GENERAL DATA

ENGINE

Number of cylinders	Four
Capacity	57·87 cu. ins. (948 cc.)
B.H.P.	43 b.h.p. at 5,200 r.p.m.
Torque	52 lbs./ft. at 3,300 r.p.m.
Bore	2·478 in. (62·9 mm.)
Stroke	3·00 in. (76·2 mm.)
Compression ratio	8·3 : 1
First oversize bore	·010 in. (·254 mm.)
Second oversize bore	·020 in. (·508 mm.)
Third oversize bore	·030 in. (·762 mm.)
Fourth oversize bore	·040 in. (1·016 mm.)
Firing order	1, 3, 4, 2
Piston type	Aluminium split skirt
Piston clearance at skirt	·0006 in. (·015 mm.) to ·0012 in. (·03 mm.)
Piston ring gap (fitted)	·007 in. (·178 mm.) to ·012 in. (·30 mm.)
Piston rings:	
1st ring (Top)	Plain compression
2nd ring	Taper compression
3rd ring	Taper compression
4th ring (Oil control ring)	Slotted scraper
Width of plain and taper	·069 in. (1·753 mm.) to ·070 in. (1·778 mm.)
Width of oil control ring	·124 (3·15 mm.) to ·125 (3·175 mm.)
Oil capacity, sump	6 pints approx. (fill to dipstick) + 1 pint for filter if changed.
Oil pressure (normal) running	60 p.s.i. (4·2 kg./sq. cm.) approx.
Oil pressure (normal) idling	15 p.s.i. (1·05 kg./sq. cm.) min.
Oil filter	Full-flow type with renewable element
Gudgeon pin type	Clamped in con. rod
Gudgeon pin diameters	·6244 in. (15·860 mm.) to ·6246 in. (15·865 mm.)
Fit in piston	·0001 in. (·00254 mm.) tight to ·0003 in. (·0076 mm.) slack
Crankpin diameter (standard)	1·6254 in. (41·285 mm.) to 1·6259 in. (41·298 mm.)
Connecting rod length between centres	5¾ in. (146·05 mm.)
Connecting rod—type of bearing	Steel-backed copper—lead (thinwall)
Connecting rod—side clearance	·008 in. (·203 mm.) to ·012 in. (·305 mm.)
Connecting rod—diameteral clearance	·001 in. (·025 mm.) to ·0025 in. (·063 mm.)
Number of main bearings	Three
Type	Steel-backed white metal (thinwall)
Standard Journal diameter	1·7505 in. (44·463 mm.) to 1·751 in. (44·475 mm.)
Regrind sizes:	
1st undersize	1·7405 in. (44·209 mm.) to 1·741 in. (44·221 mm.)
2nd undersize	1·7305 in. (43·955 mm.) to 1·731 in. (43·967 mm.)
Length of main bearings	1 3/16 in. (30·16 mm.)
Main bearing running clearance	·0005 in. (·0127 mm.) to ·002 in. (·0508 mm.)
Crankshaft end thrust taken on	Centre main bearing
Number of camshaft bearings	Three
Camshaft bearing type	Front—steel-backed white metal. Centre and rear—direct in crankcase
Camshaft bearing clearance—front	·001 in. (·0254 mm.) to ·002 in. (·0508 mm.)
Camshaft bearing clearance—centre—rear	·00125 (·032 mm.) to ·00275 in. (·07 mm.)
Camshaft end thrust taken on	Front end

GENERAL DATA

Camshaft end float	·003 in. (·0762 mm.) to ·007 in. (·178 mm.)
Camshaft drive type	Single roller chain $\frac{3}{8}$ in. (9·52 mm.) pitch, 52 pitches, endless with synthetic rubber tensioner rings on camshaft gear
Valve timing marking	Adjoining gear teeth are marked
Exhaust valve:	
Throat diameter	0·908 in. (23·06 mm.)
Head diameter	1·00 in. (25·4 mm.)
Stem diameter	0·2788 in. (70·81 mm.) to 0·2793 in. (7·094 mm.)
Inlet valve:	
Throat diameter	$\frac{31}{32}$ in. (24·6 mm.)
Head diameter	$1\frac{3}{32}$ in. (27·8 mm.)
Stem diameter	0·2793 in. (7·094 mm.) to 0·2798 in. (7·107 mm.)
Valve seat angle	45°
Timing:	
Inlet valve opens	5° before T.D.C. (with 0·019 in. (·48 mm.) valve rocker clearance (for checking purposes only))
Inlet valve closes	45° after B.D.C.
Exhaust valve opens	40° before B.D.C.
Exhaust valve closes	10° after T.D.C.
Valve clearance for timing	0·019 in. (·48 mm.)
Inlet valve working clearance (cold)	0·012 in. (·3 mm.)
Exhaust valve working clearance (cold)	0·012 in. (·3 mm.)
Valve guides	Removeable and interchangeable
Valve lift	·28 in. (7.14 mm.)

IGNITION

Type	Lucas 12 volt coil
Distributor type	Lucas DM2 PH4
Direction of rotation	Clockwise at rotor arm
Contact breaker gap	0·014 in. (·356 mm.) to 0·016 in. (·406 mm.)
Static setting	5° before T.D.C.
Coil type	Lucas LA12
Sparking plug type	Champion N5
Sparking plug gap	·024 in. to ·026 in. (·6196 mm. to ·6604 mm.)

COOLING SYSTEM

Capacity	10 pints (5·68 litres, 12 U.S. pints)
Circulation	Pump and thermostat

FUEL SYSTEM

Fuel delivery	A.C. Sphinx. 'Y' Type. Mechanical
Carburetter type	Two S.U. H.I. Semi down draught
Needle (normal)	GG
Tank capacity	6 gallons (27·3 litres, 7·2 U.S. gallons)
Air cleaner	Twin 'Pancake'

CLUTCH

Make	Borg and Beck
Type	Single dry plate
Diameter	$6\frac{1}{4}$ in. (16 cm.)
Total frictional area	15·05×2 sq. in. (97·072×2 cm.^{2})
Thickness of linings	$\frac{1}{8}$ in. (3·175 mm.)
Release bearings	Special carbon graphite or copper carbon graphite

Number of springs	Six
Total axial spring pressure	540 to 600 lbs. (245 to 272 kg.)
Thrust plate travel to full release	0·24 in. to 0·27 in. (6·2 to 6·8 mm.)
Pedal free movement	$\frac{5}{32}$ in. (3·969 mm.)

GEARBOX

Type	Synchromesh on 2nd, 3rd and top
Type of gear	Helical constant mesh
Gear ratios:	
First	3·627:1
Second	2·374 : 1
Third	1·412 : 1
Top	1·0 : 1
Reverse	4·664 : 1
Layshaft bearing:	
Type	Needle rollers
Length	0·7795 in. (19·8 mm.)
Housing diameter	0·8296 in. to 0·8301 in. (2·1072 to 2·1085 cm.)
Inside diameter	0·6315 in. to 0·6320 in. (1·6040 to 1·6053 cm.)
Number of rollers	23
Diameter of rollers	0·0984 in. (2·5 mm.)
Gearbox bearings:	
Make	R. & M. 2/LJ16—3 dot
Type	Ball journal (light)
Size	$1 \times 2\frac{1}{4} \times \frac{\cdot 623 \text{ in.}}{\cdot 625 \text{ in}}$
Oil capacity	$2\frac{1}{3}$ pints (1·325 litres, 2·807 U.S. pints)

REAR AXLE

Type	$\frac{3}{4}$ floating
Ratio	9/38
Oil capacity	$1\frac{3}{4}$ pints (1·0 litres, 2·1 U.S. pints)
Final drive	Hypoid
Bearings:	
Pinion Front:	
Make	Timken or Skefco
Type	Taper roller
Size	1×2·3125×·594×·762 in.
Pinion rear:	
Make	Timken or Skefco
Type	Taper roller
Size	1·125×2·745×·75×·745 in.
Differential:	
Make	R. & M.
Type	LJT 35—3 dot
Size	35×72×17 mm.
Hub:	
Make	R. & M.
Type	LJ 35—3 dot
Size	35×72×17 mm.

REAR SPRINGS

Type	¼ elliptic
Number of leaves	15
Thickness of leaves	5 at $\frac{5}{32}$ in. (3·97 mm.), 10 at ⅛ in. (3·18 mm.)
Width	1¾ in. (44·45 mm.)
Laden camber	$\frac{21}{32} \pm \frac{1}{8}$ in. (16·67 ± 3·18 mm.) positive
Working load	375 lb. (170 kg.)
Average load rate	97·8 lb. in. (1·13 kg. m.)
Alternative heavy duty type:	
Number of leaves	10
Thickness of leaves	$\frac{3}{16}$ in. (4·76 mm.)
Width of leaves	1¾ in. (44·45 mm.)
Laden camber	$\frac{21}{32} \pm \frac{1}{8}$ in. (16·67 ± 3·18 mm.) positive
Working load	375 lb. (170 kg.)
Average load rate	118 lb. in. (1·357 kg. m.)

STEERING

Type	Rack and pinion
Ratio	2¼ turns, lock to lock
Track toe in	0 in. to ⅛ in. (0 mm. to 3·175 mm.)

FRONT SUSPENSION

Type	Independent by coil springs and wishbones
Spring:	
Free length	9·4 in. (23·8 cm.)
Fitted length	6·625 in. (16·85 cm.) at 750 lbs. (340 kilos) load
Solid length	4·25 in. (10·8 cm.)
Inside diameter of coil	3·125 in. (7·94 cm.)
Number of working coils	7
Diameter of wire	0·5 in. (1·27 cm.)
Spring rate	271 lbs./in. (19 kg./cm.)
Castor Angle	3°
Camber Angle	1°
Swivel pin inclination	6½°
Shock Absorbers	Lever Hydraulic

BRAKES

Make	Lockheed
Footbrake	Hydraulic
Handbrake	Mechanical on rear wheels only
Drum diameter	7 ins. (17·78 cm.)
Total Friction Area	67·5 sq. in. (435·37 sq. cm.)
Shoe Lining Length	6·75 in. (17·14 cm.)
Shoe Lining Thickness	0·203 to 0·193 in. (5·1562 to 4·9022 mm.)
Shoe Lining Width	1¼ in. (3.175 cm.)
Pedal Free Movement	$\frac{5}{32}$ in. (3·969 mm.)

ELECTRICAL

Battery:	
Type	BT7A
Type (export only)	BTZ7A (dry-charged)
Voltage	12.
Capacity:	
20 hour rate	43 amp.hr.

Initial charging current	2·5 amps.
Normal recharge current	4·0 amps.
Cell electrolyte capacity	¾ pint (·43 litre)
Generator:	
Type	Lucas C39 PV2 with extended drive for tachometer
Cutting in speed	1,050 to 1,200 r.p.m.
Maximum output	13·5 volts 19 amps.
Field resistance	6·1 ohms.
Starting Motor:	
Type	Lucas M35 G1
Control Box:	
Type	Lucas RB 106/2
Regulator setting at:	
10°C (50°F)	16·1 to 16·7 volts.
20°C (68°F)	15·8 to 16·4 volts.
30°C (86°F)	15·6 to 16·2 volts.
40°C (104°F)	15·3 to 15·9 volts.
Cut-in voltage	12·7 to 13·3 volts.
Drop off voltage	9 to 10 volts.
Reserve Current	3 to 5 amps.
Windscreen wiper:	
Type	Lucas DR2
Normal running current	2·3 to 3·1 amp. at 12 volts.
Stall current (Motor hot)	8 amp.
Stall current (Motor cold)	14 amp.
Armature resistance (adjacent commutator segments)	·34 to ·41 ohms.
Field resistance	12·8 to 14·00 ohms.
Fuse Unit	
Type (2 live, 2 spare fuses)	Lucas SF6
Fuses	2×35 amp.
Sidelamps	
Type	Lucas model 52338A
Headlamps	
Type	Lucas model F700
Stop Tail Lamps	
Type	Lucas model 53330
Number Plate Illumination	
Type	Lucas model 052410
Bulbs	
Headlamps, R.H.D. vehicles	
Type	Lucas No. 414 B.M.C. No. 13H140
Voltage	12 volts.
Wattage	50/40 watts.
L.H.D. Vehicles (not Europe)	
Type	Lucas No. 415 B.M.C. No. 13H141
Voltage	12 volts.
Wattage	50/40 watts.
L.H.D. Vehicles (France)	
Type (from Car No. 7782)	Lucas No. 411 B.M.C. No. 13H139
Voltage	12 volts.
Wattage	45/40 watts.

L.H.D. vehicles (Europe except France)		
Type	Lucas No. 370	B.M.C. No. 3H921
Voltage	12 volts.	
Wattage	45/40 watts.	
Type (from Car No. 10489)	Lucas No. 410	B.M.C. No. 13H138
Voltage	12 volts.	
Wattage	45/40 watts.	
R.H.D. vehicles (Sweden)		
Type (from Car No. 21118)	Lucas No. 370	B.M.C. No. 3H921
Voltage	12 volts.	
Wattage	45/40 watts.	
Side Lamps and Flasher		
Type	Lucas No. 380	B.M.C. No. 1F9026
Voltage	12 volts.	
Wattage	21/6 watts.	
Number Plate Illumination		
Type	Lucas No. 989	B.M.C. No. 2H4817
Voltage	12 volts.	
Wattage	6 watts.	
Rear Flasher		
Type	Lucas No. 382	B.M.C. No. 1F9012
Voltage	12 volts.	
Wattage	21 watts.	
Stop and Tail Lamp		
Type	Lucas No. 380	B.M.C. No. 1F9026
Voltage	12 volts.	
Wattage	21/6 watts.	
Headlamp main beam warning lamp		
Flashing indicator warning lamp		
Instrument illumination lamps		
Type	Lucas No. 987	B.M.C. No. 2H4732
Voltage	12 volts.	
Wattage	2·2 watts.	
Flashing Indicator Unit (FL5)		
Type	Lucas No. 35010A	

TYRE SIZES AND INFLATION PRESSURES

Tyre sizes	5.20×13 Tubeless
Pressures:	
Front	18 lbs./sq. in. (1·27 kg.cm²)
Rear	20 lbs./sq. in. (1·41 kg.cm²)

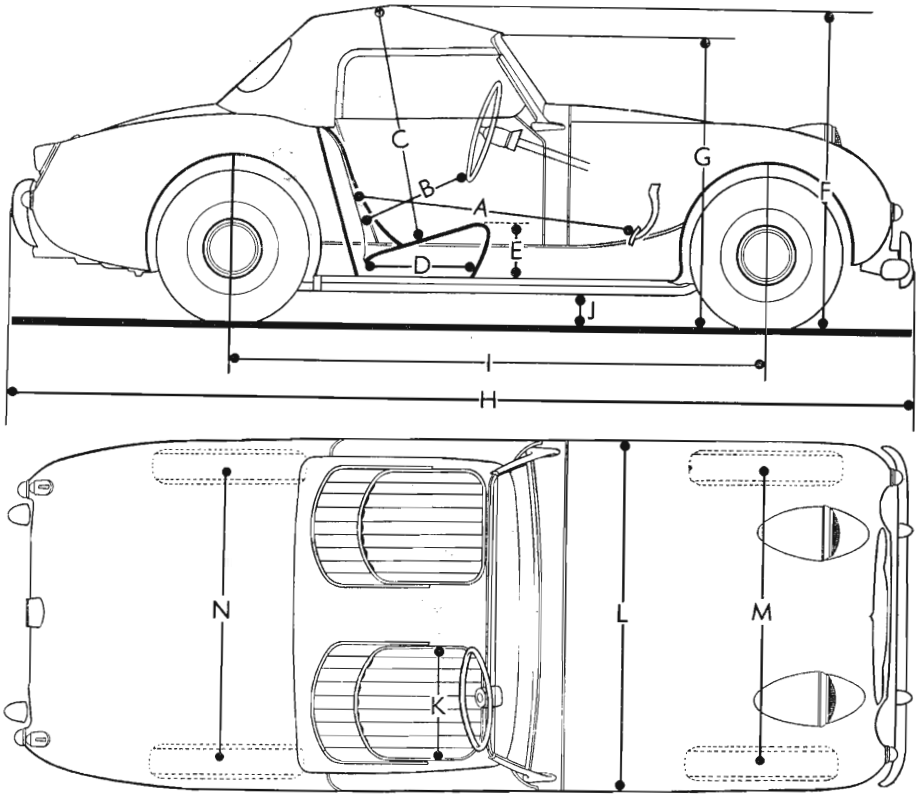
WHEELS

Type	13 in. ventilated steel disc with 4 stud fixing

TORQUE SPANNER DATA

Cylinder head stud nuts	40 lb. ft. (5·5 kg. m.)
Connecting rod big end bolts	35 lb. ft. (4·8 kg. m.)
Main bearing set screws	60 lb. ft. (8·3 kg. m.)
Flywheel set screws	40 lb. ft. (5·5 kg. m.)
Rocker bracket nuts	25 lb. ft. (3·4 kg. m.)
Gudgeon pin clamp screws	25 lb. ft. (3·4 kg. m.)
Road wheel nuts	37 to 39 lb. ft. (5·02 to 5·4 kg. m.)
Steering wheel nut	25 lb. ft. (3·4 kg. m.)

LEADING DIMENSIONS



		AS. 52. A.
Pedal to seat squab	A	3 ft. 3¼ in. (1·00 m.) 3 ft. 7¼ in. (1·10 m.)
Steering wheel to seat squab	B	1 ft. 2 in. (0·36 m.) 1 ft. 5 in. (0·43 m.)
Height over seat	C	2 ft. 10½ in. (0·88 m.)
Seat cushion depth	D	1 ft. 7 in. (0·48 m.)
Seat cushion above floor	E	7¾ in. (0·20 m.)
Overall height (hood up)	F	4 ft. 1¾ in. (1·26 m.)
Overall height (hood down)	G	3 ft. 8⅛ in. (1·12 m.)
Overall length	H	11 ft. 5¼ in. (3·49 m.)
Wheelbase	I	6 ft. 8 in. (2·03 m.)
Minimum ground clearance	J	5 in. (0·13 m.)
Seat cushion width	K	1 ft. 5 in. (0·43 m.)
Overall width	L	4 ft. 5 in. (1·35 m.)
Track (front)	M	3 ft. 9¾ in. (1·16 m.)
Track (rear)	N	3 ft. 8¾ in. (1·14 m.)
Turning Circle		31 ft. 6 in. (9·60 m.)
Approximate weight—(Kerbside)		13 cwt. (660 kg.)