

Manufacturers Reference No. for Application

T&W/AR/NJ/COMP



F.I.A. Recognition No.

60

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..... RELIANT ENGINEERING CO. (TAMWORTH) LTD.

Model..... SABRE Year of Manufacture..... 1961/2

Serial No. of Chassis..... S200001/S200131

Engine..... S216169E/S235118

Type of Coachwork..... Open 2 Seater (Additional coachwork hardtop and Gran Turismo.

Recognition is valid from..... 3 MAI 1962..... In category..... Group 3 Grand Touring.

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



Hubert Howard

Stamp of F.I.A./R.A.C. to be
affixed here.

Form: R.F.I.A.

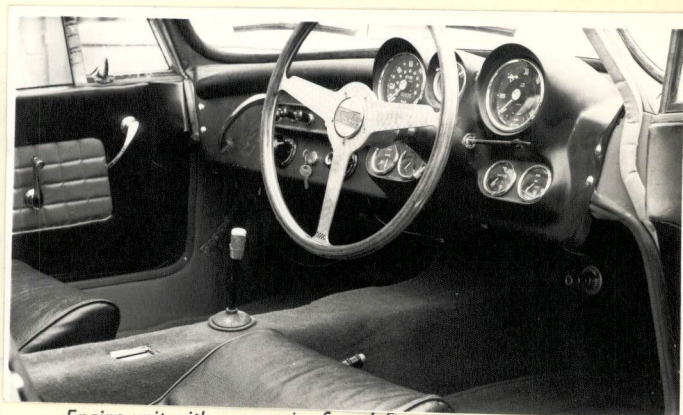
General description of car:

Specify here material/s of
chassis/body construction

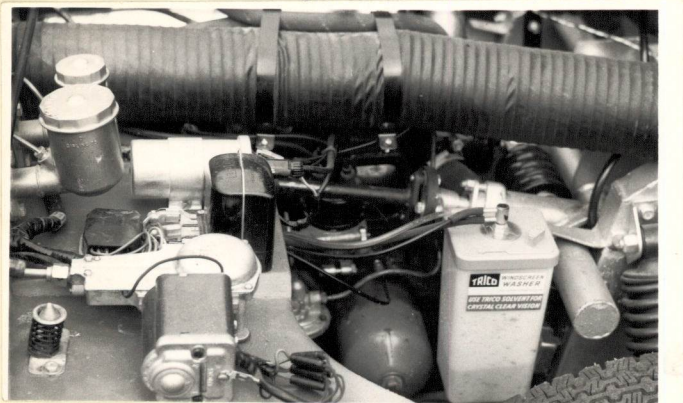
*Boxed steel chassis
with fiberglass body.*

Photographs to be affixed below.

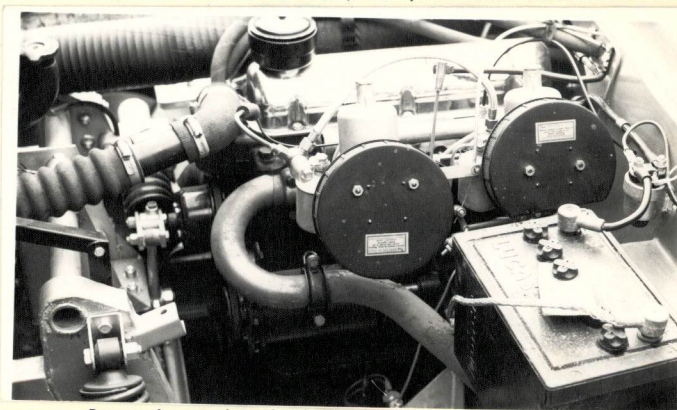
view of car from rear left.



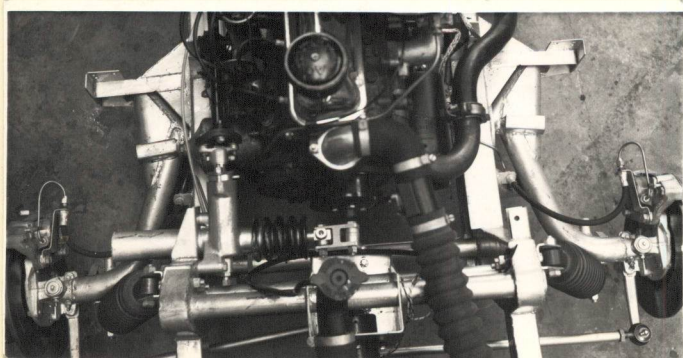
Engine unit with accessories from right.



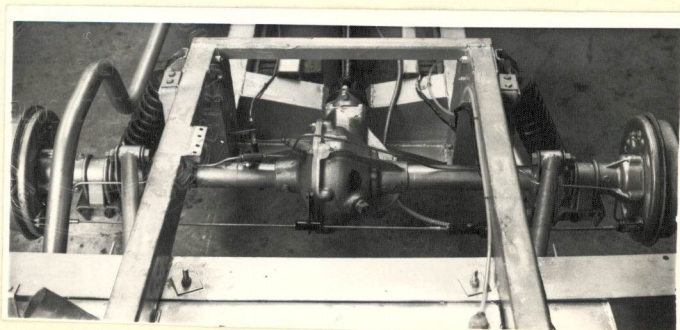
Engine unit with accessories from left.



Front axle complete (without wheels).

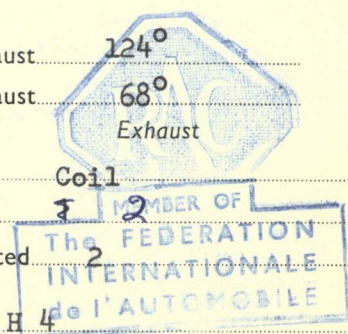


Rear axle complete (without wheels).



ENGINE

in line YES
 No. of cylinders FOUR in V
 opposed
 Cycle FOUR STROKE Firing order 1 2 4 3
 Capacity 1703 c.c. Bore 82.6 m.m. Stroke 79.5 m.m.
 Maximum rebore + .060 Resultant capacity 1755 c.c.
 Material of cylinder block CAST IRON Material of sleeves, if fitted -
 Distance from crankshaft centre line to top face of block at centre line of cylinders 221.48 m.m.
 Material of cylinder head CAST IRON Volume of one combustion chamber 43.5 c.c.
 Compression ratio 8.8 - 1
 Material of piston ALUM. ALLOY No. of piston rings 3
 Distance from gudgeon pin centre line to highest point of piston crown 45.5 m.m.
 Bearings { Crankshaft main bearings: Type ST. BACK MICRO BABBIT Dia 60.35 m.m.
 Connecting rod big end: Type " " " " Dia 54 m.m.
 Weights { Flywheel 10.25 kg.
 Crankshaft 27.669 kg.
 Connecting rod 0.354 kg.
 Piston with rings .4607 kg.
 Gudgeon pin .1275 kg.
 No. of valves per cylinder 2 Method of valve operation PUSH ROD
 No. of camshafts 1 Location of camshafts SIDE OF BLOCK
 Type of camshaft drive CHAIN
 Diameter of valves: Inlet 39.69 m.m. Exhaust 30.15 m.m.
 Diameter of port at valve seat: Inlet 36.51 m.m. Exhaust 25.65 m.m.
 Tappet clearance for checking timing: Inlet .3556 m.m. Exhaust .3556 m.m.
 Valves open: Inlet 17° BTDC Exhaust 49° BBDC
 Valves close: Inlet 51° ABDC Exhaust 19° ATDC
 Maximum valve lift: Inlet 8.86 m.m. Exhaust 8.86 m.m.
 Degrees of crankshaft rotation from zero to—
 Maximum lift: Inlet 124° Exhaust 124°
 $\frac{3}{4}$ Maximum lift: Inlet 68° Exhaust 68°
 Valve springs: Inlet Exhaust
 Type Coil Coil
 No. per valve 4 2 3 2
 Carburettor: Type SEMI DOWN DRAUGHT No. fitted 2
 (up or down draft, horizontal)
 Make S.U. Model H 4
 Flange hole diameter 38.1 m.m. Choke diameter 38.1 m.m.
 Main jet identification No. 90

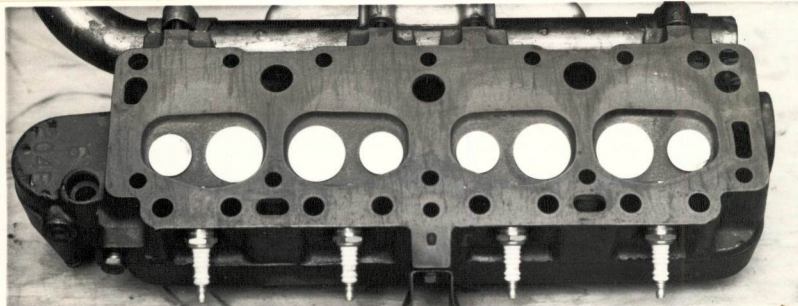


Air filter: Type SMITHS No. fitted 2

Inlet manifold:

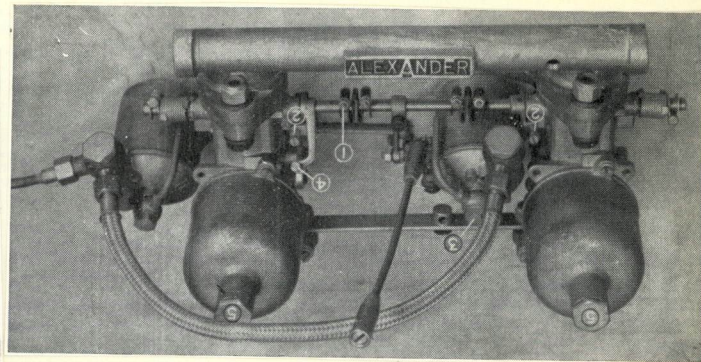
Diameter of flange hole at carburettor 35.56 m.m.

Diameter of flange hole at port 30.99 m.m.



Diameter of flange hole at port 29.97 X 28.45 m.m.

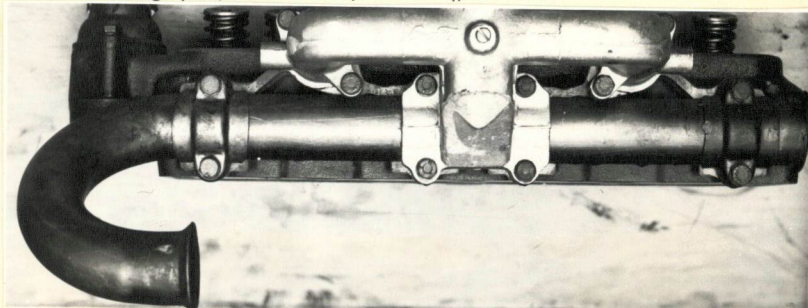
Diameter of flange hole at connection to silencer inlet pipe 24.86 X 26.13 m.m.



Photograph of piston showing crown to be affixed here.



Photograph of exhaust manifold to be affixed here.



ENGINE ACCESSORIES

Make of fuel pump A.C No. fitted 1

Method of operation MECHANICAL

Type of ignition system COIL coil or magneto

Make of ignition LUCAS Model 8 A 12

Method of advance and retard AUTOMATIC WITH VACUUM SUCTION ADVANCE

Make of ignition coil LUCAS Model L A 12

No. of ignition coils 1 Voltage 12

Make of dynamo LUCAS Model C 39 V - 2

Voltage of dynamo 12 VOLTS Maximum output 22 amps.

Make of starter motor LUCAS Model M 35 G

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

Oil Cooler (if fitted) type - Capacity - pints

Make RELIANT Model SABRE F.I.A. Recognition No.

Manufacturers Reference No. of Application TLW/AR/NJ/COMP

TRANSMISSION

Make of clutch FORD Type DRY PLATE
Diameter of clutch plate 8 No. of plates SINGLE
Method of operating clutch HYDRAULIC
Make of gearbox ZF Type S4 - 12
No. of gearbox ratios 4 FORWARD 1 REVERSE
Method of operating gearshift MANUAL
Location of gearshift CENTRAL FLOOR MOUNTING
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.	2.53							
2.	1.71							
3.	1.23							
4.	1.00							
REV.								
X.	2.59							

Type of final drive SPIRAL BEVEL
Type of differential NON-LOCKING
Final drive ratio 3.55 Alternatives 3.9 & 4.375
No. of teeth 9/32 12/32 8/31 8/35
Overdrive ratio, if fitted -

WHEELS

Type WIRE SPOKE Weight 6.577 kg.
Method of attachment KNOCK ON
Rim diameter 381 m.m. Rim width 101.6 m.m.
Tyre size: Front 155 X 15 Rear 155X 15

BRAKES

Method of operation HYDRAULIC
Is servo assistance fitted? NO
Type of servo, if fitted -
No. of hydraulic master cylinders 1 Bore 19 m.m.

	Front	Rear
No. of wheel cylinders	4	2
Bore of wheel cylinders	48 m.m.	19 m.m.
Inside diameter of brake drums	- m.m.	228.6 m.m.
No. of shoes per brake	-	2
Outside diameter of brake discs	266.7 m.m.	- m.m.
No. of pads per brake	2	-

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 (MEAN)	57 m.m.	219 m.m.
PAD (
Width (47.6 m.m.	44 m.m.
Total area per brake	5600 m.m. ²	19,272 m.m. ²

SUSPENSION

	Front	Rear
Type	I.F.S.	LIVE
Type of spring	COIL	COIL
Is stabiliser fitted?	NO	NO
Type of shock absorber	TELESCOPIC D.A.	TELESCOPIC D.A.
No. of shock absorbers	2	2

STEERING

Type of steering gear	RACK & PINION
Turning circle of car	11 m., approx.
No. of turns of steering wheel from lock to lock	2 1/4

CAPACITIES AND DIMENSIONS

Fuel tank	37.85 litres	Sump	3.41 litres
Radiator	11.6 litres		

Overall length of car	419.4 cm.	Overall width of car	155 cm.
Overall height of car, unladen (with hood up, if appropriate)	127 cm.		

Distance from floor to top of windscreen:

Highest point	89 cm.	Lowest point	84 cm.
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Width of windscreen:

Maximum width	109 cm.	Minimum width	95 cm.
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*Interior width of car 119.4 cm.

No. of seats 2

Track: Front 122 cm. Rear 122 cm.

Wheelbase 228.6 cm. Ground clearance 233 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 690 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..... - Model or Type No..... -

Type of drive..... - Ratio of drive..... -

Fuel injection, if fitted

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

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

Location of injectors..... -

Optional equipment affecting preceding information:—

- (1) SINGLE ZENITH 34 VN CARBURETTOR
Flange hole diameter 34 mm.
Choke diameter 26 mm.
Main jet no. 97
- (2) BOLT-ON PERFORATED DISC WHEELS.

*Hard
top*



*G.T.
Fixed
Hard
coupe*



(3) Rear Axle Ratios

3.58 (12/43 teeth) 4.1 (10/41), 3.75 (11/41), 3.91 (11/43), 4.56 (9/41)
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