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

		520i (E28) 1983 to 1988
Type		M20 / B20 6EB
Capacity (cm³) / number of cylinders		1990 / 6
Compression ratio / pressure	bar	9.8 / 10 to 11
Oil pressure	bar	0.5 to 2.0
Oil temperature	ºC	_
Valve clearance - inlet	mm	0.25
Valve clearance - exhaust	mm	0.25
Firing order		1-5-3-6-2-4
No 1 cylinder position		TBE
Thermostat opening temperature	ºC	80
Radiator cap pressure	bar	1.0±0.1

Fuel system

		520i (E28) 1983 to 1988
Idle speed - manual [auto]	rpm	800±50
Fast idle speed - manual [auto]	rpm	_
CO @ idle speed [3000 rpm] - see page VI	%	≤1.5
HC @ idle speed [3000 rpm] - see page VI	ppm	≤1200
CO2 @ idle speed [3000 rpm] - see page VI	%	_
O2 @ idle speed [3000 rpm] - see page VI	%	_
Carburettor / fuel injection		Bosch
Type / ref		L-Jetronic
Main jet / needle		_
Injection pressure	bar	2.5
Pump pressure	bar	4.5 to 5.2
Octane rating	RON	98[R]

Ignition system

		520i (E28) 1983 to 1988
Type		TSZi
Ignition coil		Bosch 1 221 312 008
Primary resistance	ohms	0.82
Ballast resistor	ohms	_
Voltage - Tmnl 15(+) to earth	V	≥10.8
Distributor		Bosch
Points gap (air gap)	mm	_
Dwell angle	º (%)	_
Condenser capacity	µF	_
Rotation		Clockwise
Ignition timing - basic [static	º Crankshaft @ rpm	23 BTDC @ 5000[1]
V = Vacuum NV = No Vacuum		NV
Total ignition advance	º Crankshaft @ rpm	_
	º Crankshaft @ rpm	_
	º Crankshaft @ rpm	_
Centrifugal check.	º Crankshaft @ rpm	6 to 10 @ 1000[2]
	º Crankshaft @ rpm	13 to 22 @ 1500[2]
	º Crankshaft @ rpm	23 to 29 @ 2500[2]
Vacuum range check	mbar	30 to 460[3]
Maximum vacuum advance	º Crankshaft	12 to 17[3]
Spark plugs		Bosch/Champion
Type		W8DC / N9YCX
Electrode gap	mm	0.70+0.10

Electrical system

		520i (E28) 1983 to 1988
Battery	V / CC / RC	12 / 55Ah
Alternator voltage / full load current / engine rpm		13.5 to 14.2 / _ / 1500
Starter motor current / voltage - cranking	A / V	160 / 9.0
- locked	A / V	_

Running gear

		520i (E28) 1983 to 1988
Brakes -		
Front (min. friction material thickness)	mm	2.0
Rear (min. friction material thickness)	mm	3.0
Tyres		
Saloon	Size	175x14: 195/70x14
Estate / Van	Size	_
Pressure - front / rear - Saloon	bar	2.0 / 2.0
- Estate / Van	bar	_
Front suspension / wheel alignment		
Toe-in (+) / Toe-out (–)	mm [º]	+2.0±0.6
Camber		-20'±30'
Castor		+8°±30' (10° lock)
King pin inclination		+11°57'±30' (10° lock)
Rear suspension / wheel alignment		
Toe-in (+) / Toe-out (–)	mm [º]	+2.0±0.8
Camber		WSM

Torque wrench settings

		520i (E28) 1983 to 1988
Cylinder head - stage 1	Nm	TORX: 30 to 32 WSM
- stage 2	Nm	+ 90±3°
Cylinder head - stage 3	Nm	+ 90±3°
- stage 4	Nm	_
Big-end bearings	Nm	20 + 70°
Main bearings	Nm	58 to 63
Clutch cover	Nm	24. 10.9 hex: 35
Flywheel [driveplate]	Nm	105±7 locked threads
Front hubs	Nm	WSM
Rear hubs	Nm	175 to 210
Wheel nuts / bolts	Nm	100±10
Spark plugs	Nm	26±2

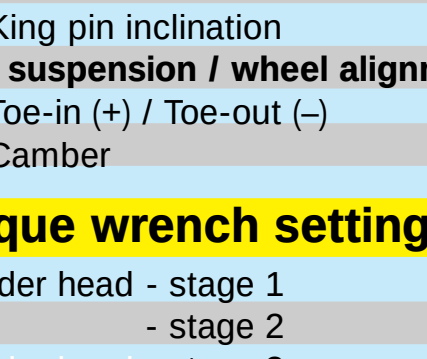
Capacities

		520i (E28) 1983 to 1988
Engine oil & filter	litres	4.3
Gearbox - 4-speed [5-speed]	litres	1.0[4]
Automatic transmission - refill	litres	2.0 [4 speed: 3.0]
Final drive	litres	1.7
Cooling system	litres	10.5
Fuel tank	litres	70

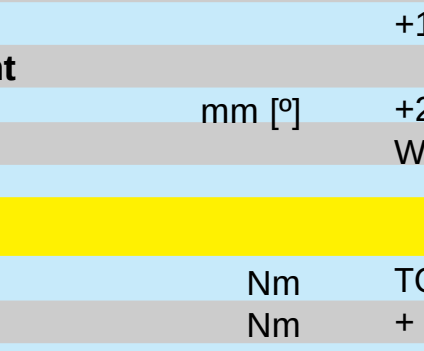
Notes and Illustrations

[1]**Distributor 237 302 037: 26 BTDC @ 3000±50**
[2]**Distributor 237 302 037: 7 to 11 @ 1000, 21 to 27 @ 2000, 24 to 30 @ 2500**
[3]**Distributor 237 302 037: 140 to 390 @ 12 to 18°**
[4]**245 type: 1.5**

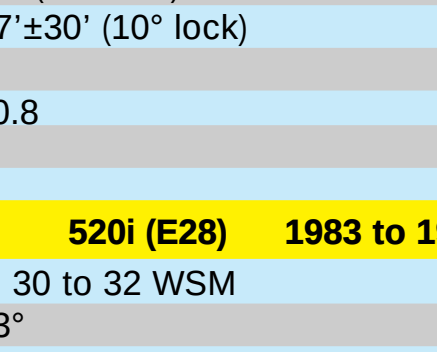
1: Idle speed 2: CO / Mixture



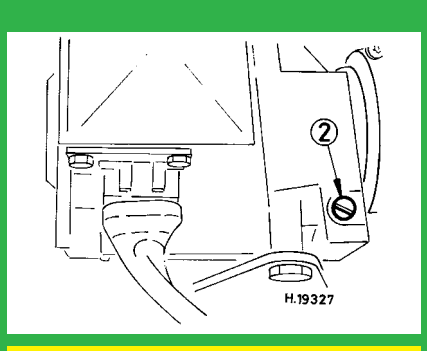
1990 cm³, 12V



1990 cm³, L-Jetronic



L-Jetronic, 1990 cm³



L-Jetronic