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Service Bulletin

Service Bulletin No. 063

Alternator Models ALT Belt & ALX Gear Series HET P/N ALA-0020G Through Bolt Replacement

1. Planning Information

A. Effectivity

- (1) Hartzell Engine Technologies LLC (HET) Alternator model ALX gear drive series with serial numbers shown in Table 1 are affected by this Service Bulletin.
- (2) Hartzell Engine Technologies LLC (HET) Alternator model ALT-8520 belt drive with serial numbers shown in Table 1 are affected by this Service Bulletin.

NOTE: The affected alternators are used on various aircraft using Continental Motors, Inc. (CMI) engine installations. For application data, refer to <http://www.hartzell.aero> under “support, application charts, and alternator”.

**Table 1: Alternator Model ALT Belt & ALX Gear Series
 Affected Models & Serial Numbers**

ALT-8520*	ALX-9524R	ALX-9525BR	ALX-9525BR
H-O100534	H-O100055	H-O100379	H-O100395
H-O100535	H-O100056	H-O100380	H-O100396
H-O100536	H-O100057	H-O100381	H-O100397
H-O100537	H-O100058	H-O100382	H-O100398
	H-O100059	H-O100383	H-O100399
	H-O100060	H-O100384	H-O100400
	H-O100061	H-O100385	H-O100401
	H-O100062	H-O100386	H-O100402
	H-O100063	H-O100387	H-O100404
	H-O100064	H-O100388	H-O100405
	H-O100065	H-O100389	H-O100406
	H-O100066	H-O100390	H-O100407
	H-O100067	H-O100391	H-O100408
	H-O100068	H-O100392	H-O100409
	H-O100069	H-O100393	H-O100410
		H-O100394	

* The affected serial number units were mounted on CMI engines or come from CMI service stock.

The suffix “R” indicates an overhauled alternator. All alternators are FAA/PMA approved.

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WARNING: DO NOT USE OBSOLETE OR OUTDATED INFORMATION. PERFORM ALL INSPECTIONS OR WORK IN ACCORDANCE WITH THE MOST RECENT REVISION OF THIS SERVICE BULLETIN. THE 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

C. Reason:

- (1) Affected serial numbers of model ALT and ALX series alternators may have a pan-head style HET P/N ALA-0020G through bolt installed. These pan-head through bolts have had incidences of bolt head separation. Refer to Figure 1.
- (2) To eliminate the risk of through bolt head separation, all pan-head through bolts must be replaced with HET P/N ALA-0020G fillister-head style through bolts on the affected alternators. Refer to Figure 2, Figure 3, and Figure 5.
- (3) The pan-head version of the HET P/N ALA-0020G through bolt is being discontinued and will no longer be used.
- (4) Regulatory action is unknown.

D. Description

- (1) This Service Bulletin provides Instructions for Continued Airworthiness (ICA).
- (2) This Service Bulletin requires an inspection of the affected alternators shown in Table 1 and return of any that are found to have pan-head through bolts installed.
 - a. The alternator will be repaired using HET P/N ALA-0020G fillister-head through bolts.

E. Compliance

- (1) Within the next twenty-five (25) hours time in service after the effective date of this Service Bulletin or at the next scheduled inspection, whichever occurs first, inspect the affected ALX-9524R and ALX9525BR alternators shown in Table 1 in accordance with the Accomplishment Instructions of this Service Bulletin.
- (2) Within the next fifty (50) hours time in service after the effective date of this Service Bulletin or at the next scheduled inspection, whichever occurs first, inspect the affected model ALT-8520 alternator as shown in Table 1 in accordance with the Accomplishment Instructions of this Service Bulletin.
- (3) Compliance with the Accomplishment Instructions in this Service Bulletin is the terminating action for this Service Bulletin.

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F. Approval

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

G. Manpower

- (1) If an affected alternator is found to contain pan-head versions of the through bolts, approximately one (1) to two & one half (2.5) man hours are required for removal and installation.
 - a. Time includes drive coupling removal and installation.

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 maintenance or service manual.

K. Other Publications Affected

- (1) None.

2. Material Information

- A. None.

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3. Accomplishment Instructions

WARNING 1: 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.

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 (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 ENGINE MANUFACTURER'S PUBLICATIONS AND/OR AIRCRAFT MAINTENANCE MANUAL INDEX FOR THE MOST RECENT REVISION LEVELS.

CAUTION: DO NOT DEPEND ON THIS SERVICE BULLETIN FOR GAINING ACCESS TO THE AIRCRAFT AND ENGINE. ACCESS REQUIRES 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 model and serial number CAN be made through the aircraft documentation and the alternator is affected, proceed to section 3.B Inspection.
- (2) If identification of the alternator model and serial number CANNOT be made through aircraft documentation, visually inspect the alternator and locate the data tag to determine if the alternator is an affected model and serial number per section 1.A Effectivity and Table 1.
 - a. If the alternator IS NOT affected, proceed to section 3.D(3) for Return to Service.
 - b. If the alternator IS affected, proceed with section 3.B, Inspection.

B. Inspection:

- (1) Using a bright white light, inspect the alternator drive end housing at each through bolt location (four each). Refer to Figure 2 and Figure 3.
 - a. If a pan-head through bolt is installed, return the affected alternator for repair per 3.C, Corrective Action. Refer to Figure 4.
 - b. If positive identification that four fillister-head through bolts are installed, the affected alternator is in compliance with this service bulletin. Proceed to 3.D(3), Return to Service. Refer to Figure 5.

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C. Corrective Action:

NOTE 1: Gear driven alternators are delivered from HET without a drive coupling installed. Remove the drive coupling before sending the alternator back to HET. The drive coupling removal and installation is controlled by the engine manufacturer.

NOTE 2: All affected alternators are to be returned and will be repaired directly by HET. Return shipment of the repaired alternator will include the appropriate repair documentation.

(1) Removal and Return

- a. Remove affected alternator from the engine per the applicable aircraft and/or engine maintenance manual or service instruction.
- b. Return all affected alternators directly to HET for repair per section 4 Contact Information.
 - (i) Include the completed SB 063 Claim form found in the Commercial Appendix attached to this Service Bulletin along with the HET supplied RMA number.

(2) Alternator Installation

- (a) If applicable, install the drive coupling that was removed and retained in accordance with CMI's applicable engine service manual. Refer to CMI SB11-3 (ALX-9524R) and SB95-3B (ALX9525BR) for drive coupling installation and service information.
- (b) Install the repaired or unaffected alternator model as removed on the engine in accordance with the applicable aircraft maintenance manual and/or engine service instruction.

D. Return to Service

- (1) Inspect the alternator installation on aircraft or engine as prescribed in the latest revision of the applicable aircraft maintenance manual and/or engine service instruction
- (2) Perform the recommended functional tests in accordance with the appropriate aircraft maintenance manual and POH or AFM.
- (3) Using the applicable aircraft maintenance manual of the latest revision, install any portion of the aircraft that was removed to gain access.

E. Maintenance Record

- (1) Make an aircraft logbook entry to indicate the completion of this Service Bulletin as applicable noting compliance with this Service Bulletin as terminating action.

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4. Contact Information

A. Contact **HET Product Support** for all communications regarding the technical content of this Service Bulletin and to obtain RMA return information.

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

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

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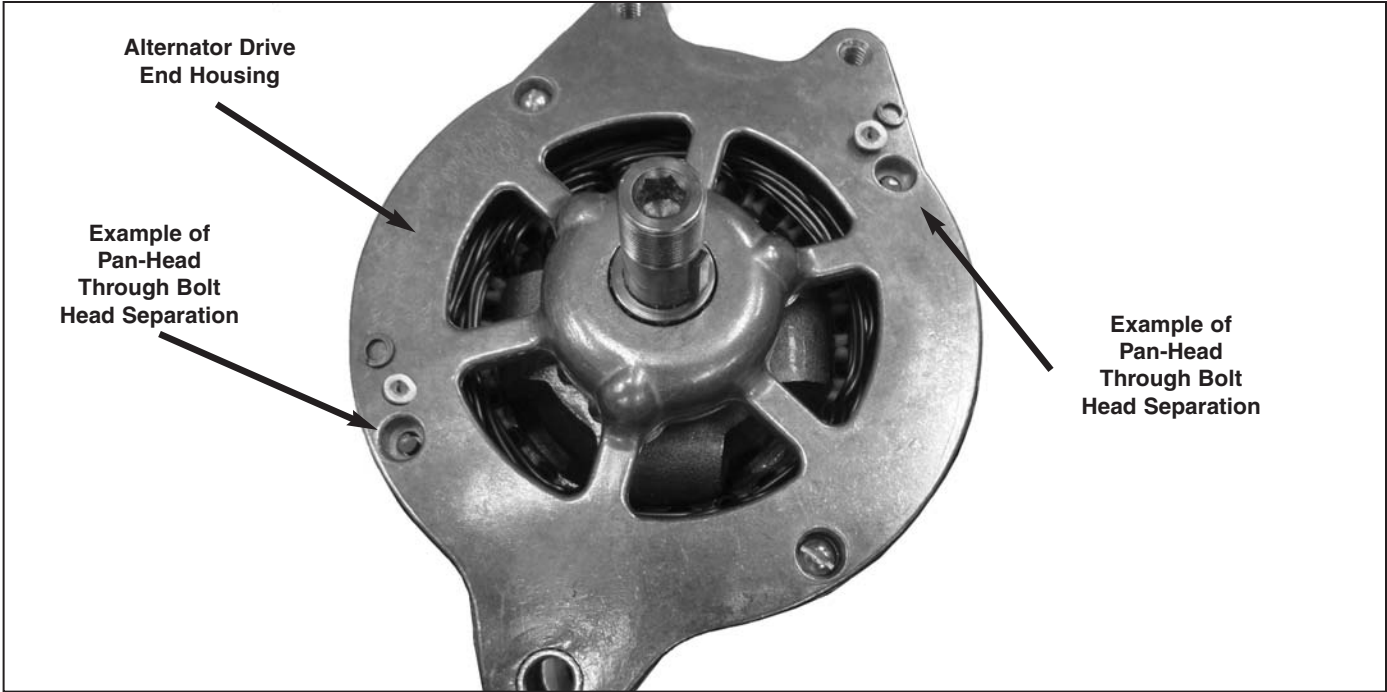


Figure 1 - Belt Drive Alternator Pan-Head Through Bolt Head Separation Example (Shown with Fan Removed)



Figure 2 - ALX-9525BR Proper Fillister-Head Through Bolt Example for Gear Drive.

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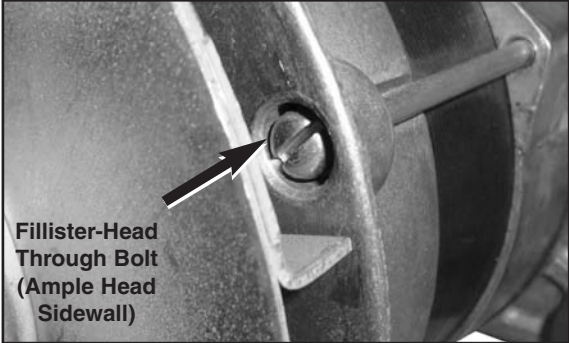
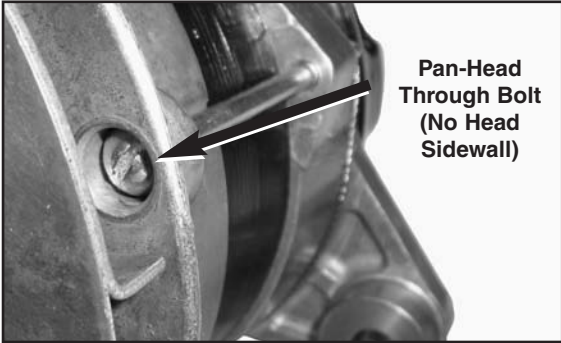


Figure 3 - Through Bolt Head Inspection Example for Belt Drive Shown.

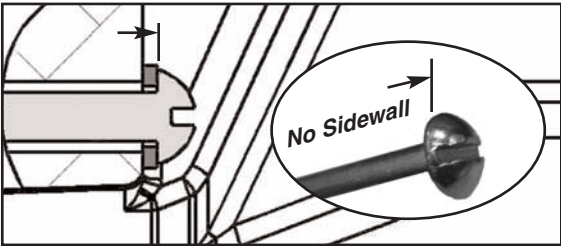


Figure 4 - Pan-Head Through Bolt (If found alternator must be repaired)

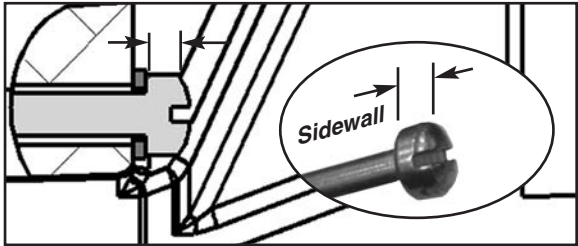


Figure 5 - Fillister-Head Through Bolt (If four found, alternator is acceptable)

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1. ELIGIBILITY:

- A. ALT-8520, ALX-9524R, and ALX-9525BR alternators with serial numbers listed in Table 1.

2. COMMERCIAL ASSISTANCE PROGRAM:

The following will be provided with the submission of a completed SB 063 Claim Form, copies of invoices showing breakdown of labor charges, material and log book entries. **Any commercial assistance or other consideration shall expire twelve (12) calendar months from the original published date of SB 063.**

- A. Labor for Inspection of affected alternators to determine if they contain pan-head through bolts will be paid at a shop rate of \$75 per hour up to 2/3 hour (\$50).
- B. Affected alternators containing pan-head versions of HET P/N ALA-0020G through bolts returned to HET, will be repaired under HET's limited warranty for components.
- C. Labor for removal & installation for affected alternators containing pan-head versions of HET P/N ALA-0020G through bolts will be paid at a shop rate of \$75 per hour up to the amount specified below:
 - (1) Up to one (1.0) hour labor for ALT-8520 alternator installations.
 - (2) Up to two & one half (2.5) hours labor for ALX-9525BR alternator installations.
 - (3) Up to one & one half (1.5) hours labor for ALX-9524R alternator installations.

3. COMMERCIAL ASSISTANCE ADMINISTRATION:

- A. Complete the Service Bulletin SB 063 Claim Form attached to this appendix.
 - (1) Mail, e-mail, or fax the SB 063 Claim Form to the attention of Product Support as indicated on the Service Bulletin Claim Form.
- B. Upon receipt of the Service Bulletin Claim Form and affected alternator, Hartzell Engine Technologies LLC will repair and return the alternator to the service provider indicated.
- C. For labor and material charges:
 - (1) Aircraft/engine service facility to submit an invoice up to the amount specified in section 2, copies of logbook entries, and a completed SB 063 Claim Form for reimbursement.

4. WARRANTY STATEMENT:

- A. The sole warranty for the actions of SB 063 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 SB 063 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.

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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 +1.334.386.5450.
- (3) E-mail at techsupport@HartzellEngineTech.com.
- (4) Address

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

6. SHIPPING INFORMATION:

Alternators being returned for repair must be securely packaged so no damage will occur in shipment. A copy of the properly completed SB 063 Claim Form for each affected alternator must be placed inside the shipping container. All alternators must be received undamaged and assembled.

Address package to:

Hartzell Engine Technologies LLC
Product Support Department
2900 Selma Highway,
Montgomery, AL 36108
USA

Also indicate clearly on the outside of the shipping container:

PRODUCT SUPPORT DEPT / SB 063

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SB 063 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 Assembly _____ Part Number: _____

Serial Number: _____ (Alternator) Date Removed: _____

Part Time in Service: _____ (Alternator) Original Date Installed: _____

For RMA Number

Send this SB 063 Claim Form to:

Hartzell Engine Technologies Product Support

Fax: +1.334.386.5450

E-mail: techsupport@hartzellenginetech.com

RMA Number:

(write in HET assigned RMA number)

Hartzell Use Only - do not write below this line.

Warranty No: _____ Authorized by: _____