

# AMA Specifications—Passenger Car

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|                 |  |            |                  |  |
|-----------------|--|------------|------------------|--|
| MANUFACTURER    | DODGE DIVISION<br>CHRYSLER CORPORATION | CAR NAME   | DODGE CHALLENGER |  |
| MAILING ADDRESS | DETROIT, MICHIGAN 48231                | MODEL YEAR | 1970             | ISSUED: 10-3-69<br>REVISED (●) 3-20-70 |

**NOTES:**

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

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### BODY - TYPES AND STYLE NAMES -

Body type, style names; use manufacturer's code for series & body style.

|                |     | 2-Door<br>Hardtop<br>23 | 2-Door<br>Convertible<br>27 | 2-Door<br>Special<br>Hardtop<br>29 |
|----------------|-----|-------------------------|-----------------------------|------------------------------------|
| Challenger     | Six | JH 23                   | JH 27                       | JH 29                              |
|                | V-8 |                         |                             |                                    |
| Challenger R/T | V-8 | JS 23                   | JS 27                       | JS 29                              |

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DODGE  
 MAKE OF CAR CHALLENGER MODEL YEAR 1970 DATE ISSUED 10-3-69 REVISED (e) 3-20-70

## 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. Dimensions are to be shown for:  
 4-Dr. Sedan, 2-Dr. H.T., 4-Dr. H.T., Convertible and Station Wagon.

| MODEL | SAE Ref. No. | 23  |     | 27  |     | 29  |     |
|-------|--------------|-----|-----|-----|-----|-----|-----|
|       |              | Six | V-8 | Six | V-8 | Six | V-8 |

### WIDTH

|                            |      |          |  |      |  |      |  |
|----------------------------|------|----------|--|------|--|------|--|
| Track - Front              | W101 | 59.7     |  |      |  |      |  |
| Track - Rear               | W102 | 60.7 (a) |  |      |  |      |  |
| Maximum overall car width  | W103 | 76.1     |  |      |  |      |  |
| Body width at No. 2 pillar | W117 | 76.1     |  | 74.3 |  | 76.1 |  |

### LENGTH

|   |      |       |  |  |  |  |  |
|---|------|-------|--|--|--|--|--|
| Body "O" to front of dash                 | L 30 | 0.7   |  |  |  |  |  |
| Wheelbase                                 | L101 | 110   |  |  |  |  |  |
| Overall car length                        | L103 | 191.3 |  |  |  |  |  |
| Overhang - front                          | L104 | 38.5  |  |  |  |  |  |
| Overhang - rear                           | L105 | 42.8  |  |  |  |  |  |
| Body upper structure length               | L123 | 92.0  |  |  |  |  |  |
| Body "O" line to $\text{C}$ of rear wheel | L127 | 93.5  |  |  |  |  |  |
| Body "O" line to w/s cowl point           | L130 | -9.4  |  |  |  |  |  |

### HEIGHT

| Passenger Distribution (front & rear) |                             | 2-front, 2-rear |         |      |         |      |         |
|---------------------------------------|-----------------------------|-----------------|---------|------|---------|------|---------|
| Trunk/Cargo load (lbs.)               |                             | None            |         |      |         |      |         |
| Overall height                        | H101                        | 50.8            | 50.9(b) | 50.6 | 51.1    | 50.8 | 50.9(b) |
| Cowl height                           | H114                        | 34.2(c)         |         |      |         |      |         |
| Deck height                           | H138                        | 36.7(d)         |         |      |         |      |         |
| Rocker panel - front                  | To ground                   | 7.4             | 7.5(e)  | 7.4  | 7.5(e)  | 7.4  | 7.5(e)  |
|                                       | From front wheel $\text{C}$ | 31.5            |         |      |         |      |         |
| Rocker panel - rear                   | To ground                   | 7.1             | 6.6(f)  | 8.1  | 12.0(g) | 14.1 | 11.6(h) |
|                                       | From rear wheel $\text{C}$  | 18.5            |         |      |         |      |         |
| Windshield slope angle                | H122                        | 55° 28'         |         |      |         |      |         |

### GROUND CLEARANCE

|                                     |      |         |         |      |         |      |         |
|-------------------------------------|------|---------|---------|------|---------|------|---------|
| Bumper to ground - front            | H102 | 11.4    | 11.5(j) | 11.4 | 11.5(j) | 11.4 | 11.5(j) |
| Bumper to ground - rear             | H104 | 18.2(k) |         |      |         |      |         |
| Angle of approach                   | H106 | 17.2    | 17.4(l) | 17.2 | 17.4(l) | 17.2 | 17.4(l) |
| Angle of departure                  | H107 | 24.4(m) |         |      |         |      |         |
| Ramp breakover angle                | H147 | 10.5    | 10.7(n) | 10.5 | 10.7(n) | 10.5 | 10.7(n) |
| Min. running clearance (Specify)(o) | H156 | 5.0     | 5.1(p)  | 5.0  | 5.1(p)  | 5.0  | 5.1(p)  |

(a) With 225 CID or 318 CID with automatic transmission: 61.3

(b) R/T: 51.3

(j) R/T: 11.9

(c) V-8: 34.3

(k) R/T: 18.7

(d) R/T: 37.2

(l) R/T: 18.0

(e) R/T: 7.9

(m) R/T: 25.0

(f) R/T: 4.9

(n) R/T: 11.5

(g) R/T: 10.3

(o) Frame structure to ground

(h) R/T: 10.1

(p) R/T: 5.5

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DODGE

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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. | 23   | 27          | 29   |
|--|--------------|------|-------------|------|
| <b>FRONT COMPARTMENT</b>                                 |              |      |             |      |
| Effective head room                                      | H61          | 37.4 | 38.1        | 37.6 |
| Max. eff. leg room – accelerator                         | L34          |      | 42.3        |      |
| H Point to Heel point                                    | H30          |      | 7.3         |      |
| H Point travel   | L17          |      | 5.6         |      |
| Shoulder room  | W 3          |      | 58.1        |      |
| Hip room   | W 5          |      | 56.9        |      |
| Upper body opening to ground                             | H50          | 46.2 | 46.9        | 46.2 |
| <b>REAR COMPARTMENT</b>                                  |              |      |             |      |
| H Point couple distance                                  | L50          |      | 29.2        |      |
| Effective head room                                      | H63          | 35.6 | 35.9        | 35.8 |
| Min. effective leg room                                  | L51          | 30.9 | 28.9        | 30.9 |
| H Point to Heel point                                    | H31          |      | 9.7         |      |
| Min. knee room   | L48          | 1.0  | 0.7         | 1.0  |
| Rear Compartment room                                    | L 3          | 22.1 | 19.6        | 22.4 |
| Shoulder room  | W 4          | 56.8 | 53.7        | 56.8 |
| Hip room   | W 6          | 54.9 | 50.2        | 54.9 |
| Upper body opening to ground                             | H51          |      | --          |      |
| <b>LUGGAGE COMPARTMENT</b>                               |              |      |             |      |
| Usable luggage capacity                                  | V 1          |      | 8.0         |      |
| Liftover height  | H195         |      | 31.3(a)     |      |
| Position of spare tire storage                           |              |      | Floor       |      |
| 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                       | L202         | /    |             |      |
| Cargo length at belt – front seat                        | L204         |      |             |      |
| Cargo width – Wheelhouse                                 | W201         |      |             |      |
| Opening width at belt                                    | W204         |      |             |      |
| Maximum cargo height                                     | H201         |      |             |      |
| Rear opening height                                      | H202         |      |             |      |
| Cargo volume index (cu. ft.)<br>W4 x L204 x H201<br>1728 | V2           |      |             |      |

(a) Challenger R/T: 31.8

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DODGE  
 MAKE OF CAR CHALLENGER MODEL YEAR 1970 DATE ISSUED 10-3-69 REVISED <sup>(a)</sup> 3-20-70

## POWER TEAMS

(Indicate whether standard or optional)

| MODEL AVAILABILITY |          | ENGINE            |            |                 |                 |                    | TRANSMISSION         | AXLE RATIO (a)<br>(Std. first)<br>(Indicate A/C ratio) |
|--------------------|----------|-------------------|------------|-----------------|-----------------|--------------------|----------------------|--|
|                    |          | Displ.<br>cu. in. | Carburetor | Compr.<br>Ratio | BHP<br>@<br>RPM | Torque<br>@<br>RPM |                      |  |
| 6-Cyl              | Std<br>H | 225               | 1, 1-V     | 8.4             | 145 @<br>4000   | 215 @<br>2400      | Manual 3-Speed       | 3.23   |
|                    |          |                   |            |                 |                 |                    | Automatic            | 2.76*, 3.23  |
| V-8                | Std<br>H | 318               | 1, 2-V     | 8.8             | 230 @<br>4400   | 320 @<br>2000      | Manual 3-Speed       | 3.23   |
|                    |          |                   |            |                 |                 |                    | Manual 4-Speed       | 3.23   |
|                    |          |                   |            |                 |                 |                    | Automatic            | 2.76*, 3.23  |
|                    | Opt<br>H | 340               | 1, 4-V     | 10.5            | 275 @<br>5000   | 340 @<br>3200      | Manual 3-Speed       | 3.23   |
|                    |          |                   |            |                 |                 |                    | Manual 4-Speed       | 3.23, 3.55**, 3.91**                                   |
|                    | Opt<br>H | 383               | 1, 2-V     | 8.7             | 290 @<br>4400   | 390 @<br>2800      | Automatic            | 2.76*, 3.23  |
|                    |          |                   |            |                 |                 |                    | Manual               | 3-Speed  |
|                    | Std: S   | 383               | 1, 4-V     | 9.5             | 330 @<br>5000   | 425 @<br>3200      |                      | Manual 4-Speed   |
|                    |          |                   |            |                 |                 |                    | Automatic (b)        | 3.23, 3.55**, 3.91**                                   |
|                    | Opt<br>S | 426               | 2, 4-V     | 10.2            | 425 @<br>5000   | 490 @<br>4000      | Manual 4-Speed       | 3.54**, 4.10**   |
|                    |          |                   |            |                 |                 |                    | Automatic            | 3.23, 3.55**, 4.10**                                   |
|                    |          | 440               | 1, 4-V     | 9.7             | 375 @<br>4600   | 480 @<br>3200      | Manual 4-Speed       | 3.54**, 4.10**   |
| Automatic          |          |                   |            |                 |                 |                    | 3.23, 3.55**, 4.10** |  |
| 440                |          | 3, 2-V            | 10.5       | 390 @<br>4700   | 490 @<br>3200   | Manual 4-Speed     | 3.54**, 4.10**       |  |
|                    |          |                   |            |                 |                 | Automatic          | 3.23, 3.55**, 4.10** |  |

(a) SURE-GRIP available on all ratios except as noted. Axle ratios do not change when A/C is installed.

(b) Axle ratio 2.76: STD on H

\* SURE-GRIP NA

\*\* SURE-GRIP only

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DODGE  
**MAKE OF CAR** CHALLENGER **MODEL YEAR** 1970 **DATE ISSUED** 10-7-69 **REVISED** (e)

See Page 3 for Engine Usage

**MODEL** 225 CID 318 CID 340 CID

## ENGINE – GENERAL

| Type, no. cyls., valve arr.   | Six, in-line, OHV                                    | 90° V-8, OHV    |             |
|---|--|-----------------|-------------|
| Bore and stroke (nominal)   | 3.4 x 4.12   | 3.91 x 3.31     | 4.04 x 3.31 |
| Piston displacement, cu. in.  | 225  | 318             | 340         |
| Bore spacing (℄ to ℄)   | (a)  | 4.46            |             |
| No. system<br>(front to rear)   | L. Bank  | 1-3-5-7         |             |
|   | R. Bank  | 2-4-6-8         |             |
| Firing order  | 1-5-3-6-2-4  | 1-8-4-3-6-5-7-2 |             |
| Compress. ratio (nominal)   | 8.4:1  | 8.8:1           | 10.5:1      |
| 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   | Lateral: 0° 06' Inclined rear to front: 2° 30' to 3° |                 |             |
| Taxable horsepower<br>$\frac{\text{Dia}^2 \times \text{No. Cyl.}}{2.5}$ | 27.7   | 48.9            | 52.2        |
| Publishing max. bhp*<br>@ eng. RPM                                      | 145 @ 4000   | 230 @ 4400      | 275 @ 5000  |
| Publishing max. torque*<br>(lb. ft. @ RPM)                              | 215 @ 2400   | 320 @ 2000      | 340 @ 3200  |
| Recommended fuel<br>regular – premium                                   | Regular  |                 | Premium     |

## ENGINE – PISTONS

| Material                 | Aluminum alloy   |            |                    |
|--------------------------|--|------------|--------------------|
| Description and finish   | Closed slipper type, steel strut,<br>elliptically turned, tin-plated |            | Open slipper type  |
| Weight (piston only) oz. | 16.4   | 20.9       | 25.4               |
| Clearance<br>(limits)    | Top land   | 0.024 min. | 0.018 min.         |
|                          | Skirt  | Top        | 0.0005 to 0.0015   |
|                          |  | Bottom     | -0.0005 to +0.0015 |
| Ring groove<br>depth     | No. 1 ring   | 0.179      | 0.205              |
|                          | No. 2 ring   | 0.179      | 0.205              |
|                          | No. 3 ring   | 0.181      | 0.193              |
|                          | No. 4 ring   | --         | --                 |

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

(a) 3.98 (1-2, 3-4, 5-6); 4.0 (2-3, 4-5)

## AMA Specifications—Passenger Car

DODGE  
 MAKE OF CAR CHALLENGER MODEL YEAR 1970 DATE ISSUED 10-7-69 REVISED (\*)

See Page 3 for Engine Usage

MODEL 383 CID  
 1, 2-V 1, 4-V Hi-Perf

## ENGINE - GENERAL

|  |   |            |            |
|--|---|------------|------------|
| Type, no. cyls., valve arr.                | 90° V-8, OHV  |            |            |
| Bore and stroke (nominal)                  | 4.25 x 3.38   |            |            |
| Piston displacement, cu. in.               | 383   |            |            |
| Bore spacing (C to C)                      | 4.8   |            |            |
| No. system                                 | L. Bank   | 1-3-5-7    |            |
| (front to rear)                            | R. Bank   | 2-4-6-8    |            |
| Firing order                               | 1-8-4-3-6-5-7-2                                     |            |            |
| Compres. ratio (nominal)                   | 8.7:1   | 9.5:1      | 10.5:1     |
| 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                  | Lateral: 0° 06' inclined rear to front 2° 30' to 3° |            |            |
| Taxable horsepower                         | 57.8  |            |            |
| Di <sup>2</sup> xNo. Cyl.                  | 2.5   |            |            |
| Publishing max. bhp*<br>@ eng. RPM         | 290 @ 4400  | 330 @ 5000 | 335 @ 5200 |
| Publishing max. torque*<br>(lb. ft. @ RPM) | 390 @ 2800  | 425 @ 3200 | 425 @ 3400 |
| Recommended fuel<br>regular - premium      | Regular   | Premium    |            |

## ENGINE - PISTONS

|                          |   |            |                      |
|--------------------------|---|------------|----------------------|
| Material                 | Aluminum alloy  |            |                      |
| Description and finish   | Closed slipper-type, steel strut, elliptically turned, tin-plated |            |                      |
| Weight (piston only) oz. | 27.2  |            |                      |
| Clearance<br>(limits)    | Top land  | 0.022 min. |                      |
|                          | Skirt   | Top        | 0.00025 to 0.00125   |
|                          |   | Bottom     | -0.00125 to +0.00125 |
| Ring groove<br>depth     | No. 1 ring  | 0.220      |                      |
|                          | No. 2 ring  | 0.220      |                      |
|                          | No. 3 ring  | 0.228      |                      |
|                          | No. 4 ring  |            |                      |

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



## AMA Specifications—Passenger Car

DODGE  
 MAKE OF CAR CHALLENGER MODEL YEAR 1970 DATE ISSUED 10-7-69 REVISED (\*)  
 See Page 3 for Engine Usage

MODEL 426 CID Hemi Hi-Perf 440 CID 3, 2-V

## ENGINE - GENERAL

|  |  |             |            |
|--|--|-------------|------------|
| Type, no. cyls., valve arr.                | 90 V-8, OHV  |             |            |
| Bore and stroke (nominal)                  | 4.25 x 3.75  | 4.32 x 3.75 |            |
| Piston displacement, cu. in.               | 426  | 440         |            |
| Bore spacing (C to C)                      | 4.8  |             |            |
| No. system<br>(front to rear)              | L. Bank  | 1-3-5-7     |            |
|  | R. Bank  | 2-4-6-8     |            |
| Firing order                               | 1-8-4-3-6-5-7-2                                      |             |            |
| Compres. ratio (nominal)                   | 10.2:1   | 9.7:1       | 10.5:1     |
| 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                  | Lateral: 0° 06' inclined rear to front: 2° 30' to 3° |             |            |
| Taxable<br>horsepower                      | 57.8   | 59.7        |            |
| Publishing max. bhp*<br>@ eng. RPM         | 425 @ 5000   | 375 @ 4600  | 390 @ 4700 |
| Publishing max. torque*<br>(lb. ft. @ RPM) | 490 @ 4000   | 480 @ 3200  | 490 @ 3200 |
| Recommended fuel<br>regular - premium      | Premium  |             |            |

## ENGINE - PISTONS

|                          |  |  |                      |
|--------------------------|--|--|----------------------|
| Material                 | Aluminum alloy                             |  |                      |
| Description and finish   | Forged, elliptically<br>turned, tin-plated | Closed slipper-type, steel strut,<br>elliptically turned, tin-plated |                      |
| Weight (piston only) oz. | 29.7                                       | 30.2   |                      |
| Clearance<br>(limits)    | Top land                                   | 0.022 min.   |                      |
|                          | Skirt                                      | Top  | 0.00025 to 0.00125   |
|                          |  | Bottom   | -0.00125 to +0.00125 |
| Ring groove<br>depth     | No. 1 ring                                 | 0.215  | 0.224                |
|                          | No. 2 ring                                 | 0.215  | 0.224                |
|                          | No. 3 ring                                 | 0.191  | 0.193                |
|                          | No. 4 ring                                 | --   |                      |

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

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**MAKE OF CAR** DODGE CHALLENGER      **MODEL YEAR** 1970      **DATE ISSUED** 10-7-69      **REVISED** (e)

See Page 3 for Engine Usage

**MODEL**      225 CID      318 CID      340 CID

## 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, twist and radius faced, tin-plate                                  | (a)            |
|                                |   | #2      Cast iron, reverse twist and taper, lubrite-coated                            |                |
|                                | Width                                       | 0.078   |                |
|                                | Gap   | 0.010 to 0.020  | 0.013 to 0.023 |
| Oil                            | Description -<br>material, coating,<br>etc. | 3-piece abutment-type, stainless steel<br>spacer-expanded with chrome-plated segments |                |
|                                | Width                                       | 0.188   |                |
|                                | Gap   | Not applicable  |                |
| Expanders                      | See above                                   |   |                |

## ENGINE – PISTON PINS

|                                     |  |                    |                  |
|-------------------------------------|--|--------------------|------------------|
| Material                            | Carbon steel-carburizing grade                 |                    |                  |
| Length                              | 2.965  | 2.995              |                  |
| Diameter                            | 0.9008   | 0.9842             |                  |
| Type                                | Locked in rod, in<br>piston, floating, etc.    | Press-fit in rod   | Floating         |
|                                     | Bush-<br>ing      In rod or piston<br>Material | None               | Rod              |
|                                     |  | --                 | Bronze on steel  |
| Clearance                           | In piston                                      | 0.00045 to 0.00075 | 0.0000 to 0.0005 |
|                                     | In rod   | (b)                | 0.0001 to 0.0006 |
| Direction & amount offset in piston | Right 0.06                                     |                    |                  |

## ENGINE – CONNECTING RODS

|                           |                    |  |                              |
|---------------------------|--------------------|--|------------------------------|
| Material                  | Drop-forged steel  |  |                              |
| Weight (oz.)              | 26.8               | 25.6                                   | 26.7                         |
| Length (center to center) | 6.699              | 6.123                                  |                              |
| Bearing                   | Material & Type    | Lead-base babbitt<br>on steel          | Bi-metal grid      Tri-metal |
|                           | Overall length     | 0.985                                  | 0.843                        |
|                           | Clearance (limits) | 0.0005 to 0.0025      0.0002 to 0.0027 |                              |
|                           | End play           | 0.006 to 0.012                         | 0.006 to 0.014 (2 rods)      |

(a) Cast iron, twist and barrel-lap face, moly-filled.

(b) 0.0007 to 0.0014 interference.



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|                    |                             |                   |      |   |
|--------------------|-----------------------------|-------------------|------|---|
|                    | DODGE                       |                   |      |   |
| <b>MAKE OF CAR</b> | CHALLENGER                  | <b>MODEL YEAR</b> | 1970 | <b>DATE ISSUED</b> 10-7-69 <b>REVISED</b> (a) |
| <b>MODEL</b>       | See Page 3 for Engine Usage |                   |      |   |
|                    | 383 CID All                 |                   |      |   |

## 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 - material, coating, etc. | #1 | Cast iron, reverse twist and radius faced, tin-plated                              |
|                                |                                       | #2 | Cast iron, reverse twist and taper, tin-plated                                     |
|                                | Width                                 |    | 0.078  |
|                                | Gap                                   |    | 0.013 to 0.023   |
| Oil                            | Description - material, coating, etc. |    | 3-piece abutment-type, stainless steel spacer-expander with chrome-plated segments |
|                                | Width                                 |    | 0.188  |
|                                | Gap                                   |    | Not applicable   |
| Expanders                      |                                       |    | See above  |

## ENGINE – PISTON PINS

|                                     |  |                               |      |
|-------------------------------------|--|-------------------------------|------|
| Material                            | Carbon steel-carburizing grade           |                               |      |
| Length                              | 3.565                                    |                               |      |
| Diameter                            | 1.0936                                   |                               |      |
| Type                                | Locked in rod, in piston, floating, etc. | Press-fit in rod              |      |
|                                     | Bush-<br>ing                             | In rod or piston              | None |
|                                     |  | Material                      | --   |
| Clearance                           | In piston                                | 0.00045 to 0.00075            |      |
|                                     | In rod                                   | 0.0007 to 0.0014 interference |      |
| Direction & amount offset in piston | Right 0.09                               |                               |      |

## ENGINE – CONNECTING RODS

|                           |                    |                         |  |
|---------------------------|--------------------|-------------------------|--|
| Material                  | Drop-forged steel  |                         |  |
| Weight (oz.)              | 28.6               |                         |  |
| Length (center to center) | 6.358              |                         |  |
| Bearing                   | Material & Type    | Tri-metal               |  |
|                           | Overall length     | 0.927                   |  |
|                           | Clearance (limits) | 0.0007 to 0.0032        |  |
|                           | End play           | 0.009 to 0.017 (2 rods) |  |

# AMA Specifications—Passenger Car

DODGE  
**MAKE OF CAR** CHALLENGER **MODEL YEAR** 1970 **DATE ISSUED** 10-7-69 **REVISED** (•)

See Page 3 for Engine Usage

|              |               |         |        |
|--------------|---------------|---------|--------|
| <b>MODEL</b> | 426 CID, Hemi | 440 CID |        |
|              | Hi-Perf       |         | 3, 2-V |

## 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 (a)   | (b) | (a)   |
|                                |   | #2 Cast iron, reverse twist and taper, tin-plated                                      |     |       |
|                                | Width                                       | 0.078  |     |       |
|                                | Gap   | 0.013 to 0.023   |     |       |
| Oil                            | Description -<br>material, coating,<br>etc. | 3-piece abutment-type, stainless steel,<br>spacer-expander with chrome-plated segments |     | (c)   |
|                                | Width                                       | 0.188  |     | 0.113 |
|                                | Gap   | Not applicable   |     |       |
| Expanders                      |   | See above  |     |       |

## ENGINE – PISTON PINS

|                                     |   |                                |                 |                               |
|-------------------------------------|---|--------------------------------|-----------------|-------------------------------|
| Material                            |   | Carbon steel-carburizing grade |                 |                               |
| Length                              |   | 3.400                          | 3.565           | 3.385                         |
| Diameter                            |   | 1.0311                         |                 | 1.0936                        |
| Type                                | Locked in rod, in<br>piston, floating, etc. | Floating                       |                 | Press-fit in rod              |
|                                     | Bush-<br>ing                                | In rod or piston               | Rod             |                               |
|                                     |   | Material                       | Bronze on steel |                               |
| Clearance                           | In piston                                   | 0.0001 to 0.0006               |                 | 0.00045 to 0.00075            |
|                                     | In rod                                      | 0.0002 to 0.0007               |                 | 0.0007 to 0.0014 interference |
| Direction & amount offset in piston |   | Right 0.09                     |                 |                               |

## ENGINE – CONNECTING RODS

|                           |                    |                         |                  |  |
|---------------------------|--------------------|-------------------------|------------------|--|
| Material                  |                    | Drop-forged steel       |                  |  |
| Weight (oz.)              |                    | 38.2                    | 29.8             |  |
| Length (center to center) |                    | 6.861                   | 6.768            |  |
| Bearing                   | Material & Type    | Tri-metal               |                  |  |
|                           | Overall length     | 0.927                   |                  |  |
|                           | Clearance (limits) | 0.0010 to 0.0035        | 0.0007 to 0.0032 |  |
|                           | End play           | 0.009 to 0.017 (2 rods) |                  |  |

- (a) Cast iron, twist and barrel-lap faced, moly-filled  
 (b) Cast iron, twist and radius-faced, tin-plated  
 (c) 3-piece stainless steel spacer-expander with chrome-plated segments

# AMA Specifications—Passenger Car

|                             |                            |                   |         |                    |         |                    |
|-----------------------------|----------------------------|-------------------|---------|--------------------|---------|--------------------|
| <b>MAKE OF CAR</b>          | DODGE<br><b>CHALLENGER</b> | <b>MODEL YEAR</b> | 1970    | <b>DATE ISSUED</b> | 10-7-69 | <b>REVISED</b> (a) |
| See Page 3 for Engine Usage |                            |                   |         |                    |         |                    |
| <b>MODEL</b>                | 225 CID                    | 318 CID           | 340 CID |                    |         |                    |

## ENGINE – CRANKSHAFT

|  |  |  |                   |                   |  |
|--|--|--|-------------------|-------------------|--|
| <b>Material</b>                          |  | Drop-forged steel                                  | Cast ductile iron | Drop-forged steel |  |
| <b>Vibration damper type</b>             |  | Non-adhesive, rubber, dynamic                      |                   |                   |  |
| <b>End thrust taken by bearing (No.)</b> |  | Three  |                   |                   |  |
| <b>Crankshaft end play</b>               |  | 0.002 to 0.007                                     |                   |                   |  |
| <b>Main bearing</b>                      | <b>Material &amp; type</b>                     | Lead-base babbitt on steel, removable, precision   |                   | (a)               |  |
|  | <b>Clearance</b>                               | 0.005 to 0.0025 specified, 0.005 to 0.0015 desired |                   |                   |  |
|  | <b>Journal dia. and bearing overall length</b> | <b>No. 1</b>                                       | 2.75 x 1.034      | 2.5 x 0.872       |  |
|  |  | <b>No. 2</b>                                       | 2.75 x 1.034      | 2.5 x 0.872       |  |
|  |  | <b>No. 3</b>                                       | 2.75 x 1.254      | 2.5 x 1.151       |  |
|  |  | <b>No. 4</b>                                       | 2.75 x 1.034      | 2.5 x 0.872       |  |
|  |  | <b>No. 5</b>                                       | --                | 2.5 x 1.562       |  |
| <b>No. 6</b>                             |  | --   | --                |                   |  |
|  | <b>No. 7</b>                                   | --   | --                |                   |  |
| <b>Dir. &amp; amt. cyl. offset</b>       |  | None   |                   |                   |  |
| <b>Crankpin journal diameter</b>         |  | 2.187  | 2.125             |                   |  |

## ENGINE – CAMSHAFT

|                      |   |   |                                |                     |     |
|----------------------|---|---|--------------------------------|---------------------|-----|
| <b>Location</b>      |   | Right   | Center of "V" above crankshaft |                     |     |
| <b>Material</b>      |   | Hardenable cast iron, oil pump and distributor drive gear cast integrally |                                |                     |     |
| <b>Bearings</b>      | <b>Material</b>                             | Lead base babbitt on steel  |                                |                     |     |
|                      | <b>Number</b>                               | Four  | Five                           |                     |     |
| <b>Type of Drive</b> | <b>Gear or chain</b>                        | Chain   |                                | Double-roller chain |     |
|                      | <b>Crankshaft gear or sprocket material</b> | Malleable cast iron or sintered iron (Super Oilite)                       |                                | Steel               |     |
|                      | <b>Camshaft gear or sprocket material</b>   | Nylon-coated aluminum   |                                | Cast iron           |     |
|                      | <b>Timing chain</b>                         | <b>No. of links</b>   | 50                             | 68                  |     |
|                      |   | <b>Width</b>  | .88                            | .63                 | .87 |
| <b>Pitch</b>         |   | .50   | .375                           |                     |     |

## ENGINE – VALVE SYSTEM

|  |                |                              |           |
|--|----------------|------------------------------|-----------|
| <b>Hydraulic lifters (Std., opt., NA)</b>                |                | NA                           | Std       |
| <b>Valve rotator, type (intake, exhaust)</b>             |                | Low-friction lock on exhaust |           |
| <b>Rocker ratio</b>                                      |                | 1.5:1                        |           |
| <b>Operating tappet clearance (indicate hot or cold)</b> | <b>Intake</b>  | .010                         | Hydraulic |
|  | <b>Exhaust</b> | .020                         | Hydraulic |

(Continued)

- (a) Aluminum alloy on steel, removable, precision, except  
No. 5 lead-base babbitt on steel

# AMA Specifications—Passenger Car

DODGE  
**MAKE OF CAR** CHALLENGER **MODEL YEAR** 1970 **DATE ISSUED** 10-7-69 **REVISED** (e)  
 See Page 3 for Engine Usage  
**MODEL** 383 CID All

## ENGINE – CRANKSHAFT

|                                   |   |  |               |  |
|-----------------------------------|---|--|---------------|--|
| Material                          |   | Drop-forged steel                                    |               |  |
| Vibration damper type             |   | Non-adhesive, rubber, dynamic                        |               |  |
| End thrust taken by bearing (No.) |   | Three  |               |  |
| Crankshaft end play               |   | 0.002 to 0.007                                       |               |  |
| Main bearing                      | Material & type                         | Lead-base babbitt on steel, removable precision      |               |  |
|                                   | Clearance                               | 0.0005 to 0.0025 specified, 0.0005 to 0.0015 desired |               |  |
|                                   | Journal dia. and bearing overall length | No. 1  | 2.625 x 0.944 |  |
|                                   |   | No. 2  | 2.625 x 0.944 |  |
|                                   |   | No. 3  | 2.625 x 1.223 |  |
|                                   |   | No. 4  | 2.625 x 0.944 |  |
|                                   |   | No. 5  | 2.625 x 0.944 |  |
| No. 6                             |   | --   |               |  |
| Dir. & amt. cyl. offset           | None                                    |  |               |  |
| Crankpin journal diameter         |   | 2.38   |               |  |

## ENGINE – CAMSHAFT

|               |                                      |   |     |  |
|---------------|--------------------------------------|---|-----|--|
| Location      |                                      | Center of "V" above crankshaft  |     |  |
| Material      |                                      | Hardenable cast iron, oil pump and distributor drive gear cast integrally |     |  |
| Bearings      | Material                             | Lead base babbitt on steel  |     |  |
|               | Number                               | Five  |     |  |
| Type of Drive | Gear or chain                        | Chain   |     |  |
|               | Crankshaft gear or sprocket material | Malleable cast iron or sintered iron (Super Oilite)                       |     |  |
|               | Camshaft gear or sprocket material   | Nylon-coated aluminum   |     |  |
|               | Timing chain                         | No. of links  | 50  |  |
|               |                                      | Width   | .75 |  |
| Pitch         |                                      | .50   |     |  |

## ENGINE – VALVE SYSTEM

|   |         |                              |  |
|---|---------|------------------------------|--|
| Hydraulic lifters (Std., opt., NA)                |         | Std                          |  |
| Valve rotator, type (intake, exhaust)             |         | Low-friction lock on exhaust |  |
| Rocker ratio                                      |         | 1.5:1                        |  |
| Operating tappet clearance (indicate hot or cold) | Intake  | Hydraulic                    |  |
|   | Exhaust | Hydraulic                    |  |

(Continued)

# AMA Specifications—Passenger Car

|             |               |            |         |                             |
|-------------|---------------|------------|---------|-----------------------------|
|             | DODGE         |            |         |                             |
| MAKE OF CAR | CHALLENGER    | MODEL YEAR | 1970    | DATE ISSUED                 |
|             |               |            |         | 10-7-69                     |
|             |               |            |         | REVISED (a)                 |
|             |               |            |         | See Page 3 for Engine Usage |
| MODEL       | 426 CID, Hemi | 440 CID    | Hi-Perf | 3, 2-V                      |

## ENGINE – CRANKSHAFT

|                                   |   |                               |   |  |
|-----------------------------------|---|-------------------------------|---|--|
| Material                          |   | Drop-forged steel             |   |  |
| Vibration damper type             |   | Non-adhesive, rubber, dynamic |   |  |
| End thrust taken by bearing (No.) |   | Three                         |   |  |
| Crankshaft end play               |   | 0.002 to 0.007                |   |  |
| Main bearing                      | Material & type                         | (a)                           | Lead-base babbitt on steel, removable, precision, tin alloy on steel (#3 main only) (b) |  |
|                                   | Clearance                               | 0.0015 to 0.0025              | (c)   |  |
|                                   | Journal dia. and bearing overall length | No. 1                         | 2.75 x 0.944  |  |
|                                   |   | No. 2                         | 2.75 x 0.944  |  |
|                                   |   | No. 3                         | 2.75 x 1.223  |  |
|                                   |   | No. 4                         | 2.75 x 0.944  |  |
|                                   |   | No. 5                         | 2.75 x 0.944  |  |
| No. 6                             |   | --                            |   |  |
| Dir. & amt. cyl. offset           | None                                    |                               |   |  |
| Crankpin journal diameter         |   | 2.38                          |   |  |

## ENGINE – CAMSHAFT

|               |                                      |   |   |     |
|---------------|--------------------------------------|---|---|-----|
| Location      |                                      | Center of "V" above crankshaft  |   |     |
| Material      |                                      | Hardenable cast iron, oil pump and distributor drive gear cast integrally |   |     |
| Bearings      | Material                             | Copper lead on steel  | Lead-base babbitt on steel                          |     |
|               | Number                               | Five  |   |     |
| Type of Drive | Gear or chain                        | Double-roller chain   | Chain   |     |
|               | Crankshaft gear or sprocket material | Steel   | Malleable cast iron or sintered iron (Super Oilite) |     |
|               | Camshaft gear or sprocket material   | Cast iron   | Nylon-coated aluminum                               |     |
|               | Timing chain                         | No. of links  | 66  | 50  |
|               |                                      | Width   | .75   | .75 |
|               |                                      | Pitch   | .50   | .50 |

## ENGINE – VALVE SYSTEM

|   |         |           |                              |
|---|---------|-----------|------------------------------|
| Hydraulic lifters (Std., opt., NA)                |         | Std       |                              |
| Valve rotator, type (intake, exhaust)             |         | None      | Low-friction lock on exhaust |
| Rocker ratio                                      |         | 1.5:1     |                              |
| Operating tappet clearance (indicate hot or cold) | Intake  | Hydraulic |                              |
|   | Exhaust | Hydraulic |                              |

(Continued)

- (a) Tri-metal: steel back, copper-lead, intermediate layer of high-lead overplate  
 (b) 440 CID, 3, 2-V: all main bearings tin alloy on steel  
 (c) 0.0005 to 0.0025 specified, 0.0005 to 0.0015 desired

# AMA Specifications—Passenger Car

**DODGE**  
**MAKE OF CAR** CHALLENGER **MODEL YEAR** 1970 **DATE ISSUED** 10-7-69 **REVISED** (e) 3-20-70

See Page 3 for Engine Usage

|              |         |         |         |
|--------------|---------|---------|---------|
| <b>MODEL</b> | 225 CID | 318 CID | 340 CID |
|--------------|---------|---------|---------|

## ENGINE - VALVE SYSTEM (cont.)

|  |                                       |  |            |              |              |
|--|---------------------------------------|--|------------|--------------|--------------|
| Timing<br>(based on<br>top of<br>ramp<br>points) | Intake                                | Opens (°BTC)                             | 10         |              | 22           |
|  |                                       | Closes (°ABC)                            | 50         |              | 66           |
|  |                                       | Duration - deg.                          | 240        |              | 268          |
|  | Exhaust                               | Opens (°BBC)                             | 50         | 58           | 74           |
|  |                                       | Closes (°ATC)                            | 6          | 10           | 22           |
|  |                                       | Duration - deg.                          | 236        | 248          | 276          |
| Valve opening overlap                            |                                       | 16                                       | 20         | 44           |              |
| Material   |                                       | SAE 1041                                 |            | Silchrome XB |              |
| Overall length                                   |                                       | 4.77                                     | 4.97       | 4.99         |              |
| Actual overall head dia.                         |                                       | 1.62                                     | 1.78       | 2.02         |              |
| Angle of seat & face                             |                                       | Seat: 44.5 to 45.0; valve: 45.0 to 45.5  |            |              |              |
| Seat insert material                             |                                       | None                                     |            |              |              |
| Stem diameter                                    |                                       | 0.372 to 0.373                           |            |              |              |
| Stem to guide clearance                          |                                       | 0.001 to 0.003                           |            |              |              |
| Intake   | Lift (at zero lash)                   |  | 0.397      | 0.372        | 0.430        |
|  | Outer<br>spring<br>press. &<br>length | Valve closed<br>(lb. @ in.)              | 63 @ 1.65  | 92 @ 1.65    | 96 @ 1.65    |
|  |                                       | Valve open<br>(lb. @ in.)                | 156 @ 1.26 | 189 @ 1.28   | 242 @ 1.21   |
|  | Inner<br>spring<br>press. &<br>length | Valve closed<br>(lb. @ in.)              | None       |              | Surge damper |
|  |                                       | Valve open<br>(lb. @ in.)                | None       |              | Surge damper |
|  | Material                              |  | 21-2N      | 21-4N        |              |
| Overall length                                   |                                       | 4.80                                     | 5.00       |              |              |
| Actual overall head dia.                         |                                       | 1.36                                     | 1.50       | 1.60         |              |
| Angle of seat & face                             |                                       | Seat: 44.5 to 45.0; valve : 47.0 to 47.5 |            |              |              |
| Seat insert material                             |                                       | None                                     |            |              |              |
| Stem diameter                                    |                                       | 0.371 to 0.372                           |            |              |              |
| Stem to guide clearance                          |                                       | 0.002 to 0.004                           |            |              |              |
| Exhaust  | Lift (at zero lash)                   |  | 0.393      | 0.400        | 0.445        |
|  | Outer<br>spring<br>press. &<br>length | Valve closed<br>(lb. @ in.)              | 63 @ 1.65  | 92 @ 1.65    | 96 @ 1.65    |
|  |                                       | Valve open<br>(lb. @ in.)                | 156 @ 1.26 | 189 @ 1.25   | 244 @ 1.20   |
|  | Inner<br>spring<br>press. &<br>length | Valve closed<br>(lb. @ in.)              | None       |              | Surge damper |
|  |                                       | Valve open<br>(lb. @ in.)                | None       |              | Surge damper |

## ENGINE - LUBRICATION SYSTEM

|   |                      |                   |          |
|---|----------------------|-------------------|----------|
| Type of<br>lubrica-<br>tion<br>(splash,<br>pressure,<br>nozzle) | Main bearings        | Pressure          |          |
|   | Connecting rods      | Pressure          |          |
|   | Piston pins          | Metered jet spray |          |
|   | Camshaft bearings    | Pressure          |          |
|   | Tapets               | Splash            | Pressure |
|   | Timing gear or chain | Jet               |          |
|   | Cylinder walls       | Metered jet spray |          |

(Continued)



# AMA Specifications—Passenger Car

DODGE  
**MAKE OF CAR** CHALLENGER      **MODEL YEAR** 1970      **DATE ISSUED** 10-7-69      **REVISED** (\*)3-20-70

See Page 3 for Engine Usage

**MODEL** 383 CID 1, 2-V      383 CID 1, 4-V      383 CID Hi-Perf

## ENGINE – VALVE SYSTEM (cont.)

|  |                                       |   |   |       |              |
|--|---------------------------------------|---|---|-------|--------------|
| Timing<br>(based on<br>top of<br>ramp<br>points) | Intake                                | Opens (°BTC)  | 18                                      |       | 21           |
|  |                                       | Closes (°ABC)   | 58                                      |       | 67           |
|  |                                       | Duration - deg.                                       | 256                                     |       | 268          |
|  | Exhaust                               | Opens (°BBC)  | 66                                      |       | 79           |
|  |                                       | Closes (°ATC)   | 14                                      |       | 25           |
|  |                                       | Duration - deg.                                       | 260                                     |       | 284          |
|  | Valve opening overlap                 |   | 32                                      |       | 46           |
| Intake   | Material                              |   | SAE 1041                                |       |              |
|  | Overall length                        |   | 4.86                                    |       |              |
|  | Actual overall head dia.              |   | 2.08                                    |       |              |
|  | Angle of seat & face deg              |   | Seat: 44.5 to 45.0; valve: 45.0 to 45.5 |       |              |
|  | Seat insert material                  |   | None                                    |       |              |
|  | Stem diameter                         |   | 0.3723 to 0.3730                        |       |              |
|  | Stem to guide clearance               |   | 0.0010 to 0.0027                        |       |              |
|  | Lift (@ zero lash)                    |   | 0.425                                   |       | 0.450        |
|  | Outer<br>spring<br>press. &<br>length | Valve closed<br>(lb. @ in.)                           | 125 @ 1.86                              |       | 105 @ 1.86   |
|  |                                       | Valve open<br>(lb. @ in.)                             | 200 @ 1.42                              |       | 234 @ 1.40   |
|  | Inner<br>spring<br>press. &<br>length | Valve closed<br>(lb. @ in.)                           | None                                    |       | Surge damper |
|  |                                       | Valve open<br>(lb. @ in.)                             | None                                    |       | Surge damper |
|  | Exhaust                               | Material  |   | 21-2N |              |
| Overall length                                   |                                       | 4.89  |   |       |              |
| Actual overall head dia.                         |                                       | 1.74  |   |       |              |
| Angle of seat & face deg                         |                                       | Seat: 44.5 to 45.0; valve: 47.0 to 47.5               |   |       |              |
| Seat insert material                             |                                       | None  |   |       |              |
| Stem diameter                                    |                                       | Hot end: 0.3713 to 0.3720; cold end: 0.3723 to 0.3730 |   |       |              |
| Stem to guide clearance                          |                                       | Hot end: 0.0020 to 0.0037; cold end: 0.0010 to 0.0027 |   |       |              |
| Lift (@ zero lash)                               |                                       | 0.437   |   | 0.465 |              |
| Outer<br>spring<br>press. &<br>length            |                                       | Valve closed<br>(lb. @ in.)                           | 125 @ 1.86                              |       | 105 @ 1.86   |
|  |                                       | Valve open<br>(lb. @ in.)                             | 200 @ 1.42                              |       | 234 @ 1.40   |
| Inner<br>spring<br>press. &<br>length            |                                       | Valve closed<br>(lb. @ in.)                           | None                                    |       | Surge damper |
|  |                                       | Valve open<br>(lb. @ in.)                             | None                                    |       | Surge damper |

## ENGINE – LUBRICATION SYSTEM

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

(Continued)

# AMA Specifications—Passenger Car

**MAKE OF CAR** DODGE CHALLENGER      **MODEL YEAR** 1970      **DATE ISSUED** 10-7-69      **REVISED** (a)3-20-70  
 See Page 3 for Engine Usage

**MODEL** 426 CID Hemi      440 CID  
1, 4-V      3, 2-V

## ENGINE – VALVE SYSTEM (cont.)

|  |                                       |   |   |                       |              |
|--|---------------------------------------|---|---|-----------------------|--------------|
| Timing<br>(based on<br>top of<br>ramp<br>points) | Intake                                | Opens (°BTC)                            | 36                                      | 21                    |              |
|  |                                       | Closes (°ABC)                           | 68                                      | 67                    |              |
|  |                                       | Duration - deg.                         | 284                                     | 268                   |              |
|  | Exhaust                               | Opens (°BBC)                            | 80                                      | 79                    |              |
|  |                                       | Closes (°ATC)                           | 24                                      | 25                    |              |
|  |                                       | Duration - deg.                         | 284                                     |                       |              |
| Valve opening overlap                            |                                       | 60                                      | 46                                      |                       |              |
| Intake   | Material                              |   | Silchrome XB                            | SAE 1041              |              |
|  | Overall length                        |   | 5.41                                    | 4.87                  |              |
|  | Actual overall head dia.              |   | 2.25                                    | 2.08                  |              |
|  | Angle of seat & face deg              |   | Seat: 44.5 to 45.0; valve: 45.0 to 45.5 |                       |              |
|  | Seat insert material                  |   | None                                    |                       |              |
|  | Stem diameter                         |   | 0.3085 to 0.3095                        | 0.3723 to 0.3730      |              |
|  | Stem to guide clearance               |   | 0.0002 to 0.004                         | 0.0010 to 0.0027      |              |
|  | Lift (± zero lash)                    |   | 0.490                                   | 0.450                 |              |
|  | Outer<br>spring<br>press. &<br>length | Valve closed<br>(lb. @ in.)             | 115 @ 1.86                              | 105 @ 1.86            | 115 @ 1.86   |
|  |                                       | Valve open<br>(lb. @ in.)               | 310 @ 1.37                              | 234 @ 1.40            | 310 @ 1.37   |
|  | Inner<br>spring<br>press. &<br>length | Valve closed<br>(lb. @ in.)             | Surge damper                            |                       |              |
|  |                                       | Valve open<br>(lb. @ in.)               | Surge damper                            |                       |              |
|  | Exhaust                               | Material                                |   | 21-4N (Stellite face) | 21-2N        |
|  |                                       | Overall length                          |   | 4.86                  | 4.89         |
| Actual overall head dia.                         |                                       | 1.94                                    | 1.74                                    |                       |              |
| Angle of seat & face                             |                                       | Seat: 44.5 to 45.0; valve: 47.0 to 47.5 |   |                       |              |
| Seat insert material                             |                                       | None                                    |   |                       |              |
| Stem diameter                                    |                                       | 0.3075 to 0.3085                        | Hot end: 0.3713 to 0.3720 (a)           |                       |              |
| Stem to guide clearance                          |                                       | 0.0030 to 0.0050                        | Hot end: 0.0020 to 0.0037 (b)           |                       |              |
| Lift (± zero lash)                               |                                       | 0.480                                   | 0.465                                   |                       |              |
| Outer<br>spring<br>press. &<br>length            |                                       | Valve closed<br>(lb. @ in.)             | 115 @ 1.86                              | 105 @ 1.86            | 115 @ 1.86   |
|  |                                       | Valve open<br>(lb. @ in.)               | 310 @ 1.37                              | 234 @ 1.40            | 310 @ 1.37   |
| Inner<br>spring<br>press. &<br>length            |                                       | Valve closed<br>(lb. @ in.)             | Surge damper                            | None                  | Surge damper |
|  | Valve open<br>(lb. @ in.)             | Surge damper                            | None                                    | Surge damper          |              |

## ENGINE – LUBRICATION SYSTEM

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

(a) Cold end: 0.3723 to 0.3730

(b) Cold end: 0.0010 to 0.0027

(Continued)

# AMA Specifications—Passenger Car

**MAKE OF CAR** DODGE CHALLENGER **MODEL YEAR** 1970 **DATE ISSUED** 10-7-69 **REVISED** <sup>(a)</sup> 3-20-70

See Page 3 for Engine Usage

|              |         |         |         |         |              |                     |
|--------------|---------|---------|---------|---------|--------------|---------------------|
| <b>MODEL</b> | 225 CID | 318 CID | 340 CID | 383 CID | 426 CID Hemi | 440 Hi-Perf; 3, 2-V |
|--------------|---------|---------|---------|---------|--------------|---------------------|

**ENGINE – LUBRICATION SYSTEM (cont.)**

|   |  |
|---|--|
| Oil pump type   | Rotary   |
| Normal oil pressure (lb. @ engine rpm)                      | 45 to 65 @ 2000  |
| Oil press. sending unit (elect. or mech.)                   | Electric   |
| Type oil intake (floating, stationary)                      | Stationary   |
| Oil filter system (full flow, part., other)                 | Full flow  |
| Filter replacement (element, complete)                      | Complete   |
| Capacity of c/case, less filter-refill (qt.)                | 4 <span style="margin-left: 150px;">6</span>               |
| Oil grade recommended (SAE viscosity and temperature range) | Consistently above +32F . . . . . SAE 10W-30, 20W40, or 30 |
|   | Occasionally as low as -10F . . . . . SAE 10W-30           |
|   | Consistently between +32F and -10F . . . SAE 10W-30 or 10W |
|   | Consistently below +10F . . . . . SAE 5W-20                |
| Engine Service Reqmt. (MM, MS, etc.)                        | MS   |

**ENGINE – EXHAUST SYSTEM**

|  |              |                        |                        |              |              |
|--|--------------|------------------------|------------------------|--------------|--------------|
| Type (single, single with cross-over, dual, other)                   | Single       | Single w/<br>crossover | Dual                   | Dual (a)     | Dual         |
| Muffler No. & type (reverse flow, straight thru, separate resonator) | One, reverse |                        | 2-reverse, 2-resonator |              |              |
| Exhaust pipe dia. (O.D., wall thick.)                                | Branch       | --                     | 1.75x0.067             | --           | (b)          |
|  | Main         | 1.88x0.067             | 2.00x0.067             | 2.25 x 0.075 | 2.50 x 0.075 |
| Tail pipe dia. (O.D. & wall thickness)                               | 1.88x0.043   |                        | 2.00x0.043             |              | 2.25 x 0.043 |

**ENGINE – CRANKCASE VENTILATION SYSTEM**

|  |  |  |
|--|--|--|
| Type (ventilates to atmos., induction system, other) | Standard   | Induction system   |
|  | Optional   | --   |
| Control Unit   | Make and model   | 2951243 or 2951891   |
|  | Location   | Cylinder head cover outlet                                     |
|  | Energy source (manifold vacuum, carburetor air stream, other)                | Manifold vacuum  |
|  | Control method (variable orifice, fixed orifice, other)                      | Variable orifice   |
| Complete system                                      | Discharges (to intake manifold, carb. air intake, air cleaner intake, other) | Intake manifold, at or below base of carburetor                |
|  | Air inlet (breather cap, carburetor air cleaner, other)                      | Tube from carburetor air cleaner intake horn to oil filler cap |
|  | Flame arrestor (screen, check valve, other)                                  | Check valve  |

(a) 383 CID, 1, 2-V: single with crossover

(b) 383 CID, 1, 2-V: 1.88 x 0.075

# AMA Specifications—Passenger Car

DODGE  
 MAKE OF CAR CHALLENGER MODEL YEAR 1970 DATE ISSUED 10-6-69 REVISED (\*)3-20-70

All Engines

MODEL \_\_\_\_\_

## ENGINE – EXHAUST EMISSION CONTROL

| Type (Air injection, engine modifications, other) | Engine Modifications; Cleaner Air System   |                             |   |
|---|--|-----------------------------|---|
| Air Injection Pump                                | Type                                       | Not applicable              |   |
|   | Displacement                               | "                           |   |
|   | Drive ratio                                | "                           |   |
|   | Drive type                                 | "                           |   |
|   | Relief valve (type)                        | "                           |   |
|   | Filter (describe)                          | "                           |   |
| Air Injection System                              | Air distribution (head, manifold, etc.)    | "                           |   |
|   | Point of entry                             | "                           |   |
|   | Injection tube I.D.                        | "                           |   |
|   | Check valve type                           | "                           |   |
| Carburetor  | Backfire protection (type)                 | "                           |   |
|   | Make                                       | See Page 10                 |   |
|   | Model                                      | "                           |   |
|   | Barrel size                                | "                           |   |
|   | Idle speed                                 | "                           |   |
| Distributor                                       | Drive                                      | "                           |   |
|   | Neutral                                    | "                           |   |
|   | Idle A/F mixture                           | "                           |   |
|   | Aux. Adv. Systems (type)                   | None                        |   |
|   | Make                                       | Chrysler                    |   |
|   | Model                                      | See page 13                 |   |
|   | Cent'fgal adv. in crank degrees @ eng. rpm | Start (rpm)                 | " |
|   |  | Intermed. points deg. @ rpm | " |
|   |  | Max. deg. @ rpm             | " |
|   | Vacuum adv. in crank degrees @ eng. rpm    | Start (in Hg)               | " |
| Intermed. points deg. @ in. Hg<br>Max. deg. @ in. |  | "                           |   |
| Vacuum Source                                     | Carburetor port                            |                             |   |
| Timing - Crank degrees @ rpm:                     | See page 13                                |                             |   |
| Cooling System                                    | None                                       |                             |   |
| Exhaust System                                    | None                                       |                             |   |

# AMA Specifications—Passenger Car

MAKE OF CAR DODGE CHALLENGER MODEL YEAR 1970 DATE ISSUED 10-6-69 REVISED (\*)3-20-70

|       |                             |         |         |         |
|-------|-----------------------------|---------|---------|---------|
| MODEL | See Page 3 for Engine Usage |         |         |         |
|       | 225 CID                     | 318 CID | 340 CID | 426 CID |

| 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.)                    | 18  |               |          |   |  |
|   | Filler location                                 | Outside right rear fender   |               |          |   |  |
| Fuel Pump   | Type (elec. or mech.)                           | Mechanical  |               |          |   |  |
|   | Locations                                       | Right center  | Right front   |          |   |  |
|   | Pressure range                                  | 3.5 to 5  | 5 to 7        | 7 to 8.5 |   |  |
| Vacuum booster (std., optional, none)                     |   | None  |               |          |   |  |
| Fuel Filter   | Type  | Fuel tank: plastic; fuel line: paper  |               |          |   |  |
|   | Locations                                       | One in fuel tank, one in supply line  |               |          |   |  |
| Carburetor  | Choke type                                      | Automatic separate  |               | (a)      |   |  |
|   | Intake manifold heat control (exhaust or water) | Exhaust   |               |          |   |  |
|   | Air cleaner type                                | Standard  | Paper element |          |   |  |
|   |   | Optional  | --            |          |   |  |
| Idle speed (spec. neutral or drive) neutral               | Manual  | 750   | 750           | 900      | • |  |
|   | Automatic                                       | 700   | 700           | 900      | • |  |
|   | Idle A/F mix.                                   | 14.0 to 14.4  |               |          |   |  |

### CARBURETOR SUPPLEMENTARY INFORMATION

| Model Usage | Engine Displ. | Transmission | Carburetors |            |             | No. Used and Type | Barrel Size                    |
|-------------|---------------|--------------|-------------|------------|-------------|-------------------|--------------------------------|
|             |               |              | Make        | Ex. Calif. | Calif. Only |                   |                                |
| 6-Cyl       | 225           | Manual       | Holley      | R-4351A    | R-4353A     | 1, 1-V            | 1.69                           |
|             |               | Automatic    |             | R-4352A    | R-4354A     |                   |                                |
| V-8         | 318           | Manual       | Carter      | BBD-4721S  | BBD-4723S   | 1, 2-V            | 1.44                           |
|             |               | Automatic    |             | BBD-4722S  | BBD-4724S   |                   |                                |
|             |               | Automatic    |             | BBD-4895S  | --          |                   |                                |
|             | 340           | Manual       | Carter      | AVS-4933S  | AVS-4936S   | 1, 4-V            | P: 1.44<br>S: 1.69             |
|             |               | Automatic    |             | AVS-4934S  | AVS-4937S   |                   |                                |
|             |               | Automatic    |             | AVS-4935S  | --          |                   |                                |
| All         | 426           | Manual       | Carter      | Front      |             | 2, 4-V            | Primary 1.44<br>Secondary 1.69 |
|             |               |              |             | AFB-4742S  | Rear        |                   |                                |
|             |               |              |             | AFB-4745S  |             |                   |                                |
|             |               | Automatic    |             | Front      | Rear        |                   |                                |
|             |               |              |             | AFB-4742S  |             |                   |                                |
|             |               |              |             | AFB-4746S  |             |                   |                                |

(a) Front: none; rear: automatic, integral

# AMA Specifications—Passenger Car

DODGE  
**MAKE OF CAR** CHALLENGER **MODEL YEAR** 1970 **DATE ISSUED** 10-6-69 **REVISED** (a)

|              |                             |        |         |         |        |
|--------------|-----------------------------|--------|---------|---------|--------|
| <b>MODEL</b> | See Page 3 for Engine Usage |        |         |         |        |
|              | 383 CID                     |        | 440 CID |         |        |
|              | 1, 2-V                      | 1, 4-V | Hi-Perf | Hi-Perf | 3, 2-V |

**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.)                    | 18                                     |               |     |     |     |  |
| Fuel Tank   | Filler location                                 | Outside right rear fender              |               |     |     |     |  |
| Fuel Pump   | Type (elec. or mech.)                           | Mechanical                             |               |     |     |     |  |
|   | Locations                                       | Right front of engine                  |               |     |     |     |  |
|   | Pressure range                                  | 3.5 to 5.0 psi                         |               |     |     |     |  |
| Vacuum booster (std., optional, none)                     |   | None                                   |               |     |     |     |  |
| Fuel Filter   | Type  | Fuel tank - plastic; Fuel line - paper |               |     |     |     |  |
|   | Locations                                       | One in fuel tank; One in supply line   |               |     |     |     |  |
| Carburetor  | Choke type                                      | Automatic, separate                    |               |     |     | (a) |  |
|   | Intake manifold heat control (exhaust or water) | Exhaust                                |               |     |     |     |  |
|   | Air cleaner type                                | Standard                               | Paper element |     |     |     |  |
|   |   | Optional                               | --            |     |     |     |  |
| Idle speed (spec. neutral or drive) neutral               | Manual  | 750                                    | --            | 750 | 900 |     |  |
|   | Automatic                                       | 650                                    | 700           | 750 | 800 | 900 |  |
|   | Idle A/F mix.                                   | 14.0 to 14.4                           |               |     |     |     |  |

### CARBURETOR SUPPLEMENTARY INFORMATION

| Model Usage | Engine Displ. | Transmission | Carburetors |            |             | No. Used and Type  | Barrel Size |        |                    |
|-------------|---------------|--------------|-------------|------------|-------------|--------------------|-------------|--------|--------------------|
|             |               |              | Make        | Ex. Calif. | Calif. Only |                    |             |        |                    |
| Without A/C | 383           | Automatic    | Holley      | R4371A     | R4373A      | 1, 2-V             | 1.56        |        |                    |
| With A/C    |               |              |             | R4373A     |             |                    |             |        |                    |
| Without A/C |               |              | Carter      | BBD-4726S  | BBD-4728S   |                    |             |        |                    |
| With A/C    |               |              |             | BBD-4894S  |             |                    |             |        |                    |
| Without A/C |               |              | Carter      | AVS-4376S  | AVS-4734S   |                    |             | 1, 4-V | P: 1.44<br>S: 1.69 |
| With A/C    |               |              |             | AVS-4732S  |             |                    |             |        |                    |
| All         | 383 Hi-Perf   | Manual       | R-4367A     | R-4217A    | 1, 4-V      | P: 1.56<br>S: 1.75 |             |        |                    |
| Without A/C |               | Automatic    | Holley      | R-4368A    |             |                    | R4218A      |        |                    |
| With A/C    |               |              |             | R-4369A    |             |                    |             |        |                    |
| All         | 440           | Manual       | AVS-4737S   | AVS-4739S  | 1, 4-V      | 1.69               |             |        |                    |
| Without A/C |               | Automatic    | Carter      | AVS-4738S  |             |                    | AVS-4740S   |        |                    |
| With A/C    |               |              |             | AVS-4741S  |             |                    |             |        |                    |
| All         |               | All          | Holley      | Front      |             |                    | 3, 2-V      | 1.75   |                    |
|             |               |              |             | R-4382A    |             |                    |             |        | R-4175A            |
|             |               |              |             | Rear       |             |                    |             |        |                    |
|             | R-4383A       |              |             | R-4365A    |             |                    |             |        |                    |
| Manual      | Automatic     | Center       |             | 1.50       |             |                    |             |        |                    |
|             |               | R-4375A      | R-4374A     |            |             |                    |             |        |                    |
| Automatic   |               | R-4376A      | R-4145A     |            |             |                    |             |        |                    |

(a) Automatic, separate on center carburetor; none on front or rear carburetors



# AMA Specifications—Passenger Car

DODGE  
**MAKE OF CAR** CHALLENGER **MODEL YEAR** 1970 **DATE ISSUED** 10-7-69 **REVISED** (\*)

See Page 3 for Engine Usage

|              |         |         |         |         |              |                      |
|--------------|---------|---------|---------|---------|--------------|----------------------|
| <b>MODEL</b> | 225 CID | 318 CID | 340 CID | 383 CID | 426 CID Hemi | 440 Hi-Perf & 3, 2-V |
|--------------|---------|---------|---------|---------|--------------|----------------------|

### ENGINE – COOLING SYSTEM

|   |                                  |  |                              |             |      |        |        |
|---|----------------------------------|--|------------------------------|-------------|------|--------|--------|
| Type system (pressure, pressure vented, atmospheric, other) |                                  | Pressure vented                          |                              |             |      |        |        |
| Radiator cap relief valve pressure                          |                                  | 16                                       |                              |             |      |        |        |
| Circulation thermostat                                      | Type (choke, bypass)             | Choke, pellet                            |                              |             |      |        |        |
|   | Starts to open at (°F)           | 190                                      | 195                          | 190 (a)     |      |        |        |
| Water pump  | Type (centrifugal, other)        | Centrifugal                              |                              |             |      |        |        |
|   | GPM @ 1000 pump rpm              | --                                       |                              |             |      |        |        |
|   | Number of pumps                  | One                                      |                              |             |      |        |        |
|   | Drive (V-belt, other)            | V-belt                                   |                              |             |      |        |        |
| Bearing type  |                                  | Ball, integral shaft, permanently sealed |                              |             |      |        |        |
| By-pass recirculation type (inter., ext.)                   |                                  | External                                 |                              | Internal    |      |        |        |
| Radiator core type (cellular, tube and fin, other)          |                                  | Tube & spacer                            |                              |             |      |        |        |
| Cooling system capacity                                     | With heater (qt.)                | 13                                       | 16                           |             | 15.5 |        |        |
|   | Without heater (qt.)             | 12                                       | 15                           |             | 14.5 |        |        |
|   | Opt. equipment-specify (qt.) A/C | 13                                       | 16                           |             | 15.5 |        |        |
| Water jackets full length of cyl. (yes, no)                 |                                  | No                                       | Yes                          |             | No   |        |        |
| Water all around cylinder (yes, no)                         |                                  | Yes                                      |                              |             |      |        |        |
| Radiator hose   | Lower                            | Number and type (molded, straight)       | One, molded                  |             |      |        |        |
|   |                                  | Inside diameter                          | 1.50                         |             | 1.75 |        |        |
|   | Upper                            | Number and type (molded, straight)       | One, molded                  |             |      |        |        |
|   |                                  | Inside diameter                          | 1.50                         |             |      |        |        |
|   | By-pass                          | Number and type (molded, straight)       | One Straight                 | One, molded |      | None   |        |
|   |                                  | Inside diameter                          | 0.68                         | 0.80        |      | --     |        |
| Fan   | Number of blades & spacing       |  | 4                            |             | 7    |        |        |
|   | Diameter                         |  | 17                           | 18          | 18.5 | 18     | 18.5   |
|   | Ratio-fan to crankshaft rev.     |  | 1.07:1                       | 0.95:1      |      | 1.20:1 | 0.95:1 |
|   | Fan cutout type                  |  | Thermal                      |             |      | Torque |        |
|   | Bearing type                     |  | See water pump bearing above |             |      |        |        |
| * Drive belts (indicate belt used by letter)                | Fan                              |  | A                            | D           | G    | I      | G      |
|   | Generator or alternator          |  | A                            | D           | G    | I      | G      |
|   | Water Pump                       |  | A                            | D           | G    | I      | G      |
|   | Power Steering                   |  | B                            | E           | H    | K      | H      |
|   | Air Conditioning                 |  | C                            | F           | I    | --     | I      |

| * Drive Belt Dimensions | A    | B     | C    | D     | E    | F    | G    | H    | I     | J    | K     |
|-------------------------|------|-------|------|-------|------|------|------|------|-------|------|-------|
| Angle of V Degrees      | 36   | 36    | 36   | 36    | 36   | 36   | 36   | 36   | 36    | 36   | 36    |
| Nominal length (SAE)    | 57.0 | 40.75 | 53.0 | 47.50 | 38.0 | 54.0 | 46.5 | 44.0 | 59.50 | 45.0 | 39.38 |
| Width                   | .38  | .38   | .50  | .38   | .38  | .38  | .38  | .38  | .38   | .38  | .50   |

(a) 383 CID 1, 2-V: 195

# AMA Specifications—Passenger Car

DODGE  
**MAKE OF CAR** CHALLENGER      **MODEL YEAR** 1970      **DATE ISSUED** 10-7-69      **REVISED** <sup>(\*)</sup>

See Page 3 for Engine Usage

|              |         |         |         |         |                 |                        |
|--------------|---------|---------|---------|---------|-----------------|------------------------|
| <b>MODEL</b> | 225 CID | 318 CID | 340 CID | 383 CID | 426 CID<br>Hemi | 440 Hi-Perf;<br>3, 2-V |
|--------------|---------|---------|---------|---------|-----------------|------------------------|

## ELECTRICAL – SUPPLY SYSTEM

|            |                                 |                                 |                            |         |         |        |  |
|------------|---------------------------------|---------------------------------|----------------------------|---------|---------|--------|--|
| Battery    | Make and Model                  | 2875951                         | 2875320                    | 2642969 |         |        |  |
|            | Voltage Rtg. & Total Plates     | 12, 54                          | 12, 66                     | 12, 78  |         |        |  |
|            | SAE Designation & Amp. Hr. Rtg. | 46 amp                          | 59 amp                     | 70      |         |        |  |
|            | Location                        | Left front fender shield        |                            |         |         |        |  |
|            | Terminal grounded               | Negative                        |                            |         |         |        |  |
| Alternator | Make                            | Chrysler                        |                            |         |         |        |  |
|            | Model                           | 3438172                         |                            | 3438176 | 3438172 |        |  |
|            | Type and rating (a)             | 37 amp                          |                            |         |         |        |  |
|            | Output at engine idle (neutral) | --                              |                            |         |         |        |  |
|            | Ratio-Gen. to Cr/s rev.         | 2.70:1                          | 2.55:1                     |         | 2.12:1  | 2.55:1 |  |
| Regulator  | Make                            | Chrysler                        |                            |         |         |        |  |
|            | Model                           | 3438150                         |                            |         |         |        |  |
|            | Type                            | Voltage control                 |                            |         |         |        |  |
|            | Cutout relay                    | Closing voltage < generator rpm | --                         |         |         |        |  |
|            |                                 | Reverse current to open         | --                         |         |         |        |  |
|            | Regulated                       | Voltage                         | 13.8 to 14.4 @ 80° ambient |         |         |        |  |
|            |                                 | Current                         | --                         |         |         |        |  |
|            | Voltage test conditions         | Temperature                     | 80° F                      |         |         |        |  |
| Load       |                                 | 15 amp                          |                            |         |         |        |  |
|            | Other                           | --                              |                            |         |         |        |  |

## ELECTRICAL – STARTING SYSTEM

|                |                             |           |               |     |  |     |     |
|----------------|-----------------------------|-----------|---------------|-----|--|-----|-----|
| Starting Motor | Make                        | Chrysler  |               |     |  |     |     |
|                | Model                       | 2875560   |               |     |  |     |     |
|                | Rotation (drive end view)   | Clockwise |               |     |  |     |     |
| Motor control  | Switch (solenoid, manual)   | Solenoid  |               |     |  |     |     |
|                | Starting procedure          | (b)       |               |     |  |     |     |
| Motor Drive    | Engagement type             | Solenoid  |               |     |  |     |     |
|                | Pinion meshes (front, rear) | Front     |               |     |  |     |     |
|                | Number of teeth             | Pinion    | 10 (c)        |     |  |     |     |
|                |                             | Flywheel  | Manual<br>122 | 130 |  | 172 | 143 |
|                | Flywheel tooth face width   | Manual    | 0.340         |     |  |     |     |
| Auto.          |                             | 0.340     |               |     |  |     |     |

(a) Three-phase full-wave rectified

(b) With transmission in "Neutral" or "Park" depress accelerator pedal to floor and release. If car is equipped with manual transmission, the clutch pedal must be held to the floor while starting engine. Turn ignition key to start position and release when engine starts. When engine is running smoothly tap accelerator pedal to reduce fast idle speed.

(c) 426 CID: nine teeth with manual transmission.

# AMA Specifications—Passenger Car

DODGE

**MAKE OF CAR** CHALLENGER **MODEL YEAR** 1970 **DATE ISSUED** 10-7-69 **REVISED** (\*)

See Page 3 for Engine Usage

**MODEL** 225 CID 318 CID 340 CID 383 CID 426 CID 440 CID  
2-V 4-V;Hi-Perf Hemi Hi-Perf 3, 2-V

## ELECTRICAL – IGNITION SYSTEM

|                           |  |  |                                       |                                      |                |              |          |        |
|---------------------------|--|--|---------------------------------------|--------------------------------------|----------------|--------------|----------|--------|
| Type                      | Conventional – Std., Opt., N.A.  |  | Std                                   |                                      |                |              |          |        |
|                           | Transistorized – Std., Opt., N.A.  |  | NA                                    |                                      |                |              |          |        |
|                           | Other (specify)  |  | --                                    |                                      |                |              |          |        |
| Coil                      | Make   |  | Chrysler-Essex or Chrysler Prestolite |                                      |                |              |          |        |
|                           | Model  |  | 2444241                               |                                      | 2444242        |              |          |        |
|                           | Amps   | Engine stopped                         | 3.0                                   |                                      |                |              |          |        |
| Engine idling             |  | 1.9                                    |                                       |                                      |                |              |          |        |
| Distributor               | Make   |  | Chrysler                              | (a)                                  | Chrysler       | Prestolite   |          |        |
|                           | Model  |  | See page 13A                          |                                      |                |              |          |        |
|                           | Cent'fgal<br>adv. in<br>c/shaft<br>degrees @<br>engine<br>rpm<br>(nominal) | Start (rpm)                            | "                                     |                                      |                |              |          |        |
|                           |  | Intermediate<br>points deg. @ rpm      | "                                     |                                      |                |              |          |        |
|                           |  | Max. deg. @ rpm                        | "                                     |                                      |                |              |          |        |
|                           | Vacuum<br>adv. in<br>c/shaft<br>degrees @<br>in. Hg.<br>(nominal)          | Start (in. Hg.)                        | "                                     |                                      |                |              |          |        |
|                           |  | Intermediate<br>points, deg. @ in. Hg. | "                                     |                                      |                |              |          |        |
|                           |  | Max. deg. in. Hg.                      | "                                     |                                      |                |              |          |        |
|                           | Breaker gap (in.)  |  | (b)                                   | (c)                                  | 0.016 to 0.021 | (c)          | (d)      | (c)    |
|                           | Cam angle (deg.)   |  | 41 to 46                              | 30 to 34                             | (e)            | 28.5 to 32.5 | (e)      | (f)    |
| Breaker arm tension (oz.) |  | 17 to 20                               |                                       | (g)                                  | 17 to 20       | (g)          | 17 to 20 | (g)    |
| Timing                    | Crankshaft deg. @ rpm idle   |  | See page 13A                          |                                      |                |              |          |        |
|                           | Mark location  |  | "                                     |                                      |                |              |          |        |
| Spark<br>Plug             | Make &<br>Model  | Mopar                                  | P-6-6P                                | --                                   | P-3-6P         | P-3-4P       | --       | P-3-4P |
|                           |  | Champion                               | N-14Y                                 | N9Y                                  | J-14Y          | J-11Y        | N-10Y    | J-11Y  |
|                           | Thread (mm)  |  | 14 mm                                 |                                      |                |              |          |        |
|                           | Tightening torque (lb. ft.)  |  | 30 to 32                              |                                      |                |              |          |        |
|                           | Gap  |  | 0.035                                 |                                      |                |              |          |        |
| Cable                     | Conductor type   |  | Resistor                              |                                      |                |              |          |        |
|                           | Insulation type  |  | (h)                                   | Synthetic rubber with Hypalon jacket |                |              |          |        |
|                           | Spark plug protector   |  | Hypalon                               | Silicone                             |                |              |          |        |

## ELECTRICAL – SUPPRESSION

|                  |  |
|------------------|--|
| Locations & type | Resistance type spark plug and coil cables |
|------------------|--|

- (a) Prestolite
- (b) 0.017 to 0.023
- (c) 0.014 to 0.019
- (d) 0.016 to 0.021
- (e) One set of points 27 to 32; both sets of points 37 to 42
- (f) 28.5 to 32.5
- (g) 17 to 21.5
- (h) Synthetic rubber with Neoprene jacket

# AMA Specifications—Passenger Car

DODGE

MAKE OF CAR CHALLENGER MODEL YEAR 1970 DATE ISSUED 10-7-69 REVISED (●) 3-20-70

### AVAILABILITY

(See Page 3 for Engine Usage)

| Distributor | 225 CID |           | 318 CID | 340 CID | 383 CID    |     | 426 CID |         | 440 CID    |            |
|-------------|---------|-----------|---------|---------|------------|-----|---------|---------|------------|------------|
|             | Manual  | Automatic |         |         | 2-V        | 4-V | Hi-Perf | Hemi    | Hi-Perf    |            |
| Timing (a)  | 2875822 | 2875826   | 3438255 | 3438317 | 3438231    |     | 3438233 | 2875987 | 3438222    | 3438314    |
|             | 2875822 | 2875826   | 3438225 | 3438325 | 10 BTC     | --  | 10 BTC  | 2875989 | 10 BTC     | 2875982    |
|             |         |           | TDC     | 5 BTC   | 12-1/2 BTC |     |         | TDC     | 12-1/2 BTC | 12-1/2 BTC |

(a) Transmission in neutral, crankshaft degrees @ engine idle rpm (See page 10) Distributor Solenoid disengaged.

### SPECIFICATIONS

| DISTRIBUTOR PART NUMBER | CENTRIFUGAL ADVANCE<br>Crankshaft Degrees at Engine RPM |                     |                 | VACUUM ADVANCE<br>Crankshaft Degrees at Inches of Mercury |                     |
|-------------------------|---|---------------------|-----------------|---|---------------------|
|                         | Start   | Intermediate        | Maximum         | Start   | Maximum             |
| 2875822                 | 2 to 10 @ 1100  | 18.4 to 22.4 @ 1800 | 24 to 28 @ 4000 | 1 to 7 @ 10   | 10.5 to 15.25 @ 15  |
| 2875826                 | 2 to 10 @ 1100  | 18.4 to 22.4 @ 1800 | 24 to 28 @ 4000 | 1 to 7 @ 7  | 10.5 to 15.25 @ 10  |
| 2875982                 | 0 to 10.6 @ 1200  | 18 to 22 @ 1700     | 24 to 28 @ 4800 | 1 to 7 @ 11   | 19 to 25 @ 15.5     |
| 2875987                 | 0 to 9 @ 1300   | 24.4 to 28.4 @ 2100 | 28 to 16 @ 3200 | 0 to 7 @ 9  | 13.4 to 18.4 @ 13.5 |
| 2875989                 | 0 to 8.4 @ 1200   | 19.4 to 23.4 @ 1900 | 23 to 27 @ 3200 | 0 to 7 @ 9  | 13.4 to 18.4 @ 13.5 |
| 3438222                 | 0 to 9.2 @ 1200   | 11.2 to 15.2 @ 1600 | 20 to 24 @ 4600 | 1 to 8.6 @ 10.5   | 9.4 to 24 @ 15.5    |
| 3438225                 | 2 to 12 @ 1100  | 17 to 21 @ 1600     | 28 to 32 @ 4200 | 1.5 to 4.5 @ 12   | 8.5 to 21.5 @ 15    |
| 3438231                 | 0 to 7.6 @ 1100   | 15 to 19 @ 1700     | 28 to 16 @ 4400 | 1.0 to 4 @ 7.5  | 18.6 to 23.6 @ 12   |
| 3438233                 | 0 @ 950   | 16.5 @ 1600         | 26 @ 3600       | 1 to 8.6 @ 10.5   | 19.4 to 24 @ 15.5   |
| 3438255                 | 2 to 12 @ 1100  | 17 to 21 @ 1600     | 28 to 32 @ 4200 | 2 to 8 @ 10.5   | 16.5 to 21.5 @ 15   |
| 3438314                 | 0 to 9.0 @ 1300   | 18 to 22 @ 1900     | 24 to 28 @ 4800 | 1 to 7 @ 11   | 19 to 25 @ 15.5     |
| 3438317                 | 3 to 13 @ 1400  | 16 to 20 @ 1800     | --              | 2 to 9.2 @ 7.7  | 14 to 20 @ 10.5     |
| 3438325                 | 3 to 11 @ 1300  | 16 to 20 @ 1700     | --              | 1 to 7 @ 9  | 14 to 20 @ 25       |

# AMA Specifications—Passenger Car

DODGE

MAKE OF CAR CHALLENGER MODEL YEAR 1970 DATE ISSUED 10-6-69 REVISED (\*)

MODEL \_\_\_\_\_ All Models

## ELECTRICAL – INSTRUMENTS AND EQUIPMENT

|                               |                        |  |
|-------------------------------|------------------------|--|
| Speed-ometer                  | Type                   | In-line drive pointer                        |
|                               | Trip odometer (yes,no) | Opt with 150 mph (a)                         |
| Charge indicator – type       |                        | Ammeter                                      |
| Temperature indicator – type  |                        | Electric, thermal                            |
| Oil pressure indicator – type |                        | Electric, thermal                            |
| Fuel indicator – type         |                        | Electric, thermal                            |
| Other                         |                        | Brake system and parking brake warning light |
| Wind-shield wiper             | Type – Standard        | Electric, two-speed                          |
|                               | Type – Optional        | Electric, variable-speed                     |
| Wind-shield washer            | Type – Standard        | Foot-operated pump                           |
|                               | Type – Optional        | Electric                                     |
| Horn                          | Type                   | Four-inch sea shells                         |
|                               | Number used            | 2  |
|                               | Amp draw (each)        | Sparton: 6-8 amp; Prestolite: 4-6 amp        |

## DRIVE UNITS – CLUTCH (Manual Transmission)

| MODEL                        | 225 CID                             | 318 CID                              | 340 CID     | 426 CID    | 383 CID    | 440 CID    |
|------------------------------|-------------------------------------|--------------------------------------|-------------|------------|------------|------------|
| Make & type                  | Auburn, Borg & Beck                 |                                      | Borg & Beck |            |            |            |
| Type                         | dry plate                           |                                      |             |            |            |            |
| Type pressure plate springs  | Coil                                |                                      |             |            |            |            |
| Total spring load (lb.)      | 1375                                | 1693                                 | 2181        | 2523       | 2181       | 2523       |
| No. of clutch driven discs   | One                                 |                                      |             |            |            |            |
| Clutch facing                | Material                            | Woven asbestos                       |             |            |            |            |
|                              | Outside & inside dia.               | 9.25 x 6.00                          | 10.5 x 6.5  | 11.0 x 7.0 | 11.0 x 6.5 | 11.0 x 7.0 |
|                              | Total eff. area (sq.in.)            | 77                                   | 106.8       | 113.1      | 123.6      | 113.1      |
|                              | Thickness                           | 0.114                                | 0.125       | 0.135      | 0.135      |            |
| Engagement cushioning method | Two-piece cushion                   | Flat-wave springs                    |             |            |            |            |
| Release bearing              | Type & method of lubrication        | Ball bearing, permanently lubricated |             |            |            |            |
| Torsional damping            | Methods: springs, friction material | Coil springs and friction washers    |             |            |            |            |

(a) Push-button reset



# AMA Specifications—Passenger Car

**MAKE OF CAR** DODGE CHALLENGER **MODEL YEAR** 1970 **DATE ISSUED** 10-6-69 **REVISED** (\*)

See Page 3 for Engine Usage

|              |         |         |         |         |         |         |
|--------------|---------|---------|---------|---------|---------|---------|
| <b>MODEL</b> | 225 CID | 318 CID | 340 CID | 383 CID | 426 CID | 440 CID |
|--------------|---------|---------|---------|---------|---------|---------|

**DRIVE UNITS – TRANSMISSIONS**

|                                      |         |         |
|--------------------------------------|---------|---------|
| Manual 3-speed (std. or opt.)        | Std (a) | NA      |
| Manual 4-speed (std. or opt.)        | NA      | Opt (a) |
| Manual with overdrive (std. or opt.) | NA      |         |
| Automatic (std. or opt.)             | Opt (b) |         |

**DRIVE UNITS – MANUAL TRANS.**

|                                    |                              | 3                              |                 | 4                |                 |  |
|------------------------------------|------------------------------|--------------------------------|-----------------|------------------|-----------------|--|
|                                    |                              | (c)                            | w/ 340-, 383CID | (d)              | w/426-, 440 CID |  |
| Transmission ratios                | In first                     | 3.08                           | 2.55            | 2.47             | 2.44            |  |
|                                    | In second                    | 1.70                           | 1.49            | 1.77             | 1.77            |  |
|                                    | In third                     | 1.00                           |                 | 1.34             |                 |  |
|                                    | In fourth                    | --                             |                 | 1.00             |                 |  |
|                                    | In reverse                   | 2.90                           | 3.34            | 2.40             | 2.36            |  |
| Synchronous meshing, specify gears |                              | 1, 2, 3                        |                 | 1, 2, 3, 4       |                 |  |
| Shift lever location               |                              | Floor                          |                 | Floor or console |                 |  |
| Lubricant                          | Capacity (pt.)               | 4.75                           |                 | 7.5              |                 |  |
|                                    | Type recommended             | DEXRON Type Auto. Trans. Fluid |                 | SAE 140          |                 |  |
|                                    | SAE vis-<br>cosity<br>number | Summer                         | NA              |                  | SAE 140         |  |
|                                    |                              | Winter                         | NA              |                  | SAE 140         |  |
|                                    |                              | Extreme cold                   | NA              |                  | SAE 90          |  |

**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                              |   |  |                                 |        |
| Lubricant                               |   |  | Capacity (pt.) (Overdrive only) |        |
|   |   |  | Separate filler (yes, no)       |        |
|   |   |  | Type recommended                |        |
|   |   |  | SAE vis-<br>cosity<br>number    | Summer |
|   |   |  |                                 | Winter |
| Extreme cold                            |   |  |                                 |        |

- (a) NA with 383 CID 1, 2-V
- (b) Std with 383 CID 1, 2-V
- (c) With 225, 318 CID
- (d) With 318, 340, 383 CID



# AMA Specifications—Passenger Car

|                    |                             |            |                   |         |                    |         |                    |
|--------------------|-----------------------------|------------|-------------------|---------|--------------------|---------|--------------------|
| <b>MAKE OF CAR</b> | DODGE CHALLENGER            |            | <b>MODEL YEAR</b> | 1970    | <b>DATE ISSUED</b> | 10-6-69 | <b>REVISED</b> (*) |
| <b>MODEL</b>       | See Page 3 for Engine Usage |            |                   |         |                    |         |                    |
|                    | 225<br>CID                  | 318<br>CID | 340<br>CID        | 383 CID |                    | 426 CID | 440 CID            |
|                    |                             |            |                   | 2-V     | 4-V; Hi-Perf       | Hemi    | Hi-Perf; 3, 2-V    |

## DRIVE UNITS – AUTOMATIC TRANSMISSION

|   |  |  |      |       |      |       |      |       |
|---|--|--|------|-------|------|-------|------|-------|
| Trade name  | TorqueFlite  |  |      |       |      |       |      |       |
| Type describe   | Torque converter with automatically-operated planetary gear transmission |  |      |       |      |       |      |       |
| Selector location   | Lever: steering column or console-mounted                                |  |      |       |      |       |      |       |
| List gear ratios Selector Pattern and indicate which are used in each selector position | Reverse: 2.20<br>Drive: 2.45, 1.45, 1.00<br>2: 2.45, 1.45<br>1: 2.45     |  |      |       |      |       |      |       |
| Max. upshift speed—drive range  | 76   | 83   | 74   | 85    | 74   | 93    | 76   |       |
| Max. kickdown speed—drive range   | 68   | 74   | 67   | 76    | 67   | 84    | 69   |       |
| Torque converter  | Number of elements<br>Three  |  |      |       |      |       |      |       |
|   | 2.1:1  |  |      | 2.0:1 |      | 2.1:1 |      | 2.0:1 |
|   | Type of cooling (air, liquid)<br>Liquid                                  |  |      |       |      |       |      |       |
| Lubricant   | 10.75  |  |      | 11.75 |      | 10.75 |      | 11.75 |
|   | Nominal diameter   |  |      |       |      |       |      |       |
|   | 17.0   |  | 16.0 |       | 19.0 |       | 16.0 |       |
| Capacity—refill (pt.)   |  | 17.0   |      | 16.0  |      | 17.0  |      | 19.0  |
| Type recommended  |  | DEXRON Automatic Transmission Fluid or Type AQ-ATF-2848A |      |       |      |       |      |       |
| Special transmission features   | None   |  |      |       |      |       |      |       |

## DRIVE UNITS – PROPELLER SHAFT

|  |                        |                            |                            |                            |                          |                                |                             |  |
|--|------------------------|----------------------------|----------------------------|----------------------------|--------------------------|--------------------------------|-----------------------------|--|
| Number used  | One                    |                            |                            |                            |                          |                                |                             |  |
| Type (straight tube, tube-in-tube, internal-external damper, etc.) | Straight tube          |                            |                            |                            |                          |                                |                             |  |
| Outer diam. x length* x wall thickness                             | Manual 3-speed trans.  | 2.75 x<br>46.06<br>x 0.065 | 3.00 x<br>45.85<br>x 0.065 | 3.00 x<br>45.60<br>x 0.065 | --                       | 3.00 x<br>45.60<br>x 0.065     | --                          |  |
|  | Manual 4-speed trans.  | --                         | 3.00 x<br>45.85<br>x 0.065 | 3.00 x<br>45.60<br>x 0.065 | --                       | 3.00 x<br>45.60<br>x -.065 (a) | 3.25 x 44.60<br>x 0.065 (b) |  |
|  | Overdrive transmission | NA                         |                            |                            |                          |                                |                             |  |
|  | Automatic transmission | 3.00 x 52.57<br>x 0.065    | 3.00 x<br>45.60<br>x 0.065 | 3.00 x<br>45.85<br>x 0.065 | 3.25 x 44.60 x 0.065 (b) |                                |                             |  |

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

(Continued)

(a) 383 CID Hi-perf: 3.25 x 45.60

(b) With 8-3/4 axle: 45.60

# AMA Specifications—Passenger Car

|                    |                     |                   |         |                    |             |                               |  |
|--------------------|---------------------|-------------------|---------|--------------------|-------------|-------------------------------|--|
| <b>MAKE OF CAR</b> | DODGE<br>CHALLENGER | <b>MODEL YEAR</b> | 1970    | <b>DATE ISSUED</b> | 10-6-69     | <b>REVISED (*)</b>            |  |
| <b>MODEL</b>       | 225 CID             | 318 CID           | 340 CID | 383 CID<br>All     | 426<br>Hemi | 440 CID<br>Hi-Perf;<br>3, 2-V |  |

### DRIVE UNITS – PROPELLER SHAFT (cont.)

|   |                                    |                             |               |     |                  |     |            |
|---|------------------------------------|-----------------------------|---------------|-----|------------------|-----|------------|
| <b>Inter-mediate bearing</b>                        | Type (plain, anti-friction)        | None                        |               |     |                  |     |            |
|   | Lubrication (fitting, prepack)     | None                        |               |     |                  |     |            |
| <b>Slip Yoke</b>                                    | Type                               | Sliding spline              |               |     |                  |     |            |
|   | Number of teeth                    | 25                          |               |     | 29               |     |            |
|   | Spline O.D.                        | 1.156                       |               |     | 1.325            |     |            |
| <b>Universal joints</b>                             | Make Chrysler                      | Mf. No.                     | 7260 F & R    | (a) | 7260 F<br>7290 R | (a) | 7290 F & R |
|   | Number used                        |                             | Two           |     |                  |     |            |
|   | Type (ball and trunnion, cross)    |                             | Cross         |     |                  |     |            |
|   | Rear attach. (u-bolt, clamp, etc.) |                             | C-clamp       |     |                  |     |            |
|   | Bearing                            | Type (plain, anti-friction) | Anti-friction |     |                  |     |            |
|   |                                    | Lubric. (fitting, prepack)  | Prepack       |     |                  |     |            |
| Drive taken through (torque tube or arms, springs)  |                                    | Rear springs                |               |     |                  |     |            |
| Torque taken through (torque tube or arms, springs) |                                    | Rear springs                |               |     |                  |     |            |

### DRIVE UNITS – AXLE

|                                   |                      |                      |                              |          |        |        |
|-----------------------------------|----------------------|----------------------|------------------------------|----------|--------|--------|
| Type (front, rear)                |                      | Rear                 |                              |          |        |        |
| Description                       | Carrier & hous.      | Unitized             | Separable                    | Unitized |        |        |
|                                   | Ring gear            | 7-1/4 OD             | 8-3/4                        | 9-3/4    |        |        |
| Limited Slip differential, type   |                      | Friction bias        |                              |          |        |        |
| Drive Pinion Offset               |                      | 1.625                | 1.50                         | 1.125    |        |        |
| No. of differential pinions       |                      | 2 (all)              | 2 (all)                      | 4        |        |        |
| Pinion adjustment (shim, other)   |                      | Washer               | Shim                         |          |        |        |
| Pinion bearing adj. (shim, other) |                      | Solid spacer         | Collapsible spacer           | Shim     |        |        |
| Wheel bearing type                |                      | Ball                 | Tapered roller               |          |        |        |
| <b>Lubricant</b>                  | Capacity (pt.)       | 2                    | 4                            | 5-1/2    |        |        |
|                                   | Type recommended     | MIL-L-2105B 2933565  |                              |          | (b)    |        |
|                                   | SAE viscosity number | Summer               | Above -10F . . . . .         |          |        | SAE 90 |
|                                   |                      | Winter               | Between -10F & 30F . . . . . |          |        | SAE 80 |
| Extreme cold                      |                      | Below -30F . . . . . |                              |          | SAE 75 |        |

### AXLE RATIO TOOTH COMBINATIONS

(See page 3 for axle ratio usage)

|                |           |       |       |       |       |       |       |
|----------------|-----------|-------|-------|-------|-------|-------|-------|
| Axle ratio     |           | 2.76  | 3.23  | 3.54  | 3.55  | 3.91  | 4.10  |
| No. of teeth   | Pinion    | 17    | 13    | 13    | 11    | 11    | 11    |
|                | Ring gear | 47    | 42    | 46    | 39    | 43    | 45    |
| Ring Gear O.D. |           | 7-1/4 | 8-3/4 | 7-1/4 | 8-3/4 | 8-3/4 | 9-3/4 |

(a) With 7-1/4 axle: 7260 F & R; with 8-3/4 axle: 7260 F & 7290 R

(b) Special SURE-GRIP Lubricant 2585318

# AMA Specifications—Passenger Car

DODGE  
**MAKE OF CAR** CHALLENGER      **MODEL YEAR** 1970      **DATE ISSUED** 10-6-69 **REVISED** <sup>(\*)</sup> 3-20-70

|  |                    |         |         |         |         |
|--|--------------------|---------|---------|---------|---------|
|  | 225 CID<br>318 CID | 383 CID | 340 CID | 440 CID | 426 CID |
|--|--------------------|---------|---------|---------|---------|

**MODEL** \_\_\_\_\_

**DRIVE UNITS – WHEELS**

|                                     |                     |                 |                                |                                   |                                |                                   |
|-------------------------------------|---------------------|-----------------|--------------------------------|-----------------------------------|--------------------------------|-----------------------------------|
| <b>Type &amp; material</b>          |                     | Disc, steel     |                                |                                   |                                |                                   |
| <b>Rim (size &amp; flange type)</b> | Std.                | 14x5.0 J (a)    | 14x6.0 JJ                      | 14x6.0JJ                          | 14x6.0 JJ                      | 15x7.0 JJ •                       |
|                                     | Opt.                | 14x5.5 JJ (b)   | 14x5.5 JJ (c)<br>15x7.0 JJ (d) | 15x7.0 JJ,<br>rallye<br>14x5.5 JJ | 14x5.5 JJ (c)<br>15x7.0 JJ (d) | 15x7.0 JJ,<br>rallye<br>14x5.5 JJ |
| <b>Attachment</b>                   | Type (bolt or stud) | Stud            |                                |                                   |                                |                                   |
|                                     | Circle diameter     | 4.5             |                                |                                   |                                |                                   |
|                                     | Number and size     | Five, 1/2-20 NF |                                |                                   |                                |                                   |

**MODEL** \_\_\_\_\_

**DRIVE UNITS – TIRES**

|                 |                                    |   |   |   |  |                          |    |
|-----------------|------------------------------------|---|---|---|--|--------------------------|----|
| <b>Standard</b> | <b>Size, ply rating, &amp; ply</b> | E78 x 14,<br>4-2/4  | F70 x 14,<br>4-2/4                              | F70 x 14<br>4-2/4                             | F70 x 14,<br>4-2/4                                 | F60 x 15,<br>4-2/4       |    |
|                 | <b>Type (bias, radial, etc.)</b>   | Bias with fiberglass belt   |   |   |  |                          |    |
|                 | <b>Full rated Inflation Press.</b> | Front   | 26  | 25  | 28   | 25                       | 28 |
|                 |                                    | Rear  | 30  | 28  | 32   | 28                       | 32 |
|                 | <b>Rev./Mile at 50 MPH</b>         | 803 (j)   |   | 798 (k)                                       |  | 800 (j) •                |    |
| <b>Optional</b> | <b>Size, ply rating, &amp; ply</b> | E70 x 14,<br>4-2/4<br>F70 x 14,<br>4-2/4 (e)<br>7.75 x 14,<br>4-2 (f) | 7.75 x 14,<br>4-2 (f)<br>E60 x 15,<br>4-2/4 (g) | 7.75 x 14,<br>4-2 (f, g)<br>E60 x 15<br>4-2/4 | 7.75 x 14,<br>4-2 (f)<br>E60 x 15,<br>4-2/4 (g, h) | 7.75 x 14,<br>4-2 (b, g) |    |

**BRAKES – PARKING**

|  |  |   |
|--|--|---|
| <b>Type of control</b>                 |  | Foot-operated pedal, hand release lever |
| <b>Location of control</b>             |  | Under left end of instrument panel      |
| <b>Operates on</b>                     |  | Rear wheels                             |
| <b>If separate from service brakes</b> | Type (internal or external)              | --                                      |
|  | Drum diameter                            | --                                      |
|  | Lining size (length x width x thickness) | --                                      |

- (a) With AC: 14 x 5.5 JJ
- (b) Available in std, rallye or magnum 500
- (c) Magnum 500 wheel or rallye wheel
- (d) Available std or rallye
- (e) Not available with 225 CID or 10" drum brakes
- (f) Bias type, no belt
- (g) Available S-Price only with 11" drum or disc brakes and Heavy-duty suspension
- (h) Not available convertible with AC
- (j) At 28 psi
- (k) At 24 psi

# AMA Specifications—Passenger Car

MAKE OF CAR DODGE CHALLENGER MODEL YEAR 1970 DATE ISSUED 10-6-69 REVISED (a) 3-20-70

|  |         |                             |   |     |
|--|---------|-----------------------------|---|-----|
|  | 225 CID | 318, 340,<br>383, 2-V & 4-V | 383 Hi-Perf: 426;<br>440 Hi-Perf:<br>440 3, 2-V | All |
|--|---------|-----------------------------|---|-----|

**MODEL**  
**BRAKES – SERVICE**

|  |   |   |                     |                    |                    |
|--|---|---|---------------------|--------------------|--------------------|
| Type (drum) or (disc & no. of pistons)       |   | Drum                                    |                     | Disc, 1            |                    |
| Self adjusting (std., opt., N.A.)            |   | Std                                     |                     |                    |                    |
| Special Valving                              | Type (proportion, delay, metering, other) | --                                      |                     | (a)                |                    |
| Power brake make & type (remote, int., etc.) | Std. Opt.                                 | --                                      |                     | Tandem             |                    |
|  |   | Integral                                |                     | --                 |                    |
| Effective area (sq. in.) *                   |   | 195.2                                   | 195.2               | 234.1              |                    |
| Gross lining area (sq. in.) **               |   | 195.2                                   | 195.2               | 234.1              |                    |
| Swept area (sq. in.) ***                     |   | 314.2                                   | 314.2               | 380.1              |                    |
| Front to Rear Effectiveness Relationship     |   | Front 60; Rear 40                       |                     |                    |                    |
| Drum   | Diameter (nominal)                        | Front                                   | 10                  | 11                 |                    |
|  |   | Rear                                    | 10                  | 11                 |                    |
| Type and material                            |   | Centrifuse or cast composite, cast iron |                     | --                 |                    |
| Rotor  | Outer working diameter                    | --                                      |                     | 10.72              |                    |
|  | Inner working diameter                    | --                                      |                     | 7.14               |                    |
|  | Working width                             | --                                      |                     | 1.79               |                    |
|  | Material & type (vented/solid)            | --                                      |                     | Vented; cast iron  |                    |
| Wheel cylinder bore                          | Front                                     | 1.187                                   |                     | 2.75               |                    |
|  | Rear                                      | 0.9375                                  |                     |                    |                    |
| Master Cylinder                              | Bore                                      | 1.00                                    |                     | 1.125              |                    |
|  | displacement distribution                 | Front %                                 | 60                  |                    | 75                 |
|  |   | Rear %                                  | 40                  |                    | 25                 |
| Pedal arc ratio                              |   | Manual: 6.64 Power: 3.18                |                     |                    |                    |
| Line pressure at 100 lb. pedal load          |   | 800                                     |                     | 1100               |                    |
| Shoe Clearance                               | Front                                     | No major adjustment required            |                     |                    |                    |
|  | Rear                                      | No major adjustment required            |                     |                    |                    |
| Brake lining                                 | Bonded or riveted                         |   | Bonded              |                    |                    |
|  | Front Wheel                               | Material                                | Molded asbestos     |                    |                    |
|  |   | Size (length x width x thickness)       | Prim. or out-board  | 8.46 x 2.5 x 0.19  | 9.31 x 3.00 x 0.19 |
|  |   |   | Second. or in-board | 11.06 x 2.5 x 0.24 | 11.97x3.00x0.24    |
|  |   | Segments per shoe                       |                     | One                |                    |
|  | Rear Wheel                                | Material                                | Molded asbestos     |                    |                    |
|  |   | Size (length x width x thickness)       | Prim. or out-board  | 8.46 x 2.5 x 0.19  | 9.31 x 2.5 x 0.19  |
| Second. or in-board                          |   |   | 11.06 x 2.5 x 0.24  | 11.97x2.5x0.24     |                    |
| 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) Front: proportioning; rear: residual pressure
- (b) Area x thickness

## AMA Specifications—Passenger Car

DODGE  
 MAKE OF CAR CHALLENGER MODEL YEAR 1970 DATE ISSUED 10-7-69 REVISED (a)

MODEL \_\_\_\_\_ All Models

## STEERING

|  |   |                        |  |             |
|--|---|------------------------|--|-------------|
| Manual (std., opt., NA)                        |   | Std                    |  |             |
| Power (std., opt., NA)                         |   | Opt                    |  |             |
| Adjustable steering wheel (tilt, swing, other) | Type and description                      | --                     |  |             |
|  | (std., opt., NA)                          | NA                     |  |             |
| Wheel diameter                                 | Manual                                    | 16.0                   |  |             |
|  | Power                                     | 16.0                   |  |             |
| Turning diameter (feet)                        | Outside front                             | Wall to wall (l. & r.) | 42.31  |             |
|  |   | Curb to curb (l. & r.) | 39.32  |             |
|  | Inside rear                               | Wall to wall (l. & r.) | 22.58  |             |
|  |   | Curb to curb (l. & r.) | 23.17  |             |
| Manual   | Gear                                      | Type                   | Recirculating ball   |             |
|  |   | Make                   | Chrysler   |             |
|  |   | Ratios                 | Gear   | Std 24.0:1  |
|  |   |                        | Overall  | Std 29.14:1 |
|  | No. wheel turns (stop to stop)            | Std 5.37               |  |             |
| Power  | Type (coaxial, linkage, etc.)             |                        | Integral   |             |
|  | Make                                      |                        | Chrysler   |             |
|  | Gear                                      | Type                   | Recirculating ball   |             |
|  |   | Ratios                 | Gear   | 15.7:1      |
|  |   |                        | Overall  | 24.06:1     |
|  | Pump driven by                            |                        | Belt from crankshaft pulley                                |             |
| No. wheel turns (stop to stop)                 |   | 3.5                    |  |             |
| Linkage  | Type                                      |                        | Parallelogram, equal length tie rods                       |             |
|  | Location (front or rear of wheels, other) |                        | Rear   |             |
|  | Drag link (trans. or longit.)             |                        | Transverse center link                                     |             |
|  | Tie rods (one or two)                     |                        | Two  |             |
| Steering Axis                                  | Inclination at camber (deg.)              |                        | 7.5° @ 0   |             |
|  | Bearings (type)                           | Upper                  | Ball joint   |             |
|  |   | Lower                  | Ball joint   |             |
|  |   | Thrust                 | Oil impregnated sintered metal                             |             |
| Whl. Align. (range at curb wt. & preferred)    | Caster (deg.)                             |                        | Manual steering -1-5/16 +1/16 Power steering -1/16 +1-5/16 |             |
|  | Camber (deg.)                             |                        | Left +1/8 +7/8 Right -1/8 + 5/8                            |             |
|  | Toe-in (outside track inches)             |                        | 1/32 to 7/32   |             |
| Steering spindle & joint type                  |   | Ball joint             |  |             |
| Wheel Spindle                                  | Diameter                                  | Inner bearing          | Drum & disc 1.2494   |             |
|  |   | Outer bearing          | Drum & disc 0.7494   |             |
|  | Thread size                               |                        | Drum & disc 3/4-16 UNF-3A                                  |             |
|  | Bearing type                              |                        | Tapered roller   |             |

# AMA Specifications—Passenger Car

|                             |                                   |
|-----------------------------|-----------------------------------|
| DODGE                       |                                   |
| MAKE OF CAR                 | CHALLENGER                        |
| MODEL YEAR                  | 1970                              |
| DATE ISSUED                 | 10-7-69                           |
| REVISED (*)                 |                                   |
| See Page 3 for Engine Usage |                                   |
| MODEL                       | 225 CID                           |
|                             | 318 CID<br>383 1, 2-V             |
|                             | 340 CID; 383<br>4-V & Hi-Perf.    |
|                             | 426 Hemi; 440<br>Hi-Perf & 3, 2-V |

## SUSPENSION – GENERAL

(See Supplement page for details on Air Suspension)

|                                    |  |          |
|------------------------------------|--|----------|
| Provision for car leveling         | Manual adjustment at torsion bar anchor bolt                 |          |
| Provision for brake dip control    | By inclined upper control arms and asymmetrical rear springs |          |
| Provision for acc. squat control   | Asymmetrical rear springs                                    |          |
| Special provisions for car jacking | None   |          |
| Shock absorber front & rear        | Type   | Direct   |
|                                    | Make   | Chrysler |
|                                    | Piston dia.  | 1.0      |
| Other special features             | None   |          |

## SUSPENSION – FRONT

|                      |  |                      |           |           |           |
|----------------------|--|----------------------|-----------|-----------|-----------|
| Type and description | Independent, lateral, nonparallel control arms with torsion bars |                      |           |           |           |
| Spring               | Type   | Torsion bar          |           |           |           |
|                      | Material   | Chromium alloy steel |           |           |           |
|                      | Size (coil design height & I.D.; bar length x dia.)              | 41 x 0.86            | 41 x 0.88 | 41 x 0.90 | 41 x 0.92 |
|                      | Spring rate (lb. per in.)  | NA                   |           |           |           |
|                      | Rate at wheel (lb. per in.)                                      | 95                   | 102       | 111       | 118       |
| Stabilizer           | Type (link, linkless, frameless)                                 | Link                 |           |           |           |
|                      | Material & bar diameter  | 0.88                 |           |           |           |

## SUSPENSION – REAR

|                                |   |                              |       |     |
|--------------------------------|---|------------------------------|-------|-----|
| Type and description           | Parallel, longitudinal leaf   |                              |       |     |
| Drive and torque taken through | Rear springs  |                              |       |     |
| Spring                         | Type  | Semielliptical, asymmetrical |       |     |
|                                | Material  | Chromium alloy steel         |       |     |
|                                | Size (length x width, coil design height & I.D.; bar length & dia.) | 57 x 2.5                     |       |     |
|                                | Spring rate (lb. per in.)   | 95                           | 110   | 125 |
|                                | Rate at wheel (lb. per in.)   | 115                          | 132   | 150 |
|                                | Mounting insulation type  | Rubber                       |       |     |
| If leaf                        | No. of leaves   | 4-1/2                        | 5-1/2 |     |
|                                | Shackle (comp. or tens.)  | Compression                  |       |     |
| Stabilizer                     | Type (link, linkless, frameless)                                    | None                         |       |     |
|                                | Material  | --                           |       |     |
| Track bar type                 | None  |                              |       |     |



# AMA Specifications—Passenger Car

|                                 |                               |                                   |                    |
|---------------------------------|-------------------------------|-----------------------------------|--------------------|
| <b>MAKE OF CAR</b> <u>DODGE</u> | <b>MODEL YEAR</b> <u>1970</u> | <b>DATE ISSUED</b> <u>10-7-69</u> | <b>REVISED</b> (*) |
| <b>MODEL</b>                    | 23                            | 27                                | 29                 |

**FRAME**

|   |                   |
|---|-------------------|
| Type and description (Separate frame, unitized frame, partially - unitized frame) | Unit construction |
|---|-------------------|

**BODY – MISCELLANEOUS INFORMATION**

|  |             |  |
|--|-------------|--|
| Drs. hinged (front, rr.)   | Front doors | Front  |
|  | Rear doors  | --   |
| Type of finish (lacquer, enamel, other)                                    |             | Buffable acrylic enamel  |
| Hood counterbalanced (yes, no)   |             | Yes  |
| Hood release control (internal, external)                                  |             | External   |
| Vehicle Ident. No. location  |             | Left end instrument panel  |
| Engine No. location  |             | Not applicable   |
| Theft protection - type  |             | Pin tumbler key locks on ignition switch, doors, luggage compartment, lockable steering and transmission shift |
| Vent window control method (crank, friction pivot)                         | Front       | None   |
|  | Rear        | None   |
| Seat cushion type  | Front       | Zigzag   |
|  | Rear        | Formed wire  |
|  | 3rd seat    | --   |
| Seat back type   | Front       | Zigzag   |
|  | Rear        | Formed wire  |
|  | 3rd seat    | --   |
| Windshield glass type (i.e., single curved - laminated plate)              |             | Single curved laminated safety plate   |
| Side glass type (i.e., curved - tempered plate)                            |             | Curved heat treated safety sheet   |
| Backlight glass type (i.e., compound curved - tempered plate, three piece) |             | Single curved heat treated safety sheet  |
| Windshield glass exposed surface area                                      |             | 1265   |
| Side glass exposed surface area  | 1149        | 1165   |
| Backlight glass exposed surface area                                       | 750         | 575  |
| Total glass exposed surface area   | 3164        | 3005   |
|  |             | 2880   |
|  |             |  |
|  |             |  |
|  |             |  |
|  |             |  |
|  |             |  |

# AMA Specifications—Passenger Car

DODGE  
**MAKE OF CAR** CHALLENGER      **MODEL YEAR** 1970      **DATE ISSUED** 10-7-69 **REVISED** (\*)

**MODEL** \_\_\_\_\_ All Models

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

|  |                       |   |
|--|-----------------------|---|
| Power windows                                      | Side windows          | Opt   |
|  | Vent windows          | Opt   |
|  | 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)           |                       | Std   |
| Radios (specify type as well as availability)      |                       | Opt: AM or AM-FM (dealer-installed)   |
| Rear seat speaker                                  |                       | Opt: except NA convertible  |
| Power antenna                                      |                       | NA  |
| Clock  |                       | Opt: std R/T  |
| Air conditioner (specify type and availability)    |                       | Opt: front unit with heater except<br>426 CID 383 4-V, 440 Hi-Perf with manual transmission |
| Speed warning device                               |                       | NA  |
| Speed control device                               |                       | Opt (NA 340, 426, 440 CID) TorqueFlite, power brake required                                |
| Ignition lock lamp                                 |                       | Opt   |
| Dome lamp  |                       | Std: except NA convertible  |
| Glove compartment lamp                             |                       | Opt   |
| Luggage compartment lamp                           |                       | Opt   |
| Underhood lamp                                     |                       | Opt   |
| Courtesy lamp                                      |                       | Opt: Std convertible  |
| Map lamp   |                       | --  |
| Auto. trans. quad. lamp                            |                       | Std with automatic transmission   |
| Cornering light lamp                               |                       | NA  |
| Shoulder belts                                     |                       | Std: except Opt convertible   |
| Trip odometer                                      |                       | Opt with rallye cluster (NA - 6-cyl)  |
| Tachometer   |                       | Opt: Std R/T  |
| Rear window defogger                               |                       | Opt: except NA convertible  |
| Trailer towing package                             |                       | Opt (NA 6-cyl)  |

**LAMP HEIGHT AND SPACING**

|   |             |           |  |
|---|-------------|-----------|--|
| Height above ground to center of bulb or marker | Headlamp    | Highest * |  |
|   |             | Lowest    |  |
|   | Tail        | Highest   |  |
|   |             | Lowest    |  |
|   | Sidemarker  | Front     |  |
|   |             | Rear      |  |
| Distance from C/L of car to center of bulb      | Headlamp    | Inside    |  |
|   |             | Outside * |  |
|   | Tail        | Inside    |  |
|   |             | Outside   |  |
|   | Directional | Front     |  |
|   |             | Rear      |  |

\* If single headlamps are used enter here.

# AMA Specifications—Passenger Car

DODGE  
**MAKE OF CAR** CHALLENGER **MODEL YEAR** 1970 **DATE ISSUED** 10-7-69 **REVISED** (\*) 3-20-70

## WEIGHTS

| 6-CYLINDER MODELS                                     | CURB WEIGHT * POUNDS |       |      | % PASS. WEIGHT DISTRIBUTION |                |      |               | LIQUID WEIGHT |      |                  |
|---|----------------------|-------|------|-----------------------------|----------------|------|---------------|---------------|------|------------------|
|   | Model                | Front | Rear | Total                       | Pass. In Front |      | Pass. In Rear |               | Fuel | Coolant          |
|   |                      |       |      |                             | Front          | Rear | Front         | Rear          |      |                  |
| <u>Challenger</u>                                     |                      |       |      |                             |                |      |               |               |      |                  |
| 2-Door Hardtop  | 1735                 | 1415  | 3150 | 44.9                        | 55.1           | 18.4 | 81.6          | 114           | 31   | ●                |
| Convertible   | 1765                 | 1455  | 3220 | 44.9                        | 55.1           | 20.2 | 79.8          | 114           | 31   | ●                |
| 2-Door Formal Coupe                                   | 1745                 | 1405  | 3150 | 44.9                        | 55.1           | 18.4 | 81.6          | 114           | 31   | ●                |
| <u>V-8</u>  |                      |       |      |                             |                |      |               |               |      |                  |
| <u>Challenger</u>                                     |                      |       |      |                             |                |      |               |               |      |                  |
| 2-Door Hardtop  | 1775                 | 1425  | 3200 | 44.9                        | 55.1           | 18.4 | 81.6          | 114           | 36   | ●                |
| Convertible   | 1815                 | 1470  | 3285 | 44.9                        | 55.1           | 20.2 | 79.8          | 114           | 36   | ●                |
| 2-Door Formal Coupe                                   | 1790                 | 1420  | 3210 | 44.9                        | 55.1           | 18.4 | 81.6          | 114           | 36   | ●                |
| <u>Challenger R/T</u>                                 |                      |       |      |                             |                |      |               |               |      |                  |
| 2-Door Hardtop  | 1990                 | 1565  | 3555 | 44.9                        | 55.1           | 18.4 | 81.6          | 114           | 32   | ●                |
| Convertible   | 2030                 | 1595  | 3625 | 44.9                        | 55.1           | 20.2 | 79.8          | 114           | 32   | ●                |
| 2-Door Formal Coupe                                   | 2000                 | 1590  | 3590 | 44.9                        | 55.1           | 18.4 | 81.6          | 114           | 32   | ●                |
| NOTE: All curb weights include automatic transmission |                      |       |      |                             |                |      |               |               |      |                  |
| Accessories & Equipment Differential Weights          |                      |       |      |                             |                |      |               |               |      |                  |
|   |                      |       |      |                             |                |      |               |               |      | Remarks          |
| Air Conditioning                                      | 104                  | -3    | 101  |                             |                |      |               |               |      | 225 CID engine ● |
| Air Conditioning                                      | 104                  | -3    | 104  |                             |                |      |               |               |      | 318 CID engine ● |
| 3-Speed Manual Trans.                                 | 5                    | -4    | 1    |                             |                |      |               |               |      | 225 CID engine ● |
| 3-Speed Manual Trans.                                 | 24                   | 44    | 68   |                             |                |      |               |               |      | 318 CID engine ● |
| 3-Speed Manual Trans.                                 | -2                   | -1    | -3   |                             |                |      |               |               |      | 383 CID engine ● |
| 4-Speed Manual Trans.                                 | 48                   | 51    | 99   |                             |                |      |               |               |      | 318 CID engine ● |
| 4-Speed Manual Trans.                                 | 26                   | 10    | 36   |                             |                |      |               |               |      | 383 CID engine ● |
| Power Steering  | 44                   | -2    | 42   |                             |                |      |               |               |      |                  |
| Power Brakes  | 9                    | 1     | 10   |                             |                |      |               |               |      |                  |
| Radio   | 5                    | 2     | 7    |                             |                |      |               |               |      |                  |
| Console   | 8                    | 4     | 12   |                             |                |      |               |               |      |                  |
| Undercoat   | 17                   | 9     | 36   |                             |                |      |               |               |      | ●                |

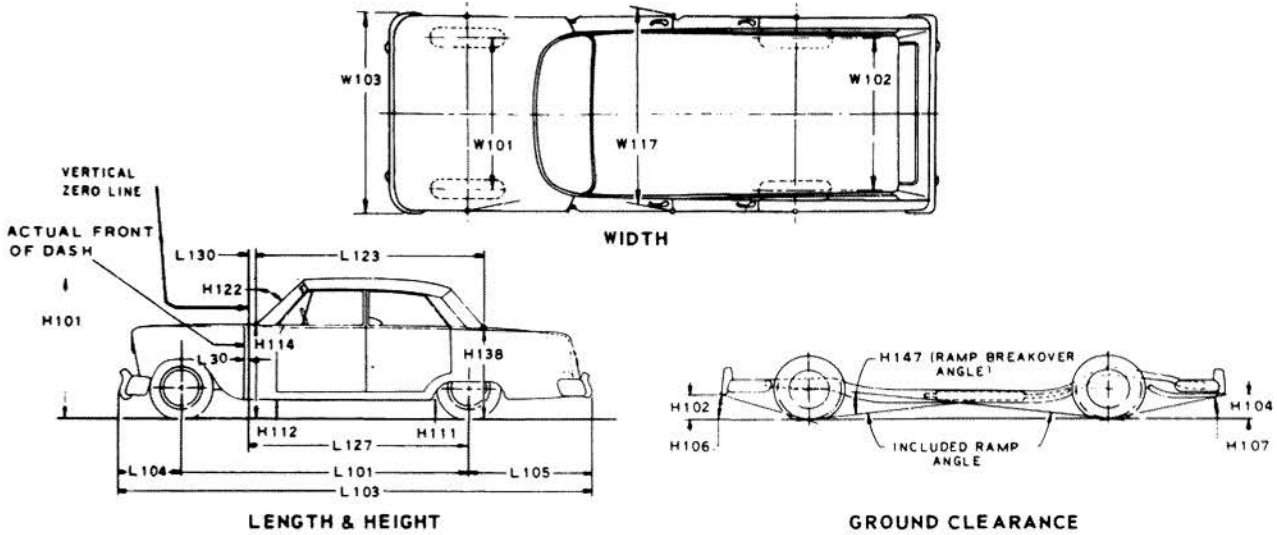
\* Reference - SAE Aerospace-Automotive drawing standards, Section E 1.02 (d).

# AMA Specifications—Passenger Car

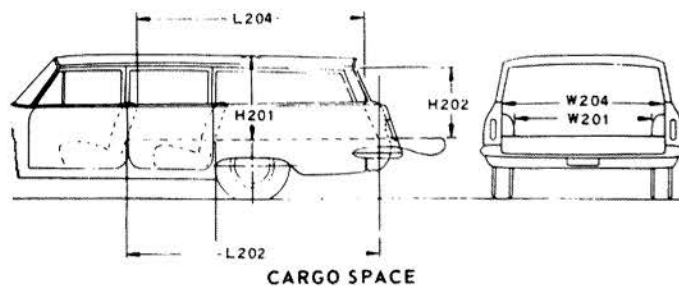
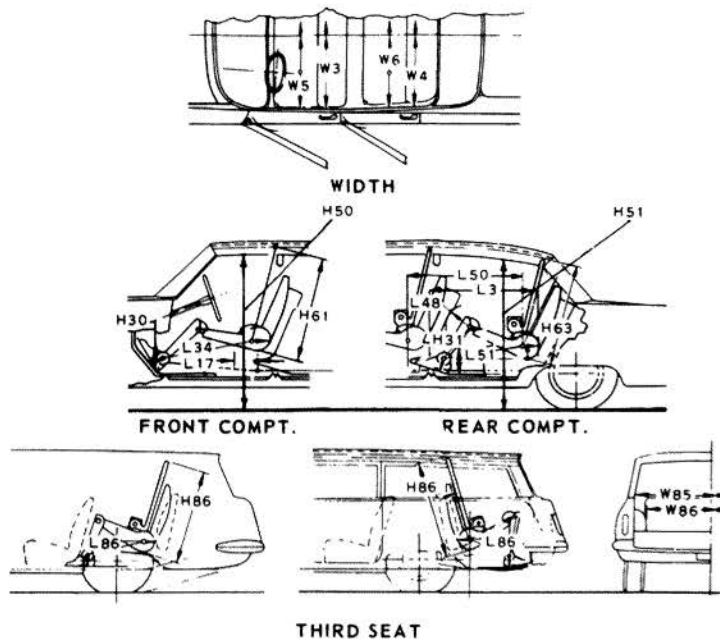
## CAR AND BODY DIMENSIONS

### KEY SHEET

#### EXTERIOR CAR AND BODY DIMENSIONS



#### INTERIOR CAR AND BODY DIMENSIONS



# AMA Specifications—Passenger Car

## 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 to 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.
- H138 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 pipe, 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 radii 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 Heel Point at Accelerator Heel Point. All other types of accelerator pedals will be measured with the Manikin foot 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 toe, 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 wheelhausings 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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