Before service begins, be sure to cover the seats, floor, and steering wheel with protective coverings.

An exhaust system hose should be connected to the tailpipe(s) whenever the engine is being run indoors.
FIGURE 17.3 Installing a wiper blade insert into a wiper arm.

FIGURE 17.4 (a) The windshield wiper fluid reservoir cap is usually labeled with a symbol showing a windshield washer. (b) Use only the recommended washer fluid. Never use antifreeze in the windshield washer reservoir.

FIGURE 17.5 A cabin filter can be accessed either through the glove compartment or under the hood.
FIGURE 17.6 (a) A typical dirty air filter. (b) Always check the inlet passage leading to the air filter for debris that can reduce airflow to the engine.

FIGURE 17.7 A master cylinder with a transparent reservoir. The brake fluid level should be between the MAX and the MIN levels as marked on the reservoir.

FIGURE 17.8 DOT 3 brake fluid. Always use fluid from a sealed container because brake fluid absorbs moisture from the air.
FIGURE 17.9 Brake fluid test strips are a convenient and easy-to-use method to determine if the brake fluid needs to be replaced.

FIGURE 17.10 A typical oil level indicator dipstick.

FIGURE 17.11 The oil level should be between the MAX and the MIN marks when the vehicle is on level ground and the oil has had time to drain into the oil pan.
### CHART 17.1

**Under-Hood Vehicle Inspection**

- **症状**
  - **可能原因**
    - 燃油泵问题
    - 油管问题
    - 燃油滤清器问题
    - 引擎问题

- **诊断方法**
  - 检查燃油泵
  - 检查油管
  - 更换燃油滤清器
  - 检查引擎

### FIGURE 17.12

*Typical automatic transmission dipstick.*

- **Add 1 pt. or 5 L → Full hot**
FIGURE 17.13 Visually check the level and color of coolant in the coolant recovery or surge tank.

FIGURE 17.14 (a) A refractometer is used to measure the freezing point of coolant. A drop of coolant is added to a viewing screen, the lid is closed, and then held up to the light to view the display on the tool.
(b) The use of test strips is a convenient and cost-effective method to check coolant condition and freezing temperatures.

FIGURE 17.15 Pressure testing the cooling system. A typical hand-operated pressure tester supplies pressure equal to the radiator cap pressure. The pressure should hold; if it drops, this indicates a leak. A typical hand-operated pressure tester is used to attach the gauge to the cap to determine if the radiator can hold pressure, and releases it when pressure rises above its maximum-rated pressure setting.
Hose clamps come in a variety of shapes and designs.

FIGURE 17.16

A special tool is useful when installing a new accessory drive belt. The long-handled wrench fits into a hole of the belt tensioner.

FIGURE 17.17

A typical worn serpentine accessory drive belt. Newer belts made from ethylene propylene diene monomer (EPDM) do not crack like older belts that were made from neoprene rubber.

FIGURE 17.18
FIGURE 17.19 A belt tension gauge displays the belt tension in pounds of force.

FIGURE 17.20 Typical marks on an accessory drive belt tensioner.

FIGURE 17.21 A water spray bottle is an excellent diagnostic tool to help determine if the noise is due to an accessory drive belt. If the noise goes away when the belt is sprayed with a mist of water, then the belt is the cause.
Most vehicles use a combination filler cap and level indicator (dipstick) that shows the level of power steering fluid in the reservoir.