

**TITLE**

STABILIZERS - VERTICAL STABILIZER SIDE PLATE BUSHING REPLACEMENT

**EFFECTIVITY****MODEL**

700 (Citation Longitude)

**SERIAL NUMBERS**

-0008 thru -0020 and -0023

The equivalent of this service document has been incorporated on production airplanes -0001 thru -0007, -0021, -0022, -0024 and On.

**NOTE:** Textron Aviation considers this modification to the vertical stabilizer side plate assembly bushings as a critical task. Wichita Textron Aviation Service Center is the only facility that can complete this service document.

**REASON**

To correct improperly installed bushings at the manufacturer.

**DESCRIPTION**

This service document provides parts and instructions to replace the vertical stabilizer side plate assembly bushings.

**COMPLIANCE**

**MANDATORY.** This service document must be accomplished within 800 flight hours or 18 months from the date of receipt, whichever occurs first.

A service document published by Textron Aviation may be recorded as *completed* in an aircraft log only when the following requirements are satisfied:

- 1) The mechanic must complete all of the instructions in the service document, including the intent therein.
- 2) The mechanic must correctly use and install all applicable parts supplied with the service document kit. Only with written authorization from Textron Aviation can substitute parts or rebuilt parts be used to replace new parts.
- 3) The mechanic or airplane owner must use the technical data in the service document only as approved and published.
- 4) The mechanic or airplane owner must apply the information in the service document only to aircraft serial numbers identified in the *Effectivity* section of the document.
- 5) The mechanic or airplane owner must use maintenance practices that are identified as acceptable standard practices in the aviation industry and governmental regulations.

No individual or corporate organization other than Textron Aviation is authorized to make or apply any changes to a Textron Aviation-issued service document or flight manual supplement without prior written consent from Textron Aviation.

Textron Aviation is not responsible for the quality of maintenance performed to comply with this document, unless the maintenance is accomplished at a Textron Aviation-owned Service Center.

**FLIGHT CREW OPERATIONS**

No Changes

July 2, 2020

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Textron Aviation Customer Service, P.O. Box 7706, Wichita, KS 67277, U.S.A. 1-316-517-5800

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**CONSUMABLE MATERIAL**

You must use the consumable materials that follow, or their equivalent, to complete this service document.

NAME	NUMBER	MANUFACTURER	USE
Isopropyl Alcohol	Locally Obtained		To clean parts.
Alodine	Locally Obtained		For corrosion protection.

**TOOLING**

Order the tools listed below.

NAME	NUMBER	MANUFACTURER	USE
OHE Tooling	PR00043311		To remove and install the horizontal stabilizer.
KD Tools Drive-M-All Bushing Remover & Inserting Set 3142	3142 or equivalent	KD Tools	To remove the Vertical Side Plate Bushings.
Force Mate Puller Unit	MB-30 or equivalent	Fatigue Technologies	To install the Vertical Side Plate Bushings.
Force Mate Chuck Assembly	MB-CA-11 or equivalent	Fatigue Technologies	To install the Vertical Side Plate Bushings.
Force Mate Power Pak	FT-20 or equivalent	Fatigue Technologies	To install the Vertical Side Plate Bushings.
Force Mate Mandrel	FMM-635-25010 -A or equivalent	Fatigue Technologies	To install the Vertical Side Plate Bushings.
Force Mate Mandrel Gage	FMG-635-30010 -A or equivalent	Fatigue Technologies	To install the Vertical Side Plate Bushings.
Force Mate Jaw	FMJ-635-55010 -A or equivalent	Fatigue Technologies	To install the Vertical Side Plate Bushings.
Force Mate Nosecap	FMC-M or equivalent	Fatigue Technologies	To install the Vertical Side Plate Bushings.
Force Mate Combination Gage	FCG-635-65010 -A or equivalent	Fatigue Technologies	To install the Vertical Side Plate Bushings.

**REFERENCES**

Cessna Model 700 Maintenance Manual

Citation Standard Practices Manual

Cessna Material and Process Specification - Cold Expansion of Holes Using Split Sleeve System CSMP026

Cessna Material and Process Specification Sealing - Pressure, Weather and Fuel, CSNP035

Cessna Material and Process Specification - Manual Cleaning, Solvent Application CSFS039

Engineering Drawing 7431571

Engineering Drawing 7430501

**PUBLICATIONS AFFECTED**

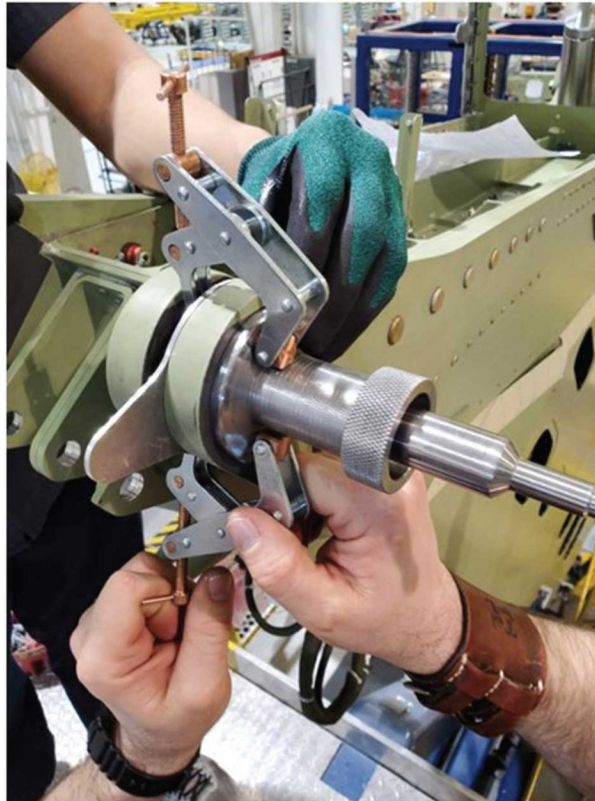
None

**ACCOMPLISHMENT INSTRUCTIONS**

1. Prepare the airplane for maintenance.
  - A. Make sure that the airplane is electrically grounded.
  - B. Make sure that all switches are in the OFF/NORM position.
  - C. Disconnect electrical power from the airplane.
    - (1) Disconnect external electrical power.
    - (2) Disconnect the airplane batteries.
  - D. Attach maintenance warning tags to the batteries and external power receptacle that have **"DO NOT CONNECT ELECTRICAL POWER - MAINTENANCE IN PROGRESS"** written on them.
2. Do the steps that follow to remove the horizontal stabilizer.
  - A. Remove the bullet fairing. (Refer to Model 700 Maintenance Manual Chapter 55, Bullet Fairing - Removal/Installation.)
  - B. Use OHE Tooling PR00043311 to secure the horizontal stabilizer and support it in place.
  - C. Remove horizontal stabilizer access panels 351AL and 352AR to get access to the left and right Energy Storage Bank (ESB). (Refer to the Model 700 Maintenance Manual, Chapter 6, Horizontal Stabilizer Access Panel - Removal/Installation.)
  - D. Disconnect the electrical connectors PH005 from the left ESB and PH006 from the right ESB and install protective caps on all connections. (Refer to the Model 700 Maintenance Manual, Chapter 30, Energy Storage Bank - Removal/Installation.)
  - E. Remove and discard the tie straps that attach the wire harness for the electrical connectors PH005 and PH006, remove and stow the wire harness from the horizontal stabilizer.
  - F. Disconnect electrical connectors PV031 and PV032 from the left and right elevator position sensors and install protective caps on all connections. (Refer to the Model 700 Maintenance Manual, Chapter 27, Elevator Surface Position Sensor - Removal/Installation.)
  - G. Remove and discard the tie straps that attach the wire harness for the electrical connectors PV031 and PV032, remove and stow the wire harness from the horizontal stabilizer.
  - H. Disconnect the left and right bonding jumpers from the vertical stabilizer and keep the fasteners for later use. (Refer to the Model 700 Maintenance Manual, Chapter 55, Horizontal Stabilizer Assembly - Removal/Installation.)
  - I. Disconnect the horizontal trim actuator. (Refer to the Model 700 Maintenance Manual, Chapter 27, Horizontal Stabilizer Trim Actuator (HSTA) - Removal/Installation.)
  - J. Disconnect the elevator control pushrods. (Refer to the Model 700 Maintenance Manual, Chapter 27, Aft Elevator Control Pushrod - Removal/Installation.)
  - K. Disconnect the scissor link assembly. (Refer to the Model 700 Maintenance Manual, Chapter 27, Scissor Link Assembly- Removal/Installation.)
  - L. Remove the 6931201-12 Bolts, MS17826-16 Nuts and NAS1149F1690P Washers that attach the aft end of the horizontal stabilizer on to the vertical stabilizer and keep for later use. (Refer to the Model 700 Maintenance Manual, Chapter 55, Horizontal Stabilizer Assembly - Removal/Installation.)
  - M. Use the OHE Tooling to carefully remove the horizontal stabilizer off the aircraft high enough to access the vertical stabilizer side plate assembly bushings S3607-7.
3. Remove the vertical stabilizer side plate assembly bushings.
  - A. Use the KD 3142 Bushing Removal Tool or equivalent to remove the S3607-7 Bushings.
  - B. Clean the vertical stabilizer side plate assembly hole with isopropyl alcohol per CSFS039.

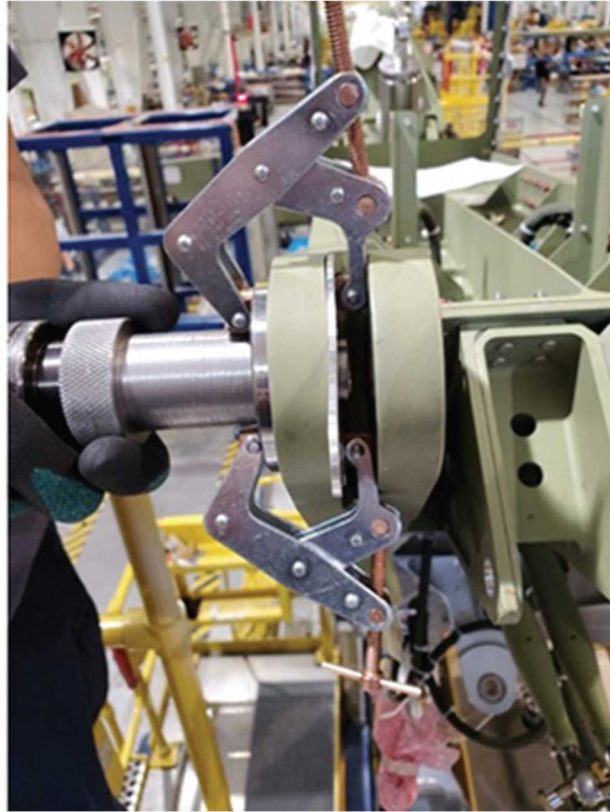
- C. Measure the hole to make sure it is still within tolerance  $1.1878 \pm 0.0010$  inches ( $3.0170 \pm 0.00254$  cm) per engineering drawing 7431571.
  - D. Do an eddy current inspection of the vertical stabilizer side plate assembly hole. (Refer to the Model 700 Nondestructive Testing Manual or CSMP026).
- NOTE:** If hole is damaged or out of tolerance, notify Engineering for further disposition.
- E. Apply corrosion protection alodine per CSMP026.
4. Do the steps that follow to install the vertical stabilizer side plate assembly bushings S3607-7.
- A. Put the bushing onto the mandrel.
  - B. Insert mandrel/bushing assembly through the starting hole.
  - C. Place the pulling fixture over the mandrel and clamp it and the protective plate on the opposite side of the vertical stabilizer side plate assembly in place.

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- D. Insert the thinner bottom tip of mandrel into hydraulic puller unit while the nose cap is held flush to the work-piece.

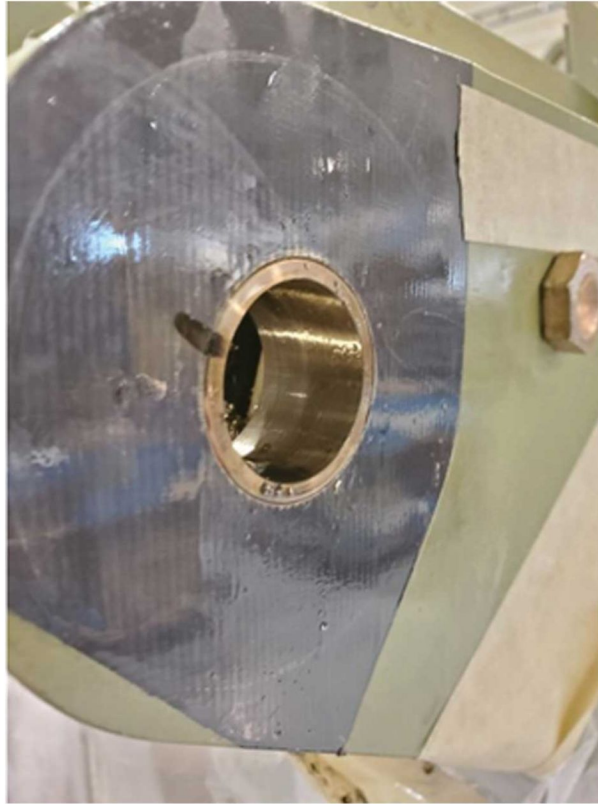
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**NOTE:** (Make sure the nose cap is held flush to work-piece when activating the hydraulic puller unit.)

- E. Install the bushing per CSMP026 (ForceMate process).
  - F. Activate puller unit.
  - G. Remove the puller unit from the mandrel.
  - H. Remove the clamps, pulling fixture, mandrel and backing plate from the vertical side plate assembly.
  - I. Visually inspect the bushing for proper installation.
5. Do the steps that follow to ream the bushing to the correct size.
- A. Mark the end of the bushing and vertical side plate with an indelible ink marker to show orientation.

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- B. Install the reamer fixture tool.
- C. Put a plastic barrier around the work area to prevent foreign object debris from causing damage to the parts and surfaces around the work area.
- D. Ream bushing to required final diameter 1.0000 +0.0015 -0.0000 inches (2.54 +0.00381 - 0.0000 cm) per engineering drawing 7431571.



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- (1) Make sure the bushing does not rotate when reaming.
- E. Use isopropyl alcohol with a dry wipe to clean and remove excess oil and grease per CSFS039.
- F. Apply a fillet seal with type X, class B sealant to the bushing edge per CSNP035.
- G. Clean off excess sealant.

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- H. Repeat steps 3 thru 5 for the opposite side vertical side plate assembly.
6. Do the steps that follow to install the horizontal stabilizer.
- A. Use the OHE Tooling to move the Horizontal Stabilizer into position above the Vertical Stabilizer.
  - B. Install the 6931201-12 bolts, NAS1149F1690P washers and MS17826-16 nuts that attach the aft end of the horizontal stabilizer on to the aft end of the vertical stabilizer at the pivot point. (Refer to the Model 700 Maintenance Manual, Chapter 55, Horizontal Stabilizer Assembly - Removal/Installation.)
  - C. Secure the 6931201-12 bolts, and MS17826-16 nuts with safety wire. (Refer to the Citation Standard Practices Manual, Chapter 20, Safetying - Maintenance Practices.)
  - D. Connect the Scissor Link Assembly. (Refer to the Model 700 Maintenance Manual, Chapter 27, Scissor Link Assembly- Removal/Installation.)
  - E. Connect the Horizontal Trim Actuator. (Refer to the Model 700 Maintenance Manual, Chapter 27, Horizontal Stabilizer Trim Actuator (HSTA) - Removal/Installation.)
  - F. Connect the Elevator Control Pushrod. (Refer to the Model 700 Maintenance Manual, Chapter 27, Aft Elevator Control Pushrod - Removal/Installation.)
  - G. Remove the OHE Tooling from the Horizontal Stabilizer.
  - H. Connect the left and right bonding jumpers to the vertical stabilizer and install the fasteners. (Refer to the Model 700 Maintenance Manual Chapter 55, Horizontal Stabilizer Assembly - Removal/Installation.)
  - I. Install and secure the wire harness for the electrical connectors PV031 to the left elevator position sensor and PV032 to the right elevator position sensor. (Refer to the Model 700 Electrical Wiring Interconnect System Manual, Chapter 20, Wire Harness Installation - Maintenance Practices.)
  - J. Connect electrical connector PV031 to the left elevator position sensor and electrical connector PV032 to the right position sensor.



- K. Install and secure the wire harness for the electrical connectors PH005 to the left ESB and PH006 to the right ESB. (Refer to the Model 700 Electrical Wiring Interconnect System Manual, Chapter 20, Wire Harness Installation - Maintenance Practices.)
- L. Connect electrical connector PH005 to the left ESB and electrical connector PH006 to the right ESB.
- M. Do an electrical bond check (Type II) between the horizontal stabilizer pivot assembly and the vertical stabilizer. (Refer to the Model 700 Electrical Wiring Interconnect System Manual, Chapter 20, Electrical Bonding and Grounding - Maintenance Practices.)
- N. Install horizontal stabilizer access panels 351AL and 352AR to get access to the left and right Energy Storage Bank (ESB). (Refer to the Model 700 Maintenance Manual, Chapter 6, Horizontal Stabilizer Access Panel - Removal/Installation.)
- O. Install the Bullet Fairing. (Refer to the Model 700 Maintenance Manual Chapter 55, Bullet Fairing - Removal/Installation.)
7. Remove the maintenance warning tags and connect the airplane batteries.

Make an entry in the airplane logbook that states compliance and method of compliance with this service document.

**NOTE:** Textron Aviation recommends that compliance with all service documents is reported to a maintenance tracking system provider.

- Complete a record of compliance. (Maintenance Transaction Report, Log Book Entry, or other record of compliance.)
- Put a copy of the completed record of compliance in the airplane logbook.
- Send a copy of the completed record of compliance to the maintenance tracking system provider used.

#### MATERIAL INFORMATION

Order the parts below to install this modification.

NEW P/N	QUAN-TITY	KEY WORD	OLD P/N	INSTRUCTIONS/ DISPOSITION
S3607-7	2	Bushing	S3607-7	Discard
S3607-7A	2	Oversize Bushing (If Required)	S3607-7	Discard
S3607-7B	2	Oversize Bushing (If Required)	S3607-7	Discard
SL700-55-01		Instructions		

\* Please contact Textron Aviation Parts Distribution for current cost and availability of parts listed in this service document. Phone at 1-800-835-4000 (Domestic) or 1-316-517-5603 (International). Send email to: [parts@txtav.com](mailto:parts@txtav.com).

Based on availability and lead times, parts may require advanced scheduling.



**TITLE**

STABILIZERS - VERTICAL STABILIZER SIDE PLATE BUSHING REPLACEMENT

**TO:**

Cessna Model 700 Aircraft Owner

**REASON**

To correct improperly installed bushings at the manufacturer.

**COMPLIANCE**

MANDATORY. This service document must be accomplished within 800 flight hours or 18 months from the date of receipt, whichever occurs first.

**LABOR HOURS**

WORK PHASE	LABOR-HOURS
Modification	190.0

**MATERIAL AVAILABILITY**

PART NUMBER	AVAILABILITY	COST
S3607-7	*	*
S3607-7A	If Required	*
S3607-7B	If Required	*

\* Please contact Textron Aviation Parts Distribution for current cost and availability of parts listed in this service document. Phone at 1-800-835-4000 (Domestic) or 1-316-517-5603 (International). Send email to: [parts@txtav.com](mailto:parts@txtav.com).

Based on availability and lead times, parts may require advanced scheduling.

**WARRANTY**

Eligible airplanes exhibiting conditions described in this service document may demonstrate improved operation by incorporation of the work described herein. This service document is to be accomplished at the *discretion* of the owner. Eligible airplanes may qualify for parts and labor coverage to the extent noted in the *Labor Hours* and *Material Availability* sections of this document.

This service document is *mandatory*. Eligible airplanes may qualify for parts and labor coverage to the extent noted in the *Labor Hours* and *Material Availability* sections of this document.

Original Issue - July 2, 2020  
Revision 1 - July 27, 2020

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This document contains technical data and is subject to U.S. export regulations. This information has been exported from the United States in accordance with export administration regulations. Diversion contrary to U.S. law is prohibited. ECCN: 9E991

**Eligibility:** All Airplanes identified within the serial number effectivity of this service document.

**Parts Coverage:** Textron Aviation-owned and Textron Aviation-authorized Service Facilities, operators, or other maintenance facilities may submit a claim for the parts required to accomplish this service document as defined in the *Material Availability* section of this document.

**Labor Coverage:** Textron Aviation-owned and Textron Aviation-authorized Service Facilities rated to perform maintenance on the specific model of Cessna Aircraft may submit a claim for the labor necessary to accomplish this service document as defined in the *Labor Hours* section of this document.

**Credit Application:** After this service document has been accomplished, a claim must be submitted to Textron Aviation within 30 days of the service document completion. Claims for compliance of this service document are to be filed as a W4 type claim.

Please submit your claim form online at [ww2.txtav.com/Parts](http://ww2.txtav.com/Parts) or email the completed Textron Aviation Claim Form to [warranty@txtav.com](mailto:warranty@txtav.com). If submitted on-line a Return Authorization will be provided. If a paper claim is submitted your claim will be entered into the system and a Return Authorization will be sent to you.

The Return Authorization must accompany any required return parts (see *Material Availability*), to the point of purchase.

Parts to be returned to Textron Aviation Parts Distribution should be forwarded to:

Textron Aviation Parts Distribution  
Warranty Administration  
285 South Greenwich Road  
Bldg B89, Docks 1-4  
Wichita, KS 67206  
USA

**Expiration:** July 31, 2022 (after this date the owner/operator assumes the responsibility for compliance costs)

Textron Aviation reserves the right to void continued airplane warranty coverage for the parts affected by this service document until the service document is accomplished.

**NOTE:** As a convenience, service documents are now available online to all our customers through a simple, free-of-charge registration process. If you would like to sign up, please visit the Customer Access link at [www.txtavsupport.com](http://www.txtavsupport.com) to register.