

**AMA specifications form - passenger car; Dodge Challenger. 1970.
Revised
1970.**

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AMA Specifications—Passenger Car

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

NOTES:

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

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BODY — TYPES AND STYLE NAMES —

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

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

Highway Safety
Research Institute

AMA Specifications—Passenger Car

MAKE OF CAR DODGE CHALLENGER MODEL YEAR 1970 DATE ISSUED 10-3-69 REVISED (•) 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 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	H112	7.4	7.5(e)	7.4	7.5(e)	7.4	7.5(e)
	From front wheel ⌚		31.5					
Rocker panel – rear	To ground	H111	7.1	6.6(f)	8.1	12.0(g)	14.1	11.6(h)
	From rear wheel ⌚		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

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

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
-------	--------------	----	----	----

FRONT COMPARTMENT

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

REAR COMPARTMENT

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		--	

LUGGAGE COMPARTMENT

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

STATION WAGON – THIRD SEAT

Shoulder Room	W85	
Hip room	W86	
Effective leg room	L86	
Effective head room	H86	
Seat facing direction		

STATION WAGON – CARGO SPACE

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.) W4 X L204 X H201 1728	V2	

(a) Challenger R/T: 31.8

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POWER TEAMS

(Indicate whether standard or optional)

MODEL AVAILABILITY		ENGINE					TRANSMISSION	AXLE RATIO (a) (Std. first) (Indicate A/C ratio)
		Displ. cu. in.	Carburetor	Compr. Ratio	BHP @ RPM	Torque @ RPM		
6-Cyl	Std H	225	1, 1-V	8.4	145 @ 4000	215 @ 2400	Manual 3-Speed	3.23
							Automatic	2.76*, 3.23
V-8	Std H	318	1, 2-V	8.8	230 @ 4400	320 @ 2000	Manual 3-Speed	3.23
							4-Speed	3.23
							Automatic	2.76*, 3.23
	Opt H	340	1, 4-V	10.5	275 @ 5000	340 @ 3200	Manual 3-Speed	3.23
							4-Speed	3.23, 3.55**, 3.91**
							Automatic	3.23, 3.55**, 3.91**
	Opt H	383	1, 2-V	8.7	290 @ 4400	390 @ 2800	Automatic	2.76*, 3.23
							Manual 3-Speed	3.23
		383	1, 4-V	9.5	330 @ 5000	425 @ 3200	4-Speed	3.23, 3.55**, 3.91**
	Std: S						Automatic (b)	3.23, 3.55**, 3.91**
	Opt S	426	2, 4-V	10.2	425 @ 5000	490 @ 4000	Manual 4-Speed	3.54**, 4.10**
							Automatic	3.23, 3.55**, 4.10**
		440	1, 4-V	9.7	375 @ 4600	480 @ 3200	Manual 4-Speed	3.54**, 4.10**
							Automatic	3.23, 3.55**, 4.10**
		440	3, 2-V	10.5	390 @ 4700	490 @ 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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MAKE OF CAR **DODGE CHALLENGER** MODEL YEAR **1970** DATE ISSUED **10-7-69** REVISED ^(a)

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 (C to C)		(a)	4.46	
No. system (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	
Compres. 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 mtg. points	Front	Two		
	Rear	One		
Engine installation angle		Lateral: 0° 06' Inclined rear to front: 2° 30' to 3°		
Taxable horsepower	$\frac{\text{Dia}^2 \times \text{No. Cyl.}}{2.5}$	27.7	48.9	52.2
Publishing max. bhp* @ eng. RPM		145 @ 4000	230 @ 4400	275 @ 5000
Publishing max. torque * (lb. ft. @ RPM)		215 @ 2400	320 @ 2000	340 @ 3200
Recommended fuel regular – premium		Regular		Premium

ENGINE – PISTONS

Material	Aluminum alloy		
Description and finish	Closed slipper type, steel strut, elliptically turned, tin-plated		Open slipper type
Weight (piston only) oz.	16.4	20.9	25.4
Clearance (limits)	Top land	0.024 min.	0.018 min.
	Skirt	0.0005 to 0.0015	
		-0.0005 to +0.0015	
Ring groove 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 (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)		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 mtg. points	Front	Two		
	Rear	One		
Engine installation angle		Lateral: 0° 06' inclined rear to front 2° 30' to 3°		
Taxable $\frac{\text{Dia}^2 \times \text{No. Cyl.}}{\text{horsepower } 2.5}$		57.8		
Publishing max. bhp* @ eng. RPM		290 @ 4400	330 @ 5000	335 @ 5200
Publishing max. torque * (lb. ft. @ RPM)		390 @ 2800	425 @ 3200	425 @ 3400
Recommended fuel 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 (limits)	Top land	0.022 min.	
	Skirt Top	0.00025 to 0.00125	
	Bottom	-0.00125 to +0.00125	
Ring groove 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.

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DODGE		MODEL YEAR 1970		DATE ISSUED 10-7-69		REVISED (a)	
MAKE OF CAR CHALLENGER		See Page 3 for Engine Usage					
MODEL		426 CID Hemi		440 CID			
		Hi-Perf		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	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)	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	Front	Two	
mtg. points	Rear	One	
Engine installation angle	Lateral: 0° 06' inclined rear to front: 2° 30' to 3°		
Taxable $\frac{\text{Dia}^2 \times \text{No. Cyl.}}{\text{horsepower } 2.5}$	57.8	59.7	
Publishing max. bhp* @ eng. RPM	425 @ 5000	375 @ 4600	390 @ 4700
Publishing max. torque * (lb. ft. @ RPM)	490 @ 4000	480 @ 3200	490 @ 3200
Recommended fuel regular – premium	Premium		

ENGINE – PISTONS

Material	Aluminum alloy		
Description and finish	Forged, elliptically turned, tin-plated	Closed slipper-type, steel strut, elliptically turned, tin-plated	
Weight (piston only) oz.	29.7	30.2	
Clearance (limits)	Top land	0.022 min.	
	Skirt Top	0.00025 to 0.00125	
	Bottom	-0.00125 to +0.00125	
Ring groove 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 **(a)**

See Page 3 for Engine Usage

MODEL **225 CID** **318 CID** **340 CID**

ENGINE – RINGS

Function (top to 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 - #1	Cast iron, twist and radius faced, tin-plate	(a)
	material, coating, etc. #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 -	3-piece abutment-type, stainless steel spacer-expanded with chrome-plated segments	
	material, coating, etc.		
	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 piston, floating, etc.	Press-fit in rod	Floating
	Bush- ing	None	Rod
	In rod or piston Material	--	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	26.7
Length (center to center)		6.699	6.123
Bearing	Material & Type	Lead-base babbitt on steel	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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MAKE OF CAR DODGE CHALLENGER MODEL YEAR 1970 DATE ISSUED 10-7-69 REVISED (•)

See Page 3 for Engine Usage

MODEL

383 CID All

ENGINE – RINGS

Function (top to 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 - #1	Cast iron, reverse twist and radius faced, tin-plated
	material, coating, #2	Cast iron, reverse twist and taper, tin-plated
	etc.	
	Width	0.078
	Gap	0.013 to 0.023
Oil	Description -	3-piece abutment-type, stainless steel
	material, coating,	spacer-expander with chrome-plated segments
	etc.	
	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- ing	None
	In rod or piston	--
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

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

See Page 3 for Engine Usage

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

ENGINE – RINGS

Function (top to 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 - #1	(a)	(b)	(a)
	material, coating, etc. #2	Cast iron, reverse twist and taper, tin-plated		
	Width	0.078		
	Gap	0.013 to 0.023		
Oil	Description -	3-piece abutment-type, stainless steel,		(c)
	material, coating, etc.	spacer-expander with chrome-plated segments		
	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 piston, floating, etc.		Floating	Press-fit in rod	
	Bush- ing	In rod or piston	Rod	None	
		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

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

ENGINE – CRANKSHAFT

Material			Drop-forged steel	Cast ductile iron	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		(a)
	Clearance		0.005 to 0.0025 specified, 0.005 to 0.0015 desired		
	Journal dia. and bearing overall length	No. 1	2.75 x 1.034	2.5 x 0.872	
		No. 2	2.75 x 1.034	2.5 x 0.872	
		No. 3	2.75 x 1.254	2.5 x 1.151	
		No. 4	2.75 x 1.034	2.5 x 0.872	
		No. 5	--	2.5 x 1.562	
		No. 6	--		
		No. 7	--		
Dir. & amt. cyl. offset		None			
Crankpin journal diameter			2.187	2.125	

ENGINE – CAMSHAFT

Location		Right	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	Four	Five		
Type of Drive	Gear or chain		Chain	Double-roller chain	
	Crankshaft gear or sprocket material		Malleable cast iron or sintered iron (Super Oilite)	Steel	
	Camshaft gear or sprocket material		Nylon-coated aluminum	Cast iron	
	Timing chain	No. of links	50	68	
		Width	.88	.63	.87
		Pitch	.50	.375	

ENGINE – VALVE SYSTEM

Hydraulic lifters (Std., opt., NA)		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	.010	Hydraulic
	Exhaust	.020	Hydraulic

(Continued)

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

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DODGE

MAKE OF CAR CHALLENGER

MODEL YEAR 1970

DATE ISSUED 10-7-69 REVISED (•)

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	--
		No. 7	--
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** (•)
 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	--		
		No. 7	--		
	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

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

See Page 3 for Engine Usage

MODEL

225 CID

318 CID

340 CID

ENGINE – VALVE SYSTEM (cont.)

Timing (based on top of ramp 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
Intake	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		
	Lift (@ zero lash)		0.397	0.372	0.430
	Outer spring press. & length	Valve closed (lb. @ in.)	63 @ 1.65	92 @ 1.65	96 @ 1.65
		Valve open (lb. @ in.)	156 @ 1.26	189 @ 1.28	242 @ 1.21
	Inner spring press. & length	Valve closed (lb. @ in.)	None		Surge damper
		Valve open (lb. @ in.)	None		Surge damper
Exhaust	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		
	Lift (@ zero lash)		0.393	0.400	0.445
	Outer spring press. & length	Valve closed (lb. @ in.)	63 @ 1.65	92 @ 1.65	96 @ 1.65
		Valve open (lb. @ in.)	156 @ 1.26	189 @ 1.25	244 @ 1.20
	Inner spring press. & length	Valve closed (lb. @ in.)	None		Surge damper
		Valve open (lb. @ in.)	None		Surge damper

ENGINE – LUBRICATION SYSTEM

Type of lubrica- tion (splash, pressure, nozzle)	Main bearings	Pressure	
	Connecting rods	Pressure	
	Piston pins	Metered jet spray	
	Camshaft bearings	Pressure	
	Tappets	Splash	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 **(*)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 (based on top of ramp 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 spring press. & length	Valve closed (lb. @ in.)	125 @ 1.86	105 @ 1.86
		Valve open (lb. @ in.)	200 @ 1.42	234 @ 1.40
	Inner spring press. & length	Valve closed (lb. @ in.)	None	Surge damper
		Valve open (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 spring press. & length	Valve closed (lb. @ in.)	125 @ 1.86	105 @ 1.86
		Valve open (lb. @ in.)	200 @ 1.42	234 @ 1.40
	Inner spring press. & length	Valve closed (lb. @ in.)	None	Surge damper
		Valve open (lb. @ in.)	None	Surge damper

ENGINE – LUBRICATION SYSTEM

Type of lubrica- tion (splash, pressure, 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

DODGE
MAKE OF CAR CHALLENGER **MODEL YEAR** 1970 **DATE ISSUED** 10-7-69 **REVISED** (•) 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 (based on top of ramp 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 (w zero lash)		0.490	0.450	
	Outer spring press. & length	Valve closed (lb. @ in.)	115 @ 1.86	105 @ 1.86	115 @ 1.86
		Valve open (lb. @ in.)	310 @ 1.37	234 @ 1.40	310 @ 1.37
	Inner spring press. & length	Valve closed (lb. @ in.)	Surge damper		
		Valve open (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 spring press. & length		Valve closed (lb. @ in.)	115 @ 1.86	105 @ 1.86	115 @ 1.86
		Valve open (lb. @ in.)	310 @ 1.37	234 @ 1.40	310 @ 1.37
Inner spring press. & length	Valve closed (lb. @ in.)	Surge damper	None	Surge damper	
	Valve open (lb. @ in.)	Surge damper	None	Surge damper	

ENGINE – LUBRICATION SYSTEM

Type of lubrica- tion (splash, pressure, 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 (a) **3-20-70**
See Page 3 for Engine Usage

MODEL	225 CID	318 CID	340 CID	383 CID	426 CID Hemi	440 Hi-Perf; 3, 2-V
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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 6
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/ 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	Optional	Induction system
			--
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
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	"	
	Backfire protection (type)	"	
Carburetor	Make	See Page 10	
	Model	"	
	Barrel size	"	
	Idle speed	Drive Neutral	
	Idle A/F mixture	"	
Distributor	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 Max. deg. @ in.	
Vacuum Source		Carburetor port	
Timing - Crank degrees @ rpm		See page 13	
Cooling System		None	
Exhaust System		None	

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

See Page 3 for Engine Usage

MODEL

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		
	Choke type	Automatic separate		(a)
	Intake manifold heat control (exhaust or water)	Exhaust		
Carburetor	Air cleaner type	Standard	Paper element	
		Optional	--	
	Idle speed (spec. neutral or drive)	Manual	750	900
		Automatic	700	900
	neutral	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	All	318	Manual	Carter	BBD-4721S	BBD-4723S	1, 2-V	1.44
	W/o A/C		Automatic		BBD-4722S	BBD-4724S		
	W/ A/C		Automatic		BBD-4895S	--		
	All	340	Manual	Carter	AVS-4933S	AVS-4936S	1, 4-V	P: 1.44 S: 1.69
	W/o A/C		Automatic		AVS-4934S	AVS-4937S		
	W/ A/C		Automatic		AVS-4935S	--		
	All	426	Manual	Carter	Front		2, 4-V	Primary 1.44 Secondary 1.69
					AFB-4742S			
					Rear			
					AFB-4745S			
			Automatic		Front			
					AFB-4742S			
					Rear			
					AFB-4746S			

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

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DODGE

MAKE OF CAR CHALLENGER

MODEL YEAR 1970

DATE ISSUED 10-6-69 REVISED (•)

See Page 3 for Engine Usage

MODEL

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					
	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	--					
	neutral	Idle speed (spec. neutral or drive)	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 S: 1.69		
With A/C				AVS-4732S					
All	383 Hi-Perf	Manual	Holley	R-4367A	R-4217A			1, 4-V	P: 1.56 S: 1.75
Without A/C		Automatic		R-4368A	R4218A				
With A/C				R-4369A					
All	440	Manual	Carter	AVS-4737S	AVS-4739S	1, 4-V	1.69		
Without A/C		Automatic		AVS-4738S	AVS-4740S				
With A/C				AVS-4741S					
		All		Holley	Front		3, 2-V	1.75	
					R-4382A	R-4175A			
					Rear				
					R-4383A	R-4365A			
					Center				
					R-4375A	R-4374A		1.50	
Manual	R-4376A	R-4145A							
	Automatic								

(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
MODEL 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

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AMA Specifications—Passenger Car

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MAKE OF CAR CHALLENGER		See Page 3 for Engine Usage					
MODEL		225 CID	318 CID	340 CID	383 CID	426 CID Hemi	440 Hi-Perf; 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	122 130 172 143	
	Flywheel tooth face width	Auto.	122	130	
		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 adv. in c/shaft degrees @ engine rpm (nominal)	Start (rpm)	"						
		Intermediate points deg.@rpm	"						
		Max. deg.@rpm	"						
	Vacuum adv. in c/shaft degrees @ in. Hg. (nominal)	Start (in. Hg.)	"						
		Intermediate 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)	(e)
	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 Plug	Make & 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

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

AVAILABILITY

(See Page 3 for Engine Usage)

	225 CID	318 CID	340 CID	383 CID			426 CID		440 CID	
				2-V	4-V	Hi-Perf			Hi-Perf	3, 2-V
Distributor	Manual	3438255	3438317	3438231	3438233	3438233	2875987	3438222	3438222	3438314
	Automatic	3438225	3438325				2875989			2875982
Timing (a)	Manual	TDC	5 BTC	10 BTC	--	10 BTC	TDC	10 BTC	12-1/2 BTC	12-1/2 BTC
	Automatic			12-1/2 BTC			2-1/2 BTC	12-1/2 BTC		BTC

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

SPECIFICATIONS

DISTRIBUTOR PART NUMBER	CENTRIFUGAL ADVANCE Crankshaft Degrees at Engine RPM			VACUUM ADVANCE 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 ^(a)

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 dry plate		Auburn, Borg & Beck	Borg & Beck				
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 cushion- ing 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

DODGE
MAKE OF CAR CHALLENGER **MODEL YEAR** 1970 **DATE ISSUED** 10-6-69 **REVISED** (•)
 See Page 3 for Engine Usage
MODEL 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.

Number of forward speeds		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 viscosity number	Summer		SAE 140	
		Winter		SAE 140	
		Extreme cold		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 viscosity 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

DODGE		CHALLENGER		MODEL YEAR	1970	DATE ISSUED	10-6-69	REVISED (a)
MAKE OF CAR		See Page 3 for Engine Usage						
MODEL	225	318	340	383 CID		426 CID	440 CID	
	CID	CID	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 Drive: 2.45, 1.45, 1.00 2: 2.45, 1.45 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	Three					
	Max. ratio at stall	2.1:1		2.0:1	2.1:1		2.0:1
	Type of cooling (air, liquid)	Liquid					
	Nominal diameter	10.75		11.75	10.75		11.75
Lubricant	Capacity—refill (pt.)	17.0	16.0	19.0	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 46.06 x 0.065	3.00 x 45.85 x 0.065	3.00 x 45.60 x 0.065	--	3.00 x 45.60 x 0.065	--
	Manual 4-speed trans.	--	3.00 x 45.85 x 0.065	3.00 x 45.60 x 0.065	--	3.00 x 45.60 x 0.065 (a)	3.25 x 44.60 x 0.065 (b)
	Overdrive transmission	NA					
	Automatic transmission	3.00 x 52.57 x 0.065	3.00 x 45.60 x 0.065	3.00 x 45.85 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

DODGE

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

MODEL	225 CID	318 CID	340 CID	383 CID All	426 Hemi	440 CID Hi-Perf; 3, 2-V
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DRIVE UNITS – PROPELLER SHAFT (cont.)

Inter-mediate bearing	Type (plain, anti-friction)		None					
	Lubrication (fitting, prepack)		None					
Slip Yoke	Type		Sliding spline					
	Number of teeth		25		29			
	Spline O.D.		1.156		1.325			
Universal joints	Make	Chrysler	Mf. No.	7260 F & R	(a)	7260 F 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		
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	
Lubricant	Capacity (pt.)	2	4
	Type recommended	MIL-L-2105B	2933565
	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
	Ring gear	47	42	46	39	43
Ring Gear O.D.	7-1/4	8-3/4	7-1/4	8-3/4	9-3/4	8-3/4

(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** 10-6-66 **REVISED** (a) 3-20-70

	225 CID 318 CID	383 CID	340 CID	440 CID	426 CID
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MODEL

DRIVE UNITS – WHEELS

Type & material		Disc, steel				
Rim (size & flange type)	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) 15x7.0 JJ (d)	15x7.0 JJ, rallye 14x5.5 JJ	14x5.5 JJ (c) 15x7.0 JJ (d)	15x7.0 JJ, rallye 14x5.5 JJ
Attachment	Type (bolt or stud)	Stud				
	Circle diameter	4.5				
	Number and size	Five, 1/2-20 NF				

MODEL

DRIVE UNITS – TIRES

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

BRAKES – PARKING

Type of control		Foot-operated pedal, hand release lever
Location of control		Under left end of instrument panel
Operates on		Rear wheels
If separate from service brakes	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 (●)	3-20-70
MODEL	225 CID	318, 340, 383, 2-V & 4-V	383 Hi-Perf: 426; 440 Hi-Perf: 440 3, 2-V	All			

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	138.12
Gross lining area (sq. in.) **		195.2	195.2	234.1	138.12
Swept area (sq. in.) ***		314.2	314.2	380.1	357.98
Front to Rear Effectiveness Relationship		Front 60; Rear 40			
Drum	Diameter (nominal)	Front	10	11	--
		Rear	10	11	10
	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	Front	%	60	75 ●
	distribution	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 10.13 x 0.44 (b)
			Second. or in-board	11.06 x 2.5 x 0.24	11.97x3.00x0.24 10.13 x 0.44 (b)
		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 8.46 x 2.5 x 0.19
			Second. or in-board	11.06 x 2.5 x 0.24	11.97x2.5x0.24 11.06 x 2.5 x 0.24
		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 (9)

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 383 1, 2-V	340 CID; 383 4-V & Hi-Perf.	426 Hemi; 440 Hi-Perf & 3, 2-V
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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
	Spring rate (lb. per in.)	NA		
	Rate at wheel (lb. per in.)	95	102	111
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		

DODGE

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

MODEL

FRAME

Type and description (Separate frame,
unitized frame, partially - unitized frame)

Unit construction

BODY – MISCELLANEOUS INFORMATION

[illegible]

AMA Specifications—Passenger Car

Page 23

Page 23

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

All Models

MODEL

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 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.

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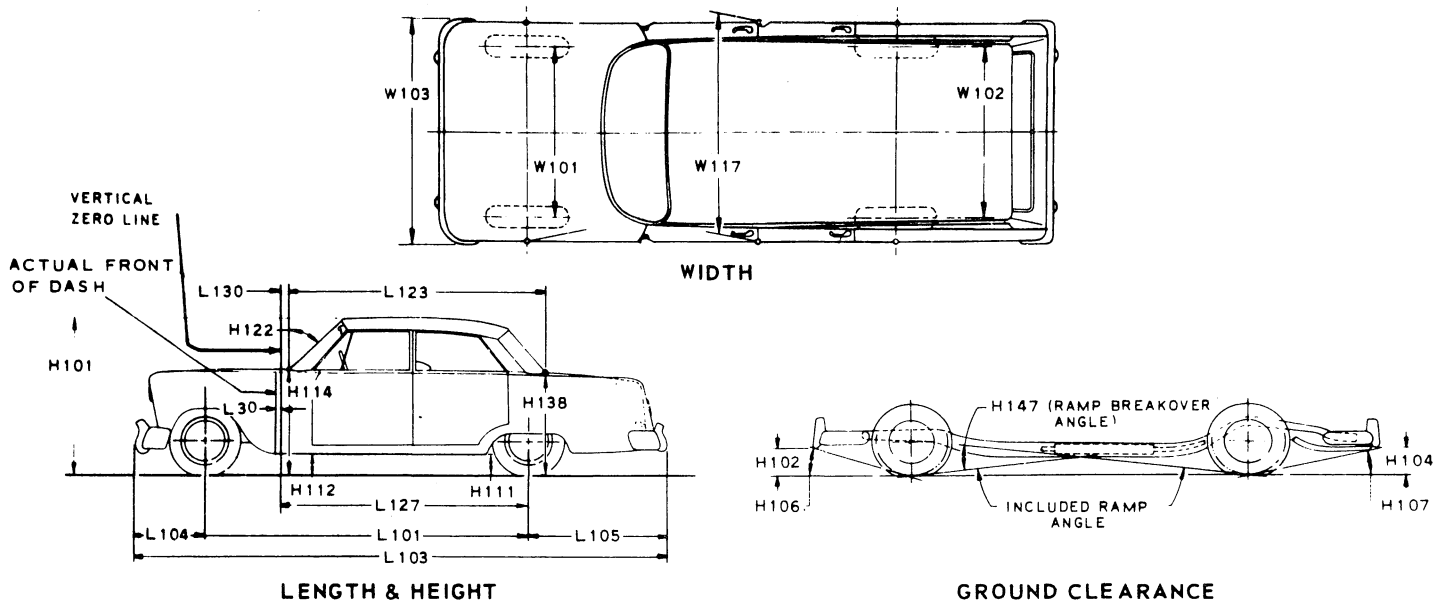
*Reference – SAE Aerospace-Automotive drawing standards, Section E 1.02 (d).

AMA Specifications—Passenger Car

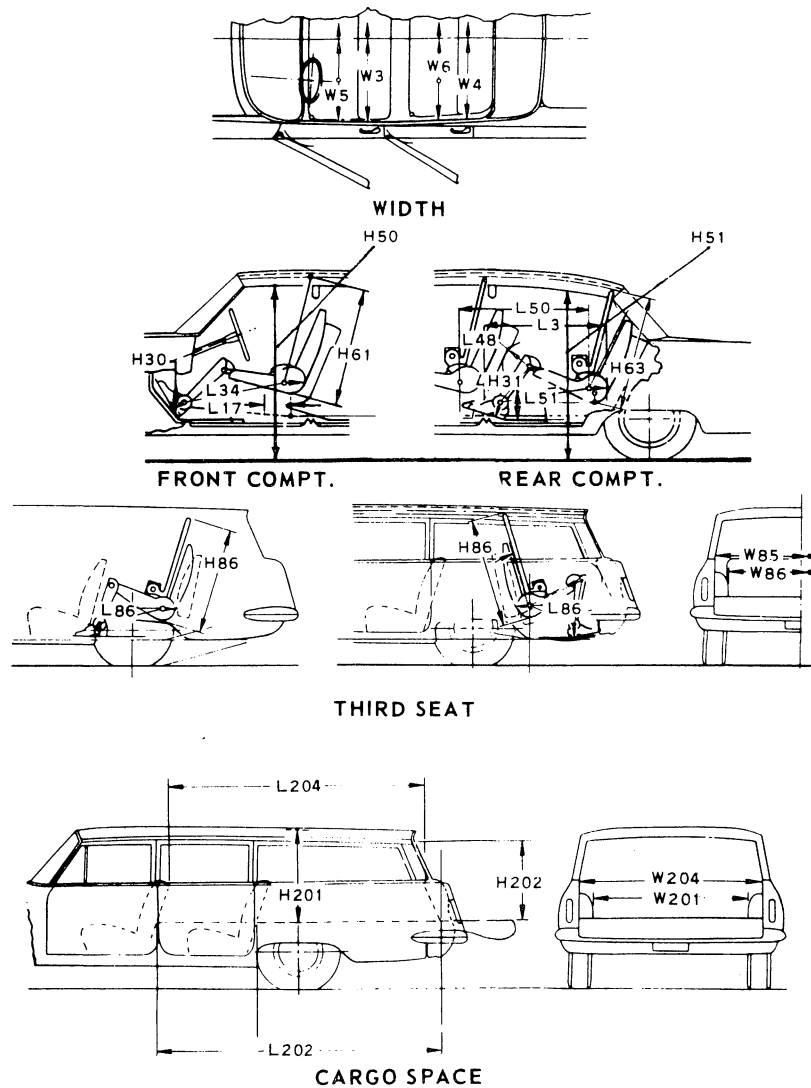
CAR AND BODY DIMENSIONS

KEY SHEET

EXTERIOR CAR AND BODY DIMENSIONS



INTERIOR CAR AND BODY DIMENSIONS



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 wheelhousings 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.

$$\frac{W4 \times L204 \times H201}{1728}$$

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