



HN-235  
 DN-182  
 EN-74  
 FN-61

# SERVICE BULLETIN

DATE: 20 MARCH 1992  
 PAGE 1 OF 8

**MANDATORY MANDATORY MANDATORY**

## ONE-TIME INSPECTION/REWORK OF ENGINE AIR INLET AREA

### 1. PLANNING INFORMATION:

#### A. Summary:

MD Helicopters, Inc. (MDHI) investigation has revealed that it is possible for unsecured or worn hardware in the engine plenum area to fall into the engine inlet causing engine compressor damage. As a result, MDHI is requiring all operators to check the cable, latches, hinges, hardware, etc., and to inspect the entire inlet plenum area for serviceability and security. In addition to this special inspection, MDHI would also like to stress the importance of conducting a thorough check of this area during the required daily/preflight.

MDHI is also requiring operators to replace the mist eliminator access door attaching hardware and to inspect and replace the particle separator bypass door latch hardware or replace the plenum chamber door access receptacles to prevent foreign object damage (FOD) from entering the engine inlet and possibly damaging the engine compressor or other engine components.

#### B. Purpose:

To prevent possible FOD to the engine compressor.

#### C. Models Affected:

All MDHI 369 series helicopters.

#### D. Time of Compliance:

The requirements of this Notice shall be accomplished within the next 300 hours of helicopter operation. Subsequent/repetitive inspections of the engine inlet area will be covered by the applicable HMI's.

#### E. Assembly/Components Affected by this Notice:

All of the components and assemblies located in the engine air inlet plenum area.

#### F. Reference Publications:

(Use the manuals listed below or any later revisions.)

- 369H Basic HMI (CSP-H-2) Revised 15 June 1990
- 369D/E/F/FF HMI (CSP-HMI-2) Revised 20 January 1992
- 369D/E/F/FF IPC (CSP-IPC-4) Revised 09 September 1991

PARTS/SUPPLIES			
Nomenclature	Part No.	Qty.	Source
Cotter Pin	MS24665-151	1	Commercial or MDHI
.032 2024-T3 AL Alloy Stock Per QQ-A-250/4	RM 000560 (raw material code)	See Fig. 2	Commercial or MDHI
Nutplate	MS21060L3	2	Commercial or MDHI

**MANDATORY MANDATORY MANDATORY**

# SERVICE BULLETIN

**MANDATORY MANDATORY MANDATORY**

PARTS/SUPPLIES			
Nomenclature	Part No.	Qty.	Source
Rivet	MS20426AD3-4	4	Commercial or MDHI
Rivet	MS20426AD3-5	8	Commercial or MDHI
Screw	MS24693-C273	2	Commercial or MDHI
Washer	NAS1169-10C	2	Commercial or MDHI
Receptacle	212-12A	2	Camloc Fasteners 601 Route 46 West Hasbrouck Heights, NJ 07604 (201)288-8300 or MDHI

## 2. AIRCRAFT INSPECTION AND/OR REWORK INSTRUCTIONS:

### NOTE

Inspection and/or rework procedures are dependent on the helicopter configuration. Only comply with those requirements applicable to the helicopter being inspected/reworked.



**AVOID FOD.** Cover engine compressor inlet prior to working in plenum chamber. Vacuum all FOD debris out of plenum chamber before removing protective cover from engine inlet bell. Severe damage to engine may result from entry of foreign objects.

### FOR HELICOPTERS EQUIPPED WITH PARTICLE SEPARATOR BYPASS DOOR (FIG.1) P/N 369A2099 & 369D290134

- a. Remove particle separator bypass door per the applicable maintenance manual.
- b. Inspect all latches, hinges, hardware, etc., for serviceability and security. Remove and replace any un-serviceable components.
- c. Remove and inspect the bypass door latch and replace the latch retention cotter pin located inside the attach cable "U" clamp (see Figure 1).
- d. Replace the 369A8442-3 latch assembly if any of the following limits are exceeded:
  - If cotter pin hole in the stem of the latch is elongated more than .080 inch in length.
  - If cotter pin has worn into the surface of the cable attach "U" clip more than 1/2 the thickness of the clip (.025 inch deep).
  - If the latch engagement faying surface is worn more than .050 inch below the original surface.
- e. Complete installation of particle separator bypass door.

**MANDATORY MANDATORY MANDATORY**



HN-235  
DN-182  
EN-74  
FN-61

# SERVICE BULLETIN

DATE: 20 MARCH 1992  
PAGE 3 OF 8

**/// MANDATORY ////////////////////////////////////// MANDATORY ////////////////////////////////////// MANDATORY ///**

## FOR HELICOPTERS EQUIPPED WITH PLENUM CHAMBER ACCESS DOOR (FIG.2) P/N 369H2080

- a. Remove two 26R16-1 encapsulated receptacles and replace with 212-12A receptacles. (Refer to Figure 2.)

### NOTE

Some doors may already have the 212-12A receptacles installed.

- b. Inspect fixed-wing fastener stud for serviceability and security paying particular attention to cross pin on stud and associated lockwasher (see Figure 2). Remove and replace any unserviceable components.

## FOR HELICOPTERS EQUIPPED WITH MIST ELIMINATOR ACCESS DOOR (FIG.3) P/N 369D290270

### NOTE

MDHI 369E (Serial No. 0445E and subsequent) and 369F/FF (Serial No. 0084FF and subsequent) Series helicopters have the nutplates installed and are not affected by the following procedure.

- a. Remove mist eliminator door per the maintenance manual.
- b. Remove the two 2700-7 studs, 2600-LW lockwashers and 26R16-1 receptacles (Ref. CSP-IPC-4, Section 71-10-10).
- c. Field fabricate two nutplate assemblies as shown in Figure 3.
- d. Install nutplate assemblies onto bottom side of 369D290272 frame assembly making sure to center nutplate assembly over existing hole in frame assembly as shown in Figure 3.
- e. Complete installation of mist eliminator access door using MS24693-C273 screw and NAS1169-10C washer (two each required).

## FOR ALL HELICOPTERS (FIG. 4)

- a. Remove any unused clamps, clips, brackets or other hardware from the engine inlet plenum area.
- b. Remove three clips shown in Figure 4 (clips are bonded and covered with (1) layer of glass cloth). Carefully cut glass cloth around edges of clip and then remove clips. Trim cut edges of glass cloth.
- c. Inspect entire inlet plenum area hardware, hinges, cables, latches, etc., for serviceability and security. Remove and replace any unserviceable components.

### **RECORDING AND COMPLIANCE:**

Record compliance to this Service Information Notice in the Compliance Record section of the helicopter Log Book.

**WEIGHT AND BALANCE:** N/A.

### **POINTS OF CONTACT:**

For further information, contact your local MDHI Field Service Representative (refer to the latest revision of the Product Support handbook

**/// MANDATORY ////////////////////////////////////// MANDATORY ////////////////////////////////////// MANDATORY ///**

HN-235  
DN-182  
EN-74  
FN-61



DATE: 20 MARCH 1992  
PAGE 4 OF 8

# SERVICE BULLETIN

**/// MANDATORY ////////////////////////////////////// MANDATORY ////////////////////////////////////// MANDATORY ///**

for address and telephone numbers) or contact the Field Service Department at MDHI, Mesa, Arizona. Telephone: 1-800-445-1516 or (602) 891-6342.

The resultant inspections/alterations to affected models as described by the procedures in this Notice have been shown to comply with Federal Aviation Regulations and are FAA Approved.

**/// MANDATORY ////////////////////////////////////// MANDATORY ////////////////////////////////////// MANDATORY ///**

# SERVICE BULLETIN

**MANDATORY MANDATORY MANDATORY**

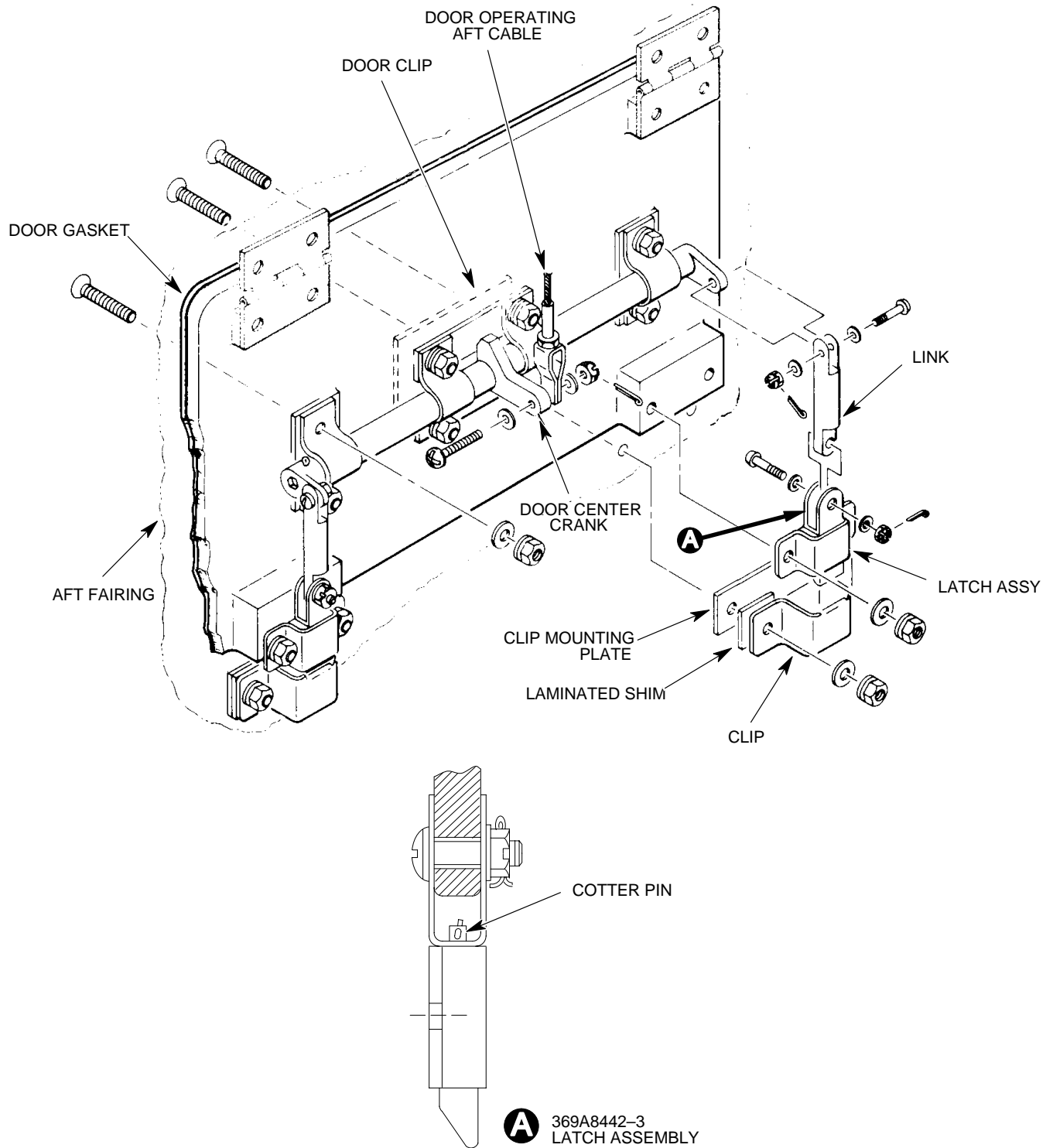


Figure 1. Particle Separator Bypass Door Latch Cotter Pin Installation.

88-663A

**MANDATORY MANDATORY MANDATORY**

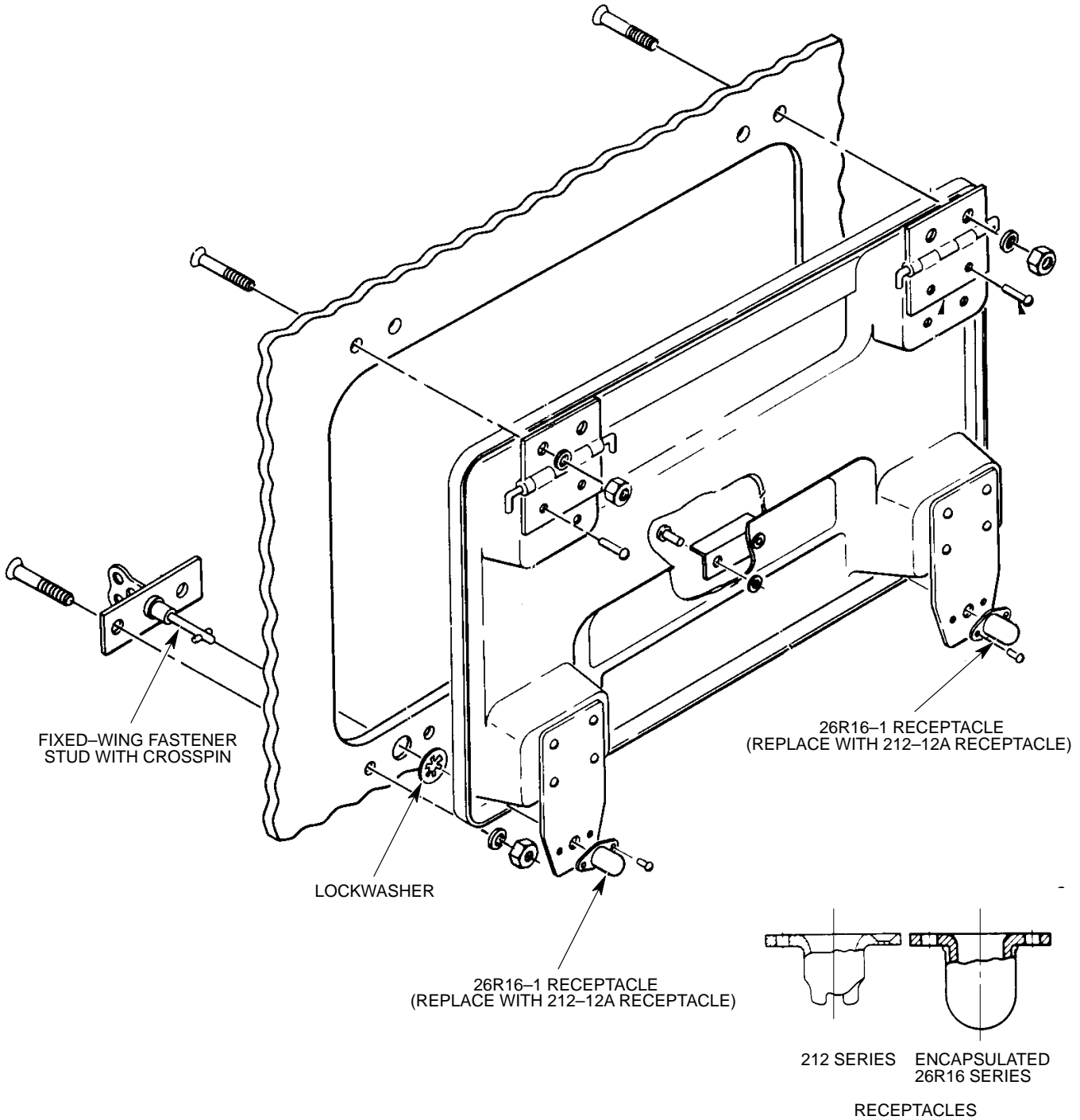
HN-235  
DN-182  
EN-74  
FN-61



DATE: 20 MARCH 1992  
PAGE 6 OF 8

# SERVICE BULLETIN

MANDATORY MANDATORY MANDATORY



88-670

Figure 2. Plenum Chamber Access Door Inspection/Rework.

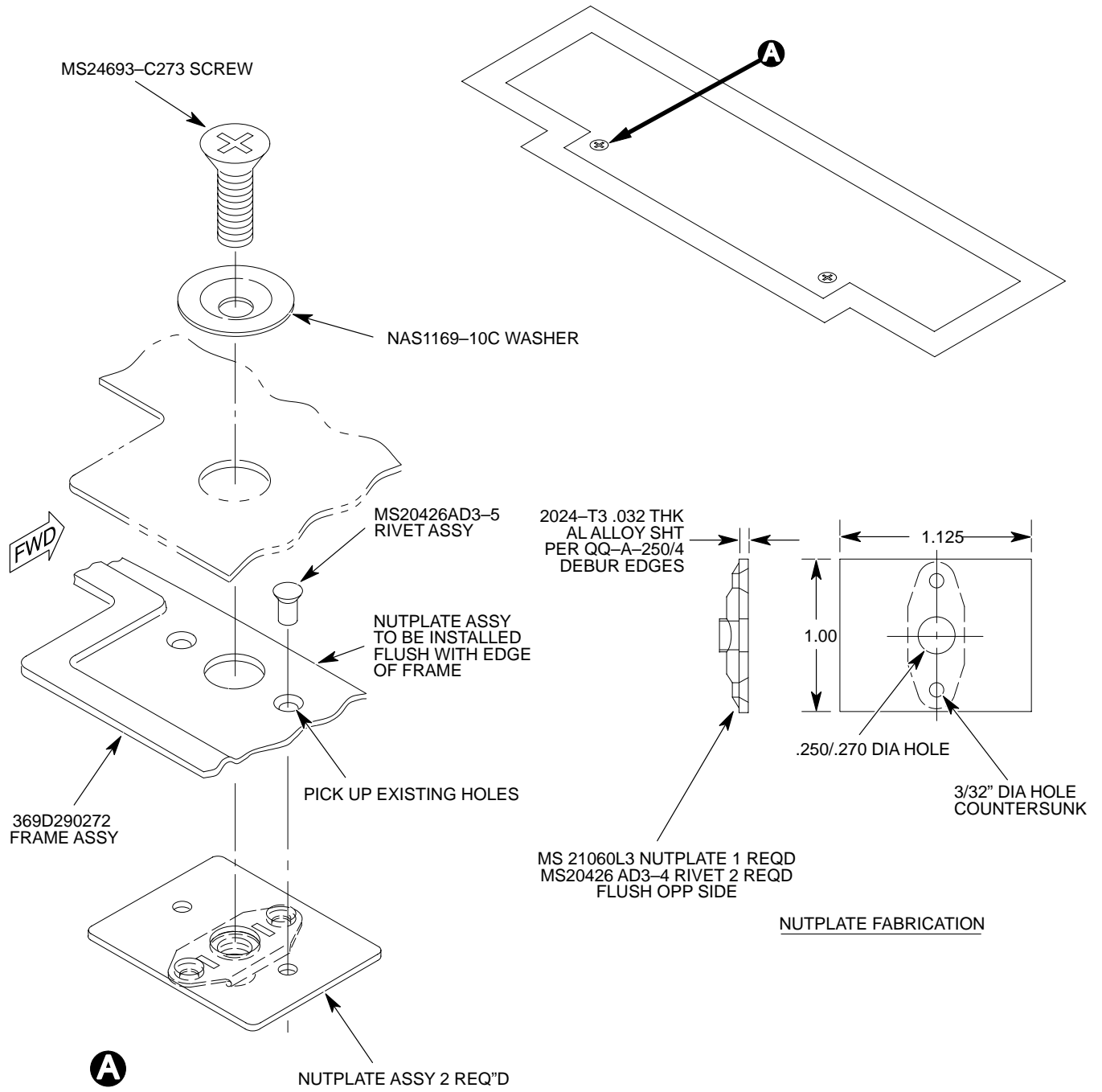
Copyright 1999-2000 by MD Helicopters Inc. This document may be reproduced and distributed provided no fee is charged, the text is not modified, and this copyright notice is included.

MANDATORY MANDATORY MANDATORY

# SERVICE BULLETIN

DATE: 20 MARCH 1992  
 PAGE 7 OF 8

**MANDATORY**



NOTE: DIMENSIONS SHOWN IN INCHES.

88-669

Figure 3. Replacement of Mist Eliminator Door Attaching Hardware.

**MANDATORY**

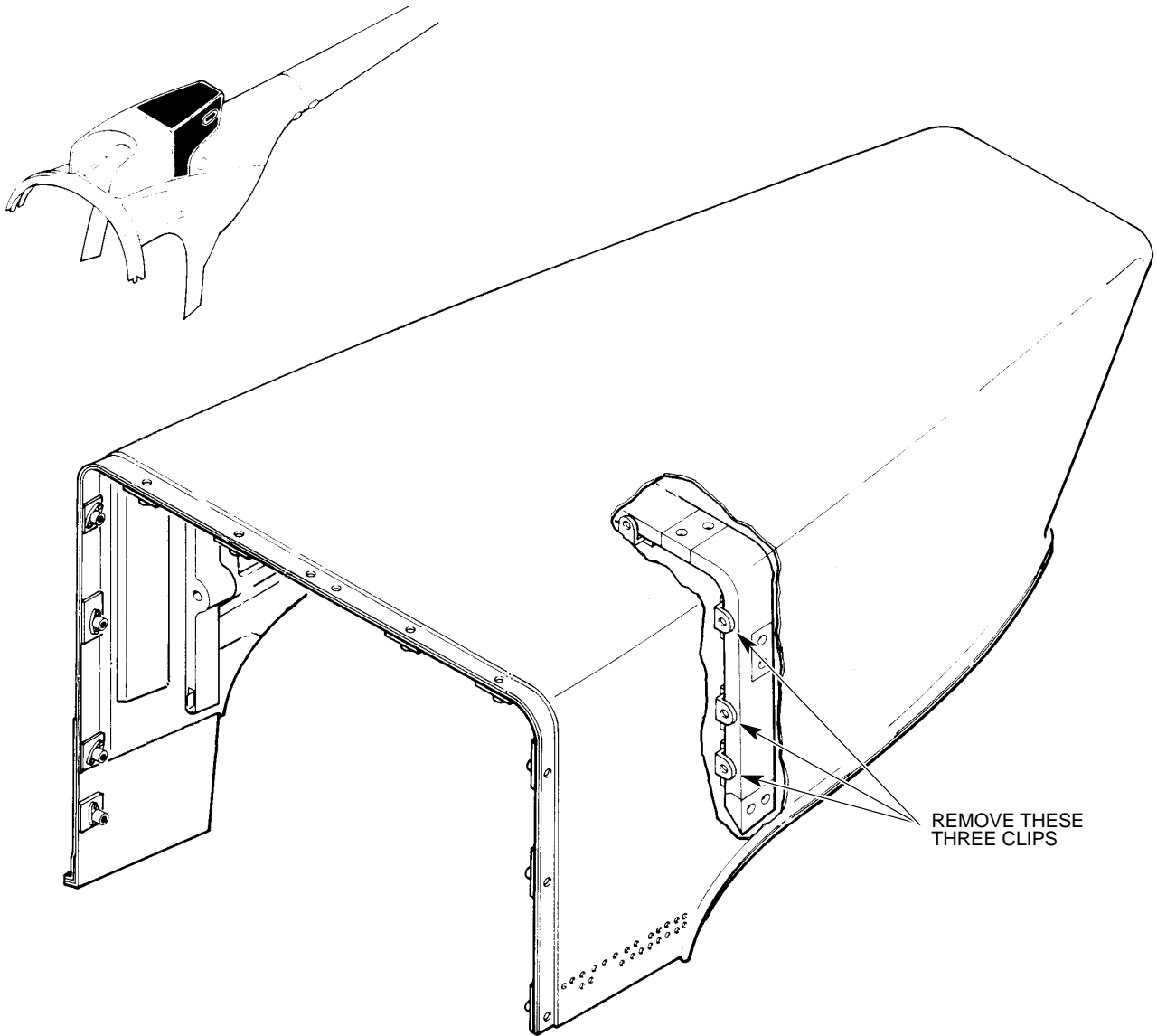
HN-235  
DN-182  
EN-74  
FN-61



DATE: 20 MARCH 1992  
PAGE 8 OF 8

# SERVICE BULLETIN

MANDATORY MANDATORY MANDATORY



88-671

Figure 4. Removal of Clips and Other Hardware From Plenum Chamber.

Copyright 1999-2000 by MD Helicopters Inc.

*This document may be reproduced and distributed provided no fee is charged, the text is not modified, and this copyright notice is included.*

MANDATORY MANDATORY MANDATORY