

F.I.A. Recognition No. 1534

Group II - Touring



# 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 Vauxhall Motors Ltd., Cylinder-capacity 1599 cm.<sup>3</sup> 97.5 in.<sup>3</sup>  
Model Viva 1600 SL  
Serial No. of chassis/body 935118E1000000 onward Manufacturer Vauxhall Motors Ltd.,  
Serial No. of engine 3000001 onwards Manufacturer Vauxhall Motors Ltd.,  
Recognition is valid from 1st Nov. 1968 List 1968/110  
The manufacturing of the model described in this recognition form started on June 1st, 1968  
and the minimum production of 1000 identical cars, in accordance with the specifications of  
this form was reached on August 1st 1968.

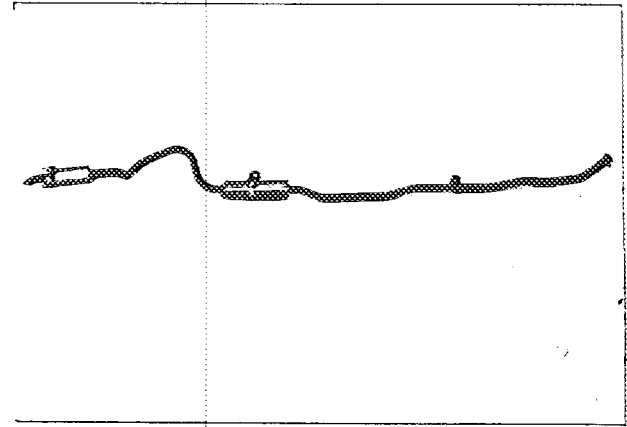
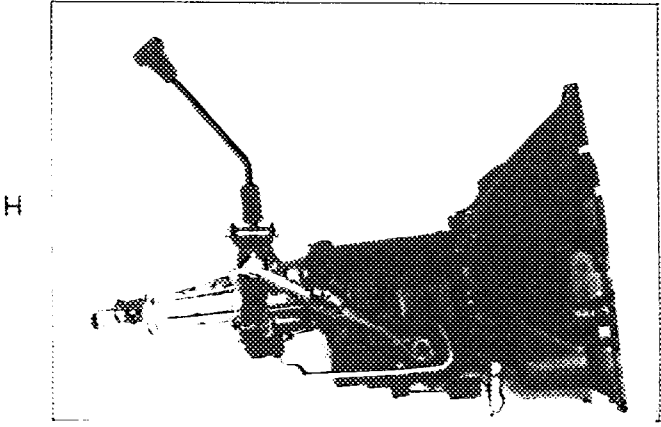
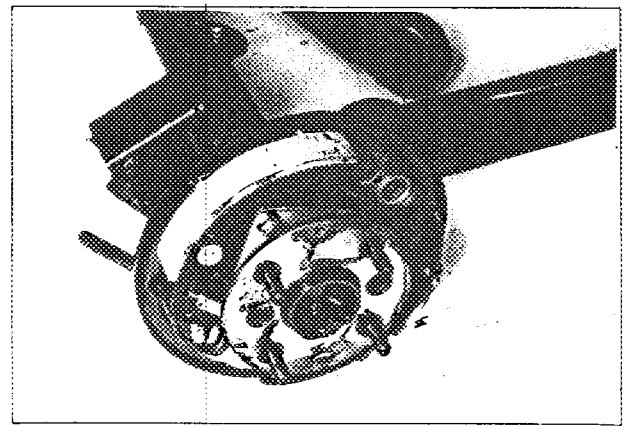
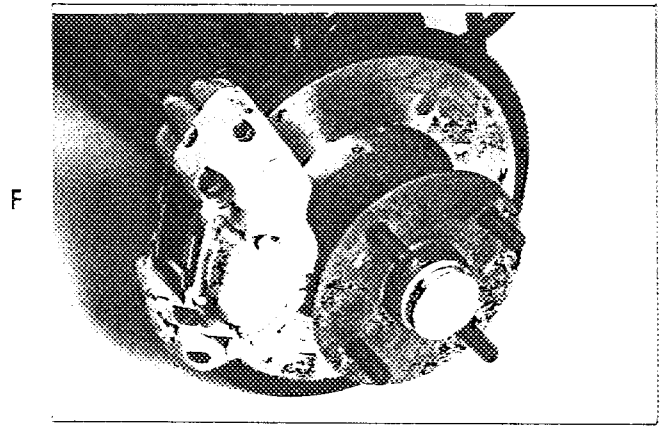
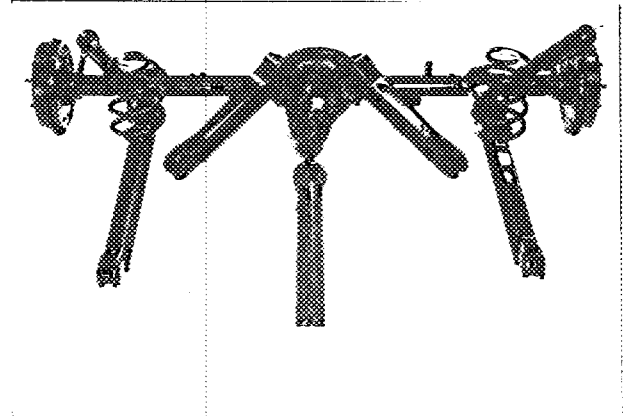
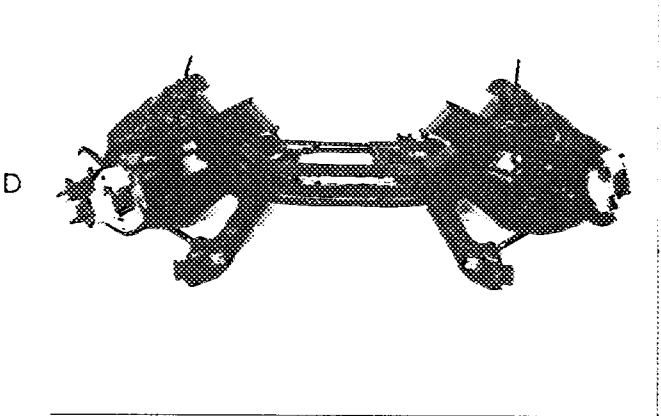
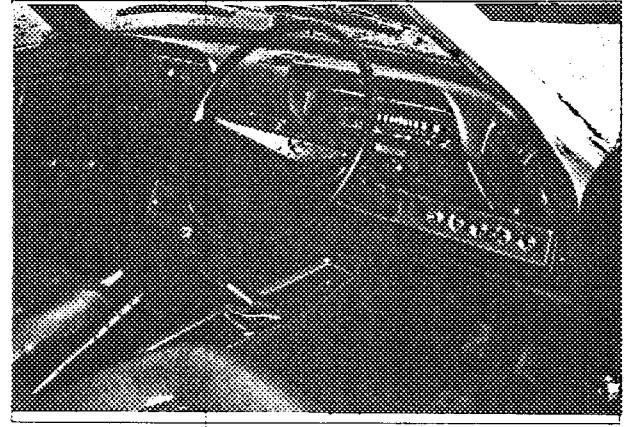
Photograph A,  $\frac{3}{4}$  view of car from front



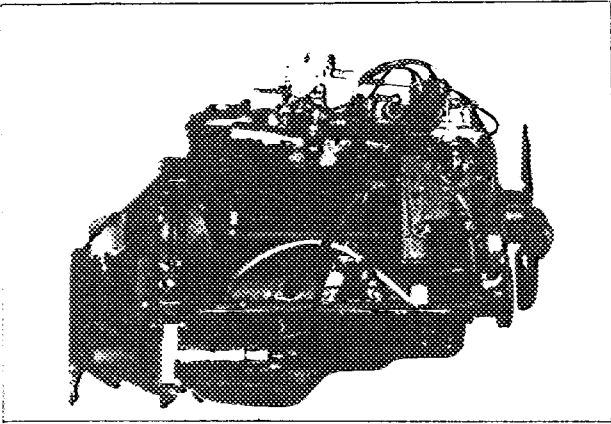
F.I.A. Stamp

*J. A.*

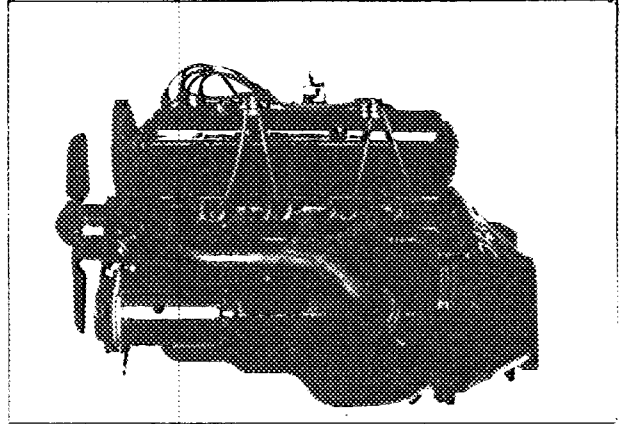
R.A.C. Stamp



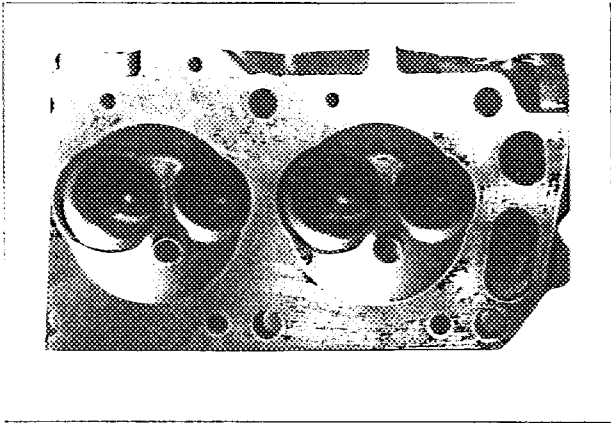
J



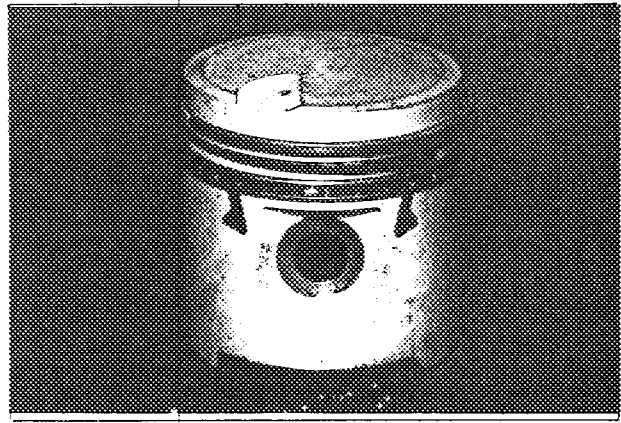
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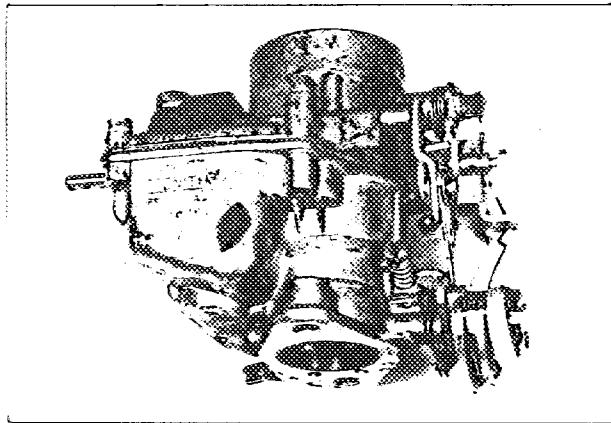
L



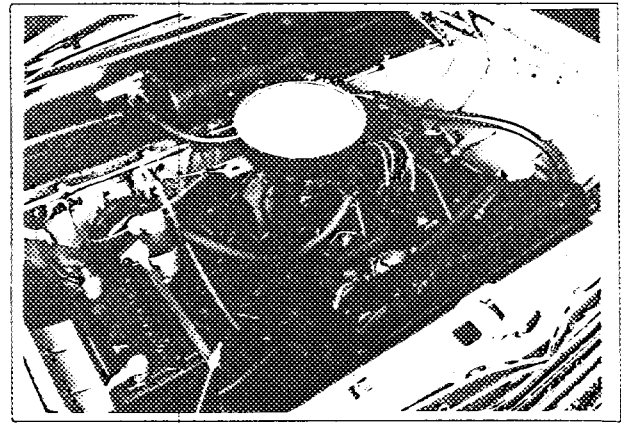
M



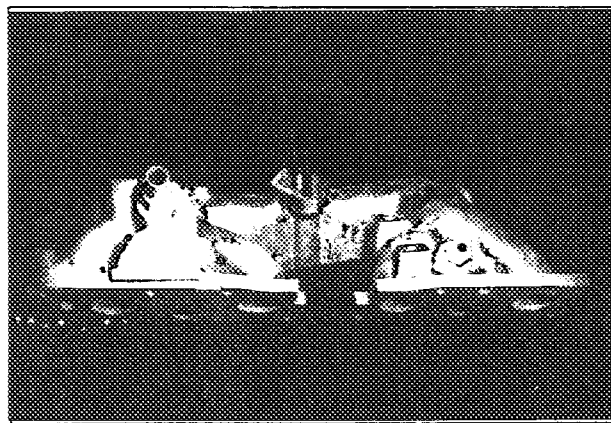
N



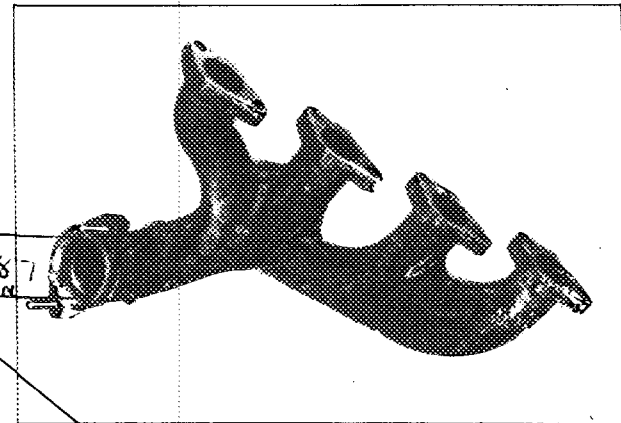
O



P



Q

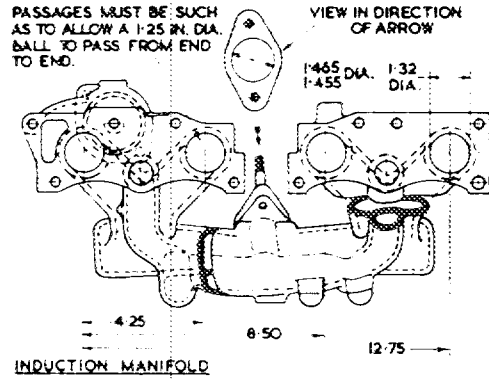


1.87

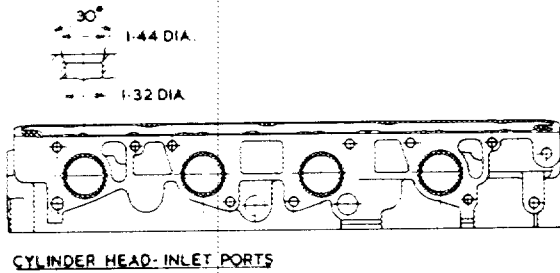
4.75mm

3

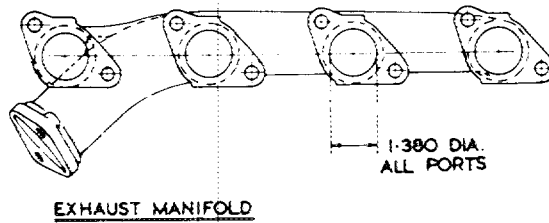
Drawing inlet manifold ports, side of cylinderhead. Indicate scale or dimensions and manufacturing tolerance.



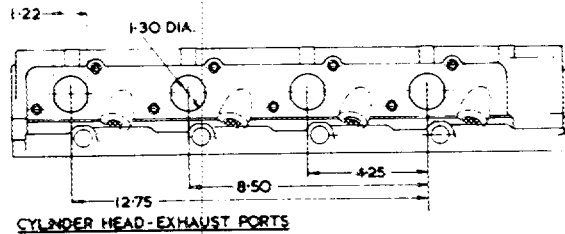
Drawing of entrance to inlet port of cylinderhead. Indicate scale or dimensions and manufacturing tolerance.



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.

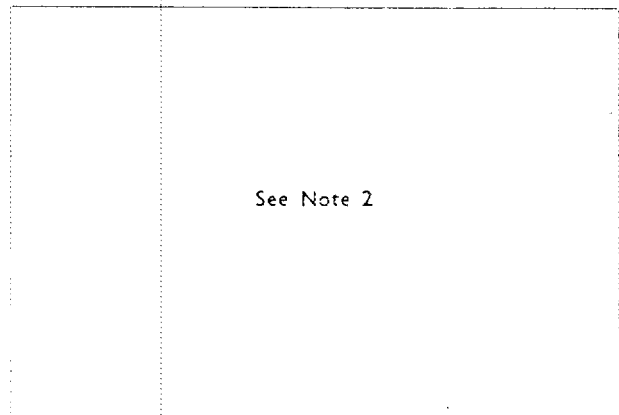
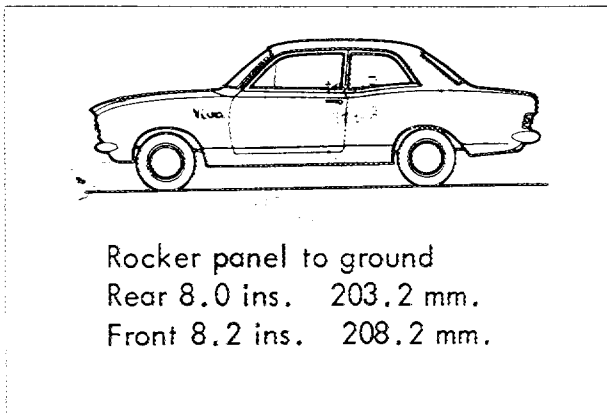


**NOTE 1.**

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

**CAPACITIES AND DIMENSIONS**

1. Wheelbase	2433.3 mm.	95.8 inches
2. Front track	1295 mm.	51 inches
3. Rear track	1295 mm.	51 inches



4. Overall length of the car	409.45 cm.	161.2 inches	
5. Overall width of the car	160.02 cm.	63 inches *	
6. Overall height of the car	135.39 cm.	53.3 inches	
7. Capacity of fuel tank (reserve included)	36.37 ltrs.	9.61 gall. U.S.	8.0 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 :	863.64 kg.	1904 lbs.	17 cwt.

**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. <sup>2</sup>	1 gallon Imp.	— 4.546	ltrs.
1 cubic inch/pouce cube	— 16.387	cm. <sup>3</sup>	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 2 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 None
- 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 — ~~xxx~~
- 39. Air conditioning : ~~xxx~~ — no
- 40. Ventilation : yes — ~~xxx~~
- 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 :
 

9.843	kg.	21.7	lbs.
-------	-----	------	------
- 43. Rear seats, type of seat and upholstery Blown PVC - spring case
- 44. Front bumper, material(s) Steel Weight 3.209 kg. 7.076 lbs.
- 45. Rear bumper, material(s) Steel Weight 3.299 kg. 7.274 lbs.

**WHEELS**

- 50. Type Disc
- 51. Weight (per wheel, without tyre) 3.81 kg. 8.41 lbs.
- 52. Method of attachment 4 stud
- 53. Rim diameter 304.8 mm. 12 ins. 54. Rim width 127 mm. 5.0 ins.  
or 330.2 13 139.7 5.5

**STEERING**

- 60. Type Rack and pinion
- 61. Servo-assistance : ~~xxx~~ — no
- 62. Number of turns of steering wheel from lock to lock 3.2
- 63. In case of servo-assistance

**SUSPENSION**

- 70. Front suspension (photograph D), type **Independent - wishbone**
- 71. Type of spring **Coil**
- 72. Stabiliser (if fitted) **Not fitted**
- 73. Number of shock absorbers **Two**                      74. Type **Telescopic - double acting**
- 78. Rear suspension (photograph E), type **Beam axle - 4 link suspension**
- 79. Type of spring **Coil**
- 80. Stabiliser (if fitted) **Not fitted**
- 81. Number of shock absorbers **Two**                      82. Type **Telescopic - double acting**

**BRAKES** (photographs F and G)

- 90. Method of operation **Hydraulic**
- 91. Servo-assistance (if fitted), type **Suspended vacuum**
- 92. Number of hydraulic master cylinders **One (option - twin master cylinder Code 474)**
- 93. Number of cylinders per wheel                      **Two FRONT**                      **One REAR**
- 94. Bore of wheel cylinder(s)                      **48.26 mm. 1.90 inches**                      **17.78 mm. 0.70 inches**

**Drum Brakes**

- 95. Inside diameter                      mm.                      inches                      **203.2 mm. 8.0 inches**
- 96. Length of brake linings                      mm.                      inches                      **159.51 mm. 6.28 inches**
- 97. Width of brake linings                      mm.                      inches                      **31.75 mm. 1.25 inches**
- 98. Number of shoes per brake                      **Two**
- 99. Total area per brake                      mm.<sup>2</sup>                      sq. in.                      **10136 mm.<sup>2</sup> 15.71sq. in.**

**Disc Brakes**

- 100. Outside diameter                      **213.36 mm. 8.4 inches**                      mm.                      inches
- 101. Thickness of disc                      **9.53 mm. .375 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                      **5032.6 mm.<sup>2</sup> 7.8 sq. in.**                      mm.<sup>2</sup>                      sq. in.

Make Vauxhall

Model Viva 1600

F.I.A. Rec. No. ....

**ENGINE** (photographs J and K)

- |   |                      |   |                                      |
|---|----------------------|---|--------------------------------------|
| 130. Cycle  | 4 stroke             | 131. Number of cylinders                | 4                                    |
| 132. Cylinder Arrangement   | 45° in-line          |   |                                      |
| 133. Bore   | 85.69 mm. 3.374 in.  | 134. Stroke                             | 69.2 mm. 2.726 in.                   |
| 135. Capacity per cylinder  |                      |   | 399.5 cm. <sup>3</sup> 24.38 cu. in. |
| 136. Total cylinder capacity  |                      |   | 1598 cm. <sup>3</sup> 97.52 cu. in.  |
| 137. Material(s) of cylinder block  | Chromidium cast iron | 138. Material(s) of sleeves (if fitted) | Not fitted                           |
| 139. Cylinder head, material(s)   | Chromidium cast iron | Number fitted                           | One                                  |
| 140. Number of inlet ports  | Four                 | 141. Number of exhaust ports            | Four                                 |
| 142. Compression ratio  | 8.5:1 (7.3:1 option) |   |                                      |
| 143. Volume of one combustion chamber                                       |                      |   | 50.84 cm. <sup>3</sup> 3.1 cu. in.   |
| 144. Piston, material   | Aluminium alloy      | 145. Number of rings                    | Three                                |
| 146. Distance from gudgeon pin centre line to highest point of piston crown |                      |   | 43.8 mm. 1.725 in.                   |
| 147. Crankshaft: moulded/ <del>xxxxxx</del>                                 |                      | 148. Type of crankshaft: integral/      | Yes.....                             |
| 149. Number of crankshaft main bearings                                     | Five                 |   |                                      |
| 150. Material of bearing cap  | Cast iron            |   |                                      |
| 151. System of lubrication: <del>xxxxxxx</del> /oil in sump                 |                      |   |                                      |
| 152. Capacity, lubricant  | 4.83 ltrs. 8.5 pts.  | 5.1                                     | quarts U.S.                          |
| 153. Oil cooler: <del>yes</del> /no   |                      | 154. Method of engine cooling           | Water                                |
| 155. Capacity of cooling system   | 7.67 ltrs. 13.5 pts. | 8.1                                     | quarts U.S.                          |
| 156. Cooling fan (if fitted) dia.   |                      | 34.93                                   | cm. 13.75 in.                        |
| 157. Number of blades of cooling fan  | Four                 |   |                                      |

**Bearings**

- |                                   |  |      |      |      |       |     |
|-----------------------------------|--|------|------|------|-------|-----|
| 158. Crankshaft main, type        |  | dia. | 63.5 | m.m. | 2.5   | in. |
| 159. Connecting rod big end, type |  | dia. | 50.7 | m.m. | 1.998 | in. |

**Weights**

- |   |                      |                     |          |        |      |
|---|----------------------|---------------------|----------|--------|------|
| 160. Flywheel (clean)                         |                      | 9.21                | kg.      | 20.3   | lbs. |
| 161. Flywheel with clutch (all turning parts) |                      | 14.46               | kg.      | 30.882 | lbs. |
| 162. Crankshaft                               | 17.09 kg. 37.69 lbs. | 163. Connecting rod | .785 kg. | 1.73   | lbs. |
| 164. Piston with rings and pin                |                      | .698                | kg.      | 1.53   | lbs. |



**FOUR STROKE ENGINES**

170. Number of camshafts **One** 171. Location **Housing on cylinder head**  
 172. Type of camshaft drive **External toothed belt**  
 173. Type of valve operation **Cam via inverted bucket tappet**

**INLET** (see page 4)\*

180. Material(s) of inlet manifold **Aluminium alloy casting**  
 181. Diameter of valves **43.05 mm. 1.695 ins.**  
 182. Max. valve lift **9.65 mm. .380 in.** 183. Number of valve springs **Two**  
 184. Type of spring **Helical 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) **33.26 BTDC**  
 188. Valves close at (with tolerance for tappet clearance indicated) **65.26 ATDC**  
 189. Air filter, type **Paper element**

**EXHAUST** (see page 4)\*

195. Material(s) of exhaust manifold **Cast iron**  
 196. Diameter of valves **36.07 mm. 1.695 ins.**  
 197. Max. valve lift **9.65 mm. .380 in.** 198. Number of valve springs **Two**  
 199. Type of spring **Helical coil** 200. Number of valves per cylinder **One**  
 201. Tappet clearance for checking timing (cold) **.203mm. .008 ins.**  
 202. Valves open at (with tolerance for tappet clearance indicated) **65.26 BBDC**  
 203. Valves close at (with tolerance for tappet clearance indicated) **33.26 ATDC**

**CARBURETION** (photograph N)

210. Number of carburettors fitted **One** 211. Type **Downdraught**  
 212. Make **Zenith** 213. Model **36 IV**  
 214. Number of mixture passages per carburettor **Single choke**  
 215. Flange hole diameter of exit port(s) of carburettor **36.02 mm. 1.418 ins.**  
 216. Minimum diameter of venturi/minimum diam., with piston at maximum height (example : SU)  
**29 mm. 1.142 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.**

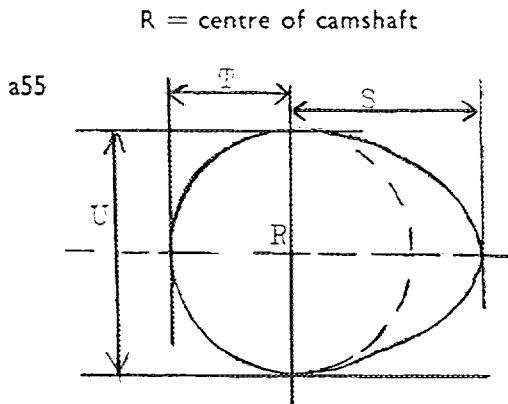
\* For additional information concerning two-stroke engines and super-charged engines, see page 13.

**ENGINE ACCESSORIES**

230. Fuel pump : mechanical ~~rock~~/~~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        In engine compartment
241. Voltage of battery        12                                volts

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

250. Max. engine output        83        (type of horsepower: BHP Gross ) at        5800        r.p.m.
251. Max. r.p.m.        6500        output at that figure        Not available for publication
252. Max. torque        90 lb/ft Gross                                at        3200        r.p.m.
253. Max. speed of the car        149.66 km./hour                                93        miles/hour



<u>Inlet cam</u>			
S =	28.879	mm.	1.137 inches
T =	19.050	mm.	0.750 inches
U =	38.125	mm.	1.501 inches
<u>Exhaust cam</u>			
S =	28.879	mm.	1.137 inches
T =	18.821	mm.	0.741 inches
U =	37.821	mm.	1.489 inches

Make Vauxhall

Model Viva 1600

F.I.A. Rec. No. ....

**DRIVE TRAIN**

**CLUTCH**

- 260. Type of clutch Diaphragm
- 261. No. of plates One
- 262. Dia. of clutch plates 20.39 cm. 8.03 ins.
- 263. Dia. of linings, inside 14.63 cm. 5.76 ins.
- outside 20.39 cm. 8.03 ins.
- 264. Method of operating clutch Cable linkage

**GEAR BOX** (photograph H)

- 270. Manual type, make Vauxhall Method of operation Lever and linkage
- 271. No. of gear-box ratios forward 4 272. Synchronized forward ratios 4
- 273. Location of gear-shift Floor central
- 274. Automatic, make Borg Warner type Model 35
- 275. No. of forward ratios Three 276. Location of gear shift Central - floor

277.	Manual		Automatic		Alternative manual/automatic			
	Ratio	No. teeth	Ratio	No. teeth	Ratio	No. teeth	Ratio	No. teeth
1	2.786:1	30/14	2.39 to	4.78:1				
2	1.981:1	32/21	1.45 to	2.9:1				
3	1.413:1	25/23	1.1 to	2 :1				
4	Direct							
5								
6								
reverse	3.064:1	33/14	2.09 to	4.18:1				

- 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) Friction - optional equipment
- 293. Final drive ratio 4.125:1 Number of teeth 8/33

**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.

- 92 Tandem master cylinder (Code 495)  
Heavy duty suspension (Code 357)
- 71 8810415 Front spring (2 off)
- 79 8810416 RH 8810457 LH Rear spring
- 78 Heavy duty axle
- 7 Fuel tank Part No. 7211279  
54.5 litres. 14.4 U.S. Galls. 12 Imp. Gall.

**Manufacturing Tolerances**

- 1. For all machined surfaces allow .075%
- 2. For all non-machined surfaces allow 2%
- 3. For weights of all part machined parts allow 2.5%
- 4. For weights of all completely machined parts allow 1.25%



MOTOR SPORT DIVISION  
The Royal Automobile Club,  
31 Belgrave Square, London, S.W.1

Manufacturer VAUXHALL MOTORS LT

Model VIVA 1600

F.I.A. Recognition No. 1534/1/IV

Amendment to.

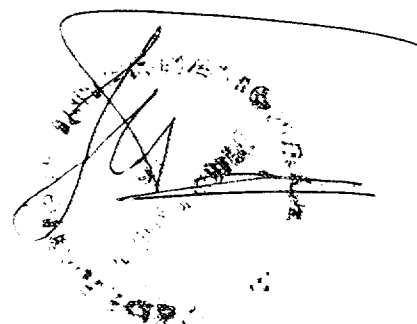
Amendment to Form of Recognition

FEDERATION INTERNATIONALE DE L'AUTOMOBILE

No.	Reference No.
293	<p style="text-align: center;">OPTIONAL FINAL DRIVE RATIO</p> <p>FINAL DRIVE RATIO 3.9:1 NUMBER OF TEETH 9/35</p>

Date amendment is valid from 1/4/1968

Liste 68/2



Stamp of F.I.A./R.A.C.

