



# SERVICE DIRECTIVE BULLETIN

SERVICE DIRECTIVE BULLETIN NO. T-063

Page 1 of 4

DATE:            September 10, 2019

1.    SUBJECT:    Cargo Hook Extension Link Inspection

2.    MODEL:        480 and 480B

3.    EFFECTIVITY:    All

4.    BACKGROUND:

Enstrom has detected a potential issue with the material used in the cargo hook extension links that may result in failure on the cargo hook installation. Failure of these links may cause a detachment of a cable resulting in damage to the aircraft, potential loss of cargo hook load, and damage or injury to persons or property on the ground. Aircraft that are exposed to heavy cargo hook operations are most at risk.

5.    COMPLIANCE:

This Service Directive Bulletin (SDB) requires inspection of the P/N 4220032-11 and 4220032-13 cargo hook extension links for signs of impending failure. Inspection of these links must be performed prior to any cargo hook operations or by the next due 100 hour inspection. If the extension links are exhibiting signs of impending failure, such as cracking, material distortion or deformation, or if the material does not have the required hardness, they must be replaced before conducting further cargo hook operations.

6.    INSPECTION:

**NOTE**

**Perform all maintenance in accordance with the TH-28/480 Series Maintenance Manual.**

6.1    Remove the links.

**NOTE**

**Removal of the links is the same for all four cable assemblies.**

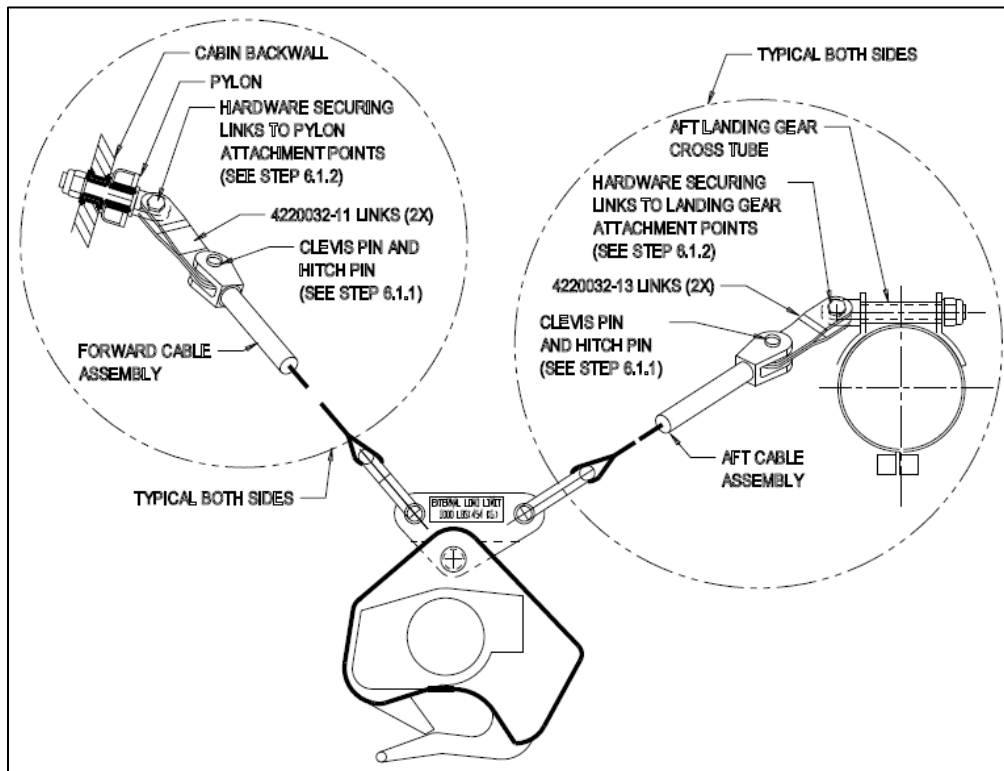
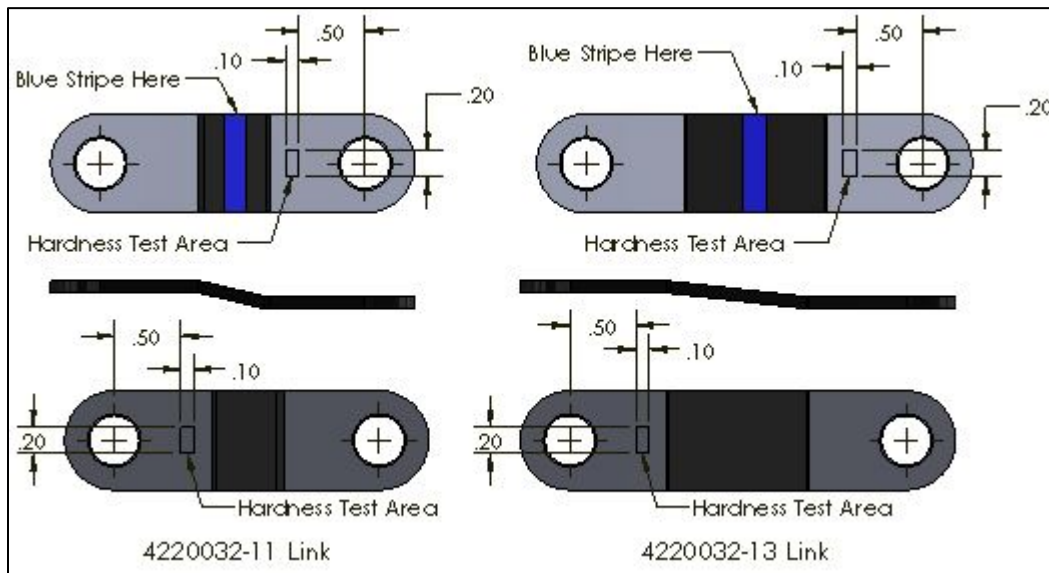


Figure 1. Cargo hook extension link layout

- 6.1.1 Remove the four clevis and hitch pins at the upper end of all cargo hook cables as shown in Figure 1, and place the cargo hook and cables aside.
- 6.1.2 Remove the hardware securing each pair of 4220032-11 and 4220032-13 links from the pylon and landing gear attachment points, respectively, and remove the four pair of links.
- 6.2 Inspect the links.
  - 6.2.1 Visually inspect each link for any deformation or distortion.
  - 6.2.2 Using a 10X magnifying glass and a suitable light source, inspect each link for cracks around the bolt and clevis pin holes.
  - 6.2.3 Inspect the holes for excessive wear or elongation. If the dimension of the hole is larger than .406 in. (10.3 mm) in any direction, replace the link.
  - 6.2.4 If deformation, distortion, or cracks are present, or if the hole is larger than .406 in. (10.3 mm) in any direction, replace the 4220032-11 link with a 4220032-15 link and/or the 4220032-13 link with a 4220032-17 link before further use of the cargo hook.
  - 6.2.5 Check the hardness of the links.

- 6.2.5.1 Remove the paint from both sides of the area to be tested (Figure 2).
- 6.2.5.2 Using a Rockwell Hardness Tester or equivalent, check the hardness of the link in either of the areas shown in Figure 2. Conduct hardness testing per ASTM E18.
- 6.2.5.3 If the hardness is 80 or higher on the Rockwell B scale, the link is acceptable.
- 6.2.5.3.1 Repaint the bare area with MIL-PRF-23377 epoxy primer, or equivalent. At the operator's option, restore the black topcoat.
- 6.2.5.3.2 Paint the center area of the strap blue to indicate it passed the hardness test.
- 6.2.5.4 If the hardness is less than 80 on the Rockwell B scale, reject the link and replace it with an airworthy link before using the cargo hook.



*Figure 2. Test and Paint Area*

- 6.2.6 The 4220032-15 and 4220032-17 links are available from Enstrom Product Support. These replacement parts will be metal stamped 15 and 17, respectively, for identification purposes.

- 6.3 Reinstall the cargo hook.

**NOTE**

**Installation of the extension links is the same for all four locations.**

---

**NOTE****If paint was removed for the inspection, paint the area as described in 6.2.5.3.1.**

- 6.3.1 Attach the 4220032-11 (4220032-15 if replaced) links in pairs to the pylon attach points using the hardware removed in step 6.1.2 (see Figure 1).
- 6.3.2 Attach the 4220032-13 (4220032-17 if replaced) links in pairs to the landing gear attach points using the hardware removed in step 6.1.2 (see Figure 1).
- 6.3.3 Torque all of the hardware to 95-110 in-lbs/10.7-12.4 Nm.
- 6.3.4 Install the cargo hook, cables, clevis pins, and hitch pins removed in step 6.1.1.

- 7. PARTS: 4220032-15 Link (As Required)  
4220032-17 Link (As Required)
- 8. SPECIAL TOOLS: N/A
- 9. MAN-HOURS: 3 hours
- 10. WARRANTY: Per Enstrom Helicopter Warranty Policy
- 11. WEIGHT CHANGE: None
- 12. LOG BOOK ENTRY: Enter compliance with this SDB in the aircraft maintenance records.
- 13. REPETITIVE ACTION: None required.