

autofeather system during ground operation. Both switches are spring-loaded to an unmarked OFF position. When a test switch is held ON, a direct-current circuit bypasses the throttle-operated microswitch in the autofeather circuit for the corresponding propeller. If engine BMEP is above approximately 70 psi (62 to 80 allowable limits) the autofeather torque pressure switch will be open and no feathering action will occur. If engine BMEP is below 70 psi the torque pressure switch will be closed and the autofeather circuit will be completed. The red light in the feather button will come on, the button will be pulled in after a 1.0 ± 0.2 second delay, the corresponding amber propeller feather pump light will glow, and the propeller will start to feather.

OIL SYSTEM

Refer to figure 1-16.

Oil Specification and Grade

Refer to figure 1-63.

Oil System Controls and Indicators

OIL COOLER CONTROL SWITCHES

Two four-position oil cooler control switches (8, figure 1-9) are provided in the overhead switch panel. Switch positions are AUTOMATIC, OFF, OPEN, and CLOSE. In respect to OPEN and CLOSE, the switches are spring-loaded to OFF. Each switch, when in AUTOMATIC position, routes direct current from the main circuit breaker bus to a thermostat in the oil return line at the engine oil tank in the corresponding nacelle. The thermostat is adjusted so that in the event the oil-in temperature falls below or rises above preset limits it will route power to the closing or opening side of the oil cooler flap actuating motor. If the thermostat fails to monitor oil

temperature as required, the appropriate oil cooler control switch must be moved to OFF and then held to OPEN or CLOSE position, as necessary. When oil temperature again appears to be normal the switch can be returned to AUTOMATIC position. If the switch is left in OFF position, the oil cooler flap will remain in the position to which it was last operated. Position indicators are not provided.

OIL DILUTE SWITCHES

Oil dilute valves in the nacelles are controlled by two oil dilute switches (9, figure 1-9) on the overhead switch panel. The switch positions are OFF and ON. They are spring-loaded to OFF. When held in the ON position, the switches connect direct-current power from the main bus to solenoid-operated valves in the oil dilution lines, allowing fuel to be introduced into the oil system. (For Oil Dilution Procedure, refer to Section VI.)

ENGINE FLUID-OFF HANDLES

An oil shutoff valve is installed in each engine oil supply line at the firewall. These valves are mechanically operated by the engine fluid-off handles (figure 1-35) located on the fire control panel. (Refer to Engine Fire Extinguisher System, this Section.)

OIL QUANTITY GAGES

An oil quantity gage (63, figure 1-8) is located on the engine instrument panel for each of the oil tanks. The gages read in US. gallons. They are operated by 115-volt alternating current.

CAUTION

If the electrical circuit to one of these gages fails, the gage continues to indicate the quantity indicated at the time of failure.

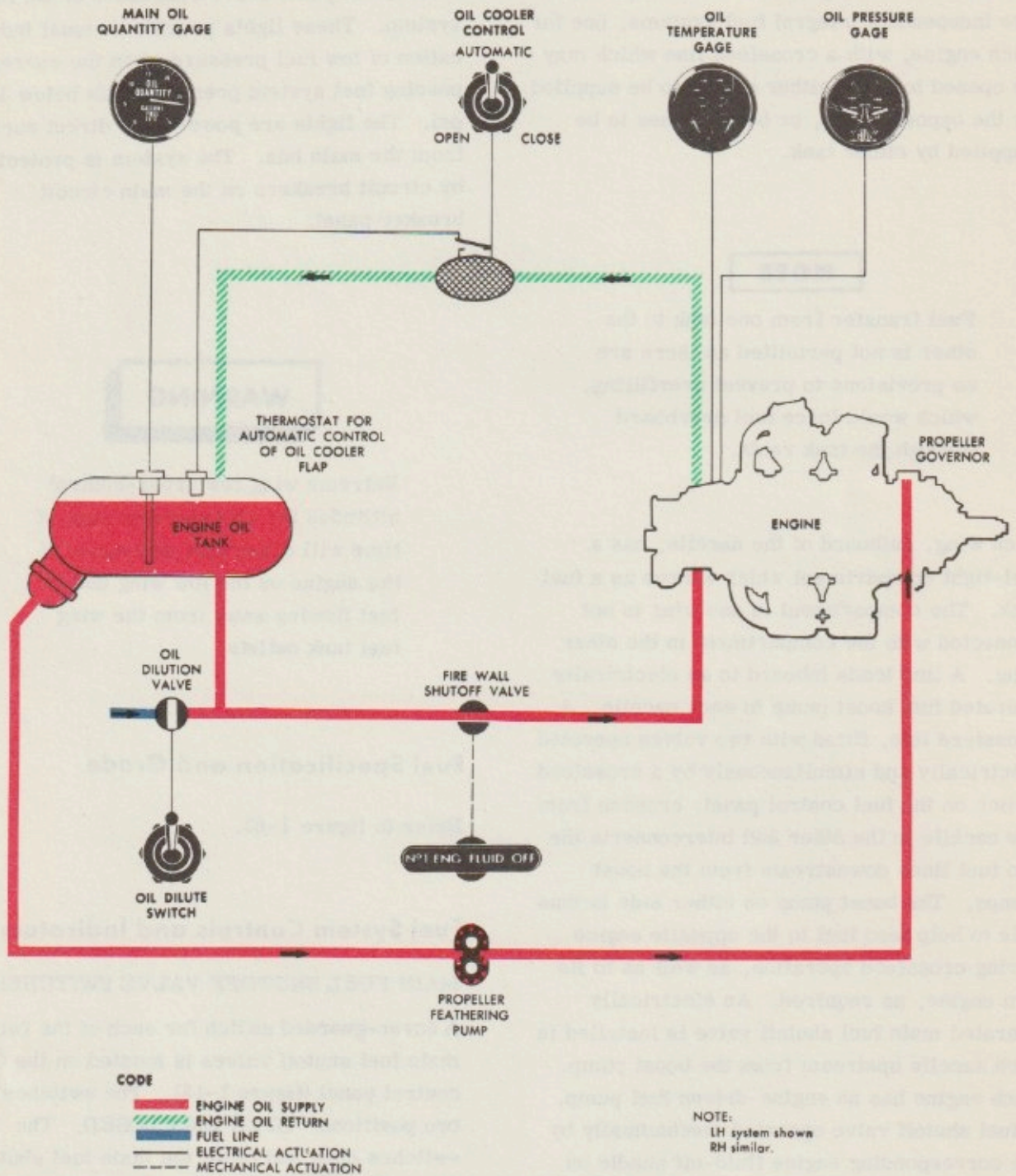


Figure 1-16. Oil System