

VAUXHALL/OPEL

Carlton/Omega-A 1.8i

1986 to 1992

Engine & Cooling

Fuel

Ignition

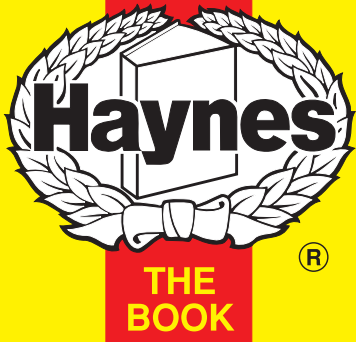
Electrical

Running gear

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Capacities

Notes & Illustrations



Automotive Technical
DATA BOOK

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Engine and cooling system

Carlton/Omega-A 1.8i

1986 to 1992

Type		18SEH SOHC. 85kW. 15.04
Capacity (cm ³) / number of cylinders		1796 / 4
Compression ratio / pressure	bar	10.0 / _
Oil pressure	bar	1.5
Oil temperature	°C	≥80
Valve clearance - inlet	mm	0: Hyd.
Valve clearance - exhaust	mm	0: Hyd.
Firing order		1-3-4-2
No 1 cylinder position		TBE
Thermostat opening temperature	°C	92 to 107
Radiator cap pressure	bar	1.2 to 1.3

Fuel system

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Idle speed - manual [auto]	rpm	850 to 910 [800 to 900]
Fast idle speed - manual [auto]	rpm	_
CO @ idle speed [3000 rpm] - see page VI	%	0.5 to 1.0
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		L3.1-Jetronic
Main jet / needle		_
Injection pressure	bar	2.0 to 2.2
Pump pressure	bar	2.5±0.2
Octane rating	RON	98[E 95 RON] ¹

Ignition system

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Type		MSTS-i
Ignition coil		Bosch 0 221 600 053
Primary resistance	ohms	0.70 to 0.75
Ballast resistor	ohms	_
Voltage - Tmnl 15(+) to earth	V	_
Distributor		Bosch
Points gap (air gap)	mm	_
Dwell angle	° (%)	Electronic control
Condenser capacity	µF	_
Rotation		Anticlockwise
Ignition timing - basic [static	° Crankshaft @ rpm	10±2 BTDC @ 850 to 910 N/A
V = Vacuum NV = No Vacuum		NV
Total ignition advance	° Crankshaft @ rpm	14 to 18 @ 1800
	° Crankshaft @ rpm	_
	° Crankshaft @ rpm	_
Centrifugal check.	° Crankshaft @ rpm	Computer control
	° Crankshaft @ rpm	_
	° Crankshaft @ rpm	_
Vacuum range check	mbar	Computer control
Maximum vacuum advance	° Crankshaft	_
Spark plugs		AC/Champion
Type		CR42CXLS / RN7YC
Electrode gap	mm	0.70 to 0.80

Electrical system

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Battery	V / CC / RC	12 / 44Ah
Alternator voltage / full load current / engine rpm		13.8 to 14.8 / 55-90 / 2000
Starter motor current / voltage - cranking	A / V	75 / 11.5 (no load)
- locked	A / V	475 to 600 / 12

Running gear

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Brakes -		
Front (min. friction material thickness)	mm	7.0 with backing
Rear (min. friction material thickness)	mm	7.0 with backing

Tyres		
Saloon	Size	185/70x14: 195/65x15
Estate / Van	Size	175x14: 185/70x14: 195/65x15
Pressure - front / rear - Saloon	bar	2.2 / 2.2
- Estate / Van	bar	2.0 / 2.2

Front suspension / wheel alignment

Toe-in (+) / Toe-out (-)	mm [°]	[0 to +20'] L
Camber		-1°55' to -25'
Castor		²
King pin inclination		_

Rear suspension / wheel alignment

Toe-in (+) / Toe-out (-)	mm [°]	-0.5 to +5.5 ³
Camber		Sal: -2°20' to -1°. Est ⁴

Torque wrench settings

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Cylinder head - stage 1	Nm	25 N
- stage 2	Nm	+90°
Cylinder head - stage 3	Nm	+90°
- stage 4	Nm	+90°
Big-end bearings	Nm	35 + 45° to 60° N
Main bearings	Nm	50 + 40° to 50° N
Clutch cover	Nm	15
Flywheel [driveplate]	Nm	65 + 30° to 45° ⁵
Front hubs	Nm	320
Rear hubs	Nm	WSM
Wheel nuts / bolts	Nm	90
Spark plugs	Nm	25

Capacities

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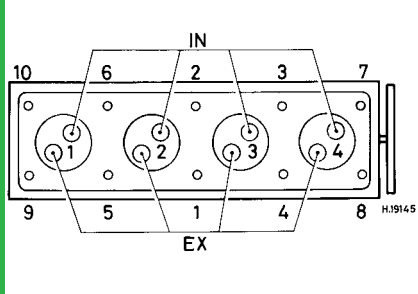
Engine oil & filter	litres	4.5
Gearbox - 4-speed [5-speed]	litres	1.9
Automatic transmission - refill	litres	5.5
Final drive	litres	4D: 0.8. 5D: 1.0
Cooling system	litres	6.4
Fuel tank	litres	4D: 75. 5D: 70

Notes and Illustrations

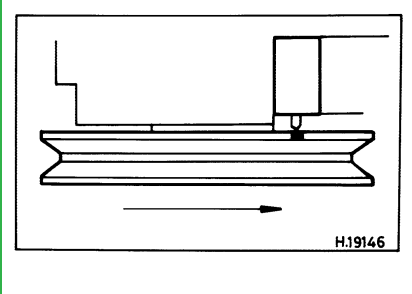
- ¹Octane rating plug = 95 RON. 89 ►: [E 95 RON]
- ²4D manual steering: +2° to 4°. PAS: +4°30' to 6°30' 5D manual steering: +1°30' to 3°30'. PAS: +4° to 6°
- ³5D: 0 to +6.0
- ⁴-2°5' to -45'
- ⁵Use locking compound

1: Idle speed

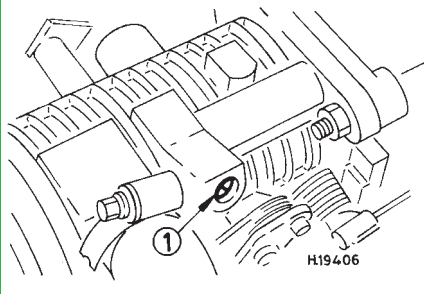
2: CO / Mixture



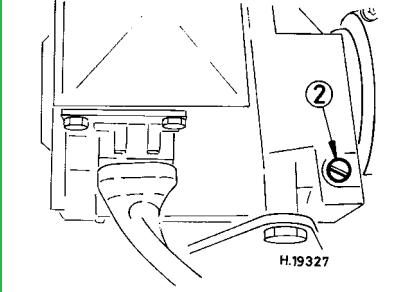
1796 cm³, 8V



1796 cm³, 8V



L3.1-Jetronic



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