

Engine & Cooling

Fuel

Ignition

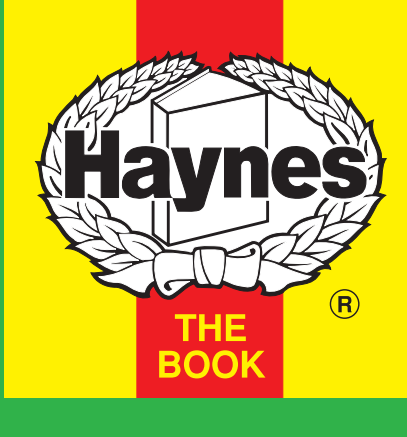
Electrical

Running gear

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Notes & Illustrations



Automotive Technical
DATA BOOK

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HELP

Engine and cooling systemMetro Sport, MG, & VDP1986 to 1989

Type		12HC14AA & 12HC15AA ¹
Capacity (cm ³) / number of cylinders		1275 / 4
Compression ratio / pressure	bar	10.5 / $\bar{}$
Oil pressure	bar	1.0 [4.1]
Oil temperature	°C	$\bar{}$
Valve clearance - inlet	mm	0.33 to 0.38
Valve clearance - exhaust	mm	0.33 to 0.38
Firing order		1-3-4-2
No 1 cylinder position		TCE
Thermostat opening temperature	°C	88
Radiator cap pressure	bar	1.04

Fuel systemMetro Sport, MG, & VDP1986 to 1989

Idle speed - manual [auto]	rpm	880±50
Fast idle speed - manual [auto]	rpm	(AA): 1050±50 (15): 1150±50
CO @ idle speed [3000 rpm] - see page VI	%	(AA): 1.5 to 3.5 (15): 1 to 3
HC @ idle speed [3000 rpm] - see page VI	ppm	≤1200
CO ₂ @ idle speed [3000 rpm] - see page VI	%	$\bar{}$
O ₂ @ idle speed [3000 rpm] - see page VI	%	$\bar{}$
Carburettor / fuel injection		SU
Type / ref		HIF44
Main jet / needle		0.100 / (AA): BDL (15): BFY
Injection pressure	bar	$\bar{}$
Pump pressure	bar	0.4
Octane rating	RON	97[L]

Ignition systemMetro Sport, MG, & VDP1986 to 1989

Type		Electronic
Ignition coil		GCL 143
Primary resistance	ohms	0.78±0.08
Ballast resistor	ohms	$\bar{}$
Voltage - Tmnl 15(+) to earth	V	$\bar{}$
Distributor		Lucas
Points gap (air gap)	mm	[0.20±0.05]
Dwell angle	° (%)	$\bar{}$
Condenser capacity	µF	$\bar{}$
Rotation		Anticlockwise
Ignition timing - basic [static	° Crankshaft @ rpm	(AA): 10, (15): 5 BTDC @ 1500
V = Vacuum NV = No Vacuum		NV
Total ignition advance	° Crankshaft @ rpm	$\bar{}$
	° Crankshaft @ rpm	$\bar{}$
	° Crankshaft @ rpm	$\bar{}$
Centrifugal check.	° Crankshaft @ rpm	(AA): 10 to 14 @ 1520 ²
	° Crankshaft @ rpm	(AA): 20 to 24 @ 4840 ²
	° Crankshaft @ rpm	(AA): 21.5 to 25.9 @ 6000 ²
Vacuum range check	mbar	180 to 407
Maximum vacuum advance	° Crankshaft	16 to 20
Spark plugs		Unipart/Champion
Type		GSP4362 / N9YC
Electrode gap	mm	1.00

Electrical systemMetro Sport, MG, & VDP1986 to 1989

Battery	V / CC / RC	12 / $\bar{}$
Alternator voltage / full load current / engine rpm		14.0 / $\bar{}$ / 3000
Starter motor current / voltage - cranking	A / V	75 / 12 (no load)
- locked	A / V	380 / 7

Running gearMetro Sport, MG, & VDP1986 to 1989

Brakes -		
Front (min. friction material thickness)	mm	3.0
Rear (min. friction material thickness)	mm	1.5

Tyres		
Saloon	Size	160/65 R315
Estate / Van	Size	$\bar{}$
Pressure - front / rear - Saloon	bar	2.0 / 1.8
- Estate / Van	bar	$\bar{}$

Front suspension / wheel alignment

Toe-in (+) / Toe-out (–)	mm [°]	[0 to -25']
Camber		0±30'
Castor		+2°6'±2°
King pin inclination		+10°38'

Rear suspension / wheel alignment

Toe-in (+) / Toe-out (–)	mm [°]	[+10' to +50']
Camber		-1°±30'

Torque wrench settingsMetro Sport, MG, & VDP1986 to 1989

Cylinder head - stage 1	Nm	38
- stage 2	Nm	75
Cylinder head - stage 3	Nm	$\bar{}$
- stage 4	Nm	$\bar{}$
Big-end bearings	Nm	Bolts: 50. Nuts: 45
Main bearings	Nm	85
Clutch cover	Nm	25
Flywheel [driveplate]	Nm	Centre bolt: 152
Front hubs	Nm	2 hole shaft: 271 ³
Rear hubs	Nm	88
Wheel nuts / bolts	Nm	57. Alloys: 49
Spark plugs	Nm	25

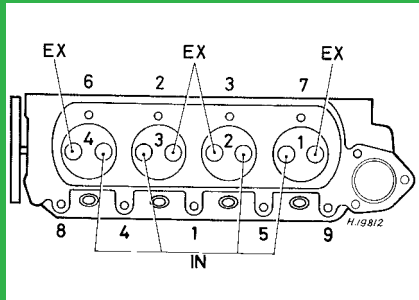
CapacitiesMetro Sport, MG, & VDP1986 to 1989

Engine oil & filter	litres	4.8
Gearbox - 4-speed [5-speed]	litres	With engine
Automatic transmission - refill	litres	$\bar{}$
Final drive	litres	With engine
Cooling system	litres	4.8
Fuel tank	litres	33

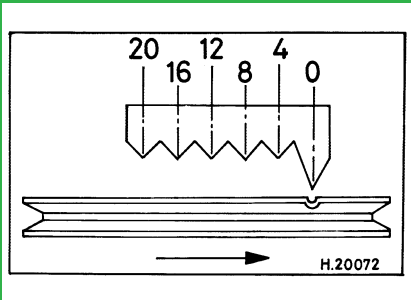
Notes and Illustrations

¹87 ►: 12HD17AA, 24AA or 25. NOTE: Throughout data, engines 12HC14AA, 12HD17AA & 24AA are referred to as (AA),and engines 12HC15AA & 12HD25 as (15)
²(15): 2 to 6 @ 2000, 16 to 20 @ 5500, 17.5 to 22 @ 6500
³1 hole shaft: 262

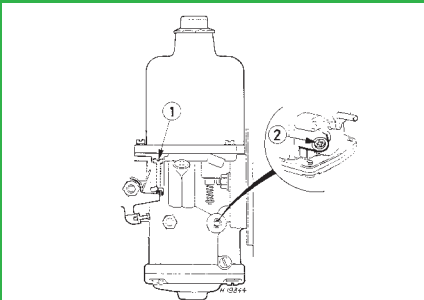
1: Idle speed 2: CO / Mixture



1275 cm³



1275 cm³



SU HIF