



# SERVICE BULLETIN

**SB00034**

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**Cub Crafters, Inc. Considers Compliance Mandatory**

**EFFECTIVE DATE:** This SERVICE BULLETIN is effective **October 28, 2019.**

**SUBJECT:** FUEL FITTING INSPECTION

**MODELS AFFECTED:** ALL CC11-100 AND CC11-160

**COMPLIANCE TIME:** INSPECT WITHIN 25 FLIGHT HOURS

**PURPOSE:** TO INSPECT FUEL LINE FITTINGS FOR LEAKS

NOTE THAT THIS IS A PRECAUTIONARY MEASURE IN RESPONSE TO LEAKING FUEL FITTINGS FOUND IN SOME CC11 AIRCRAFT. NO REPORTED LEAKS HAVE BEEN FOUND IN FLIGHT.

**WARRANTY:** IF THE AIRCRAFT IS UNDER WARRANTY, CONTACT A CUBCRAFTERS AUTHORIZED SERVICE CENTER TO COMPLETE WORK. PARTS WILL BE PROVIDED, IF NECESSARY. PLEASE CONTACT CUBCRAFTERS CUSTOMER SUPPORT FOR ASSISTANCE.

**PARTS LIST:**

*\*Parts only necessary if replacing a fuel line fitting.*

*\*\*Parts only necessary if replacing double stick tape with hook and loop tape for the installation of the interior panel.*

PART NUMBER	DESCRIPTION	QTY
HDW-261-765*	Nylon Inserts	AR
HDW-SR-5065B	Interior Panel Buttons	AR
RM0012-101**	Adhesive Promoter, 3M	AR
RM0568-001*	Loctite 330	AR
RM0568-010*	Loctite 401	AR
RM1015-008**	.50 Loop Tape, Adhesive	AR
RM1016-008**	.50 Hook Tape, Adhesive	AR
RM4905-002**	3M Acrylic Foam Tape - Black	AR
SP60003-001*	Nylon Union Tee	4
SP60004-001*	Nylon Union Elbow	2
SP60005-001*	Nylon Union Straight Connector	AR
SP60009-003*	Flexible Nylon 11 Tubing	AR
TC3017-001*	Inspection Cover Reinforcement Ring	1
TC9101-001*	Inspection Cover Assembly	1

Note: "AR" – As Required.

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#### INSTRUCTIONS:

##### Fuel Fitting Inspection:

1. Remove the left side interior panels from the cabin to allow access to the fuel lines and fittings near the fuel selector. In this area, there are 3 Nylon Union Tee fittings; CubCrafters part number SP60003-001. See Figure 1.

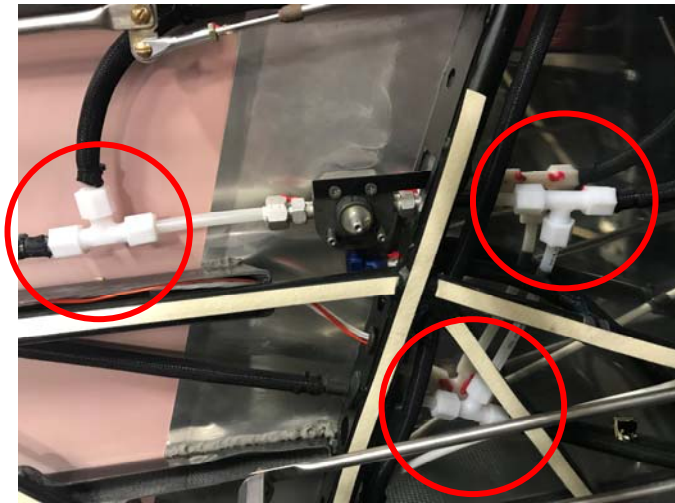


Figure 1 - Fuel Selector Nylon Fuel Fittings

#### NOTE

This fuel line configuration is for aircraft SN 11-00264 and on. CC11 aircraft prior to SN 11-00264 have a fuel line configuration in this area that includes two Nylon Union Tee fittings and one Nylon Union Elbow fitting.

2. Drain fuel from the aircraft.
3. Apply approximately 7-11 pounds of tensile force on all Nylon fuel lines going through these fittings, by holding the fitting, and pulling on each fuel line. See Figure 2.

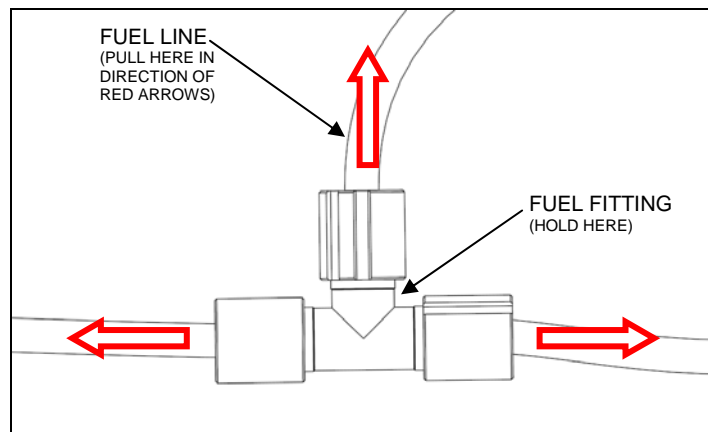
#### NOTE

It is recommended to pull 7-11 pounds on a fish scale prior to applying the force to the fuel lines as a method to calibrate the pull.

#### CAUTION

**Excessive force on the fuel lines could cause damage to the fuel fittings.**

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**Figure 2 - Tensile Force Application**

4. If any fuel lines are loose in the fitting, or if any leaks are found, proceed to the “Fuel Fitting Repair” section of this Service Bulletin. If not, proceed to step 5.
5. Remove the inspection panel that is located on the belly, behind the aft fuel drain on the right side of the aircraft. See Figure 3. Note that for standard baggage the fuel drain and inspection panel are located one bay forward.



**Figure 3 - Inspection Panel Location, Extended Baggage**

6. The aft fuel fittings can be seen and accessed through this inspection panel. The aft left fuel fitting is one Nylon Union Elbow; CubCrafters Part Number SP60004-001. The aft right fuel fitting is one Nylon Union Tee; CubCrafters Part Number SP60003-001. See Figures 4 and 5, respectively.

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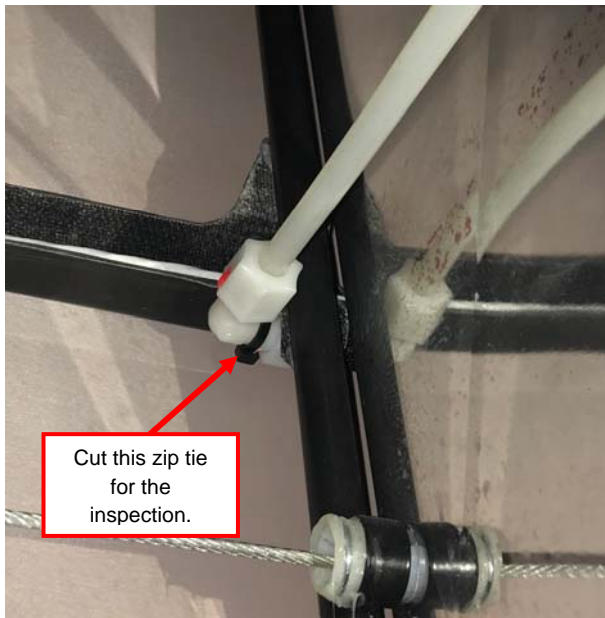


Figure 4 - Nylon Union Elbow Fuel Fitting, Aft Left



Figure 5 - Nylon Union Tee Fuel Fitting, Aft Right

- Cut the zip tie shown in Figure 4.
- Apply approximately 7-11 pounds of tensile force on all aft Nylon fuel lines going through these two fittings (one elbow and one tee). See Figure 2.

#### NOTE

It is recommended to pull 7-11 pounds on a fish scale prior to applying the force to the fuel lines as a method to calibrate the pull.

#### CAUTION

**Excessive force on the fuel lines could cause damage to the fuel fittings.**

- If any fuel lines are loose in the fitting, or if any leaks are found, proceed to the "Fuel Fitting Repair" section of this service bulletin.
- If all fuel lines are tight in the fitting, and no leaks are present, reinstall a zip tie in the same location as shown in Figure 4, and replace the belly inspection panel.

#### NOTE

After draining the fuel tanks, it is recommended to replace the two large O-rings, MS29513-114, in the fuel selector to prevent leaking.  
Reference AMM 6.3.15.

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11. Reinstall the interior panels. If the interior panels were installed with double sided sticky tape, replace double sided sticky tape with hook and loop tape as follows:
  - a. Use the adhesive promoter, foam tape, and loop tape on the fuselage as required to ensure proper fit. Use adhesive promoter and hook tape on the interior panel faying surface.
12. Make a log book entry stating that SB00034 Rev NC was complied with. There is no change to weight and balance.

#### **Fuel Fitting Repair:**

13. The following only applies if a loose fuel line and/or a leak was found during the inspection. If a repair is necessary, contact CubCrafters for parts.
14. If the leaking fuel line fitting is aft of the cargo bay, as seen in Figures 4 and 5, it may be necessary to cut another inspection panel to access the fitting for repair. In this case:
  - a. Position the new inspection cover reinforcement ring - CubCrafters Part Number TC3017-001 - immediately opposite of the panel location shown in Figure 3. It should be located on the opposite side of the fuselage center belly stringer, as shown below in Figure 6.



**Figure 6 - New Inspection Panel Location**

- b. Adhere the new inspection cover reinforcement ring using Loctite 330. Remove any excess adhesive to prevent paint damage. Wait 6 hours to allow Loctite to cure.
  - c. Cut out the fabric inside of the inspection cover reinforcement ring.
15. Remove the leaking fuel fitting(s) by unscrewing the ferrule nuts. Note the nut has been bonded to the compression fitting body; unscrewing the nut may cause it to crack.

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16. Cut away the section of the nylon tubing that was previously installed in the fitting. Discard the insert.
17. Ensure the nylon tube end is cut squarely. Remove internal and external burrs.
18. Replace the fuel fitting with new, provided by CubCrafters, as described below. It may be possible to reattach the nylon tubing to the compression fitting using a new compression nut and ferrule. If this is not possible cut out more of the nylon tube so that it is possible to install a straight compression fitting, CubCrafters Part Number SP60005-001.
19. Insert the Nylon tube through the back of the ferrule nut.
20. Place the insert into the tube, ensuring that the tube end is touching the insert shoulder.
21. Seat the tube into the fitting body, ensuring that the tube is touching the tube stop. (Figure 7)

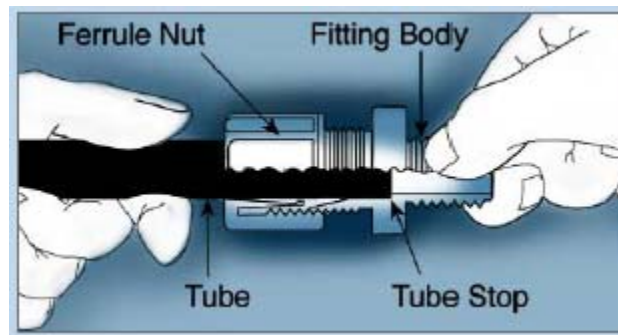


Figure 7 - Fitting Installation

22. While holding the tube firmly against the tube stop, tighten the nut by hand.
23. Tighten the nut with a wrench 1½ to 2 additional turns. Note that if the nut is tightened too much, the compression fitting may crack. If this happens, it is necessary to replace the entire fitting. Return to Step 15.

#### NOTE

After draining the fuel tanks, it is recommended to replace the two large O-rings, MS29513-114, in the fuel selector to prevent leaking.  
Reference AMM 6.3.15.

24. Perform a leak check.
  - a. Fill each tank with approximately 5 gallons of fuel.
  - b. Check each fuel fitting for leaks.
  - c. If there are leaks, drain the tanks and either tighten or replace the leaking fuel fitting. Return to Step 24a.
25. Apply a drop of Loctite 401 glue to the intersection of the nut and fitting body in 2 locations 180° apart. Apply torque stripe to fitting.



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- 26.** Replace the zip tie shown in Figure 4.
- 27.** Replace interior panels and/or inspection covers on the belly. If the interior panels were installed with double sided sticky tape, reinstall them with hook and loop tape as follows:
  - a.** Use the adhesive promoter, foam tape, and loop tape on the fuselage as required to ensure proper fit. Use adhesive promoter and hook tape on the interior panel faying surface.
- 28.** Allow Loctite 401 to cure for 24 hours before aircraft operation.
- 29.** Make a log book entry stating that SB00034 Rev NC was complied with, noting which fitting(s) was/were changed. There is no change to weight and balance.

If you are no longer in possession of this aircraft, please forward this information to the present owner/operator and notify Cub Crafters, Inc. of the address of the current owner at:

1918 South 16th Avenue  
Yakima, WA 98903-1212

Phone: (877) 484-7865 or (509) 248-9491  
Fax: (509) 248-1421  
Email: [support@cubcrafters.com](mailto:support@cubcrafters.com)  
Website: [www.cubcrafters.com](http://www.cubcrafters.com)

Please include the aircraft registration number, serial number, current name, and address of the owner and/or operator.