

F.I.A. Recognition No. 5408

Group 1



ROYAL AUTOMOBILE CLUB

31, Belgrave Square, London, S.W.1

Form of recognition in accordance with appendix J to the International Sporting Code of the
FEDERATION INTERNATIONALE DE L'AUTOMOBILE

Manufacturer	<u>VAUXHALL MOTORS</u>	Cylinder-capacity	<u>1159</u> cm. ³	<u>70.7</u> in. ³
Serial No. of chassis/body	<u>395000</u>	Model	<u>VIVA/EPIC SL HCH</u>	
Serial No. of engine	<u>1514487</u>	Manufacturer	<u>VAUXHALL MOTORS LTD.</u>	
Recognition is valid from	<u>1/4/71</u>	Manufacturer	<u>" " "</u>	
The manufacturing of the model described in this recognition form started on	<u>SEPTEMBER</u>	List	<u>71/4</u>	
and the minimum production of	<u>5000</u>		<u>190</u>	
this form was reached on	<u>DECEMBER</u>		<u>1970</u>	

Photograph A, ¾ view of car from front



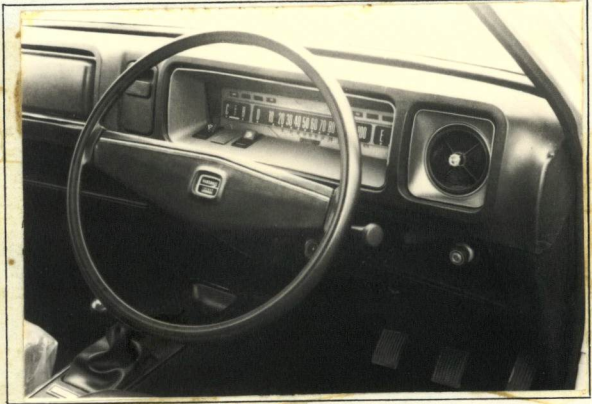
F.I.A. Stamp

R.A.C. Stamp

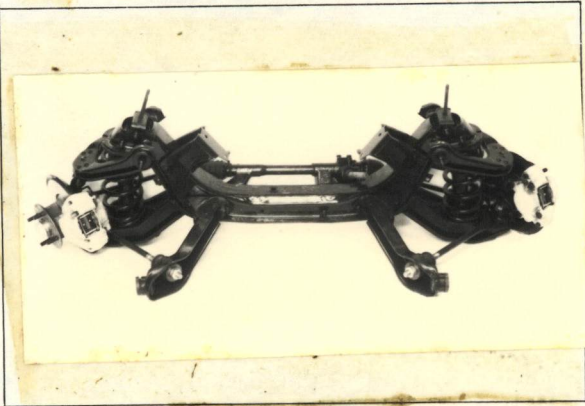
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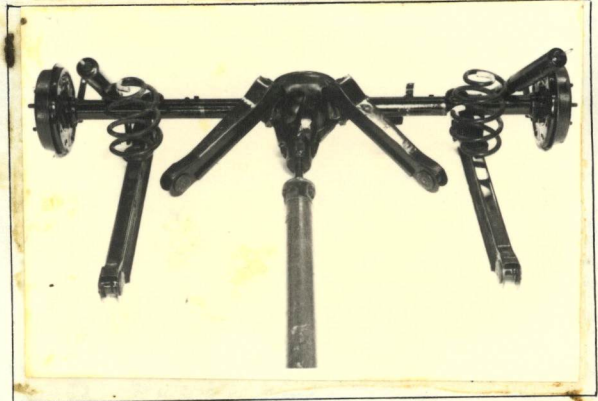
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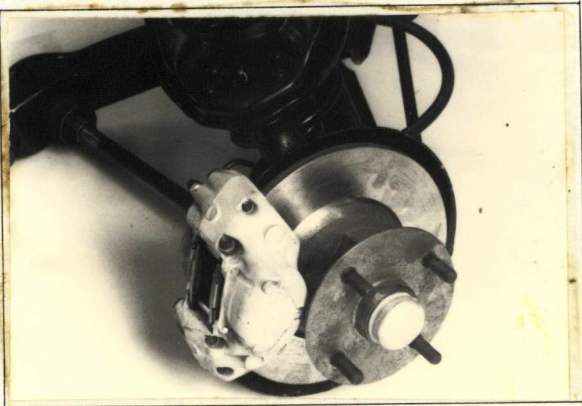
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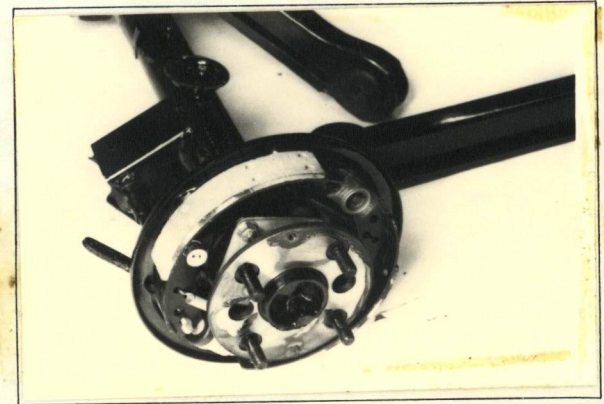
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F



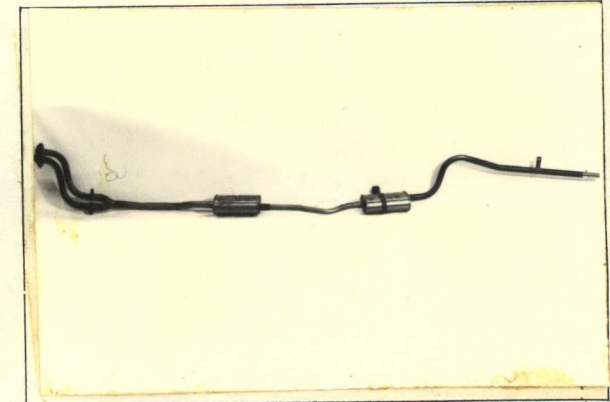
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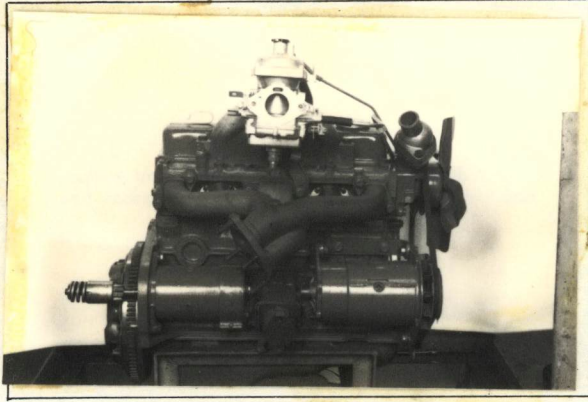


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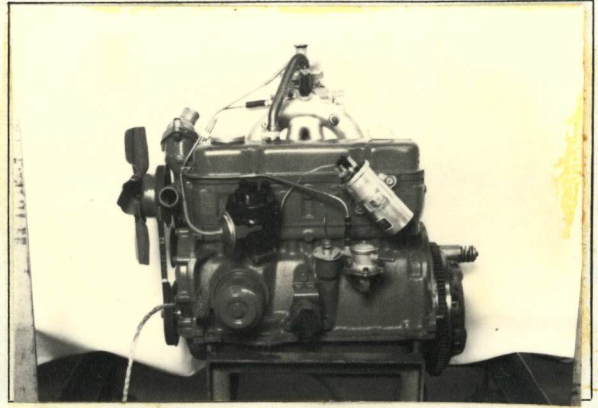


I

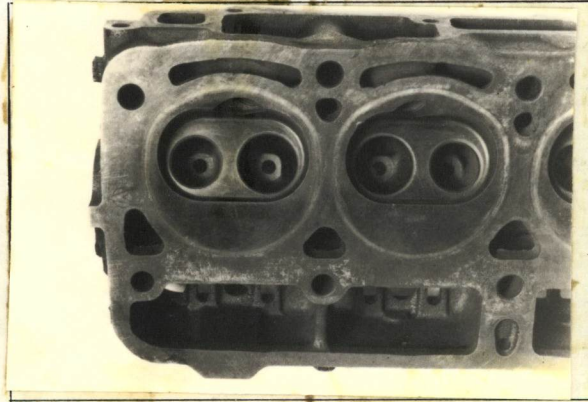




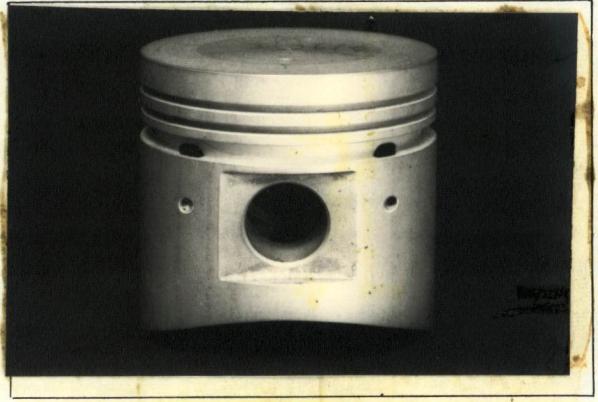
J



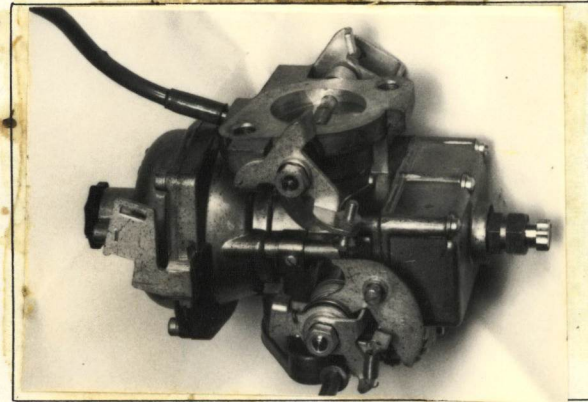
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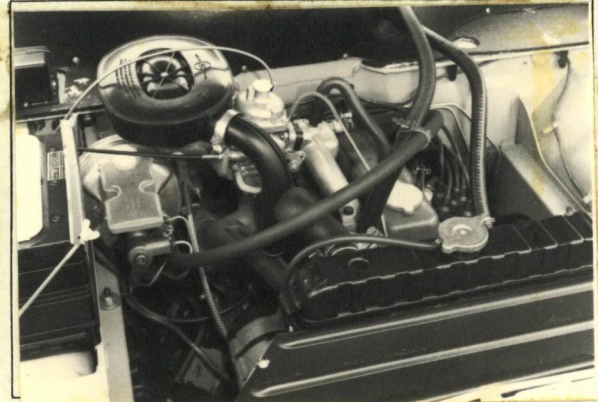
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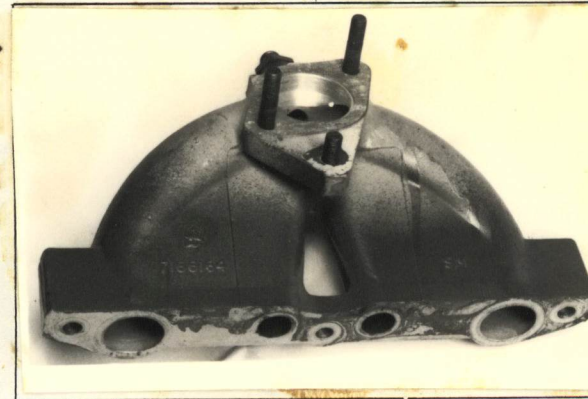
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N



O

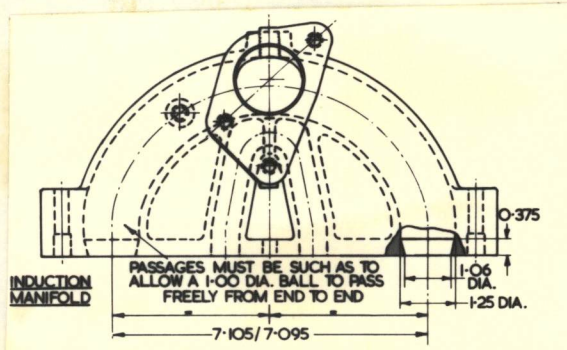


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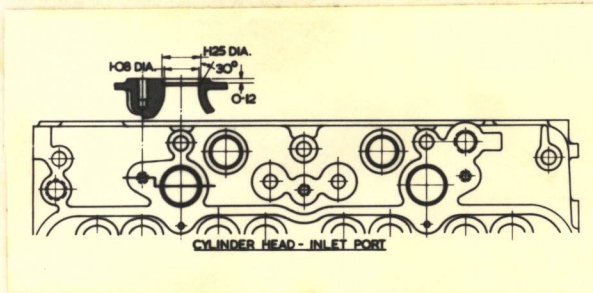


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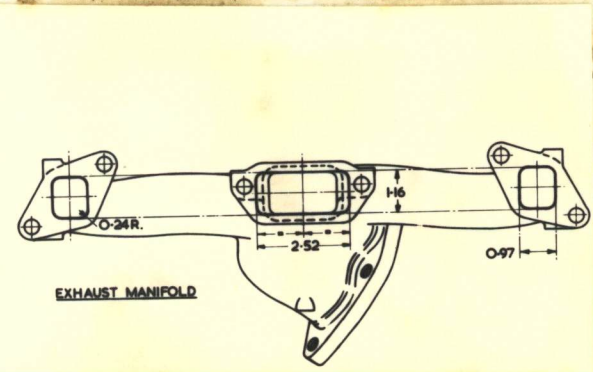
Drawing inlet manifold ports, side of cylinderhead. Indicate scale or dimensions and manufacturing tolerance.



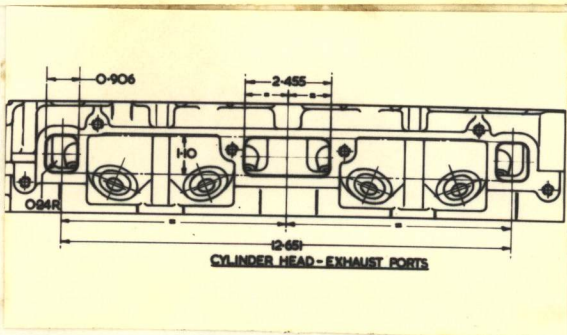
Drawing of entrance to inlet port of cylinderhead. Indicate scale or dimensions and manufacturing tolerance.



Drawing of exhaust manifold ports, side of cylinderhead. Indicate scale or dimensions and manufacturing tolerance.



Drawing of exit to exhaust port of cylinderhead. Indicate scale or dimensions and manufacturing tolerance.



ALLOWANCE VARIATION ON DIMENSION IS $+ .25$ MM.
 $- .01$ INCH
 UNLESS OTHERWISE SPECIFIED.

Make VAUXHALL MOTORS

Model VIVA/EPIC SL HCH

F.I.A. Rec. No. 5408

NOTE 1.

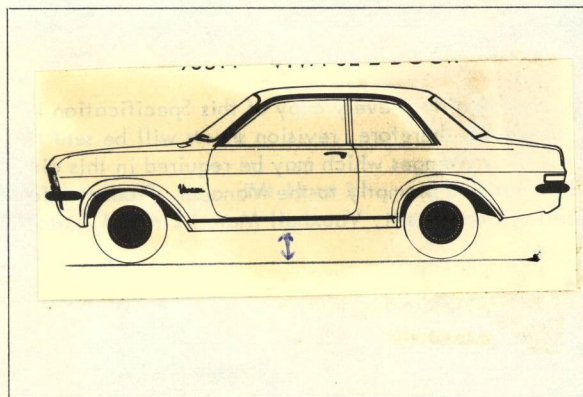
All dimensions must be given in two measuring systems, see Note 3.

CAPACITIES AND DIMENSIONS

- | | | |
|----------------|----------|-------------|
| 1. Wheelbase | 2461 mm. | 97 inches |
| 2. Front track | 1306 mm. | 51.4 inches |
| 3. Rear track | 1308 mm. | 51.5 inches |

See Note 2

ROCKER PANEL TO GROUND FRONT
9 INCHES 229 MM. REAR 8.3 INCHES
211 MM.



- | | | | |
|--|------------|----------------|--------------|
| 4. Overall length of the car | 411.5 cm. | 162 inches | |
| 5. Overall width of the car | 164 cm. | 64.7 inches | |
| 6. Overall height of the car | 134.5 cm. | 53 inches | |
| 7. Capacity of fuel tank (reserve included) | 36.3 ltrs. | 9.6 gall. U.S. | 8 gall. Imp. |
| 8. Seating Capacity. | | | |
| 9. Weight. Total weight of the car with normal equipment, water, oil, and spare wheel but without fuel or repair tools : | 830 kg. | 1830 lbs. | 16.3 cwts. |

NOTE 2.

Differences in track caused by the use of other wheels with different rim widths must be stated when recognition is requested for the wheels concerned. Specify ground clearance in relation to the track and give drawing of two easily recognisable points at front and rear at which measurements are taken. These ground clearance dimensions are only for information when checking the track and can in no way affect the eligibility of the car.

NOTE 3.

CONVERSION TABLE

1 inch/pouce	— 2.54	cm.	1 quart US	— 0.9464	ltrs.
1 foot/pied	— 30.4794	cm.	1 pint (pt)	— 0.568	ltrs.
1 sq. inch/pouce carre	— 6.452	cm. ²	1 gallon Imp.	— 4.546	ltrs.
1 cubic inch/pouce cube	— 16.387	cm. ³	1 gallon US	— 3.785	ltrs.
1 pound/livre (lb)	— 453.593	gr.	1 hundred weight (cwt.)	— 50.802	kg.

CHASSIS AND COACHWORK (Photographs A, B and C)

- 20. Chassis/body construction: ~~separate~~/unitary construction
- 21. Unitary construction, material(s) STEEL
- 22. Separate construction, Material(s) of chassis -
- 23. Material(s) of coachwork STEEL
- 24. Number of doors Material(s) STEEL
- 25. Material(s) of bonnet STEEL
- 26. Material(s) of boot lid STEEL
- 27. Material(s) of rear-window GLASS
- 28. Material(s) of windscreen LAMINATED OR TOUGHENED GLASS
- 29. Material(s) of front-door windows GLASS
- 30. Material(s) of rear-door windows GLASS
- 31. Sliding system of door windows GEAR OPERATED DROP GLASS
- 32. Material(s) of rear-quarter light GLASS

ACCESSORIES AND UPHOLSTERY

- 38. Interior heating : yes — ~~no~~
- 39. Air conditioning : ~~yes~~ — no
- 40. Ventilation : yes — ~~no~~
- 41. Front seats, type of seat and upholstery BLOWN PVC
- 42. Weight of front seat(s), complete with supports and rails, out of the car : TUBULAR FRAME
10.8 kg. 24 lbs.
- 43. Rear seats, type of seat and upholstery BLOWN PVC SPRING CASE
- 44. Front bumper, material(s) STEEL Weight 4.2 kg. 9.4 lbs.
- 45. Rear bumper, material(s) STEEL Weight 4.08 kg. 9 lbs.

WHEELS

- 50. Type DISC
- 51. Weight (per wheel, without tyre) 5.2 kg. 11.5 lbs.
- 52. Method of attachment 4 STUD
- 53. Rim diameter 330 mm. 13 ins. 54. Rim width 127 mm. 5 ins.

STEERING

- 60. Type RACK & PINION
- 61. Servo-assistance : ~~yes~~ — no
- 62. Number of turns of steering wheel from lock to lock 3
- 63. In case of servo-assistance

SUSPENSION

- 70. Front suspension (photograph D), type INDEPENDENT WISHBONE
- 71. Type of spring COIL
- 72. Stabiliser (if fitted) N/F
- 73. Number of shock absorbers TWO
- 74. Type TELESCOPIC - DOUBLE ACTING
- 78. Rear suspension (photograph E), type SEMI FLOATING . 4 LINK
- 79. Type of spring COIL
- 80. Stabiliser (if fitted) N/F
- 81. Number of shock absorbers 2
- 82. Type TELESCOPIC - DOUBLE ACTING

BRAKES (photographs F and G)

- 90. Method of operation HYDRAULIC
- 91. Servo-assistance (if fitted), type VACUUM
- 92. Number of hydraulic master cylinders ONE TANDEM

93. Number of cylinders per wheel	TWO	FRONT	ONE	REAR
94. Bore of wheel cylinder(s)	48.2	mm. 1.9 inches	17.7	mm. .7 inches

Drum Brakes

95. Inside diameter		mm. inches	203	mm. 8 inches
96. Length of brake linings		mm. inches	160	mm. 6.3 inches
97. Width of brake linings		mm. inches	31.7mm.	1.25 inches
98. Number of shoes per brake			TWO	
99. Total area per brake		mm. ² sq. in.	10136	mm. ² 15.7 sq. in.

Disc Brakes

100. Outside diameter		217mm. 8.54 inches		mm. inches
101. Thickness of disc		9.6mm. 0.38 inches		mm. inches
102. Length of brake linings		mm. inches		mm. inches
103. Width of brake linings		mm. inches		mm. inches
104. Number of pads per brake		TWO		
105. Total area per brake	5032	mm. ² 7.8 sq. in.		mm. ² sq. in.

Make VAUXHALL MOTORS

Model VIVA/EPIC SL HCH

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ENGINE (photographs J and K)

- 130. Cycle 4 STROKE
- 131. Number of cylinders 4
- 132. Cylinder Arrangement IN LINE
- 133. Bore 77.77 mm. 3.062 in.
- 134. Stroke 60.96 mm. 2.4 in.
- 135. Capacity per cylinder 289.7 cm.³ 17.697 cu. in.
- 136. Total cylinder capacity 1158.8 cm.³ 70.714 cu. in.
- 137. Material(s) of cylinder block CAST IRON
- 138. Material(s) of sleeves (if fitted) N/F
- 139. Cylinder head, material(s) CAST IRON
- Number fitted ONE
- 140. Number of inlet ports TWO
- 141. Number of exhaust ports THREE
- 142. Compression ratio 9-1
- 143. Volume of one combustion chamber 28.23⁺.30 cm.³ 1.723⁺.018 cu. in.
- 144. Piston, material ALUMINIUM ALLOY
- 145. Number of rings 3
- 146. Distance from gudgeon pin centre line to highest point of piston crown 37.5 mm. 1.48 in.
- 147. Crankshaft: ~~moulded~~/stamped
- 148. Type of crankshaft: integral/~~YES~~.....
- 149. Number of crankshaft main bearings THREE
- 150. Material of bearing cap CAST IRON
- 151. System of lubrication: ~~dry sump~~/oil in sump
- 152. Capacity, lubricant 3.124 ltrs. 5.5 pts. 3.3 quarts U.S.
- 153. Oil cooler: yes/no
- 154. Method of engine cooling WATER
- 155. Capacity of cooling system 5.79 ltrs. 10.2 pts. 6.12 quarts U.S.
- 156. Cooling fan (if fitted) dia. 24.13 cm. 9.5 in.
- 157. Number of blades of cooling fan 4

Bearings

- 158. Crankshaft main, type WHITE METAL ALUMINIUM dia. 54. m.m. 2.127 in.
- TIN ALLOY COPPER LEAD.
- 159. Connecting rod big end, type COPPER LEAD TIN. dia. 45.01 m.m. 1.722 in.

Weights

- 160. Flywheel (clean) 7.35 kg. 16.2 lbs.
- 161. Flywheel with clutch (all turning parts) 10.2 kg. 22.6 lbs.
- 162. Crankshaft 10.67 kg. 23.52 lbs.
- 163. Connecting rod .51 kg. 1.1 lbs.
- 164. Piston with rings and pin .49 kg. 1.07 lbs.

FOUR STROKE ENGINES

- 170. Number of camshafts ONE
- 171. Location CYLINDER BLOCK
- 172. Type of camshaft drive CHAIN
- 173. Type of valve operation PUSH ROD

INLET (see page 4)*

- 180. Material(s) of inlet manifold ALUMINIUM ALLOY
- 181. Diameter of valves 34.6 mm. 1.363 ins.
- 182. Max. valve lift 9.1 mm. .358 in. 183. Number of valve springs ONE
- 184. Type of spring COIL 185. Number of valves per cylinder ONE
- 186. Tappet clearance for checking timing (cold) .203 mm. .008 ins.
- 187. Valves open at (with tolerance for tappet clearance indicated) 39° BTDC
- 188. Valves close at (with tolerance for tappet clearance indicated) 73 ABDC
- 189. Air filter, type OIL WETTED OR PAPER ELEMENT

EXHAUST (see page 4)*

- 195. Material(s) of exhaust manifold CAST IRON
- 196. Diameter of valves 30.05 mm. 1.183 ins.
- 197. Max. valve lift 9.1 mm. .358 in. 198. Number of valve springs ONE
- 199. Type of spring COIL 200. Number of valves per cylinder ONE
- 201. Tappet clearance for checking timing (cold) .203 mm. .008 ins.
- 202. Valves open at (with tolerance for tappet clearance indicated) 71° BBDC
- 203. Valves close at (with tolerance for tappet clearance indicated) 61 ATDC
- 204. Diameter outlet orifice exhaust manifold

CARBURETION (photograph N)

- 210. Number of carburettors fitted ONE
- 211. Type VARIABLE CHOKE
- 212. Make ZENITH STROMBERG
- 213. Model 150 CD
- 214. Number of mixture passages per carburettor SINGLE VENTURI
- 215. Flange hole diameter of exit port(s) of carburettor 38.1 mm. 1.50 ins.
- 216. Minimum diameter of venturi/minimum diam., with piston at maximum height (example : SU) 25.4 mm. 1.0 ins.

INJECTION (if fitted)

- 220. Make of pump
- 221. Number of plungers
- 222. Model or type of pump
- 223. Total number of injectors
- 224. Location of injectors
- 225. Minimum diameter of inlet pipe mm. ins.

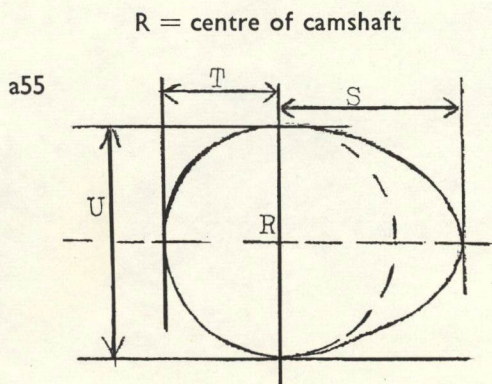
* For additional information concerning two-stroke engines and super-charged engines, see page 13.

ENGINE ACCESSORIES

- 230. Fuel pump : mechanical and/~~or electrical~~
- 231. No. fitted ONE
- 232. Type of ignition system COIL
- 233. No. of distributors ONE
- 234. No. of ignition coils ONE
- 235. No. of spark plugs per cylinder ONE
- 236. Generator, type : dynamo/alternator—number fitted ONE
- 237. Method of drive BELT
- 238. Voltage of generator 12 volts
- 239. Battery, number ONE
- 240. Location ENGINE COMPARTMENT
- 241. Voltage of battery 12 volts

ENGINE AND CAR PERFORMANCES (as declared by manufacturer in catalogue)

- 250. Max. engine output 72 (type of horsepower: BHP) at 5700 r.p.m.
- 251. Max. r.p.m. output at that figure NOT PUBLISHED
- 252. Max. torque 70 LB/FT at 4000 r.p.m.
- 253. Max. speed of the car 137 km./hour 85 miles/hour



Inlet cam

S =	19.844	mm.	.781	inches
T =	13.741	mm.	.541	inches
U =	27.619	mm.	1.087	inches

Exhaust cam

S =	19.844	mm.	.781	inches
T =	13.741	mm.	.541	inches
U =	27.619	mm.	1.087	inches

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Make VAUXHALL MOTORS

Model VIVA/EPIC SL HGH

F.I.A. Rec. No.

DRIVE TRAIN

CLUTCH

260. Type of clutch DIAPHRAM

261. No. of plates ONE

262. Dia. of clutch plates

16.51 cm. 6.5 ins.

263. Dia. of linings, inside

12.06 cm. 4.75 ins.

outside

16.51 cm. 6.5 ins.

264. Method of operating clutch

GEAR BOX (photograph H)

270. Manual type, make VAUXHALL

Method of operation LEVER

271. No. of gear-box ratios forward 4

272. Synchronized forward ratios 4

273. Location of gear-shift CENTRAL FLOOR

274. Automatic, make GENERAL MOTORS

type

275. No. of forward ratios THREE

276. Location of gear shift CENTRAL

277.	Manual		Automatic		Alternative manual/automatic			
	Ratio	No. teeth	Ratio	No. teeth	Ratio	No. teeth	Ratio	No. teeth
1	3.765-1	37/15						
2	2.213-1	29/20						
3	1.404-1	23/25						
4	DIRECT							
5								
6								
reverse	3.707-1	14/34						

278. Overdrive, type

279. Forward gears on which overdrive can be selected

280. Overdrive ratio

FINAL DRIVE

290. Type of final drive HYPOID

291. Type of differential BEVEL

292. Type of limited slip differential (if fitted)

293. Final drive ratio 4.125

Number of teeth 8/33

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Model VIVA/EPIC SL HCH

F.I.A. Rec. No.

IMPORTANT—The conformity of the car with the following items of the present recognition form is to be disregarded during the scrutineering, when the vehicle has been entered in group 2 (Touring cars) or 3 (Grand Touring cars) : 41, 72, 80, 91, 142, 143, 144, 145, 146, 153, 156, 157, 160, 161, 162, 163, 164, 182, 186, 187, 188, 189, 201, 202, 203, 212, 213, 215, 216 222, 225, 230, 250, 251, 252, 253, 255 photographs I, M and N and page 4.

During the scrutineering of cars entered in group 4 (Sportscars) only the following items of the present recognition form are to be taken into consideration : 1, 2, 3, 9, 20, 21, 22, 23, 24, 25, 26, 70, 71, 78, 79, 90, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 147, 148, 149, 150, 158, 159, 170, 171, 172, 173, 185, 200, 270, 271, 274, 275, 290, 291, 292 and photographs A, B, D, E, F, G, H, J, K and O.

The vehicle described in this form has been subject to the following amendments :

on.....19.....	rec. no.....	List.....	on.....19.....	rec. no.....	List.....
on.....19.....	rec. no.....	List.....	on.....19.....	rec. no.....	List.....
on.....19.....	rec. no.....	List.....	on.....19.....	rec. no.....	List.....
on.....19.....	rec. no.....	List.....	on.....19.....	rec. no.....	List.....
on.....19.....	rec. no.....	List.....	on.....19.....	rec. no.....	List.....

Optional equipment affecting preceding information. This to be stated together with reference number.

(Valid in Gr I)

NO. HEAVY DUTY SUSPENSION CODES 357 481 482

71 FRONT SPRINGS

79 REAR SPRING

78 REAR AXLE ASSY

293 9/35 - 3889-1 10/39 3.9-1

INCREASED COOLING CODE 82



F.I.A. Recognition No.

Group

ROYAL AUTOMOBILE CLUB

31, Belgrave Square, London, S.W.1

PRODUCTION CERTIFICATE

FEDERATION INTERNATIONALE DE L'AUTOMOBILE

Date 5TH FEBRUARY

Manufacturer: VAUXHALL MOTORS

Car Model: VIVA/EPIC SL HCH

Production Period From SEPTEMBER 1970

to DECEMBER 1970

Monthly Production

Month/Year	Number
SEPTEMBER 1970	880
OCTOBER 1970	2925
NOVEMBER 1970	2607
DECEMBER 1970	2000
TOTAL	6412
Remarks	

I HEREBY certify that the production mentioned hereabove concerns cars which are entirely completed, identical and in conformity with the recognition form submitted for the said model.

[Handwritten Signature]
.....
(Signature)

Position: *Manager Sales*
Product Studies