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Alert Service Bulletin

Alert Service Bulletin No. 098

200F & 202F Fuel Pump Leak Inspection

1. Planning Information

A. Effectivity

- (1) Fuelcraft 200F-5003, -5005, -5006, and 202F-1002 fuel pump assemblies manufactured new, or overhauled by Hartzell Engine Tech LLC (HET) between 4/17/18 and 4/19/2022 are affected by this Alert Service Bulletin (ASB).
 - (a) Fuel pump serial numbers H-VDN047FP thru H-ZCN082FP are affected by this ASB.
- (2) Fuel pump S/Ns overhauled by HET between 4/20/2022 and the effective date of this ASB are affected:

Fuel Pump P/Ns	Fuel Pump S/Ns	
200F-5003R	H-ZEN011FP	H-ZEN012FP
200F-5005R	H-ZEN005FP	H-ZEN006FP
200F-5006R	H-ZEN013FP	H-ZEN014FP

Table 1 - HET Overhauled FP Effectivity

- (3) Fuelcraft 200F-5003, -5005, -5006, and 202F-1002 fuel pump assemblies overhauled with washer assembly (1) P/N 070F-5002 sold by HET as a spare between 7/30/2018 and the effective date of this Alert Service bulletin are affected.
- (4) Table 2 contains fuel pump PN/engine effectivity.

NOTE: Table 2 is for reference only and is not an all-inclusive list of engines affected by this ASB. It is the responsibility of the owner/operator to verify whether an affected fuel pump may be installed.

WARNING: DO NOT USE OBSOLETE OR OUTDATED INFORMATION. PERFORM ALL INSPECTIONS OR WORK IN ACCORDANCE WITH THE MOST RECENT REVISION OF THIS SERVICE BULLETIN. INFORMATION CONTAINED HEREIN 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 WWW.FUELCRAFT.AERO FOR THE MOST RECENT REVISION LEVEL OF THIS SERVICE BULLETIN.

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B. Concurrent Requirements

- (1) None

C. Reason

- (1) Affected 200F and 202F series fuel pumps may contain a washer and O-ring assembly (1) where the sealing washer for the set screw (2) is not fully seated, potentially resulting in a leak.
 - (a) This condition may cause a fuel leak from the set screw (2) orifice and could result in an accumulation of flammable fuel in the engine cowl.

D. Description

- (1) This ASB provides Instructions for Continued Airworthiness (ICA).
- (2) This ASB is to advise the field of a known condition, supply inspection criteria to identify affected fuel pumps, and provide corrective actions for affected fuel pumps.

E. Compliance

- (1) Fuel Pumps with less than 100 hours time-in-service:
 - (a) Immediately perform a one-time inspection of the affected fuel pump in accordance with the Accomplishment Instructions of this ASB.
- (2) Fuel Pumps with more than 100 hours time-in-service:
 - (a) Compliance with this ASB is not required.
- (3) One-Time-Flight
 - (a) It is permissible to complete one (1) flight up to six (6) hours in duration to reach a qualified repair station capable of the Accomplishment Instructions of this ASB.
- (4) Compliance with Accomplishment Instructions of this ASB is the terminating action for 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 or by aircraft documentation review.
- (2) Up to one-half (.5) hour to perform a one-time inspection of the affected fuel pump.
- (3) Up to one and a half (1.5) hours labor required for removal and installation of the fuel pump.

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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 Fuel Pump Overhaul Manual*, P/N 200201-0000 Rev. K or latest FAA approved revision.

I. Other Publications Affected

- (1) None

J. Weight and Balance

- (1) No Change

Part Number HET Fuel Pump	Part Number Lycoming (Ref. Only)*	Part Number Lear Romec (Ref. Only)*	Lycoming Engine Installation Eligibility
200F-5003	62E22583	RG9080J6A/M	TIO-540- ABIAD, AAIAD, LTIO-540-U2A, -J2B
200F-5005	62E22584	RG9080J8A/M	LTIO-540- V2AD, TIO-540- W2A, -AHIA, - AJIA, IO-720- AIB
200F-5006	62E23190	-	TIO-540-AJ1A
202F-1002	62E22585, LW-19012	RG9570P1, RG9570P1/M	TIO-540-S1AD

* The information in Table 2 is provided for reference only. The applicable engine manufacturer's Type Certification information should be consulted as the official source.

Table 2 - Part Number/Engine Effectivity

2. Material Required

A. Fuel pump repair

- (1) One O-ring and washer assembly (1) P/N NAS1523-08E
- (2) One set screw (2) P/N 090F-0001
- (3) Safety wire, DMC Safe-T-Cable, .032 in. or .032 in. stainless safety wire
- (4) Chemplex 710 Lubricant or equivalent

B. Fuel pump replacement

- (1) One fuel pump of the same part number removed not affected by this ASB.

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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 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 SERVICE BULLETIN AND THE APPLICABLE AIRCRAFT, ENGINE AND/OR THE HET P/N 200201-0000 MAINTENANCE MANUAL. INFORMATION CONTAINED IN THESE MANUALS OR THIS SERVICE BULLETIN MAY BE SIGNIFICANTLY CHANGED FROM EARLIER REVISIONS. FAILURE TO COMPLY WITH THE 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 FUEL CRAFT WEBSITE (WWW.FUELCRAFT.AERO) FOR THE MOST RECENT REVISION OF THE 200201-0000 MANUAL.

CAUTION 2:

DO NOT DEPEND ON THIS SERVICE BULLETIN FOR GAINING ACCESS TO THE ENGINE OR FUEL PUMP. 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.

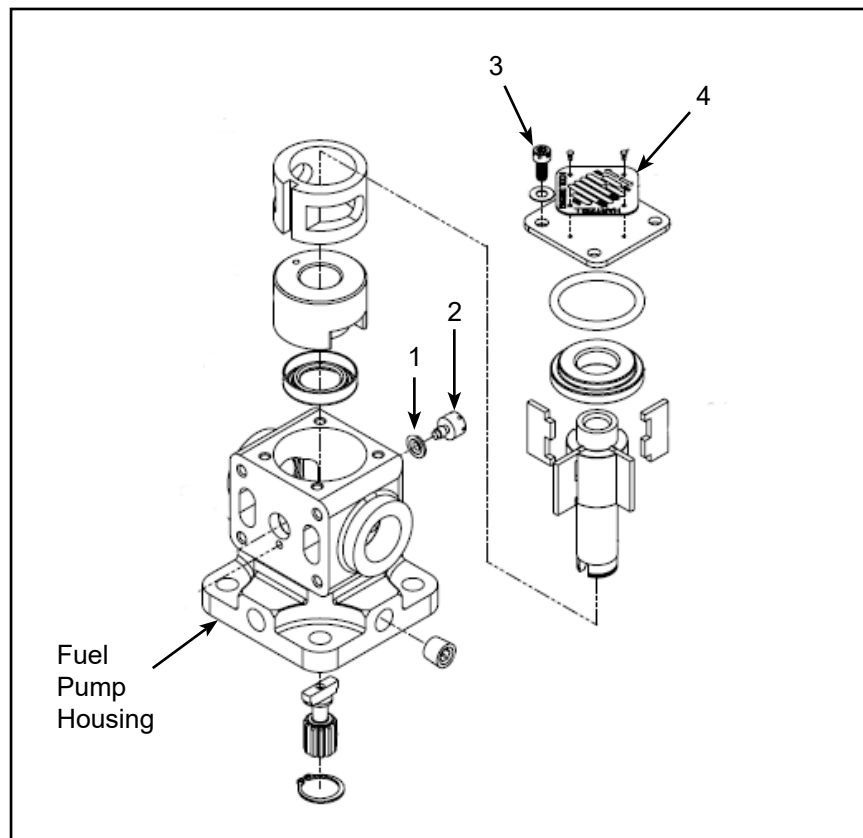


Figure 1 - Pump Housing

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A. Fuel Pump Identification

- (1) If positive identification of the fuel pump model and serial number can be made through the engine or aircraft documentation, and the fuel pump **is** affected per 1.A, continue to 3.B, Set Screw Inspection. If the fuel pump is **not** affected, continue to 3.E, Maintenance Record.
- (2) If positive identification cannot be made through engine or aircraft documentation, use engine/airframe service instructions or maintenance manual to gain access to the fuel pump to verify the fuel pump effectivity by inspecting the pump data tag (4).
 - (a) If the unit **is** affected, proceed to section 3.B., Set Screw Inspection.
 - (b) If the unit is **not** affected, install any components removed to gain access in accordance with the latest engine/airframe service instructions or maintenance manual. Continue to 3.E, Maintenance Record.

B. Set Screw Inspection

- (1) Perform the following inspection of the fuel pump set screw (2).
 - (a) Gain access to the fuel pump, remove cooling shroud, if required.
 - (b) Perform a detailed visual inspection of the set screw (2) for washer and O-ring assembly (1) displacement as shown in Figure 2. Inspect immediate and surrounding areas for signs of fuel leakage, such as blue staining.

NOTE: The washer (1) OD must rest within the perimeter of the spotface relief and must **NOT** bridge the perimeter of the spotface relief at any point. See Figures 3 & 4.

- 1) If indication of washer and O-ring assembly (1) displacement and evidence of a fuel leak is **not** found, install any components removed to gain access to the fuel pump in accordance with the latest engine/airframe service instructions or maintenance manual. Continue to 3.E., Maintenance Record.
- 2) If indication of washer and O-ring assembly (1) displacement and/or evidence of a fuel leak **is** found, continue to 3.C, Corrective Action.

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Figure 2 - Displaced Washer and O-ring Assembly

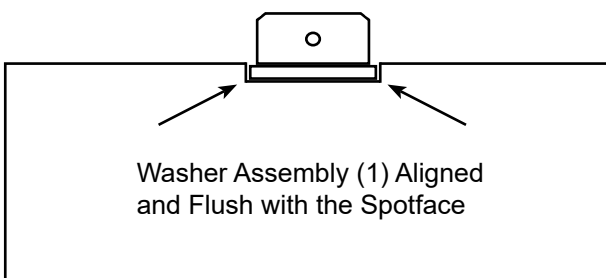


Figure 3 - **Acceptable** Set Screw and Washer Assembly Alignment

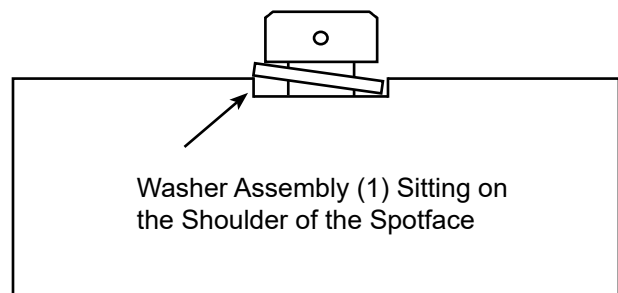


Figure 4 - **Non-Acceptable** Set Screw and Washer Assembly Alignment

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C. Corrective Action

(1) Fuel Pump Factory Repair

- (a) Forward the affected fuel pump to an approved HET service facility per the instructions contained in Appendix I, Commercial Assistance, found at the end of this Alert Service Bulletin.

NOTE: Retain all engine or aircraft supplied fittings from the fuel pump prior to return. **(HET CANNOT RETURN FITTINGS TO THE CUSTOMER.)**

- (b) Install factory repaired pump onto engine in accordance with applicable engine/airframe maintenance manual and service instructions. Continue to 3.D, Return to Service.

(2) Fuel Pump Field Repair

NOTE: Refer to the HET overhaul manual P/N 200201-0000 Rev. K or latest FAA approved revision for the following steps necessary to replace the set screw and washer assembly in the applicable model and part number fuel pump.

See 200201-0000 Section 3 for disassembly and Section 7 for installation.

- (a) Remove cooling shroud (if required) and fuel pump from engine in accordance with engine and airframe service instructions.
- (b) Take note of safety wire routing and then remove safety wire and discard. Remove the set screw and washer assembly from the fuel pump and discard.
- (c) Obtain a new set screw and washer assembly. See Section 2, Materials Required.
- (d) Apply Chemplex 710 to both sides of the washer and inner diameter. Carefully insert set screw into washer bore, ensuring no damage occurs to the washer elastomer.
- (e) Verify the liner indexing notch is centered with the threaded hole. A non-marring tool may be used to adjust the centering of the liner, taking care to avoid damage to the threaded hole.
- (f) Insert set screw into threaded hole and hand tighten until washer has made contact with housing spot face. Inspect to ensure washer edge is not overlapping spotface shoulder. If any resistance or bottoming out is observed during set screw installation, back out the set screw and inspect screw threads and housing threads for damage and inspect for liner alignment.
- (g) If installation is acceptable, torque set screw to 10-12 in-lbs.
- (h) Safety wire following the original pattern using .032 safety wire or Daniels .032 Safe-T- Cable.

(3) Fuel Pump Replacement

- (a) Replace the fuel pump with one not affected by this ASB in accordance with the engine airframe maintenance manual and service instructions and continue to 3.D, Return to Service.

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D. Return to Service

- (1) Perform the recommended fuel pump/fuel 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.
- (2) Inspect the fuel pump installation for security and leaks.
- (3) Clean area around and beneath the pump of fuel staining (blue-green tinted staining).

E. Maintenance Record

- (1) For terminating action, make an engine logbook entry to indicate compliance with this Service Bulletin.

4. 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@Hartzell.aero
- (4) Address

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

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1. ELIGIBILITY:

- (1) Fuelcraft 200F-5003, -5005, -5006, and 202F-1002 fuel pump assemblies manufactured new, or overhauled by Hartzell Engine Tech LLC (HET) between 4/17/18 and 4/19/2022.
- (2) Fuelcraft 200F-5003, -5005, -5006, and 202F-1002 fuel pump assemblies overhauled with washer assembly (1) P/N 070F-5002 sold by HET as a spare between 7/30/2018 and the effective date of Alert Service Bulletin 098.

2. COMMERCIAL ASSISTANCE PROGRAM:

The following will be provided with the submission of a completed Alert Service Bulletin 098 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 098.**

A. Initial Inspection

- (1) One half (0.5) hour labor to gain access to the pump and perform inspection paid at a shop rate of up to \$85 per hour.

B. Pump Repair or Replacement

- (1) For field replacement of the rotor in an eligible fuel pump (refer to Appendix section 6 for a listing of potential service facilities), HET will provide:
 - (a) Materials Required can be found in ASB 098 section 2.
 - (b) Labor for Corrective Action for affected fuel pumps will be paid at a shop rate of \$85 per hour up to the amount specified below:
 - 1) Up to one and a half (1.5) hours labor for removal and installation of the fuel pump.
- (2) If returning an eligible fuel pump, HET will repair and return the unit.
 - (a) Customer **must** obtain an **RMA approval number** from HET **before** returning the fuel pump to HET for factory repair.
 - (b) Up to one and a half (1.5) hours labor for removal and installation of the fuel pump.

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3. COMMERCIAL ASSISTANCE ADMINISTRATION:

- A. Complete the Alert Service Bulletin Claim Form attached to this appendix.
 - (1) Mail, e-mail, or fax the Alert Service Bulletin 098 Claim Form to the attention of Product Support as indicated on the Claim Form.
- B. Upon receipt of the Alert Service Bulletin Claim Form, HET will:
 - (1) If required by the Alert Service Bulletin, ship the material required by section 2.A and 2.B, 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 repair and removal/reinstallation charges:
 - (1) Aircraft/engine service facility must submit an invoice up to the amount specified in section 2, copies of logbook entries, and a completed Alert Service Bulletin 098 Claim Form for reimbursement.

4. WARRANTY STATEMENT:

- A. The sole warranty for the actions of Alert Service Bulletin 098 are contained in the HET Limited Warranty Policy issued with the purchase of each new/overhauled fuel pumps (see terms and conditions therein).
- B. Commercial assistance may apply as stated in this Appendix.
- C. Issuance of Alert Service Bulletin 098 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 fuel system.

5. CONTACT INFORMATION:

- A. Contact **HET Product Support** for all communications regarding the technical content of Alert Service Bulletin 098.
 - (1) Phone +1.334.386.5400 (Option 2)
 - (2) Fax +1.334.386.5450.
 - (3) E-mail at techsupport@Hartzell.aero
 - (4) Address
 - Hartzell Engine Tech LLC
 - 2900 Selma Highway,
 - Montgomery, AL 36108
 - USA

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6. SERVICE FACILITIES:

- A. The following service facilities have the capability of servicing the HET P/N 200F and 202F fuel pumps and may provide a method of compliance with this Alert Service Bulletin.

Aero Recip

540 Marjorie Street
Winnipeg, Manitoba R3H 0S9
CANADA
Phone: +1.800.561.5541
Email: info@aerorecip.com

Nicholson McLaren

12 Ivanhoe Road
Hogwood Industrial Estate
WOKINGHAM Berkshire RG40 4QQ
United Kingdom
Phone: +44.(0)118.973.8000
Email: aviation.sales@n-mclaren.co.uk

Quality Aircraft Accessories, Inc.

5746 Apache St.
Tulsa, OK 74115
Phone: 877.833.6948
Email: sales@qaa.com

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ASB 098 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: _____

Payment Information

Same as Owner: Same as Facility: Other: _____ Name
_____ Address

Component Information

Nomenclature: _____ Part Number: _____
Serial Number: _____ (Fuel Pump) Date Removed: _____
Part Time in Service: _____ (Fuel Pump) Original Date Installed: _____

For RMA Number

Send this ASB 098 Claim Form to:
Hartzell Engine Tech Product Support
Fax: +1.334.386.5450
E-mail: techsupport@hartzell.aero

Hartzell Use Only - do not write below this line.

RMA Number:

(write in HET assigned RMA number)

Warranty No: _____ Authorized by: _____

24 May 2023