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

		540i E39 1996 to 1997
Type		M62 B44 V8 210kW
Capacity (cm³) / number of cylinders		4398 / 8
Compression ratio / pressure	bar	10.0 / ≥12.0
Oil pressure	bar	≥0.5 / 4.5
Oil temperature	ºC	80
Valve clearance - inlet	mm	0: Hyd.
Valve clearance - exhaust	mm	0: Hyd.
Firing order		1-5-4-8-6-3-7-2
No 1 cylinder position		_
Thermostat opening temperature	ºC	85
Radiator cap pressure	bar	_

Fuel system

		540i E39 1996 to 1997
Idle speed - manual [auto]	rpm	750±50
Fast idle speed - manual [auto]	rpm	_
CO @ idle speed [3000 rpm] - see page VI	%	0.5±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		_Bosch
Type / ref		DME M5.2-Motronic
Main jet / needle		_
Injection pressure	bar	_
Pump pressure	bar	3.5
Octane rating	RON	95[U]

Ignition system

		540i E39 1996 to 1997
Type		DME Motronic
Ignition coil		_
Primary resistance	ohms	_
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		Bosch
Type		F7LDCR
Electrode gap	mm	0.7

Electrical system

		540i E39 1996 to 1997
Battery	V / CC / RC	12 / 90Ah
Alternator voltage / full load current / engine rpm		_ / 140 / _
Starter motor current / voltage - cranking	A / V	_
- locked	A / V	_

Running gear

		540i E39 1996 to 1997
Brakes -		
Front (min. friction material thickness)	mm	3.0
Rear (min. friction material thickness)	mm	3.0
Tyres		
Saloon	Size	225/55x16
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°14'±10']
Camber		-0°13'±30'
Castor		6°36'±30'
King pin inclination		_
Rear suspension / wheel alignment		
Toe-in (+) / Toe-out (–)	mm [º]	[0°16'±10']
Camber		-2°10'±20'

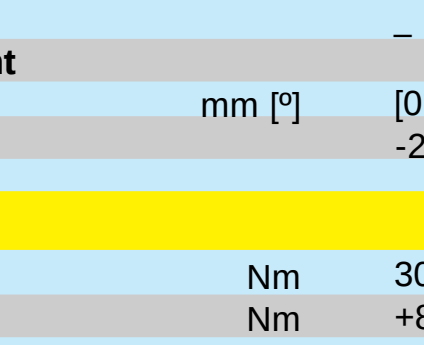
Torque wrench settings

		540i E39 1996 to 1997
Cylinder head - stage 1	Nm	30
- stage 2	Nm	+80°
Cylinder head - stage 3	Nm	+80°
- stage 4	Nm	_
Big-end bearings	Nm	5, 20+80°
Main bearings	Nm	WSM
Clutch cover	Nm	24
Flywheel [driveplate]	Nm	105
Front hubs	Nm	_
Rear hubs	Nm	300
Wheel nuts / bolts	Nm	100±10
Spark plugs	Nm	_

Capacities

		540i E39 1996 to 1997
Engine oil & filter	litres	7.5
Gearbox - 4-speed [5-speed]	litres	1.75
Automatic transmission - refill	litres	3.3
Final drive	litres	1.2
Cooling system	litres	12.0
Fuel tank	litres	70

Notes and Illustrations



4398 cm³ 32V