Automotive Technical DATA BOOK

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MENU HELP

Engine and cooling system

320i 24V (E36) 1995 to 1997

Type		M52/B20 DOHC 24V 112kW
Capacity (cm³) / number of cylinders		1990 / 6
Compression ratio / pressure	bar	11.0 / ≥10.0
Oil pressure	bar	≥0.5 [4.0]
Oil temperature	ºC	80
Valve clearance - inlet	mm	0: Hyd.
Valve clearance - exhaust	mm	0: Hyd.
Firing order		1-5-3-6-2-4
No 1 cylinder position		TCE
Thermostat opening temperature	ºC	88
Radiator cap pressure	bar	2.0±0.15

Fuel system

320i 24V (E36) 1995 to 1997

Idle speed - manual [auto]	rpm	700±50 N/A
Fast idle speed - manual [auto]	rpm	_
CO @ idle speed [3000 rpm] - see page VI	%	≤0.5 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		M3.1-Motronic
Main jet / needle		_
Injection pressure	bar	3.0±0.06
Pump pressure	bar	3.5 to 4.0
Octane rating	RON	95[U]

Ignition system

320i 24V (E36) 1995 to 1997

Type		Direct electronic
Ignition coil		Bosch
Primary resistance	ohms	0.8±0.1
Ballast resistor	ohms	_
Voltage - Tmnl 15(+) to earth	V	_
Distributor		_
Points gap (air gap)	mm	[0.70 to 1.30]
Dwell angle	º (%)	_
Condenser capacity	µF	_
Rotation		_
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
Type		F7LDCR
Electrode gap	mm	0.90 to 1.10

Electrical system

320i 24V (E36) 1995 to 1997

Battery	V / CC / RC	12 / 65Ah
Alternator voltage / full load current / engine rpm		13.5 to 14.2 / 80, 90 / 1500
Starter motor current / voltage - cranking	A / V	
- locked	A / V	_

Running gear

320i 24V (E36) 1995 to 1997

Brakes -		
Front (min. friction material thickness)	mm	2.0
Rear (min. friction material thickness)	mm	2.0
Tyres		
Saloon	Size	205/60x15
Estate / Van	Size	205/60x15
Pressure - front / rear - Saloon	bar	2.0 / 2.3
- Estate / Van	bar	2.0 / 2.3
Front suspension / wheel alignment		
Toe-in (+) / Toe-out (–)	mm [º]	[+18'±5']
Camber		-30'±30'. Sport: -51'±30' L
Castor		+3°52'±30'. Sport: +3°57'±30'L
King pin inclination		+15°44'±30'. Sport: +15°56'
Rear suspension / wheel alignment		
Toe-in (+) / Toe-out (–)	mm [º]	[+24'±6']
Camber		-1°40'±15'. Sport: -2°±15'

Torque wrench settings

320i 24V (E36) 1995 to 1997

Cylinder head - stage 1	Nm	40 N
- stage 2	Nm	+ 90°
Cylinder head - stage 3	Nm	+ 90°
- stage 4	Nm	_
Big-end bearings	Nm	20 + 70° N
Main bearings	Nm	20 + 70° N
Clutch cover	Nm	24. 10.9 hex: 35
Flywheel [driveplate]	Nm	105 [120] N
Front hubs	Nm	290
Rear hubs	Nm	250
Wheel nuts / bolts	Nm	100±10
Spark plugs	Nm	30 to 33

Capacities

320i 24V (E36) 1995 to 1997

Engine oil & filter	litres	6.5
Gearbox - 4-speed [5-speed]	litres	1.0
Automatic transmission - refill	litres	3.3
Final drive	litres	1.1
Cooling system	litres	10.5
Fuel tank	litres	65

Notes and Illustrations

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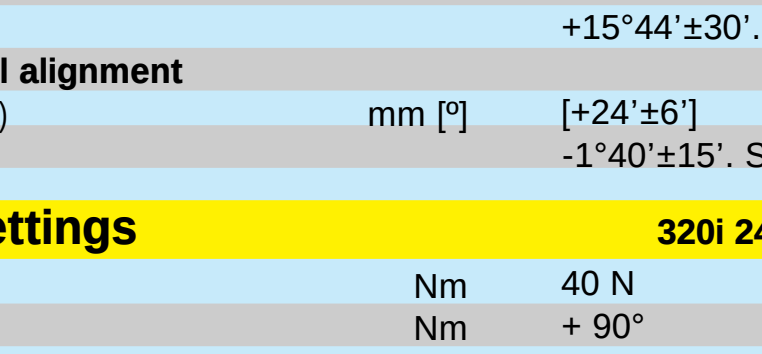

1990 cm³, 24V