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Service Bulletin

No. 044

Alternator Recall for Installation of Improper Wave Retainer

1. Planning Information

A. Effectivity

(1) Hartzell Engine Technologies LLC (HET), Alternator models:

- (a) Alternator ALX-9525BR with serial numbers listed in Table 1.
- (b) Alternator ALX-9525B with serial numbers listed in Table 2.

Table 1 ALX-9525BR Alternator Serial Number Range	Table 2 ALX-9525B Alternator Serial Number Range
<p>H-L061293 through H-L061342</p> <p>H-L061343 through H-L061372</p> <p>H-L070171 through H-L070185</p> <p>H-L070796 through H-L070820</p> <p>H-L081362 through H-L081386</p>	<p>H-L051766 through H-L051785</p> <p>H-L081387 through H-L081391</p>

Tables 1 & 2 are inclusive of beginning, consecutive, and ending serial numbers of each grouping.

CAUTION: DO NOT USE OBSOLETE OR OUTDATED INFORMATION.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 IN THIS SERVICE BULLETIN 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 HET WEBSITE FOR THE MOST RECENT REVISION LEVEL OF THE SERVICE BULLETIN.

B. Concurrent Requirements

- (1) None

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C. Reason:

- (1) A non-conforming bearing wave retainer clip was used in the production of alternator Drive End Housing (DE) assemblies on the affected alternators.
- (2) The bearing wave retainer clip may allow the DE bearing outer race to rotate in the housing.
 - (a) It is possible that wear due to a rotating bearing race may lead to alternator malfunction which may result in engine damage.
- (3) HET has identified the model and serial numbers of alternators affected by this recall.
- (4) Regulatory action is unknown.

D. Description

- (1) This Service Bulletin is being issued as a mandatory action to recall the affected alternators.

E. Compliance

- (1) For affected alternators in service, return within the next one hundred (100) hours time in service, or at the next regularly scheduled maintenance event, or annual inspection, from the original issue date of this Service Bulletin, which ever occurs first.
- (2) For affected alternators in inventory, return within 30 days from the original issue date of this Service Bulletin or prior to installation, whichever occurs first.
- (3) Compliance with this Service Bulletin is mandatory.
- (4) Compliance with the Accomplishment Instructions in this Service Bulletin is terminating action for this Service Bulletin.

F. Approval

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

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G. Manpower (per engine)

(1) A total of two (2) man hours are required for the following:

- (a) Gaining access.
- (b) Inspection.
- (c) Return to Service.

H. Weight and Balance

(1) No change.

I. Electrical Load Data

(1) No change.

J. References

CAUTION: DO NOT USE OBSOLETE OR OUTDATED INFORMATION. PERFORM ALL INSPECTIONS OR WORK IN ACCORDANCE WITH THE MOST RECENT REVISION OF A DOCUMENT.

(1) Applicable Aircraft and/or engine Service Instructions or Maintenance Manual.

K. Other Publications Affected

(1) None.

2. Material Information

A. Alternators ALX-9525BR or ALX-9525B must be returned to HET for repair. See Appendix 1.

B. Additional HET materials are not required.

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3. Accomplishment Instructions

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

CAUTION 1: DO NOT USE OBSOLETE OR OUTDATED INFORMATION. PERFORM ALL INSPECTIONS OR WORK IN ACCORDANCE WITH THE MOST RECENT REVISION OF THIS SERVICE BULLETIN (SB) AND THE APPLICABLE AIRCRAFT MAINTENANCE MANUAL AND/OR ENGINE SERVICE INSTRUCTIONS. INFORMATION CONTAINED IN THESE MANUALS OR THIS SB MAY BE SIGNIFICANTLY CHANGED FROM EARLIER REVISIONS. FAILURE TO COMPLY WITH THE SB 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 APPLICABLE AIRCRAFT MAINTENANCE MANUAL AND/OR ENGINE MANUFACTURER'S PUBLICATIONS INDEX FOR THE MOST RECENT REVISION LEVELS.

CAUTION 2: DO NOT DEPEND ON THIS SERVICE BULLETIN FOR GAINING ACCESS TO THE AIRCRAFT OR ENGINE. ACCESS REQUIRES THE USE OF THE APPLICABLE MANUFACTURER'S MAINTENANCE MANUALS OR SERVICE INSTRUCTIONS. IN ADDITION, ANY PREFLIGHT OR IN FLIGHT OPERATIONAL CHECKS REQUIRE USE OF THE APPROPRIATE AFM OR POH.

A. Identification (Alternators)

- (1) If positive identification of the alternator serial number can be made through the aircraft paperwork, and the alternator is NOT affected, proceed to 3.C, Return to Service.
- (2) If positive identification of the alternator serial number can not be made through the aircraft paperwork, access the aircraft engine in accordance with the instructions contained in the applicable aircraft service or maintenance manual.
- (3) Remove the cowling from the engine airframe as prescribed in the latest revision of the aircraft maintenance manual or service instructions and locate the alternator installation.
- (4) Locate the alternator data tag (see Figure 1) and determine if the unit is affected per Effectivity 1.A (1).
 - (a) If the alternator is NOT affected, proceed to section 3.C for Return to Service.
 - (b) If the alternator IS affected, proceed with Accomplishment Instructions 3.B (1).

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B. Corrective Action:

- (1) Remove the alternator from the engine as prescribed in the latest revision of the engine or aircraft maintenance manual or service instructions.
- (2) Return to HET per the shipping information contained in Appendix 1.
- (3) The affected alternator will be repaired or replaced by HET.
 - (a) The new or repaired will be returned by same method of shipping as sent. Refer to Appendix 1 for Commercial Assistance.
 - (b) Upon return of the alternator from HET, reinstall on the engine and proceed to section 3.C for Return to Service.



**Figure 1 - Typical ALX-9525B Gear Driven Alternator
(ALX-9525BR is the same except "R" indicates Rebuilt.)**

C. Return to Service

- (1) Inspect the alternator installation on engine and/or airframe as prescribed in the latest revision of the aircraft or engine maintenance manual or service instructions.
- (2) Perform the recommended functional tests in accordance with the appropriate aircraft maintenance manual and engine service instructions.
- (3) Using the applicable aircraft and engine manufacturer's maintenance manuals of the latest revision, install any portion of the aircraft that was removed to gain access.
- (4) The aircraft may be returned to service after making a logbook entry to indicate completion of this Service Bulletin as applicable.

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4. Contact Information

- A. All communications regarding the technical content of this Service Bulletin, must be placed either through HET Technical Support at (888) 461-6077 or via Fax (334) 386-5450.
- B. Written communications must be placed through Hartzell Engine Technologies Product Support, 2900 Selma Highway, Montgomery, AL 36108, USA.
- C. If E-mail communication is desired, go to our website: <http://www.hartzellenginetech.com> and select "contact" and follow the instructions.
 - (1) For communications regarding aspects of warranty or commercial assistance and this Service Bulletin, contact warranty@hartzellenginetech.com.

APPENDIX I

COMMERCIAL ASSISTANCE:

In addition to warranty coverage provided by the HET Limited Warranty, HET will provide additional commercial assistance to comply with SB 044 under the terms outlined in this Appendix.

Commercial Assistance: The following will be provided with the submission of a completed PPCR (Attachment A, Sections I, II and III) along with copies of invoices showing breakdown of labor charges and log book entries. This will serve as a claim form when received by HET's warranty department. **Any commercial assistance or other consideration shall expire twelve (12) calendar months from the original publish date of SB 044.**

If the affected alternator is returned to HET, it will be repaired and qualify for assistance per the terms herein. Typical turn around time is expected to be 72 - 96 hours from receipt of the alternator.

If the affected alternator is not returned to HET for repair, assistance will not be provided.

International customers unable to return affected alternators will require special approval and arrangements. Contact HET Customer Services at (334) 386-5441 or e-mail warranty@hartzellenginetech.com for details.

Identification: Labor is negligible.

Removal and Installation: For affected alternators, up to two (2) hours labor (up to \$150 maximum) per engine. **(includes gaining access)** This assistance is for affected HET alternators only, no assistance will allowed for others.

WARRANTY STATEMENT:

- A. The sole warranty for the actions within this Service Bulletin are contained in the HET Limited Warranty Policy issued with the purchase of each new or rebuilt alternators (see terms and conditions therein).
- B. Commercial assistance may apply as stated in Appendix 1. Attachment A of SB 044 is required.
- C. Issuance of this Service Bulletin 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.

SHIPPING INFORMATION: (when returning to HET)

The affected alternator must be securely packed and packaged so no damage will occur. A copy of "Attachment A" must have "Sections I, II and III" filled out completely and placed inside the shipping container. The alternator must be received assembled and undamaged to qualify for repair. Address package to Hartzell Engine Technologies LLC, Warranty Department, 2900 Selma Highway, Montgomery, AL 36108, USA. Also mark "WARRANTY DEPT / SB 044" clearly on the outside of the shipping container. ***HET will only pay for return shipping by the same method as received. (next day, ground, etc.)***

CONTACT INFORMATION:

All communications regarding this service bulletin, must be placed either through Hartzell Engine Technologies Technical Support at (888) 461-6077 or via Fax (334) 386-5450. For the Warranty department, (334) 386-5441. Written communications must be placed through Hartzell Engine Technologies Technical Support, 2900 Selma Highway, Montgomery, AL 36108, USA.

If e-mail communication is desired, submit e-mail to: warranty@hartzellenginetech.com.

ATTACHMENT A - SB 044



PPCR

Publication Product Condition Report

(To validate warranty or commercial assistance, all information MUST be filled out.)

SECTION I: Customer information (Completed by End User)

Name: _____ Date of Report: _____ Tel: _____

Company Name: _____ E-mail: _____

Address: _____

Aircraft Mfg/: _____ Time in Service: _____ Model: _____ S/N: _____

Engine _____

(as may be applicable)

SECTION II: Product or Component Information (Completed by End User)

Nomenclature: Alternator Part Number: ALX-9525BR or ALX-9525B (circle one)

Serial Number: _____ Batch/Date Code: N/A

Part Time in Service: _____ New: YES

SECTION III: Compliance Information: (Completed by Repair Facility)

Compliance with SB-044: YES

Alternator returned to HET: YES NO

Comments on compliance with SB 044:

Eligibility:

To be eligible for any commercial assistance, this form must be completed as instructed above and will serve as a claim form. NO reimbursement will be made without completing this form. **All commercial assistance shall end twelve (12) calendar months from the original publish date of SB 044.**

For further information contact Hartzell Engine Technologies LLC at: 2900 Selma Highway, Montgomery, AL 36108 USA or FAX to HET Customer Service, 334-386-5450. The complete service bulletin is available to you online via our website at <http://www.HartzellEngineTechnologies.com>.