

Fig. 111 Tread wear indicators will appear when the tire is worn

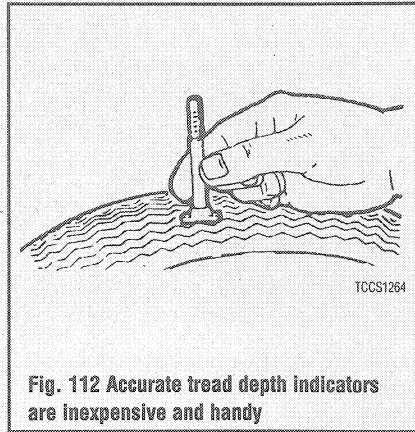


Fig. 112 Accurate tread depth indicators are inexpensive and handy

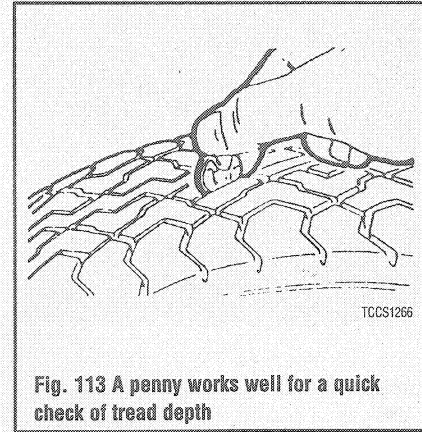


Fig. 113 A penny works well for a quick check of tread depth

and construction as were originally installed on the vehicle are recommended.

You can check your own tread depth with an inexpensive gauge or by using a Lincoln head

penny. Slip the Lincoln penny (with Lincoln's head upside-down) into several treads grooves. If you can see the top of Lincoln's head in 2 adjacent grooves, the tire has less than $\frac{1}{16}$ in. (1.5mm) tread

left and should be replaced. You can measure snow tires in the same manner by using the "tails" side of the Lincoln penny. If you can see the top of the Lincoln memorial, it's time to replace the snow tire(s).

FLUIDS AND LUBRICANTS

Fluid Disposal

Used fluids such as engine oil, transmission fluid, antifreeze and brake fluid are hazardous wastes and must be disposed of properly. Before draining any fluids, consult with your local authorities; in many areas, waste oil, antifreeze, etc. is being accepted as a part of recycling programs. A number of service stations and auto parts stores are also accepting waste fluids for recycling.

Be sure of the recycling center's policies before draining any fluids, as many will not accept different fluids that have been mixed together.

Fuel and Engine Oil Recommendations

FUEL

The engine is designed to operate on unleaded gasoline **ONLY** and is essential for the proper operation of the emission control system. The use of unleaded fuel will reduce spark plug fouling, exhaust system corrosion and engine oil deterioration.

In most parts of the United States, fuel with an octane rating of 87 should be used unless otherwise specified by the vehicle manufacturer for performance reasons. Using fuels with a lower octane may decrease engine performance, increase emissions and engine wear.

In some areas, fuel consisting of a blend of alcohol may be used; this blend of gasoline and alcohol is known as gasohol. When using gasohol, never use blends exceeding 10% ethanol or 5% methanol.

➔ **The use of fuel with excessive amounts of alcohol may jeopardize the new car warranties.**

OIL

▶ See Figure 114

Use only oil that has the API (American Petroleum Institute) designation "SJ," "SJ/CC" or "SJ/CD."

Since the viscosity (thickness) of the engine oil affects fuel economy, it is recommended to select oil with reference to the outside temperature. For satisfactory lubrication, use lower viscosity oil for colder temperatures and higher viscosity oil for warmer temperatures.

For maximum fuel economy, look for an oil that carries the words "Energy Conserving II" in the API symbol. This means that the oil contains friction-reducing additives that help reduce the amount of fuel burned to overcome engine friction.

The Society of Automotive Engineers (SAE) viscosity rating indicates an oil's ability to flow at a given temperature. The number designation indicates the thickness or "weight" of the oil. SAE 5-weight oil is thin light oil; it allows the engine to

crank over easily even when it is very cold, and quickly provides lubrication for all parts of the engine. However, as the engine temperature increases, the 5-weight oil becomes too thin, resulting in metal-to-metal contact and damage to internal engine parts. Heavier SAE 50-weight oil can lubricate and protect internal engine parts even under extremely high operating temperatures. However, it would not be able to flow quickly enough to provide internal engine protection during cold weather start-up, one of the most critical periods for lubrication protection in an engine.

The answer to the temperature extremes problem is the multi-grade or multi-viscosity oil. Multi-viscosity oils carry multiple number designations, such as SAE 5W-30 oil that has the flow characteristics of the thin 5 weight oil in cold weather, providing rapid lubrication and allowing easy engine cranking. When the engine warms up, the oil acts like a straight 30 weight oil providing internal engine protection under higher temperatures.

Engine

OIL LEVEL CHECK

▶ See Figures 115 thru 122

Every time you stop for fuel, check the engine oil as follows:

1. Make sure the vehicle is parked on level ground.
2. When checking the oil level it is best for the engine to be at normal operating temperature, although checking the oil immediately after stopping will lead to a false reading. Wait a few minutes after turning off the engine to allow the oil to drain back into the crankcase.
3. Open the hood and locate the dipstick that will be on either the right or left side depending

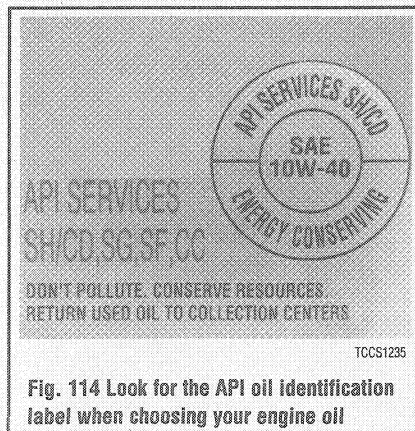


Fig. 114 Look for the API oil identification label when choosing your engine oil