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 — M3 — 1996 to 1997

Type		S50/B32 236kW
Capacity (cm³) / number of cylinders		3201 / 6
Compression ratio / pressure	bar	11.3 / 11 to 12
Oil pressure	bar	≥1.0 / 4.0
Oil temperature	ºC	80
Valve clearance - inlet	mm	0.18 to 0.23
Valve clearance - exhaust	mm	0.28 to 0.33
Firing order		1-5-3-6-2-4
No 1 cylinder position		TCE
Thermostat opening temperature	ºC	80
Radiator cap pressure	bar	_

Fuel system — M3 — 1996 to 1997

Idle speed - manual [auto]	rpm	780±50
Fast idle speed - manual [auto]	rpm	_
CO @ idle speed [3000 rpm] - see page VI	%	≤0.3
HC @ idle speed [3000 rpm] - see page VI	ppm	≤200
CO2 @ idle speed [3000 rpm] - see page VI	%	_
O2 @ idle speed [3000 rpm] - see page VI	%	_
Carburettor / fuel injection		_
Type / ref		MS S50
Main jet / needle		_
Injection pressure	bar	_
Pump pressure	bar	_
Octane rating	RON	98[U]

Ignition system — M3 — 1996 to 1997

Type		Direct electronic
Ignition coil		_
Primary resistance	ohms	0.82
Ballast resistor	ohms	_
Voltage - Tmnl 15(+) to earth	V	_
Distributor		_
Points gap (air gap)	mm	_
Dwell angle	º (%)	_
Condenser capacity	µF	_
Rotation		_
Ignition timing - basic [static	º Crankshaft @ rpm	_
V = Vacuum NV = No Vacuum		_
Total ignition advance	º Crankshaft @ rpm	_
	º Crankshaft @ rpm	_
	º Crankshaft @ rpm	_
Centrifugal check.	º Crankshaft @ rpm	_
	º Crankshaft @ rpm	_
	º Crankshaft @ rpm	_
Vacuum range check	mbar	_
Maximum vacuum advance	º Crankshaft	_
Spark plugs		NGK
Type		PKR 7A
Electrode gap	mm	0.6±0.1

Electrical system — M3 — 1996 to 1997

Battery	V / CC / RC	12 / 65Ah
Alternator voltage / full load current / engine rpm		_ / 115 / _
Starter motor current / voltage - cranking	A / V	_
- locked	A / V	_

Running gear — M3 — 1996 to 1997

Brakes -		
Front (min. friction material thickness)	mm	3.0
Rear (min. friction material thickness)	mm	3.0
Tyres		
Saloon	Size	225/45x17: 245/40x17
Estate / Van	Size	_
Pressure - front / rear - Saloon	bar	Refer to vehicle
- Estate / Van	bar	_
Front suspension / wheel alignment		
Toe-in (+) / Toe-out (–)	mm [º]	[0°10’±5’]
Camber		-2°±30’
Castor		7°12’±30’
King pin inclination		_
Rear suspension / wheel alignment		
Toe-in (+) / Toe-out (–)	mm [º]	[0°30’±5’]
Camber		-2°41’±10’

Torque wrench settings — M3 — 1996 to 1997

Cylinder head - stage 1	Nm	30 N
- stage 2	Nm	+90°
Cylinder head - stage 3	Nm	+90°
- stage 4	Nm	_
Big-end bearings	Nm	5, 20 +65°
Main bearings	Nm	_
Clutch cover	Nm	34
Flywheel [driveplate]	Nm	105 N
Front hubs	Nm	290
Rear hubs	Nm	300
Wheel nuts / bolts	Nm	100±10
Spark plugs	Nm	_

Capacities — M3 — 1996 to 1997

Engine oil & filter	litres	8.0
Gearbox - 4-speed [5-speed]	litres	1.75
Automatic transmission - refill	litres	_
Final drive	litres	1.3
Cooling system	litres	10.75
Fuel tank	litres	62

Notes and Illustrations