# SERVICE DIRECTIVE BULLETIN

### SERVICE DIRECTIVE BULLETIN NO. 0084

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DATE: October 27, 2010

1. SUBJECT: Muffler Modification and Inspection

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

3. EFFECTIVITY: All serial numbers equipped with the optional muffler assembly, P/N

ENX-0001.

#### 4. BACKGROUND:

Enstrom received a report of an operator experiencing a sudden reduction in power during a landing approach. The operator was able to land without incident. Upon removal and inspection of the muffler, it was found that an internal baffle had failed and when it came loose it partially blocked the exhaust outlet causing the sudden reduction in power. The original release of this Service Directive Bulletin mandated a one time and repetitive inspections to detect cracks and/or deformities in the muffler end plate and liner and replacing the muffler with an airworthy muffler or tail pipe if cracks or deformities were found. The muffler was redesigned to prevent an internal baffle failure from blocking the exhaust outlet. The part number for the muffler with the redesigned internal baffle was ENX-0001, Rev. B.

The redesigned muffler assembly, P/N ENX-0001 Rev. B, is no longer available and has been replaced by Enstrom P/N 28-12577-1.

#### **NOTE**

Several mufflers incorporating the modification kit and mufflers with the redesigned internal baffles have been placed in service. The modified mufflers can be identified by the 1/4"/6.4 mm stainless steel rod welded into the muffler tail pipe. The modified mufflers and the redesigned mufflers, 28-12577-1, only require the reoccurring inspection required by this Service Directive Bulletin.

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#### 5. COMPLIANCE:

At or before the next 50 hour inspection, inspect the muffler, P/N ENX-0001, or ENX-0001 Rev. B, or P/N 28-12577-1, in accordance with paragraph 5.1.

At or before the next 100 hour/annual inspection, modify the muffler, P/N ENX-0001, in accordance with paragraph 5.2, or replace with an airworthy muffler, P/N ENX-0001 Rev. B or P/N 28-12577-1, or an airworthy tail pipe, P/N EL-037360-123.

#### 5.1 INSPECTION:

Using a flashlight and mirror, inspect the condition of the muffler end plate and the inner baffle through the muffler tail pipe. Any cracks in the end plate or inner baffle are cause for rejection of the muffler and replacement with either an airworthy muffler, P/N ENX-0001, modified to P/N ENX0001R, in accordance with paragraph 5.2 of this Service Directive Bulletin; or an airworthy muffler, P/N ENX-0001 Rev. B or P/N 28-12577-1, or an airworthy tail pipe, P/N EL-037360-123.

#### 5.2. MODIFICATION:

#### NOTE

Perform all maintenance procedures in accordance with the F-28F/280F Maintenance Manual with the 280FX Supplement.

- 1. Remove the muffler from the aircraft.
- 2. Modify the muffler in accordance with the instructions below. Note: Instructions are also provided with the modification kit, P/N ENX0001R.
  - a. Drill two holes, 0.25" diameter, 180 degrees apart, as shown in Figure 1, for the 0.25" diameter rod. (The radial location around the tailpipe tube is optional.)
  - b. Install the rod through the tailpipe tube ensuring the rod ends are positioned in the hole openings. TIG-weld each rod end to the tailpipe tube using the kit-supplied welding rod.
- 3. Reinstall the muffler.

## **NOTE**

The muffler modification does not prevent failure of the internal baffle, but it does prevent a significant loss of power due to exhaust blockage as a result of failure of the internal baffle.

# 5.3. PARTS:

<u>Description</u>	Part Number	Quantity
Kit, Muffler Modification	ENX0001R	1
Muffler	ENX-0001, Rev. B	A/R
Muffler	28-12577-1	A/R
Tail Pipe	EL-037360-123	A/R

- 6. SPECIAL TOOLS: Tungsten Inert Gas (TIG) Welder
- 7. MAN-HOURS REQUIRED:
  - .1 Man-hours for the inspection. 2 Man-hours for the modification
- 8. WARRANTY: Per Enstrom Warranty Policy.
- 9. WEIGHT CHANGE: None
- 10. LOG BOOK ENTRY: Enter compliance with this SDB in the aircraft maintenance records.
- 11. REPETITIVE INSPECTIONS:

Inspect the muffler in accordance with paragraph 5.1 at the 50 hour periodic inspection.

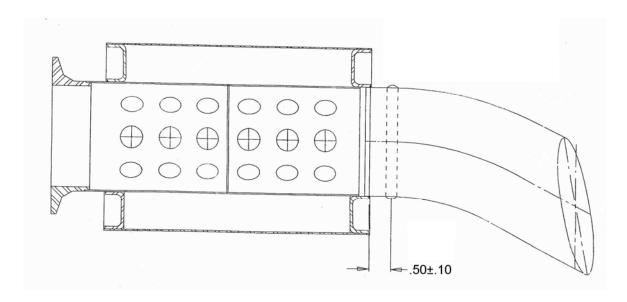


Figure 1: Muffler Modification