



F.I.A. Recognition No. 1656
Group 2 - Special Touring Cars

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

	Cylinder-capacity <u>1,498</u> cm. ³ <u>91.41</u> in. ³
Manufacturer <u>Chrysler United Kingdom Ltd</u>	Model <u>Hillman Avenger Tiger</u>
Serial No. of chassis/body <u>231,000001</u>	Manufacturer <u>Chrysler United Kingdom Ltd</u>
Serial No. of engine <u>231,000001</u>	Manufacturer <u>Chrysler United Kingdom Ltd</u>
Recognition is valid from <u>1.9.73</u>	Use

The manufacturing of the model described in this recognition form started on 2nd May 1972
and the minimum production of 1000 identical cars, in accordance with the specifications of
this form was reached on 20th February 1973 - approximately

Photograph A. j view of car from front



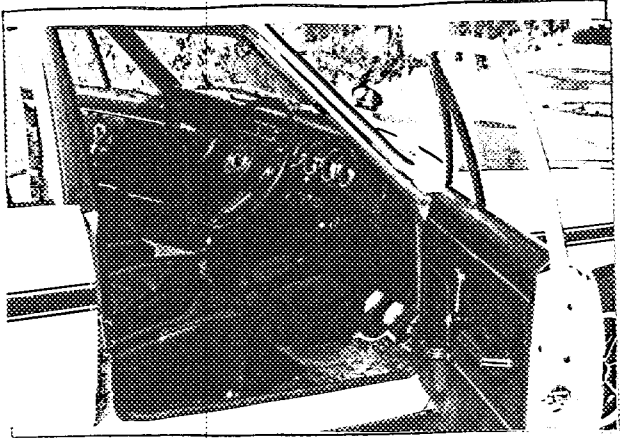
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R.A.C. Stamp

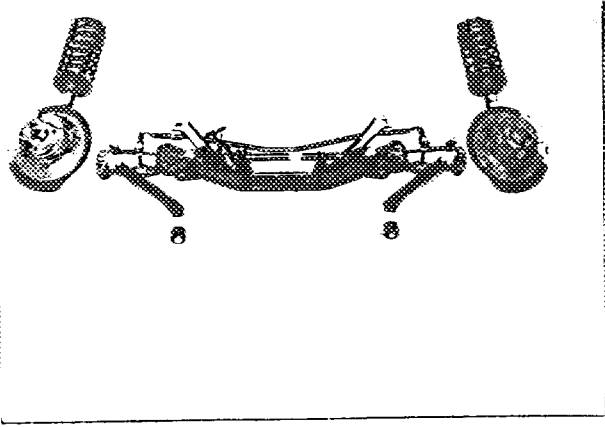
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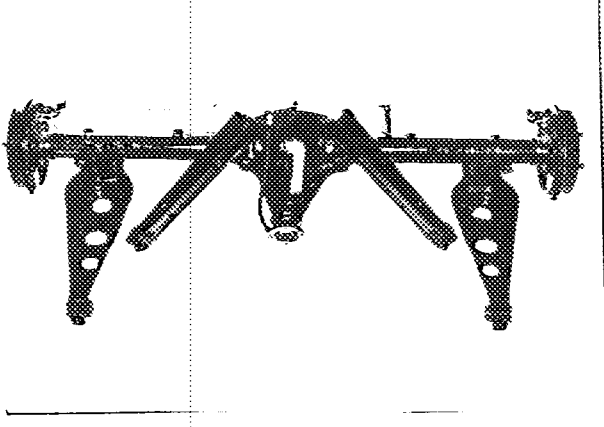
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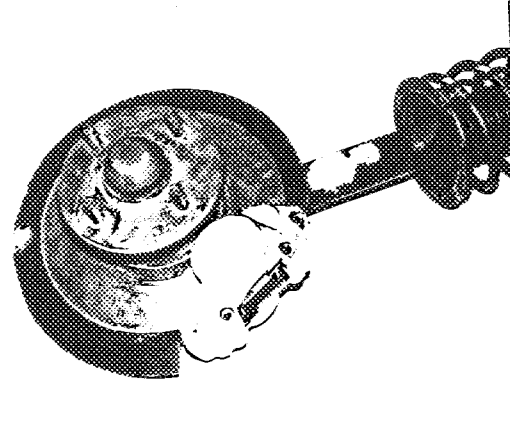
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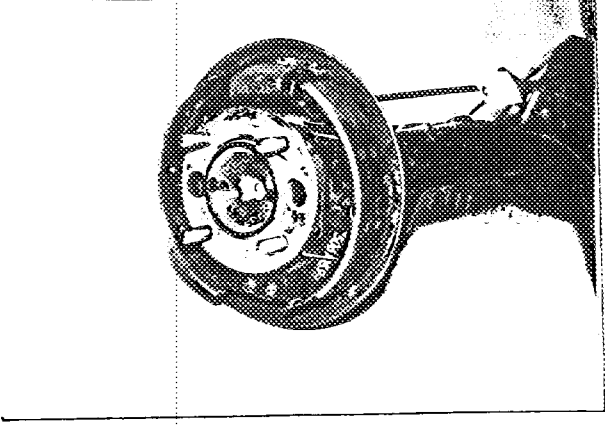
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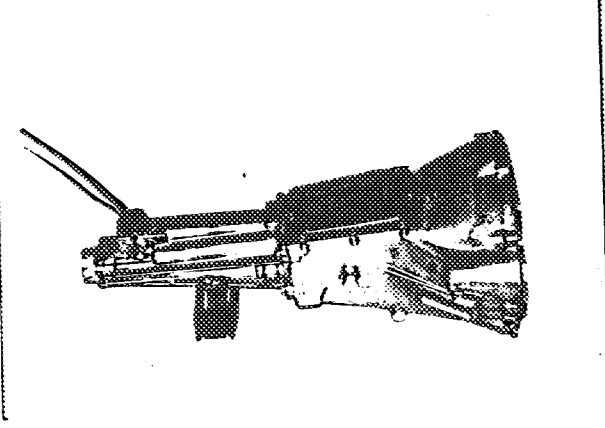
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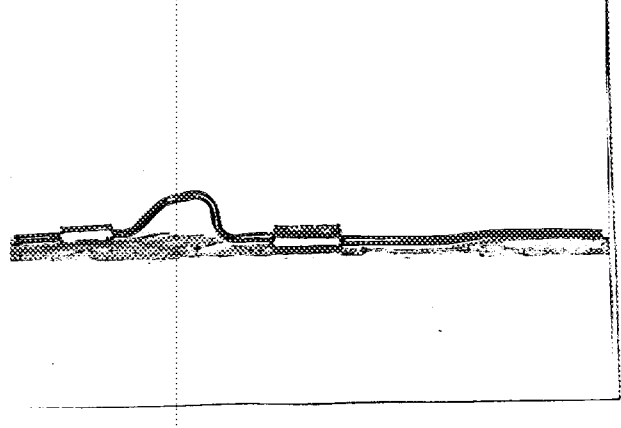
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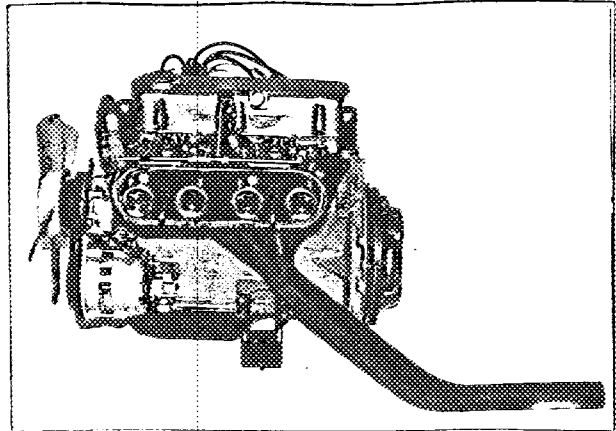
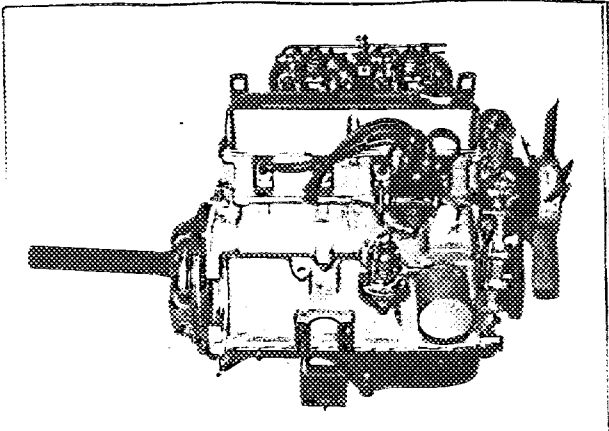


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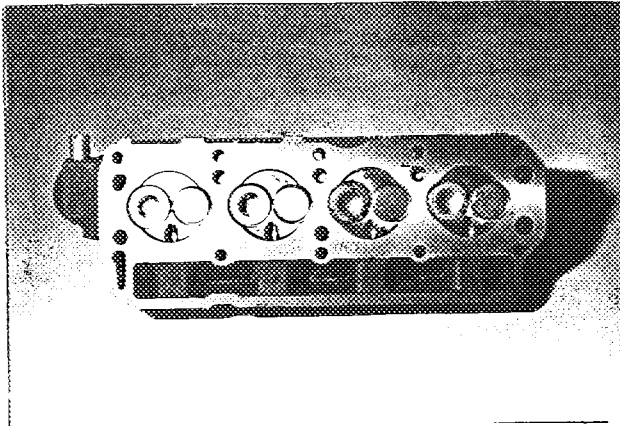


I

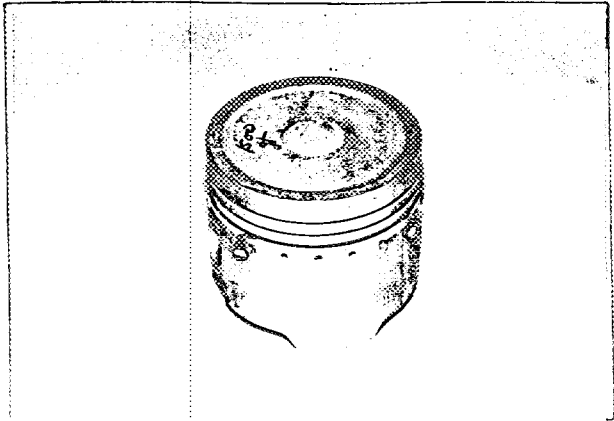




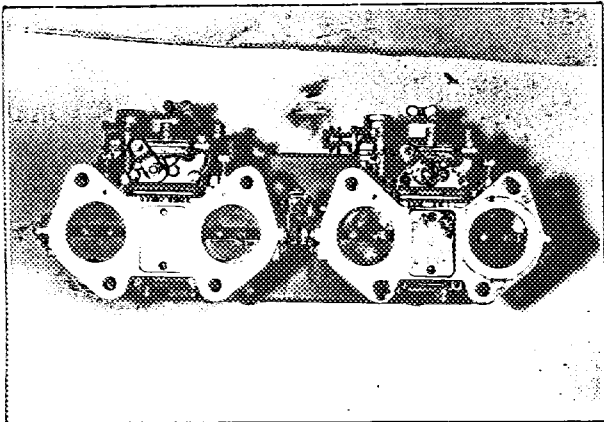
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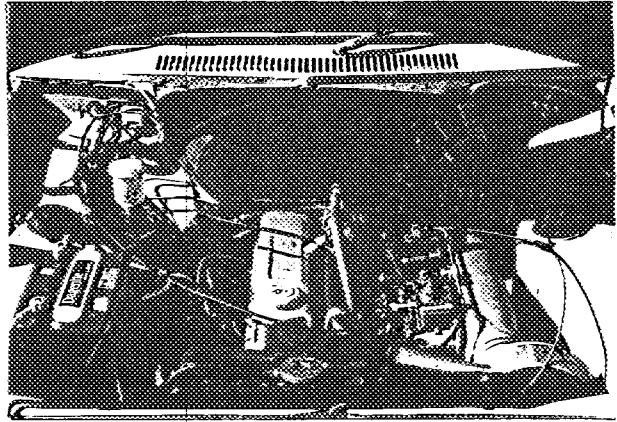
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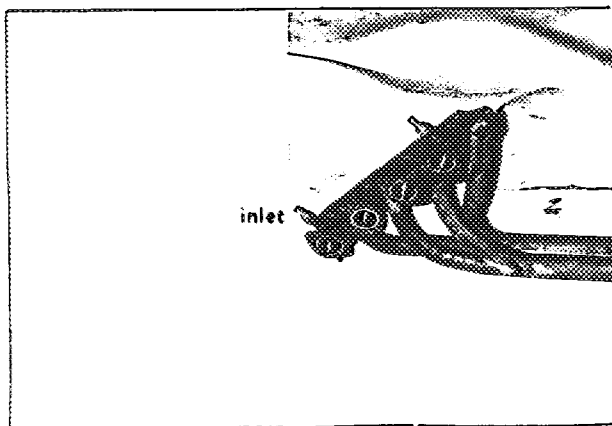
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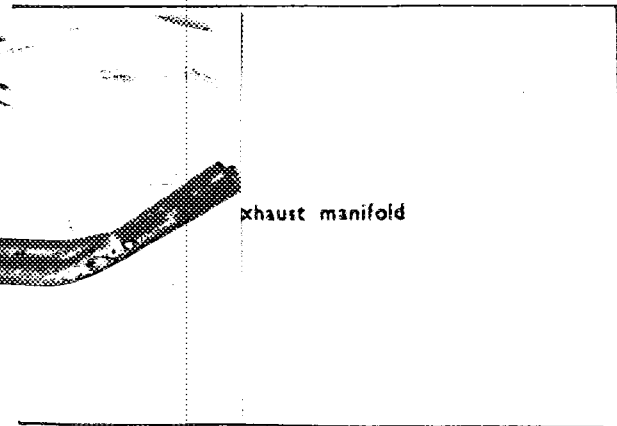
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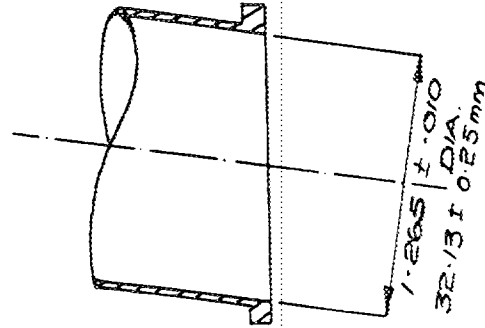


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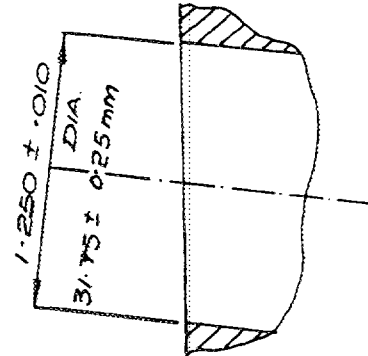
Q

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

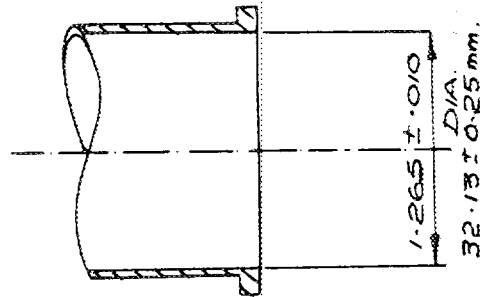


Drawing of entrance to inlet port of cylinderhead. Indicate scale or dimensions and manufacturing tolerance.

Hand Finished

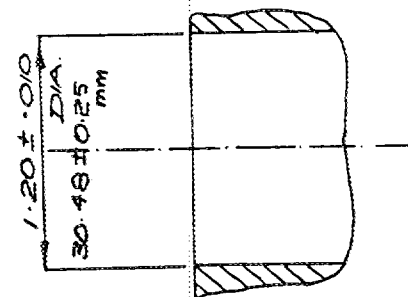


Drawing of exhaust manifold ports, side of cylinderhead. Indicate scale or dimensions and manufacturing tolerance.



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

Hand Finished



Make *Hillman*

Model *Avenger Tiger*

F.I.A. Rec. No.

NOTE 1.

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

CAPACITIES AND DIMENSIONS

1. Wheelbase		2,490	mm.	98.0	inches
2. Front track					
	1,333.5	mm.	52.5	inches	
3. Rear track					
			1,341.1	mm.	52.8
					inches

Height of bottom of sill to ground (exc. flange)
Front: - 18.4 ± 1.3 cm. 7.25 ± 0.5 in.
Rear: - 19.7 ± 1.3 cm. 7.75 ± 0.5 in.
unladen, as below.

4. Overall length of the car		409	cm.	161.3	inches
5. Overall width of the car					
5a. Width at front axle:-	159	cm.	62.5	in.	
6. Overall height of the car					
			134	cm.	52.9
					inches
7. Capacity of fuel tank (reserve included)					
	45.5	ltrs.	12	gall. U.S.	10
					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:					
	844	kg.	1860	lbs.	16.6
					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 *4* Material(s) *Steel*
- 25. Material(s) of bonnet *Steel*
- 26. Material(s) of boot lid *Steel - optional 'spoiler' is fibreglass*
- 27. Material(s) of rear-window *Safety glass*
- 28. Material(s) of windscreen *Safety glass or laminated*
- 29. Material(s) of front-door windows *Safety glass*
- 30. Material(s) of rear-door windows *Safety glass*
- 31. Sliding system of door windows *Vertical winding*
- 32. Material(s) of rear-quarter light *Safety 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 *Ambla/nylon or rubber diaphragm-reclining*
- 42. Weight of front seat(s), complete with supports and rails, out of the car :

<i>10</i>	kg.	<i>22</i>	lbs.
-----------	-----	-----------	------
- 43. Rear seats, type of seat and upholstery *Ambla/nylon on cushion frame*
- 44. Front bumper, material(s) *Steel* Weight *0.73* kg. *1.60* lbs. (each)
- 45. Rear bumper, material(s) *Steel* Weight *4.15* kg. *9.15* lbs.

WHEELS

- 50. Type *Aluminium diecast*
- 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 *140* mm. *5.5* ins.

STEERING

- 60. Type *Rock & pinion*
- 61. Servo-assistance : yes — no
- 62. Number of turns of steering wheel from lock to lock *3.6*
- 63. In case of servo-assistance *—*

SUSPENSION

- 70. Front suspension (photograph D), type *Independent - hydraulic strut assemblies*
- 71. Type of spring *Coil*
- 72. Stabiliser (if fitted) *Transverse anti-roll bar*
- 73. Number of shock absorbers *2*
- 74. Type *Telescopic*
- 78. Rear suspension (photograph E), type *Live axle with 4 link location*
- 79. Type of spring *Coil*
- 80. Stabiliser (if fitted) *—*
- 81. Number of shock absorbers *2*
- 82. Type *Telescopic*

BRAKES (photographs F and G)

- 90. Method of operation *Hydraulic*
- 91. Servo-assistance (if fitted), type *Girling. remote mounting*
- 92. Number of hydraulic master cylinders *1*
- 93. Number of cylinders per wheel *2* **FRONT** *1* **REAR**
- 94. Bore of wheel cylinder(s) *48.1* mm. *1.89* inches *15.9* mm. *0.63* inches

Drum Brakes

- 95. Inside diameter *—* mm. *—* inches *203* mm. *8.0* inches
- 96. Length of brake linings *—* mm. *—* inches *197* mm. *7.75* inches
- 97. Width of brake linings *—* mm. *—* inches *38.1* mm. *1.5* inches
- 98. Number of shoes per brake *—* *2*
- 99. Total area per brake *—* mm.² *—* sq. in. *15,000* mm.² *23.0* sq. in.

Disc Brakes

- 100. Outside diameter *241* mm. *9.5* inches *—* mm. *—* inches
- 101. Thickness of disc *9.6* mm. *0.38* inches *—* mm. *—* inches
- 102. Length of brake linings *61.8* mm. *2.44* inches *—* mm. *—* inches
- 103. Width of brake linings *47.5* mm. *1.87* inches *—* mm. *—* inches
- 104. Number of pads per brake *2* *—*
- 105. Total area per brake *5,612* mm.² *8.7* sq. in. *—* mm.² *—* sq. in.

Make *Hillman*

Model *Avenger Tiger*

F.I.A. Rec. No.

ENGINE (photographs J and K)

- | | | | |
|---|--|---|--------------------------|
| 130. Cycle | 4 | 131. Number of cylinders | 4 |
| 132. Cylinder Arrangement | <i>In line</i> | | |
| 133. Bore | <i>86.19 mm. 3.396 in.</i> | 134. Stroke | <i>64.3 mm. 2.53 in.</i> |
| <i>133a. Rebore. 86.49 mm 3.408 in.</i> | | | |
| 135. Capacity per cylinder | | <i>374.5 cm.³ 22.9 cu. in.</i> | |
| <i>135a. Rebore.</i> | | <i>377.6 cm.³ 23.1 cu. in.</i> | |
| 136. Total cylinder capacity | | <i>1,498 cm.³ 91.41 cu. in.</i> | |
| <i>136a. Rebore.</i> | | <i>1,511 cm.³ 92.30 cu. in.</i> | |
| 137. Material(s) of cylinder block | <i>Cast Iron</i> | 138. Material(s) of sleeves (if fitted) | — |
| 139. Cylinder head, material(s) | <i>Cast Iron</i> | Number fitted | <i>1</i> |
| 140. Number of inlet ports | <i>4</i> | 141. Number of exhaust ports | <i>4</i> |
| 142. Compression ratio | <i>9.4 : 1 ± .5</i> | | |
| <i>142a. Rebore.</i> | <i>9.47 : 1 ± .5</i> | | |
| 143. Volume of one combustion chamber | | <i>12.3/12.9 cm.³ 0.75/0.787 cu. in.</i> | |
| <i>Compressed thickness of gasket:-</i> | | <i>.97/.89 mm. .038/.035 in.</i> | |
| 144. Piston, material | <i>Aluminium</i> | 145. Number of rings | <i>3</i> |
| 146. Distance from gudgeon pin centre line to highest point of piston crown | | <i>44.1/44.0 mm. 1.735/1.732 in.</i> | |
| 147. Crankshaft : cast /stamped | <i>Cast Iron.</i> | 148. Type of crankshaft: integral/ | <i>Yes.</i> |
| 149. Number of crankshaft main bearings | <i>5</i> | | |
| 150. Material of bearing cap | <i>Cast Iron</i> | | |
| 151. System of lubrication : dry sump /oil in sump | | | |
| 152. Capacity, lubricant | <i>4.0 ltrs. 7.0 pts. 4.2 quarts U.S.</i> | | |
| 153. Oil cooler : yes /no | | 154. Method of engine cooling | <i>Water</i> |
| 155. Capacity of cooling system | <i>7.33 ltrs. 12.9 pts. 7.73 quarts U.S.</i> | | |
| 156. Cooling fan (if fitted) dia. | | <i>35.56 cm. 14.0 in.</i> | |
| 157. Number of blades of cooling fan | <i>5 - viscous coupling drive</i> | | |

Bearings

- | | | | |
|-----------------------------------|---------------------------|------|-------------------------------|
| 158. Crankshaft main, type | <i>Steel backed shell</i> | dia. | <i>53.980 m.m. 2.1252 in.</i> |
| | | | <i>53.962 m.m. 2.1245 in.</i> |
| 159. Connecting rod big end, type | <i>Steel backed shell</i> | dia. | <i>50.800 m.m. 2.0000 in.</i> |
| | | | <i>50.787 m.m. 1.9996 in.</i> |

Weights

- | | | | |
|---|----------------------------|----------------------------|----------------------------|
| 160. Flywheel (clean) | | <i>8.26 kg. 18.2 lbs.</i> | |
| | | <i>7.48 kg. 16.5 lbs.</i> | |
| 161. Flywheel with clutch (all turning parts) | | <i>13.20 kg. 29.1 lbs.</i> | |
| | | <i>12.11 kg. 26.7 lbs.</i> | |
| 162. Crankshaft | <i>12.61 kg. 27.8 lbs.</i> | 163. Connecting rod | <i>0.726 kg. 1.60 lbs.</i> |
| | <i>11.43 kg. 25.2 lbs.</i> | | <i>0.658 kg. 1.45 lbs.</i> |
| 164. Piston with rings and pin | | <i>0.703 kg. 1.55 lbs.</i> | |
| | | <i>0.640 kg. 1.41 lbs.</i> | |

FOUR STROKE ENGINES

170. Number of camshafts *1* 171. Location *Block - R.H.S.*
 172. Type of camshaft drive *Chain.*
 173. Type of valve operation *Pushrod & rockers.*

INLET (see page 4)*

180. Material(s) of inlet manifold *Steel*
 181. Diameter of valves *39.37* mm. *1.55* ins.
 182. Max. valve lift *10.8* mm. *0.425* in. 183. Number of valve springs *2*
 184. Type of spring *Coil* 185. Number of valves per cylinder *1*
 186. Tappet clearance for checking timing (cold/warm) *0.25* mm. *0.010* ins.
 187. Valves open at (with tolerance for tappet clearance indicated) *44° B.T.D.C.*
 188. Valves close at (with tolerance for tappet clearance indicated) *78° A.B.D.C.*
 189. Air filter, type *Paper element*

EXHAUST (see page 4)*

195. Material(s) of exhaust manifold *Steel*
 196. Diameter of valves *53.90* mm. *1.34* ins.
 197. Max. valve lift *10.6* mm. *0.419* in. 198. Number of valve springs *2*
 199. Type of spring *Coil* 200. Number of valves per cylinder *1*
 201. Tappet clearance for checking timing (cold/warm) *0.41* mm. *0.016* ins.
 202. Valves open at (with tolerance for tappet clearance indicated) *69° B.B.D.C.*
 203. Valves close at (with tolerance for tappet clearance indicated) *23° A.T.D.C.*
 204. Diameter outlet orifice exhaust manifold *48.26* mm. *1.90* ins.

CARBURETION (photograph N)

210. Number of carburettors fitted *2* 211. Type *Horizontal*
 212. Make *Weber* 213. Model *40 DCOE*
 214. Number of mixture passages per carburettor *2*
 215. Flange hole diameter of exit port(s) of carburettor *40* mm. *1.575* ins.
 216. Minimum diameter of venturi/minimum diam., with piston at maximum height (example: SU) *30* mm. *1.181* ins.

INJECTION (if fitted) *Nil*

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.

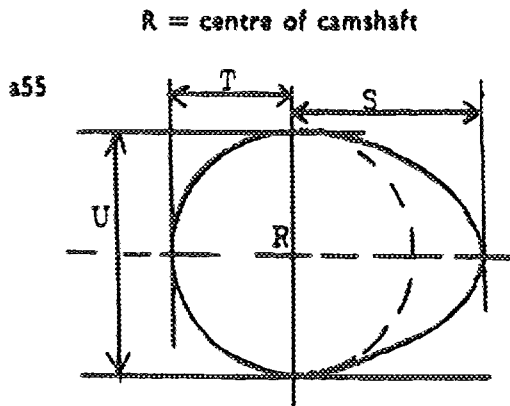
* For additional information concerning two-stroke engines and super-charged engines, see page 13.

ENGINE ACCESSORIES

230. Fuel pump : mechanical ~~and/or electrical~~
231. No. fitted 1
232. Type of ignition system Coil 233. No. of distributors 1
234. No. of ignition coils 1 235. No. of spark plugs per cylinder 1
236. Generator, type : ~~generator~~/alternator—number fitted 1
237. Method of drive Belt
238. Voltage of generator 12 volts
239. Battery, number 1
240. Location Engine compartment
241. Voltage of battery 12 volts

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

250. Max. engine output 107 (type of horsepower: Gross) at 6.100 r.p.m.
251. Max. r.p.m. 7.000 output at that figure Not available
252. Max. torque 88.6 Lb. ft. at 4.500 r.p.m.
253. Max. speed of the car 167 km./hour 105 miles/hour



Inlet cam

S =	<u>21.9</u>	mm.	<u>0.862</u>	inches
T =	<u>14.5</u>	mm.	<u>0.572</u>	inches
U =	<u>29.1</u>	mm.	<u>1.145</u>	inches

Exhaust cam

S =	<u>21.9</u>	mm.	<u>0.862</u>	inches
T =	<u>14.5</u>	mm.	<u>0.572</u>	inches
U =	<u>29.1</u>	mm.	<u>1.145</u>	inches

Make *Hillman*

Model *Avenger Tiger*

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DRIVE TRAIN

CLUTCH

260. Type of clutch *Diaphragm spring* 261. No. of plates *1*
262. Dia. of clutch plates *19.1* cm. *7.50* ins.
263. Dia. of linings, inside *13.65* cm. *5.38* ins.
- outside *19.1* cm. *7.50* ins.
264. Method of operating clutch *Cable*

GEAR BOX (photograph H)

270. Manual type, make *Chrysler* Method of operation *Manual*
271. No. of gear-box ratios forward *4* 272. Synchronized forward ratios *4*
273. Location of gear-shift *Central*
274. Automatic, make *Not available* type *—*
275. No. of forward ratios *—* 276. Location of gear shift *—*

277.	Manual		Automatic		Alternative manual/ automatic			
	Ratio	No. teeth	Ratio	No. teeth	Ratio	No. teeth	Ratio	No. teeth
1	3.317	$\frac{23}{16} \frac{30}{13}$			3.538	$\frac{23}{15} \frac{30}{13}$		
2	2.029	$\frac{23}{16} \frac{24}{17}$			2.165	$\frac{23}{15} \frac{24}{17}$		
3	1.366	$\frac{23}{16} \frac{19}{20}$			1.387	$\frac{23}{15} \frac{19}{21}$		
4	1.000	<i>Direct</i>			1.000	<i>Direct</i>		
5								
6								
reverse	3.450	$\frac{23}{16} \frac{36}{15}$			3.680	$\frac{23}{15} \frac{36}{15}$		

278. Overdrive, type *Nil*
279. Forward gears on which overdrive can be selected *—*
280. Overdrive ratio *—*

FINAL DRIVE

290. Type of final drive *Hypoid* 291. Type of differential *4 pinion*
292. Type of limited slip differential (if fitted in series-production) *4 pinion*
293. Final drive ratio *3.889* Number of teeth *55 : 9*

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.

The boot mounted spoiler and side stripes shown in photographs A and B are delete options i.e. the vehicle may be purchased without their being fitted.

This vehicle is available with a Heavy Duty Specification which comprises of :-

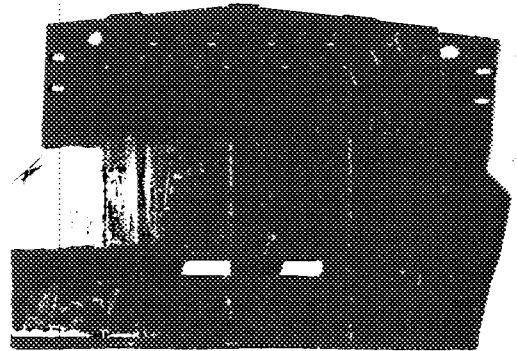
1. Stiffer springs and dampers — no visual changes to photographs Part no: 71.250.198 / 9 and 71.247.955 D and E.

2. Engine sump guard Part No:- 71.250.072

Weight:- 13.75 Kg 30.31 lb.

Dimensions:- 69.85 x 54.10 cm.

27.5 x 21.3 in.





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

Manufacturer Chrysler UK Ltd

Model Hillman Avenger Tiger

F.I.A. Recognition No. 1656

Amendment No. 1/IV

Amendment to Form of Recognition

FEDERATION INTERNATIONALE DE L'AUTOMOBILE

No.

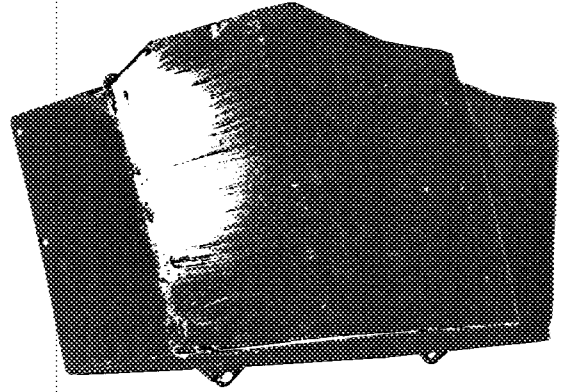
Reference No.

3. Petrol tank guard

Part No:- 71.248.039

Weight:- 7.57 Kg 16.69 Lb.

Dimensions:- 77.47 x 54.61 cm.
30.5 x 21.5 in.

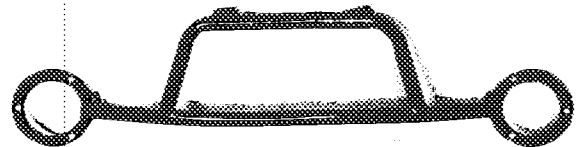


4. Turret brace - joining front suspension top mountings to bulkhead.

Part No:- 71.203.122

Weight:- 2.04 Kg 4.5 Lb.

Dimensions:- 109.22 x 30.48^{cm}
43.0 x 12 in.



Date amendment is valid from 1.9.73

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



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

Manufacturer *Chrysler U.K Ltd*
Model *Hillman Avenger Tiger*
F.I.A. Recognition No. _____
Amendment No. *2/2V*

Amendment to Form of Recognition

FEDERATION INTERNATIONALE DE L'AUTOMOBILE

No. _____ Reference No. *5. Engine oil cooler (two Supply Variants)*

Part No:- *71.087.504.*

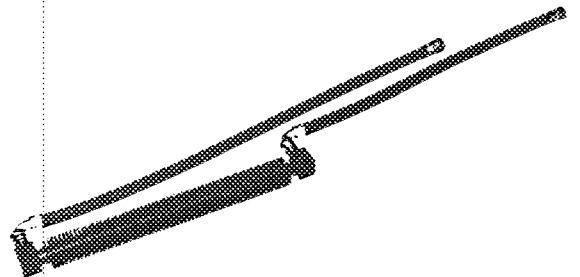
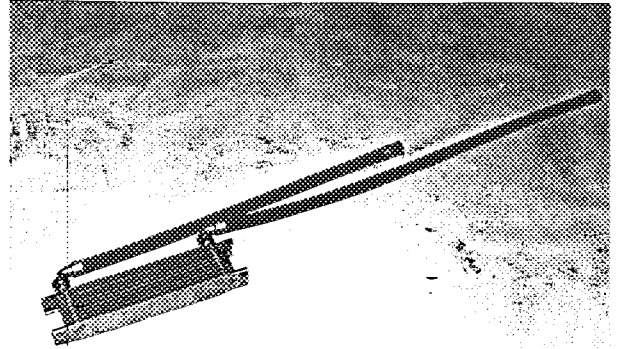
Weight:- *1.50 Kg 3.31 Lb.*

Dimensions:- *33 x 10 x 5 cm.*
13 x 4 x 2 in

Part No:- *71.235.338*

Weight:- *2.55 Kg 5.63 Lb.*

Dimensions:- *52 x 5 Dia cm.*
20.5 x 2.0 Dia in.



152. Capacity lubricant becomes:-
4.25 ltrs. 7.5pts

4.5 quarts U.S.

Date amendment is valid from *1.9.72*

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



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

Manufacturer Chrysler UK Ltd
Model Hillman Avenger Tiger
F.I.A. Recognition No. _____
Amendment No. 3/3V

Amendment to Form of Recognition

FEDERATION INTERNATIONALE DE L'AUTOMOBILE

No.

Reference No.

*The following is available as an option upon the
express request of the customer:-*

293

Final drive ratio :- 4.375 : 1.

35 : 8 teeth.

Date amendment is valid from 1973

12c

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



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

Manufacturer Chrysler U.K. Ltd.
Model Hillman Avenger Tiger
F.I.A. Recognition No. 1856
Amendment No. h/hv

Amendment to Form of Recognition

FEDERATION INTERNATIONALE DE L'AUTOMOBILE


No. Reference No. Supply Variant

Due to the use of two suppliers for production, the vehicle may be fitted with a clutch which has the following difference:-

263 Dia of linings inside:- 13.33 cm. 5.25 in.

Date amendment is valid from 1.9.33

12d.


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



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

Manufacturer *Chrysler U.K. Ltd.*
Model *Hillman Avenger Tiger*
F.I.A. Recognition No. *1656*
Amendment No. *5/5V*

Amendment to Form of Recognition

FEDERATION INTERNATIONALE DE L'AUTOMOBILE

No.

Reference No.

Showing side stripes & rear spoiler [delete options]



Date amendment is valid from *1.1.74*

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



CHRYSLER

HILLMAN AVENGER TIGER

9/73

1656

MARQUE ET MODELE

VALIDITE HOMOLOGATION

FICHE NR.

2-1600

GRUPE / CLASSE

EXTENSIONS	DEBUT VALIDITE	DESCRIPTION	NOTES
1/1V	9/73	PROTECTION INFERIEURE	
2/2V	9/73	BARRE ANTIRAMPAGEMENT	
3/3V	9/73	RADIATEUR D'HUILE	
4/4V	9/73	COUPLE PRIMAIRE	
5/5V	1/74	EMBRAYAGE	
		CARROSSERIE	

Autres homologations du modèle

Vérifiée le 22/4/96 par [Signature] visée ce jour le _____ par _____