

VAUXHALL/OPEL

Cavalier 1600

1987 to 1988

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

Cavalier 1600

1987 to 1988

Type		16SH SOHC. 66kW. 15.04
Capacity (cm ³) / number of cylinders		1598 / 4
Compression ratio / pressure	bar	9.2 / _
Oil pressure	bar	1.5
Oil temperature	°C	60
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
Radiator cap pressure	bar	1.30 to 1.35

Fuel system

Cavalier 1600

1987 to 1988

Idle speed - manual [auto]	rpm	900 to 950 [800 to 850]
Fast idle speed - manual [auto]	rpm	2100±50 [2300±50]
CO @ idle speed [3000 rpm] - see page VI	%	1.0 to 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		GM
Type / ref		Varajet II
Main jet / needle		204, 320
Injection pressure	bar	_
Pump pressure	bar	0.25 to 0.36
Octane rating	RON	98[RA] ¹

Ignition system

Cavalier 1600

1987 to 1988

Type		Electronic
Ignition coil		Bosch 1 227 020 009
Primary resistance	ohms	0.6 to 0.9
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 BTDC @ idle
V = Vacuum NV = No Vacuum		V
Total ignition advance	° Crankshaft @ rpm	_
	° Crankshaft @ rpm	_
	° Crankshaft @ rpm	_
Centrifugal check.	° Crankshaft @ rpm	0 to 4 @ 1200
	° Crankshaft @ rpm	7 to 12 @ 1600
	° Crankshaft @ rpm	18 to 22 @ 3000
Vacuum range check	mbar	120 to 260
Maximum vacuum advance	° Crankshaft	6 to 10
Spark plugs		AC/Champion
Type		CR42XLS / RN7YC
Electrode gap	mm	0.70 to 0.80

Electrical system

Cavalier 1600

1987 to 1988

Battery	V / CC / RC	12 / 210 / 65
Alternator voltage / full load current / engine rpm		13.7 to 14.5 / _ / 2000
Starter motor current / voltage - cranking	A / V	400 to 500 / 7.0 to 8.2 (AC)
- locked	A / V	400 to 500 / 7.7 (Bosch)

Running gear

Cavalier 1600

1987 to 1988

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

Tyres		
Saloon	Size	165x13: 185/70x13
Estate / Van	Size	165x13: 185/70x13
Pressure - front / rear - Saloon	bar	1.9 / 1.7
- Estate / Van	bar	2.0 / 2.0

Front suspension / wheel alignment		
Toe-in (+) / Toe-out (-)	mm [°]	+1.0 to 3.0
Camber		-1°15' to +15'
Castor		0 to +2°
King pin inclination		_

Rear suspension / wheel alignment		
Toe-in (+) / Toe-out (-)	mm [°]	+2.0 to 6.0
Camber		0 to -1°

Torque wrench settings

Cavalier 1600

1987 to 1988

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	35 + 45°
Main bearings	Nm	65
Clutch cover	Nm	15
Flywheel [driveplate]	Nm	50 + 25° to 35° [60]
Front hubs	Nm	100 ²
Rear hubs	Nm	WSM
Wheel nuts / bolts	Nm	90
Spark plugs	Nm	25

Capacities

Cavalier 1600

1987 to 1988

Engine oil & filter	litres	3.5
Gearbox - 4-speed [5-speed]	litres	2.0 [2.1]
Automatic transmission - refill	litres	7.0
Final drive	litres	WT
Cooling system	litres	7.7
Fuel tank	litres	61

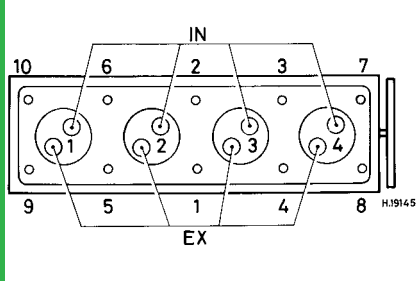
Notes and Illustrations

¹Retard ignition by 3°

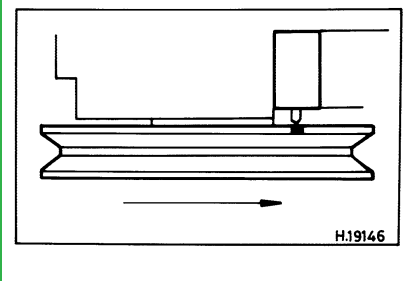
²Slacken, then 20 + 90°

1: Idle speed

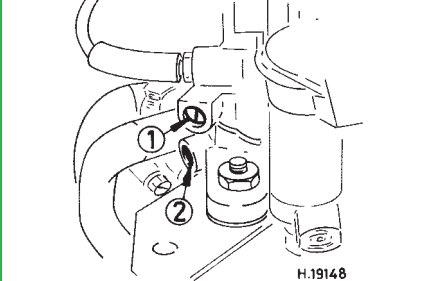
2: CO / Mixture



1598 cm³, 8V



1598 cm³



GM Varajet II