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INTRODUCTION

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BODY CODE PLATE

DESCRIPTION

The Body Code Plate (Fig. 1) is located on the floor pan under the passenger seat or attached to the front face of the radiator closure panel. There are seven lines of information on the body code plate. Lines 5, 6, and 7 are not used to define service information. Information reads from left to right, starting with line 4 in the center of the plate to line 1 at the bottom of the plate.

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.

BODY CODE PLATE—LINE 4

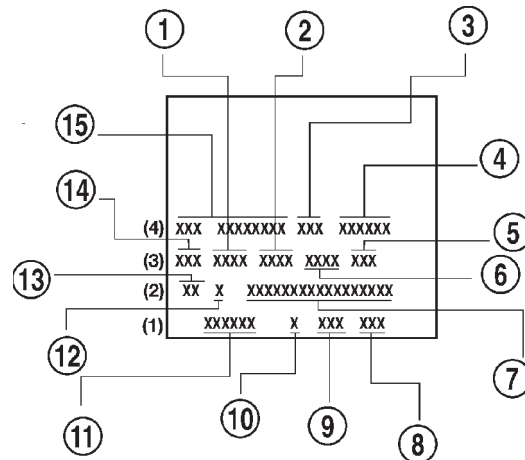
DIGITS 1 THROUGH 12

Vehicle Order Number

DIGITS 13, 14, AND 15

Transmission Codes

- DGP = 4-speed Automatic (47RE)
- DGT = 4-speed Automatic (46RE)
- DGK = 4-speed Automatic (42RE)
- DDP = 5-speed Manual (NVG-4500)
- DDX = 5-speed Manual (NVG-4500 Heavy Duty)
- DDC = 5-speed Manual (NVG-3500)
- DEE = 6-speed Manual (NVG-5600)



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Fig. 1 Body Code Plate

- 1 - PRIMARY PAINT
- 2 - SECONDARY PAINT
- 3 - TRANSMISSION CODE
- 4 - VEHICLE MODEL NUMBER
- 5 - ENGINE CODE
- 6 - INTERIOR TRIM CODE
- 7 - VEHICLE IDENTIFICATION NUMBER
- 8 - TAILGATE CODE
- 9 - CARGO BOX CODE
- 10 - TAILGATE TRIM CODE
- 11 - BODY-IN-WHITE SEQUENCE
- 12 - MARKET CODE
- 13 - SPECIES CODE
- 14 - PAINT PROCEDURE
- 15 - VEHICLE ORDER NUMBER

DIGITS 16, 17, AND 18

Car Line Shell

- BR1 = 1500 4 X 2
- BE1 = 1500 4 X 2
- BR6 = 1500 4 X 4

BODY CODE PLATE (Continued)

- BE6 = 1500 4 X 4
- BR2 = 2500 4 X 2
- BE2 = 2500 4 X 2
- BR7 = 2500 4 X 4
- BE7 = 2500 4 X 4
- BR3 = 3500 4 X 2
- BE3 = 3500 4 X 2
- BR8 = 3500 4 X 4
- BE8 = 3500 4 X 4

DIGIT 19

Price Class

- L = Ram Truck (All)

DIGITS 20 AND 21

Body Type

- 31 = Ram Truck Club Cab (138.7 in. Wheel Base)
- 32 = Ram Truck Club Cab (154.7 in. Wheel Base)
- 33 = Ram Truck Quad Cab (138.7 in. Wheel Base)
- 34 = Ram Truck Quad Cab (154.7 in. Wheel Base)
- 61 = Ram Truck (118.7 in. Wheel Base)
- 62 = Ram Truck (134.7 in. Wheel Base)
- 63 = Ram Truck Cab Chassis (138.7 in. Wheel

Base)

- 64 = Ram Truck Cab Chassis (162.7 in. Wheel

Base)

BODY CODE PLATE—LINE 3

DIGITS 1,2, AND 3

Paint Procedure

- APA = Monotone
- AP9 = Special
- APB = Two-tone (Waterfall)
- APC = Two-tone (Centerband)
- APD = Two-tone (Lower break)

DIGIT 4

Open Space

DIGITS 5 THROUGH 8

Primary Paint

Refer to Group 23, Body for color codes.

DIGIT 9

Open Space

DIGITS 10 THROUGH 13

Secondary Paint

DIGIT 14

Open Space

DIGITS 15 THROUGH 18

Interior Trim Code

DIGIT 19

Open Space

DIGITS 20, 21, AND 22

Engine Code

- EHC = 3.9 L 6 cyl. MPI Gasoline
- ELF = 5.2 L 8 cyl. MPI Gasoline
- ELN = 5.2 L 8 cyl. (CNG)
- EML = 5.9 L 8 cyl. MPI Gasoline
- EMM = 5.9 L 8 cyl. MPI Gasoline (Heavy Duty)
- ETC = 5.9 L 6 cyl. Turbo Diesel
- EWA = 8.0 L 10 cyl. MPI Gasoline

BODY CODE PLATE—LINE 2

DIGIT 1 Open Space

DIGITS 2 AND 3 Species Code. (Used for Manufacturing)

DIGIT 4

Open Space

DIGIT 5

Market Code

- B = International
- C = Canada
- M = Mexico
- U = United States

DIGIT 6

Open Space

DIGITS 7 THROUGH 23

Vehicle Identification Number (VIN)

Refer to Vehicle Identification Number (VIN) paragraph for proper breakdown of VIN code.

BODY CODE PLATE—LINE 1

DIGITS 1 THROUGH 6 Body-in-white assembly sequence.

DIGIT 7

Open Space

DIGIT 8 Tailgate trim code.

DIGIT 9

Open Space

DIGITS 10 THROUGH 12 Cargo box code

- XBS = Sweptline

DIGIT 13

Open Space

BODY CODE PLATE (Continued)

DIGITS 14 THROUGH 16 Tailgate code

- MWD = Plain Tailgate
- MPB = Tailgate Applique (Black)

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.

FASTENER IDENTIFICATION (Continued)

Bolt Markings and Torque - Metric

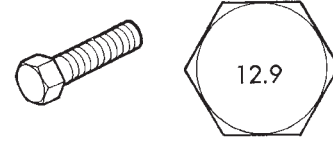
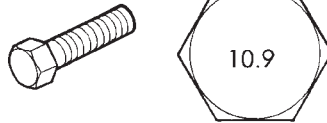
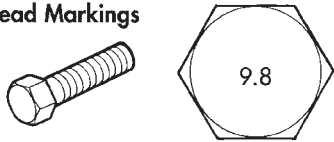
Commercial Steel Class

9.8

10.9

12.9

Bolt Head Markings



Body Size	Torque				Torque				Torque			
	Cast Iron		Aluminum		Cast Iron		Aluminum		Cast Iron		Aluminum	
	Diam. mm	N•m	ft-lb	N•m	ft-lb	N•m	ft-lb	N•m	ft-lb	N•m	ft-lb	N•m
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

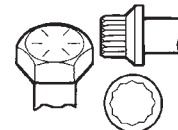
SAE Grade Number

5

8

Bolt Head Markings

These are all SAE Grade 5 (3) line










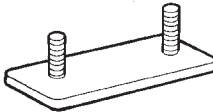


Bolt Torque - Grade 5 Bolt

Bolt Torque - Grade 8 Bolt

Body Size	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

FASTENER IDENTIFICATION (Continued)

HOW TO DETERMINE BOLT STRENGTH

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

95IN-4

FASTENER USAGE

DESCRIPTION - FASTENER USAGE

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

Figure art, specifications and torque 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®. Follow the manufactures recommendations for application and repair procedures.

INTERNATIONAL VEHICLE CONTROL & DISPLAY SYMBOLS

DESCRIPTION - INTERNATIONAL SYMBOLS

























The graphic symbols illustrated in the following International Control and Display Symbols Chart 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 - METRIC SYSTEM

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 vice versa.

 1	 2	 3	 4	 5	 6
 7	 8	 9	 10	 11	 12
 13	 14	 15	 16	 17	 18
 19	 20	 21	 22	 23	 24

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International 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)

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	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)

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·m).

Also, use the chart to convert between millimeters (mm) and inches (in.)

METRIC SYSTEM (Continued)

in-lbs to N•m

N•m to in-lbs

Table with 20 columns and 40 rows showing conversion values between in-lb and N•m.

ft-lbs to N•m

N•m to ft-lbs

Table with 20 columns and 20 rows showing conversion values between ft-lb and N•m.

in. to mm

mm to in.

Table with 20 columns and 20 rows showing conversion values between inches and millimeters.

TORQUE REFERENCES

ations Chart for torque references not listed in the individual torque charts.

DESCRIPTION

Individual Torque Charts appear at the end of many Groups. Refer to the Standard Torque Specifi-

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

Torque Specifications

VECI LABEL

DESCRIPTION

Vehicles equipped with 3.9L V-6 or 5.2L/5.9L V-8 LDC-gas powered engines have a VECI label.

The label combines both emission control information and vacuum hose routing. This label is located in the engine compartment in front of the radiator (Fig. 2).

The VECI label contains the following:

- Engine family and displacement
- Evaporative family
- Emission control system schematic
- Certification application
- Engine timing specifications (if adjustable)
- Idle speeds (if adjustable)
- Spark plug and gap

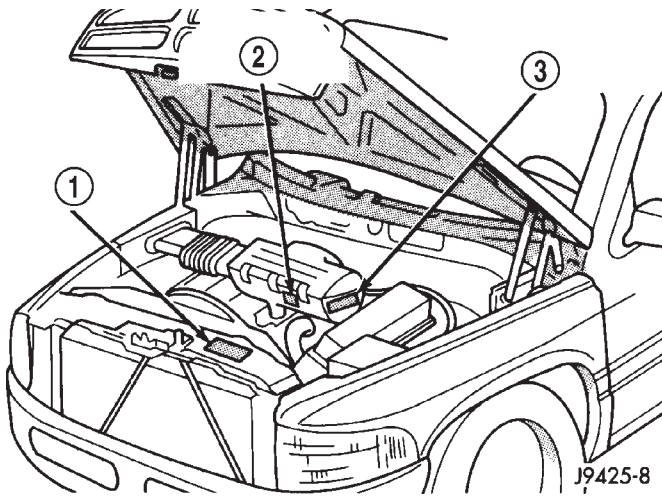


Fig. 2 VECI Label Location

- 1 - VEHICLE EMISSION CONTROL INFORMATION (VECI) LABEL
- 2 - VECI LABEL (5.9L HDC FOR CANADA ONLY)
- 3 - VECI LABEL (5.9L HDC ONLY) (INCLUDES CANADA)

The 5.9L HDC-gas powered engine will have two labels. One of the labels is located in front of the radiator in the engine compartment (Fig. 2) and will contain vacuum hose routing only. The other is attached to the drivers side of the engine air cleaner housing (Fig. 2).

The VECI label for the 5.9L HDC-gas powered engine will contain the following:

- Engine family and displacement
- Evaporative family
- Certification application
- Engine timing specifications (if adjustable)
- Idle speeds (if adjustable)
- Spark plug and gap

The label for the 8.0L V-10 HDC-gas powered engine is also located in the engine compartment. It

is attached to a riveted metal plate located to the right side of the generator (Fig. 3).

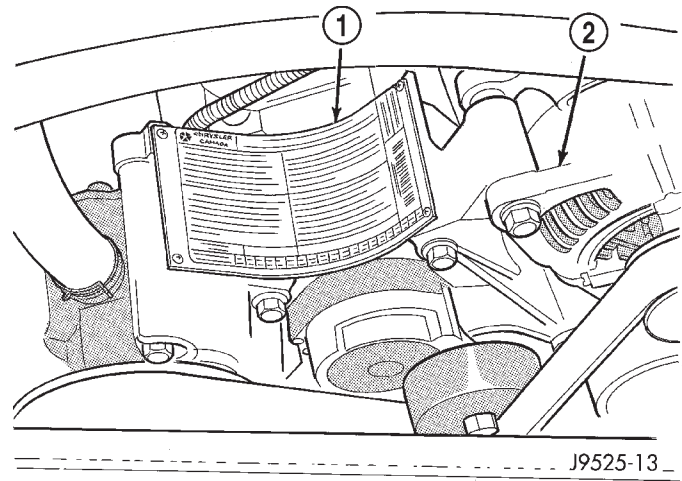


Fig. 3 VECI Label Location—8.0L V-10 Engine

- 1 - VECI LABEL
- 2 - GENERATOR

OPERATION

There are unique VECI labels for vehicles built for sale in the country of Canada and for both Light Duty Cycle (LDC) and Heavy Duty Cycle (HDC) engines. Canadian labels are written in both the English and French languages. For all Canadian vehicles, the label is split into two different labels.

The VECI labels are permanently attached and cannot be removed without defacing information and destroying label.

VEHICLE IDENTIFICATION NUMBER

DESCRIPTION

VIN CODING/LOCATIONS

The Vehicle Identification Number (VIN) plate is located on the lower windshield fence near the left A-pillar (Fig. 4). The VIN contains 17 characters that provide data concerning the vehicle. Refer to the VIN decoding chart to determine the identification of a vehicle.

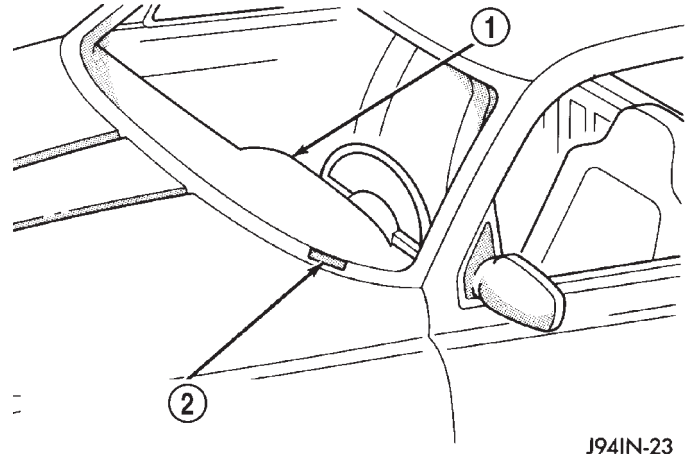
The Vehicle Identification Number is also imprinted on the:

- Body Code Plate.
- Equipment Identification 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 Iden-

VEHICLE IDENTIFICATION NUMBER (Continued)

tification 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.



J94IN-23

Fig. 4 Vehicle

1 - INSTRUMENT PANEL

2 - VEHICLE IDENTIFICATION NUMBER PLATE VIN

POSITION	INTERPRETATION	CODE = DESCRIPTION
1	Country of Origin	1 = United States 3 = Mexico
2	Make	B = Dodge
3	Vehicle Type	6 = Incomplete 7 = Truck
4	Gross Vehicle Weight Rating	H = 6001-7000 J = 7001-8000 K = 8001-9000 L = 9001-10,000 M = 10,001-14,000
5	Vehicle Line	C = Ram Cab Chassis/Ram Pick Up (4x2) F = Ram Cab Chassis/Ram Pick Up (4x4)
6	Series	1 = 1500 2 = 2500 3 = 3500
7	Body Style	2 = Club Cab 3 = Quad Cab 6 = Conventional Cab/Cab Chassis
8	Engine	6 = 5.9L 6 cyl. 24 Valve Diesel 7=5.9 6cyl. 24 Valve Turbo Diesel H/O W = 8.0L 10 cyl. MPI X = 3.9L 6 cyl. MPI Y = 5.2L 8 cyl. MPI Z = 5.9L 8 cyl. MPI-LDC 5 = 5.9L 8cyl. MPI-HDC
9	Check Digit	0 through 9 or X
10	Model Year	1=2001
11	Plant Location	J = St. Louis North S = Dodge City M = Lago Alberto Assembly
12 thru 17	Vehicle Build Sequence	

VEHICLE SAFETY CERTIFICATION LABEL

DESCRIPTION

A vehicle safety certification label (Fig. 5) is attached to every Chrysler Corporation vehicle. The label certifies that the vehicle conforms to all applicable Federal Motor Vehicle Safety Standards. The label also lists:

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

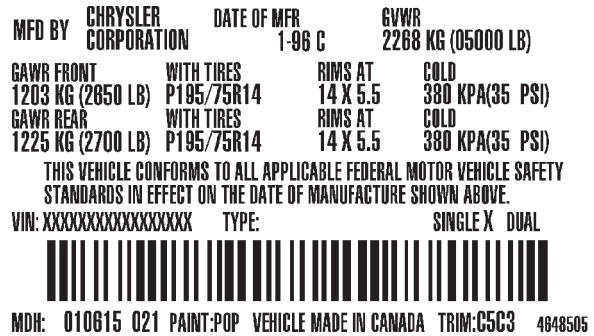
The label is located on the driver-side door shut-face.

EQUIPMENT IDENTIFICATION PLATE

DESCRIPTION

The Equipment Identification Plate (Fig. 6) is located at the left, front of the inner hood panel. The plate lists information concerning the vehicle as follows:

- The model.

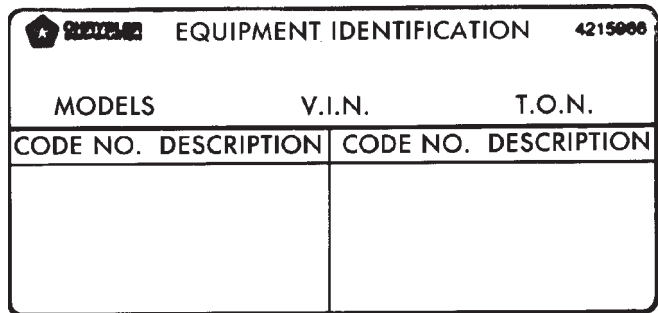


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Fig. 5 Vehicle Safety Certification Label

- The wheelbase.
- The VIN (Vehicle Identification Number).
- The T.O.N. (order number).
- The optional and special equipment installed on the vehicle.

Refer to the information listed on the plate when ordering replacement parts.



J901N-37

Fig. 6 Equipment Identification Plate

LUBRICATION & MAINTENANCE

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LUBRICATION & MAINTENANCE

DESCRIPTION - FUEL REQUIREMENTS - GAS ENGINES

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 supports 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 gasolines 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.

LUBRICATION & MAINTENANCE (Continued)

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 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 Daimler-Chrysler 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.

DESCRIPTION - FUEL REQUIREMENTS - DIESEL ENGINE**DESCRIPTION**

WARNING: Do not use alcohol or gasoline as a fuel blending agent. They can be unstable under certain conditions and hazardous or explosive when mixed with diesel fuel.








Use good quality diesel fuel from a reputable supplier in your Dodge truck. For most year-round service, number 2 diesel fuel meeting ASTM specification D-975 will provide good performance. If the vehicle is exposed to extreme cold (below 0°F/-18°C), or is required to operate at colder-than-normal conditions for prolonged periods, use climatized No. 2 diesel fuel or dilute the No. 2 diesel fuel with 50% No. 1 diesel fuel. This will provide better protection from fuel gelling or wax-plugging of the fuel filters.

Diesel fuel is seldom completely free of water. To prevent fuel system trouble, including fuel line freezing in winter, drain the accumulated water from the fuel/water separator using the fuel/water separator drain provided. If you buy good-quality fuel and follow the cold-weather advice above, fuel conditioners should not be required in your vehicle. If available in your area, a high cetane "premium" diesel fuel may offer improved cold starting and warm-up performance.

INTERNATIONAL SYMBOLS

DESCRIPTION

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

 CHRYSLER CORPORATION			
	ENGINE OIL		BRAKE FLUID
	AUTOMATIC TRANSMISSION FLUID		POWER STEERING FLUID
	ENGINE COOLANT		WINDSHIELD WASHER FLUID

9500-1

Fig. 1 International Symbols

PARTS & LUBRICANT RECOMMENDATION

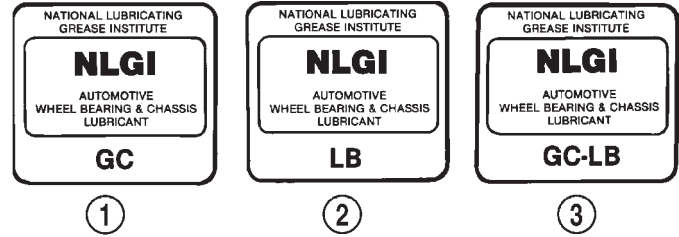
STANDARD PROCEDURE - CLASSIFICATION OF LUBRICANTS

Only lubricants that are endorsed by the following organization should be used to service a DaimlerChrysler Corporation vehicle.

- Society of Automotive Engineers (SAE)
- American Petroleum Institute (API) (Fig. 4)
- National Lubricating Grease Institute (NLGI) (Fig. 2)

Lubricating grease is rated for quality and usage by the NLGI. All approved products have the NLGI symbol (Fig. 2) 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 letter "L". The letter following the usage letter indicates the quality of the lubricant. The following symbols indicate the highest quality.

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.



9200-7

Fig. 2 NLGI Symbol

- 1 - WHEEL BEARINGS
- 2 - CHASSIS LUBRICATION
- 3 - CHASSIS AND WHEEL BEARINGS

FLUID TYPES

DESCRIPTION - ENGINE OIL

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.

API SERVICE GRADE CERTIFIED

Use an engine oil that is API Service Grade Certified. MOPAR® provides engine oils that conform to this service grade.

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 oils 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. 3).

FLUID TYPES (Continued)

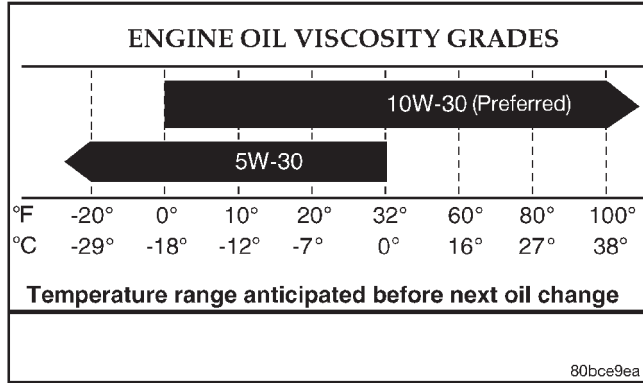


Fig. 3 Temperature/Engine Oil Viscosity - 3.2/3.5L Engine

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 label of engine oil plastic bottles and the top of engine oil cans (Fig. 4).



9400-9

Fig. 4 API Symbol

DESCRIPTION—ENGINE OIL

API SERVICE GRADE CERTIFIED

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.

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

In diesel engines, use an engine oil that conforms to API Service Grade CF-4 or CG-4/SH (Fig. 5). MOPAR® provides an engine oil that conforms to this particular grade.

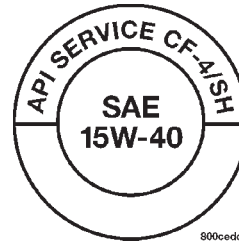


Fig. 5 API Service Grade Certification Label—Diesel Engine Oil

SAE VISCOSITY

An SAE viscosity grade is used to specify the viscosity of engine oil. SAE 15W-40 specifies a multiple viscosity engine oil.

When choosing an engine oil, consider the range of temperatures the vehicle will be operated in before the next oil change. Select an engine oil that is best suited to your area's particular ambient temperature range and variation. For diesel engines, refer to (Fig. 6).

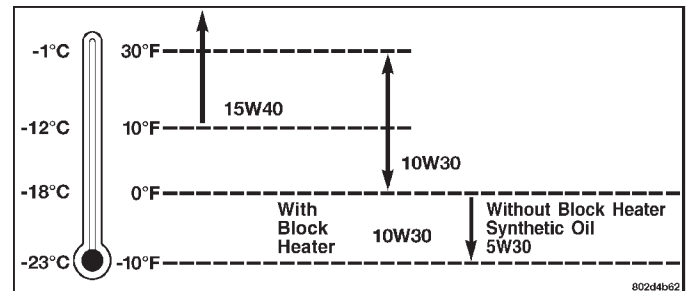


Fig. 6 Engine Oil Viscosity Recommendation—Diesel Engines

FLUID TYPES (Continued)

DESCRIPTION

A multi-purpose, hypoid gear lubricant which conforms to the following specifications should be used. Mopar Hypoid Gear Lubricant conforms to all of these specifications.

SAE ratings also apply to multiple grade gear lubricants. In addition, API classification defines the lubricants usage.

FRONT AXLE

- The lubricant should have MIL-L-2105C and API GL 5 quality specifications.
- Lubricant is SAE 75W-140 SYNTHETIC gear lubricant.

REAR AXLE

- The lubricant should have MIL-L-2105C and API GL 5 quality specifications.
- Lubricant is a thermally stable SAE 80W-90 gear lubricant.
- Lubricant for axles intended for heavy-duty or trailer tow use is SAE 75W-140 SYNTHETIC gear lubricant.

NOTE: Trac-lok™ and Vari-lok™ equipped axles require a friction modifier be added to the lubricant.

CAUTION: If axle is submerged in water, lubricant must be replaced immediately to avoid possible premature axle failure.

DESCRIPTION - TRANSFER CASE FLUID

Recommended lubricant for the NV231 and NV241 transfer case is Mopar® ATF +4, (MS 9602) Automatic Transmission Fluid.

DESCRIPTION - AUTOMATIC TRANSMISSION FLUID

NOTE: Refer to the maintenance schedules in this group for the recommended maintenance (fluid/filter change) intervals for this transmission.

NOTE: Refer to Service Procedures in this group for fluid level checking procedures.

Mopar® ATF +4, type 9602, Automatic Transmission Fluid is the recommended fluid for DaimlerChrysler automatic transmissions.

Dexron II fluid IS NOT recommended. Clutch chatter can result from the use of improper fluid.

Mopar® ATF +4, type 9602, 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.

OPERATION - AUTOMATIC TRANSMISSION FLUID

The automatic transmission fluid is selected based upon several qualities. The fluid must provide a high level of protection for the internal components by providing a lubricating film between adjacent metal components. The fluid must also be thermally stable so that it can maintain a consistent viscosity through a large temperature range. If the viscosity stays constant through the temperature range of operation, transmission operation and shift feel will remain consistent. Transmission fluid must also be a good conductor of heat. The fluid must absorb heat from the internal transmission components and transfer that heat to the transmission case.

FLUID CAPACITIES

SPECIFICATIONS

FLUID CAPACITIES

DESCRIPTION	SPECIFICATION
FUEL TANK	
1500 Series with 6.5' Short Box	98 L (26 gal.)*****
2500 Series Club Cab and Quad Cab with 6.5' Short Box	129 L (34 gal.)*****
All 8' Long Box	132 L (35 gal.)*****
All Cab/Chassis Models	132 L (35 gal.)*****
ENGINE OIL WITH FILTER	
3.9L	4.2 L (4.5 qts.)
5.2L	4.7 L (5.0 qts.)
5.9L	4.7 L (5.0 qts.)
8.0L	6.6 L (7.0 qts.)
5.9L DIESEL	10.4 L (11.0 qts.)
COOLING SYSTEM	
3.9L	19 L (20 qts.)****
5.2L	19 L (20 qts.)****
5.9L	19 L (20 qts.)****
8.0L	24.5 L (26.0 qts.)****
5.9L DIESEL	22.7 L (24.0 qts.)****
POWER STEERING	
Power steering fluid capacities are dependent on engine/chassis options as well as steering gear/cooler options. Depending on type and size of internal cooler, length and inside diameter of cooler lines, or use of an auxiliary cooler, these capacities may vary. Refer to 19, Steering for proper fill and bleed procedures.	
AUTOMATIC TRANSMISSION	
Service Fill - 42RE	3.8 L (4.0 qts.)
O-haul - 42RE	9-9.5 L (19-20 pts.)*
Service Fill - 44RE	3.8 L (4.0 qts.)
O-haul - 44RE	9-9.5 L (19-20 pts.)*
Service Fill - 46RE	3.8 L (4.0 qts.)
O-haul - 46RE	9-9.5 L (19-20 pts.)*
Service Fill - 47RE	3.8 L (4.0 qts.)
O-haul - 47RE	14-16 L 29-33 pts.)*

DESCRIPTION	SPECIFICATION
Dry fill capacity Depending on type and size of internal cooler, length and inside diameter of cooler lines, or use of an auxiliary cooler, these figures may vary. Refer to 21, Transmission for proper fluid fill procedure. (Refer to 21 - TRANSMISSION/TRANSAXLE/AUTOMATIC/FLUID - STANDARD PROCEDURE)	
MANUAL TRANSMISSION	
NV3500	2.0 L (4.2 pts.)
NV4500	3.8 L (8.0 pts.)
NV4500 HD	3.8 L (8.0 pts.)
NV5600	4.5 L (9.5 pts.)
TRANSFER CASE	
NV231 HD	1.2 L (2.5 pts.)
NV241	2.18 L (4.61 pts.)
NV241 HD	3.08 L (6.51 pts.)
FRONT AXLE	
Model 216-FBI	2.3 L (4.8 pts.)
Model 248-FBI	4.0L (8.5 pts.)
REAR AXLE	
9-1/4 inch	2.1 L (4.5 pts.)
248-RBI(2WD)	3.0 L (6.3 pts.)
248-RBI(4WD)	3.4L (7.0 pts.)
267-RBI(2WD)	3.3 L (7.0 pts.)
267-RBI (4WD)	3.6L (7.5 pts.)
286-RBI (2WD)	3.2 L (6.8 pts.)
286-RBI (4WD)	4.8 L (10.1 pts.)
REAR AXLE—LIMITED SLIP DIFFERENTIAL	
9-1/4 inch	2.2 L (4.7 pts.) ±
248-RBI (2WD)	3.0 L (6.3 pts.**)
248-RBI (4WD)	3.4 L (7.0 pts.)
267-RBI	3.3 L (7.0 pts.**)
267-RBI (4WD)	3.6 L (7.5 pts.)
286-RBI (2WD)	3.2 L (6.8 pts.**)
286-RBI (4WD)	4.8 L (10.1 pts.***)
** Include 0.05 L (0.25 pts.) friction modifier.	
*** Include 0.19 L (0.4 pts.) friction modifier.	
± Include 0.1 L (0.2 pts.) friction modifier.	
**** Includes 0.9L (1.0 qts.) for coolant reservoir.	
*****Nominal refill capacities are shown. A variation may be observed from vehicle to vehicle due to manufacturing tolerance and refill procedure.	

MAINTENANCE SCHEDULES

LIGHT DUTY ENGINE (1500 AND 2500 MODELS EXCEPT 8.0L) MAINTENANCE SCHEDULES

There are two maintenance schedules that show proper service for the vehicle.

First is Schedule "A". It lists all the scheduled maintenance to be performed under "normal" operating conditions.

Second is Schedule "B". It is a schedule for vehicles that are operated under the conditions listed at the beginning of that schedule.

Use the schedule that best describes the driving conditions.

Where time and mileage are listed, follow the interval that occurs first.

At Each Stop For Fuel

- Check engine oil level and add as required.
- Check windshield washer solvent and add as required.
- Clean windshield and wiper blades as required.

Once A Month

- Check tire pressure and look for unusual wear or damage.
- Inspect battery and clean and tighten terminals as required.
- Check fluid levels of coolant reservoir, brake master cylinder, power steering, and transmission and add as needed.
- Check all lights and all other electrical items for correct operation.
- Inspect and clean wiper blades. Replace if required.

At Each Oil Change

- Inspect exhaust system.
- Inspect brake hoses.
- Adjust rear brake shoe to drum clearance.
- Rotate the tires at each oil change interval shown on schedule "A" (7,500 Miles) or every other interval shown on schedule "B" (6,000 Miles).
 - Check engine coolant level, hoses, and clamps.
 - Lubricate steering linkage.

EMISSION CONTROL SYSTEM MAINTENANCE

The scheduled emission maintenance listed in **bold type** on the Maintenance Schedules, must be done at the mileage specified to assure the continued proper functioning of the emission control system. These, and all other maintenance services included in this manual, should be done to provide the best vehicle performance and reliability. More frequent maintenance may be needed for vehicles in severe operating

conditions such as dusty areas and very short trip driving.

FLUID FILL LOCATIONS AND LUBRICATION POINTS

The fluid check/fill locations and lubrication points are located in each applicable group.

LIGHT DUTY SCHEDULE "A"

7,500 Miles (12 000 km) or at 6 months

- Change engine oil.
- Replace engine oil filter.
- Inspect engine coolant level, hoses, and clamps.
- Inspect brake hoses.
- Lubricate the steering linkages.
- Check manual transmission fluid level.
- Inspect exhaust system.

15,000 Miles (24 000 km) or at 12 months

- Change engine oil.
- Replace engine oil filter.
- Inspect engine coolant level, hoses, and clamps.
- Inspect brake hoses.
- Lubricate the steering linkages.
- Check manual transmission fluid level.
- Inspect exhaust system.

22,500 Miles (36 000 km) or at 18 months

- Change engine oil.
- Replace engine oil filter.
- Inspect engine coolant level, hoses, and clamps.
- Inspect brake hoses.
- Inspect brake linings.
- Inspect front wheel bearings. Clean and repack, if required (4x2).
 - Lubricate the steering linkages.
 - Lubricate non permanently sealed ball joints.
- Check manual transmission fluid level.
- Inspect exhaust system.

30,000 Miles (48 000 km) or at 24 months

- **Replace engine air cleaner element.**
- **Replace spark plugs.**
- Change engine oil.
- Replace engine oil filter.
- Inspect engine coolant level, hoses, and clamps.
- Inspect brake hoses.
- Lubricate the steering linkages.
- Inspect manual transmission fluid level.
- Inspect exhaust system.

37,500 Miles (60 000 km) or at 30 months

- Change engine oil.
- Replace engine oil filter.
- Inspect engine coolant level, hoses, and clamps.