

**CONTINENTAL MOTORS® AIRCRAFT ENGINE
CRITICAL SERVICE BULLETIN**

**CATEGORY 2
CSB13-1B**

COMPLIANCE NECESSARY TO MAINTAIN SAFETY

**Supersedes CSB13-1A
TECHNICAL PORTIONS
FAA APPROVED**

SUBJECT: Replacement of Part No. 640560 Set Screws
Installed on Part Nos. 642100-X (X=1 through
6 & 8), 646292-1, 646663-1 and R-642100-3,
4, 5 and 6 Fuel Pressure Regulators

PURPOSE: To remove applicable Set Screws from service.

COMPLIANCE: Within next 10 hours of engine operation, or next 100 Hour/Annual
Inspection, whichever comes first.

MODELS

AFFECTED: New, Rebuilt and Overhauled Continental Motors (CM) GTSIO-520-D, H, L, M;
TSIO-520-AE, AF, CE, J, JB, K, KB, L, M, N, NB, R; and TSIOL-550-A
aviation gasoline (AvGas) engines

Background Information

Continental Motors (CM) is issuing this bulletin to notify owners and/or operators of the requirement to replace certain part number 640560 Set Screws (Figure 1) in new part number 646663-1, 646292-1, and 642100-1, -2, -3, -4, -5, -6, -8 and rebuilt part number R-642100-3, -4, -5 and -6 fuel pressure regulators shipped from the factory between June 11, 2012 and February 26, 2013. It has been discovered during fuel system setup that some adjustment screws (Set Screws) on the fuel pressure regulators may exhibit hydrogen embrittlement, which may cause the Set Screw to fracture in service. Therefore: CM requires the replacement of all Set Screws installed on fuel pressure regulators and engines that were shipped from the factory between June 11, 2012 and February 26, 2013, within the next 10 hours of operation.

WARNING

**To Prevent the Possibility of Serious Bodily Injury or Death,
Verify the following conditions prior to performing any
Inspection, Repair or Movement of the Propeller:**

Aircraft Master Power and Magneto Switches OFF

Fuel Selector Valve..... OFF

Throttle Position.....CLOSED

Mixture Control.....IDLE/CUTOFF

**Set Brakes and Place Wheel Chocks Forward and Aft of the
Main Landing Gear Tires; Install Aircraft Tie-Downs and
Verify Cabin Door Latch is OPEN. Do Not Stand or Place
Equipment in the Arc of the Propeller.**

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Component Removal and Replacement Instructions

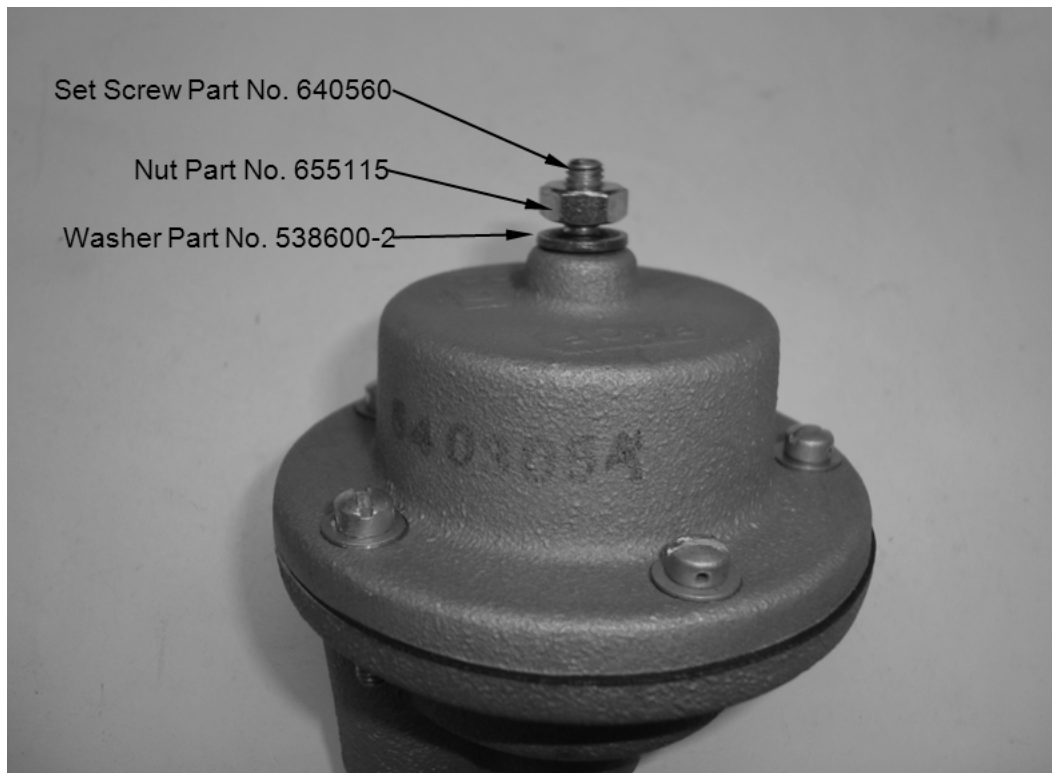


Figure 1. Fuel Regulator Set Screw Installation

1. Remove aircraft cowling to gain access to the fuel pressure regulator.
2. Inspect the fuel pressure regulator and remove the jam nut (part number 655115).
3. Determine whether the Set Screw is fractured:

If the Set Screw is fractured within the fuel pressure regulator body:

1. Contact the CM Customer Service Department and order a new fuel pressure regulator (the old pressure regulator will need to be returned to the CM Factory Service Center using the “Fuel Pressure Regulator Return Instructions” found on page 4 of this bulletin).
2. Replace the old fuel pressure regulator with the new fuel pressure regulator following the approved aircraft maintenance manuals.
3. Perform a fuel system leak and calibration check in accordance with the aircraft’s Instructions for Continued Airworthiness and the latest revision of M-0, Standard Practice Maintenance Manual.
4. Reinstall the aircraft cowling.
5. Complete the Compliance Form (available on-line); submit the form along with a copy of the work invoice, original purchase receipt for the part (shipped from factory between June 11, 2012 and February 26, 2013) and a copy of the repair agency’s W-9 to CM Customer Service Department (251-436-8270) for reimbursement.
6. Fuel pressure regulators shipped from the factory after 8 March 2013 shall be identified either by a serial number or the presence of “CSB13-1” on the top of the

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regulator housing. Note the serial number or the presence of the vibroetched marking of “CSB13-1” indicating compliance with these instructions and update the aircraft records to reflect compliance with this bulletin.

If the Set Screw is not fractured or enough of the Set Screw is exposed to permit its removal using pliers:

1. Contact the CM Service Department and order a new Set Screw (part number 640560), washer (part number 538600-2), and nut (part number 655115).
2. If the Set Screw is not fractured, note the adjustment of the Set Screw height (count exposed threads) to use as a reference for installation of the new Set Screw.
3. Using a 3/32” hex key (allen) wrench (or pliers if fractured), turn the Set Screw counter-clockwise to remove it from the regulator. Discard the old Set Screw (part number 640560), washer (part number 538600-2), and nut (part number 655115).
4. Install a new Set Screw (part number 640560), with washer (part number 538600-2), and nut (part number 655115).
5. Adjust the new Set Screw to the height noted in Step 2 of this paragraph, if applicable. Securely hold the Set Screw in the preliminary adjusted position and torque the jam nut to 21-25 inch-pounds. Use caution not to exceed the specified torque limit.
6. Perform a fuel system leak and calibration check in accordance with the aircraft’s Instructions for Continued Airworthiness and the latest revision of M-0, Standard Practice Maintenance Manual.
7. Reinstall the aircraft cowling.
8. Complete the Compliance Form (available online); submit the form along with a copy of the work invoice, original purchase receipt for the part (shipped from factory between June 11, 2012 and February 26, 2013) and a copy of the repair agency’s W-9 to CM Customer Service Department (251-436-8270) for reimbursement.
9. Vibroetch “CSB13-1” on the top (Figure 2) of the fuel pressure regulator and update the aircraft records to reflect compliance with this bulletin.



Figure 2. Example of Compliance Identification Marking

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Fuel Pressure Regulator Return Instructions

As noted above, if the Set Screw is found fractured at a point which makes its removal from the fuel pressure regulator body impossible, order a new fuel pressure regulator from CM's Customer Service Department and return the old fuel pressure regulator to the address below:

Continental Motors Inc.
C/O **CSB13-1**
8600 Country Road 32
Fairhope, Alabama 36532

WARRANTY

The actions required to comply with this bulletin are covered by the applicable engine or part warranty policy in effect at the time the engine and/or part was purchased. Continental Motors reserves the right to request copies of invoices and maintenance records to verify warranty applicability.

NOTE: Visit the Continental Motors web site at www.continentalmotors.aero to obtain copies of CM Warranty Policies.

Affected engines and parts can be determined by reviewing the aircraft/engine records. Complete the required compliance form. **Submit Compliance form, along with a copy of the work invoice, original purchase receipt for the part (shipped from factory between June 11, 2012 and February 26, 2013) and a copy of the repair agency's W-9, immediately upon completion for reimbursement.**

Labor allowance: **5 hours** at published shop rate.

Submit completed compliance form via postal service or fax to the following:

Continental Motors Inc.
C/O **CSB13-1**
P.O. Box 90
Mobile, AL 36601
or Fax to 251-436-8270

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