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# INTRODUCTION

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## **BODY CODE EMBOSS**

### DESCRIPTION

The vehicle is equipped with a Body Code Emboss and it is located on the rear shelf. The emboss is located in the trunk area on the forward top edge of the rear shelf panel.

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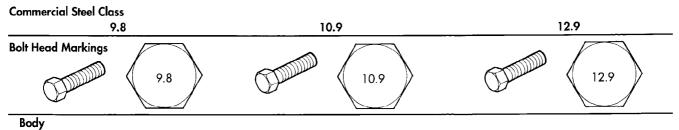
## **FASTENER IDENTIFICATION**

### DESCRIPTION

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 10.9. The metric strength class identification number is imprinted on the head of the bolt. 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. Refer to the Fastener Identification and Fastener Strength Charts (Fig. 1) and (Fig. 2).

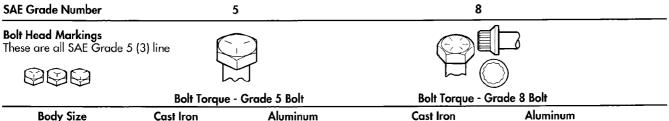
## **FASTENER IDENTIFICATION (Continued)**

## **Bolt Markings and Torque - Metric**



Size		То	rque			Tor	que			Тог	rque		
Diam.	Cast	Cast Iron		num	Cas	Cast Iron		ninum	Cas	st Iron	Alun	ninum	
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



Body Size	Cas	st Iron	Alun	ninum	Cast	Iron	Alum	inum	
-	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	

### Fig. 1 FASTENER IDENTIFICATION

## PL/SRT-4 ------

## — INTRODUCTION 3

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## **FASTENER IDENTIFICATION (Continued)**

#### HOW TO DETERMINE BOLT STRENGTH

	Mark	Class		Mark	Class
Hexagon head bolt	$\begin{array}{c} 4 - \\ 5 - \\ 5 - \\ 6 - \\ head No. 7 - \\ 8 - \\ 9 - \\ 10 - \\ 11 - \end{array}$	4T 5T 6T 7T 8T 9T 10T 11T	Stud bolt	No mark	4T
	No mark	<b>4</b> T			
Hexagon flange bolt w/washer hexagon bolt	No mark	<b>4</b> T		Grooved	6T
Hexagon head bolt	Two protruding lines	51			
Hexagon flange bolt w/washer hexagon bolt	Two protruding lines	бТ	Welded bolt		
Hexagon head bolt	Three protruding lines	71			4T
Hexagon head bolt	Four protruding lines	81			
				L	95IN-

## Fig. 2 FASTENER STRENGTH

## **FASTENER USAGE**

## DESCRIPTION

## **DESCRIPTION - FASTENER USAGE**

#### WARNING: USE OF AN INCORRECT FASTENER MAY RESULT IN COMPONENT DAMAGE OR PER-SONAL INJURY.

Fasteners and torque specifications references in this Service Manual are identified in metric and SAE format.

During any maintenance or repair procedures, it is important to salvage all fasteners (nuts, bolts, etc.) for reassembly. If the fastener is not salvageable, a fastener of equivalent specification must be used.

#### **DESCRIPTION - THREADED HOLE REPAIR**

Most stripped threaded holes can be repaired using a Helicoil<sup>®</sup>. Follow the vehicle or Helicoil<sup>®</sup> recommendations for application and repair procedures.

## **INTERNATIONAL SYMBOLS**

#### DESCRIPTION

The graphic symbols illustrated in the following International Control and Display Symbols Chart (Fig. 3) are used to identify various instrument controls. The symbols correspond to the controls and displays that are located on the instrument panel.

## **METRIC SYSTEM**

### DESCRIPTION

The metric system is based on quantities of one, ten, one hundred, one thousand and one million.

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

	≢ <b>0</b> ₂	-Ò 3	<₽ ↓	5	
	8	9	<b>55</b> 10	<b>***</b>	12
<del>ر : ``</del>		E			81
13	14	15	<b>- +</b> 16	17	18

80be4788

#### Fig. 3 INTERNATIONAL CONTROL AND DISPLAY SYMBOLS

1	High Beam	13	Rear Window Washer
2	Fog Lamps	14	Fuel
3	Headlamp, Parking Lamps, Panel Lamps	15	Engine Coolant Temperature
4	Turn Warning	16	Battery Charging Condition
5	Hazard Warning	17	Engine Oil
6	Windshield Washer	18	Seat Belt
7	Windshield Wiper	19	Brake Failure
8	Windshield Wiper and Washer	20	Parking Brake
9	Windscreen Demisting and Defrosting	21	Front Hood
10	Ventilating Fan	22	Rear hood (Decklid)
11	Rear Window Defogger	23	Horn
12	Rear Window Wiper	24	Lighter

## **METRIC SYSTEM (Continued)**

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)	М	x 3.281	= Feet
Yards	x 0.9144	= Meters	М	x 1.0936	= Yards
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
mph	x 0.4470	= Meters/Sec (M/S)	M/S	x 2.237	= mph
Kilometers/Hr. (Km/h)	x 0.27778	= Meters/Sec (M/S)	M/S	x 3.600	Kilometers/Hr. (Km/h)

## **CONVERSION FORMULAS AND EQUIVALENT VALUES**

#### **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	

Refer to the Metric Conversion Chart to convert torque values listed in metric Newton- meters  $(N \cdot m)$ . Also, use the chart to convert between millimeters (mm) and inches (in.) (Fig. 4).

## **METRIC SYSTEM (Continued)**

in-lbs to N•m

in-Ib	N∙m	in-lb	N∙m	in-lb	N•m	in-lb	N∙m	in-lb	N•m	N∙m	in-lb	N∙m	in-lb	N•m	in-lb	N∙m	in-lb	N∙m	in-Ib
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		107.9837		143.3882
4	.4519		4.9713	84	9.4906		14.0099		18.5292	.4	3.5404	4.4	38.9449		74.3494		109.7539		145.1584
6	.6779		5.1972	86	9.7165		14.2359		18.7552	.6	5.3107	4.6	40.7152		76.1197		111.5242		146.9287
8	.9039		5.4232	88	9,9425		14.4618		18,9811	.8	7.0809	4.8	42.4854	8.8	77.8899		113.2944		148.6989
10	1.1298		5.6492	90	10.1685		14.6878		19.2071	1	8.8511	5	44.2556	9	79.6601		115.0646		150.4691
12	1.3558		5.8751	92	10.3944		14.9138		19.4331	1.2	10.6213	5.2	46.0258	9.2	81.4303	13.2	116.8348		152.2393
14	1.5818		6,1011	94	10.6204		15.1397		19.6590	1.4	12.3916	5.4	47.7961	9.4	83.2006		118.6051	17.4	154.0096
16	1.8077		6.3270	96	10.8464		15.3657		19.8850	1.6		5.6	49.5663	9.6	84.9708		120.3753		155. <b>779</b> 8
18	2.0337		6.5530	98	11.0723		15.5917		20.1110	1.8	15.9320	5.8	51.3365		86.7410		122.1455		157.5500
20	2.2597		6.7790		11.2983		15.8176		20.3369	2	17.7022	6	53.1067	10	88.5112		123.9157		159.3202
22	2.4856		7.0049		11.5243		16.0436		20.5629	2.2	19.4725	6.2	54.8770	10.2	90.2815		125.6860	18.5	163.7458
24	2.7116		7.2309		11.7502		16.2696		20.7889	2.4	21.2427	6.4	56.6472	10.4	92.0517		127.4562	19	168.1714
26	2.9376		7.4569		11.9762		16.4955		21.0148	2.6	23.0129	6.6	58.4174	10.6	93.8219	14.6	129.2264	19.5	172.5970
28	3.1635		7.6828		12.2022		16.7215		21.2408	2.8	24.7831	6.8	60.1876	10.8	95.5921	14.8	130.9966	20	177.0225
30	3.3895		7.9088		12.4281		16.9475		21.4668	3	26.5534	7	61.9579	11	97.3624		132.7669	20.5	181.4480
32	3.6155		8.1348		12.6541		17.1734		21.6927	3.2	28.3236	7.2	63.7281	11.2	99.1326		134.5371	21	185.8736
34	3.8414		8.3607	114	12.8801		17.3994		21.9187	3.4	30.0938	7.4	65.4983		100.9028		136.3073		194.7247
36	4.0674		8.5867		13.1060		17.6253		22.1447	3.6	31.8640	7.6	67.2685	11.6	102.6730		138.0775		203.5759
38	4.2934		8.8127		13.3320		17.8513		22.3706	3.8	33.6342	7.8	69,0388		104.4433		139.8478		212.4270
40	4.5193		9.0386		13.5580		18.0773		22.5966	4	35.4045	8	70.8090	12	106.2135	16	141.6180	25	221.2781

ft-lbs to N•m

N•m to ft-lbs

N•m to in-lbs

ft-lb	N∙m	ft-lb	N∙m	ft-lb	N∙m	ft-lb	N∙m	ft-lb	N∙m	N∙m	ft-lb								
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	81	59.7425
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	82	60.4801
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	83	61.2177
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	84	61.9552
5	6. <b>779</b> 1	25	33.8954	45	61.0118	65	88.1281	85	115.2446	5	3.6878	25	18.4391	45	33.1903	65	47.9415	85	62.6928
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	86	63.4303
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	87	64.1679
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		64.9545
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	89	65.6430
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	90	66.3806
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	91	67.1181
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	92	67.8557
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	93	68.5933
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		69.3308
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	95	70.0684
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	96	70.8060
17	23.0489	37	50.1653	57	77.2816	77	104.3980	97	131.5144	17	12.5386	37	27.2898	57	42.0410		56.7923	97	71.5435
18	24.4047	38	51.5211	58	78.6374	78	105.7538		132.8702	18	13.2761	38	28.0274	58	42.7786		57.5298		72.2811
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		73.0187
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	100	73.7562

#### in. to mm

mm to in.

in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	mm	i <b>n</b> .	mm	in.	mm	in.	mm	in.	mm	in.
in. .01 .02 .03 .04 .05 .06 .07 .08 .09 .10 .11 .12 .13 .14	mm .254 .508 7.62 1.016 1.270 1.524 1.778 2.032 2.286 2.286 2.284 2.284 2.294 3.048 3.302	in. .21 .22 .23 .24 .25 .26 .27 .28 .29 .30 .31 .32 .33 .34	mm 5.334 5.842 6.096 6.350 6.604 6.858 7.112 7.366 7.620 7.874 8.382 8.382 8.636	in. .41 .42 .43 .44 .45 .46 .47 .48 .49 .50 .51 .52 .53 .54	mm 10.414 10.668 10.922 11.176 11.430 11.684 11.938 12.192 12.446 12.700 12.954 13.208 13.462 13.716	in. .61 .62 .63 .64 .65 .66 .67 .68 .69 .70 .71 .72 .73 .74	mm 15.494 15.748 16.002 16.256 16.510 16.764 17.018 17.272 17.780 18.034 18.288 18.542 18.794	in. .81 .82 .83 .84 .85 .86 .87 .88 .87 .88 .89 .90 .91 .92 .93 .94	mm 20.574 20.828 21.082 21.336 21.590 21.844 22.352 22.566 22.860 23.114 23.688 23.622 23.876	mm .01 .02 .03 .04 .05 .06 .07 .08 .09 .10 .11 .12 .13 .14	in. .00039 .00079 .00118 .00157 .00197 .00236 .00276 .00375 .00354 .00394 .00433 .00433 .00472 .00512	.21 .22 .23 .24 .25 .26 .27 .28 .29 .30 .31 .32 .33 .34	.00827 .00866 .00906 .00945 .00984 .01024 .01063 .01102 .01142 .01181 .01220 .01260 .01299 .01339	.41 .42 .43 .44 .45 .46 .47 .48 .49 .50 .51 .52 .53 .54	.01614 .01654 .01732 .01772 .01811 .01850 .01890 .01929 .01969 .02008 .02047 .02087 .02126	.61 .62 .63 .64 .65 .66 .67 .68 .69 .70 .71 .72 .73 .74	.02402 .02441 .02480 .02520 .02559 .02598 .02638 .02677 .02717 .02717 .02756 .02795 .02835 .02834 .02874 .02913	mm .81 .82 .83 .84 .85 .86 .87 .88 .87 .88 .89 .90 .91 .92 .93 .94	in. .03189 .03228 .03268 .03307 .03346 .03346 .03425 .03465 .03504 .03504 .03583 .03583 .03522 .03661 .03701
.15 .16 .17 .18 .19 .20	3.810 4.064 3.318 4.572 4.826 5.080	.35 .36 .37 .38 .39 .40	8.890 9.144 9.398 9.652 9.906 10.160	.55 .56 .57 .58 .59 .60	13.970 14.224 14.478 14.732 14.986 15.240	.75 .76 .77 .78 .79 .80	19.050 19.304 19.558 19.812 20.066 20.320	.95 .96 .97 .98 .99 1.00	24.130 24.384 24.638 24.892 25.146 25.400	.15 .16 .17 .18 .19 .20	.00591 .00630 .00669 .00709 .00748 .00787	.35 .36 .37 .38 .39 .40	.01378 .01417 .01457 .01496 .01535 .01575	.55 .56 .57 .58 .59 .60	.02165 .02205 .02244 .02283 .02323 .02362	.75 .76 .77 .78 .79 .80	.02953 .02992 .03032 .03071 .03110 .03150	.95 .96 .97 .98 .99 1.00	.03740 .03780 .03819 .03858 .03898 .03937

J901N-10

Fig. 4 METRIC CONVERSION CHART

tions Chart for torque references not listed in the

individual torque charts (Fig. 5).

## **TORQUE REFERENCES**

### DESCRIPTION

Individual Torque Charts appear within many or the Groups. Refer to the Standard Torque Specifica-

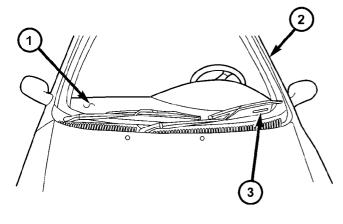
### SPECIFIED TORQUE FOR STANDARD BOLTS

Fig. 5 TORQUE SPECIFICATIONS

## VEHICLE IDENTIFICATION NUMBER

## DESCRIPTION

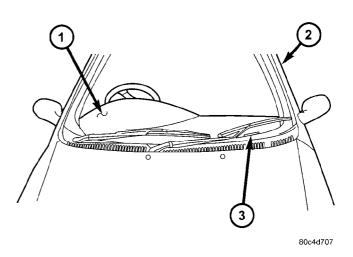
The Vehicle Identification Number (VIN) can be viewed through the windshield at the upper left corner of the instrument panel next to the A-pillar (Fig. 6) or (Fig. 7). The VIN consists of 17 characters in a combination of letters and numbers that provide specific information about the vehicle. Refer to the VIN Decoding Information Table to interpret VIN code.



80a0a34f

Fig. 6 VIN LOCATION - LHD

- 1 INSTRUMENT PANEL
- 2 A-PILLAR
- 3 VIN LOCATION



#### Fig. 7 VIN LOCATION - RHD

- 1 INSTRUMENT PANEL
- 2 A-PILLAR
- 3 VIN LOCATION

## VIN CHECK DIGIT

To protect the consumer from theft and possible fraud the manufacturer is required to include a check digit at the ninth position of the VIN. 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 IDENTIFICATION NUMBER (Continued)**

VIN	DECODING	INFORMATION
-----	----------	-------------

POSITION	INTERPRETATION	CODE = DESCRIPTION
1	Country of origin	1 = Manufactured By DaimlerChrysler Corporation
2	Make	B = Dodge
		C = Chrysler
3	Vehicle Type	3 = Passenger Car
4	Passenger Safety	A = Restraint System, Active Front and Side Airbags
		B = Restraint System, Manual/Active Uni-Belt
		E = Restraint System, Active Driver and Passenger Airbags
5	Car Line	S = Neon LHD
		V = Neon RHD
6	Series	1 = Economy
		2 = Low Line
		4 = High Line
		5 = Premium
		6 = Sport
		7 = Special
7	Body Style	6 = 4 Door Sedan
8	Engine	C = 2.0 L 4 Cyl.16V SOHC Gasoline
		F = 2.0 L 4 Cyl.16V High Performance Gasoline
		S = 2.4 L 4 Cyl. 16V DOHC High Output Turbo
9	Check Digit	See explanation in this section.
10	Model Year	4 = 2004
11	Assembly Plant	D = Belvedere Assembly
12 Thorough 17	Build Sequence	6 Digit number assigned by assembly plant

## **VEHICLE CERTIFICATN LABEL**

### DESCRIPTION

A vehicle certification label is attached to the rear shutface of the driver's door (Fig. 8). This label indicates date of manufacture (month and year), Gross Vehicle Weight Rating (GVWR), Gross Axle Weight Rating (GAWR) front, Gross Axle Weight Rating (GAWR) rear and the Vehicle Identification Number (VIN). The Month, Day and Hour of manufacture is also included.

All communications or inquiries regarding the vehicle should include the Month-Day-Hour and Vehicle Identification Number.

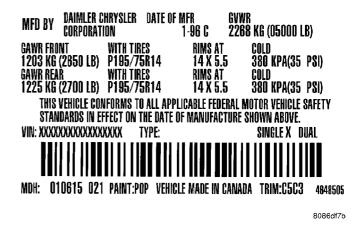


Fig. 8 VEHICLE CERTIFICATION LABEL - TYPICAL

## **E-MARK LABEL**

### DESCRIPTION

An E-mark Label (Fig. 9) is located on the rear shut face of the driver's door. The label contains the following information:

- Date of Manufacture
- Month-Day-Hour (MDH)
- Vehicle Identification Number (VIN)
- Country Codes
- Regulation Number
- Regulation Amendment Number
- Approval Number

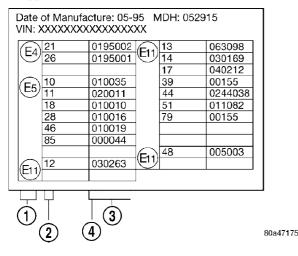


Fig. 9 E-MARK LABEL

- 1 COUNTRY CODE
- 2 REGULATION NUMBER
- 3 APPROVAL NUMBER
- 4 AMENDMENT NUMBER

## **VECI LABEL**

### DESCRIPTION

All models have a Vehicle Emission Control Information (VECI) Label. Chrysler permanently attaches the label in the engine compartment. It cannot be removed without defacing information and destroying the label.

The label contains the vehicle's emission specifications and vacuum hose routings. All hoses must be connected and routed according to the label.

## MANUFACTURER PLATE

#### DESCRIPTION

The Manufacturer Plate (Fig. 10) is located in the engine compartment on the passenger side rear corner of the hood. The plate contains five lines of information:

- 1. Vehicle Identification Number (VIN)
- 2. Gross Vehicle Mass (GVM)
- 3. Gross Train Mass (GTM)
- 4. Gross Front Axle Rating (GFAR)
- 5. Gross Rear Axle Rating (GRAR)

DAIMLERCHRYSLER CORPORATION \*XXXXXXXXXXXXXXXXXX XXXX KG XXXX KG 1 XXXX KG 2 XXXX KG

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Fig. 10 MANUFACTURER PLATE

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# **LUBRICATION & MAINTENANCE**

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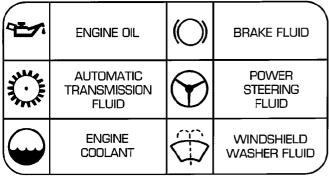
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## INTERNATIONAL SYMBOLS

## DESCRIPTION

DaimlerChrysler Corporation uses international symbols to identify engine compartment lubricant and fluid inspection and fill locations (Fig. 1).



8097ddbd

Fig. 1 INTERNATIONAL SYMBOLS

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## **FLUID TYPES**

## DESCRIPTION

## **DESCRIPTION - ENGINE OIL AND LUBRICANTS**

WARNING: NEW OR USED ENGINE OIL CAN BE IRRITATING TO THE SKIN. AVOID PROLONGED OR REPEATED SKIN CONTACT WITH ENGINE OIL. CONTAMINANTS IN USED ENGINE OIL, CAUSED BY INTERNAL COMBUSTION, CAN BE HAZARDOUS TO YOUR HEALTH. THOROUGHLY WASH EXPOSED SKIN WITH SOAP AND WATER. DO NOT WASH SKIN WITH GASOLINE, DIESEL FUEL, THINNER, OR SOLVENTS, HEALTH PROBLEMS CAN RESULT. DO NOT POLLUTE, DISPOSE OF USED ENGINE OIL PROPERLY. CONTACT YOUR DEALER OR GOVERN-MENT AGENCY FOR LOCATION OF COLLECTION CENTER IN YOUR AREA.

When service is required, DaimlerChrysler Corporation recommends that only Mopar® brand parts, lubricants and chemicals be used. Mopar® provides the best engineered products for servicing DaimlerChrysler Corporation vehicles.

Only lubricants bearing designations defined by the following organization should be used.

- Society of Automotive Engineers (SAE)
- American Petroleum Institute (API)
- National Lubricating Grease Institute (NLGI)

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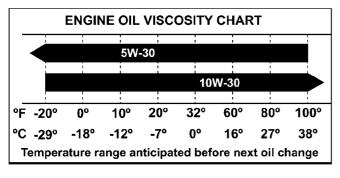
#### **FLUID TYPES (Continued)**

#### API SERVICE GRADE CERTIFIED

Use an engine oil that is API Certified (GF-3). Mopar<sup>®</sup> provides engine oils, meeting Material Standard MS-6395, that meet or exceed this requirement.

#### SAE VISCOSITY

An SAE viscosity grade is used to specify the viscosity of engine oil. Use only engine oils with multiple viscosities such as 5W-30 or 10W-30. These are specified with a dual SAE viscosity grade which indicates the cold-to-hot temperature viscosity range. Select an engine oil that is best suited to your particular temperature range and variation (Fig. 2).



80990199

#### Fig. 2 TEMPERATURE/ENGINE OIL VISCOSITY

#### **ENERGY CONSERVING OIL**

An Energy Conserving type oil is recommended for gasoline engines. The designation of ENERGY CON-SERVING is located on the label of an engine oil container.

#### **CONTAINER IDENTIFICATION**

Standard engine oil identification notations have been adopted to aid in the proper selection of engine oil. The identifying notations are located on the front label of engine oil plastic bottles and the top of engine oil cans (Fig. 3).

This symbol means that the oil has been certified by the American Petroleum Institute (API). Diamler-Chrysler only recommend API Certified (GF-3) engine oils that meet the requirements of Material Standard MS-6395. Use Mopar<sup>®</sup> or an equivalent oil meeting the specification MS-6395.

#### SYNTHETIC ENGINE OILS

There are a number of engine oils being promoted as either synthetic or semi-synthetic. If you chose to use such a product, use **only** those oils that meet the American Petroleum Institute (API) and SAE viscosity standard. Follow the service schedule that describes your driving type.



9400-9

#### Fig. 3 API SYMBOL

#### ENGINE OIL ADDITIVES/SUPPLEMENTS

The manufacturer **does not recommend** the addition of any engine oil additives/supplements to the specified engine oil. Engine oil additives/supplements should not be used to enhance engine oil performance. Engine oil additives/supplements should not be used to extend engine oil change intervals. No additive is known to be safe for engine durability and can degrade emission components. Additives can contain undesirable materials that harm the long term durability of engines by:

• Doubling the level of Phosphorus in the engine oil. The ILSAC (International Lubricant Standard Approval Committee) GF-2 and GF-3 standards require that engine oil contain no more than 0.10% Phosphorus to protect the vehicles emissions performance. Addition of engine oil additives/supplements can poison, from the added sulfur and phosphorus, catalysts and hinder efforts to guarantee emissions performance to 80,000 miles.

• Altering the viscosity characteristics of the engine oil so that it no longer meets the requirements of the specified viscosity grade.

• Creating potential for an undesirable additive compatibility interaction in the engine crankcase. Generally it is not desirable to mix additive packages from different suppliers in the crankcase; there have been reports of low temperature engine failures caused by additive package incompatibility with such mixtures.

#### GEAR LUBRICANTS

SAE ratings also apply to multigrade gear lubricants. In addition, API classification defines the lubricants usage. Such as API GL-5 and SAE 75W-90.

#### LUBRICANTS AND GREASES

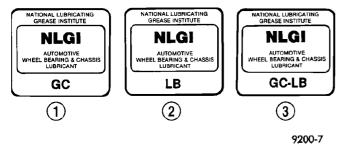
Lubricating grease is rated for quality and usage by the NLGI. All approved products have the NLGI symbol (Fig. 4) on the label. At the bottom NLGI symbol is the usage and quality identification letters. Wheel bearing lubricant is identified by the letter "G". Chassis lubricant is identified by the latter "L". The letter following the usage letter indicates the

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### **FLUID TYPES (Continued)**

quality of the lubricant. The following symbols indicate the highest quality.



#### Fig. 4 NLGI SYMBOL

1 - WHEEL BEARINGS

- 2 CHASSIS LUBRICATION
- 3 CHASSIS AND WHEEL BEARINGS

## SPECIALIZED LUBRICANTS AND OILS

Some maintenance or repair procedures may require the use of specialized lubricants or oils. Consult the appropriate sections in this manual for the correct application of these lubricants.

## **DESCRIPTION - ENGINE COOLANT**

WARNING: ANTIFREEZE IS AN ETHYLENE GLYCOL BASE COOLANT AND IS HARMFUL IF SWAL-LOWED OR INHALED. IF SWALLOWED, DRINK TWO GLASSES OF WATER AND INDUCE VOMIT-ING. IF INHALED, MOVE TO FRESH AIR AREA. SEEK MEDICAL ATTENTION IMMEDIATELY. DO NOT STORE IN OPEN OR UNMARKED CONTAINERS. WASH SKIN AND CLOTHING THOROUGHLY AFTER COMING IN CONTACT WITH ETHYLENE GLYCOL. KEEP OUT OF REACH OF CHILDREN. DISPOSE OF GLYCOL BASE COOLANT PROPERLY. CONTACT YOUR DEALER OR GOVERNMENT AGENCY FOR LOCATION OF COLLECTION CENTER IN YOUR AREA. DO NOT OPEN A COOLING SYSTEM WHEN THE ENGINE IS AT OPERATING TEMPERATURE OR HOT UNDER PRESSURE, PERSONAL INJURY CAN **RESULT. AVOID RADIATOR COOLING FAN WHEN** ENGINE COMPARTMENT RELATED SERVICE IS PERFORMED, PERSONAL INJURY CAN RESULT.

#### CAUTION: Use of Propylene Glycol based coolants is not recommended, as they provide less freeze protection and less boiling protection.

The cooling system is designed around the coolant. The coolant must accept heat from engine metal, in the cylinder head area near the exhaust valves and engine block. Then coolant carries the heat to the radiator where the tube/fin radiator can transfer the heat to the air.

The use of aluminum cylinder blocks, cylinder heads, and water pumps requires special corrosion protection. Mopar<sup>®</sup> Antifreeze/Coolant, 5 Year/100,000 Mile Formula (MS-9769), or the equivalent ethylene glycol base coolant with hybrid organic corrosion inhibitors (called HOAT, for Hybrid Organic Additive Technology) is recommended. This coolant offers the best engine cooling without corrosion when mixed with 50% Ethylene Glycol and 50% distilled water to obtain a freeze point of -37°C (-35°F). If it loses color or becomes contaminated, drain, flush, and replace with fresh properly mixed coolant solution.

The green coolant **MUST NOT BE MIXED** with the orange or magenta coolants. When replacing coolant the complete system flush must be performed before using the replacement coolant.

CAUTION: Mopar<sup>®</sup> Antifreeze/Coolant, 5 Year/100,000 Mile Formula (MS-9769) may not be mixed with any other type of antifreeze. Doing so will reduce the corrosion protection and may result in premature water pump seal failure. If non-HOAT coolant is introduced into the cooling system in an emergency, it should be replaced with the specified coolant as soon as possible.

## DESCRIPTION - AUTOMATIC/MANUAL TRANSAXLE FLUID

NOTE: Refer to the maintenance schedules for the recommended maintenance (fluid/filter change) intervals for available transaxles. The Maintenance Schedules are located in the vehicle Owner's Manual.

NOTE: For fluid level checking procedures, refer to Group 21, Transaxle.

NOTE: The 41TE automatic and T350/T850 manual transaxles have a common transmission and differential sump. Filling the transaxle accommodates the differential as well.

#### TRANSMISSION FLUID

Mopar<sup>®</sup> ATF+4 (Automatic Transmission Fluid) is required in both the 41TE automatic and T350/T850 manual transaxles. **Neon SRT-4 Models equipped** with the T850 manual transaxle also require the addition of 0.12L (4 oz.) of Mopar<sup>®</sup> Limited Slip Additive (P/N 04318060AB). Substitute fluids can induce torque converter clutch shudder, or premature failure of internal transaxle components. Thank you very much for your reading. Please click here and go back to the website. Then, you can download the complete manual instantly. No waiting.

#### 0 - 4 LUBRICATION & MAINTENANCE -

### **FLUID TYPES (Continued)**

Mopar<sup>®</sup> ATF+4 (Automatic Transmission Fluid) when new is red in color. The ATF is dyed red so it can be identified from other fluids used in the vehicle such as engine oil or antifreeze. The red color is not permanent and is not an indicator of fluid condition. As the vehicle is driven, the ATF will begin to look darker in color and may eventually become brown. This is normal. A dark brown/black fluid accompanied with a burnt odor and/or deterioration in shift quality may indicate fluid deterioration or transmission component failure.

#### **FLUID ADDITIVES**

DaimlerChrysler strongly recommends against the addition of any fluids to the transmission, other than those automatic transmission fluids listed above. Exceptions to this policy are the use of special dyes to aid in detecting fluid leaks.

Various "special" additives and supplements exist that claim to improve shift feel and/or quality. These additives and others also claim to improve converter clutch operation and inhibit overheating, oxidation, varnish, and sludge. These claims have not been supported to the satisfaction of DaimlerChrysler and these additives **must not be used.** The use of transmission "sealers" should also be avoided, since they may adversely affect the integrity of transmission seals.

### **DESCRIPTION - FUEL REQUIREMENTS**

Your engine is designed to meet all emissions regulations and provide excellent fuel economy and performance when using high quality unleaded gasoline having an octane rating of 87. The use of premium gasoline is not recommended. The use of premium gasoline will provide no benefit over high quality regular gasoline, and in some circumstances may result in poorer performance.

Light spark knock at low engine speeds is not harmful to your engine. However, continued heavy spark knock at high speeds can cause damage and immediate service is required. Engine damage resulting from operation with a heavy spark knock may not be covered by the new vehicle warranty.

Poor quality gasoline can cause problems such as hard starting, stalling and hesitations. If you experience these symptoms, try another brand of gasoline before considering service for the vehicle.

Over 40 auto manufacturers world-wide have issued and endorsed consistent gasoline specifications (the Worldwide Fuel Charter, WWFC) to define fuel properties necessary to deliver enhanced emissions, performance and durability for your vehicle. We recommend the use of gasolines that meet the WWFC specifications if they are available.

#### **REFORMULATED GASOLINE**

Many areas of the country require the use of cleaner burning gasoline referred to as "reformulated" gasoline. Reformulated gasoline contain oxygenates, and are specifically blended to reduce vehicle emissions and improve air quality.

We strongly support the use of reformulated gasoline. Properly blended reformulated gasoline will provide excellent performance and durability for the engine and fuel system components.

#### **GASOLINE/OXYGENATE BLENDS**

Some fuel suppliers blend unleaded gasoline with oxygenates such as 10% ethanol, MTBE, and ETBE. Oxygenates are required in some areas of the country during the winter months to reduce carbon monoxide emissions. Fuels blended with these oxygenates may be used in your vehicle.

CAUTION: DO NOT use gasoline containing METH-ANOL. Gasoline containing methanol may damage critical fuel system components.

#### MMT IN GASOLINE

MMT is a manganese-containing metallic additive that is blended into some gasoline to increase octane. Gasoline blended with MMT provide no performance advantage beyond gasoline of the same octane number without MMT. Gasoline blended with MMT reduce spark plug life and reduce emission system performance in some vehicles. We recommend that gasoline free of MMT be used in your vehicle. The MMT content of gasoline may not be indicated on the gasoline pump; therefore, you should ask your gasoline retailer whether or not his/her gasoline contains MMT.

It is even more important to look for gasoline without MMT in Canada because MMT can be used at levels higher than allowed in the United States. MMT is prohibited in Federal and California reformulated gasoline.

#### SULFUR IN GASOLINE

If you live in the northeast United States, your vehicle may have been designed to meet California low emission standards with Cleaner-Burning California reformulated gasoline with low sulfur. If such fuels are not available in states adopting California emission standards, your vehicles will operate satisfactorily on fuels meeting federal specifications, but emission control system performance may be adversely affected. Gasoline sold outside of California is permitted to have higher sulfur levels which may affect the performance of the vehicle's catalytic converter. This may cause the Malfunction Indicator Lamp (MIL), Check Engine or Service Engine Soon

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## **FLUID TYPES (Continued)**

light to illuminate. We recommend that you try a different brand of unleaded gasoline having lower sulfur to determine if the problem is fuel related prior to returning your vehicle to an authorized dealer for service.

CAUTION: If the Malfunction Indicator Lamp (MIL), Check Engine or Service Engine Soon light is flashing, immediate service is required; see on-board diagnostics system section.

#### MATERIALS ADDED TO FUEL

All gasoline sold in the United States and Canada are required to contain effective detergent additives. Use of additional detergents or other additives is not needed under normal conditions.

### FUEL SYSTEM CAUTIONS

# CAUTION: Follow these guidelines to maintain your vehicle's performance:

• The use of leaded gas is prohibited by Federal law. Using leaded gasoline can impair engine performance, damage the emission control system, and could result in loss of warranty coverage.

• An out-of-tune engine, or certain fuel or ignition malfunctions, can cause the catalytic converter to overheat. If you notice a pungent burning odor or some light smoke, your engine may be out of tune or malfunctioning and may require immediate service. Contact your dealer for service assistance.

• When pulling a heavy load or driving a fully loaded vehicle when the humidity is low and the temperature is high, use a premium unleaded fuel to help prevent spark knock. If spark knock persists, lighten the load, or engine piston damage may result.

• The use of fuel additives which are now being sold as octane enhancers is not recommended. Most of these products contain high concentrations of methanol. Fuel system damage or vehicle performance problems resulting from the use of such fuels or additives is not the responsibility of DaimlerChrysler Corporation and may not be covered under the new vehicle warranty.

NOTE: Intentional tampering with emissions control systems can result in civil penalties being assessed against you.

## **FLUID CAPACITIES**

## **SPECIFICATIONS - FLUID CAPACITIES**

DESCRIPTION	SPECIFICATION						
Fuel Tank	47.5 L (12.5 gal.)						
Engine Oil* - 1.6 L	4.3 L (4.5 qts.)						
Engine Oil* - 2.0 L	4.3 L (4.5 qts.)						
Engine Oil* - 2.4 L	4.8 L (5.0 qts.)						
Cooling System**	6.2 L (6.5 qts.)						
Automatic Transaxle - Estimated Service Fill	3.8 L (4.0 qts.)						
Automatic Transaxle - Overhaul Fill Capacity with Torque Converter Empty	8.1 L (8.6 qts.)						
Manual Transaxle - NV T350	2.4-2.7 L (2.5-2.8 qts.)						
Manual Transaxle - NV T850***	2.3-2.5L (2.4-2.6 qts.)						
*(includes new filter)							
**(includes heater and recovery/reserve bottle)							
***(includes 0.12 L (4 oz.) of Mopar® Limited Slip Additive (P/N 04318060AB))							

## FLUID FILL/CHECK LOCATIONS

### DESCRIPTION

The fluid check/fill point locations are located in each applicable service manual section.

## **LUBRICATION POINTS**

### DESCRIPTION

Lubrication point locations are located in each applicable Sections.