

# **747-400 LCF SUPPLEMENTAL STRUCTURAL INSPECTION DOCUMENT - APPENDIX A**

## **D6-35022-1**



**THE BOEING COMPANY  
COMMERCIAL AVIATION SERVICES  
MAINTENANCE PROGRAMS ENGINEERING**

### **REVISION DATE: NOVEMBER 2015**

This document has EAR data with an Export Control Classification Number (ECCN) of 9E991.

Export of this technology is controlled under the United States Export Administration Regulations (EAR) (15 CFR 730-774). An export license may be required before it is used for development, production or use by foreign persons from specific countries.

The controller of this data has the individual responsibility to abide by all export laws.

**BOEING PROPRIETARY, CONFIDENTIAL, AND/OR TRADE SECRET**  
Copyright © 2015 The Boeing Company  
Unpublished Work - All Rights Reserved

Boeing claims copyright in each page of this document only to the extent that the page contains copyrightable subject matter. Boeing also claims copyright in this document as a compilation and/or collective work.

This document includes proprietary information owned by The Boeing Company and/or one or more third parties. Treatment of the document and the information it contains is governed by contract with Boeing. For more information, contact The Boeing Company, P.O. Box 3707, Seattle, Washington 98124.

Boeing, the Boeing signature, the Boeing symbol, 707, 717, 727, 737, 747, 757, 767, 777, 787, BBJ, DC-8, DC-9, DC-10, MD-10, MD-11, MD-80, MD-88, MD-90, and the red-white-and-blue Boeing livery are all trademarks owned by The Boeing Company; and no trademark license is granted in connection with this document unless provided in writing by Boeing.

THIS PAGE INTENTIONALLY LEFT BLANK



## 747-400 LCF SUPPLEMENTAL STRUCTURAL INSPECTION DOCUMENT – APPENDIX A

## LIST OF EFFECTIVE PAGES

Section	Page	Rev	Section	Page	Rev	Section	Page	Rev	Section	Page	Rev
LEP	1	NOV 2015	F-11	4	BLANK	F-29	5	MAY 2008	F-99	2	NOV 2015
LEP	2	NOV 2015	F-16	1	MAY 2008	F-29	6	BLANK	F-99	3	MAY 2008
REV	1	NOV 2015	F-16	2	NOV 2015	F-30	1	MAY 2008	F-99	4	BLANK
REV	2	NOV 2015	F-16	3	MAY 2008	F-30	2	NOV 2015	F-100	1	MAY 2008
REV	3	NOV 2015	F-16	4	MAY 2008	F-30	3	MAY 2008	F-100	2	NOV 2015
REV	4	BLANK	F-19	1	MAY 2008	F-30	4	BLANK	F-100	3	MAY 2008
TOC	1	NOV 2015	F-19	2	MAY 2008	F-39	1	MAY 2008	F-100	4	MAY 2008
TOC	2	BLANK	F-19	3	NOV 2015	F-39	2	NOV 2015	F-101	1	MAY 2008
1.0	1	NOV 2015	F-19	4	MAY 2008	F-39	3	NOV 2015	F-101	2	MAY 2008
1.0	2	BLANK	F-19	5	MAY 2008	F-39	4	NOV 2015	F-101	3	MAY 2008
2.0	1	NOV 2015	F-19	6	MAY 2008	F-41	1	MAY 2008	F-101	4	NOV 2015
2.0	2	BLANK	F-19	7	MAY 2008	F-41	2	NOV 2015	F-101	5	MAY 2008
3.0	1	NOV 2015	F-19	8	MAY 2008	F-41	3	MAY 2008	F-101	6	MAY 2008
3.0	2	NOV 2015	F-20	1	MAY 2008	F-41	4	MAY 2008	F-103	1	MAY 2008
3.0	3	NOV 2015	F-20	2	MAY 2008	F-49	1	MAY 2008	F-103	2	MAY 2008
3.0	4	NOV 2015	F-20	3	NOV 2015	F-49	2	MAY 2008	F-103	3	MAY 2008
3.0	5	NOV 2015	F-20	4	MAY 2008	F-49	3	NOV 2015	F-103	4	MAY 2008
3.0	6	NOV 2015	F-21	1	MAY 2008	F-49	4	MAY 2008	F-103	5	MAY 2008
4.0	1	NOV 2015	F-21	2	NOV 2015	F-49	5	MAY 2008	F-103	6	NOV 2015
4.0	2	BLANK	F-21	3	MAY 2008	F-49	6	MAY 2008	F-103	7	NOV 2015
5.0	1	NOV 2015	F-21	4	MAY 2008	F-49	7	MAY 2008	F-103	8	MAY 2008
5.0	2	BLANK	F-24	1	MAY 2008	F-49	8	MAY 2008	F-103	9	MAY 2008
6.0	1	NOV 2015	F-24	2	NOV 2015	F-49	9	MAY 2008	F-103	10	MAY 2008
6.0	2	BLANK	F-24	3	MAY 2008	F-49	10	BLANK	F-103	11	MAY 2008
7.0	1	NOV 2015	F-24	4	MAY 2008	F-51	1	MAY 2008	F-103	12	MAY 2008
7.0	2	BLANK	F-24	5	MAY 2008	F-51	2	NOV 2015	F-104	1	MAY 2008
8.0	1	NOV 2015	F-24	6	BLANK	F-51	3	MAY 2008	F-104	2	NOV 2015
8.0	2	NOV 2015	F-25	1	MAY 2008	F-51	4	BLANK	F-104	3	MAY 2008
8.1	1	NOV 2015	F-25	2	NOV 2015	F-95	1	MAY 2008	F-104	4	MAY 2008
8.1	2	NOV 2015	F-25	3	NOV 2015	F-95	2	NOV 2015	F-105	1	MAY 2008
8.1	3	MAY 2008	F-25	4	NOV 2015	F-95	3	MAY 2008	F-105	2	NOV 2015
8.1	4	BLANK	F-25	5	NOV 2015	F-95	4	BLANK	F-105	3	MAY 2008
W-16	1	MAY 2008	F-25	6	NOV 2015	F-96	1	MAY 2008	F-105	4	BLANK
W-16	2	NOV 2015	F-25	7	MAY 2008	F-96	2	NOV 2015	F-24	1	MAY 2008
W-16	3	MAY 2008	F-25	8	MAY 2008	F-96	3	MAY 2008	F-24	2	NOV 2015
W-16	4	BLANK	F-25	9	MAY 2008	F-96	4	MAY 2008	F-24	3	NOV 2015
8.2	1	NOV 2015	F-25	10	MAY 2008	F-96	5	MAY 2008	F-24	4	MAY 2008
8.2	2	NOV 2015	F-25	11	MAY 2008	F-96	6	MAY 2008	F-24	5	MAY 2008
8.2	3	NOV 2015	F-25	12	MAY 2008	F-96	7	MAY 2008	F-24	6	MAY 2008
8.2	4	MAY 2008	F-25	13	MAY 2008	F-96	8	MAY 2008	F-24	7	MAY 2008
8.2	5	MAY 2008	F-25	14	MAY 2008	F-96	9	MAY 2008	F-24	8	BLANK
8.2	6	MAY 2008	F-26	1	MAY 2008	F-96	10	BLANK	F-108	1	MAY 2008
F-6	1	MAY 2008	F-26	2	MAY 2008	F-97	1	MAY 2008	F-108	2	NOV 2015
F-6	2	NOV 2015	F-26	3	NOV 2015	F-97	2	NOV 2015	F-108	3	NOV 2015
F-6	3	MAY 2008	F-26	4	MAY 2008	F-97	3	MAY 2008	F-108	4	MAY 2008
F-6	4	BLANK	F-26	5	MAY 2008	F-97	4	MAY 2008	F-108	5	MAY 2008
F-9	1	MAY 2008	F-26	6	MAY 2008	F-97	5	MAY 2008	F-108	6	BLANK
F-9	2	NOV 2015	F-26	7	MAY 2008	F-97	6	BLANK	F-109	1	MAY 2008
F-9	3	MAY 2008	F-26	8	MAY 2008	F-98	1	MAY 2008	F-109	2	NOV 2015
F-9	4	BLANK	F-29	1	MAY 2008	F-98	2	NOV 2015	F-109	3	MAY 2008
F-11	1	MAY 2008	F-29	2	MAY 2008	F-98	3	MAY 2008	F-109	4	MAY 2008
F-11	2	NOV 2015	F-29	3	NOV 2015	F-98	4	BLANK	F-110	1	MAY 2008
F-11	3	MAY 2008	F-29	4	MAY 2008	F-99	1	MAY 2008	F-110	2	NOV 2015



# 747-400 LCF SUPPLEMENTAL STRUCTURAL INSPECTION DOCUMENT – APPENDIX A

## LIST OF EFFECTIVE PAGES

Section	Page	Rev	Section	Page	Rev	Section	Page	Rev	Section	Page	Rev
F-110	3	NOV 2015	E-37	4	MAY 2008	F-25B	3	MAY 2008	F-104B	2	MAY 2008
F-110	4	MAY 2008	E-37	5	MAY 2008	F-25B	4	MAY 2008	F-105B	1	MAY 2008
F-110	5	MAY 2008	E-37	6	BLANK	F-25B	5	MAY 2008	F-105B	2	BLANK
F-110	6	MAY 2008	E-38	1	MAY 2008	F-25B	6	MAY 2008	F-106B	1	MAY 2008
F-111	1	MAY 2008	E-38	2	NOV 2015	F-25B	7	MAY 2008	F-106B	2	MAY 2008
F-111	2	NOV 2015	E-38	3	MAY 2008	F-25B	8	MAY 2008	F-106B	3	MAY 2008
F-111	3	MAY 2008	E-38	4	BLANK	F-25B	1	MAY 2008	F-106B	4	MAY 2008
F-111	4	MAY 2008	E-39	1	MAY 2008	F-25B	2	MAY 2008	F-106B	1	MAY 2008
8.3	1	MAY 2008	E-39	2	NOV 2015	F-25B	3	MAY 2008	F-106B	2	MAY 2008
8.3	2	MAY 2008	E-39	3	NOV 2015	F-25B	4	MAY 2008	F-109B	1	MAY 2008
8.3	3	MAY 2008	E-39	4	MAY 2008	F-29B	1	MAY 2008	F-109B	2	MAY 2008
8.3	4	BLANK	E-39	5	MAY 2008	F-29B	2	MAY 2008	F-111B	1	MAY 2008
E-31	1	MAY 2008	E-39	6	MAY 2008	F-30B	1	MAY 2008	F-111B	2	MAY 2008
E-31	2	NOV 2015	E-39	7	MAY 2008	F-30B	2	BLANK	E-31B	1	MAY 2008
E-31	3	MAY 2008	E-39	8	MAY 2008	F-39B	1	NOV 2015	E-31B	2	BLANK
E-31	4	BLANK	E-40	1	MAY 2008	F-39B	2	NOV 2015	E-32B	1	MAY 2008
E-32	1	MAY 2008	E-40	2	NOV 2015	F-41B	1	MAY 2008	E-32B	2	MAY 2008
E-32	2	NOV 2015	E-40	3	MAY 2008	F-41B	2	MAY 2008	E-32B	3	MAY 2008
E-32	3	NOV 2015	E-40	4	BLANK	F-49B	1	MAY 2008	E-32B	4	MAY 2008
E-32	4	MAY 2008	E-46	1	NOV 2015	F-49B	2	MAY 2008	E-32B	5	MAY 2008
E-32	5	MAY 2008	E-46	2	NOV 2015	F-49B	3	MAY 2008	E-32B	6	BLANK
E-32	6	MAY 2008	E-46	3	MAY 2008	F-49B	4	MAY 2008	E-33B	1	MAY 2008
E-32	7	MAY 2008	E-46	4	BLANK	F-49B	5	MAY 2008	E-33B	2	MAY 2008
E-32	8	MAY 2008	E-47	1	NOV 2015	F-49B	6	BLANK	E-33B	3	MAY 2008
E-33	1	MAY 2008	E-47	2	NOV 2015	F-51B	1	MAY 2008	E-33B	4	MAY 2008
E-33	2	NOV 2015	E-47	3	MAY 2008	F-51B	2	BLANK	E-33B	5	MAY 2008
E-33	3	MAY 2008	E-47	4	BLANK	F-95B	1	MAY 2008	E-33B	6	BLANK
E-33	4	MAY 2008	9.0	1	NOV 2015	F-95B	2	BLANK	E-34B	1	MAY 2008
E-33	5	MAY 2008	9.0	2	BLANK	F-96B	1	MAY 2008	E-34B	2	MAY 2008
E-33	6	MAY 2008	10.0	1	NOV 2015	F-96B	2	MAY 2008	E-34B	3	MAY 2008
E-33	7	MAY 2008	10.0	2	BLANK	F-96B	3	MAY 2008	E-34B	4	MAY 2008
E-33	8	MAY 2008	11.0	1	NOV 2015	F-96B	4	MAY 2008	E-35B	1	MAY 2008
E-34	1	MAY 2008	11.0	2	BLANK	F-96B	5	MAY 2008	E-35B	2	MAY 2008
E-34	2	NOV 2015	W-16B	1	MAY 2008	F-96B	6	MAY 2008	E-35B	3	MAY 2008
E-34	3	NOV 2015	W-16B	2	BLANK	F-97B	1	NOV 2015	E-35B	4	BLANK
E-34	4	MAY 2008	F-9B	1	MAY 2008	F-97B	2	MAY 2008	E-36B	1	MAY 2008
E-34	5	MAY 2008	F-9B	2	BLANK	F-97B	3	MAY 2008	E-36B	2	BLANK
E-34	6	MAY 2008	F-11B	1	MAY 2008	F-97B	4	BLANK	E-37B	1	MAY 2008
E-34	7	MAY 2008	F-11B	2	BLANK	F-98B	1	MAY 2008	E-37B	2	MAY 2008
E-34	8	BLANK	F-16B	1	MAY 2008	F-98B	2	BLANK	E-37B	3	MAY 2008
E-35	1	MAY 2008	F-16B	2	MAY 2008	F-99B	1	MAY 2008	E-37B	4	BLANK
E-35	2	NOV 2015	F-19B	1	MAY 2008	F-99B	2	BLANK	E38B	1	MAY 2008
E-35	3	MAY 2008	F-19B	2	MAY 2008	F-100B	1	MAY 2008	E38B	2	BLANK
E-35	4	MAY 2008	F-19B	3	MAY 2008	F-100B	2	MAY 2008	E-39B	1	MAY 2008
E-35	5	MAY 2008	F-19B	4	MAY 2008	F-101B	1	MAY 2008	E-39B	2	MAY 2008
E-35	6	MAY 2008	F-20B	1	MAY 2008	F-101B	2	MAY 2008	E-39B	3	MAY 2008
E-36	1	MAY 2008	F-20B	2	BLANK	F-103B	1	MAY 2008	E-39B	4	MAY 2008
E-36	2	NOV 2015	F-21B	1	MAY 2008	F-103B	2	MAY 2008	E-40B	1	MAY 2008
E-36	3	MAY 2008	F-21B	2	MAY 2008	F-103B	3	MAY 2008	E-40B	2	BLANK
E-36	4	BLANK	F-24B	1	MAY 2008	F-103B	4	MAY 2008	E-46B	1	MAY 2008
E-37	1	MAY 2008	F-24B	2	MAY 2008	F-103B	5	MAY 2008	E-46B	2	BLANK
E-37	2	NOV 2015	F-25B	1	MAY 2008	F-103B	6	BLANK	E-47B	1	MAY 2008
E-37	3	MAY 2008	F-25B	2	MAY 2008	F-104B	1	MAY 2008	E-47B	2	BLANK

**REVISION HIGHLIGHTS**

REV SYM	DESCRIPTION	DATE	APPROVAL
O/R	Original Release	5/2008	W. Lindholm
JAN 2010	<p>Revised Section 1 by updating the chart information on Page 1.0.1 to reflect the current information for the Airworthiness Directive and Approval Date for this appendix.</p> <p>Revised Section 3.1 by incorporating the following changes:</p> <p>Revised the initial inspection threshold for SSI Number F-110 to 20,000 flight cycles.</p> <p>Added Flag Note [3] to SSI Numbers F-6, F-9, F-11, F-19, F-20, F-24, F-26, F-29, F-39, F-41, F-49, F-51, F-96, F-97, F-98, F-103, F-106, F-108, F-111, and E-47.</p>	1/2010	R. Geving
NOV 2015	<p>This revision constitutes major changes as follows:</p> <ol style="list-style-type: none"><li>1. Section 1.0 through 11.0 were revised to be consistent with 747 SSID Revision H.</li><li>2. Flagnote 3 (operation limit) in Section 3.1 and 3.2 was removed due to publication of revised and added NDT procedures.</li><li>3. Section 8.0.2 (NDT procedures) was removed because NDT procedures were incorporated into NDT Manual D6-7170.</li></ol> <p>Specific changes are as follows:</p> <p>Revised the references to the 747-400 Supplemental Structural Inspection Document throughout this appendix by replacing "747-400" with "747" to reflect the actual title of the document.</p> <p>Revised the table of Inspection Instructions for each SSI item by deleting the Reference columns, as this information is included in the cross-reference matrix located in 747 SSID, D6-35022, in the beginning of every major section.</p> <p>Revised Section 1.0 Purpose, step 1 to add AD 2004-07-22 R1 for Appendix A Rev 1 and for D6-35022 rev H.</p> <p>Added a note [2] "Contains SSIs for LCF only".</p> <p>Revised step 5 to reference thresholds listed in section 3.</p> <p>Revised Section 3.0 Implementation statement referencing "supplemental inspection programs" to "Supplemental Structural Inspection Programs (SSIPs)" and to include recommendations for inspection incorporation into an operators maintenance program.</p> <p>Removed flagnote 3 from Section 3.1 and 3.2.</p> <p>Revised initial inspection threshold (flight hours) for the wing items.</p> <p>Added a note for Strut SSIs in the repeat inspections.</p> <p>Added a foot note 1 to account for known cracking.</p> <p>Added new section for "Removable Structural Components".</p> <p>Revised section 3.1 Initial Inspection (Thresholds) - Fuselage to add F-2 in the table for Fuselage Bulkhead BS 260.</p> <p>(Continued on next page)</p>	11/2015	J. Radtke



## 747-400 LCF SUPPLEMENTAL STRUCTURAL INSPECTION DOCUMENT – APPENDIX A

REV SYM	DESCRIPTION	DATE	APPROVAL
NOV 2015, Continued	<p>Revised section 3.3 Inspection Interval Limits verbiage to remove the MPD references and replaced with the correct MRBR references. Added 2D-check (12,000 flight cycles) interval from MPD, Section 9.</p> <p>Revised section 8.0 SSI Inspection Options with Example DTR Check Forms, Phased paragraph to "Phased or Sample inspection programs are obsolete per AD 2004-07-22 R1".</p> <p>Revised "MPD, as referenced in Section 10" to "Maintenance Planning Document (MPD) D621U400, as referenced in Appendix A".</p> <p>Deleted Section 8.0.2 NDT Inspection Procedures due to publication of listed NDT procedures.</p> <p>Revised Section 8.1 Wing SSI Information table for W-2 DTR check form from W-2 to A and B.</p> <p>Added DTR check form W-16AA.</p> <p>Revised applicability for W-43C.</p> <p>Added SSIs, W-45 Wing Main Landing Gear Beam and W-46 Wing Inboard Flap Track #4 and #5. Forward attach support fittings (Light and Heavy Weights).</p> <p>Added the note to account for Flight Length Sensitive (FLS) requirements.</p> <p>Revised the table of Inspection Instructions for each SSI item by deleting the Reference columns, as this information is included in the cross-reference matrix located in 747 SSID, D6-35022, in the beginning of every major section.</p> <p>The following changes were made to the table of Fuselage SSI/DTR Forms in Section 8.2:</p> <p>Revised F-1 DTR check form from F-1 to A and B.</p> <p>Added new SSI, F-2 Fuselage Bulkhead, BS 260 Nose Gear Wheel Well.</p> <p>Added DTR check forms, F-6F and G. (Not applicable to LCF.)</p> <p>Revised DTR check forms for F-19 and F-20. (Not applicable to LCF.)</p> <p>Added DTR check forms, F-31C and D. (Not applicable to LCF.)</p> <p>Added new SSI, F-32 Lower Lobe Bulk Cargo Doors. (Not applicable to LCF.)</p> <p>Revised F-37 DTR check form from F-37 to A thru C. (Not applicable to LCF.)</p> <p>Revised F-64 DTR check form title to include "and Cutouts" and revised DTR check form from A - E to A - O. (Not applicable to LCF.)</p> <p>Revised F-65 DTR check form from A &amp; B to A - D. (Not applicable to LCF.)</p> <p>Added new SSI, F-66 Underwing Longerons Fitting at Body Station 990 and F-67 Fuselage Skin at Underwing Longerons Fittings. (Not applicable to LCF.)</p> <p>Revised F-19UU Inspection Options to list the correct NDT Manual references and the notes for II.(1) and (2).</p> <p>Revised F-20 Inspection Options to list the correct NDT Manual references for F-20MM I. (1).</p> <p>Revised F-24AA Inspection Options I. (2) to list the correct NDT Manual references.</p> <p>Revised F-25HH Inspection Options II.(3) from "outer skin" to "inner skin".</p> <p>Revised F-25QQ Inspection Options VI.(1) from "lower fastener" to "upper fastener".</p> <p>Revised F-25RR Inspection Options VII.(1) from "lower fastener" to "upper fastener".</p> <p>(Continued on next page)</p>		Continued from previous page



## 747-400 LCF SUPPLEMENTAL STRUCTURAL INSPECTION DOCUMENT – APPENDIX A

REV SYM	DESCRIPTION	DATE	APPROVAL
NOV 2015, Continued	<p>Revised F-25SS Inspection Options VIII by adding "S-19 and" to the inspection statement and revised VIII.(3) from "Outer Skin" to "Inner Skin".</p> <p>Revised F-29BB Inspection Options II. (1) to list the correct NDT Manual references.</p> <p>Revised F-39II Inspection Options II from "hinge fittings" to "hinge fairings" and revised II.(1) from "fittings" to "fairings".</p> <p>Revised DTR check form F-39HH to add a note (1) to be consistent with 747 SSID, D6-35022, Rev H, F-39C form.</p> <p>Revised DTR check form F-39II SSI location title from "hinge fittings" to "hinge fairings".</p> <p>Revised F-103B Inspection Options II.(1) from "forward row" to "aft row".</p> <p>Revised F-103D Inspection Options IV.(1) from "forward row" to "aft row".</p> <p>Revised F-106D Inspection Options IV.(2) from "Direction 1" to Direction 2".</p> <p>Revised F-108A Inspection Options I.(3) from "HFEC" to "LFEC" and corrected the NDT Manual references to reflect "53-30-00, Procedure 5".</p> <p>Revised F-108B Inspection Options II.(2) to list the correct NDT Manual reference.</p> <p>Revised F-110C Inspection Options III to include "BS" in front of 2053.</p> <p>Revised E-32B Inspection Options II.(1) Zone(s) to reflect the correct zones for the 747-400.</p> <p>Revised E-32E Inspection Options V by deleting "BL 43.5" from the inspection statement and revised V.(1) Zone(s) by deleting 333 and 343.</p> <p>Revised E-34B Inspection Options II.(2) from "External" to "Internal".</p> <p>Revised E-37A Inspection Options I.(1) Hinge Pin from "(Internal)" to "(Internal and (External))" and clarified instructions. Revised Access to delete AMM reference.</p> <p>Revised E-39 Illustration to clarify the inspection area.</p> <p>Revised E-46 Illustration by changing the "S-1" callout to "REAR SPAR".</p> <p>Revised E-47 Illustration by changing the "S-1" callout to "REAR SPAR", E-47 Inspection Options I.(1) to list the correct NDT Manual references, and E-47 Inspection Options I.(3) from "chord" to "stringer".</p> <p>Revised Section 10.1 Airplane Zone Diagrams and 10.2 Airplane Access Panels statement on how to obtain a hard copy and added "D6-35022" for the specific referenced document to Sections 10.3, 10.4 and 10.5.</p> <p>"Revised Section 11.0 Blank Damage Tolerance Rating (DTR) Check Forms to delete the reference to 747-400 SSID and reference 747 SSID.</p> <p>Added Section 11.0.1 Table of Contents.</p> <p>Revised NOTES 1: Changed "active pages" to "effective pages, see LOP Section." and deleted "Volume 1".</p> <p>Added Notes 3. through 5. and new section 11.0.2 Interval Conversion Factor.</p> <p>Revised DTR check form F-39HH to add a note (1) to be consistent with 747 SSID, D6-35022, Rev H, F-39C form.</p> <p>Revised DTR check form F-39II SSI location title from "hinge fittings" to "hinge fairings".</p> <p>Revised DTR check form F-97A "Total DTR" box to be consistent with the standard "blank" format of section 11.</p>		Continued from previous page



THIS PAGE INTENTIONALLY LEFT BLANK





## TABLE OF CONTENTS

1.0 PURPOSE .....	1.0.1
2.0 INTRODUCTION .....	2.0.1
3.0 IMPLEMENTATION .....	3.0.1
3.1 Initial Inspection (Thresholds) – Fuselage .....	3.0.3
3.2 Initial Inspection (Thresholds) – Empennage .....	3.0.5
3.3 Inspection Interval Limits .....	3.0.6
4.0 STRUCTURAL SIGNIFICANT ITEMS (SSIs) .....	4.0.1
5.0 DAMAGE TOLERANCE RATING (DTR) SYSTEM APPLICATION .....	5.0.1
6.0 SSI DISCREPANCY REPORTING .....	6.0.1
7.0 DOCUMENT USAGE AND DTR SYSTEM EXAMPLES .....	7.0.1
8.0 SSI INSPECTION OPTIONS WITH EXAMPLE DTR CHECK FORMS .....	8.0.1
8.1 Wing SSI Information .....	8.1.1
8.2 Fuselage SSI Information .....	8.2.1
8.3 Empennage SSI Information .....	8.3.1
9.0 SERVICE BULLETINS WITH FLIGHT SAFETY ADDENDA/INSPECTION PROGRAMS .....	9.0.1
10.0 GENERAL INFORMATION .....	10.0.1
10.1 Airplane Zone Diagrams .....	10.0.1
10.2 Airplane Access Panels .....	10.0.1
10.3 Damage Tolerance Rating (DTR) System .....	10.0.1
10.4 Abbreviations .....	10.0.1
10.5 Glossary .....	10.0.1
11.0 BLANK DAMAGE TOLERANCE RATING (DTR) Check Forms .....	11.0.1



THIS PAGE INTENTIONALLY LEFT BLANK



## 1.0 PURPOSE

The purpose of the Supplemental Structural Inspection Program is to ensure continuing structural airworthiness of 747 airplanes with a high number of flight cycles in accordance with the requirements of 14 CFR Part 25.571 and the guidance in FAA AC 91-56B. This document is an appendix to the 747 Supplemental Structural Inspection Document (SSID), D6-35022 and includes the SSIs that are only applicable to the 747-400 Large Cargo Freighter (LCF). Where applicable, references to the 747-400 SSID will be indicated in this document. This FAA approved document provides operators with data to be used in evaluating and supplementing their existing structural inspection program.

It is important to realize that:

1. Airworthiness Directives (ADs) have been issued by the FAA, requiring implementation of a Supplemental Structural Inspection Program in accordance with this document and subsequent revisions for Model 747 Series listed in Section 3.0.

SSID REVISION	AD	EFFECTIVE DATE
D6-35022 Rev. G	2004-07-22 R1	January 22, 2008
D6-35022 Rev. H	[1]	[1]
D6-35022-1 Appendix A Original [2]	2004-07-22 R1	January 22, 2008
D6-35022-1 Appendix A Rev. A [2]	[1]	[1]

[1] AD not released at printing of SSID revision.

[2] Contains SSIs for LCF only.

2. This document identifies Structural Significant Items (SSIs) having fatigue crack growth characteristics warranting special attention and requiring inspection to ensure timely detection of damage.
3. The inspection requirements defined by this document are based on the premise that operators are applying and will continue to apply an approved structural inspection program for identification of cracks, corrosion and other forms of damage on their 747 airplanes.
4. Supplemental inspection requirements resulting from this document should be accomplished in conjunction with, but not as a substitute for the existing approved structural inspection program.
5. Each operator with an aircraft approaching the threshold listed in Section 3.0 should revise their existing approved maintenance program to include the data contained in this document. The procedure for achieving this will vary due to the differences that exist in operator maintenance programs, operating environments and fleet modification status.
6. MPD references have only been included for the purpose of relating each SSI to a general structural area(s).



THIS PAGE INTENTIONALLY LEFT BLANK



## 2.0 INTRODUCTION

Please refer to the 747 Supplemental Structural Inspection Document, D6-35022, for all of Section 2.0.



THIS PAGE INTENTIONALLY LEFT BLANK



### 3.0 IMPLEMENTATION

Airplanes with the highest number of flight cycles are most likely to experience initial fatigue cracking in the fleet. Therefore, Supplemental Structural Inspection Programs (SSIPs) for these airplanes, coupled with the reporting of discrepancies found and where necessary, follow-up action, will maintain structural airworthiness in the total fleet if fatigue cracking should occur. To maintain adequate fleet surveillance, each operator with airplanes approaching the initial inspection threshold listed below must provide for those airplanes a SSIP which meets the requirements established by this document.

This document is effective for 747-400 airplanes modified to the 747-400 Large Cargo Freighter (LCF) configuration. Because the stress environment changed for some SSIs when the airplanes were modified to the 747-400 LCF configuration, the thresholds were established based on the number of flight cycles that the airplane had when it was modified. Where applicable, the thresholds based on the number of flight cycles when modified to the 747-400 LCF configuration are shown in the tables in Sections 3.1 and 3.2.

Boeing recommends inspection of all Structural Significant Items (SSIs) listed in this document be incorporated into the airline's scheduled maintenance program prior to the given threshold:

#### Initial Inspection (Threshold)

- For all Wing items<sup>[1]</sup>: No later than 20,000 total accumulated flight cycles or 115,000 total accumulated flight hours, whichever comes first.
- For all other items<sup>[1]</sup>: No later than 20,000 total accumulated flight cycles or the initial inspection (thresholds) shown in the tables in Sections 3.1 and 3.2, whichever comes first.

#### Repeat Inspections

At intervals in accordance with the applicable Damage Tolerance Rating (DTR) Check Forms as defined in Sections 8.1, 8.2, and 8.3 of this appendix (for all Strut SSIs, refer to the 747 SSID, D6-35022). Application of the DTR system is discussed further in Sections 5.0 and 7.0 of this appendix.

#### Airplane Identification

	VAR EFF	BASIC	SERIAL NUMBER	LINE NO.	AT TIME OF MODIFICATION	
					CYCLES	HOURS
1	RT876	R2546	25879	904	8,266	28,105
2	RT632	R2448	24310	778	12,825	64,802
3	RT631	R2440	24309	766	12,945	64,896
4	RT743	R2570	27042	932	7,854	59,483

<sup>[1]</sup> With some SSI inspections addressing known cracking, the Inspection Threshold cannot be escalated without accounting for the areas of known cracking.



## Removable Structural Components

Initial inspection (threshold) and intervals are measured in flight cycles or flight hours that a particular SSI detail has accumulated regardless of what the airframe as a whole has accumulated. Most SSI details have never been replaced and therefore have accumulated the same flight cycles and flight hours as the airframe. Some SSI details are replaced, such as when installing Removable Structural Components (repairable/rotatable/expendables) or installing used structural parts as a repair. In these cases the SSI details have accumulated flight cycles and flight hours that may be different than the airframe. The operator must account for this in determining when inspections must be done.

Although intended for repairs, FAA AC 120-93, Appendix 7 provides a method for determining the age of a Removable Structural Component which may be applied to the baseline structure.





### 3.1 Initial Inspection (Thresholds) – Fuselage

All Fuselage SSIs that are applicable to the 747-400 LCF are listed below.

SSI NUMBER	TITLE	INITIAL INSPECTION (THRESHOLD) [TOTAL ACCUMULATED FLIGHT CYCLES]
F-1	FORWARD BULKHEAD AT BS 140	20,000
F-2	FUSELAGE BULKHEAD - BS 260 (NOSE GEAR WHEEL WELL)	20,000
F-4	FUSELAGE BULKHEAD - BS 400 (NOSE GEAR WHEEL WELL)	20,000
F-6	FUSELAGE BULKHEAD - BS 1000	20,000
F-9	FUSELAGE BULKHEAD AT BS 1240	20,000
F-11	FUSELAGE BULKHEAD AT BS 1480	20,000
F-16	FUSELAGE OVERWING LONGERON	20,000
F-17	CREW CAB WINDOW POSTS, SILLS AND SKINS	20,000
F-19	UPPER DECK FLOOR BEAMS AND TENSION TIES	20,000
F-20	UPPER DECK FLOOR CUTOUTS	20,000
F-21	FUSELAGE SLAB-SIDED SKIN AND FRAMES	11,500 <sup>[1]</sup> 15,500 <sup>[2]</sup>
F-24	FUSELAGE BILGE SKINS AND FRAMES	14,500 <sup>[1]</sup> 16,500 <sup>[2]</sup>
F-25	FUSELAGE SKIN LONGITUDINAL LAP SPLICES	17,000 <sup>[1]</sup> 18,000 <sup>[2]</sup>
F-26	SKIN STRINGER CIRCUMFERENTIAL SPLICES	20,000
F-28	PASSENGER CABIN WINDOW CUTOUTS	20,000
F-29	MAIN DECK FLOOR BEAMS	17,500 <sup>[1]</sup> 18,500 <sup>[2]</sup>
F-30	FUSELAGE SKIN-TO-STRINGER ATTACHMENT - BS 2360	13,500 <sup>[1]</sup> 15,500 <sup>[2]</sup>
F-31	LOWER LOBE CARGO DOORS	20,000
F-39	FUSELAGE LOWER LOBE CARGO DOOR CUTOUTS	20,000
F-41	MAIN DECK ENTRY DOOR CUTOUTS	13,500 <sup>[1]</sup> 16,000 <sup>[2]</sup>
F-43	EMERGENCY EXIT DOOR CUTOUTS	20,000
F-46	JACKSCREW SUPPORT STRUCTURE	20,000
F-49	SECTION 48 BS 2598 BULKHEAD	13,500 <sup>[1]</sup> 16,000 <sup>[2]</sup>



## 747-400 LCF SUPPLEMENTAL STRUCTURAL INSPECTION DOCUMENT – APPENDIX A

SSI NUMBER	TITLE	INITIAL INSPECTION (THRESHOLD) [TOTAL ACCUMULATED FLIGHT CYCLES]
F-51	SECTION 48 LONGERON SKIN SPLICE BS 2598	13,500 <sup>[1]</sup> 16,000 <sup>[2]</sup>
F-95	SECTION 48 TORQUE BOX SHEAR DECK	13,500 <sup>[1]</sup> 16,000 <sup>[2]</sup>
F-96	FIN SUPPORT BULKHEAD, WEBS AND CHORDS	20,000
F-97	FUSELAGE BULKHEAD, BS 1140	20,000
F-98	STUB FRAMES OVERWING CENTER SECTION	20,000
F-99	ELECTRONIC AND EQUIPMENT ACCESS DOOR CUTOUTS	15,500 <sup>[1]</sup> 17,500 <sup>[2]</sup>
F-100	SWING ZONE HINGE PIN AND SUPPORT STRUCTURE	20,000
F-101	SWING ZONE LATCH PIN AND SUPPORT STRUCTURE	20,000
F-103	FUSELAGE SKIN REINFORCEMENT – BULKHEAD BS 532	20,000
F-104	FUSELAGE BULKHEAD AT BS 532	20,000
F-105	FUSELAGE SKIN EXTERNAL FITTINGS – BULKHEAD BS 532	20,000
F-106	FIN SUPPORT BULKHEADS AT FIN SUPPORT FITTINGS	20,000
F-108	FUSELAGE SKIN WITH DOUBLERS	20,000
F-109	FUSELAGE SKIN LONGITUDINAL BUTT SPLICES	20,000
F-110	CARGO RAILS	20,000
F-111	SECTION 41 VALVE SKIN CUTOUTS	20,000

<sup>[1]</sup> Initial inspection (threshold) applicable to airplanes identified in Section 3.0 that had 7,500 - 12,400 total flight cycles at time of modification to the 747-400 LCF configuration.

<sup>[2]</sup> Initial inspection (threshold) applicable to airplanes identified in Section 3.0 that had 12,400 - 13,500 total flight cycles at time of modification to the 747-400 LCF configuration.



### 3.2 Initial Inspection (Thresholds) – Empennage

All Empennage SSIs that are applicable to the 747-400 LCF are listed below.

SSI NUMBER	TITLE	INITIAL INSPECTION (THRESHOLD) [TOTAL ACCUMULATED FLIGHT CYCLES]
E-14	VERTICAL FIN FRONT SPAR CHORD, SKIN AND WEB	14,500 <sup>[1]</sup> 16,500 <sup>[2]</sup>
E-15	VERTICAL FIN REAR SPAR CHORD, SKIN AND WEB	14,500 <sup>[1]</sup> 16,500 <sup>[2]</sup>
E-18	VERTICAL FIN TYPICAL RIBS	14,500 <sup>[1]</sup> 16,500 <sup>[2]</sup>
E-19	VERTICAL FIN FORWARD TORQUE BOX SKIN	14,500 <sup>[1]</sup> 16,500 <sup>[2]</sup>
E-31	JACKSCREW ATTACHMENT STRUCTURE	14,500 <sup>[1]</sup> 16,500 <sup>[2]</sup>
E-32	HORIZONTAL STABILIZER FRONT SPAR UPPER SURFACE CHORD, SKIN AND WEB	14,500 <sup>[1]</sup> 16,500 <sup>[2]</sup>
E-33	HORIZONTAL STABILIZER REAR SPAR UPPER SURFACE CHORD, SKIN AND WEB	14,500 <sup>[1]</sup> 16,500 <sup>[2]</sup>
E-34	HORIZONTAL STABILIZER UPPER SURFACE TYPICAL SKIN-STRINGER	14,500 <sup>[1]</sup> 16,500 <sup>[2]</sup>
E-35	HORIZONTAL STABILIZER UPPER SURFACE SPLICE STRINGER S-5 AND SKIN	14,500 <sup>[1]</sup> 16,500 <sup>[2]</sup>
E-36	HORIZONTAL STABILIZER TYPICAL RIBS	14,500 <sup>[1]</sup> 16,500 <sup>[2]</sup>
E-37	HORIZONTAL STABILIZER HINGE PIN AND SUPPORT STRUCTURE	14,500 <sup>[1]</sup> 16,500 <sup>[2]</sup>
E-38	HORIZONTAL STABILIZER HINGE RIB	14,500 <sup>[1]</sup> 16,500 <sup>[2]</sup>
E-39	HORIZONTAL STABILIZER SIDE OF BODY SPLICE	14,500 <sup>[1]</sup> 16,500 <sup>[2]</sup>
E-40	HORIZONTAL STABILIZER FORWARD TORQUE BOX	14,500 <sup>[1]</sup> 16,600 <sup>[2]</sup>
E-46	VERTICAL FIN TYPICAL SKIN-STRINGER	14,500 <sup>[1]</sup> 16,500 <sup>[2]</sup>
E-47	VERTICAL FIN SKIN-SPLICE STRINGER	14,500 <sup>[1]</sup> 16,500 <sup>[2]</sup>

<sup>[1]</sup> Initial inspection (threshold) applicable to airplanes identified in Section 3.0 that had 7,500 - 12,400 total flight cycles at time of modification to the 747-400 LCF configuration.

<sup>[2]</sup> Initial inspection (threshold) applicable to airplanes identified in Section 3.0 that had 12,400 - 13,500 total flight cycles at time of modification to the 747-400 LCF configuration.



### 3.3 Inspection Interval Limits

The Supplemental Structural Inspection Program in this appendix was developed to ensure the continuing structural airworthiness of 747-400 LCF airplanes, provided that the operator's baseline inspection program inspection intervals are limited by flight cycles as specified below.

After the airplane reaches the lowest (initial inspection) threshold as shown in Section 3.0 of this appendix, the repeat intervals of the C-Checks and D-Checks specified by the 747-400 Maintenance Review Board Report (MRBR), D621U400-MRB, must be limited by flight cycles in addition to the specified limitations for flight hours and calendar time. For MRBR Section 3, Structural Maintenance Program and MRBR Section 4, Zonal Maintenance Program, the check levels must not exceed the following:

C-Check - 1,500 flight cycles

2C-Check - 3,000 flight cycles

D-Check - 6,000 flight cycles

2D-Check - 12,000 flight cycles



## 4.0 STRUCTURAL SIGNIFICANT ITEMS (SSIs)

Please refer to the 747 Supplemental Structural Inspection Document, D6-35022, for all of Section 4.0.



THIS PAGE INTENTIONALLY LEFT BLANK



## 5.0 DAMAGE TOLERANCE RATING (DTR) SYSTEM APPLICATION

Please refer to the 747 Supplemental Structural Inspection Document, D6-35022, for all of Section 5.0.



THIS PAGE INTENTIONALLY LEFT BLANK





## 6.0 SSI DISCREPANCY REPORTING

Please refer to the 747 Supplemental Structural Inspection Document, D6-35022, for all of Section 6.0.



THIS PAGE INTENTIONALLY LEFT BLANK



## 7.0 DOCUMENT USAGE AND DTR SYSTEM EXAMPLES

Please refer to the 747 Supplemental Structural Inspection Document, D6-35022, for all of Section 7.0.



THIS PAGE INTENTIONALLY LEFT BLANK



## 8.0 SSI INSPECTION OPTIONS WITH EXAMPLE DTR CHECK FORMS

This section contains the basic information needed by an operator to complete the blank DTR Check Forms in Section 11.0. The Structural Significant Item (SSI) information contained in this section is divided into sections for the Wing, Fuselage, and Empennage (for all Strut SSIs, refer to the 747 Supplemental Structural Inspection Document, D6-35022). Within these sections a package of information is provided which includes the following:

- A List of SSIs
- A Cross-Reference Matrix for SSI Inspection Zones/Areas
- SSIs which include:
  - An illustration showing the general location of the SSI on the airplane
  - Inspection instructions (options)
  - DTR Check Form examples

The inspection instructions provided for each DTR Check Form in Section 8.0 and the guidelines from Sections 5.0 and 7.0 should be used when completing the blank DTR Check Forms in Section 11.0 to determine operator supplemental structural inspection requirements with respect to the eligible airplane(s). DTR Check Form examples are provided for reference and show a typical maintenance program that complies with the required DTR.

- Phased or Sample inspection programs are obsolete per AD 2004-07-22 R1.
- Once the operator gains access to an area, visible structure adjacent to an SSI should also be given a surveillance inspection. If a crack or cracks are found during an inspection within a designated area, the inspection must be expanded until it is assured that any additional cracks have been located and repaired.
- Airplane zone and access panel diagrams may be located in the appropriate Boeing Maintenance Planning Data (MPD) document, D621U400, as referenced in Appendix A.

### 8.0.1 Special Inspection Notes

#### Corrosion

Since the existence of corrosion in and around an SSI may alter its damage tolerance characteristics, "Corrosion Caution Notes" have been assigned to those SSIs where fleet experience has indicated a known potential problem. The effects of corrosion have not been included in crack growth calculations for the SSIs in this document. It is important that operators have corrosion control inspections integrated into their scheduled maintenance program at frequencies based on experience or as suggested in the MPD document. Areas that should be part of a corrosion inspection program include:

- Lower fuselage structure in the bilge area, where moisture might collect;
- Crown stringer splices BS 1000 to 1960;
- Fuselage monocoque-skin lap splices;
- BS 532 bulkhead;
- Sloping pressure deck just aft of wing rear spar;
- Keel beam webs, particularly the upper web from the wing rear spar to the main landing gear wheel well, aft bulkhead;



## 747-400 LCF SUPPLEMENTAL STRUCTURAL INSPECTION DOCUMENT – APPENDIX A

- Wing center section upper panels and rear spar;
- Wing leading edge-to-skin splice;
- Outboard wing rear spar;
- Horizontal stabilizer panels and hinge pins.

Findings of significant corrosion in the areas of the SSIs not previously reported should be included in the reporting system described in Section 6.0.

### Indicators of Structural Distress

For specific inspection areas covered in this document and in general airline inspection areas of aging airplanes, certain signs of structural distress should be treated as potentially serious problems and warrant additional evaluation and inspection of the adjacent structure. Once the operator gains access to an area, all adjacent structure should be given a thorough visual inspection. If a crack(s) is found during inspection within a designated area, the inspection must be expanded until it is assured that any additional cracks have been located and repaired.

One example of a "Distress Indicator" is a wing fuel leak which could result from wing skin cracking. It is recognized that airlines conduct routine area inspections at specified intervals, which are capable of detecting wing fuel leaks. This type of potential damage indicator is significant and it is recommended that additional detailed visual or NDT inspections should be accomplished until the problem is defined and corrective action is taken. Excessive use of sealant to prevent fuel leaks at fastener locations should be avoided.

Some additional examples of Distress Indicators are:

- Fuselage pressure leaks - nicotine stains
- Distressed fasteners in primary structure - loose, popped, dished, tipped heads
- Skin bulging at attachment locations

Findings of structural distress should be reported as described in Section 6.0.

### Structural Cracking

Information contained in this document does not sanction further airplane operations with known structural cracking present. All cracks found must be repaired per an approved method prior to returning the airplane to active fleet status.



## 8.1 Wing SSI Information

This section contains the basic inspection and access information needed to complete the blank Wing DTR Check Forms in Section 11.1. The table below lists the Wing SSIs/DTR Check Forms by 747-400 LCF applicability. This table combines the SSI/DTR Check Forms from the main body of Document D6-35022 with the new SSI/DTR Check Forms unique to the 747-400 LCF configuration. The SSI Numbers are not continuously consecutive, as some items were eliminated from the program or combined with other items after the number sequence was assigned. The DTR Check Forms shown in alphabetical sequences are not continuously consecutive and some are double-lettered to distinguish applicability only to 747-400 LCF. A Structural Inspection Matrix, showing the Inspection Zone/Area for each item, starts on Page 8.1.3.

SSI NUMBER	TITLE	DTR CHECK FORM	APPLICABILITY <sup>[1]</sup>
W-1	WING CENTER SECTION FRONT SPAR UPPER CHORD AND SKIN	W-1	APPLY CURRENT FORM
W-2	WING CENTER SECTION FRONT SPAR LOWER CHORD AND SKIN	A B	APPLY CURRENT FORM NO
W-3	WING CENTER SECTION FRONT SPAR WEB	A B C, F, H D, E, G, I	APPLY CURRENT FORM <sup>[2]</sup> APPLY CURRENT FORM <sup>[3]</sup> NO APPLY CURRENT FORM
W-4	WING CENTER SECTION MIDSPAR UPPER CHORD AND SKIN	A - E	APPLY CURRENT FORM
W-5	WING CENTER SECTION MIDSPAR LOWER CHORD AND SKIN	A - F	APPLY CURRENT FORM
W-7	WING CENTER SECTION REAR SPAR UPPER CHORD AND SKIN	A - C	APPLY CURRENT FORM
W-8	WING CENTER SECTION REAR SPAR LOWER CHORD AND SKIN	A - D	APPLY CURRENT FORM
W-9	WING CENTER SECTION REAR SPAR WEB	A & B	APPLY CURRENT FORM
W-10	WING CENTER SECTION UPPER SKIN AND STRINGERS	A & B	APPLY CURRENT FORM
W-11	WING CENTER SECTION UPPER SPLICE STRINGER AND SKIN	W-11	APPLY CURRENT FORM
W-12	WING CENTER SECTION LOWER TYPICAL STRINGERS AND SKIN	A - G	APPLY CURRENT FORM
W-13	WING CENTER SECTION LOWER SPLICE STRINGERS AND SKIN	A - C	APPLY CURRENT FORM
W-14	WING CENTER SECTION MIDSPAR AND SPANWISE BEAM WEBS	W-14	APPLY CURRENT FORM
W-15	WING CENTER SECTION BBL 0 RIBS	W-15	APPLY CURRENT FORM
W-16	OVERWING LONGITUDINAL FLOOR BEAMS	W-16 W-16AA	NO -400 LCF ONLY
W-18	WING SIDE-OF-BODY JOINT UPPER SPLICE FITTINGS	A - C	APPLY CURRENT FORM
W-19	WING SIDE-OF-BODY RIB AND WING LOWER SPLICE	A & B	APPLY CURRENT FORM
W-20	FRONT AND REAR SPAR TERMINAL FITTINGS	A - D	APPLY CURRENT FORM
W-21	WING MIDSPAR SIDE-OF-BODY SPLICE, LOWER	W-21	APPLY CURRENT FORM
W-22	WING FRONT SPAR UPPER CHORD AND SKIN	A - F	APPLY CURRENT FORM



## 747-400 LCF SUPPLEMENTAL STRUCTURAL INSPECTION DOCUMENT – APPENDIX A

SSI NUMBER	TITLE	DTR CHECK FORM	APPLICABILITY <sup>[1]</sup>
W-23	WING FRONT SPAR LOWER CHORD AND SKIN	A - H, J - L I M	APPLY CURRENT FORM APPLY CURRENT FORM <sup>[4]</sup> APPLY CURRENT FORM <sup>[5]</sup>
W-24	WING FRONT SPAR WEB	A - D	APPLY CURRENT FORM
W-25	WING MIDSPAR UPPER CHORD AND SKIN	A & B	APPLY CURRENT FORM
W-26	WING MIDSPAR LOWER CHORD, WEB AND SKIN	A - F	APPLY CURRENT FORM
W-28	WING REAR SPAR UPPER CHORD AND SKIN	A - C	APPLY CURRENT FORM
W-29	WING REAR SPAR LOWER CHORD AND SKIN	A - M N	APPLY CURRENT FORM NO
W-31	WING UPPER TYPICAL STRINGERS AND SKIN	W-31	APPLY CURRENT FORM
W-32	WING UPPER SPLICE STRINGER AND SKIN	W-32	APPLY CURRENT FORM
W-33	WING UPPER SURFACE SKIN TABS AT NACELLE LOCATIONS	W-33	APPLY CURRENT FORM
W-35	WING LOWER SKIN AND STRINGERS	A - D	APPLY CURRENT FORM
W-36	WING LOWER SURFACE SPLICE STRINGERS AND SKIN	A - E	APPLY CURRENT FORM
W-39	WING LOWER SKIN AT STRINGERS 6 AND 8 ADJACENT TO TANK OPENING	W-39	APPLY CURRENT FORM
W-40	WING BOX INSPAR RIBS	W-40	APPLY CURRENT FORM
W-43	WING NACELLE SUPPORT RIBS	A B & D C E	APPLY CURRENT FORM <sup>[6]</sup> NO NO <sup>[7]</sup> APPLY CURRENT FORM
W-45	WING MAIN LANDING GEAR BEAM	W-45	APPLY CURRENT FORM
W-46	WING INBOARD FLAP TRACK #4 AND #5 FORWARD ATTACH SUPPORT FITTINGS (LIGHT AND HEAVY WEIGHTS)	A, B & E C, D	NO APPLY CURRENT FORM

<sup>[1]</sup> “APPLY CURRENT FORM” - The form in the main body of this document is to be applied to the 747-400 LCF.

“NO” - The form in the main body of this document is not applicable to the 747-400 LCF; a supplemental inspection is not required.

“-400 LCF ONLY” - The form in this appendix is applicable to the 747-400 LCF airplanes only.

<sup>[2]</sup> All Line Numbers 1100 and under.

<sup>[3]</sup> All Line Numbers greater than 1100.

<sup>[4]</sup> Not applicable to post strut mod airplanes (SB 747-54-2156, 54-2157, 54-2158 and 54-2159 incorporated) or to Line Numbers 1047 and on in the area of the dual side brace fitting. Perform W-23M instead of this form.

<sup>[5]</sup> Applicable to post strut mod airplanes (SB 747-54-2156, 54-2157, 54-2158 and 54-2159 incorporated) and to Line Numbers 1047 and on.

<sup>[6]</sup> Except those with RB-211 Engines.

<sup>[7]</sup> With RB-211 Engines.

NOTE: Some Wing SSIs have more than one DTR Check Form, each indicating the Flight Length Sensitive (FLS) status for the SSI. Each operator must choose the correct Wing DTR Check Form, dependent upon their FLS status (see document D6-35022, 747 SSID, Section 5.1.3 for details).



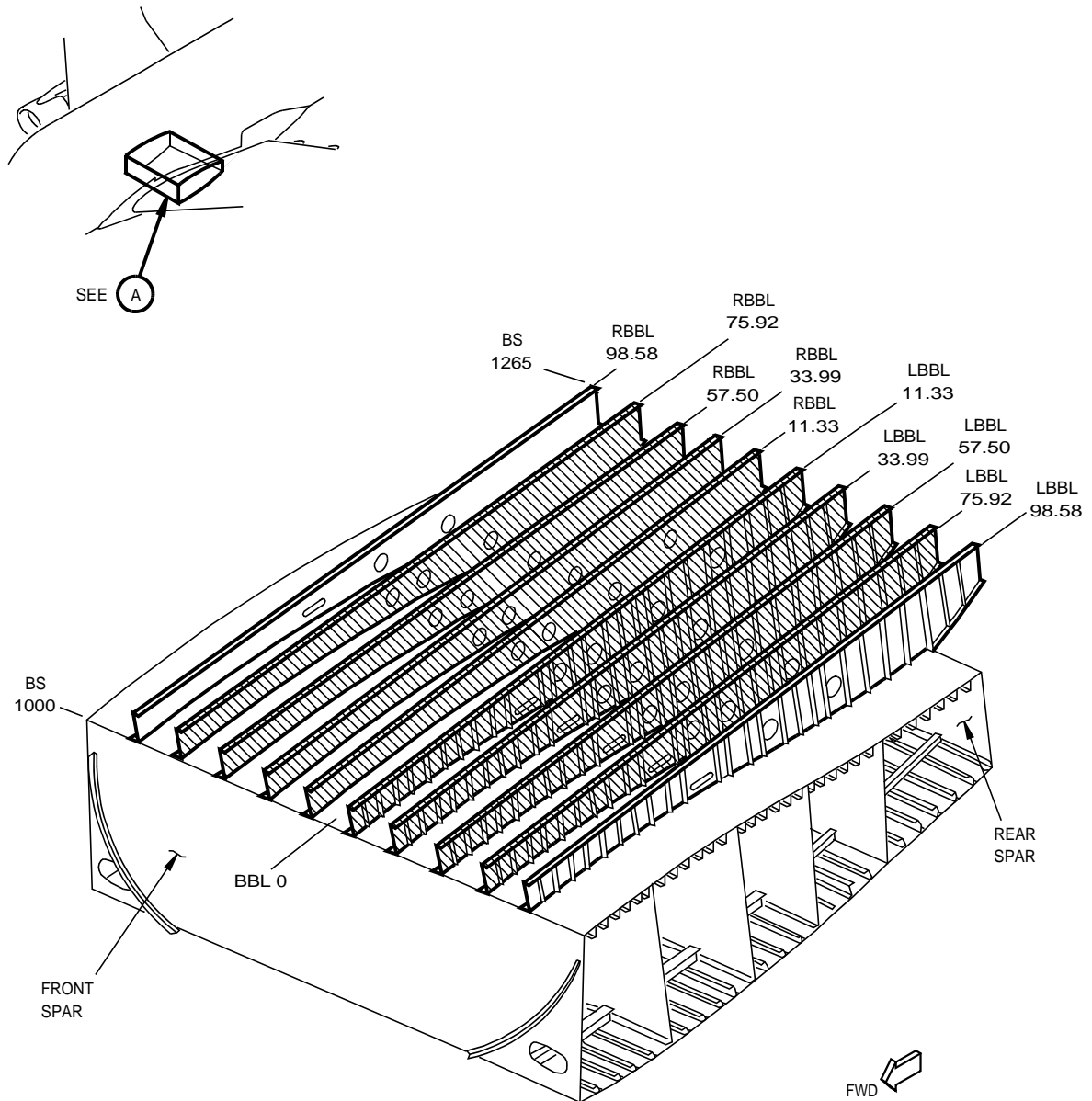



**WING CROSS-REFERENCE MATRIX  
STRUCTURAL SIGNIFICANT ITEM – INSPECTION ZONE/AREA**

		INSPECTION ZONE-AREA				
W-( )		131A/132A	135A/136A			
16	AA	X	X			



THIS PAGE INTENTIONALLY LEFT BLANK



 LOCATION OF SSI  
ZONES: 131A, 132A,  
135A, 136A.

WING CENTER SECTION

(A)

W-16 – OVERWING LONGITUDINAL FLOOR BEAMS

1554321



W-16	INSPECTION INSTRUCTIONS	ACCESS MANHOURS		
		INSP	MHRS	ELPSD
TITLE:	OVERWING LONGITUDINAL FLOOR BEAMS	(1)	20	10

**NOTE: An additional DTR Check Form is required for BBL 98.58 Longitudinal Floor Beams. Refer to DTR Check Form F-110.**

I. INSPECTION OPTIONS - DTR CHECK FORM W-16AA

From BS 1000 to BS 1265 at BBL 11.33, 33.99, 57.5, and 75.92, left and right.

(1) Upper Chord

(Internal) From Direction 2, including fastener locations, using visual inspection methods.

Access: Remove floor panels over the wing center section.

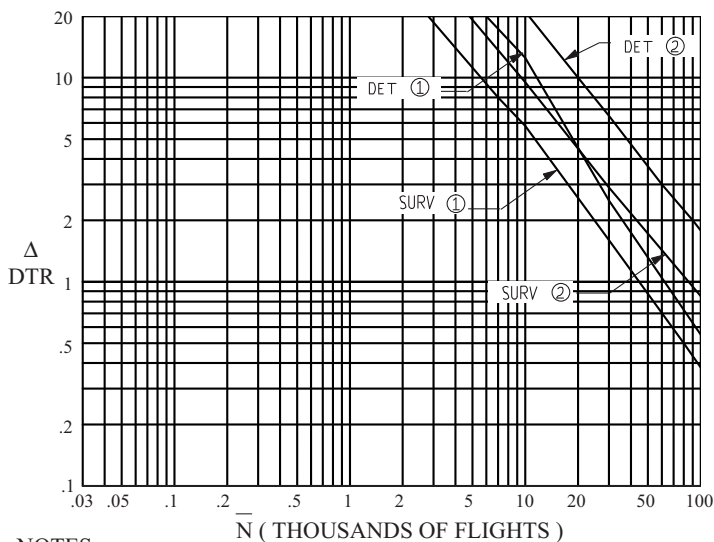
Zone(s): 131A, 132A, 135A, 136A.

(2) Web

(Internal) From Direction 1, including fastener locations and web cutout edges, using visual inspection methods.

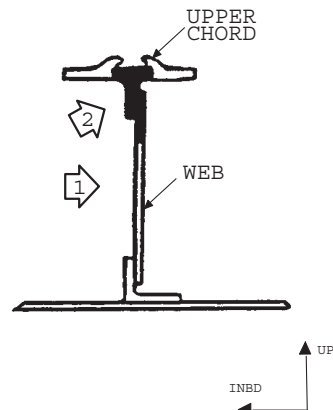
Access: Same as I.(1).

Zone(s): Same as I.(1).



STRUCTURE AND INSPECTION DETAILS

LEAD CRACK: UPPER CHORD



NOTES:

(1) AN ADDITIONAL DTR CHECK FORM IS REQUIRED FOR BBL 98.58 LONGITUDINAL FLOOR BEAMS. REFER TO DTR CHECK FORM F-110.

[illegible]

ENGR	J. TACKER	2/27/08	REVISED	DATE	REVISED	DATE	FUEL LEAK DTR	0
CHECK	C. SHAULL	2/27/08					TOTAL DTR	>20.0
APR							REQUIRED DTR	6
APR								

W-16AA.PDF



THIS PAGE INTENTIONALLY LEFT BLANK



## 8.2 Fuselage SSI Information

This section contains the basic inspection and access information needed to complete the blank Fuselage DTR Check Forms in Section 11.2. The table below lists the Fuselage SSIs/DTR Check Forms by 747-400 LCF applicability. This table combines the SSI/DTR Check Forms from the main body of Document D6-35022 with the new SSI/DTR Check Forms unique to the 747-400 LCF configuration. The SSI Numbers are not continuously consecutive as some items were eliminated from the program or combined with other items after the number sequence was assigned. The alphabetical sequence of the DTR Check Forms is not continuously consecutive and some are double-lettered to distinguish applicability to the 747-400 LCF only. A Structural Inspection Matrix showing the Inspection Zone/Area for each 747-400 LCF item, starts on Page 8.2.4.

SSI NUMBER	TITLE	DTR CHECK FORMS	APPLICABILITY <sup>[1]</sup>
F-1	FORWARD BULKHEAD AT BS 140	A & B	APPLY CURRENT FORM
F-2	FUSELAGE BULKHEAD, BS 260 NOSE GEAR WHEEL WELL	A - D	APPLY CURRENT FORM
F-4	FUSELAGE BULKHEAD - BS 400 (NOSE GEAR WHEEL WELL)	A & B	APPLY CURRENT FORM
F-6	FUSELAGE BULKHEAD - BS 1000	A - E F, G FF	APPLY CURRENT FORM NO -400 LCF ONLY
F-7	FUSELAGE BULKHEAD - BS 1140	F-7	NO
F-8	FUSELAGE STUB FRAMES OVER WING CENTER SECTION	F-8	NO
F-9	FUSELAGE BULKHEAD AT BS 1240	A - E FF	APPLY CURRENT FORM -400 LCF ONLY
F-11	FUSELAGE BULKHEAD AT BS 1480	A & B C - E FF	NO APPLY CURRENT FORM -400 LCF ONLY
F-16	FUSELAGE OVERWING LONGERON	A & B CC & DD	NO -400 LCF ONLY
F-17	CREW CAB WINDOW POSTS, SILLS AND SKINS	A & B C - F	NO APPLY CURRENT FORM
F-19	UPPER DECK FLOOR BEAMS AND TENSION TIES	A, C, E - I, K - T B, D & J TT - WW	NO APPLY CURRENT FORM <sup>[2]</sup> -400 LCF ONLY
F-20	UPPER DECK FLOOR CUTOUTS	A - C D - S MM	APPLY CURRENT FORM <sup>[3]</sup> NO -400 LCF ONLY
F-21	FUSELAGE SLAB-SIDED SKIN AND FRAMES	A & B BB & CC	NO -400 LCF ONLY
F-22	FUSELAGE SKIN CREASE, CREASE BEAM AND CREASE INTERCOSTAL	F-22	NO
F-23	FUSELAGE CROWN SKIN AND STRINGERS	A - C	NO
F-24	FUSELAGE BILGE SKINS AND FRAMES	A - C AA & BB	NO -400 LCF ONLY



747-400 LCF SUPPLEMENTAL STRUCTURAL INSPECTION DOCUMENT – APPENDIX A

SSI NUMBER	TITLE	DTR CHECK FORMS	APPLICABILITY <sup>[1]</sup>
F-25	FUSELAGE SKIN LONGITUDINAL LAP SPLICES	A, B, G - N GG - II, KK, PP - SS	NO -400 LCF ONLY
F-26	SKIN STRINGER CIRCUMFERENTIAL SPLICES	A - F GG - JJ	NO -400 LCF ONLY
F-28	PASSENGER CABIN WINDOW CUTOUTS	F-28	APPLY CURRENT FORM
F-29	MAIN DECK FLOOR BEAMS	AA, BB	-400 LCF ONLY
F-30	FUSELAGE SKIN-TO-STRINGER ATTACHMENT – BS 2360	F-30 AA	NO -400 LCF ONLY
F-31	LOWER LOBE CARGO DOORS	A & B C & D	APPLY CURRENT FORM NO
F-32	LOWER LOBE BULK CARGO DOORS	F-32	NO
F-34	CREW ENTRY AND EMERGENCY TYPE 'A' DOORS	F-34	NO
F-37	MAIN DECK SIDE CARGO DOOR	A - C	NO
F-39	FUSELAGE LOWER LOBE CARGO DOOR CUTOUT	A - C, E - G D HH & II	NO APPLY CURRENT FORM -400 LCF ONLY
F-40	LOWER LOBE BULK CARGO DOOR CUTOUT	A & B	NO
F-41	MAIN DECK ENTRY DOOR CUTOUTS	A & B CC & DD	NO -400 LCF ONLY
F-42	CREW ENTRY AND EMERGENCY TYPE 'A' DOOR CUTOUTS	A - C	NO
F-43	EMERGENCY EXIT DOOR CUTOUTS	A & B	APPLY CURRENT FORM
F-44	ELECTRONIC AND EQUIPMENT ACCESS DOOR CUTOUTS	F-44	NO
F-45	MAIN DECK SIDE CARGO DOOR CUTOUT	A - F	NO
F-46	JACKSCREW SUPPORT STRUCTURE	F-46	APPLY CURRENT FORM
F-47	FIN SUPPORT BULKHEAD, WEBS AND CHORDS	F-47	NO
F-48	FUSELAGE BS 2360 PRESSURE DOME	A - G	NO
F-49	SECTION 48 BS 2598 BULKHEAD	A - J KK - NN, PP	NO -400 LCF ONLY
F-50	SECTION 48 TORQUE BOX SHEAR DECK	F-50	NO
F-51	SECTION 48 LONGERON SKIN SPLICE BS 2598	A & B CC	NO -400 LCF ONLY
F-59	NOSE CARGO DOOR HINGE FITTINGS	F-59	NO
F-60	NOSE CARGO DOOR (C-2), FUSELAGE (C-3), AND BS 234 (DOOR) CLOSURE FRAMES	A - C	NO
F-61	NOSE CARGO DOOR LATCH FITTINGS	F-61	NO
F-62	NOSE CARGO DOOR INTERCOSTALS AT BACKUP FITTINGS	F-62	NO
F-63	TENSION TIE AT NOSE CARGO DOOR BS 234 FRAME	F-63	NO





## 747-400 LCF SUPPLEMENTAL STRUCTURAL INSPECTION DOCUMENT – APPENDIX A

SSI NUMBER	TITLE	DTR CHECK FORMS	APPLICABILITY <sup>[1]</sup>
F-64	DOUBLERS AND CUTOUTS	A - O	NO
F-65	EQUIPMENT COOLING OUTLET	A - D	NO
F-66	UNDERWING LONGERON FITTING AT BODY STATION 990	F-66	NO
F-67	FUSELAGE SKIN AT UNDERWING LONGERON FITTINGS	A & B	NO
F-95	SECTION 48 TORQUE BOX SHEAR DECK	F-95	-400 LCF ONLY
F-96	FIN SUPPORT BULKHEAD, WEBS AND CHORDS	A - F	-400 LCF ONLY
F-97	FUSELAGE BULKHEAD, BS 1140	A - C	-400 LCF ONLY
F-98	STUB FRAMES OVERWING CENTER SECTION	F-98	-400 LCF ONLY
F-99	ELECTRONIC AND EQUIPMENT ACCESS DOOR CUTOUTS	F-99	-400 LCF ONLY
F-100	SWING ZONE HINGE PIN AND SUPPORT STRUCTURE	A & B	-400 LCF ONLY
F-101	SWING ZONE LATCH PIN AND SUPPORT STRUCTURE	A & B	-400 LCF ONLY
F-103	FUSELAGE SKIN REINFORCEMENT - BULKHEAD BS 532	A - E	-400 LCF ONLY
F-104	FUSELAGE BULKHEAD AT BS 532	A & B	-400 LCF ONLY
F-105	FUSELAGE SKIN EXTERNAL FITTINGS - BULKHEAD BS 532	F-105	-400 LCF ONLY
F-106	FIN SUPPORT BULKHEADS AT FIN SUPPORT FITTINGS	A - D	-400 LCF ONLY
F-108	FUSELAGE SKIN WITH DOUBLERS	A & B	-400 LCF ONLY
F-109	FUSELAGE SKIN LONGITUDINAL BUTT SPLICES	A & B	-400 LCF ONLY
F-110	CARGO RAILS	A - C	-400 LCF ONLY
F-111	SECTION 41 VALVE SKIN CUTOUTS	A & B	-400 LCF ONLY

[1] "APPLY CURRENT FORM" - The form in the main body of this document is to be applied to the 747-400 LCF.

"NO" - The form in the main body of this document is not applicable to the 747-400 LCF; a supplemental inspection is not required.

"-400 LCF ONLY" - The form in this appendix is applicable to the 747-400 LCF airplanes only.

[2] For applicability information for specific floor beams, refer to the UPPER DECK FLOOR BEAMS AND TENSION TIES - 747-400 LCF Table in Section F-19.

[3] For applicability information for specific floor beams, refer to the UPPER DECK FLOOR CUTOUTS – 747-400 LCF Table in Section F-20.



747-400 LCF SUPPLEMENTAL STRUCTURAL INSPECTION DOCUMENT – APPENDIX A

FUSELAGE CROSS REFERENCE MATRIX  
STRUCTURAL SIGNIFICANT ITEM - INSPECTION ZONE/AREA

FUSELAGE ITEMS F-( )	INSPECTION ZONE/AREA																			
	FF	FF	FF	CC	DD	TT	UU	VV	WW	MM	BB	CC	AA	BB	GG	HH	II	KK	PP	QQ
6																				
9																				
11																				
16																				
19																				
20																				
21																				
24																				
25																				
26																				
29																				
30																				
39																				
41																				

1564487



747-400 LCF SUPPLEMENTAL STRUCTURAL INSPECTION DOCUMENT – APPENDIX A

1564488

FUSELAGE CROSS REFERENCE MATRIX  
STRUCTURAL SIGNIFICANT ITEM - INSPECTION ZONE/AREA

FUSELAGE ITEMS F-( )	INSPECTION ZONE/AREA																				FUSELAGE ITEMS F-( )
	KK	LL	MM	NN	PP	CC	95	A	B	C	D	E	F	A	B	C	98	99	A	B	
800 EXT																					
836L																					
849L/849R																					
821/822																					
801																					
300 EXT																					
200 EXT																					
100 EXT																					
322																					
315/316																					
313/314																					
311/312																					
297/298																					
295/296																					
293/294																					
291/292																					
273A/274A																					
273/274																					
271A/272A																					
271/272																					
263/264																					
261/262																					
253/254																					
251/252																					
243/244																					
241/242																					
233/234																					
231/232																					
225/226																					
223/224																					
221/222																					
211/212																					
193/194																					
191/192																					
151/152																					
147/148																					
145/146																					
143/144																					
141/142																					
139																					
137A/138A																					
137/138																					
135A/136A																					
135/136																					
133/134																					
131A/132A																					
131/132																					
129																					
127/128																					
125A/126A																					
125/126																					
123/124																					
121A/122A																					
121/122																					
117/118																					
115/116																					
113/114																					
112																					
49																					
51																					
95																					
96																					
97																					
98																					
99																					
100																					
101																					
103																					
104																					
105																					
106																					



747-400 LCF SUPPLEMENTAL STRUCTURAL INSPECTION DOCUMENT – APPENDIX A

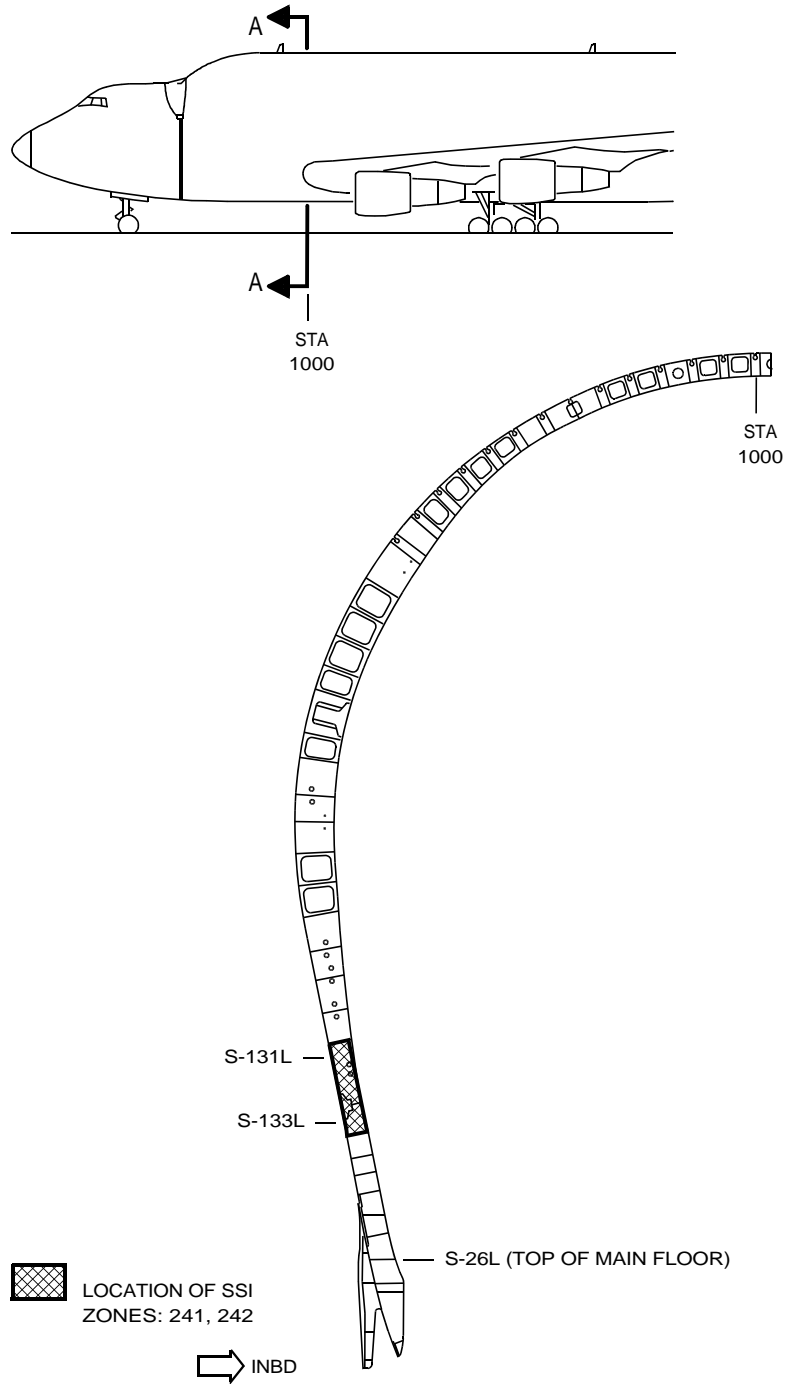
FUSELAGE CROSS REFERENCE MATRIX  
STRUCTURAL SIGNIFICANT ITEM - INSPECTION ZONE/AREA

FUSELAGE ITEMS F - ( )	INSPECTION ZONE/AREA																A	B	A	B	A	B	C	A	B								108																	109																	110																	111																	800 EXT																	836L																	849L/849R																	821/822																	801																	300 EXT																	200 EXT																	100 EXT																	322																	315/316																	313/314																	311/312																	297/298																	295/296																	293/294																	291/292																	273A/274A																	273/274																	271A/272A																	271/272																	263/264																	261/262																	253/254																	251/252																	243/244																	241/242																	233/234																	231/232																	225/226																	223/224																	221/222																	211/212																	193/194																	191/192																	151/152																	147/148																	145/146																	143/144																	141/142																	139																	137A/138A																	137/138																	135A/136A																	135/136																	133/134																	131A/132A																	131/132																	129																	127/128																	125A/126A																	125/126																	123/124																	121A/122A																	121/122																	117/118																	115/116																	113/114																	112																
	A	B	A	B	A	B	C	A	B																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
108																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
109																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
110																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
111																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
800 EXT																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
836L																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
849L/849R																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
821/822																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
801																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
300 EXT																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
200 EXT																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
100 EXT																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
322																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
315/316																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
313/314																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
311/312																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
297/298																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
295/296																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
293/294																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
291/292																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
273A/274A																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
273/274																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
271A/272A																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
271/272																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
263/264																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
261/262																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
253/254																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
251/252																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
243/244																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
241/242																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
233/234																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
231/232																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
225/226																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
223/224																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
221/222																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
211/212																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
193/194																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
191/192																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
151/152																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
147/148																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
145/146																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
143/144																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
141/142																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
139																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
137A/138A																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
137/138																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
135A/136A																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
135/136																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
133/134																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
131A/132A																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
131/132																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
129																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
127/128																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
125A/126A																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
125/126																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
123/124																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
121A/122A																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
121/122																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
117/118																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
115/116																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
113/114																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
112																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														

1564489



747-400 LCF SUPPLEMENTAL STRUCTURAL INSPECTION DOCUMENT – APPENDIX A



(LEFT SIDE IS SHOWN, RIGHT SIDE IS OPPOSITE)  
(VIEW IN THE FORWARD DIRECTION)

A-A

F-6 – FUSELAGE BULKHEAD AT BODY STATION 1000

1540173



F-6	INSPECTION INSTRUCTIONS	ACCESS MANHOURS		
		INSP	MHRS	ELPSD
TITLE:	FUSELAGE BULKHEAD AT BODY STATION 1000	I.(1)	8	8

**NOTE: Additional DTR Check Forms are required for complete coverage of this SSI. Refer to the listing of DTR Check Forms at the beginning of Section 8.2.**

I. INSPECTION OPTIONS - DTR CHECK FORM F-6FE

Inner chord locations at Stringers S-131 and S-133, both left and right sides of fuselage.

(1) Inner Chord

(Internal) From Direction 1, at specific locations of the first fastener row common to inner chord splice plate, using UT (Ref. NDT Manual D6-7170, Part 4, 53-10-14). 0.5 elapsed hour and 0.5 manhour are required to accomplish this inspection.

Access: Remove side wall panels in main cargo compartment and displace insulation blankets.

Zone(s): 241, 242.

F-6FF

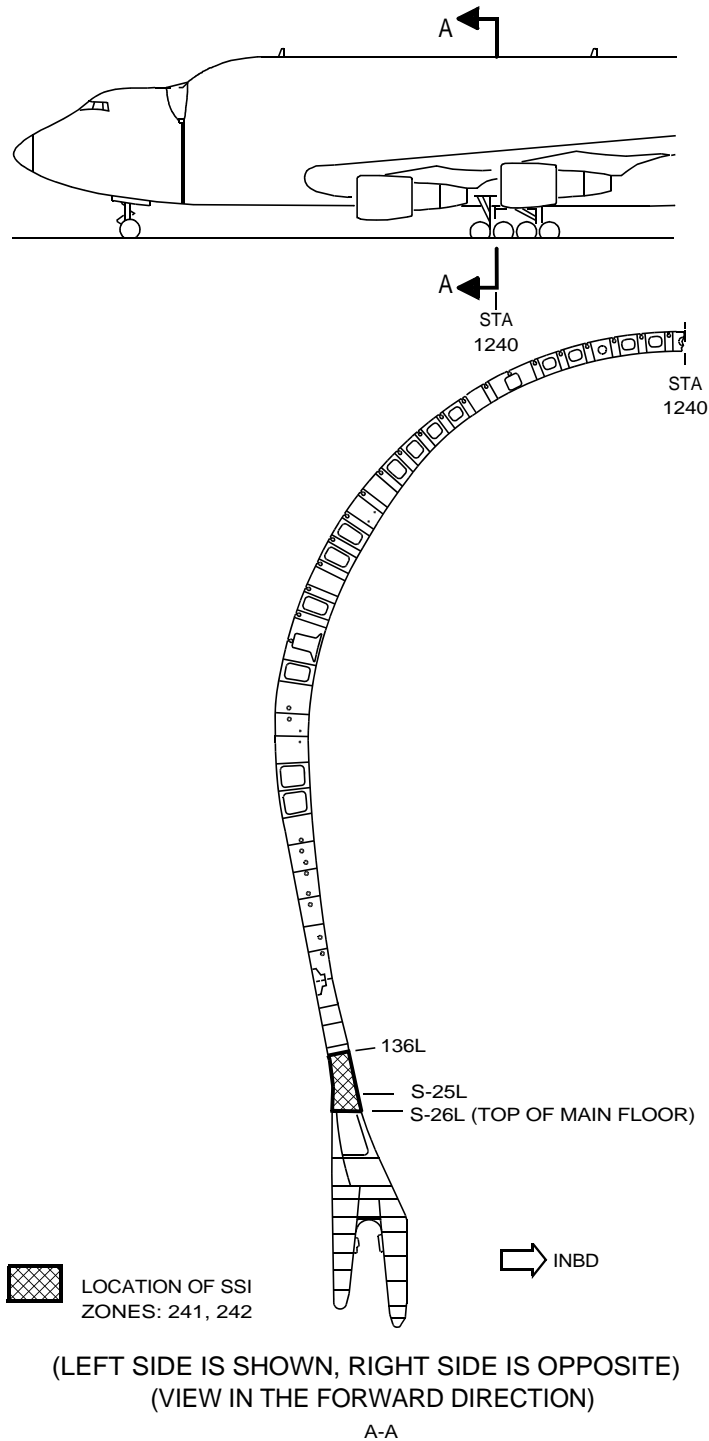


THIS PAGE INTENTIONALLY LEFT BLANK





747-400 LCF SUPPLEMENTAL STRUCTURAL INSPECTION DOCUMENT – APPENDIX A



F-9 – FUSELAGE BULKHEAD AT BS 1240



## 747-400 LCF SUPPLEMENTAL STRUCTURAL INSPECTION DOCUMENT – APPENDIX A

F-9	INSPECTION INSTRUCTIONS	ACCESS MANHOURS		
		INSP	MHRS	ELPSD
TITLE:	FUSELAGE BULKHEAD AT BS 1240	I.(1)	8	8

**NOTE: Additional DTR Check Forms are required for complete coverage of this SSI. Refer to the listing of DTR Check Forms at the beginning of Section 8.2.**

I. INSPECTION OPTIONS - DTR CHECK FORM F-9FE

Inner chord locations at Stringers S-25 and S-136, both left and right sides of fuselage.

(1) Inner Chord

(Internal) From Direction 1, at specific locations of the first fastener row common to inner chord splice plate, using UT (Ref. NDT Manual D6-7170, Part 4, 53-10-15). 0.5 elapsed hour and 1.0 manhour are required to accomplish this inspection.

Access: Remove side wall panels in main cargo compartment and displace insulation blankets.

Zone(s): 241, 242.



## 747-400 LCF SUPPLEMENTAL STRUCTURAL INSPECTION DOCUMENT – APPENDIX A

DTR CHECK FORM				ITEM: F-9FF		MODEL-SERIES 747-400 LCF			
TITLE: BULKHEAD BS1240				OPERATOR(S)		NO. ELIGIBLE A/C			
LOCATION: INNER CHORD AT S-136 AND S-25 (LH & RH)				EXAMPLE					
<div style="display: flex; align-items: center;"><div style="flex: 1;"></div><div style="flex: 1; padding-left: 10px;"><p>STRUCTURE AND INSPECTION DETAILS</p><p>LEAD CRACK: INNER CHORD</p></div></div>									
NOTES: *** First crack delta DTR values *** 1 FIRST FASTENER ROW COMMON TO INNER CHORD SPLICE.									
INSPECTION PROGRAM DETAILS									
STRUCTURE DETAIL	JOB CARD	DIREC. ➡	CHECK LEVEL	METHOD	%SAMP R <sub>O</sub>	FREQUENCY F-FLIGHTS	$\bar{N} =$ 100F/R <sub>O</sub>	DAMAGE DETECTION PERIOD N <sub>O</sub> FLIGHTS	$\Delta$ DTR
INNER CHORD		1	D	UT	100	6000	6000	35700	8.5
FUEL LEAK DTR									
TOTAL DTR								8.5	
REQUIRED DTR								6	

ENGR.	L. Iriana	06/14/07	REVISED	
CHECK	C. Shauli	06/15/07		
APPR.				
APPR.				

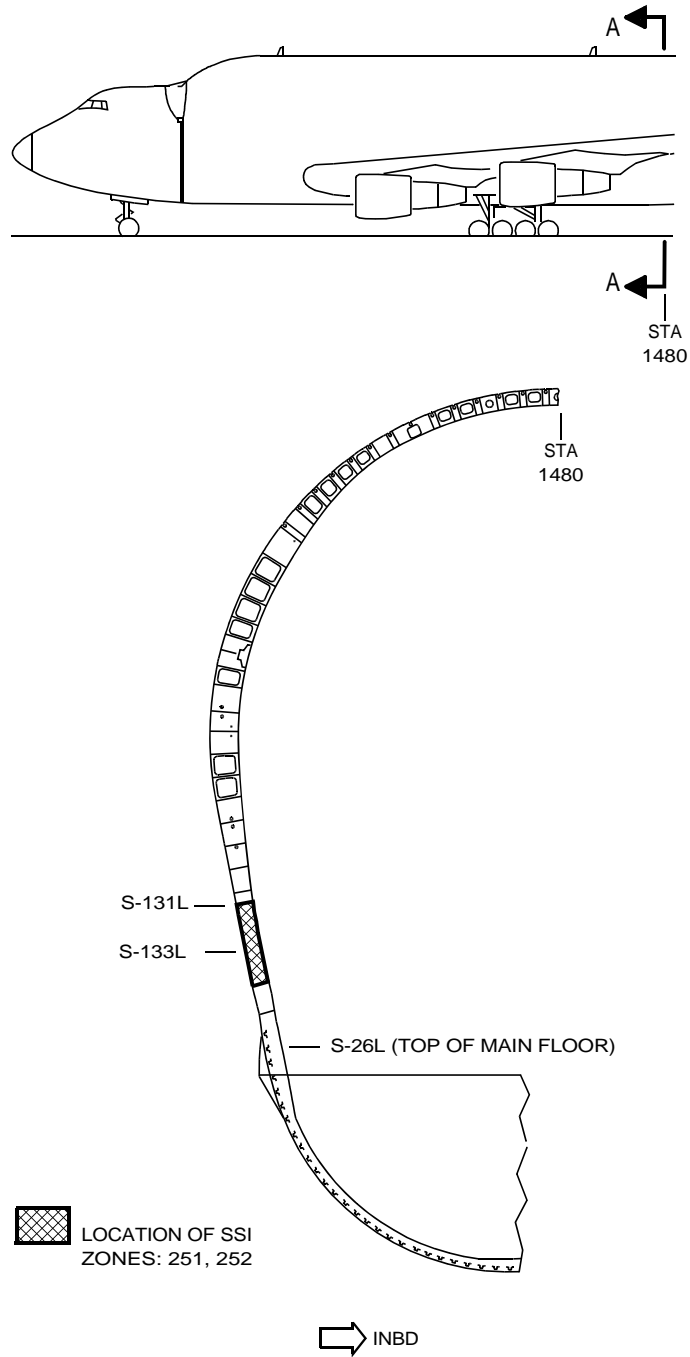
F-9FF



THIS PAGE INTENTIONALLY LEFT BLANK



747-400 LCF SUPPLEMENTAL STRUCTURAL INSPECTION DOCUMENT – APPENDIX A



(LEFT SIDE IS SHOWN RIGHT SIDE IS OPPOSITE)  
(VIEW IN THE FORWARD DIRECTION)

A-A

F-11 – FUSELAGE BULKHEAD AT BODY STATION 1480

1539889



F-11	INSPECTION INSTRUCTIONS	ACCESS MANHOURS		
		INSP	MHRS	ELPSD
TITLE:	FUSELAGE BULKHEAD AT BODY STATION 1480	I.(1)	4	2

**NOTE: Additional DTR Check Forms are required for complete coverage of this SSI. Refer to the listing of DTR Check Forms at the beginning of Section 8.2.**

I. INSPECTION OPTIONS - DTR CHECK FORM F-11FE

Inner chord locations at Stringers S-131 and S-133, both left and right sides of fuselage.

(1) Inner Chord

(Internal) From Direction 1, at specific locations of the first fastener row common to inner chord splice plate, using UT (Ref. NDT Manual D6-7170, Part 4, 53-10-16). 0.5 elapsed hour and 0.5 manhour are required to accomplish this inspection.

Access: Remove side wall panels in main cargo compartment and displace insulation blankets.

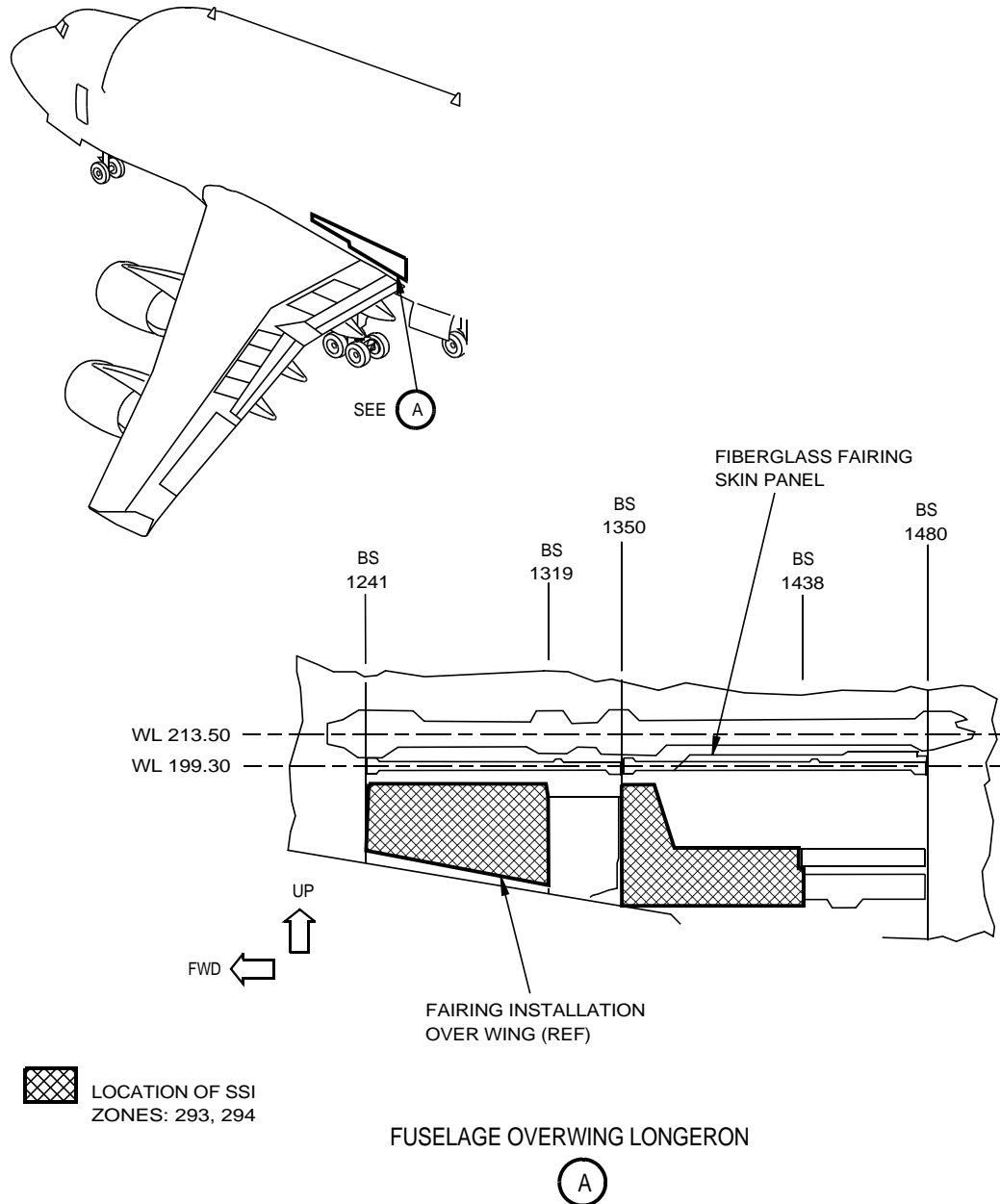
Zone(s): 251, 252.

F11FF.PDF



THIS PAGE INTENTIONALLY LEFT BLANK





F-16 – FUSELAGE OVERWING LONGERON

1531232



F-16	INSPECTION INSTRUCTIONS	ACCESS MANHOURS		
		INSP	MHRS	ELPSD
TITLE:	FUSELAGE OVERWING LONGERON			

**NOTE:** Additional DTR Check Forms are required for complete coverage of this SSI. Refer to the listing of DTR Check Forms at the beginning of Section 8.2.

I. INSPECTION OPTIONS - DTR CHECK FORM F-16CC

From BS 1241 to BS 1319, and from top of wing-to-body fairing to lower edge of doublers.

(1) Skin

(External) From Direction 1, including fastener locations, using visual inspection methods.

Access: None Required.

Zone(s): 200-External, 293, 294.

II. INSPECTION OPTIONS - DTR CHECK FORM F-16DD

From BS 1350 to BS 1438.

(1) Skin

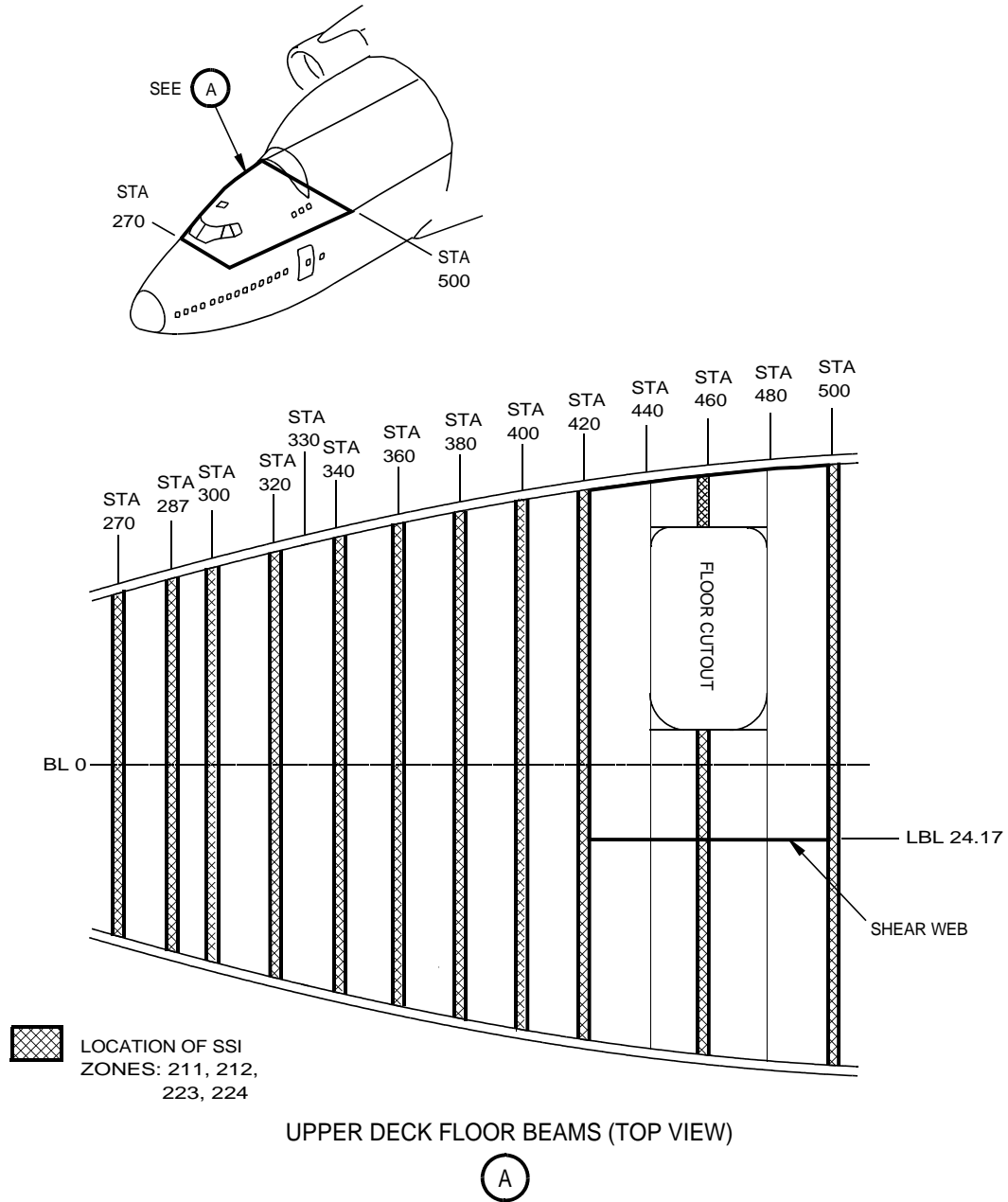
(Internal) From Direction 1, including fastener locations, using visual inspection methods.

Access: Remove fiberglass fairing skin panels 293JL and 294JR.

Zone(s): 293, 294.

F16CC.PDF

F16DD.PDF



1530941

F-19 – UPPER DECK FLOOR BEAMS AND TENSION TIES



## UPPER DECK FLOOR BEAMS AND TENSION TIES – 747-400 LCF

BS	2024 Middle F-19B	2024 Frame F-19D	2024 Mid, Fr F-19J	2024 Middle F-19TT	2024 Middle F-19UU	2024 Middle F-19VV	2024 Middle F-19WW
270			X				
287			X				
302			X				
320			X				
340	X	X					
360	X	X					
380	X	X					
400	X	X					
420	X <sup>2</sup>	X		X <sup>1</sup>	X <sup>1</sup>	X	
440							
460		X		X <sup>1</sup>	X <sup>1</sup>	X	X <sup>2</sup>
480							
500	X <sup>2</sup>	X		X <sup>1</sup>	X <sup>1</sup>	X	

- (1) The areas covered by shear web between Sta 420 - 500:  
Floor beam Sta 420, from LBL 24.17 to RBL 81.00  
Floor beam Sta 460, from LBL 24.17 to RBL 86.00  
Floor beam Sta 500, from LBL 24.17 to RBL 89.50

- (2) The areas without shear web between Sta 420 - 500:  
Floor beam Sta 420, from LBL 81.00 to LBL 24.17  
Floor beam Sta 460, from LBL 86.00 to LBL 24.17  
Floor beam Sta 500, from LBL 89.50 to LBL 24.17



F-19	INSPECTION INSTRUCTIONS	ACCESS MANHOURS		
		INSP	MHRS	ELPSD
TITLE:	UPPER DECK FLOOR BEAMS AND TENSION TIES	I.(1)	8	4
		II.(1)	8	4
		II.(1)	8	4
		IV.(1)	4	2

**NOTE: Additional DTR Check Forms are required for complete coverage of this SSI. Refer to the listing of DTR Check Forms at the beginning of Section 8.2.**

I. INSPECTION OPTIONS - DTR CHECK FORM F-19TT

Floor beams at all FWD and AFT flange locations – reference specific charts for station locations.

(1) Typical Beam, Upper Chord

(Internal) From Direction 1, around fasteners, using HFEC (Ref. NDT Manual D6-7170, Part 6, 53-10-53). 3.0 elapsed hours and 3.0 manhours are required to accomplish this inspection.

Access: Remove main cabin ceiling panels.

Zone(s): 211, 212.

II. INSPECTION OPTIONS - DTR CHECK FORM F-19UU

Floor beams flange locations – see charts for station locations.

(1) Typical Beam, Upper Chord

(Internal) From Direction 1, at fastener holes, using LFEC (Ref. NDT Manual D6-7170, Part 6, 53-10-51). 3.0 elapsed hours and 3.0 manhours are required to accomplish this inspection.

Access: Same as I.(1).

Zone(s): Same as I.(1).

(2) Typical Beam, Upper Chord

(Internal) From Direction 2, using HFEC (Ref. NDT Manual D6-7170, Part 6, 53-10-54). 3.0 elapsed hours and 3.0 manhours are required to accomplish this inspection.

NOTE: This open hole inspection requires the removal of the fasteners.

Access: Same as I.(1).

Zone(s): Same as I.(1).



(3) Typical Beam, Upper Chord

(Internal) From Direction 3, general surface inspection, using HFEC (Ref. NDT Manual D6-7170, Part 6, 51-00-00 Figure 4 or 23). 3.0 elapsed hours and 3.0 manhours are required to accomplish this inspection.

Access: Same as I.(1).

Zone(s): Same as I.(1).

III. INSPECTION OPTIONS - DTR CHECK FORM F-19VV

Floor beams flange locations – see charts for station locations.

(1) Typical Beam Upper Chord

(Internal) From Direction 1, at the nutplate locations with fasteners removed, using HFEC (Ref. NDT Manual D6-7170, Part 6, 53-10-54). 3.0 elapsed hours and 3.0 manhours are required to accomplish this inspection.

NOTE: This open-hole inspection requires the removal of the fasteners.

Access: Remove upper deck seats, carpet, floor panels, lavatory, closet and walls, as required.  
Remove main cabin ceiling panels and sidewall panels at doors, as required.

Zone(s): 223, 224.

IV. INSPECTION OPTIONS - DTR CHECK FORM F-19WW

Floor beams – see model-specific charts for station locations.

(1) Typical Beam Upper Chord

(Internal) From Direction 1, general surface inspection with clipnuts removed, using HFEC (Ref. NDT Manual D6-7170, Part 6, 53-10-53). 1.0 elapsed hour and 1.0 manhour are required to accomplish this inspection.

Access: Same as I.(1).

Zone(s): Same as I.(1).

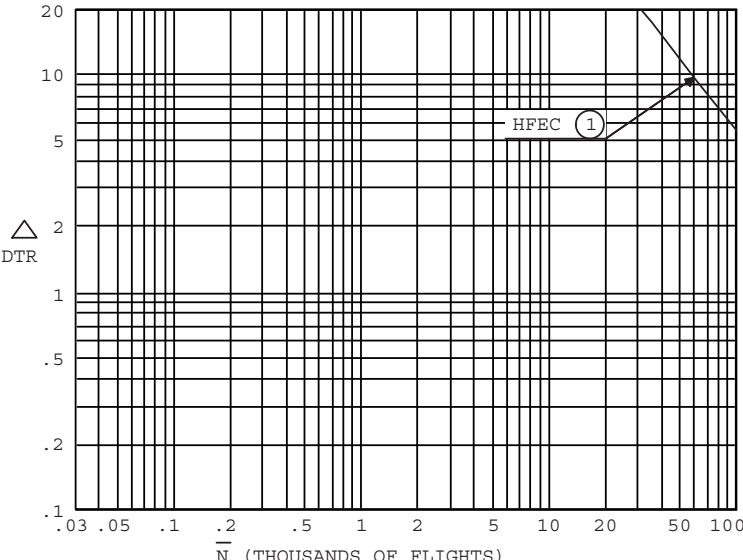
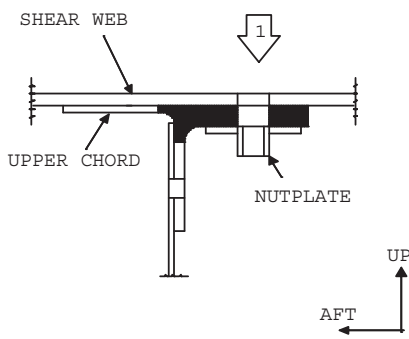



F19TT.PDF

F-19UU.PDF

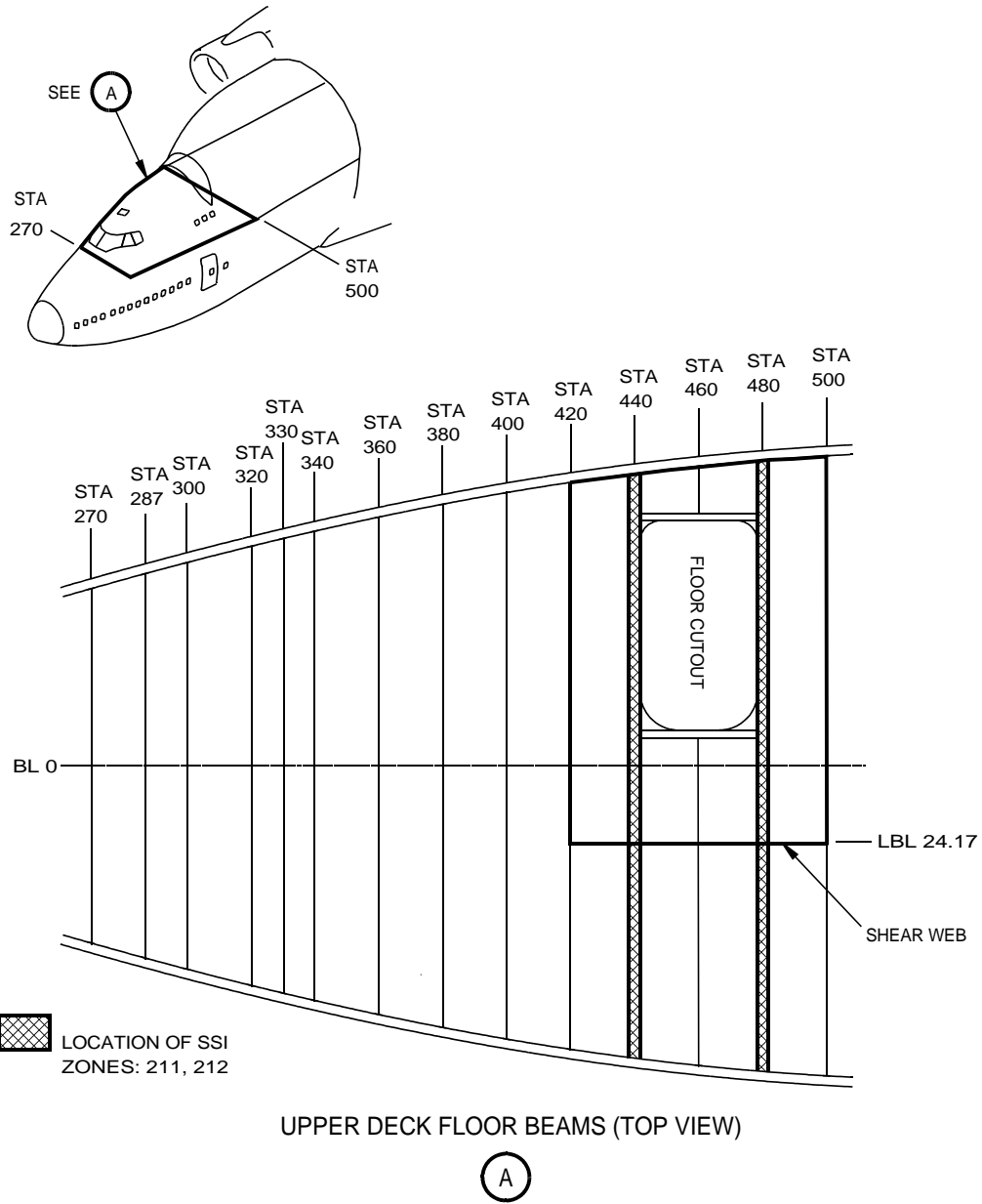


## 747-400 LCF SUPPLEMENTAL STRUCTURAL INSPECTION DOCUMENT – APPENDIX A

DTR CHECK FORM				ITEM: F-19VV		MODEL-SERIES 747-400 LCF				
TITLE: UPPER DECK FLOOR BEAMS AND TENSION TIES.				OPERATOR(S)		NO. ELIGIBLE A/C				
LOCATION: FLOOR BEAMS AT STA 420, 460 AND 500 NUTPLATE LOCATIONS, FWD & AFT FLANGES				EXAMPLE						
<div style="display: flex; align-items: center;"><div style="margin-right: 10px;"><math>\Delta</math> DTR</div></div>				STRUCTURE AND INSPECTION DETAILS						
				<div style="display: flex; justify-content: space-between;"><div>LEAD CRACK: UPPER CHORD</div><div></div></div> <div style="text-align: right; margin-top: 10px;">UP AFT</div> <div style="text-align: center; margin-top: 10px;">UPPER CHORD: 2024-T3511</div>						
<div>NOTES:</div> <div>(1) DIR-1 HFEC IS AN OPEN HOLE INSPECTION AND REQ'S THE REMOVAL OF THE FASTENERS</div>										
STRUCTURE DETAIL		INSPECTION PROGRAM DETAILS						DAMAGE DETECTION PERIOD NOFLIGHTS	$\Delta$ DTR	
		JOB CARD	DIREC. 	CHECK LEVEL	METHOD	%SAMP R <sub>O</sub>	FREQUENCY F-FLIGHTS	$\bar{N} =$ 100F/R <sub>O</sub>		
CHORD			1	D	HFEC	100	6000	6000	>100000	>20
ENGR.		D ZHOU	01/10/08	REVISED						
CHECK		C SHAULL	01/10/08							
APPR.										
APPR.										
FUEL LEAK DTR										
TOTAL DTR									>20	
REQUIRED DTR									10	

F19VV.PDF

F19WW.PDF



1531019

F-20 – UPPER DECK FLOOR CUTOUTS



**UPPER DECK FLOOR CUTOUTS – 747-400 LCF**

<b>BS</b>	<b>2024 Header F-20A</b>	<b>2024 Frame F-20B</b>	<b>2024 Header F-20C</b>	<b>2024 Middle F-20MM</b>
440	X	X	X	X
480	X	X	X	X



F-20	INSPECTION INSTRUCTIONS	ACCESS MANHOURS		
		INSP	MHRS	ELPSD
TITLE:	UPPER DECK FLOOR CUTOUTS	I.(1)	8	4

**NOTE: Additional DTR Check Forms are required for complete coverage of this SSI. Refer to the listing of DTR Check Forms at the beginning of Section 8.2.**

I. INSPECTION OPTIONS - DTR CHECK FORM F-20MM

Floor beams upper chord - reference specific charts for station locations.

(1) Upper Chords

(Internal) From Direction 1, common to shear web at intercostal/stiffener, using LFEC (Ref. NDT Manual D6-7170, Part 6, 53-10-59). 1.5 elapsed hours and 1.5 manhours are required to accomplish this inspection.

Access: Requires removal of main cabin ceiling panels.

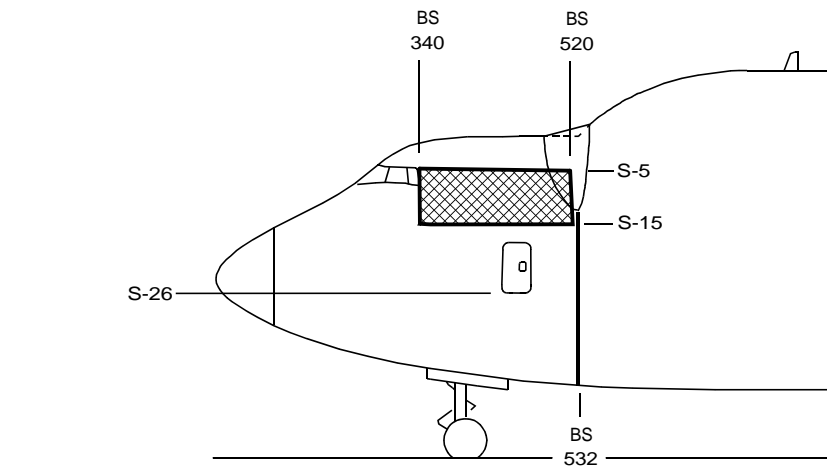
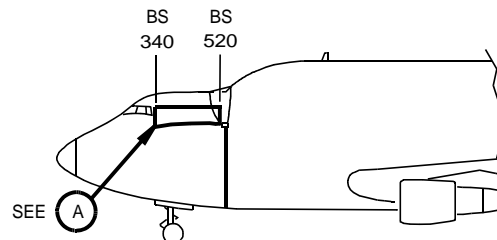
Zone(s): 211, 212.

F20MM.PDF





747-400 LCF SUPPLEMENTAL STRUCTURAL INSPECTION DOCUMENT – APPENDIX A



LOCATION OF SSI  
ZONES: 200-EXTERNAL  
211, 212, 221, 222,  
223, 224, 295, 296

FUSELAGE SLAB SIDED SKIN AND FRAMES  
STRETCHED UPPER DECK



1548767

F-21 – FUSELAGE SLAB SIDED SKIN AND FRAMES



F-21	INSPECTION INSTRUCTIONS	ACCESS MANHOURS		
		INSP	MHRS	ELPSD
TITLE:	FUSELAGE SLAB SIDED SKIN AND FRAMES			

**I. INSPECTION OPTIONS - DTR CHECK FORM F-21BB**

BS 340 through BS 520, from Stringer S-5 through S-15, left and right sides of fuselage.

NOTE: Excludes BS 520 frame above Stringer S-10A.

**(1) Frame**

(Internal) From Direction 1, including fastener locations, using visual inspection methods.

Access: Requires removal of lining, insulation, and floor panels as required.

Zone(s): 211, 212, 221, 222, 223, 224.

**(2) Skin**

(External) From Direction 2, including fastener locations, using visual inspection methods.

Access: Requires removal of brow fairings 295CL and 296CR for some areas.

Zone(s): 200-External, 295, 296.

**II. INSPECTION OPTIONS - DTR CHECK FORM F-21CC**

BS 360 through BS 520, from Stringer S-5 through S-15, left and right sides of fuselage.

**(1) Stringer**

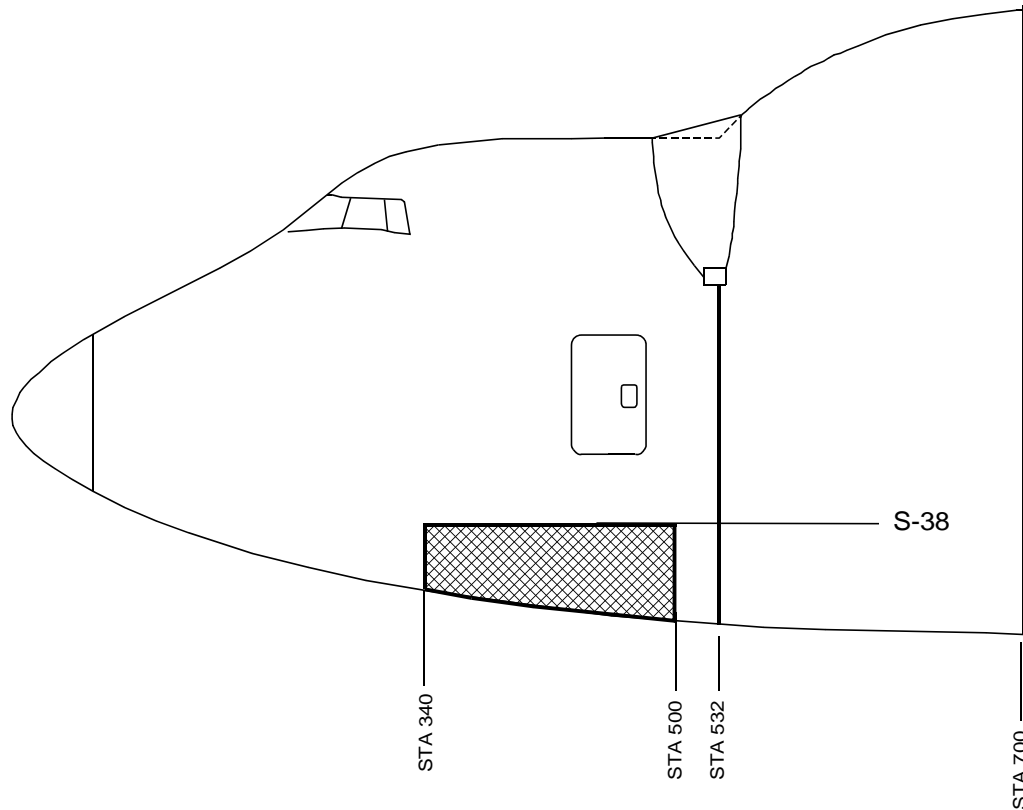
(Internal) From Direction 1, at stringer clip connection including fastener locations, using visual inspection methods.

Access: Same as I.(1).

Zone(s): Same as I.(1).



F-21CC.PDF



LOCATION OF SSI

ZONES: 100-EXTERNAL  
113, 114, 115,  
116, 117, 118,  
125A, 126A

### FUSELAGE BILGE SKINS AND FRAMES

1548543

### F-24 – FUSELAGE BILGE SKINS AND FRAMES



F-24	INSPECTION INSTRUCTIONS	ACCESS MANHOURS		
		INSP	MHRS	ELPSD
TITLE:	FUSELAGE BILGE SKINS AND FRAMES			

**I. INSPECTION OPTIONS - DTR CHECK FORM F-24AA**

From BS 340 to BS 500, between Stringers S-38L and S-38R, excluding areas covered by Item F-25 (longitudinal lap splices).

NOTE: Direction 1 and 3 inspections cannot be used where external skin doublers are installed.

**(1) Skin**

(External) From Direction 1, including fastener locations, using visual inspection methods.

Access: None required.

Zone(s): 100-External.

**(2) Skin**

(External) From Direction 3, at fastener locations, using HFEC (Ref. NDT Manual D6-7170, Part 6, 53-10-57). 8.0 elapsed hours and 16.0 manhours are required to accomplish this inspection.

NOTE: Direction 1 and 3 inspections cannot be used where external skin doublers are installed.

Access: None required.

Zone(s): Same as I.(1).

**(3) Frame**

(Internal) From Direction 2, including fastener locations, using visual inspection methods.

Access: Remove floor panels and lining and displace insulation.

Zone(s): 115, 116, 117, 118, 121A, 122A, 125A, 126A.

**II. INSPECTION OPTIONS - DTR CHECK FORM F-24BB**

From BS 340 to BS 500, between Stringers S-38L and S-38R, excluding areas covered by Item F-25 (longitudinal lap splices).



## 747-400 LCF SUPPLEMENTAL STRUCTURAL INSPECTION DOCUMENT – APPENDIX A

### (1) Skin and Frame

(Internal) From Direction 2, including fastener locations and fail safe chords, using visual inspection methods.

Access: Same as I.(3).

Zone(s): Same as I.(3).

F-24AA.PDF



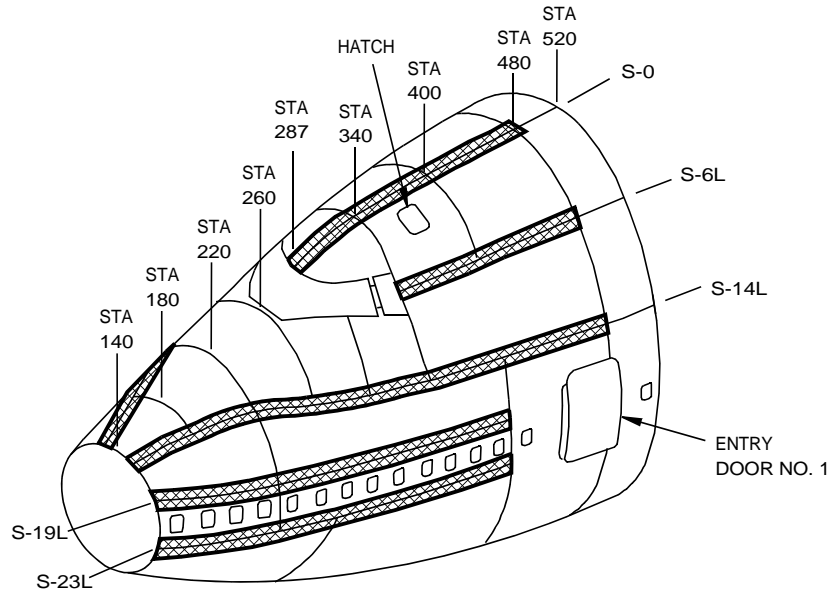
F-24BB.PDF



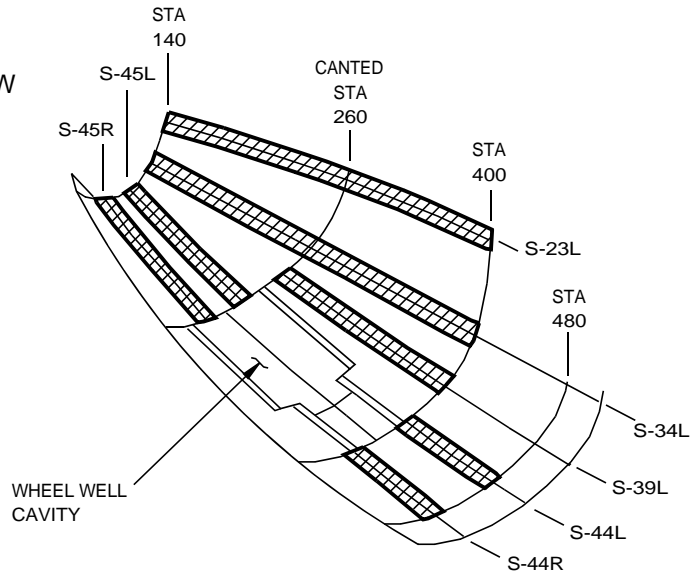
THIS PAGE INTENTIONALLY LEFT BLANK



# 747-400 LCF SUPPLEMENTAL STRUCTURAL INSPECTION DOCUMENT – APPENDIX A



LEFT SIDE VIEW  
SECTION 41



BOTTOM VIEW OF LEFT SIDE,  
RIGHT SIDE OPPOSITE  
SECTION 41



LOCATION OF SSI  
ZONES  
100-EXTERNAL  
200-EXTERNAL  
112, 115, 116, 117,  
118, 121A, 122A, 125A,  
126A, 211, 212, 221,  
222, 223, 224.

1551609

## F-25 – FUSELAGE SKIN LONGITUDINAL LAP SPLICES



## 747-400 LCF SUPPLEMENTAL STRUCTURAL INSPECTION DOCUMENT – APPENDIX A

F-25	INSPECTION INSTRUCTIONS	ACCESS MANHOURS		
		INSP	MHRS	ELPSD
TITLE:	FUSELAGE SKIN LONGITUDINAL LAP SPLICES	IV.(2)	8	16
		VIII.(2)	4	8

I. INSPECTION OPTIONS - DTR CHECK FORM F-25GG

Skin longitudinal lap splices at Stringer S-6, from BS 340 to BS 360, Stringer S-14, from BS 200 to BS 360, Stringer S-19, from BS 340 to BS 360, and Stringer S-23, from BS 240 to BS 360.

(1) Outer Skin

(External) From Direction 1, including upper fastener row, using detailed visual inspection methods.

NOTE: If damage is detected - (External) inspect adjacent bay on each side, using HFEC.

Access: None required.

Zone(s): 200-External.

(2) Outer Skin

(External) From Direction 2, at specified locations using HFEC (Ref. NDT Manual D6-7170, Part 6, 53-30-02, -03, -06 and 51-00-00, Figure 4 or 23). 3.0 elapsed hours and 6.0 manhours are required to accomplish this inspection.

Access: Same as I.(1).

Zone(s): Same as I.(1).

II. INSPECTION OPTIONS - DTR CHECK FORM F-25HH

Skin longitudinal lap splices below Stringer S-38 at Stringer S-45, from BS 140 to BS 260 and Stringer S-44, from BS 400 to BS 420.

(1) Outer Skin

(External) From Direction 1, including upper fastener row, using detailed visual inspection methods.

NOTE: If damage is detected - (External) inspect adjacent bay on each side, using HFEC.

Access: Same as I.(1).

Zone(s): 100-External.



(2) Outer Skin

(External) From Direction 2, at specified locations using HFEC (Ref. NDT Manual D6-7170, Part 6, 53-30-02, -03, -06). 8.0 elapsed hours and 16.0 manhours are required to accomplish this inspection.

Access: Same as I.(1).

Zone(s): Same as II.(1).

(3) Inner Skin

(External) From Direction 3, at specified locations using LFEC (Ref. NDT Manual D6-7170, Part 6, 53-30-13). 4.0 elapsed hours and 8.0 manhours are required to accomplish this inspection.

Access: None.

Zone(s): 100-External, 200-External.

III. INSPECTION OPTIONS - DTR CHECK FORM F-25II

Skin longitudinal lap splices above Stringer S-38 at Stringer S-0, from BS 287 to BS 360, Stringer S-6, from BS 340 to BS 360, Stringer S-19, from BS 140 to BS 340, Stringer S-14, from BS 140 to BS 200, Stringer S-23, from BS 140 to BS 240, and Stringer S-34, from BS 140 to BS 400.

(1) Outer Skin

(External) From Direction 1, including upper fastener row, using detailed visual inspection methods.

NOTE: If damage is detected - (External) inspect adjacent bay on each side, using HFEC.

Access: Same as I.(1).

Zone(s): 100-External, 200-External.

(2) Outer Skin

(External) From Direction 2, at specified locations using HFEC (Ref. NDT Manual D6-7170, Part 6, 53-30-02, -03, -06). 8.0 elapsed hours and 16.0 manhours are required to accomplish this inspection.

Access: Same as I.(1).

Zone(s): Same as III.(1).

IV. INSPECTION OPTIONS - DTR CHECK FORM F-25KK

Skin longitudinal lap splices at Stringer S-0, from BS 340 to BS 360; Stringers S-14, S-19 and S-23, from BS 140 to BS 360, Stringer S-39, from BS 260 to BS 400, Stringer S-44, from BS 400 to BS 420, and Stringer S-45, from BS 140 to BS 260.

(1) Inner Skin

(Internal) From Direction 1, including lower fastener row, using detailed visual inspection methods.

Access: Remove floor panels and lining, and displace insulation as required.

Zone(s): 112, 115, 116, 117, 118, 211, 212, 221, 222, 223, 224.



## 747-400 LCF SUPPLEMENTAL STRUCTURAL INSPECTION DOCUMENT – APPENDIX A

### (2) Inner Skin

(Internal) From Direction 2, at specified locations using HFEC (Ref. NDT Manual D6-7170, Part 6, 53-30-12). 8.0 elapsed hours and 16.0 manhours are required to accomplish this inspection.

Access: Same as IV.(1).

Zone(s): Same as IV.(1).

### (3) Inner Skin

(External) From Direction 3, at specified locations using LFEC (Ref. NDT Manual D6-7170, Part 6, 53-30-13). 4.0 elapsed hours and 8.0 manhours are required to accomplish this inspection.

Access: None.

Zone(s): 100-External, 200-External.

## V. INSPECTION OPTIONS - DTR CHECK FORM F-25PP

Skin longitudinal lap splices at Stringer S-6, from BS 360 to BS 480, Stringer S-14, from BS 360 to BS 480, Stringer S-19, from BS 360 to BS 400, and Stringer S-23, from BS 360 to BS 400.

### (1) Outer Skin

(External) From Direction 1, including upper fastener rows, using detailed visual inspection methods.

NOTE: If damage is detected - (External) inspect adjacent bay on each side, using HFEC.

Access: Same as I.(1).

Zone(s): Same as I.(1).

### (2) Outer Skin

(External) From Direction 2, at specified locations using HFEC (Ref. NDT Manual D6-7170, Part 6, 53-30-02, -03, -06 and 51-00-00 Figure 4 or 23). 4.0 elapsed hours and 8.0 manhours are required to accomplish this inspection.

Access: Same as I.(1).

Zone(s): Same as I.(1).

## VI. INSPECTION OPTIONS - DTR CHECK FORM F-25QQ

Skin longitudinal lap splices below Stringer S-38 at Stringer S-44, from BS 420 to BS 480.

### (1) Outer Skin

(External) From Direction 1, including upper fastener rows, using detailed visual inspection methods.

NOTE: If damage is detected - (External) inspect adjacent bay on each side, using HFEC.



## 747-400 LCF SUPPLEMENTAL STRUCTURAL INSPECTION DOCUMENT – APPENDIX A

Access: Same as I.(1).

Zone(s): Same as II.(1).

(2) Outer Skin

(External) From Direction 2, at specified locations using HFEC (Ref. NDT Manual D6-7170, Part 6, 53-30-02, -03, -06). 1.0 elapsed hour and 2.0 manhours are required to accomplish this inspection.

Access: Same as I.(1).

Zone(s): Same as II.(1).

### VII. INSPECTION OPTIONS - DTR CHECK FORM F-25RR

Skin longitudinal lap splices above Stringer S-38 at Stringer S-0, from BS 360 to BS 480.

(1) Outer Skin

(External) From Direction 1, including upper fastener row, using detailed visual inspection methods.

NOTE: If damage is detected - (External) inspect adjacent bay on each side, using HFEC.

Access: Same as I.(1).

Zone(s): Same as I.(1).

(2) Outer Skin

(External) From Direction 2, at specified locations using HFEC (Ref. NDT Manual D6-7170, Part 6, 53-30-02, -03, -06). 1.0 elapsed hour and 2.0 manhours are required to accomplish this inspection.

Access: Same as I.(1).

Zone(s): Same as I.(1).

### VIII. INSPECTION OPTIONS - DTR CHECK FORM F-25SS

Skin longitudinal lap splices at Stringers S-0, S-6 and S-14, from BS 360 to BS 480, Stringer S-19 and S-23, from BS 360 to BS 400, and Stringer S-44, from BS 420 to BS 480.

(1) Inner Skin

(Internal) From Direction 1, including lower fastener row, using detailed visual inspection methods.

Access: Remove floor panels, lining, and insulation as required.

Zone(s): 112, 115, 116, 117, 118, 121A, 122A, 125A, 126A, 211, 212, 221, 222, 223, 224.

(2) Inner Skin

(Internal) from Direction 2, at specified locations using HFEC (Ref. NDT Manual D6-7170, Part 6, 53-30-12). 3.0 elapsed hours and 6.0 manhours are required to accomplish this inspection.



## 747-400 LCF SUPPLEMENTAL STRUCTURAL INSPECTION DOCUMENT – APPENDIX A

Access: Same as VIII.(1).

Zone(s): Same as VIII.(1).

### I (3) Inner Skin

(External) From Direction 3, at specified locations using LFEC (Ref. NDT Manual D6-7170, Part 6, 53-30-13). 3.0 elapsed hours and 6.0 manhours are required to accomplish this inspection.

Access: None.

Zone(s): 100-External, 200-External.





## 747-400 LCF SUPPLEMENTAL STRUCTURAL INSPECTION DOCUMENT – APPENDIX A

<b>DTR CHECK FORM</b>				ITEM: <b>F-25GG</b>		MODEL – SERIES 747-400 LCF				
TITLE: <u>SKIN LONGITUDINAL LAP SPLICES</u>				OPERATOR(S)		NO. ELIGIBLE A/C				
LOCATION: <u>SPLICES IN THE SLAB SIDED AREA</u> <span style="border: 1px solid black; padding: 0 5px;">1</span> <u>OUTER SKIN – UPPER ROW OF FASTENERS</u>				<b>EXAMPLE</b>						
				STRUCTURE AND INSPECTION DETAILS						
				LEAD CRACK: IN SKIN AT MID-BAY  						
NOTES: (1) IF DAMAGE IS DETECTED WHILE CONDUCTING DETAILED VISUAL INSPECTION, USE HFEC INSPECTION TO INSPECT THE TWO ADJACENT BAYS. (2) SEE 747 REPAIR ASSESSMENT GUIDELINES DOCUMENT (D6-36181) FOR INSPECTION REQUIREMENTS IF AN EXTERNAL SKIN DOUBLER IS INSTALLED.				<div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"><span style="border: 1px solid black; padding: 0 5px;">1</span> FROM BS 340 TO BS 360 AT S-6; FROM BS 200 TO BS 360 AT S-14; FROM BS 340 TO BS 360 AT S-19; FROM BS 240 TO BS 360 AT S-23.</div>						
STRUCTURE DETAIL		INSPECTION PROGRAM DETAILS						DAMAGE DETECTION PERIOD N FLIGHTS	△ DTR	
		JOB CARD	DIREC. 	CHECK LEVEL	METHOD	%SAMP. R <sub>O</sub>	FREQUENCY F-FLIGHTS			N = $\frac{100F}{R_O}$
OUTER SKIN			1		DET				2500	
			2	<b>2C</b>	HFEC	<b>100</b>	<b>3000</b>	<b>3000</b>	5800	<b>15.9</b>
ENGR	B.Berriolope	02/26/08	REVISED	DATE	FUEL LEAK DTR  TOTAL DTR  REQUIRED DTR					—
CHECK	C.Shaul1	02/26/08								15.9
APR										
APR										<b>10</b>

F-25GG.PDF

<b>DTR CHECK FORM</b>				ITEM: <b>F-25HH</b>		MODEL – SERIES 747-400 LCF		
TITLE: SKIN LONGITUDINAL LAP SPLICES				OPERATOR(S)		NO. ELIGIBLE A/C		
LOCATION: SPLICES BELOW S-38 / BS 140 – BS 420 <span style="float: right;">▶</span> OUTER SKIN – UPPER ROW OF FASTENERS				<b>EXAMPLE</b>				
				<b>STRUCTURE AND INSPECTION DETAILS</b> LEAD CRACK: IN SKIN AT MID-BAY 				
NOTES: N ( THOUSANDS OF FLIGHTS ) (1) IF DAMAGE IS DETECTED WHILE CONDUCTING DETAILED VISUAL INSPECTION, USE HFEC INSPECTION TO INSPECT THE TWO ADJACENT BAYS. (2) SEE 747 REPAIR ASSESSMENT GUIDELINES DOCUMENT (D6-36181) FOR INSPECTION REQUIREMENTS IF AN EXTERNAL SKIN DOUBLER IS INSTALLED.								
<span style="float: left;">▶</span> S-45 FROM BS 140 TO BS 260; S-44 FROM BS 400 TO BS 420								
STRUCTURE DETAIL	INSPECTION PROGRAM DETAILS						DAMAGE DETECTION PERIOD N <sub>0</sub> FLIGHTS	Δ DTR
	JOB CARD	DIREC ➡	CHECK LEVEL	METHOD	%SAMP R <sub>0</sub>	FREQUENCY F-FLIGHTS	$\bar{N} = \frac{100F}{R_0}$	
OUTER SKIN		1		DET				3080
		2	2C	HFEC	100	3000	3000	7640
								14.9
ENGR	B.Berriolope	02/26/08	REVISED	DATE	FUEL LEAK DTR			—
CHECK	C.Shaul1	02/26/08			TOTAL DTR			14.9
APR					REQUIRED DTR			10
APR								

F-25HH.PDF



## 747-400 LCF SUPPLEMENTAL STRUCTURAL INSPECTION DOCUMENT – APPENDIX A

DTR CHECK FORM				ITEM: F-25II		MODEL – SERIES	
				747-400 LCF			
TITLE: SKIN LONGITUDINAL LAP SPLICES				OPERATOR(S)		NO. ELIGIBLE A/C	
LOCATION: SPLICES ABOVE S-38.FORWARD SECTION 41 OUTER SKIN – UPPER ROW OF FASTENERS				<b>EXAMPLE</b>			
<div style="text-align: center;"><p><math>\Delta</math> DTR</p><p>N ( THOUSANDS OF FLIGHTS )</p></div>				<div style="text-align: center;"><b>STRUCTURE AND INSPECTION DETAILS</b></div> <p>LEAD CRACK: IN SKIN AT MID-BAY</p> <p>CL FRAME      B = 20 IN.      CL FRAME</p> <p>STRAP      INNER SKIN</p> <p>OUTER SKIN</p> <p>SEC.X-X (UPPER ROW OF FASTENERS)</p> <p>X      1      X</p> <p>HFEC      2</p> <p>OUTER SKIN      INNER SKIN</p>			

F-25II.PDF

<div style="display: inline-block; width: 40%;"><b>DTR CHECK FORM</b></div> <div style="display: inline-block; width: 20%; border-left: 1px solid black; padding-left: 5px;">ITEM: <b>F-25KK</b></div> <div style="display: inline-block; width: 40%; border-left: 1px solid black; padding-left: 5px; text-align: center;"> MODEL – SERIES  747-400 LCF </div>									
TITLE: SKIN LONGITUDINAL LAP SPLICES LOCATION: INNER SKIN – LOWER ROW OF FASTENERS <span style="float: right;">▶</span> FORWARD SECTION 41	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 50%;">OPERATOR(S)</th> <th style="width: 50%;">NO. ELIGIBLE A/C</th> </tr> <tr> <td style="text-align: center; height: 40px;"><b>EXAMPLE</b></td> <td></td> </tr> </table>	OPERATOR(S)	NO. ELIGIBLE A/C	<b>EXAMPLE</b>					
OPERATOR(S)	NO. ELIGIBLE A/C								
<b>EXAMPLE</b>									
	<div style="border: 1px solid black; padding: 5px;"> STRUCTURE AND INSPECTION DETAILS  LEAD CRACK: IN SKIN AT MID-BAY  </div>								
NOTES: (1) IF DAMAGE IS DETECTED WHILE CONDUCTING DETAIL VISUAL INSPECTION, USE HFEC INSPECTION TO INSPECT THE TWO ADJACENT BAYS. (2) DIRECTION 3 INSPECTION CANNOT BE USED WHERE EXTERNAL SKIN DOUBLERS ARE INSTALLED. SEE 747 REPAIR ASSESSMENT GUIDELINES DOCUMENT (D6-36181). <span style="float: right;">▶</span> S-0 FROM BS 340 TO BS 360; S-14, S-19 AND S-23 FROM BS 140 TO BS 360; S-39 FROM BS 260 TO BS 400; S-44 FROM BS 400 TO BS 420 AND S-45 FROM BS 140 TO BS 260									
STRUCTURE DETAIL	INSPECTION PROGRAM DETAILS							DAMAGE DETECTION PERIOD N <sub>FLIGHTS</sub>	△ DTR
	JOB CARD	DIREC. ➡	CHECK LEVEL	METHOD	%SAMP. R <sub>O</sub>	FREQUENCY F-FLIGHTS	N = $\frac{100F}{R_O}$		
INNER SKIN		1		DET				13200	
		2	<b>D</b>	HFEC	<b>100</b>	<b>6000</b>	<b>6000</b>	19000	<b>17.0</b>
		3		LFEC				7700	

ENGR	B.Berriolope	02/26/08	REVISED	DATE		FUEL LEAK DTR	—
CHECK	C.Shau11	02/26/08				TOTAL DTR	17.0
APR						REQUIRED DTR	<b>10</b>
APR							

F-25KK.PDF



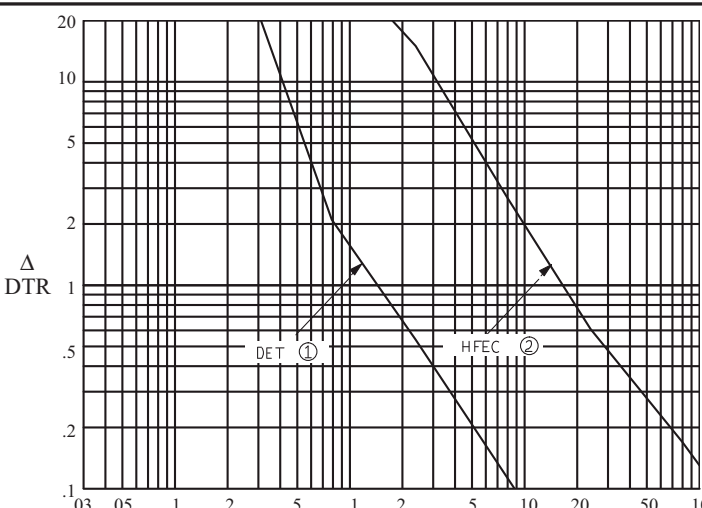
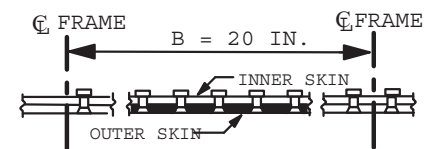
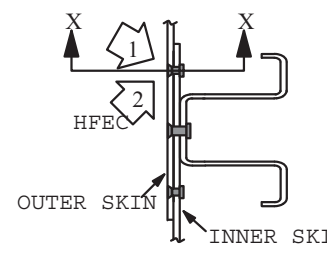
## 747-400 LCF SUPPLEMENTAL STRUCTURAL INSPECTION DOCUMENT – APPENDIX A

<b>DTR CHECK FORM</b>				ITEM: <b>F-25PP</b>		MODEL – SERIES 747-400 LCF			
TITLE: SKIN LONGITUDINAL LAP SPLICES				OPERATOR(S)		NO. ELIGIBLE A/C			
LOCATION: SPLICES IN THE SLAB SIDED AREA. AFT SECT. 41 OUTER SKIN – UPPER ROW OF FASTENERS				<b>EXAMPLE</b>					
				<b>STRUCTURE AND INSPECTION DETAILS</b> LEAD CRACK: IN SKIN AT MID-BAY  SEC. X-X (UPPER ROW OF FASTENERS)					
<b>NOTES:</b>									
(1) IF DAMAGE IS DETECTED WHILE CONDUCTING DETAILED VISUAL INSPECTION, USE HFEC INSPECTION TO INSPECT THE TWO ADJACENT BAYS.									
(2) SEE 747 REPAIR ASSESSMENT GUIDELINES DOCUMENT (D6-36181) FOR INSPECTION REQUIREMENTS IF AN EXTERNAL SKIN DOUBLER IS INSTALLED.									
1 FROM BS 360 TO BS 480 AT S-6; FROM BS 360 TO BS 400 AT S-19 AND S-23 AND FROM BS 360 TO BS 480 AT S-14									
STRUCTURE DETAIL		INSPECTION PROGRAM DETAILS					DAMAGE DETECTION PERIOD N FLIGHTS	△ DTR	
		JOB CARD	DIREC. →	CHECK LEVEL	METHOD	%SAMP. R <sub>O</sub>	FREQUENCY F-FLIGHTS	$N = \frac{100F}{R_O}$	
OUTER SKIN			1		DET				
			2	<b>2C</b>	HFEC	<b>100</b>	<b>3000</b>	<b>3000</b>	<b>11.1</b>
ENGR	B.Berriolope	02/27/08	REVISED	DATE	FUEL LEAK DTR				—
CHECK	C.Shau11	02/27/08			TOTAL DTR				<b>11.1</b>
APR					REQUIRED DTR				<b>10</b>
APR									

F-25PP.PDF



## 747-400 LCF SUPPLEMENTAL STRUCTURAL INSPECTION DOCUMENT – APPENDIX A

<b>DTR CHECK FORM</b>				ITEM: <b>F-25QQ</b>		MODEL – SERIES 747-400 LCF	
TITLE: SKIN LONGITUDINAL LAP SPLICES				OPERATOR(S)		NO. ELIGIBLE A/C	
LOCATION: SPLICES BELOW S-38 / BS 420 – BS 480 <span style="float: right;">1</span> OUTER SKIN – UPPER ROW OF FASTENERS				<b>EXAMPLE</b>			
<div style="text-align: center;"></div>				<div style="text-align: center;"><b>STRUCTURE AND INSPECTION DETAILS</b></div> <p>LEAD CRACK: IN SKIN AT MID-BAY</p> <p>CL FRAME      B = 20 IN.      CL FRAME</p>  <p>SEC. X-X (UPPER ROW OF FASTENERS)</p>  <p>OUTER SKIN      INNER SKIN</p>			

F-25QQ.PDF

<b>DTR CHECK FORM</b>				ITEM: <b>F-25RR</b>		MODEL - SERIES 747-400 LCF																																																											
TITLE: SKIN LONGITUDINAL LAP SPLICES						OPERATOR(S)		NO. ELIGIBLE A/C																																																									
LOCATION: SPLICES ABOVE S-38.AFT SECTION 41 <span style="float: right;">▶</span> OUTER SKIN - UPPER ROW OF FASTENERS						<b>EXAMPLE</b>																																																											
<p>The graph plots Δ DTR (log scale from 0.1 to 20) against N (Thousands of Flights, log scale from 0.03 to 100). Two curves are shown: one labeled 'DET' with a circled 1, and another labeled 'HFEC' with a circled 2. Arrows point from the labels to their respective curves.</p>						<b>STRUCTURE AND INSPECTION DETAILS</b> LEAD CRACK: IN SKIN AT MID-BAY  B = 20 IN. SEC.X-X (UPPER ROW OF FASTENERS) 																																																											
NOTES:																																																																	
(1) IF DAMAGE IS DETECTED WHILE CONDUCTING DETAILED VISUAL INSPECTION, USE HFEC INSPECTION TO INSPECT THE TWO ADJACENT BAYS.																																																																	
(2) SEE 747 REPAIR ASSESSMENT GUIDELINES DOCUMENT (D6-36181) FOR INSPECTION REQUIREMENTS IF AN EXTERNAL SKIN DOUBLER IS INSTALLED.																																																																	
▶ S-0 FROM BS 360 TO BS-480																																																																	
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2" style="width: 15%;">STRUCTURE DETAIL</th> <th colspan="7">INSPECTION PROGRAM DETAILS</th> <th rowspan="2" style="width: 15%;">DAMAGE DETECTION PERIOD N<sub>O</sub> FLIGHTS</th> <th rowspan="2"><math>\Delta</math> DTR</th> </tr> <tr> <th>JOB CARD</th> <th>DIREC. ➡</th> <th>CHECK LEVEL</th> <th>METHOD</th> <th>%SAMP. R<sub>O</sub></th> <th>FREQUENCY F-FLIGHTS</th> <th>N= <math>\frac{100F}{R_O}</math></th> </tr> </thead> <tbody> <tr> <td rowspan="2">OUTER SKIN</td> <td></td> <td>1</td> <td></td> <td>DET</td> <td></td> <td></td> <td></td> <td>5617</td> <td></td> </tr> <tr> <td></td> <td>2</td> <td><b>D</b></td> <td>HFEC</td> <td><b>100</b></td> <td><b>6000</b></td> <td><b>6000</b></td> <td>11951</td> <td><b>11.1</b></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>										STRUCTURE DETAIL	INSPECTION PROGRAM DETAILS							DAMAGE DETECTION PERIOD N <sub>O</sub> FLIGHTS	$\Delta$ DTR	JOB CARD	DIREC. ➡	CHECK LEVEL	METHOD	%SAMP. R <sub>O</sub>	FREQUENCY F-FLIGHTS	N= $\frac{100F}{R_O}$	OUTER SKIN		1		DET				5617			2	<b>D</b>	HFEC	<b>100</b>	<b>6000</b>	<b>6000</b>	11951	<b>11.1</b>																				
STRUCTURE DETAIL	INSPECTION PROGRAM DETAILS							DAMAGE DETECTION PERIOD N <sub>O</sub> FLIGHTS	$\Delta$ DTR																																																								
	JOB CARD	DIREC. ➡	CHECK LEVEL	METHOD	%SAMP. R <sub>O</sub>	FREQUENCY F-FLIGHTS	N= $\frac{100F}{R_O}$																																																										
OUTER SKIN		1		DET				5617																																																									
		2	<b>D</b>	HFEC	<b>100</b>	<b>6000</b>	<b>6000</b>	11951	<b>11.1</b>																																																								
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%;">ENGR</th> <th style="width: 10%;">B.Berriolope</th> <th style="width: 10%;">02/27/08</th> <th style="width: 10%;">REVISED</th> <th style="width: 10%;">DATE</th> <th style="width: 40%;"></th> </tr> </thead> <tbody> <tr> <td>CHECK</td> <td>C.Shaull</td> <td>02/27/08</td> <td></td> <td></td> <td></td> </tr> <tr> <td>APR</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>APR</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>										ENGR	B.Berriolope	02/27/08	REVISED	DATE		CHECK	C.Shaull	02/27/08				APR						APR																																					
ENGR	B.Berriolope	02/27/08	REVISED	DATE																																																													
CHECK	C.Shaull	02/27/08																																																															
APR																																																																	
APR																																																																	
FUEL LEAK DTR						—																																																											
TOTAL DTR						11.1																																																											
REQUIRED DTR						<b>10</b>																																																											

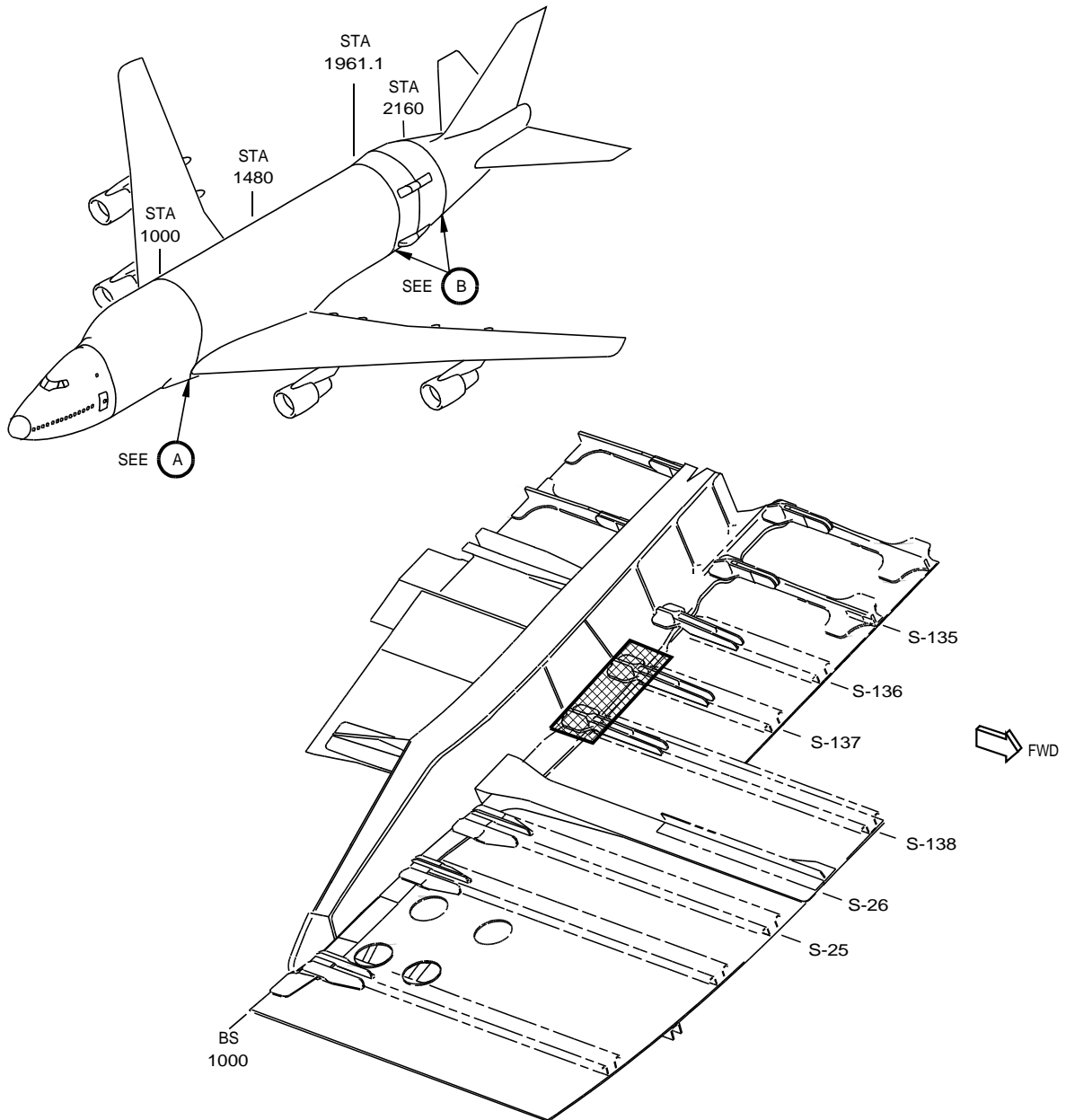
DTR CHECK FORM		ITEM: <b>F-25SS</b>		MODEL – SERIES 747-400 LCF				
TITLE: SKIN LONGITUDINAL LAP SPLICES				OPERATOR(S)				
LOCATION: INNER SKIN – LOWER ROW OF FASTENERS <span style="border: 1px solid black; padding: 0 5px;">1</span>				EXAMPLE				
				STRUCTURE AND INSPECTION DETAILS				
				<p>LEAD CRACK: IN SKIN AT MID-BAY</p>				
NOTES: (1) IF DAMAGE IS DETECTED WHILE CONDUCTING DETAILED VISUAL INSPECTION, USE HFEC INSPECTION TO INSPECT THE TWO ADJACENT BAYS. (2) DIRECTION 3 INSPECTION CANNOT BE USED WHERE EXTERNAL SKIN DOUBLERS ARE INSTALLED. SEE 747 REPAIR ASSESSMENT GUIDELINES DOCUMENT (D6-36181).								
<span style="border: 1px solid black; padding: 0 5px;">1</span> S-0, S-6 AND S-14 FROM BS 360 TO BS 480; S-19 AND S-23 FROM BS 360 TO BS 400 AND S-44 FROM BS 420 TO BS 480								
STRUCTURE DETAIL	INSPECTION PROGRAM DETAILS						DAMAGE DETECTION PERIOD N <sub>0</sub> FLIGHTS	△ DTR
	JOB CARD	DIREC. 	CHECK LEVEL	METHOD	%SAMP. R <sub>0</sub>	FREQUENCY F-FLIGHTS	$N = \frac{100F}{R_0}$	
INNER SKIN		1		DET				10517
		2	<b>D</b>	HFEC	<b>100</b>	<b>6000</b>	<b>6000</b>	15138
		3		LFEC				6135
FUEL LEAK DTR								—
ENGR	B.Berriolope	2/27/08	REVISED	DATE				TOTAL DTR
CHECK	C.Shaull	2/27/08						13.3
APR								
APR								REQUIRED DTR
								10

F-25SS.PDF





747-400 LCF SUPPLEMENTAL STRUCTURAL INSPECTION DOCUMENT – APPENDIX A



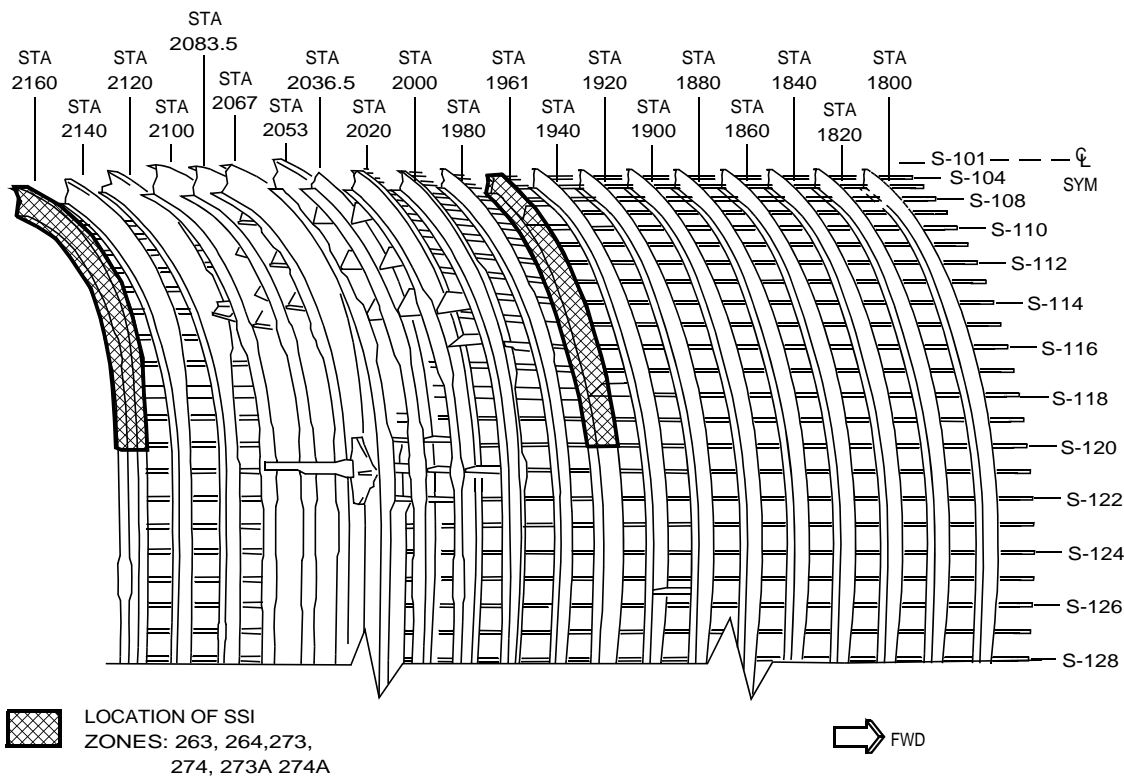
LOCATION OF SSI  
ZONES: 241, 242

LEFT SIDE IS SHOWN,  
RIGHT SIDE IS OPPOSITE

(A)

1544816

F-26 – SKIN STRINGER CIRCUMFERENTIAL SPLICES



LEFT SIDE IS SHOWN,  
RIGHT SIDE IS OPPOSITE

(B)

## F-26 - SKIN STRINGER CIRCUMFERENTIAL SPLICES



## 747-400 LCF SUPPLEMENTAL STRUCTURAL INSPECTION DOCUMENT – APPENDIX A

F-26	INSPECTION INSTRUCTIONS	ACCESS MANHOURS		
		INSP	MHRS	ELPSD
TITLE:	SKIN STRINGER CIRCUMFERENTIAL SPLICES	II.(1)	8	4

I. INSPECTION OPTIONS - DTR CHECK FORM F-26GG

Frame outer chord at innermost rows of skin splice at BS 1961.1 and BS 2160, from Stringer S-120L to S-120R.

(1) Frame

(Internal) From Direction 1, at inner skin splice locations, using visual inspection methods.

Access: Remove or displace insulation as required.

Zone(s): 263, 264, 273, 274, 273A, 274A.

II. INSPECTION OPTIONS - DTR CHECK FORM F-26HH

Stringer at outermost fastener rows of stringer splice at BS 1961.1 and BS 2160, from Stringer S-120L to S-120R.

(1) Stringer

(Internal) From Direction 1, at fore and aft sides of the body section joint centerline locations, using UT (Ref. NDT Manual D6-7170, Part 4, 53-10-17). 1.5 elapsed hours and 3.0 manhours are required to accomplish this inspection.

Access: Same as I.(1).

Zone(s): Same as I.(1).

III. INSPECTION OPTIONS - DTR CHECK FORM F-26II

Paddle Fittings at innermost fastener rows of stringer splice at BS 1961.1 and BS 2160 from Stringer S-120L to S-120R.

(1) Paddle Fittings

(Internal) From Direction 1, at fore and aft sides of the body section joint centerline locations, using HFEC (Ref. NDT Manual D6-7170, Part 6, 51-00-00 Figure 4 or 23). 1.5 elapsed hours and 3.0 manhours are required to accomplish this inspection.

Access: Same as I.(1).

Zone(s): Same as I.(1).



IV. INSPECTION OPTIONS - DTR CHECK FORM F-26JJ

Bulkhead BS 1000 outer chord at Stringer S-137 and S-138, left and right sides of fuselage.

(1) Chord

(Internal) From Direction 1, first aft row common to outer chord and paddle fitting, using UT (Ref. NDT Manual D6-7170, Part 4, 53-10-17). 1.5 elapsed hours and 3.0 manhours are required to accomplish this inspection.

Access: Remove side wall panels and displace insulation blankets, as needed.

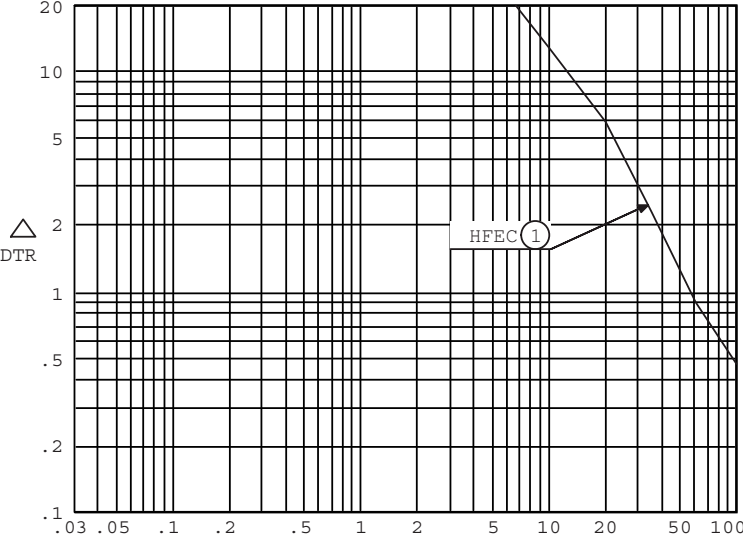
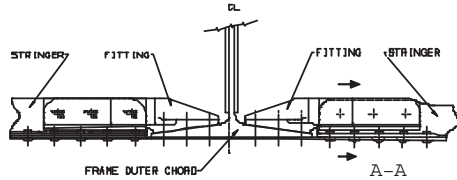
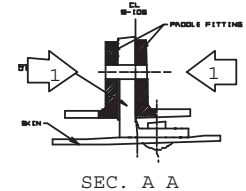
Zone(s): 241, 242.

F-26GG.PDF

F-26HH.PDF



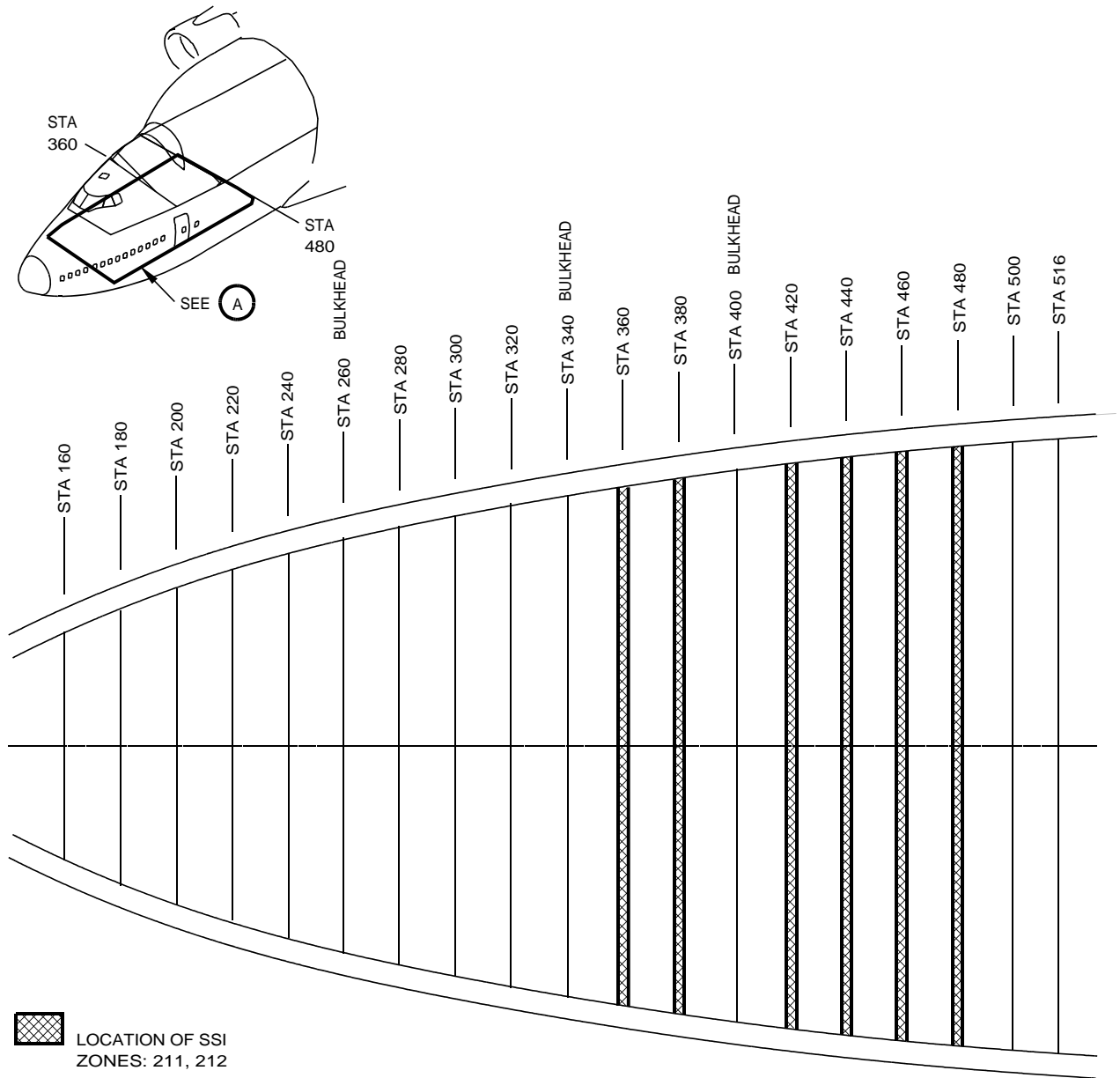
## 747-400 LCF SUPPLEMENTAL STRUCTURAL INSPECTION DOCUMENT – APPENDIX A

DTR CHECK FORM				ITEM: F-26II		MODEL-SERIES 747-400 LCF			
TITLE: SKIN STRINGER CIRCUMFERENTIAL SPLICES				OPERATOR(S)		NO. ELIGIBLE A/C			
LOCATION: PADDLE FITTING AT INNER MOST FASTENER ROWS OF STRINGER SPLICE <span style="border: 1px solid black; padding: 0 5px;">1</span>				EXAMPLE					
<div style="display: flex; align-items: center;"><div style="margin-right: 10px;"><math>\Delta</math> DTR</div></div>				STRUCTURE AND INSPECTION DETAILS					
				LEAD CRACK: PADDLE FITTING <div style="text-align: center;"> </div>					
NOTES: <div style="text-align: center;"><math>\bar{N}</math> (THOUSANDS OF FLIGHTS)      *** First crack delta DTR values ***</div>									
- <DIR-1> INSPECT BOTH HALVES OF PADDLE FITTINGS, BOTH FORE AND AFT SIDE OF THE BODY SECTION JOINT CENTERLINE USING HFEC									
<span style="border: 1px solid black; padding: 0 5px;">1</span> BS 1961.1 AND BS 2160, S-120L TO S-120R									
STRUCTURE DETAIL	INSPECTION PROGRAM DETAILS							$\Delta$ DTR	
	JOB CARD	DIREC. <span style="border: 1px solid black; padding: 0 5px;">→</span>	CHECK LEVEL	METHOD	%SAMP R <sub>O</sub>	FREQUENCY F-FLIGHTS	$\bar{N}$ = 100F/R <sub>O</sub>		DAMAGE DETECTION PERIOD N <sub>O</sub> FLIGHTS
	FITTING	1	D	HFEC	100	6000	6000		28800
ENGR. G. BAHAUDDIN 02/13/08 REVISED				FUEL LEAK DTR				<div style="border: 2px solid black; padding: 5px;">6</div>	
CHECK C. SHAULL 02/13/08				TOTAL DTR					
APPR.				REQUIRED DTR					
APPR.									

F-26II.PDF

F-26JJ.PDF





MAIN DECK FLOOR BEAMS (TOP VIEW)

(A)

1531086

F-29 – MAIN DECK FLOOR BEAMS



**MAIN DECK FLOOR BEAMS**

<b>BS</b>	<b>7075 Upper/Lower Chord F-29AA</b>	<b>7075 Low Chord, BL10-20 (L/R) F-29BB</b>
360	X	X
380	X	X
420	X	
440	X	
460	X	
480	X	



## 747-400 LCF SUPPLEMENTAL STRUCTURAL INSPECTION DOCUMENT – APPENDIX A

F-29	INSPECTION INSTRUCTIONS	ACCESS MANHOURS		
		INSP	MHRS	ELPSD
TITLE:	MAIN DECK FLOOR BEAMS	II.(1)	4	2

I. INSPECTION OPTIONS - DTR CHECK FORM F-29AA

Upper and lower chords of the main deck floor beams. Reference specific charts for station locations.

(1) Upper and Lower Chords

(Internal) From Direction 1, inspect the vertical and horizontal flanges of the upper and lower chords, using detailed visual inspection methods.

Access: Requires removal of main cabin floor panels.

Zone(s): 211, 212.

II. INSPECTION OPTIONS - DTR CHECK FORM F-29BB

Lower chords of the main deck floor beams between LBL 10 and LBL 20 and RBL 10 and RBL 20. Reference specific charts for station locations.

(1) Lower Chords

(Internal) From Direction 1, inspect the intersection of the lower chord to the vertical beam, using HFEC (Ref. NDT Manual D6-7170, Part 6, 53-10-58). 2.5 elapsed hours and 5.0 manhours are required to accomplish this inspection.

Access: Same as I.(1).

Zone(s): Same as I.(1).

(2) Lower Chords

(Internal) From Direction 1, inspect the intersection of the lower chord to the vertical beam, using detailed visual inspection methods.

Access: Same as I.(1).

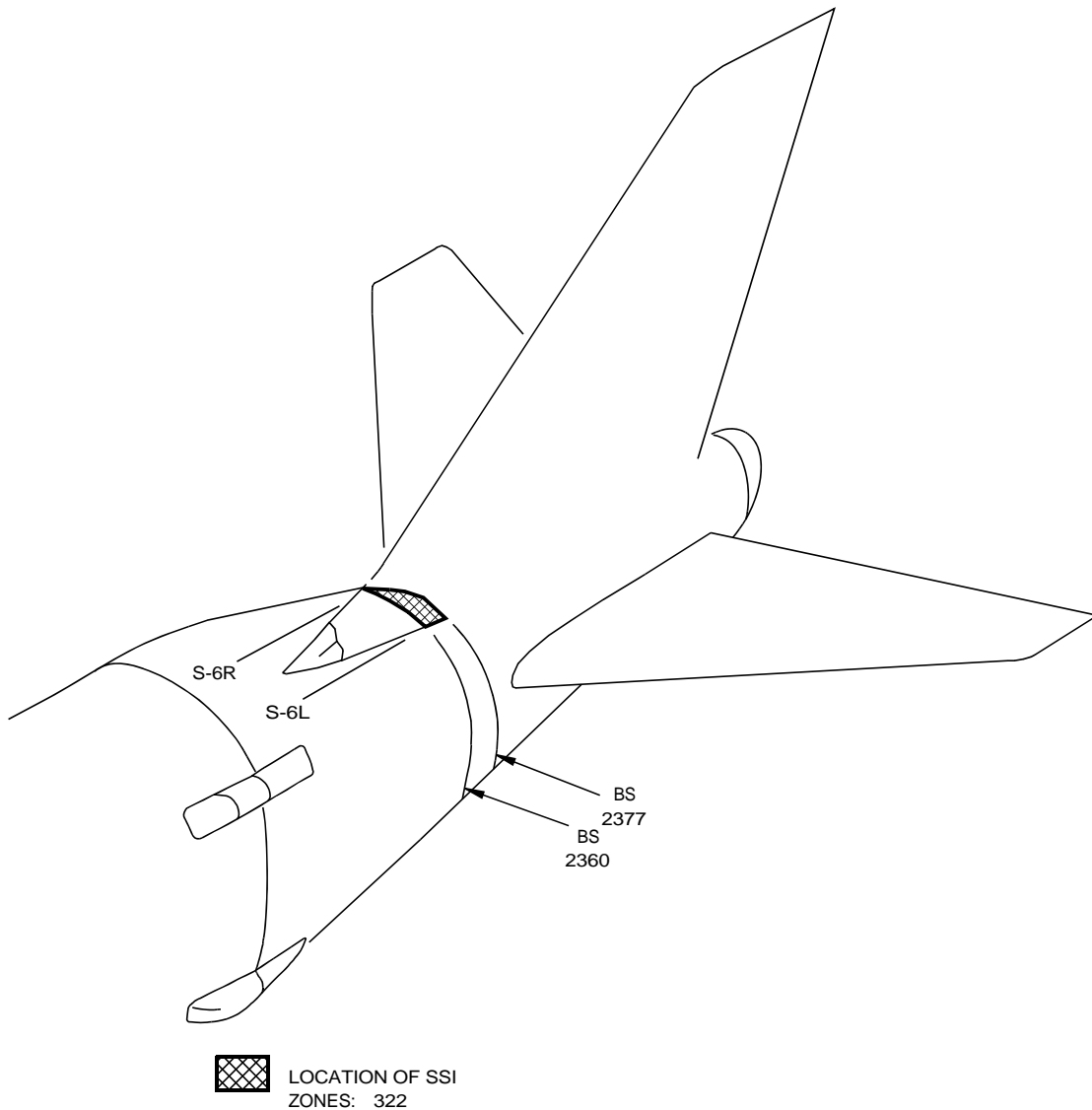
Zone(s): Same as I.(1).

F29AA.PDF

F29BB.PDF



THIS PAGE INTENTIONALLY LEFT BLANK



### FUSELAGE SKIN-TO-STRINGER ATTACHMENT

1548420

F-30 – FUSELAGE SKIN-TO-STRINGER ATTACHMENT, BS 2360



F-30	INSPECTION INSTRUCTIONS	ACCESS MANHOURS		
		INSP	MHRS	ELPSD
TITLE:	FUSELAGE SKIN-TO-STRINGER ATTACHMENT, BS 2360			

I. INSPECTION OPTION - DTR CHECK FORM F-30AA

From BS 2360 to BS 2377, between Stringers S-6L and S-6R.

(1) Skin

(External) From Direction 1, including fastener locations, using visual inspection methods.

Access: Through Fin Access Panels 322AL 322BL and 322CL.

Zone(s): 322.



## 747-400 LCF SUPPLEMENTAL STRUCTURAL INSPECTION DOCUMENT – APPENDIX A

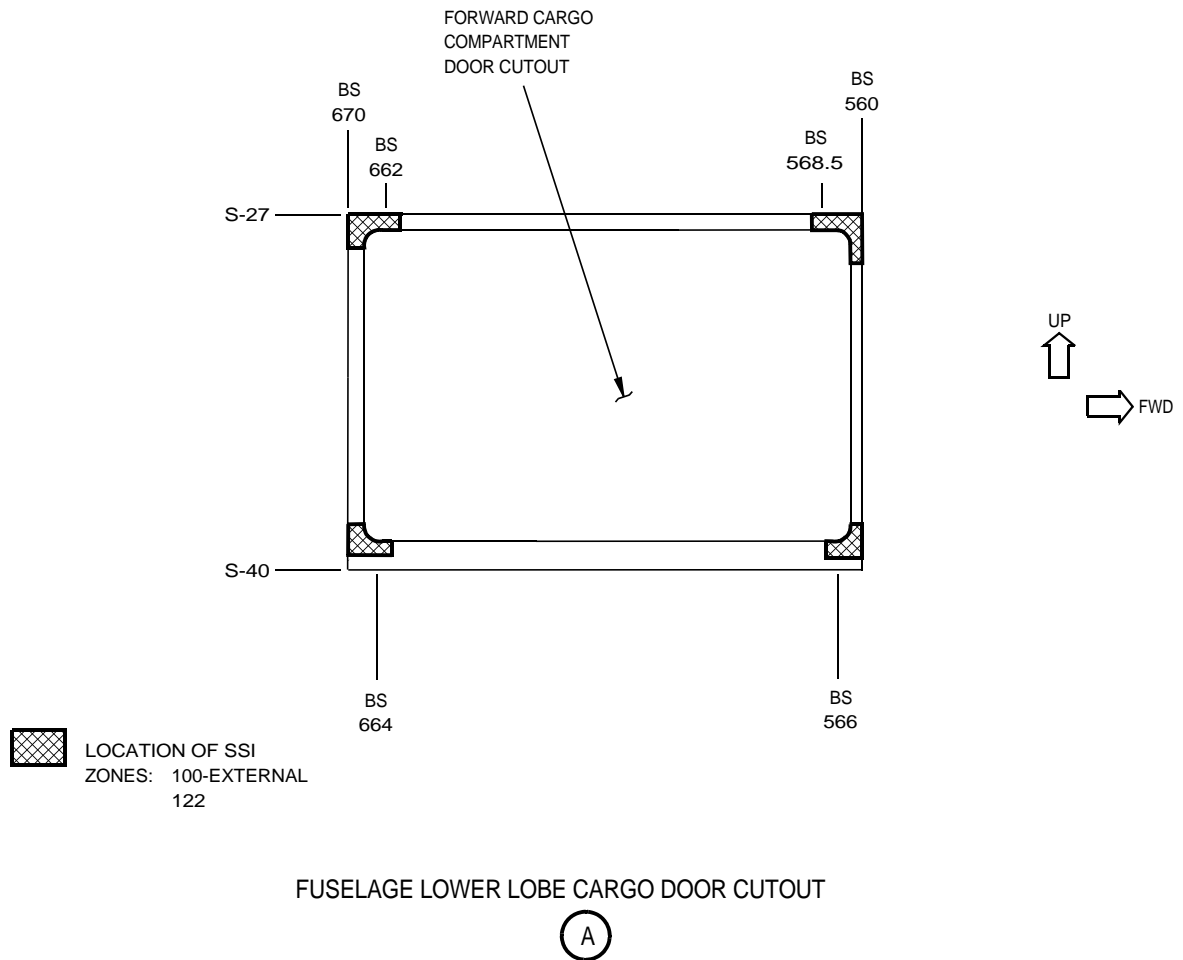
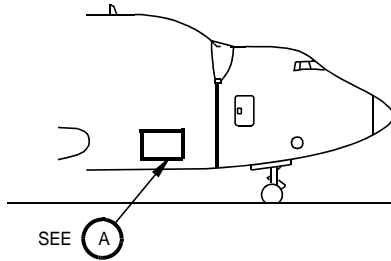
DTR CHECK FORM				ITEM: F-30AA		MODEL-SERIES 747-400 LCF				
TITLE: FUSELAGE SKIN-TO-STRINGER ATTACHMENT				OPERATOR(S)		NO. ELIGIBLE A/C				
BS 2360				EXAMPLE						
LOCATION: STRINGER-6R TO STRINGER-6L 1										
				STRUCTURE AND INSPECTION DETAILS LEAD CRACK: STR. OR FITTING 						
NOTES: $\bar{N}$ (THOUSANDS OF FLIGHTS) *** First crack delta DTR values *** 1 BS 2360 TO BS 2377.										
STRUCTURE DETAIL		INSPECTION PROGRAM DETAILS						DAMAGE DETECTION PERIOD NO. FLIGHTS	$\Delta$ DTR	
JOB CARD		DIREC. 	CHECK LEVEL	METHOD	%SAMP R <sub>O</sub>	FREQUENCY F-FLIGHTS	$\bar{N}$ = 100F/R <sub>O</sub>			
SKIN		1	2C	DET	100	3000	3000	13400	6.1	
SKIN		1		SURV				12900		
ENGR.		D ZHOU	02/29/08	REVISED	FUEL LEAK DTR  TOTAL DTR  REQUIRED DTR					
CHECK		C SHAULL	02/29/08							6.1
APPR.										
APPR.										



THIS PAGE INTENTIONALLY LEFT BLANK



747-400 LCF SUPPLEMENTAL STRUCTURAL INSPECTION DOCUMENT – APPENDIX A



FUSELAGE LOWER LOBE CARGO DOOR CUTOUT

F-39 – FUSELAGE LOWER LOBE CARGO DOOR CUTOUT

1530947



F-39	INSPECTION INSTRUCTIONS	ACCESS MANHOURS		
		INSP	MHRS	ELPSD
TITLE:	FUSELAGE LOWER LOBE CARGO DOOR CUTOUT			

**NOTE: Additional DTR Check Forms are required for complete coverage of this SSI. Refer to the listing of DTR Check Forms at the beginning of Section 8.2.**

I. INSPECTION OPTIONS - DTR CHECK FORM F-39HH

Forward cargo door cutout, at BS 568.5 and BS 662 hinge support locations.

(1) Skin and Strap

(External) From Direction 4, at specified locations, using HFEC (Ref. NDT Manual D6-7170, Part 6, 53-10-02). 1.0 elapsed hour and 1.0 manhour are required to accomplish this inspection.

Access: Remove overhead light panel and displace insulation. Also requires removal of all fasteners common to hinge fittings. Do not remove more than two fasteners at a time.

Zone(s): 122.

II. INSPECTION OPTIONS - DTR CHECK FORM F-39II

Cutout corner areas at forward door hinge fairings.

(1) Skin and Strap

(External) From Direction 1, using HFEC (Ref. NDT Manual D6-7170, Part 6, 53-10-52). 0.5 elapsed hour and 0.5 manhour are required to accomplish this inspection.

Access: Requires removal of all fasteners common to hinge fairings. Do not remove more than two fasteners at a time.

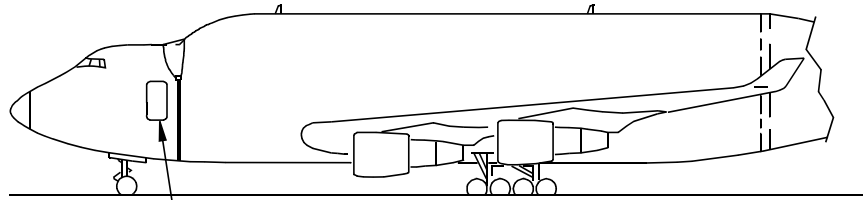
Zone(s): 100-External.

ENGR	Jason Cheng	04/27/07	REVISED	DATE	FUEL LEAK DTR	—
CHECK	Vijai Luthra	04/27/07	H.Nagai	5/2/14	TOTAL DTR	>20
APR					REQUIRED DTR	10
APR						

F391I\_Rev2.PDF

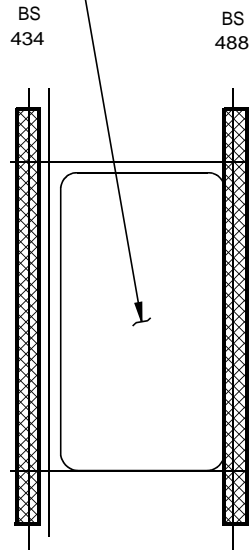


747-400 LCF SUPPLEMENTAL STRUCTURAL INSPECTION DOCUMENT – APPENDIX A



DOOR NO. 1  
SEE (A)

DOOR CUTOUT  
(TYPICAL)



LOCATION OF SSI  
ZONES: 200-EXTERNAL  
211, 212,

DOOR NO. 1  
LEFT SIDE IS SHOWN,  
RIGHT SIDE IS OPPOSITE

(A)

1545587

F-41 – MAIN DECK ENTRY DOOR CUTOUTS



## 747-400 LCF SUPPLEMENTAL STRUCTURAL INSPECTION DOCUMENT – APPENDIX A

F-41	INSPECTION INSTRUCTIONS	ACCESS MANHOURS		
		INSP	MHRS	ELPSD
TITLE:	MAIN DECK ENTRY DOOR CUTOUTS	I.(2)	2	1

I. INSPECTION OPTIONS - DTR CHECK FORM F-41CC

At the frame inner chord, 15 inches above and below the upper sill intersection, BS 434 and BS 488, and 15 inches above and below the lower sill intersection at BS 434 and BS 488.

(1) Inner Angle/Inner Chord

(Internal) From Direction 1, visible areas at specified locations, including fastener locations, using visual inspection methods.

Access: Remove lining, scuff plates, floor panels, and displace insulation blankets as needed.

Zone(s): 211, 212.

(2) Strap

(Internal) From Direction 2, at specified locations, using HFEC (Ref. NDT Manual D6-7170, Part 6, 53-10-05). 1.0 elapsed hour and 2.0 manhours are required to accomplish this inspection.

Access: Same as I.(1).

Zone(s): Same as I.(1).

II. INSPECTION OPTIONS - DTR CHECK FORM F-41DD

At the frame outer chord, from Stringer S-21 to the upper sill intersection at BS 434 and BS 488, and from Stringer S-21 to the lower sill intersection at BS 434 and BS 488, excluding fastener locations common to the sills.

(1) Strap

(External) From Direction 1, at specified locations using LFEC (Ref. NDT Manual D6-7170, Part 6, 53-10-20). 0.5 elapsed hour and 1.0 manhour are required to accomplish this inspection.

Access: None required.

Zone(s): 200-External.

(2) Strap

(Internal) From Direction 2, at specified locations, using detailed visual inspection methods.

Access: Same as I.(1).

Zone(s): Same as I.(1).



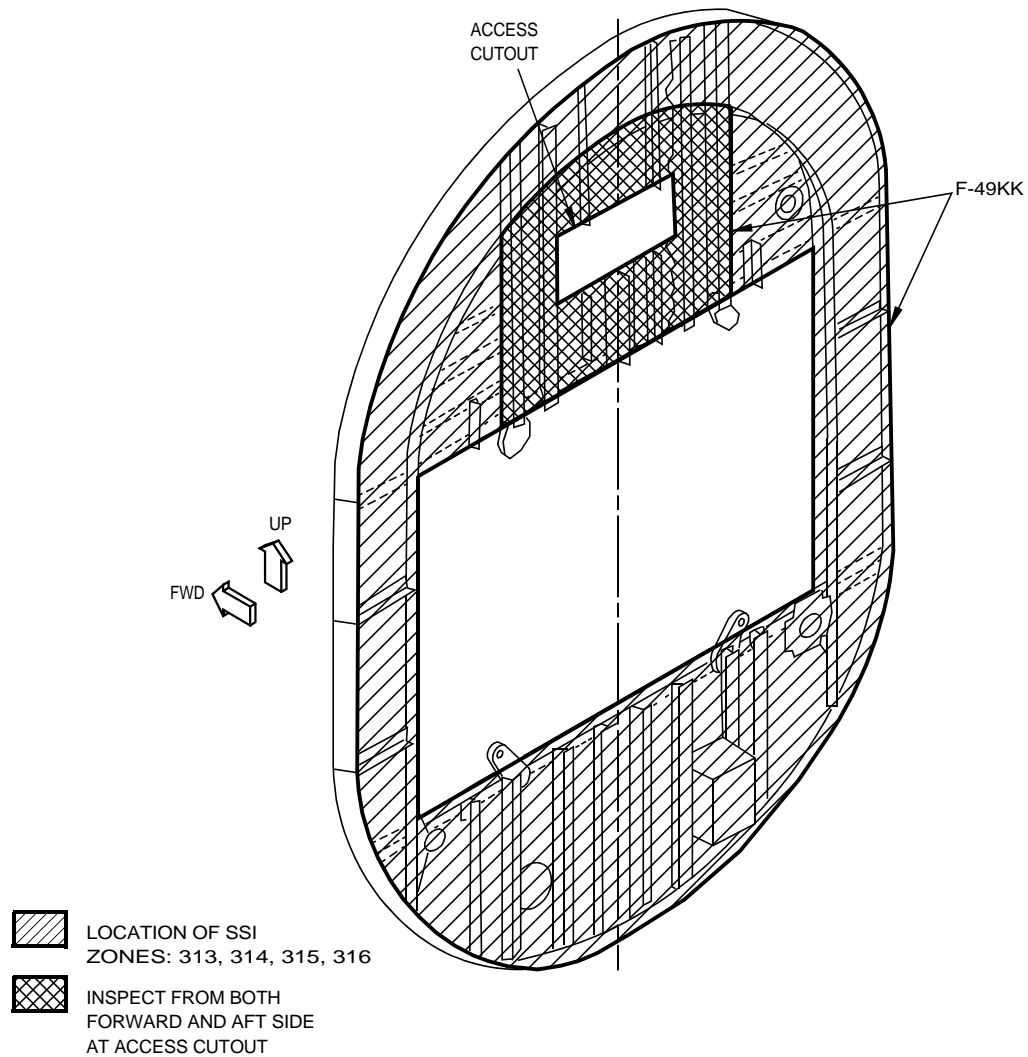


## 747-400 LCF SUPPLEMENTAL STRUCTURAL INSPECTION DOCUMENT – APPENDIX A

<b>DTR CHECK FORM</b>				ITEM: <b>F-41CC</b>		MODEL – SERIES 747-400 LCF			
TITLE: <u>MAIN DECK ENTRY DOOR CUTOUTS</u>				OPERATOR(S)		NO. ELIGIBLE A/C			
LOCATION: <u>FRAME INNER CHORD WITH STRAP</u> <u>AND/OR INNER ANGLE</u> <span style="border: 1px solid black; padding: 0 5px;">1</span>				<b>EXAMPLE</b>					
<div style="text-align: center;"></div>				<div style="text-align: center;"></div> <p style="text-align: center;">TYPICAL FRAME INNER CHORD</p>					
NOTES:				*** First crack delta DTR values ***					
<div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;"><span style="border: 1px solid black; padding: 0 5px;">1</span> FRAME INNER CHORD WITHIN 15 INCHES (2-STRINGER BAYS) ABOVE AND BELOW THE UPPER AND LOWER MAIN SILL INTERSECTIONS AT DOOR #1 BS 434 AND BS 488.</div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;"><span style="border: 1px solid black; padding: 0 5px;">2</span> DIR-1 IS AT ALL VISIBLE AREAS AND DIR-2 HFEC IS AT SPECIFIED AREAS. DIR-1 MAY REQUIRE A BORESCOPE INSPECTION WHERE LOCATIONS OF THE INNER CHORD ARE NOT VISUALLY ACCESSIBLE.</div>									
STRUCTURE DETAIL		INSPECTION PROGRAM DETAILS					DAMAGE DETECTION PERIOD	$\Delta$ DTR	
		JOB CARD	DIREC. 	CHECK LEVEL	METHOD	%SAMP. R <sub>0</sub>	FREQUENCY F-FLIGHTS	$\bar{N} = \frac{100F}{R_0}$	N <sub>0</sub> FLIGHTS
INNER CHORD/ANGLE		<span style="border: 1px solid black; padding: 0 5px;">2</span>	1	<b>C</b>	DET	<b>100</b>	<b>1500</b>	<b>1500</b>	3141
STRAP			2	<b>C</b>	HFEC	<b>100</b>	<b>1500</b>	<b>1500</b>	3640
ENGR		G BAHAUDDIN	02/15/08	REVISED	DATE	FUEL LEAK DTR			
CHECK		C. SHAULL	02/15/08			TOTAL DTR			
APR						REQUIRED DTR			
APR						<b>10</b>			

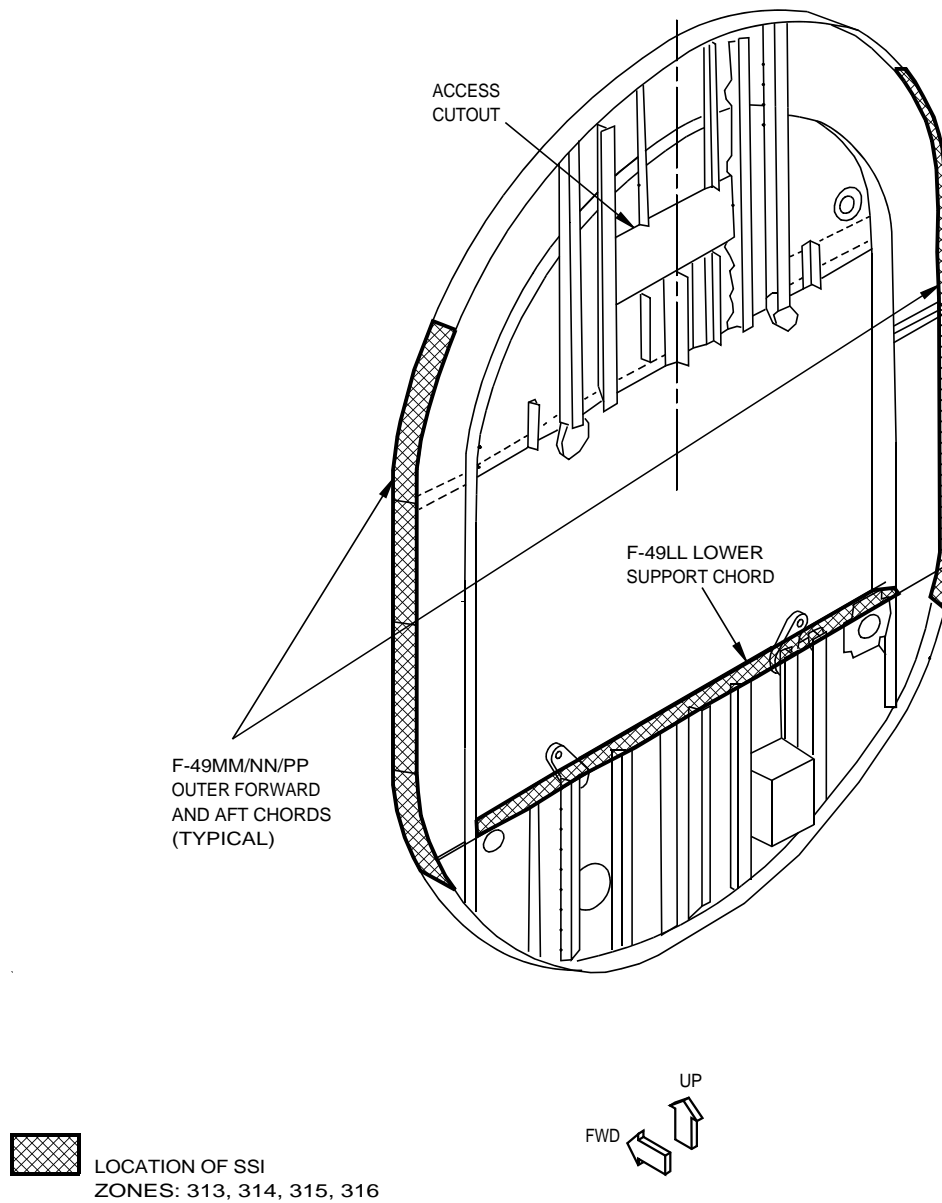
F-41CC.PDF

F-41DD.PDF



F-49 – SECTION 48 BS 2598 BULKHEAD

1543352



F-49 – SECTION 48 BS 2598 BULKHEAD

1543719



F-49	INSPECTION INSTRUCTIONS	ACCESS MANHOURS		
		INSP	MHRS	ELPSD
TITLE:	SECTION 48 BS 2598 BULKHEAD			

I. INSPECTION OPTIONS - DTR CHECK FORM F-49KK

BS 2598 bulkhead web, including around access cutout.

(1) Web

(External) From Direction 1, including fastener locations, using detailed visual inspection methods. Inspect access cutout from both forward and aft sides, and the remaining web from the aft side.

Access: Open Access Door 315AL.

Zone(s): 313, 314, 315, 316.

II. INSPECTION OPTIONS - DTR CHECK FORM F-49LL

Lower lobe floor support chord.

(1) Chord

(External) From Direction 1, including fastener locations, using HFEC (Ref. 747 NDT Manual D6-7170, Part 6, 53-10-49). 0.5 elapsed hour and 0.5 manhour are required to accomplish this inspection.

Access: Same as I.(1).

Zone(s): Same as I.(1).

III. INSPECTION OPTIONS - DTR CHECK FORM F-49MM

Forward outer chord from Stringer S-7 to Stringer S-11, left and right sides. Aft outer chord from Stringer S-7 to WL 311, left and right sides.

NOTE: Use F-49NN for areas where outer chords are covered by splice fittings or other details.

(1) Chord

(External) From Direction 1, including fastener locations, using detailed visual inspection methods.

Access: Same as I.(1).

Zone(s): Same as I.(1).



## 747-400 LCF SUPPLEMENTAL STRUCTURAL INSPECTION DOCUMENT – APPENDIX A

### (2) Chord

(External) From Direction 1, including fastener locations, using HFEC (Ref. 747 NDT Manual D6-7170, Part 6, 53-10-49). 1.0 elapsed hour and 1.0 manhour are required to accomplish this inspection.

Access: Same as I.(1).

Zone(s): Same as I.(1).

## IV. INSPECTION OPTIONS - DTR CHECK FORM F-49NN

Forward outer chord (where hidden) from Stringer S-7 to Stringer S-11, left and right sides. Aft outer chord (where hidden), from Stringer S-7 to Stringer S-17, left and right sides.

### (1) Chord

(External) From Direction 1, including fastener locations, using UT (Ref. 747 NDT Manual D6-7170, Part 4, 53-10-10). 1.0 elapsed hour and 1.0 manhour are required to accomplish this inspection.

Access: Same as I.(1).

Zone(s): Same as I.(1).

## V. INSPECTION OPTIONS - DTR CHECK FORM F-49PP

Outer chord, approximately WL 317 and WL 321, under longeron splice fittings, left and right sides.

### (1) Chord

(External) From Direction 1, including fastener locations, using HFEC (Ref. 747 NDT Manual D6-7170, Part 6, 53-10-50). 1.0 elapsed hour and 1.0 manhour are required to accomplish this inspection.

NOTE: This open-hole inspection requires removal of the fasteners.

Access: Same as I.(1).

Zone(s): Same as I.(1).

F-49KK.PDF

F-49LL.PDF



DTR CHECK FORM				ITEM: <b>F-49MM</b>		MODEL – SERIES 747-400 LCF			
TITLE: SECTION 48 BODY STATION 2598 BULKHEAD LEFT AND RIGHT SIDES LOCATION: FWD OUTER CHORD, S-7 TO S-11 AFT OUTER CHORD, S-7 TO WL 311						OPERATOR(S)	NO. ELIGIBLE A/C		
						EXAMPLE			
						STRUCTURE AND INSPECTION DETAILS LEAD CRACK: AFT OUTER CHORD 			
NOTES: *** First crack delta DTR values *** 1) SEE F-49NN FOR AREAS WHERE OUTER CHORDS ARE COVERED BY SPLICE FITTINGS OR OTHER DETAILS. 2) DIRECTION 1 TO BE PERFORMED ON FWD AND AFT OUTER CHORDS.									
STRUCTURE DETAIL	INSPECTION PROGRAM DETAILS							DAMAGE DETECTION PERIOD N <sub>0</sub> FLIGHTS	Δ DTR
	JOB CARD	DIREC. 	CHECK LEVEL	METHOD	%SAMP. R <sub>0</sub>	FREQUENCY F-FLIGHTS	$N = \frac{100F}{R_0}$		
CHORD		1		DET					
		1	C	HFEC	100	1500	1500	3480	9
ENGR	B. JOVANOVIĆ	1/22/08	REVISED	DATE	FUEL LEAK DTR				—
CHECK	C. SHAULL	1/23/08			TOTAL DTR				9
APR					REQUIRED DTR				6
APR									

F-49MM.PDF

F-49NN.PDF



## 747-400 LCF SUPPLEMENTAL STRUCTURAL INSPECTION DOCUMENT – APPENDIX A

DTR CHECK FORM				ITEM: <b>F-49PP</b>		MODEL – SERIES 747-400 LCF					
TITLE: SECTION 48 BODY STATION 2598 BULKHEAD LEFT AND RIGHT SIDES LOCATION: OUTER CHORD, APPROX. WL 317 AND WL 321 UNDER LONGERON SPLICE FITTINGS				OPERATOR(S)  <b>EXAMPLE</b>		NO. ELIGIBLE A/C					
<div style="display: flex; align-items: center;"><div style="flex: 1;"><p style="text-align: center;">N (THOUSANDS OF FLIGHTS)</p></div><div style="flex: 1; padding-left: 10px;"><p>STRUCTURE AND INSPECTION DETAILS</p><p>LEAD CRACK: AFT OUTER CHORD</p><p>AFT OUTER CHORD      FWD OUTER CHORD LONGERON SPLICE FITTING</p><p>OUTBD      FWD</p></div></div>				NOTES:  *** First crack delta DTR values ***  1) DIR 1: OPEN BOLT HOLE HFEC							
STRUCTURE DETAIL		INSPECTION PROGRAM DETAILS					DAMAGE DETECTION PERIOD N <sub>0</sub> FLIGHTS		Δ DTR		
		JOB CARD	DIREC. ➡	CHECK LEVEL	METHOD	%SAMP. R <sub>0</sub>	FREQUENCY F-FLIGHTS	$\bar{N} = \frac{100F}{R_0}$			
CHORD			1	C	HFEC	100	1500	1500	16560	20	
ENGR		B. JOVANOVIC		1/22/08		REVISED		DATE		FUEL LEAK DTR	
CHECK		C. SHAULL		1/23/08						TOTAL DTR	
APR										REQUIRED DTR	
APR										6	

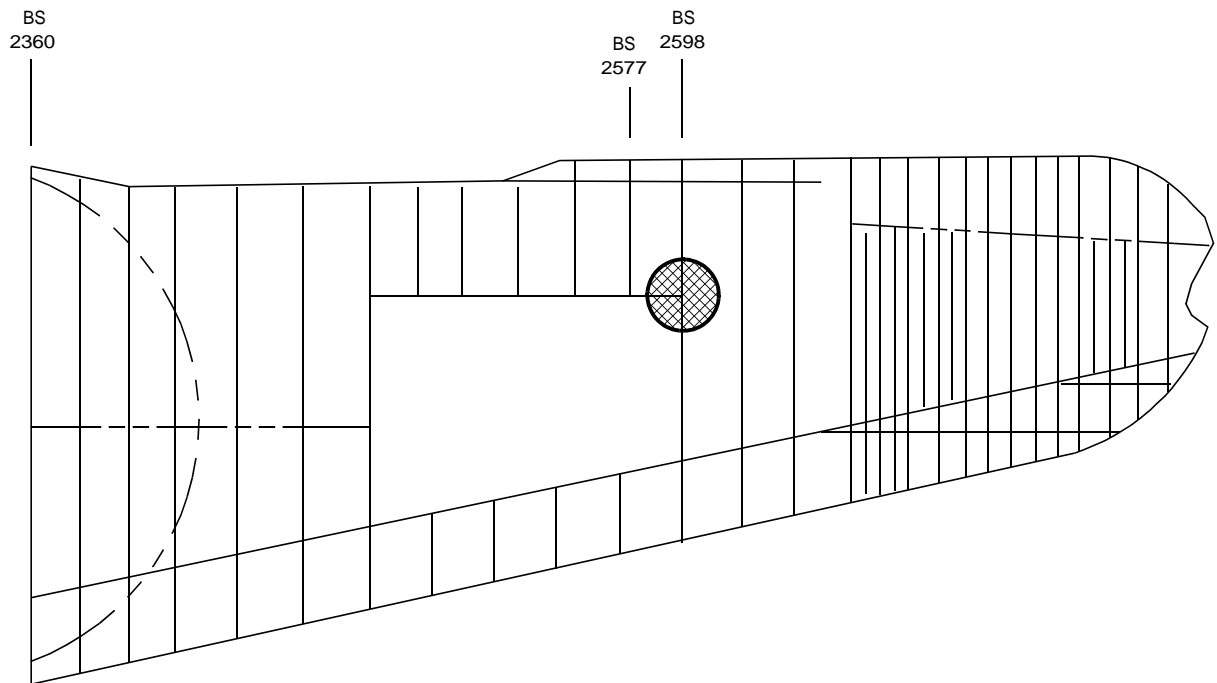
F-49PP.PDF




THIS PAGE INTENTIONALLY LEFT BLANK



747-400 LCF SUPPLEMENTAL STRUCTURAL INSPECTION DOCUMENT – APPENDIX A



 LOCATION OF SSI  
ZONES: 313, 314, 315, 316

1543357

F-51 – SECTION 48 LONGERON SKIN SPLICE BS 2598

MAY 2008

D6-35022-1

8.2 FUSELAGE INFORMATION

BOEING PROPRIETARY - Copyright (c) - Unpublished Work - See title page for details.

PAGE F-51.1



## 747-400 LCF SUPPLEMENTAL STRUCTURAL INSPECTION DOCUMENT – APPENDIX A

F-51	INSPECTION INSTRUCTIONS	ACCESS MANHOURS		
		INSP	MHRS	ELPSD
TITLE:	SECTION 48 LONGERON SKIN SPLICE BS 2598			

I. INSPECTION OPTIONS - DTR CHECK FORM F-51CC

Forward and aft of BS 2598, at upper and lower edges of the longeron.

(1) Longeron

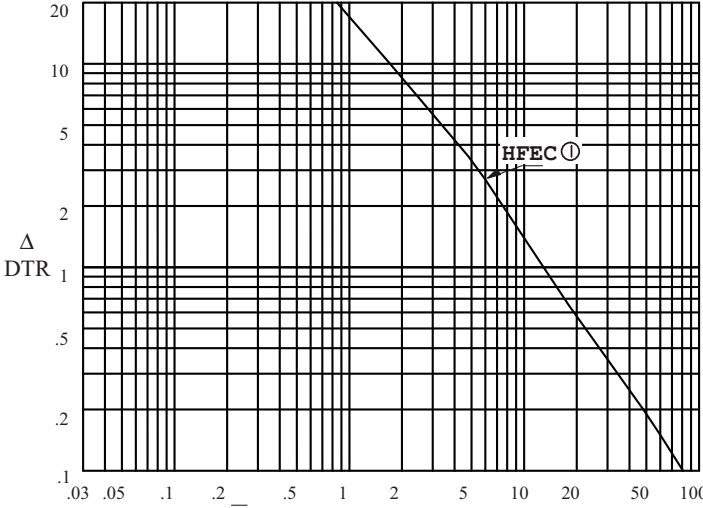
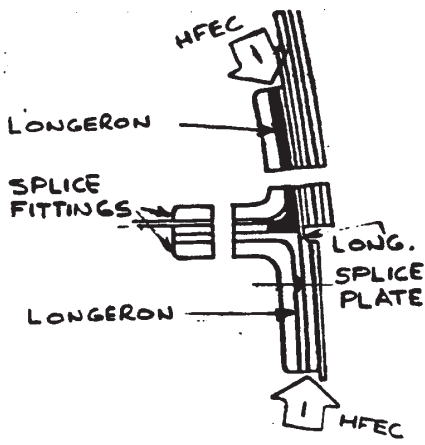
(External) From Direction 1, at specified locations, using HFEC (Ref. NDT Manual D6-7170, Part 6, 53-10-14). 0.5 elapsed hour and 0.5 manhour are required to accomplish this inspection.

Access: Open Access Door 315AL.

Zone(s): 313, 314, 315, 316.



## 747-400 LCF SUPPLEMENTAL STRUCTURAL INSPECTION DOCUMENT – APPENDIX A

<b>DTR CHECK FORM</b>				ITEM: <b>F-51CC</b>		MODEL – SERIES 747-400 LCF					
TITLE: SECTION 48 LONGERON SKIN SPLICE (BS2598) LOCATION: LONGERON @ SPLICE FITTINGS				OPERATOR(S)  <b>EXAMPLE</b>		NO. ELIGIBLE A/C					
<div style="display: flex; align-items: center;"><div style="flex: 1;"><p><math>\Delta</math> DTR</p></div><div style="flex: 1; padding-left: 10px;"><p>STRUCTURE AND INSPECTION DETAILS</p><p>LEAD CRACK: LONGERON</p></div></div>											
NOTES: (1) DIRECTION 1 APPLIES FORWARD AND AFT OF BS2598 AND IS REQUIRED AT UPPER AND LOWER EDGES OF LONGERON.				*** First crack delta DTR values ***							
STRUCTURE DETAIL		INSPECTION PROGRAM DETAILS						DAMAGE DETECTION PERIOD N <sub>0</sub> FLIGHTS		$\Delta$ DTR	
		JOB CARD	DIREC. ①	CHECK LEVEL	METHOD	%SAMP. R <sub>0</sub>	FREQUENCY F-FLIGHTS	$N = \frac{100F}{R_0}$			
LONGERON			1		HFEC	100	2000	2000	10260	8.5	
ENGR		B. JOVANOVIĆ		1/21/08		REVISED		DATE		FUEL LEAK DTR	—
CHECK		C. SHAULL		1/22/08						TOTAL DTR	8.5
APR										REQUIRED DTR	6
APR											

F-51CC.PDF

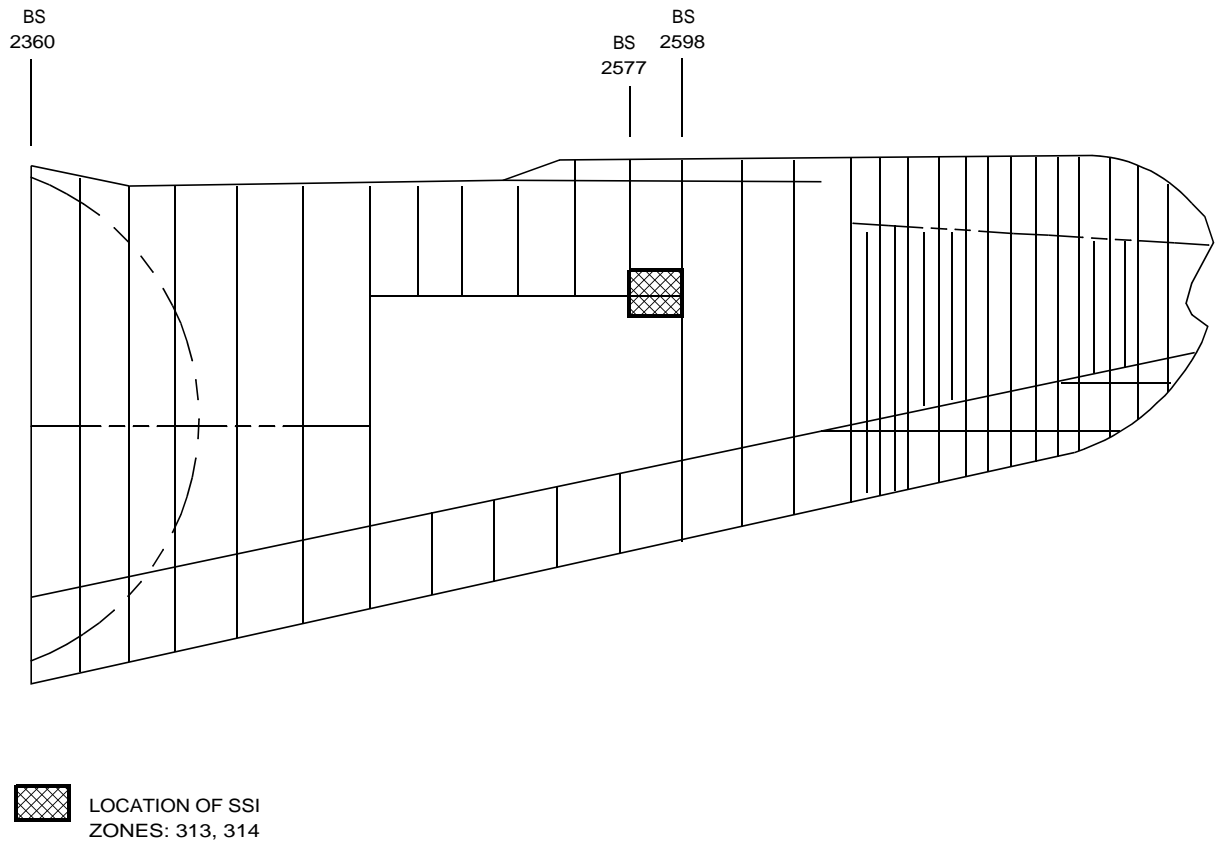


THIS PAGE INTENTIONALLY LEFT BLANK





747-400 LCF SUPPLEMENTAL STRUCTURAL INSPECTION DOCUMENT – APPENDIX A



1543206

F-95 – SECTION 48 TORQUE BOX SHEAR DECK



## 747-400 LCF SUPPLEMENTAL STRUCTURAL INSPECTION DOCUMENT – APPENDIX A

F-95	INSPECTION INSTRUCTIONS	ACCESS MANHOURS		
		INSP	MHRS	ELPSD
TITLE:	SECTION 48 TORQUE BOX SHEAR DECK			

I. INSPECTION OPTIONS - DTR CHECK FORM F-95

From BS 2577 to BS 2598, both left and right sides of fuselage.

NOTE: Inspection is from above and below shear deck.

(1) Web and Doubler

(External) From Direction 1, adjacent to the longeron, using detailed visual inspection methods.

Access: Open Access Door 315AL.

Zone(s): 313, 314.



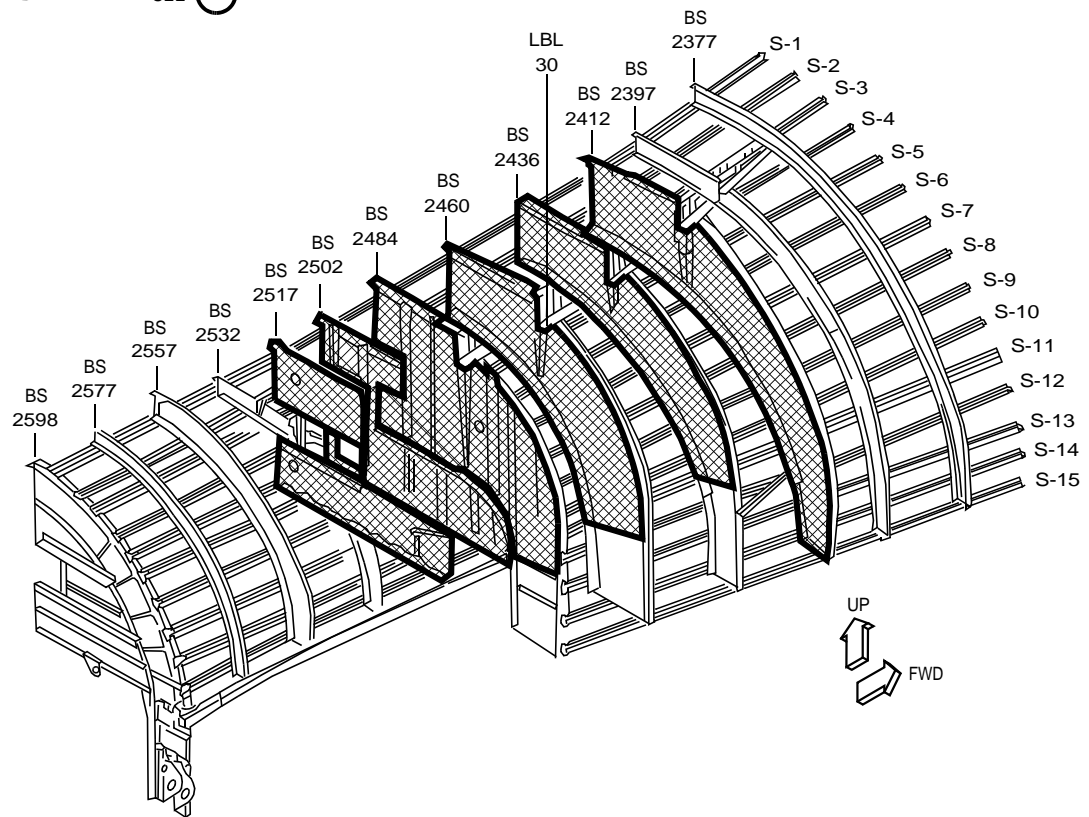
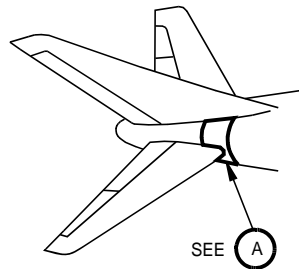
## 747-400 LCF SUPPLEMENTAL STRUCTURAL INSPECTION DOCUMENT – APPENDIX A

DTR CHECK FORM				ITEM: <b>F-95</b>		MODEL – SERIES 747-400 LCF	
TITLE: <u>SECTION 48 TORQUE BOX</u> <u>SHEAR DECK</u> LOCATION: <u>BS 2577 TO BS 2598</u> <u>ADJACENT TO LONGERON</u>				OPERATOR(S)  <b>EXAMPLE</b>		NO. ELIGIBLE A/C	
<div style="display: flex; align-items: center; justify-content: center;"><div style="text-align: right; margin-right: 10px;"><math>\Delta</math> DTR</div><div style="text-align: left; margin-left: 10px;"><b>DET 1</b> <b>SURV 1</b></div></div> <p style="text-align: center;">N (THOUSANDS OF FLIGHTS)</p>							

F95 DTR



THIS PAGE INTENTIONALLY LEFT BLANK



LOCATION OF SSI  
ZONES: 311, 312, 313, 314

LEFT SIDE IS SHOWN,  
RIGHT SIDE IS OPPOSITE

(A)

1545009

## F-96 – FIN SUPPORT BULKHEAD, WEBS AND CHORDS



F-96	INSPECTION INSTRUCTIONS	ACCESS MANHOURS		
		INSP	MHRS	ELPSD
TITLE:	FIN SUPPORT BULKHEAD, WEBS AND CHORDS			

**I. INSPECTION OPTIONS - DTR CHECK FORM F-96A**

Inner chord at BS 2412 from Stringers S-10 to S-15, both left and right sides of fuselage.

**(1) Chord**

(External) From Direction 1, around fastener locations, using HFEC (Ref. NDT Manual D6-7170, Part 6, 51-00-00, Figure 4 or 23). 1.5 elapsed hour and 1.5 manhours are required to accomplish this inspection.

Access: Open Access Door 312AR.

Zone(s): 311, 312.

**II. INSPECTION OPTIONS - DTR CHECK FORM F-96B**

Web at BS 2412 from Stringers S-14L to S-14R.

**(1) Web**

(External) From Direction 1, at the surface of the web along the inner chord, using HFEC (Ref. NDT Manual D6-7170, Part 6, 51-00-00, Figure 4 or 23). 2.0 elapsed hours and 4.0 manhours are required to accomplish this inspection.

Access: Open Access Door 312AR.

Zone(s): 311, 312.

**III. INSPECTION OPTIONS - DTR CHECK FORM F-96C**

Inner chord at LBL30 and RBL30 at BS 2460.

**(1) Chord**

(External) From Direction 1, at four fastener locations common to the inner chord and post, using HFEC (Ref. NDT Manual D6-7170, Part 6, 51-00-00, Figure 16). 0.5 elapsed hour and 0.5 manhours are required to accomplish this inspection.

NOTE: This open-hole inspection requires removal of the fasteners.

Access: Open Access Door 312AR.

Zone(s): 311, 312.



IV. INSPECTION OPTIONS - DTR CHECK FORM F-96D

Inner chord strap at BS 2412, from Stringers S-10 to S-15, both left and right sides of fuselage.

(1) Chord

(External) From Direction 1, at the surface of the inner chord around fasteners, using HFEC (Ref. NDT Manual D6-7170, Part 6, 51-00-00, Figure 4 or 23). 1.5 elapsed hours and 3.0 manhours are required to accomplish this inspection.

Access: Open Access Door 312AR.

Zone(s): 311, 312.

V. INSPECTION OPTIONS - DTR CHECK FORM F-96E

Webs and chords above the shear deck level, from BS 2436 to BS 2517.

(1) Web and Chord

(External) From Direction 1, using visual inspection methods.

Access: Open Access Door 315AL and access hole thru bulkhead.

Zone(s): 311, 312, 313, 314.

VI. INSPECTION OPTIONS - DTR CHECK FORM F-96F

Inner chord at BS 2412, from Stringers S-10 to S-15, both left and right sides of fuselage.

(1) Chord

(External) From Direction 1, at the surface of the inner chord around fasteners, using HFEC (Ref. NDT Manual D6-7170, Part 6, 51-00-00, Figure 4 or 23). 1.5 elapsed hours and 3.0 manhours are required to accomplish this inspection.

Access: Open Access Door 312AR.

Zone(s): 311, 312.

F-96A.PDF



F-96B.PDF

F-96C.PDF

F-96D.PDF

F-96E.PDF

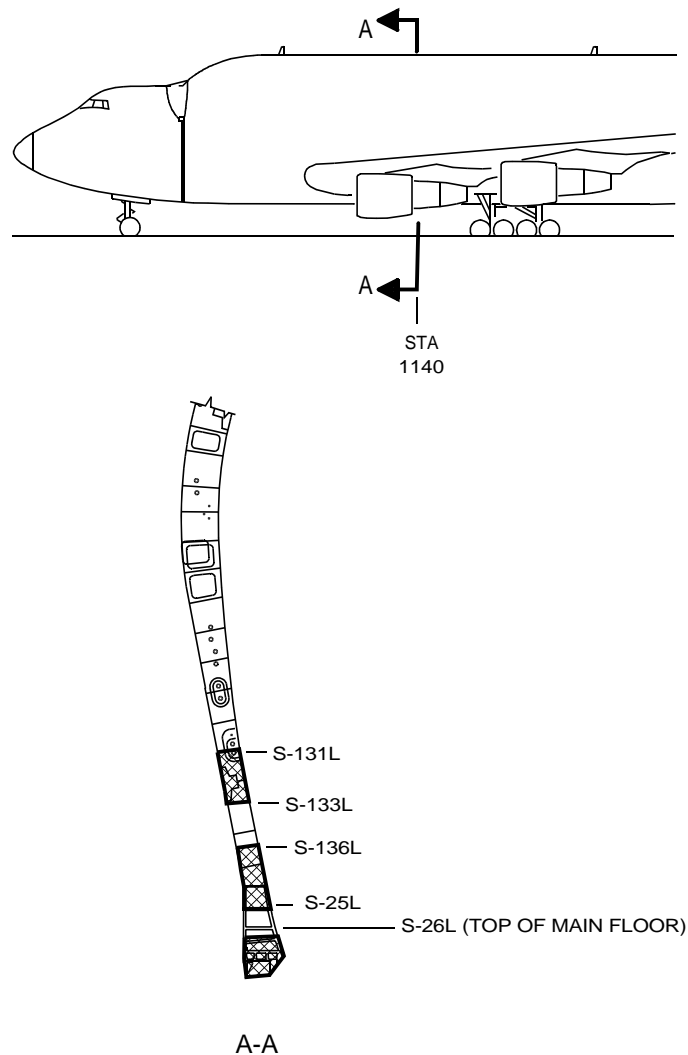
F-96F.PDF




THIS PAGE INTENTIONALLY LEFT BLANK



747-400 LCF SUPPLEMENTAL STRUCTURAL INSPECTION DOCUMENT – APPENDIX A



 LOCATION OF SSI  
ZONES: 131A, 132A, 241, 242

(LEFT SIDE IS SHOWN RIGHT SIDE IS OPPOSITE)  
(VIEW IN THE FORWARD DIRECTION)

F-97 – FUSELAGE BULKHEAD, BS 1140

1543208



## 747-400 LCF SUPPLEMENTAL STRUCTURAL INSPECTION DOCUMENT – APPENDIX A

F-97	INSPECTION INSTRUCTIONS	ACCESS MANHOURS		
		INSP	MHRS	ELPSD
TITLE:	FUSELAGE BULKHEAD, BS 1140	I.(1)	6	3
		II.(1)	2	1

I. INSPECTION OPTIONS - DTR CHECK FORM F-97A

Inner chord at stub beam intercostal BS 1140 bulkhead.

(1) Inner Chord

(Internal) From Direction 1, at specific locations of the first fastener row common to inner chord splice plate, using UT (Ref. NDT Manual D6-7170, Part 4, 53-10-18). 0.5 elapsed hour and 0.5 manhour are required to accomplish this inspection.

Access: Remove floor panels, side wall panels and displace insulation.

Zone(s): 131A, 132A.

II. INSPECTION OPTIONS - DTR CHECK FORM F-97B

Inner chord from Stringers S-136 to S-25 of BS 1140 bulkhead, both left and right sides of fuselage.

(1) Inner Chord

(Internal) From Direction 1, at specific locations of the inner chord, using HFEC (Ref. NDT Manual D6-7170, Part 6, 51-00-00 Figure 4 or 23). 0.5 elapsed hour and 0.5 manhour are required to accomplish this inspection.

Access: Remove side wall panels and displace insulation.

Zone(s): 241, 242.

III. INSPECTION OPTIONS - DTR CHECK FORM F-97C

Inner chord from Stringers S-131 to S-133 of BS 1140 bulkhead, both left and right sides of fuselage.

(1) Inner Chord

(Internal) From Direction 1, at specific locations of the first fastener row common to inner chord splice plate, using UT (Ref. NDT Manual D6-7170, Part 4, 53-10-18). 0.5 elapsed hour and 0.5 manhour are required to accomplish this inspection.

Access: Same as II.(1).

Zone(s): Same as II.(1).



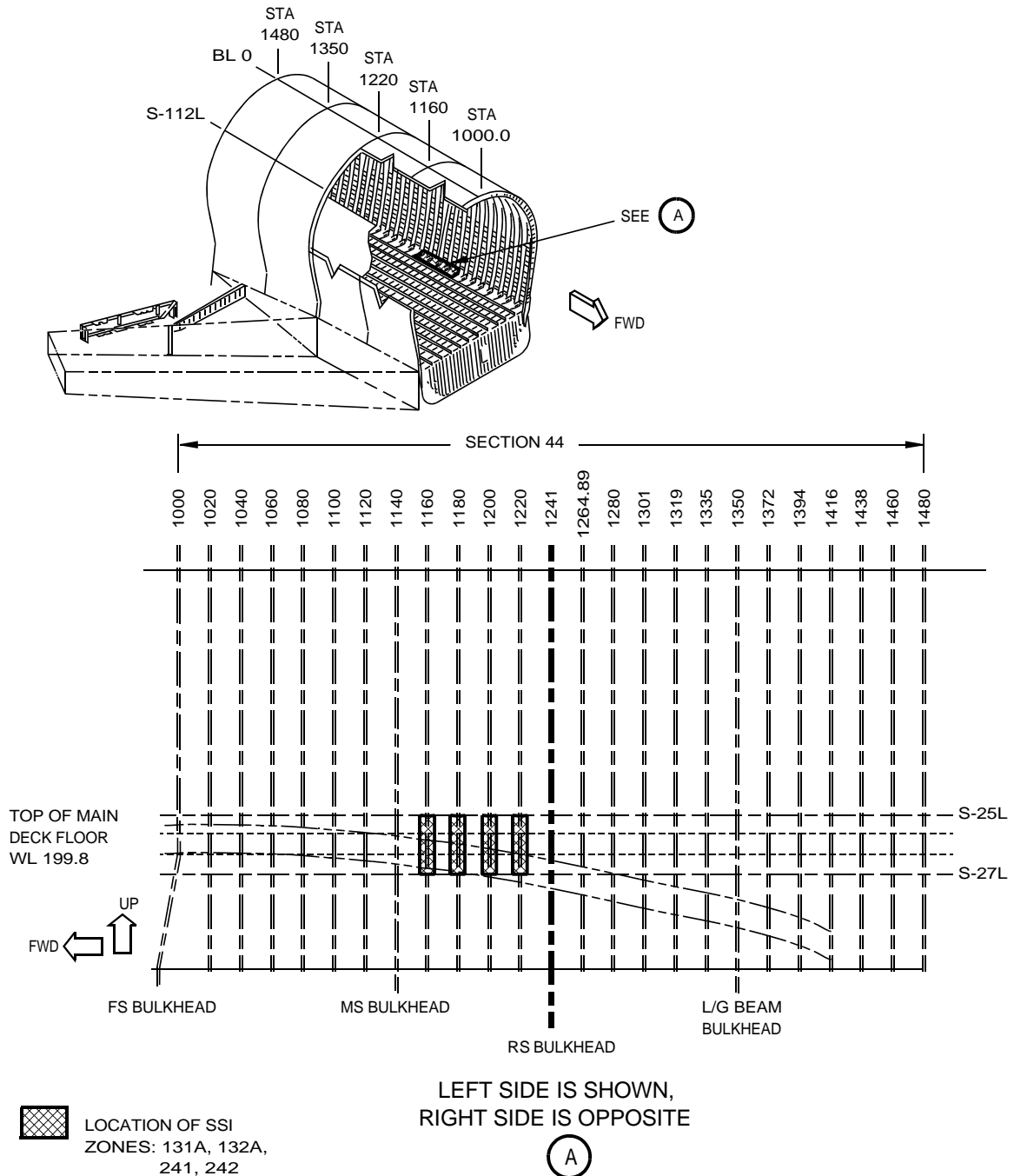
F97A.PDF

F97B.PDF

F97C.PDF



THIS PAGE INTENTIONALLY LEFT BLANK



1544572

F-98 – STUB FRAMES OVERWING CENTER SECTION



F-98	INSPECTION INSTRUCTIONS	ACCESS MANHOURS		
		INSP	MHRS	ELPSD
TITLE:	STUB FRAMES OVERWING CENTER SECTION	I.(1)	6	3

I. INSPECTION OPTIONS - DTR CHECK FORM F-98

Inner chord locations, BS 1160 to BS 1220, from Stringers S-25 to S-27, both sides of fuselage.

(1) Inner Chord

(Internal) From Direction 1, stub frames at specific locations of the inner chord, using HFEC (Ref. NDT Manual D6-7170, Part 6, 51-00-00 Figure 4 or 23). 2.0 elapsed hours and 4.0 manhours are required to accomplish this inspection.

Access: Remove floor panels, side wall panels and displace insulation as needed.

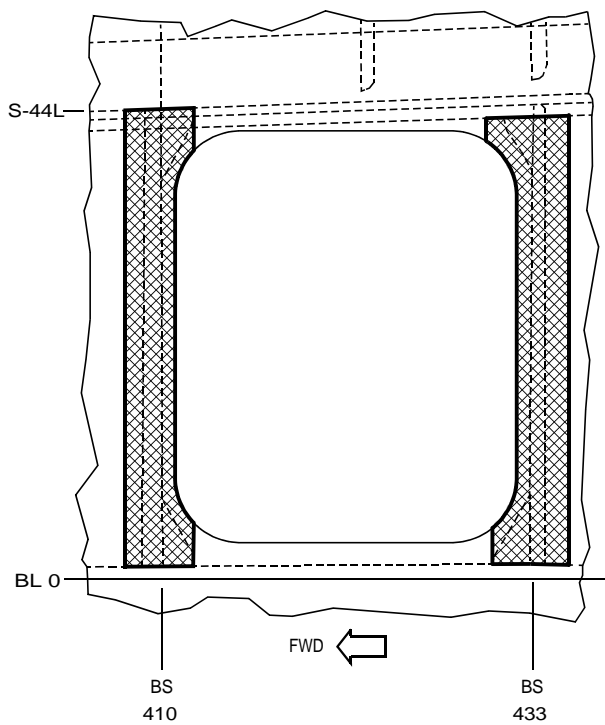
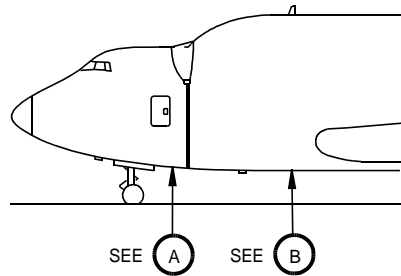
Zone(s): 131A, 132A, 241, 242.

F98.PDF



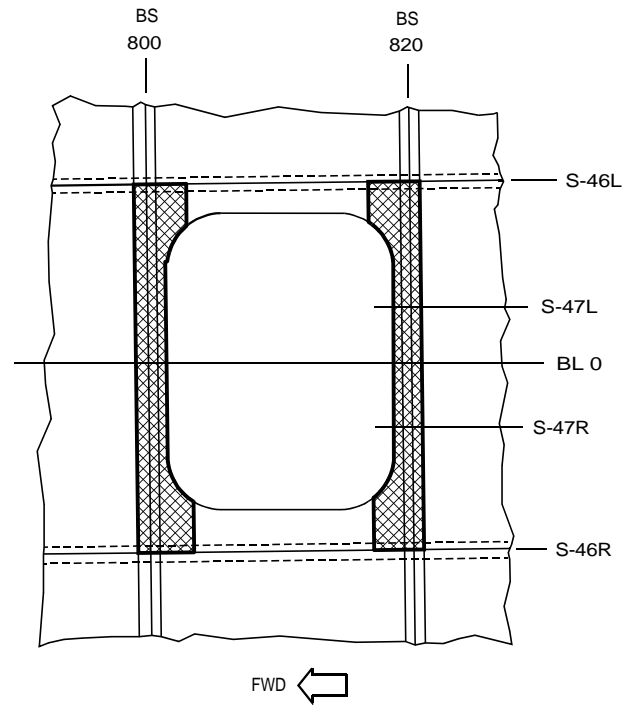
THIS PAGE INTENTIONALLY LEFT BLANK






BOTTOM VIEW  
ELECTRONIC ACCESS CUTOUT

(A)



BOTTOM VIEW  
EQUIPMENT ACCESS CUTOUT

(B)

 LOCATION OF SSI  
ZONES: 100-EXTERNAL  
117, 118, 125, 126

1531321

F-99 – ELECTRONIC AND EQUIPMENT ACCESS DOOR CUTOUTS



F-99	INSPECTION INSTRUCTIONS	ACCESS MANHOURS		
		INSP	MHRS	ELPSD
TITLE:	ELECTRONIC AND EQUIPMENT ACCESS DOOR CUTOUTS			

I. INSPECTION OPTIONS - DTR CHECK FORM F-99

Skin adjacent to frames and visible areas of frame outer chords at electrical access cutout, BS 410 and BS 433; from BL 0.0 to Stringer S-44L, and at equipment access cutout, BS 800 and BS 820, from Stringers S-46L to S-46R.

(1) Skin

(External) From Direction 1, including fastener locations, using visual inspection methods.

Access: None required.

Zone(s): 100-External.

(1) Frame

(Internal) From Direction 2, including fastener locations, using visual inspection methods.

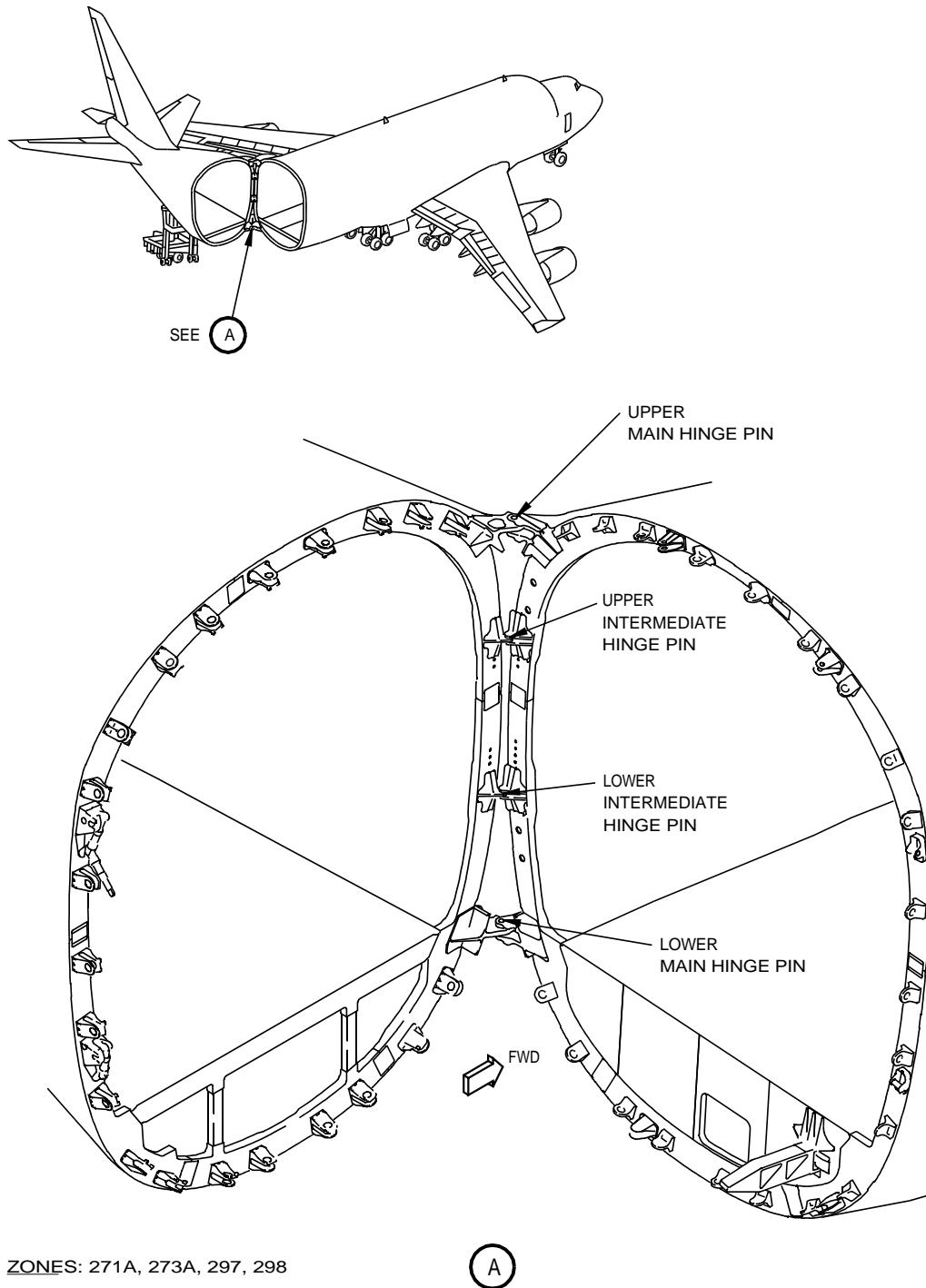
Access: Open Access Doors 117AL and 125B. Remove liners and displace insulation as required.

Zone(s): 117, 118, 125, 126.

F99\_DTR.PDF



THIS PAGE INTENTIONALLY LEFT BLANK



F-100 – SWING ZONE HINGE PIN AND SUPPORT STRUCTURE



F-100	INSPECTION INSTRUCTIONS	ACCESS MANHOURS		
		INSP	MHRS	ELPSD
TITLE:	SWING ZONE HINGE PIN AND SUPPORT STRUCTURE			

#### I. INSPECTION OPTIONS - DTR CHECK FORM F-100A

Swing zone intermediate hinge fittings, two locations at BS 2060 on left side of fuselage both forward and aft hinge fitting lug.

NOTE: There are two (2) intermediate hinge fittings at LBL 146.

##### (1) Hinge Fitting Lug

(External) From Direction 1, inspect surface of hinge fitting, using visual inspection methods.

Access: Open swing tail.

Zone(s): 271A, 273A.

#### II. INSPECTION OPTIONS - DTR CHECK FORM F-100B

Swing zone hinge pins, four locations at BS 2060 on left side of fuselage.

NOTE: There are four (4) hinge pins at LBL 146.

##### (1) Hinge Pins

(External) From Direction 1, inspect entire surface of hinge pin, using MT (Ref. Standard Overhaul Practices Manual, D6-51702, 20-20-01).

Access: For upper and lower main hinge pins, with swing tail closed, remove upper hinge fairings 297BL and 297CL, and lower hinge fairings 298BL and 298CL.

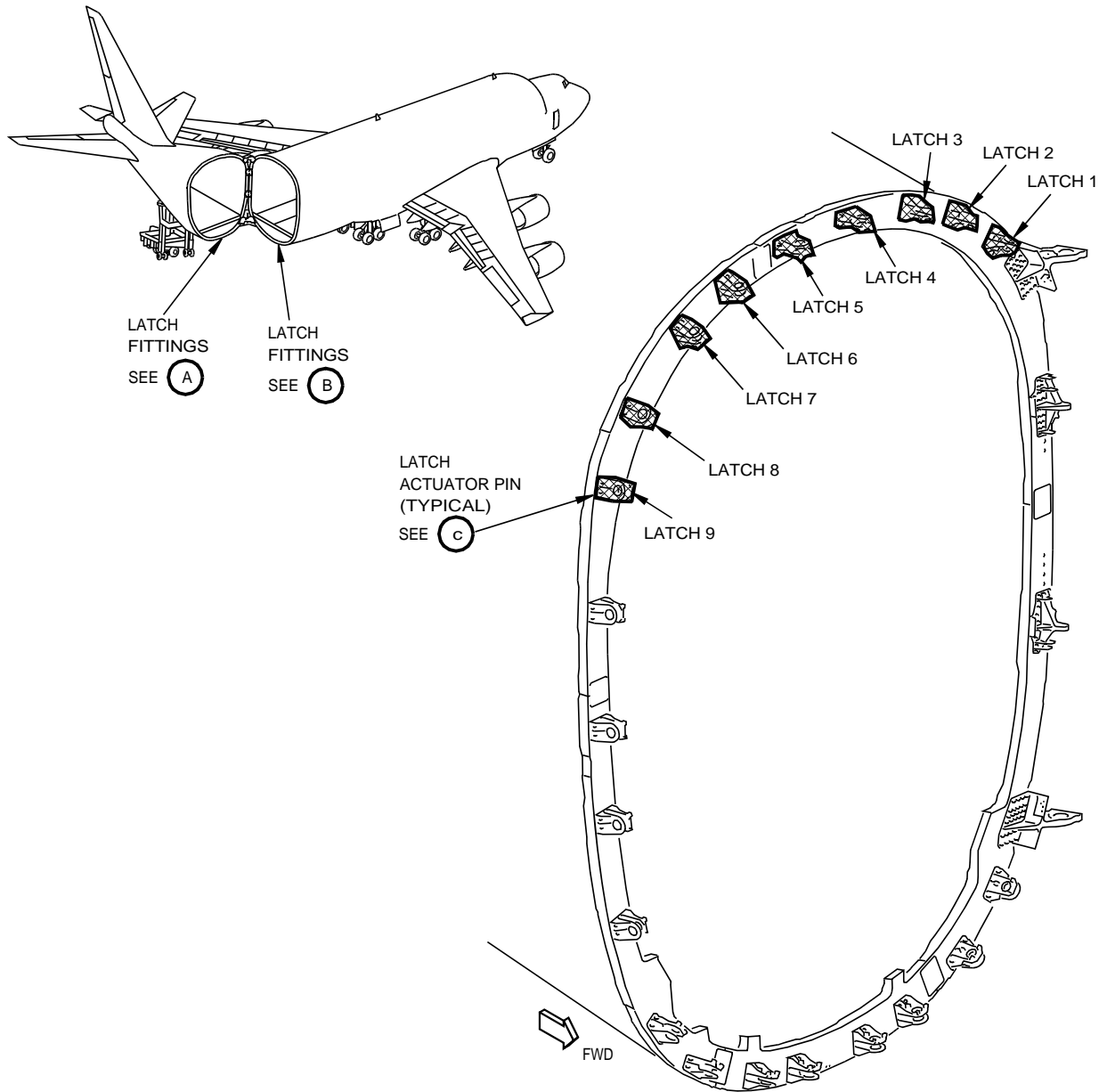
For intermediate hinge pins, with swing tail closed, remove the hydraulic swivel fittings. Remove hinge pins per AMM Task 52-37-13-00-801.


Zone(s): 271A, 273A, 297, 298.

F-100A.PDF

F-100B.PDF





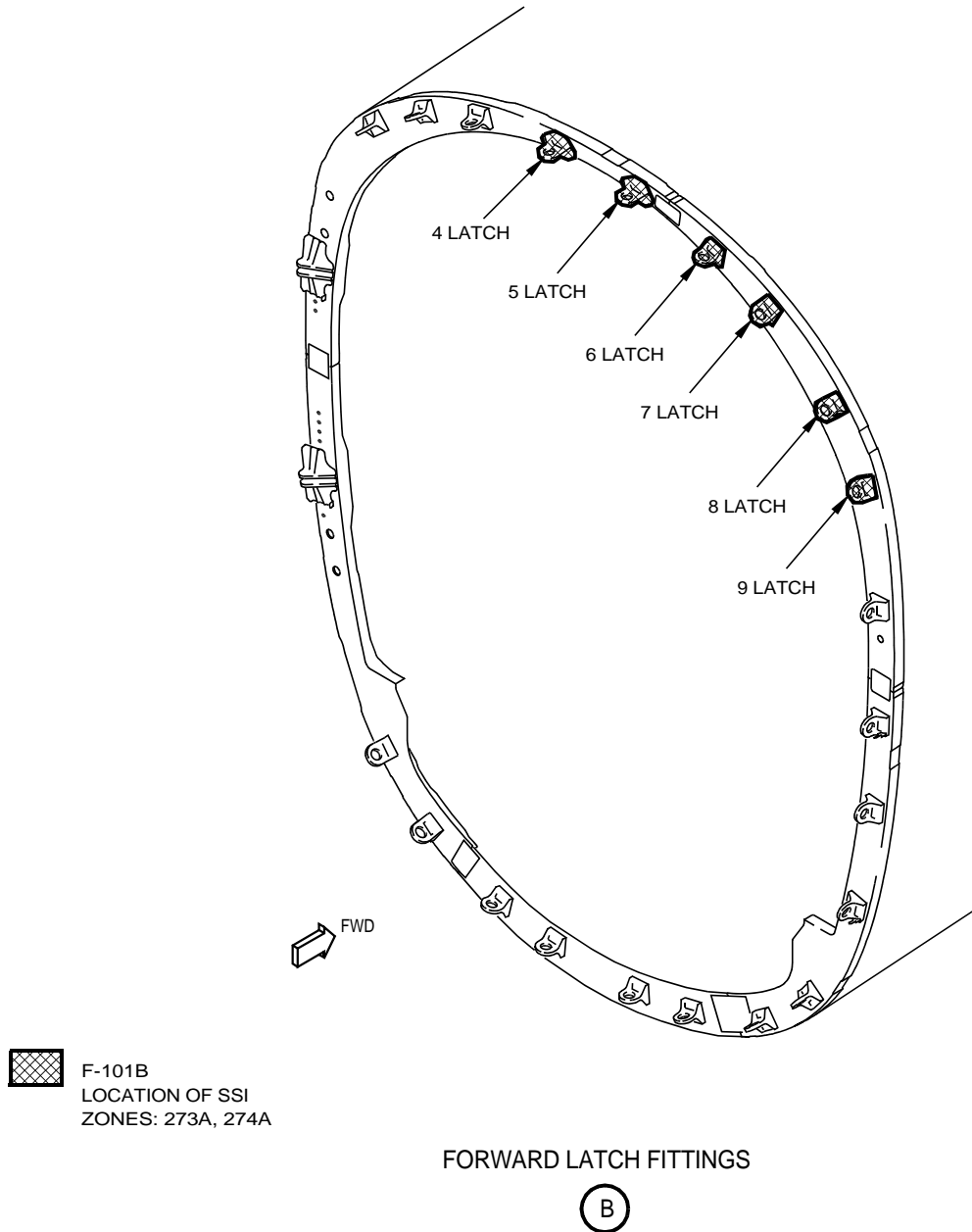
 F-101B  
LOCATION OF SSI  
ZONES: 273A, 274A

AFT LATCH FITTINGS

(A)

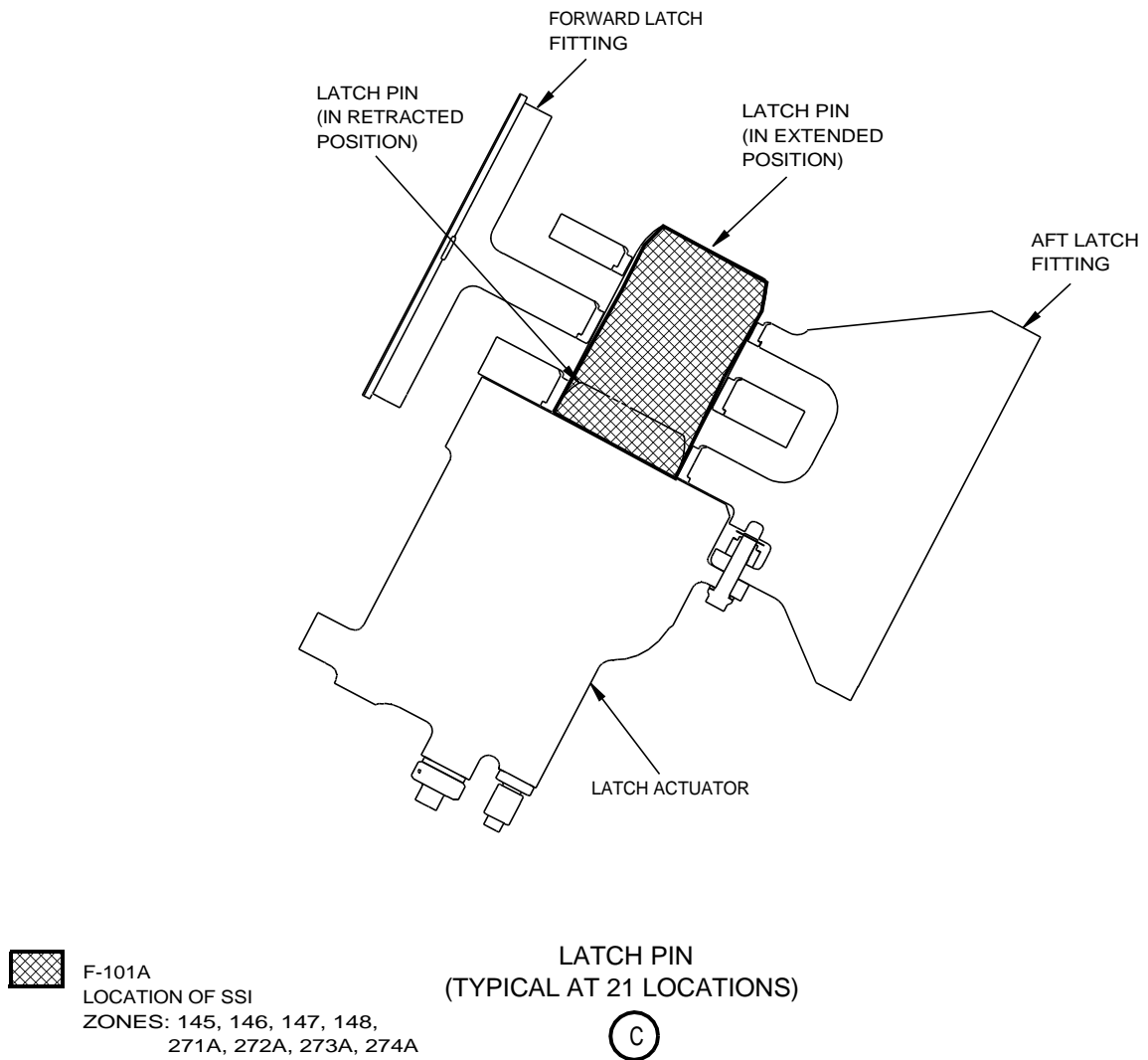
1542388

F-101 – SWING ZONE LATCH PIN AND SUPPORT STRUCTURE - AFT LATCH FITTINGS



F-101 – SWING ZONE LATCH PIN AND SUPPORT STRUCTURE – FORWARD LATCH FITTINGS

1543104



1543118

F-101 – SWING ZONE LATCH PIN AND SUPPORT STRUCTURE – LATCH PIN



F-101	INSPECTION INSTRUCTIONS	ACCESS MANHOURS		
		INSP	MHRS	ELPSD
TITLE:	SWING ZONE LATCH PIN AND SUPPORT STRUCTURE - FORWARD AND AFT LATCH FITTINGS AND LATCH PIN			

I. INSPECTION OPTIONS - DTR CHECK FORM F-101A

All swing zone latch pins at BS 2059.

NOTE: There are twenty-one (21) latch pins at BS 2059.

(1) Latch Pins

(External) From Direction 1, inspecting entire surface of latch pin, using detailed visual inspection methods.

Access: With Swing Tail Door open and latch pin extended.

Zone(s): 145, 146, 147, 148, 271A, 272A, 273A, 274A.

II. INSPECTION OPTIONS - DTR CHECK FORM F-101B

Forward swing zone latch pin fittings and attachments numbers 4 thru 9 at BS 2053.5 and aft swing zone latch pin fittings and attachments numbers 1 thru 9 at BS 2067.

NOTE: See DTR Check Form for specific locations.

(1) Latch Pin Fittings

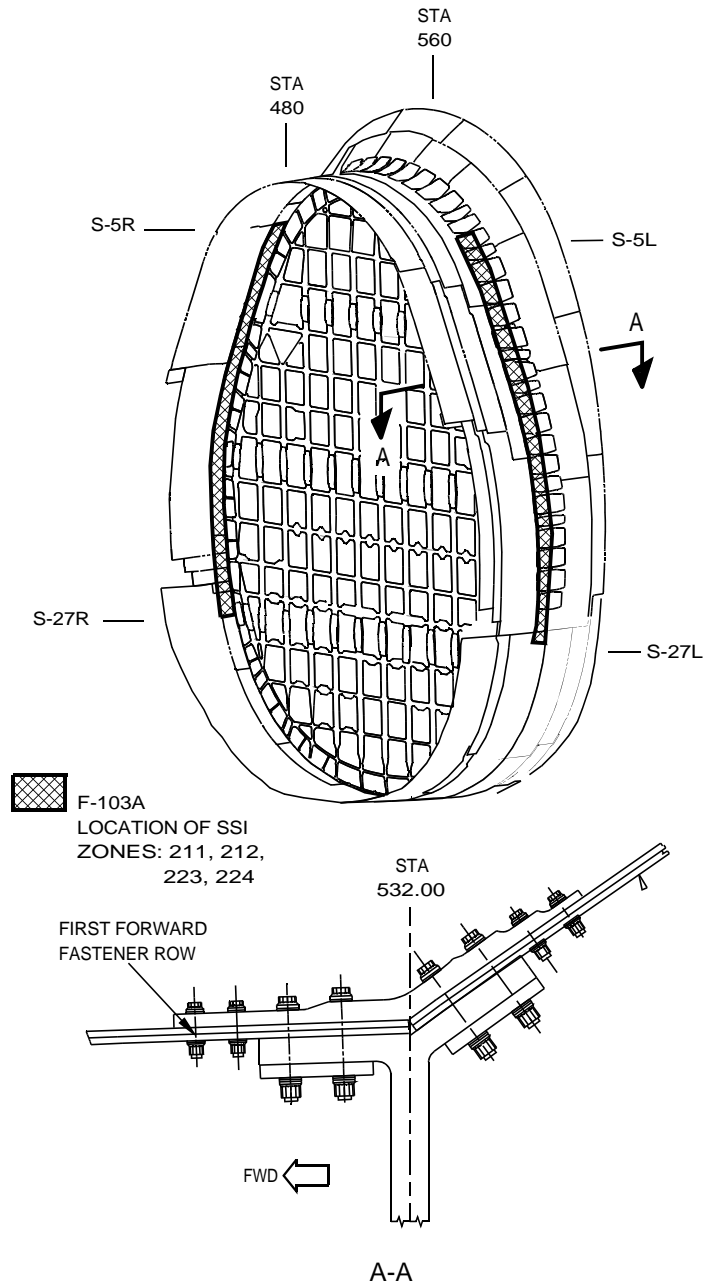
(External) From Direction 1, inspecting the fwd and aft latch pin fittings and attachments, using UT (Ref. NDT Manual D6-7170, Part 4, 53-10-20). 4.0 elapsed hours and 4.0 manhours are required to accomplish this inspection.

Access: With Swing Tail Door open.

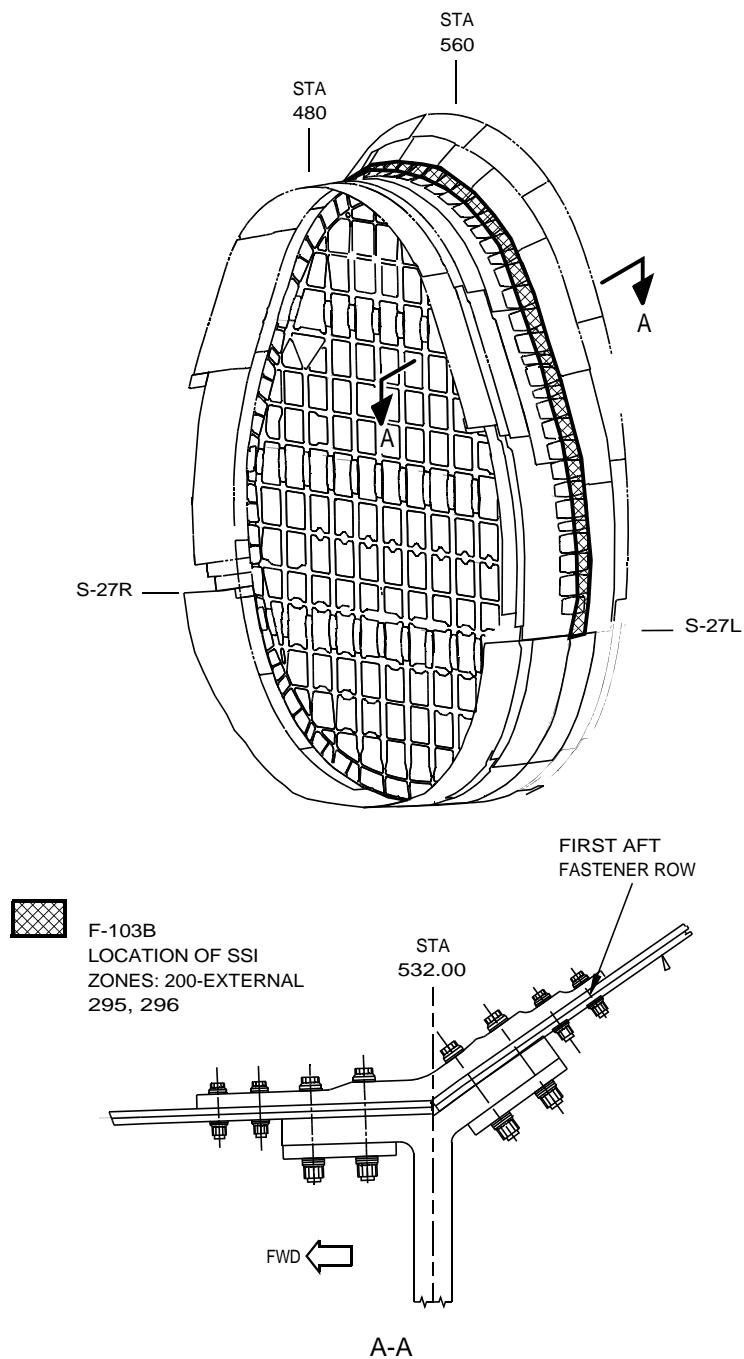
Zone(s): 273A, 274A.

F101A.PDF

F101B.PDF

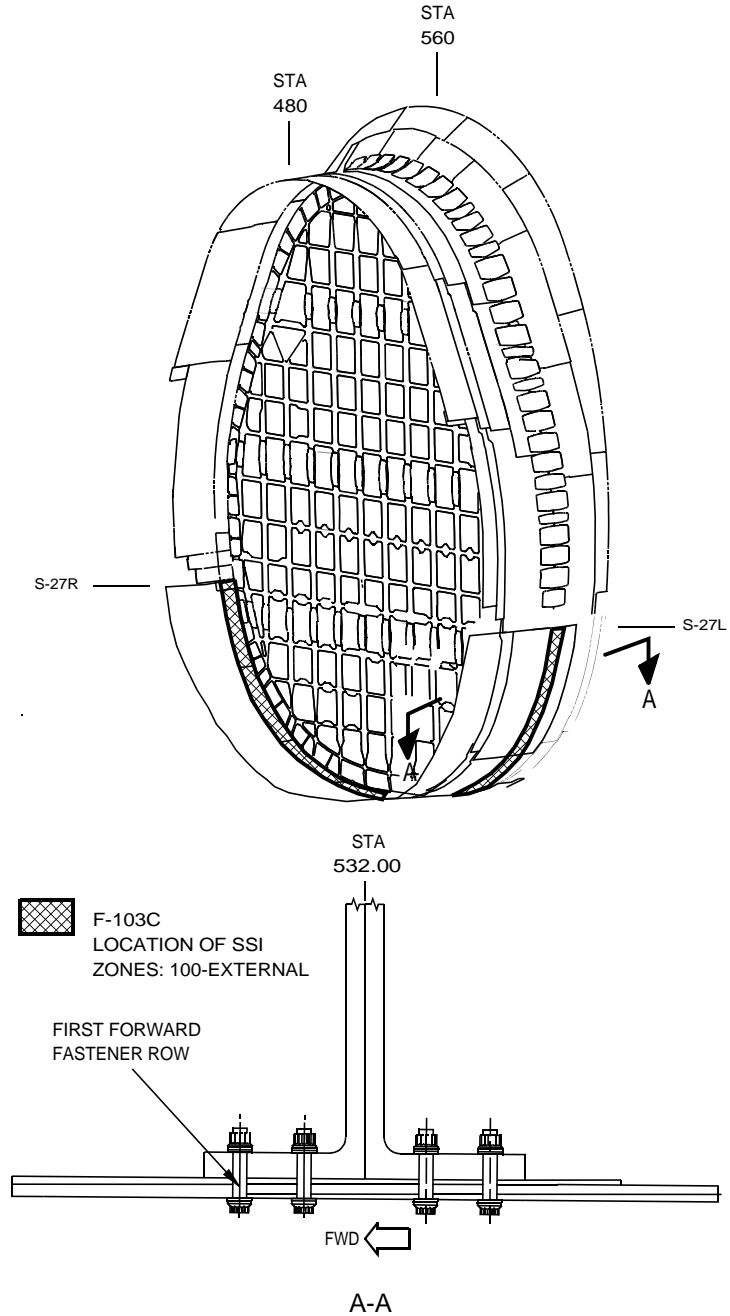


F-103 – FUSELAGE SKIN REINFORCEMENTS – BULKHEAD BS 532



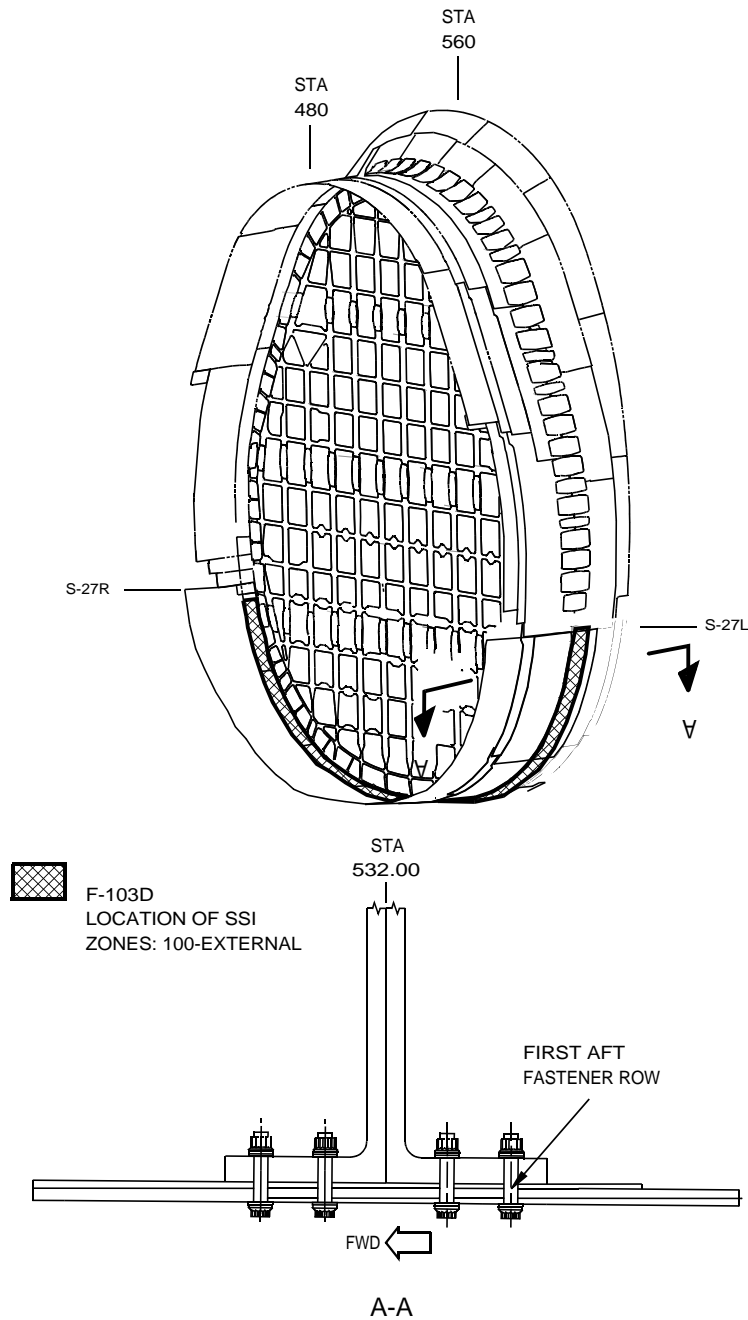
F-103 – FUSELAGE SKIN REINFORCEMENTS – BULKHEAD BS 532



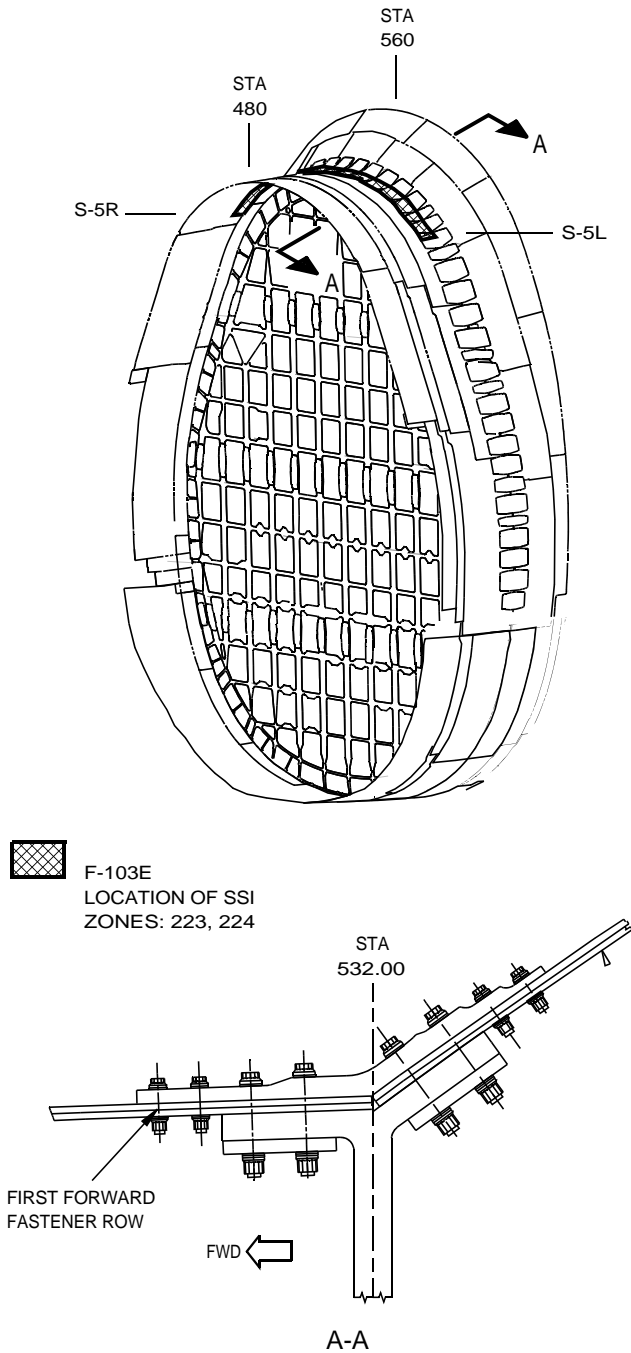


1531985

F-103 – FUSELAGE SKIN REINFORCEMENTS – BULKHEAD BS 532



F-103 – FUSELAGE SKIN REINFORCEMENTS – BULKHEAD BS 532



1532397

F-103 – FUSELAGE SKIN REINFORCEMENTS – BULKHEAD BS 532



## 747-400 LCF SUPPLEMENTAL STRUCTURAL INSPECTION DOCUMENT – APPENDIX A

F-103	INSPECTION INSTRUCTIONS	ACCESS MANHOURS		
		INSP	MHRS	ELPSD
TITLE:	FUSELAGE SKIN REINFORCEMENTS - BULKHEAD BS 532	II.(1)	2	2

I. INSPECTION OPTIONS - DTR CHECK FORM F-103A

Skin reinforcement upper lobe forward side of BS 532 bulkhead, between Stringer S-5 and S-27, both left and right sides of fuselage.

(1) Forward Quintupler Reinforcement

(Internal) From Direction 1, first forward row of fasteners common to the external fitting, using detailed visual inspection methods.

Access: Remove compartment ceiling panels and displace insulation as needed.

Zone(s): 211, 212, 223, 224.

II. INSPECTION OPTIONS - DTR CHECK FORM F-103B

Skin reinforcement upper lobe aft side of BS 532 bulkhead, from Stringer S-27L to S-27R.

(1) Aft Quadrupler Reinforcement

(External) From Direction 1, around first aft row of fasteners common to the external fitting, using HFEC (Ref. NDT Manual D6-7170, Part 6, 51-00-00 Figure 4 or 23). 8.0 elapsed hours and 16.0 manhours are required to accomplish this inspection.

Access: Remove Access Panels 295AL, 296AR, 295AL, 296BR, 285CL, and 296CR.

Zone(s): 200-External, 295, 296.

III. INSPECTION OPTIONS - DTR CHECK FORM F-103C

Skin reinforcement lower lobe forward side of BS 532 bulkhead, from Stringer S-27L to S-27R.

(1) Forward Quintupler Reinforcement

(External) From Direction 1, first forward row of fasteners common to the bulkhead chord, using X-Ray (Ref. NDT Manual D6-7170, Part 2, 53-30-02). 8.0 elapsed hours and 16.0 are required to accomplish this inspection.

Access: None required.

Zone(s): 100-External.



IV. INSPECTION OPTIONS - DTR CHECK FORM F-103D

Skin reinforcement lower lobe aft side of BS 532 bulkhead, from Stringer S-27L to S-27R.

(1) Aft Quadrupler Reinforcement

(External) From Direction 1, first aft row of fasteners common to the bulkhead chord, using detailed visual inspection methods.

Access: Same as III.(1).

Zone(s): Same as III.(1).

V. INSPECTION OPTIONS - DTR CHECK FORM F-103E

Skin reinforcement upper lobe forward side of BS 532 bulkhead, between Stringer S-5L and S-5R.

(1) Forward Quintupler Reinforcement

(Internal) From Direction 1, first forward row of fasteners common to the external fitting, using detailed visual inspection methods.

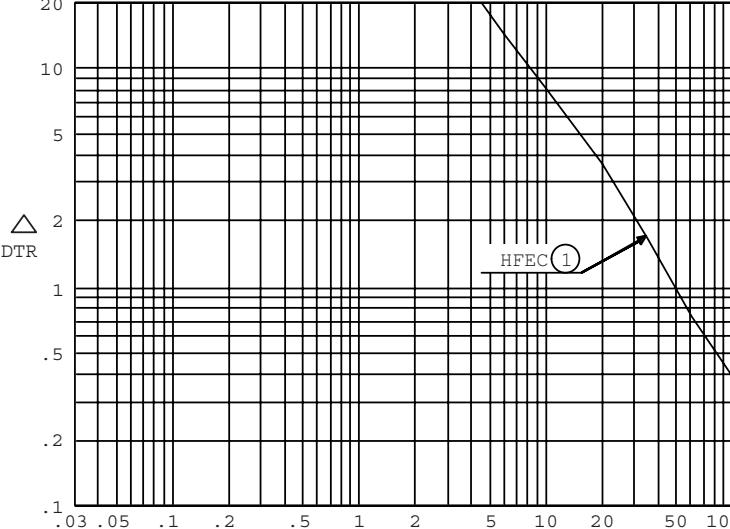
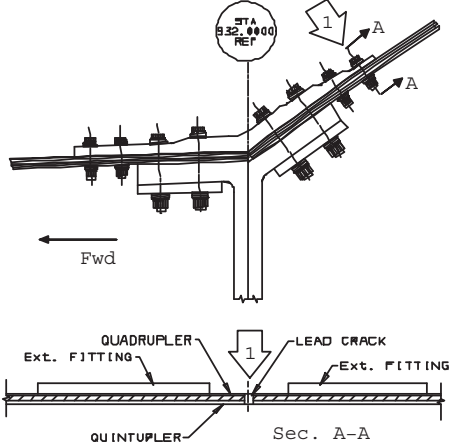
Access: Same as I.(1).

Zone(s): 223, 224.

F103A.PDF



## 747-400 LCF SUPPLEMENTAL STRUCTURAL INSPECTION DOCUMENT – APPENDIX A

DTR CHECK FORM				ITEM: F-103B		MODEL-SERIES 747-400 LCF					
TITLE: FUSELAGE SKIN REINFORCEMENT - BULKHEAD BODY STATION 532				OPERATOR(S)		NO. ELIGIBLE A/C					
LOCATION: AFT QUADRUPLER UPPER LOBE 1 BETWEEN S27L AND S27R				EXAMPLE							
<div style="display: flex; align-items: center;"><div style="flex: 1;"><p style="text-align: center;">20 10 5 2 1 .5 .2 .1</p><p style="text-align: center;">△ DTR</p></div><div style="flex: 4;"></div><div style="flex: 1; text-align: center;"><p>N (THOUSANDS OF FLIGHTS)</p></div></div>				STRUCTURE AND INSPECTION DETAILS							
				LEAD CRACK: QUADRUPLER 							
<p>NOTES: *** First crack delta DTR values ***</p> <p>(1) DIR-1 HFEC IS A SURFACE INSPECTION OF THE QUADRUPLER AROUND FASTENERS.</p> <p>1 FIRST AFT ROW BETWEEN EXTERNAL FITTINGS</p>											
STRUCTURE DETAIL		INSPECTION PROGRAM DETAILS						DAMAGE DETECTION PERIOD N <sub>O</sub> FLIGHTS	△ DTR		
		JOB CARD	DIREC. →	CHECK LEVEL	METHOD	%SAMP R <sub>O</sub>	FREQUENCY F-FLIGHTS			N̄ = 100F/R <sub>O</sub>	
QUADRUPLER			1	D	HFEC	100	6000	6000	32600	14.5	
FUEL LEAK DTR											
TOTAL DTR									14.5		
REQUIRED DTR									10		
ENGR.	G. BAHAUDDIN	10/05/07	REVISED								
CHECK	C. SHAULL	10/05/07									
APPR.											
APPR.											

F103B.PDF

F-103C.PDF

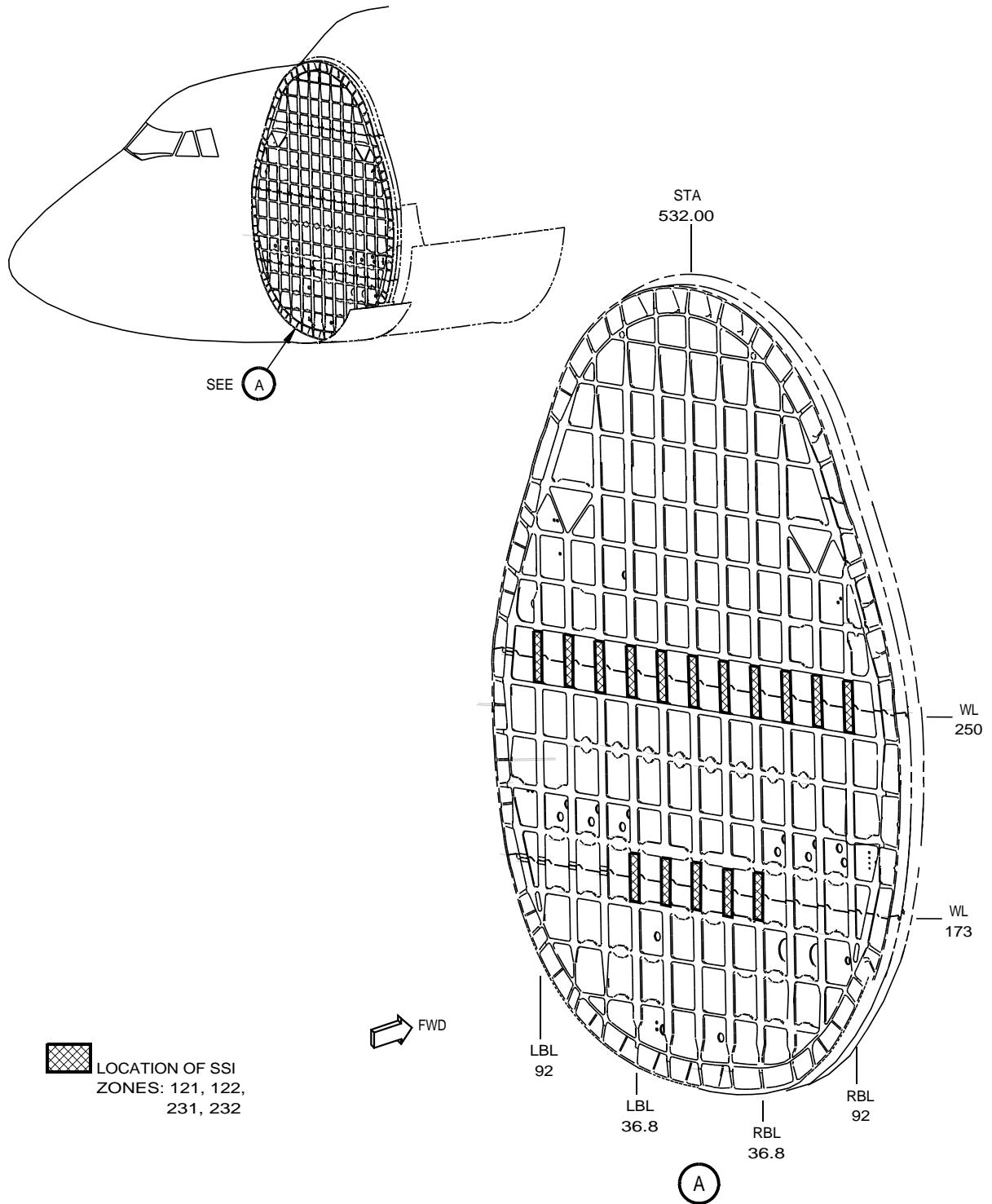


F103D.PDF

F103E.PDF



747-400 LCF SUPPLEMENTAL STRUCTURAL INSPECTION DOCUMENT – APPENDIX A



1541529

F-104 – FUSELAGE BULKHEAD AT BS 532



F-104	INSPECTION INSTRUCTIONS	ACCESS MANHOURS		
		INSP	MHRS	ELPSD
TITLE:	FUSELAGE BULKHEAD AT BS 532			

**I. INSPECTION OPTIONS - DTR CHECK FORM F-104A**

Aft splice strap on aft side of Bulkhead BS 532 at WL 250 between LBL 92 and RBL 92 and at WL 173 between LBL 36.8 and RBL 36.8.

NOTE: Inspections and requirements are symmetrical about splice centerline.

**(1) Aft Splice Strap**

(Internal) From Direction 1, at innermost row of fasteners on aft splice strap, using detailed visual inspection methods.

Access: None required.

Zone(s): 121, 122, 231, 232.

**II. INSPECTION OPTIONS - DTR CHECK FORM F-104B**

Aft splice strap on aft side of Bulkhead BS 532 at WL 250 between LBL 92 and RBL 92 and at WL 173 between LBL 36.8 and RBL 36.8.

NOTE: Inspections and requirements are symmetrical about splice centerline.

**(1) Aft Splice Strap**

(Internal) From Direction 1, at outermost row of fasteners on aft splice strap, using detailed visual inspection methods.

Access: None required.

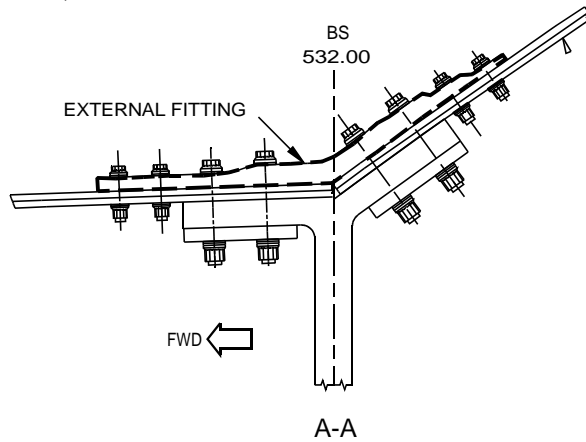
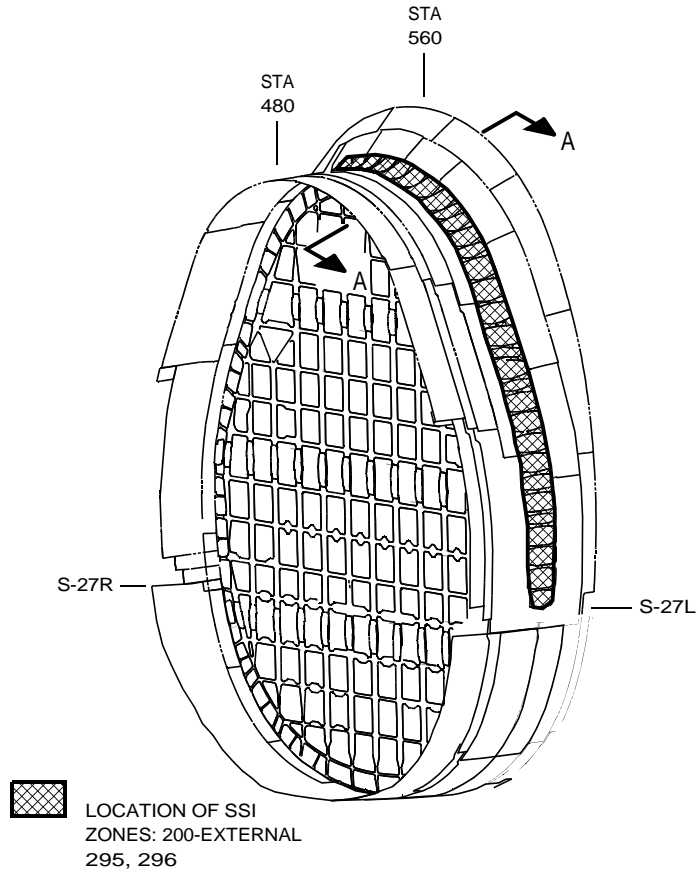
Zone(s): 121, 122, 231, 232.

F104A.PDF

F-104B.PDF



747-400 LCF SUPPLEMENTAL STRUCTURAL INSPECTION DOCUMENT – APPENDIX A



1538739

F-105 – FUSELAGE SKIN EXTERNAL FITTINGS – BULKHEAD BS 532



F-105	INSPECTION INSTRUCTIONS	ACCESS MANHOURS		
		INSP	MHRS	ELPSD
TITLE:	FUSELAGE SKIN EXTERNAL FITTINGS - BULKHEAD BS 532			

I. INSPECTION OPTIONS - DTR CHECK FORM F-105

Fuselage skin reinforcement fitting upper lobe at Bulkhead BS 532, from Stringer S-27L to S-27R.

(1) Upper Surface of Fitting

(External) From Direction 1, entire upper surface of fitting, using detailed visual inspection methods.

Access: Remove Access Panels 295AL, 296AR, 295AL, 296BR, 295CL, and 296CR.

Zone(s): 200-External, 295, 296.





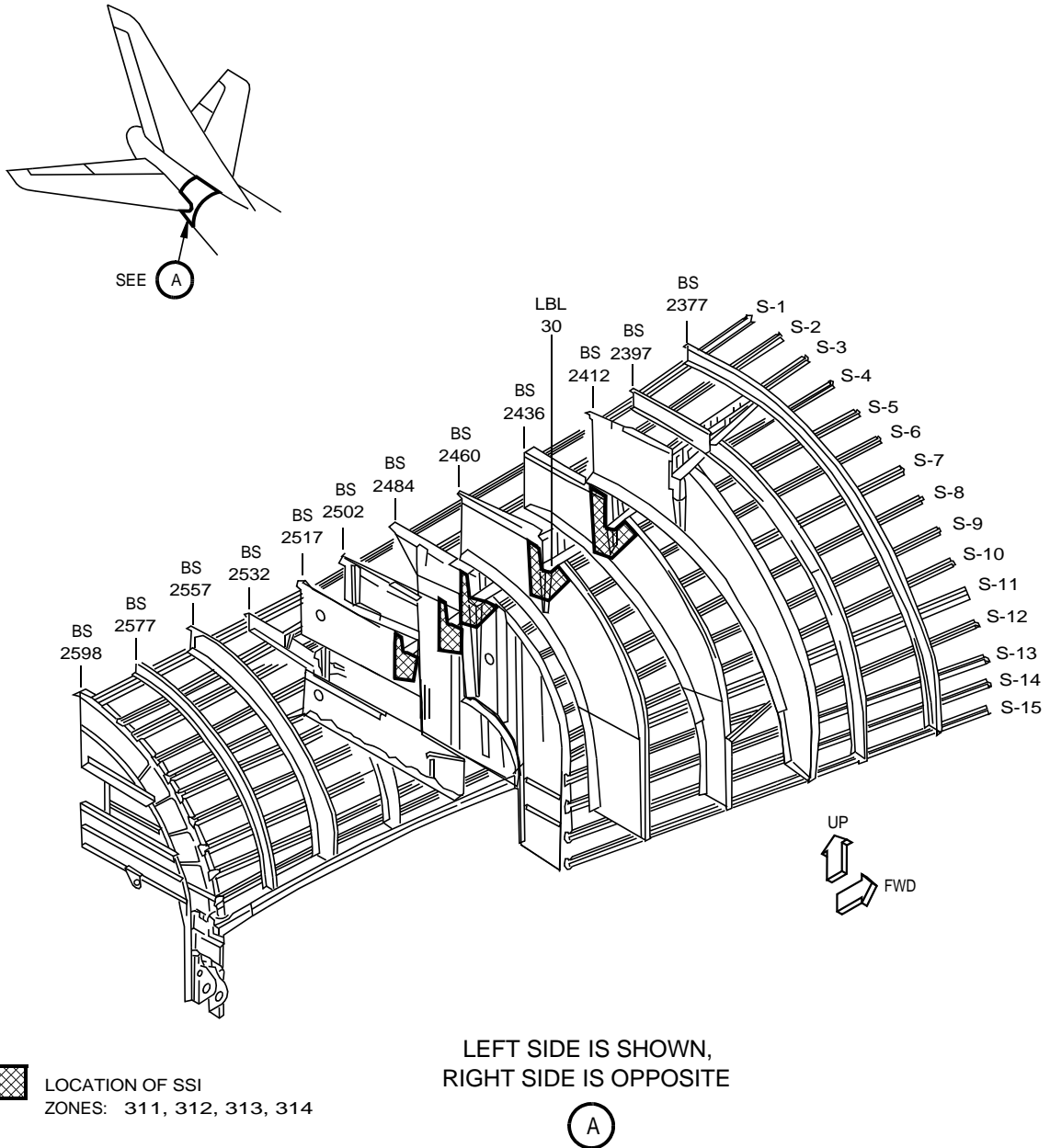
## 747-400 LCF SUPPLEMENTAL STRUCTURAL INSPECTION DOCUMENT – APPENDIX A

DTR CHECK FORM				ITEM: F-105		MODEL-SERIES 747-400 LCF																																																																																																				
TITLE: FUSELAGE SKIN EXTERNAL FITTINGS - BULKHEAD BODY STATION 532				OPERATOR(S)		NO. ELIGIBLE A/C																																																																																																				
LOCATION: FUSELAGE UPPER LOBE <span style="border: 1px solid black; padding: 0 5px;">1</span> BETWEEN S27L AND S27R				EXAMPLE																																																																																																						
<div style="display: flex;"><div style="flex: 1;"></div><div style="flex: 1; padding-left: 10px;"><p>STRUCTURE AND INSPECTION DETAILS</p><p>LEAD CRACK: EXT. FITTING</p><p>Sec. A-A</p></div></div>				<p>NOTES: <span style="border: 1px solid black; padding: 0 5px;">1</span> INSPECT ENTIRE UPPER SURFACE OF EXTERNAL FITTINGS</p> <p style="text-align: right;">*** First crack delta DTR values ***</p>																																																																																																						
<table border="1" style="width: 100%; border-collapse: collapse;"><thead><tr><th rowspan="2" style="width: 15%;">STRUCTURE DETAIL</th><th colspan="6" style="text-align: center;">INSPECTION PROGRAM DETAILS</th><th rowspan="2" style="width: 15%;">DAMAGE DETECTION PERIOD N<sub>O</sub> FLIGHTS</th><th rowspan="2" style="width: 10%;"><math>\Delta</math> DTR</th></tr><tr><th style="width: 15%;">JOB CARD</th><th style="width: 10%;">DIREC. </th><th style="width: 10%;">CHECK LEVEL</th><th style="width: 10%;">METHOD</th><th style="width: 10%;">%SAMP R<sub>O</sub></th><th style="width: 10%;">FREQUENCY F-FLIGHTS</th><th style="width: 10%;">N = 100F/R<sub>O</sub></th></tr></thead><tbody><tr><td rowspan="9">FITTING</td><td></td><td>1</td><td>D</td><td>DET</td><td>100</td><td>6000</td><td>6000</td><td>22300</td><td>14.2</td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></tbody></table>									STRUCTURE DETAIL	INSPECTION PROGRAM DETAILS						DAMAGE DETECTION PERIOD N <sub>O</sub> FLIGHTS	$\Delta$ DTR	JOB CARD	DIREC. 	CHECK LEVEL	METHOD	%SAMP R <sub>O</sub>	FREQUENCY F-FLIGHTS	N = 100F/R <sub>O</sub>	FITTING		1	D	DET	100	6000	6000	22300	14.2																																																																								
STRUCTURE DETAIL	INSPECTION PROGRAM DETAILS						DAMAGE DETECTION PERIOD N <sub>O</sub> FLIGHTS	$\Delta$ DTR																																																																																																		
	JOB CARD	DIREC. 	CHECK LEVEL	METHOD	%SAMP R <sub>O</sub>	FREQUENCY F-FLIGHTS			N = 100F/R <sub>O</sub>																																																																																																	
FITTING		1	D	DET	100	6000	6000	22300	14.2																																																																																																	
<table border="1" style="width: 100%; border-collapse: collapse;"><thead><tr><th style="width: 15%;">ENGR.</th><th style="width: 15%;">G. BAHAUDDIN</th><th style="width: 15%;">11/19/07</th><th style="width: 15%;">REVISED</th><th style="width: 15%;"></th><th style="width: 15%;"></th></tr></thead><tbody><tr><td>CHECK</td><td>C. SHAULL</td><td>11/27/07</td><td></td><td></td><td></td></tr><tr><td>APPR.</td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>APPR.</td><td></td><td></td><td></td><td></td><td></td></tr></tbody></table>								ENGR.	G. BAHAUDDIN	11/19/07	REVISED			CHECK	C. SHAULL	11/27/07				APPR.						APPR.						<p>FUEL LEAK DTR</p> <p>TOTAL DTR</p> <p>REQUIRED DTR</p>		<div style="border: 2px solid black; padding: 5px; display: inline-block;">10</div>																																																																								
ENGR.	G. BAHAUDDIN	11/19/07	REVISED																																																																																																							
CHECK	C. SHAULL	11/27/07																																																																																																								
APPR.																																																																																																										
APPR.																																																																																																										

F\_105\_DTR.PDF



THIS PAGE INTENTIONALLY LEFT BLANK



1552433

F-106 – FIN SUPPORT BULKHEADS AT FIN SUPPORT FITTINGS



## 747-400 LCF SUPPLEMENTAL STRUCTURAL INSPECTION DOCUMENT – APPENDIX A

F-106	INSPECTION INSTRUCTIONS	ACCESS MANHOURS		
		INSP	MHRS	ELPSD
TITLE:	FIN SUPPORT BULKHEADS AT FIN SUPPORT FITTINGS			

I. INSPECTION OPTIONS - DTR CHECK FORM F-106A

Outboard joint of corner fitting at BS 2436 to BS 2517, from BL 30 to Stringer S-5, both left and right.

(1) Corner Fitting

(External) From Direction 1, the first two fastener rows of each leg joint common to outboard chord and corner fitting, using UT (Ref. NDT Manual D6-7170, Part 4, 53-10-19). 0.5 elapsed hour and 0.5 manhour are required to accomplish this inspection.

Access: Open Access Door 312AR.

Zone(s): 311, 312, 313, 314.

II. INSPECTION OPTIONS - DTR CHECK FORM F-106B

Outboard chord at BS 2436 to BS 2517, Stringer S-5, both left and right.

(1) Chord

(External) From Direction 1, the first fastener of each leg joint common to outboard chord and corner fitting, using UT (Ref. NDT Manual D6-7170, Part 4, 53-10-19). 0.5 elapsed hour and 0.5 manhour are required to accomplish this inspection.

Access: Open Access Door 312AR.

Zone(s): 311, 312, 313, 314.

III. INSPECTION OPTIONS - DTR CHECK FORM F-106C

Forward and aft post at corner fitting connection, from BS 2436 to BS 2502, both left and right.

(1) Post

(External) From Direction 1, lower fastener row common to the post and corner fitting, using detailed visual inspection methods.

Access: Open Access Door 312AR.

Zone(s): 311, 312, 313, 314.



(2) Post

(External) From Direction 2, lower fastener row common to the post and corner fitting, using UT (Ref. NDT Manual D6-7170, Part 4, 53-10-19). 0.5 elapsed hour and 0.5 manhour are required to accomplish this inspection.

Access: Open Access Door 312AR.

Zone(s): 311, 312, 313, 314.

IV. INSPECTION OPTIONS - DTR CHECK FORM F-106D

Corner fitting at BS 2517 both left and right.

(1) Corner Fitting

(External) From Direction 1, upper fastener row common to the post and corner fitting of the lower joint, using detailed visual inspection methods.

Access: Open Access Door 312AR.

Zone(s): 313, 314.

(2) Corner Fitting

(External) From Direction 2, upper fastener row common to the post and corner fitting of the lower joint, using UT (Ref. NDT Manual D6-7170, Part 4, 53-10-19). 0.5 elapsed hour and 0.5 manhour are required to accomplish this inspection.

Access: Open Access Door 312AR.

Zone(s): 313, 314.

F-106A.PDF

F-106B.PDF

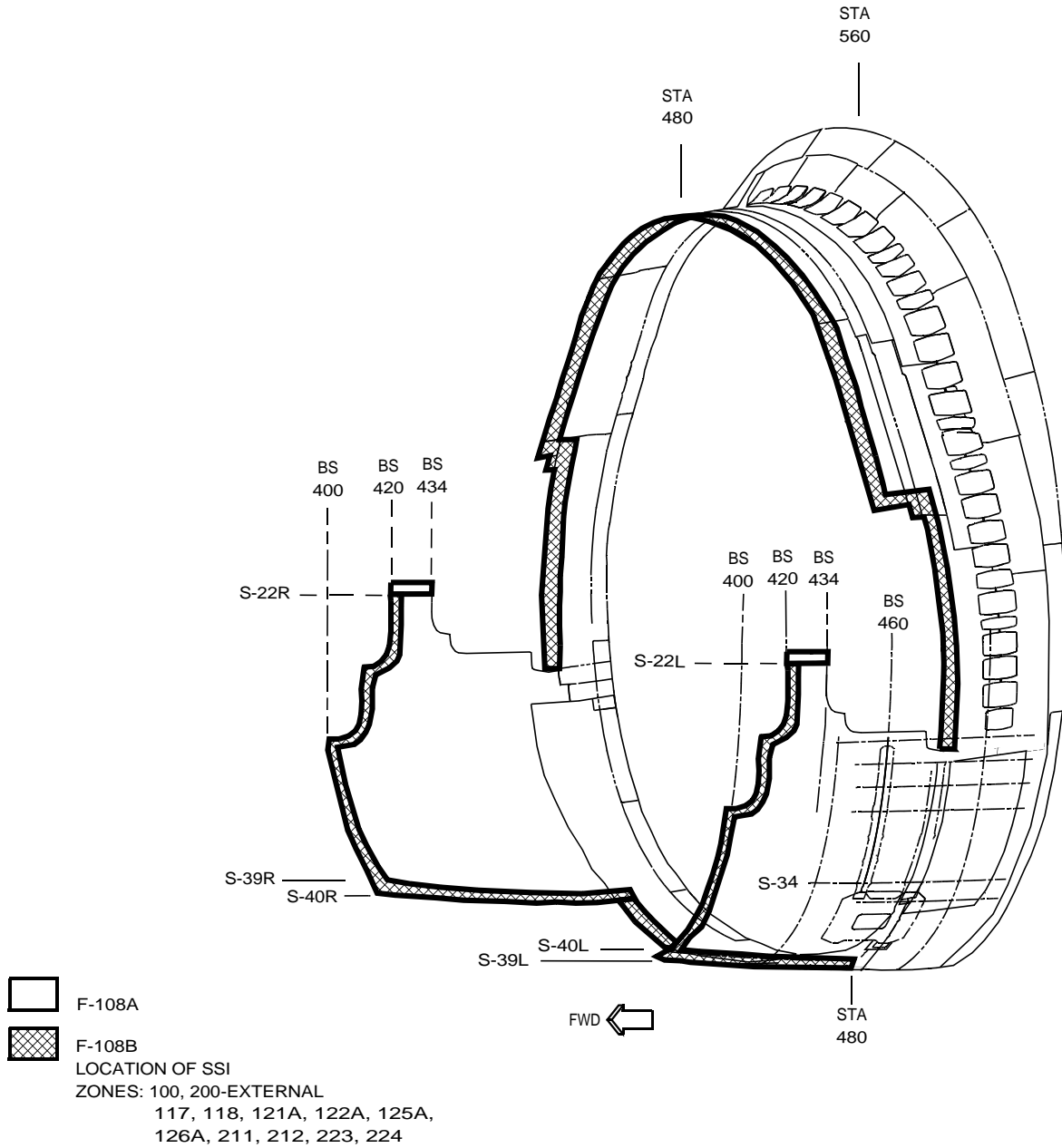
F-106C.PDF







THIS PAGE INTENTIONALLY LEFT BLANK



FUSELAGE SKIN WITH DOUBLERS

1548060

F-108 – FUSELAGE SKIN WITH DOUBLERS



## 747-400 LCF SUPPLEMENTAL STRUCTURAL INSPECTION DOCUMENT – APPENDIX A

F-108	INSPECTION INSTRUCTIONS	ACCESS MANHOURS		
		INSP	MHRS	ELPSD
TITLE:	FUSELAGE SKIN WITH DOUBLERS	I.(1)	2	1
		II.(1)	8	16

I. INSPECTION OPTIONS - DTR CHECK FORM F-108A

Skin under modification doublers from BS 420 to BS 434 at both Stringer S-22L and S-22R.

(1) Skin

(Internal) From Direction 1, around fasteners along the perimeter fastener row of the doubler, using HFEC (Ref. NDT Manual D6-7170, Part 6, 51-00-00, Figure 4 or 23). 0.5 elapsed hour and 0.5 manhour are required to accomplish this inspection.

Access: Remove lining and displace insulation as necessary.

Zone(s): 211, 212.

(2) Skin

(Internal) From Direction 1, around fasteners along the perimeter fastener row of the doubler, using detailed visual inspection methods.

Access: Same as I.(1).

Zone(s): Same as I.(1).

(3) Skin

(External) From Direction 2, on the surface around fasteners along the perimeter fastener row of the doubler, using LFEC (Ref. NDT Manual D6-7170, Part 6, 53-30-00, Procedure 5). 0.5 elapsed hour and 0.5 manhour are required to accomplish this inspection.

Access: None required.

Zone(s): 200-External.

II. INSPECTION OPTIONS - DTR CHECK FORM F-108B

Skin around the perimeter fastener row of the modification doublers forward of BS 532 around entire fuselage. See the F-108 illustration for inspection area of F-108B.

(1) Skin

(Internal) From Direction 1, on the surface around perimeter row of fasteners of doubler, using HFEC (Ref. NDT Manual D6-7170, Part 6, 51-00-00 Figure 4 or 23). 16.0 elapsed hours and 32.0 manhours are required to accomplish this inspection.



## 747-400 LCF SUPPLEMENTAL STRUCTURAL INSPECTION DOCUMENT – APPENDIX A

Access: Same as I.(1).

Zone(s): 121A, 122A, 125A, 126A, 211, 212, 223, 224.

### (2) Skin

(External) From Direction 2, on the surface around perimeter row of fasteners of doubler, using LFEC (Ref. NDT Manual D6-7170, Part 6, 53-30-00, Procedure 5). 16.0 elapsed hours and 32.0 manhours are required to accomplish this inspection.

Access: Same as I.(3).

Zone(s): 100, 200-External.

F108A.PDF

F108B.PDF

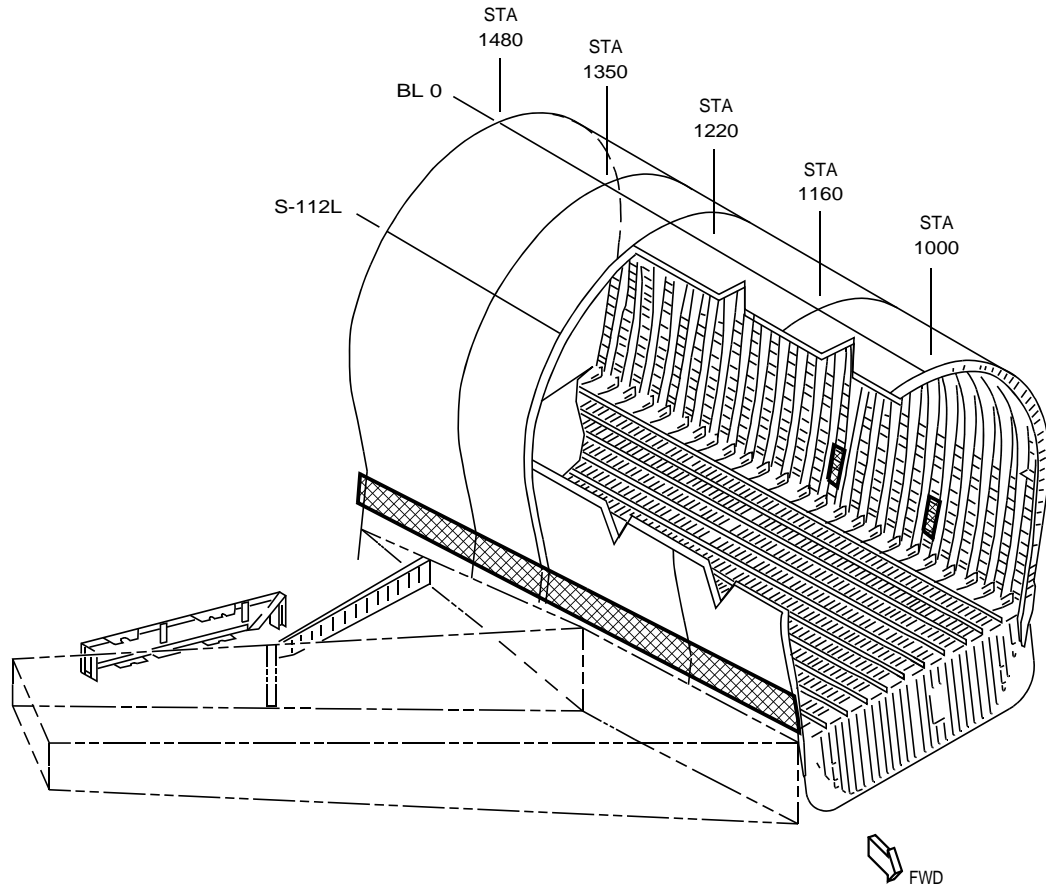


THIS PAGE INTENTIONALLY LEFT BLANK





# 747-400 LCF SUPPLEMENTAL STRUCTURAL INSPECTION DOCUMENT – APPENDIX A



LEFT SIDE IS SHOWN,  
RIGHT SIDE IS OPPOSITE



LOCATION OF SSI  
ZONES: 200-External  
241, 242,  
251, 252

1545600

## F-109 – FUSELAGE SKIN LONGITUDINAL BUTT SPLICES



F-109	INSPECTION INSTRUCTIONS	ACCESS MANHOURS		
		INSP	MHRS	ELPSD
TITLE:	FUSELAGE SKIN LONGITUDINAL BUTT SPLICES			

I. INSPECTION OPTIONS - DTR CHECK FORM F-109A

From BS 1105 to BS 1115, and from BS 1223 to BS 1228, from Stringer S-25 to the lower edge of the internal splice, and from the upper edge of the internal splice to Stringer S-136 on both left and right sides of fuselage.

(1) Skin

(Internal) From Direction 1, inner skin at specified locations, using detailed visual inspection methods.

Access: Remove sidewall panels and displace insulation as necessary.

Zone(s): 241, 242, 251, 252.

II. INSPECTION OPTIONS - DTR CHECK FORM F-109B

From BS 1000 to BS 1480 at Stringer S-137, on both left and right sides of fuselage.

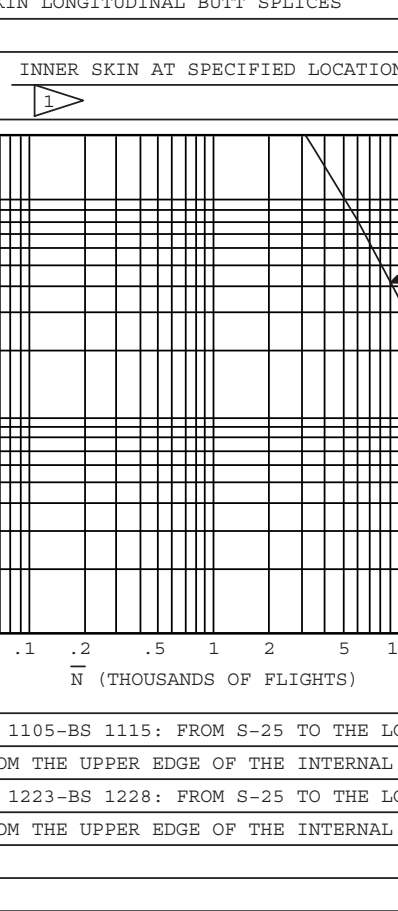
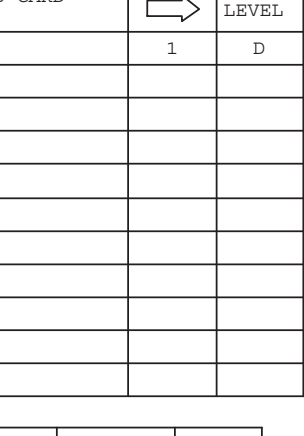
(1) Splice

(External) From Direction 1, external splice plate inner most fastener row, using detailed visual inspection methods.

Access: None required.

Zone(s): 200-External.

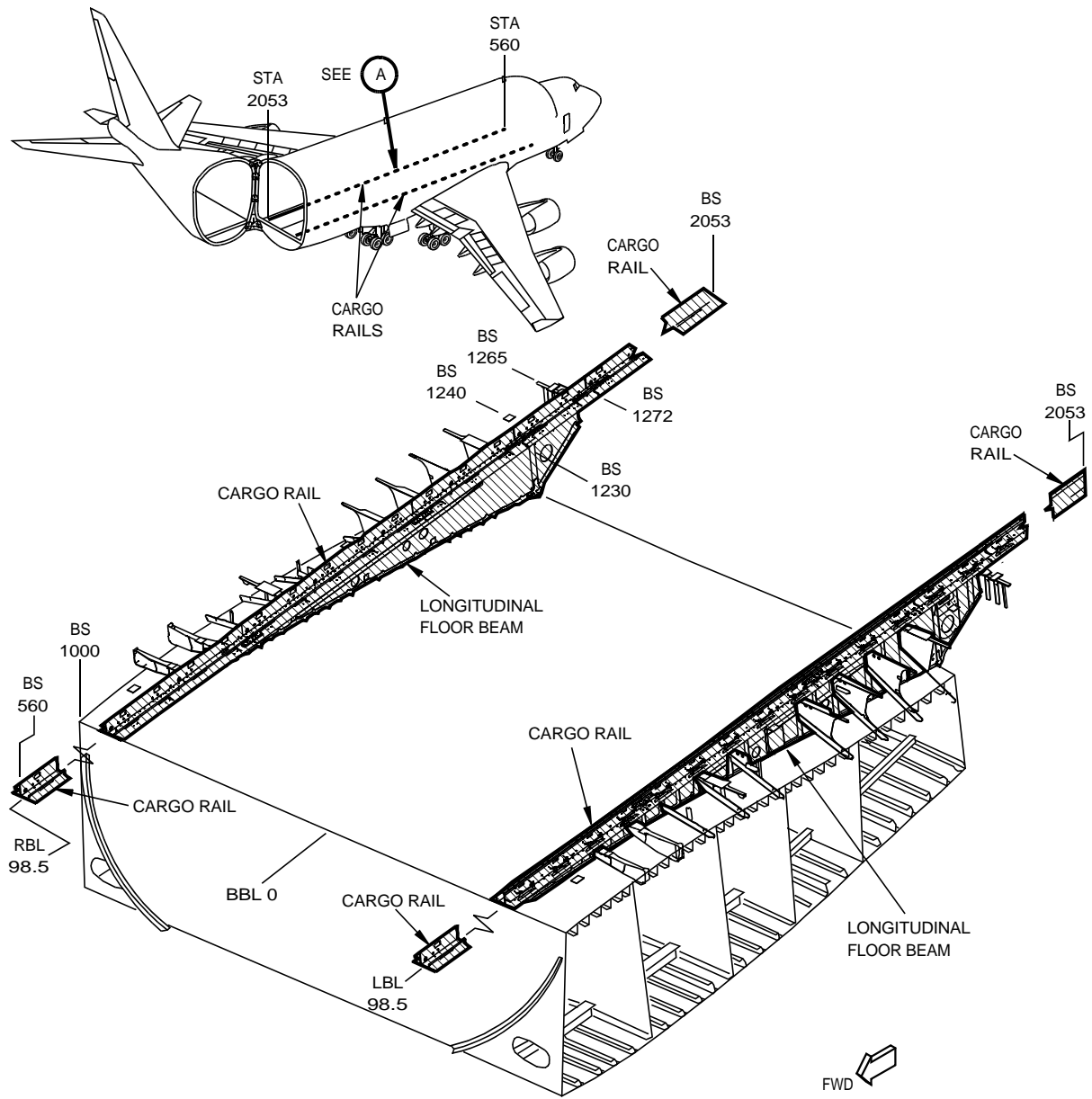
## 747-400 LCF SUPPLEMENTAL STRUCTURAL INSPECTION DOCUMENT – APPENDIX A


<h1>DTR CHECK FORM</h1>					ITEM: F-109A		MODEL-SERIES 747-400 LCF		
TITLE: SKIN LONGITUDINAL BUTT SPLICES					OPERATOR(S)		NO. ELIGIBLE A/C		
LOCATION: INNER SKIN AT SPECIFIED LOCATIONS LH&RH <div style="text-align: right;">1</div>					<b>EXAMPLE</b>				
 <p><math>\Delta</math> DTR</p> <p>N̄ (THOUSANDS OF FLIGHTS)</p>					STRUCTURE AND INSPECTION DETAILS  <b>LEAD CRACK:</b> SKIN   SECTION A-A				
NOTES:					*** First crack delta DTR values ***				
<div style="float: left; width: 20px; text-align: center;">1</div> BS 1105-BS 1115: FROM S-25 TO THE LOWER EDGE OF THE INTERNAL SPLICE, AND FROM THE UPPER EDGE OF THE INTERNAL SPLICE TO S-136. BS 1223-BS 1228: FROM S-25 TO THE LOWER EDGE OF THE INTERNAL SPLICE, AND FROM THE UPPER EDGE OF THE INTERNAL SPLICE TO S-136.									
STRUCTURE DETAIL	INSPECTION PROGRAM DETAILS							DAMAGE DETECTION PERIOD N <sub>OFLIGHTS</sub>	$\Delta$ DTR
	JOB CARD	DIREC. <div style="font-size: small;">→</div>	CHECK LEVEL	METHOD	%SAMP R <sub>O</sub>	FREQUENCY F-FLIGHTS	N̄ = 100F/R <sub>O</sub>		
SKIN		1	D	DET	100	6000	6000	19800	8.1
					FUEL LEAK DTR				8.1
					TOTAL DTR				
					REQUIRED DTR				
					6				

F-109B.PDF



# 747-400 LCF SUPPLEMENTAL STRUCTURAL INSPECTION DOCUMENT – APPENDIX A



 LOCATION OF SSI  
ZONES: 200 - INTERNAL,  
131A, 132A, 135A,  
136A, 137A, 138A.

WING CENTER SECTION



F-110 – CARGO RAILS

1559413



F-110	INSPECTION INSTRUCTIONS	ACCESS MANHOURS		
		INSP	MHRS	ELPSD
TITLE:	CARGO RAILS			

I. INSPECTION OPTIONS - DTR CHECK FORM F-110A

From BS 1000 to BS 1400, both left and right sides of main deck cargo compartment.

(1) Cargo Rail

(External) From Direction 1, inspect entire surface of cargo rail including splice parts and at specified locations, using detailed visual inspection methods.

Access: Remove PDU at BS 1230 and BS 1270 per AMM 25-71-01. Remove transport roller as required per AMM 25-58-02.

Zone(s): 241, 242, 251, 252.

II. INSPECTION OPTIONS - DTR CHECK FORM F-110B

From BS 1000 to BS 1480 at BL 98.5, both left and right sides of main deck cargo compartment.

(1) Upper Chord

(Internal) From Direction 1, inspect the longitudinal floor beam upper chord, using detailed visual inspection methods.

Access: Remove overwing floor panels as necessary.

Zone(s): 131A, 132A, 135A, 136A, 137A, 138A.

(2) Upper Chord

(Internal) From Direction 2, inspect the longitudinal floor beam upper chord, using detailed visual inspection methods.

Access: Remove overwing floor panels as necessary.

Zone(s): 131A, 132A, 135A, 136A, 137A, 138A.



III. INSPECTION OPTIONS - DTR CHECK FORM F-110C

From BS 560 to BS 1000 and BS 1400 to BS 2053, both left and right sides of main deck cargo compartment.

(1) Cargo Rail

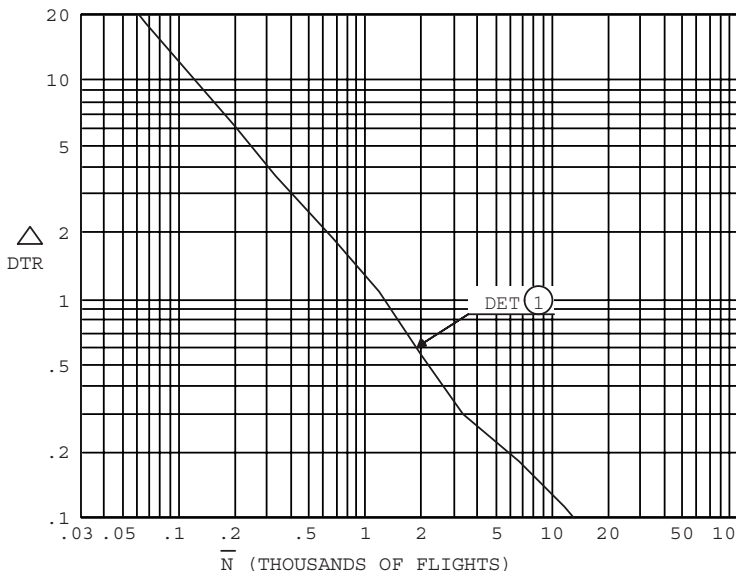
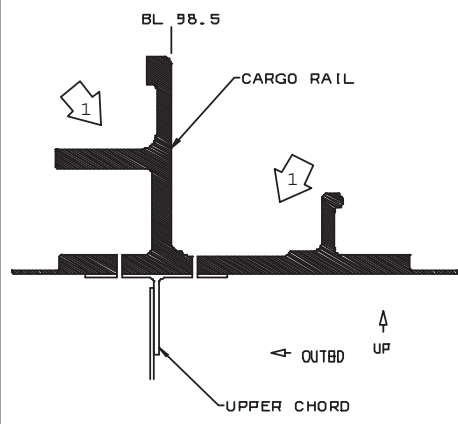
(External) From Direction 1, inspect the cargo rail and splices at specified locations, using visual inspection methods.

Access: None required.

Zone(s): 200-Internal, 131A, 132A, 135A, 136A.



## 747-400 LCF SUPPLEMENTAL STRUCTURAL INSPECTION DOCUMENT – APPENDIX A

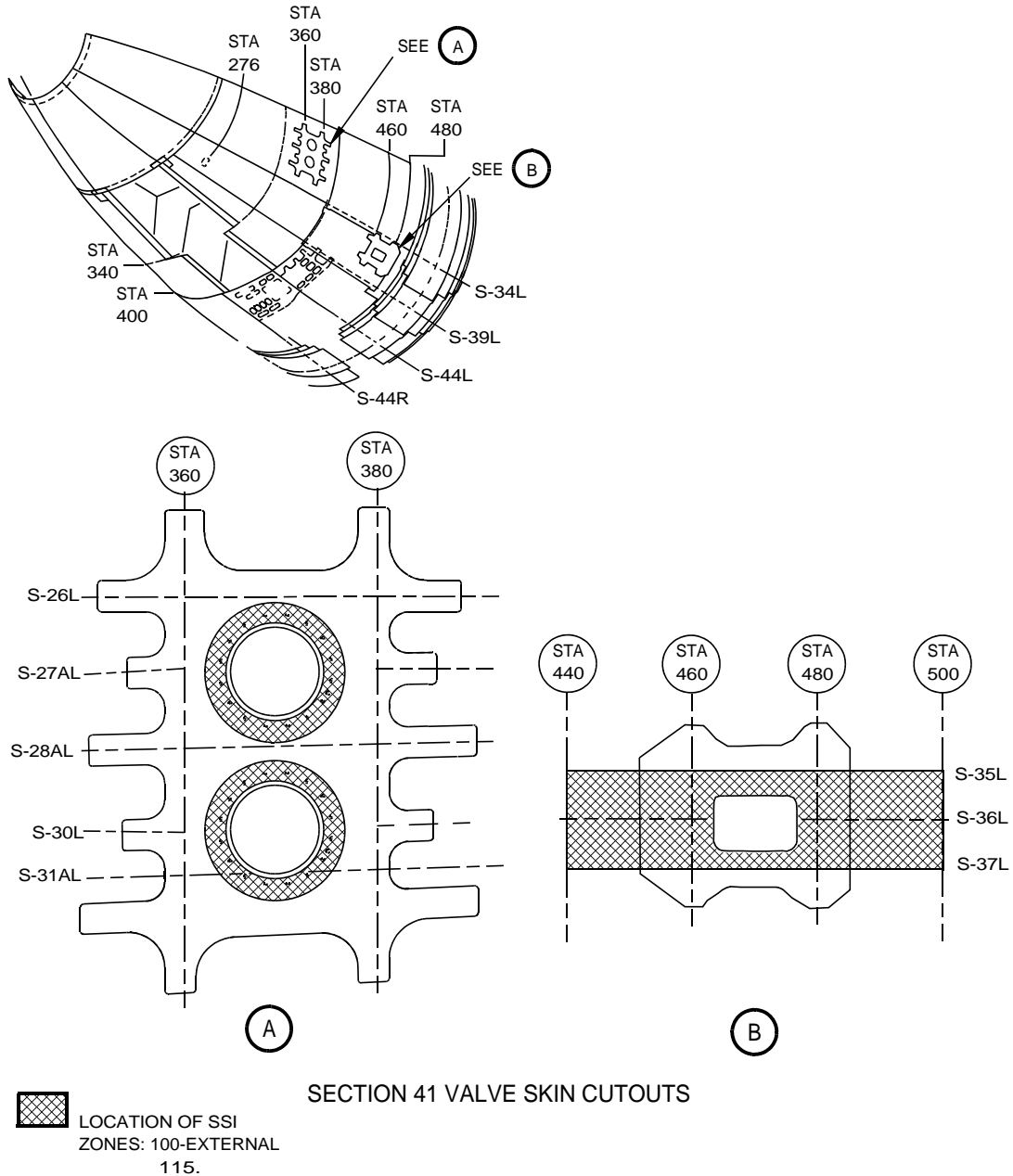
DTR CHECK FORM				ITEM: F-110A		MODEL-SERIES 747-400 LCF						
TITLE: CARGO RAILS				OPERATOR(S)		NO. ELIGIBLE A/C						
LOCATION: BS 1000 to 1400, BL 98.5 L & R				EXAMPLE								
<div style="display: flex; align-items: center;"><div style="flex: 1;"></div><div style="flex: 1; padding-left: 10px;"><p>STRUCTURE AND INSPECTION DETAILS</p><p>LEAD CRACK: CARGO RAILS/SPLICE</p></div></div>												
<p>NOTES:</p> <p>1) INSPECT CARGO RAILS FROM BS 1000 TO 1400 INCLUDING CARGO RAIL SPLICE PARTS AT BS 1070, BS 1170, BS 1230, BS 1270 AND BS 1367.</p> <p>2) AT SPLICE LOCATED AT BS 1230 AND 1270, REMOVE PDU PER AMM 25-71-01 FOR SPLICE AND CARGO RAIL INSPECTION. REMOVE TRANSPORT ROLLER AS REQUIRED PER AMM 25-58-02.</p>				*** First crack delta DTR values ***								
STRUCTURE DETAIL		INSPECTION PROGRAM DETAILS						DAMAGE DETECTION PERIOD N <sub>0</sub> FLIGHTS		△ DTR		
JOB CARD		DIREC. →	CHECK LEVEL	METHOD	%SAMP R <sub>0</sub>	FREQUENCY F-FLIGHTS	N̄ = 100F/R <sub>0</sub>					
RAIL/SPLICE		1		DET	100	200	200	3100			6.1	
ENGR.		Jason Cheng	04/08/08	REVISED	FUEL LEAK DTR							
CHECK		C Shauli	04/09/08		TOTAL DTR						6.1	
APPR.					REQUIRED DTR						6	
APPR.												

F110A.PDF



F110B.PDF

F110C.PDF



SECTION 41 VALVE SKIN CUTOUTS

F-111 – SECTION 41 VALVE SKIN CUTOUTS

1542774



## 747-400 LCF SUPPLEMENTAL STRUCTURAL INSPECTION DOCUMENT – APPENDIX A

F-111	INSPECTION INSTRUCTIONS	ACCESS MANHOURS		
		INSP	MHRS	ELPSD
TITLE:	SECTION 41 VALVE SKIN CUTOUTS			

I. INSPECTION OPTIONS - DTR CHECK FORM F-111A

Retainer fasteners located around entire positive pressure relief valve cutouts at BS 370 and between Stringers S-26L and S-31L.

NOTE: Inspection requirements are symmetrical about S-28L.

(1) Skin

(External) From Direction 1, inspecting the skin surface around the fasteners, using HFEC (Ref. NDT Manual D6-7170, Part 6, 51-00-00 Figure 4 or 23). 1.0 elapsed hour and 1.0 manhour are required to accomplish this inspection.

Access: None required.

Zone(s): 100-External.

(2) Tripler

(Internal) From Direction 2, inspecting the Tripler, using visual inspection methods.

Access: Remove floor panels, sidewall liner and insulation as necessary.

Zone(s): 115.

II. INSPECTION OPTIONS - DTR CHECK FORM F-111B

NOTE: Skin from BS 440 to BS 500 and between Stringers S-35 to S-37, outflow valve at BS 470, both left and right sides of fuselage.

(1) Skin-Doubler

(External) From Direction 1, inspecting the Skin-Doubler, using detailed visual inspection methods.

Access: Same as I.(1).

Zone(s): Same as I.(1).

(2) Skin-Doubler

(External) From Direction 2, inspecting the Skin-Doubler, using visual inspection methods.

Access: Same as I.(1).

Zone(s): Same as I.(1).

F111A.PDF

F111B.PDF



### 8.3 Empennage SSI Information

This section contains the basic inspection and access information needed to complete the blank Empennage DTR Check Forms in Section 11.3. The table below lists the Empennage SSIs/DTR Check Forms by 747-400 LCF applicability. This table combines the SSI/DTR Check Forms from the main body of Document D6-35022 with the new SSI/DTR Check Forms unique to the 747-400 LCF configuration. The SSI Numbers are not continuously consecutive as some items were eliminated from the program or combined with other items after the number sequence was assigned. A Structural Inspection Matrix, showing the Inspection Zone/Area for each 747-400 LCF item, is shown on Page 8.3.3.

SSI NUMBER	TITLE	DTR CHECK FORMS	APPLICABILITY <sup>[1]</sup>
E-1	JACKSCREW ATTACHMENT STRUCTURE	E-1	NO
E-2	HORIZONTAL STABILIZER FRONT SPAR UPPER SURFACE CHORD, SKIN AND WEB	A - E	NO
E-3	HORIZONTAL STABILIZER REAR SPAR UPPER SURFACE CHORD, SKIN AND WEB	A - H	NO
E-4	HORIZONTAL STABILIZER UPPER SURFACE TYPICAL SKIN-STRINGER	A - D	NO
E-5	HORIZONTAL STABILIZER UPPER SURFACE SPLICE STRINGER-SKIN	A - D	NO
E-6	HORIZONTAL STABILIZER TYPICAL RIBS	E-6	NO
E-7	HORIZONTAL STABILIZER HINGE PIN AND SUPPORT STRUCTURE	A - C	NO
E-8	HORIZONTAL STABILIZER HINGE RIB	E-8	NO
E-9	HORIZONTAL STABILIZER SIDE-OF-BODY SPLICE	A - E	NO
E-10	HORIZONTAL STABILIZER FORWARD TORQUE BOX	E-10	NO
E-14	VERTICAL FIN FRONT SPAR CHORD, SKIN AND WEB	E-14	APPLY CURRENT FORM
E-15	VERTICAL FIN REAR SPAR CHORD, SKIN AND WEB	A & B	APPLY CURRENT FORM
E-16	FIN TYPICAL SKIN-STRINGER	E-16	NO
E-17	FIN SKIN-SPLICE STRINGER	E-17	NO
E-18	VERTICAL FIN TYPICAL RIBS	E-18	APPLY CURRENT FORM
E-19	VERTICAL FIN FORWARD TORQUE BOX SKIN	E-19	APPLY CURRENT FORM
E-31	JACKSCREW ATTACHMENT STRUCTURE	E-31	-400 LCF ONLY
E-32	HORIZONTAL STABILIZER FRONT SPAR UPPER SURFACE CHORD, SKIN AND WEB	A - E	-400 LCF ONLY
E-33	HORIZONTAL STABILIZER REAR SPAR UPPER SURFACE CHORD, SKIN AND WEB	A - E	-400 LCF ONLY
E-34	HORIZONTAL STABILIZER UPPER SURFACE TYPICAL SKIN-STRINGER	A - D	-400 LCF ONLY



## 747-400 LCF SUPPLEMENTAL STRUCTURAL INSPECTION DOCUMENT – APPENDIX A

SSI NUMBER	TITLE	DTR CHECK FORMS	APPLICABILITY <sup>[1]</sup>
E-35	HORIZONTAL STABILIZER UPPER SURFACE SPLICE STRINGER S-5 AND SKIN	A - C	-400 LCF ONLY
E-36	HORIZONTAL STABILIZER TYPICAL RIBS	E-36	-400 LCF ONLY
E-37	HORIZONTAL STABILIZER HINGE PIN AND SUPPORT STRUCTURE	A - C	-400 LCF ONLY
E-38	HORIZONTAL STABILIZER HINGE RIB	E-38	-400 LCF ONLY
E-39	HORIZONTAL STABILIZER SIDE OF BODY SPLICE	A - D	-400 LCF ONLY
E-40	HORIZONTAL STABILIZER FORWARD TORQUE BOX	E-40	-400 LCF ONLY
E-46	VERTICAL FIN TYPICAL SKIN-STRINGER	E-46	-400 LCF ONLY
E-47	VERTICAL FIN SKIN-SPLICE STRINGER	E-47	-400 LCF ONLY

<sup>[1]</sup> “APPLY CURRENT FORM” - The form in the main body of this document is to be applied to the 747-400 LCF.

“NO” - The form in the main body of this document is not applicable to the 747-400 LCF; a supplemental inspection is not required.

“-400 LCF ONLY” - The form in this appendix is applicable to the 747-400 LCF airplane only.



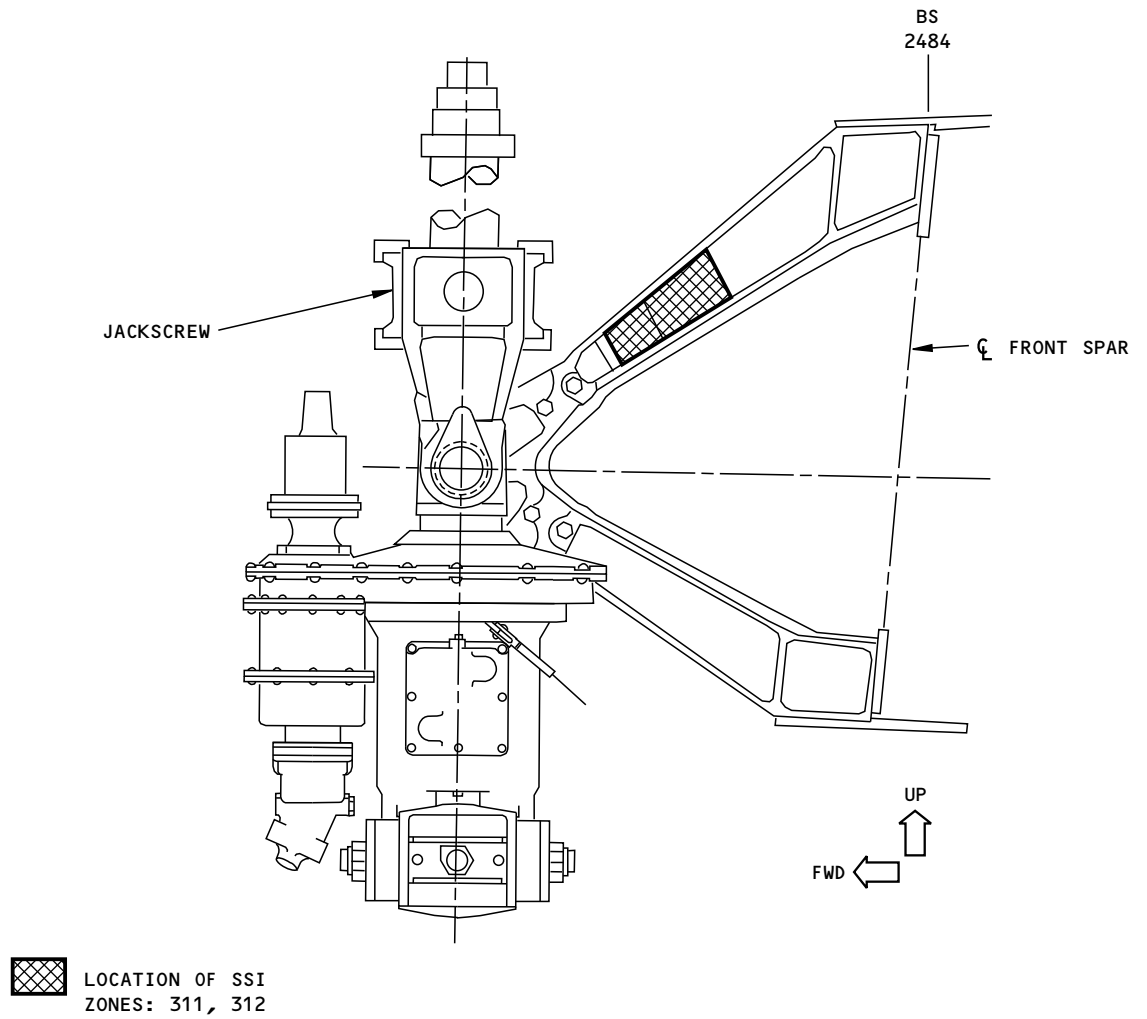
EMPENNAGE CROSS REFERENCE MATRIX

[illegible]

1564458



THIS PAGE INTENTIONALLY LEFT BLANK



### E-31 - JACKSCREW ATTACHMENT STRUCTURE



E-31	INSPECTION INSTRUCTIONS	ACCESS MANHOURS		
		INSP	MHRS	ELPSD
TITLE:	JACKSCREW ATTACHMENT STRUCTURE			

I. INSPECTION OPTIONS - DTR CHECK FORM E-31

At the first six fastener locations, aft of the jackscrew in each of the upper truss members, where the half-members are bolted together.

(1) Truss

(External) From Direction 1, including fastener locations, using visual inspection methods.

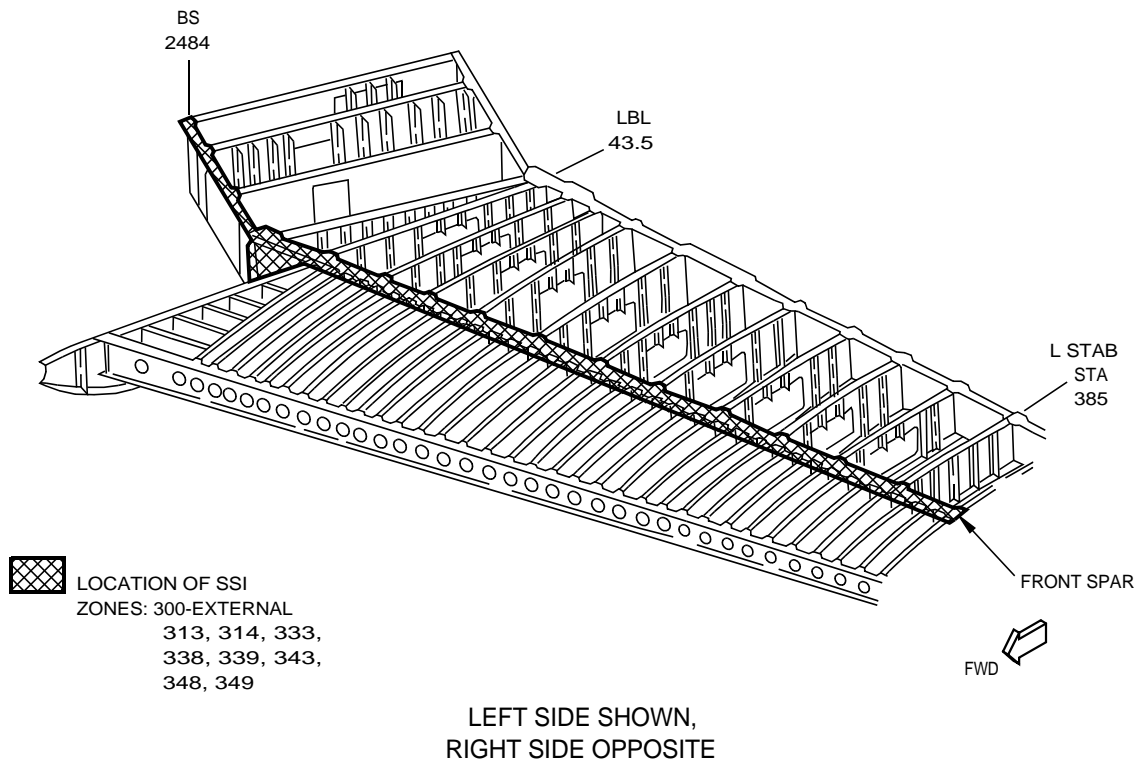
Access: Open Access Door 312AR.

Zone(s): 311, 312.

E31.PDF



THIS PAGE INTENTIONALLY LEFT BLANK



1544518

E-32 - HORIZONTAL STABILIZER FRONT SPAR UPPER SURFACE CHORD, SKIN AND WEB



## 747-400 LCF SUPPLEMENTAL STRUCTURAL INSPECTION DOCUMENT – APPENDIX A

E-32	INSPECTION INSTRUCTIONS	ACCESS MANHOURS		
		INSP	MHRS	ELPSD
TITLE:	HORIZONTAL STABILIZER FRONT SPAR UPPER SURFACE CHORD, SKIN AND WEB	II.(2)	2	1

I. INSPECTION OPTIONS - DTR CHECK FORM E-32A

At locations in the center section where skin is hidden by jackscrew fitting backup straps.

(1) Skin

(External) From Direction 8, at specified locations using LFEC (Ref. NDT Manual D6-7170, Part 6, 55-10-04). 1.0 elapsed hour and 1.0 manhour are required to accomplish this inspection.

Access: Open Access Door 312AR.

Zone(s): 313, 314.

II. INSPECTION OPTIONS - DTR CHECK FORM E-32B

Inboard and outboard of BL 43.5 where the skin is covered by a splice plate.

(1) Skin

(Internal) From Direction 4, including fastener locations, using visual inspection methods.

Access: Open Access Doors 312AR, 338AZ, 339AZ, 349AZ.

Zone(s): 339, 349.

(2) Skin

(Internal) From Direction 7, at specified locations, using HFEC (Ref. NDT Manual D6-7170, Part 6, 55-10-09). 1.5 elapsed hours and 3.0 manhours are required to accomplish this inspection.

Access: Same as II.(1).

Zone(s): Same as II.(1).

III. INSPECTION OPTIONS - DTR CHECK FORM E-32C

Typical locations in the center section.

(1) Skin

(External) From Direction 1, adjacent to and including skin-to-chord fastener locations, using visual inspection methods.





Access: Same as I.(1).

Zone(s): Same as I.(1).

(2) Chord

(External) From Direction 6, using visual inspection methods.

Access: Same as I.(1).

Zone(s): Same as I.(1).

IV. INSPECTION OPTIONS - DTR CHECK FORM E-32D

From the outboard side of body to Stabilizer Station 385, left and right.

(1) Skin

(External) From Direction 1, adjacent to and including skin-to-chord fastener locations, using visual inspection methods.

Access: None required.

Zone(s): 300-External.

V. INSPECTION OPTIONS - DTR CHECK FORM E-32E

From center section to Stabilizer Station 385, left and right.

(1) Web

(Internal) From Direction 2, using visual inspection methods.

Access: Open Access Doors 312AR, 338AZ, 349AZ.

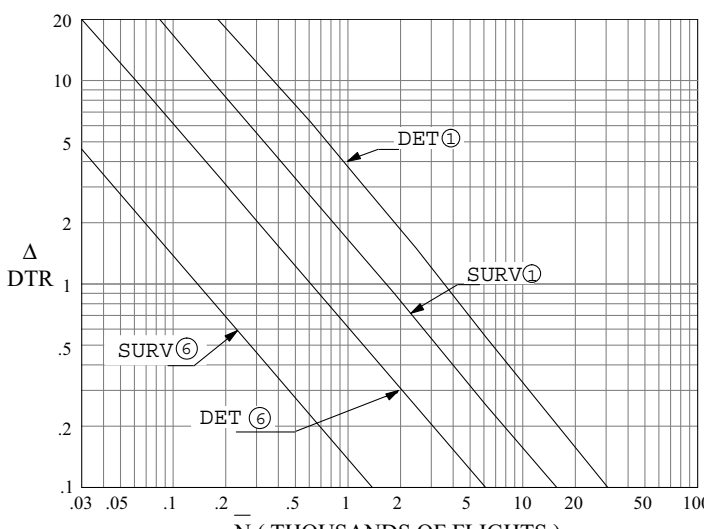
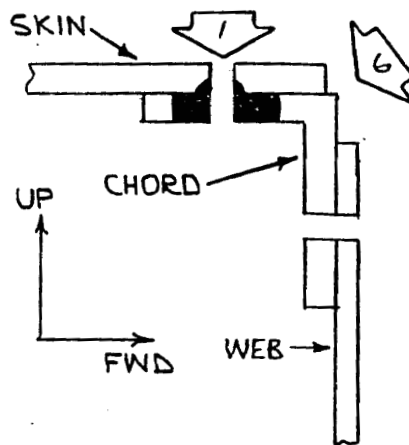
Zone(s): 339, 349.

E32A.PDF

E32B.PDF

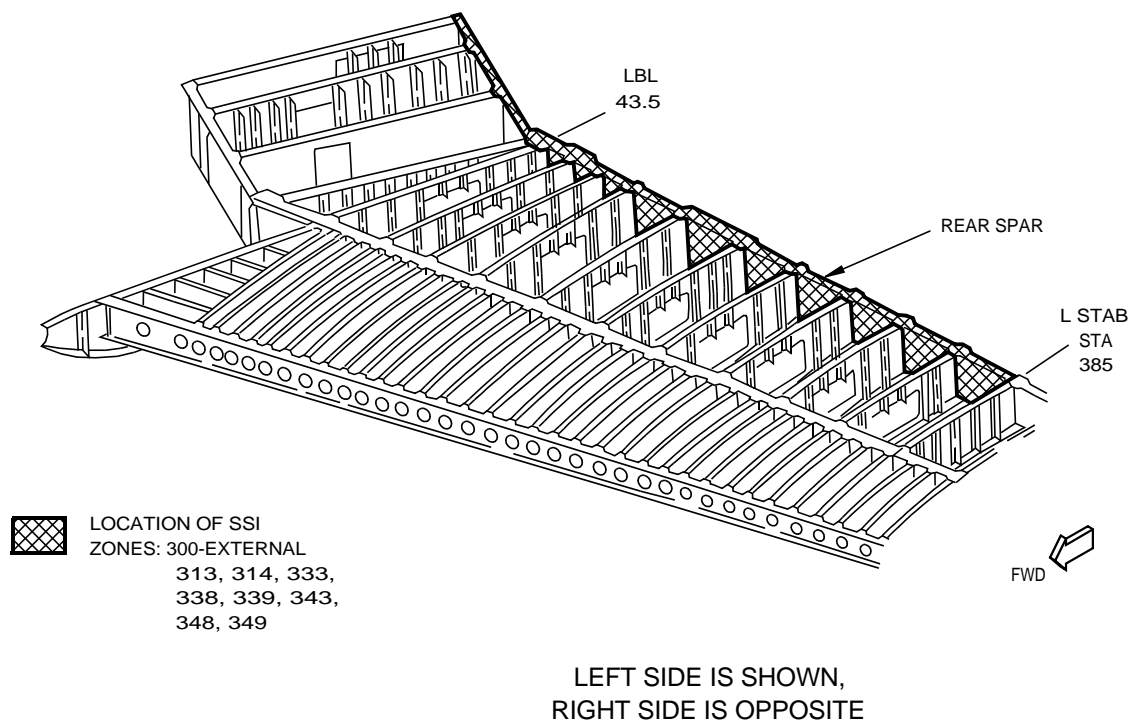


## 747-400 LCF SUPPLEMENTAL STRUCTURAL INSPECTION DOCUMENT – APPENDIX A

<b>DTR CHECK FORM</b>				ITEM: <b>E-32C</b>		MODEL – SERIES 747-400 LCF				
TITLE: <u>HORIZONTAL STABILIZER FRONT SPAR UPPER</u> <u>SURFACE CHORD, SKIN AND WEB</u>				OPERATOR(S)		NO. ELIGIBLE A/C				
LOCATION: <u>CENTER SECTION (TYPICAL)</u>				<b>EXAMPLE</b>						
				<b>STRUCTURE AND INSPECTION DETAILS</b> LEAD CRACK: CHORD 						
NOTES: <span style="float: right;">*** First crack delta DTR values***</span>										
(1) THESE CURVES DO NOT APPLY TO SKIN WHERE IT IS COVERED BY THE JACKSCREW FITTING BACKUP STRAPS. (SEE E-32A)										
(2) IF VISIBILITY IS REDUCED BY CORROSION INHIBITING COMPOUND (CIC) THEN SEALANT AND/OR CIC MUST BE REMOVED PRIOR TO INSPECTION AND REAPPLIED AFTER INSPECTION IS COMPLETE.										
(3) NO INTERNAL VISUAL INSPECTION DUE TO HIDDEN STRUCTURE.										
STRUCTURE DETAIL		INSPECTION PROGRAM DETAILS						DAMAGE DETECTION PERIOD N <sub>0</sub> FLIGHTS		$\Delta$ DTR
JOB CARD		DIREC. ➡	CHECK LEVEL	METHOD	%SAMP. R <sub>0</sub>	FREQUENCY F-FLIGHTS	$N = \frac{100F}{R_0}$			
SKIN		1		SURV				9600		
		1		DET	100	600	600	10800		6.4
CHORD		6		SURV				40500		
		6		DET				41400		

E32D.PDF

E32E.PDF



1544510

E-33 - HORIZONTAL STABILIZER REAR SPAR UPPER SURFACE CHORD, SKIN AND WEB



## 747-400 LCF SUPPLEMENTAL STRUCTURAL INSPECTION DOCUMENT – APPENDIX A

E-33	INSPECTION INSTRUCTIONS	ACCESS MANHOURS		
		INSP	MHRS	ELPSD
TITLE:	HORIZONTAL STABILIZER REAR SPAR UPPER SURFACE CHORD, SKIN AND WEB	V.(1)	1	1

I. INSPECTION OPTIONS - DTR CHECK FORM E-33A

From the outboard side of body to Stabilizer Station 385, left and right.

(1) Skin

(External) From Direction 1, adjacent to and including skin-to-chord fastener locations, using visual inspection methods.

Access: None required.

Zone(s): 300-External.

II. INSPECTION OPTIONS - DTR CHECK FORM E-33B

Typical locations in the center section, between LBL-30.0 and RBL-30.0.

(1) Chord

(External) From Direction 2, using visual inspection methods.

Access: Open Access Door 315AL.

Zone(s): 313, 314.

(2) Chord

(Internal) From Direction 4, including fastener locations, using visual inspection methods.

Access: Open Access Doors 312AR, 338AZ, 349AZ.

Zone(s): 338, 348.

(3) Chord

(External) From Direction 8, at specified locations, using HFEC (Ref. NDT Manual D6-7170, Part 6, 55-10-10). 0.5 elapsed hour and 0.5 manhour are required to accomplish this inspection.

Access: Same as II.(1).

Zone(s): Same as II.(1)





### III. INSPECTION OPTIONS - DTR CHECK FORM E-33C

From the outboard side of body to Stabilizer Station 385, left and right.

#### (1) Chord

(External) From Direction 12, at specified locations using LFEC (Ref. NDT Manual D6-7170, Part 6, 55-10-01). 1.5 elapsed hours and 1.5 manhours are required to accomplish this inspection.

Access: None required.

Zone(s): Same as I.(1).

### IV. INSPECTION OPTIONS - DTR CHECK FORM E-33D

From BL 43.5 to Stabilizer Station 385, left and right, except at elevator actuators.

#### (1) Web

(Internal) From Direction 3, using visual inspection methods.

Access: Remove Access Panels 334GBL, 344GBR, 334JBL, 344JBR, 334KBL, 344KBR.

Zone(s): 334, 344.

#### (2) Web

(Internal) From Direction 5, including fastener locations, using visual inspection methods.

Access: Open Access Doors 312AR, 338AZ, 339AZ, 349AZ.

Zone(s): 333, 339, 343, 349.

### V. INSPECTION OPTIONS - DTR CHECK FORM E-33E

At elevator actuators.

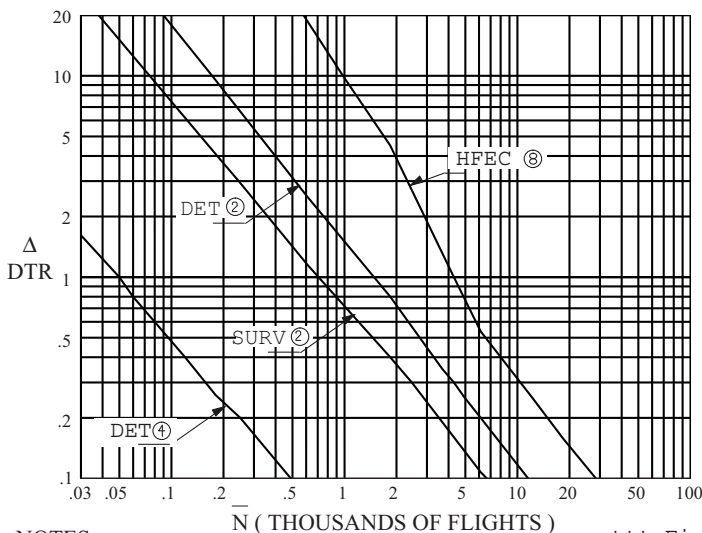
#### (1) Web

(Internal) From Direction 10, at specified locations, using HFEC (Ref. NDT Manual D6-7170, Part 6, 55-10-03). 1.0 elapsed hour and 1.0 manhour are required to accomplish this inspection.

Access: Remove Access Panels 334HBL, 344HBR, 334LBL, 344LBR.

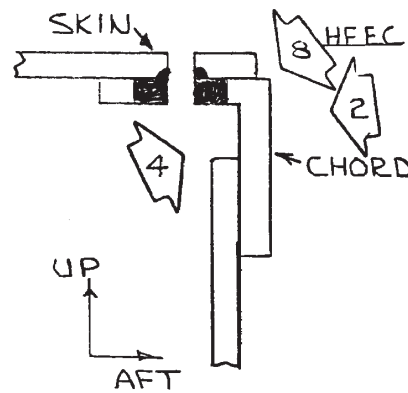
Zone(s): Same as IV.(1).

E33A.PDF



STRUCTURE AND INSPECTION DETAILS

LEAD CRACK: CHORD



NOTES: N ( THOUSANDS OF FLIGHTS ) \*\*\* First crack delta DTR values \*\*\*

- |     |  |
|-----|--|
| (1) | IF VISIBILITY IS REDUCED BY SEALANT OR CORROSION INHIBITING COMPOUND (CIC) THEN SEALANT AND/OR CIC MUST BE REMOVED PRIOR TO INSPECTION AND REAPPLIED AFTER INSPECTION IS COMPLETE. |
| (2) | DIRECTION 4 REFLECTS HIDDEN STRUCTURE.   |

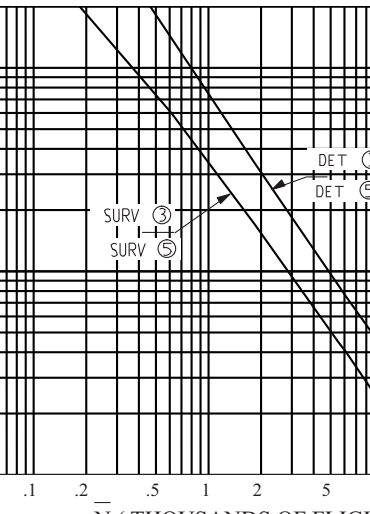
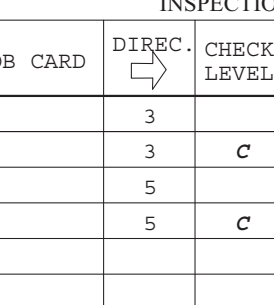
STRUCTURE DETAIL		INSPECTION PROGRAM DETAILS						DAMAGE DETECTION PERIOD N <sub>0</sub> FLIGHTS	△ DTR
		JOB CARD	DIREC. ⇨	CHECK LEVEL	METHOD	%SAMP. R <sub>0</sub>	FREQUENCY F-FLIGHTS		
CHORD		2		SURV				2220	
		2		DET				2220	
		4		DET				3360	
		8		HFEC	100	1400	1400	2220	6.4

ENGR	Q. BENSON	1/24/07	REVISED	DATE	FUEL LEAK DTR	0	
CHECK	C. SHAULL	1/24/07				TOTAL DTR	6.4
APR						REQUIRED DTR	6
APR							

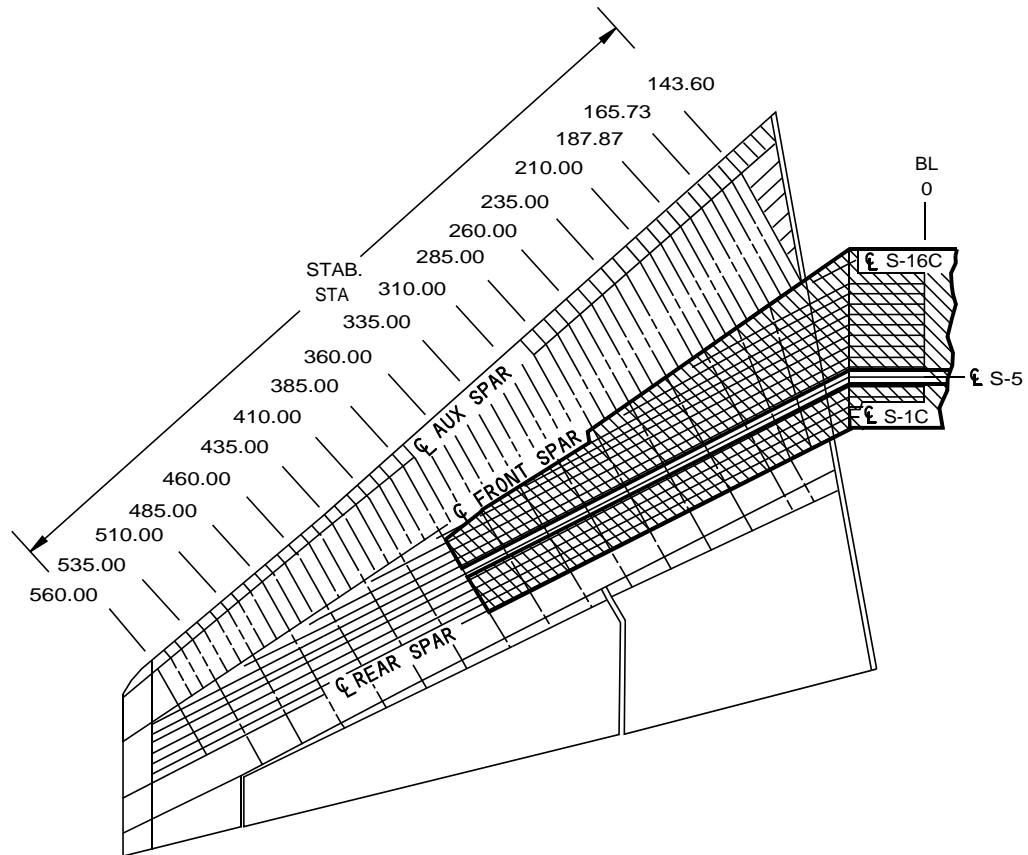
E33B.PDF


E33C.PDF

## 747-400 LCF SUPPLEMENTAL STRUCTURAL INSPECTION DOCUMENT – APPENDIX A

<b>DTR CHECK FORM</b>				ITEM: <b>E-33D</b>		MODEL - SERIES 747-400 LCF			
TITLE: HORIZONTAL STABILIZER REAR SPAR UPPER SURFACE CHORD, SKIN AND WEB				OPERATOR(S)		NO. ELIGIBLE A/C			
LOCATION: CENTER SECTION OUTBOARD TO S. STA. 385 EXCEPT AT ELEVATOR ACTUATORS.				<b>EXAMPLE</b>					
 <p>The graph plots ΔDTR on a logarithmic y-axis (0.1 to 20) against N (Thousands of Flights) on a logarithmic x-axis (0.03 to 100). Two sets of curves are shown: one for Detection (DET) and one for Survival (SURV), each with values 3 and 5. Arrows indicate the direction of increasing damage tolerance.</p>				<b>STRUCTURE AND INSPECTION DETAILS</b> LEAD CRACK: WEB  <p>A schematic diagram of a T-joint where a vertical web meets a horizontal chord. The top surface is labeled 'SKIN'. Inspection arrows point towards the joint from two directions: '3' (from the bottom-left) and '5' (from the bottom-right). The 'WEB' label points to the vertical member, and the 'CHORD' label points to the horizontal member.</p>					
<b>NOTES:</b> *** First crack delta DTR values*** (1) IF VISIBILITY IS REDUCED BY SEALANT OR CORROSION INHIBITING COMPOUND (CIC) THEN SEALANT AND/OR CIC MUST BE REMOVED PRIOR TO INSPECTION AND REAPPLIED AFTER INSPECTION IS COMPLETE. (2) THE WEB ΔDTR FROM DIRECTION 5 IS EQUIVALENT TO DIRECTION 3 EXCEPT AS PER NOTE 1.									
STRUCTURE DETAIL		INSPECTION PROGRAM DETAILS						Δ DTR	
	JOB CARD	DIREC. 	CHECK LEVEL	METHOD	%SAMP. R <sub>0</sub>	FREQUENCY F-FLIGHTS	$\bar{N} = \frac{100F}{R_0}$		DAMAGE DETECTION PERIOD N <sub>0</sub> FLIGHTS
WEB		3		SURV				4800	
		3	C	DET	100	1500	1500	4800	4.4
		5		SURV				4800	
		5	C	DET	100	1500	1500	4800	4.4
ENGR Q. BENSON		10/24/07	REVISED		DATE		FUEL LEAK DTR		0
CHECK C. SHAULL		10/24/07					TOTAL DTR		8.8
APR							REQUIRED DTR		6
APR									

E33E.PDF



 LOCATION OF SSI  
ZONES: 300-EXTERNAL  
313, 314, 333,  
343, 338, 348,  
339, 349

LEFT SIDE IS SHOWN,  
RIGHT SIDE IS OPPOSITE

1544997

### E-34 - HORIZONTAL STABILIZER UPPER SURFACE TYPICAL SKIN-STRINGER



## 747-400 LCF SUPPLEMENTAL STRUCTURAL INSPECTION DOCUMENT – APPENDIX A

E-34	INSPECTION INSTRUCTIONS	ACCESS MANHOURS		
		INSP	MHRS	ELPSD
TITLE:	HORIZONTAL STABILIZER UPPER SURFACE TYPICAL SKIN-STRINGER			

I. INSPECTION OPTIONS - DTR CHECK FORM E-34A

From the front spar to the rear spar and from the side of body to Stabilizer Station 385, left and right.

NOTE: This inspection includes all skin area and stringers except at Stringer S-5. See DTR Check Form E-35 for skin area and Stringer S-5.

(1) Skin

(External) From Direction 1, adjacent to and including skin-to-stringer fastener locations, using visual inspection methods.

Access: None required.

Zone(s): 300-External.

(2) Stringer

(Internal) From Direction 2, including fastener locations, using visual inspection methods.

Access: Open Access Doors 312AR, 338AZ, 339AZ, 349AZ.

Zone(s): 333, 339, 343, 349.

II. INSPECTION OPTIONS - DTR CHECK FORM E-34B

Center section from the front spar to the rear spar and from BL 0 to the side of body, left and right.

NOTE: This inspection includes all skin area and stringers except at Stringer S-5. See DTR Check Form E-35 for skin area and Stringer S-5.

(1) Skin

(External) From Direction 1, adjacent to and including skin-to-stringer fastener locations, using visual inspection methods.

Access: Open Access Door 312AR.

Zone(s): 313, 314.





(2) Stringer

(Internal) From Direction 2, including fastener locations, using visual inspection methods.

Access: Open Access Doors 312AR, 338AZ.

Zone(s): 338, 348.

III. INSPECTION OPTIONS - DTR CHECK FORM E-34C

At locations in the center section where skin is hidden by jackscrew fitting backup straps.

(1) Skin

(External) From Direction 4, at specified locations, using ultrasonic (Ref. NDT Manual D6-7170, Part 4, 55-10-01). 1.0 elapsed hour and 1.0 manhour are required to accomplish this inspection.

Access: Same as II.(1).

Zone(s): Same as II.(1).

IV. INSPECTION OPTIONS - DTR CHECK FORM E-34D

Areas hidden internally by shear ties, from Stringer 1 to Stringer 4, around the rib at Stabilizer Station 285 and around the actuator ribs at Elevator Stations 115.488 and 123.228.

(1) Skin

(External) From Direction 1, adjacent to and including skin-to-stringer fastener locations, using visual inspection methods.

Access: None required.

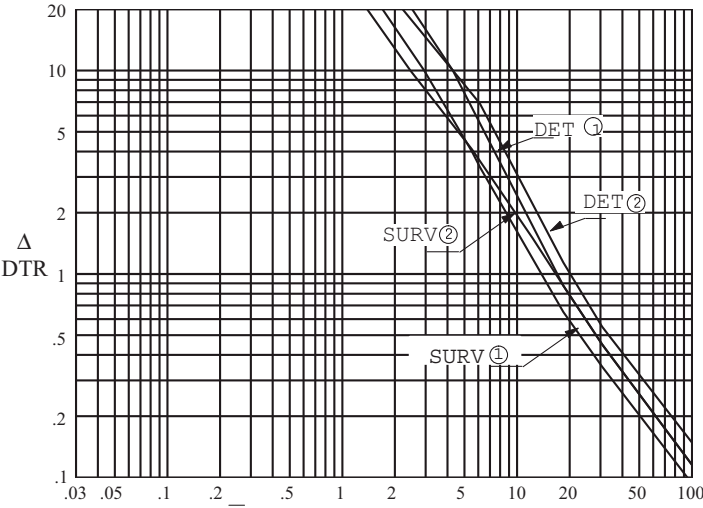
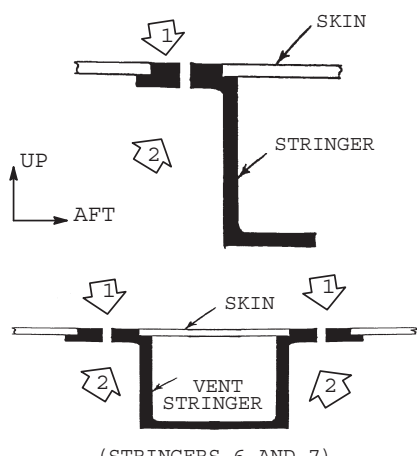
Zone(s): 300-External.

DTR CHECK FORM		ITEM: <b>E-34A</b>		MODEL – SERIES 747-400 LCF									
TITLE: <u>HORIZONTAL STABILIZER TYPICAL SKIN-STRINGER</u> <u>AND VENT STRINGER</u> LOCATION: <u>TYPICAL @ SKIN-STRINGER DETAILS</u> <u>UPPER SURFACE OUTBOARD STABILIZER</u>				OPERATOR(S)  <b>EXAMPLE</b>		NO. ELIGIBLE A/C  							
				STRUCTURE AND INSPECTION DETAILS LEAD CRACK: STRINGER <p style="text-align: center;">(STRINGERS 6 AND 7)</p>									
NOTES: (1) IF VISIBILITY IS REDUCED BY SEALANT OR CORROSION INHIBITING COMPOUND (CIC) THEN EITHER UTILIZE THE EXTERNAL INSPECTION SOLELY OR THE SEALANT AND/OR CIC MUST BE REMOVED PRIOR TO INSPECTION AND REAPPLIED AFTER INSPECTION IS COMPLETE. (2) VENT STRINGERS PASSING THROUGH THE SIDE OF BODY RIB (STABILIZER ROOT) HAVE SEALANT AND SEAL PANS PREVENTING DIRECTION 2 INSPECTION. INSPECT INSIDE OF VENT STRINGER AND SKIN AT THIS LOCATION USING BORESCOPE IF NECESSARY. SIDE OF BODY TO S.STA. 385				***First crack delta DTR values ***									
STRUCTURE DETAIL		INSPECTION PROGRAM DETAILS						DAMAGE DETECTION PERIOD		$\Delta$ DTR			
		JOB CARD	DIREC. 	CHECK LEVEL	METHOD	%SAMP. R <sub>0</sub>	FREQUENCY F-FLIGHTS	$N = \frac{100F}{R_0}$	N <sub>0</sub> FLIGHTS				
SKIN			1		SURV				3660				
			1	<b>2C</b>	DET	<b>100</b>	<b>3000</b>	<b>3000</b>	3660	<b>2.4</b>			
STRINGER			2		SURV				3660				
			2	<b>2C</b>	DET	<b>100</b>	<b>3000</b>	<b>3000</b>	3660	<b>4.6</b>			
ENGR	Q. BENSON	10/26/07	REVISED	DATE	FUEL LEAK DTR  TOTAL DTR  REQUIRED DTR								
CHECK	C. SHAULL	10/26/07										0	
APR												7.0	
APR												6	

E34A.PDF



## 747-400 LCF SUPPLEMENTAL STRUCTURAL INSPECTION DOCUMENT – APPENDIX A

<b>DTR CHECK FORM</b>				ITEM: <b>E-34B</b>		MODEL – SERIES 747-400 LCF											
TITLE: <u>HORIZONTAL STABILIZER TYPICAL SKIN-STRINGER</u> <u>AND VENT STRINGER</u>				OPERATOR(S)		NO. ELIGIBLE A/C											
LOCATION: <u>UPPER SURFACE CENTER SECTION STABILIZER</u>				<b>EXAMPLE</b>													
				STRUCTURE AND INSPECTION DETAILS													
				LEAD CRACK: STRINGER  (STRINGERS 6 AND 7)													
NOTES:				*** First crack delta DTR values ***													
(1) IF VISIBILITY IS REDUCED BY SEALANT OR CORROSION INHIBITING COMPOUND (CIC)																	
THEN EITHER UTILIZE THE EXTERNAL INSPECTION SOLELY OR THE SEALANT AND/OR																	
CIC MUST BE REMOVED PRIOR TO INSPECTION AND REAPPLIED AFTER INSPECTION																	
IS COMPLETE.																	
(2) VENT STRINGERS PASSING THROUGH THE SIDE OF BODY RIB (STABILIZER ROOT)																	
HAVE SEALANT AND SEAL PANS PREVENTING DIRECTION 2 INSPECTION.																	
INSPECT INSIDE OF VENT STRINGER AND SKIN AT THIS LOCATION USING																	
BORESCOPE IF NECESSARY.																	
FROM BL 0 TO SIDE OF BODY, LEFT AND RIGHT																	
STRUCTURE DETAIL		INSPECTION PROGRAM DETAILS						DAMAGE DETECTION PERIOD N <sub>0</sub> FLIGHTS		△ DTR							
JOB CARD		DIREC. 		CHECK LEVEL		METHOD		%SAMP. R <sub>0</sub>		FREQUENCY F-FLIGHTS		N = $\frac{100F}{R_0}$					
SKIN		1		D		SURV		100		6000		6000		8580		3.5	
		1				DET								8580			
STRINGER		2		D		SURV		100		6000		6000		8580		3.7	
		2				DET								8580			
ENGR		Q. BENSON		10/31/07		REVISED		DATE		FUEL LEAK DTR				0			
CHECK		C. SHAULL		10/31/07						TOTAL DTR				7.2			
APR										REQUIRED DTR				6			
APR																	

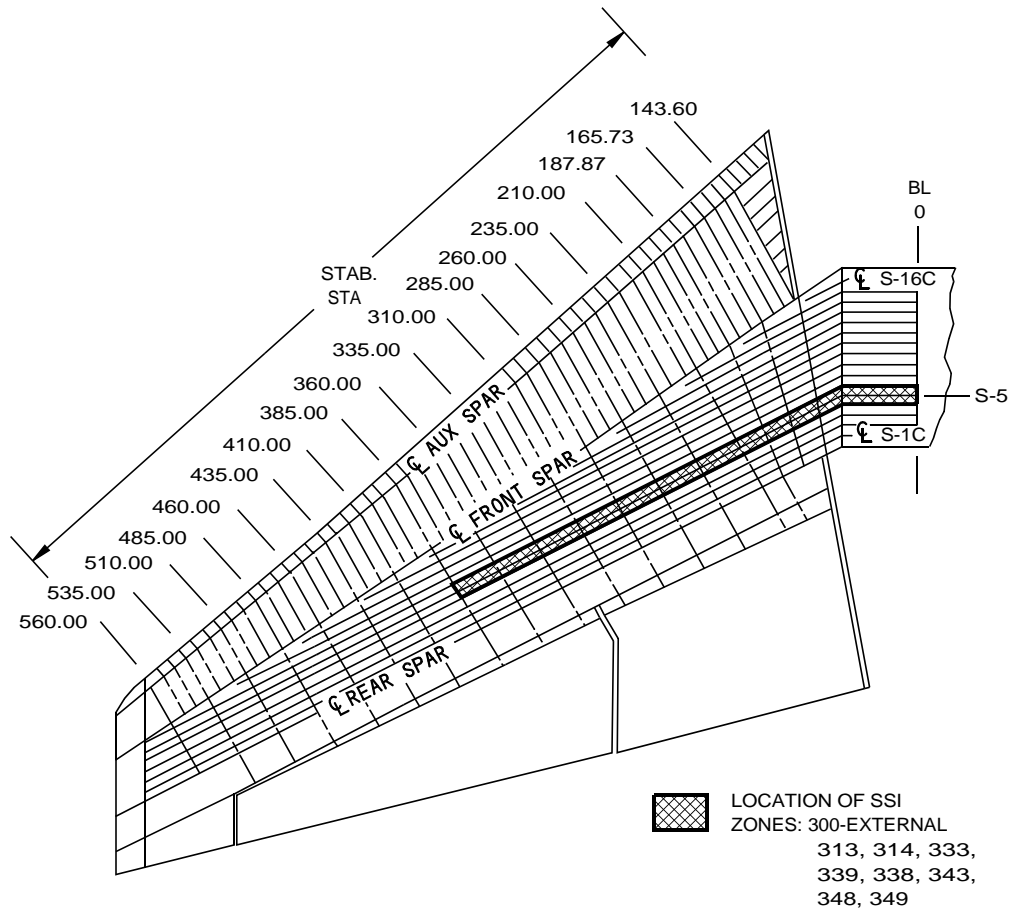
E34B.PDF

E34C.PDF

E34D.PDF



THIS PAGE INTENTIONALLY LEFT BLANK



LEFT SIDE IS SHOWN,  
RIGHT SIDE IS OPPOSITE

1546037

E-35 - HORIZONTAL STABILIZER UPPER SURFACE SPLICE STRINGER S-5 AND SKIN



## 747-400 LCF SUPPLEMENTAL STRUCTURAL INSPECTION DOCUMENT – APPENDIX A

E-35	INSPECTION INSTRUCTIONS	ACCESS MANHOURS		
		INSP	MHRS	ELPSD
TITLE:	HORIZONTAL STABILIZER UPPER SURFACE SPLICE STRINGER S-5 AND SKIN			

I. INSPECTION OPTIONS - DTR CHECK FORM E-35A

From the side of body to Stabilizer Station 385 at Stringer S-5, left and right.

(1) Skin

(External) From Direction 1, adjacent to and including skin-to-stringer fastener locations, using visual inspection methods.

Access: None required.

Zone(s): 300-External.

(2) Stringer

(Internal) From Direction 2, including fastener locations, using visual inspection methods.

Access: Open Access Doors 312AR, 338AZ, 339AZ, 349AZ.

Zone(s): 333, 339, 343, 349.

II. INSPECTION OPTIONS - DTR CHECK FORM E-35B

Center section from BL 0 to the side of body at Stringer S-5, left and right.

(1) Skin

(External) From Direction 1, adjacent to and including skin-to-stringer fastener locations, using visual inspection methods.

Access: Open Access Door 312AR.

Zone(s): 313, 314.

(2) Stringer

(Internal) From Direction 2, including fastener locations, using visual inspection methods.

Access: Open Access Doors 312AR, 338AZ.

Zone(s): 338, 348.





III. INSPECTION OPTIONS - DTR CHECK FORM E-35C

Areas hidden internally by shear ties or seal pans, at Stringer 5, around the rib at Stabilizer Station 285 and around the actuator ribs at Elevator Stations 115.488 and 123.228.

(1) Skin

(External) From Direction 1, adjacent to and including skin-to-stringer fastener locations, using visual inspection methods.

Access: None required.

Zone(s): 300-External.

(2) Skin

(External) From Direction 2, including fastener locations, using HFEC (Ref. 747 NDT Manual D6-7170, Part 6, 55-10-11). 1.0 elapsed hour and 1.0 manhour are required to accomplish this inspection.

Access: Same as III.(1).

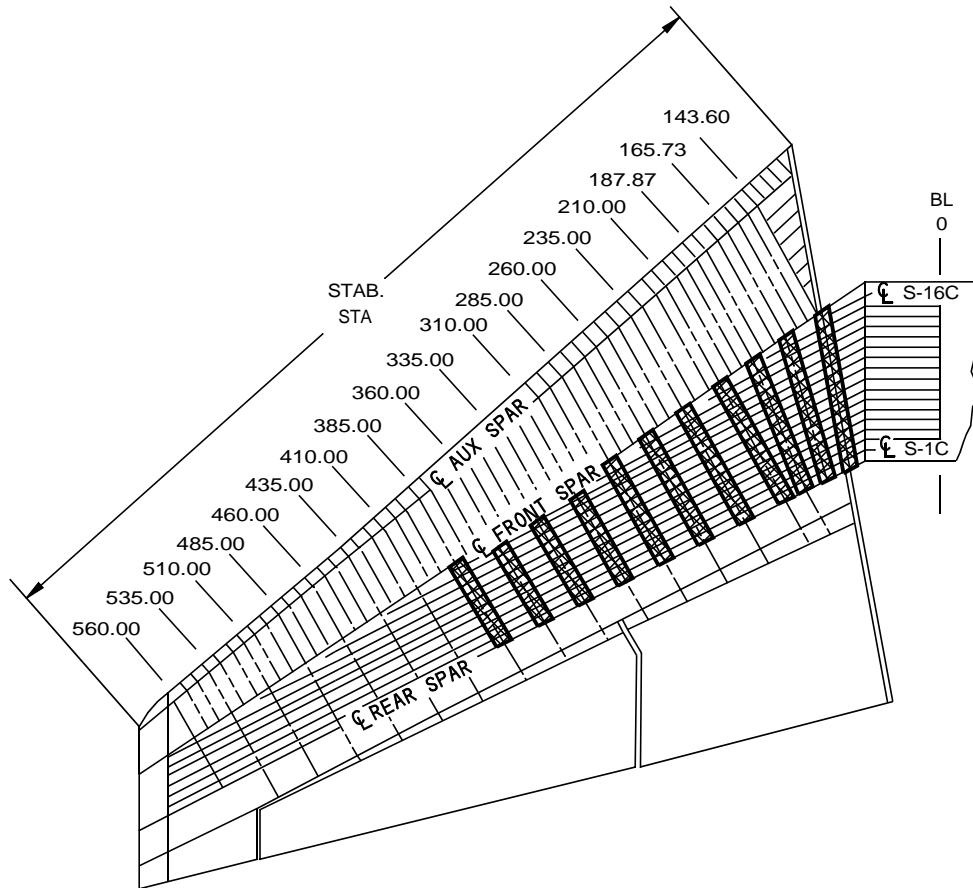
Zone(s): Same as III.(1).


<b>DTR CHECK FORM</b>				ITEM: <b>E-35A</b>		MODEL – SERIES 747-400 LCF		
TITLE: <u>HORIZONTAL STABILIZER SKIN-SPLICE STRINGER</u>				OPERATOR(S)		NO. ELIGIBLE A/C		
LOCATION: <u>STRINGER 5 UPPER SURFACE OUTBOARD</u> <u>SIDE OF BODY JOINT TO S. STA. 385</u>				<b>EXAMPLE</b>				
				<b>STRUCTURE AND INSPECTION DETAILS</b> <b>LEAD CRACK: STRINGER</b> 				
<b>NOTES:</b> N ( THOUSANDS OF FLIGHTS )      *** First crack delta DTR values *** (1) IF VISIBILITY IS REDUCED BY SEALANT OR CORROSION INHIBITING COMPOUND (CIC) THEN EITHER UTILIZE THE EXTERNAL INSPECTION SOLELY OR THE SEALANT AND/OR CIC MUST BE REMOVED PRIOR TO INSPECTION AND REAPPLIED AFTER INSPECTION IS COMPLETE. (2) INSPECTION REQUIREMENTS ARE SYMMETRIC ABOUT THE SPLICE STRINGER CENTERLINE.								
STRUCTURE DETAIL		INSPECTION PROGRAM DETAILS					DAMAGE DETECTION PERIOD N <sub>0</sub> FLIGHTS	△ DTR
JOB CARD		DIREC. ➡	CHECK LEVEL	METHOD	%SAMP. R <sub>0</sub>	FREQUENCY F-FLIGHTS	$N = \frac{100F}{R_0}$	
SKIN		1		SURV				32460
		1		DET				32460
STRINGER		2		SURV				32460
		2	<b>D</b>	DET	<b>100</b>	<b>6000</b>	<b>6000</b>	32460
ENGR		Q. BENSON		10/31/07		REVISED		DATE
CHECK		C. SHAULL		10/31/07				
APR								
APR								
FUEL LEAK DTR								0
TOTAL DTR								<b>6.6</b>
REQUIRED DTR								<b>6</b>

E35B.PDF

<b>DTR CHECK FORM</b>				ITEM: <b>E-35C</b>		MODEL – SERIES 747-400 LCF								
TITLE: <u>HORIZONTAL STABILIZER SKIN SPLICE</u> <u>STRINGER #5 UPPER SURFACE</u> LOCATION: <u>OUTBOARD STABILIZER AREAS HIDDEN</u> <u>INTERNALLY BY SHEAR TIES OR SEAL PANS</u>						OPERATOR(S) <b>EXAMPLE</b>		NO. ELIGIBLE A/C						
<div style="display: flex; align-items: center;"> </div>						STRUCTURE AND INSPECTION DETAILS LEAD CRACK: STRINGER 								
NOTES: <span style="float: right;">*** First Crack delta DTR values ***</span> (1) INSPECTION REQUIREMENTS SYMMETRIC ABOUT THE SPLICE STRINGER CENTERLINE.														
<div style="border: 1px solid black; padding: 5px;">             AT STRINGER 5:              - AROUND RIB AT STABILIZER STATION. 285              - AROUND ACTUATOR RIBS AT ELEVATOR STATION 115.488 AND 123.228           </div>														
STRUCTURE DETAIL		INSPECTION PROGRAM DETAILS						DAMAGE DETECTION PERIOD N <sub>0</sub> FLIGHTS		Δ DTR				
JOB CARD		DIREC. ↗		CHECK LEVEL		METHOD		%SAMP. R <sub>0</sub>		FREQUENCY F-FLIGHTS		N = $\frac{100F}{R_0}$		
SKIN		1		SURV								32460		
		1		DET								32460		
		2		D HFEC		100		6000		6000		32460		
ENGR		Q. BENSON		10/31/07		REVISED		DATE		FUEL LEAK DTR				0
CHECK		C. SHAULL		10/31/07						TOTAL DTR				10.2
APR										REQUIRED DTR				6
APR														

E35C.PDF



 LOCATION OF SSI  
 ZONES: 333, 338, 339,  
 343, 348, 349

LEFT HORIZONTAL STABILIZER IS SHOWN  
 (RIGHT HORIZONTAL STABILIZER IS OPPOSITE)

1544488

E-36 - HORIZONTAL STABILIZER TYPICAL RIBS



E-36	INSPECTION INSTRUCTIONS	ACCESS MANHOURS		
		INSP	MHRS	ELPSD
TITLE:	HORIZONTAL STABILIZER TYPICAL RIBS			

I. INSPECTION OPTIONS - DTR CHECK FORM E-36

At the lower rib chord from the side of body to Stabilizer Station 385.

(1) Chord

(Internal) From Direction 1, including fastener locations, using visual inspection methods.

Access: Open Access Doors 312AR, 338AZ, 339AZ, 349AZ.

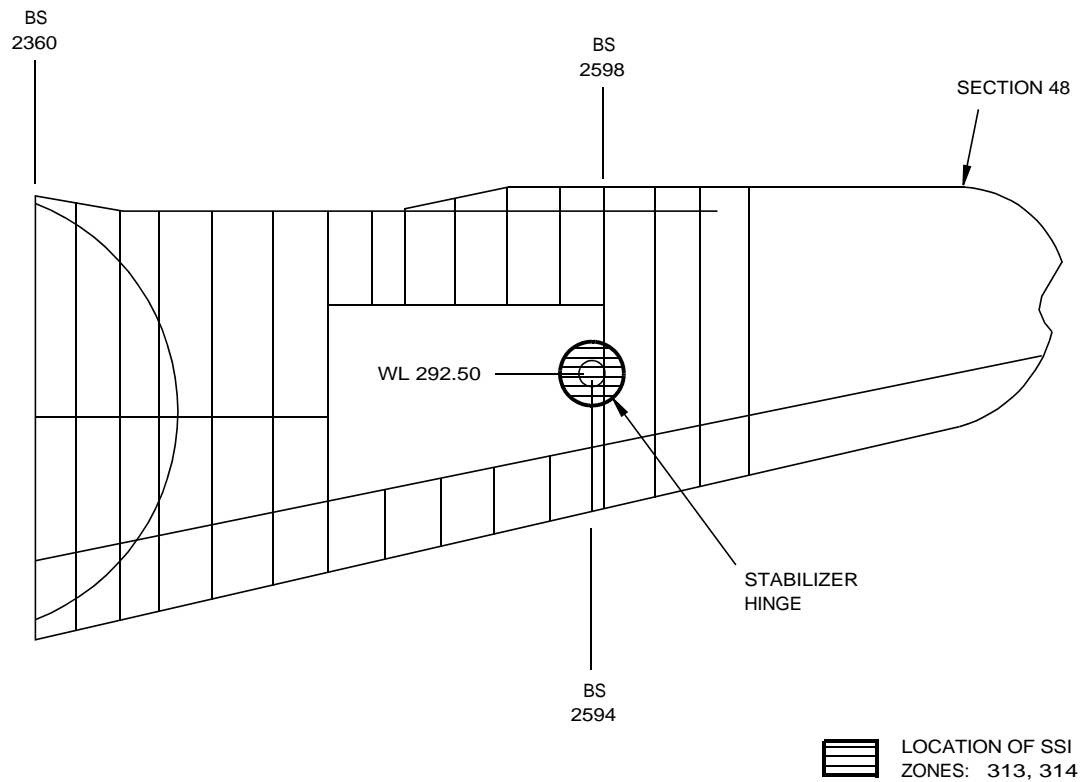
Zone(s): 333, 339, 343, 349.

E36.PDF



THIS PAGE INTENTIONALLY LEFT BLANK





817668

### E-37 - HORIZONTAL STABILIZER HINGE PIN AND SUPPORT STRUCTURE



## 747-400LCF SUPPLEMENTAL STRUCTURAL INSPECTION DOCUMENT – APPENDIX A

E-37	INSPECTION INSTRUCTIONS	ACCESS MANHOURS		
		INSP	MHRS	ELPSD
TITLE:	HORIZONTAL STABILIZER HINGE PIN AND SUPPORT STRUCTURE	I.(1)	180	45

I. INSPECTION OPTIONS - DTR CHECK FORM E-37A

At the entire surface of the outer hinge pin.

(1) Hinge Pin

(Internal) and (External) From Direction 1, following removal of the hinge pin, using MT inspection (Standard Overhaul Practices Document D6-51702). 0.5 elapsed hour and 0.5 manhour are required to accomplish this inspection.

Access: Open Access Door 315AL.

Zone(s): 313, 314.

II. INSPECTION OPTIONS - DTR CHECK FROM E-37B

At the male lugs mounted on the stabilizer center section.

NOTE: Inspect the side faces of the lug +/- 70 degrees from the centerline.

(1) Lug

(External) From Direction 1, at specified locations, using HFEC (Ref. NDT Manual D6-7170, Part 6, 55-50-01). 1.0 elapsed hour and 1.0 manhour are required to accomplish this inspection.

Access: Open Access Door 315AL.

Zone(s): Same as I.(1).

III. INSPECTION OPTIONS - DTR CHECK FORM E-37C

At the female lugs mounted on the Body Station 2598 bulkhead.

NOTE: Inspect the side faces of the lug +/- 30 degrees from the centerline.

(1) Lugs

(External) From Direction 1, at specified locations, using HFEC (Ref. NDT Manual D6-7170, Part 6, 55-50-01). 0.5 elapsed hour and 0.5 manhour are required to accomplish this inspection.

Access: Same as II.(1).

Zone(s): Same as I.(1).



## 747-400LCF SUPPLEMENTAL STRUCTURAL INSPECTION DOCUMENT – APPENDIX A

<b>DTR CHECK FORM</b>				ITEM: <b>E-37A</b>		MODEL – SERIES 747-400 LCF																																																																																																				
TITLE: <u>HORIZONTAL STABILIZER HINGE PIN</u> <u>AND SUPPORT STRUCTURE</u>				OPERATOR(S)		NO. ELIGIBLE A/C																																																																																																				
LOCATION: <u>ENTIRE SURFACE OF THE OUTER HINGE PIN</u>				<b>EXAMPLE</b>																																																																																																						
<div style="display: flex; align-items: center;"><div style="flex: 1;"></div><div style="flex: 1; padding-left: 10px; vertical-align: top;"><p>STRUCTURE AND INSPECTION DETAILS</p><p>LEAD CRACK: OUTER PIN</p><p>REMOVE AND INSPECT THE SURFACE OF THE OUTER PIN</p></div></div>				<p>NOTES:</p> <p style="text-align: center;">N ( THOUSANDS OF FLIGHTS )      *** First crack delta DTR values ***</p> <p>(1) DYE PENETRANT INSPECTION CAN BE SUBSTITUTED FOR MAGNETIC PARTICLE INSPECTION.</p>																																																																																																						
<table border="1" style="width: 100%; border-collapse: collapse;"><thead><tr><th rowspan="2" style="width: 15%;">STRUCTURE DETAIL</th><th colspan="7" style="text-align: center;">INSPECTION PROGRAM DETAILS</th><th rowspan="2" style="width: 15%;">DAMAGE DETECTION PERIOD N<sub>0</sub> FLIGHTS</th><th rowspan="2" style="width: 10%;">△ DTR</th></tr><tr><th style="width: 10%;">JOB CARD</th><th style="width: 10%;">DIREC. </th><th style="width: 10%;">CHECK LEVEL</th><th style="width: 10%;">METHOD</th><th style="width: 10%;">%SAMP. R<sub>0</sub></th><th style="width: 10%;">FREQUENCY F-FLIGHTS</th><th style="width: 10%;">N = <math>\frac{100F}{R_0}</math></th></tr></thead><tbody><tr><td>HINGE PIN</td><td></td><td>1</td><td>2C</td><td>MT</td><td>100</td><td>3000</td><td>3000</td><td>6300</td><td>7.2</td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></tbody></table>										STRUCTURE DETAIL	INSPECTION PROGRAM DETAILS							DAMAGE DETECTION PERIOD N <sub>0</sub> FLIGHTS	△ DTR	JOB CARD	DIREC. 	CHECK LEVEL	METHOD	%SAMP. R <sub>0</sub>	FREQUENCY F-FLIGHTS	N = $\frac{100F}{R_0}$	HINGE PIN		1	2C	MT	100	3000	3000	6300	7.2																																																																						
STRUCTURE DETAIL	INSPECTION PROGRAM DETAILS							DAMAGE DETECTION PERIOD N <sub>0</sub> FLIGHTS	△ DTR																																																																																																	
	JOB CARD	DIREC. 	CHECK LEVEL	METHOD	%SAMP. R <sub>0</sub>	FREQUENCY F-FLIGHTS	N = $\frac{100F}{R_0}$																																																																																																			
HINGE PIN		1	2C	MT	100	3000	3000	6300	7.2																																																																																																	
<table border="1" style="width: 100%; border-collapse: collapse;"><thead><tr><th style="width: 10%;">ENGR</th><th style="width: 20%;">Q. BENSON</th><th style="width: 10%;">10/29/07</th><th style="width: 10%;">REVISED</th><th style="width: 10%;">DATE</th></tr></thead><tbody><tr><td>CHECK</td><td>C. SHAULL</td><td>10/29/07</td><td></td><td></td></tr><tr><td>APR</td><td></td><td></td><td></td><td></td></tr><tr><td>APR</td><td></td><td></td><td></td><td></td></tr></tbody></table>								ENGR	Q. BENSON	10/29/07	REVISED	DATE	CHECK	C. SHAULL	10/29/07			APR					APR					FUEL LEAK DTR		0																																																																												
ENGR	Q. BENSON	10/29/07	REVISED	DATE																																																																																																						
CHECK	C. SHAULL	10/29/07																																																																																																								
APR																																																																																																										
APR																																																																																																										
								TOTAL DTR	7.2																																																																																																	
								REQUIRED DTR	6																																																																																																	

E36A.PDF

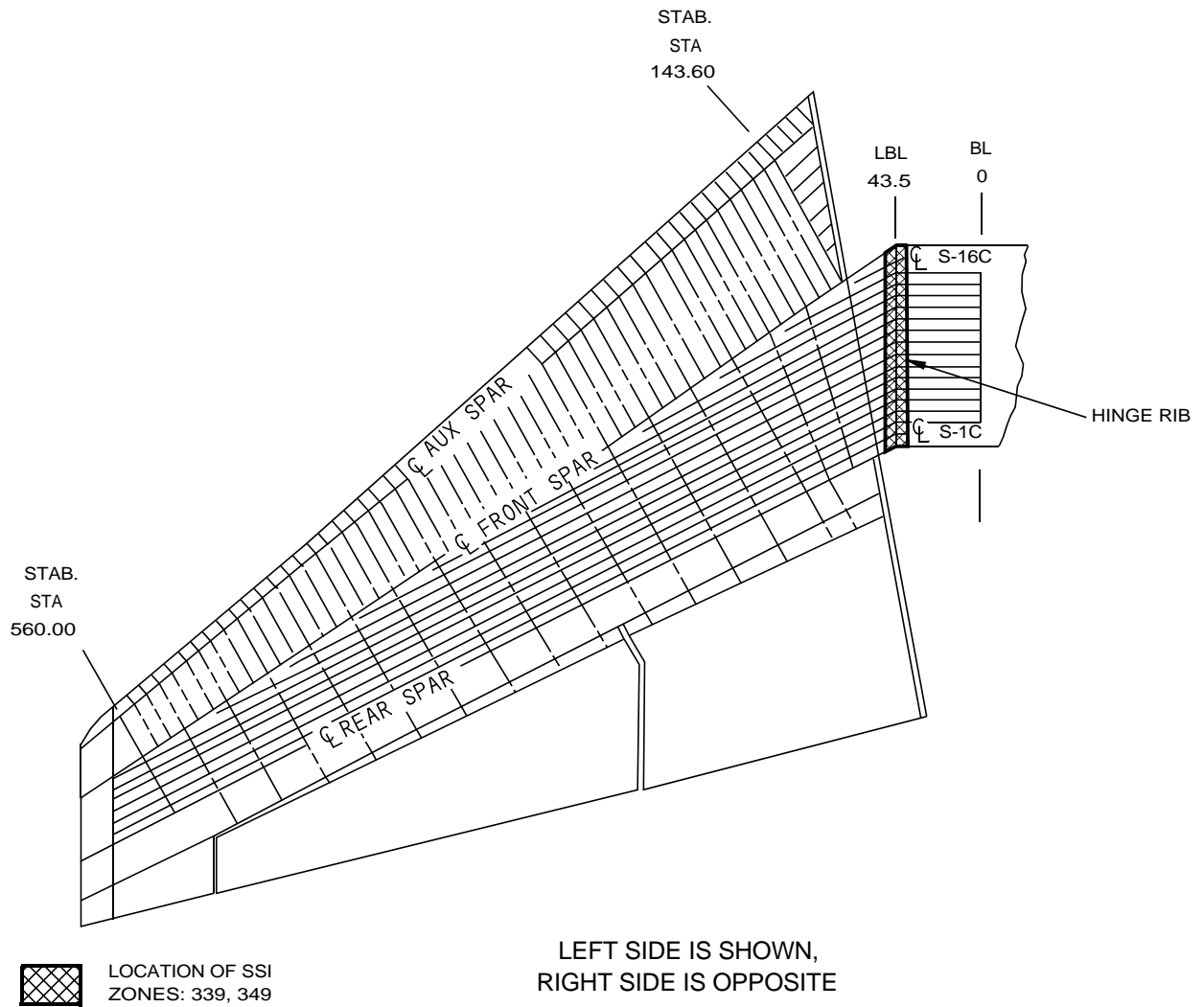


E36B.PDF

E36C.PDF



THIS PAGE INTENTIONALLY LEFT BLANK



1543971

### E-38 - HORIZONTAL STABILIZER HINGE RIB



E-38	INSPECTION INSTRUCTIONS	ACCESS MANHOURS		
		INSP	MHRS	ELPSD
TITLE:	HORIZONTAL STABILIZER HINGE RIB			

I. INSPECTION OPTIONS - DTR CHECK FORM E-38

The entire rib from the front spar to the rear spar, left and right.

(1) Web

(Internal) From Direction 1, including fastener locations, using visual inspection methods.

Access: Open Access Doors 312AR, 338AZ, 339AZ, 349AZ.

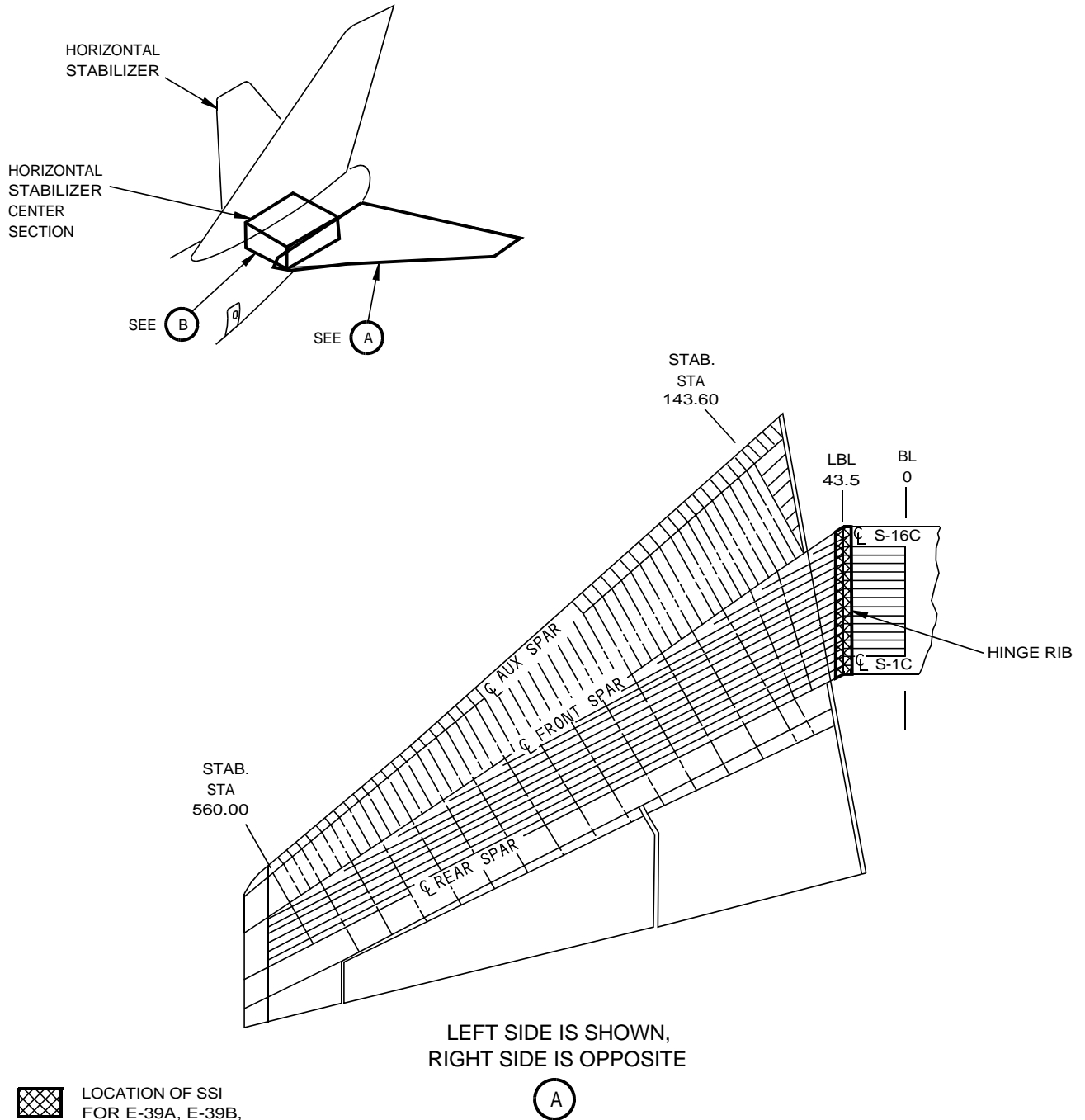
Zone(s): 339, 349.



E38.PDF

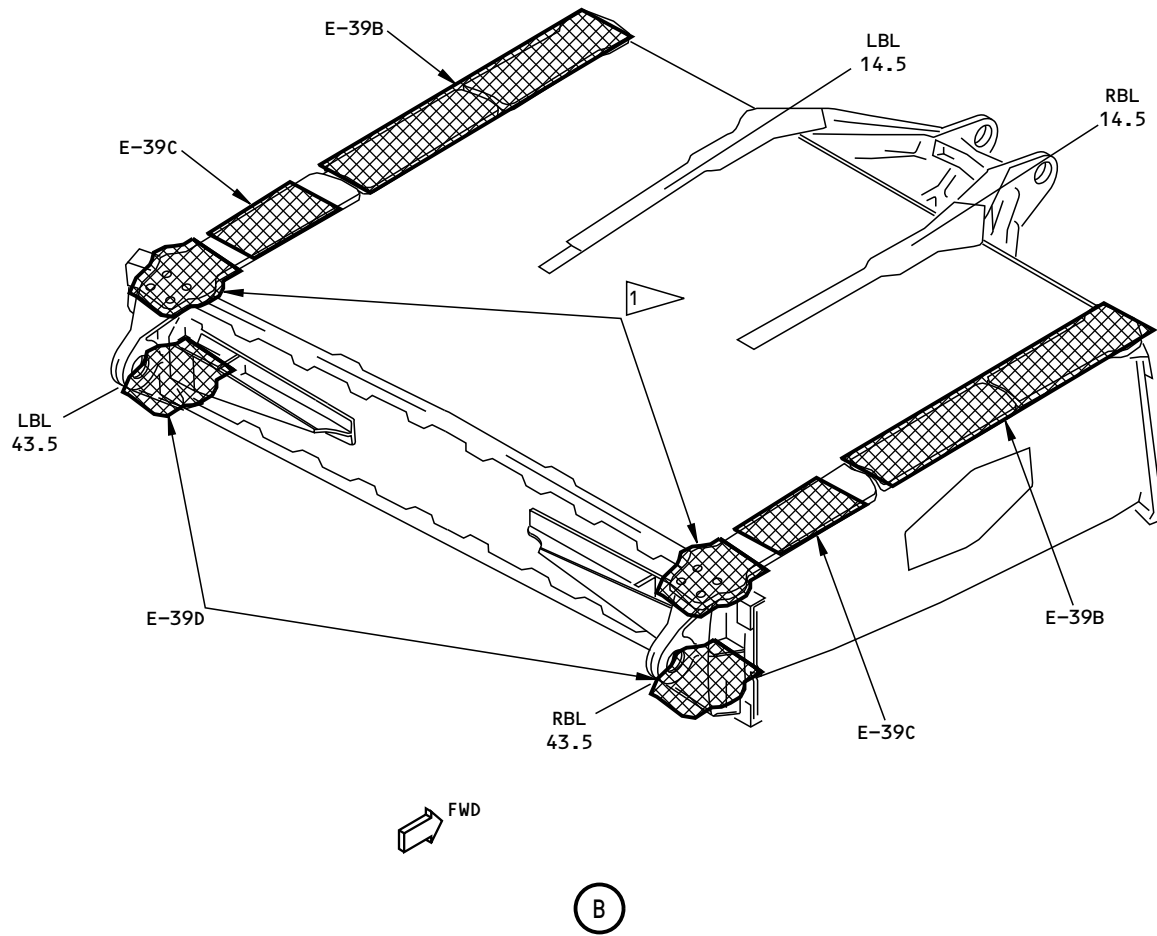


THIS PAGE INTENTIONALLY LEFT BLANK



1544213

E-39 – HORIZONTAL STABILIZER SIDE OF BODY SPLICE



LOCATION OF SSI



COVERED BY SB 747-55A2050

1544301

E-39 – HORIZONTAL STABILIZER SIDE OF BODY SPLICE



E-39	INSPECTION INSTRUCTIONS	ACCESS MANHOURS		
		INSP	MHRS	ELPSD
TITLE:	HORIZONTAL STABILIZER SIDE OF BODY SPLICE	III.(1)	1	1
		IV.(1)	1	1

I. INSPECTION OPTIONS - DTR CHECK FORM E-39A

At typical upper surface locations from the front spar to the rear spar.

(1) Skin

(Internal) From Direction 1, adjacent to and including skin-to-splice plate fastener locations, using visual inspection methods.

Access: Open Access Doors 312AR, 338AZ, 339AZ, 349AZ.

Zone(s): 338, 339, 348, 349.

(2) Stringer Flanges

(Internal) From Direction 2, including fastener locations, using visual inspection methods.

Access: Same as I.(1).

Zone(s): Same as I.(1).

II. INSPECTION OPTIONS - DTR CHECK FORM E-39B

At the forward splice plates.

(1) Splice Plate

(External) From Direction 3, including fastener locations, using visual inspection methods.

Access: Open Access Door 312AR.

Zone(s): 313, 314.

(2) Stringer Flanges

(Internal) From Direction 2, including fastener locations, using visual inspection methods.

Access: Same as I.(1).

Zone(s): Same as I.(1).



### III. INSPECTION OPTIONS - DTR CHECK FORM E-39C

At the aft splice plate.

#### (1) Splice Plate

(External) From Direction 5, at specified locations, using LFEC (Ref. NDT Manual D6-7170, Part 6, 55-10-08). 1.0 elapsed hour and 2.0 manhours are required to accomplish this inspection.

Access: Same as II.(1).

Zone(s): Same as II.(1).

#### (2) Stringer Flanges

(Internal) From Direction 2, including fastener locations, using visual inspection methods.

Access: Same as I.(1).

Zone(s): Same as I.(1).

### IV. INSPECTION OPTIONS - DTR CHECK FORM E-39D

Lower surfaces of splice plates at hinge fitting.

#### (1) Inner Splice Plate

(Internal) From Direction 1, at inner/outer fasteners aft of rear spar common to splice plates and hinge fitting on either side of BL 43.5 using HFEC (Ref. NDT Manual D6-7170, Part 6, 55-10-12). 1.0 elapsed hour and 2.0 manhours are required to accomplish this inspection.

Access: Open Access Door 315AL.

Zone(s): 313, 314.

PAGE E-39.5



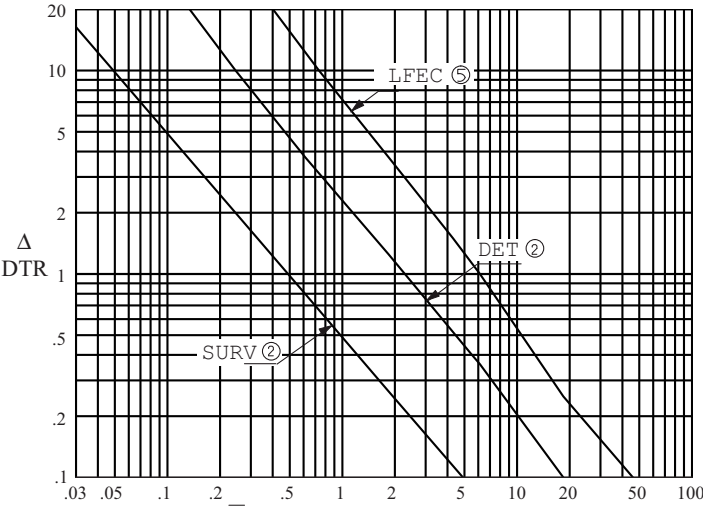
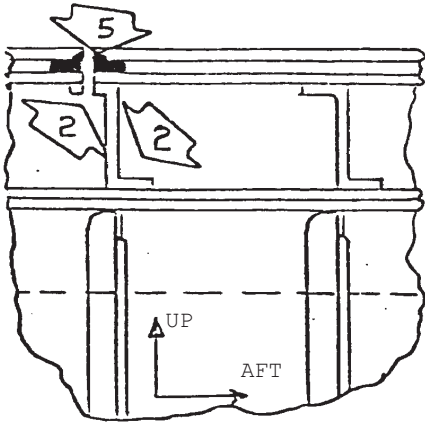
## 747-400 LCF SUPPLEMENTAL STRUCTURAL INSPECTION DOCUMENT – APPENDIX A

<b>DTR CHECK FORM</b>				ITEM: <b>E-39B</b>		MODEL – SERIES 747-400 LCF					
TITLE: <u>HORIZONTAL STABILIZER SIDE OF BODY SPLICE</u>				OPERATOR(S)		NO. ELIGIBLE A/C					
LOCATION: <u>UPPER SURFACE STRINGERS AND SPLICE PLATES</u> (FORWARD)				<b>EXAMPLE</b>							
				<b>STRUCTURE AND INSPECTION DETAILS</b> LEAD CRACK: SPLICE PLATES 							
NOTES: (1) IF VISIBILITY IS REDUCED BY SEALANT OR CORROSION INHIBITING COMPOUND (CIC) THEN EITHER UTILIZE THE EXTERNAL INSPECTION SOLELY OR THE SEALANT AND/OR CIC MUST BE REMOVED PRIOR TO INSPECTION AND REAPPLIED AFTER INSPECTION IS COMPLETE. (2) BOTH UPPER AND LOWER FLANGES OF THE STRINGERS MUST BE INSPECTED TO OBTAIN THE $\Delta$ DTR FOR DIRECTION 2. (3) SEE E-34A AND E-34B NOTES FOR VENT STRINGERS.				*** First crack delta DTR values ***							
STRUCTURE DETAIL		INSPECTION PROGRAM DETAILS						DAMAGE DETECTION PERIOD N <sub>0</sub> FLIGHTS		$\Delta$ DTR	
		JOB CARD	DIREC. 	CHECK LEVEL	METHOD	%SAMP. R <sub>0</sub>	FREQUENCY F-FLIGHTS	$\bar{N} = \frac{100F}{R_0}$			
SPLICE PLATE			3		SURV				7200		
STRINGER FLANGES			2		SURV				6000		
			2		DET				8400		



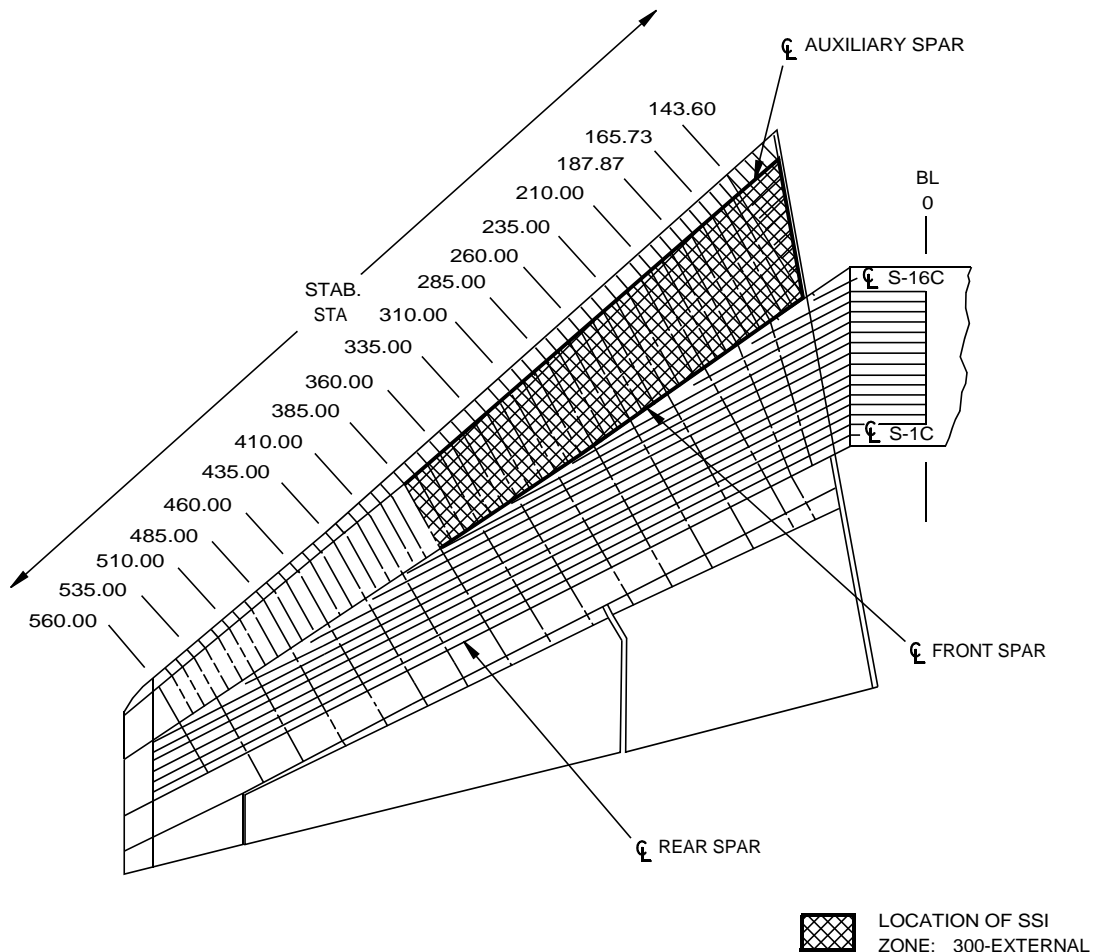


## 747-400 LCF SUPPLEMENTAL STRUCTURAL INSPECTION DOCUMENT – APPENDIX A

<b>DTR CHECK FORM</b>				ITEM: <b>E-39C</b>		MODEL – SERIES 747-400 LCF			
TITLE: <u>HORIZONTAL STABILIZER SIDE OF BODY SPLICE</u>				OPERATOR(S)		NO. ELIGIBLE A/C			
LOCATION: <u>UPPER SURFACE STRINGERS AND SPLICE PLATES (AFT)</u>				<b>EXAMPLE</b>					
				<div style="text-align: center;">STRUCTURE AND INSPECTION DETAILS</div> <div style="text-align: center;">LEAD CRACK: SPLICE PLATES</div> <div style="text-align: center;">LFEC</div> 					
NOTES:				*** First crack delta DTR values ***					
(1) IF VISIBILITY IS REDUCED BY SEALANT OR CORROSION INHIBITING COMPOUND (CIC) THEN EITHER UTILIZE THE EXTERNAL INSPECTION SOLELY OR THE SEALANT AND OR CIC MUST BE REMOVED PRIOR TO INSPECTION AND REAPPLIED AFTER INSPECTION IS COMPLETE.									
(2) THE INNER SPLICE IS REPRESENTED IN THE AFT REGION WHERE THE SPLICE PLATE IS IN TWO LAYERS.									
(3) DTR FOR DIRECTION 2 REQUIRES INSPECTION OF BOTH UPR AND LWR FLANGES.									
(4) LFEC INSPECTION (DIRECTION 5) FOR THE INNERMOST ROWS ONLY.									
(5) EXCLUDING REAR SPAR LOCATIONS COVERED BY E-39D									
STRUCTURE DETAIL		INSPECTION PROGRAM DETAILS						DAMAGE DETECTION PERIOD N <sub>0</sub> FLIGHTS	△ DTR
JOB CARD		DIREC. ↘	CHECK LEVEL	METHOD	%SAMP. R <sub>0</sub>	FREQUENCY F-FLIGHTS	$\bar{N} = \frac{100F}{R_0}$		
SPLICE PLATE		5	C	LFEC	100	1500	1500	4860	4.6
STRINGER FLANGES		2		SURV				6600	
		2	C	DET	100	1500	1500	8400	1.5
ENGR	Q. BENSON	10/29/07	REVISED	DATE	FUEL LEAK DTR				0
CHECK	C. SHAULL	10/29/07			TOTAL DTR				6.1
APR					REQUIRED DTR				6
APR									

E39C.PDF

E39D.PDF



LEFT SIDE SHOWN,  
RIGHT SIDE OPPOSITE

818361

## E-40 - HORIZONTAL STABILIZER FORWARD TORQUE BOX



E-40	INSPECTION INSTRUCTIONS	ACCESS MANHOURS		
		INSP	MHRS	ELPSD
TITLE:	HORIZONTAL STABILIZER FORWARD TORQUE BOX			

I. INSPECTION OPTIONS - DTR CHECK FORM E-40

From the side of body to Stabilizer Station 385, left and right.

(1) Skin

(External) From Direction 1, including fastener locations, using visual inspection methods.

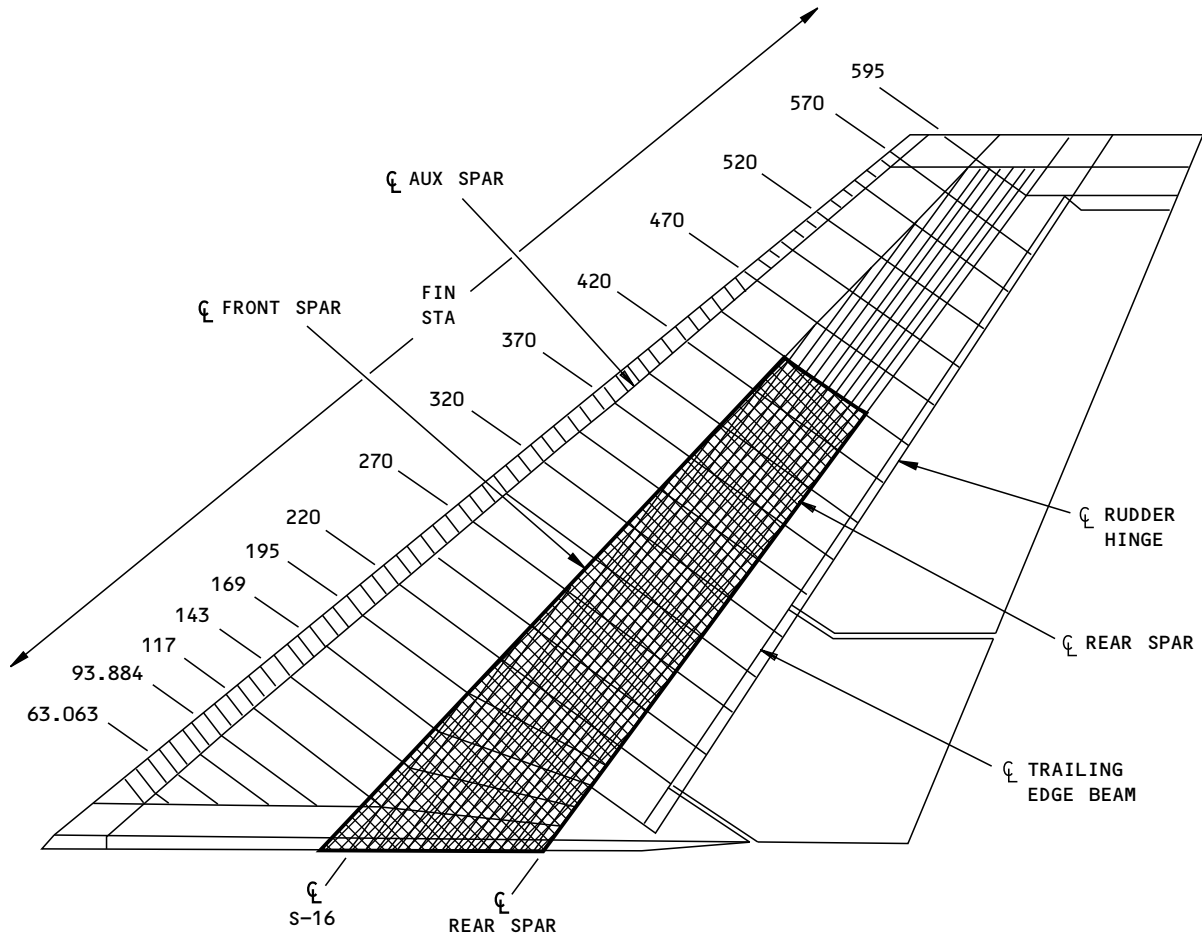
Access: None required.

Zone(s): 300-External.

E40.PDF



THIS PAGE INTENTIONALLY LEFT BLANK



LOCATION OF SSI  
ZONES: 300-EXTERNAL 323

1552262

### E-46 – VERTICAL FIN TYPICAL SKIN-STRINGER



E-46	INSPECTION INSTRUCTIONS	ACCESS MANHOURS		
		INSP	MHRS	ELPSD
TITLE:	VERTICAL FIN TYPICAL SKIN-STRINGER			

I. INSPECTION OPTIONS - DTR CHECK FORM E-46

Between the front spar and the rear spar and from attachment to the fuselage to Fin Station 445, excluding Stringers S-5 and S-11.

(1) Skin

(External) From Direction 1, adjacent to and including skin-to-stringer fastener locations, using visual inspection methods.

Access: None required.

Zone(s): 300-External.

(2) Stringer

(Internal) From Direction 2, including skin-to-stringer fastener locations, using visual inspection methods.

Access: Open Access Doors 312AR and 312BR.

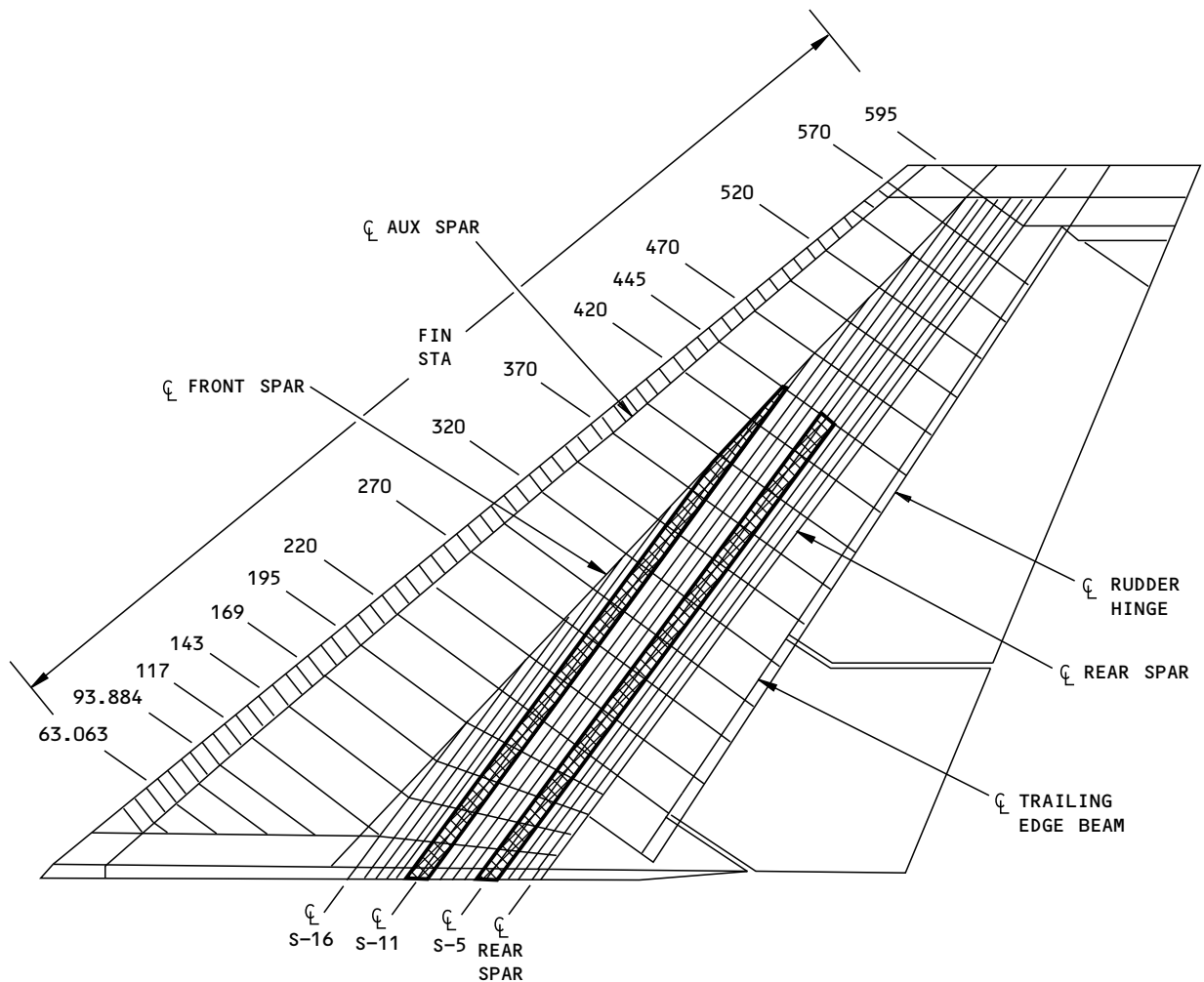
Zone(s): 323.




E46.PDF



THIS PAGE INTENTIONALLY LEFT BLANK



 LOCATION OF SSI  
ZONES: 300-External 323.

1554236

E-47 - VERTICAL FIN SKIN-SPLICE STRINGER



E-47	INSPECTION INSTRUCTIONS	ACCESS MANHOURS		
		INSP	MHRS	ELPSD
TITLE:	VERTICAL FIN SKIN-SPLICE STRINGER	I.(1)	6	3

I. INSPECTION OPTIONS - DTR CHECK FORM E-47

At Stringers S-5 and S-11, from attachment at the fuselage to Fin Station 445.

(1) Skin

(External) From Direction 1, surface around the fastener locations, using HFEC (Ref. NDT Manual D6-7170, Part 6, 55-30-03). 1.0 elapsed hour and 1.0 manhour are required to accomplish this inspection.

Access: None required.

Zone(s): 300-External.

(2) Skin

(External) From Direction 1, adjacent to and including skin-to-stringer fastener locations, using visual inspection methods.

Access: None required.

Zone(s): 300-External.

(3) Stringer

(Internal) From Direction 2, including fastener locations, using visual inspection methods.

Access: Open Access Doors 312AR and 312BR.

Zone(s): 323.

E47.PDF



THIS PAGE INTENTIONALLY LEFT BLANK



## 9.0 SERVICE BULLETINS WITH FLIGHT SAFETY ADDENDA/INSPECTION PROGRAMS

Please refer to the 747 Supplemental Structural Inspection Document, D6-35022, for all of Section 9.0.



THIS PAGE INTENTIONALLY LEFT BLANK





## 10.0 GENERAL INFORMATION

This section provides information on airplane zones, airplane access panels and the damage tolerance rating system, a list of abbreviations and a glossary.

Sections 10.1 and 10.2 are included for reference to 747-400 LCF-specific zonal diagrams and access panels, respectfully.

Sections 10.3, 10.4 and 10.5 are not included in this appendix. Please refer to the 747 Supplemental Structural Inspection Document (SSID), D6-35022, for all of Sections 10.3, 10.4 and 10.5.

### 10.1 Airplane Zone Diagrams

This data is available in the Maintenance Planning Document (MPD) for the appropriate series, as listed below.:

Model-Series	Maintenance Planning Document	Section
747-400LCF	D621U400	APPENDIX A

To obtain a copy of your MPD via the internet, go to [MyBoeingFleet.com](http://MyBoeingFleet.com) or contact your Boeing Field Service Representative for a hard copy.

### 10.2 Airplane Access Panels

This data is available in the MPD for the appropriate series, as listed below.:

Model-Series	Maintenance Planning Document	Section
747-400LCF	D621U400	APPENDIX A

To obtain a copy of your MPD via the internet, go to [MyBoeingFleet.com](http://MyBoeingFleet.com) or contact your Boeing Field Service Representative for a hard copy.

### 10.3 Damage Tolerance Rating (DTR) System

Please refer to the 747 SSID, D6-35022 for information on this topic.

### 10.4 Abbreviations

Please refer to the 747 SSID, D6-35022 for the list of abbreviations.

### 10.5 Glossary

Please refer to the 747 SSID, D6-35022 for the Glossary.



THIS PAGE INTENTIONALLY LEFT BLANK



## 11.0 BLANK DAMAGE TOLERANCE RATING (DTR) CHECK FORMS

This section contains blank DTR Check Forms for the Wing, Fuselage, and Empennage (for all Strut DTR Check Forms, refer to the 747 Supplemental Structural Inspection Document, D6-35022). These DTR Check Forms are to be completed by the operator in accordance with the guidelines in Sections 5.0 and 7.0, and the information in Section 8.0, in order to determine if the current maintenance program applicable to the eligible airplanes provides the Required DTR or if supplemental structural inspections are required.

### 11.0.1 Table of Contents

BLANK DTR CHECK FORMS	SECTION
Wing	11.1
Fuselage	11.2
Empennage	11.3

#### NOTES:

1. For a list of effective pages, see the LOP Section.
2. Task cards listed in the Job Card column should be identified as being associated with the 747 SSID to serve as NOTICE that adverse findings should be reviewed to determine whether reporting per Section 6.0 is required.
3. Operators must assess the visibility of each SSI being inspected relative to the assumed normal condition shown in the sketches and diagrams. Consult Paragraphs 5.1.15 through 5.1.18 if the current configuration appears to be different from that shown. Regulatory approved alternate means of compliance may be required.
4. All cracks and previously unreported occurrences of significant corrosion involving an SSI or related structure in close vicinity to the SSI shall be reported promptly (within five working days) to Boeing. There is no requirement to report completed inspections if no discrepancies have been detected. See Section 6.0 for reporting procedures.
5. Periodically check the Interval Conversion Factor per Section 11.0.2 to ensure that operations or maintenance interval changes have not affected completed DTR Check Forms such that the Total DTR has fallen below the Required DTR.

### 11.0.2 Interval Conversion Factor

Most maintenance programs have interval (A, C, D checks or equivalent) expressed in either flight hours or calendar time. However, when qualified inspections of those maintenance programs are used for DTR credit on DTR Check Forms then the interval must be expressed in FLIGHT CYCLES.

A factor of ...[1] (one flight hour [1] / one month [1] is equivalent to ...[1] flight cycle) has been used to convert the current flight hour [1] / calendar time [1] interval-based maintenance program to flight cycles to complete Section 11.0 DTR Check Forms (see Note 5).

INTERVAL	FLIGHT HOURS <sup>[1]</sup>	MONTH <sup>[1]</sup>	FLIGHT CYCLES <sup>[1]</sup>
A-CHECK			
C-CHECK			
D-CHECK			

<sup>[1]</sup> Complete and cross out what does not apply.



THIS PAGE INTENTIONALLY LEFT BLANK

W-16AA\_Blank.PDF



THIS PAGE INTENTIONALLY LEFT BLANK

F-6FF\_blank.PDF



THIS PAGE INTENTIONALLY LEFT BLANK







THIS PAGE INTENTIONALLY LEFT BLANK



## 747-400 LCF SUPPLEMENTAL STRUCTURAL INSPECTION DOCUMENT – APPENDIX A

DTR CHECK FORM				ITEM: F-11FF		MODEL-SERIES 747-400 LCF					
TITLE: BULKHEAD BS1480				OPERATOR(S)		NO. ELIGIBLE A/C					
LOCATION: INNER CHORD AT S-131 AND S-133 (LH & RH)				1							
<div style="display: flex;"><div style="flex: 1;"><p style="text-align: center;">20 10 5 2 1 .5 .2 .1</p><p style="text-align: center;">△ DTR</p><p style="text-align: center;">.03 .05 .1 .2 .5 1 2 5 10 20 50 100</p><p style="text-align: center;">N (THOUSANDS OF FLIGHTS)</p></div><div style="flex: 1; padding-left: 10px;"><p>STRUCTURE AND INSPECTION DETAILS</p><p>LEAD CRACK: INNER CHORD</p><p style="text-align: right;">INBD FWD</p></div></div>				*** First crack delta DTR values ***							
				NOTES: 1 FIRST FASTENER ROW COMMON TO INNER CHORD SPLICE.							
STRUCTURE DETAIL		INSPECTION PROGRAM DETAILS					DAMAGE DETECTION PERIOD N OF FLIGHTS		△ DTR		
INNER CHORD		JOB CARD	DIREC. →	CHECK LEVEL	METHOD	%SAMP R <sub>O</sub>	FREQUENCY F-FLIGHTS	N = 100F/R <sub>O</sub>			
			1		UT				>100000		
ENGR.		REVISED		FUEL LEAK DTR						6	
CHECK				TOTAL DTR							
APPR.				REQUIRED DTR							
APPR.											

F11FF\_Blank.PDF



THIS PAGE INTENTIONALLY LEFT BLANK

F16CC\_Blank.PDF

F16DD\_Blank.PDF

PAGE F-19.1

F19UU\_Blank.PDF



F19VW\_Blank.PDF

F19WW\_Blank.PDF



## 747-400 LCF SUPPLEMENTAL STRUCTURAL INSPECTION DOCUMENT – APPENDIX A

DTR CHECK FORM				ITEM: F-20MM		MODEL-SERIES 747-400 LCF																																																																																																			
TITLE: UPPER DECK FLOOR CUTOUTS				OPERATOR(S)		NO. ELIGIBLE A/C																																																																																																			
LOCATION: UPPER CHORD AT INTERCOSTAL/STIFFENER CONNECTIONS ALONG FLOOR BEAM				1																																																																																																					
<div style="display: flex; align-items: center;"><div style="margin-right: 10px;"><math>\Delta</math> DTR</div></div>				STRUCTURE AND INSPECTION DETAILS																																																																																																					
				LEAD CRACK: UPPER CHORD   UPPER CHORD: 2024-T3511																																																																																																					
NOTES: 1 COMMON TO SHEAR WEB AT STA 440 AND 480. (1) DIR-1 LFEC IS A SUB-SURFACE INSPECTION.				*** First crack delta DTR values ***																																																																																																					
<table border="1" style="width: 100%; border-collapse: collapse;"><thead><tr><th rowspan="2">STRUCTURE DETAIL</th><th colspan="6">INSPECTION PROGRAM DETAILS</th><th rowspan="2">DAMAGE DETECTION PERIOD N OF FLIGHTS</th><th rowspan="2"><math>\Delta</math> DTR</th></tr><tr><th>JOB CARD</th><th>DIREC. </th><th>CHECK LEVEL</th><th>METHOD</th><th>%SAMP R<sub>O</sub></th><th>FREQUENCY F-FLIGHTS</th><th><math>\bar{N} =</math> 100F/R<sub>O</sub></th></tr></thead><tbody><tr><td rowspan="9">CHORD</td><td></td><td>1</td><td></td><td>LFEC</td><td></td><td></td><td></td><td>17800</td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></tbody></table>								STRUCTURE DETAIL	INSPECTION PROGRAM DETAILS						DAMAGE DETECTION PERIOD N OF FLIGHTS	$\Delta$ DTR	JOB CARD	DIREC. 	CHECK LEVEL	METHOD	%SAMP R <sub>O</sub>	FREQUENCY F-FLIGHTS	$\bar{N} =$ 100F/R <sub>O</sub>	CHORD		1		LFEC				17800																																																																									
STRUCTURE DETAIL	INSPECTION PROGRAM DETAILS						DAMAGE DETECTION PERIOD N OF FLIGHTS		$\Delta$ DTR																																																																																																
	JOB CARD	DIREC. 	CHECK LEVEL	METHOD	%SAMP R <sub>O</sub>	FREQUENCY F-FLIGHTS		$\bar{N} =$ 100F/R <sub>O</sub>																																																																																																	
CHORD		1		LFEC				17800																																																																																																	
<table border="1" style="width: 100%; border-collapse: collapse;"><tr><td>ENGR.</td><td></td><td></td><td>REVISED</td><td></td></tr><tr><td>CHECK</td><td></td><td></td><td></td><td></td></tr><tr><td>APPR.</td><td></td><td></td><td></td><td></td></tr><tr><td>APPR.</td><td></td><td></td><td></td><td></td></tr></table>				ENGR.			REVISED		CHECK					APPR.					APPR.					FUEL LEAK DTR  TOTAL DTR  REQUIRED DTR				10																																																																													
ENGR.			REVISED																																																																																																						
CHECK																																																																																																									
APPR.																																																																																																									
APPR.																																																																																																									

F20MM\_Blank.PDF



THIS PAGE INTENTIONALLY LEFT BLANK

F-21BB\_Blank.PDF

F-21CC\_Blank.PDF



## 747-400 LCF SUPPLEMENTAL STRUCTURAL INSPECTION DOCUMENT – APPENDIX A

<b>DTR CHECK FORM</b>				ITEM: <b>F-24AA</b>		MODEL – SERIES 747-400 LCF					
TITLE: <u>FUSELAGE BILGE SKINS &amp; FRAMES</u>				OPERATOR(S)		NO. ELIGIBLE A/C					
LOCATION: <u>FROM BS 340 TO BS 500</u> <u>AND FROM S-38L THRU S-38R (TYP)</u>											
				<b>STRUCTURE AND INSPECTION DETAILS</b> LEAD CRACK: FRAME 							
NOTES: <span style="float: right;">*** First crack delta DTR value ***</span>											
(1) LONGITUDINAL LAP SPLICES INSPECTED PER F-25 MAY BE EXCLUDED FROM THIS INSPECTION.											
(1) DIRECTION 2 NOT APPLICABLE IF FRAME NOT VISIBLE FOR INTERNAL INSPECTION											
(2) DIRECTION 1 AND 3 INSPECTIONS CANNOT BE USED WHERE EXTERNAL SKIN DOUBLERS ARE INSTALLED											
STRUCTURE DETAIL		INSPECTION PROGRAM DETAILS						DAMAGE DETECTION PERIOD N <sub>FLIGHTS</sub>	Δ DTR		
		JOB CARD	DIREC. →	CHECK LEVEL	METHOD	%SAMP. R <sub>O</sub>	FREQUENCY F-FLIGHTS			$N = \frac{100F}{R_O}$	
SKIN			1		DET				1681		
			3		HFEC				1855		
FRAME			2		DET				5566		
ENGR				REVISED	DATE	REVISED	DATE	FUEL LEAK DTR		—	
CHECK								TOTAL DTR			
APR								REQUIRED DTR		<b>10</b>	
APR											

F-24AA\_Blank.PDF

F-24BB Blank.PDF





## 747-400 LCF SUPPLEMENTAL STRUCTURAL INSPECTION DOCUMENT – APPENDIX A

<b>DTR CHECK FORM</b>		ITEM: <b>F-25GG</b>	MODEL – SERIES 747-400 LCF					
TITLE: SKIN LONGITUDINAL LAP SPLICES		OPERATOR(S)	NO. ELIGIBLE A/C					
LOCATION: SPLICES IN THE SLAB SIDED AREA 1 OUTER SKIN – UPPER ROW OF FASTENERS		STRUCTURE AND INSPECTION DETAILS						
		<p>LEAD CRACK: IN SKIN AT MID-BAY</p> <p>CL FRAME      B = 20 IN.      CL FRAME</p> <p>SEC. X-X (UPPER ROW OF FASTENERS)</p>						
NOTES:								
(1) IF DAMAGE IS DETECTED WHILE CONDUCTING DETAIL VISUAL INSPECTION, USE HFEC INSPECTION TO INSPECT THE TWO ADJACENT BAYS.								
(2) SEE 747 REPAIR ASSESSMENT GUIDELINES DOCUMENT (D6-36181) FOR INSPECTION REQUIREMENTS IF AN EXTERNAL SKIN DOUBLER IS INSTALLED.								
1 FROM BS 340 TO BS 360 AT S-6; FROM BS 200 TO BS 360 AT S-14; FROM BS 340 TO BS 360 AT S-19; FROM BS 240 TO BS 360 AT S-23.								
STRUCTURE DETAIL	INSPECTION PROGRAM DETAILS						DAMAGE DETECTION PERIOD N OF FLIGHTS	Δ DTR
	JOB CARD	DIREC. ➡	CHECK LEVEL	METHOD	%SAMP. R <sub>O</sub>	FREQUENCY F-FLIGHTS	$N = \frac{100F}{R_O}$	
OUTER SKIN		1		DET				
		2		HFEC				
ENGR			REVISED	DATE	FUEL LEAK DTR			—
CHECK					TOTAL DTR			
APR					REQUIRED DTR			10
APR								

F-25GG\_Blank.PDF

F-25HH Blank.PDF



## 747-400 LCF SUPPLEMENTAL STRUCTURAL INSPECTION DOCUMENT – APPENDIX A

DTR CHECK FORM				ITEM: F-25II		MODEL – SERIES	
				747-400 LCF			
TITLE: SKIN LONGITUDINAL LAP SPLICES				OPERATOR(S)		NO. ELIGIBLE A/C	
LOCATION: SPLICES ABOVE S-38.FORWARD SECTION 41 <span style="border: 1px solid black; padding: 0 2px;">1</span> OUTER SKIN – UPPER ROW OF FASTENERS							
<div style="text-align: center;"></div>				<div style="text-align: center;"><b>STRUCTURE AND INSPECTION DETAILS</b></div> <p>LEAD CRACK: IN SKIN AT MID-BAY</p> <div style="text-align: center;"></div> <p>SEC.X-X (UPPER ROW OF FASTENERS)</p>			

F-25II\_Blank.PDF



## 747-400 LCF SUPPLEMENTAL STRUCTURAL INSPECTION DOCUMENT – APPENDIX A

<b>DTR CHECK FORM</b>				ITEM: <b>F-25KK</b>		MODEL – SERIES 747-400 LCF		
TITLE: SKIN LONGITUDINAL LAP SPLICES				OPERATOR(S)		NO. ELIGIBLE A/C		
LOCATION: INNER SKIN – LOWER ROW OF FASTENERS <span style="border: 1px solid black; padding: 0 5px;">1</span> FORWARD SECTION 41								
				<b>STRUCTURE AND INSPECTION DETAILS</b> LEAD CRACK: IN SKIN AT MID-BAY 				
<b>NOTES:</b>								
(1) IF DAMAGE IS DETECTED WHILE CONDUCTING DETAIL VISUAL INSPECTION, USE HFEC INSPECTION TO INSPECT THE TWO ADJACENT BAYS.								
(2) DIRECTION 3 INSPECTION CANNOT BE USED WHERE EXTERNAL SKIN DOUBLERS ARE INSTALLED. SEE 747 REPAIR ASSESSMENT GUIDELINES DOCUMENT (D6-36181).								
<span style="border: 1px solid black; padding: 0 5px;">1</span> S-0 FROM BS 340 TO BS 360; S-14, S-19 AND S-23 FROM BS 140 TO BS 360; S-39 FROM BS 260 TO BS 400; S-44 FROM BS 400 TO BS 420 AND S-45 FROM BS 140 TO BS 260								
STRUCTURE DETAIL		INSPECTION PROGRAM DETAILS					DAMAGE DETECTION PERIOD N <sub>O</sub> FLIGHTS	Δ DTR
JOB CARD		DIREC. 	CHECK LEVEL	METHOD	%SAMP. R <sub>O</sub>	FREQUENCY F-FLIGHTS	$N = \frac{100F}{R_O}$	
INNER SKIN		1		DET				13200
		2		HFEC				19000
		3		LFEC				7700
ENGR			REVISED	DATE		FUEL LEAK DTR		—
CHECK					TOTAL DTR			
APR					REQUIRED DTR		<b>10</b>	
APR								

F-25KK\_Blank.PDF



## 747-400 LCF SUPPLEMENTAL STRUCTURAL INSPECTION DOCUMENT – APPENDIX A

<b>DTR CHECK FORM</b>				ITEM: <b>F-25PP</b>		MODEL – SERIES 747-400 LCF				
TITLE: <u>SKIN LONGITUDINAL LAP SPLICES</u>				OPERATOR(S)		NO. ELIGIBLE A/C				
LOCATION: <u>SPLICES IN THE SLAB SIDED AREA. AFT SECT. 41</u> <u>OUTER SKIN – UPPER ROW OF FASTENERS</u>				<b>STRUCTURE AND INSPECTION DETAILS</b> LEAD CRACK: IN SKIN AT MID-BAY  B = 20 IN. STRAP INNER SKIN OUTER SKIN SEC. X-X (UPPER ROW OF FASTENERS) HFEC OUTER SKIN INNER SKIN						
NOTES: (1) IF DAMAGE IS DETECTED WHILE CONDUCTING DETAIL VISUAL INSPECTION, USE HFEC INSPECTION TO INSPECT THE TWO ADJACENT BAYS. (2) SEE 747 REPAIR ASSESSMENT GUIDELINES DOCUMENT (D6-36181) FOR INSPECTION REQUIREMENTS IF AN EXTERNAL SKIN DOUBLER IS INSTALLED.										
FROM BS 360 TO BS 480 AT S-6; FROM BS 360 TO BS 400 AT S-19 AND S-23 AND FROM BS 360 TO BS 480 AT S-14										
STRUCTURE DETAIL		INSPECTION PROGRAM DETAILS					DAMAGE DETECTION PERIOD N OF FLIGHTS		$\Delta$ DTR	
		JOB CARD	DIREC. 	CHECK LEVEL	METHOD	%SAMP. R <sub>O</sub>	FREQUENCY F-FLIGHTS	$N = \frac{100F}{R_O}$		
OUTER SKIN			1		DET				1992	
			2		HFEC				4621	
ENGR				REVISED	DATE	FUEL LEAK DTR  TOTAL DTR  REQUIRED DTR				—
CHECK										10
APR										
APR										

F-25PP\_Blank.PDF





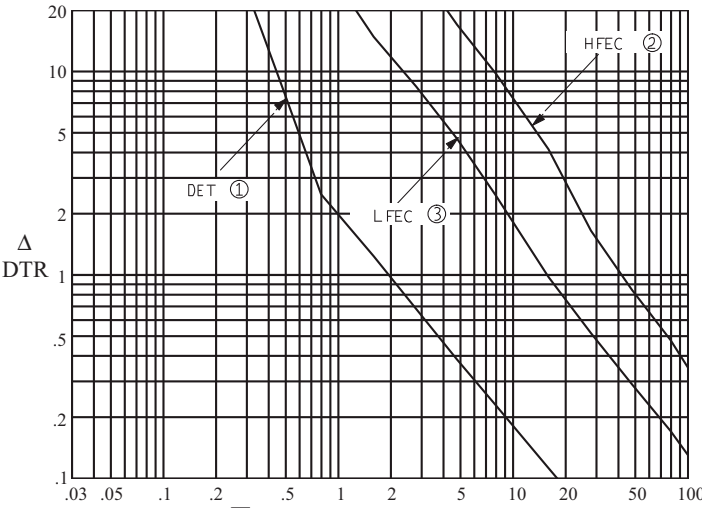
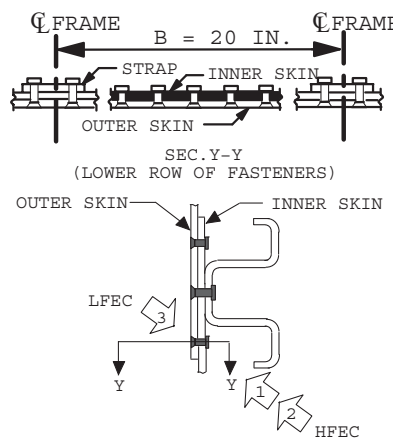
## 747-400 LCF SUPPLEMENTAL STRUCTURAL INSPECTION DOCUMENT – APPENDIX A

<b>DTR CHECK FORM</b>		ITEM: <b>F-25RR</b>	MODEL – SERIES 747-400 LCF						
TITLE: SKIN LONGITUDINAL LAP SPLICES  LOCATION: SPLICES ABOVE S-38.AFT SECTION 41 <span style="border: 1px solid black; padding: 0 2px;">1</span> OUTER SKIN – UPPER ROW OF FASTENERS			OPERATOR(S)  	NO. ELIGIBLE A/C  					
<div style="display: flex; align-items: center;"><div style="flex: 1;"><p style="text-align: center;">N ( THOUSANDS OF FLIGHTS )</p></div><div style="flex: 1; padding-left: 10px;"><b>STRUCTURE AND INSPECTION DETAILS</b> LEAD CRACK: IN SKIN AT MID-BAY <p style="text-align: center;">OUTER SKIN – UPPER ROW OF FASTENERS</p></div></div>									
<b>NOTES:</b> (1) IF DAMAGE IS DETECTED WHILE CONDUCTING DETAIL VISUAL INSPECTION, USE HFEC INSPECTION TO INSPECT THE TWO ADJACENT BAYS. (2) SEE 747 REPAIR ASSESSMENT GUIDELINES DOCUMENT (D6-36181) FOR INSPECTION REQUIREMENTS IF AN EXTERNAL SKIN DOUBLER IS INSTALLED.  <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"><span style="border: 1px solid black; padding: 0 2px;">1</span> S-0 FROM BS 360 TO BS-480</div>									
STRUCTURE DETAIL	INSPECTION PROGRAM DETAILS						DAMAGE DETECTION PERIOD N OF FLIGHTS	$\Delta$ DTR	
	JOB CARD	DIREC. 	CHECK LEVEL	METHOD	%SAMP. R <sub>O</sub>	FREQUENCY F-FLIGHTS			$N = \frac{100F}{R_O}$
OUTER SKIN		1		DET				5617	
		2		HFEC				11951	
ENGR			REVISED	DATE	FUEL LEAK DTR  TOTAL DTR  REQUIRED DTR				—
CHECK									10
APR									
APR									

F-25RR\_Blank.PDF



## 747-400 LCF SUPPLEMENTAL STRUCTURAL INSPECTION DOCUMENT – APPENDIX A

<b>DTR CHECK FORM</b>				ITEM: <b>F-25SS</b>	MODEL – SERIES 747-400 LCF			
<div style="display: flex; justify-content: space-between;"><div>TITLE: SKIN LONGITUDINAL LAP SPLICES</div><div>OPERATOR(S)</div><div>NO. ELIGIBLE A/C</div></div>								
<div style="display: flex; justify-content: space-between;"><div>LOCATION: INNER SKIN – LOWER ROW OF FASTENERS <span style="border: 1px solid black; padding: 0 5px;">1</span></div><div></div></div> <div style="text-align: center; margin-top: 5px;">AFT SECTION 41</div>								
 <p style="text-align: center;">N ( THOUSANDS OF FLIGHTS )</p>			<b>STRUCTURE AND INSPECTION DETAILS</b> LEAD CRACK: IN SKIN AT MID-BAY 					
<b>NOTES:</b> (1) IF DAMAGE IS DETECTED WHILE CONDUCTING DETAIL VISUAL INSPECTION, USE HFEC INSPECTION TO INSPECT THE TWO ADJACENT BAYS. (2) DIRECTION 3 INSPECTION CANNOT BE USED WHERE EXTERNAL SKIN DOUBLERS ARE INSTALLED. SEE 747 REPAIR ASSESSMENT GUIDELINES DOCUMENT (D6-36181).								
<div style="display: flex; align-items: center;"><span style="border: 1px solid black; padding: 0 5px;">1</span> S-0, S-6 AND S-14 FROM BS 360 TO BS 480; S-19 AND S-23 FROM BS 360 TO BS 400 AND S-44 FROM BS 420 TO BS 480</div>								
STRUCTURE DETAIL	INSPECTION PROGRAM DETAILS						DAMAGE DETECTION PERIOD N <sub>FLIGHTS</sub>	△ DTR
JOB CARD	DIREC. ➡	CHECK LEVEL	METHOD	%SAMP. R <sub>O</sub>	FREQUENCY F-FLIGHTS	$N = \frac{100F}{R_O}$		
INNER SKIN	1		DET				10517	
	2		HFEC				15138	
	3		LFEC				6135	
ENGR			REVISED	DATE	FUEL LEAK DTR		—	
CHECK					TOTAL DTR			
APR					REQUIRED DTR		<b>10</b>	
APR								

F-25SS\_Blank.PDF



F-26GG\_Blank.PDF

F-25HH\_Blank.PDF

F-2611\_Blank.PDF



## 747-400 LCF SUPPLEMENTAL STRUCTURAL INSPECTION DOCUMENT – APPENDIX A

DTR CHECK FORM		ITEM: F-26JJ	MODEL-SERIES 747-400 LCF																																																																																																																
TITLE: SKIN - STRINGER CIRCUMFERENTIAL SPLICES LOCATION: BULKHEAD BS 1000 OUTER CHORD AT S-137 AND S-138 PADDLE FITTINGS (LH & RH) <span style="float: right;">1</span>			OPERATOR(S)	NO. ELIGIBLE A/C																																																																																																															
<div style="display: flex;"><div style="flex: 1;"><p style="text-align: center;">20 10 5 2 1 .5 .2 .1</p><p style="text-align: center;">△ DTR</p><p style="text-align: center;">.03 .05 .1 .2 .5 1 2 5 10 20 50 100 N (THOUSANDS OF FLIGHTS)</p></div><div style="flex: 1; padding-left: 10px;"><p>STRUCTURE AND INSPECTION DETAILS</p><p>LEAD CRACK: OUTER CHORD</p><p style="text-align: center;">UP INBD 1 SECT. A-A</p></div></div>																																																																																																																			
<p>NOTES: <span style="float: right;">*** First crack delta DTR values ***</span></p> <p><span style="float: right;">1</span> FIRST AFT FASTENER ROW COMMON TO OUTER CHORD AND PADDLE FITTING.</p>																																																																																																																			
<table border="1" style="width: 100%; border-collapse: collapse;"><thead><tr><th rowspan="2" style="width: 15%;">STRUCTURE DETAIL</th><th colspan="6">INSPECTION PROGRAM DETAILS</th><th rowspan="2" style="width: 15%;">DAMAGE DETECTION PERIOD N<sub>o</sub> FLIGHTS</th><th rowspan="2" style="width: 10%;">△ DTR</th></tr><tr><th style="width: 15%;">JOB CARD</th><th style="width: 10%;">DIREC. ➡</th><th style="width: 10%;">CHECK LEVEL</th><th style="width: 10%;">METHOD</th><th style="width: 10%;">%SAMP R<sub>o</sub></th><th style="width: 10%;">FREQUENCY F-FLIGHTS</th><th style="width: 10%;">N̄ = 100F/R<sub>o</sub></th></tr></thead><tbody><tr><td rowspan="10">OUTER CHORD</td><td></td><td>1</td><td></td><td>UT</td><td></td><td></td><td></td><td>&gt;100000</td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></tbody></table>									STRUCTURE DETAIL	INSPECTION PROGRAM DETAILS						DAMAGE DETECTION PERIOD N <sub>o</sub> FLIGHTS	△ DTR	JOB CARD	DIREC. ➡	CHECK LEVEL	METHOD	%SAMP R <sub>o</sub>	FREQUENCY F-FLIGHTS	N̄ = 100F/R <sub>o</sub>	OUTER CHORD		1		UT				>100000																																																																																		
STRUCTURE DETAIL	INSPECTION PROGRAM DETAILS						DAMAGE DETECTION PERIOD N <sub>o</sub> FLIGHTS	△ DTR																																																																																																											
	JOB CARD	DIREC. ➡	CHECK LEVEL	METHOD	%SAMP R <sub>o</sub>	FREQUENCY F-FLIGHTS			N̄ = 100F/R <sub>o</sub>																																																																																																										
OUTER CHORD		1		UT				>100000																																																																																																											
FUEL LEAK DTR  TOTAL DTR  REQUIRED DTR								6																																																																																																											

F-25JJ\_Blank.PDF



## 747-400 LCF SUPPLEMENTAL STRUCTURAL INSPECTION DOCUMENT – APPENDIX A

DTR CHECK FORM				ITEM: F-29AA		MODEL-SERIES 747-400 LCF			
TITLE: MAIN DECK FLOOR BEAMS				OPERATOR(S)		NO. ELIGIBLE A/C			
LOCATION: UPPER/LOWER CHORDS OF MAIN DECK FLOOR BEAMS FROM STA 360 TO 480 <span style="border: 1px solid black; padding: 0 5px;">1</span>									
<div style="display: flex;"><div style="flex: 1;"><p style="text-align: center;">20 10 5 2 1 .5 .2 .1</p><p style="text-align: center;">△ DTR</p></div><div style="flex: 2;"><p style="text-align: center;">N (THOUSANDS OF FLIGHTS)</p></div></div>				<div style="display: flex;"><div style="flex: 1; padding-right: 10px;">STRUCTURE AND INSPECTION DETAILS LEAD CRACK: UPPER/LOWER CHORDS</div><div style="flex: 1; text-align: center;"><p>UPPER CHORD WEB LOWER CHORD</p></div></div>					
NOTES: <div style="border: 1px solid black; padding: 2px; display: inline-block;"><span style="border: 1px solid black; padding: 0 5px;">1</span></div> INSPECT THE VERTICAL AND HORIZONTAL FLANGES OF THE UPPER/LOWER CHORDS OF THE ENTIRE FLOOR BEAMS FROM STA 360 TO STA 480.									
STRUCTURE DETAIL	INSPECTION PROGRAM DETAILS						DAMAGE DETECTION PERIOD N <sub>O</sub> FLIGHTS	△ DTR	
	JOB CARD	DIREC. 	CHECK LEVEL	METHOD	%SAMP R <sub>O</sub>	FREQUENCY F-FLIGHTS			N̄ = 100F/R <sub>O</sub>
	CHORD	1		DET				29500	
ENGR.			REVISED		FUEL LEAK DTR				
CHECK					TOTAL DTR				
APPR.					REQUIRED DTR			10	
APPR.									

F29AA\_Blank.PDF

F29BB\_Blank.PDF



## 747-400 LCF SUPPLEMENTAL STRUCTURAL INSPECTION DOCUMENT – APPENDIX A

DTR CHECK FORM				ITEM: F-30AA		MODEL-SERIES 747-400 LCF			
TITLE: FUSELAGE SKIN-TO-STRINGER ATTACHMENT BS 2360				OPERATOR(S)		NO. ELIGIBLE A/C			
LOCATION: STRINGER-6R TO STRINGER-6L <span style="border: 1px solid black; padding: 0 5px;">1</span>									
<div style="display: flex;"><div style="flex: 1;"></div><div style="flex: 1; padding-left: 10px;"><p>STRUCTURE AND INSPECTION DETAILS</p><p>LEAD CRACK: STR. OR FITTING</p><p>SECTION A-A</p></div></div>									
NOTES: <span style="float: right;">*** First crack delta DTR values ***</span>									
<span style="border: 1px solid black; padding: 0 5px;">1</span> BS 2360 TO BS 2377.									
INSPECTION PROGRAM DETAILS									
STRUCTURE DETAIL	JOB CARD	DIREC. 	CHECK LEVEL	METHOD	%SAMP R <sub>O</sub>	FREQUENCY F-FLIGHTS	$\bar{N} =$ 100F/R <sub>O</sub>	DAMAGE DETECTION PERIOD N <sub>O</sub> FLIGHTS	$\Delta$ DTR
SKIN SKIN		1		DET				13400	
		1		SURV				12900	
FUEL LEAK DTR								<div style="border: 2px solid black; width: 40px; height: 40px; display: flex; align-items: center; justify-content: center; margin: 0 auto;">6</div>	
TOTAL DTR									
REQUIRED DTR									
ENGR.			REVISED						
CHECK									
APPR.									
APPR.									

F-30AA\_Blank.PDF

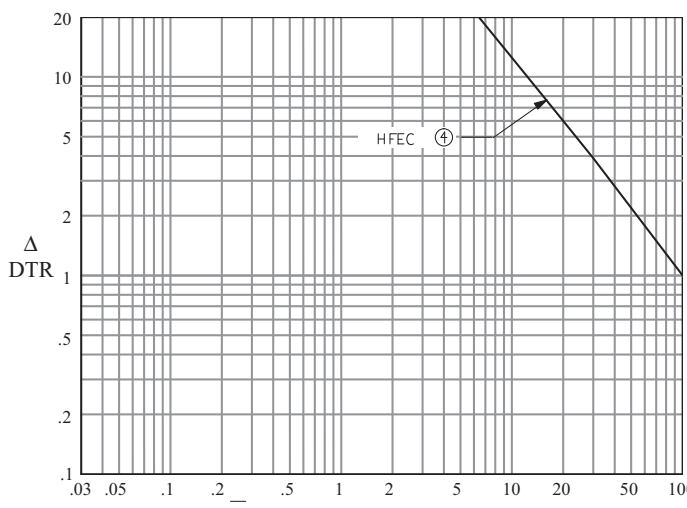
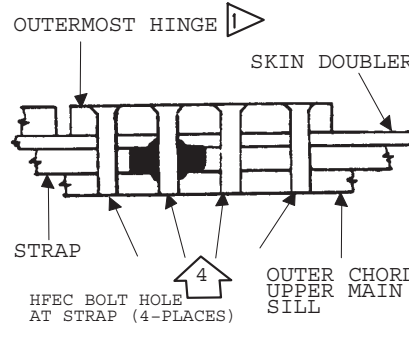


THIS PAGE INTENTIONALLY LEFT BLANK





## 747-400 LCF SUPPLEMENTAL STRUCTURAL INSPECTION DOCUMENT – APPENDIX A

<b>DTR CHECK FORM</b>				ITEM: <b>F-39HH</b>		MODEL – SERIES 747-400 LCF					
TITLE: LOWER LOBE CARGO DOOR CUTOUTS				OPERATOR(S)		NO. ELIGIBLE A/C					
LOCATION: SKIN AND STRAP AT HINGE SUPPORT <span style="border: 1px solid black; padding: 0 5px;">1</span> OUTERMOST HINGES AT FWD DOOR											
<div style="display: flex; align-items: center;"><div style="flex: 1;"></div><div style="flex: 1; padding-left: 10px;"><p>STRUCTURE AND INSPECTION DETAILS</p><p>LEAD CRACK: STRAP</p><p>OUTERMOST HINGE <span style="border: 1px solid black; padding: 0 5px;">1</span></p><p>SKIN AND STRAP AT HINGE SUPPORT</p></div></div>				<p>NOTES:</p> <p><span style="border: 1px solid black; padding: 0 5px;">1</span> HINGES AT BS 568.5 AND BS 662</p> <p>(1) PERFORM DETAIL VISUAL INSPECTION OF ADJACENT ELEMENTS INCLUDING DOOR HINGES AND ATTACHMENTS AT THE SAME TIME AS PERFORMING INSPECTION PER THIS DTR FORM.</p>							
STRUCTURE DETAIL		INSPECTION PROGRAM DETAILS					DAMAGE DETECTION PERIOD N <sub>0</sub> FLIGHTS		Δ DTR		
JOB CARD		DIREC. <span style="border: 1px solid black; padding: 0 5px;">4</span>	CHECK LEVEL	METHOD	%SAMP. R <sub>0</sub>	FREQUENCY F-FLIGHTS	N = $\frac{100F}{R_0}$	45000			
STRAP				HFEC							

F39II\_S11.PDF

F-41CC\_Blank.PDF

F-41DD Blank.PDF

F-49KK\_Blank.PDF

F-49LL\_blank.PDF

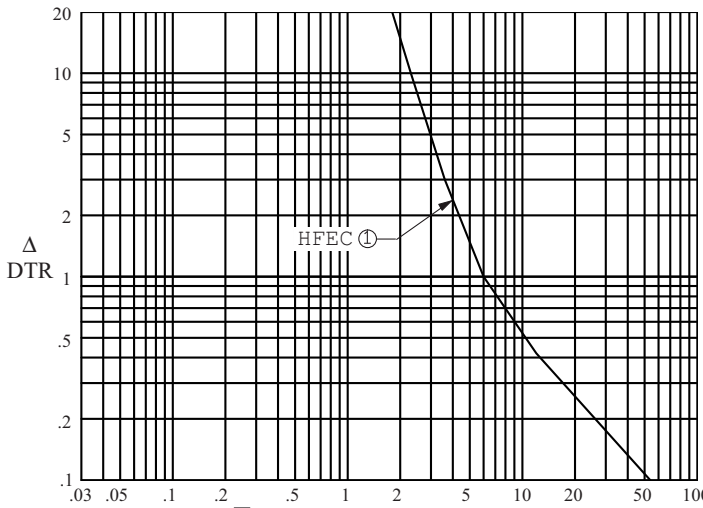
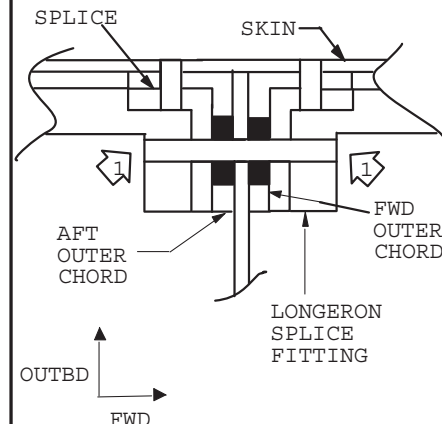
F-49MM\_Blank.PDF

F-49NN\_Blank.PDF





## 747-400 LCF SUPPLEMENTAL STRUCTURAL INSPECTION DOCUMENT – APPENDIX A

<b>DTR CHECK FORM</b>				ITEM: <b>F-49PP</b>		MODEL – SERIES 747-400 LCF				
TITLE: SECTION 48 BODY STATION 2598 BULKHEAD LEFT AND RIGHT SIDES LOCATION: OUTER CHORD, APPROX. WL 317 AND WL 321 UNDER LONGERON SPLICE FITTINGS				OPERATOR(S)		NO. ELIGIBLE A/C				
<div style="display: flex; align-items: center;"><div style="flex: 1;"></div><div style="flex: 1; padding-left: 10px;"><b>STRUCTURE AND INSPECTION DETAILS</b> <b>LEAD CRACK: AFT OUTER CHORD</b> </div></div>										
NOTES: 1) DIR 1: OPEN BOLT HOLE HFEC				*** First crack delta DTR values ***						
STRUCTURE DETAIL		INSPECTION PROGRAM DETAILS					DAMAGE DETECTION PERIOD N <sub>0</sub> FLIGHTS	Δ DTR		
		JOB CARD	DIREC. □	CHECK LEVEL	METHOD	%SAMP. R <sub>0</sub>	FREQUENCY F-FLIGHTS	$\bar{N} = \frac{100F}{R_0}$		
CHORD			1		HFEC				16560	
ENGR				REVISED		DATE		FUEL LEAK DTR		—
CHECK								TOTAL DTR		
APR								REQUIRED DTR		<b>6</b>
APR										

F-49PP\_Blank.PDF



THIS PAGE INTENTIONALLY LEFT BLANK

F-51CC\_Blank.PDF



THIS PAGE INTENTIONALLY LEFT BLANK

F95\_Blank.PDF

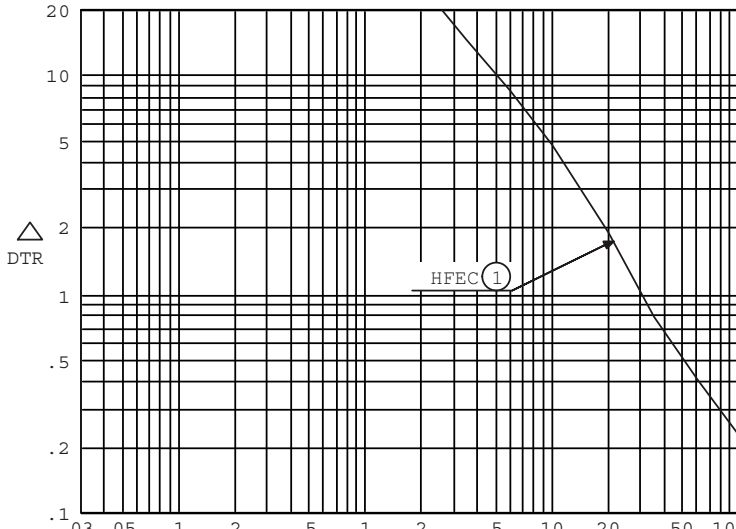
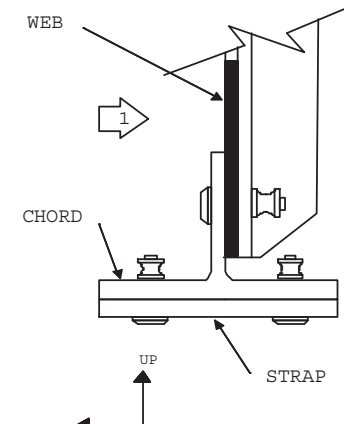



THIS PAGE INTENTIONALLY LEFT BLANK

F-96A\_BLaNk.PDF



## 747-400 LCF SUPPLEMENTAL STRUCTURAL INSPECTION DOCUMENT – APPENDIX A

DTR CHECK FORM		ITEM: F-96B		MODEL-SERIES 747-400 LCF					
TITLE: <u>FIN SUPPORT BULKHEADS, WEBS AND CHORDS</u>			OPERATOR(S)		NO. ELIGIBLE A/C				
LOCATION: <u>WEB AT BS2412 FROM S-14L THRU S-14R</u>									
<div style="display: flex; align-items: center;"><div style="margin-right: 10px;"><math>\Delta</math> DTR</div></div>			STRUCTURE AND INSPECTION DETAILS						
			<p>LEAD CRACK: WEB</p> 						
<p>NOTES: *** First crack delta DTR values ***</p> <p>(1) DIR-1 HFEC IS A SURFACE INSPECTION OF THE WEB ALONG THE INNER CHORD.</p>									
INSPECTION PROGRAM DETAILS									
STRUCTURE DETAIL	JOB CARD	DIREC. 	CHECK LEVEL	METHOD	%SAMP R <sub>O</sub>	FREQUENCY F-FLIGHTS	$\bar{N} =$ 100F/R <sub>O</sub>	DAMAGE DETECTION PERIOD N <sub>O</sub> FLIGHTS	$\Delta$ DTR
WEB		1		HFEC				18000	
FUEL LEAK DTR									
TOTAL DTR									
REQUIRED DTR								6	

ENGR.			REVISED	
CHECK				
APPR.				
APPR.				

F-96B\_Blank.PDF



F-96C\_Blank.PDF



## 747-400 LCF SUPPLEMENTAL STRUCTURAL INSPECTION DOCUMENT – APPENDIX A

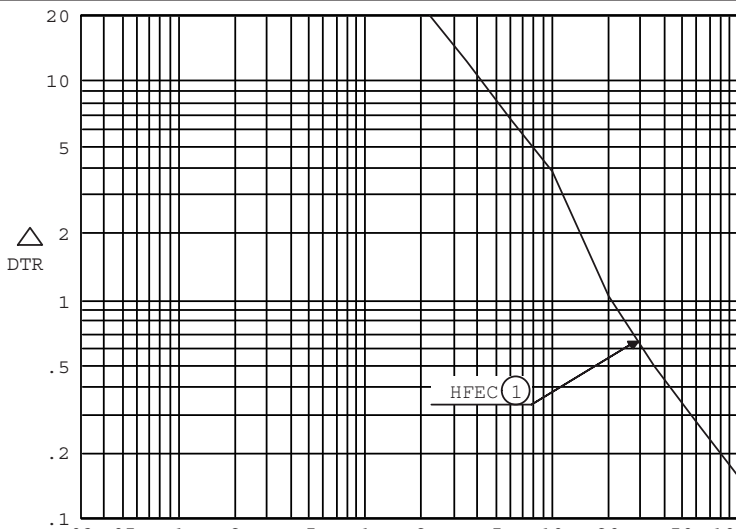
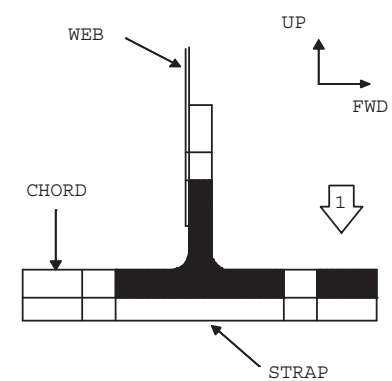

DTR CHECK FORM				ITEM: F-96D		MODEL-SERIES 747-400 LCF				
TITLE: FIN SUPPORT BULKHEADS, WEBS AND CHORDS				OPERATOR(S)		NO. ELIGIBLE A/C				
LOCATION: INNER CHORD STRAP AT BS2412 FROM S-10 THRU S-15 LH & RH										
<div style="display: flex; align-items: center;"><div style="flex: 1;"></div><div style="flex: 1; text-align: center;"><p>STRUCTURE AND INSPECTION DETAILS</p><p>LEAD CRACK: STRAP</p></div></div>										
<p>NOTES: *** First crack delta DTR values ***</p> <p>(1) DIR-1 IS A SURFACE INSPECTION OF THE INNER CHORD STRAP AROUND FASTENERS.</p>										
STRUCTURE DETAIL		INSPECTION PROGRAM DETAILS						DAMAGE DETECTION PERIOD N <sub>O</sub> FLIGHTS	$\Delta$ DTR	
		JOB CARD	DIREC. 	CHECK LEVEL	METHOD	%SAMP R <sub>O</sub>	FREQUENCY F-FLIGHTS			$\bar{N} =$ 100F/R <sub>O</sub>
STRAP			1		HFEC				11300	
ENGR.				REVISED		FUEL LEAK DTR				
CHECK						TOTAL DTR				
APPR.						REQUIRED DTR			6	
APPR.										

F-96D\_Blank.PDF

F-96E\_Blank.PDF



## 747-400 LCF SUPPLEMENTAL STRUCTURAL INSPECTION DOCUMENT – APPENDIX A

DTR CHECK FORM		ITEM: F-96F		MODEL-SERIES						
				747-400 LCF						
TITLE: <u>FIN SUPPORT BULKHEADS, WEBS AND CHORDS</u>		OPERATOR(S)		NO. ELIGIBLE A/C						
LOCATION: <u>INNER CHORD AT BS2412 FROM</u> <u>S-10 THRU S-15 LH &amp; RH</u>										
<div style="display: flex; align-items: center;"><div style="margin-right: 10px;"><math>\Delta</math> DTR</div></div>		STRUCTURE AND INSPECTION DETAILS								
		<div>LEAD CRACK: CHORD</div> <div style="text-align: center;"></div>								
<div>NOTES: <span style="float: right;">*** First crack delta DTR values ***</span></div> <div>(1) DIR-1 IS A SURFACE INSPECTION OF THE INNER CHORD AROUND FASTENERS.</div>										
STRUCTURE DETAIL		INSPECTION PROGRAM DETAILS						$\Delta$ DTR		
		JOB CARD	DIREC. 	CHECK LEVEL	METHOD	%SAMP R <sub>O</sub>	FREQUENCY F-FLIGHTS		$\bar{N} =$ 100F/R <sub>O</sub>	DAMAGE DETECTION PERIOD N <sub>O</sub> FLIGHTS
		CHORD	1		HFEC					11300
ENGR.			REVISED		FUEL LEAK DTR					
CHECK					TOTAL DTR					
APPR.					REQUIRED DTR			6		
APPR.										

F-96F\_Blank.PDF



F97B Blank.PDF

F97C\_Blank.PDF



THIS PAGE INTENTIONALLY LEFT BLANK



F98\_Blank.PDF



THIS PAGE INTENTIONALLY LEFT BLANK

F99\_Blank.PDF

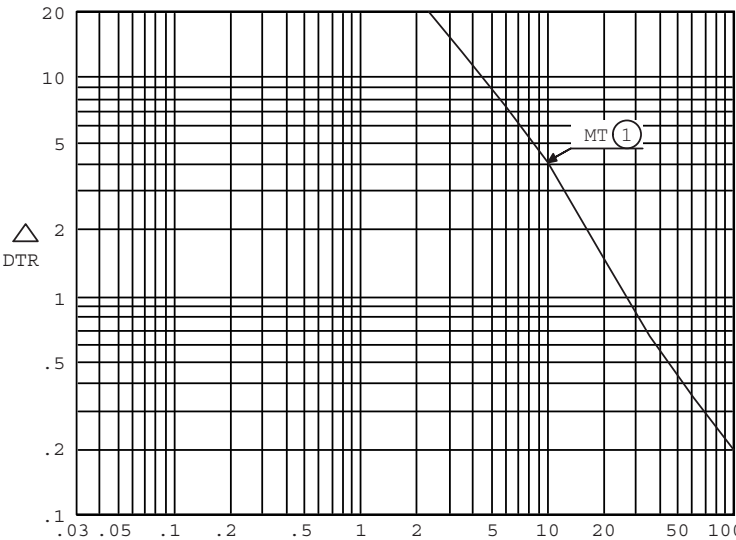
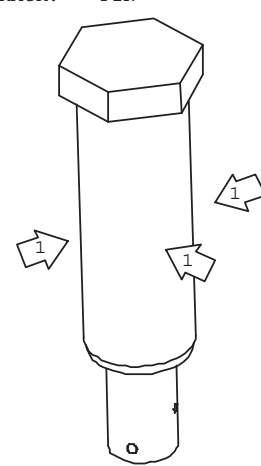



THIS PAGE INTENTIONALLY LEFT BLANK

F-100A\_blank.PDF



## 747-400 LCF SUPPLEMENTAL STRUCTURAL INSPECTION DOCUMENT – APPENDIX A

DTR CHECK FORM		ITEM: F-100B		MODEL-SERIES																								
				747-400 LCF																								
TITLE: <u>SWING ZONE HINGE PIN AND SUPPORT STRUCTURE</u>		OPERATOR(S)		NO. ELIGIBLE A/C																								
LOCATION: <u>HINGE PINS</u>																												
<div style="display: flex; align-items: center;"><div style="margin-right: 10px;"><math>\Delta</math> DTR</div></div>		STRUCTURE AND INSPECTION DETAILS																										
		LEAD CRACK: PIN 																										
NOTES: <span style="float: right;">*** First crack delta DTR values ***</span>																												
REMOVE PIN FOR MAG. PARTICLE INSPECTION ACCORDING TO AMM TASK 52-37-13-000-801																												
INSPECT ENTIRE SURFACE																												
STRUCTURE DETAIL	INSPECTION PROGRAM DETAILS						DAMAGE DETECTION PERIOD NO. FLIGHTS	$\Delta$ DTR																				
	JOB CARD	DIREC. 	CHECK LEVEL	METHOD	%SAMP R <sub>O</sub>	FREQUENCY F-FLIGHTS			$\bar{N} =$ 100F/R <sub>O</sub>																			
Pin	Mag. Particle	1		MT			15500																					
<table border="1" style="width: 100%; border-collapse: collapse;"><tr><td style="width: 15%;">ENGR.</td><td style="width: 15%;"></td><td style="width: 15%;"></td><td style="width: 15%;">REVISED</td><td style="width: 15%;"></td></tr><tr><td>CHECK</td><td></td><td></td><td></td><td></td></tr><tr><td>APPR.</td><td></td><td></td><td></td><td></td></tr><tr><td>APPR.</td><td></td><td></td><td></td><td></td></tr></table>							ENGR.			REVISED		CHECK					APPR.					APPR.					FUEL LEAK DTR  TOTAL DTR  REQUIRED DTR	6
ENGR.			REVISED																									
CHECK																												
APPR.																												
APPR.																												

F-100B\_blank.PDF

F101A\_Blank.PDF

F101B Blank.PDF



F103A\_Blank.PDF



## 747-400 LCF SUPPLEMENTAL STRUCTURAL INSPECTION DOCUMENT – APPENDIX A

DTR CHECK FORM		ITEM: F-103B	MODEL-SERIES 747-400 LCF																																																																																																																																
<div style="display: flex; justify-content: space-between;"><div><p>TITLE: FUSELAGE SKIN REINFORCEMENT - BULKHEAD BODY STATION 532</p><p>LOCATION: AFT QUADRUPLER UPPER LOBE <span style="border: 1px solid black; padding: 0 5px;">1</span> </p><p>BETWEEN S27L AND S27R</p></div><div style="width: 150px; border: 1px solid black; margin-top: 10px;"></div></div>			<div style="display: flex; justify-content: space-between;"><div>OPERATOR(S)</div><div>NO. ELIGIBLE A/C</div></div>																																																																																																																																
<div style="display: flex;"><div style="flex: 1;"></div><div style="flex: 1; padding: 5px;"><p>STRUCTURE AND INSPECTION DETAILS</p><p>LEAD CRACK: QUADRUPLER</p></div></div>																																																																																																																																			
<p>NOTES: *** First crack delta DTR values ***</p> <p>(1) DIR-1 HFEC IS A SURFACE INSPECTION OF THE QUADRUPLER AROUND FASTENER ENDS</p> <p><span style="border: 1px solid black; padding: 0 5px;">1</span>  FIRST AFT ROW BETWEEN EXTERNAL FITTINGS</p>																																																																																																																																			
<table border="1" style="width: 100%; border-collapse: collapse;"><thead><tr><th rowspan="2" style="width: 15%;">STRUCTURE DETAIL</th><th colspan="6" style="text-align: center;">INSPECTION PROGRAM DETAILS</th><th rowspan="2" style="width: 15%;">DAMAGE DETECTION PERIOD N<sub>o</sub> FLIGHTS</th><th rowspan="2" style="width: 10%;"><math>\Delta</math> DTR</th></tr><tr><th style="width: 10%;">JOB CARD</th><th style="width: 10%;">DIREC. </th><th style="width: 10%;">CHECK LEVEL</th><th style="width: 10%;">METHOD</th><th style="width: 10%;">%SAMP R<sub>o</sub></th><th style="width: 10%;">FREQUENCY F-FLIGHTS</th><th style="width: 10%;">N = 100F/R<sub>o</sub></th></tr></thead><tbody><tr><td rowspan="10">QUADRUPLER</td><td></td><td style="text-align: center;">1</td><td></td><td style="text-align: center;">HFEC</td><td></td><td></td><td></td><td style="text-align: center;">32600</td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></tbody></table>			STRUCTURE DETAIL	INSPECTION PROGRAM DETAILS						DAMAGE DETECTION PERIOD N <sub>o</sub> FLIGHTS	$\Delta$ DTR	JOB CARD	DIREC. 	CHECK LEVEL	METHOD	%SAMP R <sub>o</sub>	FREQUENCY F-FLIGHTS	N = 100F/R <sub>o</sub>	QUADRUPLER		1		HFEC				32600																																																																																			<div style="display: flex; justify-content: space-between;"><div><table border="1" style="width: 100%; border-collapse: collapse;"><tr><td style="width: 20%;">ENGR.</td><td style="width: 20%;"></td><td style="width: 20%;"></td><td style="width: 20%;">REVISED</td><td style="width: 20%;"></td></tr><tr><td>CHECK</td><td></td><td></td><td></td><td></td></tr><tr><td>APPR.</td><td></td><td></td><td></td><td></td></tr><tr><td>APPR.</td><td></td><td></td><td></td><td></td></tr></table></div><div style="text-align: right;"><p>FUEL LEAK DTR</p><p>TOTAL DTR</p><p>REQUIRED DTR</p></div></div>		ENGR.			REVISED		CHECK					APPR.					APPR.				
STRUCTURE DETAIL	INSPECTION PROGRAM DETAILS						DAMAGE DETECTION PERIOD N <sub>o</sub> FLIGHTS	$\Delta$ DTR																																																																																																																											
	JOB CARD	DIREC. 	CHECK LEVEL	METHOD	%SAMP R <sub>o</sub>	FREQUENCY F-FLIGHTS			N = 100F/R <sub>o</sub>																																																																																																																										
QUADRUPLER		1		HFEC				32600																																																																																																																											
ENGR.			REVISED																																																																																																																																
CHECK																																																																																																																																			
APPR.																																																																																																																																			
APPR.																																																																																																																																			
			<div style="display: flex; justify-content: space-between;"><div></div><div>10</div></div>																																																																																																																																

F103B\_Blank.PDF

F103C\_Blank.PDF



## 747-400 LCF SUPPLEMENTAL STRUCTURAL INSPECTION DOCUMENT – APPENDIX A

DTR CHECK FORM		ITEM: F-103D	MODEL-SERIES 747-400 LCF																																																																																																																					
TITLE: FUSELAGE SKIN REINFORCEMENT - BULKHEAD BODY STATION 532 LOCATION: AFT QUADRUPLER LOWER LOBE <span style="border: 1px solid black; padding: 0 5px;">1</span> BETWEEN S27L AND S27R			OPERATOR(S)	NO. ELIGIBLE A/C																																																																																																																				
<div style="display: flex;"><div style="flex: 1;"><p style="text-align: center;">DTR</p></div><div style="flex: 1; padding-left: 10px;"><p>STRUCTURE AND INSPECTION DETAILS</p><p>LEAD CRACK: QUADRUPLER</p></div></div>																																																																																																																								
NOTES: <div style="border: 1px solid black; padding: 2px; display: inline-block;"><span style="border: 1px solid black; padding: 0 5px;">1</span> FIRST ROW COMMON TO BULKHEAD CHORD</div>    			*** First crack delta DTR values ***																																																																																																																					
<table border="1" style="width: 100%; border-collapse: collapse;"><thead><tr><th rowspan="2" style="text-align: center;">STRUCTURE DETAIL</th><th colspan="6" style="text-align: center;">INSPECTION PROGRAM DETAILS</th><th rowspan="2" style="text-align: center;">DAMAGE DETECTION PERIOD N<sub>0</sub> FLIGHTS</th><th rowspan="2" style="text-align: center;">△ DTR</th></tr><tr><th style="text-align: center;">JOB CARD</th><th style="text-align: center;">DIREC. </th><th style="text-align: center;">CHECK LEVEL</th><th style="text-align: center;">METHOD</th><th style="text-align: center;">%SAMP R<sub>0</sub></th><th style="text-align: center;">FREQUENCY F-FLIGHTS</th><th style="text-align: center;">N̄ = 100F/R<sub>0</sub></th></tr></thead><tbody><tr><td>QUADRUPLER</td><td></td><td style="text-align: center;">1</td><td></td><td style="text-align: center;">SURV</td><td></td><td></td><td></td><td style="text-align: center;">35400</td><td></td></tr><tr><td>QUADRUPLER</td><td></td><td style="text-align: center;">1</td><td></td><td style="text-align: center;">DET</td><td></td><td></td><td></td><td style="text-align: center;">37000</td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></tbody></table>					STRUCTURE DETAIL	INSPECTION PROGRAM DETAILS						DAMAGE DETECTION PERIOD N <sub>0</sub> FLIGHTS	△ DTR	JOB CARD	DIREC. 	CHECK LEVEL	METHOD	%SAMP R <sub>0</sub>	FREQUENCY F-FLIGHTS	N̄ = 100F/R <sub>0</sub>	QUADRUPLER		1		SURV				35400		QUADRUPLER		1		DET				37000																																																																																	
STRUCTURE DETAIL	INSPECTION PROGRAM DETAILS						DAMAGE DETECTION PERIOD N <sub>0</sub> FLIGHTS	△ DTR																																																																																																																
	JOB CARD	DIREC. 	CHECK LEVEL	METHOD	%SAMP R <sub>0</sub>	FREQUENCY F-FLIGHTS			N̄ = 100F/R <sub>0</sub>																																																																																																															
QUADRUPLER		1		SURV				35400																																																																																																																
QUADRUPLER		1		DET				37000																																																																																																																
<table border="1" style="width: 40%; border-collapse: collapse;"><tr><td style="width: 20%;">ENGR.</td><td style="width: 20%;"></td><td style="width: 20%;"></td><td style="width: 20%;">REVISED</td><td style="width: 20%;"></td></tr><tr><td>CHECK</td><td></td><td></td><td></td><td></td></tr><tr><td>APPR.</td><td></td><td></td><td></td><td></td></tr><tr><td>APPR.</td><td></td><td></td><td></td><td></td></tr></table> <div style="flex: 1; text-align: right; padding-right: 20px;"><p>FUEL LEAK DTR</p><p>TOTAL DTR</p><p>REQUIRED DTR</p></div> <div style="border: 2px solid black; width: 40px; text-align: center; margin-left: 10px;">10</div>					ENGR.			REVISED		CHECK					APPR.					APPR.																																																																																																				
ENGR.			REVISED																																																																																																																					
CHECK																																																																																																																								
APPR.																																																																																																																								
APPR.																																																																																																																								

F103D\_Blank.PDF

F103E\_Blank.PDF



THIS PAGE INTENTIONALLY LEFT BLANK



## 747-400 LCF SUPPLEMENTAL STRUCTURAL INSPECTION DOCUMENT – APPENDIX A

DTR CHECK FORM				ITEM: F-104A		MODEL-SERIES 747-400 LCF																																																																																																			
TITLE: BULKHEAD BS 532				OPERATOR(S)		NO. ELIGIBLE A/C																																																																																																			
LOCATION: AFT SPLICE STRAP AT INNERMOST ROWS OF BULKHEAD SPLICE <span style="border: 1px solid black; padding: 0 5px;">1</span>																																																																																																									
<div style="display: flex;"><div style="flex: 1;"><p style="text-align: center;">20 10 5 2 1 .5 .2 .1</p><p style="text-align: center;">DTR</p><p style="text-align: center;">.03 .05 .1 .2 .5 1 2 5 10 20 50 100</p><p style="text-align: center;">N (THOUSANDS OF FLIGHTS)</p></div><div style="flex: 1; padding-left: 10px;"><p>STRUCTURE AND INSPECTION DETAILS</p><p>LEAD CRACK: AFT SPLICE STRAP</p><p style="text-align: right;">SPLICE CL</p><p style="text-align: center;">FWD →</p><p style="text-align: center;">1</p><p style="text-align: right;">SEC A-A</p></div></div>				<p>NOTES:</p> <p><span style="border: 1px solid black; padding: 0 5px;">1</span> WL 250 BETWEEN LBL 92 AND RBL 92</p> <p>WL 173 BETWEEN LBL 36.8 AND RBL 36.8</p> <p>(1) INSPECTIONS AND REQUIREMENTS ARE SYMMETRICAL ABOUT SPLICE CENTERLINE</p>																																																																																																					
*** First crack delta DTR values ***																																																																																																									
<table border="1" style="width: 100%; border-collapse: collapse;"><thead><tr><th rowspan="2" style="width: 15%;">STRUCTURE DETAIL</th><th colspan="6" style="text-align: center;">INSPECTION PROGRAM DETAILS</th><th rowspan="2" style="width: 15%;">DAMAGE DETECTION PERIOD N<sub>O</sub> FLIGHTS</th><th rowspan="2" style="width: 10%;">△ DTR</th></tr><tr><th style="width: 15%;">JOB CARD</th><th style="width: 10%;">DIREC. </th><th style="width: 10%;">CHECK LEVEL</th><th style="width: 10%;">METHOD</th><th style="width: 10%;">%SAMP R<sub>O</sub></th><th style="width: 10%;">FREQUENCY F-FLIGHTS</th><th style="width: 10%;">N = 100F/R<sub>O</sub></th></tr></thead><tbody><tr><td rowspan="9" style="text-align: center; vertical-align: top;">STRAP</td><td></td><td style="text-align: center;">1</td><td></td><td style="text-align: center;">DET</td><td></td><td></td><td></td><td style="text-align: center;">46000</td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></tbody></table>								STRUCTURE DETAIL	INSPECTION PROGRAM DETAILS						DAMAGE DETECTION PERIOD N <sub>O</sub> FLIGHTS	△ DTR	JOB CARD	DIREC. 	CHECK LEVEL	METHOD	%SAMP R <sub>O</sub>	FREQUENCY F-FLIGHTS	N = 100F/R <sub>O</sub>	STRAP		1		DET				46000																																																																									
STRUCTURE DETAIL	INSPECTION PROGRAM DETAILS						DAMAGE DETECTION PERIOD N <sub>O</sub> FLIGHTS		△ DTR																																																																																																
	JOB CARD	DIREC. 	CHECK LEVEL	METHOD	%SAMP R <sub>O</sub>	FREQUENCY F-FLIGHTS		N = 100F/R <sub>O</sub>																																																																																																	
STRAP		1		DET				46000																																																																																																	
<table border="1" style="width: 100%; border-collapse: collapse;"><tr><td style="width: 15%;">ENGR.</td><td style="width: 15%;"></td><td style="width: 15%;"></td><td style="width: 15%;">REVISED</td><td style="width: 15%;"></td></tr><tr><td>CHECK</td><td></td><td></td><td></td><td></td></tr><tr><td>APPR.</td><td></td><td></td><td></td><td></td></tr><tr><td>APPR.</td><td></td><td></td><td></td><td></td></tr></table>				ENGR.			REVISED		CHECK					APPR.					APPR.					<p>FUEL LEAK DTR</p> <p>TOTAL DTR</p> <p>REQUIRED DTR</p>				10																																																																													
ENGR.			REVISED																																																																																																						
CHECK																																																																																																									
APPR.																																																																																																									
APPR.																																																																																																									

F104A\_Blank.PDF

F104B Blank.PDF



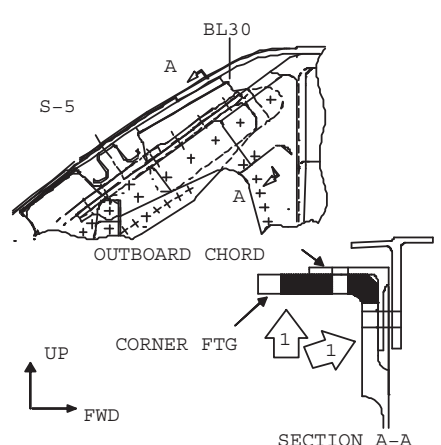
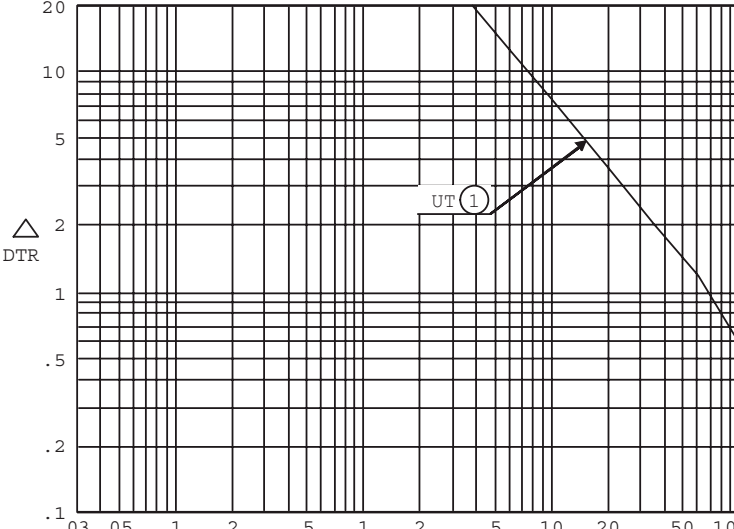
F105\_Blank.PDF



THIS PAGE INTENTIONALLY LEFT BLANK



## 747-400 LCF SUPPLEMENTAL STRUCTURAL INSPECTION DOCUMENT – APPENDIX A

DTR CHECK FORM				ITEM: F-106A		MODEL-SERIES 747-400 LCF																																																																																											
TITLE: FIN SUPPORT BULKHEADS AT FIN SUPPORT FITTINGS				OPERATOR(S)		NO. ELIGIBLE A/C																																																																																											
LOCATION: BS2436 THRU BS2517, LH & RH OUTBOARD CORNER FTG FROM BL30 TO S-5 <span style="border: 1px solid black; padding: 0 5px;">1</span>				<div style="text-align: center;">STRUCTURE AND INSPECTION DETAILS</div> <div style="text-align: center;">LEAD CRACK: CORNER FTG</div> 																																																																																													
<div style="text-align: center;"></div>																																																																																																	
				NOTES: <span style="float: right;">*** First crack delta DTR values ***</span> <div style="border: 1px solid black; padding: 2px; display: inline-block;"><span style="border: 1px solid black; padding: 0 5px;">1</span> </div> FIRST TWO FASTENER ROWS OF EACH LEG OF JOINT (FOUR FASTENERS) COMMON TO OUTBOARD CHORD AND CORNER FITTING.																																																																																													
<table border="1" style="width: 100%; border-collapse: collapse;"><thead><tr><th rowspan="2" style="width: 15%;">STRUCTURE DETAIL</th><th colspan="6" style="text-align: center;">INSPECTION PROGRAM DETAILS</th><th rowspan="2" style="width: 15%;">DAMAGE DETECTION PERIOD N<sub>0</sub> FLIGHTS</th><th rowspan="2" style="width: 10%;"><math>\Delta</math> DTR</th></tr><tr><th style="width: 15%;">JOB CARD</th><th style="width: 10%;">DIREC. </th><th style="width: 10%;">CHECK LEVEL</th><th style="width: 10%;">METHOD</th><th style="width: 10%;">%SAMP R<sub>0</sub></th><th style="width: 10%;">FREQUENCY F-FLIGHTS</th><th style="width: 10%;">N<sub>0</sub> = 100F/R<sub>0</sub></th></tr></thead><tbody><tr><td rowspan="8" style="text-align: center; vertical-align: top;">CORNER FTG</td><td></td><td style="text-align: center;">1</td><td></td><td style="text-align: center;">UT</td><td></td><td></td><td></td><td style="text-align: center;">53300</td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></tbody></table>									STRUCTURE DETAIL	INSPECTION PROGRAM DETAILS						DAMAGE DETECTION PERIOD N <sub>0</sub> FLIGHTS	$\Delta$ DTR	JOB CARD	DIREC. 	CHECK LEVEL	METHOD	%SAMP R <sub>0</sub>	FREQUENCY F-FLIGHTS	N <sub>0</sub> = 100F/R <sub>0</sub>	CORNER FTG		1		UT				53300																																																																
STRUCTURE DETAIL	INSPECTION PROGRAM DETAILS						DAMAGE DETECTION PERIOD N <sub>0</sub> FLIGHTS	$\Delta$ DTR																																																																																									
	JOB CARD	DIREC. 	CHECK LEVEL	METHOD	%SAMP R <sub>0</sub>	FREQUENCY F-FLIGHTS			N <sub>0</sub> = 100F/R <sub>0</sub>																																																																																								
CORNER FTG		1		UT				53300																																																																																									
<table border="1" style="width: 100%; border-collapse: collapse;"><tr><td style="width: 25%;">ENGR.</td><td style="width: 25%;"></td><td style="width: 25%;">REVISED</td><td style="width: 25%;"></td></tr><tr><td>CHECK</td><td></td><td></td><td></td></tr><tr><td>APPR.</td><td></td><td></td><td></td></tr><tr><td>APPR.</td><td></td><td></td><td></td></tr></table>				ENGR.		REVISED		CHECK				APPR.				APPR.				FUEL LEAK DTR				<div style="border: 2px solid black; padding: 5px; font-weight: bold;">6</div>																																																																									
ENGR.		REVISED																																																																																															
CHECK																																																																																																	
APPR.																																																																																																	
APPR.																																																																																																	
				TOTAL DTR																																																																																													
				REQUIRED DTR																																																																																													

F106A\_Blank.PDF

F106B\_Blank.PDF

F106C\_Blank.PDF

F106D Blank.PDF



## 747-400 LCF SUPPLEMENTAL STRUCTURAL INSPECTION DOCUMENT – APPENDIX A

DTR CHECK FORM				ITEM: F-108A		MODEL-SERIES 747-400 LCF																								
TITLE: FUSELAGE SKIN WITH DOUBLERS				OPERATOR(S)		NO. ELIGIBLE A/C																								
LOCATION: SECTION 41. SKIN UNDER MODIFICATION DOUBLERS. STA 420 to STA 434 @ STR-22				<div style="border: 1px solid black; width: 20px; height: 10px; display: inline-block; margin-right: 5px;"></div> 1		STRUCTURE AND INSPECTION DETAILS LEAD CRACK: SKIN																								
<div style="display: flex;"><div style="flex: 1;"><p style="text-align: center;">△ DTR</p></div><div style="flex: 1; padding-left: 10px;"></div></div>				NOTES: *** First crack delta DTR values ***																										
(1) DIR-1 IS A SURFACE INSPECTION OF THE SKIN AROUND FASTENERS ALONG THE PERIMETER FASTENER ROW OF THE DOUBLER																														
INSPECT SKIN AT PERIMETER ROW OF MODIFICATION REINFORCEMENT DOUBLERS. SEE F-108 INSPECTION DIAGRAM FOR SPECIFIC LOCATION TO BE INSPECTED																														
STRUCTURE DETAIL	INSPECTION PROGRAM DETAILS							DAMAGE DETECTION PERIOD N <sub>O</sub> FLIGHTS	△ DTR																					
	JOB CARD	DIREC. →	CHECK LEVEL	METHOD	%SAMP R <sub>O</sub>	FREQUENCY F-FLIGHTS	N = 100F/R <sub>O</sub>																							
SKIN		1		DET				11200																						
SKIN		1		HFEC				14200																						
SKIN		2		LFEC				12000																						
<table border="1" style="width: 100%; border-collapse: collapse;"><tr><td style="width: 15%;">ENGR.</td><td style="width: 15%;"></td><td style="width: 15%;"></td><td style="width: 15%;">REVISED</td><td style="width: 15%;"></td></tr><tr><td>CHECK</td><td></td><td></td><td></td><td></td></tr><tr><td>APPR.</td><td></td><td></td><td></td><td></td></tr><tr><td>APPR.</td><td></td><td></td><td></td><td></td></tr></table>								ENGR.			REVISED		CHECK					APPR.					APPR.					FUEL LEAK DTR  TOTAL DTR  REQUIRED DTR		10
ENGR.			REVISED																											
CHECK																														
APPR.																														
APPR.																														

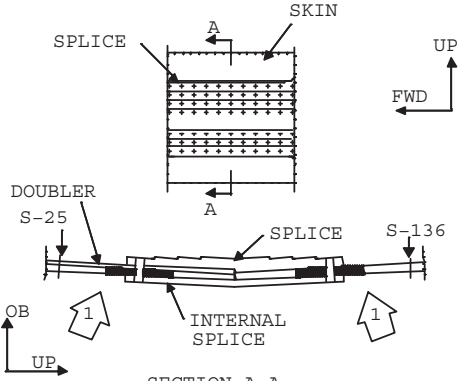
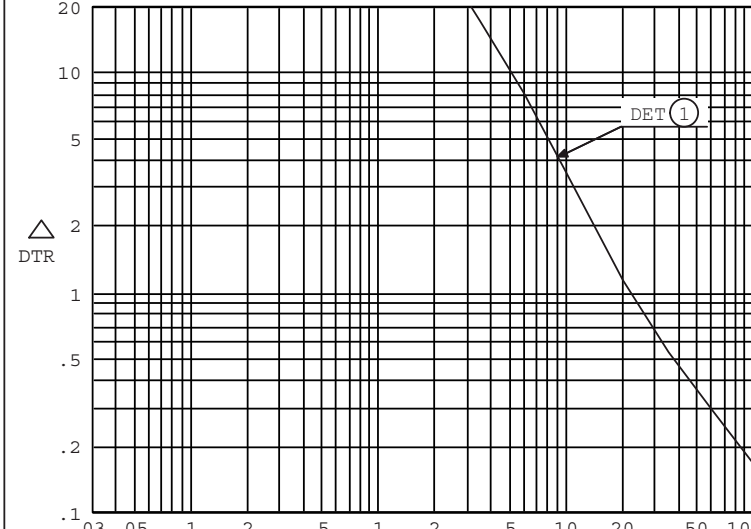
F108A\_Blank.PDF

F108B\_Blank.PDF





## 747-400 LCF SUPPLEMENTAL STRUCTURAL INSPECTION DOCUMENT – APPENDIX A

DTR CHECK FORM				ITEM: F-109A		MODEL-SERIES 747-400 LCF				
TITLE: SKIN LONGITUDINAL BUTT SPLICES				OPERATOR(S)		NO. ELIGIBLE A/C				
LOCATION: INNER SKIN AT SPECIFIED LOCATIONS LH&RH <div style="text-align: center;">1</div>				<div style="text-align: center;">STRUCTURE AND INSPECTION DETAILS</div> <div style="text-align: center;">LEAD CRACK: SKIN</div> <div style="text-align: center;"></div>						
20 10 5 2 1 .5 .2 .1 DTR △ N (THOUSANDS OF FLIGHTS) 										
NOTES: *** First crack delta DTR values *** <div style="text-align: center;">1</div> BS 1105-BS 1115: FROM S-25 TO THE LOWER EDGE OF THE INTERNAL SPLICE, AND FROM THE UPPER EDGE OF THE INTERNAL SPLICE TO S-136. BS 1223-BS 1228: FROM S-25 TO THE LOWER EDGE OF THE INTERNAL SPLICE, AND FROM THE UPPER EDGE OF THE INTERNAL SPLICE TO S-136.										
STRUCTURE DETAIL		INSPECTION PROGRAM DETAILS					DAMAGE DETECTION PERIOD N <sub>0</sub> FLIGHTS		△ DTR	
JOB CARD		DIREC. →	CHECK LEVEL	METHOD	%SAMP R <sub>0</sub>	FREQUENCY F-FLIGHTS	N = 100F/R <sub>0</sub>			
SKIN		1		DET					19800	

F-109B\_Blank.PDF



## 747-400 LCF SUPPLEMENTAL STRUCTURAL INSPECTION DOCUMENT – APPENDIX A

DTR CHECK FORM				ITEM: <b>F-111A</b>		MODEL-SERIES 747-400 LCF			
TITLE: <u>SECTION 41 VALVE SKIN CUTOUTS</u>				OPERATOR(S)		NO. ELIGIBLE A/C			
LOCATION: <u>POSITIVE PRESSURE RELIEF VALVES AT BS370</u> <u>SKIN BETWEEN S-26L AND S-31L</u>				<div style="border: 1px solid black; padding: 5px; display: inline-block;">1</div>					
<div style="display: flex; align-items: center; justify-content: center;"><div style="margin-right: 10px;"><math>\Delta</math> DTR</div><div style="margin-left: 10px;">SURV (2)      HFEC (1)</div></div>				STRUCTURE AND INSPECTION DETAILS					
				<p>LEAD CRACK:    <b>TRIPLER</b></p> <p style="text-align: center;">Sect. A-A (Rot. 90CCW)</p>					
NOTES: <div style="border: 1px solid black; padding: 2px; display: inline-block;">1</div> PPRV RETAINER FASTENERS LOCATED AROUND ENTIRE CUTOUT. INSPECTIONS AND REQUIREMENTS ARE SYMMETRICAL ABOUT S-28L.				*** First crack delta    DTR values    ***					
(1) DIR-1 HFEC IS A SURFACE INSPECTION OF THE SKIN AROUND FASTENERS.									
STRUCTURE DETAIL	INSPECTION PROGRAM DETAILS							$\Delta$ DTR	
	JOB CARD	DIREC. 	CHECK LEVEL	METHOD	%SAMP R <sub>O</sub>	FREQUENCY F-FLIGHTS	$\bar{N}$ = 100F/R <sub>O</sub>		DAMAGE DETECTION PERIOD N <sub>O</sub> FLIGHTS
SKIN TRIPLER		1		HFEC				4600	
		2		SURV				2800	
ENGR. <div style="border: 1px solid black; width: 50px; height: 20px; display: inline-block;"></div> REVISED <div style="border: 1px solid black; width: 50px; height: 20px; display: inline-block;"></div>				FUEL LEAK DTR				10	
CHECK <div style="border: 1px solid black; width: 50px; height: 20px; display: inline-block;"></div>				TOTAL DTR					
APPR. <div style="border: 1px solid black; width: 50px; height: 20px; display: inline-block;"></div>				REQUIRED DTR					
APPR. <div style="border: 1px solid black; width: 50px; height: 20px; display: inline-block;"></div>									

F111A\_Blank.PDF

F111B\_Blank.PDF

E31\_Blank.PDF



THIS PAGE INTENTIONALLY LEFT BLANK

E32A\_Blank.PDF

E32B Blank.PDF

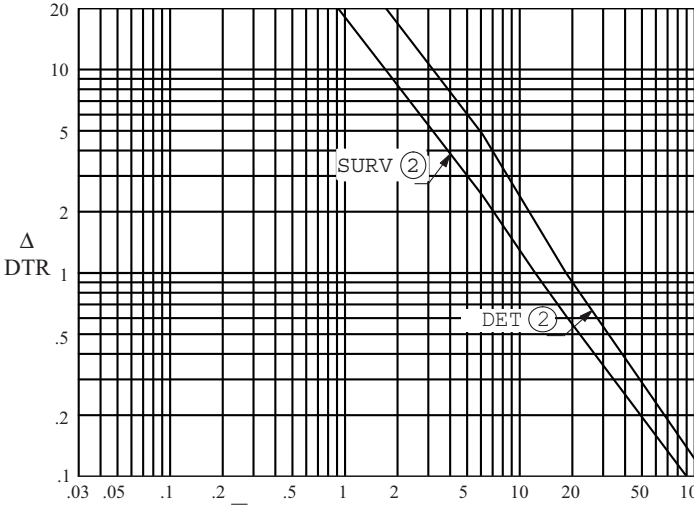
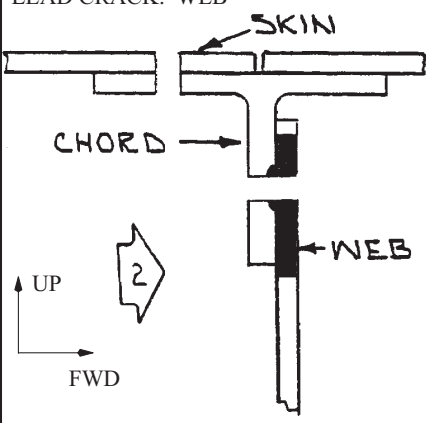


E32C Blank.PDF

E32D\_Blank.PDF



## 747-400 LCF SUPPLEMENTAL STRUCTURAL INSPECTION DOCUMENT – APPENDIX A

<b>DTR CHECK FORM</b>				ITEM: <b>E-32E</b>		MODEL – SERIES 747-400 LCF				
TITLE: <u>HORIZONTAL STABILIZER FRONT SPAR UPPER</u> <u>SURFACE CHORD, SKIN AND WEB</u> LOCATION: <u>CENTER SECTION OUTBOARD TO S. STA. 385</u>				OPERATOR(S)  		NO. ELIGIBLE A/C  				
<div style="display: flex; align-items: center;"><div style="flex: 1;"></div><div style="flex: 1; padding-left: 10px;"><p>STRUCTURE AND INSPECTION DETAILS</p><p>LEAD CRACK: WEB</p><p>RIB POSTS AND STIFFENERS NOT SHOWN</p></div></div>				NOTES: <span style="float: right;">*** First crack delta DTR values ***</span>						
				(1) IN THE CENTER SECTION EXTERNAL INSPECTION IS OPTIONAL TO DIRECTION 2 EXCEPT AT THE END BAY DOUBLERS. (2) IN THE OUTBOARD SECTION, INSPECTION THRU THE FORWARD LEADING EDGE TORQUE BOX IS OPTIONAL TO DIRECTION 2. (3) CURVES INCLUDE EFFECT OF STIFFENERS. (4) IF VISIBILITY IS REDUCED BY SEALANT OR CORROSION INHIBITING COMPOUND (CIC) THEN SEALANT AND/OR CIC MUST BE REMOVED PRIOR TO INSPECTION AND REAPPLIED AFTER INSPECTION IS COMPLETE.						
STRUCTURE DETAIL		INSPECTION PROGRAM DETAILS						DAMAGE DETECTION PERIOD N <sub>0</sub> FLIGHTS	Δ DTR	
		JOB CARD	DIREC. ↩	CHECK LEVEL	METHOD	%SAMP. R <sub>0</sub>	FREQUENCY F-FLIGHTS			$\bar{N} = \frac{100F}{R_0}$
WEB			2		SURV				17400	
			2		DET				18600	
ENGR				REVISED	DATE	FUEL LEAK DTR				0
CHECK						TOTAL DTR				
APR						REQUIRED DTR				<b>6</b>
APR										

E32E\_Blank.PDF



THIS PAGE INTENTIONALLY LEFT BLANK

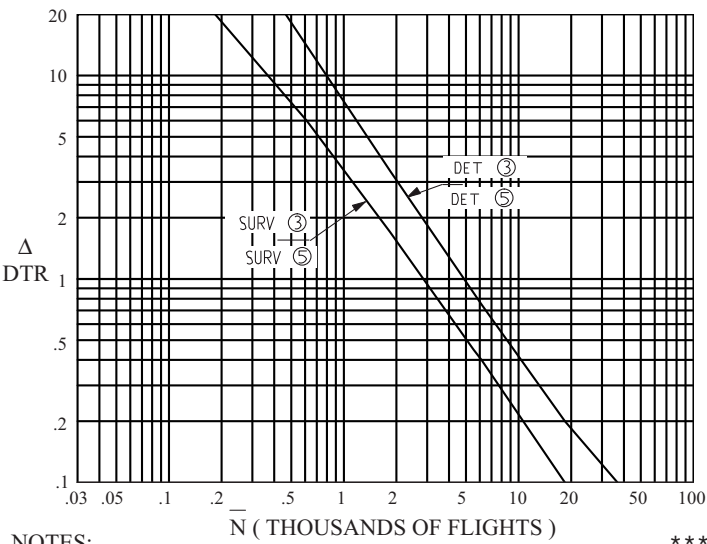
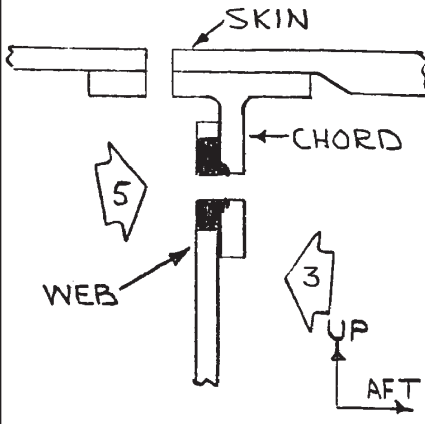
E33A\_Blank.PDF

E33B\_Blank.PDF

E33C\_Blank.PDF



## 747-400 LCF SUPPLEMENTAL STRUCTURAL INSPECTION DOCUMENT – APPENDIX A

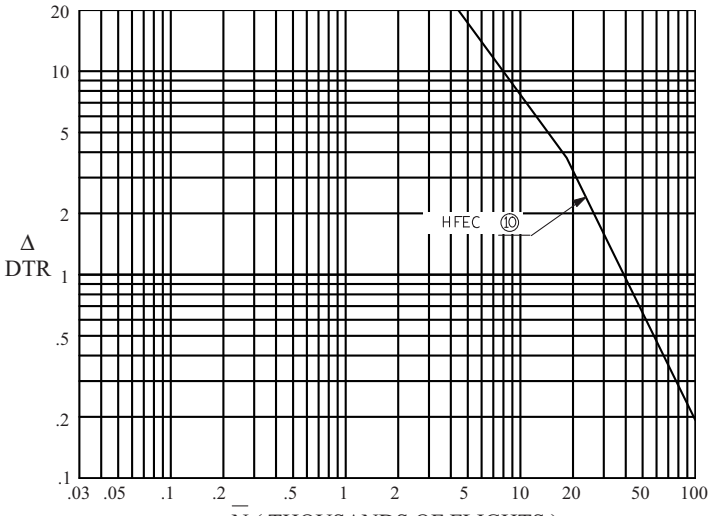
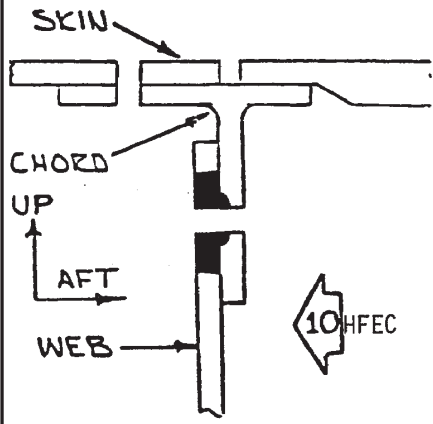



<b>DTR CHECK FORM</b>				ITEM: <b>E-33D</b>		MODEL – SERIES 747-400 LCF					
TITLE: <u>HORIZONTAL STABILIZER REAR SPAR UPPER</u> <u>SURFACE CHORD, SKIN AND WEB</u>				OPERATOR(S)		NO. ELIGIBLE A/C					
LOCATION: <u>CENTER SECTION OUTBOARD TO S. STA. 385</u> <u>EXCEPT AT ELEVATOR ACTUATORS.</u>											
				<b>STRUCTURE AND INSPECTION DETAILS</b> LEAD CRACK: WEB 							
NOTES: (1) IF VISIBILITY IS REDUCED BY SEALANT OR CORROSION INHIBITING COMPOUND (CIC) THEN SEALANT AND/OR CIC MUST BE REMOVED PRIOR TO INSPECTION AND REAPPLIED AFTER INSPECTION IS COMPLETE. (2) THE WEB ΔDTR FROM DIRECTION 5 IS EQUIVALENT TO DIRECTION 3 EXCEPT AS PER NOTE 1.				*** First crack delta DTR values***							
STRUCTURE DETAIL		INSPECTION PROGRAM DETAILS						DAMAGE DETECTION PERIOD N <sub>0</sub> FLIGHTS		Δ DTR	
JOB CARD		DIREC. ➡	CHECK LEVEL	METHOD	%SAMP. R <sub>0</sub>	FREQUENCY F-FLIGHTS	$\frac{N}{N_0} = \frac{100F}{R_0}$				
WEB		3		SURV				4800			
		3		DET				4800			
		5		SURV				4800			
		5		DET				4800			
ENGR				REVISED	DATE		FUEL LEAK DTR				0
CHECK							TOTAL DTR				
APR							REQUIRED DTR				6
APR											

E33D\_Blank.PDF





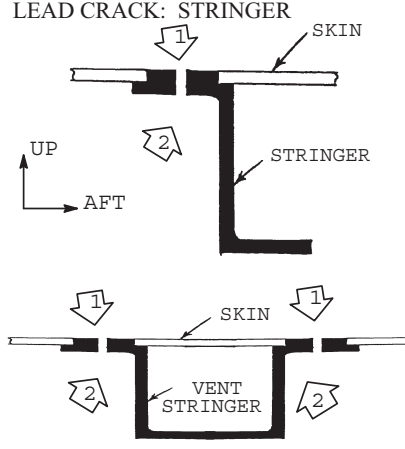
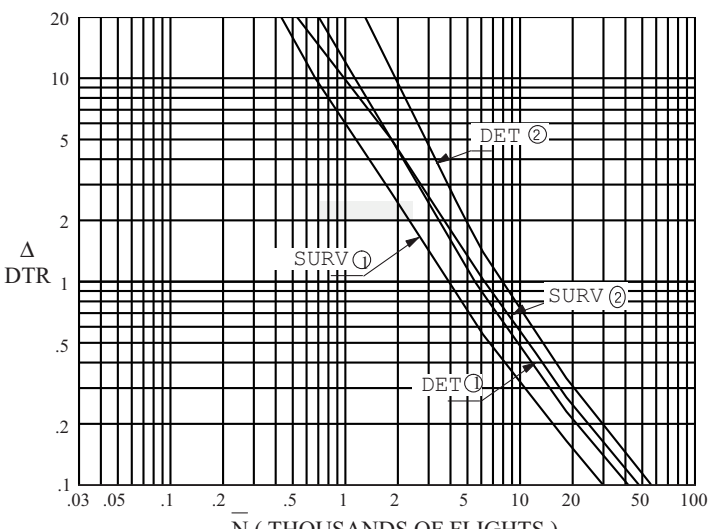

## 747-400 LCF SUPPLEMENTAL STRUCTURAL INSPECTION DOCUMENT – APPENDIX A

<b>DTR CHECK FORM</b>				ITEM: <b>E-33E</b>		MODEL – SERIES 747-400 LCF																																																																																										
TITLE: <u>HORIZONTAL STABILIZER REAR SPAR UPPER</u> <u>SURFACE CHORD, SKIN AND WEB</u>				OPERATOR(S)		NO. ELIGIBLE A/C																																																																																										
LOCATION: <u>OUTBOARD STABILIZER AT</u> <u>ELEVATOR ACTUATORS</u>																																																																																																
<div style="display: flex; align-items: center;"><div style="flex: 1;"></div><div style="flex: 1; padding-left: 10px; vertical-align: top;"><p>STRUCTURE AND INSPECTION DETAILS</p><p>LEAD CRACK: WEB</p></div></div>				<p>NOTES:</p> <p>(1) SKETCH DOES NOT SHOW ACTUATOR RIB OR RIB POST.</p> <p>(2) NO INTERNAL VISUAL DUE TO HIDDEN STRUCTURE.</p>																																																																																												
N (THOUSANDS OF FLIGHTS)				*** First crack delta DTR values ***																																																																																												
<table border="1" style="width: 100%; border-collapse: collapse;"><thead><tr><th rowspan="2" style="width: 15%;">STRUCTURE DETAIL</th><th colspan="6" style="text-align: center;">INSPECTION PROGRAM DETAILS</th><th rowspan="2" style="width: 15%;">DAMAGE DETECTION PERIOD N<sub>0</sub> FLIGHTS</th><th rowspan="2" style="width: 10%;"><math>\Delta</math> DTR</th></tr><tr><th style="width: 10%;">JOB CARD</th><th style="width: 10%;">DIREC. </th><th style="width: 10%;">CHECK LEVEL</th><th style="width: 10%;">METHOD</th><th style="width: 10%;">%SAMP. R<sub>0</sub></th><th style="width: 10%;">FREQUENCY F-FLIGHTS</th><th style="width: 10%;">N = <math>\frac{100F}{R_0}</math></th></tr></thead><tbody><tr><td rowspan="8" style="text-align: center; vertical-align: top;">WEB</td><td></td><td style="text-align: center;">10</td><td></td><td style="text-align: center;">HFEC</td><td></td><td></td><td></td><td style="text-align: center;">18900</td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></tbody></table>								STRUCTURE DETAIL	INSPECTION PROGRAM DETAILS						DAMAGE DETECTION PERIOD N <sub>0</sub> FLIGHTS	$\Delta$ DTR	JOB CARD	DIREC. 	CHECK LEVEL	METHOD	%SAMP. R <sub>0</sub>	FREQUENCY F-FLIGHTS	N = $\frac{100F}{R_0}$	WEB		10		HFEC				18900																																																																
STRUCTURE DETAIL	INSPECTION PROGRAM DETAILS						DAMAGE DETECTION PERIOD N <sub>0</sub> FLIGHTS		$\Delta$ DTR																																																																																							
	JOB CARD	DIREC. 	CHECK LEVEL	METHOD	%SAMP. R <sub>0</sub>	FREQUENCY F-FLIGHTS		N = $\frac{100F}{R_0}$																																																																																								
WEB		10		HFEC				18900																																																																																								
<table border="1" style="width: 100%; border-collapse: collapse;"><thead><tr><th style="width: 15%;">ENGR</th><th style="width: 15%;"></th><th style="width: 15%;">REVISED</th><th style="width: 15%;">DATE</th></tr></thead><tbody><tr><td>CHECK</td><td></td><td></td><td></td></tr><tr><td>APR</td><td></td><td></td><td></td></tr><tr><td>APR</td><td></td><td></td><td></td></tr></tbody></table>				ENGR		REVISED	DATE	CHECK				APR				APR				FUEL LEAK DTR		0																																																																										
ENGR		REVISED	DATE																																																																																													
CHECK																																																																																																
APR																																																																																																
APR																																																																																																
				TOTAL DTR																																																																																												
				REQUIRED DTR		<b>6</b>																																																																																										

E33E\_Blank.PDF



THIS PAGE INTENTIONALLY LEFT BLANK

<b>DTR CHECK FORM</b>				ITEM: <b>E-34A</b>		MODEL - SERIES 747-400 LCF			
TITLE: <u>HORIZONTAL STABILIZER TYPICAL SKIN-STRINGER</u> <u>AND VENT STRINGER</u>				OPERATOR(S)		NO. ELIGIBLE A/C			
LOCATION: <u>TYPICAL @ SKIN-STRINGER DETAILS</u> <u>UPPER SURFACE OUTBOARD STABILIZER</u>				<b>STRUCTURE AND INSPECTION DETAILS</b> <b>LEAD CRACK: STRINGER</b> 					
									
<b>NOTES:</b> <span style="float: right;">***First crack delta DTR values ***</span> (1) IF VISIBILITY IS REDUCED BY SEALANT OR CORROSION INHIBITING COMPOUND (CIC) THEN EITHER UTILIZE THE EXTERNAL INSPECTION SOLELY OR THE SEALANT AND/OR CIC MUST BE REMOVED PRIOR TO INSPECTION AND REAPPLIED AFTER INSPECTION IS COMPLETE. (2) VENT STRINGERS PASSING THROUGH THE SIDE OF BODY RIB (STABILIZER ROOT) HAVE SEALANT AND SEAL PANS PREVENTING DIRECTION 2 INSPECTION. INSPECT INSIDE OF VENT STRINGER AND SKIN AT THIS LOCATION USING BORESCOPE IF NECESSARY.									
<div style="display: flex; align-items: center;"> <div style="border: 1px solid black; padding: 2px; margin-right: 10px;">1</div>           SIDE OF BODY TO S.STA. 385         </div>									
STRUCTURE DETAIL	INSPECTION PROGRAM DETAILS						DAMAGE DETECTION PERIOD N <sub>0</sub> FLIGHTS	△ DTR	
	JOB CARD	DIREC. 	CHECK LEVEL	METHOD	%SAMP. R <sub>0</sub>	FREQUENCY F-FLIGHTS			$N = \frac{100F}{R_0}$
SKIN		1		SURV				3660	
		1		DET				3660	
STRINGER		2		SURV				3660	
		2		DET				3660	
ENGR			REVISED	DATE	FUEL LEAK DTR				0
CHECK					TOTAL DTR				
APR					REQUIRED DTR				6
APR									



## 747-400 LCF SUPPLEMENTAL STRUCTURAL INSPECTION DOCUMENT – APPENDIX A

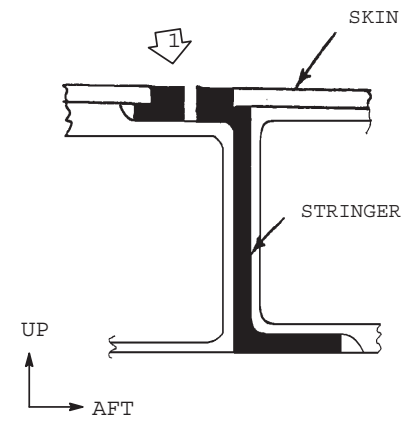
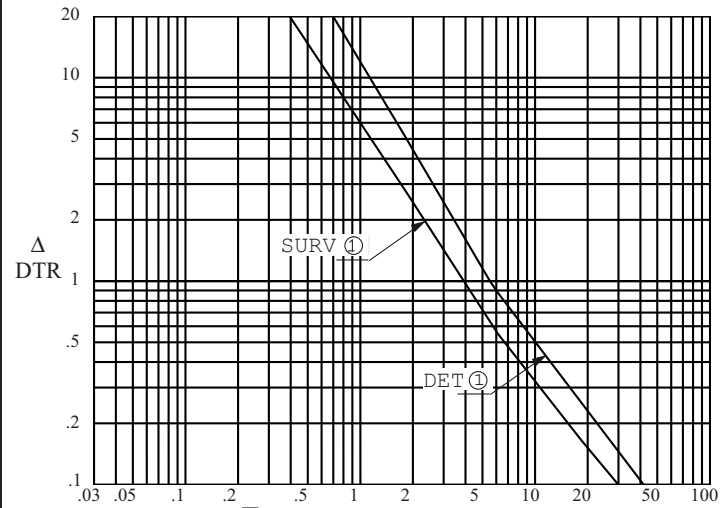



<b>DTR CHECK FORM</b>				ITEM: <b>E-34B</b>		MODEL – SERIES 747-400 LCF					
TITLE: <u>HORIZONTAL STABILIZER TYPICAL SKIN-STRINGER</u> <u>AND VENT STRINGER</u>						OPERATOR(S)		NO. ELIGIBLE A/C			
LOCATION: <u>UPPER SURFACE CENTER SECTION STABILIZER</u>											
<div style="display: flex; align-items: center;"><div style="flex: 1;"></div><div style="flex: 1; padding-left: 10px;"><b>STRUCTURE AND INSPECTION DETAILS</b> <b>LEAD CRACK: STRINGER</b>  (STRINGERS 6 AND 7)</div></div>						*** First crack delta DTR values ***					
NOTES:											
(1) IF VISIBILITY IS REDUCED BY SEALANT OR CORROSION INHIBITING COMPOUND (CIC) THEN EITHER UTILIZE THE EXTERNAL INSPECTION SOLELY OR THE SEALANT AND/OR CIC MUST BE REMOVED PRIOR TO INSPECTION AND REAPPLIED AFTER INSPECTION IS COMPLETE.											
(2) VENT STRINGERS PASSING THROUGH THE SIDE OF BODY RIB (STABILIZER ROOT) HAVE SEALANT AND SEAL PANS PREVENTING DIRECTION 2 INSPECTION. INSPECT INSIDE OF VENT STRINGER AND SKIN AT THIS LOCATION USING BORESCOPE IF NECESSARY.											
FROM BL 0 TO SIDE OF BODY, LEFT AND RIGHT											
STRUCTURE DETAIL		INSPECTION PROGRAM DETAILS						DAMAGE DETECTION PERIOD		△ DTR	
JOB CARD		DIREC. 	CHECK LEVEL	METHOD	%SAMP. R <sub>0</sub>	FREQUENCY F-FLIGHTS	$\frac{1}{N} = \frac{100F}{R_0}$	N <sub>0</sub> FLIGHTS			
SKIN		1		SURV				8580			
		1		DET				8580			
STRINGER		2		SURV				8580			
		2		DET				8580			
ENGR				REVISED	DATE	FUEL LEAK DTR				0	
CHECK						TOTAL DTR					
APR						REQUIRED DTR				6	
APR											

E34B\_Blank.PDF

E34C\_Blank.PDF



## 747-400 LCF SUPPLEMENTAL STRUCTURAL INSPECTION DOCUMENT – APPENDIX A

<b>DTR CHECK FORM</b>				ITEM: <b>E-34D</b>		MODEL – SERIES 747-400 LCF																																																																																																															
TITLE: <u>HORIZONTAL STABILIZER TYPICAL SKIN-STRINGER</u> <u>UPPER SURFACE</u>				OPERATOR(S)		NO. ELIGIBLE A/C																																																																																																															
LOCATION: <u>OUTBOARD STABILIZER SKIN AREAS</u> <u>HIDDEN INTERNALLY BY SHEAR TIES</u>				<div style="border: 1px solid black; padding: 5px;">STRUCTURE AND INSPECTION DETAILS LEAD CRACK: STRINGER</div> <div style="text-align: center; padding: 10px;"></div>																																																																																																																	
<div style="display: flex; align-items: center;"><div style="margin-right: 10px;"><math>\Delta</math> DTR</div></div>				NOTES: *** First crack delta DTR values***																																																																																																																	
FROM STRINGER 1 TO STRINGER 4:																																																																																																																					
- AROUND RIB AT STABILIZER STATION 285																																																																																																																					
- AROUND ACTUATOR RIBS AT ELEVATOR STATIONS 115.488 AND 123.228																																																																																																																					
<table border="1" style="width: 100%; border-collapse: collapse;"><thead><tr><th rowspan="2" style="width: 15%;">STRUCTURE DETAIL</th><th colspan="7">INSPECTION PROGRAM DETAILS</th><th rowspan="2" style="width: 15%;">DAMAGE DETECTION PERIOD N<sub>0</sub> FLIGHTS</th><th rowspan="2" style="width: 10%;"><math>\Delta</math> DTR</th></tr><tr><th style="width: 10%;">JOB CARD</th><th style="width: 10%;">DIREC. </th><th style="width: 10%;">CHECK LEVEL</th><th style="width: 10%;">METHOD</th><th style="width: 10%;">%SAMP. R<sub>0</sub></th><th style="width: 10%;">FREQUENCY F-FLIGHTS</th><th style="width: 10%;">N = <math>\frac{100F}{R_0}</math></th></tr></thead><tbody><tr><td rowspan="2">SKIN</td><td></td><td>1</td><td></td><td>SURV</td><td></td><td></td><td></td><td>3660</td><td></td></tr><tr><td></td><td>1</td><td></td><td>DET</td><td></td><td></td><td></td><td>3660</td><td></td></tr><tr><td rowspan="8"></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></tbody></table>									STRUCTURE DETAIL	INSPECTION PROGRAM DETAILS							DAMAGE DETECTION PERIOD N <sub>0</sub> FLIGHTS	$\Delta$ DTR	JOB CARD	DIREC. 	CHECK LEVEL	METHOD	%SAMP. R <sub>0</sub>	FREQUENCY F-FLIGHTS	N = $\frac{100F}{R_0}$	SKIN		1		SURV				3660			1		DET				3660																																																																										
STRUCTURE DETAIL	INSPECTION PROGRAM DETAILS							DAMAGE DETECTION PERIOD N <sub>0</sub> FLIGHTS		$\Delta$ DTR																																																																																																											
	JOB CARD	DIREC. 	CHECK LEVEL	METHOD	%SAMP. R <sub>0</sub>	FREQUENCY F-FLIGHTS	N = $\frac{100F}{R_0}$																																																																																																														
SKIN		1		SURV				3660																																																																																																													
		1		DET				3660																																																																																																													
<table border="1" style="width: 100%; border-collapse: collapse;"><thead><tr><th style="width: 15%;">ENGR</th><th style="width: 15%;">REVIS</th><th style="width: 15%;">DATE</th></tr></thead><tbody><tr><td></td><td></td><td></td></tr><tr><td>CHECK</td><td></td><td></td></tr><tr><td>APR</td><td></td><td></td></tr><tr><td>APR</td><td></td><td></td></tr></tbody></table>				ENGR	REVIS	DATE				CHECK			APR			APR			FUEL LEAK DTR				0																																																																																														
ENGR	REVIS	DATE																																																																																																																			
CHECK																																																																																																																					
APR																																																																																																																					
APR																																																																																																																					
				TOTAL DTR																																																																																																																	
				REQUIRED DTR				<b>6</b>																																																																																																													

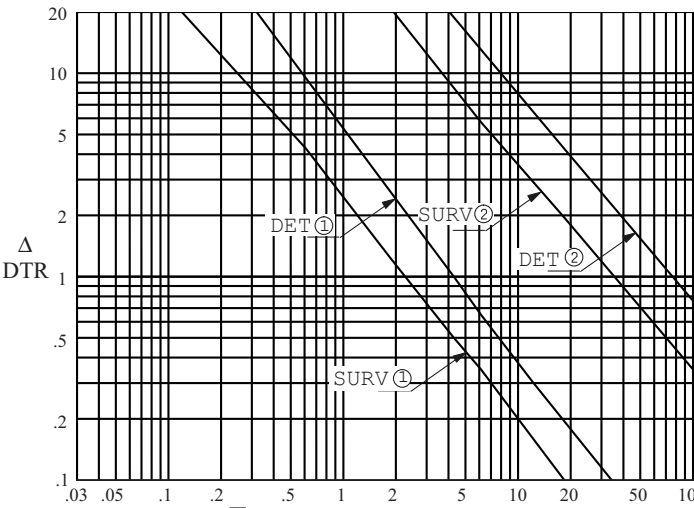
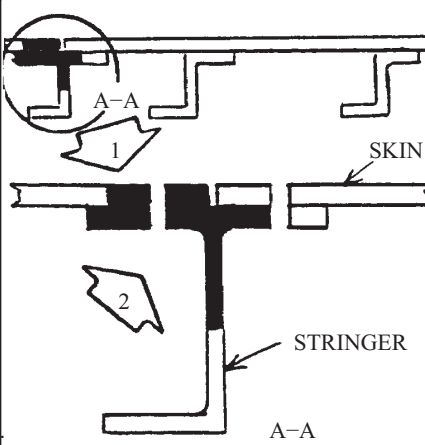

E34D\_Blank.PDF



E35A\_Blank.PDF



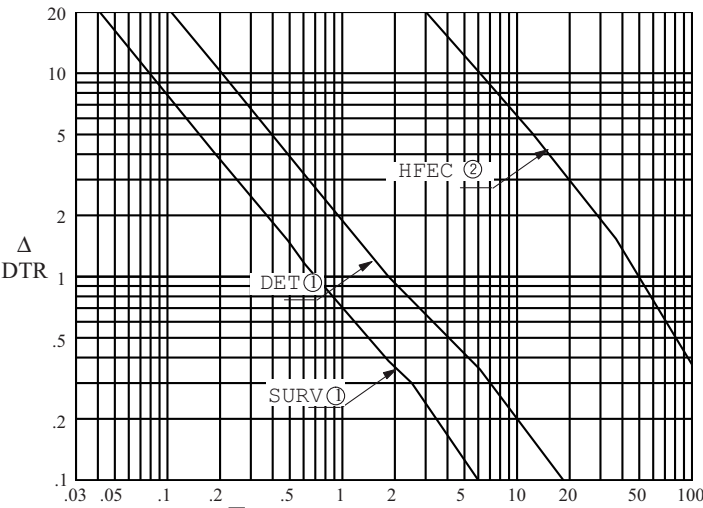
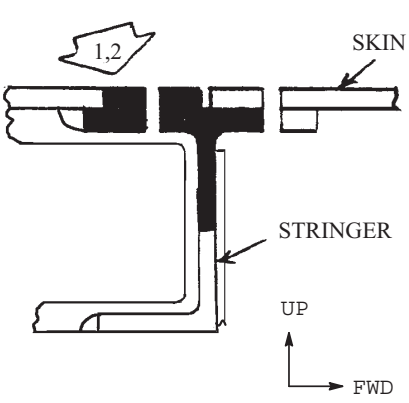

## 747-400 LCF SUPPLEMENTAL STRUCTURAL INSPECTION DOCUMENT – APPENDIX A

<b>DTR CHECK FORM</b>				ITEM: <b>E-35B</b>		MODEL – SERIES 747-400 LCF			
TITLE: <u>HORIZONTAL STABILIZER SKIN-SPLICE STRINGER</u>				OPERATOR(S)		NO. ELIGIBLE A/C			
LOCATION: <u>STRINGER 5 UPPER SURFACE CENTER SECTION</u>									
				<div style="text-align: center;">STRUCTURE AND INSPECTION DETAILS</div> <div style="text-align: center;">LEAD CRACK: STRINGER</div> 					
NOTES:				*** First crack delta DTR values ***					
(1) IF VISIBILITY IS REDUCED BY SEALANT OR CORROSION INHIBITING COMPOUND (CIC) THEN EITHER UTILIZE THE EXTERNAL INSPECTION SOLELY OR THE SEALANT AND/OR CIC MUST BE REMOVED PRIOR TO INSPECTION AND REAPPLIED AFTER INSPECTION IS COMPLETE.									
(2) INSPECTION REQUIREMENTS ARE SYMMETRIC ABOUT THE SPLICE STRINGER CENTERLINE.									
STRUCTURE DETAIL		INSPECTION PROGRAM DETAILS						DAMAGE DETECTION PERIOD	$\Delta$ DTR
JOB CARD		DIREC. 	CHECK LEVEL	METHOD	%SAMP. R <sub>0</sub>	FREQUENCY F-FLIGHTS	$N = \frac{100F}{R_0}$	N <sub>0</sub> FLIGHTS	
SKIN		1		SURV				49800	
		1		DET				49800	
STRINGER		2		SURV				49800	
		2		DET				49800	





## 747-400 LCF SUPPLEMENTAL STRUCTURAL INSPECTION DOCUMENT – APPENDIX A

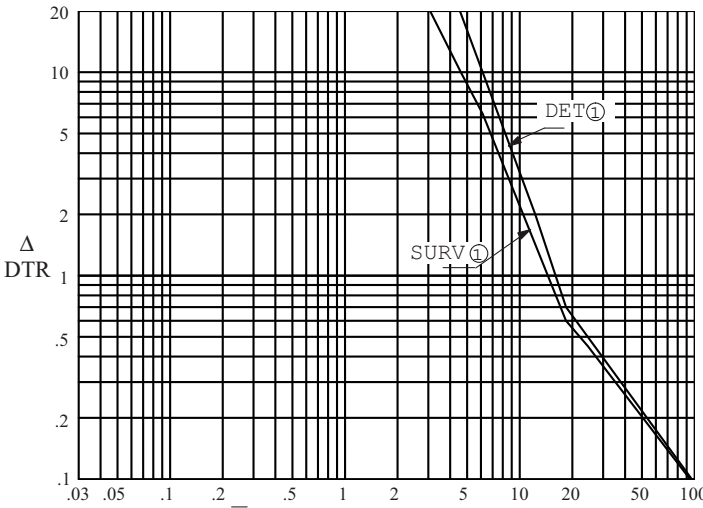
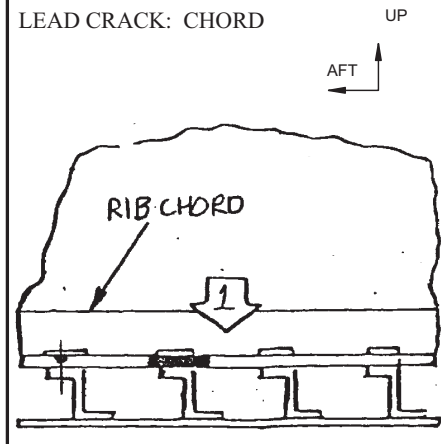
<b>DTR CHECK FORM</b>				ITEM: <b>E-35C</b>		MODEL – SERIES 747-400 LCF					
TITLE: <u>HORIZONTAL STABILIZER SKIN SPLICE</u> <u>STRINGER #5 UPPER SURFACE</u>				OPERATOR(S)		NO. ELIGIBLE A/C					
LOCATION: <u>OUTBOARD STABILIZER AREAS HIDDEN</u> <u>INTERNALLY BY SHEAR TIES OR SEAL PANS</u> <span style="border: 1px solid black; padding: 0 2px;">1</span>											
<div style="display: flex; align-items: center;"><div style="flex: 1;"></div><div style="flex: 1; padding-left: 10px; vertical-align: top;"><p>STRUCTURE AND INSPECTION DETAILS</p><p>LEAD CRACK: STRINGER</p></div></div>				<p>NOTES:</p> <p>*** First Crack delta DTR values ***</p> <p>(1) INSPECTION REQUIREMENTS SYMMETRIC ABOUT THE SPLICE STRINGER CENTERLINE.</p> <p><span style="border: 1px solid black; padding: 0 2px;">1</span> AT STRINGER 5:</p> <ul style="list-style-type: none"><li>- AROUND RIB AT STABILIZER STATION. 285</li><li>- AROUND ACTUATOR RIBS AT ELEVATOR STATION 115.488 AND 123.228</li></ul>							
STRUCTURE DETAIL		INSPECTION PROGRAM DETAILS						DAMAGE DETECTION PERIOD N <sub>0</sub> FLIGHTS		Δ DTR	
JOB CARD		DIREC. 		CHECK LEVEL	METHOD	%SAMP. R <sub>0</sub>	FREQUENCY F-FLIGHTS	$\bar{N} = \frac{100F}{R_0}$			
SKIN		1			SURV				32460		
		1			DET				32460		
		2			HFEC				32460		



THIS PAGE INTENTIONALLY LEFT BLANK



## 747-400 LCF SUPPLEMENTAL STRUCTURAL INSPECTION DOCUMENT – APPENDIX A

<b>DTR CHECK FORM</b>				ITEM: <b>E-36</b>		MODEL – SERIES 747-400 LCF																																																																																																
TITLE: <u>HORIZONTAL STABILIZER TYPICAL RIBS</u>				OPERATOR(S)		NO. ELIGIBLE A/C																																																																																																
LOCATION: <u>LOWER RIB CHORD</u> <u>SIDE OF BODY TO S.STA. 385</u>																																																																																																						
				<b>STRUCTURE AND INSPECTION DETAILS</b> LEAD CRACK: CHORD  <div style="text-align: right; margin-top: 10px;">UP AFT</div>																																																																																																		
NOTES: (1) IF VISIBILITY IS REDUCED BY SEALANT OR CORROSION INHIBITING COMPOUND (CIC) THEN SEALANT AND/OR CIC MUST BE REMOVED PRIOR TO INSPECTION AND REAPPLIED AFTER INSPECTION IS COMPLETE.				*** First crack delta DTR values ***																																																																																																		
<table border="1" style="width: 100%; border-collapse: collapse;"><thead><tr><th rowspan="2" style="width: 15%;">STRUCTURE DETAIL</th><th colspan="6" style="text-align: center;">INSPECTION PROGRAM DETAILS</th><th rowspan="2" style="width: 15%;">DAMAGE DETECTION PERIOD N<sub>0</sub> FLIGHTS</th><th rowspan="2" style="width: 10%;"><math>\Delta</math> DTR</th></tr><tr><th style="width: 10%;">JOB CARD</th><th style="width: 10%;">DIREC. </th><th style="width: 10%;">CHECK LEVEL</th><th style="width: 10%;">METHOD</th><th style="width: 10%;">%SAMP. R<sub>0</sub></th><th style="width: 10%;">FREQUENCY F-FLIGHTS</th><th style="width: 10%;">N = <math>\frac{100F}{R_0}</math></th></tr></thead><tbody><tr><td rowspan="2">CHORD</td><td></td><td>1</td><td></td><td>SURV</td><td></td><td></td><td></td><td>10800</td><td></td></tr><tr><td></td><td>1</td><td></td><td>DET</td><td></td><td></td><td></td><td>10800</td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></tbody></table>								STRUCTURE DETAIL	INSPECTION PROGRAM DETAILS						DAMAGE DETECTION PERIOD N <sub>0</sub> FLIGHTS	$\Delta$ DTR	JOB CARD	DIREC. 	CHECK LEVEL	METHOD	%SAMP. R <sub>0</sub>	FREQUENCY F-FLIGHTS	N = $\frac{100F}{R_0}$	CHORD		1		SURV				10800			1		DET				10800																																																													
STRUCTURE DETAIL	INSPECTION PROGRAM DETAILS						DAMAGE DETECTION PERIOD N <sub>0</sub> FLIGHTS		$\Delta$ DTR																																																																																													
	JOB CARD	DIREC. 	CHECK LEVEL	METHOD	%SAMP. R <sub>0</sub>	FREQUENCY F-FLIGHTS		N = $\frac{100F}{R_0}$																																																																																														
CHORD		1		SURV				10800																																																																																														
		1		DET				10800																																																																																														
<table border="1" style="width: 100%; border-collapse: collapse;"><thead><tr><th style="width: 10%;">ENGR</th><th style="width: 10%;"></th><th style="width: 10%;"></th><th style="width: 10%;">REVISED</th><th style="width: 10%;">DATE</th><th style="width: 40%;"></th><th style="width: 10%;">FUEL LEAK DTR</th><th style="width: 10%; text-align: center;">0</th></tr></thead><tbody><tr><td>CHECK</td><td></td><td></td><td></td><td></td><td></td><td>TOTAL DTR</td><td></td></tr><tr><td>APR</td><td></td><td></td><td></td><td></td><td></td><td>REQUIRED DTR</td><td style="text-align: center;"><b>6</b></td></tr><tr><td>APR</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></tbody></table>								ENGR			REVISED	DATE		FUEL LEAK DTR	0	CHECK						TOTAL DTR		APR						REQUIRED DTR	<b>6</b>	APR																																																																						
ENGR			REVISED	DATE		FUEL LEAK DTR	0																																																																																															
CHECK						TOTAL DTR																																																																																																
APR						REQUIRED DTR	<b>6</b>																																																																																															
APR																																																																																																						

E36\_Blank.PDF

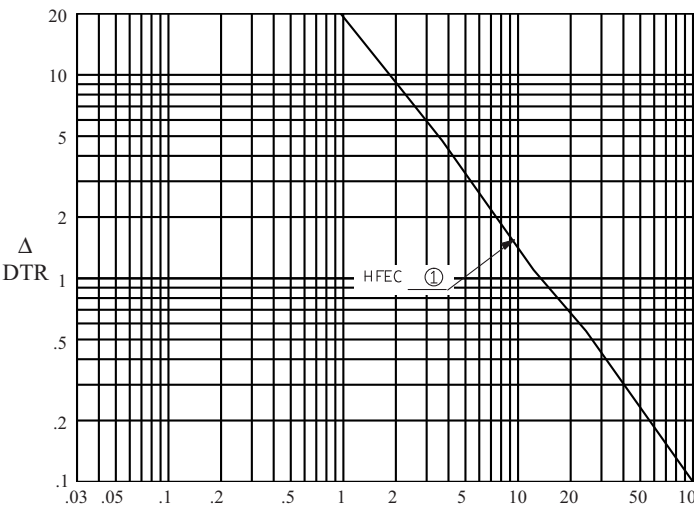
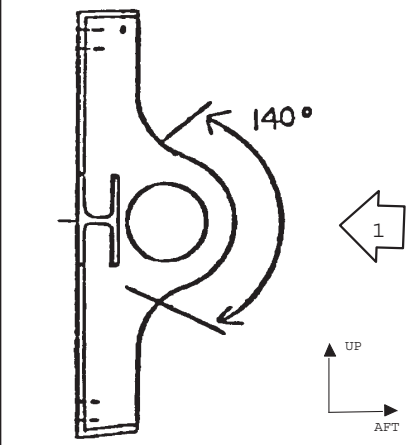





THIS PAGE INTENTIONALLY LEFT BLANK

E36A\_Blank.PDF



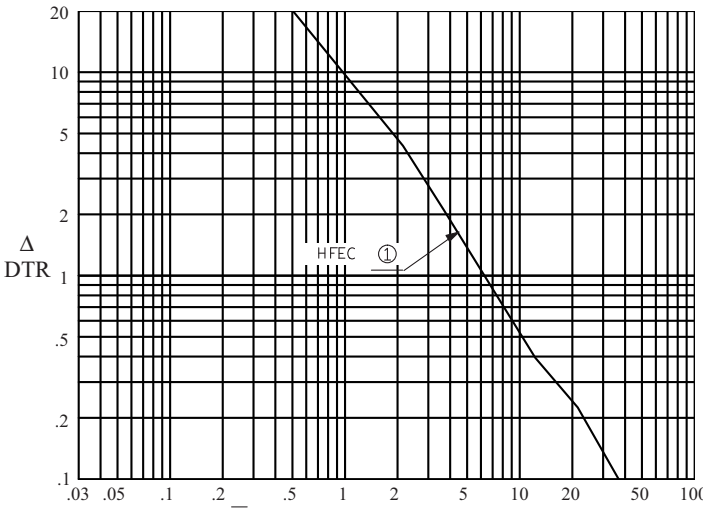
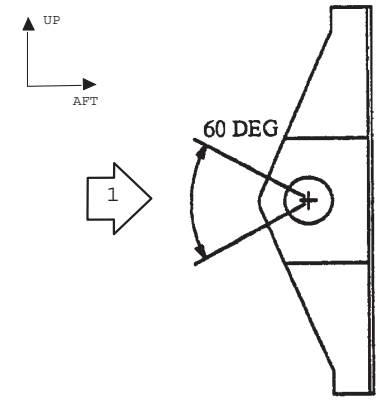



## 747-400LCF SUPPLEMENTAL STRUCTURAL INSPECTION DOCUMENT – APPENDIX A

<b>DTR CHECK FORM</b>				ITEM: <b>E-37B</b>		MODEL – SERIES 747-400 LCF																																																																																													
TITLE: <u>HORIZONTAL STABILIZER HINGE PIN</u> <u>AND SUPPORT STRUCTURE</u>				OPERATOR(S)		NO. ELIGIBLE A/C																																																																																													
LOCATION: <u>MALE LUGS MOUNTED ON THE STABILIZER</u> <u>CENTER SECTION</u>																																																																																																			
<div style="display: flex;"><div style="flex: 1;"></div><div style="flex: 1; padding-left: 10px;"><p>STRUCTURE AND INSPECTION DETAILS</p><p>LEAD CRACK: LUG</p></div></div>				<p>NOTES:</p> <p>*** First crack delta DTR values ***</p> <p>(1) INSPECT ON THE SIDE FACES OF THE LUG +/- 70 DEGREES FROM THE CENTERLINE.</p> <p> </p> <p> </p> <p> </p> <p> </p> <p> </p> <p> </p> <p> </p> <p> </p>																																																																																															
<table border="1" style="width: 100%; border-collapse: collapse;"><thead><tr><th rowspan="2" style="width: 10%;">STRUCTURE DETAIL</th><th colspan="7" style="text-align: center;">INSPECTION PROGRAM DETAILS</th><th rowspan="2" style="width: 10%;">DAMAGE DETECTION PERIOD N<sub>0</sub> FLIGHTS</th><th rowspan="2" style="width: 10%;">Δ DTR</th></tr><tr><th style="width: 10%;">JOB CARD</th><th style="width: 10%;">DIREC. </th><th style="width: 10%;">CHECK LEVEL</th><th style="width: 10%;">METHOD</th><th style="width: 10%;">%SAMP. R<sub>0</sub></th><th style="width: 10%;">FREQUENCY F-FLIGHTS</th><th style="width: 10%;">N = <math>\frac{100F}{R_0}</math></th></tr></thead><tbody><tr><td rowspan="8" style="text-align: center; vertical-align: top;">LUG</td><td></td><td style="text-align: center;">1</td><td></td><td style="text-align: center;">HFEC</td><td></td><td></td><td></td><td style="text-align: center;">10500</td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></tbody></table>										STRUCTURE DETAIL	INSPECTION PROGRAM DETAILS							DAMAGE DETECTION PERIOD N <sub>0</sub> FLIGHTS	Δ DTR	JOB CARD	DIREC. 	CHECK LEVEL	METHOD	%SAMP. R <sub>0</sub>	FREQUENCY F-FLIGHTS	N = $\frac{100F}{R_0}$	LUG		1		HFEC				10500																																																																
STRUCTURE DETAIL	INSPECTION PROGRAM DETAILS							DAMAGE DETECTION PERIOD N <sub>0</sub> FLIGHTS	Δ DTR																																																																																										
	JOB CARD	DIREC. 	CHECK LEVEL	METHOD	%SAMP. R <sub>0</sub>	FREQUENCY F-FLIGHTS	N = $\frac{100F}{R_0}$																																																																																												
LUG		1		HFEC				10500																																																																																											
<table border="1" style="width: 100%; border-collapse: collapse;"><thead><tr><th style="width: 10%;">ENGR</th><th style="width: 10%;"></th><th style="width: 10%;"></th><th style="width: 10%;">REVISED</th><th style="width: 10%;">DATE</th></tr></thead><tbody><tr><td>CHECK</td><td></td><td></td><td></td><td></td></tr><tr><td>APR</td><td></td><td></td><td></td><td></td></tr><tr><td>APR</td><td></td><td></td><td></td><td></td></tr></tbody></table>								ENGR			REVISED	DATE	CHECK					APR					APR					FUEL LEAK DTR		0																																																																					
ENGR			REVISED	DATE																																																																																															
CHECK																																																																																																			
APR																																																																																																			
APR																																																																																																			
								TOTAL DTR																																																																																											
								REQUIRED DTR	6																																																																																										

E36B\_Blank.PDF



## 747-400LCF SUPPLEMENTAL STRUCTURAL INSPECTION DOCUMENT – APPENDIX A

<b>DTR CHECK FORM</b>				ITEM: <b>E-37C</b>		MODEL – SERIES 747-400 LCF																																																																																						
TITLE: <u>HORIZONTAL STABILIZER HINGE PIN</u> <u>AND SUPPORT STRUCTURE</u> LOCATION: <u>FEMALE LUGS MOUNTED ON</u> <u>BS 2598 BULKHEAD</u>				OPERATOR(S)  		NO. ELIGIBLE A/C  																																																																																						
<div style="display: flex; align-items: center;"><div style="flex: 1;"></div><div style="flex: 1; padding-left: 10px;"><p>STRUCTURE AND INSPECTION DETAILS</p><p>LEAD CRACK: LUG</p><div style="text-align: center;"></div></div></div>				<p>NOTES: *** First crack delta DTR values ***</p> <p>(1) INSPECT ON THE SIDE FACES OF THE LUG +/- 30 DEGREES FROM THE CENTERLINE.</p> <p> </p> <p> </p> <p> </p> <p> </p> <p> </p> <p> </p> <p> </p> <p> </p>																																																																																								
				<table border="1" style="width: 100%; border-collapse: collapse;"><thead><tr><th rowspan="2">STRUCTURE DETAIL</th><th colspan="6">INSPECTION PROGRAM DETAILS</th><th rowspan="2">DAMAGE DETECTION PERIOD N<sub>0</sub> FLIGHTS</th><th rowspan="2">△ DTR</th></tr><tr><th>JOB CARD</th><th>DIREC. </th><th>CHECK LEVEL</th><th>METHOD</th><th>%SAMP. R<sub>0</sub></th><th>FREQUENCY F-FLIGHTS</th><th><math>\bar{N} = \frac{100F}{R_0}</math></th></tr></thead><tbody><tr><td rowspan="8">LUG</td><td></td><td>1</td><td></td><td>HFEC</td><td></td><td></td><td></td><td>3420</td><td></td></tr><tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr></tbody></table>				STRUCTURE DETAIL	INSPECTION PROGRAM DETAILS						DAMAGE DETECTION PERIOD N <sub>0</sub> FLIGHTS	△ DTR	JOB CARD	DIREC. 	CHECK LEVEL	METHOD	%SAMP. R <sub>0</sub>	FREQUENCY F-FLIGHTS	$\bar{N} = \frac{100F}{R_0}$	LUG		1		HFEC				3420																																																												
STRUCTURE DETAIL	INSPECTION PROGRAM DETAILS						DAMAGE DETECTION PERIOD N <sub>0</sub> FLIGHTS		△ DTR																																																																																			
	JOB CARD	DIREC. 	CHECK LEVEL	METHOD	%SAMP. R <sub>0</sub>	FREQUENCY F-FLIGHTS		$\bar{N} = \frac{100F}{R_0}$																																																																																				
LUG		1		HFEC				3420																																																																																				
<table border="1" style="width: 40%; border-collapse: collapse;"><thead><tr><th>ENGR</th><th> </th><th> </th><th>REVISED</th><th>DATE</th></tr></thead><tbody><tr><td>CHECK</td><td> </td><td> </td><td> </td><td> </td></tr><tr><td>APR</td><td> </td><td> </td><td> </td><td> </td></tr><tr><td>APR</td><td> </td><td> </td><td> </td><td> </td></tr></tbody></table> <div style="flex: 1; text-align: right; padding-right: 20px;"><p>FUEL LEAK DTR</p><p>TOTAL DTR</p><p>REQUIRED DTR</p></div> <div style="width: 10%; text-align: center; border: 1px solid black; padding: 5px;"><p>0</p><p> </p><p><b>6</b></p></div>								ENGR			REVISED	DATE	CHECK					APR					APR																																																																					
ENGR			REVISED	DATE																																																																																								
CHECK																																																																																												
APR																																																																																												
APR																																																																																												

E36C\_Blank.PDF



THIS PAGE INTENTIONALLY LEFT BLANK



E38\_Blank.PDF

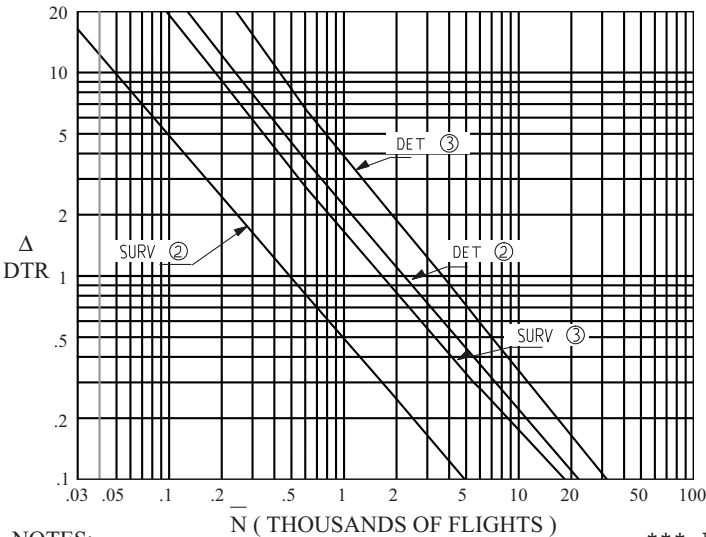



THIS PAGE INTENTIONALLY LEFT BLANK

E39A\_Blank.PDF



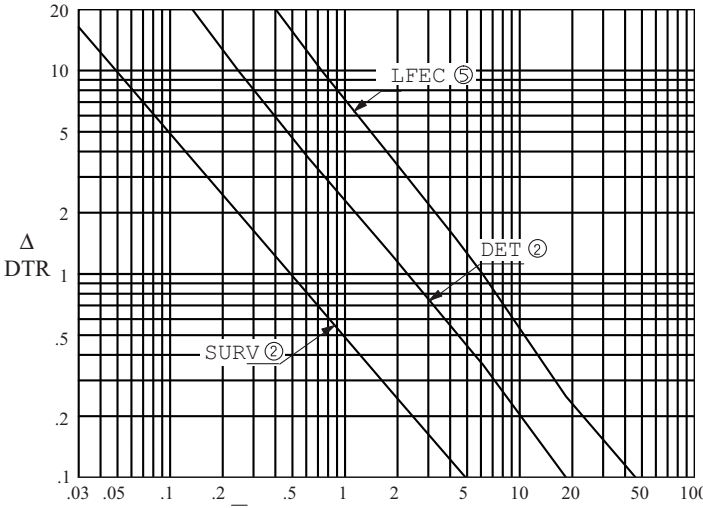
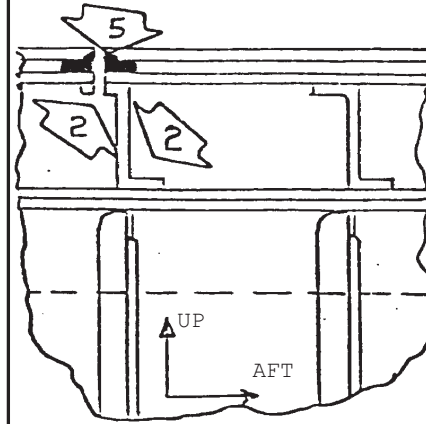
## 747-400 LCF SUPPLEMENTAL STRUCTURAL INSPECTION DOCUMENT – APPENDIX A

<b>DTR CHECK FORM</b>		ITEM: <b>E-39B</b>	MODEL – SERIES 747-400 LCF					
TITLE: <u>HORIZONTAL STABILIZER SIDE OF BODY SPLICE</u>		OPERATOR(S)	NO. ELIGIBLE A/C					
LOCATION: <u>UPPER SURFACE STRINGERS AND SPLICE PLATES</u> (FORWARD)		STRUCTURE AND INSPECTION DETAILS LEAD CRACK: SPLICE PLATES						
		*** First crack delta DTR values ***						
NOTES:								
(1) IF VISIBILITY IS REDUCED BY SEALANT OR CORROSION INHIBITING COMPOUND (CIC) THEN EITHER UTILIZE THE EXTERNAL INSPECTION SOLELY OR THE SEALANT AND/OR CIC MUST BE REMOVED PRIOR TO INSPECTION AND REAPPLIED AFTER INSPECTION IS COMPLETE.								
(2) BOTH UPPER AND LOWER FLANGES OF THE STRINGERS MUST BE INSPECTED TO OBTAIN THE $\Delta$ DTR FOR DIRECTION 2.								
(3) SEE E-34A AND E-34B NOTES FOR VENT STRINGERS.								
STRUCTURE DETAIL	INSPECTION PROGRAM DETAILS						DAMAGE DETECTION PERIOD N <sub>0</sub> FLIGHTS	$\Delta$ DTR
JOB CARD	DIREC. 	CHECK LEVEL	METHOD	%SAMP. R <sub>0</sub>	FREQUENCY F-FLIGHTS	$\bar{N} = \frac{100F}{R_0}$		
SPLICE PLATE	3		SURV				7200	
STRINGER FLANGES	2		DET				7200	
	2		SURV				6000	
	2		DET				8400	
ENGR			REVISED	DATE	FUEL LEAK DTR			0
CHECK					TOTAL DTR			
APR					REQUIRED DTR			6
APR								

E39B\_Blank.PDF



## 747-400 LCF SUPPLEMENTAL STRUCTURAL INSPECTION DOCUMENT – APPENDIX A

DTR CHECK FORM				ITEM: <b>E-39C</b>		MODEL – SERIES 747-400 LCF			
TITLE: <u>HORIZONTAL STABILIZER SIDE OF BODY SPLICE</u>				OPERATOR(S)		NO. ELIGIBLE A/C			
LOCATION: <u>UPPER SURFACE STRINGERS AND SPLICE PLATES (AFT)</u>									
<div style="text-align: center;"></div>				<div style="text-align: center;">STRUCTURE AND INSPECTION DETAILS</div> <div style="text-align: center;">LEAD CRACK: SPLICE PLATES</div> <div style="text-align: center;">LFEC</div> <div style="text-align: center;"></div>					
NOTES: (1) IF VISIBILITY IS REDUCED BY SEALANT OR CORROSION INHIBITING COMPOUND (CIC) THEN EITHER UTILIZE THE EXTERNAL INSPECTION SOLELY OR THE SEALANT AND OR CIC MUST BE REMOVED PRIOR TO INSPECTION AND REAPPLIED AFTER INSPECTION IS COMPLETE. (2) THE INNER SPLICE IS REPRESENTED IN THE AFT REGION WHERE THE SPLICE PLATE IS IN TWO LAYERS. (3) DTR FOR DIRECTION 2 REQUIRES INSPECTION OF BOTH UPR AND LWR FLANGES. (4) LFEC INSPECTION (DIRECTION 5) FOR THE INNERMOST ROWS ONLY. (5) EXCLUDING REAR SPAR LOCATIONS COVERED BY E-39D				*** First crack delta DTR values ***					
STRUCTURE DETAIL		INSPECTION PROGRAM DETAILS					DAMAGE DETECTION PERIOD N <sub>0</sub> FLIGHTS	Δ DTR	
		JOB CARD	DIREC. ⇨	CHECK LEVEL	METHOD	%SAMP. R <sub>0</sub>	FREQUENCY F-FLIGHTS	$\bar{N} = \frac{100F}{R_0}$	
SPLICE PLATE			5		LFEC				4860
STRINGER FLANGES			2		SURV				6600
			2		DET				8400
ENGR				REVISED	DATE	FUEL LEAK DTR			0
CHECK						TOTAL DTR			
APR						REQUIRED DTR			<b>6</b>
APR									

E39C\_Blank.PDF

E39D\_Blank.PDF



## 747-400 LCF SUPPLEMENTAL STRUCTURAL INSPECTION DOCUMENT – APPENDIX A

<b>DTR CHECK FORM</b>				ITEM: <b>E-40</b>		MODEL – SERIES 747-400 LCF																								
TITLE: <u>HORIZONTAL STABILIZER FORWARD TORQUE BOX</u>				OPERATOR(S)		NO. ELIGIBLE A/C																								
LOCATION: <u>UPPER SKIN</u> <u>SIDE OF BODY TO STA 385</u>																														
<div style="display: flex; align-items: center;"><div style="flex: 1;"></div><div style="flex: 1; padding-left: 10px; vertical-align: top;"><p>STRUCTURE AND INSPECTION DETAILS</p><p>LEAD CRACK: SKIN</p></div></div>				<p>NOTES: <span style="float: right;">*** First crack delta DTR values ***</span></p> <p> </p> <p> </p> <p> </p> <p> </p> <p> </p> <p> </p> <p> </p> <p> </p> <p> </p>																										
<b>INSPECTION PROGRAM DETAILS</b>																														
STRUCTURE DETAIL	JOB CARD	DIREC. 	CHECK LEVEL	METHOD	%SAMP. R <sub>0</sub>	FREQUENCY F-FLIGHTS	$\bar{N} = \frac{100F}{R_0}$	DAMAGE DETECTION PERIOD N <sub>0</sub> FLIGHTS	$\Delta$ DTR																					
SKIN		1		SURV				27000																						
		1		DET				27000																						
<table border="1" style="width: 100%; border-collapse: collapse;"><tr><td style="width: 10%; padding: 2px;">ENGR</td><td style="width: 15%;"></td><td style="width: 15%;"></td><td style="width: 15%; padding: 2px;">REVISED</td><td style="width: 15%; padding: 2px;">DATE</td></tr><tr><td style="padding: 2px;">CHECK</td><td></td><td></td><td></td><td></td></tr><tr><td style="padding: 2px;">APR</td><td></td><td></td><td></td><td></td></tr><tr><td style="padding: 2px;">APR</td><td></td><td></td><td></td><td></td></tr></table>								ENGR			REVISED	DATE	CHECK					APR					APR					FUEL LEAK DTR		0
ENGR			REVISED	DATE																										
CHECK																														
APR																														
APR																														
TOTAL DTR																														
REQUIRED DTR								<b>6</b>																						

E40\_Blank.PDF



THIS PAGE INTENTIONALLY LEFT BLANK



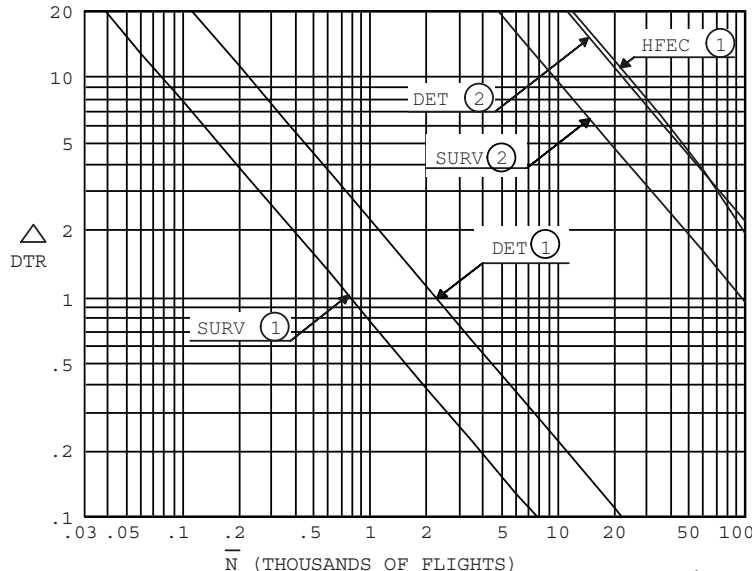
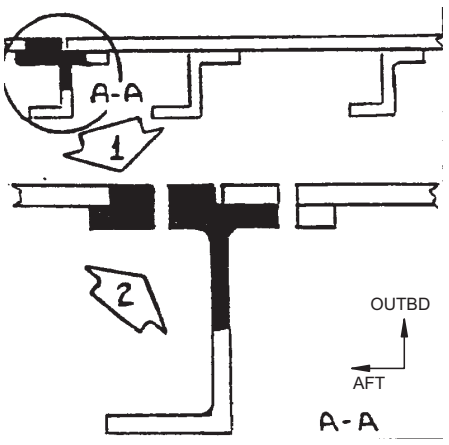
E46\_Blank.PDF



THIS PAGE INTENTIONALLY LEFT BLANK



## 747-400 LCF SUPPLEMENTAL STRUCTURAL INSPECTION DOCUMENT – APPENDIX A

<b>DTR CHECK FORM</b>				ITEM: <b>E-47</b>		MODEL-SERIES 747-400 LCF																																																																																																														
TITLE: <u>FIN SKIN-SPLICE STRINGER</u>				OPERATOR(S)		NO. ELIGIBLE A/C																																																																																																														
LOCATION: <u>TYPICAL @ SKIN SPLICE STRINGER DETAILS</u> <u>BELOW FIN STA 445</u>																																																																																																																				
				<b>STRUCTURE AND INSPECTION DETAILS</b> LEAD CRACK: <u>STRINGER</u> 																																																																																																																
NOTES: (1) DIR-1 HFEC IS A SURFACE INSPECTION AROUND THE FASTENER. (2) INSPECTION REQUIREMENTS SYMMETRIC ABOUT SPLICE STRINGER CENTERLINE.				*** First crack delta DTR values ***																																																																																																																
<table border="1" style="width: 100%; border-collapse: collapse;"><thead><tr><th rowspan="2" style="width: 15%;">STRUCTURE DETAIL</th><th colspan="6" style="text-align: center;">INSPECTION PROGRAM DETAILS</th><th rowspan="2" style="width: 15%;">DAMAGE DETECTION PERIOD N<sub>O</sub> FLIGHTS</th><th rowspan="2" style="width: 10%;"><math>\Delta</math> DTR</th></tr><tr><th style="width: 15%;">JOB CARD</th><th style="width: 10%;">DIREC. </th><th style="width: 10%;">CHECK LEVEL</th><th style="width: 10%;">METHOD</th><th style="width: 10%;">%SAMP R<sub>O</sub></th><th style="width: 10%;">FREQUENCY F-FLIGHTS</th><th style="width: 10%;">N = 100F/R<sub>O</sub></th></tr></thead><tbody><tr><td rowspan="3">SKIN</td><td></td><td>1</td><td></td><td>SURV</td><td></td><td></td><td></td><td>55800</td><td></td></tr><tr><td></td><td>1</td><td></td><td>DET</td><td></td><td></td><td></td><td>67700</td><td></td></tr><tr><td></td><td>1</td><td></td><td>HFEC</td><td></td><td></td><td></td><td>95500</td><td></td></tr><tr><td rowspan="2">STRINGER</td><td></td><td>2</td><td></td><td>SURV</td><td></td><td></td><td></td><td>&gt;100000</td><td></td></tr><tr><td></td><td>2</td><td></td><td>DET</td><td></td><td></td><td></td><td>&gt;100000</td><td></td></tr><tr><td rowspan="5"></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></tbody></table>								STRUCTURE DETAIL	INSPECTION PROGRAM DETAILS						DAMAGE DETECTION PERIOD N <sub>O</sub> FLIGHTS	$\Delta$ DTR	JOB CARD	DIREC. 	CHECK LEVEL	METHOD	%SAMP R <sub>O</sub>	FREQUENCY F-FLIGHTS	N = 100F/R <sub>O</sub>	SKIN		1		SURV				55800			1		DET				67700			1		HFEC				95500		STRINGER		2		SURV				>100000			2		DET				>100000																																															
STRUCTURE DETAIL	INSPECTION PROGRAM DETAILS						DAMAGE DETECTION PERIOD N <sub>O</sub> FLIGHTS		$\Delta$ DTR																																																																																																											
	JOB CARD	DIREC. 	CHECK LEVEL	METHOD	%SAMP R <sub>O</sub>	FREQUENCY F-FLIGHTS		N = 100F/R <sub>O</sub>																																																																																																												
SKIN		1		SURV				55800																																																																																																												
		1		DET				67700																																																																																																												
		1		HFEC				95500																																																																																																												
STRINGER		2		SURV				>100000																																																																																																												
		2		DET				>100000																																																																																																												
<table border="1" style="width: 100%; border-collapse: collapse;"><tr><td style="width: 25%;">ENGR.</td><td style="width: 25%;"></td><td style="width: 25%;">REVISED</td><td style="width: 25%;"></td></tr><tr><td>CHECK</td><td></td><td></td><td></td></tr><tr><td>APPR.</td><td></td><td></td><td></td></tr><tr><td>APPR.</td><td></td><td></td><td></td></tr></table>				ENGR.		REVISED		CHECK				APPR.				APPR.				FUEL LEAK DTR  TOTAL DTR  REQUIRED DTR				<b>6</b>																																																																																												
ENGR.		REVISED																																																																																																																		
CHECK																																																																																																																				
APPR.																																																																																																																				
APPR.																																																																																																																				

E47\_Blank.PDF



THIS PAGE INTENTIONALLY LEFT BLANK