

SERVICE BULLETIN #26

Date: November 9, 1982

To: All owners and operators of Robinson R22 Helicopters

Subject: Installation of A960-1 clamp and A961-1 strap on the A020-2 upper steel tube frame.

Rotorcraft Affected: All R22 helicopters S/N 0002 thru S/N 0311, except those retrofitted with A020-2 Frame Assembly having component S/N 0400 and on.

Time of Compliance: Within the next 25 flight hours.

Background: Fatigue cracks have been found in several A020-2 steel tube frames where the frame attached to the tailcone. To reduce the fatigue stresses and prevent future cracks in this area, the bolt-on doubler clamp and strap to be installed per this service bulletin.

Procedure:

Install the doubler clamps as follows:

Part A - Doubler Clamp Installation:

1. While supporting the tailcone, remove the lower left hand tailcone attach bolt (NAS1304-22) and discard.
2. Install the A960-1 clamp assembly per Figure 1.
The A960-4 clamp block should have approximately .03 clearance with tailcone, and should be rotated to make lug flush with tailcone.
The A960-2 lug should fit flush with the A960-4 clamp block. If not, fabricate and install an aluminum shim between the lug and clamp block.
Insert the .250" punch (from KI-15 Kit) through the frame attachment hole. Place a bucking bar behind the A960-2 lug. Tap the punch firmly to mark the lug for drilling.
3. Remove the lug and temporarily insert the NAS1304-24 bolt into the tailcone attachment hole to support the tailcone.
4. After marking the lug check distance from edge before drilling, a minimum of .38 E.D. from punch mark to edge of material required.
Drill a .257" ("F" drill) hole through the lug at the punch mark. The hole must be drilled square to the lug surface. Deburr.

5. Reassemble the A960-1 clamp to the frame per Figure 1. Torque all nuts to 100 in.-lbs plus nut drap per Section 1.300 of the Robinson Maintenance Manual. (No nut drag on the NAS1304-10H bolts).
6. Safety the two NAS1304-10H bolts with .032" dia. stainless steel safety wire.
7. Verify .030 clearance between A960-3 clamp and actuator motor 1/16 inch material may be removed, from corner of A960-3 clamp closest to motor, if required.

Part B - Doubler Strap Installation:

1. While supporting the tailcone, remove the lower right hand tailcone attach bolt (NAS1304-22) and discard.
2. Install the A961-1 strap at the Bellcrank attachment per Figure 2. The strap must set flush with the tailcone and bellcrank attachment fitting. If not, clamp one end of strap in a vise and bend slightly to make fit flush. Insert the .250" dia. punch (from KI-15 Kit) through frame attachment hole. Place a bucking bar behind the strap. Tap the punch firmly to mark the strap for drilling.
3. Remove the strap and temporarily install the NAS1304-24 bolt into the tailcone.
4. Drill a .257" ("F" drill) hole through the strap at the punch mark. The hole must be drilled square to the strap surface. Deburr.
5. Reassemble the A961-1 strap to the frame per Figure 2. Torque all nuts to 100 in.-lbs per Section 1.300 of the Robinson Maintenance Manual.

KI-15 KIT

Kit Contents:

1 ea. A960-2 Lug	3 ea. NAS679A Nut
1 ea. A960-3 Clamp	2 ea. NAS1304-10H Bolt
1 ea. A960-4 Clamp	2 ea. NAS1304-24 Bolt
1 ea. A961-2 Strap	1 ea. NAS1304-40 Bolt
2 ea. AN960-416 Washers	3 ea. MS27151-13 Palnut
6 ea. AN960-416L Washers	

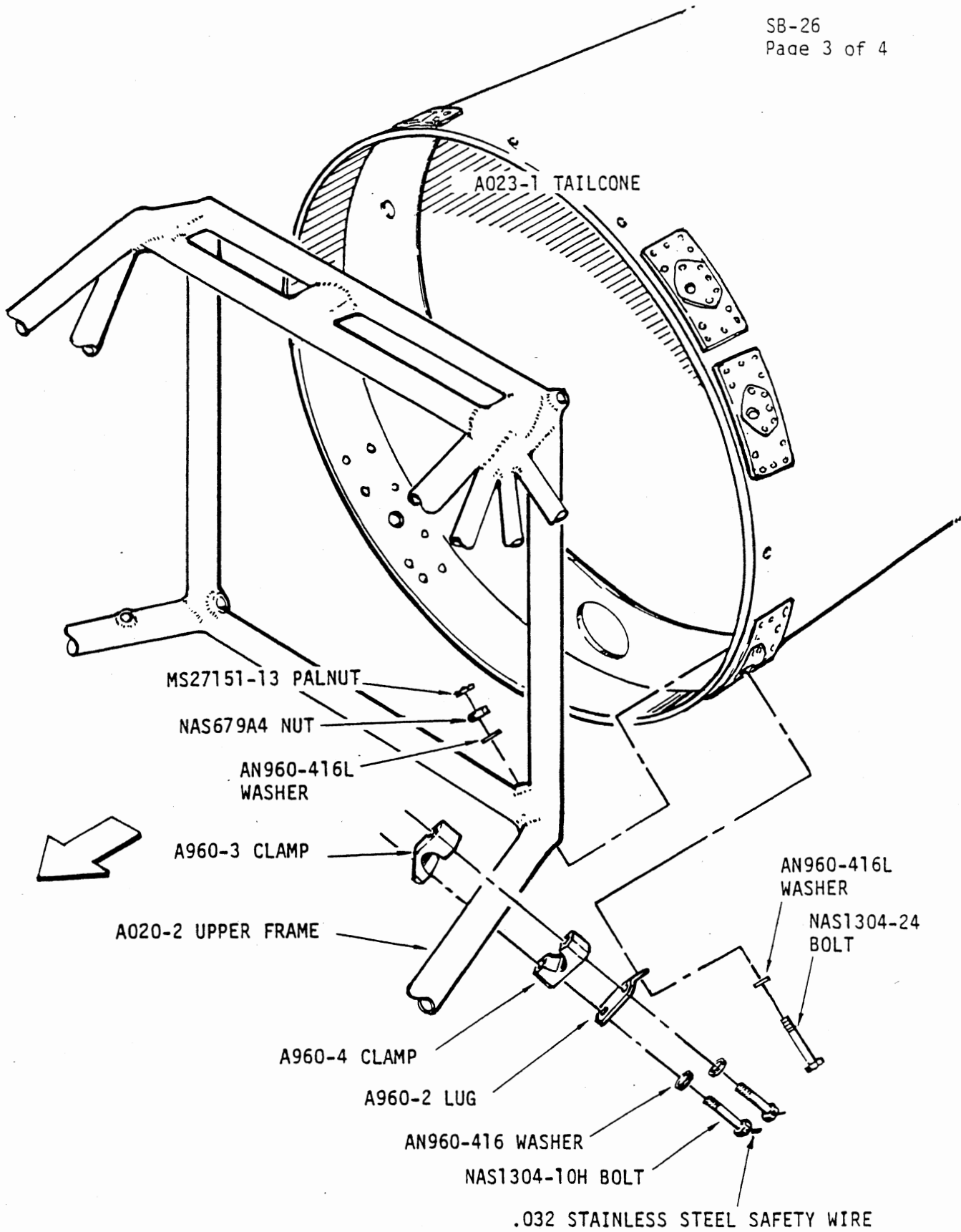


FIGURE 1.

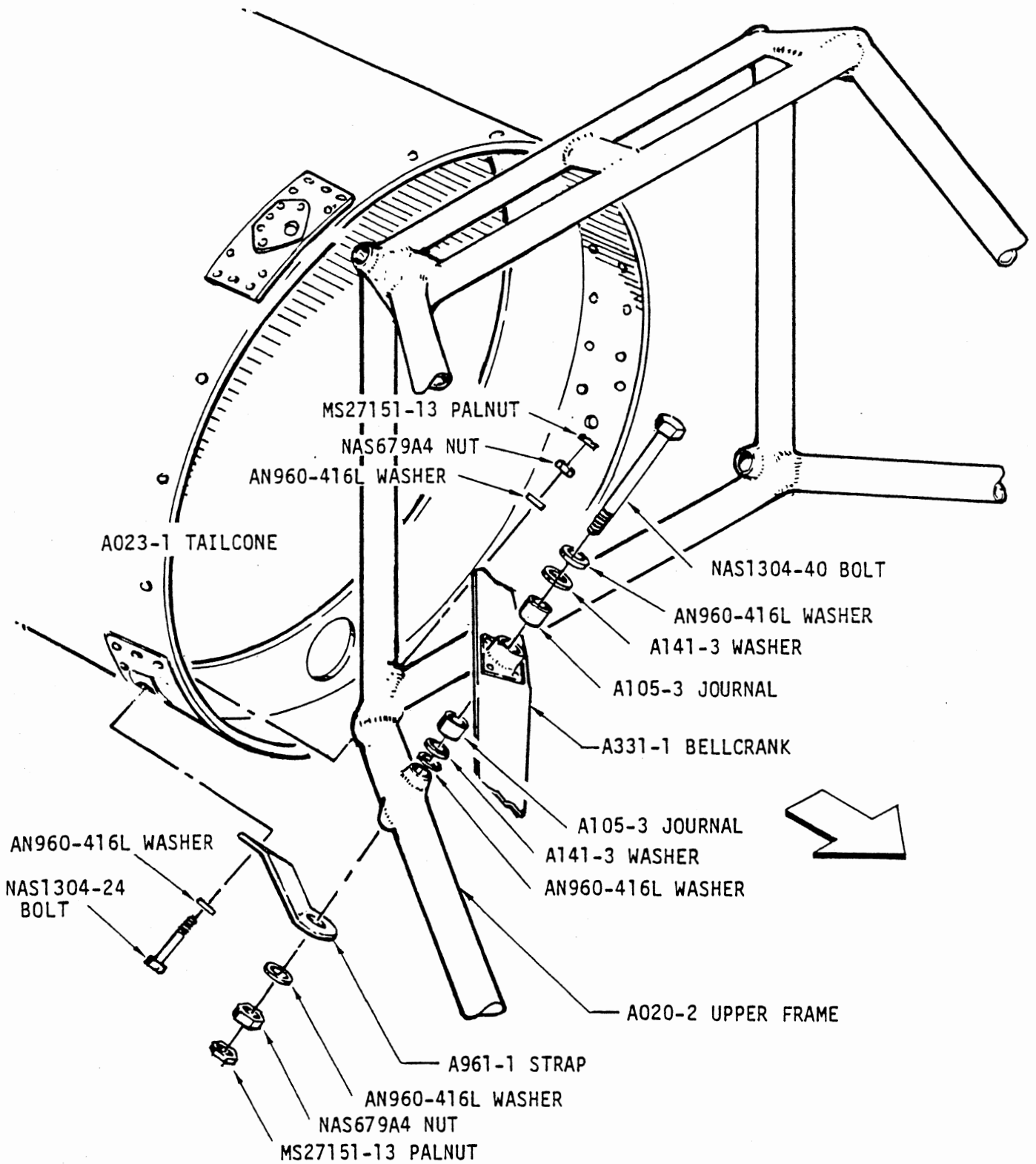


FIGURE 2.