

INTRODUCTION

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DESIGNATIONS, LABELS/PLATES/DECALS, CODES AND DIMENSIONS/WEIGHTS

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VEHICLE DESIGNATION

The Vehicle Code Designation for Grand Cherokee vehicles is ZJ. The code is used to identify the vehicle in charts, captions and in service procedures. The vehicle code is different than the Vehicle Identification Number (VIN) or the wheelbase/model code.

VEHICLE SAFETY CERTIFICATION LABEL

A certification label is attached to the left side B-pillar (Fig. 1). The label certifies that the vehicle conforms to Federal Motor Vehicle Safety Standards (FMVSS). The label also lists the:

- Month and year of vehicle manufacture
- Gross Vehicle Weight Rating (GVWR). The gross front and rear axle weight ratings (GAWR's) are based on a minimum rim size and maximum cold tire inflation pressure
- Vehicle Identification Number (VIN)
- Type of vehicle
- Type of rear wheels
- Bar code
- Month, Day and Hour (MDH) of final assembly

VEHICLE IDENTIFICATION NUMBER (VIN) PLATE

The Vehicle Identification Number (VIN) plate is attached to the top left side of the instrument panel. The VIN contains 17 characters that provide data concerning the vehicle. Refer to the decoding chart to determine the identification of a vehicle.

The Vehicle Identification Number is also imprinted on the:

MFD BY	CHRYSLER CORPORATION	DATE OF MFR	GVWR
GAWR FRONT	WITH TIRES	RIMS AT	PSI COLD
GAWR REAR	WITH TIRES	RIMS AT	PSI COLD

THIS VEHICLE CONFORMS TO ALL APPLICABLE FEDERAL MOTOR VEHICLE SAFETY STANDARDS IN EFFECT ON THE DATE OF MANUFACTURE SHOWN ABOVE.

VIN:	TYPE:	SINGLE	DUAL
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BAR CODE

MDH:	VEHICLE MADE IN	4648503	J91IN-25
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Fig. 1 Vehicle Safety Certification Label

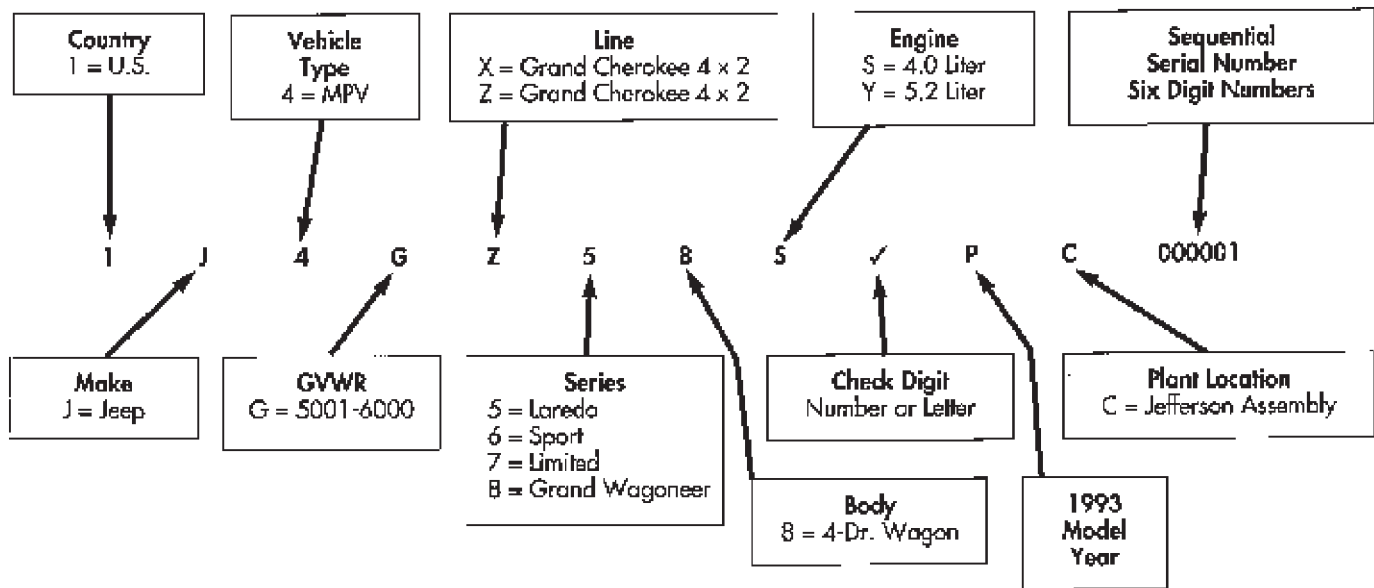
- Body Code Plate
- Equipment Identification Plate
- Vehicle Safety Certification Label
- Frame rail

BODY CODE PLATE

A metal Body Code plate is attached (riveted) to the top, left side of the radiator reinforcement. There can be a maximum of seven rows of vehicle information imprinted on the plate. The information should be read from left to right, starting with line 1 at the bottom of the plate up to line 7 (as applicable) at the top of the code plate (Fig.2).

Refer to the decoding chart to decode lines 1 through 3.

VEHICLE IDENTIFICATION NUMBER (VIN) DECODING



J931N-13

Lines 4 through 7 on the plate are imprinted in sequence according to the following descriptions:

- 3-character sales code
- 3-digit numerical code
- 6-digit SEC code

If there is not enough space left in the row for all of the 6-digit SEC code:

- The unused space will remain blank
- The code will be listed in the next row.

The last nine positions of row 7 will contain a 2-digit code and a 6-digit serial number.

The last code on a body code plate will be followed by the imprinted word END. When two plates are required, the last available spaces on the first plate will be imprinted with the letters CTD (for continued).

When a second body code plate is necessary, the first four spaces on each row will not be used because of the plate overlap.

ENGINE AND TRANSMISSION/TRANSFER CASE IDENTIFICATION

Refer to Group 9—Engines for all engine identification data.

Refer to Group 21—Transmissions for all transmission/transfer case identification data.

MAJOR COMPONENT IDENTIFICATION

Refer to the applicable group for identification data.

BODY CODE DECODING

Line #1	Digit 1-3	Transmission Sales Code
	Digit 4	Open Space
	Digit 5	Market Code - U-C-B-M
	Digit 6	Open Space
	Digit 7-23	Vehicle Identification No.
Line #2	Digit 1-3	Paint Procedure
	Digit 4	Open Space
	Digit 5-8	Primary Paint
	Digit 9	Open Space
	Digit 10-13	Secondary Paint
	Digit 14	Open Space
	Digit 15-18	Trim Code
	Digit 19	Open Space
	Digit 20-22	Engine Sales Code
	Digit 23	Open Space
Line #3	Digit 1-12	Vehicle Order Number
	Digit 13	Open Space
	Digit 14-16	Vinyl Roof Code (Door Combo Code - Pillette)
	Digit 17	Open Space
	Digit 18-23	Model

J901N-20

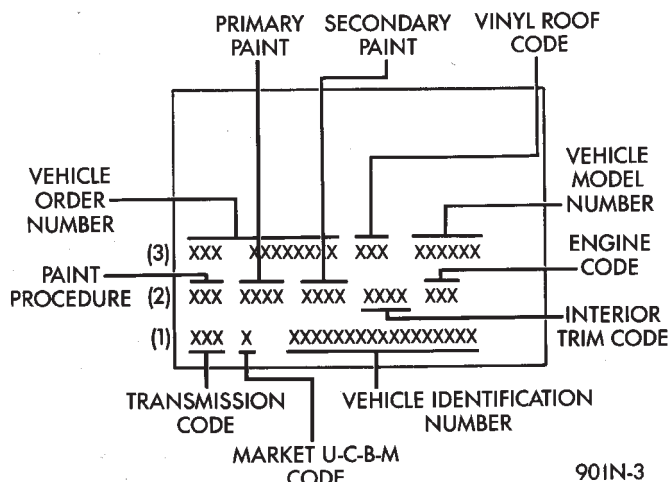


Fig. 2 Body Code Plate

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VEHICLE DIMENSION

The Vehicle Dimension chart provides the dimensions for each type of Grand Cherokee vehicle.

VEHICLE WEIGHTS

The Vehicle Weights chart provides:

- The Gross Vehicle Weight Rating (GVWR),
- The payload
- The curb weight for each vehicle type/wheelbase

VEHICLE DIMENSIONS

EXTERIOR DIMENSIONS							
WHEEL BASE cm/in	TRACK FRONT REAR cm/in		LENGTH	OVERALL WIDTH cm/in	HEIGHT		
2691	1473	1473	4488	1758	1635		
105.9	58.0	58.0	176.7	69.2	64.4		
INTERIOR DIMENSIONS							
HEAD FRONT REAR cm/in		LEG FRONT REAR cm/in		SHOULDER FRONT REAR cm/in		HIP FRONT REAR cm/in	
991	994	1044	945	1480	1463	1445	1252
39.0	39.1	41.1	37.2	58.3	57.6	56.9	49.3

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VEHICLE WEIGHTS

VEHICLE	BODY¹ STYLE	WHEEL/ TIRE	GVWR²	PASSENGER WEIGHT (MAX)	CARGO³ WEIGHT (MAX)	GAWR⁴ FRONT	GAWR⁴ REAR
ZJ 4WD	74	P205/75R15 15 x 7	5300	750	400	2500	2905
ZJ 2WD	74	P205/75R15 15 x 7	4950	750	400	2500	2905
<p>All Weights Listed In Pounds. 74 = 4-Door Body</p> <p>²Gross Vehicle Weight Rating ³For MJ Vehicles, including options ⁴Gross Axle Weight Rating</p>							

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TRAILER TOWING SPECIFICATIONS

The Trailer Towing Specifications chart provides:

- The maximum trailer tongue weight
- The maximum trailer weight
- The maximum combined weight of the trailer/load/towing vehicle with a specific engine/transmission/axle combination.

INTERNATIONAL VEHICLE CONTROL AND DISPLAY SYMBOLS

The graphic symbols illustrated in the following chart are used to identify various instrument controls. The symbols correspond to the controls and displays that are located on the instrument panel.

TRAILER TOWING SPECIFICATIONS

VEHICLE LINE	MAX TRAILER ² WEIGHT	MAX TONGUE WEIGHT	MAX GCWR ¹	ENGINE	REAR AXLE RATIO	TRANSMISSION
ZJ 4WD	2268 kg 5000 lb	340 kg 750 lb	4332 kg 9550 lb	4.0 6 cyl	3.55	Automatic w/aux. cooler
ZJ 2WD	2268 kg 5000 lb	340 kg 750 lb	4173 kg 9200 lb	4.0 6 cyl	3.55	Automatic w/aux. cooler

























NOTE: All weights with standard tires and GVWR Packages except as indicated. All automatic transmission applications require the auxiliary transmission oil cooler. All applications require the following additional equipment: 500-ampere battery, maximum engine cooling, heavy duty shock absorbers, front stabilizer bar, heavy-duty variable load flasher, and wiring harness for the trailer lights.

¹Maximum gross combined weight of loaded trailer and towing vehicle.

²Maximum full-frontal-area trailer length of 23 feet recommended.

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INTERNATIONAL CONTROL AND DISPLAY SYMBOLS

					
HIGH BEAM	FOG LIGHTS	HEADLIGHTS, PARKING LIGHTS, PANEL LIGHTS	TURN SIGNAL	HAZARD WARNING	WINDSHIELD WASHER
					
WINDSHIELD WIPER	WINDSHIELD WIPER AND WASHER	WINDSCREEN DEMISTING AND DEFROSTING	VENTILATING FAN	REAR WINDOW DEFOGGER	REAR WINDOW WIPER
					
REAR WINDOW WASHER	FUEL	ENGINE COOLANT TEMPERATURE	BATTERY CHARGING CONDITION	ENGINE OIL	SEAT BELT
					
BRAKE FAILURE	PARKING BRAKE	FRONT HOOD	REAR HOOD (TRUNK)	HORN	LIGHTER

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MEASUREMENT AND TORQUE SPECIFICATIONS

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SPECIFICATION NOTATIONS

WARNING: THE USE OF INCORRECT ATTACHING HARDWARE CAN RESULT IN COMPONENT DAMAGE AND/OR PERSONAL INJURY.

It is important to retain the original attaching hardware for assembly of the components. If the attaching hardware is not reusable, hardware with equivalent specifications must be used.

METRIC AND ENGLISH/SAE CONVERSION

The following chart will assist in converting metric units to equivalent English and SAE units, or vise versa.

TORQUE SPECIFICATIONS

TORQUE CHARTS

A torque chart for fasteners is provided at the end of each group (of service information). Refer to the Standard Torque Specifications chart to determine torque values not listed in the group (Figs. 1 and 2).

It is important to be aware that the torque values listed in the chart are based on clean and dry bolt

threads. Reduce the torque value by 10 percent when the bolt threads are lubricated and by 20 percent if new. *STANDARD TORQUE SPECIFICATIONS*

BOLT SIZE	BOLT TORQUE			
	GRADE 5		GRADE 8	
	N·m	ft-lbs (in-lbs)	N·m	ft-lbs (in-lbs)
1/4-20	11	(95)	14	(125)
1/4-28	11	(95)	17	(150)
5/16-18	23	(200)	31	(270)
5/16-24	27	20	34	25
3/8-16	41	30	54	40
3/8-24	48	35	61	45
7/16-14	68	50	88	65
7/16-20	75	55	95	70
1/2-13	102	75	136	100
1/2-20	115	85	149	110
9/16-12	142	105	183	135
9/16-18	156	115	203	150
5/8-11	203	150	264	195
5/8-18	217	160	285	210
3/4-16	237	175	305	225

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CONVERSION FORMULAS AND EQUIVALENT VALUES

Multiply	By	To Get	Multiply	By	To Get
in-lbs	x 0.11298	= Newton-Meters (N·m)	N·m	x 8.851	= in-lbs
ft-lbs	x 1.3558	= Newton-Meters (N·m)	N·m	x 0.7376	= ft-lbs
Inches Hg (60°F)	x 3.377	= Kilopascals (kPa)	kPa	x 0.2961	= Inches Hg
psi	x 6.895	= Kilopascals (kPa)	kPa	x 0.145	= psi
Inches	x 25.4	= Millimeters (mm)	mm	x 0.03937	= Inches
Feet	x 0.3048	= Meters (M)	M	x 3.281	= Feet
Yards	x 0.9144	= Meters (M)	M	x 1.0936	= Yards
Miles	x 1.6093	= Kilometers (Km)	Km	x 0.6214	= Miles
mph	x 1.6093	= Kilometers/Hr. (Km/h)	Km/h	x 0.6214	= mph
Feet/Sec.	x 0.3048	= Meters/Sec. (M/S)	M/S	x 3.281	= Feet/Sec.
Kilometers/Hr.	x 0.27778	= Meters/Sec. (M/S)	M/S	x 3.600	= Kilometers/Hr.
mph	x 0.4470	= Meters/Sec. (M/S)	M/S	x 2.237	= mph

COMMON METRIC EQUIVALENTS			
1 Inch	=	25 Millimeters	
1 Foot	=	0.3 Meter	
1 Yard	=	0.9 Meter	
1 Mile	=	1.6 Kilometers	
1 Cubic Inch	=	16 Cubic Centimeters	
1 Cubic Foot	=	0.03 Cubic Meter	
1 Cubic Yard	=	0.8 Cubic Meter	

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BOLT THREAD AND GRADE/CLASS IDENTIFICATION

THREAD IDENTIFICATION

SAE and metric bolt/nut threads are not the same. The difference is described in the Thread Notation chart.

THREAD NOTATION—SAE AND METRIC

INCH		METRIC	
5/16-18		M8 X 1.25	
THREAD MAJOR DIAMETER IN INCHES	NUMBER OF THREADS PER INCH	THREAD MAJOR DIAMETER IN MILLIMETERS	DISTANCE BETWEEN THREADS IN MILLIMETERS

PR606B

GRADE/CLASS IDENTIFICATION

The SAE bolt strength grades range from grade 2 to grade 8. The higher the grade number, the greater the bolt strength. Identification is determined by the line marks on the top of each bolt head (Fig. 1). The actual bolt strength grade corresponds to the number of line marks plus 2.

- A grade 2 bolt has no line marks on top of the bolt head
- A grade 5 bolt has 3 line marks on top of the bolt head
- A grade 7 bolt has 5 line marks on top of the bolt head
- A grade 8 bolt has 6 line marks on top of the bolt head

The most commonly used metric bolt strength classes are 9.8 and 12.9. The metric strength class identification number is imprinted on the head of the bolt (Fig. 2). The higher the class number, the greater the bolt strength. Some metric nuts are imprinted with a single-digit strength class on the nut face.

METRIC CONVERSION

Refer to the Metric Conversion chart to convert torque values listed in metric Newton-meters (N•m). Also, use the chart to convert between millimeters (mm) and inches (in.)

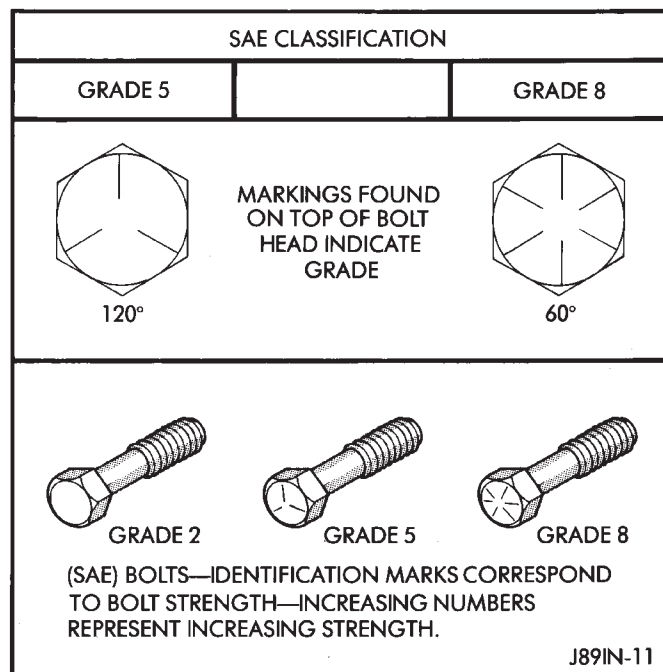


Fig. 1 SAE Bolt Grade Identification

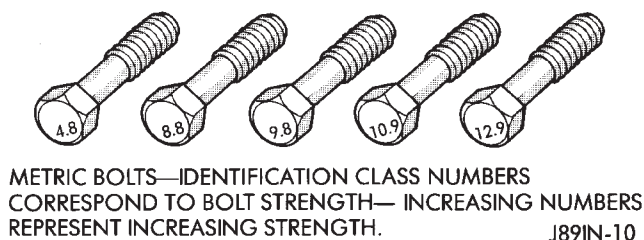


Fig. 2 Metric Bolt Class Identification

METRIC CONVERSION

in-lbs to N•m

N•m to in-lbs

in-lb	N•m	in-lb	N•m	in-lb	N•m	in-lb	N•m	in-lb	N•m	in-lb	N•m	in-lb	N•m	in-lb	N•m	in-lb	N•m
2	.2260	42	4.7453	82	9.2646	122	13.7839	162	18.3032	.2	1.7702	4.2	37.1747	8.2	72.5792	12.2	107.9837
4	.4519	44	4.9713	84	9.4906	124	14.0099	164	18.5292	.4	3.5404	4.4	38.9449	8.4	74.3494	12.4	109.7539
6	.6779	46	5.1972	86	9.7165	126	14.2359	166	18.7552	.6	5.3107	4.6	40.7152	8.6	76.1197	12.6	111.5242
8	.9039	48	5.4232	88	9.9425	128	14.4618	168	18.9811	.8	7.0809	4.8	42.4854	8.8	77.8899	12.8	113.2944
10	1.1298	50	5.6492	90	10.1685	130	14.6878	170	19.2071	1	8.8511	5	44.2556	9	79.6601	13	115.0646
12	1.3558	52	5.8751	92	10.3944	132	14.9138	172	19.4331	1.2	10.6213	5.2	46.0258	9.2	81.4303	13.2	116.8348
14	1.5818	54	6.1011	94	10.6204	134	15.1397	174	19.6590	1.4	12.3916	5.4	47.7961	9.4	83.2006	13.4	118.6051
16	1.8077	56	6.3270	96	10.8464	136	15.3657	176	19.8850	1.6	14.1618	5.6	49.5663	9.6	84.9708	13.6	120.3753
18	2.0337	58	6.5530	98	11.0723	138	15.5917	178	20.1110	1.8	15.9320	5.8	51.3365	9.8	86.7410	13.8	122.1455
20	2.2597	60	6.7790	100	11.2983	140	15.8176	180	20.3369	2	17.7022	6	53.1067	10	88.5112	14	123.9157
22	2.4856	62	7.0049	102	11.5243	142	16.0436	182	20.5629	2.2	19.4725	6.2	54.8770	10.2	90.2815	14.2	125.6860
24	2.7116	64	7.2309	104	11.7502	144	16.2696	184	20.7889	2.4	21.2427	6.4	56.6472	10.4	92.0517	14.4	127.4562
26	2.9376	66	7.4569	106	11.9762	146	16.4955	186	21.0148	2.6	23.0129	6.6	58.4174	10.6	93.8219	14.6	129.2264
28	3.1635	68	7.6828	108	12.2022	148	16.7215	188	21.2408	2.8	24.7831	6.8	60.1876	10.8	95.5921	14.8	130.9966
30	3.3895	70	7.9088	110	12.4281	150	16.9475	190	21.4668	3	26.5534	7	61.9579	11	97.3624	15	132.7669
32	3.6155	72	8.1348	112	12.6541	152	17.1734	192	21.6927	3.2	28.3236	7.2	63.7281	11.2	99.1326	15.2	134.5371
34	3.8414	74	8.3607	114	12.8801	154	17.3994	194	21.9187	3.4	30.0938	7.4	65.4983	11.4	100.9028	15.4	136.3073
36	4.0674	76	8.5867	116	13.1060	156	17.6253	196	22.1447	3.6	31.8640	7.6	67.2685	11.6	102.6730	15.6	138.0775
38	4.2934	78	8.8127	118	13.3320	158	17.8513	198	22.3706	3.8	33.6342	7.8	69.0388	11.8	104.4433	15.8	139.8478
40	4.5193	80	9.0386	120	13.5580	160	18.0773	200	22.5966	4	35.4045	8	70.8090	12	106.2135	16	141.6180

ft-lbs to N•m

N•m to ft-lbs

ft-lb	N•m	ft-lb	N•m	ft-lb	N•m	ft-lb	N•m	ft-lb	N•m	ft-lb	N•m	ft-lb	N•m	ft-lb	N•m	ft-lb	N•m
1	1.3558	21	28.4722	41	55.5885	61	82.7049	81	109.8212	1	.7376	21	15.9888	41	30.2400	61	44.9913
2	2.7116	22	29.8280	42	56.9444	62	84.0607	82	111.1770	2	1.4751	22	16.2264	42	30.9776	62	45.7289
3	4.0675	23	31.1838	43	58.3002	63	85.4165	83	112.5328	3	2.2127	23	16.9639	43	31.7152	63	46.4664
4	5.4233	24	32.5396	44	59.6560	64	86.7723	84	113.8888	4	2.9502	24	17.7015	44	32.4527	64	47.2040
5	6.7791	25	33.8954	45	61.0118	65	88.1281	85	115.2446	5	3.6878	25	18.4391	45	33.1903	65	47.9415
6	8.1349	26	35.2513	46	62.3676	66	89.4840	86	116.6004	6	4.4254	26	19.1766	46	33.9279	66	48.6791
7	9.4907	27	36.6071	47	63.7234	67	90.8398	87	117.9562	7	5.1629	27	19.9142	47	34.6654	67	49.4167
8	10.8465	28	37.9629	48	65.0793	68	92.1956	88	119.3120	8	5.9005	28	20.6517	48	35.4030	68	50.1542
9	12.2024	29	39.3187	49	66.4351	69	93.5514	89	120.6678	9	6.6381	29	21.3893	49	36.1405	69	50.8918
10	13.5582	30	40.6745	50	67.7909	70	94.9073	90	122.0236	10	7.3756	30	22.1269	50	36.8781	70	51.6293
11	14.9140	31	42.0304	51	69.1467	71	96.2631	91	123.3794	11	8.1132	31	22.8644	51	37.6157	71	52.3669
12	16.2698	32	43.3862	52	70.5025	72	97.6189	92	124.7352	12	8.8507	32	23.6020	52	38.3532	72	53.1045
13	17.6256	33	44.7420	53	71.8583	73	98.9747	93	126.0910	13	9.5883	33	24.3395	53	39.0908	73	53.8420
14	18.9815	34	46.0978	54	73.2142	74	100.3316	94	127.4468	14	10.3259	34	25.0771	54	39.8284	74	54.5720
15	20.3373	35	47.4536	55	74.5700	75	101.6862	95	128.8026	15	11.0634	35	25.8147	55	40.5659	75	55.3172
16	21.6931	36	48.8094	56	75.9258	76	103.0422	96	130.1586	16	11.8010	36	26.5522	56	41.3035	76	56.0547
17	23.0489	37	50.1653	57	77.2816	77	104.3980	97	131.5144	17	12.5386	37	27.2898	57	42.0410	77	56.7923
18	24.4047	38	51.5211	58	78.6374	78	105.7538	98	132.8702	18	13.2761	38	28.0274	58	42.7786	78	57.5298
19	25.7605	39	52.8769	59	79.9933	79	107.1196	99	134.2260	19	14.0137	39	28.7649	59	43.5162	79	58.2674
20	27.1164	40	54.2327	60	81.3491	80	108.4654	100	135.5820	20	14.7512	40	29.5025	60	44.2537	80	59.0050

in. to mm

mm to in.

in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm
.01	.254	.21	5.334	.41	10.414	.61	15.494	.81	20.574	.01	.00039	.21	.00827	.41	.01614	.61	.02402
.02	.508	.22	5.588	.42	10.668	.62	15.748	.82	20.828	.02	.00079	.22	.00866	.42	.01654	.62	.02441
.03	.762	.23	5.842	.43	10.922	.63	16.002	.83	21.082	.03	.00118	.23	.00906	.43	.01693	.63	.02480
.04	1.016	.24	6.096	.44	11.176	.64	16.256	.84	21.336	.04	.00157	.24	.00945	.44	.01732	.64	.02520
.05	1.270	.25	6.350	.45	11.430	.65	16.510	.85	21.590	.05	.00197	.25	.00984	.45	.01772	.65	.02559
.06	1.524	.26	6.604	.46	11.684	.66	16.764	.86	21.844	.06	.00236	.26	.01024	.46	.01811	.66	.02598
.07	1.778	.27	6.858	.47	11.938	.67	17.018	.87	22.098	.07	.00276	.27	.01063	.47	.01850	.67	.02638
.08	2.032	.28	7.112	.48	12.192	.68	17.272	.88	22.352	.08	.00315	.28	.01102	.48	.01890	.68	.02677
.09	2.286	.29	7.366	.49	12.446	.69	17.526	.89	22.606	.09	.00354	.29	.01142	.49	.01929	.69	.02717
.10	2.540	.30	7.620	.50	12.700	.70	17.780	.90	22.860	.10	.00394	.30	.01181	.50	.01969	.70	.02756
.11	2.794	.31	7.874	.51	12.954	.71	18.034	.91	23.114	.11	.00433	.31	.01220	.51	.02008	.71	.02795
.12	3.048	.32	8.128	.52	13.208	.72	18.288	.92	23.368	.12	.00472	.32	.01260	.52	.02047	.72	.02835
.13	3.302	.33	8.382	.53	13.462	.73	18.542	.93	23.622	.13	.00512	.33	.01299	.53	.02087	.73	.02874
.14	3.556	.34	8.636	.54	13.716	.74	18.796	.94	23.876	.14	.00551	.34	.01339	.54	.02126	.74	.02913
.15	3.810	.35	8.890	.55	13.970	.75	19.050	.95	24.130	.15	.00591	.35	.01378	.55	.02165	.75	.02953
.16	4.064	.36	9.144	.56	14.224	.76	19.304	.96	24.384	.16	.00630	.36	.01417	.56	.02205	.76	.02992
.17	3.318	.37	9.398	.57	14.478	.77	19.558	.97	24.638	.17	.00669	.37	.01457	.57	.02244	.77	.03032
.18	4.572	.38	9.652	.58	14.732	.78	19.812	.98	24.892	.18	.00709	.38	.01496	.58	.02283	.78	.03071
.19	4.826	.39	9.906	.59	14.986	.79	20.066	.99	25.146	.19	.00748	.39	.01535	.59	.02322	.79	.03110
.20	5.080	.40	10.160	.60	15.240	.80	20.320	1.00	25.400	.20	.00787	.40	.01575	.60	.02362	.80	.03150

