

Manufacturers Reference No. for Application

VM 63/2



F.I.A. Recognition No. 1108

# 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 VAUXHALL MOTORS LTD.

Model FBH - VX 4/90 Year of Manufacture 1961

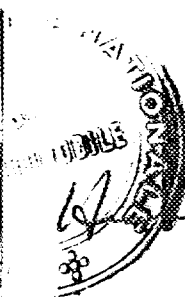
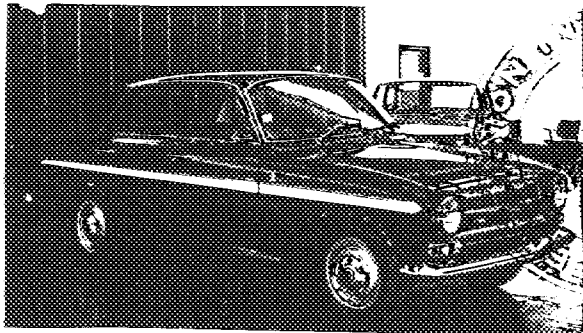
Serial No. of Chassis FBH 1001 ONWARDS

Engine FBX 1001 ONWARDS

Type of Coachwork FOUR DOOR SALOON

Recognition is valid from 9/5/63 In category TOURING

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



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

Form: R.F.I.A.

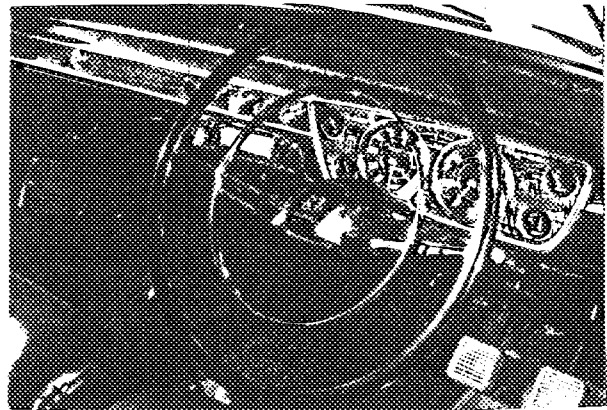
**General description of car:**

*Specify here material/s of chassis/body construction*

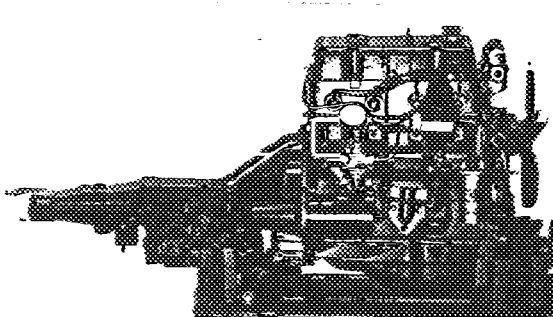
**SHEET METAL - INTEGRAL CONSTRUCTION**

Photographs to be affixed below.

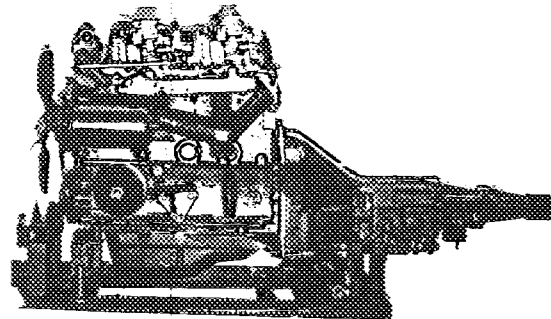
*½ view of car from rear left.*



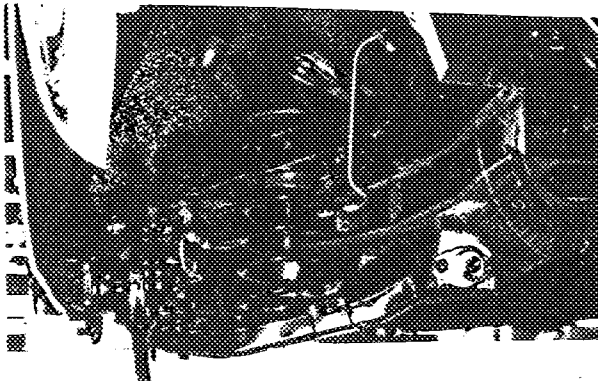
*Engine unit with accessories from right.*



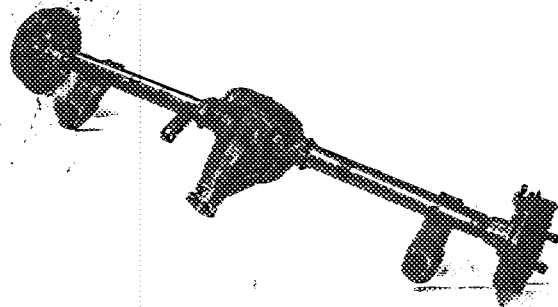
*Engine unit with accessories from left.*



*Front axle complete (without wheels).*



*Rear axle complete (without wheels).*



**ENGINE**

in line YES

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

Cycle 4 - STROKE Firing order 1-3-4-2

Capacity 1508 c.c. Bore 79.37 m.m. Stroke 76.2 m.m.

Maximum rebore .060 Resultant capacity 1568 c.c.

Material of cylinder block CHROMIUM CAST IRON Material of sleeves, if fitted ---

Distance from crankshaft centre line to top face of block at centre line of cylinders 220.6 m.m.

Material of cylinder head ALUMINIUM Volume of one combustion chamber 38.98 c.c.

Compression ratio 9.3

Material of piston ALUMINIUM ALLOY No. of piston rings 3

Distance from gudgeon pin centre line to highest point of piston crown 4560 m.m.

Bearings { Crankshaft main bearings: Type 2 White Metal/Centre Main Aluminium Tin Dia. 53.9 m.m.  
 Connecting rod big end: Type ALUMINIUM TIN Dia. 47.6 m.m.

Weights { Flywheel 9.7 kg.  
 Crankshaft 15.5 kg.  
 Connecting rod .568 kg.  
 Piston with rings .426 kg.  
 Gudgeon pin .142 kg.

No. of valves per cylinder 2 Method of valve operation O.H. PUSH ROD

No. of camshafts ONE Location of camshafts CYLINDER BLOCK

Type of camshaft-drive CHAIN AT FRONT

Diameter of valves: Inlet 36.5 m.m. Exhaust 31.7 m.m.

Diameter of ports APPROX. THROAT DIA.  
 at valve seat: Inlet 33.5 m.m. Exhaust 28.5 m.m.

Tappet clearance for checking timing: Inlet 0.33 m.m. Exhaust 0.33 m.m.

Valves open: Inlet 29.6° B.T.D.C. Exhaust 71.6° B.B.D.C.

Valves close: Inlet 76.1° A.B.D.C. Exhaust 34.1° A.T.D.C.

Maximum valve lift: Inlet 8.5 m.m. Exhaust 8.5 m.m.

Degrees of crankshaft rotation from zero to—  
 Maximum lift: Inlet 138.6° Exhaust 138.6°  
 ¾ Maximum lift: Inlet 84° Exhaust 84°

Valve springs: Inlet HELICAL COIL Exhaust HELICAL COIL  
 Type HELICAL COIL HELICAL COIL  
 No. per valve 1 1

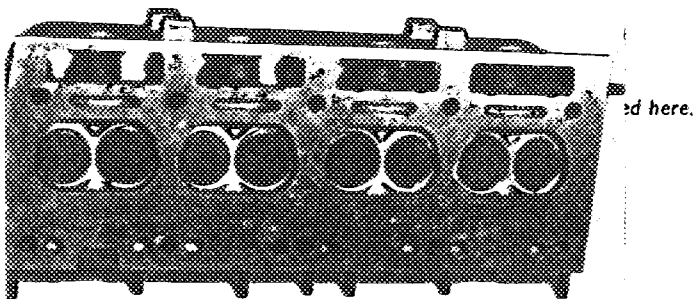
Carburettor: Type DOWN DRAFT No. fitted TWO  
 (up or down draft, horizontal)

Make ZENITH Model 36 WIP-3

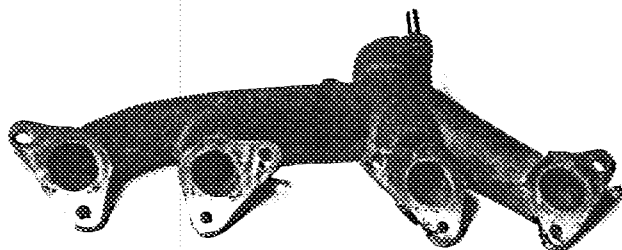
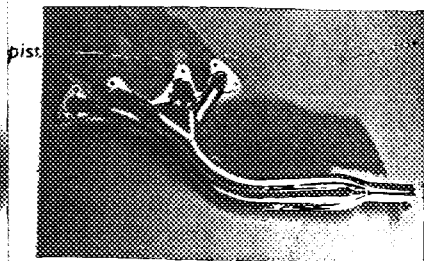
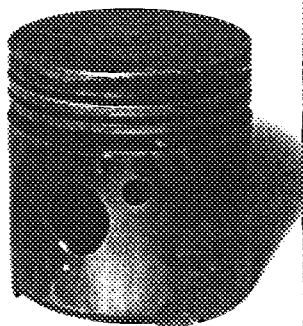
Flange hole diameter 36 m.m. Choke diameter 27 m.m.

Main jet identification No. 117

Air filter: Type DRY ELEMENT No. fitted TWO  
 Inlet manifold:  
 Diameter of flange hole at carburettor 39 m.m.  
 Diameter of flange hole at port 37 m.m.



Exhaust manifold:	<u>TUBULAR</u>	<u>CAST</u>
Diameter of flange hole at port <u>38.1</u>		<u>34</u> m.m.
Diameter of flange hole at connection to silencer inlet pipe <u>41.2</u>		<u>42</u> m.m.



### ENGINE ACCESSORIES

Make of fuel pump A. C. DELCO No. fitted ONE  
 Method of operation MECHANICAL DRIVE FROM CAMSHAFT  
 Type of ignition system COIL coil or magneto  
 Make of ignition A. C. DELCO Model 7952733  
 Method of advance and retard CENTRIFUGAL & VACUUM  
 Make of ignition coil A. C. DELCO Model OIL FILLED  
 No. of ignition coils ONE Voltage 12  
 Make of dynamo LUCAS Model C40-1  
 Voltage of dynamo 12V Maximum output 22 amps.  
 Make of starter motor LUCAS Model M 35  
 Battery: No. fitted ONE Voltage 12 Capacity 38 amp. hour  
 Oil Cooler (if fitted) type AIR Capacity 3/4 pints

**TRANSMISSION**

Make of clutch BORG & BECK Type DRY  
 Diameter of clutch plate 8" No. of plates ONE  
 Method of operating clutch MECHANICAL THROUGH HYDRAULIC SLAVE CYLINDER  
 Make of gearbox VAUXHALL Type 3 SPEED SYNCHROMESH  
 No. of gearbox ratios 4 FORWARD ONE REVERSE  
 Method of operating gearshift MANUAL  
 Location of gearshift FLOOR  
 Is overdrive fitted? NO  
 Method of controlling overdrive, if fitted N/A

	GEARBOX RATIOS		ALTERNATIVE RATIOS					
	Ratio	No. of Teeth	Ratio	No. of Teeth	Ratio	No. of Teeth	Ratio	No. of Teeth
1.	3.29	$\frac{22}{17} \frac{33}{13}$	3.1	$\frac{21}{16} \frac{33}{14}$				
2.	2.13	$\frac{22}{17} \frac{28}{17}$	1.825	$\frac{21}{16} \frac{25}{18}$				
3.	1.355	$\frac{22}{17} \frac{22}{21}$	1.31	$\frac{21}{16} \frac{21}{21}$				
4.	1.1	DIRECT	1.1	DIRECT				
REVERSE								
5.	3.050	$\frac{22}{17} \frac{33}{14}$	3.050	$\frac{22}{17} \frac{33}{14}$				

Type of final drive HOTCHKISS  
 Type of differential HYPOID BEVEL  
 Final drive ratio 4.125 Alternatives 3.9 4.625  
 No. of teeth 8/33 10/39 8/37  
 Overdrive ratio, if fitted N/A

**WHEELS**

Type DISC Weight 6.55 kg.  
 Method of attachment STUD  
 Rim diameter 355.6 m.m. Rim width 114.3 m.m.  
 Tyre size: Front 5.60-14 Rear 5.60-14

**BRAKES**

Method of operation HYDRAULIC  
 Is servo assistance fitted? YES  
 Type of servo, if fitted SUSPENDED VACUUM  
 No. of hydraulic master cylinders ONE Bore 19.05 m.m.

	Front	Rear
No. of wheel cylinders	TWO	ONE PER BRAKE
Bore of wheel cylinders	50.8 m.m.	19.05 m.m.
Inside diameter of brake drums	- m.m.	203.2 m.m.
No. of shoes per brake	-	TWO
Outside diameter of brake discs	266.70 m.m.	- m.m.
No. of pads per brake	TWO	-
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	- m.m.	195.2 m.m.
	- m.m.	- m.m.
Width	- m.m.	38.1 m.m.
Total area per brake	6450 m.m. <sup>2</sup>	14825 m.m. <sup>2</sup>

### SUSPENSION

	Front	Rear
Type	INDEPENDANT WISHBONE	BEAM AXLE
Type of spring	COIL	SEMI-ELLIPTIC LEAF
Is stabiliser fitted?	YES	No
Type of shock absorber	DOUBLE ACTING	TELESCOPIC
No. of shock absorbers	TWO	TWO

### STEERING

Type of steering gear	BURMAN RECIRCULATING BALL
Turning circle of car	10.3 m., approx.
No. of turns of steering wheel from lock to lock	3.8

### CAPACITIES AND DIMENSIONS

Fuel tank	46 litres	Sump	4.27 litres
Radiator	6.55 litres		
Overall length of car	440 cm.	Overall width of car	163 cm.
Overall height of car, unladen (with hood up, if appropriate)	146 cm.		
Distance from floor to top of windscreen:			
Highest point	106 cm.	Lowest point	95 cm.
Width of windscreen:			
Maximum width	130 cm.	Minimum width	122 cm.
*Interior width of car	135 cm.		
No. of seats	FOUR		
Track: Front	130.0 cm.	Rear	132/3 cm.
Wheelbase	254 cm.	Ground clearance	17.5 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 924 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.<sup>2</sup>

**Size of exhaust port:**

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

Height..... m.m.      Area..... m.m.<sup>2</sup>

**Size of transfer port:**

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

Height..... m.m.      Area..... m.m.<sup>2</sup>

**Size of piston port:**

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

Height..... m.m.      Area..... m.m.<sup>2</sup>

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:—

SUMP SHIELD (CODE 153 SOUTH AFRICA) X7153832

STEERING DAMPER ASSY (SPECIAL SERVICE ACCESSORY FOR EXPORT)

KIT 6393276

FUEL TANK - 22 GALLS (100 LITRES) X7153835

HEAVY DUTY VALVE SPRING ASSY - X7153833

OIL COOLER X7153834



