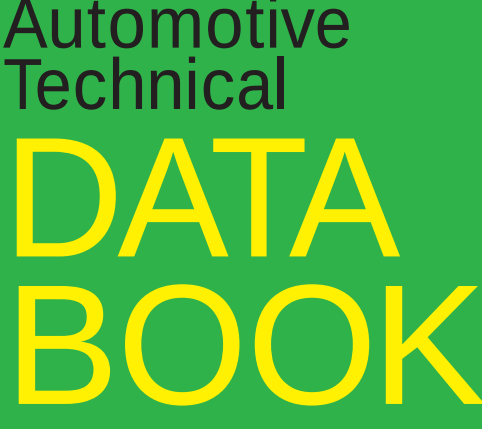


1989 to 1995

Engine & Cooling	Fuel	Ignition	Electrical	Running gear	Torque settings	Capacities	Notes & Illustration
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HELP

1989 to 1995

Type		20V E46
Capacity (cm ³) / number of cylinders		1994 / 4
Compression ratio / pressure	bar	8.0 / 10.3
Oil pressure	bar	[3.8 to 5.5]
Oil temperature	°C	—
Valve clearance - inlet	mm	0.30±0.03
Valve clearance - exhaust	mm	0.30±0.03
Firing order		1-3-4-2
No 1 cylinder position		F
Thermostat opening temperature	°C	82 to 84
Radiator cap pressure	bar	1.0

1989 to 1995

Idle speed - manual [auto]	rpm	750±50
Fast idle speed - manual [auto]	rpm	1300±50
CO @ idle speed [3000 rpm] - see page VI	%	2.25±1.5
HC @ idle speed [3000 rpm] - see page VI	ppm	—
CO2 @ idle speed [3000 rpm] - see page VI	%	—
O2 @ idle speed [3000 rpm] - see page VI	%	—
Carburettor / fuel injection		SU
Type / ref		HIF44 FZX 1493
Main jet / needle		0.100 / BGN
Injection pressure	bar	—
Pump pressure	bar	—
Octane rating	RON	91[E 95 RON]

1989 to 1995

Type		Computerized
Ignition coil		Bosch
Primary resistance	ohms	—
Ballast resistor	ohms	—
Voltage - Tmnl 15(+) to earth	V	—
Distributor		Lucas
Points gap (air gap)	mm	—
Dwell angle	° (%)	—
Condenser capacity	μF	—
Rotation		—
Ignition timing - basic [static	° Crankshaft @ rpm	Computer control
V = Vacuum NV = No Vacuum		—
Total ignition advance	° Crankshaft @ rpm	—
	° Crankshaft @ rpm	—
	° Crankshaft @ rpm	—
Centrifugal check.	° Crankshaft @ rpm	Computer control
	° Crankshaft @ rpm	—
	° Crankshaft @ rpm	—
Vacuum range check	mbar	Computer control
Maximum vacuum advance	° Crankshaft	—
Spark plugs		NGK/Champion
Type		BP6ES / RN7YCC
Electrode gap	mm	0.90

1989 to 1995

Battery	V / CC / RC	12 / 40 or 55Ah
Alternator voltage / full load current / engine rpm		13.5 to 14.4 / _ / 3000
Starter motor current / voltage - cranking	A / V	260 / 8.0

1980 to 1995

Running gear		400, 2000	1989 to 1995
Brakes -			
Front (min. friction material thickness)	mm	3.0	
Rear (min. friction material thickness)	mm	1.5	

Rear (min. friction material thickness)	mm	1.5
Tyres		
Saloon	Size	—
Estate / Van	Size	185x14: 205x14
Pressure - front / rear - Saloon	bar	—
Pressure - front / rear - Estate / Van	bar	1.8/2.0

Front suspension / wheel alignment

Toe-in (+) / Toe-out (-)	mm [°]	0 to +1.6
Camber		+1°30'
Castor		+2°
King pin inclination		+9°30'

Rear suspension / wheel alignment

Toe-in (+) / Toe-out (-)	mm [°]	-
Camber		

1989 to 1995

		199, 200	2000 to 2009
Cylinder head - stage 1	Nm	47	
- stage 2	Nm	81	
Cylinder head - stage 3	Nm	+ 90°	
- stage 4	Nm	—	
Big-end bearings	Nm	52 to 58	
Main bearings	Nm	95 to 115	
Clutch cover	Nm	23	
Flywheel [driveplate]	Nm	80 to 90	
Front hubs	Nm	WSM	
Rear hubs	Nm	WSM	
Wheel nuts / bolts	Nm	176 to 277 ¹	
Spark plugs	Nm	15 to 20	

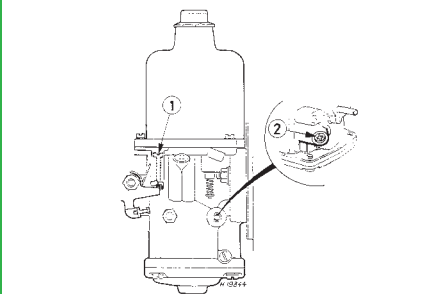
1989 to 1995

		1991, 1993	1995 to 1999
Engine oil & filter	litres	5.75	
Gearbox - 4-speed [5-speed]	litres	2.0	
Automatic transmission - refill	litres	—	
Final drive	litres	1.7. Twin wheel:2.4	
Cooling system	litres	6.6	
Fuel tank	litres	70. Ch.Cab: 64 ²	

Notes and Illustrations

Single Wheel

1: Idle speed 2: CO / Mixture



SU HIF 44