F.I.A. Recognition No. 5186

Group 1 - Series - Production

Towning



# ROYAL AUTOMOBILE CLUB

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

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

	Cylinder-capacity
Manufacturer VAUXHALL MOTORS LIMITED	Model VICTOR 2000 168
Serial No. of chassis/body 945698V100001	Manufacturer VAUXHALL
Serial No. of engine 3000001	Manufacturer VAUXHALL
Recognition is valid from 1st Jan. 1968	List 1968/1
Serial No. of engine 3000001  Recognition is valid from 1st Jan 1968  The manufacturing of the model described in this recogn	nition form started on 1st SEPTEMBER 19 67
and the minimum production of 5,000 id	
this form was reached on 28th NOVEMBER 19 67	

#### Photograph A, 3 view of car from front





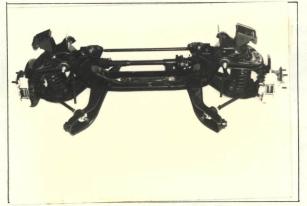
R.A.C. Stamp

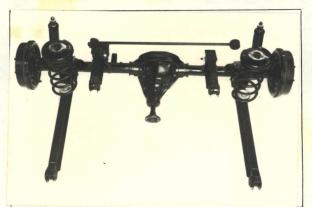
D

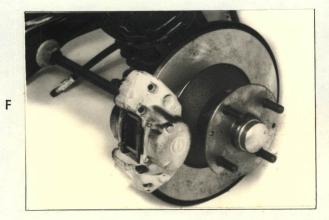
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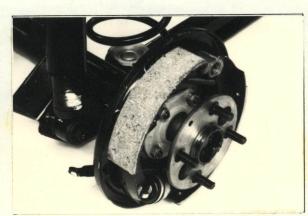


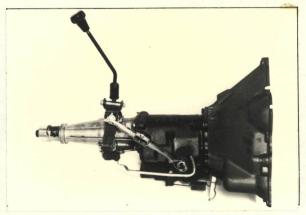


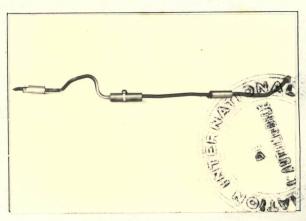




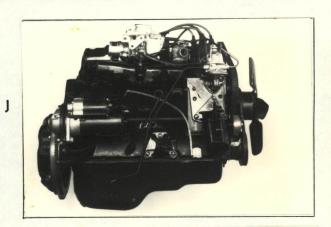


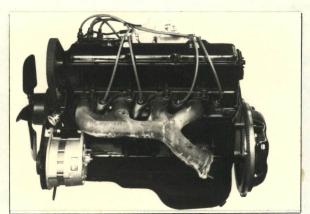




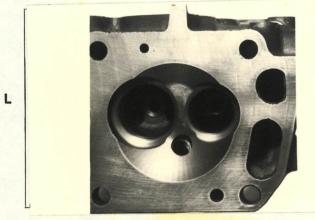


E





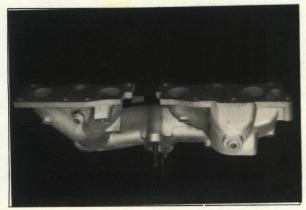
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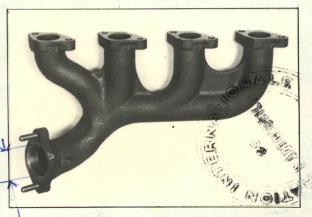








P



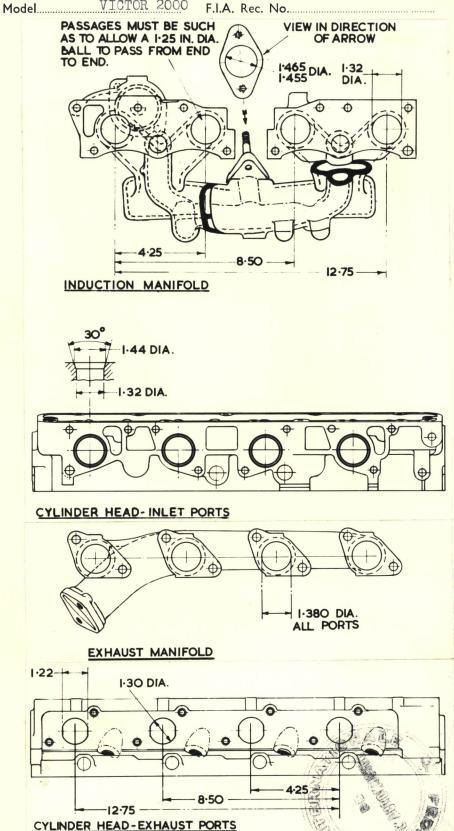
3

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.

Model...

#### CAPACITIES AND DIMENSIONS

1. Wheelbase

2590.8

102 inches

2. Front track

3. Rear track

1386.8

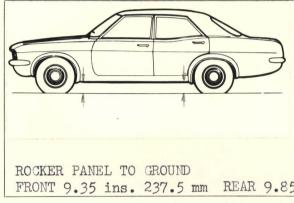
mm.

54.6 inches 1371.6

mm.

mm.

54.0 inches



See Note 2

REAR 9.85 ins. 250.2 mm.

4.	Overall	length	of	the	car	
----	---------	--------	----	-----	-----	--

448.8

176.7

inches

5. Overall width of the car

169.9

cm. cm.

66.9 inches

6. Overall height of the car

131.3

cm.

51.7 inches

7. Capacity of fuel tank (reserve included)

54.32 Itrs. 14.35 gall. U.S.

11.95

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:

1061.8 kg.

2341 lbs.

20.9

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 foot/pied — 30.4794 cm. 1 pint (pt)	
1 sq. inch/pouce carre — 6.452 cm. <sup>2</sup> 1 gallon lmp.	
1 cubic inch/pouce cube — 16.387 cm. <sup>3</sup> 1 gallon US	
l pound/livre (lb) — 453.593 gr. l hundred weight (cv	wt.)

lbs.

### 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

STEEL 23. Material(s) of coachwork

STEEL Material(s) 24. Number of doors

STEEL 25. Material(s) of bonnet

STEEL 26. Material(s) of boot lid

LAMINATED OR TOUGHENED GLASS 27. Material(s) of rear-window

28. Material(s) of windscreen

29. Material(s) of front-door windows 11

30. Material(s) of rear-door windows GEAR OPERATED DROP GLASS 31. Sliding system of door windows

NONE 32. Material(s) of rear-quarter light

#### **ACCESSORIES AND UPHOLSTERY**

38. Interior heating: yes - no-39. Air conditioning: yes - no

41. Front seats, type of seat and upholstery TUBULAR FRAME 40. Ventilation : yes - no-- BLOWN P.V.C.

42. Weight of front seat(s), complete with supports and rails, out of the car:

30.12 13.66 kg. FORMED WIRE SPRING FRAME - BLOWN P.V.C. 43. Rear seats, type of seat and upholstery

9.640 44. Front bumper, material(s) STEEL Weight 4.37 kg. lbs.

STEEL 45. Rear bumper, material(s) Weight 9.200 4.17 kg. lbs.

# WHEELS

DISC 50. Type

51. Weight (per wheel, without tyre) 5.41 11.920 lbs. kg.

52. Method of attachment 4 STUD

139.7 13 53. Rim diamete 330.2 mm. ins. 54. Rim width mm.

### STEERING

RACK & PINION 60. Type

61. Servo-assistance: yes - no

62. Number of turns of steering wheel from lock to lock

63. In case of servo-assistance

#### **SUSPENSION**

- 70. Front suspension (photograph D), type INDEPENDENT WISHBONE UPPER ARM SINGLE LOWER ARM WITH CONTROL ROD
- 71. Type of spring COIL
- 72. Stabiliser (if fitted) 0.76 dia. bar
- 73. Number of shock absorbers TWO 74. Type TELESCOPIC DOUBLE ACTING
- 78. Rear suspension (photograph E), type

  BEAM AXLE 4 PARALLEL LINK SUSPENSION WITH

  LATERAL PANHARD CONTROL ROD.
- 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

93. Number of cylinders per wheel

- 91. Servo-assistance (if fitted), type GIRLING DIRECT ACTING VACUUM SERVO
- 92. Number of hydraulic master cylinders ONE

94.	Bore of wheel cylinder(s)	48.26	mm.	1.90 inches	19.05mm. 0.75	inches

TWO

# Drum Brakes

- 95. Inside diameter mm. inches 228.6 mm. 9 inches
- 96. Length of brake linings mm. inches 179.32 mm. 7.06 inches 219.46 8.64 TRAILING
- 97. Width of brake linings mm. inches 219.46 8.64 T
- 98. Number of shoes per brake
- 99. Total area per brake mm.<sup>2</sup> sq. in. 16659 mm.<sup>2</sup> 25.82 sq. in.

# Disc Brakes

- 100. Outside diameter 254.8 mm. 10.03nches
- 101. Thickness of disc 9.65 mm. 0.38nches
- 102. Length of brake linings mm. inches
- 103. Width of brake linings mm. inches
- 104. Number of pads per brake 2
- 105. Total area per brake 5742.3 mm.<sup>2</sup> 8.9 sq. in.

mm. inches
mm. inches
mm. inches

mm.<sup>2</sup> sq. in.

<b>ENGINE</b>	(photographs	J and	K)
	/L	,	/

130. Cycle 4 - STROKE 131. Number of cylinders

132. Cylinder Arrangement 45° IN LINE

133. Bore 95.25 mm. 3.750 in. 134. Stroke 69.24 mm. 2.726 in.

135. Capacity per cylinder 493.38 cm.<sup>3</sup> 30.11 cu. in.

136. Total cylinder capacity 1973.52 cm.<sup>3</sup> 120.43 cu. in.

137. Material(s) of cylinder block CHROMIDIUM CAST TRON 138. Material(s) of sleeves (if fitted) NOT FITTED

139. Cylinder head, material(s) CHROMIDIUM GAST IRONumber fitted ONE

140. Number of inlet ports 2.574 141. Number of exhaust ports 4

142. Compression ratio 8.5:1 (OPT. 7.3:1)

143. Volume of one combustion chamber 50.84 cm.<sup>3</sup> 3.1 cu. in.

144. Piston, material ALLUMINIUM ALLOY 145. Number of rings 3

146. Distance from gudgeon pin centre line to highest point of piston crown
43.81 mm. 1.725 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 4.83 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 7.67 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 4

### Bearings

158. Crankshaft main, type COPPER/LEAD dia.63.513/63.500m.m. 2.5005/2.5000h.

159. Connecting rod big end, type COPPER/LEAD dia.50.762/50.737m.m. 1.9925/1.9975n

# Weights

160. Flywheel (clean) WITH RING GEAR 9.21 kg. 20.30 lbs

161. Flywheel with clutch (all turning parts)

15.42 kg. 33.99 bs

162. Crankshaft 17.09 kg. 37.69 lbs. 163. Connecting rod 0.785 kg. 1.731 lbs.

164. Piston with rings and pin 0.834 kg. 1.839 lbs.

#### **FOUR STROKE ENGINES**

170. Number of camshafts ONE 171. Location HOUSING MOUNTED ON CYLINDER HEAD

172. Type of camshaft drive EXTERNAL TOOTHED BELT

173. Type of valve operation CAM VIA INVERTED BUCKET TAPPET DIRECT TO VALVE

### 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 9.626 mm. 0.379 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) 0.1778/0.2286 mm. .007/.009 ins.

187. Valves open at (with tolerance for tappet clearance indicated) 33° 26¹ 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 36.07 mm. 1.420 ins.

197. Max. valve lift 9.626 mm. 0.379 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) 0.3556/0.4318 mm. .014/.017 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

# CARBURETION (photograph N)

210. Number of carburettors fitted 1 211. 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 36.02 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.

VICTOR 2000 Model.....

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

### **ENGINE ACCESSORIES**

230. Fuel pump: mechanical and/or electrical

231. No. fitted ONE

COIL

232. Type of ignition system

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

237. Method of drive

BELT

238. Voltage of generator

12 volts

239. Battery, number

ONE

240. Location

IN ENGINE COMPARTMENT

241. Voltage of battery

252. Max. torque

12 volts

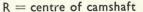
# ENGINE AND CAR PERFORMANCES (as declared by manufacturer in catalogue)

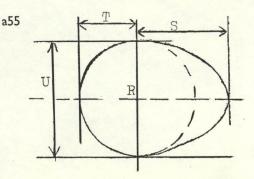
5,800 BHP (GROSS) at (type of horsepower: r.p.m. 104 250. Max. engine output

NOT AVAILABLE FOR PUBLICATION output at that figure 6,500 251. Max. r.p.m.

3,200 r.p.m. at 116 LB/FT (GROSS)

miles/hour km./hour 95 253. Max. speed of the car 152.9





# Inlet cam

inches 28.879 S =mm. inches T =mm. 19.050 inches 38.125 mm.

# Exhaust cam

1:137 inches S = 28.879 mm. 0.741 18.821 inches mm. inches U =mm. 1.489 37.821 10

#### **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

m. 5.76

ins.

outside

20.39

cm. 8.03

ins.

264. Method of operating clutch MECHANICAL - CABLE

### GEAR BOX (photograph H)

270. Manual type, make VAUXHALL

Method of operation

LEVER & LINKAGE

271. No. of gear-box ratios forward 3(4 OPTIONAL)272. Synchronized forward ratios

d ratios ALL

4 SPEED FLOOR - CENTRAL

273. Location of gear-shift

274. Automatic, make

BORG WARNER

type

MODEL 35

275. No. of forward ratios

THREE

3 SPEED ON COLUMN

276. Location of gear shift

CENTRAL - FLOOR

277.	Manual Ratio No. teeth	Automatic Ratio No. teeth	Alternative manual/automatic Ratio No. teeth Ratio No. teeth
1	2.866:1 31/14	2.39:1 TO 4.78:1	
2	1.635:1 24/19	1.45:1 TO 2.9:1	1.941:1 27/18
3	DIRECT	1:1 to 2:1	1.355:1 22/21
4			DIRECT
5			
6			
reverse	3.050:1 33/14	2.09:1 to 4.18:	1 3.050 1 33/14

278. Overdrive, type

LAYCOCK TYPE 'J'

279. Forward gears on which overdrive can be selected

THIRD AND TOP GEARS

280. Overdrive ratio

0.778:1

# FINAL DRIVE

290. Type of final drive

HYPOID

291. Type of differential

292. Type of limited slip differential (if fitted)

293. Final drive ratio

3.9:1 (OR 4.125)

Number of teeth

10/39 (OR 8/33 OPTION CODE 276)

Make.

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:

Model..

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

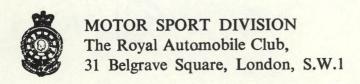
Optional equipment affecting preceding information. This to be stated together with reference number.

NO. REF. NO.

		HEAVY DUTY SUSPENSION - CODE 357
1	71	8810415 - FRONT SPRING (2 OFF)
	79	8810416 RH, 8810457 LH:- REAR SPRING
		HEAVY DUTY AXLE - CODE 397
2	78	7211474 - REAR AXLE 8/33 (_ group 2 only .
		7211468 - REAR AXLE 10/39

### Manufacturing tolerances.

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



Manufacturer Vauxhall Motors Ltd. Model Victor F.I.A. Recognition No. 5186/1 Amendment No. 1 to F.I.A. No.

Amendment to Form of Recognition

### FEDERATION INTERNATIONALE DE L'AUTOMOBILE

No.

68/2 Reference No.

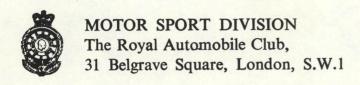
1



Photograph A 3 view of car from front. Group 2

Date amendment is valid from 181 March 1968.

List 1968/4



Manufacturer Vauxhall Motors Ltd.

Model Victor

F.I.A. Recognition No. 5/86/2/2/

Amendment No. 2 to F.I.A. No.

5186

Amendment to Form of Recognition

### FEDERATION INTERNATIONALE DE L'AUTOMOBILE

No.

Reference No. 68/2

2





Photograph B  $\frac{3}{4}$  view of car from Rear

Photograph C interior view of car through Drivers door

3

Identical with Victor 2000 (F.I.A. Recognition No. 5186) Apart from trim styles and materials.

4

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

1032.37 KG

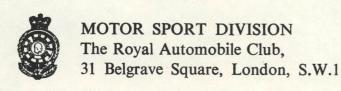
2276 LBS

20.3 CWTS

Group 2

Date amendment is valid from

1st March 1968 hist 1968/34 Stamp of F.I.A./R.A.C.



Manufacturer VAUXHALL MOTORS LTD.

Model VICTOR 2000

F.I.A. Recognition No. 5186

Amendment No. 3/3U

Amendment to Form of Recognition

### FEDERATION INTERNATIONALE DE L'AUTOMOBILE

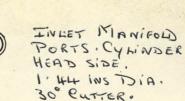
No.

Reference No.

INLET MANIFOLD AND CARBURETTOR



PHOTOGRAPH N INLET MANIGOLD CARBURETTOR PORT. 1.84 ins DiA. 30° CUTTER.





180 MATERIAL. ALUMINIUM Alloy.

211 TYPE. VARIABLE CHOKE

213 MODEL. 175 CD. 216 MINIMUM DIA. OF VENTURI. 31.75 MM. 1.250 INS.

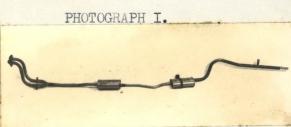
210 NUMBER OF CARBURETTORS. 1

212 MAKE. ZENITH

215 FLANGE HOLE DIA. 44.45 MM 1.750 INS.

EXHAUST SYSTEM







MANIFOLD CYLINDER HEAD EXHAUST 1.38 ins DiA.

195 CAST IRON

EXHAUST PORT OF CYLINDER HEAD UNCHANGED

Date amendment is valid from 1/1/73

70/1

EXHAUST MANIFOLD. TWIN EXIT.

.92 ins DiA.

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