

SUNNEVILLE



F.I.A. Recognition No.

83

ROYAL AUTOMOBILE CLUB

PALL MALL, LONDON, S.W.1.

Federation Internationale de l'Automobile.

*Form of Recognition in accordance with
Appendix J to the
International Sporting Code.*

Manufacturer Austin Motor Co. Ltd. in association with Donald Healey Motor Co.
Supercharged.

Model Austin-Healey 'Sprite' Year of Manufacture 1957 date.

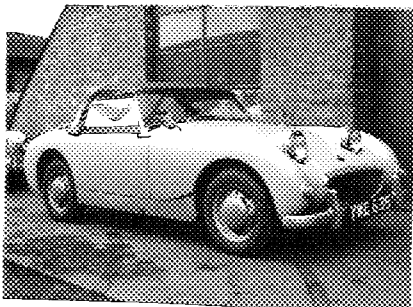
Chassis AN5.

Serial No. of Engine 90.

Type of Coachwork Open 2. seater.

Recognition is valid from In category Grand Touring

Photograph to be affixed here $\frac{3}{4}$ view of car from front right.



Stamp of F.I.A. to be
affixed here.

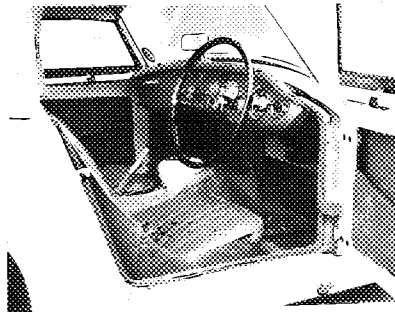
AN5/S.

General description of car:

Photographs to be affixed below.

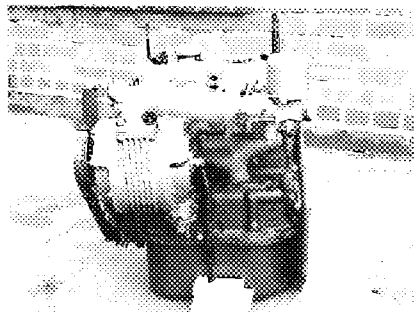
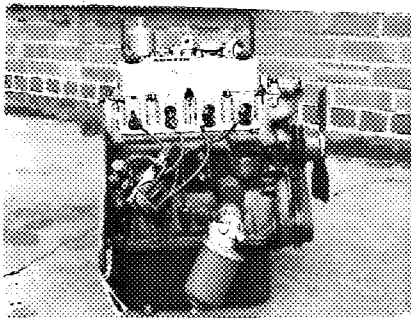
$\frac{3}{4}$ view of car from rear left.

Interior view of car through driver's door.



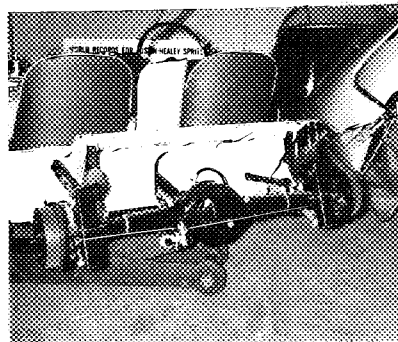
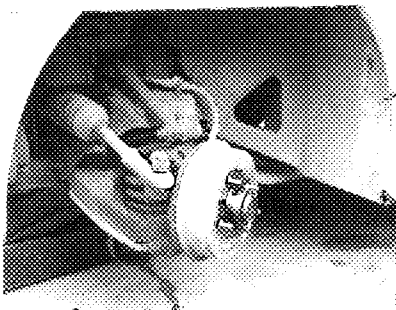
Engine unit with accessories from right.

Engine unit with accessories from left.



Front axle complete (without wheels).

Rear axle complete (without wheels).



ENGINE

No. of cylinders 4. in line Yes.
 in V -
 opposed -

Cycle 4 stroke. Firing order 134.
 Capacity 948 c.c. Bore 62.93 m.m. Stroke 76.2 m.m.
 Maximum rebore +0.040" Resultant capacity 978 c.c.
 Material of cylinder block Cast Iron. Material of sleeves, if fitted 1/1.
 Distance from crankshaft centre line to top face of block at centre line of cylinders 218.44 m.m.
 Material of cylinder head Cast Iron. Volume of one combustion chamber 24.5 c.c.
 Compression ratio 8.5:1.
 Material of piston Aluminium. No. of piston rings 4.
 Distance from gudgeon pin centre line to highest point of piston crown 34.0 m.m.

Bearings { Crankshaft main bearings: Type Thinwall half size Dia. 41.9 m.m.
 Connecting rod big end: Type Thinwall half size Dia. 41.94 m.m.

Weights { Flywheel 9.55 kg.
 Crankshaft 9.52 kg.
 Connecting rod 0.695 kg.
 Piston with rings 0.19 kg.
 Gudgeon pin 0.0545 kg.

No. of valves per cylinder 2 Method of valve operation Pushrod.
 No. of camshafts 1 Location of camshafts In cylinder block.
 Type of camshaft drive Chain.

Diameter of valves: Inlet 27.8 m.m. Exhaust 25.5 m.m.
 Diameter of port at valve seat: Inlet 25.5 m.m. Exhaust 23.0 m.m.
 Tappet clearance for checking timing: Inlet 0.48 m.m. Exhaust 0.48 m.m.
 Valves open: Inlet 5° BTDC. Exhaust 40° BDC.
 Valves close: Inlet 45° ABDC. Exhaust 10° ABDC.
 Maximum valve lift: Inlet 7.25 m.m. Exhaust 7.25 m.m.

Degrees of crankshaft rotation from zero to—
 Maximum lift: Inlet 115° Exhaust 115°
 $\frac{3}{4}$ Maximum lift: Inlet 68° Exhaust 68°

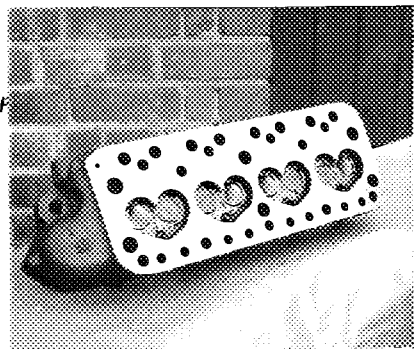
Valve springs: Inlet Exhaust
 Type Coil. Coil
 No. per valve 1. 1.

Carburettor: Type Semi down draft. No. fitted 1.
 (up or down draft, horizontal)

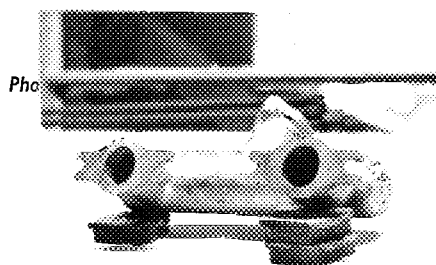
Make S.E. Model H.A.
 Flange diameter 38.1 m.m. Choke diameter 38.1 m.m.
 Main jet identification No. 0.100" (3.2. Needle).

Air filter: Type No. fitted

Inlet manifold:
 Diameter of flange at carburettor 38.1 m.m.
 Diameter of flange at port 28.575 m.m.



Fixed here.

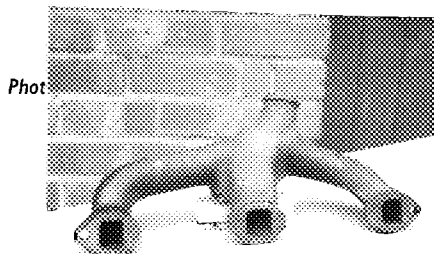


Photo

Exhaust manifold:
 Diameter of flange at port 25.4 x 27 Rectangular Section m.m.
 Diameter of flange at connection to silencer inlet pipe 28.6 m.m.



Fixed here.



Photo

ENGINE ACCESSORIES

Make of fuel pump Ac-Delco No. fitted 1

Method of operation Off Camshaft Eccentric.

Type of ignition system Coil coil or magneto

Make of ignition Lucas Model D2 P4.

Method of advance and retard Centrifugal and Vacuum control.

Make of ignition coil Lucas Model 1A. 12.

No. of ignition coils 1 Voltage 12 amps.

Make of dynamo Lucas Model G 35 P42.

Voltage of dynamo 12 Maximum output 19 amps.

Make of starter motor Lucas Model 11 35 G1.

Battery: No. fitted 1 Voltage 12 Capacity 43 amp. hour

TRANSMISSION

Make of clutch Borg & Beck Type 64 A.G.
Diameter of clutch plate 6 1/2" No. of plates 1
Method of operating clutch Hydraulic
Make of gearbox B.H.C. Type Synchromesh 2nd, 3rd, 4th.
No. of gearbox ratios 4 forward - 1 reverse.
Method of operating gearshift Remote Control.
Location of gearshift Floor Change.
Is overdrive fitted? NO.
Method of controlling overdrive, if fitted - - - - -

	GEARBOX RATIOS		ALTERNATIVE RATIOS					
	Ratio	No. of Teeth	Ratio	No. of Teeth	Ratio	No. of Teeth	Ratio	No. of Teeth
1.	3.627	$\frac{28}{17} \times \frac{32}{13}$	3.193	$\frac{26}{20} \times \frac{32}{13}$				
2.	2.374	$\frac{28}{17} \times \frac{29}{18}$	1.911	$\frac{26}{20} \times \frac{28}{19}$				
3.	1.412	$\frac{28}{19} \times \frac{23}{24}$	1.357	$\frac{26}{20} \times \frac{24}{23}$				
4.	1.000		1.000					
REVERSE	4.560	$\frac{28 \times 18 \times 32}{19 \times 13 \times 14}$	4.115	$\frac{26 \times 18 \times 32}{20 \times 13 \times 14}$				

Type of final drive Hypoid.
Type of differential Bevel.
Final drive ratio 4.22:1 Alternatives 4.225:1, 3.375:1, 3.727:1, 3.9:1.
No. of teeth 9/38 9/41, 8/43, 11/41, 10/39.
Overdrive ratio, if fitted - - - - -

WHEELS

Type Perforated Disc. Weight 5.445 kg.
Method of attachment Four Stud.
Rim diameter 30.2 m.m. Rim width 33.9 m.m.
Tyre size: Front 5.20 x 13 Rear 5.20 x 13.

BRAKES

Method of operation Hydraulic.
Is servo assistance fitted? NO.
Type of servo, if fitted - - - - -
No. of hydraulic master cylinders 1. Bore 22.225. m.m.

	Front		Rear
No. of wheel cylinders	2.		1.
Bore of wheel cylinders	22.513. m.m.		22.225. m.m.
Inside diameter of brake drums	177.8 m.m.		177.8 m.m.
No. of shoes per brake	2.		2.
Outside diameter of brake discs	- m.m.		- m.m.
No. of pads per brake	-		-

Dimensions of brake linings per shoe or pad (if all shoes or pads in each brake are not of same dimensions, specify each)

	Front		Rear
Length	174.6 m.m.		174.6 m.m.
		m.m.	m.m.
Width	30.1 m.m.		30.1 m.m.
Total area per brake	10510.8 m.m. ²		10510.8 m.m. ²

SUSPENSION

	Front		Rear
Type	Independant		Quarter elliptic.
Type of spring	Coil.		Leaf.
Is stabiliser fitted?	NO.		NO.
Type of shock absorber	Hydraulic Lever.		Hydraulic Lever.
No. of shock absorbers	2.		2.

STEERING

Type of steering gear	rack & pinion.
Turning circle of car	9.80. m., approx.
No. of turns of steering wheel from lock to lock	2 1/3rd.

CAPACITIES AND DIMENSIONS

Fuel tank	27.5 litres	Sump	3.2 litres
Radiator	5.69 litres	- without heater fitted.	
Overall length of car	340. cm.	Overall width of car	135. cm.
Overall height of car, unladen (with hood up, if appropriate)	126. cm.		
Distance from floor to top of windscreen:			
Highest point	51.44 cm.	Lowest point	62.25 cm.
Width of windscreen:			
Maximum width	116.84 cm.	Minimum width	104.14 cm.
Interior width	116.16 cm.		
No. of seats	2.		
Track: Front	116. cm.	Rear	114. cm.
Wheelbase	203. cm.	Ground clearance	127. m.m.

(To be measured at the immediate rear of the steering wheel, and the width quoted to be maintained in a vertical plane of not less than 25 cms.)

Overall weight with water, oil and spare wheel, but without fuel 550. kgs.

Additional information for cars fitted with two-cycle engines

System of cylinder scavenging.....

Type of lubrication.....

Size of inlet port:

Length measured around cylinder wall.....m.m.

Height.....m.m. Area.....m.m.²

Size of exhaust port:

Length measured around cylinder wall.....m.m.

Height.....m.m. Area.....m.m.²

Size of transfer port:

Length measured around cylinder wall.....m.m.

Height.....m.m. Area.....m.m.²

Size of piston port:

Length measured around piston.....m.m.

Height.....m.m. Area.....m.m.²

Method of pre-compression.....

Bore and stroke of pre-compression cylinder, if fitted.....m.m.

Distance from top of cylinder block to lowest point of inlet port.....m.m.

Distance from top of cylinder block to highest point of exhaust port.....m.m.

Distance from top of cylinder block to highest point of transfer port.....m.m.

Drawing of cylinder ports.

Supercharger, if fitted

Make.....Shorrock.....

Model or Type No.....C 75 B 02.

Type of drive.....Twin V Belt.....

Ratio of drive.....94:1.

Fuel injection, if fitted

Make of pump..... Model or Type No.....

Make of injectors..... Model or Type No.....

Location of injectors.....

Optional equipment affecting preceeding information:—

Disc brake & Wire Wheel Kit.	3.2507
Sump Protection Plate.	4.2508
Camshaft	24.943
Lightened Flywheel STD. lightened to spec.	1021A.
Valve Spring Inner.	ASA.401.
Top Collar.	ASA.402.
Competition Clutch.	ASA.432.
Large Fuel Jets (12 galls)	3.2549 or ASA.51.
Hardtop.	3.2566.

Exhaust system 3 pipes from head, into 2 pipes,
into 1 pipe, steel.

SUPERCHARGED
BONNEVILLE

VALIDITE HOMOLOGATION

FICHE NR.

MARQUE ET MODELE

MANCA 1 foot

GT/1600

GROUPE / CLASSE

Autres homologations du modèle

Vérifiée le 26/2/97 par [Signature] visée ce jour le _____ par _____