



AUTOMOBILE COMPETITION COMMITTEE
 FOR THE UNITED STATES, FIA, INC.
 330 Vanderbilt Motor Parkway
 Hauppauge, L.I., N.Y. 11787
 (516) 582-4040

FIA NO. 5507
 GROUP 1

FEDERATION INTERNATIONALE DE L'AUTOMOBILE
 FORM OF RECOGNITION

In accordance with Appendix "J" of the International Sporting Code

Cylinder Capacity 3801.8 cm³ 232 in³

Manufacturer AMERICAN MOTORS CORP. Model GREMLIN
 Serial # Chassis A3F435E000001 Manufacturer AMERICAN MOTORS
 Serial # Engine " Manufacturer "
 Recognition valid from _____ List _____

The manufacturing of the model described in this recognition form was started on August 1, 1972 and the minimum production of 1000 identical cars, in accordance with the specifications of this form, was reached on September 1, 1972.

A 3/4 Front View Car *



The following amendments apply to the vehicle identified above:

Variants

on 19 Rec # _____ list _____
 on 19 Rec # _____ list _____
 on 19 Rec # _____ list _____

Normal Evolution of the Type

on 19 Rec # _____ list _____
 on 19 Rec # _____ list _____
 on 19 Rec # _____ list _____

Stamp/Signature of
 National Sporting Authority

Stamp/Signature
 F.I.A.

MAKE AMERICAN MOTORS

MODEL GREMLIN 232

FIA REC #

IMPORTANT - Underlined items must be filled in, in both metric and English values.
See Conversion Table below. SEE PAGE 10 FOR EXPLANATION OF SYMBOLS.

CAPACITIES AND DIMENSIONS

- * 1. Wheelbase: 2438.4 mm 96.00 inches
- * 2. Front track: 1459.5 mm 57.46 inches (1)
- * 3. Rear track: 1447.8 mm 57.00 inches (1)
- 4. Overall length of car 420.27 cm 165.46 inches
- 5. Overall width of car (at widest point) 179.3 cm 70.60 inches
- 5a Overall width of car (at vertical plane through front wheels) 176.58 cm 69.52 in
- 5b Overall width of car (at vertical plane through rear wheels) 179.27 cm 70.58 in
- 6. Overall height of car 135.59 cm 53.38 inches
- * 7. Capacity of fuel tank (reserve included) 79.49 Litres 21 U.S.Gals.
- 8. Seating capacity: 4
- * 9. Weight - Total weight of vehicle with normal equipment described on homologation sheet, all required lubricants and coolants and one spare wheel and tire, but without fuel or repair tools
1167.8 kg 2575 lbs

(1) Specify ground clearance Front and Rear corresponding to Front and Rear track measurements shown above. Indicate by sketch below reference points on chassis or suspension where these dimensions are checked. These specifications are for the purpose of checking the track with specified wheel rim size with the suspension at reference setting. Differences in track resulting from use of different rim widths must be shown with suspension at reference setting. A sketch showing the rim widths superimposed is desirable.

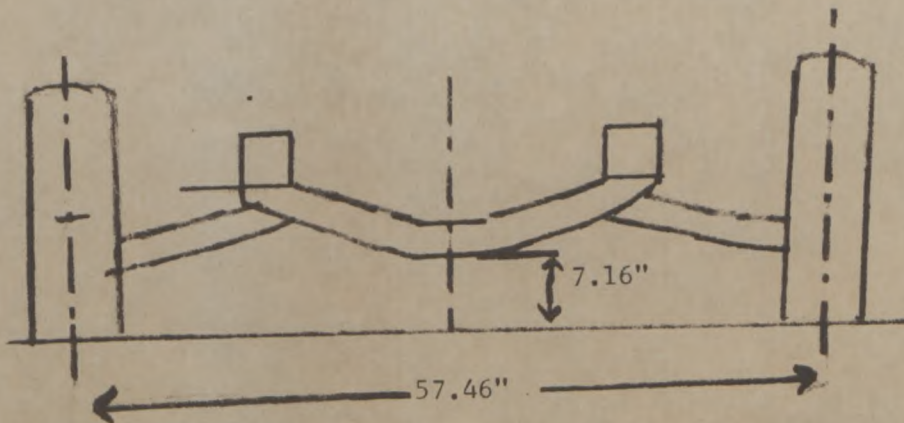


TABLE OF CONVERSIONS

1 inch -----	2.54 cm
1 foot -----	30.4794 cm
1 square inch -----	6.452 cm ²
1 cubic inch -----	16.387 cm ³

1 pound -----	453.593 gr
1 quart U.S. -----	0.9464 ltrs
1 pint U.S. -----	0.473 ltrs
1 gallon U.S. -----	3.785 ltrs

MAKE AMERICAN MOTORS

MODEL GREMLIN 232

FIA REC #

CHASSIS AND BODYWORK (Photos A, B and C)

- * 20. Chassis/body construction: (separate) (unit construction)
- * 21. Unit construction: material steel
- * 22. Separate construction: material of chassis steel
- * 23. Material of body: steel
- * 24. Number of doors: 2 Material: steel
- * 25. Material of hood: steel
- * 26. Material of trunk lid: steel
- 27. Material of rear window: tempered glass
- 28. Material of windshield: laminated glass
- 29. Material of front door windows: tempered glass
- 30. Material of rear door windows: tempered glass
- 31. Windows, actuating system: crank
- 32. Material of rear quarter window: tempered glass

ACCESSORIES AND UPHOLSTERY

- 38. Heating, interior: (yes) (no)
- 39. Air conditioning: (yes) (no)
- 40. Ventilation: (yes) (no)
- (SP) 41. Seats, front: Type of seat and upholstery bucket & fabric
- 42. Seats, front: Weight (complete with supports and rails out of car) 18.6 kg 40.9 lbs
Check: Bench Bucket xx Console included
- 43. Seats, rear: Type of seat and upholstery bench - fabric
- 44. Bumper, front: Material: Weight: 5.8 kg 12.97 lbs
- 45. Bumper, rear: Material: Weight: 5.9 kg 13.18 lbs

WHEELS

- 50. Type: Pressed steel disc & safety rim
- 51. Weight: (per wheel, without tire) 8.1 kg 18 lbs
- 52. Method of attachment: stud
- 53. Rim diameter: 355.6 mm 14 inches
- 54. Rim width: 127 mm 5 inches

STEERING

- 60. Type: Saginaw recirculating ball
- 61. Servo-assistance: (yes) (no)
- 62. Number of turns of steering wheel from lock to lock: 6
- 63. In case of servo-assistance:

SUSPENSION

- * 70. Front suspension (Photo D) type: Independent Twin ball joint
- * 71. Type of spring: coil
- (SP) 72. Stabilizer (if fitted): yes
- 73. Number of shock absorbers: 1 per wheel
- 74. Type: Direct acting telescopic

- * 78. Rear suspension (Photo E) type: live axle
- * 79. Type of spring: leaf
- (SP) 80. Stabilizer (if fitted): no
- 81. Number of shock absorbers: 1 per wheel
- 82. Type: Direct acting telescopic

BRAKES (Photos F and G)

- * 90. Method of operation: Hydraulic
- (SP) 91. Power assisted (if fitted,) type: Vacume
- 92. Number of master cylinders: One (dual)

	<u>Front</u>		<u>Rear</u>	
93. Number of cylinders per wheel:	<u>1</u>		<u>1</u>	
94. Bore of wheel cylinder:	<u>69.85</u> mm	<u>2.75</u> in	<u>20.6</u> mm	<u>.81</u> in
(SP) <u>Drum Brakes:</u>				
95. Inside diameter:	_____ mm	_____ in	<u>228.6</u> mm	<u>9.0</u> in
96. Length of brake linings:	_____ mm	_____ in	<u>443.99</u> mm	<u>17.48</u> in
97. Width of brake linings:	_____ mm	_____ in	<u>50.8</u> mm	<u>2.00</u> in
98. Number of shoes per brake:				
99. Total area per brake:	_____ mm ²	_____ in ²	<u>2254.9</u> mm ²	<u>34.96</u> in ²
(SP) <u>Disc Brakes:</u>				
100. Outside diameter	<u>277.11</u> mm	<u>10.91</u> in	_____ mm	_____ in
101. Thickness of disc:	<u>25.4</u> mm	<u>1.00</u> in	_____ mm	_____ in
102. Length of brake linings:	<u>152.9</u> mm	<u>6.02</u> in	_____ mm	_____ in
103. Width of brake linings:	<u>45.72</u> mm	<u>1.80</u> in	_____ mm	_____ in
104. Number of pads per brake:				
105. Total area per brake:	<u>6837.68</u> mm ²	<u>21.66</u> in ²	_____ mm ²	_____ in ²



ENGINE (Photos J and K)

- * 130. Cycle: 4
- * 131. Number of cylinders: 6
- * 132. Cylinder arrangement: in line Wankel: # of elements & basic dimensions-
- * 133. Bore: 92.25 mm 3.75 inches
- * 134. Stroke: 88.9 mm 3.50 inches
- * 135. Capacity per cylinder: 633.67 cm³ 38.67 cu in
- * 136. Total cylinder capacity: 3802 cm³ 232 cu in

- * 137. Material of cylinder block: cast iron
- * 138. Material of sleeves (if fitted): none
- * 139. Cylinder head material: cast iron Number fitted:
- * 140. Number of inlet ports: 4
- * 141. Number of exhaust ports: 4
- (SP)142. Compression ratio: 8.0
- (SP)143. Volume of combustion chamber: 91.83 cm³ 5.60 cu in
- (SP)144. Piston, material: aluminum alloy
- (SP)145. Number of rings: 3
- (SP)146. Distance from gudgeon pin centre line to highest point of piston crown: 40.67 mm 1.6 inches
- tolerances
- * 147. Crankshaft: (cast) (forged)
- * 148. Crankshaft, type: (integral) (sectioned)
- * 149. Crankshaft, number of main bearings: 7
- * 150. Material of bearing cap:
- 151. System of lubrication: (dry sump) (oil in sump) 5 quarts U.S.
- 152. Lubricant capacity: litres pints
- (SP)153. Oil cooler: (yes) (no)
- * 154. Method of engine cooling: water
- 155. Capacity of cooling system: 4.73 litres pints 10.5 quarts U.S.
- (SP)156. Cooling fan (if fitted) diameter: 39.67 cm 15.62 inches
- (SP)157. Number of blades of cooling fan: 4

BEARINGS

- * 158. Crankshaft, main, type: alloy lining Diameter: 634.64 mm 2.4986 inches
- * 159. Connecting rod, big end, type: " Diameter: 53.172 mm 2.0934-.0955 inches

- 5001

WEIGHTS

- (SP)160. Flywheel (clean): 14.2 kg 31.40 lbs
- (SP)161. Flywheel with clutch (all rotating parts): 19.9 kg 43.92 lbs
- (SP)162. Crankshaft: 25.9 kg 57.23 lbs
- (SP)163. Connecting Rod: .66 kg 1.46 lbs
- (SP)164. Piston with rings and pin: .7 kg 1.63 lbs

FOUR CYCLE ENGINES

- * 170. Number of camshafts: 1
- * 171. Location of camshaft: in block
- * 172. Type of camshaft drive: chain
- * 173. Type of valve operation: hydraulic lifters

INLET (see Photo P) +

180. Material of inlet manifold: cast iron
181. Overall diameter of valves: 45.39 mm 1.787 inches
- (SP) 182. Maximum valve lift: 9.45 mm .372 inches
183. Number of valve springs: 1
184. Type of spring: coil (compression)
- * 185. Number of valves per cylinder: 1
- (SP) 186. Tappet clearance for checking timing (cold) 0 mm 0 inches
- (SP) 187. Valves open at (with tolerance for tappet clearance indicated): 12.12^o BTC
- (SP) 188. Valves close at (with tolerance for tappet clearance indicated): 64.80^o ABC
- (SP) 189. Air filter: (wet) (dry) Cartridge type: (yes) (no)

EXHAUST (see Photo Q)

195. Material of exhaust manifold: cast iron
196. Overall diameter of valves: 35.71 mm 1.406 inches
- (SP) 197. Maximum valve lift: 9.45 mm .372 inches
198. Number of valve springs: 1
199. Type of spring: coil (compression)
- * 200. Number of valves per cylinder: 1
- (SP) 201. Tappet clearance for checking timing (cold) 0 mm 0 inches
- (SP) 202. Valves open at (with tolerance for tappet clearance indicated): 53.12^o BBC
- (SP) 203. Valves close at (with tolerance for tappet clearance indicated): 23.80^o ATC
- (SP) 204. Inside diameter of exhaust manifold outlet: 1.88 in

CARBURETION (see Photo N)

210. Number of carburetors fitted: 1
- (SP) 211. Type: Down Draft
- (SP) 212. Make: Carter Y F
- (SP) 213. Model: 6421
214. Number of mixture passages per carburetor: 1
- (SP) 215. Flange hole diameter of exit port of carburetor: 42.85 mm 1.687 inches
- (SP) 216. Depending on type of carburetor, indicate: diameter at throat of venturi/s at the plane of maximum restriction. Dimension of mixture passage at the point of maximum restriction with the piston in its maximum open position (example SU type): 33.33 mm 1.3125 inches

+ For additional information concerning two-stroke engines and supercharged engines, add supplementary page

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MODEL Gremlin 232

FIA REC # _____

INJECTION (if fitted)

- 220. Make of pump: N.A.
- (SP) 222. Model or type of pump: N.A.
- 224. Location of injectors: N.A.
- (SP) 225. Minimum diameter of inlet pipe: N.A. _____ mm NA _____ inches
- 221. Number of plungers: N.A.
- 223. Total number of injectors: N.A.

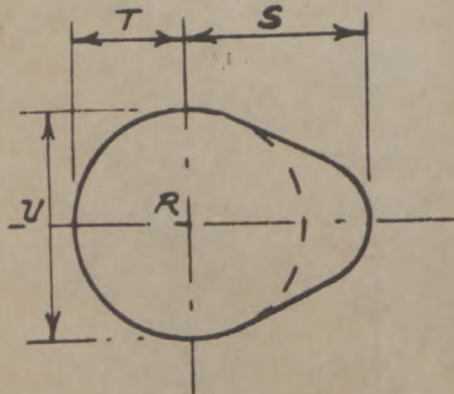
ENGINE ACCESSORIES

- (SP) 230. Fuel pump: mechanical and/or electrical
- 231. Number fitted: One
- 232. Type of ignition system: Conventional
- 233. Number of distributors: One
- 234. Number of ignition coils: One
- 235. Number of spark plugs per cylinder: One
- (SP) 236. Generator type: (dynamo) (alternator) Number:
- 237. Method of drive: Belt and Pulley
- 238. Voltage of generator: 12
- 239. Battery, number: One
- 240. Location of battery: Engine Compartment
- 241. Voltage of battery: 12 volts

ENGINE & CAR PERFORMANCE (as declared by manufacturer in catalog)

- (SP) 250. Horsepower, maximum engine output: 100 SAE at: 3600 rpm
(indicate SAE or DIN)
- (SP) 251. Maximum rpm: 3600 (SP) Output at that figure: 100
- (SP) 252. Maximum torque: 185 at: 1800 rpm
- (SP) 253. Maximum speed: N.A. km/hour N.A. miles/hour

255. CAM



(SP) Inlet cam

S =	25.4	mm	1.0	inches
T =	20.3	mm	.8	inches
U =	38.1	mm	1.5	inches

(SP) Exhaust cam

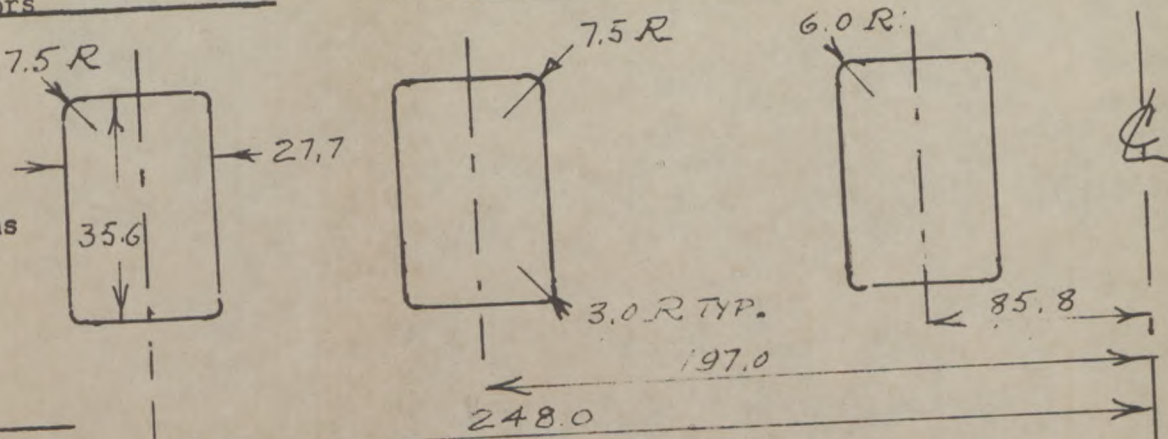
S =	25.4	mm	1.0	inches
T =	20.3	mm	.8	inches
U =	38.1	mm	1.5	inches

MAKE American Motors

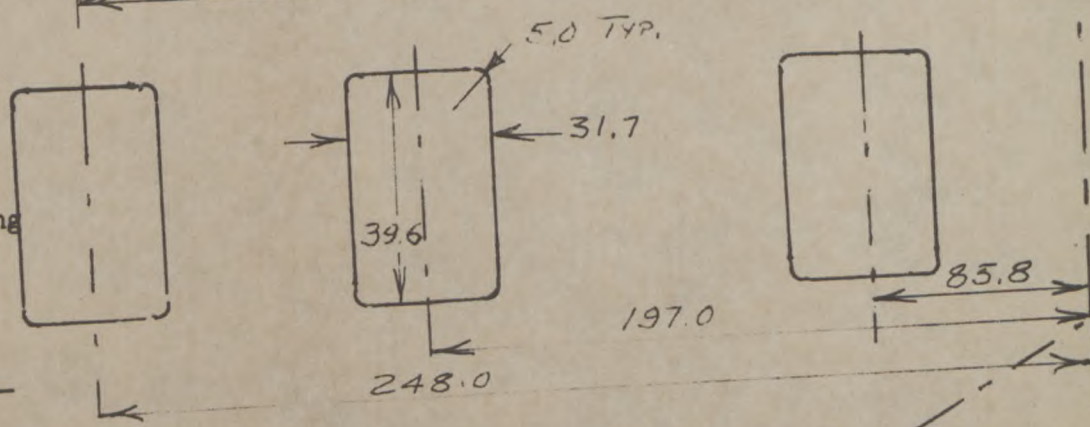
MODEL Gremlin 232

FIA REC # _____

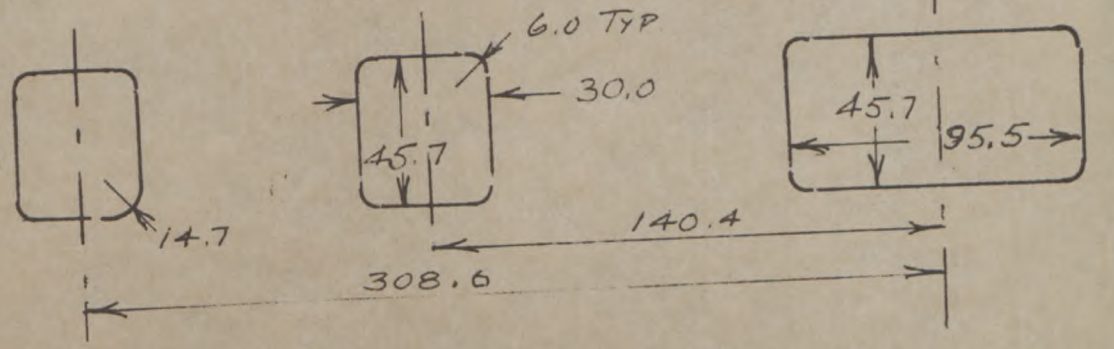
Drawing inlet manifold ports, side of cylinder head. Indicate scale or dimensions and manufacturing tolerance.



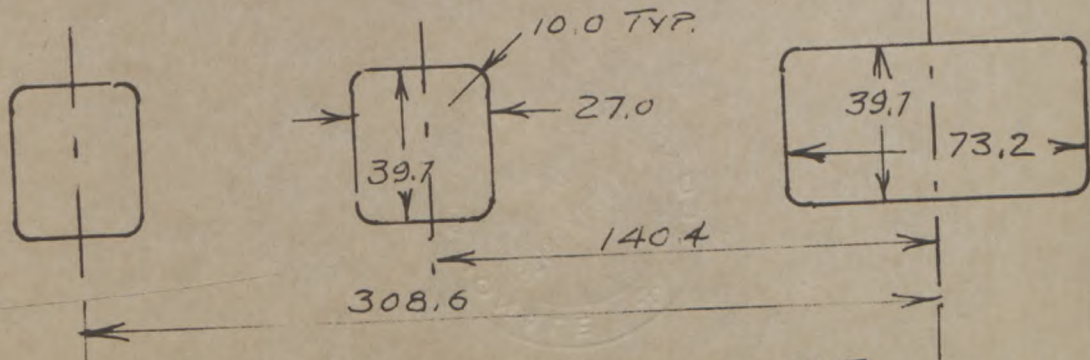
Drawing of entrance to inlet port of cylinder head. Indicate scale or dimensions and manufacturing tolerance.



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



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



ALL PORTS SYMMETRICAL ABOUT THIS TRANSVERSE CENTER LINE
ALL DIMENSIONS ± 0.5 mm
(8) ALL DIMENSIONS IN mm.

DRIVE TRAIN

Clutch

- 260. Type of clutch: Dry Plate
- 262. Diameter of clutch plates:
- 263. Inside diameter of lining:
- Outside diameter of lining:
- 264. Method of operation: Manual link

- 261. Number of plates: One
- 234.95 mm 9.25 inches
- 152.4 mm 6.00 inches
- 234.95 mm 9.25 inches

Gear Box (Photo H)

- * 270. Manual type, make: Warner T-14 Method of operation: External Manual link.
- * 271. Number of gear box forward ratios: Three
- 272. Synchronized forward ratios: One, Two and Three
- 273. Location of gear-shift: floor
- * 274. Automatic, make: Torque-Command Type: Torque converter, Planetary Gear
- * 275. Number of forward ratios: Three
- 276. Location of gear-shift: Column

277.	Manual		Automatic		Alternative Manual/Automatic			
	Ratio	No. Teeth	Ratio	No. Teeth	Ratio	No. Teeth	Ratio	No. Teeth
1	2.636	²⁹⁻³² 15-30	2.45					
2	1.605	²⁹⁻³² 23-38	1.45					
3	1.00	Direct	1.00					
4								
5								
6								
Reverse	2.636	²⁹⁻³² 14-28	2.20					

- 278. Overdrive, type: N.A.
- 279. Forward gears on which overdrive can be selected: N.A.
- 280. Overdrive ratio: N.A.

FINAL DRIVE

- * 290. Type of final drive: Ring and Pinion
- * 291. Type of differential: Warner Motive
- * 292. Type of limited slip differential (if fitted): Friction
- 293. Final drive ratio: 3.54 3.91
- Number of teeth: 11/39 11/43

IMPORTANT - For cars engaged in Group 2 (Special Touring) and Group 4 (Special Grand Touring) conformity with characteristics identified by symbol (SP) and entire page 8 IS NOT REQUIRED.

For cars engaged in Group 5 (Sport) only the characteristics identified by asterisks (*) need be verified.

EQUIPMENT AND ACCESSORIES available as options or production installed must indicate the part number of the option and the item number affected.



MAKE American Motors

MODEL Gremlin 232

FIA REC # _____

TABLE OF TOLERANCES

-Tolerances for all machining, except bore and stroke: $\begin{matrix} + \\ - \end{matrix} 0.2\%$

(articles 156, 158, 159, 181, 196, 215, 216, 225, 262, 263, and also the orifices appearing on page 8 of the recognition form.)

-Article 146: tolerance: $\begin{matrix} + \\ - \end{matrix} 0.5\%$

-Unfinished castings: $\begin{matrix} + 4\% \\ - 2\% \end{matrix}$

-Cam-lift: + 1%

(articles 132, 197, 255.)

-Weight (articles 160 to 164) : $\begin{matrix} + 7\% \\ - 3\% \end{matrix}$

-Width of the car at the front and rear axles : $\begin{matrix} + 1\% \\ - 0.3\% \end{matrix}$

-Track (article 1) : $\begin{matrix} + \\ - \end{matrix} 0.5\%$

Combustion chamber.

a) Volume of combustion chamber: 91.83 cc

b) Head gasket thickness (compressed) : .609 mm .024 in $\begin{matrix} + \\ - \end{matrix} .002$



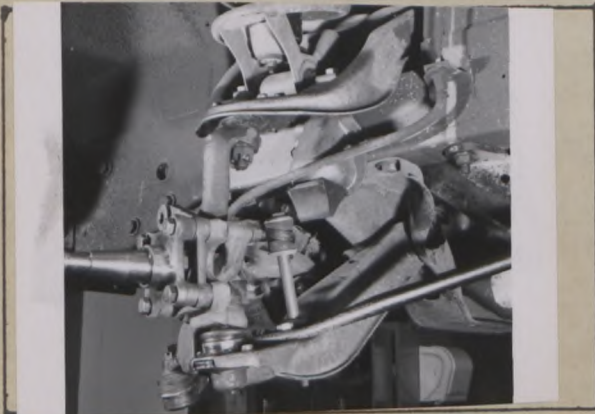
B 3/4 REAR CAR *



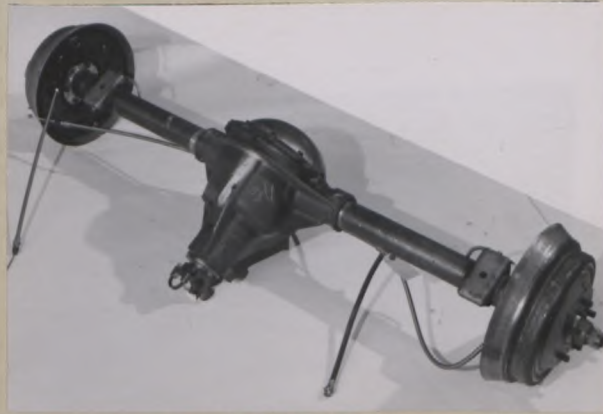
C INTERIOR CAR



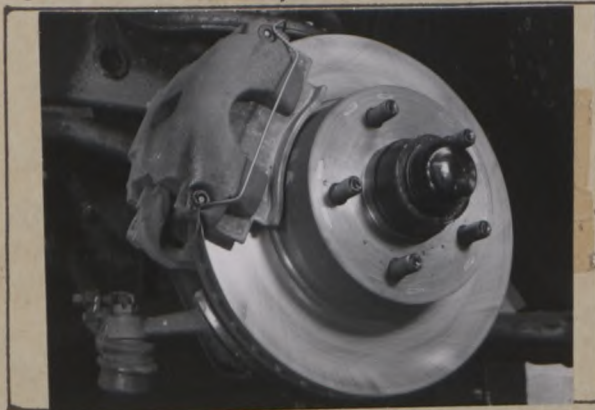
D FRONT AXLE *



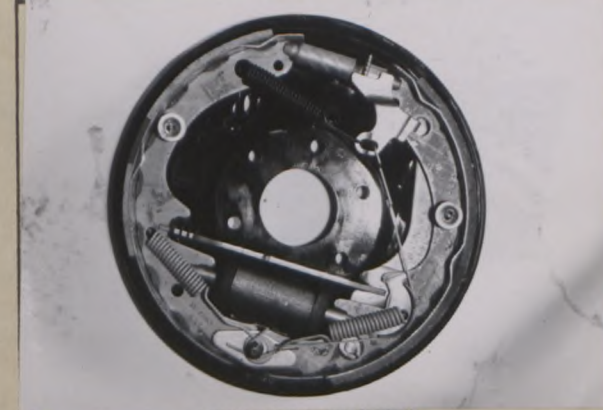
E REAR AXLE *



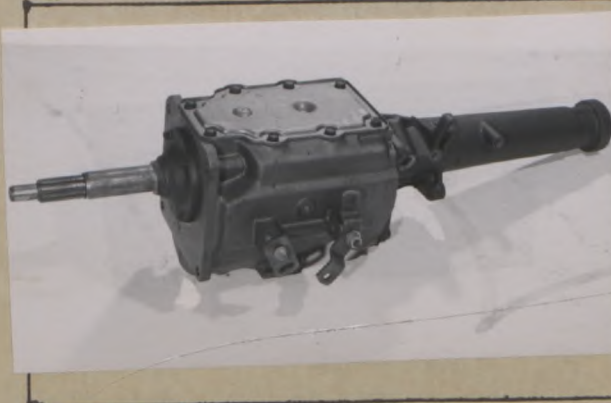
F BRAKE, FRONT *



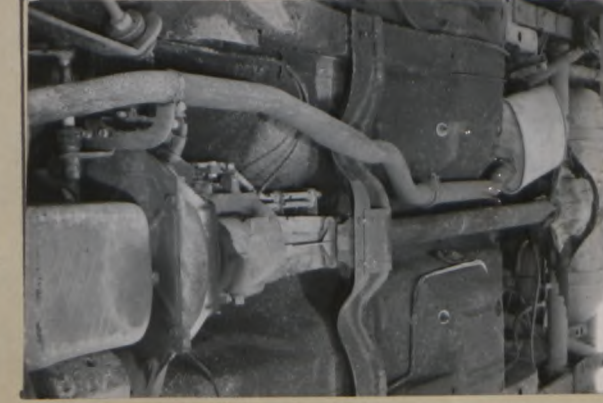
G BRAKE, REAR *



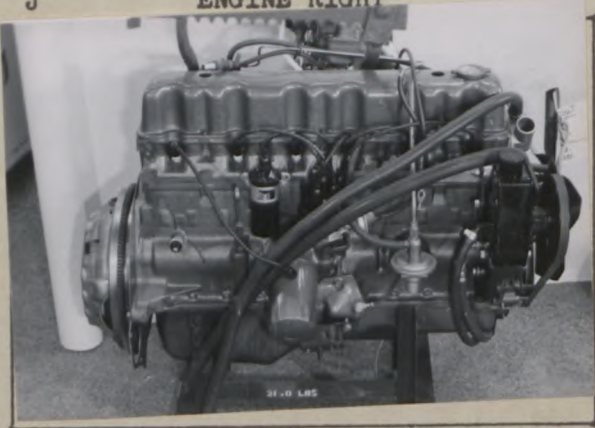
H GEAR BOX *



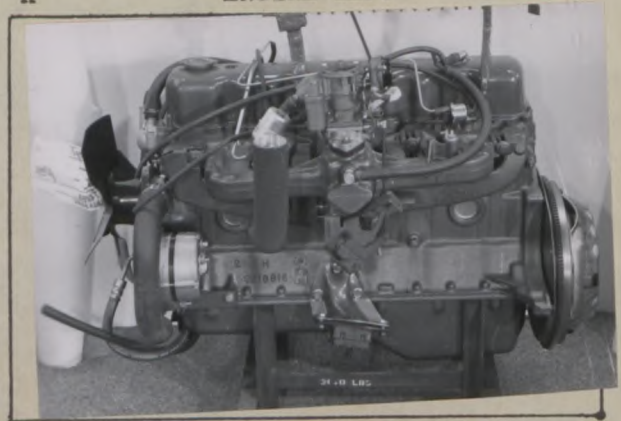
I EXHAUST SYSTEM



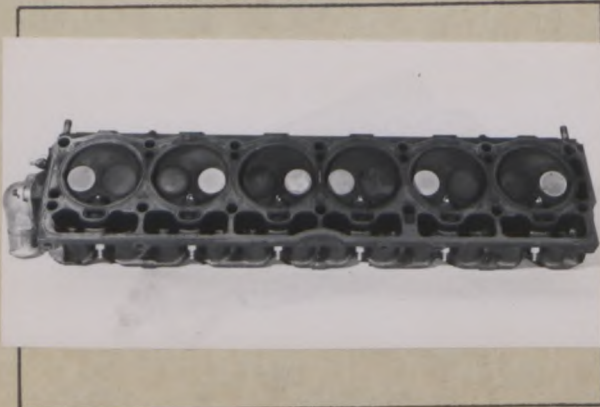
J ENGINE RIGHT *



K ENGINE LEFT *



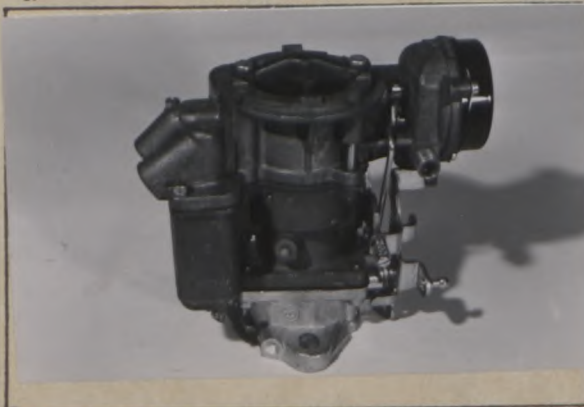
L COMBUSTION CHAMBER



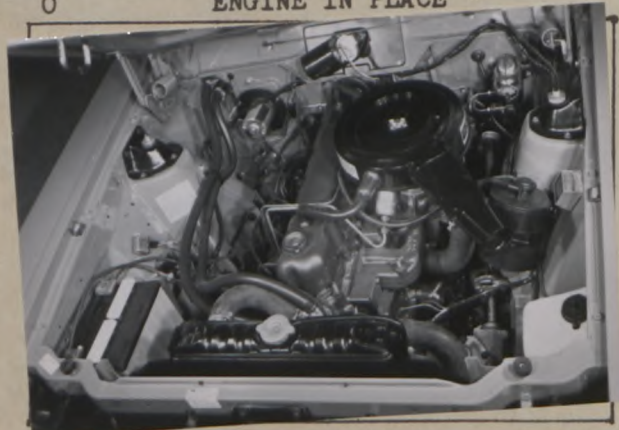
M PISTON TOP



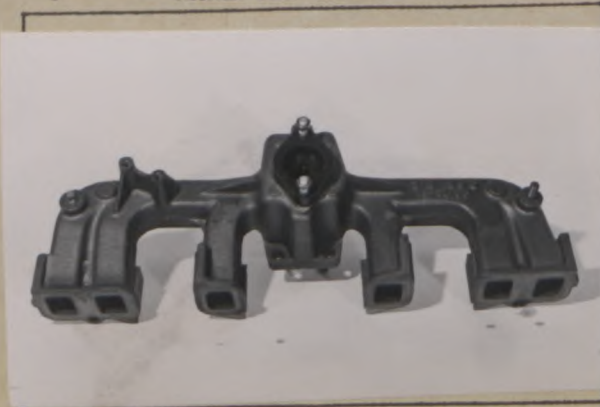
N CARBURETOR



O ENGINE IN PLACE *



P MANIFOLD INLET



Q MANIFOLD EXHAUST



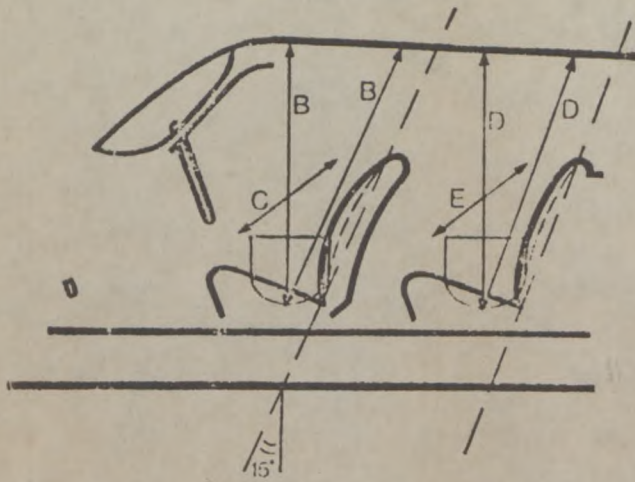
MAKE

American Motors

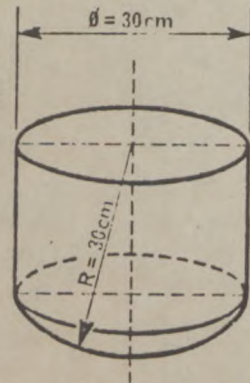
MODEL

Gremlin 23z

FIA REC NO.



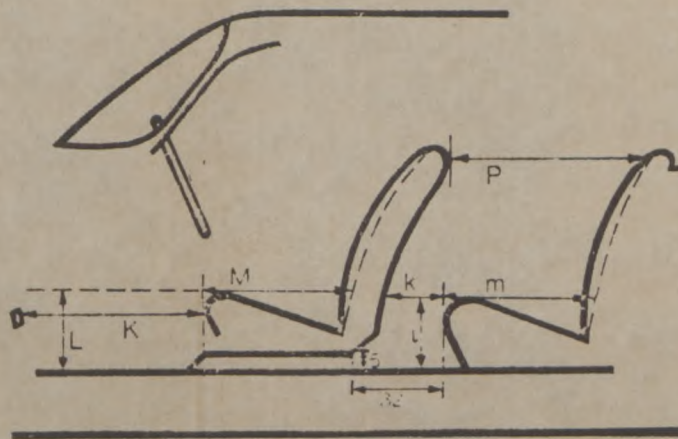
Dessin/drawing No. 1



Weight/tare 60 kgs + 200 grms.

Dessin drawing No. 2

Dimension	Inches	MM
B =	38	965.4
C =	58.44	1484.3
D =	36.4	924.56
E =	57.96	1345.7



Dessin drawing No. 3

Dimension	Inches	MM	Dimension	Inches	MM
L =	9.12	231.6	l =	12.46	316.4
M =	20.45	519.4	m =	16.78	426.7
K =	17.45	443.7	k =	8.7	220.9
P =	23.68	601.5			

STAMP

STAMP

1/IV



AUTOMOBILE COMPETITION COMMITTEE
FOR THE UNITED STATES, FIA, INC.
433 Main Street, Stamford, Conn. 06901
(203) 348-6233

FEDERATION INTERNATIONALE DE L'AUTOMOBILE
DOCUMENT OF HOMOLOGATION EXTENSION
IN CONFORMITY WITH APPENDIX J OF THE INTERNATIONAL SPORTING CODE

Make American Motors Corporation Model Gremlin 232-258

Serial numbers initiating the modifications described below: Chassis/Body A3F435A000001
Engine A3F435A000001

Date of production of first vehicles incorporating modifications: August 19 72

Designation of vehicles incorporating modifications: Gremlin 258

This homologation extension is to be considered as a: VARIANT (Option) XXX
NORMAL EVOLUTION OF TYPE
(Replaces previous design)

This Homologation is valid from 1.10 19 73 List

DESCRIPTION OF MODIFICATIONS:

Optional Crankshaft AMC Part # 8120508
(see enclosed page 5A, Items 134, 135, 136, 143, and 162)

Signature & Stamp of
National Sporting Authority

Signature & Stamp
of the F.I.A.

MAKE American Motors Corp.

MODEL Gremlin 258

FIA REC # 5507

1/IV

ENGINE (Photos J and K)

- * 130. Cycle: four
- * 131. Number of cylinders: six
- * 132. Cylinder arrangement: in line Wankel: # of elements & basic dimensions-
- * 133. Bore: 92.25 mm 3.75 inches
- * 134. Stroke: 99.06 mm 3.90 inches
- * 135. Capacity per cylinder: 704.64 cm³ 43 cu in
- * 136. Total cylinder capacity: 4229 cm³ 258 cu in
- * 137. Material of cylinder block: cast iron
- * 138. Material of sleeves (if fitted): none
- * 139. Cylinder head material: cast iron Number fitted: one
- * 140. Number of inlet ports: six
- * 141. Number of exhaust ports: six
- (SP)142. Compression ratio: 8.0
- (SP)143. Volume of combustion chamber: 101.34 cm³ 6.18 cu in
- (SP)144. Piston, material: aluminum
- (SP)145. Number of rings: three
- (SP)146. Distance from gudgeon pin centre line to highest point of piston crown: 40.67 mm 1.6 inches
- * 147. Crankshaft: (cast) (forged)
- * 148. Crankshaft, type: (integral) (sectioned)
- * 149. Crankshaft, number of main bearings: seven
- * 150. Material of bearing cap: cast iron
- 151. System of lubrication: (dry sump) (oil in sump)
- 152. Lubricant capacity: 4.73 litres pints 5 quarts U.S.
- (SP)153. Oil cooler: (yes) (no)
- * 154. Method of engine cooling: Water
- 155. Capacity of cooling system: 4.73 litres pints 10.5 quarts U.S.
- (SP)156. Cooling fan (if fitted) diameter: 39.67 cm 15.62 inches
- (SP)157. Number of blades of cooling fan: four

BEARINGS

- * 158. Crankshaft, main, type: alloy Diameter: 634.64 mm 2.498-5001 inches
- * 159. Connecting rod, big end, type: Diameter: 531.72 mm 2.0934-0955 inches

WEIGHTS

- (SP)160. Flywheel (clean): 14.2 kg 31.40 lbs
- (SP)161. Flywheel with clutch (all rotating parts): 19.9 kg 43.92 lbs
- (SP)162. Crankshaft: 30.57 kg 67.33 lbs
- (SP)163. Connecting Rod: .66 kg 1.46 lbs
- (SP)164. Piston with rings and pin: .7 kg 1.63 lbs

Rebore dimensions: 0.3 mm
 Resultant bore: 92.85 mm
 Resultant cylinder capacity: 4259 cc.
 Thickness of head gasket when compressed: 0.6 mm

