

Manufacturers Reference No. for Application

VM 63/4



F.I.A. Recognition No. 1232

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 - 64

Year of Manufacture 1963

Chassis 4.250.000 ONWARDS

Serial No. of

Engine 31 FB - 30.000 ONWARDS

Type of Coachwork FOUR DOOR SALOON

Recognition is valid from September 5th, 1963 In category TOURING

Just 9/22

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.



Handwritten signatures and initials:
S. Lewis
R.P.R.
J. Ince

Form: R.F.I.A.

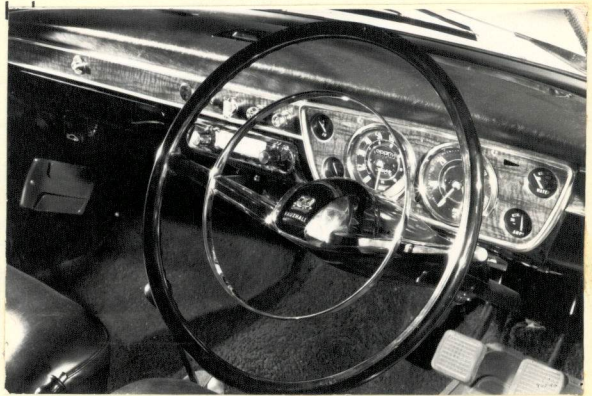
General description of car:

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

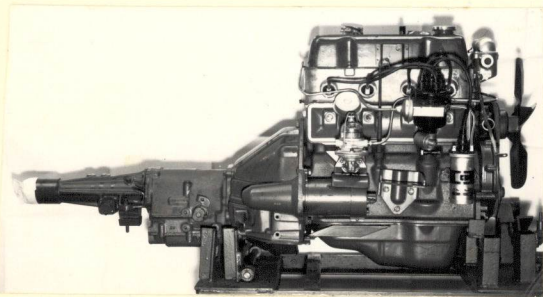
SHEET METAL - INTEGRAL CONSTRUCTION

Photographs to be affixed

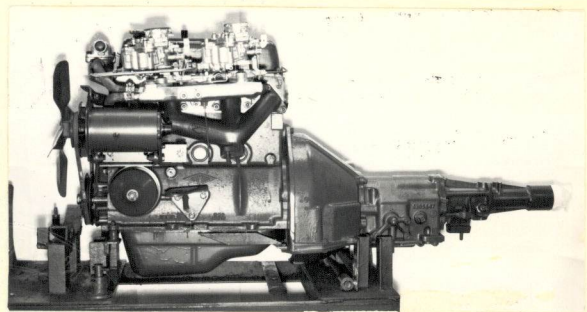
$\frac{3}{4}$ view of car from rear left.



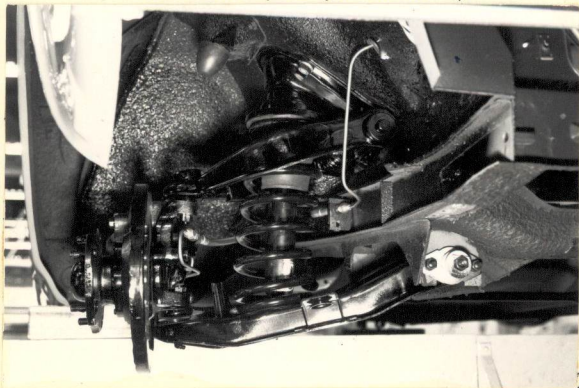
Engine unit with accessories from right.



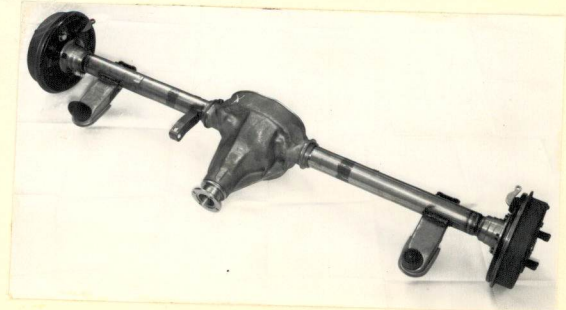
Engine unit with accessories from left.



Front axle complete (without wheels).



Rear axle complete (without wheels).



ENGINE

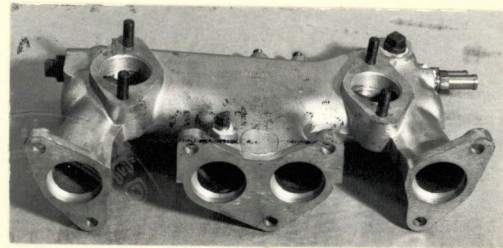
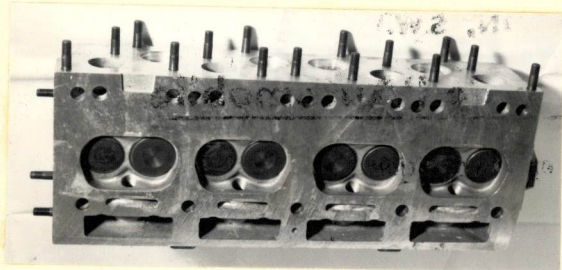
in line **YES**
 No. of cylinders **4** in V **-**
 opposed **-**
 Cycle **4-STROKE** Firing order **1-3-4-2**
 Capacity **1595** c.c. Bore **81.64** m.m. Stroke **76.2** m.m.
 Maximum rebore **.040"** Resultant capacity **1636** c.c.
 Material of cylinder block **CHROMIUM CAST IRON** Material of sleeves, if fitted **-**
 Distance from crankshaft centre line to top face of block at centre line of cylinders **220.1** m.m.
 Material of cylinder head **ALUMINIUM** Volume of one combustion chamber **41.46** 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 **44.46** 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 **ASSY 10.09** kg.
 Crankshaft **15.5** kg.
 Connecting rod **.616** kg.
 Piston with rings **.429** kg.
 Gudgeon pin **.145** 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 port~~ **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°**
 $\frac{3}{4}$ Maximum lift: Inlet **84°** Exhaust **84°**
 Valve springs: Inlet **HELICICAL COIL** Exhaust **HELICICAL COIL**
 Type **HELICICAL COIL** **HELICICAL COIL**
 No. per valve **1** **1**
 Carburettor: Type **DOWNDRAFT** (up or down draft, horizontal) No. fitted **TWO**
 Make **ZENITH** Model **36 WIA**
 Flange hole diameter **36** m.m. Choke diameter **28** m.m.
 Main jet identification No. **115**

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.

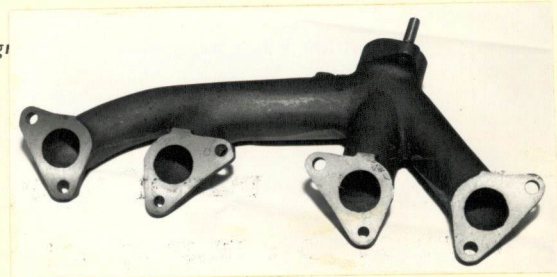
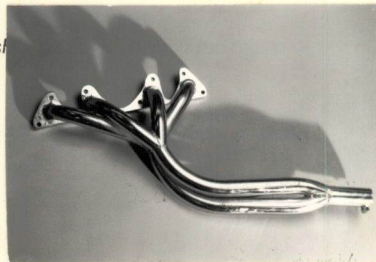


TUBULAR CAST

Exhaust manifold:

Diameter of flange hole at port..... **38.1** **34** m.m.

Diameter of flange hole at connection to silencer inlet pipe..... **41.2** **42** 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

Make **VAUXHALL** Model **VX 4/90 '64** F.I.A. Recognition No.

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TRANSMISSION

Make of clutch **BORG & BECK** Type **DRY**
 Diameter of clutch plate **8"** No. of plates **ONE - DIAPHRAGM**
 Method of operating clutch **MACHANICAL**
 Make of gearbox **VAUXHALL** Type **4 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	$\frac{22}{27} \frac{22}{21}$	1.31	$\frac{21}{26} \frac{21}{21}$				
4. REVERSE	1.1	DIRECT	1.1	DIRECT				
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
Inside diameter of brake drums	-	m.m.	203.2
No. of shoes per brake	-		Two
Outside diameter of brake discs	266.70	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.	-
Width	-	m.m.	38.1
Total area per brake	6450	m.m. ²	14825
			m.m. ²

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		163	
Overall length of car	440	cm.	Overall width of car		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				
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.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:—

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



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1222

JA

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Amendment to Form of Recognition

Manufacturer..... VAUXHALL MOTORS LTD.

Model..... FBH - VX 4/90 - '64

ADD

1) SPORTS CAMSHAFT X 6384929

VALVES OPEN : INLET 31° B.T.D.C. EXHAUST 73° BBDC

VALVES CLOSED : INLET 69° A.B.D.C. EXHAUST 27° ATDC

MAXIMUM VALVE LIFT: INLET 10.1 mm EXHAUST 10.1 mm.

2) FRONT SUSPENSION REBOUND STOP KIT - L 23393

(SPECIAL EXPORT TERRITORIES).

13 JANV 1964



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

Date amendment is valid from.....

Form: R.F.I.B.