

SECTION 2**OPERATING PROCEDURES***** SERVICING.**

1. Fuel, Minimum Octane 91.
2. Oil, Aviation Grade.
SAE 40 Above 40° F.
SAE 30 Below 40° F.

*** PRE-ENGINE STARTING.**

1. Check controls for freedom of movement-adjust friction.
2. Mixture control RICH.
3. Carburetor heat control COLD.
4. Prime engine by opening and closing throttle 2 or 3 times.
5. CLOSE throttle.

*** WARM-UP AND GROUND TEST.**

1. Idle engine at 1500 to 1700 rpm until oil pressure reaches 40 psi minimum.
2. Run engine at 1700 to 1800 rpm until clutch is fully engaged, which is apparent when tachometer needles are synchronized.

CAUTION

Avoid continuous operation at rotor speed of 200 to 230 rpm to minimized stabilizer bar resonance. Apply sufficient cyclic control stick into the wind to maintain the rotor in a near horizontal plane.

3. Increase engine rpm to approximately 2200 to prevent clutch slippage and hold until oil temperature reaches 40°C minimum.

4. Check magnetos at 3100 rpm and minimum pitch after head temperature reaches 100°C. A drop of 200 rpm is permissible with no engine roughness.

*** ENGINE SHUT-DOWN PROCEDURE.**

1. Idle engine until cylinder head temperature drops approximately 25°C.
2. Stop engine by moving mixture control to CUT OFF.
3. Ignition switch OFF after engine stops.
4. Increase main rotor pitch, not to exceed 1/3 the range, to reduce rotor rpm.

CAUTION

In high winds increase pitch carefully and do not exceed 1/3 the pitch range. Apply control stick into the wind to maintain the rotor in a near horizontal attitude.

5. Moor aft blade with mooring block by drawing blade down lightly against static stop and tying web strap to tail boom.

* EMERGENCY PROCEDURES.

ENGINE FAILURE. Execute a normal autorotative descent and establish a level attitude prior to ground contact. At a height of approximately 10 feet apply collective pitch in sufficient quantity to stop descent as ground contact is made.

* TAIL ROTOR FAILURE.

1. Immediately execute an autorotative descent and maintain an airspeed of at least 40 mph.
2. Make a normal autorotative landing.

* DITCHING WITHOUT POWER.

1. Execute a normal autorotative descent and land at minimum surface speed.
2. Apply full lateral stick to the "RIGHT" to roll the helicopter on to the "RIGHT" side.

* HYDRAULIC BOOST FAILURE

NOTE

The following information is applicable ONLY to helicopters Serial No. 1703 and subsequent and to hydraulic boost equipped helicopters with hydraulic irreversible valves installed in accordance with Service Instruction No. 250 SI.

Hydraulic boost failure will be evident by feed-back forces being transmitted to the cyclic stick when a control motion is made. Feed-back forces may not be present or are negligible when the cyclic stick is held fixed or during autorotation. Feed-back forces encountered when moving the cyclic stick will be proportionate in intensity to an envelope of factors directly effected by airspeed, gross weight and climatic turbulence. When hydraulic boost power loss is detected, reduce cyclic control motions to the minimum required to complete the flight and MAKE NECESSARY MOVEMENTS AT A RATE OF TRAVEL NOT FASTER THAN ONE FULL DISPLACEMENT, stop to stop, PER SECOND.

If jamming of the controls or a condition of the controls tending to over-ride the pilot is experienced the hydraulic system by-pass valve, located on the top side of the box beam, should be immediately pulled UP to relieve hydraulic pressure at the cylinders. The jammed cylinder may then be broken loose by exerting pressure on the control stick and the above emergency procedure followed.