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MANDATORY

SERVICE BULLETIN

DATE: December 14, 2021

Service Bulletin No. 647
 Engineering Aspects are
 FAA Approved

SUBJECT: Incorrect Markings on Service Tool# ST-310

MODELS AFFECTED: Lycoming Engines that have been inspected using the Incorrectly Marked Tool

TIME OF COMPLIANCE: Upon receiving this Service Bulletin

NOTICE: Incomplete review of all the information in this document can cause errors. Read the entire Mandatory Service Bulletin to make sure you have a complete understanding of the requirements.

Lycoming has identified that seventeen Lycoming ST-310 tools sold between October 2016 and May 2021 were manufactured having the up exhaust and down exhaust locations incorrectly labeled. Figure 1 illustrates the correctly labeled tool and Figure 2 illustrates the incorrectly labeled tool.



Figure 1
Correctly Labeled Tool



Figure 2
Incorrectly Labeled Tool

This could result in erroneous readings when using this tool to complete the inspection required by Service Bulletin No. 388C or the Mandatory Inspection - Exhaust Valve and Guide required by the Airworthiness Limitations Section of any FAA approved Lycoming Manual. Erroneous readings may allow exhaust valve guides with inadequate clearance to pass as acceptable when in fact the clearance was too tight, and reaming was required.

The incorrectly labeled tools were sold through the following Authorized Lycoming Distributors between October 2016 and May 2021:

- Boeing Distribution (formerly Aviall)
- Southern Cross Aviation LLC.
- Aircraft Spruce and Specialty
- Air Power Inc.
- Aircraft Associates
- Aero Performance



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NOTICE: This Mandatory Service Bulletin only applies to Angle Head engines inspected using the ST-310 tool. Parallel Head engines use a different tool P/N and are not affected by this Mandatory Service Bulletin. Angle Head engines are identifiable by their flat rocker box covers with angled sides and by the number of attaching screws. Angle Head engines have rocker box covers attached with eight or more screws each. Parallel Head engines have square, box like rocker box covers attached with six screws each.

This Mandatory Service Bulletin requires that Maintenance Providers:

- Inspect any Lycoming ST-310 tool that you or your shop purchased between October 2016 and May 2021 for incorrect labeling (Figure 2).
- Discontinue use of all incorrectly labeled ST-310 tools immediately.
- Contact an Authorized Lycoming Distributor to order a replacement ST-310 tool.
- Return the incorrectly labeled ST-310 tool to Lycoming Engines through the same Authorized Lycoming Distributor that ordered a replacement ST-310 tool and file a warranty claim for:
 - Reimbursement for the replacement ST-310 tool.
 - Associated Standard Freight.
- Review maintenance records of engines inspected with an affected ST-310 tool:
 - If an engine’s exhaust valve guides passed and did not require reaming, the engine must be reinspected with a correctly labeled ST-310 tool at the next scheduled maintenance event.
 - Engines that received reaming of exhaust valve guides at the time of last inspection are acceptable and require no action.

NOTICE: Refer to the latest revisions of Lycoming Service Bulletin No. SB-388, Service Instruction No. SI-1425, Service Instruction No. SI-1485, and Service Letter No. L197 for additional details. Engines that experience roughness consistent with valve sticking are to be inspected in accordance with the latest revision of Service Bulletin No. 388 or the appropriate chapter in any FAA approved Lycoming Manual which contains an Airworthiness Limitations Section, regardless of engine time or time since last inspection.

This Mandatory Service Bulletin requires that Owners and Operators of Lycoming Angle Head Engines:

- Contact your maintenance provider to establish whether the ST-310 tool used for inspection was correctly or incorrectly labeled.
- If your engine was inspected using an incorrectly labeled ST-310 tool, have your maintenance provider review their records, and arrange for completion of any corrective actions to ensure your engine is airworthy.

If you have any questions, contact Lycoming Technical Support by phone at 570-327-7222 or 877-839-7878 or email to Technicalsupport@lycoming.com.

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