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5246



Telephone: (203) 348-6233

Cable Address: "ACCUSFIA" Stamford, Conn.

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

433 MAIN STREET, STAMFORD, CONN. 06901

Federation Internationale de l'Automobile



STANDARD CERTIFICATE OF PRODUCTION

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

Name of Manufacturer LINCOLN-MERCURY DIVISION, FORD MOTOR COMPANY
Make of Car Mercury Model 1969 Cyclone 428

We certify that 10,000 cars identical with the basic specification, as well as 10,000 cars as modified by the listed optional equipment (when required by Appendix "J"), were completed as of October 18, 1968. Cars conforming to this specification may be identified by chassis numbers 9_01_500001, and engine numbers None.

Signed:

J. H. Passino
J. H. Passino, Manager
Special Vehicles Activity

H. L. Perry
H. L. Perry
Stock Vehicles Department
Special Vehicles Activity

Certified:

John V. Accisfadia
JOHN V. ACCISFADIA, Inc.
TECHNICAL DIRECTOR
ACCUS, F.I.A. INC.



MAKE Mercury MODEL '69 Cyclone 428 FIA REC # 5296 ^{Cyc}₄₂₈
G I



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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

I N D E X

| <u>ITEM</u> | <u>NUMBERS</u> | <u>PAGES</u> |
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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. |



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

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

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428
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Federation Internationale de l'Automobile
FORM OF RECOGNITION

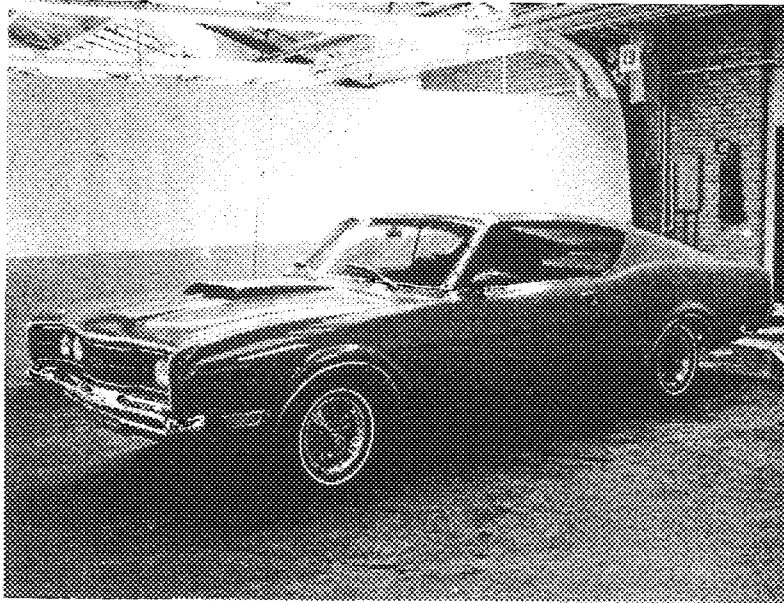
In accordance with Appendix "J" of the International Sporting Code

Cylinder capacity 7003.2 cm3 427.36 in3
 Lincoln Mercury Division
 Manufacturer Ford Motor Company Model 1969 Cyclone 428
 Serial # Chassis 9 01 500001 Manufacturer Lincoln Division
Ford Motor Company
 Serial # Engine none Manufacturer Lincoln Mercury Division
Ford Motor Company
 Recognition valid from _____ List _____

The manufacturing of the model described in this recognition form was started on Aug. 19, 1968 and the minimum production of 10,000 identical cars, in accordance with the specifications of this form, was reached on October 18, 19 68.

(*) 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
ACCUS, F.I.A., INC.



1.4.69

MAKE Mercury

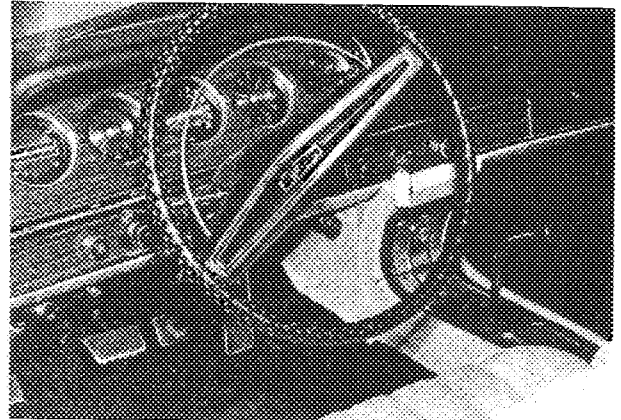
MODEL '69 Cyclone 428 FIA REC # 5276

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428
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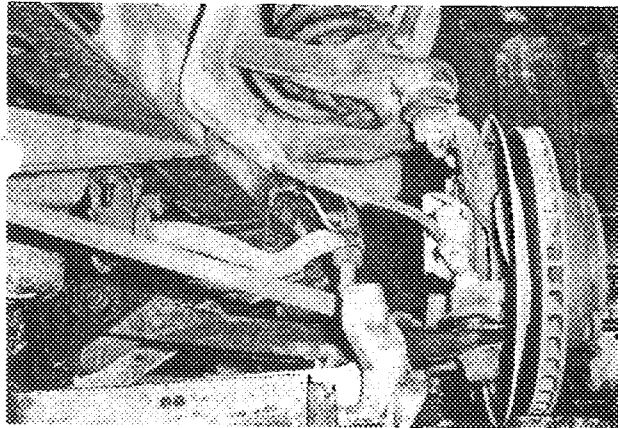
B 3/4 rear car (**)



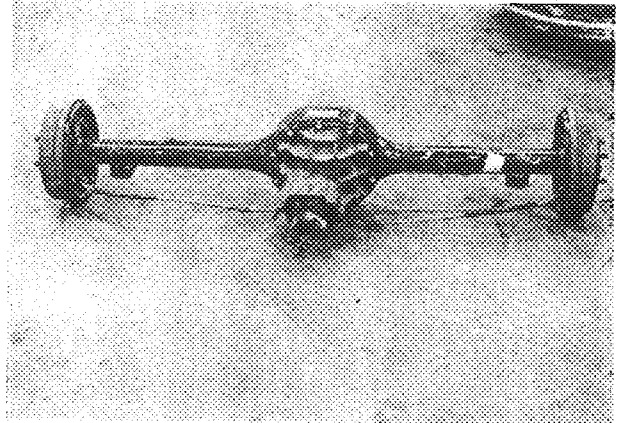
C interior-car (**)



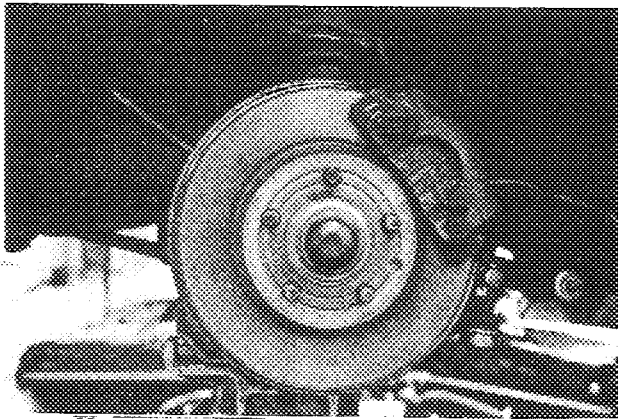
D front axle (**)



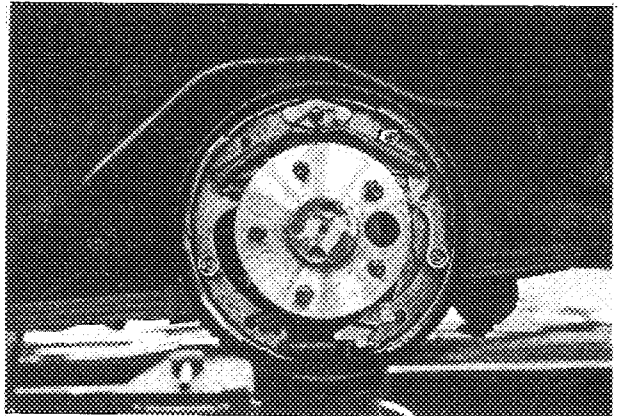
E rear axle (**)



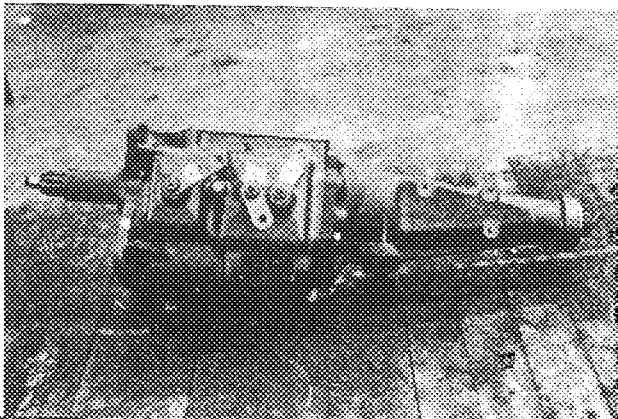
F brake, front (**)



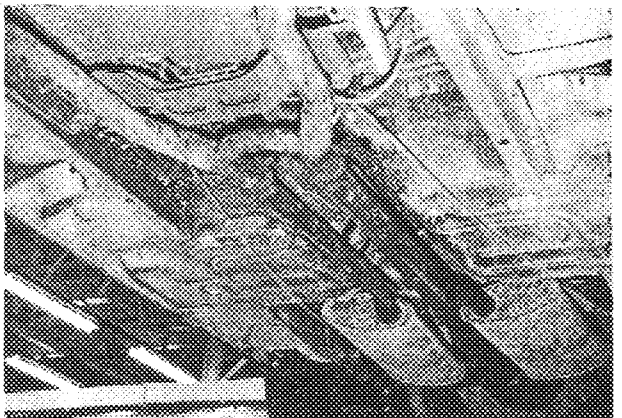
G brake, rear (**)



H gear box (**)



I exhaust system (*)



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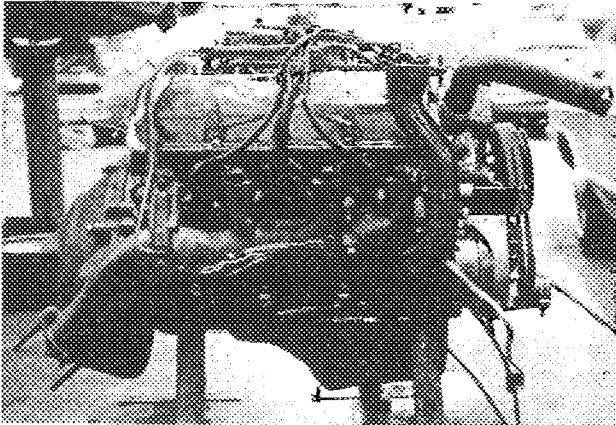
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MAKE Mercury

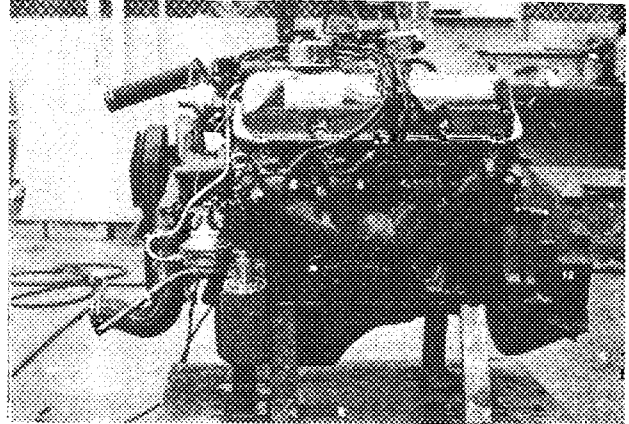
MODEL '69 Cyclone 428 FIA REC #5276

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428
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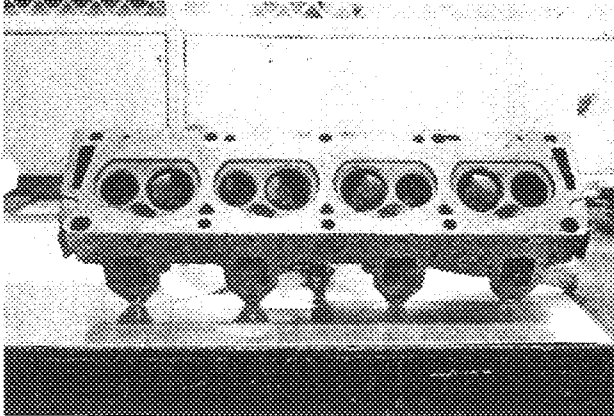
J ENGINE RIGHT (**)



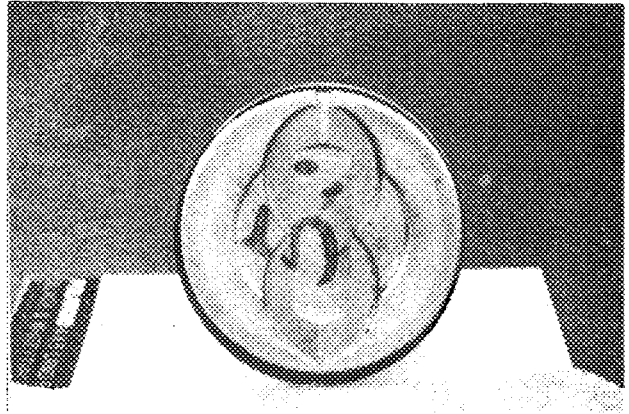
K ENGINE LEFT (**)



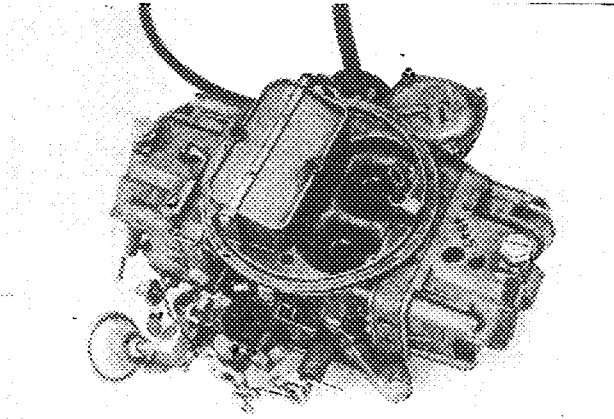
L COMBUSTION CHAMBER



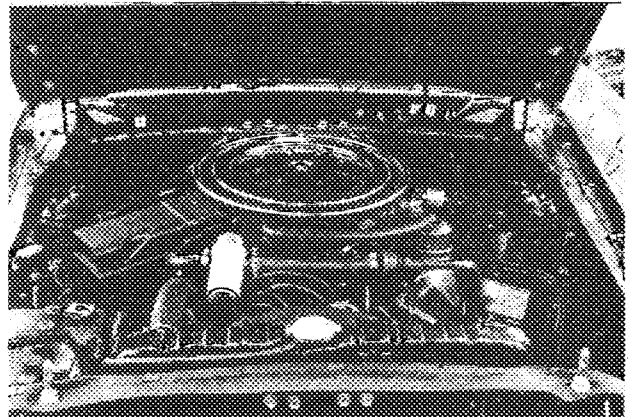
M PISTON TOP (*)



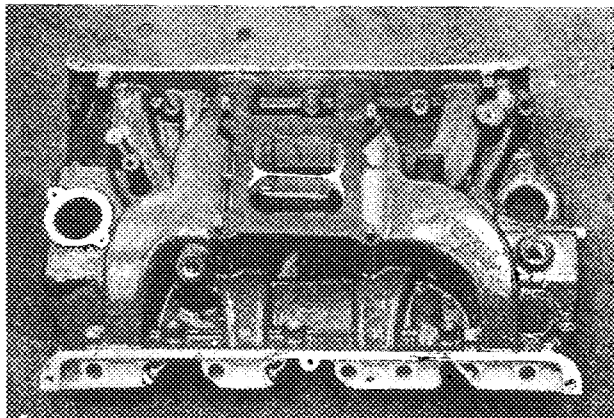
N CARBURETOR (*)



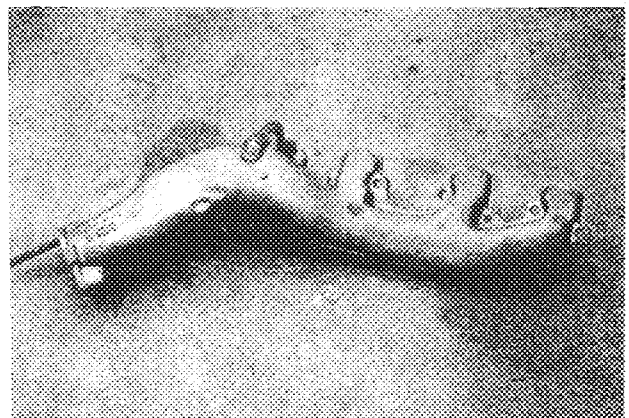
O ENGINE IN PLACE (**)



P MANIFOLD INLET



Q MANIFOLD EXHAUST



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

STAMP

STAMP

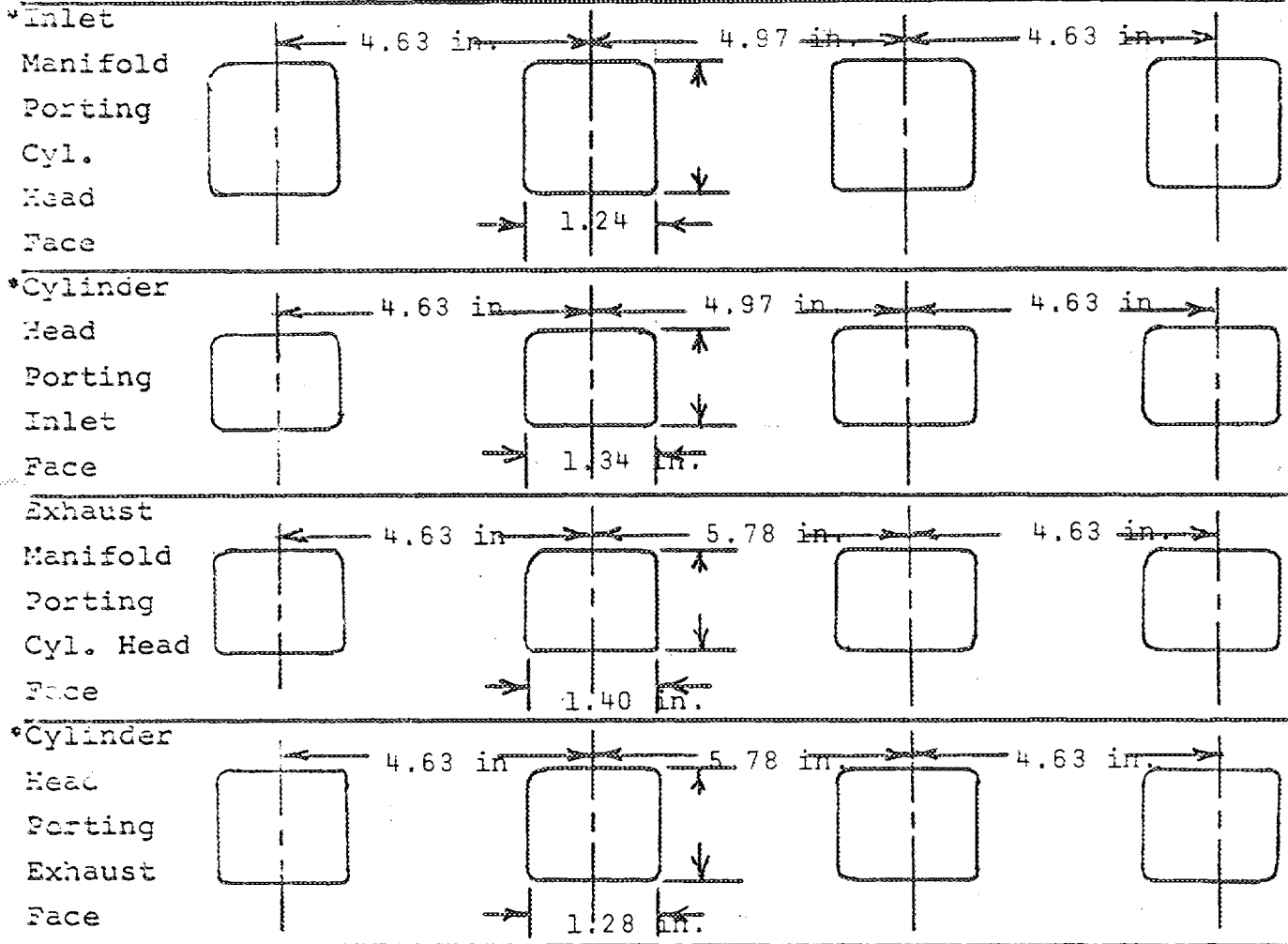
MAKE

Mercury

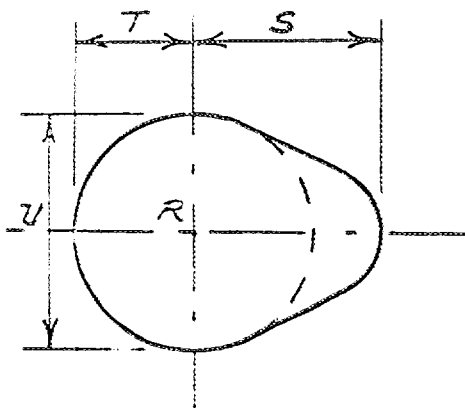
MODEL '69 Cyclone 428 FIA REC #5276

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428
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ALL SKETCHES MUST INDICATE ACTUAL DIMENSIONS AND MANUFACTURER'S TOLERANCES. +/- .04 in. or +/- 1.0 mm



CAM



Inlet cam

| | | | | |
|----|-------|----|-------|----|
| S= | 26.31 | mm | 1.036 | in |
| T= | 20.24 | mm | .797 | in |
| U= | 37.95 | mm | 1.494 | in |

Exhaust cam

| | | | | |
|----|-------|----|-------|----|
| S= | 26.31 | mm | 1.036 | in |
| T= | 20.24 | mm | .797 | in |
| U= | 37.95 | mm | 1.494 | in |

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MAKE Mercury MODEL '69 Cyclone 428 FIA REC # G I 5276 Cyc 428

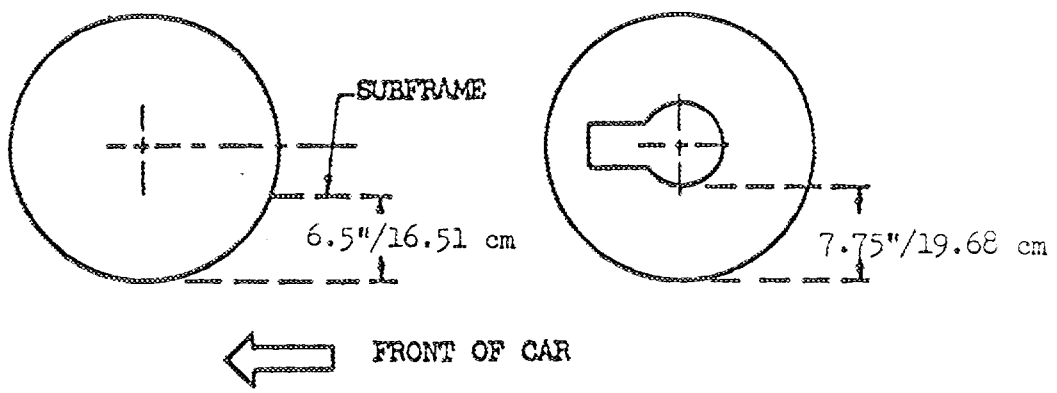
IMPORTANT: Questions 1 through 9 must be answered in two measuring systems, one of which must be the metric system. See conversion table at index.

CAPACITIES & DIMENSIONS

- (**) 1. Wheelbase 2946.4 mm 116.0 in
- (**) 2. Front track 1493.5 mm 58.8 in + at 0° camber
- (**) 3. Rear track 1485.9 mm 58.5 in + 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 516.13 cm 203.2 in
- 5. Overall width of car 193.04 cm 76.0 in
- 6. Overall height of car 133.60 cm 52.6 in
- 7. Capacity of fuel tank (reserve included) 75.70 ltrs.
20 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. 1460.1 kg 3219 lbs

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MAKE Mercury MODEL 169 Cyclone 428

FIA REC # 5276 G I

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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 - number two(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 ea.
- CHECK: BENCH X BUCKET _____ CONSOLE INCLUDED Optional
- 43. Seats, rear - type of seat and upholstery Bench/Vinyl
- 44. Bumper, front - material/s steel kg 11.3 lbs 25.0 Weight
- 45. Bumper, rear - material/s steel kg 10.6 lbs 23.5 Weight

WHEELS

- 50. Type steel
- 51. Weight (per wheel, without tire) 8.9kg 19.5 lbs
- 52. Method of attachment Stud and nut (5)
- 53. Rim, diameter 356/381 mm 14/15 in
- 54. Rim, width 152/152 mm 6/6 in

STEERING

- 60. Type recirculating ball and nut
- 61. Servo assistance optional
- 62. Number of turns of steering wheel from lock to lock 5.5
- 63. In case of servo assistance 4.0

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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 | no |
| | 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 (indicate if duplex master cylinder) | one (1) dual |
| | 93. | Cylinders - number per wheel | Front Rear |
| | | | one (1) one (1) |
| | 94. | Cylinders - wheel bore (indicate stepped bore dimensions if applicable) | 60.2 mm 2.38 in 22mm .875 in |

Drum Brakes

| | | <u>Front</u> | <u>Rear</u> |
|-----|--------------------------|--------------------------|---------------------------------------|
| 95. | Diameter, inside | mm 125.4 | mm 109 in |
| 96. | Linings, length | mm 491.2 | mm 19.34 in |
| 97. | Linings, width | mm 50.8 | mm 2 in |
| 98. | Shoes - number per brake | | two (2) |
| 99. | Area, total - per brake | mm ² 24,916.1 | mm ² 38.68 in ² |

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 | 13,097.4 mm ² | 5.0 in ² | mm ² | in ² |
| | | | 20.2 | | |

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EXHAUST (See Photo Q)

- 195. Manifold, exhaust - material/s cast iron
- 196. Valves (overall) - diameter 42.16 mm 1.660 in
- 197. Valve, lift - maximum 12.7 mm .500 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) Hydraulic
mm in
- (*) 202. Valves - open at (with tolerance for tappet 82° BBC
clearance indicated)
- (*) 203. Valves - close at (with tolerance for tappet 28° ATC
clearance indicated)

CARBURETION (See Photo N)

- 210. Carburetors, fitted - number one (1)
- 211. Type downflow
- (*) 212. Make Holley
- (*) 213. Model 9510
- 214. Carburetors - number of mixture passages four (4)
- (*) 215. Carburetor - flange hole diameter of exit port
42.86 mm 1.6875 in
- 216. Venturi - throat diameter+ 31.75 mm 1.25 PR in
35.05 1.38 SEC

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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- (*) 156. Fan, cooling (if fitted) - diameter 46.35 cm 18.25 in
- (*) 157. Fan, cooling - number of blades seven (7) material/s steel

BEARINGS

- (**) 158. Crankshaft, main - type insert diameter 69.81 mm 2.7488 in
- (**) 159. Connecting rod, big end - type insert diameter 61.9 mm 2.4384 in

WEIGHTS

- (*) 160. Flywheel (clean) 12.92 kg 28.5 lbs
- (*) 161. Flywheel with clutch (all rotating parts) 24.44 kg 53.9 lbs
- (*) 162. Crankshaft 29.70 kg 65.5 lbs
- 163. Connecting Rod .940 kg 2.07 lbs
- (*) 164. Piston with rings & pin 1.853 kg 4.07 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, pushrod, rocker

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

- 180. Inlet manifold - materials cast iron
- 181. Valves (overall) - diameter 53.26 mm 2.097 in
- (*) 182. Valve lift - maximum 12.7 mm .500 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) mm in
Hydraulic
- (*) 187. Valves - open at (with tolerance for tappet clearance indicated) 18° BTC
- (*) 188. Valves - close at (with tolerance for tappet clearance indicated) 72° ABC
- (*) 189. Air filter - type Dry Element

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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 80

ENGINE & CAR PERFORMANCE as declared by mfr. in catalogue

- (*) 250. Horsepower - maximum engine output 335 at 5200 rpm S.A.E.
(indicate SAE or DIN)
- (*) 251. RPM - maximum 5200 output at that figure 335
- (*) 252. Torque - maximum 440 at 3400 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 29.21 cm 11.5 in
- 263. Linings - diameter - inside 17.78 cm 7.0 in
- Linings - diameter - outside 29.21 cm 11.5 in
- 264. Method of operation Mechanical

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MODEL '69 Cyclone 428 FIA REC # 5276

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Gear Box (Photo H)

- (**) 270. Manual type - make Ford
- (**) 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 converter
- (**) 275. Ratios, forward - number three (3)
- 276. Gear-Shift - location floor or column

| 277. | Manual | | Automatic | | Alternative manual/automatic | | | |
|---------|--------|-------------------------------|-----------|--|------------------------------|-------------------------------|-------|---------|
| | Ratio | # Teeth | Ratio | # Teeth | Ratio | # Teeth | Ratio | # Teeth |
| 1 | 2.32 | $\frac{23}{25} \frac{32}{15}$ | 2.46 | | 2.78 | $\frac{23}{38} \frac{32}{15}$ | | |
| 2 | 1.69 | $\frac{23}{25} \frac{28}{18}$ | 1.46 | Torque converter Max ratio at stall 2.02:1 | 1.93 | $\frac{23}{30} \frac{31}{21}$ | | |
| 3 | 1.29 | $\frac{23}{25} \frac{25}{21}$ | 1.0 | | 1.36 | $\frac{23}{30} \frac{25}{24}$ | | |
| 4 | 1.00 | Direct | | | 1.00 | Direct | | |
| 5 | | | | | | | | |
| 6 | | | | | | | | |
| reverse | 2.78 | | 2.175 | | | | | |

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

FINAL DRIVE

- (**) 290. Type Hypoid, semi-floating, straddle mounted pinion
- (**) 291. Differential - type locking by ratchet or friction
- (**) 292. Limited Slip Differential (if fitted) - type \neq Positive locking by ratchet or friction
- 293. Ratio $\frac{3.0}{13} \frac{3.25}{12} \frac{3.50}{10} \frac{3.70}{10} \frac{3.91}{11} \frac{4.30}{10}$
- Teeth - number

(\neq) Specify friction or positive locking type
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MAKE Mercury MODEL '69 Cyclone 428 FIA REC # 5276

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:

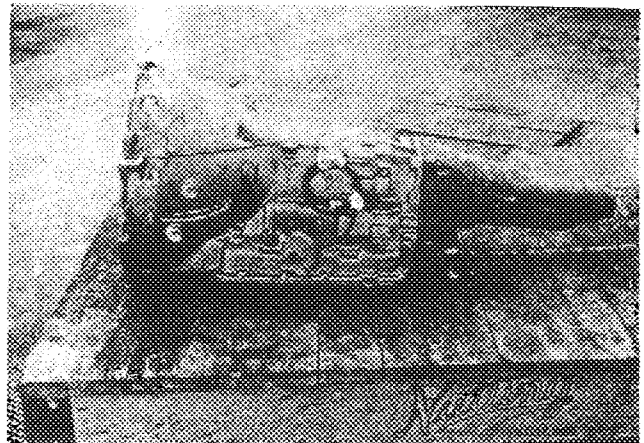
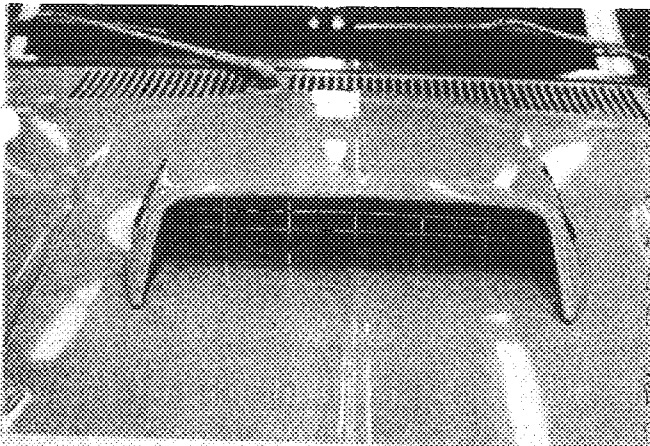
1, 2, 3, 9, 20, 21, 22, 23, 24, 25, 26, 70, 71, 78, 79, 90, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 147, 148, 149, 150, 158, 159, 170, 171, 172, 173, 185, 200, 270, 271, 274, 275, 290, 291, 292 & photos A, B, D, E, F, G, H, J, K, O.

Optional equipment affecting preceding information:

CATALOGUE PART NUMBER MUST BE GIVEN

S7MS-6675-B Sump Guard

----- Ram Air induction package



Automatic Gearbox - Photo "H"

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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:

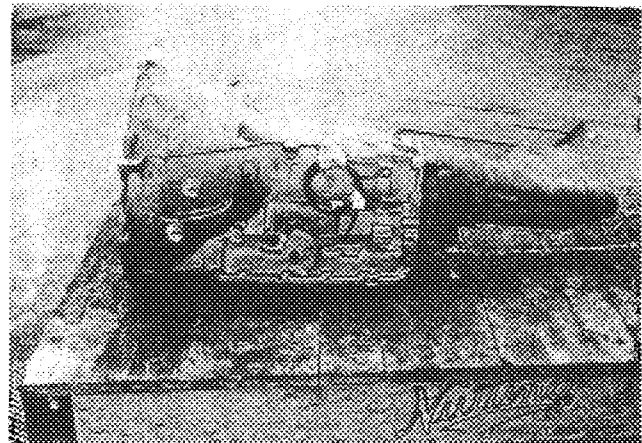
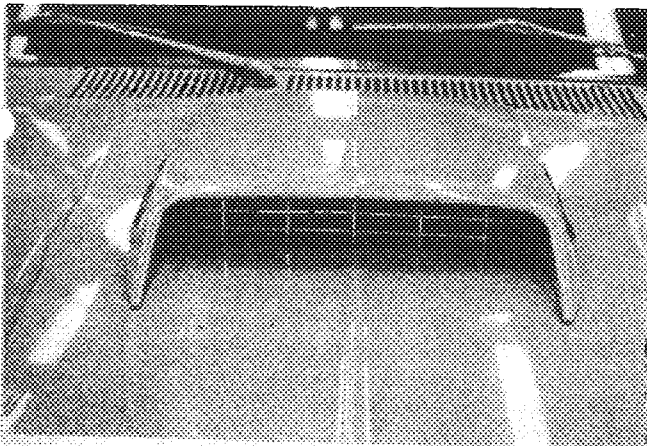
1, 2, 3, 9, 20, 21, 22, 23, 24, 25, 26, 70, 71, 78, 79, 90, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 147, 148, 149, 150, 158, 159, 170, 171, 172, 173, 185, 200, 270, 271, 274, 275, 290, 291, 292 & photos A, B, D, E, F, G, H, J, K, O.

Optional equipment affecting preceding information:

CATALOGUE PART NUMBER MUST BE GIVEN

S7MS-6675-B Sump Guard

----- Ram Air induction package



Automatic Gearbox - Photo "H"

STAMP

STAMP