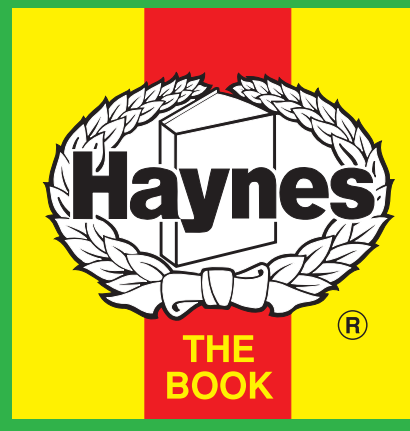


Engine & Cooling	Fuel	Ignition	Electrical	Running gear	Torque settings	Capacities	Notes & Illustrations
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Automotive Technical DATA BOOK

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.

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HELP

Engine and cooling system Cavalier/Vectra-A 1.6 1988 to 1994

Type		16SV SOHC. 60kW. 15.04 ¹
Capacity (cm ³) / number of cylinders		1598 / 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	91 to 107
Radiator cap pressure	bar	1.20 to 1.35

Fuel system Cavalier/Vectra-A 1.6 1988 to 1994

Idle speed - manual [auto]	rpm	900 to 950 [800 to 850]
Fast idle speed - manual [auto]	rpm	2000 to 2400 [2700]
CO @ idle speed [3000 rpm] - see page VI	%	0.5 to 1.5
HC @ idle speed [3000 rpm] - see page VI	ppm	≤1200
CO ₂ @ idle speed [3000 rpm] - see page VI	%	_
O ₂ @ idle speed [3000 rpm] - see page VI	%	_
Carburettor / fuel injection		Pierburg
Type / ref		2E3 90 107 522/580 ²
Main jet / needle		95, 105. 90 ▶: 92.5, 105
Injection pressure	bar	_
Pump pressure	bar	0.25 to 0.33
Octane rating	RON	98[RA] ³

Ignition system Cavalier/Vectra-A 1.6 1988 to 1994

Type		MSTS-h
Ignition coil		Bosch
Primary resistance	ohms	_
Ballast resistor	ohms	_
Voltage - Tmnl 15(+) to earth	V	_
Distributor		Bosch
Points gap (air gap)	mm	_
Dwell angle	° (%)	Electronic control
Condenser capacity	µF	_
Rotation		_
Ignition timing - basic [static	° Crankshaft @ rpm	10±2 BTDC @ 700 to 1100 ⁴
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		AC/Champion
Type		CR42CXLS / RN7YC
Electrode gap	mm	0.70 to 0.80

Electrical system Cavalier/Vectra-A 1.6 1988 to 1994

Battery	V / CC / RC	12 / 210 / 65
Alternator voltage / full load current / engine rpm		13.6 to 14.0 / 70, 90 / 3000
Starter motor current / voltage - cranking	A / V	40 to 65 / 10.6
- locked	A / V	400 to 500 / 7.0 to 8.2

Running gear Cavalier/Vectra-A 1.6 1988 to 1994

Brakes -		
Front (min. friction material thickness)	mm	7.0 with backing
Rear (min. friction material thickness)	mm	0.5 above rivets

Tyres		
Saloon	Size	175/70x14: 195/60x14:195/60x15
Estate / Van	Size	_
Pressure - front / rear - Saloon	bar	89: 1.9 / 1.7 91: 1.8 / 1.7
- Estate / Van	bar	_

Front suspension / wheel alignment

Toe-in (+) / Toe-out (-)	mm [°]	[-15'±10']
Camber		-40'±45' L
Castor		+2°±1° L
King pin inclination		_

Rear suspension / wheel alignment

Toe-in (+) / Toe-out (-)	mm [°]	[-10'+30'-20']
Camber		-1°40'±30'

Torque wrench settings Cavalier/Vectra-A 1.6 1988 to 1994

Cylinder head - stage 1	Nm	25 N
- stage 2	Nm	+ 60°
Cylinder head - stage 3	Nm	+ 60°
- stage 4	Nm	+ 60°
Big-end bearings	Nm	28 ⁵
Main bearings	Nm	50 + 45° +15° N
Clutch cover	Nm	15
Flywheel [driveplate]	Nm	35 + 30° +15° N
Front hubs	Nm	WSM
Rear hubs	Nm	WSM
Wheel nuts / bolts	Nm	110
Spark plugs	Nm	25

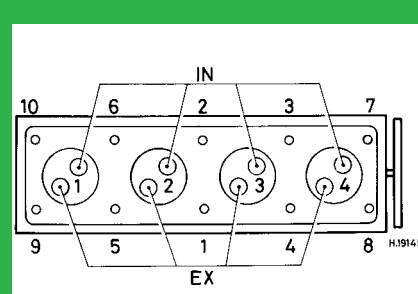
Capacities Cavalier/Vectra-A 1.6 1988 to 1994

Engine oil & filter	litres	3.5
Gearbox - 4-speed [5-speed]	litres	1.6
Automatic transmission - refill	litres	3.0 to 3.5
Final drive	litres	WT
Cooling system	litres	5.8 [AT: 5.6]
Fuel tank	litres	61

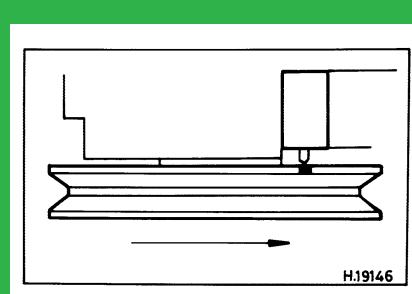
Notes and Illustrations

- ¹94 ▶: ECE R 83A
- ²90 ▶: 90 107 903 [AT: 90 107 909]
- ³Octane rating plug = 95 RON. 89 ▶: [E 95 RON]
- ⁴AT: N/A
- ⁵40mm bolt: 28 + 30° N

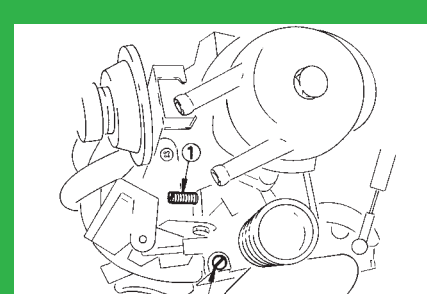
1: Idle speed 2: CO / Mixture



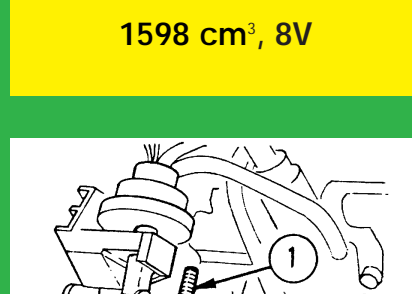
1598 cm³, 8V



1598 cm³, 8V



Pierburg 2E3



Pierburg 2E3, AT