

Continuing Airworthiness Notice – 85-008 Revision 3

Lycoming Connecting Rods with Non-conforming Small End Bushings

25 July 2017



Issued by the Civil Aviation Authority of New Zealand in the interests of aviation safety. A Continuing Airworthiness Notice (CAN) is intended to alert, educate, and make recommendations to the aviation community. A CAN contains non-regulatory information and guidance that does not meet the criteria for an Airworthiness Directive (AD). The inspections and practices described in this CAN must still be carried out in accordance with the applicable NZCAR Parts 21, 43 and 91.

CAN numbering is by ATA Chapter followed by a sequential number for the next CAN in that ATA Chapter.

Applicability:

All Lycoming engines fitted with connecting rods that have non-conforming small end bushings.

Affected engines include certain new, rebuilt, or overhauled engines shipped from Lycoming Engines, and may include locally repaired/overhauled engines. Affected parts include certain connecting rod bushings with P/N LW-13923 and certain connecting rod assemblies with P/Ns LW-11750-S, 78030-S and LW-19332-S shipped as spare parts.

Purpose:

This Continuing Airworthiness Notice (CAN) revised to introduce Lycoming MSB 632A, dated 23 July 2017, which clarifies the engine models affected, and the required actions. MSB 632A provides instructions to identify connecting rods fitted with non-conforming small end bushings, and provides corrective actions for connecting rods fitted with suspect bushings.

Affected bushings do not meet Lycoming Engine's specifications. Table 1 in MSB 632A identifies affected engine models and S/Ns of new, rebuilt, or overhauled engines shipped from Lycoming Engines. Table 2 in MSB 632A identifies the P/Ns of suspect connecting rod bushings and connecting rods (that could contain a suspect connecting rod bushing) shipped from the factory within specified date ranges.

Background:

This CAN is prompted by local and overseas reports of operators experiencing connecting rod bushings moving from the correct installed position.

Affected small end bushings tend to work loose in service and migrate out the connecting rod small end bore. As the small end bushing migrates from the connecting rod small end bore it is held in position by the inner piston wall. Wear slowly begins to erode the length of the bushing. This initial wear produces small particles of bronze, which should be evident in the engine oil filter. Once the wear has progressed to allow the bushing to significantly egress from the bore, the lack of surface area and the abnormal loading will result in break-up of the bushing.

Recommendations:

Lycoming Mandatory Service Bulletin 632A, dated 23 July 2017 introduces instructions to identify connecting rods fitted with non-conforming bushings that do not meet Lycoming Engine's specifications. The MSB also introduces corrective actions for connecting rods fitted with suspect bushings.

To ensure that an affected aircraft/engine is maintained in an airworthiness condition, maintainers should comply with the required corrective actions specified in Lycoming MSB 632A.

Note:

The FAA is considering AD action to require the replacement of affected parts identified in MSB 632A.

References:

1. Lycoming MSB No. 632A, dated 23 July 2017 - Identification of Connecting Rods with Non-conforming Small End Bushings.
2. Lycoming MSB 630A, dated 13 June 2017 - Connecting Rod Bushing Inspection after Cylinder Removal.

Lycoming MSBs 630A and 632A, or later revisions are available on the Lycoming web site at <http://www.lycoming.com/contact/knowledge-base/publications>

Enquiries:

Enquiries regarding this Continuing Airworthiness Notice should be sent to:

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