Service Bulletin SB-0072

Epic Aircraft, LLC ◆ 22590 Nelson Road ◆ Bend OR 97701
Phone: 541-318-8849 ◆ Fax: 541-382-5125 ◆ Web: www.epicaircraft.com

Subject: Pusher Servo Bridle Cable Clamps

ATA-Code: 22-10

Labor: 6 Hours

Effectivity: K061 – K125

Affected Model(s): E1000

Due: Upon Next Annual Inspection or Phase A of Progressive Inspection

Compliance: Required

Recurrence: No

1 BACKGROUND AND PURPOSE:

An Engineering Change Notice affecting certain E1000 aircraft revised the installation procedure for the pusher servo bridle cable clamps by changing the specified installation torque values and fasteners. The affected configuration may not adequately seat the clamps during installation, allowing clamp movement on the bridle cable during service.

This Service Bulletin identifies the affected aircraft and provides instructions to update the pusher servo bridle cable clamp installation to the current approved drawing configuration at the next scheduled maintenance interval.

1 REFERENCES:

Epic E1000 Aircraft Maintenance Manual, P/N SK05000000

2 WARRANTY:

For aircraft under warranty, parts and labor will be covered by Epic Aircraft, LLC if the work is performed within the compliance period and at an Authorized E1000 Service Center.

3 APPROVAL:

The engineering aspects of this service document have been shown to comply with the applicable Federal Aviation Regulations and are FAA approved.

4 REVISION:

Original Release

5 TOOLS:

No.	Description	Qty	Epic Aircraft Supplied	Customer Supplied
1.	Basic Hand Tools	A/R	☐	☒
2.	IPA Wipes	A/R	☐	☒

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6 PARTS/MATERIALS:

No.	Part Number	Description	Qty	Epic Aircraft Supplied	Customer Supplied
1.	AN5-6A	BOLT, 5/16-24 x 27/32" UNDRILLED	4	☒	☐
2.	NAS1149F0532P	WASHER, FLAT 5/16 x .032	4	☒	☐
3.	MS21044N5	NUT, SELF-LOCKING, STEEL 5/16-24	4	☒	☐

7 INSTRUCTIONS:

1. Allow the aircraft temperature to stabilize for a minimum of 3 hours before doing any inspection, rigging, or adjustments.
2. Pull the AUTOPILOT circuit breaker.
3. Set the BATT 1 and BATT 2 switches to OFF.
4. Disconnect external electrical power from the aircraft (refer to Epic E1000 Aircraft Maintenance Manual, P/N SK05000000, chapter 24-40).
5. Carefully secure the elevator in the neutral position at the outboard end of the horizontal stabilizer using wooden blocks and clamps to hold it in place.
6. Remove the pressure bulkhead access panel (refer to Epic E1000 Aircraft Maintenance Manual, P/N SK05000000, chapter 21-30).
7. Replace one fastener on the forward bridle cable clamp as follows:
    a. Remove and discard (1x) bolt, (1x) washer, and (1x) nut securing the FWD pusher servo bridle cable to the elevator control cable (refer to Figures 1 and 2).

Note:
Do not remove both fasteners on the bridle cable clamp. Only update one fastener at a time. This will prevent the need for adjusting tension on the bridle cable.

Note:
Note the orientation and location of the FWD and AFT bridle cable clamps. If the clamp moves during fastener replacement, reposition it to the recorded location and orientation before final torque. (Refer to Figure 2).

    b. Install (1x) AN5-6A bolt on the FWD bridle cable clamp. Install (1x) NAS1149F0532P washer and (1x) MS21044N5 self-locking nut on the bolt. Torque to 60 in-lbs. Verify that the cables are properly seated in the clamp. Verify that the fastener set is fully seated against the clamp and cannot be rotated by hand (Refer to Figure 2).

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c. Torque the cable clamp nut for a final value between 185 and 195 in-lbs, measured at the nut.
d. Clean the nut and adjacent surfaces and apply Dykem ® Cross-Check™ Torque Seal or similar torque seal, in accordance with the manufacturer's instructions. The torque seal should meet Boeing Specification BMS8-45 type II, Northrop Grumman specification GC115UG rev K, or Lockheed Martin specification 302-40812.

8. Replace the second fastener on the forward bridle cable clamp by repeating Step 7.
9. Replace both fasteners on the aft bridle cable clamp, one at a time, by repeating Steps 7 and 8.
10. Verify the primary elevator cable tensions (refer to Epic E1000 Aircraft Maintenance Manual, P/N SK05000000, chapter 27-30).
11. Verify bridle cable tension (refer to Epic E1000 Aircraft Maintenance Manual, P/N SK05000000, chapter 22-10).
12. Verify the gap between the two halves of the tightened bridle cable clamp is a minimum of 0.005 in.
13. Remove the blocks and clamps securing the elevator.
14. Ensure there is a minimum of 0.25 in between the bridle cable clamps and adjacent structures through the systems full range of motion.
15. Connect a ground power unit to the aircraft (refer to Epic E1000 Aircraft Maintenance Manual, P/N SK05000000, chapter 24-40).
16. Push the AUTOPILOT circuit breaker in.
17. Perform the autopilot operational checkout (refer to Epic E1000 Aircraft Maintenance Manual, P/N SK05000000, chapter 22-10).
18. Install the pressure bulkhead access panel (refer to Epic E1000 Aircraft Maintenance Manual, P/N SK05000000, chapter 21-30).

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8 TABLES AND FIGURES:

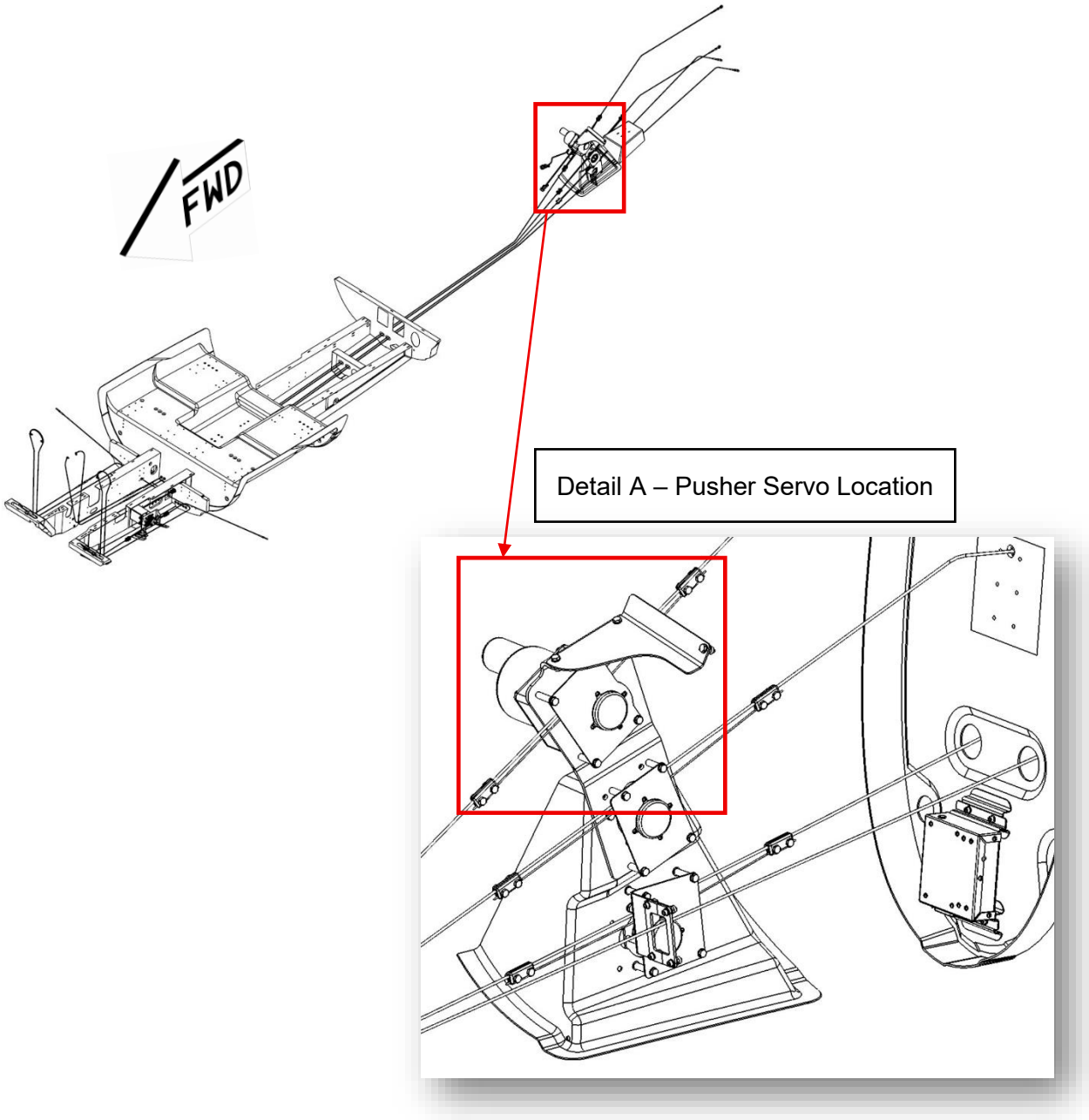


Figure 1: Autopilot Pusher Servo Location

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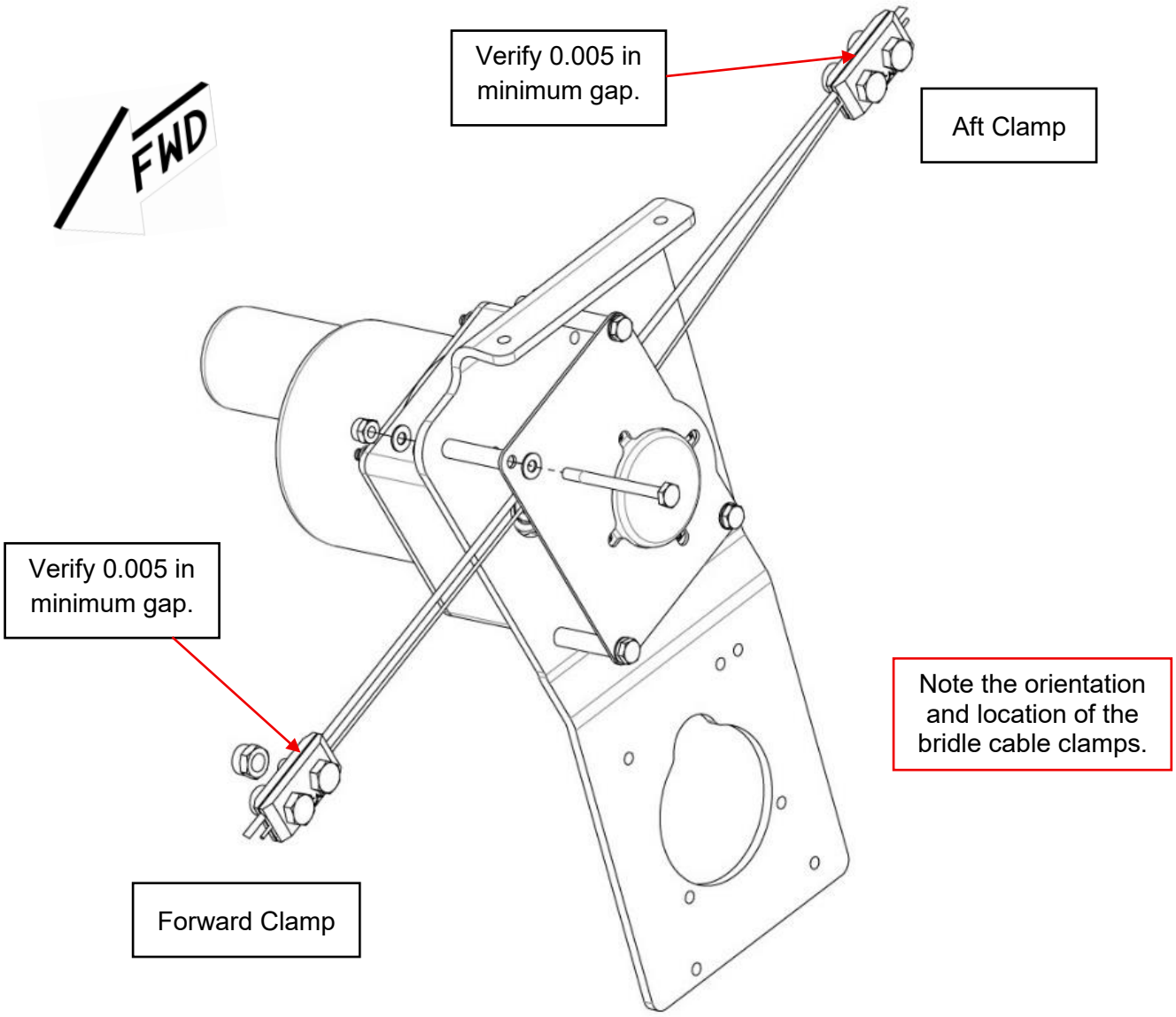


Figure 2: Pusher Servo and Bridle Cable Clamp Detail

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9 WEIGHT AND BALANCE:

N/A

10 PUBLICATIONS AFFECTED:

None.

11 RECORD COMPLIANCE:

Make appropriate entry in aircraft maintenance records.

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Appendix A: Compliance Letter

Please complete and mail this form to Customersupport@epicaircraft.com

This is to certify that I have completed the work in accordance with the Epic Aircraft, LLC Service Bulletin.

Aircraft Owner Information:
Date: _____ Aircraft Serial Number: _____ Aircraft Reg. Number: _____ Owner's Name: _____
Maintenance Entity Information
Name of Shop Performing the work: _____ Name of Person(s) Performing inspection and/or work: _____ Phone Number: _____ Email: _____