

Engine & Cooling

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Automotive Technical
DATA BOOK

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Engine and cooling system

33, 1.5

1987 to 1990

Type		305 SOHC
Capacity (cm³) / number of cylinders		1490 / 4
Compression ratio / pressure	bar	9.5 / 10.3
Oil pressure	bar	1.2 to 2.8
Oil temperature	°C	90
Valve clearance - inlet	mm	0.35 to 0.40
Valve clearance - exhaust	mm	0.45 to 0.50
Firing order		1-3-2-4
No 1 cylinder position		FR
Thermostat opening temperature	°C	84 to 88
Radiator cap pressure	bar	0.69

Fuel system

33, 1.5

1987 to 1990

Idle speed - manual [auto]	rpm	850 to 1000
Fast idle speed - manual [auto]	rpm	—
CO @ idle speed [3000 rpm] - see page VI	%	≤0.5
HC @ idle speed [3000 rpm] - see page VI	ppm	≤300
CO2 @ idle speed [3000 rpm] - see page VI	%	—
O2 @ idle speed [3000 rpm] - see page VI	%	—
Carburettor / fuel injection		Weber
Type / ref		36 IDF
Main jet / needle		145, 145
Injection pressure	bar	—
Pump pressure	bar	0.18 to 0.30
Octane rating	RON	98[RA] ¹

Ignition system

33, 1.5

1987 to 1990

Type		Electronic
Ignition coil		Bosch. Marelli
Primary resistance	ohms	0.7 to 1.0
Ballast resistor	ohms	—
Voltage - Tmnl 15(+) to earth	V	—
Distributor		Bosch/Marelli
Points gap (air gap)	mm	[0.40 to 0.50]
Dwell angle	° (%)	—
Condenser capacity	µF	—
Rotation		Clockwise
Ignition timing - basic [static	° Crankshaft @ rpm	8±1 BTDC @ 900 (1st mark)
V = Vacuum NV = No Vacuum		NV
Total ignition advance	° Crankshaft @ rpm	—
	° Crankshaft @ rpm	36±1 BTDC @ 4500 (2nd mark)
	° Crankshaft @ rpm	—
Centrifugal check.	° Crankshaft @ rpm	0 @ 500 to 600
	° Crankshaft @ rpm	—
	° Crankshaft @ rpm	28 @ 3500 to 3600
Vacuum range check	mbar	B: 240 to 373²
Maximum vacuum advance	° Crankshaft	15
Spark plugs		Lodge/Champion
Type		25HL / N6YCC
Electrode gap	mm	Champion: 0.80

Electrical system

33, 1.5

1987 to 1990

Battery	V / CC / RC	12 / 45Ah
Alternator voltage / full load current / engine rpm		13.8 to 14.4 / _ / 4000
Starter motor current / voltage - cranking	A / V	200 to 230 / 9.8 to 10.0
- locked	A / V	380 to 400 / 8.0

Running gear

33, 1.5

1987 to 1990

Brakes -		
Front (min. friction material thickness)	mm	7.0 with backing
Rear (min. friction material thickness)	mm	0.50

Tyres		
Saloon	Size	175/70x13
Estate / Van	Size	—
Pressure - front / rear - Saloon	bar	1.8 / 1.6
- Estate / Van	bar	—

Front suspension / wheel alignment		
Toe-in (+) / Toe-out (–)	mm [°]	-4.0±2.0
Camber		-1°±30’
Castor		+2°±30’
King pin inclination		—

Rear suspension / wheel alignment		
Toe-in (+) / Toe-out (–)	mm [°]	-2.0±1.0
Camber		0±25’

Torque wrench settings

33, 1.5

1987 to 1990

Cylinder head - stage 1	Nm	29 oiled
- stage 2	Nm	58
Cylinder head - stage 3	Nm	81 to 87
- stage 4	Nm	81 to 87³
Big-end bearings	Nm	43 to 48
Main bearings	Nm	66 to 73 oiled
Clutch cover	Nm	15 to 23
Flywheel [driveplate]	Nm	94 to 105 oiled
Front hubs	Nm	WSM
Rear hubs	Nm	WSM
Wheel nuts / bolts	Nm	64 to 78
Spark plugs	Nm	25 to 34

Capacities

33, 1.5

1987 to 1990

Engine oil & filter	litres	4.0
Gearbox - 4-speed [5-speed]	litres	2.6
Automatic transmission - refill	litres	—
Final drive	litres	WT
Cooling system	litres	7.3
Fuel tank	litres	50

Notes and Illustrations

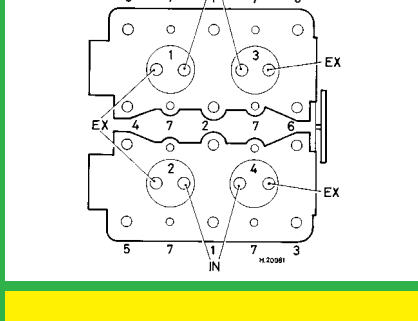
¹[E 95 RON]: ignition - 3°. [E 98 RON].Engine no. 30588 ►: [E95 RON]

²M: 200 to 373

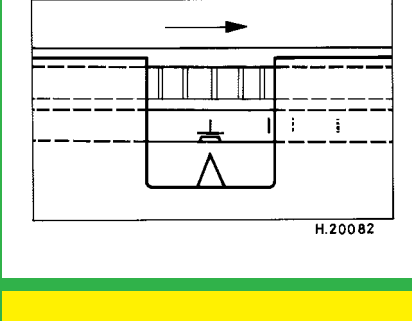
³Warm engine, cool, slacken, oil, and retorque bolts in sequence shown to stage 4. No.7: 20 to 24

1: Idle speed

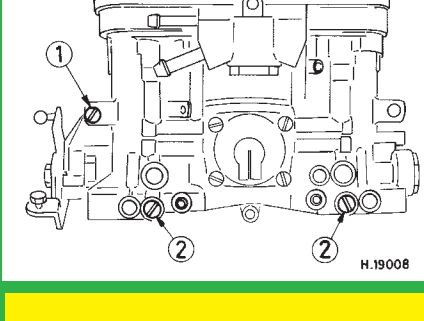
2: CO / Mixture



1490 cm³



1490 cm³



Weber 36 IDF