Abarth Punto										
500/500C, 595/595C, Grande Punto & Punto Evo	0.3	700	800	0.2	200	0.97	1.03	2100	2700	80
500 1.4 T-Jet 135 bhp & 160 bhp	0.3	690	790	0.2	200	0.97	1.03	2400	2600	97
Punto 1.4 MultiAir 165 bhp & 180 bhp	0.3	700	800	0.2	200	0.97	1.03	2400	2600	93
500 190bhp Manual 1368cc	0.3	690	790	0.2	200	0.97	1.03	2311	2411	93
500 180bhp Semi Automatic 1368cc	0.3	690	790	0.2	200	0.97	1.03	2790	2890	94
500 180bhp Manual 1368cc	0.3	690	790	0.2	200	0.97	1.03	2790	2890	94
500 160bhp Semi Automatic 1368cc	0.3	690	790	0.2	200	0.97	1.03	2350	2450	97
500 160bhp Manual 1368cc	0.3	690	790	0.2	200	0.97	1.03	2450	2550	97
500 140bhp Semi Automatic 1368cc	0.3	690	790	0.2	200	0.97	1.03	2350	2450	97
500 140bhp Manual 1368cc	0.3	690	790	0.2	200	0.97	1.03	2233	2333	97
500 135bhp Manual 1368cc	0.3	690	790	0.2	200	0.97	1.03	2450	2550	97
Punto 180bhp Manual 1368cc	0.3	700	800	0.2	200	0.97	1.03	2450	2550	93
500 140bhp Manual 1368cc 2016/17	0.3	700	800	0.2	200	0.97	1.03	2138	2238	97
500 145bhp Manual 1368cc 2016/17	0.3	700	800	0.2	200	0.97	1.03	2138	2238	94
500 145bhp Semi Automatic 1368cc 2016/17	0.3	690	790	0.2	200	0.97	1.03	2280	2380	94
500 160bhp Manual 1368cc 2016/17	0.3	690	790	0.2	200	0.97	1.03	2417	2517	94
500 165bhp Manual 1368cc 2016/17	0.3	690	790	0.2	200	0.97	1.03	2456	2556	98
500 165bhp Semi Automatic 1368cc 2016/17	0.3	700	800	0.2	200	0.97	1.03	2514	2614	98
Abarth 124 Spider										
124 140bhp Manual 1368cc 2016/17	0.3	700	800	0.2	200	0.97	1.03	2218	2318	93
124 140bhp Automatic 1368cc 2016/17	0.3	740	840	0.2	200	0.97	1.03	2270	2370	98
AC Cars										
AC Superblower										
4949cc V8 Engine Code LL	0.5	625	775	0.3	200	0.95	1.05	2500	3000	80

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (% Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
AC Ace V8										
4949cc Engine Code ACA Automatic	0.5	800	950	0.3	200	0.95	1.05	2800	3100	80
4949cc Engine Code ACA Manual	0.5	725	875	0.3	200	0.95	1.05	2800	3100	80
AC 302 CRS										
4949cc V8	0.5	625	775	0.3	200	0.95	1.05	2500	3100	80
AC 212										
3506cc V8	0.5	700	950	0.3	200	0.95	1.05	2500	3100	80
ALFA ROMEO										
<i>Engine Codes appear on the VIN Plate as well as on the Engine Block.</i>										
33										
1.7 16V with Engine Code 30747	0.5	800	900	0.3	200	0.97	1.03	2500	2900	80
1.7 8V with Engine Code 30737	0.5	900	1050	0.3	200	0.97	1.03	2500	2900	80
164										
2.0 T.S with Engine Codes 06416 and 64103	0.5	790	890	0.3	200	0.97	1.03	2500	2900	80
V6 12V with Engine Codes 6412 and 64301	0.5	700	800	0.3	200	0.97	1.03	2500	2900	80
V6 24V	0.5	675	825	0.3	200	0.97	1.03	2500	2900	80
Spider										
Spider with Engine Code 01588	0.5	750	850	0.3	200	0.97	1.03	2500	2900	80
Spider/GTV										
2.0 T.S 16V	0.5	750	890	0.3	200	0.97	1.03	2500	2900	80
2.0 JTS	0.3	820	860	0.2	200	0.97	1.03	2500	2900	80
3.0 V6 24V	0.5	670	730	0.3	200	0.97	1.03	2500	2900	80
3.2 V6 24V	0.3	650	750	0.2	200	0.97	1.03	2500	2900	80
75										
75 V6 with Engine Code 61503	0.5	790	890	0.3	200	0.97	1.03	2500	2900	80
SZ										
SZ	0.5	790	890	0.3	200	0.97	1.03	2500	2900	80
145 & 146										
1.6 Engine Code 33201	0.5	800	900	0.3	200	0.97	1.03	2500	2900	80
1.6 T.S 16V	0.5	750	850	0.3	200	0.97	1.03	2500	2900	80

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
1.7 Engine Code 33401	0.5	850	950	0.3	200	0.97	1.03	2500	2900	80
1.8 T.S 16V	0.5	750	850	0.3	200	0.97	1.03	2500	2900	80
145 Cloverleaf (2.0 T.S 16V)	0.5	750	850	0.3	200	0.97	1.03	2500	2900	80
146 Ti (2.0 T.S 16V)	0.5	750	850	0.3	200	0.97	1.03	2500	2900	80
147										
1.6/2.0 T.S.	0.5	790	890	0.3	200	0.97	1.03	2500	2900	80
GTA (3.2 V6)	0.5	670	770	0.3	200	0.97	1.03	2500	2900	80
155										
1.8 T.S	0.5	790	890	0.3	200	0.97	1.03	2500	2900	80
1.8 T.S 16V/2.0 T.S 16V	0.5	750	850	0.3	200	0.97	1.03	2500	2900	80
2.0 T.S	0.5	790	890	0.3	200	0.97	1.03	2500	2900	80
Cloverleaf	0.5	750	850	0.3	200	0.97	1.03	2500	2900	80
V6	0.5	700	800	0.3	200	0.97	1.03	2500	2900	80
156 Saloon & Sportwagon										
1.6/1.8 and 2.0 T.S. 16V	0.5	800	900	0.3	200	0.97	1.03	2500	2900	80
2.0 JTS	0.5	820	860	0.3	200	0.97	1.03	2500	2900	80
2.5 V6	0.5	670	730	0.3	200	0.97	1.03	2500	2900	80
GTA (3.2 V6)	0.5	670	770	0.3	200	0.97	1.03	2500	2900	80
166										
2.0 T.S.	0.5	820	950	0.3	200	0.97	1.03	2500	2900	80
2.5 V6 24V	0.5	650	750	0.3	200	0.97	1.03	2500	2900	80
3.0 V6 24V	0.5	670	730	0.3	200	0.97	1.03	2500	2900	80
3.2 V6 24V	0.5	670	770	0.3	200	0.97	1.03	2500	2900	80
GT										
1.8 TS	0.5	800	900	0.2	200	0.97	1.03	2100	2700	80
2.0 JTS	0.5	820	860	0.3	200	0.97	1.03	2500	2900	80
3.2 V6 24V	0.5	670	770	0.3	200	0.97	1.03	2500	2900	80
159										
1750 Tbi	0.3	700	800	0.3	200	0.97	1.03	2000	3000	80
1.8 MPI	0.3	800	900	0.2	200	0.97	1.03	2000	3000	80
1.9 JTS	0.2	750	850	0.2	200	0.97	1.03	2000	3000	80

1 Manufacturer/Marque	2			3						4 Min Oil Temp(°C)
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
2.2 JTS	0.2	750	850	0.2	200	0.97	1.03	2000	3000	80
3.2 JTS V6	0.2	690	790	0.2	200	0.97	1.03	2000	3000	80
Brera/Spider										
2.2 JTS	0.2	750	850	0.2	200	0.97	1.03	2000	3000	80
3.2 JTS V6	0.2	690	790	0.2	200	0.97	1.03	2000	3000	80
Alfa 8C										
Competizione Coupé and Spider	0.3	800	900	0.2	200	0.97	1.03	2200	2800	80
MiTo										
1.4 / 1.4 TB 120 / 1.4 TB 155 / 1.4 TB MultiAir 135/ 1.4 TB MultiAir 170	0.3	700	800	0.2	200	0.97	1.03	2100	2700	80
875 TB TwinAir	0.3	770	870	0.2	200	0.97	1.03	2100	2700	80
MiTo 2013-2014										
875cc 85 bhp TwinAir	0.3	700	800	0.2	200	0.97	1.03	2400	2600	97
875cc 105 bhp TwinAir	0.3	770	870	0.2	200	0.97	1.03	2850	3050	90
1.4 8v 78 bhp	0.3	650	750	0.2	200	0.97	1.03	2400	2600	92
1.4 MultiAir 105 bhp	0.3	710	810	0.2	200	0.97	1.03	2450	2650	97
1.4 TB MultiAir 135 bhp	0.3	720	820	0.2	200	0.97	1.03	2400	2600	98
1.4 TB MultiAir 135 bhp TCT	0.3	700	800	0.2	200	0.97	1.03	2400	2600	96
1.4 TB MultiAir 170 bhp	0.3	700	800	0.2	200	0.97	1.03	2400	2600	97
MiTo 2015-2016										
875cc 105bhp Manual	0.3	770	870	0.2	200	0.97	1.03	2900	3000	90
1.4 78bhp Manual	0.3	650	750	0.2	200	0.97	1.03	2350	2450	92
1.4 140bhp Semi Automatic	0.3	700	800	0.2	200	0.97	1.03	2290	2390	95
1.4 170bhp Semi Automatic	0.3	700	800	0.2	200	0.97	1.03	2290	2390	95
MiTo 2016-2017										
1.4 78bhp Manual	0.3	650	750	0.2	200	0.97	1.03	2350	2450	95
1.4 140bhp Semi Automatic	0.3	700	800	0.2	200	0.97	1.03	2290	2390	95
Giulietta										
1.4 TB 120 / 1.4 TB MultiAir 170/ 1750 TBi	0.3	700	800	0.2	200	0.97	1.03	2100	2700	80
Giulietta 2013-2014										
1.4 TB 120 bhp	0.3	700	800	0.2	200	0.97	1.03	2350	2550	92
1.4 TB MultiAir 170 bhp	0.3	690	790	0.2	200	0.97	1.03	2350	2550	95

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
1.4 TB MultiAir 170 bhp TCT	0.3	700	800	0.2	200	0.97	1.03	2600	2800	95
1750 TBi 235 bhp	0.3	690	790	0.2	200	0.97	1.03	2400	2600	90
Giulietta 2014-2015										
1.4 120bhp Manual	0.3	700	800	0.2	200	0.97	1.03	2400	2500	92
1.4 150bhp Manual	0.3	690	790	0.2	200	0.97	1.03	2400	2540	95
1.4 170bhp Manual	0.3	690	790	0.2	200	0.97	1.03	2400	2540	95
1.4 170bhp Semi Automatic	0.3	700	800	0.2	200	0.97	1.03	2670	2770	95
1750cc 240bhp Semi Automatic	0.3	700	800	0.2	200	0.97	1.03	2650	2750	96
Giulietta 2016-2017										
1.4 120bhp Manual	0.3	700	800	0.2	200	0.97	1.03	2400	2500	87
1.4 170bhp Manual	0.3	690	790	0.2	200	0.97	1.03	2400	2500	94
1.4 170bhp Semi Automatic	0.3	700	800	0.2	200	0.97	1.03	2670	2770	88
1750cc 240bhp Semi Automatic	0.3	700	800	0.2	200	0.97	1.03	2670	2770	95
4C Coupé and Spider										
1750cc 240bhp Semi Automatic	0.3	880	980	0.2	200	0.97	1.03	2520	2620	94
4C Coupé and Spider 2016-2017										
1750cc 240bhp Semi Automatic	0.3	880	980	0.2	200	0.97	1.03	2520	2620	96
Giulia 2017										
2.0 200bhp Automatic	0.3	700	800	0.2	200	0.97	1.03	2356	2456	90
2.0 280bhp Automatic	0.3	700	800	0.2	200	0.97	1.03	2356	2456	90
2.9 510bhp Automatic	0.3	741	841	0.2	200	0.97	1.03	2490	2590	88
Stelvio 2017										
2.0 280bhp Automatic	0.3	700	800	0.2	200	0.97	1.03	2541	2641	93

ASIA

The engine code is located on the cylinder block on the left hand side rear. It is made up of the first characters of the engine number.

(See also Section II)

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
ASQUITH										
2.0l DOHC Engine Code N9C or N9E	0.5	825	925	0.3	200	0.95	1.09	2800	3100	80
ASTON MARTIN LAGONDA										
92 - 95 MY Virage Volante - Engine Type 589	0.6	800	900	0.3	200	0.96	1.04	2500	3000	80
Virage - Engine Type 589	0.6	800	900	0.3	200	0.96	1.04	2500	3000	80
L.E. Virage - Engine Type 589	0.6	800	900	0.3	200	0.96	1.04	2500	3000	80
96 MY Virage Volante - Engine Type 69	0.6	900	1000	0.3	200	0.97	1.03	2500	3000	80
V8 Volante (LWB) - Engine Type 89	0.6	900	1000	0.3	200	0.96	1.03	2500	3000	80
V8 Coupé - Engine Type 79	0.6	900	1000	0.3	200	0.96	1.03	2500	3000	80
97 - 99 MY Vantage - Engine Type 590/R	0.6	890	990	0.3	200	0.96	1.03	2500	3000	80
Le Mans Vantage - Engine Type 590/R	0.6	890	990	0.3	200	0.96	1.03	2500	3000	80
Vantage Volante - Engine Type 590/R	0.6	890	990	0.3	200	0.96	1.03	2500	3000	80
DB7 Coupé - Engine Type AM1	0.5	750	850	0.3	200	0.97	1.03	2500	3000	80
DB7 Volante - Engine Type AM1	0.5	750	850	0.3	200	0.97	1.03	2500	3000	80
DB7 Vantage Coupé - Engine Type AM2	0.5	600	700	0.3	200	0.97	1.03	2500	3000	80
DB7 Vantage Volante - Engine Type AM2	0.5	600	700	0.3	200	0.97	1.03	2500	3000	80
DB7 Vantage Coupé - Engine Type AM2 - Chassis Number SCFAB42351K401189 onwards	0.5	600	700	0.3	200	0.97	1.03	2500	3000	80
DB7 Vantage Volante - Engine Type AM2 - Chassis Number SCFAB42351K401189 onwards	0.5	600	700	0.3	200	0.97	1.03	2500	3000	80
V12 Vanquish - Engine Type AM3	0.5	700	800	0.3	200	0.97	1.03	2500	3000	85
DB7 GT Volante - Engine Type AM2A	0.5	600	700	0.3	200	0.97	1.03	2500	3000	80
DB7 GT Coupé - Engine Type AM2A	0.5	600	700	0.3	200	0.97	1.03	2500	3000	80
DB7 GTa Coupé - Engine Type AM2	0.5	600	700	0.3	200	0.97	1.03	2500	3000	80
DB7 GTa Volante - Engine Type AM2	0.5	600	700	0.3	200	0.97	1.03	2500	3000	80
DB7 Zagato - Engine Type AM2A	0.3	600	700	0.2	200	0.97	1.03	2500	3000	80
DB-AR1 - Engine Type AM2A	0.3	600	700	0.2	200	0.97	1.03	2500	3000	80
DB9 Coupé - Engine Type AM04/	0.3	700	800	0.2	200	0.97	1.03	2500	3000	80
DB9 Volante - Engine Type AM04/	0.3	700	800	0.2	200	0.97	1.03	2500	3000	80

1 Manufacturer/Marque	2			3						4 Min Oil Temp(°C)
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (% Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
V12 Vanquish S - Engine Type AM06/	0.3	700	800	0.2	200	0.97	1.03	2500	3000	80
V8 Vantage - Engine Type AM05/	0.3	700	800	0.2	200	0.97	1.03	2500	3000	80
DBS Coupé - Engine Type AM08/	0.3	700	800	0.2	200	0.97	1.03	2500	3000	80
DB9 (Manual Gearbox) - Engine Type AM09/	0.3	700	800	0.2	200	0.97	1.03	2500	3000	80
DB9 (Auto Gearbox) - Engine Type AM09/	0.3	600	700	0.2	200	0.97	1.03	2500	3000	80
V8 Vantage - Engine Type AM07/	0.3	700	800	0.2	200	0.97	1.03	2500	3000	80
V12 Vantage - Engine Type AM10/	0.3	700	800	0.2	200	0.97	1.03	2500	3000	80
Rapide V12 - Engine Type AM16/	0.3	600	700	0.2	200	0.97	1.03	2500	3000	80
Virage - Engine Type AM25 (from 2012MY)	0.3	700	800	0.2	200	0.97	1.03	2500	3000	80
Cygnnet 6MT - Engine Type 1NR-FE	0.3	550	650	0.2	200	0.97	1.03	2400	2600	60
Cygnnet CVT - Engine Type 1NR-FE	0.3	600	700	0.2	200	0.97	1.03	2400	2600	60
V8 Vantage - Engine Type AM14/ and AM15/	0.3	700	800	0.2	200	0.97	1.03	2500	3000	80
DB9 - Engine Type AM11/	0.3	700	800	0.2	200	0.97	1.03	2500	3000	80
Vanquish - Engine Type AM11/	0.3	700	800	0.2	200	0.97	1.03	2500	3000	80
V12 Vantage S - Engine Type AM28/	0.3	700	800	0.2	200	0.97	1.03	2500	3000	80
Rapide S - Engine Type AM11/	0.3	600	700	0.2	200	0.97	1.03	2500	3000	80
Vanquish - Engine Type AM29/	0.3	600	700	0.2	200	0.97	1.03	2500	3000	80
Rapide S - Engine Type AM29/	0.3	600	700	0.2	200	0.97	1.03	2500	3000	80

AUDI

The Engine Code is located on the Cylinder Block. FSI = Direct Injection

Audi 80/80 Estate Series

1.6l injection Engine Code ADA Model Year 93 - 95	0.5	800	900	0.3	200	0.97	1.03	2500	2800	80
2.0l injection 16V Engine Code 6A Model Year 91 - 95	0.5	800	1000	0.3	200	0.97	1.03	2500	2800	80
2.0l injection Engine Code ABK Model Year 91 - 95	0.5	770	870	0.3	200	0.97	1.03	2500	2800	80
2.0l injection 16V Engine Code ACE Model Year 92 - 95	0.5	800	1000	0.3	200	0.97	1.03	2500	2800	80
2.0l injection Engine Code ABT Model Year 91 - 95	0.5	750	1000	0.3	200	0.97	1.03	2500	2800	80
2.3l injection Engine Code NG Model Year 91 - 95	0.5	720	860	0.3	200	0.97	1.03	2500	2800	80
2.3l injection Engine Code ADU Model Year 94 - 95	0.5	700	780	0.3	200	0.97	1.03	2500	2800	80
2.3l injection Engine Code 3B Model Year 90 - 94	0.5	740	860	0.3	200	0.97	1.03	2500	2800	80
2.6l V6 injection Engine Code ABC Model Year 92 - 95	0.5	680	820	0.3	200	0.97	1.03	2500	2800	80
2.8l V6 injection Engine Code AAH Model Year 91 - 94	0.5	650	800	0.3	200	0.97	1.03	2500	2800	80

1 Manufacturer/ Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
Audi 90 Series										
2.3l injection 20V Engine Code 7A Model Year 88 - 92	0.5	750	850	0.3	200	0.97	1.03	2500	2800	80
2.3l injection Engine Code NG Model Year 87 - 92	0.5	720	860	0.3	200	0.97	1.03	2500	2800	80
Audi 100 Series/100 Estate Series										
1.6l injection Engine Code ADA Model Year 94 - 96	0.5	800	900	0.3	200	0.97	1.03	2500	2800	80
2.0l injection Engine Code AAD Model Year 91 - 94	0.5	750	950	0.3	200	0.97	1.03	2500	2800	80
2.0l injection Engine Code AAE Model Year 91 - 94	0.5	750	1000	0.3	200	0.97	1.03	2500	2800	80
2.0l injection Engine Code ABK Model Year 92 - 94	0.5	770	870	0.3	200	0.97	1.03	2500	2800	80
2.0l 16V injection Engine Code ACE Model Year 92 - 94	0.5	800	1000	0.3	200	0.97	1.03	2500	2800	80
2.3l injection Engine Code AAR Model Year 91 - 94	0.5	650	790	0.3	200	0.97	1.03	2500	2800	80
2.6l V6 injection Engine Code ABC Model Year 92 - 94	0.5	680	820	0.3	200	0.97	1.03	2500	2800	80
2.6l V6 injection Engine Code ABC (Quattro) Model Year 92 - 94	0.5	680	820	0.3	200	0.97	1.03	2500	2800	80
2.8l V6 injection Engine Code AAH Model Year 91 - 94	0.5	650	800	0.3	200	0.97	1.03	2500	2800	80
4.2l injection Engine Code ABH Model Year 91 - 94	0.5	650	770	0.3	200	0.97	1.03	2500	2800	80
S4 2.2l injection Engine Code AAN Model Year 91 - 94	0.5	770	830	0.3	200	0.97	1.03	2500	2800	80
Coupé Series										
2.0l injection Engine Code ABK Model Year 91 - 96	0.5	770	870	0.3	200	0.97	1.03	2500	2800	80
2.0l 16V injection Engine Code 6A Model Year 92 - 93	0.5	800	1000	0.3	200	0.97	1.03	2500	2800	80
2.2l injection Engine Code ABY Model Year 92 - 96	0.5	770	830	0.3	200	0.97	1.03	2500	2800	80
2.3l 20V injection Engine Code 7A Model Year 88 - 92	0.5	750	850	0.3	200	0.97	1.03	2500	2800	80
2.3l injection Engine Code NG Model Year 87 - 92	0.5	720	860	0.3	200	0.97	1.03	2500	2800	80
2.6l V6 injection Engine Code ABC Model Year 94 - 96	0.5	680	820	0.3	200	0.97	1.03	2500	2800	80
2.8l V6 injection Engine Code AAH Model Year 94 - 96	0.5	650	800	0.3	200	0.97	1.03	2500	2800	80
S2 2.3l injection Engine Code 3B Model Year 90 - 94	0.5	740	860	0.3	200	0.97	1.03	2500	2800	80
Cabriolet Series										
1.8l injection Engine Code ADR Model Year 95 - 00	0.5	820	900	0.3	200	0.97	1.03	2500	2800	80
2.0l injection Engine Code ABK Model Year 91 - 96	0.5	770	870	0.3	200	0.97	1.03	2500	2800	80
2.3l injection Engine Code NG Model Year 92 - 96	0.5	720	860	0.3	200	0.97	1.03	2500	2800	80
2.6l V6 injection Engine Code ABC Model Year 94 - 96	0.5	680	820	0.3	200	0.97	1.03	2500	2800	80
2.8l V6 injection Engine Code AAH Model Year 94 - 96	0.5	650	800	0.3	200	0.97	1.03	2500	2800	80
2.8l V6 injection Engine Code ACK Model Year 96 - 00	0.5	640	760	0.3	200	0.97	1.03	2500	2800	80

1	2			3						4
Manufacturer/Marque	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	Min Oil Temp(°C)
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (% Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
Audi A2 Series										
1.4l injection Engine Code AUA (manual) Model Year 01 - 02	0.5	650	780	0.3	200	0.97	1.03	2500	3000	80
1.4l injection Engine Code BBY (manual) Model Year 02 -	0.5	650	780	0.3	200	0.97	1.03	2500	3000	80
1.6l FSI injection Engine Code BAD (manual) Model Year 02 -	0.5	600	820	0.3	200	0.97	1.03	3800	4500	80
Audi A3 Series										
1.6 injection Engine Codes AEH and AKL Model Year 96 - 02	0.5	760	880	0.3	200	0.97	1.03	2500	2800	80
1.6l injection Engine Code APF and AVU (manual) Model Year 99 - 03	0.5	670	760	0.3	200	0.97	1.03	4300	4800	80
1.6l injection Engine Code APF and AVU (auto) Model Year 99 - 03	0.5	800	860	0.3	200	0.97	1.03	4300	4800	80
1.6l injection Engine Code BFQ (manual and auto) Model Year 03 -	0.5	720	920	0.3	200	0.97	1.03	2500	3000	80
1.8l injection Engine Code AGN Model Year 96 - 03	0.5	760	840	0.3	200	0.97	1.03	2500	2800	80
1.8l injection Engine Code APG (manual) Model Year 99 - 03	0.5	660	860	0.3	200	0.97	1.03	2500	2800	80
1.8l injection Engine Code APG (auto) Model Year 99 - 03	0.5	800	860	0.3	200	0.97	1.03	2500	2800	80
1.8l injection Engine with Turbo Code AGU Model Year 96 - 03	0.5	800	920	0.3	200	0.97	1.03	2500	2800	80
1.8l injection Engine with Turbo Code AQA (2wd and manual) Model Year 98 - 02	0.5	800	920	0.3	200	0.97	1.03	2500	2800	80
1.8l injection Engine with Turbo Code AQA (auto and/or Quattro) Model Year 98 - 02	0.5	720	840	0.3	200	0.97	1.03	2500	2800	80
1.8l injection Engine with Turbo Code ARZ (2wd and manual) Model Year 00 - 01	0.5	650	850	0.3	200	0.97	1.03	2500	2800	80
1.8l injection Engine with Turbo Code ARZ (auto and/or Quattro) Model Year 00 - 01	0.5	700	820	0.3	200	0.97	1.03	2500	2800	80
1.8l injection Engine with Turbo Codes ARX, ARY, AUQ and AUM (auto) Model Year 00 - 03	0.5	640	760	0.3	200	0.97	1.03	2500	3000	80
1.8l injection Engine with Turbo Codes ARX, ARY, AUQ and AUM (manual and/or Quattro) Model Year 00 - 03	0.5	700	840	0.3	200	0.97	1.03	2500	3000	80
1.8l injection Engine with Turbo Code AJQ Model Year 99 - 03	0.5	640	760	0.3	200	0.97	1.03	2500	2800	80
1.8l injection Engine with Turbo Codes APP and AJQ (Quattro) Model Year 99 - 03	0.5	700	850	0.3	200	0.97	1.03	2500	2800	80
1.8l injection Engine with Turbo Codes APP and AJQ (2wd) Model Year 99 - 03	0.5	800	920	0.3	200	0.97	1.03	2500	2800	80
1.8l injection Engine with Turbo Code BAM Model Year 02 - 03	0.5	700	820	0.3	200	0.97	1.03	2500	2800	80
S3 1.8l injection Engine with Turbo Code APY Model Year 99 - 01	0.5	800	920	0.3	200	0.97	1.03	2500	2800	80
S3 1.8l injection Engine with Turbo Code AMK Model Year 01 - 03	0.5	700	820	0.3	200	0.97	1.03	2500	2800	80
NewAudi A3 Series (8P)										
1.6l injection Engine Code BGU Model Year 03 -	0.5	600	800	0.3	200	0.97	1.03	2500	3000	80
1.6l FSI injection Engine Code BAG and BLF Model Year 04 -	0.3	600	800	0.2	200	0.97	1.03	3800	4500	80
1.6l FSI injection Engine Code BLP Model Year 05 -	0.3	640	840	0.2	200	0.97	1.03	3000	3500	80
2.0l FSI injection Engine Code AXW Model Year 03 -	0.5	600	880	0.3	200	0.97	1.03	3800	4500	80
2.0l FSI injection Engine Code BLX Model Year 05 -	0.3	640	840	0.3	200	0.97	1.03	3000	3500	80
2.0l FSI injection Engine with turbo Code AXX	0.3	660	860	0.3	200	0.97	1.03	3000	3500	80

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
Audi A4 Series/A4 Avant Series (8D)										
1.6l injection Engine Code ADP Model Year 94 - 97	0.5	820	900	0.3	200	0.97	1.03	2500	2800	80
1.6l injection Engine Codes AHL, ANA and ARM Model Year 98 - 01	0.5	760	960	0.3	200	0.97	1.03	2500	2800	80
1.6l injection Engine Code ALZ Model Year 01-	0.5	700	960	0.3	200	0.97	1.03	2500	3200	80
1.8l injection Engine Code ADR Model Year 94 - 01	0.5	820	900	0.3	200	0.97	1.03	2500	2800	80
1.8l injection Engine Codes APT, ARG and AVV (manual) Model Year 99 - 01	0.5	810	910	0.3	200	0.97	1.03	2500	2800	80
1.8l injection Engine Codes APT and ARG (auto) Model Year 99 - 01	0.5	770	870	0.3	200	0.97	1.03	2500	2800	80
1.8l injection Engine with Turbo Codes AEB and AJL Model Year 94 - 01	0.5	820	900	0.3	200	0.97	1.03	2500	2800	80
1.8l injection Engine with Turbo Codes ANB and APU (2wd and manual) Model Year 99 - 01	0.5	740	860	0.3	200	0.97	1.03	2500	2800	80
1.8l injection Engine with Turbo Codes ANB and APU (auto and/or Quattro) Model Year 99 - 01	0.5	800	920	0.3	200	0.97	1.03	2500	2800	80
1.8l injection Engine with Turbo Code AWT Model Year 01	0.5	740	880	0.3	200	0.97	1.03	2500	3000	80
2.4l V6 injection Engine Codes AGA, ALF and AJG Model Year 96 - 99	0.5	670	850	0.3	200	0.97	1.03	2500	2800	80
2.4l V6 injection Engine Codes APS, APZ and ARJ Model Year 99 - 01	0.5	650	770	0.3	200	0.97	1.03	2500	2800	80
2.4l V6 injection Engine Codes AML and AMM Model Year 99 - 01	0.5	670	770	0.3	200	0.97	1.03	2500	3200	80
2.6l V6 injection Engine Code ABC Model Year 94 - 99	0.5	680	820	0.3	200	0.97	1.03	2500	2800	80
2.7l V6 Twin Turbo Engine Code AJK Model Year 00 - 01	0.5	660	800	0.3	200	0.97	1.03	2500	2800	80
2.8l V6 injection Engine Code AAH Model Year 94 - 98	0.5	650	750	0.3	200	0.97	1.03	2500	2800	80
2.8l V6 injection Engine Code ACK Model Year 94 - 99	0.5	640	760	0.3	200	0.97	1.03	2500	2800	80
2.8l V6 injection Engine Code ALG (2wd) Model Year 97 - 99	0.5	740	860	0.3	200	0.97	1.03	2500	2800	80
2.8l V6 injection Engine Code ALG (Quattro) Model Year 97 - 99	0.5	620	740	0.3	200	0.97	1.03	2500	2800	80
2.8l V6 injection Engine Codes APR and AQD Model Year 99 - 01	0.5	650	750	0.3	200	0.97	1.03	2500	2800	80
2.8l V6 injection Engine Code AMX (Quattro) Model Year 99 - 01	0.5	630	770	0.3	200	0.97	1.03	2500	3200	80
2.8l V6 injection Engine Code AMX (2wd) Model Year 99 - 01	0.5	720	820	0.3	200	0.97	1.03	2500	3200	80
S4 2.7l V6 Twin Turbo Engine Codes AGB and AZB Model Year 98 - 01	0.5	750	850	0.3	200	0.97	1.03	2500	2800	80
RS4 2.7l V6 Twin Turbo Engine Codes ASJ and AZR Model Year 00 - 02	0.5	750	850	0.3	200	0.97	1.03	2500	2800	80
New Audi A4 Series/A4 Avant Series (8E)										
1.6l injection Engine Code ALZ Model Year 01 -	0.5	700	960	0.3	200	0.97	1.03	2500	3200	80
1.8l injection Engine with Turbo Code AVJ Model Year 01 -	0.5	740	880	0.3	200	0.97	1.03	2500	3000	80
2.0l injection Engine Code ALT Model Year 01 -	0.5	700	960	0.3	200	0.97	1.03	2500	3000	80
2.0l FSI injection Engine Code AWA Model Year 02 -	0.5	640	800	0.3	200	0.97	1.03	4000	4500	80
2.4l V6 injection Engine Code AMM and AML Model Year 01 -	0.5	670	770	0.3	200	0.97	1.03	2500	3200	80
2.4l V6 injection Engine Code BDV Model Year 02 -	0.5	670	770	0.3	200	0.97	1.03	2500	3200	80

1 Manufacturer/Marque	2			3						4 Min Oil Temp(°C)
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (% Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
3.0l V6 injection Engine Code ASN, BBJ Model Year 01 -	0.5	680	820	0.3	200	0.97	1.03	2500	3000	80
S4 4.2l V8 injection Engine Code BBK Model Year 02 -	0.5	600	800	0.3	200	0.97	1.03	2500	3000	80
NewAudi A4 Cabriolet Series (8H)										
2.4l V6 injection Engine Codes AMM, BDV Model Year 03 -	0.5	670	770	0.3	200	0.97	1.03	2500	3200	80
3.0l V6 injection Engine Code ASN Model Year 03 -	0.5	680	820	0.3	200	0.97	1.03	2500	3000	80
Audi A6 Series/A6 Avant Series/A6 Allroad Series										
1.8l injection Engine Code ADR Model Year 94 - 97	0.5	820	900	0.3	200	0.97	1.03	2500	2800	80
1.8l injection Engine Code AJP Model Year 97 - 02	0.5	720	800	0.3	200	0.97	1.03	2500	2800	80
1.8l injection Engine Codes AQE and ARH Model Year 99 - 02	0.5	770	870	0.3	200	0.97	1.03	2500	2800	80
1.8l injection Turbo Engine Codes AEB and AJL Model Year 97 - 02	0.5	820	900	0.3	200	0.97	1.03	2500	2800	80
1.8l injection Turbo Engine Codes ANB and APU (manual and 2wd) Model Year 99 - 02	0.5	740	860	0.3	200	0.97	1.03	2500	2800	80
1.8l injection Turbo Engine Codes ANB and APU (auto and /or Quattro) Model Year 99 - 02	0.5	800	920	0.3	200	0.97	1.03	2500	2800	80
1.8l injection Engine with Turbo Code AWT Model Year 01 -	0.5	740	880	0.3	200	0.97	1.03	2500	3000	80
2.0l 16V injection Engine Code ACE Model Year 92 - 97	0.5	800	1000	0.3	200	0.97	1.03	2500	2800	80
2.0l injection Engine Code AAE Model Year 90 - 94	0.5	750	1000	0.3	200	0.97	1.03	2500	2800	80
2.0l injection Engine Code ABK Model Year 94 - 97	0.5	770	870	0.3	200	0.97	1.03	2500	2800	80
2.0l injection Engine Code ALT Model Year 00 -	0.5	700	960	0.3	200	0.97	1.03	2500	3000	80
2.2l injection Engine Codes ABY and AAN Model Year 91 - 97	0.5	770	830	0.3	200	0.97	1.03	2500	2800	80
2.4l V6 injection Engine Codes AGA, AJG, ALF and ALW Model Year 97 - 99	0.5	670	850	0.3	200	0.97	1.03	2500	2800	80
2.4l V6 injection Engine Codes APS, ARJ and ARN Model Year 99 - 02	0.5	650	770	0.3	200	0.97	1.03	2500	2800	80
2.4l V6 injection Engine Codes AML, AMM and ASM Model Year 00 -	0.5	670	770	0.3	200	0.97	1.03	2500	3200	80
2.4l injection Engine Code BDV Model Year 01 -	0.5	670	770	0.3	200	0.97	1.03	2500	3200	80
2.6l V6 injection Engine Code ABC Model Year 94 - 97	0.5	680	820	0.3	200	0.97	1.03	2500	2800	80
2.7l V6 Twin Turbo Engine Code AJK Model Year 99 - 02	0.5	660	800	0.3	200	0.97	1.03	2500	2800	80
2.7l V6 Twin Turbo Engine Codes AZA and ARE Model Year 00 - 02	0.5	650	750	0.3	200	0.97	1.03	2500	2800	80
2.8l V6 injection Engine Code AAH Model Year 94 - 97	0.5	650	750	0.3	200	0.97	1.03	2500	2800	80
2.8l V6 injection Engine Code ACK Model Year 96 - 99	0.5	640	760	0.3	200	0.97	1.03	2500	2800	80
2.8l V6 injection Engine Code ALG (2wd) Model Year 98 - 02	0.5	740	860	0.3	200	0.97	1.03	2500	2800	80
2.8l V6 injection Engine Code ALG (Quattro) Model Year 98 - 02	0.5	660	780	0.3	200	0.97	1.03	2500	2800	80
2.8l V6 injection Engine Codes APR and AQD Model Year 99 - 02	0.5	650	750	0.3	200	0.97	1.03	2500	2800	80
2.8l V6 injection Engine Code AMX (Quattro) Model Year 99 - 02	0.5	630	770	0.3	200	0.97	1.03	2500	3200	80
2.8l V6 injection Engine Code AMX (2wd) Model Year 99 - 02	0.5	720	820	0.3	200	0.97	1.03	2500	3200	80

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
3.0l V6 injection Engine Code ASN, BBJ Model Year 02 -	0.5	680	820	0.3	200	0.97	1.03	2500	3000	80
4.2l V8 injection Engine Code ARS Model Year 99 - 02	0.5	650	750	0.3	200	0.97	1.03	2500	2800	80
4.2l V8 injection Engine Code ASG Model Year 00 -	0.5	670	820	0.3	200	0.97	1.03	2500	3200	80
S6 4.2l V8 injection Engine Code AEC Model Year 94 - 97	0.5	670	830	0.3	200	0.97	1.03	2500	2800	80
S6 4.2l V8 injection Engine Code AQJ Model Year 99 - 02	0.5	730	830	0.3	200	0.97	1.03	2500	2800	80
S6 4.2l V8 injection Engine Code ANK Model Year 00 -	0.5	670	820	0.3	200	0.97	1.03	2500	2800	80
RS6 4.2l V8 injection Engine code BCY Model Year 03 -	0.5	730	790	0.3	200	0.97	1.03	2500	3200	80
Audi A8 Series										
2.8l V6 injection Engine Code AAH Model Year 94 - 97	0.5	650	750	0.3	200	0.97	1.03	2500	2800	80
2.8l V6 injection Engine Codes ACK and ALG Model Year 96 - 99	0.5	640	760	0.3	200	0.97	1.03	2500	2800	80
2.8l V6 injection Engine Code APR Model Year 99 - 02	0.5	650	750	0.3	200	0.97	1.03	2500	2800	80
2.8l V6 injection Engine Code AQD (2wd) Model Year 99 - 02	0.5	720	820	0.3	200	0.97	1.03	2500	2800	80
2.8l V6 injection Engine Code AQD (Quattro) Model Year 99 - 02	0.5	670	770	0.3	200	0.97	1.03	2500	2800	80
2.8l V6 injection Engine Code AMX (2wd) Model Year 99 - 02	0.5	720	820	0.3	200	0.97	1.03	2500	3200	80
2.8l V6 injection Engine Code AMX (Quattro) Model Year 99 - 02	0.5	670	770	0.3	200	0.97	1.03	2500	2800	80
3.7l V8 injection Engine Code AEW Model Year 95 - 99	0.5	680	720	0.3	200	0.97	1.03	2500	2800	80
3.7l V8 injection Engine Code AQG Model Year 99 - 02	0.5	600	660	0.3	200	0.97	1.03	2500	2800	80
3.7l V8 injection Engine Code AKC Model Year 00 - 02	0.5	600	720	0.3	200	0.97	1.03	2500	3200	80
4.2l V8 injection Engine Code ABZ Model Year 94 - 99	0.5	720	800	0.3	200	0.97	1.03	2500	2800	80
4.2l V8 injection Engine Codes AQF and ARU Model Year 99 - 02	0.5	600	660	0.3	200	0.97	1.03	2500	2800	80
4.2l V8 injection Engine Code AUW Model Year 00 - 02	0.5	600	720	0.3	200	0.97	1.03	2500	3200	80
S8 4.2l V8 injection Engine Code AHC Model Year 97 - 99	0.5	720	800	0.3	200	0.97	1.03	2500	2800	80
S8 4.2l V8 injection Engine Code AQH Model Year 99 - 02	0.5	600	660	0.3	200	0.97	1.03	2500	2800	80
S8 4.2l V8 injection Engine Code AVP Model Year 00 - 02	0.5	600	820	0.3	200	0.97	1.03	2500	2800	80
6.0l W12 injection Engine code AZC Model Year 01 - 02	0.5	520	770	0.3	200	0.97	1.03	2500	3000	80
New Audi A8 Series (4E)										
3.0l V6 injection Engine Code ASN Model Year 03 -	0.5	680	820	0.3	200	0.97	1.03	2500	3000	80
3.7l V8 injection Engine Code BFL Model Year 03 -	0.5	640	720	0.3	200	0.97	1.03	2500	3200	80
4.2l V8 injection Engine Code BFM Model Year 03 -	0.5	640	720	0.3	200	0.97	1.03	2500	3200	80
Audi TT Coupé and Roadster Series										
1.8l injection Engine with Turbo Codes ARY, AUQ and AUM Model Year 00 -	0.5	640	840	0.3	200	0.97	1.03	2500	3000	80
1.8l injection Engine with Turbo Code AJQ (2wd) Model Year 99 - 02	0.5	800	920	0.3	200	0.97	1.03	2500	2800	80

1 Manufacturer/Marque	2			3						4 Min Oil Temp(°C)
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (% Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
1.8l injection Engine with Turbo Code AJQ, and (Quattro) Model Year 99 - 02	0.5	700	820	0.3	200	0.97	1.03	2500	2800	80
1.8l injection Engine with Turbo Code APP Model Year 02	0.5	700	820	0.3	200	0.97	1.03	2500	2800	80
1.8l injection Engine with Turbo Code BAM Model Year 01 -	0.5	700	820	0.3	200	0.97	1.03	2500	2800	80
1.8l injection Engine with Turbo Codes APX (Quattro) Model Year 99 - 02	0.5	800	920	0.3	200	0.97	1.03	2500	2800	80
Audi R8										
Coupé / Spyder Manual	0.3	720	820	0.3	200	0.97	1.03	4200	4500	99
Coupé / Spyder Automatic	0.3	720	820	0.2	200	0.97	1.03	4600	4900	102
Audi Q3										
2.0 Engine Codes CULB and CULC	0.3	600	800	0.3	200	0.97	1.03	1900	2100	80
BENTLEY MOTORS LIMITED										
Includes Rolls-Royce models up to and including 2002 models. For Rolls-Royce models 2003 onward, refer to Rolls-Royce Motor Cars Ltd. The VIN can be found on the VIN Plate										
Refer to Section II										
BMW AG										
The Engine Code is stamped on the Engine Block and VIN Plate. No longer on VIN plate from 03/2011.										
See also Section II										
1 series (E81/E82/E87/E88)										
116i 3 & 5 door Engine Code N43 B16 A	0.2	680	870	0.2	200	0.7	4	2300	2700	60
116i 3 & 5 door Engine Code N43 B20 A	0.2	680	870	0.2	200	0.7	4	2300	2700	60
116i 5 door Engine Code N45 B16 A	0.2	600	850	0.2	200	0.97	1.03	2300	2700	60
118i 5 door Engine Code N46 B20 B	0.2	600	850	0.2	200	0.97	1.03	2300	2700	60
118i 3 & 5 door, Convertible Engine Code N43 B20 A	0.2	680	870	0.2	200	0.7	4	2300	2700	60
120i 5 door Engine Code N46 B20 B	0.2	600	850	0.2	200	0.97	1.03	2300	2700	60
120i 3 & 5 door, Coupé / Convertible Engine Code N43 B20 A	0.2	680	870	0.2	200	0.7	4	2300	2700	60
125i Coupé / Convertible Engine Code N52 B30 A	0.2	600	860	0.2	200	0.91	1.05	2300	2700	60
130i 3 & 5 door Engine Code N52 B30 A	0.2	600	860	0.2	200	0.91	1.05	2300	2700	60
135i Coupé, Convertible Engine Code N54 B30 A	0.2	600	860	0.2	200	0.91	1.05	2300	2700	60
135i Coupé, Convertible Engine Code N55 B30 A	0.2	600	850	0.2	200	0.97	1.03	2300	2700	60

1 Manufacturer/Marque	2			3						4 Min Oil Temp(°C)
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (% Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
1 Series M Coupé N54 B30 A	0.2	600	860	0.2	200	0.91	1.05	2300	2700	60
1 series (F20/F21)										
114i 3 & 5 door Engine Code N13 B16 A	0.2	700	840	0.2	200	0.97	1.03	2300	2700	60
116i 3 & 5 door Engine Code N13 B16 A	0.2	700	840	0.2	200	0.97	1.03	2300	2700	60
118i 3 & 5 door Engine Code N13 B16 A	0.3	700	840	0.2	200	0.97	1.03	2300	2700	60
118i 3 & 5 door Engine Code B38 A15 A	0.3	750	950	0.2	200	0.97	1.03	2300	2700	60
120i 3 & 5 door Engine Code N13 B16 A	0.3	700	840	0.2	200	0.97	1.03	2300	2700	60
125i 3 & 5 door Engine Code N20 B20 A	0.3	680	880	0.2	200	0.97	1.03	2300	2700	60
M135i 3 & 5 door Engine Code N55 B30 A	0.2	600	860	0.2	200	0.97	1.03	2300	2700	60
2 series (F22/F23)										
218i Coupé / Convertible Engine Code B38 A15 A	0.3	750	950	0.2	200	0.97	1.03	2300	2700	60
220i Coupé / Convertible Engine Code N20 B20 B	0.3	680	880	0.2	200	0.97	1.03	2300	2700	60
228i Coupé / Convertible Engine Code N20 B20 A	0.3	680	880	0.2	200	0.97	1.03	2300	2700	60
M235i Coupé / Convertible Engine Code N55 B30 A	0.3	600	860	0.2	200	0.97	1.03	2300	2700	60
2 series (F45)										
218i Active Tourer Engine Code B38 A15 A	0.3	750	950	0.2	200	0.97	1.03	2300	2700	60
220i Active Tourer Engine Code B48 A20 A	0.3	600	880	0.2	200	0.97	1.03	2300	2700	60
225i xDrive Active Tourer Engine Code B48 A20 B	0.3	600	880	0.2	200	0.97	1.03	2300	2700	60
2 series (F46)										
218i Gran Tourer Engine Code B38 A15 A	0.3	750	950	0.2	200	0.97	1.03	2300	2700	60
220i Gran Tourer Engine Code B48 A20 A	0.3	600	800	0.2	200	0.97	1.03	2300	2700	60
2 series (F87)										
M2 Coupé Engine Code N55 B30 A	0.3	600	860	0.2	200	0.97	1.03	2300	2700	60
3 series (E30)										
316i Touring Engine Code 16 4E 1	0.5	725	875	0.3	200	0.97	1.03	2300	2700	60
318i Convertible Engine Code 18 4E 1	0.5	725	875	0.3	200	0.97	1.03	2300	2700	60
318i Touring Engine Code 18 4E 1	0.5	725	875	0.3	200	0.97	1.03	2300	2700	60
325i Touring Engine Code 25 6K 1	0.5	685	835	0.3	200	0.97	1.03	2300	2700	60
3 series (E36)										
Z3 Roadster 1.8i / 1.9i Engine Code 19 4E 1 - First used before 01/07/2002	0.2	700	900	0.3	200	0.97	1.03	2300	2700	60
Z3 Roadster 1.8i / 1.9i Engine Code 19 4E 1 - First used on or after 01/07/2002	0.2	700	900	0.2	200	0.97	1.03	2300	2700	60

1 Manufacturer/Marque	2			3						4 Min Oil Temp(°C)
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (% Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
Z3 Roadster 1.9i Engine Code 19 4S 1	0.5	725	875	0.3	200	0.97	1.03	2300	2700	60
Z3 Roadster 2.0i Engine Code 20 6S 4	0.2	620	820	0.3	200	0.97	1.03	2300	2700	60
Z3 Roadster 2.2i Engine Code 22 6S 1 - First used before 01/07/2002	0.2	600	800	0.3	200	0.97	1.03	2300	2700	60
Z3 Roadster 2.2i Engine Code 22 6S 1 - First used on or after 01/07/2002	0.2	600	800	0.2	200	0.97	1.03	2300	2700	60
Z3 Roadster 2.8i Engine Code 28 6S 1	0.5	625	825	0.3	200	0.97	1.03	2300	2700	60
Z3 Roadster 2.8i Engine Code 28 6S 2	0.2	620	820	0.3	200	0.97	1.03	2300	2700	60
Z3 Roadster 3.0i Engine Code 30 6S 3 - First used before 01/07/2002	0.2	600	800	0.3	200	0.97	1.03	2300	2700	60
Z3 Roadster 3.0i Engine Code 30 6S 3 - First used on or after 01/07/2002	0.2	600	800	0.2	200	0.97	1.03	2300	2700	60
M Roadster / Coupé Engine Code 32 6S 1	0.5	705	855	0.3	200	0.97	1.03	2300	2700	70
M Roadster / Coupé Engine Code 32 6S 4 - First used before 01/07/2002	0.2	770	970	0.3	200	0.97	1.03	2300	2700	70
M Roadster / Coupé Engine Code 32 6S 4 - First used on or after 01/07/2002	0.2	770	970	0.2	200	0.97	1.03	2300	2700	70
316i Compact Engine Code 16 4E 2	0.5	800	1000	0.3	200	0.97	1.03	2300	2700	60
316i Compact Engine Code 19 4E 1	0.2	700	900	0.3	200	0.97	1.03	2300	2700	60
318ti Compact Engine Code 18 4S 1	0.5	750	950	0.3	200	0.97	1.03	2300	2700	60
318ti Compact Engine Code 19 4S 1	0.5	750	950	0.3	200	0.97	1.03	2300	2700	60
316i Saloon Engine Code 16 4E 1	0.5	725	875	0.3	200	0.97	1.03	2300	2700	60
316i Coupé / Saloon / Touring Engine Code 16 4E 2	0.5	800	1000	0.3	200	0.97	1.03	2300	2700	60
318i Saloon Engine Code 18 4E 1	0.5	725	875	0.3	200	0.97	1.03	2300	2700	60
318i Saloon / Convertible / Touring Engine Code 18 4E 2	0.5	800	1000	0.3	200	0.97	1.03	2300	2700	60
318is Coupé Engine Code 18 4S 1	0.5	750	950	0.3	200	0.97	1.03	2300	2700	60
318is Coupé / Saloon Engine Code 19 4S 1	0.5	750	950	0.3	200	0.97	1.03	2300	2700	60
320i Coupé / Saloon Engine Code 20 6S 1 or 2	0.5	625	775	0.3	200	0.97	1.03	2300	2700	60
320i Convertible Engine Code 20 6S 2	0.5	625	775	0.3	200	0.97	1.03	2300	2700	60
320i Convertible / Saloon / Touring Engine Code 20 6S 3	0.5	625	825	0.3	200	0.97	1.03	2300	2700	60
323i Coupé / Convertible / Saloon / Touring Engine Code 25 6S 3	0.5	625	825	0.3	200	0.97	1.03	2300	2700	60
325i Coupé / Saloon Engine Code 25 6S 1 or 2	0.5	625	775	0.3	200	0.97	1.03	2300	2700	60
325i Convertible Engine Code 25 6S 2	0.5	625	775	0.3	200	0.97	1.03	2300	2700	60
328i Coupé / Convertible / Saloon / Touring Engine Code 28 6S 1	0.5	625	825	0.3	200	0.97	1.03	2300	2700	60
M3 Coupé / Convertible / Saloon Engine Code 30 6S 1	0.5	725	875	0.3	200	0.97	1.03	2300	2700	70
M3 Coupé / Convertible / Saloon Engine Code 32 6S 1	0.5	705	855	0.3	200	0.97	1.03	2300	2700	70
Z4 series (E85/E86)										
Z4 Roadster 2.0i Engine Code N46 B20 B	0.2	600	800	0.2	200	0.97	1.03	2300	2700	60

1 Manufacturer/Marque	2			3						4 Min Oil Temp(°C)
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (% Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
Z4 Roadster 2.2i Engine Code 22 6S 1	0.2	600	800	0.2	200	0.97	1.03	2300	2700	60
Z4 Roadster 2.5i Engine Code 25 6S 5	0.2	600	800	0.2	200	0.97	1.03	2300	2700	60
Z4 Roadster 2.5i Engine Code N52 B25 A	0.2	600	860	0.2	200	0.91	1.05	2300	2700	60
Z4 Roadster 2.5si Engine Code N52 B25 A	0.2	600	860	0.2	200	0.91	1.05	2300	2700	60
Z4 Roadster 3.0i Engine Code 30 6S 3	0.2	500	900	0.2	200	0.97	1.03	2300	2700	60
Z4 Roadster / Coupé 3.0si Engine Code N52 B30 A	0.2	600	860	0.2	200	0.91	1.05	2300	2700	60
Z4 M Roadster / Coupé Engine Code 32 6S 4	0.2	770	970	0.2	200	0.97	1.03	2300	2700	70
Z4 series (E89)										
Z4 sDrive18i Roadster Engine Code N20 B20 A	0.2	680	880	0.2	200	0.97	1.03	2300	2700	60
Z4 sDrive20i Roadster Engine Code N20 B20 A	0.2	680	880	0.2	200	0.97	1.03	2300	2700	60
Z4 sDrive23i Roadster Engine Code N52 B25 A	0.2	600	860	0.2	200	0.91	1.05	2300	2700	60
Z4 sDrive28i Roadster Engine Code N20 B20 A	0.2	680	880	0.2	200	0.97	1.03	2300	2700	60
Z4 sDrive30i Roadster Engine Code N52 B30 A	0.2	600	860	0.2	200	0.91	1.05	2300	2700	60
Z4 sDrive35i Roadster Engine Code N54 B30 A	0.2	600	860	0.2	200	0.91	1.05	2300	2700	60
Z4 sDrive35is Roadster Engine Code N54 B30 A	0.2	600	860	0.2	200	0.91	1.05	2300	2700	60
3 series (E46)										
316i Saloon Engine Code 19 4E 1	0.2	700	900	0.3	200	0.97	1.03	2300	2700	60
316ti Compact / 316i Saloon / Touring Engine Code N42 B18 A - First used before 01/07/2002	0.2	600	850	0.3	200	0.97	1.03	2300	2700	60
316ti Compact / 316i Saloon / Touring Engine Code N42 B18 A - First used on or after 01/07/2002	0.2	600	850	0.2	200	0.97	1.03	2300	2700	60
316ti Compact / 316i Saloon / Touring Engine Code N46 B18 A	0.2	600	850	0.2	200	0.97	1.03	2300	2700	60
318Ci Coupé / 318i Saloon / Touring Engine Code 19 4E 1	0.2	700	900	0.3	200	0.97	1.03	2300	2700	60
318ti Compact / 318Ci Coupé / Convertible / 318i Saloon / Touring Engine Code N42 B20 A - First used before 01/07/2002	0.2	600	850	0.3	200	0.97	1.03	2300	2700	60
318ti Compact / 318Ci Coupé / Convertible / 318i Saloon / Touring Engine Code N42 B20 A - First used on or after 01/07/2002	0.2	600	850	0.2	200	0.97	1.03	2300	2700	60
318ti Compact / 318Ci Coupé / Convertible / 318i Saloon / Touring Engine Code N46 B20 A	0.2	600	850	0.2	200	0.97	1.03	2300	2700	60
320Ci Coupé / Convertible / 320i Saloon / Touring Engine Code 22 6S 1 - First used before 01/07/2002	0.2	600	800	0.3	200	0.97	1.03	2300	2700	60
320Ci Coupé / Convertible / 320i Saloon / Touring Engine Code 22 6S 1 - First used on or after 01/07/2002	0.2	600	800	0.2	200	0.97	1.03	2300	2700	60
323Ci Coupé / Convertible / 323i Saloon Engine Code 25 6S 4	0.2	620	820	0.3	200	0.97	1.03	2300	2700	60
325ti Compact / 325Ci Coupé / Convertible / 325i Saloon / Touring Engine Code 25 6S 5 - First used before 01/07/2002	0.2	600	800	0.3	200	0.97	1.03	2300	2700	60
325ti Compact / 325Ci Coupé / Convertible / 325i Saloon / Touring Engine Code 25 6S 5 - First used on or after 01/07/2002	0.2	600	800	0.2	200	0.97	1.03	2300	2700	60

1 Manufacturer/Marque	2			3						4 Min Oil Temp(°C)
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (% Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
328Ci Coupé / 328i Saloon / Touring Engine Code 28 6S 2	0.2	620	820	0.3	200	0.97	1.03	2300	2700	60
330Ci Coupé / Convertible / 330i Saloon / Touring Engine Code 30 6S 3 - First used before 01/07/2002	0.2	600	800	0.3	200	0.97	1.03	2300	2700	60
330Ci Coupé / Convertible / 330i Saloon / Touring Engine Code 30 6S 3 - First used on or after 01/07/2002	0.2	600	800	0.2	200	0.97	1.03	2300	2700	60
M3 Coupé / Convertible Engine Code 32 6S 4 - First used before 01/07/2002	0.2	770	970	0.3	200	0.97	1.03	2300	2700	70
M3 Coupé / CS Coupé / Convertible / M3 CSL Coupé Engine Code 32 6S 4 - First used on or after 01/07/2002	0.2	770	970	0.2	200	0.97	1.03	2300	2700	70
3 series (E90/E91/E92/E93)										
318i Saloon / Touring Engine Code N46 B20 B	0.2	600	850	0.2	200	0.97	1.03	2300	2700	60
318i Coupé / Saloon / Touring Engine Code N43 B20 A	0.2	680	870	0.2	200	0.7	4	2300	2700	60
320i Saloon / Touring Engine Code N46 B20 B	0.2	600	800	0.2	200	0.97	1.03	2300	2700	60
320i Coupé / Convertible / Saloon / Touring Engine Code N43 B20 A	0.2	680	870	0.2	200	0.7	4	2300	2700	60
320si Saloon Engine Code N45 B20 A	0.2	600	850	0.2	200	0.97	1.03	2300	2700	60
325i Coupé / Saloon / Touring Engine Code N52 B25 A	0.2	600	860	0.2	200	0.91	1.05	2300	2700	60
325i Coupé / Convertible / Saloon / Touring Engine Code N53 B30 A	0.2	610	760	0.2	200	0.7	4	2300	2700	60
330i Coupé / Saloon / Touring Engine Code N52 B30 A	0.2	600	860	0.2	200	0.91	1.05	2300	2700	60
330i Coupé / Convertible / Saloon / Touring Engine Code N53 B30 A	0.2	610	760	0.2	200	0.7	4	2300	2700	60
335i Coupé / Convertible / Saloon / Touring Engine Code N54 B30 A	0.2	600	860	0.2	200	0.91	1.05	2300	2700	60
335i Coupé / Convertible / Saloon / Touring Engine Code N55 B30 A	0.2	600	850	0.2	200	0.97	1.03	2300	2700	60
M3 Coupé / Convertible / Saloon Engine Code S65 B40 A	0.2	600	950	0.2	200	0.97	1.03	2300	2700	60
M3 GTS Coupé Engine Code S65 B44 A	0.2	600	950	0.2	200	0.97	1.03	2300	2700	60
3 series (F30/F31/F34)										
316i Saloon / Touring Engine Code N13 B16 A	0.2	700	840	0.2	200	0.97	1.03	2300	2700	60
318i Saloon / Touring Engine Code B38 A15 A	0.3	750	950	0.2	200	0.97	1.03	2300	2700	60
320i Saloon / Touring Engine Code B48 B20 A	0.3	600	880	0.2	200	0.97	1.03	2300	2700	60
320i EfficientDynamics Saloon N13 B16 A	0.2	700	840	0.2	200	0.97	1.03	2300	2700	60
320i Saloon / xDrive Saloon / Touring / xDrive Touring / Gran Turismo / xDrive Gran Turismo Engine Code N20 B20 B	0.2	680	880	0.2	200	0.97	1.03	2300	2700	60
328i Saloon / Touring / Gran Turismo Engine Code N20 B20 A	0.2	680	880	0.2	200	0.97	1.03	2300	2700	60
330i Saloon / Touring Engine Code B48 B20 A	0.3	600	880	0.2	200	0.97	1.03	2300	2700	60
335i Saloon / Touring / Gran Turismo Engine Code N55 B30 A	0.2	600	860	0.2	200	0.97	1.03	2300	2700	60
340i Saloon / Touring Engine Code B58 B30 A	0.3	660	850	0.2	200	0.97	1.03	2300	2700	60
3 series (F80)										
M3 Saloon Engine Code S55 B30 A	0.3	660	960	0.2	200	0.97	1.03	2300	2700	60

1 Manufacturer/Marque	2			3						4 Min Oil Temp(°C)
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
4 series (F32/F33/F36)										
420i Coupé / Convertible / Gran Coupé Engine Code N20 B20 B	0.2	680	880	0.2	200	0.97	1.03	2300	2700	60
428i Coupé / Convertible / Gran Coupé Engine Code N20 B20 A	0.2	680	880	0.2	200	0.97	1.03	2300	2700	60
435i Coupé / Convertible / Gran Coupé Engine Code N55 B30 A	0.2	600	860	0.2	200	0.97	1.03	2300	2700	60
4 series (F82/F83)										
M4 Saloon / Convertible Engine Code S55 B30 A	0.3	660	960	0.2	200	0.97	1.03	2300	2700	60
X1 series (E84)										
X1 sDrive20i / xDrive20i Engine Code N20 B20 A	0.2	680	880	0.2	200	0.97	1.03	2300	2700	60
X1 series (F48)										
X1 sDrive20i / xDrive20i Engine Code B48 A20 A	0.3	600	800	0.2	200	0.97	1.03	2300	2700	60
X3 series (E83)										
X3 2.0i Engine Code N46 B20 B	0.2	600	850	0.2	200	0.97	1.03	2300	2700	60
X3 2.5i Engine Code 25 6S 5	0.2	560	760	0.2	200	0.97	1.03	2300	2700	60
X3 2.5si Engine Code N52 B25 A	0.2	600	860	0.2	200	0.91	1.05	2300	2700	60
X3 xDrive25i Engine Code N52 B25 A	0.2	600	860	0.2	200	0.91	1.05	2300	2700	60
X3 3.0i Engine Code 30 6S 3	0.2	600	800	0.2	200	0.97	1.03	2300	2700	60
X3 3.0si Engine Code N52 B30 A	0.2	600	860	0.2	200	0.91	1.05	2300	2700	60
X3 xDrive30i Engine Code N52 B30 A	0.2	600	860	0.2	200	0.91	1.05	2300	2700	60
5 series (E34)										
518i Saloon up to 4/94 Engine Code 18 4E 1	0.5	725	875	0.3	200	0.97	1.03	2300	2700	60
518i Saloon from 5/94 / Touring Engine Code 18 4E 2	0.5	800	1000	0.3	200	0.97	1.03	2300	2700	60
520i Saloon / Touring Engine Code 20 6S 2	0.5	625	775	0.3	200	0.97	1.03	2300	2700	60
525i up to 8/90 / Saloon / Touring Engine Code 25 6S 1	0.5	725	875	0.3	200	0.97	1.03	2300	2700	60
525i from 9/90 / ix/ Saloon / Touring Engine Code 25 6S 1 or 2	0.5	625	775	0.3	200	0.97	1.03	2300	2700	60
530i Saloon / Touring Engine Code 30 8S 1	0.5	525	725	0.3	200	0.97	1.03	2300	2700	60
535i Saloon Engine Code 34 6K B	0.5	725	875	0.3	200	0.97	1.03	2300	2700	60
540i Saloon / Touring Engine Code 40 8S 1	0.5	525	675	0.3	200	0.97	1.03	2300	2700	60
M5 Saloon Engine Code 38 6S 1	0.5	845	995	0.3	200	0.97	1.03	2300	2700	60
5 series (E39)										
520i Saloon / Touring Engine Code 20 6S 3	0.5	625	825	0.3	200	0.97	1.03	2300	2700	60
520i Saloon / Touring Engine Code 20 6S 4	0.2	620	820	0.3	200	0.97	1.03	2300	2700	60

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
520i Saloon / Touring Engine Code 22 6S 1 - First used before 01/07/2002	0.2	600	800	0.3	200	0.97	1.03	2300	2700	60
520i Saloon / Touring Engine Code 22 6S 1 - First used on or after 01/07/2002	0.2	600	800	0.2	200	0.97	1.03	2300	2700	60
523i Saloon / Touring Engine Code 25 6S 3	0.5	625	825	0.3	200	0.97	1.03	2300	2700	60
523i Saloon / Touring Engine Code 25 6S 4	0.2	620	820	0.3	200	0.97	1.03	2300	2700	60
525i Saloon / Touring Engine Code 25 6S 5 - First used before 01/07/2002	0.2	600	800	0.3	200	0.97	1.03	2300	2700	60
525i Saloon / Touring Engine Code 25 6S 5 - First used on or after 01/07/2002	0.2	600	800	0.2	200	0.97	1.03	2300	2700	60
528i Saloon / Touring Engine Code 28 6S 1	0.5	625	825	0.3	200	0.97	1.03	2300	2700	60
528i Saloon / Touring Engine Code 28 6S 2	0.2	620	820	0.3	200	0.97	1.03	2300	2700	60
530i Saloon / Touring Engine Code 30 6S 3 - First used before 01/07/2002	0.2	600	800	0.3	200	0.97	1.03	2300	2700	60
530i Saloon / Touring Engine Code 30 6S 3 - First used on or after 01/07/2002	0.2	600	800	0.2	200	0.97	1.03	2300	2700	60
535i Saloon Engine Code 35 8S 1 - Manual Gearbox	0.5	530	680	0.3	200	0.97	1.03	2300	2700	60
535i Saloon Engine Code 35 8S 1 - Automatic Gearbox	0.5	500	650	0.3	200	0.97	1.03	2300	2700	60
535i Saloon Engine Code 35 8S 2 - First used before 01/07/2002	0.2	550	700	0.3	200	0.97	1.03	2300	2700	60
535i Saloon Engine Code 35 8S 2 - First used on or after 01/07/2002	0.2	550	700	0.2	200	0.97	1.03	2300	2700	60
540i Saloon / Touring Engine Code 44 8S 1	0.5	475	680	0.3	200	0.97	1.03	2300	2700	60
540i Saloon / Touring Engine Code 44 8S 2 - First used before 01/07/2002	0.2	475	680	0.3	200	0.97	1.03	2300	2700	60
540i Saloon / Touring Engine Code 44 8S 2 - First used on or after 01/07/2002	0.2	475	680	0.2	200	0.97	1.03	2300	2700	60
M5 Saloon up to 2/2000 Engine Code 50 8S 1	0.2	600	720	0.3	200	0.97	1.03	2300	2700	70
M5 Saloon from 3/2000 Engine Code 50 8S 1 - First used before 01/07/2002	0.2	600	770	0.3	200	0.97	1.03	2300	2700	70
M5 Saloon from 3/2000 Engine Code 50 8S 1 - First used on or after 01/07/2002	0.2	600	770	0.2	200	0.97	1.03	2300	2700	70
5 series (E60/E61)										
520i Saloon Engine Code 22 6S 1	0.2	560	760	0.2	200	0.97	1.03	2300	2700	60
523i Saloon / Touring Engine Code N52 B25 A	0.2	600	860	0.2	200	0.91	1.05	2300	2700	60
523i Saloon / Touring Engine Code N53 B25 A	0.2	610	760	0.2	200	0.7	4	2300	2700	60
525i Saloon / Touring Engine Code 25 6S 5	0.2	560	760	0.2	200	0.97	1.03	2300	2700	60
525i Saloon / Touring Engine Code N52 B25 A	0.2	600	860	0.2	200	0.91	1.05	2300	2700	60
525i Saloon / Touring Engine Code N53 B30 A	0.2	610	760	0.2	200	0.7	4	2300	2700	60
530i Saloon Engine Code 30 6S 3	0.2	560	760	0.2	200	0.97	1.03	2300	2700	60
530i Saloon / Touring Engine Code N52 B30 A	0.2	600	860	0.2	200	0.91	1.05	2300	2700	60
530i Saloon / Touring Engine Code N53 B30 A	0.2	610	760	0.2	200	0.7	4	2300	2700	60
540i Saloon Engine Code N62 B40 A - Manual Gearbox - up to February 2007 production	0.2	650	850	0.2	200	0.97	1.03	2300	2700	60
540i Saloon Engine Code N62 B40 A - Automatic Gearbox - up to February 2007 production	0.2	450	650	0.2	200	0.97	1.03	2300	2700	60

1 Manufacturer/Marque	2			3						4 Min Oil Temp(°C)
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (% Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
540i Saloon Engine Code N62 B40 A - from March 2007 production	0.2	550	750	0.2	200	0.97	1.03	2300	2700	60
545i Saloon / Touring Engine Code N62 B44 A - Manual Gearbox	0.2	650	850	0.2	200	0.97	1.03	2300	2700	60
545i Saloon / Touring Engine Code N62 B44 A - Automatic Gearbox	0.2	450	650	0.2	200	0.97	1.03	2300	2700	60
550i Saloon / Touring Engine Code N62 B48 B - Manual Gearbox - up to February 2007 production	0.2	650	850	0.2	200	0.97	1.03	2300	2700	60
550i Saloon / Touring Engine Code N62 B48 B - Automatic Gearbox - up to February 2007 production	0.2	450	650	0.2	200	0.97	1.03	2300	2700	60
550i Saloon / Touring Engine Code N62 B48 B - from March 2007 production	0.2	550	750	0.2	200	0.97	1.03	2300	2700	60
M5 Saloon / Touring Engine Code S85 B50 A	0.2	730	950	0.2	200	0.91	1.05	2300	2700	60
5 series (F10/F11)										
520i Saloon / Touring Engine Code N20 B20 B	0.2	680	880	0.2	200	0.97	1.03	2300	2700	60
523i Saloon / Touring Engine Code N53 B30 A	0.2	610	760	0.2	200	0.7	4	2300	2700	60
528i Saloon / Touring Engine Code N53 B30 A	0.2	610	760	0.2	200	0.7	4	2300	2700	60
528i Saloon / Touring Engine Code N20 B20 A	0.2	680	880	0.2	200	0.97	1.03	2300	2700	60
530i Saloon / Touring Engine Code N53 B30 A	0.2	610	760	0.2	200	0.7	4	2300	2700	60
535i Saloon / Touring Engine Code N55 B30 A	0.2	600	860	0.2	200	0.97	1.03	2300	2700	60
550i Saloon / Touring Engine Code N63 B44 A	0.2	600	860	0.2	200	0.97	1.03	2300	2700	60
550i Saloon / Touring Engine Code N63 B44 B	0.2	600	860	0.2	200	0.97	1.03	2300	2700	60
M5 Saloon Engine Code S63 B44 B	0.2	730	830	0.2	200	0.97	1.03	2300	2700	60
5 series (F07)										
535i Gran Turismo Engine Code N55 B30 A	0.2	600	860	0.2	200	0.91	1.05	2300	2700	60
550i Gran Turismo Engine Code N63 B44 A	0.2	600	860	0.2	200	0.97	1.03	2300	2700	60
550i Gran Turismo Engine Code N63 B44 B	0.2	600	860	0.2	200	0.97	1.03	2300	2700	60
6 series (E63/E64)										
630i Coupé / Convertible Engine Code N52 B30 A	0.2	600	860	0.2	200	0.91	1.05	2300	2700	60
630i Coupé / Convertible Engine Code N53 B30 A	0.2	610	760	0.2	200	0.7	4	2300	2700	60
645Ci Coupé / Convertible Engine Code N62 B44 A	0.2	650	850	0.2	200	0.97	1.03	2300	2700	60
650i Coupé / Convertible Engine Code N62 B48 B up to August 2007 production	0.2	450	850	0.2	200	0.97	1.03	2300	2700	60
650i Coupé / Convertible Engine Code N62 B48 B - from September 2007 production	0.2	550	750	0.2	200	0.97	1.03	2300	2700	60
M6 Coupé / Convertible Engine Code S85 B50 A	0.2	730	830	0.2	200	0.91	1.05	2300	2700	60
6 series (F12/F13)										
640i Coupé / Convertible Engine Code N55 B30 A	0.3	600	860	0.2	200	0.97	1.03	2300	2700	60
650i Coupé / Convertible Engine Code N63 B44 A	0.2	600	860	0.2	200	0.97	1.03	2300	2700	60

1 Manufacturer/Marque	2			3						4 Min Oil Temp(°C)
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (% Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
650i Coupé / Convertible Engine Code N63 B44 B	0.3	600	860	0.2	200	0.97	1.03	2300	2700	60
M6 Coupé / Convertible Engine Code S63 B44 B	0.3	730	830	0.2	200	0.97	1.03	2300	2700	60
6 series (F06)										
640i Gran Coupé Engine Code N55 B30 A	0.3	600	860	0.2	200	0.97	1.03	2300	2700	60
650i Gran Coupé Engine Code N63 B44 B	0.3	600	860	0.2	200	0.97	1.03	2300	2700	60
M6 Gran Coupé Engine Code S63 B44 B	0.3	730	830	0.2	200	0.97	1.03	2300	2700	60
7 series (E32)										
730i Saloon - 6 cylinder Engine Code 30 6K A	0.5	725	875	0.3	200	0.97	1.03	2300	2700	60
730i Saloon - 8 cylinder Engine Code 30 8S 1	0.5	525	675	0.3	200	0.97	1.03	2300	2700	60
735i / iL Saloon Engine Code 34 6K B	0.5	725	875	0.3	200	0.97	1.03	2300	2700	60
740i / iL Saloon Engine Code 40 8S 1	0.5	525	675	0.3	200	0.97	1.03	2300	2700	60
750i / iL Saloon Engine Code 50 12 A	0.5	625	775	0.3	200	0.97	1.03	2300	2700	60
7 series (E38)										
728i Saloon Engine Code 28 6S 1	0.5	625	825	0.3	200	0.97	1.03	2300	2700	60
728i Saloon Engine Code 28 6S 2	0.2	620	820	0.3	200	0.97	1.03	2300	2700	60
730i Saloon Engine Code 30 8S 1 - Manual Gearbox	0.5	525	675	0.3	200	0.97	1.03	2300	2700	60
730i Saloon Engine Code 30 8S 1 - Automatic Gearbox	0.5	575	725	0.3	200	0.97	1.03	2300	2700	60
735i Saloon Engine Code 35 8S 1	0.5	475	625	0.3	200	0.97	1.03	2300	2700	60
735i Saloon Engine Code 35 8S 2	0.2	575	700	0.3	200	0.97	1.03	2300	2700	60
740i / iL Saloon Engine Code 40 8S 1	0.5	575	725	0.3	200	0.97	1.03	2300	2700	60
740i / iL Saloon Engine Code 44 8S 1	0.5	550	700	0.3	200	0.97	1.03	2300	2700	60
740i / iL Saloon Engine Code 44 8S 2	0.2	550	700	0.3	200	0.97	1.03	2300	2700	60
750i / iL Saloon Engine Code 54 12 1	0.5	570	770	0.3	200	0.97	1.03	2300	2700	60
750i / iL Saloon Engine Code 54 12 2	0.2	500	730	0.3	200	0.97	1.03	2300	2700	60
7 series (E65/E66)										
(Also see Section II)										
730i / Li Saloon Engine Code 30 6S 3	0.2	640	840	0.2	200	0.97	1.03	2300	2700	60
730i / Li Saloon Engine Code N52 B30 A	0.2	600	860	0.2	200	0.91	1.05	2300	2700	60
735i / Li Saloon Engine Code N62 B36 A - First used before 01/07/2002	0.2	450	650	0.3	200	0.97	1.03	2300	2700	60
735i / Li Saloon Engine Code N62 B36 A - First used on or after 01/07/2002	0.2	450	650	0.2	200	0.97	1.03	2300	2700	60
740i Saloon Engine Code N62 B40 A	0.2	450	650	0.2	200	0.97	1.03	2300	2700	60
745i / Li Saloon Engine Code N62 B44 A - First used before 01/07/2002	0.2	450	650	0.3	200	0.97	1.03	2300	2700	60

1 Manufacturer/ Marque	2			3						4 Min Oil Temp(°C)
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (% Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
745i / Li Saloon Engine Code N62 B44 A - First used on or after 01/07/2002	0.2	450	650	0.2	200	0.97	1.03	2300	2700	60
750i Saloon Engine Code N62 B48 B	0.2	450	650	0.2	200	0.97	1.03	2300	2700	60
7 series (G11/G12)	(Also see Section II)									
740i / Li Saloon Engine Code B58 B30 A	0.3	660	850	0.2	200	0.97	1.03	2300	2700	60
8 series (E31)										
840Ci Coupé Engine Code 40 8S 1	0.5	525	675	0.3	200	0.97	1.03	2300	2700	60
840Ci Coupé Engine Code 44 8S 1 - Manual Gearbox	0.5	500	650	0.3	200	0.97	1.03	2300	2700	60
840Ci Coupé Engine Code 44 8S 1 - Automatic Gearbox	0.5	550	700	0.3	200	0.97	1.03	2300	2700	60
850i / Ci Coupé Engine Code 50 12 A	0.5	625	775	0.3	200	0.97	1.03	2300	2700	60
850CSi Coupé Engine Code 56 12 1	0.5	675	825	0.3	200	0.97	1.03	2300	2700	70
Z8 series (E52)										
Z8 Roadster Engine Code 50 8S 1 - First used before 01/07/2002	0.2	600	770	0.3	200	0.97	1.03	2300	2700	70
Z8 Roadster Engine Code 50 8S 1 - First used on or after 01/07/2002	0.2	600	770	0.2	200	0.97	1.03	2300	2700	70
BRISTOL CARS										
Blenheim 2	0.5	700	1750	0.3	200	0.97	1.03	2500	3000	60
Blenheim 3	0.5	650	1750	0.3	200	0.97	1.09	2500	3000	60
Blenheim Speedster	0.5	650	1150	0.3	200	0.97	1.09	2000	2500	60
Fighter	0.5	625	1000	0.3	200	0.97	1.09	2000	2200	80
CADILLAC										
BLS										
2.0L Turbo (175 bhp) Engine Code B207L	0.3	620	720	0.2	200	0.97	1.03	2000	3000	80
2.0L Turbo (210 bhp) Engine Code B207R	0.3	620	720	0.2	200	0.97	1.03	2000	3000	80
2.8L V6 Turbo Engine Code B284L or B284R	0.3	650	875	0.2	200	0.97	1.03	2000	3000	80
CTS (Pre 09MY)										
2.8L V6 Engine Code LP1	0.3	615	665	0.2	200	0.97	1.03	2500	3000	80
3.6L V6 Engine Code LY7	0.3	615	665	0.2	200	0.97	1.03	2500	3000	80

1	2			3						4
Manufacturer/Marque	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	Min Oil Temp(°C)
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
CTS (09MY onwards)										
2.8L V6 - Engine Code LP1	0.3	550	650	0.2	200	0.97	1.03	2425	2575	80
3.6L V6 Direct injection - Engine Code LLT	0.3	550	650	0.2	200	0.97	1.03	2425	2575	80
CTS-V										
6.2L V8 Supercharged - Engine Code LSA with manual gearbox	0.3	635	665	0.2	200	0.97	1.03	2425	2575	80
6.2L V8 Supercharged - Engine Code LSA with automatic gearbox	0.3	560	590	0.2	200	0.97	1.03	2425	2575	80
STS										
3.6L V6 Engine Code LY7	0.3	605	655	0.2	200	0.97	1.03	2500	3000	80
3.6L V6 Direct injection - Engine Code LLT	0.3	575	625	0.2	200	0.97	1.03	2500	3000	80
4.6L V8 Engine Code LH2	0.3	550	600	0.2	200	0.97	1.03	2500	3000	80
STS-V										
4.4L V8 Supercharged - Engine Code LC3	0.3	625	675	0.2	200	0.97	1.03	2500	3000	80
XLR										
4.6L V8 Engine Code LH2	0.3	622	648	0.2	200	0.97	1.03	2500	3000	80
XLR-V										
4.4L V8 Supercharged - Engine Code LC3	0.3	610	660	0.2	200	0.97	1.03	2500	3000	80
CATERHAM CARS										
The VIN Code consists of the 6th letter of the VIN, then engine code is the 8th and 9th digit. Where the 6th digit is 'C' or 'K' and the 10th digit (year code) letter W or before the vehicle concerned should be considered as 'amateur built' and as such should receive a visual smoke test only. Note that '?' can be any figure.										
Seven Rover K Series 1.4L Mpi VIN Code F Engine Code RJ	0.5	750	1200	0.3	200	0.95	1.09	2500	3000	75
Seven Rover K Series 1.6L Mpi VIN Code F Engine Code R6	0.5	750	1200	0.3	200	0.95	1.09	2500	3000	75
Seven Rover K Series 1.8L Mpi VIN Code F Engine Code R8	0.5	750	1200	0.3	200	0.95	1.09	2500	3000	75
Seven Rover K Series 1.8L VVC VIN Code F Engine Code RC	0.5	750	1200	0.3	200	0.95	1.09	2500	3000	75
Seven Ford Sigma 1.6 VIN Code F Engine Code SE, SF or SG	0.5	625	1200	0.3	200	0.95	1.09	2500	3000	75
Seven Ford Sigma 1.6 VIN Code S or C Engine Code S?	0.5	625	1200	0.3	200	0.95	1.09	2500	3000	75
Seven Ford Duratec 2.0 VIN Code S or C or K Engine Code C?	0.5	625	1200	0.3	200	0.95	1.09	2500	3000	75
Seven Ford Duratec 2.0 VIN Code S or C or K Engine Code D?	0.5	700	1200	0.3	200	0.95	1.09	2500	3000	75
Seven Ford Duratec 2.0 VIN Code F Engine Code D?	0.5	700	1200	0.3	200	0.95	1.09	2500	3000	75
Seven Vauxhall 2.0i HPC 16v Efi VIN Code F Engine Code VJ	0.5	860	1020	0.3	200	0.97	1.03	2800	3200	75

1 Manufacturer/Marque	2			3						4 Min Oil Temp(°C)
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (% Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
Seven Vauxhall 2.0i HPC 16v VIN Code S or K Engine Code VJ	0.5	860	1200	0.3	200	0.97	1.03	2800	3200	75
Seven Vauxhall 1.4 Mpi 16v VIN Code S or K Engine Code RJ	0.5	750	1200	0.3	200	0.95	1.09	2500	3000	75
Seven Vauxhall 1.6 Mpi 16v VIN Code S or K Engine Code R6	0.5	750	1200	0.3	200	0.95	1.09	2500	3000	75
Seven Vauxhall 1.8 Mpi 16v VIN Code S or K Engine Code R8	0.5	750	1200	0.3	200	0.95	1.09	2500	3000	75
Seven Rover 1.8 VVC 16v VIN Code S or K Engine Code RC	0.5	750	1200	0.3	200	0.95	1.09	2500	3000	75
Seven Rover 1.8 VHPD 16v VIN Code S or K Engine Code RD	0.5	750	1200	0.3	200	0.95	1.09	2500	3000	75
Seven Rover 1.8 R300 16v VIN Code S or K Engine Code R3	0.5	750	1200	0.3	200	0.95	1.09	2500	3000	75
Seven Rover 1.8 R400 16v VIN Code S or K Engine Code R4	0.5	750	1200	0.3	200	0.95	1.09	2500	3000	75
Seven Rover 1.8 R500 16v VIN Code S or K Engine Code R5	0.5	750	1200	0.3	200	0.95	1.09	2500	3000	75
Seven Suzuki 0.66 VIN Code F, S or K Engine Code Z1 or Z2	0.5	750	1200	0.3	200	0.95	1.09	2250	2750	75
Super Seven 2.3 Cosworth VIN Code F Engine Code C1	0.5	750	1200	0.3	200	0.95	1.09	2500	3000	75
Super Seven 2.3 Cosworth VIN Code F Engine Code C2	0.5	750	1200	0.3	200	0.95	1.09	2500	3000	75
Super Seven 2.3 Cosworth VIN Code S or K Engine Code C1	0.5	750	1200	0.3	200	0.95	1.09	2500	3000	75
Super Seven 2.3 Cosworth VIN Code S or K Engine Code C2	0.5	750	1200	0.3	200	0.95	1.09	2500	3000	75
CHRYSLER JEEP <i>Refer to Section II for details relating to the Chrysler Voyager range</i>										
<i>The 10th digit of the VIN number denotes the model year i.e. X = 1999 MY and Y = 2000 MY.</i>										
Jeep Cherokee										
2.5l Manual	0.5	650	850	0.3	200	0.97	1.03	2400	2600	80
4.0l Automatic	0.5	620	820	0.3	200	0.97	1.03	2400	2600	80
2.4l Automatic (02 Model Year)	0.5	650	900	0.3	200	0.97	1.03	2400	2600	80
3.7l Automatic (02 Model Year)	0.5	650	900	0.3	200	0.97	1.03	2400	2600	80
2.8l Sport Automatic	0.5	650	850	0.3	200	0.97	1.03	2400	2600	80
2.8l Limited Automatic	0.5	650	850	0.3	200	0.97	1.03	2400	2600	80
Jeep Cherokee (KJ)										
3.2 272bhp 4x4 Automatic	0.3	566	666	0.2	200	0.97	1.03	2461	2561	106
3.7 Automatic 06-07 model year	0.3	550	650	0.2	200	0.97	1.03	2400	2600	94
3.7 Automatic 07-08 model year	0.3	550	650	0.2	200	0.97	1.03	2400	2600	94
Jeep Grand Cherokee										
4.0l Automatic	0.5	620	820	0.3	200	0.97	1.03	2400	2600	80
4.0l Automatic 1999 Model Year Onwards (Year Code X)	0.5	500	900	0.3	200	0.97	1.03	2400	2600	80
4.7l Automatic 1999 Model Year Onwards (Year Code X)	0.5	500	900	0.3	200	0.97	1.03	2400	2600	80

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
4.7I V8 A5	0.3	500	700	0.3	200	0.97	1.03	2500	3000	101
5.2I Automatic	0.5	550	750	0.3	200	0.97	1.03	2400	2600	80
5.7I V8 A5	0.3	525	625	0.3	200	0.97	1.03	2500	3000	103
5.9I Automatic	0.5	550	750	0.3	200	0.97	1.03	2400	2600	80
Jeep Grand Cherokee (W H)										
4.7 Automatic 06-07 model year	0.3	550	600	0.2	200	0.97	1.03	2400	2600	102
5.7 Automatic 06-07 model year	0.3	575	650	0.2	200	0.97	1.03	2400	2600	97
6.1 Automatic 06-07 model year	0.3	600	700	0.2	200	0.97	1.03	2400	2600	93
4.7 Automatic 07-08 model year	0.3	550	600	0.2	200	0.97	1.03	2400	2600	102
5.7 Automatic 07-08 model year	0.3	575	650	0.2	200	0.97	1.03	2400	2600	97
6.1 Automatic 07-08 model year	0.3	600	700	0.2	200	0.97	1.03	2400	2600	93
6.1 Automatic 5 gears 08-09 model year	0.3	600	750	0.2	200	0.97	1.03	2300	2500	107
6.1 Automatic 5 gears 09 model year	0.3	640	740	0.2	200	0.97	1.03	2300	2500	107
6.1 Automatic 5 gears 10 model year	0.3	635	735	0.2	200	0.97	1.03	2300	2500	107
Jeep Grand Cherokee (W K)										
5.7 Automatic 5 gears 11-12 model year	0.3	580	680	0.2	200	0.97	1.03	2400	2600	108
6.4 Automatic 5 gears 12-13 model year	0.3	640	740	0.2	200	0.97	1.03	2410	2610	111
6.4 Automatic 5 gears 13-14 model year	0.3	663	763	0.2	200	0.97	1.03	2386	2586	104
6.4 Automatic 5 gears 14-15 model year	0.3	636	736	0.2	200	0.97	1.03	2517	2617	82
Jeep Commander										
5.7 Automatic 06-07 model year	0.3	575	650	0.2	200	0.97	1.03	2400	2600	97
5.7 Automatic 07-08 model year	0.3	575	650	0.2	200	0.97	1.03	2400	2600	97
5.7 Automatic 5 gears 08-09 model year	0.3	575	675	0.2	200	0.97	1.03	2400	2600	95
Jeep W rangler (TJ)										
2.4I Manual	0.5	650	850	0.3	200	0.97	1.03	2400	2600	80
2.5I Manual	0.5	650	850	0.3	200	0.97	1.03	2400	2600	80
4.0I Manual	0.5	620	820	0.3	200	0.97	1.03	2400	2600	80
4.0I Automatic	0.5	620	820	0.3	200	0.97	1.03	2400	2600	80
4.0I 4-Speed Automatic	0.5	620	820	0.3	200	0.97	1.03	2400	2600	80
4.0I Grizzly Manual	0.5	620	820	0.3	200	0.97	1.03	2400	2600	80
4.0 Manual 06-07 model year	0.3	600	700	0.2	200	0.97	1.03	2400	2600	86

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
4.0 Automatic 06-07 model year	0.3	600	700	0.2	200	0.97	1.03	2400	2600	85
4.0 Manual 07-08 model year	0.3	600	700	0.2	200	0.97	1.03	2400	2600	86
4.0 Automatic 07-08 model year	0.3	600	700	0.2	200	0.97	1.03	2400	2600	85
Jeep W rangler (JK)										
3.8 Automatic 2 & 4 door 07-08 model year	0.3	625	725	0.2	200	0.97	1.03	2400	2600	94
3.8 Automatic 4 gears 2 door 08-09 model year	0.3	625	725	0.2	200	0.97	1.03	2400	2600	94
3.8 Automatic 4 gears 2 door 09 model year	0.3	625	725	0.2	200	0.97	1.03	2400	2600	94
3.8 Automatic 4 gears 2 door 10 model year	0.3	625	725	0.2	200	0.97	1.03	2400	2600	94
3.8 Manual 6 gears 2 door 10 model year	0.3	625	725	0.2	200	0.97	1.03	2400	2600	95
3.8 Automatic 4 gears 4 door 10 model year	0.3	625	725	0.2	200	0.97	1.03	2400	2600	94
3.8 Manual 6 gears 4 door 10 model year	0.3	625	725	0.2	200	0.97	1.03	2400	2600	95
3.8 Automatic 4 gears 2 door 11-12 model year	0.3	626	726	0.2	200	0.97	1.03	2400	2600	94
3.8 Manual 6 gears 2 door 11-12 model year	0.3	624	724	0.2	200	0.97	1.03	2400	2600	95
3.8 Automatic 4 gears 4 door 11-12 model year	0.3	626	726	0.2	200	0.97	1.03	2400	2600	94
3.8 Manual 6 gears 4 door 11-12 model year	0.3	624	724	0.2	200	0.97	1.03	2400	2600	95
3.6 Automatic 5 gears 2 door 11-12 model year	0.3	746	846	0.2	200	0.97	1.03	2400	2600	113
3.6 Manual 6 gears 2 door 11-12 model year	0.3	732	832	0.2	200	0.97	1.03	2400	2600	96
3.6 Automatic 5 gears 4 door 11-12 model year	0.3	736	836	0.2	200	0.97	1.03	2400	2600	113
3.6 Manual 6 gears 4 door 11-12 model year	0.3	732	832	0.2	200	0.97	1.03	2400	2600	96
3.6 Automatic 5 gears 2 door 12-13 model year	0.3	736	836	0.2	200	0.97	1.03	2400	2600	113
3.6 Manual 6 gears 2 door 12-13 model year	0.3	732	832	0.2	200	0.97	1.03	2400	2600	96
3.6 Automatic 5 gears 4 door 12-13 model year	0.3	736	836	0.2	200	0.97	1.03	2400	2600	113
3.6 Manual 6 gears 4 door 12-13 model year	0.3	732	832	0.2	200	0.97	1.03	2400	2600	96
3.6 Automatic 5 gears 2 door 13-14 model year	0.3	736	836	0.2	200	0.97	1.03	2400	2600	113
3.6 Manual 6 gears 2 door 13-14 model year	0.3	732	832	0.2	200	0.97	1.03	2400	2600	96
3.6 Automatic 5 gears 4 door 13-14 model year	0.3	736	836	0.2	200	0.97	1.03	2400	2600	113
3.6 Manual 6 gears 4 door 13-14 model year	0.3	732	832	0.2	200	0.97	1.03	2400	2600	96
3.6 Automatic 5 gears 2 doors 14-15 model year	0.3	736	836	0.2	200	0.97	1.03	2484	2584	112
3.6 Manual 6 gears 2 doors 14-15 model year	0.3	732	832	0.2	200	0.97	1.03	2421	2521	97
3.6 Automatic 5 gears 4 doors 14-15 model year	0.3	736	836	0.2	200	0.97	1.03	2484	2584	112
3.6 Manual 6 gears 4 doors 14-15 model year	0.3	732	832	0.2	200	0.97	1.03	2521	2621	97

1 Manufacturer/Marque	2			3						4 Min Oil Temp(°C)
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
Jeep Compass										
2.0 Manual 07-08 model year	0.3	720	820	0.2	200	0.97	1.03	2300	2500	91
2.4 CVT 07-08 model year	0.3	680	780	0.2	200	0.97	1.03	2400	2600	88
2.4 Manual 5 gears 08-09 model year	0.3	720	820	0.2	200	0.97	1.03	2350	2550	87
2.4 CVT 08-09 model year	0.3	670	770	0.2	200	0.97	1.03	2400	2600	88
2.0 4x2 Manual 5 gears 11-12 model year	0.3	701	801	0.2	200	0.97	1.03	2400	2600	84
2.4 4x4 CVT 11-12 model year	0.3	661	761	0.2	200	0.97	1.03	2400	2600	83
Jeep Compass (MK49)										
2.0 4x2 Manual 5 gears 12-13 model year	0.3	701	801	0.2	200	0.97	1.03	2400	2600	84
2.4 4x4 CVT 12-13 model year	0.3	661	761	0.2	200	0.97	1.03	2400	2600	83
2.0 4x2 Manual 5 gears 13-14 model year	0.3	701	801	0.2	200	0.97	1.03	2400	2600	84
2.4 4x4 Automatic 6 gears 13-14 model year	0.3	625	725	0.2	200	0.97	1.03	2400	2600	94
2.0 4x2 Manual 5 gears 14-15 model year	0.3	701	801	0.2	200	0.97	1.03	2496	2596	84
2.4 4x4 Automatic 6 gears 14-15 model year	0.3	625	725	0.2	200	0.97	1.03	2508	2608	94
Jeep Patriot										
2.4 Manual 07-08 model year	0.3	720	820	0.2	200	0.97	1.03	2300	2500	91
2.4 CVT 07-08 model year	0.3	680	780	0.2	200	0.97	1.03	2400	2600	88
2.4 Manual 5 gears 08-09 model year	0.3	720	820	0.2	200	0.97	1.03	2350	2550	87
2.4 CVT 08-09 model year	0.3	670	770	0.2	200	0.97	1.03	2400	2600	87
2.4 Manual 5 gears 09 model year	0.3	720	820	0.2	200	0.97	1.03	2300	2500	91
2.4 CVT 09 model year	0.3	680	780	0.2	200	0.97	1.03	2400	2600	86
2.4 Manual 5 gears 10 model year	0.3	730	830	0.2	200	0.97	1.03	2400	2600	94
2.4 CVT	0.3	680	780	0.2	200	0.97	1.03	2400	2600	95
2.4 4x4 Manual 5 gears 11-12 model year	0.3	702	802	0.2	200	0.97	1.03	2400	2600	91
2.4 4x4 CVT 11-12 model year	0.3	661	761	0.2	200	0.97	1.03	2400	2600	83
Jeep Renegade										
1.4 140bhp 4x2 Manual 14-15 model year	0.3	940	1040	0.2	200	0.97	1.03	2538	2638	99
1.4 140bhp 4x2 Semi Automatic 14-15 model year	0.3	700	800	0.2	200	0.97	1.03	2451	2551	99
1.4 170bhp 4x4 Automatic 14-15 model year	0.3	740	840	0.2	200	0.97	1.03	2449	2549	97
1.6 110bhp 4x2 Manual 14-15 model year	0.3	690	790	0.2	200	0.97	1.03	2114	2214	94

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
Chrysler Viper										
8.0l Manual V10	0.5	675	725	0.3	200	0.97	1.03	2000	2200	80
Chrysler Voyager	(Also see Section II)									
2.0l Manual, Short Wheelbase	0.5	800	1000	0.3	200	0.97	1.03	2000	2200	80
2.4l 2001 Model Year	0.5	650	900	0.3	200	0.97	1.03	2300	2500	80
2.4 Manual 06-07 model year	0.3	800	900	0.2	200	0.97	1.03	2400	2600	86
2.4 Manual 07-08 model year	0.3	800	900	0.2	200	0.97	1.03	2400	2600	86
Chrysler Grand Voyager										
3.3 Automatic 06-07 model year	0.3	700	800	0.2	200	0.97	1.03	2400	2600	88
3.3 Automatic 07-08 model year	0.3	700	800	0.2	200	0.97	1.03	2400	2600	88
Chrysler Grand Voyager (RT)										
3.8 Automatic 6 gears 08-09 model year	0.3	600	730	0.2	200	0.97	1.03	2500	2700	97
3.8 Automatic 6 gears 09 model year	0.3	630	730	0.2	200	0.97	1.03	2500	2700	96
3.8 Automatic 6 gears 10 model year	0.3	630	730	0.2	200	0.97	1.03	2500	2700	96
Chrysler Neon										
1.8l Manual	0.5	750	1000	0.3	200	0.97	1.03	2000	2200	80
2.0l Manual	0.5	750	1000	0.3	200	0.97	1.03	2000	2200	80
2.0l Automatic	0.5	800	1050	0.3	200	0.97	1.03	2000	2200	80
2.0l Automatic Year Code Y Onwards	0.5	800	1050	0.3	200	0.97	1.03	2000	2200	80
2.0l Manual Year Code Y Onwards	0.5	750	1000	0.3	200	0.97	1.03	2000	2200	80
2.0l Automatic Year Code 1 Onwards	0.5	800	1050	0.3	200	0.97	1.03	2000	2200	80
Chrysler PT Cruiser										
2.0l Automatic	0.5	800	1050	0.3	200	0.97	1.03	2000	2200	80
2.0l Manual	0.5	750	1000	0.3	200	0.97	1.03	2000	2200	80
2.4l Manual	0.5	800	1050	0.3	200	0.97	1.03	2000	2400	80
2.4l Automatic	0.5	800	1050	0.3	200	0.97	1.03	2000	2400	80
2.4l Manual Cabriolet 06-07 model year	0.3	800	900	0.2	200	0.97	1.03	2400	2600	94
2.4l Automatic Cabriolet 06-07 model year	0.3	740	840	0.2	200	0.97	1.03	2400	2600	96
2.4l Manual Hatchback 06-07 model year	0.3	800	900	0.2	200	0.97	1.03	2400	2600	94
2.4l Automatic Hatchback 06-07 model year	0.3	740	840	0.2	200	0.97	1.03	2400	2600	96
2.4l Manual 5 gears Cabriolet 07-08 model year	0.3	800	900	0.2	200	0.97	1.03	2400	2600	94

1 Manufacturer/Marque	2			3						4 Min Oil Temp(°C)
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (% Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
2.4l Automatic 4 gears Cabriolet 07-08 model year	0.3	740	840	0.2	200	0.97	1.03	2400	2600	96
2.4l Manual 5 gears Hatchback 07-08 model year	0.3	800	900	0.2	200	0.97	1.03	2400	2600	94
2.4l Automatic 4 gears Hatchback 07-08 model year	0.3	740	840	0.2	200	0.97	1.03	2400	2600	96
2.4l Manual 5 gears Cabriolet 08-09 model year	0.3	800	900	0.2	200	0.97	1.03	2400	2600	94
2.4l Automatic 4 gears Cabriolet 08-09 model year	0.3	740	840	0.2	200	0.97	1.03	2400	2600	96
2.4l Manual 5 gears Hatchback 08-09 model year	0.3	800	900	0.2	200	0.97	1.03	2400	2600	94
2.4l Automatic 4 gears Hatchback 08-09 model year	0.3	740	840	0.2	200	0.97	1.03	2400	2600	96
Chrysler PT Cruiser Cabriolet LHD										
2.4l A4	0.3	650	850	0.2	200	0.97	1.03	2500	3000	96
2.4l M5	0.3	650	850	0.2	200	0.97	1.03	2500	3000	94
Chrysler Crossfire										
3.2l Manual	0.5	650	850	0.3	200	0.97	1.03	2000	2500	80
3.2l Automatic	0.5	650	850	0.3	200	0.97	1.03	2000	2500	80
SRT 6 Roadster A5	0.3	620	770	0.2	200	0.97	1.03	2500	3000	91
SRT 6 Coupé A5	0.3	620	770	0.2	200	0.97	1.03	2500	3000	91
3.2 Manual Coupé 06-07 model year	0.3	640	740	0.2	200	0.97	1.03	2400	2600	90
3.2 Automatic Coupé 06-07 model year	0.3	640	740	0.2	200	0.97	1.03	2400	2600	98
3.2 SRT 6 Automatic Coupé 06-07 model year	0.3	650	750	0.2	200	0.97	1.03	2400	2600	91
3.2 Manual Cabriolet 06-07 model year	0.3	640	740	0.2	200	0.97	1.03	2400	2600	90
3.2 Automatic Cabriolet 06-07 model year	0.3	640	740	0.2	200	0.97	1.03	2400	2600	98
3.2 SRT 6 Automatic Cabriolet 06-07 model year	0.3	650	750	0.2	200	0.97	1.03	2400	2600	91
3.2 Manual Coupé 07-08 model year	0.3	640	740	0.2	200	0.97	1.03	2400	2600	90
3.2 Automatic Coupé 07-08 model year	0.3	640	740	0.2	200	0.97	1.03	2400	2600	98
3.2 SRT 6 Automatic Coupé 07-08 model year	0.3	650	750	0.2	200	0.97	1.03	2400	2600	91
3.2 Manual Cabriolet 07-08 model year	0.3	640	740	0.2	200	0.97	1.03	2400	2600	90
3.2 Automatic Cabriolet 07-08 model year	0.3	640	740	0.2	200	0.97	1.03	2400	2600	98
3.2 SRT 6 Automatic Cabriolet 07-08 model year	0.3	650	750	0.2	200	0.97	1.03	2400	2600	91
Chrysler 300C										
3.5l V6 A5	0.3	500	700	0.2	200	0.97	1.03	2500	3000	96
5.7l V8 A5	0.3	500	700	0.2	200	0.97	1.03	2500	3000	96
3.5 Automatic Saloon 06-07 model year	0.3	600	700	0.2	200	0.97	1.03	2400	2600	98
5.7 Automatic Saloon 06-07 model year	0.3	550	650	0.2	200	0.97	1.03	2400	2600	103

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
6.1 Automatic Saloon 06-07 model year	0.3	600	700	0.2	200	0.97	1.03	2400	2600	108
3.5 Automatic Touring 06-07 model year	0.3	600	700	0.2	200	0.97	1.03	2400	2600	98
5.7 Automatic Touring 06-07 model year	0.3	550	650	0.2	200	0.97	1.03	2400	2600	103
6.1 Automatic Touring 06-07 model year	0.3	600	700	0.2	200	0.97	1.03	2400	2600	108
3.5 Automatic 5 gears Saloon 07-08 model year	0.3	550	650	0.2	200	0.97	1.03	2400	2600	94
5.7 Automatic 5 gears Saloon 07-08 model year	0.3	600	750	0.2	200	0.97	1.03	2400	2600	102
6.1 Automatic 5 gears Saloon 07-08 model year	0.3	600	730	0.2	200	0.97	1.03	2400	2600	103
3.5 Automatic 5 gears Touring 07-08 model year	0.3	600	700	0.2	200	0.97	1.03	2350	2550	94
5.7 Automatic 5 gears Touring 07-08 model year	0.3	600	750	0.2	200	0.97	1.03	2400	2600	102
6.1 Automatic 5 gears Touring 07-08 model year	0.3	600	730	0.2	200	0.97	1.03	2400	2600	103
6.1 Automatic 5 gears Saloon 08-09 model year	0.3	600	730	0.2	200	0.97	1.03	2400	2600	103
6.1 Automatic 5 gears Touring 08-09 model year	0.3	600	730	0.2	200	0.97	1.03	2400	2600	103
5.7 Automatic 5 gears Saloon 09 model year	0.3	550	650	0.2	200	0.97	1.03	2350	2550	104
6.1 Automatic 5 gears Saloon 09 model year	0.3	600	730	0.2	200	0.97	1.03	2400	2600	103
6.1 Automatic 5 gears Saloon 10 model year	0.3	550	650	0.2	200	0.97	1.03	2400	2600	97
Chrysler Sebring										
2.0 Manual 07-08 model year	0.3	650	750	0.2	200	0.97	1.03	2400	2600	86
2.4 Automatic 07-08 model year	0.3	750	850	0.2	200	0.97	1.03	2400	2600	90
2.0 Manual 5 gears 08-09 model year	0.3	750	850	0.2	200	0.97	1.03	2400	2600	90
2.4 Automatic 4 gears 08-09 model year	0.3	650	750	0.2	200	0.97	1.03	2400	2600	86
Chrysler Sebring Cabriolet										
2.7 Automatic 6 gears 08-09 model year	0.3	600	700	0.2	200	0.97	1.03	2400	2600	94
Chrysler Delta										
1.4 120 T-Jet Manual 6 gears 11-12 model year	0.3	710	810	0.2	200	0.97	1.03	2500	2700	97
1.4 140 M-Air Manual 6 gears 11-12 model year	0.3	710	810	0.2	200	0.97	1.03	2400	2600	97
1.4 120 T-Jet Manual 6 gears 12-13 model year	0.3	690	790	0.2	200	0.97	1.03	2400	2600	98
1.4 140 M-Air Manual 6 gears 12-13 model year	0.3	710	810	0.2	200	0.97	1.03	2400	2600	97
1.4 120 T-Jet Manual 6 gears 13-14 model year	0.3	690	790	0.2	200	0.97	1.03	2400	2600	98
1.4 140 M-Air Manual 6 gears 13-14 model year	0.3	710	810	0.2	200	0.97	1.03	2400	2600	97
Chrysler Ypsilon										
0.9 85bhp Twin Air Manual 5 gears 11-12 model year	0.3	770	870	0.2	200	0.97	1.03	2400	2600	99

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
0.9 85bhp Twin Air Automatic 5 gears 11-12 model year	0.3	810	910	0.2	200	0.97	1.03	2400	2600	92
1.2 69bhp Manual 5 gears 11-12 model year	0.3	660	760	0.2	200	0.97	1.03	2600	2800	93
0.9 85bhp Twin Air Manual 5 gears 12-13 model year	0.3	770	870	0.2	200	0.97	1.03	2400	2600	99
0.9 85bhp Twin Air Automatic 5 gears 12-13 model year	0.3	810	910	0.2	200	0.97	1.03	2400	2600	92
1.2 69bhp Manual 5 gears 12-13 model year	0.3	660	760	0.2	200	0.97	1.03	2600	2800	94
0.9 85bhp Twin Air Manual 5 gears 13-14 model year	0.3	770	870	0.2	200	0.97	1.03	2400	2600	99
0.9 85bhp Twin Air Automatic 5 gears 13-14 model year	0.3	810	910	0.2	200	0.97	1.03	2400	2600	92
1.2 69bhp Manual 5 gears 13-14 model year	0.3	660	760	0.2	200	0.97	1.03	2600	2800	94
0.9 85bhp Twin Air Manual 14-15 model year	0.3	770	870	0.2	200	0.97	1.03	2410	2510	99
0.9 85bhp Twin Air Automatic 14-15 model year	0.3	810	910	0.2	200	0.97	1.03	2450	2550	92
1.2 69bhp Manual 14-15 model year	0.3	660	760	0.2	200	0.97	1.03	2670	2770	94

CITROEN

The VIN Code consists of the 6th and 7th character of the VIN for 2 digit codes and the 6th to the 9th character for 4 digit codes. The Engine Code consist of the 6th to 8th character of the VIN number for 3 digit codes. The Engine Code can be found on the Engine Block.

See also Section II

C1

1.0i VIN Code CFAC	0.5	750	950	0.3	200	0.97	1.03	2000	3000	80
1.0i VIN Code CFB	0.5	750	950	0.3	200	0.97	1.03	2000	3000	80

New C1

Engine Code CFB 998cc	0.5	750	950	0.3	200	0.97	1.03	2000	3000	80
Engine Code HMT 1199cc	0.5	650	950	0.3	200	0.97	1.03	2000	3000	90

C2

1.1i VIN Code HFXB	0.5	650	900	0.3	200	0.97	1.03	2000	2500	80
1.1i VIN Code HFXC	0.5	650	900	0.3	200	0.97	1.03	2000	2500	80
1.4i VIN Code KFVB	0.5	650	900	0.3	200	0.97	1.03	2000	2500	80
1.4i VIN Code KFVC	0.5	650	900	0.3	200	0.97	1.03	2000	2500	80
1.4i VIN Code KFUC	0.5	650	900	0.3	200	0.97	1.03	2000	3000	80
1.6i VIN Code NFSC	0.5	700	800	0.3	200	0.97	1.03	2000	3000	80
1.6i VIN Code NFUC	0.5	650	900	0.3	200	0.97	1.03	2000	2500	80

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
C3										
1.0 VTi VIN Code ZMZ	0.5	650	850	0.3	200	0.97	1.03	2000	3000	90
1.1i VIN Code HFXB	0.5	650	900	0.3	200	0.97	1.03	2000	2500	80
1.1i VIN Code HFXC	0.5	650	900	0.3	200	0.97	1.03	2000	2500	80
1.1i VIN Code HFV0	0.5	650	850	0.3	200	0.97	1.03	1000	3000	80
1.2 VTi VIN Code HMZ	0.5	650	850	0.3	200	0.97	1.03	2000	3000	80
1.4i VIN Code KFUC	0.5	650	900	0.3	200	0.97	1.03	2000	3000	80
1.4i VIN Code KFVB	0.5	650	900	0.3	200	0.97	1.03	2000	2500	80
1.4i VIN Code KFVC	0.5	650	900	0.3	200	0.97	1.03	2000	2500	80
1.4i Automatic VIN Code KFVE	0.5	650	900	0.3	200	0.97	1.03	2000	2500	80
1.4i VIN Code KFT0	0.5	650	750	0.3	200	0.97	1.03	2000	3000	80
1.4i VIN Code 8FP0	0.5	550	850	0.3	200	0.97	1.03	2000	3000	80
1.6i VIN Code NFUB	0.5	650	900	0.3	200	0.97	1.03	2000	2500	80
1.6i VIN Code NFUC	0.5	650	900	0.3	200	0.97	1.03	2000	2500	80
1.6i VIN Code NFUF	0.5	650	900	0.3	200	0.97	1.03	2000	3000	80
1.6i VIN Code 5FS0	0.5	550	850	0.3	200	0.97	1.03	2000	3000	80
1.6i VIN Code 5FS9	0.5	550	850	0.3	200	0.97	1.03	2000	3000	80
Engine Code HNZ 1199cc	0.5	600	900	0.3	200	0.97	1.03	2000	3000	92
NewC3										
Engine Code HMP 1199cc	0.5	600	1000	0.3	200	0.97	1.03	2000	3000	89
Engine Code HMZ 1199cc	0.5	600	1000	0.3	200	0.97	1.03	2000	3000	89
Engine Code HNZ 1199cc	0.5	600	900	0.3	200	0.97	1.03	2000	3000	90
C3 Picasso										
1.4 VTi VIN Code 8FSC	0.5	550	850	0.3	200	0.97	1.03	2000	3000	80
1.4 VTi VIN Code 8FP	0.5	550	850	0.3	200	0.97	1.03	2000	3000	80
1.6 VTi VIN Code 5FW0	0.5	650	750	0.3	200	0.97	1.03	2000	3000	80
1.6i VIN Code 5FS	0.5	550	850	0.3	200	0.97	1.03	2000	3000	80
Engine Code HNZ 1199cc	0.5	600	900	0.3	200	0.97	1.03	2000	3000	94
C3 Aircross Compact SUV										
Engine Code HMZ 1199cc	0.5	600	1000	0.3	200	0.97	1.03	2000	3000	90
Engine Code HNZ 1199cc	0.5	600	900	0.3	200	0.97	1.03	2000	3000	82

1 Manufacturer/Marque	2			3						4 Min Oil Temp(°C)
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
DS3										
1.2 VTi VIN Code HMZ	0.5	650	850	0.3	200	0.97	1.03	2000	3000	80
1.4i VIN Code 8FP0	0.5	550	850	0.3	200	0.97	1.03	2000	3000	80
1.6i VIN Code 5FS0	0.5	550	850	0.3	200	0.97	1.03	2000	3000	80
1.6i VIN Code 5FS9	0.5	550	850	0.3	200	0.97	1.03	2000	3000	80
1.6i VIN Code 5FD	0.5	650	850	0.3	200	0.97	1.03	2000	3000	80
1.6i VIN Code 5FR	0.5	600	800	0.3	200	0.97	1.03	2000	3000	80
1.6i VIN Code 5FX8	0.5	650	750	0.3	200	0.97	1.03	2000	3000	80
1.6i VIN Code 5FV	0.5	600	800	0.3	200	0.97	1.03	2000	3000	80
Engine Code HNZ 1199cc	0.5	600	900	0.3	200	0.97	1.03	2000	3000	92
Engine Code HNY 1199cc	0.5	600	900	0.3	200	0.97	1.03	2000	3000	101
Engine Code 5GZ 1598cc	0.5	600	1000	0.3	200	0.97	1.03	2000	3000	85
Engine Code 5GR 1598cc	0.5	550	850	0.3	200	0.97	1.03	2000	3000	87
Engine Code ZMZ 999cc	0.5	600	900	0.3	200	0.97	1.03	2000	3000	90
C4										
1.4i VIN Code KFUC	0.5	700	800	0.3	200	0.97	1.03	2000	3000	80
1.6i VIN Code NFUC	0.5	650	900	0.3	200	0.97	1.03	2000	3000	80
1.6i VIN Code NFUF	0.5	650	900	0.3	200	0.97	1.03	2000	3000	80
2.0i VIN Code RFNC	0.5	850	950	0.3	200	0.97	1.03	2000	3000	80
2.0i VIN Code RFJF	0.5	600	800	0.3	200	0.97	1.03	2000	3000	80
2.0i VIN Code RFKC	0.5	650	850	0.3	200	0.97	1.03	2000	3000	80
2.0i VIN Code RFJC	0.5	700	950	0.3	200	0.97	1.03	2000	3000	80
1.6i Engine Code 5FL	0.5	600	900	0.3	200	0.97	1.03	2000	3000	80
1.6i Engine Code 5FS	0.5	550	850	0.3	200	0.97	1.03	2000	3000	80
1.6i Engine Code 5FV	0.5	600	800	0.3	200	0.97	1.03	2000	3000	80
1.6i Engine Code 5FW	0.5	600	950	0.3	200	0.97	1.03	2000	3000	80
1.6i Engine Code 5FX	0.5	600	950	0.3	200	0.97	1.03	2000	3000	80
1.4i Engine Code 8FP	0.5	550	850	0.3	200	0.97	1.03	2000	3000	80
Engine Code HNZ 1199cc	0.5	600	900	0.3	200	0.97	1.03	2000	3000	92
Engine Code HNY 1199cc	0.5	600	900	0.3	200	0.97	1.03	2000	3000	92
C4 Cactus										
Engine Code HMU 1199cc	0.5	600	1000	0.3	200	0.97	1.03	2000	3000	88

1	2			3						4
Manufacturer/Marque	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	Min Oil Temp(°C)
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
Engine Code HMZ 1199cc	0.5	600	1000	0.3	200	0.97	1.03	2000	3000	90
Engine Code HNZ 1199cc	0.5	600	900	0.3	200	0.97	1.03	2000	3000	92
Engine Code HNV 1199cc	0.5	600	1000	0.3	200	0.97	1.03	2000	3000	92
C4 Picasso										
1.8i 16v VIN Code 6FYC	0.5	550	850	0.3	200	0.97	1.03	2000	2400	80
2.0i 16v VIN Code RFJH	0.5	550	850	0.3	200	0.97	1.03	2000	3000	80
1.6i Engine Code 5FS	0.5	550	850	0.3	200	0.97	1.03	2000	3000	80
1.6i Engine Code 5FV	0.5	600	800	0.3	200	0.97	1.03	2000	3000	80
1.6i Engine Code 5FW	0.5	600	950	0.3	200	0.97	1.03	2000	3000	80
1.6i Engine Code 5FX	0.5	600	950	0.3	200	0.97	1.03	2000	3000	80
1.6i Engine Code 5FT	0.5	600	950	0.3	200	0.97	1.03	2000	3000	80
NewC4 Picasso										
1.6 VTi VIN Code 5FS0	0.5	600	900	0.3	200	0.97	1.03	2000	3000	100
1.6 THP VIN Code 5FV	0.5	600	800	0.3	200	0.97	1.03	2000	3000	93
Engine Code HNY 1199cc	0.5	600	900	0.3	200	0.97	1.03	2000	3000	98
Engine Code 5GZ 1598cc	0.5	600	1000	0.3	200	0.97	1.03	2000	3000	88
Engine Code HNX 1199cc	0.5	600	900	0.3	200	0.97	1.03	2000	3000	87
(Also see Section II)										
1.8i 16v VIN Code 6FYC	0.5	550	850	0.3	200	0.97	1.03	2000	2400	80
2.0i 16v VIN Code RFJH	0.5	550	850	0.3	200	0.97	1.03	2000	3000	80
1.6i Engine Code 5FS	0.5	550	850	0.3	200	0.97	1.03	2000	3000	80
1.6i Engine Code 5FV	0.5	600	800	0.3	200	0.97	1.03	2000	3000	80
1.6i Engine Code 5FW	0.5	600	950	0.3	200	0.97	1.03	2000	3000	80
1.6i Engine Code 5FX	0.5	600	950	0.3	200	0.97	1.03	2000	3000	80
1.6i Engine Code 5FT	0.5	600	950	0.3	200	0.97	1.03	2000	3000	80
(Also see Section II)										
NewGrand C4 Picasso										
1.6 VTi VIN Code 5FS0	0.5	600	900	0.3	200	0.97	1.03	2000	3000	100
1.6 THP VIN Code 5FV	0.5	600	800	0.3	200	0.97	1.03	2000	3000	93
Engine Code HNY 1199cc	0.5	600	900	0.3	200	0.97	1.03	2000	3000	98
Engine Code 5GZ 1598cc	0.5	600	1000	0.3	200	0.97	1.03	2000	3000	88

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
DS4										
1.6 Engine Code 5FS	0.5	550	850	0.3	200	0.97	1.03	2000	3000	80
1.6 Engine Code 5FU	0.5	600	800	0.3	200	0.97	1.03	2000	3000	80
1.6 Engine Code 5FM	0.5	600	800	0.3	200	0.97	1.03	2000	3000	80
1.6 Engine Code 5FV	0.5	600	800	0.3	200	0.97	1.03	2000	3000	80
Engine Code HNY 1199cc	0.5	600	900	0.3	200	0.97	1.03	2000	3000	92
Engine Code 5GZ 1598cc	0.5	600	1000	0.3	200	0.97	1.03	2000	3000	93
Engine Code 5GM 1598cc	0.5	550	850	0.3	200	0.97	1.03	2000	3000	104
Engine Code HNZ 1199cc	0.5	600	900	0.3	200	0.97	1.03	2000	3000	92
C5										
1.8l injection 16v VIN Code 6FZB	0.5	650	750	0.3	200	0.97	1.03	2000	3000	80
1.8l injection 16v VIN Code 6FZC	0.5	650	750	0.3	200	0.97	1.03	2000	3000	80
1.8i 16v VIN Code 6FYC	0.5	550	850	0.3	200	0.97	1.03	2000	2400	80
1.8i Automatic VIN Code 6FZE	0.5	600	800	0.3	200	0.97	1.03	2000	2500	80
2.0l injection 16v VIN Code RFNB	0.5	850	950	0.3	200	0.97	1.03	2000	3000	80
2.0l injection 16v VIN Code RFNC	0.5	850	950	0.3	200	0.97	1.03	2000	3000	80
2.0l HPi VIN Code RLZB	0.5	850	950	0.3	200	0.97	2.05	2000	3000	80
2.0i Automatic VIN Code RFNE	0.5	600	800	0.3	200	0.97	1.03	2000	2500	80
2.0i Automatic VIN Code RFNF	0.5	600	800	0.3	200	0.97	1.03	2000	2500	80
2.0i VIN Code RFJC	0.5	550	850	0.3	200	0.97	1.03	2000	3000	80
2.0i VIN Code RFJF	0.5	550	850	0.3	200	0.97	1.03	2000	3000	80
3.0l injection V6 24v VIN Code XFXF	0.5	600	700	0.3	200	0.97	1.03	2000	3000	80
3.0i VIN Code XFUJ	0.5	550	750	0.3	200	0.97	1.03	2000	3000	80
1.6i Engine Code 5FV	0.5	600	800	0.3	200	0.97	1.03	2000	3000	80
DS5										
1.6 THP VIN Code 5FU	0.5	600	800	0.3	200	0.97	1.03	2000	3000	90
Engine Code 5GZ 1598cc	0.5	600	1000	0.3	200	0.97	1.03	2000	3000	86
Engine Code 5GM 1598cc	0.5	600	800	0.3	200	0.97	1.03	2000	3000	93
C6										
3.0i VIN Code XFVJ	0.5	600	900	0.3	200	0.97	1.03	2000	3000	80

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
C8	(Also see Section II)									
2.0i VIN Code RFNC	0.5	600	800	0.3	200	0.97	1.03	2000	2500	80
2.0i auto VIN Code RFNE	0.5	600	800	0.3	200	0.97	1.03	2000	2500	80
2.0i VIN Code RFJC	0.5	700	950	0.3	200	0.97	1.03	2000	3000	80
2.0i VIN Code RFJF	0.5	700	950	0.3	200	0.97	1.03	2000	3000	80
2.2i VIN Code 3FZC	0.5	600	800	0.3	200	0.97	1.03	2000	2500	80
2.2i VIN Code 3FYC	0.5	600	800	0.3	200	0.97	1.03	2000	2400	80
C-Crosser										
2.4i Engine Code SFZ	0.5	550	750	0.3	200	0.97	1.03	2000	3000	80
AX series										
1.0l injection VIN Code LH and LJ	0.5	800	900	0.3	200	0.97	1.03	2000	2500	80
1.1l injection VIN Code DA and DB	0.5	800	900	0.3	200	0.97	1.03	2000	2500	80
1.4l injection VIN Code DD and DE	0.5	800	900	0.3	200	0.97	1.03	2000	2500	80
GTi VIN Code DM	0.5	830	930	0.3	200	0.97	1.03	2000	2500	80
Saxo										
1.0l injection VIN Code CDZF	0.5	800	900	0.3	200	0.97	1.03	2000	2500	80
1.1l injection VIN Code HDZF	0.5	800	900	0.3	200	0.97	1.03	2000	2500	80
1.4l injection VIN Code KFXF	0.5	800	900	0.3	200	0.97	1.03	2000	2500	80
1.4l injection Automatic VIN Code KFXD	0.5	750	850	0.3	200	0.97	1.03	2000	2500	80
1.6l injection VIN Code NFZF	0.5	800	900	0.3	200	0.97	1.03	2100	2300	80
1.6l injection Automatic VIN Code NFZD	0.5	750	850	0.3	200	0.97	1.03	2100	2300	80
1.6l injection 16V VIN Code NFXF	0.5	800	900	0.3	200	0.97	1.03	2000	2500	80
1.1l injection VIN Code HFXB	0.5	700	900	0.3	200	0.97	1.03	2000	3000	80
1.4l injection VIN Code KFWB	0.5	750	950	0.3	200	0.97	1.03	2000	3000	80
1.4l injection VIN Code KFWL	0.5	750	950	0.3	200	0.97	1.03	2000	3000	80
1.6l injection VTR VIN Code NFTB	0.5	700	1000	0.3	200	0.97	1.03	2000	3000	80
1.6l injection 16v VTS VIN Code NFXB	0.5	700	1000	0.3	200	0.97	1.03	2000	3000	80
ZX series										
1.4l injection Estate VIN Code D7	0.5	800	900	0.3	200	0.97	1.03	2000	2500	80
1.4l injection VIN Code A9 and B1	0.5	800	900	0.3	200	0.97	1.03	2000	2500	80
1.4l injection VIN Code L7	0.5	800	900	0.3	200	0.97	1.03	2000	2500	80

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
1.4l injection VIN Code L9	0.5	800	900	0.3	200	0.97	1.03	2000	2500	80
1.4l injection VIN Code M1	0.5	800	900	0.3	200	0.97	1.03	2000	2500	80
1.6l injection VIN Code B4 Engine Code BDY	0.5	800	900	0.3	200	0.97	1.03	2000	2500	80
1.8l injection Automatic VIN Code E4	0.5	700	800	0.3	200	0.97	1.15	3000	3200	80
1.8l injection VIN Code E3 and E4	0.5	800	900	0.3	200	0.97	1.15	3000	3200	80
1.9l injection VIN Code B8	0.5	850	950	0.3	200	0.97	1.03	2000	2500	80
2.0l injection 16V VIN Code F1	0.5	830	930	0.3	200	0.97	1.03	2000	2500	80
2.0l injection 16V VIN Code J9	0.5	830	930	0.3	200	0.97	1.03	2000	2500	80
2.0l injection VIN Code E6 and E7	0.5	800	900	0.3	200	0.97	1.03	2000	2500	80
2.0l injection VIN Code J3 and J8	0.5	800	900	0.3	200	0.97	1.03	2000	2500	80
BX series										
1.6l injection VIN Code HY and HZ	0.5	800	900	0.3	200	0.97	1.03	2000	2500	80
16V VIN Code FC	0.5	800	900	0.3	200	0.97	1.03	2000	2500	80
1.9l injection VIN Code EY and EZ	0.5	800	900	0.3	200	0.97	1.03	2000	2500	80
GTi 4X4 VIN Code FX	0.5	800	900	0.3	200	0.97	1.03	2000	2500	80
Xsara										
1.4l injection VIN Code KFXF	0.5	800	900	0.3	200	0.97	1.03	2000	2500	80
1.6l injection VIN Code NFZF	0.5	800	900	0.3	200	0.97	1.03	2000	2500	80
1.6l injection Automatic VIN Code NFZM	0.5	750	850	0.3	200	0.97	1.03	2000	2500	80
1.8l injection Automatic VIN Code LFZM	0.5	750	850	0.3	200	0.97	1.03	2000	2500	80
1.8l injection 16V VIN Code LFYF	0.5	800	900	0.3	200	0.97	1.03	2000	2500	80
2.0l injection 16V VIN Code RFSF	0.5	800	900	0.3	200	0.97	1.03	2000	2500	80
1.4l injection VIN Code KFWB	0.5	750	950	0.3	200	0.97	1.03	2000	3000	80
1.6l injection 16v VIN Code NFUB	0.5	650	850	0.3	200	0.97	1.03	2000	3000	80
2.0l injection 16v VIN Code RFN1	0.5	600	800	0.3	200	0.97	1.03	2000	3000	80
2.0l injection 16v Coupé VIN Code RFSB	0.5	750	950	0.3	200	0.97	1.03	2000	3000	80
1.6l injection 16v VIN Code Code NFUN	0.5	800	900	0.3	200	0.97	1.03	2000	3000	80
2.0l injection 16v VIN Code RFNN	0.5	850	950	0.3	200	0.97	1.03	2000	3000	80
1.6i VIN Code NFU1	0.5	650	900	0.3	200	0.97	1.03	2000	2500	80
1.6i Automatic VIN Code NFU3	0.5	650	900	0.3	200	0.97	1.03	2000	2500	80
2.0i Automatic VIN Code RFN3	0.5	650	900	0.3	200	0.97	1.03	2000	2500	80

1 Manufacturer/Marque	2			3						4 Min Oil Temp(°C)
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
Xsara Picasso										
1.6l injection VIN Code NFZA	0.5	750	950	0.3	200	0.97	1.03	2000	3000	80
1.6l injection VIN Code NFVB	0.5	750	950	0.3	200	0.97	1.03	2000	3000	80
1.8l injection VIN Code 6FZB	0.5	600	800	0.3	200	0.97	1.03	2000	3000	80
1.6i VIN Code NFVK	0.5	650	850	0.3	200	0.97	1.03	2000	3000	80
1.8i VIN Code 6FZC	0.5	600	800	0.3	200	0.97	1.03	2000	3000	80
1.8i VIN Code 6FYC	0.5	600	800	0.3	200	0.97	1.03	2000	2400	80
2.0i VIN Code RFNF	0.5	600	800	0.3	200	0.97	1.03	2000	3000	80
XANTIA series										
1.6l injection VIN Code 2B	0.5	800	900	0.3	200	0.97	1.15	3000	3200	80
1.8l injection VIN Code 1E and 2E	0.5	800	900	0.3	200	0.97	1.15	3000	3200	80
1.8l injection 16V VIN Code 6C	0.5	800	900	0.3	200	0.97	1.03	2000	2500	80
1.8l injection VIN Code 1A and 9B	0.5	800	900	0.3	200	0.97	1.15	3000	3200	80
1.8l injection VIN Code LFXF	0.5	750	850	0.3	200	0.97	1.03	2000	2500	80
1.8l injection 16V VIN Code LFYC	0.5	800	900	0.3	200	0.97	1.03	2000	2500	80
1.8l injection 16V VIN Code LFYF	0.5	800	900	0.3	200	0.97	1.03	2000	2500	80
1.8l injection 16V Automatic VIN Code LFYM	0.5	750	850	0.3	200	0.97	1.03	2000	2500	80
2.0l injection 16V VIN Code 3E	0.5	750	850	0.3	200	0.97	1.03	2000	2500	80
2.0l injection VIN Code 5E	0.5	800	900	0.3	200	0.97	1.03	2000	2500	80
2.0l injection 16V VIN Code 9C	0.5	750	850	0.3	200	0.97	1.03	2000	2500	80
2.0l injection 16V VIN Code RFVF	0.5	750	850	0.3	200	0.97	1.03	2000	2500	80
2.0l injection 16V Automatic VIN Code RFVM	0.5	750	850	0.3	200	0.97	1.03	2000	2500	80
2.0l injection CT Turbo VIN Code RGXF	0.5	750	950	0.3	200	0.97	1.03	2000	2500	80
2.0l injection VIN Code 4A and 7B	0.5	800	900	0.3	200	0.97	1.03	2000	2500	80
3.0l injection V6 VIN Code XFZM	0.5	600	700	0.3	200	0.97	1.03	2000	2500	80
3.0l injection V6 VIN Code 5D	0.5	600	700	0.3	200	0.97	1.03	2000	2500	80
Activa VIN Code 1F	0.5	750	950	0.3	200	0.97	1.03	2000	2500	80
VSX-16 VIN Code 4F	0.5	830	930	0.3	200	0.97	1.03	2000	2500	80
VSX-16 VIN Code 5A	0.5	830	930	0.3	200	0.97	1.03	2000	2500	80
Turbo CT VIN Code 6E and 6D	0.5	750	950	0.3	200	0.97	1.03	2000	2500	80
1.8l injection 16v VIN Code LFYB	0.5	750	950	0.3	200	0.97	1.03	2000	3000	80
1.8l injection 16v VIN Code LFYN	0.5	750	950	0.3	200	0.97	1.03	2000	3000	80

1 Manufacturer/Marque	2			3						4 Min Oil Temp(°C)
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
XM series										
2.0l injection 16V Estate VIN Code GB and TU	0.5	750	850	0.3	200	0.97	1.03	2000	2500	80
2.0l injection 16V VIN Code CZ and TV	0.5	750	850	0.3	200	0.97	1.03	2000	2500	80
2.0l injection Turbo Estate VIN Code GM and TS	0.5	750	950	0.3	200	0.97	1.03	2000	2500	80
2.0l injection Turbo VIN Code AX and AY	0.5	750	950	0.3	200	0.97	1.03	2000	2500	80
2.0l injection Turbo VIN Code GG and TT	0.5	750	950	0.3	200	0.97	1.03	2000	2500	80
2.0l injection VIN Code AH and AR	0.5	750	850	0.3	200	0.97	1.03	2000	2500	80
3.0l V6 24V VIN Code AL	0.5	725	775	0.3	200	0.97	1.03	2000	2500	80
3.0l V6 24V VIN Code CU	0.5	725	775	0.3	200	0.97	1.03	2000	2500	80
3.0l V6 VIN Code AG and AW	0.5	725	775	0.3	200	0.97	1.03	2000	2500	80
3.0l V6 VIN Code CM and CN	0.5	725	775	0.3	200	0.97	1.03	2000	2500	80
3.0l V6 VIN Code TR and TN	0.5	725	775	0.3	200	0.97	1.03	2000	2500	80
3.0l injection V6 VIN Code WG and WJ	0.5	600	700	0.3	200	0.97	1.03	2000	2500	80
3.0l injection V6 Automatic VIN Code WH and WK	0.5	600	700	0.3	200	0.97	1.03	2000	2500	80
Berlingo Multispace (MPV)	(Also see Section II)									
1.1l injection VIN Code HDZF	0.5	800	900	0.3	200	0.97	1.03	2000	2500	80
1.4l injection VIN Code KFXF	0.5	800	900	0.3	200	0.97	1.03	2000	2500	80
1.4l injection VIN Code KFWB	0.5	750	950	0.3	200	0.97	1.03	2000	3000	80
1.4i VIN Code KFWC	0.5	650	900	0.3	200	0.97	1.03	2000	2500	80
1.6l injection 16v VIN Code NFUB	0.5	650	850	0.3	200	0.97	1.03	2000	3000	80
1.6l injection 16v VIN Code NFUP	0.5	800	900	0.3	200	0.97	1.03	2000	3000	80
1.6i VIN Code NFUC	0.5	650	900	0.3	200	0.97	1.03	2000	2500	80
1.6i VIN Code NFU1	0.5	650	900	0.3	200	0.97	1.03	2000	2500	80
1.6i VIN Code NFU9	0.5	650	900	0.3	200	0.97	1.03	2000	2500	80
1.8l injection VIN Code LFXF	0.5	750	850	0.3	200	0.97	1.03	2000	2500	80
1.6i Engine Code NFU	0.5	600	900	0.3	200	0.97	1.03	2000	3000	80
1.6i Engine Code NFR	0.5	600	900	0.3	200	0.97	1.03	2000	3000	80
1.6i Engine Code 5FK	0.5	600	900	0.3	200	0.97	1.03	2000	3000	80
1.6i Engine Code 5FS	0.5	550	850	0.3	200	0.97	1.03	2000	3000	80
Engine Code HNZ 1199cc	0.5	600	900	0.3	200	0.97	1.03	2000	3000	94
Synergie (MPV)	(Also see Section II)									
2.0l injection VIN Code UB	0.5	800	900	0.3	200	0.97	1.03	2000	2500	80

1	2			3						4
Manufacturer/Marque	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	Min Oil Temp(°C)
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit	Min Limit	Max Limit	Max CO Limit	Max HC Limit	Min Lambda	Max Lambda	Min Limit	Max Limit	
	(%) Vol)	(RPM)	(RPM)	(% Vol)	(PPM)			(RPM)	(RPM)	
2.0l injection VIN Code RFVB	0.5	750	850	0.3	200	0.97	1.03	2000	2500	80
2.0l injection 16v VIN Code RFNC	0.5	600	800	0.3	200	0.97	1.03	2000	3000	80
2.0l injection 16v VIN Code RFNF	0.5	600	800	0.3	200	0.97	1.03	2000	3000	80
Dispatch (MPV)	(Also see Section II)									
2.0i 16v VIN Code RFHC	0.5	600	800	0.3	200	0.97	1.03	2000	3000	80
Nemo Multispace	(Also see Section II)									
1.4i VIN Code KFVC	0.5	650	750	0.3	200	0.97	1.03	2000	3000	80
1.4i Engine Code KFT	0.5	650	850	0.3	200	0.97	1.03	2000	3000	80
COLEMAN MILNE (Refer to Section II for details relating to Ford Scorpio/Mercedes based Hearses & Saab/Ford Scorpio/Mercedes based Limousines)										
The engine code is located on the VIN plate attached to the bonnet slampanel.										
Rover based Limousine										
827 Vanden Plas From Serial No 203637 onwards	0.5	630	730	0.3	200	0.95	1.09	2500	3000	80
Saab 9000 based Limousines From Model Year 1992 Onwards (with catalyser)	(Also see Section II)									
Saab 9000 based Limousines (5 seat models only)	0.5	700	950	0.3	200	0.97	1.03	2000	2500	80
Saab 95 based Hearses										
Saab 95 based Hearse 2.0T	0.5	700	950	0.3	200	0.97	1.03	2000	2500	80
Saab 95 based Hearse 2.3T	0.5	700	950	0.3	200	0.97	1.03	2000	2500	80
Saab 95 based Hearse 2.3 Turbo	0.5	700	950	0.3	200	0.97	1.03	2000	2500	80
Saab 95 based Hearse 3.0 V6	0.5	700	950	0.3	200	0.97	1.03	2000	2500	80
Ford Scorpio based Limousine (5 seat)	(Also see Section II)									
Engine Type DOHC 2.0l 16V Engine Code N3A 5 seat models only	0.5	825	925	0.3	200	0.95	1.09	2800	3100	80
Engine Type DOHC 2.0l 8V Engine Code N9D or N9F 5 seat models only	0.5	825	925	0.3	200	0.95	1.09	2800	3100	80
Engine Type DOHC 2.0l 8V Engine Code NSD 5 seat models only	0.5	825	925	0.3	200	0.95	1.09	2800	3100	80
Engine Type V6 2.9l Engine Code BOB (Cosworth) 5 seat models only	0.5	675	775	0.3	200	0.95	1.09	2800	3100	80
Engine Type V6 2.9l Engine Code BRG 5 seat models only	0.5	850	950	0.3	200	0.95	1.09	2800	3100	80
Engine Type DOHC 2.3l Engine Code Y5A 5 seat models only	0.5	825	925	0.3	200	0.95	1.09	2800	3100	80
CORVETTE										
C6										
6.0L V8 Engine Code LS2 with Manual gearbox	0.3	635	665	0.2	200	0.97	1.03	2500	3000	80

1 Manufacturer/ Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
6.0L V8 Engine Code LS2 with Automatic gearbox	0.3	535	565	0.2	200	0.97	1.03	2500	3000	80
6.2L V8 Engine Code LS3 with Manual gearbox	0.3	635	665	0.2	200	0.97	1.03	2500	3000	80
6.2L V8 Engine Code LS3 with Automatic gearbox	0.3	535	565	0.2	200	0.97	1.03	2500	3000	80
Z06										
7.0L V8 - Engine Code LS7	0.3	735	765	0.2	200	0.97	1.03	2500	3000	80
ZR1										
6.2L V8 Supercharged - Engine Code LS9	0.3	635	665	0.2	200	0.97	1.03	2500	3000	80
DACIA										
The Engine Code is stamped on a plate attached to the engine. Exact location is given in the vehicle handbook. Alphanumeric in brackets may be found on the VIN or oval plate. X, * or ? may be replaced with any other letter or digit.										
Sandero 2013 onwards										
1.2 Engine Code 4DF	0.3	725	750	0.2	200	0.97	1.03	2500	3000	80
TC90	0.3	725	750	0.2	200	0.97	1.03	2500	3000	80
Sandero Stepway 2013 onwards										
898cc Engine Code H4BT	0.3	725	750	0.2	200	0.97	1.03	2500	3000	80
Duster 2013 onwards										
1.6 16V 105 4x2	0.3	725	750	0.2	200	0.97	1.03	2500	3000	80
1.6 16V 105 4x4	0.3	725	750	0.2	200	0.97	1.03	2500	3000	80
Logan 2013 onwards										
898cc Engine Code H4BT	0.3	725	750	0.2	200	0.97	1.03	2500	2800	80
1.2 Engine Code 4DF	0.3	725	750	0.2	200	0.97	1.03	2500	2800	80
1.4 LS??EH Engine Code K7Y ???	0.3	725	750	0.2	200	0.97	1.03	2500	2800	80
1.6 LS??FH Engine Code K7M ???	0.3	725	750	0.2	200	0.97	1.03	2500	2800	80
DAEW OO (See Section II for details on Korando and Musso models)										
Chassis No. is formed from the last eight digits of the VIN number.										
Nexia										
1.5 injection DOHC	0.5	750	850	0.3	200	0.97	1.03	2200	2800	80
1.5 injection SOHC	0.5	750	850	0.3	200	0.97	1.03	2200	2800	80

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (% Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
Nexia (from Chassis No. VB000001)										
1.5 injection DOHC	0.1	750	850	0.3	200	0.97	1.03	2200	2800	80
1.5 injection SOHC	0.1	750	850	0.3	200	0.97	1.03	2200	2800	80
Espero										
1.5 injection DOHC	0.5	750	850	0.3	200	0.97	1.03	2200	2800	80
1.8 injection SOHC	0.5	750	850	0.3	200	0.97	1.03	2200	2800	80
2.0 injection SOHC	0.5	750	850	0.3	200	0.97	1.03	2200	2800	80
Espero (from Chassis No VB000001)										
1.5 injection DOHC	0.1	750	850	0.3	200	0.97	1.03	2200	2800	80
1.8 injection SOHC	0.1	750	850	0.3	200	0.97	1.03	2200	2800	80
2.0 injection SOHC	0.1	750	850	0.3	200	0.97	1.03	2200	2800	80
Lanos										
1.4 S	0.1	775	875	0.3	200	0.97	1.03	2200	2800	80
1.4 SE	0.1	775	875	0.3	200	0.97	1.03	2200	2800	80
1.6 SX	0.1	775	875	0.3	200	0.97	1.03	2200	2800	80
Nubira										
1.6 SE	0.1	800	900	0.3	200	0.97	1.03	2200	2800	80
2.0 CDX	0.1	750	850	0.3	200	0.97	1.03	2200	2800	80
Leganza										
2.0 SX	0.1	800	900	0.3	200	0.97	1.03	2200	2800	80
2.0 CDX	0.1	800	900	0.3	200	0.97	1.03	2200	2800	80
Matiz										
0.8 SE/SE+	0.1	900	1000	0.3	200	0.97	1.03	2500	3000	80
Tacuma										
1.8 injection SOHC	0.1	775	875	0.3	200	0.97	1.03	2200	2800	80
2.0 injection DOHC	0.1	775	875	0.3	200	0.97	1.03	2200	2800	80
1.6 injection DOHC	0.1	750	1100	0.3	200	0.99	1.03	2200	2800	80

1 Manufacturer/Marque	2			3						4 Min Oil Temp(°C)
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
DAIHATSU										
See also Section II										
Charade										
G200 1.3l 4A/T EFi	0.5	800	900	0.3	200	0.97	1.03	2000	2400	80
G200 1.3l 5M/T EFi	0.5	750	850	0.3	200	0.97	1.03	2000	2400	80
G201 1.6l 5M/T EFi	0.5	750	850	0.3	200	0.97	1.03	2000	2400	80
G203 1.5l 5M/T EFi	0.5	750	850	0.3	200	0.97	1.03	2000	2400	80
G203 1.5l 4A/T EFi	0.5	800	900	0.3	200	0.97	1.03	2000	2400	80
G102 1.3l 5M/T EFi	0.5	800	900	0.3	200	0.97	1.03	2000	2400	80
G102 1.3l 3A/T EFi	0.5	800	900	0.3	200	0.97	1.03	2000	2400	80
NewCharade										
L251 1.0l MT	0.3	750	850	0.2	200	0.97	1.03	2300	2700	80
L251 1.0l AT	0.3	800	900	0.2	200	0.97	1.03	2300	2700	80
Applause										
A101 1.6l 3A/T EFi	0.5	800	900	0.3	200	0.97	1.03	2000	2400	80
A101 1.6l 5M/T EFi	0.5	750	850	0.3	200	0.97	1.03	2000	2400	80
Sportrak										
F300 1.6l 5M/T EFi	0.5	800	900	0.3	200	0.97	1.03	2000	2400	80
Cuore										
L501 850 5M/T	0.5	850	950	0.3	200	0.97	1.03	2000	2400	80
L701 1.0l 5M/T EFi	0.5	850	950	0.3	200	0.97	1.03	2000	2400	80
L701 1.0l 3 A/T EFi	0.5	850	950	0.3	200	0.97	1.03	2000	2400	80
Terios										
J100 1.3l 5M/T	0.5	850	900	0.3	200	0.97	1.03	2000	2400	80
J100 1.3l 4A/T	0.5	850	900	0.3	200	0.97	1.03	2000	2400	80
J102 1.3l EFi 5M/T	0.5	650	750	0.3	200	0.97	1.03	2000	2400	80
J102 1.3l EFi 4A/T	0.5	650	750	0.3	200	0.97	1.03	2000	2400	80
NewTerios										
J210 1.5	0.3	650	750	0.2	200	0.97	1.03	2300	2700	80

1 Manufacturer/Marque	2			3						4 Min Oil Temp(°C)
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
Grand Move										
G303 1.5l 5M/T	0.5	850	900	0.3	200	0.97	1.03	2000	2400	80
G303 1.5l 4A/T	0.5	850	900	0.3	200	0.97	1.03	2000	2400	80
G301 1.6l 5M/T EFI	0.5	850	900	0.3	200	0.97	1.03	2000	2400	80
G301 1.6l 4A/T EFI	0.5	850	900	0.3	200	0.97	1.03	2000	2400	80
Move										
L601 850 5M/T	0.5	850	950	0.3	200	0.97	1.03	2000	2400	80
L601 850 3A/T	0.5	850	950	0.3	200	0.97	1.03	2000	2400	80
L901 1.0l 5M/T EFI	0.5	850	950	0.3	200	0.97	1.03	2000	2400	80
L901 1.0l 4A/T EFI	0.5	850	950	0.3	200	0.97	1.03	2000	2400	80
Sirion										
M100 1.0l 4A/T EFI	0.5	800	900	0.3	200	0.97	1.03	2000	2400	80
M100 1.0l 5M/T EFI	0.5	800	900	0.3	200	0.97	1.03	2000	2400	80
M101 1.3l EFI 5M/T	0.5	650	750	0.3	200	0.97	1.03	2000	2400	80
M101 1.3l EFI 4A/T	0.5	650	750	0.3	200	0.97	1.03	2000	2400	80
M111 1.3 EFI 5M/T	0.5	650	750	0.3	200	0.97	1.03	2000	2400	80
YRV										
M201 1.3l EFI 5M/T	0.5	600	700	0.3	200	0.97	1.03	2000	2400	80
M201 1.3l EFI 4A/T	0.5	650	750	0.3	200	0.97	1.03	2000	2400	80
M201 1.3 EFI Turbo 4A/T	0.5	650	750	0.3	200	0.97	1.03	2000	2400	80
M211 1.3 EFI 4WD 5 M/T	0.5	600	700	0.3	200	0.97	1.03	2000	2400	80
Copen										
L880 660cc	0.3	700	800	0.2	200	0.97	1.03	2300	2700	80
L881 1.3	0.3	600	700	0.2	200	0.97	1.03	2300	2700	80
NewSirion										
M300 1.0l 5MT	0.5	750	850	0.3	200	0.97	1.03	2300	2500	80
M301 1.3l 5MT	0.5	600	700	0.3	200	0.97	1.03	2300	2500	80
M301 1.3l 4AT	0.5	650	750	0.3	200	0.97	1.03	2300	2500	80
M303 1.5l 5MT	0.3	600	700	0.2	200	0.97	1.03	2300	2700	80
M303 1.5l 4AT	0.3	650	750	0.2	200	0.97	1.03	2300	2700	80

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
Materia										
M402 1.5l 5MT	0.3	600	700	0.2	200	0.97	1.03	2300	2700	80
M402 1.5l 4AT	0.3	650	750	0.2	200	0.97	1.03	2300	2700	80
DODGE										
Caliber										
1.8 Manual 06-07 model year	0.3	650	750	0.2	200	0.97	1.03	2400	2600	98
2.0 CVT gearbox 06-07 model year	0.3	650	750	0.2	200	0.97	1.03	2400	2600	97
1.8 Manual 07-08 model year	0.3	650	750	0.2	200	0.97	1.03	2400	2600	98
2.0 CVT gearbox 07-08 model year	0.3	650	750	0.2	200	0.97	1.03	2400	2600	97
1.8 Manual 5 gears 08-09 model year	0.3	750	850	0.2	200	0.97	1.03	2350	2550	88
2.0 CVT gearbox 08-09 model year	0.3	650	750	0.2	200	0.97	1.03	2300	2500	84
1.8 Manual 5 gears 09 model year	0.3	750	850	0.2	200	0.97	1.03	2350	2550	88
2.0 CVT gearbox 09 model year	0.3	650	750	0.2	200	0.97	1.03	2375	2575	92
SRT-10										
SRT 10	0.3	650	850	0.2	200	0.97	1.03	2500	3000	93
6.3 Manual 06-07 model year	0.3	650	850	0.2	200	0.97	1.03	2400	2600	93
6.3 Manual 07-08 model year	0.3	650	850	0.2	200	0.97	1.03	2400	2600	93
Avenger										
2.4 Automatic 07-08 model year	0.3	750	850	0.2	200	0.97	1.03	2400	2600	86
2.0 Manual 07-08 model year	0.3	650	750	0.2	200	0.97	1.03	2400	2600	90
2.4 Automatic 4 gears 08-09 model year	0.3	600	800	0.2	200	0.97	1.03	2400	2600	86
2.0 Manual 5 gears 08-09 model year	0.3	700	900	0.2	200	0.97	1.03	2400	2600	90
Nitro										
3.7 Automatic 07-08 model year	0.3	550	650	0.2	200	0.97	1.03	2300	2500	91
3.7 Automatic 4 gears 08-09 model year	0.3	550	650	0.2	200	0.97	1.03	2450	2650	84
Journey										
2.4 Manual 5 gears 08-09 model year	0.3	650	750	0.2	200	0.97	1.03	2400	2600	83
2.4 Manual 5 gears 09 model year	0.3	650	750	0.2	200	0.97	1.03	2400	2600	83
2.4 Manual 5 gears 10 model year	0.3	650	750	0.2	200	0.97	1.03	2400	2600	83

1 Manufacturer/Marque	2			3						4 Min Oil Temp(°C)
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
	Vol)	(RPM)	(RPM)	(% Vol)	(PPM)			(RPM)	(RPM)	
FERRARI										
The engine number is located on the engine cylinder block. A diagram of its exact location can be found in the Owners Handbook. Any difficulty contact Ferrari GB Customer Care for advice.										
348 GTB/GTS/Spider	0.5	940	1060	0.3	200	0.97	1.03	2300	2700	80
348 tb/ts	0.5	900	1020	0.3	200	0.97	1.03	2300	2700	80
Mondial t	0.5	900	1020	0.3	200	0.97	1.03	2300	2700	80
456 GT (Manual)	0.5	900	1020	0.3	200	0.97	1.03	2300	2700	80
456 GTA (Automatic)	0.5	950	1050	0.3	200	0.97	1.03	2300	2700	80
456M GT (Manual)	0.5	900	1020	0.3	200	0.97	1.03	2300	2700	80
456M GTA (Automatic)	0.5	950	1050	0.3	200	0.97	1.03	2300	2700	80
512 TR	0.5	920	1000	0.3	200	0.97	1.03	2300	2700	80
512 M	0.5	910	1010	0.3	200	0.97	1.03	2300	2700	80
550 Maranello	0.5	900	1020	0.3	200	0.97	1.03	2300	2700	80
575M Maranello	0.4	900	1020	0.3	200	0.97	1.03	2300	2700	80
F355 Berlinetta/GTS/Spider	0.5	1000	1120	0.3	200	0.97	1.03	2300	2700	80
F355 F1 Berlinetta/GTS/Spider	0.5	1000	1120	0.3	200	0.97	1.03	2300	2700	80
360 Modena	0.4	1000	1120	0.3	200	0.97	1.03	2300	2700	80
360 Challenge Stradale	0.4	1000	1120	0.3	200	0.97	1.03	2300	2700	80
360 Spider	0.4	1000	1120	0.3	200	0.97	1.03	2300	2700	80
F40	0.5	900	1100	0.3	200	0.97	1.03	2300	2700	80
F50	0.5	950	1050	0.3	200	0.97	1.03	2300	2700	80
Enzo	0.4	900	1020	0.3	200	0.97	1.03	2300	2700	80
F430 Spider	0.4	900	1020	0.3	200	0.97	1.03	2300	2700	80
F430 Coupé	0.4	900	1020	0.3	200	0.97	1.03	2300	2700	80
430 Scuderia	0.4	900	1020	0.3	200	0.97	1.03	2300	2700	80
599 GTB Fiorano	0.4	900	1020	0.3	200	0.97	1.03	2300	2700	80
612 Scaglietti	0.4	900	1020	0.3	200	0.97	1.03	2300	2700	80
458 Italia	0.4	700	1020	0.3	200	0.97	1.03	2300	2700	80
458 Spider	0.4	700	1020	0.3	200	0.97	1.03	2300	2700	80
458 Speciale	0.4	700	1020	0.3	200	0.97	1.03	2300	2700	80
California	0.4	700	1020	0.3	200	0.97	1.03	2300	2700	80

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
California 30	0.4	700	1020	0.3	200	0.97	1.03	2300	2700	80
FF	0.4	700	1020	0.3	200	0.97	1.03	2000	2500	80
F12	0.4	700	1020	0.3	200	0.97	1.03	2000	2500	80
La Ferrari	0.4	700	1020	0.3	200	0.97	1.03	2000	2500	80
458 Speciale Aperta	0.4	720	1020	0.3	200	0.97	1.03	2300	2700	80
California T	0.4	720	1020	0.2	200	0.97	1.03	1250	2500	90
488 GTB	0.4	690	1020	0.2	200	0.97	1.03	1250	2500	90
488 Spider	0.4	690	1020	0.2	200	0.97	1.03	1250	2500	90
F12 Tour de France	0.4	750	1020	0.2	200	0.97	1.03	1250	2500	90
GTC4 Lusso	0.4	720	1020	0.2	200	0.97	1.03	1250	2500	90
GTC4 Lusso T	0.4	720	1020	0.2	200	0.97	1.03	1250	2500	90
812 Superfast	0.4	720	1020	0.2	200	0.97	1.03	1250	2500	90

FIAT

Engine Codes appear on the VIN Plate as well as on the Engine Block.

See also Section II

Cinquecento

Cinquecento	0.5	800	900	0.3	200	0.97	1.03	2500	2900	80
Cinquecento Sporting	0.35	850	950	0.3	200	0.97	1.03	2500	2900	80

Panda

With Engine Codes 156A2.246, 156C.046, 141C2.000 and 176B2.000	0.35	800	900	0.3	200	0.97	1.03	2500	2900	80
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Panda (VIN Prefix ZFA169000)

1.1 and 1.2	0.3	700	800	0.2	200	0.97	1.03	2500	2900	80
4 x 4	0.3	700	800	0.2	200	0.97	1.03	2000	3000	80
100HP (1.4 16v)	0.3	700	800	0.2	200	0.97	1.03	2000	3000	80

Panda 2012 (VIN Prefix ZFA312000)

0.9 TwinAir Turbo	0.3	800	900	0.2	200	0.97	1.03	2200	2800	80
1.2 8v	0.1	650	750	0.2	200	0.97	1.03	2100	2700	80

Panda 2013-2014

0.9 85bhp TwinAir	0.3	800	900	0.2	200	0.97	1.03	2400	2600	92
1.2 69bhp	0.3	660	760	0.2	200	0.97	1.03	2300	2500	93

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
Panda 2014-2015										
0.9 85bhp	0.3	800	900	0.2	200	0.97	1.03	2450	2550	92
0.9 85bhp Semi Automatic	0.3	800	900	0.2	200	0.97	1.03	2450	2550	99
0.9 85bhp 4x4	0.3	780	880	0.2	200	0.97	1.03	2450	2550	95
1.2 8v 69bhp	0.3	660	760	0.2	200	0.97	1.03	2390	2490	93
Panda 2016-2017										
0.9 85bhp Manual	0.3	770	870	0.2	200	0.97	1.03	2450	2590	95
0.9 85bhp Manual 4x4	0.3	660	760	0.2	200	0.97	1.03	2490	2590	87
0.9 90bhp Manual	0.3	700	800	0.2	200	0.97	1.03	2518	2618	89
Fiorino Combi (VIN Prefix ZFA225000)										
1.4	0.5	700	800	0.2	200	0.97	1.03	2000	3000	80
Uno										
Non turbo versions with Engine codes 156A2.246, 156C.046, 160A1.046 and 146A1.046	0.35	800	900	0.3	200	0.97	1.03	2500	2900	80
Turbo version with Engine Code 146A8.046	0.35	850	950	0.3	200	0.97	1.03	2500	2900	80
Tipo										
With Engine Codes 160A1.046, 836A4.000, 159A3.048, 835C1.000, 159A6.046, 160A8.046 and 836A3.000	0.35	800	900	0.3	200	0.97	1.03	2500	2900	80
Tipo Hatchback 2016-2017										
1.4 95bhp Manual	0.3	710	810	0.2	200	0.97	1.03	2339	2439	102
1.4 120bhp Manual	0.3	690	790	0.2	200	0.97	1.03	2442	2542	99
Tipo Station Wagon 2016-2017										
1.4 95bhp Manual	0.3	710	810	0.2	200	0.97	1.03	2339	2439	102
1.4 120bhp Manual	0.3	690	790	0.2	200	0.97	1.03	2442	2542	99
Tempra										
Tempra 1.6 with Engine Code 159B9.000	0.35	820	880	0.3	200	0.97	1.03	2500	2900	80
Tempra with Engine Codes 159A3.048, 159A6.046 and 835C1.000	0.35	800	900	0.3	200	0.97	1.03	2500	2900	80
Croma (VIN Prefix ZFA154000)										
2.0 ie with Engine Code 154C3.046	0.35	800	900	0.3	200	0.97	1.03	2500	2900	80
Croma (2005 on) (VIN Prefix ZFA194000)										
1.8 16V	0.3	800	900	0.2	200	0.97	1.03	2000	3000	80
2.2 16V	0.4	670	830	0.2	200	0.97	1.03	2700	3300	80

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
Punto (VIN Prefix ZFA176000)	(Also see Section II)									
Punto 55, 60, 75	0.35	850	950	0.3	200	0.97	1.03	2500	2900	80
Punto 85 16V, 85 Cabrio and (85) Sporting with Engine Code 176B9.000	0.35	800	900	0.3	200	0.97	1.03	2500	2900	80
Punto 90, 90 Cabrio and (90) Sporting with Engine Code 176A9.000	0.35	820	880	0.3	200	0.97	1.03	2500	2900	80
Punto G.T	0.35	800	900	0.3	200	0.97	1.03	2500	2900	80
Punto (VIN Prefix ZFA188000)	(Also see Section II)									
1.2 8V (Euro II versions indicated by version code on VIN plate 188AXA1A 00B or 00E, 188BXA1A 01B or 01E)	0.5	700	800	0.3	200	0.97	1.03	3200	3600	80
1.2 8V (Euro III and IV versions 2001 onwards)	0.3	700	800	0.2	200	0.97	1.03	2500	2900	80
1.2 16V	0.5	650	800	0.3	200	0.97	1.03	2500	2900	80
1.4 16V	0.3	700	800	0.2	200	0.97	1.03	2500	2900	80
HGT (1.8 16V)	0.5	800	850	0.3	200	0.97	1.03	2500	2900	80
Punto Evo and Punto 2012 (VIN Prefix ZFA199000)										
1.2 8v and 1.4 8v	0.3	650	750	0.2	200	0.97	1.03	2100	2700	80
1.4 16v MultiAir, MultiAir Turbo and Abarth	0.3	700	800	0.2	200	0.97	1.03	2100	2700	80
0.9 TwinAir Turbo	0.3	800	900	0.2	200	0.97	1.03	2200	2800	80
Punto 2013-2014										
1.2 69bhp	0.3	680	780	0.2	200	0.97	1.03	2510	3510	83
1.4 77bhp	0.3	660	760	0.2	200	0.97	1.03	2600	2800	98
0.9 85bhp TwinAir	0.3	830	930	0.2	200	0.97	1.03	2600	2800	86
1.4 105bhp MultiAir	0.3	690	790	0.2	200	0.97	1.03	2400	2600	100
Punto 2014-2015										
1.2 8v 69bhp	0.3	680	780	0.2	200	0.97	1.03	2510	2610	83
1.4 8v 77bhp	0.3	660	760	0.2	200	0.97	1.03	2650	2750	98
Punto 2016-2017										
1.4 77bhp Manual	0.3	660	760	0.2	200	0.97	1.03	2650	2750	99
(Grande) Punto (VIN Prefix ZFA199000)										
1.2	0.3	650	750	0.2	200	0.97	1.03	2100	2700	80
1.4/1.4 16v	0.3	650	750	0.2	200	0.97	1.03	2100	2700	80
1.4 T-Jet	0.3	700	800	0.2	200	0.97	1.03	2100	2700	80
Abarth	0.3	700	800	0.2	200	0.97	1.03	2100	2700	80

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
Brava/Bravo/Marea										
1.4 12V/1.6 16V/1.8 16V/80 16V/100 16V/115 16V	0.35	750	900	0.3	200	0.97	1.03	2500	2900	80
80 16V with Engine Code 188A5.000	0.5	700	800	0.3	200	0.97	1.03	2500	2900	80
100 16V with Engine Code 182B6.000	0.5	650	750	0.3	200	0.97	1.03	2500	2900	80
2.0 20V/155 20V	0.35	650	800	0.3	200	0.97	1.03	2500	2900	80
150 20V with Engine Code 185A8.000	0.5	650	750	0.3	200	0.97	1.03	2500	2900	80
Bravo (2007 on) (VIN Prefix ZFA198000)										
1.4 16V/1.4 T-Jet 120/1.4 T-Jet 150/1.4 MultiAir 140	0.3	700	800	0.2	200	0.97	1.03	2100	2700	80
Bravo 2013-2014										
1.4 90bhp	0.3	680	780	0.2	200	0.97	1.03	2400	2600	100
1.4 140bhp	0.3	710	810	0.2	200	0.97	1.03	2500	2700	96
Coupé										
16V/16V Turbo	0.35	800	900	0.3	200	0.97	1.03	2500	2900	80
20V/20V Turbo	0.35	700	800	0.3	200	0.97	1.03	2500	2900	80
Barchetta										
Barchetta with Engine Code 183A1.000	0.35	800	900	0.3	200	0.97	1.03	2500	2900	80
Barchetta with Engine Code 188A6.000	0.5	800	850	0.3	200	0.97	1.03	2500	2900	80
Ulysse (VIN Prefix ZFA220000)										
2.0l	0.5	800	900	0.3	200	0.97	1.03	2500	2900	80
2.0 16V	0.5	600	800	0.3	200	0.97	1.03	2500	2900	80
Ulysse (VIN Prefix ZFA179000)										
2.0 16v	0.5	600	800	0.3	200	0.97	1.03	2500	2900	80
Seicento										
All versions with Engine Codes 1170A1.046 and 176B2.000	0.35	800	900	0.3	200	0.97	1.03	2500	2900	80
All versions with Engine Code 187A1.000	0.5	700	800	0.3	200	0.97	1.03	2500	2900	80
Doblò (VIN Prefix ZFA223000)										
1.2	0.5	730	830	0.3	200	0.97	1.03	2500	2900	80
1.4	0.5	650	750	0.2	200	0.97	1.03	2100	2700	80
Doblò (VIN Prefix ZFA263000)										
1.4	0.5	700	800	0.2	200	0.97	1.03	2100	2700	80

1 Manufacturer/ Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
Doblo 2013-2014										
1.4 95bhp	0.3	700	800	0.2	200	0.97	1.03	2330	3330	99
Doblo 2014-2015										
1.4 95bhp	0.3	700	800	0.2	200	0.97	1.03	2330	2430	99
Multipla										
100 16V with Engine Code 182A4.000	0.5	750	850	0.3	200	0.97	1.03	2500	2900	80
100 16V with Engine Code 182B6.000	0.5	650	750	0.3	200	0.97	1.03	2500	2900	80
Stilo (Hatchback and Multi Wagon)										
1.2 16v	0.5	700	800	0.3	200	0.97	1.03	2500	2900	80
1.4 16V	0.3	700	800	0.2	200	0.97	1.03	2500	2900	80
1.6 16v	0.5	650	850	0.3	200	0.97	1.03	2500	2900	80
1.8 16v	0.5	800	850	0.3	200	0.97	1.03	2500	2900	80
2.4 20v	0.5	650	800	0.3	200	0.97	1.03	2500	2900	80
Idea										
1.4 16V	0.3	700	800	0.2	200	0.97	1.03	2500	2900	80
Sedici										
1.6	0.2	650	750	0.2	200	0.97	1.03	2400	2600	80
500										
0.9 TwinAir Turbo	0.3	800	900	0.2	200	0.97	1.03	2200	2800	80
1.2	0.1	650	750	0.2	200	0.97	1.03	2100	2700	80
1.4 16v	0.3	700	800	0.2	200	0.97	1.03	2000	3000	80
Abarth	0.3	700	800	0.2	200	0.97	1.03	2100	2700	80
500 2013-2014										
0.9 85bhp TwinAir	0.3	770	870	0.2	200	0.97	1.03	2700	2900	83
1.2 69bhp	0.3	650	750	0.2	200	0.97	1.03	2500	2700	95
500 2014-2015										
0.9 85bhp	0.3	770	870	0.2	200	0.97	1.03	2450	2550	97
0.9 105bhp	0.3	780	880	0.2	200	0.97	1.03	2460	2560	92
1.2 69bhp	0.3	650	750	0.2	200	0.97	1.03	2590	2690	95
500 Facelift 2015-2017										
0.9 85bhp Manual	0.3	770	870	0.2	200	0.97	1.03	2450	2550	97

1 Manufacturer/Marque	2			3						4 Min Oil Temp(°C)
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (% Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
0.9 85bhp Semi Automatic	0.3	770	870	0.2	200	0.97	1.03	2750	2850	83
0.9 105bhp Manual	0.3	780	880	0.2	200	0.97	1.03	2460	2560	92
1.2 69bhp ECO Manual	0.3	650	750	0.2	200	0.97	1.03	2590	2690	95
1.2 69bhp Manual	0.3	650	750	0.2	200	0.97	1.03	2590	2690	95
1.2 69bhp Semi Automatic	0.3	650	750	0.2	200	0.97	1.03	2760	2860	97
500C 2014-2015										
0.9 85bhp	0.3	770	870	0.2	200	0.97	1.03	2450	2550	97
0.9 105bhp	0.3	780	880	0.2	200	0.97	1.03	2460	2560	92
1.2 69bhp	0.3	650	750	0.2	200	0.97	1.03	2590	2690	95
500C Facelift 2015-2017										
0.9 85bhp Manual	0.3	770	870	0.2	200	0.97	1.03	2450	2550	97
0.9 105bhp Manual	0.3	780	880	0.2	200	0.97	1.03	2460	2560	92
1.2 69bhp Manual	0.3	650	750	0.2	200	0.97	1.03	2590	2690	95
500L 2013-2014										
0.9 105bhp TwinAir	0.3	780	880	0.2	200	0.97	1.03	2600	2800	87
1.4 95bhp	0.3	700	800	0.2	200	0.97	1.03	2300	2500	102
500L 2014-2015										
0.9 105bhp	0.3	680	780	0.2	200	0.97	1.03	2630	2730	87
1.4 95bhp	0.3	700	800	0.2	200	0.97	1.03	2380	2480	102
500L 2016-2017										
0.9 105bhp Manual	0.3	780	880	0.2	200	0.97	1.03	2630	2730	87
1.4 120bhp Manual	0.3	690	790	0.2	200	0.97	1.03	2487	2587	93
500L MPW (LWB) 2013-2014										
0.9 105bhp TwinAir	0.3	800	900	0.2	200	0.97	1.03	2600	2800	87
500L MPW 2014-2015										
0.9 105bhp	0.3	680	780	0.2	200	0.97	1.03	2630	2730	87
1.4 95bhp	0.3	700	800	0.2	200	0.97	1.03	2380	2480	102
500L MPW 2016-2017										
0.9 105bhp Manual	0.3	780	880	0.2	200	0.97	1.03	2630	2730	87
500X 2015										
1.6 110bhp	0.3	690	790	0.2	200	0.97	1.03	2515	2615	94

1 Manufacturer/ Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (% Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	Min Oil Temp(°C)
1.4 140bhp Semi Automatic	0.3	700	800	0.2	200	0.97	1.03	2378	2478	100
1.4 140bhp	0.3	710	810	0.2	200	0.97	1.03	2447	2547	98
1.4 170bhp AWD	0.3	690	790	0.2	200	0.97	1.03	2553	2653	100
Qubo										
1.4	0.5	700	800	0.2	200	0.97	1.03	2000	3000	80
Qubo 2013-2014										
1.4	0.3	710	810	0.2	200	0.97	1.03	2500	2700	82
Qubo 2014-2015										
1.4 77bhp	0.3	710	810	0.2	200	0.97	1.03	2550	2650	82
Qubo 2015-2016										
1.4 77bhp	0.3	790	890	0.2	200	0.97	1.03	2389	2489	102
124 Spider 2017										
1.4 140bhp Turbo Manual	0.3	690	790	0.2	200	0.97	1.03	2451	2551	103
1.4 140bhp Turbo Automatic	0.3	740	840	0.2	200	0.97	1.03	2270	2370	98

FORD

The Engine Code can be found either on the VIN plate or engine block.

See also Section II

Ka Engine Type HCS / ENDURA-E

1.3l Engine Code JJ	0.5	825	925	0.3	200	0.95	1.09	2800	3100	80
1.3l Engine Code J4	0.5	825	925	0.3	200	0.95	1.09	2800	3100	80

Ka Engine Type DURATEC 8V

1.3l Engine Code A9	0.3	830	930	0.2	200	0.95	1.03	2800	3100	80
1.2l Engine Code AAA	0.3	700	800	0.2	200	0.97	1.03	2100	2700	80
1.2l Engine Code ABA	0.3	650	850	0.2	200	0.97	1.03	2100	2700	80

Sport Ka Engine Type DURATEC 8V

1.6l Engine Code CD	0.3	830	930	0.2	200	0.95	1.03	2800	3100	80
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Street Ka Engine Type DURATEC 8V

1.6l Engine Code CDR	0.3	830	930	0.2	200	0.95	1.03	2800	3100	80
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1	2			3						4
Manufacturer/ Marque	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	Min Oil Temp(°C)
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
Ka+ Engine Type DURATEC										
1.2l Engine Code YSK	0.3	830	930	0.2	200	0.95	1.03	2800	3100	80
1.2l Engine Code B2K	0.3	830	930	0.2	200	0.95	1.03	2800	3100	80
1.5l Engine Code UEK	0.3	830	930	0.2	200	0.95	1.03	2800	3100	80
Fiesta Engine Type HCS and HCS / ENDURA-E										
1.1l Engine Code G6	0.5	850	950	0.3	200	0.95	1.09	2800	3100	80
1.3l Engine Code J6	0.5	850	950	0.3	200	0.95	1.09	2800	3100	80
1.3l Engine Code J4	0.5	830	930	0.3	200	0.95	1.09	2800	3100	80
1.3l Engine Code JJ	0.5	825	925	0.3	200	0.95	1.09	2800	3100	80
Fiesta Engine Type CVH and CVH / PTE										
1.4l Engine Code F6 Manual	0.5	870	930	0.3	200	0.95	1.09	2800	3100	80
1.4l Engine Code F6 Automatic	0.5	800	900	0.3	200	0.95	1.09	2800	3100	80
1.4l Engine Code F4	0.5	850	950	0.3	200	0.95	1.09	2800	3100	80
1.6l Engine Code LJ	0.5	850	950	0.3	200	0.95	1.09	2800	3100	80
Fiesta Engine Type ZETEC										
1.6l Engine Code L1	0.5	825	925	0.3	200	0.95	1.09	2800	3100	80
1.8l Engine Code RD	0.5	825	925	0.3	200	0.95	1.09	2800	3100	80
1.8l Engine Code RQ	0.5	825	925	0.3	200	0.95	1.09	2800	3100	80
Fiesta Engine Type ZETEC-S										
1.25l Engine Code DH	0.5	830	930	0.3	200	0.95	1.09	2800	3100	80
1.4l Engine Code FH	0.5	825	925	0.3	200	0.95	1.09	2800	3100	80
Fiesta Engine Type DURATEC 8V										
1.3l Engine Code A9J	0.3	700	800	0.2	200	0.97	1.03	2800	3100	80
Fiesta Engine Type DURATEC 16V										
Fiesta 1.25l Engine Code FUJ	0.3	700	800	0.2	200	0.97	1.03	2800	3100	80
Fiesta 1.25l Engine Code SNJ	0.3	700	850	0.2	200	0.97	1.03	2500	3000	80
Fiesta 1.25l Engine Code STJ	0.3	700	850	0.2	200	0.97	1.03	2500	3000	80
Fiesta 1.4l Engine Code FXJ	0.3	700	800	0.2	200	0.97	1.03	2800	3100	80
Fiesta 1.4l Engine Code SPJ	0.3	700	850	0.2	200	0.97	1.03	2500	3000	80
Fiesta 1.4l Engine Code RTJ	0.3	700	800	0.2	200	0.97	1.03	2800	3100	80
Fiesta 1.5l Engine Code UEJ	0.3	650	850	0.2	200	0.97	1.03	2500	3000	80

1 Manufacturer/Marque	2			3						4 Min Oil Temp(°C)
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
Fiesta 1.6l Engine Code FYJ	0.3	700	800	0.2	200	0.97	1.03	2800	3100	80
Fiesta Engine Type DURATEC VI VCT										
1.6l Engine Code HXJ	0.3	700	850	0.2	200	0.97	1.03	2500	3000	80
1.6l Engine Code U5J	0.3	700	800	0.2	200	0.97	1.03	2500	3000	80
Fiesta Engine Type DURATEC-HE										
2.0l Engine Code N4J	0.3	650	750	0.2	200	0.97	1.03	2500	3000	80
Fiesta Engine Type DURATEC										
1.0l Engine Code XMJ	0.3	760	960	0.2	200	0.97	1.03	2500	3000	80
1.0l Engine Code P4J	0.3	760	960	0.2	200	0.97	1.03	2500	3000	80
Fiesta Engine Type EcoBoost										
1.0l Engine Code SFJ	0.3	760	960	0.2	200	0.97	1.03	2500	3000	80
1.0l Engine Code M1J	0.3	760	960	0.2	200	0.97	1.03	2500	3000	80
1.6l Engine Code JTJ	0.3	650	850	0.2	200	0.97	1.03	2500	3000	80
1.6l Engine code YYJ	0.3	760	960	0.2	200	0.97	1.03	2500	3000	80
Fusion Engine Type DURATEC 16V										
1.4l Engine Code FXJ	0.3	700	800	0.2	200	0.97	1.03	2800	3100	80
1.6l Engine Code FYJ	0.3	700	800	0.2	200	0.97	1.03	2800	3100	80
Puma Engine Type ZETEC-S										
1.4l Engine Code FH	0.5	825	925	0.3	200	0.95	1.09	2800	3100	80
1.6l Engine Code L1	0.5	825	925	0.3	200	0.95	1.09	2800	3100	80
1.7l Engine Code MH	0.5	800	900	0.3	200	0.95	1.09	2800	3100	80
B-Max Engine Type EcoBoost										
1.0l Engine Code SFJ	0.3	760	960	0.2	200	0.97	1.03	2500	3000	80
1.0l Engine Code M1J	0.3	760	960	0.2	200	0.97	1.03	2500	3000	80
1.0l Engine Code YYJ	0.3	760	960	0.2	200	0.97	1.03	2500	3000	80
B-Max Engine Type DURATEC 16V										
1.4l Engine Code SPJ	0.3	650	850	0.2	200	0.97	1.03	2500	3000	80
1.4l Engine Code RTJ	0.3	650	850	0.2	200	0.97	1.03	2500	3000	80
B-Max Engine Type DURATEC VI VCT										
1.6l Engine Code IQJ	0.3	650	850	0.2	200	0.97	1.03	2500	3000	80

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
Ecosport Engine Type EcoBoost										
1.0l Engine Code YYJ	0.3	760	960	0.2	200	0.97	1.03	2500	3000	80
1.0l Engine Code M1J	0.3	760	960	0.2	200	0.97	1.03	2500	3000	80
Ecosport Engine Type DURATEC 16V										
1.5l Engine Code UEJ	0.3	650	850	0.2	200	0.97	1.03	2500	3000	80
Escort/Orion Engine Type HCS and HCS / ENDURA-E										
1.3l Engine Code J6	0.5	850	950	0.3	200	0.95	1.09	2800	3100	80
1.3l Engine Code J4	0.5	800	900	0.3	200	0.95	1.09	2800	3100	80
Escort/Orion Engine Type CVH and CVH / PTE										
1.4l Engine Code F6 Manual	0.5	870	930	0.3	200	0.95	1.09	2800	3100	80
1.4l Engine Code F6 Automatic	0.5	800	900	0.3	200	0.95	1.09	2800	3100	80
1.4l Engine Code F4	0.5	840	900	0.3	200	0.95	1.09	2800	3100	80
1.6l Engine Code LJ	0.5	850	950	0.3	200	0.95	1.09	2800	3100	80
Escort/Orion Engine Type ZETEC and ZETEC-E										
1.6l Engine Code L1	0.5	825	925	0.3	200	0.95	1.09	2800	3100	80
1.8l Engine Code RD	0.5	825	925	0.3	200	0.95	1.09	2800	3100	80
1.8l Engine Code RK	0.5	830	930	0.3	200	0.95	1.09	2800	3100	80
1.8l Engine Code RQ	0.5	825	925	0.3	200	0.95	1.09	2800	3100	80
Escort/Orion Engine Type DOHC 16V										
2.0l Engine Code N7	0.5	900	1000	0.3	200	0.95	1.09	2800	3100	80
Escort/Orion Engine Type DOHC (Cosworth)										
2.0l Engine Code N5*	0.5	800	950	0.3	200	0.95	1.09	2800	3100	80
Focus Engine Type ZETEC-S										
1.4l Engine Code FXD	0.5	680	800	0.3	200	0.95	1.09	2800	3100	80
1.6l Engine Code FYD	0.5	680	800	0.3	200	0.95	1.09	2800	3100	80
Focus Engine Type ZETEC-E										
1.8l Engine Code EYD	0.5	680	800	0.3	200	0.95	1.09	2800	3100	80
2.0l Engine Code EDD	0.5	680	800	0.3	200	0.95	1.09	2800	3100	80
2.0l Engine Code ALD (ST170)	0.3	800	900	0.2	200	0.97	1.03	2800	3100	80
2.0l Engine Code HMD Turbo	0.3	800	900	0.2	200	0.95	1.03	2800	3100	80

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (% Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
Focus Engine Type DURATEC VI VCT										
1.6l Engine Code SID	0.3	625	825	0.2	200	0.97	1.03	2500	3000	80
2005MY Focus Engine Type DURATEC 16V										
1.4l Engine Code ASD	0.3	725	825	0.2	200	0.97	1.03	2500	3000	80
1.6l Engine Code HWD Manual	0.3	675	775	0.2	200	0.97	1.03	2500	3000	80
1.6l Engine Code HWD Automatic	0.3	750	850	0.2	200	0.97	1.03	2500	3000	80
2005MY Focus Engine Type DURATEC 16V VCT										
1.6l Engine Code HXD	0.3	625	825	0.2	200	0.97	1.03	2500	3000	80
2005MY Focus Engine Type DURATEC-HE										
1.8l Engine Code QQD	0.3	650	750	0.2	200	0.97	1.03	2500	3000	80
2.0l Engine Code AOD	0.3	650	750	0.2	200	0.97	1.03	2500	3000	80
2006MY Focus Engine Type DURATEC-HE FFV										
1.8l Engine code Q7D	0.3	650	750	0.2	200	0.97	1.03	2500	3000	80
2006MY Focus Engine Type DURATEC VCT 20V TURBO										
2.5l Engine Code HYD	0.3	750	850	0.2	200	0.97	1.03	2500	3000	80
Focus Engine Type DURATEC 16V HPDC										
1.6l Engine Code SHD Automatic	0.3	750	850	0.2	200	0.97	1.03	2500	3000	80
1.6l Engine Code SHD Manual	0.3	625	825	0.2	200	0.97	1.03	2500	3000	80
Focus Vignale Engine Type DURATEC-HE										
2.0l Engine Code AOD	0.3	650	750	0.2	200	0.97	1.03	2500	3000	80
Focus Vignale Engine Type DURATEC 16V										
1.6l Engine Code HWD Manual	0.3	675	775	0.2	200	0.97	1.03	2500	3000	80
Focus RS Engine Type DURATEC 20V VCT Turbo										
2.5l Engine Code JZD	0.3	620	720	0.2	200	0.97	1.03	2500	3000	80
Focus Engine Type DURATEC 16V VCT										
1.6l Engine Code IQD	0.3	700	900	0.2	200	0.97	1.03	2500	3000	80
1.6l Engine Code PND	0.3	700	900	0.2	200	0.97	1.03	2500	3000	80
1.6l Engine Code XTD	0.3	700	900	0.2	200	0.97	1.03	2500	3000	80
Focus Engine Type EcoBoost										
1.0l Engine Code M1D	0.3	760	960	0.2	200	0.97	1.03	2500	3000	80
1.0l Engine Code M2D	0.3	760	960	0.2	200	0.97	1.03	2500	3000	80

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
1.0l Engine Code SFD	0.3	760	960	0.2	200	0.97	1.03	2500	3000	80
1.5l Engine Code M8D	0.3	760	960	0.2	200	0.97	1.03	2500	3000	80
1.5l Engine Code M9D	0.3	760	960	0.2	200	0.97	1.03	2500	3000	80
1.6l DI Engine Code JQD	0.3	650	850	0.2	200	0.97	1.03	2500	3000	80
1.6l DI Engine Code JTD	0.3	650	850	0.2	200	0.97	1.03	2500	3000	80
1.6l Engine Code YUD	0.3	760	960	0.2	200	0.97	1.03	2500	3000	80
2.0l Engine Code SFD	0.3	550	750	0.2	200	0.97	1.03	2500	3000	80
2.3l Engine Code YVD	0.3	760	960	0.2	200	0.97	1.03	2500	3000	80
Focus Engine Type GDi 16V VCT										
2.0l Engine Code MGD	0.3	650	850	0.2	200	0.97	1.03	2500	3000	80
Focus Engine Type GDTi 16V VCT										
1.5l Engine Code M8D	0.3	650	850	0.2	200	0.97	1.03	2500	3000	80
1.5l Engine Code M9D	0.3	650	850	0.2	200	0.97	1.03	2500	3000	80
2.0l Engine Code R9D	0.3	660	860	0.2	200	0.97	1.03	2500	3000	80
C-Max Engine Type DURATEC 16V										
1.6l Engine Code HWD	0.3	675	775	0.2	200	0.97	1.03	2500	3000	80
C-Max Engine Type DURATEC 16V VCT										
1.6l Engine Code HXD	0.3	625	825	0.2	200	0.97	1.03	2500	3000	80
1.6l Engine Code IQD	0.3	700	900	0.2	200	0.97	1.03	2500	3000	80
1.6l Engine Code PND	0.3	700	900	0.2	200	0.97	1.03	2500	3000	80
1.6l Engine Code XTD	0.3	700	900	0.2	200	0.97	1.03	2500	3000	80
C-Max Engine Type DURATEC-HE										
1.8l Engine Code CSD	0.3	650	750	0.2	200	0.97	1.03	2500	3000	80
1.8l Engine Code QQD	0.3	650	750	0.2	200	0.97	1.03	2500	3000	80
2.0l Engine Code AOD	0.3	650	750	0.2	200	0.97	1.03	2500	3000	80
C-MAX Engine Type DURATEC-HE FFV										
1.8l Engine Code Q7D	0.3	650	750	0.2	200	0.97	1.03	2500	3000	80
C-MAX Engine Type DURATEC 16V HPDC										
1.6l Engine Code SHD	0.3	625	825	0.2	200	0.97	1.03	2500	3000	80
C-MAX Engine Type DURATEC VI VCT										
1.6l Engine Code SID	0.3	625	825	0.2	200	0.97	1.03	2500	3000	80

1 Manufacturer/ Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
C-MAX Engine Type EcoBoost										
1.0l Engine Code M1D	0.3	760	960	0.2	200	0.97	1.03	2500	3000	80
1.0l Engine Code M2D	0.3	760	960	0.2	200	0.97	1.03	2500	3000	80
1.5l Engine Code M8D	0.3	650	850	0.2	200	0.97	1.03	2500	3000	80
1.5l Engine Code M9D	0.3	650	850	0.2	200	0.97	1.03	2500	3000	80
1.6l DI Engine Code JQD	0.3	650	850	0.2	200	0.97	1.03	2500	3000	80
1.6l DI Engine Code JTD	0.3	650	850	0.2	200	0.97	1.03	2500	3000	80
S-MAX Engine Type DURATEC-HE										
2.0l Engine Code AOW	0.3	750	850	0.2	200	0.97	1.03	2500	3000	80
2.0l Engine Code TNW	0.3	660	860	0.2	200	0.97	1.03	2500	3000	80
2.3l Engine Code SEW	0.3	750	850	0.2	200	0.97	1.03	2500	3000	80
S-MAX Engine Type DURATEC VCT 20V Turbo										
2.5l Engine Code HUW	0.3	750	850	0.2	200	0.97	1.03	2500	3000	80
S-MAX Engine Type DURATEC-HE FVV										
2.0l Engine Code TBW	0.3	750	850	0.2	200	0.97	1.03	2500	3000	80
S-MAX Engine Type EcoBoost										
1.5l Engine Code UNC	0.3	650	850	0.2	200	0.97	1.03	2500	3000	80
1.6l DI Engine Code JTW	0.3	650	850	0.2	200	0.97	1.03	2500	3000	80
2.0l DI Engine Code R9C	0.3	760	960	0.2	200	0.97	1.03	2500	3000	80
Sierra Engine Type CVH										
1.6l Engine Code L6	0.5	850	950	0.3	200	0.95	1.09	2800	3100	80
Sierra Engine Type ICVH										
1.8l Engine Code R6	0.5	850	950	0.3	200	0.95	1.09	2800	3100	80
Sierra Engine Type DOHC (Use engine code found on front of engine not on VIN plate)										
2.0l Engine Code N9C	0.5	825	925	0.3	200	0.95	1.09	2800	3100	80
Sierra Engine Type DOHC (Cosworth)										
2.0l Engine Code N5*	0.5	850	950	0.3	200	0.95	1.09	2800	3100	80
Sierra Engine Type V6										
2.9l Engine Code B4	0.5	850	950	0.3	200	0.95	1.09	2800	3100	80
Mondeo Engine Type ZETEC										
1.6l Engine Code L1	0.5	830	930	0.3	200	0.95	1.09	2800	3100	80

1 Manufacturer/ Marque	2			3						4 Min Oil Temp(°C)
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (% Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
1.8l Engine Code RK Manual	0.5	830	930	0.3	200	0.95	1.09	2800	3100	80
1.8l Engine Code RK Automatic	0.5	660	760	0.3	200	0.95	1.09	2800	3100	80
2.0l Engine Code NG Manual	0.5	830	930	0.3	200	0.95	1.09	2800	3100	80
2.0l Engine Code NG Automatic	0.5	660	760	0.3	200	0.95	1.09	2800	3100	80
Mondeo Engine Type V6 DURATEC										
2.5l Engine Code SE	0.5	670	770	0.3	200	0.95	1.09	2800	3100	80
2.5l Engine Code SG	0.5	670	770	0.3	200	0.95	1.09	2800	3100	80
Mondeo Engine Type DURATEC VI VCT										
1.6l Engine Code RHB	0.3	700	800	0.2	200	0.97	1.03	2500	3000	80
1.6l Engine Code PNB	0.3	700	800	0.2	200	0.97	1.03	2500	3000	80
Mondeo Engine Type DURATEC VCT 20V TURBO										
2.5l Engine Code HUB	0.3	750	850	0.2	200	0.97	1.03	2500	3000	80
Mondeo Engine Type DURATEC-FFV										
2.0l Engine Code TBB	0.3	750	850	0.2	200	0.97	1.03	2500	3000	80
Mondeo Engine Type DURATEC-HE										
2.0l Engine Code AOB	0.3	750	850	0.2	200	0.97	1.03	2500	3000	80
2.0l Engine Code TNB	0.3	660	860	0.2	200	0.97	1.03	2500	3000	80
2.3l Engine Code SEB	0.3	750	850	0.2	200	0.97	1.03	2500	3000	80
2000 MY Mondeo Engine Type DURATEC-HE										
1.8l Engine Code CGB	0.5	675	725	0.3	200	0.95	1.09	2800	3100	80
1.8l Engine Code CHB	0.5	675	725	0.3	200	0.95	1.09	2800	3100	80
2.0l Engine Code CJB	0.5	675	725	0.3	200	0.95	1.09	2800	3100	80
2000 MY Mondeo Engine Type DURATEC-HE SCi										
1.8l Engine Code CFB	0.3	725	775	0.2	200	0.95	1.03	3800	4200	80
2000 MY Mondeo Engine Type V6 DURATEC 24V										
2.5l Engine Code LCB	0.5	850	950	0.3	200	0.95	1.09	2800	3100	80
3.0l Engine Code MEB	0.5	670	770	0.3	200	0.95	1.03	2800	3100	80
3.0l Engine Code REB	0.3	670	770	0.2	200	0.97	1.03	2500	3000	80
Mondeo Engine Type EcoBoost										
1.0l DI Engine Code M1C	0.3	660	860	0.2	200	0.97	1.03	2500	3000	80
1.5l Engine Code UNC	0.3	650	850	0.2	200	0.97	1.03	2500	3000	80

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
1.6l DI Engine Code JTB	0.3	650	850	0.2	200	0.97	1.03	2500	3000	80
2.0l DI Engine Code TNB	0.3	660	860	0.2	200	0.97	1.03	2500	3000	80
2.0l DI Engine Code TPB	0.3	660	860	0.2	200	0.97	1.03	2500	3000	80
2.0l DI Engine Code R9C	0.3	760	960	0.2	200	0.97	1.03	2500	3000	80
Probe Engine Type I4 16V										
2.0l Engine Code FS	0.5	650	750	0.3	200	0.95	1.09	2800	3100	80
Probe Engine Type V6 24V										
2.5l Engine Code KL	0.5	600	700	0.3	200	0.95	1.09	2800	3100	80
Cougar Engine Type ZETEC-E										
2.0l Engine Code EDB Manual	0.5	830	930	0.3	200	0.95	1.09	2800	3100	80
2.0l Engine Code EDB Automatic	0.5	660	760	0.3	200	0.95	1.09	2800	3100	80
Cougar Engine Type V6 DURATEC-VE										
2.5l Engine Code LCB	0.5	675	775	0.3	200	0.95	1.09	2800	3100	80
2.5l Engine Code MAB	0.5	675	775	0.3	200	0.95	1.09	2800	3100	80
Granada/Scorpio Engine Type DOHC 8V										
2.0l Engine Code N9D (Use engine code found on front of engine not on VIN plate)	0.5	825	925	0.3	200	0.95	1.09	2800	3100	80
2.0l Engine Code NS	0.5	825	925	0.3	200	0.95	1.09	2800	3100	80
Granada/Scorpio Engine Type DOHC 16V										
2.0l Engine Code N3	0.5	825	925	0.3	200	0.95	1.09	2800	3100	80
2.3l Engine Code Y5	0.5	825	925	0.3	200	0.95	1.09	2800	3100	80
Granada/Scorpio Engine Type V6 12V										
2.9l Engine Code BR	0.5	850	950	0.3	200	0.95	1.09	2800	3100	80
Granada/Scorpio Engine Type V6 (Cosworth) 24V										
2.9l Engine Code BO	0.5	675	775	0.3	200	0.95	1.09	2800	3100	80
(Also see Section II)										
2.0l Engine Code NS - less than 7 seat model	0.5	825	925	0.3	200	0.95	1.09	2800	3100	80
(Also see Section II)										
2.3l Engine Code Y5 - less than 7 seat model	0.5	825	925	0.3	200	0.95	1.09	2800	3100	80
(Also see Section II)										
2.8l Engine Code AA - less than 7 seat model	0.5	650	750	0.3	200	0.95	1.09	2800	3100	80
2.8l Engine Code AM - less than 7 seat model	0.5	650	750	0.3	200	0.95	1.09	2800	3100	80

1 Manufacturer/Marque	2			3						4 Min Oil Temp(°C)
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (% Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
2.8l Engine Code AY - less than 7 seat model	0.5	650	750	0.3	200	0.95	1.09	2800	3100	80
Galaxy Engine Type DOHC	(Also see Section II)									
2.0l Engine Code ZVS - less than 7 seat model	0.5	825	925	0.3	200	0.95	1.09	2800	3100	80
2.3l Engine Code E5S - less than 7 seat model	0.5	825	925	0.3	200	0.95	1.09	2800	3100	80
Galaxy Engine Type DURATEC-HE										
2.0l Engine Code AOW	0.3	750	850	0.2	200	0.97	1.03	2500	3000	80
2.3l Engine Code SEW	0.3	750	850	0.2	200	0.97	1.03	2500	3000	80
2.0l Engine Code TNW	0.3	660	860	0.2	200	0.97	1.03	2500	3000	80
Galaxy Engine Type DURATEC-HE FVV										
2.0l Engine Code TBW	0.3	750	850	0.2	200	0.97	1.03	2500	3000	80
Galaxy Engine Type EcoBoost										
1.5l Engine Code UNC	0.3	650	850	0.2	200	0.97	1.03	2500	3000	80
1.6l DI Engine Code JTW	0.3	650	850	0.2	200	0.97	1.03	2500	3000	80
2.0l DI Engine Code R9C	0.3	760	960	0.2	200	0.97	1.03	2500	3000	80
Kuga Engine Type DURATEC VCT 20V Turbo										
2.5l Engine Code HYB	0.3	625	825	0.2	200	0.97	1.03	2500	3000	80
Kuga Engine Type EcoBoost										
1.5l Engine Code M8M	0.3	650	850	0.2	200	0.97	1.03	2500	3000	80
1.5l Engine Code M9M	0.3	650	850	0.2	200	0.97	1.03	2500	3000	80
1.5l Engine Code BNM	0.3	650	850	0.2	200	0.97	1.03	2500	3000	80
1.6l DI Engine Code JQD	0.3	650	850	0.2	200	0.97	1.03	2500	3000	80
1.6l DI Engine Code JTD	0.3	650	850	0.2	200	0.97	1.03	2500	3000	80
Maverick Engine Type OHC 12V	(Also see Section II)									
2.4l Engine Code KA	0.5	750	850	0.3	200	0.95	1.09	2800	3100	80
Maverick Engine Type ZETEC-E 16V	(Also see Section II)									
2.0l Engine Code YF	0.5	700	800	0.3	200	0.95	1.03	2800	3100	80
Maverick Engine Type DURATEC-V6	(Also see Section II)									
3.0l Engine Code AJ	0.5	700	800	0.3	200	0.95	1.03	2800	3100	80
Transit / Tourneo Engine Type OHC	(Also see Section II)									
2.0l Engine Code NC	0.5	850	950	0.3	200	0.95	1.09	2800	3100	80

1	2			3						4	
Manufacturer/Marque	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	Min Oil Temp(°C)	
	Normal Idle Speed			Fast Idle Speed							
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)		
Transit / Tourneo Engine Type DOHC 8V (Also see Section II)											
2.0l Engine Code NS	0.5	825	975	0.3	200	0.95	1.09	2800	3100	80	
Transit / Tourneo Engine Type V6 (Also see Section II)											
2.9l Engine Code BR	0.5	850	950	0.3	200	0.95	1.09	2800	3100	80	
Transit / Tourneo Connect Engine Type ZETEC-E / DURATEC (Also see Section II)											
1.8l Engine Code EYP	0.5	670	730	0.3	200	0.95	1.03	2800	3100	80	
Transit / Tourneo Connect Engine Type EcoBoost (Also see Section II)											
1.0l DI Engine Code M2G	0.3	660	860	0.2	200	0.97	1.03	2500	3000	80	
Transit / Tourneo Engine Type DOHC 16V (Also see Section II)											
2.3l Engine Code E5F	0.5	825	975	0.3	200	0.95	1.09	2800	3100	80	
Transit / Tourneo Engine Type DOHC DURATEC HE (Also see Section II)											
2.3l Engine Code GZF	0.3	700	800	0.2	200	0.97	1.03	1950	2050	80	
Transit Courier Engine Type EcoBoost (Also see Section II)											
1.0l Engine Code SFC	0.3	760	960	0.2	200	0.97	1.03	2500	3000	80	
FSO											
Caro											
1.5l GLi	0.5	850	950	0.3	200	0.97	1.03	2300	2800	80	
1.6l GLi	0.5	850	950	0.3	200	0.97	1.03	2500	3000	80	
GENERAL MOTORS											
The VIN Code consists of the 10th & 8th characters of the VIN number respectively. The Engine Code is on the Emissions Systems label located in the engine compartment.											
Buick											
Electra Park Avenue 3.8l V6 4A/T VIN Code NL Engine Code L27	0.5	475	800	0.3	200	0.97	1.03	2500	3000	80	
Electra Park Avenue 3.8l V6 4A/T VIN Code PL Engine Code L27	0.5	475	800	0.3	200	0.97	1.03	2500	3000	80	
Electra Park Avenue 3.8l V6 4A/T VIN Code RL Engine Code L27	0.5	475	800	0.3	200	0.97	1.03	2500	3000	80	
Electra Park Avenue 3.8l V6 4A/T VIN Code SK Engine Code L36	0.5	475	800	0.3	200	0.97	1.03	2500	3000	80	
Electra Park Avenue 3.8l V6 4A/T VIN Code TK Engine Code L36	0.5	450	1500	0.3	200	0.97	1.03	2500	3000	80	
Cadillac											
Eldorado 4.6l V8 4A/T VIN Code P9 Engine Code L37	0.5	675	725	0.3	200	0.97	1.03	2500	3000	80	

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
Eldorado 4.6l V8 4A/T VIN Code R9 Engine Code L37	0.5	675	725	0.3	200	0.97	1.03	2500	3000	80
Eldorado 4.6l V8 4A/T VIN Code S9 Engine Code L37	0.5	600	650	0.3	200	0.97	1.03	2500	3000	80
Eldorado 4.6l V8 4A/T VIN Code T9 Engine Code L37	0.5	450	1500	0.3	200	0.97	1.03	2500	3000	80
Eldorado 4.6l V8 4A/T VIN Code V9 Engine Code L37	0.5	450	1500	0.3	200	0.97	1.03	2500	3000	80
Eldorado 4.9l V8 4A/T VIN Code NB Engine Code L26	0.5	625	700	0.3	200	0.97	1.03	2500	3000	80
Fleetwood 4.9l V8 4A/T VIN Code NB Engine Code L26	0.5	625	700	0.3	200	0.97	1.03	2500	3000	80
Fleetwood 5.7l V8 4A/T VIN Code P7 Engine Code LO5	0.5	500	600	0.3	200	0.97	1.03	2500	3000	80
Fleetwood 5.7l V8 4A/T VIN Code RP Engine Code LT1	0.5	500	600	0.3	200	0.97	1.03	2500	3000	80
Fleetwood 5.7l V8 4A/T VIN Code SP Engine Code LT1	0.5	500	600	0.3	200	0.97	1.03	2500	3000	80
Seville 4.6l V8 4A/T VIN Code P9 Engine Code L37	0.5	675	725	0.3	200	0.97	1.03	2500	3000	80
Seville 4.6l V8 4A/T VIN Code R9 Engine Code L37	0.5	675	725	0.3	200	0.97	1.03	2500	3000	80
Seville 4.6l V8 4A/T VIN Code S9 Engine Code L37	0.5	600	650	0.3	200	0.97	1.03	2500	3000	80
Seville 4.6l V8 4A/T VIN Code T9 Engine Code L37	0.5	450	1500	0.3	200	0.97	1.03	2500	3000	80
Seville 4.6l V8 4A/T VIN Code V9 Engine Code L37	0.5	450	1500	0.3	200	0.97	1.03	2500	3000	80
Seville 4.9l V8 4A/T VIN Code MB Engine Code L26	0.5	625	700	0.3	200	0.97	1.03	2500	3000	80
Seville 4.6l V8 4A/T VIN Code W9 Engine Code L37	0.5	450	1500	0.3	200	0.97	1.03	2500	3000	80
Seville 4.6l V8 4A/T VIN Code WY Engine Code LD8	0.5	450	1500	0.3	200	0.97	1.03	2500	3000	80
Seville 4.6l V8 4A/T VIN Code X9 Engine Code L37	0.5	450	1500	0.3	200	0.97	1.03	2500	3000	80
Seville 4.6l V8 4A/T VIN Code XY Engine Code LD8	0.5	450	1500	0.3	200	0.97	1.03	2500	3000	80
Seville 4.6l V8 4A/T VIN Code Y9 Engine Code L37	0.5	675	725	0.3	200	0.97	1.03	2500	3000	80
Seville 4.6l V8 4A/T VIN Code YY Engine Code LD8	0.5	675	725	0.3	200	0.97	1.03	2500	3000	80
Seville 4.6l V8 4A/T VIN Code 19 Engine Code L37	0.5	675	725	0.3	200	0.97	1.03	2500	3000	80
Seville 4.6l V8 4A/T VIN Code 29 Engine Code L37	0.5	675	725	0.3	200	0.97	1.03	2500	3000	80
Chevrolet										
Blazer 4.3l V6 4A/T VIN Code NW Engine Code L35	0.5	475	650	0.3	200	0.97	1.03	2500	3000	80
Blazer 4.3l V6 4A/T VIN Code PW Engine Code L35	0.5	475	575	0.3	200	0.97	1.03	2500	3000	80
Blazer 4.3l V6 4A/T VIN Code RW Engine Code L35	0.5	600	700	0.3	200	0.97	1.03	2500	3000	80
Blazer 4.3l V6 4A/T VIN Code SW Engine Code L35	0.5	475	575	0.3	200	0.97	1.03	2500	3000	80
Blazer 4.3l V6 5M/T VIN Code PW Engine Code L35	0.5	475	575	0.3	200	0.97	1.03	2500	3000	80
Blazer 4.3l V6 4A/T VIN Code TW Engine Code L35	0.5	450	1500	0.3	200	0.97	1.03	2500	3000	80
Blazer 4.3l V6 4A/T VIN Code VW Engine Code L35	0.5	450	1500	0.3	200	0.97	1.03	2500	3000	80
Blazer 4.3l V6 4A/T VIN Code WW Engine Code L35	0.5	450	1500	0.3	200	0.97	1.03	2500	3000	80

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
Blazer 4.3l V6 5M/T VIN Code WW Engine Code L35	0.5	450	1500	0.3	200	0.97	1.03	2500	3000	80
Blazer 4.3l V6 4A/T VIN Code XW Engine Code L35	0.5	450	1500	0.3	200	0.97	1.03	2500	3000	80
Blazer 4.3l V6 5M/T VIN Code XW Engine Code L35	0.5	450	1500	0.3	200	0.97	1.03	2500	3000	80
Blazer 4.3l V6 VIN Code YW, Engine Code L35	0.5	450	1500	0.3	200	0.97	1.03	2500	3000	80
Blazer 4.3l V6 VIN Code 2W Engine Code L35	0.5	450	1500	0.3	200	0.97	1.03	2500	3000	80
Corvette 5.7l V8 4A/T VIN Code NP Engine Code LT1	0.5	475	600	0.3	200	0.97	1.03	2500	3000	80
Corvette 5.7l V8 4A/T VIN Code PP Engine Code LT1	0.5	475	575	0.3	200	0.97	1.03	2500	3000	80
Corvette 5.7l V8 4A/T VIN Code RP Engine Code LT1	0.5	500	600	0.3	200	0.97	1.03	2500	3000	80
Corvette 5.7l V8 4A/T VIN Code SP Engine Code LT1	0.5	500	600	0.3	200	0.97	1.03	2500	3000	80
Corvette 5.7l V8 6M/T VIN Code RP Engine Code LT1	0.5	700	800	0.3	200	0.97	1.03	2500	3000	80
Corvette 5.7l V8 6M/T VIN Code SP Engine Code LT1	0.5	600	700	0.3	200	0.97	1.03	2500	3000	80
Corvette 5.7l V8 4A/T VIN Code TP Engine Code LT1	0.5	450	1500	0.3	200	0.97	1.03	2500	3000	80
Corvette 5.7l V8 4A/T VIN Code VG Engine Code LS1	0.5	450	1500	0.3	200	0.97	1.03	2500	3000	80
Corvette 5.7l V8 6M/T VIN Code T5 Engine Code LT4	0.5	450	1500	0.3	200	0.97	1.03	2500	3000	80
Corvette 5.7l V8 6M/T VIN Code VG Engine Code LS1	0.5	450	1500	0.3	200	0.97	1.03	2500	3000	80
Corvette 5.7l V8 4A/T VIN Code WG Engine Code LS1	0.5	450	1500	0.3	200	0.97	1.03	2500	3000	80
Corvette 5.7l V8 6M/T VIN Code WG Engine Code LS1	0.5	450	1500	0.3	200	0.97	1.03	2500	3000	80
Corvette 5.7l V8 4A/T VIN Code XG Engine Code LS1	0.5	450	1500	0.3	200	0.97	1.03	2500	3000	80
Corvette 5.7l V8 VIN Code YG Engine Code LS1	0.5	450	1500	0.3	200	0.97	1.03	2500	3000	80
Corvette 5.7l V8 6M/T VIN Code XG Engine Code LS1	0.5	450	1500	0.3	200	0.97	1.03	2500	3000	80
Corvette 5.7l V8 VIN Code 1G Engine Code LS1	0.5	450	1500	0.3	200	0.97	1.03	2500	3000	80
Corvette 5.7l V8 VIN Code 2G Engine Code LS1	0.5	450	1500	0.3	200	0.97	1.03	2500	3000	80
Camaro 3.8l V6 4A/T VIN Code WK Engine Code L36	0.5	725	1325	0.3	200	0.97	1.03	2500	3000	80
Camaro 3.8l V6 5M/T VIN Code WK Engine Code L36	0.5	725	1325	0.3	200	0.97	1.03	2500	3000	80
Camaro 5.7l V8 4A/T VIN Code WG Engine Code LS1	0.5	450	1500	0.3	200	0.97	1.03	2500	3000	80
Camaro 5.7l V8 6M/T VIN Code WG Engine Code LS1	0.5	450	1500	0.3	200	0.97	1.03	2500	3000	80
Camaro 3.8l V6 4A/T VIN Code XK Engine Code L36	0.5	725	1325	0.3	200	0.97	1.03	2500	3000	80
Camaro 3.8l V6 5M/T VIN Code XK Engine Code L36	0.5	725	1325	0.3	200	0.97	1.03	2500	3000	80
Camaro 5.7l V8 4A/T VIN Code XG Engine Code LS1	0.5	450	1500	0.3	200	0.97	1.03	2500	3000	80
Camaro 5.7l V8 6M/T VIN Code XG Engine Code LS1	0.5	450	1500	0.3	200	0.97	1.03	2500	3000	80
Camaro 3.8l V6 VIN Code YK Engine Code L36	0.5	725	1325	0.3	200	0.97	1.03	2500	3000	80
Camaro 5.7l V8 VIN Code YG Engine Code LS1	0.5	450	1500	0.3	200	0.97	1.03	2500	3000	80

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
										Min Oil Temp(°C)
Camaro 3.8l V6 VIN Code 1K Engine Code L36	0.5	725	1325	0.3	200	0.97	1.03	2500	3000	80
Camaro 3.8l V6 VIN Code 2K Engine Code L36	0.5	725	1325	0.3	200	0.97	1.03	2500	3000	80
Camaro 5.7l V8 VIN Code 1G Engine Code LS1	0.5	450	1500	0.3	200	0.97	1.03	2500	3000	80
Camaro 5.7l V8 VIN Code 2G Engine Code LS1	0.5	450	1500	0.3	200	0.97	1.03	2500	3000	80
Pontiac										
Firebird 3.4l V6 4A/T VIN Code PS Engine Code L32	0.5	475	800	0.3	200	0.97	1.03	2500	3000	80
Firebird 3.4l V6 5M/T VIN Code PS Engine Code L32	0.5	475	800	0.3	200	0.97	1.03	2500	3000	80
Firebird 3.4l V6 4A/T VIN Code RS Engine Code L32	0.5	475	800	0.3	200	0.97	1.03	2500	3000	80
Firebird 3.4l V6 5M/T VIN Code RS Engine Code L32	0.5	475	800	0.3	200	0.97	1.03	2500	3000	80
Firebird 3.4l V6 4A/T VIN Code SS Engine Code L32	0.5	475	800	0.3	200	0.97	1.03	2500	3000	80
Firebird 3.4l V6 5M/T VIN Code SS Engine Code L32	0.5	475	800	0.3	200	0.97	1.03	2500	3000	80
Firebird 3.8l V6 4A/T VIN Code TK Engine Code L36	0.5	450	1500	0.3	200	0.97	1.03	2500	3000	80
Firebird 3.8l V6 4A/T VIN Code VK Engine Code L36	0.5	450	1500	0.3	200	0.97	1.03	2500	3000	80
Firebird 5.7l V8 4A/T VIN Code N8 Engine Code L98	0.5	500	600	0.3	200	0.97	1.03	2500	3000	80
Firebird 5.7l V8 4A/T VIN Code PP Engine Code LT1	0.5	500	600	0.3	200	0.97	1.03	2500	3000	80
Firebird 5.7l V8 4A/T VIN Code RP Engine Code LT1	0.5	500	600	0.3	200	0.97	1.03	2500	3000	80
Firebird 5.7l V8 4A/T VIN Code SP Engine Code LT1	0.5	500	600	0.3	200	0.97	1.03	2500	3000	80
Firebird 5.7l V8 4A/T VIN Code TP Engine Code LT1	0.5	450	1500	0.3	200	0.97	1.03	2500	3000	80
Firebird 5.7l V8 4A/T VIN Code VP Engine Code LT1	0.5	450	1500	0.3	200	0.97	1.03	2500	3000	80
Trans Sport 3.8l V6 4A/T VIN Code NL Engine Code L27	0.5	475	800	0.3	200	0.97	1.03	2500	3000	80
HMC SPORTSCARS										
Lightweight	0.5	550	800	0.3	200	0.95	1.09	2500	3000	70
Mk IV	0.5	550	800	0.3	200	0.95	1.09	2500	3000	70
Silverstone	0.5	550	800	0.3	200	0.95	1.09	2500	3000	70

1 Manufacturer/Marque	2			3						4 Min Oil Temp(°C)
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit	Min Limit	Max Limit	Max CO Limit	Max HC Limit	Min Lambda	Max Lambda	Min Limit	Max Limit	
	(% Vol)	(RPM)	(RPM)	(% Vol)	(PPM)			(RPM)	(RPM)	
HONDA	Refer to Section II for details relating to the Shuttle and Stream									
The Serial Code consists of the 4th, 5th, and 6th digits of the VIN number. The Serial Number consists of the last 7 digits of the VIN number.										
Civic										
Coupé Serial Code EJ2	0.5	650	850	0.3	200	0.97	1.03	2500	3000	80
Coupé Serial Code EJ8	0.5	650	850	0.3	200	0.97	1.03	2500	3000	80
Coupé Serial Code EJ6	0.5	650	950	0.3	200	0.97	1.03	2500	3000	80
DX/Bali/Glasier 3 door Serial Code EG3	0.5	700	950	0.3	200	0.97	1.03	2500	3000	80
ESi 3 door Serial Code EG5	0.5	650	950	0.3	200	0.97	1.03	2500	3000	80
ESi 4 door Serial Code EH9	0.5	650	950	0.3	200	0.97	1.03	2500	3000	80
LSi/Bel-Air 3 door Serial Code EG4	0.5	700	950	0.3	200	0.97	1.03	2500	3000	80
LSi/Bel-Air 4 door Serial Code EG8	0.5	700	950	0.3	200	0.97	1.03	2500	3000	80
VEi 3 door Serial Code EG4 Engine Code D15Z	0.5	500	750	0.3	200	0.97	1.03	2500	3000	80
VTi 3 door Serial Code EG6	0.5	700	950	0.3	200	0.97	1.03	2500	3000	80
VTi 4 door Serial Code EG9	0.5	700	950	0.3	200	0.97	1.03	2500	3000	80
CRX ESi Serial Code EH6	0.5	650	950	0.3	200	0.97	1.03	2500	3000	80
CRX VTi Serial Code EG2	0.5	700	950	0.3	200	0.97	1.03	2500	3000	80
1.6l VTi/Jordon 3/4 door Serial Code EK4	0.5	700	900	0.3	200	0.97	1.03	2500	3000	80
1.4l i/S 3/4 door Serial Code EJ9	0.5	700	900	0.3	200	0.97	1.03	2500	3000	80
1.4l Hawaii 3 door Serial Code EJ9	0.5	700	900	0.3	200	0.97	1.03	2500	3000	80
1.6l ESi 3 door Serial Code EK1	0.5	650	900	0.3	200	0.97	1.03	2500	3000	80
1.5l LS 3/4 door Serial Code EK3	0.5	600	800	0.3	200	0.97	1.03	2500	3000	80
1.4l Tornado 3 door Serial Code EJ9	0.5	700	900	0.3	200	0.97	1.03	2500	3000	80
1.4l i/S 5 door Serial Code MA8	0.5	650	900	0.3	200	0.97	1.03	2500	3000	80
1.5l 5 door Serial Code MA9 Engine Code D15Z	0.5	650	900	0.3	200	0.97	1.03	2500	3000	80
1.6l S/SR 5 door Serial Code MB1	0.5	650	900	0.3	200	0.97	1.03	2500	3000	80
1.4l i/S 5 door Serial Code MB2	0.5	650	900	0.3	200	0.97	1.03	2500	3000	80
1.5l i/LS 5 door Serial Code MB3	0.5	650	900	0.3	200	0.97	1.03	2500	3000	80
1.6l LS/ES 5 door Serial Code MB4	0.5	650	900	0.3	200	0.97	1.03	2500	3000	80
1.8l VTi/S 5 door Serial Code MB6	0.5	700	950	0.3	200	0.97	1.03	2500	3000	80
1.4l S/SE Serial Code EU5/EU7	0.3	600	800	0.2	200	0.97	1.03	2500	3000	80
1.6l S/SE Serial Code EU6/EU8	0.3	600	800	0.2	200	0.97	1.03	2500	3000	80

1 Manufacturer/ Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
1.5l Aerodeck Serial Code MB9	0.5	650	850	0.3	200	0.97	1.03	2500	3000	80
1.6l Aerodeck Serial Code MC1	0.5	650	850	0.3	200	0.97	1.03	2500	3000	80
1.8l VTi/S Aerodeck Serial Code MC2	0.5	650	900	0.3	200	0.97	1.03	2500	3000	80
1.4l 3 door Serial Code EP1	0.3	600	800	0.2	200	0.97	1.03	2500	3000	80
1.6l 3 door Serial Code EP2	0.3	600	800	0.2	200	0.97	1.03	2500	3000	80
2.0l Type R Serial Code EP3	0.3	700	850	0.2	200	0.97	1.03	2500	3000	80
2.0l 5 door Serial Code EV1	0.3	650	750	0.2	200	0.97	1.03	2500	3000	80
1.4l 5 door Serial Code FK1	0.2	650	750	0.2	200	0.97	1.03	2500	3000	80
1.8l 5 door Serial Code FK2	0.2	600	700	0.2	200	0.97	1.03	2500	3000	80
1.8l 3 door Serial Code FN1	0.2	620	750	0.2	200	0.97	1.03	2500	3000	80
2.0l 3 door Type R Serial Code FN2	0.2	700	800	0.2	200	0.97	1.03	2500	3000	80
1.4l 3 door Serial Code FN4	0.2	650	750	0.2	200	0.97	1.03	2500	3000	80
1.4l Manual 5 door Serial Code FK1. 2012YM on. 10th digit of VIN is C or greater	0.2	650	750	0.2	200	0.97	1.03	2500	3000	80
1.8l Manual 5 door Serial Code FK2. 2012YM on. 10th digit of VIN is C or greater	0.2	630	730	0.2	200	0.97	1.03	2500	3000	80
1.8l Automatic 5 door Serial Code FK2. 2012YM on. 10th digit of VIN is C or greater	0.2	600	700	0.2	200	0.97	1.03	2500	3000	80
1.8l Manual Estate Serial Code FK2. 2014YM on. 10th digit of VIN is E or greater	0.2	630	730	0.2	200	0.97	1.03	2500	3000	80
1.8l Automatic Estate Serial Code FK2. 2014YM on. 10th digit of VIN is E or greater	0.2	600	700	0.2	200	0.97	1.03	2500	3000	80
2.0l Type R VTEC Turbo Serial Code FK2. 2015MY on. 10th digit of VIN is F or greater	0.2	730	830	0.2	200	0.97	1.03	2500	3000	80
1.0l VTEC Turbo Serial Code FK6. 2017MY on.	0.2	900	1000	0.2	200	0.97	1.03	2500	3000	80
1.5l VTEC Turbo Serial Code FK7. 2017MY on.	0.2	670	770	0.2	200	0.97	1.03	2500	3000	80
2.0l Type R VTEC Turbo Serial Code FK8. 2017MY on.	0.2	700	800	0.2	200	0.97	1.03	2500	3000	80
Concerto										
1.5l Serial Number D150000 onwards	0.5	700	900	0.3	200	0.97	1.03	2500	3000	80
1.6l Serial Number D150000 onwards	0.5	700	900	0.3	200	0.97	1.03	2500	3000	80
1.6l 16V Serial Number D150000 onwards	0.5	650	900	0.3	200	0.97	1.03	2500	3000	80
Shuttle										
(Also see Section II)										
2.2l Shuttle LS/ES - Serial Code RA1	0.5	670	920	0.3	200	0.97	1.03	2500	3000	80
2.3l Shuttle LS/ES - Serial Code RA3	0.5	700	850	0.3	200	0.97	1.03	2500	3000	80
Stream										
(Also see Section II)										
Stream 1.7l Serial Code RN1	0.5	650	750	0.3	200	0.97	1.03	2500	3000	80
Stream 1.7l Serial Code RN1, 1 July 2002 onwards	0.3	650	750	0.2	200	0.97	1.03	2500	3000	80
Stream 2.0l Serial Code RN3	0.5	650	750	0.3	200	0.97	1.03	2500	3000	80

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
Stream 2.0l Serial Code RN3, 1 July 2002 onwards	0.3	650	750	0.2	200	0.97	1.03	2500	3000	80
Accord										
2.0l injection 4 door Serial Code CB3 Serial Number C100000 onwards	0.5	650	850	0.3	200	0.97	1.03	2500	3000	80
2.0l 4 door Serial Code CC7	0.5	700	850	0.3	200	0.97	1.03	2500	3000	80
2.0l Coupé Serial Code CC1	0.5	600	900	0.3	200	0.97	1.03	2500	3000	80
2.0l Coupé Serial Code CD9	0.5	700	850	0.3	200	0.97	1.03	2500	3000	80
2.0l LS/ES Aerodeck Serial Code CE2	0.5	700	850	0.3	200	0.97	1.03	2500	3000	80
2.2l Aerodeck Serial Code CB8	0.5	650	850	0.3	200	0.97	1.03	2500	3000	80
2.2l 4 door Serial Code CB7	0.5	650	850	0.3	200	0.97	1.03	2500	3000	80
2.2l Coupé Serial Code CD7	0.5	700	850	0.3	200	0.97	1.03	2500	3000	80
2.2l Aerodeck Serial Code CE1	0.5	700	850	0.3	200	0.97	1.03	2500	3000	80
2.3l SR 4 door Serial Code CC7	0.5	700	850	0.3	200	0.97	1.03	2500	3000	80
1.8l S/LS 4 door Serial Code CE7	0.5	700	850	0.3	200	0.97	1.03	2500	3000	80
2.0l S/LS/ES 4 door Serial Code CE8	0.5	700	850	0.3	200	0.97	1.03	2500	3000	80
2.2l VTEC 4 door Serial Code CE9	0.5	700	850	0.3	200	0.97	1.03	2500	3000	80
2.0l Coupé - Serial Code CG4	0.5	700	850	0.3	200	0.97	1.03	2500	3000	80
3.0l Coupé - Serial Code CG2	0.5	600	750	0.3	200	0.97	1.03	2500	3000	80
1.8l 4 Door - Serial Code CG8	0.5	650	820	0.3	200	0.97	1.03	2500	3000	80
2.0l 4 Door - Serial Code CG9	0.5	650	820	0.3	200	0.97	1.03	2500	3000	80
2.2l Type R 4 Door - Serial Code CH1	0.5	720	860	0.3	200	0.97	1.03	2500	3000	70
1.8l 5 Door Serial Code CH6	0.5	650	820	0.3	200	0.97	1.03	2500	3000	80
2.0l 5 Door Serial Code CH7	0.5	650	820	0.3	200	0.97	1.03	2500	3000	80
2.0l 5 Door Type V Serial Code CH7	0.5	650	820	0.3	200	0.97	1.03	2500	3000	80
2.3l 5 Door Type V Serial Code CL4	0.5	650	820	0.3	200	0.97	1.03	2500	3000	80
2.3l 4 Door Type V Serial Code CL3	0.5	650	820	0.3	200	0.97	1.03	2500	3000	80
2.0l 4 Door Serial Code CL7	0.3	600	700	0.2	200	0.97	1.03	2500	3000	80
2.4l 4 Door Serial Code CL9	0.3	550	650	0.2	200	0.97	1.03	2500	3000	80
2.0l Tourer Serial Code CM1	0.3	600	700	0.2	200	0.97	1.03	2500	3000	80
2.4l Tourer Serial Code CM2	0.3	550	650	0.2	200	0.97	1.03	2500	3000	80
2.0l 4 Door Serial Code CU1	0.3	575	750	0.2	200	0.97	1.03	2500	3000	80
2.4l 4 Door Serial Code CU2	0.3	675	875	0.2	200	0.97	1.03	2500	3000	80
2.0l Tourer Serial Code CW1	0.3	575	750	0.2	200	0.97	1.03	2500	3000	80

1 Manufacturer/Marque	2			3						4 Min Oil Temp(°C)
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (% Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
2.4i Tourer Serial Code CW2	0.3	675	875	0.2	200	0.97	1.03	2500	3000	80
Prelude										
2.0i Coupé Serial Code BB3	0.5	700	850	0.3	200	0.97	1.03	2500	3000	80
2.2i Coupé VTEC Serial Code BB1	0.5	700	850	0.3	200	0.97	1.03	2500	3000	80
2.3i Coupé Serial Code BB2	0.5	700	880	0.3	200	0.97	1.03	2500	3000	80
2.0i Coupé Serial Code BB9	0.5	650	875	0.3	200	0.97	1.03	2500	3000	80
2.2i Coupé VTEC Serial Code BB8	0.5	650	875	0.3	200	0.97	1.03	2500	3000	80
Legend										
3.2i Coupé Serial Code KA8	0.5	500	700	0.3	200	0.97	1.03	2500	3000	80
3.2i Coupé Serial Code KA7	0.5	500	700	0.3	200	0.97	1.03	2500	3000	80
3.5i 4 door Serial Code KA9	0.5	550	750	0.3	200	0.97	1.03	2500	3000	80
3.5i 4 door Serial Code KA9, 1 July 2002 onwards	0.3	550	750	0.2	200	0.97	1.03	2500	3000	80
3.5i 4 door Serial Code KB1	0.3	600	750	0.2	200	0.97	1.03	2500	3000	80
NSX										
NSX Automatic Serial Code NA1	0.5	650	850	0.3	200	0.97	1.03	2500	3000	70
NSX Manual Serial Code NA1	0.5	700	900	0.3	200	0.97	1.03	2500	3000	70
NSX Manual Serial Code NA1, 1 July 2002 onwards	0.3	700	900	0.2	200	0.97	1.03	2500	3000	70
NSX Manual Serial Code NA2	0.5	700	900	0.3	200	0.97	1.03	2500	3000	70
NSX Manual Serial Code NA2, 1 July 2002 onwards	0.3	700	900	0.2	200	0.97	1.03	2500	3000	70
CR-V										
2.0i LS/ES Serial Code RD1/RD3	0.5	650	890	0.3	200	0.97	1.03	2500	3000	80
2.0i Serial Code RD8	0.3	600	720	0.2	200	0.97	1.03	2500	3000	80
2.0i Serial Code RE5	0.3	600	750	0.2	200	0.97	1.03	2500	3000	80
Integra										
1.8i Type R - Serial Code DC2	0.5	700	900	0.3	200	0.97	1.03	2500	3000	70
HR-V										
HR-V Manual Serial Code GH1/GH2/GH4	0.5	700	800	0.3	200	0.97	1.03	2500	3000	80
HR-V Manual Serial Code GH1/GH2/GH4, 1 July 2002 onwards	0.3	700	800	0.2	200	0.97	1.03	2500	3000	80
HR-V Automatic Serial Code GH1/GH2/GH4	0.5	650	750	0.3	200	0.97	1.03	2500	3000	80
HR-V Automatic Serial Code GH1/GH2/GH4, 1 July 2002 onwards	0.3	650	750	0.2	200	0.97	1.03	2500	3000	80
HR-V Manual Serial Code RU1, 2015 onwards	0.2	650	750	0.2	200	0.97	1.03	2500	3000	80

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
HR-V Automatic Serial Code RU1, 2015 onwards S2000	0.2	650	750	0.2	200	0.97	1.03	2500	3000	80
Serial Code AP1	0.5	750	950	0.3	200	0.97	1.03	2500	3000	80
Serial Code AP1, 1 July 2002 onwards Logo	0.3	750	950	0.2	200	0.97	1.03	2500	3000	80
Serial Code GA3 Jazz	0.5	750	950	0.3	200	0.97	1.03	2500	3000	80
Serial Code GD1/GE3 Manual	0.3	600	720	0.2	200	0.97	1.03	2500	3000	80
Serial Code GD1/GE3 Automatic	0.3	700	820	0.2	200	0.97	1.03	2500	3000	80
Serial Code GD5/GE2	0.3	800	920	0.2	200	0.97	1.03	2500	3000	80
Serial Code GG1	0.3	625	775	0.2	200	0.97	1.03	2500	3000	80
Serial Code GE6	0.3	575	725	0.2	200	0.97	1.03	2500	3000	80
Serial Code GG5	0.3	625	775	0.2	200	0.97	1.03	2500	3000	80
Serial Code GG6	0.3	575	725	0.2	200	0.97	1.03	2500	3000	80
Serial Code GP1	0.2	625	775	0.2	200	0.97	1.03	2500	3000	80
1.3 Manual Serial Code GK3, September 2015 onwards, 10th digit of VIN is G or greater	0.2	650	750	0.2	200	0.97	1.03	2500	3000	80
1.3 CVT Serial Code GK3, September 2015 onwards, 10th digit of VIN is G or greater FR-V	0.2	650	750	0.2	200	0.97	1.03	2500	3000	80
1.7l Serial Code BE1	0.3	650	750	0.2	200	0.97	1.03	2500	3000	80
2.0l Serial Code BE3	0.3	700	800	0.2	200	0.97	1.03	2500	3000	80
1.8l Serial Code BE1	0.2	620	750	0.2	200	0.97	1.03	2500	3000	80
HYUNDAI										
The Engine Code is stamped on the Engine Block and the 10th digit of the VIN denotes the year of manufacture.										
Lantra										
1.6D Engine Code G4GR 1995 Model	0.6	700	900	0.3	200	0.9	1.1	2000	2500	80
1.6D Engine Code G4GR 1996 Model	0.6	700	900	0.3	200	0.9	1.1	2000	2500	80
1.6D Engine Code G4GR 1998 Model (Sedan)	0.5	700	900	0.3	200	0.97	1.03	2000	2500	80
1.6D Engine Code G4GR 1998 Model (Wagon)	0.5	700	900	0.3	200	0.97	1.03	2000	2500	80
1.6D Engine Code G4GR 1999 Model (Wagon)	0.5	700	900	0.3	200	0.97	1.03	2000	2500	80
1.6D Engine Code G4GR 1999 Model (Sedan)	0.5	700	900	0.3	200	0.97	1.03	2000	2500	80
1.8D Engine Code G4GM 1995 Model	0.6	700	900	0.3	200	0.9	1.1	2000	2500	80

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
1.8D Engine Code G4GM 1996 Model	0.6	700	900	0.3	200	0.9	1.1	2000	2500	80
1.5S Engine Code G4EK 1996 Model	0.6	700	900	0.3	200	0.9	1.1	2000	2500	80
2.0D Engine Code G4GF 1996 Model	0.6	700	900	0.3	200	0.9	1.1	2000	2500	80
1.5S Engine Code G4DJ 1992 Model	0.6	700	900	0.3	200	0.9	1.1	2000	2500	80
1.5S Engine Code G4DJ 1993 Model	0.6	725	925	0.3	200	0.9	1.1	2000	2500	80
1.5S Engine Code G4DJ 1994 Model	0.6	725	925	0.3	200	0.9	1.1	2000	2500	80
1.6D Engine Code G4CR 1992 Model	0.6	650	850	0.3	200	0.9	1.1	2000	2500	80
1.6D Engine Code G4CR Automatic 1994 Model	0.6	650	850	0.3	200	0.9	1.1	2000	2500	80
1.6D Engine Code G4CR Manual 1994 Model	0.6	670	870	0.3	200	0.9	1.1	2000	2500	80
1.8D Engine Code G4CN Automatic 1992 Model	0.6	600	800	0.3	200	0.9	1.1	2000	2500	80
1.8D Engine Code G4CN Manual 1992 Model	0.6	700	900	0.3	200	0.9	1.1	2000	2500	80
1.8D Engine Code G4CN Automatic 1994 Model	0.6	600	800	0.3	200	0.9	1.1	2000	2500	80
1.8D Engine Code G4CN Manual 1994 Model	0.6	700	800	0.3	200	0.9	1.1	2000	2500	80
2.0D Engine Code G4GF 1999 Model (Wagon)	0.5	700	900	0.3	200	0.97	1.03	2000	2500	80
2.0D Engine Code G4GF 1999 Model (Sedan)	0.5	700	900	0.3	200	0.97	1.03	2000	2500	80
1.6D Engine Code G4ED 2000 Model (Wagon)	0.5	650	850	0.3	200	0.97	1.03	1900	2100	80
1.6D Engine Code G4ED 2000 Model (Sedan)	0.5	650	850	0.3	200	0.97	1.03	1900	2100	80
2.0D Engine Code G4GC 2000 Model (Wagon)	0.5	600	800	0.3	200	0.97	1.03	2000	2500	80
2.0D Engine Code G4GC 2000 Model (Sedan)	0.5	600	800	0.3	200	0.97	1.03	2000	2500	80
Elantra										
1.6D Engine Code G4ED 2001 Model (Wagon)	0.5	650	850	0.3	200	0.97	1.03	1900	2100	80
1.6D Engine Code G4ED 2001 Model (Sedan)	0.5	650	850	0.3	200	0.97	1.03	1900	2100	80
2.0D Engine Code G4GC 2001 Model (Wagon)	0.5	600	800	0.3	200	0.97	1.03	2000	2500	80
2.0D Engine Code G4GC 2001 Model (Sedan)	0.5	600	800	0.3	200	0.97	1.03	2000	2500	80
1.6D Engine Code G4ED 2002 Model	0.5	650	850	0.3	200	0.97	1.03	1900	2100	80
2.0D Engine Code G4GC 2002 Model	0.5	600	800	0.3	200	0.97	1.03	2000	2500	80
1.6D Engine Code G4ED 2003 Model	0.3	650	850	0.2	200	0.97	1.03	1900	2100	80
2.0D Engine Code G4GC 2003 Model	0.3	600	800	0.2	200	0.97	1.03	2000	2500	80
2.0D Engine Code G4GC 2004 Model	0.3	600	800	0.2	200	0.97	1.03	2000	2500	80
Coupé										
1.6D Engine Code G4GR 1996 Model	0.6	700	900	0.3	200	0.9	1.1	2000	2500	80
2.0D Engine Code G4GF 1996 Model	0.6	700	900	0.3	200	0.9	1.1	2000	2500	80

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
1.6D Engine Code G4GR 1998 Model	0.5	700	900	0.3	200	0.97	1.03	2000	2500	80
1.6D Engine Code G4GR 1999 Model	0.5	700	900	0.3	200	0.97	1.03	2000	2500	80
2.0D Engine Code G4GF 1999 Model	0.5	700	900	0.3	200	0.97	1.03	2000	2500	80
1.6D Engine Code G4ED 2000 Model	0.5	700	900	0.3	200	0.97	1.03	2000	2500	80
2.0D Engine Code G4GF 2000 Model	0.5	700	900	0.3	200	0.97	1.03	2000	2500	80
1.6D Engine Code G4ED 2001 Model	0.5	700	900	0.3	200	0.97	1.03	2000	2500	80
2.0D Engine Code G4GF 2001 Model	0.5	700	900	0.3	200	0.97	1.03	2000	2500	80
1.6D Engine Code G4ED 2002 Model	0.5	600	800	0.3	200	0.97	1.03	2400	2600	80
2.0D Engine Code G4GF 2002 Model	0.5	600	800	0.3	200	0.97	1.03	2400	2600	80
2.7D Engine Code G6BA 2002 Model	0.5	750	950	0.3	200	0.97	1.03	2500	3000	80
1.6D Engine Code G4ED 2003 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
2.0D Engine Code G4GC 2003 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
2.7D Engine Code G6BA 2003 Model	0.3	750	950	0.2	200	0.97	1.03	2500	3000	80
1.6D Engine Code G4ED 2004 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
2.0D Engine Code G4GC 2004 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
2.7D Engine Code G6BA 2004 Model	0.3	750	950	0.2	200	0.97	1.03	2500	3000	80
1.6D Engine Code G4ED 2005 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
2.0D Engine Code G4GC 2005 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
2.7D Engine Code G6BA 2005 Model	0.3	750	950	0.2	200	0.97	1.03	2500	3000	80
1.6D Engine Code G4ED 2006 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
2.0D Engine Code G4GC 2006 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
2.7D Engine Code G6BA 2006 Model	0.3	650	850	0.2	200	0.97	1.03	2900	3100	80
1.6D Engine Code G4ED 2007 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
2.0D Engine Code G4GC 2007 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
2.7D Engine Code G6BA 2007 Model	0.3	650	850	0.2	200	0.97	1.03	2900	3100	80
1.6D Engine Code G4ED 2008 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
2.0D Engine Code G4GC 2008 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
2.7D Engine Code G6BA 2008 Model	0.3	650	850	0.2	200	0.97	1.03	2900	3100	80
1.6D Engine Code G4ED 2009 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
2.0D Engine Code G4GC 2009 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
2.7D Engine Code G6BA 2009 Model	0.3	650	850	0.2	200	0.97	1.03	2900	3100	80

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
Sonata										
1.8S Engine Code G4CM 1993 Model	0.5	650	850	0.3	200	0.9	1.1	2000	2500	80
1.8S Engine Code G4CM 1996 Model	0.5	650	850	0.3	200	0.9	1.1	2000	2500	80
2.0S Engine Code G4CP 1993 Model	0.5	650	850	0.3	200	0.9	1.1	2000	2500	80
2.0S Engine Code G4CP 1996 Model	0.5	650	850	0.3	200	0.9	1.1	2000	2500	80
2.0D Engine Code G4CP 1993 Model	0.5	650	850	0.3	200	0.9	1.1	2000	2500	80
2.0D Engine Code G4CP 1996 Model	0.5	650	850	0.3	200	0.9	1.1	2000	2500	80
3.0S Engine Code G6AT 1993 Model	0.5	650	900	0.3	200	0.9	1.1	2000	2500	80
3.0S Engine Code G6AT 1996 Model	0.5	600	800	0.3	200	0.9	1.1	2000	2500	80
2.0D Engine Code G4JB 1998 Model	0.5	700	900	0.3	200	0.97	1.03	2000	2500	80
2.5D Engine Code G6BV 1998 Model	0.5	600	800	0.3	200	0.97	1.03	2000	2500	80
2.0D Engine Code G4JP 1999 Model	0.5	700	900	0.3	200	0.97	1.03	2000	2500	80
2.5D Engine Code G6BV 1999 Model	0.5	600	800	0.3	200	0.97	1.03	2000	2500	80
2.0D Engine Code G4JP 2000 Model	0.5	700	900	0.3	200	0.97	1.03	2000	2500	80
2.5D Engine Code G6BV 2000 Model	0.5	600	800	0.3	200	0.97	1.03	2000	2500	80
2.0D Engine Code G4JP 2001 Model	0.5	700	900	0.3	200	0.97	1.03	2000	2500	80
2.5D Engine Code G6BV 2001 Model	0.5	600	800	0.3	200	0.97	1.03	2000	2500	80
FL 2.0D Engine Code G4JP 2002 Model	0.5	650	850	0.3	200	0.97	1.03	2400	2600	80
FL 2.7D Engine Code G6BA 2002 Model	0.5	600	800	0.3	200	0.97	1.03	2000	2500	80
2.0D Engine Code G4JP 2003 Model	0.3	650	850	0.2	200	0.97	1.03	2400	2600	80
2.7D Engine Code G6BA 2003 Model	0.3	600	800	0.2	200	0.97	1.03	2000	2500	80
2.0D Engine Code G4JP 2004 Model	0.3	650	850	0.2	200	0.97	1.03	2400	2600	80
2.7D Engine Code G6BA 2004 Model	0.3	600	800	0.2	200	0.97	1.03	2000	2500	80
2.4D Engine Code G4KC 2005 Model	0.3	550	750	0.2	200	0.97	1.03	2400	2600	80
3.3D Engine Code G6DB 2005 Model	0.3	520	720	0.2	200	0.97	1.03	2400	2600	80
2.4D Engine Code G4KC 2006 Model	0.3	550	750	0.2	200	0.97	1.03	2400	2600	80
3.3D Engine Code G6DB 2006 Model	0.3	520	720	0.2	200	0.97	1.03	2400	2600	80
2.0D Engine Code G4KD 2007 Model	0.3	600	900	0.2	200	0.97	1.03	2400	2600	80
2.4D Engine Code G4KE 2007 Model	0.3	550	750	0.2	200	0.97	1.03	2400	2600	80
3.3D Engine Code G6DB 2007 Model	0.3	520	720	0.2	200	0.97	1.03	2400	2600	80
2.0D Engine Code G4KD 2008 Model	0.3	600	900	0.2	200	0.97	1.03	2400	2600	80
3.3D Engine Code G6DB 2008 Model	0.3	520	720	0.2	200	0.97	1.03	2400	2600	80

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
2.0D Engine Code G4KD 2009 Model	0.3	600	900	0.2	200	0.97	1.03	2400	2600	80
3.3D Engine Code G6DB 2009 Model	0.3	520	720	0.2	200	0.97	1.03	2400	2600	80
2.0D Engine Code G4KD 2010 Model	0.3	600	900	0.2	200	0.97	1.03	2400	2600	80
Accent										
1.3S Engine Code G4EH 1994 Model	0.6	700	900	0.3	200	0.9	1.1	2000	2500	80
1.3S Engine Code G4EH 1996 Model	0.6	700	900	0.3	200	0.9	1.1	2000	2500	80
1.3S Engine Code G4EH 1998 Model	0.5	700	900	0.3	200	0.97	1.03	2000	2500	80
1.3S Engine Code G4EH 1999 Model	0.5	700	900	0.3	200	0.97	1.03	2000	2500	80
1.3S Engine Code G4EA 2000 Model	0.6	700	900	0.3	200	0.97	1.03	2000	2500	80
1.5S Engine Code G4EK 1994 Model	0.6	700	900	0.3	200	0.9	1.1	2000	2500	80
1.5S Engine Code G4EK 1996 Model	0.6	700	900	0.3	200	0.9	1.1	2000	2500	80
1.5D Engine Code G4FK 1995 Model	0.6	700	900	0.3	200	0.9	1.1	2000	2500	80
1.5D Engine Code G4FK 1996 Model	0.6	700	900	0.3	200	0.9	1.1	2000	2500	80
1.5D Engine Code G4FK 1997 Model	0.5	700	900	0.3	200	0.97	1.03	2000	2500	80
1.5S Engine Code G4D 1992 Model	0.6	670	870	0.3	200	0.9	1.1	2000	2500	80
1.5S Engine Code G4EK 1998 Model	0.5	700	900	0.3	200	0.97	1.03	2000	2500	80
1.5S Engine Code G4EK 1999 Model	0.5	700	900	0.3	200	0.97	1.03	2000	2500	80
1.5D Engine Code G4FK 1998 Model	0.5	700	900	0.3	200	0.97	1.03	2000	2500	80
1.5D Engine Code G4FK 1999 Model	0.5	700	900	0.3	200	0.97	1.03	2000	2500	80
1.5S Engine Code G4EB 2000 Model	0.6	700	900	0.3	200	0.97	1.03	2000	2500	80
1.5D Engine Code G4EC 2000 Model	0.6	650	850	0.3	200	0.97	1.03	2000	2500	80
1.3S Engine Code G4EA 2001 Model	0.6	700	900	0.3	200	0.97	1.03	2000	2500	80
1.5S Engine Code G4EB 2001 Model	0.6	700	900	0.3	200	0.97	1.03	2000	2500	80
1.5D Engine Code G4EC 2001 Model	0.6	650	850	0.3	200	0.97	1.03	2000	2500	80
1.3S Engine Code G4EA 2002 Model	0.6	700	900	0.3	200	0.97	1.03	2000	2500	80
1.5S Engine Code G4EB 2002 Model	0.6	700	900	0.3	200	0.97	1.03	2000	2500	80
1.5D Engine Code G4EC 2002 Model	0.6	650	850	0.3	200	0.97	1.03	2000	2500	80
1.3S Engine Code G4EA 2003 Model	0.3	700	900	0.2	200	0.97	1.03	2400	2600	80
1.6D Engine Code G4EC 2003 Model	0.3	650	850	0.2	200	0.97	1.03	2400	2600	80
1.3S Engine Code G4EA 2004 Model	0.3	700	900	0.2	200	0.97	1.03	2400	2600	80
1.6D Engine Code G4EC 2004 Model	0.3	650	850	0.2	200	0.97	1.03	2400	2600	80
1.3S Engine Code G4EA 2005 Model	0.3	700	900	0.2	200	0.97	1.03	2400	2600	80

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
1.6D Engine Code G4EC 2005 Model	0.3	650	850	0.2	200	0.97	1.03	2400	2600	80
1.4D Engine Code G4EA 2006 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
1.4D Engine Code G4EA 2007 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
1.4D Engine Code G4EA 2008 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
S Coupé										
1.5S Engine Code G4EK 1992 Model	0.6	700	900	0.3	200	0.9	1.1	2000	2500	80
1.5S Engine Code G4EK 1994 Model	0.6	700	900	0.3	200	0.9	1.1	2000	2500	80
Atoz/Amica										
1.0S Engine Code G4HC 1997 Model	0.5	800	1000	0.3	200	0.97	1.03	2000	2500	80
1.0S Engine Code G4HC 1998 Model	0.5	750	950	0.3	200	0.97	1.03	2000	2500	80
1.0S Engine Code G4HC 1999 Model	0.5	750	950	0.3	200	0.97	1.03	2000	2500	80
1.0S Engine Code G4HC 2000 Model	0.5	750	950	0.3	200	0.97	1.03	2000	2500	80
1.0S Engine Code G4HC 2001 Model	0.5	750	950	0.3	200	0.97	1.03	2000	2500	80
1.0S Engine Code G4HC 2002 Model	0.5	750	950	0.3	200	0.97	1.03	2000	2500	80
1.1S Engine Code G4HG 2006 Model	0.3	750	950	0.2	200	0.97	1.03	2400	2600	80
1.1S Engine Code G4HG 2007 Model	0.3	750	950	0.2	200	0.97	1.03	2400	2600	80
1.1S Engine Code G4HG 2008 Model	0.3	750	950	0.2	200	0.97	1.03	2400	2600	80
XG 30										
3.0D Engine Code G6CT 2000 Model	0.5	600	800	0.3	200	0.97	1.03	2000	2500	80
3.0D Engine Code G6CT 2001 Model	0.5	600	800	0.3	200	0.97	1.03	2000	2500	80
3.0D Engine Code G6CT 2002 Model	0.5	600	800	0.3	200	0.97	1.03	2400	2600	80
Trajet										
2.0D Engine Code G4JP 2000 Model	0.5	700	900	0.3	200	0.97	1.03	2000	2500	80
2.0D Engine Code GEJP 2001 Model	0.5	700	900	0.3	200	0.97	1.03	2000	2500	80
2.0D Engine Code GEJP 2002 Model	0.5	700	900	0.3	200	0.97	1.03	2000	2500	80
2.0D Engine Code G4JP 2003 Model	0.3	700	900	0.2	200	0.97	1.03	2000	2500	80
2.7D Engine Code G6BA 2003 Model	0.3	630	830	0.2	200	0.97	1.03	2000	2500	80
2.0D Engine Code G4JP 2004 Model	0.3	700	900	0.2	200	0.97	1.03	2000	2500	80
2.7D Engine Code G6BA 2004 Model	0.3	630	830	0.2	200	0.97	1.03	2000	2500	80
2.0D Engine Code G4GC 2005 Model	0.3	700	900	0.2	200	0.97	1.03	2400	2600	80
2.0D Engine Code G4GC 2006 Model	0.3	700	900	0.2	200	0.97	1.03	2400	2600	80

1 Manufacturer/Marque	2			3						4 Min Oil Temp(°C)
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (% Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
2.0D Engine Code G4GC 2007 Model	0.3	700	900	0.2	200	0.97	1.03	2400	2600	80
Santa Fe	(See Also Section II)									
Santa Fe 2.4D Engine Code G4JP 2001 Model	0.5	700	900	0.3	200	0.97	1.03	2000	2500	80
Santa Fe 2.7D Engine Code G6BA 2001 Model	0.5	600	800	0.3	200	0.97	1.03	2000	2500	80
Santa Fe 2.4D Engine Code G4JP 2002 Model	0.5	700	900	0.3	200	0.97	1.03	2000	2500	80
Santa Fe 2.7D Engine Code G6BA 2002 Model	0.5	600	800	0.3	200	0.97	1.03	2000	2500	80
Santa Fe 2.4D Engine Code G4JS 2003 Model	0.3	700	900	0.2	200	0.97	1.03	2400	2600	80
Santa Fe 2.7D Engine Code G6BA 2003 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
Santa Fe 2.4D Engine Code G4JS 2004 Model	0.3	700	900	0.2	200	0.97	1.03	2400	2600	80
Santa Fe 2.7D Engine Code G6BA 2004 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
Santa Fe 2.4D Engine Code G4JS 2005 Model	0.3	700	900	0.2	200	0.97	1.03	2400	2600	80
Santa Fe 2.7D Engine Code G6BA 2005 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
Santa Fe 2.7D Engine Code G6EA 2006 Model	0.3	580	780	0.2	200	0.97	1.03	2400	2600	80
Santa Fe 2.7D Engine Code G6EA 2007 Model	0.3	580	780	0.2	200	0.97	1.03	2400	2600	80
Santa Fe 2.7D Engine Code G6EA 2008 Model	0.3	580	780	0.2	200	0.97	1.03	2400	2600	80
Santa Fe 2.7D Engine Code G6EA 2009 Model	0.3	580	780	0.2	200	0.97	1.03	2400	2600	80
Getz										
1.1S Engine Code G4HD 2002 Model	0.5	750	950	0.3	200	0.97	1.03	2400	2600	80
1.3S Engine Code G4EA 2002 Model	0.5	600	800	0.3	200	0.97	1.03	2400	2600	80
1.6D Engine Code G4ED 2002 Model	0.5	600	800	0.3	200	0.97	1.03	2400	2600	80
1.1S Engine Code G4HD 2003 Model	0.3	750	950	0.2	200	0.97	1.03	2400	2600	80
1.3S Engine Code G4EA 2003 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
1.6D Engine Code G4ED 2003 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
1.1S Engine Code G4HD 2004 Model	0.3	750	950	0.2	200	0.97	1.03	2400	2600	80
1.3S Engine Code G4EA 2004 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
1.6D Engine Code G4ED 2004 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
1.1S Engine Code G4HG 2005 Model	0.3	750	950	0.2	200	0.97	1.03	2400	2600	80
1.3S Engine Code G4EA 2005 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
1.4D Engine Code G4EE 2005 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
1.6D Engine Code G4ED 2005 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
1.1S Engine Code G4HG 2006 Model	0.3	750	950	0.2	200	0.97	1.03	2400	2600	80
1.4D Engine Code G4EE 2006 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
1.6D Engine Code G4ED 2006 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
1.1S Engine Code G4HG 2007 Model	0.3	750	950	0.2	200	0.97	1.03	2400	2600	80
1.4D Engine Code G4EE 2007 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
1.6D Engine Code G4ED 2007 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
1.1S Engine Code G4HG 2008 Model	0.3	750	950	0.2	200	0.97	1.03	2400	2600	80
1.4D Engine Code G4EE 2008 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
1.6D Engine Code G4ED 2008 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
Matrix										
1.6D Engine Code G4ED 2002 Model	0.5	700	900	0.3	200	0.97	1.03	2400	2600	80
1.8D Engine Code G4GB 2002 Model	0.5	650	850	0.3	200	0.97	1.03	2400	2600	80
1.6D Engine Code G4ED 2003 Model	0.3	700	900	0.2	200	0.97	1.03	2400	2600	80
1.8D Engine Code G4GB 2003 Model	0.3	650	850	0.2	200	0.97	1.03	2400	2600	80
1.6D Engine Code G4ED 2004 Model	0.3	700	900	0.2	200	0.97	1.03	2400	2600	80
1.8D Engine Code G4GB 2004 Model	0.3	650	850	0.2	200	0.97	1.03	2400	2600	80
1.6D Engine Code G4ED 2005 Model	0.3	700	900	0.2	200	0.97	1.03	2400	2600	80
1.8D Engine Code G4GB 2005 Model	0.3	650	850	0.2	200	0.97	1.03	2400	2600	80
1.6D Engine Code G4ED 2006 Model	0.3	700	900	0.2	200	0.97	1.03	2400	2600	80
1.8D Engine Code G4GB 2006 Model	0.3	650	850	0.2	200	0.97	1.03	2400	2600	80
1.6D Engine Code G4ED 2007 Model	0.3	700	900	0.2	200	0.97	1.03	2400	2600	80
1.8D Engine Code G4GB 2007 Model	0.3	650	850	0.2	200	0.97	1.03	2400	2600	80
1.6D Engine Code G4ED 2008 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
1.8D Engine Code G4GB 2008 Model	0.3	650	850	0.2	200	0.97	1.03	2400	2600	80
1.6D Engine Code G4ED 2009 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
1.8D Engine Code G4GB 2009 Model	0.3	650	850	0.2	200	0.97	1.03	2400	2600	80
1.6D Engine Code G4ED 2010 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
Tuscon										
2.0D Engine Code G4GC 2004 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
2.7D Engine Code G4BA 2004 Model	0.3	550	750	0.2	200	0.97	1.03	2400	2600	80
2.0D Engine Code G4GC 2005 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
2.7D Engine Code G4BA 2005 Model	0.3	550	750	0.2	200	0.97	1.03	2400	2600	80
2.0D Engine Code G4GC 2006 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
2.7D Engine Code G4BA 2006 Model	0.3	550	750	0.2	200	0.97	1.03	2400	2600	80

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
2.0D Engine Code G4GC 2007 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
2.7D Engine Code G4BA 2007 Model	0.3	550	750	0.2	200	0.97	1.03	2400	2600	80
2.0D Engine Code G4GC 2008 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
2.7D Engine Code G4BA 2008 Model	0.3	550	750	0.2	200	0.97	1.03	2400	2600	80
2.0D Engine Code G4GC 2009 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
2.7D Engine Code G4BA 2009 Model	0.3	550	750	0.2	200	0.97	1.03	2400	2600	80
1.6l Turbo Engine Code G4FJ 2015 Model	0.3	600	750	0.2	200	0.97	1.03	2400	2600	80
1.6l Engine Code G4FD 2015 Model	0.3	600	750	0.2	200	0.97	1.03	2400	2600	80
Grandeur										
3.3D Engine Code G6DB 2006 Model	0.3	620	820	0.2	200	0.97	1.03	2400	2600	80
3.3D Engine Code G6DB 2007 Model	0.3	620	820	0.2	200	0.97	1.03	2400	2600	80
3.3D Engine Code G6DB 2008 Model	0.3	620	820	0.2	200	0.97	1.03	2400	2600	80
3.3D Engine Code G6DB 2009 Model	0.3	620	820	0.2	200	0.97	1.03	2400	2600	80
3.3D Engine Code G6DB 2010 Model	0.3	620	820	0.2	200	0.97	1.03	2400	2600	80
i10										
1.1S Engine Code G4HG 2008 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
1.2D Engine Code G4LA 2008 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
1.1S Engine Code G4HG 2009 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
1.2D Engine Code G4LA 2009 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
1.1S Engine Code G4HG 2010 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
1.2D Engine Code G4LA 2010 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
1.0D Engine Code G3LA 2011 Model	0.3	700	900	0.2	200	0.97	1.03	2400	2600	80
1.2D Engine Code G4LA 2011 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
1.0D Engine Code G3LA 2012 Model	0.3	700	900	0.2	200	0.97	1.03	2400	2600	80
1.2D Engine Code G4LA 2012 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
1.0D Engine Code G3LA 2013 Model	0.3	700	900	0.2	200	0.97	1.03	2400	2600	80
1.2D Engine Code G4LA 2013 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
Newi10										
1.0D Engine Code G3LA 2014 Model	0.3	720	920	0.2	200	0.97	1.03	2400	2600	80
1.2D Engine Code G4LA 2014 Model	0.3	650	850	0.2	200	0.97	1.03	2400	2600	80
1.0l Engine Code G3LA 2015 Model	0.3	770	900	0.2	200	0.97	1.03	2400	2600	80
1.2l Engine Code G4LA 2015 Model	0.3	700	850	0.2	200	0.97	1.03	2400	2600	80

1 Manufacturer/Marque	2			3						4 Min Oil Temp(°C)
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
i20										
1.2D Engine Code G4LA 2009 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
1.4D Engine Code G4FA 2009 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
1.2D Engine Code G4LA 2010 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
1.4D Engine Code G4FA 2010 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
1.2D Engine Code G4LA 2011 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
1.4D Engine Code G4FA 2011 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
1.2D Engine Code G4LA 2012 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
1.4D Engine Code G4FA 2012 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
1.2D Engine Code G4LA 2013 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
1.4D Engine Code G4FA 2013 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
1.0l Turbo Engine Code G3LC 2014-2015 Model	0.3	750	950	0.2	200	0.97	1.03	2400	2600	80
1.2l Engine Code G4LA 2014-2015 Model	0.3	600	750	0.2	200	0.97	1.03	2400	2600	80
1.4l Engine Code G4LC 2014-2015 Model	0.3	600	750	0.2	200	0.97	1.03	2400	2600	80
ix20										
1.4D Engine Code G4FA 2010 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
1.6D Engine Code G4FC 2010 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
1.4D Engine Code G4FA 2011 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
1.6D Engine Code G4FC 2011 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
1.4D Engine Code G4FA 2012 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
1.6D Engine Code G4FC 2012 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
1.4D Engine Code G4FA 2013 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
1.6D Engine Code G4FC 2013 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
1.4l Engine Code G4FA 2014-2015 Model	0.3	600	750	0.2	200	0.97	1.03	2400	2600	80
1.6l Engine Code G4FC 2014-2015 Model	0.3	600	750	0.2	200	0.97	1.03	2400	2600	80
i30										
1.4D Engine Code G4FA 2007 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
1.6D Engine Code G4FC 2007 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
1.4D Engine Code G4FA 2008 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
1.6D Hatch & Estate Engine Code G4FC 2008 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
1.4D Engine Code G4FA 2009 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
1.6D Hatch & Estate Engine Code G4FC 2009 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80

1 Manufacturer/Marque	2			3						4 Min Oil Temp(°C)
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (%) Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
1.4D Engine Code G4FA 2010 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
1.6D Hatch & Estate Engine Code G4FC 2010 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
1.4D Engine Code G4FA 2011 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
1.6D Hatch & Estate Engine Code G4FC 2011 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
1.4D Engine Code G4FA 2012 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
1.6D Hatch & Estate Engine Code G4FC 2012 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
Newi30										
1.4D Hatch Engine Code G4FA 2012 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
1.6D Hatch & Estate Engine Code G4FG 2012 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
1.4D Hatch Engine Code G4FA 2013 Model	0.3	550	750	0.2	200	0.97	1.03	2400	2600	80
1.6D Hatch & Estate Engine Code G4FG 2013 Model	0.3	550	750	0.2	200	0.97	1.03	2400	2600	80
1.4l Hatch & Estate Engine Code G4LC 2014-2015 Model	0.3	600	750	0.2	200	0.97	1.03	2400	2600	80
1.6l Hatch & Estate Engine Code G4FG 2014-2015 Model	0.3	600	750	0.2	200	0.97	1.03	2400	2600	80
1.6l Turbo Hatch Engine Code G4FJ 2014-2015 Model	0.3	580	700	0.2	200	0.97	1.03	2400	2600	80
ix35										
1.6D Engine Code G4FD 2010 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
2.0D Engine Code G4KD 2010 Model	0.3	550	800	0.2	200	0.97	1.03	2400	2600	80
1.6D Engine Code G4FD 2011 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
1.6D Engine Code G4FD 2012 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
1.6D Engine Code G4FD 2013 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
1.6l Engine Code G4FD 2014-2015 Model	0.3	600	750	0.2	200	0.97	1.03	2400	2600	80
i40										
1.6D Saloon & Estate Engine Code G4FD 2011 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
2.0D Saloon & Estate Engine Code G4NC 2011 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
1.6D Saloon & Estate Engine Code G4FD 2012 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
Veloster										
1.6D Engine Code G4FD 2011 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
1.6D Engine Code G4FD 2012 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	90
1.6D Turbo Engine Code G4FJ 2012 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	95
1.6D Engine Code G4FD 2013 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	90
1.6D Turbo Engine Code G4FJ 2013 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	95

1	2			3						4	
Manufacturer/Marque	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	Min Oil Temp(°C)	
	Normal Idle Speed			Fast Idle Speed							
	Max CO Limit (% Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)		
Genesis											
3.8l V6 Engine Code G6DJ	0.3	550	650	0.2	200	0.97	1.03	2400	2600	80	
INFINITI											
The Serial No consists of the last 6 digits of the VIN number. The Model Code is derived from positions 7 - 9 of the VIN number.											
G37 Convertible, Coupé, Saloon											
Engine Code VQ37 All Versions	0.5	600	1000	0.3	200	0.97	1.03	2500	3000	80	
J50 Station W agon											
Engine Code VQ37 All Versions	0.5	600	1000	0.3	200	0.97	1.03	2500	3000	80	
S51 Station W agon											
Engine Code VQ37 HR	0.5	600	1000	0.3	200	0.97	1.03	2500	3000	80	
Engine Code VK50											
Y51 Station W agon											
Engine Code VQ37 HR	0.3	600	1000	0.2	200	0.97	1.03	2500	3000	80	
Engine Code VK50											
V37 Convertible, Coupé, Saloon											
Engine Code VQ37 HR	0.3	600	1000	0.2	200	0.97	1.03	2500	3000	80	
Q70 Station W agon											
Engine Code VQ35	0.3	600	1000	0.2	200	0.97	1.03	2500	3000	80	
Q50											
Engine Code VQ37 All Versions	0.3	600	1000	0.2	200	0.97	1.03	2500	3000	80	
Q60											
Engine Code VQ37 HR	0.3	600	1000	0.2	200	0.97	1.03	2500	3000	80	
Q70 Convertible, Coupé, Saloon											
Engine Code VQ37 All Versions	0.3	600	1000	0.2	200	0.97	1.03	2500	3000	80	
QX50 Station W agon											
Engine Code VQ37 HR	0.3	600	1000	0.2	200	0.97	1.03	2500	3000	80	
QX70 Station W agon											
Engine Code VQ35	0.3	600	1000	0.2	200	0.97	1.03	2500	3000	80	
Q30											
Engine Code 270910 All Versions	0.3	600	1000	0.2	200	0.97	1.03	2500	3000	80	

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
Engine Code 270920 All Versions	0.3	600	1000	0.2	200	0.97	1.03	2500	3000	80
ISUZU										
Refer to Section II										
JAGUAR										
The Serial Number consists of the last 6 digits of the VIN number.										
XJS Coupé and Convertible										
3.6L Automatic or Manual - All VIN serial No. 105048 to 183500	0.5	650	750	0.3	200	0.97	1.03	2400	2600	80
4.0L Automatic or Manual - VIN serial No 183501 onwards	0.5	650	750	0.3	200	0.97	1.03	2400	2600	80
XJS V12 Coupé and Convertible										
6.0L Automatic - VIN serial No 183501 onwards	0.5	700	800	0.3	200	0.97	1.03	2400	2600	80
XK8 Coupé and Convertible										
4.0L V8 Automatic - VIN serial No 001001 onwards	0.5	600	700	0.3	200	0.97	1.03	2400	2600	80
4.2L V8 Automatic - VIN serial No A35155 onwards	0.5	600	700	0.3	200	0.97	1.03	2400	2600	80
XKR Coupé and Convertible										
4.0L V8 Supercharged Automatic - VIN serial No 001001 onwards	0.5	600	700	0.3	200	0.97	1.03	2400	2600	80
4.2L V8 Supercharged Automatic - VIN serial No A35155 onwards	0.5	600	700	0.3	200	0.97	1.03	2400	2600	80
XK Coupé and Convertible										
3.5L from VIN serial No B09106	0.5	550	700	0.3	200	0.97	1.03	2400	2600	80
4.2L from VIN serial No B00001	0.5	550	700	0.3	200	0.97	1.03	2400	2600	80
4.2L from VIN serial No B32753	0.5	500	800	0.3	200	0.97	1.03	2400	2600	80
4.2L s/c 'R' version from VIN serial No B09106	0.5	550	700	0.3	200	0.97	1.03	2400	2600	80
4.2L s/c 'R' version from VIN serial No B32753	0.5	500	800	0.3	200	0.97	1.03	2400	2600	80
Revised XK Coupé and Convertible										
5.0L From VIN serial No. B32753	0.5	450	750	0.3	200	0.97	1.03	2400	2600	80
Revised XKR Coupé and Convertible										
5.0L s/c 'R' version From VIN serial No. B32753	0.5	450	750	0.3	200	0.97	1.03	2400	2600	80

1 Manufacturer/Marque	2			3						4 Min Oil Temp(°C)
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (% Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
Revised XKR-S Coupé and Convertible										
5.0L s/c 'R-S' version From VIN serial No. B32753	0.5	450	750	0.3	200	0.97	1.03	2400	2600	80
XJ6, XJ Sport, Sovereign and Daimler										
3.2L AJ6 Manual - VIN serial No 659029 - 708757	0.5	800	900	0.3	200	0.97	1.03	2400	2600	80
3.2L AJ6 Automatic - VIN serial No 659029 - 708757	0.5	650	750	0.3	200	0.97	1.03	2400	2600	80
3.2L AJ16 Automatic or Manual - VIN serial No 720000 - 812263	0.5	650	750	0.3	200	0.97	1.03	2400	2600	80
4.0L AJ6 Automatic or Manual - VIN serial No 659029 - 708757	0.5	650	750	0.3	200	0.97	1.03	2400	2600	80
4.0L AJ16 Automatic or Manual - VIN serial No 720000 - 812263	0.5	650	750	0.3	200	0.97	1.03	2400	2600	80
XJ8, XJ Sport, XJ Executive, Sovereign and Daimler										
3.2L V8 Automatic - VIN serial No 812266 onwards	0.5	600	700	0.3	200	0.97	1.03	2400	2600	80
4.0L V8 Automatic - VIN serial No 812256 onwards	0.5	600	700	0.3	200	0.97	1.03	2400	2600	80
XJ12, Sovereign and Daimler Double-Six										
6.0L Automatic - VIN serial No 659029 onwards	0.5	700	800	0.3	200	0.97	1.03	2400	2600	80
XJR Supercharged										
4.0L s/c AJ16 Automatic or Manual - VIN serial No 720000 - 812263	0.5	650	750	0.3	200	0.97	1.03	2400	2600	80
XJR8, Supercharged, Daimler Super V8										
4.0L s/c V8 Automatic - VIN serial No 812263 onwards	0.5	600	700	0.3	200	0.97	1.03	2400	2600	80
XJ Range Facelift										
XJ6 3.0l V6 Automatic - VIN serial No G00004 onwards	0.5	680	830	0.3	200	0.97	1.03	2400	2600	80
XJ8 3.5l V8 Automatic - VIN serial No G00003 onwards	0.5	600	700	0.3	200	0.97	1.03	2400	2600	80
XJ8, XJ8 Daimler 4.2l V8 Automatic - VIN serial No G00001 onwards	0.5	600	700	0.3	200	0.97	1.03	2400	2600	80
XJR, XJ Super 8 4.2l s/c V8 Automatic - VIN serial No G00002 onwards	0.5	600	700	0.3	200	0.97	1.03	2400	2600	80
Revised XJ Range										
2.0L XJ GTDi 4 door coupe From VIN serial No. V22230 to VIN serial No. V90866	0.5	660	860	0.3	200	0.97	1.03	2000	3000	80
5.0L 4 door saloon (SWB & LWB) From VIN serial No. V00001 to VIN serial No. V90866	0.5	450	750	0.3	200	0.97	1.03	2400	2600	80
3.0L s/c 4 door saloon (SWB & LWB) From VIN serial No. V39427 to VIN serial No. V90866	0.5	450	750	0.3	200	0.97	1.03	2350	2650	80
5.0L s/c Supersport/Portfolio version 4 door saloon (SWB & LWB) From VIN serial No. V00001 to VIN serial No. V90866	0.5	560	860	0.3	200	0.97	1.03	2350	2650	80
XJ 2016 Model Year onwards										
2.0L GTDi Automatic From VIN serial No. V90867	0.5	650	950	0.3	200	0.97	1.03	2350	2650	80
3.0L s/c Automatic RWD (SWB & LWB) From VIN serial No. V90867	0.5	450	750	0.3	200	0.97	1.03	2350	2650	80

1	2			3						4
Manufacturer/Marque	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	Min Oil Temp(°C)
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (% Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
3.0L s/c Automatic AWD (SWB & LWB) From VIN serial No. V90867	0.5	450	750	0.3	200	0.97	1.03	2350	2650	80
5.0L s/c Automatic (SWB & LWB) From VIN serial No. V90867	0.5	450	750	0.3	200	0.97	1.03	2350	2650	80
5.0L s/c 'R' Automatic From VIN serial No. V90867	0.5	450	750	0.3	200	0.97	1.03	2350	2650	80
Revised XJR Range										
5.0L s/c 'R' version 4 door saloon From VIN serial No. V00001 to VIN serial No. V90866	0.5	560	860	0.3	200	0.97	1.03	2350	2650	80
'S' Type										
3.0L V6 Manual - From VIN serial No. L00001 onwards	0.5	750	850	0.3	200	0.97	1.03	2400	2600	80
3.0L V6 Automatic - From VIN serial No. L00001 onwards	0.5	550	650	0.3	200	0.97	1.03	2400	2600	80
4.0L V8 Automatic - From VIN serial No. L00001 onwards	0.5	600	700	0.3	200	0.97	1.03	2400	2600	80
2.5L V6 Automatic - VIN serial No. M45255 onwards	0.5	680	780	0.3	200	0.97	1.03	2400	2600	80
2.5L V6 Manual - VIN serial No. M45255 onwards	0.5	680	780	0.3	200	0.97	1.03	2400	2600	80
'S' Type Facelift										
3.0L V6 Automatic - VIN serial No M45255 & N13089 onwards	0.5	680	780	0.3	200	0.97	1.03	2400	2600	80
3.0L V6 Manual - VIN serial No M45255 & N13089 onwards	0.5	680	780	0.3	200	0.97	1.03	2400	2600	80
4.2L V8 Automatic - VIN serial No M45255 & N13089 onwards	0.5	600	700	0.3	200	0.97	1.03	2400	2600	80
4.2L s/c V8 'R' version Automatic - VIN serial No M45255 & N13089 onwards	0.5	600	700	0.3	200	0.97	1.03	2400	2600	80
XF Coupé										
2.0L XF GTDi 4 door coupe From VIN serial No. S20753	0.5	660	860	0.3	200	0.97	1.03	2000	3000	80
3.0L V6 4 door coupe From VIN serial No. R00001	0.5	580	880	0.3	200	0.97	1.03	2400	2600	80
4.2L V8 4 door coupe From VIN serial No. R00001	0.5	500	800	0.3	200	0.97	1.03	2400	2600	80
4.2L s/c V8 4 door coupe From VIN serial No. R00001	0.5	500	800	0.3	200	0.97	1.03	2400	2600	80
XF Saloon										
2.0L GTDi Automatic RWD From VIN serial No. Y00001	0.5	600	800	0.3	200	0.97	1.03	2000	3000	80
3.0L s/c 'S' Automatic RWD From VIN serial No. Y00001	0.5	470	770	0.3	200	0.97	1.03	2350	2650	80
3.0L s/c 'S' Automatic AWD From VIN serial No. Y00001	0.5	470	770	0.3	200	0.97	1.03	2350	2650	80
Revised XF Coupé										
2.0L GTDi 4 door coupe From VIN serial No. S61362	0.5	660	860	0.3	200	0.97	1.03	2000	3000	80
3.0L s/c 4 door coupe From VIN serial No. S61362	0.5	450	750	0.3	200	0.97	1.03	2350	2650	80
5.0L V8 4 door coupe From VIN serial No. R47154 onwards to VIN serial No. S00001 onwards	0.5	450	750	0.3	200	0.97	1.03	2400	2600	80
Revised XFR Coupé										
5.0L s/c V8 'R' version 4 door coupe From VIN serial No. R47154 onwards to VIN serial No. S00001 onwards	0.5	450	750	0.3	200	0.97	1.03	2400	2600	80

1 Manufacturer/Marque	2			3						4 Min Oil Temp(°C)
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (% Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
Revised XFR-S Coupé										
5.0L s/c V8 'R-S' version 4 door coupe From VIN serial No. S61362	0.5	560	860	0.3	200	0.97	1.03	2400	2600	80
'X' Type Saloon & Estate										
2.0L V6 Manual, All VINS From serial No. C00001	0.5	680	780	0.3	200	0.97	1.03	2400	2600	80
2.0L V6 Automatic, All VINS From serial No. C00001	0.5	680	780	0.3	200	0.97	1.03	2400	2600	80
2.5L V6 Manual, All VINS From serial No. C00001	0.5	680	780	0.3	200	0.97	1.03	2400	2600	80
2.5L V6 Automatic, All VINS From serial No. C00001	0.5	680	780	0.3	200	0.97	1.03	2400	2600	80
3.0L V6 Manual, All VINS From serial No. C00001	0.5	680	780	0.3	200	0.97	1.03	2400	2600	80
3.0L V6 Automatic, All VINS From serial No. C00001	0.5	680	780	0.3	200	0.97	1.03	2400	2600	80
F-Type Convertible										
All versions From VIN serial No. K00001	0.5	450	750	0.3	200	0.97	1.03	2350	2650	80
F-Type Coupé										
All versions From VIN serial No. K00001	0.5	450	750	0.3	200	0.97	1.03	2350	2650	80
XE Saloon										
2.0L GTDi Automatic RWD From VIN serial No. 900001	0.5	600	800	0.3	200	0.97	1.03	2000	3000	80
3.0L s/c 'S' Automatic RWD From VIN serial No. 900001	0.5	450	750	0.3	200	0.97	1.03	2350	2650	80
F-Pace										
3.0L s/c Automatic AWD From VIN serial No.000001	0.5	470	750	0.3	200	0.97	1.03	2350	2650	80
KIA										
<i>The VIN number can be found on the VIN Plate.The Engine Code is stamped on the Engine Block and the 10th digit of the VIN denotes the year of manufacture.</i>										
Sorento										
3.5 V6	0.5	750	850	0.3	200	0.95	1.03	2500	3000	80
3.3 VIN commencing KNEJC	0.3	600	850	0.2	200	0.97	1.03	2500	3000	80
Pride										
1.1l & 1.3l fitted with feedback carburettor VIN KNEDA****P6005272 onwards	0.5	700	750	0.5	200	0.95	1.3	2500	3000	80
1.3l fitted with fuel injection from VIN DA ****RK003266	0.5	650	750	0.5	200	0.95	1.3	2500	3000	80
Mentor										
1.6l VIN commencing KNEFA... Engine Code B6	0.5	700	800	0.3	200	0.97	1.03	2500	3000	80
1.5l VIN commencing KNEFA... Engine Code B5	0.5	700	800	0.3	200	0.97	1.03	2500	3000	80
1.6l VIN commencing KNEFB... Engine Code A6	0.5	750	850	0.3	200	0.97	1.03	2500	2900	80

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (% Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
Mentor II										
1.5l VIN commencing KNEFB... Engine Code BFD	0.5	750	850	0.3	200	0.97	1.03	2300	2700	80
Magentis										
2.0 VIN commencing KNEGD	0.5	750	850	0.3	200	0.95	1.03	2500	3000	80
2.5 V6 VIN commencing KNEGD	0.5	750	850	0.3	200	0.97	1.03	2300	3000	80
2.0 VIN commencing KNEGE	0.3	600	850	0.2	200	0.97	1.03	2500	3000	80
Sportage VIN commencing KNEJA										
Sportage 2.0l DOHC (Engine Code FE)	0.5	750	850	0.3	200	0.97	1.03	2500	3000	80
Sportage VIN commencing KNEJE										
2.0l	0.3	600	800	0.2	200	0.97	1.03	2500	3000	80
2.7l	0.3	600	800	0.2	200	0.97	1.03	2500	3000	80
Sportage VIN Commencing U5YPB										
1.6l Engine Code G4FD	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
2.0l Engine Code G4KB	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
Sportage										
1.6l Engine Code G4FD 2010 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
2.0l Engine Code G4NC 2010 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
1.6l Engine Code G4FD 2016 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
1.6l Engine Code G4FJ 2016 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
Shuma										
1.5l Engine Code BFD	0.5	750	850	0.3	200	0.97	1.03	2300	2700	80
1.8l Engine Code TED	0.5	750	850	0.3	200	0.97	1.03	2300	2700	80
1.6l Engine Code A6	0.5	750	850	0.3	200	0.97	1.03	2500	2900	80
Clarus										
1.8l Engine Code T8	0.5	750	850	0.3	200	0.97	1.03	2300	2700	80
2.0l Engine Code FE	0.5	750	850	0.3	200	0.97	1.03	2300	2700	80
Sedona	(See Also section II)									
Sedona 2.5l V6 Engine Code KV6	0.5	675	775	0.3	200	0.97	1.03	2300	3000	80
Sedona 2.7l VIN commencing KNEMB	0.3	600	850	0.2	200	0.97	1.03	2500	3000	80
Carens										
Carens 1.8l TED	0.5	750	850	0.3	200	0.97	1.02	2400	2800	80

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
2.0l VIN commencing KNEFC	0.3	600	800	0.2	200	0.97	1.03	2500	3000	80
2.0l VIN commencing KNEFG	0.3	600	850	0.2	200	0.97	1.03	2500	3000	80
1.6l Engine Code G4FC	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
1.6l Engine Code G4FD 2012 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
Rio VIN commencing KNEDC										
Rio 1.5l Engine code A5D	0.5	750	800	0.3	200	0.97	1.03	2500	2900	80
Rio 1.3l Engine code A3E	0.5	750	800	0.3	200	0.97	1.03	2500	2900	80
Rio VIN commencing KNEDE										
1.4l	0.3	620	820	0.2	200	0.97	1.03	2500	3000	80
Rio										
1.2l Engine Code G3LA 2010 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
1.4l Engine Code G4LA 2010 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
1.0l Engine Code G3LC 2017 Model	0.3	750	950	0.2	200	0.97	1.03	2400	2600	80
1.25l Engine Code G4LA 2017 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
1.4l Engine Code G4LC 2017 Model	0.3	540	740	0.2	200	0.97	1.03	2400	2600	80
Picanto										
1.0l Engine Code G4HE	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
1.1l Engine Code G4HG	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
1.0l Engine Code G3LA 2010 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
1.1l Engine Code G4LA 2010 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
1.0l Engine Code G3LA 2012 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
1.25l Engine Code G4LA 2012 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
1.0l Engine Code G3LA 2018 Model	0.3	770	870	0.2	200	0.97	1.03	2400	2600	80
1.25l Engine Code G4LA 2018 Model	0.3	650	750	0.2	200	0.97	1.03	2400	2600	80
Cerato										
1.6l Engine Code G4ED	0.3	650	850	0.2	200	0.97	1.03	2500	3000	80
2.0l VIN commencing KNEFE	0.3	600	800	0.2	200	0.97	1.03	2500	3000	80
cee'd										
1.4l	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
1.6l	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
1.4l Engine Code G4FA 2013 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
1.6l Engine Code G4FD 2013 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
1.6l Engine Code G4FJ 2013 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
1.0l Engine Code G3LC 2016 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
Venga										
1.4l Engine Code G4FA 2009 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
1.6l Engine Code G4FC 2009 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
1.4l Engine Code G4FA 2012 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
1.6l Engine Code G4FC 2012 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
1.4l Engine Code G4FA 2015 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
1.6l Engine Code G4FC 2015 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
Soul										
1.6l Engine Code G4FD 2008 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
1.6l Engine Code G4FD 2015 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
1.6l Engine Code G4FJ 2017 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
LADA										
The model code is found in the chassis number starting from the fourth digit.										
Samara										
1.1l CAT fitted vehicles with Automatic Choke	0.5	820	900	0.3	200	0.97	1.03	2000	3000	65
1.3l CAT fitted vehicles with Automatic Choke	0.5	820	900	0.3	200	0.97	1.03	2000	3000	65
1.5l CAT fitted vehicles only	0.5	820	900	0.3	200	0.97	1.03	2000	3000	65
Riva										
1.5l Saloon/Estate CAT fitted vehicles only	0.5	820	900	0.3	200	0.97	1.03	2000	3000	65
Niva										
1.7i 4x4 Model Code 21214	0.5	720	830	0.3	200	0.97	1.03	2000	3000	65
LAMBORGHINI										
The engine code is located on the front face of the engine block adjacent to the cylinder head mounting.										
Diablo										
Diablo	0.1	1050	1250	0.3	200	0.97	1.03	2500	3000	80
Diablo SE	0.1	1050	1250	0.3	200	0.97	1.03	2500	3000	80
Diablo VT	0.1	1050	1250	0.3	200	0.97	1.03	2500	3000	80

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
Diablo Roadster	0.1	1050	1250	0.3	200	0.97	1.03	2500	3000	80
Diablo SE(GT)	0.1	1050	1250	0.3	200	0.97	1.03	2500	3000	80
Diablo Roadster L144	0.1	1050	1250	0.3	200	0.97	1.03	2500	3000	80
147 Murcielago										
147 Murcielago	0.3	860	1100	0.2	200	0.97	1.03	2000	2500	80
147 Murcielago Roadster	0.3	860	1100	0.2	200	0.97	1.03	2000	2500	80
147 Murcielago Superveloce	0.3	860	1100	0.2	200	0.97	1.03	2000	2500	80
140 Gallardo										
140 Gallardo	0.3	850	1050	0.2	200	0.97	1.03	2000	2500	80
140 Gallardo Spyder	0.3	850	1050	0.2	200	0.97	1.03	2000	2500	80
140 Gallardo Superleggera	0.3	850	1050	0.2	200	0.97	1.03	2000	2500	80
140 Gallardo Coupé Engine CEH	0.3	600	800	0.2	200	0.97	1.03	2000	2500	80
140 Gallardo Spyder Engine CEH	0.3	600	800	0.2	200	0.97	1.03	2000	2500	80
140 Gallardo Coupé 2WD Engine CEH	0.3	600	800	0.2	200	0.97	1.03	2000	2500	80
140 Gallardo Spyder 2WD Engine CEH	0.3	600	800	0.2	200	0.97	1.03	2000	2500	80
Aventador										
Aventador Coupé Engine L539	0.3	750	950	0.2	200	0.97	1.03	2000	2500	90
Aventador Roadster Engine L539	0.3	750	950	0.2	200	0.97	1.03	2000	2500	90
Aventador Coupé SV Engine L540	0.3	750	950	0.2	200	0.97	1.03	2000	2500	90
Aventador Roadster SV Engine L540	0.3	750	950	0.2	200	0.97	1.03	2000	2500	90
Huracan										
Coupé Engine CSJ	0.3	750	950	0.2	200	0.97	1.03	2000	2500	90
Coupé Engine CSJ COD	0.3	650	850	0.2	200	0.97	1.03	2400	2600	90
Spyder Engine CSJ COD	0.3	650	850	0.2	200	0.97	1.03	2400	2600	90
LANCIA										
Engine Codes appear on the VIN Plate as well as the Engine Block.										
Dedra										
Non turbo version, Engine Codes 835A1.046, 835A2.046, 835A5.046 & 835C1.000	0.5	800	900	0.3	200	0.97	1.03	2500	2900	80
Turbo, Engine Code 835A8.046	0.35	800	900	0.3	200	0.97	1.03	2500	2900	80

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
Thema										
Engine Codes 834B2.246, 834C1.046, 834F1.000 & 834F2.000	0.35	800	900	0.3	200	0.97	1.03	2500	2900	80
Delta Integrale										
Engine Code 831E5.046	0.35	800	900	0.3	200	0.97	1.03	2500	2900	80
LAND ROVER (See Section II for details on Discovery, Range Rover and Defender models.)										
The Model Code consists of the 3rd & 4th digits of the VIN number for codes LC, LF, LG, LV and LW or the 4th & 5th digits of the VIN number for codes LA, LD, LM and LS and defines the model. The Serial Number consists of the last 6 or 8 digits of the VIN number found on the VIN Plate. The Engine Code consists of the 8th digit of the VIN number and defines the engine type except for codes LG and LW where it is the 7th digit of the VIN.										
Freelander Model Code LN										
1.8l (4 cylinder) & 2.5l V6	0.5	500	1000	0.3	200	0.95	1.09	2500	3000	70
Freelander 2 Model Code LF										
3.2L Engine Code A From VIN Serial Number 7H000201	0.5	600	800	0.3	200	0.95	1.09	2400	2900	70
2.0L GTDI Engine Code G From Serial Number DH000001	0.5	660	860	0.3	200	0.85	1.05	2000	3000	70
Range Rover Evoque Model Code LV										
2.0L GTDI Engine Code G From VIN Serial Number CH000101 to FH999999	0.5	600	800	0.3	200	0.85	1.05	2000	3000	70
2.0L GTDI Engine Code G From VIN Serial Number GH000001	0.5	550	850	0.3	200	0.97	1.03	2350	2650	70
LEXUS										
The Model Code is stamped on the VIN Plate. The series of numbers after each Engine Code relate to the last 7 digits of the VIN number.										
Lexus LS400 1989 - 2000										
Model Code UCF10 Engine Code 1UZ-FE From VIN No (last 7 digits) 0000001	0.5	600	700	0.3	200	0.97	1.03	2400	2600	60
Model Code UCF20 Engine Code 1UZ-FE From VIN No (last 7 digits) 0000001	0.5	600	700	0.3	200	0.97	1.03	2400	2600	60
Model Code UCF20 Engine Code 1UZ-FE From VIN No (last 7 digits) 0100232	0.5	700	800	0.3	200	0.97	1.03	2400	2600	60
Lexus LS430 2000 - 2006										
Model Code UCF30 Engine Code 3UZ-FE From VIN No (last 7 digits) 0000001	0.5	700	800	0.3	200	0.97	1.03	2400	2600	60
Lexus LS460 2006 onward										
Model Code USF40 Engine Code 1UR-FSE 4.6L V8 Auto From VIN JTHBL46FX05000219	0.3	700	800	0.2	200	0.97	1.03	2400	2600	60
New Generation Lexus GS250 2012 onward										
Model Code GRL11 Engine Code 4GR-FSE 2.5L V6 Auto From VIN (last 7 digits) 5000344	0.3	650	750	0.2	200	0.97	1.03	2400	2600	60

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (% Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
Lexus GS F										
Model Code URL10 Engine Code 2UR-GSE 5.0L V8 Auto From VIN (last 7 digits) A000001	0.3	700	800	0.2	200	0.97	1.03	2400	2600	60
Lexus GS300 1993 - 2011										
Model Code JZS147 Engine Code 2JZ-GE From VIN No (last 7 digits) 0056055	0.5	650	750	0.3	200	0.97	1.03	2400	2600	60
Model Code JZS160 Engine Code 2JZ-GE From VIN No (last 7 digits) 0000001	0.5	650	750	0.3	200	0.97	1.03	2400	2600	60
Model Code GRS190 Engine Code 3GR-FSE 3.0L Auto From VIN (last 7 digits) 0000001	0.3	600	700	0.2	200	0.97	1.03	2400	2600	60
Lexus GS430 2000 - 2011										
Model Code UZS161 Engine Code 3UZ-FE From VIN No (last 7 digits) 0000001	0.5	700	800	0.3	200	0.97	1.03	2400	2600	60
Model Code UZS190 Engine Code 3UZ-FE 4.3L Auto From VIN (last 7 digits) 0000001	0.3	700	800	0.2	200	0.97	1.03	2400	2600	60
Lexus GS460 2007 - 2011										
Model Code URS190 Engine Code 1UR-FSE 4.6L V8 Auto From VIN (last 7 digits) 0000001	0.3	700	800	0.2	200	0.97	1.03	2400	2600	60
Lexus IS200 1999 - 2005										
Model Code GXE10 Engine Code 1G-FE From VIN No (last 7 digits) 0000001	0.5	600	700	0.3	200	0.97	1.03	2400	2600	60
NewGeneration Lexus IS200t 2013 onward										
Model Code ASE30 Engine Code 8AR-FTS 2.0L Turbo Auto From VIN (last 7 digits) 5000001	0.3	750	850	0.2	200	0.97	1.03	2400	2600	60
Lexus IS250 2005 - 2013										
Model Code GSE20 Engine Code 4GR-FSE 2.5L From VIN (last 7 digits) 0000001	0.3	700	800	0.2	200	0.97	1.03	2400	2600	60
Lexus IS250C 2009 - 2013										
Model Code GSE20 Engine Code 4GR-FSE 2.5L From VIN (last 7 digits) 2504900	0.3	650	750	0.2	200	0.97	1.03	2400	2600	60
NewGeneration Lexus IS250 2013 onward										
Model Code GSE30 Engine Code 4GR-FSE 2.5L V6 Auto From VIN (last 7 digits) 5000001	0.3	650	750	0.2	200	0.97	1.03	2400	2600	60
Lexus IS-F 2007 - 2013										
Model Code USE20 Engine Code 2UR-GSE 5.0L V8 Auto From VIN (last 7 digits) 0000001	0.3	700	800	0.2	200	0.97	1.03	2400	2600	60
Lexus IS300 2001 - 2005										
Model Code JCE10 Engine Code 2JZ-GE From VIN No. (last 7 digits) 0000001	0.5	650	750	0.3	200	0.97	1.03	2400	2600	60
Lexus RX300 2000 - 2008										
Model Code MCU15 Engine Code 1MZ-FE From VIN No (last 7 digits) 0000001	0.5	650	750	0.3	200	0.97	1.03	2400	2600	60
Model Code MCU35 Engine Code 1MZ-FE 3.0L 5 speed Auto From VIN No (last 7 digits) 0000001	0.3	650	750	0.2	200	0.97	1.03	2400	2600	60
Lexus RX350 2006 - 2008										
Model Code GSU35 Engine Code 2GR-FE 3.5L V6 Auto From VIN JTJHK31U002000078	0.3	600	700	0.2	200	0.97	1.03	2400	2600	60

1 Manufacturer/ Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (% Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
New Generation Lexus RX200t 2015 onward										
2WD Model Code AGL20 Engine Code 8AR-FTS 2.0L Turbo Auto From VIN (last 7 digits) 2000001	0.3	750	850	0.2	200	0.97	1.03	2400	2600	60
AWD Model Code AGL25 Engine Code 8AR-FTS 2.0L Turbo Auto From VIN (last 7 digits) 2000001	0.3	750	850	0.2	200	0.97	1.03	2400	2600	60
Lexus SC430 2001 - 2010										
Model Code UZZ40 Engine Code 3UZ-FE From VIN No. (last 7 digits) 0000001	0.5	700	800	0.3	200	0.97	1.03	2400	2600	60
Lexus LFA 2010 - 2012										
Model Code LFA10 Engine Code 1LR-GUE From VIN No. (last 7 digits) 1000001	0.3	950	1050	0.2	200	0.97	1.03	2400	2600	60
Lexus RC F										
Model Code USC10 Engine Code 2UR-GSE 5.0L V8 Auto From VIN (last 7 digits) 5000001	0.3	700	800	0.2	200	0.97	1.03	2400	2600	60
Lexus RC 200t										
Model Code ASC10 Engine Code 8AR-FTS 2.0L Turbo Auto From VIN (last 7 digits) 5000001	0.3	750	850	0.2	200	0.97	1.03	2400	2600	60
Lexus NX 200t										
Model Code AGZ15 Engine Code 8AR-FTS 2.0L Turbo Auto From VIN (last 7 digits) 2000001	0.3	750	850	0.2	200	0.97	1.03	2400	2600	60
Lexus LC500 2017 onward										
Model Code URZ100 Engine Code 2UR-GSE 5.0L V8 Auto VIN start with JTH, From VIN (last 7 digits) A000001	0.3	700	800	0.2	200	0.97	1.03	2400	2600	60
LOTUS										
Esprit										
Type 082 Esprit SE from VIN No SCC082910KHD65000 Engine Type 910, Engine VIN Code 910	0.5	900	1080	0.3	200	0.95	1.09	2400	2600	80
Type 082 Esprit S4 from VIN No SCC082910NHF60006 Engine Type 910, Engine VIN Code 910	0.5	900	1080	0.3	200	0.95	1.09	2400	2600	80
Type 082 Esprit Sport 300 from VIN No SCC082910PHA68004 Engine Type 910, Engine VIN Code 910	0.5	900	1080	0.3	200	0.95	1.09	2400	2600	80
Type 082 Esprit S4s from VIN No SCC082910SHA64001 Engine Type 910, Engine VIN Code 910	0.5	900	1080	0.3	200	0.95	1.09	2400	2600	80
Type 082 Esprit S4, GT3 from VIN No SCC082920THA42100 Engine Type 920, Engine VIN Code 920	0.5	900	1080	0.3	200	0.95	1.09	2400	2600	80
Type 082 Esprit V8, V8GT, Sport 350 from VIN No SCC082918THF15011 Engine Type 918, Engine VIN Code 918	0.5	800	1080	0.3	200	0.95	1.09	2400	2600	80
Elan										
Type 100 Elan S2 from VIN No SCC100ZT1RHA26001 Engine Type ZT1, Engine VIN Code ZT1	0.5	800	1000	0.3	200	0.95	1.09	2400	2600	80
Elise										
Type 111 Elise from VIN No SCC111YN1THA10017 Engine Type 18K4F, Engine VIN Code YN1	0.5	800	1000	0.3	200	0.95	1.09	2500	3000	80
Type 111 Elise from VIN No SCCGA1110XHC30017 Engine Type 18K4F, Engine VIN Code G	0.5	800	1000	0.3	200	0.95	1.09	2500	3000	80
Type 111S Elise from VIN No SCCJA1110XHC33591 Engine Type 18K4K, Engine VIN Code J	0.5	800	1000	0.3	200	0.95	1.09	2500	3000	80

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
Type 111 340R from VIN No SCCGA1110YHC60004 Engine Type 18K4F, Engine VIN Code G	0.5	1150	1350	0.3	200	0.95	1.09	2500	3000	80
Type 111 Sport 160 from VIN No SCCKA1110YHC30651 Engine Type 18K4F, Engine VIN Code K	0.5	1100	1500	0.3	200	0.95	1.09	2500	3000	80
Type 111 Exige from VIN No SCCGA1118YHC80001 Engine Type 18K4F, Engine VIN Code G	0.5	1150	1350	0.3	200	0.95	1.09	2500	3000	80
Type 111 Elise from VIN No SCCGA11101HC70018 Engine Type 18K4F, Engine VIN Code G	0.5	750	1000	0.3	200	0.95	1.09	2400	2800	80
Type 111 Elise from VIN No SCCJA111***** Engine Type 18K4F, Engine VIN Code J	0.5	750	1000	0.3	200	0.95	1.09	2400	2800	80
Type 111 Elise from VIN No SCCPA11104HN30970 Engine Type 2ZZ, Engine VIN Code P	0.3	600	1000	0.2	200	0.95	1.09	2000	3000	82
Type 111 Exige from VIN No SCCPA11194HN81092 Engine Type 2ZZ, Engine VIN Code P	0.3	600	1000	0.2	200	0.95	1.09	2000	3000	82
115										
Type and Model 115 from VIN No SCC115DC2VHCA0001 Engine Type 918 Engine VIN Code D	0.5	1200	1500	0.3	200	0.95	1.09	2400	2600	80
Carlton										
Type 104 Carlton from VIN No SCC000019L1181706 Engine Type C36GET	0.5	655	705	0.3	200	0.97	1.03	2500	2900	80
Elise S										
1ZZ, Engine VIN code Y	0.3	600	1000	0.2	200	0.97	1.03	2000	3000	82
Elise SC										
2ZZ, Engine VIN code Z	0.3	600	1000	0.2	200	0.97	1.03	2000	3000	82
Exige SC										
2ZZ, Engine VIN code Z	0.3	600	1000	0.2	200	0.97	1.03	2000	3000	82
Exige S										
2ZZ, Engine VIN code V	0.3	600	1000	0.2	200	0.97	1.03	2000	3000	82
Exige S 240										
2ZZ, Engine VIN code W	0.3	600	1000	0.2	200	0.97	1.03	2000	3000	82
Exige S 260										
2ZZ, Engine VIN code A	0.3	600	1000	0.2	200	0.97	1.03	2000	3000	82
211										
2ZZ, Engine VIN code C	0.3	600	1000	0.2	200	0.97	1.03	2000	3000	82
2ZZ, Engine VIN code N	0.3	600	1000	0.2	200	0.97	1.03	2000	3000	82
Europa										
Z20LER, Engine VIN code S	0.3	600	1000	0.2	200	0.97	1.03	2000	3000	82
Europa SE										
Z20LER, Engine VIN code D	0.3	600	1000	0.2	200	0.97	1.03	2000	3000	82

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
Evora										
Type 122 Engine code 2GR, Engine VIN code T	0.3	500	900	0.2	200	0.97	1.03	2000	3000	82
MARCOS										
The VIN Code consists of the last 6 digits of the VIN number.										
Mantara 3.9l	0.5	650	750	0.3	200	0.97	1.03	2500	3000	60
Mantara 4.6l	0.5	650	750	0.3	200	0.97	1.03	2500	3000	60
Manta Ray 3.9l	0.5	650	750	0.3	200	0.97	1.03	2500	3000	60
Manta Ray 4.6l	0.5	650	750	0.3	200	0.97	1.03	2500	3000	60
MASERATI										
The Model Code can be found on the VIN Plate.										
Ghibli										
Model Code 336 2.8i Manual	0.5	550	1100	0.3	200	0.97	1.03	2500	3000	90
Model Code M157	0.3	700	1050	0.3	200	0.98	1.02	2500	3000	90
Ghibli S										
Model Code M157	0.3	700	1050	0.3	200	0.98	1.02	2500	3000	90
Shamal										
Model Code 339 3.2i Manual	0.5	550	1100	0.3	200	0.97	1.03	2500	3000	90
Quattroporte										
Model Code 337 2.8i Manual	0.5	550	1100	0.3	200	0.97	1.03	2500	3000	90
Model Code 337 3.2i Manual	0.3	900	1000	0.3	200	0.98	1.02	2500	3000	105
Model Code M139 Quattroporte	0.3	700	1050	0.3	200	0.98	1.02	2500	3000	90
Model Code M139 Quattroporte Sport GT	0.3	700	1050	0.3	200	0.98	1.02	2500	3000	90
Model Code M139 Quattroporte Executive GT	0.3	700	1050	0.3	200	0.98	1.02	2500	3000	90
Quattroporte S										
Model Code M139 Quattroporte S	0.3	700	1050	0.3	200	0.98	1.02	2500	3000	90
Model Code M156 Quattroporte S	0.3	700	1050	0.3	200	0.98	1.02	2500	3000	90
Quattroporte GTS										
Model Code M156 Quattroporte GTS	0.3	700	1050	0.3	200	0.98	1.02	2500	3000	90

1 Manufacturer/Marque	2			3						4 Min Oil Temp(°C)
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
Quattroporte Sport GTS										
Model Code M139 Quattroporte Sport GTS	0.3	700	1050	0.3	200	0.98	1.02	2500	3000	90
GranTurismo										
Model Code M145 Gran Turismo	0.3	700	1050	0.3	200	0.98	1.02	2500	3000	90
GranTurismo S										
Model Code M145 Gran Turismo	0.3	700	1050	0.3	200	0.98	1.02	2500	3000	90
GranTurismo Sport MC Shift										
Model Code M145 Gran Turismo	0.3	700	1050	0.3	200	0.98	1.02	2500	3000	90
GranTurismo S Automatic										
Model Code M145 Gran Turismo	0.3	700	1050	0.3	200	0.98	1.02	2500	3000	90
GranTurismo Sport MC Auto Shift										
Model Code M145 Gran Turismo	0.3	700	1050	0.3	200	0.98	1.02	2500	3000	90
GranTurismo MC Stradale										
Model Code M145 Gran Turismo	0.3	700	1050	0.3	200	0.98	1.02	2500	3000	90
GranCabrio										
Model Code M145 GranCabrio	0.3	700	1050	0.3	200	0.98	1.02	2500	3000	90
GranCabrio Sport										
Model Code M145 GranCabrio	0.3	700	1050	0.3	200	0.98	1.02	2500	3000	90
3200 GT										
Model Code 338 3.2i Manual	0.3	850	950	0.3	200	0.98	1.02	2500	3000	105
Model Code 338 3.2i Automatic	0.3	850	1050	0.3	200	0.98	1.02	2500	3000	105
4200										
Model Code M138 Spyder GT	0.3	850	1050	0.3	200	0.98	1.02	2500	3000	90
Model Code M138 Spyder Cambio Corsa	0.3	850	1050	0.3	200	0.98	1.02	2500	3000	90
Model Code M138 Coupé GT	0.3	850	1050	0.3	200	0.98	1.02	2500	3000	90
Model Code M138 Coupé Cambio Corsa	0.3	850	1050	0.3	200	0.98	1.02	2500	3000	90
Model Code M138 Gransport	0.3	700	1050	0.3	200	0.98	1.02	2500	3000	90
Model Code M138 Gransport Spyder	0.3	700	1050	0.3	200	0.98	1.02	2500	3000	90

1 Manufacturer/Marque	2			3						4 Min Oil Temp(°C)
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit	Min Limit	Max Limit	Max CO Limit	Max HC Limit	Min Lambda	Max Lambda	Min Limit	Max Limit	
	(% Vol)	(RPM)	(RPM)	(% Vol)	(PPM)			(RPM)	(RPM)	
MAZDA <i>See Section II for details on the seven seat MPV model</i>										
<i>The VDS code consists of the 4th to 9th digit in the VIN number. The VIN can be found on the VIN plate. The serial number consists of the last 6 digits of the VIN number.</i>										
RX-7 series										
2.6l VDS Code FD13B2	0.5	700	750	0.3	200	0.97	1.6	2400	2600	80
RX-8 series										
Rotary VDS Code SE17N2, SE1736	0.5	770	870	0.3	200	0.97	1.03	2450	2550	80
121 series to 1995										
1.3l VDS Code DB12D2	0.5	750	800	0.3	200	0.97	1.03	2400	2600	80
121 series 1996 (Engine Code is found on VIN plate to left of VIN No)										
1.25l Zetec Engine Code DH	0.5	825	925	0.3	200	0.95	1.09	2800	3100	80
1.3l Endura Engine Code JA	0.5	825	925	0.3	200	0.95	1.09	2800	3100	80
323 series										
1.3l VDS Code BA1332, BA 1532	0.5	800	900	0.3	200	0.97	1.03	2400	2600	80
1.3l VDS Code BG12C2, BG13C2 serial number 633541 onwards	0.5	800	900	0.3	200	0.97	1.03	2400	2600	80
1.3l VDS Code BJ1232, 1432	0.5	650	750	0.3	200	0.97	1.03	2400	2600	80
1.5l VDS Code BA1252, BA1452, BA1552, BJ12L2, BJ14L2	0.5	650	750	0.3	200	0.97	1.03	2400	2600	80
1.5l VDS Code BA1355, 12L5, 14L5	0.5	700	800	0.3	200	0.97	1.03	2400	2600	80
1.6l VDS Code BG12E2, BG12E5, BG14E2, BG14E5 serial number 500001 onwards	0.5	700	800	0.3	200	0.97	1.03	2400	2600	80
1.6l VDS Code BW1272 serial number 518223 onwards	0.5	800	900	0.3	200	0.97	1.03	2400	2600	80
1.6l VDS Code BJ14M2, BJ14M5	0.5	700	800	0.3	200	0.97	1.03	2400	3000	80
1.8l VDS Code BA14P2, BA14P5	0.5	700	800	0.3	200	0.97	1.03	2400	2600	80
1.8l VDS Code BG13G2, BG14G2 serial number 500001 onwards	0.5	700	800	0.3	200	0.97	1.03	2400	2600	80
1.8l VDS Code BJ 12P2, 12P5, 14P2, 14P5	0.5	650	750	0.3	200	0.97	1.03	2400	2600	80
2.0l VDS Code BA14F2	0.5	750	850	0.3	200	0.97	1.03	2400	2600	80
2.0l VDS Code BJ14S2, BJ14S5	0.5	650	750	0.3	200	0.97	1.03	2400	3000	80
MX-6 series										
2.5l VDS Code GE16F2, GE16F5	0.5	600	700	0.3	200	0.97	1.03	2400	2600	80
626 series										
1.8l VDS Code GE12A2, GE14A2	0.5	675	775	0.3	200	0.97	1.03	2400	2600	80
1.8l VDS Code GF14P2, GW19P2	0.5	600	700	0.3	200	0.97	1.03	2400	2600	80
2.0l VDS Code GE12J2, GE12J5, GE14J2, GE14J5	0.5	650	750	0.3	200	0.97	1.03	2400	2600	80

1 Manufacturer/Marque	2			3						4 Min Oil Temp(°C)
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (% Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
2.0l VDS Code GF12F2, GF14F2, GF14F5, GW19F2, GW19F5, GF14S2, GF14S5, GW19S2	0.5	600	700	0.3	200	0.97	1.03	2400	2600	80
2.0l VDS Code GV12E2 serial number 300001 onwards	0.5	725	775	0.3	200	0.97	1.03	2400	2600	80
2.5l VDS Code GE14F2, GE14F5	0.5	600	700	0.3	200	0.97	1.03	2400	2600	80
MX-3 series										
1.6l VDS Code EC13A5, EC13C5	0.5	700	800	0.3	200	0.97	1.03	2400	2600	80
1.6l VDS Code EC13C2	0.5	650	750	0.3	200	0.97	1.03	2400	2600	80
1.8l VDS Code EC13B2	0.5	640	700	0.3	200	0.97	1.03	2400	2600	80
MX-5 series										
1.6l VDS Code NA18B2 serial number 131178 onwards	0.5	800	900	0.3	200	0.97	1.03	2400	2600	80
1.6l VDS Code NA18C2	0.5	800	900	0.3	200	0.97	1.03	2400	2600	80
1.6l VDS Code NB18C2	0.5	750	850	0.3	200	0.97	1.03	2400	2600	80
1.8l VDS Code NA18P2	0.5	800	900	0.3	200	0.97	1.03	2400	2600	80
1.8l VDS Code NB18P2, NB18P6	0.5	750	850	0.3	200	0.97	1.03	2400	2600	80
1.8l VDS Code NC1882	0.5	670	770	0.3	200	0.97	1.03	2400	2600	80
2.0l VDS Code NC18F2	0.5	670	770	0.3	200	0.97	1.03	2400	2600	80
Xedos series										
Xedos 6 1.6l VDS Code CA12A2, CA12A5	0.5	750	850	0.3	200	0.97	1.03	2400	2600	80
Xedos 6 2.0l VDS Code CA12B2, CA12B5	0.5	620	720	0.3	200	0.97	1.03	2400	2600	80
Xedos 9 2.5l VDS Code TA12L5	0.5	600	700	0.3	200	0.97	1.03	2400	2600	80
Xedos 9 2.3l VDS Code TA12J5	0.5	600	700	0.3	200	0.97	1.03	2400	2600	80
Demio										
1.3l VDS Code DW1922, DW1932	0.5	700	800	0.3	200	0.97	1.03	2400	2600	80
1.5l VDS Code DW1952, DW1955	0.5	700	800	0.3	200	0.97	1.03	2400	2600	80
Premacy										
1.8l VDS Code CP19F2, CP19P2, CP19P5	0.5	650	750	0.3	200	0.97	1.03	2400	2600	80
2.0l VDS Code CP19S2, CP19S5	0.5	650	750	0.3	200	0.97	1.03	2400	3000	80
Mazda2 (The 7th to 9th characters of the VIN, marked *** are not relevant.)										
1.25l VDS Code NB2***, NBA***	0.5	700	800	0.3	200	0.95	1.03	2800	3100	80
1.4l VDS Code NC2***, NCA***	0.5	700	800	0.3	200	0.95	1.03	2800	3100	80
1.6l VDS Code ND2***	0.5	700	800	0.3	200	0.95	1.03	2800	3100	80

1 Manufacturer/ Marque	2			3						4 Min Oil Temp(°C)
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (% Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
Mazda3										
1.4l VDS Code 12J2, 14J2	0.5	690	790	0.3	200	0.97	1.03	2400	3000	80
1.6l VDS Code 12Z2, 14Z2	0.5	640	740	0.3	200	0.97	1.03	2400	3000	80
1.6l VDS Code 12Z5, 14Z5	0.5	700	800	0.3	200	0.97	1.03	2400	3000	80
2.0l VDS Code 12F2, 14F2	0.5	600	700	0.3	200	0.97	1.03	2400	3000	80
2.0l VDS Code 12R6, 14R6	0.5	600	700	0.3	200	0.97	1.03	2400	3000	80
2.3l Turbo VDS Code 14L6	0.5	650	750	0.3	200	0.97	1.03	2400	3000	80
Mazda6										
1.8l VDS Code GG1282, GG1482, GY1982	0.5	650	750	0.3	200	0.97	1.03	2400	3000	80
2.0l VDS Code GG12F2, GG14F2, GY19F2, GG12F6, GG14F6, GY19F6	0.5	600	700	0.3	200	0.97	1.03	2400	3000	80
2.0l VDS Code GG12F5, GG14F5, GY19F5, GG12F7, GG14F7, GY19F7	0.5	650	750	0.3	200	0.97	1.03	2400	3000	80
2.3l VDS Code GG1232, GY1932, GG1236, GG1436, GY1936	0.5	600	700	0.3	200	0.97	1.03	2400	3000	80
2.3l GY8937, GG1237, GG1437, GY1937	0.5	650	750	0.3	200	0.97	1.03	2400	3000	80
Mazda6 MPS										
2.3L Turbo GG82L6	0.5	650	750	0.3	200	0.97	1.03	2400	3000	80
Tribute (The engine code is the 8th character of the VIN.)										
2.0l Engine Code B	0.5	700	800	0.3	200	0.95	1.03	2800	3100	80
3.0l Engine code 1	0.5	700	800	0.3	200	0.95	1.03	2800	3100	80
McLAREN AUTOMOTIVE										
F1 Road Car	0.3	850	950	0.3	200	0.97	1.03	3000	3500	90
F1 GT	0.3	850	950	0.3	200	0.97	1.03	3000	3500	90
Mercedes-Benz SLR McLaren (MY 05)	0.3	500	650	0.2	200	0.97	1.03	2200	2800	90
Mercedes-Benz SLR McLaren (MY 06)	0.3	500	650	0.2	200	0.97	1.03	2200	2800	90
Mercedes-Benz SLR McLaren (MY 07)	0.3	500	650	0.2	200	0.97	1.03	2200	2800	90
Mercedes-Benz SLR McLaren 722 Edition (MY 07)	0.3	500	650	0.2	200	0.97	1.03	2200	2800	90
Mercedes-Benz SLR McLaren Roadster (MY08)	0.3	500	650	0.2	200	0.97	1.03	2200	2800	90
Mercedes-Benz SLR McLaren Sterling Moss Edition (MY09)	0.3	500	650	0.2	200	0.97	1.03	2200	2800	90
Mercedes-Benz SLR McLaren Roadster 722S (MY09)	0.3	500	650	0.2	200	0.97	1.03	2200	2800	90
MP4-12C	0.3	600	750	0.2	200	0.97	1.03	2000	2600	99

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
P1	0.3	600	750	0.2	200	0.97	1.03	2000	2600	96
650S Coupé & Spider	0.3	600	1000	0.2	200	0.97	1.03	2000	2600	90
675LT Coupé & Spider	0.3	750	1000	0.2	200	0.97	1.03	2000	2600	90
570S	0.3	850	1000	0.2	200	0.97	1.03	2000	2600	90
540C	0.3	850	1000	0.2	200	0.97	1.03	2000	2600	90

MERCEDES BENZ

The VIN Code consists of digits 4 to 9 of the VIN number. A4 = Automatic 4-speed, A5 = Automatic 5-speed, M5 = Manual 5-speed, SM5 = Semi-Manual 5-speed, M5/s = Manual 5 speed with sports gearbox. K = Kompressor, SWB = Short Wheel Base, LWB = Long Wheel Base

See also Section II

AMG GT Coupé (C190)

AMG GT A7 VIN Code 190377	0.3	600	800	0.2	200	0.97	1.03	2200	2800	80
AMG GT S A7 VIN Code 190378	0.3	600	800	0.2	200	0.97	1.03	2200	2800	80
AMG GT C A7 VIN Code 190380	0.3	600	900	0.2	200	0.97	1.03	2200	2800	80
AMG GT R A7 VIN Code 190379	0.3	600	900	0.2	200	0.97	1.03	2200	2800	80

AMG GT Roadster (R190)

AMG GT A7 VIN Code 190477	0.3	600	800	0.2	200	0.97	1.03	2200	2800	80
AMG GT C A7 VIN Code 190480	0.3	600	900	0.2	200	0.97	1.03	2200	2800	80

A-Class (C169)

A150 3 door VIN Code 169331	0.3	670	850	0.2	200	0.97	1.03	2200	2800	91
A160 M5 3 door Hatch VIN Code 169331	0.3	670	850	0.2	200	0.97	1.03	2200	2800	80
A160 A7 3 door Hatch VIN Code 169331	0.3	670	850	0.2	200	0.97	1.03	2200	2800	80
A170 3 door VIN Code 169332	0.3	670	850	0.2	200	0.97	1.03	2200	2800	91
A180 M5 3 door Hatch VIN Code 169332	0.3	670	850	0.2	200	0.97	1.03	2200	2800	80
A180 A7 3 door Hatch VIN Code 169332	0.3	670	850	0.2	200	0.97	1.03	2200	2800	80
A200 3 door VIN Code 169333	0.3	670	850	0.2	200	0.97	1.03	2200	2800	90
A200 Turbo 3 door VIN Code 169334	0.3	650	850	0.2	200	0.97	1.03	2200	2800	90

A-Class (W 168)

A140 Avantgarde A5 Hatchback VIN Code 168031 and 168131	0.5	610	760	0.3	200	0.97	1.03	2200	2800	80
A140 Avantgarde M5 Hatchback VIN Code 168031 and 168131	0.5	800	950	0.3	200	0.97	1.03	2200	2800	80

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
A140 Avantgarde SM5 Hatchback VIN Code 168031 and 168131	0.5	610	760	0.3	200	0.97	1.03	2200	2800	80
A140 Classic A5 Hatchback VIN Code 168031 and 168131	0.5	610	760	0.3	200	0.97	1.03	2200	2800	80
A140 Classic M5 Hatchback VIN Code 168031 and 168131	0.5	800	950	0.3	200	0.97	1.03	2200	2800	80
A140 Classic SM5 Hatchback VIN Code 168031 and 168131	0.5	800	950	0.3	200	0.97	1.03	2200	2800	80
A140 Elegance A5 Hatchback VIN Code 168031 and 168131	0.5	610	760	0.3	200	0.97	1.03	2200	2800	80
A140 Elegance M5 Hatchback VIN Code 168031 and 168131	0.5	800	950	0.3	200	0.97	1.03	2200	2800	80
A140 Elegance SM5 Hatchback VIN Code 168031 and 168131	0.5	800	950	0.3	200	0.97	1.03	2200	2800	80
A160 Avantgarde A5 Hatchback VIN Code 168033 and 168133	0.5	610	760	0.3	200	0.97	1.03	2200	2800	80
A160 Avantgarde M5 Hatchback VIN Code 168033 and 168133	0.5	800	950	0.3	200	0.97	1.03	2200	2800	80
A160 Avantgarde SM5 Hatchback VIN Code 168033 and 168133	0.5	800	950	0.3	200	0.97	1.03	2200	2800	80
A160 Classic A5 Hatchback VIN Code 168033 and 168133	0.5	610	760	0.3	200	0.97	1.03	2200	2800	80
A160 Classic M5 Hatchback VIN Code 168033 and 168133	0.5	800	950	0.3	200	0.97	1.03	2200	2800	80
A160 Classic SM5 Hatchback VIN Code 168033 and 168133	0.5	800	950	0.3	200	0.97	1.03	2200	2800	80
A160 Elegance A5 Hatchback VIN Code 168033 and 168133	0.5	610	760	0.3	200	0.97	1.03	2200	2800	80
A160 Elegance M5 Hatchback VIN Code 168033 and 168133	0.5	800	950	0.3	200	0.97	1.03	2200	2800	80
A160 Elegance SM5 Hatchback VIN Code 168033 and 168133	0.5	800	950	0.3	200	0.97	1.03	2200	2800	80
A190 Avantgarde A5 Hatchback VIN Code 168032 and 168132	0.5	800	950	0.3	200	0.97	1.03	2200	2800	80
A190 Avantgarde M5/s Hatchback VIN Code 168032 and 168132	0.5	800	950	0.3	200	0.97	1.03	2200	2800	80
A190 Avantgarde SM5 Hatchback VIN Code 168032 and 168132	0.5	800	950	0.3	200	0.97	1.03	2200	2800	80
A190 Elegance A5 Hatchback VIN Code 168032 and 168132	0.5	800	950	0.3	200	0.97	1.03	2200	2800	80
A190 Elegance M5/s Hatchback VIN Code 168032 and 168132	0.5	800	900	0.3	200	0.97	1.03	2200	2800	80
A190 Elegance SM5 Hatchback VIN Code 168032 and 168132	0.5	800	950	0.3	200	0.97	1.03	2200	2800	80
A210 Evolution Automatic VIN Code 168035	0.5	800	950	0.3	200	0.97	1.03	2200	2800	80
A210 Evolution Manual VIN Code 168035	0.5	800	950	0.3	200	0.97	1.03	2200	2800	80
A210 Evolution LWB Automatic VIN Code 168135	0.5	800	950	0.3	200	0.97	1.03	2200	2800	80
A210 Evolution LWB Manual VIN Code 168135	0.5	800	950	0.3	200	0.97	1.03	2200	2800	80
A-Class (W 169)										
A150 5 door M5 VIN Code 169031	0.3	670	850	0.2	200	0.97	1.03	2200	2800	91
A160 M5 5 door Hatch VIN Code 169031	0.3	670	850	0.2	200	0.97	1.03	2200	2800	80
A160 A7 5 door Hatch VIN Code 169031	0.3	670	850	0.2	200	0.97	1.03	2200	2800	80
A170 5 door M5 VIN Code 169032	0.3	670	850	0.2	200	0.97	1.03	2200	2800	91
A180 M5 5 door Hatch VIN Code 169032	0.3	670	850	0.2	200	0.97	1.03	2200	2800	80

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
A180 A7 5 door Hatch VIN Code 169032	0.3	670	850	0.2	200	0.97	1.03	2200	2800	80
A200 5 door M6 VIN Code 169033	0.3	670	850	0.2	200	0.97	1.03	2200	2800	90
A200 Turbo 5 door M6 VIN Code 169034	0.3	650	850	0.2	200	0.97	1.03	2200	2800	90
A-Class (S176)										
A160 A7 5 door Hatch Vin Code 176041	0.3	650	800	0.2	200	0.97	1.03	2200	2800	80
A160 M6 5 door Hatch Vin Code 176041	0.3	650	800	0.2	200	0.97	1.03	2200	2800	80
A180 M6 5 door Hatch Vin Code 176042	0.3	650	800	0.2	200	0.97	1.03	2200	2800	80
A180 A7 5 door Hatch Vin Code 176042	0.3	650	800	0.2	200	0.97	1.03	2200	2800	80
A200 M5 5 door Hatch Vin Code 176043	0.3	650	800	0.2	200	0.97	1.03	2200	2800	80
A200 A7 5 door Hatch Vin Code 176043	0.3	650	800	0.2	200	0.97	1.03	2200	2800	80
A250 A7 5 door Hatch Vin Code 176044	0.3	650	800	0.2	200	0.97	1.03	2200	2800	80
A250 4MATIC A7 5 door Hatch Vin Code 176046	0.3	600	800	0.2	200	0.97	1.03	2200	2800	80
A250 AMG A7 VIN Code 176050	0.3	650	800	0.2	200	0.97	1.03	2200	2800	80
A250 4MATIC AMG A7 VIN Code 176051	0.3	650	800	0.2	200	0.97	1.03	2200	2800	80
A45 AMG A7 5 door Hatch Vin Code 176052	0.3	600	800	0.2	200	0.97	1.03	2200	2800	80
B-Class (245)										
B150 3 door M5 VIN Code 245231	0.3	670	850	0.2	200	0.97	1.03	2200	2800	90
B150 5 door M5 VIN Code 245231	0.3	670	850	0.2	200	0.97	1.03	2200	2800	90
B160 M5 5 door Hatch VIN Code 245231	0.3	670	850	0.2	200	0.97	1.03	2200	2800	80
B160 A7 5 door Hatch VIN Code 245231	0.3	670	850	0.2	200	0.97	1.03	2200	2800	80
B160 M5 5 door Hatch VIN Code 245232	0.3	670	850	0.2	200	0.97	1.03	2200	2800	80
B160 A7 5 door Hatch VIN Code 245232	0.3	670	850	0.2	200	0.97	1.03	2200	2800	80
B170 5 door M5 VIN Code 245232	0.3	670	850	0.2	200	0.97	1.03	2200	2800	87
B200 5 door M6 VIN Code 245233	0.3	670	850	0.2	200	0.97	1.03	2200	2800	87
B200 Turbo 5 door M6 VIN Code 245234	0.3	650	850	0.2	200	0.97	1.03	2200	2800	90
B-Class (W 246)										
B180 M5 5 door Hatch VIN Code 246242	0.3	650	800	0.2	200	0.97	1.03	2200	2800	80
B180 A7 5 door Hatch VIN Code 246242	0.3	650	800	0.2	200	0.97	1.03	2200	2800	80
B200 M5 5 door Hatch VIN Code 246243	0.3	650	800	0.2	200	0.97	1.03	2200	2800	80
B200 A7 5 door Hatch VIN Code 246243	0.3	650	800	0.2	200	0.97	1.03	2200	2800	80
B220 4MATIC A7 5 door Hatch VIN Code 246247	0.3	600	800	0.2	200	0.97	1.03	2200	2800	80

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
C-Class Coupé (203)										
C160 M6 VIN Code 203730	0.3	550	750	0.2	200	0.97	1.03	2200	2800	90
C180 Automatic VIN Code 203746	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
C180 Evolution Panorama Automatic VIN Code 203746	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
C180 Evolution Panorama Manual VIN Code 203746	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
C180 Evolution S Panorama Automatic VIN Code 203746	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
C180 Evolution S Panorama Manual VIN Code 203746	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
C180 Manual VIN Code 203746	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
C200 Kompressor Automatic VIN Code 203742	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
C200 Kompressor Manual VIN Code 203742	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
C200 Kompressor Semi Automatic VIN Code 203742	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
C200K Evolution Panorama Automatic VIN Code 203742	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
C200K Evolution Panorama Manual VIN Code 203742	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
C200K Evolution Panorama Semi Automatic VIN Code 203742	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
C230 A7 VIN Code 203752	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
C230 Kompressor Automatic VIN Code 203747	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
C230 Kompressor Manual VIN Code 203747	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
C230 Kompressor Semi Automatic VIN Code 203747	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
C230 M6 VIN Code 203752	0.3	550	750	0.2	200	0.97	1.03	2200	2800	90
C230 Sport Edition A7 VIN Code 203752	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
C230 Sport Edition M6 VIN Code 203752	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
C230K A5 VIN Code 203740	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
C230K Evolution Panorama Automatic VIN Code 203747	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
C230K Evolution Panorama Manual VIN Code 203747	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
C230K Evolution Panorama Semi Automatic VIN Code 203747	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
C230K M6 VIN Code 203740	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
C230K SM/6 VIN Code 203740	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
C320 A5 VIN Code 203764	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
C320 M6 VIN Code 203764	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
C350 A7 VIN Code 203756	0.3	550	700	0.2	200	0.97	1.03	2200	2800	98
C-Class Coupé (C204)										
C180 M6 VIN Code 204349	0.3	550	850	0.2	200	0.97	1.03	2200	2800	80

1 Manufacturer/Marque	2			3						4 Min Oil Temp(°C)
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (%) Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
C180 A5 VIN Code 204349	0.3	550	850	0.2	200	0.97	1.03	2200	2800	80
C250 A5 VIN Code 204347	0.3	550	850	0.2	200	0.97	1.03	2200	2800	80
C350 A7 VIN Code 204357	0.3	540	720	0.2	200	0.97	1.03	2200	2800	80
C63 AMG A7 VIN Code 204377	0.3	500	700	0.2	200	0.97	1.03	2200	2800	80
C180 M6 VIN Code 204331	0.3	600	800	0.2	200	0.97	1.03	2200	2800	80
C180 A7 VIN Code 204331	0.3	600	800	0.2	200	0.97	1.03	2200	2800	80
C350 A7 VIN Code 204357	0.3	540	720	0.2	200	0.97	1.03	2200	2800	80
C-Class Coupé (C205)										
C200 M6 VIN Code 205342	0.3	650	800	0.2	200	0.97	1.03	2200	2800	80
C200 A7 VIN Code 205342	0.3	650	800	0.2	200	0.97	1.03	2200	2800	80
C200 4MATIC A9 VIN Code 205343	0.3	650	800	0.2	200	0.97	1.03	2200	2800	80
C300 A7 VIN Code 205348	0.3	650	800	0.2	200	0.97	1.03	2200	2800	80
AMG C 43 4MATIC A9 VIN Code 205387	0.3	520	720	0.2	200	0.97	1.03	2200	2800	80
AMG C 63 A7 VIN Code 205386	0.3	600	800	0.2	200	0.97	1.03	2200	2800	80
AMG C 63 S A7 VIN Code 205387	0.3	600	800	0.2	200	0.97	1.03	2200	2800	80
C-Class Estate (202)										
C180 Classic A5 Estate VIN Code 202078	0.5	750	850	0.3	200	0.97	1.03	2200	2800	80
C180 Classic M5 Estate VIN Code 202078	0.5	750	850	0.3	200	0.97	1.03	2200	2800	80
C180 Elegance A5 Estate VIN Code 202078	0.5	750	850	0.3	200	0.97	1.03	2200	2800	80
C180 Elegance M5 Estate VIN Code 202078	0.5	750	850	0.3	200	0.97	1.03	2200	2800	80
C180 Esprit A5 Estate VIN Code 202078	0.5	750	850	0.3	200	0.97	1.03	2200	2800	80
C180 Esprit M5 Estate VIN Code 202078	0.5	750	850	0.3	200	0.97	1.03	2200	2800	80
C180 Estate A4 VIN Code 202078	0.5	750	850	0.3	200	0.97	1.03	2200	2800	80
C180 Sport A5 Estate VIN Code 202078	0.5	750	850	0.3	200	0.97	1.03	2200	2800	80
C180 Sport M5 Estate VIN Code 202078	0.5	750	850	0.3	200	0.97	1.03	2200	2800	80
C200 Classic A5 Estate VIN Code 202080	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
C200 Classic M5 Estate VIN Code 202080	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
C200 Elegance A5 Estate VIN Code 202080	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
C200 Elegance M5 Estate VIN Code 202080	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
C200 Esprit A5 Estate VIN Code 202080	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
C200 Esprit M5 Estate VIN Code 202080	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
C200 Estate A4 VIN Code 202080	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
C200 Sport A5 Estate VIN Code 202080	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
C200 Sport M5 Estate VIN Code 202080	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
C230 A4 Estate VIN Code 202083	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
C230 A5 Estate VIN Code 202083	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
C230 Kompressor Classic A5 Estate VIN Code 202085	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
C230 Kompressor Classic M5 Estate VIN Code 202085	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
C230 Kompressor Elegance A5 Estate VIN Code 202085	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
C230 Kompressor Elegance M5 Estate VIN Code 202085	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
C230 Kompressor Esprit A5 Estate VIN Code 202085	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
C230 Kompressor Esprit M5 Estate VIN Code 202085	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
C230 Kompressor Sport A5 Estate VIN Code 202085	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
C230 Kompressor Sport M5 Estate VIN Code 202085	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
C230 M5 Estate VIN Code 202083	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
C240 Classic A5 Estate VIN Code 202086	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
C240 Elegance A5 Estate VIN Code 202086	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
C240 Esprit A5 Estate VIN Code 202086	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
C240 Sport A5 Estate VIN Code 202086	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
C280 Classic A5 Estate VIN Code 202089	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
C280 Elegance A5 Estate VIN Code 202089	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
C280 Esprit A5 Estate VIN Code 202089	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
C280 Sport A5 Estate VIN Code 202089	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
C43 AMG A5 Estate VIN Code 202093	0.5	600	750	0.3	200	0.97	1.03	2200	2800	80
C-Class Estate (S203)										
C180 Estate A5 VIN Code 203235	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
C180 Estate Avantgarde Automatic VIN Code 203246	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
C180 Estate Avantgarde Manual VIN Code 203246	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
C180 Estate Avantgarde Semi Automatic VIN Code 203246	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
C180 Estate Elegance Automatic VIN Code 203246	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
C180 Estate Elegance Manual VIN Code 203246	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
C180 Estate Elegance Semi Automatic VIN Code 203246	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
C180 Estate M6 VIN Code 203235	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
C200K A5 VIN Code 203245	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80

1 Manufacturer/Marque	2			3						4 Min Oil Temp(°C)
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (% Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
C200K Estate Avantgarde Automatic VIN Code 203242	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
C200K Estate Avantgarde Manual VIN Code 203242	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
C200K Estate Avantgarde Semi Automatic VIN Code 203242	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
C200K Estate Elegance Automatic VIN Code 203242	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
C200K Estate Elegance Manual VIN Code 203242	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
C200K Estate Elegance Semi Automatic VIN Code 203242	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
C200K M6 VIN Code 203245	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
C200K SM/6 VIN Code 203245	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
C230 5 Door A7 VIN Code 203252	0.3	550	750	0.2	200	0.97	1.03	2200	2800	90
C230K A5 VIN Code 203240	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
C230K M6 VIN Code 203240	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
C230K SM/6 VIN Code 203240	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
C240 A5 VIN Code 203261	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
C240 M6 VIN Code 203261	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
C280 5 Door A7 VIN Code 203254	0.3	550	700	0.2	200	0.97	1.03	2200	2800	93
C32 AMG A5 VIN Code 203265	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
C320 A5 VIN Code 203264	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
C350 5 Door A7 VIN Code 203256	0.3	550	700	0.2	200	0.97	1.03	2200	2800	98
C55 AMG A5 VIN Code 203276	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
C-Class Estate (S204)										
C180 K M6 VIN Code 204245	0.3	650	850	0.2	200	0.97	1.03	2200	2800	80
C180 K A5 VIN Code 204245	0.3	650	850	0.2	200	0.97	1.03	2200	2800	80
C180 CGi M6 VIN Code 204249	0.3	550	850	0.2	200	0.97	1.03	2200	2800	80
C180 CGi A5 VIN Code 204249	0.3	550	850	0.2	200	0.97	1.03	2200	2800	80
C180 M6 VIN Code 204231	0.3	600	800	0.2	200	0.97	1.03	2200	2800	80
C180 A7 VIN Code 204231	0.3	600	800	0.2	200	0.97	1.03	2200	2800	80
C250 CGi A5 VIN Code 204247	0.3	550	850	0.2	200	0.97	1.03	2200	2800	80
C350 A7 VIN Code 204256	0.3	550	700	0.2	200	0.97	1.03	2200	2800	80
C350 A7 VIN Code 204257	0.3	540	720	0.2	200	0.97	1.03	2200	2800	80
C63 AMG A7 VIN Code 204277	0.3	500	700	0.2	200	0.97	1.03	2200	2800	80
C-Class Estate (S205)										
C200 M6 VIN Code 205042	0.3	650	800	0.2	200	0.97	1.03	2200	2800	80

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (% Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
C200 A7 VIN Code 205042	0.3	650	800	0.2	200	0.97	1.03	2200	2800	80
C200 4MATIC A9 VIN Code 205243	0.3	650	800	0.2	200	0.97	1.03	2200	2800	80
AMG C43 4MATIC A9 VIN Code 205264	0.3	520	720	0.2	200	0.97	1.03	2200	2800	80
AMG C63 A7 VIN Code 205086	0.3	600	800	0.2	200	0.97	1.03	2200	2800	80
AMG C63 S A7 VIN Code 205087	0.3	600	800	0.2	200	0.97	1.03	2200	2800	80
C-Class Saloon (202)										
C180 Classic A5 Saloon VIN Code 202018	0.5	750	850	0.3	200	0.97	1.03	2200	2800	80
C180 Classic M5 Saloon VIN Code 202018	0.5	750	850	0.3	200	0.97	1.03	2200	2800	80
C180 Elegance A5 Saloon VIN Code 202018	0.5	750	850	0.3	200	0.97	1.03	2200	2800	80
C180 Elegance M5 Saloon VIN Code 202018	0.5	750	850	0.3	200	0.97	1.03	2200	2800	80
C180 Esprit A5 Saloon VIN Code 202018	0.5	750	850	0.3	200	0.97	1.03	2200	2800	80
C180 Esprit M5 Saloon VIN Code 202018	0.5	750	850	0.3	200	0.97	1.03	2200	2800	80
C180 Saloon A4 VIN Code 202018	0.5	750	850	0.3	200	0.97	1.03	2200	2800	80
C180 Sport A5 Saloon VIN Code 202018	0.5	750	850	0.3	200	0.97	1.03	2200	2800	80
C180 Sport M5 Saloon VIN Code 202018	0.5	750	850	0.3	200	0.97	1.03	2200	2800	80
C200 Classic A5 Saloon VIN Code 202020	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
C200 Classic M5 Saloon VIN Code 202020	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
C200 Elegance A5 Saloon VIN Code 202020	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
C200 Elegance M5 Saloon VIN Code 202020	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
C200 Esprit A5 Saloon VIN Code 202020	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
C200 Esprit M5 Saloon VIN Code 202020	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
C200 Saloon A4 VIN Code 202020	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
C200 Sport A5 Saloon VIN Code 202020	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
C200 Sport M5 Saloon VIN Code 202020	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
C220 A4 Saloon VIN Code 202022	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
C220 M5 Saloon VIN Code 202022	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
C230 A4 Saloon VIN Code 202023	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
C230 A5 Saloon VIN Code 202023	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
C230 Kompressor Classic A5 Saloon VIN Code 202024	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
C230 Kompressor Classic M5 Saloon VIN Code 202024	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
C230 Kompressor Elegance A5 Saloon VIN Code 202024	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
C230 Kompressor Elegance M5 Saloon VIN Code 202024	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80

1 Manufacturer/Marque	2			3						4 Min Oil Temp(°C)
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (% Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
C230 Kompressor Esprit A5 Saloon VIN Code 202024	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
C230 Kompressor Esprit M5 Saloon VIN Code 202024	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
C230 Kompressor Sport A5 Saloon VIN Code 202024	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
C230 Kompressor Sport M5 Saloon VIN Code 202024	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
C230 M5 Saloon VIN Code 202023	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
C240 Classic A5 Saloon VIN Code 202026	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
C240 Elegance A5 Saloon VIN Code 202026	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
C240 Esprit A5 Saloon VIN Code 202026	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
C240 Sport A5 Saloon VIN Code 202026	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
C280 A4 Saloon VIN Code 202028	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
C280 A5 Saloon VIN Code 202028	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
C280 Classic A5 Saloon VIN Code 202029	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
C280 Elegance A5 Saloon VIN Code 202029	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
C280 Esprit A5 Saloon VIN Code 202029	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
C280 M5 Saloon VIN Code 202028	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
C280 Sport A5 Saloon VIN Code 202029	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
C43 AMG A5 Saloon VIN Code 202033	0.5	600	750	0.3	200	0.97	1.03	2200	2800	80
C-Class Saloon (W 203)										
C180 A5 Saloon VIN Code 203035	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
C180 M6 Saloon VIN Code 203035	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
C180 Saloon Automatic VIN Code 203046	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
C180 Saloon Avantgarde Automatic VIN Code 203046	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
C180 Saloon Avantgarde Manual VIN Code 203046	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
C180 Saloon Avantgarde Semi Automatic VIN Code 203046	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
C180 Saloon Elegance Automatic VIN Code 203046	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
C180 Saloon Elegance Manual VIN Code 203046	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
C180 Saloon Elegance Semi Automatic VIN Code 203046	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
C180 Saloon Manual VIN Code 203046	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
C180 Saloon Semi Automatic VIN Code 203046	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
C200 A5 Kompressor Saloon VIN Code 203045	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
C200 Kompressor Saloon Automatic VIN Code 203042	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
C200 Kompressor Saloon Manual VIN Code 203042	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (% Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
C200 Kompressor Saloon Semi Automatic VIN Code 203042	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
C200 M6 Kompressor Saloon VIN Code 203045	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
C200 SM/6 VIN Code 203045	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
C200K Saloon Avantgarde Automatic VIN Code 203042	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
C200K Saloon Avantgarde Manual VIN Code 203042	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
C200K Saloon Avantgarde Semi Automatic VIN Code 203042	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
C200K Saloon Elegance Automatic VIN Code 203042	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
C200K Saloon Elegance Manual VIN Code 203042	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
C200K Saloon Elegance Semi Automatic VIN Code 203042	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
C230 4 Door A7 VIN Code 203052	0.3	550	750	0.2	200	0.97	1.03	2200	2800	90
C230K Saloon A5 VIN Code 203040	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
C230K Saloon M6 VIN Code 203040	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
C230K Saloon SM/6 VIN Code 203040	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
C240 A5 Saloon VIN Code 203061	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
C240 M6 Saloon VIN Code 203061	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
C240 Saloon A5 VIN Code 203081	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
C240 Saloon M6 VIN Code 203081	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
C280 4 Door A7 VIN Code 203054	0.3	550	700	0.2	200	0.97	1.03	2200	2800	93
C32 AMG A5 VIN Code 203065	0.5	700	850	0.3	200	0.97	1.03	2200	2800	80
C320 A5 Saloon VIN Code 203064	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
C320 Saloon A5 VIN Code 203084	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
C55 AMG Saloon A5 VIN Code 203076	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
C350 4 Door A7 VIN Code 203056	0.3	550	700	0.2	200	0.97	1.03	2200	2800	98
C-Class Saloon (W 204)										
C180 K M6 VIN Code 204045	0.3	650	850	0.2	200	0.97	1.03	2200	2800	80
C180 K A5 VIN Code 204045	0.3	650	850	0.2	200	0.97	1.03	2200	2800	80
C180 CGi M6 VIN Code 204049	0.3	550	850	0.2	200	0.97	1.03	2200	2800	80
C180 CGi A5 VIN Code 204049	0.3	550	850	0.2	200	0.97	1.03	2200	2800	80
C180 M6 VIN Code 204031	0.3	600	800	0.2	200	0.97	1.03	2200	2800	80
C180 A7 VIN Code 204031	0.3	600	800	0.2	200	0.97	1.03	2200	2800	80
C250 CGi A5 VIN Code 204047	0.3	550	850	0.2	200	0.97	1.03	2200	2800	80
C350 A7 VIN Code 204056	0.3	550	700	0.2	200	0.97	1.03	2200	2800	80

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
C350 A7 VIN Code 204057	0.3	540	720	0.2	200	0.97	1.03	2200	2800	80
C63 AMG A7 VIN Code 204077	0.3	500	700	0.2	200	0.97	1.03	2200	2800	80
C-Class Saloon (W 205)										
C200 M6 VIN Code 205042	0.3	650	800	0.2	200	0.97	1.03	2200	2800	80
C200 A7 VIN Code 205042	0.3	650	800	0.2	200	0.97	1.03	2200	2800	80
C200 4MATIC A9 VIN Code 205043	0.3	650	800	0.2	200	0.97	1.03	2200	2800	80
AMG C43 4MATIC A9 VIN Code 205064	0.3	520	720	0.2	200	0.97	1.03	2200	2800	80
AMG C63 A7 VIN Code 205086	0.3	600	800	0.2	200	0.97	1.03	2200	2800	80
AMG C63 S A7 VIN Code 205087	0.3	600	800	0.2	200	0.97	1.03	2200	2800	80
C-Class Cabriolet (A205)										
C200 A9 VIN Code 205442	0.3	650	800	0.2	200	0.97	1.03	2200	2800	80
C200 M6 VIN Code 205442	0.3	650	800	0.2	200	0.97	1.03	2200	2800	80
C300 A9 VIN Code 205448	0.3	650	800	0.2	200	0.97	1.03	2200	2800	80
AMG C43 4MATIC A9 VIN Code 205464	0.3	520	720	0.2	200	0.97	1.03	2200	2800	80
AMG C63 4MATIC A7 VIN Code 205486	0.3	550	850	0.2	200	0.97	1.03	2200	2800	80
AMG C63 S 4MATIC A7 VIN Code 205487	0.3	550	850	0.2	200	0.97	1.03	2200	2800	80
CL (216)										
CL500 A7 VIN Code 216371	0.3	500	650	0.2	200	0.97	1.03	2200	2800	80
CL500 A7 VIN Code 216373	0.3	610	710	0.2	200	0.97	1.03	2200	2800	80
CL600 A5 VIN Code 216376	0.3	550	700	0.2	200	0.97	1.03	2200	2800	80
CL63 AMG A7 VIN Code 216374	0.3	500	700	0.2	200	0.97	1.03	2200	2800	80
CL63 AMG A7 VIN Code 216377	0.3	500	700	0.2	200	0.97	1.03	2200	2800	80
CL65 AMG A5 VIN Code 216379	0.3	540	690	0.2	200	0.97	1.03	2200	2800	80
CL Coupé (C215)										
CL 500 Automatic VIN Code 215375	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
CL 55 AMG Automatic VIN Code 215373	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
CL 55 AMG Automatic VIN Code 215374	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
CL 600 Automatic VIN Code 215376	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
CL 600 Automatic VIN Code 215378	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
CL 65 AMG Automatic VIN Code 215379	0.5	630	800	0.3	200	0.97	1.03	2200	2800	80

1 Manufacturer/Marque	2			3						4 Min Oil Temp(°C)
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (%) Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
CLA (C117)										
CLA 180 M6 4 door Coupé Vin Code 117342	0.3	650	800	0.2	200	0.97	1.03	2200	2800	80
CLA 180 A7 4 door Coupé Vin Code 117342	0.3	650	800	0.2	200	0.97	1.03	2200	2800	80
CLA 250 4MATIC A7 4 door Coupé Vin Code 117346	0.3	650	800	0.2	200	0.97	1.03	2200	2800	80
CLA 250 AMG M6 VIN Code 117350	0.3	650	800	0.2	200	0.97	1.03	2200	2800	80
CLA 250 AMG A7 VIN Code 117350	0.3	650	800	0.2	200	0.97	1.03	2200	2800	80
CLA 250 4MATIC AMG A7 VIN Code 117351	0.3	650	800	0.2	200	0.97	1.03	2200	2800	80
CLA 45 AMG A7 4 door Coupé Vin Code 117352	0.3	600	800	0.2	200	0.97	1.03	2200	2800	80
CLA Shooting Brake (X117)										
CLA 180 M6 5 door Estate VIN Code 117942	0.3	650	800	0.2	200	0.97	1.03	2200	2800	80
CLA 180 A7 5 door Estate VIN Code 117942	0.3	650	800	0.2	200	0.97	1.03	2200	2800	80
CLA 250 4MATIC A7 5 door Estate VIN Code 117946	0.3	650	800	0.2	200	0.97	1.03	2200	2800	80
CLA 250 4MATIC AMG A7 5 door Estate VIN Code 117951	0.3	650	800	0.2	200	0.97	1.03	2200	2800	80
CLA 45 AMG A7 5 door Estate VIN Code 117952	0.3	650	850	0.2	200	0.97	1.03	2200	2800	80
CLC Coupé (CL203)										
CLC160 M6 VIN Code 203731	0.3	650	850	0.2	200	0.97	1.03	2200	2800	80
CLC160 A5 VIN Code 203731	0.3	650	850	0.2	200	0.97	1.03	2200	2800	80
CLC180 K M6 VIN Code 203746	0.3	650	850	0.2	200	0.97	1.03	2200	2800	80
CLC180 K A5 VIN Code 203746	0.3	650	850	0.2	200	0.97	1.03	2200	2800	80
CLC200 K M6 VIN Code 203741	0.3	650	850	0.2	200	0.97	1.03	2200	2800	80
CLC200 K A5 VIN Code 203741	0.3	650	850	0.2	200	0.97	1.03	2200	2800	80
CLK (A208)										
CLK 200 A5 Kompressor Cabriolet VIN Code 208444	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
CLK 200 M6 Kompressor Cabriolet VIN Code 208444	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
CLK 200 Elegance A5 Cabriolet VIN Code 208435	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
CLK 200 Elegance M5 Cabriolet VIN Code 208435	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
CLK 200 Sport A5 Cabriolet VIN Code 208435	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
CLK 200 Sport M5 Cabriolet VIN Code 208435	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
CLK 200K Cabriolet SM/6 VIN Code 208444	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
CLK 230 A5 Kompressor Cabriolet VIN Code 208448	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
CLK 230 M6 Kompressor Cabriolet VIN Code 208448	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
CLK 230 Kompressor Elegance A5 Cabriolet VIN Code 208447	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
CLK 230 Kompressor Elegance M5 Cabriolet VIN Code 208447	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
CLK 230 Kompressor Sport A5 Cabriolet VIN Code 208447	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
CLK 230 Kompressor Sport M5 Cabriolet VIN Code 208447	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
CLK 230K Cabriolet SM/6 VIN Code 208448	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
CLK 320 A5 Cabriolet VIN Code 208465	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
CLK 320 Elegance A5 Cabriolet VIN Code 208465	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
CLK 320 Sport A5 Cabriolet VIN Code 208465	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
CLK 430 A5 Cabriolet VIN Code 208470	0.5	600	750	0.3	200	0.97	1.03	2200	2800	80
CLK 430 Elegance A5 Cabriolet VIN Code 208470	0.5	600	750	0.3	200	0.97	1.03	2200	2800	80
CLK 430 Sport A5 Cabriolet VIN Code 208470	0.5	600	750	0.3	200	0.97	1.03	2200	2800	80
CLK (C208)										
CLK 200 A5 Kompressor Coupé VIN Code 208344	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
CLK 200 Elegance A5 Coupé VIN Code 208335	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
CLK 200 Elegance M5 Coupé VIN Code 208335	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
CLK 200 M6 Kompressor Coupé VIN Code 208344	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
CLK 200 Sport A5 Coupé VIN Code 208335	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
CLK 200 Sport M5 Coupé VIN Code 208335	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
CLK 200K Coupé SM/6 VIN Code 208344	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
CLK 230 A5 Kompressor Coupé VIN Code 208348	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
CLK 230 Kompressor Elegance A5 Coupé VIN Code 208347	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
CLK 230 Kompressor Elegance M5 Coupé VIN Code 208347	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
CLK 230 Kompressor Sport A5 Coupé VIN Code 208347	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
CLK 230 Kompressor Sport M5 Coupé VIN Code 208347	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
CLK 230 M6 Kompressor Coupé VIN Code 208348	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
CLK 230K Coupé SM/6 VIN Code 208348	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
CLK 320 A5 Coupé VIN Code 208365	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
CLK 320 Elegance A5 Coupé VIN Code 208365	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
CLK 320 Sport A5 Coupé VIN Code 208365	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
CLK 430 A5 Coupé VIN Code 208370	0.5	600	750	0.3	200	0.97	1.03	2200	2800	80
CLK 430 Elegance A5 Coupé VIN Code 208370	0.5	600	750	0.3	200	0.97	1.03	2200	2800	80
CLK 430 Sport A5 Coupé VIN Code 208370	0.5	600	750	0.3	200	0.97	1.03	2200	2800	80

1 Manufacturer/Marque	2			3						4 Min Oil Temp(°C)
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
CLK 55 AMG A5 Coupé VIN Code 208374	0.5	600	750	0.3	200	0.97	1.03	2200	2800	80
CLK 55 AMG Coupé VIN Code 208374	0.5	600	750	0.3	200	0.97	1.03	2200	2800	80
CLK Coupé & Cabriolet (A/C209)										
CLK 200 Avantgarde Automatic VIN Code 209342	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
CLK 200 Avantgarde Manual VIN Code 209342	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
CLK 200 Avantgarde Semi Automatic VIN Code 209342	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
CLK 200 Elegance Automatic VIN Code 209342	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
CLK 200 Elegance Manual VIN Code 209342	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
CLK 200 Elegance Semi Automatic VIN Code 209342	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
CLK 240 Avantgarde Automatic VIN Code 209361	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
CLK 240 Avantgarde Manual VIN Code 209361	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
CLK 240 Avantgarde Semi Automatic VIN Code 209361	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
CLK 240 Elegance Automatic VIN Code 209361	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
CLK 240 Elegance Manual VIN Code 209361	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
CLK 240 Elegance Semi Automatic VIN Code 209361	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
CLK 280 Cabriolet A7 VIN Code 209454	0.3	550	700	0.2	200	0.97	1.03	2200	2800	93
CLK 280 Coupé A7 VIN Code 209254	0.3	550	700	0.2	200	0.97	1.03	2200	2800	93
CLK 320 Avantgarde Automatic VIN Code 209365	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
CLK 320 Elegance Automatic VIN Code 209365	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
CLK 350 Cabriolet A7 VIN Code 209456	0.3	550	700	0.2	200	0.97	1.03	2200	2800	97
CLK 350 Coupé A7 VIN Code 209356	0.3	550	700	0.2	200	0.97	1.03	2200	2800	97
CLK 500 Avantgarde Automatic VIN Code 209375	0.5	600	750	0.3	200	0.97	1.03	2200	2800	80
CLK 500 Elegance Automatic VIN Code 209375	0.5	600	750	0.3	200	0.97	1.03	2200	2800	80
CLK 55 AMG Automatic VIN Code 209376	0.5	600	750	0.3	200	0.97	1.03	2200	2800	80
CLK 63 AMG Automatic VIN Code 209377/477	0.5	600	750	0.3	200	0.97	1.03	2200	2800	80
CLS Coupé (C218)										
CLS350 A7 VIN Code 218359	0.3	570	720	0.2	200	0.97	1.03	2200	2800	80
CLS400 A7 VIN Code 218361	0.3	500	700	0.2	200	0.97	1.03	2200	2800	80
CLS500 A7 VIN Code 218373	0.3	550	750	0.2	200	0.97	1.03	2200	2800	80
CLS63 AMG A7 VIN Code 218374	0.3	500	700	0.2	200	0.97	1.03	2200	2800	80
CLS63 AMG S A7 VIN Code 218375	0.3	500	700	0.2	200	0.97	1.03	2200	2800	80

1 Manufacturer/ Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
CLS (219)										
CLS 350 4 Door A7 VIN Code 219256	0.3	550	700	0.2	200	0.97	1.03	2200	2800	98
CLS 500 4 Door A7 VIN Code 219375	0.3	600	750	0.2	200	0.97	1.03	2200	2800	100
CLS 55 AMG 4 Door A7 VIN Code 219376	0.3	500	650	0.2	200	0.97	1.03	2200	2800	100
CLS 63 AMG 4 Door A7 VIN Code 219377	0.3	500	650	0.2	200	0.97	1.03	2200	2800	108
CLS Shooting Brake (X218)										
CLS 63 AMG A7 VIN Code 218974	0.3	500	700	0.2	200	0.97	1.03	2200	2800	80
CLS 63 AMG S A7 VIN Code 218975	0.3	500	700	0.2	200	0.97	1.03	2200	2800	80
E-Class (124)										
E220 A4 Cabrio VIN Code 124062	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
E220 M5 Cabrio VIN Code 124062	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
E320 A4 Cabrio VIN Code 124066	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
E320 A5 Cabrio VIN Code 124066	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
E320 M5 Cabrio VIN Code 124066	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
E36 AMG A4 Cabrio VIN Code 124066	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
E220 A4 Coupé VIN Code 124042	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
E220 M5 Coupé VIN Code 124042	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
E320 A4 Coupé VIN Code 124052	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
E320 A5 Coupé VIN Code 124052	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
E320 M5 Coupé VIN Code 124052	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
E36 AMG A4 Coupé VIN Code 124052	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
E200 A4 Estate VIN Code 124079	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
E200 M5 Estate VIN Code 124079	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
E220 A4 Estate VIN Code 124082	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
E220 M5 Estate VIN Code 124082	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
E280 A4 Estate VIN Code 124088	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
E280 A5 Estate VIN Code 124088	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
E280 M5 Estate VIN Code 124088	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
E320 A4 Estate VIN Code 124082	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
E320 A5 Estate VIN Code 124082	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
E320 M5 Estate VIN Code 124092	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
E36 AMG A4 Estate VIN Code 124032	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
E200 A4 Saloon VIN Code 124019	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
E200 M5 Saloon VIN Code 124019	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
E220 A4 Saloon VIN Code 124022	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
E220 M5 Saloon VIN Code 124022	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
E280 A4 Saloon VIN Code 124028	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
E280 A5 Saloon VIN Code 124028	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
E280 M5 Saloon VIN Code 124028	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
E320 A4 Saloon VIN Code 124032	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
E320 A5 Saloon VIN Code 124032	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
E320 M5 Saloon VIN Code 124032	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
E36 AMG A4 Saloon VIN Code 124032	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
E500 A4 Saloon VIN Code 124036	0.5	600	750	0.3	200	0.97	1.03	2200	2800	80
E-Class Cabriolet (A207)										
E200 CGI M6 VIN Code 207448	0.3	550	850	0.2	200	0.97	1.03	2200	2800	80
E200 CGI A5 VIN Code 207448	0.3	550	850	0.2	200	0.97	1.03	2200	2800	80
E200 A7 VIN Code 207434	0.3	600	800	0.2	200	0.97	1.03	2200	2800	80
E250 CGI A5 VIN Code 207447	0.3	550	850	0.2	200	0.97	1.03	2200	2800	80
E350 CGI A7 VIN Code 207457	0.3	550	700	0.2	200	0.97	1.03	2200	2800	80
E350 A7 VIN Code 207459	0.3	540	720	0.2	200	0.97	1.03	2200	2800	80
E400 A7 VIN Code 207465	0.3	550	700	0.2	200	0.97	1.03	2200	2800	80
E400 A7 VIN Code 207461	0.3	540	720	0.2	200	0.97	1.03	2200	2800	80
E500 CGI A7 VIN Code 207373	0.3	550	750	0.2	200	0.97	1.03	2200	2800	80
E-Class Cabriolet (A238)										
E300 A9 VIN Code 238448	0.3	650	800	0.2	200	0.97	1.03	2200	2800	80
E400 4MATIC A9 VIN Code 238466	0.3	500	700	0.2	200	0.97	1.03	2200	2800	80
E-Class Coupé (C207)										
E200 CGI M6 VIN Code 207348	0.3	550	850	0.2	200	0.97	1.03	2200	2800	80
E200 CGI A5 VIN Code 207348	0.3	550	850	0.2	200	0.97	1.03	2200	2800	80
E200 A7 VIN Code 207334	0.3	600	800	0.2	200	0.97	1.03	2200	2800	80
E250 CGI A5 VIN Code 207347	0.3	550	850	0.2	200	0.97	1.03	2200	2800	80
E350 CGI A7 VIN Code 207357	0.3	550	700	0.2	200	0.97	1.03	2200	2800	80
E350 A7 VIN Code 207359	0.3	540	720	0.2	200	0.97	1.03	2200	2800	80

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
E400 A7 VIN Code 207365	0.3	550	700	0.2	200	0.97	1.03	2200	2800	80
E400 A7 VIN Code 207361	0.3	540	720	0.2	200	0.97	1.03	2200	2800	80
E500 CGI A7 VIN Code 207373	0.3	550	750	0.2	200	0.97	1.03	2200	2800	80
E-Class Coupé (C238)										
E300 A9 VIN Code 238348	0.3	650	800	0.2	200	0.97	1.03	2200	2800	80
E400 4MATIC A9 VIN Code 238366	0.3	500	700	0.2	200	0.97	1.03	2200	2800	80
E-Class Estate (210)										
E200 A5 Kompressor Estate VIN Code 210248	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
E200 M6 Kompressor Estate VIN Code 210248	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
E200 Avantgarde A5 Estate VIN Code 210235	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
E200 Avantgarde M5 Estate VIN Code 210235	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
E200 Classic A5 Estate VIN Code 210235	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
E200 Classic M5 Estate VIN Code 210235	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
E200 Elegance A5 Estate VIN Code 210235	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
E200 Elegance M5 Estate VIN Code 210235	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
E200 Estate A4 VIN Code 210235	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
E230 A4 Estate VIN Code 210237	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
E230 A5 Estate VIN Code 210237	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
E230 M5 Estate VIN Code 210237	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
E240 A5 Estate VIN Code 210262	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
E240 M6 Estate VIN Code 210262	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
E240 Avantgarde A5 Estate VIN Code 210261	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
E240 Classic A5 Estate VIN Code 210261	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
E240 Elegance A5 Estate VIN Code 210261	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
E280 A5 Estate VIN Code 210263	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
E280 M6 Estate VIN Code 210263	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
E320 A5 Estate VIN Code 210265	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
E320 Avantgarde A5 Estate VIN Code 210265	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
E320 Classic A5 Estate VIN Code 210265	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
E320 Elegance A5 Estate VIN Code 210265	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
E430 A5 Estate VIN Code 210270	0.5	600	750	0.3	200	0.97	1.03	2200	2800	80
E430 Avantgarde A5 Estate VIN Code 210270	0.5	600	750	0.3	200	0.97	1.03	2200	2800	80

1 Manufacturer/Marque	2			3						4 Min Oil Temp(°C)
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (% Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
E430 Elegance A5 Estate VIN Code 210270	0.5	600	750	0.3	200	0.97	1.03	2200	2800	80
E55 AMG A5 Estate VIN Code 210274	0.5	600	750	0.3	200	0.97	1.03	2200	2800	80
E-Class Estate (211)										
E200K Automatic VIN Code 211 242	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
E200K Manual VIN Code 211242	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
E200K Semi Automatic VIN Code 211242	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
E240 Automatic VIN Code 211261	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
E240 Manual VIN Code 211261	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
E240 Semi Automatic VIN Code 211261	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
E280 5 Door A7 VIN Code 211254	0.3	550	700	0.2	200	0.97	1.03	2200	2800	93
E320 Automatic VIN Code 211265	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
E500 Automatic VIN Code 211270	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
E55 AMG Automatic VIN Code 211276	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
E-Class Estate (S212)										
E200 CGI M5 VIN Code 212248	0.3	550	850	0.2	200	0.97	1.03	2200	2800	80
E200 CGI A5 VIN Code 212248	0.3	550	850	0.2	200	0.97	1.03	2200	2800	80
E250 CGI A5 VIN Code 212247	0.3	550	850	0.2	200	0.97	1.03	2200	2800	80
E250 A7 VIN Code 212236	0.3	600	800	0.2	200	0.97	1.03	2200	2800	80
E350 CGI A7 VIN Code 212257	0.3	600	750	0.2	200	0.97	1.03	2200	2800	80
E350 A7 VIN Code 212259	0.3	540	720	0.2	200	0.97	1.03	2200	2800	80
E500 A7 VIN Code 212772	0.3	500	650	0.2	200	0.97	1.03	2200	2800	80
E63 AMG A7 VIN Code 212277	0.3	500	700	0.2	200	0.97	1.03	2200	2800	80
E63 AMG A7 VIN Code 212274	0.3	500	700	0.2	200	0.97	1.03	2200	2800	80
E63 AMG S A7 VIN Code 212275	0.3	500	700	0.2	200	0.97	1.03	2200	2800	80
E-Class Estate (S213)										
AMG E43 4MATIC A9 VIN Code 213264	0.3	500	700	0.2	200	0.97	1.03	2200	2800	80
AMG E63 4MATIC+ A9 VIN Code 213288	0.3	500	900	0.2	200	0.97	1.03	2200	2800	80
AMG E63 S 4MATIC+ A9 VIN Code 213289	0.3	500	900	0.2	200	0.97	1.03	2200	2800	80
E-Class Saloon (210)										
E200 A5 Kompressor Saloon VIN Code 210048	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
E200 M6 Kompressor Saloon VIN Code 210048	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
E200 Avantgarde A5 Saloon VIN Code 210035	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
E200 Avantgarde M5 Saloon VIN Code 210035	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
E200 Classic A5 Saloon VIN Code 210035	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
E200 Classic M5 Saloon VIN Code 210035	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
E200 Elegance A5 Saloon VIN Code 210035	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
E200 Elegance M5 Saloon VIN Code 210035	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
E230 A4 Saloon VIN Code 210037	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
E230 A5 Saloon VIN Code 210037	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
E230 M5 Saloon VIN Code 210037	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
E240 A5 Saloon VIN Code 210062	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
E240 M6 Saloon VIN Code 210062	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
E240 Avantgarde A5 Saloon VIN Code 210061	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
E240 Classic A5 Saloon VIN Code 210061	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
E240 Elegance A5 Saloon VIN Code 210061	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
E280 A5 Saloon VIN Code 210063	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
E280 M6 Saloon VIN Code 210063	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
E280 Avantgarde A5 Saloon VIN Code 210063	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
E280 Classic A5 Saloon VIN Code 210063	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
E280 Elegance A5 Saloon VIN Code 210063	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
E320 Avantgarde A5 Saloon VIN Code 210065	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
E320 Classic A5 Saloon VIN Code 210065	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
E320 Elegance A5 Saloon VIN Code 210065	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
E430 A5 Saloon VIN Code 210070	0.5	600	750	0.3	200	0.97	1.03	2200	2800	80
E430 Avantgarde A5 Saloon VIN Code 210070	0.5	600	750	0.3	200	0.97	1.03	2200	2800	80
E430 Elegance A5 Saloon VIN Code 210070	0.5	600	750	0.3	200	0.97	1.03	2200	2800	80
E55 AMG A5 Saloon VIN Code 210074	0.5	600	750	0.3	200	0.97	1.03	2200	2800	80
E-Class Saloon (211)										
E200K Avantgarde Automatic VIN Code 211042	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
E200K Avantgarde Manual VIN Code 211042	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
E200K Avantgarde Semi Automatic VIN Code 211042	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
E200K Classic Automatic VIN Code 211042	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
E200K Classic Manual VIN Code 211042	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
E200K Classic Semi Automatic VIN Code 211042	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
E200K Elegance Automatic VIN Code 211042	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
E200K Elegance Manual VIN Code 211042	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
E200K Elegance Semi Automatic VIN Code 211042	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
E240 Avantgarde Automatic VIN Code 211061	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
E240 Avantgarde Manual VIN Code 211061	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
E240 Avantgarde Semi Automatic VIN Code 211061	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
E240 Classic Automatic VIN Code 211061	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
E240 Classic Manual VIN Code 211061	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
E240 Classic Semi Automatic VIN Code 211061	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
E240 Elegance Automatic VIN Code 211061	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
E240 Elegance Manual VIN Code 211061	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
E240 Elegance Semi Automatic VIN Code 211061	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
E280 4 Door A7 VIN Code 211054	0.3	550	700	0.2	200	0.97	1.03	2200	2800	93
E320 Avantgarde Automatic VIN Code 211065	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
E320 Classic Automatic VIN Code 211065	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
E320 Elegance Automatic VIN Code 211065	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
E500 Avantgarde Automatic VIN Code 211070	0.5	600	750	0.3	200	0.97	1.03	2200	2800	80
E500 Elegance Automatic VIN Code 211070	0.5	600	750	0.3	200	0.97	1.03	2200	2800	80
E55 AMG Automatic VIN Code 211076	0.5	600	750	0.3	200	0.97	1.03	2200	2800	80
E-Class Saloon (W 212)										
E200 CGI M5 VIN Code 212048	0.3	550	850	0.2	200	0.97	1.03	2200	2800	80
E200 CGI A5 VIN Code 212048	0.3	550	850	0.2	200	0.97	1.03	2200	2800	80
E200 A7 VIN Code 212034	0.3	600	800	0.2	200	0.97	1.03	2200	2800	80
E250 CGI A5 VIN Code 212047	0.3	550	850	0.2	200	0.97	1.03	2200	2800	80
E250 A7 VIN Code 212036	0.3	600	800	0.2	200	0.97	1.03	2200	2800	80
E350 CGI A7 VIN Code 212057	0.3	550	700	0.2	200	0.97	1.03	2200	2800	80
E350 A7 VIN Code 212059	0.3	540	720	0.2	200	0.97	1.03	2200	2800	80
E500 A7 VIN Code 212072	0.3	500	650	0.2	200	0.97	1.03	2200	2800	80
E63 AMG A7 VIN Code 212077	0.3	500	700	0.2	200	0.97	1.03	2200	2800	80
E63 AMG A7 VIN Code 212074	0.3	500	700	0.2	200	0.97	1.03	2200	2800	80
E63 AMG S A7 VIN Code 212075	0.3	500	700	0.2	200	0.97	1.03	2200	2800	80

1	2			3						4
Manufacturer/Marque	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	Min Oil Temp(°C)
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
E-Class Saloon (W 213)										
AMG E43 4MATIC A9 VIN Code 213064	0.3	500	700	0.2	200	0.97	1.03	2200	2800	80
AMG E63 4MATIC+ A9 VIN Code 213088	0.3	500	900	0.2	200	0.97	1.03	2200	2800	80
AMG E63 S 4MATIC+ A9 VN Code 213089	0.3	500	900	0.2	200	0.97	1.03	2200	2800	80
(Also see Section II)										
S280 SWB Automatic VIN Code 220063	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
S350 LWB Automatic VIN Code 220167	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
S350 SWB Automatic VIN Code 220067	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
S430 LWB Automatic VIN Code 220170	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
S430 SWB Automatic VIN Code 220070	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
S55 AMG LWB Automatic VIN Code 220174	0.5	600	750	0.3	200	0.97	1.03	2200	2800	80
S55 AMG SWB Automatic VIN Code 220074	0.5	600	750	0.3	200	0.97	1.03	2200	2800	80
S600 LWB Automatic VIN Code 220176	0.5	600	750	0.3	200	0.97	1.03	2200	2800	80
(Also see Section II)										
S63 AMG SWB A7 VIN Code 221077	0.3	500	700	0.2	200	0.97	1.03	2200	2800	80
S63 AMG LWB A7 VIN Code 221174	0.3	500	700	0.2	200	0.97	1.03	2200	2800	80
S63 AMG LWB A7 VIN Code 221177	0.3	500	700	0.2	200	0.97	1.03	2200	2800	80
S65 AMG LWB A7 VIN Code 221179	0.3	540	690	0.2	200	0.97	1.03	2200	2800	80
S600 LWB A7 VIN Code 221176	0.3	550	700	0.2	200	0.97	1.03	2200	2800	80
S500 SWB A7 VIN Code 221071	0.3	500	650	0.2	200	0.97	1.03	2200	2800	80
S500 LWB A7 VIN Code 221171	0.3	500	650	0.2	200	0.97	1.03	2200	2800	80
S500 LWB A7 VIN Code 221173	0.3	610	710	0.2	200	0.97	1.03	2200	2800	80
S450 SWB A7 VIN Code 221070	0.3	500	650	0.2	200	0.97	1.03	2200	2800	80
S450 LWB A7 VIN Code 221170	0.3	500	650	0.2	200	0.97	1.03	2200	2800	80
S350 SWB A7 VIN Code 221056	0.3	550	700	0.2	200	0.97	1.03	2200	2800	80
S350 SWB A7 VIN Code 221057	0.3	670	770	0.2	200	0.97	1.03	2200	2800	80
S350 LWB A7 VIN Code 221156	0.3	550	700	0.2	200	0.97	1.03	2200	2800	80
S350 LWB A7 VIN Code 221157	0.3	670	770	0.2	200	0.97	1.03	2200	2800	80
S280 SWB A7 VIN Code 221054	0.3	550	700	0.2	200	0.97	1.03	2200	2800	80
S280 LWB A7 VIN Code 221154	0.3	550	700	0.2	200	0.97	1.03	2200	2800	80

1 Manufacturer/Marque	2			3						4 Min Oil Temp(°C)
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (% Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
S-Class Saloon (V222)										
S500 L A7 VIN Code 222182	0.3	550	750	0.2	200	0.97	1.03	2200	2800	80
S600 L A7 VIN Code 222176	0.3	490	690	0.2	200	0.97	1.03	2200	2800	80
S63 AMG L A7 VIN Code 222177	0.3	550	800	0.2	200	0.97	1.03	2200	2800	80
S65 AMG L A7 VIN Code 222179	0.3	490	690	0.2	200	0.97	1.03	2200	2800	80
Maybach S600 A7 VIN Code 222976	0.3	490	690	0.2	200	0.97	1.03	2200	2800	80
Maybach S650 A7 VIN Code 222980	0.3	490	690	0.2	200	0.97	1.03	2200	2800	80
S-Class Coupé (C217)										
S500 A7 VIN Code 217382	0.3	550	750	0.2	200	0.97	1.03	2200	2800	80
S63 AMG A7 VIN Code 217377	0.3	550	750	0.2	200	0.97	1.03	2200	2800	80
S65 AMG A7 VIN Code 217379	0.3	490	690	0.2	200	0.97	1.03	2200	2800	80
S-Class Cabriolet (A217)										
Maybach S650 A7 VIN Code 217479	0.3	490	690	0.2	200	0.97	1.03	2200	2800	80
S500 A9 VIN Code 217482	0.3	570	770	0.2	200	0.97	1.03	2200	2800	80
S63 AMG A7 VIN Code 217477	0.3	550	800	0.2	200	0.97	1.03	2200	2800	80
S65 AMG A7 VIN Code 217479	0.3	490	690	0.2	200	0.97	1.03	2200	2800	80
SL (129)										
SL 280 Coupé/Roadster A4 VIN Code 129058	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
SL 280 Coupé/Roadster A5 VIN Code 129058	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
SL 280 Coupé/Roadster A5 VIN Code 129059	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
SL 280 Coupé/Roadster M5 VIN Code 129059	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
SL 320 Coupé/Roadster A4 VIN Code 129063	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
SL 320 Coupé/Roadster A5 VIN Code 129063	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
SL 320 Coupé/Roadster A5 VIN Code 129064	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
SL 500 Coupé/Roadster A4 VIN Code 129066	0.5	600	750	0.3	200	0.97	1.03	2200	2800	80
SL 500 Coupé/Roadster A4 VIN Code 129067	0.5	600	750	0.3	200	0.97	1.03	2200	2800	80
SL 500 Coupé/Roadster A5 VIN Code 129067	0.5	600	750	0.3	200	0.97	1.03	2200	2800	80
SL 500 Coupé/Roadster A5 VIN Code 129068	0.5	600	750	0.3	200	0.97	1.03	2200	2800	80
SL 600 Coupé/Roadster A4 VIN Code 129076	0.5	600	750	0.3	200	0.97	1.03	2200	2800	80
SL 600 Coupé/Roadster A5 VIN Code 129076	0.5	600	750	0.3	200	0.97	1.03	2200	2800	80
SL 60 AMG Coupé/Roadster A4 VIN Code 129067	0.5	600	750	0.3	200	0.97	1.03	2200	2800	80

1 Manufacturer/Marque	2			3						4 Min Oil Temp(°C)
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
SL 60 AMG Coupé/Roadster A5 VIN Code 129067	0.5	600	750	0.3	200	0.97	1.03	2200	2800	80
SL (230)										
SL 300 A7 VIN Code 230454	0.3	550	700	0.2	200	0.97	1.03	2200	2800	80
SL 350 Manual and Automatic VIN Code 230467	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
SL 350 VIN Code 230456	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
SL 350 A7 VIN Code 230458	0.3	550	700	0.2	200	0.97	1.03	2200	2800	80
SL 350 VIN Code 230473	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
SL 500 Automatic VIN Code 230475	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
SL 500 VIN Code 230471	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
SL 55 AMG VIN Code 230472	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
SL 55 AMG VIN Code 230474	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
SL 600 A5 VIN Code 230476	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
SL 600 A5 VIN Code 230477	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
SL 63 AMG A7 VIN Code 230479	0.3	500	700	0.2	200	0.97	1.03	2200	2800	80
SL 65 AMG VIN Code 230479	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
SL (231)										
SL 350 A7 VIN Code 231457	0.3	560	760	0.2	200	0.97	1.03	2200	2800	80
SL 400 A7 VIN Code 231465	0.3	520	720	0.2	200	0.97	1.03	2200	2800	80
SL 400 A9 VIN Code 231466	0.3	520	720	0.2	200	0.97	1.03	2200	2800	80
SL 500 A7 VIN Code 231473	0.3	610	710	0.2	200	0.97	1.03	2200	2800	80
SL 500 A9 VIN Code 231473	0.3	610	710	0.2	200	0.97	1.03	2200	2800	80
SL 63 AMG A7 VIN Code 231474	0.3	500	700	0.2	200	0.97	1.03	2200	2800	80
SL 65 AMG A7 VIN Code 231479	0.3	500	700	0.2	200	0.97	1.03	2200	2800	80
SLC (R172)										
SLC 180 A9 VIN Code 172431	0.3	600	800	0.2	200	0.97	1.03	2200	2800	80
SLC 180 M6 VIN Code 172431	0.3	600	800	0.2	200	0.97	1.03	2200	2800	80
SLC 200 M6 VIN Code 172434	0.3	650	800	0.2	200	0.97	1.03	2200	2800	80
SLC 200 A9 VIN Code 172434	0.3	650	800	0.2	200	0.97	1.03	2200	2800	80
SLC 300 A9 VIN Code 172438	0.3	650	800	0.2	200	0.97	1.03	2200	2800	80
AMG SLC 43 A9 VIN Code 172466	0.3	560	660	0.2	200	0.97	1.03	2200	2800	80

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
SLK (170)										
SLK 200 A5 Coupé/Roadster VIN Code 170435	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
SLK 200 Kompressor A5 Coupé/Roadster VIN Code 170444	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
SLK 200 Kompressor M6 Coupé/Roadster VIN Code 170444	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
SLK 200 Kompressor Special Edition Automatic VIN Code 170444	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
SLK 200 Kompressor Special Edition Manual VIN Code 170444	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
SLK 230 Kompressor A5 Coupé/Roadster VIN Code 170447	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
SLK 230 Kompressor A5 Coupé/Roadster VIN Code 170449	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
SLK 230 Kompressor M6 Coupé/Roadster VIN Code 170449	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
SLK 230 Kompressor Special Edition Automatic VIN Code 170449	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
SLK 230 Kompressor Special Edition Manual VIN Code 170449	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
SLK 32 AMG A5 VIN Code 170466	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
SLK 320 A5 Coupé/Roadster VIN Code 170465	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
SLK 320 M6 Coupé/Roadster VIN Code 170465	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
SLK 320 Special Edition VIN Code 170465	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
SLK (R171)										
SLK 200 Auto VIN Code 171442	0.5	750	850	0.3	200	0.97	1.03	2000	2500	95
SLK 200 Manual VIN Code 171442	0.5	750	850	0.3	200	0.97	1.03	2000	2500	95
SLK 200 K M6 VIN Code 171445	0.3	650	850	0.2	200	0.97	1.03	2200	2800	80
SLK 200 K A5 VIN Code 171445	0.3	650	850	0.2	200	0.97	1.03	2200	2800	80
SLK 280 M6 VIN Code 171454	0.3	550	700	0.2	200	0.97	1.03	2000	2500	93
SLK 300 M6 VIN Code 171454	0.3	550	700	0.2	200	0.97	1.03	2200	2800	80
SLK 300 A7 VIN Code 171454	0.3	550	700	0.2	200	0.97	1.03	2200	2800	80
SLK 350 Auto VIN Code 171456	0.5	650	800	0.3	200	0.97	1.03	2000	2500	96
SLK 350 Manual VIN Code 171456	0.5	650	800	0.3	200	0.97	1.03	2000	2500	104
SLK 350 M6 VIN Code 171458	0.3	550	700	0.2	200	0.97	1.03	2200	2800	80
SLK 350 A7 VIN Code 171458	0.3	550	700	0.2	200	0.97	1.03	2200	2800	80
SLK 55 AMG VIN Code 171473	0.5	650	800	0.3	200	0.97	1.03	2000	2500	99
SLK (R172)										
SLK 200 M6 VIN Code 172448	0.3	550	850	0.2	200	0.97	1.03	2200	2800	80
SLK 200 A7 VIN Code 172448	0.3	550	850	0.2	200	0.97	1.03	2200	2800	80
SLK 200 M6 VIN Code 172434	0.3	650	800	0.2	200	0.97	1.03	2200	2800	80

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
SLK 200 A9 VIN Code 172434	0.3	650	800	0.2	200	0.97	1.03	2200	2800	80
SLK 250 M6 VIN Code 172447	0.3	550	850	0.2	200	0.97	1.03	2200	2800	80
SLK 250 A7 VIN Code 172447	0.3	550	850	0.2	200	0.97	1.03	2200	2800	80
SLK 300 A9 VIN Code 172438	0.3	650	800	0.2	200	0.97	1.03	2200	2800	80
SLK 350 A7 VIN Code 172457	0.3	560	710	0.2	200	0.97	1.03	2200	2800	80
SLK 55 AMG A7 VIN Code 172475	0.3	500	700	0.2	200	0.97	1.03	2200	2800	80
SLS (R197)										
SLS AMG VIN Code 197377	0.3	580	780	0.2	200	0.97	1.03	2200	2800	80
SLS AMG A7 VIN Code 197477	0.3	580	780	0.2	200	0.97	1.03	2200	2800	80
SLS AMG GT Coupé A7 VIN Code 197378	0.3	580	780	0.2	200	0.97	1.03	2200	2800	80
SLS AMG GT Roadster A7 VIN Code 197478	0.3	580	780	0.2	200	0.97	1.03	2200	2800	80
GLA (X156)										
GLA 200 A7 5 door Estate VIN Code 156943	0.3	650	800	0.2	200	0.97	1.03	2200	2800	80
GLA 200 M6 5 door Estate VIN Code 156943	0.3	650	800	0.2	200	0.97	1.03	2200	2800	80
GLA 250 4MATIC A7 5 door Estate VIN Code 156946	0.3	650	800	0.2	200	0.97	1.03	2200	2800	80
GLA 45 AMG A7 5 door Estate VIN Code 156952	0.3	650	800	0.2	200	0.97	1.03	2200	2800	80
GLC Coupé (C253)										
AMG GLC 43 4MATIC A9 VIN Code 253364	0.3	550	850	0.2	200	0.97	1.03	2200	2800	80
GLC SUV (X253)										
AMG GLC 43 4MATIC A9 VIN Code 253964	0.3	550	850	0.2	200	0.97	1.03	2200	2800	80
Vaneo (414)										
1.6 Ambiente Automatic VIN Code 414700	0.5	800	950	0.3	200	0.97	1.03	2200	2800	80
1.6 Ambiente Manual VIN Code 414700	0.5	800	950	0.3	200	0.97	1.03	2200	2800	80
1.6 Ambiente Semi Automatic VIN Code 414700	0.5	800	950	0.3	200	0.97	1.03	2200	2800	80
1.6 Family Automatic VIN Code 414700	0.5	800	950	0.3	200	0.97	1.03	2200	2800	80
1.6 Family Manual VIN Code 414700	0.5	800	950	0.3	200	0.97	1.03	2200	2800	80
1.6 Family Semi Automatic VIN Code 414700	0.5	800	950	0.3	200	0.97	1.03	2200	2800	80
1.6 Trend Automatic VIN Code 414700	0.5	800	950	0.3	200	0.97	1.03	2200	2800	80
1.6 Trend Manual VIN Code 414700	0.5	800	950	0.3	200	0.97	1.03	2200	2800	80
1.6 Trend Semi Automatic VIN Code 414700	0.5	800	950	0.3	200	0.97	1.03	2200	2800	80
1.9 Family Automatic VIN Code 414700	0.5	800	950	0.3	200	0.97	1.03	2200	2800	80

1	2			3						4
Manufacturer/Marque	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	Min Oil Temp(°C)
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
1.9 Family Manual VIN Code 414700	0.5	800	950	0.3	200	0.97	1.03	2200	2800	80
1.9 Family Semi Automatic VIN Code 414700	0.5	800	950	0.3	200	0.97	1.03	2200	2800	80
1.9 Trend Semi Automatic VIN Code 414700	0.5	800	950	0.3	200	0.97	1.03	2200	2800	80
1.9 Trend Manual VIN Code 414700	0.5	800	950	0.3	200	0.97	1.03	2200	2800	80
1.9 Trend Automatic VIN Code 414700	0.5	800	950	0.3	200	0.97	1.03	2200	2800	80
Ambiente Manual VIN Code 414700	0.5	800	950	0.3	200	0.97	1.03	2200	2800	80
Ambiente Semi Automatic VIN Code 414700	0.5	800	950	0.3	200	0.97	1.03	2200	2800	80
Family Manual VIN Code 414700	0.5	800	950	0.3	200	0.97	1.03	2200	2800	80
Family Semi Automatic VIN Code 414700	0.5	800	950	0.3	200	0.97	1.03	2200	2800	80
Trend Manual VIN Code 414700	0.5	800	950	0.3	200	0.97	1.03	2200	2800	80
Trend Semi Automatic VIN Code 414700	0.5	800	950	0.3	200	0.97	1.03	2200	2800	80

MG ROVER GROUP LTD

The Model Code consists of the 4th & 5th digit of the VIN number and defines the model. The Engine Code consists of the 8th digit of the VIN number and defines the engine type. The Serial Number consists of the last 6 digits of the VIN number.

MGF Model Code RD

1.6l MPi Engine Code E	0.5	775	975	0.3	200	0.95	1.09	2500	3000	70
1.8l MPi Engine Code G	0.5	775	975	0.3	200	0.95	1.09	2500	3000	70
1.8l VVC Engine Code T	0.5	775	975	0.3	200	0.95	1.09	2500	3000	70

MG TF Model Code RD

1.6 MPi Engine Code E	0.5	775	975	0.3	200	0.95	1.09	2500	3000	70
1.8 MPi Engine Code G	0.5	775	975	0.3	200	0.95	1.09	2500	3000	70
1.8 MPi Engine Code K	0.5	775	975	0.3	200	0.95	1.09	2500	3000	70
1.8 MPi VVC Engine Code P	0.5	775	975	0.3	200	0.95	1.09	2500	3000	70

MG ZR Model Code RF

1.4 MPi Engine Code B	0.5	775	975	0.3	200	0.95	1.09	2500	3000	70
1.8 MPi Engine Code F	0.5	775	975	0.3	200	0.95	1.09	2500	3000	70
1.8 MPi VVC Engine Code M	0.5	775	975	0.3	200	0.95	1.09	2500	3000	70

MG ZS Model Code RT

1.4 MPi Engine Code B	0.5	775	975	0.3	200	0.95	1.09	2500	3000	70
1.6 MPi Engine Code M	0.5	775	975	0.3	200	0.95	1.09	2500	3000	70

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
1.8 MPi Engine Code F	0.5	775	975	0.3	200	0.95	1.09	2500	3000	70
2.5 MPi Engine Code L	0.5	650	850	0.3	200	0.95	1.09	2500	3000	70
MG ZT Model Code RJ										
1.8 MPi Turbo Engine Code T	0.5	650	850	0.3	200	0.95	1.09	2500	3000	70
2.5 MPi Engine Code E	0.5	650	850	0.3	200	0.95	1.09	2500	3000	70
2.5 MPi Engine Code F	0.5	650	850	0.3	200	0.95	1.09	2500	3000	70
2.5 MPi Engine Code N	0.5	650	850	0.3	200	0.95	1.09	2500	3000	70
MG ZT Model Code RX										
4.6 V8 Engine Code G	0.5	600	800	0.3	200	0.95	1.09	2500	3000	70
MGRV8 Model Code RA										
3.9l V8 Engine Code M	0.5	550	800	0.3	200	0.95	1.09	2500	3000	70
Rover CityRover Model Code MAT 6										
1.4 MPi Engine Code 475 Si 45	0.5	650	850	0.3	200	0.95	1.09	2500	3000	70
Rover 25 Model Code RF										
1.1 MPi Engine Code C	0.5	775	975	0.3	200	0.95	1.09	2500	3000	70
1.4 MPi Engine Code A	0.5	775	975	0.3	200	0.95	1.09	2500	3000	70
1.4 MPi Engine Code B	0.5	775	975	0.3	200	0.95	1.09	2500	3000	70
1.6 MPi Engine Code E	0.5	775	975	0.3	200	0.95	1.09	2500	3000	70
1.8 MPi Engine Code F	0.5	775	975	0.3	200	0.95	1.09	2500	3000	70
1.8 MPi Engine Code K	0.5	775	975	0.3	200	0.95	1.09	2500	3000	70
Rover Streetwise Model Code RF										
1.4 MPi Engine Code A	0.5	775	975	0.3	200	0.95	1.09	2500	3000	70
1.4 MPi Engine Code B	0.5	775	975	0.3	200	0.95	1.09	2500	3000	70
1.6 MPi Engine Code E	0.5	775	975	0.3	200	0.95	1.09	2500	3000	70
1.8 MPi Engine Code F	0.5	775	975	0.3	200	0.95	1.09	2500	3000	70
Rover 45 Model Code RT										
1.4 MPi Engine Code B	0.5	775	975	0.3	200	0.95	1.09	2500	3000	70
1.6 MPi Engine Code M	0.5	775	975	0.3	200	0.95	1.09	2500	3000	70
1.8 MPi Engine Code F	0.5	775	975	0.3	200	0.95	1.09	2500	3000	70
2.0 MPi Engine Code E	0.5	650	850	0.3	200	0.95	1.09	2500	3000	70

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
Rover 75 Model Code RJ										
1.8 MPi Engine Code P	0.5	650	850	0.3	200	0.95	1.09	2500	3000	70
1.8 MPi Turbo Engine Code R	0.5	650	850	0.3	200	0.95	1.09	2500	3000	70
2.0 MPi Engine Code K	0.5	650	850	0.3	200	0.95	1.09	2500	3000	70
2.5 MPi Engine Code L	0.5	650	850	0.3	200	0.95	1.09	2500	3000	70
Rover 75 Model Code RX										
4.6 V8 Engine Code G	0.5	600	800	0.3	200	0.95	1.09	2500	3000	70
Rover 200 Model Code RF										
1.1l MPi Engine Code D	0.5	775	975	0.3	200	0.95	1.09	2500	3000	70
1.4l MPi Engine Code P	0.5	775	975	0.3	200	0.95	1.09	2500	3000	70
1.4l MPi Engine Code H	0.5	775	975	0.3	200	0.95	1.09	2500	3000	70
1.6l MPi Engine Code Z	0.5	775	975	0.3	200	0.95	1.09	2500	3000	70
1.8l MPi Engine Code G	0.5	775	975	0.3	200	0.95	1.09	2500	3000	70
1.8l MPi Engine Code L	0.5	775	975	0.3	200	0.95	1.09	2500	3000	70
Rover 400 Model Code RT										
1.4l MPi Engine Code H	0.5	775	975	0.3	200	0.95	1.09	2500	3000	70
1.4l MPi Engine Code P	0.5	775	975	0.3	200	0.95	1.09	2500	3000	70
1.6l MPi Engine Code Z	0.5	775	975	0.3	200	0.95	1.09	2500	3000	70
1.6l MPi Auto Engine Code T	0.5	600	1000	0.3	200	0.95	1.09	2300	2700	80
2.0l MPi Engine Code C	0.5	775	975	0.3	200	0.95	1.09	2500	3000	70
Rover 600 Model Code RH										
1.8l Engine Code D	0.5	600	1000	0.3	200	0.95	1.09	2300	2700	80
2.0l Engine Code A	0.5	720	820	0.3	200	0.95	1.09	2500	3000	80
2.0l Engine Code B	0.5	720	820	0.3	200	0.95	1.09	2500	3000	80
2.0l Turbo Engine Code V	0.5	700	975	0.3	200	0.95	1.09	2500	3000	70
2.3l Engine Code C	0.5	720	820	0.3	200	0.95	1.09	2500	3000	80
Rover 800 Model Code RS										
2.0l LTi Engine Code D Serial No 152057 onwards	0.5	700	975	0.3	200	0.95	1.09	2500	3000	70
2.0l Turbo Engine Code V	0.5	700	975	0.3	200	0.95	1.09	2500	3000	70
2.5l V6 Engine Code L	0.5	650	850	0.3	200	0.95	1.09	2500	3000	80
2.7l V6 Engine Code K Serial No 203637 onwards	0.5	630	730	0.3	200	0.95	1.09	2500	3000	80

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (% Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
Metro/Rover 100 Model Code XP										
1.1l TBi Engine Code V Serial No 827083 onwards	0.75	775	975	0.3	200	0.95	1.09	2500	3000	70
1.1l MPi Engine Code A	0.5	775	975	0.3	200	0.95	1.09	2500	3000	70
1.4l MPi Engine Code K Serial No 827083 onwards	0.5	775	975	0.3	200	0.95	1.09	2000	2200	70
1.4l TBi Engine Code W Serial No 827083 onwards	0.75	775	975	0.3	200	0.95	1.09	2500	3000	70
1.4l MPi Engine Code P	0.5	775	975	0.3	200	0.95	1.09	2500	3000	70
Rover 200 & Rover 400 Model Code XW										
1.4l MPi Engine Code H	0.5	775	975	0.3	200	0.95	1.09	2000	2200	70
1.4l TBi Engine Code J	0.75	775	975	0.3	200	0.95	1.09	2500	3000	70
1.6l Auto DOHC Engine Code N Serial No 035470 onwards	0.5	750	850	0.3	200	0.95	1.09	2500	3000	80
1.6l Auto SOHC Engine Code M Serial No 034031 onwards	0.5	730	830	0.3	200	0.95	1.09	2500	3000	80
1.6l Manual DOHC Engine Code N Serial No 033757 onwards	0.5	750	850	0.3	200	0.95	1.09	2500	3000	80
1.6l MPi Engine Code Z	0.5	775	975	0.3	200	0.95	1.09	2500	3000	70
1.8l MPi Engine Code R	0.5	775	975	0.3	200	0.95	1.09	2500	3000	70
1.6l Manual SOHC Engine Code M Serial No 035109 onwards	0.5	730	830	0.3	200	0.95	1.09	2500	3000	80
2.0l Engine Code C	0.5	775	975	0.3	200	0.95	1.09	2500	3000	70
2.0l Turbo Engine Code V	0.5	775	975	0.3	200	0.95	1.09	2500	3000	70
Mini Model Code XN										
1.3l Auto TBi Engine Code X Serial No 059845 onwards	0.75	775	975	0.3	200	0.95	1.09	2500	3000	70
1.3l Manual TBi Engine Code X Serial No 059822 onwards	0.75	775	975	0.3	200	0.95	1.09	2500	3000	70
1.3l TBi Engine Code Y Serial No 060488 onwards	0.75	775	975	0.3	200	0.95	1.09	2500	3000	70
1.3l MPi Engine Code Z	0.5	775	975	0.3	200	0.95	1.09	2500	3000	70
MINI (BMW AG) (Also see Section II)										
The Engine Code is stamped on the Engine Block and VIN Plate. No longer on VIN plate from 03/2011.										
MINI (R50/R52)										
One Hatchback Engine Code W10 B16 A - First used before 01/07/2002	0.2	700	900	0.3	200	0.97	1.03	2300	2700	60
One Hatchback/Convertible Engine Code W10 B16 A - First used on or after 01/07/2002	0.2	700	900	0.2	200	0.97	1.03	2300	2700	60
Cooper Hatchback Engine Code W10 B16 A - First used before 01/07/2002	0.2	700	900	0.3	200	0.97	1.03	2300	2700	60
Cooper Hatchback/Convertible Engine Code W10 B16 A - First used on or after 01/07/2002	0.2	700	900	0.2	200	0.97	1.03	2300	2700	60
MINI (R53/R52)										
Cooper S Hatchback Engine Code W11 B16 A - First used before 01/07/2002	0.2	700	900	0.3	200	0.97	1.03	2300	2700	60

1 Manufacturer/Marque	2			3						4 Min Oil Temp(°C)
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (% Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
Cooper S Hatchback/Convertible Engine Code W11 B16 A - First used on or after 01/07/2002	0.2	700	900	0.2	200	0.97	1.03	2300	2700	60
Cooper S Hatchback/Convertible Engine Code W11 B16 A - with John Cooper Works Tuning Kit	0.2	700	900	0.2	200	0.97	1.03	2300	2700	60
Cooper S Hatchback Engine Code W11 B16 A - with John Cooper Works GP Kit	0.2	700	900	0.2	200	0.97	1.03	2300	2700	60
MINI (R55/R56/R57/R58/R59/R60/R61)										
First Hatchback Engine Code N12 B14 A	0.2	600	850	0.2	200	0.97	1.03	2300	2700	60
First/MINIMALIST Hatchback Engine Code N16 B16 A	0.2	700	850	0.2	200	0.97	1.03	2300	2700	60
One Hatchback/Clubman Engine Code N12 B14 A	0.2	600	850	0.2	200	0.97	1.03	2300	2700	60
One Hatchback/Clubman/Convertible/Countryman Engine Code N16 B16 A	0.2	700	850	0.2	200	0.97	1.03	2300	2700	60
Cooper Hatchback/Clubman/Convertible Engine Code N12 B16 A	0.2	600	850	0.2	200	0.97	1.03	2300	2700	60
Cooper Hatchback/Clubman/Convertible/Countryman/Coupé/Roadster/Paceman Engine Code N16 B16 A	0.2	700	850	0.2	200	0.97	1.03	2300	2700	60
Cooper ALL 4 Countryman/Paceman - Manual Engine Code N16 B16 A	0.2	700	850	0.2	200	0.97	1.03	2300	2700	60
Cooper ALL 4 Countryman/Paceman - Automatic Engine Code N18 B16 A	0.2	700	800	0.2	200	0.8	1.7	2300	2700	60
Cooper S ALL 4 Countryman / Paceman Engine Code N18 B16 A	0.2	700	800	0.2	200	0.8	1.7	2300	2700	60
Cooper S Hatchback/Clubman/Convertible Engine Code N14 B16 A	0.2	600	850	0.2	200	0.97	1.03	2300	2700	60
Cooper S Hatchback/Clubman/Convertible/Countryman/ALL4Countryman/Coupé/Roadster/Paceman/ALL4 Paceman Engine Code N18 B16 A	0.2	700	800	0.2	200	0.8	1.7	2300	2700	60
John Cooper Works Hatchback/Clubman/Convertible/Coupé/Roadster Engine Code N14 B16 C	0.2	600	850	0.2	200	0.97	1.03	2300	2700	60
John Cooper Works Hatchback / Clubman / Convertible / Countryman / Coupé /Roadster / Paceman Engine Code N18 B16 C	0.2	700	800	0.2	200	0.97	1.03	2300	2700	60
John Cooper Works GP Hatchback Engine Code N18 B16 C	0.2	700	800	0.2	200	0.97	1.03	2300	2700	60
MINI (F55/F56)										
Cooper Hatchback Engine Code B38 A15 A	0.2	730	930	0.2	200	0.97	1.03	2300	2700	60
Cooper S Hatchback Engine Code B48 A20 A	0.2	600	800	0.2	200	0.97	1.03	2300	2700	60
One Hatchback Engine Code B38 A12 A	0.3	750	950	0.2	200	0.97	1.03	2300	2700	60
John Cooper Works Hatchback Engine Code B48 A20 B	0.3	600	800	0.2	200	0.97	1.03	2300	2700	60
MINI (F57)										
Cooper Convertible Engine Code B38 A15 A	0.3	730	930	0.2	200	0.97	1.03	2300	2700	60
Cooper S Convertible Engine Code B48 A20 A	0.3	600	800	0.2	200	0.97	1.03	2300	2700	60

1 Manufacturer/Marque	2			3						4 Min Oil Temp(°C)
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
mitsubishi										
The engine code can be confirmed fromthe vehicle's model code plate which is attached to the under side of the Bonnet or on top of the Headlamp Front Panel										
See also Section II										
Colt										
1.3l MPI Model Code CA1A Engine Type 4G13 SOHC MY 1993 to 1995	0.5	650	850	0.3	200	0.97	1.03	2500	2800	80
1.6l MVV Model Code CA4A Engine Type 4G92 MY 1994 to 1995	0.5	700	900	0.3	200	0.97	1.03	2500	2800	80
1.6l MPI Model Code CA4A Engine Type 4G92 SOHC MY 1993 to 1995	0.5	700	900	0.3	200	0.97	1.03	2500	2800	80
1.8l MPI Model Code CA5A Engine Type 4G93 DOHC MY 1993 to 1995	0.5	700	900	0.3	200	0.97	1.03	2500	2800	80
1.3l MPI Model Code CJ1A Engine Type 4G13 SOHC Manual MY 2001 to 2004	0.5	650	850	0.3	200	0.97	1.03	2500	2800	80
1.3l MPI Model Code CJ1A Engine Type 4G13 SOHC MY 1996 to 2000	0.5	650	850	0.3	200	0.97	1.03	2500	2800	80
1.6l MPI Model Code CJ4A Engine Type 4G92 SOHC MY 1996 to 2000	0.5	700	900	0.3	200	0.97	1.03	2500	2800	80
1.6l MPI Model Code CJ4A Engine Type 4G92 SOHC Manual MY 2001 to 2004	0.5	650	850	0.3	200	0.97	1.03	2400	2600	80
1.6l MPI Model Code CJ4A Engine Type 4G92 SOHC Automatic MY 2001 to 2004	0.5	650	850	0.3	200	0.97	1.03	2400	2600	80
1.1l MPI Model Code Z32A Engine Type 134910 DOHC MY 2005 onwards	0.3	730	930	0.2	200	0.97	1.03	2400	2600	80
1.3l MPI Model Code Z34A Engine Type 135930 DOHC MY 2005 onwards	0.3	650	850	0.2	200	0.97	1.03	2400	2600	80
1.5l MPI Model Code Z36A Engine Type 135950 DOHC MY 2005 onwards	0.3	650	850	0.2	200	0.97	1.03	2400	2600	80
1.5l MPI Turbo Model Code Z37A Engine Type 4G15 DOHC MY 2006 onwards	0.3	650	850	0.2	200	0.97	1.03	2400	2600	70
1.1l MPI Model Code Z31A Engine Type 3A91 5MT 2009 onwards	0.3	730	930	0.2	200	0.97	1.03	2400	2600	80
Space Star										
1.3l MPI Model Code DG1A Engine Type 4G13 SOHC MY 1999 to 2000	0.5	650	850	0.3	200	0.97	1.03	2500	2800	80
1.8l GDI Model Code DG5A Engine Type 4G93 DOHC Manual MY 1999 to 2000	0.5	550	850	0.3	200	0.97	1.03	2500	2800	80
1.3 MPI Model Code DG1A Engine Type 4G13 SOHC Manual MY 2001 onwards	0.5	650	850	0.2	200	0.97	1.03	2400	2600	80
1.6 MPI Model Code DG3A Engine Type 4G18 SOHC Manual MY 2001 onwards	0.5	650	850	0.2	200	0.97	1.03	2400	2600	80
1.6 MPI Model Code DG3A Engine Type 4G18 SOHC Automatic MY 2001 onwards	0.3	650	850	0.2	200	0.97	1.03	2400	2600	80
1.8 MPI Model Code DG5A Engine Type 4G93 SOHC Manual MY 2002 onwards	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
1.8 MPI Model Code DG5A Engine Type 4G93 SOHC Automatic MY 2002 onwards	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
1.8l GDI Model Code DG5A Engine Type 4G93 DOHC Automatic 1999 to 2000	0.5	550	750	0.3	200	0.97	1.03	2500	2800	80
Lancer										
1.3l MPI Model Code CB1A Engine Type 4G13 SOHC MY 1993 to 1995	0.5	650	850	0.3	200	0.97	1.03	2500	2800	80
1.6l MVV Model Code CB4A Engine Type 4G92 MY 1994 to 1995	0.5	600	800	0.3	200	0.97	1.03	2500	2800	80

1 Manufacturer/Marque	2			3						4 Min Oil Temp(°C)
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (% Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
1.6l MPI Model Code CB4A Engine Type 4G92 SOHC MY 1993 to 1995	0.5	700	900	0.3	200	0.97	1.03	2500	2800	80
1.6l MPI Model Code CD4A Engine Type 4G92 SOHC MY 1993 4WD	0.5	700	900	0.3	200	0.97	1.03	2500	2800	80
1.8l MPI Model Code CB5A Engine Type 4G93 DOHC MY 1993 to 1995	0.5	700	900	0.3	200	0.97	1.03	2500	2800	80
1.3 MPI Model Code CS1A Engine Type 4G13 SOHC 2005 MY onwards	0.3	650	850	0.2	200	0.97	1.03	2400	2600	80
1.6 MPI Estate Model Code CS3W Engine Type 4G18 SOHC 2005 MY onwards	0.3	650	850	0.2	200	0.97	1.03	2400	2600	80
1.6 MPI Model Code CS3A Engine Type 4G18 SOHC 2005 MY onwards	0.3	650	850	0.2	200	0.97	1.03	2400	2600	80
2.0 MPI Estate Model Code CS9W Engine Type 4G63 DOHC 2005 MY onwards	0.3	650	850	0.2	200	0.97	1.03	2400	2600	80
2.0 MPI Model Code CS9A Engine Type 4G63 DOHC 2005 MY onwards	0.3	650	850	0.2	200	0.97	1.03	2400	2600	80
Lancer Evo8										
2.0 MPI Turbo Model Code CT9A Engine Type 4G63 DOHC MY 2004 to 2005	0.3	750	950	0.2	200	0.97	1.03	2400	2600	70
Lancer Hatchback										
1.3l MPI Model Code C61A Engine Type 4G13 SOHC MY 1993 to 1995	0.5	650	850	0.3	200	0.97	1.03	2500	2800	80
1.6l MPI Model Code C66A Engine Type 4G92 SOHC MY 1993 to 1995	0.5	700	900	0.3	200	0.97	1.03	2500	2800	80
1.6l MPI Model Code CB4W Engine Type 4G92 SOHC MY 1993 to 2000	0.5	700	900	0.3	200	0.97	1.03	2500	2800	80
1.6l MPI Model Code CD4W Engine Type 4G92 SOHC MY 1993 to 1995 4WD	0.5	700	900	0.3	200	0.97	1.03	2500	2800	80
1.6l MPI Model Code C76A Engine Type 4G92 SOHC MY 1993 to 1995 4WD	0.5	700	900	0.3	200	0.97	1.03	2500	2800	80
1.8l MPI Model Code C69A Engine Type 4G93 DOHC MY 1993 to 1995	0.5	700	900	0.3	200	0.97	1.03	2500	2800	80
Lancer Saloon										
1.8 MPI Model Code CY3A Engine Type 4B10 DOHC Manual 2008 onwards	0.3	650	850	0.2	200	0.97	1.03	2500	2800	80
1.8 MPI Model Code CY3A Engine Type 4B10 DOHC Automatic 2008 onwards	0.3	650	850	0.2	200	0.97	1.03	2500	2800	80
Lancer Sportback										
1.8 MPI Model Code CX3A Engine Type 4B10 DOHC Manual 2008 onwards	0.3	650	850	0.2	200	0.97	1.03	2500	2800	80
1.8 MPI Model Code CX3A Engine Type 4B10 DOHC Automatic 2008 onwards	0.3	650	850	0.2	200	0.97	1.03	2500	2800	80
Carisma										
1.6l MPI Model Code DA1A Engine Code 4G92 SOHC MY 1995 to 1999	0.5	700	900	0.3	200	0.97	1.03	2500	2800	80
1.8l MPI Model Code DA2A Engine Code 4G93 SOHC MY 1995 to 1999	0.5	700	900	0.3	200	0.97	1.03	2500	2800	80
1.8l GDI Model Code DA2A Engine Code 4G93 DOHC Manual MY 1996 to 1999	0.5	700	800	0.3	200	0.97	1.03	2500	2800	80
1.8l GDI Model Code DA2A Engine Code 4G93 DOHC Auto MY 1996 to 1999	0.5	700	800	0.3	200	0.97	1.03	2500	2800	80
1.8l GDI Model Code DA2A Engine Code 4G93 DOHC MY 2000 onwards	0.5	700	800	0.3	200	0.97	1.03	2500	2800	80
1.6 MPI Model Code DA1A Engine Code 4G92 SOHC Manual 2000 onwards	0.5	650	850	0.3	200	0.97	1.03	2500	2800	80
1.6 MPI Model Code DA1A Engine Code 4G92 SOHC Automatic 2000 onwards	0.5	650	850	0.3	200	0.97	1.03	2400	2600	80

1 Manufacturer/Marque	2			3						4 Min Oil Temp(°C)
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (% Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
1.8 GDI Model Code DA2A Engine Code 4G93 DOHC Manual 2001 onwards	0.3	500	700	0.2	200	0.97	1.03	2400	2600	80
1.8 GDI Model Code DA2A Engine Code 4G93 DOHC Automatic 2001 onwards	0.3	550	750	0.2	200	0.97	1.03	2400	2600	80
Sigma										
3.0l MPI Model Code F16A Engine Type 6G72 DOHC MY 1993 to 1995	0.5	600	800	0.3	200	0.97	1.03	2500	2800	80
3.0l MPI Model Code F16A Engine Type 6G72 SOHC MY 1993 to 1995	0.5	600	800	0.3	200	0.97	1.03	2500	2800	80
3000GT										
3.0l MPI Model Code Z16A Engine Type 6G72 DOHC T/C MY1993 to 1995	0.5	600	800	0.3	200	0.97	1.03	2500	2800	80
Galant										
1.8l MPI Model Code E52A Engine Type 4G37 SOHC MY 1993 to 1995	0.5	700	900	0.3	200	0.97	1.03	2500	2800	80
2.0l MPI Model Code E54A Engine Type 6A12 DOHC V6 MY 1993 to 1995	0.5	600	800	0.3	200	0.97	1.03	2500	2800	80
2.0l MPI Model Code E55A Engine Type 4G63 SOHC MY 1993 to 1995	0.5	650	850	0.3	200	0.97	1.03	2500	2800	80
2.0l MPI Model Code E64A Engine Type 6A12 DOHC V6 MY 1993 to 1994 4WS	0.5	600	800	0.3	200	0.97	1.03	2500	2800	80
2.0l MPI Model Code E75A Engine Type 4G63 SOHC MY 1993 to 1995 4WD	0.5	650	850	0.3	200	0.97	1.03	2500	2800	80
2.5l MPI Model Code E88A Engine Type 6G73 DOHC V6 MY 1993 to 1995 4WD	0.5	600	800	0.3	200	0.97	1.03	2500	2800	80
2.0l MPI Model Code EA2A/W Engine Type 4G63 SOHC MY 1997 to 2002	0.5	650	850	0.3	200	0.97	1.03	2500	2800	80
2.4l GDI Model Code EA3A/W Engine Type 4G64 DOHC MY 1999 to 2002	0.3	600	800	0.3	200	0.97	1.03	2400	2600	80
2.5l MPI Model Code EA5A/W Engine Type 6A13 SOHC MY 1997 to 2002	0.5	600	800	0.3	200	0.97	1.03	2500	2800	80
2.0l MPI Model Code EA2A/W Engine Type 4G63 SOHC Manual MY 2001 to 2003	0.3	650	850	0.2	200	0.97	1.03	2400	2600	80
2.0l MPI Model Code EA2A/W Engine Type 4G63 SOHC Automatic MY 2001 to 2003	0.3	650	850	0.2	200	0.97	1.03	2400	2600	80
2.4l GDI Model Code EA3A/W Engine Type 4G64 DOHC Manual MY 2001 to 2003	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
2.4l GDI Model Code EA3A/W Engine Type 4G64 DOHC Automatic MY 2001 to 2002	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
2.5l V6 Model Code EA5A/W Engine Type 6A13 DOHC Manual MY 2001 to 2003	0.3	550	750	0.2	200	0.97	1.03	2400	2600	80
2.5l V6 Model Code EA5A/W Engine Type 6A13 DOHC Automatic MY 2001 to 2003	0.3	550	750	0.2	200	0.97	1.03	2400	2600	80
Space Runner										
1.8l MPI Model Code N11W Engine Type 4G93 SOHC MY 1992 to 1998	0.5	700	900	0.3	200	0.97	1.03	2500	2800	80
Space Wagon										
2.0l MPI Model Code N33W Engine Type 4G63 SOHC MY 1996 to 1999	0.5	650	850	0.3	200	0.97	1.03	2500	2800	80
2.4l GDI Model Code N84W Engine Type 4G64 DOHC MY 1999 to 2000	0.5	500	700	0.3	200	0.97	1.03	2500	2800	80
2.0l MPI Model Code N83W Engine Type 4G63 SOHC Manual MY 2001 to 2004	0.3	650	850	0.2	200	0.97	1.03	2400	2600	80
2.4l GDI Model Code N84W Engine Type 4G64 DOHC Automatic MY 2001 to 2004	0.3	550	750	0.2	200	0.97	1.03	2400	2600	80

1 Manufacturer/ Marque	2			3						4 Min Oil Temp(°C)
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (%) Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
Grandis										
2.4 MPI Model Code NA0W Engine Type 4G69 SOHC MY 2004 onwards	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
Outlander										
2.4 MPI Model Code CU0W Engine Type 4G69 SOHC MY 2004 onwards	0.3	650	850	0.2	200	0.97	1.03	2400	2600	80
2.4 MPI Model Code CW5W Engine Type 4B12 DOHC MY 2008 onwards	0.3	700	900	0.2	200	0.97	1.03	2500	2800	80
Shogun										
(Also see Section II)										
3.0I MPI Model Code V23/V43 Engine Type 6G72 SOHC MY 1995 to 2000	0.5	600	800	0.3	200	0.97	1.03	2500	2800	80
3.5I MPI Model Code V25/V45 Engine Type 6G74 SOHC MY 1996 to 1999	0.5	600	800	0.3	200	0.97	1.03	2500	2800	80
3.5I MPI Model Code V25/V45 Engine Type 6G74 DOHC MY 1996 to 1999	0.5	600	800	0.3	200	0.97	1.03	2500	2800	80
3.5I MPI Model Code V65/V75 Engine Type 6G74 DOHC Automatic MY 2002 onwards	0.3	550	650	0.3	200	0.97	1.03	2400	2600	80
3.5I MPI Model Code V65/V75 Engine Type 6G74 DOHC Manual MY 2001 to 2004	0.3	550	650	0.2	200	0.97	1.03	2400	2600	80
Challenger/Shogun Sport										
3.0I MPI Model Code K96 Engine Type 6G72 SOHC MPI MY 1999 to 2000	0.5	600	800	0.3	200	0.97	1.03	2500	2800	80
3.0 MPI Model Code K96 Engine Type 6G72 V6 Manual 2001 onwards	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
3.0 MPI Model Code K96 Engine Type 6G72 V6 Automatic 2001 onwards	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
Shogun Pinin										
1.8I GDI Model Code H66W Engine Type 4G93 DOHC MY 2000	0.5	650	850	0.3	200	0.97	1.03	2500	2800	80
1.8I MPI Model Code H66W Engine Type 4G93 SOHC Manual 2002 onwards	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
1.8I MPI Model Code H66W Engine Type 4G93 SOHC Automatic 2002 onwards	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
1.8I MPI Model Code H76W Engine Type 4G93 SOHC Manual 2002 onwards	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
1.8 MPI Model Code H76W Engine Type 4G93 SOHC Automatic 2002 onwards	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
2.0 GDI Model Code H77W Engine Type 4G94 DOHC Manual 2001 onwards	0.3	500	850	0.2	200	0.97	1.03	2400	2600	80
2.0 GDI Model Code H77W Engine Type 4G94 DOHC Automatic 2001 onwards	0.3	550	850	0.2	200	0.97	1.03	2400	2600	80
ASX										
1.6I Model Code GA1W Engine Type 4A92 5MT 2011 onwards	0.3	650	850	0.2	200	0.97	1.03	2400	2600	80
Mirage										
1.0I Model Code A05A Engine Type 3A90 5MT 2013 onwards	0.3	650	850	0.2	200	0.97	1.03	2400	2600	80
1.2I Model Code A03A Engine Type 3A92 5MT 2013 onwards	0.3	650	850	0.2	200	0.97	1.03	2400	2600	80

1 Manufacturer/ Marque	2			3						4 Min Oil Temp(°C)
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
MORGAN										
414										
1.6l EFi Engine Code CVH	0.5	750	850	0.3	200	0.9	1.05	2800	3100	80
1.8l EFi Engine Code MVH	0.5	850	950	0.3	200	0.9	1.05	2800	3100	80
Roadster 3.0l V6 EFi	0.5	750	900	0.3	200	0.9	1.05	2750	3000	80
4/4 2000 Duratec	0.5	700	900	0.3	200	0.9	1.05	2750	3000	80
1600 Sigma	0.5	650	1000	0.3	200	0.9	1.05	2500	3000	80
Plus 4										
2.0l Engine Code T16	0.5	850	950	0.3	200	0.9	1.05	2500	3000	80
Plus 8										
3.5l EFi	0.5	750	850	0.3	200	0.9	1.05	2500	3000	80
3.9l EFi	0.5	750	900	0.3	200	0.9	1.05	2500	3000	80
4.6l EFi	0.5	750	900	0.3	200	0.9	1.05	2500	3000	80
4.0l	0.5	750	900	0.3	200	0.8	1.05	2500	3000	80
Aero 8										
Aero 8	0.5	650	1000	0.3	200	0.8	1.05	2500	3000	80
4.8 Manual	0.5	650	1000	0.3	200	0.8	1.05	2500	3000	80
4.8 Auto	0.5	650	1000	0.3	200	0.8	1.05	2500	3000	80
Aeromax										
4.8 Manual	0.5	650	1000	0.3	200	0.9	1.05	2500	3000	80
4.8 Auto	0.5	650	1000	0.3	200	0.9	1.05	2500	3000	80
Aero Super Sports										
Manual	0.5	650	1000	0.3	200	0.9	1.05	2500	3000	80
Automatic	0.5	650	1000	0.3	200	0.9	1.05	2500	3000	80
NISSAN										
The Serial No consists of the last 6 digits of the VIN number. The Model Code is derived from positions 7 - 9 of the VIN number.										
Micra Model Code K11										
All versions	0.5	600	1000	0.3	200	0.97	1.03	2500	3000	80

1 Manufacturer/Marque	2			3						4 Min Oil Temp(°C)
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (% Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
Micra Model Code K12										
All versions	0.3	600	1000	0.2	200	0.97	1.03	2500	3000	80
Micra Model Code K13										
Engine Code HR12 All Versions	0.3	600	1000	0.2	200	0.97	1.03	2500	3000	80
SunnyModel Code N14										
3/4 door 1.4l & 1.6l Serial No 040001 to 400000 and 480000 to 750000	0.5	600	1000	0.3	200	0.97	1.03	2500	3000	80
5 door 1.4l & 1.6l Serial No 100001 onwards	0.5	600	1000	0.3	200	0.97	1.03	2500	3000	80
SunnyEstate Model Code Y10										
Serial No 020001 onwards	0.5	600	1000	0.3	200	0.97	1.03	2500	3000	80
Primera Model Code P10										
Serial No 380000 onwards	0.5	600	1000	0.3	200	0.97	1.03	2500	3000	80
Primera Estate Model Code W 10										
1.6l Serial No 040001 onwards	0.5	600	1000	0.3	200	0.97	1.03	2500	3000	80
2.0l Serial No 050001 onwards	0.5	600	1000	0.3	200	0.97	1.03	2500	3000	80
QX Model Code A32										
All versions	0.5	600	1000	0.3	200	0.97	1.03	2500	3000	80
QX Model Code A33										
All versions	0.5	450	1000	0.3	200	0.97	1.03	2500	3000	80
100NX Model Code B13										
1.6l Serial No 100001 onwards	0.5	600	1000	0.3	200	0.97	1.03	2500	3000	80
200SX Model Code S14										
All versions	0.5	600	1000	0.3	200	0.97	1.03	2500	3000	75
Primera Model Code P11										
All versions	0.3	600	1000	0.3	200	0.97	1.03	2500	3000	80
Primera Model Code P12										
All versions	0.5	600	1000	0.3	200	0.97	1.03	2500	3000	80
Almera Model Code N15										
All versions	0.5	600	1000	0.3	200	0.97	1.03	2500	3000	80
Almera Model Code N16										
All versions	0.5	450	1000	0.3	200	0.97	1.03	2500	3000	80

1 Manufacturer/ Marque	2			3						4 Min Oil Temp(°C)
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (% Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
Tino Model Code V10										
All versions	0.5	450	1000	0.3	200	0.97	1.03	2500	3000	80
Terrano II Model Code R20	(Also see Section II)									
All versions Serial No 232476 onwards	0.3	600	1000	0.2	200	0.97	1.03	2500	3000	80
Patrol Model Code Y60	(Also see Section II)									
4.2l from Serial Number 000167 to 800000	0.3	600	1000	0.2	200	0.97	1.03	2500	3000	80
350Z Model Code Z33										
All versions	0.3	600	1000	0.2	200	0.97	1.03	2500	3000	80
Skyline Model Code R33										
All versions	0.5	450	1000	0.3	200	0.97	1.03	2500	3000	80
Skyline Model Code R34										
All versions	0.5	450	1000	0.3	200	0.97	1.03	2500	3000	80
X-Trail Model Code T30										
All versions	0.3	600	1000	0.2	200	0.97	1.03	2500	3000	80
X-Trail Model Code T31 2008 onwards										
All versions	0.3	600	1000	0.2	200	0.97	1.03	2500	3000	80
X-Trail Model Code T31 2014 onwards										
Engine Code MR20 2.0 All Versions	0.3	600	1000	0.2	200	0.97	1.03	2500	3000	80
Murano Model Code Z50										
All Versions	0.3	450	1500	0.2	200	0.97	1.03	2500	3000	80
Murano Model Code Z51 2008 onwards										
All Versions	0.3	450	1500	0.2	200	0.97	1.03	2500	3000	80
Pathfinder Model Code R51										
All Versions	0.3	450	1500	0.2	200	0.97	1.03	2500	3000	80
Note Model Code E11										
Engine Code CR14 1.4 All Versions	0.3	600	1000	0.2	200	0.97	1.03	2500	3000	80
Engine Code HR16 1.6 All Versions	0.3	600	1000	0.2	200	0.97	1.03	2500	3000	80
Note Model Code E12										
Engine Code HR12 1198cc All Versions	0.3	600	1000	0.2	200	0.97	1.03	2500	3000	80
Juke										
Engine Code HR16 All Versions	0.3	600	1000	0.2	200	0.97	1.03	2500	3000	80

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
Engine Code MR16 All Versions	0.3	600	1000	0.2	200	0.97	1.03	2500	3000	80
Engine Code HR2 All Versions	0.3	600	1000	0.2	200	0.97	1.03	2500	3000	80
Engine Code HR12 1198cc All Versions	0.3	600	1000	0.2	200	0.97	1.03	2500	3000	80
Qashqai Model Code J10										
Engine Code HR16 1.6 All Versions	0.3	600	1000	0.2	200	0.97	1.03	2500	3000	80
Engine Code MR20 2.0 All Versions	0.3	600	1000	0.2	200	0.97	1.03	2500	3000	80
Qashqai Model Code J11										
Engine Code HR2A 1199cc All Versions	0.3	600	1000	0.2	200	0.97	1.03	2500	3000	80
Pixo HF										
Engine Code K10B All Versions	0.3	600	1000	0.2	200	0.97	1.03	2500	3000	80
370Z Z34										
Engine Code VQ37HR All Versions	0.3	600	1000	0.2	200	0.97	1.03	2500	3000	80
Cube Z12										
Engine Code HR16 All Versions	0.3	600	1000	0.2	200	0.97	1.03	2500	3000	80
Engine Code K9K All Versions	0.3	600	1000	0.2	200	0.97	1.03	2500	3000	80
GTR R35										
Engine Code VR38 All Versions	0.3	600	1000	0.2	200	0.97	1.03	2500	3000	80
(Also see Section II)										
Engine Code HR16 All Versions	0.3	600	1000	0.2	200	0.97	1.03	2500	3000	80
Pulsar										
Engine Code MR16 All Versions	0.3	600	1000	0.2	200	0.97	1.03	2500	3000	80
Engine Code H5FT All Versions	0.3	600	1000	0.2	200	0.97	1.03	2500	3000	80
PERODUA										
MYVI										
SXi PM2M301S002xxxxx ENG K3-VE	0.01	625	675	0.04	200	0.99	1.01	2400	2600	86
EZi PM2M301S002xxxxx ENG K3-VE	0.01	675	725	0.02	200	0.99	1.01	2400	2600	87
Nippa										
EX Model Type L2 VIN No PM2 L201S002***** Engine Type ED VIN 1	0.5	850	950	0.3	200	0.97	1.03	2500	2800	80
GX Model Type L2 VIN No PM2 L201S002***** Engine Type ED VIN 1	0.5	850	950	0.3	200	0.97	1.03	2500	2800	80

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
Kenari										
GX Model Type L9 VIN No PM2 L902S002***** Engine Type EJ	0.5	800	900	0.3	200	0.98	1.01	2000	2050	95
EZ Model Type L9 VIN No PM2 L902S002***** Engine Type EJ	0.5	800	900	0.3	200	0.98	1.01	2000	2050	102
Kelisa										
EX Model Type L7 Vin No. PM2L701S002***** Engine Type EJ	0.5	825	875	0.3	200	0.98	1.02	2000	2050	96
GX Model Type L7 Vin No. PM2L701S002***** Engine Type EJ	0.5	825	875	0.3	200	0.98	1.02	2000	2050	96
EZ Model Type L7 Vin No. PM2L701S002***** Engine Type EJ	0.5	825	875	0.3	200	0.98	1.02	2000	2050	101
PEUGEOT										
The Engine Code consists of the 6th to 8th character in the VIN number, except Boxer Vans										
106 series										
Engine Code CDZ 954cc	0.5	800	900	0.3	200	0.97	1.03	2000	3000	80
Engine Code HDZ 1124cc	0.5	800	900	0.3	200	0.97	1.03	2000	3000	80
Engine Code KDX 1360cc	0.5	800	900	0.3	200	0.97	1.03	2000	3000	80
Engine Code KDY 1360cc	0.5	800	900	0.3	200	0.97	1.03	2000	3000	80
Engine Code KFZ 1360cc	0.5	870	970	0.3	200	0.97	1.03	2000	3000	80
Engine Code KFX 1360cc	0.5	800	900	0.3	200	0.97	1.03	2000	3000	80
Engine Code MFZ 1294cc	0.5	900	1000	0.3	200	0.97	1.03	2000	3000	80
Engine Code NFY 1580cc	0.5	800	900	0.3	200	0.97	1.03	2000	3000	80
Engine Code NFZ 1580cc	0.5	800	900	0.3	200	0.97	1.03	2000	3000	80
Engine Code NFW 1587cc	0.5	800	900	0.3	200	0.97	1.03	2000	3000	80
Engine Code NFX 1587cc	0.5	700	1000	0.3	200	0.97	1.03	2000	3000	80
Engine Code HFX 1124cc	0.5	700	900	0.3	200	0.97	1.03	2000	3000	80
Engine Code KFW 1360cc	0.5	750	950	0.3	200	0.97	1.03	2000	3000	80
107 series										
Engine Code CFA 998cc	0.5	750	950	0.3	200	0.97	1.03	2000	3000	80
Engine Code CFB 998cc	0.5	750	950	0.3	200	0.97	1.03	2000	3000	80
108 series										
Engine Code CFB 998cc	0.5	750	950	0.3	200	0.97	1.03	2000	3000	80
Engine Code HMT 1199cc	0.5	650	950	0.3	200	0.97	1.03	2000	3000	90

1 Manufacturer/Marque	2			3						4 Min Oil Temp(°C)
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
1007 series										
Engine Code KfV 1360cc	0.5	650	900	0.3	200	0.97	1.03	2000	3000	80
Engine Code KfU 1360cc	0.5	650	900	0.3	200	0.97	1.03	2000	3000	80
Engine Code NFU 1587cc	0.5	650	900	0.3	200	0.97	1.03	2000	3000	80
205 series										
Engine Code BDY 1580cc	0.5	800	900	0.3	200	0.97	1.03	2000	2500	80
Engine Code DFZ 1905cc	0.5	850	950	0.3	200	0.97	1.03	2000	2500	80
Engine Code DKZ 1905cc	0.5	850	950	0.3	200	0.97	1.03	2000	2500	80
Engine Code HDZ 1124cc	0.5	800	900	0.3	200	0.97	1.03	2000	2500	80
Engine Code KDY 1360cc	0.5	800	900	0.3	200	0.97	1.03	2000	2500	80
206 series										
Engine Code HFZ 1124cc	0.5	800	900	0.3	200	0.97	1.03	2000	2500	80
Engine Code KFX 1360cc	0.5	800	900	0.3	200	0.97	1.03	2000	2500	80
Engine Code NFZ 1587cc	0.5	800	900	0.3	200	0.97	1.03	2000	2500	80
Engine Code RFR 1997cc	0.5	600	800	0.3	200	0.97	1.03	2000	2500	80
Engine Code KFW 1360cc	0.5	750	950	0.3	200	0.97	1.03	2000	3000	80
Engine Code KFU 1360cc	0.5	650	900	0.3	200	0.97	1.03	2000	3000	80
Engine Code RFN 1997cc	0.5	600	800	0.3	200	0.97	1.03	2000	3000	80
Engine Code RFK 1997cc	0.5	650	850	0.3	200	0.97	1.03	2000	3000	80
Engine Code HFX 1124cc	0.5	700	900	0.3	200	0.97	1.03	2000	3000	80
Engine Code NFU 1587cc	0.5	650	850	0.3	200	0.97	1.03	2000	3000	80
207 series										
Engine Code KfV 1360cc	0.5	650	900	0.3	200	0.97	1.03	2000	3000	80
Engine Code KfU 1360cc	0.5	650	900	0.3	200	0.97	1.03	2000	3000	80
Engine Code KfT 1360cc	0.5	650	850	0.3	200	0.97	1.03	2000	3000	80
Engine Code NFU 1587cc	0.5	650	900	0.3	200	0.97	1.03	2000	3000	80
Engine Code 5FW 1598 cc	0.5	600	950	0.3	200	0.97	1.03	2000	3000	80
Engine Code 5FS 1598cc	0.5	550	850	0.3	200	0.97	1.03	2000	3000	80
Engine Code 5FX 1598cc	0.5	600	950	0.3	200	0.97	1.03	2000	3000	80
Engine Code 5FY 1598cc	0.5	600	950	0.3	200	0.97	1.03	2000	3000	80
Engine Code 5FR 1598cc	0.5	600	800	0.3	200	0.97	1.03	2000	3000	80

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
Engine Code 8FS 1397cc	0.5	550	850	0.3	200	0.97	1.03	2000	3000	80
Engine Code 8FP 1397cc	0.5	550	850	0.3	200	0.97	1.03	2000	3000	80
208 series										
Engine Code ZMZ 999cc	0.5	600	800	0.3	200	0.97	1.03	2000	3000	80
Engine Code HMZ 1199cc	0.5	600	800	0.3	200	0.97	1.03	2000	3000	80
Engine Code 8FP 1397cc	0.5	550	850	0.3	200	0.97	1.03	2000	3000	80
Engine Code 5FS 1598cc	0.5	550	850	0.3	200	0.97	1.03	2000	3000	80
Engine Code 5FV 1598cc	0.5	600	800	0.3	200	0.97	1.03	2000	3000	80
Engine Code 5FU 1598cc	0.5	600	800	0.3	200	0.97	1.03	2000	3000	94
Engine Code HNZ 1199cc	0.5	600	900	0.3	200	0.97	1.03	2000	3000	85
Engine Code 5GR 1598cc	0.5	600	850	0.3	200	0.97	1.03	2000	3000	87
Engine Code 5GZ 1598cc	0.5	600	1000	0.3	200	0.97	1.03	2000	3000	85
Engine Code HMP 1199cc	0.5	600	1000	0.3	200	0.97	1.03	2000	3000	89
2008 series										
Engine Code 5FS 1598cc	0.5	600	900	0.3	200	0.97	1.03	2000	3000	90
Engine Code HMZ 1199cc	0.5	600	900	0.3	200	0.97	1.03	2000	3000	90
Engine Code HNZ 1199cc	0.5	600	900	0.3	200	0.97	1.03	2000	3000	85
Engine Code HNY 1199cc	0.5	600	900	0.3	200	0.97	1.03	2000	3000	92
306 series										
Engine Code KDX 1360cc	0.5	800	900	0.3	200	0.97	1.03	2000	2500	80
Engine Code KFX 1360cc	0.5	800	900	0.3	200	0.97	1.03	2000	2500	80
Engine Code LFZ 1761cc	0.5	800	900	0.3	200	0.97	1.15	3000	3200	80
Engine Code NFZ 1580cc	0.5	800	900	0.3	200	0.97	1.03	2000	2200	80
Engine Code RFT 1998cc	0.5	830	930	0.3	200	0.97	1.03	2000	2500	80
Engine Code RFS 1998cc	0.5	800	900	0.3	200	0.97	1.03	2000	2500	80
Engine Code RFX 1998cc	0.5	800	900	0.3	200	0.97	1.03	2000	2500	80
Engine Code RFY 1998cc	0.5	830	930	0.3	200	0.97	1.03	2000	2500	80
Engine Code LFY 1761cc	0.5	800	900	0.3	200	0.97	1.03	2000	2500	80
Engine Code RFV 1998cc	0.5	830	930	0.3	200	0.97	1.03	2000	2500	80
Engine Code KFW 1360cc	0.5	750	950	0.3	200	0.97	1.03	2000	3000	80
Engine Code NFT 1587cc	0.5	700	1000	0.3	200	0.97	1.03	2000	3000	80

1 Manufacturer/Marque	2			3						4 Min Oil Temp(°C)
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
307 series										
Engine Code KFW 1360cc	0.5	750	950	0.3	200	0.97	1.03	2000	3000	80
Engine Code KFU 1360cc	0.5	650	900	0.3	200	0.97	1.03	2000	3000	80
Engine Code NFU 1587cc	0.5	650	900	0.3	200	0.97	1.03	2000	3000	80
Engine Code RFN 1997cc	0.5	800	900	0.3	200	0.97	1.03	2000	2400	80
Engine Code RFK 1997cc	0.5	650	850	0.3	200	0.97	1.03	2000	2400	80
Engine Code RFJ 1997cc	0.5	700	950	0.3	200	0.97	1.03	2000	2400	80
308 series										
Engine Code 8FS 1397cc	0.5	550	850	0.3	200	0.97	1.03	2000	3000	80
Engine Code 8FR 1397cc	0.5	550	850	0.3	200	0.97	1.03	2000	3000	80
Engine Code 5FW 1598cc	0.5	600	950	0.3	200	0.97	1.03	2000	3000	80
Engine Code 5FS 1598cc	0.5	550	850	0.3	200	0.97	1.03	2000	3000	80
Engine Code 5FX 1598cc	0.5	600	950	0.3	200	0.97	1.03	2000	3000	80
Engine Code 5FY 1598cc	0.5	600	950	0.3	200	0.97	1.03	2000	3000	80
Engine Code 5FT 1598cc	0.5	600	950	0.3	200	0.97	1.03	2000	3000	80
Engine Code 5FV 1598cc	0.5	600	800	0.3	200	0.97	1.03	2000	3000	80
Engine Code 5FU 1598cc	0.5	600	800	0.3	200	0.97	1.03	2000	3000	80
New308 series										
Engine Code HNY 1199cc	0.5	600	900	0.3	200	0.97	1.03	2000	3000	97
Engine Code 5FA 1598cc	0.5	600	800	0.3	200	0.97	1.03	2000	3000	94
Engine Code 5FV 1598cc	0.5	600	800	0.3	200	0.97	1.03	2000	3000	94
Engine Code HMZ 1199cc	0.5	650	850	0.3	200	0.97	1.03	2000	3000	90
Engine Code HNZ 1199cc	0.5	600	850	0.3	200	0.97	1.03	2000	3000	94
Engine Code 5GT 1598cc	0.5	600	850	0.3	200	0.97	1.03	2000	3000	95
Engine Code 5GP 1598cc	0.5	600	850	0.3	200	0.97	1.03	2000	3000	84
Engine Code 5GN 1598cc	0.5	600	850	0.3	200	0.97	1.03	2000	3000	84
3008 series										
Engine Code 5FW 1598cc	0.5	600	950	0.3	200	0.97	1.03	2000	3000	80
Engine Code 5FV 1598cc	0.5	600	950	0.3	200	0.97	1.03	2000	3000	80
Engine Code 5FS 1598cc	0.5	550	850	0.3	200	0.97	1.03	2000	3000	80
Engine Code HNY 1199cc	0.5	600	900	0.3	200	0.97	1.03	2000	3000	95

1 Manufacturer/Marque	2			3						4 Min Oil Temp(°C)
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
New3008 SUV Series										
Engine Code 5GZ 1598cc	0.5	550	1000	0.3	200	0.97	1.03	2000	3000	94
Engine Code HNY 1199cc	0.5	600	900	0.3	200	0.97	1.03	2000	3000	92
5008 series										
Engine Code 5FW 1598cc	0.5	600	950	0.3	200	0.97	1.03	2000	3000	80
Engine Code 5FV 1598cc	0.5	600	950	0.3	200	0.97	1.03	2000	3000	80
Engine Code 5FS 1598cc	0.5	550	850	0.3	200	0.97	1.03	2000	3000	80
Engine Code HNY 1199cc	0.5	600	900	0.3	200	0.97	1.03	2000	3000	95
New5008 SUV Series										
Engine Code 5GZ 1598cc	0.5	550	1000	0.3	200	0.97	1.03	2000	3000	94
Engine Code HNY 1199cc	0.5	600	900	0.3	200	0.97	1.03	2000	3000	92
RCZ										
Engine Code 5FV 1598cc	0.5	600	800	0.3	200	0.97	1.03	2000	3000	80
Engine Code 5FU 1598cc	0.5	600	800	0.3	200	0.97	1.03	2000	3000	80
Engine Code 5FG 1598cc	0.5	650	850	0.3	200	0.97	1.03	2000	3000	90
309 series										
Engine Code BDY 1580cc	0.5	800	900	0.3	200	0.97	1.03	2000	2500	80
Engine Code DKZ 1905cc	0.5	850	950	0.3	200	0.97	1.03	2000	2500	80
Engine Code HDZ 1124cc	0.5	800	900	0.3	200	0.97	1.03	2000	2500	80
Engine Code KDY 1360cc	0.5	800	900	0.3	200	0.97	1.03	2000	2500	80
405 series										
Engine Code BDY 1580cc	0.5	800	900	0.3	200	0.97	1.03	2000	2500	80
Engine Code BFZ 1580cc	0.5	800	900	0.3	200	0.97	1.15	3000	3200	80
Engine Code DKZ 1905cc	0.5	850	950	0.3	200	0.97	1.03	2000	2500	80
Engine Code KDX 1360cc	0.5	800	900	0.3	200	0.97	1.03	2000	2500	80
Engine Code LFZ 1761cc	0.5	800	900	0.3	200	0.97	1.15	3000	3200	80
Engine Code RFX 1998cc	0.5	800	900	0.3	200	0.97	1.03	2000	2500	80
Engine Code RFY 1998cc	0.5	830	930	0.3	200	0.97	1.03	2000	2500	80
Engine Code RGZ 1998cc	0.5	700	900	0.3	200	0.97	1.03	2000	2500	80
406 series										
Engine Code RLZ 1997cc	0.5	600	800	0.3	200	0.97	2.05	2000	3000	80

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
Engine Code LFY 1761cc	0.5	750	950	0.3	200	0.97	1.03	2000	2500	80
Engine Code RFV 1998cc	0.5	750	850	0.3	200	0.97	1.03	2000	2500	80
Engine Code RGX 1998cc	0.5	750	850	0.3	200	0.97	1.03	2000	2500	80
Engine Code XFZ 2946cc	0.5	600	700	0.3	200	0.97	1.03	2000	2500	80
Engine Code RFR 1997cc	0.5	600	800	0.3	200	0.97	1.03	2000	2500	80
Engine Code RFN 1997cc	0.5	600	800	0.3	200	0.97	1.03	2000	3000	80
Engine Code 3FZ 2230cc	0.5	600	950	0.3	200	0.97	1.03	2000	3000	80
Engine Code 6FZ 1749cc	0.5	600	800	0.3	200	0.97	1.03	2000	3000	80
Engine Code XFX 2946cc	0.5	600	950	0.3	200	0.97	1.03	2000	3000	80
407 Series										
Engine Code 6FZ 1749cc	0.5	600	800	0.3	200	0.97	1.03	2000	2400	80
Engine Code 6FY 1749cc	0.5	650	900	0.3	200	0.97	1.03	2000	2400	80
Engine Code RFN 1997cc	0.5	600	800	0.3	200	0.97	1.03	2000	2400	80
Engine code RFJ 1997cc	0.5	700	950	0.3	200	0.97	1.03	2000	2400	80
Engine Code 3FZ 2230cc	0.5	600	950	0.3	200	0.97	1.03	2000	2400	80
Engine Code 3FY 2230cc	0.5	650	900	0.3	200	0.97	1.03	2000	2400	80
Engine Code XFV 2946cc	0.5	600	900	0.3	200	0.97	1.03	2000	3000	80
508 series										
Engine Code 5FS 1598cc	0.5	550	850	0.3	200	0.97	1.03	2000	3000	80
Engine Code 5FV 1598cc	0.5	600	950	0.3	200	0.97	1.03	2000	3000	80
Engine Code 5GZ 1598cc	0.5	700	1000	0.3	200	0.97	1.03	2000	3000	104
605 series										
Engine Code RFV 1998cc	0.5	800	900	0.3	200	0.97	1.03	2000	2500	80
Engine Code RFZ 1998cc	0.5	800	900	0.3	200	0.97	1.03	2000	2500	80
Engine Code RGX 1998cc	0.5	750	850	0.3	200	0.97	1.03	2000	2500	80
Engine Code RGY 1998cc	0.5	800	900	0.3	200	0.97	1.03	2000	2500	80
Engine Code SFZ 2962cc	0.5	700	800	0.3	200	0.97	1.03	2000	2500	80
Engine Code SKZ 2962cc	0.5	700	800	0.3	200	0.97	1.03	2000	2500	80
Engine Code UFZ 2962cc	0.5	700	800	0.3	200	0.97	1.03	2000	2500	80
Engine Code UKZ 2962cc	0.5	700	800	0.3	200	0.97	1.03	2000	2500	80
Engine Code XFZ 2946cc	0.5	600	700	0.3	200	0.97	1.03	2000	2500	80

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
607 series										
Engine Code RFN 1997cc	0.5	800	900	0.3	200	0.97	1.03	2000	2400	80
Engine Code 3FZ 2230cc	0.5	600	950	0.3	200	0.97	1.03	2000	2400	80
Engine Code 3FY 2230cc	0.5	650	900	0.3	200	0.97	1.03	2000	2400	80
Engine Code XFX 2946cc	0.5	600	950	0.3	200	0.97	1.03	2000	3000	80
Engine Code XFV 2946cc	0.5	600	900	0.3	200	0.97	1.03	2000	3000	80
(Also see section II)										
Engine Code RFV 1998cc	0.5	800	900	0.3	200	0.97	1.03	2000	2500	80
Engine Code RFN 1997cc	0.5	600	800	0.3	200	0.97	1.03	2000	3000	80
807 series										
(Also see section II)										
Engine Code RFN 1997cc	0.5	800	900	0.3	200	0.97	1.03	2000	3000	80
Engine Code RFJ 1997cc	0.5	700	950	0.3	200	0.97	1.03	2000	3000	80
Engine Code 3FZ 2230cc	0.5	600	950	0.3	200	0.97	1.03	2000	3000	80
Engine Code 3FY 2230cc	0.5	600	950	0.3	200	0.97	1.03	2000	3000	80
(Also see section II)										
Engine Code KfV 1360cc	0.5	650	900	0.3	200	0.97	1.03	2000	3000	80
Engine Code KFT 1360cc	0.5	650	850	0.3	200	0.97	1.03	2000	3000	80
Partner Combi Series										
(Also see section II)										
Engine Code KfW 1360cc	0.5	750	950	0.3	200	0.97	1.03	2000	3000	80
Engine Code NFU 1587cc	0.5	650	850	0.3	200	0.97	1.03	2000	3000	80
Partner Tepee Series										
(Also see section II)										
Engine Code NFU 1587cc	0.5	600	900	0.3	200	0.97	1.03	2000	3000	80
Engine code NFR 1587cc	0.5	600	900	0.3	200	0.97	1.03	2000	3000	80
Engine Code 5FS 1598cc	0.5	550	850	0.3	200	0.97	1.03	2000	3000	80
Engine Code 5FK 1598cc	0.5	600	900	0.3	200	0.97	1.03	2000	3000	80
Engine Code HNz 1199cc	0.5	600	900	0.3	200	0.97	1.03	2000	3000	94

PORSCHE

The Engine Code can be found on the Engine Block. Models with an * are fitted with Secondary Air Injection. In order to ensure CAT is at operating temperature run engine for 3 minutes.

911

911 Turbo 3.3l Engine Code M30/69 Manual *	0.5	840	960	0.3	200	0.95	1.05	2500	2800	80
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1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
911 Turbo 3.6l Engine Code M64/50 Manual *	0.5	890	1010	0.3	200	0.95	1.05	2500	2800	80
911 Turbo Engine Code M64/60 Manual *	0.5	740	840	0.3	200	0.95	1.05	2500	2800	80
911 Turbo (996) Engine Code M96/70 Manual	0.5	650	750	0.3	200	0.97	1.03	2800	3200	80
911 Turbo (996) Engine Code M96/70 Automatic	0.5	650	750	0.3	200	0.97	1.03	2800	3200	80
Carrera (933) Engine Code M64/06 Automatic	0.5	750	850	0.3	200	0.95	1.05	2500	2800	80
Carrera (993) Engine Code M64/05 Manual	0.5	750	850	0.3	200	0.95	1.05	2500	2800	80
Carrera 2 Engine Code M64/01 Manual	0.5	830	930	0.3	200	0.95	1.05	2500	2800	80
Carrera 2 Engine Code M64/02 Automatic	0.5	830	930	0.3	200	0.95	1.05	2500	2800	80
Carrera 4 Engine Code M64/01 Manual	0.5	830	930	0.3	200	0.95	1.05	2500	2800	80
Carrera RS Engine Code M64/03 Manual	0.5	830	930	0.3	200	0.95	1.05	2500	2800	80
Carrera Engine Code M64/21 Manual	0.5	830	930	0.3	200	0.97	1.03	2500	2800	80
Carrera Engine Code M64/22 Auto	0.5	830	930	0.3	200	0.97	1.03	2500	2800	80
Carrera RS Engine Code M64/20 Manual	0.5	910	1010	0.3	200	0.97	1.03	2500	2800	80
Carrera 996 Manual M96/01	0.5	650	750	0.3	200	0.97	1.03	2500	2800	80
Carrera 996 Automatic M96/01	0.5	650	750	0.3	200	0.97	1.03	2500	2800	80
Carrera 996 C4 Engine Code M96/02 Manual	0.5	650	750	0.3	200	0.97	1.03	2500	2800	80
Carrera 996 C4 Engine Code M96/02 Automatic	0.5	650	750	0.3	200	0.97	1.03	2500	2800	80
Carrera 996 C2/4 Engine Code M96/04	0.5	650	750	0.3	200	0.97	1.03	2800	3200	80
Carrera (996) C2/4 Engine Code M96.03	0.5	630	710	0.3	200	0.97	1.03	2400	2600	80
911 GT3 Engine Code M96/76	0.5	850	950	0.3	200	0.97	1.03	2800	3200	80
911 GT3 Engine Code M96/79	0.3	630	710	0.2	200	0.97	1.03	2400	2600	80
GT2 (996) Engine Code M96.70S	0.5	700	780	0.3	200	0.97	1.03	2800	3200	80
Carrera 3.6 (997) M96/05	0.3	640	800	0.2	200	0.97	1.03	2800	3200	80
Carrera S 3.8 (997) M97/01	0.3	640	800	0.2	200	0.97	1.03	2800	3200	80
Carrera 4 Engine Code M96/05	0.3	640	800	0.2	200	0.97	1.03	2800	3200	80
Carrera 4S Engine Code M97/01	0.3	640	800	0.2	200	0.97	1.03	2800	3200	80
911 Turbo (997) Engine Code M97/70	0.3	700	780	0.2	200	0.97	1.03	2400	2600	80
911 GT3 (997) Engine Code M97/76	0.3	740	820	0.2	200	0.97	1.03	2900	3100	80
911 GT3 RS (997) Engine Code M97/76	0.3	740	820	0.2	200	0.97	1.03	2900	3100	80
911 GT2 (997) Engine Code M97/70S	0.3	700	780	0.2	200	0.97	1.03	2400	2600	80
Carrera 3.6 (997 Gen II) Engine Code MA 102	0.3	640	720	0.2	200	0.97	1.03	2400	2600	80
Carrera S 3.8 (997 Gen II) Engine Code MA 101	0.3	640	720	0.2	200	0.97	1.03	2400	2600	80

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
Carrera 4 3.6 (997 Gen II) Engine Code MA 102	0.3	640	720	0.2	200	0.97	1.03	2400	2600	80
Carrera 4S 3.8 (997 Gen II) Engine Code MA 101	0.3	640	720	0.2	200	0.97	1.03	2400	2600	80
911 Turbo (997 Turbo 3.8 Gen II) Engine Code MA170	0.3	640	720	0.3	200	0.99	1.01	2400	2600	80
911 GT3 (997 GT3 3.8 Gen II) Engine Code M97/77	0.3	680	760	0.3	200	0.99	1.01	2900	3100	80
911 GT3 RS (997 GT3 RS 3.8 Gen II) Engine Code M97/77	0.3	680	760	0.3	200	0.99	1.01	2900	3100	80
911 Turbo S (MA170 S)	0.3	640	720	0.2	200	0.97	1.03	2400	2600	80
911 GT2 RS (M97.70R)	0.3	700	780	0.2	200	0.97	1.03	2400	2600	80
911 Speedster (MA101S)	0.3	600	760	0.2	200	0.97	1.03	2400	2600	80
911 Carrera GTS (MA101S)	0.3	600	760	0.2	200	0.97	1.03	2400	2600	80
911 (997) GT3 RS 4.0 Engine Code M97/74	0.3	680	760	0.2	200	0.97	1.03	2900	3100	80
911 (997) Carrera 4S Engine Code MA101S	0.3	600	760	0.2	200	0.97	1.03	2400	2600	80
911 (991) Carrera Engine Code MA104	0.3	600	760	0.2	200	0.97	1.03	2400	2600	80
911 (991) Carrera S Engine Code MA103	0.3	600	760	0.2	200	0.97	1.03	2400	2600	80
911 (991) Carrera 4 Engine Code MA104	0.3	600	760	0.2	200	0.97	1.03	2400	2600	80
911 (991) Carrera 4S Engine Code MA103	0.3	600	760	0.2	200	0.97	1.03	2400	2600	80
911 (991) Turbo Coupé Engine Code MA171	0.3	600	760	0.3	200	0.97	1.03	2400	2600	80
911 (991) Turbo Cabriolet Engine Code MA171	0.3	600	760	0.3	200	0.97	1.03	2400	2600	80
911 (991) Turbo S Coupé Engine Code MA171S	0.3	600	760	0.3	200	0.97	1.03	2400	2600	80
911 (991) Turbo S Cabriolet Engine Code MA171S	0.3	600	760	0.3	200	0.97	1.03	2400	2600	80
911 (991) GT3 Engine Type MA175	0.3	600	760	0.3	200	0.97	1.03	2400	2600	80
911 (991) Targa 4 Engine Code MA104	0.3	600	760	0.2	200	0.97	1.03	2400	2600	80
911 (991) Targa 4S Engine Code MA103	0.3	600	760	0.2	200	0.97	1.03	2400	2600	80
911 (991) Targa 4 GTS Engine Code MA103	0.3	600	760	0.2	200	0.97	1.03	2400	2600	80
911 (991) GTS Coupé & Cabriolet Engine Code MA103	0.3	600	760	0.2	200	0.97	1.03	2400	2600	80
911 (991) GT3 RS Engine Code MA176	0.3	600	760	0.3	200	0.97	1.03	2400	2600	80
Carrera GT										
Carrera GT Engine Code M80	0.3	710	790	0.2	200	0.97	1.03	2400	2600	80
928										
GT Engine Code M28/47 Manual *	0.5	730	820	0.3	200	0.95	1.05	2500	2800	80
GTS Engine Code M28/49 Manual *	0.5	630	720	0.3	200	0.95	1.05	2500	2800	80
GTS Engine Code M28/50 Automatic *	0.5	630	720	0.3	200	0.95	1.05	2500	2800	80
S4 Engine Code M28/42 Automatic *	0.5	630	720	0.3	200	0.95	1.05	2500	2800	80

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
968										
Engine Code M44/43 Manual	0.5	790	890	0.3	200	0.95	1.05	2500	2800	80
Engine Code M44/44 Automatic	0.5	830	930	0.3	200	0.95	1.05	2500	2800	80
944										
S2 Engine Code M44/41 Manual	0.5	790	890	0.3	200	0.95	1.05	2500	2800	80
Turbo Engine Code M44/52 Manual	0.5	790	890	0.3	200	0.95	1.05	2500	2800	80
Boxster										
Engine Code M96/20 Manual	0.5	740	840	0.3	200	0.97	1.03	2500	2800	80
Engine Code M96/20 Auto	0.5	700	800	0.3	200	0.97	1.03	2500	2800	80
2.7 Engine Code M96/22 Manual	0.5	650	750	0.3	200	0.97	1.03	2800	3200	80
2.7 Engine Code M96/22 Automatic	0.5	650	750	0.3	200	0.97	1.03	2800	3200	80
S 3.2 Engine Code M96/21 Manual	0.5	650	750	0.3	200	0.97	1.03	2800	3200	80
S 3.2 Engine Code M96/21 Automatic	0.5	650	750	0.3	200	0.97	1.03	2800	3200	80
2.7 Engine Code M96/23 Manual	0.5	640	720	0.3	200	0.97	1.03	2800	3200	80
2.7 Engine Code M96/23 Tiptronic	0.5	640	720	0.3	200	0.97	1.03	2800	3200	80
S 3.2 Engine Code M96/24 Manual	0.5	640	720	0.3	200	0.97	1.03	2800	3200	80
S 3.2 Engine Code M96/24 Tiptronic	0.5	640	720	0.3	200	0.97	1.03	2800	3200	80
2.7 (987) Engine Code M96/25	0.3	640	720	0.2	200	0.97	1.03	2800	3200	80
S 3.2 (987) Engine Code M96/26	0.3	640	720	0.2	200	0.97	1.03	2800	3200	80
S 3.4 Engine Code M97/21	0.3	640	720	0.2	200	0.97	1.03	2800	3200	80
2.7 Engine Code M97/20	0.3	640	720	0.2	200	0.97	1.03	2400	2600	80
RS60 Spyder Engine Code M97/22	0.3	640	720	0.2	200	0.97	1.03	2400	2600	80
2.9 Engine Code MA120	0.3	640	720	0.3	200	0.99	1.01	2400	2600	80
3.4 Engine Code MA121 & MA121C	0.3	640	720	0.3	200	0.99	1.01	2400	2600	80
Spyder (MA121C)	0.3	640	720	0.2	200	0.97	1.03	2400	2600	80
(981) 2.7 Manual Engine Code MA1.22	0.3	600	760	0.2	200	0.97	1.03	2400	2600	80
(981) 2.7 PDK Engine Code MA1.22	0.3	600	760	0.2	200	0.97	1.03	2400	2600	80
(981) S 3.4 Manual Engine Code MA1.23	0.3	600	760	0.2	200	0.97	1.03	2400	2600	80
(981) S 3.4 PDK Engine Code MA1.23	0.3	600	760	0.2	200	0.97	1.03	2400	2600	80
(981) Spyder (MDB.XA)	0.3	600	760	0.2	200	0.97	1.03	2400	2600	80
(981) GTS (MA1.23)	0.3	600	760	0.2	200	0.97	1.03	2400	2600	80

1 Manufacturer/Marque	2			3						4 Min Oil Temp(°C)
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
Cayenne										
Cayenne V6 (M02.2Y)	0.3	640	740	0.2	200	0.97	1.03	2400	2600	80
Cayenne S (M48/00)	0.3	540	620	0.2	200	0.97	1.03	2400	2600	80
Cayenne Turbo (M48/50)	0.3	540	620	0.2	200	0.97	1.03	2400	2600	80
Cayenne Turbo + KIT Engine Code M48/50S	0.3	540	620	0.2	200	0.97	1.03	2400	2600	80
Cayenne Turbo + Turbo S Engine Code M48/50T	0.3	540	620	0.2	200	0.97	1.03	2400	2600	80
Cayenne V6 3.6L Engine Code M55/01	0.3	640	720	0.2	200	0.97	1.03	2400	2600	80
Cayenne S 4.8L Engine Code M48/01	0.3	540	620	0.2	200	0.97	1.03	2400	2600	80
Cayenne GTS 4.8L Engine Code M48/01G	0.3	540	620	0.2	200	0.97	1.03	2400	2600	80
Cayenne Turbo 4.8L Engine Code M48/51	0.3	540	620	0.2	200	0.97	1.03	2400	2600	80
Cayenne Turbo Kit 4.8L Engine Code M48/51S	0.3	540	620	0.2	200	0.97	1.03	2400	2600	80
Cayenne Turbo S 4.8L Engine Code M48/51T	0.3	540	620	0.2	200	0.97	1.03	2400	2600	80
Cayenne V6 (M55.02)	0.3	610	690	0.2	200	0.97	1.03	2400	2600	80
Cayenne S (M48.02)	0.3	560	640	0.2	200	0.97	1.03	2400	2600	80
Cayenne Turbo (M48.52)	0.3	560	640	0.2	200	0.97	1.03	2400	2600	80
Cayenne GTS 4.8L Engine Code M48.02G	0.3	560	640	0.2	200	0.97	1.03	2400	2600	80
Cayenne (MCE.YE)	0.3	610	690	0.2	200	0.97	1.03	2400	2600	80
Cayenne S (MCU.RA)	0.3	585	685	0.2	200	0.97	1.03	2400	2600	80
Cayenne GTS (MCX.ZA)	0.3	585	685	0.2	200	0.97	1.03	2400	2600	80
Cayenne Turbo (MCF.TB)	0.3	560	640	0.2	200	0.97	1.03	2400	2600	80
Cayenne Turbo S (MCY.XA)	0.3	560	640	0.2	200	0.97	1.03	2400	2600	80
Cayman										
Cayman S 3.4 Engine Code M97/21	0.3	640	720	0.2	200	0.97	1.03	2800	3200	80
Cayman 2.7 Engine Code M97/20	0.3	640	720	0.2	200	0.97	1.03	2400	2600	80
Cayman S Sport 3.4 Engine Code MA 121C	0.3	640	720	0.2	200	0.97	1.03	2400	2600	80
Cayman 2.9 Engine Code MA120C	0.3	640	720	0.3	200	0.99	1.01	2400	2600	80
Cayman 3.4 Engine Code MA121C	0.3	640	720	0.3	200	0.99	1.01	2400	2600	80
Cayman R (MA121R)	0.3	640	720	0.2	200	0.97	1.03	2400	2600	80
Cayman (981) 2.7 Manual Engine Code MA1.22	0.3	600	760	0.2	200	0.97	1.03	2400	2600	80
Cayman (981) 2.7 PDK Engine Code MA1.22	0.3	600	760	0.2	200	0.97	1.03	2400	2600	80
Cayman (981) S 3.4 Manual Engine Code MA1.23	0.3	600	760	0.2	200	0.97	1.03	2400	2600	80
Cayman (981) S 3.4 PDK Engine Code MA1.23	0.3	600	760	0.2	200	0.97	1.03	2400	2600	80

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
Cayman GTS (MA1.23)	0.3	600	760	0.2	200	0.97	1.03	2400	2600	80
Cayman GT4 (MDB.XA)	0.3	600	760	0.2	200	0.97	1.03	2400	2600	80
Panamera										
S Engine Code M48/20 Manual	0.3	500	580	0.3	200	0.99	1.01	2400	2600	80
S Engine Code M48/20 PDK/Auto	0.3	540	620	0.3	200	0.99	1.01	2400	2600	80
4S Engine Code M48/40 PDK/Auto	0.3	540	620	0.3	200	0.99	1.01	2400	2600	80
Turbo Engine Code M48/70 PDK/Auto	0.3	540	620	0.3	200	0.99	1.01	2400	2600	80
Turbo S Engine Code M48.70S PDK/Auto	0.3	540	620	0.3	200	0.99	1.01	2400	2600	80
Engine Code (M46.20) Manual	0.3	595	675	0.2	200	0.97	1.03	2400	2600	80
Engine Code (M46.20) PDK/Auto	0.3	540	620	0.2	200	0.97	1.03	2400	2600	80
4 Engine Code (M46.40) Manual	0.3	595	675	0.2	200	0.97	1.03	2400	2600	80
4 Engine Code (M46.40) PDK/Auto	0.3	540	620	0.2	200	0.97	1.03	2400	2600	80
GTS Engine Code M48.40	0.3	560	640	0.2	200	0.97	1.03	2400	2600	80
2 PDK Engine type CWA	0.3	595	675	0.2	200	0.97	1.03	2400	2600	80
4 PDK Engine type CWA	0.3	595	675	0.2	200	0.97	1.03	2400	2600	80
2S PDK Engine type CWD	0.3	595	675	0.2	200	0.97	1.03	2400	2600	80
4S PDK Engine type CWD	0.3	595	675	0.2	200	0.97	1.03	2400	2600	80
GTS PDK Engine type CXP	0.3	570	650	0.2	200	0.97	1.03	2400	2600	80
Turbo PDK Engine type CWB	0.3	540	620	0.2	200	0.97	1.03	2400	2600	80
Turbo S PDK Engine type CWC	0.3	540	620	0.2	200	0.97	1.03	2400	2600	80
Macan										
Macan (MCN.CC) 2.0 PDK	0.3	660	820	0.2	200	0.97	1.03	2400	2600	80
Macan (MCY.PA) 2.0 PDK	0.3	660	820	0.2	200	0.97	1.03	2400	2600	80
Macan S (MCT.MA) 3.0 PDK	0.3	535	735	0.2	200	0.97	1.03	2400	2600	80
Macan GTS (MDC.NA) 3.0 PDK	0.3	535	735	0.2	200	0.97	1.03	2400	2600	80
Macan Turbo (MCT.LA) 3.6 PDK	0.3	535	735	0.2	200	0.97	1.03	2400	2600	80
918										
918 Spyder M18.00	0.3	870	1030	0.2	200	0.97	1.03	2400	2600	80

1 Manufacturer/Marque	2			3						4 Min Oil Temp(°C)
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
PROTON										
<i>The Model Code consists of the 4th to 8th character of the VIN number.</i>										
See also Section II										
MPI (injection models only)										
C21SN and C21LN from VIN No PL1C21ASNMB356600 Engine Type 4G13	0.75	650	850	0.3	200	0.98	1.02	2500	2800	80
C22SK and C22LK from VIN No PL1C22ASKMB356600 Engine Type 4G15	0.75	650	850	0.3	200	0.98	1.02	2500	2800	80
C22SN and C22LN from VIN No PL1C22ASKNB356600 Engine Type 4G15	0.75	650	850	0.3	200	0.98	1.02	2500	2800	80
Coupé										
C96DN from VIN No PL1C96DNRTB964815 Engine Type 4G13	0.75	650	850	0.3	200	0.98	1.02	2500	2800	80
C99DN from VIN No PL1C99DNRTB964815 Engine Type 4G93	0.75	700	900	0.3	200	0.98	1.02	2500	2800	80
C99DR from VIN No PL1C99DRRTB964815 Engine Type 4G93	0.75	700	900	0.3	200	0.98	1.02	2500	2800	80
Persona										
C96SN & LN from VIN No PL1C96SNRTB400000 Engine Type 4G13	0.75	650	850	0.3	200	0.98	1.02	2500	2800	80
C97SK & LK from VIN No PL1C97SKRTB400000 Engine Type 4G15	0.75	650	850	0.3	200	0.98	1.02	2500	2800	80
C97SN & LN from VIN No PL1C97SNRTB400000 Engine Type 4G15	0.75	650	850	0.3	200	0.98	1.02	2500	2800	80
C98SN & LN from VIN No PL1C98SNRTB400000 Engine Type 4G92	0.75	700	900	0.3	200	0.98	1.02	2500	2800	80
C98SR & LR from VIN No PL1C98SRRTB400000 Engine Type 4G92	0.75	700	900	0.3	200	0.98	1.02	2500	2800	80
C99SN & LN from VIN No PL1C99SNRTB832490 Engine Type 4G93	0.75	700	900	0.3	200	0.98	1.02	2500	2800	80
C99SR & LR from VIN No PL1C99SRRTB832490 Engine Type 4G93	0.75	700	900	0.3	200	0.98	1.02	2500	2800	80
Compact										
C96MN from VIN No PL1C96MNRTB611112 Engine Type 4G13	0.75	650	850	0.3	200	0.98	1.02	2500	2800	80
C97MK from VIN No PL1C97MKRTB611112 Engine Type 4G15	0.75	650	850	0.3	200	0.98	1.02	2500	2800	80
C97MN from VIN No PL1C97MNRTB611112 Engine Type 4G15	0.75	650	850	0.3	200	0.98	1.02	2500	2800	80
C98MN from VIN No PL1C98MNRTB611112 Engine Type 4G92	0.75	650	850	0.3	200	0.98	1.02	2500	2800	80
C98MR from VIN No PL1C98MRRTB611112 Engine Type 4G92	0.75	650	850	0.3	200	0.98	1.02	2500	2800	80
C99MN from VIN No PL1C99MNRTB611112 Engine Type 4G93	0.75	650	850	0.3	200	0.98	1.02	2500	2800	80
Satria										
C96MN from VIN No PL1C96MNRTB611112 Engine Type 4G13	0.75	650	850	0.3	200	0.98	1.02	2500	2800	80
C97MK from VIN No PL1C97MKRTB611112 Engine Type 4G15	0.75	650	850	0.3	200	0.98	1.02	2500	2800	80
C97MN from VIN No PL1C97MNRTB611112 Engine Type 4G15	0.75	650	850	0.3	200	0.98	1.02	2500	2800	80

1 Manufacturer/Marque	2			3						4 Min Oil Temp(°C)
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
C98MN from VIN No PL1C98MNRTB611112 Engine Type 4G92	0.75	700	900	0.3	200	0.98	1.02	2500	2800	80
C98MR from VIN No PL1C98MRRTB611112 Engine Type 4G92	0.75	700	900	0.3	200	0.98	1.02	2500	2800	80
C99MN from VIN No PL1C99MNRTB611112 Engine Type 4G93	0.75	700	900	0.3	200	0.98	1.02	2500	2800	80
Satria NEO										
BS VIN No. PL1BS3MNR***** Engine Type S4PE	0.1	800	900	0.1	200	0.97	1.06	2350	2500	94
BS VIN No. PL1BS6MNR***** Engine Type S4PH	0.1	850	950	0.1	200	0.97	1.06	2200	2400	91
BS VIN No. PL1BS6MRR***** Engine Type S4PH	0.1	800	900	0.1	200	0.97	1.08	2350	2550	99
Wira										
C96SN & LN from VIN No PL1C96SNRTB400000 Engine Type 4G13	0.75	650	850	0.3	200	0.98	1.02	2500	2800	90
C97SK & LK from VIN No PL1C97SKRTB400000 Engine Type 4G15	0.75	650	850	0.3	200	0.98	1.02	2500	2800	90
C97SN & LN from VIN No PL1C97SNRTB400000 Engine Type 4G15	0.75	650	850	0.3	200	0.98	1.02	2500	2800	90
C98SN & LN from VIN No PL1C98SNRTB400000 Engine Type 4G92	0.75	700	900	0.3	200	0.98	1.02	2500	2800	90
C98SR & LR from VIN No PL1C98SRRTB400000 Engine Type 4G92	0.75	700	900	0.3	200	0.98	1.02	2500	2800	90
C99SN & LN from VIN No PL1C99SNRTB832490 Engine Type 4G93	0.75	700	900	0.3	200	0.98	1.02	2500	2800	90
C99SR & LR from VIN No PL1C99SRRTB832490 Engine Type 4G93	0.75	700	900	0.3	200	0.98	1.02	2500	2800	90
Impian up to VIN No. 6F243862										
CF1SN Vin No. PL1CF1SNRSB***** Engine Type 4G18	0.5	700	800	0.3	200	0.98	1.02	2400	2600	105
CF1SR Vin No. PL1CF1SRRSB***** Engine Type 4G18	0.5	750	850	0.3	200	0.98	1.02	2400	2600	105
Impian from VIN No. 6F243863										
CF1SN VIN No. PL1CF1SNRSB***** Engine Type S4PH	0.1	850	950	0.1	200	0.97	1.04	2400	2600	89
CF1SR VIN No. PL1CF1SRRSB***** Engine Type S4PH	0.1	800	900	0.1	200	0.97	1.04	2400	2600	90
GEN2/Persona up to VIN No. 6G056452										
CM3LN VIN No PL1CM3LN4G***** Engine Type S4PE	0.5	800	900	0.3	200	0.98	1.02	2400	2600	97
CM6LN VIN No PL1CM6LN4G***** Engine Type S4PH	0.5	800	900	0.3	200	0.97	1.09	2400	2600	100
CM6LR VIN No PL1CM6LR4G***** Engine Type S4PH	0.5	850	950	0.3	200	0.97	1.09	2400	2600	100
GEN2/Persona from VIN No. 6G056453										
CM3LN VIN No. PL1CM3LN6G***** Engine Type S4PE	0.2	850	950	0.1	200	0.97	1.09	2400	2560	89
CM6LN VIN No. PL1CM6LN6G***** Engine Type S4PH	0.1	850	950	0.1	200	0.97	1.09	2050	2600	89
CM6LR VIN No. PL1CM6LR6G***** Engine Type S4PH	0.2	850	950	0.1	200	0.97	1.09	2350	2600	89
Savvy										
BT2LC VIN No. PL1BT2LCR5G***** Engine Type D4F	0.1	750	850	0.1	200	0.97	1.02	2350	2550	80

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
BT2LN VIN No. PL1BT2LNR5G***** Engine Type D4F Exora	0.1	750	850	0.1	200	0.97	1.02	2350	2550	85
Engine Code S4PH-CFE Prevé	0.3	650	850	0.2	200	0.97	1.03	2350	2600	80
Engine Code S4PH-CFE Suprima	0.3	650	850	0.2	200	0.97	1.03	2350	2600	80
Engine Code S4PH-CFE	0.3	650	850	0.2	200	0.97	1.03	2350	2600	80
RELIANT										
Scimitar Sabre 1.4l (with Rover engine)	0.5	825	925	0.3	200	0.95	1.09	2500	3000	60
RENAULT										
<i>The Engine Code is stamped on a plate attached to the engine. Exact location is given in the vehicle handbook. Alphanumeric in brackets may be found on the VIN or oval plate. X, * or ? may be replaced with any other letter or digit.</i>										
See also Section II										
All Models 1998 Onwards										
All Models 1998 onwards	0.5	450	1500	0.3	200	0.97	1.03	2500	3000	80
5 Range										
Campus Prima 1.4l (B/C40705) Engine Code C3J E7 60	0.5	800	900	0.3	200	0.97	1.03	2500	2800	60
Twingo										
1.2l C063D5/30P Engine Code (C3G A7 00)	0.3	670	790	0.2	200	0.97	1.03	2500	2800	80
1.2l C06355/35P Engine Code (C3G A7 00)	0.3	670	790	0.2	200	0.97	1.03	2500	2800	80
1.2l C06 405/40P Engine Code (C3G D7 02)	0.3	670	790	0.2	200	0.97	1.03	2500	2800	80
1.2l C06 455/45P Engine Code (C3G D7 02)	0.3	670	790	0.2	200	0.97	1.03	2500	2800	80
1.2l C06 505/705 Engine Code (D7F B7 00)	0.3	700	780	0.2	200	0.97	1.03	2500	2800	80
1.2l C05 601/701 Engine Code (D7F C7 01)	0.3	700	780	0.2	200	0.97	1.03	2500	2800	80
1.2l C06 60E/60G Engine Code (D7F B7 00)	0.3	700	780	0.2	200	0.97	1.03	2500	2800	80
1.2l C06 D?? Engine Code (D4F ?? ??)	0.3	750	800	0.2	200	0.97	1.03	2650	2800	80

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
Twingo December 2007 - 2014										
1.2l Engine Code (D4F ?? ??)	0.3	750	800	0.2	200	0.97	1.03	2650	2800	80
1.6 Engine Code (K?M ?? ??)	0.3	750	800	0.2	200	0.97	1.03	2650	2800	80
Twingo September 2014 onwards										
999cc Engine Code (H4D)	0.3	750	800	0.2	200	0.97	1.03	2650	2800	80
898cc Engine Code (H4B)	0.3	750	800	0.2	200	0.97	1.03	2650	2800	80
Wind 2010 onwards										
1.2l Engine Code (D4F ?? ??)	0.3	750	800	0.2	200	0.97	1.03	2650	2800	80
1.6l Engine Code (K?M ?? ??)	0.3	750	800	0.2	200	0.97	1.03	2650	2800	80
Clio Range										
1.2l RL, RN Prima & Oasis (B/C57705) Engine Code C3G C7 20	0.5	670	790	0.3	200	0.97	1.03	2500	2800	60
1.2l RL, RN & Prima & Oasis (5/3/B/C57SK/J05) Engine Code E7F G7 50	0.5	650	850	0.3	200	0.97	1.03	2500	2800	60
1.2l RL, RN & Prima & Oasis (5/3/B/C57G/A04/05) Engine Code E7F H7 08	0.5	650	850	0.3	200	0.97	1.03	2500	2800	80
1.2l RL, RN, RT (5/357K05/F) Engine Code D7F A7 30	0.5	700	780	0.3	200	0.97	1.03	2500	2800	80
1.2l RL, RN, RT (5/357Y05/F) Engine Code D7F A7 30	0.5	700	780	0.3	200	0.97	1.03	2500	2800	80
1.2l RL, RN, RT (5/357 K0C) Engine Code D7F A7 30	0.5	700	780	0.3	200	0.97	1.03	2500	2800	80
1.2l RL, RN, RT (5/357 Y0C) Engine Code D7F A7 30	0.5	700	780	0.3	200	0.97	1.03	2500	2800	80
1.2l RL, RN, RT (B/C57R05) Engine Code E7F B7 06	0.5	725	775	0.3	200	0.97	1.03	2500	2800	80
1.2l RL, RN, RT (B/C57A04/05/F05) Engine Code E7F D7 00	0.5	725	775	0.3	200	0.97	1.03	2500	2800	80
1.2l RL, RN, RT (B/C57A05) Engine Code E7F D7 04 (AC Delco)	0.5	700	800	0.3	200	0.97	1.03	2500	2800	80
1.2l RL, RN, RT (5/3/B/C57R05/R0C) Engine Code E7F H7 08	0.5	650	850	0.3	200	0.97	1.03	2500	2800	80
1.4l RL, RN, RT (B/C57B05/BB5) Engine Code E7J T7 10 (Bosch)	0.5	800	850	0.3	200	0.97	1.03	2500	2800	80
1.4l RL, RN, RT (B/C57B05/BB5) Engine Code E7J T7 16 (AC Delco)	0.5	750	850	0.3	200	0.97	1.03	2500	2800	80
1.4l RL, RN, RT (B/C57T05) Engine Code E7J A7 18 (Bosch)	0.5	800	850	0.3	200	0.97	1.03	2500	2800	80
1.4l RL, RN, RT (B/C57Y05/B5) Engine Code E7J Z7 54 (Bosch)	0.5	700	900	0.3	200	0.97	1.03	2500	2800	80
1.4l RN, RL, RT (B/C57J05/0E) Engine Code E7J 27 56 (Bosch)	0.5	800	850	0.3	200	0.97	1.03	2500	2800	80
1.4l RN, RT Auto (B/C57B01/BB1) Engine Code E7J K6 01 (Bosch)	0.5	725	925	0.3	200	0.97	1.03	2500	2800	80
1.4l RN, RT Auto (B/C57B01/BB1) Engine Code E7J K7 17 (AC Delco)	0.5	750	1400	0.3	200	0.97	1.03	2500	2800	80
1.4l RN, RT & Bacarra Auto (B/C57J01) Engine Code E7J 47 57 (Bosch)	0.5	800	850	0.3	200	0.97	1.03	2500	2800	80
1.4l RN, RT & Bacarra (B/C57B02/BB2) Auto Engine Code E7J U7 11 (Bosch)	0.5	755	805	0.3	200	0.97	1.03	2500	2800	80
1.4l RN, RT & Bacarra Auto (B/C57T02/TB2) Engine Code E7J B7 19 (Bosch)	0.5	755	805	0.3	200	0.97	1.03	2500	2800	80

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
1.8l RSi (B/C57805/U05) Engine Code F3P V7 54 (Siemens)	0.5	700	800	0.3	200	0.97	1.03	2500	2800	80
1.8l RSi (B/C57805/U05) Engine Code F3P V7 44 (Siemens)	0.5	700	800	0.3	200	0.97	1.03	2500	2800	80
1.8l RSi (B/C57D/802/8B2) Engine Code F3P Q7 55 (Siemens)	0.5	725	775	0.3	200	0.97	1.03	2500	2800	80
1.8l RSi (B/C57D/802/8B2) Engine Code F3P Q7 45 (Siemens)	0.5	725	775	0.3	200	0.97	1.03	2500	2800	80
1.8l RSi (B/C57905) Engine Code F3P K7 12 (Siemens)	0.5	650	750	0.3	200	0.97	1.03	2500	2800	80
1.8l RT & Bacarra Auto (5/3/B/C57D/802) Engine Code F3P W7 55 (Siemens)	0.5	725	775	0.3	200	0.97	1.03	2500	2800	80
1.8l RT & Bacarra Auto (5/3/B/C57D/802) Engine Code F3P Q7 55 (Siemens)	0.5	725	775	0.3	200	0.97	1.03	2500	2800	80
1.8l RT (X57U05/E05) Engine Code F3P A7 14 (Siemens)	0.5	650	850	0.3	200	0.97	1.03	2000	2800	80
1.8l RT (B/C57C05/BC) Engine Code F3P F7 10 (Siemens)	0.5	650	850	0.3	200	0.97	1.03	2000	2800	80
1.8l RT (B/C57C05) Engine Code F3P L7 10 (Siemens)	0.5	650	850	0.3	200	0.97	1.03	2000	2800	80
1.8l RSi (X57EH05/HB5) Engine Code F3P 77 58 (Siemens)	0.5	730	830	0.3	200	0.97	1.03	2000	2800	80
1.8l RSi (X57EH05/HB5) Engine Code F3P R7 58 (Siemens)	0.5	730	830	0.3	200	0.97	1.03	2000	2800	80
1.8l RSi (5/357 V02) Engine Code F3P Q7 45 (Siemens)	0.5	725	775	0.3	200	0.97	1.03	2500	2800	80
1.8l RSi (5/357 VDB) Engine Code F3P Q7 45 (Siemens)	0.5	725	775	0.3	200	0.97	1.03	2500	2800	80
1.8l RSi (5/357 V0C) Engine Code F3P V7 44 (Siemens)	0.5	700	800	0.3	200	0.97	1.03	2500	2800	80
1.8l RSi (357 V05) Engine Code F3P R7 48 (Siemens)	0.5	730	780	0.3	200	0.97	1.03	2500	2800	80
16V (C57D05) Engine Code F7P E7 22	0.5	850	950	0.3	200	0.97	1.03	2500	2800	80
Clio Williams (C57M05) F7R A7 00	0.5	850	950	0.3	200	0.97	1.03	2500	2800	80
Clio (NewModel)										
1.2 (B/C/S B0A0F) Engine Code D7F D 720	0.3	700	780	0.2	200	0.97	1.03	2500	2800	80
1.2 (B/C B0A0C) Engine Code D7F D 720	0.3	700	780	0.2	200	0.97	1.03	2500	2800	80
1.2 (B/C B????) Engine Code D4F ?? ??	0.3	700	800	0.2	200	0.97	1.03	2500	2800	80
1.6 VVT Engine Code K4M	0.3	700	800	0.2	200	0.97	1.03	2500	2800	80
197 Engine Code M4R	0.3	700	800	0.2	200	0.97	1.03	2500	2800	80
2.0 VVT 138 Engine code M4R???	0.3	700	800	0.2	200	0.97	1.03	2500	2800	80
898cc Engine Code H4B	0.3	700	780	0.2	200	0.97	1.03	2500	2800	80
Modus										
1.2l JPO ??? Engine Code D4F ?? ??	0.3	650	700	0.2	200	0.97	1.03	2500	2800	80
1.4l JPO ??? Engine Code K4J ?? ??	0.3	725	775	0.2	200	0.97	1.03	2500	2600	80
1.6l JPO ??? Engine Code K4M ?? ??	0.3	705	755	0.2	200	0.97	1.03	2500	2600	80
1.2l 100hp Engine Code D4F???	0.3	705	755	0.2	200	0.97	1.03	2500	2600	80

1 Manufacturer/Marque	2			3						4 Min Oil Temp(°C)
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
Renault 19										
1.4l RL, Prima (B/C/L53204/05) Engine Code C3J C7 10	0.5	800	900	0.3	200	0.97	1.03	2500	2800	80
1.4l RL, Prima (B/C/L53204/05) Engine Code E7J P7 00 Bosch injection	0.5	700	800	0.3	200	0.97	1.03	2500	2800	80
1.4l RN,RT Auto (B/C/L53A01) Engine Code E7J N7 45 Bosch injection	0.5	725	925	0.3	200	0.97	1.03	2500	2800	80
1.4l RN, RT (B/C/L53505) Engine Code E7J 17 42 Bosch injection	0.5	700	800	0.3	200	0.97	1.03	2500	2800	60
1.8l RT (3/4/553A05) Engine Code F3P N7 06 Siemens injection	0.5	725	775	0.3	200	0.97	1.03	2500	2800	80
1.8l RT (3/4/553A05) Engine Code F3P H7 06 Siemens injection	0.5	725	775	0.3	200	0.97	1.03	2500	2800	80
1.8l RT (3/4/553A05) Engine Code F3P N7 60 Magnetti Marelli injection	0.5	680	880	0.3	200	0.97	1.03	2500	2800	80
1.8l RT (3/4/553A05) Engine Code F3P H7 60 Magnetti Marelli injection	0.5	680	880	0.3	200	0.97	1.03	2500	2800	80
1.8l RT (B/C/L53Y05) Engine Code F3P B7 04 Siemens inejction	0.5	650	850	0.3	200	0.97	1.03	2500	2800	80
1.8l RT (B/C/L53Y05) Engine Code F3P E7 04 Siemens injection	0.5	650	850	0.3	200	0.97	1.03	2500	2800	80
1.8l RT (B/C/L53Y05) Engine Code F3P E7 08 Magnetti Marelli injection	0.5	650	850	0.3	200	0.97	1.03	2500	2800	80
1.8l RT (B/C/L53Y05) Engine Code F3P B7 08 Magnetti Marelli injection	0.5	650	850	0.3	200	0.97	1.03	2500	2800	80
1.8l RT, RSi (B/C/L538/C/D*5) Engine Code F3P M6 82	0.5	730	830	0.3	200	0.97	1.03	2500	2800	80
1.8l RT, RSi (B/C/L538/C/D*5) Engine Code F3P A6 82	0.5	730	830	0.3	200	0.97	1.03	2500	2800	80
1.8l RT Auto (B/C/L53F/V/B02) Engine Code F3P 57 65 Siemens injection	0.5	725	775	0.3	200	0.97	1.03	2500	2800	80
1.8l RT Auto (B/C/L53F/V/B02) Engine Code F3P J7 65 Siemens injection	0.5	725	775	0.3	200	0.97	1.03	2500	2800	80
16V (B/C/L53F/V/B02) Engine Code F7P D7 04	0.5	850	950	0.3	200	0.97	1.03	2500	2800	80
16V (B/C/D53D05) Engine Code F7P D7 04	0.5	850	950	0.3	200	0.97	1.03	2500	2800	80
Cabriolet 1.8 (853A05) Engine Code F3P N7 06 Siemens injection	0.5	725	775	0.3	200	0.97	1.03	2500	2800	80
Cabriolet 1.8 (853A05) Engine Code F3P H7 06 Siemens injection	0.5	725	775	0.3	200	0.97	1.03	2500	2800	80
Cabriolet 1.8 (853A05) Engine Code F3P N7 60 Magnetti Marelli injection	0.5	680	880	0.3	200	0.97	1.03	2500	2800	80
Cabriolet 1.8 (853A05) Engine Code F3P H7 60 Magnetti Marelli injection	0.5	680	880	0.3	200	0.97	1.03	2500	2800	80
Cabriolet 1.8 (D53Y05) Engine Code F3P B7 04 Siemens injection	0.5	650	850	0.3	200	0.97	1.03	2500	2800	80
Cabriolet 1.8 (D53Y05) Engine Code F3P E7 04 Siemens injection	0.5	650	850	0.3	200	0.97	1.03	2500	2800	80
Cabriolet 1.8l (D53Y05) Engine Code F3P B7 08 Magnetti Marelli injection	0.5	650	850	0.3	200	0.97	1.03	2500	2800	80
Cabriolet 1.8l (D53Y05) Engine Code F3P E7 08 Magnetti Marelli injection	0.5	650	850	0.3	200	0.97	1.03	2500	2800	80
Cabriolet 1.8l (8/D53C/805) Engine Code F3P M6 82	0.5	730	830	0.3	200	0.97	1.03	2500	2800	80
Cabriolet 1.8l (853F/805) Engine Code F3P A6 82	0.5	730	830	0.3	200	0.97	1.03	2500	2800	80
Cabriolet 1.8 Auto (853F/V*2) Engine Code F3P 57 65 Siemens injection	0.5	725	775	0.3	200	0.97	1.03	2500	2800	80
Cabriolet 1.8 Auto (853F/V*2) Engine Code F3P J7 65 Siemens injection	0.5	725	775	0.3	200	0.97	1.03	2500	2800	80
Cabriolet 16V (D53D05) Engine Code F7P D7 04	0.5	850	950	0.3	200	0.97	1.03	2500	2800	80

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
Koleos										
SUV Engine Code 2TR	0.3	850	950	0.2	200	0.97	1.03	2500	2800	80
Mégane										
Eco 1.4l (BA0T05) Engine Code E7J A6 24	0.5	700	800	0.3	200	0.97	1.03	2500	2800	80
1.4e RL/RN/RT (B/LA0E05) Engine Code E7J 37 64	0.5	700	800	0.3	200	0.97	1.03	2500	2800	80
1.4l BMO ??? Engine Code K4J ?? ??	0.5	750	800	0.3	200	0.97	1.03	2500	2800	80
1.6l JMO ??? Engine Code K4M ?? ??	0.5	750	800	0.3	200	0.97	1.03	2500	2800	80
1.6e RN/RT/RXE (B/DA0F05) Engine Code K7M A7 02	0.5	690	750	0.3	200	0.97	1.03	2500	2800	80
1.6e RN/RT/RXE (B/DA0F0D) Engine Code K7M A7 02	0.5	690	750	0.3	200	0.97	1.03	2500	2800	80
1.6e RN/RT/RXE (B/D/L/EA0F0F) Engine Code K7M A7 02	0.5	690	750	0.3	200	0.97	1.03	2500	2800	80
1.6e RN/RT/RXE (B/D/L/EA0F*G) Engine Code K7M A7 02	0.5	690	750	0.3	200	0.97	1.03	2500	2800	80
1.6e RN/RT (BA0L05) Engine Code K7M C7 20	0.5	690	750	0.3	200	0.97	1.03	2500	2800	80
1.6e RN/RT (BA0L0F) Engine Code K7M C7 20	0.5	690	750	0.3	200	0.97	1.03	2500	2800	80
1.6e RN/RT (BA0L*G) Engine Code K7M C7 20	0.5	690	750	0.3	200	0.97	1.03	2500	2800	80
1.6e RN/RT/RXE (B/D/LA0F02) Engine Code K7M B7 03	0.5	720	780	0.3	200	0.97	1.03	2500	2800	80
2.0l RT/RXE (B/D/L/EA0G05) Engine Code F3R P7 50/96	0.5	730	790	0.3	200	0.97	1.03	2500	2800	80
2.0l RT/RXE (B/D/L/EA0G0E) Engine Code F3R P7 50/96	0.5	730	790	0.3	200	0.97	1.03	2500	2800	80
2.0l RT/RXE (B/D/LA0G02) Engine Code F3R Q7 51/97	0.5	730	790	0.3	200	0.97	1.03	2500	2800	80
2.0l RT/RXE (B/D/LA0G0A) Engine Code F3R Q 791	0.5	730	790	0.3	200	0.97	1.03	2500	2800	80
16V (B/D/EA0H05) Engine Code F7R D7 10	0.5	820	880	0.3	200	0.97	1.03	2500	2800	80
2.0l VVT Engine Code F4R	0.5	820	880	0.3	200	0.97	1.03	2500	2800	80
2.0l 165 Engine Code F4R	0.5	820	880	0.3	200	0.97	1.03	2500	2800	80
2.0l 225 Engine Code F4R	0.5	820	880	0.3	200	0.97	1.03	2500	2800	80
Scenic 1.4e (JA0E05) Engine Code E7J 37 64	0.5	700	800	0.3	200	0.97	1.03	2500	2800	80
Scenic 1.6e (JA0F05) Engine Code K7M A7 02	0.5	690	750	0.3	200	0.97	1.03	2500	2800	80
Scenic 1.6e (JA0L05) Engine Code K7M C7 20	0.5	690	750	0.3	200	0.97	1.03	2500	2800	80
Scenic 1.6e Auto (JA0F02) Engine Code K7M B7 03	0.5	720	780	0.3	200	0.97	1.03	2500	2800	80
Scenic 2.0l (JA0G05) Engine Code F3R P7 50/96	0.5	790	840	0.3	200	0.97	1.03	2500	2800	80
Scenic 2.0l (JA0G02) Engine Code F3RQ751/97	0.5	740	790	0.3	200	0.97	1.03	2500	2800	80
Scenic 2.0l (JA0G0C) Engine Code F3R 796	0.5	790	840	0.3	200	0.97	1.03	2500	2800	80
Scenic 2.0l (JA0G0A) Engine Code F3R Q 791	0.5	730	790	0.3	200	0.97	1.03	2500	2800	80
Scenic 2.0l VVT Engine Code F4R	0.5	820	880	0.3	200	0.97	1.03	2500	2800	80

1 Manufacturer/Marque	2			3						4 Min Oil Temp(°C)
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (% Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
Scenic 2.0l 165 Engine Code F4R	0.5	820	880	0.3	200	0.97	1.03	2500	2800	80
NewMégane										
1.2 Engine Code H5FT	0.3	820	880	0.2	200	0.97	1.03	2500	2800	80
1.6 Engine Code R9MA	0.3	820	880	0.2	200	0.97	1.03	2500	2800	80
2.0 Engine Code FAR	0.3	820	880	0.2	200	0.97	1.03	2500	2800	80
NewScenic/Grand Scenic and X MOD All Models										
1.2 115 & 130 Engine Code H5FT	0.3	820	880	0.2	200	0.97	1.03	2500	2800	80
1.6 Engine Code K4M	0.3	820	880	0.2	200	0.97	1.03	2500	2800	80
2.0 Engine Code FAR	0.3	820	880	0.2	200	0.97	1.03	2500	2800	80
Logan										
1.4l LS??EH Engine Code K7Y ???	0.3	725	750	0.2	200	0.97	1.03	2500	2800	80
1.6l LS??FH Engine Code K7M ???	0.3	725	750	0.2	200	0.97	1.03	2500	2800	80
Renault 21 (Saloon, Hatch & Savanna Estate)	(Also see Section II)									
1.7l RN, RT (L/B48F05) Engine Code F3N D7 26	0.5	725	775	0.3	200	0.97	1.03	2500	2800	80
1.7l RN, RT (K/L/B48E05) Engine Code F3N C7 22	0.5	700	900	0.3	200	0.97	1.03	2500	2800	80
1.7l RN, RT Auto (K/L/B48E02) Engine Code F3N P7 23	0.5	800	850	0.3	200	0.97	1.03	2500	2800	80
2.0l RN, RT (K/L/B48C05) Engine Code J7R U7 46	0.5	750	850	0.3	200	0.97	1.03	2500	2800	80
2.0l RN, RT Auto (K/L/B48C02) Engine Code J7R V7 47	0.5	750	850	0.3	200	0.97	1.03	2500	2800	80
2.0l RN, RT (K/L/B48R05/08) Engine Code J7R L7 40	0.5	825	925	0.3	200	0.97	1.03	2500	2800	80
2.2l RN, RT (K/L/B48K05/08) Engine Code J7R L7 54	0.5	750	850	0.3	200	0.97	1.03	2500	2800	80
2.2l RN, RT Auto (K/L/B48K02) Engine Code J7T M7 55	0.5	750	850	0.3	200	0.97	1.03	2500	2800	80
2.0l RN, RT (K48B05) Engine Code J7T F7 56	0.5	775	825	0.3	200	0.97	1.03	2500	2800	80
Laguna (Hatch & Estate)	(Also see Section II)									
1.8l RN, RT (B/K56A05) Engine Code F3P S7 24	0.5	725	775	0.3	200	0.97	1.03	2500	2800	80
1.8l RN, RT (B/K56B*5/J/C/15) Engine Code F3P C6 78	0.5	725	775	0.3	200	0.97	1.03	2500	2800	80
1.8l RN, RT (B/K56T*5) Engine Code F3P B6 70/74	0.5	740	790	0.3	200	0.97	1.03	2500	2800	80
1.8l RN, RT (B/K56 0*5/0*C) Engine Code F3P B6 70/74	0.5	740	790	0.3	200	0.97	1.03	2500	2800	80
2.0l RN, RT, RXE (B/K56C15) Engine Code F3R E7 22	0.5	750	850	0.3	200	0.97	1.03	2500	2800	80
2.0l RN, RT, RXE (B/K56C12) Engine Code F3R E7 23	0.5	700	800	0.3	200	0.97	1.03	2500	2800	80
2.0l RN, RT, RXE (B56 C*5/H*5) Engine Code F3R E7 22	0.5	750	850	0.3	200	0.97	1.03	2500	2800	80
2.0l RN, RT, RXE (B/K56C*C/H*C) Engine Code F3R E7 22	0.5	750	850	0.3	200	0.97	1.03	2500	2800	80

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
2.0l RN, RT, RXE (B/K56C02/H02) Engine Code F3R E7 23	0.5	700	800	0.3	200	0.97	1.03	2500	2800	80
2.0l RN, RT, RXE (B/K56L*5/L*E) Engine Code F3R J7 28/68	0.5	790	840	0.3	200	0.97	1.03	2500	2800	80
2.0l RN, RT, RXE (B/K56L0C/L*C) Engine Code F3R J7 28/68	0.5	790	840	0.3	200	0.97	1.03	2500	2800	80
2.0l RN, RT, RXE (B/K56L02) Engine Code F3R K7 29/69	0.5	740	790	0.3	200	0.97	1.03	2500	2800	80
2.0l RN, RT (B/K56L*A) Engine Code F3R K7 29/69	0.5	740	790	0.3	200	0.97	1.03	2500	2800	80
2.0l 16V RT, RXE (B/K56D05) Engine Code N7Q A7 00	0.5	770	830	0.3	200	0.97	1.03	2500	2800	80
2.0l 16V RT, RXE (B/K56M*5) Engine Code N7Q D7 04	0.5	770	830	0.3	200	0.97	1.03	2500	2800	80
V6 RT, RXE (B/K56E05) Engine Code Z7X G7 60	0.5	665	715	0.3	200	0.97	1.03	2500	2800	80
V6 RT, RXE (B/K56E02) Engine Code Z7X F7 61	0.5	665	715	0.3	200	0.97	1.03	2500	2800	80
V6 RT, RXE (B/K56R02) Engine Code Z7X U7 65	0.5	665	715	0.3	200	0.97	1.03	2500	2800	80
V6 RT, RXE (B/K56502) Engine Code Z7X 17 67	0.5	650	750	0.3	200	0.97	1.03	2500	2800	80
V6 RT, RXE (B/K56V05) Engine Code L7X A7 00	0.5	600	680	0.3	200	0.97	1.03	2500	2800	80
V6 RT, RXE (B/K56V02) Engine Code L7X B 701	0.5	600	680	0.3	200	0.97	1.03	2500	2800	80
1.6l B/G???? Engine Code K4M ?? ??	0.5	750	825	0.3	200	0.97	1.03	2500	2825	80
1.8l B/G???? Engine Code F4P ?? ??	0.5	775	825	0.3	200	0.97	1.03	2500	2825	80
2.5l B/KG???? Engine Code L7X ?? ??	0.5	700	750	0.3	200	0.97	1.03	2500	2800	80
2.0l VVT Engine Code F4R	0.5	700	750	0.3	200	0.97	1.03	2500	2800	80
NewLaguna (Hatch & Estate) 2008 onwards										
2.0l 140hp Engine Code M4R ???	0.3	700	750	0.2	200	0.97	1.03	2500	2800	80
2.0l 170hp Engine Code F4RT ???	0.3	700	750	0.2	200	0.97	1.03	2500	2800	80
NewLaguna Coupé 2009 onwards										
All Models	0.3	700	750	0.2	200	0.97	1.03	2500	2800	80
Safrane										
2.0l 8V RN, RT (B54005) Engine Code J7R Q7 32	0.5	700	800	0.3	200	0.97	1.03	2500	2800	80
2.0l 8V RN, RT (B54002) Auto Engine Code J7R R7 33	0.5	700	800	0.3	200	0.97	1.03	2500	2800	80
2.0l 12V RN, RT, RXE (B54205) Engine Code J7R 47 34	0.5	800	850	0.3	200	0.97	1.03	2900	3200	80
2.0l 12V RN, RT, RXE (B54202) Auto Engine Code J7R Z7 35	0.5	800	850	0.3	200	0.97	1.03	2900	3200	80
2.2l 12V RN, RT, RXE & Executive (B54305) Engine Code J7T R7 60	0.5	775	875	0.3	200	0.97	1.03	2900	3200	80
2.2l 12V RN, RT (B54105) Engine Code J7T T7 62	0.5	725	775	0.3	200	0.97	1.03	2500	2800	80
2.2l 12V RN, RT, RXE Auto (B54102) Engine Code J7T U7 63	0.5	725	775	0.3	200	0.97	1.03	2500	2800	80
2.0l 12V RN, RT, RXE (B54205) Engine Code J7T 47 34	0.5	800	850	0.3	200	0.97	1.03	2900	3200	80
2.0l 12V RN, RT, RXE (B54205) Engine Code J7R Z7 35	0.5	800	850	0.3	200	0.97	1.03	2900	3200	80

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
2.2l 12V RN, RT, RXE & Executive Auto (B54302) Engine Code J7T S7 61	0.5	775	875	0.3	200	0.97	1.03	2900	3200	80
2.2l 12V RN, RT, RXE & Executive (B54H05) Engine Code J7T 47 66	0.5	800	850	0.3	200	0.97	1.03	2900	3200	80
2.2l 12V RN, RT, RXE & Executive Auto (B54H02) Engine Code J7T Z7 67	0.5	800	850	0.3	200	0.97	1.03	2900	3200	80
3.0l V6 RT, RXE & Executive (B54405) Engine Code Z7X N7 22	0.5	675	725	0.3	200	0.97	1.03	2500	2800	80
3.0l V6 RT, RXE & Executive Quadra (B54408) Engine Code Z7X P7 22	0.5	675	725	0.3	200	0.97	1.03	2500	2800	80
3.0l V6 RT, RXE & Exutive Auto (B54402) Engine Code Z7X R7 23	0.5	675	725	0.3	200	0.97	1.03	2500	2800	80
3.0l V6 RT, RXE & Executive Auto (B54J02) Engine Code Z7X M7 53	0.5	665	715	0.3	200	0.97	1.03	2500	2800	80
3.0l V6 RT, RXE & Executive Auto (B54508) Engine Code Z7X L7 26	0.5	700	850	0.3	200	0.97	1.03	2500	2800	80
2.0l 16V RT, RXE & Executive (B54L05/0C) Engine Code N7Q H7 10	0.5	770	830	0.3	200	0.97	1.03	2500	2800	80
2.0l 16V RT, RXE & Executive (B54L02) Engine Code N7Q J7 11	0.5	770	830	0.3	200	0.97	1.03	2500	2800	80
2.5l 20V RT, RXE & Executive (B54F05) Engine Code N7U A7 00	0.5	720	780	0.3	200	0.97	1.03	2500	2800	80
2.5l 20V RT, RXE & Executive Auto (B54F02) Engine Code N7U B7 01	0.5	720	780	0.3	200	0.97	1.03	2500	2800	80
3.0l V6 RT, RXE & Executive (B54M02) Engine Code Z7X W7 55	0.5	650	750	0.3	200	0.97	1.03	2500	2800	80
Espace (J63 Series)	(Also see Section II)									
2.0l RN, RT, RXE (J63615) Engine Code J7R 37 68	0.5	785	835	0.3	200	0.97	1.03	2500	2800	80
2.2l RN, RT, RXE (J63705/08) Engine Code J7T V7 72	0.5	775	825	0.3	200	0.97	1.03	2500	2800	80
2.2l RN, RT, RXE Auto (J63712) Engine Code J7T W7 73	0.5	725	875	0.3	200	0.97	1.03	2500	2800	80
2.2l RN, RT, RXE Auto (J63725) Engine Code J7T 37 76	0.5	775	825	0.3	200	0.97	1.03	2500	2800	80
2.8l V6 RT, RXE Auto (J63805) Engine Code Z7W G7 12	0.5	635	785	0.3	200	0.97	1.03	2500	2800	80
2.8l V6 RT, RXE Auto (J63832/45) Engine Code Z7W H7 13	0.5	695	845	0.3	200	0.97	1.03	2500	2800	80
2.8l V6 RT, RXE Auto (J63822) Engine Code Z7W J7 17	0.5	695	845	0.3	200	0.97	1.03	2500	2800	80
Espace (J66 Series)	(Also see Section II)									
2.0l RN, RT, RXE (JE0A05) Engine Code F3R J7 28/68	0.5	780	850	0.3	200	0.97	1.03	2500	2800	80
2.0l RN, RT, RXE Auto (JE0A02) Engine Code F3R K7 29/69	0.5	730	800	0.3	200	0.97	1.03	2500	2800	80
2.9l RT, RXE Auto (JE0D02) Engine Code Z7X 27 75	0.5	650	750	0.3	200	0.97	1.03	2500	2800	80
Espace (JK Series)	(Also see Section II)									
2.0l JKO??? Engine Code F4R ?? ??	0.5	750	800	0.3	200	0.97	1.03	2500	2800	80
3.5l JKO??? Engine Code V4Y ?? ??	0.5	750	800	0.3	200	0.97	1.03	2500	2800	80
2.0l Turbo Engine Code F4R	0.5	750	800	0.3	200	0.97	1.03	2500	2800	80
A610, Sport Spider										
Sport A610 (D50305) Engine Code Z7X S7 44	0.5	650	750	0.3	200	0.97	1.03	2500	2800	80

1	2			3						4	
Manufacturer/Marque	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	Min Oil Temp(°C)	
	Normal Idle Speed			Fast Idle Speed							
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)		
Sport Spider (AF0H05) Engine Code F7R 712	0.5	820	880	0.3	200	0.97	1.03	2500	2800	80	
Kangoo											
1.2l F/KCO??? Engine Code D7F ?? ??	0.5	750	800	0.3	200	0.97	1.03	2500	2800	80	
1.4l F/KCO??? Engine Code K7J ?? ??	0.3	750	800	0.2	200	0.97	1.03	2500	2800	80	
1.6l 16V Engine Code K4M	0.3	750	800	0.2	200	0.97	1.03	2500	2800	80	
Vel Satis											
2.0l BJO??? Engine Code F4R ?? ??	0.3	750	800	0.2	200	0.97	1.03	2500	2800	80	
3.5l BJO??? Engine Code V4Y ?? ??	0.3	650	700	0.2	200	0.97	1.03	2500	2800	80	
Captur											
TCE 90 898cc Engine Code H48T	0.3	650	700	0.2	200	0.97	1.03	2500	2800	80	
TCE 120 1197cc Engine Code H5FT	0.3	650	700	0.2	200	0.97	1.03	2500	2800	80	
Kadjar											
TCE 120 1197cc Engine Code H5FT	0.3	650	700	0.2	200	0.97	1.03	2500	2800	80	

ROLLS-ROYCE

For Rolls-Royce models before 2003, refer to Bentley Motors Ltd. The VIN can be found on the VIN Plate

Refer to Section II

SAAB

The Model Year Code is the 10th digit of the VIN according to ISO i.e. 1999 = X, 2000 = Y & 2001 = 1

All From Model Year 1992 Onwards

All From Model Year 1992 Onwards - (with catalyser)	0.5	700	950	0.3	200	0.97	1.03	2000	2500	80
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All From Model Year 2004 Onwards

All From Model Year 2004 Onwards - (with catalyser)	0.3	700	950	0.2	200	0.97	1.03	2000	2500	80
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SEAT

The Engine Code is stamped on the Engine Block.

See also Section II

Arosa Series

1.0l injection Engine Codes AER and ALL Model Year 98 -	0.5	600	800	0.3	200	0.97	1.03	2500	2800	80
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1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
1.0l injection Engine Code AHT Model Year 98 -	0.5	590	790	0.3	200	0.97	1.03	2500	2800	80
1.0l injection Engine Codes ALD, AUC and ANV Model Year 98 -	0.5	600	800	0.3	200	0.97	1.03	2500	2800	80
1.4l injection Engine Codes AEX, APQ and AKV Model Year 98 -	0.5	600	920	0.3	200	0.97	1.03	2500	2800	80
1.4l injection Engine Codes AKK, ANW and AUD (Manual) Model Year 98 -	0.5	740	940	0.3	200	0.97	1.03	2500	2800	80
1.4l injection Engine Codes AKK, ANW and AUD (Auto) Model Year 98 -	0.5	600	800	0.3	200	0.97	1.03	2500	2800	80
1.4l 16V injection Engine Code AQQ Model Year 98 -	0.5	840	870	0.3	200	0.97	1.03	2800	3200	80
1.4l 16V injection Engine Code AUB Model Year 98 -	0.5	790	890	0.3	200	0.97	1.03	2800	3200	80
1.4l 16V injection Engine Code AFK Model Year 98 -	0.5	840	890	0.3	200	0.97	1.03	2500	2800	80
Ibiza Series and Cordoba Series (Up to Model Year 99)										
1.0l injection Engine Code AER Model Year 96 - 99	0.5	860	940	0.3	200	0.97	1.03	2500	2800	80
1.0l injection Engine Code AAU Model Year 94 - 99	0.5	750	850	0.3	200	0.97	1.03	2500	2800	80
1.3l injection Engine Code AAV Model Year 94 - 99	0.5	750	850	0.3	200	0.97	1.03	2500	2800	80
1.4l injection Engine Code ABD Model Year 94 - 99	0.5	750	850	0.3	200	0.97	1.03	2500	2800	80
1.4l injection Engine Codes AEX and APQ Model Year 94 - 99	0.5	690	890	0.3	200	0.97	1.03	2500	2800	80
1.4l injection Engine Code AFH Model Year 96 - 99	0.5	820	920	0.3	200	0.97	1.03	2500	2800	80
1.6l injection Engine Code 1F (From M Registration on)	0.5	750	850	0.3	200	0.97	1.03	2500	2800	80
1.6l injection Engine Code ABU Model Year 94 - 99	0.5	750	850	0.3	200	0.97	1.03	2500	2800	80
1.6l injection Engine Code AFT Model Year 94 - 99	0.5	790	890	0.3	200	0.97	1.03	2500	2800	80
1.6l injection Engine Codes AEE and ALM Model Year 94 - 99	0.5	825	875	0.3	200	0.97	1.03	2500	2800	80
1.8l injection Engine Codes ABS, ADZ and ACC (From M Registration on)	0.5	750	850	0.3	200	0.97	1.03	2500	2800	80
1.8l injection Engine Code ADL Model Year 94 - 99	0.5	780	880	0.3	200	0.97	1.03	2500	2800	80
2.0l injection Engine Code 2E (From M Registration on)	0.5	750	850	0.3	200	0.97	1.03	2500	2800	80
2.0l injection Engine Code AGG Model Year 94 - 99	0.5	830	930	0.3	200	0.97	1.03	2500	2800	80
2.0l injection Engine Code ADY Model Year 95 - 99	0.5	750	950	0.3	200	0.97	1.03	2500	2800	80
2.0l 16V injection Engine Code ABF Model Year 94 - 99	0.5	770	870	0.3	200	0.97	1.03	2500	2800	80
Ibiza Series and Cordoba Series (Model Year 99 - 02)										
1.0l injection Engine Codes ALD, AUC and ANV Model Year 99 - 02	0.5	600	880	0.3	200	0.97	1.03	2500	2800	80
1.4l injection Engine Codes AKK, ANW and AUD (manual) Model Year 99 - 02	0.5	740	940	0.3	200	0.97	1.03	2500	2800	80
1.4l injection Engine Codes AKK, ANW and AUD (auto) Model Year 99 - 02	0.5	600	800	0.3	200	0.97	1.03	2500	2800	80
1.4l 16V injection Engine Code APE Model Year 99 - 02	0.5	810	910	0.3	200	0.97	1.03	2800	3200	80
1.4l 16V injection Engine Code AUA (manual) Model Year 99 - 02	0.5	800	900	0.3	200	0.97	1.03	2800	3200	80
1.4l 16V injection Engine Code AUA (auto) Model Year 99 - 02	0.5	630	730	0.3	200	0.97	1.03	2800	3200	80

1 Manufacturer/ Marque	2			3						4 Min Oil Temp(°C)
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (% Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
1.4l 16V injection Engine Code AUB and AQQ Model Year 99 - 02	0.5	790	890	0.3	200	0.97	1.03	2500	3000	80
1.6l injection Engine Code ALM Model Year 99 - 02	0.5	825	875	0.3	200	0.97	1.03	2500	2800	80
1.6l injection Engine Codes AEH and AKL Model Year 99 - 02	0.5	760	880	0.3	200	0.97	1.03	2500	2800	80
1.6l injection Engine Codes AUR Model Year 99 - 02	0.5	760	880	0.3	200	0.97	1.03	2500	2800	80
1.6l injection Engine Codes APF Model Year 99 - 02	0.5	760	880	0.3	200	0.97	1.03	4300	4800	80
1.8l Cupra and Cupra-R injection Engine with Turbo Engine Codes AQX and AYP Model Year 99 - 02	0.5	810	910	0.3	200	0.97	1.03	2500	2800	80
Ibiza Series and Cordoba Series (Model Year 02)										
1.2l 12V injection Engine Code AZQ Model Year 02 -	0.5	650	800	0.3	200	0.97	1.03	2800	3200	80
1.4l 16V injection Engine Code AUB Model Year 02 -	0.5	790	890	0.3	200	0.97	1.03	2800	3200	80
1.4l 16V injection Engine Code BBY and BBZ Model Year 02 -	0.5	650	760	0.3	200	0.97	1.03	2800	3200	80
Leon Series										
1.4l 16V injection Engine Code AHW Model Year 00 -	0.5	700	800	0.3	200	0.97	1.03	2500	2800	80
1.4l 16V injection Engine Codes APE and AXP Model Year 00 -	0.5	650	850	0.3	200	0.97	1.03	2800	3200	80
1.6l injection Engine Codes AEH and AKL Model Year 00 -	0.5	760	880	0.3	200	0.97	1.03	2500	2800	80
1.6l injection Engine Code APF Model Year 00 -	0.5	640	900	0.3	200	0.97	1.03	4300	4800	80
1.6l 16V injection Engine Codes ATN, AUS, AZD and BCB Model Year 00 -	0.5	630	730	0.3	200	0.97	1.03	2500	3200	80
1.8l injection Engine Code AGN Model Year 00 -	0.5	760	880	0.3	200	0.97	1.03	2500	2800	80
1.8l injection Engine Code APG Model Year 00 -	0.5	660	860	0.3	200	0.97	1.03	2500	2800	80
1.8l injection Engine with Turbo Codes AJQ and APP (4WD) Model Year 00 -	0.5	700	820	0.3	200	0.97	1.03	2500	2800	80
1.8l injection Engine with Turbo Codes AJQ and APP (2WD) Model Year 00 -	0.5	800	920	0.3	200	0.97	1.03	2500	2800	80
1.8l injection Engine with Turbo Codes ARY and AUQ Model Year 00 -	0.5	700	840	0.3	200	0.97	1.03	2500	3000	80
1.8l injection Engine with Turbo Codes AMK and BAM Model Year 02 -	0.5	700	820	0.3	200	0.97	1.03	2500	2800	80
2.8l V6 24V injection Engine Code AUE Model Year 00 -	0.5	650	750	0.3	200	0.97	1.03	2500	2800	80
2.0 Engine Codes CJXA and CJXE	0.3	500	800	0.3	200	0.97	1.03	1900	2100	80
Toledo Series (Up to Model Year 98)										
1.6l injection Engine Code 1F Model Year 94 - 98	0.5	825	1025	0.3	200	0.97	1.03	2500	2800	80
1.6l injection Engine Code ABU Model Year 94 - 98	0.5	750	850	0.3	200	0.97	1.03	2500	2800	80
1.6l injection Engine Code AFT Model Year 94 - 98	0.5	850	950	0.3	200	0.97	1.03	2500	2800	80
1.8l injection Engine Code RP (From M Registration on)	0.5	750	1000	0.3	200	0.97	1.03	2500	2800	80
1.8l injection Engine Code ADZ (From M Registration on)	0.5	700	1000	0.3	200	0.97	1.03	2500	2800	80
1.8l injection Engine Code ABS (From M Registration on)	0.5	775	975	0.3	200	0.97	1.03	2500	2800	80
1.8l injection Engine Code KR Model Year 95 - 98	0.5	950	1050	0.3	200	0.97	1.03	2500	2800	80

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
1.8l injection Engine Code PL Model Year 95 - 98	0.5	850	950	0.3	200	0.97	1.03	2500	2800	80
2.0l injection Engine Code AGG Model Year 95 - 98	0.5	800	900	0.3	200	0.97	1.03	2500	2800	80
2.0l injection Engine Code ADY Model Year 95 - 98	0.5	750	950	0.3	200	0.97	1.03	2500	2800	80
2.0l injection Engine Code 2E (From M Registration on)	0.5	800	850	0.3	200	0.97	1.03	2500	2800	80
2.0l 16V injection Engine Code ABF Model Year 95 - 98	0.5	770	870	0.3	200	0.97	1.03	2500	2800	80
Toledo Series (Model Year 98 onwards)										
1.6l injection Engine Codes AEH and AKL Model Year 98 -	0.5	760	880	0.3	200	0.97	1.03	2500	2800	80
1.6l injection Engine Code APF Model Year 00 -	0.5	640	900	0.3	200	0.97	1.03	4300	4800	80
1.6l 16V injection Engine Codes ATN, AUS, AZD and BCB Model Year 00 -	0.5	630	730	0.3	200	0.97	1.03	2500	3200	80
1.8l injection Engine Code AGN Model Year 98 -	0.5	760	880	0.3	200	0.97	1.03	2500	2800	80
1.8l injection Engine Code APG Model Year 00 -	0.5	660	860	0.3	200	0.97	1.03	2500	2800	80
1.8l injection Engine with Turbo Codes ARY and AUQ Model Year 00 -	0.5	700	840	0.3	200	0.97	1.03	2500	3000	80
2.3l V5 injection Engine Code AGZ Model Year 98 -	0.5	650	750	0.3	200	0.97	1.03	2500	2800	80
2.3l V5 20V injection Engine Code AQN Model Year 01-	0.5	650	750	0.3	200	0.97	1.03	2500	3000	80
(Also see Section II)										
1.8l injection Engine with Turbo Code AJH Model Year 97 - 00	0.5	780	860	0.3	200	0.97	1.03	2500	2800	80
1.8l injection Engine with Turbo Code AWC Model Year 01 -	0.5	760	880	0.3	200	0.97	1.03	2500	3000	80
2.0l injection Engine Code ADY Model Year 97 - 00	0.5	770	870	0.3	200	0.97	1.03	2500	2800	80
2.0l injection Engine Code ATM Model Year 01 -	0.5	750	860	0.3	200	0.97	1.03	2500	3000	80
2.8l V6 24V injection Engine Code AYL Model Year 01 -	0.5	650	750	0.3	200	0.97	1.03	2500	3000	80
SKODA										
The engine code is stamped on the engine block.										
Refer also to Section II										
Favorit Type 781										
1.3l Engine Code 781.135E VIN Code AEE	0.5	750	850	0.3	200	0.97	1.03	2500	2800	80
1.3l Engine Code 781.135B VIN Code AEF	0.5	750	850	0.3	200	0.97	1.03	2500	2800	80
1.3l Engine Code 781.136B VIN Code AFF	0.5	750	850	0.3	200	0.97	1.03	2500	2800	80
Favorit Estate Type 785										
1.3l Engine Code 781.135B VIN Code CEF	0.5	750	850	0.3	200	0.97	1.03	2500	2800	80
1.3l Engine Code 781.136B VIN Code CFF	0.5	750	850	0.3	200	0.97	1.03	2500	2800	80

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
1.3l Engine Code 781.135E VIN Code CEE	0.5	750	850	0.3	200	0.97	1.03	2500	2800	80
Felicia Type 791										
1.3l Engine Code 781.135B VIN Code EEF	0.5	750	850	0.3	200	0.97	1.03	2500	2800	80
1.3l Engine Code 781.136B VIN Code EFF	0.5	750	850	0.3	200	0.97	1.03	2500	2800	80
1.3l Engine Code 781.135M VIN Code EEF	0.5	765	815	0.3	200	0.97	1.03	2500	2800	80
1.3l Engine Code 781.136M VIN Code EFF	0.5	765	815	0.3	200	0.97	1.03	2500	2800	80
1.6l Engine Code AEE VIN Code EGF	0.5	640	790	0.3	200	0.97	1.03	2500	2800	80
Felicia Combi Type 795										
1.3l Engine Code 781.135B VIN Code EEF	0.5	750	850	0.3	200	0.97	1.03	2500	2800	80
1.3l Engine Code 781.136B VIN Code EFF	0.5	750	850	0.3	200	0.97	1.03	2500	2800	80
1.3l Engine Code 781.135M VIN Code EEF	0.5	765	815	0.3	200	0.97	1.03	2500	2800	80
1.3l Engine Code 781.136M VIN Code EFF	0.5	765	815	0.3	200	0.97	1.03	2500	2800	80
1.6l Engine Code AEE VIN Code EGF	0.5	640	790	0.3	200	0.97	1.03	2500	2800	80
Fabia Series										
1.0l injection Engine Codes ARV, AQV Model Year 00 -	0.5	590	790	0.3	200	0.97	1.03	2400	2600	80
1.2l injection Engine Code AWY Model Year 02 -	0.5	600	800	0.3	200	0.97	1.03	2500	3200	80
1.2l injection Engine Code AZQ Model Year 03 -	0.5	650	850	0.3	200	0.97	1.03	2400	2600	80
1.4l injection Engine Codes AZE, AZF, AME, ATZ and AQW	0.5	700	900	0.3	200	0.97	1.03	2400	2600	80
1.4l 16V injection Engine Code AUA and BBY (manual)	0.5	650	860	0.3	200	0.97	1.03	2400	2600	80
1.4l 16V injection Engine Code AUA and BBY (auto)	0.5	580	780	0.3	200	0.97	1.03	2400	2600	80
1.4l 16V injection Engine Code AUB	0.5	740	940	0.3	200	0.97	1.03	2400	2600	80
1.4l 16V injection Engine Code BBZ Model Year 02 -	0.5	580	780	0.3	200	0.97	1.03	2400	2600	80
2.0l injection Engine Code AZL	0.5	680	880	0.3	200	0.97	1.03	2400	2600	80
Octavia Series										
1.4l injection Engine Code AMD	0.5	700	900	0.3	200	0.97	1.03	2250	2550	80
1.4l 16V injection Engine Code AXP	0.5	650	850	0.3	200	0.97	1.03	2400	2600	80
1.4l 16V injection Engine Code BCA Model Year 02 -	0.5	650	850	0.3	200	0.97	1.03	2400	2600	80
1.6l injection Engine Code AEE	0.5	700	900	0.3	200	0.97	1.03	2800	3100	80
1.6l injection Engine Codes AEH and AKL Model Year 1997 only (10th digit in VIN = V)	0.5	750	900	0.3	200	0.97	1.03	2800	3100	80
1.6l injection Engine Codes AEH and AKL (manual) Model Year 1998 on -	0.5	700	900	0.3	200	0.97	1.03	2800	3100	80
1.6l injection Engine Codes AEH and AKL (auto) Model Year 1998 on -	0.5	720	920	0.3	200	0.97	1.03	2800	3100	80

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
1.6l injection Engine Code AVU (manual and automatic) model year 01 -	0.5	640	920	0.3	200	0.97	1.03	4300	4800	80
1.6l injection Engine Code BFQ (manual) Model Year 03 -	0.5	650	850	0.3	200	0.97	1.03	2400	2600	80
1.6l injection Engine Code BFQ (auto) Model Year 03 -	0.5	720	920	0.3	200	0.97	1.03	2400	2600	80
1.8l injection Engine Codes AGN Model Year 1997 only (10th digit in VIN = V)	0.5	750	850	0.3	200	0.97	1.03	3250	3350	80
1.8l injection Engine Codes AGN Model Year 1998 only (10th digit in VIN = W)	0.5	760	880	0.3	200	0.97	1.03	3000	3300	80
1.8l injection Engine Codes AGN Model Year 1999 only (10th digit in VIN = X)	0.5	700	900	0.3	200	0.97	1.03	3000	3300	80
1.8l injection Engine with Turbo Code AGU	0.5	760	960	0.3	200	0.97	1.03	2850	3150	80
1.8l injection Engine with Turbo Code AUM (manual)	0.5	660	860	0.3	200	0.97	1.03	2400	2600	80
1.8l injection Engine with Turbo Code AUM (auto)	0.5	600	800	0.3	200	0.97	1.03	2400	2600	80
1.8l injection Engine with Turbo Code ARZ (manual)	0.5	760	960	0.3	200	0.97	1.03	2400	2600	80
1.8l injection Engine with Turbo Code ARZ (auto)	0.5	600	800	0.3	200	0.97	1.03	2400	2600	80
4 x 4 1.8l injection Engine with Turbo Code ARX	0.5	660	860	0.3	200	0.97	1.03	2400	2600	80
RS 1.8l injection Engine with Turbo Code AUQ	0.5	660	860	0.3	200	0.97	1.03	2400	2600	80
2.0l injection Engine Code AZJ Model Year 02 -	0.5	680	880	0.3	200	0.97	1.03	2400	2600	80
2.0l injection Engine Codes AQY, APK and AZH	0.5	680	880	0.3	200	0.97	1.03	2400	2600	80
Octavia II Series (1Z)										
1.6l injection Engine Code BLF	0.5	600	800	0.3	200	0.97	1.03	3900	4100	80
2.0l injection Engine Codes BLX, BLR and BLY	0.5	640	840	0.3	200	0.97	1.03	3900	4100	80
Octavia Estate 4x4										
1.6 102PS Manual 5 Speed Engine Code - BVX	0.5	720	840	0.3	200	0.97	1.04	3995	4060	92
Superb Series										
1.8l injection Engine with Turbo Code AWT	0.5	760	960	0.3	200	0.97	1.03	2400	2600	80
2.0l injection Engine Code AZM	0.5	680	880	0.3	200	0.97	1.03	2400	2600	80
2.8l injection Engine Code AMX and BBG	0.5	620	820	0.3	200	0.97	1.03	2400	2600	80
SMART										
SM6 = Semi-Manual 6 Speed. A6 = Automatic 6 Speed. M5 = Manual 5 speed										
Smart										
Smart and Pure City Coupé SM6	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
Smart and Pure City Coupé A6	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
Smart and Pulse City Coupé SM6	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
Smart and Pulse City Coupé A6	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
Smart and Passion City Coupé SM6	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
Smart and Passion City Coupé A6	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
Smart and Pulse Cabriolet Manual & Auto	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
Smart and Passion Cabriolet Manual & Auto	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
Smart Crossblade Auto	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
Smart City Cabrio Pulse Auto	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
Smart Crossblade SM6	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
Smart City Cabrio Pulse SM6	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
Smart City Coupé/ForTwo Brabus	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
Smart Roadster/Coupé										
Roadster 61 bhp Manual & Auto	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
Roadster 80 bhp Manual & Auto	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
Roadster Coupé 80 bhp Manual & Auto	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
Roadster Coupé VIN Code 452334	0.3	750	950	0.2	200	0.97	1.03	2200	2800	88
Smart ForFour										
Smart ForFour 1.1 SM6 VIN Code 454030	0.5	750	850	0.3	200	0.97	1.03	2000	2500	88
Smart ForFour 1.3 SM6 VIN Code 454031	0.5	750	850	0.3	200	0.97	1.03	2000	2500	88
Smart ForFour 1.3 A6 VIN Code 454031	0.5	750	850	0.3	200	0.97	1.03	2000	2500	88
Smart ForFour 1.5 SM6 VIN Code 454032	0.5	750	850	0.3	200	0.97	1.03	2000	2500	88
Smart ForFour 1.5 A6 VIN Code 454032	0.5	750	850	0.3	200	0.97	1.03	2000	2500	88
Smart ForFour Brabus VIN Code 454034	0.3	650	850	0.2	200	0.97	1.03	2000	2500	84
Smart ForFour (W453) 71 bhp (52 kW) 1.0 M5 VIN Code 453042	0.3	650	850	0.2	200	0.97	1.03	3700	4300	80
Smart ForFour (W453) 71 bhp (52 kW) 1.0 A6 VIN Code 453042	0.3	700	950	0.2	200	0.97	1.03	3700	4300	80
Smart ForFour (W453) 90 bhp (66 kW) 0.9 M5 VIN Code 453044	0.3	750	900	0.2	200	0.97	1.03	2200	2800	80
Smart ForFour (W453) 90 bhp (66 kW) 0.9 A6 VIN Code 453044	0.3	750	850	0.2	200	0.97	1.03	2200	2800	80
Smart ForFour (W453) 107 bhp (80kW) Brabus A6 VIN Code 453062	0.3	825	1025	0.2	200	0.97	1.03	1100	1900	80
Smart Fortwo										
Fortwo Coupé (C451) 84 bhp VIN Code 451332	0.3	850	1050	0.2	200	0.97	1.03	2200	2800	80
Fortwo Coupé (C451) brabus 98 bhp VIN Code 451333	0.3	850	1050	0.2	200	0.97	1.03	2200	2800	80
Fortwo Coupé (C451) mhd 61 bhp VIN Code 451334	0.3	850	1050	0.2	200	0.97	1.03	2200	2800	80
Fortwo Coupé (C451) mhd 71 bhp VIN Code 451380	0.3	850	1050	0.2	200	0.97	1.03	2200	2800	80
Fortwo Cabrio (A451) 84 bhp VIN Code 451432	0.3	850	1050	0.2	200	0.97	1.03	2200	2800	80

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
Fortwo Cabrio (A451) brabus 98 bhp VIN Code 451433	0.3	850	1050	0.2	200	0.97	1.03	2200	2800	80
Fortwo Cabrio (A451) mhd 71 bhp VIN Code 451480	0.3	850	1050	0.2	200	0.97	1.03	2200	2800	80
Fortwo Coupé (C453) 71 bhp (52 kW) 1.0 M5 VIN Code 453342	0.3	700	950	0.2	200	0.97	1.03	3700	4300	80
Fortwo Coupé (C453) 71 bhp (52 kW) 1.0 A6 VIN Code 453342	0.3	750	900	0.2	200	0.97	1.03	3700	4300	80
Fortwo Coupé (C453) 90 bhp (66 kW) 0.9 M5 VIN Code 453344	0.3	750	850	0.2	200	0.97	1.03	2200	2800	80
Fortwo Coupé (C453) 90 bhp (66 kW) 0.9 A6 VIN Code 453344	0.3	750	850	0.2	200	0.97	1.03	2200	2800	80
Fortwo Coupé (C453) 107bhp (80kW) Brabus A6 VIN Code 453362	0.3	825	1025	0.2	200	0.97	1.03	1100	1900	80
Fortwo Cabrio (A453) 71 bhp (52 kW) 1.0 M5 VIN Code 453442	0.3	700	950	0.2	200	0.97	1.03	3700	4300	80
Fortwo Cabrio (A453) 71 bhp (52 kW) 1.0 A6 VIN Code 453442	0.3	750	900	0.2	200	0.97	1.03	3700	4300	80
Fortwo Cabrio (A453) 90 bhp (66 kW) 1.0 M5 VIN Code 453444	0.3	750	950	0.2	200	0.97	1.03	2200	2800	80
Fortwo Cabrio (A453) 90 bhp (66 kW) 1.0 A6 VIN Code 453444	0.3	750	950	0.2	200	0.97	1.03	2200	2800	80
Fortwo Cabrio (A453) 107 bhp (80kW) Brabus A6 VIN Code 453462	0.3	825	1025	0.2	200	0.97	1.03	1100	1900	80

SSANGYONG

Refer to Section II

SUBARU

The Model Year is the 10th digit of the VIN number (1 = 2001, A = 2010).

Vivio

All models	0.5	850	950	0.3	200	0.97	1.03	2500	3000	80
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Justy

1.2 GLi	0.5	650	850	0.3	200	0.97	1.03	2500	3000	80
1.2 Si	0.5	650	850	0.3	200	0.97	1.03	2500	3000	80
1.3GX	0.5	700	950	0.3	200	0.97	1.03	2500	3000	80
1.0 R	0.3	750	850	0.2	200	0.97	1.03	2300	2700	80

Impreza

1.6l	0.5	600	800	0.3	200	0.97	1.03	2500	3000	80
1.8l	0.5	600	800	0.3	200	0.97	1.03	2500	3000	80
2.0l	0.5	700	900	0.3	200	0.97	1.03	2500	3000	80
2000 Turbo	0.5	800	1000	0.3	200	0.97	1.03	2500	3000	80

1 Manufacturer/ Marque	2			3						4 Min Oil Temp(°C)
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
P1	0.5	800	1000	0.3	200	0.97	1.03	2500	3000	80
Impreza Model Year Code 1 onwards										
1.6l	0.5	550	800	0.3	200	0.97	1.03	2300	2900	80
2.0l	0.5	550	800	0.3	200	0.97	1.03	2300	2700	80
2.0 Turbo	0.5	600	850	0.3	200	0.97	1.03	2300	2700	80
2.0 Turbo Sti	0.5	600	800	0.3	200	0.97	1.03	2300	2700	80
2.5 Turbo	0.5	550	800	0.2	200	0.97	1.03	2300	2700	80
2.5 Turbo Sti	0.5	600	800	0.2	200	0.97	1.03	2300	2700	80
Impreza Model Year code 8 onwards										
1.5	0.3	550	750	0.2	200	0.97	1.03	2000	3000	80
2.0	0.3	550	750	0.2	200	0.97	1.03	2000	3000	80
2.5 Turbo	0.3	600	800	0.2	200	0.97	1.03	2300	2700	80
2.5 Turbo Sti	0.3	550	800	0.2	200	0.97	1.03	2300	2700	80
Forester										
2.0l	0.5	600	800	0.3	200	0.97	1.03	2300	2700	80
2.0 S-Turbo	0.5	600	800	0.3	200	0.97	1.03	2300	2700	80
Forester (Model year code 3 onwards)										
2.0l	0.5	550	750	0.3	200	0.97	1.03	2300	2900	80
2.0 Turbo	0.5	600	800	0.3	200	0.97	1.03	2300	2700	80
2.5 Turbo	0.5	600	800	0.3	200	0.97	1.03	2300	2700	80
Forester (Model year code 9 onwards)										
2.0	0.3	550	750	0.2	200	0.97	1.03	2300	2700	80
Legacy										
1.8 - 4WD only	0.5	700	950	0.3	200	0.97	1.03	2500	3000	80
2.0	0.5	700	950	0.3	200	0.97	1.03	2500	3000	80
2.2	0.5	700	900	0.3	200	0.97	1.03	2500	3000	80
2.5 4 Cam	0.5	600	800	0.3	200	0.97	1.03	2500	3000	80
2.5 GX	0.5	700	900	0.3	200	0.97	1.03	2500	3000	80
2.5 Outback	0.5	700	900	0.3	200	0.97	1.03	2500	3000	80
3.0 Outback	0.5	500	700	0.3	200	0.97	1.03	2300	2700	80

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (% Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
LegacyModel Year Code 4 onwards										
2.0l	0.3	550	750	0.2	200	0.97	1.03	2000	3000	80
2.5l	0.3	550	750	0.2	200	0.97	1.03	2000	3000	80
3.0l	0.3	550	850	0.2	200	0.97	1.03	2000	3000	80
LegacyTourer Model Year Code A onwards										
2.5i SE Lineartronic	0.2	575	775	0.2	200	0.97	1.03	2300	2700	80
2.5i SE Lineartronic NavPlus	0.2	575	775	0.2	200	0.97	1.03	2300	2700	80
SVX										
4AT	0.5	510	710	0.3	200	0.97	1.03	2500	3000	80
B9 Tribeca										
3.0 Auto	0.3	550	750	0.2	200	0.97	1.03	2000	3000	80
3.6 Auto	0.3	600	800	0.2	200	0.97	1.03	2000	3000	80
Outback Model Year Code A onwards										
2.5i SE Lineartronic	0.2	575	775	0.2	200	0.97	1.03	2300	2700	80
2.5i SE Lineartronic NavPlus	0.2	575	775	0.2	200	0.97	1.03	2300	2700	80
3.6R	0.2	600	800	0.2	200	0.97	1.03	2000	3000	80

TOYOTA

The Model Code is stamped on the VIN Plate. The series of numbers after each Engine Code relate to the last 7 digits of the VIN number.

See also Section II

Auris (Japan Production) 2006 - 2012

Model Code ZZE150 Engine Code 4ZZ-FE 1.4L Manual VIN starts with JTN, From VIN JTNKM56E902000012	0.3	600	700	0.2	200	0.97	1.03	2400	2600	60
Model Code ZRE151 Engine Code 1ZR-FE 1.6L Manual or MMT VIN starts with JTN, From VIN JTNKV56E202000026	0.3	600	700	0.2	200	0.97	1.03	2400	2600	60

Auris (UK Production) 2006 - 2012

Model Code ZZE150 Engine Code 4ZZ-FE 1.4L Manual VIN starts with SB1, From VIN No (last 7 digits) F000001	0.3	600	700	0.2	200	0.97	1.03	2400	2600	60
Model Code ZRE151 Engine Code 1ZR-FE 1.6L Manual or MMT VIN starts with SB1, From VIN No (last 7 digits) F000001	0.3	600	700	0.2	200	0.97	1.03	2400	2600	60
Model Code ZRE151 Engine Code 1ZR-FAE 1.6L Manual or MMT VIN starts with SB1, From VIN No (last 7 digits) F093087	0.3	625	725	0.2	200	0.97	1.03	2400	2600	60

1 Manufacturer/Marque	2			3						4 Min Oil Temp(°C)
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (% Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
Model Code NRE150 Engine Code 1NR-FE 1.3L Manual VIN starts with SB1, From VIN No (last 7 digits) F000001	0.3	600	700	0.2	200	0.97	1.03	2400	2600	60
Auris (Turkey Production) 2006 - 2012										
Model Code ZZE150 Engine Code 4ZZ-FE 1.4L Manual VIN starts with NMT, From VIN No (last 7 digits) R000001	0.3	600	700	0.2	200	0.97	1.03	2400	2600	60
Model Code ZRE151 Engine Code 1ZR-FE 1.6L Manual or MMT VIN starts with NMT, From VIN No (last 7 digits) R000001	0.3	600	700	0.2	200	0.97	1.03	2400	2600	60
Model Code ZRE151 Engine Code 1ZR-FAE 1.6L Manual or MMT VIN starts with NMT, From VIN No (last 7 digits) R050621	0.3	625	725	0.2	200	0.97	1.03	2400	2600	60
Model Code NRE150 Engine Code 1NR-FE 1.3L Manual VIN starts with NMT, From VIN No (last 7 digits) R000003	0.3	600	700	0.2	200	0.97	1.03	2400	2600	60
New Generation Auris 2012 onward										
Model Code NRE180 Engine Code 1NR-FE 1.3L Manual VIN starts with SB1 From VIN No (last 7 digits) E000001	0.3	600	700	0.2	200	0.97	1.03	2400	2600	60
Model Code ZRE185 Engine Code 1ZR-FAE 1.6L Manual VIN starts with SB1 From VIN No (last 7 digits) E000001	0.3	580	680	0.2	200	0.97	1.03	2400	2600	60
Model Code ZRE185 Engine Code 1ZR-FAE 1.6L Auto VIN starts with SB1 From VIN No (last 7 digits) E000001	0.3	600	700	0.2	200	0.97	1.03	2400	2600	60
Model Code NRE185 Engine Code 8NR-FTS 1.2L Turbo Manual VIN starts with SB1 From VIN No (last 7 digits) E000001	0.3	600	700	0.2	200	0.97	1.03	2400	2600	60
Model Code NRE185 Engine Code 8NR-FTS 1.2L Turbo Auto VIN starts with SB1 From VIN No (last 7 digits) E000001	0.3	680	780	0.2	200	0.97	1.03	2400	2600	60
Aygo 2005 - 2014										
Model Code KGB10 Engine Code 1KR-FE 1.0L From VIN No (last 7 digits) N000001	0.3	790	890	0.2	200	0.97	1.03	2400	2600	60
New Generation Aygo 2014 onward										
Model Code KGB40 Engine Code 1KR-FE 1.0L From VIN No (last 7 digits) N000001	0.3	790	890	0.2	200	0.97	1.03	2400	2600	60
Starlet 1989 - 1999										
Model Code EP81 Engine Code 2E-E 1.3L From VIN No's (last 7 digits) 0093850 or 9007482	0.5	750	850	0.3	200	0.97	1.03	2400	2600	60
Model Code EP91 Engine Code 4E-FE 1.3L From VIN No (last 7 digits) 0000001	0.5	650	750	0.3	200	0.97	1.03	2400	2600	60
Yaris 1999 - 2005										
Model Code SCP10 Engine Code 1SZ-FE 1.0L From VIN No (last 7 digits) 0000001	0.5	500	600	0.3	200	0.97	1.03	2400	2600	60
Model Code NCP10 Engine Code 2NZ-FE Manual 1.3L From VIN No (last 7 digits) 0000001	0.5	600	700	0.3	200	0.97	1.03	2400	2600	60
Model Code NCP10 Engine Code 2NZ-FE Auto 1.3L From VIN No (last 7 digits) 0000001	0.5	650	750	0.3	200	0.97	1.03	2400	2600	60
Model Code NCP13 T Sport Engine Code 1NZ-FE 1.5L From VIN No (last 7 digits) 0000001	0.5	600	700	0.3	200	0.97	1.03	2400	2600	60

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
Yaris (France Production) 2001 - 2005										
Model Code SCP10 Engine Code 1SZ-FE 1.0L VIN starts with VNK, From VIN No (last 7 digits) 0000001	0.5	550	650	0.3	200	0.97	1.03	2800	3300	60
Model Code SCP12 Engine Code 2SZ-FE Manual 1.3L VIN starts with VNK, From VIN No (last 7 digits) 0000001	0.5	600	700	0.3	200	0.97	1.03	2400	2600	60
Model Code SCP12 Engine Code 2SZ-FE Automatic 1.3L VIN starts with VNK, From VIN No (last 7 digits) 0000001	0.5	650	750	0.3	200	0.97	1.03	2400	2600	60
Yaris 2005 - 2011										
Model Code KSP90 Engine Code 1KR-FE 1.0L From VIN (last 7 digits) 0000001	0.3	730	830	0.2	200	0.97	1.03	2400	2600	60
Model Code SCP90 Engine Code 2SZ-FE 1.3L From VIN (last 7 digits) 0000001	0.3	600	700	0.2	200	0.97	1.03	2400	2600	60
Model Code ZSP90 Engine Code 2ZR-FE 1.8L Manual (3 dr) From VIN JTDJL963500001050	0.3	600	700	0.2	200	0.97	1.03	2400	2600	60
Model Code ZSP90 Engine Code 2ZR-FE 1.8L Manual (5 dr) From VIN JTDKL963100001051	0.3	600	700	0.2	200	0.97	1.03	2400	2600	60
Model Code NSP90 Engine Code 1NR-FE 1.3L Manual or M-MT VIN starts with VNK, From VIN No (last 7 digits) 0000001	0.3	550	650	0.2	200	0.97	1.03	2400	2600	60
New Generation Yaris 2011 onward										
Model Code KSP130 Engine Code 1KR-FE Manual 1.0L From VIN No. (last 7 digits) A000001	0.3	730	830	0.2	200	0.97	1.03	2400	2600	60
Model Code NSP130 Engine Code 1NR-FE Manual 1.3L From VIN No. (last 7 digits) A000001	0.3	550	650	0.2	200	0.97	1.03	2400	2600	60
Model Code NSP130 Engine Code 1NR-FE Auto 1.3L From VIN No. (last 7 digits) A000001	0.3	600	700	0.2	200	0.97	1.03	2400	2600	60
Model Code NSP131 Engine Code 2NR-FKE Manual 1.5L, VIN start with VNK, From VIN No. (last 7 digits) A000001	0.3	550	650	0.2	200	0.97	1.03	2400	2600	60
Model Code NSP131 Engine Code 2NR-FKE Auto 1.5L, VIN start with VNK, From VIN No. (last 7 digits) A000001	0.3	680	780	0.2	200	0.97	1.03	2400	2600	60
Yaris Verso 1999 - 2005										
Model Code NCP20 Engine Code 2NZ-FE Automatic 1.3L From VIN No (last 7 digits) 0000001	0.5	650	750	0.3	200	0.97	1.03	2400	2600	60
Model Code NCP20 Engine Code 2NZ-FE Manual 1.3L From VIN No (last 7 Digits) 0000001	0.5	600	700	0.3	200	0.97	1.03	2400	2600	60
Corolla 1992 - 2001										
Model Code EE101 Engine Code 4E-FE 1.3L From VIN No (last 7 digits) 0000001 or 3000000 or 7000000	0.5	650	750	0.3	200	0.97	1.03	2400	2600	60
Model Code EE111 Engine Code 4E-FE Manual 1.3L From VIN No (last 7 digits) 0000001	0.5	650	750	0.3	200	0.97	1.03	2400	2600	60
Model Code EE111 Engine Code 4E-FE Auto 1.3L From VIN No (last 7 digits) 0000001	0.5	650	750	0.3	200	0.97	1.03	2400	2600	60
Model Code AE101 Engine Code 4A-FE Manual 1.6L From VIN No's (last 7 digits) 0000001 or 3000000 or 7000000 or 8000000	0.5	750	850	0.3	200	0.97	1.03	2400	2600	60
Model Code AE101 Engine Code 4A-FE Auto 1.6L From Vin No's (last 7 digits) 0000001 or 3000000 or 7000000 or 8000000	0.5	750	850	0.3	200	0.97	1.03	2400	2600	60
Model Code AE102 Engine Code 7A-FE Manual 1.8L From VIN No's (last 7 digits) 0000001 or 6000000	0.5	700	800	0.3	200	0.97	1.03	2400	2600	60
Model Code AE111 Engine Code 4A-FE Manual 1.6L From VIN No (last 7 digits) 0000001	0.5	700	800	0.3	200	0.97	1.03	2400	2600	60

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
Model Code AE111 Engine Code 4A-FE Auto 1.6L From VIN No (last 7 digits) 0000001	0.5	750	850	0.3	200	0.97	1.03	2400	2600	60
Model Code ZZE111 Engine Code 4ZZ-FE 1.4L From VIN No (last 7 digits) 0000001	0.5	600	700	0.3	200	0.97	1.03	2800	3300	60
Model Code ZZE112 Engine Code 3ZZ-FE Manual 1.6L From VIN No (last 7 digits) 0000001	0.5	600	700	0.3	200	0.97	1.03	2400	2600	60
Model Code ZZE112 Engine Code 3ZZ-FE Auto 1.6L From VIN No (last 7 digits) 0000001	0.5	650	750	0.3	200	0.97	1.03	2400	2600	60
Corolla (Step II) 1992 - 1997										
Model Code AE101 Engine Code 4A-FE Auto 1.6L From VIN No (last 7 digits) 0159100 or 7040200	0.5	750	850	0.3	200	0.97	1.03	2400	2600	60
Corolla (UK Production) 1997 - 2001										
Model Code EE111 Engine Code 4E-FE Manual 1.3L From VIN No (last 7 digits) E000001	0.5	650	750	0.3	200	0.97	1.03	2400	2600	60
Model Code EE111 Engine Code 4E-FE Auto 1.3L From VIN No (last 7 digits) E000001	0.5	650	750	0.3	200	0.97	1.03	2400	2600	60
Model Code AE111 Engine Code 4A-FE Manual 1.6L From VIN No (last 7 digits) E000001	0.5	650	750	0.3	200	0.97	1.03	2400	2600	60
Model Code AE111 Engine Code 4A-FE Auto 1.6L From VIN No (last 7 digits) E000001	0.5	700	800	0.3	200	0.97	1.03	2400	2600	60
Model Code ZZE111 Engine Code 4ZZ-FE Manual 1.4L From VIN No (last 7 digits) E000001	0.5	600	700	0.3	200	0.97	1.03	2800	3300	60
Model Code ZZE112 Engine Code 3ZZ-FE Manual 1.6L From VIN No (last 7 digits) E000001	0.5	600	700	0.3	200	0.97	1.03	2400	2600	60
Model Code ZZE112 Engine Code 3ZZ-FE Auto 1.6L From VIN No (last 7 digits) E000001	0.5	650	750	0.3	200	0.97	1.03	2400	2600	60
Corolla (UK Production) 2001 - 2006										
Model Code ZZE120 Engine Code 4ZZ-FE Manual 1.4L From VIN No. (last 7 digits) E000001, F000001, G000001	0.5	600	700	0.3	200	0.97	1.03	2400	2600	60
Model Code ZZE120 Engine Code 4ZZ-FE Auto 1.4L From VIN No. (last 7 digits) E000001, F000001, G000001	0.5	650	750	0.3	200	0.97	1.03	2400	2600	60
Model Code ZZE121 Engine Code 3ZZ-FE Manual 1.6L From VIN No. (last 7 digits) E000001, F000001, G000001	0.5	600	700	0.3	200	0.97	1.03	2400	2600	60
Model Code ZZE121 Engine Code 3ZZ-FE Auto 1.6L From VIN No. (last 7 digits) E000001, F000001, G000001	0.5	650	750	0.3	200	0.97	1.03	2400	2600	60
Model Code ZZE123 Engine Code 2ZZ-GE T Sport 1.8L From VIN No. (last 7 digits) E000001, F000001, G000001	0.5	750	850	0.3	200	0.97	1.03	2400	2600	60
Corolla (Japan Production) 2001 - 2006										
Model Code ZZE120 Engine Code 4ZZ-FE 1.4L From VIN No. (last 7 digits) 0000001	0.5	600	700	0.3	200	0.97	1.03	2400	2600	60
Model Code ZZE121 Engine Code 3ZZ-FE 1.6L From VIN No. (last 7 digits) 0000001	0.5	600	700	0.3	200	0.97	1.03	2400	2600	60
Model Code ZZE121 Engine Code 3ZZ-FE 1.6L Estate From VIN No. (last 7 digits) 0000001	0.5	600	700	0.3	200	0.97	1.03	2400	2600	60
Corolla (Turkey Production) 2001 - 2006										
Model Code ZZE121 Engine Code 4ZZ-FE 1.4L 4 door Sedan From VIN No. (last 7 digits) 0000001	0.5	600	700	0.3	200	0.97	1.03	2400	2600	60
Model Code ZZE121 Engine Code 3ZZ-FE 1.6L 4 door Sedan From VIN No. (last 7 digits) 0000001	0.5	600	700	0.3	200	0.97	1.03	2400	2600	60
Model Code ZZE121 Engine Code 3ZZ-FE 1.6L Estate From VIN No. (last 7 digits) 0000001	0.5	600	700	0.3	200	0.97	1.03	2400	2600	60

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
Corolla Verso (Japan Production) 2001 - 2004										
Model Code ZZE122 Verso Engine Code 1ZZ-FE 1.8L From VIN No. (last 7 digits) 0000001	0.5	600	700	0.3	200	0.97	1.03	2400	2600	60
Corolla Verso (Turkey Production) 2004 - 2009										
Model Code ZNR10 Engine Code 3ZZ-FE 1.6L From VIN (Last 7 digits) 0000001	0.3	600	700	0.2	200	0.97	1.03	2400	2600	60
Model Code ZNR11 Engine Code 1ZZ-FE 1.8L From VIN (Last 7 digits) 0000001	0.3	600	700	0.2	200	0.97	1.03	2400	2600	60
Avensis 1997 - 2008										
Model Code AT220 Engine Code 4A-FE Manual 1.6L From VIN No (last 7 digits) E000001	0.5	600	700	0.3	200	0.97	1.03	2400	2600	60
Model Code AT221 Engine Code 7A-FE Manual 1.8L From VIN No (last 7 digits) E000001	0.5	600	700	0.3	200	0.97	1.03	2400	2600	60
Model Code AT221 Engine Code 7A-FE Auto 1.8L From VIN No (last 7 digits) E000001	0.5	600	700	0.3	200	0.97	1.03	2400	2600	60
Model Code ST220 Engine Code 3S-FE Manual 2.0L From VIN No (last 7 digits) E000001	0.5	650	750	0.3	200	0.97	1.03	2400	2600	60
Model Code ST220 Engine Code 3S-FE Auto 2.0L From VIN No (last 7 digits) E000001	0.5	650	750	0.3	200	0.97	1.03	2400	2600	60
Model Code ZZT220 Engine Code 3ZZ-FE Manual 1.6L From VIN No (last 7 digits) E000001	0.5	650	750	0.3	200	0.97	1.03	2400	2600	60
Model Code ZZT221 Engine Code 1ZZ-FE 1.8L From VIN No (last 7 digits) E000001	0.5	650	750	0.3	200	0.97	1.03	2400	2600	60
Model Code AZT220 Engine Code 1AZ-FSE 2.0L From VIN No (last 7 digits) E000001	0.5	625	725	0.3	200	0.97	1.03	2400	2600	60
Model Code ZZT250 Engine Code 3ZZ-FE Manual 1.6L From VIN No (last 7 digits) E000001	0.3	600	700	0.2	200	0.97	1.03	2400	2600	60
Model Code ZZT251 Engine Code 1ZZ-FE Manual 1.8L From VIN No (last 7 digits) E000001	0.3	600	700	0.2	200	0.97	1.03	2400	2600	60
Model Code ZZT251 Engine Code 1ZZ-FE Auto 1.8L From VIN No (last 7 digits) E000001	0.3	600	700	0.2	200	0.97	1.03	2400	2600	60
Model Code AZT250 Engine Code 1AZ-FSE Manual 2.0L From VIN No (last 7 digits) E000001	0.3	625	725	0.2	200	0.97	1.03	2400	2600	60
Model Code AZT250 Engine Code 1AZ-FSE Auto 2.0L From VIN No (last 7 digits) E000001	0.3	625	725	0.2	200	0.97	1.03	2400	2600	60
Model Code AZT251 Engine Code 2AZ-FSE Auto 2.4L From VIN No (last 7 digits) E000001	0.3	625	725	0.2	200	0.97	1.03	2400	2600	60
New Generation Avensis 2008 onward										
Model Code ZRT270 Engine Code 1ZR-FAE Manual 1.6L From VIN No (last 7 digits) E000001	0.3	580	680	0.2	200	0.97	1.03	2400	2600	60
Model Code ZRT271 Engine Code 2ZR-FAE Manual 1.8L From VIN No (last 7 digits) E000001	0.3	580	680	0.2	200	0.97	1.03	2400	2600	60
Model Code ZRT271 Engine Code 2ZR-FAE Auto 1.8L From VIN No (last 7 digits) E000001	0.3	600	700	0.2	200	0.97	1.03	2400	2600	60
Model Code ZRT272 Engine Code 3ZR-FAE Manual 2.0L From VIN No (last 7 digits) E000001	0.3	580	680	0.2	200	0.97	1.03	2400	2600	60
Model Code ZRT272 Engine Code 3ZR-FAE Auto 2.0L From VIN No (last 7 digits) E000001	0.3	600	700	0.2	200	0.97	1.03	2400	2600	60
Avensis Verso 2001 - 2006										
Model Code ACM20 Engine Code 1AZ-FE 2.0L From VIN No. (last 7 digits) 0000001	0.5	650	750	0.3	200	0.97	1.03	2400	2600	60
Carina E 1992 - 1997										
Model Code AT190 Engine Code 4A-FE Leanburn 1.6L From VIN Nos (last 7 digits) 0004821 or 4001077 or 6000000 or E000020	0.5	700	800	0.3	200	0.97	1.03	2400	2600	60
Model Code AT191 Engine Code 7A-FE 1.8L From VIN No (last 7 digits) E000020	0.5	650	750	0.3	200	0.97	1.03	2400	2600	60

1 Manufacturer/Marque	2			3						4 Min Oil Temp(°C)
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (% Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
Model Code ST191 Engine Code 3S-FE 2.0L From VIN Nos (last 7 digits) 0002847 or 4000247 or 9000000	0.5	650	750	0.3	200	0.97	1.03	2400	2600	60
Model Code ST191 Engine Code 3S-GE 2.0L From VIN Nos (last 7 digits) 0002847 or 4000247 or 9000000	0.5	750	850	0.3	200	0.97	1.03	2400	2600	60
Camry1991 - 2006										
Model Code SXV10 Engine Code 5S-FE 2.2L From VIN No (last 7 digits) 0000001	0.5	700	800	0.3	200	0.97	1.03	2400	2600	60
Model Code VCV10 Engine Code 3VZ-FE 3.0L From VIN No (last 7 digits) 0000001	0.5	700	800	0.3	200	0.97	1.03	2400	2600	60
Model Code SXV20 Engine Code 5S-FE 2.2L From VIN No (last 7 digits) 0000001	0.5	700	800	0.3	200	0.97	1.03	2400	2600	60
Model Code MCV20 Engine Code 1MZ-FE 3.0L From VIN No (last 7 digits) 0000001	0.5	650	750	0.3	200	0.97	1.03	2400	2600	60
Model Code ACV30 Engine Code 2AZ-FE 2.4L Manual From VIN No (last 7 digits) 0000001	0.5	650	750	0.3	200	0.97	1.03	2400	2600	60
Model Code ACV30 Engine Code 2AZ-FE 2.4L Auto From VIN No (last 7 digits) 0000001	0.5	610	710	0.3	200	0.97	1.03	2400	2600	60
Model Code MCV30 Engine Code 1MZ-FE 3.0L Auto From VIN No (last 7 digits) 0000001	0.5	550	650	0.3	200	0.97	1.03	2400	2600	60
Celica 1989 - 2005										
Model Code ST182 Engine Code 3S-GE 2.0L From VIN Nos (last 7 digits) 0083302 or 6050876	0.5	750	850	0.3	200	0.97	1.03	2400	2600	60
Model Code ST185 Engine Code 3S-GTE 2.0L From VIN No (last 7 digits) 0000465	0.5	750	850	0.3	200	0.97	1.03	2400	2600	60
Model Code AT200 Engine Code 7A-FE 1.8L From VIN No (last 7 digits) 0047277	0.5	700	800	0.3	200	0.97	1.03	2400	2600	60
Model Code ST202 Engine Code 3S-GE 2.0L From VIN No (last 7 digits) 0000001	0.5	650	750	0.3	200	0.97	1.03	2400	2600	60
Model Code ST205 Engine Code 3S-GTE 2.0L From VIN No (last 7 digits) 0000001	0.5	650	750	0.3	200	0.97	1.03	2400	2600	60
Model Code ZZT230 Engine Code 1ZZ-FE 1.8L From VIN No (last 7 digits) 0000001	0.5	650	750	0.3	200	0.97	1.03	2400	2600	60
Model Code ZZT231 Engine Code 2ZZ-GE 1.8L From VIN No (last 7 digits) 0000001	0.5	750	850	0.3	200	0.97	1.03	2400	2600	60
MR2 1989 - 2005										
Model Code SW20 Engine Code 3S-GE 2.0L From VIN No (last 7 digits) 0059266	0.5	750	850	0.3	200	0.97	1.03	2400	2600	60
Model Code SW20 Engine Code 3S-FE 2.0L From VIN No (last 7 digits) 0059266	0.5	650	750	0.3	200	0.97	1.03	2400	2600	60
Model Code ZZW30 Engine Code 1ZZ-FE 1.8L From VIN No (last 7 digits) 0000001	0.5	750	850	0.3	200	0.97	1.03	2400	2600	60
Supra 1988 - 1996										
Model Code MA70 Engine Code 7M-GE 3.0L From VIN No (last 7 digits) 0140688	0.5	650	750	0.3	200	0.97	1.03	2400	2600	60
Model Code MA70 Engine Code 7M-GTE 3.0L From VIN No (last 7 digits) 0120093	0.5	750	850	0.3	200	0.97	1.03	2400	2600	60
Model Code JZA80 Engine Code 2JZ-GTE 3.0L From VIN No (last 7 digits) 0000001	0.5	600	700	0.3	200	0.97	1.03	2400	2600	60
Paseo 1995 - 1999										
Model Code EL54 Engine Code 5E-FE 1.5L From VIN No (last 7 digits) 0011246	0.5	650	750	0.3	200	0.97	1.03	2400	2600	60
Picnic 1996 - 2001										
Model Code SXM10 Engine Code 3S-FE 2.0L From VIN No (last 7 digits) 0001001	0.5	650	750	0.3	200	0.97	1.03	2400	2600	60

1	2			3						4
Manufacturer/Marque	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	Min Oil Temp(°C)
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (% Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
RAV 4 1994 - 2000										
Model Code SXA10 Engine Code 3S-FE 2.0L From VIN No. (last 7 digits) 0000001	0.5	650	750	0.3	200	0.97	1.03	2400	2600	60
Model Code SXA11 Engine Code 3S-FE 2.0L From VIN No. (last 7 digits) 0000001	0.5	650	750	0.3	200	0.97	1.03	2400	2600	60
RAV 4 2000 - 2005										
Model Code ZCA25 Engine Code 1ZZ-FE 1.8L 2WD From VIN No (last 7 digits) 0000001	0.5	650	750	0.3	200	0.97	1.03	2400	2600	60
Model Code ACA20 Engine Code 1AZ-FE Manual 2.0L 4WD From VIN No (last 7 digits) 0000001	0.5	650	750	0.3	200	0.97	1.03	2400	2600	60
Model Code ACA20 Engine Code 1AZ-FE Auto 2.0L 4WD From VIN No (last 7 digits) 0000001	0.5	650	750	0.3	200	0.97	1.03	2400	2600	60
Model Code ACA21 Engine Code 1AZ-FE Manual 2.0L 4WD From VIN No (last 7 digits) 0000001	0.5	650	750	0.3	200	0.97	1.03	2400	2600	60
Model Code ACA21 Engine Code 1AZ-FE Auto 2.0L 4WD From VIN No (last 7 digits) 0000001	0.5	650	750	0.3	200	0.97	1.03	2400	2600	60
RAV 4 2005 - 2012										
Model Code ACA30 Engine Code 1AZ-FE 2.0L Manual From VIN (last 7 digits) 0000001	0.3	650	750	0.2	200	0.97	1.03	2400	2600	60
Model Code ACA30 Engine Code 1AZ-FE 2.0L Auto From VIN (last 7 digits) 0000001	0.3	600	700	0.2	200	0.97	1.03	2400	2600	60
Model Code ZSA35 Engine Code 3ZR-FAE 2.0L 2WD Manual, VIN starts with JTM, From VIN (last 7 digits) D002554	0.3	580	680	0.2	200	0.97	1.03	2400	2600	60
Model Code ZSA30 Engine Code 3ZR-FAE 2.0L AWD Auto, VIN starts with JTM, From VIN (last 7 digits) D005883	0.3	600	700	0.2	200	0.97	1.03	2400	2600	60
New Generation RAV 4 2012 onward										
Model Code ZSA44 Engine Code 3ZR-FAE Manual 2.0L AWD, VIN starts with JTM, From VIN No. (last 7 digits) 0000001	0.3	580	680	0.2	200	0.97	1.03	2400	2600	60
Model Code ZSA44 Engine Code 3ZR-FAE Auto 2.0L AWD, VIN starts with JTM, From VIN No. (last 7 digits) 0000001	0.3	600	700	0.2	200	0.97	1.03	2400	2600	60
iQ 2008 onward										
Model Code KGJ10 Engine Code 1KR-FE 1.0L Manual VIN starts with JTN, From VIN (last 7 digits) J000001	0.3	650	800	0.2	200	0.97	1.03	2400	2600	60
Model Code KGJ10 Engine Code 1KR-FE 1.0L Auto VIN starts with JTN, From VIN (last 7 digits) J000001	0.3	650	800	0.2	200	0.97	1.03	2400	2600	60
Model Code NGJ10 Engine Code 1NR-FE 1.3L Manual VIN starts with JTN, From VIN (last 7 digits) J000110	0.3	550	650	0.2	200	0.97	1.03	2400	2600	60
Model Code NGJ10 Engine Code 1NR-FE 1.3L Auto VIN starts with JTN, From VIN (last 7 digits) J000110	0.3	600	700	0.2	200	0.97	1.03	2400	2600	60
Urban Cruiser 2009 onward										
Model Code NSP110 Engine Code 1NR-FE 1.3L Manual VIN starts with JTK, From VIN (last 7 digits) J000110	0.3	550	650	0.2	200	0.97	1.03	2400	2600	60
Verso 2009 onward										
Model Code ZGR20 Engine Code 1ZR-FAE 1.6L Manual VIN starts with NMT, From VIN (last 7 digits) R003717	0.3	580	680	0.2	200	0.97	1.03	2400	2600	60
Model Code ZGR21 Engine Code 2ZR-FAE 1.8L Manual VIN starts with NMT, From VIN (last 7 digits) R008582	0.3	580	680	0.2	200	0.97	1.03	2400	2600	60
Model Code ZGR21 Engine Code 2ZR-FAE 1.8L Auto VIN starts with NMT, From VIN (last 7 digits) R008582	0.3	600	700	0.2	200	0.97	1.03	2400	2600	60

1 Manufacturer/Marque	2			3						4 Min Oil Temp(°C)
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (% Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
Verso-S 2010 onward										
Model Code NSP120 Engine Code 1NR-FE 1.3L Manual VIN starts with JTD, From VIN (last 6 digits) 000001	0.3	550	650	0.2	200	0.97	1.03	2400	2600	60
Model Code NSP120 Engine Code 1NR-FE 1.3L Auto VIN starts with JTD, From VIN (last 6 digits) 000001	0.3	600	700	0.2	200	0.97	1.03	2400	2600	60
GT86 2012 onward										
Model Code ZN6 Engine Code FA20 2.0L Manual VIN starts with JF1, From VIN No. (last 7 digits) G002007	0.3	550	750	0.2	200	0.97	1.03	2400	2600	60
Model Code ZN6 Engine Code FA20 2.0L Auto VIN starts with JF1, From VIN No. (last 7 digits) G002007	0.3	600	800	0.2	200	0.97	1.03	2400	2600	60
C-HR 2016 onward										
Model Code NGX50 Engine Code 8NR-FTS Auto 1.2L Turbo AWD VIN start with NMT, From VIN No. (last 7 digits) R000001	0.3	680	780	0.2	200	0.97	1.03	2400	2600	60
Model Code NGX10 Engine Code 8NR-FTS Manual 1.2L Turbo 2WD VIN start with NMT, From VIN No. (last 7 digits) R000001	0.3	600	700	0.2	200	0.97	1.03	2400	2600	60
Model Code NGX10 Engine Code 8NR-FTS Auto 1.2L Turbo 2WD VIN start with NMT, From VIN No. (last 7 digits) R000001	0.3	680	780	0.2	200	0.97	1.03	2400	2600	60
TVR										
VIN Code consists of the 4th, 5th, 6th, 7th and 8th digit of the VIN number.										
S Series (S4C 2.9I & V8S 4.0I)										
S4C VIN Code DSC2P	0.5	800	950	0.3	200	0.9	1.1	2500	3000	75
V8S VIN Code DSC4P	0.5	700	900	0.3	200	0.9	1.1	2500	3000	75
Griffith & Chimaera (400, 430, 450 & 500)										
4.0I VIN Code DGC4P or AA01R & DCC4P or BA01R	0.5	700	900	0.3	200	0.9	1.1	2500	3000	75
5.0I VIN Code DGC5P or AA04R & DCC5P or BA04R	0.5	700	900	0.3	200	0.9	1.1	2500	3000	75
4.5I VIN Code BA03R	0.5	700	900	0.3	200	0.9	1.1	2500	3000	75
5.0I (LP) VIN Code DCC5P	0.5	700	900	0.3	200	0.9	1.1	2500	3000	75
4.3I VIN Code DGC3P & DCC3P	0.5	750	950	0.3	200	0.9	1.1	2500	3000	75
Cerbera, Cerbera Straight 6, Tuscan Speed 6, Tamora, T350 & Sagaris										
3.6I VIN Code FA17A, EA17A & FC17A	0.5	900	1000	0.3	200	0.9	1.2	2500	3000	85
4.0I VIN Code CB16A, EA15A, EA16A & SA16A	0.5	900	1000	0.3	200	0.9	1.2	2500	3000	85
4.2I VIN Code FAC2P or CA11A	0.5	900	1000	0.3	200	0.9	1.2	2500	3000	85
4.5I VIN Code FAC5P or CB12A	0.5	900	1000	0.3	200	0.9	1.2	2500	3000	85

1 Manufacturer/ Marque	2			3						4 Min Oil Temp(°C)
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
VAUXHALL										
The Engine Code is stamped on the Engine Block.										
See also Section II										
Corsa										
Engine Code C12NZ/OHC	0.5	840	1000	0.3	200	0.97	1.03	2800	3200	80
Engine Code X12XE (Manual)	0.5	800	1020	0.3	200	0.97	1.03	2800	3200	80
Engine Code X12XE (Automatic)	0.5	730	950	0.3	200	0.97	1.03	2800	3200	80
Engine Code C14NZ/OHC	0.5	830	990	0.3	200	0.97	1.03	2800	3200	80
Engine Code C14SE/OHC	0.5	850	1010	0.3	200	0.97	1.03	2800	3200	80
Engine Code C16XE/DOHC	0.5	820	980	0.3	200	0.97	1.03	2800	3200	80
Engine Code X12SZ/OHC	0.5	820	980	0.3	200	0.97	1.03	2800	3200	80
Engine Code X10XE/DOHC	0.5	800	1100	0.3	200	0.97	1.03	2800	3200	80
Engine Code X14XE/DOHC	0.5	820	980	0.3	200	0.97	1.03	2800	3200	80
Engine Code X14XE/DOHC (Automatic)	0.5	690	850	0.3	200	0.97	1.03	2800	3200	80
Engine Code X14SZ/OHC	0.5	790	950	0.3	200	0.97	1.03	2800	3200	80
Engine Code X16XE/DOHC	0.5	820	980	0.3	200	0.97	1.03	2800	3200	80
Engine Code Z10XE (As of MY 2001 - 1 is the 10th digit of VIN)	0.5	830	1050	0.3	200	0.97	1.03	2800	3200	80
Engine Code Z12XE (As of MY 2001 - 1 is the 10th digit of VIN)	0.5	780	1000	0.3	200	0.97	1.03	2800	3200	80
Engine Code Z14XE (As of MY 2001 - 1 is the 10th digit of VIN)	0.5	780	930	0.3	200	0.97	1.03	2800	3200	80
Engine Code Z18XE (As of MY 2001 - 1 is the 10th digit of VIN)	0.5	730	950	0.3	200	0.97	1.03	2800	3200	80
Engine Code Z14XEP (As of MY 2004 - 4 is the 10th digit of VIN)	0.3	670	830	0.2	200	0.97	1.03	2800	3200	80
Engine Code Z10XEP (As of MY 2004 - 4 is the 10th digit of VIN)	0.3	670	850	0.2	200	0.97	1.03	2800	3200	80
Engine Code Z12XEP (As of MY 2005)	0.3	670	830	0.2	200	0.97	1.03	2800	3200	80
Engine Code Z10XEP (As of MY 2007 - 7 is the 10th digit of VIN)	0.3	770	930	0.2	200	0.97	1.03	2800	3200	80
Engine Code Z16LER (As of MY 2007 - 7 is the 10th digit of VIN)	0.3	600	950	0.2	200	0.97	1.03	2800	3200	80
Engine Code Z16LEL (As of MY 2007 - 7 is the 10th digit of VIN)	0.3	600	950	0.2	200	0.97	1.03	2800	3200	80
Engine Code A10XEP (As of MY 2010 - A is the 10th digit of VIN)	0.3	770	930	0.2	200	0.97	1.03	2800	3200	80
Engine Code A12XER (As of MY 2010 - A is the 10th digit of VIN)	0.3	670	830	0.2	200	0.97	1.03	2800	3200	80
Engine Code A14XER (As of MY 2010 - A is the 10th digit of VIN)	0.3	600	950	0.2	200	0.97	1.03	2800	3200	80
Engine Code A12XEL (As of MY 2010 - A is the 10th digit of VIN)	0.3	600	800	0.2	200	0.97	1.03	2800	3200	80
Engine Code A16LEL (As of MY 2010 - A is the 10th digit of VIN)	0.3	700	950	0.2	200	0.97	1.03	2800	3200	80

1 Manufacturer/Marque	2			3						4 Min Oil Temp(°C)
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (% Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
Engine Code A16LER (As of MY 2010 - A is the 10th digit of VIN)	0.3	600	950	0.2	200	0.97	1.03	2800	3200	80
Engine Code A16LES (As of MY 2010 - A is the 10th digit of VIN)	0.3	600	950	0.2	200	0.97	1.03	2800	3200	80
Engine Code A14NEL	0.3	680	780	0.2	200	0.97	1.03	2800	3200	80
Engine Code A14XEL	0.3	670	830	0.2	200	0.97	1.03	2800	3200	80
Engine Code B10XFL	0.3	680	880	0.2	200	0.97	1.03	2800	3200	80
Engine Code B10XFT	0.3	680	880	0.2	200	0.97	1.03	2800	3200	80
Engine Code B12XEL	0.3	670	830	0.2	200	0.97	1.03	2800	3200	80
Engine Code B14XEL	0.3	670	830	0.2	200	0.97	1.03	2800	3200	80
Engine Code B14XEJ	0.3	670	830	0.2	200	0.97	1.03	2800	3200	80
Engine Code B14NEH	0.3	600	800	0.2	200	0.97	1.03	2800	3200	80
Engine Code B14NEJ	0.3	670	830	0.2	200	0.97	1.03	2800	3200	80
Engine Code B16LES	0.3	600	950	0.2	200	0.97	1.03	2800	3200	80
Astra										
Engine Code C14NZ/OHC	0.5	830	990	0.3	200	0.97	1.03	2800	3200	80
Engine Code C14SE/OHC	0.5	820	980	0.3	200	0.97	1.03	2800	3200	80
Engine Code C16NZ/OHC	0.5	780	940	0.3	200	0.97	1.03	2800	3200	80
Engine Code C16SE/OHC	0.5	820	980	0.3	200	0.97	1.03	2800	3200	80
Engine Code C16SZ/OHC	0.5	820	980	0.3	200	0.97	1.03	2800	3200	80
Engine Code C18NZ/OHC	0.5	750	910	0.3	200	0.97	1.03	2800	3200	80
Engine Code C18XE/DOHC	0.5	800	1000	0.3	200	0.97	1.03	2800	3200	80
Engine Code X18XE1 (Chassis W-onwards)	0.5	670	1030	0.3	200	0.97	1.03	2800	3200	80
Engine Code C20XE/DOHC	0.5	860	1020	0.3	200	0.97	1.03	2800	3200	80
Engine Code X16XEL/DOHC	0.5	820	980	0.3	200	0.97	1.03	2800	3200	80
Engine Code X14NZ/OHC	0.5	830	990	0.3	200	0.97	1.03	2800	3200	80
Engine Code X16SZR/OHC - (Manual)	0.5	770	930	0.3	200	0.97	1.03	2800	3200	80
Engine Code X18XE/DOHC	0.5	670	1030	0.3	200	0.97	1.03	2800	3200	80
Engine Code X20XEV/DOHC	0.5	670	1030	0.3	200	0.97	1.03	2800	3200	80
Engine Code X14XE/DOHC - (Manual)	0.5	820	980	0.3	200	0.97	1.03	2800	3200	80
Engine Code X14XE/DOHC - (Automatic)	0.5	720	880	0.3	200	0.97	1.03	2800	3200	80
Engine Code X16SZR/DOHC - (Automatic)	0.5	750	910	0.3	200	0.97	1.03	2800	3200	80
Engine Code C16NZ/OHC - 9/91-2/94	0.5	830	990	0.3	200	0.97	1.03	2800	3200	80
Engine Code C18NZ/OHC - (Manual)	0.5	820	980	0.3	200	0.97	1.03	2800	3200	80

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
Engine Code C18NZ/OHC - (Automatic)	0.5	750	910	0.3	200	0.97	1.03	2800	3200	80
Engine Code C18NZ/OHC - (Automatic Estate)	0.5	650	810	0.3	200	0.97	1.03	2800	3200	80
Engine Code C20NE/OHC	0.5	820	980	0.3	200	0.97	1.03	2800	3200	80
Engine Code X20XEV (Chassis W- onwards)	0.5	730	960	0.3	200	0.97	1.03	2800	3200	80
Engine Code X14XE/OHC (As of MY 1998 - W in chassis)	0.5	700	930	0.3	200	0.97	1.03	2800	3200	80
Engine Code X16SZR/OHC (As of MY 1998 - W in chassis)	0.5	690	920	0.3	200	0.97	1.03	2800	3200	80
Engine Code X16XEL/OHC (As of MY 1998 - W in chassis)	0.5	700	930	0.3	200	0.97	1.03	2800	3200	80
Engine Code X18XE1/OHC (As of MY 1998 - W in chassis)	0.5	730	960	0.3	200	0.97	1.03	2800	3200	80
Engine Code X20XEV/OHC (As of MY 1998 - W in chassis)	0.5	730	960	0.3	200	0.97	1.03	2800	3200	80
Engine Code Z14XE/OHC (As of MY 2001 - 1 is the 10th digit of VIN)	0.5	710	930	0.3	200	0.97	1.03	2800	3200	80
Engine Code Z16SE/OHC (As of MY 2001 - 1 is the 10th digit of VIN)	0.5	710	930	0.3	200	0.97	1.03	2800	3200	80
Engine Code Z16XE/OHC (As of MY 2001 - 1is the 10th digit of VIN)	0.5	710	930	0.3	200	0.97	1.03	2800	3200	80
Engine Code Z18XE/OHC (As of MY 2001 - 1 is the 10th digit of VIN)	0.5	710	930	0.3	200	0.97	1.03	2800	3200	80
Engine Code Z18XER	0.3	600	950	0.2	200	0.97	1.03	2800	3200	80
Engine Code Z22SE/OHC Manual (As of MY 2001 - 1 is the 10th digit of VIN)	0.5	610	850	0.3	200	0.97	1.03	2800	3200	80
Engine Code Z22SE/OHC Automatic (with A/c) (As of MY 2001 - 1 is the 10th digit of VIN)	0.5	710	930	0.3	200	0.97	1.03	2800	3200	80
Engine Code Z20LET/OHC (As of MY 2003 - 3 is the 10th digit of VIN)	0.5	730	950	0.3	200	0.97	1.03	2800	3200	80
Engine Code Z16XEP/OHC (As of MY 2004 - 4 is the 10th digit of VIN)	0.3	710	930	0.2	200	0.97	1.03	2800	3200	80
Engine Code Z14XEP (As of MY 2004)	0.3	720	880	0.2	200	0.97	1.03	2800	3200	80
Engine Code Z20LEL & R (As of MY 2004)	0.3	700	900	0.2	200	0.97	1.03	2800	3200	80
Engine Code Z16XER (As of MY 2007 - 7 is the 10th digit of VIN)	0.3	600	950	0.2	200	0.97	1.03	2800	3200	80
Engine Code A16XER (As of MY 2010 - A is the 10th digit of VIN)	0.3	600	950	0.2	200	0.97	1.03	2800	3200	80
Engine Code A18XER (As of MY 2010 - A is the 10th digit of VIN)	0.3	600	950	0.2	200	0.97	1.03	2800	3200	80
Engine Code A14XEL (As of MY 2010 - A is the 10th digit of VIN)	0.3	600	950	0.2	200	0.97	1.03	2800	3200	80
Engine Code A14XER (As of MY 2010 - A is the 10th digit of VIN)	0.3	600	800	0.2	200	0.97	1.03	2800	3200	80
Engine Code A14XET (As of MY 2010 - A is the 10th digit of VIN)	0.3	680	780	0.2	200	0.97	1.03	2800	3200	80
Engine Code A16LET (As of MY 2010 - A is the 10th digit of VIN)	0.3	700	800	0.2	200	0.97	1.03	2800	3200	80
Engine Code Z16LET (As of MY 2007 - 7 is the 10th digit of VIN)	0.3	600	950	0.2	200	0.97	1.03	2800	3200	80
Engine Code Z20LEH	0.3	600	950	0.2	200	0.97	1.03	2800	3200	80
Engine Code A14NEL (As of MY 2010 - A is the 10th digit of VIN)	0.3	680	780	0.2	200	0.97	1.03	2800	3200	80
Engine Code A14NET (As of MY 2010 - A is the 10th digit of VIN)	0.3	680	780	0.2	200	0.97	1.03	2800	3200	80
Engine Code A20NFT (As of MY 2013 - D is the 10th digit of VIN)	0.3	600	950	0.2	200	0.97	1.03	2800	3200	80

1 Manufacturer/Marque	2			3						4 Min Oil Temp(°C)
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (% Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
Engine Code A16SHT	0.3	570	670	0.2	200	0.97	1.03	2800	3200	80
Engine Code A16XHT	0.3	570	670	0.2	200	0.97	1.03	2800	3200	80
Engine Code B14XER	0.3	600	950	0.2	200	0.97	1.03	2800	3200	80
Engine Code B14NEL	0.3	680	780	0.2	200	0.97	1.03	2800	3200	80
Engine Code B14NET	0.3	680	780	0.2	200	0.97	1.03	2800	3200	80
Engine Code B16XER	0.3	780	900	0.2	200	0.97	1.03	2800	3200	80
Engine Code B16XER (Automatic)	0.3	780	900	0.2	200	0.97	1.03	2800	3200	80
Engine Code B16SHL	0.3	650	850	0.2	200	0.97	1.03	2800	3200	80
Engine Code B16SHT	0.3	570	670	0.2	200	0.97	1.03	2800	3200	80
Engine Code B20NFT	0.3	600	950	0.2	200	0.97	1.03	2800	3200	80
Engine Code B10XFL	0.3	600	950	0.2	200	0.97	1.03	2800	3200	80
Engine Code B14XE	0.3	600	950	0.2	200	0.97	1.03	2800	3200	80
Engine Code B14XHL	0.3	680	880	0.2	200	0.97	1.03	2800	3200	80
Engine Code B14XHT	0.3	680	880	0.2	200	0.97	1.03	2800	3200	80
Engine Code B14XHT (Automatic)	0.3	700	900	0.2	200	0.97	1.03	2800	3200	80
Engine Code B14XFL	0.3	680	800	0.2	200	0.97	1.03	2800	3200	80
Engine Code B14XFT	0.3	680	800	0.2	200	0.97	1.03	2800	3200	80
Astra Coupé/Convertible										
Engine Code Z16XE	0.5	710	930	0.3	200	0.97	1.03	2800	3200	80
Engine Code Z18XE	0.5	710	930	0.3	200	0.97	1.03	2800	3200	80
Engine Code Z22SE Manual	0.5	610	850	0.3	200	0.97	1.03	2800	3200	80
Engine Code Z22SE Automatic (with A/c)	0.5	710	930	0.3	200	0.97	1.03	2800	3200	80
Engine Code Z20LET	0.5	730	950	0.3	200	0.97	1.03	2800	3200	80
Engine Code Z16XEP (As of MY 2004 - 4 is the 10th digit of VIN)	0.3	710	930	0.2	200	0.97	1.03	2800	3200	80
Cavalier										
Engine Code C18NZ/OHC	0.5	800	960	0.3	200	0.97	1.03	2800	3200	80
Engine Code C20LET/DOHC	0.5	860	1020	0.3	200	0.97	1.03	2800	3200	80
Engine Code C20NE/OHC	0.5	720	880	0.3	200	0.97	1.03	2800	3200	80
Engine Code C20XE/DOHC	0.5	860	1020	0.3	200	0.97	1.03	2800	3200	80
Engine Code C16NZ/OHC	0.5	770	930	0.3	200	0.97	1.03	2800	3200	80
Engine Code C16NZ2/OHC	0.5	800	960	0.3	200	0.97	1.03	2800	3200	80
Engine Code C18NZ/OHC - (Automatic)	0.5	750	910	0.3	200	0.97	1.03	2800	3200	80

1 Manufacturer/Marque	2			3						4 Min Oil Temp(°C)
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (% Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
Engine Code C20NE/OHC - 4x4	0.5	890	990	0.3	200	0.97	1.03	2800	3200	80
Engine Code C20XE	0.5	670	1030	0.3	200	0.97	1.03	2800	3200	80
Engine Code X20XEV	0.5	670	1030	0.3	200	0.97	1.03	2800	3200	80
Engine Code C25XE/DOHC	0.5	620	780	0.3	200	0.97	1.03	2800	3200	80
Calibra										
Engine Code C20LET/DOHC	0.5	860	1020	0.3	200	0.97	1.03	2800	3200	80
Engine Code C20NE/OHC	0.5	720	880	0.3	200	0.97	1.03	2800	3200	80
Engine Code C20XE/DOHC	0.5	860	1020	0.3	200	0.97	1.03	2800	3200	80
Engine Code X20XEV/DOHC	0.5	670	1030	0.3	200	0.97	1.03	2800	3200	80
Engine Code X25XE/DOHC	0.5	640	800	0.3	200	0.97	1.03	2800	3200	80
Engine Code C25XE/DOHC	0.5	620	780	0.3	200	0.97	1.03	2800	3200	80
Omega										
Engine Code Z22XE (Manual)	0.5	730	950	0.3	200	0.97	1.03	2800	3200	80
Engine Code Z22XE (Automatic)	0.5	805	1025	0.3	200	0.97	1.03	2800	3200	80
Engine Code X20SE/OHC	0.5	670	1030	0.3	200	0.97	1.03	2800	3200	80
Engine Code X20XEV/DOHC	0.5	670	1030	0.3	200	0.97	1.03	2800	3200	80
Engine Code X25XE/DOHC	0.5	570	730	0.3	200	0.97	1.03	2800	3200	80
Engine Code X30XE/DOHC	0.5	570	730	0.3	200	0.97	1.03	2800	3200	80
Engine Code Y22XE	0.5	700	930	0.3	200	0.97	1.03	2800	3200	80
Engine Code Y26SE	0.5	580	800	0.3	200	0.97	1.03	2800	3200	80
Engine Code Y32SE	0.5	580	800	0.3	200	0.97	1.03	2800	3200	80
Carlton										
Engine Code C20NE/OHC	0.5	720	880	0.3	200	0.97	1.03	2800	3200	80
Engine Code C24NE/CIH	0.5	820	880	0.3	200	0.97	1.03	2800	3200	80
Engine Code C26NE/CIH	0.5	670	830	0.3	200	0.97	1.03	2800	3200	80
Engine Code C30NE/CIH	0.5	670	830	0.3	200	0.97	1.03	2800	3200	80
Engine Code C30SE/DOHC	0.5	570	730	0.3	200	0.97	1.03	2800	3200	80
Senator B										
Engine Code C26NE/CIH	0.5	670	830	0.3	200	0.97	1.03	2800	3200	80
Engine Code C30NE/CIH	0.5	670	830	0.3	200	0.97	1.03	2800	3200	80
Engine Code C30SE/DOHC	0.5	570	730	0.3	200	0.97	1.03	2800	3200	80

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
Vectra										
Engine Code X16SZR/OHC	0.5	770	930	0.3	200	0.97	1.03	2800	3200	80
Engine Code X16XEL/DOHC	0.5	770	930	0.3	200	0.97	1.03	2800	3200	80
Engine Code X18XE/DOHC	0.5	670	1030	0.3	200	0.97	1.03	2800	3200	80
Engine Code X18XE1 (As of MY 1998 - W in chassis)	0.5	730	960	0.3	200	0.97	1.03	2800	3200	80
Engine Code X20XEV/DOHC	0.5	670	1030	0.3	200	0.97	1.03	2800	3200	80
Engine Code X25XE/DOHC	0.5	640	800	0.3	200	0.97	1.03	2800	3200	80
Engine Code Y16XE (As of MY 2000 - Y in chassis)	0.5	770	930	0.3	200	0.97	1.03	2800	3200	80
Engine Code Z16XE (As of MY 2001 - 1 in chassis)	0.5	710	930	0.3	200	0.97	1.03	2800	3200	80
Engine Code Z18XE (As of MY 2001 - 1 in chassis)	0.5	730	950	0.3	200	0.97	1.03	2800	3200	80
Engine Code Z22SE (As of MY 2001 - 1 in chassis)	0.5	630	850	0.3	200	0.97	1.03	2800	3200	80
Engine Code Z22SE (with A/c) (As of MY 2001 - 1 in chassis)	0.5	705	925	0.3	200	0.97	1.03	2800	3200	80
Engine Code Y26SE (Auto) (As of MY 2001 - 1 in chassis)	0.5	630	850	0.3	200	0.97	1.03	2800	3200	80
Engine Code Y26SE (Manual) (As of MY 2001 - 1 in chassis)	0.5	580	800	0.3	200	0.97	1.03	2800	3200	80
Engine Code Y16XE	0.5	580	800	0.3	200	0.97	1.03	2800	3200	80
Engine Code Z18XE (As of MY 2002 - 2 in chassis)	0.5	620	850	0.3	200	0.97	1.03	2800	3200	80
Engine Code Z22SE (As of MY 2002 - 2 in chassis)	0.5	680	900	0.3	200	0.97	1.03	2800	3200	80
Engine Code Z20NET (As of MY 2004 - 4 in chassis)	0.3	680	900	0.2	200	0.97	1.03	2800	3200	80
Engine Code Z32SE (As of MY 2002 - 2 in chassis)	0.5	580	800	0.3	200	0.97	1.03	2800	3200	80
Engine Code Z22YH Automatic (As of MY 2004 - 4 in chassis)	0.3	700	860	0.2	200	0.97	1.03	2800	3200	80
Engine Code Z22YH Manual (As of MY 2004 - 4 in chassis)	0.3	670	830	0.2	200	0.97	1.03	2800	3200	80
Engine Code Z18XER	0.3	600	950	0.2	200	0.97	1.03	2800	3200	80
Engine Code Z28NEL & T	0.3	600	950	0.2	200	0.97	1.03	2800	3200	80
Frontera	(see also Section II)									
Engine Code C24NE/CIH	0.5	820	880	0.3	200	0.97	1.03	2800	3200	80
Engine Code C20NE/OHC	0.5	720	880	0.3	200	0.97	1.03	2800	3200	80
Engine Code X20SE	0.5	670	1030	0.3	200	0.97	1.03	2800	3200	80
Engine Code X22XE	0.5	670	1030	0.3	200	0.97	1.03	2800	3200	80
Engine Code X22SE (As of MY 1999 - X in chassis)	0.5	760	860	0.3	200	0.97	1.03	2800	3200	80
Engine Code 6VD1/3.2 V6 24v (As of MY 99 - X in chassis)	0.5	720	800	0.3	200	0.97	1.03	2800	3200	80
Engine Code Y22SE (As of MY 2001 - 1 in chassis)	0.5	760	860	0.3	200	0.97	1.03	2800	3200	80

1	2			3						4
Manufacturer/Marque	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	Min Oil Temp(°C)
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (%) Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
Antara										
Engine Code Z24XE (As of MY 2007 - 7 in chassis)	0.3	640	740	0.2	200	0.97	1.03	2800	3200	80
Engine Code A24XE (As of MY 2011 - B in chassis)	0.3	680	780	0.2	200	0.97	1.03	2800	3200	80
Engine Code A24XF (As of MY 2011 - B in chassis)	0.3	680	780	0.2	200	0.97	1.03	2800	3200	80
Tigra										
Engine Code X14XE/DOHC - (Manual)	0.5	820	980	0.3	200	0.97	1.03	2800	3200	80
Engine Code X14XE/DOHC - (Automatic)	0.5	690	850	0.3	200	0.97	1.03	2800	3200	80
Engine Code X16XE/DOHC	0.5	820	980	0.3	200	0.97	1.03	2800	3200	80
Engine Code Z14XEP (as of MY 2005)	0.3	670	830	0.2	200	0.97	1.03	2800	3200	80
Engine Code Z18XE (as of MY 2005)	0.3	730	950	0.2	200	0.97	1.03	2800	3200	80
Nova										
Engine Code C12NZ/OHC	0.5	830	990	0.3	200	0.97	1.03	2800	3200	80
Engine Code C14NZ/OHC	0.5	830	990	0.3	200	0.97	1.03	2800	3200	80
Engine Code C16SE/OHC - 02/92-03/93	0.5	850	1010	0.3	200	0.97	1.03	2800	3200	80
Zafira										
	(see also Section II)									
Engine Code X16XEL	0.5	700	930	0.3	200	0.97	1.03	2800	3200	80
Engine Code X18XE1	0.5	730	960	0.3	200	0.97	1.03	2800	3200	80
Engine Code Z16XE	0.5	710	960	0.3	200	0.97	1.03	2800	3200	80
Engine Code Z18XE	0.5	730	950	0.3	200	0.97	1.03	2800	3200	80
Engine Code Z20LET	0.5	730	950	0.3	200	0.97	1.03	2800	3200	80
Engine Code Z22SE (Manual)	0.5	630	850	0.3	200	0.97	1.03	2800	3200	80
Engine Code Z22SE (Auto) (with A/c)	0.5	705	925	0.3	200	0.97	1.03	2800	3200	80
Engine Code Z16XEP (as of MY2005 - 5 is the 10th digit of the VIN)	0.3	710	930	0.2	200	0.97	1.03	2800	3200	80
Engine Code Z16XE1 (as of MY2007 - 7 is the 10th digit of the VIN)	0.3	710	930	0.2	200	0.97	1.03	2800	3200	80
Engine Code Z16XER (as of MY2010 - A is the 10th digit of the VIN)	0.3	600	950	0.2	200	0.97	1.03	2800	3200	80
Engine Code A16XER (as of MY2011 - B is the 10th digit of the VIN)	0.3	600	950	0.2	200	0.97	1.03	2800	3200	80
Engine Code A18XER (as of MY2011 - B is the 10th digit of the VIN)	0.3	600	950	0.2	200	0.97	1.03	2800	3200	80
Engine Code Z18XER (as of MY2005 - 5 is the 10th digit of the VIN)	0.3	600	950	0.2	200	0.97	1.03	2800	3200	80
Engine Code Z20LER (as of MY2005 - 5 is the 10th digit of the VIN)	0.3	700	900	0.2	200	0.97	1.03	2800	3200	80
Engine Code Z20LEH (as of MY2007 - 7 is the 10th digit of the VIN)	0.3	600	950	0.2	200	0.97	1.03	2800	3200	80
Engine Code Z22YH (as of MY2005 - 5 is the 10th digit of the VIN) manual	0.3	660	880	0.2	200	0.97	1.03	2800	3200	80

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
Engine Code Z22YH (as of MY2005 - 5 is the 10th digit of the VIN) auto	0.3	680	900	0.2	200	0.97	1.03	2800	3200	80
Engine Code A14NEL (as of MY2012 - C is the 10th digit of the VIN)	0.3	680	780	0.2	200	0.97	1.03	2800	3200	80
Engine Code A14NET (as of MY2012 - C is the 10th digit of the VIN)	0.3	680	780	0.2	200	0.97	1.03	2800	3200	80
Engine Code A18XEL (as of MY2012 - C is the 10th digit of the VIN)	0.3	600	950	0.2	200	0.97	1.03	2800	3200	80
Engine Code A18XER (as of MY2012 - C is the 10th digit of the VIN)	0.3	600	950	0.2	200	0.97	1.03	2800	3200	80
Engine Code A16SHT	0.3	570	670	0.2	200	0.97	1.03	2800	3200	80
Engine Code A16XHT	0.3	570	670	0.2	200	0.97	1.03	2800	3200	80
Engine Code A16XNT	0.3	730	900	0.2	200	0.97	1.03	2800	3200	80
Engine Code B14NEL	0.3	680	780	0.2	200	0.97	1.03	2800	3200	80
Engine Code B14NET	0.3	780	880	0.2	200	0.97	1.03	2800	3200	80
Engine Code B16SHL	0.3	570	670	0.2	200	0.97	1.03	2800	3200	80
Engine Code B16SHT	0.3	570	670	0.2	200	0.97	1.03	2800	3200	80
Agila										
Engine Code Z10XE	0.5	780	980	0.3	200	0.97	1.03	2800	3200	80
Engine Code Z12XE	0.5	700	940	0.3	200	0.97	1.03	2800	3200	80
Engine Code Z10XEP (as of MY 2004 - 4 is the 10th digit of VIN)	0.3	720	900	0.2	200	0.97	1.03	2800	3200	80
Engine Code Z12XEP (as of MY 2005)	0.3	670	830	0.2	200	0.97	1.03	2800	3200	80
Agila (New Model)										
Engine Code K10B (As of MY08)	0.3	640	780	0.2	200	0.97	1.03	2800	3200	80
Engine Code K12B (As of MY08)	0.3	640	780	0.2	200	0.97	1.03	2800	3200	80
VX220										
Engine Code Z22SE	0.5	730	950	0.3	200	0.97	1.03	2800	3200	80
Engine Code Z20LET (as of MY 2003)	0.3	730	950	0.2	200	0.97	1.03	2800	3200	80
Meriva										
Engine Code Z16SE	0.3	710	930	0.2	200	0.97	1.03	2800	3200	80
Engine Code Z16XE	0.3	710	930	0.2	200	0.97	1.03	2800	3200	80
Engine Code Z18XE	0.3	710	930	0.2	200	0.97	1.03	2800	3200	80
Engine Code A14XER (as of MY2010 - A is the 10th digit of the VIN)	0.3	600	950	0.2	200	0.97	1.03	2800	3200	80
Engine Code A14NEL (as of MY2010 - A is the 10th digit of the VIN)	0.3	600	800	0.2	200	0.97	1.03	2800	3200	80
Engine Code A14NET (as of MY2010 - A is the 10th digit of the VIN)	0.3	680	780	0.2	200	0.97	1.03	2800	3200	80
Engine Code Z14XEP (as of MY 2005)	0.3	670	830	0.2	200	0.97	1.03	2800	3200	80

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
Engine Code Z16XEP	0.3	600	950	0.2	200	0.97	1.03	2800	3200	80
Engine Code Z16LET	0.3	600	950	0.2	200	0.97	1.03	2800	3200	80
Engine Code B14NEL	0.3	600	800	0.2	200	0.97	1.03	2800	3200	80
Engine Code B14NET	0.3	600	800	0.2	200	0.97	1.03	2800	3200	80
Engine Code B14XER	0.3	600	950	0.2	200	0.97	1.03	2800	3200	80
Signum										
Engine Code Z20NET	0.3	680	900	0.2	200	0.97	1.03	2800	3200	80
Engine Code Z18XE (as of MY 2005)	0.3	620	850	0.2	200	0.97	1.03	2800	3200	80
Engine Code Z22YH Automatic	0.3	700	860	0.2	200	0.97	1.03	2800	3200	80
Engine Code Z22YH Manual	0.3	670	830	0.2	200	0.97	1.03	2800	3200	80
Engine Code Z32SE	0.3	580	800	0.2	200	0.97	1.03	2800	3200	80
Engine Code Z18XER	0.3	600	950	0.2	200	0.97	1.03	2800	3200	80
Engine Code Z28NEL & T	0.3	600	950	0.2	200	0.97	1.03	2800	3200	80
Monaro										
5.7 V8	0.3	750	850	0.2	200	0.97	1.03	2800	3200	80
VXR8										
6.0 V8	0.3	725	850	0.2	200	0.97	1.03	2800	3200	80
Insignia										
Engine Code A16LET	0.3	600	950	0.2	200	0.97	1.03	2800	3200	80
Engine Code A18XER	0.3	600	950	0.2	200	0.97	1.03	2800	3200	80
Engine Code A20NHT	0.3	600	950	0.2	200	0.97	1.03	2800	3200	80
Engine Code A28NET	0.3	700	1100	0.2	200	0.97	1.03	2800	3200	80
Engine Code A28NER	0.3	700	1100	0.2	200	0.97	1.03	2800	3200	80
Engine Code A14NET	0.3	680	780	0.2	200	0.97	1.03	2800	3200	80
Engine Code A16XER	0.3	600	950	0.2	200	0.97	1.03	2800	3200	80
Engine Code A20NFT	0.3	600	950	0.2	200	0.97	1.03	2800	3200	80
Engine Code B14NET	0.3	600	800	0.2	200	0.97	1.03	2800	3200	80
Engine Code A16XHT	0.3	570	670	0.2	200	0.97	1.03	2800	3200	80
Engine Code B16SHL	0.3	570	670	0.2	200	0.97	1.03	2800	3200	80
Engine Code B20NHT	0.3	600	950	0.2	200	0.97	1.03	2800	3200	80
Engine Code B28NER	0.3	700	1100	0.2	200	0.97	1.03	2800	3200	80

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
Engine Code B15SFL	0.3	680	800	0.2	200	0.97	1.03	2800	3200	80
Engine Code B15SFT	0.3	660	800	0.2	200	0.97	1.03	2800	3200	80
Engine Code B15SFT Automatic	0.3	700	900	0.2	200	0.97	1.03	2800	3200	80
Engine Code B20NFT Automatic	0.3	600	950	0.2	200	0.97	1.03	2800	3200	80
Adam										
Engine Code A12XEL	0.3	600	800	0.2	200	0.97	1.03	2800	3200	80
Engine Code A14XEL	0.3	670	830	0.2	200	0.97	1.03	2800	3200	80
Engine Code A14XER	0.3	600	950	0.2	200	0.97	1.03	2800	3200	80
Engine Code B10XFL	0.3	680	880	0.2	200	0.97	1.03	2800	3200	80
Engine Code B10XFT	0.3	680	880	0.2	200	0.97	1.03	2800	3200	80
Engine Code B12XEL	0.3	670	830	0.2	200	0.97	1.03	2800	3200	80
Engine Code B14XEL	0.3	670	830	0.2	200	0.97	1.03	2800	3200	80
Engine Code B14XER	0.3	670	830	0.2	200	0.97	1.03	2800	3200	80
Engine Code B14NEJ	0.3	600	800	0.2	200	0.97	1.03	2800	3200	80
Mokka										
Engine Code A14NET	0.3	680	780	0.2	200	0.97	1.03	2800	3200	80
Engine Code A16XER	0.3	680	780	0.2	200	0.97	1.03	2800	3200	80
Engine Code A18XER	0.3	780	900	0.2	200	0.97	1.03	2800	3200	80
Engine Code B14NET	0.3	680	780	0.2	200	0.97	1.03	2800	3200	80
Engine Code B16XER	0.3	680	780	0.2	200	0.97	1.03	2800	3200	80
Engine Code B14XFT	0.3	700	900	0.2	200	0.97	1.03	2800	3200	80
Cascada										
Engine Code A14NEL	0.3	680	780	0.2	200	0.97	1.03	2800	3200	80
Engine Code A14NET	0.3	680	780	0.2	200	0.97	1.03	2800	3200	80
Engine Code A16SHT	0.3	570	670	0.2	200	0.97	1.03	2800	3200	80
Engine Code A16XHT	0.3	570	670	0.2	200	0.97	1.03	2800	3200	80
Engine Code B14NEL	0.3	680	780	0.2	200	0.97	1.03	2800	3200	80
Engine Code B14NET	0.3	680	780	0.2	200	0.97	1.03	2800	3200	80
Engine Code B16SHL	0.3	570	670	0.2	200	0.97	1.03	2800	3200	80
Engine Code B16SHT	0.3	570	670	0.2	200	0.97	1.03	2800	3200	80

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (% Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
Viva										
Engine Code B10XE	0.3	680	880	0.2	200	0.97	1.03	2800	3200	80
Engine Code B10XL	0.3	680	880	0.2	200	0.97	1.03	2800	3200	80
VOLKSW AGEN										
<i>The Engine Code is stamped on the Engine Block.</i>										
See also Section II										
Polo Series (80 and 6N1,up to Model Year 00)										
1.0l injection Engine Codes AER and ALL Model Year 96 - 00	0.5	600	800	0.3	200	0.97	1.03	2500	2800	80
1.05l injection Engine Codes AEV and AAU Model Year 90 - 96	0.5	750	850	0.3	200	0.97	1.03	2500	2800	80
1.3l injection Engine Code 3F Model Year 90 - 94	0.5	850	950	0.3	200	0.97	1.03	2500	2800	80
1.3l injection Engine Code AAV Model Year 91 - 94	0.5	750	850	0.3	200	0.97	1.03	2500	2800	80
1.3l injection Engine Code NZ Model Year 87 - 92	0.5	750	1000	0.3	200	0.97	1.03	2500	2800	80
1.3l injection Engine Code ADX Model Year 94 - 97	0.5	700	900	0.3	200	0.97	1.03	2500	2800	80
1.4l injection Engine Codes AEX, ANX, APQ and AKV (manual) Model Year 95 - 00	0.5	770	970	0.3	200	0.97	1.03	2500	2800	80
1.4l injection Engine Codes AEX, ANX, APQ and AKV (auto) Model Year 95 - 00	0.5	750	850	0.3	200	0.97	1.03	2500	2800	80
1.4l 16V injection Engine Code AFH Model Year 96 - 00	0.5	820	920	0.3	200	0.97	1.03	2500	2800	80
1.6l injection Engine Code AEA Model Year 94 - 00	0.5	700	900	0.3	200	0.97	1.03	2500	2800	80
1.6l injection Engine Code AEE (manual) Model Year 95 - 00	0.5	630	850	0.3	200	0.97	1.03	2500	2800	80
1.6l injection Engine Code AEE (auto) Model Year 95 - 00	0.5	830	930	0.3	200	0.97	1.03	2500	2800	80
1.6l injection Engine Code AJV Model Year 98 - 00	0.5	700	800	0.3	200	0.97	1.03	2500	2800	80
G40 1.3l injection Engine Code PY Model Year 91- 94	0.5	850	900	0.3	200	0.97	1.03	2500	2800	80
Polo Series Facelift (Model Year 00-02)										
1.0l injection Engine Codes AUC and ALD Model Year 00 - 02	0.5	600	800	0.3	200	0.97	1.03	2500	2800	80
1.4l injection Engine Codes AKK, AUD and AKP (manual) Model Year 00 - 02	0.5	740	940	0.3	200	0.97	1.03	2500	2800	80
1.4l injection Engine Codes AKK, AUD and AKP (auto) Model Year 00 - 02	0.5	600	800	0.3	200	0.97	1.03	2500	2800	80
1.4l 16V injection Engine Code AUA (manual) Model Year 00 - 02	0.5	800	900	0.3	200	0.97	1.03	2800	3200	80
1.4l 16V injection Engine Codes AUA and APE (auto) Model Year 00 - 02	0.5	630	730	0.3	200	0.97	1.03	2800	3200	80
1.4l 16V injection Engine Codes AUB and AQQ Model Year 00 - 02	0.5	790	890	0.3	200	0.97	1.03	2500	3000	80
1.4l 16V injection Engine Code AFK Model Year 00 - 02	0.5	790	890	0.3	200	0.97	1.03	2500	2800	80
1.4l 16V injection Engine Code AHW (manual) Model Year 00 - 02	0.5	700	800	0.3	200	0.97	1.03	2500	2800	80

1 Manufacturer/Marque	2			3						4 Min Oil Temp(°C)
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (% Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
1.4l 16V injection Engine Code AHW (auto) Model Year 00 - 02	0.5	630	730	0.3	200	0.97	1.03	2500	2800	80
1.6l 16V GTI injection Engine Codes ARC and AVY Model Year 00 - 02	0.5	800	900	0.3	200	0.97	1.03	2500	3000	80
Polo Series (Model Year 02 Onwards, 9N1)										
1.2l injection Engine Code AWY Model Year 02 -	0.5	650	800	0.3	200	0.97	1.03	2500	3200	80
1.2l 12V injection Engine Code AZQ Model Year 02 -	0.5	650	800	0.3	200	0.97	1.03	2500	3000	80
1.4l 16V injection Engine Code AUA Model Year 02 - 03	0.5	630	900	0.3	200	0.97	1.03	2500	3000	80
1.4l 16V injection Engine Code AUB Model Year 02 - 03	0.5	790	890	0.3	200	0.97	1.03	2500	3000	80
1.4l 16V injection Engine Code BBY and BBZ Model Year 02 -	0.5	630	730	0.3	200	0.97	1.03	2500	3000	80
1.4l FSI injection Engine Code AXU Model Year 02 -	0.5	600	850	0.3	200	0.97	1.03	3800	4500	80
1.6l 16V injection Engine Code AVY Model Year 02 -	0.5	800	900	0.3	200	0.97	1.03	2500	3000	80
Polo Classic Saloon and Estate Series										
1.4l injection Engine Codes AKK, ANW and AUD (auto) Model Year 00 -	0.5	600	800	0.3	200	0.97	1.03	2500	2800	80
1.4l injection Engine Codes AKK, ANW and AUD (manual) Model Year 00 -	0.5	740	940	0.3	200	0.97	1.03	2500	2800	80
1.4l injection Engine Code AEX Model Year 96 - 00	0.5	690	890	0.3	200	0.97	1.03	2500	2800	80
1.4l injection Engine Code AKV (auto) Model Year 98 -	0.5	750	850	0.3	200	0.97	1.03	2500	2800	80
1.4l injection Engine Code AKV (manual) Model Year 98 -	0.5	770	970	0.3	200	0.97	1.03	2500	2800	80
1.4l injection Engine Codes ANX Model Year 98 - 00	0.5	690	890	0.3	200	0.97	1.03	2500	2800	80
1.4l injection Engine Codes APQ Model Year 98 - 00	0.5	690	890	0.3	200	0.97	1.03	2500	2800	80
1.4l 16V injection Engine Codes APE and AUA (manual) Model Year 00 -	0.5	800	910	0.3	200	0.97	1.03	2800	3200	80
1.4l 16V injection Engine Code AUA (auto) Model Year 00 -	0.5	630	730	0.3	200	0.97	1.03	2800	3200	80
1.6l injection Engine Codes AEH and AKL Model Year 00 -	0.5	760	880	0.3	200	0.97	1.03	2500	2800	80
1.6l injection Engine Code ALM Model Year 99 -	0.5	825	875	0.3	200	0.97	1.03	2500	2800	80
1.6l injection Engine Codes AUR Model Year 00 -	0.5	760	880	0.3	200	0.97	1.03	3900	4100	80
1.6l injection Engine Codes APF Model Year 00 -	0.5	640	900	0.3	200	0.97	1.03	4300	4800	80
1.6l injection Engine Code 1F Model Year 96 - 98	0.5	700	1000	0.3	200	0.97	1.03	2500	2800	80
1.6l injection Engine Codes AEE and ALM Model Year 97 -	0.5	825	875	0.3	200	0.97	1.03	2500	2800	80
1.6l injection Engine Code AFT Model Year 96 - 99	0.5	790	890	0.3	200	0.97	1.03	2500	2800	80
1.8l injection Engine Code ADZ Model Year 97 - 99	0.5	775	975	0.3	200	0.97	1.03	2500	2800	80
Golf 2, 3 and Cabrio Series (15, 1E, 1G, 1H)										
1.3l injection Engine Code NZ Model Year 89 - 92	0.5	750	1000	0.3	200	0.97	1.03	2500	2800	80
1.4l injection Engine Code ABD Model Year 91 - 95	0.5	750	850	0.3	200	0.97	1.03	2500	2800	80
1.4l injection Engine Code AEX Model Year 95 - 99	0.5	650	750	0.3	200	0.97	1.03	2500	2800	80

1 Manufacturer/Marque	2			3						4 Min Oil Temp(°C)
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
1.6l injection Engine Code PN Model Year 86 - 92	0.5	825	975	0.3	200	0.97	1.03	2500	2800	80
1.6l injection Engine Code AEE Model Year 95 - 99	0.5	550	930	0.3	200	0.97	1.03	2500	2800	80
1.6l injection Engine Code ABU Model Year 92 - 94	0.5	750	850	0.3	200	0.97	1.03	2500	2800	80
1.6l injection Engine Code AEA Model Year 94 - 95	0.5	700	900	0.3	200	0.97	1.03	2500	2800	80
1.6l injection Engine Code AEK Model Year 94 - 95	0.5	800	880	0.3	200	0.97	1.03	2500	2800	80
1.6l injection Engine Code AFT Model Year 95 -	0.5	790	890	0.3	200	0.97	1.03	2500	2800	80
1.6l injection Engine Code AKS Model Year 98 -	0.5	790	890	0.3	200	0.97	1.03	2500	2800	80
1.8l injection Engine Code 2H Model Year 89 - 93	0.5	750	1000	0.3	200	0.97	1.03	2500	2800	80
1.8l injection Engine Code JH Model Year 83 - 93	0.5	800	1000	0.3	200	0.97	1.03	2500	2800	80
1.8l injection Engine Code AAM Model Year 91 -	0.5	700	1025	0.3	200	0.97	1.03	2500	2800	80
1.8l injection Engine Code ABS Model Year 91 - 95	0.5	700	1000	0.3	200	0.97	1.03	2500	2800	80
1.8l injection Engine Code ADZ Model Year 94 -	0.5	700	900	0.3	200	0.97	1.03	2500	2800	80
1.8l injection Engine Code PF Model Year 87 - 92	0.5	750	850	0.3	200	0.97	1.03	2500	2800	80
1.8l injection Engine Codes ANN and ANP Model Year 98 -	0.5	775	975	0.3	200	0.97	1.03	2500	2800	80
1.8l GTi 16V injection Engine Code PL Model Year 86 - 92	0.5	850	950	0.3	200	0.97	1.03	2500	2800	80
2.0l injection Engine Code ATU, AWF and AWG Model Year 98 -	0.5	800	880	0.3	200	0.97	1.03	2500	2800	80
2.0l injection Engine Code ABA Model Year 94 - 00	0.5	800	910	0.3	200	0.97	1.03	2500	2800	80
2.0l injection Engine Code AKR Model Year 98	0.5	750	850	0.3	200	0.97	1.03	2500	2800	80
2.0l GTi injection Engine Code 2E Model Year 91 - 99	0.5	770	870	0.3	200	0.97	1.03	2500	2800	80
2.0l GTi injection Engine Codes ADY and AGG Model Year 94 -	0.5	750	850	0.3	200	0.97	1.03	2500	2800	80
2.0l 16V injection Engine Code ABF Model Year 92 - 99	0.5	775	875	0.3	200	0.97	1.03	2500	2800	80
2.8l VR6 injection Engine Code AAA Model Year 92 - 98	0.5	650	750	0.3	200	0.97	1.03	2500	2800	80
2.9l VR6 injection Engine Code ABV Model Year 92 - 98	0.5	650	750	0.3	200	0.97	1.03	2500	2800	80
Golf 4 and Bora Series (1J)										
1.4l 16V injection Engine Codes AHW and AKQ Model Year 98 -	0.5	700	800	0.3	200	0.97	1.03	2500	2800	80
1.4l 16V injection Engine Codes APE and AXP Model Year 98 -	0.5	650	850	0.3	200	0.97	1.03	2500	3000	80
1.4l 16v injection Engine Code BCA Model Year 02	0.5	650	850	0.3	200	0.97	1.03	2500	3000	80
1.6l injection Engine Codes AEH and AKL Model Year 98 -	0.5	760	880	0.3	200	0.97	1.03	2500	2800	80
1.6l injection Engine Code APF and AVU Model Year 99 -	0.5	640	920	0.3	200	0.97	1.03	4300	4800	80
1.6l injection Engine Code BFQ Model Year 03 -	0.5	640	920	0.3	200	0.97	1.03	2500	3000	80
1.6l 16V injection Engine Codes ATN, AUS and AZD Model Year 99 -	0.5	630	730	0.3	200	0.97	1.03	2500	3000	80
1.6l 16v injection Engine Code BCB Model Year 02 -	0.5	630	730	0.3	200	0.97	1.03	2500	3000	80

1 Manufacturer/ Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
1.6l FSI injection Engine Code BAD Model Year 02 -	0.5	600	800	0.3	200	0.97	1.03	3800	4500	80
1.8l GTI injection Engine Code AGN Model Year 98 -	0.5	760	880	0.3	200	0.97	1.03	2500	2800	80
1.8l GTI injection Engine with Turbo Codes AGU and AQA Model Year 98 -	0.5	800	920	0.3	200	0.97	1.03	2500	2800	80
1.8l GTI injection Engine with Turbo Code ARZ (auto) Model Year 98 -	0.5	640	760	0.3	200	0.97	1.03	2500	2800	80
1.8l GTI injection Engine with Turbo Code ARZ (manual) Model Year 98 -	0.5	700	820	0.3	200	0.97	1.03	2500	2800	80
1.8l GTI injection Engine with Turbo Code AUM (auto) Model Year 00 -	0.5	640	760	0.3	200	0.97	1.03	2500	3000	80
1.8l GTI injection Engine with Turbo Code AUM (manual) Model Year 00 -	0.5	760	860	0.3	200	0.97	1.03	2500	3000	80
1.8l GTI injection Engine with Turbo Code AUQ Model Year 02 -	0.5	700	820	0.3	200	0.97	1.03	2500	3000	80
2.0l GTI injection Engine Codes APK and AQY Model Year 98 -	0.5	740	820	0.3	200	0.97	1.03	2500	2800	80
2.0l GTI injection Engine Code AZH Model Year 01 -	0.5	790	890	0.3	200	0.97	1.03	2500	3000	80
2.0l GTI injection Engine Code AZJ Model Year 02 -	0.5	730	830	0.3	200	0.97	1.03	2500	3000	80
2.3l V5 injection Engine Code AGZ Model Year 98 - 01	0.5	650	750	0.3	200	0.97	1.03	2500	2800	80
2.3l V5 20v injection Engine Code AQN Model Year 00 -	0.5	650	750	0.3	200	0.97	1.03	2500	3000	80
2.8l V6 24v injection Engine Codes AQP, AUE and BDE Model Year 00 -	0.5	650	750	0.3	200	0.97	1.03	2500	3000	80
2.8l V6 24v injection Engine Code BDE Model Year 02 -	0.5	650	750	0.3	200	0.97	1.03	2500	3000	80
3.2l V6 24v injection Engine Code BFH Model Year 03 -	0.5	650	750	0.3	200	0.97	1.03	2500	3000	80
NewGolf 5, Golf Plus and Jetta Series (1K)										
1.4l FSI injection Engine Codes BKG and BLN	0.3	600	800	0.2	200	0.97	1.03	3800	4500	80
1.6l FSI injection Engine Codes BAG and BLP	0.3	600	800	0.2	200	0.97	1.03	3800	4500	80
2.0l FSI injection Engine Codes AXW, BLX and BLY	0.3	640	840	0.2	200	0.97	1.03	3000	3500	80
2.0l FSI 150PS Engine Codes AWX, BLX and BVX	0.5	640	840	0.3	200	0.97	1.03	3500	4060	92
Touran Series										
1.6l injection Engine Code BGU Model Year 03-	0.5	600	850	0.3	200	0.97	1.03	2500	3000	80
1.6l FSI injection Engine Code BAG and BLP	0.5	600	800	0.3	200	0.97	1.03	3800	4500	80
2.0l FSI injection Engine Code AXW and BLX	0.5	640	840	0.3	200	0.97	1.03	3000	3500	80
(Also see Section II)										
1.8l injection Engine with Turbo Code AJH Model Year 98 - 00	0.5	780	860	0.3	200	0.97	1.03	2500	2800	80
1.8l injection Engine with Turbo Code AWC Model Year 01-	0.5	760	880	0.3	200	0.97	1.03	2500	3000	80
2.0l injection Engine Code ADY Model Year 95 - 00	0.5	770	870	0.3	200	0.97	1.03	2500	2800	80
2.0l injection Engine Code ATM Model Year 01 -	0.5	750	860	0.3	200	0.97	1.03	2500	3000	80
2.8l VR6 injection Engine Codes AAA and AMY Model Year 95 - 00	0.5	650	750	0.3	200	0.97	1.03	2500	2800	80
2.8l V6 24V injection Engine Code AYL Model Year 01-	0.5	650	750	0.3	200	0.97	1.03	2500	3000	80

1 Manufacturer/Marque	2			3						4 Min Oil Temp(°C)
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
Jetta Series										
1.3l injection Engine Code NZ Model Year 87 - 92	0.5	750	1000	0.3	200	0.97	1.03	2500	2800	80
1.6l injection Engine Code PN Model Year 87 - 92	0.5	825	975	0.3	200	0.97	1.03	2500	2800	80
1.8l injection Engine Code PF Model Year 87 - 92	0.5	750	1000	0.3	200	0.97	1.03	2500	2800	80
1.8l injection Jetronic Engine Code RP Model Year 80 - 92	0.5	750	1000	0.3	200	0.97	1.03	2500	2800	80
1.8l injection Motronic Engine Code RP Model Year 87 - 92	0.5	825	1025	0.3	200	0.97	1.03	2500	2800	80
1.8l injection Engine Code 1P Model Year 88 - 92	0.5	750	850	0.3	200	0.97	1.03	2500	2800	80
1.8l injection Engine Code PL Model Year 86 - 92	0.5	850	950	0.3	200	0.97	1.03	2500	2800	80
Scirocco Series										
1.8l injection Engine Code JH Model Year 83 - 92	0.5	800	1000	0.3	200	0.97	1.03	2500	2800	80
Vento Series										
1.4l injection Engine Code ABD Model Year 91 - 95	0.5	750	850	0.3	200	0.97	1.03	2500	2800	80
1.4l injection Engine Code AEX Model Year 95 - 98	0.5	650	750	0.3	200	0.97	1.03	2500	2800	80
1.6l injection Engine Code ABU Model Year 92 - 94	0.5	750	850	0.3	200	0.97	1.03	2500	2800	80
1.6l injection Engine Code AEA Model Year 94 - 95	0.5	700	900	0.3	200	0.97	1.03	2500	2800	80
1.6l injection Engine Code AEK Model Year 94 - 95	0.5	800	880	0.3	200	0.97	1.03	2500	2800	80
1.6l injection Engine Code AFT Model Year 95 - 98	0.5	790	890	0.3	200	0.97	1.03	2500	2800	80
1.6l injection Engine Code AEE Model Year 95 - 98	0.5	550	930	0.3	200	0.97	1.03	2500	2800	80
1.8l injection Engine Code ABS Model Year 92 - 94	0.5	700	1000	0.3	200	0.97	1.03	2500	2800	80
1.8l injection Engine Code AAM Model Year 91 - 97	0.5	700	1025	0.3	200	0.97	1.03	2500	2800	80
1.8l injection Engine Code ADZ Model Year 94 - 97	0.5	700	900	0.3	200	0.97	1.03	2500	2800	80
2.0l injection Engine Code ADY Model Year 94 - 96	0.5	750	850	0.3	200	0.97	1.03	2500	2800	80
2.0l injection Engine Code 2E Model Year 91 - 95	0.5	770	870	0.3	200	0.97	1.03	2500	2800	80
2.0l injection Engine Code AGG Model Year 95 - 98	0.5	750	850	0.3	200	0.97	1.03	2500	2800	80
2.0l 16V injection Engine Code ABF Model Year 92 - 98	0.5	775	875	0.3	200	0.97	1.03	2500	2800	80
2.8l VR6 injection Engine Code AAA Model Year 92 - 98	0.5	650	750	0.3	200	0.97	1.03	2500	2800	80
Passat Series										
1.6l injection Engine Code AEK Model Year 94 - 96	0.5	800	880	0.3	200	0.97	1.03	2500	2800	80
1.6l injection Engine Code AFT Model Year 95 - 97	0.5	790	890	0.3	200	0.97	1.03	2500	2800	80
1.6l injection Engine Codes AHL, ADP, ARM and ALZ Model Year 97 -	0.5	760	960	0.3	200	0.97	1.03	2500	3000	80
1.6l injection Engine Code ANA Model Year 99 - 00	0.5	760	960	0.3	200	0.97	1.03	2500	3200	80

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (% Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
1.8l injection Engine Code ABS Model Year 91 - 95	0.5	700	1025	0.3	200	0.97	1.03	2500	2800	80
1.8l injection Engine Code AAM Model Year 90 - 97	0.5	825	1025	0.3	200	0.97	1.03	2500	2800	80
1.8l injection Engine Code ADZ Model Year 94 - 97	0.5	700	1000	0.3	200	0.97	1.03	2500	2800	80
1.8l G60 injection Engine Code PG Model Year 90 - 95	0.5	750	850	0.3	200	0.97	1.03	2500	2800	80
1.8l injection Engine Code ADR Model Year 97 - 00	0.5	760	960	0.3	200	0.97	1.03	2500	2800	80
1.8l injection Engine Codes APT and ARG Model Year 98 - 00	0.5	810	910	0.3	200	0.97	1.03	2500	2800	80
1.8l injection Turbo Engine Code AEB Model Year 97 - 00	0.5	760	960	0.3	200	0.97	1.03	2500	2800	80
1.8l injection Turbo Engine Codes APU and ANB Model Year 98 - 00	0.5	750	850	0.3	200	0.97	1.03	2500	2800	80
1.8l injection Engine with Turbo Code AWT Model Year 01 -	0.5	740	920	0.3	200	0.97	1.03	2500	3000	80
2.0l injection Engine Code 2E Model Year 90 - 95	0.5	750	850	0.3	200	0.97	1.03	2500	2800	80
2.0l injection Engine Codes AGG and ADY Model Year 94 - 97	0.5	750	850	0.3	200	0.97	1.03	2500	2800	80
2.0l 16V injection Engine Code ABF Model Year 94 - 97	0.5	775	875	0.3	200	0.97	1.03	2500	2800	80
2.0l injection Engine Code 9A Model Year 90 - 95	0.5	700	1000	0.3	200	0.97	1.03	2500	2800	80
2.0l injection Engine AZM Model Year 01 -	0.5	740	920	0.3	200	0.97	1.03	2500	3000	80
2.0l injection Engine Code ALT Model Year 02 -	0.5	700	960	0.3	200	0.97	1.03	2500	3000	80
2.3l V5 injection Engine Code AGZ Model Year 97 - 00	0.5	650	750	0.3	200	0.97	1.03	2500	2800	80
2.3l V5 20V injection Engine AZX Model Year 01-	0.5	650	750	0.3	200	0.97	1.03	2500	3000	80
2.8l V6 injection Engine Codes ACK, ALG, APR and AQD (4wd) Model Year 97 -	0.5	620	740	0.3	200	0.97	1.03	2500	2800	80
2.8l V6 injection Engine Codes ACK, ALG, APR and AQD (2wd) Model Year 97 -	0.5	710	860	0.3	200	0.97	1.03	2500	2800	80
2.8l VR6 injection Engine Code AAA Model Year 93 - 97	0.5	650	750	0.3	200	0.97	1.03	2500	2800	80
2.8l V6 injection Engine Code AMX Model Year 00 - 01	0.5	620	860	0.3	200	0.97	1.03	2500	3000	80
2.9l VR6 injection Engine Code ABV Model Year 93 - 97	0.5	650	750	0.3	200	0.97	1.03	2500	2800	80
4.0l injection Engine Code BDN Model Year 02 -	0.5	600	800	0.3	200	0.97	1.03	2500	3000	80
NewPassat Series (3C)										
2.0 FSI 150PS Engine Code BVX	0.5	740	840	0.3	200	0.97	1.04	4000	4040	90
Corrado Series										
G60 1.8l injection Engine Code PG Model Year 89 - 94	0.5	750	850	0.3	200	0.97	1.03	2500	2800	80
2.0l injection Engine Code 9A Model Year 92 - 95	0.5	800	1000	0.3	200	0.97	1.03	2500	2800	80
2.0l injection Engine Code 2E Model Year 93 - 95	0.5	770	870	0.3	200	0.97	1.03	2500	2800	80
2.9l VR6 injection Engine Code ABV Model Year 92 - 95	0.5	650	750	0.3	200	0.97	1.03	2500	2800	80
Beetle and Beetle Cabriolet Series										
1.4l injection Engine Code BCA Model Year 02 -	0.5	650	850	0.3	200	0.97	1.03	2500	3000	80

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
1.6l injection Engine Code AYD (auto) Model Year 01 -	0.5	760	900	0.3	200	0.97	1.03	4300	4800	80
1.6l injection Engine Code AYD (manual) Model Year 01 -	0.5	640	790	0.3	200	0.97	1.03	4300	4800	80
1.6l injection Engine Code BFS Model Year 03 -	0.5	640	790	0.3	200	0.97	1.03	4300	4800	80
1.8l Turbo Engine Code AWU Model Year 01 -	0.5	720	800	0.3	200	0.97	1.03	2500	3000	80
2.0l injection Engine Code AQY Model Year 99 -	0.5	760	880	0.3	200	0.97	1.03	2500	2800	80
2.0l injection Engine Code AZJ Model Year 02 -	0.5	730	830	0.3	200	0.97	1.03	2500	3000	80
2.3l V5 20V injection Engine Code AQN Model Year 01 -	0.5	650	750	0.3	200	0.97	1.03	2500	3000	80
3.2l RSI V6 injection Engine Code AXJ Model Year 01 -	0.5	650	750	0.3	200	0.97	1.03	2500	3000	80
1.6 102PS Manual 5 Speed Engine Code - BFS	0.5	670	840	0.3	200	0.97	1.04	3900	4060	95
Lupo Series										
1.0l injection Engine Codes AER and ALL Model Year 99 - 02	0.5	600	800	0.3	200	0.97	1.03	2500	2800	80
1.0l injection Engine Code AHT Model Year 99 - 02	0.5	590	790	0.3	200	0.97	1.03	2500	2800	80
1.0l injection Engine Codes AUC ALD and ANV Model Year 99 -	0.5	600	800	0.3	200	0.97	1.03	2500	3000	80
1.4l injection Engine Code AUD (manual) Model Year 99 -	0.5	600	780	0.3	200	0.97	1.03	2500	3000	80
1.4l injection Engine Code AUD (auto) Model Year 99 -	0.5	600	800	0.3	200	0.97	1.03	2500	3000	80
1.4l 16V injection Engine Codes AHW and AKQ (manual) Model Year 99 -	0.5	700	800	0.3	200	0.97	1.03	2500	2800	80
1.4l 16V injection Engine Codes AHW and AKQ (auto) Model Year 99 -	0.5	630	730	0.3	200	0.97	1.03	2500	2800	80
1.4l 16V injection Engine Code AFK Model Year 99 - 02	0.5	840	890	0.3	200	0.97	1.03	2500	2800	80
1.4l 16V injection Engine Code AUA (manual) Model Year 00 - 02	0.5	800	900	0.3	200	0.97	1.03	2800	3200	80
1.4l 16V injection Engine Code AUA (auto) Model Year 00 - 02	0.5	630	730	0.3	200	0.97	1.03	2800	3200	80
1.4l 16V injection Engine Code APE (manual) Model Year 99 - 02	0.5	730	900	0.3	200	0.97	1.03	2800	3200	80
1.4l 16V injection Engine Code APE (auto) Model Year 00 - 02	0.5	630	850	0.3	200	0.97	1.03	2800	3200	80
1.4l 16V injection Engine Code AUB Model Year 00 -	0.5	790	890	0.3	200	0.97	1.03	2800	3200	80
1.4l 16V injection Engine Code AQQ Model Year 00 - 02	0.5	840	870	0.3	200	0.97	1.03	2800	3200	80
1.4l 16V injection Engine Code BBY Model Year 02 -	0.5	630	730	0.3	200	0.97	1.03	2500	3000	80
1.4l 16V FSI direct injection Engine Codes ARR Model Year 01 -	0.5	600	800	0.3	200	0.97	1.03	3800	4500	80
1.6l 16V GTI injection Engine Codes ARC and AVY Model Year 00 -	0.5	800	900	0.3	200	0.97	1.03	2500	3000	80
VOLVO										
The Engine Code is stamped on the Engine Block and also the VIN Plate.										
400 Series										
Engine Family B16F VIN (Engine Code) 17	0.5	850	950	0.3	200	0.96	1.04	2500	3000	60

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
Engine Family B18U VIN (Engine Code) 16/15	0.5	850	950	0.3	200	0.96	1.04	2500	3000	60
Engine Family B18F VIN (Engine Code) 18	0.5	700	750	0.3	200	0.96	1.04	2500	3000	60
Engine Family B18EP (FP) VIN (Engine Code) 09/18	0.5	850	950	0.3	200	0.96	1.04	2500	3000	60
Engine Family B18FT VIN (Engine Code) 19	0.5	800	900	0.3	200	0.96	1.04	2500	3000	60
Engine Family B20F VIN (Engine Code) 31	0.5	730	830	0.3	200	0.96	1.04	2500	3000	60
240 Series MY 1992										
Engine Family B230F VIN (Engine Code) 88	0.5	725	825	0.3	200	0.96	1.04	2500	3000	60
740 Series MY 1992										
Engine Family B230F VIN (Engine Code) 88	0.5	725	825	0.3	200	0.96	1.04	2500	3000	60
850 Series MY 1992										
Engine Family B5254S VIN (Engine Code) 55	0.5	800	900	0.3	200	0.96	1.04	2500	3000	60
940 Series MY 1992										
Engine Family B230FB VIN (Engine Code) 85	0.5	725	825	0.3	200	0.96	1.04	2500	3000	60
Engine Family B234FT VIN (Engine Code) 87	0.5	700	800	0.3	200	0.96	1.04	2500	3000	60
960 Series MY 1992										
Engine Family B6304S VIN (Engine Code) 95	0.5	700	800	0.3	200	0.96	1.04	2500	3000	60
240 Series MY 1993										
Engine Family B230F VIN (Engine Code) 88	0.5	725	825	0.3	200	0.96	1.04	2500	3000	60
850 Series MY 1993										
Engine Family B5252S VIN (Engine Code) 51	0.5	775	875	0.3	200	0.96	1.04	2500	3000	60
Engine Family B5254S VIN (Engine Code) 55	0.5	800	900	0.3	200	0.96	1.04	2500	3000	60
940 Series MY 1993										
Engine Family B230FD VIN (Engine Code) 83	0.5	725	825	0.3	200	0.96	1.04	2500	3000	60
Engine Family B230FT VIN (Engine Code) 87	0.5	700	800	0.3	200	0.96	1.04	2500	3000	60
960 Series MY 1993										
Engine Family B6304S VIN (Engine Code) 95	0.5	700	800	0.3	200	0.96	1.04	2500	3000	60
850 Series MY 1994										
Engine Family B5252S VIN (Engine Code) 51	0.5	800	900	0.3	200	0.96	1.04	2500	3000	60
Engine Family B5254S VIN (Engine Code) 55	0.5	800	900	0.3	200	0.96	1.04	2500	3000	60
Engine Family B5234T VIN (Engine Code) 57	0.5	800	900	0.3	200	0.96	1.04	2500	3000	60

1 Manufacturer/Marque	2			3						4 Min Oil Temp(°C)
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (% Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
940 Series MY 1994										
Engine Family B230FD VIN (Engine Code) 83	0.5	725	825	0.3	200	0.96	1.04	2500	3000	60
Engine Family B230FT VIN (Engine Code) 86	0.5	700	800	0.3	200	0.96	1.04	2500	3000	60
960 Series MY 1994										
Engine Family B6304S VIN (Engine Code) 95	0.5	700	800	0.3	200	0.96	1.04	2500	3000	60
850 Series MY 1995										
Engine Family B5202S VIN (Engine Code) 41	0.5	800	900	0.3	200	0.96	1.04	2500	3000	60
Engine Family B5252S VIN (Engine Code) 51	0.5	800	900	0.3	200	0.96	1.04	2500	3000	60
Engine Family B5254S VIN (Engine Code) 55	0.5	800	900	0.3	200	0.96	1.04	2500	3000	60
Engine Family B5234T VIN (Engine Code) 57	0.5	800	900	0.3	200	0.96	1.04	2500	3000	60
Engine Family B5234T5 VIN (Engine Code) 58	0.5	800	900	0.3	200	0.96	1.04	2500	3000	60
940 Series MY 1995										
Engine Family B230FD VIN (Engine Code) 83	0.5	725	825	0.3	200	0.96	1.04	2500	3000	60
Engine Family B230FK VIN (Engine Code) 81	0.5	700	800	0.3	200	0.96	1.04	2500	3000	60
Engine Family B230FT VIN (Engine Code) 86	0.5	700	800	0.3	200	0.96	1.04	2500	3000	60
960 Series MY 1995										
Engine Family B6254S VIN (Engine Code) 93	0.5	700	800	0.3	200	0.96	1.04	2500	3000	60
Engine Family B6304S VIN (Engine Code) 95	0.5	700	800	0.3	200	0.96	1.04	2500	3000	60
S/V40 Series MY 1996 - 1999										
Engine Family B4164S (MT) VIN (Engine Code) 11	0.5	700	800	0.3	200	0.96	1.04	2500	3000	60
Engine Family B4194T (MT) VIN (Engine Code) 18 (2)	0.5	725	825	0.3	200	0.96	1.04	2500	3000	60
Engine Family B4194T4 (AT) VIN (Engine Code) 18 (6)	0.5	725	825	0.3	200	0.96	1.04	2000	2400	60
Engine Family B4204T (MT) VIN (Engine Code) 19	0.5	725	825	0.3	200	0.96	1.04	2500	3000	60
Engine Family B4204T (AT) VIN (Engine Code) 19	0.5	725	825	0.3	200	0.96	1.04	2000	2400	60
Engine Family B4184S (MT) VIN (Engine Code) 12	0.5	700	800	0.3	200	0.96	1.04	2500	3000	60
Engine Family B4184S (AT) VIN (Engine Code) 12	0.5	700	800	0.3	200	0.96	1.04	2500	3000	60
Engine Family B4184SM (MT) VIN (Engine Code) 13	0.5	575	775	0.3	200	0.96	1.04	2500	3000	60
Engine Family B4204S (MT) VIN (Engine Code) 16	0.5	700	800	0.3	200	0.96	1.04	2500	3000	60
Engine Family B4204S (AT) VIN (Engine Code) 16	0.5	700	800	0.3	200	0.96	1.04	2500	3000	60
S/V40 Series MY 2000/2001										
Engine Family B4164S/S2 VIN (Engine Code) 10	0.5	650	750	0.3	200	0.96	1.04	2500	3000	60

1 Manufacturer/Marque	2			3						4 Min Oil Temp(°C)
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (% Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
Engine Family B4184S2/S3 (MT) VIN (Engine Code) 14/15	0.5	650	750	0.3	200	0.96	1.04	2500	3000	60
Engine Family B4184S2/S3 (AT) VIN (Engine Code) 14/15	0.5	650	750	0.3	200	0.96	1.04	2000	2400	60
Engine Family B4204S2 (MT) VIN (Engine Code) 17	0.5	650	750	0.3	200	0.96	1.04	2500	3000	60
Engine Family B4204S2 (AT) VIN (Engine Code) 17	0.5	650	750	0.3	200	0.96	1.04	2000	2400	60
Engine Family B4194T2 (MT) VIN (Engine Code) 24	0.5	725	825	0.3	200	0.96	1.04	2500	3000	60
Engine Family B4194T2 (AT) VIN (Engine Code) 24	0.5	725	825	0.3	200	0.96	1.04	2000	2400	60
Engine Family B4204T2 (MT) VIN (Engine Code) 25	0.5	725	825	0.3	200	0.96	1.04	2500	3000	60
Engine Family B4204T2 (AT) VIN (Engine Code) 25	0.5	725	825	0.3	200	0.96	1.04	2000	2400	60
Engine Family B4184SJ (GDI) VIN (Engine Code) 26	0.5	620	720	0.3	200	0.96	1.04	2500	3000	60
SV40 Series MY 2003										
Engine Family B4164 S2 VIN (Engine Code) 10	0.5	650	750	0.3	200	0.96	1.04	2500	3000	60
Engine Family B4184 S2 VIN (Engine Code) 14	0.5	650	750	0.3	200	0.96	1.04	2500	3000	60
Engine Family B4184 S3 VIN (Engine Code) 15	0.5	650	750	0.3	200	0.96	1.04	2500	3000	60
Engine Family B4184 S10 VIN (Engine Code) 28	0.5	650	750	0.3	200	0.96	1.04	2500	3000	60
Engine Family B4184S9 VIN (Engine Code) 30	0.5	650	750	0.3	200	0.96	1.04	2500	3000	60
Engine Family B4184S3 VIN (Engine Code) 26	0.5	650	720	0.3	200	0.96	1.04	2500	3000	60
Engine Family B4204S2 VIN (Engine Code) 17	0.5	620	720	0.3	200	0.96	1.04	2500	3000	60
Engine Family B4204T3 VIN (Engine Code) 29	0.5	725	825	0.3	200	0.96	1.04	2500	3000	60
Engine Family B4204T5 VIN (Engine Code) 37	0.5	725	825	0.3	200	0.96	1.04	2500	3000	60
850 Series MY 1996										
Engine Family B5202S VIN (Engine Code) 41	0.5	800	900	0.3	200	0.96	1.04	2500	3000	60
Engine Family B5252S VIN (Engine Code) 51	0.5	800	900	0.3	200	0.96	1.04	2500	3000	60
Engine Family B5254S VIN (Engine Code) 55	0.5	800	900	0.3	200	0.96	1.04	2500	3000	60
Engine Family B5234T VIN (Engine Code) 57	0.5	800	900	0.3	200	0.96	1.04	2500	3000	60
Engine Family B5234T4 VIN (Engine Code) 50	0.5	800	900	0.3	200	0.96	1.04	2500	3000	60
Engine Family B5234T5 VIN (Engine Code) 58	0.5	800	900	0.3	200	0.96	1.04	2500	3000	60
940 Series MY 1996										
Engine Family B230FK VIN (Engine Code) 81	0.5	700	800	0.3	200	0.96	1.04	2500	3000	60
Engine Family B230FT VIN (Engine Code) 86	0.5	700	800	0.3	200	0.96	1.04	2500	3000	60
960 Series MY 1996										
Engine Family B6254 VIN (Engine Code) 93	0.5	800	900	0.3	200	0.96	1.04	2500	3000	60

1 Manufacturer/Marque	2			3						4 Min Oil Temp(°C)
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (% Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
Engine Family B6304S VIN (Engine Code) 95	0.5	800	900	0.3	200	0.96	1.04	2500	3000	60
850 Series MY 1997										
Engine Family B5202S VIN (Engine Code) 41	0.5	800	900	0.3	200	0.96	1.04	2500	3000	60
Engine Family B5252S VIN (Engine Code) 51	0.5	800	900	0.3	200	0.96	1.04	2500	3000	60
Engine Family B5254S VIN (Engine Code) 55	0.5	800	900	0.3	200	0.96	1.04	2500	3000	60
Engine Family B5234T VIN (Engine Code) 57	0.5	800	900	0.3	200	0.96	1.04	2500	3000	60
Engine Family B5234T4 VIN (Engine Code) 50	0.5	800	900	0.3	200	0.96	1.04	2500	3000	60
Engine Family B5254T VIN (Engine Code) 56	0.5	800	900	0.3	200	0.96	1.04	2500	3000	60
Engine Family B5234T5 VIN (Engine Code) 58	0.5	800	900	0.3	200	0.96	1.04	2500	3000	60
Engine Family B5234T3 VIN (Engine Code) 53	0.5	800	900	0.3	200	0.96	1.04	2500	3000	60
940 Series MY 1997										
Engine Family B230FK VIN (Engine Code) 81	0.5	850	950	0.3	200	0.96	1.04	2500	3000	60
Engine Family B230FT VIN (Engine Code) 86	0.5	850	950	0.3	200	0.96	1.04	2500	3000	60
960 Series MY 1997										
Engine Family B6254S VIN (Engine Code) 93	0.5	800	900	0.3	200	0.96	1.04	2500	3000	60
Engine Family B6304S VIN (Engine Code) 95	0.5	800	900	0.3	200	0.96	1.04	2500	3000	60
940 Series MY 1998										
Engine Family B230FK VIN (Engine Code) 81	0.5	850	950	0.3	200	0.96	1.04	2500	3000	60
Engine Family B230FT VIN (Engine Code) 86	0.5	850	950	0.3	200	0.96	1.04	2500	3000	60
960 & S/V90 Series MY 1998										
Engine Family B6254S VIN (Engine Code) 93	0.5	800	900	0.3	200	0.96	1.04	2500	3000	60
Engine Family B6304S VIN (Engine Code) 95	0.5	800	900	0.3	200	0.96	1.04	2500	3000	60
S/V70 Series MY 1998/MY 2000										
Engine Family B5244G2 VIN (Engine Code) 33	0.5	700	800	0.3	200	0.96	1.04	2500	3000	60
Engine Family B5202S VIN (Engine Code) 41	0.5	800	900	0.3	200	0.96	1.04	2500	3000	60
Engine Family B5204S VIN (Engine Code) 45	0.5	800	900	0.3	200	0.96	1.04	2500	3000	60
Engine Family B5234T4 VIN (Engine Code) 50	0.5	800	900	0.3	200	0.96	1.04	2500	3000	60
Engine Family B5252S VIN (Engine Code) 51	0.5	800	900	0.3	200	0.96	1.04	2500	3000	60
Engine Family B5234T6 VIN (Engine Code) 52	0.5	800	900	0.3	200	0.96	1.04	2500	3000	60
Engine Family B5234T3 VIN (Engine Code) 53	0.5	800	900	0.3	200	0.96	1.04	2500	3000	60
Engine Family B5254S VIN (Engine Code) 55	0.5	800	900	0.3	200	0.96	1.04	2500	3000	60

1 Manufacturer/ Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
Engine Family B5254T VIN (Engine Code) 56	0.5	800	900	0.3	200	0.96	1.04	2500	3000	60
Engine Family B5204T3 VIN (Engine Code) 43	0.5	800	900	0.3	200	0.96	1.04	2500	3000	60
Engine Family B5204T4 VIN (Engine Code) 48	0.5	800	900	0.3	200	0.96	1.04	2500	3000	60
Engine Family B5234T8 VIN (Engine Code) 62	0.5	800	900	0.3	200	0.96	1.04	2500	3000	60
Engine Family B5244S VIN (Engine Code) 61	0.5	800	900	0.3	200	0.96	1.04	2500	3000	60
Engine Family B5244S2 VIN (Engine Code) 65	0.5	800	900	0.3	200	0.96	1.04	2500	3000	60
SV70 Series MY 2000										
Engine Family B5244T2 VIN (Engine Code) 60	0.5	800	900	0.3	200	0.96	1.04	2500	3000	60
Engine Family B5244S VIN (Engine Code) 61	0.5	800	900	0.3	200	0.96	1.04	2500	3000	60
Engine Family B5244S2 VIN (Engine Code) 65	0.5	800	900	0.3	200	0.96	1.04	2500	3000	60
S60/V70 MY 2003										
Engine Family B5244SG VIN (Engine Code) 32	0.5	800	900	0.3	200	0.96	1.04	2500	3000	60
Engine Family B5244SG 2 VIN (Engine Code) 33	0.5	800	900	0.3	200	0.96	1.04	2500	3000	60
Engine Family B5204TS VIN (Engine Code) 49	0.5	650	700	0.3	200	0.96	1.04	2500	3000	60
Engine Family B5244T3 VIN (Engine Code) 58	0.5	650	700	0.3	200	0.96	1.04	2500	3000	60
Engine Family B5244T2 VIN (Engine Code) 59	0.5	620	720	0.3	200	0.96	1.04	2500	3000	60
Engine Family B5244 S VIN (Engine Code) 61	0.5	800	900	0.3	200	0.96	1.04	2500	3000	60
Engine Family B5244S2 VIN (Engine Code) 65	0.5	800	900	0.3	200	0.96	1.04	2500	3000	60
C70 Series MY 1998/2001										
Engine Family B5204T3 VIN (Engine Code) 43	0.5	800	900	0.3	200	0.96	1.04	2500	3000	60
Engine Family B5204T4 VIN (Engine Code) 48	0.5	800	900	0.3	200	0.96	1.04	2500	3000	60
Engine Family B5234T3 VIN (Engine Code) 53	0.5	800	900	0.3	200	0.96	1.04	2500	3000	60
Engine Family B5254T VIN (Engine Code) 56	0.5	800	900	0.3	200	0.96	1.04	2500	3000	60
Engine Family B5244S VIN (Engine Code) 61	0.5	700	800	0.3	200	0.96	1.04	2500	3000	60
S80 Series MY 1999/2000										
Engine Family B6284T VIN (Engine Code) 90	0.5	550	750	0.3	200	0.96	1.04	2500	3000	60
Engine Family B6304S VIN (Engine Code) 97	0.5	550	750	0.3	200	0.96	1.04	2500	3000	60
Engine Family B5204T3 VIN (Engine Code) 43	0.5	700	800	0.3	200	0.96	1.04	2500	3000	60
Engine Family B5204T4 VIN (Engine Code) 48	0.5	700	800	0.3	200	0.96	1.04	2500	3000	60
Engine Family B5244S VIN (Engine Code) 61	0.5	700	800	0.3	200	0.96	1.04	2500	3000	60
Engine Family B5244S2 VIN (Engine Code) 65	0.5	800	900	0.3	200	0.96	1.04	2500	3000	60

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
S80 Series MY 2000										
Engine Family B6294S VIN (Engine Code) 94	0.5	600	700	0.3	200	0.96	1.04	2500	3000	60
Engine Family B5204T5 VIN (Engine Code) 49	0.5	650	700	0.3	200	0.96	1.04	2500	3000	60
S80 MY 2001										
Engine Family B5204T5 VIN (Engine Code) 49	0.5	650	700	0.3	200	0.96	1.04	2500	3000	60
Engine Family B5244T3 VIN (Engine Code) 58	0.5	650	700	0.3	200	0.96	1.04	2500	3000	60
Engine Family B5244S VIN (Engine Code) 61	0.5	800	900	0.3	200	0.96	1.04	2500	3000	60
Engine Family B5244S2 VIN (Engine Code) 65	0.5	800	900	0.3	200	0.96	1.04	2500	3000	60
Engine Family B6284T VIN (Engine Code) 90	0.5	550	750	0.3	200	0.96	1.04	2500	3000	60
Engine Family B6304S VIN (Engine Code) 94	0.5	550	750	0.3	200	0.96	1.04	2500	3000	60
V70 MY 2000 Type S										
Engine Family B5204T5 VIN (Engine Code) 49	0.5	650	700	0.3	200	0.96	1.04	2500	3000	60
Engine Family B5234T3 VIN (Engine Code) 53	0.5	650	700	0.3	200	0.96	1.04	2500	3000	60
Engine Family B5244T3 VIN (Engine Code) 58	0.5	650	700	0.3	200	0.96	1.04	2500	3000	60
V70 MY 2001 Type S										
Engine Family B5204T5 VIN (Engine Code) 49	0.5	650	700	0.3	200	0.96	1.04	2500	3000	60
Engine Family B5234T VIN (Engine Code) 53	0.5	650	700	0.3	200	0.96	1.04	2500	3000	60
Engine Family B5244T3 VIN (Engine Code) 58	0.5	650	700	0.3	200	0.96	1.04	2500	3000	60
Engine Family B5244S VIN (Engine Code) 61	0.5	800	900	0.3	200	0.96	1.04	2500	3000	60
Engine Family B5244S2 VIN (Engine Code) 65	0.5	800	900	0.3	200	0.96	1.04	2500	3000	60
V70/S60 Series MY 2002										
Engine Family B5204T5 VIN (Engine Code) 49	0.5	650	700	0.3	200	0.96	1.04	2500	3000	60
Engine Family B5234T VIN (Engine Code) 53	0.5	650	700	0.3	200	0.96	1.04	2500	3000	60
Engine Family B5244T3 VIN (Engine Code) 58	0.5	650	700	0.3	200	0.96	1.04	2500	3000	60
Engine Family B5244S VIN (Engine Code) 61	0.5	800	900	0.3	200	0.96	1.04	2500	3000	60
Engine Family B5244S2 VIN (Engine Code) 65	0.5	800	900	0.3	200	0.96	1.04	2500	3000	60
Engine Family B5244 SG VIN (Engine Code) 32	0.5	800	900	0.3	200	0.96	1.04	2500	3000	60
Engine Family B5244 SG2 VIN (Engine Code) 33	0.5	800	900	0.3	200	0.96	1.04	2500	3000	60
XC V70 AWD MY 2002										
Engine Family B5244T3 VIN (Engine Code) 58	0.5	650	700	0.3	200	0.96	1.04	2500	3000	60

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
XC90 MY 2003										
Also see Section II										
Engine Family B5244T2 VIN (Engine Code) 59	0.5	620	720	0.5	200	0.96	1.04	2500	3000	60
Engine Family B6294T VIN (Engine Code) 91	0.5	800	900	0.5	200	0.96	1.04	2500	3000	60
S80 MY 2002										
Engine Family B5204T5 VIN (Engine Code) 49	0.5	650	700	0.3	200	0.96	1.04	2500	3000	60
Engine Family B5244S VIN (Engine Code) 61	0.5	800	900	0.3	200	0.96	1.04	2500	3000	60
Engine Family B5244S2 VIN (Engine Code) 65	0.5	800	900	0.3	200	0.96	1.04	2500	3000	60
Engine Family B5244T3 VIN (Engine Code) 58	0.5	650	700	0.3	200	0.96	1.04	2500	3000	60
Engine Family B6294T VIN (Engine Code) 91	0.5	650	700	0.3	200	0.96	1.04	2500	3000	60
Engine Family B6294 S2 VIN (Engine Code) 92	0.5	650	700	0.3	200	0.96	1.04	2500	3000	60
Engine Family B5244 S2 VIN (Engine Code) 32	0.5	800	900	0.3	200	0.96	1.04	2500	3000	60
S80 MY 2003										
Engine Family B5244 SG VIN (Engine Code) 32	0.5	800	900	0.3	200	0.96	1.04	2500	3000	60
Engine Family B 5244SG2 VIN (Engine Code) 33	0.5	800	900	0.3	200	0.96	1.04	2500	3000	60
Engine Family B5204T5 VIN (Engine Code) 49	0.5	650	700	0.3	200	0.96	1.04	2500	3000	60
Engine Family B5244T3 VIN (Engine Code) 58	0.5	650	700	0.3	200	0.96	1.04	2500	3000	60
Engine Family B5244S VIN (Engine Code) 61	0.5	800	900	0.3	200	0.96	1.04	2500	3000	60
Engine Family B5244S2 VIN (Engine Code) 65	0.5	800	900	0.3	200	0.96	1.04	2500	3000	60
Engine Family B6294T VIN (Engine Code) 91	0.5	650	700	0.3	200	0.96	1.04	2500	3000	60
Engine Family B6294S2 VIN (Engine Code) 92	0.5	650	700	0.3	200	0.96	1.04	2500	3000	60
S80 Series MY 2004										
Engine Code 91 B6294T	0.5	650	700	0.3	200	0.96	1.04	2500	3000	60
Engine Code 92 B6294S2	0.5	650	700	0.3	200	0.96	1.04	2500	3000	60
S80/V70/S60 Series MY 2004										
Engine Code 32 B5244SG	0.5	650	700	0.3	200	0.96	1.04	2500	3000	60
Engine Code 33 B5244SG2	0.5	650	700	0.3	200	0.96	1.04	2500	3000	60
Engine Code 49 B5204T5	0.5	650	700	0.3	200	0.96	1.04	2500	3000	60
Engine Code 59 B5254T2	0.5	645	695	0.3	200	0.96	1.04	2500	3000	60
Engine Code 61 B5244S	0.5	800	900	0.3	200	0.96	1.04	2500	3000	60
Engine Code 65 B5244S2	0.5	800	900	0.3	200	0.96	1.04	2500	3000	60

1 Manufacturer/Marque	2			3						4 Min Oil Temp(°C)
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
V70/S60 Series MY 2004										
Engine Code 54 B5244T5	0.5	645	695	0.3	200	0.96	1.04	2500	3000	60
Engine Code 52 B5254T4	0.5	695	745	0.3	200	0.96	1.04	2500	3000	60
XC70 Series MY 2004										
Engine Code 59 B5254T2	0.5	620	720	0.3	200	0.96	1.04	2500	3000	60
XC90 Series MY 2004										
Engine Code 59 B5254T2	0.5	620	720	0.3	200	0.96	1.03	2500	3000	60
Engine Code 91 B6294T	0.5	650	700	0.3	200	0.96	1.03	2500	3000	60
C70 Series MY 2004										
Engine Code 48 B5204T4	0.5	800	900	0.3	200	0.96	1.03	2500	3000	60
Engine Code 62 B5234T9	0.5	800	900	0.3	200	0.96	1.03	2500	3000	60
Engine Code 63 B5244T7	0.5	800	900	0.3	200	0.96	1.03	2500	3000	60
New S40/V50 Series MY 2004										
Engine Code 38 B5244S4	0.5	695	745	0.3	200	0.96	1.03	2500	3000	60
Engine Code 68 B5254T3	0.5	745	795	0.3	200	0.96	1.03	2500	3000	60
Engine Code 66 B5244S5	0.5	695	745	0.3	200	0.96	1.03	2500	3000	60
X40 Series MY 2004										
Engine Code 10 B4164S2	0.5	650	750	0.3	200	0.96	1.04	2500	3000	60
Engine Code 14 B4184S2	0.5	650	750	0.3	200	0.96	1.04	2500	3000	60
Engine Code 15 B4184S3	0.5	650	750	0.3	200	0.96	1.04	2500	3000	60
Engine Code 28 B4184S10	0.5	650	750	0.3	200	0.96	1.04	2500	3000	60
Engine Code 30 B4184S9	0.5	650	750	0.3	200	0.96	1.04	2500	3000	60
Engine Code 26 B4184SJ	0.5	650	720	0.3	200	0.96	1.04	2500	3000	60
Engine Code 17 B4204S2	0.5	620	720	0.3	200	0.96	1.04	2500	3000	60
Engine Code 29 B4204T3	0.5	725	825	0.3	200	0.96	1.04	2500	3000	60
S80 Series MY 2005										
Engine Code 49 B5204T5	0.5	645	695	0.3	200	0.97	1.03	2500	3000	60
Engine Code 59 B5254T2	0.5	645	695	0.3	200	0.97	1.03	2500	3000	60
Engine Code 61 B5244S	0.5	725	775	0.3	200	0.97	1.03	2500	3000	60
Engine Code 65 B5244S2	0.5	725	775	0.3	200	0.97	1.03	2500	3000	60
Engine Code 91 B6294T	0.5	550	750	0.3	200	0.97	1.03	2500	3000	60

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
Engine Code 92 B6294S2 V70/S60 Series MY 2005	0.5	625	675	0.3	200	0.97	1.03	2500	3000	60
Engine Code 49 B5204T5	0.5	645	695	0.3	200	0.97	1.03	2500	3000	60
Engine Code 52 B5254T4	0.5	695	745	0.3	200	0.97	1.03	2500	3000	60
Engine Code 54 B5244T5	0.5	645	695	0.3	200	0.97	1.03	2500	3000	60
Engine Code 59 B5254T2	0.5	645	695	0.3	200	0.97	1.03	2500	3000	60
Engine Code 61 B5244S	0.5	700	800	0.3	200	0.97	1.03	2500	3000	60
Engine Code 65 B5244S2 XC70 Series MY 2005	0.5	700	800	0.3	200	0.97	1.03	2500	3000	60
Engine Code 59 B5254T2 XC90 Series MY 2005	0.5	645	695	0.3	200	0.97	1.03	2500	3000	60
	Also see Section II									
Engine Code 59 B5254T2	0.5	645	695	0.3	200	0.97	1.03	2500	3000	60
Engine Code 91 B6294T	0.5	550	750	0.3	200	0.97	1.03	2500	3000	60
Engine Code 85 B8444S S40/V50 Series MY 2005	0.5	650	700	0.3	200	0.97	1.03	2500	3000	60
Engine Code 20 B4164S3	0.5	725	775	0.3	200	0.97	1.03	2500	3000	60
Engine Code 21 B4184S11	0.5	650	750	0.3	200	0.97	1.03	2500	3000	60
Engine Code 38 B5244S4	0.5	695	745	0.3	200	0.97	1.03	2500	3000	60
Engine Code 66 B5244S5	0.5	695	745	0.3	200	0.97	1.03	2500	3000	60
Engine Code 68 B5254T3 S80 Series MY 2006	0.5	745	795	0.3	200	0.97	1.03	2500	3000	60
Engine Code 49 B5204T5	0.3	645	695	0.2	200	0.97	1.03	2500	3000	60
Engine Code 59 B5254T2	0.3	645	695	0.2	200	0.97	1.03	2500	3000	60
Engine Code 61 B5244S	0.3	725	775	0.2	200	0.97	1.03	2500	3000	60
Engine Code 65 B5244S2	0.3	725	775	0.2	200	0.97	1.03	2500	3000	60
Engine Code 91 B6294T V70/S60 Series MY 2006	0.3	625	675	0.2	200	0.97	1.03	2500	3000	60
Engine Code 49 B5204T5	0.3	645	695	0.2	200	0.97	1.03	2500	3000	60
Engine Code 52 B5254T4	0.3	695	745	0.2	200	0.97	1.03	2500	3000	60
Engine Code 54 B5244T5	0.3	645	695	0.2	200	0.97	1.03	2500	3000	60
Engine Code 59 B5254T5	0.3	645	695	0.2	200	0.97	1.03	2500	3000	60

1 Manufacturer/ Marque	2			3						4 Min Oil Temp(°C)
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
Engine Code 61 B5244S2	0.3	725	775	0.2	200	0.97	1.03	2500	3000	60
Engine Code 65 B5244S2	0.3	725	775	0.2	200	0.97	1.03	2500	3000	60
C70 Series MY 2006										
Engine Code 38 B5244S4	0.3	695	745	0.2	200	0.97	1.03	2500	3000	60
Engine Code 66 B5244S5	0.3	695	745	0.2	200	0.97	1.03	2500	3000	60
Engine Code 68 B5254T3	0.3	695	745	0.2	200	0.97	1.03	2500	3000	60
XC70 Series MY 2006										
Engine Code 59 B5254T2	0.3	645	695	0.2	200	0.97	1.03	2500	3000	60
XC90 Series MY 2006										
Engine Code 59 B5254T2	0.3	645	695	0.2	200	0.97	1.03	2500	3000	60
Engine Code 91 B6294T	0.3	625	675	0.2	200	0.97	1.03	2500	3000	60
Engine Code 85 B8444S	0.3	650	700	0.2	200	0.97	1.03	2500	3000	60
S40/V50 Series MY 2006										
Engine Code 08 B4184S8	0.3	675	725	0.2	200	0.97	1.03	2500	3000	60
Engine Code 20 B4164S3	0.3	675	725	0.2	200	0.97	1.03	2500	3000	60
Engine Code 21 B4184S11	0.3	675	725	0.2	200	0.97	1.03	2500	3000	60
Engine Code 38 B5244S4	0.3	675	725	0.2	200	0.97	1.03	2500	3000	60
Engine Code 66 B5244S5	0.3	675	725	0.2	200	0.97	1.03	2500	3000	60
Engine Code 68 B5254T3	0.3	675	725	0.2	200	0.97	1.03	2500	3000	60
S40 Series MY 2007										
Engine Code 08 B4184S8	0.3	675	725	0.2	200	0.97	1.03	2500	3000	60
Engine Code 20 B4164S3	0.3	725	775	0.2	200	0.97	1.03	2500	3000	60
Engine Code 21 B4184S11	0.3	675	725	0.2	200	0.97	1.03	2500	3000	60
Engine Code 38 B5244S4	0.3	675	725	0.2	200	0.97	1.03	2500	3000	60
Engine Code 43 B4204S3	0.3	675	725	0.2	200	0.97	1.03	2500	3000	60
Engine Code 66 B5244S5	0.3	695	745	0.2	200	0.97	1.03	2500	3000	60
Engine Code 68 B5254T3	0.3	745	795	0.2	200	0.97	1.03	2500	3000	60
V50 Series MY 2007										
Engine Code 08 B4184S8	0.3	675	725	0.2	200	0.97	1.03	2500	3000	60
Engine Code 20 B4164S3	0.3	725	775	0.2	200	0.97	1.03	2500	3000	60
Engine Code 21 B4184S11	0.3	675	725	0.2	200	0.97	1.03	2500	3000	60

1 Manufacturer/ Marque	2			3						4 Min Oil Temp(°C)
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (% Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
Engine Code 38 B5244S4	0.3	675	725	0.2	200	0.97	1.03	2500	3000	60
Engine Code 43 B4204S3	0.3	675	725	0.2	200	0.97	1.03	2500	3000	60
Engine Code 66 B5244S5	0.3	695	745	0.2	200	0.97	1.03	2500	3000	60
Engine Code 68 B5254T3	0.3	745	795	0.2	200	0.97	1.03	2500	3000	60
C30 Series MY 2007										
Engine Code 08 B4184S8	0.3	675	725	0.2	200	0.97	1.03	2500	3000	60
Engine Code 20 B4164S3	0.3	725	775	0.2	200	0.97	1.03	2500	3000	60
Engine Code 21 B4184S11	0.3	675	725	0.2	200	0.97	1.03	2500	3000	60
Engine Code 38 B5244S4	0.3	675	725	0.2	200	0.97	1.03	2500	3000	60
Engine Code 43 B4204S3	0.3	675	725	0.2	200	0.97	1.03	2500	3000	60
Engine Code 66 B5244S5	0.3	695	745	0.2	200	0.97	1.03	2500	3000	60
Engine Code 68 B5254T3	0.3	745	795	0.2	200	0.97	1.03	2500	3000	60
C70 Series MY 2007										
Engine Code 38 B5244S4	0.3	675	725	0.2	200	0.97	1.03	2500	3000	60
Engine Code 66 B5244S5	0.3	695	745	0.2	200	0.97	1.03	2500	3000	60
Engine Code 68 B5254T3	0.3	745	795	0.2	200	0.97	1.03	2500	3000	60
S60 Series MY 2007										
Engine Code 32 B5244SG	0.3	725	775	0.2	200	0.97	1.03	2500	3000	60
Engine Code 49 B5204T5	0.3	645	695	0.2	200	0.97	1.03	2500	3000	60
Engine Code 54 B5244T5	0.5	645	695	0.2	200	0.97	1.03	2500	3000	60
Engine Code 59 B5254T2	0.5	645	695	0.2	200	0.97	1.03	2500	3000	60
Engine Code 61 B5244S	0.5	725	775	0.2	200	0.97	1.03	2500	3000	60
Engine Code 65 B5244S2	0.5	725	775	0.2	200	0.97	1.03	2500	3000	60
S60R Series MY 2007										
Engine Code 52 B5254T4	0.3	645	695	0.2	200	0.97	1.03	2500	3000	60
V70 Series MY 2007										
Engine Code 32 B5244SG	0.3	725	775	0.2	200	0.97	1.03	2500	3000	60
Engine Code 49 B5204T5	0.3	645	695	0.2	200	0.97	1.03	2500	3000	60
Engine Code 54 B5244T5	0.5	645	695	0.2	200	0.97	1.03	2500	3000	60
Engine Code 59 B5254T2	0.5	645	695	0.2	200	0.97	1.03	2500	3000	60
Engine Code 61 B5244S	0.5	725	775	0.2	200	0.97	1.03	2500	3000	60

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
Engine Code 65 B5244S2	0.5	725	775	0.2	200	0.97	1.03	2500	3000	60
Engine Code 99 B6304T2	0.3	625	675	0.2	200	0.97	1.03	2500	3000	60
V70R Series MY 2007										
Engine Code 52 B5254T4	0.3	645	695	0.2	200	0.97	1.03	2500	3000	60
S80 Series MY 2007										
Engine Code 56 B5254T6	0.5	695	745	0.2	200	0.97	1.03	2500	3000	60
Engine Code 85 B8444S	0.5	650	700	0.3	200	0.97	1.03	2500	3000	60
Engine Code 98 B6324S	0.3	625	675	0.2	200	0.97	1.03	2500	3000	60
Engine Code 99 B6304T2	0.3	625	675	0.2	200	0.97	1.03	2500	3000	60
XC70 Series MY 2007										
Engine Code 59 B5254T2	0.5	645	695	0.2	200	0.97	1.03	2500	3000	60
XC90 Series MY 2007	Also see Section II									
Engine Code 59 B5254T2	0.5	645	695	0.2	200	0.97	1.03	2500	3000	60
Engine Code 85 B8444S	0.5	650	700	0.3	200	0.97	1.03	2500	3000	60
Engine Code 98 B6324S	0.3	625	675	0.2	200	0.97	1.03	2500	3000	60
S40 Series MY 2008										
Engine Code 20 B4164S3	0.3	725	775	0.2	200	0.97	1.03	2500	3000	60
Engine Code 38 B5244S4	0.3	695	745	0.2	200	0.97	1.03	2500	3000	60
Engine Code 21 B4184S11	0.3	675	725	0.2	200	0.97	1.03	2500	3000	60
Engine Code 08 B4184S8	0.3	675	725	0.2	200	0.97	1.03	2500	3000	60
Engine Code 67 B5254T3	0.3	745	795	0.2	200	0.97	1.03	2500	3000	60
Engine Code 66 B5244S5	0.3	695	745	0.2	200	0.97	1.03	2500	3000	60
Engine Code 43 B4204S3	0.3	675	725	0.2	200	0.97	1.03	2500	3000	60
V50 Series MY 2008										
Engine Code 38 B5244S4	0.3	695	745	0.2	200	0.97	1.03	2500	3000	60
Engine Code 66 B5244S5	0.3	695	745	0.2	200	0.97	1.03	2500	3000	60
Engine Code 43 B4204S3	0.3	675	725	0.2	200	0.97	1.03	2500	3000	60
Engine Code 67 B5254T3	0.3	745	795	0.2	200	0.97	1.03	2500	3000	60
Engine Code 21 B4184S11	0.3	675	725	0.2	200	0.97	1.03	2500	3000	60
Engine Code 20 B4164S3	0.3	725	775	0.2	200	0.97	1.03	2500	3000	60
Engine Code 08 B4184S8	0.3	675	725	0.2	200	0.97	1.03	2500	3000	60

1 Manufacturer/Marque	2			3						4 Min Oil Temp(°C)
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (% Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
C30 Series MY 2008										
Engine Code 20 B4164S3	0.3	725	775	0.2	200	0.97	1.03	2500	3000	60
Engine Code 67 B5254T3	0.3	745	795	0.2	200	0.97	1.03	2500	3000	60
Engine Code 43 B4204S3	0.3	675	725	0.2	200	0.97	1.03	2500	3000	60
Engine Code 38 B5244S4	0.3	695	745	0.2	200	0.97	1.03	2500	3000	60
Engine Code 08 B4184S8	0.3	675	725	0.2	200	0.97	1.03	2500	3000	60
Engine Code 21 B4184S11	0.3	675	725	0.2	200	0.97	1.03	2500	3000	60
C70 Series MY 2008										
Engine Code 66 B5244S5	0.3	695	745	0.2	200	0.97	1.03	2500	3000	60
Engine Code 67 B5254T3	0.3	745	795	0.2	200	0.97	1.03	2500	3000	60
Engine Code 38 B5244S4	0.3	695	745	0.2	200	0.97	1.03	2500	3000	60
S60 Series MY 2008										
Engine Code 49 B5204T5	0.3	645	695	0.2	200	0.97	1.03	2500	3000	60
Engine Code 54 B5244T5	0.5	645	695	0.2	200	0.97	1.03	2500	3000	60
Engine Code 59 B5254T2	0.5	645	695	0.2	200	0.97	1.03	2500	3000	60
Engine Code 61 B5244S	0.5	725	775	0.2	200	0.97	1.03	2500	3000	60
Engine Code 65 B5244S2	0.5	725	775	0.2	200	0.97	1.03	2500	3000	60
V70 Series MY 2008										
Engine Code 04 B4204S4	0.3	775	825	0.2	200	0.97	1.03	2500	3000	60
Engine Code 43 B4204S3	0.3	775	825	0.2	200	0.97	1.03	2500	3000	60
Engine Code 49 B5204T5	0.3	645	695	0.2	200	0.97	1.03	2500	3000	60
Engine Code 54 B5244T5	0.5	645	695	0.2	200	0.97	1.03	2500	3000	60
Engine Code 59 B5254T2	0.5	645	695	0.2	200	0.97	1.03	2500	3000	60
Engine Code 61 B5244S	0.5	725	775	0.2	200	0.97	1.03	2500	3000	60
Engine Code 65 B5244S2	0.5	725	775	0.2	200	0.97	1.03	2500	3000	60
Engine Code 99 B6304T2	0.3	625	675	0.2	200	0.97	1.03	2500	3000	60
S80 Series MY 2008										
Engine Code 04 B4204S4	0.3	775	825	0.2	200	0.97	1.03	2500	3000	60
Engine Code 43 B4204S3	0.3	775	825	0.2	200	0.97	1.03	2500	3000	60
Engine Code 56 B5254T6	0.5	695	745	0.2	200	0.97	1.03	2500	3000	60
Engine Code 85 B8444S	0.5	625	675	0.3	200	0.97	1.03	2500	3000	60

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
Engine Code 98 B6324S	0.3	625	675	0.2	200	0.97	1.03	2500	3000	60
Engine Code 99 B6304T2	0.3	625	675	0.2	200	0.97	1.03	2500	3000	60
XC70 Series MY 2008										
Engine Code 59 B5254T2	0.5	645	695	0.2	200	0.97	1.03	2500	3000	60
XC90 Series MY 2008	Also see Section II									
Engine Code 59 B5254T2	0.5	645	695	0.2	200	0.97	1.03	2500	3000	60
Engine Code 85 B8444S	0.5	625	675	0.3	200	0.97	1.03	2500	3000	60
Engine Code 98 B6324S	0.3	625	675	0.2	200	0.97	1.03	2500	3000	60
S40 Series MY 2009										
Engine Code 20 B4164S3	0.3	725	775	0.2	200	0.97	1.03	2500	3000	60
Engine Code 38 B5244S4	0.3	695	745	0.2	200	0.97	1.03	2500	3000	60
Engine Code 21 B4184S11	0.3	675	725	0.2	200	0.97	1.03	2500	3000	60
Engine Code 08 B4184S8	0.3	675	725	0.2	200	0.97	1.03	2500	3000	60
Engine Code 67 B5254T3	0.3	745	795	0.2	200	0.97	1.03	2500	3000	60
Engine Code 66 B5244S5	0.3	695	745	0.2	200	0.97	1.03	2500	3000	60
Engine Code 43 B4204S3	0.3	675	725	0.2	200	0.97	1.03	2500	3000	60
V50 Series MY 2009										
Engine Code 38 B5244S4	0.3	695	745	0.2	200	0.97	1.03	2500	3000	60
Engine Code 66 B5244S5	0.3	695	745	0.2	200	0.97	1.03	2500	3000	60
Engine Code 43 B4204S3	0.3	675	725	0.2	200	0.97	1.03	2500	3000	60
Engine Code 67 B5254T3	0.3	745	795	0.2	200	0.97	1.03	2500	3000	60
Engine Code 21 B4184S11	0.3	675	725	0.2	200	0.97	1.03	2500	3000	60
Engine Code 20 B4164S3	0.3	725	775	0.2	200	0.97	1.03	2500	3000	60
Engine Code 08 B4184S8	0.3	675	725	0.2	200	0.97	1.03	2500	3000	60
C30 Series MY 2009										
Engine Code 20 B4164S3	0.3	725	775	0.2	200	0.97	1.03	2500	3000	60
Engine Code 67 B5254T3	0.3	745	795	0.2	200	0.97	1.03	2500	3000	60
Engine Code 43 B4204S3	0.3	675	725	0.2	200	0.97	1.03	2500	3000	60
Enging Code 38 B5244S4	0.3	695	745	0.2	200	0.97	1.03	2500	3000	60
Engine Code 08 B4184S8	0.3	675	725	0.2	200	0.97	1.03	2500	3000	60
Engine Code 21 B4184S11	0.3	675	725	0.2	200	0.97	1.03	2500	3000	60

1 Manufacturer/Marque	2			3						4 Min Oil Temp(°C)
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
C70 Series MY 2009										
Engine Code 66 B5244S5	0.3	695	745	0.2	200	0.97	1.03	2500	3000	60
Engine Code 67 B5254T3	0.3	745	795	0.2	200	0.97	1.03	2500	3000	60
Engine Code 38 B5244S4	0.3	695	745	0.2	200	0.97	1.03	2500	3000	60
S60 Series MY 2009										
Engine Code 49 B5204T5	0.3	645	695	0.2	200	0.97	1.03	2500	3000	60
Engine Code 54 B5244T5	0.5	645	695	0.2	200	0.97	1.03	2500	3000	60
V70 Series MY 2009										
Engine Code 02 B5254T8	0.3	695	745	0.2	200	0.97	1.03	2500	3000	60
Engine Code 04 B4204S4	0.3	775	825	0.2	200	0.97	1.03	2500	3000	60
Engine Code 43 B4204S3	0.3	775	825	0.2	200	0.97	1.03	2500	3000	60
Engine Code 56 B5254T6	0.5	725	775	0.2	200	0.97	1.03	2500	3000	60
Engine Code 98 B6324S	0.3	645	695	0.2	200	0.97	1.03	2500	3000	60
Engine Code 99 B6304T2	0.3	625	675	0.2	200	0.97	1.03	2500	3000	60
S80 Series MY 2009										
Engine Code 02 B5254T8	0.3	695	745	0.2	200	0.97	1.03	2500	3000	60
Engine Code 04 B4204S4	0.3	775	825	0.2	200	0.97	1.03	2500	3000	60
Engine Code 43 B4204S3	0.3	775	825	0.2	200	0.97	1.03	2500	3000	60
Engine Code 56 B5254T6	0.5	695	745	0.2	200	0.97	1.03	2500	3000	60
Engine Code 85 B8444S	0.5	625	675	0.3	200	0.97	1.03	2500	3000	60
Engine Code 98 B6324S	0.3	625	675	0.2	200	0.97	1.03	2500	3000	60
Engine Code 99 B6304T2	0.3	625	675	0.2	200	0.97	1.03	2500	3000	60
XC60 Series MY 2009										
Engine Code 99 B6304T3	0.3	625	675	0.2	200	0.97	1.03	2500	3000	60
XC70 Series MY 2009										
Engine Code 98 B6324S	0.3	645	695	0.2	200	0.97	1.03	2500	3000	60
XC90 Series MY 2009										
Engine Code 85 B8444S	0.5	625	675	0.3	200	0.97	1.03	2500	3000	60
Engine Code 98 B6324S	0.3	625	675	0.2	200	0.97	1.03	2500	3000	60
S40 Series MY 2010										
Engine Code 20 B4164S3	0.3	725	775	0.2	200	0.97	1.03	2500	3000	60

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
Engine Code 43 B4204S3	0.3	675	725	0.2	200	0.97	1.03	2500	3000	60
Engine Code 67 B5254T3	0.3	745	795	0.2	200	0.97	1.03	2500	3000	60
V50 Series MY 2010										
Engine Code 20 B4164S3	0.3	725	775	0.2	200	0.97	1.03	2500	3000	60
Engine Code 43 B4204S3	0.3	675	725	0.2	200	0.97	1.03	2500	3000	60
Engine Code 67 B5254T3	0.3	745	795	0.2	200	0.97	1.03	2500	3000	60
C30 Series MY 2010										
Engine Code 20 B4164S3	0.3	725	775	0.2	200	0.97	1.03	2500	3000	60
Engine Code 67 B5254T3	0.3	745	795	0.2	200	0.97	1.03	2500	3000	60
Engine Code 43 B4204S3	0.3	675	725	0.2	200	0.97	1.03	2500	3000	60
C70 Series MY 2010										
Engine Code 67 B5254T3	0.3	745	795	0.2	200	0.97	1.03	2500	3000	60
Engine Code 38 B5244S4	0.3	695	745	0.2	200	0.97	1.03	2500	3000	60
V70 Series MY 2010										
Engine Code 60 B5254T10	0.5	725	775	0.2	200	0.97	1.03	2500	3000	60
Engine Code 99 B6304T2	0.3	625	675	0.2	200	0.97	1.03	2500	3000	60
S80 Series MY 2010										
Engine Code 60 B5254T10	0.5	695	745	0.2	200	0.97	1.03	2500	3000	60
Engine Code 85 B8444S	0.5	625	675	0.3	200	0.97	1.03	2500	3000	60
XC60 Series MY 2010										
Engine Code 99 B6304T3	0.3	625	675	0.2	200	0.97	1.03	2500	3000	60
XC70 Series MY 2010										
Engine Code 99 B6304T2	0.3	645	695	0.2	200	0.97	1.03	2500	3000	60
XC90 Series MY 2010										
Engine Code 85 B8444S	0.5	625	675	0.3	200	0.97	1.03	2500	3000	60
Engine Code 98 B6324S	0.3	625	675	0.2	200	0.97	1.03	2500	3000	60
S40 Series MY 2011										
Engine Code 43 B4204S3	0.3	675	725	0.2	200	0.97	1.03	2500	3000	60
Engine Code 67 B5254T3	0.3	745	795	0.2	200	0.97	1.03	2500	3000	60
V50 Series MY 2011										
Engine Code 43 B4204S3	0.3	675	725	0.2	200	0.97	1.03	2500	3000	60

Also see Section II

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
Engine Code 67 B5254T3 C30 Series MY 2011	0.3	745	795	0.2	200	0.97	1.03	2500	3000	60
Engine Code 43 B4204S3	0.3	675	725	0.2	200	0.97	1.03	2500	3000	60
Engine Code 67 B5254T3 C70 Series MY 2011	0.3	745	795	0.2	200	0.97	1.03	2500	3000	60
Engine Code 67 B5254T3 V60 Series MY2011	0.3	745	795	0.2	200	0.97	1.03	2500	3000	60
Engine Code 45 B4164T3	0.3	750	800	0.2	200	0.97	1.03	2500	3000	60
Engine Code 47 B4204T7	0.3	780	830	0.2	200	0.99	1.04	2500	3000	60
Engine Code 48 B4164T	0.3	750	800	0.2	200	0.97	1.03	2500	3000	60
Engine Code 90 B6304T4 V70 Series MY2011	0.3	590	640	0.2	200	1	1.06	2500	3000	60
Engine Code 47 B4204T7	0.3	780	830	0.2	200	0.97	1.03	2500	3000	60
Engine Code 48 B4164T	0.3	750	800	0.2	200	0.97	1.03	2500	3000	60
Engine Code 90 B6304T4 S60 Series MY2011	0.3	750	800	0.2	200	1	1.06	2500	3000	60
Engine Code 45 B4164T3	0.3	750	800	0.2	200	0.97	1.03	2500	3000	60
Engine Code 47 B4204T7	0.3	780	830	0.2	200	0.97	1.03	2500	3000	60
Engine Code 48 B4164T	0.3	750	800	0.2	200	0.97	1.03	2500	3000	60
Engine Code 90 B6304T4 S80 Series MY2011	0.3	590	640	0.2	200	1	1.06	2500	3000	60
Engine Code 47 B4204T7	0.3	780	830	0.2	200	0.97	1.03	2500	3000	60
Engine Code 48 B4164T	0.3	750	800	0.2	200	0.97	1.03	2500	3000	60
Engine Code 90 B6304T4 XC60 Series MY2011	0.3	590	640	0.2	200	1	1.06	2500	3000	60
Engine Code 47 B4204T7	0.3	749	799	0.2	200	0.97	1.03	2500	3000	60
Engine Code 90 B6304T4 XC70 Series MY2011	0.3	590	640	0.2	200	1	1.06	2500	3000	60
Engine Code 90 B6304T4	0.3	590	640	0.2	200	0.97	1.03	2500	3000	60

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO	Min	Max	Max CO	Max HC	Min	Max	Min	Max	
	Limit (% Vol)	Limit (RPM)	Limit (RPM)	Limit (%Vol)	Limit (PPM)	Lambda	Lambda	Limit (RPM)	Limit (RPM)	Min Oil Temp(°C)
WESTFIELD										
Engine ZETA Type 1.8l Engine Code RQ	0.5	825	925	0.3	200	0.95	1.09	2800	3100	80
Engine Type Cosworth 2.0l Engine Code N5C	0.5	850	950	0.3	200	0.95	1.09	2800	3100	80
Engine Type Rover V8 4.0l Engine Code WENI	0.5	700	800	0.3	200	0.95	1.05	2500	3000	80
Engine Type ZETEC 1.8l Engine Code RKC	0.5	830	930	0.3	200	0.95	1.09	2800	3100	80

SECTION II

REQUIREMENTS FOR

OTHER PETROL

FUELLED VEHICLES ²

FIRST USED FROM 1 AUGUST 1994

AND

EQUIPPED WITH ADVANCED EMISSION

CONTROL SYSTEMS

² THESE VEHICLES ARE DESCRIBED IN REGULATION 61 OF THE ROAD VEHICLES (CONSTRUCTION AND USE) REGULATIONS 1986 (AS AMENDED) AS VEHICLES WHICH ARE NOT PASSENGER CARS (AS DESCRIBED IN SECTION II OF THIS ANNEX) AND ARE FIRST USED ON OR AFTER 1 AUGUST 1994.

1 Manufacturer/Marque	2			3						4 Min Oil Temp(°C)
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	

Section II

ASIA

The engine code is located on the cylinder block on the left hand side rear. It is made up of the first characters of the engine number.

Rocsta

1.8l Engine Code JF8	0.5	700	800	0.3	200	0.97	1.03	2500	3000	80
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BENTLEY MOTORS LIMITED

Includes Rolls-Royce models up to and including 2002 models. For Rolls-Royce models 2003 onward, refer to Rolls-Royce Motor Cars Ltd. The VIN can be found on the VIN Plate

Rolls Royce 1992/93 Models

Where the 10th character of the VIN is N or P.	0.5	530	800	0.3	200	0.97	1.03	2500	2800	80
--	-----	-----	-----	-----	-----	------	------	------	------	----

Bentley 1992/93 Models

Where the 10th character of the VIN is N or P.	0.5	530	800	0.3	200	0.97	1.03	2500	2800	80
--	-----	-----	-----	-----	-----	------	------	------	------	----

Rolls Royce 1994/95 Models

Where the 10th character of the VIN is R or S.	0.5	600	750	0.3	200	0.97	1.03	2500	2700	80
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Bentley 1994/95 Models

Where the 10th character of the VIN is R or S.	0.5	600	750	0.3	200	0.97	1.03	2500	2700	80
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Rolls Royce 1996/97 Models

Where the 10th character of VIN is T or V.	0.5	500	670	0.3	200	0.97	1.03	2500	2700	80
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Bentley 1996/97 Models

Where the 10th character of the VIN is T or V.	0.5	500	670	0.3	200	0.97	1.03	2500	2700	80
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Rolls Royce 1998/1999/2000/2001/2002 Models

(10th Character of VIN is W, X, Y, 1 or 2) with 6.75 litre V8 (6th character of VIN is 1, 2, or 3)	0.5	500	670	0.3	200	0.97	1.03	2500	2700	80
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(10th Character of VIN is W, X, Y, 1 or 2) with 5.4 litre V12 (6th character of VIN is 6)	0.5	525	675	0.3	200	0.97	1.03	2500	3000	60
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Bentley 1998/1999/2000/2001 Models

Where the 10th character of the VIN is W, X, Y or 1 with 6.75 litre V8 where the 6th character of the VIN is 1, 2 or 3.	0.5	500	670	0.3	200	0.97	1.03	2500	2700	80
---	-----	-----	-----	-----	-----	------	------	------	------	----

Where the 10th character of the VIN is W, X, Y or 1 with 4.4 litre V8 where the 6th character of the VIN is 5.	0.5	575	725	0.3	200	0.97	1.03	2500	3000	60
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Bentley 2002 to 2009 Models

(10th Character of VIN is 2/3) with 6.75 litre single turbo V8 (6/7th characters of VIN , are 22, 23, 25, 26, 31 or 32)	0.5	500	670	0.3	200	0.97	1.03	2500	2700	80
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6.0 litre twin turbo W12 (5th Character of VIN is E or F)	0.3	500	650	0.2	200	0.97	1.03	2000	2500	80
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1 Manufacturer/Marque	2			3						4 Min Oil Temp(°C)
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (% Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
6.75 litre twin turbo V8 (6/7th characters of VIN, are 34, 37, 42, 43, 45 or 48) Bentley2002 to 2010 Models	0.5	500	800	0.3	200	0.97	1.03	2500	2700	80
6.0 litre twin turbo W12 (5th Character of VIN is E, F or G)	0.3	500	650	0.2	200	0.97	1.03	2000	2500	80
6.75 litre twin turbo V8 (6/7th Characters of VIN are 34,37,42,43,45 or 48) Bentley2002 to 2013 Models	0.5	500	800	0.3	200	0.97	1.03	2500	2700	80
6.0 litre twin turbo W12 (5th Character of VIN is B, E, F, G, H, J or K) Bentley2011 to 2013 Models	0.3	500	650	0.2	200	0.97	1.03	2000	2500	80
6.75 litre twin turbo V8 (5th Character of VIN is A) Bentley2012 to 2014 Models	0.3	510	610	0.3	200	0.97	1.03	2500	2700	80
4.0 litre twin turbo V8 (5th Character of VIN is N or E) Bentley2013 to 2016 Models	0.3	500	650	0.3	200	0.97	1.03	2400	2600	80
6.0 litre twin turbo W12 (5th character of VIN is B, F, K or R)	0.3	500	650	0.2	200	0.97	1.03	2000	2500	80
6.75 litre twin turbo V8 (5th character of VIN is D or E) Bentley2015 to 2016 Models	0.3	510	610	0.3	200	0.97	1.03	2500	2700	80
4.0 litre twin turbo V8 (5th character of VIN is N or E)	0.3	500	650	0.3	200	0.97	1.03	2400	2600	80
BMW AG										
<i>The Engine Code is stamped on the Engine Block and VIN Plate. No longer on VIN plate from 03/2011.</i>										
7 series (E65/E66)										
740Li Saloon Engine Code N62 B40 A	0.2	450	650	0.2	200	0.97	1.03	2300	2700	60
750Li Saloon Engine Code N62 B48 B	0.2	450	650	0.2	200	0.97	1.03	2300	2700	60
760i / Li Saloon Engine Code N73 B60 A - First used before 01/03/2005	0.2	450	650	0.2	200	0.97	1.03	2300	2700	60
760i / Li Saloon Engine Code N73 B60 A - First used on or after 01/03/2005	0.2	590	700	0.2	200	0.97	1.03	2300	2700	60
7 series (F01/F02)										
740i / Li Saloon Engine Code N54 B30 A	0.2	600	860	0.2	200	0.91	1.05	2300	2700	60
740i / Li Saloon Engine Code N55 B30 A	0.2	600	860	0.2	200	0.97	1.03	2300	2700	60
750i / Li Saloon Engine Code N63 B44 A	0.2	600	860	0.2	200	0.97	1.03	2300	2700	60
750i / Li Saloon Engine Code N63 B44 B	0.2	550	850	0.2	200	0.97	1.03	2300	2700	60
760Li Saloon Engine Code N74 B60 A	0.2	550	800	0.2	200	0.97	1.03	2300	2700	60
7 series (G11/G12)										
750i Saloon Engine Code N63 B44 C	0.3	680	850	0.2	200	0.97	1.03	2300	2700	60

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
X5 series (E53)										
X5 3.0i Engine Code 30 6S 3 - First used before 01/07/2002	0.2	600	800	0.3	200	0.97	1.03	2300	2700	60
X5 3.0i Engine Code 30 6S 3 - First used on or after 01/07/2002	0.2	600	800	0.2	200	0.97	1.03	2300	2700	60
X5 4.4i Engine Code 44 8S 2 - First used before 01/07/2002	0.2	550	750	0.3	200	0.97	1.03	2300	2700	60
X5 4.4i Engine Code 44 8S 2 - First used on or after 01/07/2002	0.2	550	750	0.2	200	0.97	1.03	2300	2700	60
X5 4.4i Engine Code N62 B44 A	0.2	550	700	0.2	200	0.97	1.03	2300	2700	60
X5 4.6is Engine Code 46 8S 1 - First used before 01/07/2002	0.2	500	700	0.3	200	0.97	1.03	2300	2700	60
X5 4.6is Engine Code 46 8S 1 - First used on or after 01/07/2002	0.2	500	700	0.2	200	0.97	1.03	2300	2700	60
X5 4.8is Engine Code N62 B48 A	0.2	550	750	0.2	200	0.97	1.03	2300	2700	60
X5 series (E70)										
X5 3.0si Engine Code N52 B30 A	0.2	600	860	0.2	200	0.91	1.05	2300	2700	60
X5 xDrive30i Engine Code N52 B30 A	0.2	600	860	0.2	200	0.91	1.05	2300	2700	60
X5 4.8i Engine Code N62 B48 B	0.2	550	750	0.2	200	0.97	1.03	2300	2700	60
X5 xDrive48i Engine Code N62 B48 B	0.2	550	750	0.2	200	0.97	1.03	2300	2700	60
X5 xDrive50i Engine Code N63 B44 A	0.2	600	860	0.2	200	0.97	1.03	2300	2700	60
X5 M Engine Code S63 B44 A	0.2	550	750	0.2	200	0.97	1.03	2300	2700	60
X5 series (F85)										
X5 M Engine Code S63 B44 B	0.3	680	880	0.2	200	0.97	1.03	2300	2700	60
X5 series (F15)										
X5 xDrive50i Engine Code N63 B44 B	0.2	600	860	0.2	200	0.97	1.03	2300	2700	60
X6 series (E71)										
X6 xDrive35i Engine Code N54 B30 A	0.2	600	860	0.2	200	0.91	1.05	2300	2700	60
X6 xDrive35i Engine Code N55 B30 A	0.2	600	860	0.2	200	0.97	1.03	2300	2700	60
X6 xDrive50i Engine Code N63 B44 A	0.2	600	860	0.2	200	0.97	1.03	2300	2700	60
X6 M Engine Code S63 B44 A	0.2	550	750	0.2	200	0.97	1.03	2300	2700	60
X6 series (F16)										
X6 xDrive50i Engine Code N63 B44 B	0.2	600	860	0.2	200	0.97	1.03	2300	2700	60
X6 series (F86)										
X6 M Engine Code S63 B44 B	0.3	680	880	0.2	200	0.97	1.03	2300	2700	60

1 Manufacturer/ Marque	2									4 Min Oil Temp(°C)
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (% Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
CADILLAC										
SRX										
3.6L V6 Engine Code LY7	0.3	605	655	0.2	200	0.97	1.03	2355	2505	80
4.6L V8 Engine Code LH2	0.3	610	660	0.2	200	0.97	1.03	2425	2575	80
Escalade										
6.2L V8 Engine Code L92 or L9H	0.3	575	625	0.2	200	0.97	1.03	2500	3000	80
CHRYSLER JEEP										
<i>The 10th digit of the VIN number denotes the model year i.e. X = 1999 MY and Y = 2000 MY.</i>										
Jeep Commander										
5.7 Automatic 06-07 model year	0.3	575	650	0.2	200	0.97	1.03	2400	2600	97
5.7 Automatic 07-08 model year	0.3	575	650	0.2	200	0.97	1.03	2400	2600	97
5.7 Automatic 5 gears 08-09 model year	0.3	575	675	0.2	200	0.97	1.03	2400	2600	95
Chrysler Voyager										
2.0l Manual, Short Wheelbase	0.5	800	1000	0.3	200	0.97	1.03	2000	2200	80
3.3l Automatic, Short Wheelbase	0.5	700	900	0.3	200	0.97	1.03	2000	2200	80
3.3l Automatic, Long Wheelbase	0.5	700	900	0.3	200	0.97	1.03	2000	2200	80
2.4l 2001 Model Year	0.5	650	900	0.3	200	0.97	1.03	2300	2500	80
2.4 Manual 06-07 model year	0.3	800	900	0.2	200	0.97	1.03	2400	2600	86
2.4 Manual 07-08 model year	0.3	800	900	0.2	200	0.97	1.03	2400	2600	86
Chrysler Grand Voyager										
3.3 Automatic 06-07 model year	0.3	700	800	0.2	200	0.97	1.03	2400	2600	88
3.3 Automatic 07-08 model year	0.3	700	800	0.2	200	0.97	1.03	2400	2600	88
Chrysler Grand Voyager (RT)										
3.8 Automatic 6 gears 08-09 model year	0.3	600	730	0.2	200	0.97	1.03	2500	2700	97
3.8 Automatic 6 gears 09 model year	0.3	630	730	0.2	200	0.97	1.03	2500	2700	96

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
CITROEN										
<i>The VIN Code consists of the 6th and 7th character of the VIN for 2 digit codes and the 6th to the 9th character for 4 digit codes. The Engine Code consist of the 6th to 8th character of the VIN number for 3 digit codes. The Engine Code can be found on the Engine Block.</i>										
Grand C4 Picasso										
1.8i 16v VIN Code 6FYC	0.5	550	850	0.3	200	0.97	1.03	2000	2400	80
2.0i 16v VIN Code RFJH	0.5	550	850	0.3	200	0.97	1.03	2000	3000	80
1.6i Engine Code 5FS	0.5	550	850	0.3	200	0.97	1.03	2000	3000	80
1.6i Engine Code 5FV	0.5	600	800	0.3	200	0.97	1.03	2000	3000	80
1.6i Engine Code 5FW	0.5	600	950	0.3	200	0.97	1.03	2000	3000	80
1.6i Engine Code 5FX	0.5	600	950	0.3	200	0.97	1.03	2000	3000	80
1.6i Engine Code 5FT	0.5	600	950	0.3	200	0.97	1.03	2000	3000	80
NewGrand C4 Picasso										
1.6 VTi VIN Code 5FS0	0.5	600	900	0.3	200	0.97	1.03	2000	3000	100
1.6 THP VIN Code 5FV	0.5	600	800	0.3	200	0.97	1.03	2000	3000	93
Engine Code HNY 1199cc	0.5	600	900	0.3	200	0.97	1.03	2000	3000	98
Engine Code 5GZ 1598cc	0.5	600	1000	0.3	200	0.97	1.03	2000	3000	88
C8										
2.0i auto VIN Code RFNE	0.5	600	800	0.3	200	0.97	1.03	2000	2500	80
2.0i VIN Code RFNC	0.5	600	800	0.3	200	0.97	1.03	2000	2500	80
2.0i VIN Code RFJC	0.5	700	950	0.3	200	0.97	1.03	2000	3000	80
2.0i VIN Code RFJF	0.5	700	950	0.3	200	0.97	1.03	2000	3000	80
2.2i VIN Code 3FZC	0.5	600	800	0.3	200	0.97	1.03	2000	2500	80
2.2i VIN Code 3FYC	0.5	600	800	0.3	200	0.97	1.03	2000	2400	80
Berlingo Multispace (MPV)										
1.1l injection VIN Code HDZF	0.5	800	900	0.3	200	0.97	1.03	2000	2500	80
1.4l injection VIN Code KFXF	0.5	800	900	0.3	200	0.97	1.03	2000	2500	80
1.4l injection VIN Code KFWB	0.5	750	950	0.3	200	0.97	1.03	2000	3000	80
1.4i VIN Code KFWC	0.5	650	900	0.3	200	0.97	1.03	2000	2500	80
1.6l injection 16v VIN Code NFUB	0.5	650	850	0.3	200	0.97	1.03	2000	3000	80
1.6l injection 16v VIN Code NFUP	0.5	800	900	0.3	200	0.97	1.03	2000	3000	80
1.6i VIN Code NFUC	0.5	650	900	0.3	200	0.97	1.03	2000	2500	80

1 Manufacturer/Marque	2			3						4 Min Oil Temp(°C)
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
1.6i VIN Code NFU1	0.5	650	900	0.3	200	0.97	1.03	2000	2500	80
1.6i VIN Code NFU9	0.5	650	900	0.3	200	0.97	1.03	2000	2500	80
1.8l injection VIN Code LFXF	0.5	750	850	0.3	200	0.97	1.03	2000	2500	80
1.6i Engine Code NFU	0.5	600	900	0.3	200	0.97	1.03	2000	3000	80
1.6i Engine Code NFR	0.5	600	900	0.3	200	0.97	1.03	2000	3000	80
1.6i Engine Code 5FK	0.5	600	900	0.3	200	0.97	1.03	2000	3000	80
1.6i Engine Code 5FS	0.5	550	850	0.3	200	0.97	1.03	2000	3000	80
Engine Code HNZ 1199cc	0.5	600	900	0.3	200	0.97	1.03	2000	3000	94
Synergie (MPV)										
2.0l injection VIN Code UB	0.5	800	900	0.3	200	0.97	1.03	2000	2500	80
2.0l injection VIN Code RFVB	0.5	750	850	0.3	200	0.97	1.03	2000	2500	80
2.0l injection 16v VIN Code RFNC	0.5	600	800	0.3	200	0.97	1.03	2000	3000	80
2.0l injection 16v VIN Code RFNF	0.5	600	800	0.3	200	0.97	1.03	2000	3000	80
Relay Van										
2.0i with sixth character of VIN = T	0.5	750	950	0.3	200	0.97	1.03	2000	2500	80
Berlingo (Van)										
1.1i VIN Code HFXB	0.5	700	900	0.3	200	0.97	1.03	2000	2500	80
1.4l injection VIN Code KFXE	0.5	800	900	0.3	200	0.97	1.03	2000	2500	80
1.4l injection VIN Code KFXF	0.5	800	900	0.3	200	0.97	1.03	2000	2500	80
1.4l injection VIN Code KFWB	0.5	750	950	0.3	200	0.97	1.03	2000	3000	80
1.6i Engine Code 5FK	0.5	600	900	0.3	200	0.97	1.03	2000	3000	80
1.6i Engine Code NFU	0.5	600	900	0.3	200	0.97	1.03	2000	3000	80
1.6i Engine Code NFR	0.5	600	900	0.3	200	0.97	1.03	2000	3000	80
Dispatch (Van)										
2.0l injection 16v VIN Code RFNC	0.5	600	800	0.3	200	0.97	1.03	2000	3000	80
2.0i Engine Code RFH	0.5	600	800	0.3	200	0.97	1.03	2000	2400	80
Dispatch (MPV)										
2.0i 16v VIN Code RFHC	0.5	600	800	0.3	200	0.97	1.03	2000	3000	80
Nemo Multispace										
1.4i VIN Code KFVC	0.5	650	750	0.3	200	0.97	1.03	2000	3000	80
1.4i Engine Code KFT	0.5	650	850	0.3	200	0.97	1.03	2000	3000	80

1 Manufacturer/Marque	2			3						4 Min Oil Temp(°C)
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (% Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
COLEMAN MILNE										
<i>The engine code is located on the VIN plate attached to the bonnet slampanel.</i>										
Saab 9000 based Limousine From Model Year 1992 Onwards (with catalyser)										
Saab 9000 based Limousines (7 or 8 seat models only)	0.5	700	950	0.3	200	0.97	1.03	2000	2500	80
Saab 95 Based Limousine										
Saab 95 based Limousine 2.0T	0.5	700	950	0.3	200	0.97	1.03	2000	2500	80
Saab 95 based Limousine 2.3T	0.5	700	950	0.3	200	0.97	1.03	2000	2500	80
Saab 95 based Limousine 2.3 Turbo	0.5	700	950	0.3	200	0.97	1.03	2000	2500	80
Saab 95 based Limousine 3.0 V6	0.5	700	950	0.3	200	0.97	1.03	2000	2500	80
Mercedes based Limousines (7 or 8 seats)										
E200 Engine Code M111942	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
E230 Engine Code M111970	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
E240 V6 Engine Code M112911	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
E280 Engine Code M104945	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
E320 Engine Code M104995	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
E280 V6 Engine Code M112921	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
E320 V6 Engine Code M112941	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
E200K Engine Code M111947	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
Mercedes based Hearses										
E200 Engine Code M111942	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
E230 Engine Code M111970	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
E240 V6 Engine Code M112911	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
E280 Engine Code M104945	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
E320 Engine Code M104995	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
E280 V6 Engine Code M112921	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
E320 V6 Engine Code M112941	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
E200K Engine Code M111947	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
Ford Scorpio based Limousine (7 or 8 seats)										
Engine Type DOHC 2.0l 16V Engine Code N3A 7 or 8 seat models only	0.5	825	925	0.3	200	0.95	1.09	2800	3100	80
Engine Type DOHC 2.0l 8V Engine Code N9D or N9F 7 or 8 seat models only	0.5	825	925	0.3	200	0.95	1.09	2800	3100	80
Engine Type DOHC 2.0l 8V Engine Code NSD 7 or 8 seat models only	0.5	825	925	0.3	200	0.95	1.09	2800	3100	80

1 Manufacturer/Marque	2			3						4 Min Oil Temp(°C)
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
Engine Type V6 2.9l injection Engine Code BOB (Cosworth) 7 or 8 seat models only	0.5	675	775	0.3	200	0.95	1.09	2800	3100	80
Engine Type V6 2.9l Engine Code BRG 7 or 8 seat models only	0.5	850	950	0.3	200	0.95	1.09	2800	3100	80
Engine Type DOHC 2.3l Engine Code Y5A 7 or 8 seat models only	0.5	825	925	0.3	200	0.95	1.09	2800	3100	80
Ford based Hearses										
Engine Type DOHC 2.3l injection Engine Code Y5A	0.5	825	925	0.3	200	0.95	1.09	2800	3100	80
Ford Scorpio based Hearses										
Engine Type DOHC 2.0l 16V Engine Code N3A	0.5	825	925	0.3	200	0.95	1.09	2800	3100	80
Engine Type DOHC 2.0l 8V Engine Code N9D or N9F	0.5	825	925	0.3	200	0.95	1.09	2800	3100	80
Engine Type DOHC 2.0l 8V Engine Code NSD	0.5	825	925	0.3	200	0.95	1.09	2800	3100	80
Engine Type V6 2.9l Engine Code BOB (Cosworth)	0.5	675	775	0.3	200	0.95	1.09	2800	3100	80
Engine Type V6 2.9l Engine Code BRG	0.5	850	950	0.3	200	0.95	1.09	2800	3100	80
Ford Fairlane based Models										
Fairlane Saloon	0.5	600	950	0.3	200	0.97	1.03	2000	2500	80
Fairlane Estate	0.5	600	950	0.3	200	0.97	1.03	2000	2500	80
Dorchester Limousine	0.5	600	950	0.3	200	0.97	1.03	2000	2500	80
Cardinal Hearse	0.5	600	950	0.3	200	0.97	1.03	2000	2500	80
DAEW OO										
Chassis No. is formed from the last eight digits of the VIN number.										
Korando										
2.3 Petrol (From Chassis No XP000001)	0.1	700	800	0.3	200	0.97	1.03	2200	2800	80
Musso										
2.3 Petrol (From Chassis No XP000001)	0.1	700	800	0.3	200	0.97	1.03	2200	2800	80
DAIHATSU										
Hijet										
1.3l HC 5M/T EFI	0.5	850	900	0.3	200	0.97	1.03	2000	2400	80
CB42	0.5	850	900	0.3	200	0.97	1.03	2000	2400	80
Extol										
1.3l	0.3	600	700	0.2	200	0.97	1.03	1950	2050	80

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (% Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
DODGE										
Journey										
2.4 Manual 5 gears 08-09 model year	0.3	650	750	0.2	200	0.97	1.03	2400	2600	83
2.4 Manual 5 gears 09 model year	0.3	650	750	0.2	200	0.97	1.03	2400	2600	83
FIAT										
Engine Codes appear on the VIN Plate as well as on the Engine Block.										
Ducato (VIN Prefix ZFA230000)										
2.0 Petrol Engine Code RFW	0.5	800	900	0.3	200	0.97	1.03	2500	2900	80
Ducato (VIN Prefix ZFA244000)										
2.0 Petrol Engine Code RFL	0.5	750	950	0.3	200	0.97	1.03	2500	2900	80
Fiorino (VIN Prefix ZFA146000)										
1.4 ie	0.35	800	900	0.3	200	0.97	1.03	2500	2900	80
Fiorino 2016 onward										
1.4 75bhp Manual	0.3	790	890	0.2	200	0.97	1.03	2389	2489	102
Fiorino Cargo (VIN Prefix ZFA225000)										
1.4 Van	0.5	700	800	0.2	200	0.97	1.03	2000	3000	80
Punto (VIN Prefix ZFA176000)										
Petrol Van	0.35	850	950	0.3	200	0.97	1.03	2500	2900	80
Punto (VIN Prefix ZFA188000)										
1.2 Van	0.5	700	800	0.3	200	0.97	1.03	2500	2900	80
Doblò Cargo (VIN Prefix ZFA223000)										
1.2 Van	0.5	730	830	0.3	200	0.97	1.03	2500	2900	80
1.4 Van	0.5	650	750	0.2	200	0.97	1.03	2100	2700	80
Doblò Cargo (VIN Prefix ZFA263000)										
1.4	0.5	700	800	0.2	200	0.97	1.03	2100	2700	80
Doblo Cargo 2016 onward										
1.4 95bhp	0.3	700	800	0.2	200	0.97	1.03	2330	2430	99
1.4 95bhp long wheel base	0.3	700	800	0.2	200	0.97	1.03	2330	2430	99
1.4 95bhp Combi	0.3	700	800	0.2	200	0.97	1.03	2330	2430	99

1 Manufacturer/Marque	2			3						4 Min Oil Temp(°C)
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (% Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
500L MPW (LWB) 2013-2014										
0.9 105bhp TwinAir	0.3	800	900	0.2	200	0.97	1.03	2600	2800	87
500L MPW 2014-2015										
0.9 105bhp	0.3	680	780	0.2	200	0.97	1.03	2630	2730	87
1.4 95bhp	0.3	700	800	0.2	200	0.97	1.03	2380	2480	102
500L MPW 2016-2017										
0.9 105bhp Manual	0.3	780	880	0.2	200	0.97	1.03	2630	2730	87
FORD										
The Engine Code can be found either on the VIN plate or engine block.										
Ka Engine Type HCS / ENDURA-E										
1.3l Engine Code J4	0.5	825	925	0.3	200	0.95	1.09	2800	3100	80
Ka Engine Type DURATEC 8V										
1.3l Engine Code A9	0.3	830	930	0.2	200	0.95	1.03	2800	3100	80
Fiesta Engine Type DURATEC 8V										
1.3l Engine Code A9J	0.3	700	800	0.2	200	0.97	1.03	2800	3100	80
Courier Engine Type HCS										
1.1l Engine Code G6	0.5	850	950	0.3	200	0.95	1.09	2800	3100	80
1.3l Engine Code J6	0.5	850	950	0.3	200	0.95	1.09	2800	3100	80
Fiesta Engine Type HCS										
1.1l Engine Code G6 Automatic	0.5	850	950	0.3	200	0.95	1.09	2800	3100	80
1.3l Engine Code J6	0.5	850	950	0.3	200	0.95	1.09	2800	3100	80
Escort Engine Type HCS										
1.3l Engine Code J6	0.5	850	950	0.3	200	0.95	1.09	2800	3100	80
1.3l Engine Code J4	0.5	800	900	0.3	200	0.95	1.09	2800	3100	80
Escort Engine Type CVH										
1.4l Engine Code F4	0.5	840	900	0.3	200	0.95	1.09	2800	3100	80
Explorer Engine Type V6 SOHC										
4.0l Engine Code X	0.5	680	780	0.3	200	0.95	1.09	2800	3100	80
Galaxy Engine Type DOHC 8V										
2.0l Engine Code NS - 7 seat model	0.5	825	925	0.3	200	0.95	1.09	2800	3100	80

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (% Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
Galaxy Engine Type DOHC 16V										
2.3l Engine Code Y5 - 7 seat model	0.5	825	925	0.3	200	0.95	1.09	2800	3100	80
Galaxy Engine Type CD-V6 24V										
2.8l Engine Code AA - 7 seat model	0.5	650	750	0.3	200	0.95	1.09	2800	3100	80
2.8l Engine Code AM - 7 seat model	0.5	650	750	0.3	200	0.95	1.09	2800	3100	80
2.8l Engine Code AY - 7 seat model	0.5	650	750	0.3	200	0.95	1.09	2800	3100	80
Galaxy Engine Type DOHC										
2.0l Engine Code ZVS - 7 seat model	0.5	825	925	0.3	200	0.95	1.09	2800	3100	80
2.3l Engine Code E5S - 7 seat model	0.5	825	925	0.3	200	0.95	1.09	2800	3100	80
Maverick Engine Type OHC 12V										
2.4l Engine Code KA	0.5	750	850	0.3	200	0.95	1.09	2800	3100	80
Maverick Engine Type ZETEC-E 16V										
2.0l Engine Code YF	0.5	700	800	0.3	200	0.95	1.03	2800	3100	80
Maverick Engine Type DURATEC-V6										
3.0l Engine Code AJ	0.5	700	800	0.3	200	0.95	1.03	2800	3100	80
Transit / Tourneo Engine Type OHC										
2.0l Engine Code NC	0.5	850	950	0.3	200	0.95	1.09	2800	3100	80
Transit / Tourneo Engine Type DOHC 8V										
2.0l Engine Code NS	0.5	825	975	0.3	200	0.95	1.09	2800	3100	80
Transit / Tourneo Engine Type V6										
2.9l Engine Code BR	0.5	850	950	0.3	200	0.95	1.09	2800	3100	80
Transit / Tourneo Connect Engine Type ZETEC-E / DURATEC										
1.8l Engine Code EYP	0.5	670	730	0.3	200	0.95	1.03	2800	3100	80
Transit / Tourneo Connect Engine Type EcoBoost										
1.0l DI Engine Code M2G	0.3	660	860	0.2	200	0.97	1.03	2500	3000	80
Transit / Tourneo Engine Type DOHC 16V										
2.3l Engine Code E5F	0.5	825	975	0.3	200	0.95	1.09	2800	3100	80
Transit / Tourneo Engine Type DOHC DURATEC HE										
2.3l Engine Code GZF	0.3	700	800	0.2	200	0.97	1.03	1950	2050	80
Transit Courier Engine Type EcoBoost										
1.0l Engine Code SFC	0.3	760	960	0.2	200	0.97	1.03	2500	3000	80

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (% Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
HONDA										
<i>The Serial Code consists of the 4th, 5th, and 6th digits of the VIN number. The Serial Number consists of the last 7 digits of the VIN number.</i>										
Shuttle										
2.3l Shuttle LS/ES - Serial Code RA3	0.5	700	850	0.3	200	0.97	1.03	2500	3000	80
Stream										
Stream 1.7l Serial Code RN1	0.5	650	750	0.3	200	0.97	1.03	2500	3000	80
Stream 1.7l Serial Code RN1, 1 July 2002 onwards	0.3	650	750	0.2	200	0.97	1.03	2500	3000	80
Stream 2.0l Serial Code RN3	0.5	650	750	0.3	200	0.97	1.03	2500	3000	80
Stream 2.0l Serial Code RN3, 1 July 2002 onwards	0.3	650	750	0.2	200	0.97	1.03	2500	3000	80
HUMMER										
H3										
3.7L - Engine Code LLR	0.3	650	750	0.2	200	0.97	1.03	2500	3000	80
5.3L V8 - Engine Code LH8	0.3	500	600	0.2	200	0.97	1.03	2500	3000	80
HYUNDAI										
<i>The Engine Code is stamped on the Engine Block and the 10th digit of the VIN denotes the year of manufacture.</i>										
Santa Fe										
Santa Fe 2.4D Engine Code G4JP 2001 Model	0.5	700	900	0.3	200	0.97	1.03	2000	2500	80
Santa Fe 2.7D Engine Code G6BA 2001 Model	0.5	600	800	0.3	200	0.97	1.03	2000	2500	80
Santa Fe 2.4D Engine Code G4JP 2002 Model	0.5	700	900	0.3	200	0.97	1.03	2000	2500	80
Santa Fe 2.7D Engine Code G6BA 2002 Model	0.5	600	800	0.3	200	0.97	1.03	2000	2500	80
Santa Fe 2.4D Engine Code G4JS 2003 Model	0.3	700	900	0.2	200	0.97	1.03	2400	2600	80
Santa Fe 2.7D Engine Code G6BA 2003 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
Santa Fe 2.4D Engine Code G4JS 2004 Model	0.3	700	900	0.2	200	0.97	1.03	2400	2600	80
Santa Fe 2.7D Engine Code G6BA 2004 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
Santa Fe 2.4D Engine Code G4JS 2005 Model	0.3	700	900	0.2	200	0.97	1.03	2400	2600	80
Santa Fe 2.7D Engine Code G6BA 2005 Model	0.3	600	800	0.2	200	0.97	1.03	2400	2600	80
Santa Fe 2.7D Engine Code G6EA 2006 Model	0.3	580	780	0.2	200	0.97	1.03	2400	2600	80

1 Manufacturer/Marque	2			3						4 Min Oil Temp(°C)
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (% Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
Santa Fe 2.7D Engine Code G6EA 2007 Model	0.3	580	780	0.2	200	0.97	1.03	2400	2600	80
Santa Fe 2.7D Engine Code G6EA 2008 Model	0.3	580	780	0.2	200	0.97	1.03	2400	2600	80
Santa Fe 2.7D Engine Code G6EA 2009 Model	0.3	580	780	0.2	200	0.97	1.03	2400	2600	80
ISUZU										
Trooper										
3.2 V6	0.5	700	900	0.3	200	0.97	1.03	2500	3000	80
3.5	0.5	700	900	0.3	200	0.97	1.03	2500	3000	80
KIA										
The VIN number can be found on the VIN Plate.The Engine Code is stamped on the Engine Block and the 10th digit of the VIN denotes the year of manufacture.										
Pride Van										
Pride Van fitted with Feedback carburettor from VIN KNEDA **** P6005272	0.5	700	750	0.5	200	0.95	1.3	2500	3000	80
Pride Van fitted with fuel injection from VIN KNEDA **** RK003266	0.5	650	750	0.5	200	0.95	1.3	2500	3000	80
Sedona										
Sedona 2.5l V6 Engine Code KV6	0.5	675	775	0.3	200	0.97	1.03	2300	3000	80
Sedona 2.7l VIN commencing KNEMB	0.3	600	850	0.2	200	0.97	1.03	2500	3000	80
LAND ROVER										
The Model Code consists of the 3rd & 4th digits of the VIN number for codes LC, LF, LG, LV and LW or the 4th & 5th digits of the VIN number for codes LA, LD, LM and LS and defines the model. The Serial Number consists of the last 6 or 8 digits of the VIN number found on the VIN Plate. The Engine Code consists of the 8th digit of the VIN number and defines the engine type except for codes LG and LW where it is the 7th digit of the VIN.										
DiscoveryModel Code LJ										
2.0l LTi Engine Code Y	0.5	500	1000	0.3	200	0.95	1.09	2500	3000	70
3.9l V8 Engine Code M Serial number 117885 onwards	0.5	500	1000	0.3	200	0.95	1.09	2500	3000	70
DiscoveryModel LT										
All engines	0.5	500	1000	0.3	200	0.95	1.09	2500	3000	70
DiscoveryModel Code LA										
All engines	0.5	500	1000	0.3	200	0.95	1.09	2500	3000	70

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (% Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
DiscoverySport Model Code LC										
2.0L GTDI Engine Code G From VIN Serial Number FH000001	0.5	550	850	0.3	200	0.97	1.03	2350	2650	70
Revised Discovery4 Model Code LA										
3.0L Engine Code V From VIN serial No. EA000001 to FA999999	0.5	450	750	0.3	200	0.95	1.09	2350	2650	70
3.0L s/c Engine Code V From VIN serial No. GA000001	0.5	450	750	0.3	200	0.97	1.03	2350	2650	70
5.0L Engine Code D From VIN serial No. AA000001	0.5	450	750	0.3	200	0.95	1.09	2400	2600	70
Range Rover Classic Model Code LH										
3.9l V8 Engine Code M Serial number 656861 onwards	0.5	500	1000	0.3	200	0.95	1.09	2500	3000	70
4.2l V8 Engine Code 3	0.5	500	1000	0.3	200	0.95	1.09	2500	3000	70
Range Rover Model Code LP and LM										
All engines	0.5	500	1000	0.3	200	0.95	1.09	2500	3000	70
Revised Range Rover Model Code LM										
5.0L Engine Code D From VIN serial No. 306627	0.5	560	860	0.3	200	0.9	1.09	2400	2600	70
5.0L s/c Engine Code E From VIN serial No. 306628	0.5	560	860	0.3	200	0.9	1.09	2400	2600	70
NewRange Rover Model Code LG										
3.0L s/c Engine Code V From VIN serial No. EA000001 to EA999999	0.5	450	750	0.3	200	0.9	1.09	2350	2650	70
3.0L s/c Engine Code V From VIN serial No. FA000001	0.5	450	750	0.3	200	0.97	1.03	2350	2650	70
5.0L Engine Code D From VIN serial No. 000001	0.5	560	860	0.3	200	0.9	1.09	2350	2650	70
5.0L s/c Engine Code E From VIN serial No. DA000001 to EA999999	0.5	560	860	0.3	200	0.9	1.09	2350	2650	70
5.0L s/c Engine Code E From VIN serial No. FA000001	0.5	450	750	0.3	200	0.97	1.03	2350	2650	70
Range Rover Sport Model Code LS										
All engines	0.5	500	1000	0.3	200	0.95	1.09	2500	3000	70
Revised Range Rover Sport Model Code LS										
5.0L Engine Code D From VIN serial No. 215634	0.5	450	750	0.3	200	0.9	1.09	2400	2600	70
5.0L s/c Engine Code E From VIN serial No. 212652	0.5	450	750	0.3	200	0.9	1.09	2400	2600	70
NewRange Rover Sport Model Code LW										
3.0L s/c Engine Code V From VIN serial No. EA000001 to EA999999	0.5	450	750	0.3	200	0.9	1.09	2350	2650	70
5.0L s/c Engine Code E From VIN serial No. EA000001 to EA999999	0.5	560	860	0.3	200	0.9	1.09	2350	2650	70
3.0L s/c Engine Code V From VIN serial No. FA000001	0.5	450	750	0.3	200	0.97	1.03	2350	2650	70
5.0L s/c Engine Code E From VIN serial No. FA000001	0.5	450	750	0.3	200	0.97	1.03	2350	2650	70

1	2			3						4
Manufacturer/Marque	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	Min Oil Temp(°C)
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (% Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
Defender Model Code LD										
All engines	0.5	500	1000	0.3	200	0.95	1.09	2500	3000	70
MAZDA										
The VDS code consists of the 4th to 9th digit in the VIN number. The VIN can be found on the VIN plate. The serial number consists of the last 6 digits of the VIN number.										
E2000 Van										
2.0l VDS Code SR1JC2 serial number 800001 onwards	0.5	750	850	0.3	200	0.97	1.03	2400	2600	80
Premacy(7 seat)										
2.0l VDS Code CP69S2, CP69S5	0.5	650	750	0.3	200	0.97	1.03	2400	3000	80
MPV										
2.0l VDS Code LW19F2	0.5	600	700	0.3	200	0.97	1.03	2400	2600	80
2.3l VDS Code LW1932	0.5	600	700	0.3	200	0.97	1.03	2400	3000	80
Mazda5										
1.8l VDS Code CR1982	0.5	650	750	0.3	200	0.97	1.03	2400	3000	80
2.0l VDS Code CR19F2	0.5	600	700	0.3	200	0.97	1.03	2400	3000	80
MERCEDES BENZ										
The VIN Code consists of digits 4 to 9 of the VIN number. A4 = Automatic 4-speed, A5 = Automatic 5-speed, M5 = Manual 5-speed, SM5 = Semi-Manual 5-speed, M5/s = Manual 5 speed with sports gearbox. K = Kompressor, SWB = Short Wheel Base, LWB = Long Wheel Base										
CL (140)										
CL 420 A5 Coupé VIN Code 140063	0.5	600	750	0.3	200	0.97	1.03	2200	2800	80
CL 500 A5 Coupé VIN Code 140070	0.5	600	750	0.3	200	0.97	1.03	2200	2800	80
CL 600 A5 Coupé VIN Code 140076	0.5	600	750	0.3	200	0.97	1.03	2200	2800	80
CL (215)										
CL 500 A5 Coupé VIN Code 215375	0.5	600	750	0.3	200	0.97	1.03	2200	2800	80
CL 500 (ZEV) A5 Coupé VIN Code 215375	0.5	600	750	0.3	200	0.97	1.03	2200	2800	80
CL 55 AMG A5 Coupé VIN Code 215375	0.5	600	750	0.3	200	0.97	1.03	2200	2800	80
CL 600 A5 Coupé VIN Code 215378	0.5	600	750	0.3	200	0.97	1.03	2200	2800	80
CL (216)										
CL500 A7 VIN Code 216371	0.3	500	650	0.2	200	0.97	1.03	2200	2800	80

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
CL500 A7 VIN Code 216373	0.3	610	710	0.2	200	0.97	1.03	2200	2800	80
CL600 A5 VIN Code 216376	0.3	550	700	0.2	200	0.97	1.03	2200	2800	80
CL63 AMG A7 VIN Code 216374	0.3	500	700	0.2	200	0.97	1.03	2200	2800	80
CL63 AMG A7 VIN Code 216377	0.3	500	700	0.2	200	0.97	1.03	2200	2800	80
CL65 AMG A5 VIN Code 216379	0.3	540	690	0.2	200	0.97	1.03	2200	2800	80
CL Coupé (C215)										
CL 500 Automatic VIN Code 215375	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
CL 55 AMG Automatic VIN Code 215373	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
CL 55 AMG Automatic VIN Code 215374	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
CL 600 Automatic VIN Code 215376	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
CL 600 Automatic VIN Code 215378	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
CL 65 AMG Automatic VIN Code 215379	0.5	630	800	0.3	200	0.97	1.03	2200	2800	80
S-Class (140)										
S 280 A5 Saloon VIN Code 140028	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
S 320 A5 Saloon VIN Code 140032	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
S 420 A5 Saloon VIN Code 140042	0.5	600	750	0.3	200	0.97	1.03	2200	2800	80
S 500 A5 Saloon VIN Code 140050	0.5	600	750	0.3	200	0.97	1.03	2200	2800	80
S 320 A5 Limousine VIN Code 140033	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
S 420 A5 Limousine VIN Code 140043	0.5	600	750	0.3	200	0.97	1.03	2200	2800	80
S 500 A5 Limousine VIN Code 140051	0.5	600	750	0.3	200	0.97	1.03	2200	2800	80
S 600 A5 Limousine VIN Code 140057	0.5	600	750	0.3	200	0.97	1.03	2200	2800	80
S-Class (220)										
S 600 A5 Limousine VIN Code 220178	0.5	600	750	0.3	200	0.97	1.03	2200	2800	80
S 320 A5 Saloon VIN Code 220065	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
S 430 A5 Saloon VIN Code 220070	0.5	600	750	0.3	200	0.97	1.03	2200	2800	80
S 500 A5 Saloon VIN Code 220075	0.5	600	750	0.3	200	0.97	1.03	2200	2800	80
S 320 A5 Limousine VIN Code 220165	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
S 430 A5 Limousine VIN Code 220170	0.5	600	750	0.3	200	0.97	1.03	2200	2800	80
S 500 A5 Limousine VIN Code 220175	0.5	600	750	0.3	200	0.97	1.03	2200	2800	80
S 280 A5 Saloon VIN Code 220063	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
S 55 AMG A5 Limousine VIN Code 220175	0.5	600	750	0.3	200	0.97	1.03	2200	2800	80
S 500 A5 Pullman VIN Code 220875	0.5	600	750	0.3	200	0.97	1.03	2200	2800	80

1 Manufacturer/Marque	2			3						4 Min Oil Temp(°C)
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (% Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
S 55 AMG A5 Saloon VIN Code 220073	0.5	600	750	0.3	200	0.97	1.03	2200	2800	80
S 55 AMG A5 Limousine VIN Code 220173	0.5	600	750	0.3	200	0.97	1.03	2200	2800	80
S 600 A5 Pullman VIN Code 220878	0.5	600	750	0.3	200	0.97	1.03	2200	2800	80
S 63 AMG A5 VIN Code 220178	0.5	600	750	0.3	200	0.97	1.03	2200	2800	80
S 55 AMG A5 Saloon VIN Code 220075	0.5	600	750	0.3	200	0.97	1.03	2200	2800	80
S-Class (221)										
S63 AMG SWB A7 VIN Code 221077	0.3	500	700	0.2	200	0.97	1.03	2200	2800	80
S63 AMG LWB A7 VIN Code 221174	0.3	500	700	0.2	200	0.97	1.03	2200	2800	80
S63 AMG LWB A7 VIN Code 221177	0.3	500	700	0.2	200	0.97	1.03	2200	2800	80
S65 AMG LWB A7 VIN Code 221179	0.3	540	690	0.2	200	0.97	1.03	2200	2800	80
S600 LWB A7 VIN Code 221176	0.3	550	700	0.2	200	0.97	1.03	2200	2800	80
S500 SWB A7 VIN Code 221071	0.3	500	650	0.2	200	0.97	1.03	2200	2800	80
S500 LWB A7 VIN Code 221171	0.3	500	650	0.2	200	0.97	1.03	2200	2800	80
S500 LWB A7 VIN Code 221173	0.3	610	710	0.2	200	0.97	1.03	2200	2800	80
S450 SWB A7 VIN Code 221070	0.3	500	650	0.2	200	0.97	1.03	2200	2800	80
S450 LWB A7 VIN Code 221170	0.3	500	650	0.2	200	0.97	1.03	2200	2800	80
S350 SWB A7 VIN Code 221056	0.3	550	700	0.2	200	0.97	1.03	2200	2800	80
S350 SWB A7 VIN Code 221057	0.3	670	770	0.2	200	0.97	1.03	2200	2800	80
S350 LWB A7 VIN Code 221156	0.3	550	700	0.2	200	0.97	1.03	2200	2800	80
S350 LWB A7 VIN Code 221157	0.3	670	770	0.2	200	0.97	1.03	2200	2800	80
S280 SWB A7 VIN Code 221054	0.3	550	700	0.2	200	0.97	1.03	2200	2800	80
S280 LWB A7 VIN Code 221154	0.3	550	700	0.2	200	0.97	1.03	2200	2800	80
S-Class (W 220)										
S280 SWB Automatic VIN Code 220063	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
S430 LWB Automatic VIN Code 220170	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
S430 SWB Automatic VIN Code 220070	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
S-Class Saloon (V222)										
S500 L A7 VIN Code 222182	0.3	550	750	0.2	200	0.97	1.03	2200	2800	80
S600 L A7 VIN Code 222176	0.3	490	690	0.2	200	0.97	1.03	2200	2800	80
S63 AMG L A7 VIN Code 222177	0.3	550	800	0.2	200	0.97	1.03	2200	2800	80
S65 AMG L A7 VIN Code 222179	0.3	490	690	0.2	200	0.97	1.03	2200	2800	80
Maybach S600 A7 VIN Code 222976	0.3	490	690	0.2	200	0.97	1.03	2200	2800	80

1 Manufacturer/Marque	2			3						4 Min Oil Temp(°C)
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (% Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
Maybach S650 A7 VIN Code 222980	0.3	490	690	0.2	200	0.97	1.03	2200	2800	80
S-Class Coupé (C217)										
S500 A7 VIN Code 217382	0.3	550	750	0.2	200	0.97	1.03	2200	2800	80
S63 AMG A7 VIN Code 217377	0.3	550	750	0.2	200	0.97	1.03	2200	2800	80
S65 AMG A7 VIN Code 217379	0.3	490	690	0.2	200	0.97	1.03	2200	2800	80
S-Class Cabriolet (A217)										
Maybach S650 A7 VIN Code 217479	0.3	490	690	0.2	200	0.97	1.03	2200	2800	80
S500 A9 VIN Code 217482	0.3	570	770	0.2	200	0.97	1.03	2200	2800	80
S63 AMG A7 VIN Code 217477	0.3	550	800	0.2	200	0.97	1.03	2200	2800	80
S65 AMG A7 VIN Code 217479	0.3	490	690	0.2	200	0.97	1.03	2200	2800	80
G-Class (V463)										
G63 AMG A7 Vin Code 463272	0.3	500	700	0.2	200	0.97	1.03	2200	2800	80
GL-Class (X164)										
GL 450 A7 5 Door VIN Code 164871	0.5	600	750	0.3	200	0.97	1.03	2200	2800	98
GL 500 A7 5 Door VIN Code 164886	0.3	600	750	0.2	200	0.97	1.03	2500	3000	98
GL-Class (X166)										
GL 63 AMG A7 VIN Code 166874	0.3	500	700	0.2	200	0.97	1.03	2200	2800	80
GLE Estate (W 166)										
GLE 450 AMG A7 VIN Code 166064	0.3	510	660	0.2	200	0.97	1.03	2200	2800	80
AMG GLE 43 4MATIC A9 VIN Code 166064	0.3	510	660	0.2	200	0.97	1.03	2200	2800	80
AMG GLE 63 S A7 VIN Code 166075	0.3	550	950	0.2	200	0.97	1.03	2200	2800	80
GLE Coupé (C292)										
GLE 450 AMG A7 VIN Code 292364	0.3	510	660	0.2	200	0.97	1.03	2200	2800	80
AMG GLE 43 4MATIC A9 VIN Code 292364	0.3	510	710	0.2	200	0.97	1.03	2200	2800	80
AMG GLE 63 S A7 VIN Code 292375	0.3	550	950	0.2	200	0.97	1.03	2200	2800	80
GLS (X166)										
AMG GLS 63 S A7 VIN Code 166875	0.3	550	950	0.2	200	0.97	1.03	2200	2800	80
M-Class (163)										
ML 320 A5 5 Door Estate VIN Code 163154	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
ML 350 Automatic VIN Code 163157	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
ML 430 A5 5 Door Estate VIN Code 163172	0.5	600	750	0.3	200	0.97	1.03	2200	2800	80

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
ML 500 A5 VIN code 163175	0.5	600	750	0.3	200	0.97	1.03	2200	2800	80
ML 55 AMG A5 Estate VIN Code 163174	0.5	600	750	0.3	200	0.97	1.03	2200	2800	80
M-Class (164)										
ML 350 5 Door A7 VIN Code 164186	0.3	550	700	0.2	200	0.97	1.03	2500	3000	97
ML 500 5 Door A7 VIN Code 164172	0.3	600	750	0.2	200	0.97	1.03	2500	3000	98
ML 500 5 Door A7 VIN Code 164175	0.3	600	750	0.2	200	0.97	1.03	2500	3000	98
ML 63 AMG 5 Door A7 VIN Code 164177	0.5	600	750	0.2	200	0.97	1.03	2500	3000	98
M-Class (W 166)										
ML 63 AMG A7 VIN Code 166074	0.3	500	700	0.2	200	0.97	1.03	2200	2800	80
V-Class (638)										
V 230 Ambiente A4 Estate VIN Code 638234	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
V 280 Ambiente A4 Estate VIN Code 638235	0.5	650	800	0.3	200	0.97	1.03	2200	2800	80
V 230 Ambiente M5 Estate VIN Code 638234	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
V 230 Fashion A4 Estate VIN Code 638234	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
V 230 Fashion M5 Estate VIN Code 638234	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
V 230 Trend A4 Estate VIN Code 638234	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
V 230 Trend M5 Estate VIN Code 638234	0.5	700	800	0.3	200	0.97	1.03	2200	2800	80
Light Goods Vehicles										
Vito 114 M5 Light Commercial	0.5	700	800	0.3	200	0.97	1.03	2200	2800	70
Sprinter 214 M5 Light Commercial	0.5	600	850	0.3	200	0.97	1.03	2200	2800	70
Sprinter 314 M5 Light Commercial	0.5	600	850	0.3	200	0.97	1.03	2200	2800	70
Viano/Vito										
Viano 3.0	0.5	750	850	0.3	200	0.97	1.03	2000	2800	82
Viano 3.2	0.5	750	850	0.3	200	0.97	1.03	2000	2800	82
Viano 3.5	0.5	750	850	0.3	200	0.97	1.03	2000	2800	82
Vito	0.5	750	850	0.3	200	0.97	1.03	2000	2800	82
Vito 119	0.5	750	850	0.3	200	0.97	1.03	2000	2800	82
Vito 122	0.5	750	850	0.3	200	0.97	1.03	2000	2800	82
Maybach										
Maybach VIN Code 240078	0.5	650	800	0.3	200	0.97	1.03	2200	2500	96
Maybach VIN Code 240178	0.5	650	800	0.3	200	0.97	1.03	2200	2500	96

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
MINI (BMW AG)										
The Engine Code is stamped on the Engine Block and VIN Plate. No longer on VIN plate from 03/2011.										
MINI (R55)										
One Clubvan Engine Code N16 B16 A	0.2	700	850	0.2	200	0.97	1.03	2300	2700	60
Cooper Clubvan Engine Code N16 B16 A	0.2	700	850	0.2	200	0.97	1.03	2300	2700	60
MITSUBISHI										
The engine code can be confirmed from the vehicle's model code plate which is attached to the under side of the Bonnet or on top of the Headlamp Front Panel										
L300										
2.0l MPI Model Code P03V Engine Type 4G63 SOHC SWB MY 1995 to 1999	0.5	650	850	0.3	200	0.97	1.03	2500	2800	80
2.0l MPI Model Code P13V Engine Type 4G63 SOHC LWB MY 1995 to 1999	0.5	650	850	0.3	200	0.97	1.03	2500	2800	80
2.0l MPI Model Code P13T Engine Type 4G63 SOHC MY 1995 to 1999	0.5	650	850	0.3	200	0.97	1.03	2500	2800	80
Shogun										
3.5 GDI Model Code V65W Engine Type 6G74 V6 Automatic MY 2001 onwards	0.3	550	750	0.2	200	0.97	1.03	2400	2600	80
3.5 GDI Model Code V78W Engine Type 6G74 V6 Automatic MY 2001 onwards	0.3	550	750	0.2	200	0.97	1.03	2400	2600	80
3.5 GDI Model Code V78W Engine Type 6G74 V6 Manual MY 2001 onwards	0.3	550	750	0.2	200	0.97	1.03	2400	2600	80
NISSAN										
The Serial No consists of the last 6 digits of the VIN number. The Model Code is derived from positions 7 - 9 of the VIN number.										
Terrano II Model Code R20										
All versions Serial No 232476 onwards	0.3	600	1000	0.2	200	0.97	1.03	2500	3000	80
Patrol Model Code Y60										
4.2l from Serial Number 000167 to 800000	0.3	600	1000	0.2	200	0.97	1.03	2500	3000	80
Serena Model Code C23										
All versions Serial Number 000001 to 150000 + 186316 onwards	0.3	600	1000	0.2	200	0.97	1.03	2500	3000	80
Primastar										
All Versions	0.3	600	1000	0.2	200	0.97	1.03	2500	3000	80
Interstar										
All versions	0.3	600	1000	0.2	200	0.97	1.03	2500	3000	80

1 Manufacturer/ Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
Kubistar										
All versions	0.3	600	1000	0.2	200	0.97	1.03	2500	3000	80
Pathfinder Pick-up Model Code D40										
All Versions	0.3	450	1500	0.2	200	0.97	1.03	2500	3000	80
NV200										
Engine Code HR16 All Versions	0.3	600	1000	0.2	200	0.97	1.03	2500	3000	80
NV300										
All Versions	0.3	600	1000	0.2	200	0.97	1.03	2500	3000	80
NV400										
All versions	0.3	600	1000	0.2	200	0.97	1.03	2500	3000	80
PEUGEOT										
<i>The Engine Code consists of the 6th to 8th character in the VIN number, except Boxer Vans</i>										
806 series										
Engine Code RFV 1998cc - 7 and 8 seats	0.5	800	900	0.3	200	0.97	1.03	2000	2500	80
Engine Code RFN 1998cc - 7 and 8 seats	0.5	600	800	0.3	200	0.97	1.03	2000	3000	80
807 series										
Engine Code RFN 1997cc - 7 and 8 seats	0.5	600	800	0.3	200	0.97	1.03	2000	3000	80
Engine Code RFJ 1997cc	0.5	700	950	0.3	200	0.97	1.03	2000	3000	80
Engine Code 3FZ 2230cc - 7 and 8 seats	0.5	600	950	0.3	200	0.97	1.03	2000	3000	80
Engine Code 3FY 2230cc	0.5	600	950	0.3	200	0.97	1.03	2000	3000	80
Bipper Tepee Series										
Engine Code KfV 1360cc	0.5	650	900	0.3	200	0.97	1.03	2000	3000	80
Engine Code KFT 1360cc	0.5	650	850	0.3	200	0.97	1.03	2000	3000	80
Partner Combi Series										
Engine Code KFW 1360cc	0.5	750	950	0.3	200	0.97	1.03	2000	3000	80
Engine Code NFU 1587cc	0.5	650	850	0.3	200	0.97	1.03	2000	3000	80
Partner Tepee Series										
Engine Code NFU 1587cc	0.5	600	900	0.3	200	0.97	1.03	2000	3000	80
Engine code NFR 1587cc	0.5	600	900	0.3	200	0.97	1.03	2000	3000	80
Engine Code 5FS 1598cc	0.5	550	850	0.3	200	0.97	1.03	2000	3000	80

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
Engine Code 5FK 1598cc	0.5	600	900	0.3	200	0.97	1.03	2000	3000	80
Engine Code HNZ 1199cc	0.5	600	900	0.3	200	0.97	1.03	2000	3000	94
Partner Van										
Engine Code KFX 1360cc	0.5	800	900	0.3	200	0.97	1.03	2000	2500	80
Engine Code KFW 1360cc	0.5	750	950	0.3	200	0.97	1.03	2000	2500	80
Engine Code NFR 1587cc	0.5	600	900	0.3	200	0.97	1.03	2000	3000	80
Engine Code 5FK 1598cc	0.5	600	900	0.3	200	0.97	1.03	2000	3000	80
Engine Code HNZ 1199cc	0.5	600	900	0.3	200	0.97	1.03	2000	3000	94
Expert Van										
Engine Code RFN 1997cc	0.5	600	800	0.3	200	0.97	1.03	2000	2400	80
Engine Code RFH 1997cc	0.5	600	800	0.3	200	0.97	1.03	2000	2400	80
Old Boxer Van										
Engine Code M 1998cc (Engine Code consists of the 8th Character of the VIN)	0.5	800	900	0.3	200	0.97	1.03	2000	2500	80
NewBoxer Van										
Engine Code T 1998cc (Engine Code consists of the 6th Character of the VIN)	0.5	750	950	0.3	200	0.97	1.03	2000	3000	80
207 Van										
Engine Code KVV 1360cc	0.5	650	900	0.3	200	0.97	1.03	2000	3000	80
Bipper Van										
Engine Code KVV 1360cc	0.5	650	900	0.3	200	0.97	1.03	2000	3000	80
Engine Code KFT 1360cc	0.5	650	850	0.3	200	0.97	1.03	2000	3000	80
PROTON										
The Model Code consists of the 4th to 8th character of the VIN number.										
Jumbuck										
C97PN VIN No. PL1C97PNR3B***** Engine Type 4G15	0.75	800	850	0.3	200	0.98	1.02	2500	2800	80
Exora										
Engine Code S4PH-CFE	0.3	650	850	0.2	200	0.97	1.03	2350	2600	80

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
RENAULT										
The Engine Code is stamped on a plate attached to the engine. Exact location is given in the vehicle handbook. Alphanumeric in brackets may be found on the VIN or oval plate. X, * or ? may be replaced with any other letter or digit.										
All Models 1998 Onwards										
All Models 1998 onwards	0.5	450	1500	0.3	200	0.97	1.03	2500	3000	80
Laguna Estate										
1.8l RN, RT (B/K56A05) Engine Code F3P S7 24	0.5	725	775	0.3	200	0.97	1.03	2500	2800	80
1.8l RN, RT (B/K56B*5/J/C/15) Engine Code F3P C6 78	0.5	725	775	0.3	200	0.97	1.03	2500	2800	80
1.8l RN, RT (B/K56T*5) Engine Code F3P B6 70/74	0.5	740	790	0.3	200	0.97	1.03	2500	2800	80
1.8l RN, RT (B/K560*5/0*C) Engine Code F3P B6 70/74	0.5	740	790	0.3	200	0.97	1.03	2500	2800	80
2.0l RN, RT, RXE (B/K56C15) Engine Code F3R E7 22	0.5	750	850	0.3	200	0.97	1.03	2500	2800	80
2.0l RN, RT, RXE (B/K56C12) Engine Code F3R E7 23	0.5	700	800	0.3	200	0.97	1.03	2500	2800	80
2.0l RN, RT, RXE (B/K56C*C/H*C) Engine Code F3R E7 22	0.5	750	850	0.3	200	0.97	1.03	2500	2800	80
2.0l RN, RT, RXE (B/K56C02/H02) Engine Code F3R E7 23	0.5	700	800	0.3	200	0.97	1.03	2500	2800	80
2.0l RN, RT, RXE (B/K56L*5/L*E) Engine Code F3R J7 28/68	0.5	790	840	0.3	200	0.97	1.03	2500	2800	80
2.0l RN, RT, RXE (B/K56L0C/L*C) Engine Code F3R J7 28/68	0.5	790	840	0.3	200	0.97	1.03	2500	2800	80
2.0l RN, RT, RXE (B/K56L02) Engine Code F3R K7 29/69	0.5	740	790	0.3	200	0.97	1.03	2500	2800	80
2.0l RN, RT (B/K56L*A) Engine Code F3R K7 29/69	0.5	740	790	0.3	200	0.97	1.03	2500	2800	80
2.0l 16V RT, RXE (B/K56D05) Engine Code N7Q A7 00	0.5	770	830	0.3	200	0.97	1.03	2500	2800	80
2.0l 16V RT, RXE (B/K56M*5) Engine Code N7Q D7 04	0.5	770	830	0.3	200	0.97	1.03	2500	2800	80
V6 RT, RXE (B/K56E05) Engine Code Z7X G7 60	0.5	665	715	0.3	200	0.97	1.03	2500	2800	80
V6 RT, RXE (B/K56E02) Engine Code Z7X F7 61	0.5	665	715	0.3	200	0.97	1.03	2500	2800	80
V6 RT, RXE (B/K56R02) Engine Code Z7X U7 65	0.5	665	715	0.3	200	0.97	1.03	2500	2800	80
V6 RT, RXE (B/K56502) Engine Code Z7X 17 67	0.5	650	750	0.3	200	0.97	1.03	2500	2800	80
V6 RT, RXE (B/K56V05) Engine Code L7X A7 00	0.5	600	680	0.3	200	0.97	1.03	2500	2800	80
V6 RT, RXE (B/K56V02) Engine Code L7X B7 01	0.5	600	680	0.3	200	0.97	1.03	2500	2800	80
Renault 21 Savanna Estate										
1.7l RN, RT (K/L/B48E05) Engine Code F3N C7 22	0.5	700	900	0.3	200	0.97	1.03	2500	2800	80
1.7l RN, RT Auto (K/L/B48E02) Engine Code F3N P7 23	0.5	800	850	0.3	200	0.97	1.03	2500	2800	80
2.0l RN, RT (K/L/B48C05) Engine Code J7R U7 46	0.5	750	850	0.3	200	0.97	1.03	2500	2800	80
2.0l RN, RT Auto (K/L/B48C02) Engine Code J7R V7 47	0.5	750	850	0.3	200	0.97	1.03	2500	2800	80

1 Manufacturer/Marque	2			3						4 Min Oil Temp(°C)
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (% Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
2.0l RN, RT (K/L/B48R05/08) Engine Code J7R L7 40	0.5	825	925	0.3	200	0.97	1.03	2500	2800	80
2.2l RN, RT (K/L/B48K05/08) Engine Code J7R L7 54	0.5	750	850	0.3	200	0.97	1.03	2500	2800	80
2.2l RN, RT Auto (K/L/B48K02) Engine Code J7T M7 55	0.5	750	850	0.3	200	0.97	1.03	2500	2800	80
2.0l RN, RT (K48B05) Engine Code J7T M7 56	0.5	775	825	0.3	200	0.97	1.03	2500	2800	80
Espace (J63 Series)										
2.0l RN, RT, RXE (J63615) Engine Code J7R 37 68	0.5	785	835	0.3	200	0.97	1.03	2500	2800	80
2.2l RN, RT, RXE (J63705/08) Engine Code J7T V7 72	0.5	775	825	0.3	200	0.97	1.03	2500	2800	80
2.2l RN, RT, RXE Auto (J63712) Engine Code J7T W7 73	0.5	725	875	0.3	200	0.97	1.03	2500	2800	80
2.2l RN, RT, RXE Auto (J63725) Engine Code J7T 37 76	0.5	775	825	0.3	200	0.97	1.03	2500	2800	80
2.8l V6 RT, RXE Auto (J63805) Engine Code Z7W G7 12	0.5	635	785	0.3	200	0.97	1.03	2500	2800	80
2.8l V6 RT, RXE Auto (J63832/45) Engine Code Z7W H7 13	0.5	695	845	0.3	200	0.97	1.03	2500	2800	80
2.8l V6 RT, RXE Auto (J63822) Engine Code Z7W J7 17	0.5	695	845	0.3	200	0.97	1.03	2500	2800	80
Espace (J66 Series)										
2.0l RN, RT, RXE (JE0A05) Engine Code F3R J7 28/68	0.5	780	850	0.3	200	0.97	1.03	2500	2800	80
2.0l RN, RT, RXE Auto (JE0A02) Engine Code F3R K7 29/69	0.5	730	800	0.3	200	0.97	1.03	2500	2800	80
2.9l RT, RXE Auto (JE0D02) Engine Code Z7X 27 75	0.5	650	750	0.3	200	0.97	1.03	2500	2800	80
Espace (JK Series)										
2.0l JKO??? Engine Code F4R ?? ??	0.5	750	800	0.3	200	0.97	1.03	2500	2800	80
3.5l JKO??? Engine Code V4Y ?? ??	0.5	750	800	0.3	200	0.97	1.03	2500	2800	80
2.0l Turbo Engine Code F4R	0.5	750	800	0.3	200	0.97	1.03	2500	2800	80
Extra L.C.V.										
1.2l (F4060/M4/5) Engine Code C3G B7 10	0.5	670	790	0.3	200	0.97	1.03	2500	2800	80
1.2l (G40A*5) Engine Code C3G F7 12	0.5	670	790	0.3	200	0.97	1.03	2500	2800	80
1.4l (F40705/M5) Engine Code C3J H7 62	0.5	800	900	0.3	200	0.97	1.03	2500	2800	80
1.4l (F40U0/P/M/K5) Engine Code E7J Q7 24	0.5	700	900	0.3	200	0.97	1.03	2500	2800	80
1.4l (F40U0/P/M/K5) Engine Code E7J Q7 26	0.5	750	850	0.3	200	0.97	1.03	2500	2800	80
1.4l (F40V0/P/M/K5) Engine Code E7J E7 20	0.5	700	900	0.3	200	0.97	1.03	2500	2800	80
1.4l (F40D05) Engine Code E7J W7 28	0.5	750	900	0.3	200	0.97	1.03	2500	2800	80
1.4l (F40S*5) Engine Code E7J S7 70	0.5	800	850	0.3	200	0.97	1.03	2500	2800	80
1.4l Auto (F40U0/P/M1) Engine Code E7 J7 73	0.5	700	900	0.3	200	0.97	1.03	2500	2800	80
1.4l Auto (F40S*1) Engine Code E7 J67 71	0.5	800	850	0.3	200	0.97	1.03	2500	2800	80

1 Manufacturer/Marque	2			3						4 Min Oil Temp(°C)
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (% Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
Kangoo L.C.V.										
1.2l F/K C0AAF Engine Code (D7F 710/720)	0.5	700	780	0.3	200	0.97	1.03	2500	2800	80
1.2l F/K C0AAG Engine Code (D7F D 720)	0.5	700	780	0.3	200	0.97	1.03	2500	2800	80
Trafic										
Trafic (T**EO5) Engine Code J7T A6 00	0.5	725	775	0.3	200	0.97	1.03	2500	2800	80
Trafic 4X4 (V5WE08) Engine Code J7T A6 00	0.5	725	775	0.3	200	0.97	1.03	2500	2800	80
Trafic All models 2010 onwards	0.5	725	775	0.3	200	0.97	1.03	2500	2800	80
Master										
Master T35 (FB30AE) Engine Code J7T 27 88	0.5	795	845	0.3	200	0.97	1.03	2500	2800	80
Master All models 2010 onwards	0.5	795	845	0.3	200	0.97	1.03	2500	2800	80
ROLLS-ROYCE										
<i>For Rolls-Royce models before 2003, refer to Bentley Motors Ltd. The VIN can be found on the VIN Plate</i>										
Phantom										
Phantom Engine Code N73B68A	0.3	450	650	0.2	200	0.97	1.03	2300	2700	80
Ghost										
Ghost Engine Code N74B66A	0.3	450	650	0.2	200	0.97	1.03	2300	2700	80
Wraith										
Wraith Engine Code N74B66A	0.3	450	650	0.2	200	0.97	1.03	2300	2700	80
Dawn										
Dawn Engine Code N74B66A	0.3	450	650	0.2	200	0.97	1.03	2300	2700	80
SEAT										
<i>The Engine Code is stamped on the Engine Block.</i>										
Alhambra Series										
1.8l injection Engine with Turbo Code AJH Model Year 97 - 00	0.5	780	860	0.3	200	0.97	1.03	2500	2800	80
1.8l injection Engine with Turbo Code AWC Model Year 01 -	0.5	760	880	0.3	200	0.97	1.03	2500	3000	80
2.0l injection Engine Code ADY Model Year 97 - 00	0.5	770	870	0.3	200	0.97	1.03	2500	2800	80
2.0l injection Engine Code ATM Model Year 01 -	0.5	750	860	0.3	200	0.97	1.03	2500	3000	80
2.8l V6 24V injection Engine Code AYL Model Year 01 -	0.5	650	750	0.3	200	0.97	1.03	2500	3000	80

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
Inca Series										
1.4l injection Engine Codes AEX and APQ	0.5	690	890	0.3	200	0.97	1.03	2500	2800	80
1.4l injection Engine Codes AKK and AUD	0.5	600	940	0.3	200	0.97	1.03	2500	2800	80
1.4l 16V injection Engine Code AUA	0.5	800	900	0.3	200	0.97	1.03	2800	3200	80
1.6l injection Engine Code 1F (From M Registration on)	0.5	750	850	0.3	200	0.97	1.03	2500	2800	80
1.6l injection Engine Codes AEE and ALM	0.5	823	873	0.3	200	0.97	1.03	2500	2800	80
SKODA										
The engine code is stamped on the engine block.										
Favorit Type 785 Van										
1.3l Engine Code 781.135B VIN Code CEF	0.5	750	850	0.3	200	0.97	1.03	2500	2800	80
1.3l Engine Code 781.136B VIN Code CFF	0.5	750	850	0.3	200	0.97	1.03	2500	2800	80
Favorit Type 787 Pickup										
1.3l Engine Code 781.135B VIN Code DEF	0.5	750	850	0.3	200	0.97	1.03	2500	2800	80
1.3l Engine Code 781.136B VIN Code DFF	0.5	750	850	0.3	200	0.97	1.03	2500	2800	80
Felicia Vanplus Type 795 Van										
1.3l Engine Code 781.135B VIN Code EEF	0.5	760	850	0.3	200	0.97	1.03	2500	2800	80
1.3l Engine Code 781.136B VIN Code EFF	0.5	760	850	0.3	200	0.97	1.03	2500	2800	80
1.3l Engine Code 781.136M VIN Code EFF	0.5	765	815	0.3	200	0.97	1.03	2500	2800	80
Felicia Type 797 Pickup										
1.3l Engine Code 781.135B VIN Code EEF	0.5	750	850	0.3	200	0.97	1.03	2500	2800	80
1.3l Engine Code 781.136B VIN Code EFF	0.5	750	850	0.3	200	0.97	1.03	2500	2800	80
1.3l Engine Code 781.135M VIN Code EEF	0.5	765	815	0.3	200	0.97	1.03	2500	2800	80
1.3l Engine Code 781.136M VIN Code EFF	0.5	765	815	0.3	200	0.97	1.03	2500	2800	80
1.6l injection Engine Code AEE	0.5	550	930	0.3	200	0.97	1.03	2500	2800	80
Felicia Fun Pickup										
1.6l injection Engine Code AEE	0.5	550	930	0.3	200	0.97	1.03	2500	2800	80
SSANGYONG										
Rexton										
320 SX	0.5	650	900	0.3	200	0.97	1.03	2000	3000	80

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
Musso										
GX220	0.5	650	900	0.3	200	0.97	1.03	2500	3000	80
2.3 Petrol	0.5	650	900	0.3	200	0.97	1.03	2000	3000	80
Korando										
2.3 Petrol	0.5	650	900	0.3	200	0.97	1.03	2000	3000	80
TOYOTA										
<i>The Model Code is stamped on the VIN Plate. The series of numbers after each Engine Code relate to the last 7 digits of the VIN number.</i>										
Previa 1990 - 1999										
Model Code TCR11 Engine Code 2TZ-FE Manual 2.4L From VIN No (last 7 digits) 0000001	0.5	650	750	0.3	200	0.97	1.03	2400	2600	60
Model Code TCR11 Engine Code 2TZ-FE Auto 2.4L From VIN No (last 7 digits) 0000001	0.5	700	800	0.3	200	0.97	1.03	2400	2600	60
Previa 2000 - 2006										
Model Code ACR30 Engine Code 2AZ-FE Manual 2.4L From VIN No. (last 7 digits) 0000001	0.5	650	750	0.3	200	0.97	1.03	2400	2600	60
Model Code ACR30 Engine Code 2AZ-FE Auto 2.4L From VIN No. (last 7 digits) 0000001	0.5	600	700	0.3	200	0.97	1.03	2400	2600	60
4 Runner 1988 - 1995										
Model Code VZN130 Engine Code 3VZ-E 3.0L From VIN No (last 7 digits) 9016985	0.5	750	850	0.3	200	0.97	1.03	2400	2600	60
Landcruiser 90 Colorado 1996 - 2002										
Model Code VZJ95 Engine Code 5VZ-FE 3.4L From VIN No (last 7 digits) 0000001	0.5	650	750	0.3	200	0.97	1.03	2400	2600	60
Landcruiser 2003 - 2009										
Model Code GRJ120 Engine Code 1GR-FE 4.0L From VIN No (last 7 digits) 0000001	0.3	650	750	0.2	200	0.97	1.03	2400	2600	60
Model Code GRJ125 Engine Code 1GR-FE 4.0L From VIN No (last 7 digits) 0000001	0.3	650	750	0.2	200	0.97	1.03	2400	2600	60
Landcruiser 80 VX/Amazon 1990 - 1998										
Model Code FZJ80 Engine Code 1FZ-FE 4.5L From VIN Nos (last 7 digits) 0093520 or 7000287	0.5	600	700	0.3	200	0.97	1.03	2400	2600	60
Landcruiser 100 Amazon 1998 - 2007										
Model Code UZJ100 Engine Code 2UZ-FE Automatic 4.7L From VIN No (last 7 digits) 0000001	0.5	650	750	0.3	200	0.97	1.03	2400	2600	60
Hiace 1989 - 1995										
Model Code RZH113 Engine Code 2RZ-E 2.4L From VIN Nos (last 7 digits) 0012105 or 6002420 or 8003830	0.5	750	850	0.3	200	0.97	1.03	2400	2600	60
Model Code RZH113 Engine Code 2RZ-E 2.4L From VIN Nos (last 7 digits) 0011577 or 6002176 or 8003745	0.5	750	850	0.3	200	0.97	1.03	2400	2600	60
Hiace 1995 - 2006										
Model Code RCH12 Engine Code 2RZ-E 2.4L From VIN No. (last 7 digits) 0000001	0.5	750	850	0.3	200	0.97	1.03	2400	2600	60

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
Model Code RCH13 Engine Code 3RZ-FE 2.7L From VIN No. (last 7 digits) 0000001	0.5	650	750	0.3	200	0.97	1.03	2400	2600	60
VAUXHALL										
The Engine Code is stamped on the Engine Block.										
Combo										
Engine Code C14NZ/OHC	0.5	830	990	0.3	200	0.97	1.03	2800	3200	80
Engine Code X14SZ/OHC	0.5	790	950	0.3	200	0.97	1.03	2800	3200	80
Engine Code C14SE	0.5	850	1010	0.3	200	0.97	1.03	2800	3200	80
Engine Code Z16SE (As of MY 2002 - 2 in chassis)	0.5	710	930	0.3	200	0.97	1.03	2800	3200	80
Engine Code Z14XEP (As of MY 2005)	0.3	670	830	0.2	200	0.97	1.03	2800	3200	80
Engine Code A14XE	0.3	700	950	0.2	200	0.97	1.03	2800	3200	80
Engine Code B14XE	0.3	700	950	0.2	200	0.97	1.03	2800	3200	80
Astra Van										
Engine Code C16NZ/OHC	0.5	780	940	0.3	200	0.97	1.03	2800	3200	80
Engine Code C14NZ	0.5	830	990	0.3	200	0.97	1.03	2800	3200	80
Engine Code C16SE/OHC	0.5	820	980	0.3	200	0.97	1.03	2800	3200	80
Engine Code X16SZR/OHC - (Manual)	0.5	770	930	0.3	200	0.97	1.03	2800	3200	80
Engine Code X16SZR/OHC - (Automatic)	0.5	710	910	0.3	200	0.97	1.03	2800	3200	80
Engine Code Z16SE (As of MY 1998 - W in chassis)	0.5	690	920	0.3	200	0.97	1.03	2800	3200	80
Engine Code Z16SE (As of MY 2001 - 1 in chassis)	0.5	710	930	0.3	200	0.97	1.03	2800	3200	80
Engine Code Z16XE (As of MY 2005)	0.3	710	930	0.2	200	0.97	1.03	2800	3200	80
Engine Code Z16XEP (As of MY 2005)	0.3	710	930	0.2	200	0.97	1.03	2800	3200	80
Engine Code Z14XEP (As of MY 2007)	0.3	720	880	0.2	200	0.97	1.03	2800	3200	80
Frontera										
Engine Code X22XE	0.5	670	1030	0.3	200	0.97	1.03	2800	3200	80
Sintra										
Engine Code X22XE/DOHC	0.5	600	760	0.3	200	0.97	1.03	2800	3200	80
Engine Code X30XE/DOHC	0.5	600	760	0.3	200	0.97	1.03	2800	3200	80
Monterey										
Engine Code 6VD1 (3.2l V6 24V)	0.5	720	800	0.3	200	0.97	1.03	2800	3200	80

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
Brava										
Engine Code 4ZD1	0.5	850	950	0.3	200	0.97	1.03	2800	3200	80
Corsa Van										
C14NZ/OHC	0.5	830	990	0.3	200	0.97	1.03	2800	3200	80
X14SZ/OHC	0.5	790	950	0.3	200	0.97	1.03	2800	3200	80
Z12XEP (As of MY 2005)	0.3	670	830	0.2	200	0.97	1.03	2800	3200	80
A12XEL(As of MY 2010 - A is 10th digit in chassis)	0.5	780	1000	0.3	200	0.97	1.03	2800	3200	80
Z12XE (As of MY 2001 - 1 in chassis)	0.5	780	1000	0.3	200	0.97	1.03	2800	3200	80
Engine Code A10XEP	0.3	770	930	0.2	200	0.97	1.03	2800	3200	80
Engine Code A12XER	0.3	670	830	0.2	200	0.97	1.03	2800	3200	80
Engine Code B12XEL	0.3	600	800	0.2	200	0.97	1.03	2800	3200	80
Zafira										
Engine Code X16XEL	0.5	700	930	0.3	200	0.97	1.03	2800	3200	80
Engine Code X18XE1	0.5	730	960	0.3	200	0.97	1.03	2800	3200	80
Engine Code Z16XE	0.5	710	960	0.3	200	0.97	1.03	2800	3200	80
Engine Code Z18XE	0.5	730	950	0.3	200	0.97	1.03	2800	3200	80
Engine Code Z20LET	0.5	730	950	0.3	200	0.97	1.03	2800	3200	80
Engine Code Z22SE (Manual)	0.5	630	850	0.3	200	0.97	1.03	2800	3200	80
Engine Code Z22SE (Auto) (with A/c)	0.5	705	925	0.3	200	0.97	1.03	2800	3200	80
Engine Code Z16XEP (as of MY2005 - 5 is the 10th digit of the VIN)	0.3	710	930	0.2	200	0.97	1.03	2800	3200	80
Engine Code Z16XE1 (as of MY2007 - 7 is the 10th digit of the VIN)	0.3	710	930	0.2	200	0.97	1.03	2800	3200	80
Engine Code Z16XER (as of MY2010 - A is the 10th digit of the VIN)	0.3	600	950	0.2	200	0.97	1.03	2800	3200	80
Engine Code A16XER (as of MY2011 - B is the 10th digit of the VIN)	0.3	600	950	0.2	200	0.97	1.03	2800	3200	80
Engine Code A18XER (as of MY2011 - B is the 10th digit of the VIN)	0.3	600	950	0.2	200	0.97	1.03	2800	3200	80
Engine Code Z18XER (as of MY2005 - 5 is the 10th digit of the VIN)	0.3	600	950	0.2	200	0.97	1.03	2800	3200	80
Engine Code Z20LER (as of MY2005 - 5 is the 10th digit of the VIN)	0.3	700	900	0.2	200	0.97	1.03	2800	3200	80
Engine Code Z20LEH (as of MY2007 - 7 is the 10th digit of the VIN)	0.3	600	950	0.2	200	0.97	1.03	2800	3200	80
Engine Code Z22YH (as of MY2005 - 5 is the 10th digit of the VIN) manual	0.3	660	880	0.2	200	0.97	1.03	2800	3200	80
Engine Code Z22YH (as of MY2005 - 5 is the 10th digit of the VIN) auto	0.3	680	900	0.2	200	0.97	1.03	2800	3200	80
Engine Code A14NEL (as of MY2012 - C is the 10th digit of the VIN)	0.3	680	780	0.2	200	0.97	1.03	2800	3200	80
Engine Code A14NET (as of MY2012 - C is the 10th digit of the VIN)	0.3	680	780	0.2	200	0.97	1.03	2800	3200	80
Engine Code A18XEL (as of MY2012 - C is the 10th digit of the VIN)	0.3	600	950	0.2	200	0.97	1.03	2800	3200	80

1	2			3						4
Manufacturer/Marque	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	Min Oil Temp(°C)
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
Engine Code A18XER (as of MY2012 - C is the 10th digit of the VIN)	0.3	600	950	0.2	200	0.97	1.03	2800	3200	80
Engine Code A16SHT	0.3	570	670	0.2	200	0.97	1.03	2800	3200	80
Engine Code A16XHT	0.3	570	670	0.2	200	0.97	1.03	2800	3200	80
Engine Code A16XNT	0.3	730	900	0.2	200	0.97	1.03	2800	3200	80
Engine Code B14NEL	0.3	680	780	0.2	200	0.97	1.03	2800	3200	80
Engine Code B14NET	0.3	780	880	0.2	200	0.97	1.03	2800	3200	80
Engine Code B16SHL	0.3	570	670	0.2	200	0.97	1.03	2800	3200	80
Engine Code B16SHT	0.3	570	670	0.2	200	0.97	1.03	2800	3200	80
Vivaro										
Engine Code F4R	0.5	750	850	0.3	200	0.97	1.03	2200	2800	80
VOLKSW AGEN										
The Engine Code is stamped on the Engine Block.										
Sharan Series										
1.8l injection Engine with Turbo Code AJH Model Year 98 - 00	0.5	780	860	0.3	200	0.97	1.03	2500	2800	80
1.8l injection Engine with Turbo Code AWC Model Year 01-	0.5	760	880	0.3	200	0.97	1.03	2500	3000	80
2.0l injection Engine Code ADY Model Year 95 - 00	0.5	770	870	0.3	200	0.97	1.03	2500	2800	80
2.0l injection Engine Code ATM Model Year 01 -	0.5	750	860	0.3	200	0.97	1.03	2500	3000	80
2.8l VR6 injection Engine Codes AAA and AMY Model Year 95 - 00	0.5	650	750	0.3	200	0.97	1.03	2500	2800	80
2.8l V6 24V injection Engine Code AYL Model Year 01 -	0.5	650	750	0.3	200	0.97	1.03	2500	3000	80
CaddySeries										
1.4l injection Engine Codes AEX and APQ Model Year 95 -	0.5	690	890	0.3	200	0.97	1.03	2500	2800	80
1.4l injection Engine Code AKV Model Year 97 -	0.5	770	970	0.3	200	0.97	1.03	2500	2800	80
1.4l injection Engine Code ANX Model Year 97 -	0.5	650	890	0.3	200	0.97	1.03	2500	2800	80
1.4l injection Engine Codes AKK and AUD Model Year 01 -	0.5	600	940	0.3	200	0.97	1.03	2500	2800	80
1.4l 16V injection Engine Code AUA Model Year 01-	0.5	800	900	0.3	200	0.97	1.03	2800	3200	80
1.4l 16V injection Engine Code APE Model Year 01-	0.5	810	910	0.3	200	0.97	1.03	2800	3200	80
1.6l injection Engine Code AEE Model Year 97 -	0.5	630	930	0.3	200	0.97	1.03	2500	2800	80
1.6l injection Engine Code AFT Model Year 95 - 99	0.5	790	890	0.3	200	0.97	1.03	2500	2800	80
1.6l injection Engine Code 1F Model Year 95 - 98	0.5	700	1000	0.3	200	0.97	1.03	2500	2800	80
1.6l injection Engine Code ALM Model Year 98 -	0.5	825	875	0.3	200	0.97	1.03	2500	2800	80
1.8l injection Engine Code ADZ Model Year 97 - 98	0.5	700	975	0.3	200	0.97	1.03	2500	2800	80

1 Manufacturer/Marque	2			3						4
	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
Caddy Pickup Series										
1.6l injection Engine Code AEE Model Year 97 -	0.5	650	950	0.3	200	0.97	1.03	2500	2800	80
Transporter Series										
2.0l injection Engine Code AAC Model Year 95 - 98	0.5	775	825	0.3	200	0.97	1.03	2500	2800	80
2.5l injection Engine Codes AAF and ACU Model Year 90 - 96	0.5	775	825	0.3	200	0.97	1.03	2500	2800	80
2.5l injection Engine Codes AET and AVT Model Year 96 -	0.5	650	750	0.3	200	0.97	1.03	2500	2800	80
2.5l injection Engine Code APL Model Year 99 -	0.5	600	800	0.3	200	0.97	1.03	2500	2800	80
2.8l VR6 injection Engine Code AES Model Year 96 -	0.5	650	750	0.3	200	0.97	1.03	2500	2800	80
2.8l V6 24V injection Engine Code AMV Model Year 01-	0.5	650	750	0.3	200	0.97	1.03	2500	2800	80
LT Series										
2.4l injection Engine Code 1E Model Year 88 - 97	0.5	750	850	0.3	200	0.97	1.03	2500	2800	80
2.3l injection Engine Code AGL Model Year 96 - 03	0.5	650	750	0.3	200	0.97	1.03	2500	2800	80
VOLVO										
The Engine Code is stamped on the Engine Block and also the VIN Plate.										
XC90 MY 2003										
Engine Family B5244T2 VIN (Engine Code) 59	0.5	620	720	0.5	200	0.96	1.04	2500	3000	60
Engine Family B6294T VIN (Engine Code) 91	0.5	800	900	0.5	200	0.96	1.04	2500	3000	60
XC90 Series MY 2004										
Engine Code 59 B5254T2	0.5	620	720	0.3	200	0.96	1.03	2500	3000	60
Engine Code 91 B6294T	0.5	650	700	0.3	200	0.96	1.03	2500	3000	60
XC90 Series MY 2005										
Engine Code 59 B5254T2	0.5	645	695	0.3	200	0.97	1.03	2500	3000	60
Engine Code 91 B6294T	0.5	550	750	0.3	200	0.97	1.03	2500	3000	60
Engine Code 85 B8444S	0.5	650	700	0.3	200	0.97	1.03	2500	3000	60
XC90 Series MY 2006										
Engine Code 59 B5254T2	0.3	645	695	0.2	200	0.97	1.03	2500	3000	60
Engine Code 91 B6294T	0.3	625	675	0.2	200	0.97	1.03	2500	3000	60
Engine Code 85 B8444S	0.3	650	700	0.2	200	0.97	1.03	2500	3000	60
XC90 Series MY 2007										
Engine Code 59 B5254T2	0.5	645	695	0.2	200	0.97	1.03	2500	3000	60

1	2			3						4
Manufacturer/Marque	(a)	(b)	(c)	(a)	(b)	(c)	(d)	(e)	(f)	Min Oil Temp(°C)
	Normal Idle Speed			Fast Idle Speed						
	Max CO Limit (%) Vol)	Min Limit (RPM)	Max Limit (RPM)	Max CO Limit (% Vol)	Max HC Limit (PPM)	Min Lambda	Max Lambda	Min Limit (RPM)	Max Limit (RPM)	
Engine Code 85 B8444S	0.5	650	700	0.3	200	0.97	1.03	2500	3000	60
Engine Code 98 B6324S	0.3	625	675	0.2	200	0.97	1.03	2500	3000	60
XC90 Series MY 2008										
Engine Code 59 B5254T2	0.5	645	695	0.2	200	0.97	1.03	2500	3000	60
Engine Code 85 B8444S	0.5	625	675	0.3	200	0.97	1.03	2500	3000	60
Engine Code 98 B6324S	0.3	625	675	0.2	200	0.97	1.03	2500	3000	60
XC90 Series MY 2009										
Engine Code 85 B8444S	0.5	625	675	0.3	200	0.97	1.03	2500	3000	60
Engine Code 98 B6324S	0.3	625	675	0.2	200	0.97	1.03	2500	3000	60
XC90 Series MY 2010										
Engine Code 85 B8444S	0.5	625	675	0.3	200	0.97	1.03	2500	3000	60
Engine Code 98 B6324S	0.3	625	675	0.2	200	0.97	1.03	2500	3000	60

MAINTAIN FOR ECONOMY AND TO MINIMISE EMISSIONS

Keeping your car properly tuned and serviced reduces emissions and fuel consumption. Useful guidance may be found at the Government's "Act on CO₂" website at www.dft.gov.uk/ActOnCO2

There are a number of routine checks every driver should carry out, with the help of the handbook.

- ◆ Check your tyre pressures. Under inflated tyres increase fuel consumption and can be dangerous.
- ◆ Check for fuel leaks and for air leakages in the engine inlet and exhaust systems.
- ◆ Check your fuel filler cap is on and fits well. You can lose significant quantities if a cap is ill-fitting allowing fuel vapours to escape. This can also add to the emissions.
- ◆ Check the condition of spark plug leads and connections (not when the engine is running).
- ◆ Check spark plugs and air filter at recommended intervals and replace if necessary.
- ◆ Check and monitor fuel consumption. Remember that different types of journey and levels of congestion affect emissions and fuel consumption.

Other maintenance jobs require more specialist knowledge or equipment. Check or have your garage check:

- ◆ Timing belt condition – worn or incorrectly adjusted belts can cause catastrophic engine damage.
- ◆ Idling speed.
- ◆ Thermostat – which can stick partly open so the engine takes longer to warm up.
- ◆ Turbochargers, where fitted, for correct oil supply, cleanliness and freedom from blade damage.
- ◆ For older vehicles, as appropriate, the carburettor is clean and correctly adjusted, and that the choke linkage, ignition timing, and contact breaker points are correctly adjusted – all of which could contribute to poor fuel economy if poorly adjusted.