

# MANDATORY SERVICE BULLETIN

DATE: April 13, 2005 Service Bulletin No. 480E  
(Supersedes Service Bulletin No. 480D)

SUBJECT: I. Oil and Filter Change and Screen Cleaning  
II. Oil Filter/Screen Content Inspection

MODELS AFFECTED: All Lycoming direct drive and TIGO-541 Piston engines.

TIME OF COMPLIANCE: As required by subject bulletin.

Lycoming recommends the following:

## **I. Oil and Filter Change and Screen Cleaning.**

- A. At 25 hours after the first replacement/screen cleaning – oil change, filter replacement or pressure screen cleaning and oil sump suction screen check for new, remanufactured or newly overhauled engines and for engines with any newly installed cylinders.
- B. 25-Hour interval – oil change, pressure screen cleaning, and oil sump suction screen check for all engines employing a pressure screen system.
- C. 50-Hour interval – oil change and oil filter replacement and suction screen check for all engines using full-flow filtration system (except for engine models TIO-540-AF1A and -AF1B, which require 25 hour interval changes).
- D. A total of four (4) months maximum between changes for systems listed under “A”, “B” and “C”.
- E. All turbocharged engines must be broken-in and operated with ashless dispersant oil. (Refer to latest revision of Service Instruction No. 1014.)

## **II. Oil Filter/Screen Content Inspection.**

- A. Using the following methods, check for premature or excessive engine component wear, indicated by the presence of metal particles, shavings, or flakes in the oil filter element or screens.
  1. Oil Filter.
    - a. Using approved method (eg., for full-flow, spin-on filters, use Champion Tool CT-470 or Airwolf Cutter AFC-470), open the filter.
    - b. Check condition of the oil from the filter for signs of metal contamination.
    - c. Remove the paper element from the filter.

d. Carefully unfold the paper element and examine the material trapped in the filter.

2. Pressure Screen.

If engine employs a pressure screen system, check the screen for metal particles.

3. Oil Sump Suction Screen.

After draining oil, remove the suction screen from the oil sump and check for metal particles.

B. If examination of the used oil filter or pressure screen and the oil sump suction screen indicates abnormal metal content, additional service may be required to determine the source and possible need for corrective maintenance.

NOTE

Lycoming encourages the use of spectrograph oil analysis to monitor engine component wear rates. Refer to the latest revision of Service Letter No. L171.

NOTE: Revision "E" deletes 10 hour requirements.