

Engine & CoolingFuelIgnitionElectricalRunning gearTorque settingsCapacitiesNotes & Illustrations



Automotive Technical
DATA BOOK

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Engine and cooling system

Delta HF 4x4/Integrale

1988 to 1989

Type		831 B5./C5.000 DOHC (133kW)
Capacity (cm³) / number of cylinders		1995 / 4
Compression ratio / pressure	bar	8.0±0.1 / _
Oil pressure	bar	[3.4 to 4.9]
Oil temperature	°C	100
Valve clearance - inlet	mm	0.35±0.04
Valve clearance - exhaust	mm	0.40±0.04
Firing order		1-3-4-2
No 1 cylinder position		TBE
Thermostat opening temperature	°C	81 to 85
Radiator cap pressure	bar	0.98

Fuel system

Delta HF 4x4/Integrale

1988 to 1989

Idle speed - manual [auto]	rpm	800 to 900
Fast idle speed - manual [auto]	rpm	_
CO @ idle speed [3000 rpm] - see page VI	%	_
HC @ idle speed [3000 rpm] - see page VI	ppm	_
CO2 @ idle speed [3000 rpm] - see page VI	%	_
O2 @ idle speed [3000 rpm] - see page VI	%	_
Carburettor / fuel injection		Weber
Type / ref		IAW + Garrett T3 turbo
Main jet / needle		_
Injection pressure	bar	2.5±0.2
Pump pressure	bar	≤4.5
Octane rating	RON	98[R]

Ignition system

Delta HF 4x4/Integrale

1988 to 1989

Type		AEI
Ignition coil		Marelli BAE 504CK or AEI600A
Primary resistance	ohms	0.42 to 0.50
Ballast resistor	ohms	_
Voltage - Tmnl 15(+) to earth	V	_
Distributor		Marelli
Points gap (air gap)	mm	_
Dwell angle	° (%)	_
Condenser capacity	µF	_
Rotation		Clockwise
Ignition timing - basic [static	° Crankshaft @ rpm	10 BTDC @ idle
V = Vacuum NV = No Vacuum		NV
Total ignition advance	° Crankshaft @ rpm	15±2 BTDC @ 800 to 850
	° Crankshaft @ rpm	40±2 BTDC @ 4000
	° 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		WR6DC / RN7YC¹
Electrode gap	mm	0.60 to 0.70¹

Electrical system

Delta HF 4x4/Integrale

1988 to 1989

Battery	V / CC / RC	12 / 225 / 45Ah
Alternator voltage / full load current / engine rpm		14.0 to 14.3 / _ / 3500
Starter motor current / voltage - cranking	A / V	270 / 9.2
- locked	A / V	530 to 570 / 6.6

Running gear

Delta HF 4x4/Integrale

1988 to 1989

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

Tyres		
Saloon	Size	185/60x14: 195/55x15
Estate / Van	Size	_
Pressure - front / rear - Saloon	bar	2.0 / 2.0
- Estate / Van	bar	_

Front suspension / wheel alignment		
Toe-in (+) / Toe-out (-)	mm [°]	-2.0±1.5²
Camber		-40'±30' N/A
Castor		+2°50'±30'. Int: +3°10'±30'
King pin inclination		+9°18'

Rear suspension / wheel alignment		
Toe-in (+) / Toe-out (-)	mm [°]	+2.0 to 4.0³
Camber		-55'±30' N/A

Torque wrench settings

Delta HF 4x4/Integrale

1988 to 1989

Cylinder head - stage 1	Nm	20
- stage 2	Nm	40
Cylinder head - stage 3	Nm	+ 90°
- stage 4	Nm	+ 90°
Big-end bearings	Nm	25 + 50°
Main bearings	Nm	Centre: 20 + 130°⁴
Clutch cover	Nm	38
Flywheel [driveplate]	Nm	142
Front hubs	Nm	294
Rear hubs	Nm	294
Wheel nuts / bolts	Nm	86
Spark plugs	Nm	37

Capacities

Delta HF 4x4/Integrale

1988 to 1989

Engine oil & filter	litres	5.6
Gearbox - 4-speed [5-speed]	litres	3.8
Automatic transmission - refill	litres	_
Final drive	litres	Rear: 1.1
Cooling system	litres	6.2
Fuel tank	litres	57

Notes and Illustrations

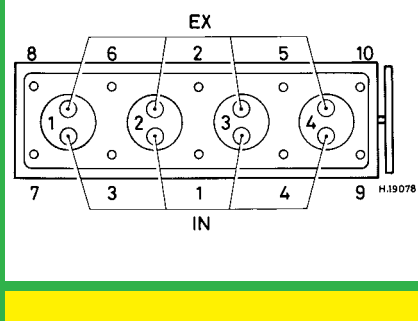
¹Integrale: Champion RN7YCC, gap: 0.85 to 0.95

²HF 4x4: -0.5±1.5

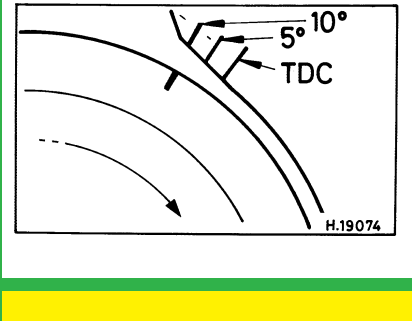
³HF 4x4: +3.0 to 5.0

⁴Others: 20 + 90°

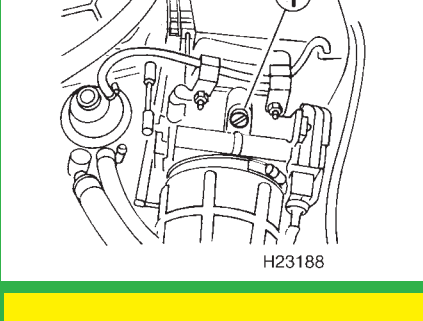
1: Idle speed 2: CO / Mixture



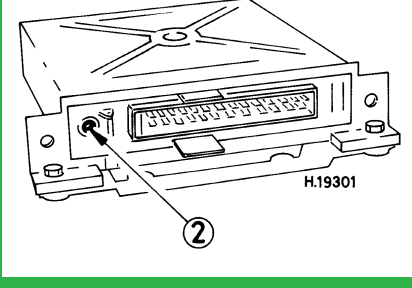
1995 cm³, 8V



1995 cm³, 8V



Weber IAW



Weber IAW