



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

Service Information Letter

Letter A-140

Gear Driven Alternators

1. Planning Information

A. Effectivity

- (1) Gear driven alternators, series ALT, ALU, ALV, ALX, ES-4000, and DOFF10300, but not limited to, new, rebuilt, or overhauled by Hartzell Engine Technologies, LLC, formerly Kelly Aerospace Energy Systems, LLC affected by this Service Information Letter (SIL).
- (2) This SIL does not address Teledyne Continental Motors (TCM) part numbered gear driven alternators that may be manufactured by HET or KAES.
- (3) This SIL does address HET or KAES part numbered gear driven alternators installed on TCM engines.

CAUTION: DO NOT USE OBSOLETE OR OUTDATED INFORMATION. PERFORM ALL INSPECTIONS OR WORK IN ACCORDANCE WITH THE MOST RECENT REVISION OF THIS SERVICE INFORMATION LETTER (SIL). INFORMATION CONTAINED IN THIS SIL MAY BE SIGNIFICANTLY CHANGED FROM EARLIER REVISIONS. 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 SERVICE INFORMATION LETTER INDEX FOR THE MOST RECENT REVISION LEVEL OF THIS SIL.

B. Concurrent Requirements

- (1) Prestolite Service Bulletin ASM-14, dated June 20, 1990, is superseded by this SIL.
- (2) Additional service documents may apply to the gear driven alternators affected by this Service Information Letter. Compliance with additional service documents may be necessary in conjunction with the completion of the Accomplishment Instructions in this SIL.

C. Reason

- (1) It has come to the attention of Hartzell Engine Technologies, LLC (HET), formerly Kelly Aerospace Energy Systems, LLC (KAES), that during installation of gear driven alternators, there have been instances of the shipping washer, the spacer and/or a combination of both being installed and not discarded.
- (2) All gear driven alternators are delivered with a shipping spacer and some with a spacer and washer combination.
- (3) It is imperative that this shipping hardware be discarded when installing the drive coupling.
- (4) Improper installation may lead to the degradation or loss of alternator function and/or damage to the engine.
- (5) Regulatory action is not expected.



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D. Description

- (1) This Service Information Letter is being issued to remind installer's of new, rebuilt, or overhauled gear driven alternators procured from HET for aircraft engines, that all shipping hardware must be removed and discarded prior to installation of the alternator drive coupling.

E. Compliance

- (1) Before installation of an HET or KAES gear driven alternator, remove and discard the shipping washer and/or spacer.
- (2) Compliance of this Service Information Letter is considered Mandatory.

F. Approval

- (1) FAA approval is not required for this service information letter.

G. Manpower

- (1) No additional man hours are required for removal of the washer or spacer.

H. Weight and Balance

- (1) No change.

I. Electrical Load Data

- (1) No change.

J. References

- (1) Aircraft Maintenance Manual.
- (2) Teledyne Continental Motors Service Bulletins SB89-5 or SB95-3A.
- (3) Prestolite Service Bulletin ASM-14, dated June 20, 1990.

K. Other Publications Affected

- (1) None.



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2. Material Information

(1) None

3. Accomplishment Instructions

A. If applicable, remove the gear driven alternator from the shipping package.

NOTE: The shipping washer and spacer are not part of the alternator.

B. Identify the shipping washer.

(1) Gear driven alternators may or may not have a shipping washer included.

(a) Identify shipping washer. These are all large thin washers with a notch cut in the inside diameter to allow the washer to slip over the woodruff key. Not all alternators will have a shipping washer included. Discard this washer prior to any installation work. (See figure 2).

C. Identify the shipping spacer.

(1) All gear driven alternators are shipped with a shipping spacer.

(a) The shipping spacer may be a phenolic or a cardboard tube fitted closely over the shaft, a woodruff key, or a thin metal barrel formed to fit over the woodruff key but having a slot opposite. Refer to Figure 2.

(b) If the shipping spacers are cardboard as shown in Figure 3 or phenolic type as shown in Figure 4, they may still have a metal shipping washer.

(c) The ALV-9510 alternator (only) is shipped with an additional washer HET (P/N ALV-74) located at the base of alternator drive shaft. This washer does not have a notch cut into it and must be retained to allow proper fit of the drive coupling. Refer to Figure 5.

D. Remove and discard the washer and the spacer prior to any installation work.

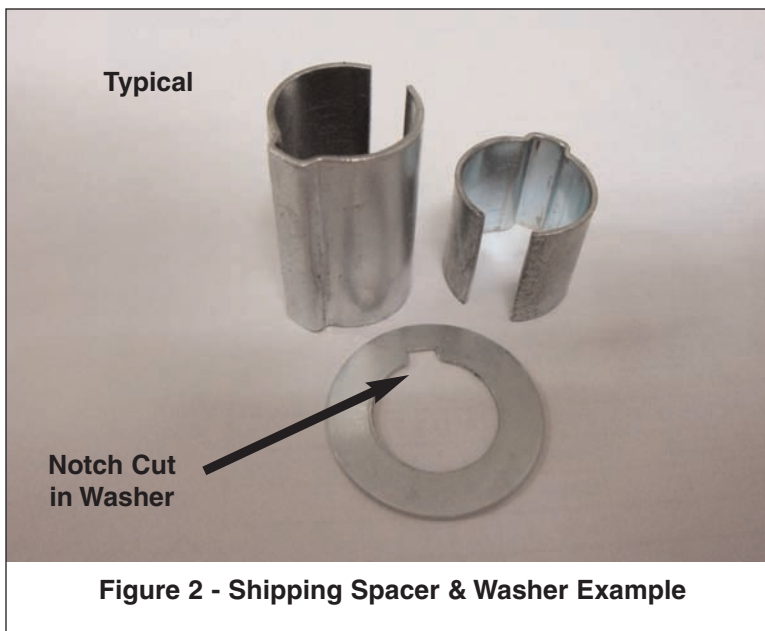
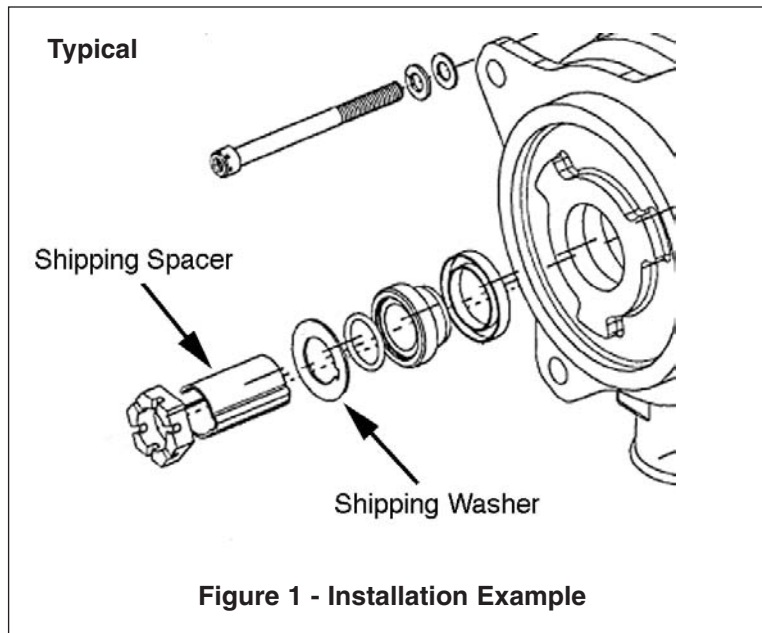


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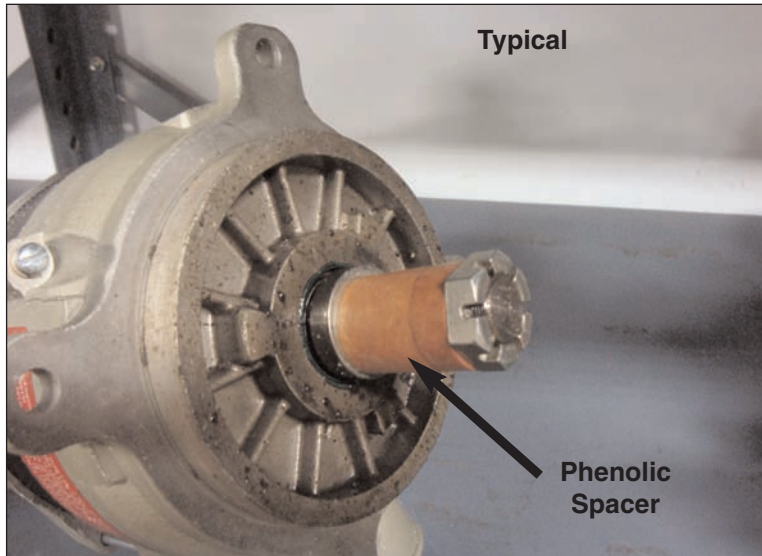


Figure 3 - Shipping Spacer & Washer (phenolic)

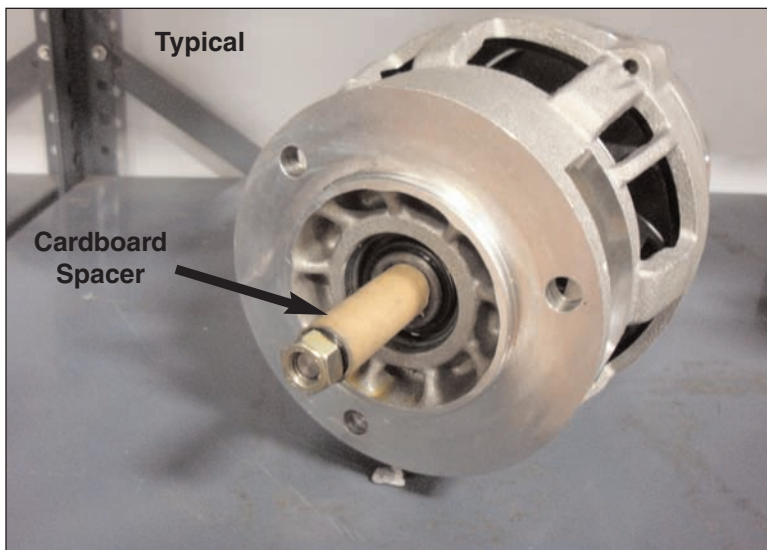


Figure 4 - Shipping Spacer (cardboard)



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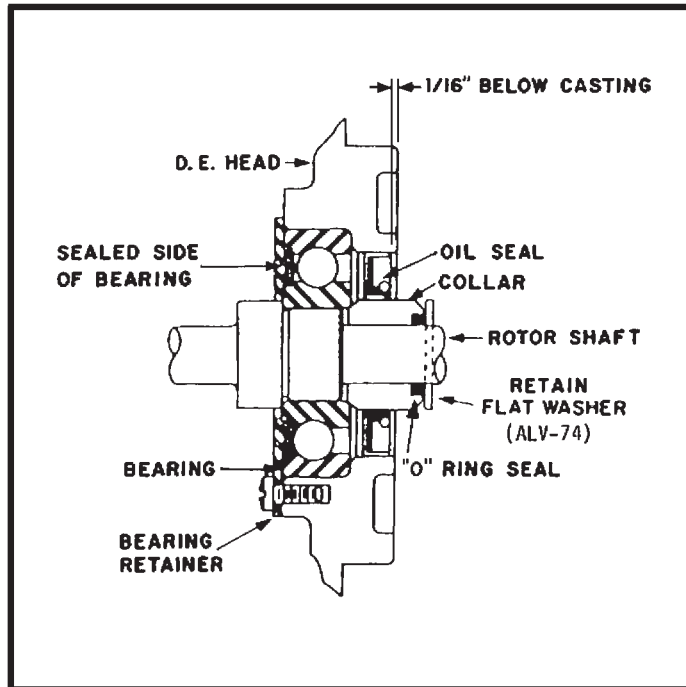


Figure 5 - ALV-9510 Alternator ONLY

CAUTION: HET DOES NOT PROVIDE ALTERNATOR OR ALTERNATOR DRIVE COUPLING INSTALLATION PROCEDURES. TO AVOID DAMAGE OR INJURY, CONSULT THE LATEST REVISION OF THE APPLICABLE ENGINE OR AIRCRAFT SERVICE OR MAINTENANCE INSTRUCTIONS TO COMPLETE THE INSTALLATION OF THE ALTERNATOR DRIVE COUPLING AND ALTERNATOR.

- E. When installing a coupling onto a HET or KAES gear driven alternator, observe the latest revision of Teledyne Continental Motors service bulletins SB89-5 or SB95-3A as applicable for alternator and drive coupling installation on TCM engines. This SIL does address HET or KAES part numbered gear driven alternators installed on TCM engines.



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4. Warranty Statement

- A. The sole warranty for the actions within this service information letter are contained in the HET Limited Warranty Policy issued with the purchase of each new or rebuilt alternator (see terms and conditions therein).
- B. Issuance of this service information letter in no way constitutes an implied or expressed warranty of any kind.
- C. This publication does not imply or state any responsibility for the workmanship of any person or entity performing work or maintenance on the alternator or electrical system.

5. Contact Information

- A. 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.
- B. Written communications must be placed through Hartzell Engine Technologies Technical 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.