



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

Alert Service Bulletin

Bulletin No. 047

Turbocharger P/N 406610-0005 or -9005 & Turbocharger Center Housing P/N 409836-0005 Recall

1. Planning Information

A. Effectivity

- (1) All Hartzell Engine Technologies LLC (HET) turbochargers:
 - (a) Turbocharger HET P/N 406610-0005 or P/N 406610-9005 with serial numbers listed in Table 1.
 - (b) All turbochargers with the same P/N overhauled or repaired January 2012 or later with same turbocharger center housing P/N and date code H-0112.
 - (c) All turbocharger center housings P/N 409836-0005 sold as piece parts which are in field/distributor inventory with date code H-0112.

TABLE 1 - Serial Numbers Affected *

H-PAR00100	H-PAR00101	H-PAR00102	H-PAR00103	H-PAR00104	H-PAR00105
H-PAR00106	H-PAR00107	H-PAR00108	H-PAR00109	H-PAR00110	H-PAR00111
H-PAR00112	H-PAR00113	H-PAR00114	H-PAR00115	H-PAR00116	H-PAR00117
H-PAR00118	H-PAR00119	H-PAR00120	H-PCR00098	H-PCR00099	H-PCR00100
H-PCR00101	H-PCR00102	H-PCR00103	H-PCR00104	H-PCR00105	H-PCR00106
H-PCR00107	H-PCR00108	H-PCR00109	H-PCR00110	H-PCR00111	H-PCR00112
H-PCR00113	H-PCR00114	H-PCR00115	H-PCR00116	H-PCR00117	H-PCR00118
H-PCR00119	H-PCR00120	H-PCR00121	H-PCR00122	H-PDL00007	H-PDR00182
H-PDR00183	H-PDR00184	H-PDR00185	H-PDR00186	H-PDR00187	H-PDR00188
H-PDR00189	H-PDR00190	H-PDR00191	H-PDR00192	H-PDR00193	H-PDR00194
H-PDR00195	H-PDR00196				

* For aid in identifying engine or aircraft model, see Table 2 Reference Guide.

CAUTION: DO NOT USE OBSOLETE OR OUTDATED INFORMATION.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. INFORMATION CONTAINED IN THIS ALERT SERVICE BULLETIN MAY BE SIGNIFICANTLY CHANGED FROM EARLIER REVISIONS. FAILURE TO COMPLY WITH THIS ALERT 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 ALERT SERVICE BULLETIN INDEX FOR THE MOST RECENT REVISION LEVEL OF THIS ALERT SERVICE BULLETIN.

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B. Concurrent Requirements

- (1) None

C. Reason

- (1) Hartzell Engine Technologies has discovered that the oil passage in the turbocharger center housing, HET P/N 406610-0005 and 406610-9005, may have been incorrectly located. This oil passage feeds oil to the journal bearings.
- (2) This condition may also be present in the turbocharger center housings P/N 409836-0005 sold to the field as piece parts. These turbocharger center housings are stamped with a date code of H-0112.
- (3) This condition may restrict oil flow to the journal bearings which will damage or destroy the bearings quickly. The result may cause seizure of the turbocharger with subsequent engine power reduction or engine oil starvation.
- (4) The affected turbochargers and/or turbocharger center housings are being recalled to assure that the oil passage has been properly located and to remove them from service if they are not properly located.
- (5) Regulatory action is unknown at this time.

D. Description

- (1) This Alert Service Bulletin is being issued to mandate the return of turbocharger HET P/N 406610-0005 or 406610-9005 with serial numbers listed in Table 1 and turbocharger center housings P/N 409836-0005 sold as piece parts identified with date code H-0112 that are in distributor or field inventory.

E. Compliance

- (1) Prior to next flight, remove turbocharger HET P/N 406610-0005 or P/N 406610-9005, with serial numbers as listed in Table 1 from aircraft.
 - (a) Immediately return the affected turbocharger directly to HET per instructions contained in Appendix I of this Alert Service Bulletin.
- (2) Prior to the use of or prior to next flight, any turbocharger center housing, HET P/N 409836-0005, with date codes H-0112, remove from service (see Figure 1). This applies to field service inventory or those piece parts which may have been placed in service.
 - (a) Return the affected turbocharger center housing or complete turbocharger (as may be applicable) through place of purchase immediately but not to exceed thirty (30) days from the effective date of this Alert Service Bulletin.

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F. Approval

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

G. Manpower

- (1) Refer to aircraft or engine labor time or service manuals for estimates regarding labor requirements. Refer to Appendix I.
- (2) Negligible for return of parts in inventory.

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) HET 400600-0000 Turbocharger Overhaul & Maintenance Manual
- (2) Applicable Continental Motors engine maintenance manual
- (3) Applicable Cessna maintenance manual

I. Other Publications Affected

- (1) None

J. Weight and Balance

- (1) Not affected

2. Material Information

- (1) One each, repaired or replacement Turbocharger, HET P/N 406610-0005 or P/N 406610-9005 at HET's option will be supplied directly by HET.
- (2) One each, replacement Turbocharger Center Housing, HET P/N 409836-0005 will be supplied directly by HET or Warranty credit may be offered at HET's option.

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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 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, AND/OR THE HET 400600-0000 MAINTENANCE MANUAL INDEX FOR THE MOST RECENT REVISION LEVEL OF THE PUBLICATION.

A. Inspection

CAUTION: DO NOT RELY ON THE AIRCRAFT OR THE ENGINE PAPERWORK ALONE WHEN IDENTIFYING THE TURBOCHARGER SERIAL NUMBER.

- (1) Access the aircraft turbocharger in accordance with the instructions contained in the aircraft maintenance manual.
- (2) Locate turbocharger part number and serial number found on the data plate and determine if it is an affected serial number.
 - (a) If the serial number **is not listed** in Table 1 and **no** overhaul or repair was done January 2012 or later proceed to "Return to Service".
 - (b) If the serial number **is listed** in Table 1, continue with Corrective Action 1.
 - (c) If the turbocharger was overhauled or repaired January 2012 or later, then determine the center housing date code by removing the oil drain fitting (see Fig. 1).
 - (i) If date code H-0112 is found, continue with Corrective Action 2.
 - (ii) If a date code other than H-0112 is found reconnect the oil drain fitting per applicable aircraft and/or engine manufacturer's maintenance manuals or service instructions. Proceed to "Return to Service".
- (3) Identify turbocharger center housings with date codes of H-0112.
 - (a) If a suspect turbocharger center housing is found in inventory, as piece part or as part of complete turbocharger assembly, continue with Corrective Action 3.
 - (b) If a suspect turbocharger center housing is no longer in inventory and has been placed in service it will be necessary to locate the turbocharger and verify center housing date code by removing the oil drain fitting (see Fig. 1).
 - (i) If date code H-0112 is found, continue with Corrective Action 2.
 - (ii) If a date code other than H-0112 is found reconnect the oil drain fitting per applicable aircraft and/or engine manufacturer's maintenance manuals or service instructions. Proceed to "Return to Service".

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B. Corrective Action:

- (1) If it has been determined that the turbocharger HET P/N 406610-0005 or P/N 406610-9005 listed in Table 1 is affected it must be removed and returned to HET. Inspection and repair may only be performed at the HET factory. Special arrangement requests may be made in writing for international customers. All turbochargers will be returned as a REPAIRED component and will retain the time in service (TIS) as shipped. Removal must be in accordance with the applicable aircraft and/or engine manufacturer's maintenance manuals or service instructions. ***Do not return fittings, oil reservoir, or other engine or airframe parts as they cannot be returned back to the customer.***
- (2) If an affected turbocharger center housing obtained as a piece part was placed in service it must be replaced immediately. Contact HET product support at 334-386-5441 for disposition.
- (3) Return any turbocharger center housing HET P/N 409836-0005 with date code H-0112 within thirty (30) days from the date of this Alert Service Bulletin through the point of purchase.
- (4) Upon receipt of repaired turbocharger, check that the unit is received in undamaged condition with proper paperwork.
- (5) Utilizing the applicable aircraft and/or engine manufacturer's maintenance manuals or service instructions, re-install the turbocharger assembly and proceed to "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 Hartzell Engine Technologies Service Bulletin 23.
 - (a) The operational tests consist of turbocharger pre-lubrication, ground running tests, and operational flight test.
 - (b) Make sure no air, exhaust, or oil leaks are present.
- (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 per the applicable compliance listed, make an appropriate log book entry.

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4. Contact Information:

- A. All communications regarding this Alert 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.
- D. If returning the turbocharger for repair or replacement, return to:

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

Attention: Warranty / ASB 047

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Table 2 - Aircraft / Engine Reference Guide*

T/C Center Housing P/N	Turbocharger P/N	Engine Model	Cessna Aircraft <i>(not limited to)</i>
409836-0005	406610-0005 406610-9005 C295001-0101	TSIO-520-C	T206 A-C (66 - 68) include prefix T(P, U)
409836-0005	406610-0005 406610-9005 C295001-0101	TSIO-520-C	T206 D-E & F (69 - 76) include prefix T(P, U)
409836-0005	406610-0005 406610-9005 C295001-0101	TSIO-520-M	TU206 G (77 & UP) include prefix
409836-0005	406610-0005 406610-9005 C295001-0101	TSIO-520-G	T207 (70 - 76)
409836-0005	406610-0005 406610-9005 C295001-0101	TSIO-520-M	T207 (77 & UP)
409836-0005	406610-0005 406610-9005 C295001-0101	TSIO-520-C	T210 F-H (66 - 68)
409836-0005	406610-0005 406610-9005 C295001-0101	TSIO-520-H	T210 J-L (69 - 76)
409836-0005	406610-0005 406610-9005 C295001-0101	TSIO-520-R	T210 M-N (77 - UP)

* Use for reference purposes only.

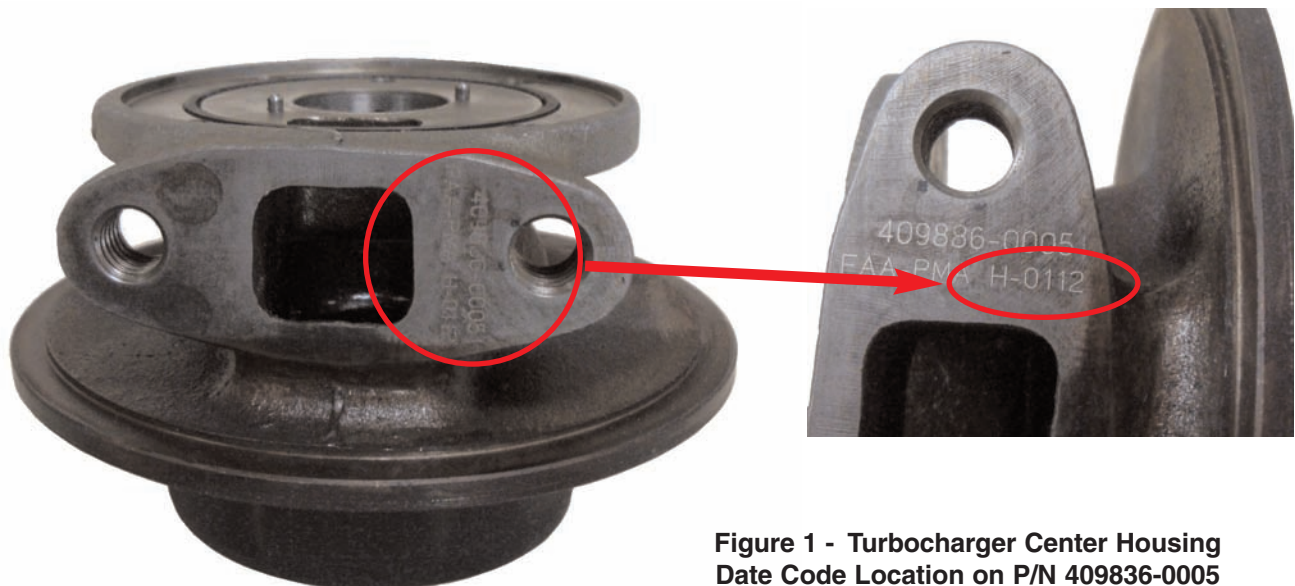


Figure 1 - Turbocharger Center Housing
Date Code Location on P/N 409836-0005

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APPENDIX I - ASB 047

COMMERCIAL ASSISTANCE:

In addition to warranty coverage provided by the HET Limited Warranty, HET will provide additional commercial assistance to comply with ASB 047 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 ASB 047.**

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

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

International customers unable to return affected turbochargers 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 & Installation: For affected turbocharger, up to four (4) hours @ \$75 per hour (up to \$300 max). **(includes gaining access)** This commercial assistance is for affected HET turbocharger only, no commercial assistance will allowed for turbochargers overhauled or repaired by 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 turbocharger (see terms and conditions therein).
- B. Commercial assistance may apply as stated in Appendix 1. Attachment A of ASB 047 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 turbocharger 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 turbocharger 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 / ASB 047" 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 - ASB 047



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: Turbocharger or center housing (part) Part Number: 406610-5 or -9005 or 409836-5 (part)
(circle one) *(circle one)*

Serial Number: _____ Batch/Date Code: H-0112

Part Time in Service: _____ New: YES Rebuilt: YES

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

Compliance with ASB-047: YES
Turbocharger returned to HET: YES NO
Center Housing returned to HET: YES NO

Comments on compliance with ASB 047:

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 ASB 047.**

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.HartzellEngineTech.com>.