

Group ...



## ROYAL AUTOMOBILE CLUB

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

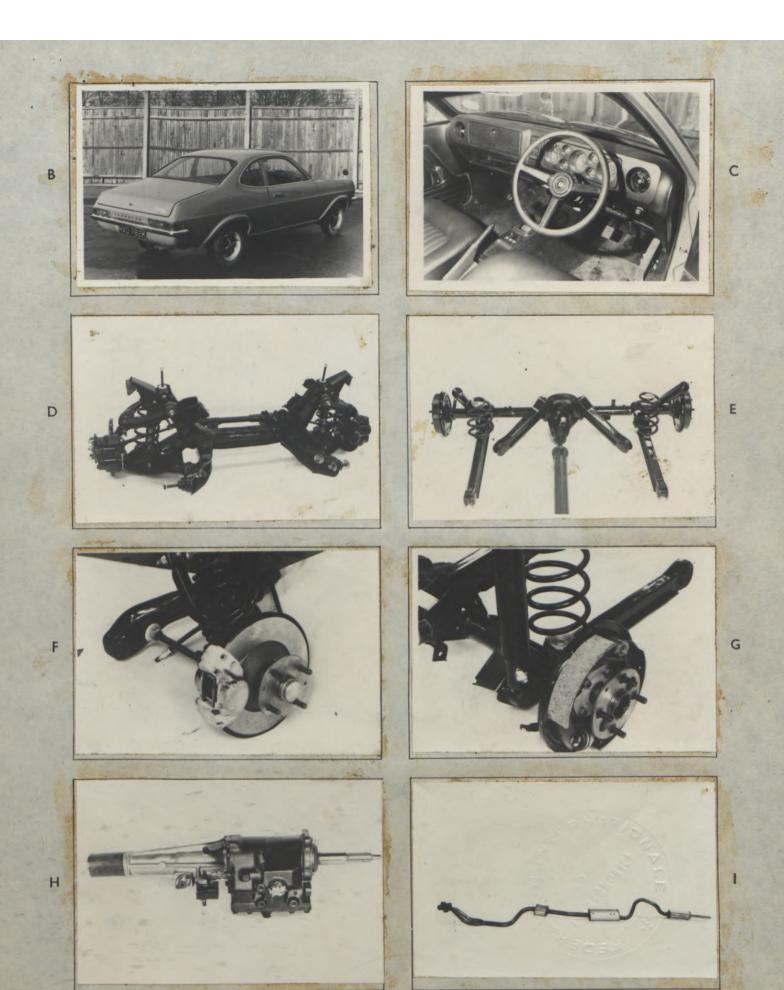
Form of recognition in accordance with appendix J to the International Sporting Code of the FEDERATION INTERNATIONALE DE L'AUTOMOBILE

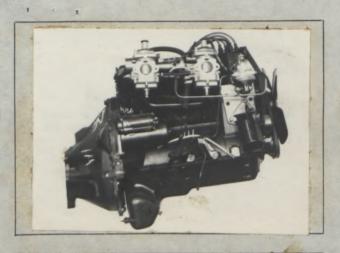
	Cylinder-capacity 2279 cm. <sup>3</sup> 139 in. <sup>3</sup>
Manufacturer VAUXHALL MOTORS LTD.	Model HC. VIVA FIRENZA 2300
Serial No. of chassis/body 145574	Manufacturer VAUXHALL MOTORS LTD.
Serial No. of engine 153607	Manufacturer WAUXHALL MOTORS LTD.
Recognition is valid from	. List
The manufacturing of the model described in this re	ecognition form started on 1ST JANUARY 19 72
	identical cars, in accordance with the specifications of

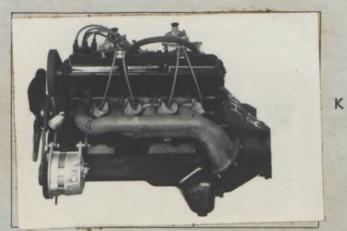
Photograph A, 1 view of car from front

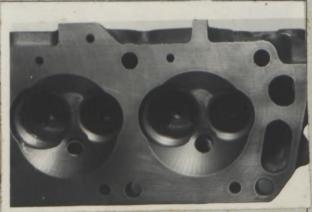


R.A.C. Stamp

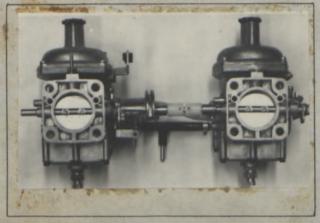




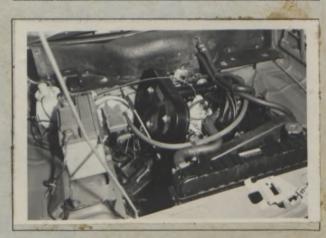


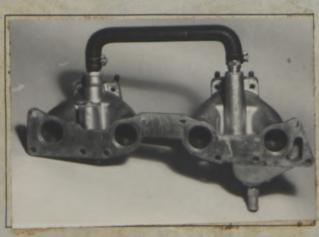






N





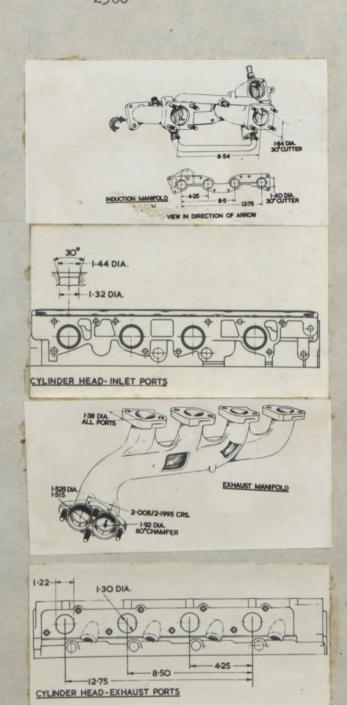


Drawing inlet manifold ports, side of cylinderhead. Indicate scale or dimensions and manufacturing tolerance.

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	2461	mm.	97 inches
2. Front track	3. Rear track		

1314 mm. 51,75 inches 1314 51,75 inches mm.

See Note 2 ROCKER PANEL TO GROUND FRONT 8 INS. 203 MM. REAR 8 INS. 203 MM.

See Note 2

4.	Overall length of the car	413,5	cm.	162,8 inches
5.	Overall width of the car	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)			

Itrs. 14,4 gall. U.S. 54,5 12 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:

> kg. lbs. 18, 12 cwts. 920 2030

#### 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	Itrs.
1 foot/pied	— 30.4794	cm.	1 pint (pt)	-	0.568	Itrs.
1 sq. inch/pouce carre	- 6.452	cm.2	1 gallon Imp.	-	4.546	Itrs.
1 cubic inch/pouce cube	— 16.387	cm.3	1 gallon US	-	3.785	Itrs.
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 constructi	20.	Chassis/body	construction:	separate/unitary	constructio
--	-----	--------------	---------------	------------------	-------------

21.	Unitary	construction,	material(s)	STEEL
200				

22. Separate construction, Material(s) of chassis

23. Material(s) of coachwork STEEL STEEL 24. Number of doors 2 Material(s)

STEEL 25. Material(s) of bonnet

STEEL 26. Material(s) of boot lid

LAMINATED OR TOUGHENED GLASS 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

NONE 30. Material(s) of rear-door windows GEAR OPERATED DROP GLASS

31. Sliding system of door windows LAMINATED OR TOUGHENED GLASS

32. Material(s) of rear-quarter light

#### **ACCESSORIES AND UPHOLSTERY**

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

40. Ventilation 41. Front seats, type of seat and upholstery TUBULAR FRAME : yes - 40 BLOWN PVC 42. Weight of front seat(s), complete with supports and rails, out of the car:

23 10,4 lbs.

43. Rear seats, type of seat and upholstery SPRING CASE. PVC

44. Front bumper, material(s) Weight 8 lbs. STEEL 3,6 kg. 45. Rear bumper, material(s) STEEL 3,1 Weight kg. lbs.

#### WHEELS

DISC 50. Type

51. Weight (per wheel, without tyre) 6,8 15 kg. lbs.

52. Method of attachment 4 STUD

515 53. Rim diameter 330,2 mm. 13 140 54. Rim width ins. mm. ins.

#### STEERING

- RACK AND PINION 60. Type
- 61. Servo-assistance: yes \_\_ no
- 62. Number of turns of steering wheel from lock to lock 3,16
- 63. In case of servo-assistance

#### SUSPENSION

70.	Front suspension (photograph D), type		INDEPENDE	NT - WISHBOI	Œ	
71.	Type of spring		COIL			
72.	Stabiliser (if fitted)		FITTED			
73.	Number of shock absorbers	2	74. Type	TELESCOPIC	DOUBLE	ACTING
78.	Rear suspension (photograph E), type		BEAM AXIE	4 LINK		
79.	Type of spring		COIL			
80.	Stabiliser (if fitted)		FITTED			
81.	Number of shock absorbers	2	82. Type	TELESCOPIC	DOUBLE	ACTING

### BRAKES (photographs F and G)

90.	Method of operation	HYDRA ULIC	
91.	Servo-assistance (if fitted), type	DIRECT ACTING VACUUM SERVO	
92.	Number of hydraulic master cylinders	ONE DUAL TANDEM	
93.	Number of cylinders per wheel	TWO FRONT ONE REAR	
94.	Bore of wheel cylinder(s)	48,2 mm. 1,90 inches 19,05 mm. 0,75 inc	hes
	Drum Brakes		
95.	Inside diameter	mm. inches 228,6 mm. 9 inc	hes
96.	Length of brake linings	mm. inches 179,3 mm. 7,06 inc	hes
97.	Width of brake linings	mm. inches 44,5 mm. 1,75 inc	hes
98.	Number of shoes per brake	TWO	
99.	Total area per brake	mm. <sup>2</sup> sq. in. 166,6 mm. <sup>2</sup> 25,82 sq.	in.
	Disc Brakes		
100.	Outside diameter	254,8 mm. 10,03 inches mm. inc	hes
101.	Thickness of disc	9,65 mm. 0,38 inches mm. inc	hes
102.	Length of brake linings	mm. inches mm. inc	hes
103.	Width of brake linings	mm. inches mm. inc	hes
104.	Number of pads per brake	TWO	
105.	Total area per brake	5742 mm. <sup>2</sup> 8,9 sq. in.   mm. <sup>2</sup> sq	in.

	ENGINE (photographs J and K)						
130.	Cycle 4 STROKE	131.	Number of	cylinders	4		
132.	Cylinder Arrangement 45° IN LINE						
133.	Bore 97,59 mm. 3,842 in.	134.	Stroke	76,2	mm.	3	in.
135.	Capacity per cylinder			569,7	cm.3	34,7	cu. in.
136.	Total cylinder capacity			2279	cm.3	139	cu. in.
137.	Material(s) of cylinder block CHROMIUM CAST IRON	138.	Material(s)	of sleeves (i	if fitted)	NOT FI	TTED
139.	Cylinder head, material(s) CHROMIUM		Number fit	ted ONE			
140.	Number of inlet ports 4	141.	Number of		ts 4		
142.	Compression ratio 8.5-1 (OPT 7.31)						
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 highes	t poir	nt of piston	crown			
147	Cumulabata	1.40	_	39	mm.	1,535	in.
	Crankshaft: moulded/stamped	148.	Type of cra	nkshaft: inte	egral/XE		
	Number of crankshaft main bearings 5						
	Material of bearing cap CAST IRON						
	System of lubrication: dry-sump/oil in sump						
				quarts U.S.			
	Oil cooler: yes/no		Method of			R	
	Capacity of cooling system 4,83 ltrs. 8,5	5	pts. 5,	7 quarts	U.S.		
	Cooling fan (if fitted) dia.			32	cm.	12,5	in.
157	Number of blades of cooling fan 8						
150	Bearings						
	Crankshaft main, type WHITE METAL/COPPER			63,5	m.m.	2,500	in.
159.	Connecting rod big end, type COPPER LEAD TO	IN	dia.	50,76	m.m.	1,998	in.
160	Weights Flywheel (clean)						
				9,2	kg.	20,3	lbs.
	Flywheel with clutch (all turning parts)	162		15,46	kg.	33,9	lbs.
	Crankshaft 17 kg. 37,6 lbs.	163.	Connecting			1,7	lbs.
164.	Piston with rings and pin			0,83	kg.	1,8	lbs.

чаке	e VAUXHALL MOTORS LTD Model no VIVA FILES					
	FOUR STROKE ENGINES					
70.	Number of camshafts ONE 171.	Location	HOUS	ING ON CYL	INDER HEAD	)
172.	Type of camshaft drive EXTERNAL TOOTHED B	ELT				
73.	Type of valve operation CAM VIA INVERTED B	UCKET	TAPPET			
	INLET (see page 4)*					
80.	Material(s) of inlet manifold ALUMINIUM					
	Diameter of valves		42,98		1,688	ins.
82.	. Max. valve lift 10,69 mm412 in. 183.	Number	of valve s	prings TWO	ONTO	
84.	. Type of spring COIL 185.	Number	of valves	per cylinder	ONE	
86.	. Tappet clearance for checking timing (cold/warm)		20	mm.	.008	ins.
188.	. Valves open at (with tolerance for tappet clearance in Valves close at (with tolerance for tappet clearance in Air filter, type  PAPER ELEMENT	ndicated)	31° 36 1 63° 36	BTDC ABDC		
	EXHAUST (see page 4)*					
195.	. Material(s) of exhaust manifold GAST IRON					
196.	. Diameter of valves		35,9	4 mm.	1,415	ins.
197.	. I lan. raire inc		r of valve s			
199.	. Type of spring COIL 200	. Numbe	r of valves	per cylinder		
201.	. Tappet clearance for checking timing (cold/warm)	0,43	0 .	mm.	.017	ins.
202.	Valves open at (with tolerance for tappet clearance in	dicated)	63 36	BBDC		
203.	3. Valves close at (with tolerance for tappet clearance in	dicated)		ABDC	4 00	
204.	Diameter outlet orifice exhaust manifold		48	mm.	1,92	ins
	CARBURETION (photograph N)					
210	). Number of carburettors fitted 2 211	. Туре	VARI	ABLE CHOKE		
212	2. Make ZENITH 213	. Model	175	C.D.	The same	
214	4. Number of mixture passages per carburettor S	INGLE V				
215	5. Flange hole diameter of exit port(s) of carburettor			44,5 mm.	1,750	ins
216	6. Minimum diameter of venturi/minimum diam., with	piston at	maximum	height (examp	le:SU)	-
			31	,7 mm.	1,250	ins
	INJECTION (if fitted)					
220	o. Hake of pamp		er of plunge			
222	2. Model or type of pump 223	3. Total r	number of i	injectors		
	4. Location of injectors					
				mm		

<sup>225.</sup> Minimum diameter of inlet pipe \* For additional information concerning two-stroke engines and super-charged engines, see page 13.

ins.

mm.

#### **ENGINE ACCESSORIES**

230. Fuel pump: mechanical and/or-electrical

231. No. fitted ONE

234. No. of ignition coils

232. Type of ignition system GOTL

233. No. of distributors ONE

235. No. of spark plugs per cylinder ONE

236. Generator, type: dynamo/alternator-number

fitted

ONE

ONE

237. Method of drive BELT

238. Voltage of generator 12 volts

239. Battery, number ONE

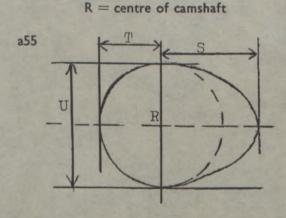
240. Location IN ENGINE COMPARTMENT

241. Voltage of battery 12 volts

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

(type of horsepower: BHP GROSS 250. Max. engine output 122 r.p.m. 5500 NOT PUBLISHED output at that figure 251. Max. r.p.m. 252. Max. torque r.p.m. 150LB/FT 3200 253. Max. speed of the car km./hour miles/hour NOT PUBLISHED

Inlet cam



S =	29,5	mm.	1,162	inches
T =	19	mm.	.750	inches
U =	38,1	mm.	1,500	inches
Exhaust	cam			
S =	29,5	mm.	1,162	inches
T =	18,8	mm.	.741	inches
U =	37,7	mm.	1,487	inches
10	-			

#### DRIVE TRAIN

#### CLUTCH

261. No. of plates DIAPHRAGM 260. Type of clutch

262. Dia. of clutch plates

ins. 6,25 cm. 263. Dia. of linings, inside 15,9 ins. 21,4 8,44 cm. outside

ins.

8.5

cm.

21,6

CABLE LINKAGE 264. Method of operating clutch

### GEAR BOX (photograph H)

VAUXHALL LEVER Method of operation 270. Manual type, make

272. Synchronized forward ratios 271. No. of gear-box ratios forward

FLOOR CENTRAL 273. Location of gear-shift

GENERAL MOTORS type 274. Automatic, make

ON CONSOLE 276. Location of gear shift 275. No. of forward ratios

277.	Ratio	No. teeth	Ratio	No. teeth	Ratio	No. teeth	nual/automat Ratio	No. teeth
1	3.3-1	33/13	2.4-1	Td 4.8-1	2.521-1	30/14		1
2	2.145-1	33/20	1.48-1	TO 2.9-1	1.765-1	27/18		
3	1.414-1	25/13	1-1	TO 2-1	1.353-1	23/20		
4	DIR	ECT			D	RECT		
5				The state of the s				1
6								1
reverse	3.064-1	33/14	1.92-1	TQ 3.84-1	3.064-1	33/14		1

278. Overdrive, type

279. Forward gears on which overdrive can be selected

280. Overdrive ratio

#### FINAL DRIVE

291. Type of differential 2 PINION HYPOID 290. Type of final drive

292. Type of limited slip differential (if fitted in series-production) FRICTION.

Number of teeth 293. Final drive ratio 3.455-1 11

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:

on19 rec. no	List	on19	rec. noList
on19 rec. no	List	on19	rec. noList
on19 rec. no	List	on19	rec. noList
on19 rec. no			
on19 rec. no			

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

DECALS VIVA, ENVOY, EPIC, FIRENZA, SL, SPORTS.

- 133. FACTORY MAXIMUM OVERBORE +. 040 INS. 1 MM. 3.882 INS. 98.43 MM.
- 157. TERRITORY OPTION. COOLING FAN 4 BLADE 34.93 CM. 13.75 INS.
- 78. HEAVY DUTY REAR SUSPENSION. ADJUSTABLE SHOCK ABSORBERS.
- 293. HEAVY DUTY FINAL DRIVE RATIO. 3.727-1. 11/41. TERRITORY OPTION, SINGLE PIECE PROPELLOR SHAFT
- TOLERANCES:- 1. MACHINED SURFACES 1% 2. NON MACHINED SURFACES 2%
  - 3. WEIGHTS OF PART MACHINED PARTS 2.5%
  - 4. WEIGHTS OF MACHINED PARTS 1.5%



Manufacturer VAUXHALL MOTORS LTD

Model VIVA FIRENZA 2300

F.I.A. Recognition No. 5476

Amendment No. 1/1V

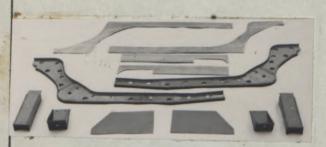
"valable en Groupe 2 uniquement" "valid for Group 2 only"

Amendment to Form of Recognition

## FEDERATION INTERNATIONALE DE L'AUTOMOBILE

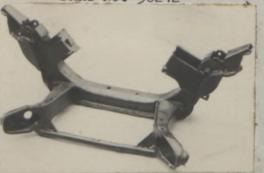
No. Reference No. GROUP 2

AUXILIARY CHASSIS AND SUSPENSION KIT PART NO. 56222.





HEAVY DUTY FRONT SUSPENSION PART NO. 56212



ALLOY DIFFERENTIAL COVER



VENTILATED DISC BRAKE PT NO 2381CP



HEAVY DUTY SOLID DISC BRAKE PT NO 55611



Stamp of F

Date amendment is valid from.....



Manufacturer VAUXHALL MOTORS LTD Model VIVA FIRENZA 2300 F.I.A. Recognition No. 5476

Amendment No.

"valid for Group 2 uniquement"

"valid for Group 2 only"

Amendment to Form of Recognition

#### FEDERATION INTERNATIONALE DE L'AUTOMOBILE

No.

Reference No. GROUP 2

HEAVY DUTY AXLE RACING.
PART NO. 44166R



HEAVY DUTY AXLE RALLY.
PART NO. 44166 CC



HEAVY DUTY AXLE RATIOS 3.7 3.9 4.1 4.6 11/41 10/59 10/41 8/37

HEAVY DUTY CLUTCH PART NO. CC2242WB

206 DIAPHRAGM NO. OF PLATES 2

262 CLUTCH PLATE DIA. 7.2 INS 184 MM.

263 LINING DIA. INSIDE 5.2 INS. 132 MM. OUTSIDE 7.2 INS 184 MM.



Manufacturer AUXHASA MOTORS.

Model IVA VIRENZA 2300

F.I.A. Recognition No. 5h76

Amendment No. VIV

Amendment to Form of Recognition

FEDERATION INTERNATIONALE DE L'AUTOMOBILE

No.

Reference No. GROUP 2 WINE EXTENSIONS



"valable en Groupe 2 uniquement"
"valid for Group 2 only"



CAPACITIES AND DIMENSIONS - TRACK CHANGES.

13x7 55 ins 1399 mm. 13x10 58 ins 1473 mm

13x8 56 ins 1422 mm. 13x11 58 ins 1473 mm

13x9 58 ins 1473 mm.

13x9 58 ins 1473 mm.

13x12 58 ins 1473 mm.



Manufacturer VAUXHALL MOTORS LT:

Model VIVA FIRENZA 2300

F.I.A. Recognition No. 5k.76

Amendment No. 2/20

Amendment to Form of Recognition

#### FEDERATION INTERNATIONALE DE L'AUTOMOBILE

No.

Reference No. GROUP ONE OPTIONS

WHEELS

(50) DISC (51) 6.5 KG. 15 LBS. (53) 330 MM 13 INS. (54) 127 MM 5 INS. (2) FRONT TRACK 134.6 CM 53 INS.

EXHAUST SYSTEM - NON EMISSION 8835130.



Date amendment is valid from.....

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



Manufacturer VAUXHALL MOTORS LTD

Model VIVA FIRENZA 2300

F.I.A. Recognition No. 5h76

Amendment No. 3/IE

#### Amendment to Form of Recognition

#### FEDERATION INTERNATIONALE DE L'AUTOMOBILE

No.

Reference No. GROUP ONE

EVOLUTION

99 TOTAL AREA PER BRAKE 207 MM 32.1 SQ. INS.

155 CAPACITY OF COOLING SYSTEM 7.96 LTRS. 14 PTS. 8.4 U.S. QTS.

277

GEARBOX

1. 3.3-1 33/13.

2. 2.141-1 33/20.

3. 1.362-1 25/13.

4. DIRECT

REVERSE 3.064 33/14,

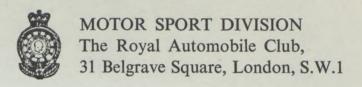
AUTOMATIC AND ALTERNATIVE RATIOS UNCHANGED.

144

PISTON MATERIAL ALUMINIUM ALLOY.



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



Manufacturer VAUXHALL MOTORS LTD.

Model FIRENZA 2300

F.I.A. Recognition No. 5476

Amendment No. 4/2E

#### Amendment to Form of Recognition

#### FEDERATION INTERNATIONALE DE L'AUTOMOBILE

D/I	0	
I N		
	·	

Reference No. ERRATA

Gearbox Ratios should read:

2	,	-	9	r	7	
,		d	r		,	

Ra	tio	Teeth
2	3.3 - 1 2.141 - 1 1.362 - 1 Direct	33/13 28/17 22/21
Do	7 064 4	77 /11.

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