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SERVICE DIRECTIVE BULLETIN

DATE: October 15, 2012

1. SUBJECT: Idler Pulley Actuator Arm Inspection

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

3. EFFECTIVITY: All Serial Numbers

4. BACKGROUND:

Since the initial release of this Service Directive Bulletin (SDB), Enstrom has received reports of additional broken actuator arm assemblies, P/N 28-13318-1. All arm assemblies broke at the edge of the "Harper" washers that are used to secure the belt "snubber" roller. One of the actuator arms had approximately 1,000 hours time in service and the others approximately 1,900 hours time in service.

There are three configurations/part numbers for the actuator arm (See Figure 1): 28-13236-1, consisting of a single aluminum plate, was used on all aircraft manufactured prior to January, 1981 (The original issue of this SDB required replacement of 28-13236-1 with 28-13318-7, which is still in effect.); 28-13318-1, consisting of two steel plates, was used on all aircraft manufactured between January, 1981, and January, 1992; and 28-13318-7, consisting of 2 steel plates and 1 aluminum plate, is currently in use since February, 1992.

Enstrom issued Service Directive Bulletin 0062, Belt Tensioning and Idler System Modifications, in November, 1982, to improve the reliability of the belt tension and idler system by replacing the 28-13236-1 actuator arms with 28-13318-1 actuator arms.

Revision 1 of this Service Directive Bulletin mandates replacement of actuator arm part number 28-13236-1, if still in service, as well as replacement of part number 28-13318-1 with airworthy part number 28-13318-7, and one time and repetitive 100 hour inspections of the actuator arm assemblies.

5. COMPLIANCE:

A. At or before the next 50 hour inspection, replace any 28-13236-1 or 28-13318-1 actuator arm assemblies with airworthy 28-13318-7 actuator arm assemblies. Perform all maintenance in accordance with the applicable aircraft model maintenance manual and Service Information Letter 0152, Belt Tension Adjustment and Idler Pulley Alignment.

NOTE

Early F-28A's may require reworking the idler support assembly in accordance with Service Directive Bulletin 0062, Belt Tensioning and Idler Pulley Modifications.

B. At or before the next 50 hour inspection, inspect 28-13318-7 actuator arm assemblies for cracks in accordance with paragraph 5.1.

5.1 INSPECTION:

NOTE

Perform all maintenance in accordance with the applicable aircraft model maintenance manual unless specific instructions are provided.

A. Remove the aircraft cowling as required to access the belt tensioning and idler pulley system.

B. Note the location of the belt "snubber" roller "Harper" washers on the actuator arms (See Figure 2).

C. Loosen the nuts securing the roller and reposition the roller to allow access to the area where the "Harper" washers were located.

D. Clean the actuator arm.

E. Using a suitable flash light and inspection mirror, inspect the edges of the "Harper" washer area (inside the groove) on the actuator arm for cracks and inspect the outside edges of the actuator arm above and below the "Harper" washer area for cracks.

NOTE

The interior aluminum plate will normally fail first.

F. If no cracks are found, move the roller back into position and set the final positioning in accordance with Service Information Letter 0152, Belt Tension Adjustment and Idler Pulley Alignment.

NOTE

After final adjustment of the belt "snubber" roller, it should be parallel to the drive belt and perpendicular to the actuator arm assemblies.

G. If cracks are found, remove the actuator arms and install airworthy actuator arms, P/N 28-13318-7. Set the position of the belt "snubber" roller in accordance with Service Information Letter 0152, Belt Tension Adjustment and Idler Pulley Alignment.

NOTE

Install the actuator arm assemblies in sets.

NOTE

After final adjustment of the belt "snubber" roller, it should be parallel to the drive belt and perpendicular to the actuator arm assemblies.

H. Reinstall the aircraft cowling.

5.2. PARTS:

Refer to the F-28/280 Series Illustrated Parts Catalog, Revision 2

6. SPECIAL TOOLS:

None

7. ESTIMATED MAN-HOURS:

1.5 Man-hours for the visual inspection if not in conjunction with a 100 hour/annual inspection.

3 Man-hours to replace the actuator arms.

8. WARRANTY:

Per Enstrom warranty policy.

9. WEIGHT CHANGE:

N/A

10. LOG BOOK ENTRY:

Enter compliance with this Service Directive Bulletin.

11. REPETITIVE INSPECTIONS:

Inspect the actuator arm assemblies for cracks during 100 hour/annual inspections in accordance with paragraph 5.1.

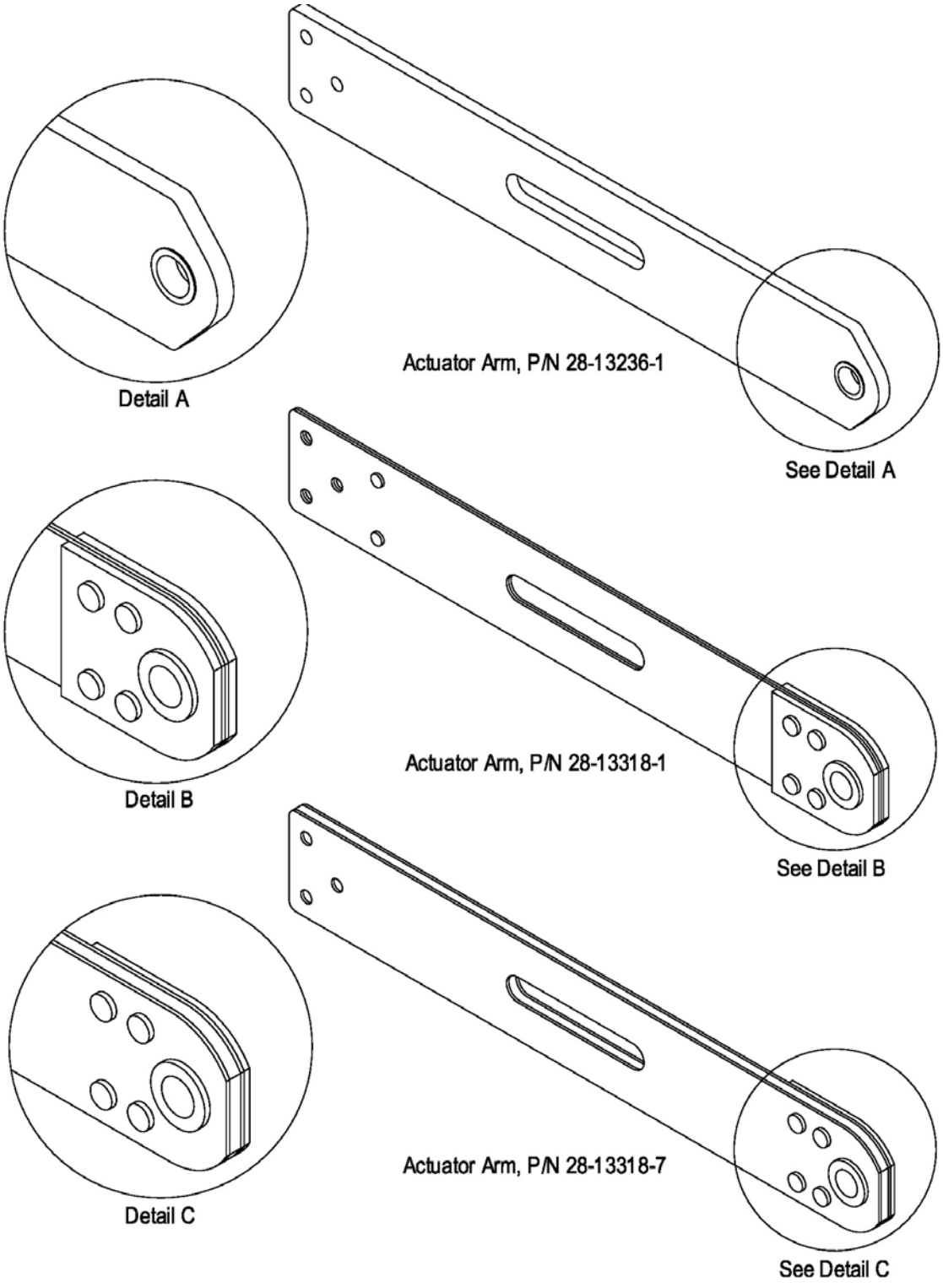

Figure 1. Actuator Arm Configuration

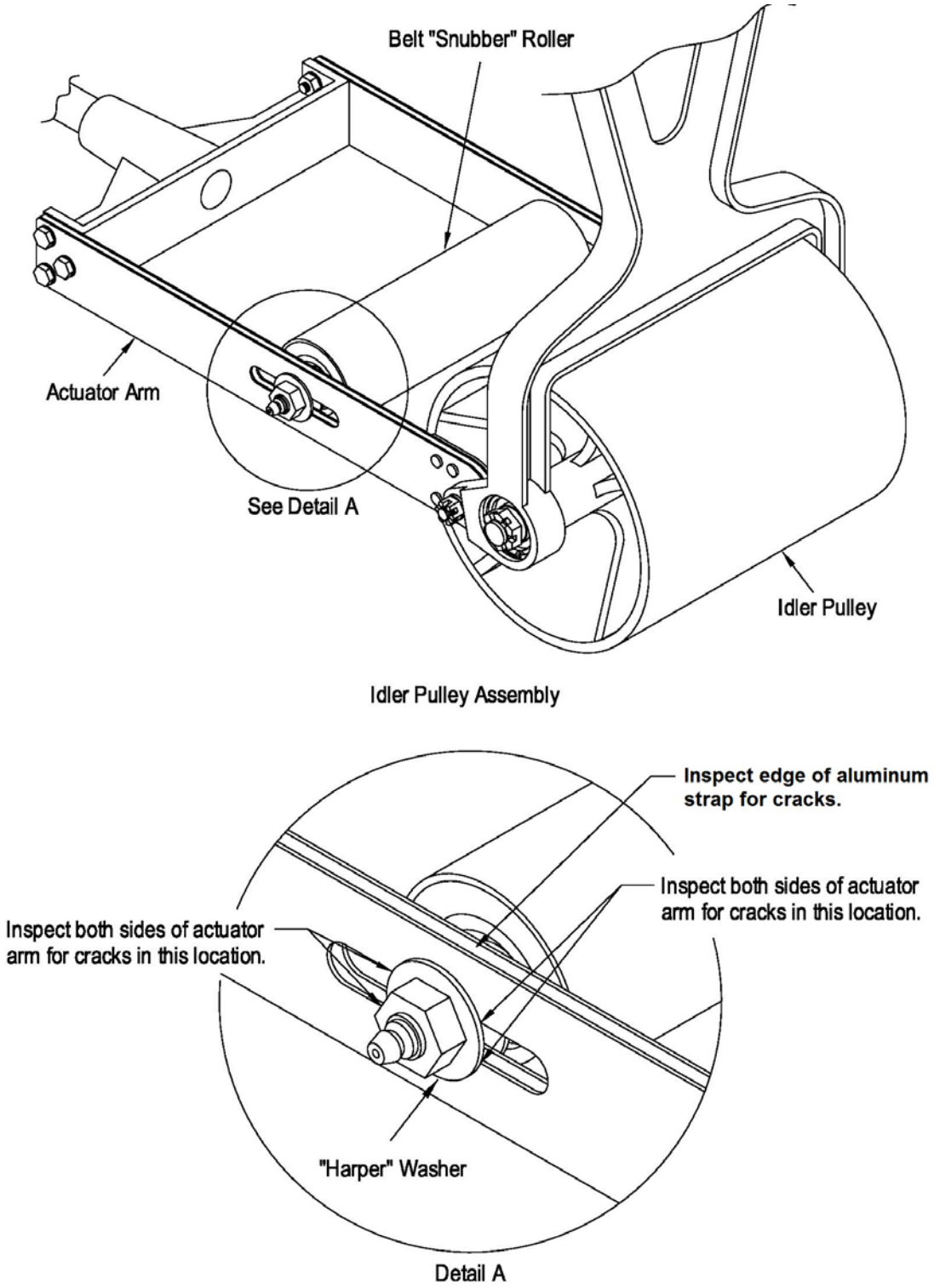

Figure 2. Actuator Arm Inspection