Automotive Technical DATA BOOK

Click on one of the buttons above to view data for this car. To return to this screen and make another choice, click anywhere on the data screen.

MENU HELP

Engine and cooling system

518i CAT (E34) 1990 to 1993

Type		M40/B18 83kW
Capacity (cm³) / number of cylinders		1796 / 4
Compression ratio / pressure	bar	8.8 / ≥10.0
Oil pressure	bar	≥0.5 [4.3±0.2]
Oil temperature	ºC	80
Valve clearance - inlet	mm	0: Hyd.
Valve clearance - exhaust	mm	0: Hyd.
Firing order		1-3-4-2
No 1 cylinder position		TBE
Thermostat opening temperature	ºC	88
Radiator cap pressure	bar	1.4±0.2

Fuel system

518i CAT (E34) 1990 to 1993

Idle speed - manual [auto]	rpm	800±40 N/A
Fast idle speed - manual [auto]	rpm	_
CO @ idle speed [3000 rpm] - see page VI	%	0.7±0.5 N/A
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		Bosch
Type / ref		M1.3-Motronic
Main jet / needle		_
Injection pressure	bar	2.3 to 2.7
Pump pressure	bar	3.0±0.06
Octane rating	RON	91[U]

Ignition system

518i CAT (E34) 1990 to 1993

Type		DME Motronic
Ignition coil		Bosch 0 221 122 319
Primary resistance	ohms	a: 0.50. b: 0.37
Ballast resistor	ohms	_
Voltage - Tmnl 15(+) to earth	V	_
Distributor		Bosch
Points gap (air gap)	mm	[0.30 to 0.70]
Dwell angle	º (%)	_
Condenser capacity	µF	_
Rotation		Clockwise
Ignition timing - basic [static	º Crankshaft @ rpm	Computer control N/A
V = Vacuum NV = No Vacuum		_
Total ignition advance	º Crankshaft @ rpm	Computer control
	º Crankshaft @ rpm	_
	º Crankshaft @ rpm	_
Centrifugal check.	º Crankshaft @ rpm	Computer control
	º Crankshaft @ rpm	_
	º Crankshaft @ rpm	_
Vacuum range check	mbar	Computer control
Maximum vacuum advance	º Crankshaft	_
Spark plugs		Bosch/Champion
Type		F8LCR / C9YCC
Electrode gap	mm	0.70 to 0.80

Electrical system

518i CAT (E34) 1990 to 1993

Battery	V / CC / RC	12 / 50Ah
Alternator voltage / full load current / engine rpm		13.5 to 14.2 / 80 / 1500
Starter motor current / voltage - cranking	A / V	160 / 9.0
- locked	A / V	_

Running gear

518i CAT (E34) 1990 to 1993

Brakes -		
Front (min. friction material thickness)	mm	2.0
Rear (min. friction material thickness)	mm	2.0
Tyres		
Saloon	Size	195/65x15
Estate / Van	Size	205/65x15
Pressure - front / rear - Saloon	bar	2.0 / 2.0
- Estate / Van	bar	2.1 / 2.4
Front suspension / wheel alignment		
Toe-in (+) / Toe-out (–)	mm [º]	[+18'±5']
Camber		-13'±30'. Sport: -30'±30'
Castor		+8°8'±30'. Sport: +8°26'±30'
King pin inclination		+12°4'±30'. Sport: +12°38'±30'
Rear suspension / wheel alignment		
Toe-in (+) / Toe-out (–)	mm [º]	[+25'±7']. Sport: [+28'±7']
Camber		-2°20'±30'. Sport: -2°35'

Torque wrench settings

518i CAT (E34) 1990 to 1993

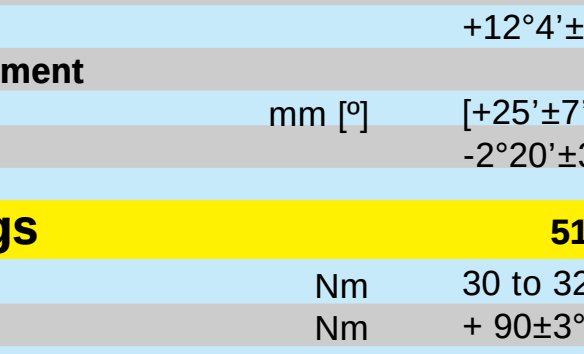
Cylinder head - stage 1	Nm	30 to 32 WSM
- stage 2	Nm	+ 90±3°
Cylinder head - stage 3	Nm	+ 90±3°
- stage 4	Nm	_
Big-end bearings	Nm	23 + 70° N
Main bearings	Nm	22.5±2.5 + 50±3°
Clutch cover	Nm	24. 10.9 hex: 35
Flywheel [driveplate]	Nm	113 to 130 N
Front hubs	Nm	290
Rear hubs	Nm	247.6 ±5%
Wheel nuts / bolts	Nm	100±10
Spark plugs	Nm	30 to 33

Capacities

518i CAT (E34) 1990 to 1993

Engine oil & filter	litres	4.0
Gearbox - 4-speed [5-speed]	litres	1.1
Automatic transmission - refill	litres	3.0
Final drive	litres	1.7
Cooling system	litres	6.0. A/C: 11.0
Fuel tank	litres	81

Notes and Illustrations



1796 cm³, 8V