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

Z3 1.9 1996 to 1997

Type		M44 B19 DOHC 16V 103kW
Capacity (cm³) / number of cylinders		1895 / 4
Compression ratio / pressure	bar	10.0 / ≥10.0
Oil pressure	bar	≥0.5 / 4.3
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		_
Thermostat opening temperature	ºC	95
Radiator cap pressure	bar	1.4

Fuel system

Z3 1.9 1996 to 1997

Idle speed - manual [auto]	rpm	900±50
Fast idle speed - manual [auto]	rpm	_
CO @ idle speed [3000 rpm] - see page VI	%	≤0.3 N/A
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		_Bosch
Type / ref		DME M5.2-Motronic
Main jet / needle		_
Injection pressure	bar	_
Pump pressure	bar	3.0
Octane rating	RON	95[U]

Ignition system

Z3 1.9 1996 to 1997

Type		Direct electronic
Ignition coil		_
Primary resistance	ohms	0.8
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		_
Type		_
Electrode gap	mm	_

Electrical system

Z3 1.9 1996 to 1997

Battery	V / CC / RC	12 / 70Ah
Alternator voltage / full load current / engine rpm		_ / 80 / _
Starter motor current / voltage - cranking	A / V	_
- locked	A / V	_

Running gear

Z3 1.9 1996 to 1997

Brakes -		
Front (min. friction material thickness)	mm	3.0
Rear (min. friction material thickness)	mm	3.0
Tyres		
Saloon	Size	205/60x15
Estate / Van	Size	_
Pressure - front / rear - Saloon	bar	Refer to vehicle
- Estate / Van	bar	_
Front suspension / wheel alignment		
Toe-in (+) / Toe-out (–)	mm [º]	_
Camber		_
Castor		_
King pin inclination		_
Rear suspension / wheel alignment		
Toe-in (+) / Toe-out (–)	mm [º]	_
Camber		_

Torque wrench settings

Z3 1.9 1996 to 1997

Cylinder head - stage 1	Nm	30
- stage 2	Nm	+90°
Cylinder head - stage 3	Nm	+90°
- stage 4	Nm	_
Big-end bearings	Nm	5, 20+70°
Main bearings	Nm	20+50°
Clutch cover	Nm	34
Flywheel [driveplate]	Nm	120
Front hubs	Nm	290
Rear hubs	Nm	250
Wheel nuts / bolts	Nm	100±10
Spark plugs	Nm	_

Capacities

Z3 1.9 1996 to 1997

Engine oil & filter	litres	5.0
Gearbox - 4-speed [5-speed]	litres	1.0
Automatic transmission - refill	litres	_
Final drive	litres	1.0
Cooling system	litres	6.6
Fuel tank	litres	51

Notes and Illustrations