

VAUXHALL/OPEL

Carlton/Omega/Senator 3.0i

1988 to 1994

Engine & Cooling

Fuel

Ignition

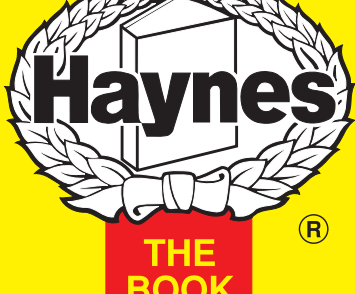
Electrical

Running gear

Torque settings

Capacities

Notes & Illustrations



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

Carlton/Omega/Senator 3.0i

1988 to 1994

Type		C30NE CIH. 130kW. US83
Capacity (cm ³) / number of cylinders		2969 / 6
Compression ratio / pressure	bar	9.2 / _
Oil pressure	bar	_
Oil temperature	°C	_
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	°C	92
Radiator cap pressure	bar	1.2 to 1.3

Fuel system

Carlton/Omega/Senator 3.0i

1988 to 1994

Idle speed - manual [auto]	rpm	670 to 830
Fast idle speed - manual [auto]	rpm	_
CO @ idle speed [3000 rpm] - see page VI	%	≤0.5
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		ML4.1-Motronic. 90 ►: M1.5
Main jet / needle		_
Injection pressure	bar	2.5
Pump pressure	bar	2.5±0.2
Octane rating	RON	95[U]

Ignition system

Carlton/Omega/Senator 3.0i

1988 to 1994

Type		DME Motronic
Ignition coil		Bosch 1 227 020 009
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	° (%)	18 to 20 [16 to 18]
Condenser capacity	µF	_
Rotation		_
Ignition timing - basic [static	° Crankshaft @ rpm	8 to 12 BTDC @ idle N/A
V = Vacuum NV = No Vacuum		NV
Total ignition advance	° Crankshaft @ rpm	_
	° 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		Bosch/Champion
Type		WR7BC / RL82YC
Electrode gap	mm	0.70 to 0.80

Electrical system

Carlton/Omega/Senator 3.0i

1988 to 1994

Battery	V / CC / RC	12 / 44, 55 or 66Ah
Alternator voltage / full load current / engine rpm		13.8 to 14.8 / _ / 2000
Starter motor current / voltage - cranking	A / V	50 / 11.5 (no load)
- locked	A / V	310 to 400 / 7.5

Running gear

Carlton/Omega/Senator 3.0i

1988 to 1994

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

Tyres		
Saloon	Size	195/65x15: 205/65x15
Estate / Van	Size	195/65x15: 205/65x15
Pressure - front / rear - Saloon	bar	2.5 / 2.5 ¹
- Estate / Van	bar	2.3 / 2.5

Front suspension / wheel alignment		
Toe-in (+) / Toe-out (-)	mm [°]	[0 to +20'] L
Camber		-2°15' to -45'
Castor		+4°45' to 6°45' ²
King pin inclination		_

Rear suspension / wheel alignment		
Toe-in (+) / Toe-out (-)	mm [°]	+1.0 to 4.0
Camber		-2°40' to -1°20'

Torque wrench settings

Carlton/Omega/Senator 3.0i

1988 to 1994

Cylinder head - stage 1	Nm	60
- stage 2	Nm	+ 90°
Cylinder head - stage 3	Nm	Warm up
- stage 4	Nm	+ 30°
Big-end bearings	Nm	45
Main bearings	Nm	110
Clutch cover	Nm	22
Flywheel [driveplate]	Nm	60
Front hubs	Nm	320
Rear hubs	Nm	WSM
Wheel nuts / bolts	Nm	90
Spark plugs	Nm	40

Capacities

Carlton/Omega/Senator 3.0i

1988 to 1994

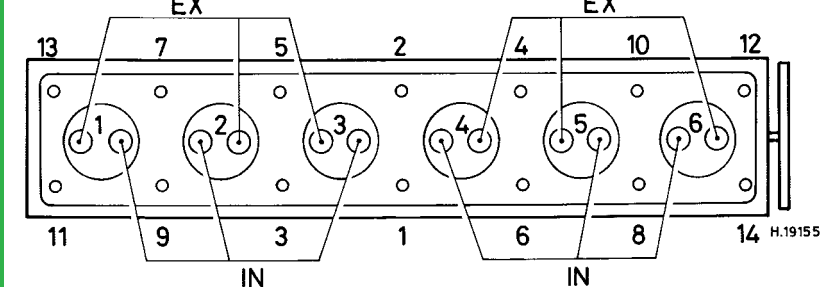
Engine oil & filter	litres	5.5
Gearbox - 4-speed [5-speed]	litres	1.9
Automatic transmission - refill	litres	2.6
Final drive	litres	1.1
Cooling system	litres	10.2 [AT: 10.1] ³
Fuel tank	litres	4D: 75. 5D: 70

Notes and Illustrations

¹Senator: 2.2 / 2.2

²Senator: +4°30' to 6°30'

³A/C: 11.3. AT: 11.2



2969 cm³, 12V