



AUTOMOBILE COMPETITION COMMITTEE
FOR THE UNITED STATES, FIA, INC.

433 MAIN ST.
STAMFORD, CONN. 06901
(203) 348-6233

1563 C
Elim
302
G II

Federation Internationale de l'Automobile
FORM OF RECOGNITION

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

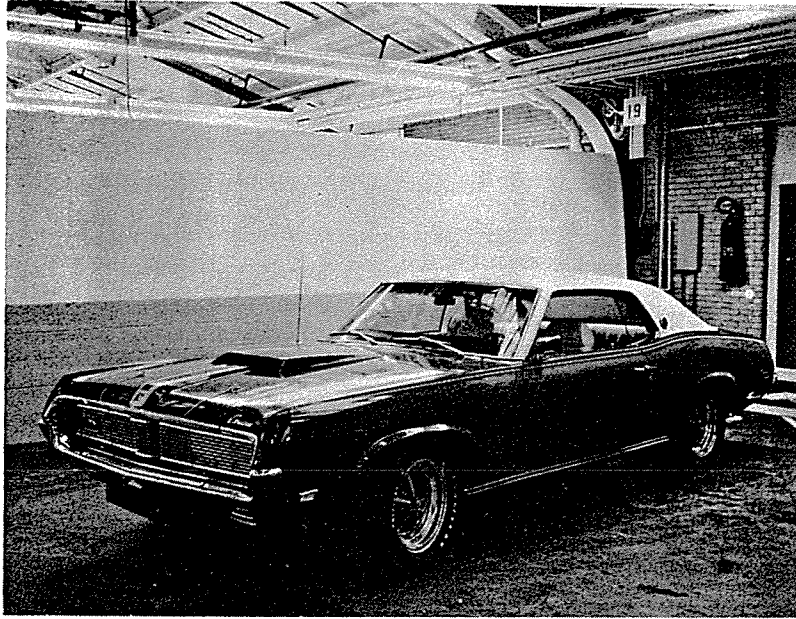
Cylinder capacity 4948.9 cm3 302 in3
Lincoln Mercury Division
Manufacturer Ford Motor Company Model 1969 Cougar Eliminator 302
Lincoln Mercury Division
Serial # Chassis 9-91-500001 Manufacturer Ford Motor Company
Lincoln Mercury Division
Serial # Engine None Manufacturer Ford Motor Company

Recognition valid from _____ List _____

The manufacturing of the model described in this recognition form was started on Oct 7, 1968 and the minimum production of 1,000 identical cars, in accordance with the specifications of this form, was reached on January 10, 1969.

(*) 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:

<u>Variants</u>	<u>Normal evolution of the type</u>
on <u>19</u> rec # <u>list</u>	on <u>19</u> rec # <u>list</u>
on <u>19</u> rec # <u>list</u>	on <u>19</u> rec # <u>list</u>
on <u>19</u> rec # <u>list</u>	on <u>19</u> rec # <u>list</u>

Stamp/Signature of
National Sporting Authority

Stamp/Signature
F.I.A.

John V. Oliveau
JOHN V. OLIVEAU
TECHNICAL DIRECTOR
ACQUA, FIA, INC.



A. 4. 1969

MAKE Mercury

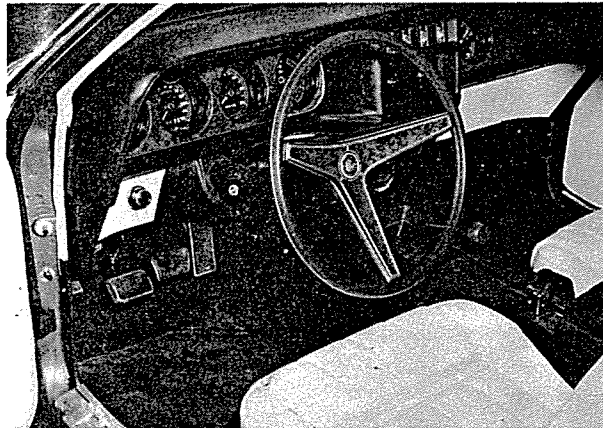
MODEL '69 Cougar

FIA REC # 1563

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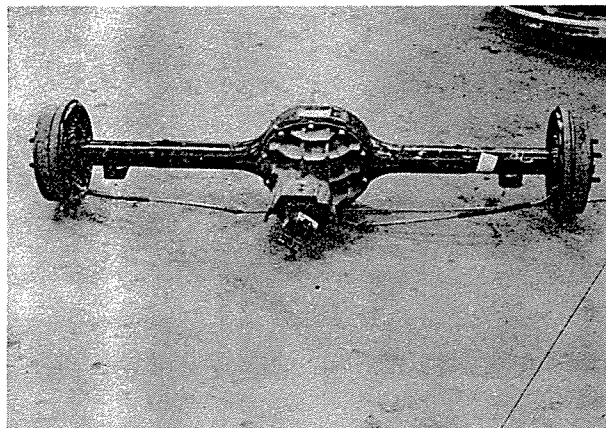
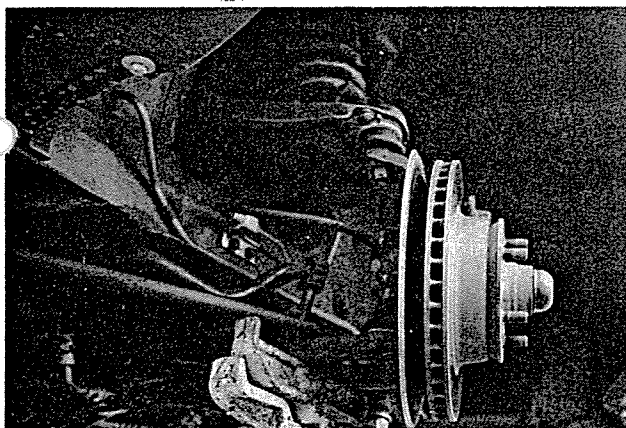
B 3/4 rear car (**)

C interior-car (**)



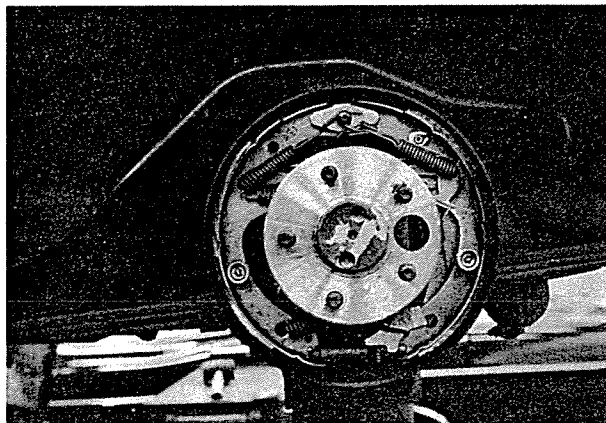
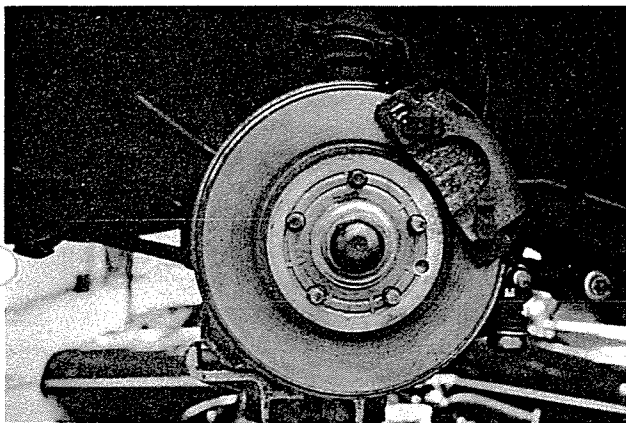
D front axle (**)

E rear axle (**)



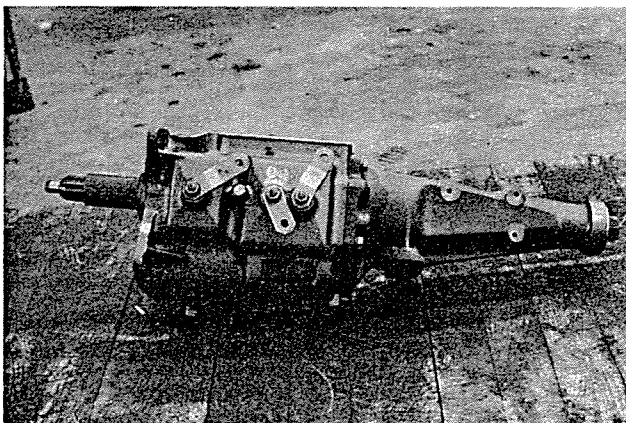
F brake, front (**)

G brake, rear (**)



H gear box (**)

I exhaust system (*)



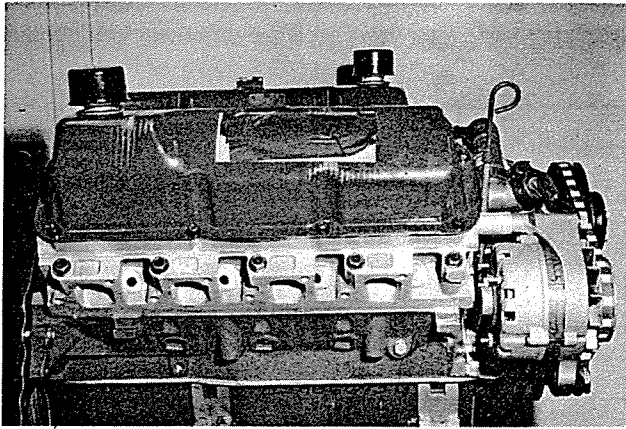
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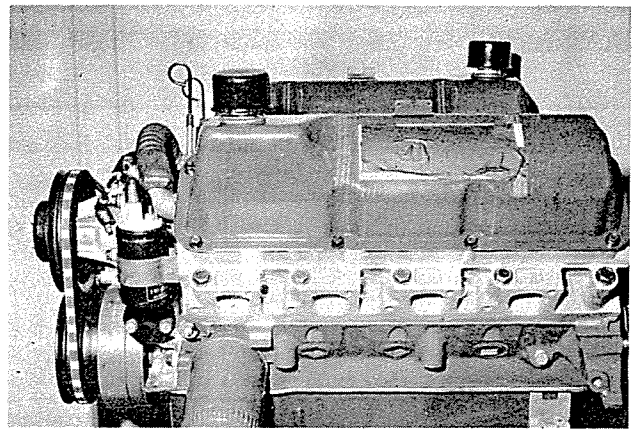
MAKE Mercury
J ENGINE RIGHT (**)

Eliminator 302
MODEL 69 Cougar

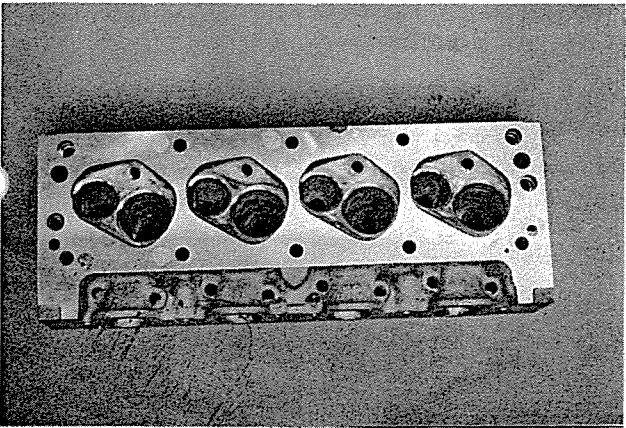
FIA REC # 1563 C
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L COMBUSTION CHAMBER



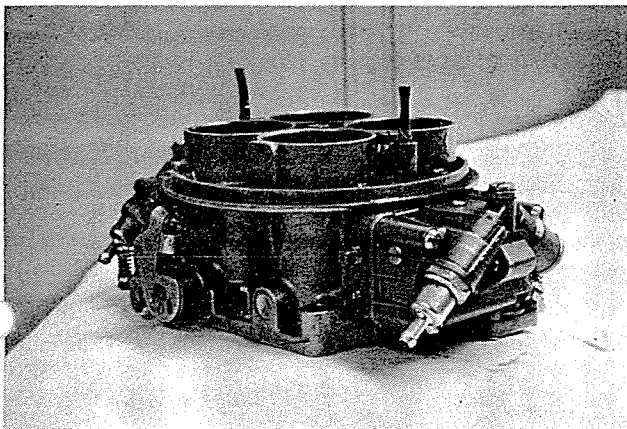
K ENGINE LEFT (**)



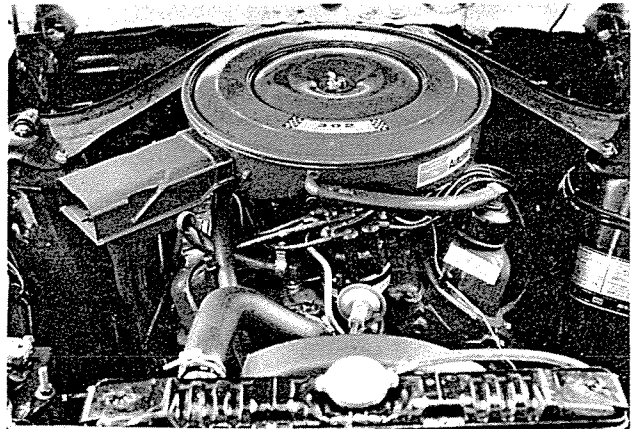
N CARBURETOR (*)



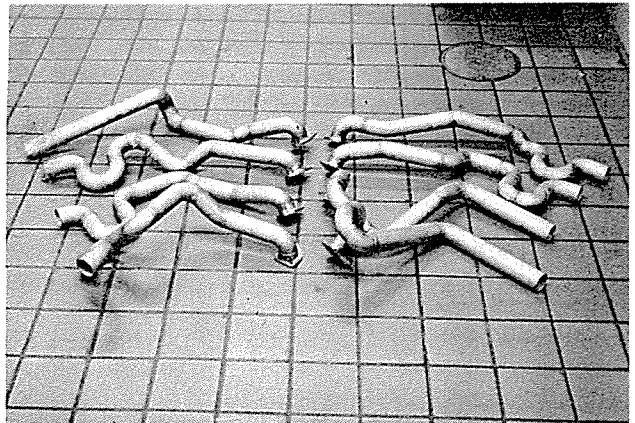
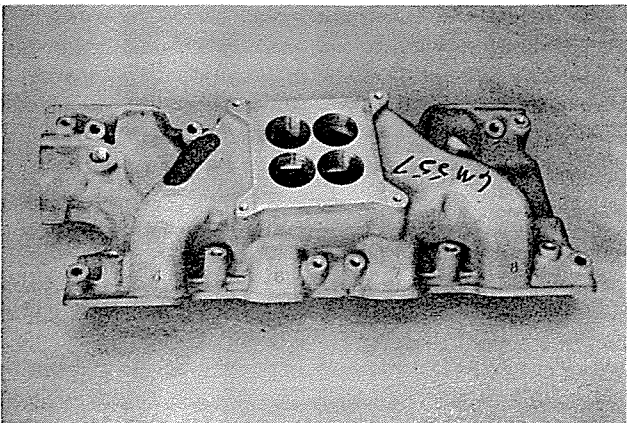
M PISTON TOP (*)



P MANIFOLD INLET



Q MANIFOLD EXHAUST

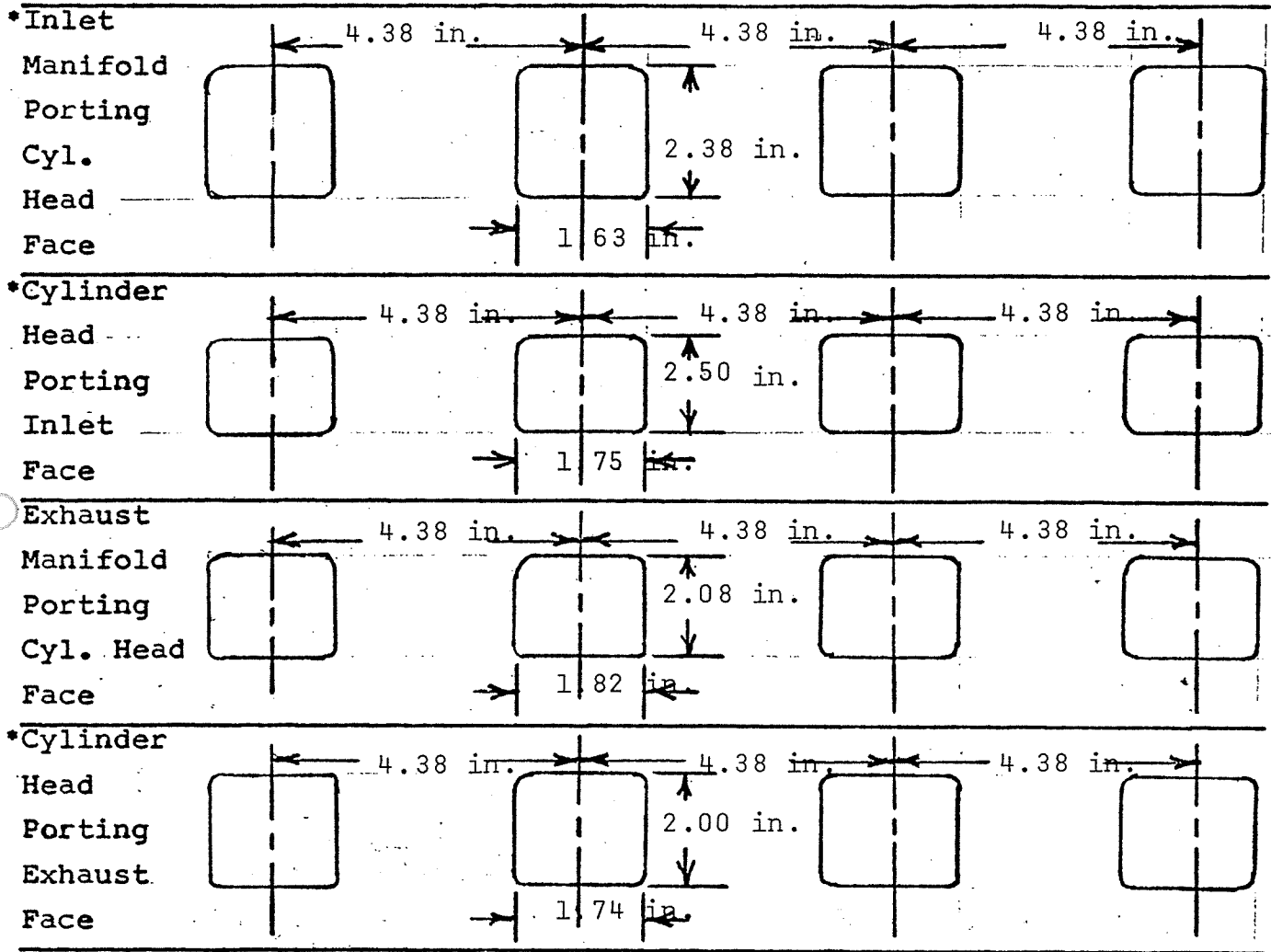


Strip out: ALL SKETCHES MUST INDICATE ACTUAL DIMENSIONS AND MANUFACTURER'S TOLERANCES.

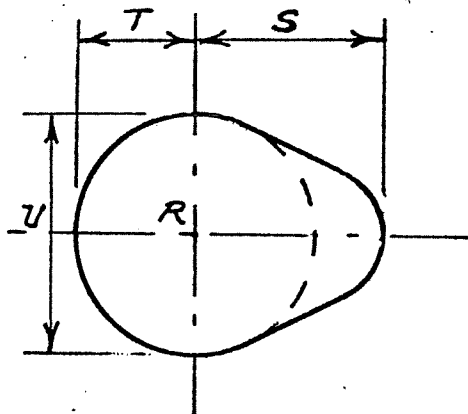
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ALL SKETCHES MUST INDICATE ACTUAL DIMENSIONS AND MANUFACTURER'S TOLERANCES. +/- .04 in. or 1 mm



CAM



Inlet cam

S=	25.35	mm	.998	in
T=	17.73	mm	.698	in
U=	35.46	mm	1.396	in

Exhaust cam

S=	25.35	mm	.998	in
T=	17.73	mm	.698	in
U=	35.46	mm	1.396	in

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MAKE Mercury MODEL 1969 Cougar Elim FIA REC # 1563

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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.

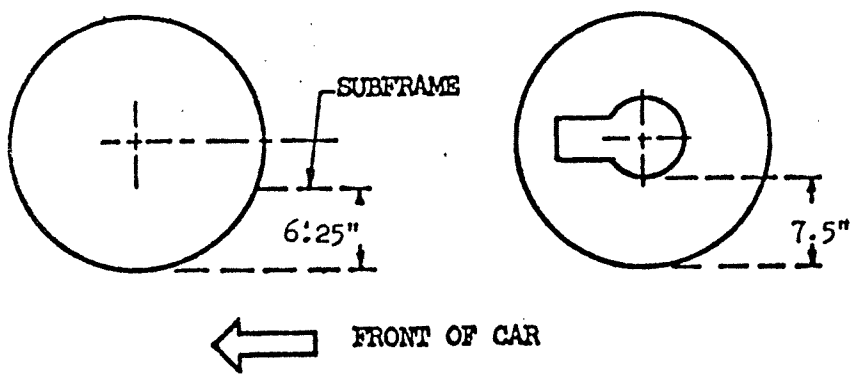
CAPACITIES & DIMENSIONS

- (**) 1. Wheelbase 2821.9 mm 111.1 in
- (**) 2. Front track with 7" wheels 1549.4 mm 61.0 in + at 0° camber
- (**) 3. Rear track with 7" wheels 1518.9 mm 59.8 in + at 0" toe-in
+ Differences in track resulting from use of optional wheel and rim sizes must be stipulated on recognition application forms.

** See note below

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"



** Note: Geometry changes in front suspension will alter track.

- 4. Overall length of car 492.25 cm 193.8 in
- 5. Overall width of car 188.47 cm 74.2 in
- 6. Overall height of car 130.81 cm 51.5 in
- 7. Capacity of fuel tank (reserve included) 64.3/140 ltrs.
17/37 gallons US gallons, Imp.
- 8. Seating capacity four (4)
- (**) 9. Weight - total weight of car with normal equipment, water, oil and spare wheel but without fuel or repair tools.
1314.5 kg 2898 lbs

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CHASSIS & BODYWORK - Photos A, B, C

- (**) 20. Chassis/body construction - separate/unit construction
- (**) 21. Unit construction - material/s sheet steel
- (**) 22. Chassis - material/s steel separate construction
- (**) 23. Body - material/s steel separate construction
- (**) 24. Doors - numbertwo (2)material/s steel
- (**) 25. Hood - material/s steel
- (**) 26. Trunk Lid - material/s steel
- 27. Window, Rear - material/s glass
- 28. Windshield - material/s glass
- 29. Windows, front door - material/s glass
- 30. Windows, rear door - material/s none
- 31. Windows - actuating system regulator
- 32. Window, rear quarter - material/s glass

ACCESSORIES AND UPHOLSTERY

- 38. Heating, interior - yes no optional
- 39. Air conditioning - yes no optional
- 40. Ventilation - yes no
- (*) 41. Seats, front - type of seat and upholstery Bucket/vinyl
- 42. Seats, front - weight
 (complete with supports & rails out of car) 14.8 kg 32.5 lbs each
- CHECK: BENCH _____ BUCKET X CONSOLE INCLUDED optional
- 43. Seats, rear - type of seat and upholstery bench/vinyl
- 44. Bumper, front - material/s steel kg 5.13lbs 11.3 Weight
- 45. Bumper, rear - material/s steel kg 5.76lbs 12.7 Weight

WHEELS

- 50. Type steel or magnesium
- 51. Weight (per wheel, without tire) 5.9kg 13lbs
- 52. Method of attachment stud and nut (5)
- 53. Rim, diameter 381 mm 15 in
- 54. Rim, width 178/203 mm 7/8 in

STEERING

- 60. Type recirculating ball and nut
- 61. Servo assistance optional
- 62. Number of turns of steering wheel from lock to lock 3.74/4.64
- 63. In case of servo assistance 3.74

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MAKE Mercury MODEL '69 Cougar Elim- FIA REC # 302
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G II

SUSPENSION

- (**) 70. Suspension, front (photo D) - type Independent
- (**) 71. Spring - type Coil
- (*) 72. Stabilizer - if fitted yes
- 73. Shock absorbers - number two (2)
- 74. Type tubular-adjustable
- (**) 78. Suspension, rear (photo E) - type live axyle
- (**) 79. Spring - type leaf
- (*) 80. Stabilizer - if fitted sway bar/traction bars
- 81. Shock absorbers - number two (2)
- 82. Type tubular-adjustable

BRAKES (Photos E and F)

- (**) 90. Method of operation hydraulic
- (*) 91. Power assisted (if fitted) - type pedal boost
- 92. Master Cylinders - number and type one (1) dual
- (indicate if duplex master cylinder) Front Rear
- 93. Cylinders - number per wheel
- 94. Cylinders - wheel bore 60.2 mm 2.375 in 22.2 mm .875 in
- (indicate stepped bore dimensions if applicable)

Drum Brakes

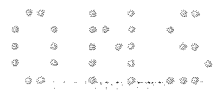
	<u>Front</u>	<u>Rear</u>
95. Diameter, inside	mm in 254 mm	10.0 in
96. Linings, length	mm in 495 mm	19.5 in
97. Linings, width	mm in 44.45 mm	1.75 in
98. Shoes - number per brake	two (2)	
99. Area, total - per brake	mm ² in ² 22,017.5	mm ² in ² 34.125

Disc Brakes

100. Diameter, outside	287 mm	11.3 in	mm	in
101. Thickness of disc	23.81 mm	.9375 in	mm	in
102. Lining - length	124.5 mm	4.9 in	mm	in
103. Lining - width	52.6 mm	2.07 in	mm	in
104. Pads - number per brake	two (2)			
105. Area, total - per brake	13097.4 mm ²	20.2 in ²	mm ²	in ²

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MAKE Mercury MODEL '69 Cougar Eliminator 302 FIA REC # C II

ENGINE (Photos J and K)

- (**) 130. Cycle two four Wankel
- (**) 131. Cylinders - number eight (8)
- (**) 132. Cylinders - arrangement Vee Wankel - # of elements and basic dimensions
- (**) 133. Bore 101.6 mm 4.0 in
- (**) 134. Stroke 76.2 mm 3.0 in
- (**) 135. Cylinders - capacity 619.4 cm3 37.8 in3
- (**) 136. Cylinders, total capacity 4948.9cm3 302 in3
- (**) 137. Cylinder Block - material/s cast iron
- (**) 138. Sleeves - material/s (if fitted) none fitted
- (**) 139. Head, cylinder - material/s cast iron number fitted two (2)
- (**) 140. Port, inlet - number eight (8)
- (**) 141. Port, exhaust - number eight (8)
- (*) 142. Compression - ratio 12.0:1
- (*) 143. Combustion chamber - volume 65.5cm3 3.997 in3
- (*) 144. Piston - material/s aluminum alloy
- (*) 145. Rings - number three (3)
- (*) 146. Distance from gudgeon pin centre line to highest point of piston crown 43.69 mm 1.72 in
- (*) 147. Crankshaft - cast-forged-mach from solid
- (**) 148. Crankshaft - type - integral - sectioned - # of sections
- (**) 149. Crankshaft, main bearings - number five (5)
- (**) 150. Bearing cap - material/s cast nodular iron
- 151. Lubrication - system - dry sump/oil in sump
- 152. Lubricant - capacity 10.41 ltrs pts 11 qts US
- (*) 153. Cooler, oil - yes no
- 154. Cooling - method water radiator
- 155. Cooling - capacity of system 18.26 ltrs pts 19.3 qts US

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

BEARINGS

- (**) 158. Crankshaft, main - type insert diameter 57.11 mm 2.249 in
 (**) 159. Connecting rod, big end - type insert diameter 53.91 mm 2.1224 in

WEIGHTS

- (*) 160. Flywheel (clean) 9.07 kg 20.0 lbs
 (*) 161. Flywheel with clutch (all rotating parts) 30.30 kg 66.8 lbs
 (*) 162. Crankshaft 21.32 kg 47 lbs
 163. Connecting Rod .748 kg 1.65 lbs
 (*) 164. Piston with rings & pin .552 kg 1.216 lbs

FOUR CYCLE ENGINES

- (**) 170. Camshafts - number one (1) material/s alloy iron
 (**) 171. Camshaft - location cylinder block
 (**) 172. Camshaft Drive, type chain
 (**) 173. Valve operation - type tappet, push rod, rocker

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

180. Inlet manifold - materials aluminum alloy
 181. Valves (overall) - diameter 55.63 mm 2.19 in
 (*) 182. Valve lift - maximum 14.86 mm .585 in
 183. Springs, valve - number two (2)
 184. Spring - type coil and flat
 (**) 185. Valves, per cylinder - number one (1)
 (*) 186. Tappet - clearance for checking timing (cold) .635 mm .025 in
 (*) 187. Valves - open at (with tolerance for tappet 66° BTC clearance indicated)
 (*) 188. Valves - close at (with tolerance for tappet 84° ABC clearance indicated)
 (*) 189. Air filter - type dry element

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MAKE Mercury

MODEL '69 Cougar
Eliminator 302

RIA REC # 1563Elim
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EXHAUST (See Photo Q)

- 195. Manifold, exhaust - material/s tubular steel
- 196. Valves (overall) - diameter 41.91 mm 1.65 in
- 197. Valve, lift - maximum 15.24 mm .600 in
- 198. Valve Springs/valve - number two (2)
- 199. Springs - type coil and flat
- (**) 200. Valves - number per cylinder one (1)
- (*) 201. Tappet - clearance for checking timing (cold)
.635 mm .025 in
- (*) 202. Valves - open at (with tolerance for tappet 94° BBC
clearance indicated)
- (*) 203. Valves - close at (with tolerance for tappet 64° ATC
clearance indicated)

CARBURETION (See Photo N)

- 210. Carburetors, fitted - number one (1)
- 211. Type downflow
- (*) 212. Make holley
- (*) 213. Model 1100
- 214. Carburetors - number of mixture passages four (4)
- (*) 215. Carburetor - flange hole diameter of exit port
50.8 mm 2.00 in
- 216. Venturi - throat diameter+ 43.18 mm 1.70 in

INJECTION

- 220. Pump - make none fitted
- 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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ENGINE ACCESSORIES

- (*) 230. Pump, fuel - mechanical and/or electrical
- 231. Number fitted one (1) each two (2) total
- 232. Ignition system - type Battery and coil
- 233. Distributors - number one (1)
- 234. Coils, ignition - number one (1)
- 235. Spark plugs - number per cylinder one (1)
- 236. Generator (or Alternator) - number fitted one (1)
- 237. Drive - method Belt
- 238. Voltage, generator - volts 12.8
- 239. Battery - number one (1)
- 240. Location engine compartment or trunk
- 241. Voltage - volts 12 amp hrs 45

ENGINE & CAR PERFORMANCE as declared by mfr. in catalogue

- (*) 250. Horsepower - maximum engine output 290 at 6000 rpm SAE
(indicate SAE or DIN)
- (*) 251. RPM - maximum 6000 output at that figure 290
- (*) 252. Torque - maximum 345 at 3200 rpm
- (*) 253. Speed - maximum km/hour miles/hour

DRIVE TRAIN

Clutch

- 260. Type dry plate
- 261. Plates - number of driven one (1)
- 262. Plates - diameter 26.7 cm 10.5 in
- 263. Linings - diameter - inside 16.5 cm 6.5 in
Linings - diameter - outside 26.7 cm 10.5 in
- 264. Method of operation mechanical

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MAKE MERCURY

MODEL 69 Cougar Eliminator FIA REC # 1563 ^CElim

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G11

Gear Box (Photo H)

- (**) 270. Manual type - make Ford of Borg Warner
- (**) 271. Ratios, forward - number four (4)
- 272. Ratios, forward - number synchronized four (4)
- 273. Gear-Shift - location floor optional
- (**) 274. Automatic - make Ford type hydraulic with planetary gears and torque convertor
- (**) 275. Ratios, forward - number three (3)
- 276. Gear-Shift - location floor

277.	Manual		Automatic		Alternative manual/automatic			
	Ratio	# Teeth	Ratio	# Teeth	Ratio	# Teeth	Ratio	# Teeth
1	2.78	$\frac{23}{30} \frac{32}{15}$	2.46		2.32	$\frac{23}{25} \frac{32}{15}$		
2	1.93	$\frac{23}{30} \frac{31}{21}$	1.46	Torque converter Max. Ratio at stall 2.02:1	1.69	$\frac{23}{25} \frac{28}{18}$		
3	1.36	$\frac{23}{30} \frac{25}{24}$	1.00		1.29	$\frac{23}{25} \frac{25}{21}$		
4	1.00	direct			1.00	direct		
5								
6								
reverse	2.78		2.20			2.32		

- 278. Overdrive - type none fitted
- 279. Forward gears on which overdrive can be selected
- 280. Overdrive - ratio

FINAL DRIVE

- (**) 290. Type hypoid, semi-floating, straddl mounted pinion
- (**) 291. Differential - type locking by ratchet or roller
- (**) 292. Limited Slip Differential (if fitted) - type / positive locking by ratchet or roller
- 293. Ratio 3.00 3.10 3.25 3.40 3.50 3.70 3.91 4.11 4.33 4.57
Teeth $\frac{39}{13}$ $\frac{31}{10}$ $\frac{39}{12}$ $\frac{34}{10}$ $\frac{35}{10}$ $\frac{37}{10}$ $\frac{43}{11}$ $\frac{37}{9}$ $\frac{39}{9}$ $\frac{32}{7}$
- (/) Specify friction or positive locking type
STAMP STAMP 4.71 4.86 5.14
 $\frac{33}{7}$ $\frac{34}{7}$ $\frac{36}{7}$

MAKE Mercury

MODEL '69 Cougar Elim-

FIA REC # 1563C II

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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

S7Ms-6675-B Sump Guard 17.4 lbs

----- Staggered shock absorber mounts - rear

S8MR-2025-A Rear Disc Brake kit, includes: 65 lbs

2-Brake rotors-ventilated

2-caliper assemblies-R.H.+L.H.

2-Brackets, caliper mounting-RH +LH

2- Hubs, with required bearing assemblies, lines, fittings and attaching parts

applicable dimensions

100. Diameter outside 11.3 in. 287 mm.

101. thickness of rotor .94in. 24.2 mm

102. Lining-Length 4.875 in. 123mm

103. Lining-width 1.81 in. 45.97 mm

104. Pads-no.per brake two (2)

105. Area-total per brake 17.65 in 2 12,214 mm 2

Alternate Wheel-8" front track- 62.0 in. 1574.8 mm

rear track - 60.5 in. 1536.7 mm

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Optional Equipment - CATALOGUE PART NUMBER MUST BE GIVEN

277 (con't)	MANUAL		MANUAL	
	Ratio	Teeth	Ratio	Teeth
1.	2.36	$\frac{26}{29} \frac{36}{17}$	2.20	$\frac{27}{28} \frac{36}{17}$
2.	1.62	$\frac{26}{29} \frac{29}{20}$	1.42	$\frac{27}{28} \frac{26}{19}$
3.	1.20	$\frac{26}{29} \frac{27}{25}$	1.19	$\frac{27}{28} \frac{24}{21}$
4.	1.00	Direct	1.00	Direct

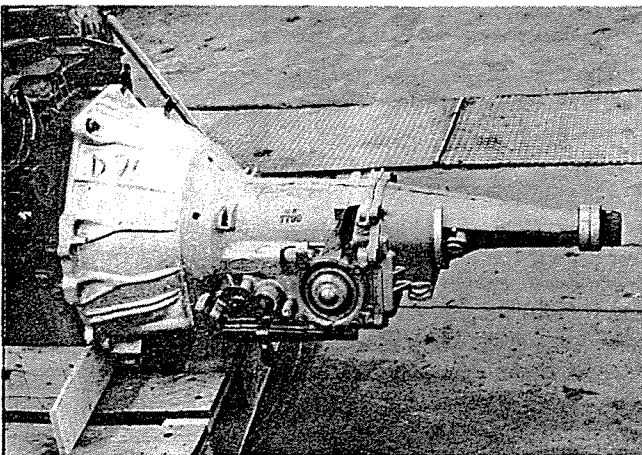
S8MR-2025-B Front disc brake fit-Four piston, includes: 21 Lbs.
 2- Caliper assemblies-R.H. + L.H. (Piston Bore-1.625"-41.3mm)
 2- Brackets, caliper mounting-R.H.+L.H., lines, fittings + attaching parts.

S8MR-2025-C Front disc brake kit-includes: 75 Lbs.
 2-Brake rotors-ventilated
 2-caliper assemblies-R.H. + L.H.
 2-Brackets, Caliper mounting-RH + LH
 2-Hubs, with required bearing assemblies, lines, fittings + attaching parts

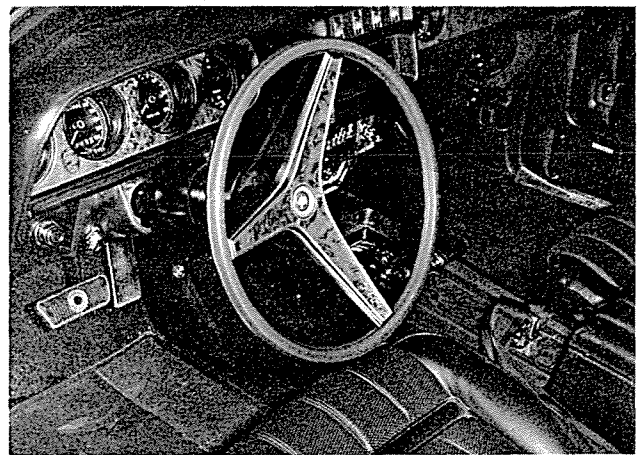
- Applicable dimensions:
- 100. Diameter, outside 11.96 in. 303.8 mm
 - 101. Thickness of rotor 1.25 in. 31.8 mm
 - 102. Lining length 5.36 in. 136.1 mm
 - 103. Lining width 1.90 in. 48.3 mm
 - 104. Pads-No. per Brake Two (2)
 - 105. Area, total per brake 20.36 in 2 13,147.3 mm 2

K9MR-5790-A Watts linkage-Rear Axle
 7379020 Deletion option-Deletes all sealers, sound deadeners & outside trim.

S1MR-61615-A Bucket seat assembly, driver and passenger-12 pounds each.



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Automatic Transmission Photo H. Interior with Automatic Transmission



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MODEL 69 Cougar Eliminator 302

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- S7MR-6650-B Differential cooler Kit, includes:
1-Radiator-Oil
1-Duct-Air and flange assembly
1-Plenum box
2-Pump-oil circulating
1-Bracket-Pump mount
required lines, fittings & attaching hardware
- S8MR-7009-A Transmission cooler kit, includes:
1-Radiator-Oil
1-Duct-Air and flange assembly
1-Plenum Box
1-Pump-oil circulating
required lines, fittings, and attaching hardware
- S9MR-10849-A High Performance instrument cluster, includes:
1-Panel, instrument
1-Tachometer
1-Oil Pressure Gauge
1-Temperature Gauge
1-Water Temperature Gauge
1-Fuel Pressure Gauge
1-Speedometer
- K9MR-6675-A High Capacity oil pan assembly
- K9MR-6B068 8V induction Kit, Includes:
1-8V manifold-I.R.
2-Carburetors-Holley #720 or # 1100
Required lines, fittings, and attaching parts.
- S8MR-1103-A Knock off wheels and hub kit, includes 78 lbs.
4 hubs
4 nuts - Quick-off
4 wheels
required attaching hardware.
- GFMK-18127-A Traction Bar Kit
- K9MR-6A068 8V induction kit, includes:
1-8V Manifold Torque Box
2- Carburetors-Holley # 720 or # 1100
required lines, fittings and attaching parts

STAMP

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Telephone: (203) 348-6233

Cable Address: "ACCUSFIA" Stamford, Conn.

AUTOMOBILE COMPETITION COMMITTEE FOR THE UNITED STATES, FIA, INC.

433 MAIN STREET, STAMFORD, CONN. 06901

**Federation Internationale de l'Automobile
FORM OF RECOGNITION**

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

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CONVERSION TABLE:

1 inch / pouce	2.54 cm	
1 foot / pied	30.479 cm	
1 square inch / pouce carre	6.452 cm ²	
1 cubic inch / pouce cube	16.387 cm ³	
1 pound (lb.) / livre	453.593 gr	
1 pint (U.S.)	.473 ltrs	.833 pt. Imp.
1 quart (U.S.)	.946 ltrs	.833 qt. Imp.
1 gallon (U.S.)	3.785 ltrs	.833 gal. Imp.
1 pint (Imp.)	.568 ltrs	1.20 pt. U.S.
1 quart (Imp.)	1.136 ltrs	1.20 qt. U.S.
1 gallon (Imp.)	4.546 ltrs	1.20 gal. U.S.