

# AMA Specifications—Passenger Car

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|                                                                     |  |                                   |                                                      |
|---------------------------------------------------------------------|--|-----------------------------------|------------------------------------------------------|
| MANUFACTURER<br><b>Ford Motor Company</b>                           |  | CAR NAME<br><b>Mercury Cougar</b> |                                                      |
| MAILING ADDRESS<br><b>P. O. Box 2053 — Dearborn, Michigan 48121</b> |  | MODEL YEAR<br><b>1968</b>         | ISSUED <b>11-13-67</b><br>REVISED (•) <b>4-15-68</b> |

## NOTES

- The Specifications herein are those in effect at date of compilation and are subject to change without notice by the manufacturer.
- UNLESS OTHERWISE INDICATED:
  - Specifications apply to standard models without optional equipment. Significant deviations are noted.
  - Nominal design dimensions are used throughout these specifications.

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### BODY — TYPES AND STYLE NAMES —

Body type, number of passenger & style names, use manufacturer's code for series & body style.

#### BODY MODELS

#### PASSENGER

#### MODEL NUMBER

2-Door Hardtop  
2-Door Hardtop  
XR-7 Hardtop

4  
4  
4

65A\*  
65C  
65B\*

\* — Bucket Seat

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## CAR AND BODY DIMENSIONS

See Pages 25, 26 for SAE Dimension Definitions

(All dimensions in inches unless otherwise indicated)

All dimensions to ground are for comparative purposes only and are shown with vehicle load of two passengers in front and three in rear, except where otherwise noted.

| MODEL                                     | SAE Ref. No.                | ALL MODELS |
|-------------------------------------------|-----------------------------|------------|
| <b>WIDTH</b>                              |                             |            |
| Track - Front                             | W101                        | 58.5       |
| Track - Rear                              | W102                        | 58.5       |
| Maximum overall car width                 | W103                        | 71.3       |
| Body width at No. 2 pillar                | W117                        | 70.1       |
| <b>LENGTH</b>                             |                             |            |
| Body "O" to front of dash                 | L 30                        | 1.3        |
| Wheelbase                                 | L101                        | 111        |
| Overall car length                        | L103                        | 190.3      |
| Overhang - front                          | L104                        | 35.1       |
| Overhang - rear                           | L105                        | 44.1       |
| Body upper structure length               | L123                        | 90.6       |
| Body "O" line to $\text{C}$ of rear wheel | L127                        | 91.6       |
| Body "O" line to w/s cowl point           | L130                        | 10.3       |
| <b>HEIGHT</b>                             |                             |            |
| Overall height                            | H101                        | 51.7       |
| Cowl height                               | H114                        | 36.2       |
| Deck height                               | H138                        | 35.6       |
| Rocker panel - front                      | To ground                   | 8.7        |
|                                           | From front wheel $\text{C}$ |            |
| Rocker panel - rear                       | To ground                   | 7.9        |
|                                           | From rear wheel $\text{C}$  |            |
| Windshield slope angle                    | H122                        | 52.5°      |
| <b>GROUND CLEARANCE</b>                   |                             |            |
| Bumper to ground - front                  | H102                        | 17.2       |
| Bumper to ground - rear                   | H104                        | 16.1       |
| Angle of approach                         | H106                        | 24.0°      |
| Angle of departure                        | H107                        | 17°        |
| Ramp breakover angle                      | H147                        | 16.1°      |
| Min. running clearance (Specify)          | H156                        | 4.95       |

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## CAR AND BODY DIMENSIONS

See Pages 25, 26 for SAE Dimension Definitions  
(All dimensions in inches unless otherwise indicated)

| MODEL                                                     | SAE Ref. No. | 65A                        | 65B | 65C  |
|-----------------------------------------------------------|--------------|----------------------------|-----|------|
| <b>FRONT COMPARTMENT</b>                                  |              |                            |     |      |
| Effective head room                                       | H61          | 37.4                       |     |      |
| Max. eff. leg room — accelerator                          | L34          | 41.2                       |     |      |
| H Point to Heel point                                     | H30          | 7.9                        |     |      |
| H Point travel                                            | L17          | 4.9                        |     |      |
| Shoulder room                                             | W 3          | 53.9                       |     |      |
| Hip room                                                  | W 5          | 54.2                       |     |      |
| Upper body opening to ground                              | H50          | 46.3                       |     |      |
| <b>REAR COMPARTMENT</b>                                   |              |                            |     |      |
| H Point couple distance                                   | L50          | 29.0                       |     |      |
| Effective head room                                       | H63          | 35.8                       |     |      |
| Min. effective leg room                                   | L51          | 30.5                       |     | 30.3 |
| H Point to Heel point                                     | H31          | 10.0                       |     |      |
| Min. knee room                                            | L48          | .5                         |     |      |
| Rear Compartment room                                     | L 3          | 22.7                       |     |      |
| Shoulder room                                             | W 4          | 53.4                       |     |      |
| Hip room                                                  | W 6          | 51.7                       |     |      |
| Upper body opening to ground                              | H51          | —                          |     |      |
| <b>LUGGAGE COMPARTMENT</b>                                |              |                            |     |      |
| Usable luggage capacity                                   | V 1          | 9.2                        |     |      |
| Liftover height                                           | H195         | 27.0                       |     |      |
| Position of spare tire storage                            |              | Flat — Right Side of Trunk |     |      |
| Method of holding lid open                                |              | Torsion Bar                |     |      |
| <b>STATION WAGON — THIRD SEAT</b>                         |              |                            |     |      |
| Shoulder Room                                             | W85          | —                          |     |      |
| Hip room                                                  | W86          | —                          |     |      |
| Effective leg room                                        | L86          | —                          |     |      |
| Effective head room                                       | H86          | —                          |     |      |
| Seat facing direction                                     |              | —                          |     |      |
| <b>STATION WAGON — CARGO SPACE</b>                        |              |                            |     |      |
| Cargo length at floor — front seat                        | L 202        | —                          |     |      |
| Cargo length at belt — front seat                         | L 204        | —                          |     |      |
| Cargo width — wheelbase                                   | W201         | —                          |     |      |
| Opening width at belt                                     | W204         | —                          |     |      |
| Maximum cargo height                                      | H201         | —                          |     |      |
| Rear opening height                                       | H202         | —                          |     |      |
| Cargo volume index (cu. ft.)<br>W4 x L 204 x H201<br>1728 | V2           | —                          |     |      |

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## POWER TEAMS

(Indicate whether standard or optional)

| MODEL<br>AVAILABILITY | ENGINE            |            |                 |              |               | TRANSMISSION                               | AXLE RATIO<br>(Std. first)<br>(Indicate A/C ratio)                      |
|-----------------------|-------------------|------------|-----------------|--------------|---------------|--------------------------------------------|-------------------------------------------------------------------------|
|                       | Displ.<br>cu. in. | Carburetor | Compr.<br>Ratio | BHP<br>RPM   | Torque<br>RPM |                                            |                                                                         |
| 65A                   | 289               | 2V         | 8.7:1           | 195@<br>4600 | 288@<br>2600  | 3-Spd. Man.<br>4-Spd. Man.<br>3-Spd. Auto. | 2.79, 3.00(a), 3.25<br>2.79, 3.00(a), 3.25<br>2.79, 3.00(a)             |
| All                   | 302               | 2V         | 9.0             | 210@<br>4600 | 300@<br>2600  | 3-Spd. Man.<br>4-Spd. Man.<br>3-Spd. Auto. | 2.79, 3.00(a), 3.25<br>3.00(a), 2.79, 3.25<br>2.79, 3.00(a)             |
|                       | 302               | 4V         | 10.0            | 230@<br>4800 | 310@<br>2800  | 3-Spd. Man.<br>4-Spd. Man.<br>3-Spd. Auto. | 3.00(a), 2.79, 3.25<br>3.00(a), 2.79, 3.25<br>3.00(a), 2.79             |
|                       | 390               | 2V         | 10.5            | 280@<br>4400 | 403@<br>2600  | 3-Spd. Auto.                               | 2.75, 3.00(a)(b), 3.25(a)                                               |
|                       | 390               | 4V         | 10.5            | 325@<br>4800 | 427@<br>3200  | 3-Spd. Man.<br>4-Spd. Man.<br>3-Spd. Auto. | 3.00(a)(b), 3.25(a)<br>3.00(a)(b), 3.25(a)<br>2.75, 3.00(a)(b), 3.25(a) |
|                       | 390<br>G. T.      | 4V         | 10.5            | 325@<br>4800 | 427@<br>3200  | 3-Spd. Man.<br>4-Spd. Man.<br>3-Spd. Auto. | 3.25(a), 3.00(a)(b)<br>3.25(a), 3.00(a)(b)<br>3.25(a), 2.75, 3.00(a)(b) |
|                       | 427               | 4V         | 10.9            | 390@<br>5600 | 460@<br>3200  | 3-Spd. Auto.                               | 3.50(a)                                                                 |
|                       | 428               | 4V         | 10.6            | 335@<br>5400 | 440@<br>3400  | 4-Spd. Man.<br>3-Spd. Auto.                | 3.50(a), 3.91(c), 4.30(c)<br>3.50(a), 3.91(c), 4.30(c)                  |
|                       |                   |            |                 |              |               |                                            |                                                                         |

(a) Also available as optional locking differential.

(b) Maximum ratio with A/C.

(c) Locker only.

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## MODEL

### ENGINE—GENERAL

|                                             |                                   | 289-2V          | 302-2V          | 302-4V   |
|---------------------------------------------|-----------------------------------|-----------------|-----------------|----------|
| Type, no. cyls., valve arr.                 |                                   | 90° V8 OHV      |                 |          |
| Bore and stroke (nominal)                   |                                   | 4.00 x 2.87     | 4.00 x 3.00     |          |
| Piston displacement, cu. in.                |                                   | 289             | 302             |          |
| Bore spacing (C to C)                       |                                   | 4.38            | 4.38            |          |
| No. system<br>(front to rear)               | L. Bank                           | 5, 6, 7, 8      | 5, 6, 7, 8      |          |
|                                             | R. Bank                           | 1, 2, 3, 4      | 1, 2, 3, 4      |          |
| Firing order                                |                                   | 1-5-4-2-6-3-7-8 | 1-5-4-2-6-3-7-8 |          |
| Compres. ratio (nominal)                    |                                   | 8.7:1           | 9.0:1           | 10.0:1   |
| Cylinder Head Material                      |                                   | Cast Iron       |                 |          |
| Cylinder Block Material                     |                                   | Cast Iron       |                 |          |
| Cyl. Sleeve-Wet, dry, none                  |                                   | None            |                 |          |
| Number of<br>mtg. points                    | Front                             | Two             |                 |          |
|                                             | Rear                              | One             |                 |          |
| Engine installation angle                   |                                   | 4° 7'           |                 |          |
| Taxable<br>horsepower                       | Dia <sup>2</sup> xNo. Cyl.<br>2.5 | 51.2            |                 |          |
| Publishing max. bhp*<br>@ eng. RPM          |                                   | 195@4600        | 210@4600        | 230@4800 |
| Publishing max. torque *<br>(lb. ft. @ RPM) |                                   | 288@2600        | 300@2600        | 310@2800 |
| Recommended fuel<br>regular—premium         |                                   | Regular         | Regular         | Premium  |

### ENGINE—PISTONS

|                          |            |                                                    |             |             |
|--------------------------|------------|----------------------------------------------------|-------------|-------------|
| Material                 |            | Aluminum Alloy with Steel Struts                   |             |             |
| Description and finish   |            | Autothermic, Slipper Skirt, Tin Plated, Cam Ground |             |             |
| Weight (piston only) oz. |            | 2.14                                               | 21.15       | 21.15       |
| Clearance<br>(limits)    | Top land   | .034-.042                                          | .030-.041   | .030-.041   |
|                          | Skirt Top  | .0018-.0026                                        | .0018-.0026 | .0018-.0026 |
|                          | Bottom     |                                                    |             |             |
| Ring groove<br>depth     | No. 1 ring | .215-.222                                          | .202-.209   | .202-.209   |
|                          | No. 2 ring | .215-.222                                          | .202-.209   | .202-.209   |
|                          | No. 3 ring | .184-.191                                          | .184-.191   | .184-.191   |
|                          | No. 4 ring | None                                               |             |             |

\* Max. bhp (brake horsepower) and max. torque corrected to 60° F and 29.92 in. Hg atmospheric pressure.

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MODEL 390-2V | 390-4V, GT | 427-4V | 428-4V

## ENGINE—GENERAL

|                                                                             |         |                 |             |             |             |
|-----------------------------------------------------------------------------|---------|-----------------|-------------|-------------|-------------|
| Type, no. cyls., valve arr.                                                 |         | 90°-V8, OHV     |             |             |             |
| Bore and stroke (nominal)                                                   |         | 4.05 x 3.78     | 4.05 x 3.78 | 4.23 x 3.78 | 4.18 x 3.98 |
| Piston displacement, cu. in.                                                |         | 390             | 390         | 427         | 428         |
| Bore spacing (C to C)                                                       |         | 4.63            | 4.63        | 4.63        | 4.63        |
| No. system                                                                  | L. Bank | 5-6-7-8         |             |             |             |
| (front to rear)                                                             | R. Bank | 1-2-3-4         |             |             |             |
| Firing order                                                                |         | 1-5-4-2-6-3-7-8 |             |             |             |
| Compress. ratio (nominal)                                                   |         | 9.5:1           | 10.5:1      | 10.9:1      | 10.66:1     |
| Cylinder Head Material                                                      |         | Cast Iron       |             |             |             |
| Cylinder Block Material                                                     |         | Cast Iron       |             |             |             |
| Cyl. Sleeve-Wet, dry, none                                                  |         | None            |             |             |             |
| Number of                                                                   | Front   | Two             |             |             |             |
| mtg. points                                                                 | Rear    | One             |             |             |             |
| Engine installation angle                                                   |         | 4°7'            |             |             |             |
| Taxable $\frac{\text{Dia}^2 \times \text{No. Cyl.}}{\text{horsepower}}$ 2.5 |         | 52.49           | 52.49       | 57.26       | 54.59       |
| Publishing max. bhp*<br>@ eng. RPM                                          |         | 280@4400        | 325@4800.   | 390@5600    | 335@5400    |
| Publishing max. torque*<br>(lb. ft. @ RPM)                                  |         | 403@2600        | 427@3200    | 460@3200    | 440@3400    |
| Recommended fuel<br>regular - premium                                       |         | Regular         | Premium     | Premium     | Premium     |

## ENGINE—PISTONS

|                          |                                                    |             |             |             |
|--------------------------|----------------------------------------------------|-------------|-------------|-------------|
| Material                 | Aluminum Alloy with Steel Struts                   |             |             |             |
| Description and finish   | Autothermic, Slipper Skirt, Tin Plated, Cam Ground |             |             |             |
| Weight (piston only) oz. | 23.1                                               |             | 23.4        | 24.0        |
| Clearance<br>(limits)    | Top land                                           | .036-.044   | .030-.037   | .036-.044   |
|                          | Skirt Top                                          | .0015-.0023 | .0030-.0038 | .0015-.0023 |
|                          | Bottom                                             |             |             |             |
| Ring groove<br>depth     | No. 1 ring                                         | .204-.211   | .2005-.2035 | .205-.212   |
|                          | No. 2 ring                                         | .204-.211   | .2005-.2035 | .205-.212   |
|                          | No. 3 ring                                         | .1155-.1925 | .172-.179   | .1855-.1925 |
|                          | No. 4 ring                                         | None        |             |             |

\* Max. bhp (brake horsepower) and max. torque corrected to 60° F and 29.92 in. Hg atmospheric pressure.

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## ENGINE — RINGS

|                                |                                             |                                                                                                                                  |
|--------------------------------|---------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| Function<br>(top to<br>bottom) | No. 1, oil or comp.                         | Compression                                                                                                                      |
|                                | No. 2, oil or comp.                         | Compression                                                                                                                      |
|                                | No. 3, oil or comp.                         | Oil                                                                                                                              |
|                                | No. 4, oil or comp.                         | None                                                                                                                             |
| Compression                    | Description -<br>material, coating,<br>etc. | #1 Cast iron alloy, barrel face, molybdenum filled groove<br>#2 Cast iron alloy, straight face, scraper groove, phosphate coated |
|                                | Width                                       | #1 .0781-.0774 — #2 .078-.077                                                                                                    |
|                                | Gap                                         | .010-.020                                                                                                                        |
| Oil                            | Description -<br>material, coating,<br>etc. | Multi-Piece: Two rails and one spacer expander rails —<br>steel, chrome plated, oxide coated spacer expander —<br>blued steel    |
|                                | Width                                       | .1875                                                                                                                            |
|                                | Gap                                         | .015-.069                                                                                                                        |
| Expanders                      |                                             | Integral part of oil ring assembly                                                                                               |

## ENGINE — PISTON PINS

|                                     |                                             |                        |
|-------------------------------------|---------------------------------------------|------------------------|
| Material                            |                                             | Alloy Steel — SAE 5015 |
| Length                              |                                             | 3.025                  |
| Diameter                            |                                             | .9121                  |
| Type                                | Locked in rod, in<br>piston, floating, etc. | Press fit in rod       |
|                                     | Bush-<br>ing                                | None                   |
|                                     | In rod or piston<br>Material                | —                      |
| Clearance                           | In piston                                   | .0002-.0004            |
|                                     | In rod                                      | —                      |
| Direction & amount offset in piston |                                             | Right — .0625          |

## ENGINE — CONNECTING RODS

|                           |                    |                                                             |
|---------------------------|--------------------|-------------------------------------------------------------|
| Material                  |                    | Forged steel — SAE 1041                                     |
| Weight (oz.)              |                    | 19.86      19.85                                            |
| Length (center to center) |                    | 5.155      5.090                                            |
| Bearing                   | Material & Type    | Plated copper-lead alloy on steel back, replaceable inserts |
|                           | Overall length     | .721                                                        |
|                           | Clearance (limits) | .0008-.0026                                                 |
|                           | End play           | .010-.020 (Two rods)                                        |

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## ENGINE—RINGS

|                                |                                             |                                                                                                                                                             |  |                               |  |
|--------------------------------|---------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-------------------------------|--|
| Function<br>(top to<br>bottom) | No. 1, oil or comp.                         | Compression                                                                                                                                                 |  |                               |  |
|                                | No. 2, oil or comp.                         | Compression                                                                                                                                                 |  |                               |  |
|                                | No. 3, oil or comp.                         | Oil                                                                                                                                                         |  |                               |  |
|                                | No. 4, oil or comp.                         | None                                                                                                                                                        |  |                               |  |
| Compression                    | Description -<br>material, coating,<br>etc. | #1 Cast Iron Alloy, Inside Bevel, Reverse Twist Taper Face, Chrome<br>Plated (a)<br>#1 Cast Iron Alloy, Straight Face, Scraper Groove, Phosphate Coated (a) |  |                               |  |
|                                | Width                                       | #1 & #2 .077-.078                                                                                                                                           |  | #1 & #2 .0619-.0626 (b)       |  |
|                                | Gap                                         | #1.010-.031 #2 .010-.020                                                                                                                                    |  | #1 .018-.028 #2 .015-.025 (c) |  |
| Oil                            | Description -<br>material, coating,<br>etc. | Multi-Piece: Two Rails and One Spacer Expander<br>Rails: Steel, Chrome Plated, Oxide Coated<br>Spacer Expanders — Stainless Steel (d)                       |  |                               |  |
|                                | Width                                       | .1875                                                                                                                                                       |  | .125 .1875                    |  |
|                                | Gap (Rails Only)                            | .015-.066                                                                                                                                                   |  | .015-.055 .015-.066           |  |
| Expanders                      |                                             | Integral part of oil ring assembly                                                                                                                          |  |                               |  |

## ENGINE—PISTON PINS

|                                     |                                          |                        |                        |             |
|-------------------------------------|------------------------------------------|------------------------|------------------------|-------------|
| Material                            |                                          | Alloy steel — SAE 5015 |                        |             |
| Length                              |                                          | 3.163                  |                        | 3.170       |
| Diameter                            |                                          | .9752                  |                        | .9752       |
| Type                                | Locked in rod, in piston, floating, etc. |                        | Full Floating, Tubular |             |
|                                     | Bush-<br>ing                             | In rod or piston       | In Rod                 |             |
|                                     |                                          | Material               | Bronze                 |             |
| Clearance                           | In piston                                |                        | .0001-.0003            |             |
|                                     | In rod                                   |                        | .0001-.0005            |             |
| Direction & amount offset in piston |                                          | Right .0625            | None                   | Right-.0625 |

## ENGINE—CONNECTING RODS

|                           |                    |                         |                                                             |       |
|---------------------------|--------------------|-------------------------|-------------------------------------------------------------|-------|
| Material                  |                    | Forged Steel — SAE 1041 |                                                             |       |
| Weight (oz.)              |                    | 27.10                   | 29.6                                                        | 27.10 |
| Length (center to center) |                    | 6.488                   | 6.488                                                       |       |
| Bearing                   | Material & Type    |                         | Plated Copper-Lead Alloy on Steel Back, Replaceable Inserts |       |
|                           | Overall length     |                         | .741                                                        |       |
|                           | Clearance (limits) |                         | .0008-.0026                                                 |       |
|                           | End play           |                         | .010-.020 — (Two Rods)                                      |       |

(a) 427 Engine — #1 &amp; #2 Cast Iron Alloy, Barrel Face, Chrome Plated.

428 Engine — #1 Cast Iron Alloy, Plain Face, Chrome Plated.

(b) 428 Engine — #1 &amp; #2 — .077-.078

(c) 428 Engine — #1 &amp; #2 — .010-.020

(d) 428 Engine — Blued Steel

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|       |                     |                        |                  |
|-------|---------------------|------------------------|------------------|
| MODEL | 289-2V<br>302-2V-4V | 390-2V<br>390-4V G. T. | 427-4V<br>428-4V |
|-------|---------------------|------------------------|------------------|

## ENGINE - CRANKSHAFT

|                                   |                                         |                                                             |                      |                      |
|-----------------------------------|-----------------------------------------|-------------------------------------------------------------|----------------------|----------------------|
| Material                          |                                         | Cast Iron Alloy                                             |                      |                      |
| Vibration damper type             |                                         | Rubber Floated Inertia Member                               |                      |                      |
| End thrust taken by bearing (No.) |                                         | Three                                                       |                      |                      |
| Crankshaft end play               |                                         | .004-.008                                                   |                      |                      |
| Main bearing                      | Material & type                         | Plated copper-lead alloy on steel back. Replaceable inserts |                      |                      |
|                                   | Clearance                               | .0005-.0024 (a)                                             |                      | .0005-.0025          |
|                                   | Journal dia. and bearing overall length | No. 1                                                       | 2.2486 x .885        | 2.7488 x .907        |
|                                   |                                         | No. 2                                                       | 2.2486 x .885        | 2.7488 x .907        |
|                                   |                                         | No. 3                                                       | 2.2486 x 1.132       | 2.7488 x 1.119       |
|                                   |                                         | No. 4                                                       | 2.2486 x .885        | 2.7488 x .907        |
|                                   |                                         | No. 5                                                       | 2.2486 x .885        | 2.7488 x .907        |
|                                   |                                         | No. 6                                                       | —                    |                      |
|                                   |                                         | No. 7                                                       | —                    |                      |
|                                   | Dir. & amt. cyl. offset                 | R. H. Bank leads .89                                        | R. H. Bank leads .84 | R. H. Bank leads .88 |
| Crankpin journal diameter         |                                         | 2.1232                                                      |                      | 2.4384               |

## ENGINE - CAMSHAFT

|               |                                      |                                                                           |      |     |
|---------------|--------------------------------------|---------------------------------------------------------------------------|------|-----|
| Location      |                                      | In-Black                                                                  |      |     |
| Material      |                                      | Precision molded special alloy iron. Induction hardened, phosphate coated |      |     |
| Bearings      | Material                             | SAE 15 lead base babbitt on SAE-1010 steel back                           |      |     |
|               | Number                               | Five                                                                      |      |     |
| Type of Drive | Gear or chain                        | Chain                                                                     |      |     |
|               | Crankshaft gear or sprocket material | Sintered iron                                                             |      |     |
|               | Camshaft gear or sprocket material   | Aluminum die cast body with molded nylon teeth                            |      |     |
|               | Timing chain                         | No. of links                                                              | 58   | 48  |
|               |                                      | Width                                                                     | .687 | .86 |
| Pitch         |                                      | .375                                                                      | .50  |     |

## ENGINE - VALVE SYSTEM

|                                                   |         |          |                                   |
|---------------------------------------------------|---------|----------|-----------------------------------|
| Hydraulic lifters (Std., opt., NA)                |         | Standard |                                   |
| Valve rotator, type (intake, exhaust)             |         | None     | Ford-free-turn (intake & exhaust) |
| Rocker ratio                                      |         | 1.60:1   | 1.73:1                            |
| Operating tappet clearance (indicate hot or cold) | Intake  | Zero     |                                   |
|                                                   | Exhaust | Zero     |                                   |

(a) #1 Main bearing-.0001-.0020

(Continued)

# AMA Specifications—Passenger Car

 MAKE OF CAR COUGAR MODEL YEAR 1968 DATE ISSUED 10-13-67 REVISED (4-15-68)

| MODEL                                            |                                       | 289-2V<br>302-2V & 4V      |                | 390-2V<br>390-4V GT                                                 |                      | 427-4V<br>428-4V |  |
|--------------------------------------------------|---------------------------------------|----------------------------|----------------|---------------------------------------------------------------------|----------------------|------------------|--|
| ENGINE - VALVE SYSTEM (cont.)                    |                                       |                            |                | 390-2V                                                              |                      |                  |  |
| Timing<br>(based on<br>top of<br>ramp<br>points) | Intake                                | Opens (°BTC)               | 15             | 13                                                                  | 18                   |                  |  |
|                                                  |                                       | Closes (°ABC)              | 61             | 63                                                                  | 72                   |                  |  |
|                                                  |                                       | Duration - deg.            | 256            | 256                                                                 | 270                  |                  |  |
|                                                  | Exhaust                               | Opens (°BBC)               | 55             | 63                                                                  | 82                   |                  |  |
|                                                  |                                       | Closes (°ATC)              | 19             | 23                                                                  | 28                   |                  |  |
|                                                  |                                       | Duration - deg.            | 254            | 266                                                                 | 290                  |                  |  |
|                                                  | Valve opening overlap                 |                            | 34°            | 36°                                                                 | 46°                  |                  |  |
| Intake                                           | Material                              |                            | (a)            |                                                                     |                      |                  |  |
|                                                  | Overall length                        |                            | 4.873          | 5.446                                                               |                      |                  |  |
|                                                  | Actual overall head dia.              |                            | 1.788-1.773    | 2.022-2.037                                                         | 2.080-2.097          |                  |  |
|                                                  | Angle of seat & face                  |                            | 45°            | 45°                                                                 | 60°                  |                  |  |
|                                                  | Seat insert material                  |                            | None           |                                                                     |                      |                  |  |
|                                                  | Stem diameter                         |                            | .3423-.3416    | .3711-.3718                                                         |                      |                  |  |
|                                                  | Stem to guide clearance               |                            | .0010-.0027    |                                                                     |                      |                  |  |
|                                                  | Lift (@ zero lash)                    |                            | .426           | .427                                                                | .481                 |                  |  |
|                                                  | Outer<br>spring<br>press. &<br>length | Valve closed<br>(lb.@ in.) | 71-79 @ 1.66   | 85-95 @ 1.32                                                        | 80-90 @ 1.82         |                  |  |
|                                                  |                                       | Valve open<br>(lb.@ in.)   | 171-189 @ 1.23 | 209-231 @ 1.38                                                      | 267.5 +- 13.5 @ 1.32 |                  |  |
|                                                  | Inner<br>spring<br>press. &<br>length | Valve closed<br>(lb.@ in.) | None           | Damper Only                                                         |                      |                  |  |
|                                                  |                                       | Valve open<br>(lb.@ in.)   | None           | Damper Only                                                         |                      |                  |  |
|                                                  | Exhaust                               | Material                   |                | Cast Austenitic Steel-Aluminized Head-Chrome Plated Stem & Foot (b) |                      |                  |  |
| Overall length                                   |                                       | 4.873                      | 5.426          |                                                                     |                      |                  |  |
| Actual overall head dia.                         |                                       | 1.457-1.442                | 1.551-1.566    | 1.652-1.660                                                         |                      |                  |  |
| Angle of seat & face                             |                                       | 45°                        | 45°            | 45°                                                                 |                      |                  |  |
| Seat insert material                             |                                       | None                       |                |                                                                     |                      |                  |  |
| Stem diameter                                    |                                       | .3423-.3416                | .3701-.3708    |                                                                     |                      |                  |  |
| Stem to guide clearance                          |                                       | .0015-.0032                | .0015-.0032    | .0020-.0037                                                         |                      |                  |  |
| Lift (@ zero lash)                               |                                       | .425                       | .430           | .490                                                                |                      |                  |  |
| Outer<br>spring<br>press. &<br>length            |                                       | Valve closed<br>(lb.@ in.) | 71-79 @ 1.66   | 85-95 @ 1.82                                                        | 80-90 @ 1.82         |                  |  |
|                                                  |                                       | Valve open<br>(lb.@ in.)   | 171-189 @ 1.23 | 209-231 @ 1.38                                                      | 2.67+-13.5 @ 1.32    |                  |  |
| Inner<br>spring<br>press. &<br>length            |                                       | Valve closed<br>(lb.@ in.) | None           | Damper Only                                                         |                      |                  |  |
|                                                  |                                       | Valve open<br>(lb.@ in.)   | None           | Damper Only                                                         |                      |                  |  |

## ENGINE - LUBRICATION SYSTEM

|                                                                 |                      |  |
|-----------------------------------------------------------------|----------------------|--|
| Type of<br>lubrica-<br>tion<br>(splash,<br>pressure,<br>nozzle) | Main bearings        |  |
|                                                                 | Connecting rods      |  |
|                                                                 | Piston pins          |  |
|                                                                 | Camshaft bearings    |  |
|                                                                 | Tappets              |  |
|                                                                 | Timing gear or chain |  |
|                                                                 | Cylinder walls       |  |

(Continued)

- (a) 289-2V & 302 2 & 4V SAE 1047 Steel-Aluminized Head-Chrome Plated Stem & Foot  
390-2V & 427-4V-428-4V - Silchrome #1 Alloy Valve Steel, Aluminized Head-Chrome Plated  
Stem and Foot.
- (b) 427 & 428-4V Engines - 21-4N Forged Steel, Chrome Plated Stem:

## AMA Specifications—Passenger Car

MAKE OF CAR COUGAR MODEL YEAR 1968 DATE ISSUED 10-13-67 REVISED 04-15-68

|       |                       |                  |                  |
|-------|-----------------------|------------------|------------------|
| MODEL | 289-2V<br>302-2V & 4V | 390-2V<br>390-4V | 427-4V<br>428-4V |
|-------|-----------------------|------------------|------------------|

## ENGINE – LUBRICATION SYSTEM (cont.)

|                                                             |                                                                                                                                                      |              |              |
|-------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|--------------|
| Oil pump type                                               | Rotor                                                                                                                                                |              |              |
| Normal oil pressure (lb. engine rpm)                        | 35-55 psi @ 2000                                                                                                                                     | 45-65 @ 2000 | 40-70 @ 2000 |
| Oil press. sending unit (elect. or mech.)                   | Electrical                                                                                                                                           |              |              |
| Type oil intake (floating, stationary)                      | Stationary Shrouded Screen on Sump                                                                                                                   |              |              |
| Oil filter system (full flow, part., other)                 | Full Flow                                                                                                                                            |              |              |
| Filter replacement (element, complete)                      | Complete                                                                                                                                             |              |              |
| Capacity of c case, less filter-refill (qt.)                | 4.0                                                                                                                                                  | 4.0          | 4.0          |
| Oil grade recommended (SAE viscosity and temperature range) | 90° and above — SAE 30 or 20W-40<br>20°F to 90°F — SAE 20-20W or 10W-30<br>-10°F to 20°F — SAE 5W-20 or 10W-30 or 10W<br>-10°F and below — SAE 5W-20 |              |              |
| Engine Service Reqmt. (MM, MS, etc.)                        | MS                                                                                                                                                   |              |              |

## ENGINE – EXHAUST SYSTEM

|                                                                      |                                  |                                    |
|----------------------------------------------------------------------|----------------------------------|------------------------------------|
| Type (single, single with cross-over, dual, other)                   | Single "Y" System (a)            | Dual                               |
| Muffler No. & type (reverse flow, straight thru, separate resonator) | Reverse Flow —<br>21.7x10.5x4.06 | Two Reverse Flow<br>19.0x10.5x4.06 |
| Exhaust pipe dia. (O.D., wall thick.)                                | Branch<br>2.00x.084              | 2.00x.084                          |
|                                                                      | Main<br>2.25x.075 (b)            | 2.25x.075                          |
| Tail pipe dia. (O.D. & wall thickness)                               | 2.00x.060 (c)                    | 2.00x.060 (c)                      |

## ENGINE – CRANKCASE VENTILATION SYSTEM

|                                                                              |                                       |                               |
|------------------------------------------------------------------------------|---------------------------------------|-------------------------------|
| Type (ventilates to atmos., induction system, other)                         | Standard                              | Induction System              |
|                                                                              | Optional                              |                               |
| Make and model                                                               | Ford or Chicago Screw                 |                               |
| Location                                                                     | Rocker Arm Cover                      |                               |
| Energy source (manifold vacuum, carburetor air stream, other)                | Manifold Vacuum                       |                               |
| Control method (variable orifice, fixed orifice, other)                      | Variable Orifice                      |                               |
| Discharges (to intake manifold, carb. air intake, air cleaner intake, other) | Carburetor Spacer and Air Cleaner     | Intake Manifold & Air Cleaner |
| Air inlet (breather cap, carburetor air cleaner, other)                      | Carburetor Air Cleaner                |                               |
| Flame arrester (screen, check valve, other)                                  | Emission Valve and Air Cleaner Filter |                               |

- (a) 302-4V Dual System  
 (b) 302-4V — 2.25 x .075 Solid.  
 (c) Integral with Muffler.

## AMA Specifications—Passenger Car

MAKE OF CAR COUGAR MODEL YEAR 1968 DATE ISSUED 10-13-67 REVISED (14-15-68)MODEL 289-2V 302-2V 302-4V

## ENGINE — EXHAUST EMISSION CONTROL

Manual Transmission

| Type (Air Injection, engine modifications, other) |                                             |                                         | Air Injection, Carburetor & Distributor Modifications |                |                   |  |
|---------------------------------------------------|---------------------------------------------|-----------------------------------------|-------------------------------------------------------|----------------|-------------------|--|
| Air Injection Pump                                | Type                                        | Positive Displacement Vane Type         |                                                       |                |                   |  |
|                                                   | Displacement                                | 19.3 cu. in./rev.                       |                                                       |                |                   |  |
|                                                   | Drive ratio                                 | 1.30:1 (1.25:1 with AC)                 |                                                       |                |                   |  |
|                                                   | Drive type                                  | Belt and Pulley                         |                                                       |                |                   |  |
|                                                   | Relief valve (type)                         | Pressure Sensitive Poppet               |                                                       |                |                   |  |
|                                                   | Filter (describe)                           | Centrifugal-Integral with Pump          |                                                       |                |                   |  |
| Air Injection System                              | Air distribution (head, manifold, etc.)     | Cylinder Head — Air Manifold            |                                                       |                |                   |  |
|                                                   | Point of entry                              | Exhaust Ports in Cylinder Head          |                                                       |                |                   |  |
|                                                   | Injection tube I.D.                         | .260                                    |                                                       |                |                   |  |
|                                                   | Check valve type                            | Poppet                                  |                                                       |                |                   |  |
|                                                   | Backfire protection (type)                  | By-pass Valve                           |                                                       |                |                   |  |
| Carburetor                                        | Make                                        | Autolite                                |                                                       |                |                   |  |
|                                                   | Model                                       | 9510                                    | C8AF-AK                                               | C8AF-AK        | C8ZF-C            |  |
|                                                   | Barrel size                                 |                                         | 1.437-P                                               | 1.437-P        | 1.437-P & 1.562-S |  |
|                                                   | * Idle speed                                | Drive                                   | 625-650                                               |                |                   |  |
|                                                   |                                             | Neutral                                 |                                                       |                |                   |  |
|                                                   | Idle A/F mixture                            | .084 @ 10.5CFM                          | .084 @ 10.5 CFM                                       | .086 @ 11 CFM  |                   |  |
| (a) Distributor                                   | Aux. Adv. Systems (type)                    | Centrifugal and Vacuum                  |                                                       |                |                   |  |
|                                                   | Make                                        | Autolite                                |                                                       |                |                   |  |
|                                                   | Model                                       | 12127                                   | C8TF-F                                                | C8AF-E         | C8ZF-A            |  |
|                                                   | Cent'fugal adv. in crank degrees @ eng. rpm | Start (rpm)                             | ±1° @ 400-1300                                        | 0° @ 950       | 0° @ 800          |  |
|                                                   |                                             | Intermed. points deg. @ rpm             | 00-40 @ 1500                                          | 14.5° @ 1500   | 14.4° @ 1480      |  |
|                                                   |                                             |                                         | 11°-15° @ 2260                                        | 20°-25° @ 4000 | 14°-19° @ 4000    |  |
|                                                   |                                             | Max. deg. @ rpm                         | 17.5°-22° @ 4000                                      | 28° @ 4000     | 19° @ 4000        |  |
|                                                   | Vacuum adv. in crank degrees @ eng. rpm     | Start (in Hg)                           | 00-2.5° @ 5.7"                                        | 0° @ 1"        | 0° @ 1"           |  |
|                                                   |                                             | Intermed. points deg. in. Hg            | 00-6.4° @ 7.8"                                        | 0°-6° @ 10"    | 0°-6° @ 6"        |  |
|                                                   |                                             |                                         | 10°-16° @ 14"                                         | 11°-17° @ 15"  | 10°-16° @ 10"     |  |
|                                                   |                                             | Max. deg. in. (X) Spark Retard          | 17.5°-23° @ 22"                                       | 17°-22° @ 20"  | 16°-21° @ 15"     |  |
|                                                   |                                             |                                         | 18°-23° @ 23"                                         | 22° Max.       | 21° Max.          |  |
|                                                   |                                             |                                         | 12°-10°                                               | 10°-12°        | 10°-12°           |  |
|                                                   | Vacuum Source                               | Carburetor Air Stream & Intake Manifold |                                                       |                |                   |  |
| Timing - Crank degrees rpm                        |                                             | 3° to 9° BTC at Idle                    |                                                       |                |                   |  |
| Cooling System (describe changes)                 |                                             | NA                                      |                                                       |                |                   |  |
| Exhaust System (describe changes)                 |                                             | NA                                      |                                                       |                |                   |  |

- (a) Breaker Gap — All — .020-.022  
 Cam Angle — All — 25°-29°  
 Breaker Arm Tension — All — 17-21 oz.  
 (\*) With lights off.  
 (X) Retard from initial setting at idle.

## AMA Specifications—Passenger Car

MAKE OF CAR COUGAR MODEL YEAR 1968 DATE ISSUED 10-13-67 REVISED (•) 4-15-68MODEL 390-2V 390-4V G.T. 427-4V  
428-4V

## ENGINE – EXHAUST EMISSION CONTROL Manual Transmission

|                                                   |                                            |                                                      |                              |                           |
|---------------------------------------------------|--------------------------------------------|------------------------------------------------------|------------------------------|---------------------------|
| Type (Air injection, engine modifications, other) |                                            | Air Injection, Carburetor & Distributor Modification |                              |                           |
| Air Injection Pump                                | Type                                       | Positive Displacement Vane Type                      |                              |                           |
|                                                   | Displacement                               | 19.3 cu. in./rev.                                    |                              |                           |
|                                                   | Drive ratio                                | 1.30:1 (1.25:1 with A.C.)                            |                              | 1.06:1 (1.04:1 with A.C.) |
|                                                   | Drive type                                 | Belt & Pulley                                        |                              |                           |
|                                                   | Relief valve (type)                        | Pressure Sensitive Poppet                            |                              |                           |
|                                                   | Filter (describe)                          | Centrifugal-Integral with Pump                       |                              |                           |
| Air Injection System                              | Air distribution (head, manifold, etc.)    | Cylinder Head – Air Manifold                         |                              |                           |
|                                                   | Point of entry                             | Exhaust Ports in Cylinder Head                       |                              |                           |
|                                                   | Injection tube I.D.                        | .260                                                 |                              |                           |
|                                                   | Check valve type                           | Poppet                                               |                              |                           |
|                                                   | Backfire protection (type)                 | By-Pass Valve                                        |                              |                           |
| Carburetor                                        | Make                                       | Autolite                                             | Holley                       | Holley                    |
|                                                   | Model 9510                                 | C8AF-M                                               | C8OF-C (a)                   | C8OF-AA                   |
|                                                   | Barrel size                                | 1.687 P                                              | 1.562 P & S                  | 1.68 P & S                |
|                                                   | Idle speed <sup>X</sup>                    |                                                      |                              |                           |
|                                                   | Drive Neutral                              | 625-650                                              | 625-650 (b)                  | 625-650 (b)               |
|                                                   | Idle A/F mixture                           | .093 @ 11 CFM                                        | .082 @ 16 CFM                | .082 @ 16 CFM             |
| Distributor                                       | Aux. Adv. Systems (type)                   |                                                      | Centrifugal & Vacuum         |                           |
|                                                   | Make                                       | Autolite                                             |                              |                           |
|                                                   | Model 12127                                | C8AF-M                                               | C8OF-D                       |                           |
|                                                   | Cent'fgal adv. in crank degrees @ eng. rpm | Start (rpm)                                          | 0° @ 800                     |                           |
|                                                   |                                            | Intermed. points deg. @ rpm                          | 6.5°-2.5° @ 1100             |                           |
|                                                   |                                            | Max. deg. @ rpm                                      | 21.5°-16.5° @ 4000           |                           |
|                                                   | (c)                                        |                                                      | 22° @ 4000                   |                           |
|                                                   |                                            |                                                      | 0° @ 1"                      |                           |
|                                                   |                                            |                                                      | 25° @ 7.5"                   |                           |
|                                                   |                                            |                                                      | 0°-6° @ 8.6"                 |                           |
|                                                   |                                            |                                                      | 8.5°-14.2° @ 12"             |                           |
| Vacuum                                            | adv. in crank degrees @ eng. rpm           | Start (in Hg)                                        | 0°-6° @ 9.0"                 |                           |
|                                                   |                                            | Intermed. points deg. @ in. Hg                       | 10-16 @ 13.0"                |                           |
|                                                   |                                            | Max. deg. @ in. (X) Spark Retard                     | 20°-25° @ 21.0"              |                           |
|                                                   | Vacuum Source                              |                                                      | Carburetor Port and Manifold |                           |
| Timing - Crank degrees @ rpm                      |                                            | 4° to 8° @ Idle                                      |                              | 4°-8° @ BTC @ Idle        |
| Cooling System (describe changes)                 |                                            | NA                                                   |                              |                           |
| Exhaust System (describe changes)                 |                                            | NA                                                   |                              |                           |

(a) Automatic transmission – C8OF-9510-D

(c) Breaker gap – same as Page 9

(b) Automatic transmission – 525-575 RPM

\* With light off

(X) Retard from base initial setting of idle

## AMA Specifications—Passenger Car

MAKE OF CAR COUGAR MODEL YEAR 1968 DATE ISSUED 10-13-67 REVISED (\*)4-15-68MODEL 289-2V 302-2V 302-4V

## ENGINE - EXHAUST EMISSION CONTROL

Automatic Transmission

|                                                   |                                             |                                                                    |                                                                          |                                                                        |
|---------------------------------------------------|---------------------------------------------|--------------------------------------------------------------------|--------------------------------------------------------------------------|------------------------------------------------------------------------|
| Type (Air injection, engine modifications, other) |                                             | Engine Modification                                                |                                                                          |                                                                        |
| Air Injection Pump                                | Type                                        | None                                                               |                                                                          |                                                                        |
|                                                   | Displacement                                |                                                                    |                                                                          |                                                                        |
|                                                   | Drive ratio                                 |                                                                    |                                                                          |                                                                        |
|                                                   | Drive type                                  |                                                                    |                                                                          |                                                                        |
|                                                   | Relief valve (type)                         |                                                                    |                                                                          |                                                                        |
|                                                   | Filter (describe)                           |                                                                    |                                                                          |                                                                        |
| Air Injection System                              | Air distribution (head, manifold, etc.)     | None                                                               |                                                                          |                                                                        |
|                                                   | Point of entry                              |                                                                    |                                                                          |                                                                        |
|                                                   | Injection tube I.D.                         |                                                                    |                                                                          |                                                                        |
|                                                   | Check valve type                            |                                                                    |                                                                          |                                                                        |
|                                                   | Backfire protection (type)                  |                                                                    |                                                                          |                                                                        |
| Carburetor                                        | Make                                        | Autolite                                                           |                                                                          |                                                                        |
|                                                   | Model 9510                                  | C8ZF-G                                                             | C8ZF-G                                                                   | C8ZF-B                                                                 |
|                                                   | Barrel size                                 | 1.437-P                                                            | 1.437-P                                                                  | 1.437-P-1.562-S                                                        |
|                                                   | Idle speed                                  | 525-575                                                            |                                                                          |                                                                        |
|                                                   | Drive<br>Neutral                            |                                                                    |                                                                          |                                                                        |
|                                                   | Idle A/F mixture                            | .079 @ 12.5 CFM                                                    | 1.437-P-1.562-S                                                          |                                                                        |
|                                                   | Aux. Adv. Systems (type)                    | Centrifugal and Vacuum                                             |                                                                          |                                                                        |
| Distributor                                       | Make                                        | Autolite                                                           |                                                                          |                                                                        |
|                                                   | Model 12127                                 | C8OF-C                                                             | C8ZF-D                                                                   |                                                                        |
|                                                   | Cent'fgal adv. in crank degrees @ eng. rpm  | Start (rpm)<br>Intermed. points deg. @ rpm<br>Max. deg. @ rpm      | 0°@950<br>10°-14°@1520<br>20°-25°@4000<br>25°@4000                       | 0°@1250<br>11.5°-16°@1250<br>14°-19°@4000<br>19°@4000                  |
|                                                   | (a) Vacuum adv. in crank degrees @ eng. rpm | Start (in Hg)<br>Intermed. points deg. @ in. Hg<br>Max. deg. @ in. | 0°@1"<br>0°-6°@7.7"<br>10°-16°@14"<br>18°-23°@23"<br>23° Max.<br>10°-12° | 0°@1"<br>0°-5.5°@9"<br>8°-13.6°@13"<br>13°-18°@17"<br>18° Max.<br>None |
|                                                   | Vacuum Source                               | Carburetor Air stream & intake manifold                            |                                                                          |                                                                        |
|                                                   | Timing - Crank degrees @ rpm                | 3° to 9° BTC of idle                                               |                                                                          |                                                                        |
|                                                   | Cooling System                              | NA                                                                 |                                                                          |                                                                        |
|                                                   | Exhaust System                              | NA                                                                 |                                                                          |                                                                        |

(a) Breaker Gap — 289-2V, 302-2V - .020-.022

302-4V - .016-.018

Cam Angle — 289-2V, 302-2V - 25°-29°

302-4V - 27°-31°

Breaker Arm Tension — 17-21 oz.

## AMA Specifications—Passenger Car

MAKE OF CAR COUGAR MODEL YEAR 1968 DATE ISSUED 10-13-67 REVISED 04-15-68MODEL 390-2V 390-4V GT 427-4V 428-4V

## ENGINE - EXHAUST EMISSION CONTROL

|                                                   |                                           |                                |                                                |                 |                 |         |
|---------------------------------------------------|-------------------------------------------|--------------------------------|------------------------------------------------|-----------------|-----------------|---------|
| Type (Air injection, engine modifications, other) |                                           |                                | Automatic Transmission                         |                 |                 |         |
|                                                   |                                           |                                | Air injection carb. & distributor modification |                 |                 |         |
| Air Injection Pump                                | Type                                      |                                | Positive displacement - Vane type              |                 |                 |         |
|                                                   | Displacement                              |                                | 19.3 cu. in./rev.                              |                 |                 |         |
|                                                   | Drive ratio                               |                                | 1.06:1 (1.04:1 AC)                             | 1.06:1          | 1.25:1          |         |
|                                                   | Drive type                                |                                | Belt and pulley                                |                 |                 |         |
|                                                   | Relief valve (type)                       |                                | Poppet                                         |                 |                 |         |
|                                                   | Filter (describe)                         |                                | Centrifugal integral with pump                 |                 |                 |         |
| Air Injection System                              | Air distribution (head, manifold, etc.)   |                                | Manifold                                       |                 |                 |         |
|                                                   | Point of entry                            |                                | Exhaust port                                   |                 |                 |         |
|                                                   | Injection tube I.D.                       |                                | .260                                           |                 |                 |         |
|                                                   | Check valve type                          |                                | Poppet                                         |                 |                 |         |
|                                                   | Backfire protection (type)                |                                | By-pass valve                                  |                 |                 |         |
| Carburetor                                        | Make                                      | Autolite                       | Holley                                         |                 |                 |         |
|                                                   | Model 9510                                | C8OF-K                         | C8OF-D                                         | C8AF-AD         | C8OF-AB         |         |
|                                                   | Barrel size                               | 1.687P                         | 1.562P & S                                     | 1.562P & S      | 1.68 P&S        |         |
|                                                   | Idle speed                                | Drive                          | 525-575                                        | 525-575         | 575-625         | 525-575 |
|                                                   |                                           | Neutral                        |                                                |                 |                 |         |
|                                                   | Idle A/F mixture                          | .072@16.5 CFM                  | .082@16 CFM                                    |                 |                 |         |
| Distributor                                       | Aux. Adv. Systems (type)                  |                                | Centrifugal and vacuum                         |                 |                 |         |
|                                                   | Make                                      |                                | Autolite                                       |                 |                 |         |
|                                                   | Model                                     | 12127                          | C8WF-A                                         | C8OF-D-(a)      | C7OF-F(b)       |         |
|                                                   | Cent'gal adv. in crank degrees @ eng. rpm | Start (rpm)                    | 0°@1000                                        | ±1° @ 400 - 850 | 0°@850          |         |
|                                                   |                                           | Intermed. points deg. ? rpm    | 8°-12°@1600                                    | 0°-4°@950       | 17°-18.8°@1450  |         |
|                                                   |                                           |                                | 19.5-24.5°@4000                                | 15°-19°@1480    | 26°-29°@4000    |         |
|                                                   |                                           | Max. deg. ? rpm                | 24.5°@4000                                     | 25°-30°@4250    | 29°@4000        |         |
|                                                   | Vacuum adv. in crank degrees @ eng. rpm   | Start (in Hg)                  | 0°@1"                                          | 0°-25°@7.5"     | 0°@1"           |         |
|                                                   |                                           | Intermed. points deg. @ in. Hg | 0°-8°@9.5"                                     | 0°-6°@8.6"      | 0°-8°@9.5"      |         |
|                                                   |                                           |                                | 8°-14.6°@12"                                   | 8.5°-14.2°@12"  | 10.5°-16.5°@13" |         |
|                                                   |                                           |                                | 14°-20°@15"                                    | 14°-19°@15°     | 16°-22°@16.4"   |         |
|                                                   |                                           |                                | 25° Max.                                       | 19° Max.        | 22° Max.        |         |
| Vacuum Source                                     |                                           | 10°-12°                        | 5°-7°                                          | 5°-7°           |                 |         |
| Timing - Crank degrees ? rpm                      |                                           |                                | Carb. air stream & intake manifold(c)          |                 |                 |         |
| Cooling System                                    |                                           |                                |                                                |                 |                 |         |
| Exhaust System                                    |                                           |                                |                                                |                 |                 |         |

(a) C8OF-12127-D-428-4V

(b) C7OF-12127-F-427-4V

(c) 427-4V &amp; 428-4V - Carburetor air stream only

## AMA Specifications—Passenger Car

MAKE OF CAR COUGAR MODEL YEAR 1968 DATE ISSUED 10-13-67 REVISED 4-15-68

| MODEL | 289-2V<br>302-2V | 302-4V | 390-2V | 390-4V GT | 427-4V | 428-4V |
|-------|------------------|--------|--------|-----------|--------|--------|
|-------|------------------|--------|--------|-----------|--------|--------|

## ENGINE—FUEL SYSTEM

(See supplemental page for Details of Fuel Injection, Supercharger, etc. if used)

|                                                           |                                                 |                                         |                         |             |         |
|-----------------------------------------------------------|-------------------------------------------------|-----------------------------------------|-------------------------|-------------|---------|
| Induction type: Carburetor, fuel injection, supercharger. |                                                 | Carburetor                              |                         |             |         |
| Fuel Tank                                                 | Refill capacity (U.S. gals.)                    | 16                                      |                         |             |         |
|                                                           | Filler location                                 | Rear center of lower panel              |                         |             |         |
| Fuel Pump                                                 | Type (elec. or mech.)                           | Mechanical                              |                         |             |         |
|                                                           | Locations                                       | Left-hand side of engine                |                         |             |         |
|                                                           | Pressure range                                  | 4-6 psi                                 |                         | 4.5-6.5 psi |         |
| Vacuum booster (std., optional, none)                     |                                                 | None                                    |                         |             |         |
| Fuel Filter                                               | Type                                            | #1 Saran Plastic #2 Nylon & Monel Cloth |                         |             |         |
|                                                           | Locations                                       | #1 in Fuel Tank #2 in Fuel Line         |                         |             |         |
| Carburetor                                                | Choke type                                      | Automatic                               |                         |             |         |
|                                                           | Intake manifold heat control (exhaust or water) | Hot and Cold Air Cleaner System         |                         |             |         |
|                                                           | Air cleaner type                                | Standard                                | Dry Replaceable Element |             |         |
|                                                           |                                                 | Optional                                | None                    |             |         |
|                                                           | Idle speed (spec. neutral or drive)             | Manual                                  | 525-575                 | 600-650     | 625-650 |
|                                                           |                                                 | Automatic                               | 500-550                 | 525-575     | 525-575 |
| Idle A F mix.                                             |                                                 |                                         |                         |             |         |

## CARBURETOR SUPPLEMENTARY INFORMATION

| Model Usage | Engine Displ. | Transmission | Carburetors |         | No. Used and Type | Barrel Size     |
|-------------|---------------|--------------|-------------|---------|-------------------|-----------------|
|             |               |              | Make        | Model   |                   |                 |
| All         | 289           | Manual       | Autolite    | C8AF-AK | One-2V            | 1.437           |
|             | 289           | Auto.        | Autolite    | C8ZF-G  | One-2V            | 1.437           |
|             | 302           | Manual       | Autolite    | C8AF-AK | One-2V            | 1.437           |
|             | 302           | Auto.        | Autolite    | C8ZF-G  | One-2V            | 1.437           |
|             | 302           | Manual       | Autolite    | C8ZF-C  | One-4V            | 1.437 P-1.562 S |
|             | 302           | Auto.        | Autolite    | C8ZF-B  | One-4V            | 1.437 P-1.562 S |
|             | 390           | Manual       | Autolite    | C8AF-M  | One-2V            | 1.562 P & S     |
|             | 390           | Auto.        | Autolite    | C8OF-K  | One-2V            | 1.562 P & S     |
|             | 390           | Manual       | Holley      | C8OF-D  | One-4V            | 1.68 P & S      |
|             | 390           | Auto.        | Holley      | C8OF-D  | One-4V            | 1.68 P & S      |
|             | 427           | Manual       | Holley      | C8OF-AA | One-4V            | 2.68 P & S      |
|             | 427           | Auto.        | Holley      | C8OF-AB | One-4V            | 2.68 P & S      |
|             | 428           | Manual       | Holley      | C8OF-AA | One-4V            | 1.68 P & S      |
|             | 428           | Auto.        | Holley      | C8OF-AB | One-4V            | 1.68 P & S      |

## AMA Specifications—Passenger Car

MAKE OF CAR COUGAR MODEL YEAR 1968 DATE ISSUED 10-13-67 REVISED (\*) 4-15-68MODEL CID 289-2V 302-2V 302-4V

## ENGINE - COOLING SYSTEM

|                                                             |                              |                                     |             |
|-------------------------------------------------------------|------------------------------|-------------------------------------|-------------|
| Type system (pressure, pressure vented, atmospheric, other) | Pressure                     |                                     |             |
| Radiator cap relief valve pressure                          | 12 - 15 PSI                  |                                     |             |
| Circulation thermostat                                      | Type (choke, bypass)         | Poppet Valve                        |             |
|                                                             | Starts to open at (°F)       | 188° - 195°                         |             |
|                                                             | Type (centrifugal, other)    | Centrifugal                         |             |
| Water pump                                                  | GPM @ 1000 pump rpm          | 18                                  |             |
|                                                             | Number of pumps              | One                                 |             |
|                                                             | Drive (V-belt, other)        | V-Belt                              |             |
|                                                             | Bearing type                 | Double Row, sealed ball & roller    |             |
| By-pass recirculation type (inter., ext.)                   | External                     |                                     |             |
| Radiator core type (cellular, tube and fin, other)          | Downflow, tube and slit fin  |                                     |             |
| Cooling system                                              | With heater (qt.)            | 15                                  |             |
|                                                             | Without heater (qt.)         | 14                                  |             |
| capacity                                                    | Opt. equipment-specify (qt.) | 15.6 with A/C or Extra Cooling None |             |
| Water jackets full length of cyl. (yes, no)                 | Yes                          | No                                  |             |
| Water all around cylinder (yes, no)                         | Yes                          |                                     |             |
| Radiator hose                                               | Lower                        | Number and type (molded, straight)  | One, Molded |
|                                                             |                              | Inside diameter                     | 1.75        |
|                                                             | Upper                        | Number and type (molded, straight)  | One, Molded |
|                                                             |                              | Inside diameter                     | 1.50        |
|                                                             | By-pass                      | Number and type (molded, straight)  | One, Molded |
|                                                             |                              | Inside diameter                     | (1) (2)     |
| Fan                                                         | Number of blades & spacing   | 4 Uneven                            | 5 Uneven    |
|                                                             | Diameter                     | 17.5                                | 17.5 Flex   |
|                                                             | Ratio-fan to crankshaft rev. | .95:1                               | 1.13:1      |
|                                                             | Fan cutout type              | None                                | None        |
|                                                             | Bearing type                 | Water Pump Bearing                  |             |
| * Drive belts (indicate belt used by letter)                | Fan                          |                                     |             |
|                                                             | Generator or alternator      |                                     |             |
|                                                             | Water Pump                   |                                     |             |
|                                                             | Power Steering               | SEE ATTACHED SHEETS 11B-C-D         |             |
|                                                             | Air Conditioning             |                                     |             |

| Drive Belt Dimensions | A | B | C | D | E | F | G | H | I | J | K |
|-----------------------|---|---|---|---|---|---|---|---|---|---|---|
| Angle of V            |   |   |   |   |   |   |   |   |   |   |   |
| Nominal length (SAE)  |   |   |   |   |   |   |   |   |   |   |   |
| Width                 |   |   |   |   |   |   |   |   |   |   |   |

(1) Standard &amp; Extra Cooling. (2) Air Conditioning.

## AMA Specifications—Passenger Car

MAKE OF CAR COUGAR MODEL YEAR 1968 DATE ISSUED 10-13-67 REVISED (•) 4-15-68MODEL CID 390-2V 390-4V G.T. 427-4V 428-4V

## ENGINE—COOLING SYSTEM

|                                                             |                              |                                    |                                      |          |
|-------------------------------------------------------------|------------------------------|------------------------------------|--------------------------------------|----------|
| Type system (pressure, pressure vented, atmospheric, other) |                              | Pressure                           |                                      |          |
| Radiator cap relief valve pressure                          |                              | 12 - 15 PSI                        |                                      |          |
| Circulation thermostat                                      | Type (choke, bypass)         | Poppet Valve                       |                                      |          |
|                                                             | Starts to open at (°F)       | 188° - 195°                        |                                      |          |
| Water pump                                                  | Type (centrifugal, other)    | Centrifugal                        |                                      |          |
|                                                             | GPM @ 1000 pump rpm          | 17                                 |                                      |          |
|                                                             | Number of pumps              | One                                |                                      |          |
|                                                             | Drive (V-belt, other)        | V-Belt                             |                                      |          |
|                                                             | Bearing type                 | Sealed, ball and roller bearing    |                                      |          |
| By-pass recirculation type (inter., ext.)                   |                              | External                           |                                      |          |
| Radiator core type (cellular, tube and fin, other)          |                              |                                    |                                      |          |
| Cooling system capacity                                     | With heater (qt.)            | 20.5                               |                                      |          |
|                                                             | Without heater (qt.)         | 19.5                               |                                      |          |
|                                                             | Opt. equipment-specify (qt.) |                                    |                                      |          |
| Water jackets full length of cyl. (yes, no)                 |                              | Yes                                |                                      |          |
| Water all around cylinder (yes, no)                         |                              | Yes                                |                                      |          |
| Radiator hose                                               | Lower                        | Number and type (molded, straight) | One, Molded                          |          |
|                                                             |                              | Inside diameter                    | 1.75 @ Radiator<br>2.07 @ Water Pump |          |
|                                                             | Upper                        | Number and type (molded, straight) | One, Molded                          |          |
|                                                             |                              | Inside diameter                    | 1.50 @ Radiator<br>1.75 @ Outlet     |          |
|                                                             | By-pass                      | Number and type (molded, straight) | One, Straight                        |          |
|                                                             |                              | Inside diameter                    | (1) (2)                              |          |
|                                                             | Fan                          | Number of blades & spacing         | 7 Uneven                             | 7 Uneven |
|                                                             |                              | Diameter                           | 18.25                                | 18.25    |
| Ratio-fan to crankshaft rev.                                |                              | 1.10:1                             | 1.25:1                               |          |
| Fan cutout type                                             |                              | Thermo Modulated                   |                                      |          |
| Bearing type                                                |                              | Water Pump Bearing                 |                                      |          |
| Drive belts (indicate belt used by letter)                  | Fan                          |                                    |                                      |          |
|                                                             | Generator or alternator      |                                    |                                      |          |
|                                                             | Water Pump                   |                                    |                                      |          |
|                                                             | Power Steering               | SEE ATTACHED SHEETS 11B-C-D        |                                      |          |
| Air Conditioning                                            |                              |                                    |                                      |          |

| * Drive Belt Dimensions | A | B | C | D | E | F | G | H | I | J | K |
|-------------------------|---|---|---|---|---|---|---|---|---|---|---|
| Angle of V              |   |   |   | 1 |   |   |   |   |   |   |   |
| Nominal length (SAE)    |   |   |   |   |   |   |   |   |   |   |   |
| Width                   |   |   |   |   |   |   |   |   |   |   |   |

(1) All 390-2V &amp; 4V and 427-4V Std. &amp; Extra Cooling. (2) All 390-2V &amp; 4V and 427-4V A/C...

## AMA Specifications—Passenger Car

MAKE OF CAR COUGAR MODEL YEAR 1968 DATE ISSUED 10-13-67 REVISED (\*) 4-15-68

MODEL \_\_\_\_\_

| ENGINE                         | 289-2V, 302-2V & 302-4V |       |       |       |        |        |        |        |        |        | 390-4V G.T. & 427-4V, 428-4V |        |        |        |        |        |        |        |        |        |
|--------------------------------|-------------------------|-------|-------|-------|--------|--------|--------|--------|--------|--------|------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Ratio - Fan to Crankshaft Rev. | .95:1                   | .95:1 | .95:1 | .95:1 | 1.13:1 | 1.13:1 | 1.13:1 | 1.13:1 | 1.13:1 | 1.10:1 | 1.10:1                       | 1.10:1 | 1.10:1 | 1.10:1 | 1.10:1 | 1.10:1 | 1.10:1 | 1.10:1 | 1.10:1 | 1.10:1 |
| Fan                            | F                       | F     | FG    | J     | Two-H  | GHJ    | Two-N  | LN     | Two-H  | LH     | P                            | P      | Two-Q  | Two-Q  | Two-Q  | Two-Q  | Two-Q  | Two-Q  | Two-Q  | Two-Q  |
| Alternator                     | F                       | F     | F     | Two-H | Two-H  | H      | Two-N  | N      | Two-H  | H      | Two-Q                        | Two-Q  | Two-Q  | Two-Q  | Two-Q  | Two-Q  | Two-Q  | Two-Q  | Two-Q  | Two-Q  |
| Water Pump                     | F                       | F     | FG    | J     | Two-H  | GHJ    | Two-N  | LN     | Two-H  | LH     | P                            | P      | Two-Q  | Two-Q  | Two-Q  | Two-Q  | Two-Q  | Two-Q  | Two-Q  | Two-Q  |
| Power Steering                 | G                       | G     | G     | L     | L      | L      | L      | L      | L      | L      | R                            | R      | R      | R      | R      | R      | R      | R      | R      | R      |
| Air Conditioning               |                         |       |       |       |        | M      | M      | M      | K      | K      | S                            | S      | S      | S      | S      | S      | S      | S      | S      | S      |
| Crankshaft                     | F                       | FG    | J     | Two-H | Two-N  | GHJ    | M      | LMN    | Two-H  | Two-H  | R                            | R      | Two-Q  | Two-Q  | Two-Q  | Two-Q  | Two-Q  | Two-Q  | Two-Q  | Two-Q  |
| Fixed Idler                    |                         |       |       |       |        | M      | M      | M      | K      | K      | K                            | K      | K      | K      | K      | K      | K      | K      | K      | K      |
| Adjustable Idler               |                         |       |       |       |        | M      | M      | M      | K      | K      | S                            | S      | S      | S      | S      | S      | S      | S      | S      | S      |
| Air Injection Pump             | J                       | J     | J     | J     | J      | J      | J      | J      | K      | K      | P                            | P      | P      | P      | P      | P      | P      | P      | P      | P      |
| *                              | 1 & 2                   | 3     | 6     | 7     | 4      | 5      | 8      | 9      | 1,2&6  | 7      | 8                            | 9      | 8      | 9      | 8      | 9      | 8      | 9      | 8      | 9      |

- \* 1. Standard Cooling.  
 2. Extra Cooling.  
 3. Power Steering (P/S).  
 4. Air Conditioning (A/C).  
 5. P/S & A/C.  
 6. Air Injection Pump (A.I.P.).  
 7. P/S & A.I.P.  
 8. A/C & A.I.P.  
 9. P/S, A/C, & A.I.P.

## AMA Specifications—Passenger Car

MAKE OF CAR COUGAR MODEL YEAR 1968 DATE ISSUED 10-13-67 REVISED (\*) 4-15-68

MODEL \_\_\_\_\_

| ENGINE                         | 390-2V |        |            |        |
|--------------------------------|--------|--------|------------|--------|
| Ratio - Fan to Crankshaft Rev. | 1.10:1 | 1.10:1 | 1.25:1     | 1.25:1 |
| Fan                            | A      | A      | Two-D      | D W    |
| Alternator                     | A      | A      | Two-D      | D      |
| Water Pump                     | A      | A      | Two-D      | D W    |
| Power Steering                 |        | C      |            | W      |
| Air Conditioning               |        |        | E          | E      |
| Crankshaft                     | A      | A C    | Two-D<br>E | D E W  |
| Fixed Idler                    |        |        | E          | E      |
| Adjustable Idler               |        |        | E          | E      |
| Air Injection Pump             |        |        |            |        |
| *                              | 1      | 2      | 3          | 4      |

- \* 1. Standard Cooling.  
 2. Power Steering (P/S).  
 3. Air Conditioning (A/C).  
 4. P/S & A/C.

MAKE OF CAR COUGAR MODEL YEAR 1968 DATE ISSUED 10-13-67 REVISED (•) 4-15-68

MODEL \_\_\_\_\_

|                         |       |       |       |       |       |       |       |       |       |
|-------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Drivebelt               | A     | B     | C     | D     | E     | F     | G     | H     | J,    |
| Angle of "V"            | 36°   | 36°   | 36°   | 36°   | 36°   | 36°   | 36°   | 36°   | 36°   |
| Nominal<br>Length (SAE) | 43.75 | 41.00 | 42.50 | 44.25 | 55.00 | 40.25 | 46.75 | 40.50 | 44.75 |
| Width                   | 15/32 | 15/32 | 15/32 | 15/32 | 1/2   | 15/32 | 15/32 | 15/32 | 15/32 |

| Drivebelt            | K     | L     | M     | N     | P     | Q     | R     | S     | T     | W     |
|----------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Angle of "V"         | 36°   | 36°   | 36°   | 36°   | 36°   | 36°   | 36°   | 36°   | 36°   | 36°   |
| Nominal Length (SAE) | 61.75 | 47.25 | 51.75 | 40.00 | 34.25 | 40.75 | 42.50 | 63.50 | 51.50 | 50.75 |
| Width                | 1/2   | 15/32 | 1/2   | 15/32 | 15/32 | 15/32 | 1/2   | 1/2   | 15/32 | 15/32 |

# AMA Specifications—Passenger Car

MAKE OF CAR COUGAR MODEL YEAR 1968 DATE ISSUED 10-13-67 REVISED (14-15-68)

|       |     |                  |        |        |              |                  |
|-------|-----|------------------|--------|--------|--------------|------------------|
| MODEL | CID | 289-2V<br>302-2V | 302-4V | 390-2V | 390-4V G. T. | 427-4V<br>428-4V |
|-------|-----|------------------|--------|--------|--------------|------------------|

## ELECTRICAL – SUPPLY SYSTEM

|                               |                                 |                                  |                                        |  |                  |               |
|-------------------------------|---------------------------------|----------------------------------|----------------------------------------|--|------------------|---------------|
| Battery                       | Make and Model                  |                                  | Autolite C5AF-10655-A (a)              |  |                  | C8ZF-10655-A  |
|                               | Voltage Rtg. & Total Plates     |                                  | 12V 54 Plate                           |  |                  | 12V, 66 Plate |
|                               | SAE Designation & Amp. Hr. Rtg. |                                  | 17 Mia. 45 Amp. Hr.                    |  |                  | 73 A.H.       |
|                               | Location                        |                                  | Right Hand Front Engine Compartment    |  |                  |               |
|                               | Terminal grounded               |                                  | Negative                               |  |                  |               |
| Generator<br>or<br>Alternator | Make                            |                                  | Autolite                               |  |                  |               |
|                               | Model                           |                                  | C6DF-10300-A (b)                       |  | C6TF-10300-A (b) |               |
|                               | Type and rating                 |                                  | 38 Amp. Self Current Limiting          |  | 38 Amp.          |               |
|                               | Output at engine idle (neutral) |                                  | 7 @ 12.8 Volts                         |  | 6.0 @ 12.8 Volts |               |
|                               | Ratio—Gen. to Cr/s rev.         |                                  | 2.3:1                                  |  | 2.5:1            |               |
| Regulator                     | Make                            |                                  | Autolite                               |  |                  |               |
|                               | Model                           |                                  | C8AF-10316-A (c)                       |  |                  |               |
|                               | Type                            |                                  | 2-Unit — Voltage Control & Field Relay |  |                  |               |
|                               | Cutout<br>relay                 | Closing voltage<br>generator rpm | 2.5 — 4 @ 75°                          |  |                  |               |
|                               |                                 | Reverse current<br>to open       | NA                                     |  |                  |               |
|                               | Regu-<br>lated                  | Voltage                          | 14.1 — 14.7 @ 75°                      |  |                  |               |
|                               |                                 | Current                          | NA                                     |  |                  |               |
|                               | Voltage<br>test<br>conditions   | Temperature                      | 75°                                    |  |                  |               |
|                               |                                 | Load                             | 5 Amp.                                 |  |                  |               |
|                               |                                 | Other                            | None                                   |  |                  |               |

## ELECTRICAL – STARTING SYSTEM

|                   |                              |          |                                                    |         |        |                      |
|-------------------|------------------------------|----------|----------------------------------------------------|---------|--------|----------------------|
| Starting<br>Motor | Make                         |          | Autolite                                           |         |        |                      |
|                   | Model -11001-                |          | C7AF-F*                                            | C7AF-F* | C7AF-C | C7AF-E C7AF-E C8AF-A |
|                   | Rotation (drive<br>end view) |          | Clockwise                                          |         |        |                      |
| Motor<br>control  | Switch (solenoid, manual)    |          | Solenoid                                           |         |        |                      |
|                   | Starting<br>procedure        |          | Turn ignition key to spring loaded start position. |         |        |                      |
|                   | Engagement type              |          | Positive Electro Mechanical                        |         |        |                      |
| Motor<br>Drive    | Pinion meshes (front, rear)  |          | Front                                              |         |        |                      |
|                   | Number<br>of teeth           | Pinion   | 9                                                  |         | 9      |                      |
|                   |                              | Flywheel | Manual                                             | 164     | 176    | 184                  |
|                   | Flywheel tooth<br>face width | Manual   | .365                                               | .365    | .365   | .365                 |
|                   |                              | Auto.    | .365                                               | .365    | .365   | .365                 |
|                   |                              |          |                                                    |         |        |                      |

- (a) C5AF-10655-B — 55 Amp. Hr. — H. D. option available, standard with 390 CID engine/automatic transmission combination.  
 (b) 55 Amp. Alternator required with A/C.  
 (c) C8TF-10316-A with 55 Amp. Alternator.

\* C7AF-11001-B — For 289 man. and auto. and 302 auto. transmission.

# AMA Specifications—Passenger Car

MAKE OF CAR Cougar MODEL YEAR 1968 DATE ISSUED 10-13-67 REVISED (\*) 4-15-68

MODEL 289-2V-302-2V 302-4V

## ELECTRICAL – IGNITION SYSTEM

### Manual Transmission

|               |                                                                            |                                        |                       |                     |
|---------------|----------------------------------------------------------------------------|----------------------------------------|-----------------------|---------------------|
| Type          | Conventional -- Std., Opt., N.A.                                           |                                        | Standard              |                     |
|               | Transistorized -- Std., Opt., N.A.                                         |                                        | NA                    |                     |
|               | Other (specify)                                                            |                                        | -                     |                     |
| Coil          | Make                                                                       |                                        | Autolite              |                     |
|               | Model                                                                      |                                        | FAC-12029-A           |                     |
|               | Amps                                                                       | Engine stopped                         | 4.5                   |                     |
|               |                                                                            | Engine idling                          | 2.5                   |                     |
| Distributor   | Make                                                                       |                                        | Autolite              |                     |
|               | Model                                                                      |                                        | C70F-A                | C7ZF-F              |
|               | Cent'fgal<br>adv. in<br>c/shaft<br>degrees @<br>engine<br>rpm<br>(nominal) | Start (rpm)                            | 0°-2° @ 1150          | 0°-2° @ 780         |
|               |                                                                            | Intermediate<br>points deg. @ rpm      | 14°-16° @ 1800        | 12.5° @ 1200        |
|               |                                                                            |                                        | 19.6°-22.4° @ 3000    | 15.3° @ 2400        |
|               |                                                                            | Max. deg. @ rpm                        | 24°-27.5° @ 4000      | 17.5°-20.5° @ 4000  |
|               | Vacuum<br>adv. in<br>c/shaft<br>degrees @<br>in. Hg.<br>(nominal)          | Start (in. Hg.)                        | 0°-2.3° @ 5.5"        | 0°-2.0° @ 5.0"      |
|               |                                                                            | Intermediate<br>points, deg. @ in. Hg. | 0°-5.8° @ 7.0"        | 0°-6.0° @ 5.8"      |
|               |                                                                            |                                        | 10.8°-16.8° @ 12.0"   | 12.5°-18.5° @ 10.0" |
|               |                                                                            | Max. deg. in. Hg.                      | 16°-22° @ 17.0"       | 19°-25° @ 14.5"     |
|               | Breaker gap (in.)                                                          |                                        | .016-.018             |                     |
|               | Cam angle (deg.)                                                           |                                        | 27°-31°               |                     |
|               | Breaker arm tension (oz.)                                                  |                                        | 17-21                 |                     |
| Timing        | Crankshaft deg. @ rpm                                                      |                                        | 3° to 9° BTC          |                     |
|               | Mark location                                                              |                                        | Crankshaft Damper     |                     |
| Spark<br>Plug | Make                                                                       |                                        | Autolite              |                     |
|               | Model                                                                      |                                        | HF-32                 |                     |
|               | Thread (mm)                                                                |                                        | 18MM                  |                     |
|               | Tightening torque (lb. ft.)                                                |                                        | 15-20                 |                     |
|               | Gap                                                                        |                                        | .032-.036             |                     |
| Cable         | Conductor type                                                             |                                        | Resistance Core Cable |                     |
|               | Insulation type                                                            |                                        | Neoprene Sheath       |                     |
|               | Spark plug protector                                                       |                                        | Syn. Boot (Neoprene)  |                     |

## ELECTRICAL – SUPPRESSION

|                  |                                                |
|------------------|------------------------------------------------|
| Locations & type | Capacitor in Alternator and Voltage Regulator  |
|                  | Resistance Core Ignition Cable and Hood Ground |

## AMA Specifications—Passenger Car

MAKE OF CAR Cougar MODEL YEAR 1968 DATE ISSUED 10-13-67 REVISED (\*) 4-15-68MODEL 390-4V GT 428-4V

## ELECTRICAL - IGNITION SYSTEM

Manual Transmission

|             |                                                                              |                                        |                       |                    |
|-------------|------------------------------------------------------------------------------|----------------------------------------|-----------------------|--------------------|
| Type        | Conventional - Std., Opt., N.A.                                              |                                        | Standard              |                    |
|             | Transistorized - Std., Opt., N.A.                                            |                                        | NA                    |                    |
|             | Other (specify)                                                              |                                        | -                     |                    |
| Coil        | Make                                                                         |                                        | Autolite              |                    |
|             | Model                                                                        |                                        | FAC-12029-A           |                    |
|             | Amps                                                                         | Engine stopped                         | 4.5                   |                    |
|             |                                                                              | Engine idling                          | 2.5                   |                    |
| Distributor | Make                                                                         |                                        | Autolite              |                    |
|             | Model                                                                        |                                        | C70F-H                |                    |
|             | Centrifugal<br>adv. in<br>c/shaft<br>degrees @<br>engine<br>rpm<br>(nominal) | Start (rpm)                            | 0°-2° @ 760           | ± 1°-0° @ 750      |
|             |                                                                              | Intermediate<br>points deg. @ rpm      | 12.5° @ 1200          | 0°-3° @ 800        |
|             |                                                                              |                                        | 14°-16.5° @ 2400      | 9.5°-11.5° @ 1100  |
|             |                                                                              | Max. deg. @ rpm                        | 19.5°-22.5° @ 4000    | 19.5°-22.5° @ 4000 |
|             | Vacuum<br>adv. in<br>c/shaft<br>degrees @<br>in. Hg.<br>(nominal)            | Start (in. Hg.)                        | 0°-2° @ 5.0"          | 0°-2.5° @ 8.0"     |
|             |                                                                              | Intermediate<br>points, deg. @ in. Hg. | 0°-8° @ 9.5"          | 0°-6° @ 18.0"      |
|             |                                                                              |                                        | 8.4°-14.4° @ 12"      | 12°-18° @ 14.7"    |
|             |                                                                              | Max. deg. in. Hg.                      | 12°-18° @ 13.8"       | 18° @ 14.7"        |
|             | Breaker gap (in.)                                                            |                                        | .016-.018             |                    |
|             | Cam angle (deg.)                                                             |                                        | 27°-31°               |                    |
|             | Breaker arm tension (oz.)                                                    |                                        | 17-21                 |                    |
| Timing      | Crankshaft deg. @ rpm                                                        |                                        | 90-150 BTC            |                    |
|             | Mark location                                                                |                                        | Crankshaft Damper     |                    |
| Spark Plug  | Make                                                                         |                                        | Autolite              |                    |
|             | Model                                                                        |                                        | BF-32                 |                    |
|             | Thread (mm)                                                                  |                                        | 18MM                  |                    |
|             | Tightening torque (lb. ft.)                                                  |                                        | 15-20                 |                    |
|             | Gap                                                                          |                                        | .032-.036             |                    |
| Cable       | Conductor type                                                               |                                        | Resistance Core Cable |                    |
|             | Insulation type                                                              |                                        | Neoprene Sheath       |                    |
|             | Spark plug protector                                                         |                                        | Syn. Boot (Neoprene)  |                    |

## ELECTRICAL - SUPPRESSION

|                  |                                                |
|------------------|------------------------------------------------|
| Locations & type | Capacitor in Alternator and Voltage Regulator  |
|                  | Resistance Core Ignition Cable and Hood Ground |

## AMA Specifications—Passenger Car

MAKE OF CAR Cougar MODEL YEAR 1968 DATE ISSUED 10-13-67 REVISED (a) 4-15-68MODEL 289-2V-302-2V | 302-4V | 390-4V GT-428-4V

## ELECTRICAL – IGNITION SYSTEM

|               |                                                                            | Automatic Transmission                 |                                          |            |                                          |
|---------------|----------------------------------------------------------------------------|----------------------------------------|------------------------------------------|------------|------------------------------------------|
| Type          | Conventional – Std., Opt., N.A.                                            |                                        | Standard                                 |            |                                          |
|               | Transistorized – Std., Opt., N.A.                                          |                                        | NA                                       |            |                                          |
|               | Other (specify)                                                            |                                        | -                                        |            |                                          |
| Coil          | Make                                                                       |                                        | Autolite                                 |            |                                          |
|               | Model                                                                      |                                        | FAC-12029-A                              |            |                                          |
|               | Amps                                                                       | Engine stopped                         | 4.5                                      |            |                                          |
|               |                                                                            | Engine idling                          | 2.5                                      |            |                                          |
| Distributor   | Make                                                                       |                                        | Autolite                                 |            |                                          |
|               | Model                                                                      |                                        | C70F-B                                   | C7ZF-F (a) | C7AF-U (b)                               |
|               | Cent'fgal<br>adv. in<br>c/shaft<br>degrees @<br>engine<br>rpm<br>(nominal) | Start (rpm)                            | 0°-2° @ 780                              |            | 0°-2° @ 750                              |
|               |                                                                            | Intermediate<br>points deg. @ rpm      | 13.5°-15.5° @ 1320<br>17.0°-19.5° @ 2600 |            | 10.5°-12.5° @ 1100<br>15.0°-17.5° @ 2600 |
|               |                                                                            | Max. deg. @ rpm                        | 21°-24° @ 4000                           |            | 19.5°-22.5° @ 4000                       |
|               |                                                                            | Start (in. Hg.)                        | 0°-2.5° @ 6.0"                           |            | 0°-3° @ 8.0"                             |
|               | Vacuum<br>adv. in<br>c/shaft<br>degrees @<br>in. Hg.<br>(nominal)          | Intermediate<br>points, deg. @ in. Hg. | 0°-7.3° @ 7.4"<br>12.3°-18.3° @ 11"      |            | 0°-8° @ 9.5"<br>8.4°-14.5° @ 12.0"       |
|               |                                                                            | Max. deg. in. Hg.                      | 19°-25° @ 16"                            |            | 16°-22° @ 16.4"                          |
|               | Breaker gap (in.)                                                          |                                        | .016-.018                                |            |                                          |
|               | Cam angle (deg.)                                                           |                                        | 27°-31°                                  |            |                                          |
|               | Breaker arm tension (oz.)                                                  |                                        | 17-21                                    |            |                                          |
| Timing        | Crankshaft deg. @ rpm                                                      |                                        | 3° to 9° BTC (c)                         |            |                                          |
|               | Mark location                                                              |                                        | Crankshaft Damper                        |            |                                          |
| Spark<br>Plug | Make                                                                       |                                        | Autolite                                 |            |                                          |
|               | Model                                                                      |                                        | BF-32                                    |            |                                          |
|               | Thread (mm)                                                                |                                        | 18MM                                     |            |                                          |
|               | Tightening torque (lb. ft.)                                                |                                        | 15-20                                    |            |                                          |
|               | Gap                                                                        |                                        | .032-.036                                |            |                                          |
| Cable         | Conductor type                                                             |                                        | Resistance Core Cable                    |            |                                          |
|               | Insulation type                                                            |                                        | Neoprene Sheath                          |            |                                          |
|               | Spark plug protector                                                       |                                        | Syn. Boot (Neoprene)                     |            |                                          |

## ELECTRICAL – SUPPRESSION

|                  |                                                |
|------------------|------------------------------------------------|
| Locations & type | Capacitor in Alternator and Voltage Regulator  |
|                  | Resistance Core Ignition Cable and Hood Ground |

- (a) See Page 13  
 (b) See Page 13-A  
 (c) See Page 13-A

## AMA Specifications—Passenger Car

MAKE OF CAR COUGAR MODEL YEAR 1968 DATE ISSUED 10-13-67 REVISED (a) 4-15-68MODEL CID 302-2V 302-4V 390-2V 427-4V  
390-4V G.T. 428-4V

## ELECTRICAL – INSTRUMENTS AND EQUIPMENT

|                               |                         |                                                                                                                        |
|-------------------------------|-------------------------|------------------------------------------------------------------------------------------------------------------------|
| Speed-ometer                  | Type                    | Ford                                                                                                                   |
|                               | Trip odometer (yes, no) | No                                                                                                                     |
| Charge indicator – type       |                         | Warning Light (a)                                                                                                      |
| Temperature indicator – type  |                         | Warning Light (a)                                                                                                      |
| Oil pressure indicator – type |                         | Warning Light (a)                                                                                                      |
| Fuel indicator – type         |                         | Electric Gage                                                                                                          |
| Other                         |                         | Safety Convenience Panel Warning Lights - Low Fuel -<br>Fasten Seat Belt - Dr. Lock - Dr. Ajar - Emergency Flasher (b) |
| Wind-shield wiper             | Type – Standard         | Electric – two-speed                                                                                                   |
|                               | Type – Optional         |                                                                                                                        |
| Wind-shield washer            | Type – Standard         | Foot-Operated Pump                                                                                                     |
|                               | Type – Optional         |                                                                                                                        |
| Horn                          | Type                    | Electric                                                                                                               |
|                               | Number used             | Two                                                                                                                    |
|                               | Amp draw (each)         | 6                      5.5                      6                      5.5                      5.5                    |

## DRIVE UNITS – CLUTCH (Manual Transmission) \*

|                             |                                     |                                                                         |
|-----------------------------|-------------------------------------|-------------------------------------------------------------------------|
| Make & type                 |                                     | Long Manufacturing                                                      |
|                             |                                     | Semi-centrifugal, single disc, dry plate                                |
| Type pressure plate springs |                                     | Coil                                                                    |
| Total spring load (lb.)     |                                     | 1404                      1818                      2100                |
| No. of clutch driven discs  |                                     | One                                                                     |
| Clutch facing               | Material                            | Woven Asbestos                                                          |
|                             | Outside & inside dia.               | 10.0 x 6.75                      11 x 7                      11.5 x 7.0 |
|                             | Total eff. area (sq. in.)           | 85.5                      113.1                      130.0              |
|                             | Thickness                           | .125                                                                    |
|                             | Engagement cushioning method        | Torbend Disc                                                            |
| Release bearing             | Type & method of lubrication        | Angular Contact – Prepack Sealed                                        |
| Torsional damping           | Methods: springs, friction material | Spring Steel                                                            |

(a) Electric Gage – 302-4V, 390-4V G.T. and 427-4V.

(b) Tachometer and trip odometer optional – 302-4V, 390-4V G.T. and 427-4V.

\* Not Applicable for 390-2V or 427-4V.

## AMA Specifications—Passenger Car

MAKE OF CAR COUGAR MODEL YEAR 1968 DATE ISSUED 10-13-67 REVISED (a) 4-15-68MODEL CTD 289-2V 302-2V 302-4V 390-2V 390-4V G.T. 427-4V & 428-4V

## DRIVE UNITS – TRANSMISSIONS

|                                      |          |          |          |          |          |           |
|--------------------------------------|----------|----------|----------|----------|----------|-----------|
| Manual 3-speed (std. or opt.)        | Standard | Standard | NA       | Standard | NA       | NA        |
| Manual 4-speed (std. or opt.)        | Optional | Optional | NA       | Optional | NA       | *Optional |
| Manual with overdrive (std. or opt.) | NA       | NA       | NA       | NA       | NA       | NA        |
| Automatic (std. or opt.)             | Optional | Optional | Standard | Optional | Standard | Std.      |

## DRIVE UNITS – MANUAL TRANS.

| Number of forward speeds           |                  | 3-Speed (a) | 4-Speed (b) | 3-Speed (c) | 4-Speed (d) |
|------------------------------------|------------------|-------------|-------------|-------------|-------------|
| Transmission ratios                | In first         | 2.99:1      | 2.78:1      | 2.42:1      | 2.32:1      |
|                                    | In second        | 1.75:1      | 1.93:1      | 1.61:1      | 1.69:1      |
|                                    | In third         | 1.00:1      | 1.36:1      | 1.00:1      | 1.29:1      |
|                                    | In fourth        | -           | 1.00:1      | -           | 1.00:1      |
|                                    | In reverse       | 3.17:1      | 2.78:1      | 2.33:1      | 2.32:1      |
| Synchronous meshing, specify gears |                  | 1-2-3       | 1-2-3-4     | 1-2-3       | 1-2-3-4     |
| Shift lever location               |                  |             |             |             |             |
| Lubricant                          | Capacity (pt.)   | 3.5         | 4.0         | 3.5         | 4.0         |
|                                    | Type recommended | ESW-M2C83-B |             |             |             |
|                                    | SAE viscosity    | SAE 80      |             |             |             |
|                                    | SAE viscosity    | SAE 80      |             |             |             |
|                                    | SAE viscosity    | SAE 80      |             |             |             |

## DRIVE UNITS – MANUAL TRANS. W/OVERDRIVE

(For transmission data see manual transmission section)

|                                         |                                 |
|-----------------------------------------|---------------------------------|
| Type (planetary or other)               |                                 |
| Manual lockout (yes, no)                |                                 |
| Downshift accelerator control (yes, no) |                                 |
| Minimum cut-in speed                    |                                 |
| Gear ratio                              | NOT AVAILABLE                   |
| Lubricant                               | Capacity (pt.) (Overdrive only) |
|                                         | Separate filler (yes, no)       |
|                                         | Type recommended                |
|                                         | SAE viscosity                   |
|                                         | SAE viscosity                   |

- (a) Standard with 302-2V and 302-4V Engines.  
 (b) Optional with 302-2V, 302-4V and 390-4V G.T.  
 (c) Standard with 390-4V G.T. Engine.  
 (d) Optional with 390-4V G.T. Engine, and 428-4V Engine.  
 \* Optional with 428-4V

# AMA Specifications—Passenger Car

MAKE OF CAR MERCURY COUGAR MODEL YEAR 1968 DATE ISSUED 10-13-67 REVISED (\*) 4-15-68

MODEL CID 289-2V 302-2V 302-4V 390-2V 390-4V G.T. 427-4V & 428-4V  
ALL MODELS

## DRIVE UNITS – AUTOMATIC TRANSMISSION

|                                                                                         |                               |                                                                                                                                                                                             |        |        |        |        |
|-----------------------------------------------------------------------------------------|-------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|--------|--------|--------|
| Trade name                                                                              |                               | Merc-O-Matic                                                                                                                                                                                |        |        |        |        |
| Type describe                                                                           |                               | Torque Converter W/Planetary Gears                                                                                                                                                          |        |        |        |        |
| Selector location                                                                       |                               | Floor Lever                                                                                                                                                                                 |        |        |        |        |
| List gear ratios Selector Pattern and indicate which are used in each selector position |                               | 2.46:1 D & 1                      2.46:1 D & 1<br>1.46:1 D & 2                      1.46:1 D & 2<br>1.00:1 D                          1.00:1 D<br>2.20:1 R                          2.175:1 |        |        |        |        |
| Max. upshift speed—drive range                                                          |                               | 79                                                                                                                                                                                          | 79     | 84     | 85     | 88     |
| Max. kickdown speed—drive range                                                         |                               | 77                                                                                                                                                                                          | 77     | 74     | 76     | 86     |
| Torque converter                                                                        | Number of elements            | Three                                                                                                                                                                                       |        |        |        |        |
|                                                                                         | Max. ratio at stall           | 2.02:1                                                                                                                                                                                      | 2.02:1 | 2.10:1 | 2.10:1 | 2.10:1 |
|                                                                                         | Type of cooling (air, liquid) | Liquid                                                                                                                                                                                      |        |        |        |        |
|                                                                                         | Nominal diameter              | 11.25                                                                                                                                                                                       | 11.25  | 12.00  | 12.00  | 12.00  |
| Lubricant                                                                               | Capacity—refill (pt.)         | 18                                                                                                                                                                                          | 18     | 26     | 26     | 26     |
|                                                                                         | Type recommended              | Transmission M-2033F                                                                                                                                                                        |        |        |        |        |
| Special transmission features                                                           |                               |                                                                                                                                                                                             |        |        |        |        |

## DRIVE UNITS – PROPELLER SHAFT

|                                                                    |                        |                                   |                                |                     |  |
|--------------------------------------------------------------------|------------------------|-----------------------------------|--------------------------------|---------------------|--|
| Number used                                                        | One                    |                                   |                                |                     |  |
| Type (straight tube, tube-in-tube, internal-external damper, etc.) |                        |                                   |                                |                     |  |
| Outer diam. x length* x wall thickness                             | Manual 3-speed trans.  | 2.75" x 54.19"<br>x .065"         | 3.00" x 53.03" N.A.<br>x .065" |                     |  |
|                                                                    | Manual 4-speed trans.  | 2.75" x 54.19"<br>x .065"         | 3.00" x 53.03"<br>x .065"      | 3.0 x 49.<br>x .065 |  |
|                                                                    | Overdrive transmission | Not Available                     |                                |                     |  |
|                                                                    | Automatic transmission | 3.00" x 54.19"<br>x .065" (T & T) | 3.00" x 49.64"<br>x .065"      | 3.0 x 49.<br>x .065 |  |

\* Center to center of universal joints, or to centerline of rear attachment.

(Continued)

# AMA Specifications—Passenger Car

MAKE OF CAR COUGAR MODEL YEAR 1968 DATE ISSUED 10-13-67 REVISED (\*) 4-15-68

| MODEL | CID | ALL MODELS       |        |        |                       |        |
|-------|-----|------------------|--------|--------|-----------------------|--------|
|       |     | 289-2V<br>302-2V | 302-4V | 390-2V | 390-4V G.T.<br>427-4V | 428-4V |

## DRIVE UNITS — PROPELLER SHAFT (cont.)

|                                                     |                                    |                             |               |       |                                   |                     |
|-----------------------------------------------------|------------------------------------|-----------------------------|---------------|-------|-----------------------------------|---------------------|
| Inter-mediate bearing                               | Type (plain, anti-friction)        |                             | None          |       |                                   |                     |
|                                                     | Lubrication (fitting, prepack)     |                             | None          |       |                                   |                     |
| Slip Yoke                                           | Type                               |                             |               |       |                                   |                     |
|                                                     | Number of teeth                    |                             | 28            | 28    | 28 Manual<br>31 Automatic         | 31 Man.<br>31 Auto. |
|                                                     | Spline O.D.                        |                             | 1-1/2         | 1-1/2 | 1-1/2 Manual<br>1-11/16 Automatic | 1-11/16             |
| Universal joints                                    | Make and Mfg. No.                  |                             | Ford 1310     |       | Ford 1330                         |                     |
|                                                     | Number used                        |                             | Two           |       |                                   |                     |
|                                                     | Type (ball and trunnion, cross)    |                             | Cross         |       |                                   |                     |
|                                                     | Rear attach. (u-bolt, clamp, etc.) |                             | "U" Bolt      |       |                                   |                     |
|                                                     | Bearing                            | Type (plain, anti-friction) | Needle Roller |       |                                   |                     |
|                                                     |                                    | Lubric. (fitting, prepack)  | Pre-Pack      |       |                                   |                     |
| Drive taken through (torque tube or arms, springs)  |                                    |                             | Rear Springs  |       |                                   |                     |
| Torque taken through (torque tube or arms, springs) |                                    |                             |               |       |                                   |                     |

## DRIVE UNITS — AXLE

|                                   |                      |              |                                                               |            |
|-----------------------------------|----------------------|--------------|---------------------------------------------------------------|------------|
| Type (front, rear)                |                      |              | Rear                                                          |            |
| Description                       |                      |              | Conventional, semi-floating, straddle mounted pinion (8 cyl.) |            |
| Limited Slip differential, type   |                      |              | Optional                                                      |            |
| Drive Pinion Offset               |                      |              | 1.50                                                          | 2.25       |
| No. of differential pinions       |                      |              | Two                                                           | Four       |
| Pinion adjustment (shim, other)   |                      |              | Shim                                                          |            |
| Pinion bearing adj. (shim, other) |                      |              | Collapsible Spacer                                            |            |
| Wheel bearing type                |                      |              | Single Row, Double Sealed Ball                                |            |
| Lubricant                         | Capacity (pt.)       |              | 4.0                                                           | 5          |
|                                   | Type recommended     |              | M2C-104A                                                      | M2C-105-A* |
|                                   | SAE viscosity number | Summer       | SAE 90                                                        |            |
|                                   |                      | Winter       | SAE 90                                                        |            |
|                                   |                      | Extreme cold | SAE 75                                                        |            |

## AXLE RATIO TOOTH COMBINATIONS

(See page 3 for axle ratio usage)

| Axle ratio     |           | 2.79:1 | 2.75:1 | 3.00:1 | 3.25:1 | 3.91 | 3.50:1 | 4.30 |
|----------------|-----------|--------|--------|--------|--------|------|--------|------|
| No. of teeth   | Pinion    | 14     | 16     | 13     | 12     | 11   | 10     | 10   |
|                | Ring gear | 39     | 44     | 39     | 39     | 43   | 35     | 43   |
| Ring Gear O.D. |           | 8      | 9      | 8-9    | 8-9    | 9.0  | 9.0    | 9    |

\* For Equi-Lock Axle Assy.

## AMA Specifications—Passenger Car

MAKE OF CAR COUGAR MODEL YEAR 1968 DATE ISSUED 10-13-67 REVISED (•)  
ALL MODELS

MODEL CID 302-2V 302-4V 390-2V

## DRIVE UNITS - WHEELS

|                          |                     |                       |
|--------------------------|---------------------|-----------------------|
| Type & material          | Stamped Steel       |                       |
| Rim (size & flange type) | Std.                | 14 x 5½ JJ            |
|                          | Opt.                | 14 x 6" Styled Wheel  |
|                          |                     | 14 x 6" Stamped Wheel |
| Attachment               | Type (bolt or stud) | Stud                  |
|                          | Circle diameter     | 4.5                   |
|                          | Number and size     | Five - ½"             |

MODEL

## DRIVE UNITS - TIRES

|          |                                 |       |                                                       |
|----------|---------------------------------|-------|-------------------------------------------------------|
| Standard | Size, ply rating, & ply         |       | E70 - 14/4 PR BSW                                     |
|          | Type (bias, radial, etc.)       |       | Bias                                                  |
|          | Full rated Inflation Press. (a) | Front | 25                                                    |
|          |                                 | Rear  | 25                                                    |
|          | Rev./Mile at 50 MPH             |       | 807                                                   |
| Optional | Size, ply rating, & ply         |       | 7.35 x 14 BSW & WSW<br>F70 x 14 WSW (1)<br>E70-14 WSW |

## BRAKES - PARKING

|                                 |                                          |                                                  |
|---------------------------------|------------------------------------------|--------------------------------------------------|
| Type of control                 |                                          | Hand operated "Cane" handle                      |
| Location of control             |                                          | L-Hand of steering column under instrument panel |
| Operates on                     |                                          | Rear service brake                               |
| If separate from service brakes | Type (internal or external)              | -                                                |
|                                 | Drum diameter                            | -                                                |
|                                 | Lining size (length x width x thickness) | -                                                |

(1) With 14 x 6" Wheel.

(a) Tire pressures to provide maximum fuel economy

4 ply rated tires - inflate to 32 PSI maximum

8 ply rated tires - inflate to 40 PSI maximum

NOTE: When using maximum fuel economy inflation pressures any front and rear tire pressure differentials shown above must be maintained but do not exceed maximum pressure.

## AMA Specifications—Passenger Car

MAKE OF CAR COUGAR MODEL YEAR 1968 DATE ISSUED 10-13-67 REVISED (•) 4-15-68MODEL CID 390-4V G.T. 427-4V & 428-4V C.J.

## DRIVE UNITS - WHEELS

|                          |                     |                                                           |                         |
|--------------------------|---------------------|-----------------------------------------------------------|-------------------------|
| Type & material          |                     | Stamped Steel                                             |                         |
| Rim (size & flange type) | Std.                | 14 x 5-1/2 JJ                                             | 14 x 6 JJ Stamped Wheel |
|                          | Opt.                | 14 x 6 JJ - Stamped Wheel (1)<br>14 x 6 JJ - Styled Wheel | 14 x 6 JJ Styled Wheel  |
| Attachment               | Type (bolt or stud) | Stud                                                      |                         |
|                          | Circle diameter     | 4.5                                                       |                         |
|                          | Number and size     | Five - 1/2"                                               |                         |

MODEL

## DRIVE UNITS - TIRES

|          |                                       |       |                                                         |                   |
|----------|---------------------------------------|-------|---------------------------------------------------------|-------------------|
| Standard | Size, ply rating, & ply               |       | E70-14 BSW                                              | F70 x 14 (Belted) |
|          | Type (bias, radial, etc.)             |       | Bias                                                    | Bias - Belted     |
|          | Full rated<br>Inflation<br>Press. (a) | Front | 25                                                      | 28                |
|          |                                       | Rear  | 25                                                      | 28                |
|          | Rev./Mile at 50 MPH                   |       | 807                                                     | 788               |
| Optional | Size, ply rating, & ply               |       | 7.35 x 14 BSW & WSW<br>F70 x 14 WSW (2)<br>E70 x 14 WSW | FR70-14 WSW       |

## BRAKES - PARKING

|                                 |                                          |                                                   |
|---------------------------------|------------------------------------------|---------------------------------------------------|
| Type of control                 |                                          | Hand operated "Cane" handle                       |
| Location of control             |                                          | L- Hand of steering column under instrument panel |
| Operates on                     |                                          | Rear service brake                                |
| If separate from service brakes | Type (internal or external)              | —                                                 |
|                                 | Drum diameter                            | —                                                 |
|                                 | Lining size (length x width x thickness) | —                                                 |

- (1) Standard with G.T. Package.  
 (2) With Handling Suspension and 14 x 6" Wheels Only. Standard on G.T. Package.  
 (a) Tire pressures to provide maximum fuel economy.

4 ply rated tires - inflate to 32 PSI maximum

8 ply rated tires - inflate to 40 PSI maximum

NOTE: When using maximum fuel economy inflation pressures any front and rear tire pressure differentials shown above must be maintained but do not exceed the maximum pressure.

# AMA Specifications—Passenger Car

MAKE OF CAR COUGAR MODEL YEAR 1968 DATE ISSUED 10-13-67 REVISED 4-15-68

ALL MODELS

MODEL 289-2V CID 302-2V 302-4V 390-2V 390-4V G.T. 427-4V & 428

## BRAKES—SERVICE

|                                              |                                           |                                   |                                         |
|----------------------------------------------|-------------------------------------------|-----------------------------------|-----------------------------------------|
| Type (drum or disc)                          | Duo-Servo                                 |                                   | Disc                                    |
| Self adjusting (std., opt., N.A.)            | Standard                                  |                                   |                                         |
| Power brake make & type (remote, int., etc.) | Std.                                      |                                   |                                         |
|                                              | Opt.                                      | Disc (a)                          |                                         |
| Effective area (sq. in.)*                    | 129.7                                     | 139.8                             | Swept-Frt. 214.                         |
| Gross lining area (sq. in.)**                | 154.7                                     | 163.4                             | Swept-Rear 110.                         |
| Swept area (sq. in.)***                      | 251.3                                     | 267.1                             | Total 324.8                             |
| Percent brake effectiveness—front            | 62.3                                      | 64.5                              | -                                       |
| Drum or Disc                                 | Diameter (nominal)                        | Front 10.0<br>Rear 10.0           | 11.3                                    |
|                                              | Type and material                         | Cast Iron                         |                                         |
|                                              | Disc (vented or solid)                    |                                   | Vented                                  |
|                                              | No. pistons per caliper                   | 1                                 |                                         |
| Wheel cyl. inder bore                        | Front                                     | 2.375                             | 1.094                                   |
|                                              | Rear                                      | .875                              | .813                                    |
| Master Cylinder                              | Bore                                      | 1.00                              |                                         |
|                                              | displacement                              | Front 61<br>Rear 39               | 65<br>35                                |
| Disc Brk. Valve                              | Type (proportion, delay, metering, other) |                                   | Proportion                              |
| Pedal arc ratio                              |                                           | 6.3:1                             | 3.0:1                                   |
| Line pressure at 100 lb. pedal load          |                                           | 780                               | 1050                                    |
| Shoe clearance adjustment                    |                                           | 0.020                             | -                                       |
| Brake lining                                 | Drum or Disc                              | Drum                              | Disc                                    |
|                                              | Banded or riveted                         | Riveted                           | Banded                                  |
|                                              | Material                                  | Asbestos                          |                                         |
|                                              | Front Wheel                               | Size (length x width x thickness) | Prim. or out-board<br>2.25 x 7.66 x .22 |
|                                              |                                           |                                   | 2.25 x 8.46 x .18                       |
|                                              |                                           |                                   | 2.50 x 8.46 x .18                       |
|                                              |                                           |                                   | 4.9 x 2.07 x .38                        |
|                                              | Rear Wheel                                | Size (length x width x thickness) | Prim. or out-board<br>2.25 x 9.82 x .25 |
|                                              |                                           |                                   | 2.25 x 10.88 x .25                      |
|                                              |                                           |                                   | 2.25 x 10.88 x .25                      |
|                                              |                                           |                                   | 4.9 x 2.07 x .38                        |
|                                              | Segments per shoe                         | One                               |                                         |

\* Excludes rivet holes, grooves, chamfers, etc. \*\* Includes rivet holes, grooves, chamfers, etc.

\*\*\* Total swept area for four brakes. (Widest lining contact width for each brake x its contact circumference.)

(a) Optional Disc Brakes Front - Same as 427 - Standard on 390-4V G.T. with G.T. Package.

## AMA Specifications—Passenger Car

MAKE OF CAR COUGAR MODEL YEAR 1968 DATE ISSUED 10-13-67 REVISED (•) 4-15-68  
ALL MODELS

MODEL CID 302-2V 302-4V 390-2V 390-4V G.T. 427-4V

## STEERING

|                                                |                                           |                        |                                              |       |
|------------------------------------------------|-------------------------------------------|------------------------|----------------------------------------------|-------|
| Manual (std., opt., NA)                        |                                           |                        | Standard                                     |       |
| Power (std., opt., NA)                         |                                           |                        | Optional                                     |       |
| Adjustable steering wheel (tilt, swing, other) |                                           | Type and description   | Dual Tilt                                    |       |
|                                                |                                           | (std., opt., NA)       | Optional                                     |       |
| Wheel diameter                                 |                                           | Manual                 | 16.0                                         |       |
|                                                |                                           | Power                  | 16.0                                         |       |
| Turning diameter (feet)                        | Outside front                             | Wall to wall (l. & r.) | 40.83                                        |       |
|                                                |                                           | Curb to curb (l. & r.) | 38.05                                        |       |
|                                                | Inside rear                               | Wall to wall (l. & r.) |                                              |       |
|                                                |                                           | Curb to curb (l. & r.) |                                              |       |
| Outside whl. angle with inside whl. at 20°     |                                           |                        | 18° 40'                                      |       |
| Manual                                         | Gear                                      | Type                   | Recirculating Ball and Nut                   |       |
|                                                |                                           | Make                   | Ford                                         |       |
|                                                |                                           | Ratios                 | Gear                                         | 19.88 |
|                                                |                                           |                        | Overall                                      | 25.3  |
|                                                | No. wheel turns                           |                        | 4.64                                         |       |
| Power                                          | Type (coaxial, linkage, etc.)             |                        | Linkage                                      |       |
|                                                | Make                                      |                        | Ford                                         |       |
|                                                | Gear                                      | Type                   | Recirculating Ball & Nut                     |       |
|                                                |                                           | Ratios                 | Gear                                         | 16.0  |
|                                                |                                           |                        | Overall                                      | 20.32 |
|                                                | Pump driven by                            |                        | Belt off crankshaft pulley                   |       |
|                                                | Number wheel turns                        |                        | 3.74                                         |       |
| Linkage                                        | Type                                      |                        | Parallelogram with cross link                |       |
|                                                | Location (front or rear of wheels, other) |                        | Rear                                         |       |
|                                                | Drag link (trans. or longit.)             |                        | Transverse                                   |       |
|                                                | Tie rods (one or two)                     |                        | Two                                          |       |
| Steering Axis                                  | Inclination at camber (deg.)              |                        | 6-3/4° Theoretical Non-Adjustable            |       |
|                                                | Bearings (type)                           | Upper                  | Ball Joint                                   |       |
|                                                |                                           | Lower                  | Ball Joint                                   |       |
|                                                |                                           | Thrust                 | Friction Washer in upper ball joint          |       |
| Whl. Align. (range at curb wt. & preferred)    | Caster (deg.)                             |                        | + 1/4° - 1/2°                                |       |
|                                                | Camber (deg.)                             |                        | + 1° - 3/4°                                  |       |
|                                                | Toe-in (outside track inches)             |                        | 3/16 - 1/16                                  |       |
| Steering spindle & joint type                  |                                           |                        | Integral w/wheel spindle; ball socket joints |       |
| Wheel Spindle                                  | Diameter                                  | Inner bearing          | 1.75 I.D.                                    |       |
|                                                |                                           | Outer bearing          | .75 I.D.                                     |       |
|                                                | Thread size                               |                        | 3/4 - 16 NF3                                 |       |
|                                                | Bearing type                              |                        | Tapered Roller                               |       |

## AMA Specifications—Passenger Car

MAKE OF CAR COUGAR MODEL YEAR 1968 DATE ISSUED 10-13-67 REVISED (a) 4-15-68MODEL CID 302-2V 302-4V 390-2V 390-4V G.T. 427-4V, 428

## SUSPENSION – GENERAL

(See Supplement page for details on Air Suspension)

|                                    |                                                                              |
|------------------------------------|------------------------------------------------------------------------------|
| Provision for car leveling         | None                                                                         |
| Provision for brake dip control    | Tilted Upper Control Arm Anti-Dive Front Suspension                          |
| Provision for acc. squat control   | Asymmetrical Type Rear Spring Mounting                                       |
| Special provisions for car jacking | Special notched rocker panel positions<br>Front and rear on each side of car |
| Shock absorber front & rear        | Type Direct Acting                                                           |
|                                    | Make Autolite Gabriel                                                        |
|                                    | Piston dia. 1.0 1.0 1.0 1.0 (a) 1-3/16 (b)                                   |
| Other special features             |                                                                              |

## SUSPENSION – FRONT

|                      |                                                                                                      |                                                      |     |     |             |
|----------------------|------------------------------------------------------------------------------------------------------|------------------------------------------------------|-----|-----|-------------|
| Type and description | Independent S.L.A. drag strut, ball joints, coil springs and shock absorbers mounted over upper arm. |                                                      |     |     |             |
| Spring               | Type                                                                                                 | Coil                                                 |     |     |             |
|                      | Material                                                                                             | Steel SAE 5160                                       |     |     |             |
|                      | Size (coil design height & I.D. bar length x dia.)                                                   | 10.04 x 3.88<br>123" - 128" Length, .60" - .65" Dia. |     |     |             |
|                      | Spring rate (lb. per in.)                                                                            | 260                                                  | 260 | 260 | 260 (c) 365 |
|                      | Rate at wheel (lb. per in.)                                                                          | 88                                                   | 88  | 88  | 88 124      |
| Stabilizer           | Type (link, linkless, frameless)                                                                     | Link Type                                            |     |     |             |
|                      | Material & bar diameter                                                                              | Steel SAE 1090 .72 Dia. .72 Dia (d) .95 Dia.         |     |     |             |

## SUSPENSION – REAR

|                                |                                                                     |                                 |                                                     |    |        |     |
|--------------------------------|---------------------------------------------------------------------|---------------------------------|-----------------------------------------------------|----|--------|-----|
| Type and description           |                                                                     | Hotchkiss Drive (f)             |                                                     |    |        |     |
| Drive and torque taken through |                                                                     | Rear Springs                    |                                                     |    |        |     |
| Spring                         | Type                                                                | Semi-elliptical                 |                                                     |    |        |     |
|                                | Material                                                            | Spring Steel SAE 5160 5147 5155 |                                                     |    |        |     |
|                                | Size (length x width, coil design height & I.D., bar length & dia.) | 59 x 2.50                       |                                                     |    |        |     |
|                                | Spring rate (lb. per in.)                                           | 75                              | 75                                                  | 85 | 85 (e) | 135 |
|                                | Rate at wheel (lb. per in.)                                         | 78                              | 78                                                  | 85 | 85     | 128 |
|                                | Mounting insulation type                                            |                                 | Voided Silent Block Bushing Front - Split Type Rear |    |        |     |
|                                | If leaf                                                             | No. of leaves                   | Four                                                |    |        |     |
|                                | Shackle (comp. or tens.)                                            | Compression                     |                                                     |    |        |     |
| Stabilizer                     | Type (link, linkless, frameless)                                    | None                            |                                                     |    |        |     |
|                                | Material                                                            | -                               |                                                     |    |        |     |
| Track bar type                 |                                                                     | None                            |                                                     |    |        |     |

- (a) 1-3/16 Gabriel used with G.T. Package.  
 (b) 1-3/16 Gabriel Adjustomatic.  
 (c) 320 #/In. Spring Rate and 108 #/In. Wheel Rate used with G.T. Package.  
 (d) .85 Diameter Bar used with G.T. Package.  
 (e) 120 #/In. Spring Rate and 115 #/In. Wheel Rate used with G.T. Package.  
 (f) 428-CJ with manual transmission employs a staggered rear shock absorber arrangement.



# AMA Specifications—Passenger Car

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ALL MODELS

MODEL 65A 65C 65B

## CONVENIENCE EQUIPMENT

(Indicate whether standard, optional or NA on each series)

|                                                    |                       |                                                                                      |
|----------------------------------------------------|-----------------------|--------------------------------------------------------------------------------------|
| Power windows                                      | Side windows          | NA                                                                                   |
|                                                    | Vent windows          | NA                                                                                   |
|                                                    | Backlight or tailgate | -                                                                                    |
| Power seats (specify type as well as availability) |                       | NA                                                                                   |
| Reclining front seat back (R-L or both)            |                       | NA                                                                                   |
| Front seat head restrainer (R-L or both)           |                       | Opt.                                                                                 |
| Radios (specify type as well as availability)      |                       | Opt. Push Button AM, Opt. Push Button AM/FM<br>Opt. AM Radio Stereosonic Tape System |
| Rear seat speaker                                  |                       | NA                                                                                   |
| Power antenna                                      |                       | NA                                                                                   |
| Clock                                              |                       | Optional                                                                             |
| Air conditioner (specify type and availability)    |                       | Integrated with Heater                                                               |
| Speed warning device                               |                       | NA                                                                                   |
| Speed control device                               |                       | Opt.                                                                                 |
| Ignition lock lamp                                 |                       | NA                                                                                   |
| Dome lamp                                          |                       | Std. Model 65                                                                        |
| Glove compartment lamp                             |                       | Std.                                                                                 |
| Luggage compartment lamp                           |                       | NA                                                                                   |
| Underhood lamp                                     |                       | NA                                                                                   |
| Courtesy lamp                                      |                       | Opt.                                                                                 |
| Map lamp                                           |                       | Opt. on Model 65, 63                                                                 |
| Auto. trans. quad. lamp                            |                       | Std. w/optional auto. trans.                                                         |
| Cornering light lamp                               |                       | NA                                                                                   |
| Dual Tilt Column                                   |                       | Opt.                                                                                 |
| Low Fuel Warning Lamp                              |                       | Opt.                                                                                 |
| Door Ajar Warning Lamp                             |                       | Opt.                                                                                 |
| Seat Belt Warning Lamp                             |                       | Std.                                                                                 |
|                                                    |                       |                                                                                      |
|                                                    |                       |                                                                                      |
|                                                    |                       |                                                                                      |

## LAMP HEIGHT AND SPACING

|                                                 |             |           |             |
|-------------------------------------------------|-------------|-----------|-------------|
| Height above ground to center of bulb or marker | Headlamp    | Highest * | 24.8        |
|                                                 |             | Lowest    | NA          |
|                                                 | Tail        | Highest   | 23.0        |
|                                                 |             | Lowest    | NA          |
|                                                 | Sidemarker  | Front     | 24.3        |
|                                                 |             | Rear      | 22.1        |
| Distance from C/L of car to center of bulb      | Headlamp    | Inside    | 17.0        |
|                                                 |             | Outside * | 23.7        |
|                                                 | Tail        | Inside    | 12.4        |
|                                                 |             | Outside   | 25.8        |
|                                                 | Directional | Front     | 23.6        |
|                                                 |             | Rear      | 12.4 - 25.8 |

\* If single headlamps are used enter here.

MAKE OF CAR COUGAR MODEL YEAR 1968 DATE ISSUED 10-13-67 REVISED (•) 4-24-68

## WEIGHTS

[illegible]

| Accessories & Equipment    | Differential Weights |    |     | Remarks                                  |
|----------------------------|----------------------|----|-----|------------------------------------------|
| 302 CID 4V Engine          | 12                   | 31 | 43  |                                          |
| 90 CID 2V Engine           | 179                  | 63 | 242 | With Automatic Only                      |
| 90 CID 4V G. T. Engine     | 208                  | 56 | 264 |                                          |
| 27 CID 4V Engine           | 285                  | 78 | 368 | With Automatic Only                      |
| 28 CID 4V C. J. Engine     | 316                  | 88 | 404 | Inc. G.T. Pkg., 4 Spd. Man. & Pwr. Strg. |
| Automatic Transmission     | -17                  | +8 | -9  | 302 CID Engine                           |
| Automatic Transmission     | 25                   | 13 | +38 | 390 CID Engine                           |
| Automatic Transmission     | 10                   | -4 | 6   | 428 CID Engine                           |
| -Speed Manual              | 4                    | 1  | 5   | 302 CID & 390 CID Engines                |
| Air Conditioner            | 75                   | 0  | 75  |                                          |
| Power Steering             | 28                   | 0  | 28  |                                          |
| Power Disc Brakes          | 22                   | 2  | 24  | 302 CID Engine                           |
| Power Disc Brakes          | 15                   | 2  | 17  | 390 CID Engine                           |
| Spoked Wheels              | 12                   | 23 | 35  |                                          |
| 4 x 6" Steel Wheels        | 5                    | 10 | 15  |                                          |
| 70 x 14 Tires              | 3                    | 5  | 8   |                                          |
| Full Console               | 8                    | 6  | 14  |                                          |
| G.T. Option Group          | 231                  | 73 | 304 | See Note (a)                             |
| Radio & Stereo Tape Player | 11                   | 5  | 16  | Radio alone is 7 lbs.                    |
| Luggage Carrier            | -3                   | 14 | 11  | Deck Mounted                             |
| Leather Seat               | 4                    | 5  | 9   |                                          |

- ) Includes 390 CID Engine, low restriction intake and exhaust, power disc brakes, 14 x 6 wheels, special handling package, high speed wide oval tires, and special G.T. ornamentation.



## CAR AND BODY DIMENSIONS

## KEY SHEET

## DIMENSION DEFINITIONS

## EXTERIOR WIDTH DIMENSIONS

- W101 WHEEL TREAD - FRONT. Measured at centerline of tires, with nominal camber, at ground.  
 W102 WHEEL TREAD - REAR. Measured at centerline of tires at ground.  
 W103 MAXIMUM OVERALL CAR WIDTH. Include bumpers, moldings, or sheet metal protrusions. Measured to outside of metal.  
 W117 MAXIMUM BODY WIDTH AT #2 PILLAR. Measured across body at #2 pillar, excluding hardware and applied moldings.

## EXTERIOR LENGTH DIMENSIONS

- L 30 VERTICAL ZERO LINE TO ACTUAL FRONT OF DASH. If actual front of dash is in the rear of Body Zero Line, it is identified by a minus (-) sign.  
 L101 WHEELBASE.  
 L103 OVERALL LENGTH. Include bumper guards if standard equipment.  
 L104 OVERHANG - FRONT. Measured from C.L. of front wheels to front of car, including bumper guards if standard equipment.  
 L105 OVERHANG - REAR. Measured from C.L. of rear wheels to rear of car, including bumper guards if standard equipment.  
 L123 BODY UPPER STRUCTURE LENGTH AT CAR CENTERLINE. The horizontal dimension from the Cowl Point to the Deck Point.  
 L127 VERTICAL ZERO LINE TO CENTERLINE OF REAR WHEELS. A horizontal dimension.  
 L130 VERTICAL ZERO LINE TO WINDSHIELD COWL POINT. The horizontal dimension from the vertical zero line to the theoretical intersection of extended windshield glass plane and normal cowl surface.

## EXTERIOR HEIGHT DIMENSIONS

- H101 OVERALL HEIGHT - DESIGN. Measured with the vehicle in Manufacturer's Design Weight attitude.  
 H114 COWL POINT TO GROUND. Measured at vehicle centerline.  
 H1138 DECK POINT TO GROUND. Measured at vehicle centerline.  
 H112 ROCKER PANEL TO GROUND - FRONT. The vertical dimension from ground to bottom of rocker panel, excluding flanges. Measured to the outside of sheet metal at foremost point of rocker panel.  
 H111 ROCKER PANEL TO GROUND - REAR. The vertical dimension from ground to bottom of rocker panel, excluding flanges. Measured to the outside of sheet metal at front of rear wheel opening.  
 H122 WINDSHIELD SLOPE ANGLE. The angle between a vertical line and the windshield surface at car centerline. On compound-curved windshields the chord of the arc is used and limited to that section of the windshield comprehended by an 18-inch chord.

## GROUND CLEARANCE DIMENSIONS

- H102 BUMPER TO GROUND - FRONT. Minimum dimension, includes bumper guards.  
 H104 BUMPER TO GROUND - REAR. Minimum dimension, includes bumper guards.  
 H106 ANGLE OF APPROACH. The angle between ground and a line tangent to the front tire static loaded radius arc and the first point of interference, i.e., bumper, guard, gravel deflector, fender or other component, excluding license plate. This dimension may be determined graphically for reporting purposes.  
 H107 ANGLE OF DEPARTURE. The angle between ground and a line tangent to the rear tire static loaded radius arc and the first point of interference, i.e., bumper, guard, gravel deflector, tail prop, fender or other component, excluding license plate. This dimension may be determined graphically for reporting purposes.  
 H147 RAMP BREAKOVER ANGLE. The supplement of included ramp angle (180° minus included ramp angle) over which car can pass without interference; measured with car sitting on a level surface, using lines tangent to arcs of front and rear static loaded radius and intersecting at point on underside of car which defines the smallest angle.  
 H156 MINIMUM RUNNING GROUND CLEARANCE. Location of measurement on the car is to be clearly recorded.

## FRONT COMPARTMENT DIMENSIONS

- H 61 EFFECTIVE HEAD ROOM - FRONT. The dimension from H Point to the headlining, plus a constant of 4.0 inches, measured along a line 8° to rear of vertical.  
 L 34 MAXIMUM EFFECTIVE LEG ROOM - ACCELERATOR. Measured along a diagonal line from the Manikin ankle pivot center to the H Point plus a constant of 10.0 inches. For treadle type accelerator pedals, the leg room is measured with the Manikin's right foot on the accelerator pedal and the Manikin Head Point at Accelerator Heel Point. All other types of accelerator pedals will be measured with the Manikin's right angle set at 87° and the shoe touching the pedal.  
 H 30 H POINT TO HEEL POINT - FRONT. The vertical dimension from the H Point to the Accelerator Heel Point.  
 L 17 H POINT TRAVEL. The horizontal dimension between the H Point in the most forward and rearward seat positions.

## FRONT COMPARTMENT DIMENSIONS (Cont.)

- W 3 SHOULDER ROOM - FRONT. The minimum lateral dimensions between the door garnish moldings or nearest interference, measured at the H Point station.  
 W 5 HIP ROOM - FRONT. The lateral dimension through the H Point to trimmed body surfaces. Depress loose side wall cloth to trim foundation or other obstruction if such construction exists.  
 H 50 UPPER BODY OPENING TO GROUND - FRONT. The vertical dimension from a point on the trimmed body opening to the ground, measured at the H Point station.

## REAR COMPARTMENT DIMENSIONS

- L 50 H POINT COUPLE DISTANCE. The horizontal dimension from the front seat H Point to the rear seat H Point.  
 H 63 EFFECTIVE HEAD ROOM - REAR. The dimension from the H Point to the headlining, plus a constant of 4.0 inches, measured along a line 8° to rear of vertical.  
 L 51 MINIMUM EFFECTIVE LEG ROOM - REAR. Measured along a diagonal line from the ankle pivot center to the H Point plus a constant of 10.0 inches, with the foot positioned to the nearest interference between the seat structure and top, instep or lower leg.  
 H 31 H POINT TO HEEL POINT - REAR. The vertical dimension from the H Point to the Manikin Heel Point on the depressed floor covering.  
 L 48 MINIMUM KNEE ROOM - REAR. The minimum dimension from the Manikin knee pivot center to the back of the front seat back.  
 L 3 REAR COMPARTMENT ROOM. The horizontal dimension from the back of front seat to front of rear seat back at height tangent to the top of rear seat cushion.  
 W 4 SHOULDER ROOM - REAR. The minimum lateral dimension between the door garnish molding or nearest interference. Measured at H Point station.  
 W 6 HIP ROOM - REAR. The lateral dimension through H Point to trimmed body surfaces. Depress loose side wall cloth to trim foundation or other obstruction when such construction exists.  
 H 51 UPPER BODY OPENING TO GROUND - REAR. The vertical dimension from a point on the trimmed body opening to the ground, measured 13.0 inches forward of the H Point.

## LUGGAGE COMPARTMENT DIMENSIONS

- V 1 LUGGAGE CAPACITY - USABLE. The total luggage compartment luggage capacity in cubic feet with the tire and tools in place.  
 H195 LIFTOVER HEIGHT. Vertical dimension from the highest point on the luggage compartment lower opening to ground, excluding corner radii.

## STATION WAGON - THIRD SEAT DIMENSIONS

- W 85 SHOULDER ROOM - THIRD SEAT. The minimum lateral dimension between the door garnish moldings or nearest interference. Measured at H Point station.  
 W 86 HIP ROOM - THIRD SEAT. The lateral dimension through H Point to trimmed surfaces.  
 L 86 EFFECTIVE LEG ROOM - THIRD SEAT. Measured along a diagonal line from ankle pivot center to H Point plus a constant of 10.0 inches. With rear-facing third seat, foot is positioned in foot well or to nearest interference with rear end or rear closure.  
 H 86 EFFECTIVE HEAD ROOM - THIRD SEAT. The dimension from H Point to the headlining, plus a constant of 4.0 inches. Measured along a line 8° to rear of vertical.

## STATION WAGON - CARGO SPACE DIMENSIONS

- L202 CARGO LENGTH AT FLOOR - FRONT SEAT. The horizontal dimension, measured at the floor level from the rear of the front seat back to the normal inside limiting interference on the tailgate, on the car centerline.  
 L204 CARGO LENGTH AT BELT - FRONT SEAT. The horizontal dimension measured from the top rear of front seat back to a vertical extension line from the normal inside limiting interference at the top of the tailgate, on the car centerline.  
 W201 CARGO WIDTH - WHEELHOUSE. The minimum horizontal dimension, measured between wheelhouseings at floor level.  
 W204 OPENING WIDTH AT BELT. The minimum horizontal dimension, measured between the nearest normal inside limiting interferences of the rear opening at the top of the tailgate.  
 H201 MAXIMUM CARGO HEIGHT. The maximum vertical dimension, measured from the top of the floor covering to the headlining, on the car centerline.  
 H202 REAR OPENING HEIGHT. The vertical dimension measured from the top of the floor covering to the normal inside limiting interference at the top of the rear opening, on the car centerline, with both tail and liftgates fully open.  
 V 2 CARGO VOLUME INDEX BEHIND FRONT SEAT. The total volume in cubic feet above the normal load floor and behind the front seat with the liftgate and tailgate closed.

W4xL204xH201  
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# AMA Specifications—Passenger Car

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| Height.....                             | 1          | Radiator, Hoses.....                      | 11                   |
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| Front Compartment.....                  | 2          | Compression.....                          | 3, 4                 |
| Rear Compartment.....                   | 2          | Steering.....                             | 20                   |
| Luggage Compartment.....                | 2          | Transmission.....                         | 15, 16               |
| Station Wagon - Third Seat.....         | 2          | Rear Axle.....                            | 3, 17                |
| Station Wagon - Cargo Space.....        | 2          | Regulator - Generator.....                | 12                   |
| Carburetor.....                         | 3, 9, 10   | Rims.....                                 | 18                   |
| Caster.....                             | 20         | Rings, Piston.....                        | 5                    |
| Choke, Automatic.....                   | 10         | Rods - Connecting.....                    | 5                    |
| Clutch - Pedal Operated.....            | 14         | Shock Absorbers, Front & Rear.....        | 21                   |
| Coil, Ignition.....                     | 13         | Spark Plugs.....                          | 13                   |
| Connecting Rods.....                    | 5          | Speedometer.....                          | 14                   |
| Convenience Equipment.....              | 23         | Springs - Front & Rear Suspension.....    | 21                   |
| Cooling System.....                     | 11         | Valve, Engine.....                        | 6                    |
| Crankcase Ventilation System.....       | 8          | Stabilizer (Sway Bar) - Front & Rear..... | 21                   |
| Crankshaft.....                         | 6          | Starting System.....                      | 12                   |
| Cylinders and Cylinder Head.....        | 4          | Steering.....                             | 20                   |
| Dimension Definitions.....              |            | Supply System.....                        | 12                   |
| Key Sheet.....                          | 25         | Suppression - Ignition, Radio.....        | 13                   |
| Exterior & Interior.....                | 26         | Suspension - Front & Rear.....            | 21                   |
| Distributor - Ignition.....             | 13         | Tail Pipe.....                            | 8                    |
| Electrical System.....                  | 12, 13, 14 | Thermostat, Cooling.....                  | 11                   |
| Engine.....                             |            | Timing, Engine & Valve.....               | 6, 7, 13             |
| Bore, Stroke, Displacement, Type.....   | 4          | Tires.....                                | 18                   |
| Compression Ratio.....                  | 4          | Toe in.....                               | 20                   |
| Firing Order, Cylinder Numbering.....   | 4          | Torque Converter.....                     | 16                   |
| General Information, H.P. & Torque..... | 4          | Torque - Engine, Rated.....               | 3, 4                 |
| Lubrication.....                        | 7, 8       | Transmission - Types.....                 | 3, 10, 15, 16        |
| Power Teams.....                        | 3          | Automatic.....                            | 3, 10, 15, 16        |
| Exhaust Emission Control.....           | 9          | Manual & Overdrive.....                   | 3, 10, 15            |
| Exhaust System.....                     | 8          | Ratios.....                               | 15, 16               |
| Equipment Availability.....             | 22         | Track.....                                | 1                    |
| Fan, Cooling.....                       | 11         | Trunk Luggage Capacity.....               | 2                    |
| Filters - Engine Oil, Fuel System.....  | 8, 10      | Turning Diameter.....                     | 20                   |
| Frame.....                              | 22         | Unitized Construction.....                | 22                   |
| Front Suspension.....                   | 21         | Universal Joints, Propeller Shaft.....    | 16, 17               |
| Fuel, Fuel Pump, Fuel System.....       | 4, 10      | Valves - Intake & Exhaust.....            | 6, 7                 |
| Fuel Injection.....                     | 10         | Vibration Damper.....                     | 6                    |
| Generator and Regulator.....            | 12         | Voltage Regulator.....                    | 12                   |
| Glass.....                              | 22         | Water Pump.....                           | 11                   |
| Height (Lamps).....                     | 14         | Weights - Shipping, Curb.....             | 24                   |
| Headroom - Body.....                    | 2          | Wheel Alignment.....                      | 20                   |
| Heights - Car and Body.....             | 1          | Wheelbase.....                            | 1                    |
| Horns.....                              | 14         | Wheels & Tires.....                       | 18                   |
| Horsepower - Brake.....                 | 3, 4       | Wheel Spindle.....                        | 20                   |
| Ignition System.....                    | 13         | Widths - Car and Body.....                | 1                    |
| Inflation - Tires.....                  | 18         | Windshield.....                           | 22                   |
| Instruments.....                        | 14         | Windshield Wiper.....                     | 14                   |