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## INTRODUCTION

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| BODY CODE EMBOSS | FASTENER IDENTIFICATION |
| DESCRIPTION | DESCRIPTION |
| The vehicle is equipped with a Body Code Emboss | The SAE bolt strength grades range from grade 2 |
| and it is located on the rear shelf. The emboss is | to grade 8. The higher the grade number, the greater |
| located in the trunk area on the forward top edge of the rear shelf panel. | 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

| Commercial Steel Class |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 9.8 |  |  |  |  | 10.9 |  |  |  | 12.9 |  |  |  |
| Bolt Head Markings |  |  |  |  |  | $\left\langle\begin{array}{c} 10.9 \end{array}\right.$ |  |  |  |  |  |  |
| Body Size | Torque |  |  |  | Torque |  |  |  | Torque |  |  |  |
| Diam. | Cast Iron |  | Aluminum |  | Cast Iron |  | Aluminum |  | Cast Iron |  | Aluminum |  |
| mm | $\mathrm{N} \bullet \mathrm{m}$ | fi-lb | $\mathrm{N} \bullet \mathrm{m}$ | f-lb | $\mathrm{N} \cdot \mathrm{m}$ | fi-lb | $\mathrm{N} \cdot \mathrm{m}$ | f-lb | $\mathrm{N} \cdot \mathrm{m}$ | ft-lb | $\mathrm{N} \cdot \mathrm{m}$ | f-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 | Cast Iron |  | Aluminum |  | Cast Iron |  | Aluminum |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | N•m | ft-lb | N•m | ff-lb | $\mathrm{N} \cdot \mathrm{m}$ | ft -lb | $\mathrm{N} \cdot \mathrm{m}$ | 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

FASTENER IDENTIFICATION (Continued)
HOW TO DETERMINE BOLT STRENGTH


Fig. 2 FASTENER STRENGTH

## FASTENER USAGE

## DESCRIPTION

## DESCRIPTION - FASTENER USAGE

WARNING: USE OF AN INCORRECT FASTENER MAY RESULT IN COMPONENT DAMAGE OR PERSONAL 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.
versa.

## 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

## DESCRIPTION - THREADED HOLE REPAIR

Most stripped threaded holes can be repaired using a Helicoil ${ }^{\circledR}$. Follow the vehicle or Helicoil ${ }^{\circledR}$ recommendations for application and repair procedures.

|  <br> 1 | $\mathcal{F}$ <br> 2 |  <br> 3 | $\leadsto \sqrt{\square}$ <br> 4 | 5 |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 7 |  | 9 |  | 11 | 12 |
|  |  | $\approx$ |  | $\square$ |  |
|  <br> 19 |  $20$ | $21$ | $22$ |  |  |

80be4788
Fig. 3 INTERNATIONAL CONTROL AND DISPLAY SYMBOLS

| 1 | High Beam |
| :--- | :--- |
| 2 | Fog Lamps |
| 3 | Headlamp, Parking Lamps, Panel Lamps |
| 4 | Turn Warning |
| 5 | Hazard Warning |
| 6 | Windshield Washer |
| 7 | Windshield Wiper |
| 8 | Windshield Wiper and Washer |
| 9 | Windscreen Demisting and Defrosting |
| 10 | Ventilating Fan |
| 11 | Rear Window Defogger |
| 12 | Rear Window Wiper |


| 13 | Rear Window Washer |
| :--- | :--- |
| 14 | Fuel |
| 15 | Engine Coolant Temperature |
| 16 | Battery Charging Condition |
| 17 | Engine Oil |
| 18 | Seat Belt |
| 19 | Brake Failure |
| 20 | Parking Brake |
| 21 | Front Hood |
| 22 | Rear hood (Decklid) |
| 23 | Horn |
| 24 | Lighter |

METRIC SYSTEM (Continued)
CONVERSION FORMULAS AND EQUIVALENT VALUES

| MULTIPLY | BY | TO GET | MULTIPLY | BY | TO GET |
| :---: | :---: | :---: | :---: | :---: | :---: |
| in-Ibs | x 0.11298 | $\begin{aligned} & \text { = Newton Meters } \\ & (\mathrm{N} \cdot \mathrm{~m}) \end{aligned}$ | $\mathrm{N} \cdot \mathrm{m}$ | x 8.851 | = in-lbs |
| ft-lbs | x 1.3558 | $\begin{aligned} & \text { = Newton Meters } \\ & (\mathrm{N} \cdot \mathrm{~m}) \end{aligned}$ | $\mathrm{N} \cdot \mathrm{m}$ | x 0.7376 | $=\mathrm{ft}$-lbs |
| Inches Hg (60 ${ }^{\circ} \mathrm{F}$ ) | 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 | x 1.0936 | = Yards |
| mph | x 1.6093 | $\begin{aligned} & \text { = Kilometers/Hr. } \\ & (\mathrm{Km} / \mathrm{h}) \end{aligned}$ | 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) | $\times 0.27778$ | = Meters/Sec (M/S) | M/S | x 3.600 | Kilometers/Hr. (Km/h) |

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 ( $\mathrm{N} \cdot \mathrm{m}$ ). Also, use the chart to convert between millimeters (mm) and inches (in.) (Fig. 4).

METRIC SYSTEM (Continued)
in-lbs to $N \bullet m$
$\mathrm{N} \bullet \mathrm{m}$ to in -lbs

| in-lb | $\mathrm{N} \cdot \mathrm{m}$ | in-lb | $\mathrm{N} \cdot \mathrm{m}$ | in-lb | $\mathrm{N} \cdot \mathrm{m}$ | in-lb | N ¢m | in-lb | $\mathrm{N} \cdot \mathrm{m}$ | N•m | in-lb | $\mathrm{N} \cdot \mathrm{m}$ | in-lb | $\mathrm{N} \bullet \mathrm{m}$ | in-lb | $\mathrm{N} \cdot \mathrm{m}$ | in-lb | Nom | in-lb |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 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 | 16.2 | 143.3882 |
| 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 | 16.4 | 145.1584 |
| 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 | 16.6 | 146.9287 |
| 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 | 16.8 |  |
| 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 | 17 | 150.4691 |
| 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 | 17.2 | 152.2393 |
| 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 | 17.4 | 154.0096 |
| 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 | 17.6 |  |
| 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 | 17.8 | 157.5500 |
| 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 | 18 | 159.3202 |
| 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 | 18.5 | 163.7458 |
| 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 | 19 | 168.1714 |
| 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 | 19.5 | 172.5970 |
| 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 97 | 14.8 | 130.9966 132.7669 | 20 20.5 | $\begin{aligned} & 177.0225 \\ & 181.4480 \end{aligned}$ |
| 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 | 20.5 21 | 181.4480 185.8736 |
| 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 | 99.1328 | 15.2 | 134.5371 | 21 | 85.8736 94.7247 |
| 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 | 23 | 194.7247 |
| 36 | 4.0674 | 76 | 8.5867 | 116 | 13.1060 | 156 | 17.6253 | 196 | 22.1447 | 3.6 3.8 | 31.8640 33.6342 | 7.6 78 | 67.2685 69.0388 | 11.6 11.8 | 102.6730 | 15.6 15.8 | 138.0775 139.8478 | 23 | 203.5759 |
| 38 | 4.2934 | 78 | 8.8127 | 118 | 13.3320 | 158 | 17.8513 | 198 | 22.3706 | 3.8 | 33.6342 | 7.8 | 69.0388 70.8090 | 11.8 | 104.4433 | 15.8 | 139.8478 141.6180 | 24 | 212.4270 |
| 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 | 25 | 221.2781 |

ft -lbs to $\mathrm{N} \bullet \mathrm{m}$
$\mathrm{N} \bullet \mathrm{m}$ to ft -lbs

| $\mathrm{ft}-\mathrm{lb}$ | N•m | ft-lb | N*m | ft-lb | $\mathrm{N} \cdot \mathrm{m}$ | ft -lb | N•m | $\mathrm{ft}-\mathrm{lb}$ | N•m | $N \cdot m$ | ft-lb | N•m | ft-lb | N•m | ft -lb | $\mathrm{N} \cdot \mathrm{m}$ | $\mathrm{ft}-\mathrm{lb}$ | $\mathrm{N} \cdot \mathrm{m}$ | $\mathrm{ft}-\mathrm{lb}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 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 | 6.7791 | 25 | 33.8954 | 45 | 61.0118 | 65 | 88.1281 | 85 | 115.2446 | 5 | 3.6878 | 25 | 18.4391 | 45 | 33.1903 | 65 | 47.9415 | 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 | 34.6854 | 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 | 88 | 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 | 94 | 69.3308 |
| 15 | 20.3373 | 35 | 47.4536 | 55 | 74.5700 | 75 | 101.6882 | 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 | 77 | 56.7923 | 97 | 71.5435 |
| 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 | 98 | 72.2811 |
| 19 | 25.7505 | 39 | 52.8769 | 59 | 79.9933 | 79 | 107.1196 | 99 | 134.2260 | 19 | 14.0137 | 39 | 28.7649 | 59 | 43.5162 | 79 | 58.2674 | 99 | 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 | in. | mm | in. | mm | in. | mm | in. | mm | in. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 01 | 254 | . 21 | 5.334 | 41 | 10.414 | . 61 | 15.494 | . 81 | 20.574 | . 01 | . 00039 | . 21 | . 00827 | . 41 | . 01614 | . 61 | . 02402 | . 81 | . 03189 |
| 02 | . 508 | . 22 | 5.588 | . 42 | 10.668 | . 62 | 15.748 | . 82 | 20.828 | . 02 | . 00079 | . 22 | . 00866 | . 42 | . 01654 | . 62 | 02441 | . 82 | . 03228 |
| . 03 | . 782 | . 23 | 5.842 | . 43 | 10.922 | . 63 | 16.002 | . 83 | 21.082 | . 03 | . 00118 | . 23 | . 00906 | . 43 | . 01693 | . 63 | . 02480 | . 83 | . 03268 |
| . 04 | 1.016 | . 24 | 6.096 | . 44 | 11.176 | . 64 | 16.256 | . 84 | 21.336 | . 04 | . 00157 | . 24 | . 00945 | . 44 | . 01732 | . 64 | . 02520 | . 84 | . 03307 |
| . 05 | 1.270 | . 25 | 6.350 | . 45 | 11.430 | . 65 | 16.510 | . 85 | 21.590 | . 05 | . 00197 | . 25 | . 00984 | . 45 | . 01772 | 65 | 02559 | . 85 | . 03346 |
| . 06 | 1.524 | 26 | 6.604 | . 46 | 11.684 | . 66 | 16.764 | . 86 | 21.844 | . 06 | . 00236 | . 26 | . 01024 | . 46 | .01811 | . 66 | . 02598 | . 86 | . 03386 |
| . 07 | 1.778 | 27 | 6.858 | . 47 | 11.938 | . 67 | 17.018 | . 87 | 22.098 | . 07 | . 00276 | . 27 | . 01063 | . 47 | . 01850 | . 67 | . 02638 | 87 | . 03425 |
| . 08 | 2.032 | 28 | 7.112 | . 48 | 12.192 | . 68 | 17.272 | . 88 | 22.352 | . 08 | . 00315 | . 28 | . 01102 | . 48 | . 01890 | . 68 | . 02677 | 88 | . 03465 |
| . 09 | 2.286 | . 29 | 7.366 | . 49 | 12.446 | . 69 | 17.526 | . 89 | 22.606 | . 09 | . 00354 | . 29 | . 01142 | . 49 | . 01929 | . 69 | . 02717 | . 89 | . 03504 |
| . 10 | 2.540 | 30 | 7.620 | . 50 | 12.700 | . 70 | 17.780 | . 90 | 22.860 | . 10 | . 00394 | . 30 | . 01181 | . 50 | . 01969 | . 70 | 02756 | . 90 | . 03543 |
| . 11 | 2.794 | 31 | 7.874 | . 51 | 12.954 | . 71 | 18.034 | 91 | 23.114 | . 11 | . 00433 | . 31 | . 01220 | . 51 | . 02008 | . 71 | . 02795 | 91 | . 03583 |
| . 12 | 3.048 | 32 | 8.128 | . 52 | 13.208 | . 72 | 18.288 | . 92 | 23.368 | . 12 | . 00472 | . 32 | . 01260 | . 52 | . 02047 | . 72 | . 02835 | . 92 | 03622 |
| . 13 | 3.302 | 33 | 8.382 | . 53 | 13.462 | . 73 | 18.542 | . 93 | 23.622 | . 13 | . 00512 | . 33 | . 01299 | . 53 | . 02087 | . 73 | . 02874 | . 93 | 03661 |
| . 14 | 3.556 | 34 | 8.630 | . 54 | 13.716 | . 74 | 18.796 | . 94 | 23.876 | . 14 | . 00551 | . 34 | . 01339 | . 54 | . 02126 | . 74 | . 02913 | 94 | .03701 |
| . 15 | 3.810 | 35 | 8.890 | . 55 | 13.970 | . 75 | 19.050 | . 95 | 24.130 | . 15 | .00591 | . 35 | . 01378 | . 55 | . 02165 | . 75 | . 02953 | . 95 | . 03740 |
| . 16 | 4.064 | 36 | 9.144 | . 56 | 14.224 | . 76 | 19.304 | . 96 | 24.384 | 16 | . 00630 | . 36 | . 01417 | . 56 | . 02205 | . 76 | . 02992 | . 96 | . 03780 |
| . 17 | 3.318 | 37 | 9.398 | . 57 | 14.478 | . 77 | 19.558 | . 97 | 24.638 | . 17 | . 00669 | . 37 | . 01457 | . 57 | . 02244 | . 77 | . 03032 | . 97 | . 03819 |
| . 18 | 4.572 | 38 | 9.652 | 58 | 14.732 | 78 | 19.812 | 98 | 24.892 | . 18 | . 00709 | . 38 | . 01496 | . 58 | . 02283 | . 78 | -. 03071 | 98 | 03858 |
| . 19 | 4.826 | 39 | 9.906 | . 59 | 14.986 | . 78 | 20.066 | . 99 | 25.146 | . 19 | . 00748 | . 39 | . 01535 | . 59 | . 02323 | . 79 | . 03110 | . 99 | . 03898 |
| . 20 | 5.080 | 40 | 10.160 | . 60 | 15.240 | . 80 | 20.320 | 1.00 | 25.400 | . 20 | . 00787 | . 40 | . 01575 | . 60 | . 02362 | . 80 | . 03150 | 1.00 | . 03937 |

Fig. 4 METRIC CONVERSION CHART

## TORQUE REFERENCES

## DESCRIPTION

Individual Torque Charts appear within many or the Groups. Refer to the Standard Torque Specifica-
tions Chart for torque references not listed in the individual torque charts (Fig. 5)

SPECIFIED TORQUE FOR STANDARD BOLTS

| Class | Diameter mm | Pitch mm | Specified torque |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Hexagon head bolt |  |  | Hexagon flange bolt |  |  |
|  |  |  | $\mathrm{N} \cdot \mathrm{m}$ | kgf-cm | ft-lbf | $\mathrm{N} \cdot \mathrm{m}$ | kgf-cm | f-lbf |
| 4 T | 6 | 1 | 5 | 55 | 48 in. Ibf | 6 | 60 | $52 \mathrm{in}$. . 1 bf |
|  | 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 | - | - | - |
| $5 T$ | 6 | 1 | 6.5 | 65 | 56 in . llbf | 7.5 | 75 | 65 in. Ibf |
|  | 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 . Ibf | 9 | 90 | 78 in. 1 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 | - | - | - |
| 7 T | 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 | - | - | - |
| 87 | 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 |
| 9 T | 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 |
| $10 T$ | 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 |
| $11 T$ | 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 |

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

$80 c 4 d 707$
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.

[^0]3 - VIN LOCATION

VEHICLE IDENTIFICATION NUMBER (Continued)
VIN DECODING INFORMATION

| POSITION | INTERPRETATION | CODE = DESCRIPTION |
| :---: | :---: | :---: |
| 1 | Country of origin | 1 = Manufactured By DaimlerChrysler Corporation |
| 2 | Make | $\begin{aligned} & \mathrm{B}=\text { Dodge } \\ & \mathrm{C}=\text { Chrysler } \end{aligned}$ |
| 3 | Vehicle Type | 3 = Passenger Car |
| 4 | Passenger Safety | A = Restraint System, Active Front and Side Airbags <br> B = Restraint System, Manual/Active Uni-Belt <br> E = Restraint System, Active Driver and Passenger Airbags |
| 5 | Car Line | $\begin{aligned} & \hline S=\text { Neon LHD } \\ & V=\text { Neon RHD } \end{aligned}$ |
| 6 | Series | $\begin{aligned} & \hline 1 \text { = Economy } \\ & 2=\text { Low Line } \\ & 4=\text { High Line } \\ & 5=\text { Premium } \\ & 6=\text { Sport } \\ & 7=\text { Special } \end{aligned}$ |
| 7 | Body Style | 6 = 4 Door Sedan |
| 8 | Engine | $\begin{aligned} & \text { C }=2.0 \text { L } 4 \text { Cyl. } 16 \mathrm{~V} \text { SOHC Gasoline } \\ & \mathrm{F}=2.0 \mathrm{~L} 4 \text { Cyl. } 16 \mathrm{~V} \text { High Performance Gasoline } \\ & \mathrm{S}=2.4 \mathrm{~L} 4 \text { Cyl. } 16 \mathrm{~V} \text { DOHC High Output Turbo } \end{aligned}$ |
| 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.


8086df7o

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)


80bf3788

Fig. 10 MANUFACTURER PLATE

## LUBRICATION \& MAINTENANCE

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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).


Fig. 1 INTERNATIONAL SYMBOLS

```LUBRICATION POINTSDESCRIPTION5
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MAINTENANCE SCHEDULES
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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 GOVERNMENT AGENCY FOR LOCATION OF COLLECTION CENTER IN YOUR AREA.

When service is required, DaimlerChrysler Corporation recommends that only Mopar ${ }^{\circledR}$ brand parts, lubricants and chemicals be used. Mopar ${ }^{\circledR}$ 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)


## 0-2 LUBRICATION \& MAINTENANCE

## FLUID TYPES (Continued)

## API SERVICE GRADE CERTIFIED

Use an engine oil that is API Certified (GF-3). Mopar ${ }^{\circledR}$ 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 $5 \mathrm{~W}-30$ or $10 \mathrm{~W}-30$. 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 CONSERVING 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). DiamlerChrysler only recommend API Certified (GF-3) engine oils that meet the requirements of Material Standard MS-6395. Use Mopar ${ }^{\circledR}$ 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 75W90.

## 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

## 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 SWALLOWED OR INHALED. IF SWALLOWED, DRINK TWO GLASSES OF WATER AND INDUCE VOMITING. 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 ${ }^{\circledR}$ 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 $-37^{\circ} \mathrm{C}\left(-35^{\circ} \mathrm{F}\right)$. 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 ${ }^{\circledR}$ 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® ATF ${ }^{\circledR} 4$ (Automatic Transmission Fluid) is required in both the 41TE automatic and T350/T850 manual transaxles. Neon SRT-4 Models equipped with the T 850 manual transaxle also require the addition of 0.12 L ( 4 oz .) of Mopar ${ }^{\circledR}$ 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. download the complete manual instantly. No waiting.
## 0-4 LUBRICATION \& MAINTENANCE FLUID TYPES (Continued)

Mopar ${ }^{\circledR}$ 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 METHANOL. 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

## 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.) |
| $\begin{gathered} \hline \text { Manual Transaxle - NV } \\ \text { T850*** } \end{gathered}$ | 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 ${ }^{\circledR}$ 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.


[^0]:    1 - INSTRUMENT PANEL
    2 - A-PILLAR

