

Manufacturers Reference No. for Application

WM 64/2



F.I.A. Recognition No.

1360

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..... VAUXHALL VELOX/CRESTA '65..... Year of Manufacture..... 1964
Chassis..... PBDX/S 5080001
Serial No. of Engine..... PB 8001
Type of Coachwork..... FOUR DOOR SALOON
Recognition is valid from..... 16th November 1964..... 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.....PB.....F.I.A. Recognition No.....

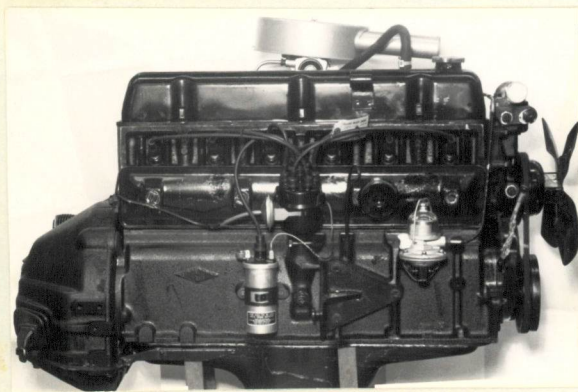
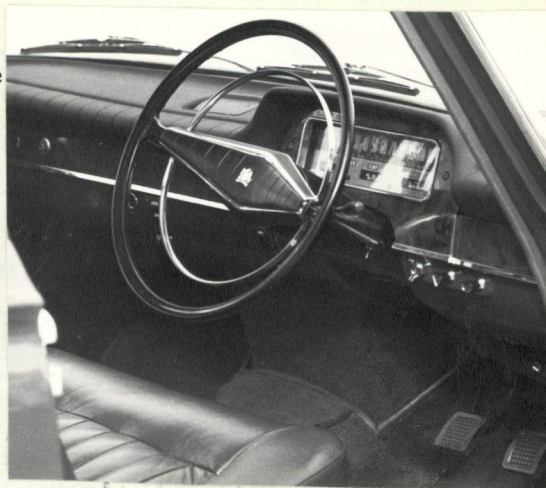
General description of car:

Specify here material/s of chassis/body construction

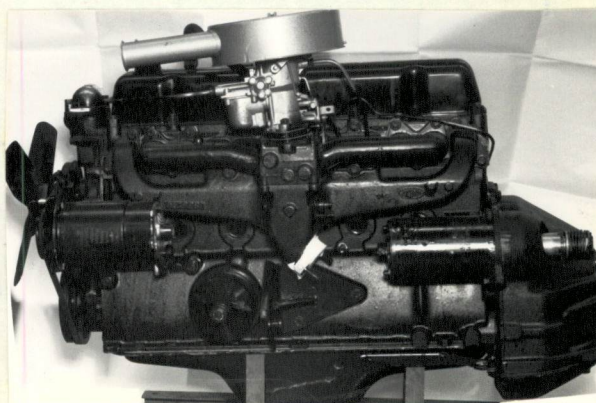
SHEET METAL - INTEGRAL

Photographs to be

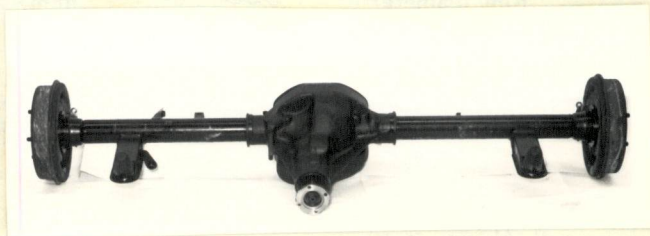
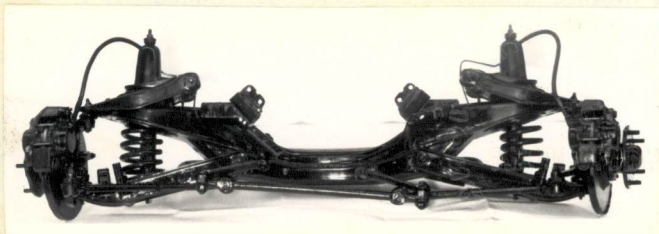
$\frac{3}{4}$ view of car from rear left.



Front axle complete (without wheels).



Rear axle complete (without wheels).



Make VAUXHALL Model PB F.I.A. Recognition No. _____

ENGINE

Catalogued B.H.P. 128.3 (GROSS)
at R.P.M. 4.200

No. of cylinders 6 in line YES
in V -
opposed -

Cycle 4-STROKE Firing order 1-5-3-6-2-4

Capacity 3,298 c.c. Bore 92.07 m.m. Stroke 82.55 m.m.

Maximum rebore .040" Resultant capacity 3378 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 228 m.m.

Material of cylinder head CHROMIUM CAST IRON Volume of one combustion chamber 53.8 c.c.

Compression ratio 8.5:1

Material of piston ALUMINIUM ALLOY No. of piston rings THREE

Distance from gudgeon pin centre line to highest point of piston crown 44.4 m.m.

Bearings { Crankshaft main bearings: Type WHITE METAL Dia. 63.5 m.m.
Connecting rod big end: Type COPPER LEAD Dia. 52.4 m.m.

Weights { Flywheel 10.50 kg.
Crankshaft 30.52 kg.
Connecting rod .74 kg.
Piston with rings .52 kg.
Gudgeon pin .144 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 41.35 m.m. Exhaust 36.1 m.m.

Diameter of port at throat at valve seat: Inlet 34.9 m.m. Exhaust 26.92 m.m.

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

Valves open: Inlet 14.5° B.T.D.C. Exhaust 61.5° B.B.D.C.

Valves close: Inlet 76.2° A.B.D.C. Exhaust 33.4° A.T.D.C.

Maximum valve lift: Inlet 9.35 m.m. Exhaust 8.64 m.m.

Degrees of crankshaft rotation from zero to—

Maximum lift: Inlet 127.5° Exhaust 132.5°

$\frac{3}{4}$ Maximum lift: Inlet 81.5° Exhaust 82.5°

Valve springs: Inlet HELICAL COIL Exhaust HELICAL COIL

Type HELICAL COIL HELICAL COIL

No. per valve ONE ONE

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

Make ZENITH Model 42 VNT

Flange hole diameter 42 m.m. Choke diameter 36 m.m.

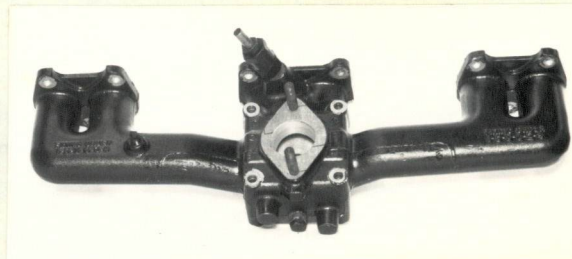
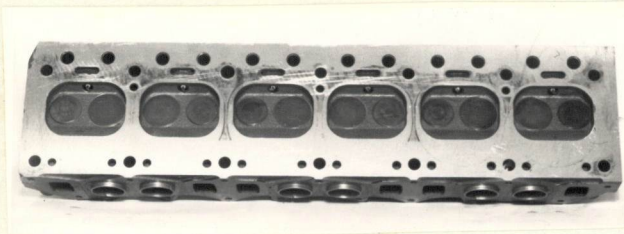
Main jet identification No. 155

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Air filter: Type OIL WETTED - DOMESTIC No. fitted ONE
DRY ELEMENT - EXPORT

Inlet manifold:
Diameter of flange hole at carburettor 42.1 m.m.
Diameter of flange hole at port 36.6 m.m.

Photograph of combustion chamber to be affixed here.



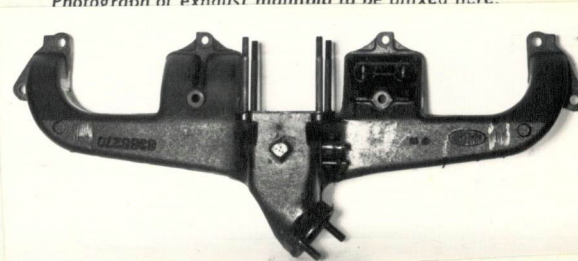
Exhaust manifold:

Diameter of flange hole at port 28.6 x 38.2 m.m.
Diameter of flange hole at connection to silencer inlet pipe 48.4 m.m.



own to be affixed here.

Photograph of exhaust manifold to be affixed here.



ENGINE ACCESSORIES

Make of fuel pump A.C. DELCO No. fitted ONE
Method of operation MECHANICAL FROM CAMSHAFT
Type of ignition system COIL coil or magneto
Make of ignition A.C. DELCO Model 7952589
Method of advance and retard CENTRIFUGAL & VACUUM
Make of ignition coil A.C. DELCO Model OIL FILLED
No. of ignition coils ONE Voltage 12V
Make of dynamo LUCAS Model C40-1
Voltage of dynamo 12V Maximum output 22 amps.
Make of starter motor LUCAS Model M 418G
Battery: No. fitted ONE Voltage 12 Capacity 57 amp. hour
Oil Cooler (if fitted) type - Capacity - pints

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TRANSMISSION

Make of clutch BORG & BECK Type 8.5 DS
 Diameter of clutch plate 8.5 No. of plates ONE
 Method of operating clutch MECHANICAL
 Make of gearbox VAUXHALL Type 3 SPD SYNCHROMESH
 No. of gearbox ratios 3 FORWARD 1 REVERSE - CODE 177 4 FORWARD 1 REVERSE
 Method of operating gearshift MANUAL
 Location of gearshift STEERING COLUMN - 3 SPD. FLOOR - 4 SPD.
 Is overdrive fitted? OPTIONAL - CODE 184
 Method of controlling overdrive, if fitted ELECTRICAL SWITCH ON FACIA

	GEARBOX RATIOS		ALTERNATIVE RATIOS					
	Ratio	No. of Teeth	Ratio	No. of Teeth	Ratio	No. of Teeth	Ratio	No. of Teeth
1.	2.605	20 X 31 17 X 14	2.521	20 X 30 17 14				
2.	1.486	20 X 24 17 19	1.765	20 X 27 17 18				
3.	1.0	DIRECT	1.353	20 X 23 17 20				
4.	-	-	1.0	DIRECT				
REVERSE 5.	2.773	20 X 33 17 X 14	2.773	20 X 33 17 14				

Type of final drive HOTCHKISS
 Type of differential HYPOID BEVEL
 Final drive ratio 3.7 Alternatives _____
 No. of teeth 10/37
 Overdrive ratio, if fitted 0.778 : 1

WHEELS

Type DISC Weight 6.35 kg.
 Method of attachment 5 STUD
 Rim diameter 355 m.m. Rim width 114.3 m.m.
 Tyre size: Front 5.90 - 14 Rear 5.90 - 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 22.2 m.m.

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	Front	Rear
No. of wheel cylinders	Two	ONE PER BRAKE
Bore of wheel cylinders	53.9 m.m.	19.0 m.m.
Inside diameter of brake drums	N/A m.m.	228.6 m.m.
No. of shoes per brake	N/A	Two
Outside diameter of brake discs	266.7 m.m.	N/A 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.	218 m.m.
	- m.m.	- m.m.
Width	- m.m.	44.5 m.m.
Total area per brake	6450 m.m. ²	19400 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 11.12 m., approx.

No. of turns of steering wheel from lock to lock 3.8

CAPACITIES AND DIMENSIONS

Fuel tank 49.1 litres Sump 5.4 litres

Radiator 10.37 litres

Overall length of car 461.8 cm. Overall width of car 178.5 cm.

Overall height of car, unladen (with hood up, if appropriate) 143.3 cm.

Distance from floor to top of windscreen:

Highest point 112.1 cm. Lowest point 105.1 cm.

Width of windscreen:

Maximum width 142.57 cm. Minimum width 130.18 cm.

*Interior width of car 147.65 cm.

No. of seats FOUR

Track: Front 139.2 cm. Rear 142.7 cm.

Wheelbase 273 cm. Ground clearance 165 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 1130 kgs. **VELOX**

1150 KGS **CRESTA**

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

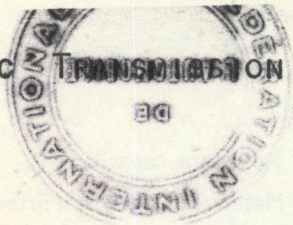
Make of pump..... Model or Type No.....

Make of injectors..... Model or Type No.....

Location of injectors.....

Optional equipment affecting preceding information:—

HYDRAULIC



TRANSMISSION

DE

RATIO

1ST	3.03 TO 3.64 : 1
2ND	1.58 : 1
TOP	DIRECT
REVERSE	2.516 TO 3.57 : 1

FRONT BRAKES - DRUM (PBS EXPORT)

- NO. OF WHEEL CYLINDERS - 2 PER BRAKE
- BORE OF WHEEL CYLINDERS - 20.3 MM
- INSIDE DIA OF DRUM - 254 MM
- NO. OF SHOES PER BRAKE - 2

DIMENSIONS

- LENGTH 244 MM
- WIDTH 57 MM
- TOTAL AREA/BRAKE 27800 MM²