

TITLE

FLIGHT CONTROLS - INSTALLATION OF THE HORIZONTAL STABILIZER TRIM POSITION SENSOR AND SPLINE SHAFT ENGAGEMENT HARDWARE

EFFECTIVITY

MODEL	SERIAL NUMBERS
750 (Citation X)	-0001 thru -0313
750 (Citation X+)	-0501 thru -0532

REASON

To install a new horizontal stabilizer trim position sensor and spline shaft engagement hardware.

DESCRIPTION

This service bulletin provides parts and instructions to install a new horizontal stabilizer trim position sensor and incorporate the use of a pin to engage the sensor RVDT spline shaft.

COMPLIANCE

OPTIONAL. This service document can be accomplished at the discretion of the owner.

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.

APPROVAL

Textron Aviation received FAA approval for the technical data in this publication that changes the airplane type design.

FLIGHT CREW OPERATIONS

No Changes

August 10, 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

No specialized consumable materials are required to complete this service document.

TOOLING

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

NAME	NUMBER	MANUFACTURER	USE
Inclinometer	KS5549	Kell-Strom Tool Inc 214 Church Street Wethersfield, CT 06109	To measure angle of control surface deflection.
Horizontal Stabilizer Centering Tool	CJMDX27-004	Textron Aviation Parts Distribution 7121 Southwest Boulevard Wichita, KS 67215	To adjust the horizontal stabilizer to the neutral position

WEIGHT AND BALANCE INFORMATION

Negligible

REFERENCES

Cessna Model 750 (0001-0500) Maintenance Manual

Cessna Model 750 (0501 and On) Maintenance Manual

PUBLICATIONS AFFECTED

Cessna Model 750 (0001-0500) Illustrated Parts Catalog

Cessna Model 750 (0501 and On) Illustrated Parts Catalog

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 the airplane batteries.
 - (2) Disconnect external electrical power.
 - 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. (Refer to Figure 1, Sheets 1 and 2.) On aircraft 750-0001 thru 750-0500, do the steps that follow:
 - A. Remove the 3G5212B or 3G5212C Stabilizer Trim Position Sensor (UV001) and keep the mounting hardware. (Refer to Cessna Model 750 (0001-0500) Maintenance Manual, Chapter 27, Horizontal Stabilizer Trim System - Maintenance Practices.)
 - B. Install the 3G5212D Stabilizer Trim Position Sensor (UV001) using the kept mounting hardware. (Refer to Cessna Model 750 (0001-0500) Maintenance Manual, Chapter 27, Horizontal Stabilizer Trim System - Maintenance Practices.)

NOTE: Do not perform Post Maintenance Checks specified in the Maintenance Manual at this time.

NOTE: Leave the Horizontal Stabilizer Centering tool installed until the horizontal stabilizer trim position sensor installation is complete.

 - C. Go to Step 4.

3. (Refer to Figure 1, Sheets 1 and 2.) On aircraft 750-0501 thru 750-0532, do the steps that follow:
 - A. Remove the 3G5212C Stabilizer Trim Position Sensor (UV001) and keep the mounting hardware. (Refer to Cessna Model 750 (0501 & On) Maintenance Manual, Chapter 27, Stabilizer Trim Position Sensor - Removal/Installation.)
 - B. Install the 3G5212D Stabilizer Trim Position Sensor (UV001) using the kept mounting hardware. (Refer to Cessna Model 750 (0501 & On) Maintenance Manual, Chapter 27, Stabilizer Trim Position Sensor - Removal/Installation.)

NOTE: Do not perform Post Maintenance Checks specified in the Maintenance Manual at this time.

NOTE: Leave the Horizontal Stabilizer Centering tool installed until the horizontal stabilizer trim position sensor installation is complete.
4. (Refer to Figure 1, Sheets 1 and 2.) Install the horizontal stabilizer trim position sensor RVDT spline engagement hardware as follows:
 - A. Remove the four bolts and washers that attach the 6738011-4 (750-0001 thru -0500) or 6738011-5 (750-0501 thru -0532) plate to the 3P1-221B Adapter. Discard the bolts and plate.
 - B. Install one 6793042-205 Locator into the existing 3P1-221B or DDA01605-2 Adapter.

NOTE: Make sure during the installation of the 6793042-205 Locator the 3P1-221B or DDA01605-2 Adapter does not move and stays engaged with the aircraft structure and RVDT spline shaft.
 - C. Install one 6793042-202 Pin Weldment through the hole of the 6793042-205. Make sure the 6793042-202 Pin Weldment engages into the spline shaft of the RVDT.
 - D. Install one 6793042-206 plate over the 6793042-202 Pin Weldment.
 - E. Turn the 6793042-204 Plate and 6793042-205 Locator as necessary to align the parts with the necessary fastener holes in the aircraft structure.

NOTE: Make sure the existing 3P1-221B or DDA01605-2 Adapter stays centered and engaged on the RVDT spline shaft.
 - F. Attach the 6793042-204 Plate, 6793042-205 Locator and the existing 3P1-221B or DDA01605-2 Adapter using four NAS6203-3 Bolts and four AN970-3 Washers.
 - G. Torque the bolts to 15.0 to 20.0 inch pounds (1.69 to 2.25 Nm).

NOTE: Tighten the bolts equally to make sure the spline shaft stays straight within the adapter.
5. On aircraft 750-0001 thru 750-0500, do the steps that follow:
 - A. Remove the maintenance warning tags and connect the airplane batteries.
 - B. Connect the external electrical power unit to the aircraft.
 - C. Turn on aircraft electrical power.
 - D. Turn the avionics switches to the ON position.
 - E. (Refer to Figure 2, Sheet 1.) Install an inclinometer on the horizontal stabilizer.
 - F. Do the horizontal stabilizer trim check as follows:
 - (1) Make sure the EICAS shows 0.0 (\pm 0.6) degrees.
 - (2) Make sure the inclinometer is set to 0.0 degrees.
 - (3) Remove the Horizontal Stabilizer Centering tool.
 - (4) Run the trim system to the full leading edge down position.
 - (a) Make sure the travel shows -12.0 (\pm 0.6) degrees on digital inclinometer.
 - (b) Make sure the EICAS shows -12.0 (\pm 0.6) degrees.

- (c) Make sure the EICAS position indication is not amber.
- (5) Run trim system to the full leading edge up position.
 - (a) Make sure the travel shows 1.2 (\pm 0.3) degrees on digital inclinometer.
 - (b) Make sure the EICAS shows 1.2 (\pm 0.3) degrees.
 - (c) Make sure the EICAS position indication is not amber.
- (6) On the pilot or copilot multifunction display unit (MFD), press the left arrow key (<) on the lower left corner of the unit.

NOTE: If the aircraft is on jacks, and the MFD will not go into IMT mode. Make sure both main gear simulator test boxes are installed and the switches labeled SQUAT SWITCH are placed in the ON GND position.

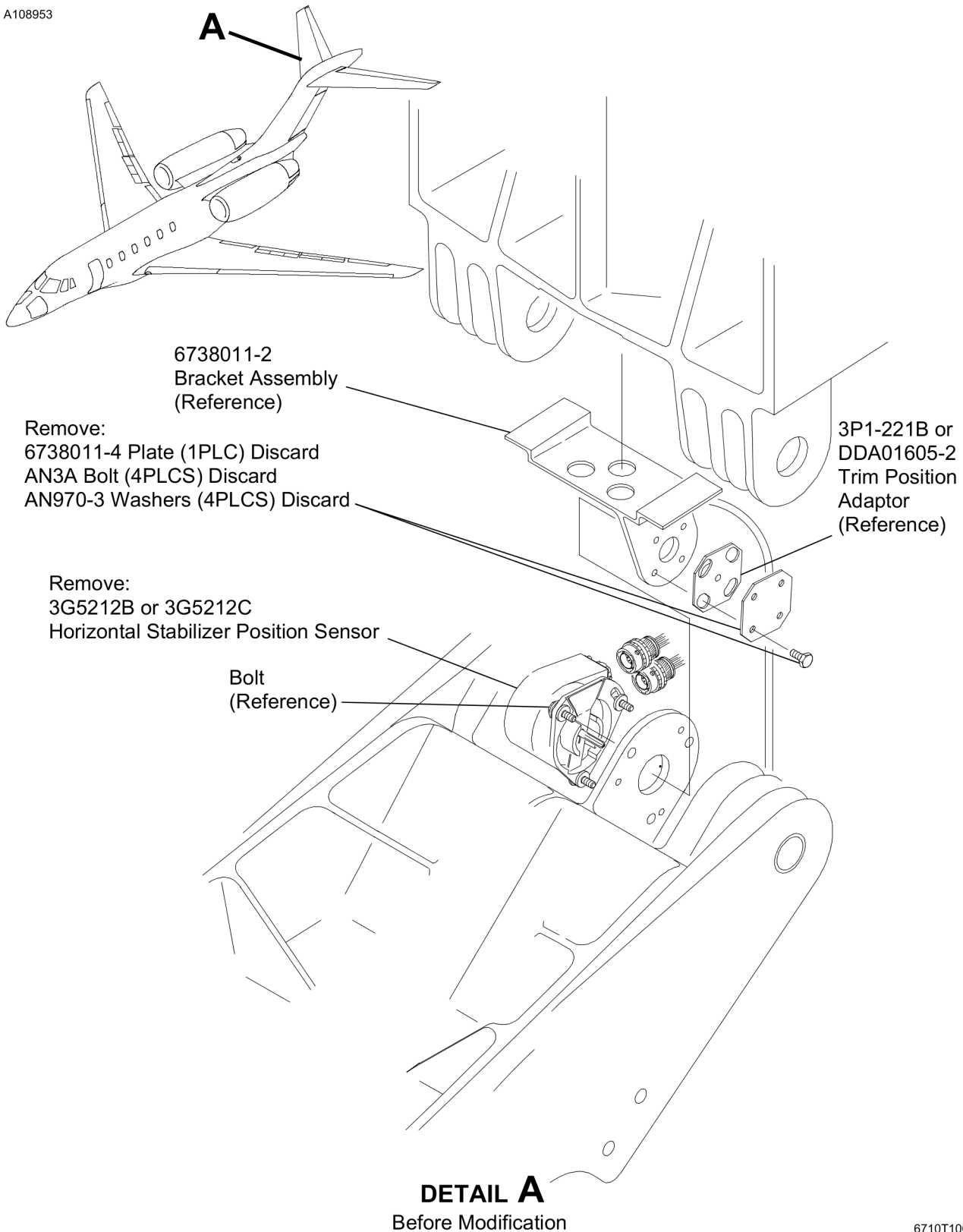
- (a) Make sure MAIN 2/2 shows at the bottom of the MFD.
 - (7) Push and release the key under the words LRU TEST.
 - (8) On the next screen, push and release the key under the word MAINT.
 - (9) On the next screen, push and release the key under the words LIST SUBSYS.
 - (10) Rotate the round knob until the words DAU 1 CHANNEL B is highlighted.
 - (11) Push and release the key under the word SELECT.
 - (12) On the next screen, push and release the key under the word DISCRETES.
 - (a) Make sure the horizontal stabilizer Rotary Variable Differential Transformer (RVDT) has no more than 0.50° degree difference between sensor positions #1 and #4.
 - (13) On the pilot or copilot multifunction display unit MFD), press the left arrow key (<) on the lower left corner of the unit to exit the IMT mode.
- G. Do the Secondary Stabilizer Trim Travel Check as follows:
- (1) Using both secondary trim switches, run the trim system to the full leading edge down position.
 - (a) Make sure the travel shows -12.0 (\pm 0.6) degrees on digital inclinometer.
 - (b) Make sure the EICAS shows -12.0 (\pm 0.6) degrees.
 - (c) Make sure the EICAS position indication is not amber.
 - (2) Using both secondary trim switches, run the trim system to the full leading edge up position.
 - (a) Make sure the travel shows 1.2 (\pm 0.3) degrees on digital inclinometer.
 - (b) Make sure the EICAS shows 1.2 (\pm 0.3) degrees.
 - (c) Make sure the EICAS position indication is not amber.
 - (3) (Refer to Figure 2, Sheet 1.) Remove the inclinometer from the horizontal stabilizer.
 - (4) Go to Step 7.
6. On aircraft 750-0501 thru 750-0532 , do the steps that follow:
- A. Do the Horizontal Stabilizer Trim Sensor Rigging. (Refer to Cessna Model 750 (-0501 & On) Maintenance Manual, Chapter 27, Horizontal Stabilizer Control Trim System - Adjustment/Test.)

7. 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.

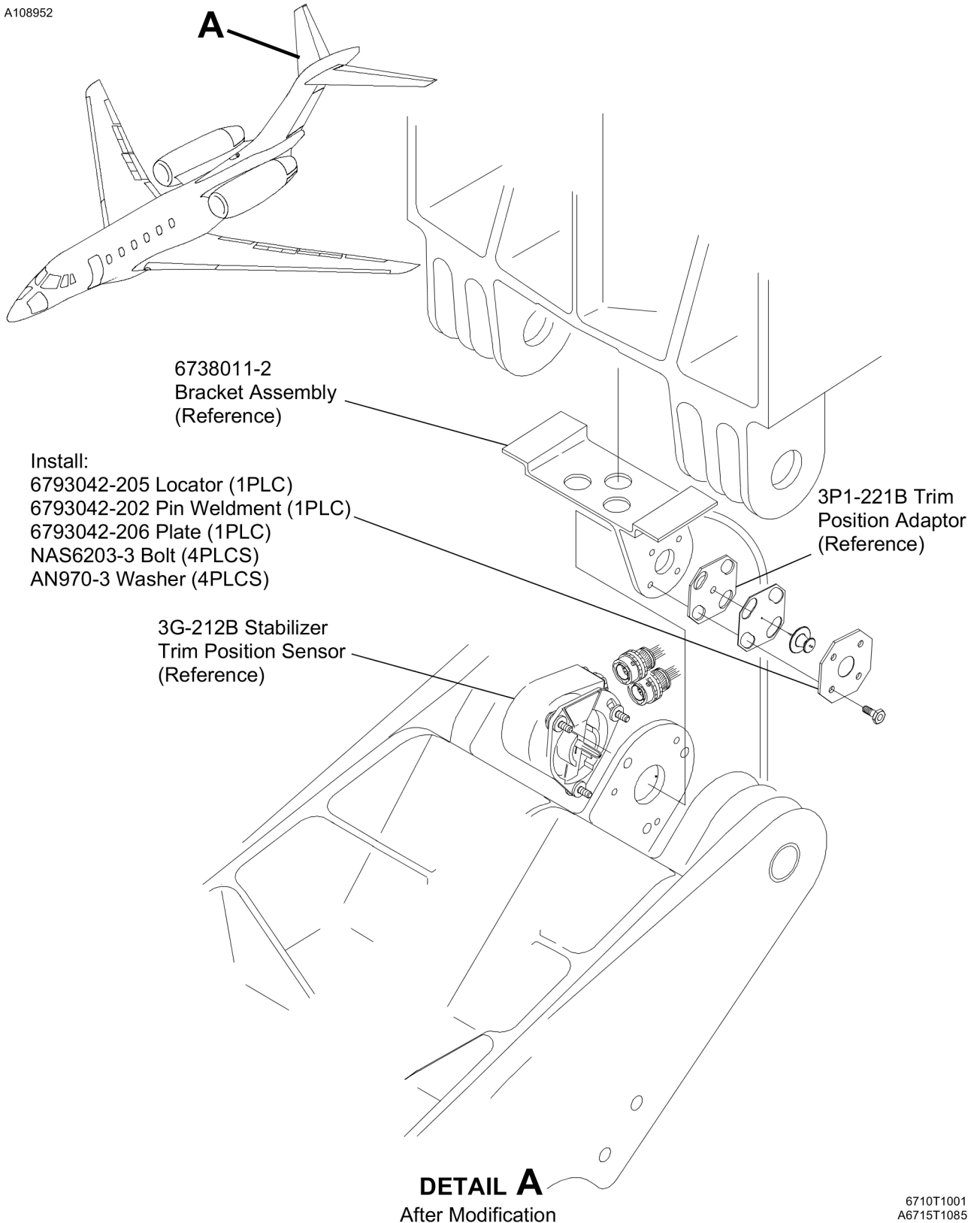
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Figure 1. Installation of Sensor and Spline Shaft Engagement Hardware (Sheet 1)

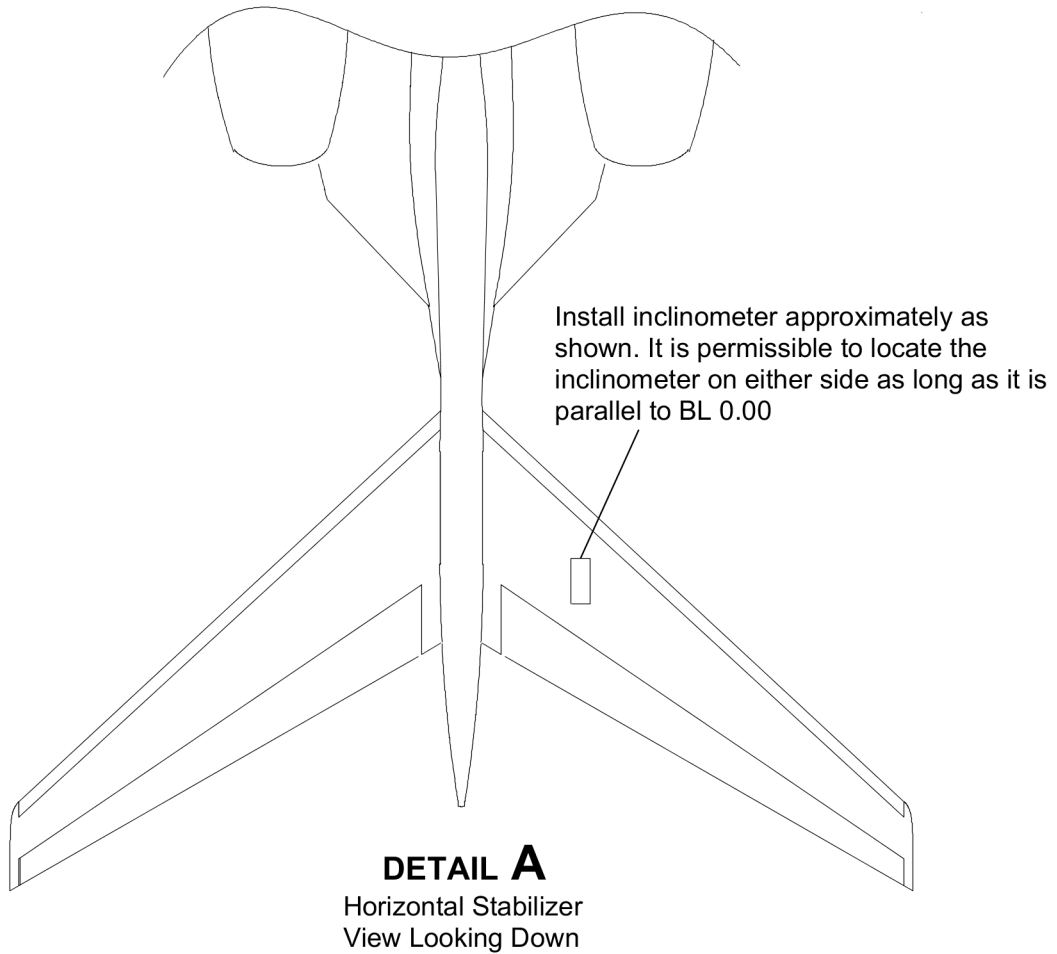
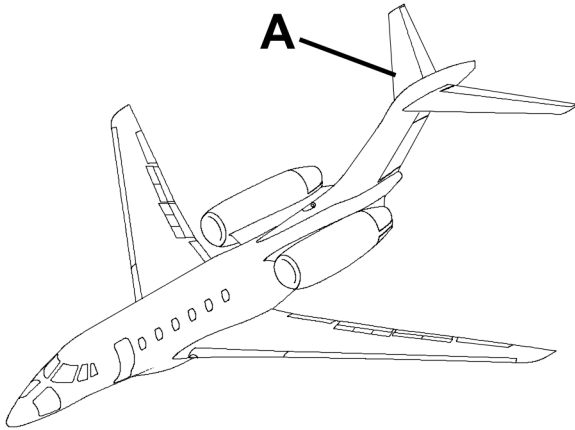
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Figure 1. Installation of Sensor and Spline Shaft Engagement Hardware (Sheet 2)

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Figure 2. Inclinometer Installation Location on the Horizontal Stabilizer (Sheet 1)

MATERIAL INFORMATION

Order the kit below to install this modification.

NEW P/N	QUANTITY	KEY WORD	OLD P/N	INSTRUCTIONS/ DISPOSITION
SB750-27-69	1	Kit , consisting of the following parts:		
6793042-202	1	Pin Weldment		Install
6793042-205	1	Locator		Install
6793042-206	1	Plate		Install
AN970-3	4	Washer		
NAS6203-3	4	Bolt	AN3A	
SB	1	Instructions		

Order the part below to install this modification.

NEW P/N	QUANTITY	KEY WORD	OLD P/N	INSTRUCTIONS/ DISPOSITION
3G5212D	1	Stabilizer Trim Position Sensor	3G5212B or 3G5212C	Install

* 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.

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

In cases where the required part(s) are approved as exchange, order the exchange part and, upon completion, expedite the return of the removed part to avoid return penalties. Contact the Textron Aviation Parts Distribution Sales Desk for availability of exchange parts.

TITLE

FLIGHT CONTROLS - INSTALLATION OF THE HORIZONTAL STABILIZER TRIM POSITION SENSOR ROTARY VARIABLE DIFFERENTIAL TRANSFORMER (RVDT) SENSOR AND IMPROVED SPLINE SHAFT ENGAGEMENT HARDWARE

TO:

Cessna Model 750 Aircraft Owner

Cessna Model 750+ Aircraft Owner

REASON

To install a new horizontal stabilizer trim position sensor and improved spline shaft engagement hardware.

COMPLIANCE

OPTIONAL. This service document can be accomplished at the discretion of the owner.

LABOR HOURS

WORK PHASE	LABOR-HOURS
Modification	As Necessary
Test and Inspection	As Necessary

MATERIAL AVAILABILITY

PART NUMBER	AVAILABILITY	COST
SB750-27-69	*	*
3G5212DEX	*	*

The existing 3G5212X may be returned to Textron Aviation Parts Distribution, Warranty Administration, 285 South Greenwich Road, Bldg B89, Docks 1-4, Wichita, KS 67206, USA, and exchanged for an upgraded unit. Due to limited availability, advance scheduling is required, please expedite the return of the removed part.

* 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.

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

WARRANTY

None

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 to register.

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