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# Alert Service Bulletin

**Alert Service Bulletin No. 060 Rev. 1**

**Turbocharger  
P/N 441320-0007 Center Housing Inspection**

This page transmits the revision of Service Bulletin 060 Rev. New to Service Bulletin 060 Rev. 1, dated August 28, 2014.

- Revision SB 060 Rev. New, dated August 26/14
- Revision SB 060 Rev. 1, dated August 28/14

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

Changes are shown by a change bar in the left or right margins coinciding with the change in the affected page.

Some of these changes that do not affect technical content may not be highlighted in this transmittal sheet.

This revision is issued to change the following:

- Correct P/N typo in Table 1, 407810-1 should be 407800-3

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## **Turbocharger P/N 441320-0007 Center Housing Inspection**

### 1. Planning Information

#### A. Effectivity

- (1) Hartzell Engine Technologies LLC (HET) P/N 441320-0007 Center Housing with date code H0113 that are not marked with an "H" as shown in Fig. 3, are affected by this Alert Service Bulletin (ASB). Affected parts would have been received from HET between February 1, 2013 and June 30, 2014.
- (2) All turbocharger part numbers as shown in Table 1 which have been overhauled or repaired using affected P/N 441320-0007 Center Housings with date code H0113 and not marked with an "H" are affected by this Alert Service Bulletin.

**WARNING:** DO NOT USE OBSOLETE OR OUTDATED INFORMATION. PERFORM ALL INSPECTIONS OR WORK IN ACCORDANCE WITH THE MOST RECENT REVISION OF THIS ALERT SERVICE BULLETIN (ASB). INFORMATION CONTAINED IN THIS ASB MAY BE SIGNIFICANTLY CHANGED FROM EARLIER REVISIONS. FAILURE TO COMPLY WITH THIS ASB 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 THIS ASB.

#### B. Concurrent Requirements

- (1) None.

#### C. Reason

- (1) Hartzell Engine Technologies has discovered that the turbine side journal bearing oil feed passage in some P/N 441320-0007 Center Housings may be missing.
- (2) This condition, if present, will restrict lubrication of the journal bearing which will impair normal operation. Lack of journal bearing lubrication will cause turbocharger seizure within a very short time period with resultant reduction of engine power without warning.
- (3) Loss of lubrication may also lead to component fragmentation which may introduce contaminating particles into the engine.
- (4) Regulatory action is unknown.

#### D. Description

- (1) This Alert Service Bulletin provides Instructions for Continued Airworthiness (ICA).
- (2) This Alert Service Bulletin requires the inspection of affected HET P/N 441320-0007 Center Housings.

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### Turbocharger - Center Housing P/N 441320-0007 Inspection for Replacement

#### E. Compliance

- (1) For turbocharger part numbers identified in Table 1 placed in service with an affected P/N 441320-0007 Center Housing and less than twenty-five (25) hours time in service, compliance is required before further flight.
- (2) Turbocharger part numbers identified in Table 1 placed in service with an affected P/N 441320-0007 Center Housing that has accrued at least twenty-five (25) hours time in service from the date of turbocharger installation may continue in service.
  - a. Compliance with the Accomplishment Instructions is required at the next turbocharger removal.
- (3) Part number 441320-0007 Center Housings in stock are to be inspected in accordance with the Accomplishment Instructions.
- (4) Compliance with the Accomplishment Instructions is the terminating action for this Alert Service Bulletin.

#### F. Approval

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

#### G. Manpower

- (1) Three (3.0) man hours of labor are needed for removal, inspection and replacement of an affected Center Housing from a turbocharger.
- (2) Four and one half (4.5) man hours of labor are needed for removal and installation of the turbocharger.

#### H. 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) Turbocharger Overhaul Manual, HET P/N 400600-0000 Rev. A or later.
- (2) Applicable Lycoming Engines, Inc. maintenance manuals
- (3) Applicable aircraft maintenance manuals and AFM or POH

#### I. Other Publications Affected

- (1) None

#### J. Weight and Balance

- (1) Not affected

## 2. Material Information

- A. As required, one (1) each, Center Housing, HET P/N 441320-0007 (not affected by this ASB).
- B. As required, two (2) each, Pin, Anti-rotation, HET P/N 400705-0000.

\* Additional miscellaneous materials may be required from the engine or aircraft manufacturer.

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## Turbocharger - Center Housing P/N 441320-0007 Inspection for Replacement

### 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 TURBOCHARGING SYSTEM. FAILURE TO DO SO MAY RESULT IN ECONOMIC LOSS, EQUIPMENT DAMAGE, AND/OR PHYSICAL INJURY.

**CAUTION:** DO NOT USE OBSOLETE OR OUTDATED INFORMATION. PERFORM ALL INSPECTIONS OR WORK IN ACCORDANCE WITH THE MOST RECENT REVISION OF THIS ALERT SERVICE BULLETIN (ASB) AND THE APPLICABLE AIRCRAFT, ENGINE AND/OR HET 400600-0000 MAINTENANCE MANUAL. INFORMATION CONTAINED IN THESE MANUALS OR THIS ASB MAY BE SIGNIFICANTLY CHANGED FROM EARLIER REVISIONS. FAILURE TO COMPLY WITH THIS ASB OR THE USE OF OBSOLETE INFORMATION MAY CREATE AN UNSAFE CONDITION THAT MAY RESULT IN DEATH, SERIOUS BODILY INJURY, AND SUBSTANTIAL PROPERTY DAMAGE. REFER TO THE APPLICABLE AIRCRAFT, ENGINE, MAINTENANCE MANUAL INDEX AND/OR THE APPLICABLE WEBSITE FOR THE MOST RECENT REVISION LEVEL OF THESE PUBLICATIONS.

#### A. Inspection

- (1) For P/N 441320-0007 Center Housings in inventory, examine the oil drain port flange for an etched date code of H0113. (Refer to Fig. 1.)
- (2) For turbocharger P/N's shown in Table 1 that were field repaired or overhauled between February 1, 2013 and the effective date of this ASB, review aircraft and/or overhaul documentation or remove the turbocharger oil drain reservoir and examine the flange to determine if the P/N 441320-0007 has an affected date code. Refer to Fig. 1.
- (3) If an affected P/N 441320-0007 Center Housing is in inventory or installed and less than twenty-five (25) hours time in service has accrued, perform the following:

**NOTE 1:** If required, remove turbocharger in accordance with the applicable aircraft and/or engine manufacturer's maintenance manuals or service instructions.

**NOTE 2:** HET requires that turbocharger repair be accomplished by an FAA certificated repair station (or foreign equivalent) or certificated A & P mechanic experienced in servicing turbocharger systems utilizing the turbocharger overhaul manual, HET P/N 400600-0000 Rev. A or later.

- a. If the affected P/N 441320-0007 is installed, disassemble the turbocharger per the HET Turbocharger Overhaul & Maintenance manual P/N 400600-0000 Rev. A or later.
- b. Using white light, visually inspect the turbocharger center housing for the turbine side journal bearing oil feed passage. Refer to Figure 2.
  - (i) If the turbine side journal bearing oil feed passage **IS** present, proceed to Corrective Action 3.B(1).
  - (ii) If the turbine side journal bearing oil feed passage is **NOT** present, proceed to Corrective Action 3.B(2).

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#### B. Corrective Action:

- (1) If the turbine side journal bearing oil feed passage is present:
  - a. Identify the Center Housing by applying a metal impression stamp with the letter "H" in the area designated in Figure 3.
  - b. Reassemble the turbocharger per instructions in the HET overhaul manual.
  - c. If inventory, make a record of compliance with this Alert Service Bulletin in the parts delivery documentation and return to stock.
- (2) If the turbine side journal bearing oil feed passage is not present:
  - a. Return the affected Center Housing directly to HET within ninety (90) days of the original publication date of this Alert Service Bulletin.
  - b. Install a P/N 441320-0007 Center Housing not affected by this Alert Service Bulletin. Do not stamp an "H" on new or unaffected Center Housings.
  - c. Reassemble the turbocharger per instructions in the HET overhaul manual.
- (3) If an affected P/N 441320-0007 Center Housing was installed but has achieved more than twenty-five (25) hours time in service from the date of the turbocharger installation, at the next turbocharger removal, comply with the Accomplishment Instructions of this Alert Service Bulletin.
- (4) Utilizing the applicable aircraft and/or engine manufacturer's maintenance manuals or service instructions, re-install the turbocharger assembly and proceed to 3.C "Return to Service".

#### C. Return to Service

- (1) After the turbocharger has been properly installed, the aircraft will be ready for "return to service".
- (2) Perform the recommended turbocharger operational tests in accordance with Hartzell Engine Technologies Service Bulletin 23 and the aircraft AFM or POH.
  - a. The operational tests consist of turbocharger pre-lubrication, ground running and operational flight tests.
  - b. Make sure air, exhaust, or oil leaks are not present. Remedy any anomaly found and secure the engine turbocharger installation.
- (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.

#### D. Upon successful completion of this Alert Service Bulletin make an appropriate log book entry. Partial compliance with this Alert Service Bulletin should be documented in the log book as applicable below.

- (1) I have reviewed ASB 060 Rev. New and determined through document review that the affected turbo has flown in excess of 25 hours since the effective date of this ASB. Further compliance with ASB 060 will be due upon next turbo removal.
- (2) I have reviewed ASB 060 Rev. New and found that the center housing has been marked with the letter H as stated in the ASB. No further compliance is required
- (3) I have reviewed ASB 060 Rev. New and found it not to be applicable by date code for the turbo installed.

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## **Turbocharger - Center Housing P/N 441320-0007 Inspection for Replacement**

### 4. Contact Information:

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

(1) Phone +1.334.386.5441

(2) Fax +1.334.386.5410.

(3) E-mail at techsupport@HartzellEngineTech.com.

(4) Address

Hartzell Engine Technologies LLC

2900 Selma Highway,

Montgomery, AL 36108, USA.



# Alert Service Bulletin

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## Turbocharger - Center Housing P/N 441320-0007 Inspection for Replacement

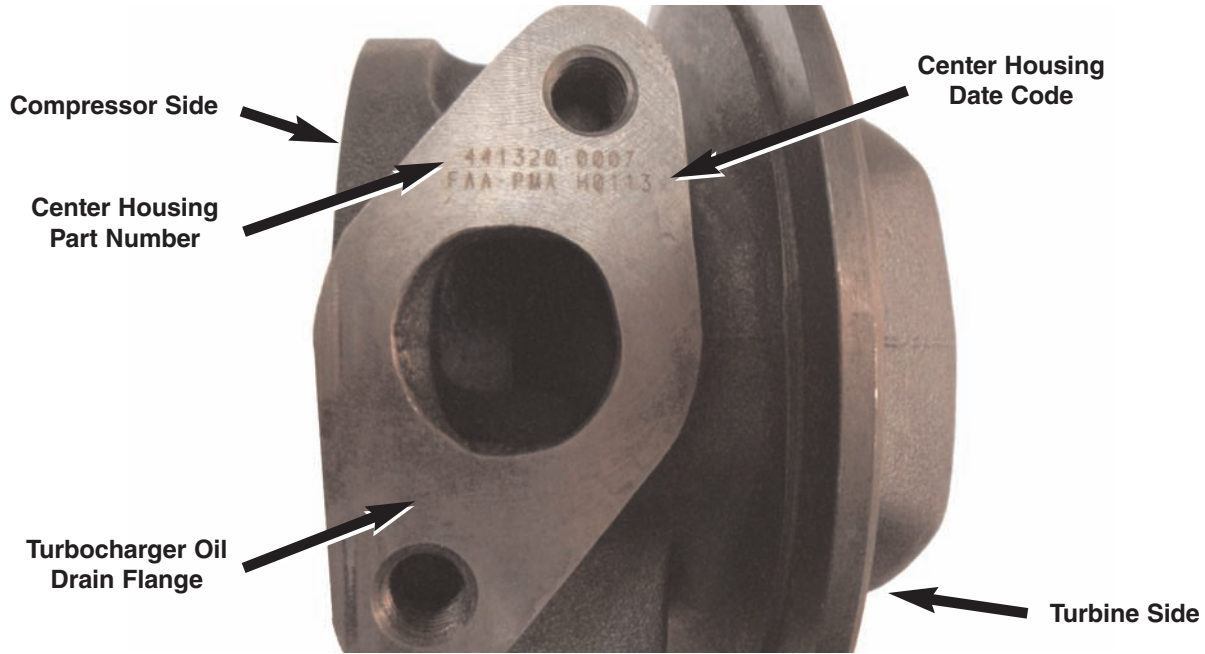


Figure 1 - P/N 441320-0007 Center Housing Date Code Location

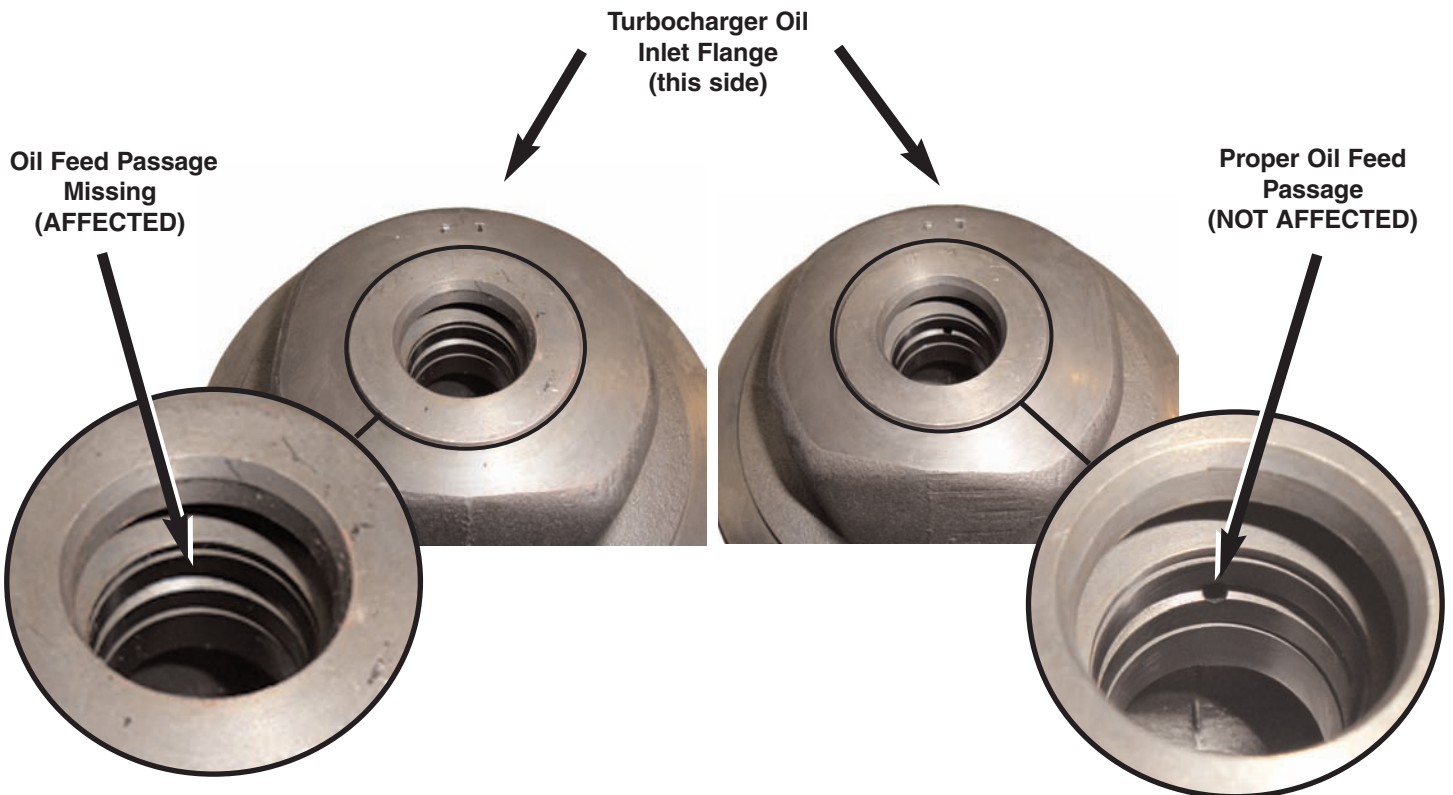


Figure 2 - Identification of P/N 441320-0007 Center Housing Turbine Side Journal Bearing Oil Feed Passage (Turbine Side Shown)



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## Turbocharger P/N 441320-0007 Center Housing Inspection

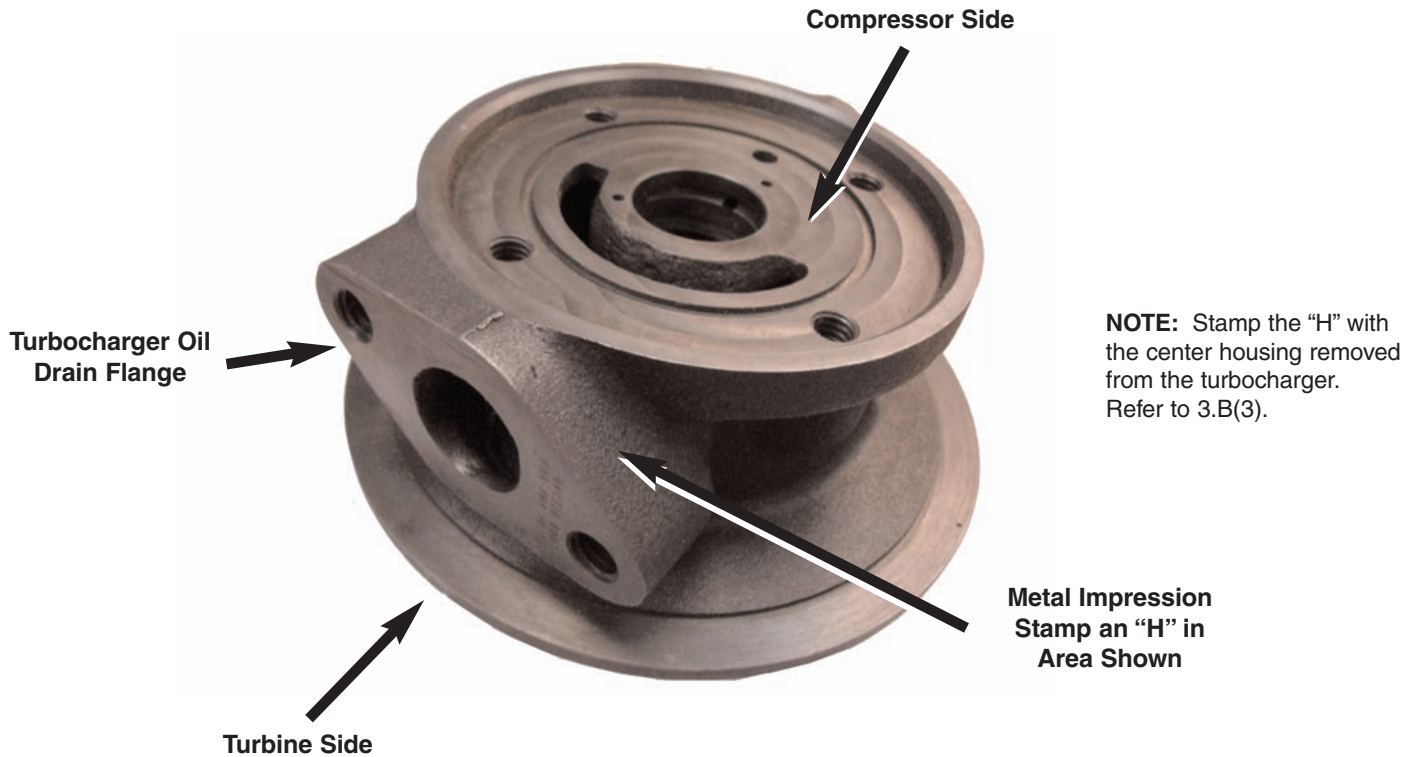


Figure 3 - Identification of P/N 441320-0007 Center Housing NOT Affected - Stamp Location

# Alert Service Bulletin

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## **Turbocharger P/N 441320-0007 Center Housing Inspection**

**Table 1 - Turbocharger Affected**

<b>Turbo Model</b>	<b>Part Number</b>	<b>Engine Model</b>	<b>OE Turbo P/N</b>	<b>Aircraft Models</b>
T1879	407540-(0, 9)003	TIO-541-E1C4 TIO-541-E1D4	LW-13310 (LYC)	Beech A56TC Beech B60 Duke
T18A21	407800-(0, 9)003	TIGO-541-D1A TIGO-541-E1A	LW-13234 (LYC)	Piper PA31P Pressurized Navajo

NOTE 1: Replacement Center Housing may have been installed in any part number turbocharger listed in Table 1 during field overhaul or repair.

NOTE 2: Turbochargers with part numbers ending with -0xxx indicate New and ending with -9xxx are indicate Factory Rebuilt. Either may be used in any application.

NOTE 3: This table used for reference purposes only. Aircraft/engines listed are inclusive of but may not be limited to these models.

# Alert Service Bulletin Appendix

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## Turbocharger P/N 441320-0007 Center Housing Inspection

### 1. ELIGIBILITY:

- A. Turbochargers with an affected P/N 441320-0007 Center Housing installed.

### 2. COMMERCIAL ASSISTANCE PROGRAM:

The following will be provided with the submission of a completed ASB 060 Rev. 1 Claim Form, copies of invoices showing breakdown of labor charges and log book entries. **Any commercial assistance or other consideration shall expire twelve (12) calendar months from the original published date of ASB 060 Rev 1.**

Turbochargers containing an affected P/N 441320-0007 Center Housing will be eligible for the following:

- A. Up to a 4.5 hour labor allowance for removal and installation of the Turbocharger from the aircraft will be paid at a shop rate of up to US\$75 per hour, not to exceed US\$337.50 total per Turbocharger.
- B. Up to a 3.0 hour labor allowance for disassembly, inspection, and re-assembly of the Turbocharger at a certificated turbocharger repair station at a shop rate of up to US\$75 per hour, not to exceed US\$225 total per Turbocharger.
  - (1) HET suggests use of a Recommended Service Facility for this work. These facilities are listed below:  
Quality Aircraft Accessories  
5746 East Apache Street  
Tulsa, OK 74115, USA.  
E-mail websales1@qaa.com
  - (2) If the P/N 441320-0007 Center Housing requires replacement per ASB 060 Rev. 1, the repair station performing the work should contact HET for a no charge replacement.

### 3. COMMERCIAL ASSISTANCE ADMINISTRATION:

- A. Complete the Alert Service Bulletin ASB 060 Rev. 1 Claim Form attached to this appendix.
  - (1) Mail, e-mail, or fax the ASB 060 Rev. 1 Claim Form to the attention of Product Support as indicated on the Alert Service Bulletin Claim Form.

**NOTE:** The completed Alert Service Bulletin ASB 060 Rev. 1 Claim Form must be received before an order for a replacement P/N 441320-0007 Center Housing assembly will be allowed.

- B. Upon receipt of the Alert Service Bulletin Claim Form, HET will ship a replacement P/N 441320-0007 Center Housing and two P/N 400705-0000 Anti-rotation Pins to the turbocharger service facility indicated.
- C. For labor charges:
  - (1) Aircraft service facility to submit an invoice up to the amount specified in section 2.A and copies of logbook entries for reimbursement.
  - (2) Approved turbocharger service facility to submit an invoice up to the amount specified in section 2.B and return of the affected center housing.

### 4. WARRANTY STATEMENT:

- (a) The sole warranty for the actions of ASB 060 Rev. 1 are contained in the HET Limited Warranty Policy issued with the purchase of each new/rebuilt turbocharger or piece part (see terms and conditions therein).
- (b) Commercial assistance may apply as stated in this Appendix.
- (c) Issuance of ASB 060 Rev. 1 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 turbocharging system.

# Alert Service Bulletin Appendix

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## Turbocharger P/N 441320-0007 Center Housing Inspection

### 5. CONTACT INFORMATION:

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

- (1) Phone +1.334.386.5441
- (2) Fax +1.334.386.5410.
- (3) E-mail at techsupport@HartzellEngineTech.com.
- (4) Address

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

### 6. SHIPPING INFORMATION:

If a turbocharger P/N 441320-0007 Center Housing is being returned, the part must be securely packaged so damage will not occur in shipping. A copy of the properly completed ASB 060 Rev. 1 Claim Form for each affected part must be placed inside the shipping container. All parts must be received undamaged. Ground shipping to and from will be reimbursed.

Ship To:

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

Attn: PRODUCT SUPPORT DEPT / ASB 060 Rev. 1

# Alert Service Bulletin Appendix

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## Turbocharger P/N 441320-0007 Center Housing Inspection

### ASB 060 Rev. 1 CLAIM FORM

#### Owner information

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Tel: \_\_\_\_\_ Fax: \_\_\_\_\_  
Company Name: \_\_\_\_\_ E-mail: \_\_\_\_\_  
Address: \_\_\_\_\_  
City: \_\_\_\_\_ State: \_\_\_\_\_ Postal Code: \_\_\_\_\_  
Country: \_\_\_\_\_

#### Aircraft 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: \_\_\_\_\_

#### Turbocharger Service Facility information

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Tel: \_\_\_\_\_ Fax: \_\_\_\_\_  
Company Name: \_\_\_\_\_ E-mail: \_\_\_\_\_  
Address: \_\_\_\_\_  
City: \_\_\_\_\_ State: \_\_\_\_\_ Postal Code: \_\_\_\_\_  
Country: \_\_\_\_\_

#### Product or Component Information

Nomenclature: Turbocharger / Center Housing Part Number: \_\_\_\_\_  
(circle one)  
Serial Number: \_\_\_\_\_ (Turbocharger) Date Code: H0113 (Center Housing)  
Part Time in Service: \_\_\_\_\_ (Turbocharger) Date Installed: \_\_\_\_\_ Date Removed: \_\_\_\_\_

Send this ASB 060 Rev. 1 Claim Form to:

Hartzell Engine Technologies Product Support  
Fax: +1.334.386.5450  
E-mail: techsupport@hartzellenginetech.com

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

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