

CLUTCH - TURBO MODELS

Type Single dry plate, hydraulically operated
Clutch plate diameter 7 $\frac{1}{8}$ in 181 mm

MANUAL GEARBOX

Number of forward speeds 4
Synchronmesh All forward gears
Ratios: 848 cc, 998 cc, 1098 cc

Fourth 1.00:1

Third 1.43:1

Second 2.22:1

First 3.52:1

Reverse 3.54:1

Ratios: 1275 cc

Fourth 1.00:1

Third 1.35:1

Second 2.09:1

First 3.33:1

Reverse 3.34:1

Speedometer gear ratio 6/17

AUTOMATIC GEARBOX

Torque converter

Make and type Automotive Products, torque converter
Ratio 2:1 Maximum

Gearbox Ratios:

Fourth 1.0:1

Third 1.46:1

Second 1.845:1

First 2.69:1

Reverse 2.69:1

Speedometer gear ratio 7/17

FINAL DRIVE

Type Helical gears and differential
Ratio:

848 cc 3.76:1 (17/64)

COOLING SYSTEM - ALL MODELS

Type Pressurised radiator, thermo-siphon, pump and fan assisted, Auxiliary radiator fitted on Turbo Models only

Thermostat: Standard 88°C 188°F

Pressure cap 15 lb/in² 1.05 kg/cm²

Drive belt tension 0.5 in (13 mm) deflection on longest run

FUEL SYSTEM

Carburettor see 'ENGINE TUNING DATA'

Air cleaner Paper element with intake from hot box and air temperature control device

Fuel pump

Make and type - Not Turbo Models S.U. mechanical, AUF 700 or AUF 800
Turbo Models Lucas/Bosch Type 4FP

CLUTCH - NOT TURBO MODELS

Make and type Borg and Beck, diaphragm type

Clutch plate diameter 7 $\frac{1}{8}$ in 180.9 mm

Facing material Wound yarn

Diaphragm spring colour:

848 cc Brown

998 cc Brown

1098 cc Light Green

1275 cc Dark Blue

Master cylinder diameter 0.75 in

Slave cylinder diameter 0.875 in

Clutch release lever clearance 0.020 in

19.05 mm

2.22 mm

0.508 mm

Mini City E, Mini HLE and Mayfair models

CLUTCH

Make and type	Verto, diaphragm spring
Clutch plate diameter	181 mm
Master cylinder bore	7.125 in
Slave cylinder bore	0.625 in
Throw-out stop clearance	0.875 in
	0.260 in

MANUAL GEARBOX

Ratios:

Fourth	1.000:1
Third	1.425:1
Second	2.185:1
First	3.647:1
Reverse	3.667:1

Primary drive:

Primary gear end-float	0.0004 to 0.007 in
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Thrust washers available

	0.110 to 0.112 in
	0.112 to 0.114 in
	0.114 to 0.116 in
	0.116 to 0.118 in
	0.118 to 0.120 in
	0.004 to 0.007 in
	0.132 to 0.133 in
	0.134 to 0.135 in
	0.136 to 0.137 in
	0.138 to 0.139 in
	0.10 to 0.18 mm
	2.79 to 2.84 mm
	2.84 to 2.89 mm
	2.89 to 2.94 mm
	2.94 to 2.99 mm
	2.99 to 3.04 mm
	0.10 to 0.18 mm
	3.35 to 3.37 mm
	3.40 to 3.42 mm
	3.45 to 3.47 mm
	3.50 to 3.53 mm

Idle gear end-float

Thrust washers available

FINAL DRIVE

Type	Helical gears and differential
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Manual gearbox:

Ratio	(20/59)
Road speed at 1000 rev/min in top gear	18.7 mph
Automatic gearbox:	30 km/h

Ratio	25/69	2.76:1
Road speed at 1000 rev/min in top gear	19.9 mph	32 km/h

TYRES

Size and type	145 SR - 10 radial-ply
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WARNING: Mini City E and Mini HLE cars are fitted with Low Rolling Resistance tyres, and replacement tyres should be of the same type and specification.

Model year - 1982 - 1986

ELECTRICAL

Alternator

Type	Lucas A115
Output at 14 V (nominal) and 6,000 alternator rev/min	45A

Rotor winding resistance at 20°C (68°F)	3.2 ± 5%ohms
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Stator winding resistance per phase at 20°C (68°F)	0.092 ± 5%ohms
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Regulator controlled voltage

(measured across battery)	13.6 to 14.4
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Type of winding

Maximum permissible rotor speed	15,000 rev/min
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Brush length:

New	0.8 in	20 mm
Minimum	0.4 in	10 mm
Brush spring pressure	4.7 to 9.8 oz	1.3 to 2.7 N

Model year - 1984 on

MANUAL GEARBOX - NOT TURBO MODELS

Ratios:

Fourth	1.000:1
Third	1.425:1
Second	2.185:1
First	3.647:1
Reverse	3.667:1

MANUAL GEARBOX - TURBO MODELS

Ratios:	
Fourth	1.000 : 1
Third	1.425 : 1
Second	2.185 : 1
First	3.647 : 1
Reverse	3.667 : 1
Primary drive idler gear end-float	0.003 to 0.006 in
Adjustment	Selective thrust washers
Thrust washers available	0.132 to 0.133 in 3.35 to 3.37 mm
	0.134 to 0.135 in 3.40 to 3.42 mm
	0.136 to 0.137 in 3.45 to 3.47 mm
	0.138 to 0.139 in 3.50 to 3.53 mm
Laygear end-float	0.002 to 0.006 in
Adjustment	Selective thrust washers
Thrust washers available	0.121 to 0.123 in 3.07 to 3.12 mm
	0.124 to 0.126 in 3.15 to 3.20 mm
	0.127 to 0.129 in 3.23 to 3.28 mm
	0.130 to 0.132 in 3.30 to 3.35 mm

FINAL DRIVE

Type	Helical gears and differential
Ratio: Manual gearbox	
UK/Europe	3.105:1
Except UK/Europe	3.44:1
Automatic gearbox	3.272:1
Turbo models	3.21 : 1

Road speed at 1,000 rev/min in top gear:

UK/Europe	18.7 mph	30 km/h
Except UK/Europe	16 mph	26 km/h
Automatic	17.7 mph	28.5 km/h
Turbo Models	18.6 mph	29.9 km/h

STEERING

Steering wheel diameter:

- Not Turbo models	15 in	381 mm
- Turbo models	14 in	355.6 mm

BRAKES

Type	Lockheed hydraulic, disc front with fixed calipers, drum rear with leading and trailing shoes and manual adjustment
Split line system	Split front to rear with pressure reducing valve

Front

Disc diameter	8.4 in	213.4 mm
Swept frictional area - per wheel	67.23 in ²	433.7 cm ²
Total frictional area	16.6 in ²	107.1 cm ²
Minimum pad thickness	1/8 in	3 mm
Caliper piston diameter	2.0 in	50.8 mm
Tandem master cylinder bore diameter	0.7 in	17.8 mm

Rear

Drum diameter	7.0 in	177.8 mm
Lining dimensions	6.75 x 1.25 in	171.5 x 31.75 mm
Total frictional area	34.2 in ²	220.6 cm ²
Minimum lining thickness	1/8 in	3 mm
Wheel cylinder diameter	0.75 in	19.05 mm

WHEELS

Type and size:

- Not Turbo models	Ventilated disc, 4.5J x 12
- Turbo models Only	6.0J x 13

TYRES

Size and type:

- Not Turbo Models	145/70SR - 12 radial ply
- Turbo Models Only	165/60 HR13 Steel belted, radial ply

Pressures - All Models

Front	2.0 bar	1.97 kgf/cm ²	28 lbf/in ²
Rear	2.0 bar	1.97 kgf/cm ²	28 lbf/in ²