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Alert Service Bulletin

Alert Service Bulletin No. 213

Turbocharger Turbine Housing Bolt P/N 400132-0301 Inspection

1. Planning Information

A. Effectivity

- (1) AeroForce turbocharger P/N 465292-2, 465292-4, 465398-2, 466642-1, and 466642-2 manufactured by Hartzell Engine Tech LLC (HET) and shipped between 02/14/2023 and 04/12/2024 are affected by this Alert Service Bulletin (ASB).
- (2) Aeroforce turbocharger P/N 465292-2, 465292-4, 465398-2, 466642-1, and 466642-2 serviced or overhauled between 02/14/2023 and 04/12/2024 are affected by this ASB.
- (3) Bolts labeled with P/N 400132-0301 in inventory received between 02/14/2023 and 04/12/2024 are affected by this ASB.

(a) Refer to Table-1 for aircraft/engine effectivity.

NOTE: Table-1 is for reference only and is not an all-inclusive list of aircraft/engine affected by this ASB. It is the responsibility of the owner/operator to verify whether an affected turbocharger may be installed.

(b) Serial numbers affected

- 1) Refer to Table-1 for turbocharger P/Ns and S/Ns affected.
- 2) Serial numbers found in Table-1 were shipped from HET only. Does not include serial numbers shipped from service facilities outside of HET.

WARNING: DO NOT USE OBSOLETE OR OUTDATED INFORMATION.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. INFORMATION CONTAINED HEREIN 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 WWW.AEROFORCE.AERO FOR THE MOST RECENT REVISION LEVEL OF THIS ALERT SERVICE BULLETIN.

B. Concurrent Requirements

- (1) None

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C. Reason

- (1) Hartzell Engine Tech has discovered that turbine housing bolts of affected turbochargers may not meet material specifications.
 - (a) Use of bolts made from material that does not meet specifications could result in loss of power, cabin pressurization, and/or loss of engine exhaust gas containment.
 - (b) Loss of engine exhaust gas containment could result in increased risk of elevated levels of carbon monoxide in the cabin, heat related damage to under-cowl hardware, and/or fire.
- (2) This ASB is to advise the field of a potential condition and to supply inspection criteria to identify affected turbochargers.

D. Description

- (1) This Alert Service Bulletin provides Instructions for Continued Airworthiness (ICA).

E. Compliance

- (1) **PRIOR TO NEXT FLIGHT**, comply with Section 3, Accomplishment Instructions.
- (2) For turbochargers in stock, comply with Section 3.B., Nonconforming Bolt Identification.
- (3) For bolts in inventory, do **not** use. Immediately purge from stock. Return affected items to HET within 30 days from the original issue date of this ASB.

F. Approval

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

G. Manpower

- (1) Labor is negligible for identification and inspection when performed in conjunction with regularly scheduled maintenance required by the engine/aircraft manufacturer.
- (2) Up to four (4) hours labor required for removal, corrective action, and installation of the turbocharger.

H. References

- (1) Applicable aircraft POH or AFM.
- (2) Aircraft maintenance manual (as applicable).
- (3) Engine Service Instructions or maintenance manual (as applicable).
- (4) HET 400600-0000 *Turbocharger Maintenance and Overhaul Manual*, Rev. E or later FAA approved revision.

I. Other Publications Affected

- (1) None

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Turbocharger P/N Affected	Turbocharger S/N Affected	Aircraft/Engine Make	Aircraft/Engine Model
HET 465292-2	H-ACL00031 H-ACL00032 H-BCL00062 H-BCL00063	Textron Aviation Inc.	T182 S/N 1867716 and up, TR182 S/N R18200584 and up
Lycoming LW-16264	-		
HET 465292-4	-	Continental Aerospace Technologies Inc.	TSIO-520-T
Continental Aerospace Technologies 642518-4	-		
HET 465398-2	-	Lycoming Engines	TO-360-A1A6D, -C1A6D, -E1A6D, -F1A6D, LTO-360-A1A6D, -E1A6D
Lycoming LW-16254	-		
HET 466642-1	-	Continental Aerospace Technologies Inc.	TSIO-360-MB
Continental Aerospace Technologies 649151-1	-		
HET 466642-2	-	Continental Aerospace Technologies Inc.	TSIO-360-PB
Continental Aerospace Technologies 649151-2	-		

The Aircraft and engine models found in Table 1 are provided for reference only. The applicable aircraft/engine manufacturer's Type Certification information should be consulted as the official source.

Table-1 - Turbocharger P/N, S/N, and Aircraft/Engine Effectivity

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J. Weight and Balance

(1) No Change

2. Material Required

A. Bolt, Turbine Housing P/N 400132-0301. QTY, as required.

B. Lockplate, Turbine Side P/N 406909. QTY, as required.

C. Clamp, Turbine Housing P/N 406908-2. QTY, as required.

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 FUEL 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 ALERT SERVICE BULLETIN AND THE APPLICABLE AIRCRAFT, ENGINE AND/OR THE HET P/N 400600-000 MAINTENANCE AND OVERHAUL MANUAL. INFORMATION CONTAINED IN THESE MANUALS OR THIS ALERT SERVICE BULLETIN MAY BE SIGNIFICANTLY CHANGED FROM EARLIER REVISIONS. FAILURE TO COMPLY WITH THE 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 AEROFORCE WEBSITE (WWW.AEROFORCE.AERO) FOR THE MOST RECENT REVISION LEVEL OF THIS ALERT SERVICE BULLETIN.

CAUTION 2: DO NOT DEPEND ON THIS ALERT SERVICE BULLETIN FOR GAINING ACCESS TO THE ENGINE OR TURBOCHARGER. 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. Turbocharger Identification

- (1) If positive identification of the turbocharger part number can be made through the engine or aircraft documentation, and the turbocharger **is** affected per 1.A, continue to 3.B., Nonconforming Bolt Identification. If the turbocharger is **not** affected, continue to 3.E.(2), Maintenance Record.
- (2) If positive identification cannot be made through engine or aircraft documentation, gain access and locate the data tag on the turbocharger assembly to verify effectivity.
 - (a) If the unit **is** affected, continue to section 3.B., Nonconforming Bolt Identification.
 - (b) If the unit is **not** affected, install any components that were removed to gain access in accordance with the latest engine/airframe service instructions or maintenance manual. Continue to 3.E.(2), Maintenance Record.

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B. Nonconforming Bolt Identification

- (1) Gain access to the turbocharger in accordance with the latest engine/airframe service instructions or maintenance manual.
- (2) Locate the six turbine housing bolts (1) and inspect the bolts against Figure-1.
 - (a) A nonconforming bolt is labeled with the raised letters NY.
 - 1) If one or more of the six bolts **are** affected, continue to section 3.C., Corrective Action.
 - 2) If no bolts are affected, install any components that were removed to gain access in accordance with the latest engine/airframe service instructions or maintenance manual. Continue to 3.E., Maintenance Record.

C. Corrective Action

- (1) Replace the affected bolt (1), adjacent bolt (2), and lockplate (3) as a set. Refer to Section 2.A. Materials Required. See Figure-2 for illustration.

CAUTION: TO PREVENT DISORIENTATION (ROTATION) OF THE TURBINE HOUSING, REPLACE BOLTS (1 & 2) AND LOCKPLATE (3) ONE SET AT A TIME.

(2) Procedure

- (a) Bend lockplate (3) tabs down at location of affected bolt (1) and adjacent bolt (2).
- (b) Remove the affected bolt (1) and the adjacent bolt (2) securing the clamp (4) and lockplate (3). Discard the lockplate (3) and bolts (1 & 2).

NOTE: The clamp (4) may be reused provided it is in a serviceable condition, e.g., no severe corrosion or elongated holes.

- (c) Coat the threads of new bolts (1 & 2) with MRO Solution 2000 copper anti-seize (MRO Solutions L.L.C., Niles, IL. - previously Fel-Pro high-temperature compound C5A), or equivalent.
- (d) Install clamp (4), a new lockplate (3) and new bolts (1 & 2).

NOTE: Install any engine/airframe bracket removed in accordance with applicable engine/airframe manual and service instructions.

- (e) Torque new bolts (1 & 2) to 100-130 lbf-in (11.30-14.69 Nm).
- (f) Bend lockplate tabs up at new bolt (1 & 2) locations. Continue to 3.D, Return to Service.

D. Return to Service

- (1) Perform the recommended turbocharger system set up and functional tests in accordance with the appropriate aircraft maintenance manual, engine service instructions, and operational tests in the AFM or POH.

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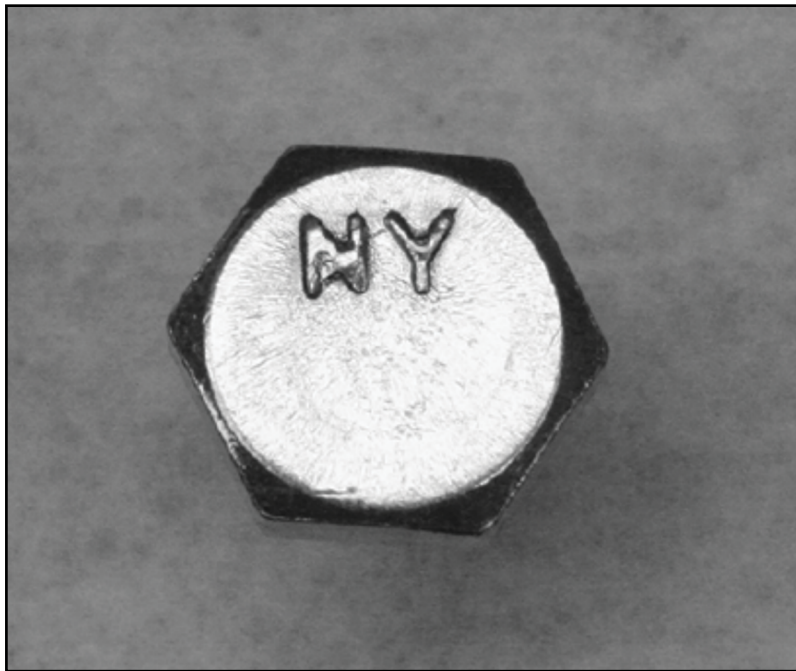


Figure-1 - Nonconforming Bolt

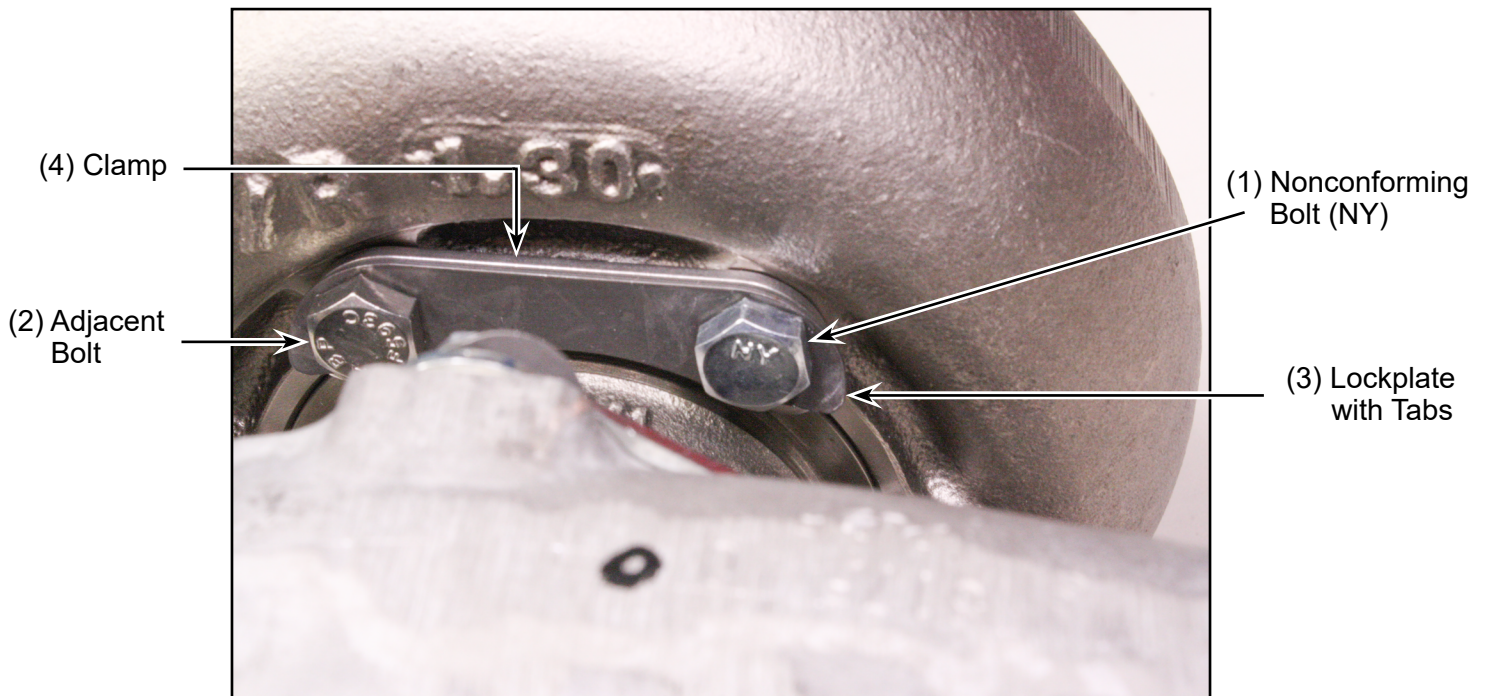


Figure-2 - Bolt Pair and Lockplate Location - Typical

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E. Maintenance Record

- (1) It is requested that affected customers contact HET Product Support to report when nonconforming bolts were identified and replaced.
- (2) For terminating action, make an engine logbook entry to indicate compliance with this Alert Service Bulletin.

4. Contact Information

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

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

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

ALERT SERVICE BULLETIN APPENDIX

ALERT SERVICE BULLETIN No. 213

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1. Eligibility:

- A. Turbocharger models listed in Table 1 of Alert Service Bulletin (ASB) 213 shipped by Hartzell Engine Tech LLC (HET) between 02/14/2023 and 04/12/2024 are affected.
- B. Turbocharger P/Ns, S/Ns, and aircraft/engine models affected are found in Table-1 of ASB 213 .

2. Commercial Assistance Program:

The following will be provided with the submission of a completed ASB 213 Claim Form, copies of invoices showing breakdown of material and 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 No. 213.**

- A. Required material listed in Section 2 of ASB 213.
- B. Labor for inspection, removal, & installation of an affected turbocharger assembly will be paid at a shop rate of \$85 per hour, not to exceed US\$340 per affected Turbocharger.
 - (1) Up to four (4) man hours of labor are needed for removal of an affected turbocharger, bolt replacement, and installation of the turbocharger assembly.

3. Commercial Assistance ADMINISTRATION:

- A. Complete the ASB 213 Claim Form attached to this appendix.
 - (1) Mail, e-mail, or fax the ASB 213 Claim Form to the attention of Product Support as indicated on the ASB Claim Form.
- B. Upon receipt of the ASB Claim Form, Hartzell Engine Tech LLC will:
 - (1) Ship the required material in accordance with section 2 of ASB 213 to the service provider indicated.
 - (2) The service provider must return proof of service within thirty (30) days or the service provider shall be invoiced for the HET supplied materials.
- C. For labor and parts listed in section 2:
 - (1) Aircraft/engine service facility or owner must submit an invoice up to the amount specified in section 2, copies of logbook entries, and a completed ASB 213 Claim Form for reimbursement (*May be a copy of the original form provided*).

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4. WARRANTY STATEMENT:

- A The sole warranty for the actions of ASB 213 are contained in the HET Limited Warranty Policy issued with the purchase of each new/overhauled turbocharger assemblies (see terms and conditions therein).
- B. Commercial assistance may apply as stated in this Appendix.
- C. Issuance of ASB 213 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.

5. CONTACT INFORMATION:

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

- (1) Phone +1.334.386.5400 (Option 2)
- (2) Fax +1.334.386.5410
- (3) E-mail at techsupport@Hartzell.aero
- (4) Address

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

ALERT SERVICE BULLETIN APPENDIX

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ASB 213 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: Turbocharger _____ Part Number: _____

Serial Number: _____ (Turbocharger) Date Removed: _____

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

For RMA Number

Send this ASB 213 Claim Form to:

Hartzell Engine Tech Product Support

Fax: +1.334.386.5410

E-mail: techsupport@hartzell.aero

RMA Number:

(write in HET assigned RMA number)

Hartzell Use Only - do not write below this line.

Warranty No: _____ Authorized by: _____