

MERCEDES-BENZ

190 (201.023)

1985 to 1990

Engine & Cooling

Fuel

Ignition

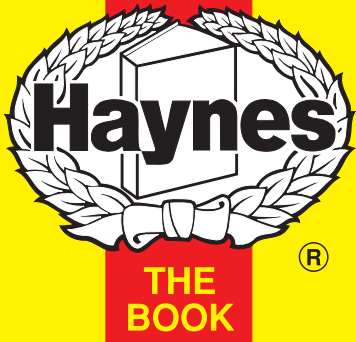
Electrical

Running gear

Torque settings

Capacities

Notes & Illustrations



Automotive Technical

DATA BOOK

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HELP

Engine and cooling system

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1985 to 1990

Type		102.924 77kW
Capacity (cm ³) / number of cylinders		1997 / 4
Compression ratio / pressure	bar	9.1 / ≥8.5
Oil pressure	bar	0.3 [3.0]
Oil temperature	°C	—
Valve clearance - inlet	mm	0: Hyd.
Valve clearance - exhaust	mm	0: Hyd.
Firing order		1-3-4-2
No 1 cylinder position		F
Thermostat opening temperature	°C	87±2
Radiator cap pressure	bar	1.2±0.1

Fuel system

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Idle speed - manual [auto]	rpm	800±50
Fast idle speed - manual [auto]	rpm	1700±100
CO @ idle speed [3000 rpm] - see page VI	%	1.0±0.5 [0.1 to 1.0]
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		Stromberg
Type / ref		175 CDT
Main jet / needle		100 / UC
Injection pressure	bar	—
Pump pressure	bar	0.20 to 0.40
Octane rating	RON	98[E 95 RON]

Ignition system

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Type		TSZ
Ignition coil		Bosch
Primary resistance	ohms	0.5 to 0.9
Ballast resistor	ohms	—
Voltage - Tmnl 15(+) to earth	V	Battery
Distributor		Bosch
Points gap (air gap)	mm	—
Dwell angle	° (%)	7 to 34 @ starter speed
Condenser capacity	µF	—
Rotation		—
Ignition timing - basic [static	° Crankshaft @ rpm	32±1 BTDC @ 4500
V = Vacuum NV = No Vacuum		NV
Total ignition advance	° Crankshaft @ rpm	13±3 BTDC @ idle
	° Crankshaft @ rpm	—
	° Crankshaft @ rpm	—
Centrifugal check.	° Crankshaft @ rpm	14 to 18 @ 1500
	° Crankshaft @ rpm	—
	° Crankshaft @ rpm	24 to 28 @ 3000
Vacuum range check	mbar	—
Maximum vacuum advance	° Crankshaft	8 to 12
Spark plugs		Bosch/Champion
Type		H7D / S9YC
Electrode gap	mm	0.80

Electrical system

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Battery	V / CC / RC	12 / 190 / 62Ah
Alternator voltage / full load current / engine rpm		13.0 to 14.5 / 55 / 3000
Starter motor current / voltage - cranking	A / V	—
- locked	A / V	430 to 550 / 3.2

Running gear

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Brakes -		
Front (min. friction material thickness)	mm	3.5
Rear (min. friction material thickness)	mm	2.0

Tyres		
Saloon	Size	185/65x15: 205/55x15
Estate / Van	Size	—
Pressure - front / rear - Saloon	bar	2.0 / 2.2
- Estate / Van	bar	—

Front suspension / wheel alignment		
Toe-in (+) / Toe-out (–)	mm [°]	[+20'±10']
Camber		0+10'-20'. Sport: -50'+10'-20'
Castor		+10°10'±30'. Sport:+10°40'±30'
King pin inclination		—

Rear suspension / wheel alignment		
Toe-in (+) / Toe-out (–)	mm [°]	[+40'+15'-10']
Camber		-1°30'±30'

Torque wrench settings

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Cylinder head - stage 1	Nm	55 ¹
- stage 2	Nm	+ 90°
Cylinder head - stage 3	Nm	+ 90°
- stage 4	Nm	—
Big-end bearings	Nm	30 + 90 to 100°
Main bearings	Nm	M12: 90 ²
Clutch cover	Nm	25
Flywheel [driveplate]	Nm	30 + 90 to 100°
Front hubs	Nm	WSM
Rear hubs	Nm	—
Wheel nuts / bolts	Nm	110
Spark plugs	Nm	20

Capacities

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Engine oil & filter	litres	5.0
Gearbox - 4-speed [5-speed]	litres	1.3 [1.5]
Automatic transmission - refill	litres	5.5
Final drive	litres	0.7
Cooling system	litres	8.5
Fuel tank	litres	55. Opt: 70

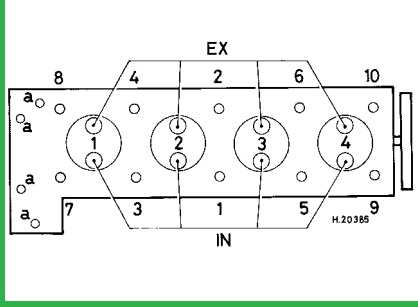
Notes and Illustrations

¹Bolts marked “a” on diagram: 25

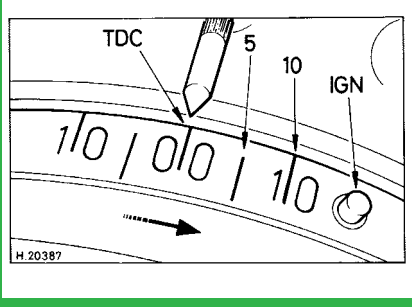
²M11: 55 + 90 to 100°

1: Idle speed

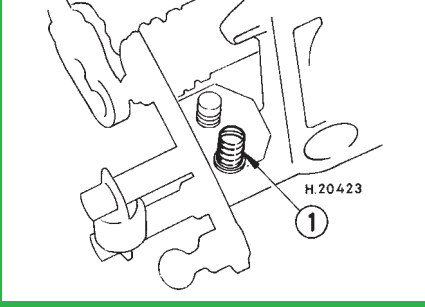
2: CO / Mixture



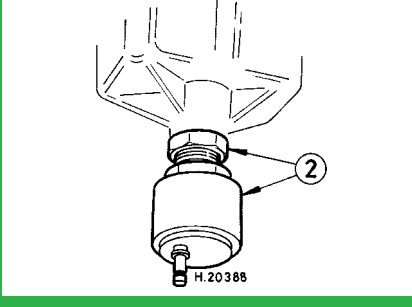
1997 cm³



1997 cm³



Stromberg 175 CDT



Stromberg 175 CDT