



767

NONDESTRUCTIVE TEST MANUAL

PART 6 - EDDY CURRENT

WING - NACELLE/PYLON ATTACH FITTINGS

1. Purpose

- A. To find surface cracks in the holes of the inboard and outboard pitch load and side load fittings. These fittings are identified in service bulletins 767-54-0080 thru -0082, 767-57-0053 and 767-57-0063. Figure 1 shows the fitting locations.
- B. It is necessary to remove the pin and the bushing to do this inspection.
- C. Service Bulletin references: 767-54-0080, 767-54-0081, 767-54-0082, 767-57-0053, 767-57-0063

2. Equipment

A. General

- (1) Refer to Part 1, 51-01-00 for data about the equipment manufacturers.

B. Instrument

- (1) Refer to Part 1, 51-06-00 for instrument data.
- (2) A rotary scanner instrument is necessary to do this procedure.
- (3) The instruments that follow were used to help prepare this procedure:
 - (a) Phasec 2200, Hocking Krautkramer
 - (b) Phasec 1.1, Hocking Krautkramer
 - (c) Elotest B1, Rohmann

C. Probe

- (1) Three adjustable diameter, rotating probes are used in this procedure.
- (2) Table 1 identifies the probes that are necessary to examine the different fittings.
- (3) The probes specified below were used to help prepare this procedure:
 - (a) Part Number BXU 128/136 - NDT Engineering Corp.
 - (b) Part Number BXU 136/144 - NDT Engineering Corp.
 - (c) Part Number BXU 144/152 - NDT Engineering Corp.

NOTE: The above part numbers are for Hocking and Elotest rotary scanners. Tell the probe manufacturer if you make a decision to use equipment that is different than that specified above.

- D. Reference Standard - Make reference standards NDT650 and NDT651 as shown in Figure 2 and Figure 3.

NOTE: Table 1 identifies the reference standards that are necessary to use to examine the different fittings.

Table 1 Probes and Reference Standards

FITTING NAME	PART NUMBER	HOLE DIA. (MIN) * ^[1]	HOLE DIA. (MAX) * ^[1]	PROBE NUMBER	REFERENCE STANDARD
Pitch Load O/B Front Spar	112T7006-()	2.1521 (54.663)	2.2565 (57.315)	BXU-136/144	NDT651
Pitch Load I/B Front Spar	112T7007-()	2.1521 (54.663)	2.2565 (57.315)	BXU-136/144	NDT651

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FITTING NAME	PART NUMBER	HOLE DIA. (MIN) * ^[1]	HOLE DIA. (MAX) * ^[1]	PROBE NUMBER	REFERENCE STANDARD
Pitch Load under/wing	112T7005-()	2.2981 (58.369)	2.3990 (60.934)	BXU-144/152	NDT651
Side Load O/B under/wing	112T7003-()	2.0822 (52.887)	2.1810 (55.577)	BXU-128/136	NDT650
Side Load I/B under/wing	112T7004-()	2.0822 (52.887)	2.1810 (55.577)	BXU-128/136	NDT650

*[1] DIMENSIONS ARE IN INCHES. (MILLIMETERS ARE IN PARENTHESES).

3. Preparation for Inspection

- Get access to the inspection area and make sure the pins and the bushings are removed from the fittings.
- Make sure the holes in the fittings are clean and free from grease and dirt.
- For most of the fittings, you can only access the holes with a rotary scanner from one side. Remove clamps and move the electrical or hydraulic lines, if necessary, to get access.
- Measure the diameter of the hole to be examined and refer to Table 1 to make sure the correct probe and reference standard are used.

4. Instrument Calibration

- Refer to Table 1 to identify the probe and the reference standard to use for the fitting to be examined.
- Set the instrument frequency to 300 kHz.
- Calibrate the equipment as specified in Part 6, 51-00-16.

NOTE: You must get a satisfactory crack signal from the two notches in the reference standard as shown in Fig. 5, 6 and 7 of Part 6, 51-00-16.

5. Inspection Procedure

- Examine the holes of the pitch load and the side load fittings Figure 1 for cracks as specified in Part 6, 51-00-16.
 - If a cleanup ream is necessary, get approval from your engineering personnel.

6. Inspection Results

- Refer to Part 6, 51-00-16 for instructions that will help to make an analysis of the inspection results.
- Fastener holes must be rejected if they cause crack signals to occur that are 50% or more of the crack signal from the reference standard.

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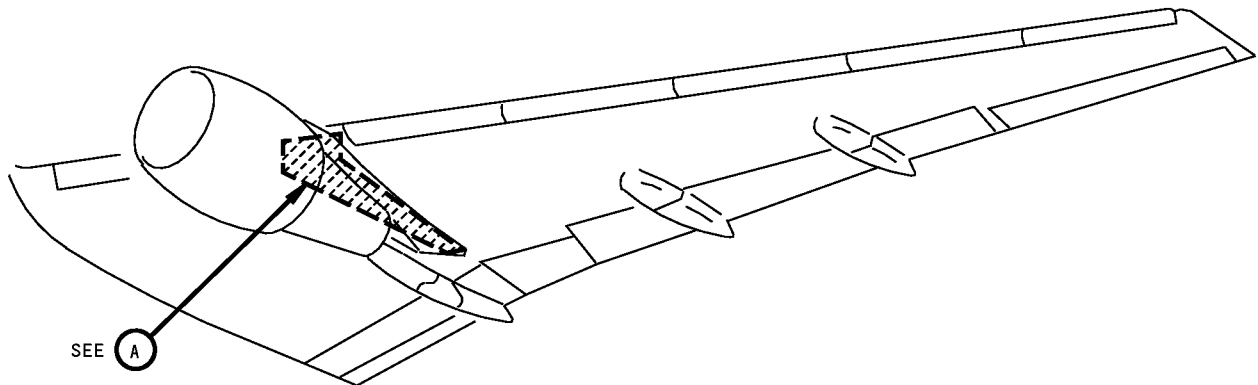
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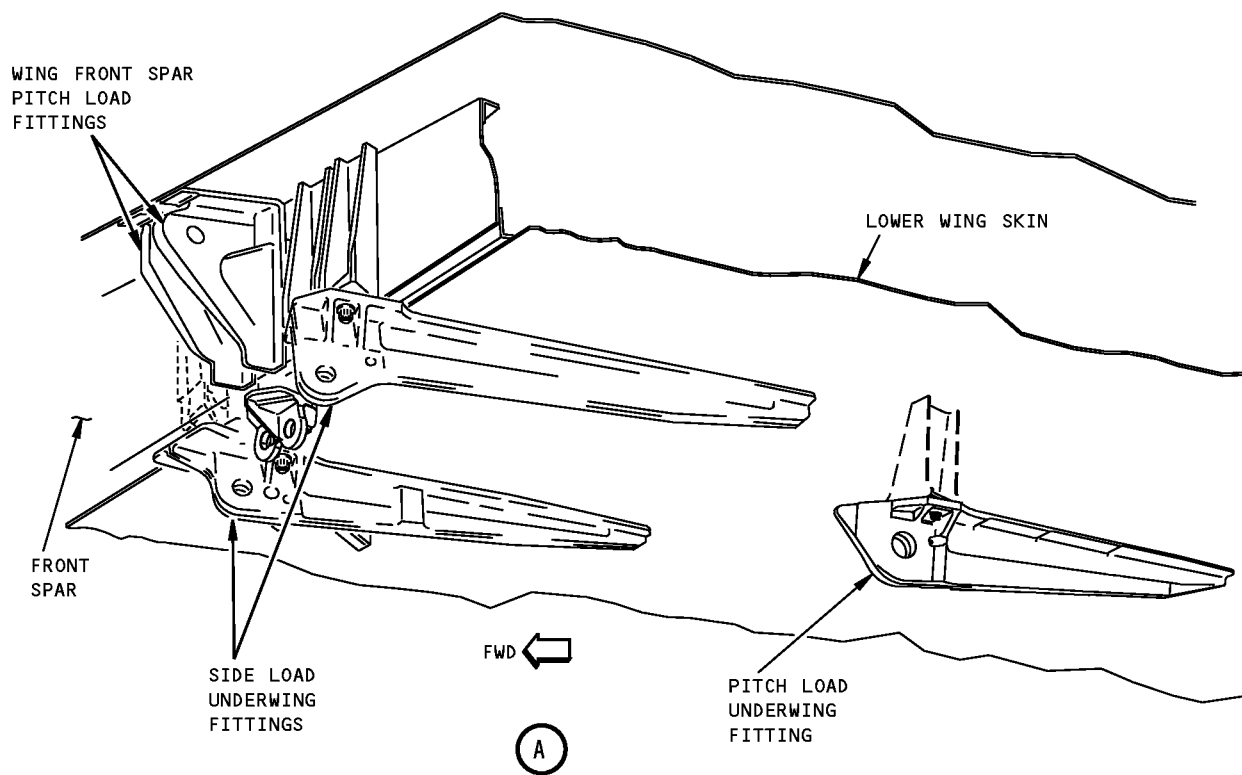
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LEFT WING SHOWN
RIGHT WING OPPOSITE



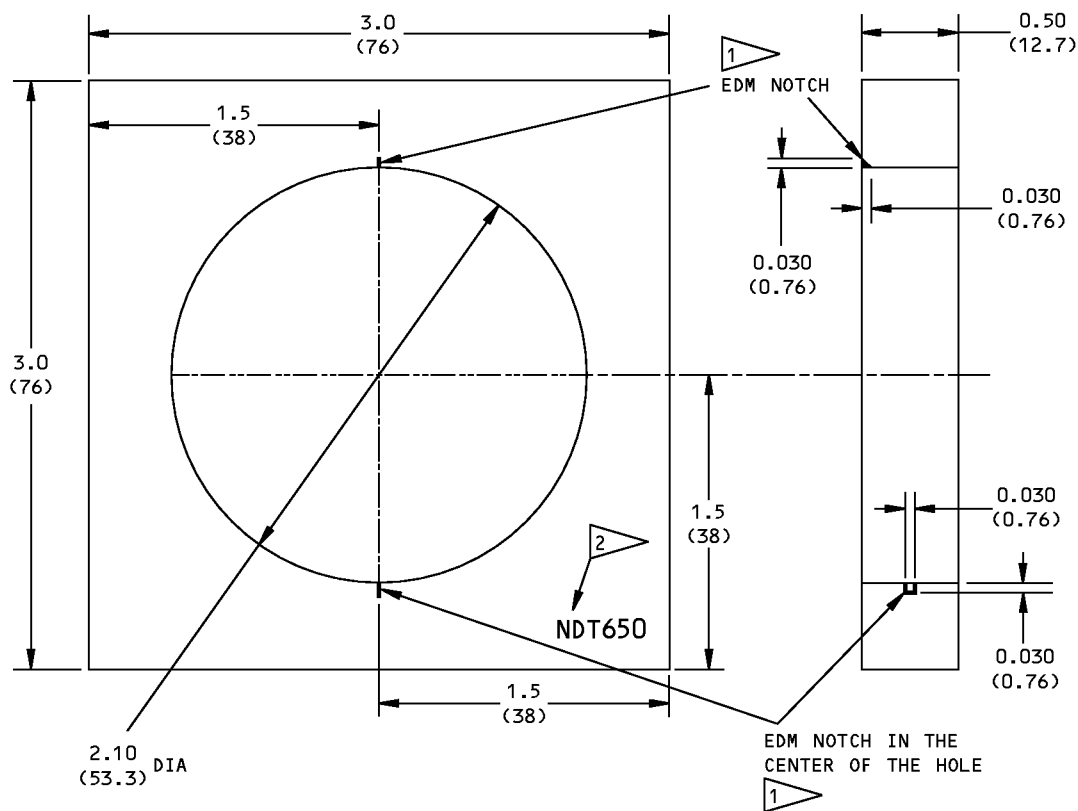
Inspection Location
Figure 1

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NOTES

- ALL DIMENSIONS ARE IN INCHES (MILLIMETERS ARE IN PARENTHESES)
- TOLERANCE (UNLESS SPECIFIED DIFFERENTLY):

INCHES	MILLIMETERS
X.XXX = ± 0.005	X.XX = ± 0.10
X.XX = ± 0.025	X.X = ± 0.5
X.X = ± 0.050	X = ± 1
- MATERIAL: ALUMINUM 7075-T6 OR EQUIVALENT

- 1 THE MAXIMUM EDM NOTCH WIDTH IS 0.005 (0.13)
- 2 ETCH OR STEEL STAMP THE REFERENCE STANDARD NUMBER NDT650 AT APPROXIMATELY THIS LOCATION

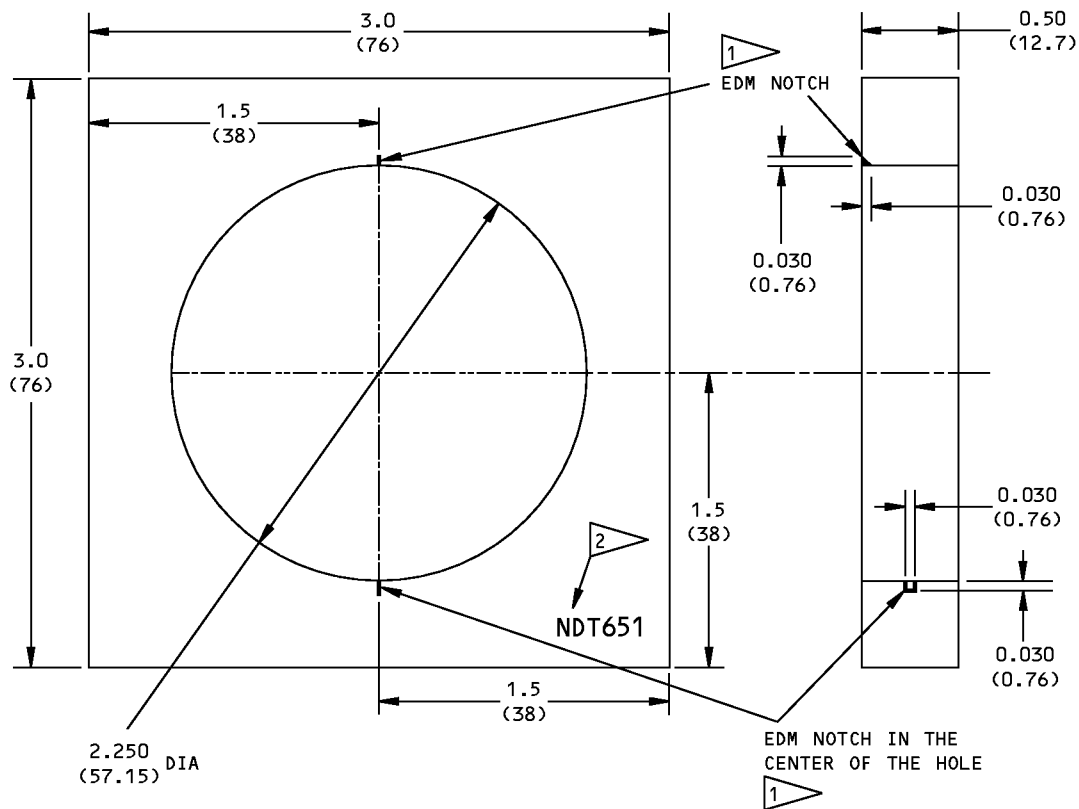
Reference Standard NDT650
Figure 2

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NOTES

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- MATERIAL: ALUMINUM 7075-T6 OR EQUIVALENT

- 1 THE MAXIMUM EDM NOTCH WIDTH IS 0.005 (0.13)
- 2 ETCH OR STEEL STAMP THE REFERENCE STANDARD NUMBER NDT651 AT APPROXIMATELY THIS LOCATION

Reference Standard NDT651
Figure 3

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