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# SERVICE BULLETIN

## SB-091222-A

**ID NUMBER & REVISION:** SB-091222-A  
**SUBJECT:** Garmin Autopilot Servos, GSA-28  
**RELEASE DATE:** 17 October 2022  
**EFFECTIVE DATE:** 17 October 2022  
**SUPERSEDES NOTICE:** N/A  
**AIRCRAFT AFFECTED:** **MAKE & MODEL:** ICON A5  
**SERIAL NUMBERS:** ASN 00154 to ASN 00161

**REQUIRED ACTION:**

1. Inspect installed Garmin GSA 28 servos for affected serial number (ref. Garmin Service Bulletin No. 22016).
2. Remove affected GSA-28 servo(s) and replace with a Garmin GSA 28 Mod 1 servo(s) (part number 011-02927-11).

**TIME OF COMPLIANCE:** 28 February 2023 (Ref Garmin Service Bulletin No. 22016)  
**REVISION HISTORY:** A Initial Release

**LEVEL OF CERTIFICATION**

<input type="checkbox"/> Pilot/Owner	<input checked="" type="checkbox"/> A & P
<input type="checkbox"/> LSA Repairman – Inspection	<input type="checkbox"/> Certified Repair Station
<input checked="" type="checkbox"/> LSA Repairman – Maintenance	<input checked="" type="checkbox"/> Manufacturer

**REQUIRED (any level checked can perform task):**

### PURPOSE:

Garmin has identified that there is a chance of reduced service life of the GSA 28 servo. This could lead to a servo failure while the autopilot is in use. This failure can happen in flight with an annunciated "AP DISC" indication, or on the ground during a preflight check. In either case, the autopilot is rendered inoperable until the servo is replaced. The **affected GSA-28 servos** are part numbers 011-02927-00 (s/n **2PG015462** through **2PG016170**) and 011-02927-10/11 (s/n **5G9017349** and **5G9019731** through **5G9021528**).

This service bulletin (SB-091222-A) instructs the inspection of the ICON installed Garmin GSA 28 servos, the removal of the servos and the replacement of the servos. Any GSA 28 servo removed must be replaced with a GSA 28 Mod 1 servo (part number 011-02927-11) and return the affected servo to Garmin.

**NOTE:** *To participate in the warranty, action must be taken prior to February 28, 2023, compliance date.*

### ASSEMBLIES AND PARTS:

PART NUMBER	DESCRIPTION	QUANTITY	ALTERNATE	
			PART NUMBER	DESCRIPTION
011-02927-11	GSA 28 Mod 1 Servo, Garmin	2 (As Needed)		
ICA014693	Removal Adapter, GSA 28, Garmin	2		



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TY24MX	Cable-Tie, Nylon 6-6, 30lb, 5.50, TY-Rap	2		
ICA012079	Inspector's Lacquer (Orange)	As Needed		
TY23MX	Cable-Tie, Nylon, 6-6, 18lb, TY-Rap			
ICA012078	Anticorrosion/Lubricant/Tef-Gel	As Needed		
N/A	Isopropyl Alcohol	As Needed		
AC-111	Adhesion Promoter	As Needed		
N/A	Baby Powder	As Needed		
70006738424	3M VHB TAPE 5915WF WHITE, 1/2 IN X 72 YD 16 MIL	28.8"		
70006738424	3M VHB TAPE 5915WF WHITE, 1/2 IN X 72 YD 16 MIL	33.5"		
ICA011790	STRIP, ISOLATION, 2 X .125, 50 DURO	28.8"		
ICA011790	STRIP, ISOLATION, 2 X .125, 50 DURO	33.5"		
MS24665-208	Cotter Pin	2		
ITL002733	Pitch Servo Rigging Tool	1		
ITL015538	Roll Servo Rigging Tool	1		

**IF APPLICABLE, SERVICE KITS:**

KIT NUMBER	CONTENT PARTS	DESCRIPTION	QUANTITY
N/A			

**INSTRUCTIONS:**

**Special Tools, Fixtures, or Test Equipment:**

1. It is permissible to disassemble the aircraft as required to permit accessibility, inspection, adjustment, maintenance, and repair in accordance with the latest release of the [ICON Aircraft Maintenance Manual](#).
2. Specialty Tools
  - a. Appropriate equipment for cleaning and surface protection.

**NOTE:** The qualified technician **MUST** read this Service Bulletin in its entirety, prior to commencing with inspection and installation. Any questions shall be forwarded to ICON Service in Vacaville, Ca immediately.

**GARMIN GSA 28 SERVOS REMOVED PER SD-111521-B**

If the Garmin GSA 28 servos were removed per the "Disable Autopilot System" Safety Directive (SD-



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111521-C), then perform the following steps.

**NOTE:** Garmin GSA 28 servos that were removed per the SD-111521-C are not to be installed. They are to be inspected only and retained for further guidance.

1. Remove the pitch and roll servos from their brackets.
2. Locate the Garmin decal and note the GSA 28 part number and serial number (see Figure 3).
  - a. Retain numbers for documentation
  - b. Compare part number and serial numbers to the affected list in the “Purpose” section of this Service Bulletin (also reference Garmin Service Bulletin No. 22016).
  - c. Retain all hardware for future guidance.

### GAINING ACCESS TO GARMIN GSA 28 SERVOS

The following instructions are used in preparation of gaining access to the pitch and roll servos.

1. Fold the wings to gain access to the fuselage roll sockets.
  - a. Wing stands can be used in place of folding the wings.
2. Remove fuel from the tank.
3. In accordance with the most current ICON Aircraft Maintenance Manual, remove the following components to gain access to the roll and pitch bridle cables, and retain all hardware for reinstallation:
  - a. Headliner Removal: 100253
  - b. Baggage Floor Removal: 100050
  - c. Left- And Right-Hand Baggage Sidewall Removal: 100054
  - d. Cockpit Sidewall Panels: 100094
  - e. Seatback: 100564
  - f. Seat Pan: 100569
  - g. Fuel Tank: 100507
4. Install rig pins into the pitch and roll sockets in accordance with the ICON Aircraft Maintenance Manual, Section 100029. This step is to secure the pitch cable and the upper roll cable.

### PITCH SERVO INSPECTION

**NOTE:** A borescope may be used in lieu of steps 1 through 6. If a borescope is used, skip to step 7.

1. Disconnect the D9148P pitch servo connector (see Figure 2).
2. Remove the 4x AN3C4A bolts and 4x NAS1149C0332R washers from cable clamps (see Figure 1).
  - a. Retain hardware for Pitch Servo Installation
3. Remove the cable clamps and carefully separate them from the pitch cable (see Figure 1).
  - a. Retain the cable clamps for Pitch Servo Installation
4. Remove the 2x AN3C4A bolts, 2x AN3C5A bolts, 4x NAS1149C0332R washers, and 2x MS21919WDG4 P clamps from the pitch servo/pitch servo bracket assembly and the keel (see

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Figure 2).

5. Carefully remove the throttle cable from the P clamps.
6. Remove the pitch servo/pitch servo bracket sub assembly from the keel (see Figure 1).
7. Locate the Garmin decal and note the GSA 28 part number and serial number (see Figure 3).
  - a. Retain numbers for documentation
  - b. Compare part number and serial numbers to the affected list in the “Purpose” section of this Service Bulletin (also reference Garmin Service Bulletin No. 22016).
8. If the pitch servo is affected by this Service Bulletin, replace with a Garmin GSA 28 MOD 1 servo (part number 011-02927-11).
  - a. Once the Garmin GSA 28 MOD 1 servo is received, proceed with the “Pitch Servo Installation” of this Service Bulletin
9. If the pitch servo is not affected by this Service Bulletin, do not replace the servo, and re-install the pitch servo/pitch servo bracket subassembly onto the keel.
  - a. Proceed with the “Pitch Servo Installation” of this Service Bulletin.

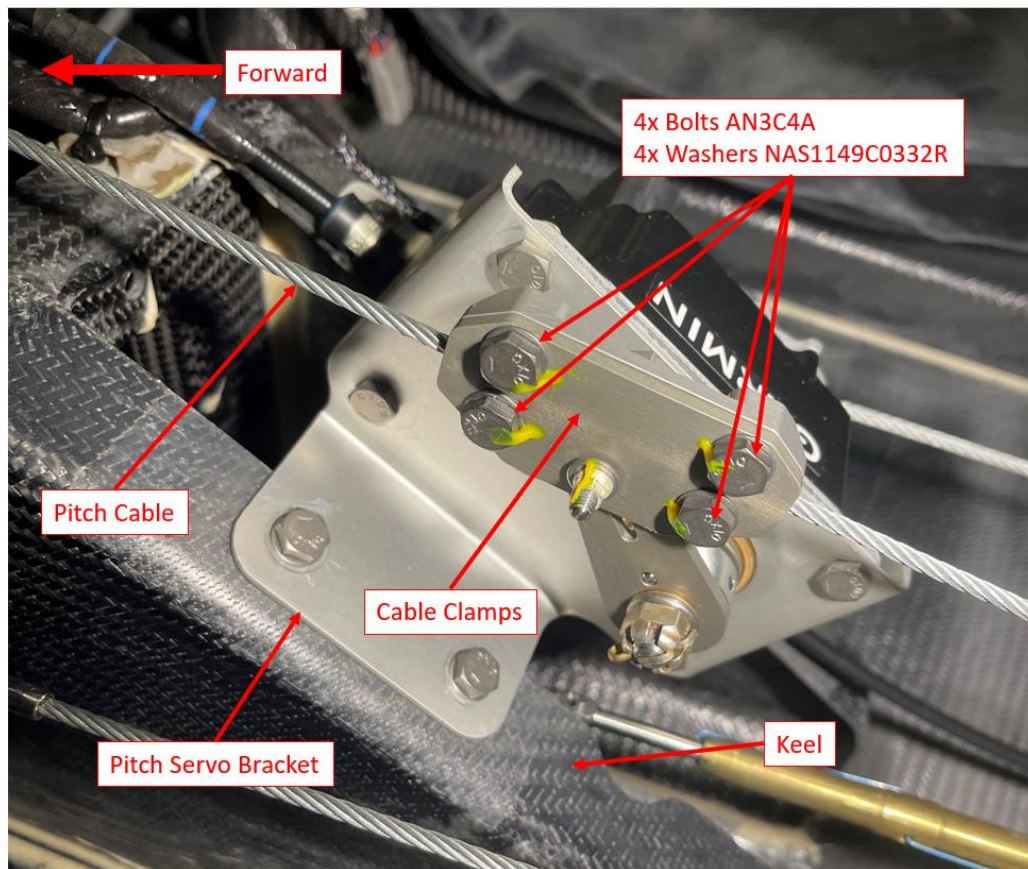


Figure 1 Pitch Servo/Pitch Bracket Assembly

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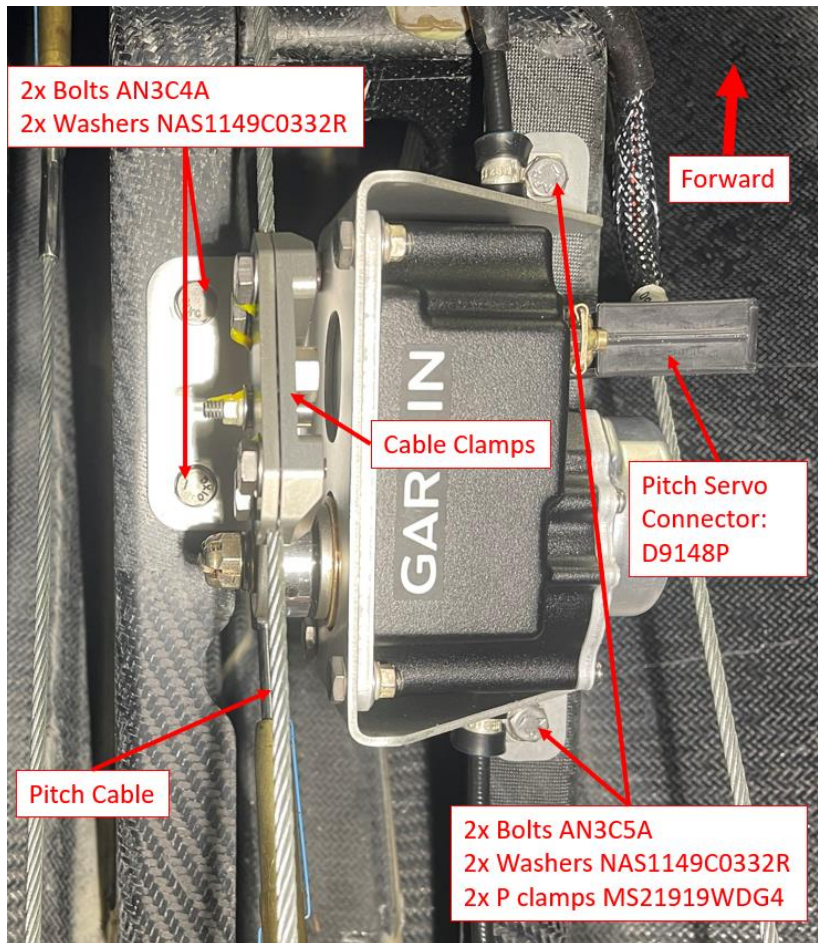


Figure 2 Pitch Servo/Pitch Bracket Assembly



Figure 3 Pitch Servo Part and Serial Numbers

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### PITCH SERVO INSTALLATION

There are two potential outcomes after completing the “Pitch Servo Inspection” steps:

1. If the servo is not affected by this service bulletin (SB-091222-A), then the pitch servo/pitch servo subassembly needs re-installation on the keel.
  - a. See “Pitch Servo Installation” section.
2. If the servo is affected by this service bulletin (SB-091222-A), then the servo needs to be replaced by a new MOD 1 Garmin GSA 28 (part number 011-02927-11), installed into the pitch servo bracket, and the subassembly re-installed on the keel.
  - a. Start with the “Affected Pitch Servo Removal and MOD 1 Installation” section and then continue to the “Pitch Servo Installation” section.

### Affected Pitch Servo Removal and MOD 1 Installation

1. Remove the cotter pin (MS24665-208), castle nut, locking washer, and washer from the servo arm (see Figure 4).
  - a. Retain all hardware for future installation

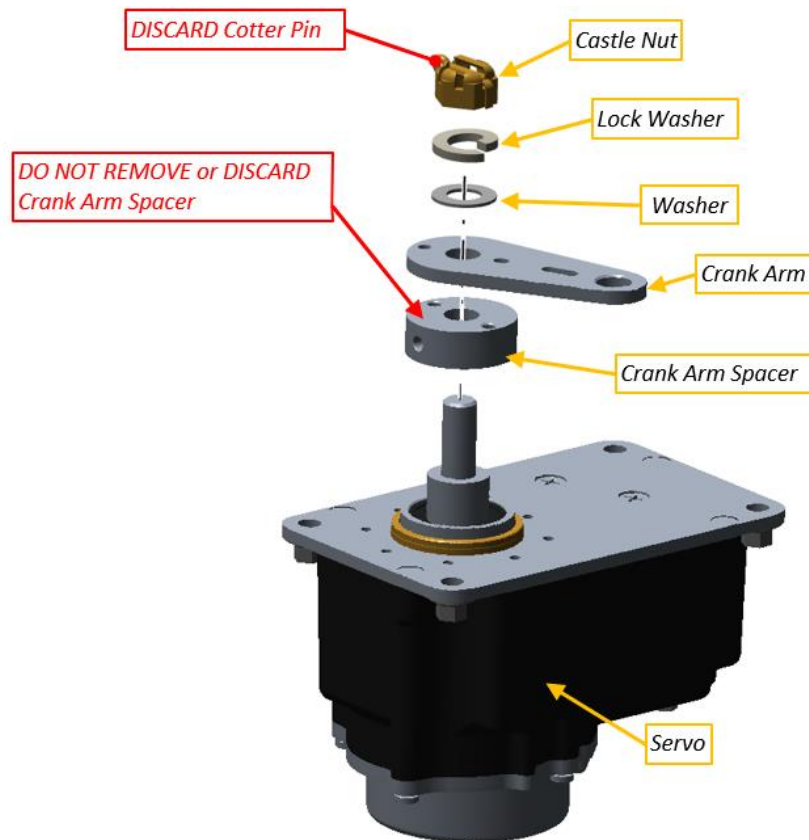
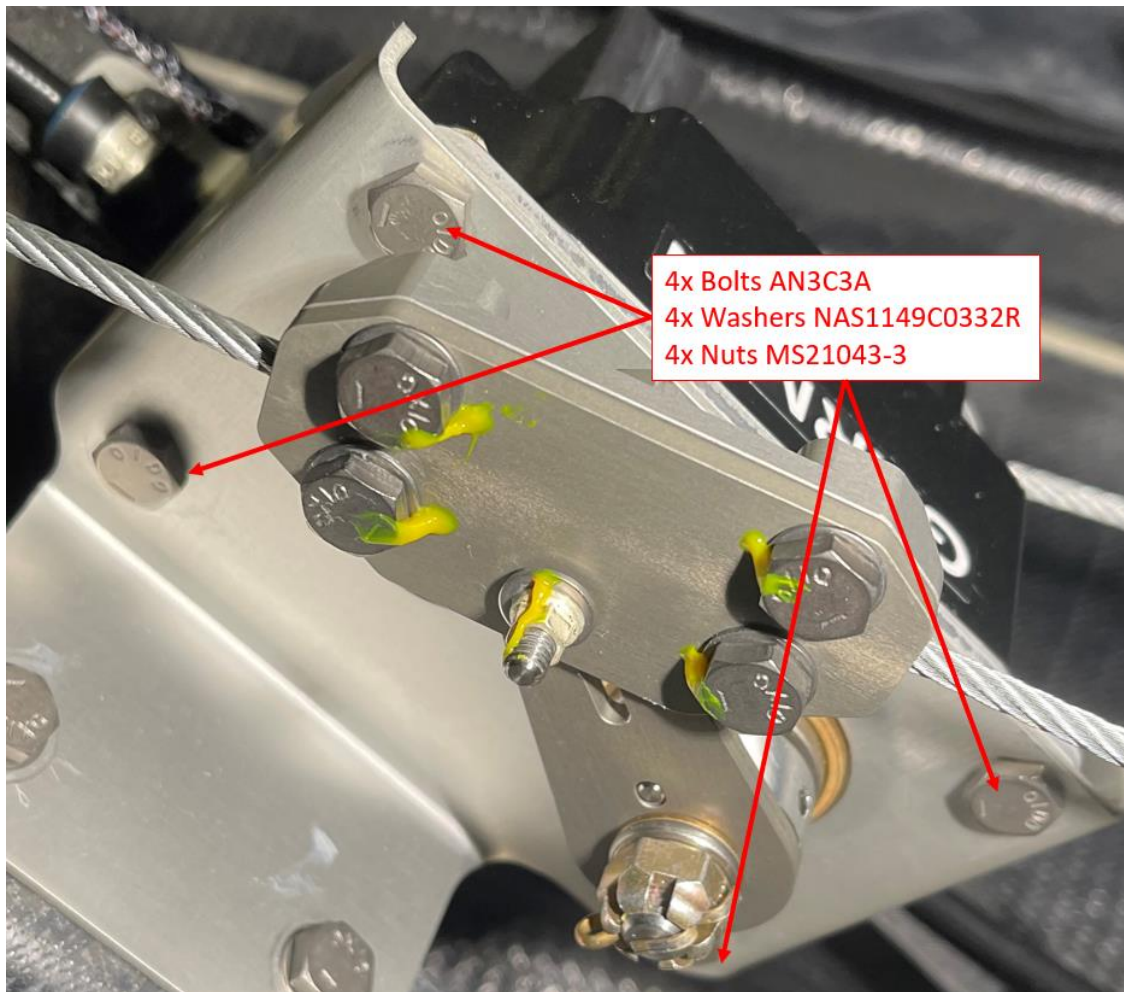


Figure 4 Pitch Servo Arm

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2. Remove the pitch servo arm and clamp from the pitch servo/pitch servo bracket sub assembly
  - a. Retain the pitch servo arm and clamp for future installation
3. Remove the 4x nuts (MS21043-3), 4x bolts (AN3C3A), and 4x washers (NAS1149C0332R) from the pitch servo bracket (see Figure 5)
  - a. Retain hardware for Pitch Servo installation

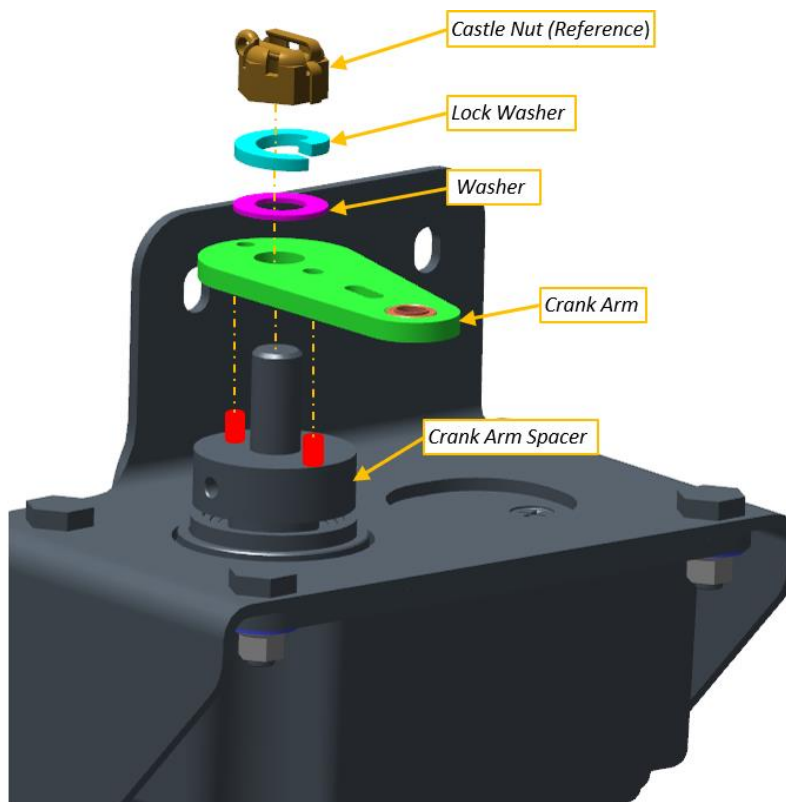


*Figure 5 Pitch Servo Clamp*

4. Remove the GSA 28 Servo from the pitch servo bracket
5. Install the new GSA 28 MOD 1 (part number 011-02927-11) onto the pitch servo bracket
6. Apply lubricant (ICA012078) liberally to threads and shank of 4x Bolt (AN3C3A)
  - a. Using isopropyl alcohol, clean surfaces where lubricant will be applied.
7. Install 4x Bolts, 4x washers (NAS1149C0332R) and 4x nuts (MS21043-3) (see Figure 8)
8. Torque nuts to 16.4-19.4 in-lb.

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- a. Ensure at least one full thread is protruding from the nut.
9. Assemble and install Pitch Servo Components (see Figure 6):
  - a. Crank Arm Spacer,
  - b. Crank Arm,
  - c. Washer,
  - d. Lock Washer,
  - e. Castle Nut.
  - f. ENSURE CRANK ARM SPACER ALIGNMENT PINS LINE UP WITH CRANK ARM.
10. Torque castle nut to 20in-lbs
  - a. Verify the lock washer is fully compressed
  - b. DO NOT EXCEED 20IN-LBS



*Figure 6 Pitch Servo Arm Subassembly*

11. At the castle nut, loosen the nut slowly until adjacent castle nut notch lines up with the hole in output shaft for cotter pin.
12. *Install NEW cotter pin*, through castle nut notch and through hole in shaft.
  - a. ENSURE LONG LEG OF COTTER PIN IS UPWARD (see Figure 7)



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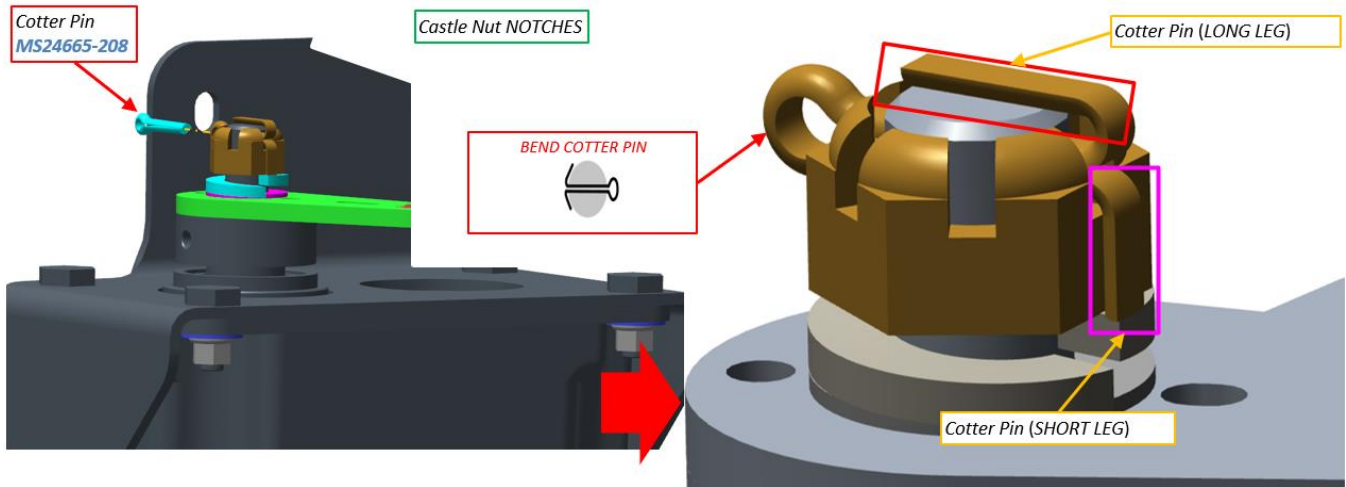


Figure 7 Pitch Servo Cotter Pin Installation

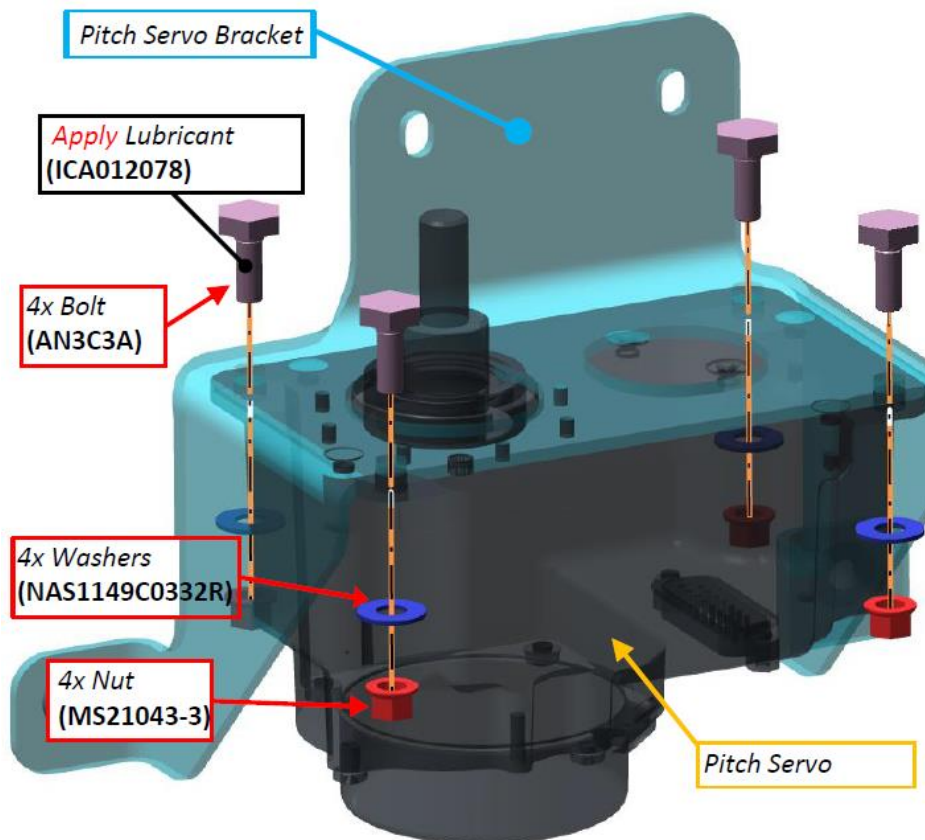


Figure 8 Pitch Servo Bracket Subassembly

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### Pitch Servo Installation

1. Locate the pitch servo bracket installation nut-plate holes on the keel, behind the throttle control
2. Using isopropyl alcohol, clean the surface of the keel where the pitch servo bracket subassembly will be installed
3. Place pitch servo bracket subassembly onto the holes located on the keel.
4. Apply lubricant (ICA012078) liberally to threads and shank of 2x Bolt (AN3C4A) (see Figure 9).
  - a. Using isopropyl alcohol, clean surfaces where lubricant will be applied.
5. Install 2x Bolts (AN3C4A), and 2x washers (NAS1149C0332R) (see Figure 9).
  - a. Torque 2X Bolts (AN3C4A) to 25-28in-lbs
6. Install 2x P-Clamps (MS21919WDG4) on throttle cable
7. Locate the P-Clamps to the existing nut-plate holes (on the keel) and pitch servo bracket subassembly
8. Apply lubricant (ICA012078) liberally to threads and shank of 2x Bolt (AN3C5A)
  - a. Using isopropyl alcohol, clean surfaces where lubricant will be applied.
9. Install 2x Bolts (AN3C5A), and 2x washers (NAS1149C0332R), through the P-Clamps into the existing nut-plates on the keel (see Figure 10).
  - a. Torque 2X Bolts (AN3C5A) to 26in-lbs

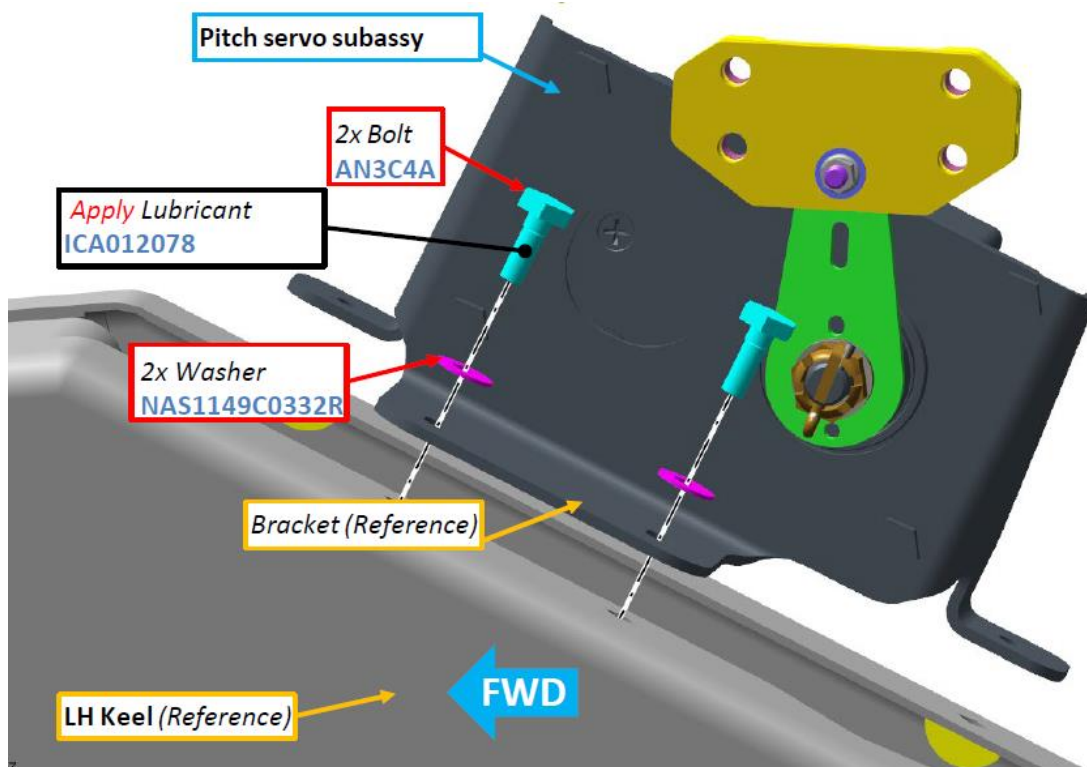


Figure 9 Pitch Servo Installation

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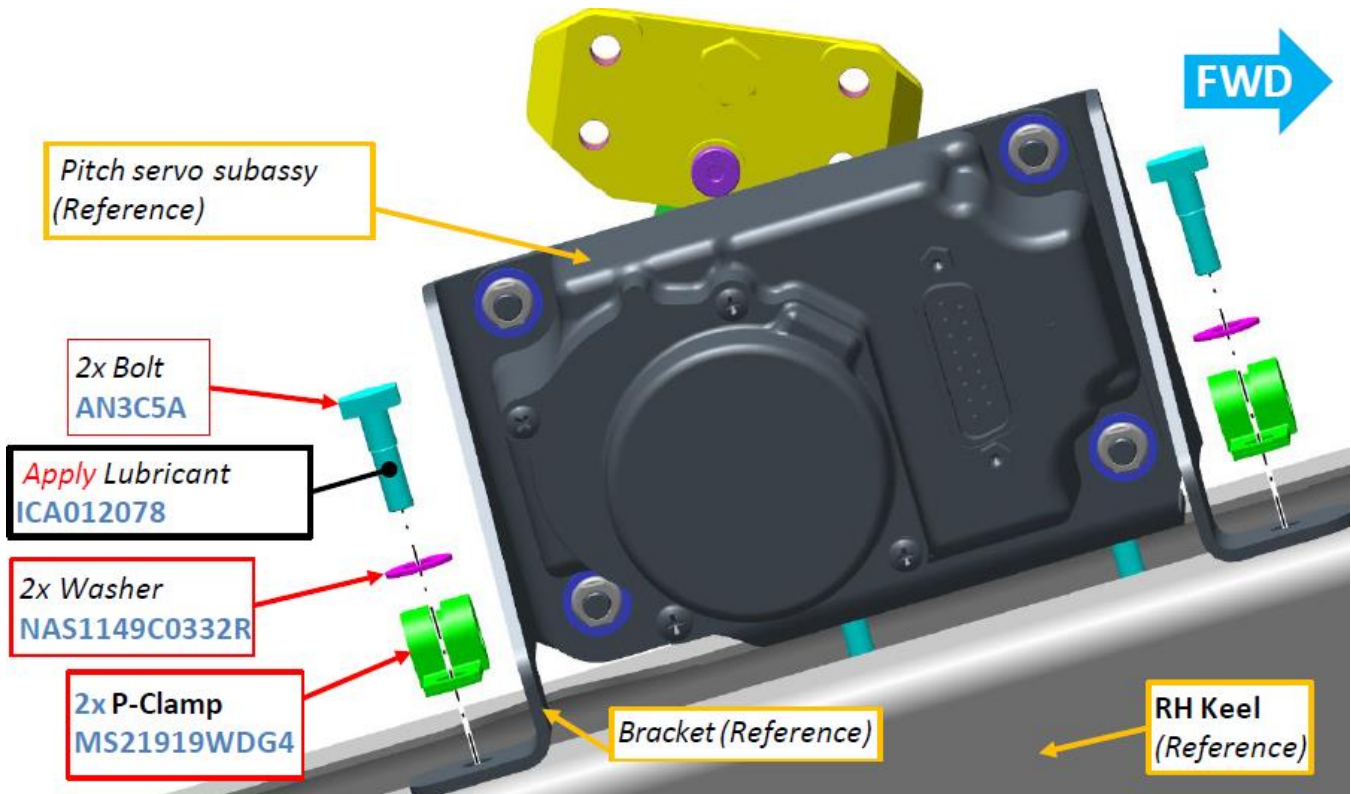
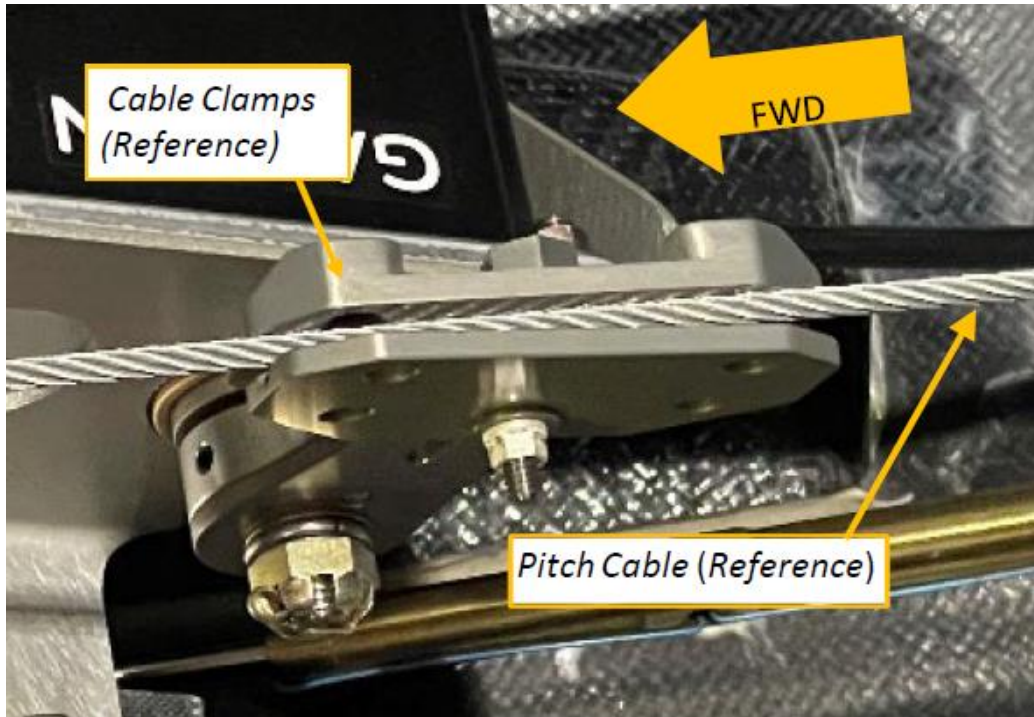
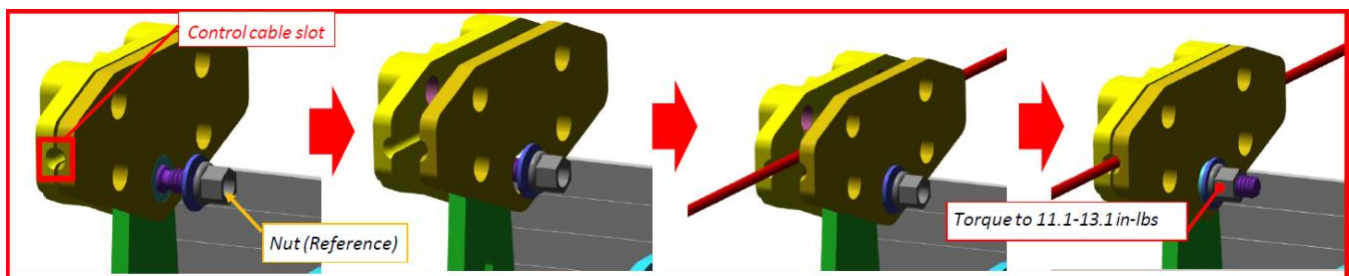


Figure 10 Pitch Servo Installation RH Side

10. Locate the pitch servo clamp and pitch control cable (see Figure 11).
11. Loosen the nut from the cable clamps on the roll servo subassembly and slide the cable clamps apart from each other (see Figure 12).
12. Slide the control cable between the loose cable clamps and fit into the control cable slot (see Figure 12).
13. Torque nut to 11.1-13.1in-lb. Ensure at least one full thread is protruding from the nut.
  - a. Ensure the control cable is in the slot and not being pinched but the clamps.

**SERVICE BULLETIN****SB-091222-A***Figure 11 Pitch Servo Clamp and Cable**Figure 12 Pitch Clamp Installation*

14. Apply Lubricant (ICA012080) liberally to threads and shank of 4x Bolts (AN3C4A) of the pitch servo control clamps
  - a. Using Isopropyl alcohol, clean surfaces where Lubricant will be applied.
15. Install 4x Bolts (AN3C4A) and 4x Washers (NAS1149C0332R) (see Figure 13).

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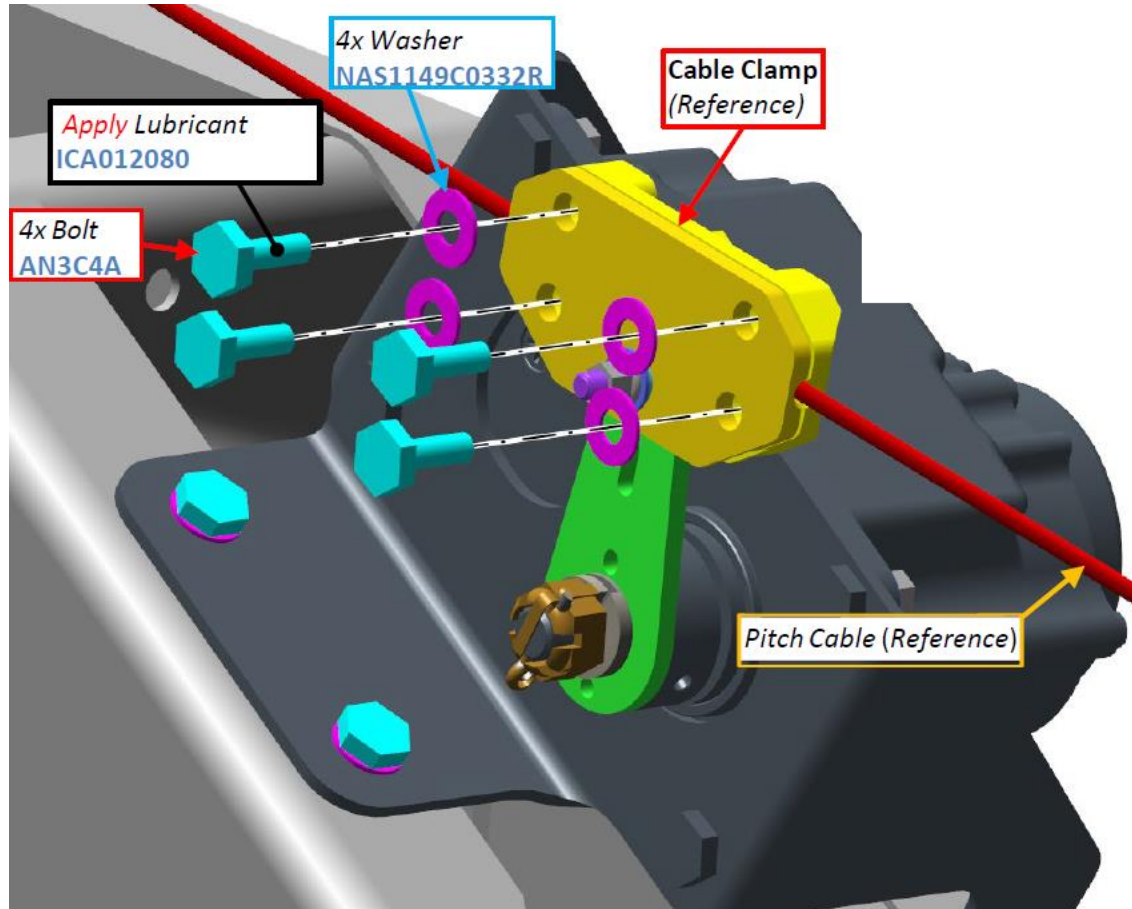


Figure 13 Pitch Clamp Installation LH Side

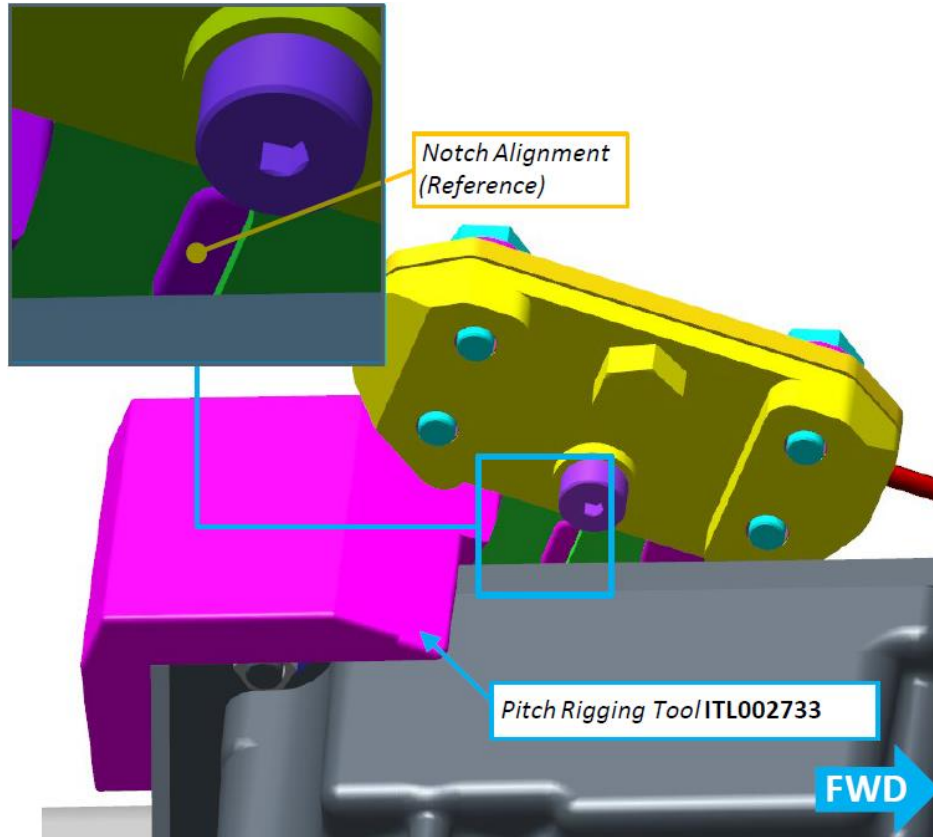
16. Rig AP pitch servo system as follows:

- a. Place the Pitch Rigging Tool ITL002733 over the AFT Bracket corner and align the Crank arm such that the Notch aligns as illustrated in Figure 14 and 15.
- b. Use the Hex Feature built into the cable clamp (see Figure 16) to hold the clamps and prevent the cable clamp from rotating while torquing.
- c. Torque the bolts to 33 – 35 in-lb. Evenly and in a Criss-Cross Pattern (see Figure 17)
  - i. While making ONLY  $\frac{1}{4}$  to  $\frac{1}{2}$  TURN per bolt and Tightening in a **CRISS-CROSS PATTERN**.
  - ii. Evenly tighten the 4x Bolts.
  - iii. Apply torque stripe to the four bolts with ICA012079.



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*Figure 15 Pitch Servo Notch**Figure 16 Pitch Servo HEX Feature*

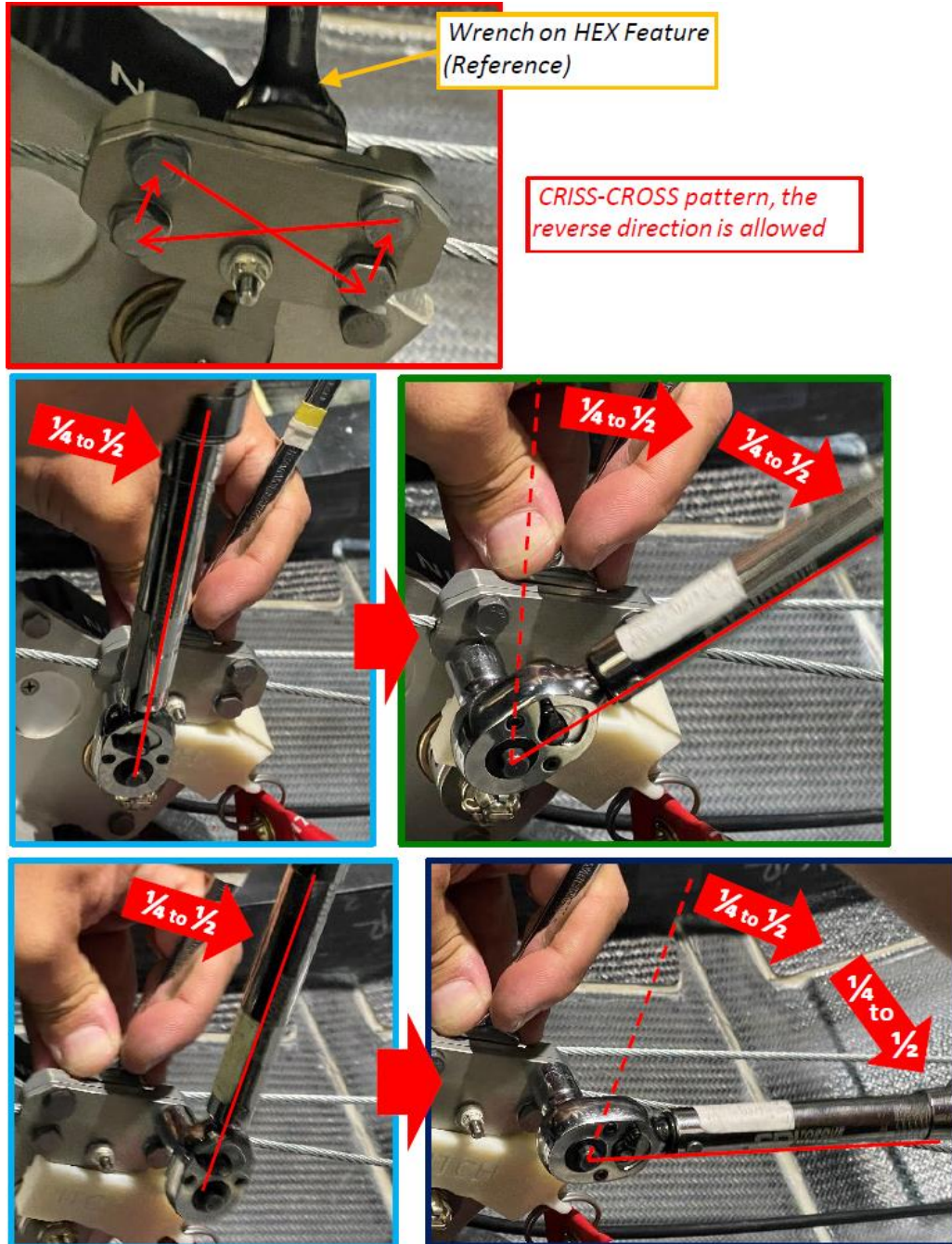
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Figure 17 Pitch Servo Torque

17. Remove all rigging equipment (pins and tool).
18. There shall be no interference with autopilot system components through the full range of system travel.



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- e. The bearing from servo shall rotate freely and clamps and crank arm from servo shall not contact.
19. Verify pitch cable tensions are 20.0 – 35.0 lbs.
- a. For pitch cable tension verification, refer to the most current ICON Aircraft Maintenance Manual: [100135](#)
  - b. For pitch cable tension rework, refer to the most current ICON Aircraft Maintenance Manual: [100138](#)
    - i. Favor the higher end of the allowable tolerance when rigging the pitch cables.
20. Connect D9148P pitch servo connector to pitch servo (see Figure 18).
- a. Torque screws to 2-4 in-lbs.

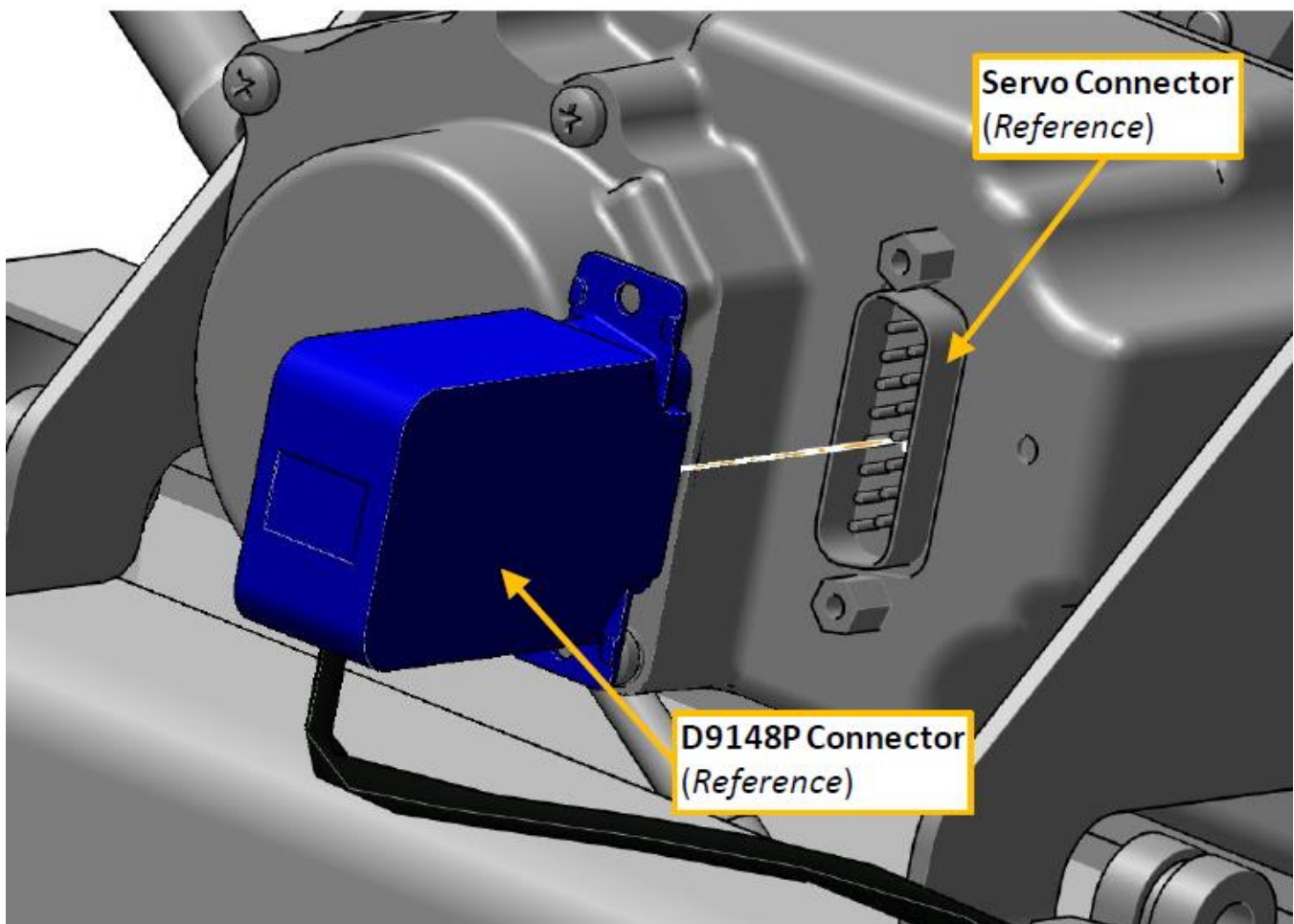


Figure 18 Pitch Servo Connector RH Side



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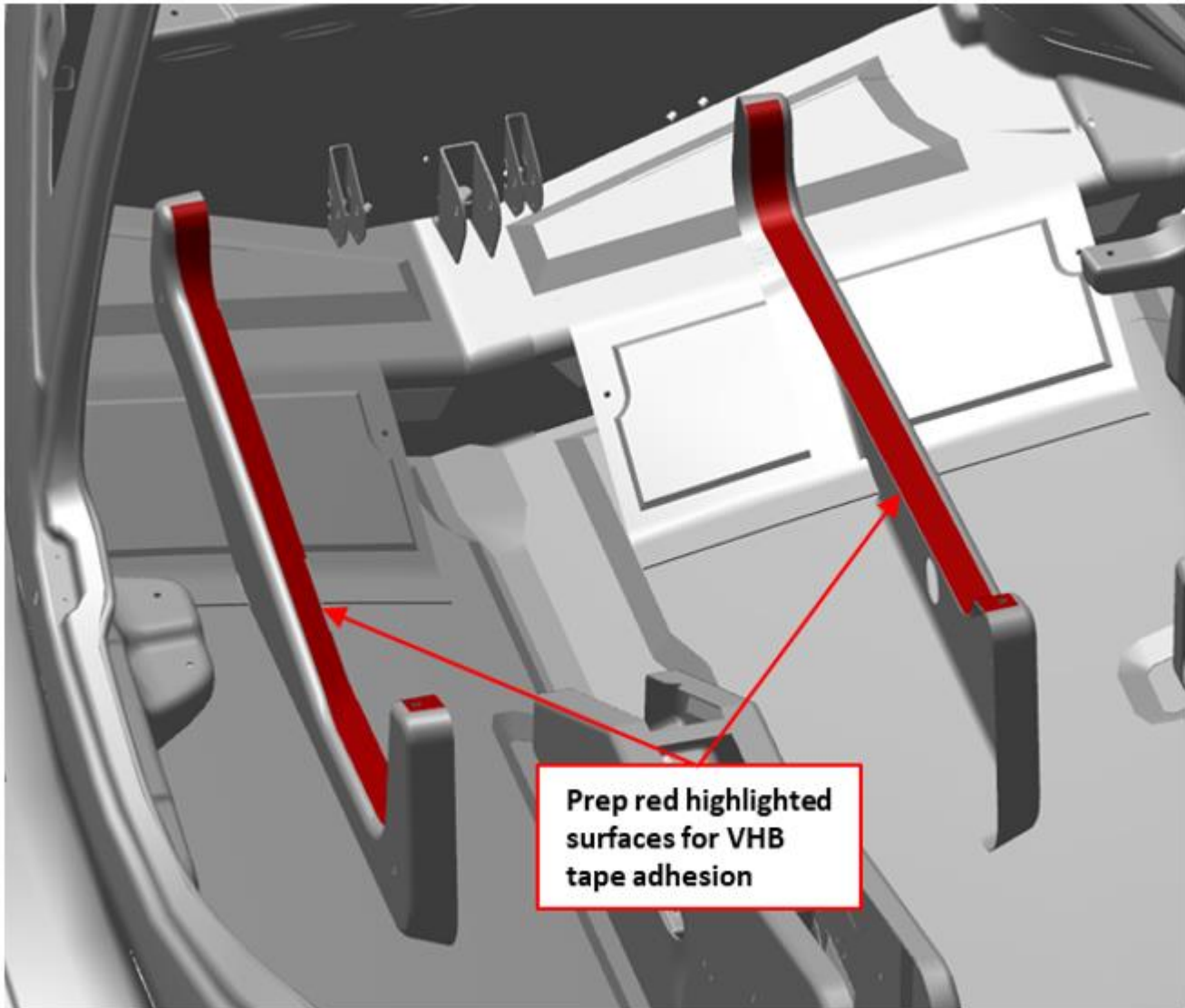
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**If the fuel isolator strips remain undamaged when the fuel tank was removed, proceed as follows:**

21. Apply a continuous thin coating of talcum powder to all surfaces of each isolation strip where they encounter the fuel tank.
22. Wipe away any excess powder as a FOD prevention measure.
23. Proceed to Step 33.

**If the fuel tank isolator strips are damaging during the removal of the fuel tank process, proceed as follows:**

24. Remove all remaining VHB tape and isolation strip material from the previous isolation strip installation.
  - a. Do not damage the composite of the fuel tank support brackets.
25. Cut a 28.80"  $\pm$  .125" piece of isolation strip and a 28.80"  $\pm$  .125" piece of VHB tap.
  - a. These two pieces will be for the LH fuel tank support bracket.
26. Cut a 33.50"  $\pm$  .125" piece of isolation strip and a 33.50"  $\pm$  .125" piece of VHB tape.
  - a. These two pieces will be for the RH fuel tank support bracket.
27. Wipe mating surfaces with isopropyl alcohol and dry using a lint-free cloth
28. Apply adhesion promoter to the cleaned mating surfaces. Allow to dry completely.

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*Figure 19 Fuel Tank Isolation Strip*

- a. Apply VHB tape to the fuel tank support brackets as shown in Figure 19.
29. Center the isolation strips to within .50" of the center of the support brackets.
30. Use the given measurement to help locate the ends of the isolation strips on the support bracket.
31. Join isolation strip to mating surface using approximately 10 - 15 psi of pressure.

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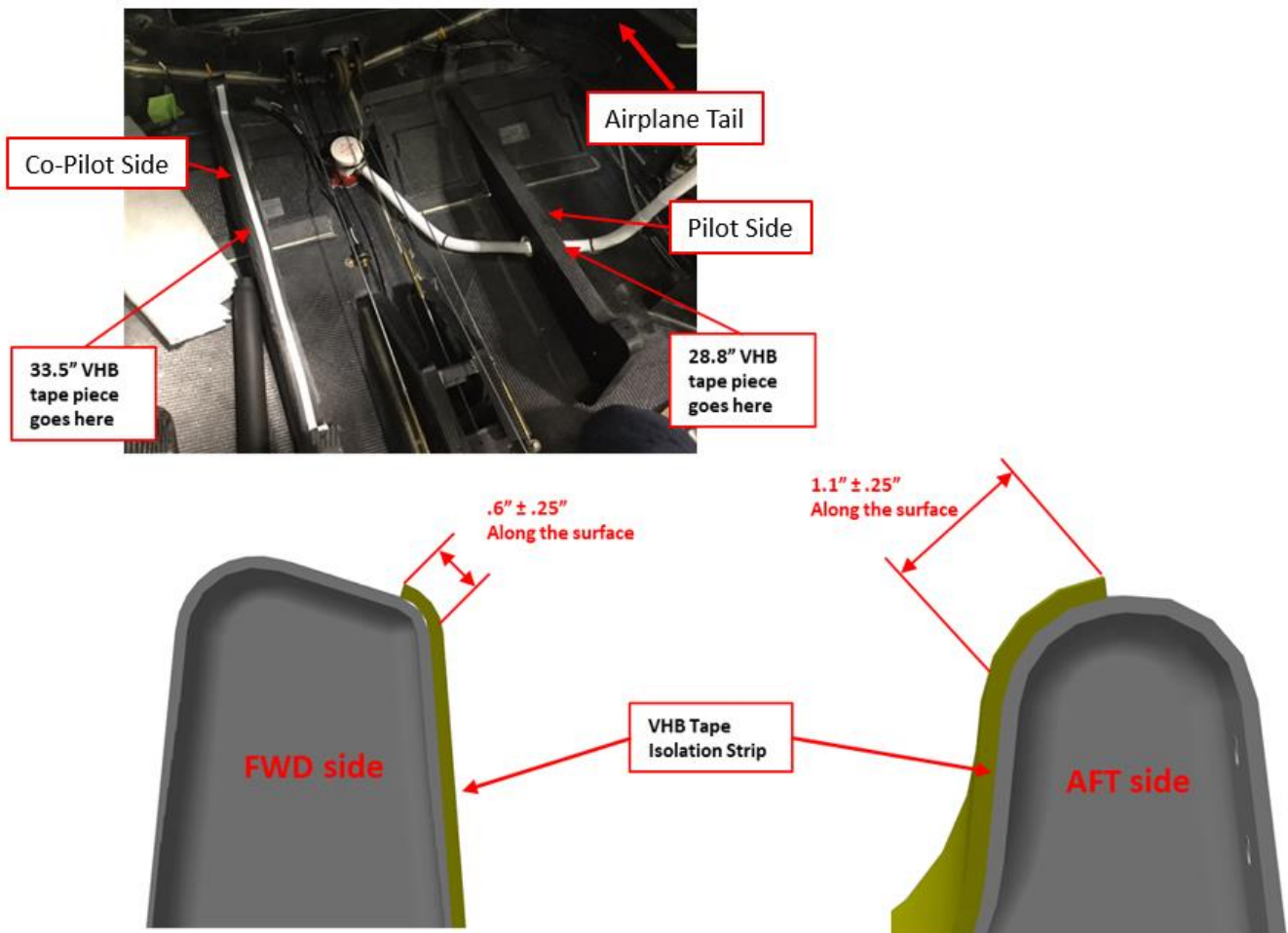


Figure 20 Fuel Tank Isolation Application

32. Apply a continuous coating of baby powder to all surfaces of isolation strip that encounter the fuel tank.
33. Install fuel tank in accordance with the most current ICON Aircraft Maintenance Manual: [100343](#)

### ROLL SERVO INSPECTION

1. Locate the roll servo/roll servo bracket assembly on the wing spar behind the pilot's seat.
2. The part number and serial number is visible without removing the roll servo/roll servo bracket assembly.
3. Observe the part number and serial number on the roll servo (see Figures 21 and 22).

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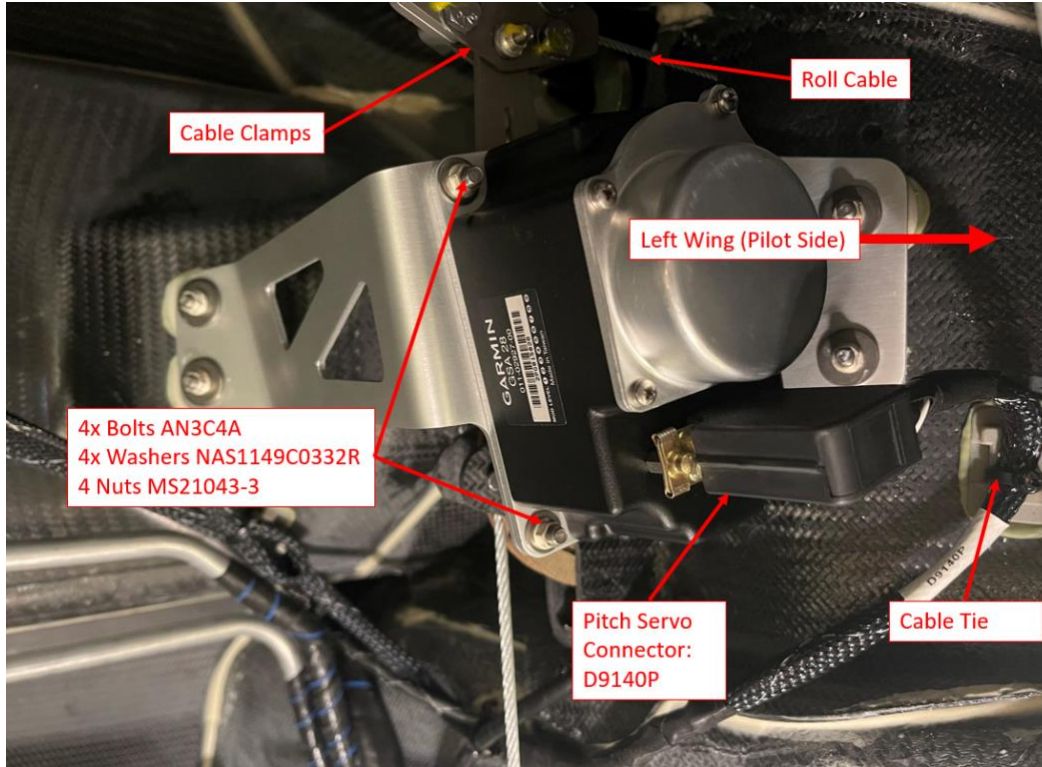


Figure 21 Roll Servo Location



Figure 22 Roll Servo Part and Serial Number

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### ROLL SERVO INSTALLATION

There are two potential outcomes after completing the “Roll Servo Inspection” steps:

1. If the servo is not affected by this service bulletin (SB-091222-A), then there are no further steps to complete
  - a. See “Make the Following Logbook Entry” section to complete this service bulletin
2. If the servo is affected by this service bulletin (SB-091222-A), then the servo needs to be replaced by a new MOD 1 Garmin GSA 28 (part number 011-02927-11), installed into the roll servo bracket, and the assembly re-installed on to the wing spar.
  - a. Continue to step 3, below.
3. Remove the Roll Servo connector, D9140P (see figure 23)

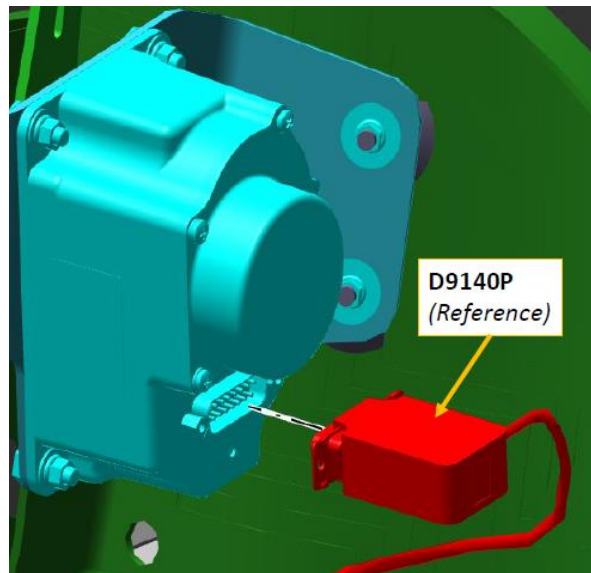


Figure 23 D9140P Roll Servo Connector

4. Remove the 4x Bolts (AN3C4A), and 4x Washers (NAS1149C0332R) on the roll servo arm clamp. (See figure 24)
  - a. Retain hardware for future installation

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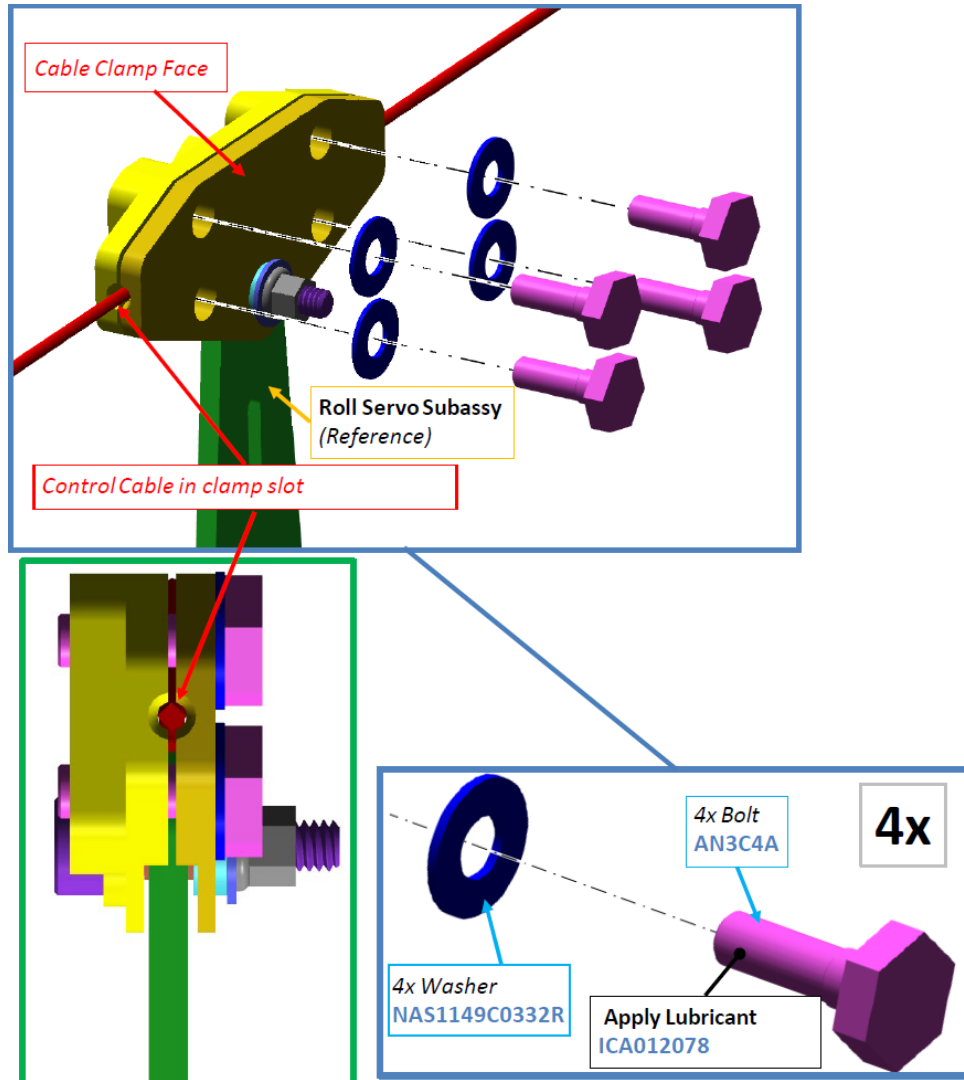


Figure 24 Roll Servo Clamp

5. Remove the cable clamps and carefully separate them from the roll cable (see Figure 24).
  - a. Retain the cable clamps for Pitch Servo Installation
6. Remove the 4x nuts (MS21043-3) and 4x washers (92217A439) from the mounting studs on the center wing spar (see Figure 25)
  - a. Retain the hardware for future installation.

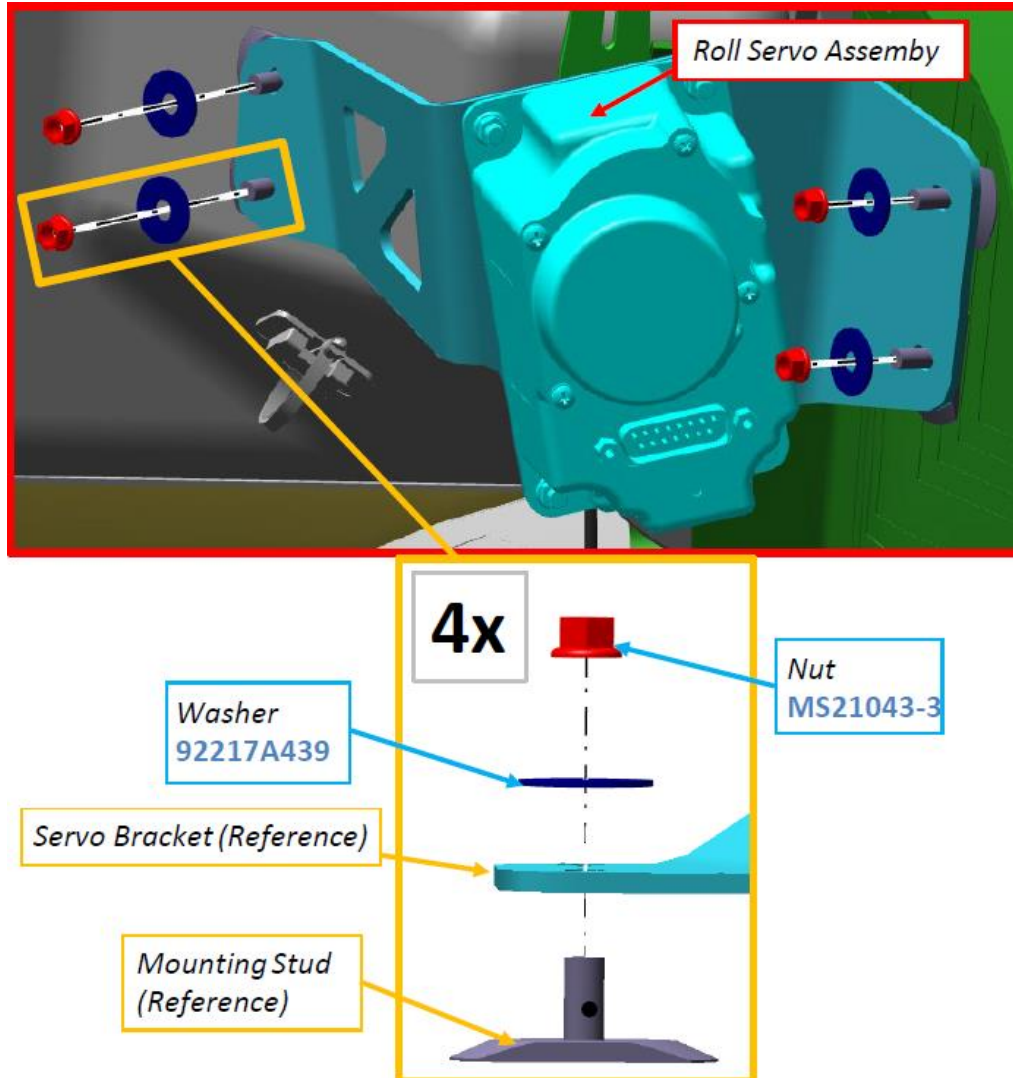
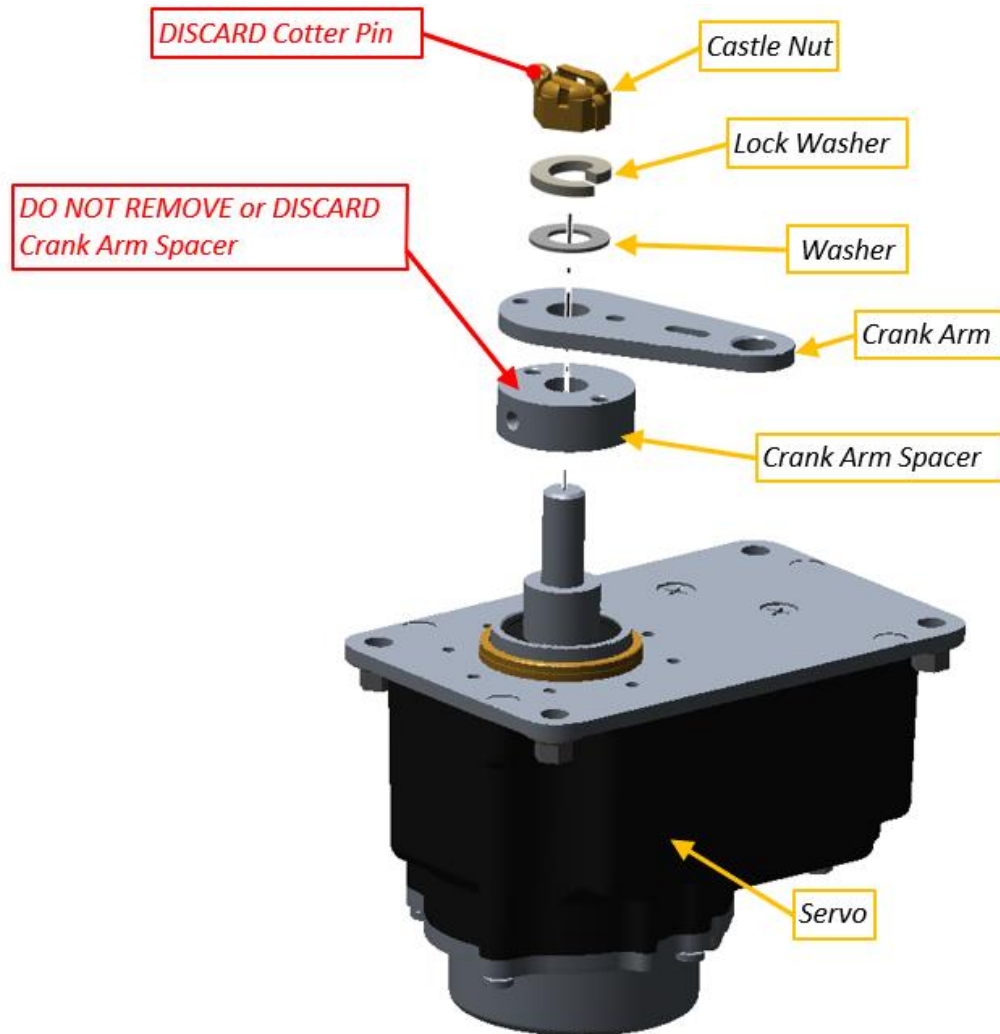
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Figure 25 Roll Servo Assembly on Center Wing Spar

7. Remove the roll servo assembly from the center wing spar.
8. Remove the cotter pin (MS24665-208), castle nut, locking washer, and washer from the servo arm (see Figure 26).
  - a. Retain all hardware for future installation



**SERVICE BULLETIN****SB-091222-A***Figure 26 Roll Servo Arm*

9. Remove the roll servo arm and clamp from the roll servo/roll servo bracket sub assembly
  - a. Retain the roll servo arm and clamp for future installation
10. Remove the 4x nuts (MS21043-3), 4x bolts (AN3C3A), and 4x washers (NAS1149C0332R) from the roll servo bracket (see Figure 27)
  - a. Retain hardware for Roll Servo installation

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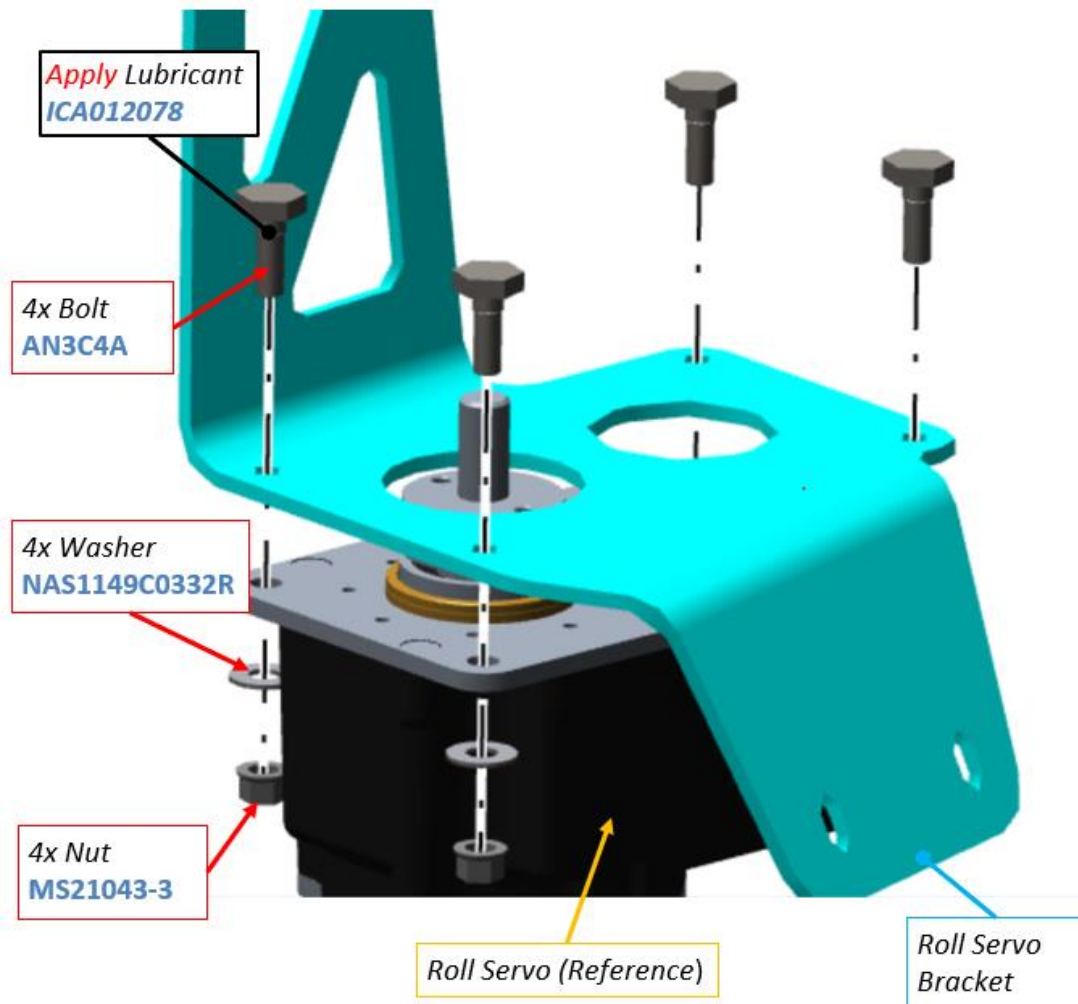
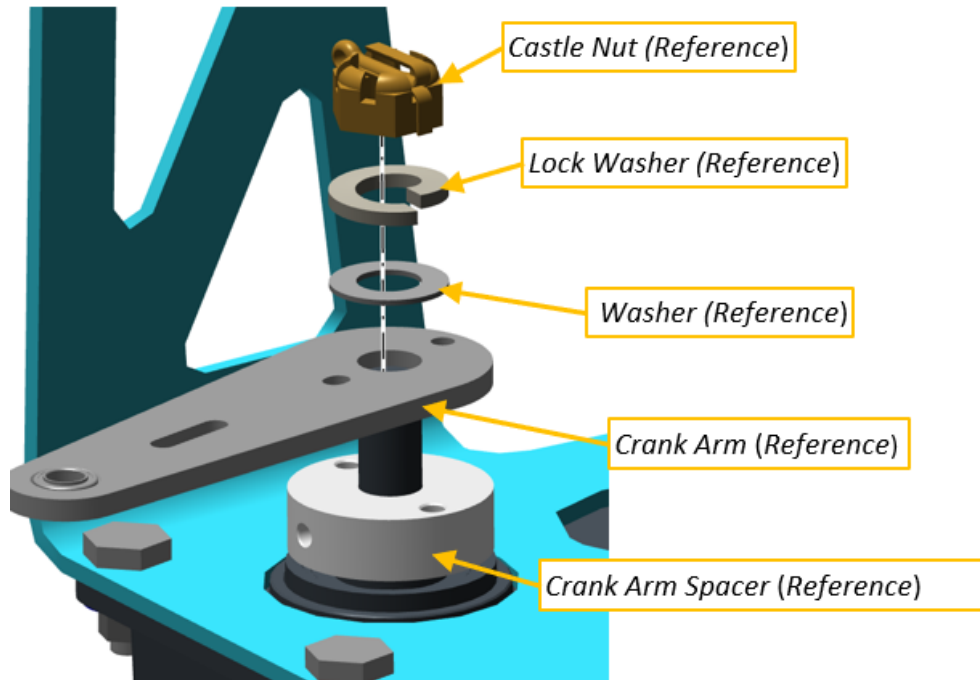


Figure 27 Roll Servo/Roll Servo Bracket Assembly

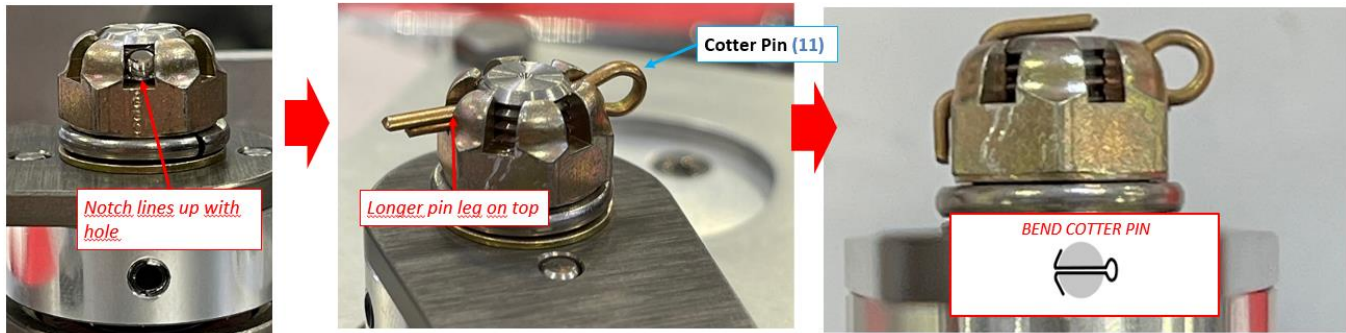
11. Remove the GSA 28 Servo from the roll servo bracket
12. Install the new GSA 28 MOD 1 (part number 011-02927-11) onto the roll servo bracket
13. Apply lubricant (ICA012078) liberally to threads and shank of 4x Bolt (AN3C3A)
  - a. Using isopropyl alcohol, clean surfaces where lubricant will be applied.
14. Install 4x Bolts, 4x washers (NAS1149C0332R) and 4x nuts (MS21043-3) (see Figure 27)
15. Torque nuts to 16.4-19.4 in-lb.
  - a. Ensure at least one full thread is protruding from the nut.
16. Assemble and install Roll Servo Arm Components (see Figure 28):
  - a. Crank Arm Spacer,
  - b. Crank Arm,
  - c. Washer,

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- d. Lock Washer,
- e. Castle Nut.
- f. ENSURE CRANK ARM SPACER ALIGNMENT PINS LINE UP WITH CRANK ARM.

*Figure 28 Roll Servo Arm Components*

- 17. Torque castle nut to 20in-lbs
  - a. Verify the lock washer is fully compressed
  - b. DO NOT EXCEED 20IN-LBS
- 18. At the castle nut, loosen the nut slowly until adjacent castle nut notch lines up with the hole in output shaft for cotter pin.
- 19. *Install NEW cotter pin*, through castle nut notch and through hole in shaft.
  - a. *ENSURE LONG LEG OF COTTER PIN IS UPWARD (see Figure 29)*

**SERVICE BULLETIN****SB-091222-A***Figure 29 Roll Servo Cotter Pin*

20. Locate the roll servo mounting studs on the center wing spar.
21. Place roll servo bracket assembly onto the mounting studs (see Figure 25)
22. Apply lubricant (ICA012078) liberally to threads of mounting studs.
  - a. Using isopropyl alcohol, clean surfaces where lubricant will be applied.
23. Install 4x nuts (MS21043-3), and 4x washers (92217A439) onto the mounting studs and roll servo bracket assembly
  - a. Torque nuts to 16.4 to 19.4in-lb
  - b. Ensure at least one full thread is protruding from the nut
24. Locate the roll servo clamp and roll control cable (see Figure 30).

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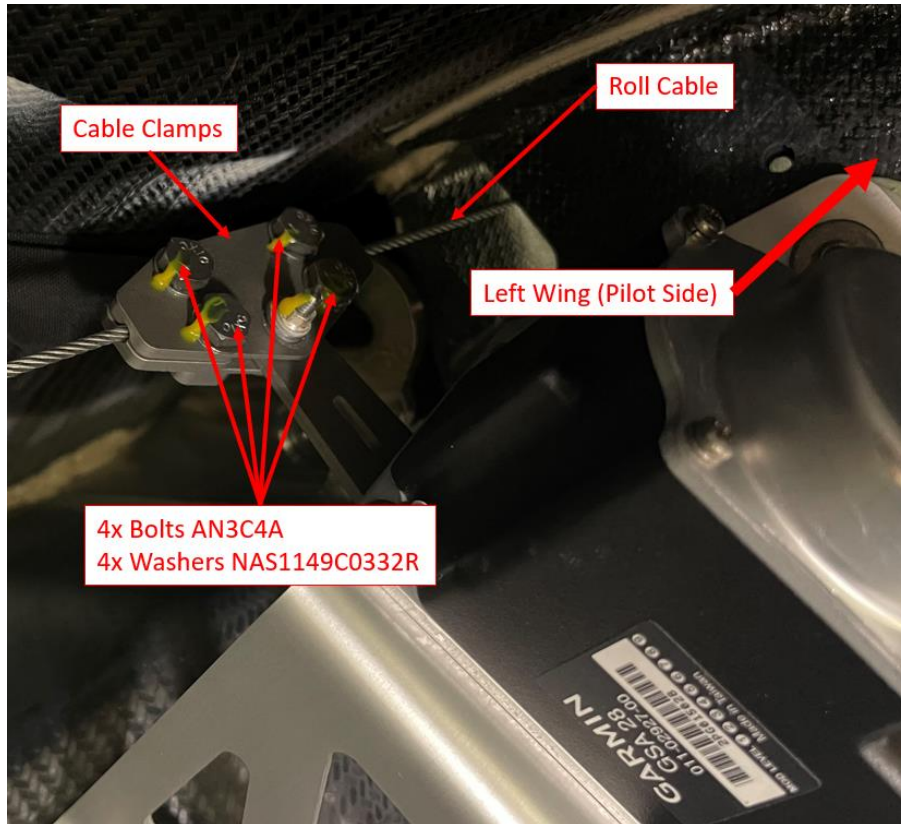


Figure 30 Roll Servo Clamp and Control Cable

25. Loosen the nut from the cable clamps on the roll servo subassembly and slide the cable clamps apart from each other (see Figure 31).

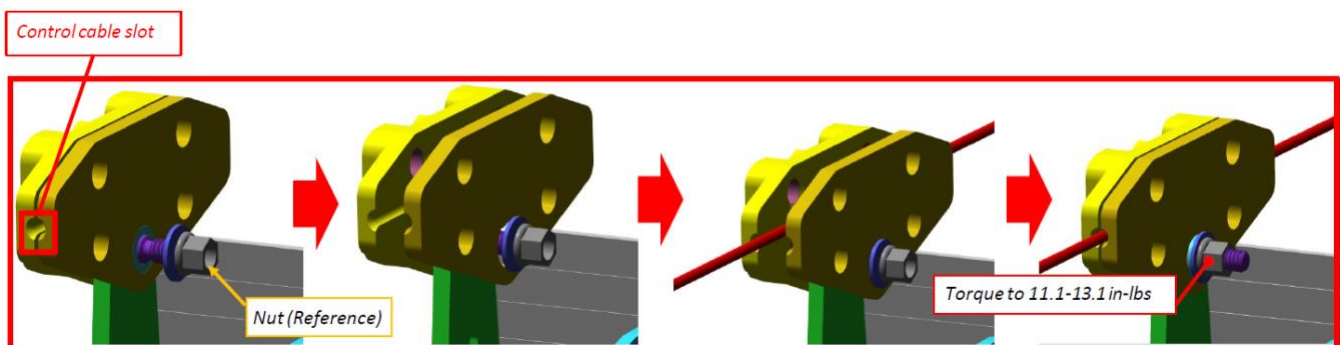


Figure 31 Roll Cable Clamp

26. Slide the control cable between the loose cable clamps and fit into the control cable slot

27. Torque nut to 11.1-13.1in-lb. Ensure at least one full thread is protruding from the nut.

a. Ensure the control cable is in the slot and not being pinched but the clamps.



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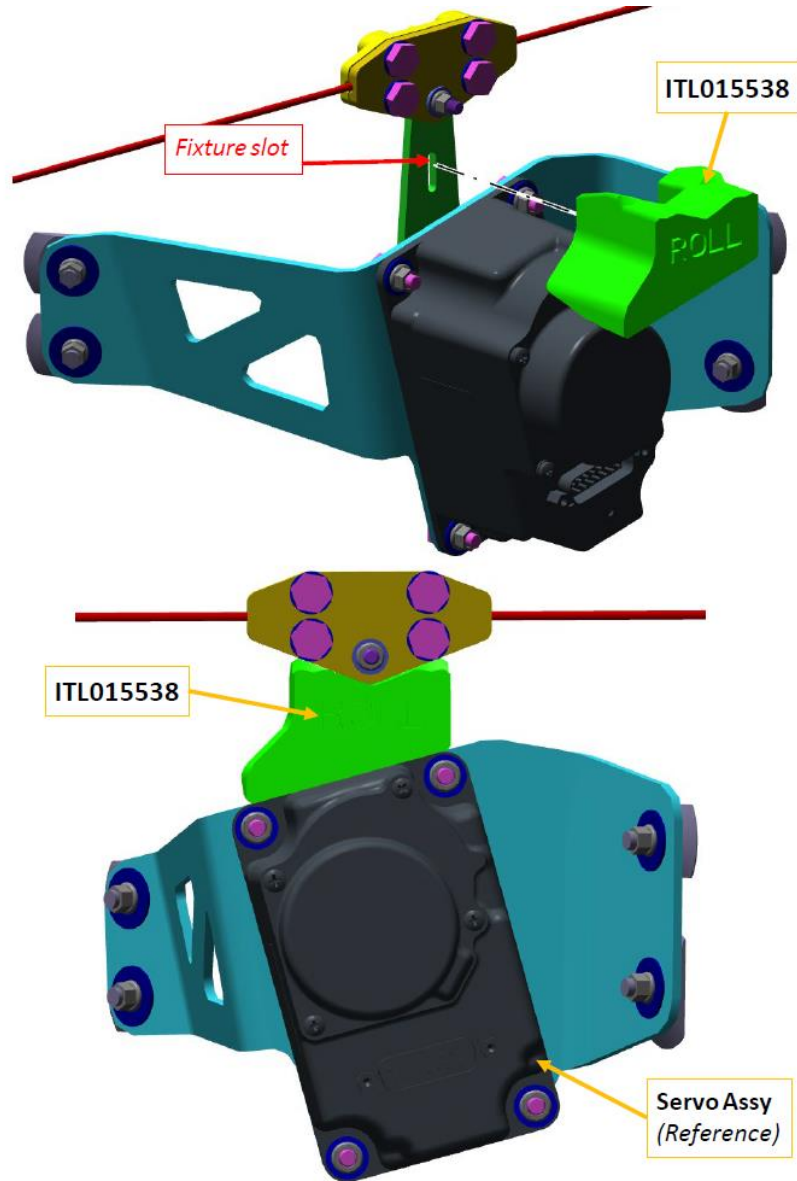
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28. Apply Lubricant (ICA012080) liberally to threads and shank of 4x Bolts (AN3C4A) of the pitch servo control clamps
  - a. Using Isopropyl alcohol, clean surfaces where Lubricant will be applied.
29. Install 4x Bolts (AN3C4A) and 4x Washers (NAS1149C0332R) (see Figure 24).
30. Rig AP roll servo system as follows:
  - a. Insert the Crank Arm positioning fixture (ITL015538) labeled 'ROLL' between the servo and the cable clamps (see Figure 32).
    - i. In the correct position the crank arm will lock into place with the positioning fixture.
  - b. Evenly tighten the 4x bolts (AN3C4A)  $\frac{1}{4}$  to  $\frac{1}{2}$  turn each in a crisscross pattern (1-2-3-4) until the clamps are snug around the cable and prevent the cable from moving freely (see Figure 33).
  - c. Apply torque stripe (ICA012080) to cable and clamp (see Figure 34)
    - i. Using isopropyl alcohol, clean surfaces where torque stripe will be applied.
  - d. Remove the Crank arm positioning fixt and rig pins from the roll system.
  - e. Roll the aircraft to the right so that the cable and cable clamps move as shown and there is access to final torque the bolts (see Figure 35)
    - i. Use the torque stripe as a guide to ensure the cable hasn't slipped through the cable clamps.
  - f. Use the hex feature on the backside of the cable clamp to prevent the clamps from rotating while torquing the bolts  $\frac{1}{4}$  to  $\frac{1}{2}$  turn each in a crisscross pattern (1-2-3-4) until torqued to 33-35 in-lb (see Figure 36).

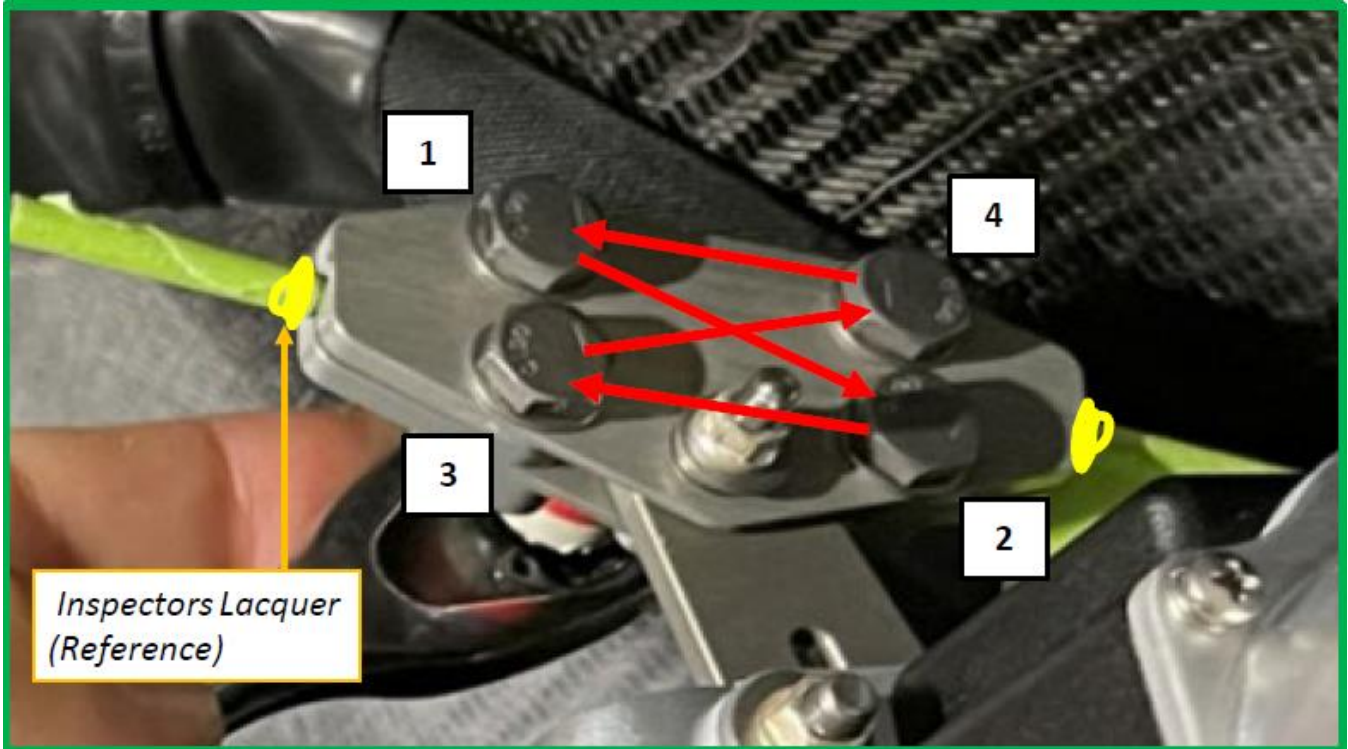
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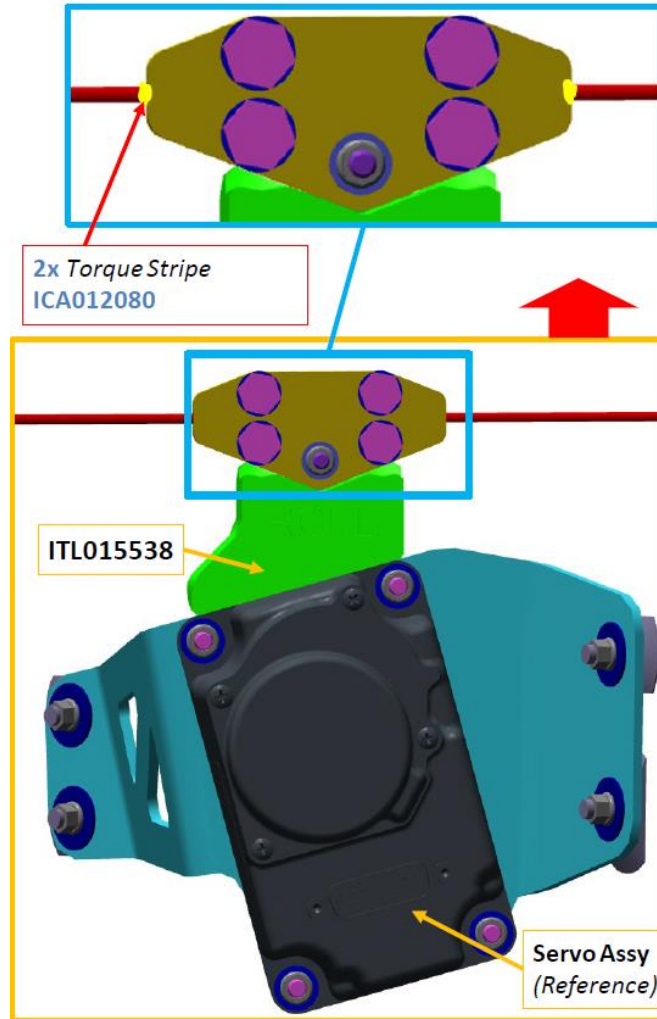
*Figure 32 Roll Servo Rigging Tool*

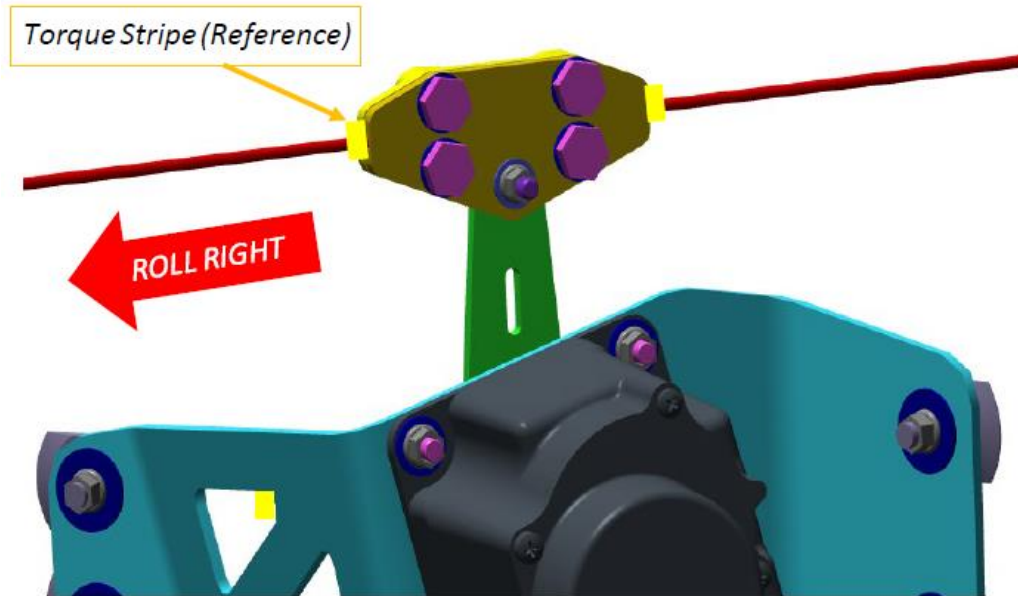
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*Figure 33 Roll Servo Bolt Pattern*



**SERVICE BULLETIN****SB-091222-A***Figure 34 Torque Strip Application*

**SERVICE BULLETIN****SB-091222-A***Figure 35 Roll Right*

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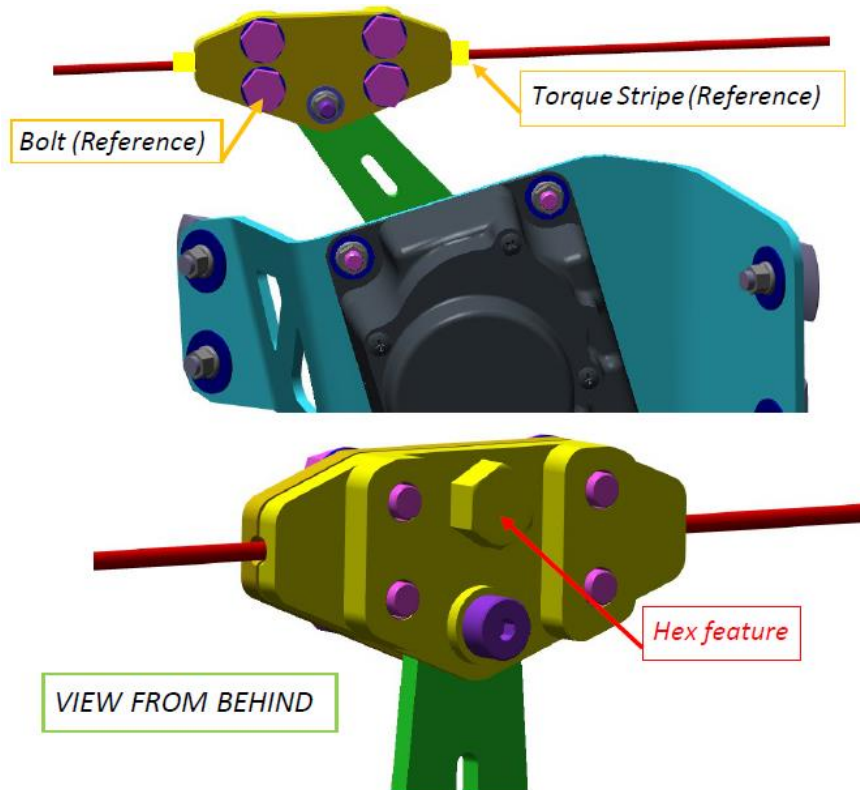


Figure 36 HEX Feature, Roll Servo

34. Apply torque stripe to protruding threads, across the nut, washer, and onto the adjacent structure for the 1x shoulder screw.
  - a. Using isopropyl alcohol, clean surfaces where torque stripe will be applied.
35. Apply torque stripe to the bolt head, across the washer, and onto the adjacent structure for the 4x hex bolt heads on the cable clamps.
  - a. Using isopropyl alcohol, clean surfaces where torque stripe will be applied.
36. Remove all rigging equipment (pins and tool).
37. There shall be no interference with autopilot system components through the full range of system travel.
  - f. The bearing from servo shall rotate freely and clamps and crank arm from servo shall not contact.
38. Verify roll cable tensions are 25.0 – 30.0 lbs.
  - a. For roll cable tension verification, refer to the most current ICON Aircraft Maintenance Manual: [100030](#)
  - b. For roll cable tension rework, refer to the most current ICON Aircraft Maintenance Manual: [100029](#)
    - i. Favor the higher end of the allowable tolerance when rigging the pitch cables.



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39. Connect D9148P pitch servo connector to pitch servo (see Figure 23).
  - b. Torque screws to 2-4 in-lbs.

### WARRANTY INFORMATION:

ICON will cover parts and labor for the inspection (**at 2 work hours**) and installation (**at 3 work hours**) under ICON's warranty program. Please submit an invoice for warranty reimbursement for labor upon completion of this Service Bulletin. ICON will cover costs as identified, if the service bulletin is adhered to in its entirety, including the prescribed timeline. Please reference Service Bulletin number SB-091222-A.

### MAKE THE FOLLOWING LOGBOOK ENTRY:

"I hereby certify the repair and/or alteration has been completed in accordance with this Safety Directive/Alert and all the referenced documents. Potentially unclear procedures have been clarified with the Aircraft OEM. No issues were observed that might hinder return to service.

The corrective action of Service Bulletin (SB-091222-A) has been complied with (ref. FAA Exemption 10829B)".

If you have questions, comments, or concerns about this Service Bulletin and/or if you are no longer owner/operator of this aircraft, please forward this information to the present owner/operator and notify ICON Aircraft at:

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2141 ICON Way  
Vacaville, CA 95688  
(855) FLY-ICON or (707) 564-4000  
[support@iconaircraft.com](mailto:support@iconaircraft.com)

Please include the aircraft registration number, serial number, your name, and if known the contact information of the new owner/operator.