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# **ALERT SERVICE BULLETIN**

## **ALERT SERVICE BULLETIN No. 086**

### **Alternator Drive-End Bearing Replacement**

1. This page transmits the revision of Alert Service Bulletin (ASB) 086 Rev. New to ASB 086 Rev. A, dated February 15, 2023.
  - A. ASB 086 Rev. New, dated May 03, 2021
  - B. ASB 086 Rev. A, dated February 15, 2023.
2. FAA approval has been obtained on technical data in this publication that affects type design.
3. Changes are shown by a change bar in the left or right margin coinciding with the change on the affected page.
4. This revision is issued to change the following:
  - A. Edits
    - (1) Add to para. 1.A. Effectivity: (1)(b) Serial number effectivity statement pointing to Table 2;
    - (2) Add Table 2 - Serial Number Effectivity;
    - (3) Table 1: Remove alternator part numbers accounted for and returned for overhaul;
    - (4) Revise para. 3.A.(2)(a) and (b) to include serial number effectivity statement.

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### **Alternator Drive-End Bearing Replacement**

#### **1. Planning Information**

##### **A. Effectivity**

- (1) All alternators overhauled with drive-end bearing P/N 646492AC between 17 Feb. 2020 and 26 Mar. 2021 are affected by this Alert Service Bulletin (ASB).
  - (a) Alternators and engine model/series affected by this ASB are shown in Table 1.
  - (b) Serial numbers affected by this ASB are shown in Table 2.

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

**WARNING:** DO NOT USE OBSOLETE OR OUTDATED INFORMATION.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](http://WWW.PLANEPOWER.AERO), FOR THE MOST RECENT REVISION LEVEL OF THIS ALERT SERVICE BULLETIN.

##### **B. Concurrent Requirements**

- (1) None

##### **C. Reason**

- (1) Alternators listed in section 1.A could contain a drive-end bearing, P/N 646492AC, with inadequate internal lubrication.
  - (a) This condition may result in alternator seizure and loss of electrical power generation capability. In the event of seizure, secondary engine damage may also occur.
- (2) This ASB is to advise the field of a known condition and to supply inspection criteria to identify affected alternators.

##### **D. Description**

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

##### **E. Compliance**

- (1) Compliance with section 3.A of this ASB is required prior to further flight.
- (2) Compliance with the Accomplishment Instructions is the terminating action for this ASB.

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### Alternator Drive-End Bearing Replacement

Alternator P/N	Engine Make	Engine Model/Series
646843	Continental Motors	IO-520-B, -BA, -C, -M, -N, -BB, -CB, -MB, -NB
	Continental Aerospace Technologies, Inc.	IO-550-A, -B, -C, -G, -N, -P, -R
		TSIO-520-A, -AE, -AF, -B, -BB, -BE, -C, -CE, -D, -DB, -E, -EB, -G, -H, -J, -JB, -K, -KB, -L, -LB, -M, -N, -NB, -P, -R, -T, -U, -UB, -VB, -WB
		TSIO-550-A, -B, -C, -E, -G, -J, -K, -N
		GTSIO-520-C, -D, -E, -F, -H, -K, -L, -M, -N

**Table 1 - Alternator / Engine Effectivity**

Serial Numbers Affected (Alternator P/N 646843)		
011KA024	002FA016	O02FA056
A150211	A713032	A-59226

**Table 2 - Serial Number Effectivity**

**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) Continental Aerospace Technologies' Engine Maintenance/Overhaul Manuals and Service Publications.
- (3) Applicable Aircraft Service Instructions or Maintenance Manual.
- (4) Applicable Aircraft AFM or POH.

**I. Weight and Balance**

- (1) No Change

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### **Alternator Drive-End Bearing Replacement**

#### **2. Materials Required**

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

#### **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 ALERT 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 ASB.
  - (a) If the alternator part number and serial number **are** affected per section 1.A, continue to 3.B. - Corrective Action.
  - (b) If the alternator part number and serial number are **not** affected per section 1.A, continue to 3.C. - Return to Service.

**NOTE:** Bearings with P/N 646492AC shipped as piece parts are identified by package labeling only. A part number is not inscribed on the part.

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### **Alternator Drive-End Bearing Replacement**

#### 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.

#### 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 Alert 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](mailto:techsupport@hartzell.aero)
- (4) Address

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

# Alert Service Bulletin Appendix

## Alert Service Bulletin No. 086

### Alternator Drive-End Bearing Replacement

#### 1. Eligibility:

- A. All alternators overhauled with drive-end bearing P/N 646492AC between 17 Feb. 2020 and 26 Mar. 2021 that are affected by Alert Service Bulletin (ASB) 086.
  - (1) Engine model/series affected are shown in Table 1 of ASB 086.
- B. Alternator drive-end bearing P/N 646492AC shipped as piece-parts between 17 Feb. 2020 and 26 Mar. 2021, not installed in alternators referenced in para 1.A.(1) of ASB 086.
- C. Alternator drive-end bearing P/N 646492AC shipped as part of kit P/N 646492A1AC between 17 Feb. 2020 and 26 Mar. 2021, not installed in alternators referenced in para 1.A.(1) of ASB 086.

#### 2. Commercial Assistance Program:

The following will be provided with the submission of a completed ASB 086 Claim Form, copies of invoices showing breakdown of material and labor charges, and log book entries. **Any commercial assistance or other consideration shall expire twelve (12) calendar months from the original published date of Alert Service Bulletin No. 086.**

- A. Required material listed in section 2 of ASB 086.
- B. Labor for inspection, removal, & installation compliance with ASB 086 on affected alternator will be paid at a shop rate of \$85 an hour up to the amount specified below:
  - (1) Up to one and a half (1.5) man-hours of labor are needed for removal and installation of the alternator.

#### 3. Commercial Assistance ADMINISTRATION:

- A. Complete the Service Bulletin ASB 086 Claim Form attached to this appendix.
  - (1) Mail, e-mail, or fax the ASB 086 Claim Form to the attention of Product Support as indicated on the Alert Service Bulletin Claim Form.
- B. Upon receipt of the Alert Service Bulletin Claim Form, Hartzell Engine Tech LLC HET will:
  - (1) Ship the required material in accordance with section 2 (HET parts) to the service provider indicated. See Recommended Service Providers, 5.B.
  - (2) The service provider must return proof of service within thirty (30) days or the service provider shall be invoiced for the HET supplied materials.
- C. For labor and parts listed in section 2:
  - (1) Aircraft/engine service facility or owner must submit an invoice up to the amount specified in section 2, copies of logbook entries, and a completed ASB 086 Claim Form for reimbursement (*May be a copy of the original form provided*).

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### Alternator Drive-End Bearing Replacement

#### 4. WARRANTY STATEMENT:

- A. The sole warranty for the actions of ASB 086 are contained in the HET Limited Warranty Policy issued with the purchase of each new/overhauled alternators (see terms and conditions therein).
- B. Commercial assistance may apply as stated in this Appendix.
- C. Issuance of ASB 086 in no way constitutes an implied or expressed warranty of any kind.
- D. This publication does not imply or state any responsibility for the workmanship of any person or entity performing work or maintenance on the engine or aircraft electrical system.

#### 5. 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 +1.334.386.5410
- (3) E-mail at techsupport@Hartzell.aero
- (4) Address

Hartzell Engine Tech LLC  
2900 Selma Highway,  
Montgomery, AL 36108  
USA

- B. Recommended Service Provider

Quality Aircraft Accessories (QAA)  
5746 E Apache St.  
Tulsa, OK 74115  
Phone: +1.918.835.6948  
Fax: +1.918.835.2804  
RSN: QYIR334Y

# Alert Service Bulletin Appendix

**Alert Service Bulletin No. 086**

## Alternator Drive-End Bearing Replacement

ASB 086 CLAIM FORM

### Owner information

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Tel: \_\_\_\_\_ Fax: \_\_\_\_\_

Company Name: \_\_\_\_\_ E-mail: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Postal Code: \_\_\_\_\_

Country: \_\_\_\_\_

### Aircraft/Engine Service Facility information

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Tel: \_\_\_\_\_ Fax: \_\_\_\_\_

Company Name: \_\_\_\_\_ E-mail: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Postal Code: \_\_\_\_\_

Country: \_\_\_\_\_

Aircraft Mfg: \_\_\_\_\_ Model: \_\_\_\_\_ Time in Service: \_\_\_\_\_ S/N: \_\_\_\_\_

Engine: \_\_\_\_\_ Model: \_\_\_\_\_ Time in Service: \_\_\_\_\_ S/N: \_\_\_\_\_

### Component Information

Nomenclature: Alternator \_\_\_\_\_ Part Number: \_\_\_\_\_

Serial Number: \_\_\_\_\_ (Alternator) Date Removed: \_\_\_\_\_

Part Time in Service: \_\_\_\_\_ (Alternator) Original Date Installed: \_\_\_\_\_

For RMA Number

Send this ASB 086 Claim Form to:

Hartzell Engine Techn Product Support

Fax: +1.334.386.5410

E-mail: techsupport@hartzell.aero

### RMA Number:

(write in HET assigned RMA number)

**Hartzell Use Only - do not write below this line.**

Warranty No: \_\_\_\_\_ Authorized by: \_\_\_\_\_