



F.I.A. Recognition No.

1020

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..... ROOTES.

Model..... HUMBER HAWK (SERIES IA) Year of Manufacture..... 1959

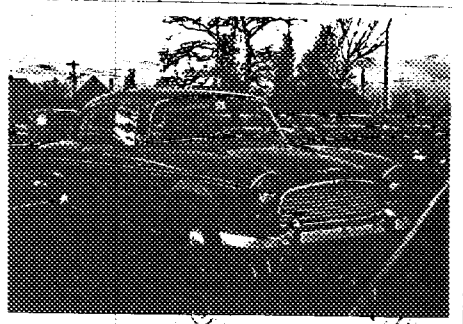
Serial No. of Chassis.....

Engine.....

Type of Coachwork..... FOUR DOOR FOUR LIGHT FIVE SEATER SALON.

Recognition is valid from..... 1ST SEPTEMBER, 1959 In category..... 1/2.

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



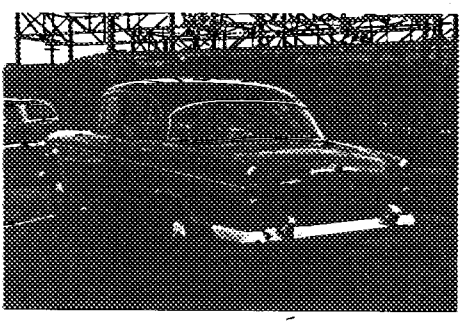
Stamp of F.I.A. to be affixed here.

General description of car:

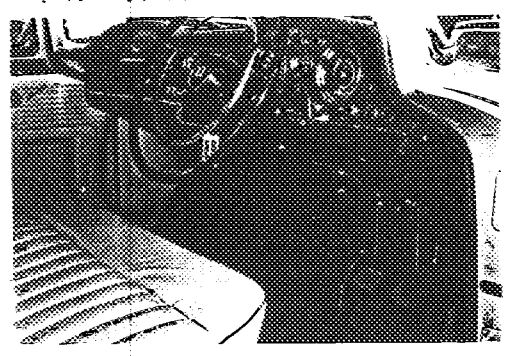
4 Door. Four Light Sedan.

Photographs to be affixed below.

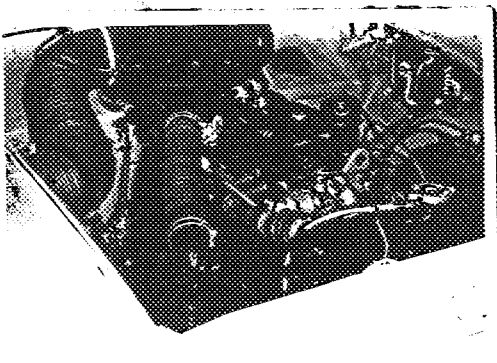
3/4 view of car from rear left.



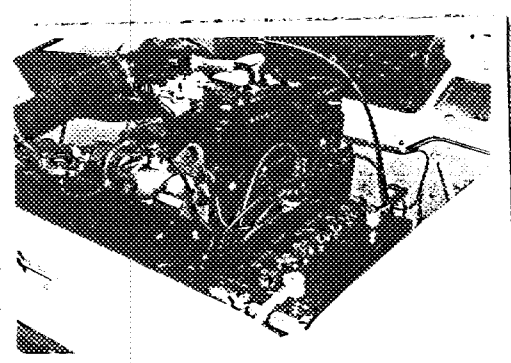
Interior view of car through driver's door.



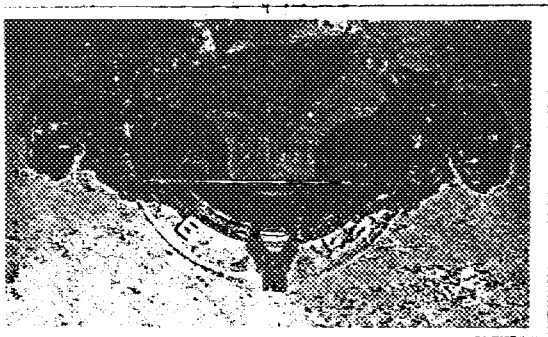
Engine unit with accessories from right.



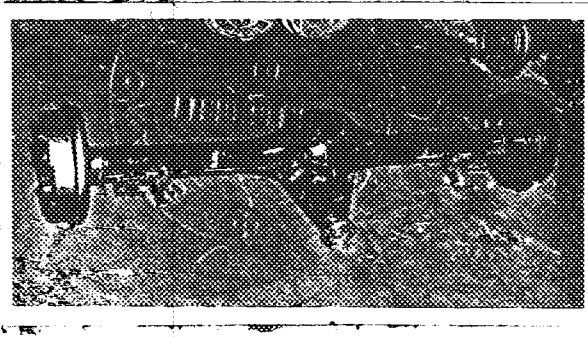
Engine unit with accessories from left.



Front axle complete (without wheels).



Rear axle complete (without wheels).



ENGINE

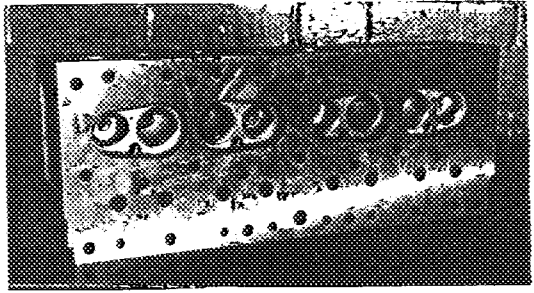
No. of cylinders 4 in line XXXX
XXXX
XXXX
 Cycle 4 stroke Firing order 1, 3, 4, 2.
 Capacity 2267 c.c. Bore 81.9. m.m. Stroke 110 m.m.
 Maximum rebore 81.9. Resultant capacity 2318 c.c.
 Material of cylinder block 2.I. Material of sleeves, if fitted -
 Distance from crankshaft centre line to top face of block at centre line of cylinders 327.7. m.m.
 Material of cylinder head G.I. Volume of one combustion chamber 34/27 c.c.
 Compression ratio 7.5:1.
 Material of piston Aluminium Alloy No. of piston rings 3
 Distance from gudgeon pin centre line to highest point of piston crown 51.1. m.m.
 Bearings { Crankshaft main bearings: Type Steel and Babbit Dia. 57.12 m.m.
 { Connecting rod big end: Type Shell, Steel Backed Dia. 49.21 m.m.
 Weights { Flywheel 14.29. kg.
 { Crankshaft 19.73. kg.
 { Connecting rod .708 kg. complete with bearing cap, nuts, bolts.
 { Piston with rings .537 kg.
 { Gudgeon pin 119. kg.
 No. of valves per cylinder 2. Method of valve operation O.H.V. Push Rod.
 No. of camshafts 1. Location of camshafts Side of Cylinder Block
 Type of camshaft drive Chain from Crankshaft.
 Diameter of valves: Inlet 41.5. m.m. Exhaust 35.2. m.m.
 Diameter of port at valve seat: Inlet 38.5. m.m. Exhaust 31.75. m.m.
 Tappet clearance for checking timing: Inlet .356. m.m. Exhaust .356. m.m.
 Valves open: Inlet 15° B.T.D.C. Exhaust 53° B.B.D.C.
 Valves close: Inlet 49° A.B.D.C. Exhaust 11° A.T.D.C.
 Maximum valve lift: Inlet 8.96 m.m. Exhaust 8.96. m.m.
 Degrees of crankshaft rotation from zero to—
 Maximum lift: Inlet 122° Exhaust 122°
 1/2 Maximum lift: Inlet 70° Exhaust 70°
 Valve springs: Inlet Exhaust
 Type Helical Coil Spring Helical Coil Spring.
 No. per valve 2 2
 Carburettor: Type Down Draft. No. fitted 1
(up or down draft, horizontal)
 Make Zenith Model 36 VTI 2
 Flange diameter 36. m.m. Choke diameter 28. m.m.
 Main jet identification No. 130

Air filter: Type No. fitted 2

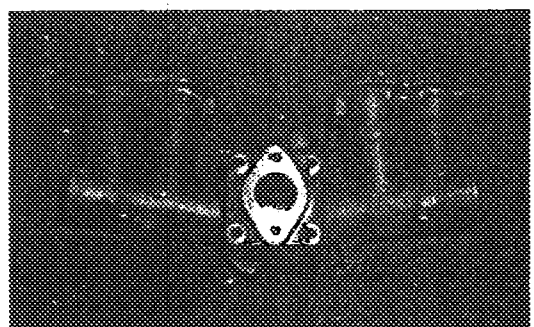
Inlet manifold:
 Diameter of flange at carburettor m.m.

Diameter of flange at port m.m.

Photograph of combustion chamber to be affixed here.



Photograph of inlet manifold to be affixed here.

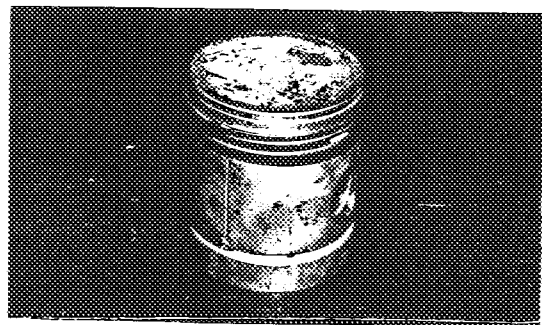


EXHAUST MANIFOLD:

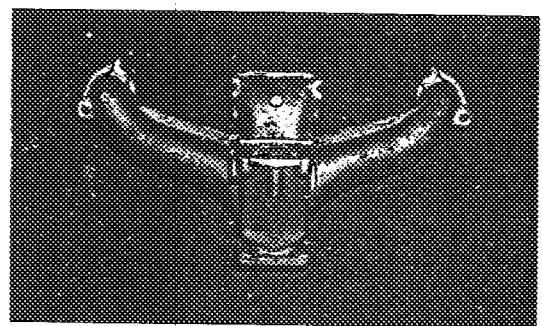
Diameter of flange at port m.m.

Diameter of flange at connection to silencer inlet pipe 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 No. fitted

Method of operation

Type of ignition system coil or magneto

Make of ignition Model

Method of advance and retard

Make of ignition coil Model

No. of ignition coils Voltage

Make of dynamo Model

Voltage of dynamo Maximum output amps.

Make of starter motor Model

Battery: No. fitted Voltage Capacity amp. hour

Make Model F.I.A. Recognition No.

TRANSMISSION

Make of clutch Borg and Beck Type Single Dry Plate
 Diameter of clutch plate 9.16" No. of plates 1
 Method of operating clutch Hydraulic Foot Operated
 Make of gearbox Humber Limited Type Synchronash
 No. of gearbox ratios 4 Forward, 1 Reverse
 Method of operating gearshift Manual Remote Control
 Location of gearshift Steering Column
 Is overdrive fitted? Optional Extra
 Method of controlling overdrive, if fitted Electrical

	GEARBOX RATIOS		ALTERNATIVE RATIOS					
	Ratio	No. of Teeth	Ratio	No. of Teeth	Ratio	No. of Teeth	Ratio	No. of Teeth
1.	1.00:1	Direct						
2.	1.392:1	$\frac{29 \times 24}{20 \times 25}$						
3.	2.141:1	$\frac{29 \times 31}{20 \times 21}$						
4.	3.346:1	$\frac{29 \times 30}{20 \times 13}$						
5. Reverse	4.239:1	$\frac{29 \times 30 \times 19}{20 \times 13 \times 15}$						

Type of final drive Hypoid Bevel Gear
 Type of differential Normal 2 Pinion, 2 Side Gears
 Final drive ratio 4.222:1 Alternatives 4.555:1
 No. of teeth 9/38 9/41
 Overdrive ratio, if fitted7775:1 (28.6%)

WHEELS

Type Pressed Steel Disc Weight 7.9 kg
 Method of attachment 5 x $\frac{1}{2}$ UNF Studs
 Rim diameter 380 m.m. Rim width 114 m.m.
 Tyre size: Front 6.00/6.40 x 15 Rear 6.00/6.40 x 15

BRAKES

Method of operation Lockheed Hydraulic
 Is servo assistance fitted? No
 Type of servo, if fitted None
 No. of hydraulic master cylinders One Bore 22.2 m.m.

	Front		Rear	
No. of wheel cylinders	4		2	
Bore of wheel cylinders	23.8	m.m.	23.8	m.m.
Inside diameter of brake drums	279	m.m.	254	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	267	m.m.	243	m.m.
	267	m.m.	243	m.m.
Width	57	m.m.	57	m.m.
Total area per brake	30700	m.m. ²	27800	m.m. ²

SUSPENSION

	Front	Rear
Type	Independent Wishbone	Live Axle.
Type of spring	Helical Coil Spring	Semi-Elliptic Leaf
Is stabiliser fitted?	Yes	No
Type of shock absorber	Armstrong at 9	Armstrong at 9
No. of shock absorbers	2	2

STEERING

Type of steering gear	Burman 'F' Type Re-circulating Ball
Turning circle of car	11.6 m., approx.
No. of turns of steering wheel from lock to lock	4

CAPACITIES AND DIMENSIONS

Fuel tank	57 litres	Sump	5.68 Sump only. 6.11 inc. Filter	litres
Engine & Radiator	11.4; 12.0 with heater	litres		
Overall length of car	169	cm.	Overall width of car	177 cm.
Overall height of car, unladen (with hood up, if appropriate)	155	cm.		
Distance from floor to top of windscreen:				
Highest point	112	cm.	Lowest point	102 cm.
Width of windscreen:				
Maximum width	142	cm.	Minimum width	129 cm.
Interior width	147	cm.		
No. of seats	2			
Track: Front	142	cm.	Rear	141 cm.
Wheelbase	280	cm.	Ground clearance	178 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	1353	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:—

Borg Warner Automatic Transmission available at extra cost for use with 4.22 Axle Ratio.

