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SERVICE DIRECTIVE BULLETIN

SERVICE DIRECTIVE BULLETIN NO. 0062
Revision 1

DATE: March 28, 2025

1. SUBJECT: Belt Tensioning and Idler System Modifications

2. MODEL: F-28A, 280, F-28C, F-28C-2, F-28C-2R, and 280C

3. EFFECTIVITY: All serial numbers manufactured prior to January 1981

4. BACKGROUND:

As originally published, this Service Directive Bulletin (SDB) requires incorporation of design improvements to be retrofitted to previously manufactured helicopters to improve the service life of the belt tensioning and idler system. Revision 1 updates part number and reference information in the modification procedures and adds the F-28C model variants for the model applicability.

The modifications include the following:

- A redesigned actuator arm made of laminated steel and aluminum to provide a structure that will resist damage that may occur from a mis-rigged belt or idler roller
- An improved rod end and shaft assembly connecting the belt engaging bellcrank to the yoke end
- A stabilizer strut (P/N 28-13316-1) which provides rigidity between the existing idler stabilizer and the lower pylon tube, which improves drive belt pulley tracking and belt track maintenance

NOTE: Incorporation of the P/N 28-13316-1 stabilizer strut requires installation of the P/N 28-13313-1 idler stabilizer as offered in Service Information Letter No. 0064.

NOTE: Some early model F-28A helicopters may have an idler support assembly, P/N 28-13292-1 installed that may require an additional modification to accept the new actuator arms. See Figure 1 for dimensional check prior to assembly. If dimension is found to be 0.93 inch it should be machined locally to 0.81 inch for proper actuator arm clearance. (Reference Maintenance Manual Section 8, for idler assembly removal procedure.)

4. COMPLIANCE:

If not complied with when the SDB was originally issued, incorporate the idler assembly modifications at the earliest convenience or within 50 hours time in service.

5. MODIFICATION:

5.1 Idler Assembly Modification

NOTE: Perform all maintenance in accordance with the applicable F-28 or 280 series Maintenance Manual for the aircraft model, as appropriate.

NOTE: Refer to the F-28/280 Series Illustrated Parts Catalog (IPC) Figure 5-3 for the item numbers referenced in the following text.

A. Disassembly

1) Disengage clutch.

2) Remove cowling and baggage box.

3) Disconnect idler actuator arms (340, P/N 28-13236-1) from the idler support assembly (50).

4) Loosen actuator arm hardware at attachment to yoke (420) and remove the roller assembly (230).

5) Disconnect idler pulley assembly actuating shaft (490, P/N 28-13217) from clutch engagement assembly bellcrank (380, IPC Figure 5-1).

6) Remove idler stabilizer strut (170), if installed, between pylon and idler support arm at bottom end.

7) Remove shaft (490, P/N 28-13217) from yoke end (420), and discard shaft (P/N 28-13217).

8) Disconnect the actuator arms (340, P/N 28-13236-1) from the yoke end (420) and discard arms (340, P/N 28-13236-1).

9) Clean and inspect all parts to be re-used for airworthy condition.

B. Assembly

1) Place spacers (380) into bushings (350) of the actuator arms (340) with the flange of the bushing facing outward and attach to the idler support assembly (50) with hardware (370), (360) and (400).

NOTE: Bolts (360) are installed from the inside of the actuator arms, torqued and safetied with cotter pin (410).

2) Install nut and locking device on rod end (520).

3) Turn rod end (520) into shaft (490) until a measurement from end of shaft to centerline of rod end ball is 6.75 inches.

4) Secure rod end (520) to shaft (490) as follows:

   a. Lock washer type: Torque jam nut against shaft (520) and secure by bending washer (510) over flats of nut (500) and shaft.

   b. Locking key type: Align key (510) to slot in shaft (490) and torque jam nut (500). Safety wire jam nut to locking key.

5) Install nut (480) and washer (470) on shaft (490).

6) Apply Lubriplate or similar lubricant to threads of shaft (490) and turn shaft into yoke (420) until approximately 3/4 inch of threads are exposed when jam nut (480) is secured finger tight.

7) Place spacer (530) in rod end (520).

8) Install rod end (520) and chamfered washers (540) into bellcrank (380, IPC Figure 5-1) with hardware (550), (390) and (400). Install hardware only finger tight until clutch engagement rigging is checked per Enstrom Service Information Letter (SIL) 0080, latest revision.

   NOTE: Washers (540) must be installed with chamfered side facing against rod end uniball.

9) Attach yoke end (420) to inside of forward actuator arm (340) with hardware (450), (440), (460) and (430). Torque and safety (450) and (440) in pairs.

10) Install roller assembly (230) on the inside of belt with grease fitting facing aft, by using hardware (310), (320) and (330). Leave loose.

11) Attach aft actuator arm (340) to aft side of roller assembly (230) with hardware (310), (320) and (330). Leave loose. Then install hardware, attaching aft actuator arm (340) to the yoke assembly (420) with hardware (450), (440), (460) and (430). Torque end, safety (450) and (440) in pairs.

12) Install stabilizer strut (170) with hardware (190), (210), (200), and (220) and re-attach idler stabilizer strut (140) with hardware (150) and (160).

13) Check clutch engagement rigging, per Enstrom SIL 0080, latest revision. With clutch engaged and rigged, position roller assembly (230) parallel, with 1/4 to 3/8 inch clearance from belt inner surface, and secure hardware. (Ref. Enstrom Maintenance Manual page MM-8-12.)

14) Lubricate roller assembly with grease (MIL-PRF-81322).

15) Secure rod end (520) to bellcrank (380, IPC Figure 5-1) and install pin (410). Recheck all hardware security.

16) Check drive belt track under power and adjust if required. Reference Enstrom Maintenance Manual page MM-8-12.

NOTE: Idler stabilizer P/N 28-13313-1 (140) should be loosened prior to tracking idler pulley, and retorqued after idler track has been established. Aircraft must be running with belt engaged when idler strut is secured.

5.2 Stabilizer Strut Modification

A. Installation

1) Install stabilizer strut (170) in position as shown.

2) Secure with hardware (160), (150), (190), (200), (210) and (220).

6. PARTS:

NOTE: Refer to the F-28/280 Series Illustrated Parts Catalog (IPC) Figure 5-3 for the illustrations of the item numbers.

NOTE: Components as required for this installation can be purchased through your nearest Enstrom Service Center or Enstrom Helicopter Customer Service.

NOTE: Refer to SDB 0095 for information pertaining to the actuator arm configurations.

A. New parts for completing the actuator arm installation are as follows:

Item	Part Number	Part Name	Quantity
340	28-13318-7	Actuator Arm	2
490	28-132005-11	Shaft	1
520	ECD091-1	Rod End	1
530	28-132006-11	Spacer	1
540	28-132009-11	Washer	2

B. New parts for completing the stabilizer strut installation are as follows:

Item	Part Number	Part Name	Quantity
160	NAS1149C0463R	Washer	1
170	28-13316-1	Stabilizer Strut (Brace Assembly)	1
190	AN3-11A	Bolt	4
200	NAS1149F0332P	Washer	4
210	NAS1149F0363P	Washer	4
220	MS21044N3	Nut	4

C. If the P/N 28-13313-1 strut has not been incorporated, it is necessary to order the following components and install them per SIL 0064.

Item	Part Number	Part Name	Quantity
120	AN960C816	Washer	1
130	AN364-820A	Nut	1
140	28-13313-1	Idler Stabilizer Strut	1

Components as required for this installation can be purchased through your nearest Enstrom Service Center or Enstrom Helicopter Customer Service.

7. SPECIAL TOOLS: N/A

8. MAN-HOURS: Inspection – 0.5 hour, Modifications – 1 hour

9. WARRANTY: N/A

10. WEIGHT CHANGE: N/A

11. LOG BOOK ENTRY: As required for maintenance actions

12. REPETITIVE ACTION: N/A

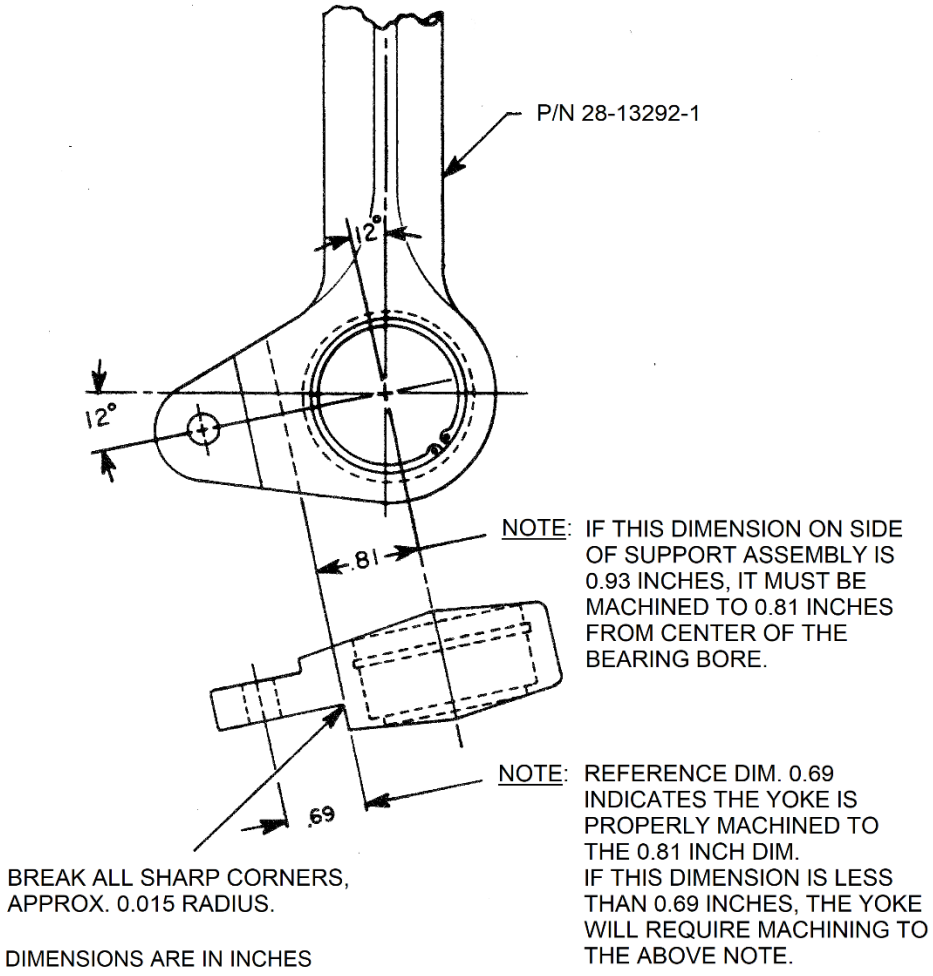

Figure 1. Dimension Check for Actuator Arm Clearance