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# SERVICE INSTRUCTION

DATE: September 24, 2010

Service Instruction No. 1453B  
(Supersedes Service Instruction No. 1453A)  
Engineering Aspects are  
FAA (DER) Approved

SUBJECT: Procedure to Replace Oil Filter Converter Plate Gasket

MODELS AFFECTED: All Lycoming dual magneto engines and TIO-541-E and TIGO-541 series engines.

TIME OF COMPLIANCE: At engine overhaul when converter plate is removed or when the oil filter is removed between overhauls.

This Service Instruction is to be followed to replace either just the gasket P/N LW-13388 with a new gasket P/N 06B23072 or to install an oil filter converter plate kit P/N 54E23093 (supersedes Kit P/N 54E23073 which is no longer available). The kit P/N 54E23093 contains a new oil filter converter plate P/N 54E23092 which includes the new converter plate gasket P/N 06B23072.

This gasket replacement is a necessary precaution because some gaskets, P/N LW-13388, have been made of incorrect material. As a result of the defective material, the gasket can become pressed out from its seat and cause oil leakage between the converter plate and accessory housing.

### NOTE

During gasket replacement, the gasket P/N LW-13388 is to be removed, discarded, and not ever used again.

Completion of this Service Instruction will comply with Service Bulletin No. 543C.

### NOTE

When changing the oil and oil filter on O-320-H series engine models, you can use the oil filter kit P/N 05K23074 which contains the oil filter converter plate kit P/N 54E23093 and includes the new required gasket P/N 06B23072.

To replace the gasket in the oil filter converter plate:

1. Disable all power to the engine.
2. Remove the oil filter and converter plate. Refer to Figure 1.



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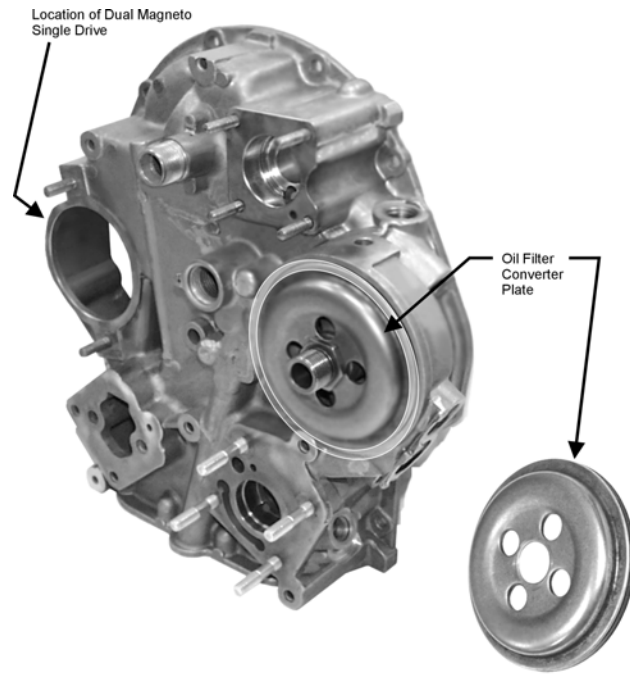


Figure 1. Dual Magneto and Oil Filter Converter Plate

3. Have the oil filter analyzed for metal contaminants, if necessary.
4. Remove and discard the gasket (if the old gasket, P/N LW-13388).
5. Remove all traces of the old gasket.
6. If replacing only the gasket:
  - a. Thoroughly clean the converter plate and gasket surface on the converter plate with methyl ethyl ketone (MEK) or equivalent solvent.
  - b. Install and bond a new gasket P/N 06B23072 to the converter plate using 3M Scotch Grip Industrial Adhesive No. 847. Apply adhesive in accordance with the manufacturer's instructions.
  - c. After the gasket is installed and bonded, vibropeen the number 543 along the outer surface of the converter plate flange as shown in Figure 2.

NOTE

Steps 6a, b, and c need to be done every time the new gasket P/N 06B23072 is installed and a check of the logbook entry to show compliance with Service Bulletin No. 543.

- d. Install the converter plate and go to step 8.

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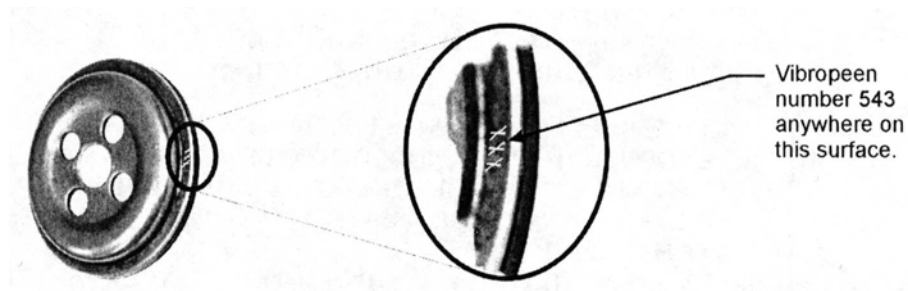


Figure 2. 543 Vibropeen Marking

NOTE

The converter plate in each kit is identified with the part number 54E23092 permanently marked on the plate in the same location as shown in Figure 2.

7. If installing the kit, install the new converter plate stamped with 54E23092 (from the kit) and gasket P/N 06B23072 bonded (as in step 6b of this Service Instruction) to the new converter plate P/N 54E23092 with a new oil filter on the engine.
8. Torque the converter plate to 50-60 ft.-lbs.
9. Make the logbook entry to show compliance with the latest revision of Service Bulletin No. 543 and this Service Instruction No. 1453. Make sure the entry shows whether just the gasket P/N LW-13388 was replaced with the new gasket P/N 06B23072 or both the gasket and converter plate were replaced with the kit P/N 54E23093.
10. Run the engine and look for oil leaks. Identify and correct the cause of any oil leak.

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