INTRODUCTION

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DESIGNATIONS, LABELS/PLATES, CODES AND DIMENSIONS

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VEHICLE DESIGNATIONS

The Vehicle Code Designations chart lists the vehicle description and code for Cherokee and Wrangler vehicles. The codes are used to identify vehicle types in charts, captions and in service procedures. The vehicle codes are different than the Vehicle Identification Number (VIN) or the wheelbase/model code.

The following illustrations shows the labels, decals and plates as well as locations on each vehicle.

VEHICLE CODE DESIGNATIONS

VEHICLE DESCRIPTION	CODE
CHEROKEE - 2DR/4WD	XJ
CHEROKEE - 4DR/4WD	
CHEROKEE - 2DR/2WD	
CHEROKEE - 4DR/2WD	
WRANGLER - 4WD	YJ

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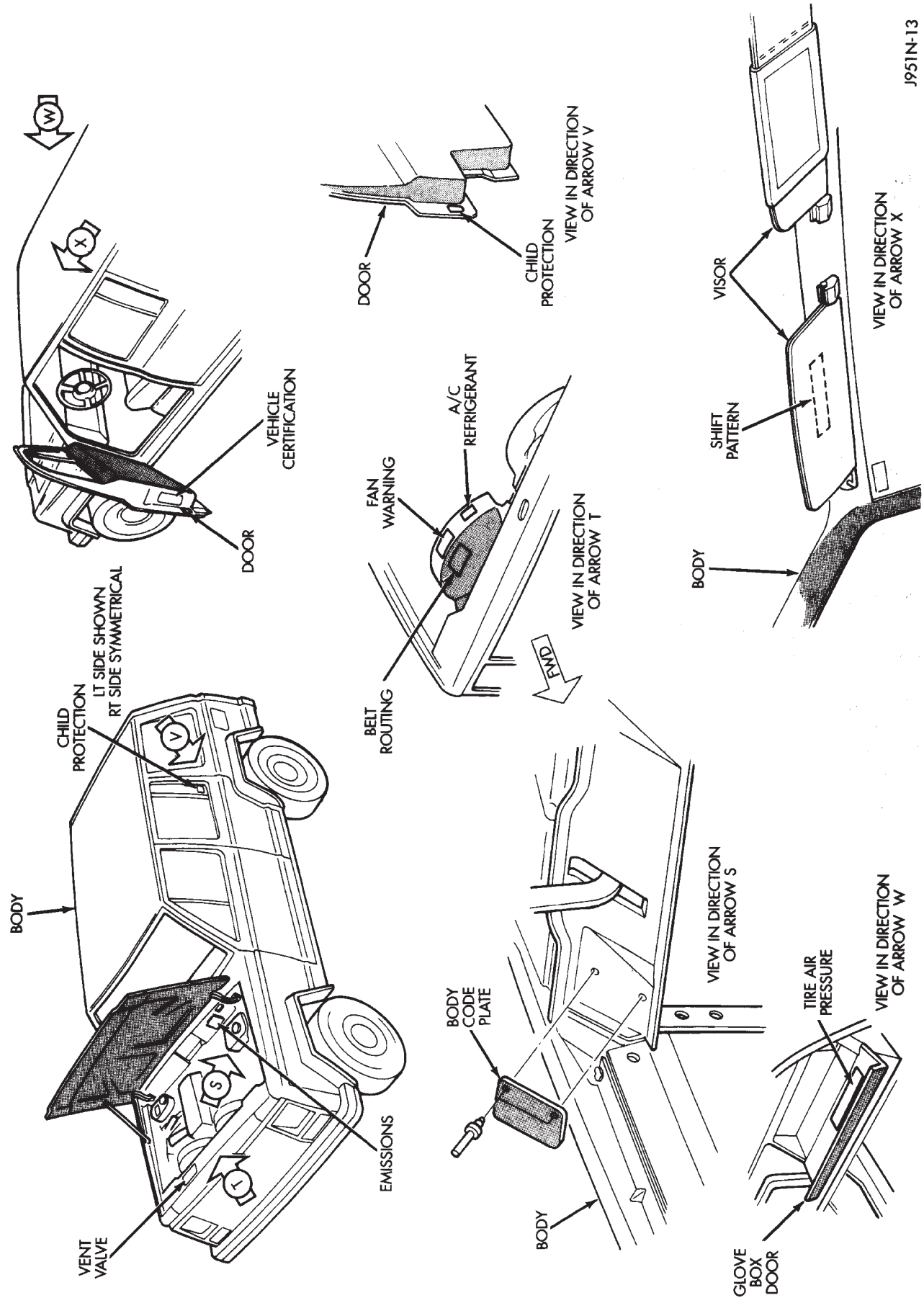
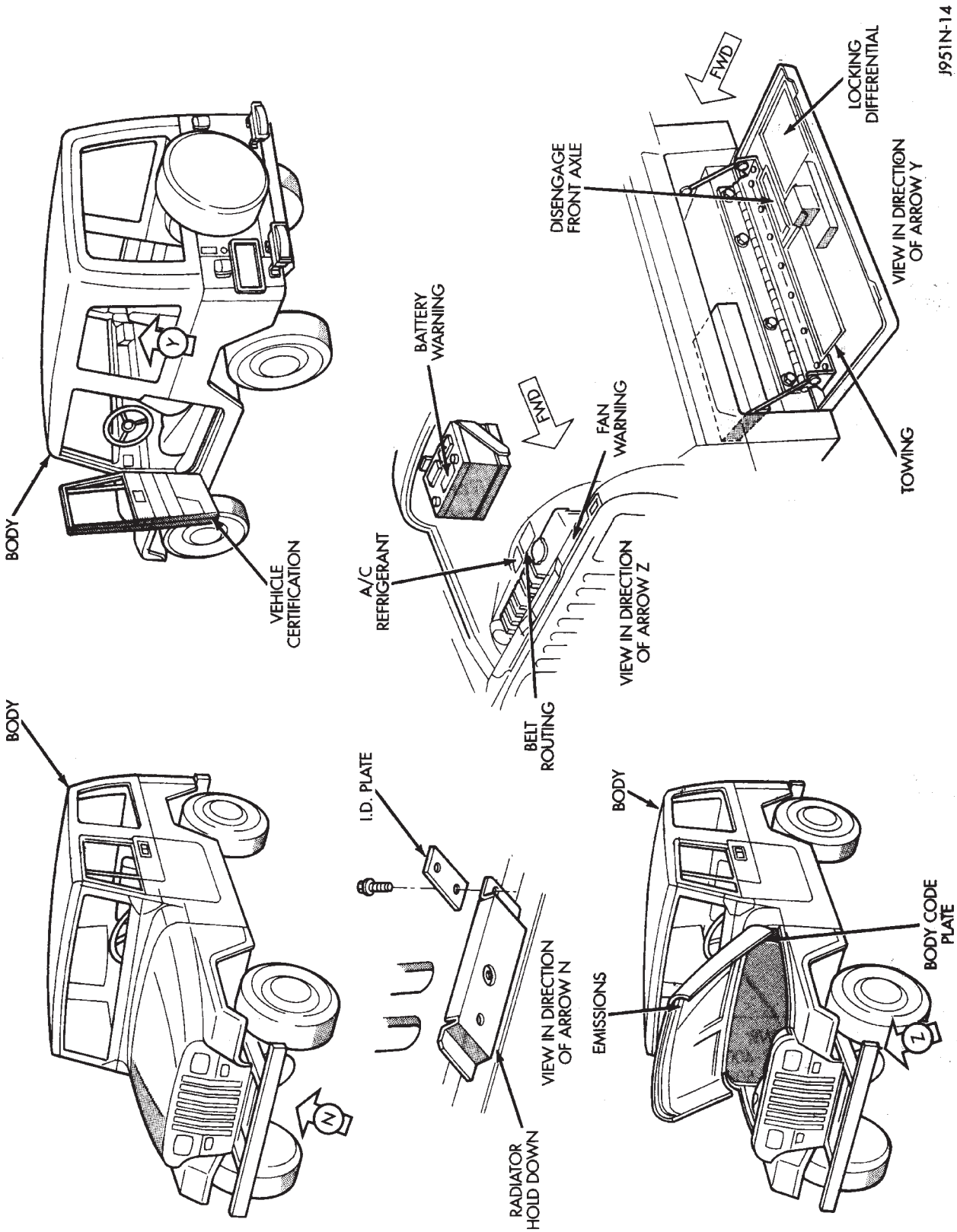


VEHICLE, LABELS AND PLATES—XJ



VEHICLE, LABELS AND PLATES—YJ

VEHICLE SAFETY CERTIFICATION LABEL

A vehicle safety certification label (Fig. 1) is attached to every Jeep vehicle. The label certifies that the vehicle conforms to all applicable Federal Motor Vehicle Safety Standards. The label also lists:

- Gross vehicle weight rating (GVWR) and the gross front and rear axle weight ratings (GAWR's) based on a minimum tire rim size and a maximum cold tire inflation pressure.
- Month and year of vehicle manufacture.
- Vehicle identification number (VIN).
- Type of vehicle.
- Month, day and hour (MDH) of final assembly.

The label is located on the driver-side door shutface.

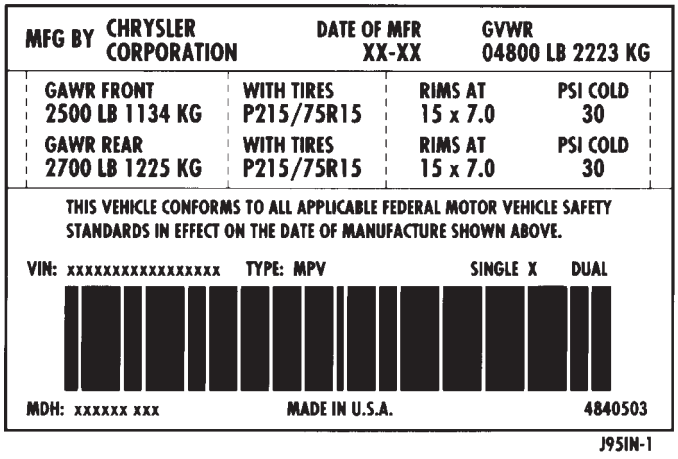


Fig. 1 Vehicle Safety Certification Label—Typical

VEHICLE IDENTIFICATION NUMBER (VIN) PLATE

The Vehicle Identification Number (VIN) plate is located on the lower windshield fence near the left A-pillar. The VIN contains 17 characters that provide data concerning the vehicle. Refer to the VIN decoding chart to determine the identification of a vehicle.

The Vehicle Identification Number is also imprinted on the:

- Body Code Plate.
- Vehicle Safety Certification Label.
- Frame rail.

To protect the consumer from theft and possible fraud the manufacturer is required to include a Check Digit at the ninth position of the Vehicle Identification Number. The check digit is used by the manufacturer and government agencies to verify the authenticity of the vehicle and official documentation. The formula to use the check digit is not released to the general public.

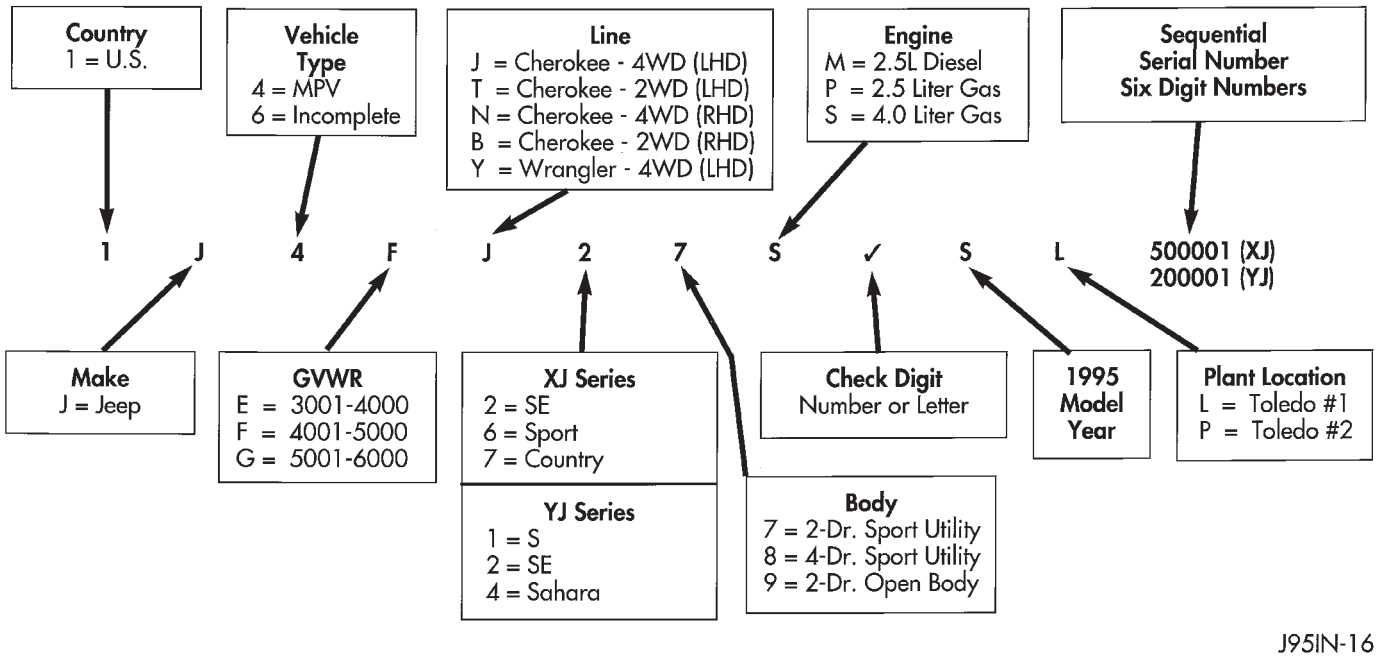
VEHICLE CODE PLATE

A metal vehicle code plate is attached to the left (driver) side of the dash panel in the engine compartment (Fig. 2). 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 through line 7 (as applicable) at the top of the code plate.

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

Lines 4 through 7 (if used) on the vehicle code plate are imprinted on the plate (in sequence) according to the following:

VEHICLE IDENTIFICATION NUMBER (VIN) DECODING



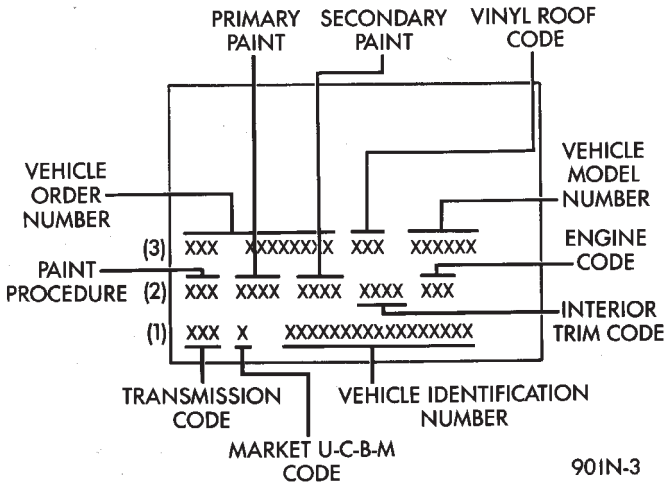


Fig. 2 Vehicle Code Plate

VEHICLE 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

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- 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 (if used):

- 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, when applicable, and a 6-digit gateline serial number (same as the last 6 numbers of the VIN).

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

When a second vehicle 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

When required, 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

When required, refer to the applicable service information group for major component identification data.

VEHICLE DIMENSION DATA

The vehicle dimension data charts list the exterior and interior dimensions for each type of Jeep vehicle.

VEHICLE LOAD DATA

The Vehicle Load Data chart lists the following information:

- Gross vehicle weight rating (GVWR).
- Gross axle weight ratings (GAWR).
- Cargo weight.
- Passenger weight for each Jeep type/body style.

TRAILER TOWING SPECIFICATIONS

The Trailer Towing Specification chart provide:

- Minimum Vehicle requirements.
- 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

Most of the graphic symbols illustrated in the following chart are used to identify various instrument controls and displays.

VEHICLE EXTERIOR DIMENSION DATA

MODEL NAME	MODEL	WHEEL BASE cm/in	TRACK FRONT REAR cm/in		LENGTH	OVERALL WIDTH cm/in	HEIGHT	
Cherokee 2 DR-2WD	XJ	257.6 101.4	147.3 58.0	147.3 58.0	428.7 168.8	172.0 67.7	161.0 63.2	
Cherokee 4 DR-2WD	XJ	257.6 101.4	147.3 58.0	147.3 58.0	428.7 168.8	172.0 67.7	161.0 63.2	
Cherokee 2 DR-4WD	XJ	257.6 101.4	147.3 58.0	147.3 58.0	428.7 168.8	172.0 67.7	161.0 63.2	
Cherokee 4 DR-4WD	XJ	257.6 101.4	147.3 58.0	147.3 58.0	428.7 168.8	172.0 67.7	161.0 63.2	
Wrangler 2 DR-4WD	YJ	237.2 93.4	147.3 58.0	147.3 58.0	387.6 152.6	167.7 66.0	(H.T.) 176.5 69.5	(S.T.) 183.0 72.0

VEHICLE INTERIOR DIMENSION DATA

VEHICLE	MODEL	HEAD FRONT REAR cm/in		LEG FRONT REAR cm/in		SHOULDER FRONT REAR cm/in		HIP FRONT REAR cm/in	
Cherokee	XJ	97.3 38.3	96.5 38.0	105.7 41.6	89.7 35.3	139.7 55.0	140.2 55.2	140.5 55.3	113.0 44.5
Wrangler (Hardtop)	XJ	102.1 40.2	102.9 40.5	100.1 39.4	88.9 35.0	134.8 53.1	143.0 56.3	134.8 53.1	91.4 36.0

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VEHICLE DIMENSION DATA

VEHICLE LOAD DATA—XJ

VEHICLE	BODY[1] STYLE	WHEEL/ TIRE	GVWR[2]	PASSENGER WEIGHT (MAX)	CARGO WEIGHT (MAX)	GAWR[3] FRONT	GAWR[3] REAR
XJ 2WD	72	15x7 P215/75R	4550	750	400	2500	2700
XJ 2WD	74	15x7 P215/75R	4600	750	400	2500	2700
XJ 4WD	72	15x7 P215/75R	4850	750	400	2500	2700
XJ 4WD	74	15x7 P215/75R	4900	750	400	2500	2700
XJ 2WD	72 W/TRAILER TOW PACKAGE	15x7 P215/75R	4550	750	400	2500	2700
XJ 2WD	74 W/TRAILER TOW PACKAGE	15x7 P215/75R	4600	750	400	2500	2700
XJ 4WD	72 W/TRAILER TOW PACKAGE	15x7 P215/75R	4850	750	400	2500	2700
XJ 4WD	74 W/TRAILER TOW PACKAGE	15x7 P215/75R	4900	750	400	2500	2700
XJ 4WD	COUNTRY[1]	15x7 P225/70R15	4900	750	400	2500	2700

All Weights Listed In Pounds.
[1] 72 = 2-Door Body
74 = 4-Door Body
[2] Gross Vehicle Weight Rating
[3] Gross Axle Weight Rating

VEHICLE LOAD DATA—YJ

VEHICLE	BODY STYLE	TIRE	GVWR[1]	PASSENGER WEIGHT (MAX)	CARGO WEIGHT (MAX)	GAWR[2] FRONT	GAWR[2] REAR
YJ	S	P205/75R15	4300	300 600[3]	200	2200	2200
YJ	SAHARA (2TG)	P215/75R15	4300	600	200	2200	2200
YJ	SPORT (2TC)	P215/75R15	4300	600	200	2200	2200
YJ	SE	P215/75R15	4300	600	200	2200	2200

All Weights Listed In Pounds.
[1]Gross Vehicle Weight Rating
[2]Gross Axle Weight Rating
[3]With Rear Seat

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TRAILER TOWING SPECIFICATIONS

CHEROKEE — XJ

Trailer Type	Gross Trailer Weight	Tongue Weight (See Note 1)	Towing Pkg.	GCWR (Max.) (See Note 2)	Engine	Trans-mission	Steering	Battery	Cooling	Axle	Tire Size
Fold Down and Low Profile • 25 ft² (2.3m²) or Less Frontal Area • Up to 2,000 lbs. (907 kg) also small boats, flatbed trailers etc.	2,000 lbs. (907 kg) (Max.)	300 lbs. (91 kg) (Max.) 10 to 15% of GTW	Class I Hitch (Light Duty)	4x2 5,781 lbs. (2,627 kg) 4x4 6,060 lbs. (2,754 kg)	4.0L 2.5L	All Manual 5 spd. ONLY	Power	Heavy Duty	All	All	P215/75 R15
	1,000 lbs. (453 kg) (Max.)			4x2 4x4 5,300 lbs. (2,409 kg)	2.5L	Auto 3 spd. ONLY					
Other Trailer Types and Weights up to Full Box Shape • Up to 64 ft² (5.8m²) Frontal Area • Up to 5,000 lbs. (2,268 kg) GTW • Maximum Travel Trailer Length: 25 ft. (7.6m)	5,000 lbs. (2,268 kg) (Max.)	750 lbs. (340 kg) (Max.)	Class III Hitch (Light Duty)	4x2 8,781 lbs. (3,983 kg) 4x4 9,060 lbs. (4,110 kg)	4.0L 6 cyl.	Auto. Trans. with Cooler	Power	Heavy Duty	Heavy Duty	All	P215/75 R15

1 The towing vehicle payload should be reduced by the tongue load (for a dead weight hitch) to keep the rear axle loading below GAWR (Gross Axle Weight Rating) of 2,700 lbs. (1,225 kg).

2 GCWR = Total combined weight of trailer and tow vehicle.

WRANGLER — YJ

Trailer Type	Gross Trailer Weight	Tongue Weight (See Note 1)	Towing Pkg.	GCWR (Max.) (See Note 2)	Engine	Trans-mission	Steering	Battery	Cooling	Axle	Tire Size
Fold Down and Low Profile • 25 ft.² (2.3m²) or Less Frontal Area • Up to 2000 lbs. (907 kg) (also small boats, flatbed trailers etc.)	2,000 lbs. (907 kg) (Max.)	10 to 15% of GTW 300 lbs.	Class I Hitch	6,046 lbs. (2,742 kg)	4.0L 2.5L	All Manual 5 spd. ONLY	All	All	All	All	P215/75 R15
	1,000 lbs. (453 kg) (Max.)			5,300 lbs. (2,409 kg)	2.5L	Auto. 3 spd. ONLY					
Other Trailer Types and Weights up to Full Box Shape • Up to 64 ft² (5.8m²) Frontal Area • Up to 5,000 lbs. (2,268 kg) GTW • Maximum Travel Trailer Length: 25 ft. (7.6m)	NOT RECOMMENDED										

1 The towing vehicle payload should be reduced by the tongue load (for a dead weight hitch) to keep the rear axle loading below GAWR (Gross Axle Weight Rating) of 2,500 lbs. (1,134 kg).

2 GCWR = Total combined weight of trailer and tow vehicle.

VEHICLE 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	 WINDSHIELD DEMISTING AND DEFROSTING	 REAR WINDSHIELD WIPER/WASHER	 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	 VENTILATING FAN	 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 Torque Specifications chart to determine torque values not listed in the group.

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.

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.

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. The actual bolt strength grade corresponds to the number of line marks plus 2. 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. The higher the class number,

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 Cubic Inch	= 16 Cubic Centimeters
1 Foot	= 0.3 Meter	1 Cubic Foot	= 0.03 Cubic Meter
1 Yard	= 0.9 Meter	1 Cubic Yard	= 0.8 Cubic Meter
1 Mile	= 1.6 Kilometers		

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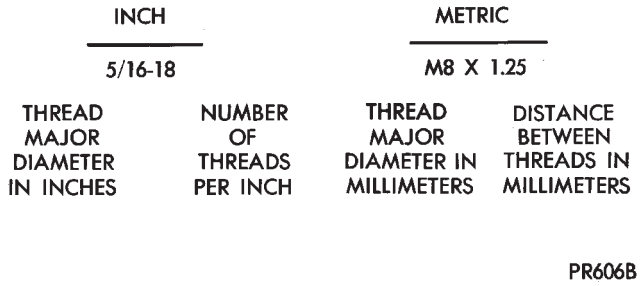
TORQUE SPECIFICATIONS

SPECIFIED TORQUE FOR STANDARD BOLTS

Class	Diameter mm	Pitch mm	Specified torque					
			Hexagon head bolt			Hexagon flange bolt		
			N•m	kgf-cm	ft-lbf	N•m	kgf-cm	ft-lbf
4T	6	1	5	55	48 in.-lbf	6	60	52 in.-lbf
	8	1.25	12.5	130	9	14	145	10
	10	1.25	26	260	19	29	290	21
	12	1.25	47	480	35	53	540	39
	14	1.5	74	760	55	84	850	61
	16	1.5	115	1,150	83	—	—	—
5T	6	1	6.5	65	56 in.-lbf	7.5	75	65 in.-lbf
	8	1.25	15.5	160	12	17.5	175	13
	10	1.25	32	330	24	36	360	26
	12	1.25	59	600	43	65	670	48
	14	1.5	91	930	67	100	1,050	76
	16	1.5	140	1,400	101	—	—	—
6T	6	1	8	80	69 in.-lbf	9	90	78 in.-lbf
	8	1.25	19	195	14	21	210	15
	10	1.25	39	400	29	44	440	32
	12	1.25	71	730	53	80	810	59
	14	1.5	110	1,100	80	125	1,250	90
	16	1.5	170	1,750	127	—	—	—
7T	6	1	10.5	110	8	12	120	9
	8	1.25	25	260	19	28	290	21
	10	1.25	52	530	38	58	590	43
	12	1.25	95	970	70	105	1,050	76
	14	1.5	145	1,500	108	165	1,700	123
	16	1.5	230	2,300	166	—	—	—
8T	8	1.25	29	300	22	33	330	24
	10	1.25	61	620	45	68	690	50
	12	1.25	110	1,100	80	120	1,250	90
9T	8	1.25	34	340	25	37	380	27
	10	1.25	70	710	51	78	790	57
	12	1.25	125	1,300	94	140	1,450	105
10T	8	1.25	38	390	28	42	430	31
	10	1.25	78	800	58	88	890	64
	12	1.25	140	1,450	105	155	1,600	116
11T	8	1.25	42	430	31	47	480	35
	10	1.25	87	890	64	97	990	72
	12	1.25	155	1,600	116	175	1,800	130

THREAD NOTATION—SAE AND METRIC



the greater the bolt strength. Some metric nuts are imprinted with a single-digit strength class on the nut face. Refer to the bolt identification and bolt strength chart.

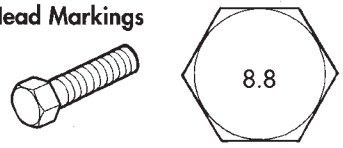
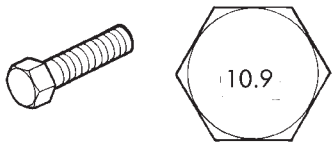
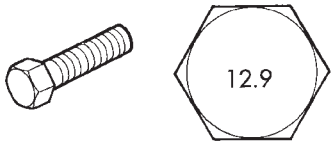
METRIC CONVERSION

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

BOLT IDENTIFICATION

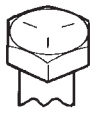
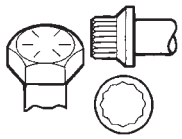
Bolt Markings and Torque - Metric

Commercial Steel Class

	8.8	10.9	12.9
Bolt Head Markings			

Body Size	Torque				Torque				Torque			
Diam.	Cast Iron		Aluminum		Cast Iron		Aluminum		Cast Iron		Aluminum	
mm	N•m	ft-lb	N•m	ft-lb	N•m	ft-lb	N•m	ft-lb	N•m	ft-lb	N•m	ft-lb
6	9	5	7	4	14	9	11	7	14	9	11	7
7	14	9	11	7	18	14	14	11	23	18	18	14
8	25	18	18	14	32	23	25	18	36	27	28	21
10	40	30	30	25	60	45	45	35	70	50	55	40
12	70	55	55	40	105	75	80	60	125	95	100	75
14	115	85	90	65	160	120	125	95	195	145	150	110
16	180	130	140	100	240	175	190	135	290	210	220	165
18	230	170	180	135	320	240	250	185	400	290	310	230

Bolt Markings and Torque Values - U.S. Customary

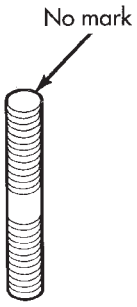
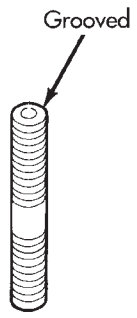
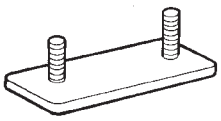
SAE Grade Number	5	8
Bolt Head Markings These are all SAE Grade 5 (3) line	 	

Body Size	Bolt Torque - Grade 5 Bolt				Bolt Torque - Grade 8 Bolt			
	Cast Iron		Aluminum		Cast Iron		Aluminum	
	N•m	ft-lb	N•m	ft-lb	N•m	ft-lb	N•m	ft-lb
1/4 - 20	9	7	8	6	15	11	12	9
- 28	12	9	9	7	18	13	14	10
5/16 - 18	20	15	16	12	30	22	24	18
- 24	23	17	19	14	33	24	25	19
3/8 - 16	40	30	25	20	55	40	40	30
- 24	40	30	35	25	60	45	45	35
7/16 - 14	60	45	45	35	90	65	65	50
- 20	65	50	55	40	95	70	75	55
1/2 - 13	95	70	75	55	130	95	100	75
- 20	100	75	80	60	150	110	120	90
9/16 - 12	135	100	110	80	190	140	150	110
- 18	150	110	115	85	210	155	170	125
5/8 - 11	180	135	150	110	255	190	205	150
- 18	210	155	160	120	290	215	230	170
3/4 - 10	325	240	255	190	460	340	365	270
- 16	365	270	285	210	515	380	410	300
7/8 - 9	490	360	380	280	745	550	600	440
- 14	530	390	420	310	825	610	660	490
1 - 8	720	530	570	420	1100	820	890	660
- 14	800	590	650	480	1200	890	960	710

BOLT STRENGTH

HOW TO DETERMINE BOLT STRENGTH

	Mark	Class
Hexagon head bolt	 Bolt head No. 4 — 4T; 5 — 5T; 6 — 6T; 7 — 7T; 8 — 8T; 9 — 9T; 10 — 10T; 11 — 11T	
	 No mark	4T
Hexagon flange bolt w/washer hexagon bolt	 No mark	4T
Hexagon head bolt	 Two protruding lines	5T
Hexagon flange bolt w/washer hexagon bolt	 Two protruding lines	6T
Hexagon head bolt	 Three protruding lines	7T
Hexagon head bolt	 Four protruding lines	8T

	Mark	Class
Stud bolt		4T
		6T
Welded bolt		4T

METRIC CONVERSION

in-lbs to 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
4	.4519	44	4.9713	84	9.4906	124	14.0099	164	18.5292
6	.6779	46	5.1972	86	9.7165	126	14.2359	166	18.7552
8	.9039	48	5.4232	88	9.9425	128	14.4618	168	18.9811
10	1.1298	50	5.6492	90	10.1685	130	14.6878	170	19.2071
12	1.3558	52	5.8751	92	10.3944	132	14.9138	172	19.4331
14	1.5818	54	6.1011	94	10.6204	134	15.1397	174	19.6590
16	1.8077	56	6.3270	96	10.8464	136	15.3657	176	19.8850
18	2.0337	58	6.5530	98	11.0723	138	15.5917	178	20.1110
20	2.2597	60	6.7790	100	11.2983	140	15.8176	180	20.3369
22	2.4856	62	7.0049	102	11.5243	142	16.0436	182	20.5629
24	2.7116	64	7.2309	104	11.7502	144	16.2696	184	20.7889
26	2.9376	66	7.4569	106	11.9762	146	16.4955	186	21.0148
28	3.1635	68	7.6828	108	12.2022	148	16.7215	188	21.2408
30	3.3895	70	7.9088	110	12.4281	150	16.9475	190	21.4668
32	3.6155	72	8.1348	112	12.6541	152	17.1734	192	21.6927
34	3.8414	74	8.3607	114	12.8801	154	17.3994	194	21.9187
36	4.0674	76	8.5867	116	13.1060	156	17.6253	196	22.1447
38	4.2934	78	8.8127	118	13.3320	158	17.8513	198	22.3706
40	4.5193	80	9.0386	120	13.5580	160	18.0773	200	22.5966

N•m to in-lbs

N•m	in-lb	N•m	in-lb	N•m	in-lb	N•m	in-lb	N•m	in-lb
.2	1.7702	4.2	37.1747	8.2	72.5792	12.2	107.9837	16.2	143.3882
.4	3.5404	4.4	38.9449	8.4	74.3494	12.4	109.7539	16.4	145.1584
.6	5.3107	4.6	40.7152	8.6	76.1197	12.6	111.5242	16.6	146.9287
.8	7.0809	4.8	42.4854	8.8	77.8899	12.8	113.2944	16.8	148.6989
1	8.8511	5	44.2556	9	79.6601	13	115.0646	17	150.4691
1.2	10.6213	5.2	46.0258	9.2	81.4303	13.2	116.8348	17.2	152.2393
1.4	12.3916	5.4	47.7961	9.4	83.2006	13.4	118.6051	17.4	154.0096
1.6	14.1618	5.6	49.5663	9.6	84.9708	13.6	120.3753	17.6	155.7798
1.8	15.9320	5.8	51.3365	9.8	86.7410	13.8	122.1455	17.8	157.5500
2	17.7022	6	53.1067	10	88.5112	14	123.9157	18	159.3202
2.2	19.4725	6.2	54.8770	10.2	90.2815	14.2	125.6860	18.5	163.7458
2.4	21.2427	6.4	56.6472	10.4	92.0517	14.4	127.4562	19	168.1714
2.6	23.0129	6.6	58.4174	10.6	93.8219	14.6	129.2264	19.5	172.5970
2.8	24.7831	6.8	60.1876	10.8	95.5921	14.8	130.9966	20	177.0225
3	26.5534	7	61.9579	11	97.3624	15	132.7669	20.5	181.4480
3.2	28.3236	7.2	63.7281	11.2	99.1326	15.2	134.5371	21	185.8736
3.4	30.0938	7.4	65.4983	11.4	100.9028	15.4	136.3073	22	194.7247
3.6	31.8640	7.6	67.2685	11.6	102.6730	15.6	138.0775	23	203.5759
3.8	33.6342	7.8	69.0388	11.8	104.4433	15.8	139.8478	24	212.4270
4	35.4045	8	70.8090	12	106.2135	16	141.6180	25	221.2781

ft-lbs to 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
2	2.7116	22	29.8280	42	56.9444	62	84.0607	82	111.1770
3	4.0675	23	31.1838	43	58.3002	63	85.4165	83	112.5328
4	5.4233	24	32.5396	44	59.6560	64	86.7723	84	113.8888
5	6.7791	25	33.8954	45	61.0118	65	88.1281	85	115.2446
6	8.1349	26	35.2513	46	62.3676	66	89.4840	86	116.6004
7	9.4907	27	36.6071	47	63.7234	67	90.8398	87	117.9562
8	10.8465	28	37.9629	48	65.0793	68	92.1956	88	119.3120
9	12.2024	29	39.3187	49	66.4351	69	93.5514	89	120.6678
10	13.5582	30	40.6745	50	67.7909	70	94.9073	90	122.0236
11	14.9140	31	42.0304	51	69.1467	71	96.2631	91	123.3794
12	16.2698	32	43.3862	52	70.5025	72	97.6189	92	124.7352
13	17.6256	33	44.7420	53	71.8583	73	98.9747	93	126.0910
14	18.9815	34	46.0978	54	73.2142	74	100.3316	94	127.4468
15	20.3373	35	47.4536	55	74.5700	75	101.6862	95	128.8026
16	21.6931	36	48.8094	56	75.9258	76	103.0422	96	130.1586
17	23.0489	37	50.1653	57	77.2816	77	104.3980	97	131.5144
18	24.4047	38	51.5211	58	78.6374	78	105.7538	98	132.8702
19	25.7605	39	52.8769	59	79.9933	79	107.1196	99	134.2260
20	27.1164	40	54.2327	60	81.3491	80	108.4654	100	135.5820

N•m to ft-lbs

N•m	ft-lb	N•m	ft-lb	N•m	ft-lb	N•m	ft-lb	N•m	ft-lb
1	.7376	21	15.9888	41	30.2400	61	44.9913	81	59.7425
2	1.4751	22	16.2264	42	30.9776	62	45.7289	82	60.4801
3	2.2127	23	16.9639	43	31.7152	63	46.4664	83	61.2177
4	2.9502	24	17.7015	44	32.4527	64	47.2040	84	61.9552
5	3.6878	25	18.4391	45	33.1903	65	47.9415	85	62.6928
6	4.4254	26	19.1766	46	33.9279	66	48.6791	86	63.4303
7	5.1629	27	19.9142	47	34.6654	67	49.4167	87	64.1679
8	5.9005	28	20.6517	48	35.4030	68	50.1542	88	64.9545
9	6.6381	29	21.3893	49	36.1405	69	50.8918	89	65.6430
10	7.3756	30	22.1269	50	36.8781	70	51.6293	90	66.3806
11	8.1132	31	22.8644	51	37.6157	71	52.3669	91	67.1181
12	8.8507	32	23.6020	52	38.3532	72	53.1045	92	67.8557
13	9.5883	33	24.3395	53	39.0908	73	53.8420	93	68.5933
14	10.3259	34	25.0771	54	39.8284	74	54.5720	94	69.3308
15	11.0634	35	25.8147	55	40.5659	75	55.3172	95	70.0684
16	11.8010	36	26.5522	56	41.3035	76	56.0547	96	70.8060
17	12.5386	37	27.2898	57	42.0410	77	56.7923	97	71.5435
18	13.2761	38	28.0274	58	42.7786	78	57.5298	98	72.2811
19	14.0137	39	28.7649	59	43.5162	79	58.2674	99	73.0187
20	14.7512	40	29.5025	60	44.2537	80	59.0050	100	73.7562

in. to 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
.02	.508	.22	5.588	.42	10.668	.62	15.748	.82	20.828
.03	.762	.23	5.842	.43	10.922	.63	16.002	.83	21.082
.04	1.016	.24	6.096	.44	11.176	.64	16.256	.84	21.336
.05	1.270	.25	6.350	.45	11.430	.65	16.510	.85	21.590
.06	1.524	.26	6.604	.46	11.684	.66	16.764	.86	21.844
.07	1.778	.27	6.858	.47	11.938	.67	17.018	.87	22.098
.08	2.032	.28	7.112	.48	12.192	.68	17.272	.88	22.352
.09	2.286	.29	7.366	.49	12.446	.69	17.526	.89	22.606
.10	2.540	.30	7.620	.50	12.700	.70	17.780	.90	22.860
.11	2.794	.31	7.874	.51	12.954	.71	18.034	.91	23.114
.12	3.048	.32	8.128	.52	13.208	.72	18.288	.92	23.368
.13	3.302	.33	8.382	.53	13.462	.73	18.542	.93	23.622
.14	3.556	.34	8.636	.54	13.716	.74	18.796	.94	23.876
.15	3.810	.35	8.890	.55	13.970	.75	19.050	.95	24.130
.16	4.064	.36	9.144	.56	14.224	.76	19.304	.96	24.384
.17	3.318	.37	9.398	.57	14.478	.77	19.558	.97	24.638
.18	4.572	.38	9.652	.58	14.732	.78	19.812	.98	24.892
.19	4.826	.39	9.906	.59	14.986	.79	20.066	.99	25.146
.20	5.080	.40	10.160	.60	15.240	.80	20.320	1.00	25.400

mm to in.

mm	in.	mm	in.	mm	in.	mm	in.	mm	in.
.01	.00039	.21	.00827	.41	.01614	.61	.02402	.81	.03189
.02	.00079	.22	.00866	.42	.01654	.62	.02441	.82	.03228
.03	.00118	.23	.00906	.43	.01693	.63	.02480	.83	.03268
.04	.00157	.24	.00945	.44	.01732	.64	.02520	.84	.03307
.05	.00197	.25	.00984	.45	.01772	.65	.02559	.85	.03346
.06	.00236	.26	.01024	.46	.01811	.66	.02598	.86	.03386
.07	.00276	.27	.01063	.47	.01850	.67	.02638	.87	.03425
.08	.00315	.28	.01102	.48	.01890	.68	.02677	.88	.03465
.09	.00354	.29	.01142	.49	.01929	.69	.02717	.89	.03504
.10	.00394	.30	.01181	.50	.01969	.70	.02756	.90	.03543
.11	.00433	.31	.01220	.51	.02008	.71	.02795	.91	.03583
.12	.00472	.32	.01260	.52	.02047	.72	.02835	.92	.03622
.13	.00512	.33	.01299	.53	.02087	.73	.02874	.93	.03661
.14	.00551	.34	.01339	.54	.02126	.74	.02913	.94	.03701
.15	.00591	.35	.01378	.55	.02165	.75	.02953	.95	.03740
.16	.00630	.36	.01417	.56	.02205	.76	.02992	.96	.03780
.17	.00669	.37	.01457	.57	.02244	.77	.03032	.97	.03819
.18	.00709	.38	.01496	.58	.02283	.78	.03071	.98	.03858
.19	.00748	.39	.01535	.59	.02323	.79	.03110	.99	.03898
.20	.00787	.40	.01575	.60	.02362	.80	.03150	1.00	.03937