



SERVICE DIRECTIVE BULLETIN

SERVICE DIRECTIVE BULLETIN NO. 0124

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DATE: February 3, 2017

1. SUBJECT: Landing Gear Assembly - Clamp Inspection
2. MODEL: F-28A, F-28C, F-28C2, F-28F, 280, 280C, 280F, 280FX
3. EFFECTIVITY: All S/N
4. BACKGROUND:

The drag strut (pivot) and pylon attachment clamps of the landing gear assembly will be subject to fatigue caused by corrosion, cracks due to stress and vibration, and wear or damage from the landing gear use.

This Service Directive Bulletin (SDB) requires a one-time inspection and repetitive inspection of the gear leg and pylon attachment clamps.

This SDB also requires inspection and replacement, if necessary, of the gear leg and pylon attachment clamps immediately following a hard landing. The level of inspection required is determined by the severity of the hard landing as defined in paragraph 5.2.

5. COMPLIANCE:
 - 5.1 Within the next 15 hours and at each annual/100-hour inspection, inspect the gear leg and pylon attachment clamps in accordance with paragraph 6.1.
 - 5.2 In the event of a hard landing, review the three severity levels defined below (Minor, Moderate, and Severe) and inspect and replace, if necessary, the gear leg and pylon attachment clamps as directed.
 - 5.2.1 Minor: A minor hard landing does not show any deformation of the cross tubes or damage to the other landing gear components or rotables (rotating drive system components).

Inspection: Perform a visual inspection of the gear clamps in accordance with paragraph 6.1.

5.2.2 Moderate: A moderate hard landing shows deformation of the cross tubes up to but not beyond limits (0.5 inches/13 mm) or damage to the other landing gear components or rotables.

Inspection: Remove the clamps for NDT inspection in accordance with paragraph 6.2 plus perform a dimensional inspection of the bolt holes for stretch or deformation.

5.2.3 Severe: A severe hard landing shows obvious damage to the landing gear components, cross tube deformation beyond limits (0.5 inches/13 mm), and/or rotatable damage. Physical injury to the pilot or the passengers is possible.

Inspection: Remove the clamps for NDT inspection in accordance with paragraph 6.2 plus perform a dimensional inspection of the bolt holes for stretch or deformation.

6. INSPECTION:

See Figure 1 for the clamp locations on the cross beam assemblies and Figures 2 and 3 for examples of a failed clamp and cracked weldments, respectively.

NOTE

Step 6.1 inspection is performed with the clamps installed. Use a bright light source and a mirror, as required.

6.1 Perform a close, visual inspection of the drag strut and pylon attachment clamps for elongated bolt holes, cracked weldments, corrosion, and security of attaching hardware.

6.1.1 Replace clamps that exhibit any of the following: cracks, elongated bolt holes, and corrosion greater than .010 inch/0.25 mm deep.

6.1.2 Corrosion equal to or less than .010 inch/0.25 mm deep may be blended and polished smooth.

6.1.3 Secure loose attachment hardware (standard torque).

6.1.4 Cross tubes with a bow greater than 0.5 inches/12.7 mm must be replaced.

NOTE

Perform all maintenance in accordance with the applicable F-28/280 Series Maintenance Manual.

6.2 Perform NDT inspection in the event of a moderate or severe hard landing (5.2.2-5.2.3).

6.2.1 Remove the cross tube assemblies.

6.2.2 Remove clamps from the cross tubes.

- 6.2.3 Remove the paint from the clamps and inspect for cracks using dye penetrant method or magnetic particle inspection. Follow the manufacturer's instructions.
- 6.2.3.1 Positive indication – Reject the clamp and replace with an airworthy clamp.
- 6.2.3.2 Negative indication – Clamp may be returned to service.
- 6.2.4 Apply epoxy primer to any bare metal surfaces of the clamp. (Epoxy primer may be procured locally.)
- 6.2.5 If removed from the cross tube, reinstall the clamps. Leave the pylon clamp attachment hardware loose until after the cross tube is attached to the pylon.

NOTE

Cross tubes with bows up to 0.5 inches/13 mm are serviceable and may be flipped over and reinstalled.

- 6.2.6 Reinstall the cross tubes assemblies. Torque all hardware.
- 6.2.6.1 Center strut attachment, 60 in-lb/6.8Nm (Detail C)
- 6.2.6.2 Oleo assembly attachment, torque in accordance with F-28F/280F Series Maintenance Manual, Paragraph 8, D, (5).

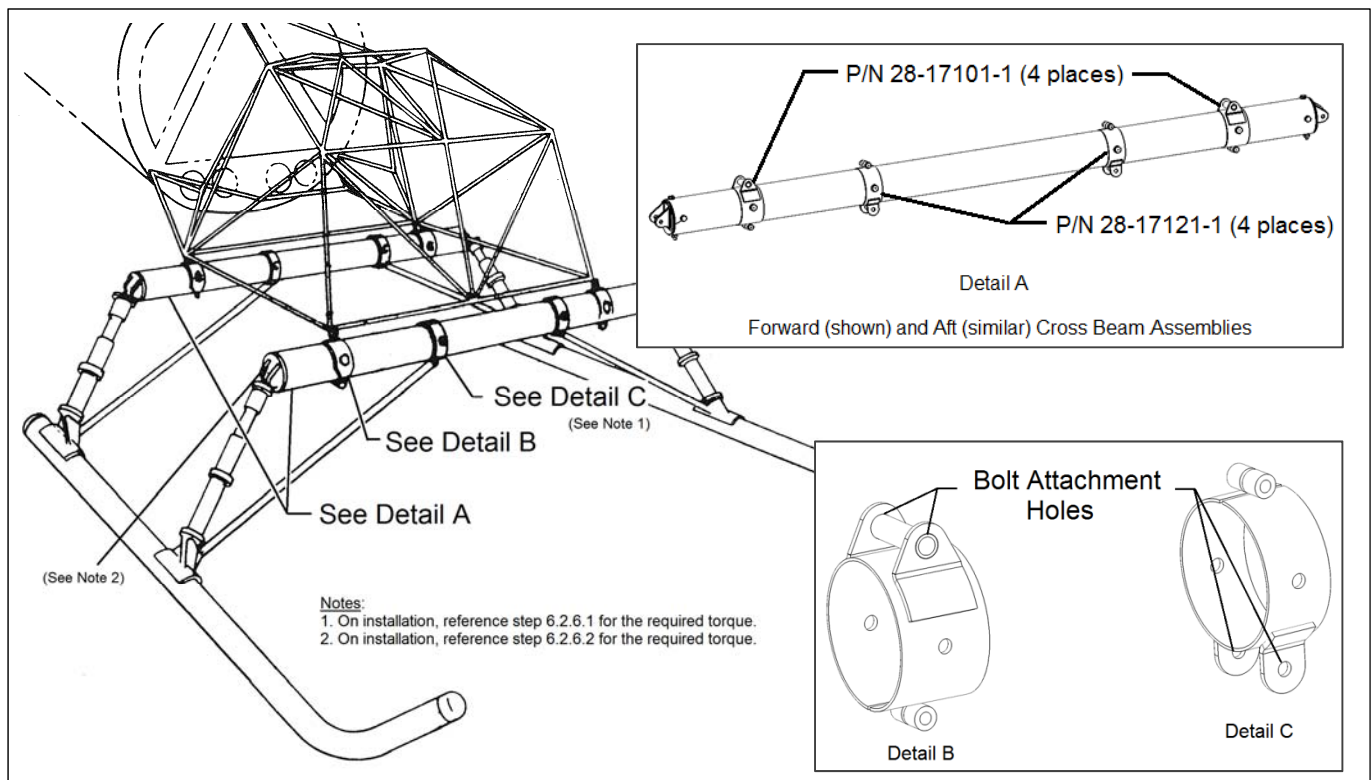


Figure 1. Clamp Installation Detail

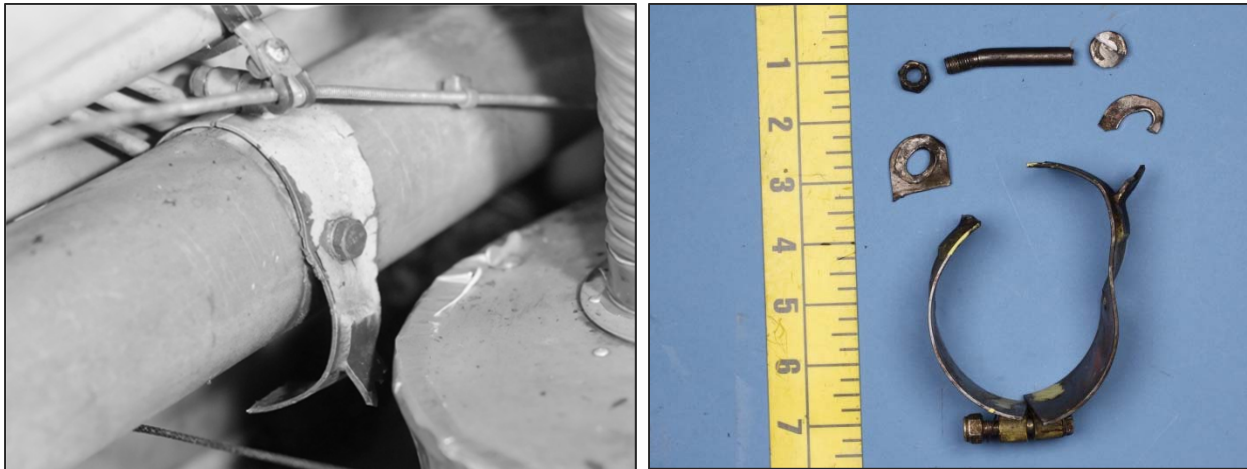


Figure 2. Failed clamp as-installed (left); clamp assembly and installation hardware removed (right).



Figure 3. Crack in two locations – each inside the weldment as indicated by the arrows.

7. PARTS:

Part Number	Description	Quantity*
28-17101-1	Clamp Weldment, Skid Gear (Pylon)	4
28-17121-1	Clamp Weldment, Pivot (Drag Strut)	4
* Quantity for complete replacement; otherwise, as required		

8. SPECIAL TOOLS:
Met-L-Chek® Dye Penetrant Kit, or Magnaflux Spotcheck® Kit, or equivalent.
9. MAN-HOURS: Inspection – 20 minutes (as installed); 8 hours (NDT)
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:
 - 13.1 Repeat the inspection procedure of paragraph 6.1 every annual/100-hour inspection.
 - 13.2 In the event of a hard landing, refer to paragraph 5.2 for inspection and replacement requirements.
 - 13.3 Refer also to SDB 0079 (Landing Gear Leg Cracks).