



# Service Instruction

ENGINE COMPONENTS, INC.

S.I. No.: 02-2

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**Title: CRANKCASE THRUST WASHER MODIFICATION**

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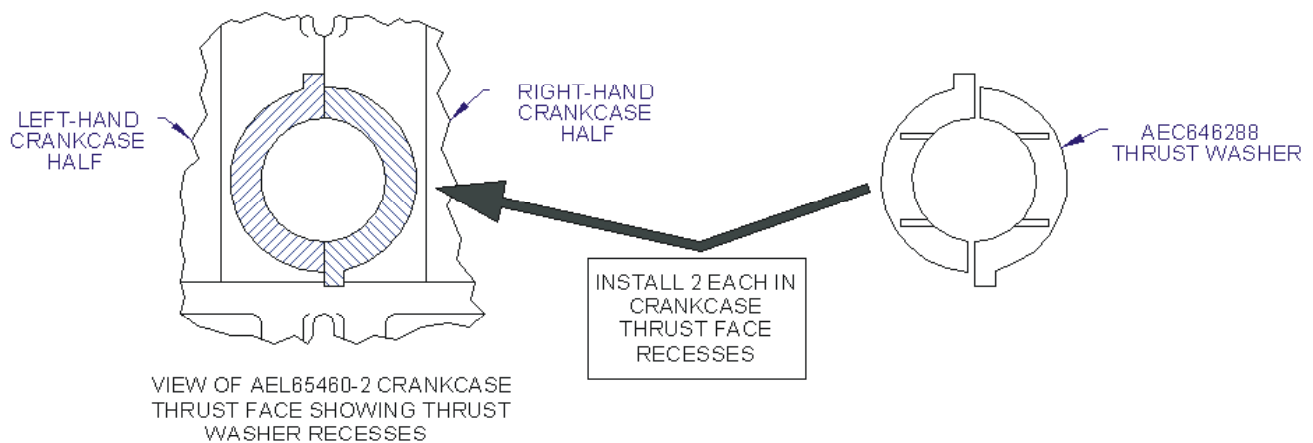
*Technical Portions are FAA DER Approved.*

- 1.0 **PURPOSE:** This service instruction provides the eligibility and proper installation of crankshaft thrust washers in new ECi crankcases for replacement Lycoming 4-cylinder engines.
- 2.0 **MODELS AFFECTED:** All 4-cylinder engines using AEL65460 series crankcases.
- 3.0 **BACKGROUND:** The thrust washer design helps reduce wear directly on the crankcase thrust face surface and helps to reduce costs at overhaul.

Traditionally, Lycoming engines have not included crankshaft thrust washers; the one exception is the TIO-541, which has recently (after 1981) been supplied with a thrust washer that is uncommon and, therefore, expensive. However, the majority of TCM engines have incorporated thrust washers in their design using a different, but readily available thrust washer design.

Because of this, ECi now offers this design in all its new 4-cylinder crankcases. To support this line, ECi currently manufactures a thrust washer similar to the TCM design, AEC646288, which is approved for use in all AEL65460 crankcases using the thrust washer design. This type of thrust washer should be used when the assembly cannot meet clearance requirements as stipulated in the Lycoming overhaul manual.

- 4.0 **PROCEDURE:** Crankcases with thrust washer modification (AEL65460-2, AEL65460-4, AEL65460-6, AEL65460-8, AEL65460-10, and AEL65460-12) must have AEC646288 (or equivalent approved replacement) installed in order to meet clearance requirements. Thrust washers shall be installed as indicated below, with the scallops/oil relief grooves facing towards the crankshaft.



CRANKCASE WITH THRUST WASHER MODIFICATION