

Manufacturers Reference No. for Application

VM 64/4



F.I.A. Recognition No.

1371

# 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 FCS/D/E - 101 SERIES - '65

Year of Manufacture 1964

Chassis FCS/D/E 5001001

Serial No. of

Engine 30 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 FCS/D/E F.I.A. Recognition No. ....

**General description of car:**

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

**SHEET STEEL - INTEGRAL CHASSIS/BODY CONSTRUCTION.**

Photographs to be affixed below.

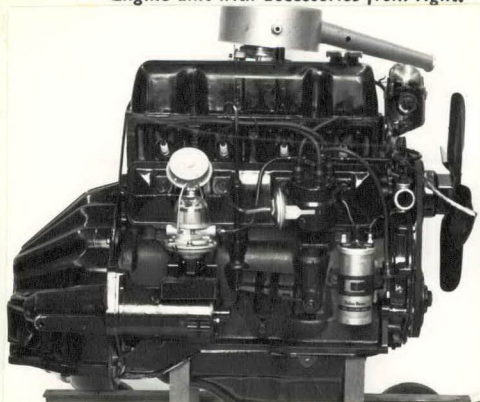
*¾ view of car from rear left.*



*Interior view of car through driver's door.*

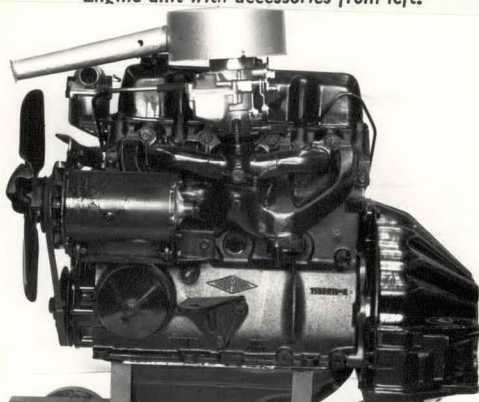


*Engine unit with accessories from right.*

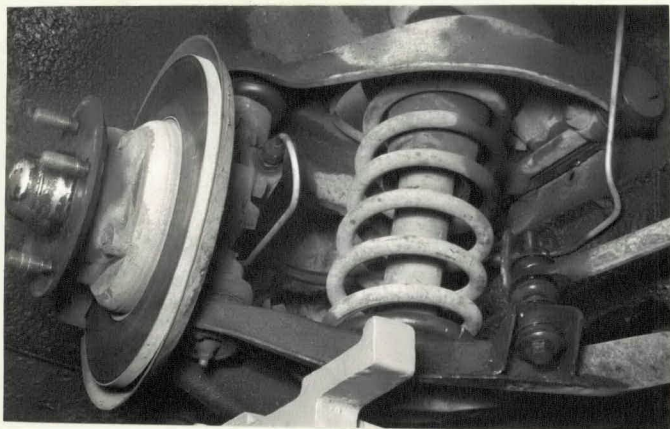


*Front axle complete (without wheels).*

*Engine unit with accessories from left.*



*Rear axle complete (without wheels).*





Make **VAUXHALL** Model **FCS/D/E** F.I.A. Recognition No. **1371**

**ENGINE**

in line **YES** Catalogued B.H.P. **60.3 (NET)**  
No. of cylinders **4** in V **-** at R.P.M. **4600**  
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 **CAST IRON** Volume of one combustion chamber **46.57** c.c.  
Compression ratio **9.0 : 1**  
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 **WHITE METAL** Dia. **53.9** m.m.  
Connecting rod big end: Type **ALUMINIUM TIN** Dia. **47.6** m.m.  
Weights { Flywheel **10.09** kg.  
Crankshaft **15.5** kg.  
Connecting rod **.62** kg.  
Piston with rings **.43** kg.  
Gudgeon pin **.145** kg.  
No. of valves per cylinder **TWO** Method of valve operation **PUSH ROD**  
No. of camshafts **ONE** Location of camshafts **CYLINDER BLOCK**  
Type of camshaft drive **CHAIN AT FRONT**  
Diameter of valves: Inlet **36.6** m.m. Exhaust **31.7** m.m.  
**APPROX THROAT DIA.**  
Diameter of port at valve seat: Inlet **30.7** m.m. Exhaust **26.1** 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 **HELICAL COIL** Exhaust **HELICAL COIL**  
Type **HELICAL COIL**  
No. per valve **ONE**  
Carburettor: Type **DOWNDRAFT** No. fitted **ONE**  
(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. **97**

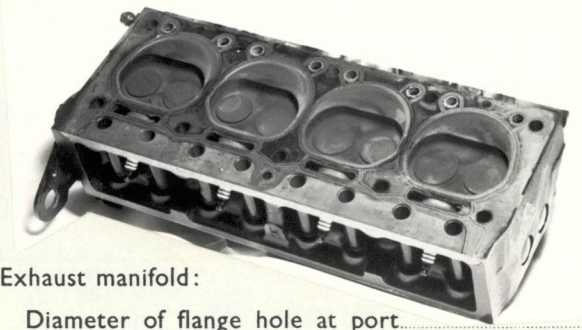


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Air filter: Type DRY ELEMENT (FOAM) No. fitted ONE

Inlet manifold:  
 Diameter of flange hole at carburettor 34.3 m.m.  
 Diameter of flange hole at port 33.1 m.m.

Photograph of combustion chamber to be affixed here.



Photograph of inlet manifold to be affixed here.

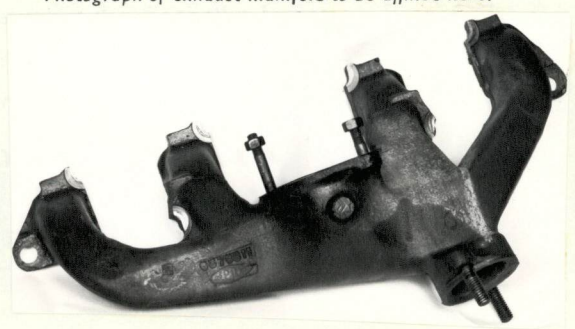


Exhaust manifold:  
 Diameter of flange hole at port 30.8 m.m.  
 Diameter of flange hole at connection to silencer inlet pipe 42.2 m.m.

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 7952990  
 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 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 - 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 ONE  
 Method of operating clutch MECHANICAL  
 Make of gearbox VAUXHALL Type SYNCHROMESH  
 No. of gearbox ratios 3 FORWARD ONE REVERSE/4 FORWARD ONE REVERSE  
 Method of operating gearshift MANUAL  
 Location of gearshift STEERING COLUMN / FLOOR  
 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.	3.285	22 33 17 13	3.186	22 32 17 13				
2.	2.13	22 28 17 17	1.635	22 24 17 19				
3.	1.355	22 22 17 21	-	-				
4.	DIRECT	DIRECT	DIRECT	DIRECT				
REVERSE								
5.	3.050	22 33 17 14	3.050	22 33 17 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 \_\_\_\_\_

**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? CODE 368  
 Type of servo, if fitted CODE 368 VACUUM  
 No. of hydraulic master cylinders ONE Bore 15.75 m.m.



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	Front	Rear
No. of wheel cylinders	<u>2 PER WHEEL</u>	<u>1 PER WHEEL</u>
Bore of wheel cylinders	<u>48.26</u> m.m.	<u>14.22</u> m.m.
Inside diameter of brake drums	<u>-</u> m.m.	<u>228.6</u> m.m.
No. of shoes per brake	<u>-</u>	<u>TWO</u>
Outside diameter of brake discs	<u>230.12</u> m.m.	<u>-</u> m.m.
No. of pads per brake	<u>TWO</u>	<u>-</u>
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	<u>-</u> m.m.	<u>PRIMARY 187.5</u> m.m.
	<u>-</u> m.m.	<u>SECONDARY 236.2</u> m.m.
Width	<u>-</u> m.m.	<u>44.5</u> m.m.
Total area per brake	<u>5032.3</u> m.m. <sup>2</sup>	<u>18840</u> m.m. <sup>2</sup>

### SUSPENSION

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

### 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 SUPPLY OF GEARS)

### 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 960 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:—



- 6396736/7 FRONT DRUM BRAKES. GIRLING 2 LEADING SHOE 9 INCH.
- 7964672 PAPER ELEMENT AIR CLEANER (EXTRA DUTY). CODE 41.
- 6369157 FRONT CROSSMEMBER GUARD. CODE 153.
- 6380982 LOW COMPRESSION RATIO CYLINDER HEAD. CODE 164
- 6364429) FRONT SPRINGS - INCREASED GROUND CLEARANCE - CODE 301.
- 6350325)
- 7161886 REAR SPRING ASSEMBLY - INCREASED GROUND CLEARANCE. CODE 301
- 7153521/2 SPECIAL FRONT & REAR SHOCKABSORBERS FOR OVERSEAS TERRITORIES. CODE 316.
- 6364407/8 FRONT SPRINGS - HEAVY DUTY SUSPENSION. CODE 357.
- 6357379 FRONT STABILIZER SHAFT - HEAVY DUTY SUSPENSION. CODE 357
- 7161807 REAR SPRING - HEAVY DUTY SUSPENSION. CODE 357.
- 7167349 REAR AXLE SPIN RESISTANT DIFFERENTIAL 8/33 RATIO CODE 386.
- 7167350 REAR AXLE SPIN RESISTANT DIFFERENTIAL 10/39 RATIO CODE 386.
- 7166351 REAR AXLE SPIN RESISTANT DIFFERENTIAL 8/37 RATIO. CODE 386.
- POWERGLIDE AUTOMATIC TRANSMISSION. CODE 389.