



AUTOMOBILE COMPETITION COMMITTEE
FOR THE UNITED STATES, F.I.A., INC.

433 MAIN ST.
STAMFORD, CONN. 06906.
(203) 348-6233

1526

Federation Internationale de l'Automobile
FORM OF RECOGNITION

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

Cylinder capacity 5567 cm3 339.7 in3

Manufacturer Chry. Ply. Div. Chrysler Corp Model Barracuda 340S

Serial # Chassis BX23P8X-XXXXXX Manufacturer Chrysler Corp.

Serial # Engine X340XX Manufacturer Chrysler Corp.

Recognition valid from 1st May 1968 List 1968/6

The manufacturing of the model described in this recognition form was started on Aug. 15, 1967 and the minimum production of 1000 identical cars, in accordance with the specifications of this form, was reached on March 1, 1968.

- (*) need not be answered for Group II and III cars.
- (**) only need to be answered for Group IV cars.

A 3/4 Front View Car **



The vehicle described in this form has been subject to the following amendments:

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

John V. Oliveau
JOHN V. OLIVEAU
TECHNICAL DIRECTOR

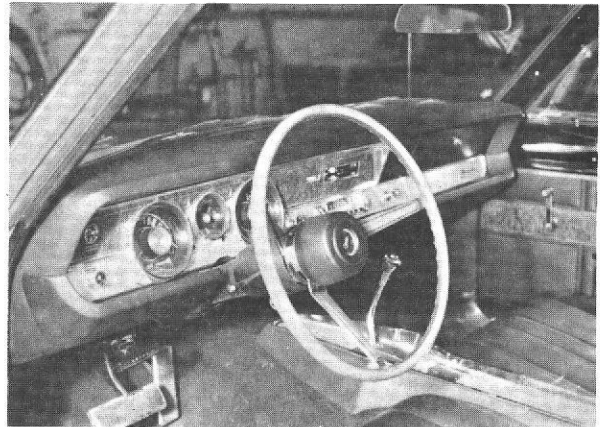
Stamp/Signature
F.I.A.

Hubert Johnson

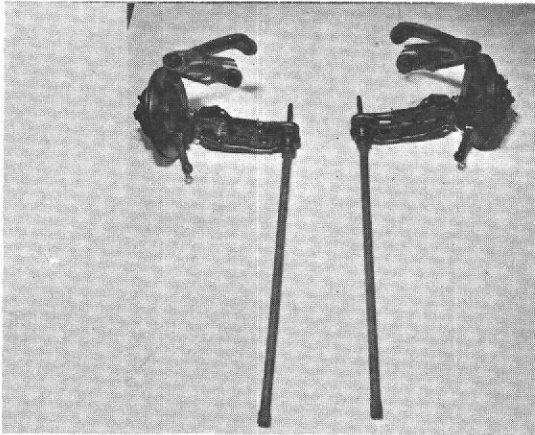
3/4 rear car (**)



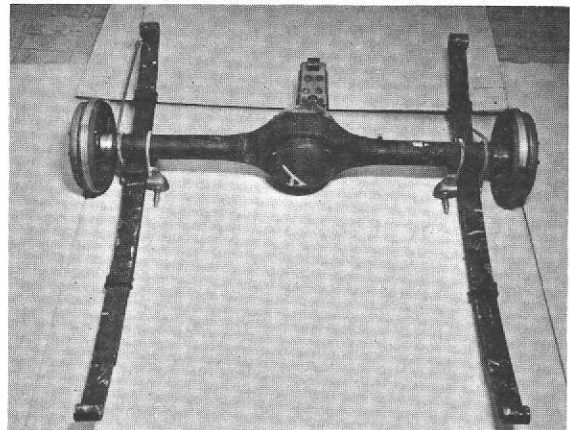
C interior-car (**)



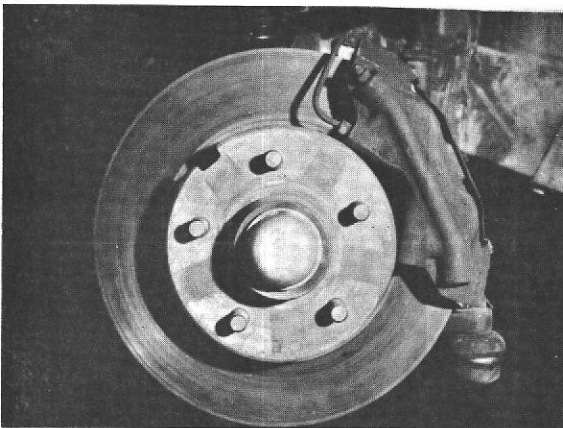
D front axle (**)



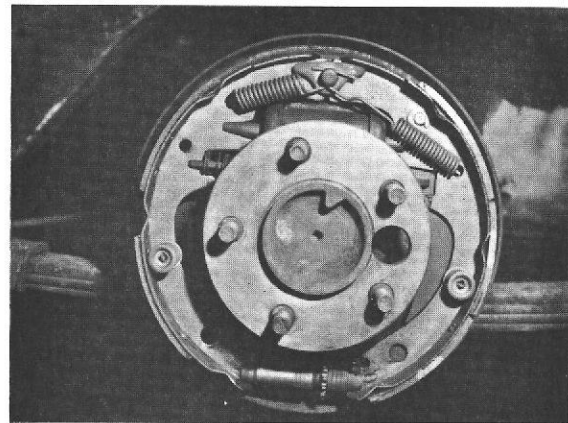
E rear axle (**)



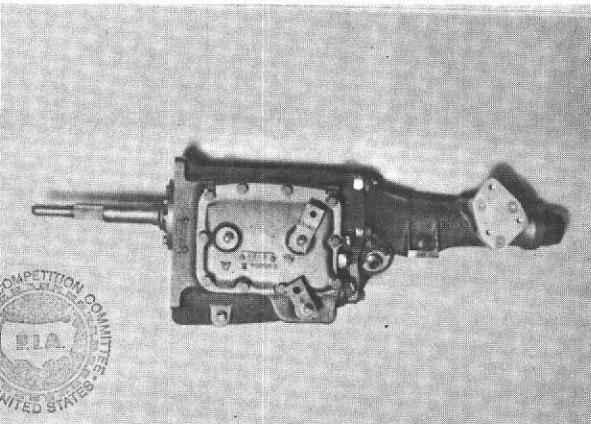
F brake, front (**)



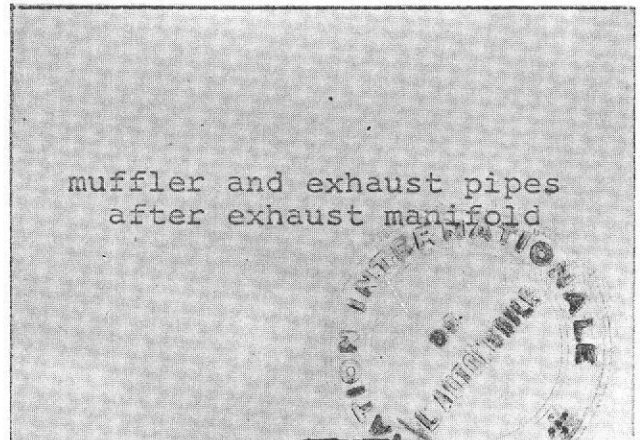
G brake, rear (**)



H gear box (**)



I exhaust system (*)

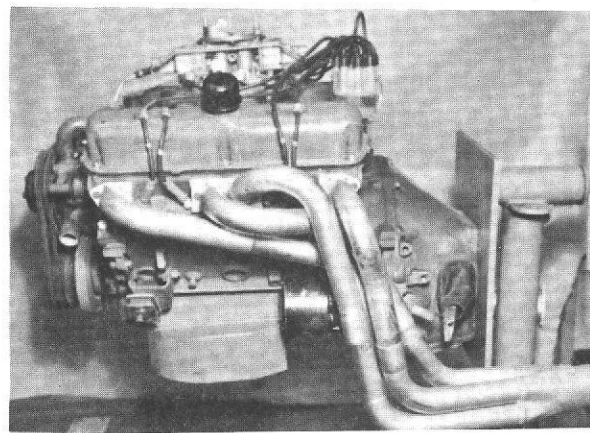
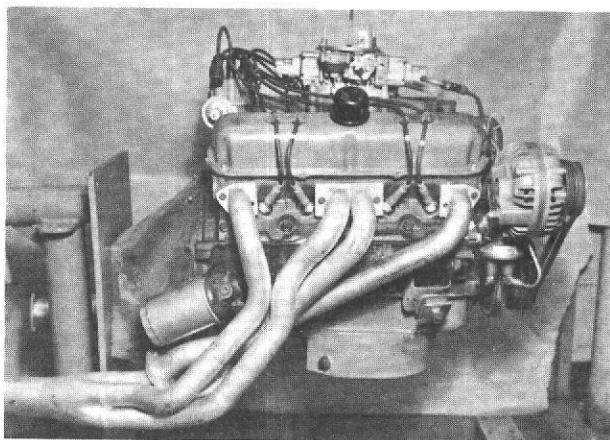


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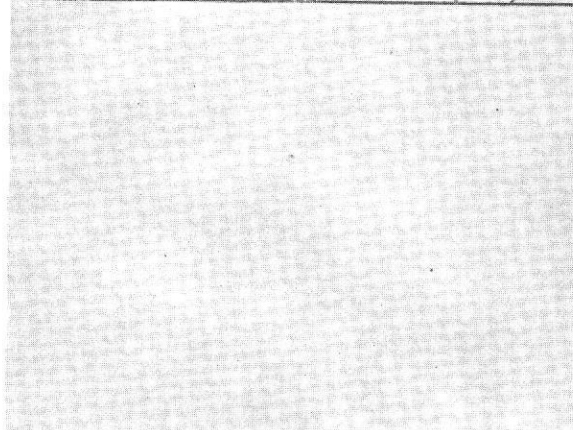
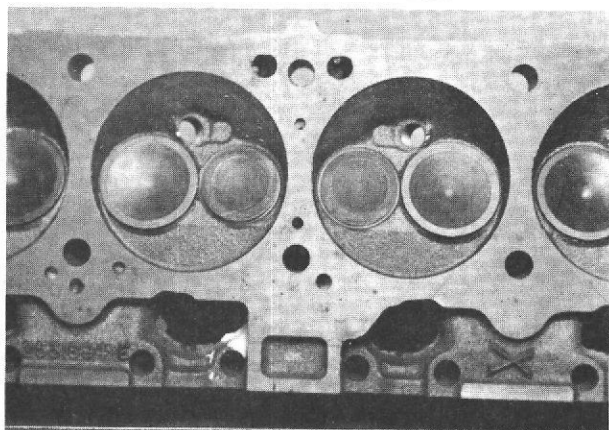
J ENGINE RIGHT (**)

K ENGINE LEFT (**)



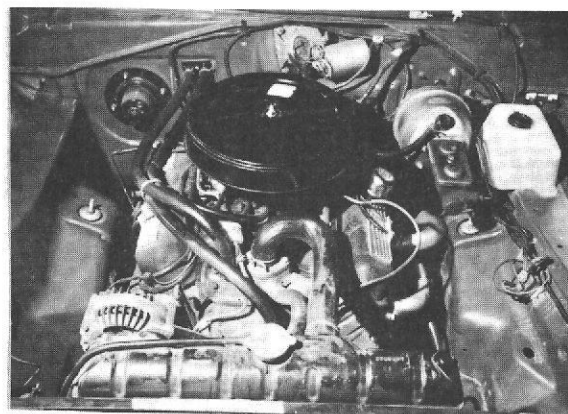
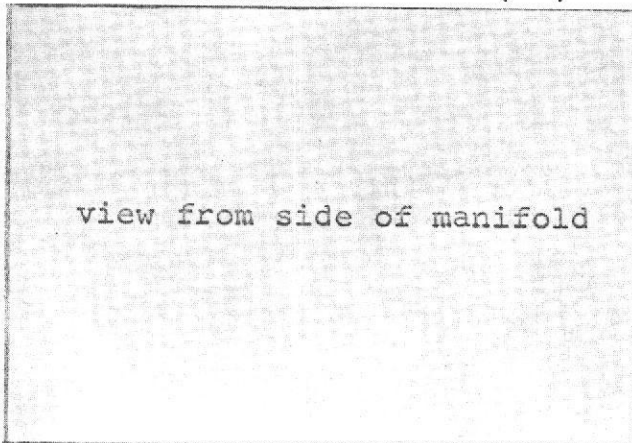
L COMBUSTION CHAMBER

M PISTON TOP (*)



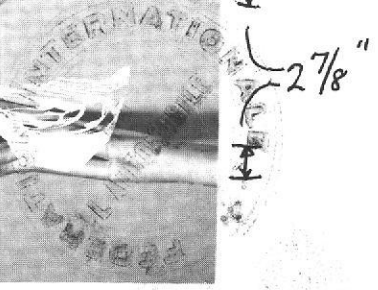
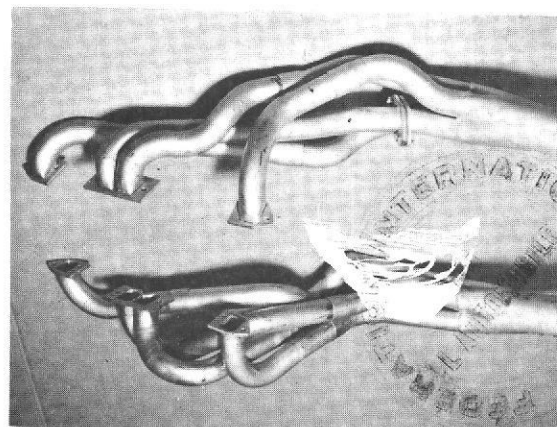
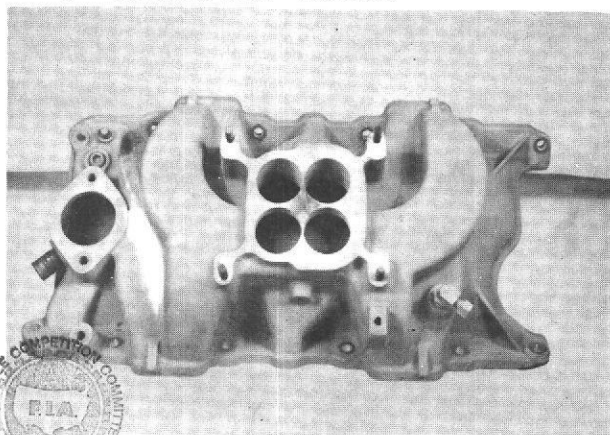
N CARBURETOR (*)

O ENGINE IN PLACE (**)



P MANIFOLD INLET

Q MANIFOLD EXHAUST



Strip out: ALL SKETCHES MUST INDICATE ACTUAL DIMENSIONS AND MANUFACTURER'S TOLERANCES.

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MAKE Plymouth MODEL Barracuda 340S FIA REC # 1526

ALL SKETCHES MUST INDICATE ACTUAL DIMENSIONS AND MANUFACTURER'S TOLERANCES.

Inlet

Manifold

Porting

Cyl.

D.N.A.

Head

Face

Cylinder

Head

Porting

D.N.A.

Inlet

Face

Exhaust

Manifold

Porting

D.N.A.

Cyl. Head

Face

Cylinder

Head

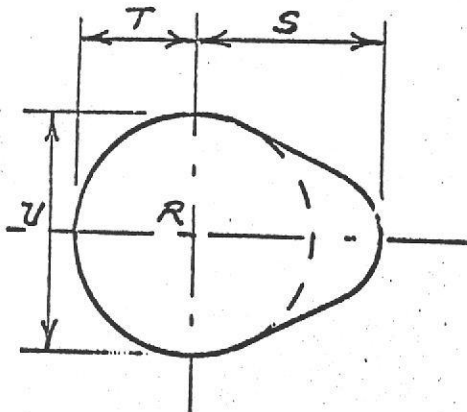
Porting

D.N.A.

Exhaust

Face

CAM



Inlet cam

S= mm in
T= mm in
U= mm in

Exhaust cam

S= mm in
T= mm in
U= mm in

D.N.A.

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IMPORTANT: Questions 1 through 9 must be answered in two measuring systems, one of which must be the metric system. See conversion table at index.

CAPACITIES & DIMENSIONS

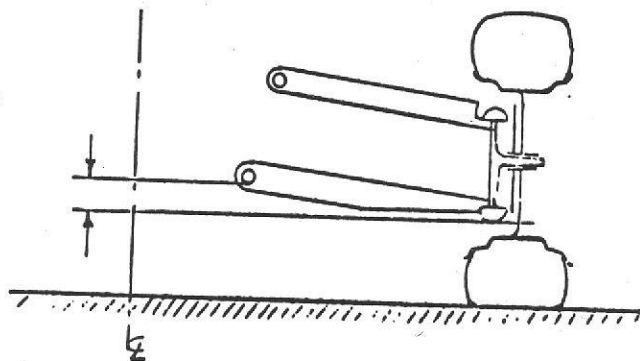
- (**) 1. Wheelbase 2744 mm 108.0 in
 - (**) 2. Front track 1455 mm 57.3 in + .5
 - (**) 3. Rear track 1468 mm 57.8 in + .5
- + Differences in track resulting from use of optional wheel and rim sizes must be stipulated on recognition application forms.

Dimensional relationship between track (front and/or rear) and ground clearance resulting from use of optional wheel sizes shall also be stipulated and a sketch illustrating suspension reference points shall be shown below to establish the "reference chassis height." The reference chassis height dimension is to be used only when checking track and shall not affect eligibility of car in any manner.

Sketch, Ground Clearance: Dimensional Suspension & Chassis Reference Points"

Rear Track is unaffected by changes in car height

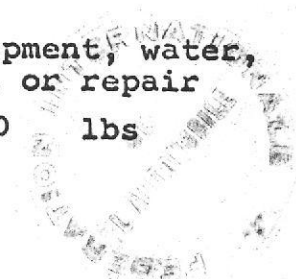
Front Track Car Height: 2.125 in



- 4. Overall length of car 489 cm 192.8 in
- 5. Overall width of car 182 cm 71.6 in
- 6. Overall height of car 136 cm 53.4 in
- 7. Capacity of fuel tank (reserve included) 68 ltrs.
18 gallons US gallons, Imp.
- 8. Seating capacity 4
- (**) 9. Weight - total weight of car with normal equipment, water, oil and spare wheel but without fuel or repair tools. .1247 kg 2740 lbs

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CHASSIS & BODYWORK - Photos A, B, C

- (**) 20. Chassis/body construction - separate/unit construction
- (**) 21. Unit construction - material/s stamped steel
- (**) 22. Chassis - material/s separate construction
- (**) 23. Body - material/s separate construction
- (**) 24. Doors - number material/s stamped steel
- (**) 25. Hood - material/s stamped steel
- (**) 26. Trunk Lid - material/s stamped steel
- 27. Window, Rear - material/s safety glass
- 28. Windshield - material/s safety glass - laminated
- 29. Windows, front door - material/s safety glass
- 30. Windows, rear door - material/s none
- 31. Windows - actuating system rotary crank
- 32. Window, rear quarter - material/s safety glass

ACCESSORIES AND UPHOLSTERY

- 38. Heating, interior - yes no
- 39. Air conditioning - yes no
- 40. Ventilation - yes no
- (*) 41. Seats, front - type of seat and upholstery D.N.A.
- 42. Seats, front - weight
(complete with supports & rails out of car) kg 20 lbs /seat
- CHECK: BENCH _____ BUCKET x CONSOLE INCLUDED Optional
- 43. Seats, rear - type of seat and upholstery bench-vinyl
- 44. Bumper, front - material/s stamped kg lbs 14.0 Weight
- 45. Bumper, rear - material/s steel kg lbs 15.2 Weight
stamped
steel

WHEELS

- 50. Type cast magnesium
- 51. Weight (per wheel, without tire) kg 13 lbs
- 52. Method of attachment five studs & nuts
- 53. Rim, diameter mm 15 in
- 54. Rim, width mm 7 in

SUSPENSION

- (**) 70. Suspension, front (photo D) - type independent
- (**) 71. Spring - type torsion bar
- (*) 72. Stabilizer - if fitted D.N.A.



- 73. Shock absorbers - number **Two (2)**
- 74. Type **Telescopic**
- (**) 78. Suspension, rear (photo E) - type **Live axle**
- (**) 79. Spring - type **Laminated leaf**
- (*) 80. Stabilizer - if fitted **D.N.A.**
- 81. Shock absorbers - number **Two (2)**
- 82. Type **Telescopic**

BRAKES (Photos E and F)

- (**) 90. Method of operation **Hydraulic**
- (*) 91. Power assisted (if fitted) - type **D.N.A.**
- 92. Master Cylinders - number and type **One - Tandem**
(indicate if duplex master cylinder) **Front Rear**
- 93. Cylinders - number per wheel **4 1**
- 94. Cylinders - wheel bore **mm 1.64in mm .81 in**
(indicate stepped bore dimensions if applicable)

Drum Brakes

- | | <u>Front</u> | | <u>Rear</u> |
|------------------------------|---------------------------------|--|--------------------------------------|
| 95. Diameter, inside | mm in | | mm 10 in |
| 96. Linings, length | mm in | | mm 19.5 in |
| 97. Linings, width | mm in | | mm 2.5 in |
| 98. Shoes - number per brake | | | 2 |
| 99. Area, total - per brake | mm ² in ² | | mm ² 48.9 in ² |

Disc Brakes

- | | | | |
|------------------------------|---------------------------------|-----------------------|-----------------|
| 100. Diameter, outside | mm in | 11.1 mm | in |
| 101. Thickness of disc | mm in | .81 mm | in |
| 102. Lining - length | mm in | 4.8 mm | in |
| 103. Lining - width | mm in | 1.8 mm | in |
| 104. Pads - number per brake | | 2 | |
| 105. Area, total - per brake | mm ² in ² | 217.7 mm ² | in ² |



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ENGINE (Photos J and K)

(**) 130. Cycle two four Wankel
(**) 131. Cylinders - number eight
(**) 132. Cylinders - arrangement Vee Wankel - # of elements and basic dimensions
(**) 133. Bore mm 4.040 in
(**) 134. Stroke mm 3.312 in
(**) 135. Cylinders - capacity cm3 42.46 in3
(**) 136. Cylinders, total capacity cm3 339.7 in3
(**) 137. Cylinder Block - material/s cast iron
(**) 138. Sleeves - material/s (if fitted) none
(**) 139. Head, cylinder - material/s cast iron number fitted two
(**) 140. Port, inlet - number four/head
(**) 141. Port, exhaust - number four/head
(*) 142. Compression - ratio D.N.A.
(*) 143. Combustion chamber - volume cm3 in3 D.N.A.
(*) 144. Piston - material/s D.N.A.
(*) 145. Rings - number D.N.A.
(*) 146. Distance from gudgeon pin centre line to highest point of piston crown mm in D.N.A.
(**) 147. Crankshaft - cast-forged-mach from solid
(**) 148. Crankshaft - type - integral - sectioned - # of sections
(**) 149. Crankshaft, main bearings - number FIVE
(**) 150. Bearing cap - material/s cast iron
151. Lubrication - system - dry sump/oil in sump
152. Lubricant - capacity ltrs pts 6 qts US
(*) 153. Cooler, oil - yes no D.N.A.
154. Cooling - method Water
155. Cooling - capacity of system ltrs pts 19 qts US



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- (*) 156. Fan, cooling (if fitted) - diameter cm in D.N.A.
(*) 157. Fan, cooling - number of blades material/s D.N.A.

BEARINGS

- (**) 158. Crankshaft, main - type insert diameter mm 2.50 in
(**) 159. Connecting rod, big end - type insert diameter mm 2.13 in

WEIGHTS D.N.A.

- (*) 160. Flywheel (clean) kg lbs
(*) 161. Flywheel with clutch (all rotating parts) kg lbs
(*) 162. Crankshaft kg lbs
163. Connecting Rod kg lbs
(*) 164. Piston with rings & pin kg lbs

FOUR CYCLE ENGINES

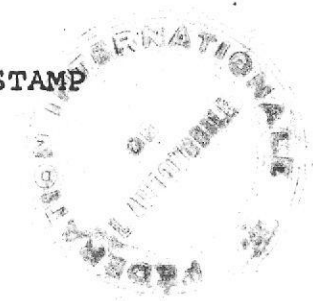
- (**) 170. Camshafts - number one material/s cast iron
(**) 171. Camshaft - location in cyl. block
(**) 172. Camshaft Drive, type chain and sprocket
(**) 173. Valve operation - type push rod

INLET (See Photo P) (for addtl info re 2 stroke engines and super charged, see page 15)

180. Inlet manifold - materials aluminum
181. Valves (overall) - diameter mm 2.02 in
(*) 182. Valve lift - maximum D.N.A. mm in
183. Springs, valve - number two/valve
184. Spring - type coil
(**) 185. Valves, per cylinder - number one
(*) 186. Tappet - clearance for checking timing (cold) mm in D.N.A.
(*) 187. Valves - open at (with tolerance for tappet D.N.A. clearance indicated)
(*) 188. Valves - close at (with tolerance for tappet D.N.A. clearance indicated)
(*) 189. Air filter - type D.N.A.

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EXHAUST (See Photo Q)

- 195. Manifold, exhaust - material/s steel
- 196. Valves (overall) - diameter mm 1.60 in
- 197. Valve, lift - maximum mm in D.N.A.
- 198. Valve Springs/valve - number two/valve
- 199. Springs - type coil
- (**) 200. Valves - number per cylinder one
- (*) 201. Tappet - clearance for checking timing (cold) D.N.A.
mm in
- (*) 202. Valves - open at (with tolerance for tappet clearance indicated) D.N.A.
- (*) 203. Valves - close at (with tolerance for tappet clearance indicated) D.N.A.

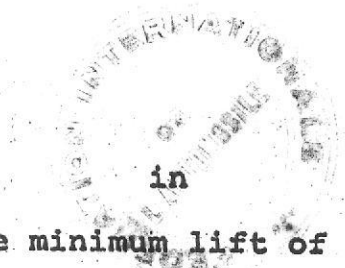
CARBURETION (See Photo N)

- 210. Carburetors, fitted - number one
- 211. Type downdraft 4V
- (*) 212. Make D.N.A.
- (*) 213. Model D.N.A.
- 214. Carburetors - number of mixture passages four
- (*) 215. Carburetor - flange hole diameter of exit port mm in D.N.A.
- 216. Venturi - throat diameter+ mm in pri - 1.38
sec - 1.44

INJECTION D.N.A.

- 220. Pump - make
- 221. Plungers - number
- (*) 222. Pump - model
- 223. Injectors - location
- 224. Injectors - total number
- (*) 225. Inlet pipe - minimum diameter mm in

+ For variable throat type carburetors, indicate minimum lift of shutter mechanism such as pistons in S.U.



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Gear Box (Photo H)

- (**) 270. Manual type - make **synchro mesh - Chrysler**
- (**) 271. Ratios, forward - number **four**
- 272. Ratios, forward - number synchronized **four**
- 273. Gear-Shift - location **floor optional**
- (**) 274. Automatic - make **Chrysler** type **planetary gear train with torque converter**
- (**) 275. Ratios, forward - number **three**
- 276. Gear-Shift - location **floor - optional - steering column**

277.	Manual		Automatic		Alternative manual/automatic			
	Ratio	# Teeth	Ratio	# Teeth	Ratio	# Teeth	Ratio	# Teeth
1	2.66	$\frac{24}{31} \frac{35}{17}$	2.45	Annulus 62	2.65	$\frac{21}{27} \frac{33}{16}$		
2	1.91	$\frac{24}{31} \frac{34}{23}$	1.45	Sun 28	1.64	$\frac{21}{27} \frac{28}{22}$		
3	1.39	$\frac{24}{31} \frac{29}{27}$	1.00	Planet 17	1.19	$\frac{21}{27} \frac{26}{29}$		
4	1.00	direct			1.00	direct		
5								
6								
reverse	2.58	$\frac{24}{31} \frac{17}{22} \frac{22}{34}$	2.20		2.57	$\frac{21}{27} \frac{17}{22} \frac{22}{34}$		

- 278. Overdrive - type **none**
- 279. Forward gears on which overdrive can be selected **D.N.A.**
- 280. Overdrive - ratio **D.N.A.**

FINAL DRIVE

- (**) 290. Type **Hypoid Gears**
- (**) 291. Differential - type **semi floating**
- (**) 292. Limited Slip Differential (if fitted) - type **positive locking**
- 293. Ratio **3.23 3.55 3.91 4.10**
Teeth - number **13/42 11/39 11/43 10/41**
- (/) Specify friction or positive locking type **STAMP**



IMPORTANT

The conformity of the car with the following items of the present recognition form is to be disregarded during the technical inspection when the vehicle has been entered in Group II (Touring Cars) or III (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, photos I, M, N & items on page 5 as indicated.

During the technical inspection of cars entered in Group IV (Sports Cars) 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 & photos A, B, D, E, F, G, H, J, K, O.

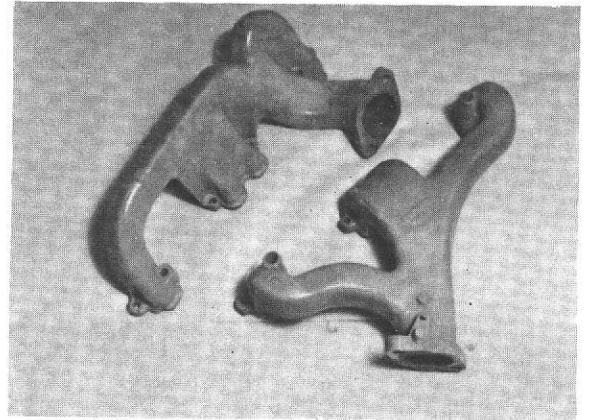
Optional equipment affecting preceding information:

CATALOGUE PART NUMBER MUST BE GIVEN

			<u>OPTIONAL WHEELS</u>		Track Dim.	
					Front	Rear
2823862	Stamped Steel	15 x 6	57.8 in	± .5	58.3 in	± .5
2823778	Stamped Steel	14 x 6½	57.6 in	± .5	58.1 in	± .5

CAST IRON EXH. MANIFOLDS

2863546	Right	Outlet	2 5/16"
2863552	Left	Outlet	2 5/16"
2070824	Friction type limited slip diff.		
3412010	Auxillary Gas Tank - to replace std. tank 42 gal. trunk mounted gas tank.		



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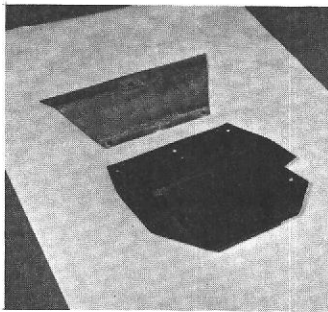
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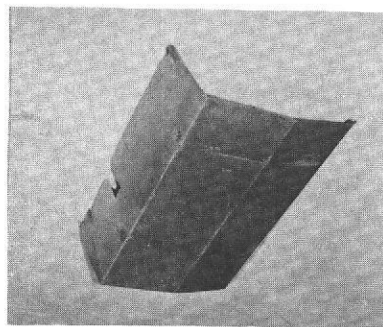
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Optional Equipment - CATALOGUE PART NUMBER MUST BE GIVEN

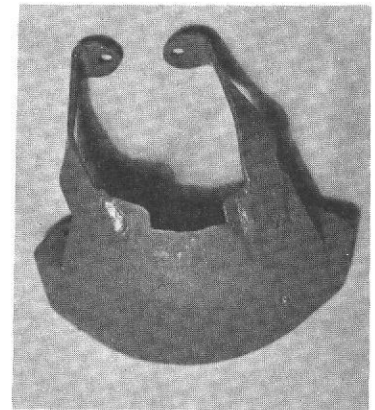
3412007 - ENGINE SUMP
Prot. plate - Mat'l
Aluminum & Steel



3412008 - GAS TANK
Prot. plate for std.
tank - Mat'l
Aluminum



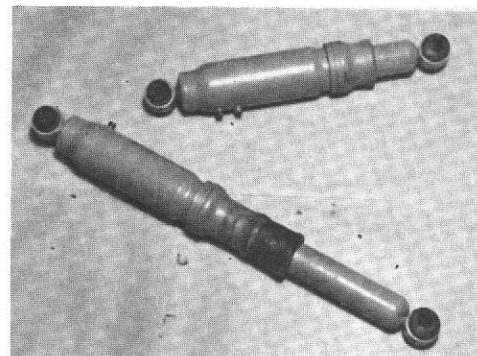
3412009 - REAR AXLE
Protective plate
Mat'l - Steel



Shock Absorbers w/air chamber for height adj.

2412011 Front

3412012 Rear



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Optional Equipment CATALOGUE PART NUMBER MUST BE GIVEN

The Barracuda is also available with the optional roofline shown in the photographs below. Car is otherwise identical in all respects to the Plymouth Barracuda Hardtop Model.

Serial # Model BX29P8X-XXXXXX



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