Service Letter SL-0014

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

Subject: Nitrogen Blowdown System, Charging Adapter Replacement

ATA-Code: 29-10

Labor: 3 hours

Effectivity: K003-K041

Affected Model(s): E1000, E1000 GX

Due: On condition

Compliance: Recommended ☒ Mandatory ☐

Recurrence: No

1 BACKGROUND AND PURPOSE:

The fittings on the emergency nitrogen system that hold the fill port and transducer can become loose and leak. Some nitrogen bottle assemblies have also been found to leak. The leaks may be indicated by "NITROGEN LOW" CAS message or the frequent need to refill the nitrogen bottle to maintain acceptable service pressure. The current configuration can allow movement of the fittings causing leaks.

This service letter contains instructions to replace the fill port, transducer fittings, and the bottle assembly with new, updated parts, solving the leaking issues.

2 REFERENCES:

Epic E1000 Aircraft Maintenance Manual, PN SK05000000

3 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

4 APPROVAL:

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

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

5 TOOLS:

No.	Description	Qty	Epic Aircraft Supplied	Customer Supplied
1.	Common hand tools	A/R	☐	☒
2.	Nitrogen service cart	A/R	☐	☒

6 PARTS/MATERIALS:

No.	Part Number	Description	Qty	Epic Aircraft Supplied	Customer Supplied
1.	AK26202000	Tray, FOD, Fire extinguisher, Assy	A/R	☒	☐
2.	PK29200005	Tray, FOD, Blowdown Handle	A/R	☒	☐
3.	PK29200006	Adapter, Nitrogen Blowdown Bottle	1	☒	☐
4.	4 1/8 F5OG-SS	SAE-ORB/NPTF, Male to Female	1	☐	☒
5.	4 F5OHAO-SS	Parker: Straight Thread Union, SAE-ORB, 1/4	1	☐	☒
6.	Slube 884-2	Parker: Super O-lube, O-ring lubricant	1	☐	☒
7.	7291N43	Wet-Location Snap-in Sealing Grommet for 25.2mm Hole Diameter	1	☒	☐

7 INSTRUCTIONS:

1. Set the BATT 1 and BATT 2 switches to OFF.
2. Remove all external electrical power to the airplane (refer to Epic E1000 Aircraft Maintenance Manual, PN SK05000000, chapter 24-40).
3. Open the access door to the compartment between the pilot and copilot seats.
4. Remove fire extinguisher.
5. Unbolt the fire extinguisher tray from the compartment and remove it.
6. Unbolt the blowdown handle FOD tray and remove it.
7. Check system for leaks using soapy water solution
    a. If leaks are found in valve body assembly, drain system of nitrogen using the service valve, remove and replace bottle assembly per SB-0040 before proceeding.
8. Drain the emergency landing gear extension bottle using the service valve.

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

9. Disconnect threaded SAE-ORB fitting at the manifold (refer to Figure 2).
    a. Save high pressure charging valve and nitrogen pressure transducer with connector.
    b. Lubricate O-rings of high-pressure charging valve and nitrogen pressure transducer with hydraulic fluid or Slube 884-2.
    c. Install high-pressure charging valve to nitrogen blowdown bottle adapter (refer to Figure 4 for torque of components).
    d. Install nitrogen pressure transducer into blowdown bottle adapter (refer to Figure 4).
    e. Assure valve is in the verticle orientation when installed to align with hole in FOD tray.
    f. Discard remaining removed parts.
10. Lubricate O-rings on 1/4 straight thread SAE-ORB union with hydraulic fluid or Slube 884-2.
11. Install new nitrogen blowdown bottle adapter with 1/4 straight thread SAE-ORB union (Ref Figure 4).
12. Connect electrical connector.
13. Service the nitrogen bottle (refer to Epic E1000 Aircraft Maintenance Manual, PN SK05000000, chapter 12-10).
14. Perform a leak check with soapy water to verify that fittings are not leaking.
15. Connect ground power (refer to Epic E1000 Aircraft Maintenance Manual, PN SK05000000, chapter 24-40).
16. Set the BATT 1 and BATT 2 switches to ON.
17. Ensure that the nitrogen pressure reading (N2PRES) on the MFD is indicating correctly.
18. Set the BATT 1 and BATT 2 switches to OFF.
19. Remove all external electrical power to the airplane (refer to Epic E1000 Aircraft Maintenance Manual, PN SK05000000, chapter 24-40).
20. Install new Blowdown Handle FOD Tray or drill hole Per Figure 1 in existing tray if no hole exists.
21. Install tray.
22. Install New Fire Extinguisher FOD Tray or install sealing grommet in existing tray per Figure 3.
23. Install tray.

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

Note: Install grommet from inside of tray facing out.

24. Install fire extinguisher.

25. Close the access door to the compartment.

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

26.

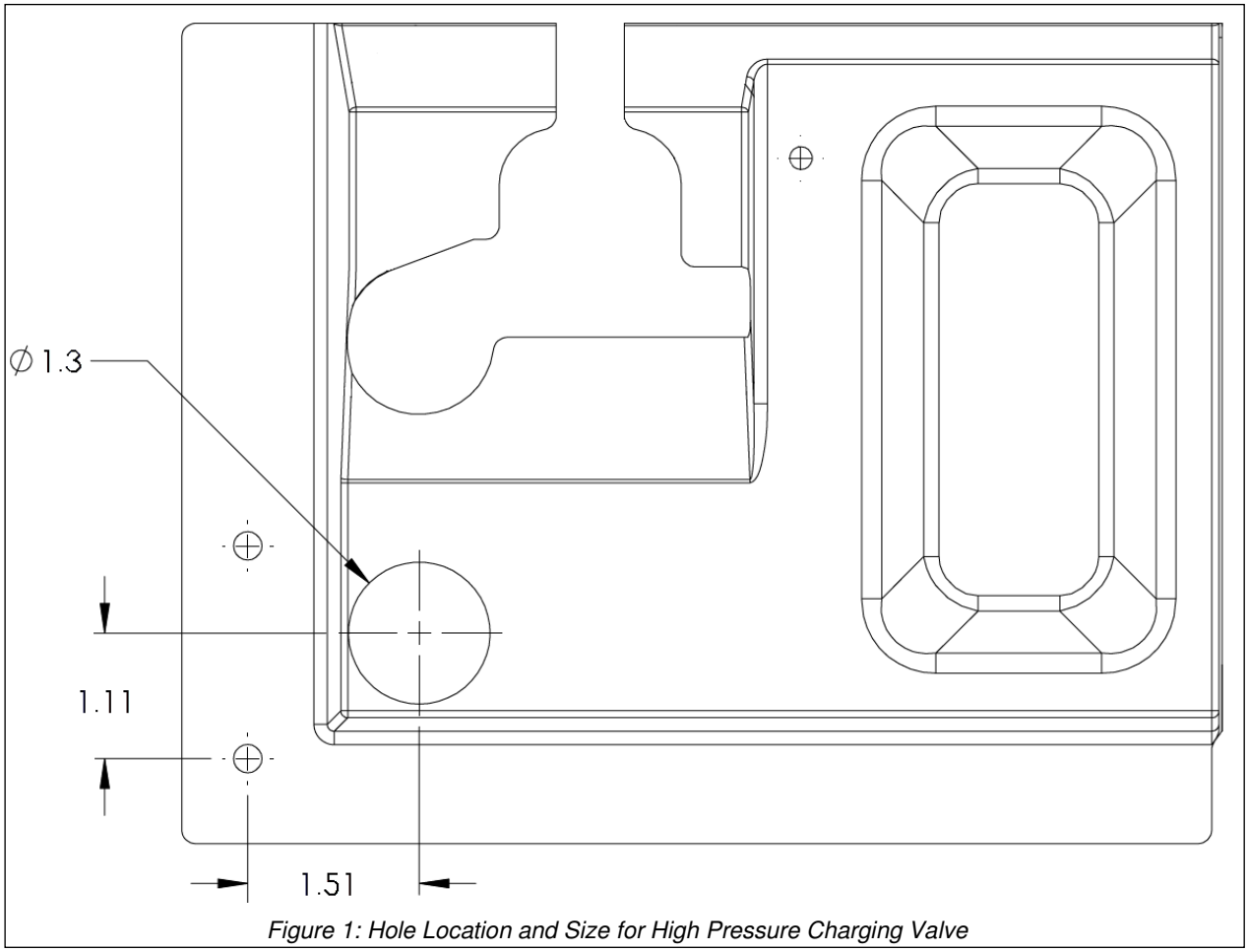


Figure 1: Hole Location and Size for High Pressure Charging Valve

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

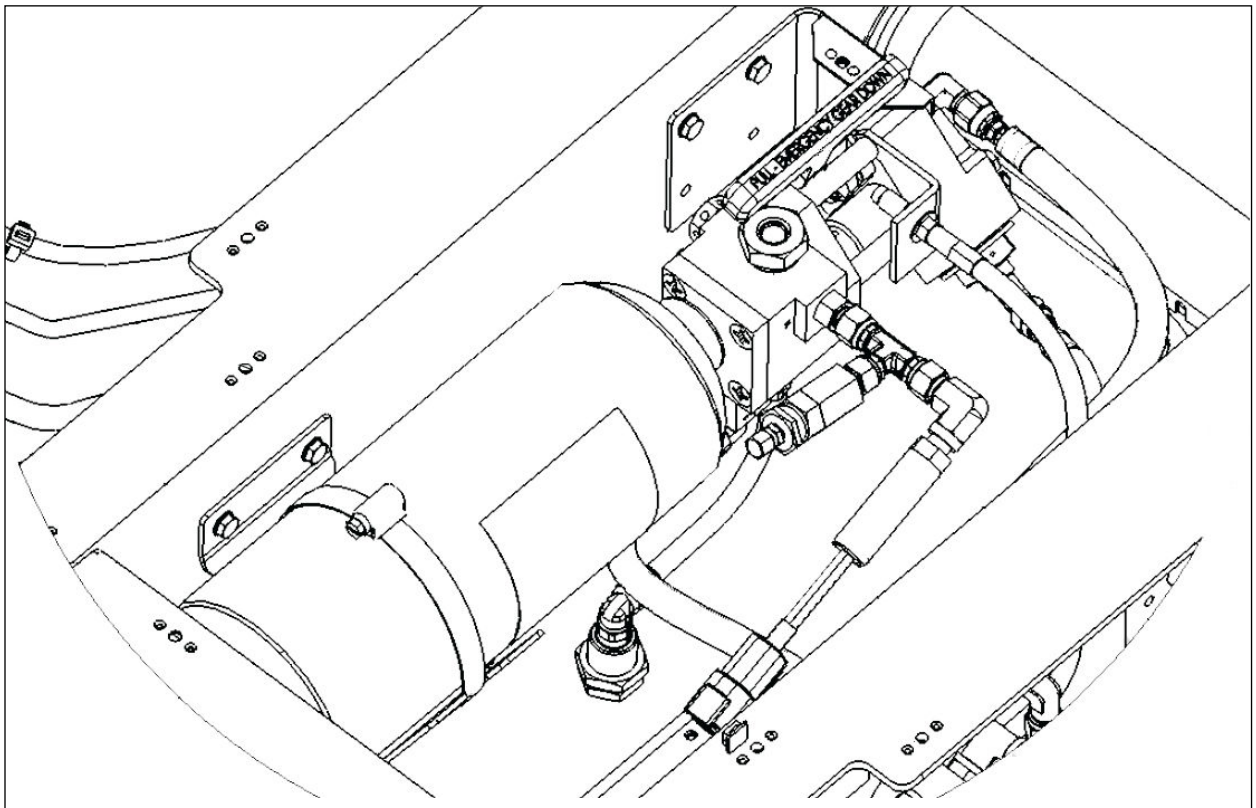


Figure 2: Existing Orientation Before Fix

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



Figure 3:Grommet Installation

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

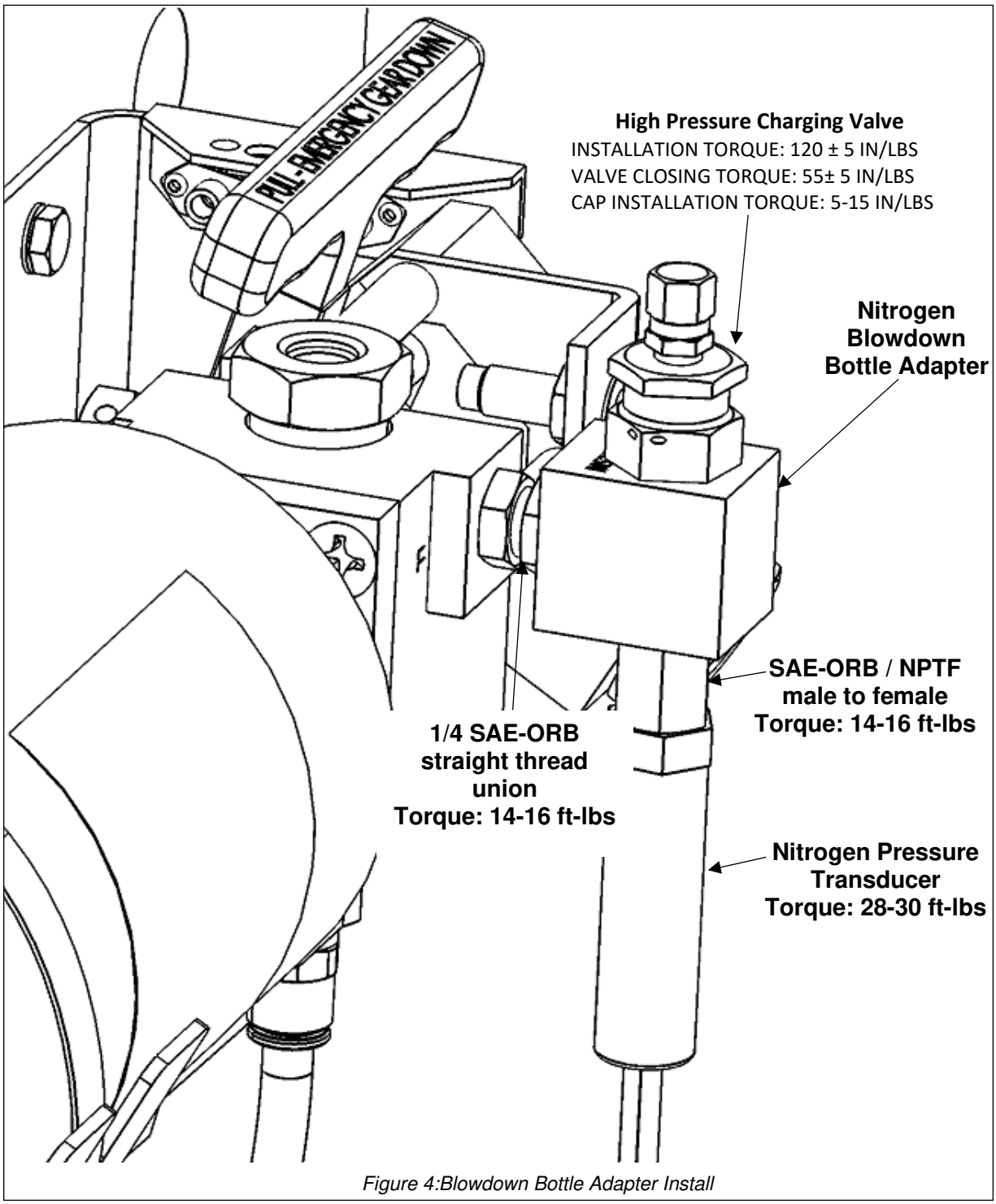


Figure 4:Blowdown Bottle Adapter Install

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

8 WEIGHT AND BALANCE:

Negligible

9 PUBLICATIONS AFFECTED:

Epic E1000 Aircraft Maintenance Manual, PN SK0500000
Epic E1000 Illustrated parts Catalog P/N SK05000004

10 RECORD COMPLIANCE:

Make appropriate entry in airplane maintenance records.

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

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: _____