87

"Supercharged"

F.I.A. Recognition No.

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.

Model Austin-Healey 'Sprite' Supercharged. Year of Manufacture 1958 to date.

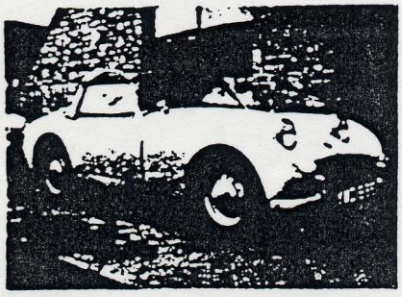
Serial No. of Chassis AN5.

Engine 9C.

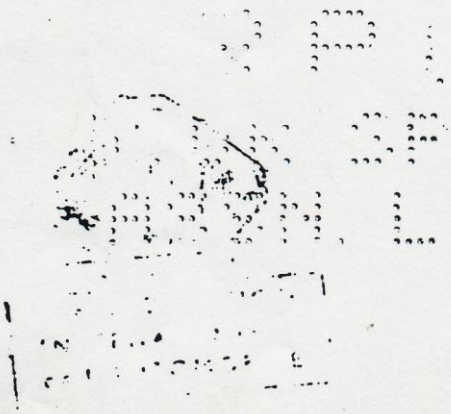
Type of Coachwork Open 2. seater.

Recognition is valid from ..... In category .....

Photograph to be affixed here ¾ view of car from front right.



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

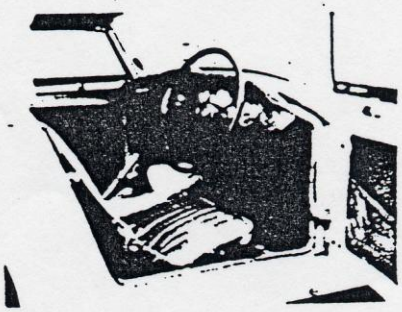


General description of car:

Photographs to be affixed below.

¾ 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).

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

ENGINE

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

Cycle 4 stroke. Firing order 1342.

Capacity 948. c.c. Bore 62.93 m.m. Stroke 76.2. m.m.

Maximum rebore 40.040 ins. Resultant capacity 978. c.c.

Material of cylinder block Cast Iron. Material of sleeves, if fitted N/A.

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 8.3:1

Material of piston Aluminium. No. of piston rings 4.

Distance from gudgeon pin centre line to highest point of piston crown 34.03. m.m.

Bearings:
- Crankshaft main bearings: Type thinwall half brgs. Dia. 44.5. m.m.
- Connecting rod big end: Type thinwall half brgs. Dia. 41.34. m.m.

Weights:
- Flywheel 9.53 kg.
- Crankshaft 9.52. kg.
- Connecting rod 0.695. kg.
- Piston with rings 0.219. kg.
- Gudgeon pin 0.0543. 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° BBDC.	
Valves close:	Inlet	45° ABDC.	Exhaust	10° ATDC.	
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°
¼ 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.U. Model H4.

Flange diameter 38.1. m.m. Choke diameter 38.1. m.m.

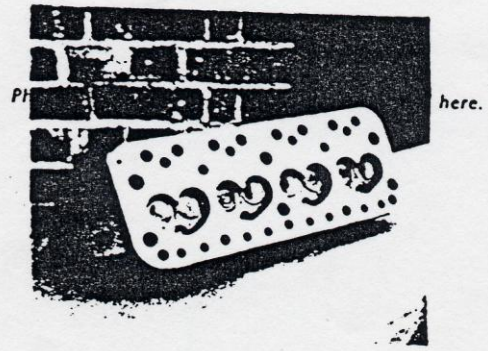
Main jet identification No. 0.100" (R.F. Needle

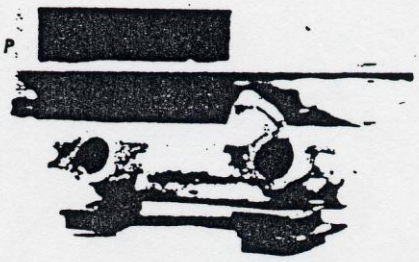
Air filter: Type ..... No. fitted .....

Inlet manifold:

Diameter of flange at carburettor ..... 38.1 m.m.

Diameter of flange at port ..... 28.575 m.m.

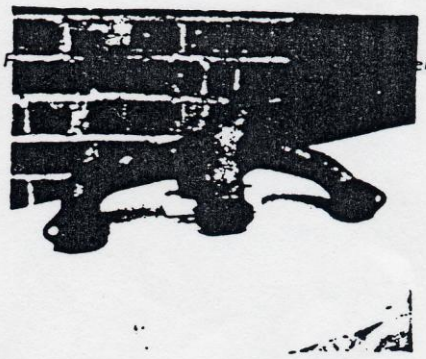




Exhaust manifold:

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.



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 LA 12.

No. of ignition coils 1. Voltage 12.

Make of dynamo Lucas. Model C 39 PV 2.

Voltage of dynamo 12 Maximum output 19 amps.

Make of starter motor Lucas. Model M 35 G1.

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

Make A/H Sprite Model AN5. F.I.A. Recognition No.

TRANSMISSION

Make of clutch Borg & Beck. Type 6¼ A.G.

Diameter of clutch plate 6¼" No. of plates 1.

Method of operating clutch Hydraulic.

Make of gearbox B.M.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	$\frac{28}{19} \times \frac{32}{13}$	3.198	$\frac{26}{20} \times \frac{32}{13}$				
2.	2.374	$\frac{28}{19} \times \frac{29}{18}$	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	4.660	$\frac{28}{19} \times \frac{18}{13} \times \frac{32}{14}$	4.115	$\frac{26}{20} \times \frac{18}{13} \times \frac{32}{14}$				

Type of final drive Hypoid.

Type of differential Bevel.

Final drive ratio 4.22:1. Alternatives 4.555:1. 5.375:1, 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 5.443. kg.

Method of attachment Four Stud.

Rim diameter 330.2 m.m. Rim width 88.9 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	23.813	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 Eliptic
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: 9.60. m., approx

No. of turns of steering wheel from lock to lock: 2 1/3rd.

CAPACITIES AND DIMENSIONS

Fuel tank: 27.3 litres Sump: 3.2 litres

Radiator: 5.69 litres - without heater fitted.

Overall length of car: 349 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: 91.44 cm. Lowest point: 62.23. cm.

Width of windscreen:

Maximum width: 116.84. cm. Minimum width: 104.14. cm.

Interior width: 116.84 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: 650. kgs.

Type of servo, if fitted

No. of hydraulic master cylinders 1. Bore 22.225. m.m.

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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

SUPERCHARGED SPRITE.

(To be measured at the immediate rear of the steering wheel, and the wheel spoke to be [illegible] in a vertical plane of not less than 25 cms.)

Overall weight with water, oil and spare wheel, but without fuel 650. kgs.

RAC MOTOR SPORTS ASS. LTD.

Optional equipment affecting preceeding information:—

Disc Brake & Wire Wheel Kit.	Q.2337.
Sump Protection Plate.	Q.2338.
Camshaft.	2A.948.
Lightened Flywheel Std. lightened to spec.	1021A.
Valve Spring Inner.	AEA.401.
Top Collar.	AEA.402.
Bottom Collar.	AEA.432.
Competition Clutch.	Q.2349 or AEJ.31.
Large Fuel Tank (12 galls).	Q.2336.
Hardtop.	

Disc Brake and Wire Wheel Kit. Q.2337. consisting of:-
Front Brakes - Girling type 10 Calipers
8" diameter Discs.
Rear Brakes - Girling 8" x 1½" Drums

Camshaft. 2A.948
giving 7.94mm Valve Lift.
Inlet Opens 16° BTDC. Closes. 56° ABDC.
Exhaust Opens 51° BBDC. Closes. 21° ATDC.

Shorrock Supercharger C.75B.
has a displacement of 730cc. per revolution and is driv
at 0.94 times Cranksnaft speed. It is an eccentric
4 vane type Unit.