



Cub Crafters, Inc. Considers Compliance Mandatory

This Service Bulletin is issued per the requirements of ASTM F2295-06.
It is a Safety Directive for the purpose of compliance with 14 CFR §91.327(b)(4).

- EFFECTIVE DATE:** This Service Bulletin is effective **October 27, 2011**.
- SUBJECT:** *HORIZONTAL STABILIZER INSPECTION / REPAIR*
- MODELS AFFECTED:** *CC11-100 AND CC11-160 S/N 00001 THROUGH S/N 00094 AND S/N 00096 THROUGH S/N 00302*
- COMPLIANCE TIME:** *TO COINCIDE WITH THE NEXT REGULARLY SCHEDULED MAINTENANCE EVENT BUT NOT TO EXCEED TWENTY-FIVE (25) HOURS FLIGHT TIME*
- CONTINUED INSPECTION:** *AT ANNUAL CONDITION INSPECTION IN ACCORDANCE WITH THE AIRCRAFT MAINTENANCE MANUAL*
- PURPOSE:** Cub Crafters has learned of a limited number of cases where a brace inside the horizontal stabilizer has come loose. The reported braces have either come loose at the weld, or cracked just beyond the weld.

PARTS LIST:

<u>PART</u>	<u>DESCRIPTION</u>	<u>QTY</u>
XC81405-003*	Horizontal Stabilizer Gusset	4
SC81406-001**	Horizontal Stabilizer Gusset , Outboard	2

*Applicable to *Repair Instructions 1*
**Applicable to *Repair Instructions 2*

INSPECTION INSTRUCTIONS:

1. With the palm of your hand, gently tap the bottom surface of each horizontal stabilizer in the bays between the ribs to check for cracks or breaks (you will hear it bouncing freely).
2. Gently flex the outboard, forward joint of each horizontal stabilizer to check for any movement between the outboard rib and the leading edge tube. If any movement is noted, this suggests that a break is present at that weld.
3. If any cracks or breaks are noted at the center channel brace, see *Repair Instructions 1*.
4. If a crack or a break is noted at the outboard rib, see *Repair Instructions 2*.
5. If no cracks or breaks are noted, make a log book entry stating that the inspection per SB00018 Rev B has been complied with.

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REPAIR INSTRUCTIONS 1:

1. Cut out a section of fabric that is at least 3.5 inches by 3.5 inches centered around the affected areas on both the upper and lower surfaces of the horizontal stabilizer.

NOTE

Fabric may be completely removed if desired.

2. Carefully remove all powder coat a minimum of 3.5 inches away from the areas to be welded.
3. Tack weld the broken components together as close as possible to the original location. There should be evidence of the previous joint.
4. Set one XC81405-003 on the upper side of the aft end of the channel brace. This gusset will fit such that the angle edge rests against the rib and the square end fits across the top of the channel brace with enough space for a weld bead (see Figure 1).
5. When the gusset is properly located, weld the bottom side of the gusset to the rib and the top side of the gusset to the channel brace.
6. Set one XC81405-003 on the lower side of the forward end of the channel brace. This gusset will fit such that the angle edge rests against the rib and the square end fits across the bottom of the channel brace with enough space for a weld bead (see Figure 1).
7. When the gusset is properly located, weld the top side of the gusset to the rib and the bottom side of the gusset to the channel brace.

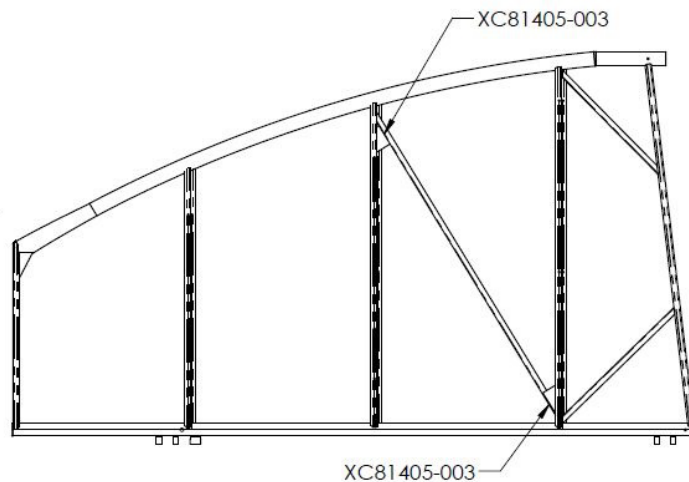


FIGURE 1 – Gussets at Center Channel Brace (Left Horizontal Stabilizer, Looking Down)

8. Prime and/or paint all exposed metal.
9. Patch and repair the fabric or recover the horizontal stabilizer in accordance with AC43.13B.
10. Make a log book entry stating that the repair per SB00018 Rev B has been complied with. State which repair was performed, and which (or both) horizontal stabilizer was repaired. Changes to weight and balance are considered negligible.

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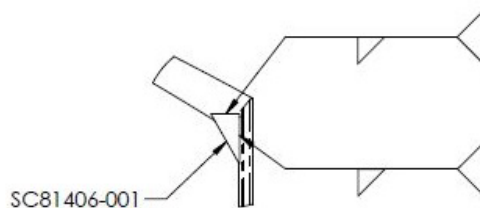
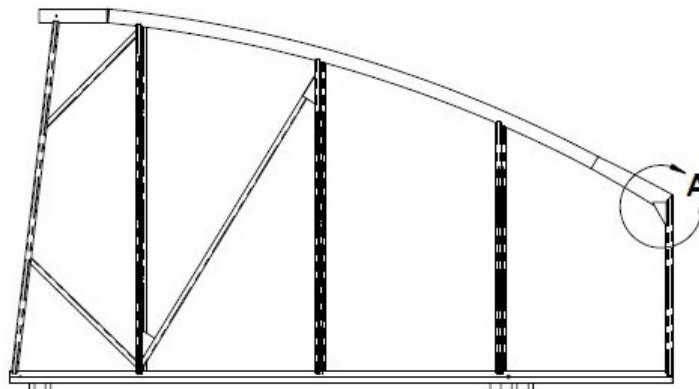
REPAIR INSTRUCTIONS 2:

1. Cut out a section of fabric that is at least 3.5 inches by 3.5 inches centered around the affected areas on both the upper and lower surfaces of the horizontal stabilizer.

NOTE

Fabric may be completely removed if desired.

2. Carefully remove all powder coat a minimum of 3.5 inches away from the areas to be welded.
3. Weld the broken components together as close as possible to the original location. Be sure to weld all around the edges, at all contact points between the leading edge tube and the outboard rib.
4. Set SC81406-001 in the corner of the leading edge tube and the outboard rib, on the underside of the horizontal stabilizer (see Figure 2).
5. When the gusset is properly located, weld the gusset to the leading edge tube and to the outboard rib (see Figure 2).



DETAIL A

FIGURE 2 – Gusset at Outboard Rib (Left Horizontal Stabilizer, Looking Up)



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- 6. Sand any sharp edges of the gusset or weld that may potentially damage the fabric covering.
- 7. Prime and/or paint all exposed metal.
- 8. Patch and repair the fabric or recover the horizontal stabilizer in accordance with AC43.13B.
- 9. Make a log book entry stating that the repair per SB00018 Rev B has been complied with. State which repair was performed, and which (or both) horizontal stabilizer was repaired. Changes to weight and balance are considered negligible.

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

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Yakima, WA 98903.
1-509-248-9491 or 1-877-484-7865
support@cubcrafters.com

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