

1370
Manufacturers Reference No. for Application

VM 64/3



F.I.A. Recognition No.

1370

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 FCH - VX 4/90 - 65

Year of Manufacture 1964

Chassis FCH. 5001001

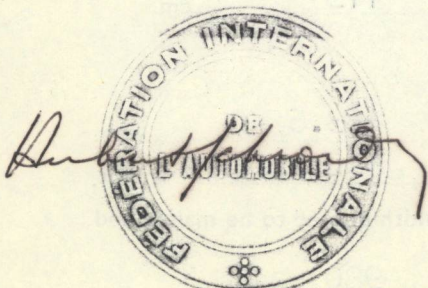
Serial No. of

Engine 31 FC/2001

Type of Coachwork FOUR DOOR SALOON

Recognition is valid from 1st February 1965 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.

Make VAUXHALL Model VX 4/90-'65 P.I.A. Recognition No. 1370

General description of car:

Specify here material/s of chassis/body construction

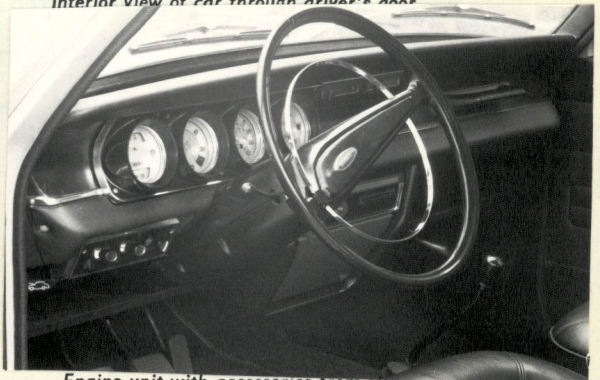
SHEET STEEL - INTEGRAL CONSTRUCTION

Photographs to be affixed below.

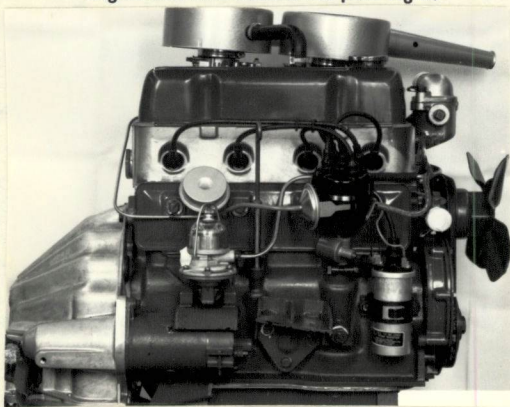
$\frac{3}{4}$ view of car from rear left.



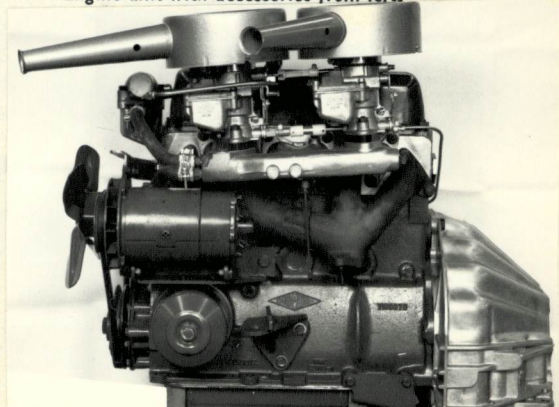
Interior view of car through driver's door



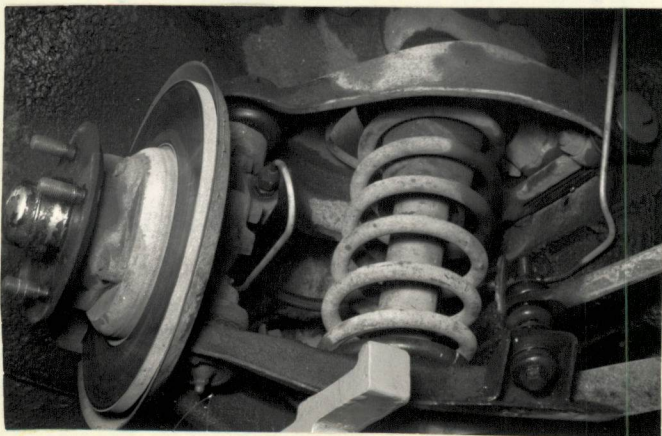
Engine unit with accessories from right.



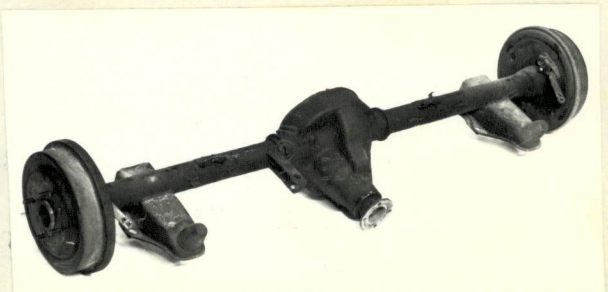
Engine unit with accessories from left.



Front axle complete (without wheels).



Rear axle complete (without wheels).



Make **VAUXHALL** Model **FCH** F.I.A. Recognition No. **1370**

ENGINE in line **YES** Catalogued B.H.P. **73.8 NET**
at R.P.M. **5200**

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 **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 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 Type **HELICAL COIL** Exhaust Type **HELICAL COIL**

No. per valve **ONE**

Carburettor: Type **DOWNDRAFT** No. fitted **TWO**
(up or down draft, horizontal)

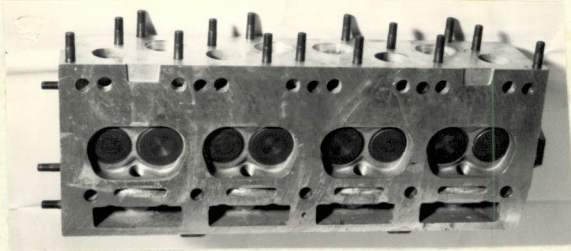
Make **ZENITH** Model **34 IV**

Flange hole diameter **34** m.m. Choke diameter **24** m.m.

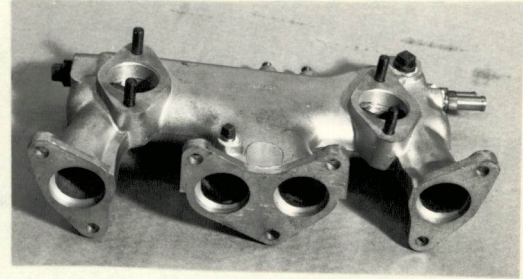
Main jet identification No. **75**

Make VAUXHALL Model FCH F.I.A. Recognition No. 1370
 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.

Photograph of combustion chamber to be affixed here.



Photograph of inlet manifold to be affixed here.

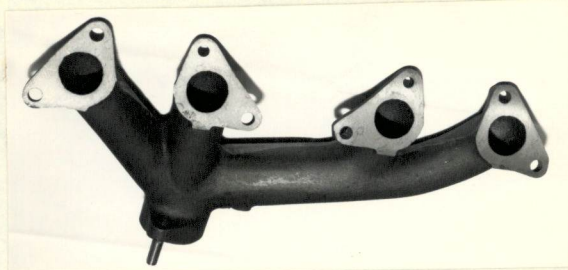


Exhaust manifold:
 Diameter of flange hole at port 34 m.m.
 Diameter of flange hole at connection to silencer inlet pipe 42 m.m.

Photograph of piston showing crown to be affixed here.



Photograph of exhaust manifold to be affixed here.



ENGINE ACCESSORIES

Make of fuel pump AC DELCO No. fitted ONE
 Method of operation MECHANICAL DRIVE FROM CAMSHAFT
 Type of ignition system COIL coil or magneto
 Make of ignition AC DELCO Model FC 31
 Method of advance and retard CENTRIFUGAL & VACUUM
 Make of ignition coil AC DELCO Model OIL FILLED
 No. of ignition coils ONE Voltage 12
 Make of dynamo LUCAS Model C 40-1
 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 - Capacity - pints

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TRANSMISSION

Make of clutch BORG & BECK Type 8 A6
 Diameter of clutch plate 8 INCH (203.2 MM) No. of plates SINGLE
 Method of operating clutch MECHANICAL
 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.	3.285	22 33 17 13						
2.	2.13	22 28 17 17						
3.	1.355	22 22 17 21						
4.	DIRECT	DIRECT						
REVERSE 5.	3.050	22 33 17 14						

Type of final drive HOTCHKISS
 Type of differential SPIN RESISTANT 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 5.3 kg.
 Method of attachment STUD
 Rim diameter 330.2 m.m. Rim width 127 m.m.
 Tyre size: Front 5.60 x 13 Rear 5.60 x 13

BRAKES

Method of operation HYDRAULIC
 Is servo assistance fitted? YES
 Type of servo, if fitted DIRECT ACTING VACUUM
 No. of hydraulic master cylinders 1 Bore 19.05 m.m.

Make VAUXHALL Model VX 4/90-165 F.I.A. Recognition No. 1370

	Front	Rear
No. of wheel cylinders	TWO PER WHEEL	ONE PER WHEEL
Bore of wheel cylinders	48.26 m.m.	14.22 m.m.
Inside diameter of brake drums	-	228.6 m.m.
No. of shoes per brake	-	TWO
Outside diameter of brake discs	230.12 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	-	PRIMARY 187.5 m.m.
	-	SECONDARY 236.2 m.m.
Width	-	44.5 m.m.
Total area per brake	5032.3 m.m. ²	18840 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 RECIRCULATING BALL

Turning circle of car 10.1 m., approx.

No. of turns of steering wheel from lock to lock 4 OR 4.5 (ALTERNATIVE SOURCES OF SUPPLY)

CAPACITIES AND DIMENSIONS

Fuel tank 46 litres Sump 4.27 litres

Radiator 7.53 litres

Overall length of car 443.8 cm. Overall width of car 164.3 cm.

Overall height of car, unladen (with hood up, if appropriate) 140.2 cm.

Distance from floor to top of windscreen:

Highest point 105 cm. Lowest point 102.5 cm.

Width of windscreen:

Maximum width 136 cm. Minimum width 113 cm.

*Interior width of car 137.5 cm.

No. of seats FOUR

Track: Front 129.5 cm. Rear 133.6 cm.

Wheelbase 254 cm. Ground clearance 150 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 980 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:—



- 6369157 FRONT CROSSMEMBER GUARD - CODE 153
- 7151926 FINAL DRIVE HYPOID GEAR (HELIXFORM) 4.125 RATIO CODE 276
- 7167349 FINAL DRIVE SPIN RESISTANT DIFFERENTIAL (HELIXFORM) 4.125 RATIO. CODE 276.
- 7153521/2 FRONT/REAR SPECIAL SHOCKABSORBERS - CODE 316.
- 7153413 FINAL DRIVE HYPOID GEAR (HELIXFORM) 3.9 RATIO. CODE 350
- 7167350 FINAL DRIVE SPIN RESISTANT DIFFERENTIAL (HELIXFORM) 3.9 RATIO. CODE 386.
- 7158469 STEERING DAMPER KIT.
- 6350325) FRONT SPRINGS (SWEDISH REQUIREMENTS) CODE 307.
- 6389082)
- 7161884 REAR SPRING ASSEMBLY (SWEDISH REQUIREMENTS) CODE 307
- 6364429) FRONT SPRINGS (INCREASED GROUND CLEARANCE) CODE 301.
- 6350325)