



# SERVICE DIRECTIVE BULLETIN

SERVICE DIRECTIVE BULLETIN NO. T-036  
Revision 1

DATE:            December 12, 2023

1.    SUBJECT:    Drive System Flex Packs

2.    MODEL:        TH-28, 480, and 480B

3.    EFFECTIVITY:    All Serial Numbers

4.    BACKGROUND:

At the time of the initial release of this Service Directive Bulletin (SDB), Enstrom discovered that some flex packs (ECD4024-1) used in the main rotor drive system do not meet the required specifications. A flex pack consists of eight stacked elements (or plates) designed to permit flexing of the drive system shaft. The sub-standard flex packs contained only six elements.

This SDB requires a one time inspection of the two flex packs for the required eight elements.

Technical aspects of this SDB were coordinated with the FAA at the time of the original issue in 2009.

Revision 1 removed a reference to SDB T-017 (data is presented in WAD T-001 Revision 1), updated paragraph 6, Special Tools List, and updated the nomenclature for the text pertaining to ECD4024-1.

5.    COMPLIANCE:

Within ten hours, inspect the flex packs in accordance with paragraph 5.1 to determine if they have the correct number of elements.

Any flex packs with fewer than eight elements must be replaced prior to the next flight in accordance with paragraph 5.2.

5.1    PLATE INSPECTION:

## NOTE

**Perform all maintenance IAW the TH-28/480 Series  
Maintenance Manual.**

## 5.1 INSPECTION:

- A. Count the number of elements in each flex pack. There are two flex packs: one on the drive system assembly (forward) and the second is on the lower pulley assembly (aft). Refer to Figure 1. Each flex pack must contain eight (8) elements.

Any of the three following methods may be used.

1) Use a borescope or a magnifying glass with a suitable light source and count the number of elements in each flex pack.

2) Use a bright light source and a high resolution digital camera and photograph the flex packs. View the pictures on the camera or download the pictures to a suitable computer software program and count the number of elements.

3) Fabricate a gage having a 0.110" wide slotted opening. Align the slot of the gage with the edge of the flex pack. If the flex pack fits in the slot, the pack contains fewer than eight elements. If the flex pack does not fit in the slot, the flex pack contains eight elements

- B. If there are eight elements per flex pack, no further action is required.
- C. If a flex pack contains fewer than eight elements, the flex pack must be removed and replaced in accordance with paragraph 5.2.
- D. Contact Enstrom Product Support with the results of the flex pack inspections.

## 5.2. REPLACEMENT:

**NOTE**

**Perform all maintenance IAW the TH-28/480 Series Maintenance Manual.**

**NOTE**

**Install a cable tie or piece of lock wire through one of the bolt holes in the forward and aft flex packs to keep the elements properly oriented.**

**NOTE**

**Do not remove the lower pulley assembly if replacing the forward flex pack only.**

- A. Replace the flex pack(s) with a set of eight elements IAW TH-28/480 Series Maintenance Manual paragraphs 11-19 and 11-20. If the aft flex pack is replaced, the lower pulley assembly must be removed from the aircraft.

#### CAUTION

**Ensure that the three spacers used on each side of the flex pack (forward side or aft side) are of equal thickness. If the thickness of the spacers is not equal while performing the alignment, the lower drive system alignment will not be correct.**

- B. Reinstall the lower pulley assembly if it was removed from the aircraft and prepare the lower drive system for alignment IAW paragraph 11-17, A, steps 11 through 13.
- C. Check the alignment of the lower pulley assembly to the upper pulley assembly IAW with paragraph 11-17, B. Adjust the lower pulley assembly as required for alignment.
- D. Check the alignment of the engine (power output shaft) and lower pulley assembly IAW paragraph 11-17, C. Adjust the engine shimming and lower pulley assembly tie rods as required for alignment.
- E. Check the alignment of the oil cooler blower assembly to the lower pulley assembly IAW paragraph 11-17, D. Adjust the shimming of the bearing housings and position of the bearing housing supports as required for alignment.
- F. When the lower drive system alignment is completed, reassemble the lower drive system and the aircraft IAW paragraph 11-17, E.

#### NOTE

**Work Aid Document T-001 is attached for reference help.**

#### 5.3. PARTS:

ECD4024-1 (QTY 1, if replacing one flex pack; QTY 2, if replacing both flex packs)

Refer to Figures 6-8, 7-4, 7-5, 11-5 in the TH-28/480 Series Illustrated Parts Catalog as required.

## 6. SPECIAL TOOLS:

Tool Number	Description
T-0139-1	Belt Tension Tool
T-0141	Drive Pulley Alignment Tool
T-0166-11	Oil Cooler Shaft Alignment Coupling

## 7. MAN-HOURS:

Inspection - 30 minutes

Replacement - 3 hours if the lower pulley assembly is not removed; up to 16 hours if the lower pulley assembly is removed.

## 8. WARRANTY:

Per Enstrom Helicopter Warranty policy. (Note, the original flex packs must be returned for warranty.)

## 9. WEIGHT CHANGE:

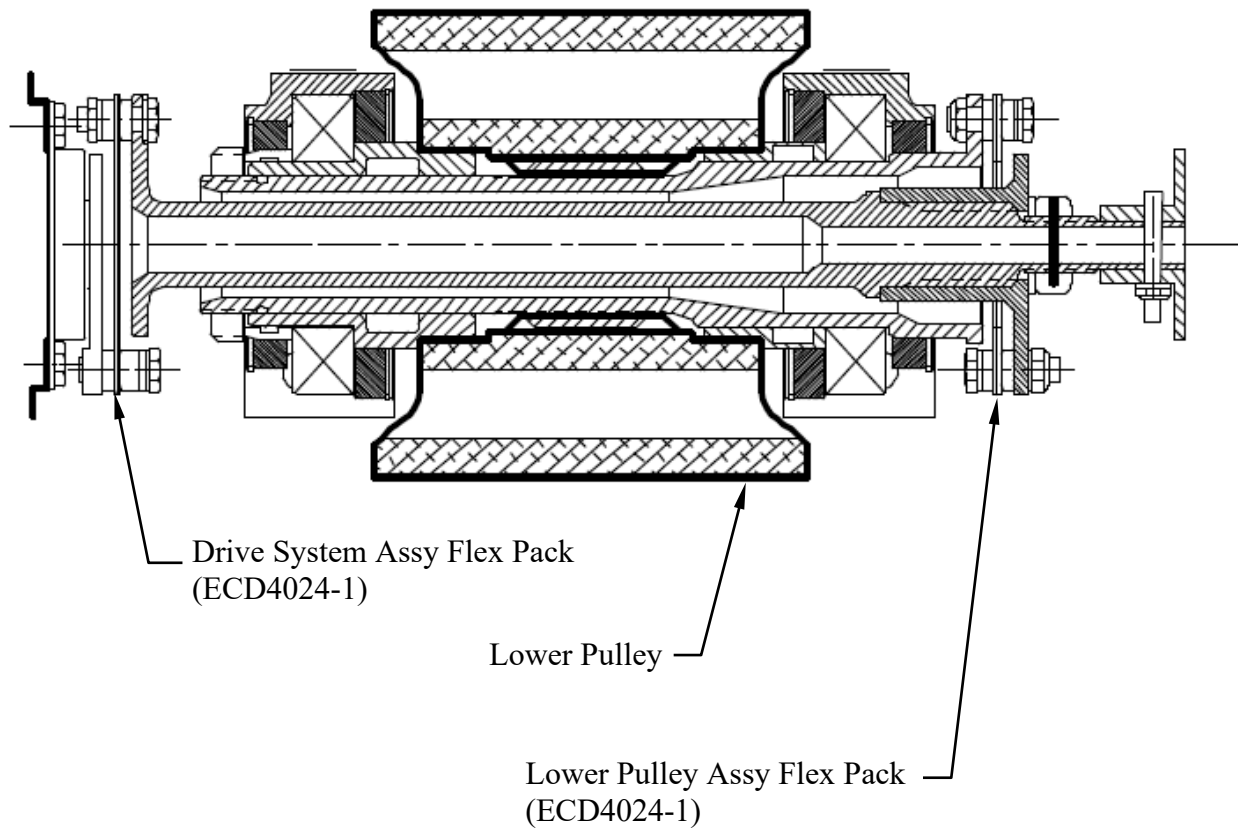
None

## 10. LOG BOOK ENTRY:

Enter compliance with this SDB in the aircraft maintenance records.

## 11. REPETITIVE INSPECTIONS:

None



**Figure 1.**