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

528i (E28) 1981 to 1988

Type		M30 / B28
Capacity (cm³) / number of cylinders		2788 / 6
Compression ratio / pressure	bar	9.3 / 10 to 11
Oil pressure	bar	0.5 to 2.0
Oil temperature	ºC	_
Valve clearance - inlet	mm	0.35 H
Valve clearance - exhaust	mm	0.35 H
Firing order		1-5-3-6-2-4
No 1 cylinder position		TCE
Thermostat opening temperature	ºC	80
Radiator cap pressure	bar	1.0±0.1

Fuel system

528i (E28) 1981 to 1988

Idle speed - manual [auto]	rpm	850±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	3.0
Pump pressure	bar	2.5 to 3.0
Octane rating	RON	98[R]

Ignition system

528i (E28) 1981 to 1988

Type		Electronic
Ignition coil		Bosch 0 221 122 319
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 (%)	30 to 40.2 @ 2500 rpm
Condenser capacity	µF	_
Rotation		Clockwise
Ignition timing - basic [static	º Crankshaft @ rpm	22 BTDC @ 2150±50
V = Vacuum NV = No Vacuum		NV
Total ignition advance	º Crankshaft @ rpm	_
	º Crankshaft @ rpm	_
	º Crankshaft @ rpm	_
Centrifugal check.	º Crankshaft @ rpm	4 to 12 @ 1000
	º Crankshaft @ rpm	11 to 19 @ 1500
	º Crankshaft @ rpm	20 to 29 @ 2500
Vacuum range check	mbar	160 to 420
Maximum vacuum advance	º Crankshaft	17 to 22
Spark plugs		Bosch/Champion
Type		W8DC / N9YCX
Electrode gap	mm	0.70+0.10

Electrical system

528i (E28) 1981 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	200 / 9.0
- locked	A / V	_

Running gear

528i (E28) 1981 to 1988

Brakes -		
Front (min. friction material thickness)	mm	2.0
Rear (min. friction material thickness)	mm	2.0
Tyres		
Saloon	Size	195/70x14
Estate / Van	Size	_
Pressure - front / rear - Saloon	bar	2.2 / 2.2
- 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

528i (E28) 1981 to 1988

Cylinder head - stage 1	Nm	60+2, wait 15 mins.
- stage 2	Nm	+ 33±3°
Cylinder head - stage 3	Nm	Warm engine for 25 mins.
- stage 4	Nm	+ 33±5°
Big-end bearings	Nm	52 to 57
Main bearings	Nm	58 to 63
Clutch cover	Nm	22 to 24
Flywheel [driveplate]	Nm	105±7 locked threads
Front hubs	Nm	WSM
Rear hubs	Nm	234 to 260
Wheel nuts / bolts	Nm	100±10
Spark plugs	Nm	26±2

Capacities

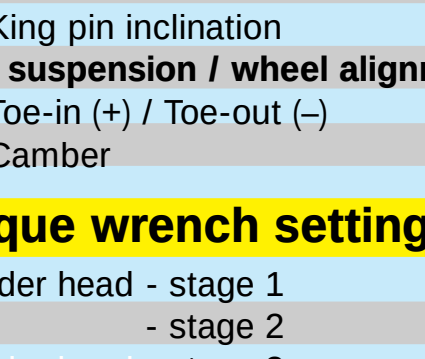
528i (E28) 1981 to 1988

Engine oil & filter	litres	5.8
Gearbox - 4-speed [5-speed]	litres	1.1 [1.6][1]
Automatic transmission - refill	litres	2.0 [4 speed: 3.0]
Final drive	litres	1.7
Cooling system	litres	12.0
Fuel tank	litres	70

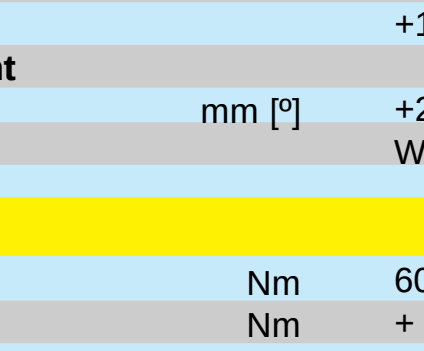
Notes and Illustrations

[1]**260 type: 1.3**

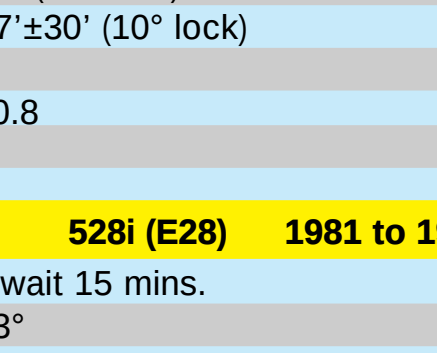
1: Idle speed 2: CO / Mixture



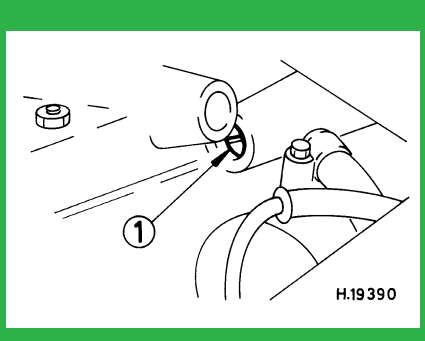
2788 cm³, M30



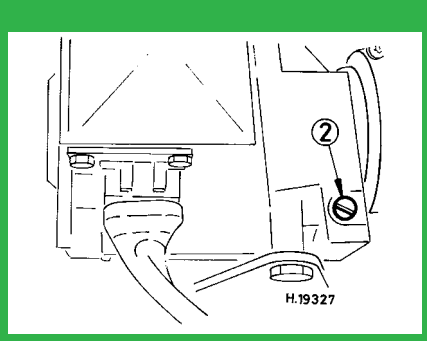
2788 cm³, M30



2788 cm³, M30 AT



L-Jetronic, 2788 cm³



L-Jetronic, 2788 cm³