

## **FUEL SYSTEM**

The fuel system is gravity-flow (no fuel pumps) and includes main and auxiliary tanks, a shutoff valve control located between the front seats, and a strainer (gascolator). The fuel tanks have flexible bladders in aluminum enclosures. Fuel tank air vents are located inside the mast fairing.

Plunger-style drain valves are provided for the gascolator and for each fuel tank sump. The gascolator is located on the lower right side of the firewall and is drained by pushing up on the plastic tube which extends below the belly. Valves for both tanks are located inside the right cowl door below the auxiliary tank. Fuel samples are taken by extending the plastic tubes clear of the aircraft and pushing on the plungers. On newer helicopters, a glass tube stowed inside the upper, aft cowl door is provided which may be used to catch the fuel samples. **Fuel should be sampled from all three locations prior to the first flight of the day and after refueling to verify no contamination and correct grade.**

The fuel gages are electrically operated by float-type transmitters in the tanks. When the gages read E the tanks are empty except for a small quantity of unusable fuel. The low fuel caution light is actuated by a separate electric sender located on the bottom of the main tank.

The auxiliary tank is interconnected with the main tank and is located somewhat higher so it will become empty first while fuel still remains in the main tank. The fuel shutoff valve controls flow from both tanks to the engine.

### **GEARBOX OIL**

Main and tail gearbox oil quantities are indicated by sight gages. The main gearbox sight gage is on the right side of the gearbox and can be viewed by opening the cowl door below the aux fuel tank. The tail gearbox sight gage is located at the aft end of the tail gearbox.

If oil is not visible in the sight gage with helicopter sitting level, oil must be added. The gearboxes use either Robinson P/N A257-2 or A257-22 oil. Refer to placard to ensure correct oil is being added.

To add oil to the tail gearbox:

1. Cut safety wire (if installed) and remove filler/vent cap located on top of gearbox.
2. Fill very slowly to center of sight gage. DO NOT overfill. (Less than a tablespoon of oil is usually required.)
3. Reinstall filler/vent cap. Be sure metal gasket or rubber o-ring is in place. Torque to 100 in.-lb.
4. Safety wire as before. (Safety wire not required if cap is sealed with an o-ring.) Be sure safety wire applies tension in direction which would tighten cap.

To add oil to the main gearbox, see maintenance manual.

### **FUEL**

Approved fuel grades and capacity are given in Section 2.

A small quantity of fuel should be drained from the gascolator and from each tank using the quick drains prior to the first flight each day and after refueling. On later helicopters, a glass tube stowed inside the upper, aft cowl door is provided which may be used to catch the fuel samples. Drain enough fuel to remove any water or dirt and check for approved fuel color. If fuel contamination is suspected, continue to drain fuel from gascolator and tank drains until all contamination is eliminated.