

Engine & CoolingFuelIgnitionElectricalRunning gearTorque settingsCapacitiesNotes & Illustrations



Automotive Technical
DATA BOOK

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MENUHELP

Engine and cooling system

Ducato 1.81986 to 1988

Type	XM7T (169B) OHV	
Capacity (cm³) / number of cylinders	1796 / 4	
Compression ratio / pressure	bar	7.5 / _
Oil pressure	bar	[3.1 to 4.5]
Oil temperature	°C	90
Valve clearance - inlet	mm	0.15
Valve clearance - exhaust	mm	0.30
Firing order	1-3-4-2	
No 1 cylinder position	FE	
Thermostat opening temperature	°C	80 to 83
Radiator cap pressure	bar	0.9±0.1

Fuel system

Ducato 1.81986 to 1988

Idle speed - manual [auto]	rpm	850±50
Fast idle speed - manual [auto]	rpm	_
CO @ idle speed [3000 rpm] - see page VI	%	≤3.0
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	Solex	
Type / ref	34PBISA 16 PEU A316	
Main jet / needle	130±005	
Injection pressure	bar	_
Pump pressure	bar	0.25
Octane rating	RON	92[R]

Ignition system

Ducato 1.81986 to 1988

Type	Electronic	
Ignition coil	Ducellier. Bosch	
Primary resistance	ohms	0.5
Ballast resistor	ohms	_
Voltage - Tmnl 15(+) to earth	V	_
Distributor	Ducellier/Bosch	
Points gap (air gap)	mm	_
Dwell angle	° (%)	_
Condenser capacity	µF	_
Rotation	Clockwise	
Ignition timing - basic [static	° Crankshaft @ rpm	10 BTDC @ 800
V = Vacuum NV = No Vacuum		
Total ignition advance	° Crankshaft @ rpm	_
	° Crankshaft @ rpm	_
	° Crankshaft @ rpm	_
Centrifugal check.	° Crankshaft @ rpm	0 @ 1350 to 1650
	° Crankshaft @ rpm	25 to 28 @ 3000
	° Crankshaft @ rpm	34 to 38 @ 5000
Vacuum range check	mbar	80 to 300
Maximum vacuum advance	° Crankshaft	18 to 22
Spark plugs	Bosch/Champion	
Type	W7DC / N9YC	
Electrode gap	mm	0.70 to 0.80

Electrical system

Ducato 1.81986 to 1988

Battery	V / CC / RC	12 / 55Ah
Alternator voltage / full load current / engine rpm	13.8 to 14.5 / _ / 3000	
Starter motor current / voltage - cranking	A / V	_
- locked	A / V	_

Running gear

Ducato 1.81986 to 1988

Brakes -		
Front (min. friction material thickness)	mm	2.0
Rear (min. friction material thickness)	mm	1.0

Tyres		
Saloon	Size	_
Estate / Van	Size	165x14
Pressure - front / rear - Saloon	bar	_
- Estate / Van	bar	4.1 / 4.4

Front suspension / wheel alignment		
Toe-in (+) / Toe-out (-)	mm [°]	+0.5 to 2.5
Camber	+1°30' to 2°30'	
Castor	0 to +1°	
King pin inclination	_	

Rear suspension / wheel alignment		
Toe-in (+) / Toe-out (-)	mm [°]	_
Camber	_	

Torque wrench settings

Ducato 1.81986 to 1988

Cylinder head - stage 1	Nm	50, then slacken¹
- stage 2	Nm	20 + 180°¹
Cylinder head - stage 3	Nm	Warm up & cool 6 hours¹
- stage 4	Nm	+ 35°¹
Big-end bearings	Nm	39
Main bearings	Nm	73
Clutch cover	Nm	15
Flywheel [driveplate]	Nm	66
Front hubs	Nm	421 to 510
Rear hubs	Nm	WSM
Wheel nuts / bolts	Nm	160
Spark plugs	Nm	23

Capacities

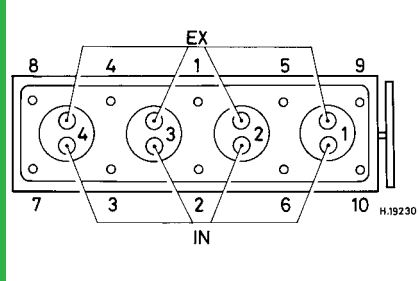
Ducato 1.81986 to 1988

Engine oil & filter	litres	4.6
Gearbox - 4-speed [5-speed]	litres	1.3
Automatic transmission - refill	litres	_
Final drive	litres	WT
Cooling system	litres	9.0
Fuel tank	litres	70

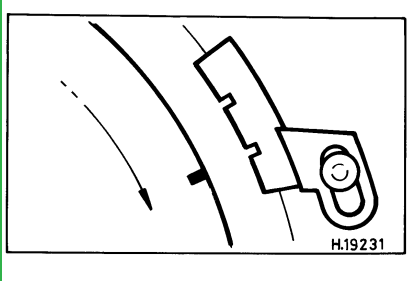
Notes and Illustrations

¹Torx: 60, slacken, then 20 + 300°

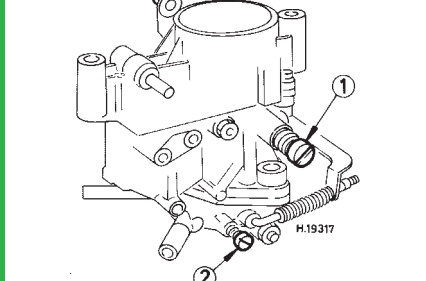
1: Idle speed 2: CO / Mixture



1796 cm³



1796 cm³



Solex 34 PBISA