

Engine & Cooling

Fuel

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Automotive Technical
DATA BOOK

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Engine and cooling systemJusty (J12) 4x4 & Van1987 to 1992

Type		OHC 9 valve
Capacity (cm ³) / number of cylinders		1189 / 3
Compression ratio / pressure	bar	9.1 / _
Oil pressure	bar	[2.1 to 3.2]
Oil temperature	°C	_
Valve clearance - inlet	mm	0.13 to 0.17
- exhaust	mm	0.23 to 0.27
Firing order		1-3-2
No 1 cylinder position		TBE
Thermostat opening temperature	°C	84 to 87
Radiator cap pressure	bar	0.74 to 1.03

Fuel systemJusty (J12) 4x4 & Van1987 to 1992

Idle speed - manual [auto]	rpm	800±50
Fast idle speed - manual [auto]	rpm	_
CO @ idle speed [3000 rpm] - see page VI	%	1.0 to 2.0
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		Hitachi/Zenith-Stromberg
Type / ref		DFC 328
Main jet / needle		90, 133 (Justy II: 91, 110)
Injection pressure	bar	_
Pump pressure	bar	0.09 to 0.14
Octane rating	RON	90[E 91 RON]

Ignition systemJusty (J12) 4x4 & Van1987 to 1992

Type		Electronic
Ignition coil		Hitachi
Primary resistance	ohms	1.48
Ballast resistor	ohms	_
Voltage - Tmnl 15(+) to earth	V	_
Distributor		Hitachi
Points gap (air gap)	mm	[0.30 to 0.40]
Dwell angle	° (%)	_
Condenser capacity	µF	_
Rotation		Anticlockwise
Ignition timing - basic [static	° Crankshaft @ rpm	5±2 BTDC @ 800
V = Vacuum NV = No Vacuum		_
Total ignition advance	° Crankshaft @ rpm	_
	° Crankshaft @ rpm	_
	° Crankshaft @ rpm	_
Centrifugal check.	° Crankshaft @ rpm	0 @ 800 to 1200
	° Crankshaft @ rpm	7 to 11 @ 3000
	° Crankshaft @ rpm	14 to 17 @ 6000
Vacuum range check	mbar	107 to 373
Maximum vacuum advance	° Crankshaft	13 to 16
Spark plugs		NGK/Champion
Type		BPR6ES-11 / RN9YC
Electrode gap	mm	1.00 to 1.10

Electrical systemJusty (J12) 4x4 & Van1987 to 1992

Battery	V / CC / RC	12 / 36Ah
Alternator voltage / full load current / engine rpm		14.2 to 14.8 / _ / 3000
Starter motor current / voltage - cranking	A / V	200 / 8.0
- locked	A / V	400 / 5.0

Running gearJusty (J12) 4x4 & Van1987 to 1992

Brakes -		
Front (min. friction material thickness)	mm	7.5 with backing
Rear (min. friction material thickness)	mm	1.7

Tyres		
Saloon	Size	145x12: 165/65x13
Estate / Van	Size	145x12: 165/65x13
Pressure - front / rear - Saloon	bar	2.0 / 2.0
- Estate / Van	bar	2.0 / 2.0

Front suspension / wheel alignment

Toe-in (+) / Toe-out (-)	mm [°]	+3.0 to 1.0
Camber		+40'±1°
Castor		+2°30'±1°
King pin inclination		_

Rear suspension / wheel alignment

Toe-in (+) / Toe-out (-)	mm [°]	+3.0 to -3.0
Camber		0

Torque wrench settingsJusty (J12) 4x4 & Van1987 to 1992

Cylinder head - stage 1	Nm	65 to 73 in 3 steps
- stage 2	Nm	_
- stage 3	Nm	_
- stage 4	Nm	_
Big-end bearings	Nm	39 to 45
Main bearings	Nm	41 to 47
Clutch cover	Nm	9 to 11
Flywheel [driveplate]	Nm	88 to 96
Front hubs	Nm	177
Rear hubs	Nm	147
Wheel nuts / bolts	Nm	78 to 98
Spark plugs	Nm	18 to 24

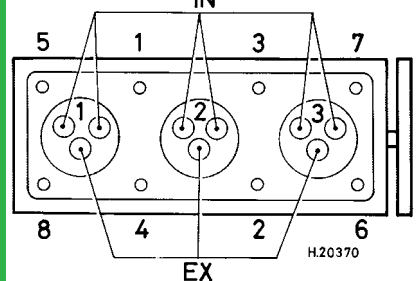
CapacitiesJusty (J12) 4x4 & Van1987 to 1992

Engine oil & filter	litres	3.0
Gearbox - 4-speed [5-speed]	litres	3.3
Automatic transmission - refill	litres	_
Final drive	litres	Rear: 0.8
Cooling system	litres	4.3
Fuel tank	litres	35

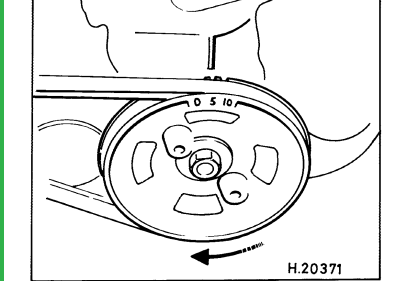
Notes and Illustrations



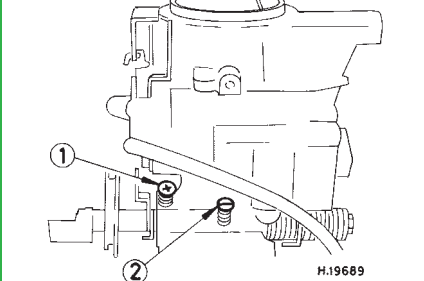
1: Idle speed 2: CO / Mixture



1189 cm³



1189 cm³



Hitachi / Zentih-Stromberg
DFC