

SERVICE BULLETIN

Compliance Will Enhance Safety

SB23-03TECHNICAL PORTIONS
FAA APPROVED**SUBJECT:** Hartzell Engine Tech (HET) LLC Service Bulletin
(SB) 096**PURPOSE:** Inspection of alternator part numbers ALT-9522, ALV-9610, ALX-9524, ES-6024D & ES-10024, serial numbers W101194 through W1122640, shipped between 10/25/2022 and 11/29/2022.**COMPLIANCE:** Reference attached HET Service Bulletin 096.**MODELS****AFFECTED:** New and rebuilt: IO-520-A, B, BA, BB, C, CB, M, MB;
GTSIO-520- C, D, F, G, H, K, L, M, N, R;
TSIO-520-B, BB, BE, D, DB, E, EB, J, JB, K, KB, L, LB, N, NB, U, UB, VB,
WB;
IO-550-A, B, C, D, E, F, G, L, N, P, R;
IOF-550-B, C, D, E, F, L, N, P, R;
TSIO-550-A, B, C, E; and
TSIOL-550-A, B, C;**I. GENERAL INFORMATION**

Continental Aerospace Technologies™ (Continental®) recommends customer compliance with the instructions contained in Hartzell Engine Tech (HET) LLC Service Bulletin 096.

The table below translates the HET Part Number listed in the bulletin to Continental Part Number(s) found in the Continental illustrated parts catalog.

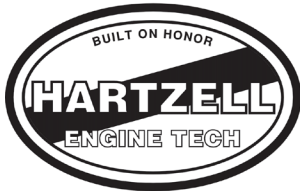
| Part Numbers | |
|-------------------|--------------------------------|
| Hartzell Eng Tech | Continental |
| ALT-9522 | 642487 |
| ALV-9610 | 642056, 646942, 646491, 649304 |
| ALX-9524 | 641670 |
| ES-6024D | 642055, 646490, 646843 |
| ES-10024 | 656802 |

II. WARRANTY

Direct all questions regarding the actions required by the attached Service Bulletin to:

Hartzell Engine Tech LLC - ATTN: Product Support
2900 Selma Highway
Montgomery, AL 36108 USA
HET Product Support: +1.334.386.5400 (Option 2) or
Email: techsupport@hartzell.aero

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2900 Selma Highway
Montgomery, AL 36108 USA
Tel: 334-386-5400 Fax: 334-386-5450

SERVICE BULLETIN

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Alternator Bearing Retainer Replacement

1. Planning Information

A. Effectivity

- (1) New or overhauled alternator P/Ns ALT-9522, ALV-9610, ALX-9524, ES-6024D, & ES-10024 shipped by Hartzell Engine Tech LLC between 10/25/2022 and 11/29/2022 are affected by this Service Bulletin (SB).
 - (a) Alternators and aircraft/engine model/series affected by this SB are shown in Table 1.

NOTE: Table 1 is for reference only and is not an all-inclusive list of engines affected by this SB. It is the responsibility of the owner/operator to verify whether an affected alternator may be installed.

- (b) Serial numbers W101194 thru W112640 are affected by this SB.

WARNING: DO NOT USE OBSOLETE OR OUTDATED INFORMATION. PERFORM ALL INSPECTIONS OR WORK IN ACCORDANCE WITH THE MOST RECENT REVISION OF THIS SERVICE BULLETIN. INFORMATION CONTAINED HEREIN MAY BE SIGNIFICANTLY CHANGED FROM EARLIER REVISIONS. FAILURE TO COMPLY WITH THIS SERVICE BULLETIN OR THE USE OF OBSOLETE INFORMATION MAY CREATE AN UNSAFE CONDITION THAT MAY RESULT IN DEATH, SERIOUS BODILY INJURY, AND/OR SUBSTANTIAL PROPERTY DAMAGE. REFER TO THE PLANE-POWER WEBSITE, WWW.PLANEPOWER.AERO, FOR THE MOST RECENT REVISION LEVEL OF THIS SERVICE BULLETIN.

B. Concurrent Requirements

- (1) None

C. Reason

- (1) Alternators listed in section 1.A could contain a bearing retainer, P/N ALA-36, with inadequate corrosion resistant plating.
 - (a) This condition may result in loss of electrical power generation capability and/or engine damage.
- (2) This SB is to advise the field of a known condition and to supply inspection criteria to identify affected alternators.

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D. Description

- (1) This Service Bulletin provides Instructions for Continued Airworthiness (ICA).

E. Compliance

- (1) **IMMEDIATE:** If a loss of alternator output or erratic output indication occurs during flight, land as soon as practicable. Comply with this Service Bulletin prior to further flight.
- (2) Compliance with section 3.A is required at the next annual aircraft/engine inspection but no later than 12 calendar months from issuance of this Service Bulletin, whichever occurs first.
- (3) Compliance with the Accomplishment Instructions is the terminating action for this Service Bulletin.

F. Approval

- (1) FAA acceptance has been obtained on the technical data in this publication that affects type design.

G. Manpower

- (1) Up to one (1.5) hours labor for alternator removal and installation.

H. References

- (1) Continental Aerospace Technologies' Manual M-0, *Standard Practice for Spark Ignited Engines*.
- (2) Applicable Continental Aerospace Technologies' Engine Maintenance Manuals and Service Publications.
- (3) Applicable Lycoming Engines' Maintenance and Service Publications.
- (4) Applicable Aircraft Service Instructions or Maintenance Manual.
- (5) Applicable Aircraft AFM or POH.

I. Weight and Balance

- (1) No Change

2. Materials Required

- A. One new or overhauled alternator of the part number removed, or a certified new or overhauled replacement part number not affected by this Service Bulletin.

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| Alternator P/N | Aircraft/Engine Make | Aircraft/Engine Model/Series |
|------------------------|----------------------|--|
| ALT-9522, ALT-9522R | Beech | D55, D55A, E55, E55A, 58 58A, 95-C55, 95-C55A |
| ALV-9610 | Continental | IO-520-B , BA, BB, C, CB, M, MB, TSIO-520-B, BB, BE, D, DB, E, EB, J, JB, K, KB, L, LB, N, NB, U, UB, VB, WB, GTSIO-520-C, D, F, G, H, K, L, M, N, R, IO-520-A, B, C, G, N, P, R, TSIO-550-A, B, C, E, TSIOL-550-A, B, C |
| | Beech | E55, E55A, 58, 58A |
| | Lycoming | TIGO-541-C1A, D1A, D1B, E1A, G1AD |
| ALX-9524, ALX-9524R | Lycoming | IO-520-B, -C |
| ES-6024D | Beechcraft | F33A, F33C, S/N's CE0929 & after, CJ0156, 36, A36, G36, A36TC, B36TC, S/N's A0159 & after, E1766 thru E3629, E3631thru E3635, D55, D55A, E55, E55A, With Beech kit 55-3020, E55, E55A, S/N's TE-768-TE-999, 58, 58A, S/N's TH-1 - TH-9999, G58, S/N's TH-2125-TH-9999) |
| | Continental | IO-520-B, BA, BB, C, CB, M, MB, IO-550-A, B, C, G, N, P, R TSIO-520-B, BB, BE, D, DB, E, EB, J, JB, K, KB, L, LB, N, NB, U, UB, VB, WB, GTISO-520-C, D, H, K, L, M, N, TSIO-550-A, B, C, E |
| ES-10024 | Continental | IO-550-A, -B, -C, -D, -E, -F, -G, -L, -N, -P, -R, IOF550-B, -C, -D, -E, -F, -L, -N, -P, -R |

Table 1 - Alternator Aircraft/Engine Effectivity

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3. Accomplishment Instructions

WARNING 1: THIS PROCEDURE MUST BE PERFORMED BY COMPETENT AND QUALIFIED PERSONNEL WHO ARE FAMILIAR WITH THE AIRFRAME AND ENGINE SYSTEM MAINTENANCE. FAILURE TO DO SO MAY RESULT IN PHYSICAL INJURY, EQUIPMENT DAMAGE AND/OR ECONOMIC LOSS.

WARNING 2: DO NOT USE OBSOLETE OR OUTDATED INFORMATION. PERFORM ALL INSPECTIONS OR WORK IN ACCORDANCE WITH THE MOST RECENT REVISION OF THIS SERVICE BULLETIN. INFORMATION CONTAINED HEREIN MAY BE SIGNIFICANTLY CHANGED FROM EARLIER REVISIONS. FAILURE TO COMPLY WITH THIS SERVICE BULLETIN OR THE USE OF OBSOLETE INFORMATION MAY CREATE AN UNSAFE CONDITION THAT MAY RESULT IN DEATH, SERIOUS BODILY INJURY, AND/OR SUBSTANTIAL PROPERTY DAMAGE. REFER TO THE PLANE-POWER WEBSITE FOR THE MOST RECENT REVISION LEVEL OF THIS SERVICE BULLETIN, WWW.PLANEPOWER.AERO.

CAUTION: REFER TO THE APPLICABLE MANUFACTURER'S MAINTENANCE MANUALS OR SERVICE INSTRUCTIONS TO GAIN ACCESS TO THE AIRFRAME OR ALTERNATOR. IN ADDITION, ANY PREFLIGHT OR IN-FLIGHT OPERATIONAL CHECKS REQUIRE USE OF THE APPROPRIATE AFM OR POH.

A. Inspection

- (1) If previous compliance cannot be verified through aircraft or engine maintenance records, use the same references to determine if an affected alternator has been installed. Refer to section 1.A, Effectivity.
- (2) If effectivity of the alternator cannot be established using aircraft or engine maintenance records, utilize the applicable aircraft engine maintenance manual to gain access to the alternator and inspect the alternator against criteria found in section 1.A of this SB.
 - (a) If the alternator **is** affected per section 1.A, continue to 3.B. - Corrective Action.
 - (b) If the alternator is **not** affected per section 1.A, continue to 3.C. - Return to Service.

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B. Corrective Action

- (1) Remove the alternator from the engine in accordance with the latest revision of the aircraft and/or engine manufacturer's maintenance manual.
- (2) Install a new or overhauled alternator in accordance with applicable engine manufacturer's maintenance manual. Refer to 2.A, Materials Required.
- (3) Reconnect alternator electrical connections and cooling hardware in accordance with applicable aircraft manufacturer's maintenance manual.
- (4) Perform an operational test and check of the alternator in accordance with applicable aircraft AFM or POH.

C. Return to Service

- (1) Close all access doors and covers opened to gain access to the alternator in accordance with applicable airframe and/or engine maintenance manual.

D. Maintenance Record

- (1) Make an appropriate logbook entry noting compliance with this Service Bulletin.

4. Contact Information

A. Contact HET Product Support for all communications regarding the technical content of this Service Bulletin.

- (1) Phone +1.334.386.5400 (Option 2)
- (2) Fax +1.334.386.5450
- (3) E-mail at techsupport@hartzell.aero
- (4) Address

Hartzell Engine Tech LLC - ATTN: Product Support
2900 Selma Highway
Montgomery, AL 36108
USA