

Engine & Cooling

Fuel

Ignition

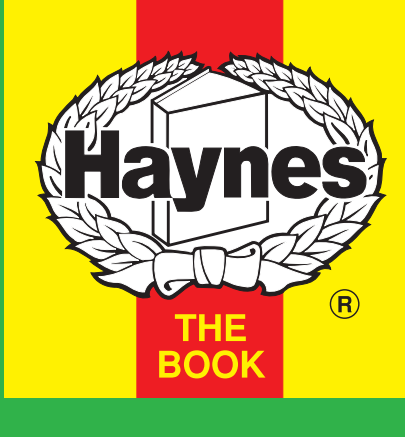
Electrical

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Notes & Illustrations



Automotive Technical
DATA BOOK

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HELP

Engine and cooling system309, 1.9 GTi1987 to 1993

Type		XU9JA/K (D6B) (94kW)
Capacity (cm³) / number of cylinders		1905 / 4
Compression ratio / pressure	bar	9.6 / _
Oil pressure	bar	2.1 [4.1]
Oil temperature	°C	80
Valve clearance - inlet	mm	0.20
Valve clearance - exhaust	mm	0.40
Firing order		1-3-4-2
No 1 cylinder position		FE
Thermostat opening temperature	°C	82
Radiator cap pressure	bar	1.0

Fuel system309, 1.9 GTi1987 to 1993

Idle speed - manual [auto]	rpm	900±50
Fast idle speed - manual [auto]	rpm	_
CO @ idle speed [3000 rpm] - see page VI	%	1.0±0.5 [≤0.5]
HC @ idle speed [3000 rpm] - see page VI	ppm	≤250
CO2 @ idle speed [3000 rpm] - see page VI	%	≥10.0
O2 @ idle speed [3000 rpm] - see page VI	%	_
Carburettor / fuel injection		Bosch
Type / ref		LE2-Jetronic
Main jet / needle		_
Injection pressure	bar	2.5
Pump pressure	bar	2.9 to 3.1
Octane rating	RON	97[E 98 RON]

Ignition system309, 1.9 GTi1987 to 1993

Type		Electronic
Ignition coil		Bosch/Ducellier
Primary resistance	ohms	0.82
Ballast resistor	ohms	_
Voltage - Tmnl 15(+) to earth	V	_
Distributor		Bosch/Ducellier
Points gap (air gap)	mm	_
Dwell angle	° (%)	_
Condenser capacity	µF	_
Rotation		Anticlockwise
Ignition timing - basic [static	° Crankshaft @ rpm	5 BTDC @ 700
V = Vacuum NV = No Vacuum		NV
Total ignition advance	° Crankshaft @ rpm	C043-D019
	° Crankshaft @ rpm	_
	° Crankshaft @ rpm	_
Centrifugal check.	° Crankshaft @ rpm	5 to 8 @ 1200
	° Crankshaft @ rpm	18 to 24 @ 2000
	° Crankshaft @ rpm	26 to 30 @ 5000
Vacuum range check	mbar	212 to 704
Maximum vacuum advance	° Crankshaft	18 to 22
Spark plugs		Eyquem/Champion
Type		FC58LS / C7YCX
Electrode gap	mm	0.80

Electrical system309, 1.9 GTi1987 to 1993

Battery	V / CC / RC	12 / 210 / 65
Alternator voltage / full load current / engine rpm		13.8 to 14.8 / _ / 3000
Starter motor current / voltage - cranking	A / V	_
- locked	A / V	_

Running gear309, 1.9 GTi1987 to 1993

Brakes -		
Front (min. friction material thickness)	mm	1.0
Rear (min. friction material thickness)	mm	_

Tyres		
Saloon	Size	185/55x15
Estate / Van	Size	_
Pressure - front / rear - Saloon	bar	2.0 / 2.0
- Estate / Van	bar	_

Front suspension / wheel alignment		
Toe-in (+) / Toe-out (-)	mm [°]	+1.0±0.5 PW
Camber		-40'±30'
Castor		+2°10'±30'
King pin inclination		+10°40'±30'

Rear suspension / wheel alignment		
Toe-in (+) / Toe-out (-)	mm [°]	+1.9±0.8 PW ¹
Camber		-50'±30'. 90 ►: -1°15'±30'

Torque wrench settings309, 1.9 GTi1987 to 1993

Cylinder head - stage 1	Nm	60
- stage 2	Nm	Slacken
Cylinder head - stage 3	Nm	20
- stage 4	Nm	+ 300°
Big-end bearings	Nm	40 ²
Main bearings	Nm	49
Clutch cover	Nm	25
Flywheel [driveplate]	Nm	49 LkC
Front hubs	Nm	265
Rear hubs	Nm	215
Wheel nuts / bolts	Nm	85
Spark plugs	Nm	25 to 30

Capacities309, 1.9 GTi1987 to 1993

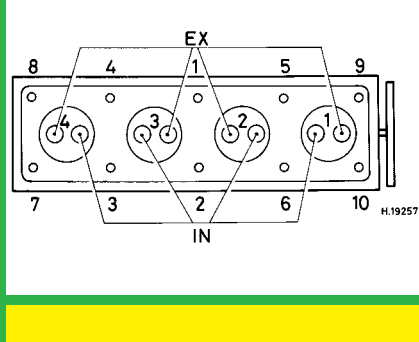
Engine oil & filter	litres	5.0. 93 MY: 4.5
Gearbox - 4-speed [5-speed]	litres	2.0
Automatic transmission - refill	litres	_
Final drive	litres	WT
Cooling system	litres	8.0
Fuel tank	litres	55

Notes and Illustrations

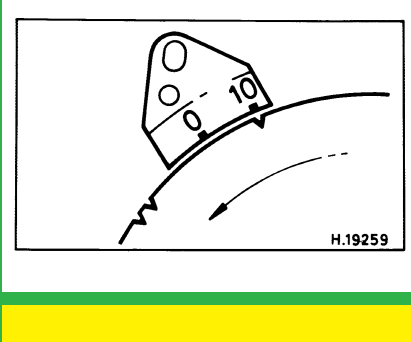
¹**1990 ►: +2.5±1.3**

²**Slacken, then 20 + 70°**

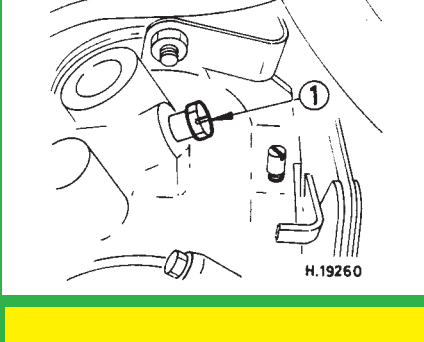
1: Idle speed2: CO / Mixture



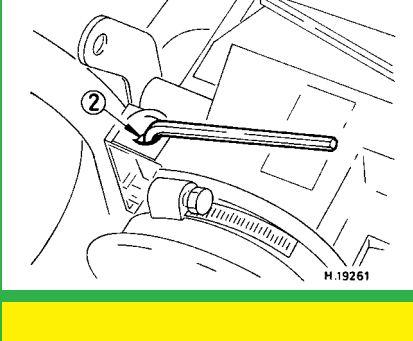
1905 cm³, 8V



1905 cm³, 8V



LE2-Jetronic



LE2-Jetronic