

# **STOP!**

## **Installation Instructions**

### **Follow these instructions carefully before installation of engine into airframe:**

- Engine oil has been removed for shipping & must be serviced in accordance with manufacturer's instructions.
- All shipping plates, caps & plugs must be removed.
- Engine accessories must be inspected or overhauled before reinstallation. Propellers & propeller governors must be thoroughly flushed before reinstallation.
- Engine oil system components such as external oil coolers, oil lines & supply tanks must be flushed & overhauled or replaced.
- Ignition harness clamps must be installed & harness must be secured before engine operation.
- Pre-lubricate the engine. After oil is filled to the appropriate level, remove spark plugs & crank engine until oil pressure is obtained.
- Ensure cowling & baffling are in good condition & that no cracks or leaks are evident.
- Ensure that all control linkages (throttle, mixture, etc.) are torqued & safe tied.

### **Instructions for freshly honed or newly overhauled engines only:**

1. Follow manufacturer's instructions regarding cylinder break-in procedures. For Lycoming engines follow latest edition of Lycoming SI 1427 & for TCM engines follow latest edition of TCM's "Standard Practices Manual", Chapter 7, "Engine Operation", 7.1, 7.2, 7.3 & 7.4, Pages 271-300.
2. Do not use synthetic or semi-synthetic oils in normally aspirated engines until break-in period is exceeded. Change engine oil after first 10 hours or within the first 4 calendar months, whichever comes first, as per Lycoming MSB 480 & again at 25 hours. Regular oil change intervals should be followed after this point. Ashless dispersant oils should not be used until oil consumption has decreased & stabilized.
3. During initial break-in period:
  - Avoid prolonged ground runs & high temperature operation.
  - Long flights at slightly rich mixture settings provide best results.
4. Operate engine at best power or slightly richer mixture setting for the first 25 hours of operation. Lean mixtures & excessive temperatures will adversely affect the piston ring seating process.
5. Spark plugs should be cleaned more often during the break-in period, as increased oil consumption will foul plugs more quickly.
6. Manufacture recommendations are that aircraft engine operates for at least 1 hour every 30 days with an indicated oil temperature of 165 C to 220 C as per Lycoming SL180.

### **See next page for important model-specific instructions:**

**Follow instructions indicated by a check mark:**

- Upon installation of engine into airframe ensure that fuel system is adjusted in accordance with latest revision of TCM's "SPM", Sections:
    1. 6.4.7. Engine Operation Checks, 6-14 to 6-30 & 110-126.
    2. 6.4.10. Engine Adjustments, 6-67 to 6-89 & 163-185.  
Fuel system has been adjusted based on the fuel pump head pressure of our test cell & fuel pressures will vary based on the head pressure of the airframe. Contact our shop if you require assistance or encounter any problems with this directive.
  - Use Lycoming oil additive LW-16702 as directed by latest revision of Lycoming SB 446.
  - Engine has been inhibited & cylinders must be cleared by removing bottom spark plugs & rotating engine by hand 6 revolutions or until cylinders are visually clear of inhibitor.  
**\* Ensure magnetos are grounded before attempting!**
  - Comply with latest revision of Marvel-Schebler Aircraft SB 17 or Lycoming SB366 for carbureted engines.
  - If installing Slick magnetos, torque provided drive gear nut in accordance with latest revision of Overhaul Manual L-1363. Use only the installation hardware provided. Secure nut with appropriate cotter pin provided.
  - For non-lightweight Lycoming starters, service drive assembly & shaft every 50 hours. Wash clean with oleum spirits & lubricate with spray silicone only. Do not use oil or graphite.
- 

Caution: Failure to comply with these instructions may void warranty.

**Additional Notes:**