Manufacturers Reference No. for Application

VM 63/3

F.I.A. Recognition No. 1223

ROYAL AUTOMOBILE CLUB

PALL MALL, LONDON, S.W.I.

Federation Internationale de l'Automobile.

Form of Recognition in accordance with Appendix J to the International Sporting Code.

Manufacturer VAUXHALL MOTORS LTD

Model HA - VIVA Year of Manufacture 1963

Serial No. of Chassis HAS/D 4001001

Engine HAS/D 2001

Type of Coachwork TWO DOOR SALOON

Recognition is valid from 5th September 1963 In category TOURING

9/22

P?

Photograph to be affixed here ¾ view of car from front right.

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

Form: R.F.I.A.

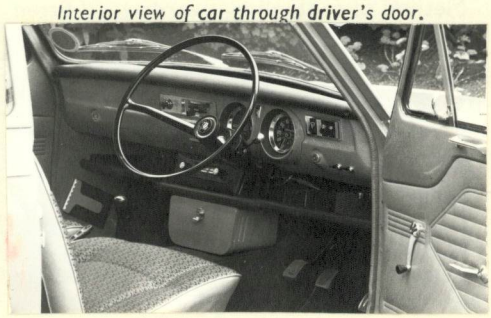
General description of car:

Specify here material/s of chassis/body construction

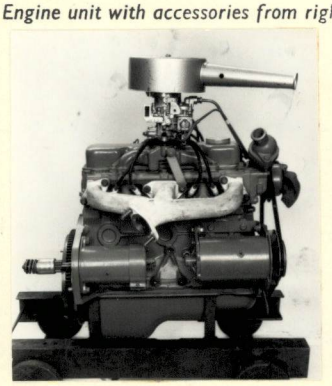
SHEET METAL INTEGRAL CONSTRUCTION

Photographs to be affixed below.

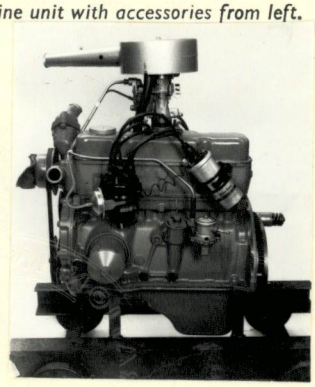
Interior view of car through driver's door.



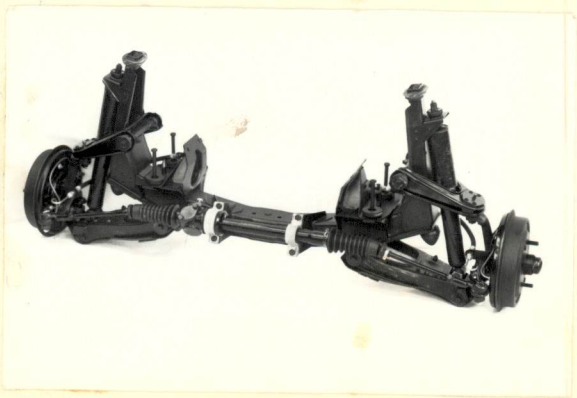
Engine unit with accessories from right.



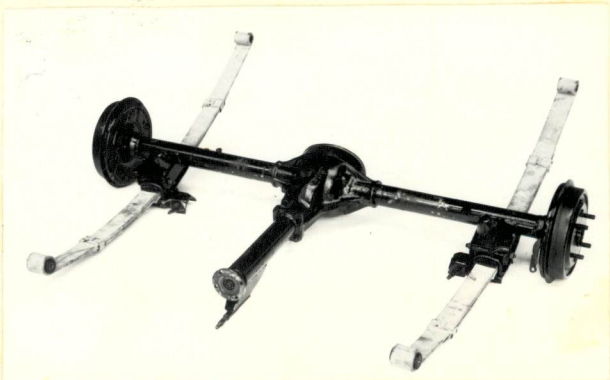
Engine unit with accessories from left.



Front axle complete (without wheels).



Rear axle complete (without wheels).



ENGINE

in line YES

No. of cylinders 4 in V -

opposed -

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

Capacity 1057 c.c. Bore 74•29 m.m. Stroke 60•96 m.m.

Maximum rebore •040" Resultant capacity 1086 c.c.

Material of cylinder block 'CHROMIDIUM' CAST IRON Material of sleeves, if fitted -

Distance from crankshaft centre line to top face of block at centre line of cylinders 191•2 m.m.

Material of cylinder head CHROMIUM CAST IRON Volume of one combustion chamber 27•9 c.c.

Compression ratio 7•3 OR 8•5

Material of piston ALUMINIUM ALLOY No. of piston rings 3

Distance from gudgeon pin centre line to highest point of piston crown 37•59 m.m.

Bearings
- Crankshaft main bearings: Type WHITE METAL Dia. 54•02 m.m.
- Connecting rod big end: Type ALUMINIUM TIN Dia. 45•03 m.m.

Weights
- Flywheel 7•35 kg.
- Crankshaft 10•61 kg.
- Connecting rod •51 kg.
- Piston with rings •32 kg.
- Gudgeon pin •10 kg.

No. of valves per cylinder TWO 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	31•14 m.m.	Exhaust	27•15 m.m.
Diameter ~~of port at valve seat~~ AT THROAT:	Inlet	27•58 m.m.	Exhaust	22•58 m.m.
Tappet clearance for checking timing:	Inlet	•152 m.m.	Exhaust	•254 m.m.
Valves open:	Inlet	39 B.T.D.C.	Exhaust	65° B.B.D.C.
Valves close:	Inlet	93 A.B.D.C.	Exhaust	45° A.T.D.C.
Maximum valve lift:	Inlet	8•37 m.m.	Exhaust	8•13 m.m.

Degrees of crankshaft rotation from zero to—

Maximum lift:	Inlet	146°	Exhaust	140°
¾ Maximum lift:	Inlet	97°	Exhaust	92°

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

Carburettor: Type DOWNDRAFT No. fitted ONE

(up or down draft, horizontal)

Make SOLEX Model B30 P.S.E.1. (2 STAGE)

Flange hole diameter 30 m.m. Choke diameter 22 m.m.

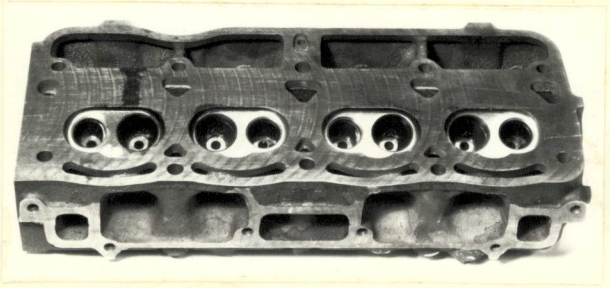
Main jet identification No. 100

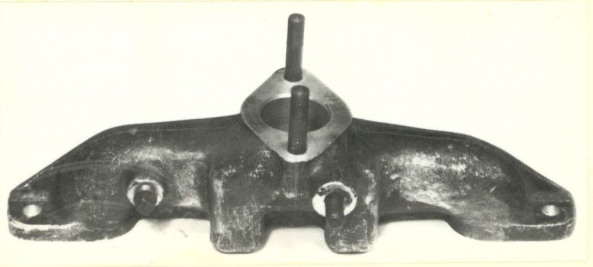
Air filter: Type OIL WETTED - DOMESTIC / PAPER ELEMENT - EXPORT No. fitted ONE

Inlet manifold:

Diameter of flange hole at carburettor 30•73 m.m.

Diameter of flange hole at port 26•9 m.m.





Exhaust manifold: 29•5 x 24•7 END PORTS

Diameter of flange hole at port 29•5 x 64•0 CENTRE PORT m.m.

Diameter of flange hole at connection to silencer inlet pipe 35•6 m.m.

ing crown 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 DRIVE FROM CAMSHAFT

Type of ignition system COIL coil or magneto

Make of ignition A.C.DELCO Model 7952772

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 M35

Battery: No. fitted ONE Voltage 12 Capacity 32 amp. hour

Oil Cooler (if fitted) type AIR Capacity 3/4 pints

Make VAUXHALL Model HA F.I.A. Recognition No.

Manufacturers Reference No. of Application VM63/3

TRANSMISSION

Make of clutch BORG & BECK Type 6·0 DS

Diameter of clutch plate 6" No. of plates 1- DIAPHRAGM

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.	3·765	29 37 19 15						
2.	2·213	29 29 19 20						
3.	1·404	29 23 19 25						
4.	1·1	DIRECT						
REVERSE 5.	3·707	29 34 19 14						

Type of final drive SPIRAL HYPOID

Type of differential TWO PINION WITH ONE PIECE CAST HOUSING

Final drive ratio 4·125 Alternatives 3·89

No. of teeth 8/33 9/35

Overdrive ratio, if fitted N/A

WHEELS

Type DISC Weight 3·85 kg.

Method of attachment STUD

Rim diameter 304·8 m.m. Rim width 88·9 m.m.

Tyre size: Front 5·50 - 12·4 Rear 5·50 - 12·4

BRAKES

Method of operation HYDRAULIC

Is servo assistance fitted? YES (CODE 274 ONLY)

Type of servo, if fitted SUSPENDED VACUUM

No. of hydraulic master cylinders ONE Bore 17·78 m.m.

	Front	Rear
No. of wheel cylinders	TWO PER BRAKE	ONE PER BRAKE
Bore of wheel cylinders	19.05 m.m.	17.78 m.m.
Inside diameter of brake drums	203.2 m.m.	203.2 m.m.
No. of shoes per brake	TWO	TWO
Outside diameter of brake discs	- m.m.	- m.m.
No. of pads per brake	-	-

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	159.6 m.m.	159.6 m.m.
	- m.m.	- m.m.
Width	31.75 m.m.	31.75 m.m.
Total area per brake	10136 m.m.²	10136 m.m.²

SUSPENSION

	Front	Rear
Type	INDEPENDANT WISHBONE	BEAM AXLE
Type of spring	SINGLE TRANSVERSE	SEMI-ELLIPTICAL
Is stabiliser fitted?	NO	NO
Type of shock absorber	DOUBLE ACTING	TELESCOPIC
No. of shock absorbers	TWO	TWO

STEERING

Type of steering gear RACK & PINION

Turning circle of car 9.45 m., approx.

No. of turns of steering wheel from lock to lock 3.79

CAPACITIES AND DIMENSIONS

Fuel tank 31.9 litres Sump 3.56 litres

Radiator 5.88 litres

Overall length of car 393.9 cm. Overall width of car 150.9 cm.

Overall height of car, unladen (with hood up, if appropriate) 135.4 cm.

Distance from floor to top of windscreen:

Highest point 104.1 cm. Lowest point 101.6 cm.

Width of windscreen:

Maximum width 121.9 cm. Minimum width 104.1 cm.

*Interior width of car 129.5 cm.

No. of seats FOUR

Track: Front 120.4 cm. Rear 122.4 cm.

Wheelbase 232.4 cm. Ground clearance 127 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 ~~632~~ 682 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 preceeding information:—

CODE 274 - DISC BRAKES	FRONT
NUMBER OF WHEEL CYLINDERS	TWO
BORE OF WHEEL CYLINDERS	41·15 MM
OUTSIDE DIA. OF DISCS	210·43 MM
NO OF PADS/BRAKES	TWO
TOTAL AREA/BRAKE	4160 MM^2

FUEL TANK - 18·7 GALLS (85 LITRES) - 6385586

SUMP & FRONT SUSPENSION PROTECTOR - X7151658

OIL COOLER -- X7153834

WHEEL RIM OPTION - DIA 304·8 MM - WIDTH 101·6 MM.

Manufacturers Reference No. for Application

VM 63/3A

F.I.A. Recognition No. 1223/1/ET

ROYAL AUTOMOBILE CLUB

PALL MALL, LONDON, S.W.1.

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Amendment to Form of Recognition

Manufacturer VAUXHALL MOTORS LTD.

Model HA - VIVA/EPIC

CARBURETTOR

MAKE	-	SOLEX	MODEL	-	30 P S E 1 - 6
CHOKE	-	22 MM	MAIN JET	-	100 MM.

STEERING

3.14 TURNS

FEDERATION INTERNATIONALE DE L'AUTOMOBILE

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

Date amendment is valid from 16 Nov. 1964

Form: R.F.I.B.

	Front	Rear
No. of wheel cylinders	.....	.....
Bore of wheel cylinders	..... m.m.	..... m.m.
Inside diameter of brake drums	..... m.m.	..... m.m.
No. of shoes per brake	.....	.....
Outside diameter of brake discs	..... m.m.	..... m.m.
No. of pads per brake	.....	.....

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.	..... m.m.
	..... m.m.	..... m.m.
Width	..... m.m.	..... m.m.
Total area per brake	..... $m.m.^2$	..... $m.m.^2$

SUSPENSION

	Front	Rear
Type	.....	.....
Type of spring	.....	.....
Is stabiliser fitted?	.....	.....
Type of shock absorber	.....	.....
No. of shock absorbers	.....	.....

STEERING

Type of steering gear.....

Turning circle of car.....m., approx.

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

CAPACITIES AND DIMENSIONS

Fuel tank.....litres Sump.....litres

Radiator.....litres

Overall length of car.....cm. Overall width of car.....cm.

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

Distance from floor to top of windscreen:

Highest point.....cm. Lowest point.....cm.

Width of windscreen:

Maximum width.....cm. Minimum width.....cm.

*Interior width of car.....cm.

No. of seats.....

Track: Front.....cm. Rear.....cm.

Wheelbase.....cm. Ground clearance.....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.....kgs.