

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 systemDelta HF Integrale 16V1989 to 1992

Type		831 D5.000 DOHC 16V 144kW
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±0.03
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 systemDelta HF Integrale 16V1989 to 1992

Idle speed - manual [auto]	rpm	850 to 950
Fast idle speed - manual [auto]	rpm	_
CO @ idle speed [3000 rpm] - see page VI	%	1.5±0.5
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		Weber
Type / ref		IAW 04W + Garrett T3 turbo
Main jet / needle		_
Injection pressure	bar	2.5±0.2
Pump pressure	bar	≤4.5
Octane rating	RON	98[E 98 RON]

Ignition systemDelta HF Integrale 16V1989 to 1992

Type		Microplex
Ignition coil		Marelli BAE 504DK
Primary resistance	ohms	0.405 to 0.495
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	_
	° 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		Bosch/Champion
Type		WR6DTC / RN7YC
Electrode gap	mm	0.80 to 1.00

Electrical systemDelta HF Integrale 16V1989 to 1992

Battery	V / CC / RC	12 / 45Ah
Alternator voltage / full load current / engine rpm		13.9 to 14.5 / 65 / 3000
Starter motor current / voltage - cranking	A / V	_
- locked	A / V	_

Running gearDelta HF Integrale 16V1989 to 1992

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

Tyres		
Saloon	Size	205/50x15
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+1.0
Camber		-1°±30'
Castor		+3°10'±30'
King pin inclination		+9°18'

Rear suspension / wheel alignment		
Toe-in (+) / Toe-out (-)	mm [°]	+3.0 to 5.0
Camber		-55'±30'

Torque wrench settingsDelta HF Integrale 16V1989 to 1992

Cylinder head - stage 1	Nm	20
- stage 2	Nm	50
Cylinder head - stage 3	Nm	+ 90°
- stage 4	Nm	+ 90°
Big-end bearings	Nm	25 + 50°
Main bearings	Nm	Centre: 20 + 130°¹
Clutch cover	Nm	20
Flywheel [driveplate]	Nm	142
Front hubs	Nm	360
Rear hubs	Nm	294
Wheel nuts / bolts	Nm	86
Spark plugs	Nm	25 to 30

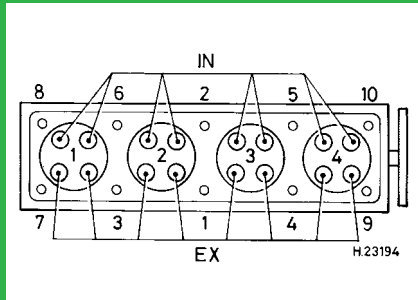
CapacitiesDelta HF Integrale 16V1989 to 1992

Engine oil & filter	litres	4.9
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

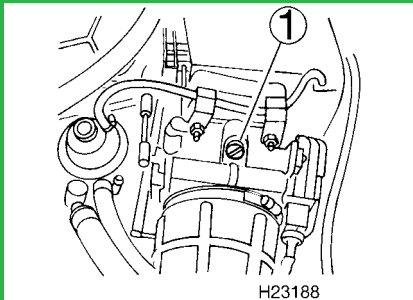
Notes and Illustrations

¹Others: 20 + 90°

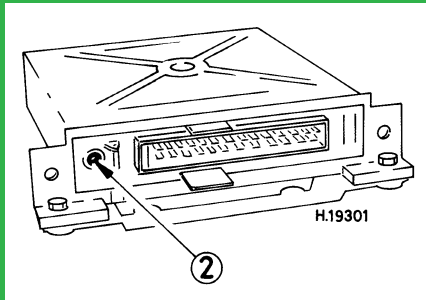
1: Idle speed 2: CO / Mixture



1995 cm³, 16V



Weber IAW



Weber IAW