

Engine & Cooling

Fuel

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Automotive Technical
DATA BOOK

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Engine and cooling system1800 4x4, MV & Brat1981 to 1995

Type		OHV
Capacity (cm ³) / number of cylinders		1781 / 4
Compression ratio / pressure	bar	9.2 / 11.3
Oil pressure	bar	3.4 [3.9]
Oil temperature	°C	75 to 85
Valve clearance - inlet	mm	0.23 to 0.27
- exhaust	mm	0.33 to 0.37
Firing order		1-3-2-4
No 1 cylinder position		FR
Thermostat opening temperature	°C	85±1.5
Radiator cap pressure	bar	0.88±0.10

Fuel system1800 4x4, MV & Brat1981 to 1995

Idle speed - manual [auto]	rpm	800±50
Fast idle speed - manual [auto]	rpm	—
CO @ idle speed [3000 rpm] - see page VI	%	2.0±0.5
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		Hitachi
Type / ref		DCX 328-501 to 506
Main jet / needle		114, 170 [505/6: 112, 170]
Injection pressure	bar	—
Pump pressure	bar	0.12 to 0.18
Octane rating	RON	91[E 91 RON]

Ignition system1800 4x4, MV & Brat1981 to 1995

Type		Electronic
Ignition coil		Diamond Electric E-019-01-R
Primary resistance	ohms	1.035 to 1.265
Ballast resistor	ohms	—
Voltage - Tmnl 15(+) to earth	V	—
Distributor		Hitachi
Points gap (air gap)	mm	[0.30]
Dwell angle	° (%)	—
Condenser capacity	µF	—
Rotation		Anticlockwise
Ignition timing - basic [static	° Crankshaft @ rpm	6 BTDC @ 800
V = Vacuum NV = No Vacuum		NV
Total ignition advance	° Crankshaft @ rpm	—
	° Crankshaft @ rpm	—
	° Crankshaft @ rpm	—
Centrifugal check.	° Crankshaft @ rpm	0 @ 800 to 1600
	° Crankshaft @ rpm	10 to 14 @ 3000
	° Crankshaft @ rpm	21 to 25 @ 5000
Vacuum range check	mbar	107 to 507
Maximum vacuum advance	° Crankshaft	20 to 24
Spark plugs		NGK/Champion
Type		BP6ES / RN9YC
Electrode gap	mm	0.70 to 0.90

Electrical system1800 4x4, MV & Brat1981 to 1995

Battery	V / CC / RC	12 / 50, 60 or 65Ah
Alternator voltage / full load current / engine rpm		14.0 to 15.0 / _ / 2500
Starter motor current / voltage - cranking	A / V	230 / 8.0 [AT: 350 / 8.5]
- locked	A / V	300 / 2.5 [AT: 400 / 2.4]

Running gear1800 4x4, MV & Brat1981 to 1995

Brakes -		
Front (min. friction material thickness)	mm	7.5 with backing
Rear (min. friction material thickness)	mm	1.5

Tyres		
Saloon	Size	175/70x13
Estate / Van	Size	155x13: 175/70x13
Pressure - front / rear - Saloon	bar	1.9 / 1.9
- Estate / Van	bar	1.9 / 1.9

Front suspension / wheel alignment		
Toe-in (+) / Toe-out (–)	mm [°]	-5.0±1.0
Camber		+1°50' to 3°20'
Castor		-30'±45'. Estate: -40'±45' ¹
King pin inclination		—

Rear suspension / wheel alignment		
Toe-in (+) / Toe-out (–)	mm [°]	-3.0 to +3.0
Camber		-25' to +1°5' ²

Torque wrench settings1800 4x4, MV & Brat1981 to 1995

Cylinder head - stage 1	Nm	29
- stage 2	Nm	59
- stage 3	Nm	64
- stage 4	Nm	—
Big-end bearings	Nm	39 to 42 oiled
Main bearings	Nm	WSM
Clutch cover	Nm	14 to 17
Flywheel [driveplate]	Nm	41 to 45 ³
Front hubs	Nm	196
Rear hubs	Nm	196
Wheel nuts / bolts	Nm	78 to 98
Spark plugs	Nm	18 to 24

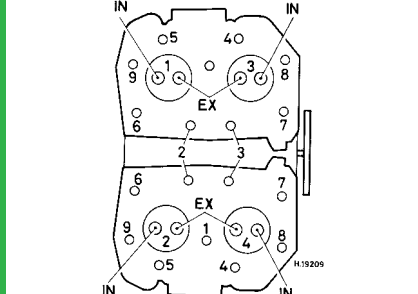
Capacities1800 4x4, MV & Brat1981 to 1995

Engine oil & filter	litres	4.0
Gearbox - 4-speed [5-speed]	litres	3.0 [¹ 84: 2.8]
Automatic transmission - refill	litres	6.2
Final drive	litres	Rear: 0.8 [1.2 ⁴]
Cooling system	litres	5.5
Fuel tank	litres	55

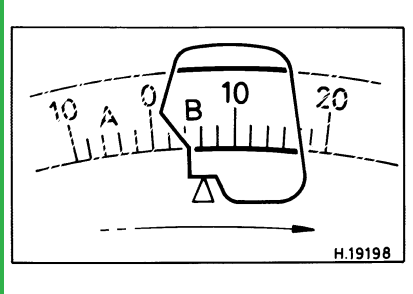
Notes and Illustrations

- ¹MV & Brat: -1°25' to +5°
- ²MV & Brat: +5' to 1°35'
- ³[49 to 53] use locking compound
- ⁴AT front

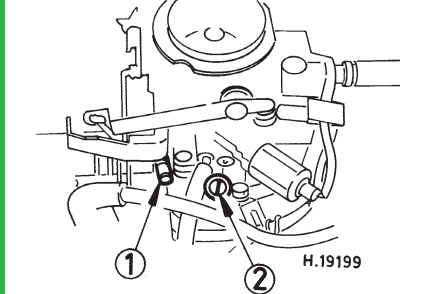
1: Idle speed 2: CO / Mixture



1781 cm³



1781 cm³



Hitachi DCX