LUBRICATION AND MAINTENANCE

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SPECIFICATIONS

ENGINE OIL—DIESEL ENGINES

Use only Diesel Engine Oil meeting standard **MIL-2104C** or API Classification **SG/CD** or **CCMC PD2**.

SAE VISCOSITY GRADE

CAUTION: Low viscosity oils must have the proper API quality or the CCMC G5 designation.

To assure of properly formulated engine oils, it is recommended that SAE Grade 15W-40 engine oils that meet Chrysler material standard MS-6395, be used. European Grade 10W-40 oils are also acceptable.

Oils of the SAE 5W-30 or 10W-30 grade number are preferred when minimum temperatures consistently fall below -12°C.

FLUID CAPACITIES

FUEL TANK

Diesel Engine Equipped Vehicles ..... 87.4 L

ENGINE OIL

2.5L Diesel Engine (includes filter) ..... 6.5 L

COOLING SYSTEM

2.5L Diesel ..... 9.8 L

MANUAL TRANSMISSION

Recommended lubricant for AX15 transmissions is Mopar® 75W–90, API Grade GL–3 gear lubricant, or equivalent.

Correct lubricant level is from the bottom edge, to no more than 6 mm (1/4 in.) below the bottom edge of the fill plug hole.

Approximate dry fill lubricant capacity is:

- 3.10 liters (3.27 qts.) for 4–wheel drive applications.
- 3.15 liters (3.32 qts.) for 2–wheel drive applications.

TRANSFER CASE

NV231 ..... 1.8 L

FRONT AXLE

Model 181 ..... 1.48 L

MAINTENANCE SCHEDULE

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GENERAL INFORMATION

MAINTENANCE SCHEDULE—DIESEL ENGINE

The following are engine related Maintenance items which are unique to Diesel engine-equipped vehicles. Refer to the 1997 ZJ Service Manual for gasoline engine and non-engine related Maintenance Schedules.

The service intervals are based on odometer readings in kilometers. There are two maintenance schedules that show proper service intervals. Use the schedule that best describes the conditions the vehicle is operated under. **Schedule-A** lists all the scheduled maintenance to be performed under normal operating conditions. **Schedule-B** is the schedule for vehicles that are operated under one or more of the following conditions:

- Day and night temperatures are below freezing.
- Stop and go driving.
- Long periods of engine idling.
- Driving in dusty conditions.
- Short trips of less than 8 kilometers (5 miles).
- Operation at sustained high speeds during hot weather above 32°C (90°F).
- Taxi, police or delivery service.
- Trailer towing.

AT EACH STOP FOR FUEL OR SCHEDULED SERVICE STOP

- Check engine oil level.
- Check engine coolant level.
- Inspect drive belt.
- Visually inspect intercooler for obstruction. Clean as necessary.
- Visually inspect radiator for obstruction. Clean as necessary.
- Inspect for fuel, oil or coolant leaks.
- Inspect battery cable connection and excessive corrosion.
- Inspect for presence of water in fuel filter/water separator, drain if necessary.

SCHEDULE—A

1 000 KM

- Change engine oil.
- Change engine oil filter.
- Check all fluid levels.
- Check correct torque, intake manifold mounting nuts.
- Check correct torque, exhaust manifold mounting nuts.
- Check correct torque, turbocharger mounting nuts.
- Check correct torque, water manifold bolts.

10 000 KM

- Change engine oil.
- Change engine oil filter.

20 000 KM

- Change engine oil.
- Change engine oil filter.
- Replace air filter element.
- Check drive belt tension.
- Check glow plug operation.
- **Retorque cylinder head bolts.***

***** Engines equipped with a steel head gasket do not need this service procedure performed. Refer to Group 9, Engines for head gasket identification.

30 000 KM

- Change engine oil.
- Change engine oil filter.

40 000 KM

- Change engine oil.
- Change engine oil filter.
- Replace air filter element.
- Check drive belt tension.
- Check glow plug operation.
- Replace fuel filter/water separator element.**

50 000 KM

- Change engine oil.
- Change engine oil filter.

GENERAL INFORMATION (Continued)

60 000 KM

- Change engine oil.
- Change engine oil filter.
- Replace air filter element.
- Check glow plug operation.
- Replace drive belt.
- Check engine smoke.
- Replace engine coolant.

70 000 KM

- Change engine oil.
- Change engine oil filter.

80 000 KM

- Change engine oil.
- Change engine oil filter.
- Replace air filter element.
- Check drive belt tension.
- Check glow plug operation.
- Replace fuel filter/water separator element.**

90 000 KM

- Change engine oil.
- Change engine oil filter.

100 000 KM

- Change engine oil.
- Change engine oil filter.
- Replace air filter element.
- Check drive belt tension.
- Check glow plug operation.

EVERY 40 000 KM AFTER 80 000 KM

- Replace fuel filter/water separator element.**

**The fuel filter/water separator element should be replaced once a year if the vehicle is driven less than 40 000 km annually or if power loss from fuel starvation is detected.

EVERY 10 000 KM AFTER 100 000 KM

- Change engine oil.
- Change engine oil filter.

EVERY 20 000 KM AFTER 100 000 KM

- Change engine oil.
- Change engine oil filter.
- Replace air filter element.
- Check drive belt tension.
- Check glow plug operation.

SCHEDULE—B

500 KM

- Check correct torque, intake manifold mounting nuts.
- Check correct torque, exhaust manifold mounting nuts.
- Check correct torque, turbocharger mounting nuts.
- Check correct torque, water manifold bolts.

1 000 KM

- Change engine oil.
- Change engine oil filter.
- Check all fluid levels.

5 000 KM

- Change engine oil.
- Change engine oil filter.

10 000 KM

- Change engine oil.
- Change engine oil filter.
- Replace air filter element.
- Check drive belt tension.
- Check glow plug operation.

15 000 KM

- Change engine oil.
- Change engine oil filter.

20 000 KM

- Change engine oil.
- Change engine oil filter.
- Replace air filter element.
- Check drive belt tension.
- Check glow plug operation.
- **Retorque cylinder head bolts.***

***** Engines equipped with a steel head gasket do not need this service procedure performed. Refer to Group 9, Engines for head gasket identification.

25 000 KM

- Change engine oil.
- Change engine oil filter.

30 000 KM

- Change engine oil.
- Change engine oil filter.
- Replace air filter element.
- Check glow plug operation.
- Replace drive belt.
- Check engine smoke.
- Replace engine coolant.

35 000 KM

- Change engine oil.
- Change engine oil filter.

40 000 KM

- Change engine oil.
- Change engine oil filter.
- Replace air filter element.
- Check drive belt tension.

GENERAL INFORMATION (Continued)

- Check glow plug operation.
- Replace fuel filter/water separator element.

45 000 KM

- Change engine oil.
- Change engine oil filter.

50 000 KM

- Change engine oil.
- Change engine oil filter.
- Replace air filter element.
- Check drive belt tension.
- Check glow plug operation.

55 000 KM

- Change engine oil.
- Change engine oil filter.

60 000 KM

- Change engine oil.
- Change engine oil filter.
- Replace air filter element.
- Check drive belt tension.
- Check glow plug operation.
- Replace fuel filter/water separator element.

65 000 KM

- Change engine oil.
- Change engine oil filter.

70 000 KM

- Change engine oil.
- Change engine oil filter.
- Replace air filter element.
- Check drive belt tension.
- Check glow plug operation.

75 000 KM

- Change engine oil.
- Change engine oil filter.

80 000 KM

- Change engine oil.
- Change engine oil filter.
- Replace air filter element.
- Check glow plug operation.
- Replace drive belt.
- Check engine smoke.
- Replace engine coolant.

85 000 KM

- Change engine oil.
- Change engine oil filter.

90 000 KM

- Change engine oil.
- Change engine oil filter.
- Replace air filter element.
- Check drive belt tension.
- Check glow plug operation.

95 000 KM

- Change engine oil.
- Change engine oil filter.

100 000 KM

- Change engine oil.
- Change engine oil filter.
- Replace air filter element.
- Check drive belt tension.
- Check glow plug operation.
- Replace fuel filter/water separator element.

EVERY 5 000 KM AFTER 100 000 KM

- Change engine oil.
- Change engine oil filter.

EVERY 10 000 KM AFTER 100 000 KM

- Change engine oil.
- Change engine oil filter.
- Replace air filter element.
- Check drive belt tension.
- Check glow plug operation.

EVERY 20 000 KM AFTER 100 000 KM

- Replace fuel filter/water separator element.