F.I.A. Recognition No. 5493

Group

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 Limited

Serial No. of chassis/body 90000 - 101011

Serial No. of engine 3000000

Recognition is valid from

Cylinder-capacity 1759 cm.³ 107.4 in.³

Model HC Viva 1800

Manufacturer Vauxhall Motors Limited

Manufacturer Vauxhall Motors Limited

List

The manufacturing of the model described in this recognition form started on 1st January 19 72 and the minimum production of 5000 identical cars, in accordance with the specifications of this form was reached on 31st October 19 72

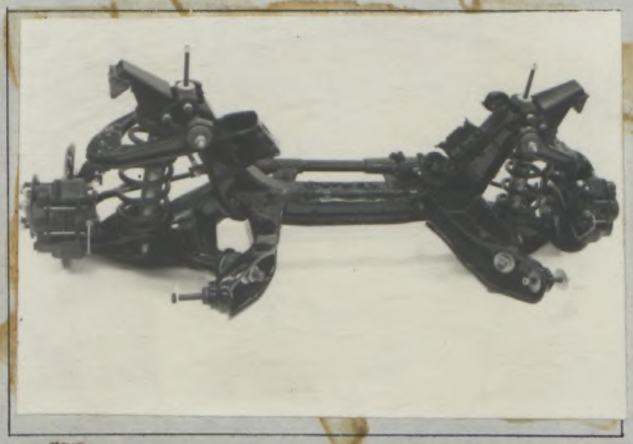
Photograph A, ¾ view of car from front

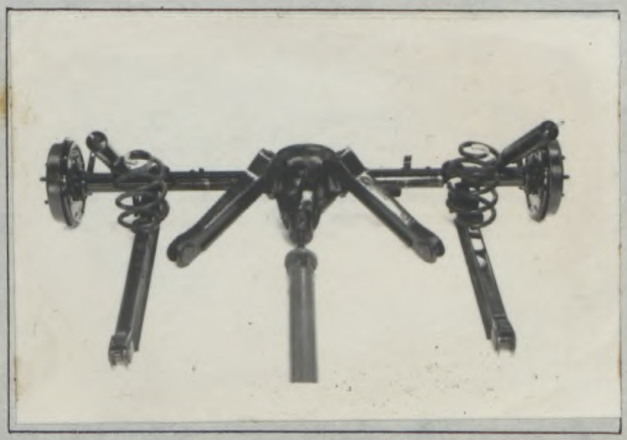
F.I.A. Stamp

R.A.C. Stamp

B

D





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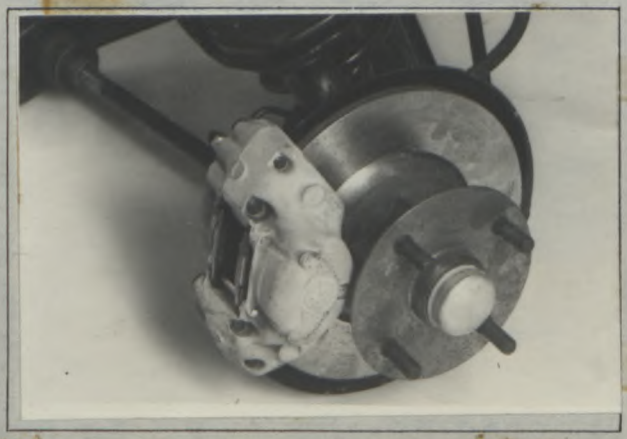

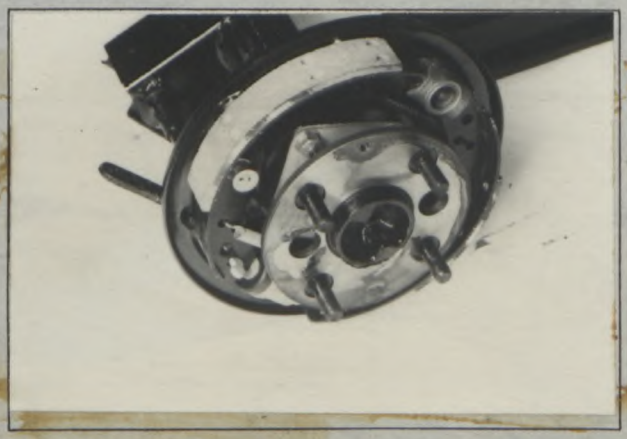

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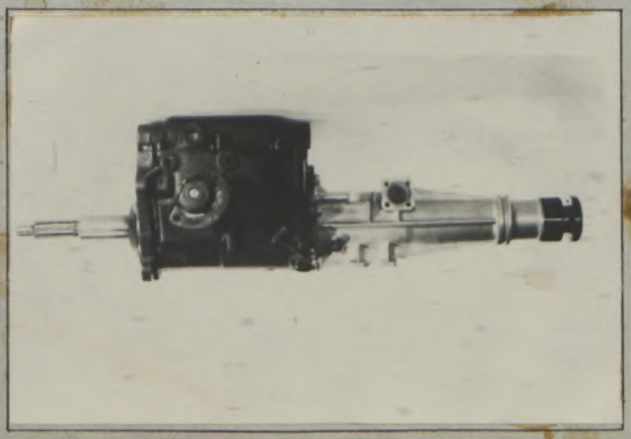
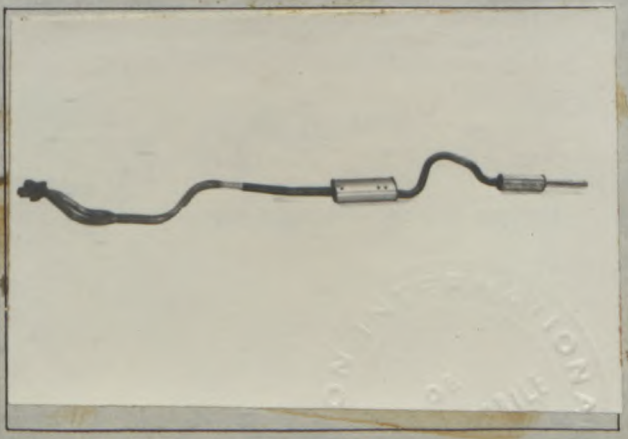
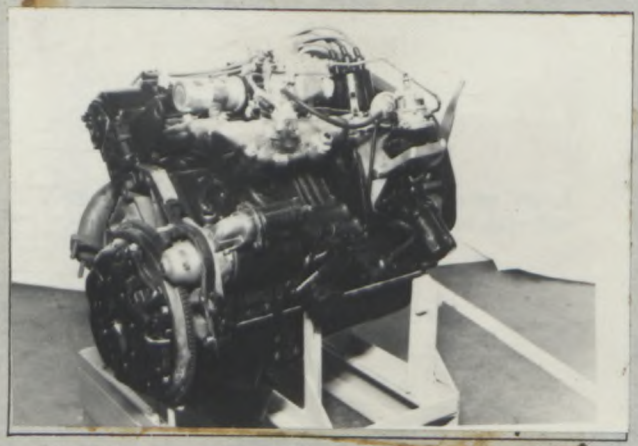




I

J



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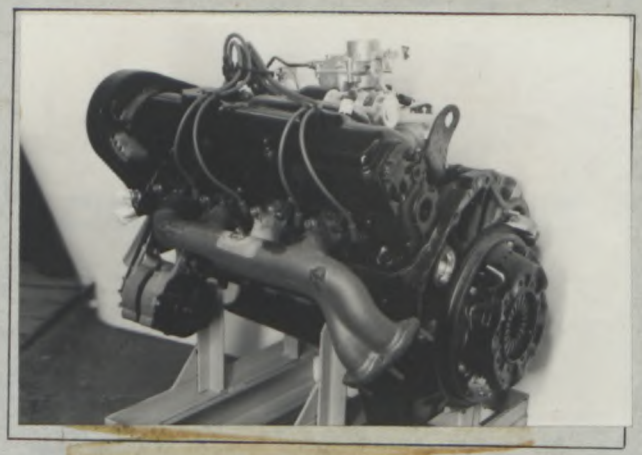

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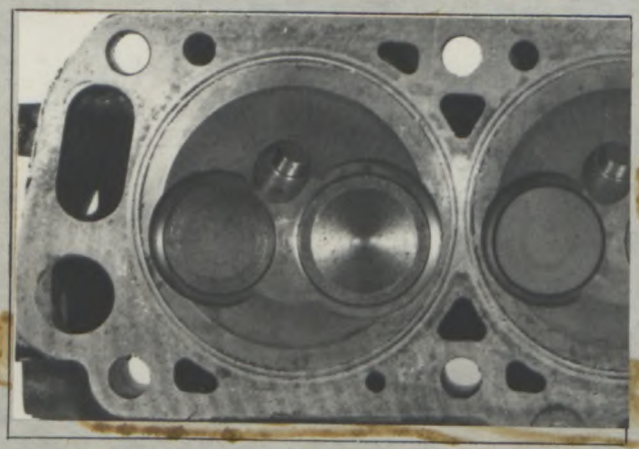

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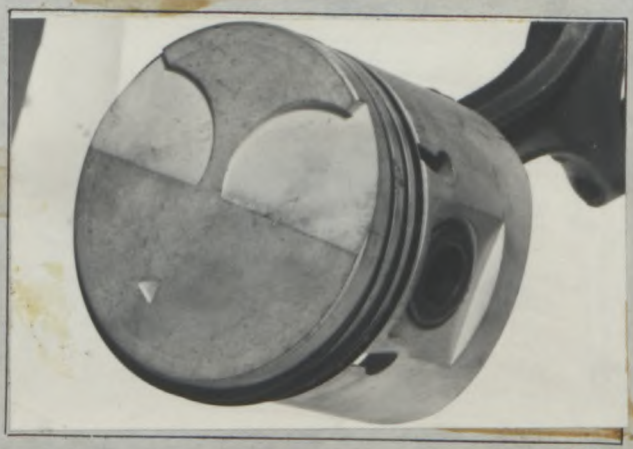

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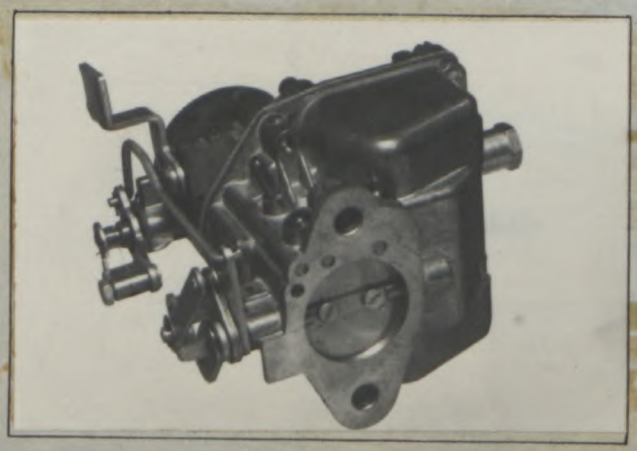

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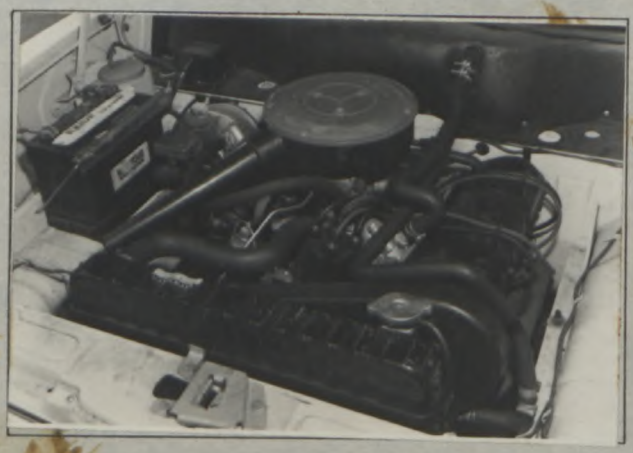
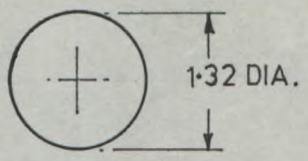


P

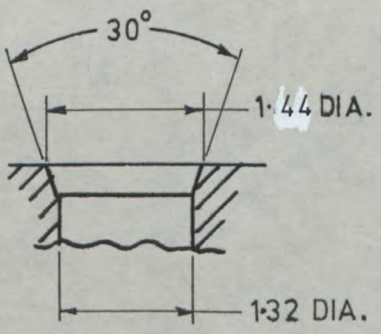
Q

Make Vauxhall Motors Model HC Viva 1800 F.I.A. Rec. No.

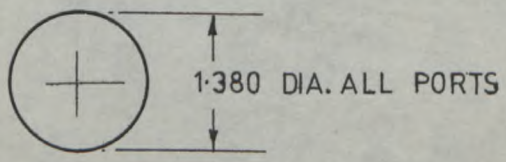
Drawing inlet manifold ports, side of cylinderhead. Indicate scale or dimensions and manufacturing tolerance.



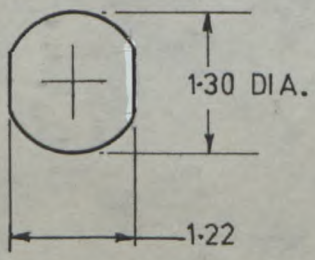
Drawing of entrance to inlet port of cylinderhead. Indicate scale or dimensions and manufacturing tolerance.



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.



Tolerance - ± .010 INS. .254 MM.

Make Vauxhall Motors Model HC Viva 1800 F.I.A. Rec. No.

NOTE 1.

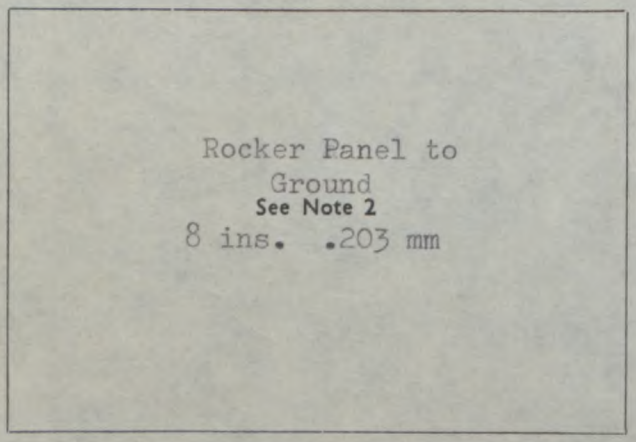
All dimensions must be given in two measuring systems, see Note 3.

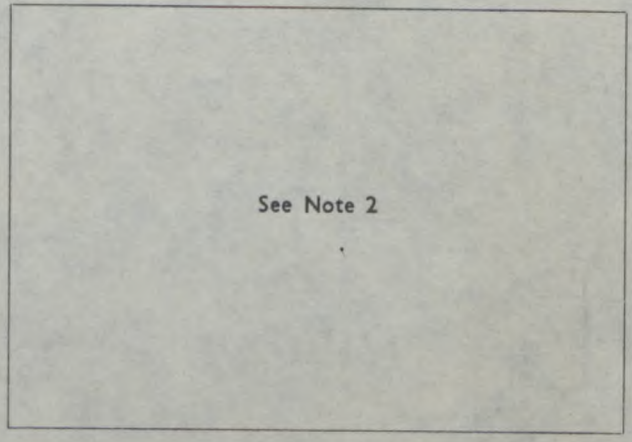
CAPACITIES AND DIMENSIONS

1. Wheelbase 2461 mm. 97 inches

2. Front track 1346 mm. 53 inches

3. Rear track 1308 mm. 51.5 inches





4. Overall length of the car 413.8 cm. 162.9 inches

5. Overall width of the car 164.3 cm. 64.7 inches
   b " " " " " at axle centres 164.3 cm. 64.7 inches

6. Overall height of the car 132.6 cm. 52.2 inches

7. Capacity of fuel tank (reserve included)

   54.5 ltrs. 14.4 gall. U.S. 12 gall. Imp.

8. Seating Capacity. 4

9. Weight. Total weight of the car with normal equipment, water, oil, and spare wheel but without fuel or repair tools :

   900 kg. 1985 lbs. 18.7 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.

Make Vauxhall Motors Model HC Viva 1800 F.I.A. Rec. No.

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 Laminated or Toughened Glass
28. Material(s) of windscreen Laminated or Toughened Glass
29. Material(s) of front-door windows Laminated or Toughened Glass
30. Material(s) of rear-door windows Laminated or Toughened Glass
31. Sliding system of door windows Gear Operated Drop Glass
32. Material(s) of rear-quarter light Laminated or Toughened 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 Tubular Frame Blown T.V.C.
42. Weight of front seat(s), complete with supports and rails, out of the car : 10.4 kg. 23 lbs.
43. Rear seats, type of seat and upholstery Spring Case P.V.C.
44. Front bumper, material(s) Steel Weight 3.6 kg. 8 lbs.
45. Rear bumper, material(s) Steel Weight 3.1 kg. 7 lbs.

WHEELS

50. Type Disc
51. Weight (per wheel, without tyre) 6.5 kg. 15 lbs.
52. Method of attachment 4 Stud
53. Rim diameter 330 mm. 13 ins. 54. Rim width 114 mm. 4.5 ins.

STEERING

60. Type Rack and Pinion
61. Servo-assistance : ~~yes~~ — no
62. Number of turns of steering wheel from lock to lock 3.16
63. In case of servo-assistance

Make Vauxhall Motors Model HC Viva 1800 F.I.A. Rec. No.

SUSPENSION

70. Front suspension (photograph D), type: Independant Wishbone
71. Type of spring: Coil
72. Stabiliser (if fitted): Torsion
73. Number of shock absorbers: 2
74. Type: Telescopic Double Acting
78. Rear suspension (photograph E), type: Beam Axle Link
79. Type of spring: Coil
80. Stabiliser (if fitted): Torsion
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 Servo
92. Number of hydraulic master cylinders: One - Tandem
93. Number of cylinders per wheel: 2 | 1

	FRONT		REAR	
94. Bore of wheel cylinder(s)	1.875 mm.	inches	19.05 mm.	.75 inches
Drum Brakes				
95. Inside diameter	mm.	inches	229 mm.	9 inches
96. Length of brake linings	mm.	inches	179 mm.	7.06 inches
97. Width of brake linings	mm.	inches	45 mm.	1.75 inches
98. Number of shoes per brake			Two	
99. Total area per brake	mm.²	sq. in.	207.1 mm.²	32.1 sq. in.
Disc Brakes				
100. Outside diameter	254.8 mm.	10.3 inches	mm.	inches
101. Thickness of disc	9.65 mm.	.038 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	5472 mm.²	8.9 sq. in.	mm.²	sq. in.

Make Vauxhall Motors Model HC Viva 1800 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 85.73 mm. 3.375 in.
134. Stroke 76.2 mm. 3 in.
135. Capacity per cylinder 439.8 cm.³ 107.4 cu. in.
136. Total cylinder capacity 1759 cm.³ 26.9 cu. in.
137. Material(s) of cylinder block Chrome Cast Iron
138. Material(s) of sleeves (if fitted) One
139. Cylinder head, material(s) " "
Number fitted One
140. Number of inlet ports 4
141. Number of exhaust ports 4
142. Compression ratio 8.5-1 (7.3-1 Option)
143. Volume of one combustion chamber 50.8 cm.³ 3.1 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 39 mm. 1.536 in.
147. Crankshaft : moulded/~~stamped~~
148. Type of crankshaft: integral/.....Yes.....
149. Number of crankshaft main bearings 5
150. Material of bearing cap Cast Iron
151. System of lubrication : ~~dry sump~~/oil in sump
152. Capacity, lubricant 4.8 ltrs. 8.5 pts. 5.1 quarts U.S.
153. Oil cooler : ~~yes~~/no
154. Method of engine cooling Water
155. Capacity of cooling system 7.96 ltrs. 14 pts. 8.4 quarts U.S.
156. Cooling fan (if fitted) dia. 33 cm. 13 in.
157 Number of blades of cooling fan 8

Bearings

158. Crankshaft main, type White Metal or Copper Lead dia. 63.5 m.m. 2.5 in.
159. Connecting rod big end, type " " " " dia. 50.7 m.m. 2 in.

Weights

160. Flywheel (clean) 9.2 kg. 20.3 lbs.
161. Flywheel with clutch (all turning parts) 15 kg. 33 lbs.
162. Crankshaft 17 kg. 37.6 lbs.
163. Connecting rod .78 kg. 1.7 lbs.
164. Piston with rings and pin .7 kg. 1.5 lbs.

Make Vauxhall Motors Model HC Viva 1800 F.I.A. Rec. No.

FOUR STROKE ENGINES

170. Number of camshafts One
171. Location Cylinder Head Housing
172. Type of camshaft drive Belt
173. Type of valve operation Cam via Bucket Tappet

INLET (see page 4)*

180. Material(s) of inlet manifold Aluminium
181. Diameter of valves 42.9 mm. 1.688 ins.
182. Max. valve lift 9.84 mm. .387 in.
183. Number of valve springs 2
184. Type of spring Coil
185. Number of valves per cylinder One
186. Tappet clearance for checking timing (cold/warm) .18-.25 mm. .007-.010 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° ABDC
189. Air filter, type Paper Element

EXHAUST (see page 4)*

195. Material(s) of exhaust manifold Cast Iron
196. Diameter of valves 36 mm. 1.415 ins.
197. Max. valve lift 10.06 mm. .396 in.
198. Number of valve springs 2
199. Type of spring Coil
200. Number of valves per cylinder One
201. Tappet clearance for checking timing (cold/warm) .38-.45 mm. .015-.018 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° ATDC
204. Diameter outlet orifice exhaust manifold 48 mm. x2 1.92 ins. x2

CARBURETION (photograph N)

210. Number of carburettors fitted One
211. Type Downdraught
212. Make Zenith
213. Model 361V
214. Number of mixture passages per carburettor Single Choke
215. Flange hole diameter of exit port(s) of carburettor 36 mm. 1.42 ins.
216. Minimum diameter of venturi/minimum diam., with piston at maximum height (example : SU) 29 mm. 1.14 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.

Make Vauxhall Motors Model HC Viva 1800 F.I.A. Rec. No.

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 In Engine Compartment

241. Voltage of battery 12 volts

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

250. Max. engine output 90 BHP (type of horsepower: BHP) at 5500 r.p.m.

251. Max. r.p.m. output at that figure Not Published

252. Max. torque 140 lbs/ft at 3000 r.p.m.

253. Max. speed of the car 148 km./hour 92 miles/hour

R = centre of camshaft

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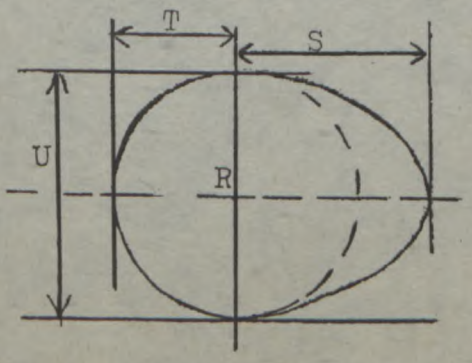

Inlet cam

S =	28.9	mm.	1.137	inches
T =	19	mm.	.750	inches
U =	38.1	mm.	1.5	inches

Exhaust cam

S =	28.9	mm.	1.137	inches
T =	18.8	mm.	.741	inches
U =	37.7	mm.	1.488	inches

Make Vauxhall Motors Model HC Viva 1800 F.I.A. Rec. No.

DRIVE TRAIN

CLUTCH

260. Type of clutch Diaphram

261. No. of plates One

262. Dia. of clutch plates 21.6 cm. 8.5 ins.

263. Dia. of linings, inside 14.7 cm. 5.76 ins.

outside 20.4 cm. 8.03 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 Floor Central

274. Automatic, make General Motors type

275. No. of forward ratios 3 276. Location of gear shift Floor Central

277.	Manual		Automatic		Alternative manual/automatic			
	Ratio	No. teeth	Ratio	No. teeth	Ratio	No. teeth	Ratio	No. teeth
1	3.3-1	33/13	2.4 To	4.8-1	2.521-1	30/14		
2	2.141-1	28/17	1.48 To	2.96-1	1.765-1	27/18		
3	1.362-1	22/21	1-1 To	2-1	1.353-1	23/20		
4	DIRECT				DIRECT			
5								
6								
reverse	3.064-1	33/14	1.92 To	3.84-1	3.064-1	33/14		

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 2 Pinion

292. Type of limited slip differential (if fitted in series-production) N/F

293. Final drive ratio 3.727-1 Number of teeth 11/41
3.455-1 11/38

Make Vauxhall Motors Model HC Viva 1800 F.I.A. Rec. No.....

IMPORTANT:

During the scrutineering of cars entered in group 5 (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.

FACTORY FITTED OPTIONS

Wheels
(50) Disc (51) 6.5 KG 15 lbs. (53) 330.2 13 ins. (54) 127 mm 5 ins.
78 Heavy Duty Rear Suspension Inc. Adjustable Shock Absorbers.

TERRITORY OPTION

Coachlines Decals SL DL

TOLERANCES

1. Machined Surfaces 2%
2. Non Machined surfaces 10%
3. Weights of Part Machined Parts 5%
4. Weights of Machined Parts 3%