CHAPTER

52

DOORS

CHAPTER 52
DOORS

A = Added, R = Revised, O = Overflow, D = Deleted

52-EFFECTIVE PAGES

CHAPTER 52
DOORS

A = Added, R = Revised, O = Overflow, D = Deleted

52-EFFECTIVE PAGES

A = Added, R = Revised, O = Overflow, D = Deleted

52-EFFECTIVE PAGES

CHAPTER 52
DOORS

A = Added, R = Revised, O = Overflow, D = Deleted

52-EFFECTIVE PAGES

A = Added, R = Revised, O = Overflow, D = Deleted

52-EFFECTIVE PAGES

CHAPTER 52
DOORS

52-CONTENTS

CHAPTER 52
DOORS

52-CONTENTS

CHAPTER 52
DOORS

52-CONTENTS

CHAPTER 52
DOORS

CHAPTER 52
DOORS

GENERAL - DOORS

1. Applicability to modified airplanes

A. The data in this section is applicable to 757 airplanes and 757 airplanes with Boeing modifications only. Modifications that have been done independently of Boeing are not covered in this manual.

B. Reference to "757-SF" airplanes refers to 757-200 airplanes modified to the Special Freighter configuration by The Boeing Company. These airplanes are listed in Table 1/GENERAL. Unless otherwise noted, reference to "757-200" includes Special Freighter airplanes.

Table 1: 757-200 Special freighter aircraft modified by Boeing.

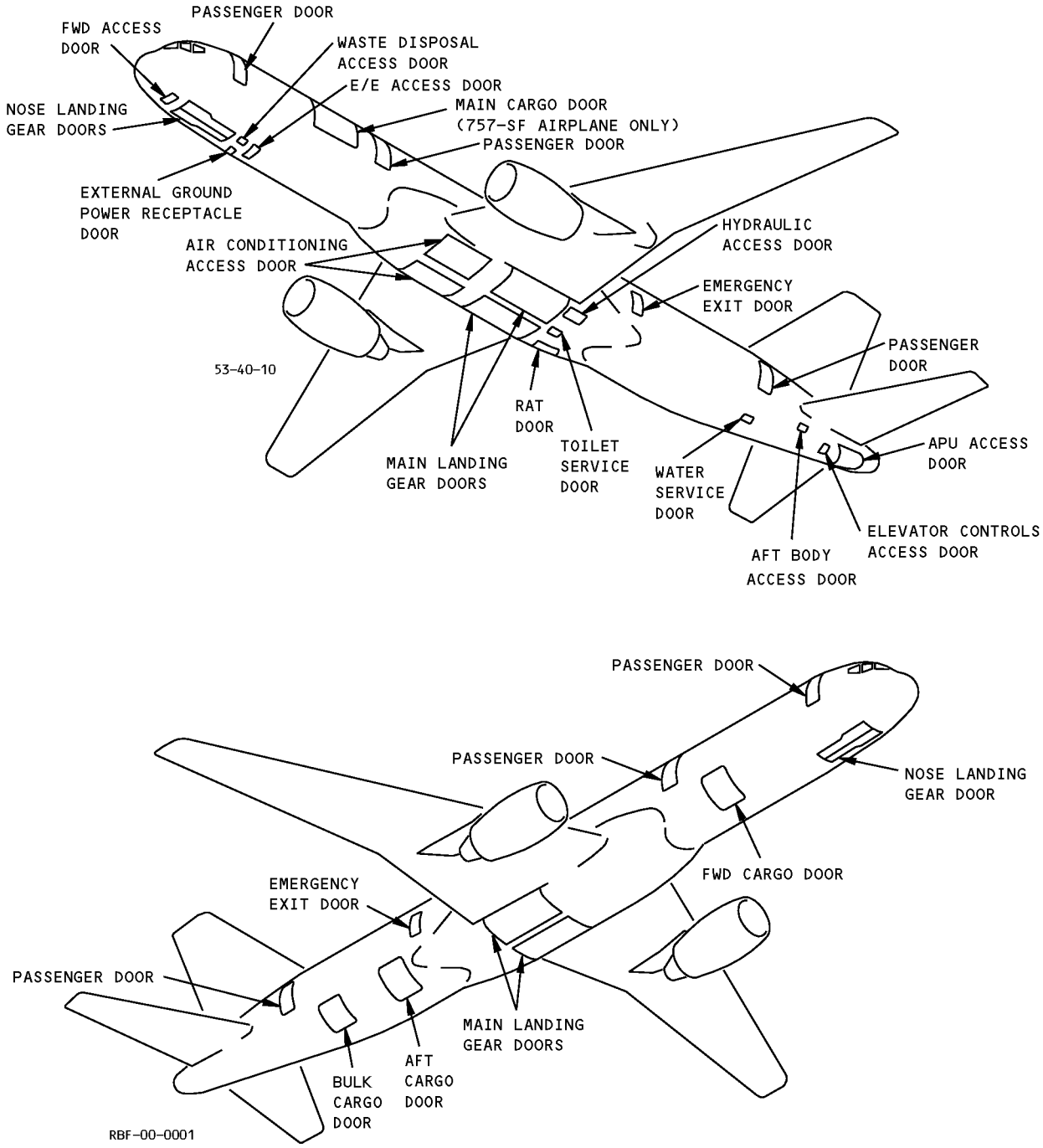
Model-Series	Operator		Manufacturer			Registration number
	Identification code	Effectivity Code	Block Number	Serial number	Line Number	
757–236	NA201	001	N0009	22172	9	OO-DLN
757–236	NA202	002	N0010	22173	10	OO-DPF
757–236	NA203	003	N0011	22174	11	G-BIKC
757–236	NA204	004	N0013	22175	13	OO-DLQ
757–236	NA206	006	N0016	22177	16	G-BIKF
757–236	NA207	007	N0023	22178	23	G-BIKG
757–236	NA208	008	N0024	22179	24	OO-DLP
757–236	NA209	009	N0025	22180	25	G-BIKI
757–236	NA210	010	N0029	22181	29	G-BIKJ
757–236	NA211	011	N0030	22182	30	G-BIKK
757–236	NA212	012	N0032	22183	32	OO-DPB
757–236	NA213	013	N0033	22184	33	G-BIKM
757–236	NA215	015	N0040	22186	50	G-BIKN
757–236	NA216	016	N0042	22187	52	G-BIKO
757–236	NA217	017	N0044	22188	54	G-BIKP
757–236	NA218	018	N0048	22189	58	OO-DPM
757–236	NA219	019	N0052	22190	63	G-BIKS
757–236	NA220	020	N0061	23398	77	G-BIKT
757–236	NA221	021	N0062	23399	78	G-BIKU
757–236	NA222	022	N0065	23400	81	G-BIKV
757–236	NA223	023	N0070	23492	89	OO-DPK
757–236	NA224	024	N0071	23493	90	OO-DPJ
757–236	NA225	025	N0072	23533	93	G-BIKY
757–236	NA226	026	N0076	23532	98	G-BIKZ
757–236	NA227	027	N0095	23710	123	G-BMRA
757–236	NA228	028	N0106	23975	145	G-BMRB
757–236	NA229	029	N0113	24072	160	G-BMRC
757–236	NA230	030	N0118	24073	166	G-BMRD

Table 1: 757-200 Special freighter aircraft modified by Boeing. (Continued)

Model-Series	Operator		Manufacturer			Registration number
	Identification code	Effectivity Code	Block Number	Serial number	Line Number	
757–236	NA231	031	N0120	24074	168	G-BMRE
757–236	NA232	032	N0126	24101	175	G-BMRF
757–236	NA233	033	N0128	24102	179	OO-DPI
757–236	NA234	034	N0142	24266	210	G-BMRH
757–236	NA235	035	N0143	24267	211	OO-DPL
757–236	NA236	036	N0146	24268	214	G-BMRJ

2. Door locations - General

A. Refer to Figure 1/GENERAL for the door locations.

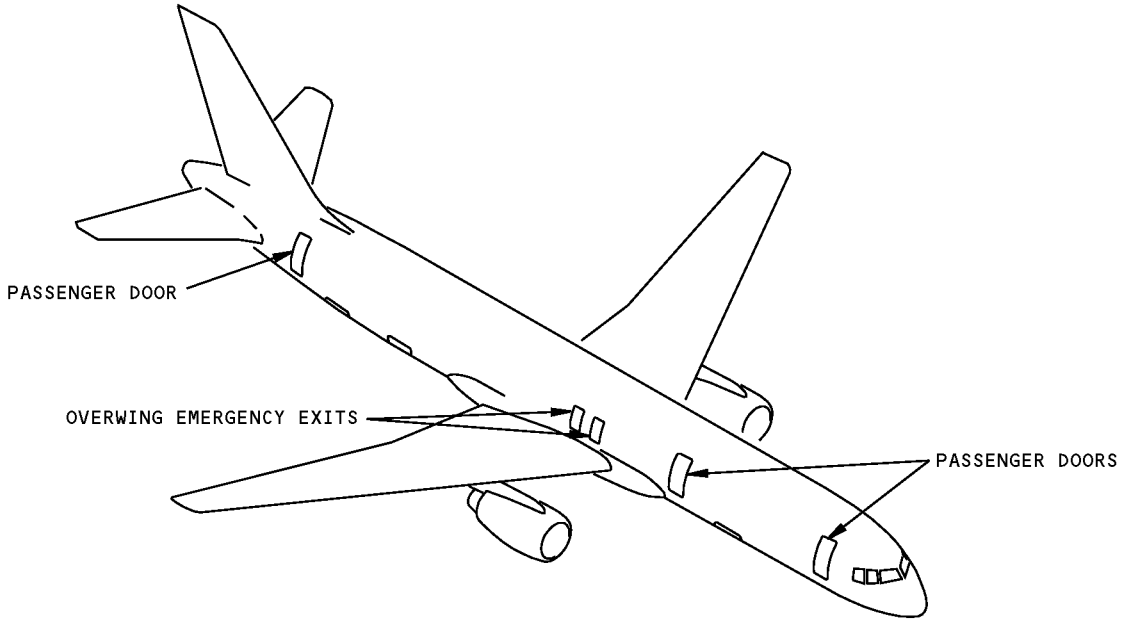


FUSELAGE DOORS

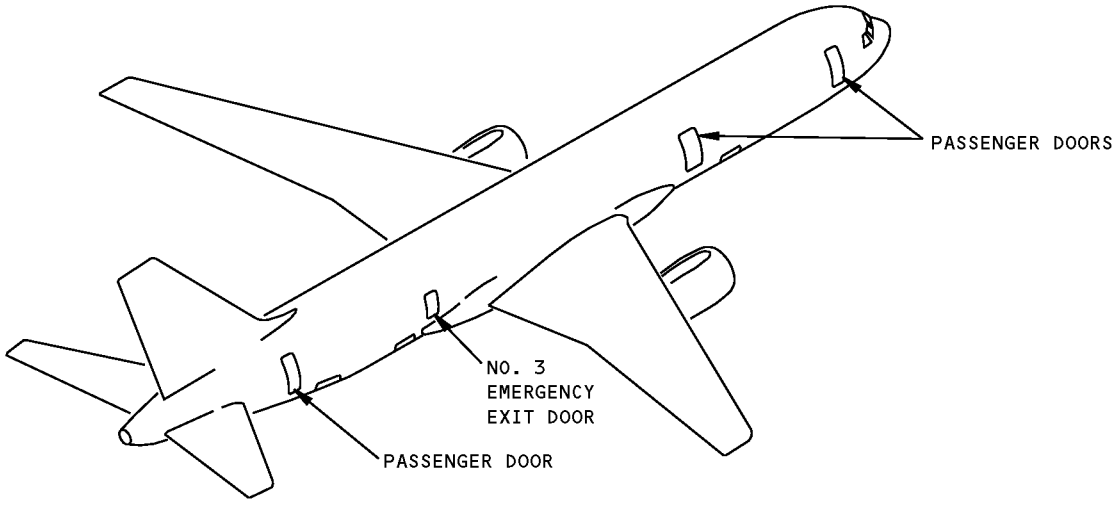
NOTES

[A] FOR CUM LINE NUMBERS: 1 THRU 846

Door Location Diagram
Figure 1 (Sheet 1 of 2)



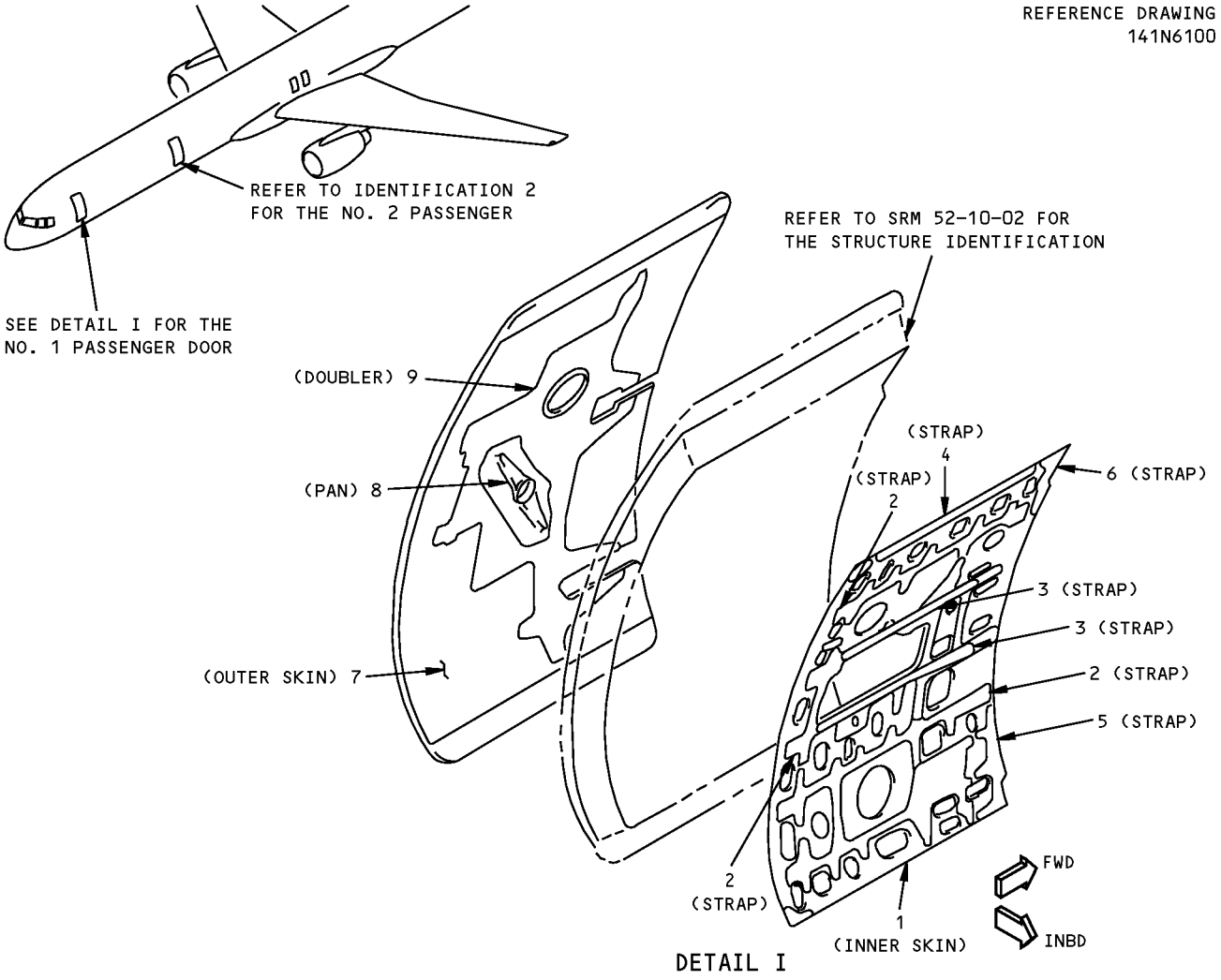
RIGHT SIDE SHOWN, LEFT SIDE OPPOSITE
BASIC CONFIGURATION – OVERWING EMERGENCY EXITS



RIGHT SIDE SHOWN, LEFT SIDE OPPOSITE
BASIC CONFIGURATION – FOUR DOOR

Door Location Diagram
Figure 1 (Sheet 2 of 2)

IDENTIFICATION 1 - NO. 1 ENTRY DOOR SKIN

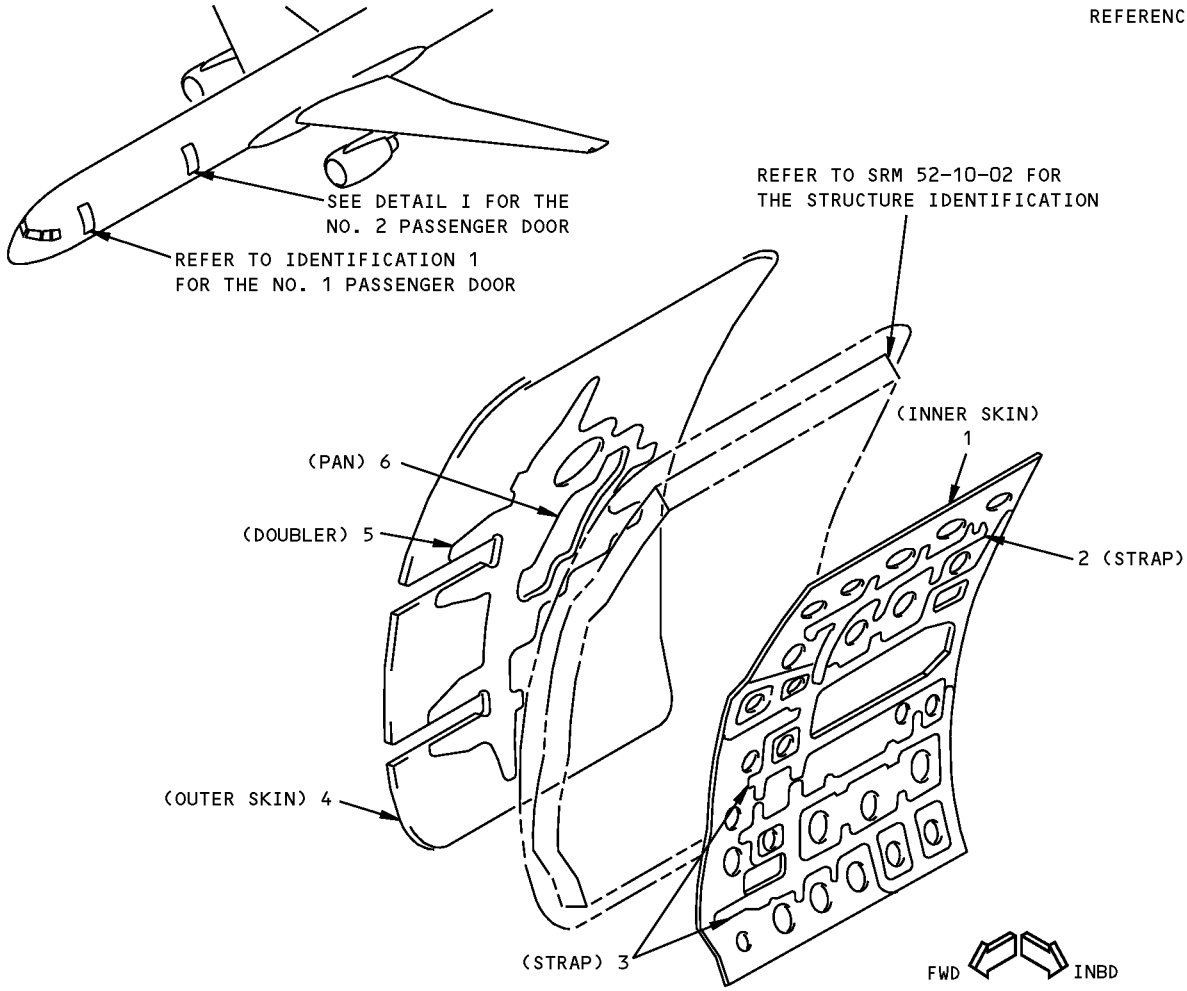


ITEM	DESCRIPTION	GAGE	MATERIAL	EFFECTIVITY
1	INNER SKIN	0.050	CLAD 7075-T6	
2	STRAP	0.071	7075-T6	
3	STRAP	0.050	CLAD 7075-T6	
4	STRAP	0.160	7075-T6	
5	STRAP	0.100	7075-T6, OPTIONAL: TI-6AL-4V	
6	STRAP	0.080	7075-T6	
7	OUTER SKIN	0.063	CLAD 2024-T3 (CHEM-MILLED TO 0.040 MIN)	
8	PAN	0.071	2024-T42	
9	DOUBLER	0.071	2024-T3	

LIST OF MATERIALS FOR DETAIL I

No. 1 Left Side Entry Door Skin Identification
Figure 1

IDENTIFICATION 2 - NO. 2 LEFT SIDE ENTRY DOOR SKIN



RIGHT SIDE DOOR IS SHOWN, LEFT SIDE DOOR IS OPPOSITE

DETAIL I

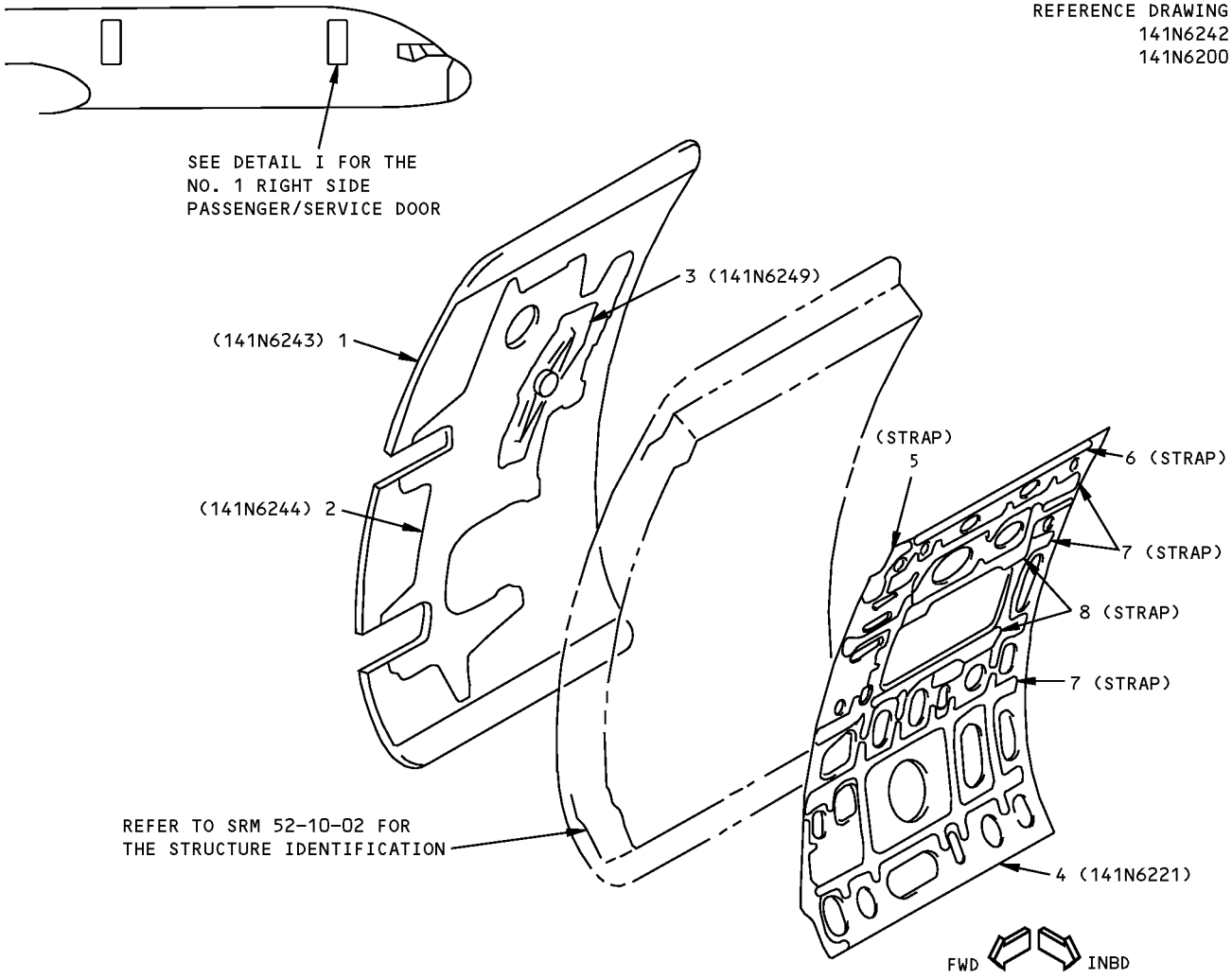
ITEM	DESCRIPTION	GAGE	MATERIAL	EFFECTIVITY
1	INNER SKIN	0.050	CLAD 7075-T6	
2	STRAP	0.100	7075-T6	
3	STRAP	1.071	7075-T6	
4	OUTER SKIN	0.063	CLAD 2024-T3 (CHEM-MILLED TO 0.040 MIN)	
5	DOUBLER	0.071	2024-T3	
6	PAN	0.063	2024-T42	

LIST OF MATERIALS

No. 2 Entry Door Skin Identification
Figure 1

IDENTIFICATION 3 - NO. 1 RIGHT SIDE SERVICE DOOR SKIN

REFERENCE DRAWING
141N6242
141N6200



DETAIL I

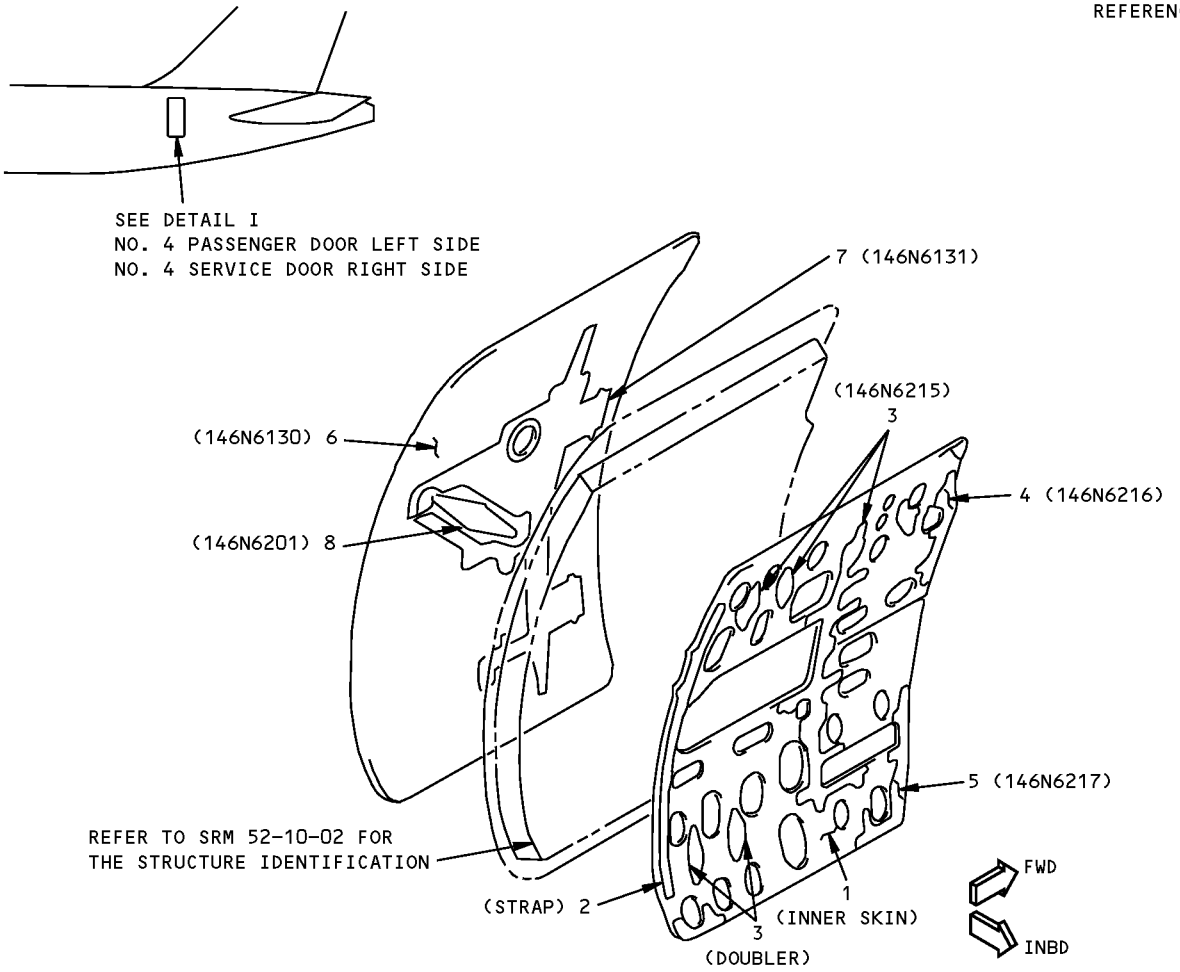
ITEM	DESCRIPTION	GAGE	MATERIAL	EFFECTIVITY
1	OUTER SKIN	0.063	CLAD 2024-T3 (CHEM-MILLED TO 0.040 MIN)	
2	DOUBLER	0.071	2024-T3	
3	PAN	0.071	2024-T42	
4	INNER SKIN	0.050	CLAD 7075-T6	
5	STRAP	0.100	7075-T6	
6	STRAP	0.125	7075-T6	
7	STRAP	0.071	7075-T6	
8	STRAP	0.050	CLAD 7075-T6	

LIST OF MATERIALS FOR DETAIL I

No. 1 Right Side Service Door Skin Identification
Figure 1

IDENTIFICATION 4 - NO. 4 PASSENGER AND SERVICE DOOR SKIN

REFERENCE DRAWING
146N6100



LEFT SIDE DOOR IS SHOWN, RIGHT SIDE DOOR IS OPPOSITE

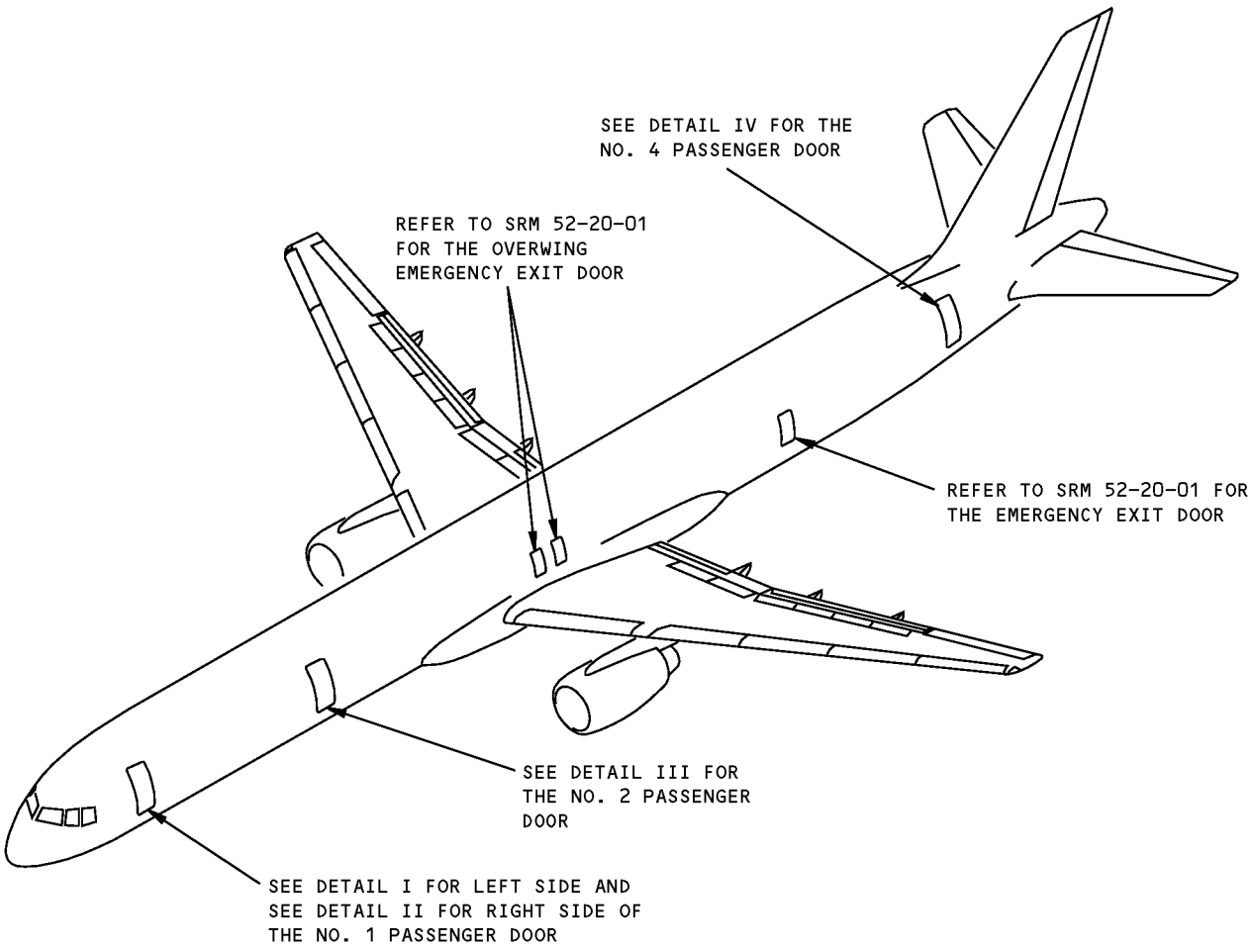
DETAIL I

ITEM	DESCRIPTION	GAGE	MATERIAL	EFFECTIVITY
1	INNER SKIN	0.050	CLAD 7075-T6	
2	STRAP	0.063	CLAD 7075-T6	
3	DOUBLER	0.063	CLAD 7075-T6	
4	DOUBLER	0.20	7075-T6	
5	DOUBLER	0.19	7075-T6	
6	OUTER SKIN	0.063	CLAD 2024-T3 (CHEM-MILLED TO 0.040 MIN)	
7	DOUBLER	0.063	CLAD 2024-T3	
8	PAN	0.063	2024-T42	

LIST OF MATERIALS FOR DETAIL I

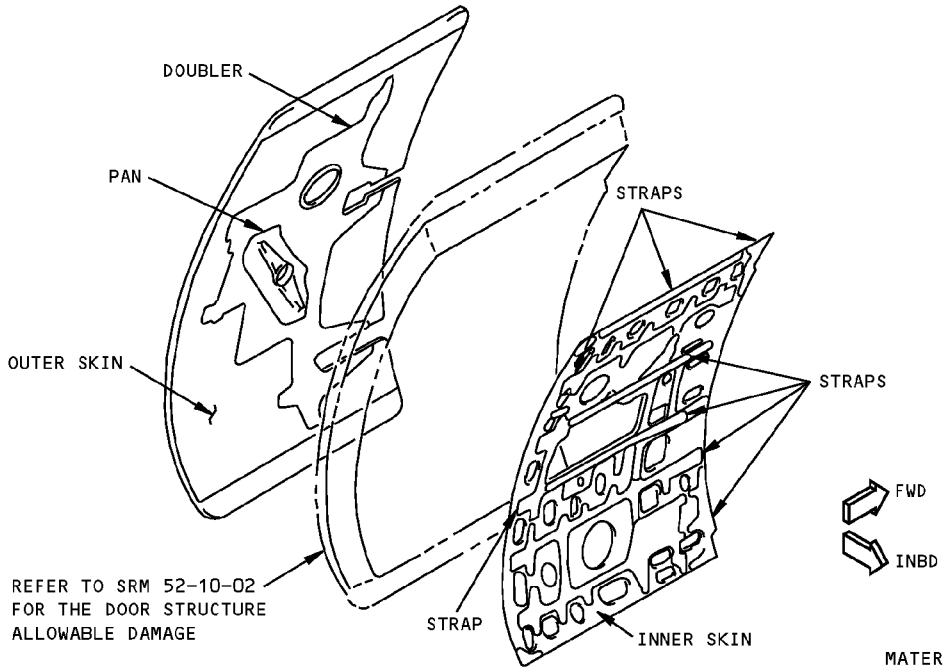
No. 4 Passenger and Service Door Skin Identification
Figure 1

ALLOWABLE DAMAGE 1 - ENTRY DOOR SKIN



Entry Door Skin Allowable Damage
Figure 101 (Sheet 1 of 7)

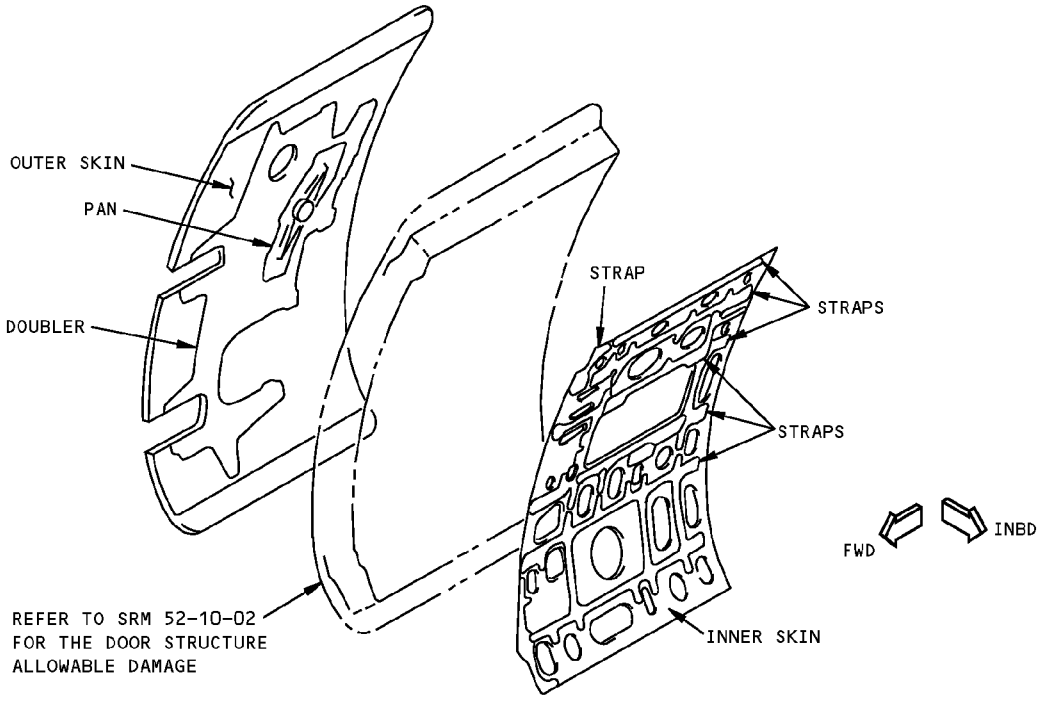
REF DWG
141N6100



MATERIAL: ALUMINUM

NO. 1 LEFT SIDE PASSENGER DOOR
DETAIL I

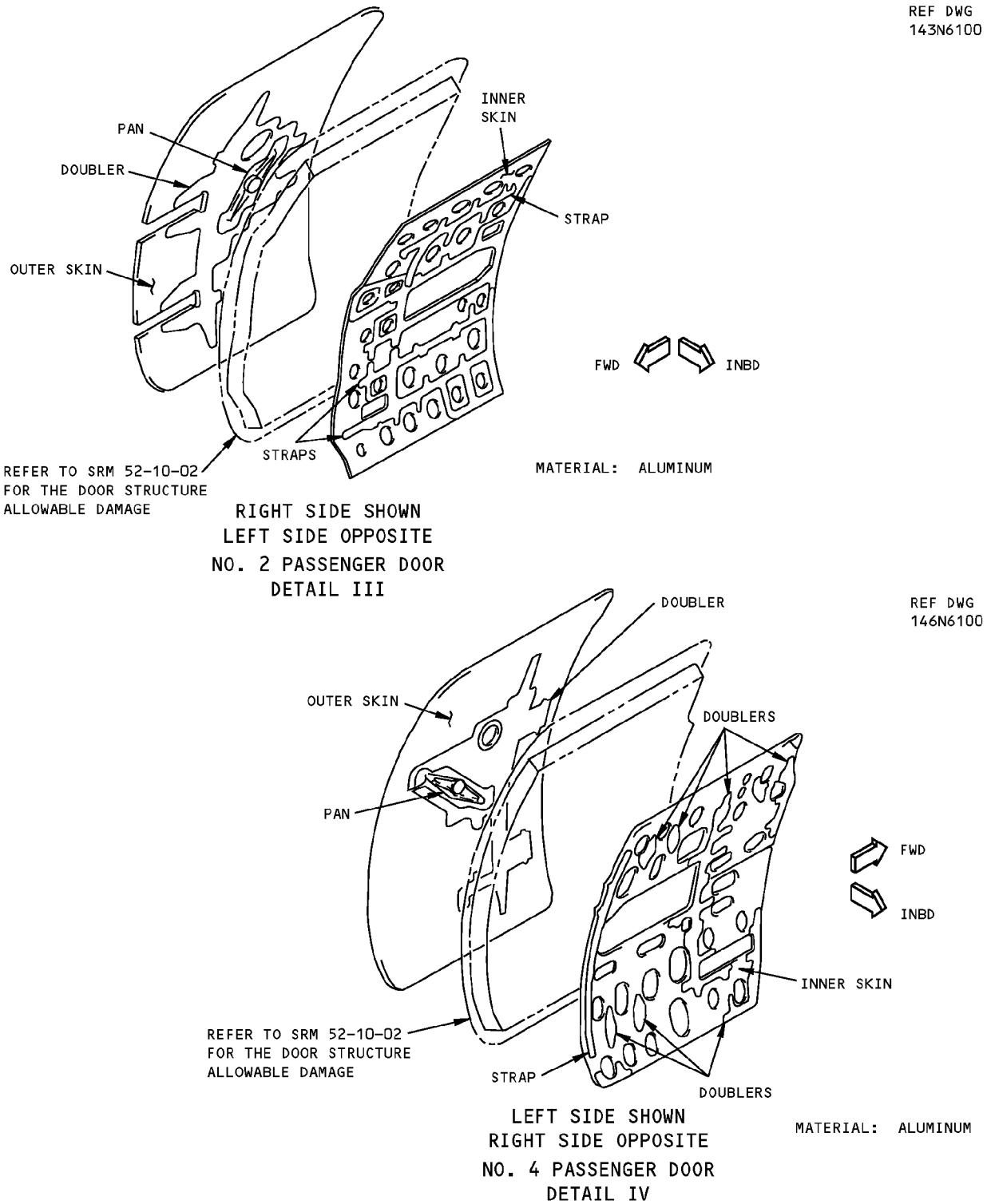
REF DWG
141N6200



NO. 1 RIGHT SIDE PASSENGER DOOR
DETAIL II

MATERIAL: ALUMINUM

Entry Door Skin Allowable Damage
Figure 101 (Sheet 2 of 7)



Entry Door Skin Allowable Damage
Figure 101 (Sheet 3 of 7)

DESCRIPTION	CRACKS	NICKS, GOUGES AND CORROSION	DENTS	HOLES AND PUNCTURES
OUTER SKIN [A]	[B] [K]	[D] [K]	[L]	[E] [K]
INNER SKIN	[C]	[G]	[L]	[F]
STRAPS AND DOUBLERS	[B]	[D]	SEE DETAIL VII	[F]
PAN	[B]	[I]	SEE DETAIL VII	[J]

ALLOWABLE DAMAGE FOR DETAILS I, II, III AND IV

NOTES

- REFINISH REWORKED AREAS AS SHOWN IN AMM 51-20.
- REFER TO SRM 51-10-02 FOR INSPECTION AND REMOVAL OF DAMAGE.

[A] REFER TO SRM 51-10-01 FOR AERODYNAMIC SMOOTHNESS REQUIREMENTS. WHERE THE DAMAGE IS MORE THAN THE LIMITS SHOWN IN SRM 51-10-01, CONSIDERATION SHOULD BE GIVEN TO THE LOSS OF PERFORMANCE INVOLVED.

[B] CRACKS ARE NOT PERMITTED EXCEPT FOR EDGE CRACKS WHICH MUST BE REMOVED AS SHOWN IN DETAILS V AND IX.

[C] FOR EDGE CRACKS SEE DETAIL V. FOR OTHERS SEE DETAIL X. FOR LIGHTENING HOLE EDGE CRACKS SEE DETAIL XI.

[D] REMOVE DAMAGE AS SHOWN IN DETAILS V, VI, VIII AND IX.

[E] CLEAN OUT DAMAGE UP TO 0.25 INCH (6 mm) MAXIMUM DIAMETER AND NOT CLOSER THAN 1.0 INCH (25 mm) TO FASTENER HOLE, MATERIAL EDGE, OR OTHER DAMAGE. FILL HOLE WITH 2117-T3 OR T4 ALUMINUM RIVET.

ALL OTHER HOLES TO BE REPAIRED.

[F] CLEAN OUT DAMAGE UP TO 0.25 INCH (6 mm) MAXIMUM DIAMETER AND NOT CLOSER THAN 1.0 INCH (25 mm) TO FASTENER HOLE, MATERIAL EDGE, OR OTHER DAMAGE.

[G] REMOVE DAMAGE AS SHOWN IN DETAILS V, VI, VIII AND IX. CORROSION MAY BE DRILLED OUT UP TO 0.5 INCH (13 mm) MAXIMUM DIAMETER PROVIDED EDGE MARGINS ARE MAINTAINED AS SHOWN IN DETAIL X.

[H] 1.50 INCH (38 mm) MINIMUM TO EDGE OF INITIAL FASTENER HOLE, TO EDGE OF FLANGED HOLE OR TO EDGE OF CUTOUT.

[I] REMOVE EDGE DAMAGE AS SHOWN IN DETAILS V AND IX. REMOVE CORROSION AROUND FASTENERS AS SHOWN IN DETAIL VIII. REMOVE SURFACE DAMAGE AS SHOWN IN DETAIL XII.

[J] REMOVE THE DAMAGE TO A MAXIMUM DIAMETER OF 0.25 INCH (6 mm). THE EDGE OF THE DAMAGE CLEANUP MUST BE:

- MORE THAN 1 INCH (25 mm) FROM ANY ADJACENT HOLE OR OTHER DAMAGE.
- MORE THAN 1 INCH (25 mm) FROM THE EDGE OF THE PART.

ALL OTHER HOLES MUST BE REPAIRED.

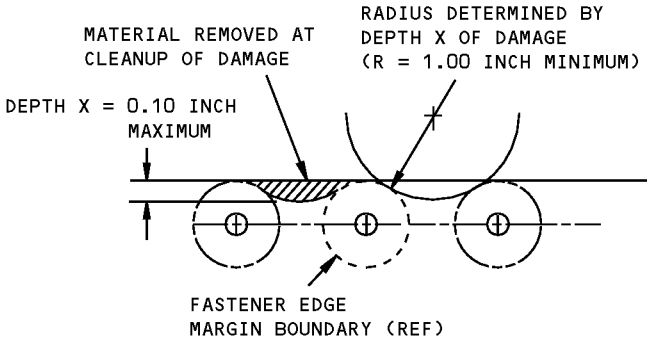
INSTALL A 2117-T3 OR -T4 ALUMINUM RIVET INTO THE HOLE. MAKE SURE THE LATCH DOES NOT HIT THE HEAD OF THE RIVET WHEN THE LATCH IS OPERATED. IF THE LATCH HITS THE HEAD OF THE RIVET, THEN YOU MUST REMOVE THE RIVET AND REPAIR THE HOLE.

[K] REFER TO ALLOWABLE DAMAGE 2 FOR THE PASSENGER/CREW ENTRY DOOR SKIN OPERATING LIMITS AFTER DAMAGE HAS BEEN REMOVED.

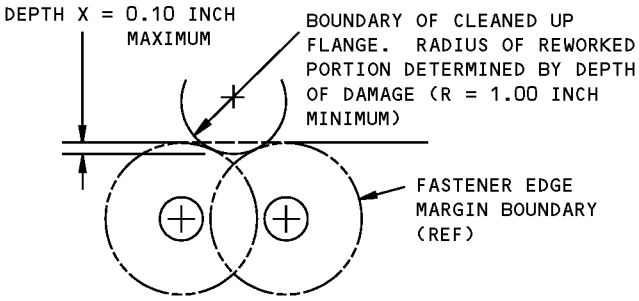
[L] DENTS THAT ARE MORE THAN THE LIMITS SHOWN IN DETAIL VII SHOULD BE PERMANENTLY REPAIRED. HOWEVER, A REPAIR CAN BE DELAYED IF THE CONDITIONS THAT FOLLOW ARE MET:

- DENTS MUST BE SMOOTH AND FREE FROM SHARP CREASES, GOUGES, OR CRACKS, AND SHOW NO EVIDENCE OF PULLED, LOOSE, OR MISSING FASTENERS
- THERE ARE NO DAMAGED OR ELONGATED FASTENER HOLES
- THE DENT IS NOT FILLED
- AN EXAMINATION OF THE DENT IS MADE EVERY 300 FLIGHT CYCLES
- A PERMANENT REPAIR IS MADE AT THE SUBSEQUENT C-CHECK OR BEFORE 24 MONTHS
- THE DAMAGE IS A MINIMUM OF 0.5 INCH (13 mm) FROM ANY PART OF A BEAM, SKIN DOUBLER, STRAP, FRAME, INTERCOSTAL, OR STIFFENER
- THE DAMAGE IS A MINIMUM OF 10.0 INCHES (250 mm) FROM A SKIN SPLICE OR CUTOUT, INCLUDING A HINGE CUTOUT OR A HANDLE PAN CUTOUT.

Entry Door Skin Allowable Damage
Figure 101 (Sheet 4 of 7)

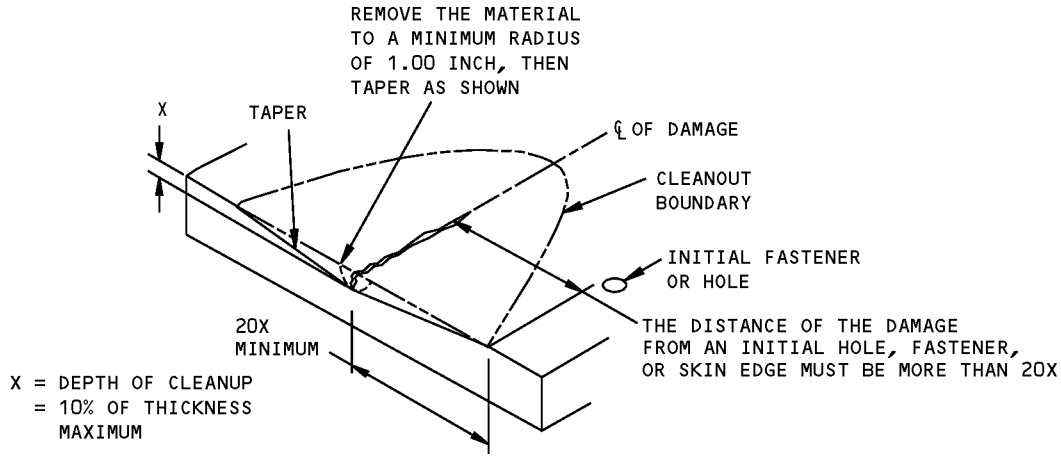


DAMAGE CLEAN UP OF EDGES WHERE FASTENER EDGE MARGINS DO NOT OVERLAP

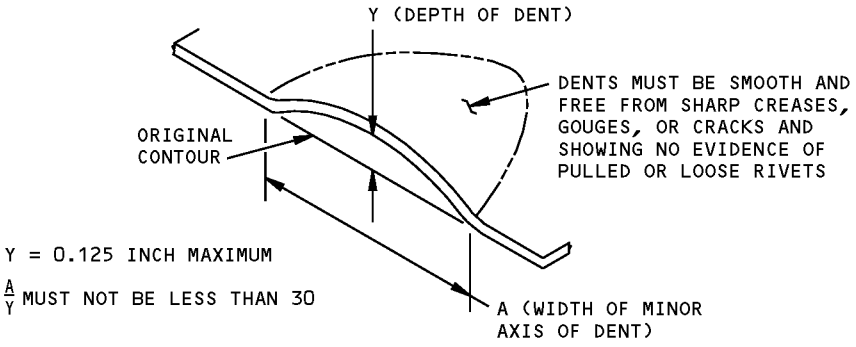


DAMAGE CLEAN UP OF EDGES WHERE FASTENER EDGE MARGINS OVERLAP

DETAIL V

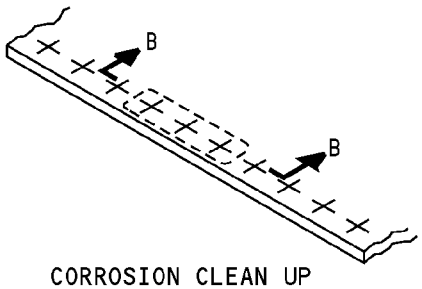


REMOVAL OF NICK, GOUGE, CORROSION, AND SCRATCH DAMAGE ON A SURFACE
DETAIL VI

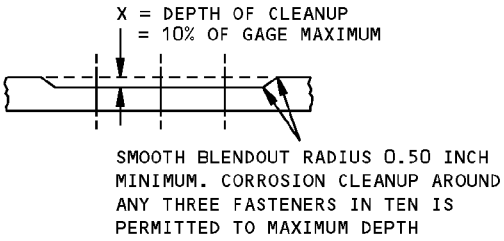


ALLOWABLE DAMAGE FOR DENT
DETAIL VII

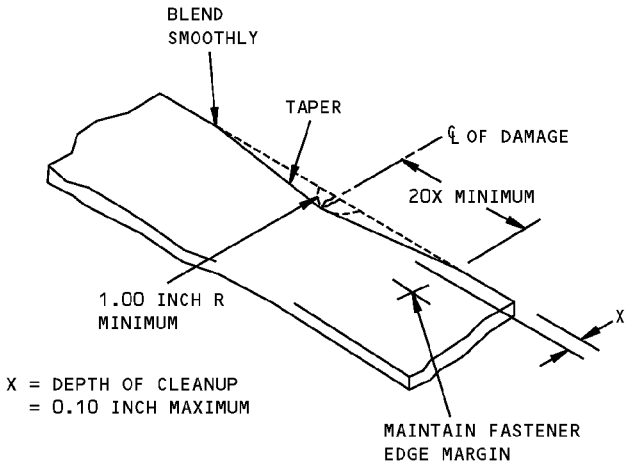
Entry Door Skin Allowable Damage
Figure 101 (Sheet 5 of 7)



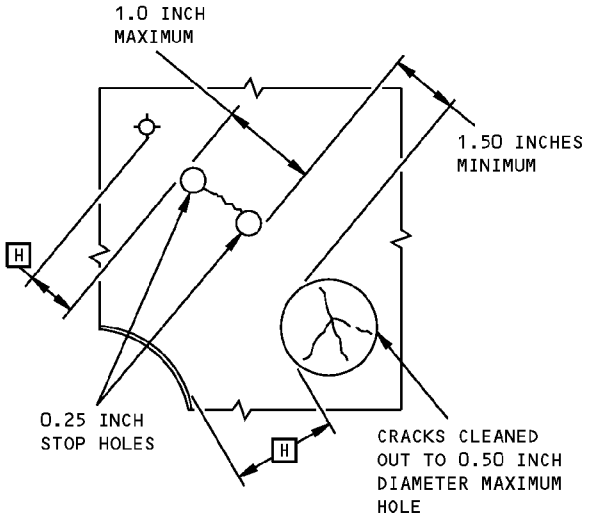
CORROSION CLEAN UP
DETAIL VIII



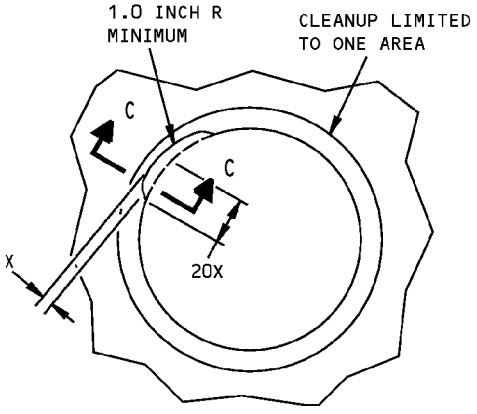
SECTION B-B



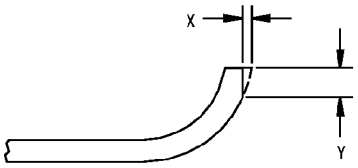
REMOVAL OF NICK OR CRACK DAMAGE ON AN EDGE
DETAIL IX



FIELD CRACK CLEAN UP
DETAIL X



FLANGED HOLE EDGE DAMAGE CLEAN UP
DETAIL XI

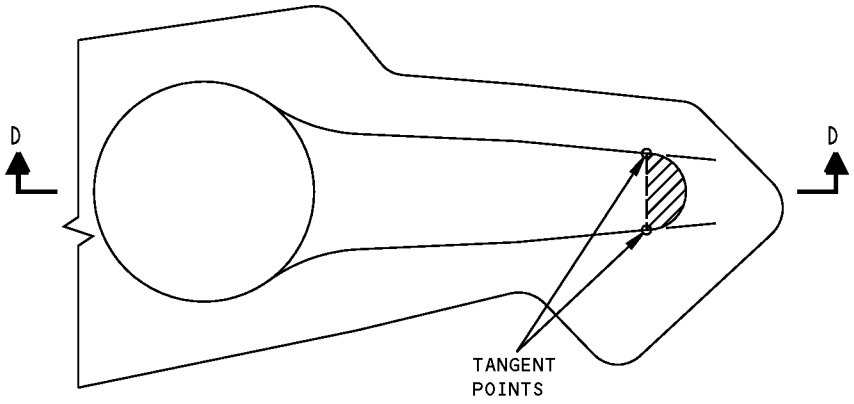


X = DEPTH OF CLEANUP
= 0.10 INCH MAXIMUM OR 1/2 FLANGE WIDTH,
WHICHEVER IS LESS

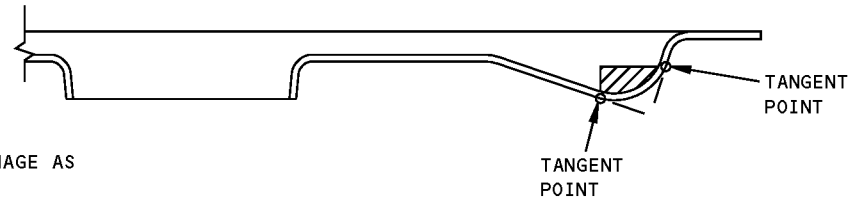
Y = LENGTH OF CLEANUP
= 0.10 INCH MAXIMUM OR 1/2 FLANGE HEIGHT,
WHICHEVER IS LESS

SECTION C-C

Entry Door Skin Allowable Damage
Figure 101 (Sheet 6 of 7)



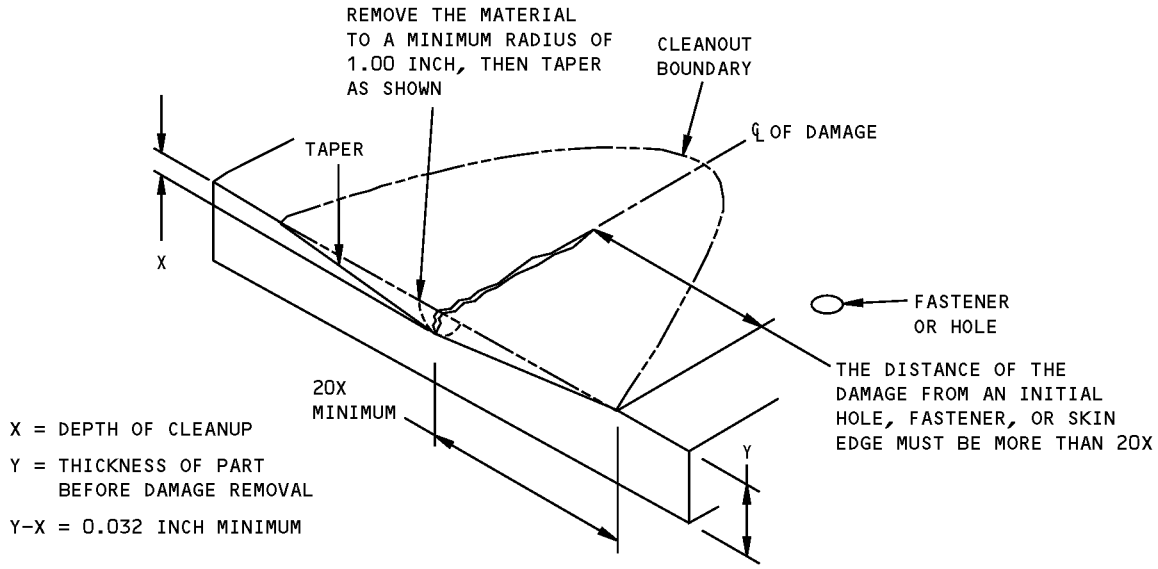
REPAIR ZONES FOR HANDLE PAN
DETAIL XII



REMOVE SURFACE DAMAGE AS SHOWN IN DETAIL VI

REMOVE SURFACE DAMAGE AS SHOWN IN DETAIL XIII

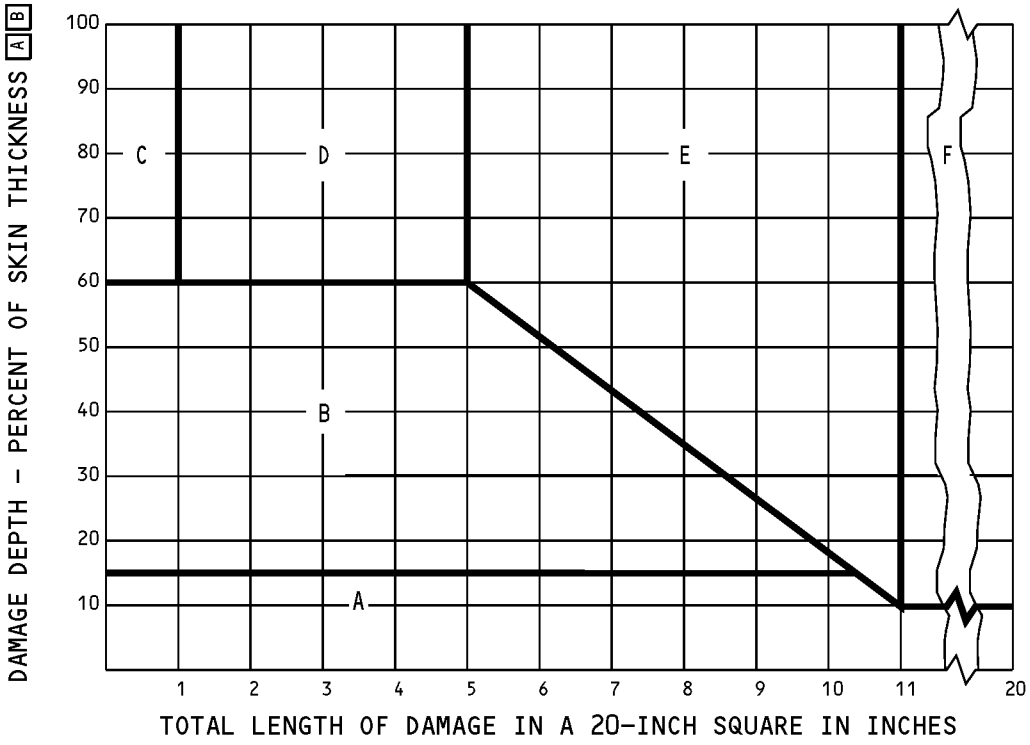
SECTION D–D



REMOVAL OF NICK, GOUGE, CORROSION, AND SCRATCH DAMAGE ON A SURFACE
DETAIL XIII

Entry Door Skin Allowable Damage
Figure 101 (Sheet 7 of 7)

ALLOWABLE DAMAGE 2 - OPERATING LIMITS FOR ENTRY DOOR SKIN



NOTES

[A] SKIN THICKNESS DOES NOT INCLUDE THE THICKNESS OF THE DOUBLERS, TRIPLERS, OR STRAPS.

[B] DAMAGE INCLUDES HOLES, PUNCTURES, NICKS, GOUGES, SCRATCHES, CORROSION AND CRACKS.

DAMAGE DOES NOT INCLUDE DENTS.

[C] CABIN PRESSURE LIMITS ARE FOR SKIN DAMAGE TO THE PRESSURIZED FUSELAGE SKIN ONLY.

Operating Limits for Entry Door Skin
Figure 101 (Sheet 1 of 2)

CHART AREA	DAMAGE TREATMENT	ALLOWABLE AIRPLANE OPERATIONS
A	CLEAN UP AS SHOWN IN ALLOWABLE DAMAGE 1.	NO FLIGHT RESTRICTIONS.
B	CLEAN UP AS SHOWN IN ALLOWABLE DAMAGE 1 TO DAMAGE DEPTH.	LIMITED TO 50 HOURS OF FLIGHT OR 25 FLIGHTS, WHICHEVER COMES FIRST (INCLUDING REVENUE FLIGHTS).
	DO AN APPLICABLE REPAIR AS GIVEN IN SRM 52-10-01.	REFER TO THE APPLICABLE REPAIR FOR THE LIMITS.
C	CLEAN UP AS SHOWN IN ALLOWABLE DAMAGE 1 TO DAMAGE DEPTH. STOP DRILL 0.25 INCH (6 mm) DIAMETER HOLES AT THE ENDS OF THE CRACKS.	A NON-REVENUE FLIGHT TO A REPAIR STATION IS PERMITTED IF THE APPLICABLE REGULATORY AUTHORITY GIVES APPROVAL BEFORE THE FLIGHT. IT IS RECOMMENDED THAT THE PROPOSED REPAIR PROCEDURE BE GIVEN TO BOEING. THE MAXIMUM CABIN PRESSURE DIFFERENTIAL [C] IS LIMITED TO 6.0 PSIG UNLESS THE SKIN IS REPAIRED.
	DO AN APPLICABLE REPAIR AS GIVEN IN SRM 52-10-01.	REFER TO THE APPLICABLE REPAIR FOR THE LIMITS.
D	CLEAN UP AS SHOWN IN ALLOWABLE DAMAGE 1 TO DAMAGE DEPTH. STOP DRILL 0.25 INCH (6 mm) DIAMETER HOLES AT THE ENDS OF THE CRACKS.	A NON-REVENUE FLIGHT TO A REPAIR STATION IS PERMITTED IF THE APPLICABLE REGULATORY AUTHORITY GIVES APPROVAL BEFORE THE FLIGHT. IT IS RECOMMENDED THAT THE PROPOSED REPAIR PROCEDURE BE GIVEN TO BOEING. THE MAXIMUM CABIN PRESSURE DIFFERENTIAL [C] IS LIMITED TO 6.0 PSIG UNLESS THE SKIN IS REPAIRED.
	DO AN APPLICABLE REPAIR AS GIVEN IN SRM 52-10-01.	REFER TO THE APPLICABLE REPAIR FOR THE LIMITS.
E	CLEAN UP AS SHOWN IN ALLOWABLE DAMAGE 1 TO DAMAGE DEPTH. STOP DRILL 0.25 INCH (6 mm) DIAMETER HOLES AT THE ENDS OF THE CRACKS.	A NON-REVENUE FLIGHT TO A REPAIR STATION IS PERMITTED IF THE APPLICABLE REGULATORY AUTHORITY GIVES APPROVAL BEFORE THE FLIGHT. IT IS RECOMMENDED THAT THE PROPOSED REPAIR PROCEDURE BE GIVEN TO BOEING. THE MAXIMUM CABIN PRESSURE DIFFERENTIAL [C] IS LIMITED TO ZERO PSIG.
	DO APPLICABLE REPAIR AS GIVEN IN SRM 52-10-01.	REFER TO THE APPLICABLE REPAIR FOR THE LIMITS.
F	CLEAN UP AS SHOWN IN ALLOWABLE DAMAGE 1 TO DAMAGE DEPTH. STOP DRILL 0.25 INCH (6 mm) DIAMETER HOLES AT THE ENDS OF THE CRACKS.	OPERATION IS NOT PERMITTED BEFORE BOEING AND THE APPLICABLE REGULATORY AUTHORITY GIVES APPROVAL.
	DO APPLICABLE REPAIR AS GIVEN IN SRM 52-10-01.	REFER TO THE APPLICABLE REPAIR FOR THE LIMITS.

LIMITS FOR CORROSION, CRACKS, NICKS, GOUGES, AND HOLE DAMAGE

Operating Limits for Entry Door Skin
Figure 101 (Sheet 2 of 2)

REPAIR 1 - SMALL HOLE IN ENTRY DOOR SKIN - FLUSH REPAIR

REPAIR INSTRUCTIONS

1. Clean out the damaged hole to 1 inch (25 mm) diameter maximum. The center of the hole to an edge or cutout must not be less than 1/2 of dimension A from Table I.
2. Fabricate repair parts 1 and 2.
3. Break sharp edges of original and repair parts 0.015 to 0.030 inch (0.4 to 0.8 mm).
4. Remove all nicks, scratches, burrs, sharp edges and corners from initial and repair parts.
5. Alodize all raw surfaces of repair and original parts as given in SRM 51-20-01.
6. Apply one coat of BMS 10-11, type 1, primer to all of part 2 and to the raw edges and inner surface of part 1 in accordance with AMM 51-24.
7. Install the repair parts, making faying surface seals between all parts in accordance with SRM 51-20-05. A bead of sealant should be apparent all around repair parts after installation. Where there is sufficient sealant squeezed out it may be formed into a fillet, otherwise an additional fillet seal should be applied.
8. Apply BMS 5-95 sealant in the gap between the filler, part 1, and the skin.
9. Replace inner skin panel.
10. Restore surface finish in accordance with AMM 51-21.

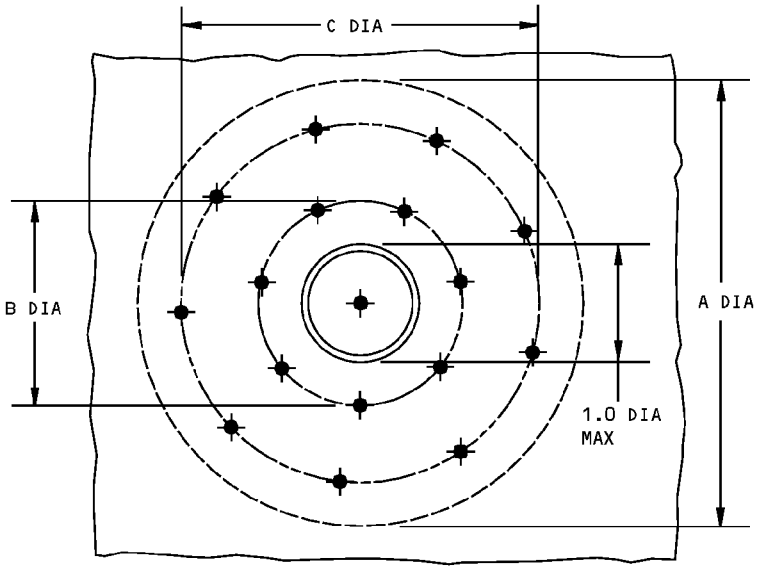
NOTES

- NOT TO BE USED IN AREAS WITH DOUBLERS
- REFER TO THE FOLLOWING WHEN USING THIS REPAIR:
  - AMM 51-21 FOR INTERIOR AND EXTERIOR FINISHES
  - SRM 51-40 FOR FASTENER CODE, REMOVAL, INSTALLATION, HOLE SIZES AND EDGE MARGINS
  - SRM 51-10-01 FOR AERODYNAMIC SMOOTHNESS REQUIREMENTS
  - SRM 51-10-02 FOR INSPECTION AND REMOVAL OF DAMAGE
  - SRM 51-20-01 FOR PROTECTIVE TREATMENT OF METAL
  - SRM 51-20-05 FOR SEALING OF REPAIRS
- WHERE THIS REPAIR IS BEING USED IN A MACHINED OR CHEM-MILLED SKIN, SHIMS MAY BE USED BETWEEN DOUBLER AND SKIN TO MAKE UP VARIATIONS IN THICKNESS

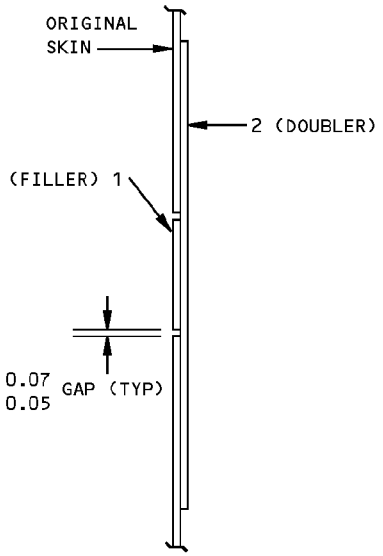
Small Hole in Entry Door Skin - Flush Repair
Figure 201 (Sheet 1 of 2)

SKIN GAGE	PART 2 DOUBLER GAGE	A INCHES	B INCHES	C INCHES	INNER RIVET CIRCLE		OUTER RIVET CIRCLE	
					NUMBER	SIZE	NUMBER	SIZE
0.040	0.050	3.80	1.70	3.10	7	5/32	9	5/32
0.045	0.050	3.80	1.70	3.10	7	5/32	9	5/32
0.050	0.063	4.30	1.80	3.50	6	3/16	9	3/16
0.063	0.071	4.30	1.80	3.50	6	3/16	9	3/16

TABLE I



PLAN VIEW



SECTION THROUGH REPAIR

REPAIR MATERIAL			
PART		QTY	MATERIAL
1	FILLER	1	SAME MATERIAL AND GAGE AS ORIGINAL SKIN
2	DOUBLER	1	SAME MATERIAL AS ORIGINAL SKIN. FOR GAGE SEE TABLE 1

SYMBOLS

REPAIR FASTENER LOCATION
BACR15CE( )KE RIVET
SEE TABLE 1 FOR SIZE AND
NUMBER REQUIRED

Small Hole in Entry Door Skin - Flush Repair
Figure 201 (Sheet 2 of 2)

REPAIR 2 - ENTRY DOOR SKIN - NON-FLUSH REPAIR

REPAIR INSTRUCTIONS

1. Remove the inner skin panel for access if required.
2. Clean out the damage to the skin in a rectangular shape with a minimum of 0.50 inch (13 mm) radius at the corners. The cutout should be parallel to the centerline of the adjacent beam.

   NOTE: When cleaning out damaged area take care not to damage the adjacent beam.
3. Fabricate repair parts.
4. Assemble repair parts in installed positions and drill fastener holes.
5. Remove repair parts.
6. Break sharp edges of original and repair parts 0.015 to 0.030 inch (0.4 to 0.8 mm).
7. Remove all nicks, scratches, burrs, sharp edges and corners from original and repair parts.
8. Alodize all raw edges of existing and repair parts as given in SRM 51-20-01.
9. Apply one coat of BMS 10-11, type 1 primer in accordance with AMM 51-24 to all surfaces of part 2 and to faying surface of part 1.
10. Install countersunk repair washers in existing countersinks as given in SRM 51-40-08.
11. Install repair parts. Seal as given in SRM 51-20-05.
12. Replace inner skin panel if removed.
13. Apply aerodynamic smoother in critical areas as described in SRM 51-10-01.
14. Restore surface finish in accordance with AMM 51-21.

NOTES

- REFER TO THE FOLLOWING WHEN USING THIS REPAIR:
  - AMM 51-31 FOR SEALS AND SEALING
  - SRM 51-20-01 FOR PROTECTIVE TREATMENT OF METAL
  - SRM 51-20-05 FOR SEALING OF REPAIRS
  - SRM 51-40 FOR FASTENER CODE, REMOVAL, INSTALLATION, HOLE SIZES, AND EDGE MARGINS
  - SRM 51-10-02 FOR INSPECTION AND REMOVAL OF DAMAGE
  - SRM 51-10-01 FOR AERODYNAMIC SMOOTHNESS REQUIREMENTS

[A] SAME MATERIAL AS ORIGINAL SKIN; ONE GAGE GREATER THAN ORIGINAL SKIN

[B] SAME MATERIAL AS ORIGINAL SKIN; SAME GAGE AS ORIGINAL SKIN

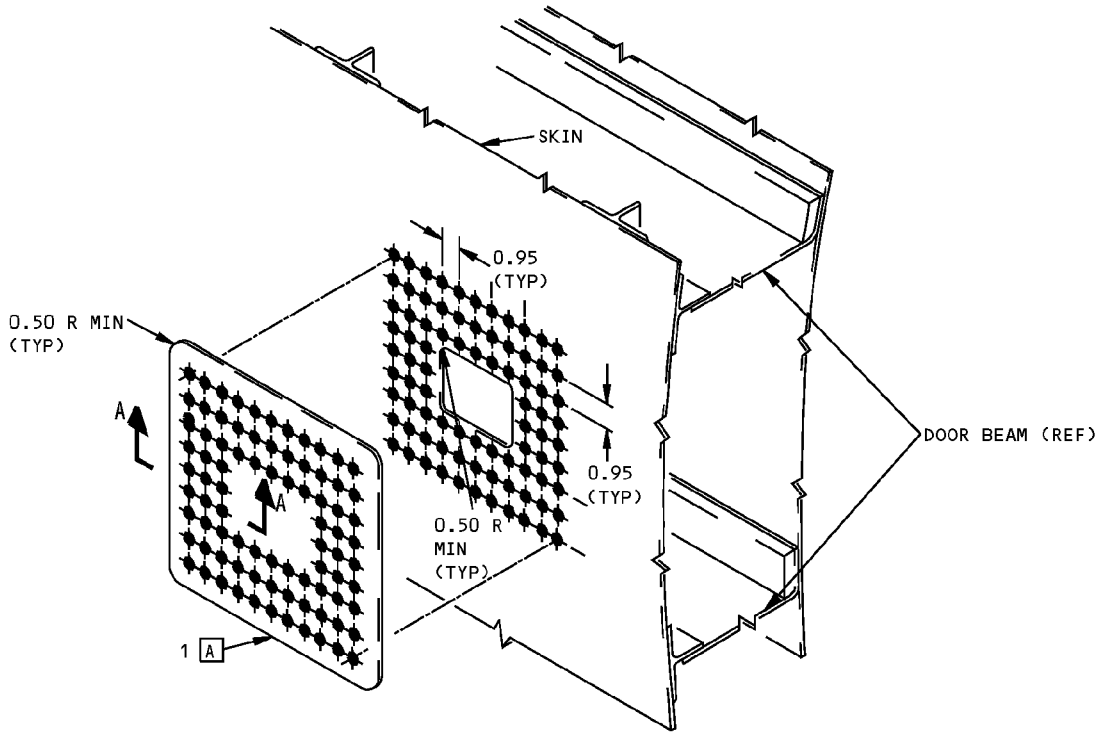
FASTENER SYMBOLS

REPAIR FASTENER LOCATIONS
BACR15CE6KE
(OPTIONAL: BACR15CE6D)

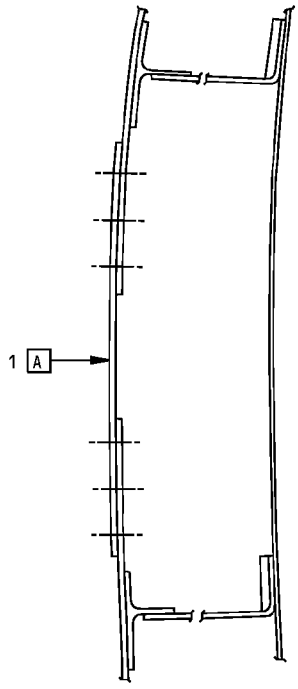
ORIGINAL FASTENER LOCATIONS
REMOVE AND REPLACE WITH
BACR15CE()KE OR BACR15CE()D
SAME SIZE AS ORIGINAL OR
1/32 OVERSIZE IF REQUIRED

REPAIR MATERIAL			
PART		QTY	MATERIAL
1	DOUBLER	1	[A]
2	FILLER	1	[B]

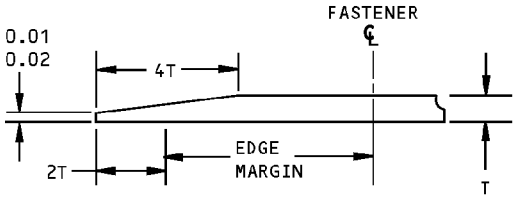
Entry Door Skin - Non-Flush Repair
Figure 201 (Sheet 1 of 3)



REPAIR BETWEEN BEAMS

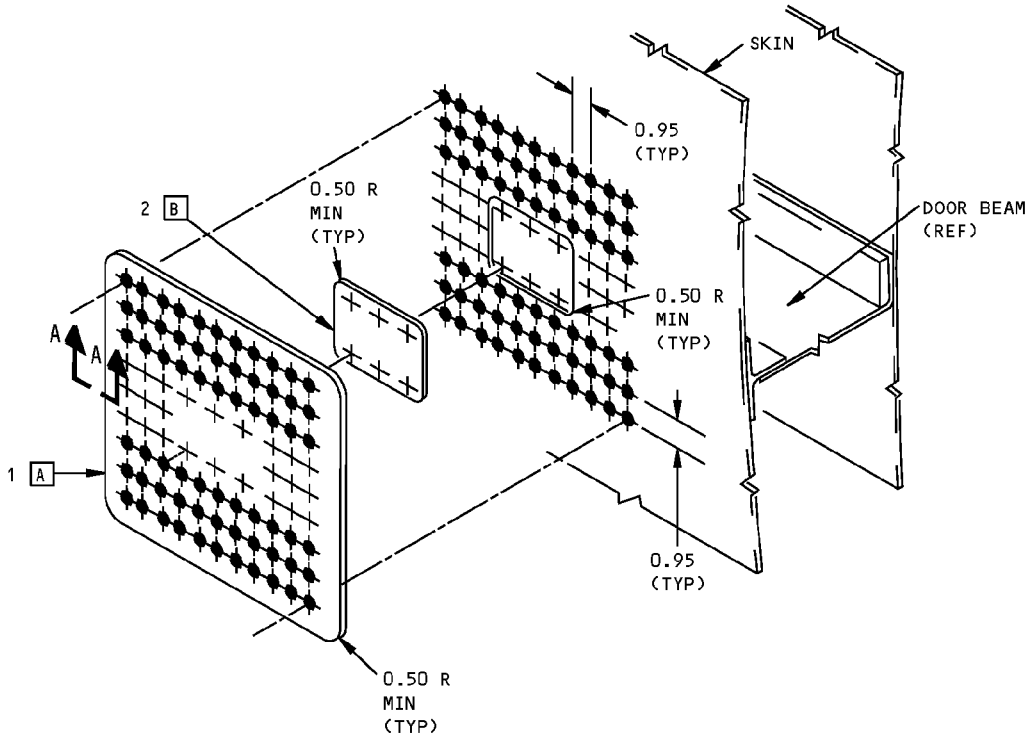


SECTION THRU REPAIR

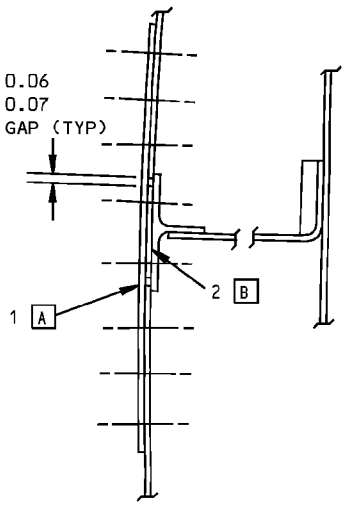


SECTION A-A
(TYP ALL EDGES)

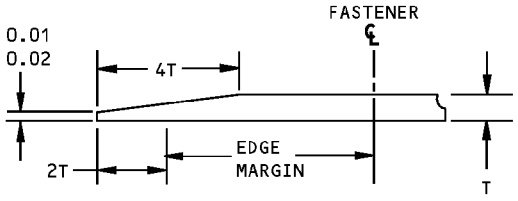
Entry Door Skin - Non-Flush Repair
Figure 201 (Sheet 2 of 3)



REPAIR AT BEAM



SECTION THRU REPAIR



SECTION A-A
(TYP ALL EDGES)

Entry Door Skin - Non-Flush Repair
Figure 201 (Sheet 3 of 3)

REPAIR 3 - SMALL HOLE IN ENTRY DOOR SKIN - EXTERNAL REPAIR

REPAIR INSTRUCTIONS

1. Clean out the damaged hole to 1-inch diameter maximum. The center of the hole to an edge or cutout must not be less than 4D.
2. Fabricate repair parts.
3. Break sharp edges of original and repair parts 0.015 to 0.030.
4. Remove all nicks, scratches, burrs, sharp edges and corners from original and repair parts.
5. Alodize all raw surfaces of repair and original parts per 51-20-01.
6. Apply one coat of BMS 10-11, type I primer in accordance with 51-21-00 of the 757 Maintenance Manual to all surfaces of parts 2 and 3 and to faying surface of part 1.
7. Install repair parts. Seal per 51-20-05.
8. Restore surface finish in accordance with 51-21-00 of the 757 Maintenance Manual.

NOTES

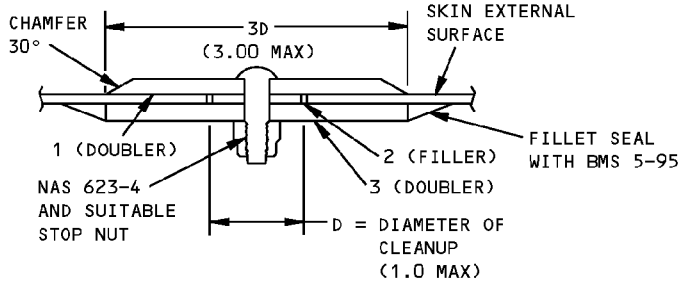
- THIS REPAIR IS NOT APPLICABLE TO PASSENGER/CREW ENTRY DOORS IN SECTION 41
- REFER TO THE FOLLOWING WHEN USING THIS REPAIR:

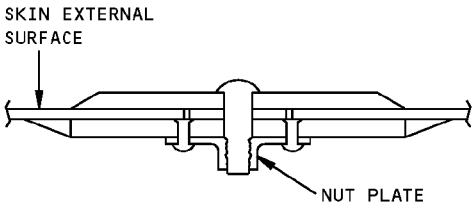
  51-40 FOR FASTENER CODE, REMOVAL, INSTALLATION, HOLE SIZES AND EDGE MARGINS

  51-10-01 FOR AERODYNAMIC SMOOTHNESS REQUIREMENTS

  51-31 OF THE 757 MAINTENANCE MANUAL FOR SEALS AND SEALING
- THIS REPAIR IS NOT TO BE USED IN AREAS WITH DOUBLERS. THE AREA UNDER REPAIR PART 1 MUST NOT HAVE ANY FASTENERS, AND THE SKIN GAGE MUST BE CONSTANT.

REPAIR MATERIAL			
PART		QTY	MATERIAL
1	DOUBLER	1	2024-T3 TWICE SKIN GAGE
2	FILLER	1	2024-T3 SAME GAGE AS SKIN
3	DOUBLER	1	2024-T3 TWICE SKIN GAGE





OPTIONAL METHOD

Small Hole in Entry Door Skin - External Repair
Figure 201

REPAIR 4 - ENTRY DOOR SKIN - TYPICAL FLUSH REPAIR AT BEAM

REPAIR INSTRUCTIONS

1. Remove inner skin panel for access to the damaged area.
2. Clean out damage to skin to a rectangular shape parallel to the beam, with a minimum corner radius of 0.50 inch (13 mm).
3. Cut out beam flanges to width of repair plate to permit its insertion against the skin.
4. Make repair parts.
5. Assemble repair parts and drill the fastener holes in original and new locations.
6. Remove repair parts.
7. Break sharp edges of original and repair parts 0.015 to 0.030 inch (0.4 to 0.8 mm) .
8. Remove all nicks, scratches, burrs, sharp edges and corners from original and repair parts.
9. Alodize raw edges of original parts and all surfaces of repair parts as given in SRM 51-20-01.
10. Apply one coat of BMS 10-11, type 1, primer to all of parts 1, 3 and to the raw edges and inner surfaces of part 2 in accordance with AMM 51-21-00.
11. Install the repair parts with the fasteners wet with BMS 5-95 sealant and making faying surface seals between all parts in accordance with SRM 51-20-05. A bead of sealant should be apparent all around repair parts after installation. Where there is sufficient sealant squeezed out it may be formed into a fillet, otherwise an additional fillet seal should be applied.
12. Apply BMS 5-95 sealant in the gap between the filler, part 2, and the skin.
13. Replace inner skin panel.
14. Restore surface finish in accordance with AMM 51-20-00.

NOTES

- REFER TO THE FOLLOWING WHEN USING THIS REPAIR:
  - AMM 51-21 FOR INTERIOR AND EXTERIOR FINISHES
  - AMM 51-31 FOR SEALS AND SEALING
  - SRM 51-20-01 FOR PROTECTIVE TREATMENT OF METAL
  - SRM 51-20-05 FOR REPAIR SEALING
  - SRM 51-40 FOR FASTENER CODE, REMOVAL, INSTALLATION, HOLE SIZES, AND EDGE MARGINS
  - SRM 51-10-01 FOR AERODYNAMIC SMOOTHNESS REQUIREMENTS
  - SRM 51-10-02 FOR INSPECTION AND REMOVAL OF DAMAGE
- WHERE THIS REPAIR IS BEING USED IN A MACHINED OR CHEM-MILLED SKIN. SHIMS MAY BE USED BETWEEN REPAIR PLATE AND SKIN TO MAKE UP FOR VARIATIONS IN THICKNESS

[A] MINIMUM OF FOUR FASTENERS IN EACH ROW JOINING REPAIR ANGLES TO ORIGINAL SECTION

[B] SHIM AS REQUIRED BETWEEN ORIGINAL TEE, NEW ANGLES AND PLATE

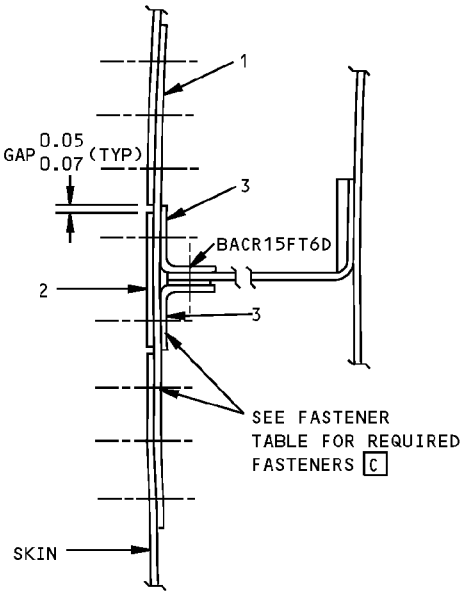
[C] THE COUNTERSINK DEPTH FOR ORIGINAL BACR15CE RIVETS MUST BE MAINTAINED AND THE EXCESS PORTION OF OVERSIZE RIVET HEAD SHAVED OFF AFTER INSTALLATION AS GIVEN IN SRM 51-10-01

REPAIR MATERIAL			
PART		QTY	MATERIAL
1	PLATE	1	SAME MATERIAL AND GAGE AS ORIGINAL SKIN
2	FILLER	1	SAME MATERIAL AND GAGE AS ORIGINAL SKIN
3	ANGLE	2	SAME MATERIAL AND ONE GAGE HEAVIER THAN SKIN SIDE LEG OF ORIGINAL SECTION

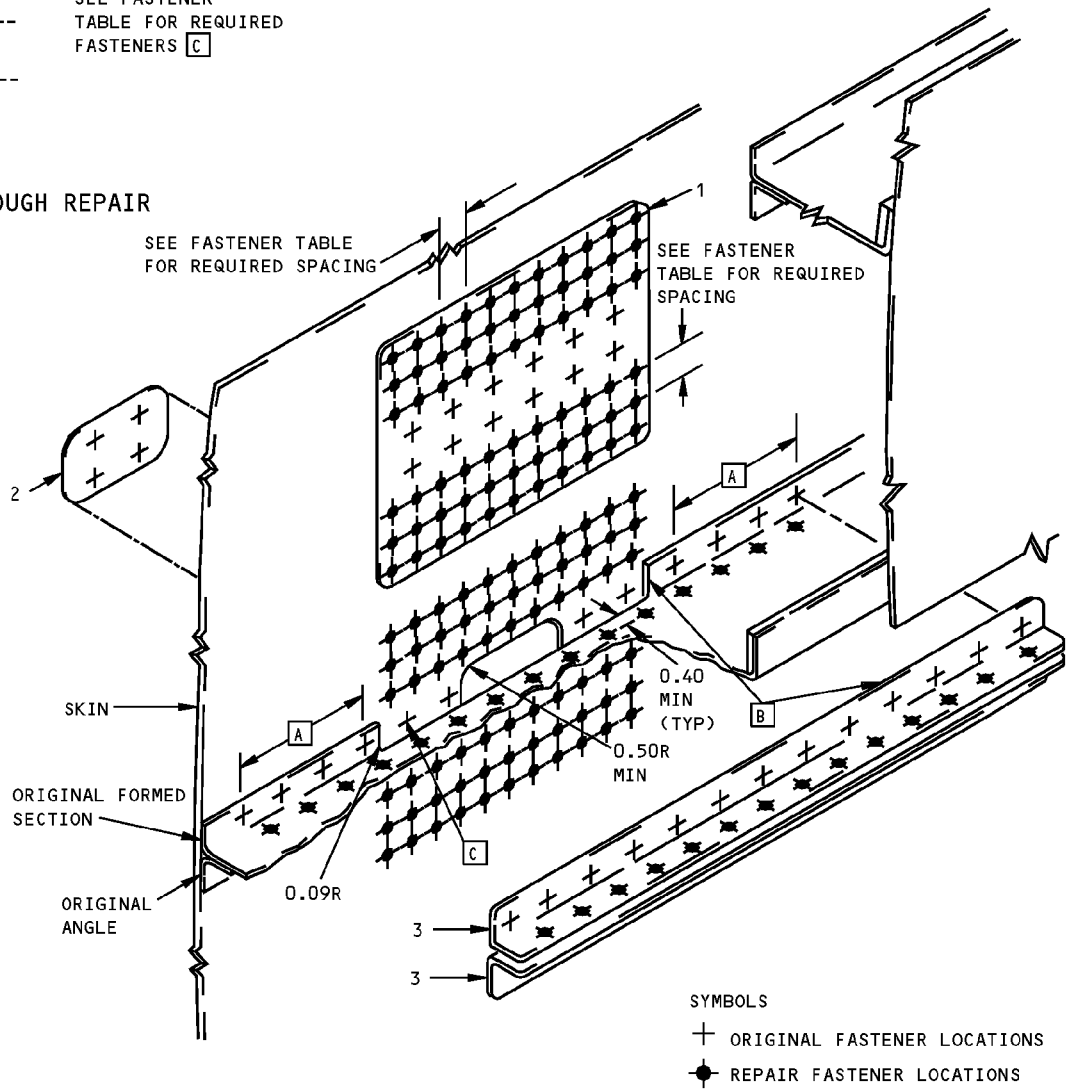
Passenger Entry Door Skin - Typical Flush Repair at Beam
Figure 201 (Sheet 1 of 2)

FASTENER REQUIREMENTS	SKIN THICKNESS	
	0.063	0.040
REPAIR FASTENER	BACR15CE6D	BACR15CE4D
FASTENER SPACING	0.90 ±0.05	0.60 ±0.05

FASTENER TABLE



SECTION THROUGH REPAIR



Passenger Entry Door Skin - Typical Flush Repair at Beam
Figure 201 (Sheet 2 of 2)

REPAIR 5 - ENTRY DOOR SKIN - FLUSH REPAIR BETWEEN BEAMS (0.040 CHEM-MILL POCKET ONLY)

REPAIR INSTRUCTIONS

1. Remove the inner skin panel for access if required.
2. Clean out the damage to skin to a rectangular shape with a minimum of 0.50 inch (13 mm) radius at the corners. The cutout should be parallel to the centerline of the adjacent beam.
3. Make repair parts 1 and 2.
4. Assemble repair parts in installed positions and drill fastener holes.
5. Remove repair parts.
6. Break sharp edges of original and repair parts 0.015 to 0.030 inch (0.4 to 0.8 mm).
7. Remove all nicks, scratches, burrs, sharp edges and corners from original and repair parts.
8. Alodize raw edges of original parts and all surfaces of repair parts per SRM 51-20-01.
9. Apply one coat of BMS 10-11, type 1, primer to all of part 1 and to the raw edges and inner surface of part 2 in accordance with AMM 51-21-00.
10. Install the repair parts with the fasteners wet with BMS 5-95 sealant and making faying surface seals between all parts in accordance with SRM 51-20-05. A bead of sealant should be apparent all around repair parts after installation. Where there is sufficient sealant squeezed out it may be formed into a fillet, otherwise an additional fillet seal should be applied.
11. Apply BMS 5-95 sealant in the gap between the filler, part 2, and the skin.
12. Refinish according to AMM 51-21-00.

NOTES

- REFER TO THE FOLLOWING WHEN USING THIS REPAIR:
  - AMM 51-21 FOR INTERIOR AND EXTERIOR FINISHES
  - AMM 51-31 FOR SEALS AND SEALING
  - SRM 51-20-01 FOR PROTECTIVE TREATMENT OF METAL
  - SRM 51-20-05 FOR SEALING OF REPAIRS
  - SRM 51-40 FOR FASTENER CODE, REMOVAL, INSTALLATION, HOLE SIZES AND EDGE MARGINS
  - SRM 51-10-01 FOR AERODYNAMIC SMOOTHNESS REQUIREMENTS
  - SRM 51-10-02 FOR INSPECTION AND REMOVAL OF DAMAGE

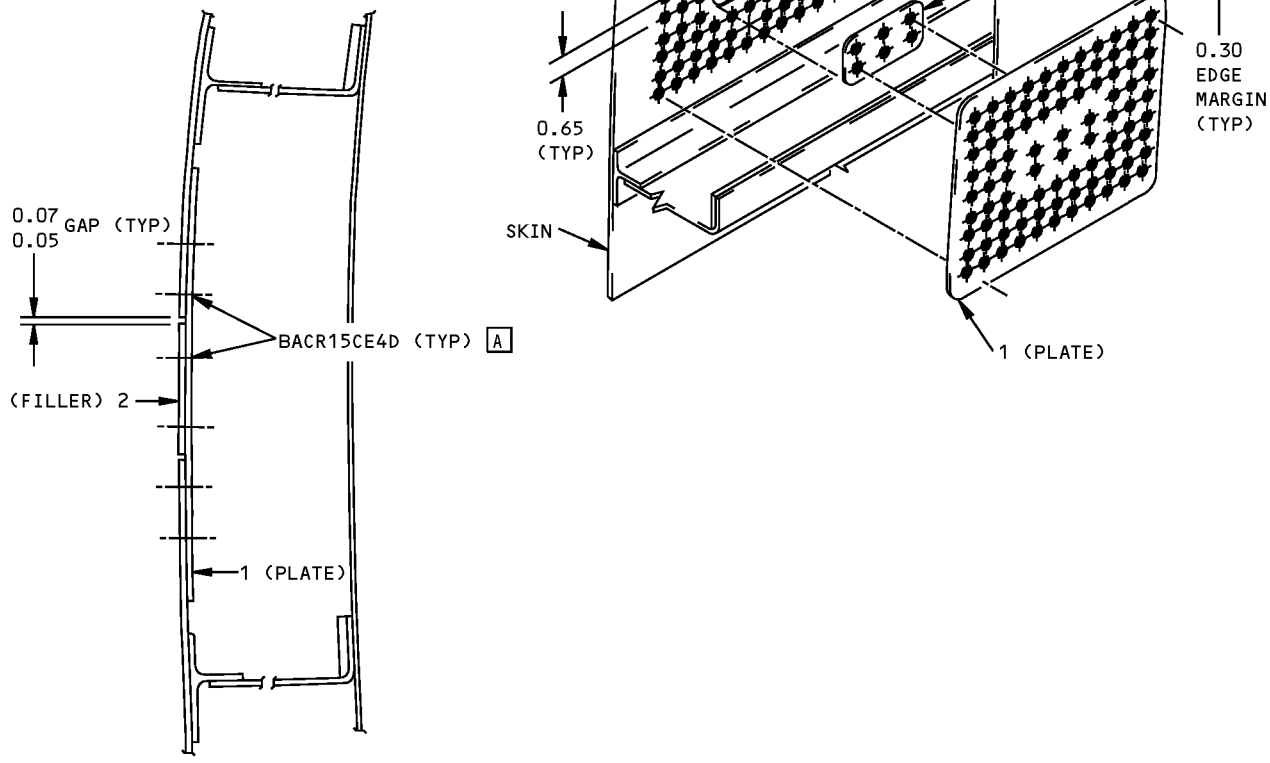
[A] THE ORIGINAL COUNTERSINK DEPTH FOR BACR15CE RIVETS MUST BE MAINTAINED. WHERE OVERSIZE RIVETS ARE INSTALLED THE PROTRUDING PORTION OF THE RIVET HEADS MUST BE SHAVED OFF PER SRM 51-10-01

FASTENER SYMBOLS

REPAIR FASTENER LOCATIONS

Crew Entry Door Skin - Flush Repair Between Beam (0.040 Chem-Mill Pocket 0nly)
Figure 201 (Sheet 1 of 2)

REPAIR MATERIAL			
PART		QTY	MATERIAL
1	PLATE	0.050	CLAD 2024-T3
2	FILLER	0.040	CLAD 2024-T3



SECTION THROUGH REPAIR

Crew Entry Door Skin - Flush Repair Between Beam (0.040 Chem-Mill Pocket 0nly)
Figure 201 (Sheet 2 of 2)

REPAIR 6 - PASSENGER / SERVICE DOOR SKIN - INNER DOUBLER REPAIR OF THE OUTER SKIN ASSEMBLY AT THE DOOR HINGE CUTOUT

1. Applicability

A. This Repair is applicable to gouge damage to the inner doubler of the outer skin of the No. 1 Passenger and Service Doors.

2. General

A. This is a Category B Repair and LFEC Inspections are necessary. Refer to Figure 201/REPAIR 6, TABLE II for the inspection threshold and interval.

B. D = Fastener Diameter.

3. References

Reference	Title
51-10-02, GENERAL	Inspection and Removal of Damage
51-20-01, GENERAL	Protective Treatment of Metallic and Nonmetallic Materials
51-20-05, GENERAL	Repair Sealing
51-40-01, GENERAL	Fasteners
51-40-02, GENERAL	Fastener Installation and Removal
51-40-05, GENERAL	Fastener Hole Sizes
51-40-06, GENERAL	Fastener Edge Margins
AMM 51-21-00/701	Interior and Exterior Finishes - Cleaning/Painting
NDT Part 6, 51-00-01	Aluminum Part Surface Inspection (Meter Display)
NDT Part 6, 51-00-06	Tapered Part Fastener Hole Inspection (Meter Display)
SOPM 20-41-02	Application of Chemical and Solvent Resistant Finishes

4. Repair Instructions

A. Get Access to the repair area.

CAUTION: DO NOT CAUSE GOUGES, SCRATCHES, OR BUCKLES IN THE STRUCTURE ADJACENT TO THE REPAIR AREA. USE A STAINLESS STEEL GUARD BETWEEN THE INNER DOUBLER AND THE OUTER SKIN TO PREVENT DAMAGE. THE RESULT CAN BE FURTHER DAMAGE AND MORE REPAIR MAY BE NECESSARY.

B. Cut and remove the damaged part of the inner doubler on the outer skin assembly. Refer to Figure 201/REPAIR 6, Detail I.

(1) Use a sheet metal guard between the outer inner doubler and the outer skin when you remove the the damage to prevent damage to the outer skin.

(2) Keep a 0.50 in. (1.27 cm) minimum radius on the cutout.

(3) Make the edges of the cutout smooth with a surface finish of 125 microinches Ra or better.

(4) Keep a minimum edge margin of 2D (D = Fastener Diameter) from other fasteners when you make the cutout.

C. Do a High Frequency Eddy Current (HFEC) inspection of the repair area to make sure that all the damage has been removed. Refer to NDT Part 6, 51-00-01. If you find more damage do Paragraph 4.B./REPAIR 6 and Paragraph 4.C./REPAIR 6 again.

D. Make the repair parts. Refer to Table 201/REPAIR 6.

Table 201: Repair Material

PART		QUANTITY	MATERIAL
1	Doubler *[1]	1	0.071 2024-T3 Sheet

*[1] Make the repair doubler edges tapered as shown in Figure 201/REPAIR 6, Section A-A on all the edges, except for the edges which are common to the door hinge cutout.

CAUTION: MAKE SURE THERE IS SUFFICIENT CLEARANCE BETWEEN THE REPAIR FASTENER HOLES AND THE EDGE OF THE STRUCTURE BELOW. IF YOU DO NOT, DAMAGE TO THE SKIN DOUBLER, BEAMS AND FRAMES WILL RESULT WHEN YOU DRILL THE FASTENER HOLES.

E. Assemble the repair parts and drill the fastener holes.

F. Disassemble the repair parts.

G. Remove the nicks, scratches, gouges, burrs, and sharp edges from the repair parts and the door skin.

H. Apply a chemical conversion coating to the repair parts and the bare surfaces of the inner doubler. Refer to 51-20-01, GENERAL.

I. Apply two layers of BMS 10-11, Type I primer to the repair parts and to the bare surfaces of the inner doubler. Refer to SOPM 20-41-02.

J. Install the repair parts wet with BMS 5-95 sealant between the mating surfaces.

K. Install the fasteners. Fasteners that are not made of aluminum must be installed wet with BMS 5-95 sealant.

L. Apply a fillet seal of BMS 5-95 sealant to the external edges of the doubler. Refer to 51-20-05, GENERAL.

M. Apply the external decorative finish to the repair area. Refer to AMM 51-21-00/701.

NOTES (CONT)

[A] MAKE THE REPAIR DOUBLER EDGES TAPERED AS GIVEN IN SECTION A-A ON ALL EDGES EXCEPT THE EDGES WHICH ARE COMMON TO THE DOOR HINGE CUTOUT.

[B] MAKE SURE THE MINIMUM EDGE MARGIN FOR THE REPAIR DOUBLER IS 2D ON INITIAL AND REPAIR FASTENERS.

[C] DO NOT END THE REPAIR DOUBLER AT AN EDGE OR FRAME LOCATION EXCEPT AT THE DOOR CUTOUT EDGE. EXTEND DOUBLER BY A MINIMUM OF ONE FASTENER ROW BEYOND A FRAME LOCATION.

[D] THERE MUST BE A MINIMUM OF 3 ROWS OF FASTENERS FORWARD, AFT AND BELOW THE DAMAGE LOCATION.

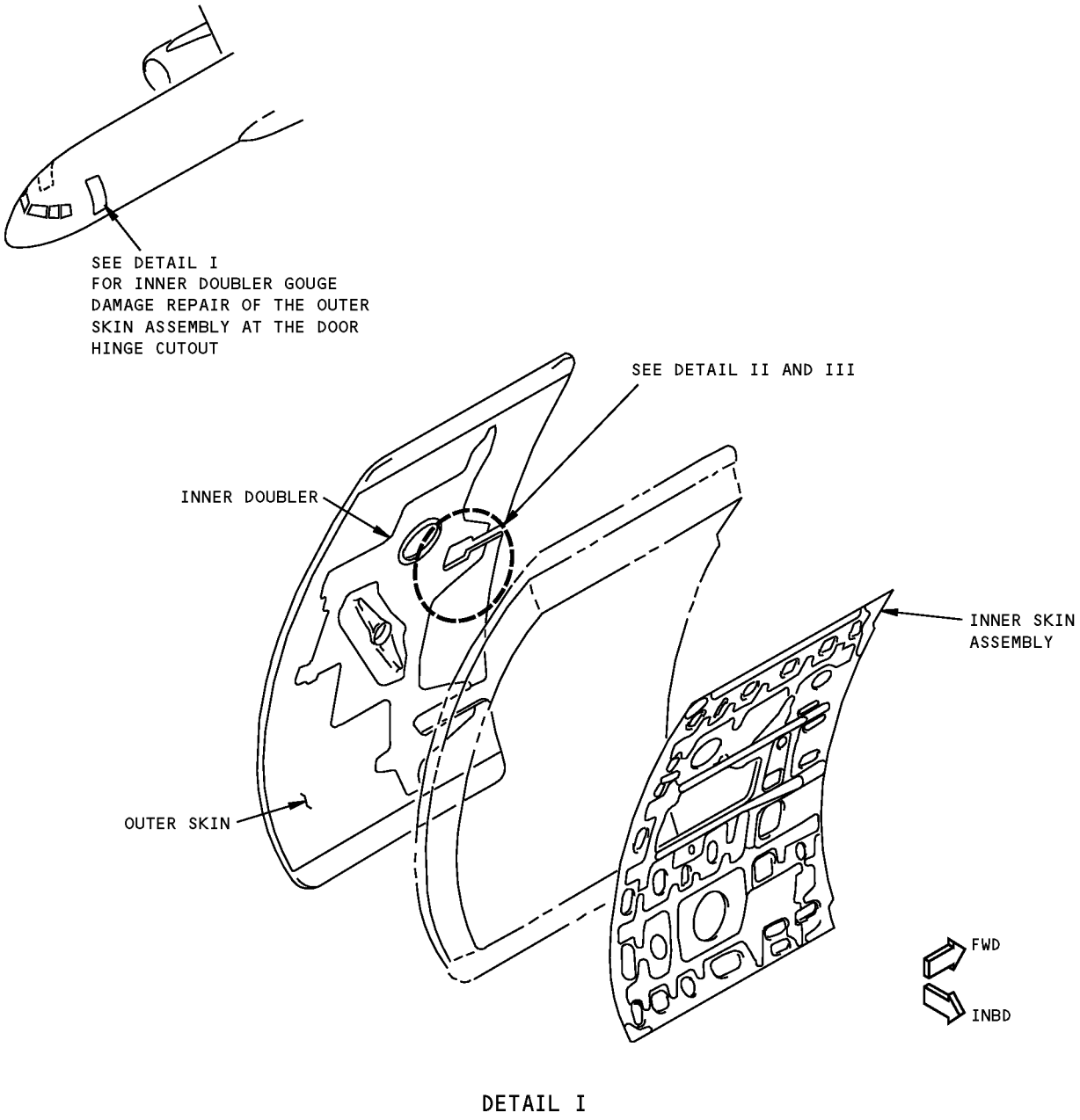
FASTENER SYMBOLS

REFERENCE FASTENER LOCATION.

INITIAL FASTENER LOCATION. INSTALL A BACR15CE6D() RIVET. (UP TO 1/32 INCH DIAMETER OVERSIZE).

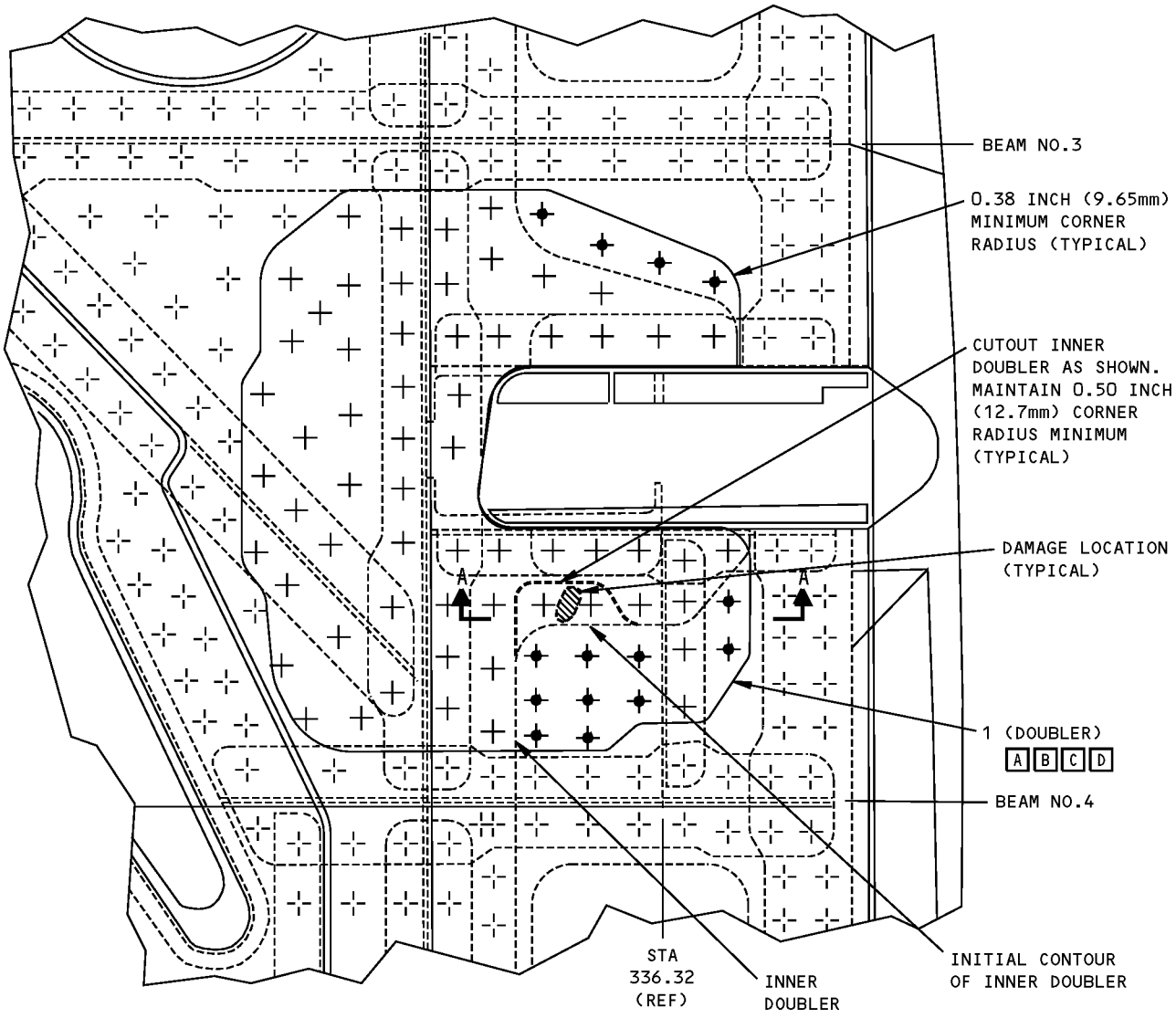
REPAIR FASTENER LOCATION. INSTALL A BACR15CE6D() RIVET.

Passenger / Service Door Skin - Inner Doubler Repair of the Outer Skin
Figure 201 (Sheet 1 of 4)

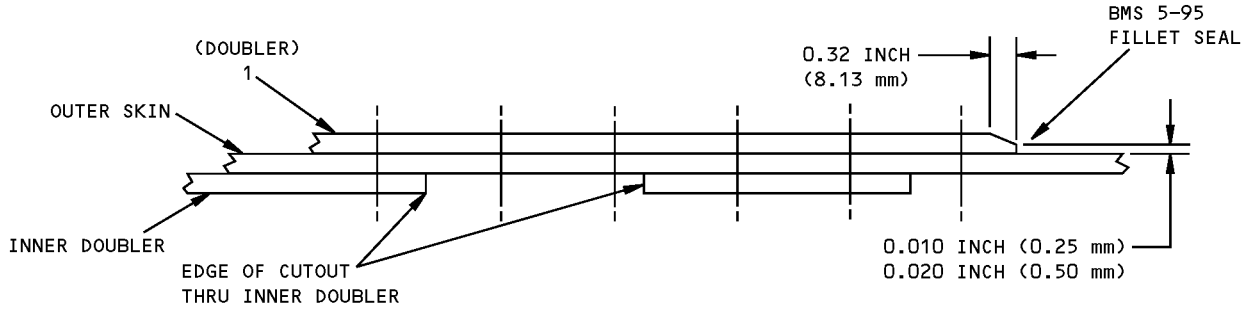


DETAIL I

Passenger / Service Door Skin - Inner Doubler Repair of the Outer Skin
Figure 201 (Sheet 2 of 4)



DETAIL II



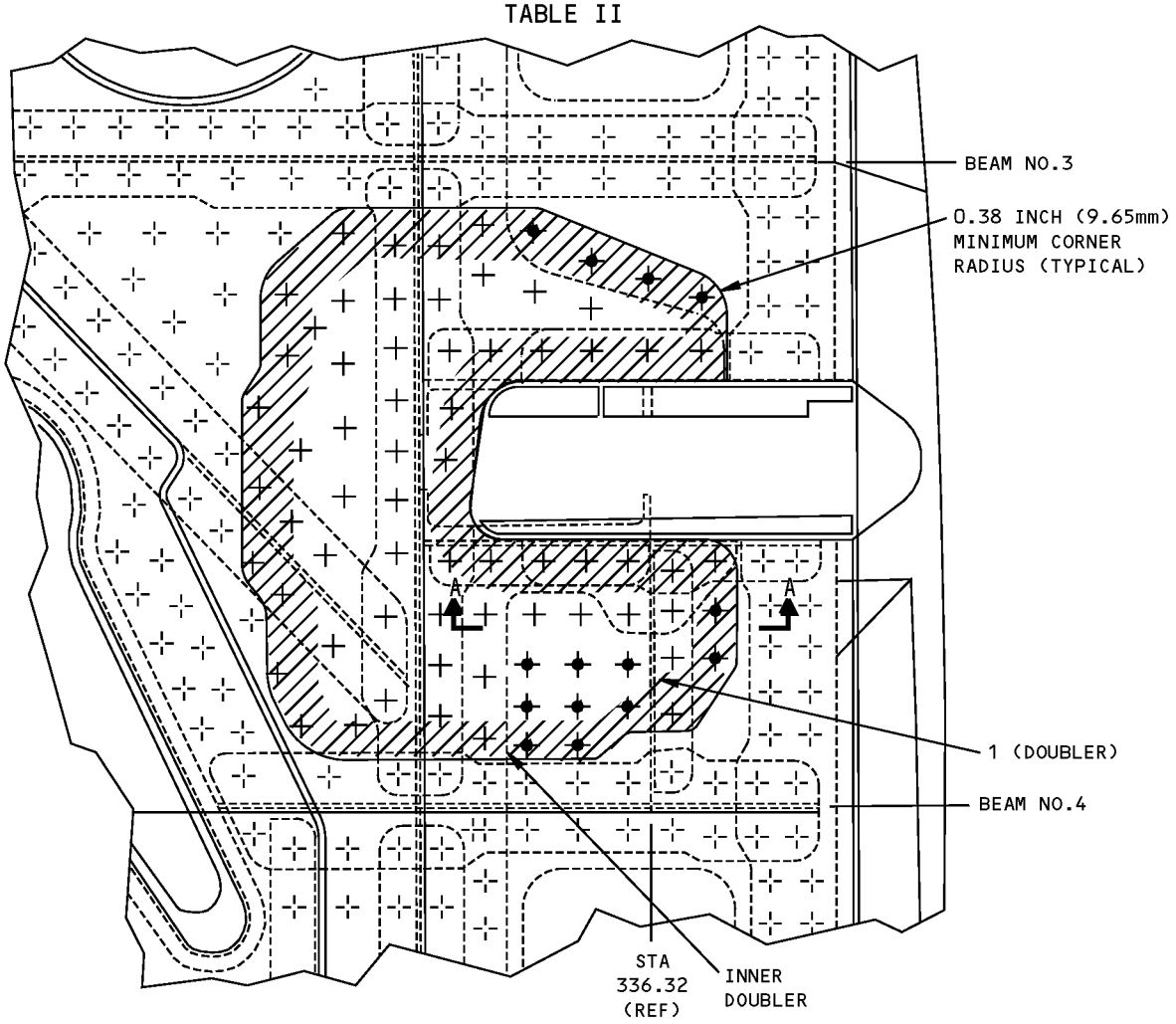
(STRUCTURE BELOW SKIN ASSEMBLY NOT SHOWN FOR CLARITY)
SECTION A-A

Passenger / Service Door Skin - Inner Doubler Repair of the Outer Skin
Figure 201 (Sheet 3 of 4)

CATEGORY B REPAIR INSPECTION REQUIREMENTS			
INSPECTION THRESHOLD	METHOD	INTERVAL	REFERENCE
12,000 CYCLES AFTER REPAIR IS DONE. (ALSO SEE NOTE BELOW)	LOW FREQUENCY EDDY CURRENT (LFEC)	12,000 CYCLES	NDT PART 6 53-00-06

NOTE: INSPECT THE SKIN AROUND THE OUTER ROW OF FASTENERS ALONG THE EDGE OF THE DOUBLER AS SHOWN IN DETAIL III. IF THE DOOR WAS NOT REMOVED FROM THE INITIAL AIRPLANE, START THE INSPECTION AT 37,500 AIRPLANE FLIGHT CYCLES SINCE DELIVERED. IF THE DOOR WAS REMOVED BUT THE FLIGHT CYCLES WERE RECORDED, START THE INSPECTION AT 37,500 DOOR FLIGHT CYCLES SINCE NEW. RECORD THE DOOR FLIGHT CYCLES AT THE TIME OF THE REPAIR. THIS HELPS THAT INSPECTIONS WILL BE DONE AT THE CORRECT INTERVALS.

TABLE II

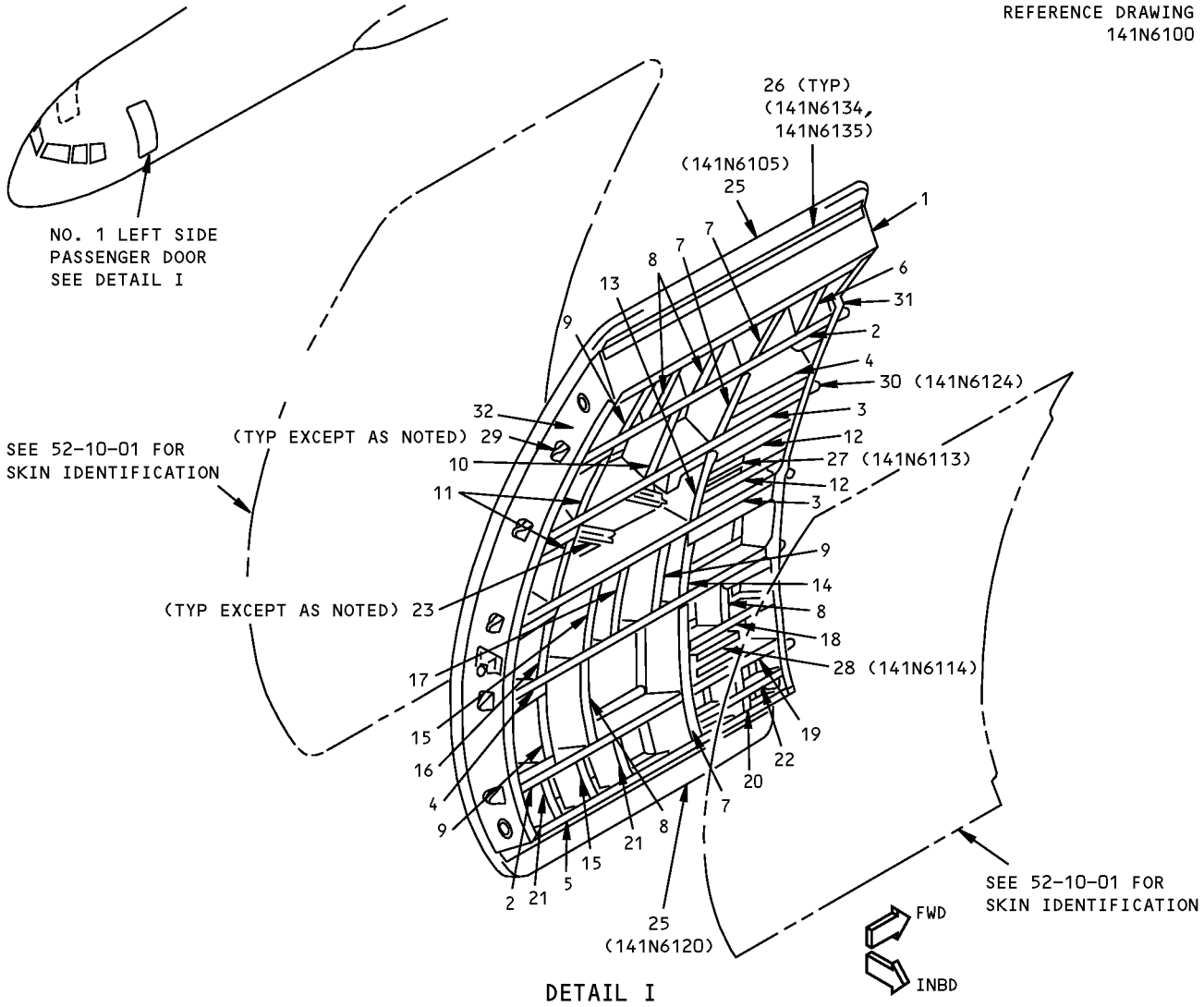


DETAIL III

INSPECTION AREA.
DO THE INSPECTION OF THE SKIN EXTERNALLY THROUGH THE DOUBLER.

Passenger / Service Door Skin - Inner Doubler Repair of the Outer Skin
Figure 201 (Sheet 4 of 4)

IDENTIFICATION 1 - NO. 1 ENTRY DOOR STRUCTURE



DETAIL I

ITEM	DESCRIPTION	GAGE	MATERIAL	EFFECTIVITY
1	WEB	0.080	7075-T6	
2	BEAM			
	OUTER CHORD		BAC1505-100543 2024-T42	
	WEB	0.063	CLAD 2024-T42	
3	BEAM			
	OUTER CHORD		BAC1506-3161 2024-T42	
	WEB	0.063	CLAD 2024-T42	
4	OUTER CHORD	0.063	CLAD 2024-T42	
	ANGLE	0.063	CLAD 7075-T6	
5	LOWER BEAM		7075-T73 FORGING	

LIST OF MATERIALS FOR DETAIL I

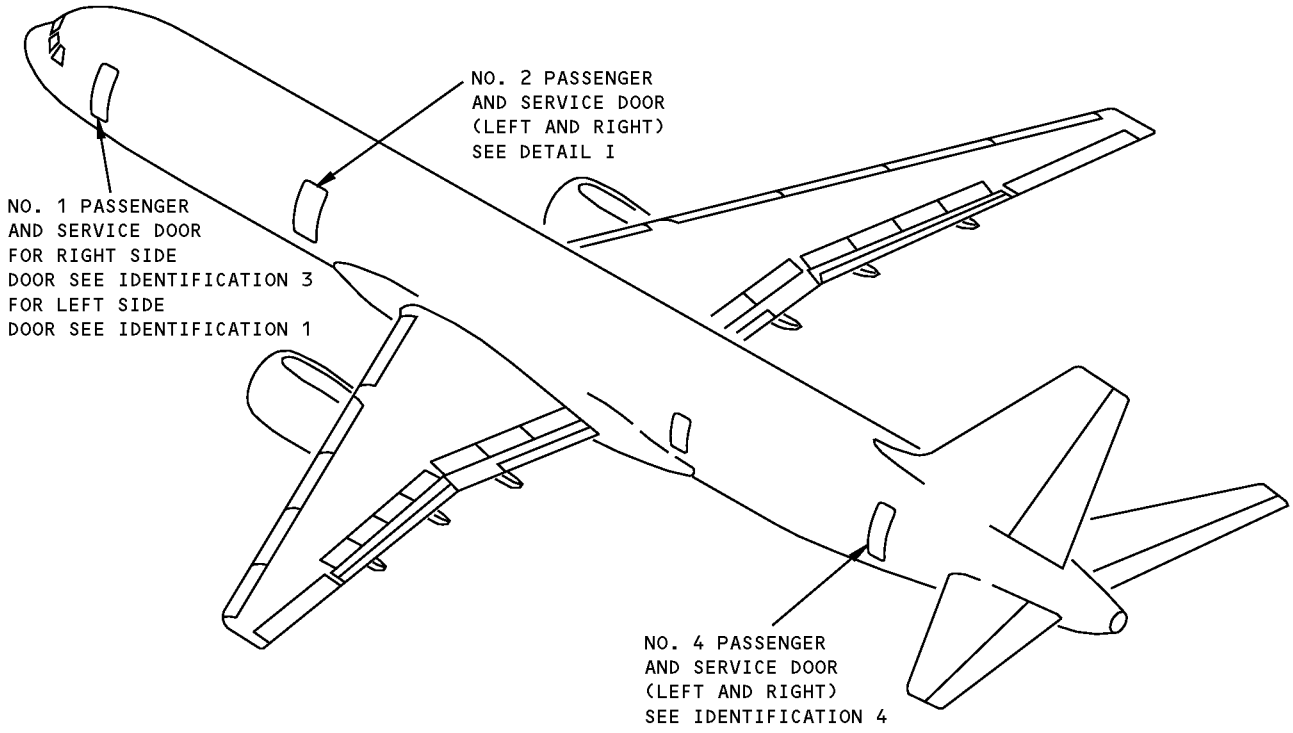
No. 1 Left Side Passenger Door Structure Identification
Figure 1 (Sheet 1 of 2)

ITEM	DESCRIPTION	GAGE	MATERIAL	EFFECTIVITY
6	ANGLE	0.071	CLAD 2024-T42	
	INTERCOSTAL	0.063	7075-T6	
7	OUTER CHORD		BAC1505-100543 2024-T42	
	INTERCOSTAL	0.063	CLAD 7075-T6	
8	INTERCOSTAL	0.063	CLAD 2024-T42	
	INTERCOSTAL	0.063	CLAD 7075-T6	
9	ANGLE	0.063	CLAD 2024-T42	
	INTERCOSTAL	0.063	CLAD 7075-T6	
10	OUTER TEE		BAC1505-100543 2024-T42	
	INTERCOSTAL	0.063	CLAD 7075-T6	
11	OUTER TEE		BAC1505-100962 2024-T42	
	INTERCOSTAL	0.063	CLAD 7075-T6	
12	WEB	0.063	CLAD 7075-T6	
	ANGLE	0.063	CLAD 7075-T6	
13	OUTER CHORD		BAC1505-100544 2024-T42	
	INTERCOSTAL	0.063	CLAD 7075-T6	
14	OUTER CHORD		BAC1505-100650 2024-T42	
	INTERCOSTAL	0.063	CLAD 7075-T6	
15	INTERCOSTAL	0.063	CLAD 2024-T42	
	ANGLE	0.063	CLAD 7075-T6	
16	INTERCOSTAL	0.071	CLAD 2024-T42	
	ANGLE	0.063	CLAD 7075-T6	
17	INNER ANGLE	0.063	CLAD 7075-T6	
18	INTERCOSTAL		AISI631 CRES, HT TR 180-200 KSI	
	INTERCOSTAL	0.063	CLAD 7075-T6	
19	INTERCOSTAL	0.063	7075-T6	
20	STIFFENER	0.063	CLAD 2024-T42	
	STIFFENER	0.063	CLAD 7075-T6	
21	INTERCOSTAL	0.050	CLAD 2024-T42	
	INTERCOSTAL	0.063	CLAD 7075-T6	
22	STIFFENER	0.063	CLAD 2024-T42	
23	SPLICE TEE		BAC1505-100052 2024-T42	
24	SPLICE TEE		BAC1505-100261 2024-T42	
25	GATE		A356-T61 OR A357-T61 ALUMINUM CASTING AZ91C-T6 MAGNESIUM CASTING	A B
26	HINGE ASSY		2024-T4	
27	HINGE FITTING		7075-T7351 PLATE	
28	HINGE FITTING		7075-T73 FORGING	
29	STOP FITTING		7075-T73 FORGING	
30	STOP FITTING		17-4PH CRES CASTING OR 15-5PH CRES PLATE HT TR 180-200 KSI	
31	FWD FRAME			
	ANGLE	0.050	CLAD 7075-T6	
	FRAME	0.080	2024-T42	
32	AFT FRAME	0.080	2024-T42	

LIST OF MATERIALS FOR DETAIL I

No. 1 Left Side Passenger Door Structure Identification
Figure 1 (Sheet 2 of 2)

IDENTIFICATION 2 - NO. 2 LEFT SIDE PASSENGER DOOR STRUCTURE

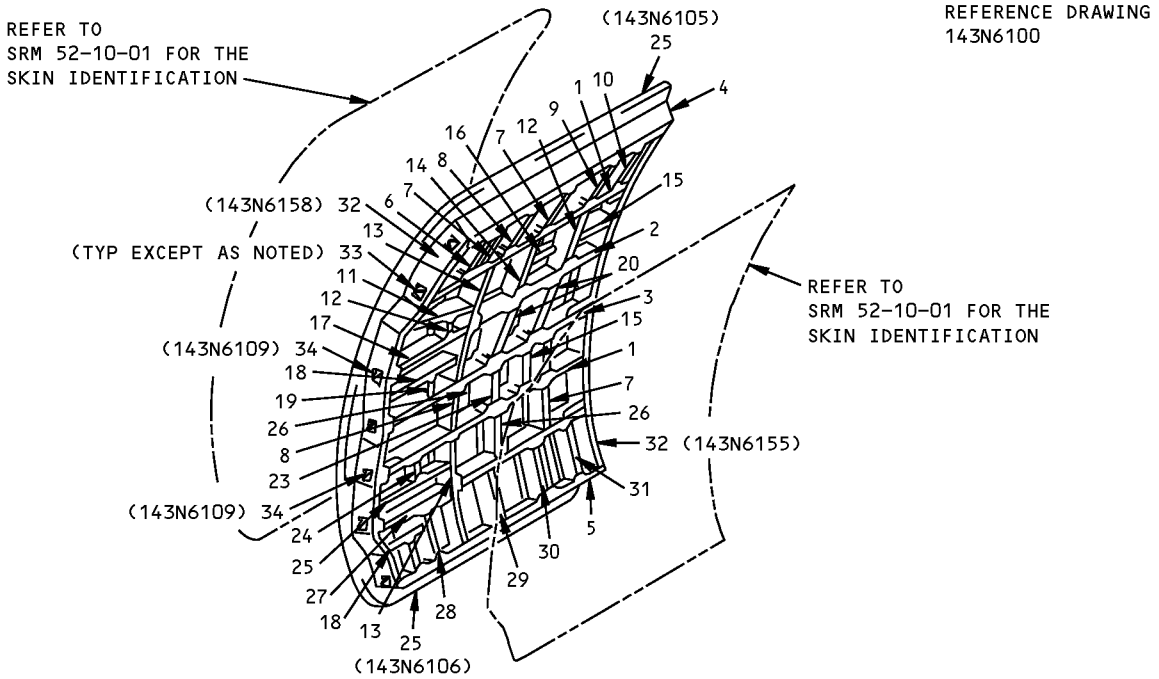


NOTES

[A] FOR CUM LINE NUMBERS:
1 THRU 8,12,17,20,21,22,27,28,31,35,36,38,
40,42,51
(BOEING REF: NA022 THRU NA028, NA193 THRU
NA199)

[B] FOR CUM LINE NUMBERS NOT LISTED IN [A]

No. 2 Passenger and Service Door Structure Identification
Figure 1 (Sheet 1 of 3)



DETAIL I

ITEM	DESCRIPTION	GAGE	MATERIAL	EFFECTIVITY
1	BEAM WEB OUTER CHORD	 0.063 	 CLAD 7075-T6 BAC1505-100350 2024-T42	
2	BEAM WEB OUTER CHORD	 0.063 2.5	 CLAD 7075-T6 7075-T73 PLATE	
3	BEAM WEB OUTER CHORD	 0.063 2.5	 CLAD 7075-T6 7075-T6 PLATE	
4	WEB	0.080	7075-T6	
5	STOP BEAM		7075-T73 FORGING	
6	OUTER CHORD INNER CHORD		BAC1503-100142 2024-T42 BAC1503-2811 7075-T6	
7	INTERCOSTAL OUTER CHORD	0.056	CLAD 7075-T6 BAC1505-100052 2024-T42	
8	INTERCOSTAL OUTER CHORD	0.063	CLAD 7075-T6 BAC1505-100052 2024-T42	
9	INTERCOSTAL	0.056	CLAD 7075-T6	
10	INNER CHORD OUTER CHORD		BAC1503-2811 7075-T6 BAC1505-100350 2024-T42	
11	WEB INNER CHORD OUTER CHORD	0.063 0.063 	CLAD 7075-T6 CLAD 7075-T6 BAC1505-100270 2024-T42	
12	INTERCOSTAL OUTER CHORD	0.056 0.063	CLAD 7075-T6 CLAD 2024-T42	

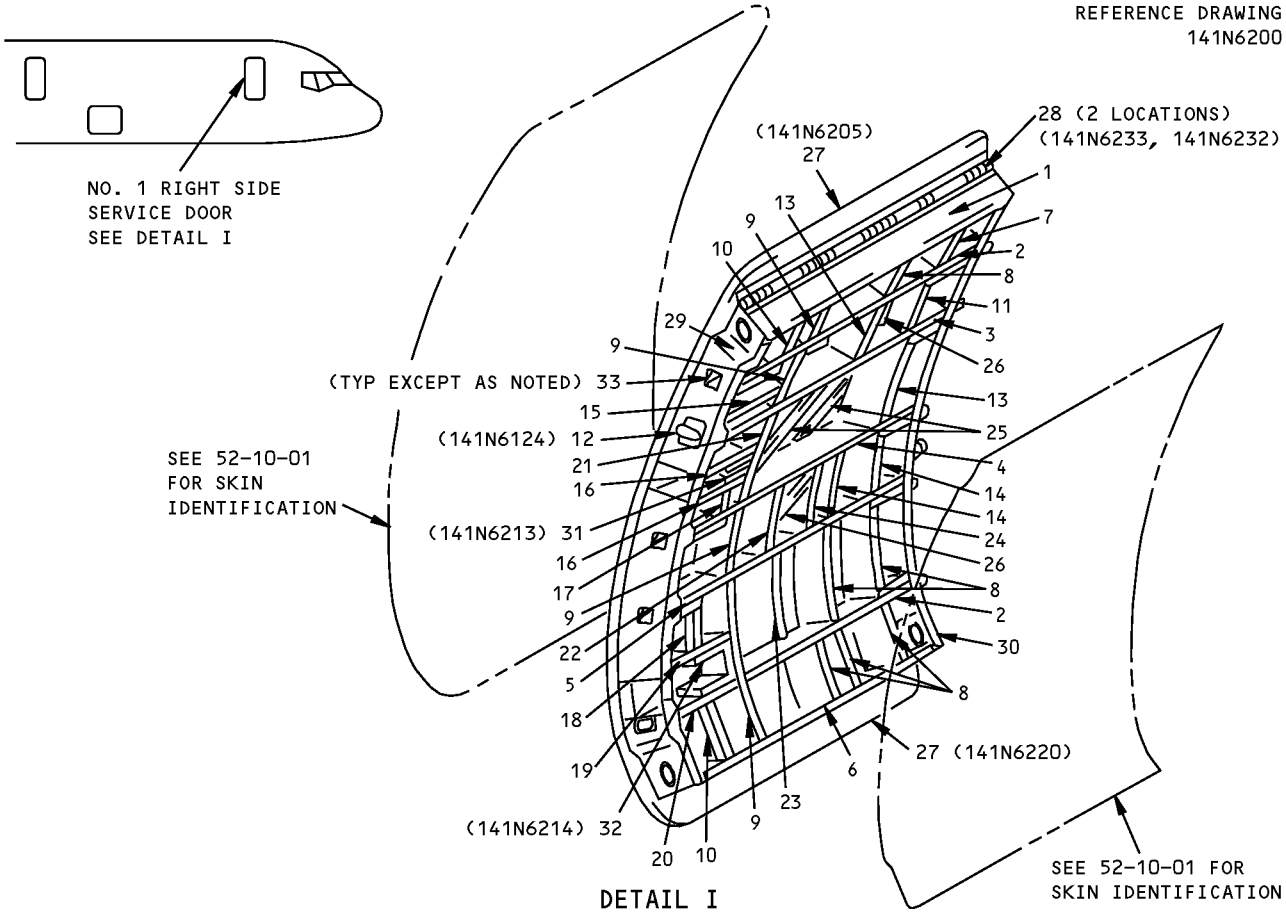
No. 2 Passenger and Service Door Structure Identification
Figure 1 (Sheet 2 of 3)

ITEM	DESCRIPTION	GAGE	MATERIAL	EFFECTIVITY
13	INTERCOSTAL OUTER CHORD	0.063	CLAD 7075-T6 BAC1505-100350 2024-T42	
14	INTERCOSTAL OUTER CHORD	0.056	CLAD 2024-T42 BAC1505-100350 2024-T42	
15	INTERCOSTAL OUTER CHORD	0.056	CLAD 7075-T6 BAC1505-100350 2024-T42	
16	OUTER CHORD		BAC1505-100350 2024-T42	
17	FITTING INNER CHORD		7075-T73 FORGING BAC1489-258 7075-T6	
18	INTERCOSTAL CHORD	0.063 0.063	CLAD 2024-T42 CLAD 7075-T6	
19	INTERCOSTAL OUTER CHORD	0.056	CLAD 7075-T6 BAC1503-2731 2024-T42	
20	OUTER CHORD		BAC1505-100052 2024-T42	
21	INTERCOSTAL OUTER CHORD	0.056	CLAD 7075-T6 BAC1505-100270 2024-T42	
22	OUTER CHORD		BAC1505-100270 2024-T42	
23	STIFFENER	0.063	7075-T6	
24	INTERCOSTAL OUTER CHORD	0.056	CLAD 7075-T6 BAC1503-2771 2024-T42	
25	DOOR GATE		A356-T61 ALUMINUM CASTING AZ91C-T6 MAGNISIUM CASTING	A B
26	OUTER CHORD INTERCOSTAL INNER CHORD	 0.063 	BAC1503-2731 2024-T42 CLAD 7075-T6 BAC1505-100052 7075-T6	
27	INTERCOSTAL INTERCOSTAL	0.063 0.063	CLAD 2024-T42 CLAD 7075-T6	
28	INTERCOSTAL	0.063	CLAD 2024-T42	
29	END FITTING OUTER CHORD		7075-T73 FORGING OR 7075-T7351 PLATE BAC1505-100052 2024-T42	
30	END FITTING		7075-T73 FORGING OR 7075-T7351 PLATE	
31	OUTER ANGLE INNER ANGLE	0.071 0.063	7075-T6 7075-T6	
32	FRAME	0.080	7075-T6	
33	STOP FITTING		7075-T73 FORGING	
34	STOP FITTING		15-5PH CRES FORGING OR BAR	

LIST OF MATERIALS FOR DETAIL I

No. 2 Passenger and Service Door Structure Identification
Figure 1 (Sheet 3 of 3)

IDENTIFICATION 3 - NO. 1 RIGHT SIDE SERVICE DOOR STRUCTURE



DETAIL I

ITEM	DESCRIPTION	GAGE	MATERIAL	EFFECTIVITY
1	BEAM SUPPORT ANGLE	0.080	7075-T6 BAC1503-521 7075-T6	
2	BEAM OUTER CHORD WEB	 0.063	 BAC1505-100543 2024-T42 CLAD 7075-T6	
3	BEAM OUTER CHORD WEB SPLICE CHORD	 0.063	 BAC1505-100543 2024-T42 CLAD 2024-T42 BAC1505-100696 2024-T3511	
4	BEAM OUTER CHORD WEB SPLICE CHORD	 0.063	 BAC1505-100544 2024-T42 CLAD 2024-T42 BAC1505-100696 2024-T3511	
5	BEAM OUTER CHORD WEB	 0.063	 BAC1505-100543 2024-T42 CLAD 2024-T42	
6	LOWER BEAM		7075-T73 FORGING	

LIST OF MATERIALS FOR DETAIL I

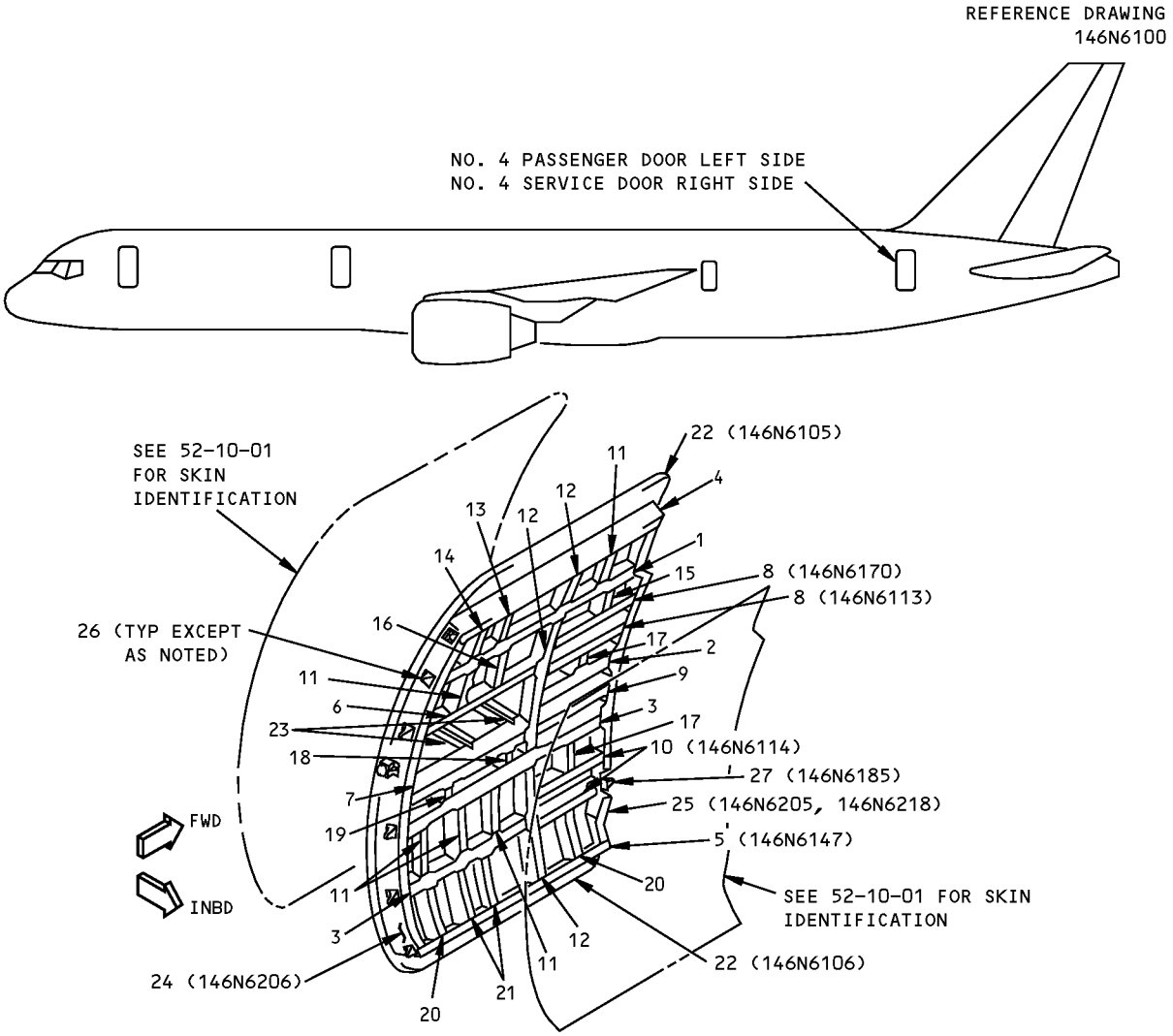
No. 1 Right Side Service Door Structure Identification
Figure 1 (Sheet 1 of 2)

ITEM	DESCRIPTION	GAGE	MATERIAL	EFFECTIVITY
7	INTERCOSTAL ANGLE	0.063 0.063	CLAD 7075-T6 CLAD 7075-T6	
8	ANGLE INTERCOSTAL	0.063 0.056	CLAD 2024-T42 CLAD 7075-T6	
9	OUTER CHORD INTERCOSTAL	 0.056	BAC1505-100543 2024-T42 CLAD 7075-T6	
10	OUTER ANGLE INNER ANGLE	0.063 0.063	CLAD 2024-T42 CLAD 7075-T6	
11	INTERCOSTAL INNER CHORD	0.063 0.056	CLAD 7075-T6 CLAD 7075-T6	
12	STOP FITTING		17-4 PH CRES INVESTMENT CASTING OR 15-5PH CRES PLATE	
13	OUTER CHORD INTERCOSTAL	 0.056	BAC1505-100962 2024-T42 CLAD 7075-T6	
14	ANGLE INTERCOSTAL	0.063 0.063	CLAD 2024-T42 CLAD 7075-T6	
15	OUTER CHORD ANGLE	0.063 0.063	CLAD 2024-T42 CLAD 7075-T6	
16	WEB ANGLE	0.063 0.063	CLAD 7075-T6 CLAD 7075-T6	
17	OUTER ANGLE INNER ANGLE	 	BAC1514-1617 2024-T42 OR 7075-T6511 BAC1514-1617 2024-T42	
18	OUTER CHANNEL INNER ANGLE	0.063 0.063	CLAD 2024-T42 CLAD 7075-T6	
19	OUTER WEB INNER WEB	0.063 0.063	AISI631 CRES 180-200 KSI CLAD 7075-T6	
20	OUTER WEB INNER WEB	0.063 0.063	CLAD 2024-T42 CLAD 7075-T6	
21	OUTER CHORD INTERCOSTAL	 0.056	BAC1505-100544 2024-T42 CLAD 7075-T6	
22	OUTER CHORD INTERCOSTAL	0.063 0.063	CLAD 2024-T42 CLAD 7075-T6	
23	CLIP	0.063	CLAD 2024-T42	
24	STIFFENER	0.063	CLAD 7075-T6	
25	OUTER CHORD		BAC1505-35000 2024-T42	
26	OUTER CHORD		BAC1505-100543 2024-T42	
27	GATE		A356-T61 ALUMINUM CASTING AZ91C-T6 MAGNESIUM CASTING	A B
28	HINGE ASSY	0.056	2024-T42	
29	UPPER FRAME LOWER FRAME ANGLE	0.080 0.080 0.050	2024-T42 2024-T42 CLAD 7075-T6	
30	AFT FRAME	0.080	2024-T42	
31	UPPER HINGE		7075-T7351 PLATE	
32	LWR HINGE		7075-T73 FORGING	
33	STOP FITTING		7075-T73 FORGING	

LIST OF MATERIALS FOR DETAIL I (CONTINUED)

No. 1 Right Side Service Door Structure Identification
Figure 1 (Sheet 2 of 2)

IDENTIFICATION 4 - NO. 4 PASSENGER AND SERVICE DOOR STRUCTURE



LEFT SIDE DOOR SHOWN
RIGHT SIDE DOOR OPPOSITE

ITEM	DESCRIPTION	GAGE	MATERIAL	EFFECTIVITY
1	BEAM			
	OUTER CHORD		BAC1505-100624 2024-T42	
	WEB	0.080	7075-T6	
	INNER CHORD		BAC1505-100624 7075-T6	
2	BEAM			
	OUTER CHORD		BAC1505-100624 2024-T42	
	WEB	0.063	CLAD 2024-T3	
	INNER CHORD		BAC1505-100168 7075-T6	

LIST OF MATERIALS

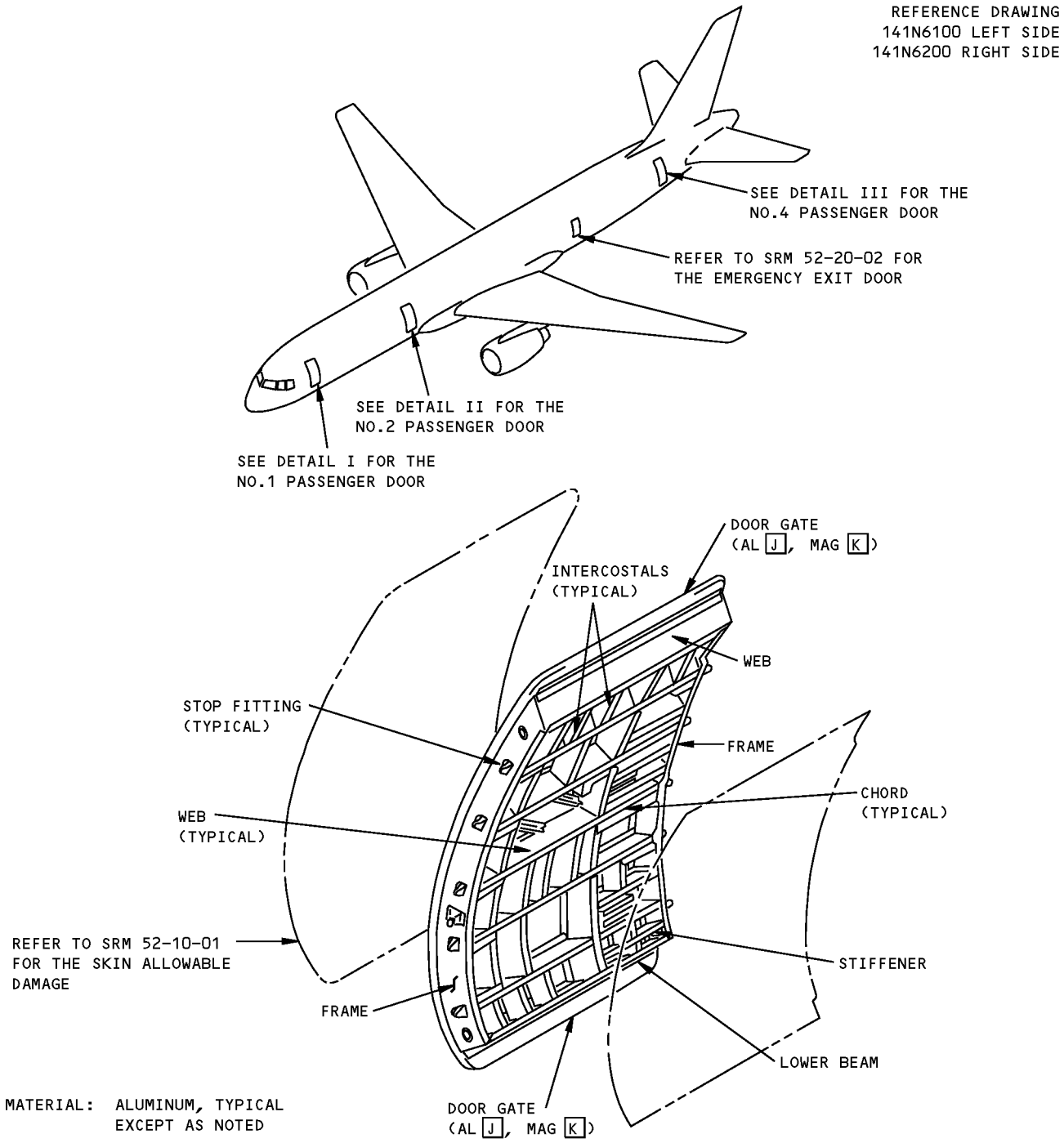
No. 4 Passenger and Service Door Structure Identification
Figure 1 (Sheet 1 of 2)

ITEM	DESCRIPTION	GAGE	MATERIAL	EFFECTIVITY
3	BEAM			
	OUTER CHORD		BAC1505-100624 2024-T42	
	WEB	0.063	CLAD 7075-T6	
	INNER CHORD		BAC1505-100624 7075-T6	
4	WEB	0.090	7075-T6	
5	STOP BEAM		7075-T73 FORGING	
6	OUTER CHORD		BAC1505-100543 2024-T42	
	PAN CHORD	0.090	2024-T42	
	WEB	0.063	CLAD 7075-T6	
	INNER CHORD		BAC1505-100650 7075-T6	
7	OUTER CHORD		BAC1505-100543 2024-T42	
	WEB	0.063	CLAD 7075-T6	
	TEE		BAC1505-100543 2024-T42	
8	HINGE SUPPORT		7075-T73 PLATE	
9	OUTER CHORD		BAC1505-100543 2024-T42	
	INTERCOSTAL	0.063	7075-T6	
10	HINGE SUPPORT		7075-T73 FORGING	
11	OUTER CHORD	0.063	CLAD 2024-T42	
	WEB	0.063	CLAD 7075-T6	
12	OUTER CHORD		BAC1505-100543 2024-T42	
	WEB	0.063	CLAD 7075-T6	
13	OUTER TEE		BAC1505-100543 7075-T6	
	INTERCOSTAL	0.063	CLAD 7075-T6	
14	OUTER CHORD	0.063	CLAD 2024-T42	
	INTERCOSTAL	0.063	CLAD 7075-T6	
15	OUTER CHORD		BAC1489-306 CLAD 2024-T42	
	INTERCOSTAL	0.063	CLAD 7075-T6	
16	WEB	0.063	CLAD 7075-T6	
	INNER CHORD	0.063	CLAD 7075-T6	
17	OUTER CHORD		BAC1489-235 CLAD 2024-T42	
	INTERCOSTAL	0.063	CLAD 7075-T6	
18	WEB	0.063	CLAD 7075-T6	
19	OUTER CHORD		BAC1505-100543	
	INNER CHORD		CLAD 7075-T6	
20	OUTER CHORD	0.090	2024-T42	
	INNER CHORD		BAC1490-2734 7075-T6	
21	OUTER TEE		BAC1505-100261 2024-T42	
	INTERCOSTAL	0.063	CLAD 7075-T6	
22	GATE		A356-T61 ALUMINUM CASTING AZ1C-T6 MAGNESIUM CASTING	A B
23	TEE		BAC1505-100543 2024-T42	
24	AFT FRAME	0.080	2024-T42	
25	FWD FRAME	0.080	2024-T42	
	SUPPORT ANGLE	0.050	CLAD 7075-T6	
26	STOP FITTING		7075-T73 FORGING	
27	STOP FITTING		15-5PH CRES BAR OR 17-4PH CRES CASTING	

LIST OF MATERIALS (CONTINUED)

No. 4 Passenger and Service Door Structure Identification
Figure 1 (Sheet 2 of 2)

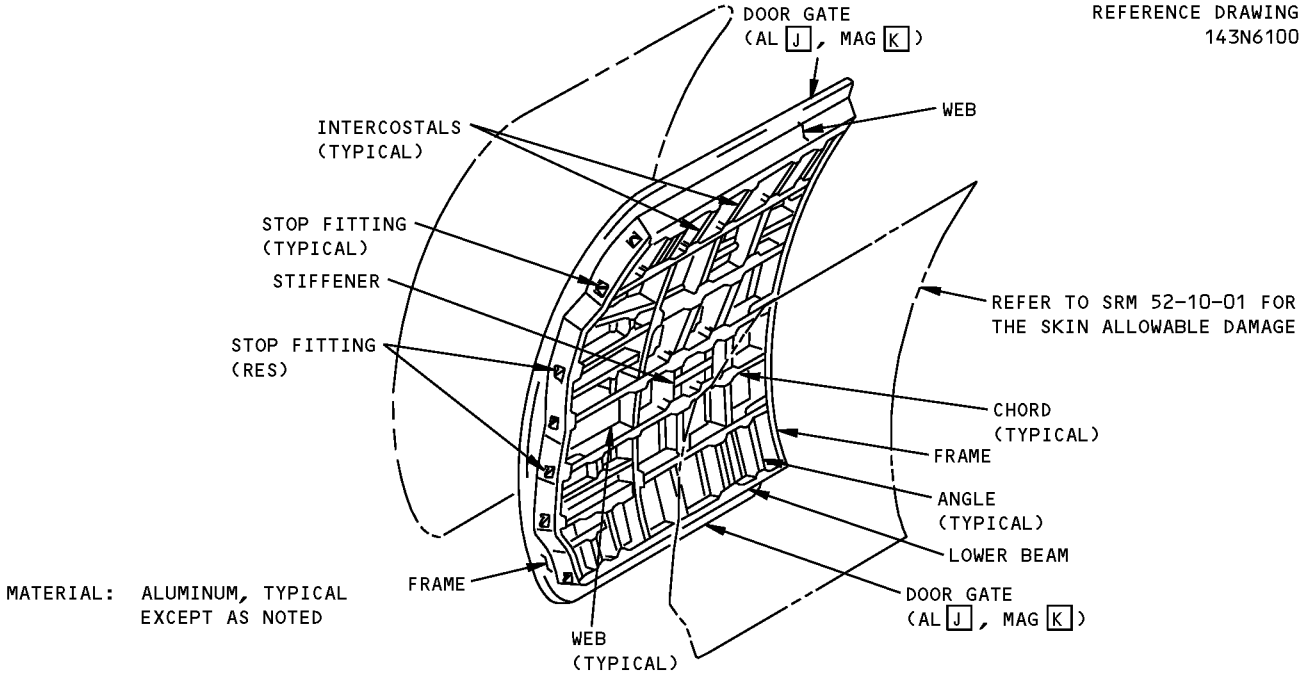
ALLOWABLE DAMAGE 1 - ENTRY DOOR STRUCTURE



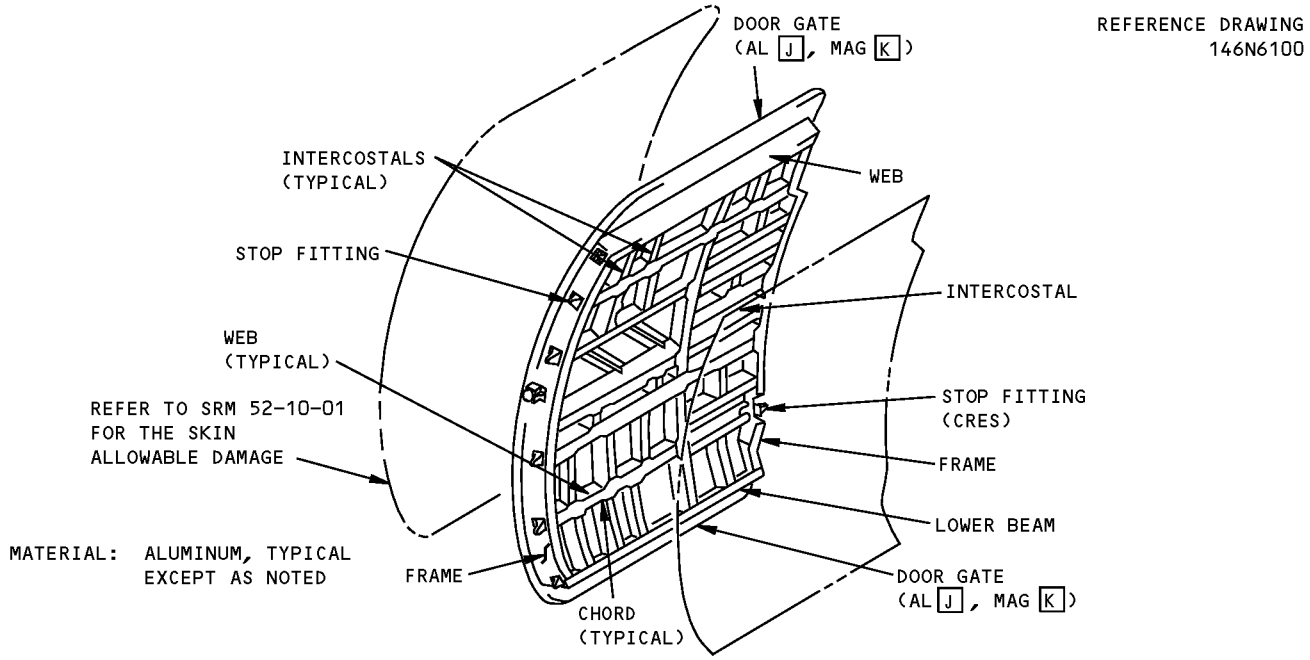
LEFT SIDE IS SHOWN, RIGHT SIDE IS SIMILAR

NO.1 PASSENGER DOOR
DETAIL I

Entry Door Structure Allowable Damage
Figure 101 (Sheet 1 of 8)



LEFT SIDE IS SHOWN, RIGHT SIDE IS OPPOSITE
NO.2 PASSENGER DOOR
DETAIL II



LEFT SIDE IS SHOWN, RIGHT SIDE IS OPPOSITE
NO.4 PASSENGER DOOR
DETAIL III

Entry Door Structure Allowable Damage
Figure 101 (Sheet 2 of 8)

DESCRIPTION	CRACKS	NICKS, GOUGES AND CORROSION	DENTS	HOLES AND PUNCTURES
CHORD				
EXTRUDED	[A]	[D]	NOT PERMITTED	NOT PERMITTED
MACHINED	[A]	[D]	NOT PERMITTED	[H]
FORMED	[B]	[E]	SEE DETAIL VI	[H]
FRAME	[B]	[E]	SEE DETAIL VI	[H]
STIFFENER	[B]	[E]	SEE DETAIL VI	[H]
ANGLE	[B]	[E]	SEE DETAIL VI	[H]
INTERCOSTAL	[C]	[F]	SEE DETAIL VI	[H]
WEB	[C]	[F]	SEE DETAIL VI	[H]
LOWER BEAM [I]	[A]	[D]	NOT PERMITTED	NOT PERMITTED
DOOR GATE	[A]	[L] [M]	NOT PERMITTED	NOT PERMITTED
STOP FITTING [I]	[A]	[G]	NOT PERMITTED	NOT PERMITTED
MACHINED FITTING [I]	[A]	[D]	NOT PERMITTED	NOT PERMITTED

ALLOWABLE DAMAGE FOR DETAILS I, II AND III

NOTES

- REFINISH REWORKED AREAS AS SHOWN IN AMM 51-20.

[A] CRACKS ARE NOT PERMITTED EXCEPT FOR EDGE CRACKS, WHICH MUST BE REMOVED AS SHOWN IN DETAILS IV AND X.

[B] CRACKS ARE NOT PERMITTED EXCEPT FOR EDGE CRACKS, WHICH MUST BE REMOVED AS SHOWN IN DETAILS IV AND IX.

[C] CRACKS ARE NOT PERMITTED EXCEPT FOR EDGE CRACKS, WHICH MUST BE REMOVED AS SHOWN IN DETAILS IV AND VIII.

[D] REMOVE DAMAGE AS SHOWN IN DETAILS IV, V, VII AND X.

[E] REMOVE DAMAGE AS SHOWN IN DETAILS IV, V, VII AND IX.

[F] REMOVE DAMAGE AS SHOWN IN DETAILS IV, V, VII AND VIII.

[G] FOR EDGE DAMAGE SEE DETAILS IV AND X. FOR LUG DAMAGE, SEE DETAIL XI. FOR OTHER DAMAGE, SEE DETAIL V. DAMAGE IS NOT PERMITTED IN VICINITY OF BUSHINGS.

[H] CLEAN OUT DAMAGE UP TO 0.25 INCH (6.35 mm) MAXIMUM DIAMETER AND NOT CLOSER THAN 1.0 INCH (25.4 mm) TO FASTENER HOLE, MATERIAL EDGE, OR OTHER DAMAGE. FILL HOLE WITH 2117-T3 OR T4 ALUMINUM RIVET INSTALLED WET WITH BMS 5-95 SEALANT. ALL OTHER HOLES TO BE REPAIRED.

[I] SHOT PEEN REWORKED AREAS AS SHOWN IN SRM 51-20-06.

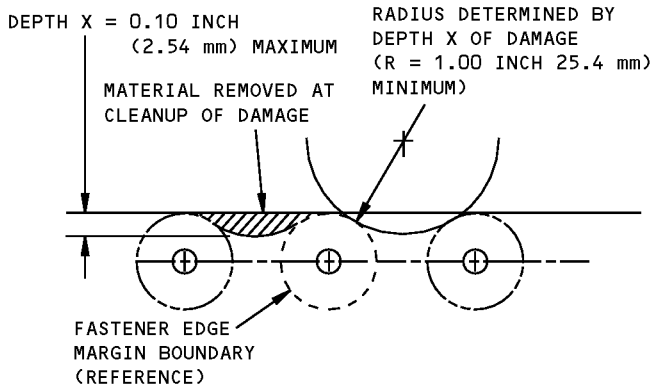
[J] FOR CUM LINE NUMBERS:
1 THRU 8, 12, 17, 24, 26, 27, 29, 32, 39, 41, 42, 43, 50, 51, 53, 54, 55, 59, 61, 62, 66
(BOEING REF: NA029-NA199)

[K] FOR ALL AIRPLANES NOT IN [J]

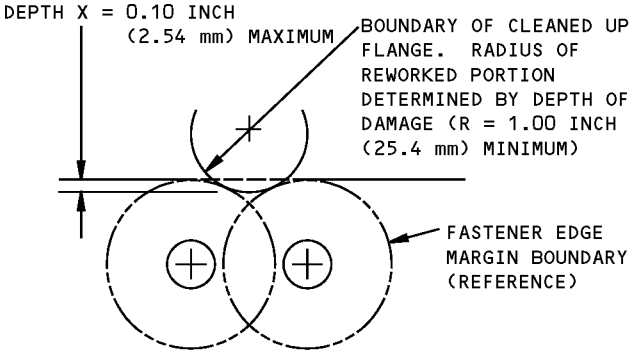
[L] FOR EDGE DAMAGE, SEE DETAILS IV AND XII. FOR LUG DAMAGE, SEE DETAIL XI. FOR OTHER DAMAGE, SEE DETAIL V. NO DAMAGE IS PERMITTED NEAR THE BUSHINGS.

[M] FOR THE UPPER GATE LUG DAMAGE SEE DETAILS XIII AND XIV. DAMAGE REMOVAL IS PERMITTED NEAR THE UPPER GATE LUG BUSHINGS. REFER TO SRM 51-10-02 FOR INSPECTION AND REMOVAL OF DAMAGE.

Entry Door Structure Allowable Damage
Figure 101 (Sheet 3 of 8)

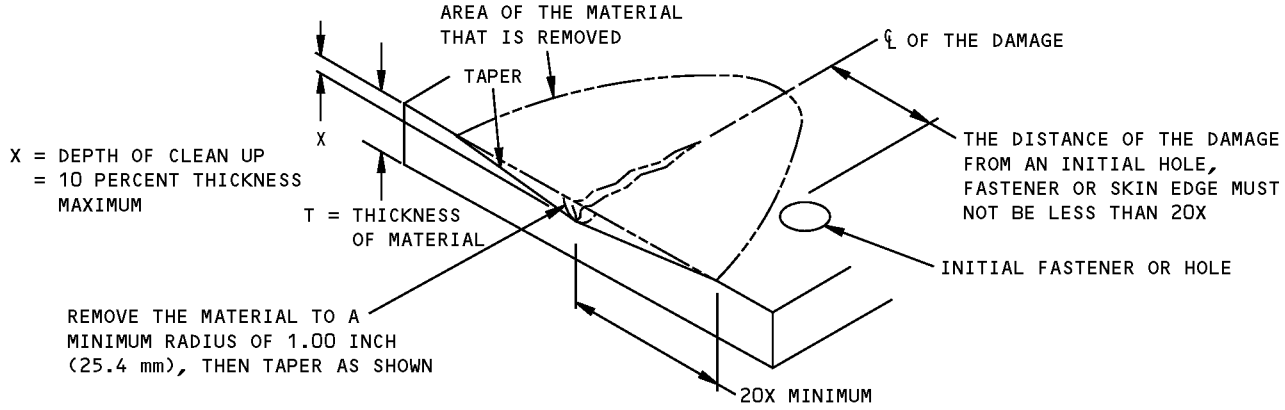


DAMAGE CLEANUP OF EDGES WHERE
FASTENER EDGE MARGINS DO NOT OVERLAP

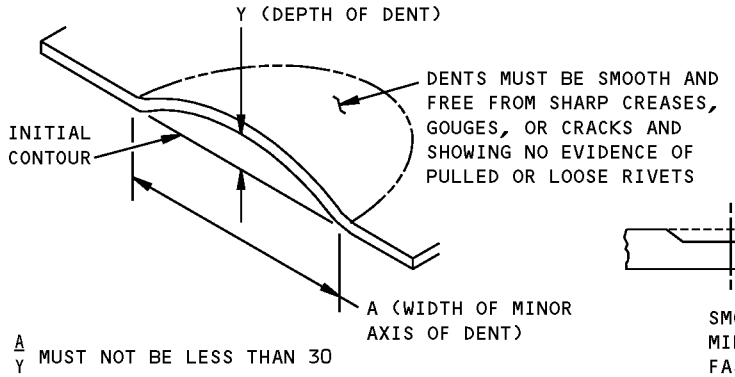


DAMAGE CLEANUP OF EDGES WHERE
FASTENER EDGE MARGINS OVERLAP

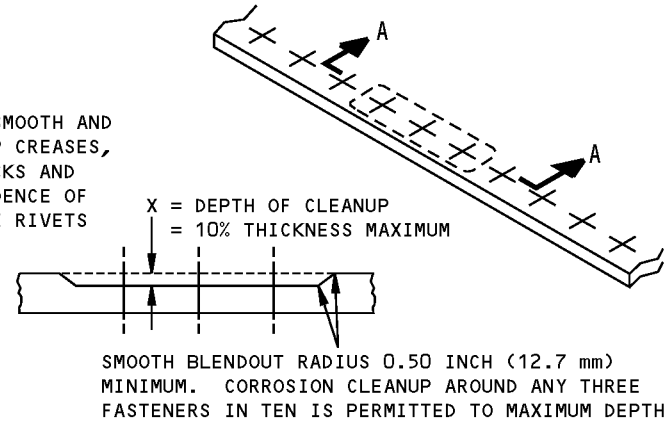
DETAIL IV



REMOVAL OF NICK, GOUGE AND SCRATCH DAMAGE ON A SURFACE
DETAIL V



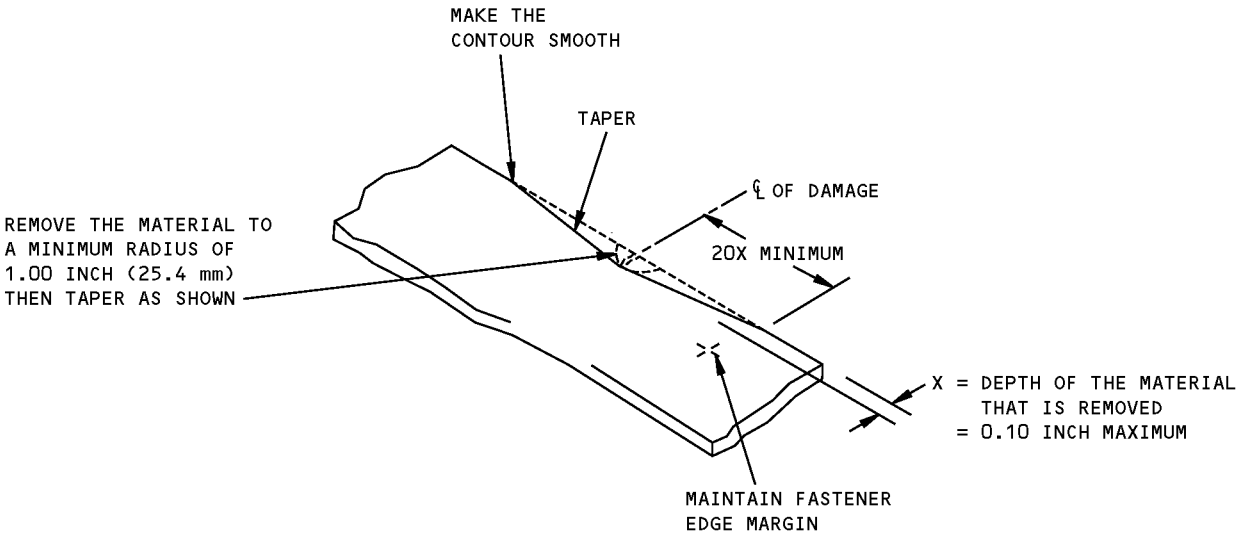
ALLOWABLE DAMAGE FOR DENT
DETAIL VI



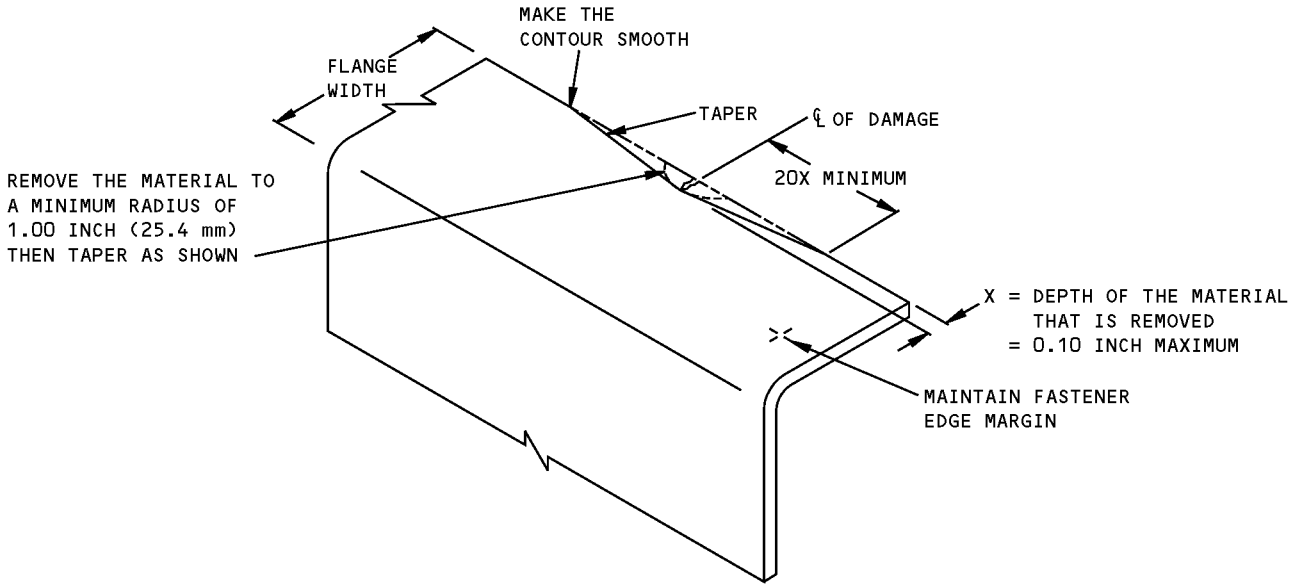
SECTION A–A

CORROSION CLEANUP
DETAIL VII

Entry Door Structure Allowable Damage
Figure 101 (Sheet 4 of 8)

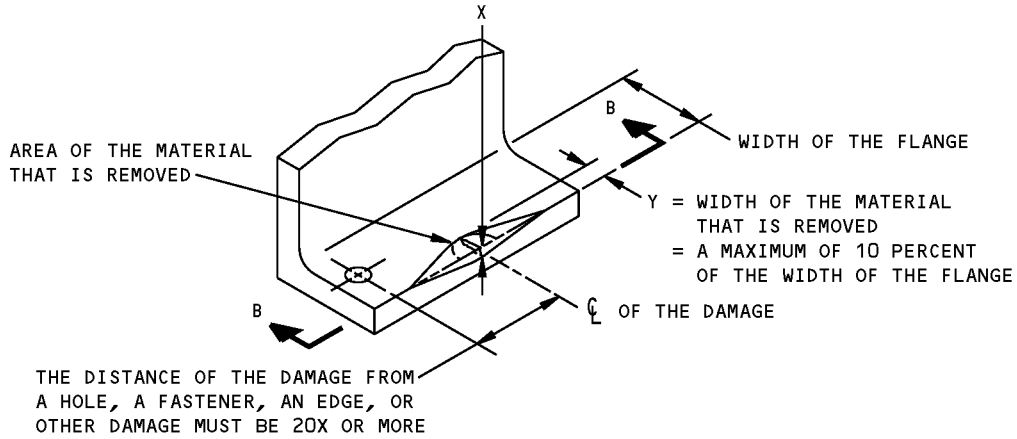


REMOVAL OF NICK OR CRACK DAMAGE ON AN EDGE
DETAIL VIII

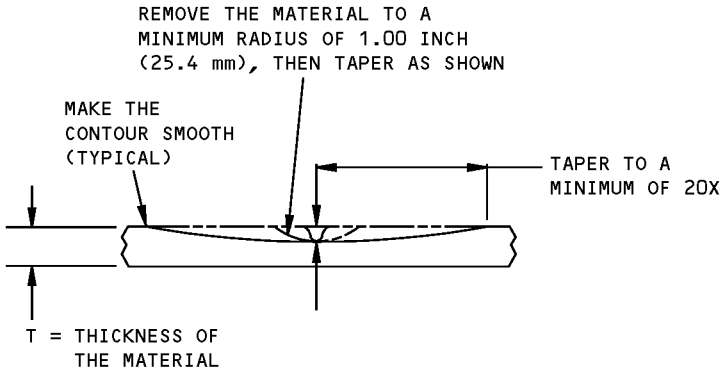


REMOVAL OF NICK, OR CRACK DAMAGE ON AN EDGE
DETAIL IX

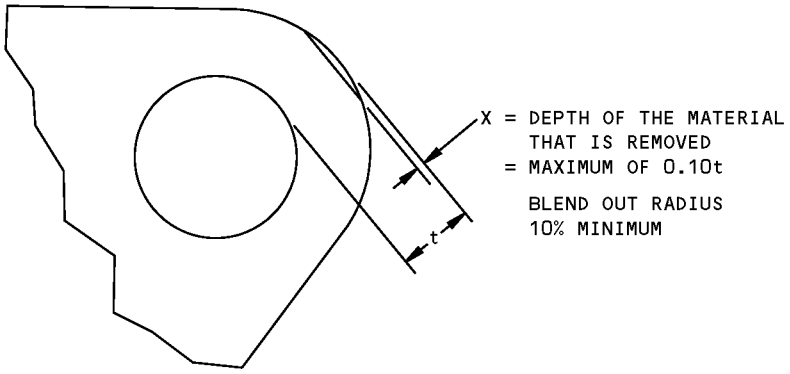
Entry Door Structure Allowable Damage
Figure 101 (Sheet 5 of 8)



REMOVAL OF DAMAGED MATERIAL ON A SURFACE AT AN EDGE
DETAIL X

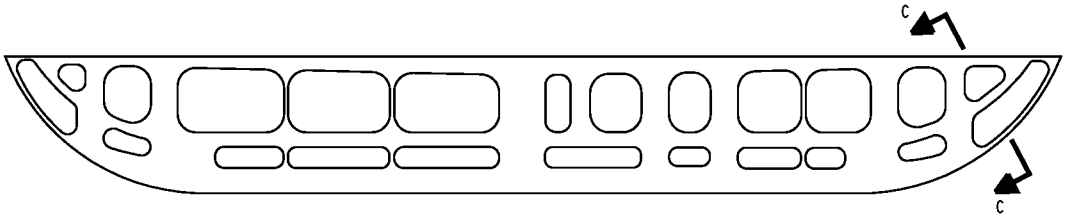


SECTION B-B

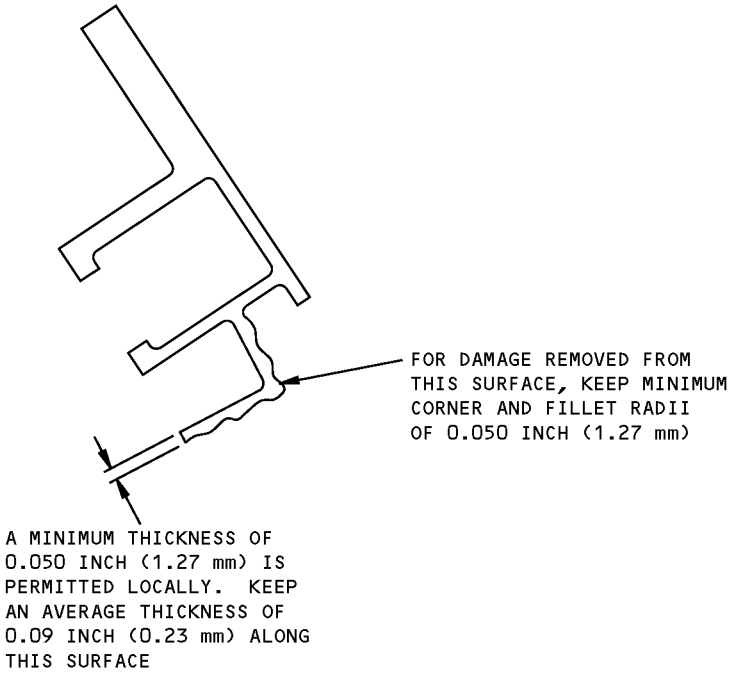


DAMAGE CLEANUP FOR EDGES OF LUG
DETAIL XI

Entry Door Structure Allowable Damage
Figure 101 (Sheet 6 of 8)

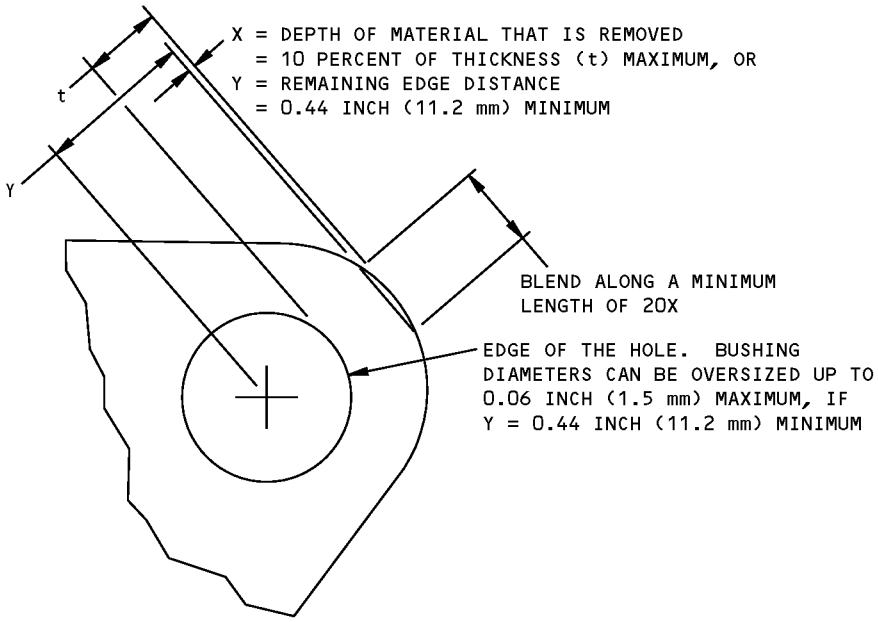


CROSS SECTION OF LOWER DOOR GATE
DETAIL XII

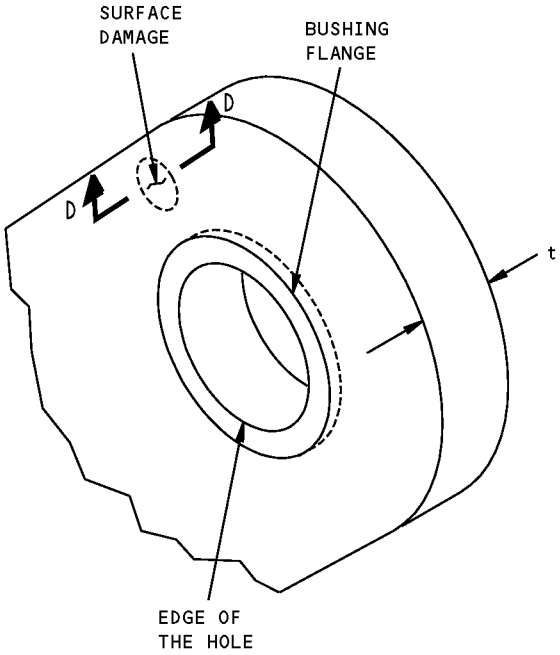


SECTION C-C

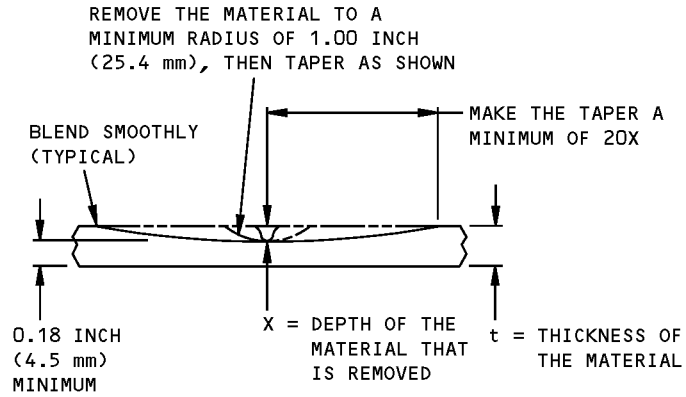
Entry Door Structure Allowable Damage
Figure 101 (Sheet 7 of 8)



DAMAGE CLEANUP FOR EDGES OF UPPER GATE LUG
DETAIL XIII



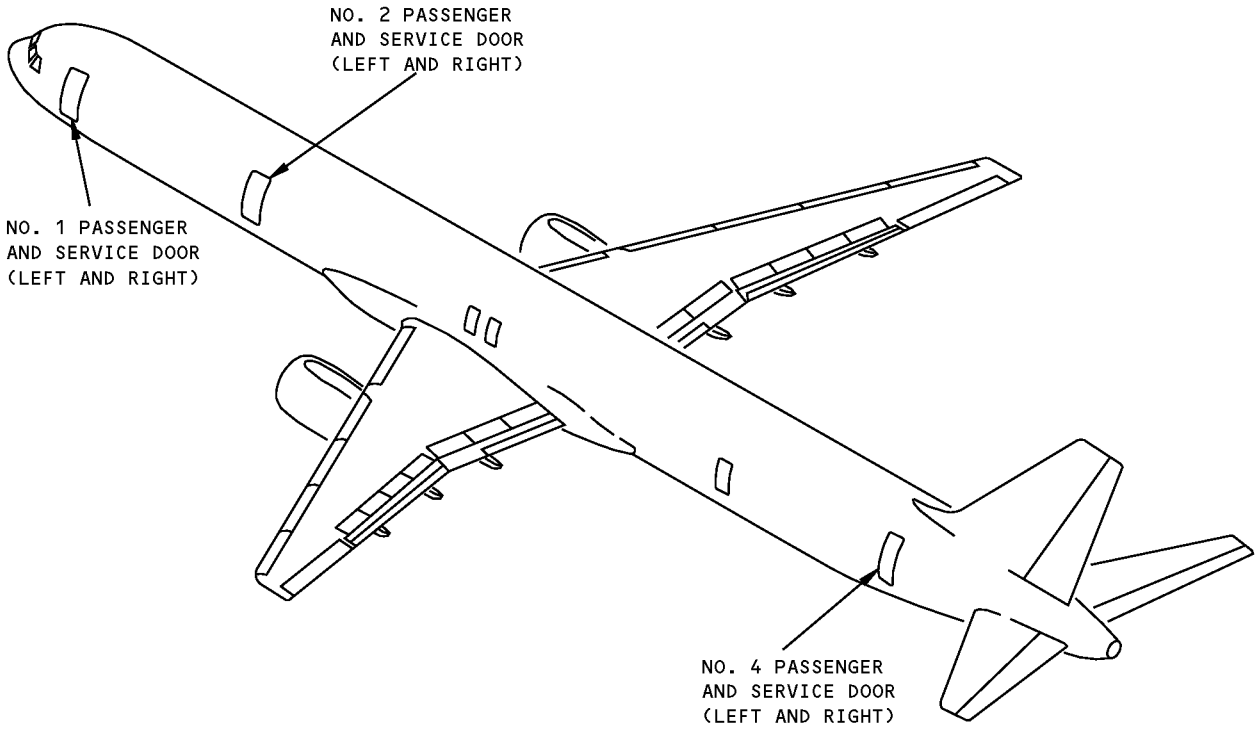
DAMAGE CLEANUP FOR SURFACES
OF UPPER GATE LUG
DETAIL XIV



D–D

Entry Door Structure Allowable Damage
Figure 101 (Sheet 8 of 8)

REPAIR GENERAL - ENTRY DOOR STRUCTURE

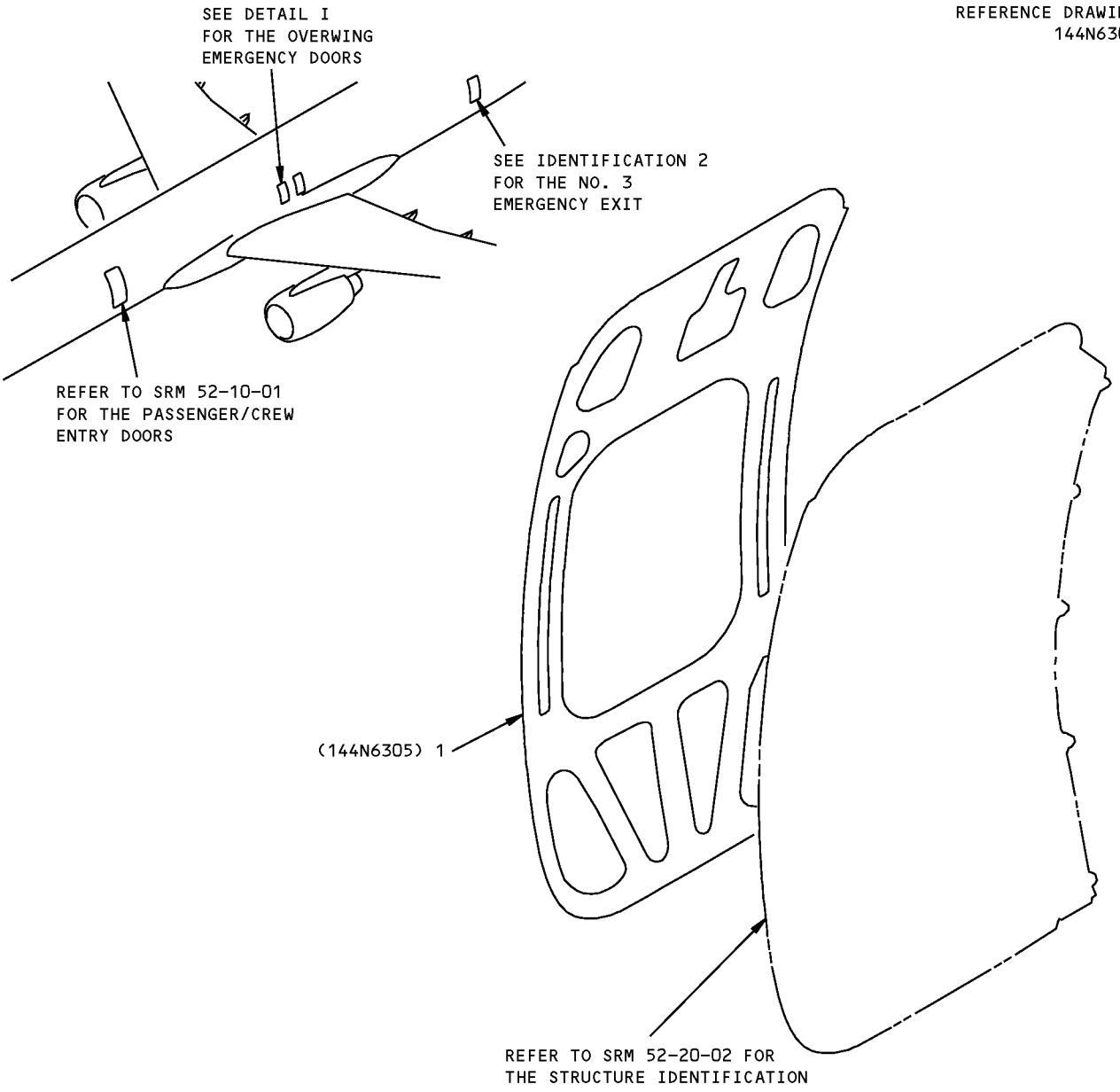


NOTES

- DAMAGED COMPONENTS IN THE DOOR STRUCTURE MAY BE REPLACED OR REPAIRED. IF REPAIRS ARE TO BE MADE, REFER TO SRM 51-70 FOR TYPICAL WEB, FORMED SECTION, OR EXTRUDED SECTION REPAIRS

Passenger and Service Door Structure Repairs
Figure 201

IDENTIFICATION 1 - OVERWING EMERGENCY EXIT SKIN



DETAIL I

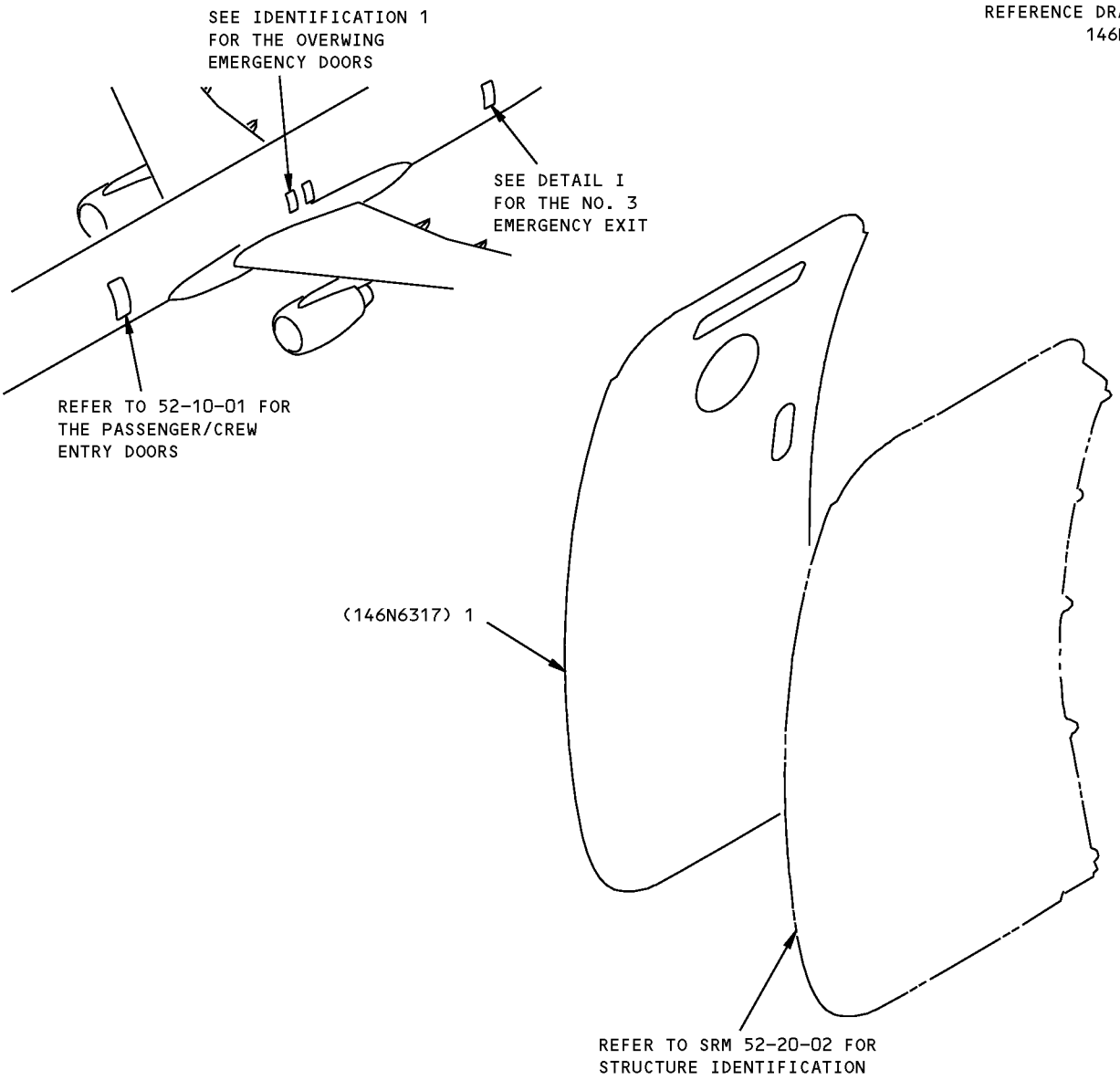
ITEM	DESCRIPTION	GAGE	MATERIAL	EFFECTIVITY
1	OUTER SKIN	0.063	CLAD 2024-T3 (CHEM-MILLED TO 0.040 MIN)	

LIST OF MATERIALS

Overwing Emergency Exit Skin Identification
Figure 1

IDENTIFICATION 2 - NO. 3 EMERGENCY EXIT DOOR SKIN

REFERENCE DRAWING
146N6300



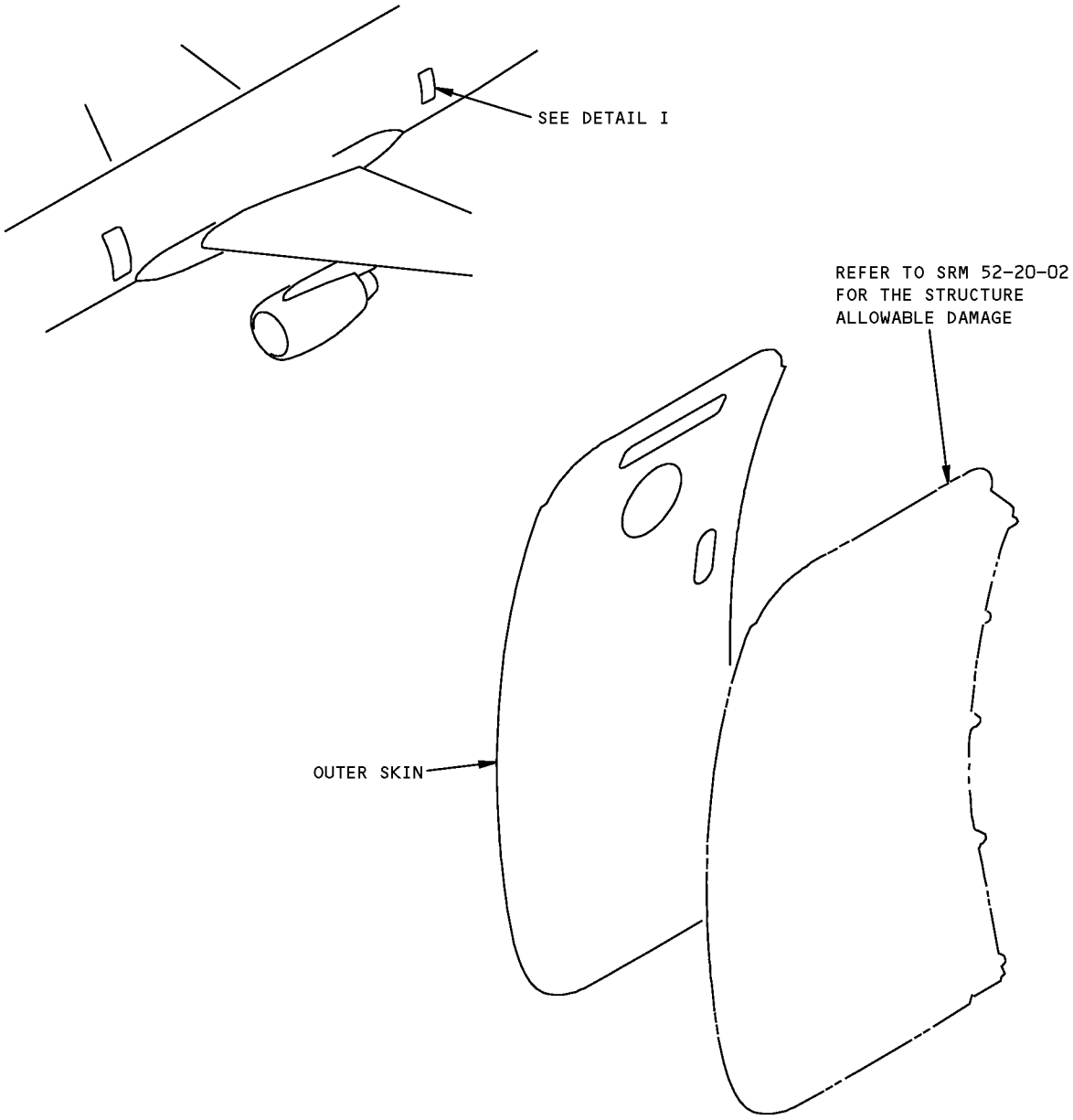
DETAIL I

ITEM	DESCRIPTION	GAGE	MATERIAL	EFFECTIVITY
1	OUTER SKIN	0.063	CLAD 2024-T3 (CHEM-MILLED TO 0.040 MIN)	

LIST OF MATERIALS FOR DETAIL I

No. 3 Emergency Exit Door Skin Identification
Figure 1

ALLOWABLE DAMAGE 1 - EMERGENCY EXIT DOOR SKIN



DETAIL I

DESCRIPTION	CRACKS	NICKS, GOUGES AND CORROSION	DENTS	HOLES AND PUNCTURES
OUTER SKIN	A D	B D	SEE DETAIL IV	C D

Emergency Exit Door Skin Allowable Damage
Figure 101 (Sheet 1 of 3)

NOTES

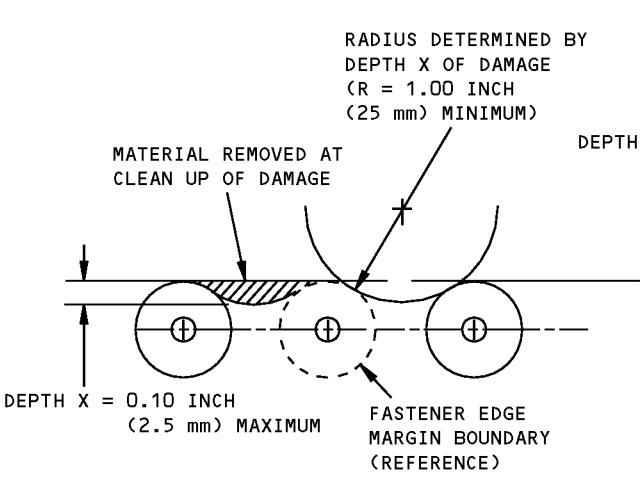
- REFINISH THE REWORKED AREAS AS SHOWN IN AMM 51-20
- REFER TO SRM 51-10-01 FOR AERODYNAMIC SMOOTHNESS REQUIREMENTS. WHERE THE DAMAGE IS MORE THAN THE LIMITS AS SHOWN IN SRM 51-10-01, CONSIDERATION SHOULD BE GIVEN TO THE LOSS OF PERFORMANCE INVOLVED

[A] CRACKS ARE NOT PERMITTED EXCEPT FOR EDGE CRACKS WHICH MUST BE REMOVED AS SHOWN IN DETAILS II AND VI.

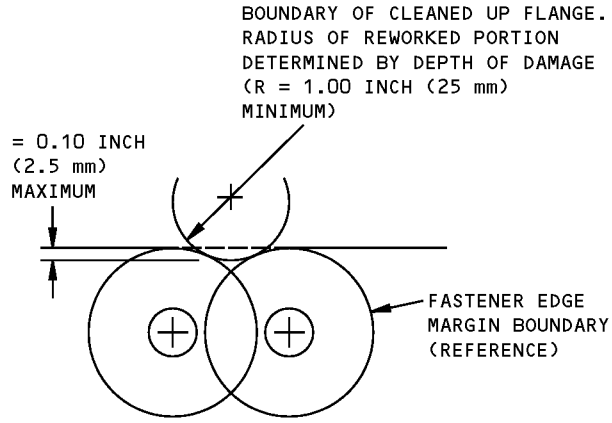
[B] REMOVE DAMAGE AS SHOWN IN DETAILS II, III, V AND VI.

[C] CLEAN OUT DAMAGE UP TO 0.25 INCH (6 mm) MAXIMUM DIAMETER AND NOT CLOSER THAN 1.0 INCH (25 mm) TO FASTENER HOLE, MATERIAL EDGE, OR OTHER DAMAGE. FILL HOLE WITH 2117-T3 OR T4 ALUMINUM RIVET INSTALLED WET WITH BMS 5-95 SEALANT. ALL OTHER HOLES TO BE REPAIRED.

[D] REFER TO ALLOWABLE DAMAGE 2 FOR THE EMERGENCY EXIT DOOR SKIN OPERATING LIMITS AFTER DAMAGE HAS BEEN REMOVED.

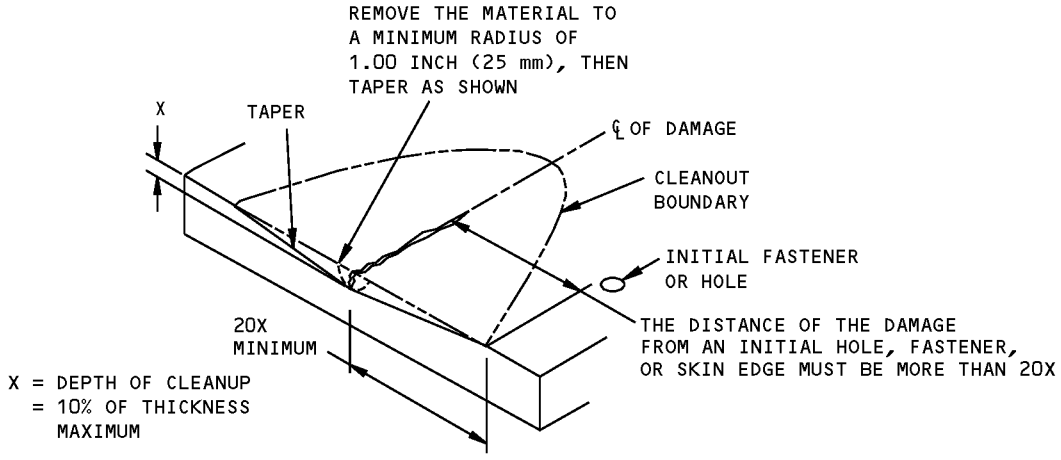


DAMAGE CLEAN UP OF EDGES WHERE FASTENER EDGE MARGINS DO NOT OVERLAP



DAMAGE CLEAN UP OF EDGES WHERE FASTENER EDGE MARGINS OVERLAP

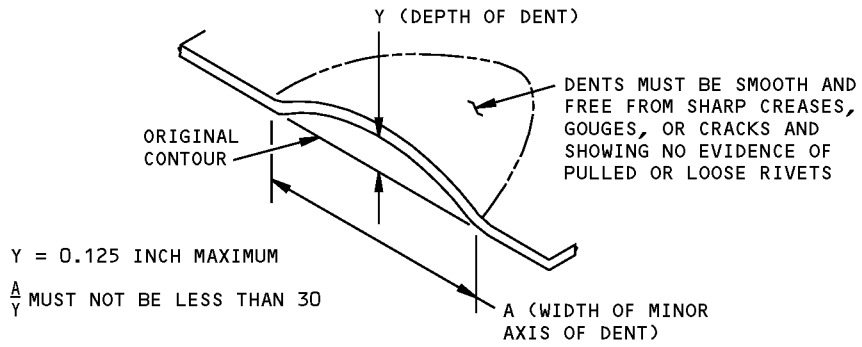
DETAIL II



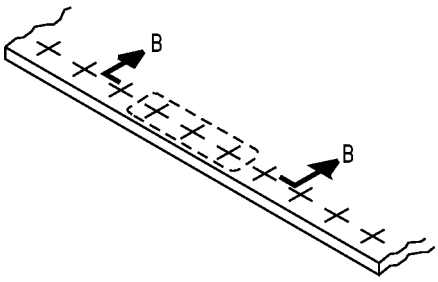
REMOVAL OF NICK, GOUGE, CORROSION, AND SCRATCH DAMAGE ON A SURFACE

DETAIL III

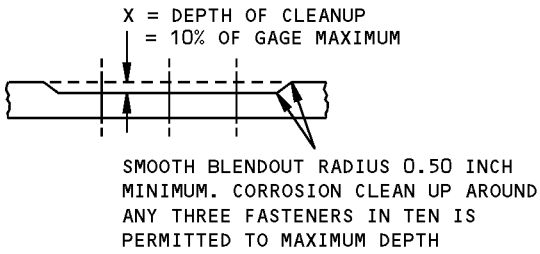
Emergency Exit Door Skin Allowable Damage
Figure 101 (Sheet 2 of 3)



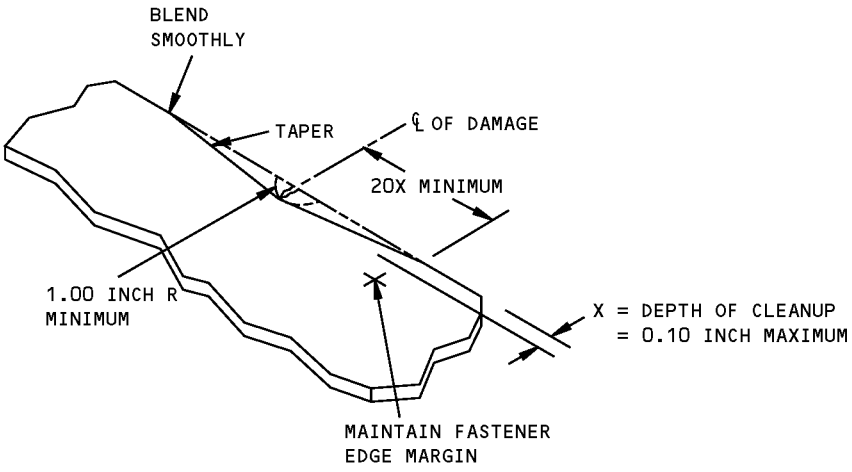
ALLOWABLE DAMAGE FOR DENT
DETAIL IV



CORROSION CLEAN UP
DETAIL V



SECTION B-B

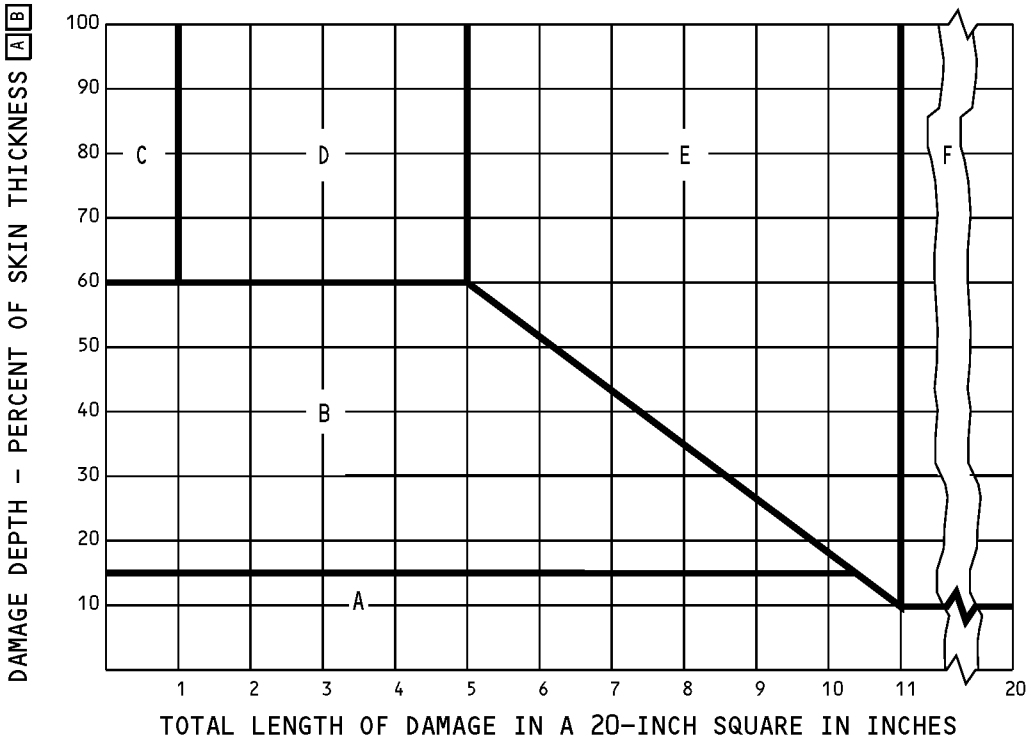


REMOVAL OF NICK OR CRACK
DAMAGE ON AN EDGE

DETAIL VI

Emergency Exit Door Skin Allowable Damage
Figure 101 (Sheet 3 of 3)

ALLOWABLE DAMAGE 2 - OPERATING LIMITS FOR EMERGENCY EXIT DOOR SKIN



NOTES

[A] SKIN THICKNESS DOES NOT INCLUDE THE THICKNESS OF THE DOUBLERS, TRIPLERS, OR STRAPS.

[B] DAMAGE INCLUDES HOLES, PUNCTURES, NICKS, GOUGES, SCRATCHES, CORROSION AND CRACKS.

DAMAGE DOES NOT INCLUDE DENTS.

[C] CABIN PRESSURE LIMITS ARE FOR SKIN DAMAGE TO THE PRESSURIZED FUSELAGE SKIN ONLY.

Operating Limits for Emergency Exit Door Skin
Figure 101 (Sheet 1 of 2)

CHART AREA	DAMAGE TREATMENT	ALLOWABLE AIRPLANE OPERATIONS
A	CLEAN UP AS SHOWN IN ALLOWABLE DAMAGE 1.	NO FLIGHT RESTRICTIONS.
B	CLEAN UP AS SHOWN IN ALLOWABLE DAMAGE 1 TO DAMAGE DEPTH.	LIMITED TO 50 HOURS OF FLIGHT OR 25 FLIGHTS, WHICHEVER COMES FIRST (INCLUDING REVENUE FLIGHTS).
	DO AN APPLICABLE REPAIR AS GIVEN IN SRM 52-20-01.	REFER TO THE APPLICABLE REPAIR FOR THE LIMITS.
C	CLEAN UP AS SHOWN IN ALLOWABLE DAMAGE 1 TO DAMAGE DEPTH. STOP DRILL 0.25 INCH (6 mm) DIAMETER HOLES AT THE ENDS OF THE CRACKS.	A NON-REVENUE FLIGHT TO A REPAIR STATION IS PERMITTED IF THE APPLICABLE REGULATORY AUTHORITY GIVES APPROVAL BEFORE THE FLIGHT. IT IS RECOMMENDED THAT THE PROPOSED REPAIR PROCEDURE BE GIVEN TO BOEING. THE MAXIMUM CABIN PRESSURE DIFFERENTIAL [C] IS LIMITED TO 6.0 PSIG UNLESS THE SKIN IS REPAIRED.
	DO AN APPLICABLE REPAIR AS GIVEN IN SRM 52-20-01.	REFER TO THE APPLICABLE REPAIR FOR THE LIMITS.
D	CLEAN UP AS SHOWN IN ALLOWABLE DAMAGE 1 TO DAMAGE DEPTH. STOP DRILL 0.25 INCH (6 mm) DIAMETER HOLES AT THE ENDS OF THE CRACKS.	A NON-REVENUE FLIGHT TO A REPAIR STATION IS PERMITTED IF THE APPLICABLE REGULATORY AUTHORITY GIVES APPROVAL BEFORE THE FLIGHT. IT IS RECOMMENDED THAT THE PROPOSED REPAIR PROCEDURE BE GIVEN TO BOEING. THE MAXIMUM CABIN PRESSURE DIFFERENTIAL [C] IS LIMITED TO 6.0 PSIG UNLESS THE SKIN IS REPAIRED.
	DO AN APPLICABLE REPAIR AS GIVEN IN SRM 52-20-01.	REFER TO THE APPLICABLE REPAIR FOR THE LIMITS.
E	CLEAN UP AS SHOWN IN ALLOWABLE DAMAGE 1 TO DAMAGE DEPTH. STOP DRILL 0.25 INCH (6 mm) DIAMETER HOLES AT THE ENDS OF THE CRACKS.	A NON-REVENUE FLIGHT TO A REPAIR STATION IS PERMITTED IF THE APPLICABLE REGULATORY AUTHORITY GIVES APPROVAL BEFORE THE FLIGHT. IT IS RECOMMENDED THAT THE PROPOSED REPAIR PROCEDURE BE GIVEN TO BOEING. THE MAXIMUM CABIN PRESSURE DIFFERENTIAL [C] IS LIMITED TO ZERO PSIG.
	DO APPLICABLE REPAIR AS GIVEN IN SRM 52-20-01.	REFER TO THE APPLICABLE REPAIR FOR THE LIMITS.
F	CLEAN UP AS SHOWN IN ALLOWABLE DAMAGE 1 TO DAMAGE DEPTH. STOP DRILL 0.25 INCH (6 mm) DIAMETER HOLES AT THE ENDS OF THE CRACKS.	OPERATION IS NOT PERMITTED BEFORE BOEING AND THE APPLICABLE REGULATORY AUTHORITY GIVES APPROVAL.
	DO APPLICABLE REPAIR AS GIVEN IN SRM 52-20-01.	REFER TO THE APPLICABLE REPAIR FOR THE LIMITS.

LIMITS FOR CORROSION, CRACKS, NICKS, GOUGES, AND HOLE DAMAGE

Operating Limits for Emergency Exit Door Skin
Figure 101 (Sheet 2 of 2)

REPAIR 1 - EMERGENCY EXIT DOOR SKIN - FLUSH REPAIR BETWEEN STIFFENERS

REPAIR INSTRUCTIONS

1. Remove the inner skin panel and outer skin stiffeners for access as required.

2. Clean out the damage to the skin in a rectangular shape with a minimum of 0.50 radius at the corners. The cutout should be parallel to the centerline of the adjacent stiffener.

3. Fabricate repair parts.

4. Assemble repair parts in installed positions and drill fastener holes.

5. Remove repair parts.

6. Break sharp edges of original and repair parts 0.015 to 0.030.

7. Remove all nicks, scratches, burrs, sharp edges and corners from original and repair parts.

8. Alodize all raw edges of existing parts and all surfaces and edges of new parts per 51-20-01.

9. Apply one coat of BMS 10-11, type 1 primer per 51-24 of the 757 Maintenance Manual to inner surface of part 1, and to edges of existing skin, and to all surfaces and edges of remaining new parts and shims.

10. Install the repair parts with the fasteners wet with BMS 5-95 sealant and making faying surface seals between all parts in accordance with 51-20-05. If necessary, install 1/32 oversize fasteners in existing fastener locations. A bead of sealant should be apparent all around repair parts after installation. Where there is sufficient sealant squeezed out, it may be formed into a fillet, otherwise an additional fillet seal should be applied.

11. Reinstall inner skin panel.

12. Apply BMS 5-95 sealant in the gap between the filler, part 1, and the skin.

13. Refinish according to 51-20 of the 757 Maintenance Manual.

NOTES

- REFER TO THE FOLLOWING WHEN USING THIS REPAIR:

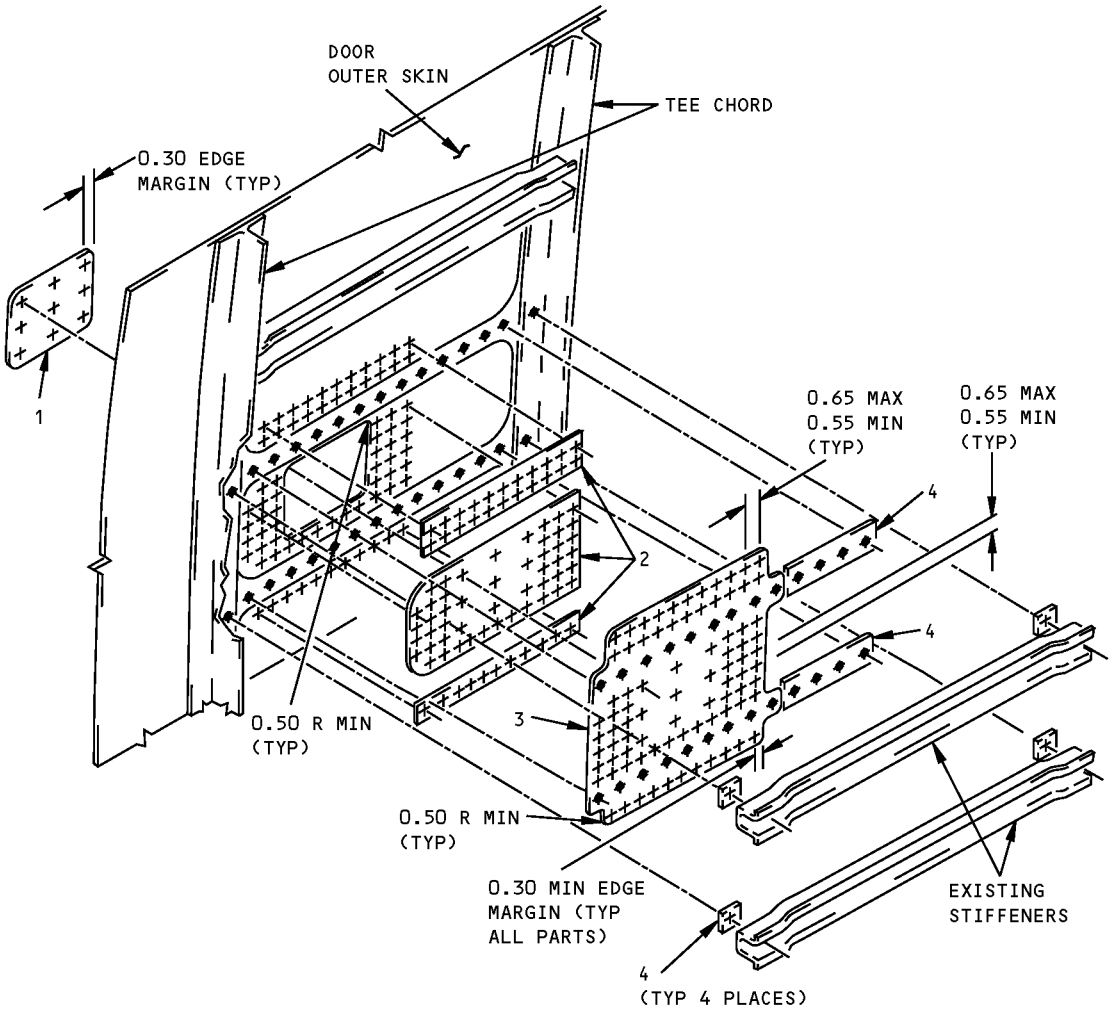
  51-10-01 FOR AERODYNAMIC SMOOTHNESS REQUIREMENTS

  51-31 OF THE 757 MAINTENANCE MANUAL FOR SEALS AND SEALING

  51-40 FOR FASTENER CODE, REMOVAL, INSTALLATION, HOLE SIZES AND EDGE MARGINS

[A] THE ORIGINAL COUNTERSINK DEPTH FOR BACR15CE RIVETS MUST BE MAINTAINED. WHERE OVERSIZE RIVETS ARE INSTALLED, THE PROTRUDING PORTION OF THE RIVET HEADS MUST BE SHAVED OFF PER 51-10-01

Emergency Exit Door Skin - Flush Repair Between Stiffeners
Figure 201 (Sheet 1 of 3)

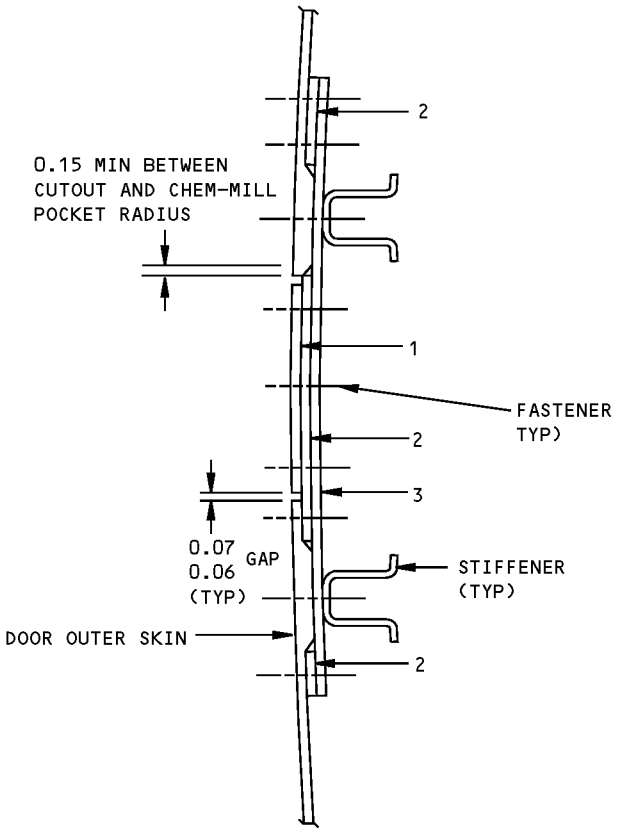


FASTENER SYMBOLS

BACR15CE5D [A]

BACR15CE4D

Emergency Exit Door Skin - Flush Repair Between Stiffeners
Figure 201 (Sheet 2 of 3)



SECTION THRU REPAIR

REPAIR MATERIAL				
PART		QTY	GAGE	MATERIAL
1	FILLER	1	0.040	CLAD 2024-T3
2	SHIM	AS REQ'D	0.020 OR 0.025	CLAD 2024-T3
3	PLATE	1	0.050	CLAD 2024-T3
4	SHIM	AS REQ'D	0.050	CLAD 2024-T3

Emergency Exit Door Skin - Flush Repair Between Stiffeners
Figure 201 (Sheet 3 of 3)

REPAIR 2 - EMERGENCY EXIT DOOR SKIN - FLUSH REPAIR AT STIFFENER

REPAIR INSTRUCTIONS

1. Remove inner skin panel for access to the damaged area.
2. Remove stiffener from damaged area.
3. Clean out damage to skin to a rectangular shape parallel to the stiffener, with a minimum corner radius of 0.50 inch. The skin cutout must be in the .040 chem-milled area and at least 0.20 from chem-mill radius.
4. Make repair parts.

   NOTE: Since the door outer skin is chem-milled, .020 or .025 shims must be used as required to fill the chem-mill pockets between the repair plate and door skin. All shims are to be 2024-T3.
5. Assemble repair parts and drill the fastener holes in original and new locations.
6. Remove repair parts.
7. Break sharp edges of original and repair parts .015 to .030.
8. Remove all nicks, scratches, burrs, sharp edges and corners from original and repair parts.
9. Alodize raw edges of original parts and all surfaces and edges of repair parts per 51-20-01.
10. Apply one coat of BMS 10-11, type I, primer to all of part 1 and to the raw edges and inner surface of part 2 in accordance with 51-21-00 of the 757 Maintenance Manual.
11. Install the repair parts and fasteners with BMS 5-95 sealant making faying surface seals between all parts in accordance with 51-20-05. A bead of sealant should be apparent all around repair parts after installation. Where there is sufficient sealant squeezed out it may be formed into a fillet, otherwise an additional fillet seal should be applied.
12. Apply BMS 5-95 sealant in the gap between the filler, part 2, and the skin.
13. Replace inner skin panel.
14. Restore surface finish in accordance with 51-21 of the 757 Maintenance Manual.

NOTES

- REFER TO THE FOLLOWING WHEN USING THIS REPAIR:

  51-20-01 FOR PROTECTIVE TREATMENT OF METAL

  51-20-05 FOR SEALING OF REPAIRS

  51-40 FOR FASTENER CODE, REMOVAL, INSTALLATION, HOLE SIZES AND EDGE MARGINS

  51-10-01 FOR AERODYNAMIC SMOOTHNESS REQUIREMENTS

  51-21 OF THE 757 MAINTENANCE MANUAL FOR INTERIOR AND EXTERIOR FINISHES

  51-31 OF THE 757 MAINTENANCE MANUAL FOR SEALS AND SEALING

[A] WHEN OVERSIZE FLUSH HEAD FASTENERS ARE INSTALLED, THE ORIGINAL COUNTERSUNK DEPTH FOR THE BACR15CE RIVETS REMOVED MUST BE MAINTAINED AND THE EXCESS PORTION OF THE REPAIR RIVET HEADS SHAVED OFF AFTER INSTALLATION PER 51-10-01

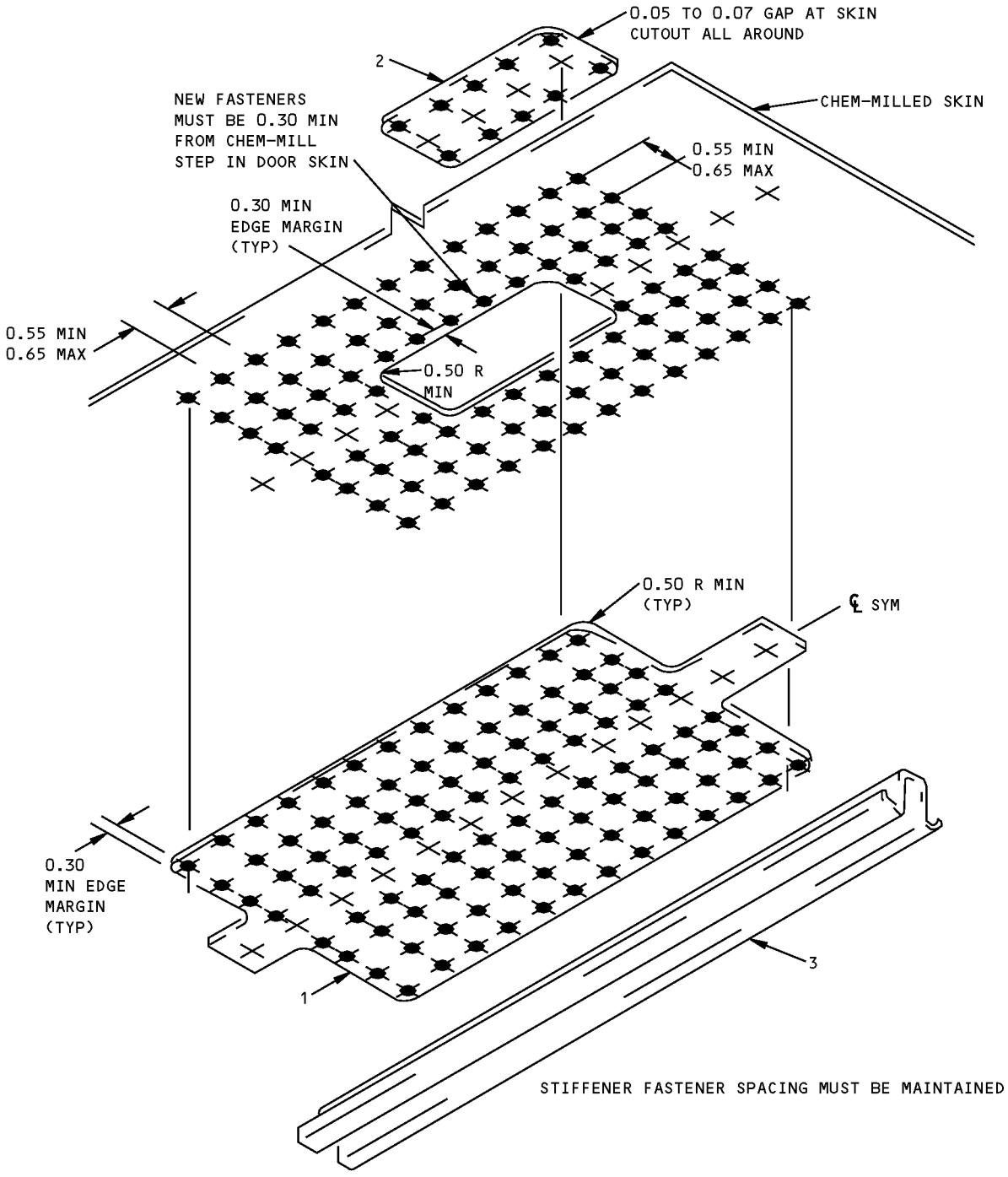
FASTENER SYMBOLS

⌖ BACR15CE4D

┼ BACR15CE5D [A]

REPAIR MATERIAL				
PART		QTY	GAGE	MATERIAL
1	PLATE	1	0.063	2024-T3
2	FILLER	1	0.063	2024-T3
3	STIFFENER	1		BAC1498-212 2024-T42 OR EQUIVALENT

Emergency Exit Door Skin - Flush Repair at Stiffener
Figure 201 (Sheet 1 of 2)



Emergency Exit Door Skin - Flush Repair at Stiffener
Figure 201 (Sheet 2 of 2)

REPAIR 3 - SMALL HOLE FLUSH REPAIR - EMERGENCY EXIT DOOR SKIN

REPAIR INSTRUCTIONS

1. Clean out the damaged hole to 1-inch (25 mm) diameter maximum. The center of the hole to an edge or cutout must not be less than 1/2 of dimension A from Table I.
2. Fabricate repair parts 1 and 2.
3. Break sharp edges of original and repair parts 0.015 to 0.030 INCH (0.4 to o.8 mm).
4. Remove all nicks, scratches, burrs, sharp edges and corners from original and repair parts.
5. Apply protective alodine to raw surfaces and edges of repair and original parts per SRM 51-20-01.
6. Apply one coat of BMS 10-11, Type 1, primer to all of part 1 and to the raw edges and inner surface of part 2 in accordance with AMM 51-24.
7. Install the repair parts, making faying surface seals between all parts in accordance with SRM 51-20-05. A bead of sealant should be apparent all around repair parts after installation. Where there is sufficient sealant squeezed out it may be formed into a fillet, otherwise an additional fillet seal should be applied.
8. Apply BMS 5-95 sealant in the gap between the filler, part 1, and the skin.
9. Replace inner skin panel.
10. Restore surface finish in accordance with AMM 51-21.

NOTES

- NOT TO BE USED IN AREAS WITH DOUBLERS
- REFER TO THE FOLLOWING WHEN USING THIS REPAIR

  SRM 51-21 OF THE 757 MAINTENANCE MANUAL FOR INTERIOR AND EXTERIOR FINISHES

  SRM 51-10-01 FOR AERODYNAMIC SMOOTHNESS REQUIREMENTS

  SRM 51-10-02 FOR INSPECTION AND REMOVAL OF DAMAGE

  SRM 51-20-01 FOR PROTECTIVE TREATMENT OF METAL

  SRM 51-20-05 FOR SEALING OF REPAIRS

  SRM 51-40 FOR FASTENER, REMOVAL, INSTALLATION, HOLE SIZES AND EDGE MARGINS
- WHERE THIS REPAIR IS BEING USED IN A MACHINED OR CHEM-MILLED SKIN, SHIMS MAY BE USED BETWEEN DOUBLER AND SKIN TO MAKE UP VARIATIONS IN THICKNESS

SYMBOLS

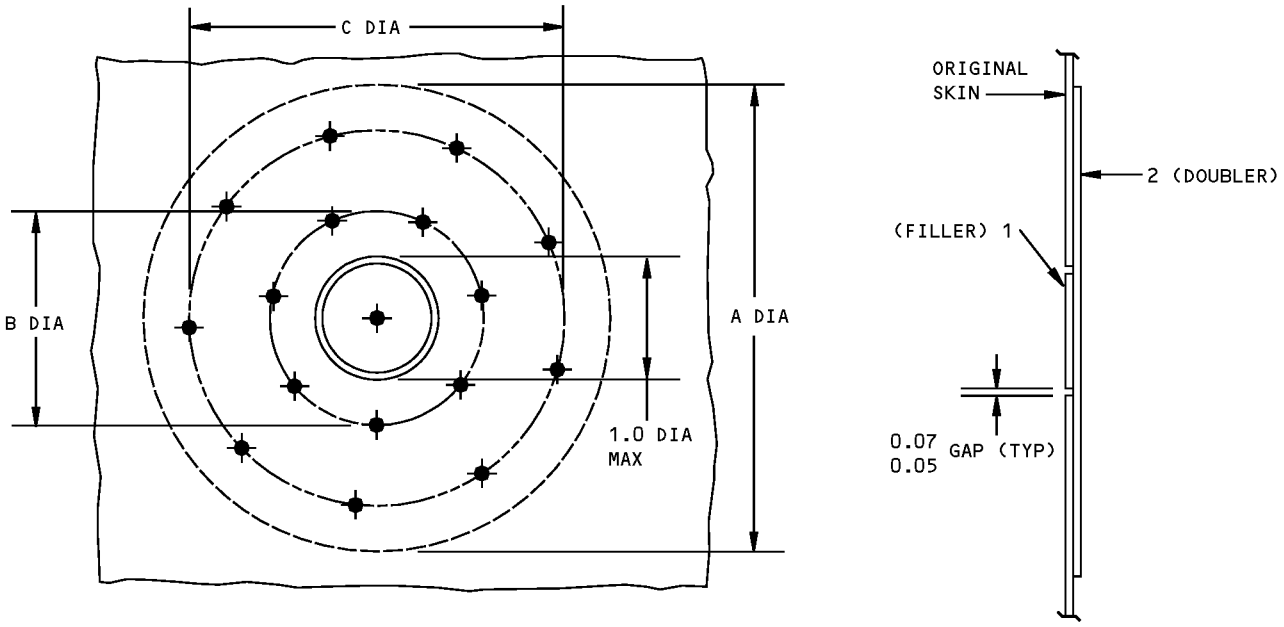
REPAIR FASTENER LOCATION
BACR15CE( )KE RIVET
SEE TABLE 1 FOR SIZE AND NUMBER REQUIRED

REPAIR MATERIAL			
PART		QTY	MATERIAL
1	FILLER	1	SAME MATERIAL AND GAGE AS ORIGINAL SKIN
2	DOUBLER	1	SAME MATERIAL AS ORIGINAL SKIN. FOR GAGE SEE TABLE 1

Small Hole Flush Repair - Emergency Exit Door Skin
Figure 201 (Sheet 1 of 2)

SKIN GAGE	PART 2 DOUBLER GAGE	A INCHES	B INCHES	C INCHES	INNER RIVET CIRCLE		OUTER RIVET CIRCLE	
					NUMBER	SIZE	NUMBER	SIZE
0.040	0.050	3.80	1.70	3.10	7	5/32	9	5/32
0.045	0.056	3.80	1.70	3.10	7	5/32	9	5/32
0.050	0.063	4.30	1.80	3.50	6	3/16	9	3/16
0.063	0.071	4.30	1.80	3.50	6	3/16	9	3/16

TABLE I



PLAN VIEW

SECTION THROUGH REPAIR

Small Hole Flush Repair - Emergency Exit Door Skin
Figure 201 (Sheet 2 of 2)

REPAIR 4 - SMALL HOLE EXTERNAL REPAIR - EMERGENCY EXIT DOOR SKIN

REPAIR INSTRUCTIONS

1. Clean out the damaged hole to 1-inch diameter maximum. The center of the hole to an edge or cutout must not be less than 4D.
2. Fabricate repair parts from material specified in Table I.
3. Break sharp edges of original and repair parts 0.015 to 0.030.
4. Remove all nicks, scratches, burrs, sharp edges and corners from original and repair parts.
5. Apply protective alodine coating to raw surfaces and edges of existing parts and repair parts per 51-20-01.
6. Apply one coat of BMS 10-11, type I primer in accordance with 51-21-00 of the 757 Maintenance Manual to all surfaces of parts 2 and 3 and to faying surface of part 1.
7. Install repair parts. Seal per 51-20-05.
8. Restore surface finish in accordance with 51-21-00 of the 757 Maintenance Manual.

NOTES

- REFER TO THE FOLLOWING WHEN USING THIS REPAIR:

  51-10-01 FOR AERODYNAMIC SMOOTHNESS REQUIREMENTS

  51-20-01 FOR PROTECTIVE TREATMENT OF METALS

  51-20-05 FOR SEALING OF REPAIRS

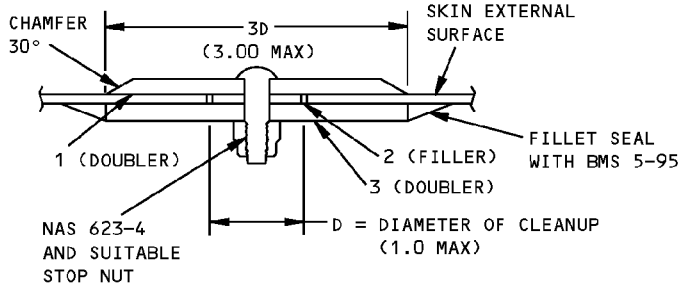
  51-21 OF 757 MAINTENANCE MANUAL FOR FINISHES

  51-40 FOR FASTENER CODE, REMOVAL, INSTALLATION, HOLE SIZES AND EDGE MARGINS

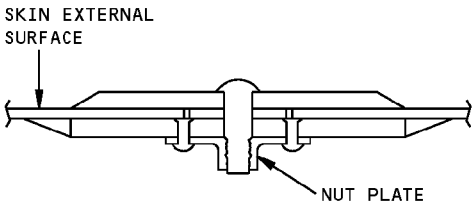
- THIS REPAIR IS NOT TO BE USED IN AREAS WITH DOUBLERS. THE AREA UNDER REPAIR PART 1 MUST NOT HAVE ANY FASTENERS, AND THE SKIN GAGE MUST BE CONSTANT

REPAIR MATERIAL			
PART		QTY	MATERIAL
1	DOUBLER	1	2024-T3 TWICE SKIN GAGE
2	FILLER	1	2024-T3 SAME GAGE AS SKIN
3	DOUBLER	1	2024-T3 TWICE SKIN GAGE

TABLE I



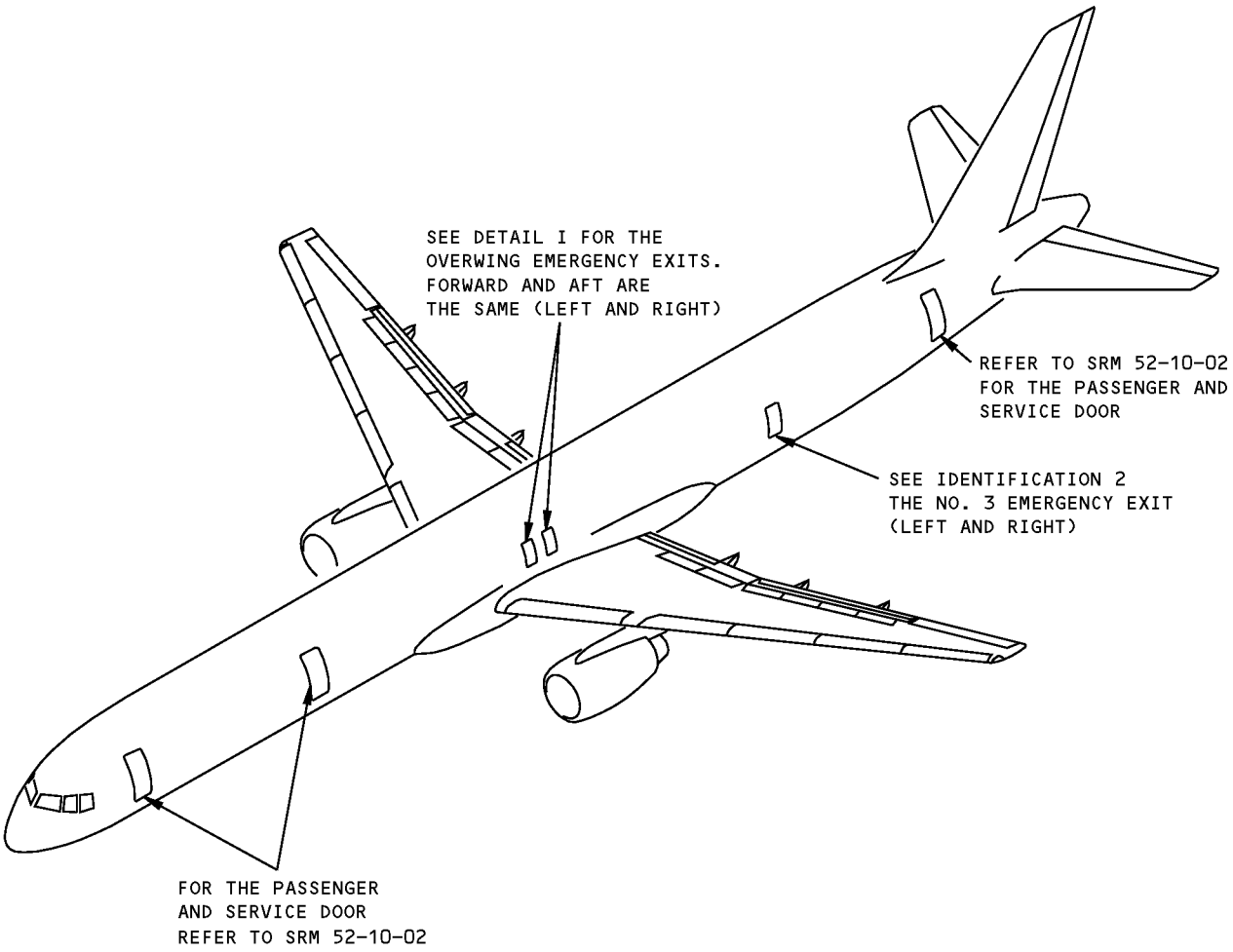
PREFERRED METHOD



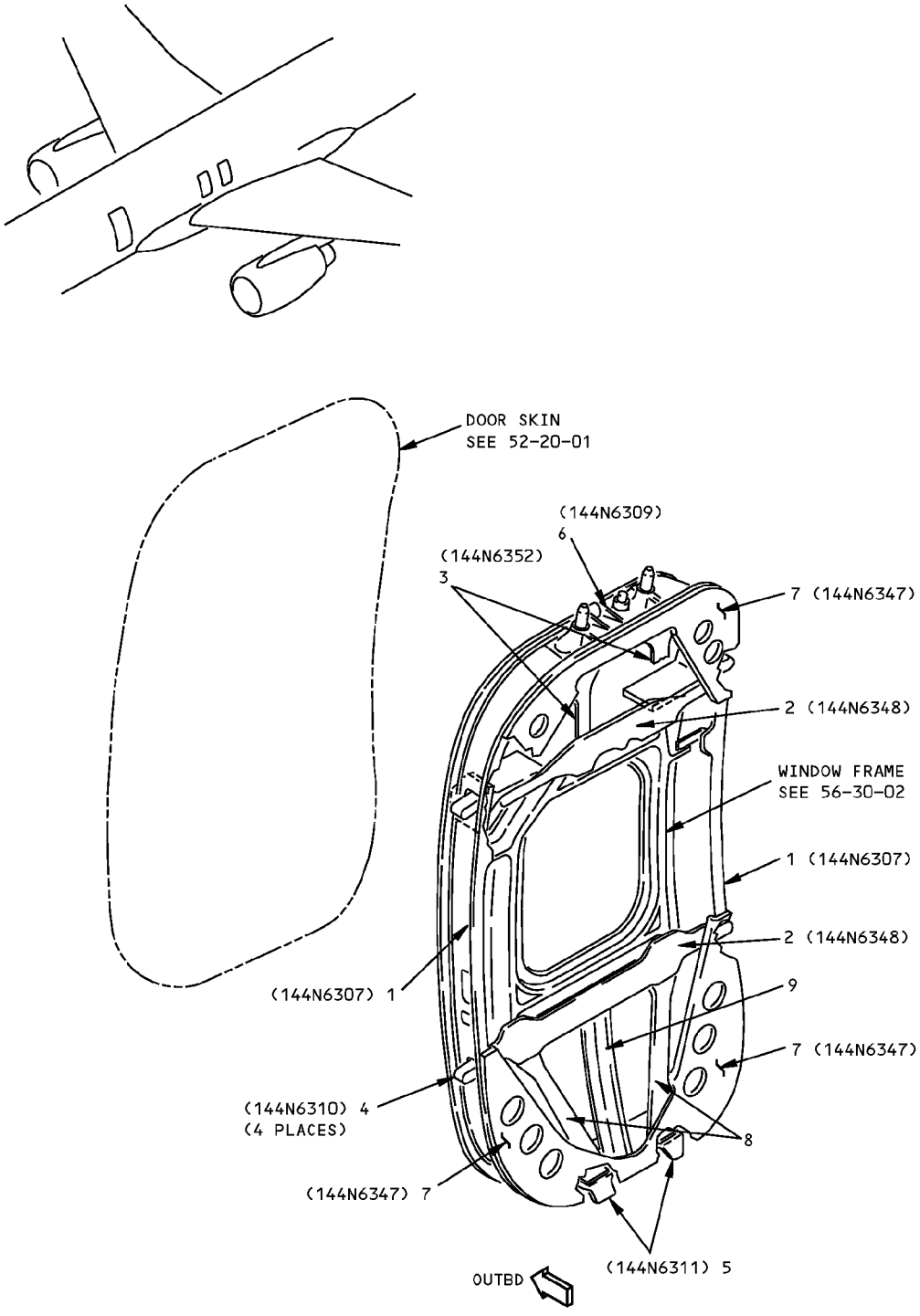
OPTIONAL METHOD

Small Hole External Repair - Emergency Exit Door Skin
Figure 201

IDENTIFICATION 1 - OVERWING EMERGENCY EXIT STRUCTURE



Overwing Emergency Exit Structure
Figure 1 (Sheet 1 of 3)



DETAIL I

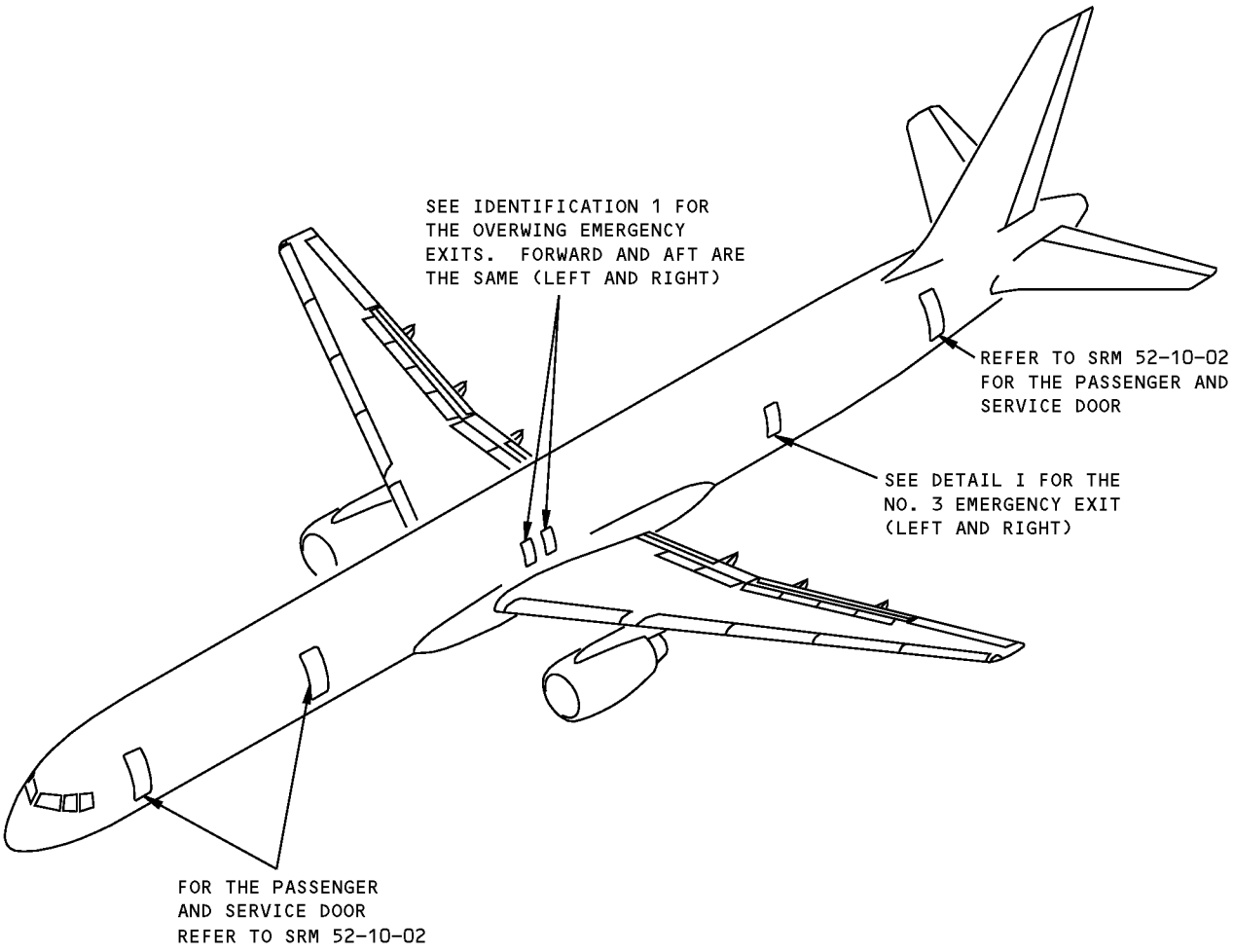
Overwing Emergency Exit Structure
Figure 1 (Sheet 2 of 3)

ITEM	DESCRIPTION	GAGE	MATERIAL	EFFECTIVITY
1	EDGE BEAM	0.071	2024-T42	
2	STOP BEAM		BAC1518-887 2024-T42	
3	INTERCOSTAL			
	TEE		BAC1505-100881 2024-T3511	
	WEB	0.063	2024-T42	
4	STOP FITTING		7075-T73 FORGING OR 7075-T73 FORGED BLOCK	
5	PIVOT FITTING		7075-T73 FORGING OR	
		1.25	7075-T7351 PLATE	
6	LATCH PIN FITTING		FORGING 7075-T73 OR FORGED BLOCK 7075-T73	
7	GUSSET	0.063	7075-T6	
8	INTERCOSTAL			
	OUTER TEE		BAC1505-100818 2024-T3511 OR 7075-T3511	
	INNER TEE		BAC1505-100881 2024-T3511 OR 7075-T3511	
	WEB	0.063	2024-T42	
9	ZEE		BAC1517-130 2024-T42 OR 2024-T4	

LIST OF MATERIALS FOR DETAIL I

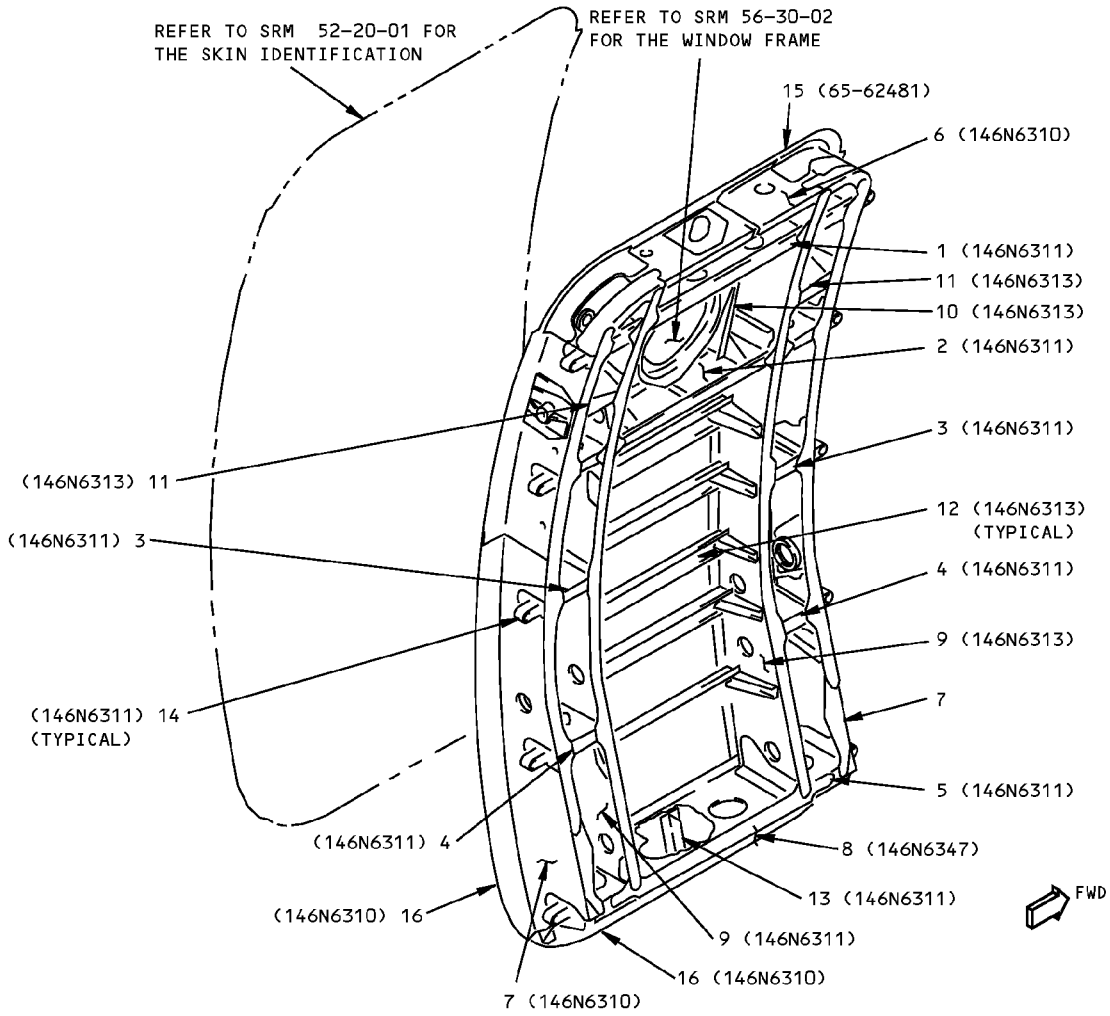
Overwing Emergency Exit Structure
Figure 1 (Sheet 3 of 3)

IDENTIFICATION 2 - N0. 3 EMERGENCY EXIT STRUCTURE



N0. 3 Emergency Exit Structure
Figure 1 (Sheet 1 of 3)

REFERENCE DRAWING
146N6300



DETAIL I

ITEM	DESCRIPTION	GAGE	MATERIAL	EFFECTIVITY
1	BEAM			
	OUTER CHORD	0.063	CLAD 2024-T42	
	INNER CHORD		BAC1506-1920 7075-T73511	
	WEB	0.056	CLAD 7075-T6	
	SUPPORT FITTING		BAR 7075-T7351	
2	BEAM			
	OUTER CHORD		BAC1506-1614 2024-T42	
	INNER CHORD	0.063	CLAD 7075-T6	
	WEB	0.063	CLAD 7075-T6	

LIST OF MATERIALS

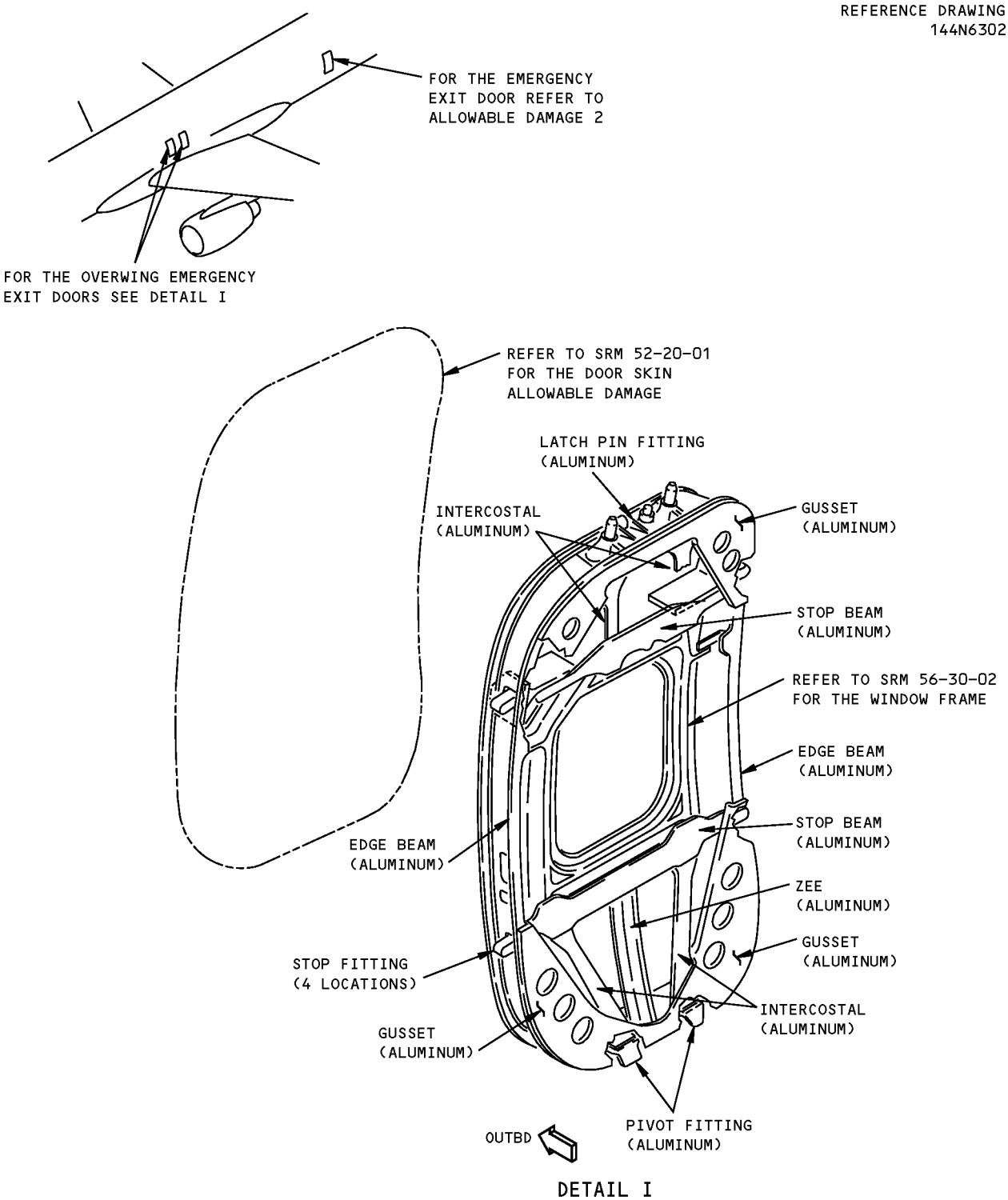
N0. 3 Emergency Exit Structure
Figure 1 (Sheet 2 of 3)

ITEM	DESCRIPTION	GAGE	MATERIAL	EFFECTIVITY
3	BEAM			
	OUTER CHORD		BAC1505-100543 2024-T42	
	WEB	0.050	CLAD 7075-T6	
4	BEAM			
	OUTER CHORD		BAC1506-1401 2024-T42	
	WEB	0.050	CLAD 7075-T6	
5	BEAM			
	OUTER CHORD		BAC1506-1920 2024-T42	
	WEB	0.056	CLAD 2024-T42	
	ANGLE (2 LOCATIONS)	0.071	2024-T42	
6	UPPER FRAME			
	FRAME	0.071	7075-T6	
	CHANNEL	0.071	7075-T6	
	ANGLE	0.071	7075-T6	
7	SIDE FRAME			
	FRAME	0.071	7075-T6	
	STRAP (2 LOCATIONS)	0.063	CLAD 7075-T6	
8	LOWER FRAME			
	WEB	0.063	CLAD 2024-T42	
	ANGLE	0.063	CLAD 2024-T42	
	BRACKET (2 LOCATIONS)	0.050	CLAD 7075-T6	
9	INTERCOSTAL			
	UPPER WEB	0.050	CLAD 7075-T6	
	LOWER WEB	0.050	CLAD 7075-T6	
	CHORD		BAC1505-100052 2024-T42	
	STIFFENER		BAC1505-100350 2024-T3511	
	ANGLE		BAC1490-2735 2024-T42	
	BRACKET	0.063	2024-T42	
	STRAP (2 LOCATIONS)	0.063	CLAD 2024-T3	
10	INTERCOSTAL			
	BRACKET	0.063	CLAD 2024-T42	
11	INTERCOSTAL			
	INTERCOSTAL	0.050	CLAD 2024-T42	
	ANGLE		BAC1503-10031 7075-T73511	
12	STIFFENER		BAC1498-212 CLAD 2024-T42	
13	TEE		AND10136-1401 2024-T42	
14	STOP FITTING		BAC1520-1523 7075-T73511	
15	SEAL DEPRESSOR		CASTING 356-T51	
16	SEAL DEPRESSOR	0.050	CLAD 2024-T42	

LIST OF MATERIALS (CONTINUED)

N0. 3 Emergency Exit Structure
Figure 1 (Sheet 3 of 3)

ALLOWABLE DAMAGE 1 - OVERWING EMERGENCY EXIT DOOR STRUCTURE



Allowable Damage - Overwing Emergency Exit Structure
Figure 101 (Sheet 1 of 4)

DESCRIPTION	CRACKS	NICKS, GOUGES AND CORROSION	DENTS	HOLES AND PUNCTURES
INTERCOSTAL WEB	[B]	[E]	SEE DETAIL IV	[G]
TEE	[A]	[D]	NOT ALLOWED	NOT ALLOWED
EDGE BEAM	[B]	[E]	SEE DETAIL IV	[G]
STOP BEAM	[A]	[D]	SEE DETAIL IV	[G]
GUSSET	[B]	[E]	SEE DETAIL IV	[G]
FITTINGS	[C]	[F]	NOT ALLOWED	NOT ALLOWED
ZEE	[A]	[D]	NOT ALLOWED	NOT ALLOWED

NOTES

- REFER TO SRM 51-10-02 FOR INSPECTION AND REMOVAL OF DAMAGE.
- REFINISH REWORKED AREAS AS GIVEN IN AMM 51-20

[A] CRACKS NOT ALLOWED EXCEPT FOR EDGE CRACKS WHICH MUST BE REMOVED AS GIVEN IN DETAILS II VII

[B] CRACKS NOT ALLOWED EXCEPT FOR EDGE CRACKS WHICH MUST BE REMOVED AS GIVEN IN DETAILS II AND VI

[C] CRACKS NOT ALLOWED EXCEPT FOR EDGE CRACKS WHICH MUST BE REMOVED AS GIVEN IN DETAILS II AND VII. SHOT PEEN REWORKED AREA AS GIVEN IN SRM 51-20-06

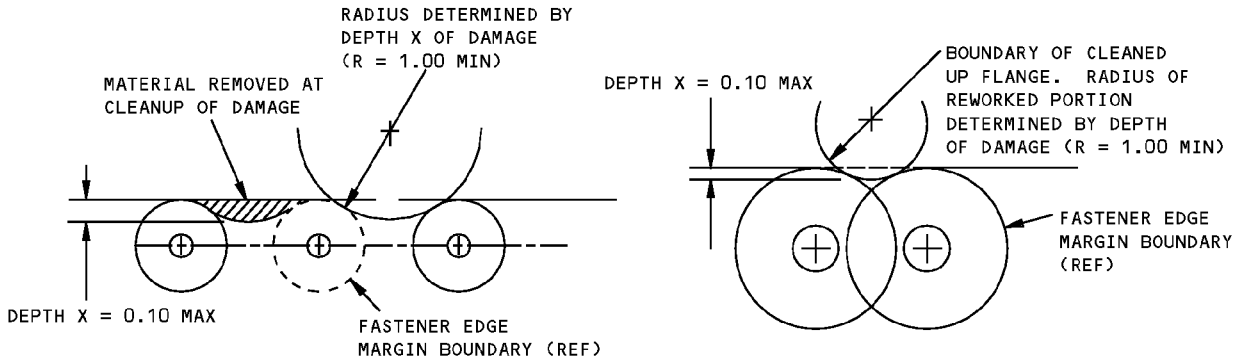
[D] REMOVE DAMAGE AS GIVEN IN DETAILS II,III,V AND VII

[E] REMOVE DAMAGE AS GIVEN IN DETAILS II,III,V AND VI

[F] FOR EDGE DAMAGE SEE DETAIL VII. FOR LUG DAMAGE, SEE DETAIL VIII. FOR OTHER DAMAGE, SEE DETAIL III. DAMAGE NOT ALLOWED IN VICINITY OF BUSHINGS. SHOT PEEN REWORKED AREA AS GIVEN IN SRM 51-20-06

[G] CLEAN OUT DAMAGE UP TO 0.25 INCH (6 mm) MAX DIA AND NOT CLOSER THAN 1.0 INCH (25 mm) TO FASTENER HOLE, MATERIAL EDGE, OR OTHER DAMAGE. FILL HOLE WITH 2117-T3 OR T4 ALUMINUM RIVET INSTALLED WET WITH BMS 5-95 SEALANT. ALL OTHER HOLES TO BE REPAIRED

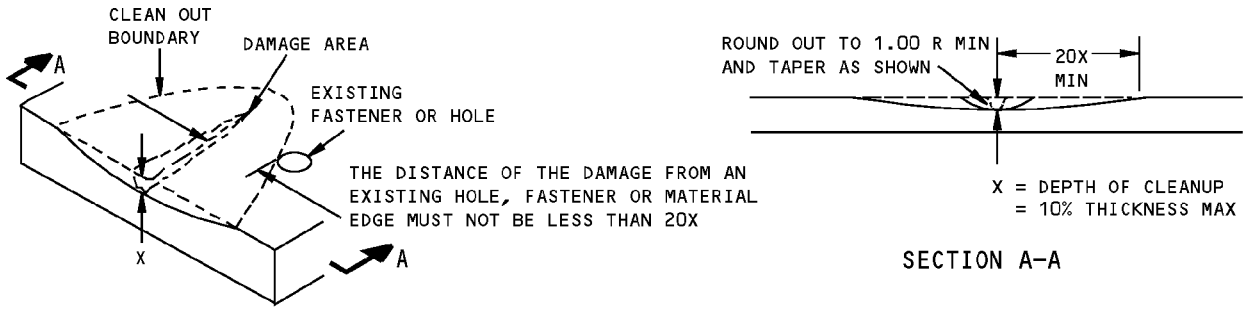
Allowable Damage - Overwing Emergency Exit Structure
Figure 101 (Sheet 2 of 4)



DAMAGE CLEANUP OF EDGES WHERE FASTENER EDGE MARGINS DO NOT OVERLAP

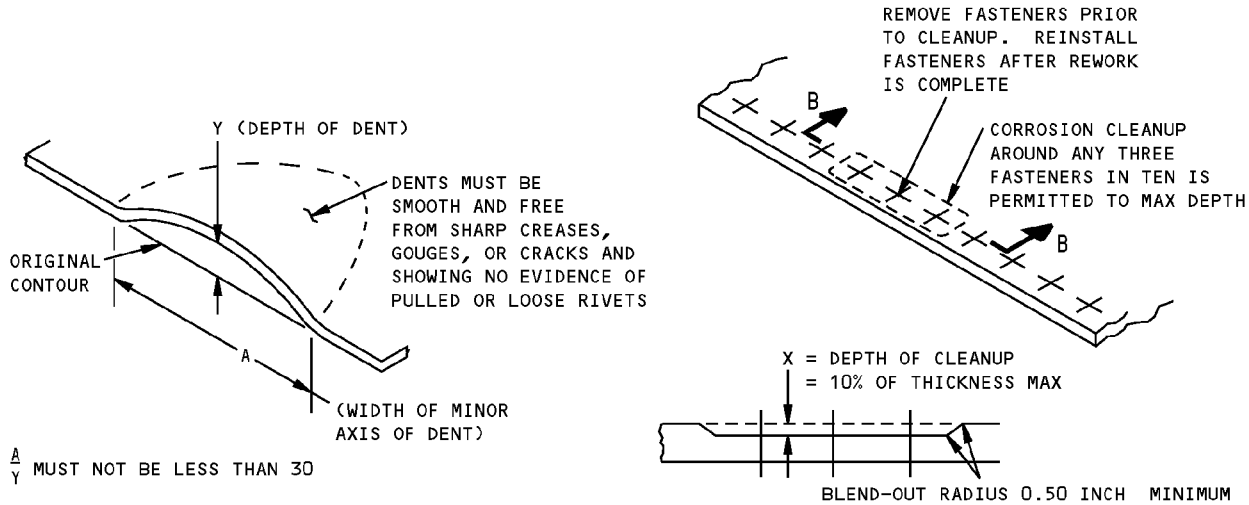
DAMAGE CLEANUP OF EDGES WHERE FASTENER EDGE MARGINS OVERLAP

DETAIL II



SECTION A-A

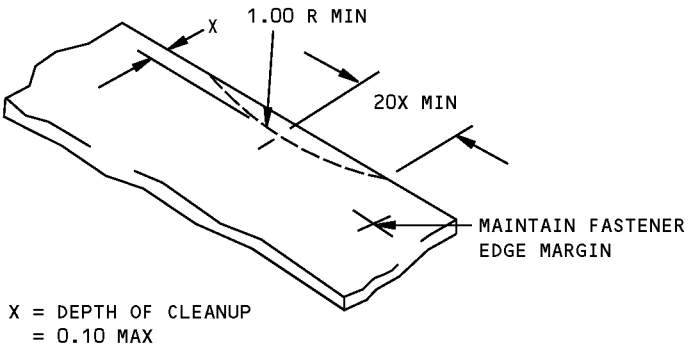
REMOVAL OF NICK, GOUGE AND SCRATCH DAMAGE ON A SURFACE
DETAIL III



ALLOWABLE DAMAGE FOR DENT
DETAIL IV

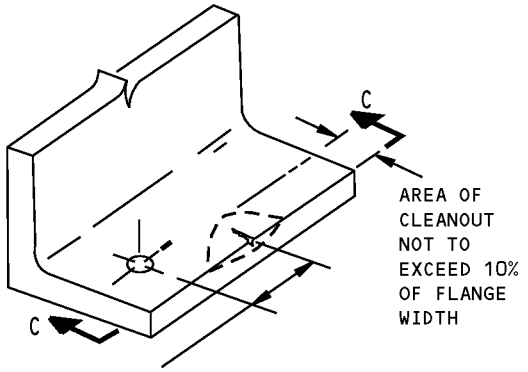
SECTION B-B
CORROSION CLEANUP
DETAIL V

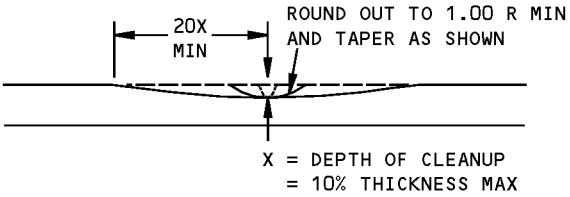
Allowable Damage - Overwing Emergency Exit Structure
Figure 101 (Sheet 3 of 4)



REMOVAL OF NICK OR CRACK
DAMAGE ON AN EDGE

DETAIL VI

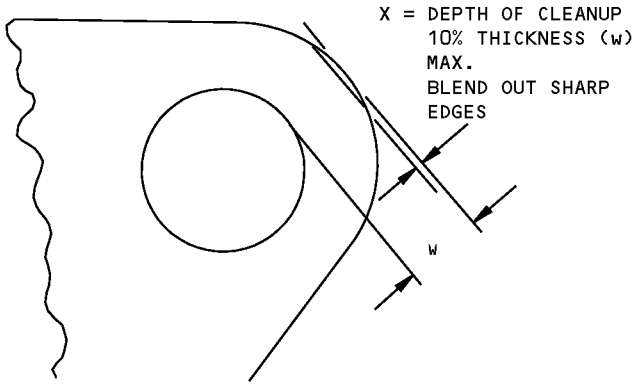




SECTION C–C

REMOVAL OF NICK OR CRACK
DAMAGE ON AN EDGE

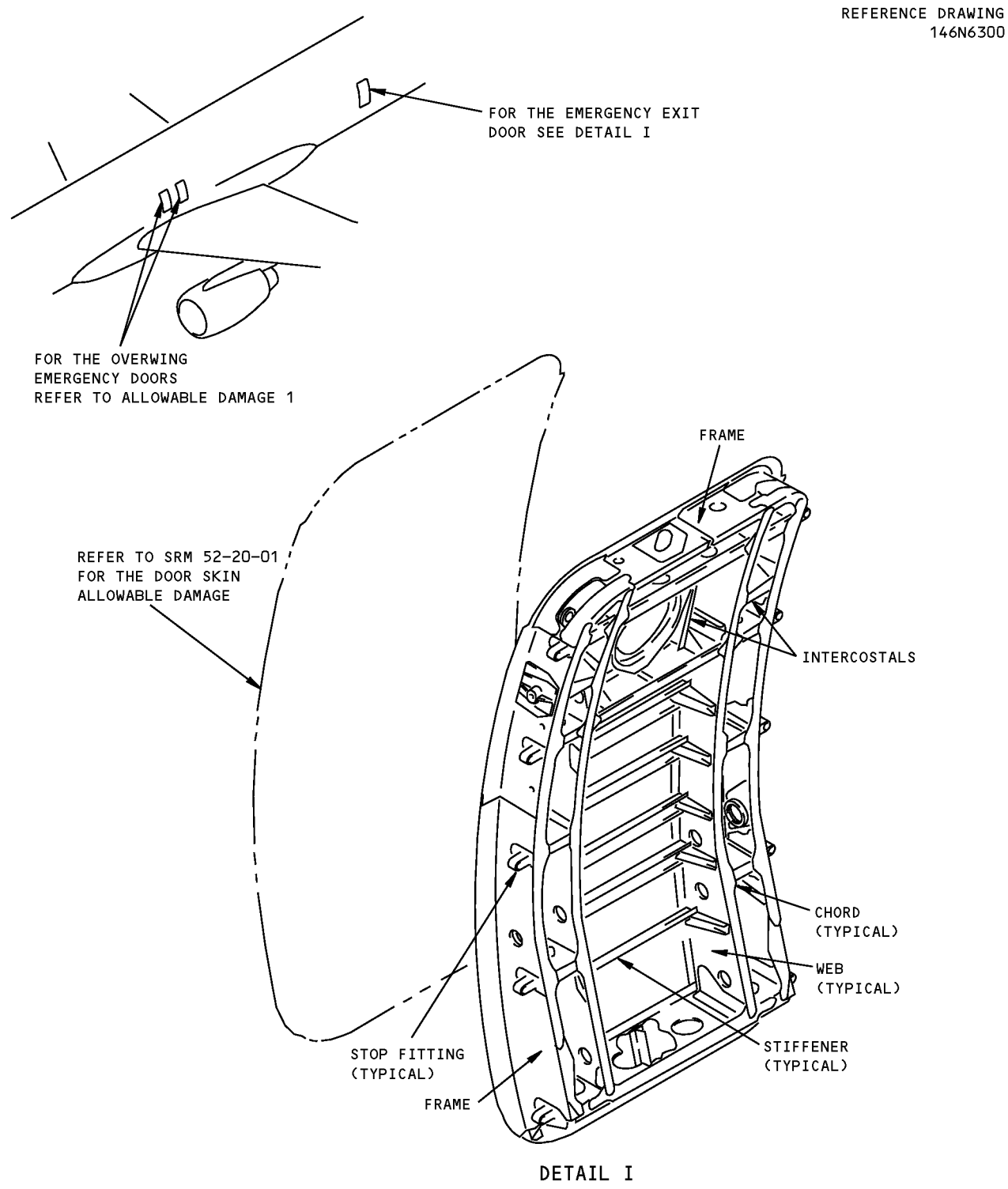
DETAIL VII



DAMAGE CLEANUP FOR EDGES OF LUG
DETAIL VIII

Allowable Damage - Overwing Emergency Exit Structure
Figure 101 (Sheet 4 of 4)

ALLOWABLE DAMAGE 2 - NO. 3 EMERGENCY EXIT DOOR STRUCTURE



No. 3 Emergency Exit Door Structure
Figure 101 (Sheet 1 of 4)

DESCRIPTION	CRACKS	NICKS, GOUGES AND CORROSION	DENTS	HOLES AND PUNCTURES
CHORD EXTRUDED	[A]	[D]	NOT ALLOWED	NOT ALLOWED
FORMED	[B]	[E]	SEE DETAIL IV	[G]
FRAME	[B]	[E]	SEE DETAIL IV	[G]
INTERCOSTAL	[B]	[E]	SEE DETAIL IV	[G]
WEB	[B]	[E]	SEE DETAIL IV	[G]
STOP FITTING	[C]	[F]	NOT ALLOWED	NOT ALLOWED
STIFFENER	[A]	[D]	SEE DETAIL IV	[G]

NOTES

- REFINISH REWORKED AREAS AS GIVEN IN AMM 51-20
- REFER TO SRM 51-10-02 FOR INSPECTION AND REMOVAL OF DAMAGE

[A] CRACKS NOT ALLOWED EXCEPT FOR EDGE CRACKS WHICH MUST BE REMOVED AS GIVEN IN DETAILS II AND VII

[B] CRACKS NOT ALLOWED EXCEPT FOR EDGE CRACKS WHICH MUST BE REMOVED AS GIVEN IN DETAILS II AND VI

[C] CRACKS NOT ALLOWED EXCEPT FOR EDGE CRACKS WHICH MUST BE REMOVED GIVEN IN DETAILS II AND VII. SHOT PEEN REWORKED AREA AS GIVEN IN SRM 51-20-06

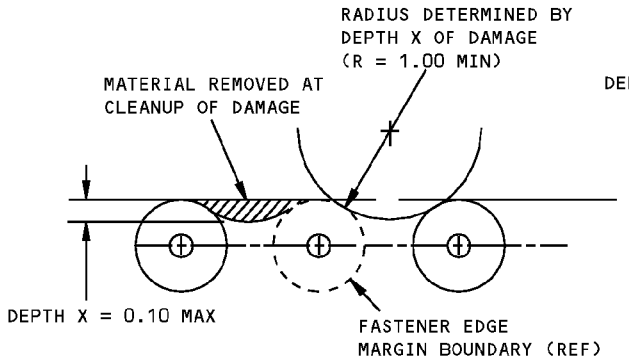
[D] REMOVE DAMAGE AS GIVEN IN DETAILS II, III, V AND VII

[E] REMOVE DAMAGE AS GIEN IN DETAILS II, III, V AND VI

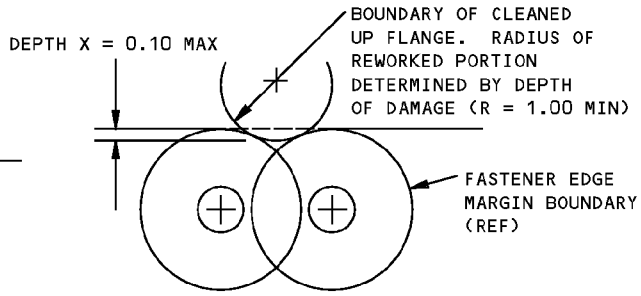
[F] FOR EDGE DAMAGE SEE DETAIL VII. FOR LUG DAMAGE, SEE DETAIL VIII. FOR OTHER DAMAGE, SEE DETAIL III. DAMAGE NOT ALLOWED IN VICINITY OF BUSHINGS. SHOT PEEN REWORKED AREA AS GIVEN IN SRM 51-20-06

[G] CLEAN OUT DAMAGE UP TO 0.25 INCH (6 mm) MAXIMUM DIA AND NOT CLOSER THAN 1.0 INCH (25 mm) TO FASTENER HOLE, MATERIAL EDGE, OR OTHER DAMAGE. FILL HOLE WITH 2117-T3 OR T4 ALUMINUM RIVET INSTALLED WET WITH BMS 5-95 SEALANT. ALL OTHER HOLES TO BE REPAIRED

No. 3 Emergency Exit Door Structure
Figure 101 (Sheet 2 of 4)

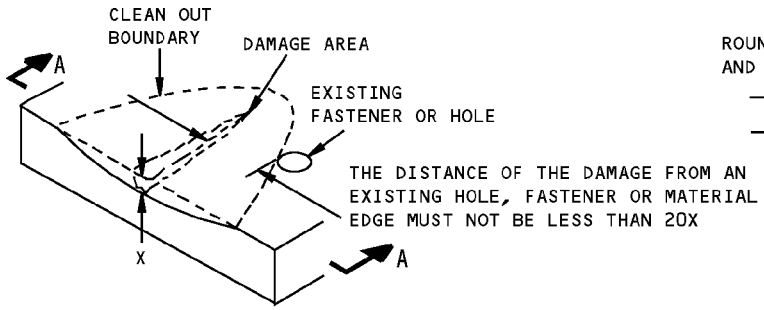


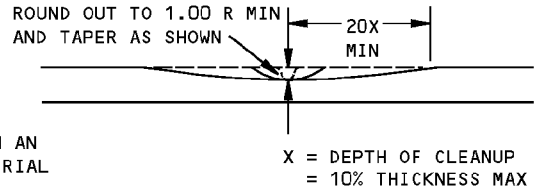
DAMAGE CLEANUP OF EDGES WHERE FASTENER EDGE MARGINS DO NOT OVERLAP



DAMAGE CLEANUP OF EDGES WHERE FASTENER EDGE MARGINS OVERLAP

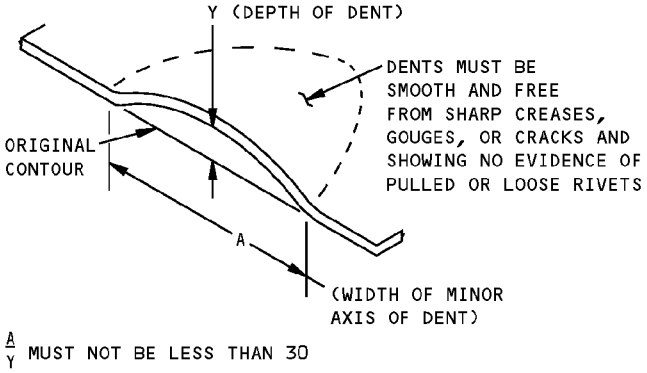
DETAIL II



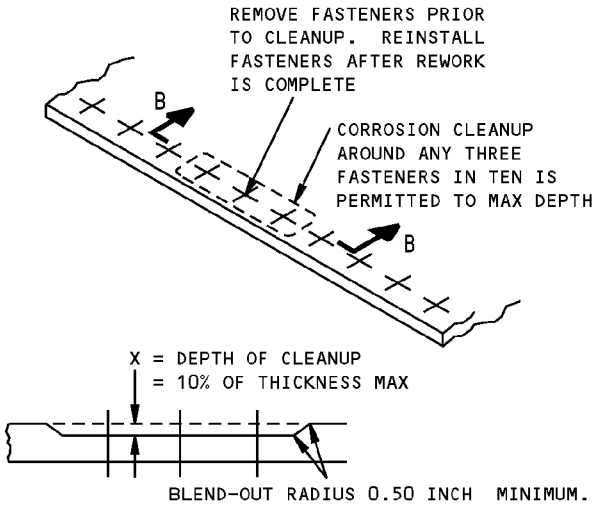


SECTION A-A

REMOVAL OF NICK, GOUGE AND SCRATCH DAMAGE ON A SURFACE
DETAIL III

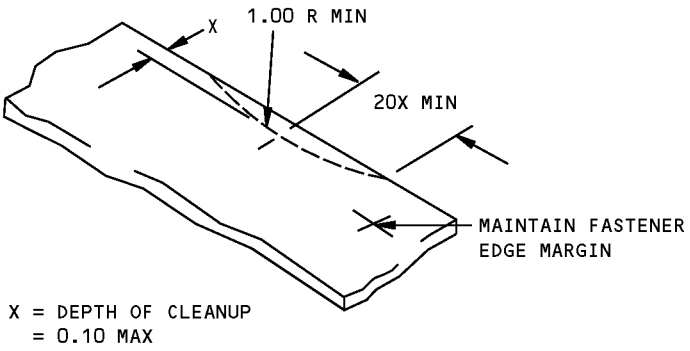


ALLOWABLE DAMAGE FOR DENT
DETAIL IV

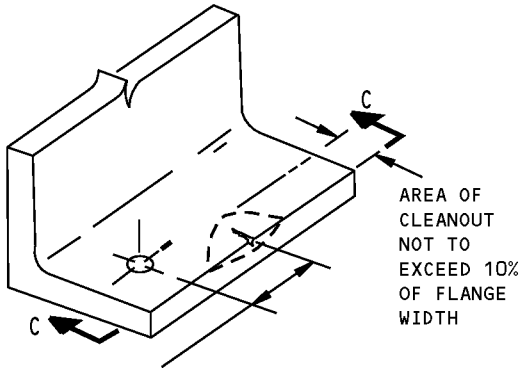


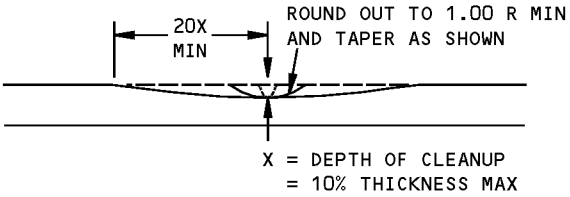
SECTION B-B
CORROSION CLEANUP
DETAIL V

No. 3 Emergency Exit Door Structure
Figure 101 (Sheet 3 of 4)



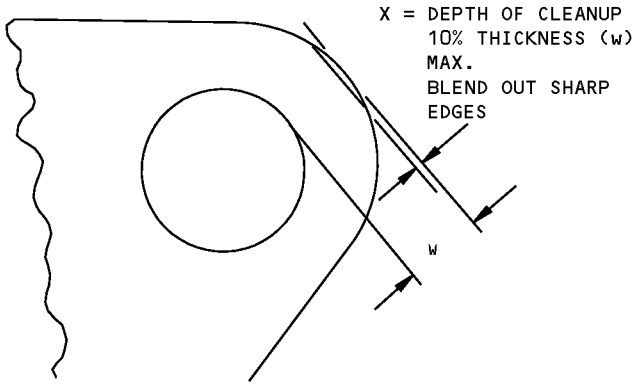
REMOVAL OF NICK OR CRACK
DAMAGE ON AN EDGE
DETAIL VI





SECTION C–C

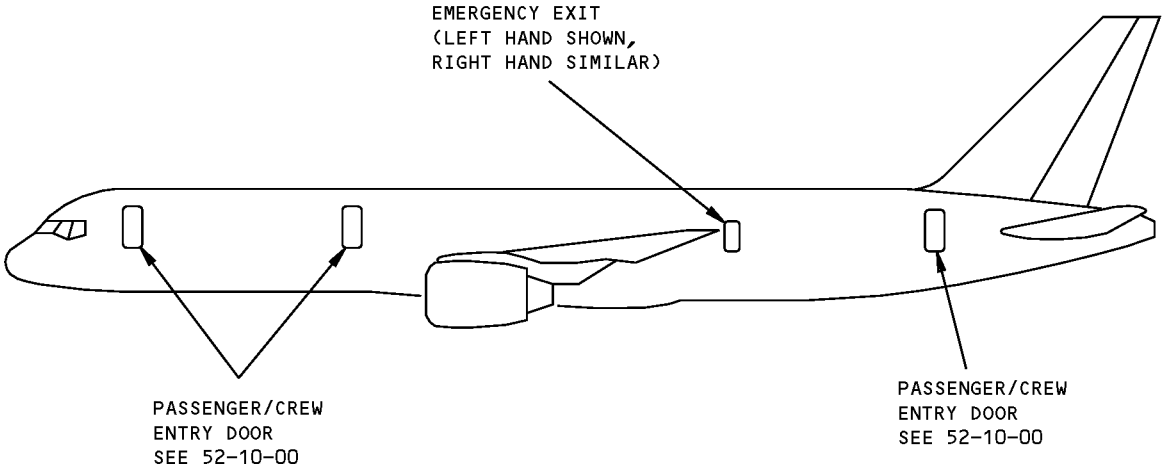
REMOVAL OF NICK OR CRACK
DAMAGE ON AN EDGE
DETAIL VII



DAMAGE CLEANUP FOR EDGES OF LUG
DETAIL VIII

No. 3 Emergency Exit Door Structure
Figure 101 (Sheet 4 of 4)

REPAIR GENERAL - EMERGENCY EXIT STRUCTURE

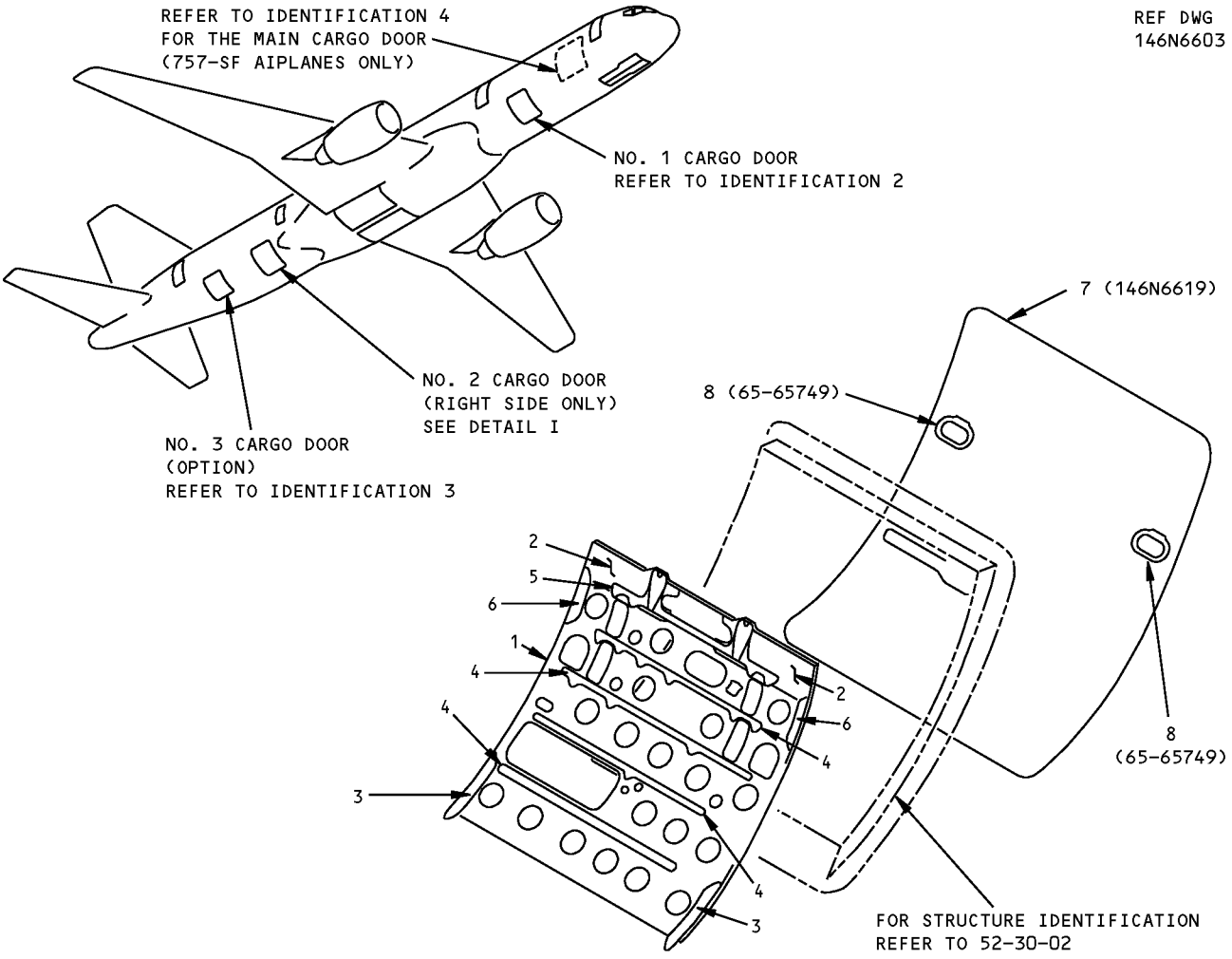


NOTES

- DAMAGED COMPONENTS IN DOOR STRUCTURE MAY BE REPLACED OR REPAIRED. IF REPAIRS ARE TO BE MADE, SEE 51-70 FOR TYPICAL WEB, FORMED SECTION, OR EXTRUDED SECTION REPAIRS

Emergency Exit Door Structure Repair
Figure 201

IDENTIFICATION 1 - NO. 2 CARGO DOOR SKIN



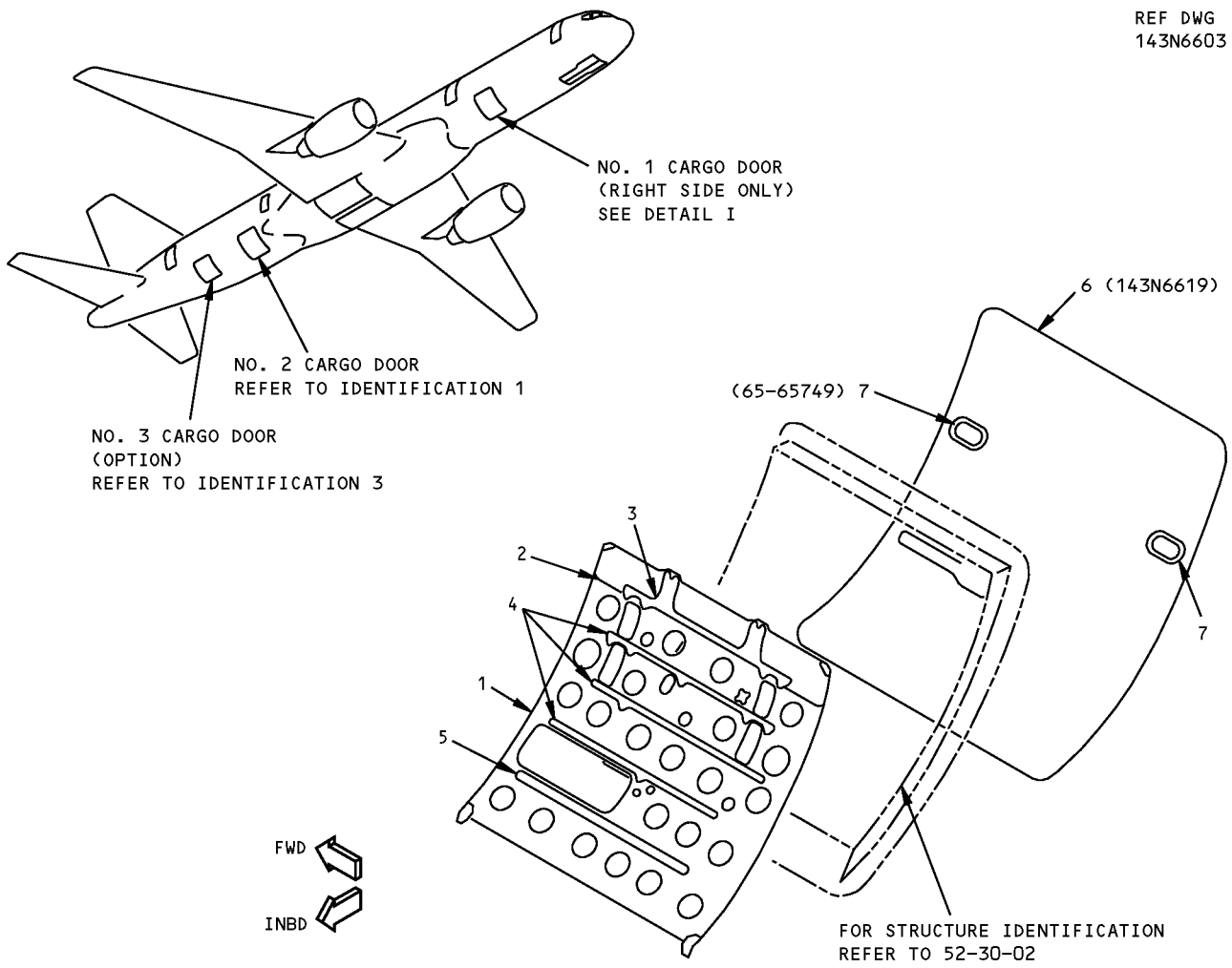
DETAIL I

ITEM	DESCRIPTION	GAGE	MATERIAL	EFFECTIVITY
1	INNER SKIN	0.045	CLAD 7075-T6	
2	DOUBLER	0.032	CLAD 7075-T6	
3	STRAP	0.125	7075-T6	
4	STRAP	0.100	7075-T6	
5	DOUBLER	0.140	7075-T6	
6	STRAP	0.080	7075-T6	
7	OUTER SKIN	0.063	CLAD 2024-T3 (CHEM-MILLED TO 0.040 MIN)	
8	DOUBLER		2024-T351 PLATE	

LIST OF MATERIALS FOR DETAIL I

No. 2 Cargo Door Skin
Figure 1

IDENTIFICATION 2 - NO. 1 CARGO DOOR SKIN



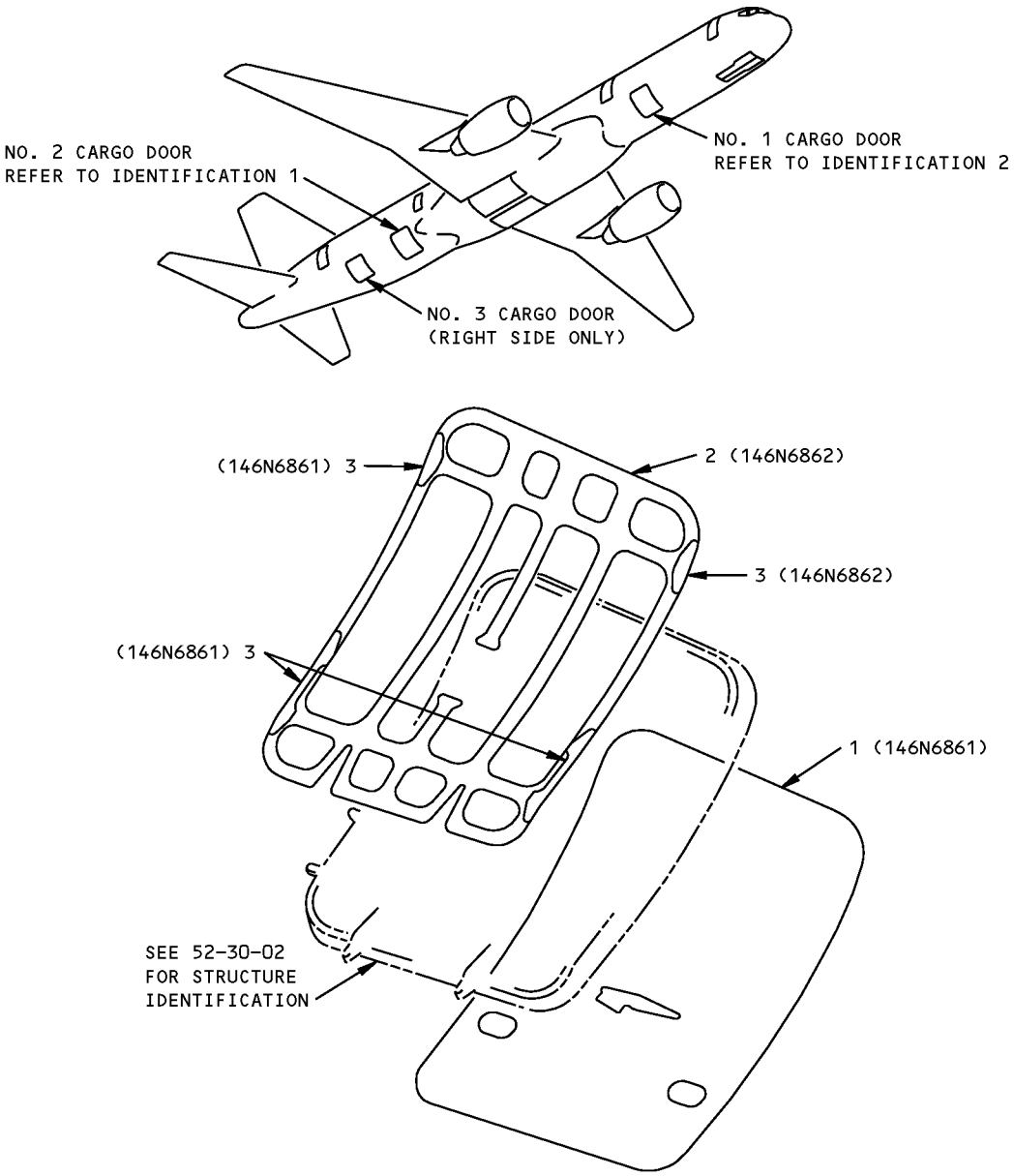
DETAIL I

ITEM	DESCRIPTION	GAGE	MATERIAL	EFFECTIVITY
1	INNER SKIN	0.045	CLAD 7075-T6	
2	DOUBLER	0.032	CLAD 7075-T6	
3	STRAP	0.032	CLAD 2024-T3	
4	STRAP	0.100	CLAD 7075-T6	
5	STRAP		7075-T6 PLATE	
6	OUTER SKIN	0.063	CLAD 2024-T3 (CHEM-MILLED TO 0.040 MIN)	
7	DOUBLER		2024-T351 PLATE	

LIST OF MATERIALS FOR DETAIL I

No. 1 Cargo Door Skin
Figure 1

IDENTIFICATION 3 - NO. 3 CARGO DOOR SKIN



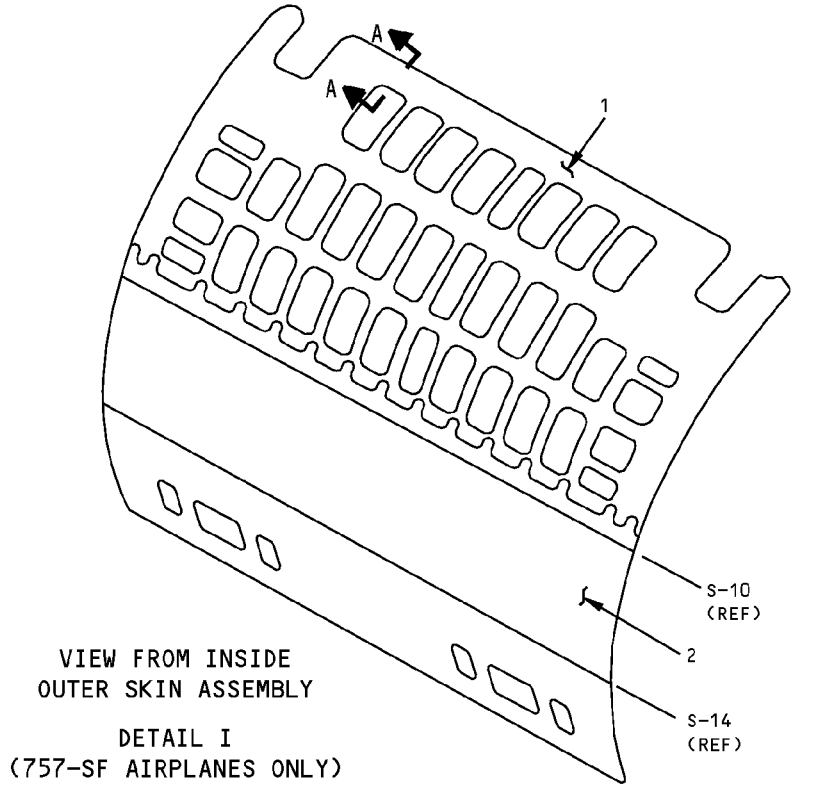
ITEM	DESCRIPTION	GAGE	MATERIAL	EFFECTIVITY
1	OUTER SKIN	0.071	CLAD 2024-T3 (CHEM-MILLED TO 0.040 MIN)	
2	INNER SKIN	0.063	CLAD 2024-T3	
3	STRAP	0.063	CLAD 2024-T3	

LIST OF MATERIALS

No. 3 Cargo Door Skin
Figure 1

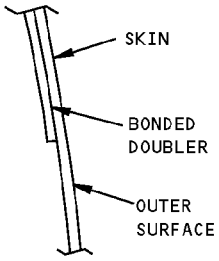
IDENTIFICATION 4 - MAIN DECK CARGO DOOR - SKIN

REF DWG
65-25326



VIEW FROM INSIDE
OUTER SKIN ASSEMBLY

DETAIL I
(757-SF AIRPLANES ONLY)

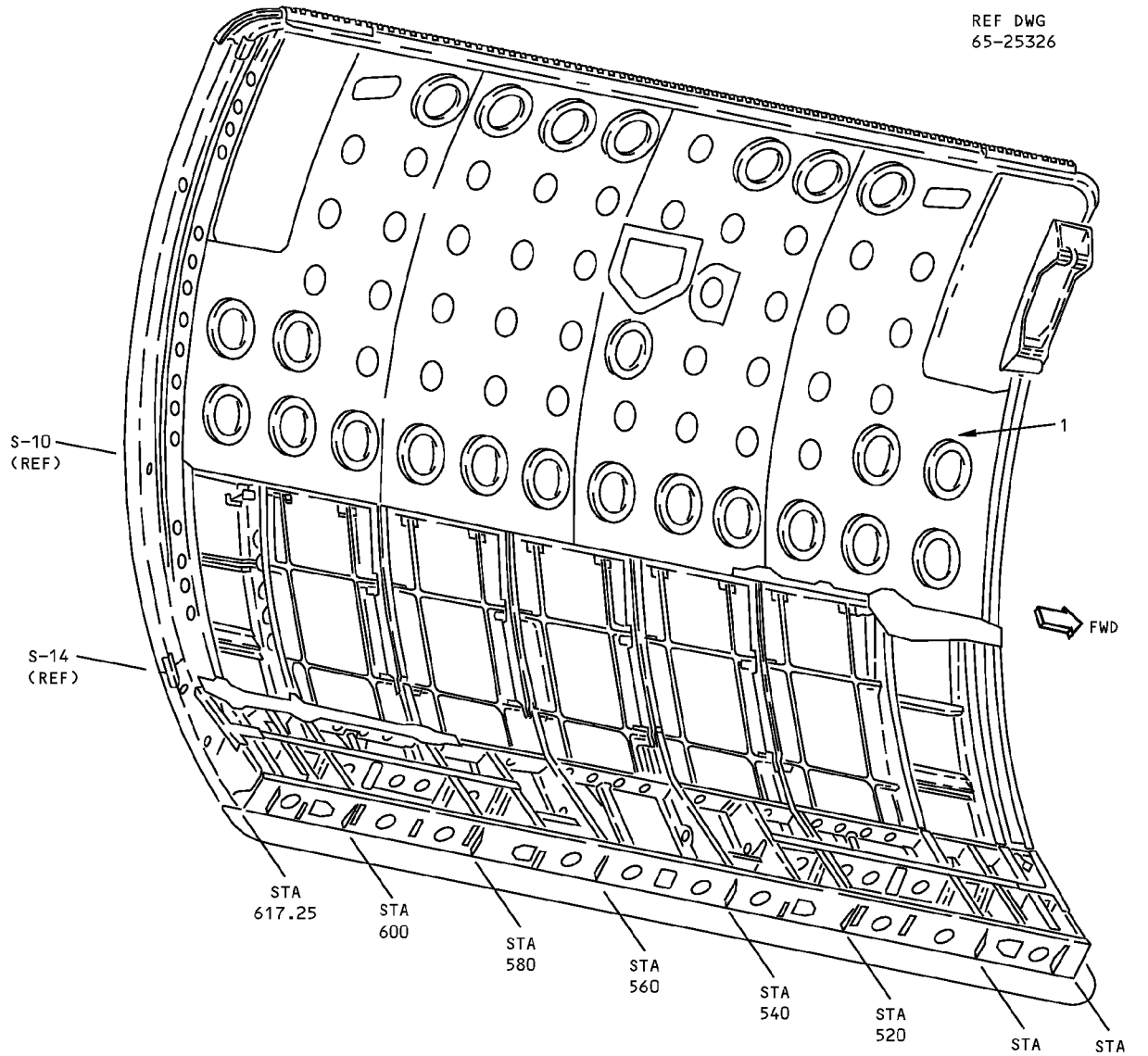


UPPER SKIN ASSEMBLY
SECTION A-A

ITEM	DESCRIPTION	GAGE	MATERIAL	EFFECTIVITY
1	UPPER SKIN ASSEMBLY			
	SKIN	0.040	CLAD 2024-T3	
	BONDED DOUBLER	0.040	CLAD 2024-T3	
2	LOWER SKIN	0.063	CLAD 2024-T3	

LIST OF MATERIALS FOR DETAIL I

Main Deck Cargo Door - Skin
Figure 1 (Sheet 1 of 2)

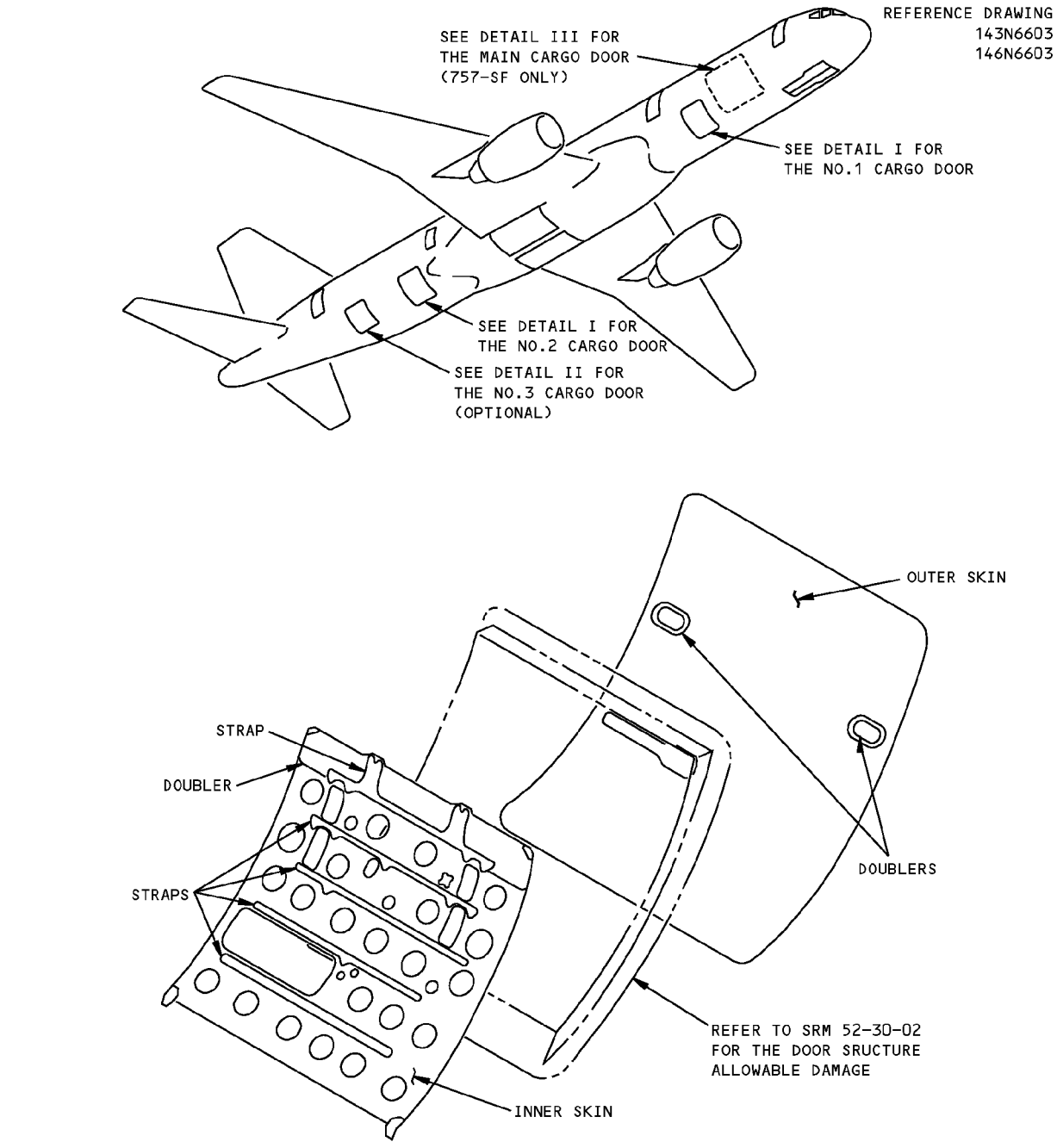


INNER SKIN ASSEMBLY
DETAIL II
(757-SF AIRPLANES ONLY)

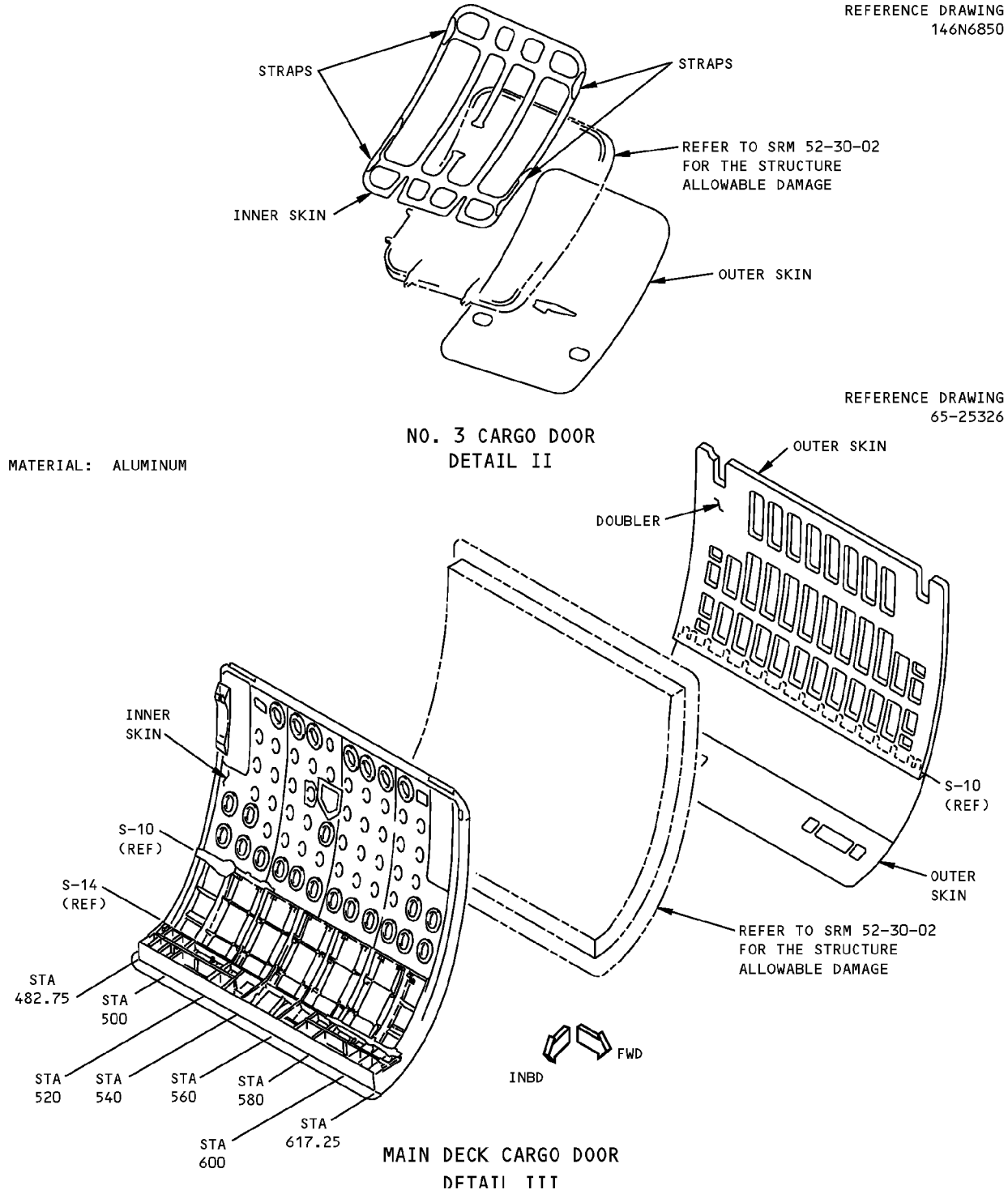
ITEM	DESCRIPTION	GAGE	MATERIAL	EFFECTIVITY
1	SKIN	0.032	CLAD 7075-T6	

Main Deck Cargo Door - Skin
Figure 1 (Sheet 2 of 2)

ALLOWABLE DAMAGE 1 - CARGO DOOR SKIN



Cargo Door Skin
Figure 101 (Sheet 1 of 5)



Cargo Door Skin
Figure 101 (Sheet 2 of 5)

DESCRIPTION	CRACKS	NICKS, GOUGES AND CORROSION	DENTS	HOLES AND PUNCTURES
OUTER SKIN [A]	[B] [I]	[D] [I]	[J]	[E] [I]
INNER SKIN	[C]	[G]	[J]	[F]
STRAPS AND DOUBLERS	[B]	[D]	SEE DETAIL VI	[F]

ALLOWABLE DAMAGE FOR DETAILS I, II , AND III

NOTES

- THESE ALLOWABLE DAMAGE LIMITS ARE CATEGORY A REPAIRS. THE INSPECTIONS GIVEN IN THE MAINTENANCE PLANNING DATA (MPD) IN ADDITION TO THE INSPECTIONS REQUIRED IN THIS PROCEDURE, IF APPLICABLE, ARE SUFFICIENT TO MAINTAIN THE DAMAGE TOLERANCE OF THE INITIAL STRUCTURE WITH THIS ALLOWABLE DAMAGE. REFER TO SRM 51-00-06 FOR REPAIR CATEGORIES AND DEFINITIONS.
- REFINISH REWORKED AREAS AS SHOWN IN AMM 51-21

[A] REFER TO SRM 51-10-01 FOR AERODYNAMIC SMOOTHNESS REQUIREMENTS. WHERE THE DAMAGE IS MORE THAN THE LIMITS SHOWN IN SRM 51-10-01, CONSIDERATION SHOULD BE GIVEN TO THE LOSS OF PERFORMANCE INVOLVED.

[B] CRACKS ARE NOT PERMITTED EXCEPT FOR EDGE CRACKS WHICH MUST BE REMOVED AS SHOWN IN DETAILS IV AND VIII.

[C] FOR EDGE CRACKS, SEE DETAIL IV. FOR OTHERS, SEE DETAIL IX. FOR LIGHTENING HOLE EDGE CRACKS, SEE DETAIL X.

[D] REMOVE DAMAGE AS SHOWN IN DETAILS IV, V, VII AND VIII.

[E] CLEAN OUT DAMAGE UP TO 0.25 INCH (6 mm) MAXIMUM DIAMETER AND NOT CLOSER THAN 1.0 INCH (25 mm) TO FASTENER HOLE, MATERIAL EDGE, OR OTHER DAMAGE. FILL HOLE WITH 2117-T3 OR T4 ALUMINUM RIVET INSTALLED WET WITH BMS 5-95 SEALANT. ALL OTHER HOLES ARE TO BE REPAIRED.

[F] CLEAN OUT DAMAGE UP TO 0.25 INCH (6 mm) MAXIMUM DIAMETER AND NOT CLOSER THAN 1.00 INCH (25 mm) TO FASTENER HOLE, MATERIAL EDGE, OR OTHER DAMAGE.

[G] REMOVE DAMAGE AS SHOWN IN DETAILS IV, V, VII AND VIII. CORROSION MAY BE DRILLED OUT UP TO 0.5 INCH (12.7 mm) MAXIMUM DIAMETER PROVIDED EDGE MARGINS ARE MAINTAINED AS SHOWN IN DETAIL IX.

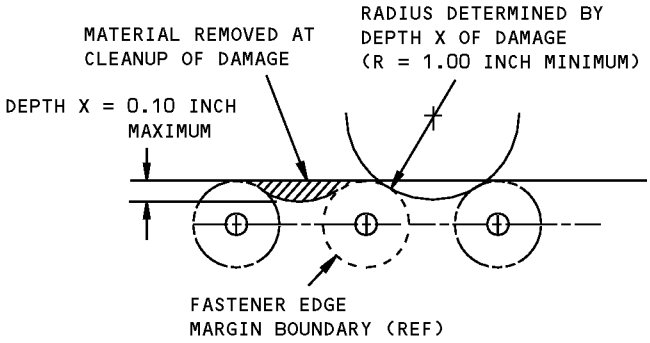
[H] MAINTAIN 1.50 INCHES (38 mm) MINIMUM DISTANCE BETWEEN EDGE OF INITIAL FASTENER HOLE AND EDGE OF FLANGED HOLE, OR EDGE OF CUTOUT.

[I] REFER TO ALLOWABLE DAMAGE 2 FOR THE CARGO DOOR SKIN OPERATING LIMITS AFTER DAMAGE HAS BEEN REMOVED.

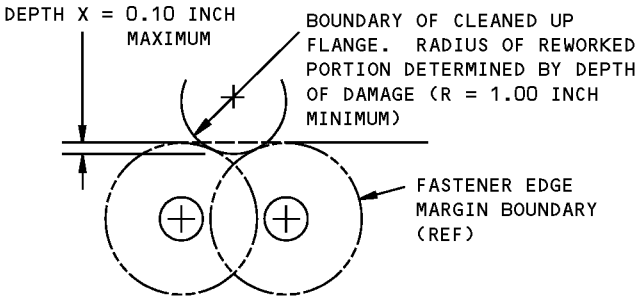
[J] DENTS THAT ARE MORE THAN THE LIMITS SHOWN IN DETAIL VI SHOULD BE PERMANENTLY REPAIRED. HOWEVER, A REPAIR CAN BE DELAYED IF THE CONDITIONS THAT FOLLOW ARE MET:

- DENTS MUST BE SMOOTH AND FREE FROM SHARP CREASES, GOUGES, OR CRACKS, AND SHOW NO EVIDENCE OF PULLED, LOOSE, OR MISSING FASTENERS
- THERE ARE NO DAMAGED OR ELONGATED FASTENER HOLES
- THE DENT IS NOT FILLED
- AN EXAMINATION OF THE DENT IS MADE EVERY 300 FLIGHT CYCLES
- A PERMANENT REPAIR IS MADE AT THE SUBSEQUENT C-CHECK OR BEFORE 24 MONTHS
- THE DAMAGE IS A MINIMUM OF 0.5 INCHES (12.7 mm) FROM ANY PART OF THE BEAM, SKIN DOUBLER, STRAP, FRAME, INTERCOSTAL, OR STIFFENER
- THE DAMAGE IS A MINIMUM OF 10.0 INCHES (250 mm) FROM A SKIN SPLICE OR CUTOUT, INCLUDING A HINGE CUTOUT OR A HANDLE PAN CUTOUT.

Cargo Door Skin
Figure 101 (Sheet 3 of 5)

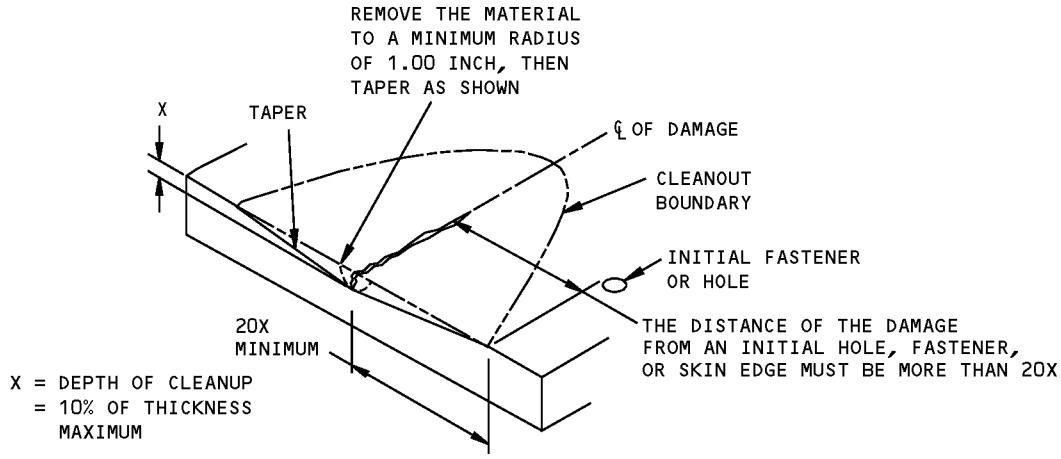


DAMAGE CLEAN UP OF EDGES WHERE FASTENER EDGE MARGINS DO NOT OVERLAP

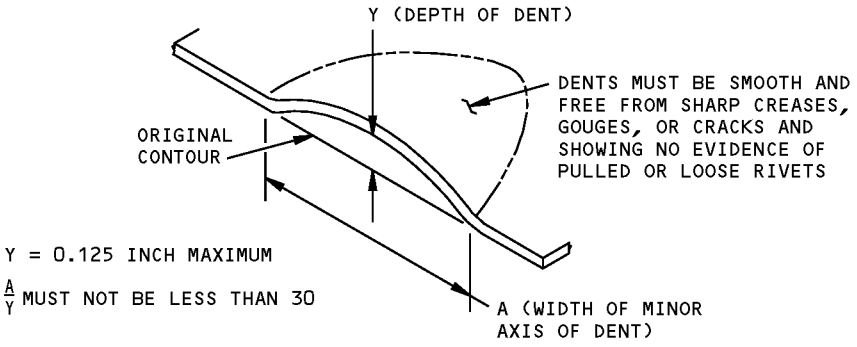


DAMAGE CLEAN UP OF EDGES WHERE FASTENER EDGE MARGINS OVERLAP

DETAIL IV

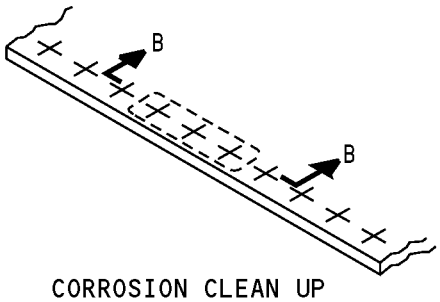


REMOVAL OF NICK, GOUGE, CORROSION, AND SCRATCH DAMAGE ON A SURFACE
DETAIL V

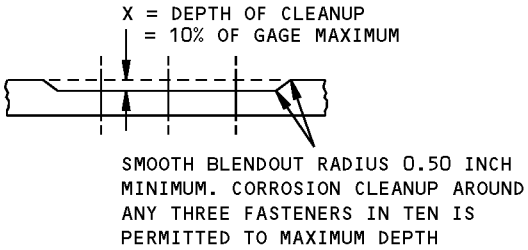


ALLOWABLE DAMAGE FOR DENT
DETAIL VI

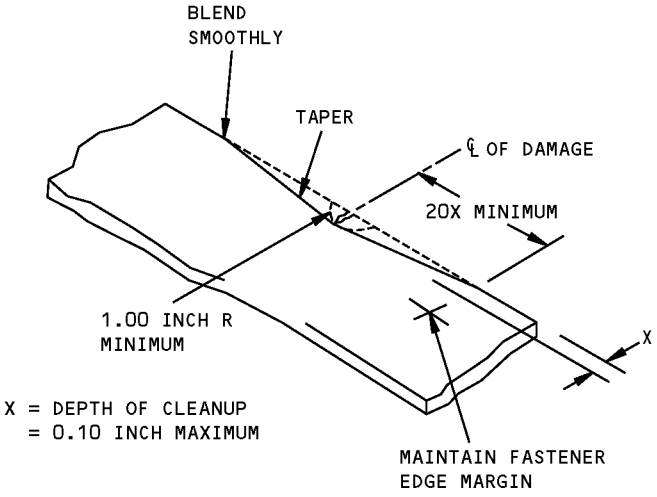
Cargo Door Skin
Figure 101 (Sheet 4 of 5)



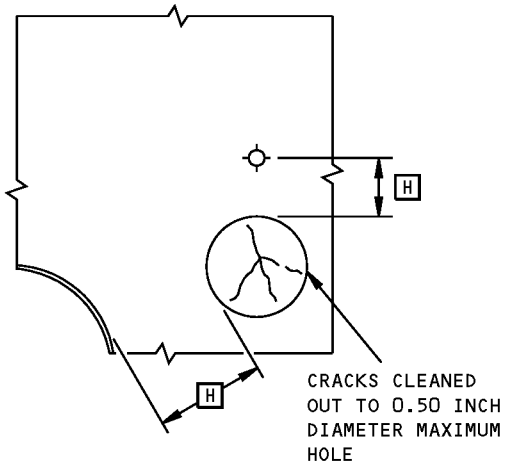
CORROSION CLEAN UP
DETAIL VII



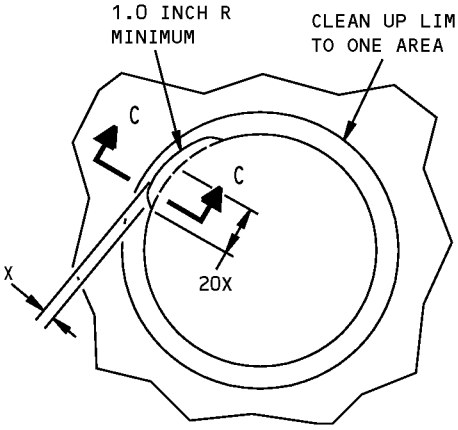
SECTION B–B



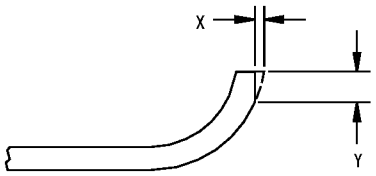
REMOVAL OF NICK OR CRACK DAMAGE ON AN EDGE
DETAIL VIII



FIELD CRACK CLEAN UP
DETAIL IX



FLANGED HOLE EDGE DAMAGE CLEAN UP
DETAIL X



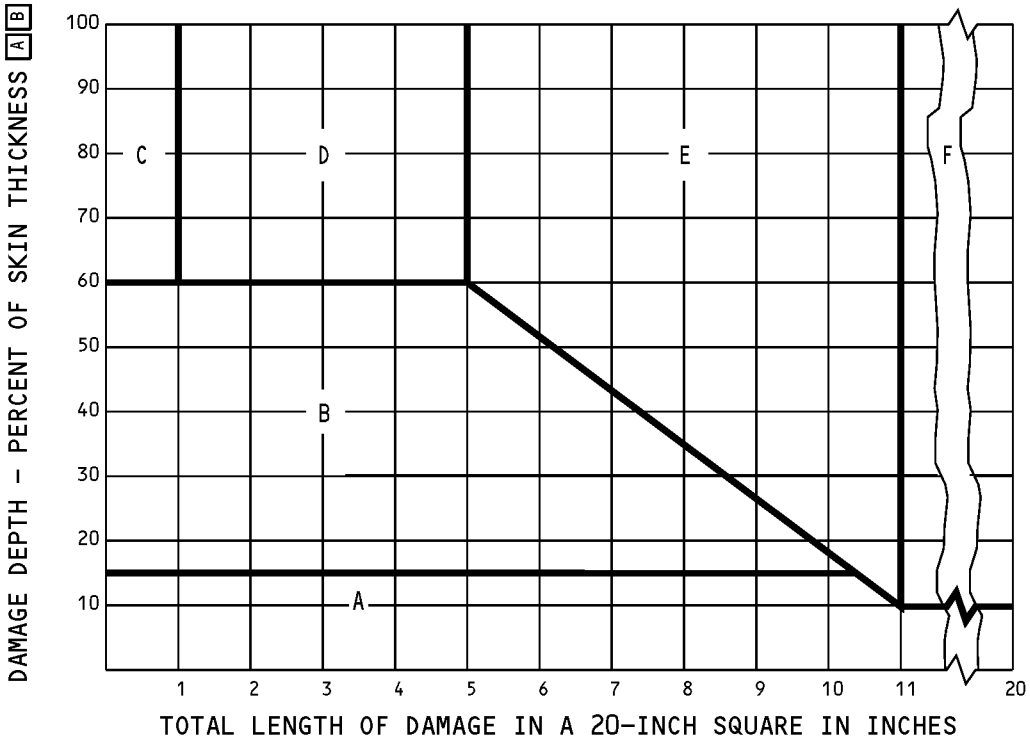
X = DEPTH OF CLEANUP
= 0.10 INCH MAXIMUM OR 1/2 FLANGE WIDTH, WHICHEVER IS LESS

Y = LENGTH OF CLEANUP
= 0.10 INCH MAXIMUM OR 1/2 FLANGE HEIGHT, WHICHEVER IS LESS

SECTION C–C

Cargo Door Skin
Figure 101 (Sheet 5 of 5)

ALLOWABLE DAMAGE 2 - OPERATING LIMITS FOR CARGO DOOR SKIN



NOTES

[A] SKIN THICKNESS DOES NOT INCLUDE THE THICKNESS OF THE DOUBLERS, TRIPLERS, OR STRAPS.

[B] DAMAGE INCLUDES HOLES, PUNCTURES, NICKS, GOUGES, SCRATCHES, CORROSION AND CRACKS.

DAMAGE DOES NOT INCLUDE DENTS.

[C] CABIN PRESSURE LIMITS ARE FOR SKIN DAMAGE TO THE PRESSURIZED FUSELAGE SKIN ONLY.

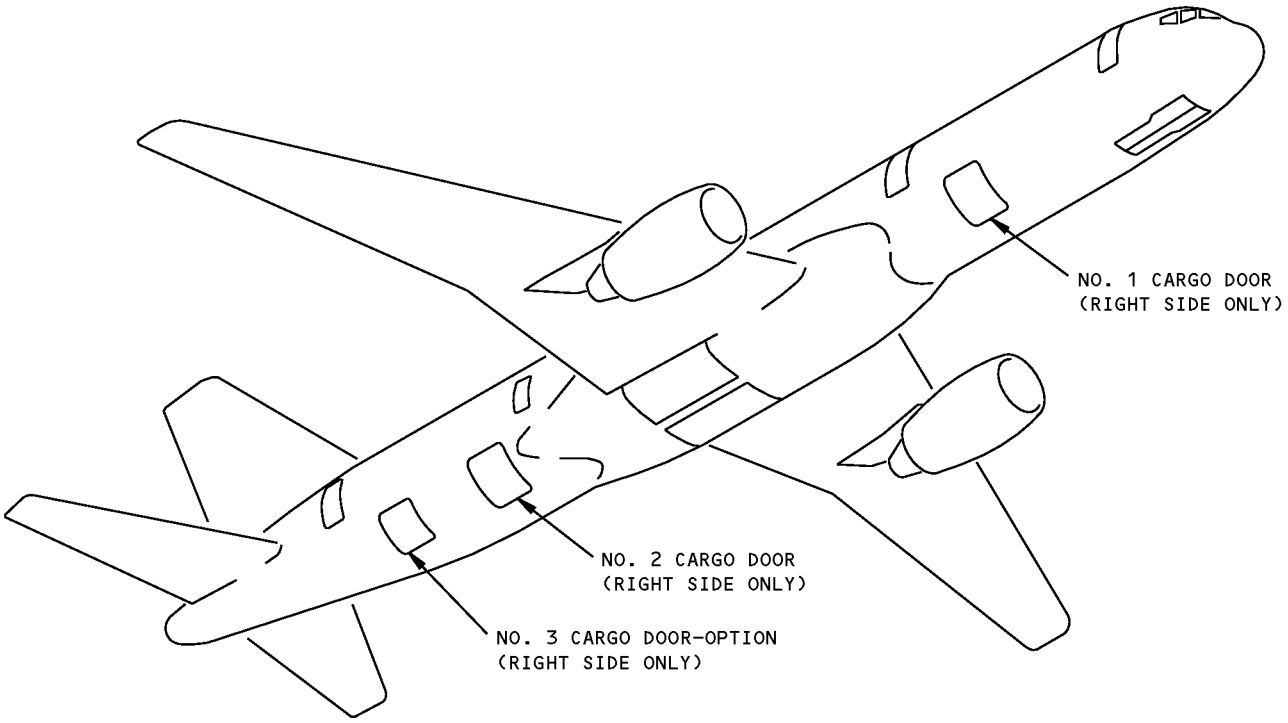
Operating Limits for Cargo Door Skin
Figure 101 (Sheet 1 of 2)

CHART AREA	DAMAGE TREATMENT	ALLOWABLE AIRPLANE OPERATIONS
A	CLEAN UP AS SHOWN IN ALLOWABLE DAMAGE 1.	NO FLIGHT RESTRICTIONS.
B	CLEAN UP AS SHOWN IN ALLOWABLE DAMAGE 1 TO DAMAGE DEPTH.	LIMITED TO 50 HOURS OF FLIGHT OR 25 FLIGHTS, WHICHEVER COMES FIRST (INCLUDING REVENUE FLIGHTS).
	DO AN APPLICABLE REPAIR AS GIVEN IN SRM 52-30-01.	REFER TO THE APPLICABLE REPAIR FOR THE LIMITS.
C	CLEAN UP AS SHOWN IN ALLOWABLE DAMAGE 1 TO DAMAGE DEPTH. STOP DRILL 0.25 INCH (6 mm) DIAMETER HOLES AT THE ENDS OF THE CRACKS.	A NON-REVENUE FLIGHT TO A REPAIR STATION IS PERMITTED IF THE APPLICABLE REGULATORY AUTHORITY GIVES APPROVAL BEFORE THE FLIGHT. IT IS RECOMMENDED THAT THE PROPOSED REPAIR PROCEDURE BE GIVEN TO BOEING. THE MAXIMUM CABIN PRESSURE DIFFERENTIAL [C] IS LIMITED TO 6.0 PSIG UNLESS THE SKIN IS REPAIRED.
	DO AN APPLICABLE REPAIR AS GIVEN IN SRM 52-30-01.	REFER TO THE APPLICABLE REPAIR FOR THE LIMITS.
D	CLEAN UP AS SHOWN IN ALLOWABLE DAMAGE 1 TO DAMAGE DEPTH. STOP DRILL 0.25 INCH (6 mm) DIAMETER HOLES AT THE ENDS OF THE CRACKS.	A NON-REVENUE FLIGHT TO A REPAIR STATION IS PERMITTED IF THE APPLICABLE REGULATORY AUTHORITY GIVES APPROVAL BEFORE THE FLIGHT. IT IS RECOMMENDED THAT THE PROPOSED REPAIR PROCEDURE BE GIVEN TO BOEING. THE MAXIMUM CABIN PRESSURE DIFFERENTIAL [C] IS LIMITED TO 6.0 PSIG UNLESS THE SKIN IS REPAIRED.
	DO AN APPLICABLE REPAIR AS GIVEN IN SRM 52-30-01.	REFER TO THE APPLICABLE REPAIR FOR THE LIMITS.
E	CLEAN UP AS SHOWN IN ALLOWABLE DAMAGE 1 TO DAMAGE DEPTH. STOP DRILL 0.25 INCH (6 mm) DIAMETER HOLES AT THE ENDS OF THE CRACKS.	A NON-REVENUE FLIGHT TO A REPAIR STATION IS PERMITTED IF THE APPLICABLE REGULATORY AUTHORITY GIVES APPROVAL BEFORE THE FLIGHT. IT IS RECOMMENDED THAT THE PROPOSED REPAIR PROCEDURE BE GIVEN TO BOEING. THE MAXIMUM CABIN PRESSURE DIFFERENTIAL [C] IS LIMITED TO ZERO PSIG.
	DO APPLICABLE REPAIR AS GIVEN IN SRM 52-30-01.	REFER TO THE APPLICABLE REPAIR FOR THE LIMITS.
F	CLEAN UP AS SHOWN IN ALLOWABLE DAMAGE 1 TO DAMAGE DEPTH. STOP DRILL 0.25 INCH (6 mm) DIAMETER HOLES AT THE ENDS OF THE CRACKS.	OPERATION IS NOT PERMITTED BEFORE BOEING AND THE APPLICABLE REGULATORY AUTHORITY GIVES APPROVAL.
	DO APPLICABLE REPAIR AS GIVEN IN SRM 52-30-01.	REFER TO THE APPLICABLE REPAIR FOR THE LIMITS.

LIMITS FOR CORROSION, CRACKS, NICKS, GOUGES, AND HOLE DAMAGE

Operating Limits for Cargo Door Skin
Figure 101 (Sheet 2 of 2)

REPAIR GENERAL - TYPICAL SKIN REPAIRS FOR CARGO DOORS



- REPAIRS FOR CARGO DOORS:

  REFER TO REPAIR 1 FOR FLUSH SKIN REPAIR BETWEEN BEAMS

  REFER TO REPAIR 2 FOR SMALL HOLE - FLUSH REPAIR

  REFER TO REPAIR 3 FOR EXTERNAL REPAIR

  REFER TO REPAIR 4 FOR EXTERNAL REPAIR

Typical Skin Repairs for Cargo Doors
Figure 201

REPAIR 1 - CARGO DOORS - FLUSH SKIN REPAIR BETWEEN BEAMS

REPAIR INSTRUCTIONS

1. Remove the inner skin panel for access if required.
2. Clean out the damage to the skin to a rectangular shape with a minimum of 0.50 inch (12.7 mm) radius at the corners. The cutout should be parallel to the centerline of the adjacent beams.
3. Fabricate repair parts.

   NOTE: Door outer skin is chem-milled. Fabricate repair parts as required to fill chem-milled pockets.
4. Assemble repair parts in installed positions and drill fastener holes.
5. Remove repair parts.
6. Break sharp edges of original and repair parts 0.015 to 0.030 inch (0.4 to 0.8 mm).
7. Remove all nicks, scratches, burrs, sharp edges and corners from original and repair parts.
8. Apply a chemical conversion coating to all bare edges of the existing and repair parts as given in SRM 51-20-01.
9. Apply one coat of BMS 10-11, Type I, primer to inner surface of part 1 and to the edges and surfaces of part 2. Refer to SOPM 20-41-02.
10. Install repair parts making a faying surface seal with BMS 5-95 sealant as given in SRM 51-20-05.
11. Install fasteners wet with BMS 5-95 sealant.
12. Form a fillet seal around the edge of the repair parts using the sealant squeezed out during installation. Apply additional sealant where necessary.

    NOTE: Ensure that drain paths provided at manufacture are not covered by sealant. It is recommended that other accessible drain paths and drain holes are checked and cleared of accumulated debris.
13. Reinstall inner skin panel if removed for access.
14. Restore the surface finish in accordance with AMM 51-21-00.

NOTES

- THIS REPAIR IS A CATEGORY A REPAIR. THE INSPECTIONS GIVEN IN THE MAINTENANCE PLANNING DATA (MPD) ARE SUFFICIENT TO MAINTAIN THE DAMAGE TOLERANCE OF THE INITIAL STRUCTURE WITH THIS REPAIR INSTALLED. REFER TO SRM 51-00-06 FOR REPAIR CATEGORIES AND DEFINITIONS.
- KEEP A MINIMUM OF 2D EDGE MARGIN ON ALL REPAIR PARTS.
- THE MAXIMUM PULL-UP PERMITTED BEFORE FASTENER INSTALLATION IS 0.005 INCH.
- D = FASTENER DIAMETER
- WHEN YOU USE THIS REPAIR, REFER TO:
  - AMM 51-21 FOR INTERIOR AND EXTERIOR FINISHES
  - SOPM 20-41-02 FOR APPLICATION OF CHEMICAL AND SOLVENT RESISTANT FINISHES
  - SRM 51-10-02 FOR INSPECTION AND REMOVAL OF DAMAGE
  - SRM 51-20-01 FOR PROTECTIVE TREATMENT OF METAL
  - SRM 51-20-05 FOR SEALING OF FUSELAGE SKIN REPAIRS
  - SRM 51-40 FOR FASTENER CODE, REMOVAL, INSTALLATION, HOLE SIZES AND EDGE MARGINS

[A] SEE SRM 51-10-01 FOR AERODYNAMIC SMOOTHNESS REQUIREMENTS.

[B] THE PART 1 DOUBLER MUST BE ONE BAY AWAY FROM AN ADJACENT DOUBLER REPAIR, CUTOUT AND/OR SPLICED JOINT.

[C] WHERE COUNTERSINK RIVET SUBSTITUTIONS ARE MADE, THE COUNTERSINK DEPTH FOR BACR15CE RIVETS MUST BE MAINTAINED THE EXCESS PORTION OF THE SUBSTITUTE RIVET HEAD MUST BE SHAVED OFF AFTER INSTALLATION AS GIVEN IN SRM 51-10-01.

FASTENER SYMBOLS

REPAIR FASTENER LOCATION. SEE TABLE III FOR FASTENER TYPE AND SIZE.

REFERENCE FASTENER LOCATIONS

Cargo Doors - Flush Skin Repair Between Beams
Figure 201 (Sheet 1 of 3)

REPAIR MATERIAL			
PART		QTY	MATERIAL
1	DOUBLER	1	CLAD 2024-T3. REFER TO TABLE II FOR THE NECESSARY THICKNESS.
2	FILLER	1	CLAD 2024-T3. SAME THICKNESS AS THE TRIMMED SKIN.

TABLE I

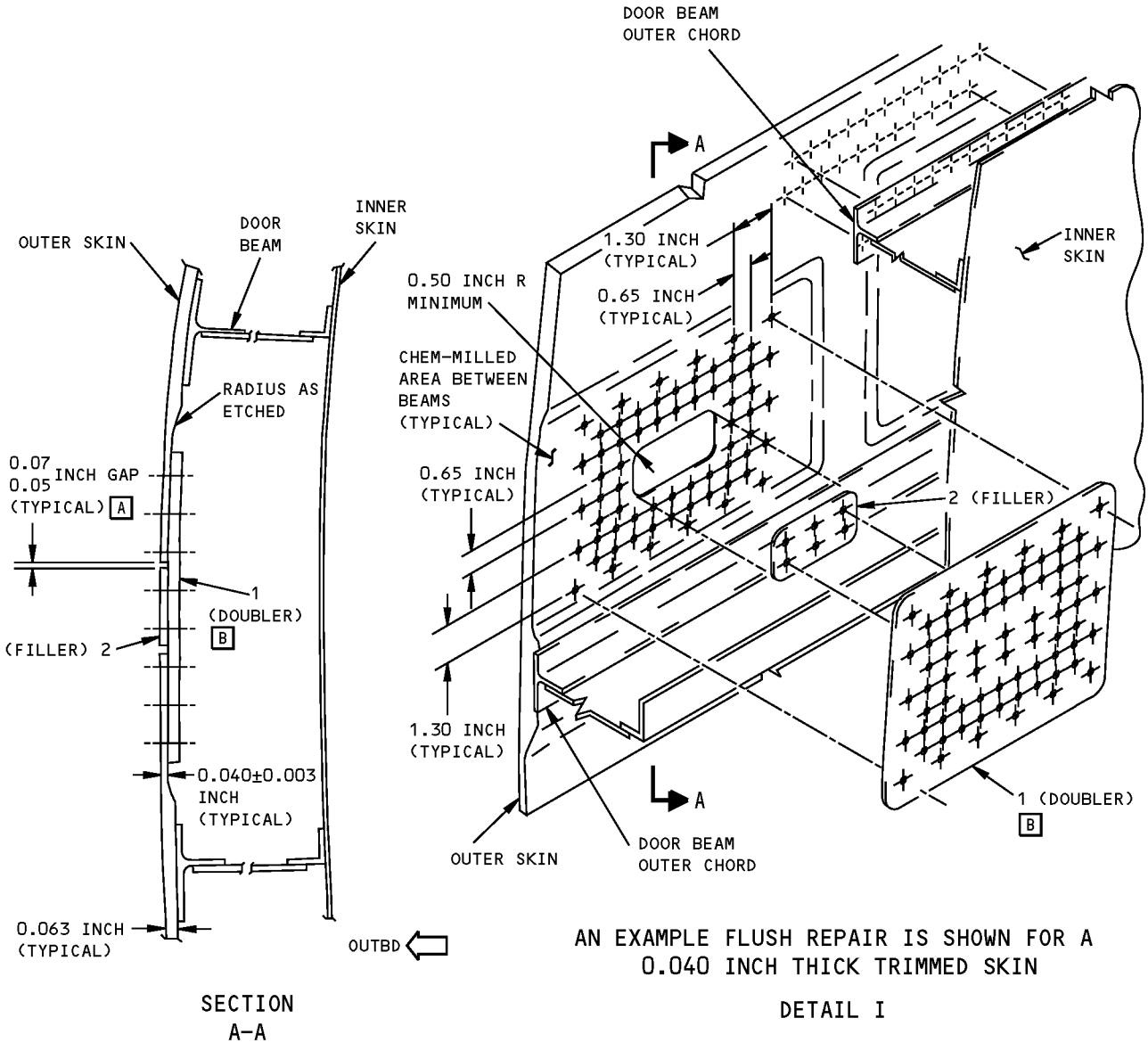
PART 1 DOUBLER THICKNESS	
MAXIMUM TRIMMED SKIN GAGE (INCH)	DOUBLER GAGE (INCH)
0.040	0.063
0.045	0.063
0.050	0.063
0.056	0.063
0.063	0.071
0.071	0.080

TABLE II

REPAIR FASTENER REQUIREMENTS	
SKIN GAGE THROUGH WHICH THE FASTENER IS INSTALLED (INCH)	FASTENERS [C]
0.040	BACR15BB5D
0.045	BACR15BB5D
0.050	BACR15BB5D
0.056	BACR15CE5D
0.063	BACR15CE6D
0.071	BACR15CE6D

TABLE III

Cargo Doors - Flush Skin Repair Between Beams
Figure 201 (Sheet 2 of 3)



Cargo Doors - Flush Skin Repair Between Beams
Figure 201 (Sheet 3 of 3)

REPAIR 2 - CARGO DOORS - SMALL HOLE - FLUSH REPAIR

APPLICABILITY
THIS REPAIR MUST NOT BE USED IN AREAS WITH DOUBLERS AND THE SKIN GAGE MUST BE CONSTANT. [B]

REPAIR INSTRUCTIONS

1. Remove the inner skin panel for access if required.
2. Clean out the damaged hole to 1-inch (25 mm) diameter maximum. The center of the hole to an edge or cutout must not be less than 1.90 inches (48 mm).
3. Make repair parts 1 and 2.
4. Assemble repair parts in installed positions and drill fastener holes.
5. Remove repair parts.
6. Break sharp edges of original and repair parts 0.015 to 0.030 inch (0.4 to 0.8 mm).
7. Remove all nicks, scratches, burrs, sharp edges and corners from original and repair parts.
8. Apply a chemical conversion coating to all bare edges of the existing and repair parts as given in SRM 51-20-01.
9. Apply one coat of BMS 10-11, Type I, primer to all of part 2 and to the edges and inner surface of part 1. Refer to SOPM 20-41-02.
10. Install repair parts, making a faying surface seal with BMS 5-95 sealant as described in SRM 51-20-05.
11. Install fasteners wet with BMS 5-95 sealant.
12. Form a fillet seal around the edge of the repair parts, using the sealant squeezed out during installation. Apply additional sealant where necessary.

    NOTE: Ensure that drain paths provided at manufacture are not covered by sealant. It is recommended that other accessible drain paths and drain holes are checked and cleared of accumulated debris.

13. Reinstall inner skin panel if removed for access.
14. Restore the surface finish as given in AMM 51-21.

NOTES

- THIS REPAIR IS A CATEGORY A REPAIR. THE INSPECTIONS GIVEN IN THE MAINTENANCE PLANNING DATA (MPD) ARE SUFFICIENT TO MAINTAIN THE DAMAGE TOLERANCE OF THE INITIAL STRUCTURE WITH THIS REPAIR INSTALLED. REFER TO SRM 51-00-06 FOR REPAIR CATEGORIES AND DEFINITIONS.
- THE MAXIMUM PULL-UP PERMITTED BEFORE FASTENER INSTALLATION IS 0.005 INCH.
- KEEP A MINIMUM OF 2D EDGE MARGIN ON ALL REPAIR PARTS.
- D = FASTENER DIAMETER
- WHEN YOU USE THIS REPAIR, REFER TO:
  - AMM 51-21 FOR INTERIOR AND EXTERIOR FINISHES
  - SOPM 20-41-02 FOR APPLICATION OF CHEMICAL AND SOLVENT RESISTANT FINISHES
  - SRM 51-10-02 FOR INSPECTION AND REMOVAL OF DAMAGE
  - SRM 51-20-01 FOR PROTECTIVE TREATMENT OF METAL
  - SRM 51-20-05 FOR SEALING OF FUSELAGE SKIN REPAIRS
  - SRM 51-40 FOR FASTENER CODE, REMOVAL, INSTALLATION, HOLE SIZES AND EDGE MARGINS.

[A] SEE SRM 51-10-01 FOR AERODYNAMIC SMOOTHNESS REQUIREMENTS

[B] THE REPAIR DOUBLER MUST BE ONE BAY AWAY FROM AN ADJACENT DOUBLER REPAIR, CUTOUT AND/OR SPLICED JOINT

[C] WHERE COUNTERSINK RIVET SUBSTITUTIONS ARE MADE, THE COUNTERSINK DEPTH FOR BACR15CE RIVETS MUST BE MAINTAINED. THE EXCESS PORTION OF THE SUBSTITUTE RIVET HEAD MUST BE SHAVED OFF AFTER INSTALLATION AS GIVEN IN SRM 51-10-01.

FASTENER SYMBOLS

REPAIR FASTENER LOCATION. REFER TO TABLE III FOR THE FASTENER TYPE AND SIZE.

Cargo Doors - Small Hole - Flush Repair
Figure 201 (Sheet 1 of 3)

REPAIR MATERIAL			
PART		QTY	MATERIAL
1	FILLER	1	CLAD 2024-T3. SAME THICKNESS AS THE TRIMMED SKIN.
2	DOUBLER	1	CLAD 2024-T3. REFER TO TABLE II FOR THE NECESSARY THICKNESS.

TABLE I

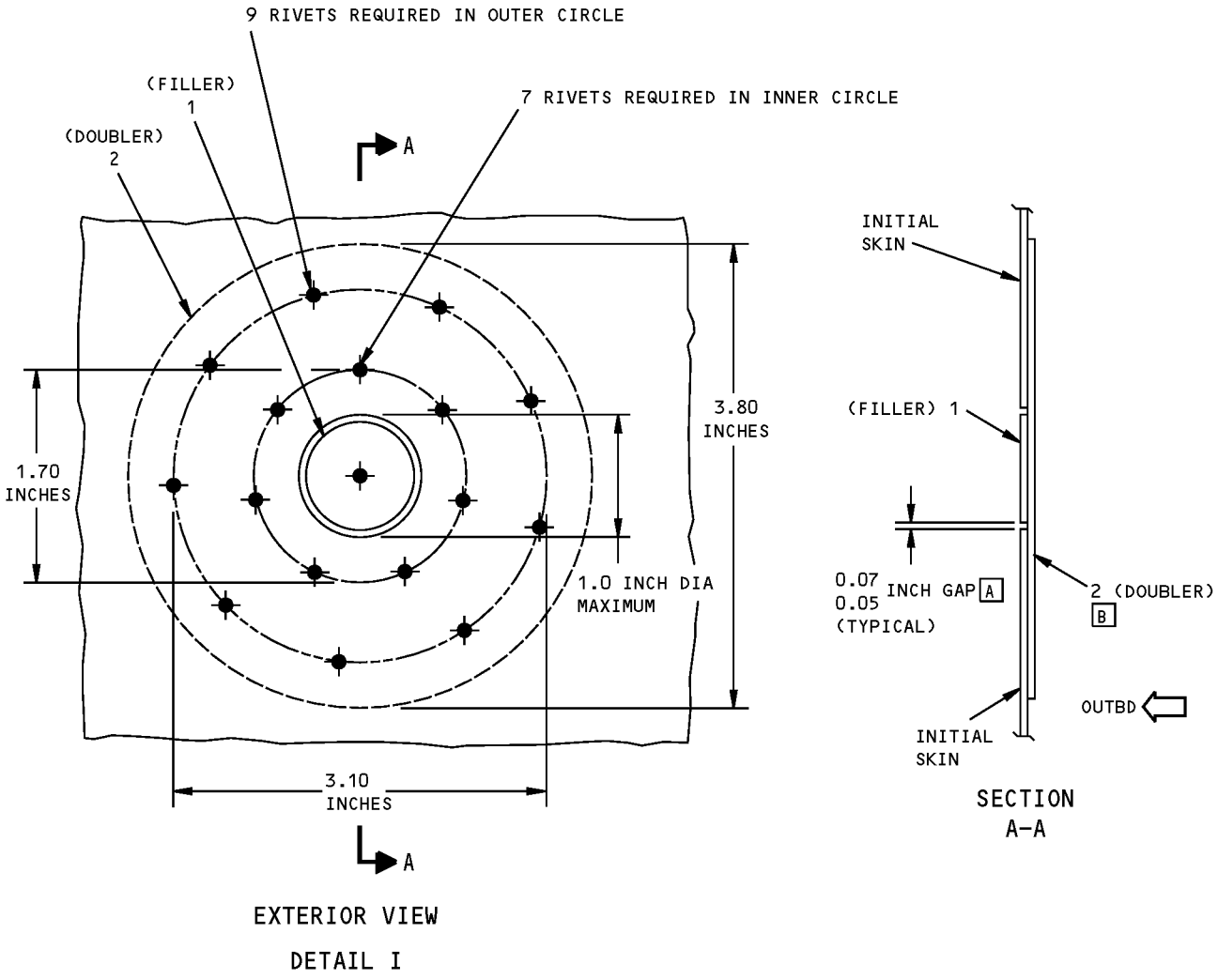
PART 2 DOUBLER THICKNESS	
MAXIMUM TRIMMED SKIN GAGE (INCH)	DOUBLER GAGE (INCH)
0.040	0.063
0.045	0.063
0.050	0.063
0.056	0.063
0.063	0.071
0.071	0.080

TABLE II

REPAIR FASTENER REQUIREMENTS	
SKIN GAGE THROUGH WHICH THE FASTENER IS INSTALLED (INCH)	FASTENERS [C]
0.040	BACR15BB5D
0.045	BACR15BB5D
0.050	BACR15BB5D
0.056	BACR15CE5D
0.063	BACR15CE6D
0.071	BACR15CE6D

TABLE III

Cargo Doors - Small Hole - Flush Repair
Figure 201 (Sheet 2 of 3)



Cargo Doors - Small Hole - Flush Repair
Figure 201 (Sheet 3 of 3)

REPAIR 3 - CARGO DOORS - SMALL HOLE - EXTERNAL REPAIR

REPAIR INSTRUCTIONS

1. Remove the inner skin panel for access if required.

2. Clean out the damaged hole to 1.00 inch (25 mm) diameter maximum. The center of the hole to an edge or cutout must not be less than 4 times the hole diameter. [B]

3. Fabricate repair parts.

4. Break sharp edges of original and repair parts 0.015 to 0.030 inch (0.4 to 0.8 mm)

5. Remove all nicks, scratches, burrs, sharp edges and corners from original and repair parts.

6. Apply a chemical conversion coating to all bare edges of the existing and repair parts as given in SRM 51-20-01.

7. Apply one coat of BMS 10-11, Type I, primer to all of part 1 and to the edges and inner surface of part 2. Refer to SRM 20-41-02.

8. Install repair parts, making a faying surface seal with BMS 5-95 sealant as described in SRM 51-20-05.

9. Install fasteners wet with BMS 5-95 sealant.

10. Form a fillet seal around the edge of the repair parts, using the sealant squeezed out during installation. Apply additional sealant where necessary.

    NOTE: Ensure that drain paths provided at manufacture are not covered by sealant. It is recommended that other accessible drain paths and drain holes are checked and cleared of accumulated debris.

11. Reinstall inner skin panel if removed for access.

12. Restore the surface finish in accordance with AMM 51-21.

NOTES

- THIS REPAIR IS A CATEGORY C REPAIR. INSPECT THE BOLT, DOUBLER AND SURROUNDING SKIN EXTERNALLY EVERY 300 FLIGHT CYCLES. REPLACE THIS TIME-LIMITED REPAIR WITH A CATEGORY A REPAIR AT 2,500 FLIGHT CYCLES OR BEFORE IF DETERIORATION OCCURS. REFER TO SRM 51-00-06 FOR REPAIR CATEGORIES AND DEFINITIONS.
- WHEN YOU USE THIS REPAIR, REFER TO:
  - AMM 51-21 FOR INTERIOR AND EXTERIOR FINISHES
  - SOPM 20-41-02 FOR APPLICATION OF CHEMICAL AND SOLVENT RESISTANT FINISHES
  - SRM 51-10-02 FOR INSPECTION AND REMOVAL OF DAMAGE
  - SRM 51-20-01 FOR PROTECTIVE TREATMENT OF METAL
  - SRM 51-20-05 FOR SEALING OF FUSELAGE SKIN REPAIRS
  - SRM 51-40 FOR FASTENER CODE, REMOVAL, INSTALLATION, HOLE SIZES, AND EDGE MARGINS AND SUBSTITUTION

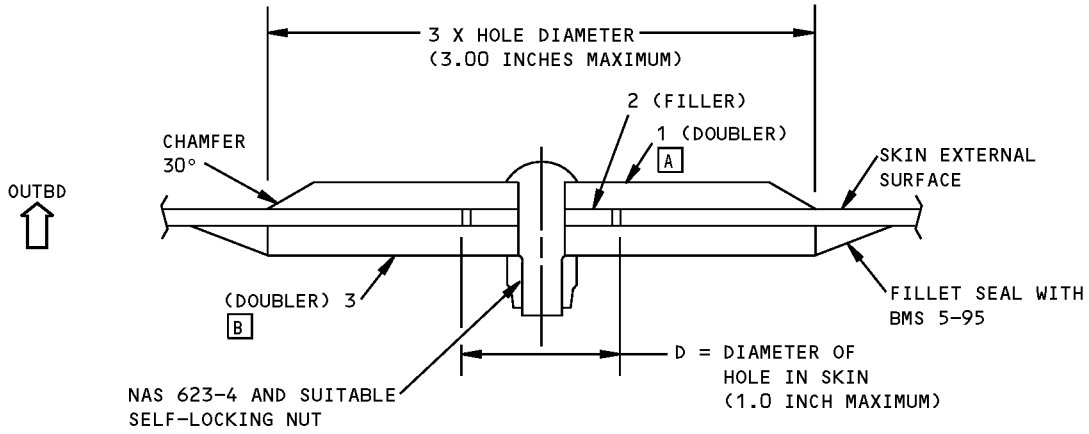
[A] SEE SRM 51-10-01 FOR AERODYNAMIC SMOOTHNESS REQUIREMENTS

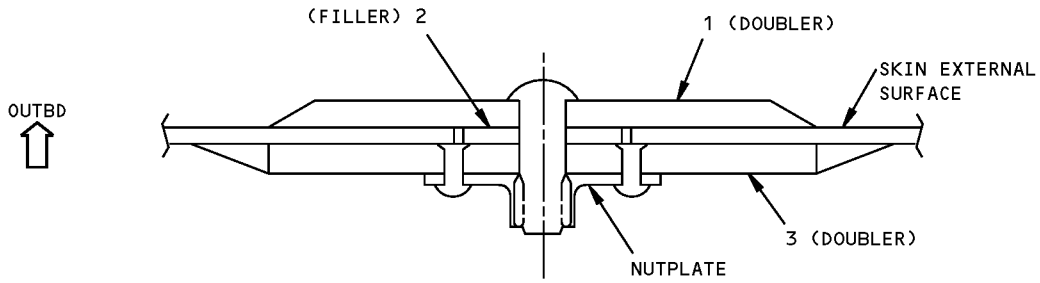
[B] THIS REPAIR MUST BE ONE BAY AWAY FROM AN ADJACENT DOUBLER REPAIR, CUTOUT AND/OR SPLICED JOINT.

Cargo Doors - Small Hole - External Repair
Figure 201 (Sheet 1 of 2)

REPAIR MATERIAL			
PART		QTY	MATERIAL
1	DOUBLER	1	CLAD 2024-T3. 0.126 INCH THICK
2	FILLER	1	CLAD 2024-T3. SAME THICKNESS AS THE TRIMMED SKIN
3	DOUBLER	1	CLAD 2024-T3. 0.126 INCH THICK

TABLE 1





OPTIONAL METHOD
DETAIL I

Cargo Doors - Small Hole - External Repair
Figure 201 (Sheet 2 of 2)

REPAIR 4 - CARGO DOORS - EXTERNAL SKIN REPAIR

REPAIR INSTRUCTIONS

1. Remove inner skin panel for access to damage area if required.
2. Remove fasteners as necessary.
3. Remove the damage to the skin to a rectangular shape with a minimum of 0.50 inch radius at the corners. The cutout must be parallel to the center line of the adjacent beams.
4. Make the repair parts given in Table I.
5. Assemble the repair parts and drill fastener holes.
6. Remove the repair parts.
7. Break sharp edges of repair part 0.015 to 0.030 inch (0.4 to 0.8 mm).
8. Remove all nicks, scratches, burrs, sharp edges and corners from the initial and repair parts.
9. Apply a chemical conversion coating to the repair parts and the bare edges of initial part as given in SRM 51-20-01.
10. Apply one coat of BMS 10-79, Type II or III primer as given in SOPM 20-44-04.
11. Between the doubler and skin, use a countersink repair washer in the initial countersinks as given in SRM 51-40-08.
12. Install the Part 1 Doubler and apply a faying surface seal with BMS 5-95 sealant as described in SRM 51-20-05.

    NOTE: Clear drain paths and drain holes of accumulated debris in accessible areas.

13. Install fasteners wet with BMS 5-95 sealant.
14. Reinstall the inner skin panel if removed for access.
15. Restore finish in accordance with AMM 51-21.

NOTES

- THIS REPAIR IS A CATEGORY B REPAIR. THE CATEGORY B REPAIR HAS FAA APPROVAL IF YOU DO THE SUPPLEMENTAL INSPECTIONS GIVEN IN TABLE IV AND V AS APPLICABLE. INCORPORATION OF THESE INSPECTION REQUIREMENTS INTO THE AIRPLANE'S MAINTENANCE PROGRAM SATISFIES THE DAMAGE TOLERANCE ASSESSMENT OF THE REPAIR. REFER TO SRM 51-00-06 FOR THE REPAIR CATEGORIES AND DEFINITIONS. [B]
- KEEP A MINIMUM OF 2D EDGE MARGIN ON ALL REPAIR PARTS.
- D = FASTENER DIAMETER.
- THE MAXIMUM PULL-UP PERMITTED BEFORE FASTENER INSTALLATION IN IS 0.005 INCH.
- REFER TO THE FOLLOWING WHEN YOU USE THIS REPAIR:
  - AMM 51-21 FOR INTERIOR AND EXTERIOR FINISHES
  - SOPM 20-44-04 FOR APPLICATION OF URETHANE COMPATIBLE PRIMER
  - SRM 51-10-02 FOR INSPECTION AND REMOVAL OF DAMAGE
  - SRM 51-20-01 FOR PROTECTIVE TREATMENT OF METAL
  - SRM 51-20-05 FOR SEALING OF FUSELAGE SKIN REPAIRS
  - SRM 51-40 FOR FASTENER CODE, REMOVAL, INSTALLATION, HOLE SIZES, EDGE MARGINS AND SUBSTITUTION
  - SRM 51-40-08 FOR REPAIR WASHER INSTALLATION.

[A] WHERE COUNTERSINK RIVET SUBSTITUTIONS ARE MADE, THE COUNTERSINK DEPTH FOR BACR15CE RIVETS MUST BE MAINTAINED. THE EXCESS PORTION OF THE SUBSTITUTE RIVET HEAD MUST BE SHAVED OFF AFTER INSTALLATION AS GIVEN IN SRM 51-10-01.

[B] THIS REPAIR, WHEN INSTALLED AT THE BEAM AND INTERCOSTAL INTERSECTION ON LOWER LOBE FORWARD, AFT AND BULK CARGO DOORS, WILL HAVE AN EFFECT ON THE INSPECTIONS OF THE MAINTENANCE PLANNING DATA (MPD) ITEMS 5230-821-50E, 5230-822-50E AND 5230-823-50E. THE INSPECTIONS GIVEN IN TABLE IV WILL MEET THE INSPECTION REQUIREMENTS FOR THESE STRUCTURAL SIGNIFICANT ITEMS (SSI) REQUIRED BY THE MPD AND AD 2001-20-12. THEREFORE, THE INSPECTIONS GIVEN IN TABLE IV ARE AN ALTERNATE MEANS OF COMPLIANCE (AMOC) TO:

- AD 2001-20-12 APPLICABLE TO LINE NUMBERS 1 THRU 764
- MPD ITEM 5230-821-50E
- MPD ITEM 5230-822-50E
- MPD ITEM 5230-823-50E, IN THE AREA COVERED BY THIS REPAIR.

[C] IF TOTAL DOOR FLIGHT CYCLES FROM DATE OF DELIVERY ARE NOT KNOWN, START THE REPEAT INSPECTIONS WITHIN 3,000 FLIGHT CYCLES AFTER THE REPAIR WAS INSTALLED.

FASTENER SYMBOLS

REFERENCE FASTENER LOCATION.

REPAIR FASTENER LOCATION. REFER TO TABLE III FOR THE FASTENER TYPE AND SIZE.

INITIAL FASTENER LOCATION. REMOVE AND REPLACE WITH THE SAME TYPE AND SIZE AS THE INITIAL FASTENER OR 1/32 INCH OVERSIZE IF NECESSARY AS GIVEN IN SRM 51-40-02.

Cargo Doors - External Skin Repair
Figure 201 (Sheet 1 of 6)

REPAIR MATERIAL			
PART		QTY	MATERIAL
1	DOUBLER	1	CLAD 2024-T3. REFER TO TABLE II FOR THE NECESSARY THICKNESS.
2	FILLER	1	CLAD 2024-T3. SAME THICKNESS AS THE THICKEST TRIMMED SKIN.

TABLE I

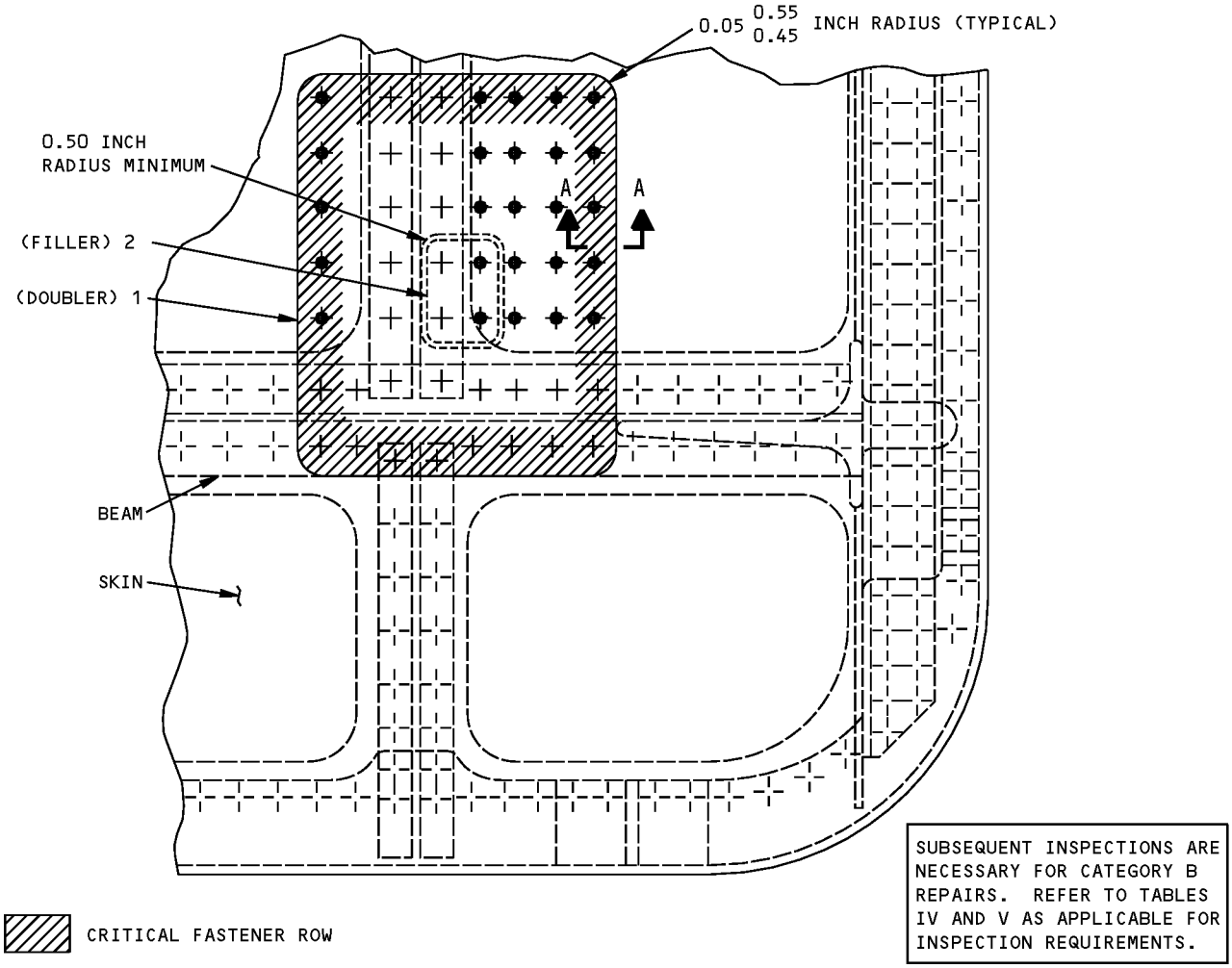
PART 1 DOUBLER THICKNESS	
MAXIMUM TRIMMED SKIN GAGE (INCH)	DOUBLER GAGE (INCH)
0.040	0.063
0.045	0.063
0.050	0.063
0.056	0.063
0.063	0.071
0.071	0.080
0.080	0.080

TABLE II

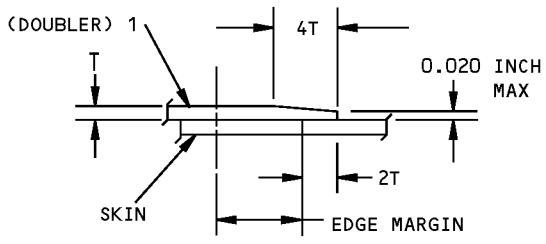
REPAIR FASTENER REQUIREMENTS	
PART 1 DOUBLER GAGE (INCH)	FASTENERS [A]
0.063	BACR15CE5D
0.071 - 0.080	BACR15CE6D

TABLE III

Cargo Doors - External Skin Repair
Figure 201 (Sheet 2 of 6)



REPAIR FOR NO. 1 CARGO DOOR IS SHOWN
ALL OTHER CARGO DOORS ARE ALMOST THE SAME
DETAIL I



SECTION A–A

Cargo Doors - External Skin Repair
Figure 201 (Sheet 3 of 6)

CATEGORY B REPAIR INSPECTION REQUIREMENTS FOR LOWER FORWARD, AFT AND BULK CARGO DOORS [B]				
INSPECTION THRESHOLD	REPEAT INSPECTIONS			REFERENCE
	ALTERNATIVE METHOD		INTERVAL	
37,500 TOTAL DOOR FLIGHT CYCLES FROM DATE OF DELIVERY [C]	I	LOW FREQUENCY EDDY CURRENT (LFEC)	3,000 FLIGHT CYCLES	NDT PART 6, 53-00-06
	II	LOW FREQUENCY EDDY CURRENT (LFEC)	6,000 FLIGHT CYCLES	NDT PART 6, 53-00-07

NOTES:

- USE ALTERNATIVE (I) LFEC METHOD TO INSPECT THE SKIN EXTERNALLY THROUGH THE PART 1 DOUBLER AS SHOWN IN DETAIL II.
- USE ALTERNATIVE (II) LFEC METHOD TO INSPECT THE BEAM OUTER FLANGE EXTERNALLY THROUGH THE PART 1 DOUBLER AND SKIN AT THE INTERCOSTAL INTERSECTION AS SHOWN IN DETAIL II.

TABLE IV

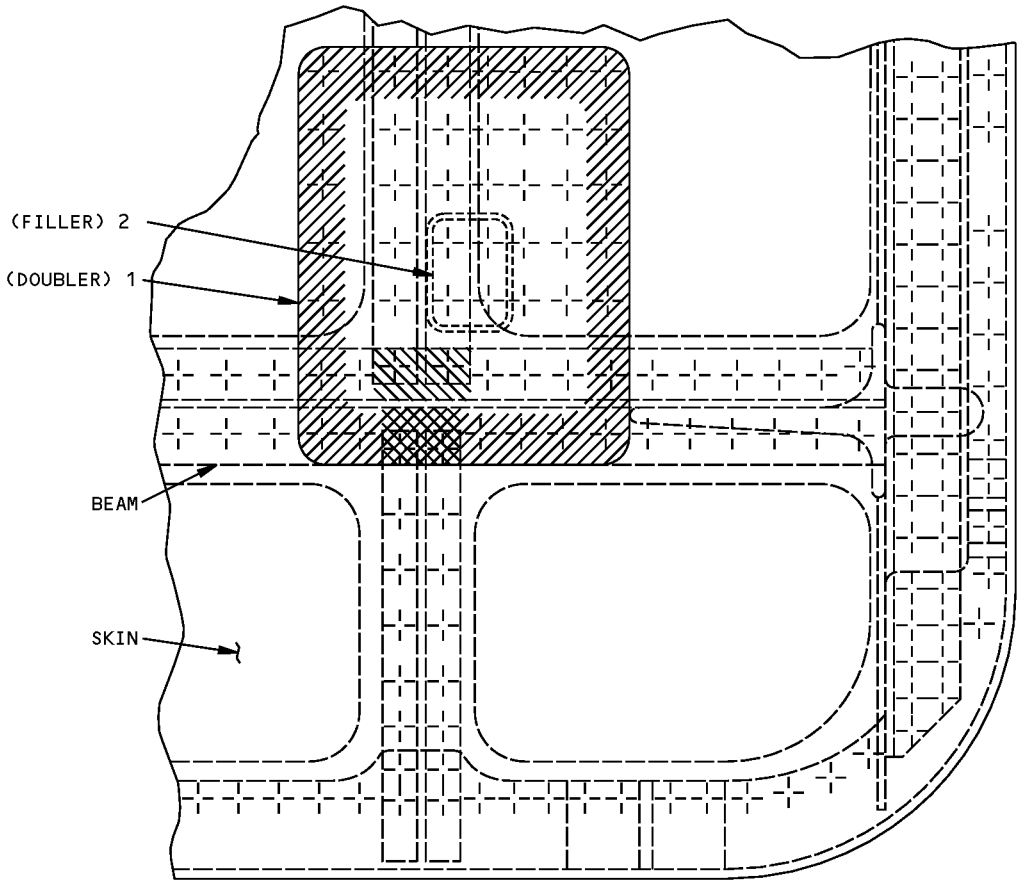
CATEGORY B REPAIR INSPECTION REQUIREMENTS FOR MAIN DECK CARGO DOOR			
INSPECTION THRESHOLD	REPEAT INSPECTIONS		REFERENCE
	METHOD	INTERVAL	
37,500 TOTAL DOOR FLIGHT CYCLES FROM DATE OF DELIVERY [C]	LOW FREQUENCY EDDY CURRENT (LFEC)	3,000 FLIGHT CYCLES	NDT PART 6, 53-00-06

NOTES:

- USE LFEC METHOD TO INSPECT THE SKIN EXTERNALLY THROUGH THE PART 1 DOUBLER AS SHOWN IN DETAIL III.

TABLE V

Cargo Doors - External Skin Repair
Figure 201 (Sheet 4 of 6)



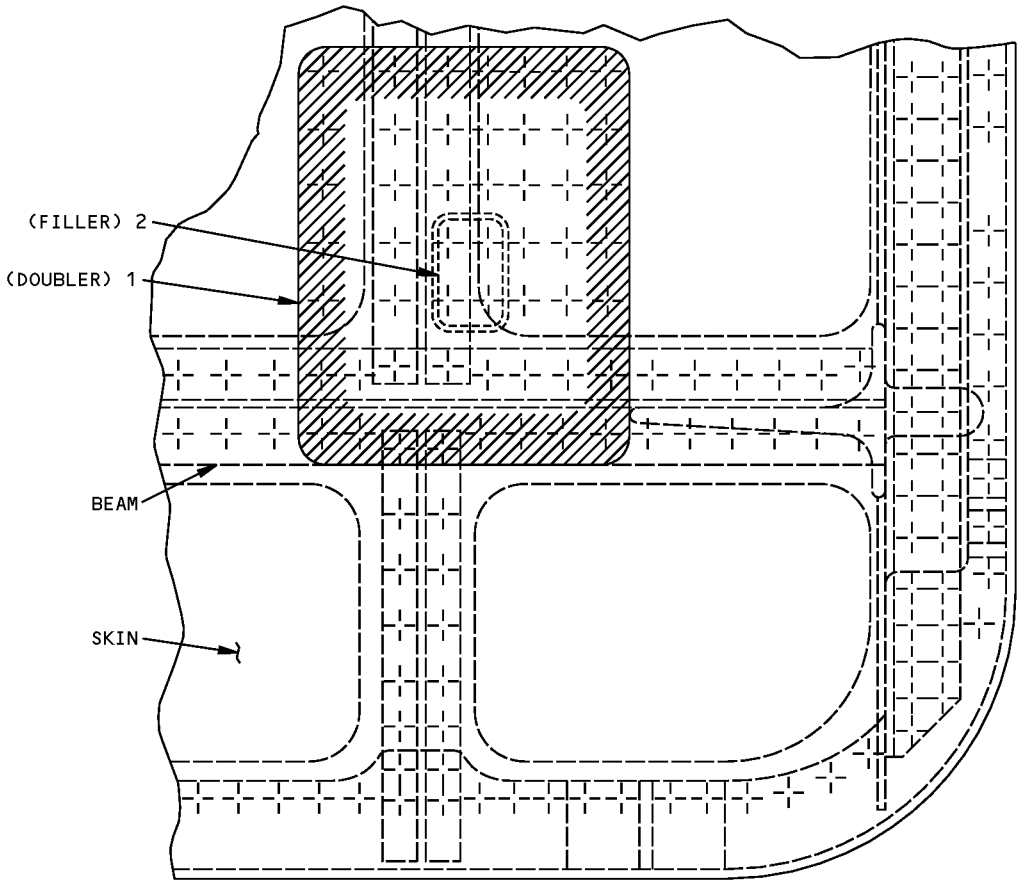
ALTERNATIVE (I) LFEC METHOD INSPECTION AREA. DO THE INSPECTION OF THE SKIN EXTERNALLY THROUGH THE PART 1 DOUBLER AT EVERY 3,000 FLIGHT CYCLES.

ALTERNATIVES (I) AND (II) LFEC METHOD INSPECTION AREA. DO THE INSPECTION OF THE SKIN EXTERNALLY THROUGH THE PART 1 DOUBLER AT EVERY 3,000 FLIGHT CYCLES. DO THE INSPECTION OF THE BEAM OUTER FLANGE THROUGH THE PART 1 DOUBLER AND SKIN AT EVERY 6,000 FLIGHT CYCLES. [B]

ALTERNATIVE (II) LFEC METHOD INSPECTION AREA. DO THE INSPECTION OF THE BEAM OUTER FLANGE EXTERNALLY THROUGH THE PART 1 DOUBLER AND SKIN AT EVERY 6,000 FLIGHT CYCLES. [B]

INSPECTIONS FOR THE NO. 1 CARGO DOOR ARE SHOWN,
ALL OTHER LOWER LOBE CARGO DOORS ARE ALMOST THE SAME
DETAIL II

Cargo Doors - External Skin Repair
Figure 201 (Sheet 5 of 6)

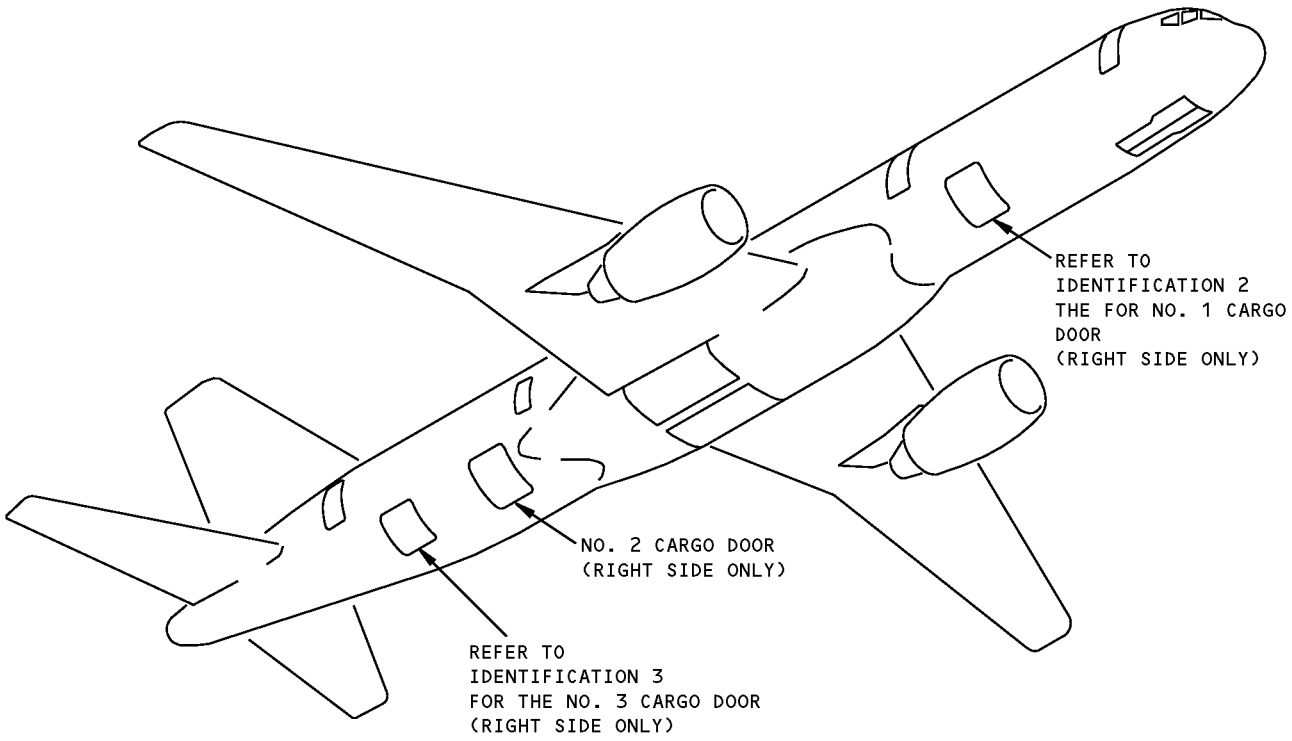


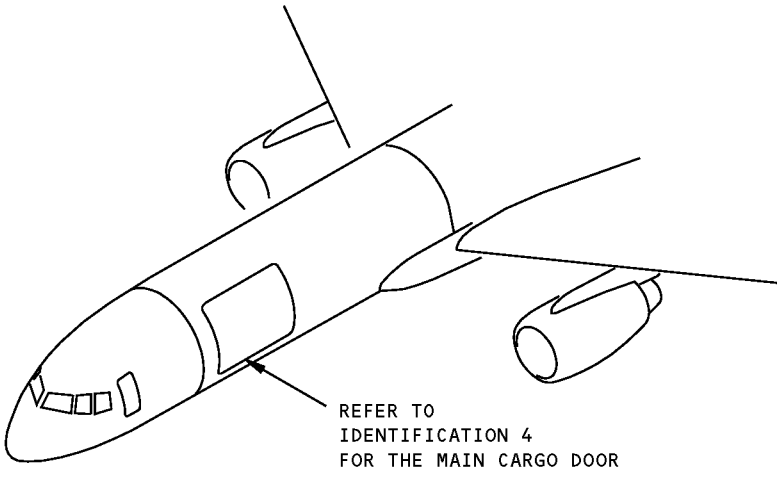
SKIN INSPECTION AREA. USE LFEC METHOD TO INSPECT THE SKIN EXTERNALLY THROUGH THE PART 1 DOUBLER AT EVERY 3,000 FLIGHT CYCLES.

INSPECTIONS FOR THE MAIN DECK CARGO DOOR
DETAIL III

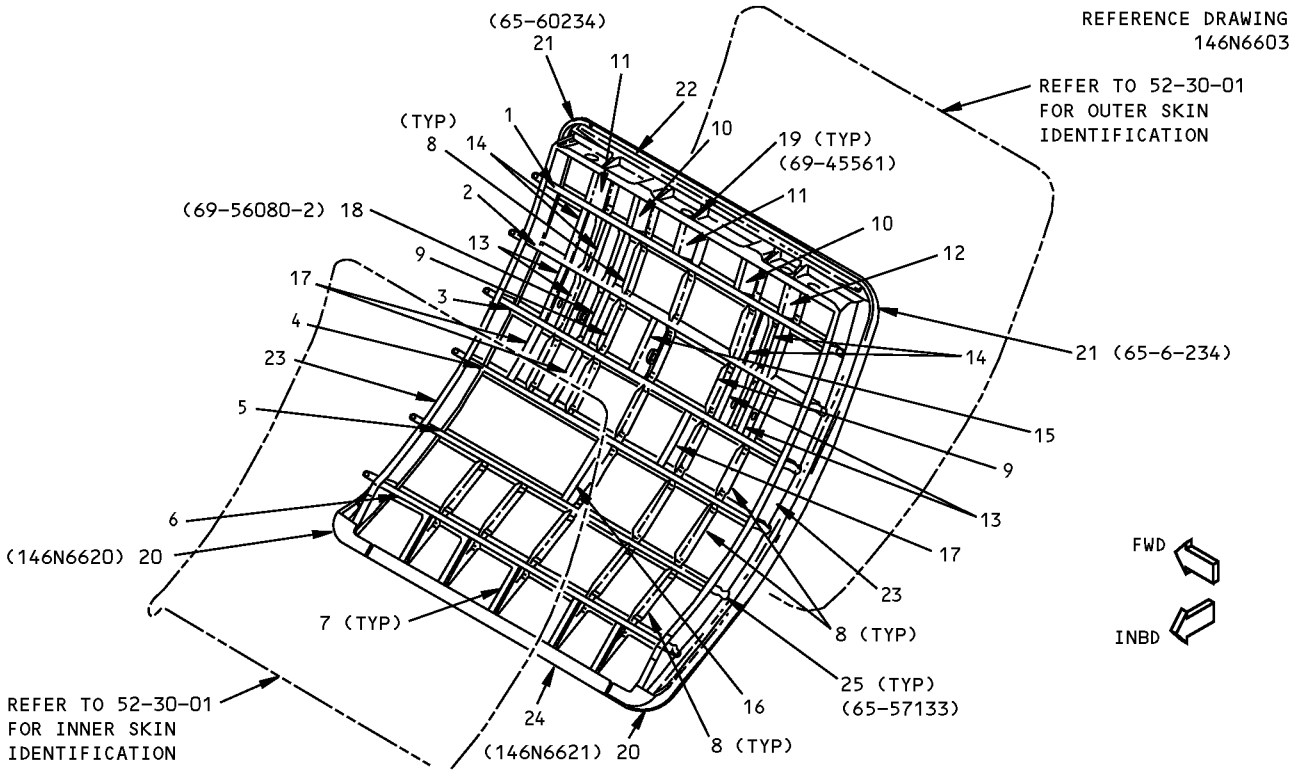
Cargo Doors - External Skin Repair
Figure 201 (Sheet 6 of 6)

IDENTIFICATION 1 - NO. 2 CARGO DOOR STRUCTURE





No. 2 Cargo Door Structure Identification
Figure 1 (Sheet 1 of 4)



ITEM	DESCRIPTION	GAGE	MATERIAL	EFFECTIVITY
1	BEAM			
	OUTER TEE		BAC1506-1912 2024-T3511 OR BAC1506-1912 2024-T42	
	WEB	0.071	7075-T6	
	INNER ANGLE		BAC1514-1776 7075-T6511	
2	BEAM			
	OUTER TEE		BAC1506-1926 2024-T3511 OR BAC1506-1926 2024-T42	
	WEB	0.063	7075-T6	
	INNER ANGLE		BAC1514-1778 7075-T6511	
3	BEAM			
	OUTER TEE		BAC1506-1924 2024-T3511 OR BAC1506-1924 2024-T42	
	WEB	0.063	7075-T6	
	INNER ANGLE		BAC1514-1778 7075-T6511	
4	BEAM			
	OUTER TEE		BAC1506-1925 2024-T3511 OR BAC1506-1925 2024-T42	
	WEB	0.063	7075-T6	
	INNER ANGLE		BAC1514-1779 7075-T6511	
5	BEAM			
	OUTER TEE		BAC1506-1926 2024-T3511 OR BAC1506-1926 2024-T42	
	WEB	0.063	7075-T6	
	INNER ANGLE		BAC1514-1780 7075-T6511	

LIST OF MATERIALS

No. 2 Cargo Door Structure Identification
Figure 1 (Sheet 2 of 4)

ITEM	DESCRIPTION	GAGE	MATERIAL	EFFECTIVITY
6	BEAM			
	OUTER TEE		BAC1506-1918 2024-T3511 OR BAC1506-1918 2024-T42	
	WEB	0.071	7075-T6	
	INNER TEE		BAC1506-1917 7075-T6511	
7	INTERCOSTAL			
	WEB	0.050	CLAD 7075-T6	
	ANGLE		AND10133-1003 7075-T6511	
	TEE		AND10136-1503 7075-T6511	
8	TEE		BAC1505-100424 7075-T6511	
9	TEE		AND10136-2002 7075-T6511	
10	INTERCOSTAL			
	OUTER TEE		AND10136-2002 7075-T6511	
	WEB	0.080	7075-T6	
	INNER TEE		BAC1505-100553	
11	INTERCOSTAL			
	OUTER TEE		AND10136-2002 7075-T6511	
	WEB	0.063	7075-T6	
12	INTERCOSTAL			
	OUTER TEE		BAC1505-100039 7075-T6511	
	WEB	0.063	7075-T6	
13	INTERCOSTAL			
	OUTER TEE		AND10133-1002 7075-T6511	
	WEB	0.080	7075-T6	
	INNER CHORD	0.080	CLAD 7075-T6	
14	INTERCOSTAL			
	OUTER ANGLE		AND10133-1002 7075-T6511	
	WEB	0.080	7075-T6	
	INNER ANGLE		BAC1490-2632 7075-T6511	
15	INTERCOSTAL			
	OUTER TEE		AND10136-2002 7075-T6511	
	WEB	0.080	7075-T6	
16	INTERCOSTAL			
	OUTER TEE		BAC1505-100424 7075-T6511	
	WEB	0.071	7075-T6	
	INNER ANGLE		BAC1490-2556 7075-T6	

LIST OF MATERIALS FOR DETAIL I

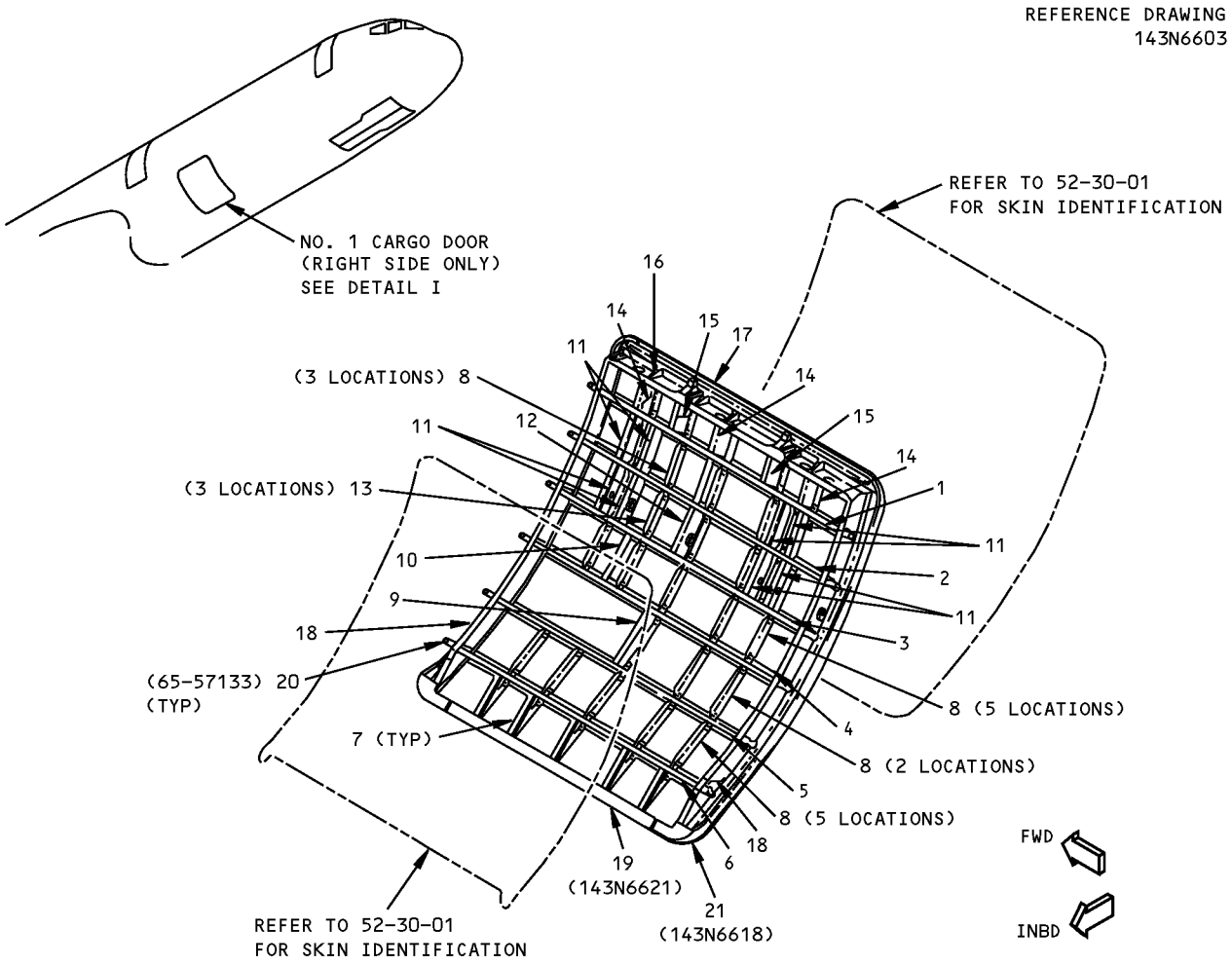
No. 2 Cargo Door Structure Identification
Figure 1 (Sheet 3 of 4)

ITEM	DESCRIPTION	GAGE	MATERIAL	EFFECTIVITY
17	ANGLE		AND10133-1002 7075-T6511	
18	STIFFENER		AND10133-1002 7075-T6511	
19	BRACKET	0.063	CLAD 7075-T6	
20	CORNER	0.050	CLAD 2024-T42	
21	CORNER	0.032	CLAD 2024-T42	
22	UPPER FRAME SUPPORT ANGLE SEAL DEPRESSOR	 0.080	 7075-T6 BAC1520-1497 2024-T3511	
23	SIDE FRAME WEB CHORD SEAL	 0.071	 7075-T6 BAC1490-2816 2024-T42 BAC1493-605 2024-T42	
24	LOWER EDGE BEAM	0.050	CLAD 2024-T42	
25	STOP FITTING		7075-T73 FORGING	

LIST OF MATERIALS FOR DETAIL I

No. 2 Cargo Door Structure Identification
Figure 1 (Sheet 4 of 4)

IDENTIFICATION 2 - NO. 1 CARGO DOOR STRUCTURE



DETAIL I

ITEM	DESCRIPTION	GAGE	MATERIAL	EFFECTIVITY
1	BEAM			
	OUTER TEE		BAC1506-1910 2024-T3511	
	WEB	0.071	CLAD 7075-T6	
	ANGLE		BAC1514-1776 7075-T6511	
2	BEAM			
	OUTER TEE		BAC1506-1926 2024-T3511	
	WEB	0.063	CLAD 7075-T6	
	ANGLE		BAC1514-1777 7075-T6511	
3	BEAM			
	OUTER TEE		BAC1506-1924 2024-T3511	
	WEB	0.063	CLAD 7075-T6	
	ANGLE		BAC1514-1778 7075-T6	

LIST OF MATERIALS FOR DETAIL I

No. 1 Cargo Door Structure Identification
Figure 1 (Sheet 1 of 2)

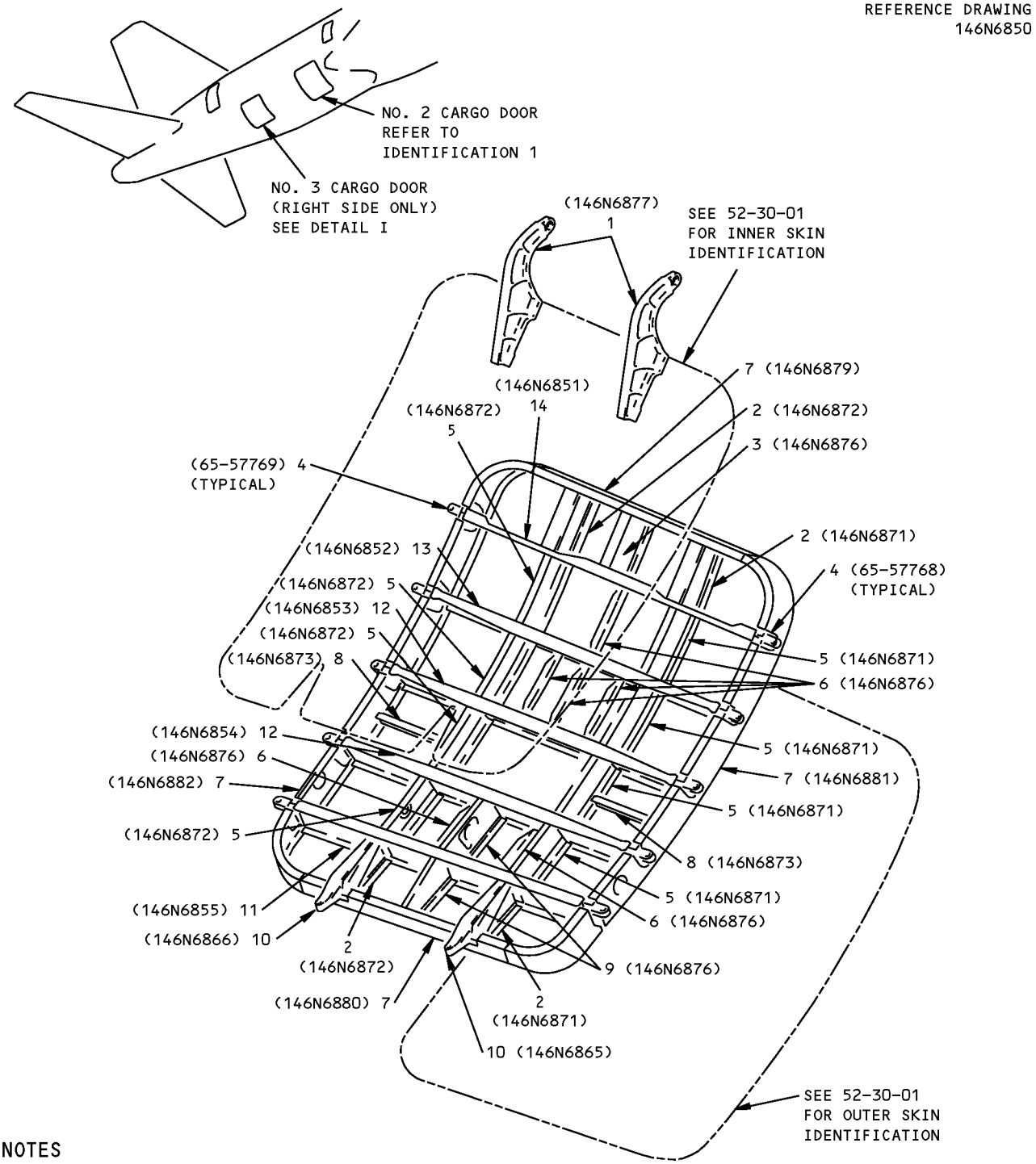
ITEM	DESCRIPTION	GAGE	MATERIAL	EFFECTIVITY
4	BEAM			
	OUTER TEE		BAC1506-1925 2024-T3511	
	WEB	0.063	CLAD 7075-T6	
	ANGLE		BAC1514-1779 7075-T6511	
5	BEAM			
	OUTER TEE		BAC1506-1926 2024-T3511	
	WEB	0.063	CLAD 7075-T6	
	ANGLE		BAC1514-1780 7075-T6511	
6	BEAM			
	OUTER TEE		BAC1506-1918 2024-T3511	
	WEB	0.071	CLAD 7075-T6	
	INNER TEE		BAC1506-1917 7075-T6511	
7	INTERCOSTAL			
	OUTER TEE		AN10136-1503 7075-T6	
	INNER ANGLE	0.050	CLAD 7075-T6	
8	OUTER TEE		BAC1505-100424 7075-T6	
9	INTERCOSTAL			
	OUTER TEE		BAC1505-100424 7075-T6	
	WEB	0.071	7075-T6	
	INNER ANGLE		BAC1490-2556 CLAD 7075-T6	
10	ANGLE		AND10133-1002 7075-T6511	
11	INTERCOSTAL			
	OUTER ANGLE		AND1033-1002 7075-T6511	
	WEB	0.071	CLAD 7075-T6	
	INNER ANGLE		BAC1490-2684 CLAD 7075-T6	
	SHEAR PLATE	0.091	7075-T6	
12	INTERCOSTAL			
	OUTER TEE		BAC1505-100424 7075-T6511	
	WEB	0.071	CLAD 7075-T6	
13	TEE		BAC1506-1926 2024-T3511	
14	INTERCOSTAL			
	OUTER TEE		BAC1505-100424 7075-T6511	
	WEB	0.063	CLAD 7075-T6	
15	INTERCOSTAL			
	OUTER TEE		BAC1505-100424 7075-T6511	
	WEB	0.071	CLAD 7075-T6	
	INNER TEE		BAC1505-29548 7075-T6511	
16	BRACKET	0.063	CLAD 7075-T6	
17	UPPER FRAME			
	CHANNEL	0.080	CLAD 2024-T42	
	ANGLE	0.080	CLAD 7075-T6	
	CORNER	0.032	CLAD 2024-T42	
	SEAL DEPRESSOR		BAC1520-1497 2024-T3511	
18	SIDE FRAME			
	WEB	0.080	CLAD 7075-T6	
	SEAL DEPRESSOR		BAC1493-605 CLAD 2024-T42	
19	LOWER FRAME			
	BEAM	0.050	CLAD 2024-T42	
20	STOP FITTING		7075-T73 FORGING	
21	CORNER (2 LOCATIONS)	0.050	CLAD 2024-T42	

LIST OF MATERIALS FOR DETAIL I (CONTINUED)

No. 1 Cargo Door Structure Identification
Figure 1 (Sheet 2 of 2)

IDENTIFICATION 3 - NO. 3 CARGO DOOR STRUCTURE

REFERENCE DRAWING
146N6850



NOTES

A FOR CUM LINE NUMBERS:
9, 10, 11, 13, 14, 17, 26, 29,
32, 33, 34, 35, 36, 37, 39, 41

DETAIL I

LIST OF MATL

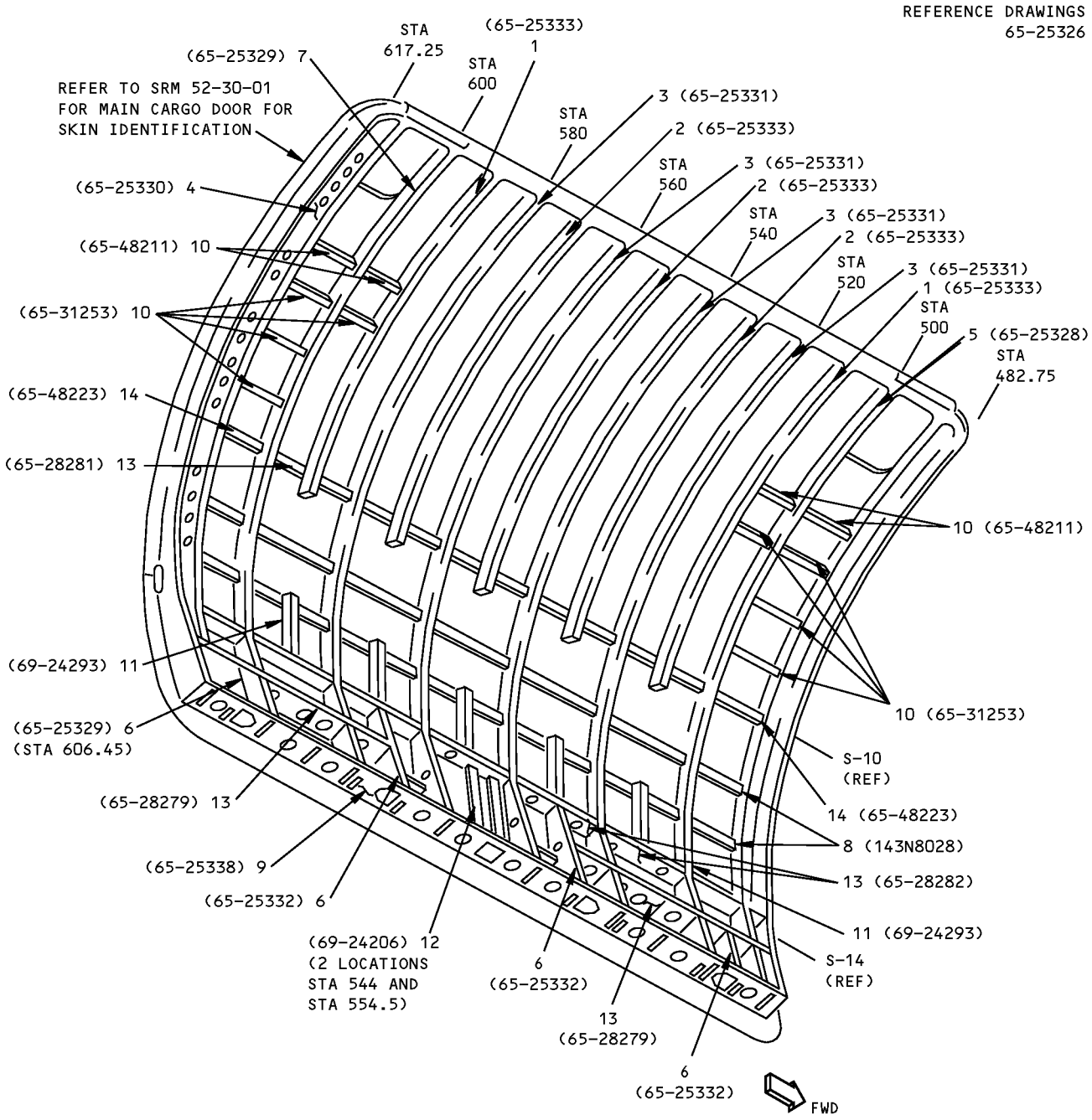
No. 3 Cargo Door Structure Identification
Figure 1 (Sheet 1 of 2)

ITEM	DESCRIPTION	GAGE	MATERIAL	EFFECTIVITY
1	HINGE		7075-T73 DIE FORGING OPTIONAL: 7075-T73 FORGED BLOCK	A
2	TEE		BAC1505-100274 2024-T4	
3	INTERCOSTAL OUTER CHORD INNER CHORD WEB	 0.063	 BAC1505-100274 2024-T42 BAC1505-100274 7075-T6 CLAD 7075-T6	
4	STOP FITTING		7075-T73 DIE FORGING	
5	FRAME ASSY WEB TEE	 0.063 	 CLAD 7075-T6 BAC1505-100274 2024-T4	
6	INTERCOSTAL		BAC1505-100274 2024-T42	
7	FRAME	0.063	CLAD 2024-T42	
8	SUPPORT ZEE	0.063	CLAD 2024-T42	
9	INTERCOSTAL CHORD WEB	 0.063	 BAC1505-100274 2024-T42 CLAD 7075-T6	
10	STOP FITTING		7075-T73 DIE FORGING OPTIONAL: 7075-T73 FORGED BLOCK	A
11	BEAM ASSY OUTER CHORD INNER CHORD WEB	 0.063	 BAC1505-100543 2024-T42 BAC1505-101270 7075-T62 CLAD 7075-T6	
12	BEAM ASSY OUTER CHORD INNER CHORD WEB	 0.063	 BAC1505-100543 2024-T4 BAC1505-101054 7075-T6 CLAD 2024-T3	
13	BEAM ASSY OUTER CHORD INNER CHORD WEB	 0.063	 BAC1505-100543 2024-T42 BAC1505-101054 7075-T62 CLAD 2024-T3	
14	BEAM ASSY OUTER CHORD INNER CHORD WEB	 0.063	 BAC1505-100543 2024-T4 BAC1505-100543 7075-T6 CLAD 2024-T3	

LIST OF MATERIALS FOR DETAIL I

No. 3 Cargo Door Structure Identification
Figure 1 (Sheet 2 of 2)

IDENTIFICATION 4 - MAIN DECK CARGO DOOR STRUCTURE



(757-SF AIRPLANES ONLY)

VIEW FROM INSIDE

MAIN CARGO DOOR STRUCTURE
DETAIL I

LIST OF MATL

Main Deck Cargo Door Structure Identification
Figure 1 (Sheet 1 of 2)

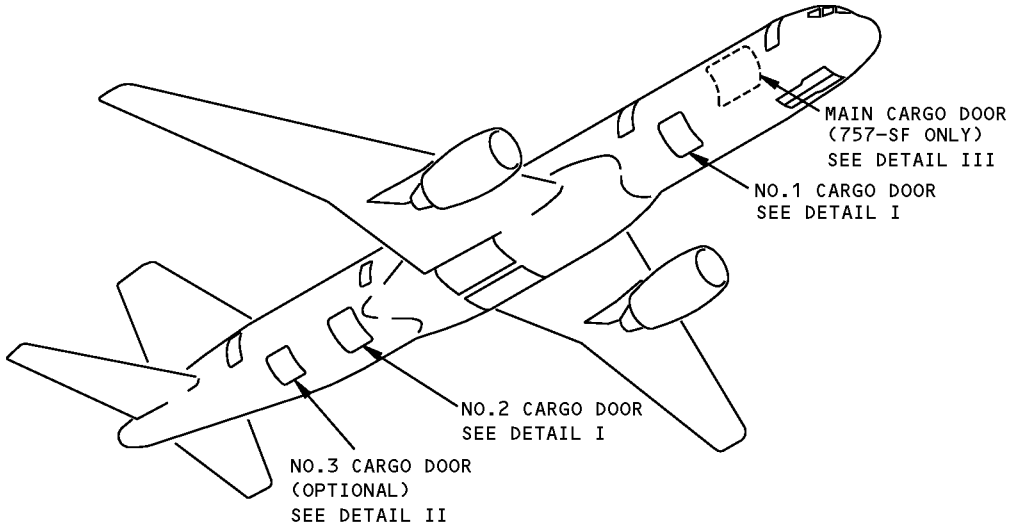
ITEM	DESCRIPTION	GAGE	MATERIAL	EFFECTIVITY
1	FRAME	0.0800	CLAD 7075-T6	
2	FRAME		BAC1517-1099 CLAD 7075-T6	
3	FRAME ASSY			
	UPPER FRAME		BAC1517-1099 CLAD 7075-T6	
	OUTER CHORD		BAC1506-992 CLAD 7075-T6511	
	MID CHORD		BAC1490-2631 7075-T6	
	LOWER FRAME	0.071	CLAD 7075-T6	
4	FRAME ASSY			
	UPPER FRAME		BAC1506-993 7075-T6	
	ANGLE		AND10134-1602 7075-T6511	
	LOWER FRAME	0.071	7075-T6	
5	FRAME ASSY			
	UPPER FRAME		BAC1506-992 7075-T6	
	FWD ANGLE		AND10133-1203 7075-T6	
	AFT ANGLE		AND10134-1602 7075-T6	
	LOWER FRAME	0.071	7075-T6	
6	FRAME ASSY			
	CHORD		BAC1506-992 7075-T6511	
	WEB	0.071	CLAD 7075-T6	
7	FRAME ASSY			
	UPPER FRAME		BAC1506-992 7075-T6	
	FWD ANGLE		AND10134-1602 7075-T6	
	AFT ANGLE		AND10133-1203 7075-T6	
	LOWER FRAME	0.071	CLAD 7075-T6	
8	STRINGER		BAC1506-2092 7075-T6511	
9	BEAM ASSY			
	BEAM	0.125	CLAD 7075-T6	
	WEB	0.063	CLAD 7075-T6	
10	STIFFENER ASSSY			
	STIFFENER		AND10135-1005 7075-T6511	
	ANGLE		AND10134-1206 7075-T6511	
11	STIFFENER		AND10136-1003 7075-T6	
12	STIFFENER		AND10135-1005 7075-T6	
13	INTERCOSTAL	0.063	CLAD 7075-T6	
14	INTERCOSTAL		BAC1506-992 7075-T6511	

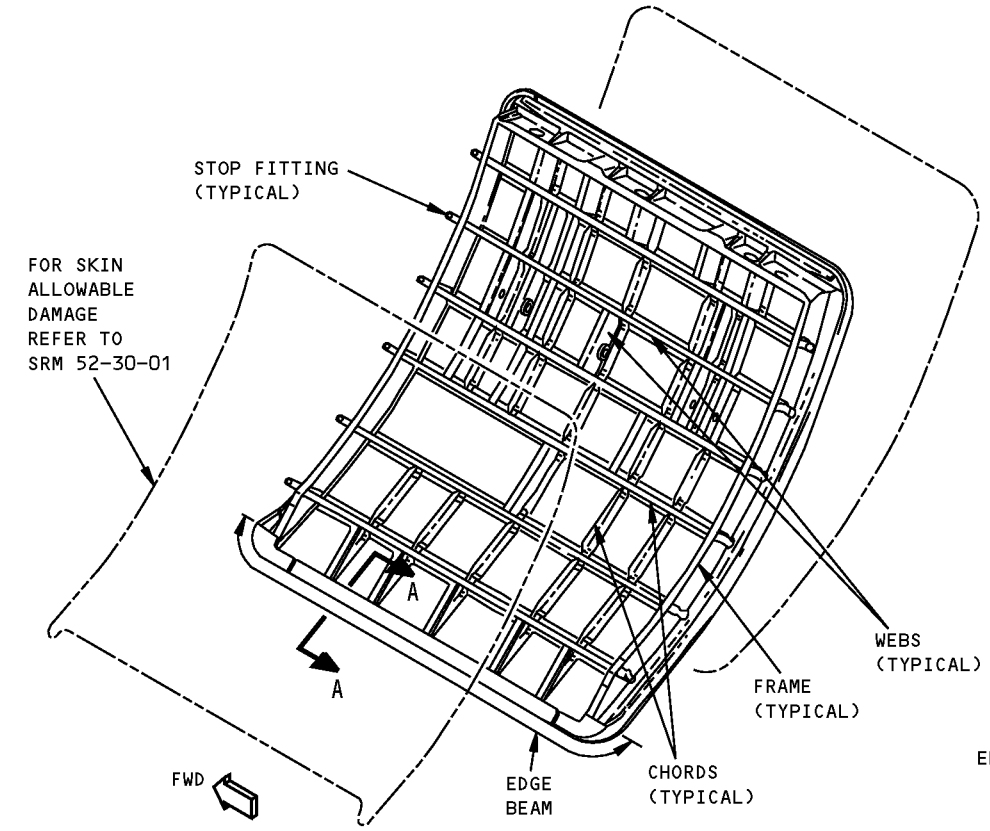
LIST OF MATERIALS FOR DETAIL I

Main Deck Cargo Door Structure Identification
Figure 1 (Sheet 2 of 2)

ALLOWABLE DAMAGE 1 - CARGO DOOR STRUCTURE

REF DWG
143N6603
146N6603

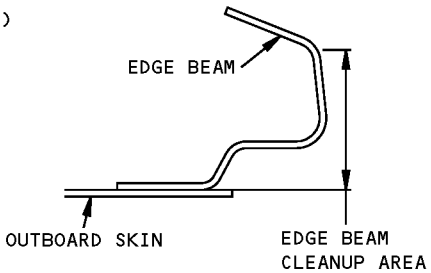




MATERIAL: ALUMINUM

NO.1 CARGO DOOR SHOWN
NO.2 CARGO DOOR SIMILAR

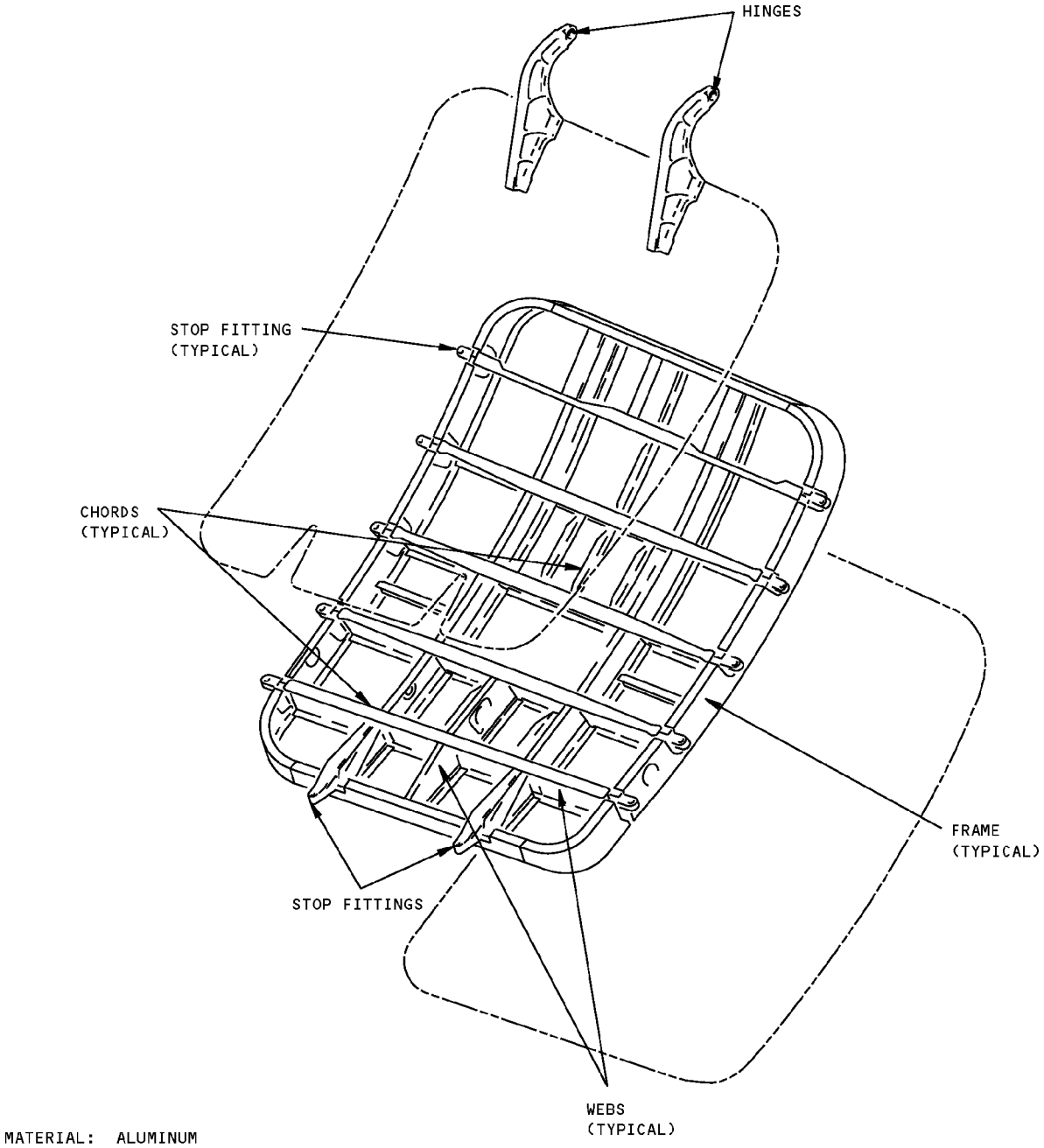
DETAIL I



SECTION A-A

Cargo Door Structure Allowable Damage
Figure 101 (Sheet 1 of 7)

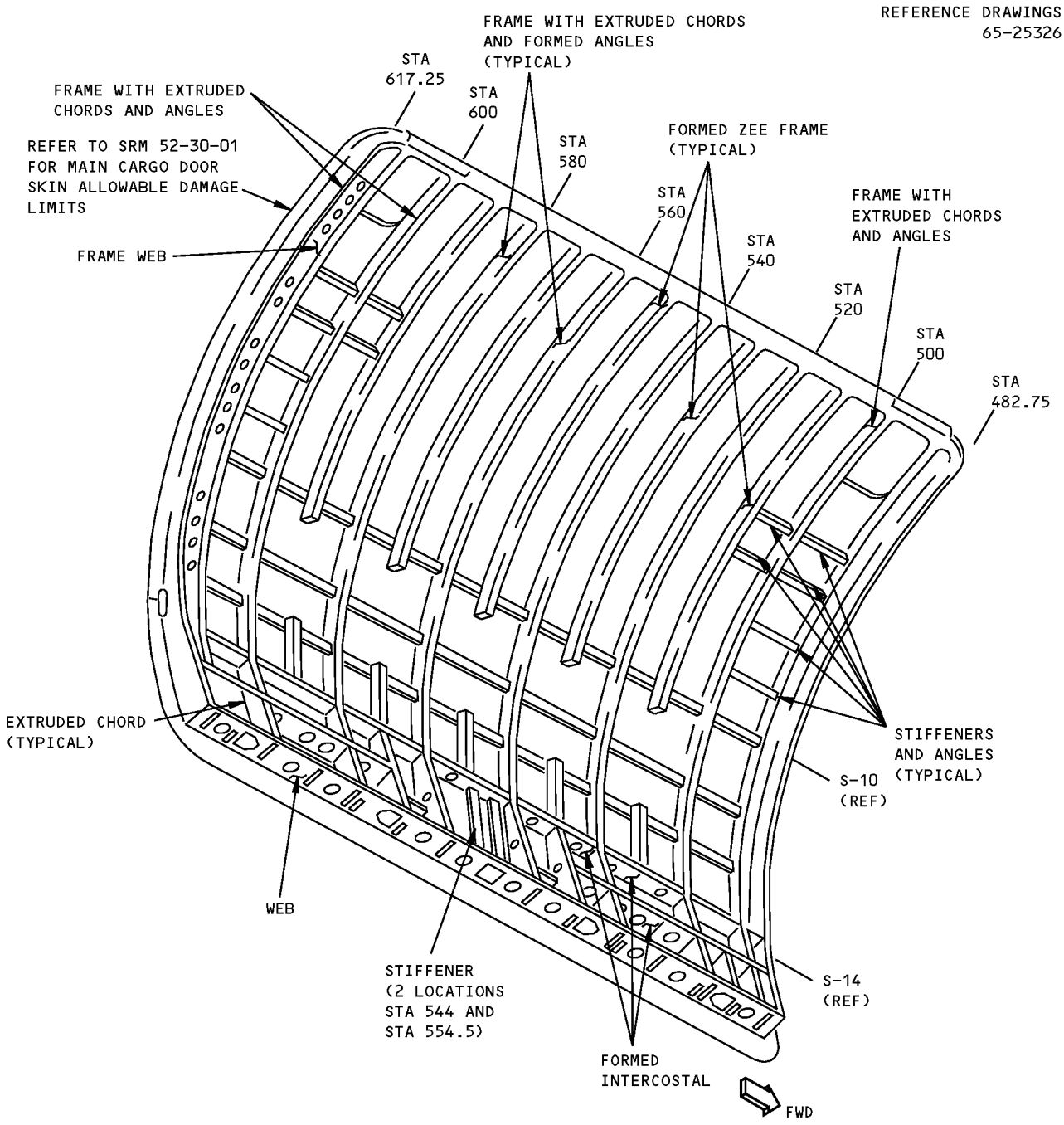
REF DWG
146N6850



MATERIAL: ALUMINUM

NO.3 CARGO DOOR
DETAIL II

Cargo Door Structure Allowable Damage
Figure 101 (Sheet 2 of 7)



(757-SF AIRPLANES ONLY)

VIEW FROM INSIDE

MAIN CARGO DOOR STRUCTURE
DETAIL III

LIST OF MATL

Cargo Door Structure Allowable Damage
Figure 101 (Sheet 3 of 7)

DESCRIPTION	CRACKS	NICKS, GOUGES AND CORROSION	DENTS	HOLES AND PUNCTURES
CHORD	[A]	[D]	NOT ALLOWED	NOT ALLOWED
FRAME	[B]	[E]	SEE DETAIL V	[H]
WEB	[C]	[F]	SEE DETAIL V	[H]
STOP FITTING [I]	[A]	[G]	NOT ALLOWED	NOT ALLOWED
HINGE [I]	[A]	[G]	NOT ALLOWED	NOT ALLOWED
MACHINED FITTING [I]	[A]	[G]	NOT ALLOWED	NOT ALLOWED
EDGE BEAM	[B]	[E]	SEE DETAIL V	[H]

ALLOWABLE DAMAGE FOR DETAILS I AND II

DESCRIPTION	CRACKS	NICKS, GOUGES AND CORROSION	DENTS	HOLES AND PUNCTURES
EXTRUDED CHORD AND ANGLE	[A]	[D]	NOT ALLOWED	NOT ALLOWED
FORMED ANGLE AND ZEE FRAME	[B]	[E]	SEE DETAIL V	[H]
WEB	[C]	[F]	SEE DETAIL V	[H]
STIFFENER AND ANGLE	[A]	[D]	NOT ALLOWED	NOT ALLOWED
FORMED INTERCOSTAL	[B]	[E]	SEE DETAIL V	[H]

ALLOWABLE DAMAGE FOR DETAIL III

NOTES

- THESE ALLOWABLE DAMAGE LIMITS ARE CATEGORY A REPAIRS. THE INSPECTIONS GIVEN IN THE MAINTENANCE PLANNING DATA (MPD) ARE SUFFICIENT TO MAINTAIN THE DAMAGE TOLERANCE OF THE INITIAL STRUCTURE WITH THIS ALLOWABLE DAMAGE. REFER TO SRM 51-00-06 FOR REPAIR CATEGORIES AND DEFINITIONS.
- REFINISH REWORKED AREAS AS GIVEN IN AMM 51-21.

[A] CRACKS NOT ALLOWED EXCEPT FOR EDGE CRACKS WHICH MUST BE REMOVED PER DETAILS III AND IX

[B] CRACKS NOT ALLOWED EXCEPT FOR EDGE CRACKS WHICH MUST BE REMOVED PER DETAILS III AND VIII

[C] CRACKS NOT ALLOWED EXCEPT FOR EDGE CRACKS WHICH MUST BE REMOVED PER DETAILS III AND VII

[D] REMOVE DAMAGE PER DETAILS III, IV, VI AND IX

[E] REMOVE DAMAGE PER DETAILS III, IV, VI AND VIII

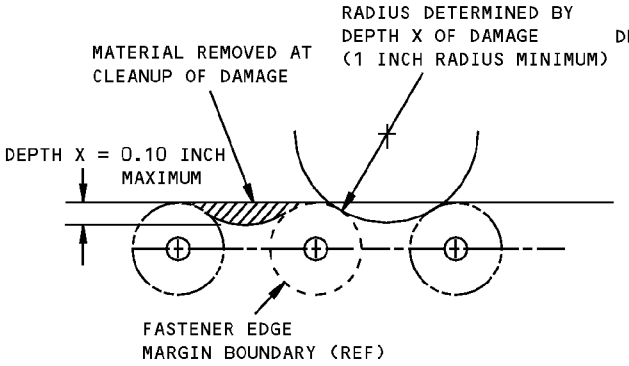
[F] REMOVE DAMAGE PER DETAILS III, IV, VI AND VII

[G] FOR EDGE DAMAGE SEE DETAILS III AND IX. FOR LUG DAMAGE, SEE DETAIL X. FOR OTHER DAMAGE, SEE DETAIL IV. DAMAGE NOT ALLOWED IN VICINITY OF BUSHINGS

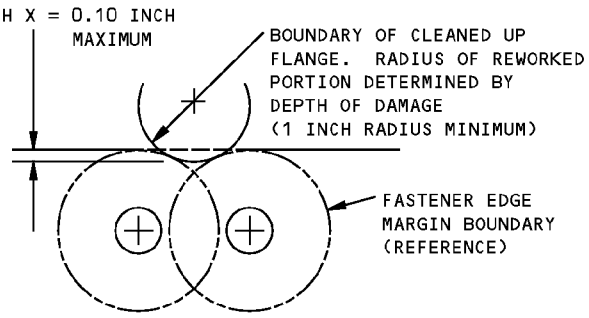
[H] CLEAN OUT DAMAGE UP TO 0.25 INCH (6.4 mm) MAXIMUM DIAMETER AND NOT CLOSER THAN 1.0 INCH (25.4 mm) TO FASTENER HOLE, MATERIAL EDGE, OR OTHER DAMAGE. FILL HOLE WITH 2117-T3 OR T4 ALUMINUM RIVET INSTALLED WET WITH BMS 5-95 SEALANT. ALL OTHER HOLES TO BE REPAIRED

[I] SHOT PEEN REWORKED AREAS AS GIVEN IN SRM 51-20-06

Cargo Door Structure Allowable Damage
Figure 101 (Sheet 4 of 7)

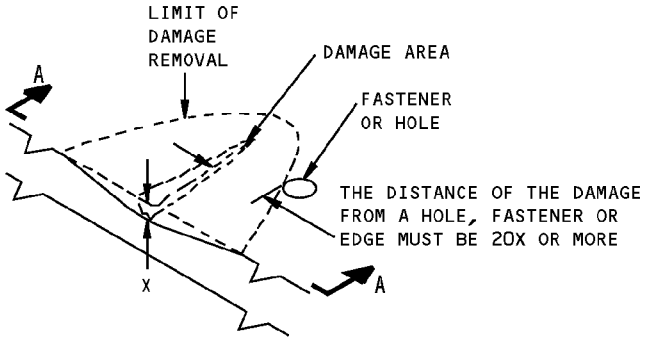


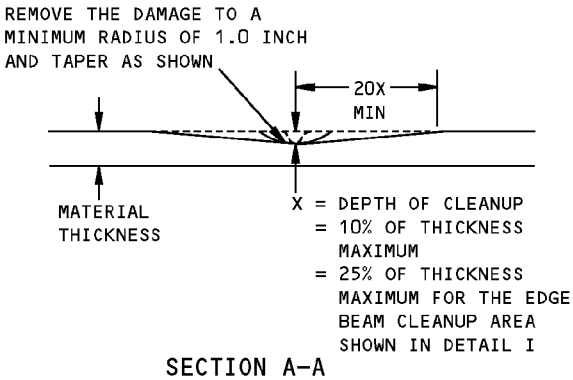
DAMAGE CLEANUP OF EDGES WHERE
FASTENER EDGE MARGINS DO NOT OVERLAP



DAMAGE CLEANUP OF EDGES WHERE
FASTENER EDGE MARGINS OVERLAP

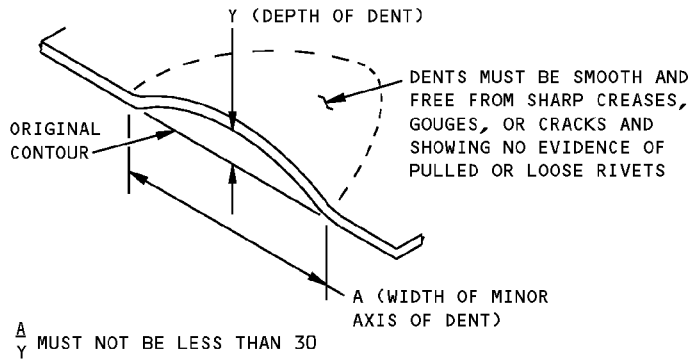
DETAIL III



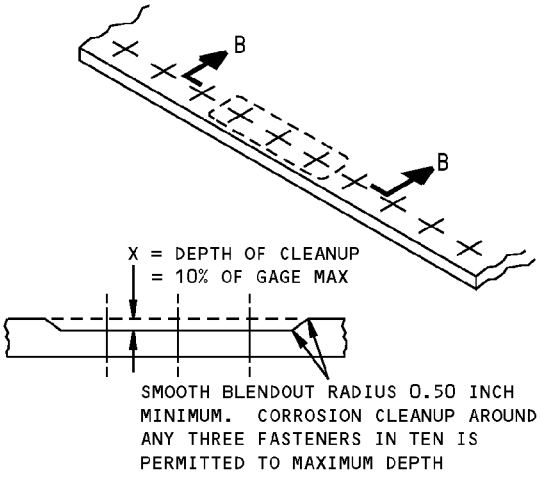


SECTION A-A

REMOVAL OF DAMAGE ON A SURFACE
DETAIL IV



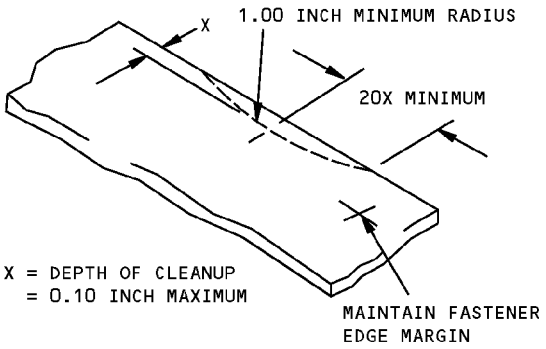
ALLOWABLE DAMAGE FOR DENT
DETAIL V



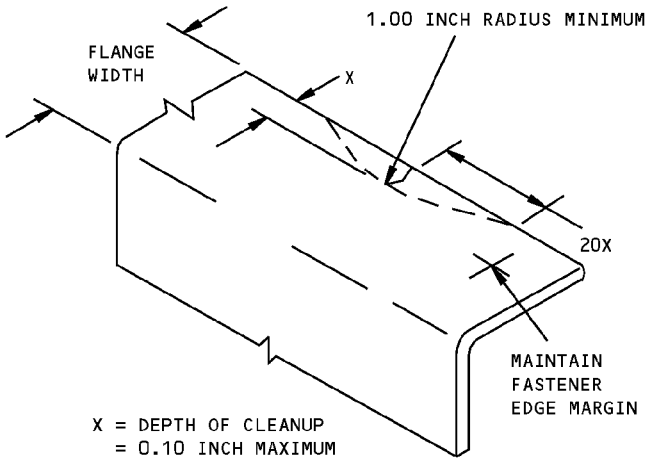
SECTION B-B

CORROSION CLEANUP
DETAIL VI

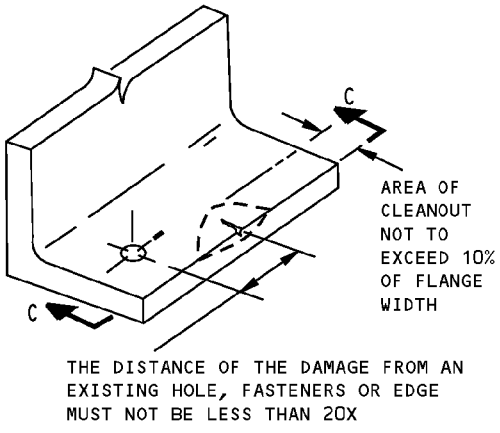
Cargo Door Structure Allowable Damage
Figure 101 (Sheet 5 of 7)

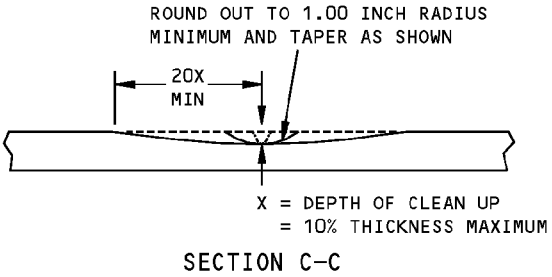


REMOVAL OF NICK OR CRACK
DAMAGE ON AN EDGE
DETAIL VII



REMOVAL OF NICK OR CRACK
DAMAGE ON AN EDGE
DETAIL VIII

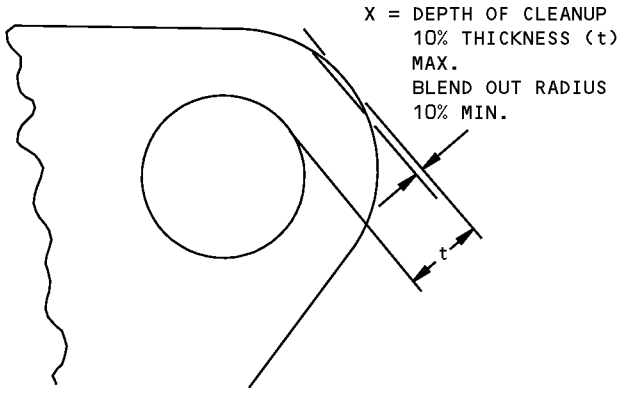




SECTION C–C

REMOVE OF NICK OR CRACK DAMAGE ON AN EDGE
DETAIL IX

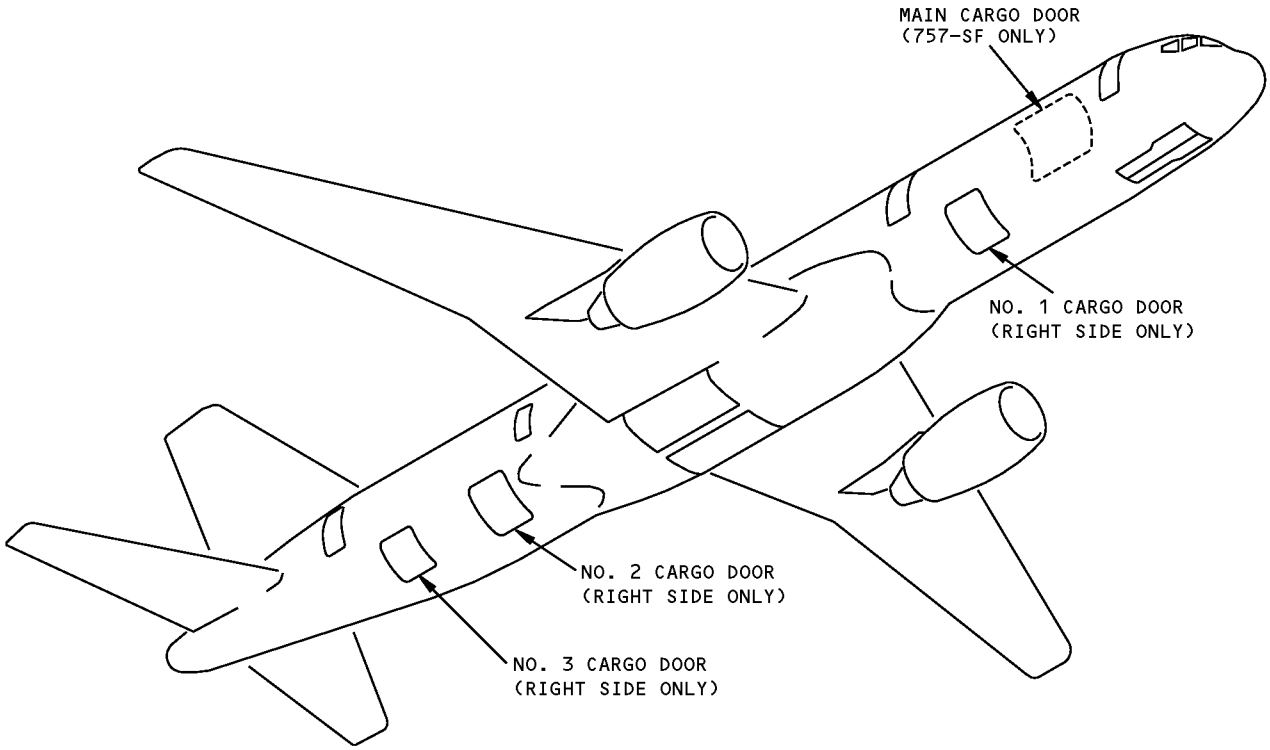
Cargo Door Structure Allowable Damage
Figure 101 (Sheet 6 of 7)



DAMAGE CLEANUP FOR EDGES OF LUG
DETAIL X

Cargo Door Structure Allowable Damage
Figure 101 (Sheet 7 of 7)

REPAIR GENERAL - CARGO DOOR STRUCTURE



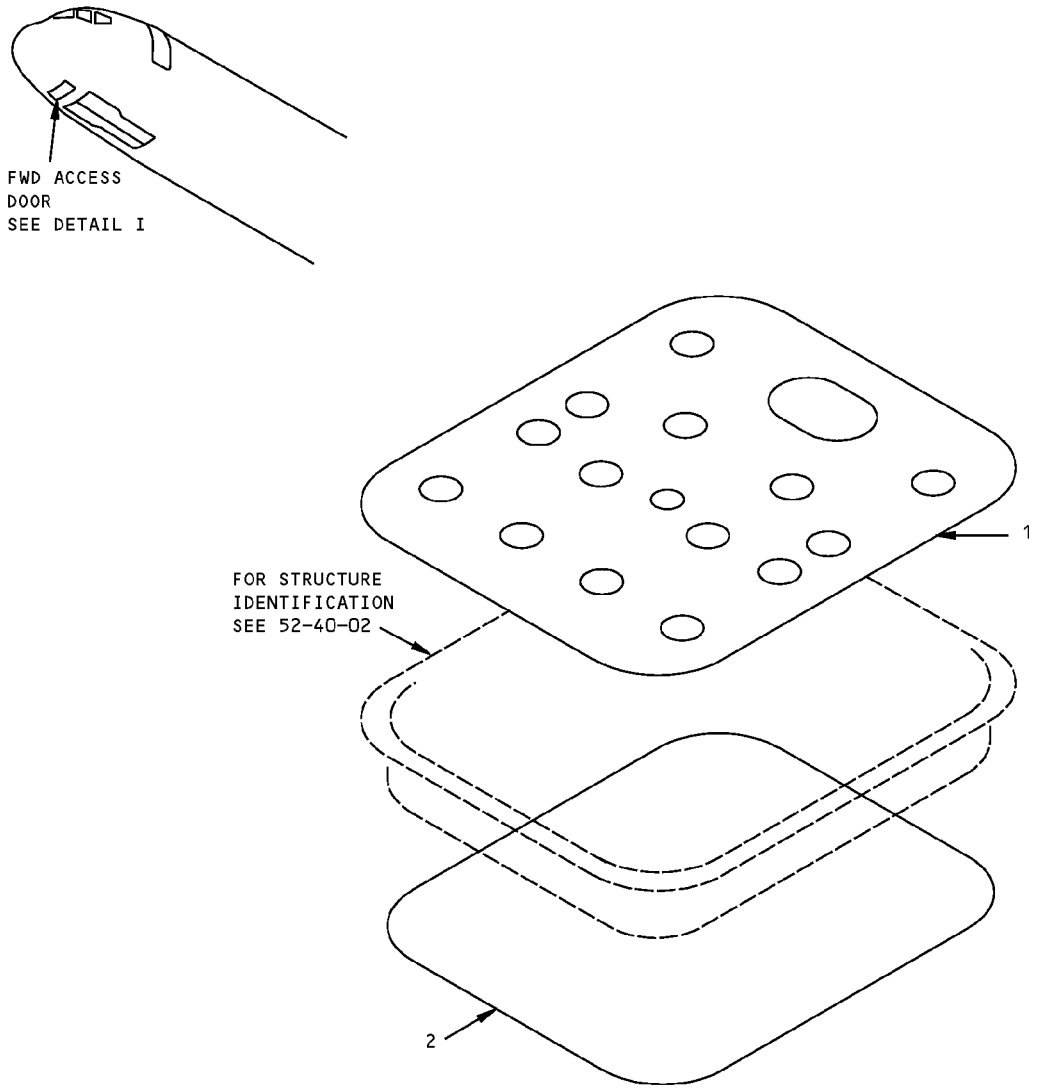
NOTES

- DAMAGED COMPONENTS IN DOOR STRUCTURE MAY BE REPLACED OR REPAIRED. IF REPAIRS ARE TO BE MADE, SEE 51-70 FOR TYPICAL WEB, FORMED SECTION, OR EXTRUDED SECTION REPAIRS

Cargo Door Structure Repair
Figure 201

IDENTIFICATION 1 - FORWARD ACCESS DOOR SKIN

REF DWG
141N6960



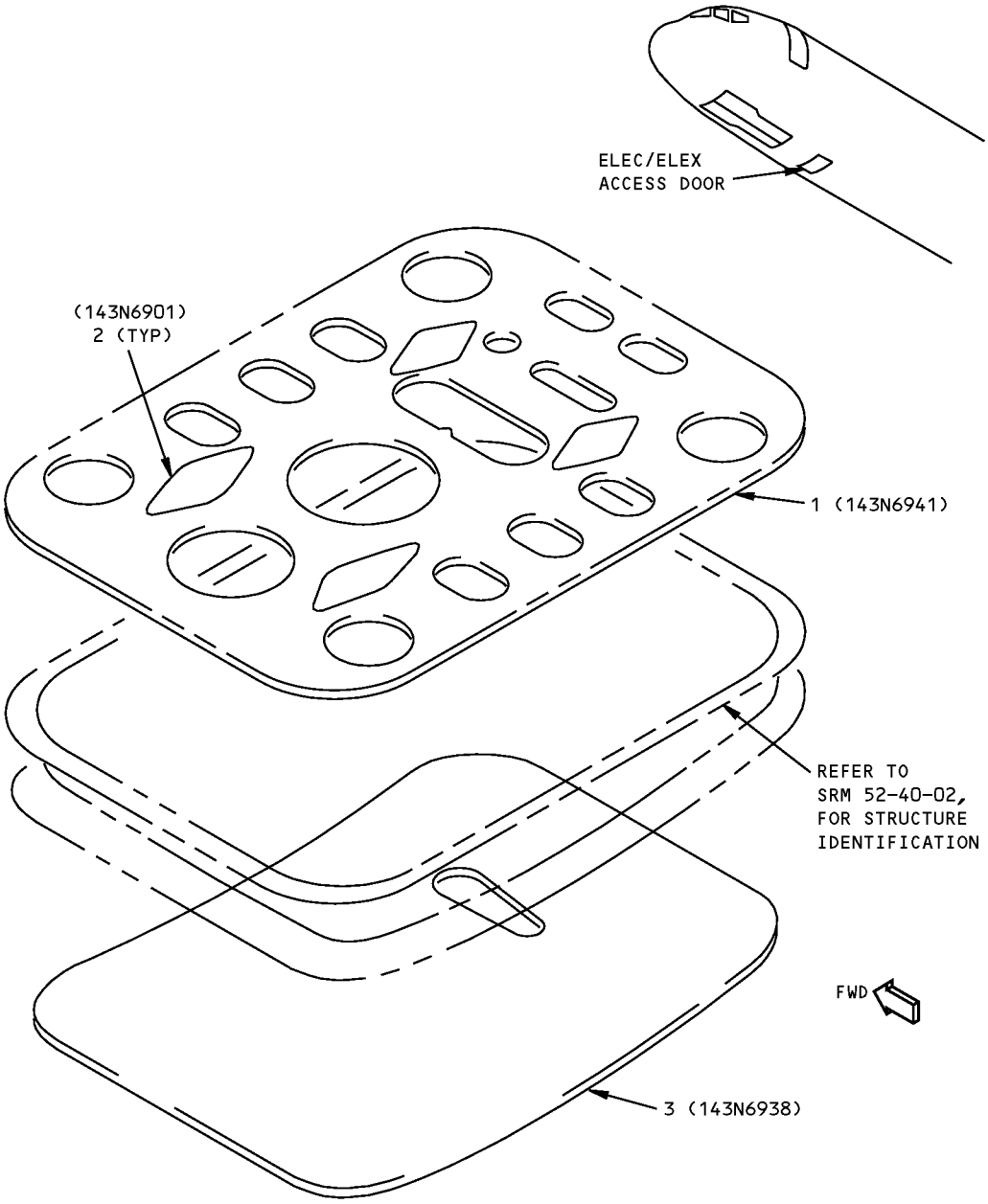
DETAIL I

ITEM	DESCRIPTION	GAGE	MATERIAL	EFFECTIVITY
1	INNER SKIN	0.032	CLAD 2024-T3 OR 2024-T42	
2	OUTER SKIN	0.063	CLAD 2024-T3 (CHEM-MILLED TO 0.042 MIN)	

LIST OF MATERIALS

Forward Access Door Skin Identification
Figure 1

IDENTIFICATION 2 - ELEC/ELEX ACCESS DOOR SKIN

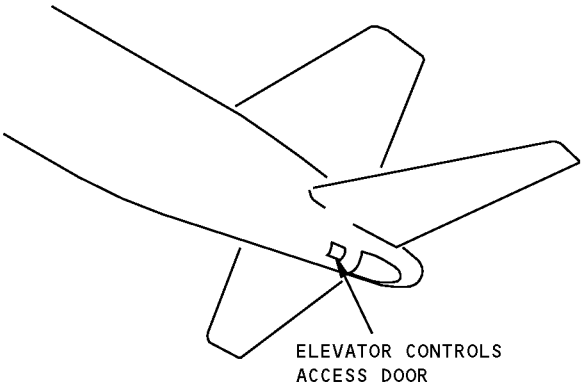


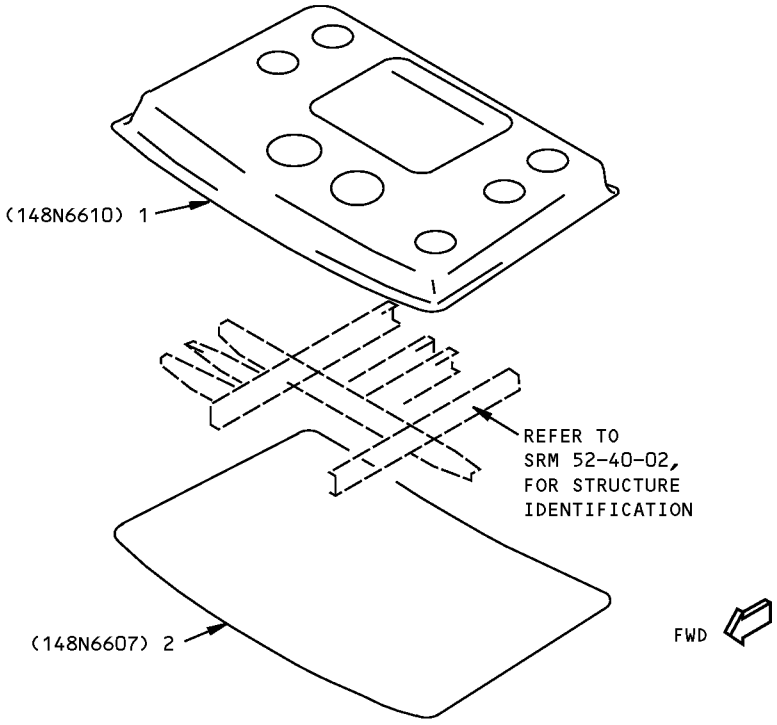
ITEM	DESCRIPTION	GAGE	MATERIAL	EFFECTIVITY
1	INNER SKIN	0.032	CLAD 2024-T3	
2	STRAP	0.040	CLAD 2024-T3	
3	OUTER SKIN	0.063	CLAD 2024-T3 (CHEM-MILLED TO 0.040 MIN)	

LIST OF MATERIALS

Elec/Elex Access Door Skin Identification
Figure 1

IDENTIFICATION 3 - ELEVATOR CONTROL ACCESS DOOR SKIN



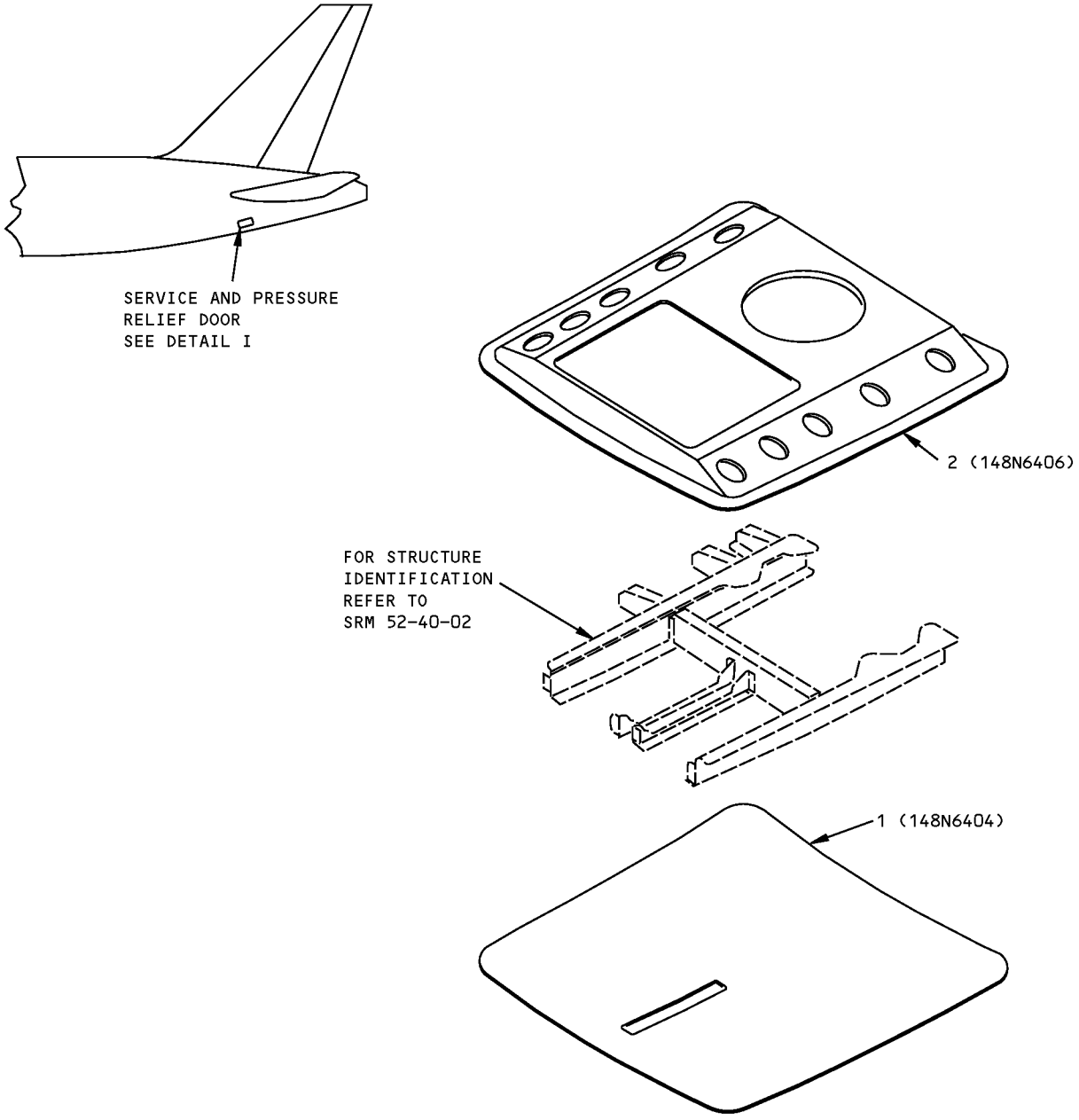


ITEM	DESCRIPTION	GAGE	MATERIAL	EFFECTIVITY
1	INNER SKIN	0.040	CLAD 2024-T42	
2	OUTER SKIN	0.056	CLAD 7075-T6 (CHEM-MILLED TO 0.036 MIN)	

LIST OF MATERIALS

Elevator Control Access Door Skin Identification
Figure 1

IDENTIFICATION 4 - SERVICE AND PRESSURE RELIEF DOOR SKIN



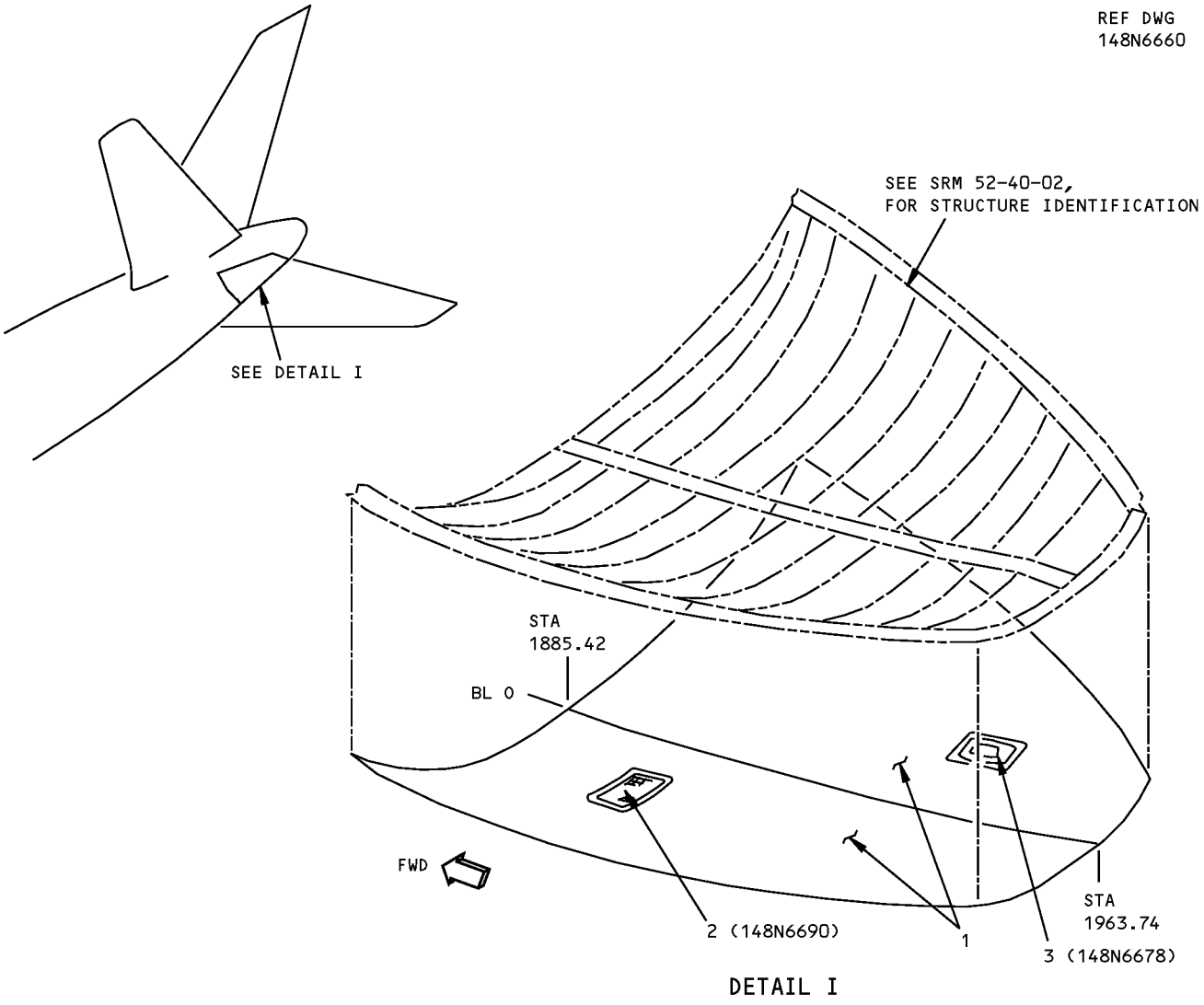
DETAIL I

ITEM	DESCRIPTION	GAGE	MATERIAL	EFFECTIVITY
1	OUTER SKIN	0.056	CLAD 7075-T6 (CHEM-MILLED TO 0.036 MIN)	
2	INNER SKIN	0.040	CLAD 2024-T42	

LIST OF MATERIALS FOR DETAIL I

Service and Pressure Relief Door Skin Identification
Figure 1

IDENTIFICATION 5 - APU ACCESS DOOR SKIN



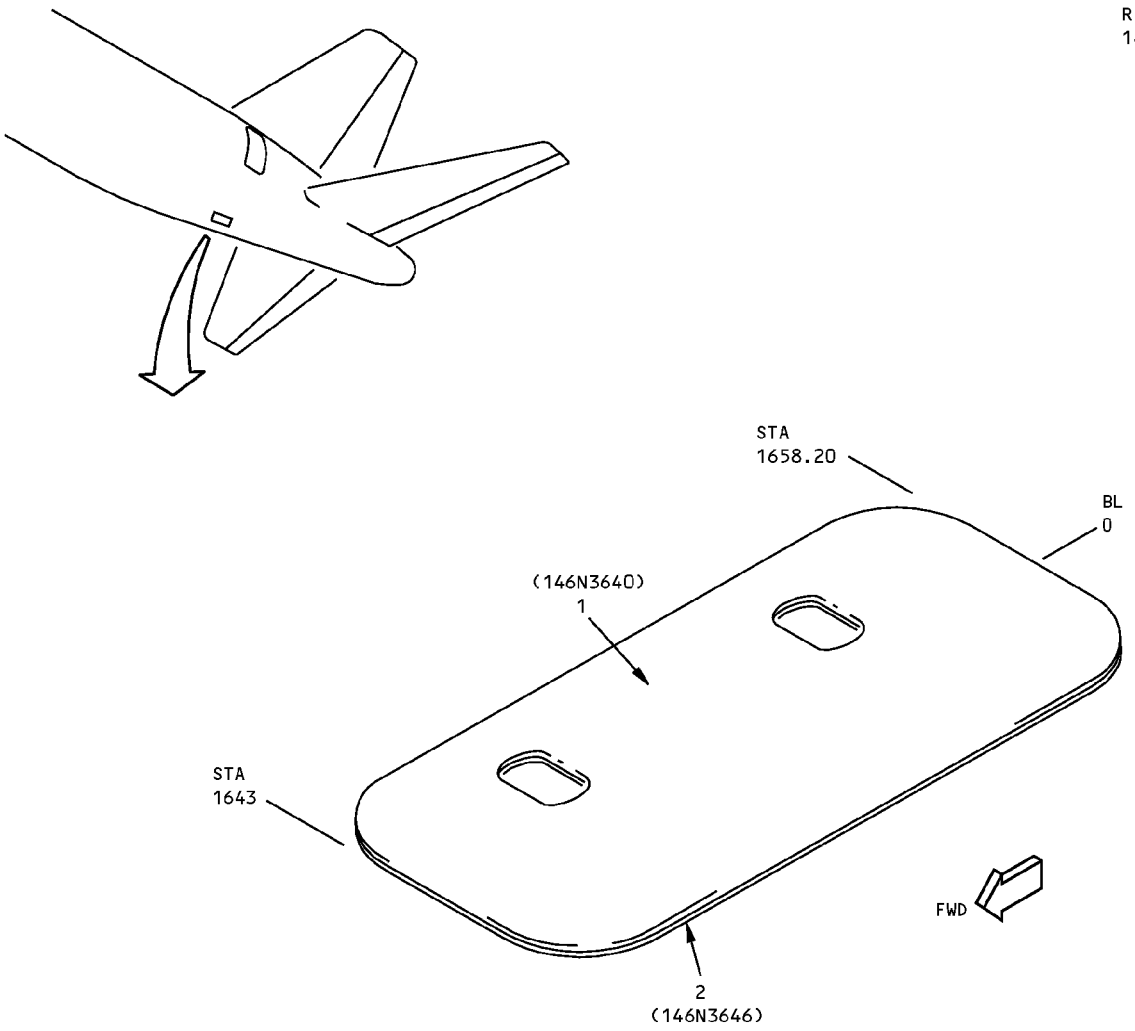
DETAIL I

ITEM	DESCRIPTION	GAGE	MATERIAL	EFFECTIVITY
1	SKIN	0.016	ALUMINUM LAMINATED SHEETS PER BMS 5-69, TYPE 1, CLASS 1, GRADE B	
2	VENTED DOOR			
	SKIN	0.04	CLAD 2024-T3	
	DOUBLER	0.056	CLAD 2024-T3	
3	DOUBLER	0.04	CLAD 2024-T42	

LIST OF MATERIALS FOR DETAIL I

APU Access Door Skin Identification
Figure 1

IDENTIFICATION 6 - WATER SERVICE DOOR



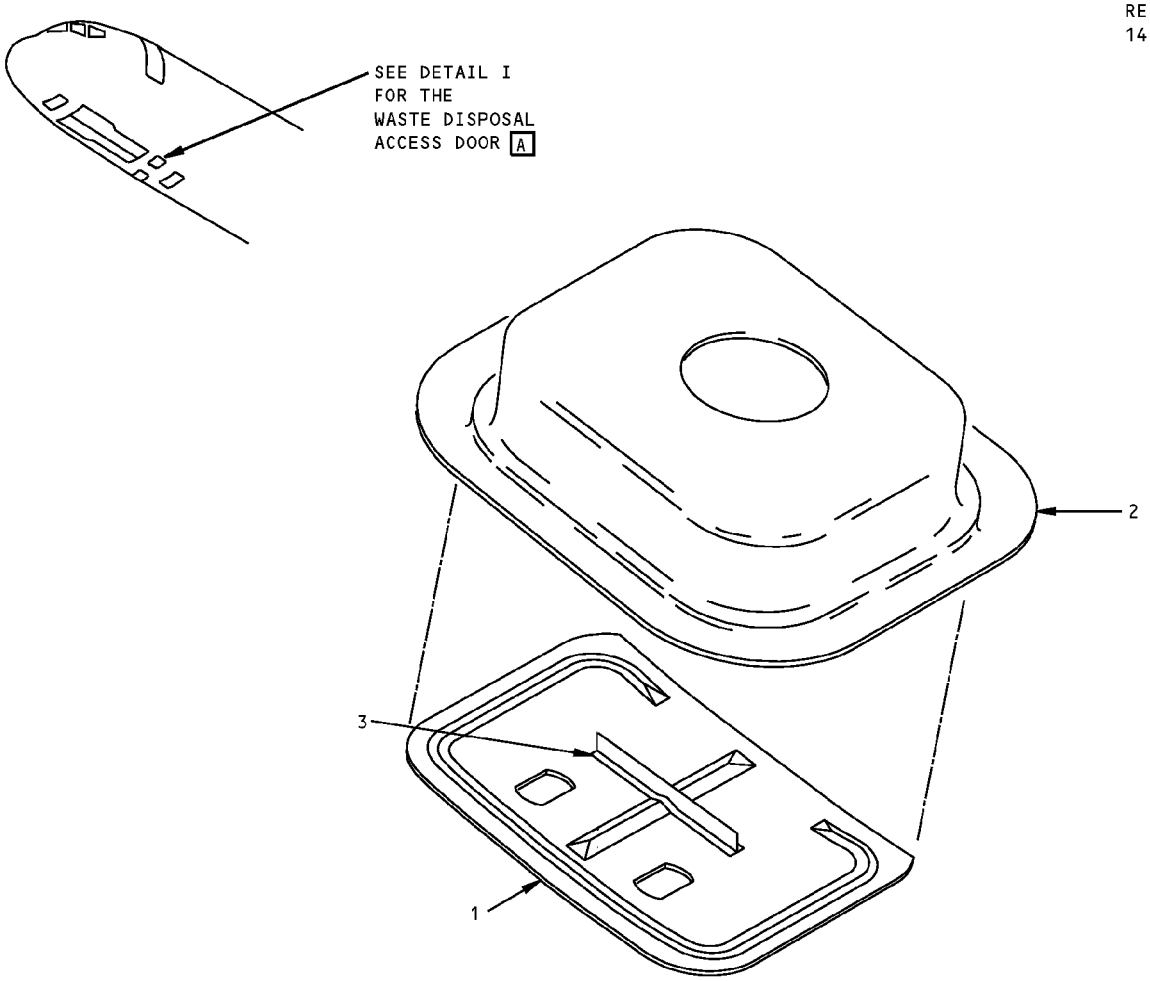
ITEM	DESCRIPTION	GAGE	MATERIAL	EFFECTIVITY
1	OUTER SKIN	0.040	CLAD 2024-T3	
2	INNER SKIN	0.032	CLAD 2024-T42	

LIST OF MATERIALS

Water Service Door Identification
Figure 1

IDENTIFICATION 7 - WASTE DISPOSAL ACCESS DOOR SKIN

REF DWG
141N8631



DETAIL I

NOTES

A FOR CUM LINE NUMBERS: 1 THRU 846

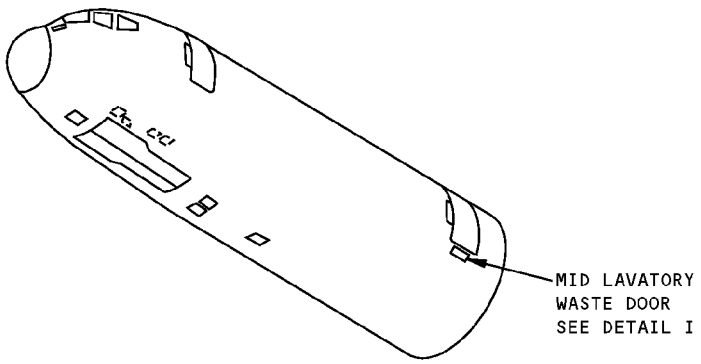
ITEM	DESCRIPTION	GAGE	MATERIAL	EFFECTIVITY
1	DOOR ASSY			
	SKIN	0.036	CLAD 2024-T3	
	DOUBLER	0.025	CLAD 2024-T42	
2	PAN	0.040	301 CRES, ANNEALED, SURFACE COND 2D	
3	STIFFENER		AND10136-1302 7075-T6	

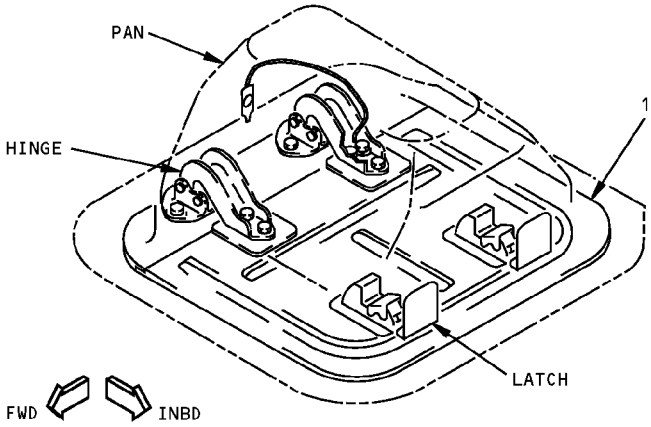
LIST OF MATERIALS

Waste Disposal Access Door Skin Identification
Figure 1

IDENTIFICATION 8 - MID LAVATORY WASTE DOOR

REF DWG
143N3411





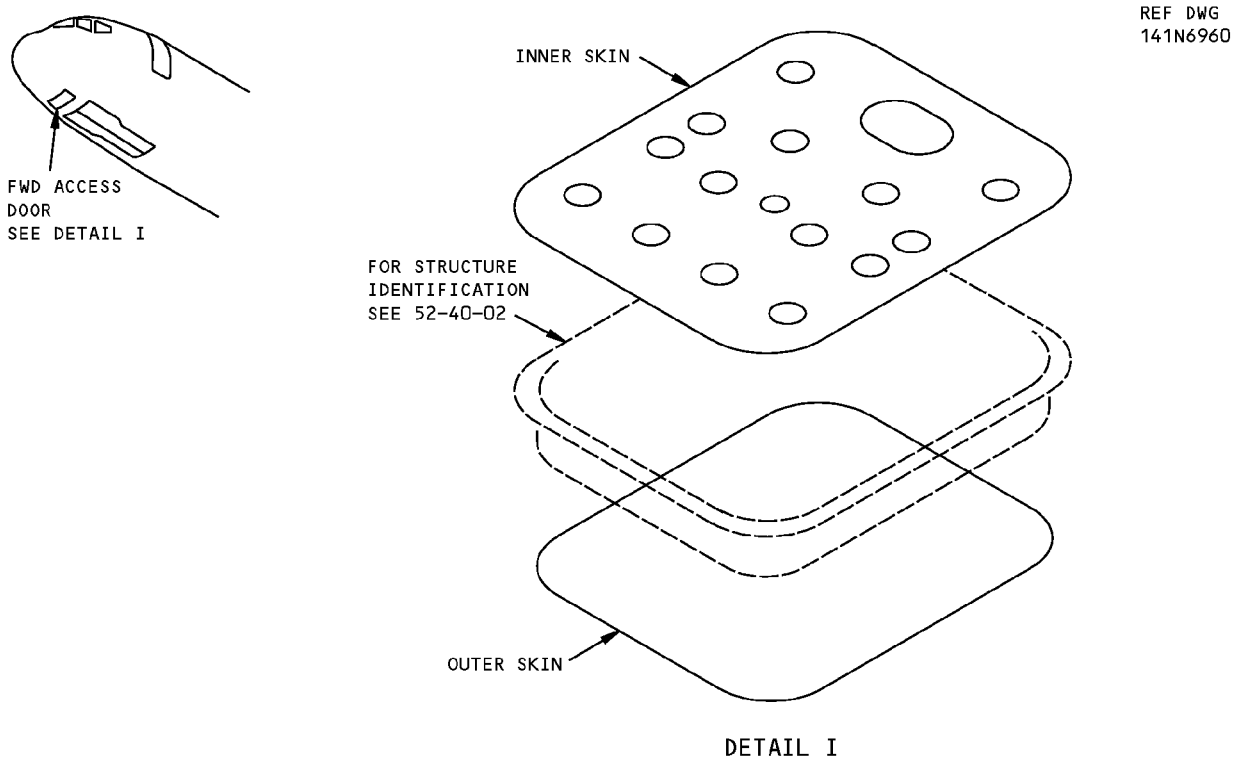
MID LAVATORY WASTE DOOR
(INTERNAL VIEW)
DETAIL I

ITEM	DESCRIPTION	GAGE	MATERIAL	EFFECTIVITY
1	DOOR SKIN	0.16	CLAD 2024-T3	

LIST OF MATERIALS FOR DETAIL I

Mid Lavatory Waste Door Identification
Figure 1

ALLOWABLE DAMAGE 1 - ALLOWABLE DAMAGE - FORWARD ACCESS DOOR SKIN



ITEM	CRACKS	NICKS, GOUGES AND CORROSION	DENTS	HOLES AND PUNCTURES
OUTER SKIN [A]	[B]	[D]	SEE DETAIL IV	[E]
INNER SKIN	[C]	[G]	SEE DETAIL IV	[F]

NOTES

- REFER TO 51-10-01 FOR INVESTIGATION AND CLEANUP OF DAMAGE
- REFINISH REWORK AREAS PER 51-20 OF THE MAINTENANCE MANUAL

[A] REFER TO 51-10-01 FOR AERODYNAMIC SMOOTHNESS REQUIREMENTS. WHERE THE DAMAGE EXCEEDS THE LIMITS SHOWN IN 51-10-01, CONSIDERATION SHOULD BE GIVEN TO THE LOSS OF PERFORMANCE INVOLVED

[B] CRACKS NOT ALLOWED EXCEPT FOR EDGE CRACKS WHICH MUST BE REMOVED PER DETAILS II AND VI

[C] SEE DETAIL VIII FOR LIGHTENING HOLE EDGE CRACKS. FOR OTHER EDGE CRACKS, SEE DETAIL II. FOR OTHER CRACKS, SEE DETAIL VII

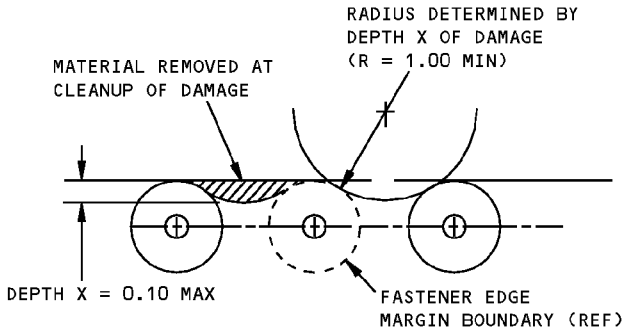
[D] REMOVE DAMAGE PER DETAILS II, III, V AND VI

[E] CLEAN OUT DAMAGE UP TO 0.25 MAX DIA AND NOT CLOSER THAN 1.0 INCH TO FASTENER HOLE, MATERIAL EDGE, OR OTHER DAMAGE. FILL HOLE WITH 2117-T3 OR T4 ALUMINUM RIVET INSTALLED WET WITH BMS 5-95 SEALANT. ALL OTHER HOLES TO BE REPAIRED

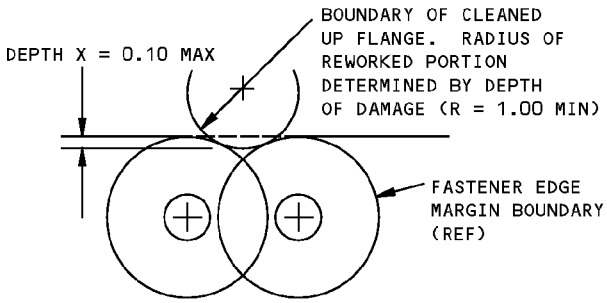
[F] CLEAN OUT DAMAGE UP TO 0.50 MAX DIA AND NOT CLOSER THAN 1.0 INCH TO FASTENER HOLE, MATERIAL EDGE, OR OTHER DAMAGE

[G] REMOVE DAMAGE PER DETAILS II, III, V AND VI. CORROSION MAY BE DRILLED OUT UP TO 0.5 MAX DIA PROVIDED FASTENER EDGE MARGINS ARE MAINTAINED PER DETAIL VII

Allowable Damage - Forward Access Door Skin
Figure 101 (Sheet 1 of 3)

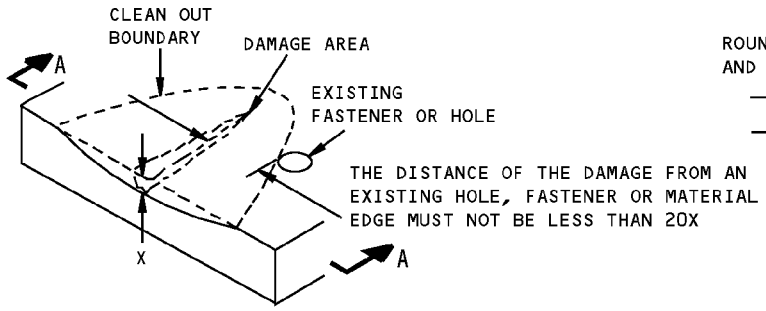


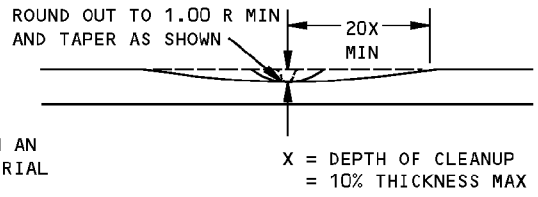
DAMAGE CLEANUP OF EDGES WHERE
FASTENER EDGE MARGINS DO NOT OVERLAP



DAMAGE CLEANUP OF EDGES WHERE
FASTENER EDGE MARGINS OVERLAP

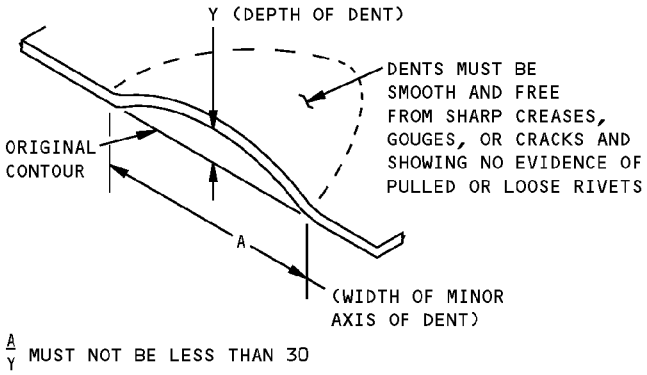
DETAIL II



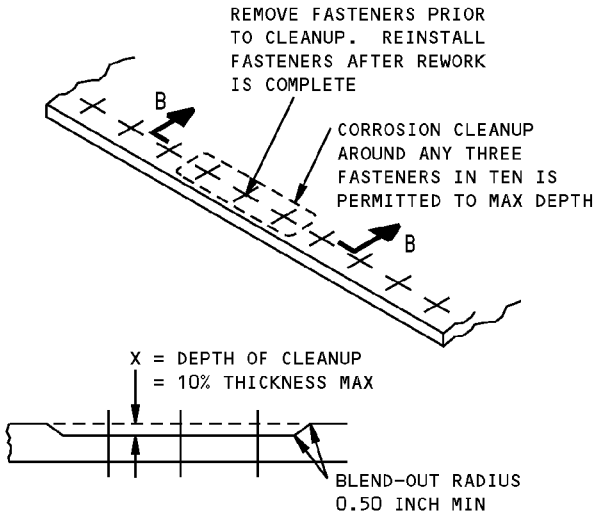


SECTION A-A

REMOVAL OF NICK, GOUGE AND SCRATCH DAMAGE ON A SURFACE
DETAIL III



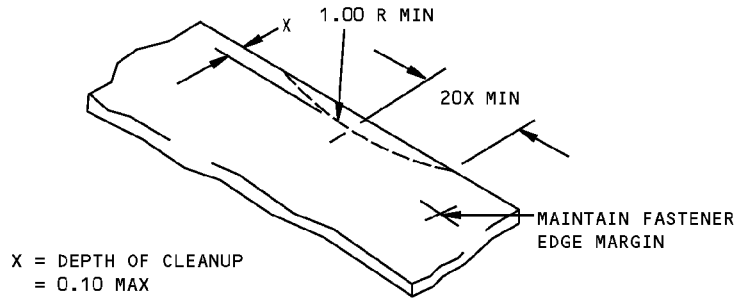
ALLOWABLE DAMAGE FOR DENT
DETAIL IV



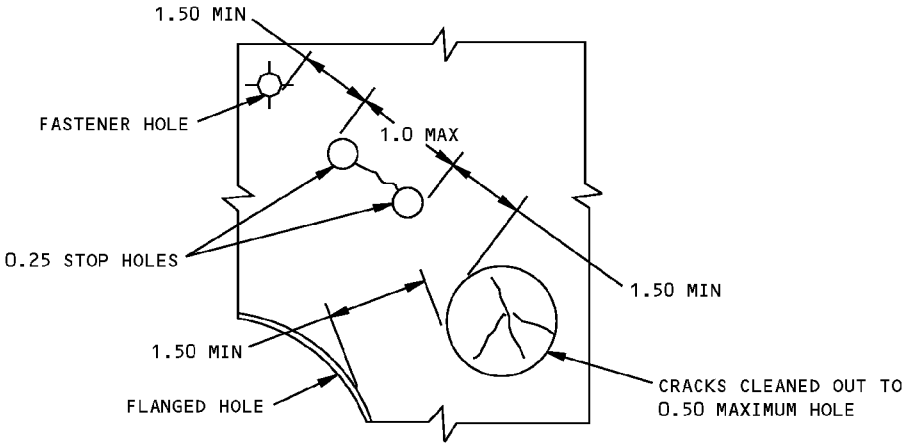
SECTION B-B

CORROSION CLEANUP
DETAIL V

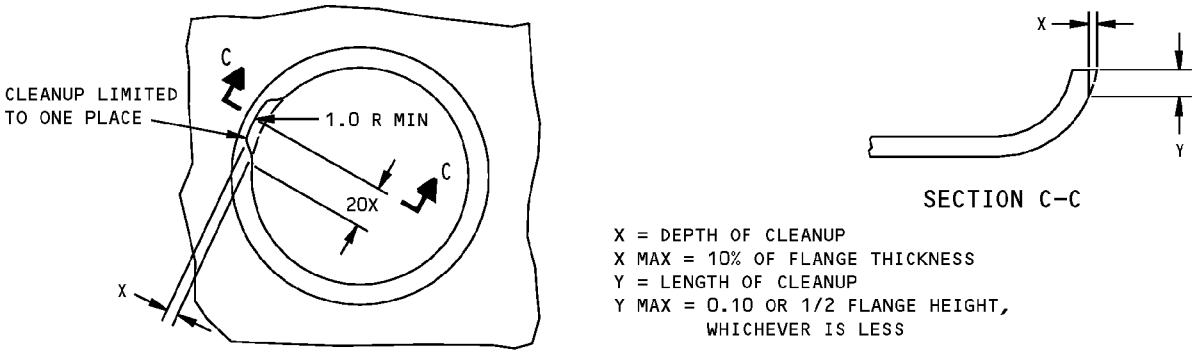
Allowable Damage - Forward Access Door Skin
Figure 101 (Sheet 2 of 3)



REMOVAL OF NICK OR CRACK DAMAGE ON AN EDGE
DETAIL VI



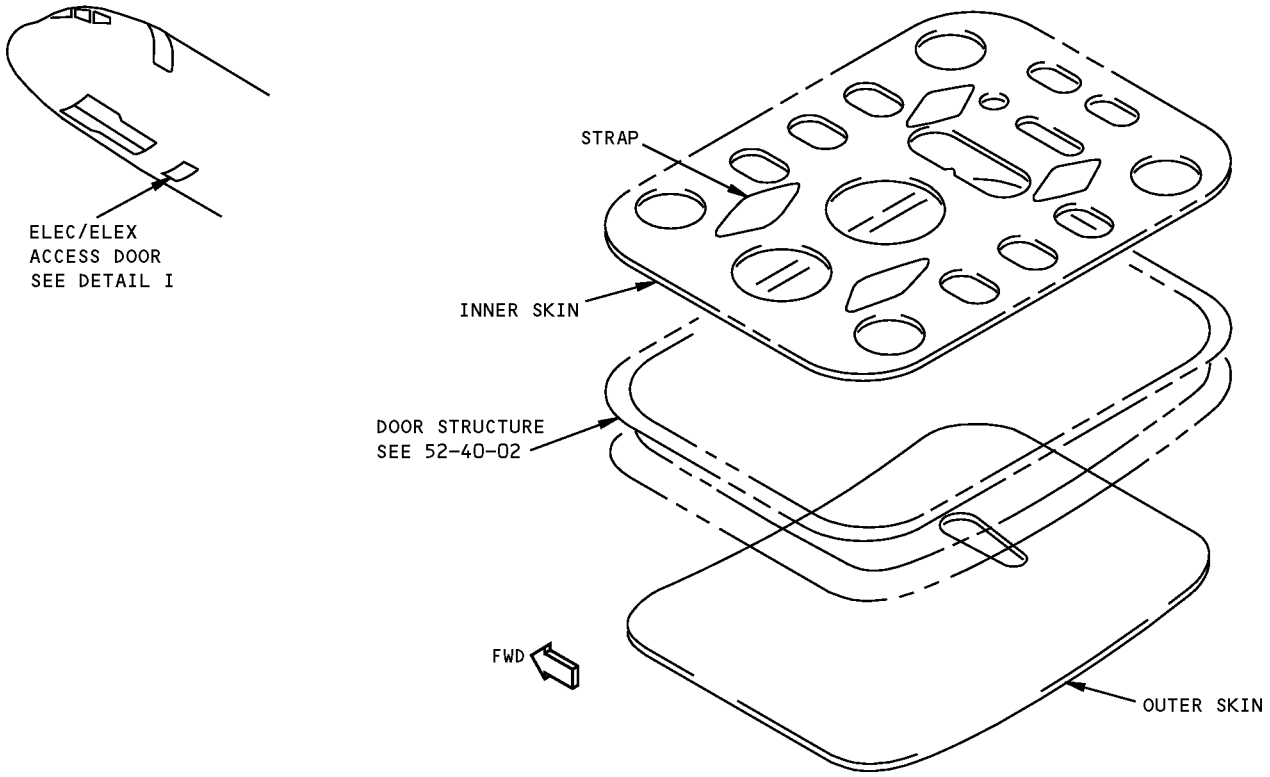
SURFACE CRACKS
DETAIL VII



FLANGED HOLE EDGE DAMAGE CLEANUP
DETAIL VIII

Allowable Damage - Forward Access Door Skin
Figure 101 (Sheet 3 of 3)

ALLOWABLE DAMAGE 2 - ALLOWABLE DAMAGE - ELEC/ELEX ACCESS DOOR SKIN



DETAIL I

ITEM	CRACKS	NICKS, GOUGES AND CORROSION	DENTS	HOLES AND PUNCTURES
OUTER SKIN [A]	[B]	[D]	SEE DETAIL IV	[E]
INNER SKIN	[C]	[G]	SEE DETAIL IV	[F]
STRAPS	[B]	[D]	SEE DETAIL IV	[E]

NOTES

- REFINISH REWORK AREAS PER AMM 51-20
- REFER TO 51-10-02 FOR INSPECTION AND REMOVAL OF DAMAGE

[A] REFER TO SRM 51-10-01 FOR AERODYNAMIC SMOOTHNESS REQUIREMENTS. WHERE THE DAMAGE EXCEEDS THE LIMITS SHOWN IN SRM 51-10-01, CONSIDERATION SHOULD BE GIVEN TO THE LOSS OF PERFORMANCE INVOLVED

[B] CRACKS NOT ALLOWED EXCEPT FOR EDGE CRACKS WHICH MUST BE REMOVED PER DETAILS II AND VI

[C] SEE DETAIL VIII FOR LIGHTENING HOLE EDGE CRACKS. FOR OTHER EDGE CRACKS, SEE DETAIL II. FOR OTHER CRACKS, SEE DETAIL VII

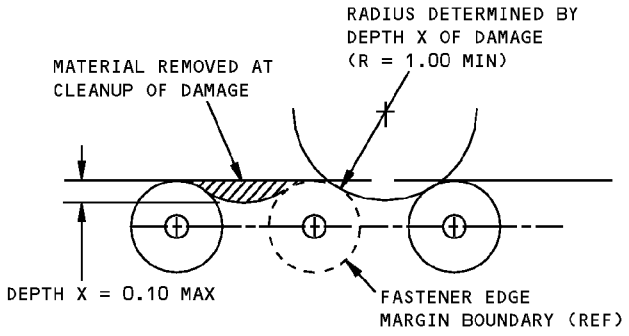
[D] REMOVE DAMAGE PER DETAILS II, III, V AND VI

[E] CLEAN OUT DAMAGE UP TO 0.25 INCH (6 mm) MAX DIA AND NOT CLOSER THAN 1.0 INCH (25 mm) TO FASTENER HOLE, MATERIAL EDGE, OR OTHER DAMAGE. FILL HOLE WITH 2117-T3 OR T4 ALUMINUM RIVET INSTALLED WET WITH BMS 5-95 SEALANT. ALL OTHER HOLES TO BE REPAIRED

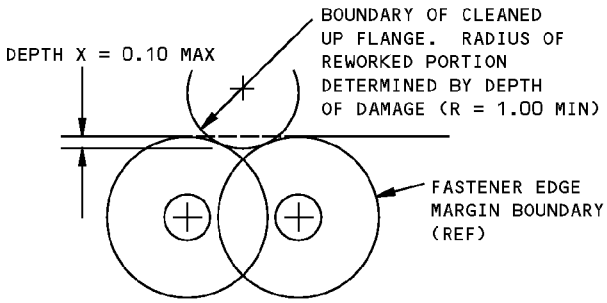
[F] CLEAN OUT DAMAGE UP TO 0.50 INCH (12.7 mm) MAX DIA AND NOT CLOSER THAN 1.0 INCH (25 mm) TO FASTENER HOLE, MATERIAL EDGE, OR OTHER DAMAGE

[G] REMOVE DAMAGE PER DETAILS II, III, V AND VI. CORROSION MAY BE DRILLED OUT UP TO 0.5 INCH (12.7 mm) MAX DIA PROVIDED FASTENER EDGE MARGINS ARE MAINTAINED PER DETAIL VII

Allowable Damage - Elec/Elex Access Door Skin
Figure 101 (Sheet 1 of 3)

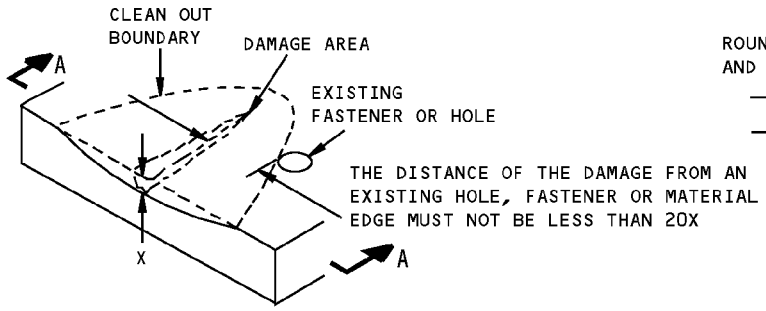


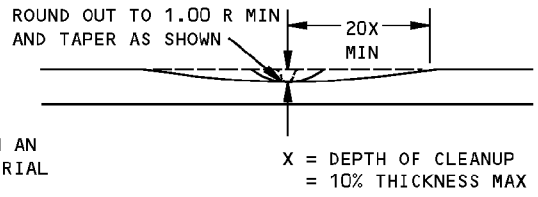
DAMAGE CLEANUP OF EDGES WHERE
FASTENER EDGE MARGINS DO NOT OVERLAP



DAMAGE CLEANUP OF EDGES WHERE
FASTENER EDGE MARGINS OVERLAP

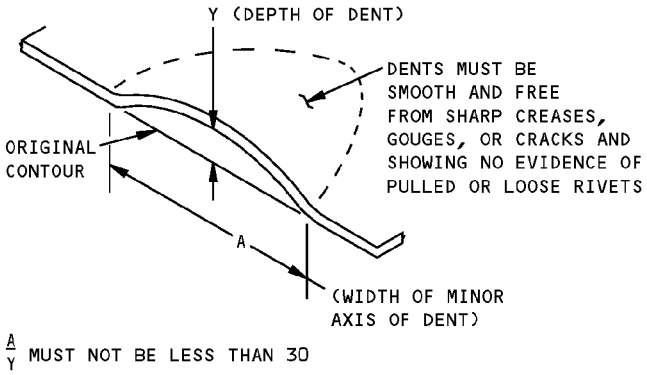
DETAIL II



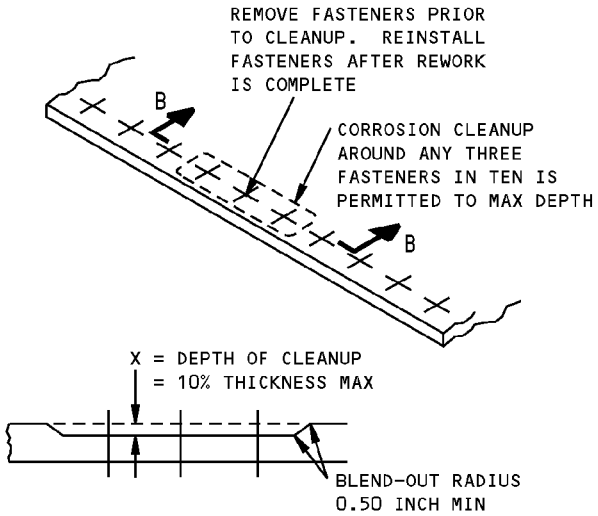


SECTION A-A

REMOVAL OF NICK, GOUGE AND SCRATCH DAMAGE ON A SURFACE
DETAIL III



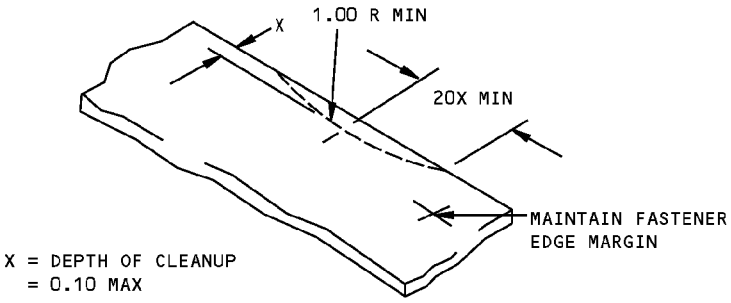
ALLOWABLE DAMAGE FOR DENT
DETAIL IV



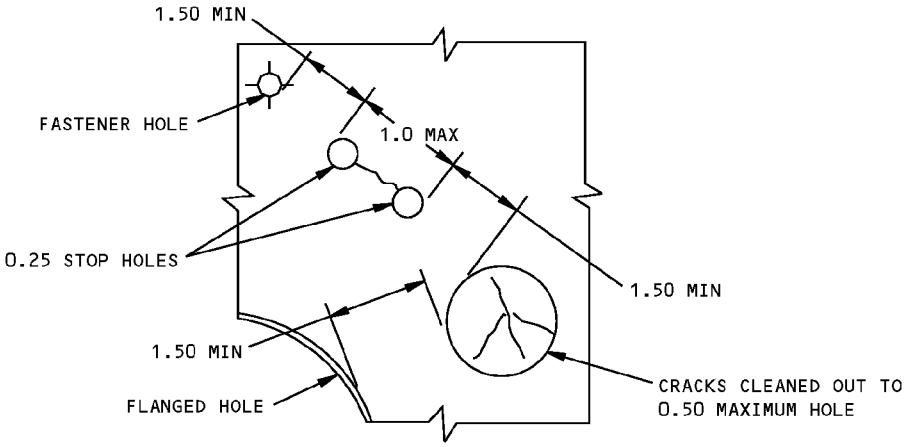
SECTION B-B

CORROSION CLEANUP
DETAIL V

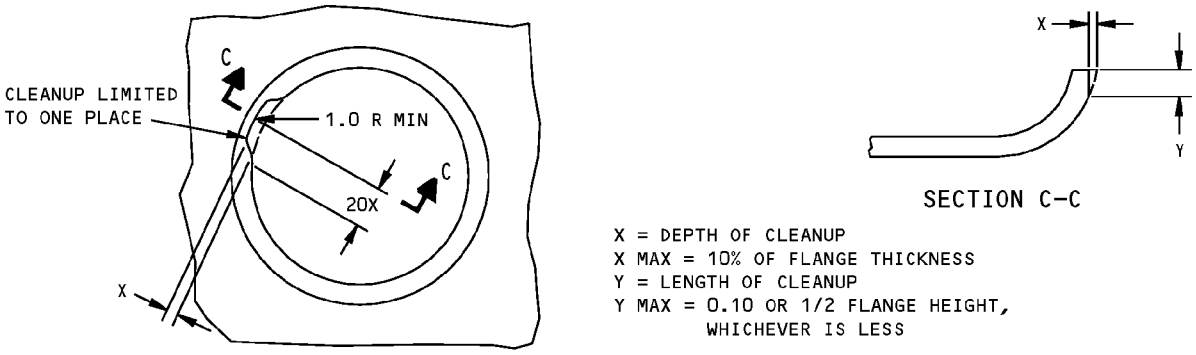
Allowable Damage - Elec/Elex Access Door Skin
Figure 101 (Sheet 2 of 3)



REMOVAL OF NICK OR CRACK DAMAGE ON AN EDGE
DETAIL VI



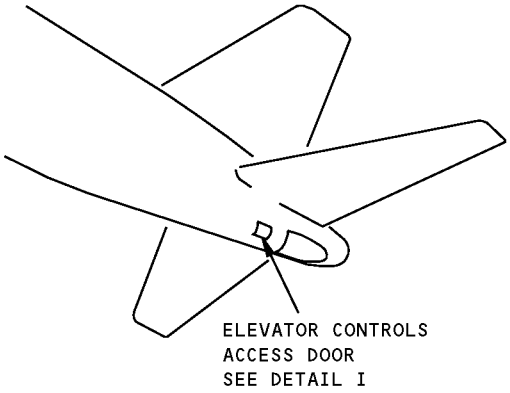
SURFACE CRACKS
DETAIL VII

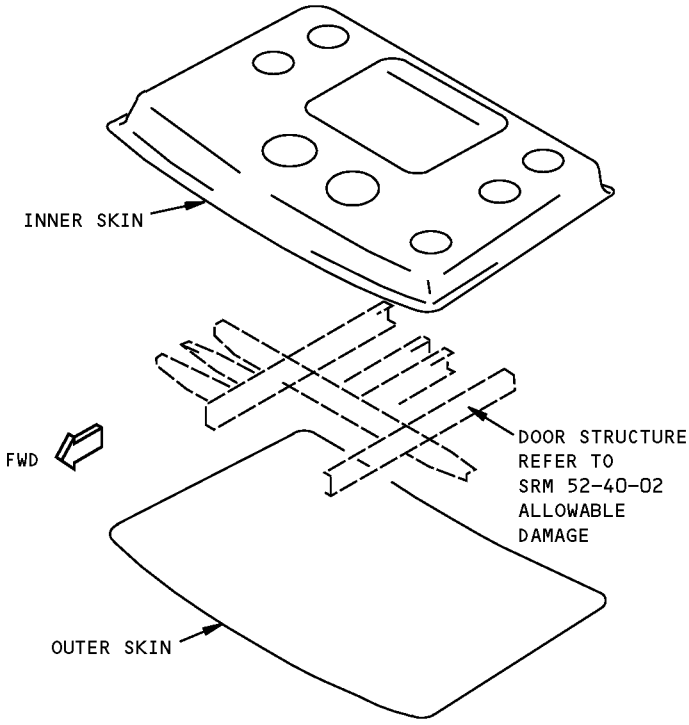


FLANGED HOLE EDGE DAMAGE CLEANUP
DETAIL VIII

Allowable Damage - Elec/Elex Access Door Skin
Figure 101 (Sheet 3 of 3)

ALLOWABLE DAMAGE 3 - ALLOWABLE DAMAGE - ELEVATOR CONTROL ACCESS DOOR SKIN





DETAIL I

ITEM	CRACKS	NICKS, GOUGES AND CORROSION	DENTS	HOLES AND PUNCTURES
OUTER SKIN [A]	[B]	[D]	SEE DETAIL IV	[D] [E]
INNER SKIN	[C]	[G]	SEE DETAIL IV	[F]

NOTES

- REFINISH REWORK AREAS PER AMM 51-20
- REFER TO 51-10-02 FOR INSPECTION AND REMOVAL OF DAMAGE

[A] REFER TO SRM 51-10-01 FOR AERODYNAMIC SMOOTHNESS REQUIREMENTS. WHERE THE DAMAGE EXCEEDS THE LIMITS SHOWN IN SRM 51-10-01, CONSIDERATION SHOULD BE GIVEN TO THE LOSS OF PERFORMANCE INVOLVED

[B] CRACKS NOT ALLOWED EXCEPT FOR EDGE CRACKS WHICH MUST BE REMOVED PER DETAILS II AND VI

[C] SEE DETAIL VIII FOR LIGHTENING HOLE EDGE CRACKS. FOR OTHER EDGE CRACKS, SEE DETAIL II. FOR OTHER CRACKS, SEE DETAIL VII

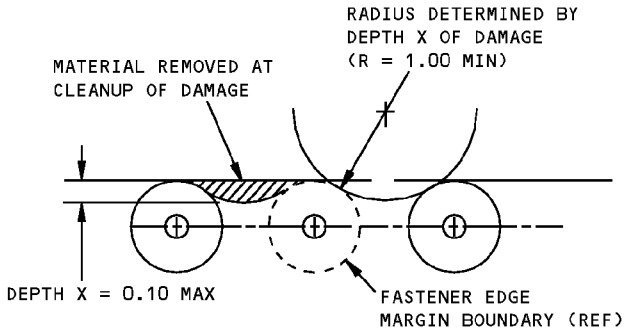
[D] REMOVE DAMAGE PER DETAILS II, III, V AND VI

[E] CLEAN OUT DAMAGE UP TO 0.25 INCH (6 mm) MAX DIA AND NOT CLOSER THAN 1.0 INCH (25 mm) TO FASTENER HOLE, MATERIAL EDGE, OR OTHER DAMAGE. FILL HOLE WITH 2117-T3 OR T4 ALUMINUM RIVET INSTALLED WET WITH BMS 5-95 SEALANT. ALL OTHER HOLES TO BE REPAIRED

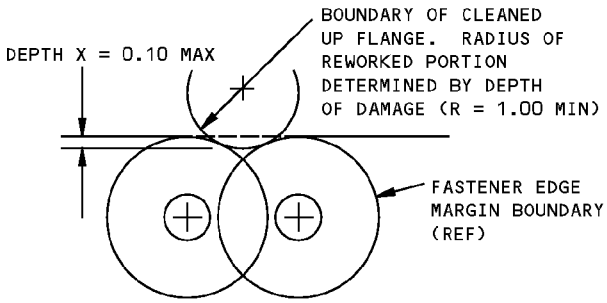
[F] CLEAN OUT DAMAGE UP TO 0.50 INCH (12.7 mm) MAX DIA AND NOT CLOSER THAN 1.0 INCH (25 mm) TO FASTENER HOLE, MATERIAL EDGE, OR OTHER DAMAGE

[G] REMOVE DAMAGE PER DETAILS II, III, V AND VI. CORROSION MAY BE DRILLED OUT UP TO 0.5 INCH (12.7 mm) MAX DIA PROVIDED FASTENER EDGE MARGINS ARE MAINTAINED PER DETAIL VII

Allowable Damage - Elevator Control Access Door Skin
Figure 101 (Sheet 1 of 3)

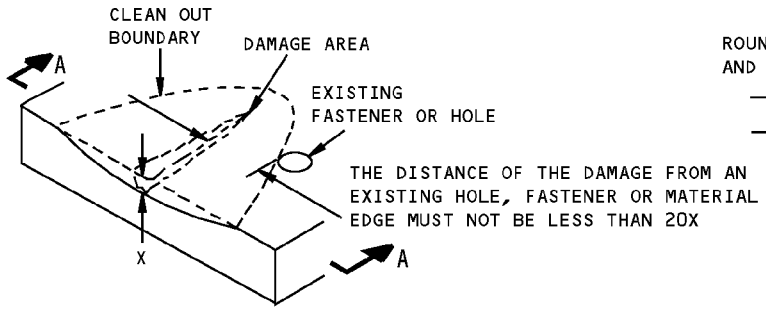


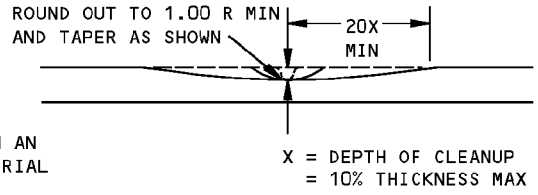
DAMAGE CLEANUP OF EDGES WHERE
FASTENER EDGE MARGINS DO NOT OVERLAP



DAMAGE CLEANUP OF EDGES WHERE
FASTENER EDGE MARGINS OVERLAP

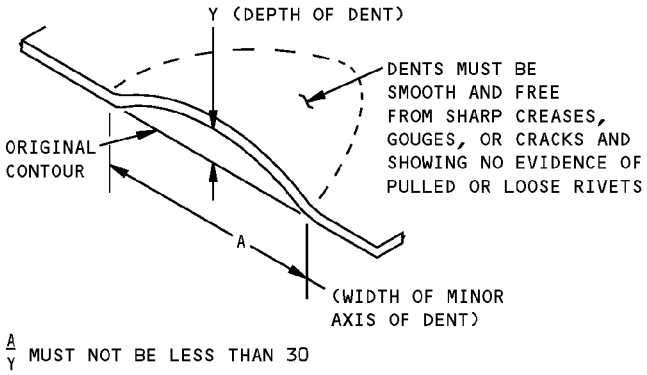
DETAIL II



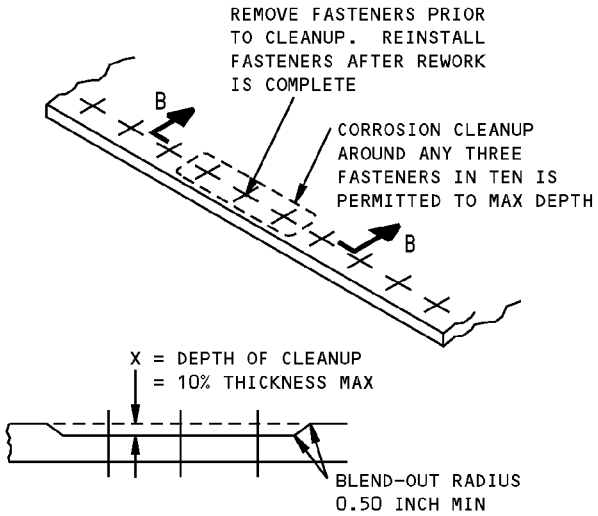


SECTION A-A

REMOVAL OF NICK, GOUGE AND SCRATCH DAMAGE ON A SURFACE
DETAIL III



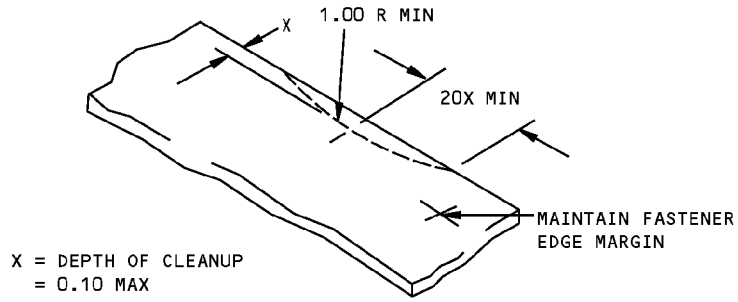
ALLOWABLE DAMAGE FOR DENT
DETAIL IV



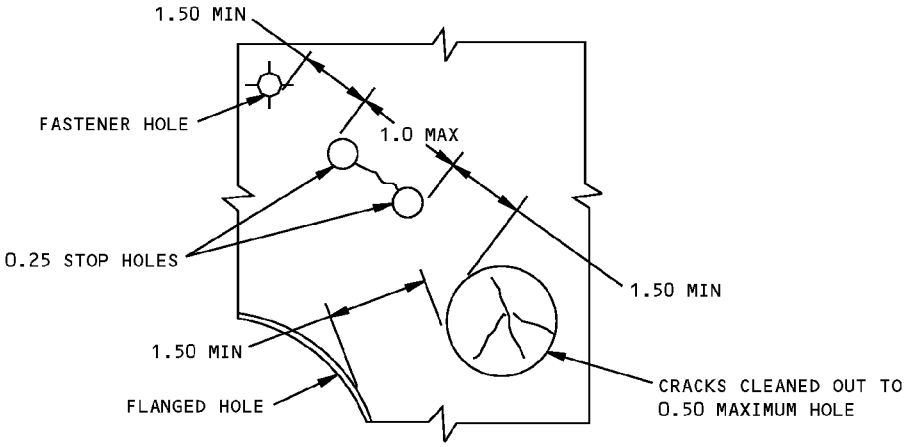
SECTION B-B

CORROSION CLEANUP
DETAIL V

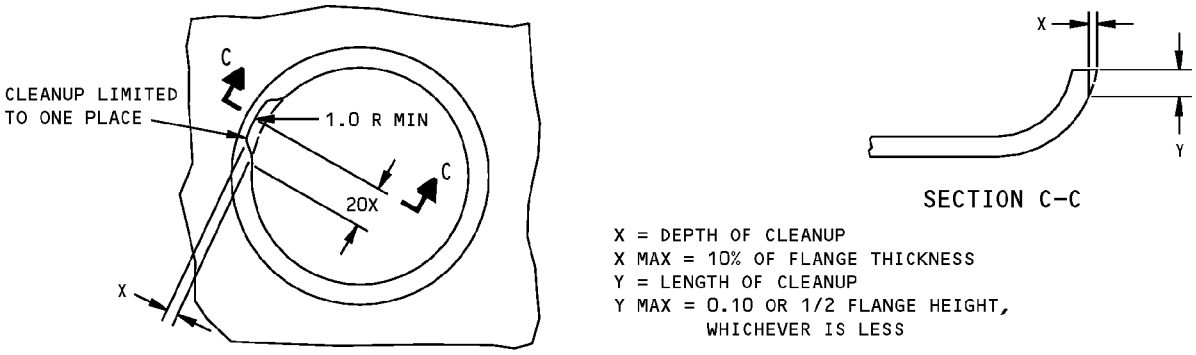
Allowable Damage - Elevator Control Access Door Skin
Figure 101 (Sheet 2 of 3)



REMOVAL OF NICK OR CRACK DAMAGE ON AN EDGE
DETAIL VI



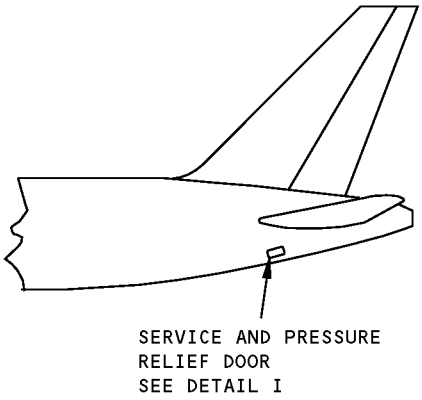
SURFACE CRACKS
DETAIL VII

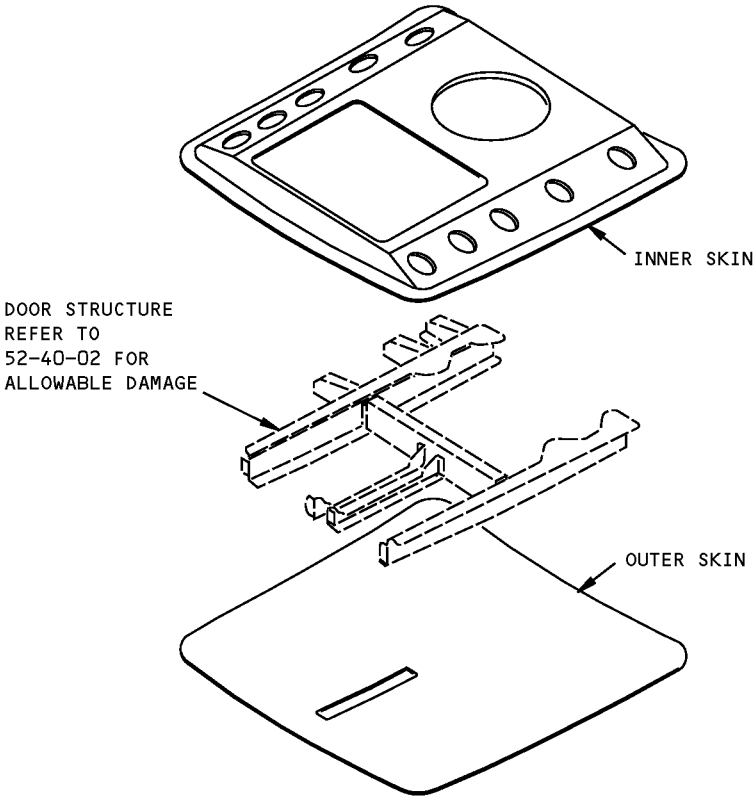


FLANGED HOLE EDGE DAMAGE CLEANUP
DETAIL VIII

Allowable Damage - Elevator Control Access Door Skin
Figure 101 (Sheet 3 of 3)

ALLOWABLE DAMAGE 4 - ALLOWABLE DAMAGE - AFT BODY ACCESS DOOR SKIN





DETAIL I

ITEM	CRACKS	NICKS, GOUGES AND CORROSION	DENTS	HOLES AND PUNCTURES
OUTER SKIN [A]	[B]	[D]	SEE DETAIL IV	[E]
INNER SKIN	[C]	[G]	SEE DETAIL IV	[F]

NOTES

- REFINISH REWORK AREAS PER AMM 51-20
- REFER TO 51-10-02 FOR INSPECTION AND REMOVAL OF DAMAGE

[A] REFER TO SRM 51-10-01 FOR AERODYNAMIC SMOOTHNESS REQUIREMENTS. WHERE THE DAMAGE EXCEEDS THE LIMITS SHOWN IN SRM 51-10-01, CONSIDERATION SHOULD BE GIVEN TO THE LOSS OF PERFORMANCE INVOLVED

[B] CRACKS NOT ALLOWED EXCEPT FOR EDGE CRACKS WHICH MUST BE REMOVED PER DETAILS II AND VI

[C] SEE DETAIL VIII FOR LIGHTENING HOLE EDGE CRACKS. FOR OTHER EDGE CRACKS, SEE DETAIL II. FOR OTHER CRACKS, SEE DETAIL VII

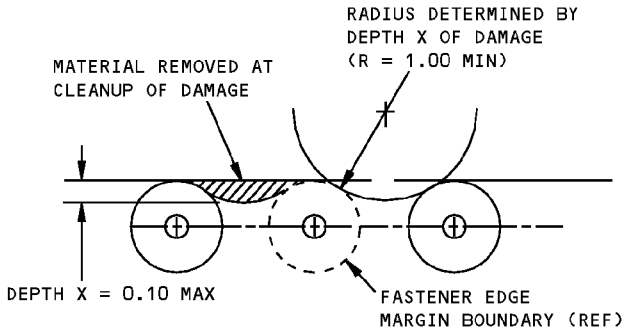
[D] REMOVE DAMAGE PER DETAILS II, III, V AND VI

[E] CLEAN OUT DAMAGE UP TO 0.25 INCH (6 mm) MAX DIA AND NOT CLOSER THAN 1.0 INCH (25 mm) TO FASTENER HOLE, MATERIAL EDGE, OR OTHER DAMAGE. FILL HOLE WITH 2117-T3 OR T4 ALUMINUM RIVET INSTALLED WET WITH BMS 5-95 SEALANT. ALL OTHER HOLES TO BE REPAIRED

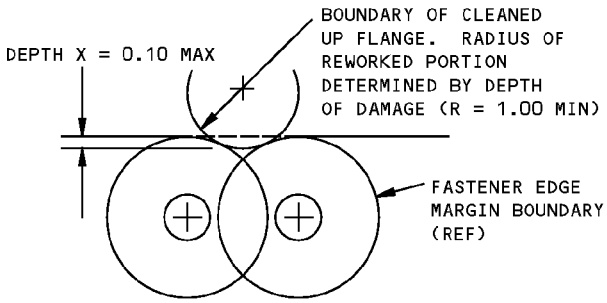
[F] CLEAN OUT DAMAGE UP TO 0.50 INCH (12.7 mm) MAX DIA AND NOT CLOSER THAN 1.0 INCH (25 mm) TO FASTENER HOLE, MATERIAL EDGE, OR OTHER DAMAGE

[G] REMOVE DAMAGE PER DETAILS II, III, V AND VI. CORROSION MAY BE DRILLED OUT UP TO 0.5 INCH (12.7 mm) MAX DIA PROVIDED FASTENER EDGE MARGINS ARE MAINTAINED PER DETAIL VII

Allowable Damage - Aft Body Access Door Skin
Figure 101 (Sheet 1 of 3)

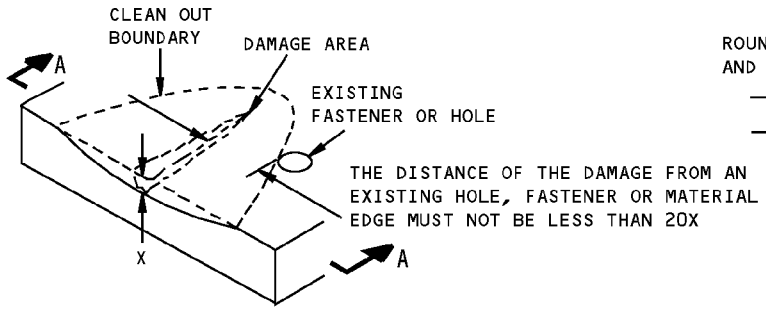


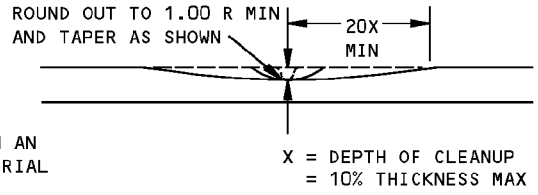
DAMAGE CLEANUP OF EDGES WHERE
FASTENER EDGE MARGINS DO NOT OVERLAP



DAMAGE CLEANUP OF EDGES WHERE
FASTENER EDGE MARGINS OVERLAP

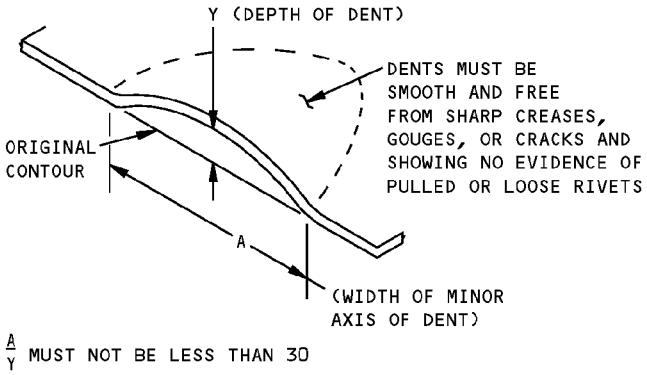
DETAIL II



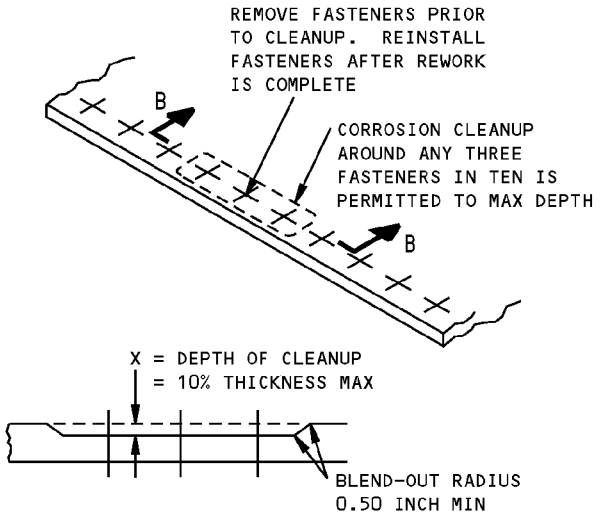


SECTION A-A

REMOVAL OF NICK, GOUGE AND SCRATCH DAMAGE ON A SURFACE
DETAIL III



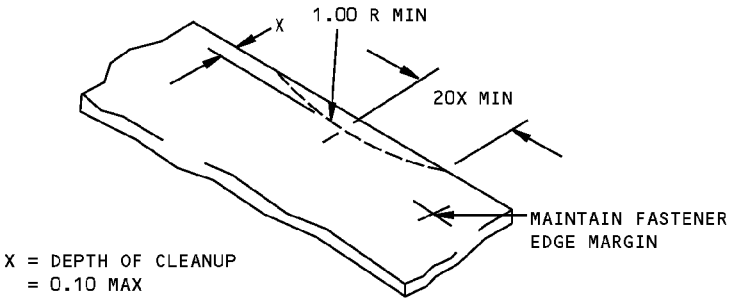
ALLOWABLE DAMAGE FOR DENT
DETAIL IV



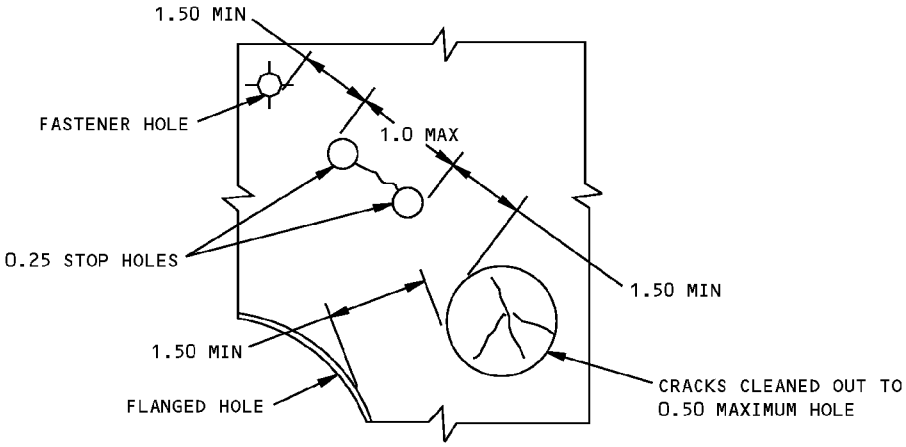
SECTION B-B

CORROSION CLEANUP
DETAIL V

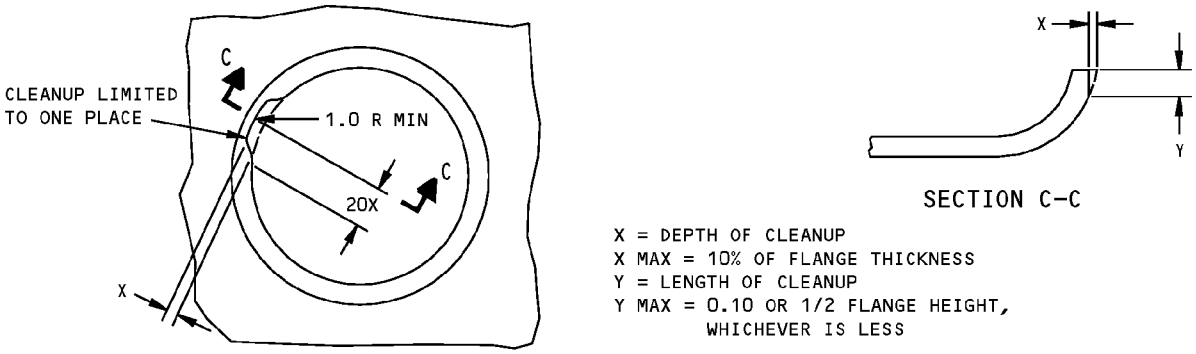
Allowable Damage - Aft Body Access Door Skin
Figure 101 (Sheet 2 of 3)



REMOVAL OF NICK OR CRACK DAMAGE ON AN EDGE
DETAIL VI



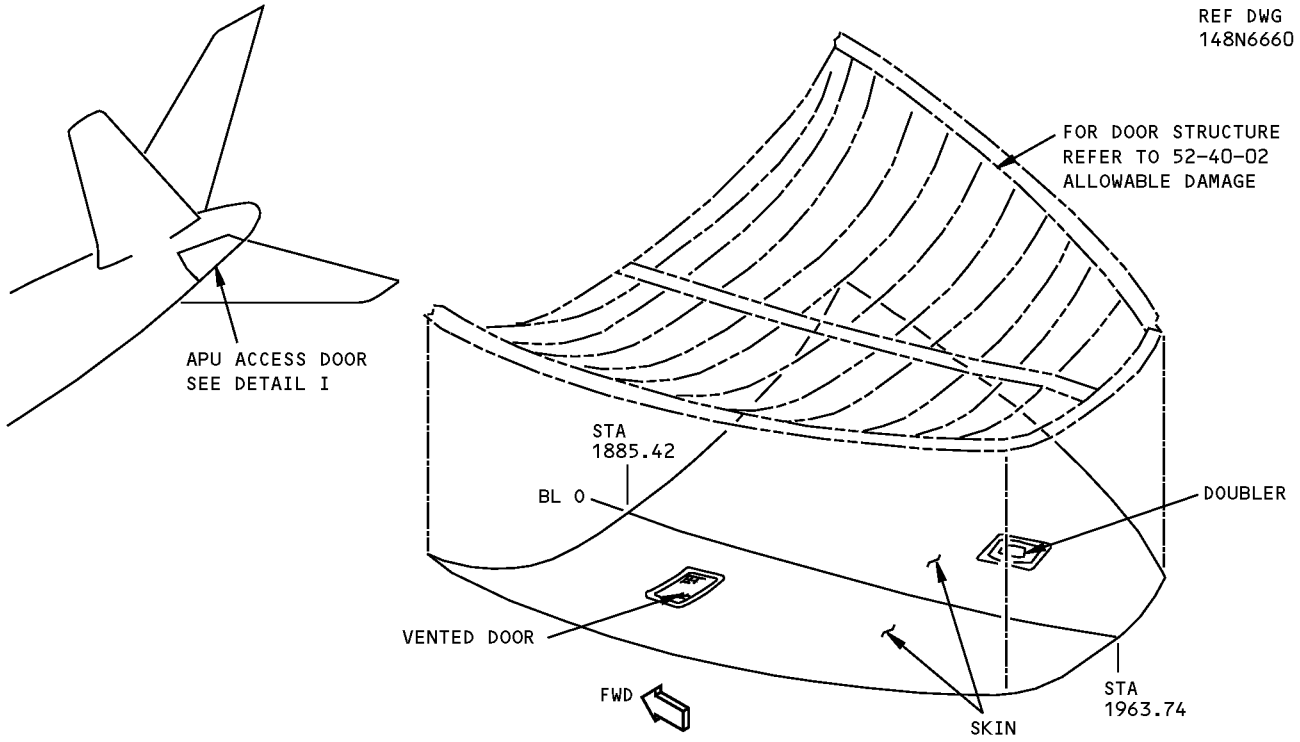
SURFACE CRACKS
DETAIL VII



FLANGED HOLE EDGE DAMAGE CLEANUP
DETAIL VIII

Allowable Damage - Aft Body Access Door Skin
Figure 101 (Sheet 3 of 3)

ALLOWABLE DAMAGE 5 - ALLOWABLE DAMAGE - APU ACCESS DOOR SKIN



DETAIL I

ITEM	CRACKS	NICKS, GOUGES AND CORROSION	DENTS	HOLES AND PUNCTURES
OUTER SKIN [A]	[B]	[D]	SEE DETAIL IV	[E]
INNER SKIN	[C]	[G]	SEE DETAIL IV	[F]
DOUBLER	[B]	[D]	SEE DETAIL IV	[E]

NOTES

- REFINISH REWORK AREAS PER AMM 51-20
- REFER TO 51-10-02 FOR INSPECTION AND REMOVAL OF DAMAGE

[A] REFER TO SRM 51-10-01 FOR AERODYNAMIC SMOOTHNESS REQUIREMENTS. WHERE THE DAMAGE EXCEEDS THE LIMITS SHOWN IN SRM 51-10-01, CONSIDERATION SHOULD BE GIVEN TO THE LOSS OF PERFORMANCE INVOLVED

[B] CRACKS NOT ALLOWED EXCEPT FOR EDGE CRACKS WHICH MUST BE REMOVED PER DETAILS II AND VI

[C] SEE DETAIL VIII FOR LIGHTENING HOLE EDGE CRACKS. FOR OTHER EDGE CRACKS, SEE DETAIL II. FOR OTHER CRACKS, SEE DETAIL VII

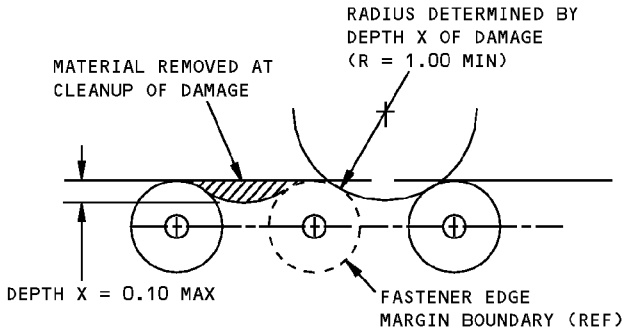
[D] REMOVE DAMAGE PER DETAILS II, III, V AND VI

[E] CLEAN OUT DAMAGE UP TO 0.25 INCH (6 mm) MAX DIA AND NOT CLOSER THAN 1.0 INCH (25 mm) TO FASTENER HOLE, MATERIAL EDGE, OR OTHER DAMAGE. FILL HOLE WITH 2117-T3 OR T4 ALUMINUM RIVET INSTALLED WET WITH BMS 5-95 SEALANT. ALL OTHER HOLES TO BE REPAIRED

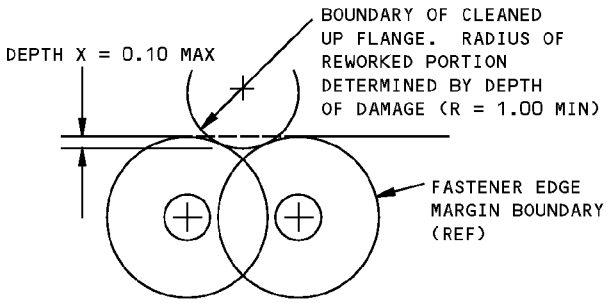
[F] CLEAN OUT DAMAGE UP TO 0.50 INCH (12.7 mm) MAX DIA AND NOT CLOSER THAN 1.0 INCH (25 mm) TO FASTENER HOLE, MATERIAL EDGE, OR OTHER DAMAGE

[G] REMOVE DAMAGE PER DETAILS II, III, V AND VI. CORROSION MAY BE DRILLED OUT UP TO 0.5 INCH (12.7 mm) MAX DIA PROVIDED FASTENER EDGE MARGINS ARE MAINTAINED PER DETAIL VII

Allowable Damage - APU Access Door Skin
Figure 101 (Sheet 1 of 3)

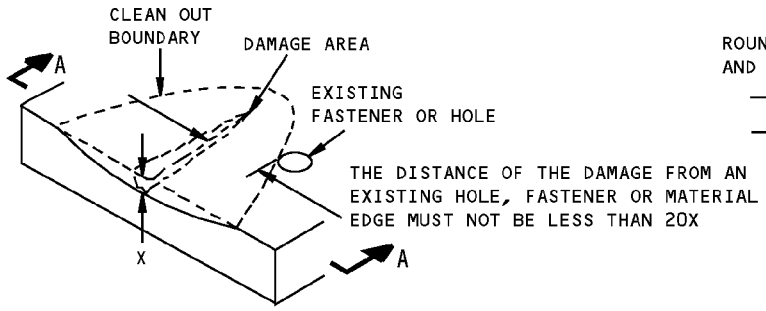


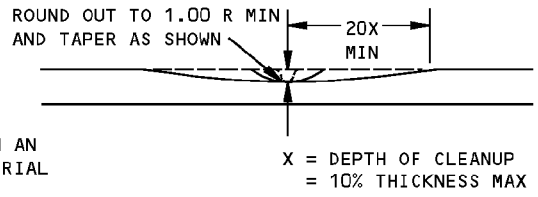
DAMAGE CLEANUP OF EDGES WHERE
FASTENER EDGE MARGINS DO NOT OVERLAP



DAMAGE CLEANUP OF EDGES WHERE
FASTENER EDGE MARGINS OVERLAP

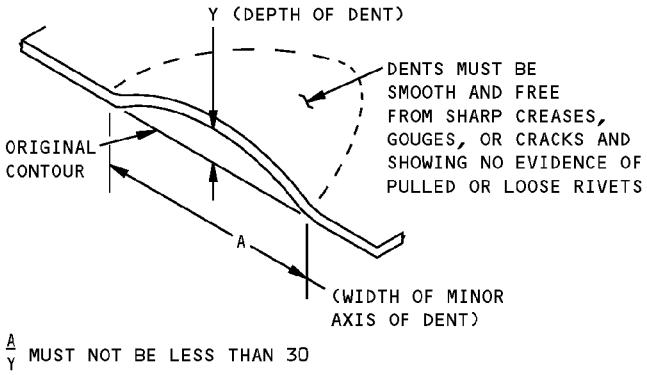
DETAIL II



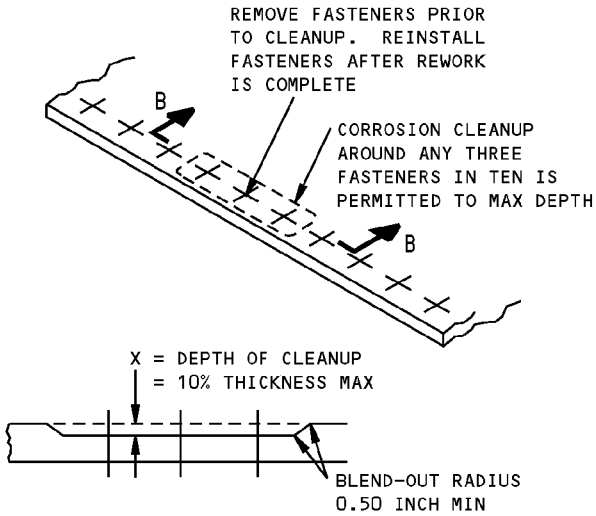


SECTION A-A

REMOVAL OF NICK, GOUGE AND SCRATCH DAMAGE ON A SURFACE
DETAIL III



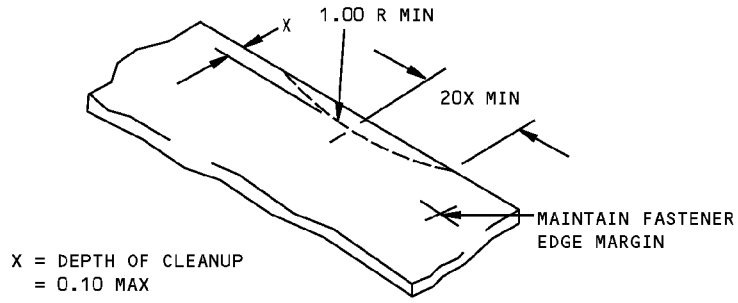
ALLOWABLE DAMAGE FOR DENT
DETAIL IV



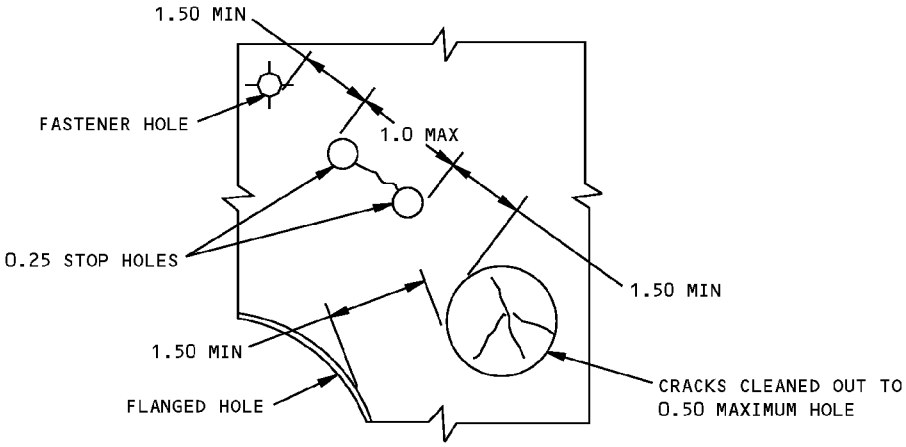
SECTION B-B

CORROSION CLEANUP
DETAIL V

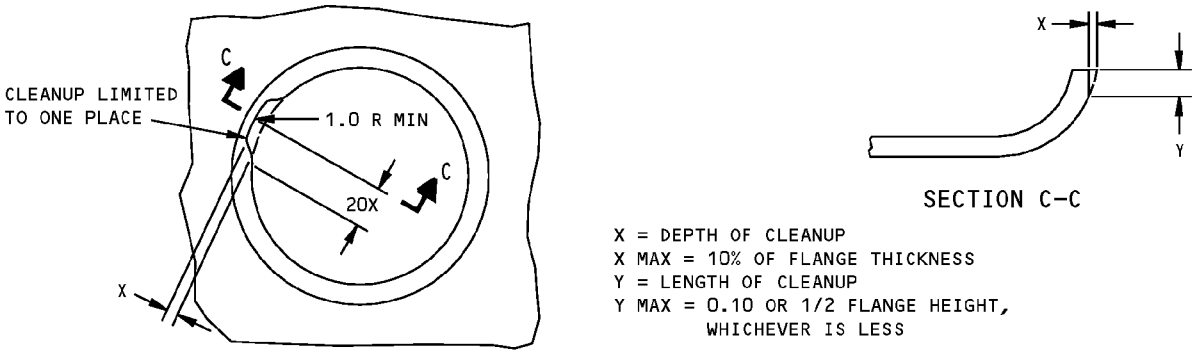
Allowable Damage - APU Access Door Skin
Figure 101 (Sheet 2 of 3)



REMOVAL OF NICK OR CRACK DAMAGE ON AN EDGE
DETAIL VI



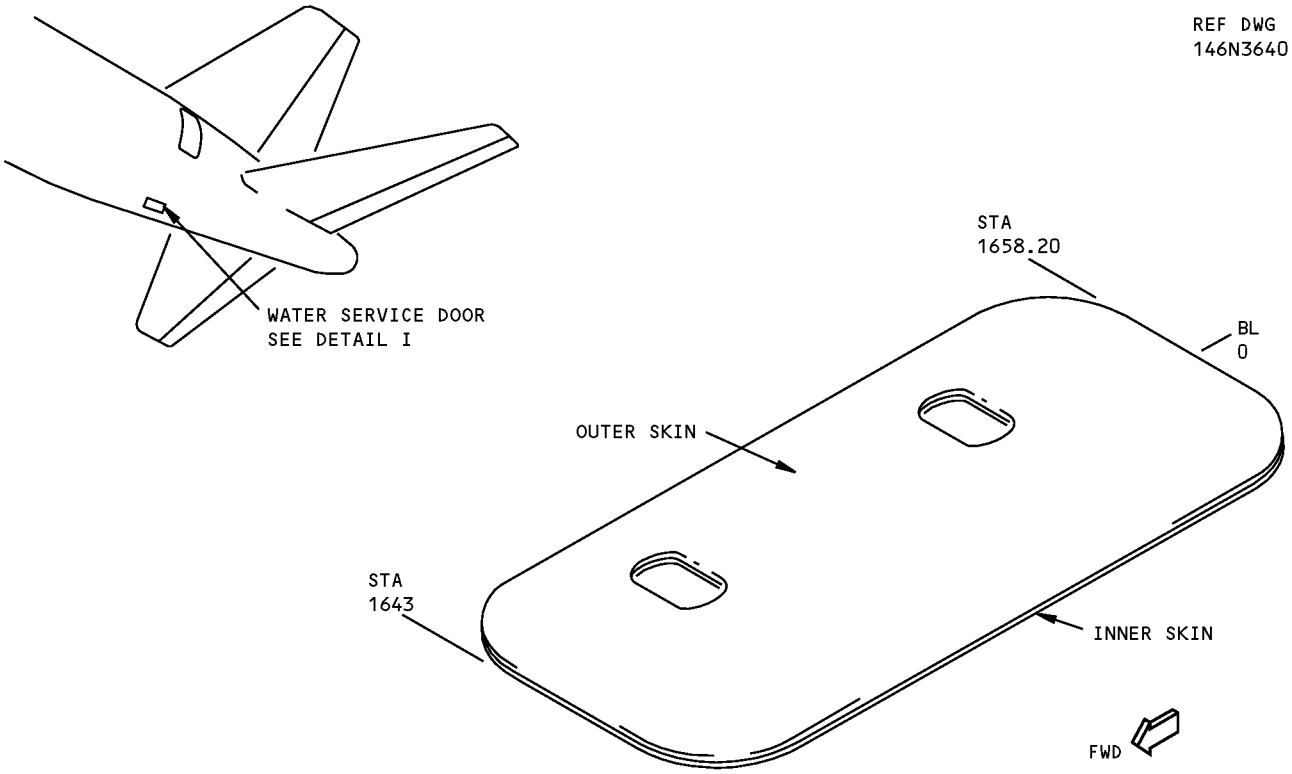
SURFACE CRACKS
DETAIL VII



FLANGED HOLE EDGE DAMAGE CLEANUP
DETAIL VIII

Allowable Damage - APU Access Door Skin
Figure 101 (Sheet 3 of 3)

ALLOWABLE DAMAGE 6 - ALLOWABLE DAMAGE - WATER SERVICE DOOR SKIN



DETAIL I

ITEM	CRACKS	NICKS, GOUGES AND CORROSION	DENTS	HOLES AND PUNCTURES
OUTER SKIN [A]	[B]	[D]	SEE DETAIL IV	[E]
INNER SKIN	[C]	[G]	SEE DETAIL IV	[F]

NOTES

- REFINISH REWORK AREAS PER AMM 51-20
- REFER TO 51-10-02 FOR INSPECTION AND REMOVAL OF DAMAGE

[A] REFER TO SRM 51-10-01 FOR AERODYNAMIC SMOOTHNESS REQUIREMENTS. WHERE THE DAMAGE EXCEEDS THE LIMITS SHOWN IN SRM 51-10-01, CONSIDERATION SHOULD BE GIVEN TO THE LOSS OF PERFORMANCE INVOLVED

[B] CRACKS NOT ALLOWED EXCEPT FOR EDGE CRACKS WHICH MUST BE REMOVED PER DETAILS II AND VI

[C] SEE DETAIL VIII FOR LIGHTENING HOLE EDGE CRACKS. FOR OTHER EDGE CRACKS, SEE DETAIL II. FOR OTHER CRACKS, SEE DETAIL VII

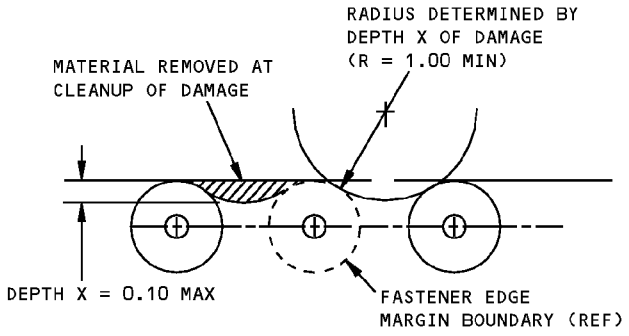
[D] REMOVE DAMAGE PER DETAILS II, III, V AND VI

[E] CLEAN OUT DAMAGE UP TO 0.25 INCH (6 mm) MAX DIA AND NOT CLOSER THAN 1.0 INCH (25 mm) TO FASTENER HOLE, MATERIAL EDGE, OR OTHER DAMAGE. FILL HOLE WITH 2117-T3 OR T4 ALUMINUM RIVET INSTALLED WET WITH BMS 5-95 SEALANT. ALL OTHER HOLES TO BE REPAIRED

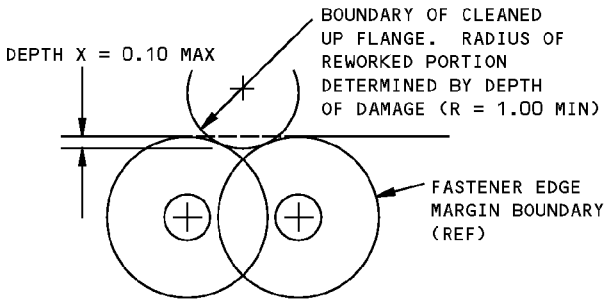
[F] CLEAN OUT DAMAGE UP TO 0.50 INCH (12.7 mm) MAX DIA AND NOT CLOSER THAN 1.0 INCH (25 mm) TO FASTENER HOLE, MATERIAL EDGE, OR OTHER DAMAGE

[G] REMOVE DAMAGE PER DETAILS II, III, V AND VI. CORROSION MAY BE DRILLED OUT UP TO 0.5 INCH (12.7 mm) MAX DIA PROVIDED FASTENER EDGE MARGINS ARE MAINTAINED PER DETAIL VII

Allowable Damage - Water Service Door Skin
Figure 101 (Sheet 1 of 3)

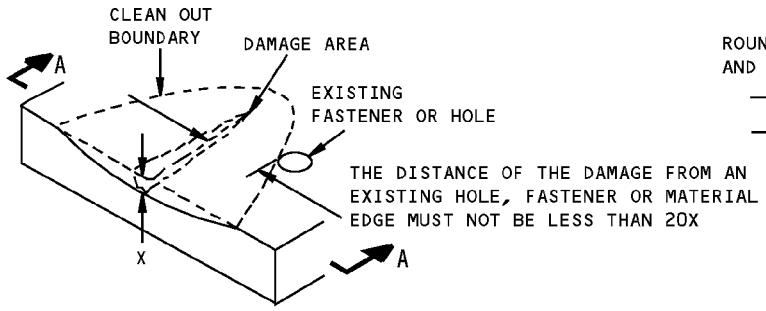


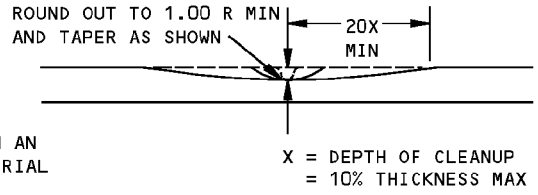
DAMAGE CLEANUP OF EDGES WHERE
FASTENER EDGE MARGINS DO NOT OVERLAP



DAMAGE CLEANUP OF EDGES WHERE
FASTENER EDGE MARGINS OVERLAP

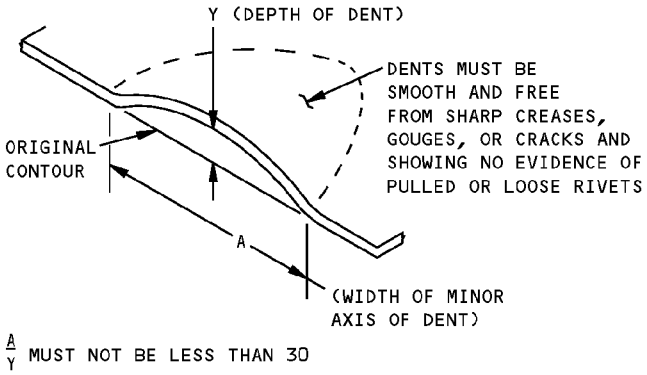
DETAIL II



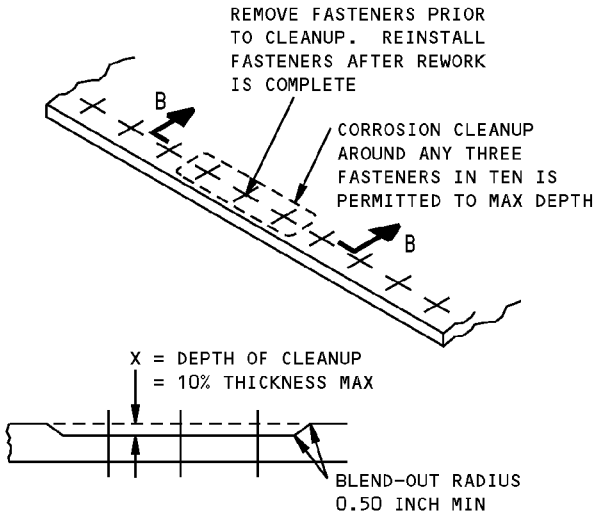


SECTION A-A

REMOVAL OF NICK, GOUGE AND SCRATCH DAMAGE ON A SURFACE
DETAIL III



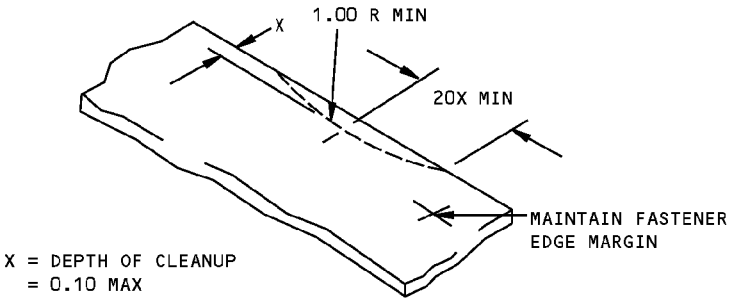
ALLOWABLE DAMAGE FOR DENT
DETAIL IV



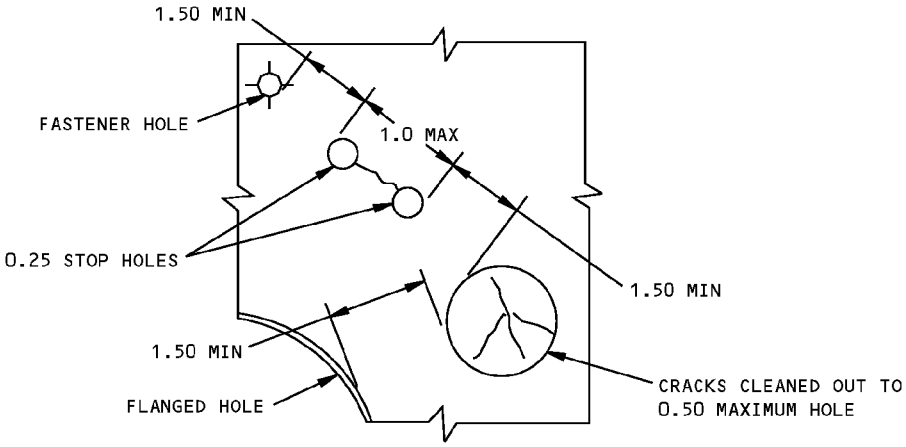
SECTION B-B

CORROSION CLEANUP
DETAIL V

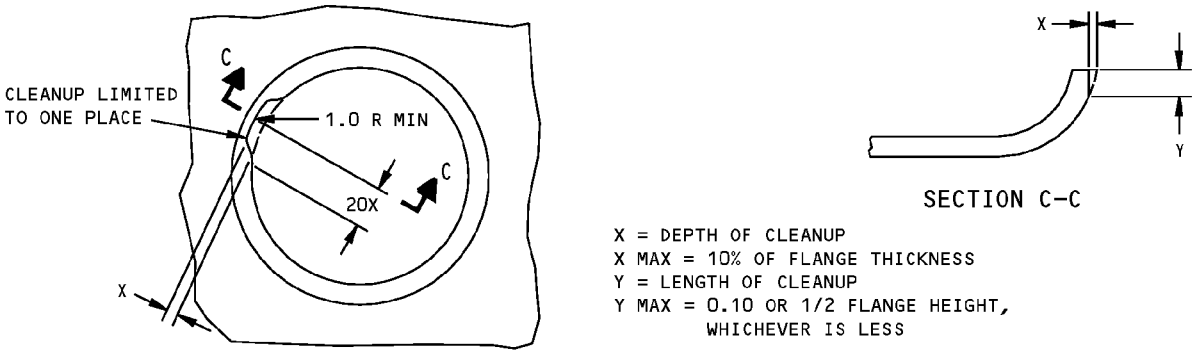
Allowable Damage - Water Service Door Skin
Figure 101 (Sheet 2 of 3)



REMOVAL OF NICK OR CRACK DAMAGE ON AN EDGE
DETAIL VI



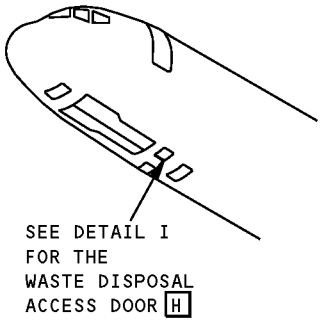
SURFACE CRACKS
DETAIL VII

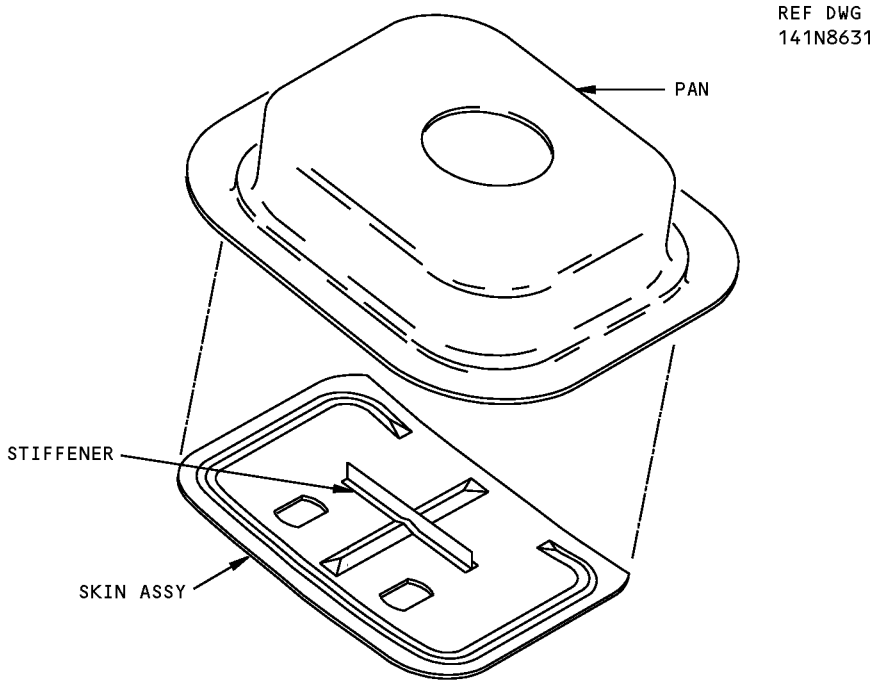


FLANGED HOLE EDGE DAMAGE CLEANUP
DETAIL VIII

Allowable Damage - Water Service Door Skin
Figure 101 (Sheet 3 of 3)

ALLOWABLE DAMAGE 7 - ALLOWABLE DAMAGE - WASTE DISPOSAL ACCESS DOOR SKIN





DETAIL I

ITEM	CRACKS	NICKS, GOUGES AND CORROSION	DENTS	HOLES AND PUNCTURES
OUTER SKIN [A]	[B]	[D]	SEE DETAIL IV	[E]
PAN	[C]	[G]	SEE DETAIL IV	[F]

NOTES

- REFINISH REWORK AREAS PER AMM 51-20
- REFER TO 51-10-02 FOR INSPECTION AND REMOVAL OF DAMAGE

[A] REFER TO SRM 51-10-01 FOR AERODYNAMIC SMOOTHNESS REQUIREMENTS. WHERE THE DAMAGE EXCEEDS THE LIMITS SHOWN IN SRM 51-10-01, CONSIDERATION SHOULD BE GIVEN TO THE LOSS OF PERFORMANCE INVOLVED

[B] CRACKS NOT PERMITTED EXCEPT FOR EDGE CRACKS WHICH MUST BE REMOVED AS SHOWN IN DETAILS II AND II

[C] SEE DETAIL VIII FOR LIGHTNING HOLE EDGE CRACKS. FOR OTHER EDGE CRACKS, SEE DETAIL II. FOR OTHER CRACKS, SEE DETAIL VII

[D] REMOVE DAMAGE AS SHOWN IN DETAILS II, III, V, AND VI

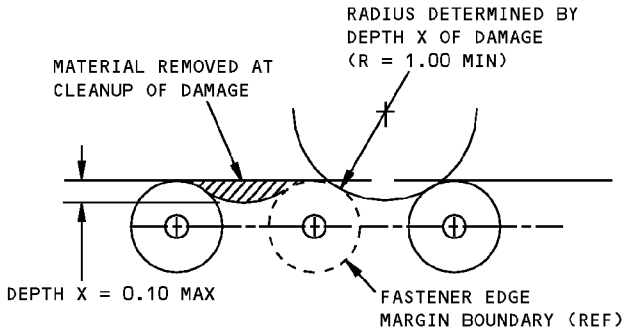
[E] CLEAN OUT DAMAGE UP TO 0.25 INCH (6 mm) MAXIMUM DIAMETER AND NOT CLOSER THAN 1.0 INCH (25 mm) TO FASTENER HOLE, MATERIAL EDGE, OR OTHER DAMAGE. FILL HOLE WITH 2117-T3 OT T4 ALUMINUM RIVET INSTALLED WET WITH BMS 5-95 SEALANT. ALL OTHER HOLES TO BE REPAIRED

[F] CLEAN OUT DAMAGE UP TO 0.50 INCH (12.7 mm) MAXIMUM DIAMETER AND NOT CLOSER THAN 1.0 INCH (25 mm) TO FASTENER HOLE, MATERIAL EDGE, OR OTHER DAMAGE

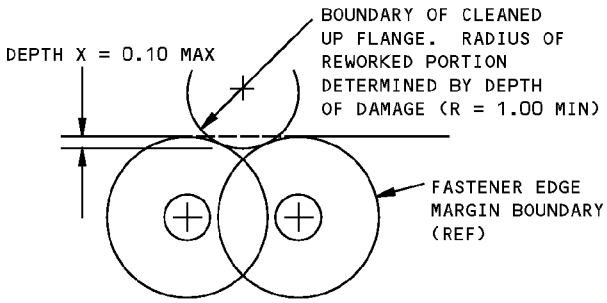
[G] REMOVE DAMAGE AS SHOWN IN DETAILS II, III, V AND VI. CORROSION MAY BE DRILLED OUT UP TO 0.5 INCH (12.7 mm) MAXIMUM DIAMETER PROVIDED FASTENER EDGE MARGINS ARE MAINTAINED AS SHOWN IN DETAIL VII

[H] FOR CUM LINE NUMBERS: 1 THRU 846

Allowable Damage - Waste Disposal Access Door Skin
Figure 101 (Sheet 1 of 3)

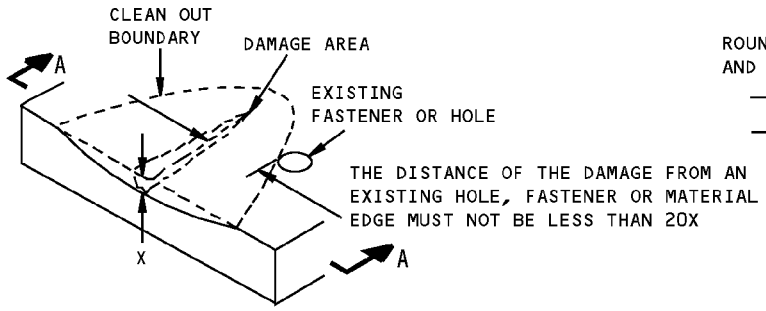


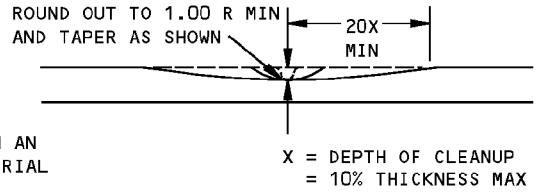
DAMAGE CLEANUP OF EDGES WHERE
FASTENER EDGE MARGINS DO NOT OVERLAP



DAMAGE CLEANUP OF EDGES WHERE
FASTENER EDGE MARGINS OVERLAP

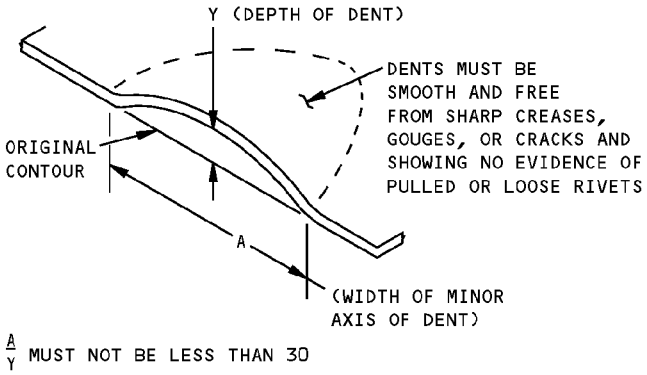
DETAIL II



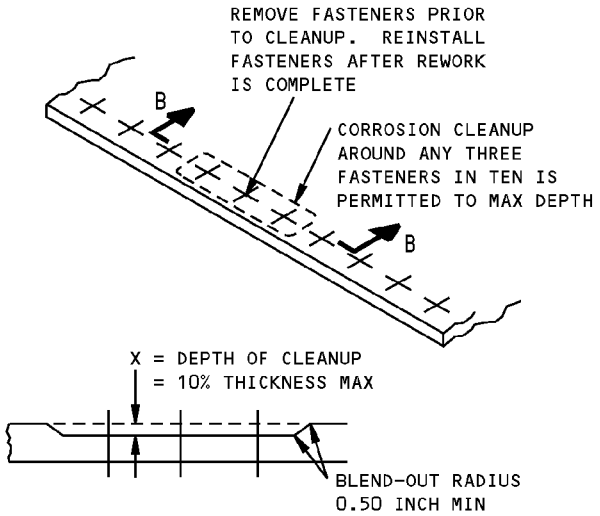


SECTION A-A

REMOVAL OF NICK, GOUGE AND SCRATCH DAMAGE ON A SURFACE
DETAIL III



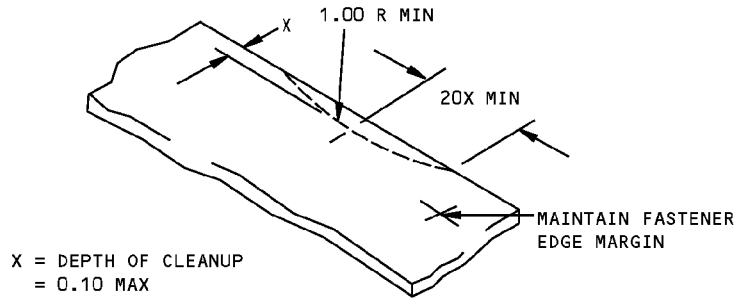
ALLOWABLE DAMAGE FOR DENT
DETAIL IV



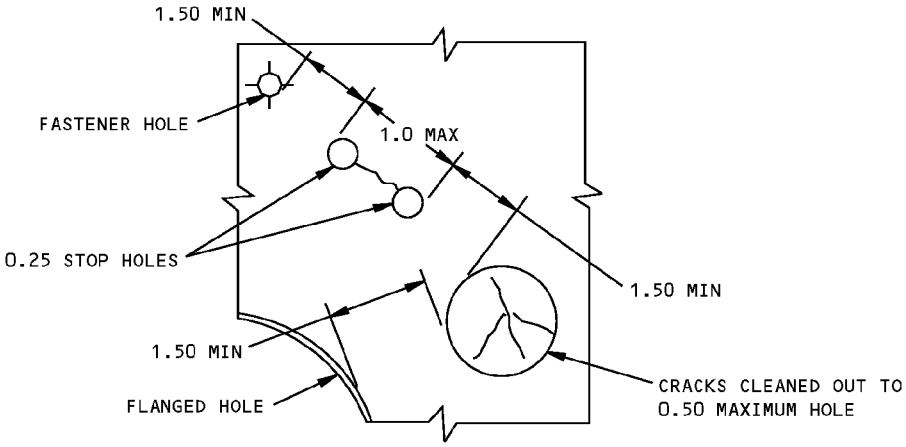
SECTION B-B

CORROSION CLEANUP
DETAIL V

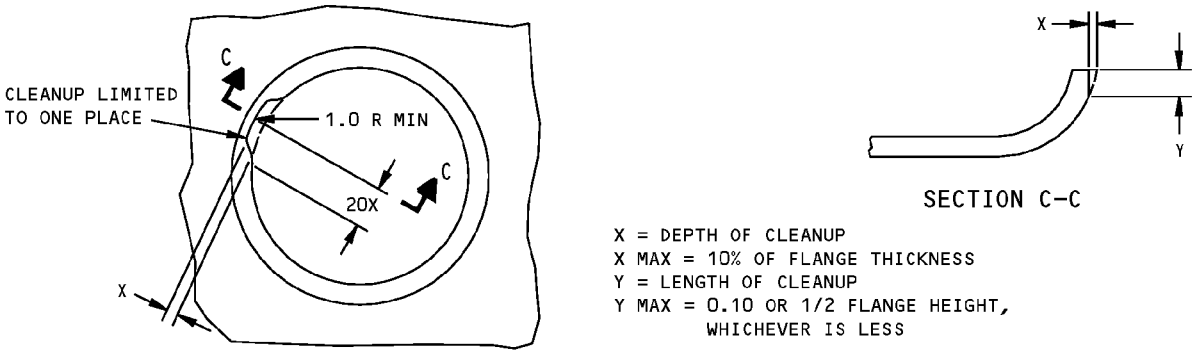
Allowable Damage - Waste Disposal Access Door Skin
Figure 101 (Sheet 2 of 3)



REMOVAL OF NICK OR CRACK DAMAGE ON AN EDGE
DETAIL VI



SURFACE CRACKS
DETAIL VII



FLANGED HOLE EDGE DAMAGE CLEANUP
DETAIL VIII

Allowable Damage - Waste Disposal Access Door Skin
Figure 101 (Sheet 3 of 3)

REPAIR 1 - SMALL HOLE FLUSH REPAIR - ACCESS DOORS

REPAIR INSTRUCTIONS

1. Remove the inner skin panel for access if required.
2. Clean out the damaged hole to 1-inch (25 mm) diameter maximum. The center of the hole to an edge or cutout must not be less than 1.90 inches (48 mm).
3. Make repair parts 1 and 2.
4. Assemble repair parts in installed position and drill fastener holes.
5. Remove repair parts.
6. Break sharp edges of original and repair parts 0.015 to 0.030 inch (0.4 to 0.8 mm).
7. Remove all nicks, scratches, burrs, sharp edges and corners from original and repair parts.
8. Alodize all raw edges of existing and repair parts per SRM 51-20-01.
9. Apply one coat of BMS 10-11, type 1, primer to all of part 2 and to the edges and inner surface of part 1 in accordance with AMM 51-21-00.
10. Install repair parts, making a faying surface seal with BMS 5-95 sealant as described in SRM 51-20-05.
11. Install fasteners wet with BMS 5-95 sealant.
12. Form a fillet seal around the edge of the repair parts, using the sealant squeezed out during installation. Apply additional sealant where necessary.
13. Reinstall inner skin panel if removed for access.
14. Restore the surface finish in accordance with AMM 51-20-00.

NOTES

- THIS REPAIR IS NOT TO BE USED IN AREAS WITH DOUBLERS AND THE SKIN GAGE MUST BE CONSTANT
- REFER TO 51-10-02 FOR INSPECTION AND REMOVAL OF DAMAGE
- REFER TO SRM 51-40 FOR FASTENER CODE, REMOVAL, INSTALLATION, HOLE SIZES, EDGE MARGINS AND SUBSTITUTIONS

[A] REFER TO SRM 51-10-01 FOR AERODYNAMIC SMOOTHNESS REQUIREMENTS

[B] WHERE RIVET SUBSTITUTIONS ARE MADE THE COUNTERSINK DEPTH FOR BACR15CE RIVETS MUST BE MAINTAINED AND THE EXCESS PORTION OF THE SUBSTITUTE RIVET HEAD SHAVED OFF AFTER INSTALLATION PER SRM 51-10-01

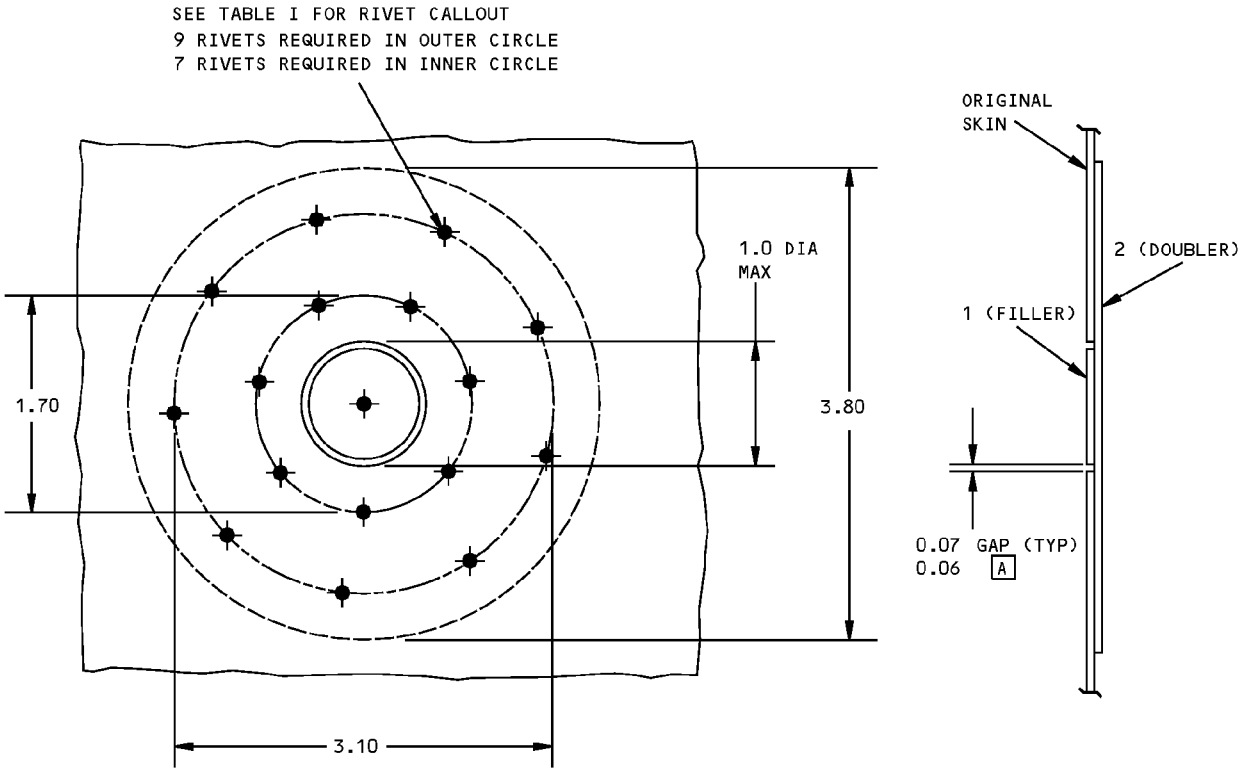
[C] MATERIAL THICKNESS TO BE THE SAME GAGE AS TOTAL SKIN THICKNESS IN REPAIR AREA (LAMINATED SKINS)

[D] MATERIAL THICKNESS TO BE ONE GAGE THICKER THAN TOTAL SKIN THICKNESS IN REPAIR AREA

SYMBOLS

⌖ REPAIR FASTENER LOCATION

Small Hole Flush Repair - Access Doors
Figure 201 (Sheet 1 of 2)



EXTERIOR VIEW

SECTION THROUGH REPAIR

REPAIR MATERIAL				
PART		QTY	GAGE	MATERIAL
1	FILLER	1	C	CLAD 2024-T3
2	DOUBLER	1	D	CLAD 2024-T3 FOR SEC 41 THRU SEC 46 CLAD 7075-T6 FOR SEC 48

ORIGINAL SKIN THICKNESS	REPAIR RIVET
0.040	BACR15CE4D
0.040 THRU 0.050	BACR15CE5D
0.063 THRU 0.071	BACR15CE6D

TABLE I

Small Hole Flush Repair - Access Doors
Figure 201 (Sheet 2 of 2)

REPAIR 2 - SMALL HOLE - EXTERNAL REPAIR

REPAIR INSTRUCTIONS

1. Remove the inner skin panel for access if required.
2. Clean out the damaged hole to 1.00 inch (25 mm) diameter maximum. The center of the hole to an edge or cutout must not be less than 4D.
3. Fabricate repair parts.
4. Break sharp edges of original and repair parts 0.015 to 0.030 inch (0.4 to 0.8 mm).
5. Remove all nicks, scratches, burrs, sharp edges and corners from original and repair parts.
6. Alodize all raw edges of existing and repair parts per SRM 51-20-01.
7. Apply one coat of BMS 10-11, type 1, primer to all of part 1 and to the edges and inner surface of part 2 in accordance with AMM 51-21-00.
8. Install repair parts, making a faying surface seal with BMS 5-95 sealant as described in SRM 51-20-05.
9. Install fasteners wet with BMS 5-95 sealant.
10. Form a fillet seal around the edge of the repair parts, using the sealant squeezed out during installation. Apply additional sealant where necessary.
11. Reinstall inner skin panel if removed for access.
12. Restore the surface finish in accordance with AMM 51-20-00.

NOTES

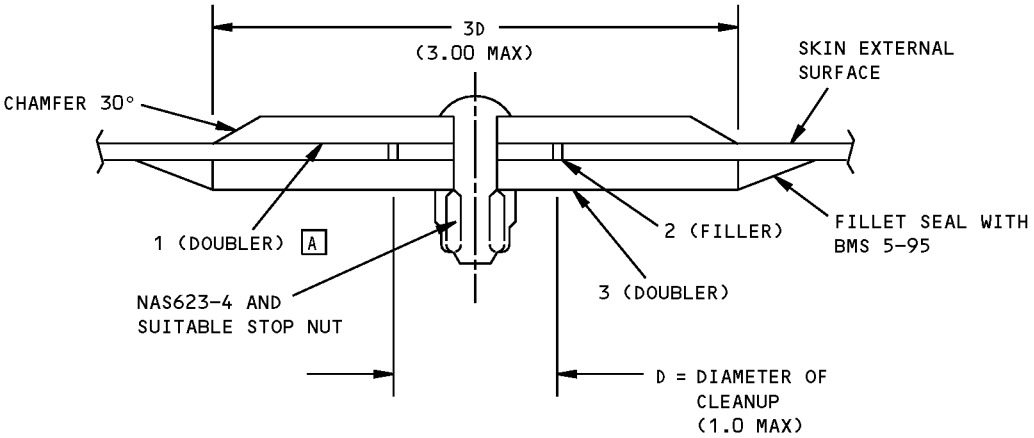
- REFER TO SRM 51-10-01 FOR AERODYNAMIC SMOOTHNESS REQUIREMENTS
- REFER TO SRM 51-10-02 FOR INSPECTION AND REMOVAL OF DAMAGE
- REFER TO SRM 51-40 FOR FASTENER CODE, REMOVAL, INSTALLATION, HOLE SIZES, EDGE MARGINS AND SUBSTITUTIONS

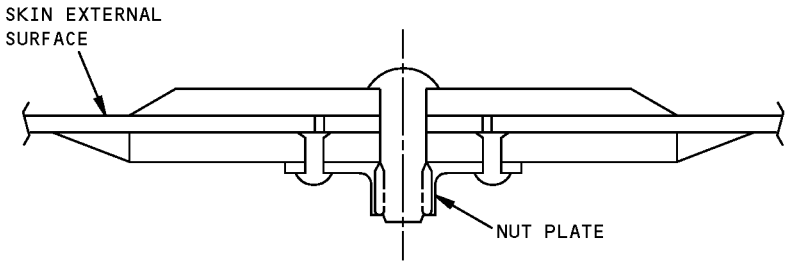
[A] THIS REPAIR IS NOT TO BE USED IN AREAS WITH DOUBLERS. THE AREA UNDER REPAIR PART 1 MUST NOT HAVE ANY FASTENERS, AND THE SKIN GAGE MUST BE CONSTANT

[B] MATERIAL THICKNESS TO BE 2 TIMES THE TOTAL SKIN THICKNESS IN REPAIR AREA

[C] MATERIAL THICKNESS TO BE THE SAME GAGE AS TOTAL SKIN THICKNESS IN REPAIR AREA (LAMINATED SKINS)

Small Hole - External Repair
Figure 201 (Sheet 1 of 2)





OPTIONAL METHOD

REPAIR MATERIAL				
PART		QTY	GAGE	MATERIAL
1	DOUBLER	1	B	CLAD 2024-T3
2	FILLER	1	C	CLAD 2024-T3
3	DOUBLER	1	B	CLAD 2024-T3

Small Hole - External Repair
Figure 201 (Sheet 2 of 2)

REPAIR 3 - APU ACCESS DOOR - FLUSH SKIN REPAIR BETWEEN BEAMS

REPAIR INSTRUCTIONS

1. Remove the inner skin panel for access if required.
2. Clean out the damage to the skin to a rectangular shape with a minimum of 0.50 inch (12.7 mm) radius at the corners. The cutout should be parallel to the centerline of the adjacent beam.
3. Make repair parts 1 and 2.
4. Assemble repair parts in installed positions and drill fastener holes.
5. Remove repair parts.
6. Break sharp edges of original and repair parts 0.015 to 0.030 inch (0.4 to 0.8 mm).
7. Remove all nicks, scratches, burrs, sharp edges and corners from original and repair parts.
8. Alodize all raw edges of existing and repair parts per SRM 51-20-01.
9. Apply one coat of BMS 10-11, type 1, primer to all of part 1 and to the edges and inner surface of part 2 in accordance with AMM 51-21-00.
10. Install repair parts, making a faying surface seal with BMS 5-95 sealant as described in SRM 51-20-05.
11. Install fasteners wet with BMS 5-95 sealant.
12. Form a fillet seal around the edge of the repair parts, using the sealant squeezed out during installation. Apply additional sealant where necessary.
13. Reinstall inner skin panel, if removed for access.
14. Restore the surface finish in accordance with AMM 51-20-00.

NOTES

- REFER TO 51-10-02 FOR INSPECTION AND REMOVAL OF DAMAGE
- REFER TO SRM 51-40 FOR FASTENER CODE, REMOVAL, INSTALLATION, HOLE SIZES, EDGE MARGINS AND SUBSTITUTIONS.

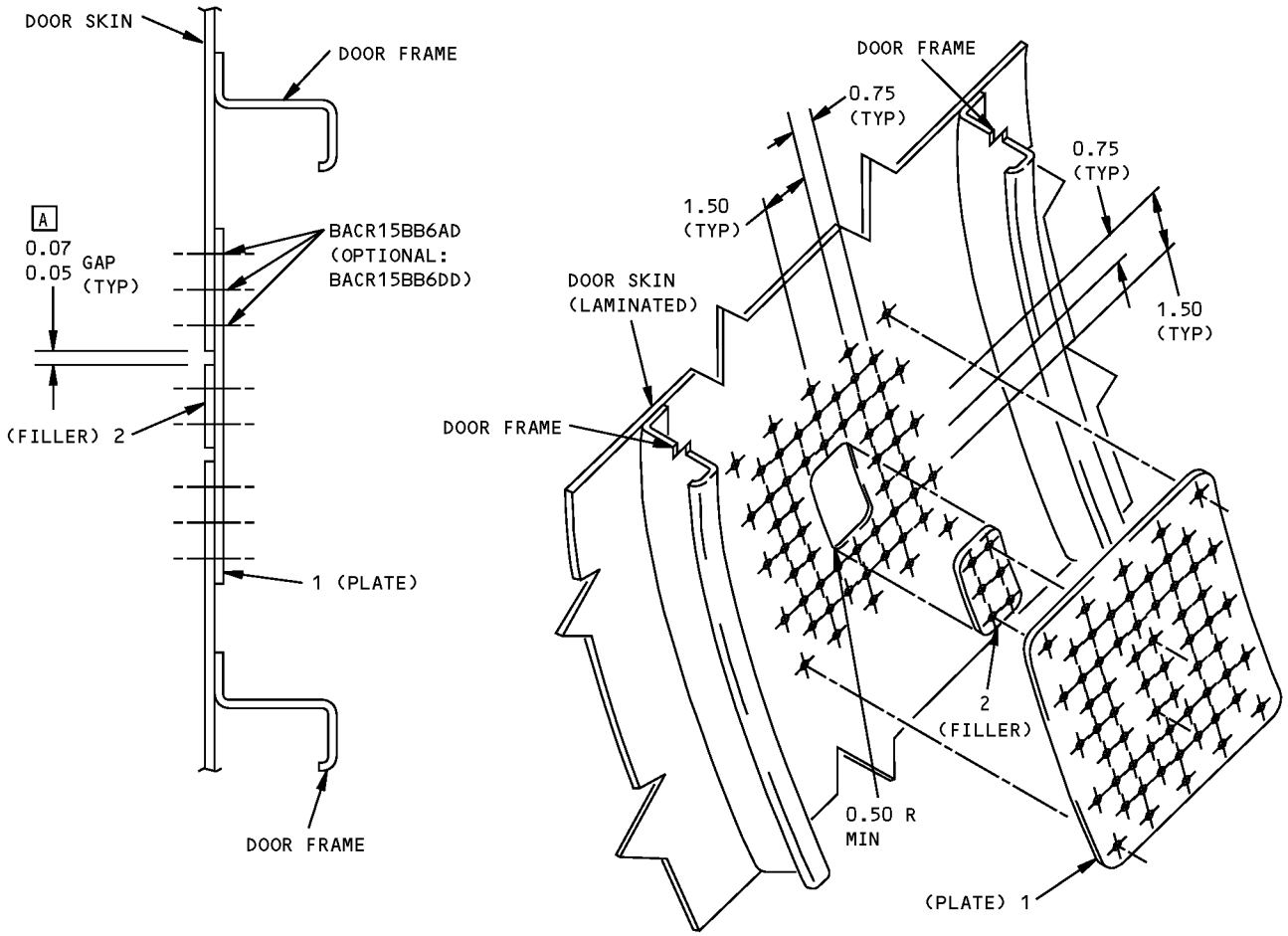
[A] REFER TO SRM 51-10-01 FOR AERODYNAMIC SMOOTHNESS REQUIREMENTS

[B] WHERE RIVET SUBSTITUTIONS ARE MADE THE COUNTERSINK DEPTH FOR BACR15CE RIVETS MUST BE MAINTAINED AND THE EXCESS PORTION OF THE SUBSTITUTE RIVET HEAD SHAVED OFF AFTER INSTALLATION PER SRM 51-10-01

SYMBOLS

REPAIR FASTENER LOCATION

APU Access Door - Flush Skin Repair Between Beams
Figure 201 (Sheet 1 of 2)



REPAIR MATERIAL				
PART		QTY	GAGE	MATERIAL
1	PLATE	1	0.040	CLAD 2024-T3
2	FILLER	1	0.032	CLAD 2024-T3

APU Access Door - Flush Skin Repair Between Beams
Figure 201 (Sheet 2 of 2)

REPAIR 4 - APU ACCSS DOOR - FLUSH SKIN REPAIR AT FRAMES

REPAIR INSTRUCTIONS

1. Remove inner skin panel for access to the damaged area if required.
2. Clean out damage to skin to a rectangular shape parallel to the frames with a minimum corner radius of 0.50 inch (12.7 mm).
3. Cut out frame flanges to width of repair plate to permit its insertion against the skin.
4. Make repair parts.
5. Assemble repair parts and drill the fastener holes in original and new locations. Add spacer or shims between part 1 plate or inner side of frame flange and new angles, whichever is required to fill gap.
6. Remove repair parts.
7. Break sharp edges of original and repair parts 0.015 to 0.030 inch (0.4 to 0.8 mm).
8. Remove all nicks, scratches, burrs, sharp edges and corners from original and repair parts.
9. Alodize raw edges of original and repair parts per SRM 51-20-01.
10. Apply one coat of BMS 10-11, type 1, primer to all of parts 1 and 3 and to the edges and inner surface of part 2 in accordance with AMM 51-21-00.
11. Install repair parts, making a faying surface seal with BMS 5-95 sealant as described in SRM 51-20-05.
12. Install fasteners wet with BMS 5-95 sealant.
13. Form a fillet seal around the edge of the repair parts, using the sealant squeezed out during installation. Apply additional sealant where necessary.
14. Restore surface finish in accordance with AMM 51-20-00.

NOTES

- REFER TO SRM 51-10-02 FOR INSPECTION AND REMOVAL OF DAMAGE
- REFER TO SRM 51-40 FOR FASTENER CODE, REMOVAL, INSTALLATION, HOLE SIZES, EDGE MARGINS, COUNTERSINKING, AND FASTENER SUBSTITUTIONS

[A] MINIMUM OF THREE FASTENERS IN EACH ROW JOINING REPAIR ANGLES TO ORIGINAL SECTION

[B] FOR AERODYNAMIC SMOOTHNESS REQUIREMENTS, REFER TO SRM 51-10-01

[C] WHERE RIVET SUBSTITUTIONS ARE MADE, THE COUNTERSINK DEPTH FOR BACR15CE RIVETS MUST BE MAINTAINED AND THE EXCESS PORTION OF THE SUBSTITUTE RIVET HEAD SHAVED OFF AFTER INSTALLATION PER SRM 51-10-01

[D] SELECT MATERIAL SO THAT FORMED HEADS OF RIVET DO NOT RIDE RADIUS OF FORMED ANGLE

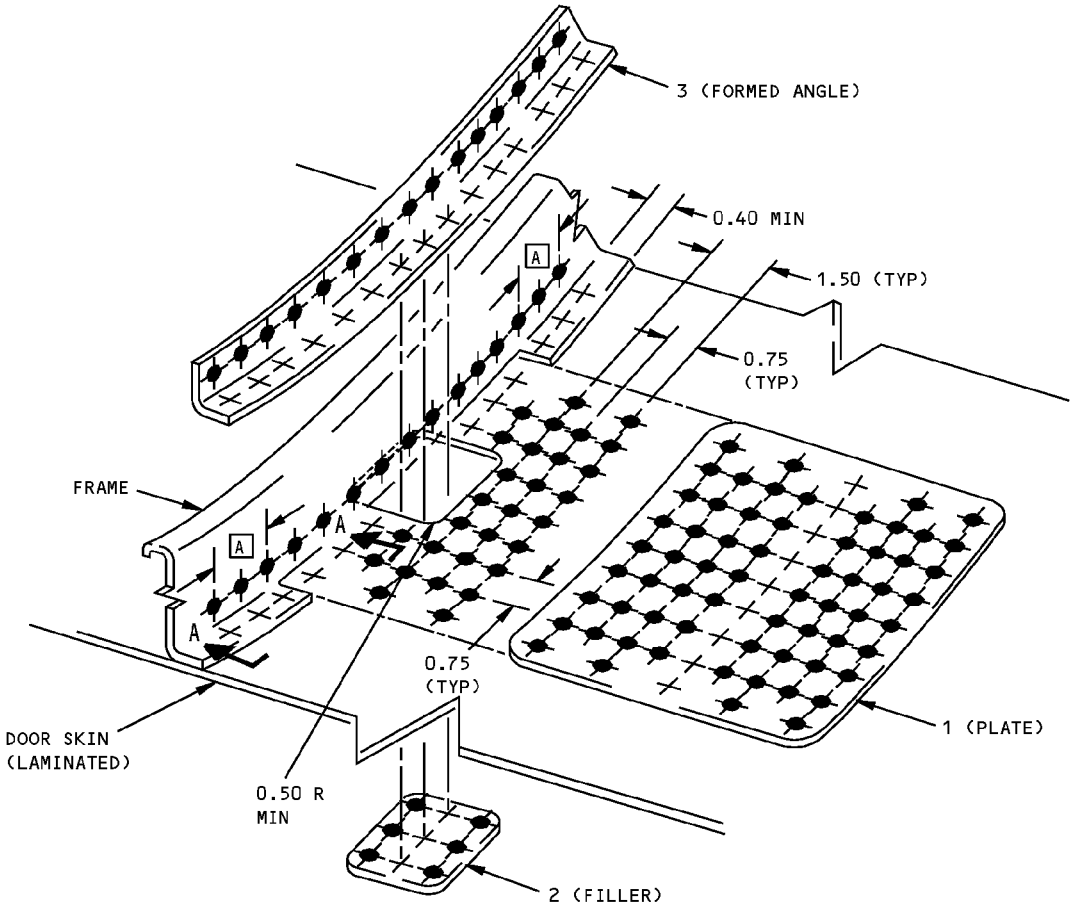
[E] SAME GAGE AS ORIGINAL FRAME

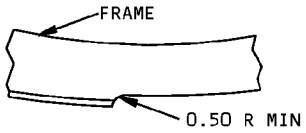
SYMBOLS

REPAIR FASTNER LOCATION

ORIGINAL FASTENER LOCATION REMOVE AND REPLACE WITH BACR15BB( )AD OR BACR15BB( )DD SAME SIZE AS ORIGINAL OR 1/32 OVERSIZE IF REQUIRED

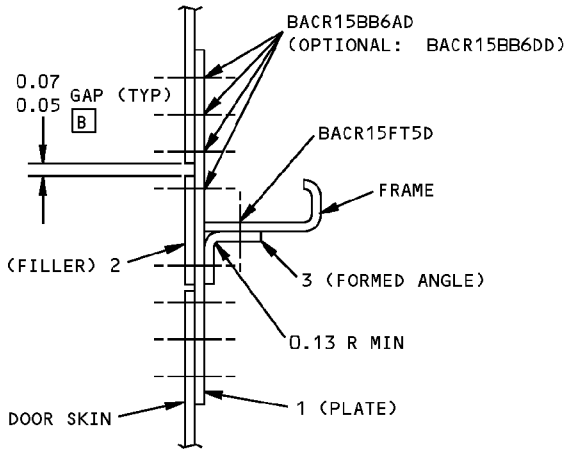
APU Accss Door - Flush Skin Repair at Frames
Figure 201 (Sheet 1 of 2)





SECTION A-A

REPAIR MATERIAL				
PART		QTY	GAGE	MATERIAL
1	PLATE	1	E	CLAD 2024-T3
2	FILLER	1	0.032	CLAD 2024-T3
3	FORMED ANGLE	1	0.063	CLAD 2024-T4 OR CLAD 2024-0 HT TR T42 D



SECTION THRU REPAIR

APU Accss Door - Flush Skin Repair at Frames
Figure 201 (Sheet 2 of 2)

REPAIR 5 - APU ACCESS DOOR - EXTERNAL SKIN REPAIRS

REPAIR INSTRUCTIONS

1. Remove inner skin panel for access to damaged area if required.
2. Drill 0.25 inch (6 mm) diameter stop hole at extremities of crack.
3. Remove fasteners as required.
4. Make repair part.
5. Assemble repair part and drill fastener holes.
6. Remove repair part.
7. Break sharp edges of repair part 0.015 to 0.030 inch (0.4 to 0.8 mm).
8. Remove all nicks, scratches, burrs, sharp edges and corners from original and repair part.
9. Alodize the raw edges of repair part per SRM 51-20-01.
10. Apply one coat of BMS 10-11, type 1, primer in accordance with AMM 51-21-00.
11. Install plate (part 1), making a faying surface seal with BMS 5-95 sealant as described in SRM 51-20-05.
12. Install fasteners wet with BMS 5-95 sealant.
13. Restore finish in accordance with AMM 51-20-00.

NOTES

- REFER TO SRM 51-10-02 FOR INSPECTION AND REMOVAL OF DAMAGE
- REFER TO SRM 51-40 FOR FASTENER CODE, REMOVAL, INSTALLATION, HOLE SIZES, EDGE MARGINS, COUNTERSINKING, AND FASTENER SUBSTITUTIONS

[A] WHERE RIVET SUBSTITUTIONS ARE MADE, THE COUNTERSINK DEPTH FOR BACR15CE RIVETS MUST BE MAINTAINED AND THE EXCESS PORTION OF THE SUBSTITUTE RIVET HEAD SHAVED OFF AFTER INSTALLATION PER SRM 51-10-01

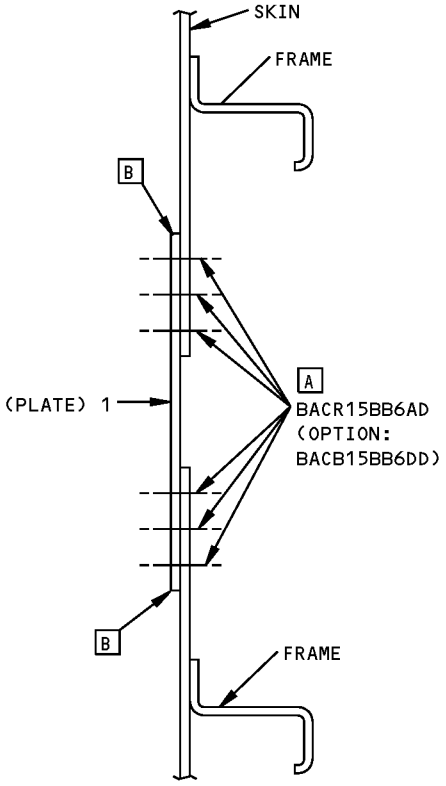
[B] REFER TO SRM 51-10-01 FOR AERODYNAMIC SMOOTHNESS REQUIREMENTS

SYMBOLS

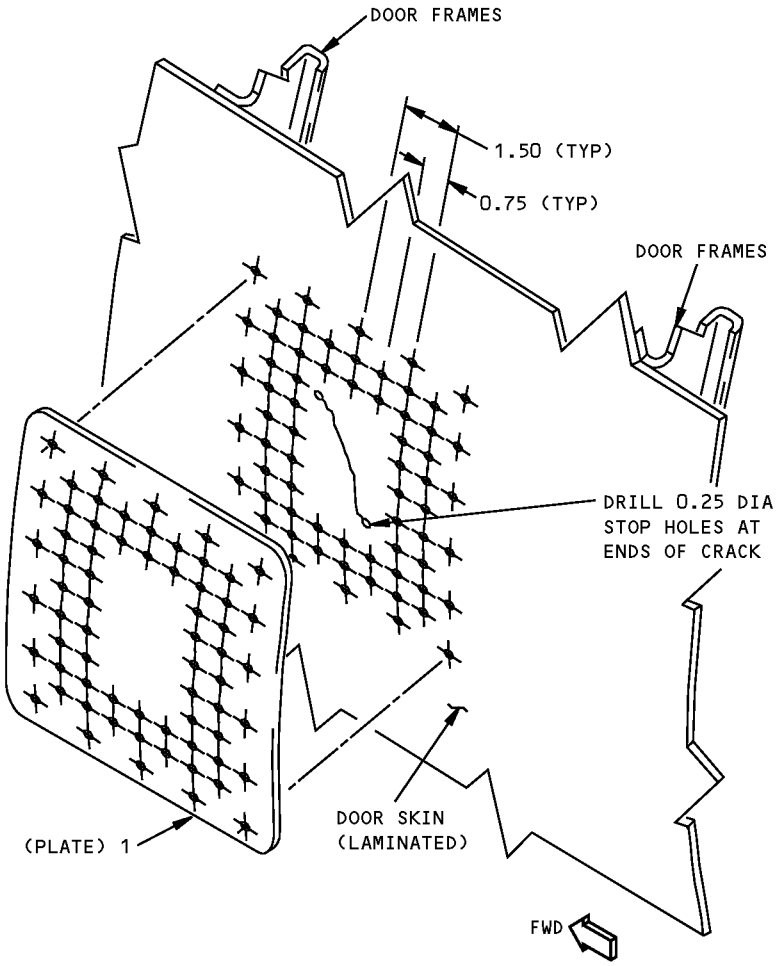
⌖ REPAIR FASTNER LOCATION

+ ORIGINAL FASTENER LOCATION REMOVE AND REPLACE WITH BACR15BB( )AD OR BACR15BB( )DD SAME SIZE AS ORIGINAL OR 1/32 OVERSIZE IF REQUIRED

APU Access Door - External Skin Repairs
Figure 201 (Sheet 1 of 2)



SECTION THRU REPAIR

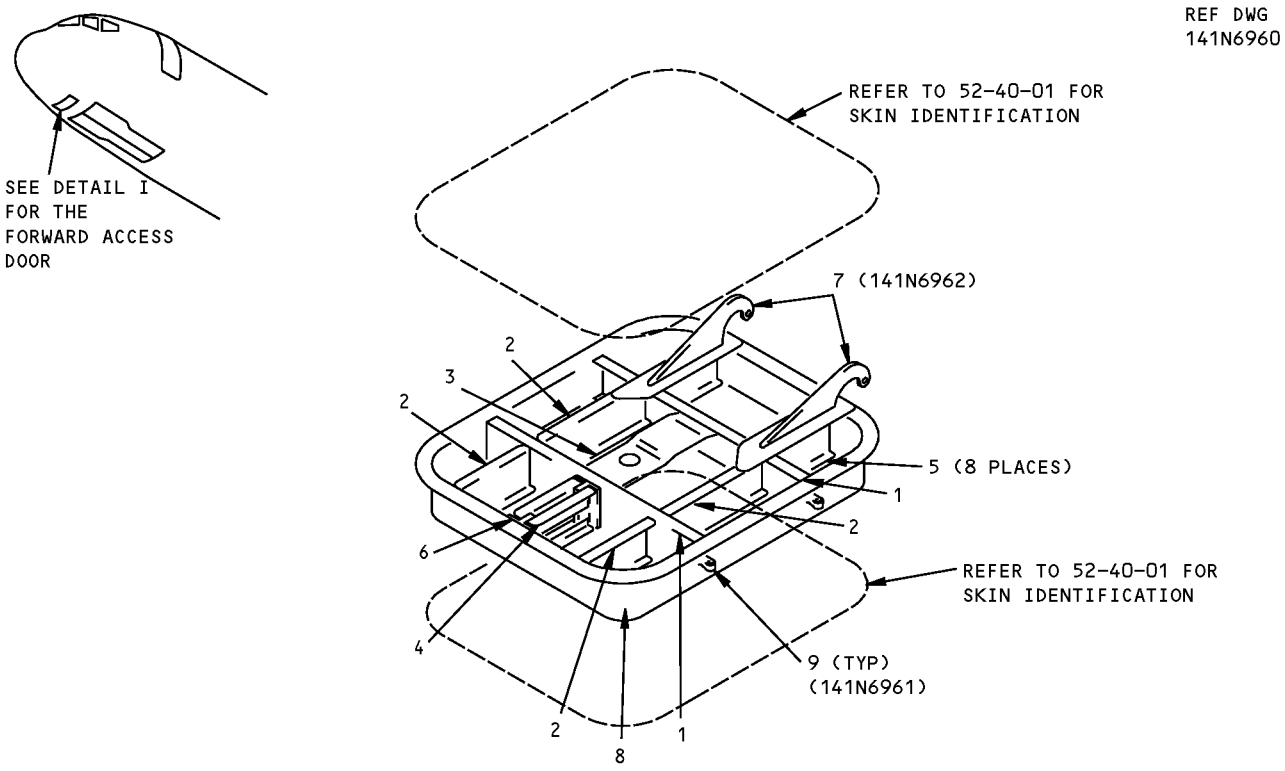


LEFT SIDE SHOWN
RIGHT SIDE – OPPOSITE

REPAIR MATERIAL				
PART		QTY	GAGE	MATERIAL
1	PLATE	1	0.040	CLAD 2024-T3

APU Access Door - External Skin Repairs
Figure 201 (Sheet 2 of 2)

IDENTIFICATION 1 - FORWARD ACCESS DOOR STRUCTURE



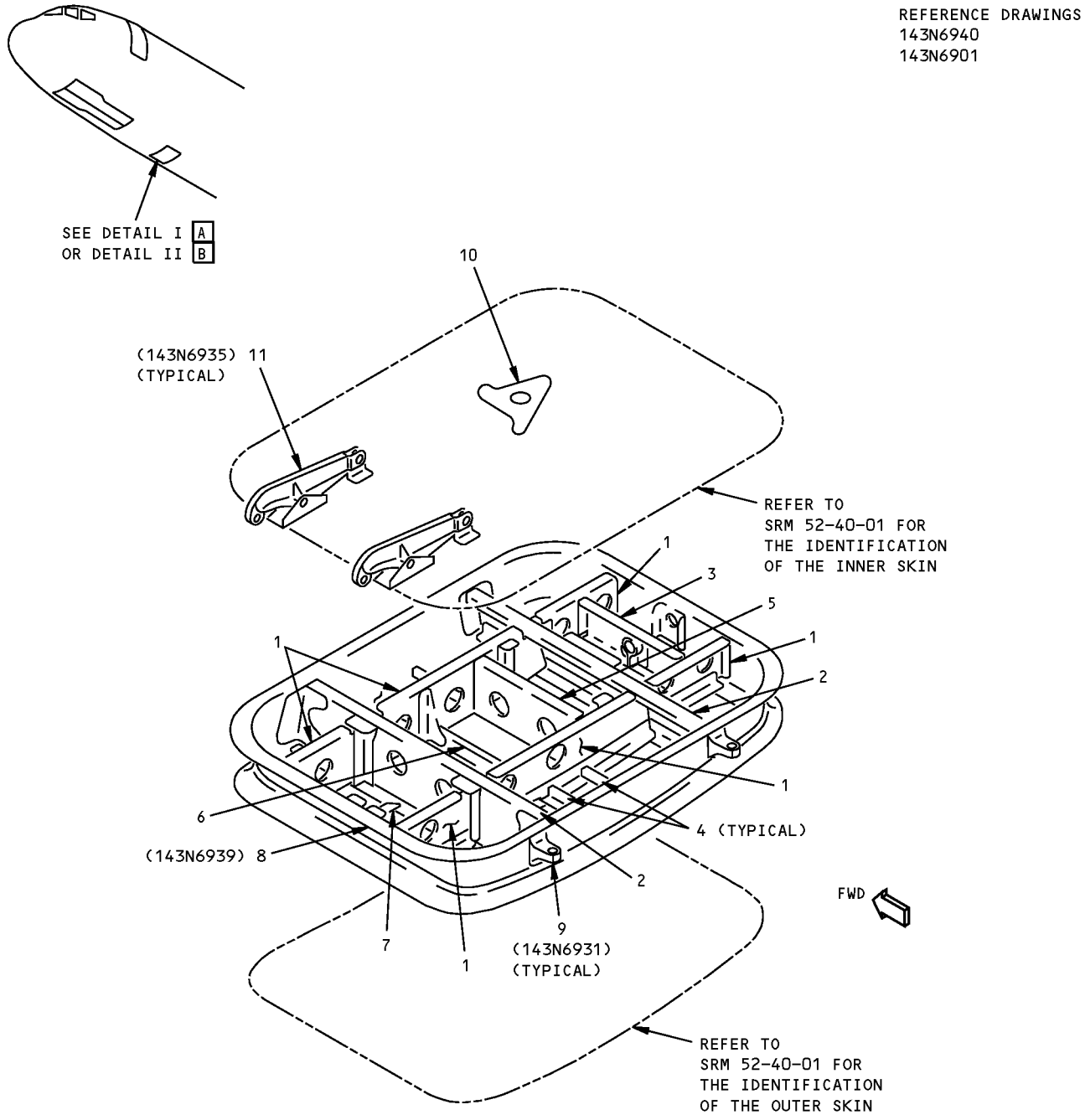
DETAIL I

ITEM	DESCRIPTION	GAGE	MATERIAL	EFFECTIVITY
1	BEAM WEB TEE	0.071	CLAD 7075-T6 BAC1505-100350 2024-T3511	
2	INTERCOSTAL WEB TEE	0.050	CLAD 7075-T6 BAC1506-2195 2024-T3511	
3	CHANNEL	0.071	CLAD 7075-T62	
4	ANGLE		BAC1490-2507 CLAD 7075-T6	
5	ANGLE		BAC1490-2736 CLAD 7075-T6	
6	LATCH FITTING		7075-T73 FORGING	
7	HINGE ARM	0.313	7075-T651	
8	PAN	0.050	CLAD 2024-T42	
9	STOP FITTING		BAC1520-2207 2024-T3511 OR BAC1520-2215 2024-T3511	

LIST OF MATERIALS

Forward Access Door Structure Identification
Figure 1

IDENTIFICATION 2 - ELEC/ELEX ACCESS DOOR STRUCTURE



DETAIL I A

NOTES

A FOR CUM LINE NUMBERS:
1 THRU 713

B FOR CUM LINE NUMBERS:
714 AND ON

LIST OF MATL

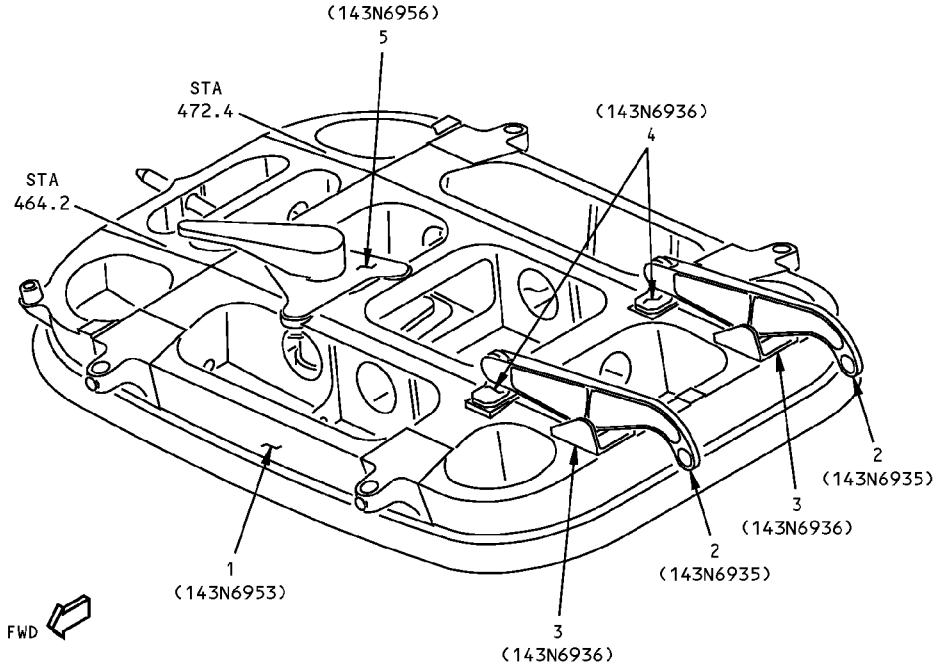
Elec/Elex Access Door Structure Identification
Figure 1 (Sheet 1 of 3)

ITEM	DESCRIPTION	GAGE	MATERIAL	EFFECTIVITY
1	INTERCOSTAL			
	ANGLE	0.050	CLAD 2024-T42	
	WEB	0.050	CLAD 2024-T42	
2	BEAM			
	TEE		BAC1505-100910 2024-T3511	
	WEB	0.050	CLAD 7075-T6	
3	INTERCOSTAL			
	ANGLE		BAC1490-2715 CLAD 2024-T42	
	WEB	0.050	CLAD 2024-T42	
4	ANGLE		BAC1490-2505 CLAD 2024-T42	
5	INTERCOSTAL			
	ANGLE		BAC1490-2506 CLAD 2024-T42	
	WEB	0.050	CLAD 2024-T42	
6	ZEE		BAC1517-1056 CLAD 2024-T42	
7	ANGLE	0.063	CLAD 2024-T42	
8	FRAME	0.050	CLAD 2024-T42	
9	STOP FITTING		BAC1520-2273 7075-T3511	
10	PLATE	0.080	CLAD 7075-T6	
11	HINGE FITTING		7075-T73 FORGING	

LIST OF MATERIALS FOR DETAIL I [A]

Elec/Elex Access Door Structure Identification
Figure 1 (Sheet 2 of 3)

REFERENCE DRAWING
143N6901



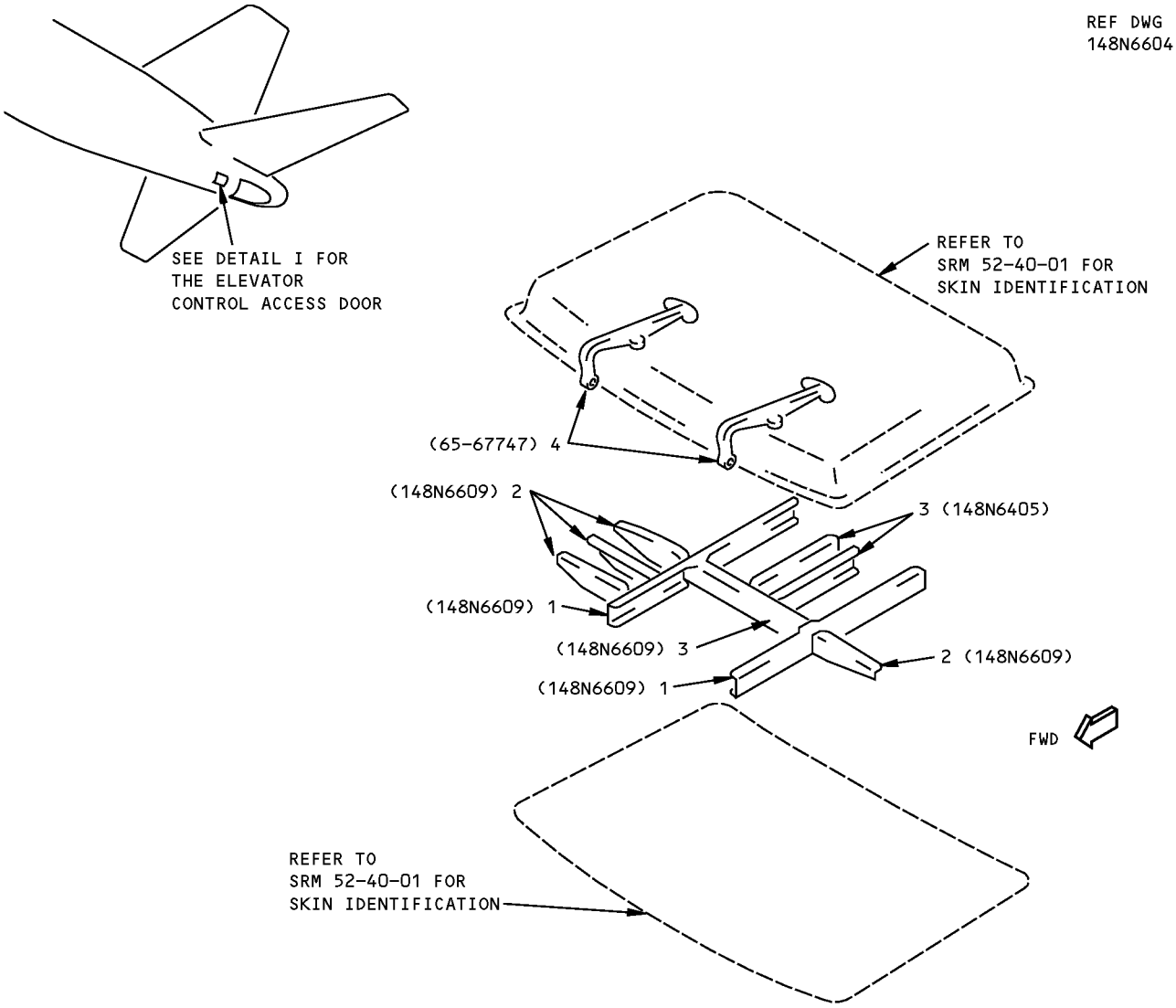
DETAIL II [B]

ITEM	DESCRIPTION	GAGE	MATERIAL	EFFECTIVITY
1	FRAMEWORK		357.0-T6 CASTING AS GIVEN IN BMS 7-330	
2	HINGE FITTING		7075-T73 FORGING AS GIVEN IN BMS 7-186	
3	HINGE ATTACHMENT FITTING		BAC1509-100043 7075-T7351 PLATE (OPTIONAL: 7075-T73511 EXTRUSION)	
4	HINGE ATTACHMENT FITTING		BAC1505-100552 7075-T7351 PLATE (OPTIONAL: 7075-T73511 EXTRUSION)	
5	HANDLE PLATE		7050-T7451 PLATE (OPTIONAL: 7075-T7351 PLATE)	

LIST OF MATERIALS FOR DETAIL II [B]

Elec/Elex Access Door Structure Identification
Figure 1 (Sheet 3 of 3)

IDENTIFICATION 3 - ELEVATOR CONTROL ACCESS DOOR STRUCTURE



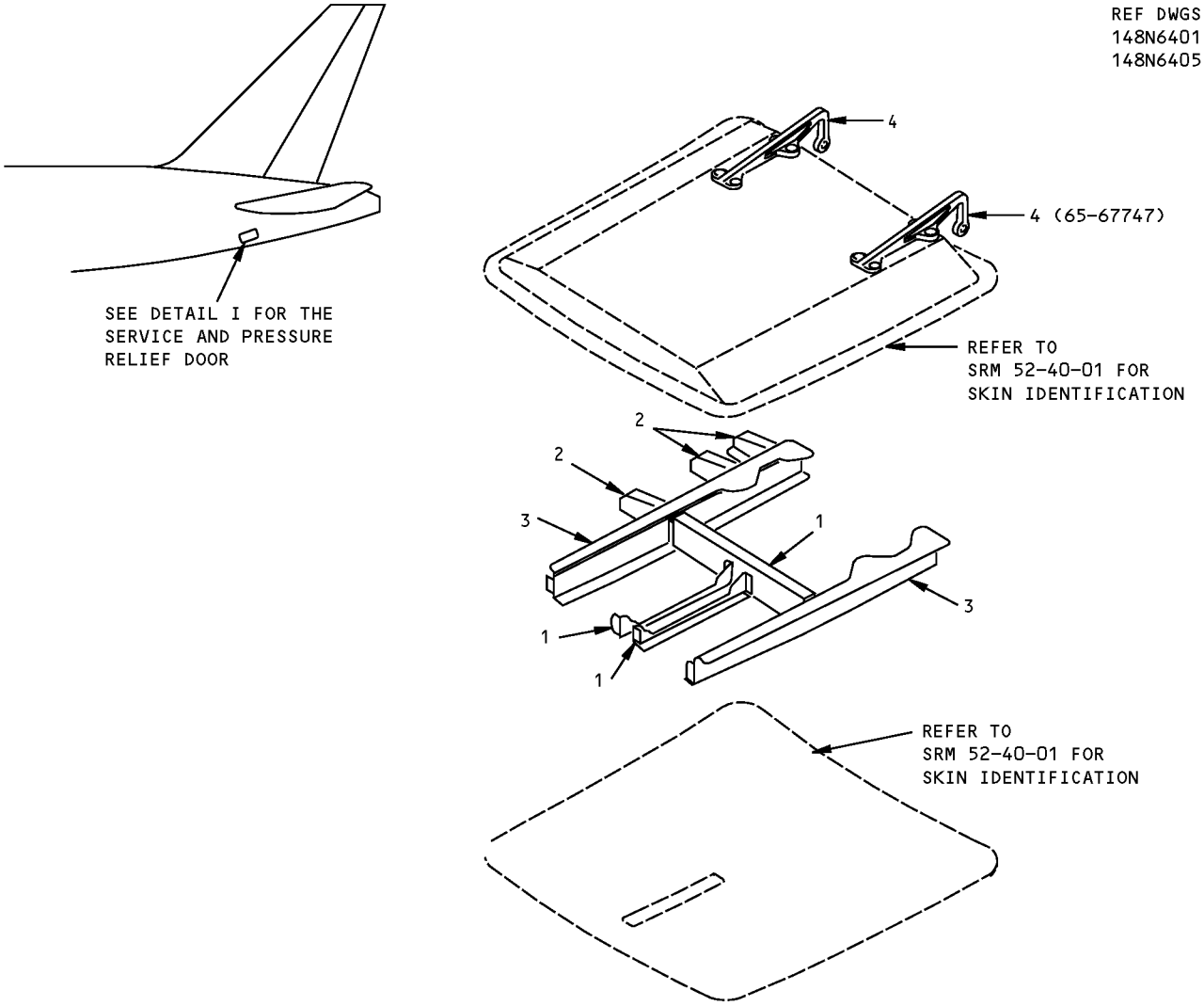
DETAIL I

ITEM	DESCRIPTION	GAGE	MATERIAL	EFFECTIVITY
1	BEAM TEE ANGLE	 0.040	 BAC1505-101127 7075-T6511 CLAD 2024-T42	
2	GUSSET	0.040	CLAD 2024-T42	
3	CHORD	0.040	CLAD 2024-T42	
4	HINGE		7075-T6 FORGING	

LIST OF MATERIALS FOR DETAIL I

Elevator Control Access Door Structure Identification
Figure 1

IDENTIFICATION 4 - SERVICE AND PRESSURE RELIEF DOOR STRUCTURE



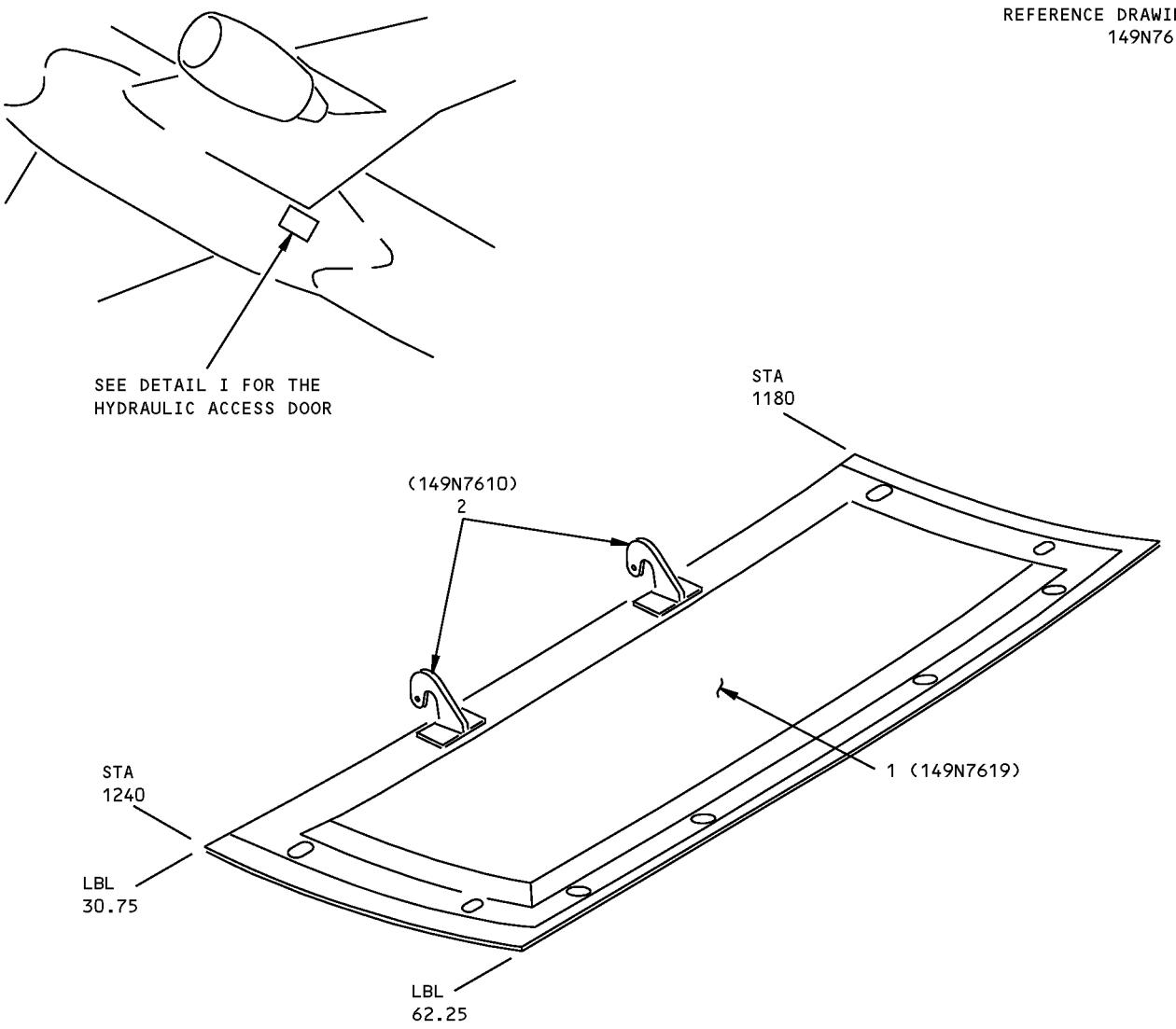
DETAIL I

ITEM	DESCRIPTION	GAGE	MATERIAL	EFFECTIVITY
1	CHORD	0.040	CLAD 2024-T42	
2	GUSSET	0.040	CLAD 2024-T42	
3	STRINGER ASSY			
	ANGLE	0.040	CLAD 2024-T42	
	TEE		BAC1505-101127 7075-T6511	
4	HINGE		7075-T6 FORGING	

LIST OF MATERIALS FOR DETAIL I

Service and Pressure Relief Door Structure Identification
Figure 1

IDENTIFICATION 5 - HYDRAULIC ACCESS DOOR STRUCTURE



DETAIL I

ITEM	DESCRIPTION	GAGE	MATERIAL	EFFECTIVITY
1	SKIN PANEL		ARAMID/GRAPHITE/EPOXY HONEYCOMB SANDWICH	
	SKIN		SEE DETAIL I	
	CORE		NOMEX HONEYCOMB PER BMS 8-124, CLASS IV, TYPE V, GRADE 3.0	
2	CLEVIS		FORGING OR FORGED BLOCK 7075-T73	

LIST OF MATERIALS FOR DETAIL I

Hydraulic Access Door Structure Identification
Figure 1 (Sheet 1 of 2)

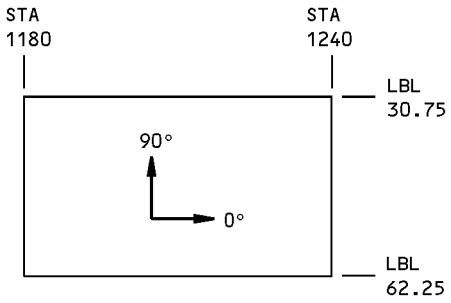
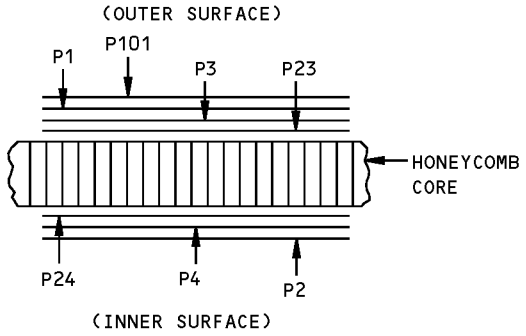


DIAGRAM OF PLY ORIENTATION. SEE PLY TABLE FOR INDIVIDUAL PLY ORIENTATION AND MATERIAL

VIEW ON DOOR PANEL



SECTION THRU HONEYCOMB PANEL

ITEM NO.	PLY NO.	MATERIAL	PLY ORIENTATION [A]
1	P101 [E]	[C]	0° OR 90°
	P101 [F]	[G]	
	P1,P2	[B]	
	P3,P4, P23,P24	[D]	

MATERIAL AND PLY ORIENTATION SHOWN FOR FIELD AREAS ONLY. SEE BOEING DRAWING FOR EDGEBANDS AND AREAS WITH DOUBLERS

PLY TABLE

DETAIL II

NOTES

[A] PLY ORIENTATION DEGREES INDICATED, IS PARALLEL TO THE FABRIC WARP DIRECTION

[B] ARAMID/EPOXY FABRIC PER BMS 8-219, STYLE 120, 250°F (121°C) CURE

[C] ALUMINUM COATED FIBERGLASS PER BMS 8-278, TYPE II, CLASS 250, 250°F (121°C) CURE

[D] GRAPHITE/EPOXY FABRIC PER BMS 8-168, TYPE II, CLASS II, STYLE 3K-70-PW, 250°F (121°C) CURE

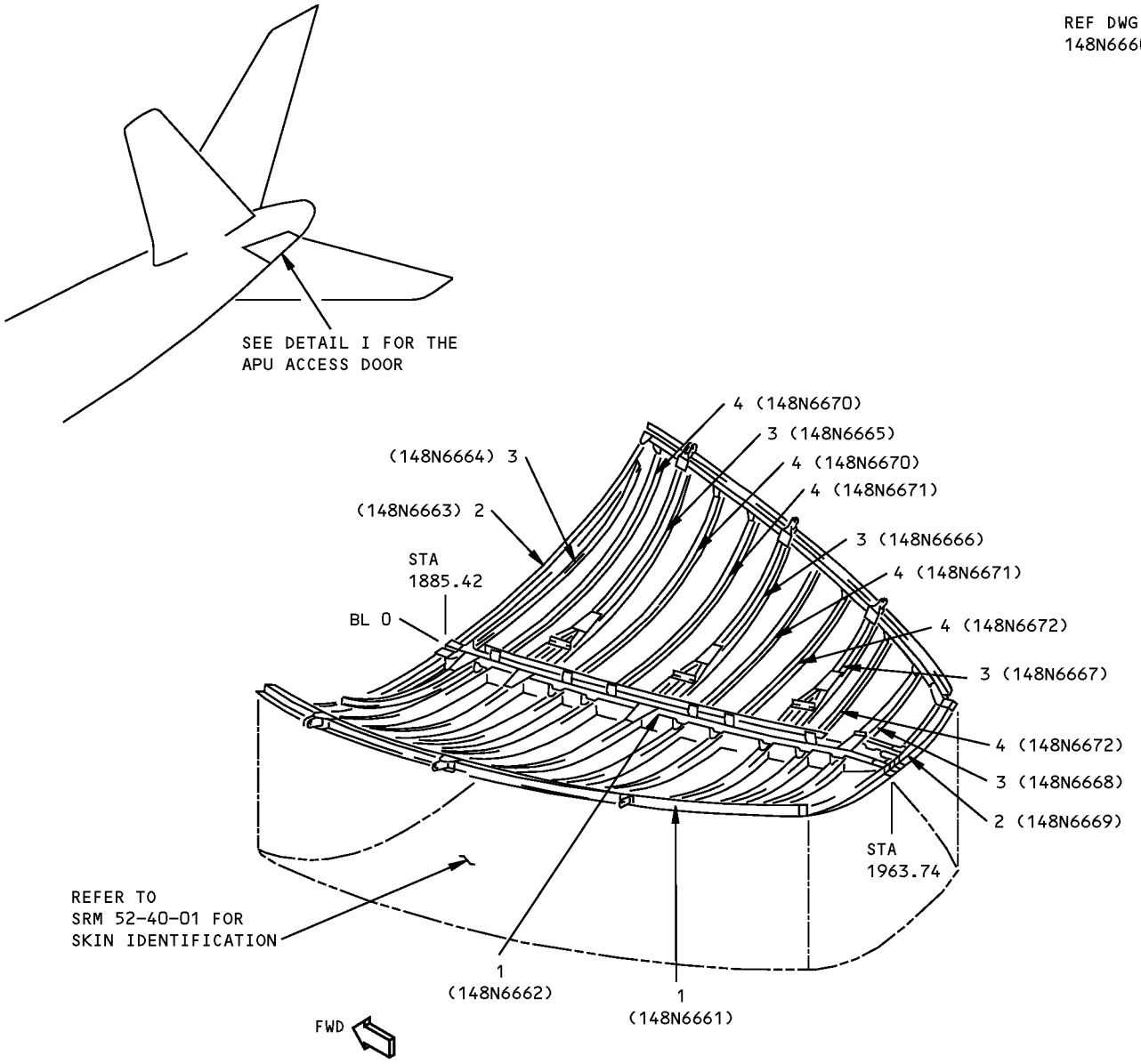
[E] FOR CUM LINE NUMBERS: 1 THR 316

[F] FOR CUM LINE NUMBERS: 317 AND ON

[G] ALUMINUM COATED FIBERGLASS PER BMS 8-278, TYPE I, CLASS 250, 250°F (121°C) CURE

Hydraulic Access Door Structure Identification
Figure 1 (Sheet 2 of 2)

IDENTIFICATION 6 - APU ACCESS DOOR STRUCTURE



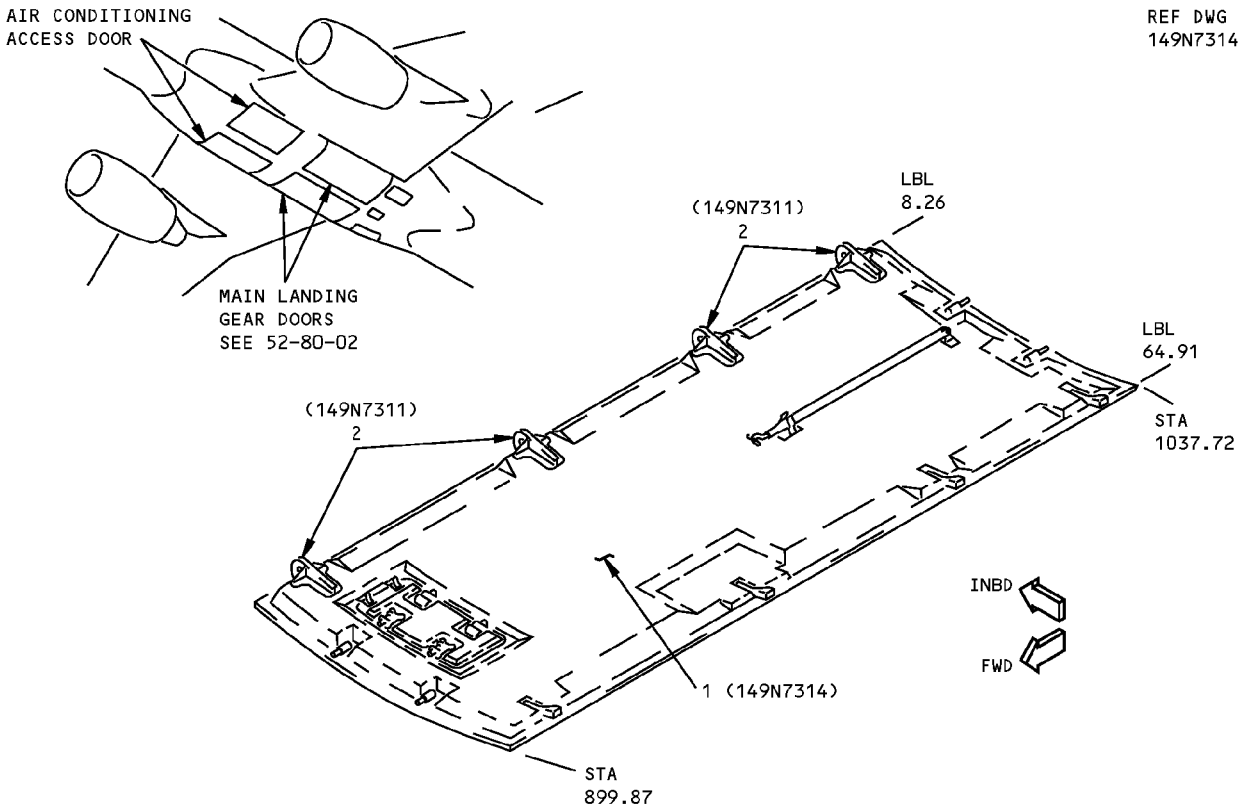
DETAIL I

ITEM	DESCRIPTION	GAGE	MATERIAL	EFFECTIVITY
1	EDGE MEMBER	0.056	CLAD 2024-T42	
2	FRAME	0.071	CLAD 2024-T42	
3	FRAME	0.05	CLAD 2024-T42	
4	FRAME		BAC1517-334 CLAD 2024-T42	

LIST OF MATERIALS FOR DETAIL I

APU Access Door Structure Identification
Figure 1

IDENTIFICATION 7 - AIR CONDITIONING ACCESS DOOR STRUCTURE



ITEM	DESCRIPTION	GAGE	MATERIAL	EFFECTIVITY
1	DOOR PANEL SKIN CORE		ARAMID/GRAPHITE/EPOXY HONEYCOMB SANDWICH SEE DETAIL I NOMEX HONEYCOMB PER BMS 8-124, CLASS IV, TYPE V, GRADE 3.0	
2	HINGE FITTING		7075-T73 FORGING	

LIST OF MATERIALS

NOTES

[A] PLY ORIENTATION CONVENTION, 0 DEGREES IS PARALLEL TO THE FABRIC WARP DIRECTION

[B] MATERIAL AND PLY ORIENTATION SHOWN FOR FIELD AREAS ONLY. SEE BOEING DRAWINGS FOR EDGE BANDS AND AREAS WITH DOUBLERS

[C] DIAGRAM OF PLY ORIENTATION. SEE PLY TABLE FOR PLY ORIENTATION AND MATERIAL

[D] ARAMID/EPOXY FABRIC PER BMS 8-219, STYLE 120

[E] GRAPHITE/EPOXY FABRIC PER BMS 8-168, TYPE II, CLASS II, STYLE 3K-70-PW

[F] ARAMID/EPOXY FABRIC PER BMS 8-219, STYLE 285

[G] ALUMINUM COATED FIBERGLASS PER BMS 8-278, TYPE II, CLASS 250, 250°F (121°C) CURE

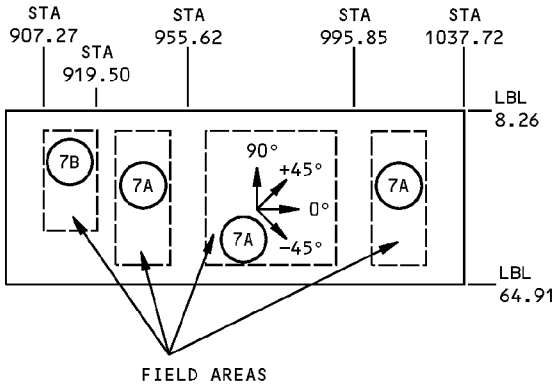
[H] FIBERGLASS/EPOXY FABRIC PER BMS 8-79 TYPE 120

[I] ALUMINUM COATED FIBERGLASS PER BMS 8-278, TYPE I, CLASS 250, 250°F (121°C) CURE

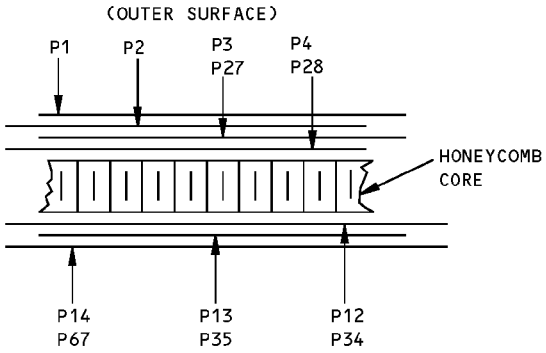
[J] FOR CUM LINE NUMBERS: 1 THRU 316

[K] FOR CUM LINE NUMBERS: 317 AND ON

Air Conditioning Access Door Structure Identification
Figure 1 (Sheet 1 of 2)



LEFT SIDE SHOWN
RIGHT SIDE OPPOSITE
VIEW ON PANEL [C]



SECTION THRU HONEYCOMB PANEL

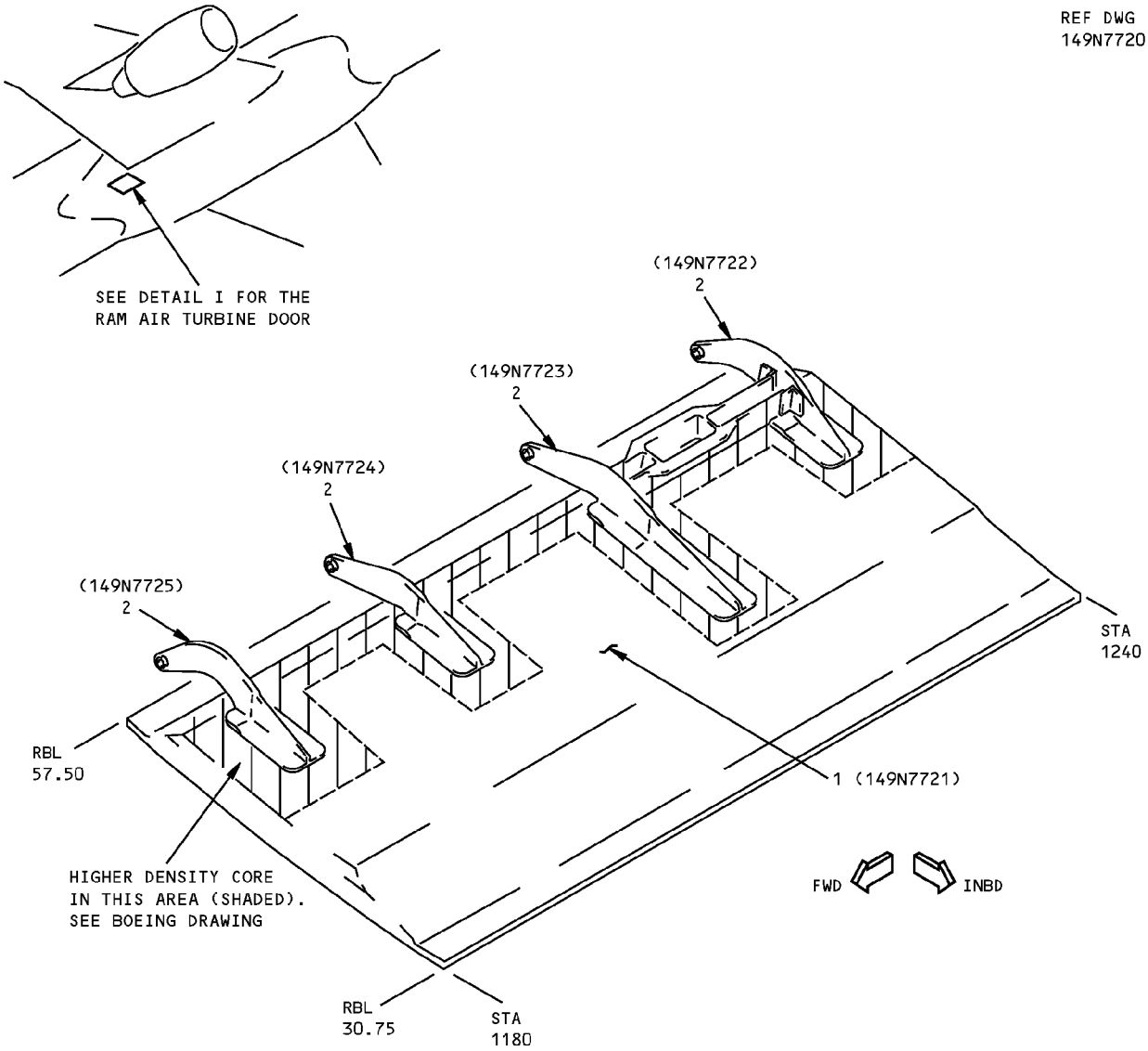
ITEM NO.		PLY NO.	MATERIAL	PLY ORIENTATION [A]
7	7A	P1 [J]	[G]	0° OR 90°
		P1 [K]	[I]	
		P2,P67	[D]	
		P27	[E]	±45°
		P35	[E]	0° OR 90°
		P28	[F]	OPTIONAL
		P34	[F]	±45°
	7B	P1	[G]	0° OR 90°
		P2	[D]	
		P14	[H]	OPTIONAL
		P3,P13	[E]	0° OR 90°
		P4,P12	[E]	±45°

PLY TABLE [B]

DETAIL I

Air Conditioning Access Door Structure Identification
Figure 1 (Sheet 2 of 2)

IDENTIFICATION 8 - RAM AIR TURBINE DOOR STRUCTURE

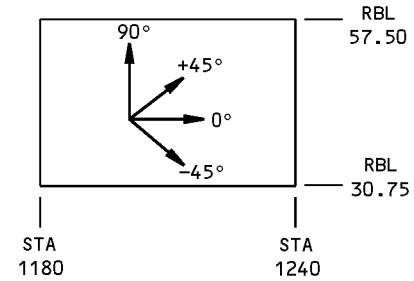


DETAIL I

ITEM	DESCRIPTION	GAGE	MATERIAL	EFFECTIVITY
1	DOOR PANEL SKIN CORE		ARAMID/GRAPHITE/EPOXY HONEYCOMB SANDWICH SEE DETAIL I NOMEX HONEYCOMB PER BMS 8-124, CLASS IV, TYPE V, GRADE 3.0	
2	HINGE FITTING		7075-T73 FORGING	

LIST OF MATERIALS FOR DETAIL I

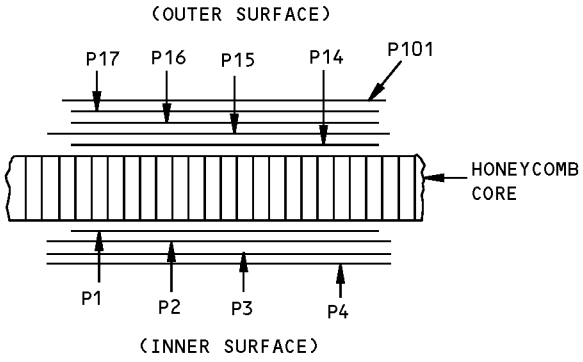
Ram Air Turbine Door Structure Identification
Figure 1 (Sheet 1 of 2)



VIEW ON DOOR PANEL [C]

ITEM NO.	PLY NO.	MATERIAL	PLY ORIENTATION [A]
5	P1,P14	[D]	0° OR 90°
	P2,P15 P3,P16	[D]	±45°
	P17 [K]	[E]	0° OR 90°
	P17 [L]	[H]	
	P4	[E]	
	P101 [I]	[F]	
	P101 [J]	[G]	

PLY TABLE [B]



SECTION THRU HONEYCOMB PANEL

DETAIL I

NOTES

[A] PLY ORIENTATION CONVENTION, DEGREES INDICATED PARALLEL TO THE FABRIC WARP DIRECTION

[B] MATERIAL AND PLY ORIENTATION SHOWN FOR FIELD AREAS ONLY. SEE BOEING DRAWING FOR EDGE BANDS AND AREAS WITH DOUBLERS

[C] DIAGRAM OF PLY ORIENTATION. SEE PLY TABLE FOR INDIVIDUAL PLY ORIENTATION AND MATERIAL

[D] GRAPHITE/EPOXY FABRIC PER BMS 8-168, TYPE II, CLASS II, STYLE 3K-70-PW, 250°F (121°C) CURE

[E] ARAMID/EPOXY FABRIC PER BMS 8-219, STYLE 285, 250°F (121°C) CURE

[F] ALUMINUM COATED FIBERGLASS PER BMS 8-278, TYPE II, CLASS 250, 250°F (121°C) CURE

[G] ALUMINUM COATED FIBERGLASS PER BMS 8-278, TYPE I, CLASS 250, 250°F (121°C) CURE

[H] FIBERGLASS/EPOXY FABRIC PER BMS 8-79 TYPE 120

[I] FOR CUM LINE NUMBERS: 1 THRU 316

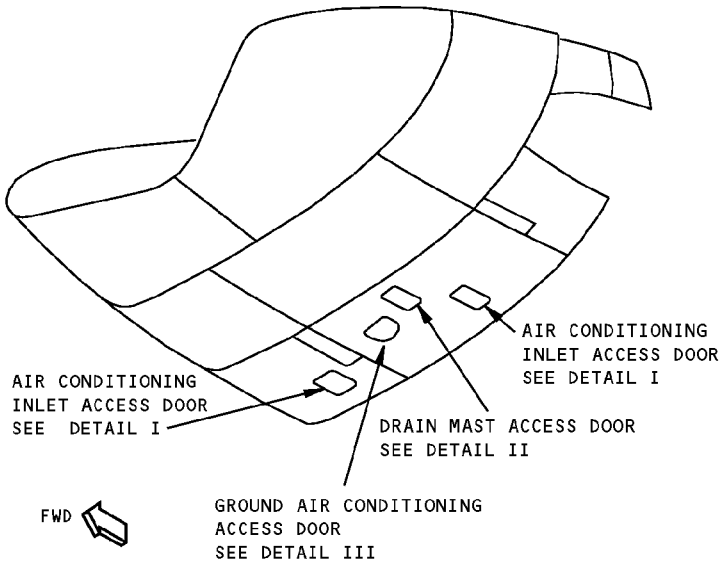
[J] FOR CUM LINE NUMBERS: 317 AND ON

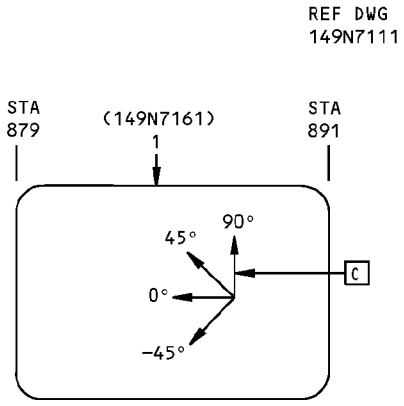
[K] FOR CUM LINE NUMBERS: 1 THRU 167

[L] FOR CUM LINE NUMBERS: 168 AND ON

Ram Air Turbine Door Structure Identification
Figure 1 (Sheet 2 of 2)

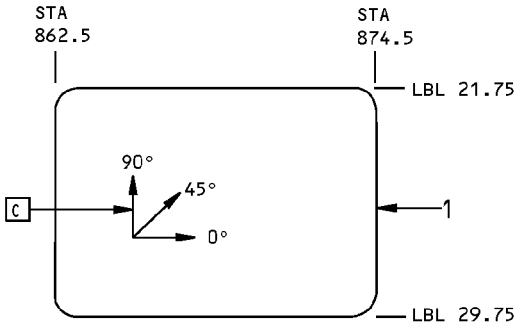
IDENTIFICATION 9 - SECTION 43 - WING-TO-BODY FAIRING ACCESS DOOR STRUCTURE: AIR CONDITIONING INLET, DRAIN MAST, GROUND AIR CONDITIONING





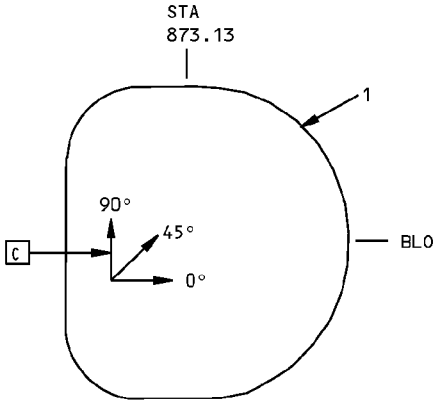
AIR CONDITIONING INLET
ACCESS DOOR

DETAIL I



DRAIN MAST ACCESS DOOR

DETAIL II



GROUND AIR CONDITIONING
ACCESS DOOR

DETAIL III

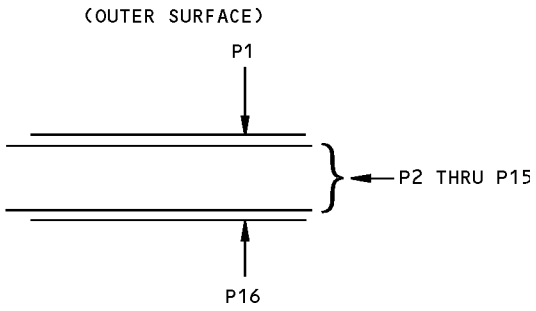
ITEM	DESCRIPTION	GAGE	MATERIAL	EFFECTIVITY
1	DOOR PANEL		ARAMID/GRAPHITE/EPOXY LAMINATE SEE DETAIL IV	

LIST OF MATERIALS

Section 43 - Wing-to-Body Fairing Access Door Structure Identification: Air Conditioning Inlet, Drain Mast, Ground Air Conditioning
Figure 1 (Sheet 1 of 2)

ITEM NO.	PLY NO.	MATERIAL	PLY ORIENTATION [A]
1	P1 [H]	[D]	0° OR 90°
	P1 [I]	[G]	
	P2	[E]	±45°
	P3	[F]	0° OR 90°
	P4	[F]	
	P5	[E]	±45°
	P6	[E]	0° OR 90°
	P7	[E]	
	P8	[E]	±45°
	P9	[E]	0° OR 90°
	P10	[E]	±45°
	P11	[E]	0° OR 90°
	P12	[E]	
	P13	[E]	±45°
	P14	[F]	0° OR 90°
	P15	[F]	
	P16	[E]	±45°

PLY TABLE [B]



SECTION THRU PANEL

DETAIL IV

NOTES

[A] PLY ORIENTATION CONVENTION, DEGREES INDICATED IS PARALLEL TO THE FABRIC WARP DIRECTION

[B] MATERIAL AND PLY ORIENTATION SHOWN FOR FIELD AREAS ONLY. SEE BOEING DRAWINGS FOR EDGE BANDS AND AREAS WITH DOUBLERS

[C] DIAGRAM OF PLY ORIENTATION, SEE PLY TABLE FOR PLY ORIENTATION AND MATERIAL

[D] ALUMINUM COATED FIBERGLASS PER BMS 8-278, TYPE II, CLASS 250, 250°F (121°C) CURE

[E] ARAMID/EPOXY FABRIC PER BMS 8-219, STYLE 285, 250°F (121°C) CURE

[F] GRAPHITE/EPOXY FABRIC PER BMS 8-168, TYPE II, CLASS II, STYLE 3K-70-PW, 250°F (121°C) CURE

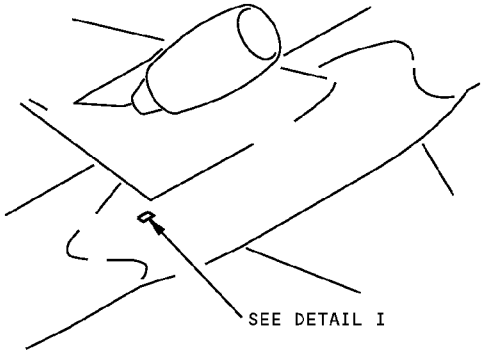
[G] ALUMINUM COATED FIBERGLASS PER BMS 8-278, TYPE I, CLASS 250, 250°F (121°C) CURE

[H] FOR CUM LINE NUMBERS: 1 THUR 193

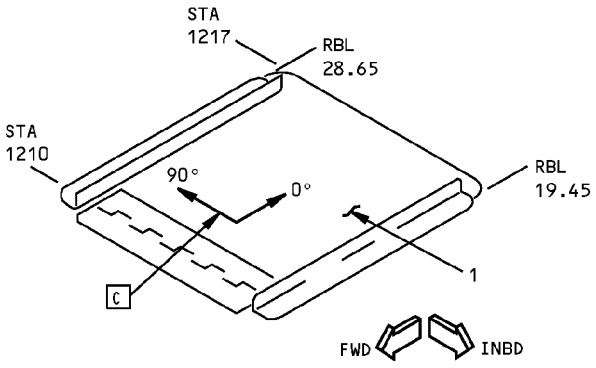
[I] FOR CUM LINE NUMBERS: 194 AND ON

Section 43 - Wing-to-Body Fairing Access Door Structure Identification: Air Conditioning Inlet, Drain Mast, Ground Air Conditioning
Figure 1 (Sheet 2 of 2)

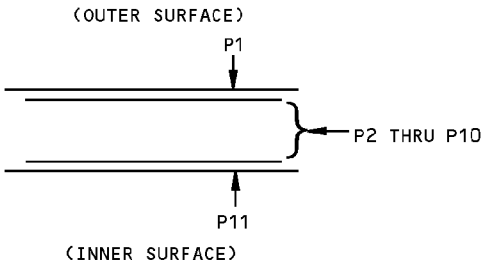
IDENTIFICATION 10 - LANDING GEAR GROUND ACCESS DOOR STRUCTURE



REF DWG
149N7640



DETAIL I



SECTION THRU PANEL

ITEM NO.	PLY NO.	MATERIAL	PLY ORIENTATION [A]
1	P1 [G]	[D]	0° OR 90°
	P1 [H]	[F]	
	P2 THRU P11	[E]	

PLY TABLE [B]

DETAIL II

ITEM	DESCRIPTION	GAGE	MATERIAL	EFFECTIVITY
1	DOOR PANEL		ARAMID/EPOXY LAMINATE SEE DETAIL II	

LIST OF MATERIALS FOR DETAIL I

NOTES

[A] PLY ORIENTATION CONVENTION, DEGREES INDICATED IS PARALLEL TO THE FABRIC WARP DIRECTION

[B] MATERIAL AND PLY ORIENTATION SHOWN FOR FIELD AREAS ONLY, SEE BOEING DRAWINGS FOR EDGE BANDS AND AREAS WITH DOUBLERS

[C] DIAGRAM OF PLY ORIENTATION, SEE PLY TABLE FOR PLY ORIENTATION AND MATERIAL

[D] ALUMINUM COATED FIBERGLASS PER BMS 8-278, TYPE II, CLASS 250, 250°F (121°C) CURE

[E] ARAMID/EPOXY FABRIC PER BMS 8-219, STYLE 285, 250°F (121°C) CURE

[F] ALUMINUM COATED FIBERGLASS PER BMS 8-278, TYPE I, CLASS 250, 250°F (121°C) CURE

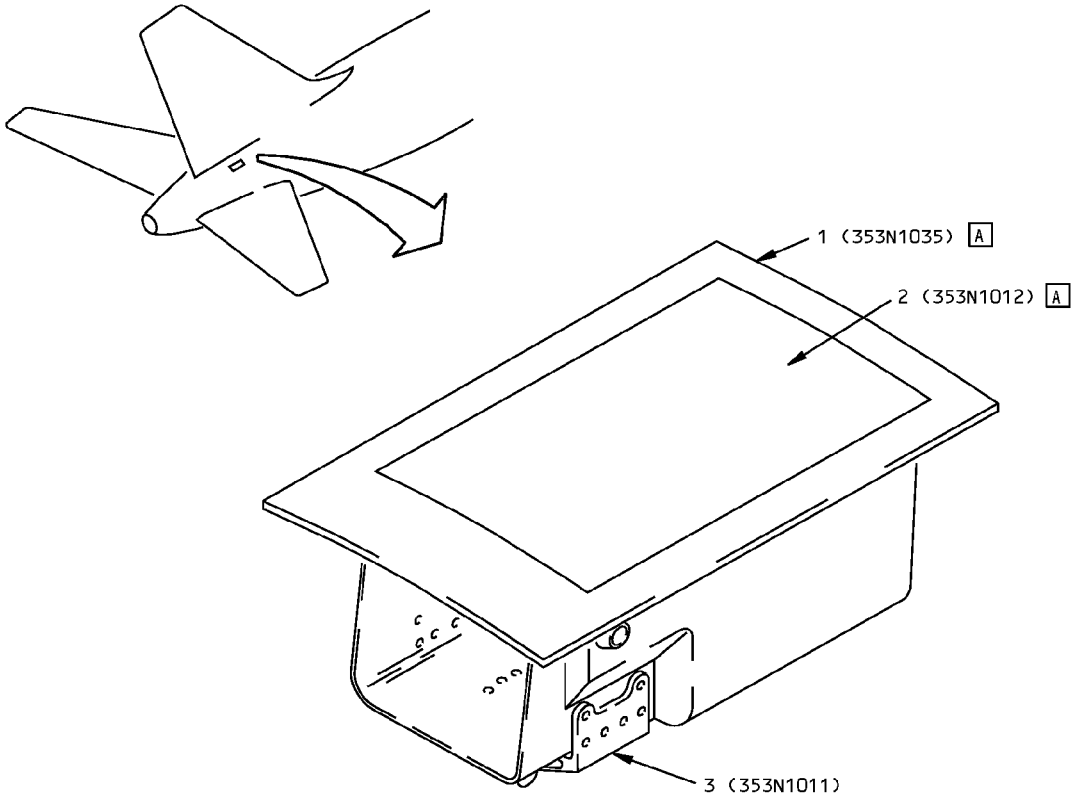
[G] FOR CUM LINE NUMBERS: 1 THRU 193

[H] FOR CUM LINE NUMBERS: 194 AND ON

Landing Gear Ground Access Door Structure Identification
Figure 1

IDENTIFICATION 11 - APU INTAKE PORT - FRAME/DOOR STRUCTURE

REF DWG
353N1001
353N1010
353N1020
353N1035



ITEM	DESCRIPTION	GAGE	MATERIAL	EFFECTIVITY
1	FRAME		FIBERGLASS/GRAPHITE/EPOXY LAMINATE FIBERGLASS PLIES - BMS 8-79, TYPE 120 GRAPHITE PLIES - BMS 8-168, TYPE 2, CLASS 2, STYLE 3K-50-PW	
2	BONDED DOOR ASSY		FIBERGLASS/EPOXY HONEYCOMB SANDWICH	
	DOOR		FIBERGLASS CLOTH EPOXY PER BMS 8-79, STYLE 1581, 1584, 7781	
	INNER CORE		NON-METALLIC HONEYCOMB PER BMS 8-124, CLASS I, TYPE III	
	OUTER CORE		NON-METALLIC HONEYCOMB PER BMS 8-124, CLASS IV, TYPE V	
3	ACTUATOR FITTING		ALUMINUM CASTING 356-T6	

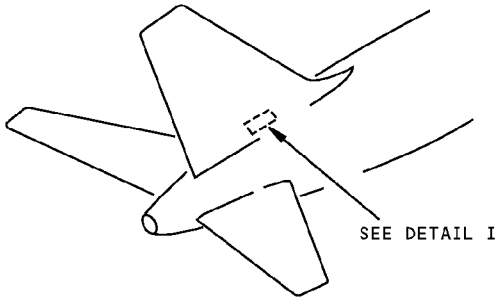
LIST OF MATERIALS

NOTES

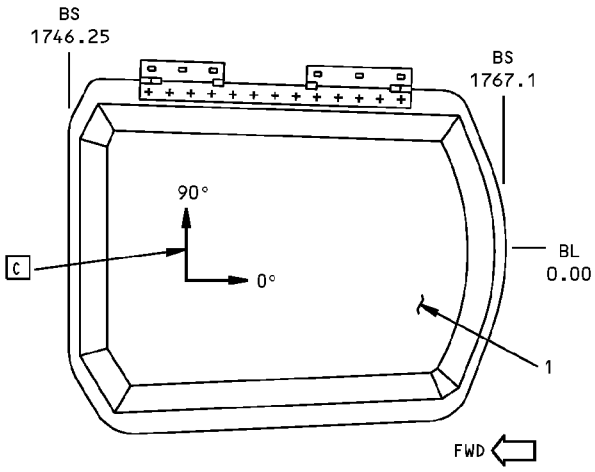
A PLY LAYUP AND HONEYCOMB CORE VARY THROUGH-OUT BONDED DOOR AND FRAME ASSEMBLY. SEE ENGINEERING DRAWINGS FOR DOOR AND FRAME CONFIGURATIONS

APU Intake Port - Frame/Door Structure Identification
Figure 1

IDENTIFICATION 12 - FIN ACCESS DOOR STRUCTURE



REF DWG
148N3002



DETAIL I

NOTES

A PLY ORIENTATION CONVENTION, DEGREES INDICATED IS PARALLEL TO THE FABRIC WARP DIRECTION

B MATERIAL AND PLY ORIENTATION SHOWN FOR FIELD AREAS ONLY, SEE BOEING DRAWINGS FOR EDGE BANDS AND AREAS WITH DOUBLERS

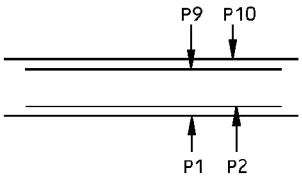
C DIAGRAM OF PLY ORIENTATION, SEE PLY TABLE FOR PLY ORIENTATION AND MATERIAL

D FIBERGLASS/EPOXY FABRIC PER BMS 8-79, TYPE 1581 OR 7781, CLASS III, GRADE 1

E FOR AIRPLANES WITH CUM LINE NUMBERS 139 AND ON AND AIRPLANES WITH SB 757-53-0038 INCORPORATED

ITEM	DESCRIPTION	GAGE	MATERIAL	EFFECTIVITY
1	DOOR PANEL SKINS CORE		FIBERGLASS/EPOXY HONEYCOMB SANDWICH SEE DETAIL II NONMETALLIC HONEYCOMB PER BMS 8-124 CLASS IV, TYPE 1, GRADE 4.0	E

LIST OF MATERIALS FOR DETAIL I



SECTION THRU PANEL

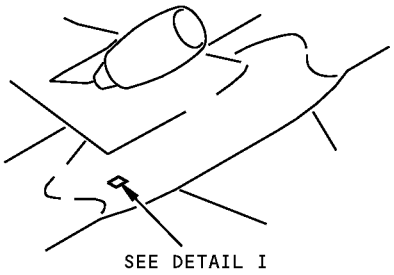
ITEM NO.	PLY NO.	MATERIAL	PLY ORIENTATION A
1	P1,P2,P9,P10	D	0° OR 90°

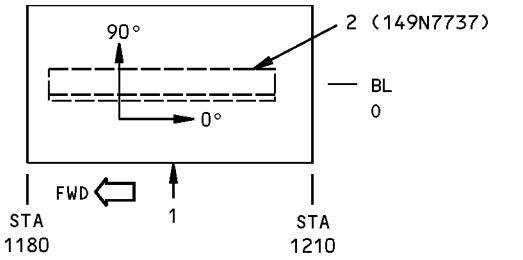
PLY TABLE B

DETAIL II

Fin Access Door Structure Identification
Figure 1

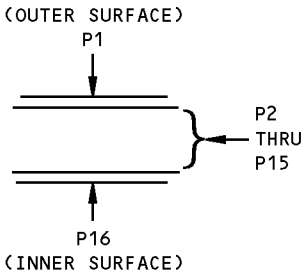
IDENTIFICATION 13 - TOILET DRAIN ACCESS DOOR STRUCTURE





VIEW ON DOOR PANEL [G]
DETAIL I

REFERENCE DRAWING
149N7702



SECTION THRU PANEL

ITEM NO.	PLY NO.	MATERIAL	PLY ORIENTATION [A]
4	P1 [J]	[B]	0° OR 90°
	P1 [K]	[I]	
	P2,P15	[D]	
	P3,P14	[C]	
	P4 THRU P13	[E]	
	P16	[H]	

PLY TABLE [F]

DETAIL II

ITEM	DESCRIPTION	GAGE	MATERIAL	EFFECTIVITY
1	DOOR PANEL SKIN		FIBERGLASS/ARAMID/GRAPHITE LAMINATE SEE DETAIL II	
2	STIFFENER	0.050	CLAD 7075-T6	

LIST OF MATERIALS FOR DETAIL I

NOTES

[A] PLY ORIENTATION CONVENTION, DEGREES INDICATED IS PARALLEL TO THE FABRIC WARP DIRECTION

[B] ALUMINUM COATED FIBERGLASS PER BMS 8-278, TYPE II, CLASS 250, 250°F (121°C) CURE

[C] ARAMID/EPOXY FABRIC PER BMS 8-219, STYLE 120, 250° (121°C) CURE

[D] ARAMID/EPOXY FABRIC PER BMS 8-219, STYLE 285, 250°F (121°C) CURE

[E] GRAPHITE/EPOXY FABRIC PER BMS 8-168, TYPE II, CLASS II, STYLE 3K-70-PW, 250°F (121°C) CURE

[F] MATERIAL AND PLY ORIENTATION SHOWN FOR FIELD AREAS ONLY. SEE BOEING DRAWING FOR EDGE BANDS AND AREAS WITH DOUBLERS

[G] DIAGRAM OF PLY ORIENTATION. SEE PLY TABLE FOR INDIVIDUAL PLY ORIENTATION AND MATERIAL

[H] FIBERGLASS/EPOXY FABRIC PER BMS 8-79, TYPE 120, 250°F (121°C) CURE

[I] ALUMINUM COATED FIBERGLASS PER BMS 8-278, TYPE I, CLASS 250, 250°F (121°C) CURE

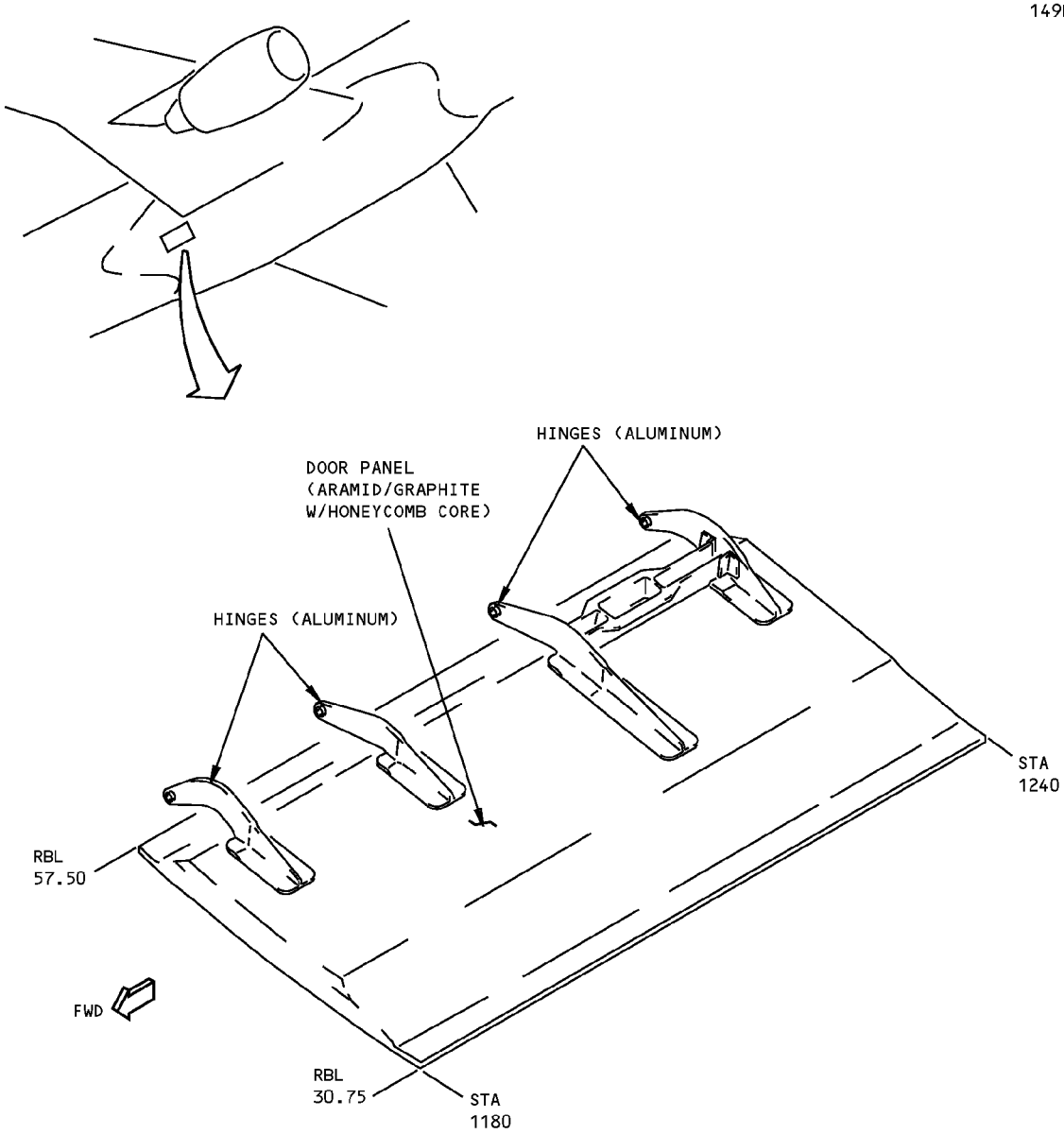
[J] FOR CUM LINE NUMBERS: 1 THRU 316

[K] FOR CUM LINE NUMBERS: 317 AND ON

Toilet Drain Access Door Structure Identification
Figure 1

ALLOWABLE DAMAGE 1 - RAM AIR TURBINE DOOR

REW DWG
149N7720



DESCRIPTION	CRACKS	NICKS, GOUGES AND CORROSION	DENTS	HOLES AND PUNCTURES	DELAMINATION	EDGE EROSION
DOOR PANEL	B	C	D	E	F	SEE DETAIL V
HINGE	G	H	NOT ALLOWED	NOT ALLOWED	____	

Ram Air Turbine Door
Figure 101 (Sheet 1 of 3)

NOTES

- REFINISH REWORKED AREAS AS GIVEN IN AMM 51-20.
- REFER TO SRM 51-10-02 FOR INSPECTION AND REMOVAL OF DAMAGE
- REFER TO SRM 51-10-01 FOR AERODYNAMIC SMOOTHNESS REQUIREMENTS. WHERE THE DAMAGE EXCEEDS THE LIMITS SHOWN IN SRM 51-10-01, CONSIDERATION SHOULD BE GIVEN TO THE LOSS OF PERFORMANCE INVOLVED
- TYPICAL DAMAGE TO A PANEL EDGEBAND MAY CONSIST OF EDGE CRUSHING, CRACKS OR DELAMINATION. DAMAGE AROUND HOLES MAY CONSIST OF OVALIZATION, FASTENER PULL-THROUGH OR CRACKS OUT OF HOLE. DAMAGE MAY REDUCE THE EFFECTIVE CROSS-SECTIONAL AREA OF AN EDGEBAND. DAMAGE TO EDGES SHOULD BE BLENDED OUT TO LIMITATIONS GIVEN FOR COMPONENT

[A] REMOVE MOISTURE FROM DAMAGE AREA. USE OF VACUUM AND HEAT (MAX OF 125°F) (52°C) TO REMOVE MOISTURE FROM HONEYCOMB CELLS IS RECOMMENDED. PROTECT DAMAGE FROM ENTRANCE OF WATER, SUNLIGHT OR OTHER FOREIGN MATTER BY SEALING WITH ALUMINUM FOIL TAPE (SPEED TAPE). RECORD THE LOCATION AND INSPECT EACH AIRPLANE "A" CHECK. REPLACE THE ALUMINUM FOIL TAPE IF ANY PEELING OR DETERIORATION IS EVIDENT. REPAIR NO LATER THAN NEXT AIRPLANE "C" CHECK

[B] 2.0 INCH (50 mm) MAX LENGTH IN HONEYCOMB AREA IS ALLOWED PER SQUARE FOOT (930 SQUARE cm) OF AREA AND A MINIMUM OF 6.0 INCHES (150 mm) FROM ANY OTHER CRACK OR HINGE FITTING. CLEAN UP EDGE CRACKS PER DETAIL I. CRACKS THROUGH CONSECUTIVE FASTENERS OR THROUGH THE PANEL EDGEBAND ARE ALLOWED PROVIDED DAMAGE DOES NOT EXCEED 10% EDGEBAND LENGTH PER SIDE. [A]

[C] DAMAGE ALLOWED ON SURFACE RESIN ONLY. DAMAGE TO FIBERS NOT ALLOWED. CLEAN UP EDGE DAMAGE PER DETAIL I. [A]

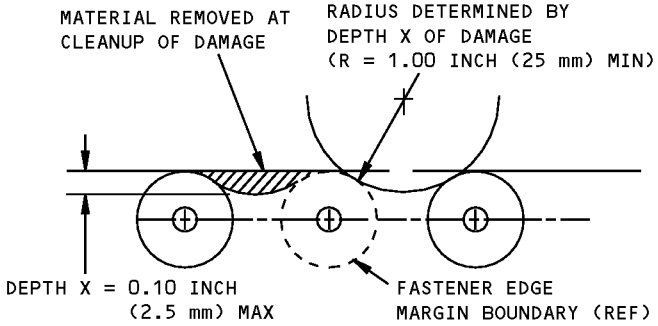
[D] DENTS GENERALLY RESULT IN FIBER DAMAGE OR DELAMINATION. HOWEVER, IF THERE IS NO FIBER DAMAGE OR DELAMINATION, DENTS UP TO 1.5 INCH (38 mm) DIA MAX ARE ALLOWED. ONE DENT PER SQUARE FOOT (930 SQUARE cm) OF AREA ALLOWED WHICH MUST BE A MINIMUM OF 6 INCHES (150 mm) FROM ANY OTHER DAMAGE, FASTENER HOLE, OR PANEL EDGE. SEE [E] OR [F] IF FIBER DAMAGE OR DELAMINATION IS PRESENT

[E] 1.0 INCH (25 mm) MAX DIA IS ALLOWED PROVIDED IS MIN OF 2.5 D FROM OTHER DAMAGE, NEAREST HOLE, OR MATERIAL EDGE. DO NOT CLEAN UP DAMAGE EXCEPT TO REMOVE RESIN BURRS EXTENDING INTO SURFACE CONTOUR. [A]

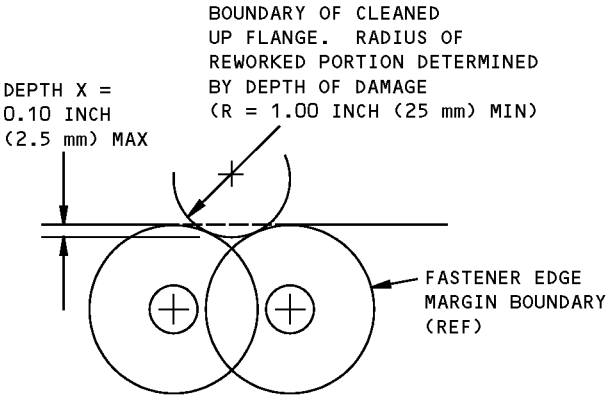
[F] 1.0 INCH (25 mm) MAX DIA IS ALLOWED IN HONEYCOMB AREA. A MAXIMUM OF 0.10 INCH (2.5 mm) DELAMINATION FROM EDGE IS ALLOWED. REPAIR DELAMINATION IN HONEYCOMB AREA PER SRM 51-70 NO LATER THAN THE NEXT "C" CHECK. PROTECT EDGE DAMAGE PER [A]

[G] CRACKS NOT ALLOWED EXCEPT FOR EDGE CRACKS WHICH MUST BE REMOVED PER DETAIL I. SHOT PEEN REWORKED AREAS PER SRM 51-20-06. SHOT PEEN INTENSITIES VARY WITH THE THICKNESS REMAINING AFTER REWORK

[H] REMOVE CORNER DAMAGE PER DETAIL III. REMOVE LUG DAMAGE PER DETAIL IV. REMOVE OTHER DAMAGE PER DETAIL II. DAMAGE NOT ALLOWED IN VICINITY OF BUSHINGS. SHOT PEEN REWORKED AREAS PER SRM 51-20-06. SHOT PEEN INTENSITIES VARY WITH THE THICKNESS REMAINING AFTER REWORK



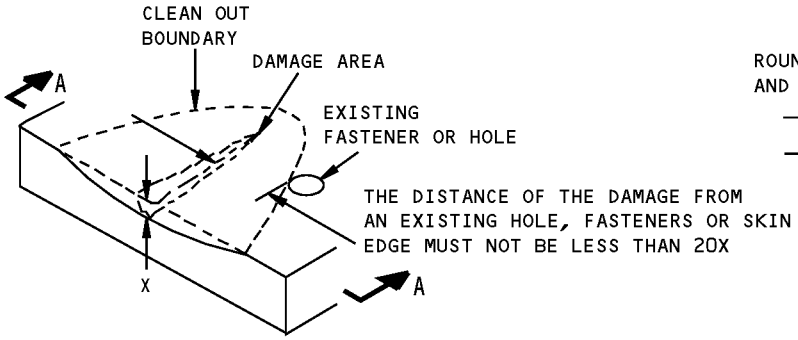
DAMAGE CLEANUP OF EDGES WHERE FASTENER EDGE MARGINS DO NOT OVERLAP

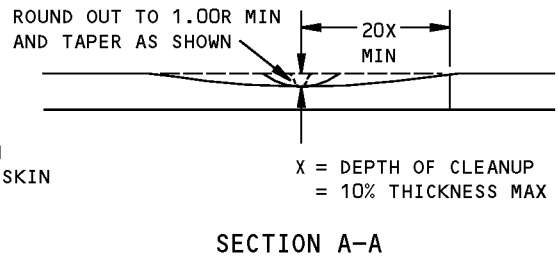


DAMAGE CLEANUP OF EDGES WHERE FASTENER EDGE MARGINS OVERLAP

DETAIL I

Ram Air Turbine Door
Figure 101 (Sheet 2 of 3)

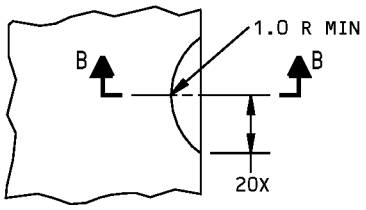


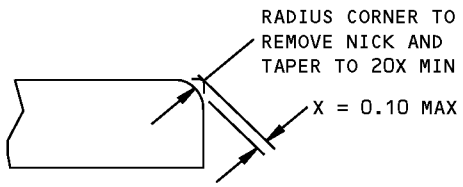


SECTION A–A

REMOVAL OF NICK, GOUGE AND SCRATCH DAMAGE ON A SURFACE

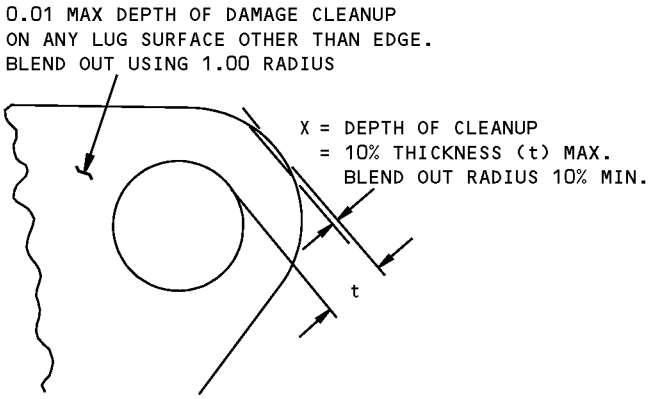
DETAIL II





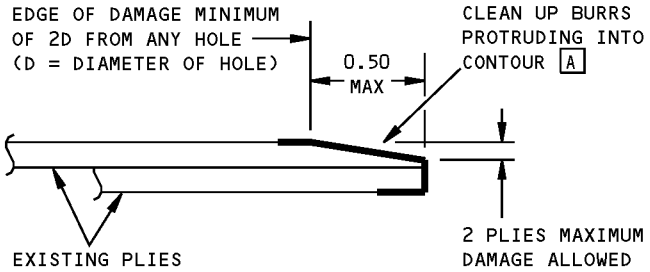
SECTION B–B

DETAIL III



DAMAGE CLEANUP FOR EDGES OF LUG

DETAIL IV

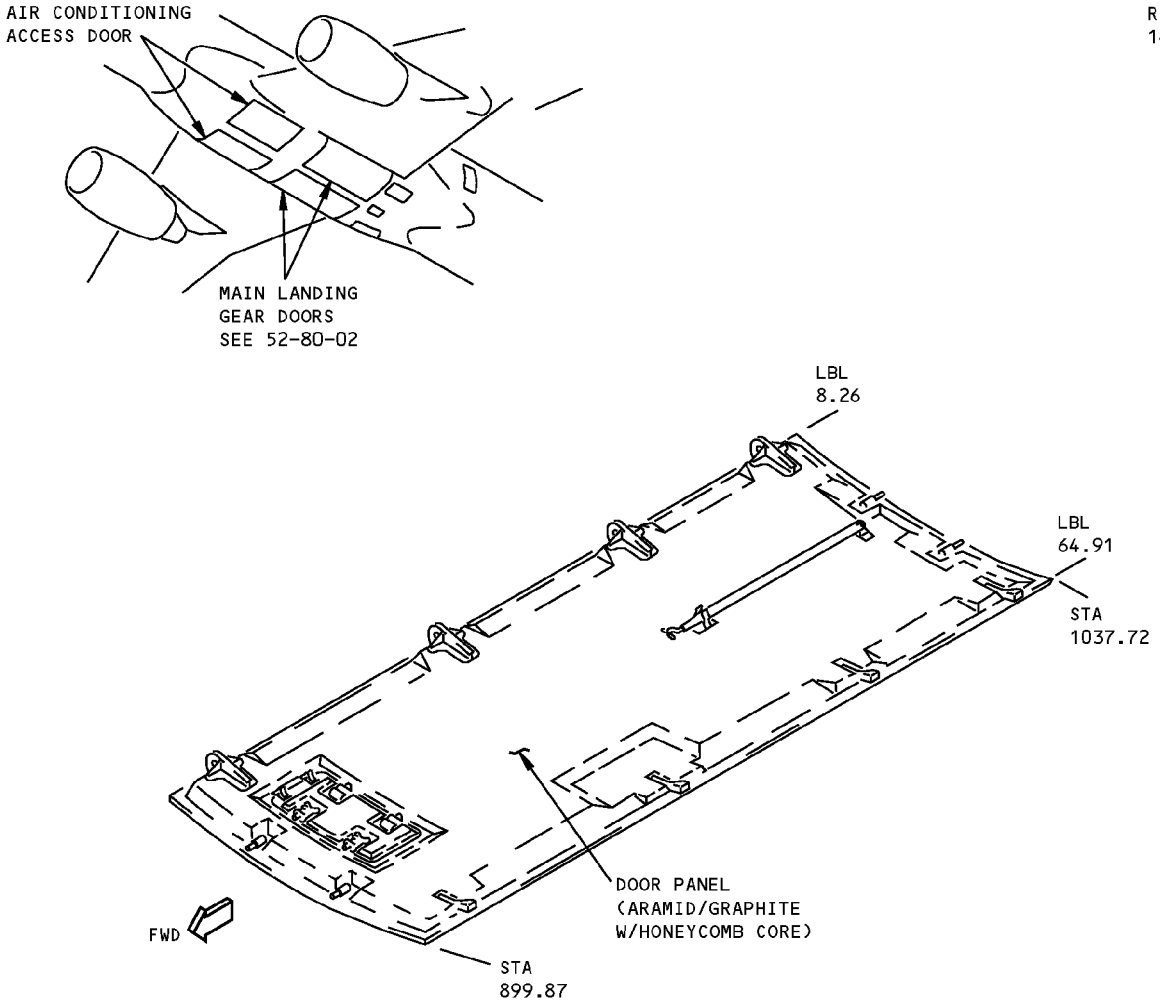


DAMAGE CLEANUP AND SEALING OF EDGE EROSION

DETAIL V

Ram Air Turbine Door
Figure 101 (Sheet 3 of 3)

ALLOWABLE DAMAGE 2 - AIR CONDITIONING ACCESS DOOR



DESCRIPTION	CRACKS	NICKS, GOUGES AND CORROSION	DENTS	HOLES AND PUNCTURES	DELAMINATION	EDGE EROSION
DOOR PANEL	B	C	D	E	F	SEE DETAIL II

Air Conditioning Access Door
Figure 101 (Sheet 1 of 3)

NOTES

- REFINISH REWORKED AREAS AS GIVEN IN AMM 51-20.
- REFER TO 51-10-02 FOR INSPECTION AND REMOVAL OF DAMAGE
- REFER TO SRM 51-10-01 FOR AERODYNAMIC SMOOTHNESS REQUIREMENTS. WHERE THE DAMAGE EXCEEDS THE LIMITS SHOWN IN SRM 51-10-01, CONSIDERATION SHOULD BE GIVEN TO THE LOSS OF PERFORMANCE INVOLVED
- TYPICAL DAMAGE TO A PANEL EDGEBAND MAY CONSIST OF EDGE CRUSHING, CRACKS OR DELAMINATION. DAMAGE AROUND HOLES MAY CONSIST OF OVALIZATION, FASTENER PULL-THROUGH OR CRACKS OUT OF HOLE. DAMAGE MAY REDUCE THE EFFECTIVE CROSS-SECTIONAL AREA OF AN EDGEBAND. DAMAGE TO EDGES SHOULD BE BLENDED OUT TO LIMITATIONS GIVEN FOR COMPONENT

[A] REMOVE MOISTURE FROM DAMAGE AREA. USE OF VACUUM AND HEAT (MAX OF 125°F) (52°C) TO REMOVE MOISTURE FROM HONEYCOMB CELLS IS RECOMMENDED. PROTECT DAMAGE FROM ENTRANCE OF WATER, SUNLIGHT OR OTHER FOREIGN MATTER BY SEALING WITH ALUMINUM FOIL TAPE (SPEED TAPE). RECORD THE LOCATION AND INSPECT EACH AIRPLANE "A" CHECK. REPLACE THE ALUMINUM FOIL TAPE IF ANY PEELING OR DETERIORATION IS EVIDENT. REPAIR NO LATER THAN NEXT AIRPLANE "C" CHECK

[B] 2.0 INCHES (50 mm) MAX LENGTH IN FACE SHEETS OF HONEYCOMB AREA NOT CLOSER THAN 10 INCHES (250 mm) TO ANY OTHER CRACK. ONE CRACK PER SQUARE FOOT (930 SQUARE cm) OF AREA ALLOWED. FOR CRACKS IN EDGEBAND, 1.0 INCH (25 mm) MAX LENGTH PER SQUARE FOOT (930 SQUARE cm) OF AREA AND A MIN OF 6 INCHES (150 mm) FROM ANY OTHER CRACK. CLEAN UP UP EDGE CRACKS PER DETAIL I. CRACKS THROUGH TWO CONSECUTIVE FASTENERS THROUGH THE EDGEBAND ARE ALLOWED. [A]

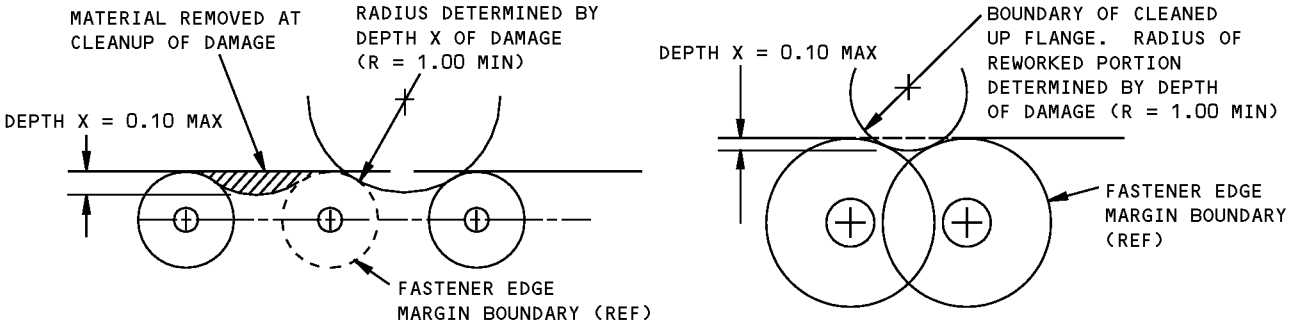
[C] DAMAGE ALLOWED ON SURFACE RESIN ONLY. DAMAGE TO FIBERS NOT ALLOWED. CLEAN UP EDGE DAMAGE PER DETAIL I. [A]

[D] DENTS GENERALLY RESULT IN FIBER DAMAGE OR DELAMINATION. HOWEVER, IF THERE IS NO FIBER DAMAGE OR DELAMINATION, DENTS UP TO 1.5 INCH (38 mm) DIA MAX ARE ALLOWED. ONE DENT PER SQUARE FOOT (930 SQUARE cm) OF AREA ALLOWED WHICH MUST BE A MINIMUM OF 6 INCHES (150 mm) FROM ANY OTHER DAMAGE, FASTENER HOLE, OR PANEL EDGE. SEE [E] OR [F] IF FIBER DAMAGE OR DELAMINATION IS PRESENT

[E] 1.0 INCH (25 mm) MAX DIA ALLOWED PROVIDED DAMAGE IS MIN OF 2.5 D FROM OTHER DAMAGE, NEAREST HOLE, OR MATERIAL EDGE. DO NOT CLEAN UP DAMAGE EXCEPT TO REMOVE RESIN BURRS EXTENDING INTO SURFACE CONTOUR. [A]

[F] 1.00 INCH (25 mm) MAX DIA IS ALLOWED IN HONEYCOMB AREA. A MAXIMUM OF 0.10 INCH (2.5 mm) DELAMINATION IN HONEYCOMB AREA PER SRM 51-70 NO LATER THAN THE NEXT "C" CHECK. PROTECT EDGE DAMAGE PER [A]

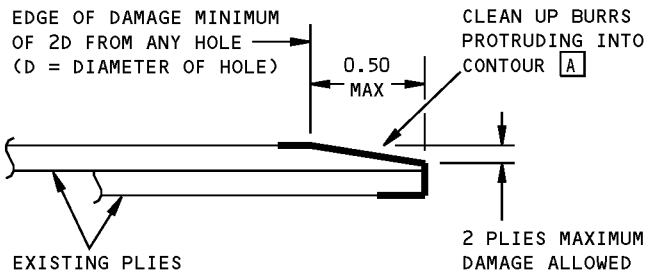
Air Conditioning Access Door
Figure 101 (Sheet 2 of 3)



DAMAGE CLEANUP OF EDGES WHERE FASTENER EDGE MARGINS DO NOT OVERLAP

DAMAGE CLEANUP OF EDGES WHERE FASTENER EDGE MARGINS OVERLAP

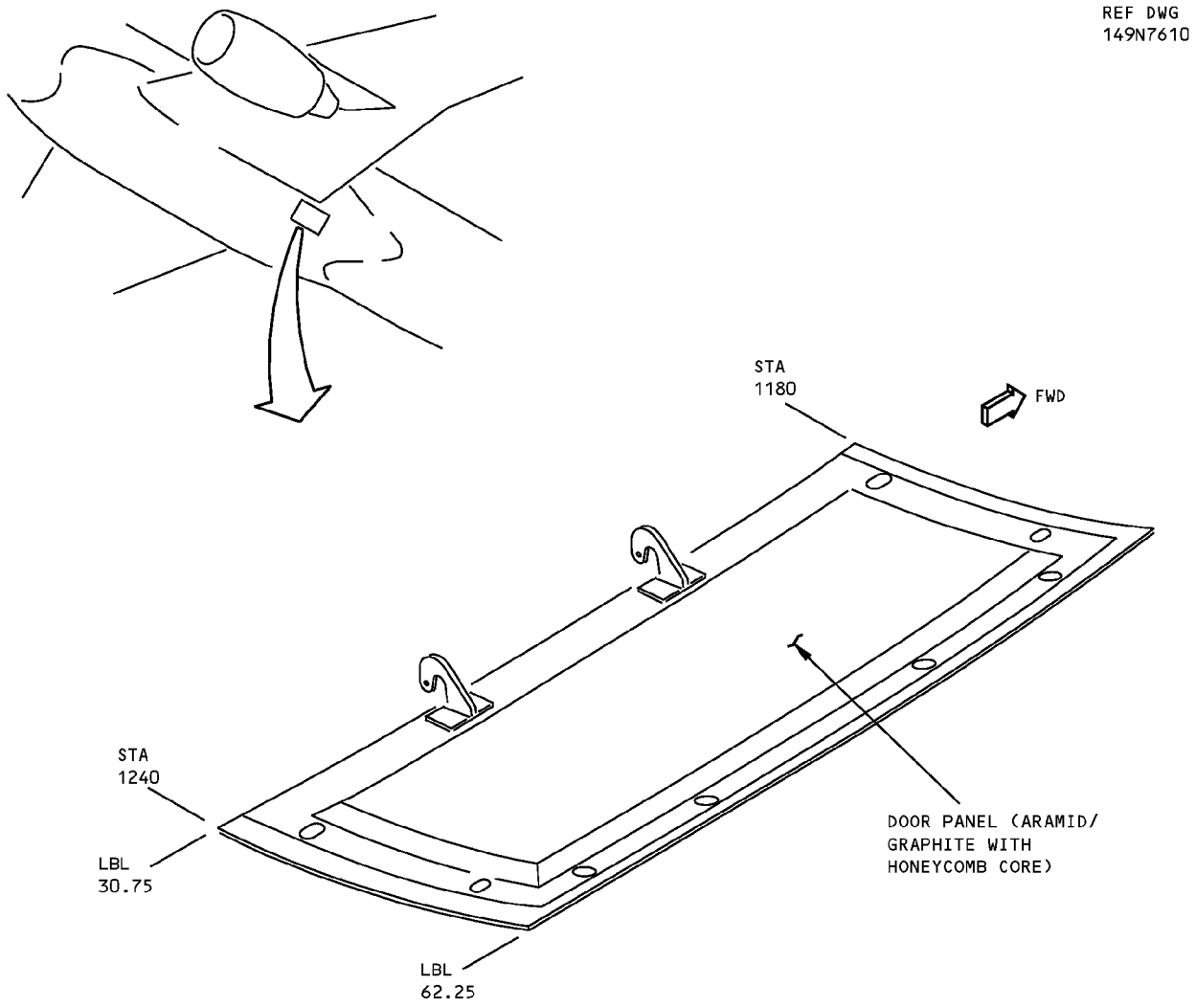
DETAIL I



DAMAGE CLEANUP AND SEALING OF EDGE EROSION
DETAIL II

Air Conditioning Access Door
Figure 101 (Sheet 3 of 3)

ALLOWABLE DAMAGE 3 - HYDRAULIC ACCESS DOOR



DESCRIPTION	CRACKS	NICKS, GOUGES AND CORROSION	DENTS	HOLES AND PUNCTURES	DELAMINATION	EDGE EROSION
DOOR PANEL	B	C	D	E	F	SEE DETAIL II

Hydraulic Access Door
Figure 101 (Sheet 1 of 3)

NOTES

- REFINISH REWORKED AREAS AS GIVEN IN AMM 51-20.
- REFER TO SRM 51-10-01 FOR AERODYNAMIC SMOOTHNESS REQUIREMENTS. WHERE THE DAMAGE EXCEEDS THE LIMITS SHOWN IN SRM 51-10-01, CONSIDERATION SHOULD BE GIVEN TO THE LOSS OF PERFORMANCE INVOLVED
- REFER TO 51-10-02 FOR INSPECTION AND REMOVAL OF DAMAGE
- TYPICAL DAMAGE TO A PANEL EDGEBAND MAY CONSIST OF EDGE CRUSHING, CRACKS OR DELAMINATION. DAMAGE AROUND HOLES MAY CONSIST OF OVALIZATION, FASTENER PULL-THROUGH OR CRACKS OUT OF HOLE. DAMAGE MAY REDUCE THE EFFECTIVE CROSS-SECTIONAL AREA OF AN EDGEBAND. DAMAGE TO EDGES SHOULD BE BLENDED OUT TO LIMITATIONS GIVEN FOR COMPONENT

[A] REMOVE MOISTURE FROM DAMAGE AREA. USE OF VACUUM AND HEAT (MAX OF 125°F) (52°C) TO REMOVE MOISTURE FROM HONEYCOMB CELLS IS RECOMMENDED. PROTECT DAMAGE FROM ENTRANCE OF WATER, SUNLIGHT OR OTHER FOREIGN MATTER BY SEALING WITH ALUMINUM FOIL TAPE (SPEED TAPE). RECORD THE LOCATION AND INSPECT EACH AIRPLANE "A" CHECK. REPLACE THE ALUMINUM FOIL TAPE IF ANY PEELING OR DETERIORATION IS EVIDENT. REPAIR NO LATER THAN NEXT AIRPLANE "C" CHECK

[B] 2.0 INCHES (50 mm) MAX LENGTH IS ALLOWED PER SQUARE FOOT (930 SQUARE cm) OF AREA AND A MINIMUM OF 6.0 INCHES (150 mm) FROM ANY OTHER CRACK. CLEAN UP EDGE CRACKS PER DETAIL IV. CRACKS THROUGH CONSECUTIVE FASTENERS OR THROUGH THE PANEL EDGEBAND ARE ALLOWED PROVIDED DAMAGE DOES NOT EXCEED 10% EDGEBAND LENGTH PER SIDE.

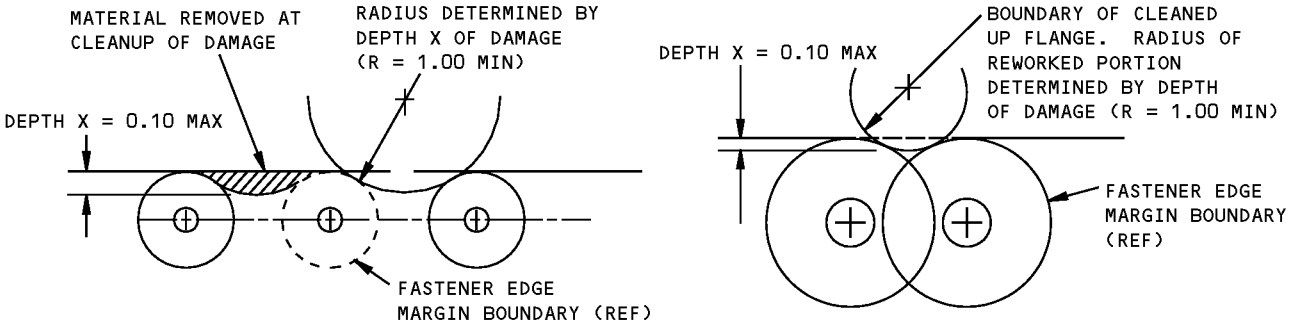
[C] DAMAGE ALLOWED ON SURFACE RESIN ONLY. DAMAGE TO FIBERS NOT ALLOWED. CLEAN UP EDGE DAMAGE PER DETAIL I. [A]

[D] DENTS GENERALLY RESULT IN FIBER DAMAGE OR DELAMINATION. HOWEVER, IF THERE IS NO FIBER DAMAGE OR DELAMINATION, DENTS UP TO 1.5 INCHES (38 mm) DIA MAX ARE ALLOWED. ONE DENT PER SQUARE FOOT (930 SQUARE cm) OF AREA ALLOWED WHICH MUST BE A MINIMUM OF 6 INCHES (150 mm) FROM ANY OTHER DAMAGE, FASTENER HOLE, OR PANEL EDGE. SEE [E] OR [F] IF FIBER DAMAGE OR DELAMINATION IS PRESENT

[E] 0.50 INCH (12.7 mm) MAX DIA ALLOWED PROVIDED DAMAGE IS MIN OF 3D FROM OTHER DAMAGE, NEAREST HOLE, OR MATERIAL EDGE. DO NOT CLEAN UP DAMAGE EXCEPT TO REMOVE RESIN BURRS EXTENDING INTO SURFACE CONTOUR. [A]

[F] 1.50 INCHES (38 mm) MAX DIA IS ALLOWED IN HONEYCOMB AREA. A MAXIMUM OF 0.10 INCH (2.5 mm) DELAMINATION FROM EDGE IS ALLOWED. REPAIR DELAMINATION IN HONEYCOMB AREA PER SRM 51-70 NO LATER THAN THE NEXT "C" CHECK. PROTECT EDGE DAMAGE PER [A]

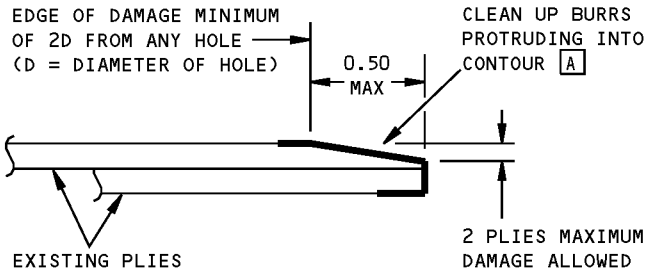
Hydraulic Access Door
Figure 101 (Sheet 2 of 3)



DAMAGE CLEANUP OF EDGES WHERE FASTENER EDGE MARGINS DO NOT OVERLAP

DAMAGE CLEANUP OF EDGES WHERE FASTENER EDGE MARGINS OVERLAP

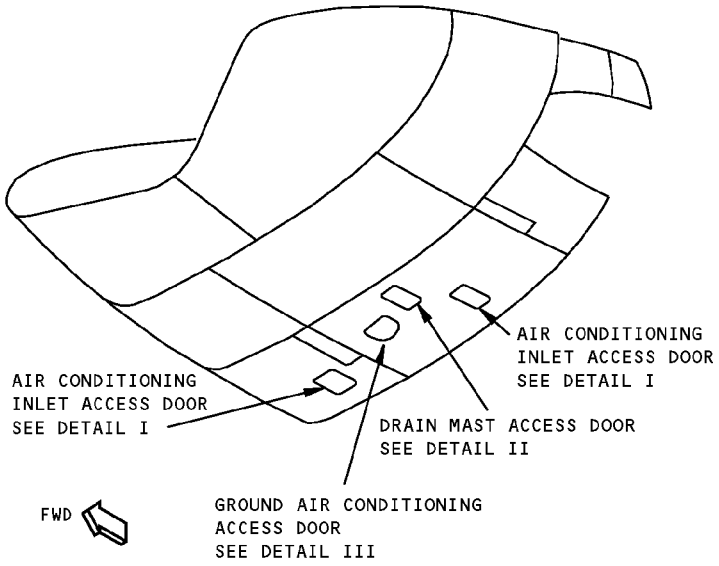
DETAIL I

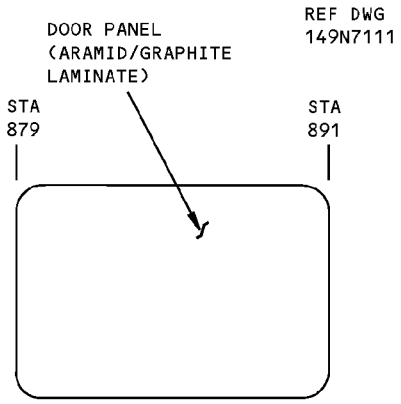


DAMAGE CLEANUP AND SEALING OF EDGE EROSION
DETAIL II

Hydraulic Access Door
Figure 101 (Sheet 3 of 3)

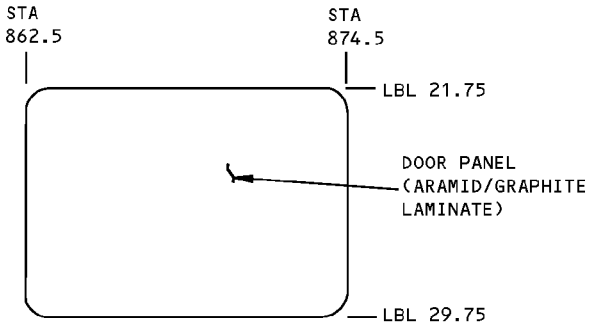
ALLOWABLE DAMAGE 4 - SECTION 43 - WING-TO-BODY FAIRING ACCESS DOORS AIR CONDITIONING INLET, DRAIN MAST, GROUND AIR CONDITIONING





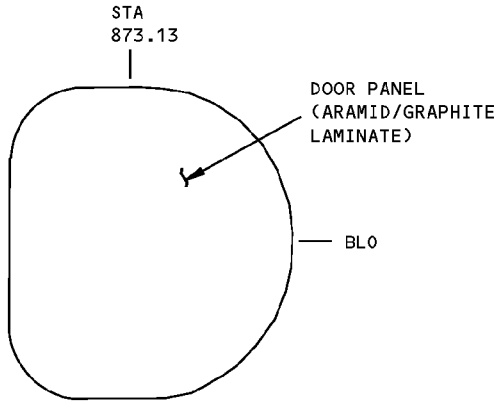
AIR CONDITIONING INLET
ACCESS DOOR

DETAIL I



DRAIN MAST ACCESS DOOR

DETAIL II



GROUND AIR CONDITIONING
ACCESS DOOR

DETAIL III

DESCRIPTION	CRACKS	NICKS, GOUGES AND CORROSION	DENTS	HOLES AND PUNCTURES	DELAMINATION	EDGE EROSION
DOOR PANEL	B	C	D	E	F	SEE DETAIL V

Section 43 - Wing to Body Fairing Access Doors Air Conditioning Inlet, Drain Mast, Ground Air Conditioning
Figure 101 (Sheet 1 of 2)

NOTES

- REFINISH REWORKED AREAS AS GIVEN IN AMM 51-20.
- REFER TO SRM 51-10-01 FOR AERODYNAMIC SMOOTHNESS REQUIREMENTS. WHERE THE DAMAGE EXCEEDS THE LIMITS SHOWN IN SRM 51-10-01, CONSIDERATION SHOULD BE GIVEN TO THE LOSS OF PERFORMANCE INVOLVED
- REFER TO 51-10-02 FOR INSPECTION AND REMOVAL OF DAMAGE
- TYPICAL DAMAGE TO A PANEL EDGEBAND MAY CONSIST OF EDGE CRUSHING, CRACKS OR DELAMINATION. DAMAGE AROUND HOLES MAY CONSIST OF OVALIZATION, FASTENER PULL-THROUGH OR CRACKS OUT OF HOLE. DAMAGE MAY REDUCE THE EFFECTIVE CROSS-SECTIONAL AREA OF AN EDGEBAND. DAMAGE TO EDGES SHOULD BE BLENDED OUT TO LIMITATIONS GIVEN FOR COMPONENT

[A] REMOVE MOISTURE FROM DAMAGE AREA. USE OF VACUUM AND HEAT (MAX OF 125°F) (52°C) TO REMOVE MOISTURE FROM HONEYCOMB CELLS IS RECOMMENDED. PROTECT DAMAGE FROM ENTRANCE OF WATER, SUNLIGHT OR OTHER FOREIGN MATTER BY SEALING WITH ALUMINUM FOIL TAPE (SPEED TAPE). RECORD THE LOCATION AND INSPECT EACH AIRPLANE "A" CHECK. REPLACE THE ALUMINUM FOIL TAPE IF ANY PEELING OR DETERIORATION IS EVIDENT. REPAIR NO LATER THAN NEXT AIRPLANE "C" CHECK

[B] 2.0 INCHES (50 mm) MAX LENGTH IS ALLOWED PER SQUARE FOOT (930 SQUARE cm) OF AREA AND A MINIMUM OF 6.0 INCHES (150 mm) FROM ANY OTHER CRACK. CLEAN UP EDGE CRACKS PER DETAIL IV. CRACKS THROUGH CONSECUTIVE FASTENERS OR THROUGH THE PANEL EDGEBAND ARE ALLOWED PROVIDED DAMAGE DOES NOT EXCEED 10% EDGEBAND LENGTH PER SIDE. [A]

[C] DAMAGE ALLOWED ON SURFACE RESIN ONLY. DAMAGE TO FIBERS NOT ALLOWED. CLEAN UP EDGE DAMAGE PER DETAIL IV. [A]

[D] 0.50 INCH (12.7 mm) MAX DIA ALLOWED PROVIDED DAMAGE IS MIN OF 3.0 D FROM OTHER DAMAGE, NEAREST HOLE, OR MATERIAL EDGE. DO NOT CLEAN UP DAMAGE EXCEPT TO REMOVE RESIN BURRS EXTENDING INTO SURFACE CONTOUR. [A]

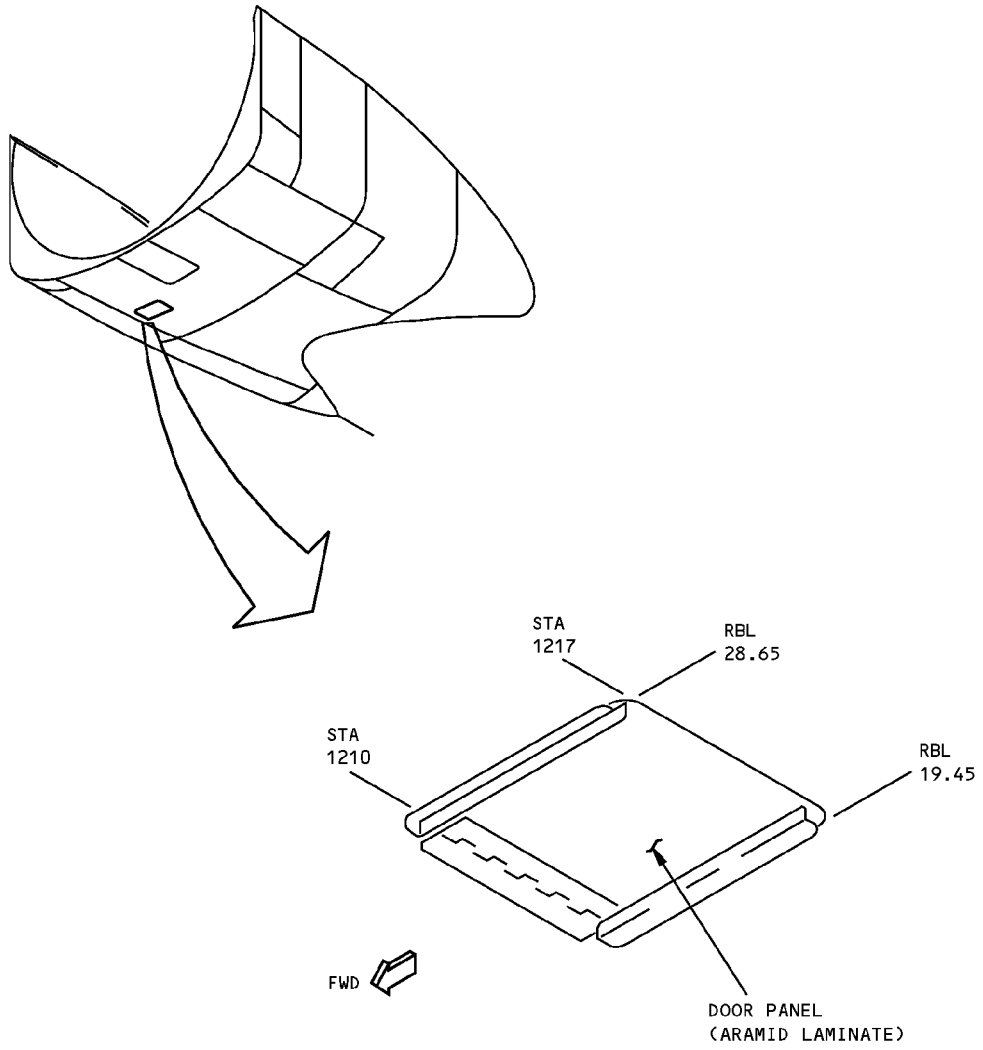
[E] 1.00 INCH (25 mm) MAX DIA IS ALLOWED. A MAXIMUM OF 0.10 INCH (2.5 mm) DELAMINATION FROM EDGE IS ALLOWED. PROTECT EDGE DAMAGE PER [A]

[F] DENTS GENERALLY RESULT IN FIBER DAMAGE OR DELAMINATION. HOWEVER, IF THERE IS NO FIBER DAMAGE OR DELAMINATION, DENTS UP TO 1.5 INCHES (38 mm) DIA MAX ARE ALLOWED. ONE DENT PER SQUARE FOOT (930 SQUARE cm) OF AREA ALLOWED WHICH MUST BE A MINIMUM OF 6 INCHES (150 mm) FROM ANY OTHER DAMAGE, FASTENER HOLE, OR PANEL EDGE. SEE [D] OR [E] IF FIBER DAMAGE OR DELAMINATION IS PRESENT

Section 43 - Wing to Body Fairing Access Doors Air Conditioning Inlet, Drain Mast, Ground Air Conditioning
Figure 101 (Sheet 2 of 2)

ALLOWABLE DAMAGE 5 - LANDING GEAR GROUND ACCESS DOOR

REF DWG
149N7640



DESCRIPTION	CRACKS	NICKS, GOUGES AND CORROSION	DENTS	HOLES AND PUNCTURES	DELAMINATION	EDGE EROSION
DOOR PANEL	B	C	D	E	F	SEE DETAIL II

Landing Gear Ground Access Door
Figure 101 (Sheet 1 of 3)

NOTES

- REFINISH REWORKED AREAS AS GIVEN IN AMM 51-20.
- REFER TO SRM 51-10-01 FOR AERODYNAMIC SMOOTHNESS REQUIREMENTS. WHERE THE DAMAGE EXCEEDS THE LIMITS SHOWN IN SRM 51-10-01, CONSIDERATION SHOULD BE GIVEN TO THE LOSS OF PERFORMANCE INVOLVED
- REFER TO 51-10-02 FOR INSPECTION AND REMOVAL OF DAMAGE
- TYPICAL DAMAGE TO A PANEL EDGEBAND MAY CONSIST OF EDGE CRUSHING, CRACKS OR DELAMINATION. DAMAGE AROUND HOLES MAY CONSIST OF OVALIZATION, FASTENER PULL-THROUGH OR CRACKS OUT OF HOLE. DAMAGE MAY REDUCE THE EFFECTIVE CROSS-SECTIONAL AREA OF AN EDGEBAND. DAMAGE TO EDGES SHOULD BE BLENDED OUT TO LIMITATIONS GIVEN FOR COMPONENT

[A] REMOVE MOISTURE FROM DAMAGE AREA. USE OF VACUUM AND HEAT (MAX OF 125°F) (52°C) TO REMOVE MOISTURE FROM HONEYCOMB CELLS IS RECOMMENDED. PROTECT DAMAGE FROM ENTRANCE OF WATER, SUNLIGHT OR OTHER FOREIGN MATTER BY SEALING WITH ALUMINUM FOIL TAPE (SPEED TAPE). RECORD THE LOCATION AND INSPECT EACH AIRPLANE "A" CHECK. REPLACE THE ALUMINUM FOIL TAPE IF ANY PEELING OR DETERIORATION IS EVIDENT. REPAIR NO LATER THAN NEXT AIRPLANE "C" CHECK

[B] 2.0 INCHES (50 mm) MAX LENGTH IS ALLOWED PER SQUARE FOOT (930 SQUARE cm) OF AREA AND A MINIMUM OF 6.0 INCHES (150 mm) FROM ANY OTHER CRACK. CLEAN UP EDGE CRACKS PER DETAIL I. CRACKS THROUGH CONSECUTIVE FASTENERS OR THROUGH THE PANEL EDGEBAND ARE ALLOWED PROVIDED DAMAGE DOES NOT EXCEED 10% EDGEBAND LENGTH PER SIDE. [A]

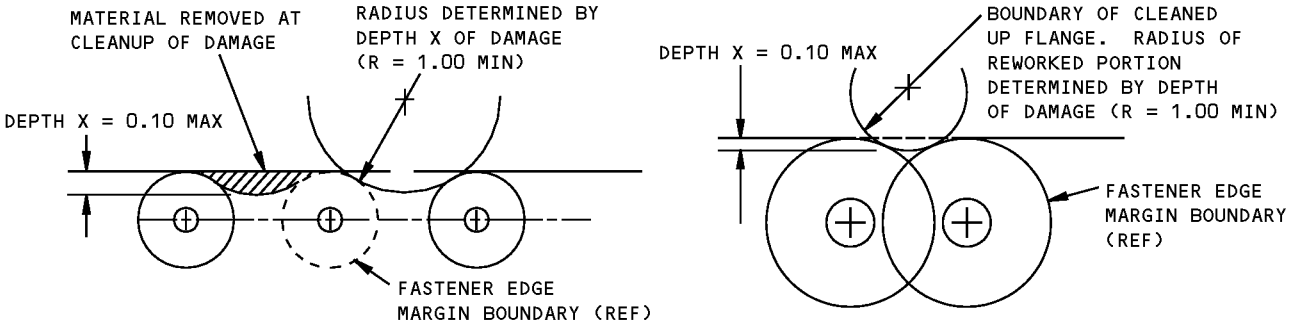
[C] DAMAGE ALLOWED ON SURFACE RESIN ONLY. DAMAGE TO FIBERS NOT ALLOWED. CLEAN UP EDGE DAMAGE PER DETAIL I. [A]

[D] 0.50 INCH (12.7 mm) MAX DIA ALLOWED PROVIDED DAMAGE IS MIN OF 3.0 D FROM OTHER DAMAGE, NEAREST HOLE, OR MATERIAL EDGE. DO NOT CLEAN UP DAMAGE EXCEPT TO REMOVE RESIN BURRS EXTENDING INTO SURFACE CONTOUR. [A]

[E] 1.00 INCH (25 mm) MAX DIA IS ALLOWED. A MAXIMUM OF 0.10 INCH (2.5 mm) DELAMINATION FROM EDGE IS ALLOWED. PROTECT EDGE DAMAGE PER [A]

[F] DENTS GENERALLY RESULT IN FIBER DAMAGE OR DELAMINATION. HOWEVER, IF THERE IS NO FIBER DAMAGE OR DELAMINATION, DENTS UP TO 1.5 INCHES (38 mm) DIA MAX ARE ALLOWED. ONE DENT PER SQUARE FOOT (930 SQUARE cm) OF AREA ALLOWED WHICH MUST BE A MINIMUM OF 6 INCHES (150 mm) FROM ANY OTHER DAMAGE, FASTENER HOLE, OR PANEL EDGE. SEE [D] OR [E] IF FIBER DAMAGE OR DELAMINATION IS PRESENT

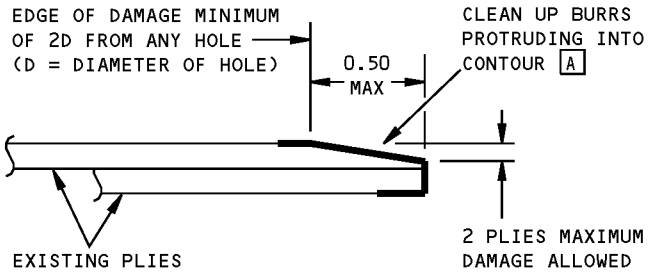
Landing Gear Ground Access Door
Figure 101 (Sheet 2 of 3)



DAMAGE CLEANUP OF EDGES WHERE FASTENER EDGE MARGINS DO NOT OVERLAP

DAMAGE CLEANUP OF EDGES WHERE FASTENER EDGE MARGINS OVERLAP

DETAIL I

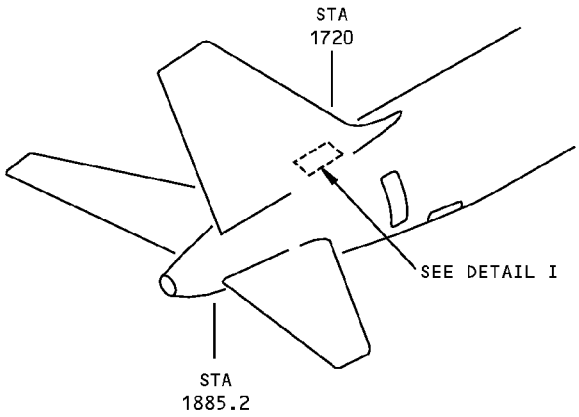


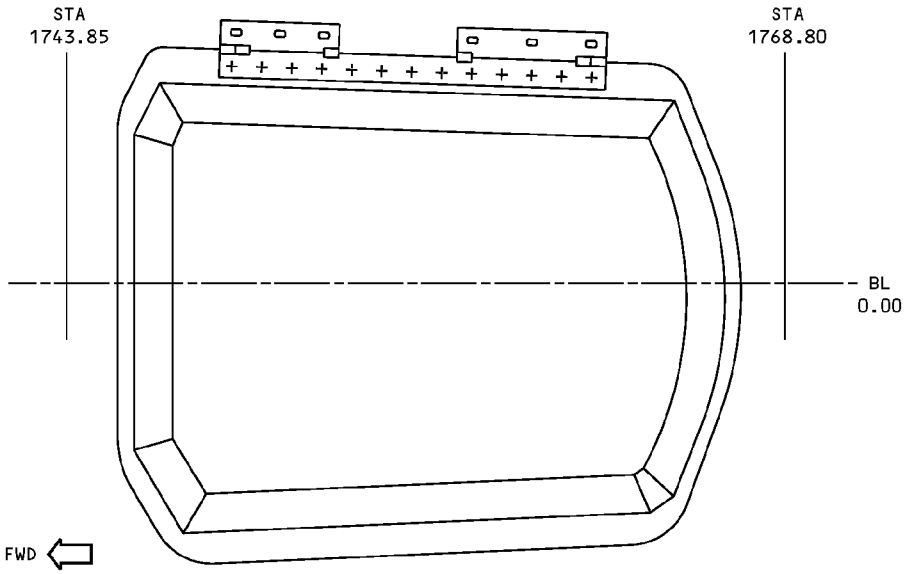
DAMAGE CLEANUP AND SEALING OF EDGE EROSION
DETAIL II

Landing Gear Ground Access Door
Figure 101 (Sheet 3 of 3)

ALLOWABLE DAMAGE 6 - FIN ACCESS DOOR

REF DWG
148N3002





DOOR PANEL (FIBERGLASS/EPOXY WITH HONEYCOMB CORE)
DETAIL I

DESCRIPTION	CRACKS	NICKS, GOUGES AND CORROSION	DENTS	HOLES AND PUNCTURES	DELAMINATION	EDGE EROSION
DOOR PANEL	B	C	D	E	F	SEE DETAIL III

Fin Access Door
Figure 101 (Sheet 1 of 3)

NOTES

- REFINISH REWORKED AREAS AS GIVEN IN AMM 51-20.
- REFER TO 51-10-02 FOR INSPECTION AND REMOVAL OF DAMAGE
- TYPICAL DAMAGE TO A PANEL EDGEBAND MAY CONSIST OF EDGE CRUSHING, CRACKS OR DELAMINATION. DAMAGE AROUND HOLES MAY CONSIST OF OVALIZATION, FASTENER PULL-THROUGH OR CRACKS OUT OF HOLE. DAMAGE MAY REDUCE THE EFFECTIVE CROSS-SECTIONAL AREA OF AN EDGEBAND. DAMAGE TO EDGES SHOULD BE BLENDED OUT TO LIMITATIONS GIVEN FOR COMPONENT

[A] REMOVE MOISTURE FROM DAMAGE AREA. USE OF VACUUM AND HEAT (MAX OF 125°F) (52°C) TO REMOVE MOISTURE FROM HONEYCOMB CELLS IS RECOMMENDED. PROTECT DAMAGE FROM ENTRANCE OF WATER, SUNLIGHT OR OTHER FOREIGN MATTER BY SEALING WITH ALUMINUM FOIL TAPE (SPEED TAPE). RECORD THE LOCATION AND INSPECT EACH AIRPLANE "A" CHECK. REPLACE THE ALUMINUM FOIL TAPE IF ANY PEELING OR DETERIORATION IS EVIDENT. REPAIR NO LATER THAN NEXT AIRPLANE "C" CHECK

[B] 2.0 INCHES (50 mm) MAX LENGTH IN FACE SHEETS OF HONEYCOMB AREA NOT CLOSER THAN 10 INCHES (250 mm)TO ANY OTHER CRACK. ONE CRACK PER SQUARE FOOT (930 SQUARE cm) OF AREA ALLOWED. FOR CRACKS IN EDGEBAND, 1.0 INCH (25 mm) MAX LENGTH PER SQUARE FOOT (930 SQUARE cm) OF AREA AND A MIN OF 6 INCHES (150 mm) FROM ANY OTHER CRACK. CLEAN UP EDGE CRACKS PER DETAIL II. CRACKS THROUGH TWO CONSECUTIVE FASTENERS THROUGH THE EDGEBAND ARE ALLOWED. [A]

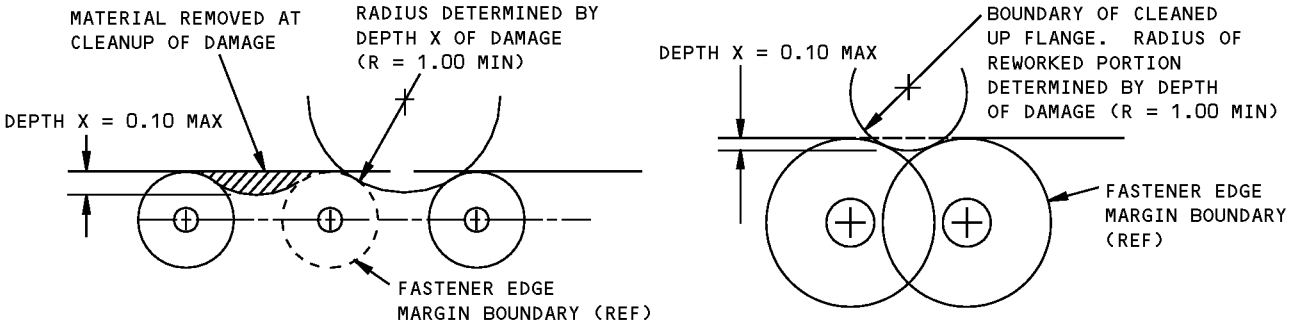
[C] DAMAGE ALLOWED ON SURFACE RESIN ONLY. DAMAGE TO FIBERS NOT ALLOWED. CLEAN UP EDGE DAMAGE PER DETAIL II. [A]

[D] DENTS GENERALLY RESULT IN FIBER DAMAGE OR DELAMINATION. HOWEVER, IF THERE IS NO FIBER DAMAGE OR DELAMINATION, DENTS UP TO 1.5 INCH (38 mm) DIA MAX ARE ALLOWED. ONE DENT PER SQUARE FOOT (930 SQUARE cm) OF AREA ALLOWED WHICH MUST BE A MINIMUM OF 6 INCHES (150 mm) FROM ANY OTHER DAMAGE, FASTENER HOLE, OR PANEL EDGE. SEE [E] OR [F] IF FIBER DAMAGE OR DELAMINATION IS PRESENT

[E] 1.0 INCH (25 mm) MAX DIA IS ALLOWED PROVIDED IS MIN OF 2.5 D FROM OTHER DAMAGE, NEAREST HOLE, OR MATERIAL EDGE. DO NOT CLEAN UP DAMAGE EXCEPT TO REMOVE RESIN BURRS EXTENDING INTO SURFACE CONTOUR. [A]

[F] 1.0 INCH (25 mm) MAX DIA IS ALLOWED IN HONEYCOMB AREA. A MAXIMUM OF 0.10 INCH (2.5 mm) DELAMINATION FROM EDGE IS ALLOWED. REPAIR DELAMINATION IN HONEYCOMB AREA PER SRM 51-70 NO LATER THAN THE NEXT "C" CHECK. PROTECT EDGE DAMAGE PER [A]

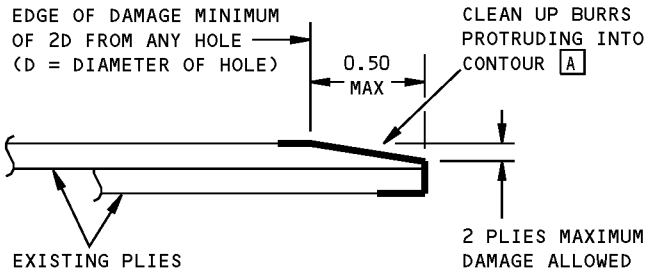
Fin Access Door
Figure 101 (Sheet 2 of 3)



DAMAGE CLEANUP OF EDGES WHERE FASTENER EDGE MARGINS DO NOT OVERLAP

DAMAGE CLEANUP OF EDGES WHERE FASTENER EDGE MARGINS OVERLAP

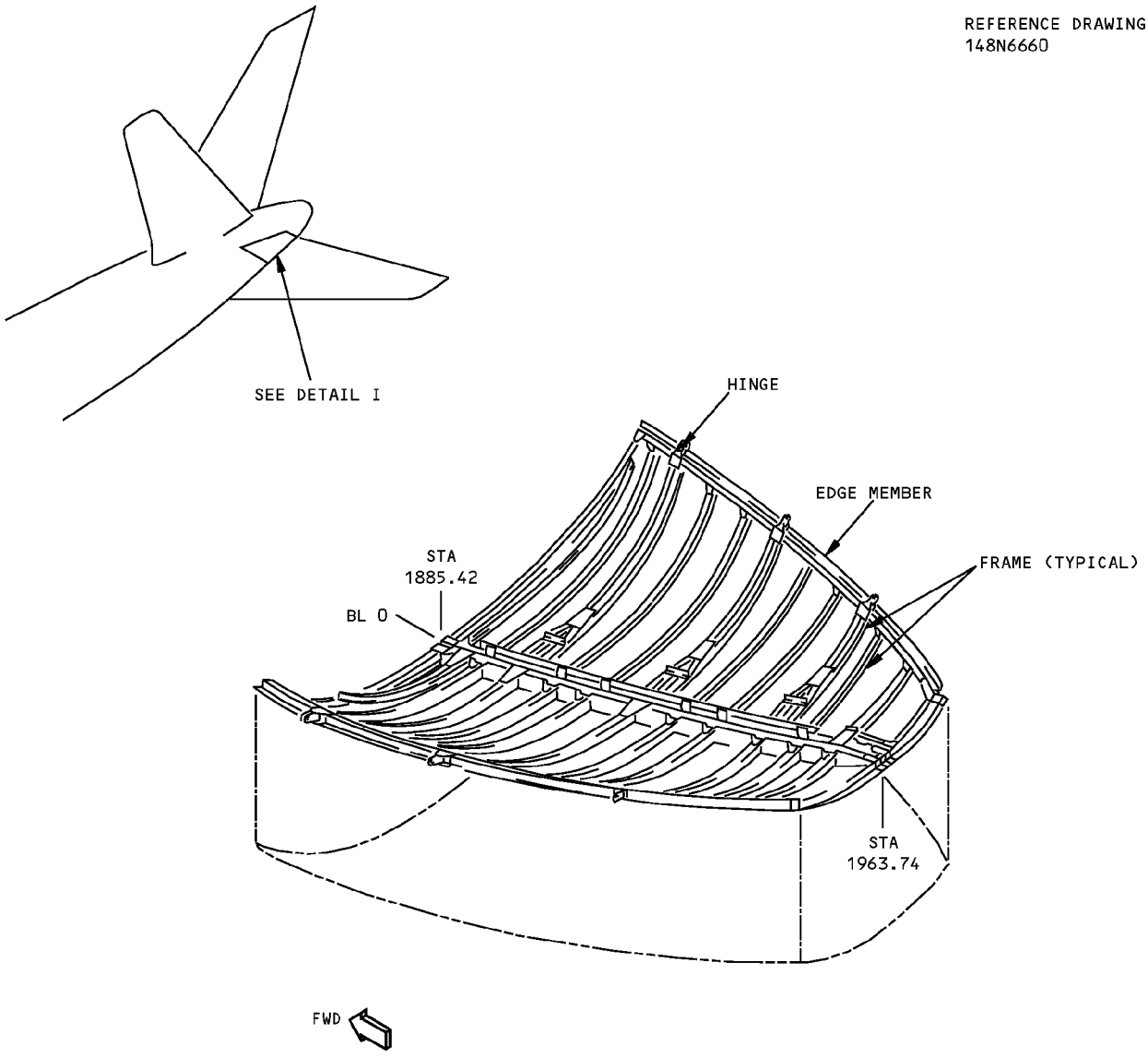
DETAIL II



DAMAGE CLEANUP AND SEALING OF EDGE EROSION
DETAIL III

Fin Access Door
Figure 101 (Sheet 3 of 3)

ALLOWABLE DAMAGE 7 - APU ACCESS DOOR STRUCTURE



APU Access Door Structure
Figure 101 (Sheet 1 of 5)

DESCRIPTION	CRACKS	NICKS, GOUGES AND CORROSION	DENTS	HOLES AND PUNCTURES
FRAME	[B]	[C]	SEE DETAIL IV	[E]
HINGE	[A]	[D]	NOT PERMITTED	NOT PERMITTED
EDGE MEMBER	[B]	[C]	SEE DETAIL IV	[E]

ALLOWABLE DAMAGE FOR DETAIL I

NOTES

- REFINISH REWORKED AREAS AS GIVEN IN AMM 51-20.

[A] REMOVE EDGE CRACKS AS GIVEN IN DETAILS II AND VIII. CRACKS ON THE LUG ARE NOT PERMITTED.

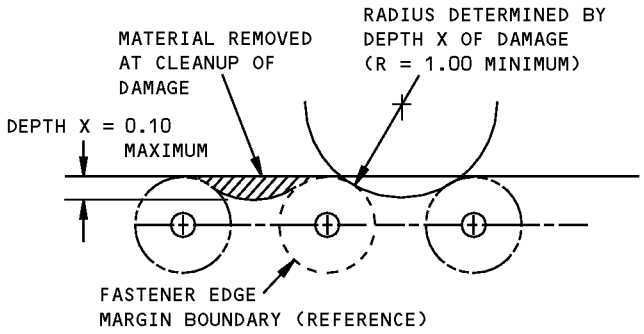
[B] REMOVE EDGE CRACKS AS GIVEN IN DETAILS II, VI AND X. FOR RADIUS CRACKS THAT ARE NOT MORE THAN 1.0 INCH IN LENGTH, SEE DETAIL X.

[C] REMOVE DAMAGE AS GIVEN IN DETAILS II,III, V, AND VII.

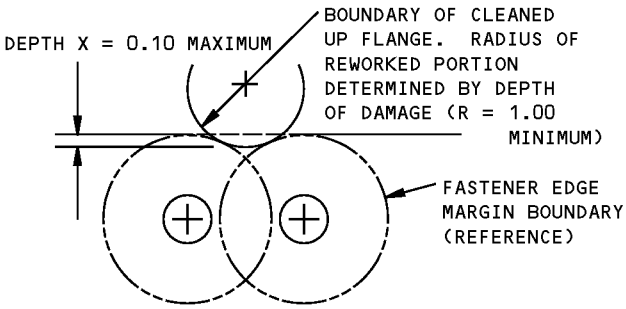
[D] FOR EDGE DAMAGE SEE DETAIL II. FOR LUG DAMAGE, SEE DETAIL IX. FOR OTHER DAMAGE, SEE DETAIL II. DAMAGE NOT PERMITTED IN AREA OF BUSHINGS.

[E] CLEAN OUT DAMAGE UP TO 0.25 MAXIMUM DIAMETER AND NOT CLOSER THAN 1.0 INCH TO FASTENER HOLE, MATERIAL EDGE, OR OTHER DAMAGE. FILL HOLE WITH 2117-T3 OR T4 ALUMINUM RIVET. ALL OTHER HOLES MUST BE REPAIRED.

APU Access Door Structure
Figure 101 (Sheet 2 of 5)

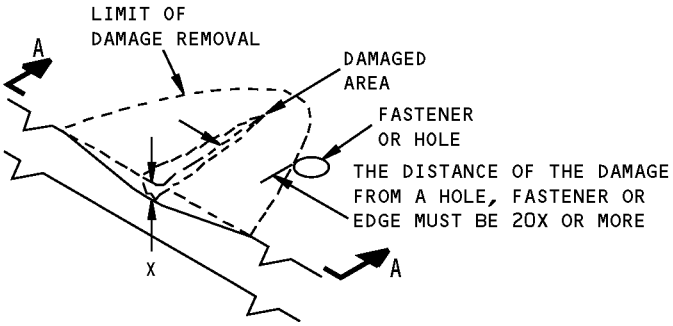


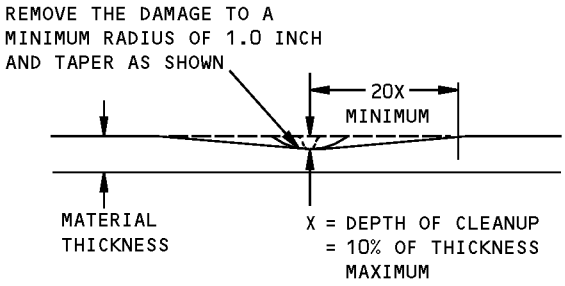
DAMAGE CLEANUP OF EDGES WHERE FASTENER EDGE MARGINS DO NOT OVERLAP



DAMAGE CLEANUP OF EDGES WHERE FASTENER EDGE MARGINS OVERLAP

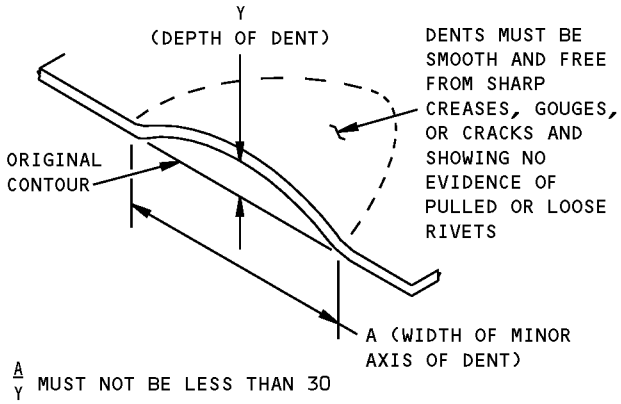
DETAIL II



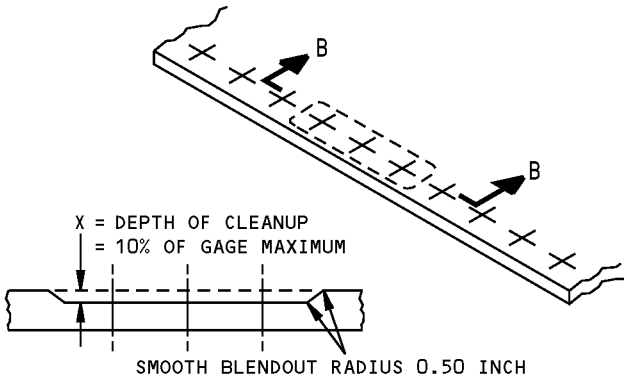


SECTION A–A

REMOVAL OF DAMAGE ON A SURFACE
DETAIL III



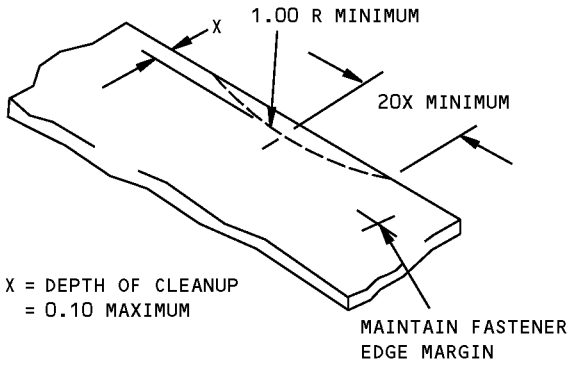
ALLOWABLE DAMAGE FOR DENT
DETAIL IV



SECTION B–B

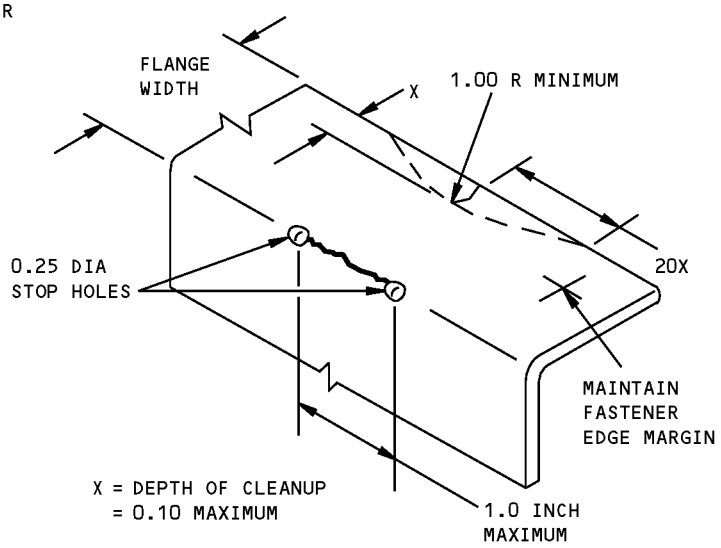
CORROSION CLEANUP
DETAIL V

APU Access Door Structure
Figure 101 (Sheet 3 of 5)



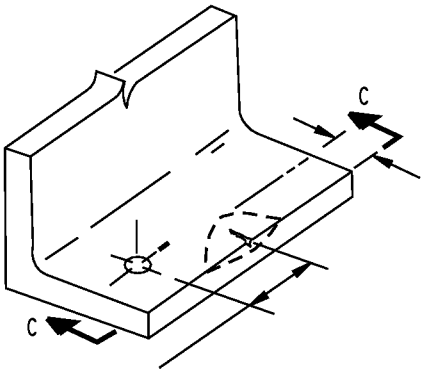
REMOVAL OF NICK OR CRACK
DAMAGE ON AN EDGE

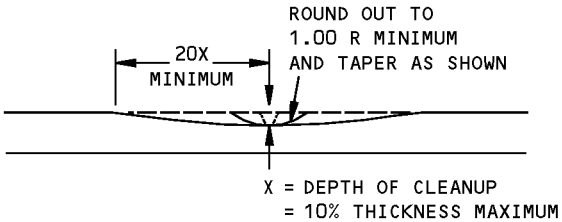
DETAIL VI



REMOVAL OF NICK OR CRACK
DAMAGE ON AN EDGE

DETAIL VII



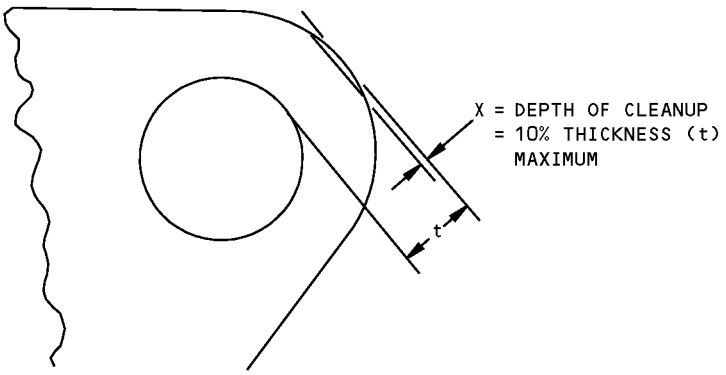


SECTION C-C

REMOVAL OF NICK OR CRACK DAMAGE ON AN EDGE

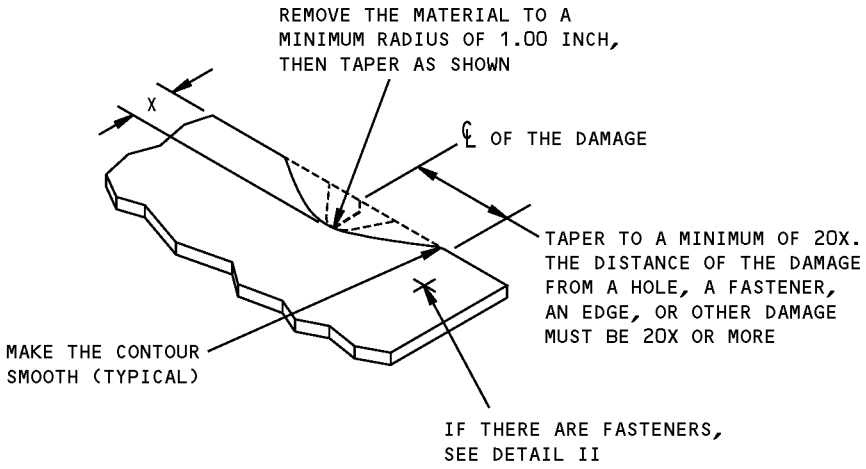
DETAIL VIII

APU Access Door Structure
Figure 101 (Sheet 4 of 5)



DAMAGE CLEANUP FOR EDGES OF LUG

DETAIL IX



X = WIDTH OF THE MATERIAL THAT IS REMOVED
A MAXIMUM OF 0.10 INCH

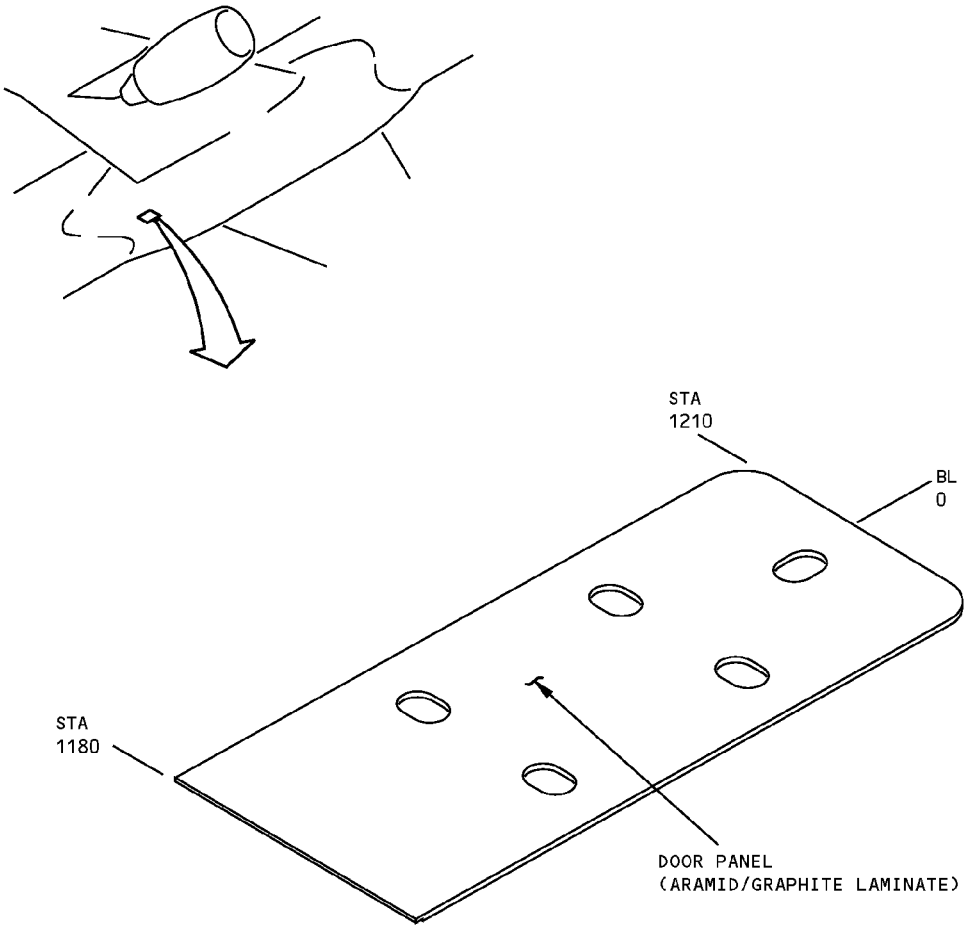
REMOVAL OF DAMAGED MATERIAL ON AN EDGE

DETAIL X

APU Access Door Structure
Figure 101 (Sheet 5 of 5)

ALLOWABLE DAMAGE 8 - TOILET DRAIN ACCESS DOOR

REF DWG
149N7702



DESCRIPTION	CRACKS	NICKS, GOUGES AND CORROSION	DENTS	HOLES AND PUNCTURES	DELAMINATION	EDGE EROSION
DOOR PANEL	B	C	D	E	F	SEE DETAIL II

Toilet Drain Access Door
Figure 101 (Sheet 1 of 3)

NOTES

- REFINISH REWORKED AREAS AS GIVEN IN AMM 51-20.
- REFER TO SRM 51-10-01 FOR AERODYNAMIC SMOOTHNESS REQUIREMENTS. WHERE THE DAMAGE EXCEEDS THE LIMITS SHOWN IN SRM 51-10-01, CONSIDERATION SHOULD BE GIVEN TO THE LOSS OF PERFORMANCE INVOLVED
- REFER TO 51-10-02 FOR INSPECTION AND REMOVAL OF DAMAGE
- TYPICAL DAMAGE TO A PANEL EDGEBAND MAY CONSIST OF EDGE CRUSHING, CRACKS OR DELAMINATION. DAMAGE AROUND HOLES MAY CONSIST OF OVALIZATION, FASTENER PULL-THROUGH OR CRACKS OUT OF HOLE. DAMAGE MAY REDUCE THE EFFECTIVE CROSS-SECTIONAL AREA OF AN EDGEBAND. DAMAGE TO EDGES SHOULD BE BLENDED OUT TO LIMITATIONS GIVEN FOR COMPONENT

[A] REMOVE MOISTURE FROM DAMAGE AREA. USE OF VACUUM AND HEAT (MAX OF 125°F) (52°C) TO REMOVE MOISTURE FROM HONEYCOMB CELLS IS RECOMMENDED. PROTECT DAMAGE FROM ENTRANCE OF WATER, SUNLIGHT OR OTHER FOREIGN MATTER BY SEALING WITH ALUMINUM FOIL TAPE (SPEED TAPE). RECORD THE LOCATION AND INSPECT EACH AIRPLANE "A" CHECK. REPLACE THE ALUMINUM FOIL TAPE IF ANY PEELING OR DETERIORATION IS EVIDENT. REPAIR NO LATER THAN NEXT AIRPLANE "C" CHECK

[B] 2.0 INCHES (50 mm) MAX LENGTH IS ALLOWED PER SQUARE FOOT (930 SQUARE cm) OF AREA AND A MINIMUM OF 6.0 INCHES (150 mm) FROM ANY OTHER CRACK. CLEAN UP EDGE CRACKS PER DETAIL I. CRACKS THROUGH CONSECUTIVE FASTENERS OR THROUGH THE PANEL EDGEBAND ARE ALLOWED PROVIDED DAMAGE DOES NOT EXCEED 10% EDGEBAND LENGTH PER SIDE. [A]

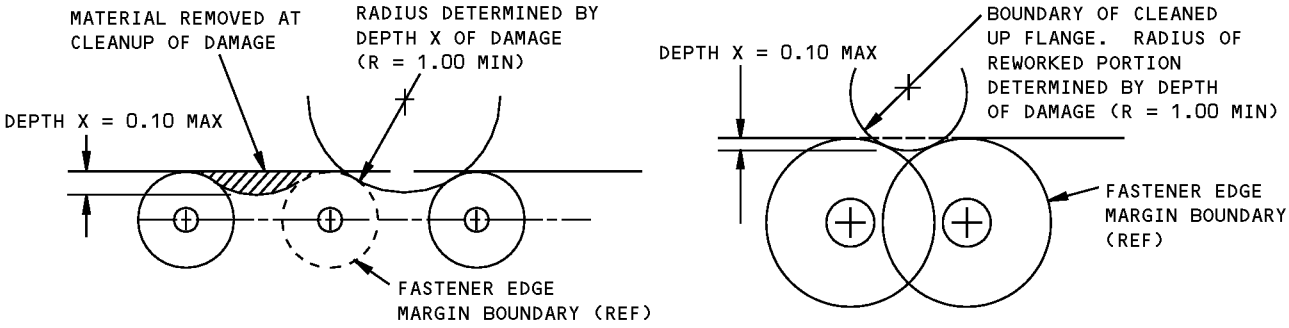
[C] DAMAGE ALLOWED ON SURFACE RESIN ONLY. DAMAGE TO FIBERS NOT ALLOWED. CLEAN UP EDGE DAMAGE PER DETAIL I. [A]

[D] 0.50 INCH (12.7 mm) MAX DIA ALLOWED PROVIDED DAMAGE IS MIN OF 3.0 D FROM OTHER DAMAGE, NEAREST HOLE, OR MATERIAL EDGE. DO NOT CLEAN UP DAMAGE EXCEPT TO REMOVE RESIN BURRS EXTENDING INTO SURFACE CONTOUR. [A]

[E] 1.00 INCH (25 mm) MAX DIA IS ALLOWED. A MAXIMUM OF 0.10 INCH (2.5 mm) DELAMINATION FROM EDGE IS ALLOWED. PROTECT EDGE DAMAGE PER [A]

[F] DENTS GENERALLY RESULT IN FIBER DAMAGE OR DELAMINATION. HOWEVER, IF THERE IS NO FIBER DAMAGE OR DELAMINATION, DENTS UP TO 1.5 INCHES (38 mm) DIA MAX ARE ALLOWED. ONE DENT PER SQUARE FOOT (930 SQUARE cm) OF AREA ALLOWED WHICH MUST BE A MINIMUM OF 6 INCHES (150 mm) FROM ANY OTHER DAMAGE, FASTENER HOLE, OR PANEL EDGE. SEE [D] OR [E] IF FIBER DAMAGE OR DELAMINATION IS PRESENT

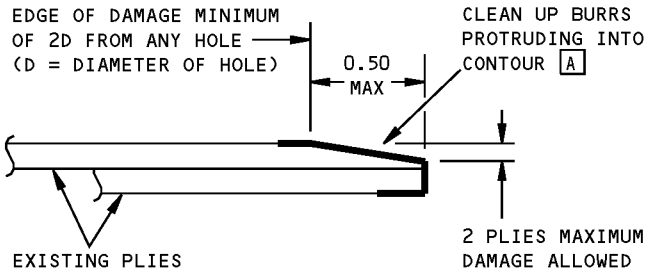
Toilet Drain Access Door
Figure 101 (Sheet 2 of 3)



DAMAGE CLEANUP OF EDGES WHERE FASTENER EDGE MARGINS DO NOT OVERLAP

DAMAGE CLEANUP OF EDGES WHERE FASTENER EDGE MARGINS OVERLAP

DETAIL I

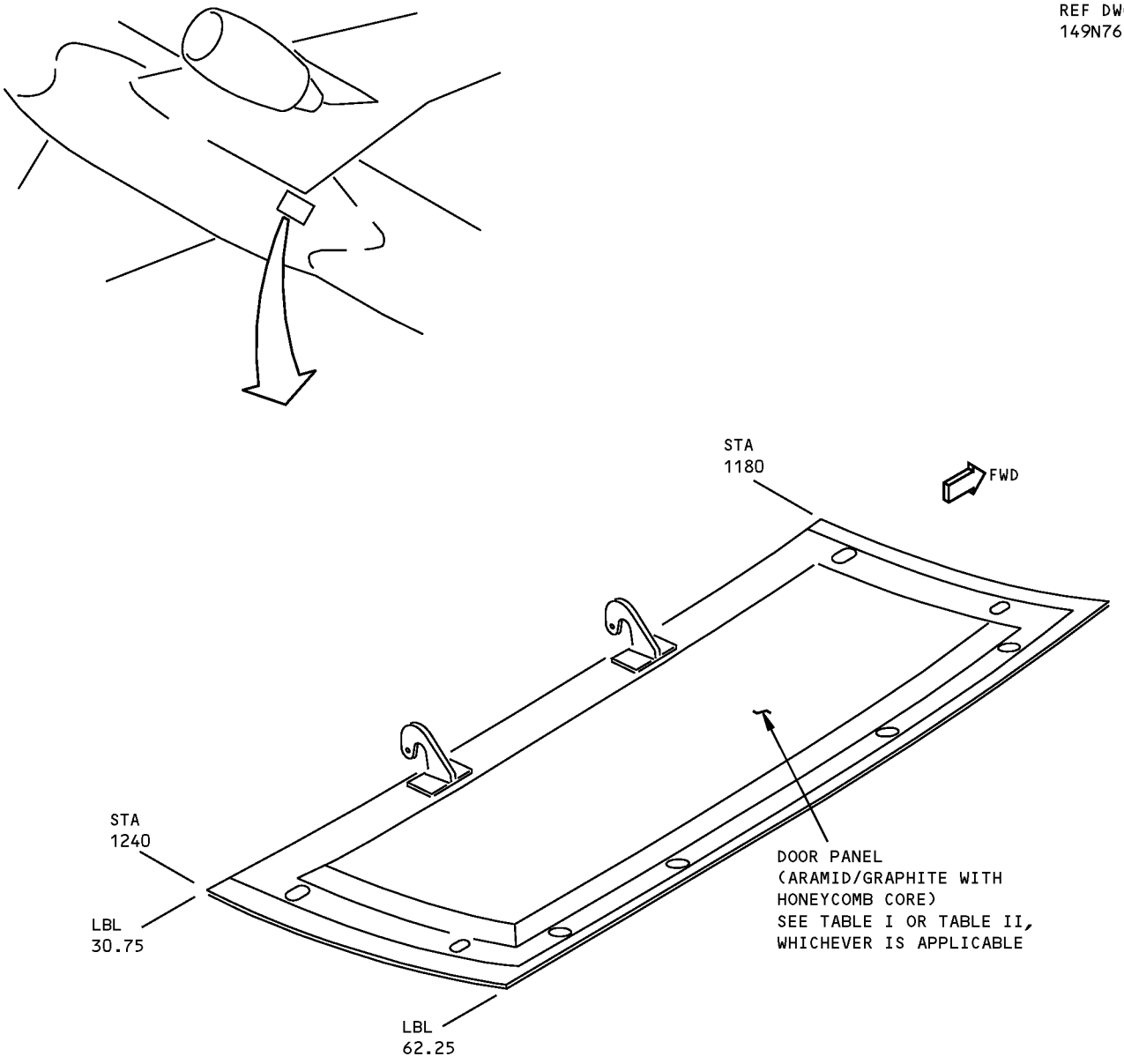


DAMAGE CLEANUP AND SEALING OF EDGE EROSION
DETAIL II

Toilet Drain Access Door
Figure 101 (Sheet 3 of 3)

REPAIR 1 - HYDRAULIC ACCESS DOOR REPAIRS

REF DWG
149N7610



Hydraulic Access Door Repairs
Figure 201 (Sheet 1 of 3)

DAMAGE	INTERIM REPAIRS [B]	PERMANENT REPAIRS		
	WET LAYUP ROOM TEMP (SRM 51-70-03)	WET LAYUP 150°F (66°C) CURE (SRM 51-70-03)	WET LAYUP 200°F (93°C) CURE (SRM 51-70-17)	250°F (121°C) CURE (SRM 51-70-05)
CRACKS	UP TO 4.0 INCHES (100 mm) LONG, REPAIR WITH PATCH AS GIVEN IN SRM 51-70-03, PAR. 5.N. [A]	CLEAN UP DAMAGE AND REPAIR AS A HOLE	CLEAN UP DAMAGE AND REPAIR AS A HOLE	CLEAN UP DAMAGE AND REPAIR AS A HOLE
HOLES AND PUNC-TURES	4.0 INCHES (100 mm) MAXIMUM DIA NOT TO EXCEED 30% OF SMALLEST DIMENSION ACROSS HONEYCOMB PANEL AT THE DAMAGE LOCATION. FILL WITH BMS 5-28, TYPE 7 POTTING COMPOUND AND PATCH AS GIVEN IN SRM 51-70-03, PAR. 5.N. [A]	8.0 INCHES (200mm) MAXIMUM DIA NOT TO EXCEED 50% OF SMALLEST DIMENSION ACROSS HONEYCOMB PANEL AT THE DAMAGE LOCATION. USE TWO EXTRA PLIES FOR EACH FACESHEET REPAIRED [C]	12.0 INCHES (300 mm) MAXIMUM DIA NOT TO EXCEED 50% OF SMALLEST DIMENSION ACROSS HONEYCOMB PANEL AT THE DAMAGE LOCATION. USE TWO EXTRA PLIES FOR EACH FACESHEET REPAIRED [C]	NO SIZE LIMIT
DELAMI-NATION	CUT OUT AND REPAIR AS A HOLE			
NICKS AND GOUGES	IF THERE IS NO FIBER DAMAGE OR DELAMINATION, FILL NICKS OR GOUGES AS GIVEN IN SRM 51-70-03 IF YOU FIND FIBER DAMAGE OR DELAMINATION, THEN REPAIR AS A HOLE			
DENTS	UP TO 2.0 (50 mm) INCHES DIA WITH NO FIBER DAMAGE OR DELAMINATION, FILL WITH BMS 5-28, TYPE 7 POTTING COMPOUND AND PATCH AS GIVEN IN SRM 51-70-03, PAR. 5.L. [C] OVER 2.0 (50 mm) INCHES DIA OR WITH FIBER DAMAGE OR DELAMINATION, REPAIR AS A HOLE			

REPAIR DATA FOR 250°F (121°C) CURE HONEYCOMB PANELS
(GRAPHITE AND/OR ARAMID)
TABLE I

NOTES

- WHEN YOU USE THIS REPAIR, REFER TO:
  - AMM 51-21-01 FOR APPLICATION OF FINISHES
  - SRM 51-10-01, FOR AERODYNAMIC SMOOTHNESS REQUIREMENTS. WHERE THE DAMAGE IS MORE THAN THE LIMITS GIVEN IN SRM 51-10-01, THOUGHT SHOULD BE GIVEN TO THE LOSS OF PERFORMANCE THAT MAY OCCUR.

[A] LIMITED TO REPAIR OF DAMAGE TO ONE FACESHEET SKIN AND HONEYCOMB CORE. ONE REPAIR FOR EACH SQUARE FOOT (930 SQUARE cm) OF AREA AND MINIMUM OF 6.0 INCHES (150 mm) (EDGE TO EDGE) FROM ANY OTHER DAMAGE, FASTENER HOLE, EDGE OF PANEL OR A MINIMUM OF 2.0 INCHES (50 mm) FROM TAPERED EDGE OF HONEYCOMB CORE

[B] INSPECT INTERIM REPAIR USING INSTRUMENTED NDT METHODS OR "TAP" TEST EVERY AIRPLANE AT "2A" CHECK. FOR "TAP" TEST, USE A SOLID METAL DISK AND TAP THE REPAIR AREA LIGHTLY BUT FIRMLY. VOID AREAS WILL GIVE A DULL SOUND INSTEAD OF A SHARP RING THAT YOU WILL HEAR ON A SOLID BONDED AREA. PERMANENT REPAIR IS REQUIRED IF ANY DETERIORATION IS FOUND. REFER TO SRM 51-70-03, PAR. 4.I. AND THE NONDESTRUCTIVE TEST MANUAL [D]

[C] ONE REPAIR FOR EACH SQUARE FOOT OF AREA AND A MINIMUM OF 6.0 INCHES (150 mm) (EDGE TO EDGE) FROM ANY OTHER DAMAGE, FASTENER HOLE, EDGE OF PANEL, OR A MINIMUM OF 2.0 INCHES (50 mm) FROM TAPERED EDGE OF HONEYCOMB CORE

[D] THIS REPAIR HAS FAA APPROVAL ONLY IF YOU DO THE INSPECTIONS GIVEN IN THIS REPAIR

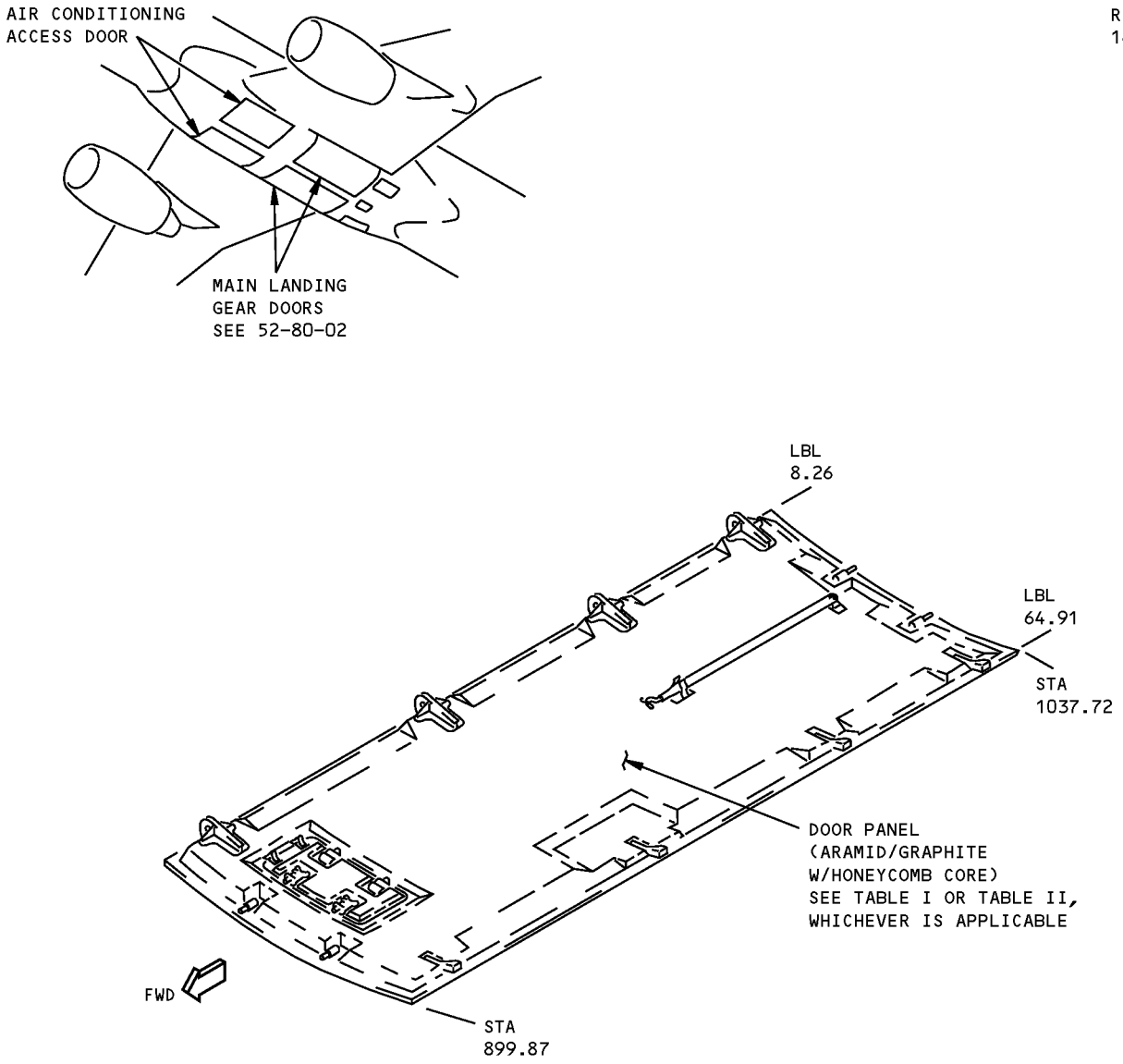
Hydraulic Access Door Repairs
Figure 201 (Sheet 2 of 3)

DAMAGE	INTERIM REPAIRS [B]	PERMANENT REPAIRS	
	ROOM TEMP (SRM 51-70-03)	WET LAYUP - 200°F (93°C) CURE (SRM 51-70-17)	250°F (121°C) CURE (SRM 51-70-05)
HOLES AND PUNCTURES	REPAIR DAMAGE TO FASTENER HOLES AS GIVEN IN SRM 51-70-03, PAR. 5.K. [B] FOR ALL OTHER DAMAGE UP TO 10% OF THE EDGEBAND LENGTH, REPAIR AS GIVEN IN SRM 51-70-03, PAR. 5.G.	REPAIR DAMAGE TO FASTENER HOLES AS GIVEN IN SRM 51-70-17, PAR. 4.K. FOR ALL OTHER DAMAGE, REPAIR AS GIVEN IN SRM 51-70-17, PAR. 4.G.	REPAIR DAMAGE TO FASTENER HOLES AS GIVEN IN SRM 51-70-05, PAR. 5.K. FOR ALL OTHER DAMAGE, REPAIR AS GIVEN IN SRM 51-70-05, PAR. 5.G.
DELAM-INATION	IF DELAMINATION IS NO LESS THAN 2D FROM ANY FASTENER HOLE OR PANEL EDGE, REPAIR AS GIVEN IN SRM 51-70-03, PAR. 5.A.(2). ANY OTHER DELAMINATION MUST BE CUT OUT AND REPAIRED AS A HOLE	CUT OUT AND REPAIR AS A HOLE	CUT OUT AND REPAIR AS A HOLE
EDGE EROSION	--------	FOR DAMAGE NOT THAT IS LARGER THAN 35% OF EDGEBAND THICKNESS, REPAIR AS GIVEN IN SRM 51-70-03, PAR. 5.O. FOR LARGER DAMAGE, REPAIR AS GIVEN IN: SRM 51-70-17, PAR. 4.G.	SRM 51-70-05, PAR. 5.G.
CRACKS	REPAIR AS A HOLE		
NICKS AND GOUGES	IF THERE IS NO FIBER DAMAGE OR DELAMINATION, FILL NICKS OR GOUGES AS GIVEN IN SRM 51-70-03 IF YOU FIND FIBER DAMAGE OR DELAMINATION, THEN REPAIR AS A HOLE OR DELAMINATION, WHICHEVER IS APPLICABLE		
DENTS	IF THERE IS NO FIBER DAMAGE OR DELAMINATION, FILL DENTS AS GIVEN IN SRM 51-70-03 IF YOU FIND FIBER DAMAGE OR DELAMINATION, THEN REPAIR AS A HOLE OR DELAMINATION, WHICHEVER IS APPLICABLE		

REPAIR DATA FOR EDGEBANDS OF 250°F (121°C) CURE HONEYCOMB PANELS
(GRAPHITE AND/OR ARAMID)
TABLE II

Hydraulic Access Door Repairs
Figure 201 (Sheet 3 of 3)

REPAIR 2 - AIR CONDITIONING ACCESS DOOR REPAIRS



Air Conditioning Access Door Repairs
Figure 201 (Sheet 1 of 3)

DAMAGE	INTERIM REPAIRS [B]	PERMANENT REPAIRS		
	WET LAYUP ROOM TEMP (SRM 51-70-03)	WET LAYUP 150°F (66°C) CURE (SRM 51-70-03)	WET LAYUP 200°F (93°C) CURE (SRM 51-70-17)	250°F (121°C)CURE (SRM 51-70-05)
CRACKS	UP TO 4.0 INCHES (100 mm) LONG, REPAIR WITH PATCH AS GIVEN IN SRM 51-70-03, PAR. 5.N. [A]	CLEAN UP DAMAGE AND REPAIR AS A HOLE	CLEAN UP DAMAGE AND REPAIR AS A HOLE	CLEAN UP DAMAGE AND REPAIR AS A HOLE
HOLES	4.0 INCHES MAXIMUM (100 mm) DIA NOT TO EXCEED 30% OF SMALLEST DIMENSION ACROSS HONEYCOMB PANEL AT THE DAMAGE LOCATION. FILL WITH BMS 5-28, TYPE 7 POTTING COMPOUND AND PATCH AS GIVEN IN SRM 51-70-03, PAR. 5.N. [A]	8.0 INCHES MAXIMUM (200 mm) DIA NOT TO EXCEED 50% OF SMALLEST DIMENSION ACROSS HONEYCOMB PANEL AT THE DAMAGE LOCATION. USE TWO EXTRA PLIES FOR EACH FACESHEET REPAIRED [C]	12.0 INCHES (300 mm) MAXIMUM DIA NOT TO EXCEED 50% OF SMALLEST DIMENSION ACROSS HONEYCOMB PANEL AT THE DAMAGE LOCATION. USE TWO EXTRA PLIES FOR EACH FACESHEET REPAIRED [C]	NO SIZE LIMIT
DELAMI-NATION	CUT OUT AND REPAIR AS A HOLE			
NICKS AND GOUGES	IF THERE IS NO FIBER DAMAGE OR DELAMINATION, FILL NICKS OR GOUGES AS GIVEN IN SRM 51-70-03 IF YOU FIND FIBER DAMAGE OR DELAMINATION, THEN REPAIR AS A HOLE			
DENTS	UP TO 2.0 INCHES (50 mm) DIA WITH NO FIBER DAMAGE OR DELAMINATION, FILL WITH BMS 5-28, TYPE 7 POTTING COMPOUND AND PATCH AS GIVEN IN SRM 51-70-03, PAR. 5.L. [C] OVER 2.0 INCHES (50 mm) DIA OR WITH FIBER DAMAGE OR DELAMINATION, REPAIR AS A HOLE			

REPAIR DATA FOR 250°F (121°C) CURE HONEYCOMB PANELS
(GRAPHITE AND/OR ARAMID)
TABLE I

NOTES

- WHEN YOU USE THIS REPAIR, REFER TO:
  - AMM 51-21-01 FOR APPLICATION OF FINISHES
  - SRM 51-10-01, FOR AERODYNAMIC SMOOTHNESS REQUIREMENTS. WHERE THE DAMAGE IS MORE THAN THE LIMITS GIVEN IN SRM 51-10-01, THOUGHT SHOULD BE GIVEN TO THE LOSS OF PERFORMANCE THAT MAY OCCUR.

[A] LIMITED TO REPAIR OF DAMAGE TO ONE FACESHEET SKIN AND HONEYCOMB CORE. ONE REPAIR FOR EACH SQUARE FOOT (930 SQUARE cm) OF AREA AND MINIMUM OF 6.0 INCHES (150 mm) (EDGE TO EDGE) FROM ANY OTHER DAMAGE, FASTENER HOLE, EDGE OF PANEL OR A MINIMUM OF 2.0 INCHES (50 mm) FROM TAPERED EDGE OF HONEYCOMB CORE

[B] INSPECT INTERIM REPAIR USING INSTRUMENTED NDT METHODS OR "TAP" TEST EVERY AIRPLANE AT "2A" CHECK. FOR "TAP" TEST, USE A SOLID METAL DISK AND TAP THE REPAIR AREA LIGHTLY BUT FIRMLY. VOID AREAS WILL GIVE A DULL SOUND INSTEAD OF A SHARP RING THAT YOU WILL HEAR ON A SOLID BONDED AREA. PERMANENT REPAIR IS REQUIRED IF ANY DETERIORATION IS FOUND. REFER TO SRM 51-70-03, PAR. 4.I. AND THE NONDESTRUCTIVE TEST MANUAL [D]

[C] ONE REPAIR FOR EACH SQUARE FOOT (930 SQUARE cm) OF AREA AND A MINIMUM OF 6.0 INCHES (150 mm) (EDGE TO EDGE) FROM ANY OTHER DAMAGE, FASTENER HOLE, EDGE OF PANEL, OR A MINIMUM OF 2.0 INCHES (50 mm) FROM TAPERED EDGE OF HONEYCOMB CORE

[D] THIS REPAIR HAS FAA APPROVAL ONLY IF YOU DO THE INSPECTIONS GIVEN IN THIS REPAIR

Air Conditioning Access Door Repairs
Figure 201 (Sheet 2 of 3)

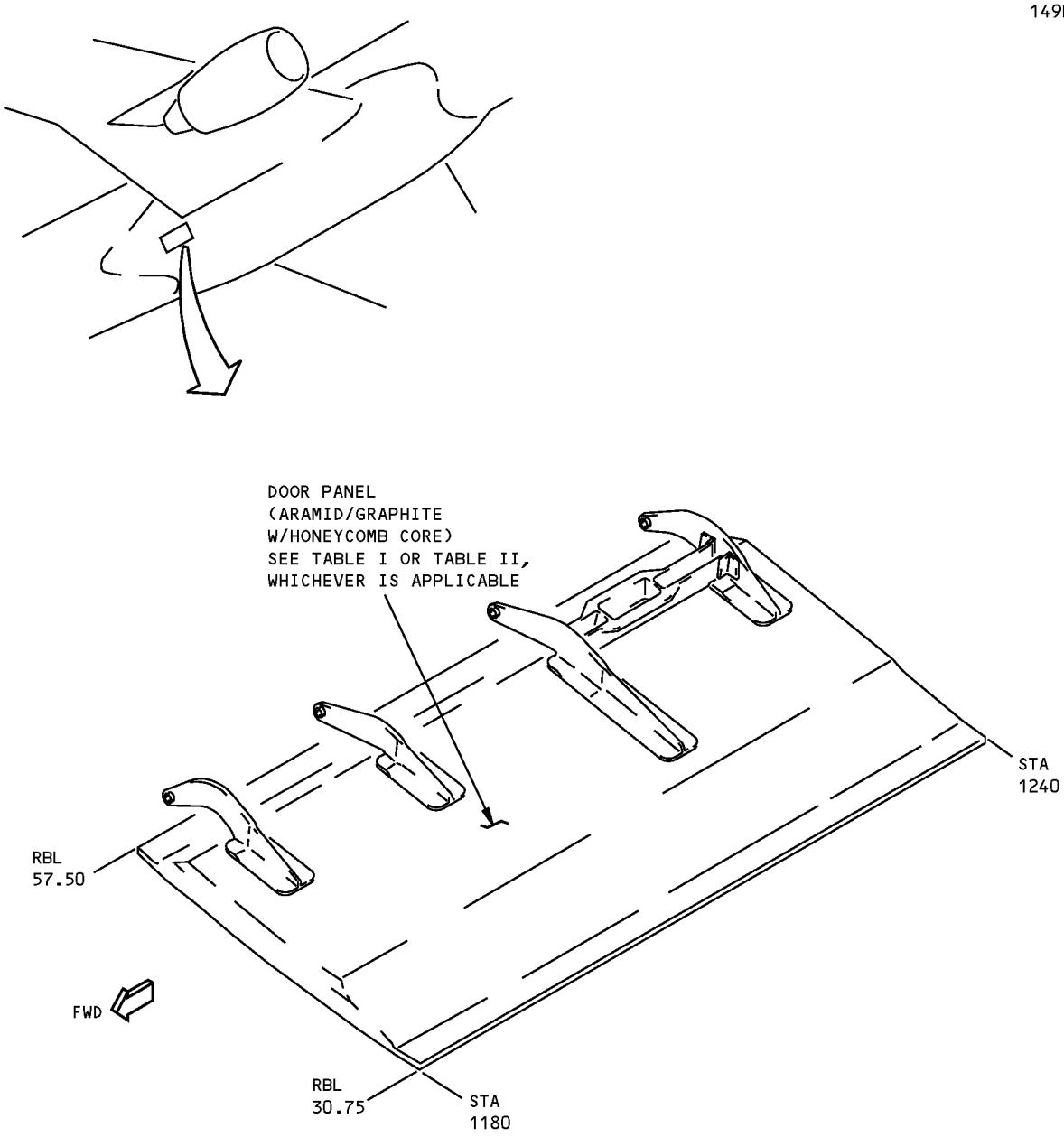
DAMAGE	INTERIM REPAIRS [B]	PERMANENT REPAIRS	
	ROOM TEMP (SRM 51-70-03)	WET LAYUP - 200°F (93°C) CURE (SRM 51-70-17)	250°F (121°C) CURE (SRM 51-70-05)
HOLES AND PUNCTURES	REPAIR DAMAGE TO FASTENER HOLES AS GIVEN IN 51-70-03, PAR. 5.K. FOR ALL OTHER DAMAGE UP TO 10% OF THE EDGEBAND LENGTH, REPAIR AS GIVEN IN SRM 51-70-03, PAR. 5.G.	REPAIR DAMAGE TO FASTENER HOLES AS GIVEN IN 51-70-17, PAR. 4.K. FOR ALL OTHER DAMAGE, REPAIR AS GIVEN IN SRM 51-70-17, PAR. 4.G.	REPAIR DAMAGE TO FASTENER HOLES AS GIVEN IN SRM 51-70-05, PAR. 5.K. FOR ALL OTHER DAMAGE, REPAIR AS GIVEN IN SRM 51-70-05, PAR. 5.G.
DELAM-INATION	IF DELAMINATION IS NO LESS THAN 2D FROM ANY FASTENER HOLE OR PANEL EDGE, REPAIR AS GIVEN IN SRM 51-70-03, PAR. 5.A.(2). ANY OTHER DELAMINATION MUST BE CUT OUT AND REPAIRED AS A HOLE	CUT OUT AND REPAIR AS A HOLE	CUT OUT AND REPAIR AS A HOLE
EDGE EROSION	--------	FOR DAMAGE NOT THAT IS LARGER THAN 35% OF EDGEBAND THICKNESS, REPAIR AS GIVEN IN SRM 51-70-03, PAR. 5.O. FOR LARGER DAMAGE, REPAIR AS GIVEN IN: SRM 51-70-17, PAR. 4.G.	SRM 51-70-05, PAR. 5.G.
CRACKS	REPAIR AS A HOLE		
NICKS AND GOUGES	IF THERE IS NO FIBER DAMAGE OR DELAMINATION, FILL NICKS OR GOUGES AS GIVEN IN SRM 51-70-03 IF YOU FIND FIBER DAMAGE OR DELAMINATION, THEN REPAIR AS A HOLE OR DELAMINATION, WHICHEVER IS APPLICABLE		
DENTS	IF THERE IS NO FIBER DAMAGE OR DELAMINATION, FILL DENTS AS GIVEN IN SRM 51-70-03 IF YOU FIND FIBER DAMAGE OR DELAMINATION, THEN REPAIR AS A HOLE OR DELAMINATION, WHICHEVER IS APPLICABLE		

REPAIR DATA FOR EDGEBANDS OF 250°F (121°C) CURE HONEYCOMB PANELS
(GRAPHITE AND/OR ARAMID)
TABLE II

Air Conditioning Access Door Repairs
Figure 201 (Sheet 3 of 3)

REPAIR 3 - RAM AIR TURBINE DOOR REPAIRS

REW DWG
149N7720



Ram Air Turbine Door Repairs
Figure 201 (Sheet 1 of 3)

DAMAGE	INTERIM REPAIRS [B]	PERMANENT REPAIRS		
	WET LAYUP ROOM TEMP (SRM 51-70-03)	WET LAYUP 150°F (66°C) CURE (SRM 51-70-03)	WET LAYUP 200°F (93°C) CURE (SRM 51-70-17)	250°F (121°C) CURE (SRM 51-70-05)
CRACKS	UP TO 4.0 INCHES (100 mm) LONG, REPAIR WITH PATCH AS GIVEN IN SRM 51-70-03, PAR. 5.N. [A]	CLEAN UP DAMAGE AND REPAIR AS A HOLE	CLEAN UP DAMAGE AND REPAIR AS A HOLE	CLEAN UP DAMAGE AND REPAIR AS A HOLE
HOLES	4.0 INCHES (100 mm) MAXIMUM DIA NOT TO EXCEED 30% OF SMALLEST DIMENSION ACROSS HONEYCOMB PANEL AT THE DAMAGE LOCATION. FILL WITH BMS 5-28, TYPE 7 POTTING COMPOUND AND PATCH AS GIVEN IN SRM 51-70-03, PAR. 5.N. [A]	8.0 INCHES (200 mm) MAXIMUM DIA NOT TO EXCEED 50% OF SMALLEST DIMENSION ACROSS HONEYCOMB PANEL AT THE DAMAGE LOCATION. USE TWO EXTRA PLIES FOR EACH FACESHEET REPAIRED [C]	12.0 INCHES (300 mm) MAXIMUM DIA NOT TO EXCEED 50% OF SMALLEST DIMENSION ACROSS HONEYCOMB PANEL AT THE DAMAGE LOCATION. USE TWO EXTRA PLIES FOR EACH FACESHEET REPAIRED [C]	NO SIZE LIMIT
DELAMI-NATION	CUT OUT AND REPAIR AS HOLE			
NICKS AND GOUGES	IF THERE IS NO FIBER DAMAGE OR DELAMINATION, FILL NICKS OR GOUGES AS GIVEN IN SRM 51-70-03 IF YOU FIND FIBER DAMAGE OR DELAMINATION, THEN REPAIR AS A HOLE			
DENTS	UP TO 2.0 INCHES (50 mm) DIA WITH NO FIBER DAMAGE OR DELAMINATION, FILL WITH BMS 5-28, TYPE 7 POTTING COMPOUND AND PATCH AS GIVEN IN SRM 51-70-03, PAR. 5.L. [C] OVER 2.0 INCHES (50 mm) DIA OR WITH FIBER DAMAGE OR DELAMINATION, REPAIR AS A HOLE			

REPAIR DATA FOR 250°F (121°C) CURE HONEYCOMB PANELS
(GRAPHITE AND/OR ARAMID)
TABLE I

NOTES

- WHEN YOU USE THIS REPAIR, REFER TO:
  - AMM 51-21-01 FOR APPLICATION OF FINISHES
  - SRM 51-10-01, FOR AERODYNAMIC SMOOTHNESS REQUIREMENTS. WHERE THE DAMAGE IS MORE THAN THE LIMITS GIVEN IN SRM 51-10-01, THOUGHT SHOULD BE GIVEN TO THE LOSS OF PERFORMANCE THAT MAY OCCUR.

[A] LIMITED TO REPAIR OF DAMAGE TO ONE FACESHEET SKIN AND HONEYCOMB CORE. ONE REPAIR FOR EACH SQUARE FOOT (930 SQUARE cm) OF AREA AND MINIMUM OF 6.0 INCHES (150 mm) (EDGE TO EDGE) FROM ANY OTHER DAMAGE, FASTENER HOLE, EDGE OF PANEL OR A MINIMUM OF 2.0 INCHES (50 mm) FROM TAPERED EDGE OF HONEYCOMB CORE

[B] INSPECT INTERIM REPAIR USING INSTRUMENTED NDT METHODS OR "TAP" TEST EVERY AIRPLANE AT "2A" CHECK. FOR "TAP" TEST, USE A SOLID METAL DISK AND TAP THE REPAIR AREA LIGHTLY BUT FIRMLY. VOID AREAS WILL GIVE A DULL SOUND INSTEAD OF A SHARP RING THAT YOU WILL HEAR ON A SOLID BONDED AREA. PERMANENT REPAIR IS REQUIRED IF ANY DETERIORATION IS FOUND. REFER TO SRM 51-70-03, PAR. 4.I. AND THE NONDESTRUCTIVE TEST MANUAL [D]

[C] ONE REPAIR FOR EACH SQUARE FOOT (930 SQUARE cm) OF AREA AND A MINIMUM OF 6.0 INCHES (150 mm) (EDGE TO EDGE) FROM ANY OTHER DAMAGE, FASTENER HOLE, EDGE OF PANEL, OR A MINIMUM OF 2.0 INCHES (50 mm) FROM TAPERED EDGE OF HONEYCOMB CORE

[D] THIS REPAIR HAS FAA APPROVAL ONLY IF YOU DO THE INSPECTIONS GIVEN IN THIS REPAIR

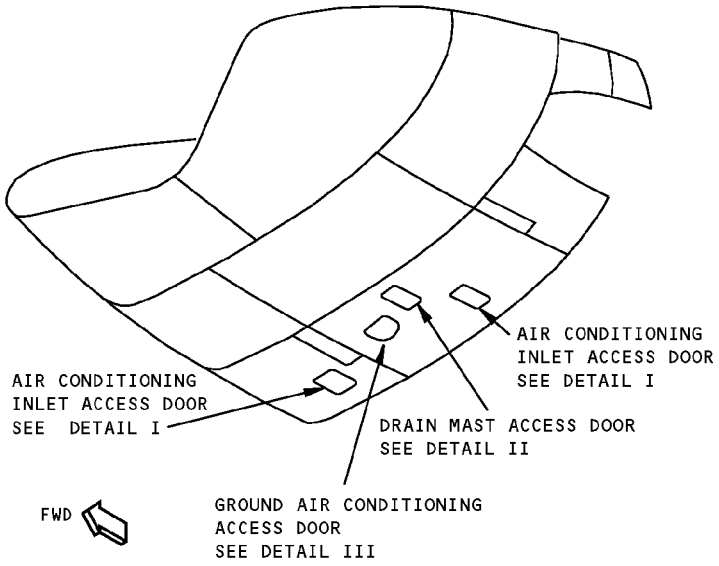
Ram Air Turbine Door Repairs
Figure 201 (Sheet 2 of 3)

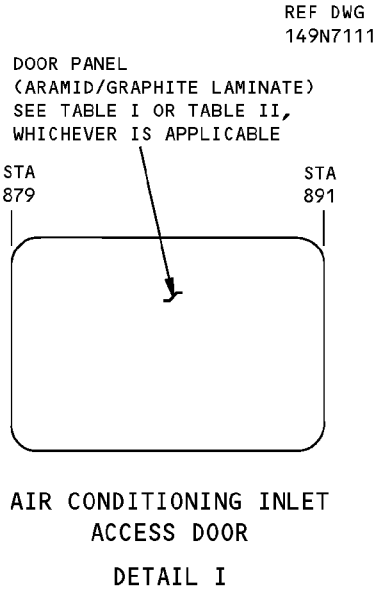
DAMAGE	INTERIM REPAIRS [B]	PERMANENT REPAIRS	
	ROOM TEMP (SRM 51-70-03)	WET LAYUP - 200°F (93°C) CURE (SRM 51-70-17)	250°F (121°C) CURE (SRM 51-70-05)
HOLES AND PUNCTURES	REPAIR DAMAGE TO FASTENER HOLES AS GIVEN IN SRM 51-70-03, PAR. 5.K. FOR ALL OTHER DAMAGE UP TO 10% OF THE EDGEBAND LENGTH, REPAIR AS GIVEN IN SRM 51-70-03, PAR. 5.G.	REPAIR DAMAGE TO FASTENER HOLES AS GIVEN IN SRM 51-70-17, PAR. 4.K. FOR ALL OTHER DAMAGE, REPAIR AS GIVEN IN SRM 51-70-17, PAR. 4.G.	REPAIR DAMAGE TO FASTENER HOLES AS GIVEN IN SRM 51-70-05, PAR. 5.K. FOR ALL OTHER DAMAGE, REPAIR AS GIVEN IN SRM 51-70-05, PAR. 5.G.
DELAM-INATION	IF DELAMINATION IS NO LESS THAN 2D FROM ANY FASTENER HOLE OR PANEL EDGE, REPAIR AS GIVEN IN SRM 51-70-03, PAR. 5.A.(2). ANY OTHER DELAMINATION MUST BE CUT OUT AND REPAIRED AS A HOLE	CUT OUT AND REPAIR AS A HOLE	CUT OUT AND REPAIR AS A HOLE
EDGE EROSION	--------	FOR DAMAGE NOT LARGER THAN 35% OF EDGEBAND THICKNESS, REPAIR AS GIVEN IN SRM 51-70-03, PAR. 5.O FOR LARGER DAMAGE, REPAIR AS GIVEN IN: SRM 51-70-17, PAR. 4.G.	SRM 51-70-05, PAR. 5.G.
CRACKS	REPAIR AS A HOLE		
NICKS AND GOUGES	IF THERE IS NO FIBER DAMAGE OR DELAMINATION, FILL NICKS OR GOUGES AS GIVEN IN SRM 51-70-03 IF YOU FIND FIBER DAMAGE OR DELAMINATION, THEN REPAIR AS A HOLE OR DELAMINATION, WHICHEVER IS APPLICABLE		
DENTS	IF THERE IS NO FIBER DAMAGE OR DELAMINATION, FILL DENTS AS GIVEN IN SRM 51-70-03 IF YOU FIND FIBER DAMAGE OR DELAMINATION, THEN REPAIR AS A HOLE OR DELAMINATION, WHICHEVER IS APPLICABLE		

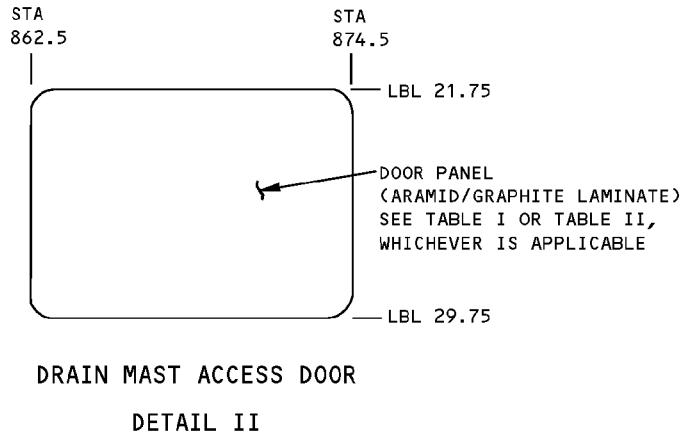
REPAIR DATA FOR EDGEBANDS OF 250°F (121°C) CURE HONEYCOMB PANELS
(GRAPHITE AND/OR ARAMID)
TABLE II

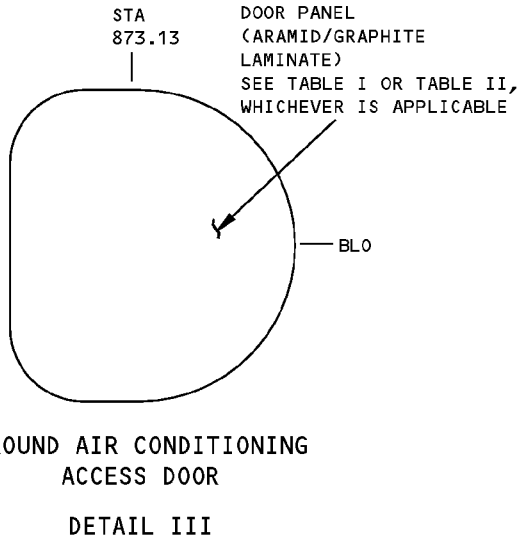
Ram Air Turbine Door Repairs
Figure 201 (Sheet 3 of 3)

REPAIR 4 - SECTION 43 - WING TO BODY FAIRING ACCESS DOOR REPAIRS - AIR CONDITIONING INLET, DRAIN MAST, GROUND AIR CONDITIONING









Section 43 - Wing to Body Fairing Access Door Repairs - Air Conditioning Inlet, Drain Mast, Ground Air Conditioning
Figure 201 (Sheet 1 of 3)

DAMAGE	INTERIM REPAIRS [B]	PERMANENT REPAIRS		
	WET LAYUP ROOM TEMP (SRM 51-70-03)	WET LAYUP 150°F (66°C) CURE (SRM 51-70-03)	WET LAYUP 200°F (93°C) CURE (SRM 51-70-17)	250°F (121°C) CURE (SRM 51-70-05)
CRACKS	UP TO 2.0 INCHES (50 mm) LONG REPAIR WITH PATCH AS GIVEN IN SRM 51-70-03, PAR. 5.N. [A]	CLEAN UP DAMAGE AND REPAIR AS A HOLE	CLEAN UP DAMAGE AND REPAIR AS A HOLE	CLEAN UP DAMAGE AND REPAIR AS A HOLE
HOLES	2.0 INCHES (50 mm) MAXIMUM DIA NOT TO EXCEED 30% OF SMALLEST DIMENSION ACROSS HONEYCOMB PANEL AT THE DAMAGE LOCATION. FILL WITH BMS 5-28, TYPE 7 POTTING COMPOUND AND PATCH AS GIVEN IN SRM 51-70-03, PAR. 5.N. [A]	5.0 INCHES (125 mm) MAXIMUM DIA NOT TO EXCEED 50% OF SMALLEST DIMENSION ACROSS HONEYCOMB PANEL AT THE DAMAGE LOCATION. USE TWO EXTRA PLIES FOR EACH SIDE [A]	10.0 INCHES (250 mm) MAXIMUM DIA NOT TO EXCEED 50% OF SMALLEST DIMENSION ACROSS HONEYCOMB PANEL AT THE DAMAGE LOCATION. USE TWO EXTRA PLIES FOR EACH SIDE	NO SIZE LIMIT
DELAMI-NATION	CUT OUT AND REPAIR AS A HOLE			
NICKS AND GOUGES	IF THERE IS NO FIBER DAMAGE OR DELAMINATION, FILL NICKS OR GOUGES AS GIVEN IN SRM 51-70-03 IF YOU FIND FIBER DAMAGE OR DELAMINATION, THEN REPAIR AS A HOLE			
DENTS	UP TO 2.0 INCHES (50 mm) DIA WITH NO FIBER DAMAGE OR DELAMINATION, FILL WITH BMS 5-28, TYPE 7 POTTING COMPOUND AND PATCH AS GIVEN IN SRM 51-70-03, PAR. 5.L. [A] OVER 2.0 INCHES (50 mm) DIA OR WITH FIBER DAMAGE OR DELAMINATION, REPAIR A HOLE			

REPAIR DATA FOR 250°F (121°C) CURE LAMINATES
(FIBERGLASS OR GRAPHITE OR ARAMID)
TABLE I

NOTES

- WHEN YOU USE THIS REPAIR, REFER TO:
  - AMM 51-21-01 FOR APPLICATION OF FINISHES
  - SRM 51-10-01, FOR AERODYNAMIC SMOOTHNESS REQUIREMENTS. WHERE THE DAMAGE IS MORE THAN THE LIMITS GIVEN IN SRM 51-10-01, THOUGHT SHOULD BE GIVEN TO THE LOSS OF PERFORMANCE THAT MAY OCCUR.

[A] ONE REPAIR FOR EACH SQUARE FOOT OF AREA AND A MINIMUM OF 3.0 INCHES (75 mm) (EDGE TO EDGE) FROM ANY OTHER DAMAGE, FASTENER HOLE, OR EDGE OF PANEL

[B] INSPECT INTERIM REPAIR USING INSTRUMENTED NDT METHODS OR "TAP" TEST EVERY AIRPLANE AT "2A" CHECK. FOR "TAP" TEST, USE A SOLID METAL DISK AND TAP THE REPAIR AREA LIGHTLY BUT FIRMLY. VOID AREAS WILL GIVE A DULL SOUND INSTEAD OF A SHARP RING THAT YOU WILL HEAR ON A SOLID BONDED AREA. PERMANENT REPAIR IS REQUIRED IF ANY DETERIORATION IS FOUND. REFER TO SRM 51-70-03, PAR. 4.I. AND THE NONDESTRUCTIVE TEST MANUAL [C]

[C] THIS REPAIR HAS FAA APPROVAL ONLY IF YOU DO THE INSPECTIONS GIVEN IN THIS REPAIR

Section 43 - Wing to Body Fairing Access Door Repairs - Air Conditioning Inlet, Drain Mast, Ground Air Conditioning
Figure 201 (Sheet 2 of 3)

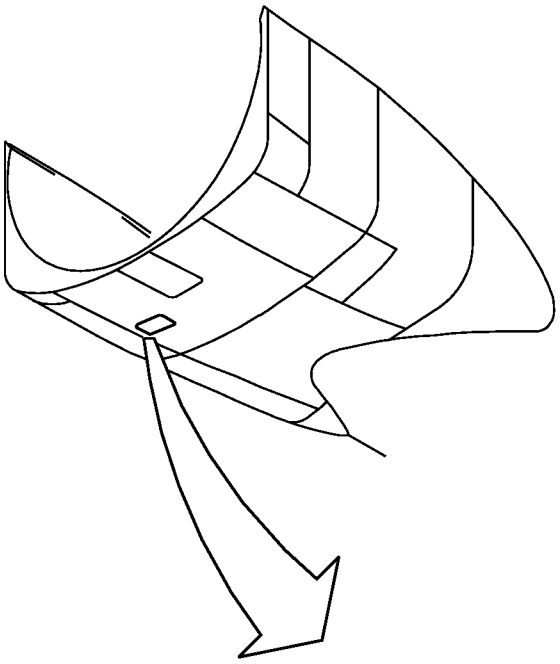
DAMAGE	INTERIM REPAIRS [B]	PERMANENT REPAIRS	
	ROOM TEMP (SRM 51-70-03)	WET LAYUP - 200°F (93°C) CURE (SRM 51-70-17)	250°F (121°C) CURE (SRM 51-70-05)
HOLES AND PUNCTURES	REPAIR DAMAGE TO FASTENER HOLES AS GIVEN IN SRM 51-70-03, PAR. 5.K. FOR ALL OTHER DAMAGE UP TO 10% OF THE EDGEBAND LENGTH, REPAIR AS GIVEN IN SRM 51-70-03, PAR. 5.G.	REPAIR DAMAGE TO FASTENER HOLES AS GIVEN IN SRM 51-70-17, PAR. 4.K. FOR ALL OTHER DAMAGE, REPAIR AS GIVEN IN SRM 51-70-17, PAR. 4.G.	REPAIR DAMAGE TO FASTENER HOLES AS GIVEN IN SRM 51-70-05, PAR. 5.K. FOR ALL OTHER DAMAGE, REPAIR AS GIVEN IN SRM 51-70-05, PAR. 5.G.
DELAM-INATION	IF DELAMINATION FROM PANEL EDGE IS NO LESS THAN 2D FROM ANY FASTENER HOLE, REPAIR AS GIVEN IN SRM 51-70-03, PAR. 5.A.(2). ANY OTHER DELAMINATION MUST BE CUT OUT AND REPAIRED AS A HOLE	CUT OUT AND REPAIR AS A HOLE	CUT OUT AND REPAIR AS A HOLE
EDGE EROSION	--------	FOR DAMAGE NOT LARGER THAN 35% OF EDGEBAND THICKNESS, REPAIR AS GIVEN IN SRM 51-70-03, PAR. 5.O. FOR LARGER DAMAGE, REPAIR AS GIVEN IN: SRM 51-70-17, PAR. 4.G.	SRM 51-70-05, PAR. 5.G.
CRACKS	REPAIR AS A HOLE		
NICKS AND GOUGES	IF THERE IS NO FIBER DAMAGE OR DELAMINATION, FILL NICKS OR GOUGES AS GIVEN IN SRM 51-70-03 IF YOU FIND FIBER DAMAGE OR DELAMINATION, THEN REPAIR AS A HOLE OR DELAMINATION, WHICHEVER IS APPLICABLE		
DENTS	IF THERE IS NO FIBER DAMAGE OR DELAMINATION, FILL DENTS AS GIVEN IN SRM 51-70-03 IF YOU FIND FIBER DAMAGE OR DELAMINATION, THEN REPAIR AS A HOLE OR DELAMINATION, WHICHEVER IS APPLICABLE		

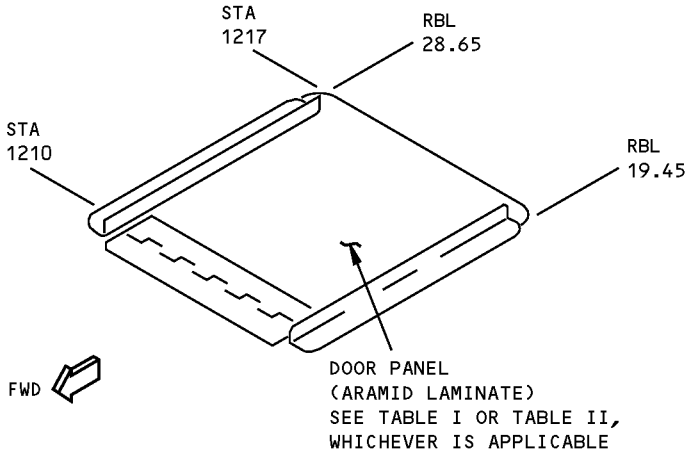
REPAIR DATA FOR EDGEBANDS OF 250°F (121°C) CURE LAMINATES
(GRAPHITE AND/OR ARAMID)
TABLE II

Section 43 - Wing to Body Fairing Access Door Repairs - Air Conditioning Inlet, Drain Mast, Ground Air Conditioning
Figure 201 (Sheet 3 of 3)

REPAIR 5 - LANDING GEAR GROUND ACCESS DOOR REPAIRS

REF DWG
149N7640





Landing Gear Ground Access Door Repairs
Figure 201 (Sheet 1 of 3)

DAMAGE	INTERIM REPAIRS [B]	PERMANENT REPAIRS		
	WET LAYUP ROOM TEMP (SRM 51-70-03)	WET LAYUP 150°F (66°C) CURE (SRM 51-70-03)	WET LAYUP 200°F (93°C) CURE (SRM 51-70-17)	250°F (121°C) CURE (SRM 51-70-05)
CRACKS	UP TO 2.0 INCHES (50 mm) LONG, REPAIR WITH PATCH AS GIVEN IN SRM 51-70-03, PAR. 5.N. [A]	CLEAN UP DAMAGE AND REPAIR AS A HOLE	CLEAN UP DAMAGE AND REPAIR AS A HOLE	CLEAN UP DAMAGE AND REPAIR AS A HOLE
HOLES AND PUNC-TURES	2.0 INCHES (50 mm) MAXIMUM DIA NOT TO EXCEED 30% OF SMALLEST DIMENSION ACROSS HONEYCOMB PANEL AT THE DAMAGE LOCATION. FILL WITH BMS 5-28, TYPE 7 POTTING COMPOUND AND PATCH AS GIVEN IN SRM 51-70-03, PAR. 5.N. [A]	5.0 INCHES (125 mm) MAXIMUM DIA NOT TO EXCEED 50% OF SMALLEST DIMENSION ACROSS HONEYCOMB PANEL AT THE DAMAGE LOCATION. USE TWO EXTRA PLIES FOR EACH SIDE [A]	10.0 INCHES (250 mm) MAXIMUM DIA NOT TO EXCEED 50% OF SMALLEST DIMENSION ACROSS HONEYCOMB PANEL AT THE DAMAGE LOCATION. USE TWO EXTRA PLIES FOR EACH SIDE	NO SIZE LIMIT
DELAMI-NATION	CUT OUT AND REPAIR AS A HOLE			
NICKS AND GOUGES	IF THERE IS NO FIBER DAMAGE OR DELAMINATION, FILL NICKS OR GOUGES AS GIVEN IN SRM 51-70-03 IF YOU FIND FIBER DAMAGE OR DELAMINATION, THEN REPAIR AS A HOLE			
DENTS	UP TO 2.0 INCHES (50 mm) DIA WITH NO FIBER DAMAGE OR DELAMINATION, FILL WITH BMS 5-28, TYPE 7 POTTING COMPOUND AND PATCH AS GIVEN IN SRM 51-70-03, PAR. 5.L. [A] OVER 2.0 INCHES (50 mm) DIA OR WITH FIBER DAMAGE OR DELAMINATION, REPAIR AS A HOLE			

REPAIR DATA FOR 250°F (121°C) CURE LAMINATES
(GRAPHITE AND/OR ARAMID)
TABLE I

NOTES

- WHEN YOU USE THIS REPAIR, REFER TO:
  - AMM 51-21-01 FOR APPLICATION OF FINISHES
  - SRM 51-10-01, FOR AERODYNAMIC SMOOTHNESS REQUIREMENTS. WHERE THE DAMAGE IS MORE THAN THE LIMITS GIVEN IN SRM 51-10-01, THOUGHT SHOULD BE GIVEN TO THE LOSS OF PERFORMANCE THAT MAY OCCUR.

[A] ONE REPAIR FOR EACH SQUARE FOOT OF AREA AND A MINIMUM OF 3.0 INCHES (75 mm) (EDGE TO EDGE) FROM ANY OTHER DAMAGE, FASTENER HOLE, OR EDGE OF PANEL

[B] INSPECT INTERIM REPAIR USING INSTRUMENTED NDT METHODS OR "TAP" TEST EVERY AIRPLANE AT "2A" CHECK. FOR "TAP" TEST, USE A SOLID METAL DISK AND TAP THE REPAIR AREA LIGHTLY BUT FIRMLY. VOID AREAS WILL GIVE A DULL SOUND INSTEAD OF A SHARP RING THAT YOU WILL HEAR ON A SOLID BONDED AREA. PERMANENT REPAIR IS REQUIRED IF ANY DETERIORATION IS FOUND. REFER TO SRM 51-70-03, PAR. 4.I. AND THE NONDESTRUCTIVE TEST MANUAL [C]

[C] THIS REPAIR HAS FAA APPROVAL ONLY IF YOU DO THE INSPECTIONS GIVEN IN THIS REPAIR

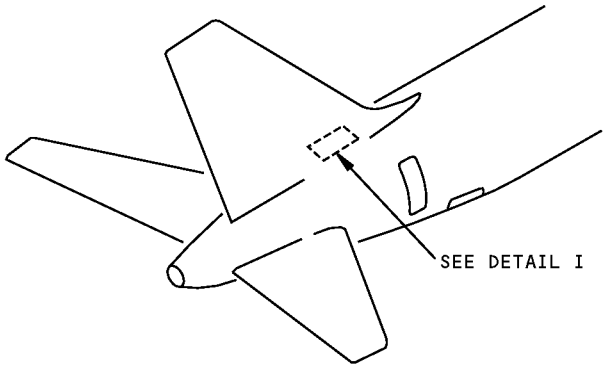
Landing Gear Ground Access Door Repairs
Figure 201 (Sheet 2 of 3)

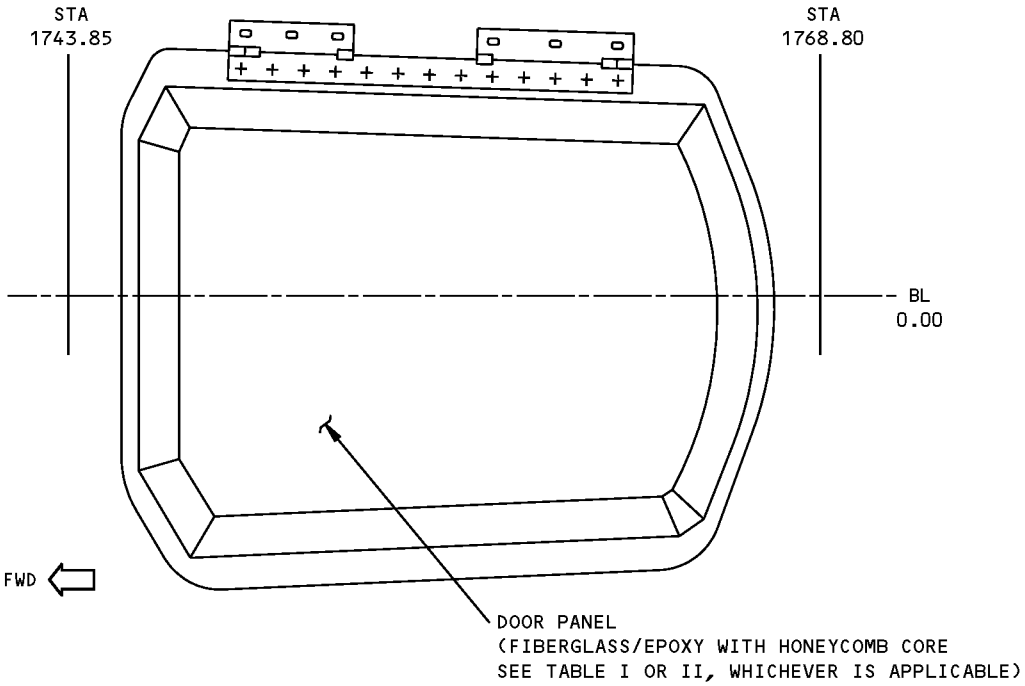
DAMAGE	INTERIM REPAIRS [B]	PERMANENT REPAIRS	
	ROOM TEMP (SRM 51-70-03)	WET LAYUP - 200°F (93°C) CURE (SRM 51-70-17)	250°F (121°C) CURE (SRM 51-70-05)
HOLES AND PUNCTURES	REPAIR DAMAGE TO FASTENER HOLES AS GIVEN IN SRM 51-70-03, PAR. 5.K.FOR ALL OTHER DAMAGE UP TO 10%OF THE EDGEBAND LENGTH, REPAIRAS GIVEN IN SRM 51-70-03, PAR. 5.G.	REPAIR DAMAGE TO FASTENER HOLES AS GIVEN IN SRM 51-70-17, PAR. 4.K. FOR ALL OTHER DAMAGE, REPAIR AS GIVEN IN SRM 51-70-17, PAR. 4.G.	REPAIR DAMAGE TO FASTENER HOLES AS GIVEN IN SRM 51-70-05, PAR. 5.K. FOR ALL OTHER DAMAGE, REPAIR AS GIVEN IN SRM 51-70-05, PAR. 5.G.
DELAM-INATION	IF DELAMINATION FROM PANEL EDGE IS NO LESS THAN 2D FROM ANY FASTENER HOLE, REPAIR AS GIVEN IN SRM 51-70-03, PAR. 5.A.(2). ANY OTHER DELAMINATION MUST BE CUT OUT AND REPAIRED AS A HOLE	CUT OUT AND REPAIR AS A HOLE	CUT OUT AND REPAIR AS A HOLE
EDGE EROSION	_____	FOR DAMAGE NOT LARGER THAN 35% OF EDGEBAND THICKNESS, REPAIR AS GIVEN IN SRM 51-70-03, PAR. 4.O. FOR LARGER DAMAGE, REPAIR AS GIVEN IN: SRM 51-70-17, PAR. 4.G.	SRM 51-70-05, PAR. 5.G.
CRACKS	REPAIR AS A HOLE		
NICKS AND GOUGES	IF THERE IS NO FIBER DAMAGE OR DELAMINATION, FILL NICKS OR GOUGES AS GIVEN IN SRM 51-70-03 IF YOU FIND FIBER DAMAGE OR DELAMINATION, THEN REPAIR AS A HOLE OR DELAMINATION, WHICHEVER IS APPLICABLE		
DENTS	IF THERE IS NO FIBER DAMAGE OR DELAMINATION, FILL DENTS AS GIVEN IN SRM 51-70-03 IF YOU FIND FIBER DAMAGE OR DELAMINATION, THEN REPAIR AS A HOLE OR DELAMINATION, WHICHEVER IS APPLICABLE		

REPAIR DATA FOR EDGEBANDS OF 250°F (121°C) CURE LAMINATES
(GRAPHITE AND/OR ARAMID)
TABLE II

Landing Gear Ground Access Door Repairs
Figure 201 (Sheet 3 of 3)

REPAIR 6 - FIN ACCESS DOOR REPAIRS





DETAIL I

Fin Access Door Repairs
Figure 201 (Sheet 1 of 3)

DAMAGE	INTERIM REPAIRS [D]	PERMANENT REPAIRS		
	WET LAYUP ROOM TEMP (SRM 51-70-06)	WET LAYUP 150°F (66°C) CURE (SRM 51-70-06)	WET LAYUP 200°F (93°C) CURE (SRM 51-70-17)	250°F (121°C) CURE (SRM 51-70-07)
CRACKS	UP TO 4.0 INCHES (100 mm) LONG, REPAIR WITH PATCH AS GIVEN IN SRM 51-70-06, PAR. 5.N. [A]	CLEAN UP DAMAGE AND REPAIR AS A HOLE	CLEAN UP DAMAGE AND REPAIR AS A HOLE	CLEAN UP DAMAGE AND REPAIR AS A HOLE
HOLES	4.0 INCHES (100 mm) MAXIMUM DIA NOT TO EXCEED 30% OF SMALLEST DIMENSION ACROSS HONEYCOMB PANEL AT THE DAMAGE LOCATION. FILL WITH BMS 5-28, TYPE 7 POTTING COMPOUND AND PATCH AS GIVEN IN SRM 51-70-06, PAR. 5.N. [A]	8.0 INCHES (200 mm) MAXIMUM DIA NOT TO EXCEED 50% OF SMALLEST DIMENSION ACROSS HONEYCOMB PANEL AT THE DAMAGE LOCATION. USE TWO EXTRA PLIES FOR EACH FACESHEET REPAIRED [C]	12.0 INCHES (300 mm) MAXIMUM DIA NOT TO EXCEED 50% OF SMALLEST DIMENSION ACROSS HONEYCOMB PANEL AT THE DAMAGE LOCATION. USE TWO EXTRA PLIES FOR EACH FACESHEET REPAIRED [C]	NO SIZE LIMIT
EDGE EROSION	----------	FOR DAMAGE NOT LARGER THAN 35% OF EDGEBAND THICKNESS, REPAIR AS GIVEN IN SRM 51-70-06 PAR. 5.O. FOR LARGER DAMAGE, REPAIR AS GIVEN IN:		
		SRM 51-70-06 PAR. 5.G.	SRM 51-70-17 PAR. 4.G.	SRM 51-70-07 PAR. 5.G.
DELAMI-NATION	CUT OUT AND REPAIR AS HOLE			
NICKS AND GOUGES	IF THERE IS NO FIBER DAMAGE OR DELAMINATION, FILL NICKS OR GOUGES AS GIVEN IN SRM 51-70-06 IF YOU FIND FIBER DAMAGE OR DELAMINATION, THEN REPAIR AS A HOLE			
DENTS	UP TO 2.0 INCHES (50 mm) DIA WITH NO FIBER DAMAGE OR DELAMINATION, FILL WITH BMS 5-28, TYPE 7 POTTING COMPOUND AND PATCH AS GIVEN IN SRM 51-70-06, PAR. 5.L. [C] OVER 2.0 INCHES (50 mm) DIA OR WITH FIBER DAMAGE OR DELAMINATION, REPAIR AS A HOLE			

REPAIR DATA FOR 250°F (121°C) CURE HONEYCOMB PANELS (FIBERGLASS)
TABLE I

NOTES

- WHEN YOU USE THIS REPAIR, REFER TO:
  - AMM 51-21-01 FOR APPLICATION OF FINISHES
  - SRM 51-10-01, FOR AERODYNAMIC SMOOTHNESS REQUIREMENTS. WHERE THE DAMAGE IS MORE THAN THE LIMITS GIVEN IN SRM 51-10-01, THOUGHT SHOULD BE GIVEN TO THE LOSS OF PERFORMANCE THAT MAY OCCUR.

[A] LIMITED TO REPAIR OF DAMAGE TO ONE FACESHEET SKIN AND HONEYCOMB CORE. ONE REPAIR FOR EACH SQUARE FOOT OF AREA AND MINIMUM OF 6.0 INCHES (150 mm) (EDGE TO EDGE) FROM ANY OTHER DAMAGE, FASTENER HOLE, EDGE OF PANEL OR A MINIMUM OF 2.0 INCHES (50 mm) FROM TAPERED EDGE OF HONEYCOMB CORE

[B] INSPECT INTERIM REPAIR USING INSTRUMENTED NDT METHODS OR "TAP" TEST EVERY AIRPLANE AT "2A" CHECK. FOR "TAP" TEST, USE A SOLID METAL DISK AND TAP THE REPAIR AREA LIGHTLY BUT FIRMLY. VOID AREAS WILL GIVE A DULL SOUND INSTEAD OF A SHARP RING THAT YOU WILL HEAR ON A SOLID BONDED AREA. PERMANENT REPAIR IS REQUIRED IF ANY DETERIORATION IS EVIDENT. REFER TO SRM 51-70-03, PAR. 4.I. AND THE NONDESTRUCTIVE TEST MANUAL [D]

[C] ONE REPAIR FOR EACH SQUARE FOOT OF AREA AND A MINIMUM OF 6.0 INCHES (150 mm) (EDGE TO EDGE) FROM ANY OTHER DAMAGE, FASTENER HOLE, EDGE OF PANEL, OR A MINIMUM OF 2.0 INCHES (50 mm) FROM TAPERED EDGE OF HONEYCOMB CORE

[D] THIS REPAIR HAS FAA APPROVAL ONLY IF YOU DO THE INSPECTIONS GIVEN IN THIS REPAIR

Fin Access Door Repairs
Figure 201 (Sheet 2 of 3)

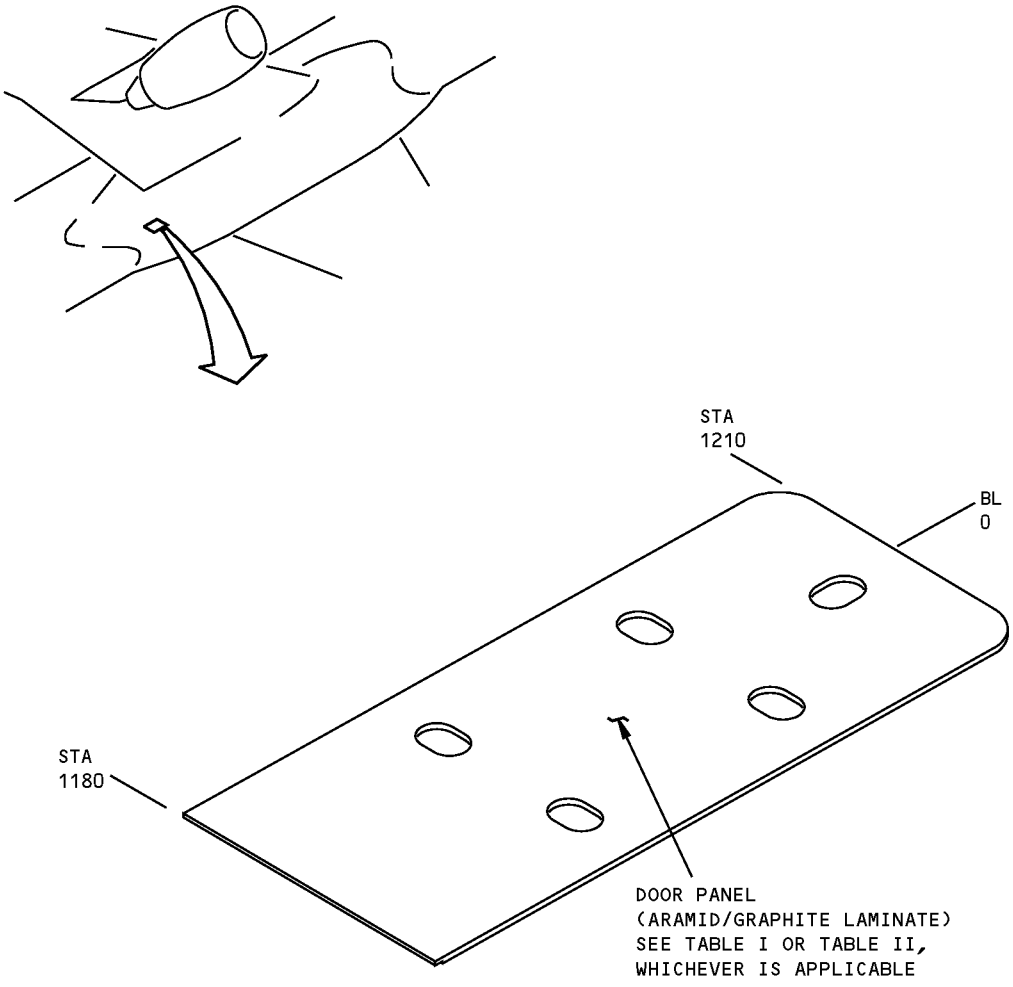
DAMAGE	INTERIM REPAIRS [B]	PERMANENT REPAIRS	
	ROOM TEMP (SRM 51-70-06)	WET LAYUP - 200°F (93°C) CURE (SRM 51-70-17)	250°F (121°C) CURE (SRM 51-70-07)
HOLES AND PUNCTURES	REPAIR DAMAGE TO FASTENER HOLES AS GIVEN IN SRM 51-70-06, PAR. 5.K. FOR ALL OTHER DAMAGE, USE A PERMANENT REPAIR PROCEDURE. FOR ALL OTHER DAMAGE UP TO 10% OF THE EDGEBAND LENGTH, REPAIR AS GIVEN IN SRM 51-70-06, PAR. 5.G.	REPAIR DAMAGE TO FASTENER HOLES AS GIVEN IN SRM 51-70-17, PAR. 4.K. FOR ALL OTHER DAMAGE, REPAIR AS GIVEN IN SRM 51-70-17, PAR. 4.G.	REPAIR DAMAGE TO FASTENER HOLES AS GIVEN IN SRM 51-70-07, PAR. 5.K. FOR ALL OTHER DAMAGE, REPAIR AS GIVEN IN SRM 51-70-07, PAR. 5.G.
DELAM-INATION	IF DELAMINATION FROM PANEL EDGE IS NO LESS THAN 2D FROM ANY FASTENER HOLE, REPAIR AS GIVEN IN SRM 51-70-06, PAR. 5.A.(2). ANY OTHER DELAMINATION MUST BE CUT OUT AND REPAIRED AS A HOLE	CUT OUT AND REPAIR AS A HOLE	CUT OUT AND REPAIR AS A HOLE
CRACKS	REPAIR AS A HOLE		
NICKS AND GOUGES	IF THERE IS NO FIBER DAMAGE OR DELAMINATION, FILL NICKS OR GOUGES AS GIVEN IN SRM 51-70-06 IF YOU FIND FIBER DAMAGE OR DELAMINATION, THEN REPAIR AS A HOLE OR DELAMINATION, WHICHEVER IS APPLICABLE		
DENTS	IF THERE IS NO FIBER DAMAGE OR DELAMINATION, FILL DENTS AS GIVEN IN SRM 51-70-06 IF YOU FIND FIBER DAMAGE OR DELAMINATION, REPAIR AS A HOLE OR DELAMINATION, WHICHEVER IS APPLICABLE		

REPAIR DATA FOR EDGEBANDS OF 250°F (121°C) CURE HONEYCOMB PANELS (FIBERGLASS)
TABLE II

Fin Access Door Repairs
Figure 201 (Sheet 3 of 3)

REPAIR 7 - TOILET DRAIN ACCESS DOOR REPAIRS

REF DWG
149N7702



Toilet Drain Access Door Repairs
Figure 201 (Sheet 1 of 3)

DAMAGE	INTERIM REPAIRS [B]	PERMANENT REPAIRS		
	WET LAYUP ROOM TEMP (SRM 51-70-03)	WET LAYUP 150°F (66°C) CURE (SRM 51-70-03)	WET LAYUP 200°F (93°C) CURE (SRM 51-70-17)	250°F (121°C) CURE (SRM 51-70-05)
CRACKS	UP TO 2.0 INCHES (50 mm) LONG, REPAIR WITH PATCH AS GIVEN IN SRM 51-70-03, PAR. 5.N. [A]	CLEAN UP DAMAGE AND REPAIR AS A HOLE	CLEAN UP DAMAGE AND REPAIR AS A HOLE	CLEAN UP DAMAGE AND REPAIR AS A HOLE
HOLES	2.0 INCHES (50 mm) MAXIMUM DIA NOT TO EXCEED 30% OF SMALLEST DIMENSION ACROSS HONEYCOMB PANEL AT THE DAMAGE LOCATION. FILL WITH BMS 5-28, TYPE 7 POTTING COMPOUND AND PATCH AS GIVEN IN SRM 51-70-03, PAR. 5.N. [A]	5.0 INCHES (125 mm) MAXIMUM DIA NOT TO EXCEED 50% OF SMALLEST DIMENSION ACROSS HONEYCOMB PANEL AT THE DAMAGE LOCATION. USE TWO EXTRA PLIES FOR EACH SIDE [A]	10.0 INCHES (250 mm) MAXIMUM DIA NOT TO EXCEED 50% OF SMALLEST DIMENSION ACROSS HONEYCOMB PANEL AT THE DAMAGE LOCATION. USE TWO EXTRA PLIES FOR EACH SIDE	NO SIZE LIMIT
DELAMI-NATION	CUT OUT AND REPAIR AS A HOLE			
NICKS AND GOUGES	IF THERE IS NO FIBER DAMAGE OR DELAMINATION, FILL NICKS OR GOUGES AS GIVEN IN SRM 51-70-03 IF YOU FIND FIBER DAMAGE OR DELAMINATION, THEN REPAIR AS A HOLE			
DENTS	UP TO 2.0 INCHES (50 mm) DIA WITH NO FIBER DAMAGE OR DELAMINATION, FILL WITH BMS 5-28, TYPE 7 POTTING COMPOUND AND PATCH AS GIVEN IN SRM 51-70-03, PAR. 5.L. [A] OVER 2.0 INCHES (50 mm) DIA OR WITH FIBER DAMAGE OR DELAMINATION, REPAIR AS HOLE			

REPAIR DATA FOR 250°F (121°C) CURE LAMINATE
(GRAPHITE AND/OR ARAMID)
TABLE I

NOTES

- WHEN YOU USE THIS REPAIR, REFER TO:
  - AMM 51-21-01 FOR APPLICATION OF FINISHES
  - SRM 51-10-01, FOR AERODYNAMIC SMOOTHNESS REQUIREMENTS. WHERE THE DAMAGE IS MORE THAN THE LIMITS GIVEN IN SRM 51-10-01, THOUGHT SHOULD BE GIVEN TO THE LOSS OF PERFORMANCE THAT MAY OCCUR.

[A] ONE REPAIR FOR EACH SQUARE FOOT (930 SQUARE cm) OF AREA AND A MINIMUM OF 3.0 INCHES (75 mm) (EDGE TO EDGE) FROM ANY OTHER DAMAGE, FASTENER HOLE, OR EDGE OF PANEL

[B] INSPECT INTERIM REPAIR USING INSTRUMENTED NDT METHODS OR "TAP" TEST EVERY AIRPLANE AT "2A" CHECK. FOR "TAP" TEST, USE A SOLID METAL DISK AND TAP THE REPAIR AREA LIGHTLY BUT FIRMLY. VOID AREAS WILL GIVE A DULL SOUND INSTEAD OF A SHARP RING THAT YOU WILL HEAR ON A SOLID BONDED AREA. PERMANENT REPAIR IS REQUIRED IF ANY DETERIORATION IS FOUND. REFER TO SRM 51-70-03, PAR. 4.I. AND THE NONDESTRUCTIVE TEST MANUAL [C]

[C] THIS REPAIR HAS FAA APPROVAL ONLY IF YOU DO THE INSPECTIONS GIVEN IN THIS REPAIR

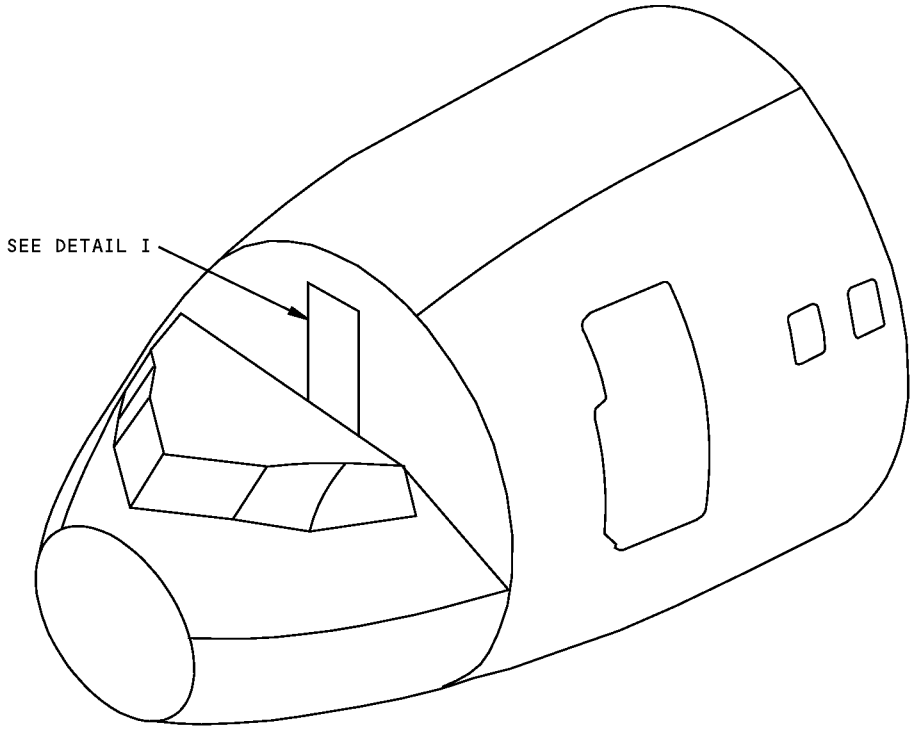
Toilet Drain Access Door Repairs
Figure 201 (Sheet 2 of 3)

DAMAGE	INTERIM REPAIRS [B]	PERMANENT REPAIRS	
	ROOM TEMP (SRM 51-70-03)	WET LAYUP - 200°F (93°C) CURE (SRM 51-70-17)	250°F (121°C) CURE (SRM 51-70-05)
HOLES AND PUNCTURES	REPAIR DAMAGE TO FASTENER HOLES AS GIVEN IN SRM 51-70-03, PAR. 5.K. FOR ALL OTHER DAMAGE UP TO 10% OF THE EDGEBAND LENGTH, REPAIR AS GIVEN IN SRM 51-70-03, PAR. 5.G.	REPAIR DAMAGE TO FASTENER HOLES AS GIVEN IN SRM 51-70-17, PAR. 4.K. FOR ALL OTHER DAMAGE, REPAIR AS GIVEN IN SRM 51-70-17, PAR. 4.G.	REPAIR DAMAGE TO FASTENER HOLES AS GIVEN IN SRM 51-70-05, PAR. 5.K. FOR ALL OTHER DAMAGE, REPAIR AS GIVEN IN SRM 51-70-05, PAR. 5.G.
DELAM-INATION	IF DELAMINATION FROM PANEL EDGE IS NO LESS THAN 2D FROM ANY FASTENER HOLE, REPAIR AS GIVEN IN SRM 51-70-03, PAR. 5.A.(2). ANY OTHER DELAMINATION MUST BE CUT OUT AND REPAIRED AS A HOLE	CUT OUT AND REPAIR AS A HOLE	CUT OUT AND REPAIR AS A HOLE
EDGE EROSION	-------	FOR DAMAGE NOT LARGER THAN 35% OF EDGEBAND THICKNESS, REPAIR AS GIVEN IN SRM 51-70-03, PAR. 5.O. FOR LARGER DAMAGE, REPAIR AS GIVEN IN:	
		SRM 51-70-17, PAR. 4.G.	SRM 51-70-05, PAR. 5.G.
CRACKS	REPAIR AS A HOLE		
NICKS AND GOUGES	IF THERE IS NO FIBER DAMAGE OR DELAMINATION, FILL NICKS OR GOUGES AS GIVEN IN SRM 51-70-03 IF YOU FIND FIBER DAMAGE OR DELAMINATION, THEN REPAIR AS A HOLE OR DELAMINATION, WHICHEVER IS APPLICABLE		
DENTS	IF THERE IS NO FIBER DAMAGE OR DELAMINATION, FILL DENTS AS GIVEN IN SRM 51-70-03 IF YOU FIND FIBER DAMAGE OR DELAMINATION, THEN REPAIR AS A HOLE OR DELAMINATION, WHICHEVER IS APPLICABLE		

REPAIR DATA FOR EDGEBANDS OF 250°F (121°C) CURE LAMINATES
(GRAPHITE AND/OR ARAMID)
TABLE II

Toilet Drain Access Door Repairs
Figure 201 (Sheet 3 of 3)

IDENTIFICATION 1 - FLIGHT DECK DOOR STRUCTURE

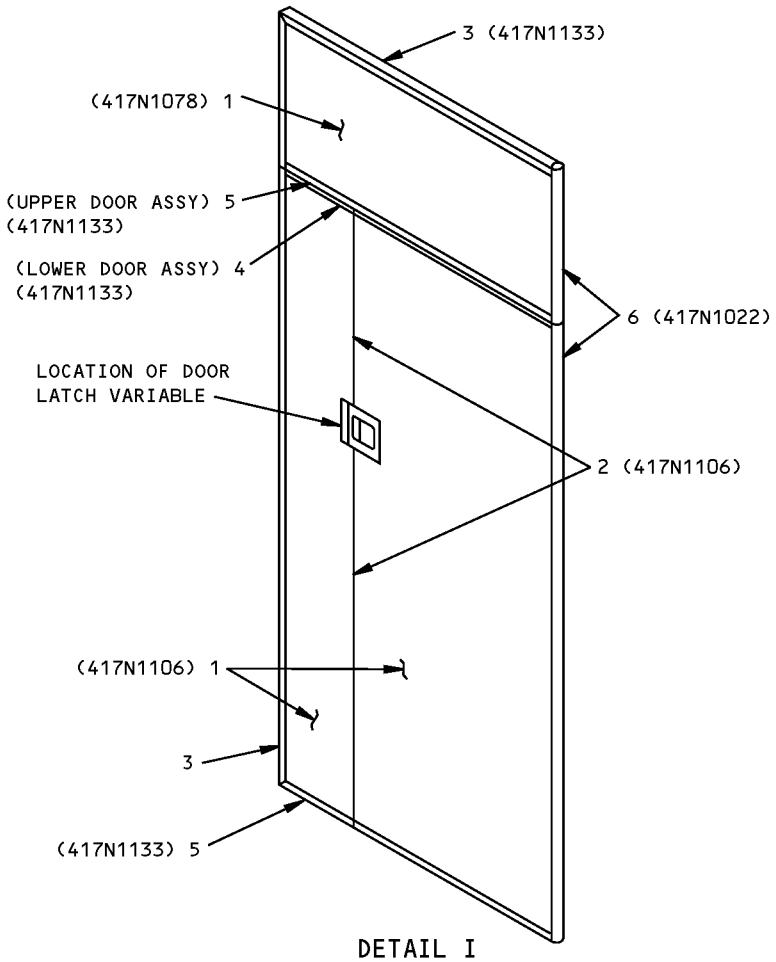


NOTES

[A] FOR CUM LINE NUMBERS:
9, 10, 11, 13, 16, 17, 24, 27, 29, 31,
34, 35, 36, 37, 39, 41, 87, 88, 93,
(BOEING REF NO.: NA220 THRU NA399)

Flight Deck Door Structure
Figure 1 (Sheet 1 of 2)

REF DWG
417N1076



DETAIL I

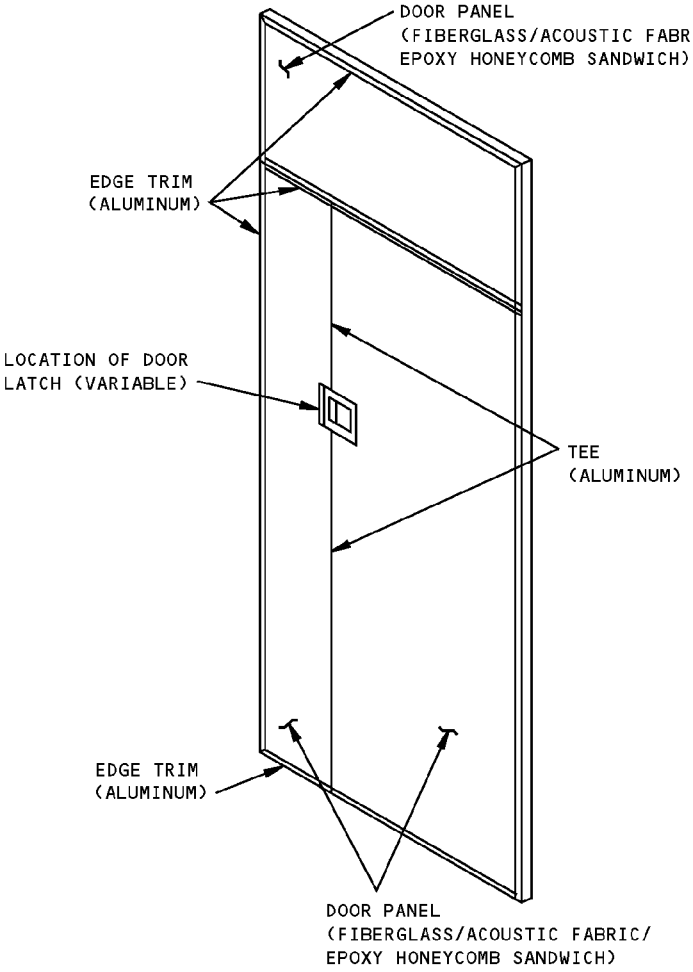
ITEM	DESCRIPTION	GAGE	MATERIAL	EFFECTIVITY
1	DOOR PANEL OUTER FWD SKIN INNER FWD SKIN CORE AFT SKIN		NONMETALLIC/FIBERGLASS HONEYCOMB SANDWICH ACOUSTIC FABRIC PER BMS 8-64, TYPE I FIBERGLASS PER BMS 8-151, TYPE IV, STYLE 8800 NOMEX HONEYCOMB PER BMS 8-124, TYPE V, CLASS IV, GRADE 3.0 FIBERGLASS PER BMS 8-151, TYPE I, STYLE 8800	
2	TEE		BAC1505-11 2024-T3511	A
3	TRIM		BAC1509-100151 6063-T5	
4	TRIM		BAC1490-2727 2024-T3	
5	TRIM		BAC1518-308 6063-T5	
6	DOOR POST COVER	0.032	2024-T3	

LIST OF MATERIALS FOR DETAIL I

Flight Deck Door Structure
Figure 1 (Sheet 2 of 2)

ALLOWABLE DAMAGE 1 - ALLOWABLE DAMAGE - FLIGHT DECK DOOR STRUCTURE

REF DWG
417N1076



DESCRIPTION	CRACKS	NICKS, GOUGES AND CORROSION	DENTS	HOLES AND PUNCTURES	DELAMINATION
DOOR PANELS	[A]	[B]	[C]	[A]	[A]
TEE	[E]	[F]	NOT ALLOWED	NOT ALLOWED	——
EDGE TRIM	[E]	[F]	SEE DETAIL IV	[G]	——

Allowable Damage - Flight Deck Door Structure
Figure 101 (Sheet 1 of 4)

NOTES

- REFINISH REWORKED AREAS PER 51-20 OF THE MAINTENANCE MANUAL
- REFER TO SRM 51-10-02 FOR INSPECTION AND REMOVAL OF DAMAGE
- THE ALLOWABLE DAMAGE LIMITS CONTAINED HEREIN APPLY ONLY TO THE STRUCTURAL INTEGRITY OF THE DOOR. REWORK TO RESTORE ACOUSTIC PROPERTIES AND/OR COSMETIC APPEARANCE OF THE DOOR SHALL BE AN OPERATOR OPTION

[A] DAMAGE TO SKIN PANEL EDGES MAY BE A COMBINATION OF EDGE DELAMINATION AND/OR CRACKS, GOUGES, ETC. WHICH CAN RESULT IN FIBER DAMAGE AND A LOSS OF CROSS-SECTIONAL AREA. REMOVE EDGE DAMAGE PER DETAILS I. 2.0 INCHES (50 mm) MAX DIA ALLOWED FOR SINGLE DAMAGE SITE IN HONEYCOMB AREA. MULTIPLE DAMAGE SITES MUST NOT BE CLOSER THAN A MINIMUM OF a/D = 3.0. SEE DETAIL V FOR DAMAGE CRITERIA. DAMAGE ALLOWED TO ONE SURFACE AND HONEYCOMB CORE ONLY. PROTECT DAMAGE NOT REWORKED PER [D]

[B] DAMAGE ALLOWED ON SURFACE RESIN ONLY WITH NO FIBER DAMAGE. CLEAN UP EDGE DAMAGE PER DETAILS I. REFER TO [A] FOR FIBER DAMAGE IN OTHER AREAS

[C] DENTS RESULT IN DELAMINATION AND FIBER DAMAGE AND MUST BE TREATED AS A HOLE OR PUNCTURE DAMAGE

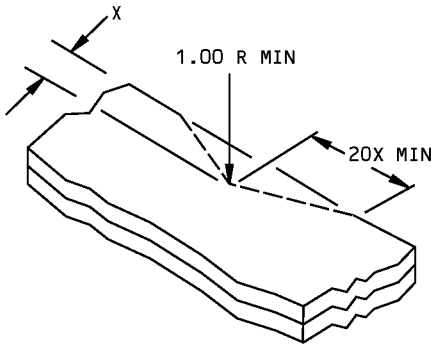
[D] REMOVE MOISTURE FROM DAMAGE AREA. USE OF VACUUM AND HEAT (MAX OF 125°F (52°C)) TO REMOVE MOISTURE FROM HONEYCOMB CELLS IS RECOMMENDED. PROTECT DAMAGE FROM ENTRANCE OF WATER, SUNLIGHT OR OTHER FOREIGN MATTER BY SEALING WITH ALUMINUM FOIL TAPE (SPEED TAPE). RECORD THE LOCATION AND INSPECT EVERY AIRPLANE "A" CHECK. REPLACE THE ALUMINUM FOIL TAPE IF ANY PEELING OR DETERIORATION EVIDENT. REPAIR NO LATER THAN NEXT AIRPLANE "C" CHECK. [H]

[E] CRACKS NOT ALLOWED EXCEPT FOR EDGE CRACKS WHICH MUST BE REMOVED PER DETAIL II

[F] REMOVE DAMAGE PER DETAILS II AND III

[G] CLEAN OUT HOLE OR PUNCTURE DAMAGE UP TO 0.25 INCH (6 mm) DIAMETER. FILL HOLE WITH BMS 5-95 SEALANT

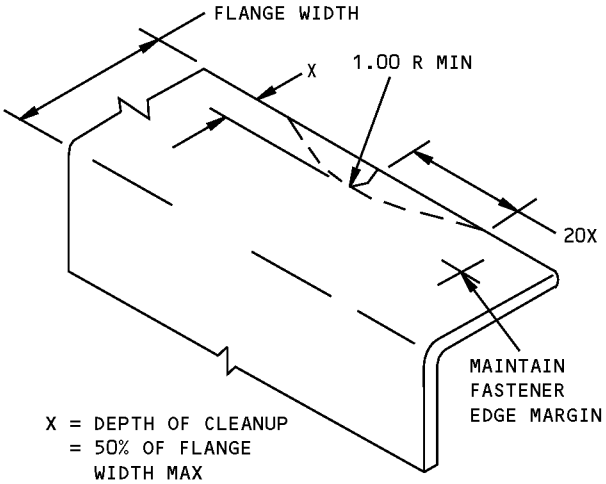
[H] THESE ALLOWABLE DAMAGE LIMITS HAVE FAA APPROVAL CONTINGENT ON ACCOMPLISHMENT OF THE INSPECTIONS CONTAINED HEREIN



X = DEPTH OF CLEANUP = 0.25 MAX

REMOVAL OF NICK OR CRACK DAMAGE ON AN EDGE

DETAIL I

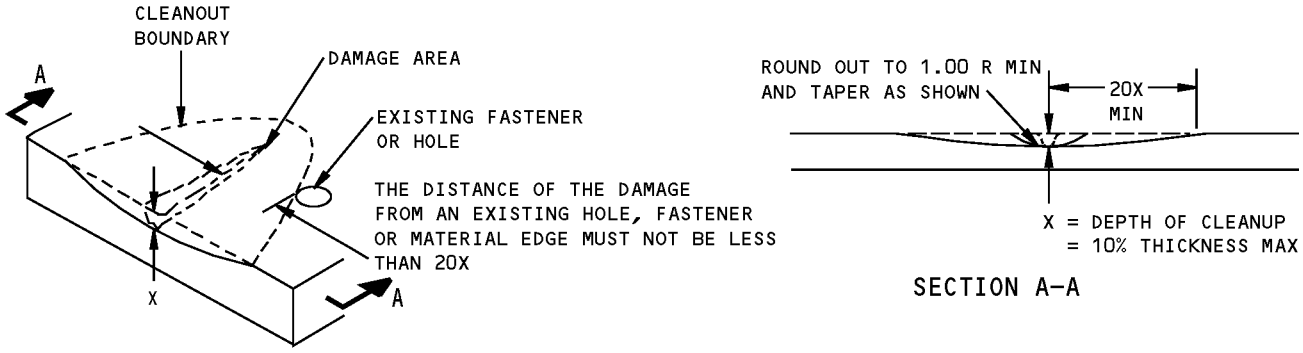


X = DEPTH OF CLEANUP
= 50% OF FLANGE WIDTH MAX

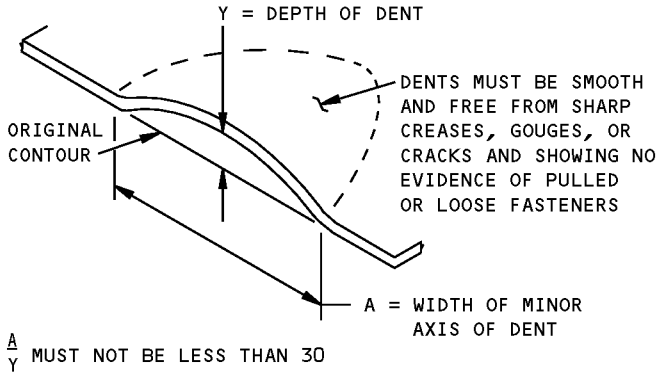
REMOVAL OF NICK OR CRACK DAMAGE ON AN EDGE

DETAIL II

Allowable Damage - Flight Deck Door Structure
Figure 101 (Sheet 2 of 4)

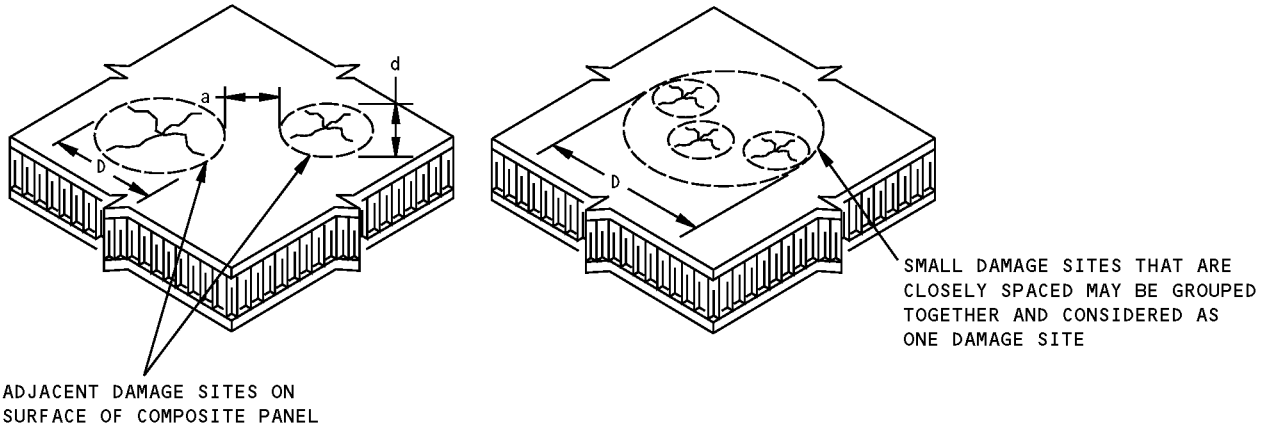


REMOVAL OF NICK, GOUGE AND SCRATCH DAMAGE ON A SURFACE
DETAIL III



DENT ALLOWABLE DAMAGE
DETAIL IV

Allowable Damage - Flight Deck Door Structure
Figure 101 (Sheet 3 of 4)



- DAMAGE TO COMPOSITE PANELS EXPOSED TO MULTIPLE IMPACTS, I.E., HAIL DAMAGE, CAN BE DETECTED BY USING INSTRUMENTED NON-DESTRUCTIVE INSPECTION METHODS OR BY TAPPING THE SUSPECTED DAMAGE AREA WITH A SMALL METALLIC DISK OBJECT. INSPECTION SHOULD COVER THE AREA WITHIN 3 DIAMETERS AROUND THE EDGE OF THE VISIBLE DAMAGE SITE. FOR TAP TEST, USE A SOLID METAL DISK AND TAP THE DAMAGE AREA LIGHTLY BUT FIRMLY. VOID AREAS SHOULD PRODUCE A DULL SOUND AS OPPOSED TO A SHARP RING ON A SOLID BONDED AREA
- DAMAGE SITE IS ANY SINGLE AREA OF A PANEL WHERE A DENT, CRACK, DELAMINATION, PUNCTURE OR ANY COMBINATION OF THESE EXIST. SMALL DAMAGE SITES THAT ARE CLOSELY SPACED MAY BE GROUPED TOGETHER AND CONSIDERED AS ONE DAMAGE SITE
- "D" IS DETERMINED BY MEASURING THE MAX DIMENSION OF A DENT, CRACK, OR OTHER DAMAGE, WHICHEVER IS GREATER
- "a" IS THE DISTANCE BETWEEN TWO ADJACENT DAMAGE SITES
- "d" IS THE MAX DIMENSION OF THE SMALLER OF TWO ADJACENT DAMAGE SITES
- CALCULATE a/D BY DIVIDING DISTANCE "a" BY DIAMETER "D"
- DAMAGE IS ALLOWED WHEN "D" IS EQUAL TO OR LESS THAN THE MAXIMUM ALLOWABLE "D" FROM TABLE I AND WHEN a/D IS EQUAL TO OR GREATER THAN THE MINIMUM a/D GIVEN IN TABLE

DAMAGE SIZING AND SPACING DATA
FOR COMPOSITE PANELS
DETAIL V

Allowable Damage - Flight Deck Door Structure
Figure 101 (Sheet 4 of 4)

REPAIR 1 - FLIGHT DECK DOOR

REPAIR INSTRUCTIONS

1. Refer to 25-00-00 of the 757 Maintenance Manual for repair of nicks and scratches, for gouges not exceeding 1.5 inches, and for repairs to BMS 8-133 urethane foam.

2. Refer to 51-70-06, figure 19 for repair of cracks up to 6.0. Restore the decorative surface per par. 4.

3. Refer to details II and III for repair to BMS 8-143 and BMS 8-151 fiberglass plies and for repair to NOMEX honeycomb core. Use BMS 9-3 Type H-2 or H-3 glass fabric. Extra repair plies are not required.

   NOTE: If this repair is used on the acoustical side, loss of acoustical attenuation may result.

4. Restore the decorative surface with a non-reinforced decorative laminate [A].

   A. Remove trim and door knob.

      NOTE: If the door panel surface has been repaired previously with the nonreinforced decorative laminate, then remove all of the old laminate before proceeding with this repair.

   B. Apply filler paste [B] to area surrounding repair patch and in all dents, scratches, nicks, gouges and low spots on entire panel surface.

   C. Allow to dry for 10 minutes before sanding.

   D. Use 180 grit sandpaper to sand filler paste flush with surface. Finish smooth with 240 grit sandpaper.

   CAUTION: DO NOT ALLOW STANDING TRICHLOROETHANE SOLVENT ON PART. DAMAGE TO PART WILL OCCUR.

   E. Wipe entire panel surface clean with MEK solvent. After the panel is dry, wipe with trichloroethane solvent.

   F. Cut the decorative laminate to fit the entire panel side that is being repaired.

   G. Remove backing slowly while applying the laminate to the panel surface.

   H. Smooth out any bubbles or wrinkles with hand as the laminate is applied.

   I. Expand the trim 0.010 if one side is repaired, to accommodate the decorative laminate. If both sides are repaired, expand trim 0.020.

   J. Reinstall trim and door knob.

NOTES

- REFER TO 51-70-06 FOR CLEANUP OF DAMAGE AND WET LAYUP CURE PROCEDURE

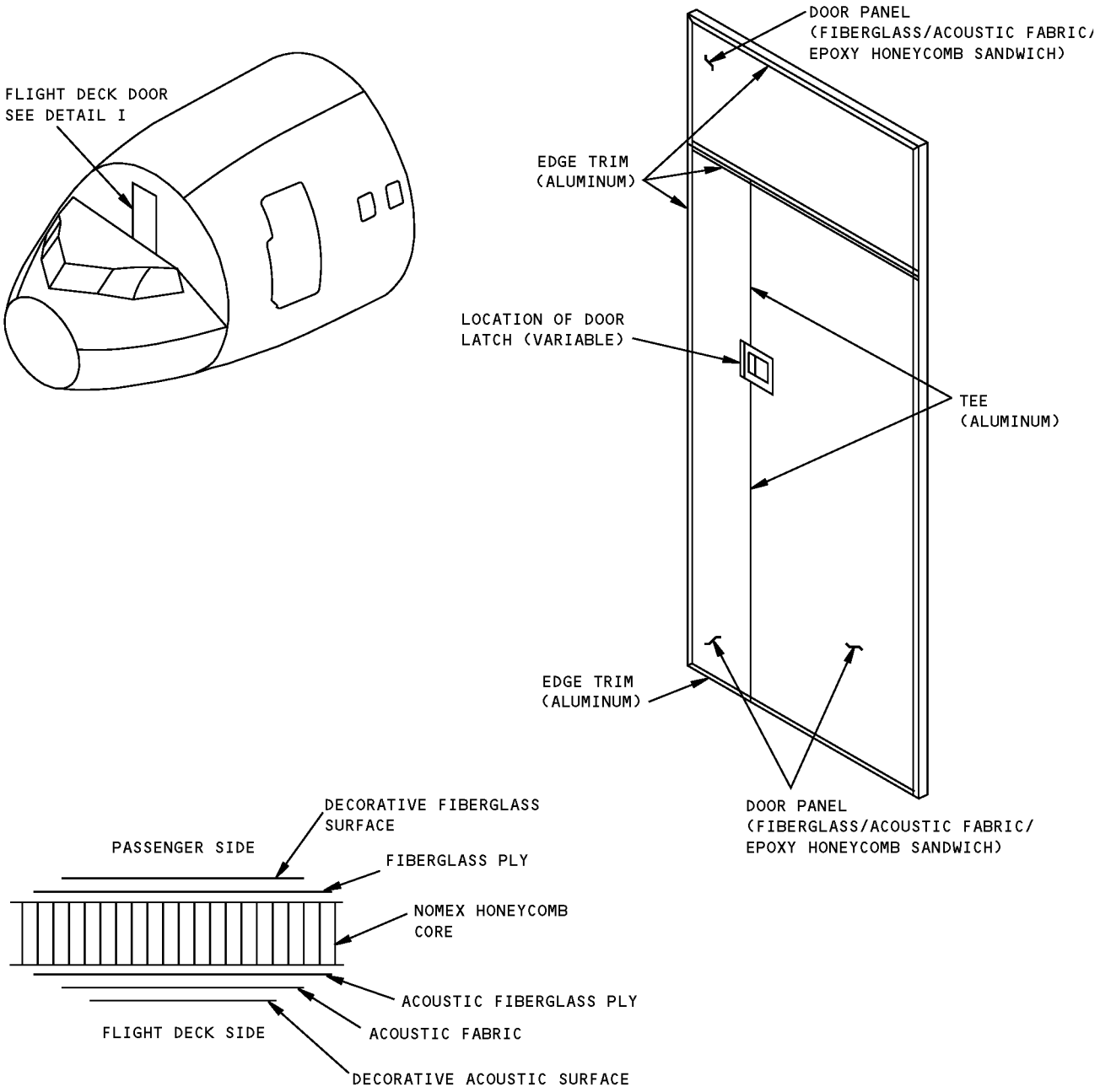
[A] OBTAIN THIS MATERIAL FROM THE BOEING COMPANY; SPECIFY BMS 8-176 WITH TEDLAR/ALUMINUM FOIL LAMINATE AND PRESSURE SENSITIVE ADHESIVE (BAC5596 TYPE III). REFER TO DWG 413T4999 FOR CUSTOMER COLOR CODES

[B] MICRO ULTRA FILLER #15-3 INDUSTRIAL FILLER PASTE

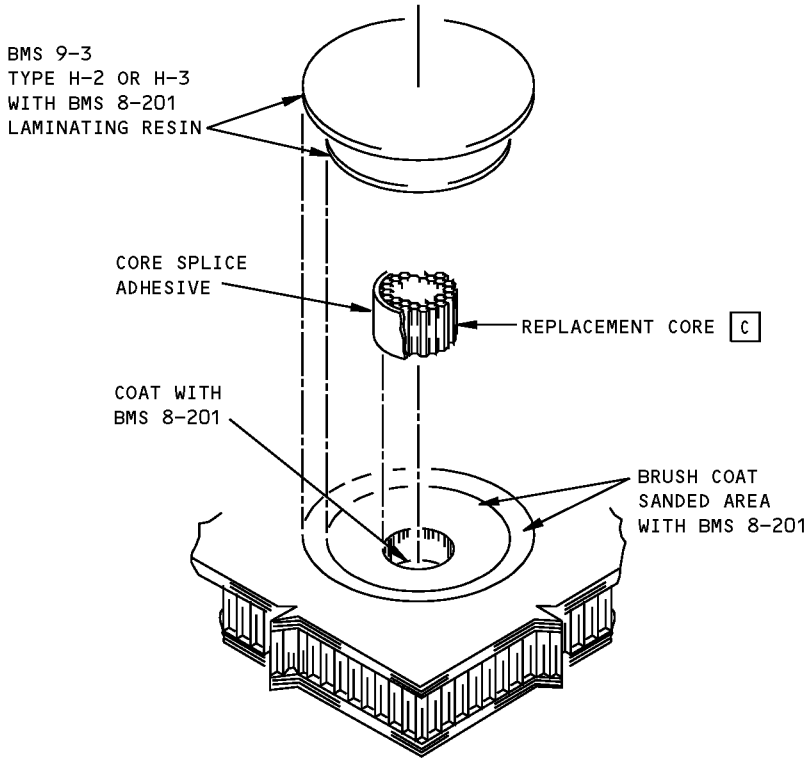
AD-TECH PLASTIC SYSTEMS CORP.
570 E. MAIN STREET
POTTERVILLE, MICHIGAN 48876

[C] CELL WALLS MUST BE ALIGNED IN THE SAME DIRECTION AS THE ORIGINAL HONEYCOMB

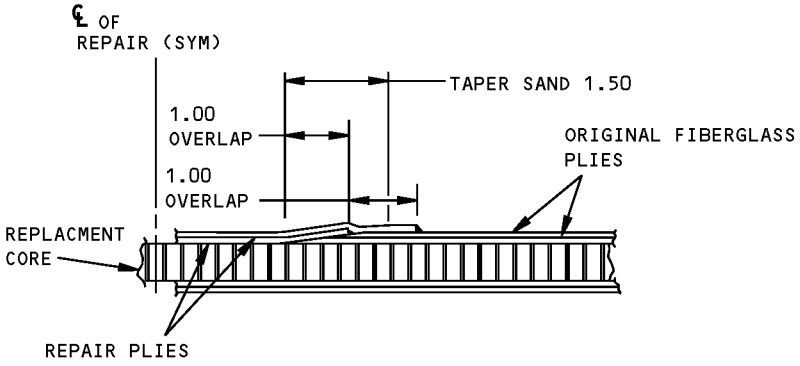
Flight Deck Door
Figure 201 (Sheet 1 of 4)



Flight Deck Door
Figure 201 (Sheet 2 of 4)



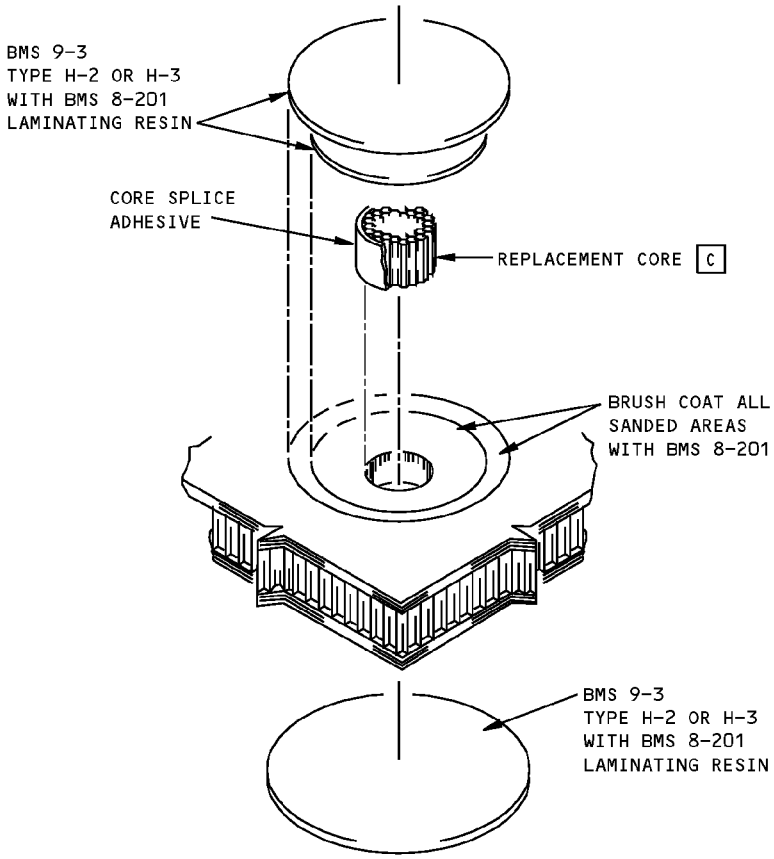
PASSENGER SIDE

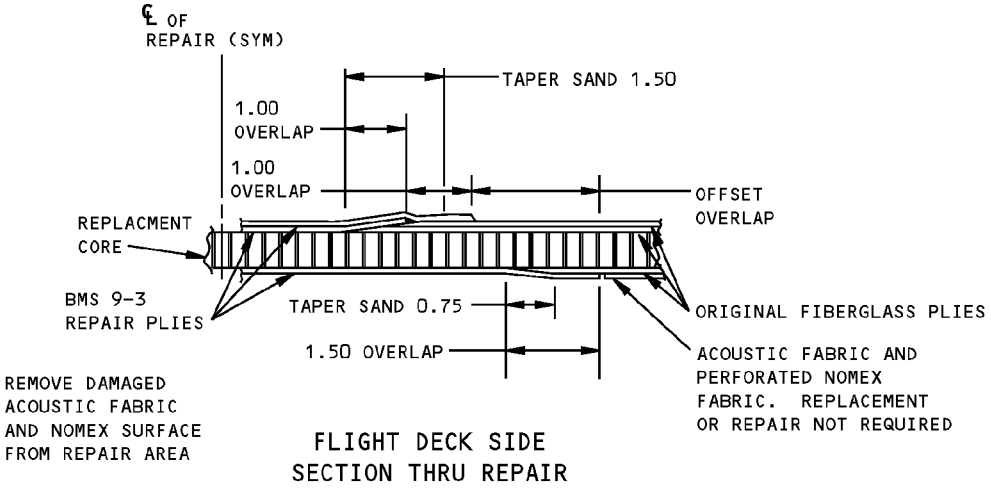


FLIGHT DECK SIDE
SECTION THRU REPAIR

REPAIR OF DAMAGE TO ONE PANEL SIDE
DETAIL II

Flight Deck Door
Figure 201 (Sheet 3 of 4)

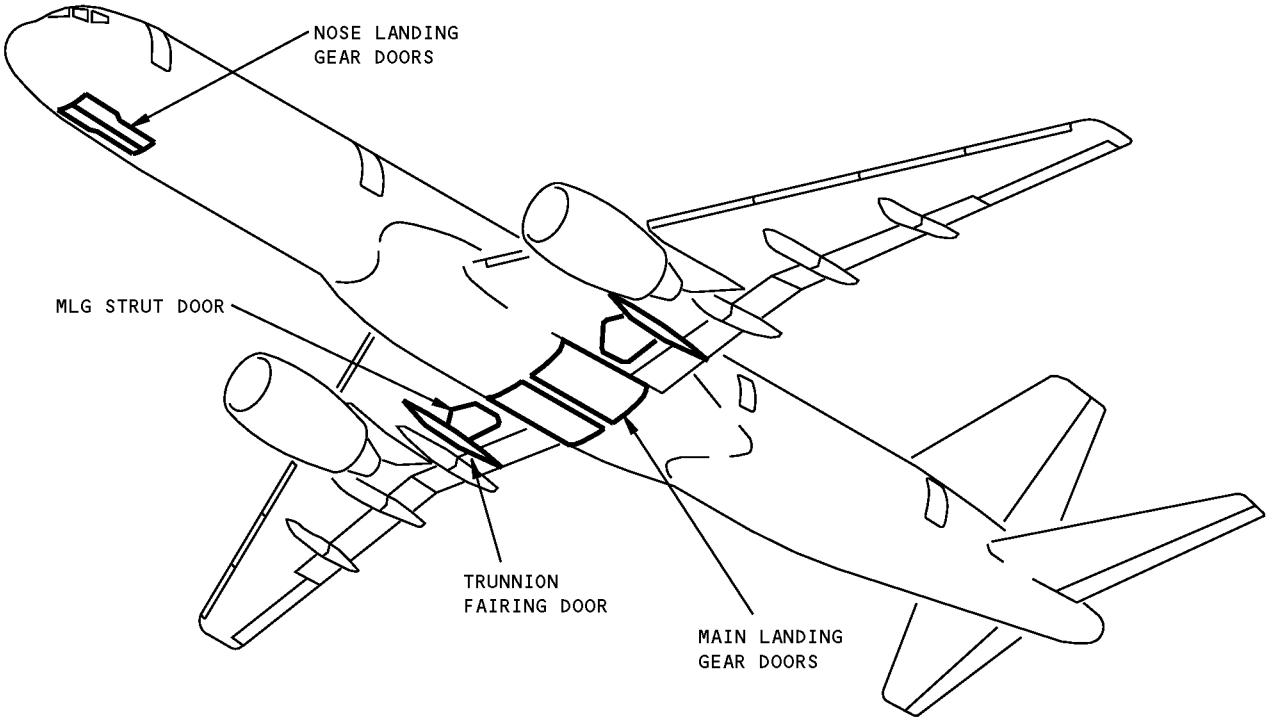




REPAIR OF DAMAGE TO BOTH PANEL SIDES
DETAIL III

Flight Deck Door
Figure 201 (Sheet 4 of 4)

GENERAL - LANDING GEAR DOOR INDEX



NOTES

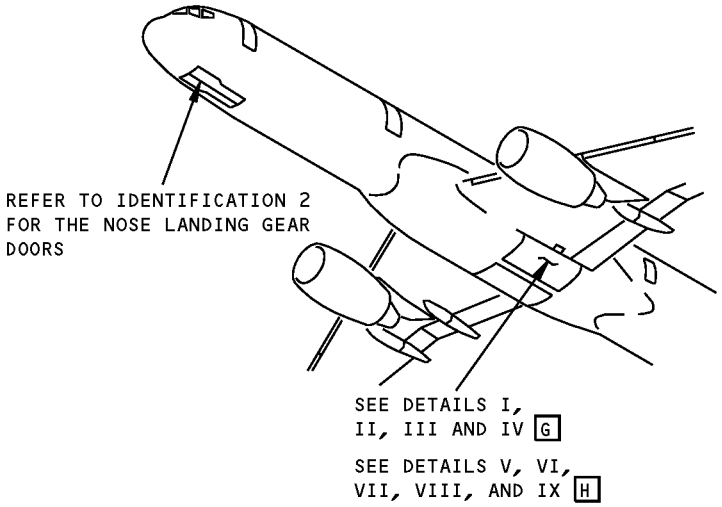
- REFER TO THE FOLLOWING IN 52-80-02
  FOR LANDING GEAR DOOR INDENTIFICATION:

  IDENTIFICATION 1 - MAIN LANDING GEAR DOORS
  IDENTIFICATION 2 - NOSE LANDING GEAR DOORS
  IDENTIFICATION 3 - MLG STRUT DOORS
  IDENTIFICATION 4 - TRUNNION FAIRING DOORS

Landing Gear Door Index
Figure 1

IDENTIFICATION 1 - MAIN LANDING GEAR DOOR

REFERENCE DRAWING
149N6002



NOTES

- CORE DENSITIES VARY.
  SEE DRAWING 149N6003 FOR CORE POSITIONS.

A PLY ORIENTATION CONVENTION, 0 DEGREES, IS PARALLEL TO THE FABRIC WARP DIRECTION.

B GRAPHITE/EPOXY FABRIC PER BMS 8-212, TYPE IV, CLASS II, STYLE 3K-70-PW.

C FOR AIRPLANES WITH CUM LINE NUMBERS: 1 THRU 36

D FOR AIRPLANES WITH CUM LINE NUMBERS: 37 AND ON

E HEAT SHIELD PLY ORIENTATIONS ARE OPTIONAL.

F HEAT SHIELD ON RH DOOR IS CENTERED AT RBL 53.75.

G FOR AIRPLANES WITH ONE-PIECE MLG DOOR AND TANG.

H FOR AIRPLANES WITH TWO-PIECE MLG DOOR AND TANG.

I GRAPHITE/EPOXY FABRIC PER BMS 8-168, TYPE II, CLASS 2, STYLE 3K-70-PW.

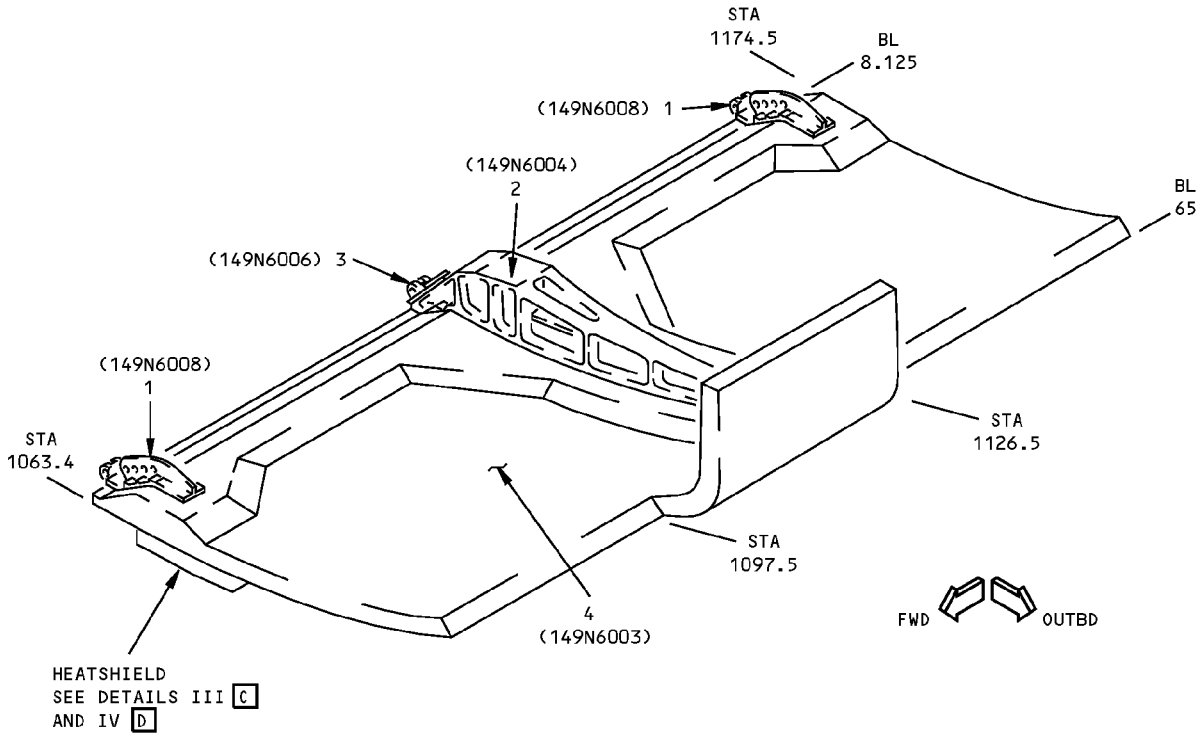
J FOR AIRPLANES WITH CUM LINE NUMBERS: 471 AND ON

K FOR AIRPLANES WITH A TWO-PIECE MLG DOOR AND TANG THAT ARE NOT LISTED IN J.

L FOR AIRPLANES WITH CUM LINE NUMBERS: 465 THRU 659 THAT HAVE INCORPORATED SB 757-52-0016 AND FOR AIRPLANES WITH CUM LINE NUMBERS: 660 AND ON

M FOR AIRPLANES WITH A TWO-PIECE MLG DOOR AND TANG THAT ARE NOT LISTED IN L.

Main Landing Gear Door
Figure 1 (Sheet 1 of 9)



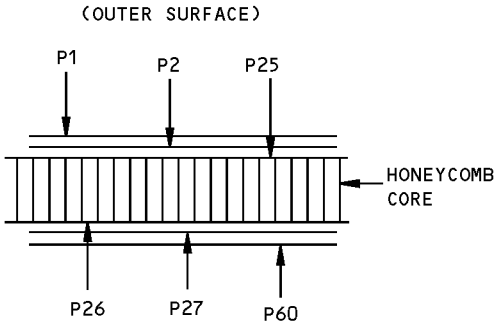
LEFT DOOR SHOWN
RIGHT DOOR SIMILAR

DETAIL I G

ITEM	DESCRIPTION	GAGE	MATERIAL	EFFECTIVITY
1	HINGE FITTING		MACHINED, FORGED BLOCK 7075-T73	
2	STRONG BACK BEAM		FORGING 7075-T73	
3	CENTER HINGE FITTING		15-5PH CRES HT TR 180-200 KSI	
4	DOOR PANEL SKINS CORE		FIBERGLASS/GRAPHITE/EPOXY HONEYCOMB SANDWICH SEE DETAIL II NONMETALLIC HONEYCOMB PER BMS 8-124, CLASS I, TYPE I, GRADE 4.0	

LIST OF MATERIALS FOR DETAIL I G

Main Landing Gear Door
Figure 1 (Sheet 2 of 9)



SECTION THRU HONEYCOMB PANEL

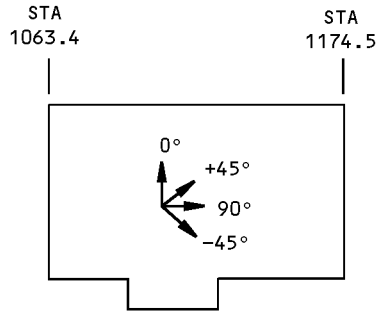


DIAGRAM OF PLY ORIENTATION. SEE PLY TABLE FOR INDIVIDUAL PLY ORIENTATION AND MATERIAL.

VIEW ON DOOR PANEL

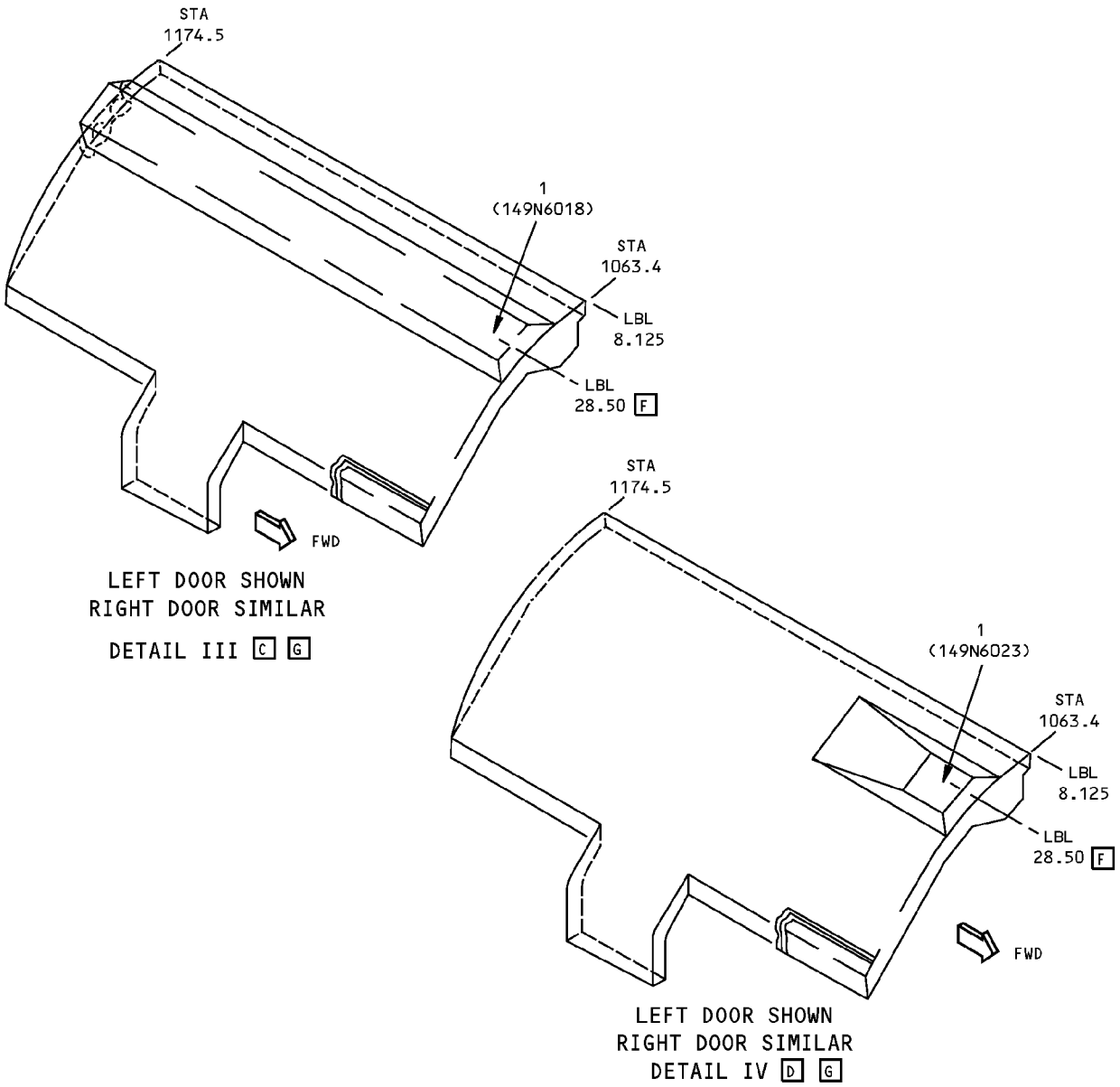
ITEM NO.	PLY NO.	MATERIAL	PLY ORIENTATION [A]
4	P1,P25,P26,P60	[B]	0° OR 90°
	P2,P27	[B]	±45°

MATERIAL AND PLY ORIENTATIONN SHOWN FOR FIELD AREAS ONLY. SEE BOEING DRAWING FOR EDGE BANDS AND AREAS WITH DOUBLERS.

PLY TABLE

DETAIL II [G]

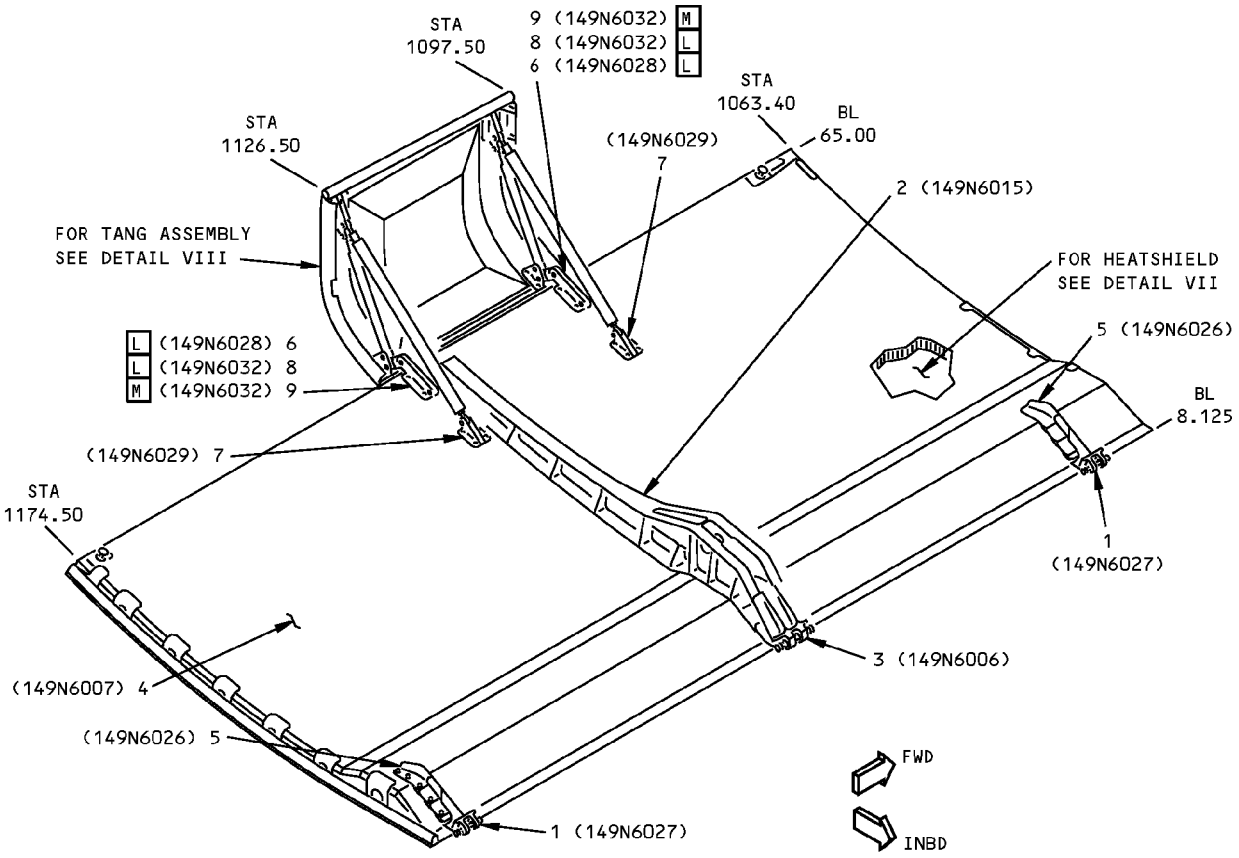
Main Landing Gear Door
Figure 1 (Sheet 3 of 9)



ITEM	DESCRIPTION	GAGE	MATERIAL	EFFECTIVITY
1	HEAT SHIELD PANEL ASSEMBLY INNER AND OUTER SKINS CORE		ONE PLY OF ARAMID/EPOXY PREPREG PER BMS 8-218, STYLE 285 BONDED TO CORE PLUS ONE PLY OF FIBER-GLASS/EPOXY PREPREG PER BMS 8-139, TYPE 120 E NONMETALLIC HONEYCOMB PER BMS 8-124, CLASS I, TYPE I, GRADE 4.0	

LIST OF MATERIALS FOR DETAILS III AND IV G

Main Landing Gear Door
Figure 1 (Sheet 4 of 9)

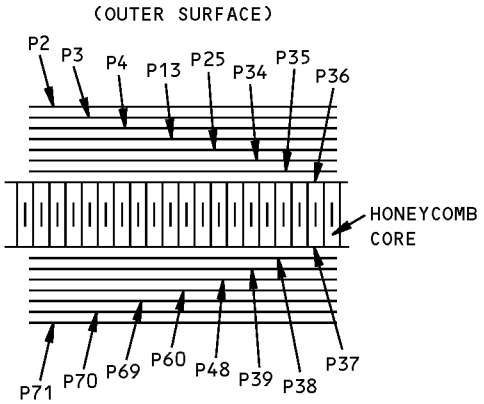


DETAIL V [H]

ITEM	DESCRIPTION	GAGE	MATERIAL	EFFECTIVITY
1	HINGE FITTING ASSEMBLY		FORGING 7075-T73	
2	STRONGBACK BEAM		FORGING 7075-T73	
3	CENTER HINGE FITTING		15-5PH CRES PER AMS 5659 HT TR TO 180-200 KSI	
4	DOOR PANEL ASSEMBLY SKINS CORE		FIBERGLASS/GRAPHITE/EPOXY HONEYCOMB SANDWICH SEE DETAIL VI NONMETALLIC HONEYCOMB PER BMS 8-124, CLASS 1, TYPE 1, GRADE 4.0	
5	HINGE FITTING		FORGING 7075-T73	
6	CLEVIS ASSEMBLY CLEVIS BASE PLATE	 0.125	 BAC1507-48821 7075-T73 EXTRUSION 15-5PH CRES SHEET HT TR TO 125-145 KSI	[L]
7	CLEVIS		BAC1507-48822 7075-T73 EXTRUSION	
8	DROP LINK		7075-T7351 PLATE	[L]
9	LINK FITTING ASSEMBLY LINK FITTING BASE PLATE	 0.125	 7075-T7351 PLATE 15-5PH CRES SHEET HT TR TO 125-145 KSI	[M]

LIST OF MATERIALS FOR DETAIL V [H]

Main Landing Gear Door
Figure 1 (Sheet 5 of 9)



SECTION THRU HONEYCOMB PANEL

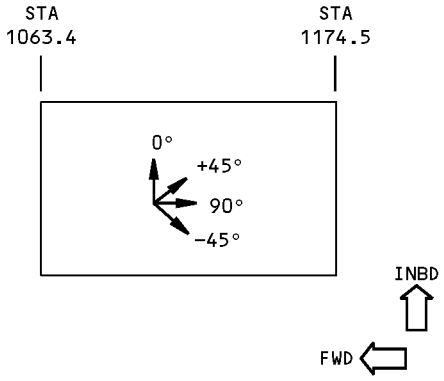


DIAGRAM OF PLY ORIENTATION.
SEE PLY TABLE FOR INDIVIDUAL
PLY ORIENTATION AND MATERIAL.

VIEW ON DOOR PANEL

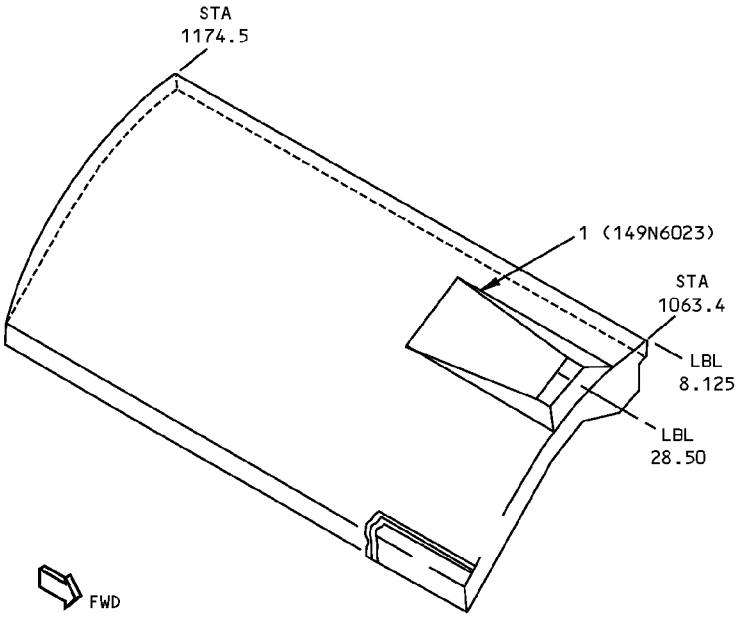
ITEM NO.	PLY NO.	MATERIAL	PLY ORIENTATION [A]
4	P2,P4,P34,P36, P37,P39,P69,P71	[B]	0° OR 90°
	P3,P13,P25,P35, P38,P48,P60,P70	[B]	±45°

MATERIAL AND PLY ORIENTATIONN SHOWN FOR THE FIELD AREAS ONLY. SEE BOEING DRAWING 149N6007 FOR EDGE BANDS AND FOR AREAS WITH DOUBLERS.

PLY TABLE

DETAIL VI [H]

Main Landing Gear Door
Figure 1 (Sheet 6 of 9)

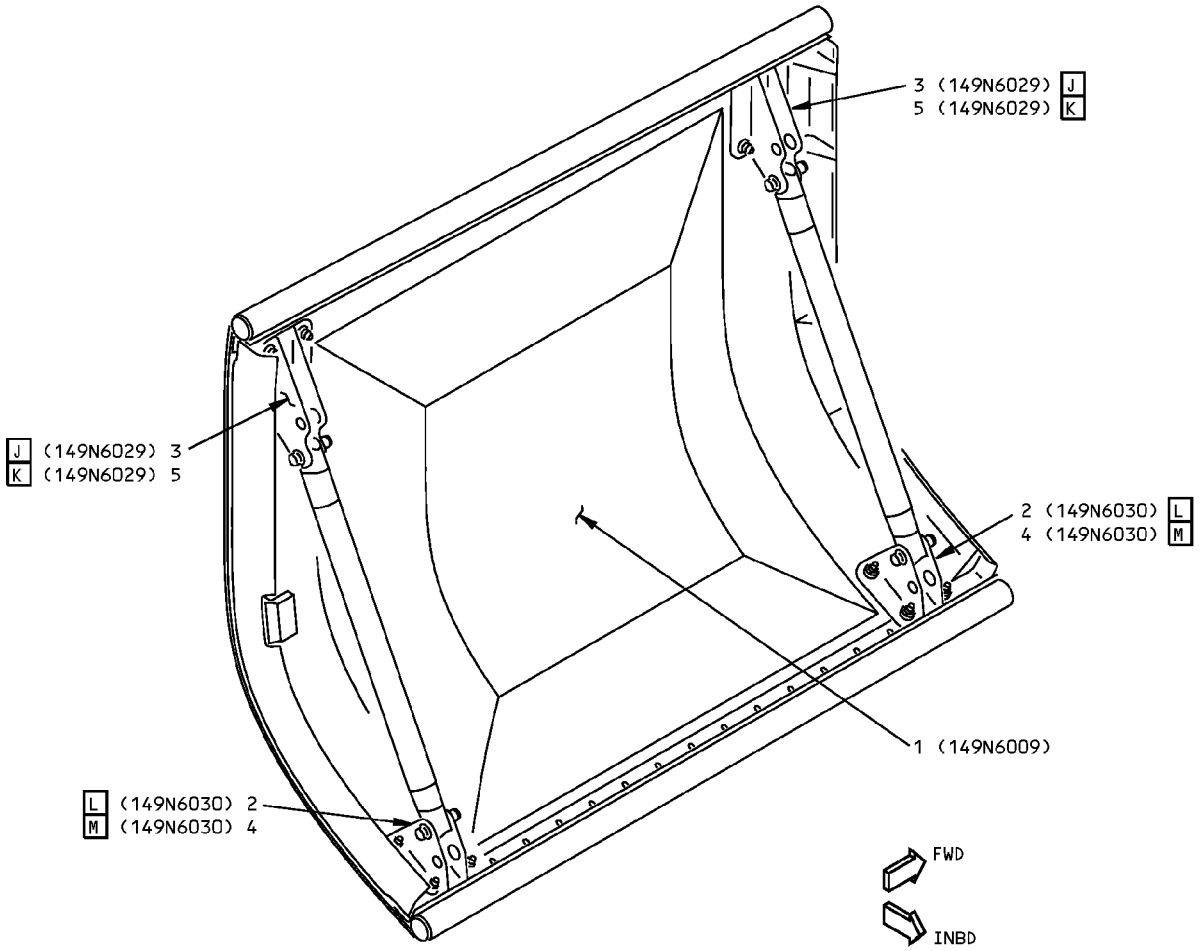


LEFT DOOR SHOWN
RIGHT DOOR SIMILAR
DETAIL VII [H]

ITEM	DESCRIPTION	GAGE	MATERIAL	EFFECTIVITY
1	HEAT SHIELD PANEL ASSEMBLY			
	INNER SKIN		TWO PLIES OF GLASS/EPOXY PREPREG PER BMS 8-139, TYPE 1581	
	OUTER SKIN		THREE PLIES OF GLASS/EPOXY PREPREG PER BMS 8-139, TYPE 1581	
	CORE		NONMETALLIC HONEYCOMB PER BMS 8-124, CLASS I, TYPE I, GRADE 4.0	

LIST OF MATERIALS FOR DETAIL VII [H]

Main Landing Gear Door
Figure 1 (Sheet 7 of 9)

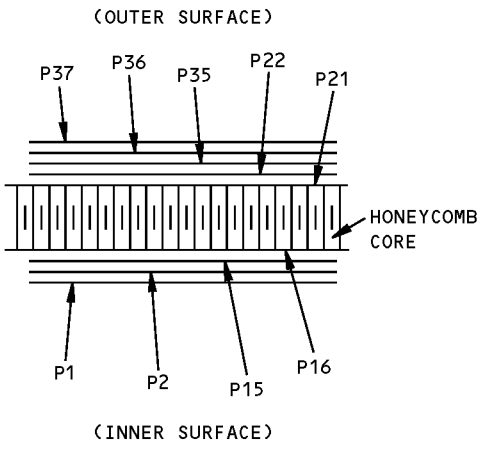


DETAIL VIII H

ITEM	DESCRIPTION	GAGE	MATERIAL	EFFECTIVITY
1	TANG ASSEMBLY INNER AND OUTER SKINS CORE		 SEE DETAIL IX NONMETALLIC HONEYCOMB PER BMS 8-124, CLASS 4, TYPE V, GRADE 3.0	
2	LOWER CLEVIS FITTING		BAC1507-48823 7075-T73 EXTRUSION	I
3	UPPER CLEVIS FITTING		BAC1507-48822 7075-T73 EXTRUSION	J
4	LOWER CLEVIS FITTING		7075-T7351 PLATE	M
5	UPPER CLEVIS FITTING		BAC1507-48822 7075-T73511 EXTRUSION	K

LIST OF MATERIALS FOR DETAIL VIII H

Main Landing Gear Door
Figure 1 (Sheet 8 of 9)



SECTION THRU HONEYCOMB PANEL

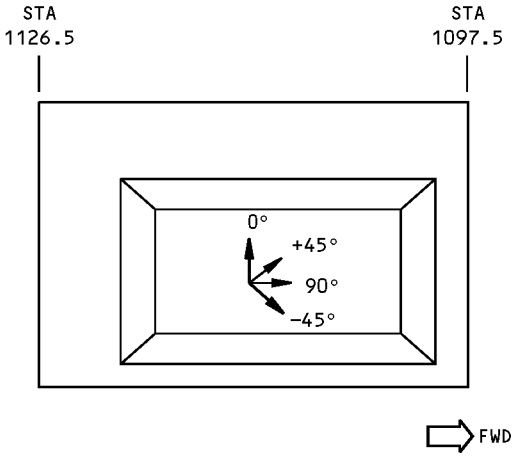


DIAGRAM OF PLY ORIENTATION.
SEE PLY TABLE FOR INDIVIDUAL
PLY ORIENTATION AND MATERIAL.

VIEW ON TANG PANEL

ITEM NO.	PLY NO.	MATERIAL	PLY ORIENTATION [A]
1	P1,P15,P22,P36	[I]	±45°
	P2,P16,P21,P35	[I]	0° OR 90°
	P37	[I]	OPTIONAL

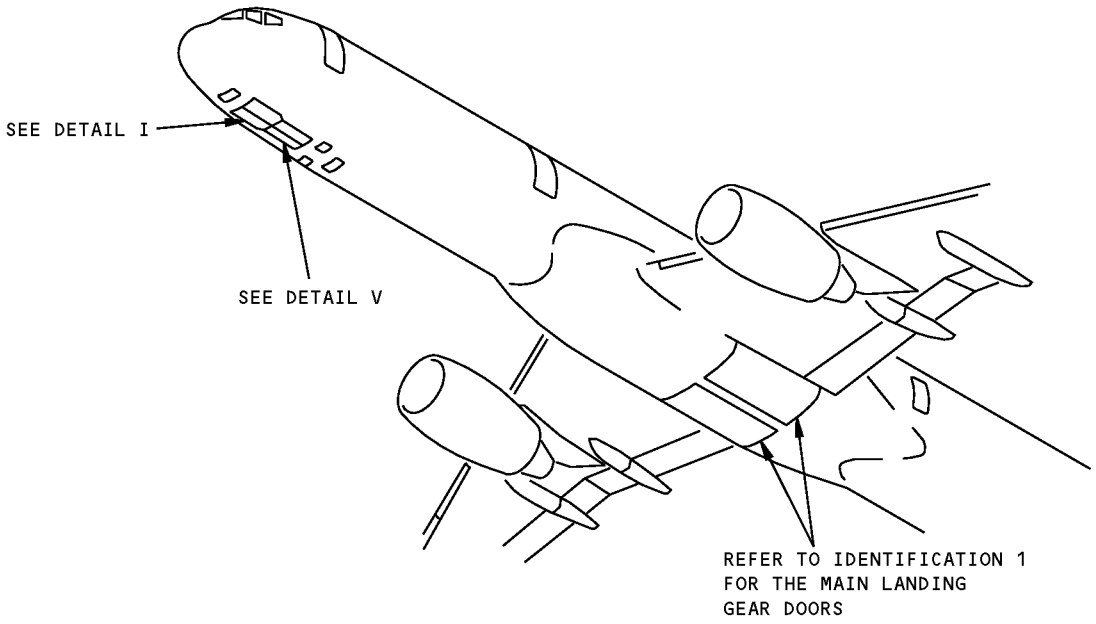
MATERIAL AND PLY ORIENTATION IS SHOWN FOR THE FIELD AREAS ONLY.
SEE BOEING DRAWING 149N6009 FOR EDGE BANDS.

PLY TABLE

DETAIL IX [H]

Main Landing Gear Door
Figure 1 (Sheet 9 of 9)

IDENTIFICATION 2 - NOSE LANDING GEAR DOOR SKIN



NOTES

[A] FOR CUM LINE NUMBERS:
1 THRU 19

[B] FOR CUM LINE NUMBERS:
20 AND ON

[C] HEAVIER DENSITY HONEYCOMB CORES INSTALLED IN AREA INDICATED

[D] PLY ORIENTATION CONVENTION, 0 DEGREES, IS PARALLEL TO THE FABRIC WARP DIRECTION

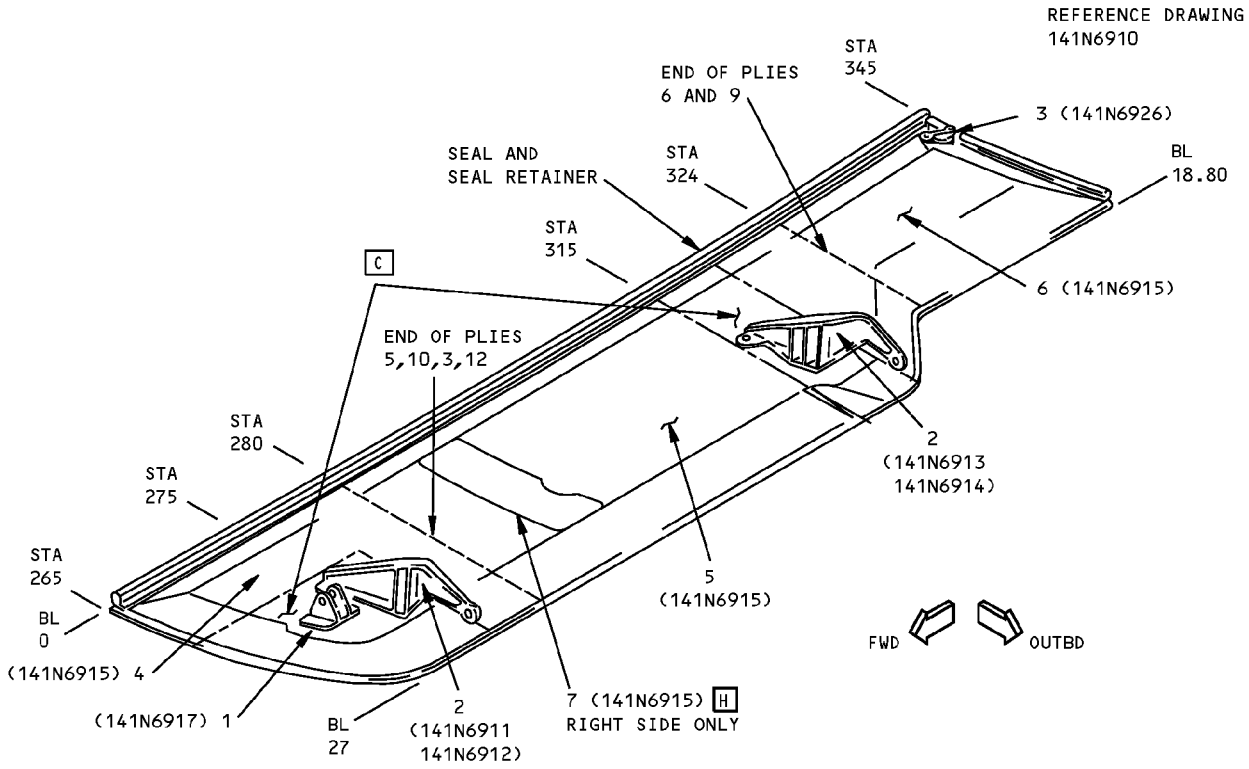
[E] ARAMID PREPREG FABRIC PER BMS 8-219, STYLE 120

[F] GRAPHITE EPOXY PREPREG FABRIC PER BMS 8-168, TYPE II, CLASS 2, STYLE 3K-70-PW

[G] FOR CUM LINE NUMBERS:
1 THRU 39

[H] FOR CUM LINE NUMBERS:
805 THRU 869

Nose Landing Gear Door
Figure 1 (Sheet 1 of 5)

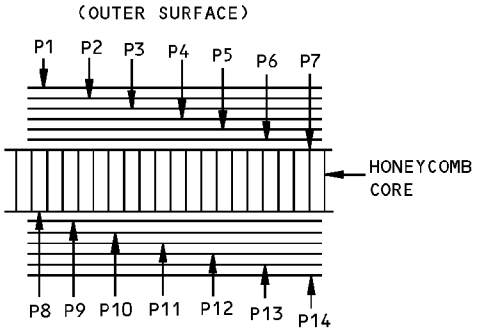


FORWARD DOOR
LEFT DOOR SHOWN
RIGHT DOOR OPPOSITE
DETAIL I

ITEM	DESCRIPTION	GAGE	MATERIAL	EFFECTIVITY
1	ROD ATTACH FITTING		FORGED BLOCK 7075-T73	
2	HINGE FITTING		FORGED BLOCK 7075-T73 DIE FORGING 7075-T73	A B
3	DOOR STOP FITTING		EXTRUDED BAR 7075-T73511	
4	DOOR PANEL SKIN CORE		GRAPHITE HYBRID HONEYCOMB SANDWICH SEE DETAIL II FIBERGLASS HONEYCOMB PER BMS 8-124, CLASS 1, TYPE 1, GRADE 4.0	
5	DOOR PANEL SKIN CORE		GRAPHITE HYBRID HONEYCOMB SANDWICH SEE DETAIL III FIBERGLASS HONEYCOMB PER BMS 8-124, CLASS 1, TYPE 1, GRADE 4.0	
6	DOOR PANEL SKIN CORE		GRAPHITE HYBRID HONEYCOMB SANDWICH SEE DETAIL IV FIBERGLASS HONEYCOMB PER BMS 8-124, CLASS 1, TYPE 1, GRADE 4.0	
7	SCUFF PLATE	0.020	301 CRES	H

LIST OF MATERIALS FOR DETAIL I

Nose Landing Gear Door
Figure 1 (Sheet 2 of 5)



SECTION THRU HONEYCOMB PANEL
DETAIL II

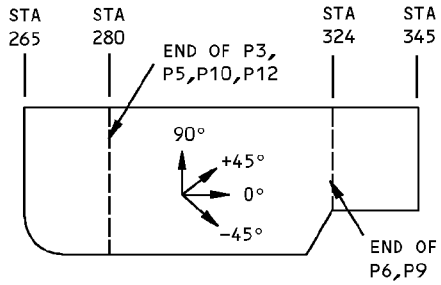
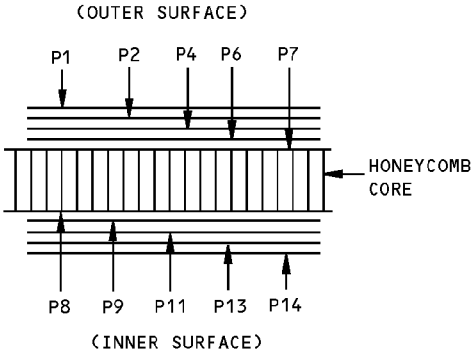
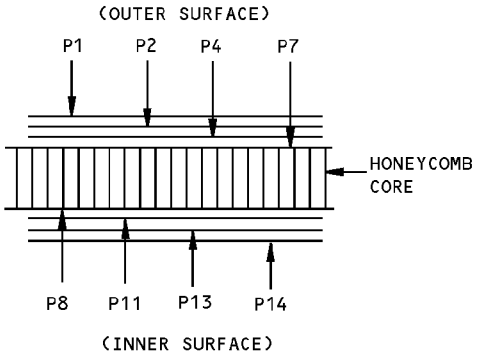


DIAGRAM OF PLY ORIENTATION. SEE PLY TABLE FOR INDIVIDUAL PLY ORIENTATION AND MATERIAL.

VIEW ON DOOR PANEL



SECTION THRU HONEYCOMB PANEL
DETAIL III



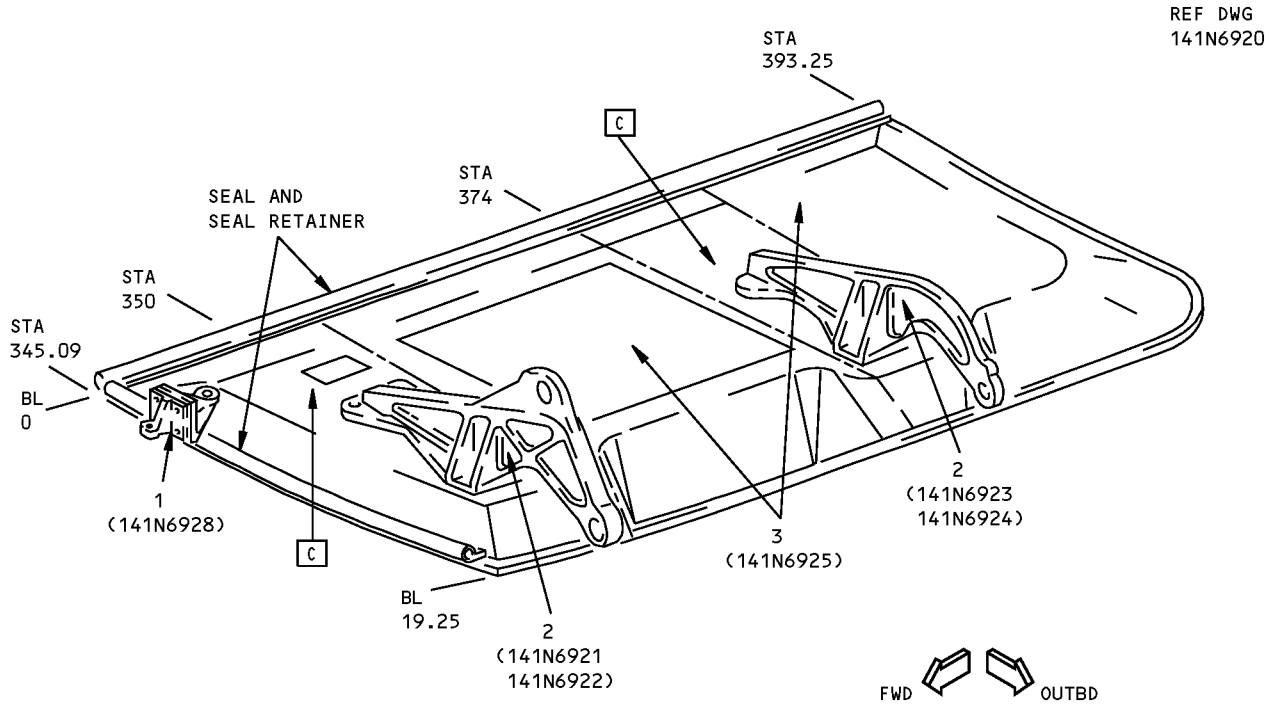
SECTION THRU HONEYCOMB PANEL
DETAIL IV

ITEM NO.	PLY NO.	MATERIAL	PLY ORIENTATION [D]
4,	1,14	[E] [G]	0°
5,	2,6,9,13	[F]	+45°
6	4,11	[F]	-45°
	3,5,7,8, 10,12	[F]	0°

MATERIAL AND PLY ORIENTATION SHOWN FOR FIELD AREAS ONLY. SEE BOEING DRAWING FOR EDGE BANDS AND AREAS WITH DOUBLERS

PLY TABLE FOR DETAILS II,III,IV

Nose Landing Gear Door
Figure 1 (Sheet 3 of 5)

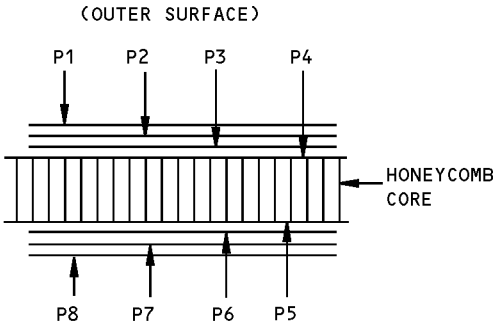


AFT DOOR
LEFT DOOR SHOWN
RIGHT DOOR OPPOSITE
DETAIL V

ITEM	DESCRIPTION	GAGE	MATERIAL	EFFECTIVITY
1	DOOR SUPPORT FITTING		EXTRUDED BAR 7075-T73511	
2	HINGE FITTING		FORGED BLOCK 7075-T73 DIE FORGING 7075-T73	A B
3	DOOR PANEL SKIN CORE		GRAPHITE HYBRID HONEYCOMB SANDWICH SEE DETAIL VI FIBERGLASS HONEYCOMB PER BMS 8-124, CLASS 1, TYPE 1, GRADE 4.0	

LIST OF MATERIALS FOR DETAIL V

Nose Landing Gear Door
Figure 1 (Sheet 4 of 5)



SECTION THRU HONEYCOMB PANEL
DETAIL VI

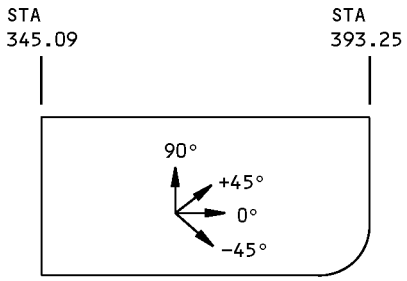


DIAGRAM OF PLY ORIENTATION. SEE PLY TABLE FOR INDIVIDUAL PLY ORIENTATION AND MATERIAL.

VIEW ON DOOR PANEL

ITEM NO.	PLY NO.	MATERIAL	PLY ORIENTATION [D]
3	1,8	[E] [G]	0°
	2,7	[F]	+45°
	3,6	[F]	−45°
	4,5	[F]	0°

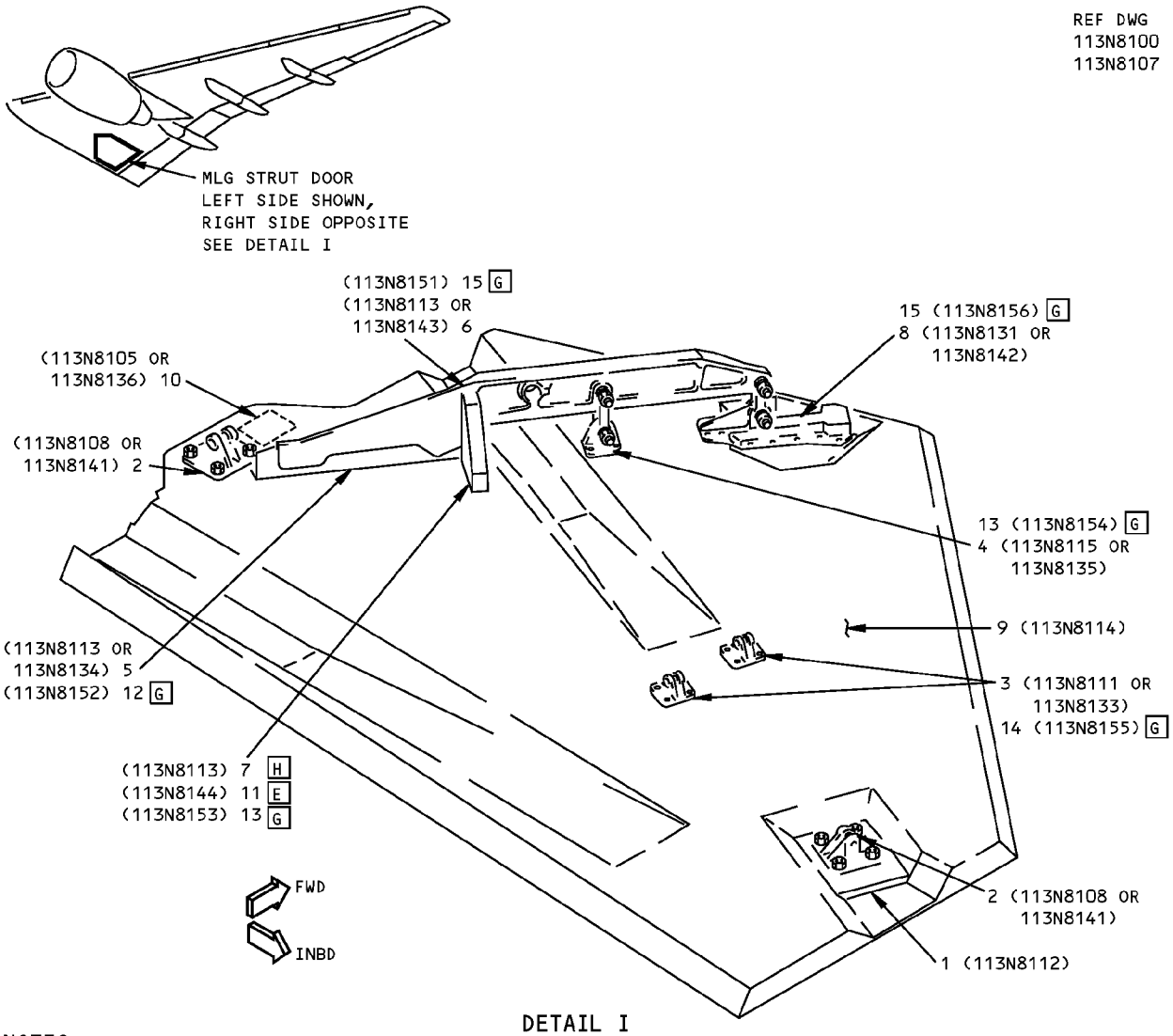
MATERIAL AND PLY ORIENTATIONN SHOWN FOR FIELD AREAS ONLY. SEE BOEING DRAWING FOR EDGE BANDS AND AREAS WITH DOUBLERS

PLY TABLE FOR DETAIL VI

Nose Landing Gear Door
Figure 1 (Sheet 5 of 5)

IDENTIFICATION 3 - MAIN LANDING GEAR STRUT DOOR SKIN

REF DWG
113N8100
113N8107



DETAIL I

NOTES

A GRAPHITE EPOXY FABRIC PER BMS 8-168, TYPE II, CLASS 2, STYLE 3K-70-PW

B ARAMID FABRIC PER BMS 8-219, STYLE 285

C MATERIAL AND PLY ORIENTATION SHOWN FOR FIELD AREAS ONLY. SEE BOEING DRAWINGS FOR EDGE BANDS AND AREAS WITH DOUBLERS

D PLY ORIENTATION CONVENTION - 0 DEGREES IS PARALLEL TO THE FABRIC WRAP DIRECTION

E FOR CUM LINE NUMBERS 53 THRU 67,69,73,76, 79 THRU 83,91,92,95,96,98,103,104,107,112, 115,119,124 THRU 131,138,139,146,151,168, 174,175,178

F FIBERGLASS PER BMS 8-79, TYPE 120, CLASS III, GRADE 1

G FOR AIRPLANES WITH CUM LINE NUMBERS 225 AND ON

H FOR AIRPLANES WITH CUM LINE NUMBERS NOT IN E OR G

I FOR AIRPLANES WITH CUM LINE NUMBERS NOT IN G

LIST OF MATL

Main Landing Gear Strut Door Identification
Figure 1 (Sheet 1 of 3)

ITEM	DESCRIPTION	GAGE	MATERIAL	EFFECTIVITY
1	PLATE SERRATED	0.156	TI-6AL-4V ANNEALED PLATE PER MIL-T-9046, TYPE III, COMP C	
2	ATTACH FITTING		TI-6AL-4V CASTING PER BMS 7-181, TYPE I, COND A, GRADE B OR	
		1.75	TI-6AL-4V ANNEALED PLATE PER MIL-T-9046	
3	CENTER FITTING		TI-6AL-4V CASTING PER BMS 7-181, COND A, TYPE I, GRADE B OR	
		1.38	TI-6AL-4V ANNEALED PLATE PER MIL-T-9046, TYPE III, COMP C	
4	BEAM ATTACH FITTING		TI-6AL-4V CASTING PER BMS 7-181, COND A, GRADE B OR	
		2.1	TI-6AL-4V BAR PER MIL-T-9047, COMP 6, ANNEALED	
5	BEAM FITTING		TI-6AL-4V CASTING PER BMS 7-181, TYPE I, COND B, GRADE B OR TI-6AL-4V ANNEALED FORGED BLOCK PER AMS 4926 OR	
		2.5	TI-6AL-4V ANNEALED BAR PER MIL-T-9047, COMP 6	
6	BEAM FITTING		TI-6AL-4V FORGING PER AMS 4928 ANNEALED OR TI-6AL-4V ANNEALED FORGED BLOCK PER AMS 4926 OR TI-GAL-4V ANNEALED BAR PER MIL-T-9047, COMP 6	
7	BEAM FITTING		TI-6AL-4V ANNEALED FORGED BLOCK PER AMS 4928 OR	[H]
		2.5	TI-6AL-4V ANNEALED BAR PER MIL-T-9047, COMP 6	
8	BEAM FITTING		TI-6AL-4V CASTING PER BMS 7-181, TYPE I, COND A, GRADE B OR TI-6AL-4V ANNEALED FORGED BLOCK PER MIL-I-8950, CLASS A OR	
		3.5	TI-6AL-4V ANNEALED BAR PER MIL-T-9047, COMP 6	
9	DOOR PANEL SKIN CORE		GRAPHITE/EPOXY HONEYCOMB SANDWICH SEE DETAIL I NONMETALLIC HONEYCOMB PER BMS 8-124, CLASS I, TYPE I, GRADE 8.0	
10	ACTUATOR SUPPORT FITTING		7075-T73 FORGED BLOCK PER BMS 7-186 OR 7075-T73 FORGING PER BMS 7-186	
11	BEAM FITTING		TI-6AL-4V CASTING PER BMS 7-181, TYPE I, COND A, GRADE B	[E]
12	BEAM FITTING		FORGING 7075-T73 PER BMS 7-186	[G]
13	BEAM ATTACH FITTING		FORGING 7075-T73 PER BMS 7-186	[G]
14	CENTER FITTING		FORGING 7075-T73 PER BMS 7-186	[G]
15	BEAM		FORGING 7075-T73 PER BMS 7-186	[G]

LIST OF MATERIALS FOR DETAIL I

Main Landing Gear Strut Door Identification
Figure 1 (Sheet 2 of 3)

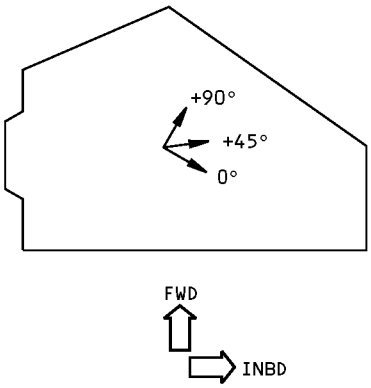
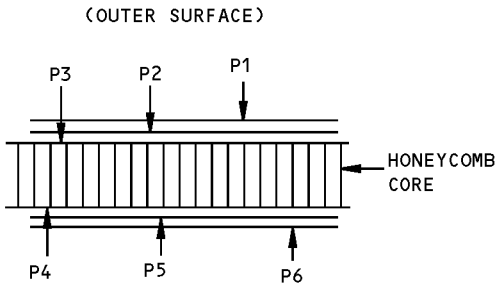


DIAGRAM OF PLY ORIENTATION.
SEE PLY TABLE FOR INDIVIDUAL
PLY ORIENTATION AND MATERIAL



SECTION THRU HONEYCOMB PANEL

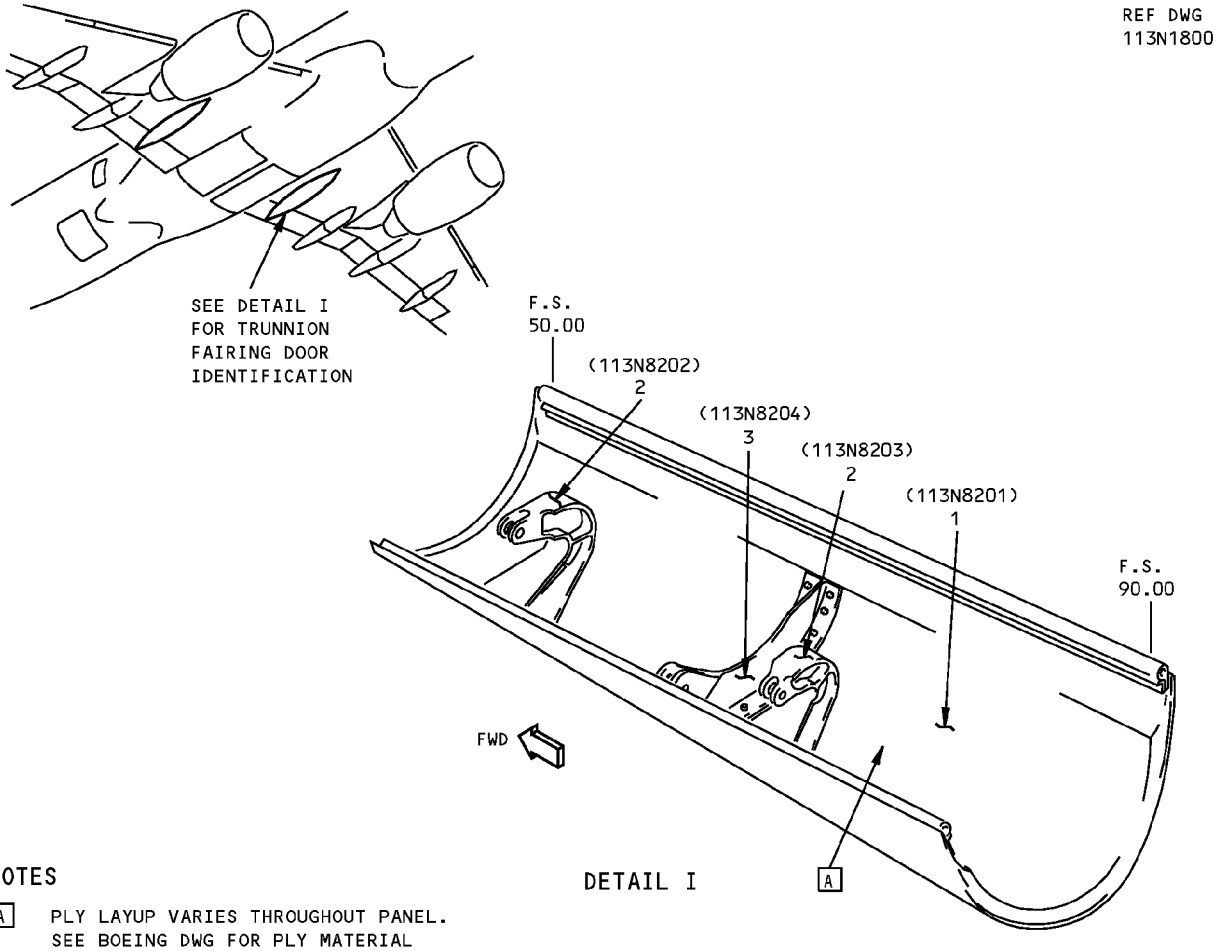
ITEM NO.	PLY NO.	MATERIAL	PLY ORIENTATION [D]
8	1,6 [I]	[B]	0° OR +90°
	1,6 [G]	[F]	0° OR +90°
	2,5	[A]	+45°
	3,4	[A]	0° OR +90°

PLY TABLE [C]

DETAIL I

Main Landing Gear Strut Door Identification
Figure 1 (Sheet 3 of 3)

IDENTIFICATION 4 - TRUNNION FAIRING DOOR



NOTES

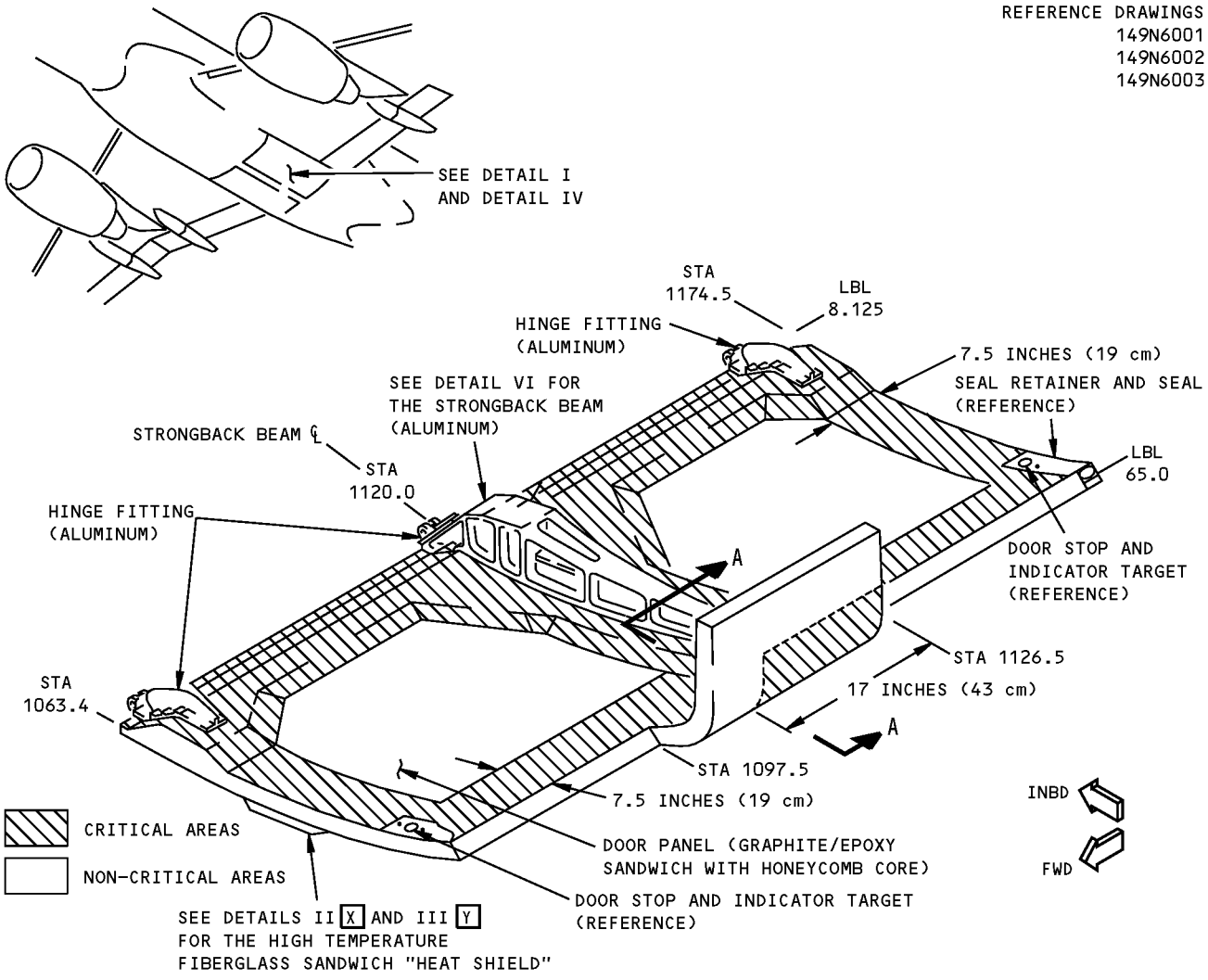
[A] PLY LAYUP VARIES THROUGHOUT PANEL. SEE BOEING DWG FOR PLY MATERIAL AND ORIENTATION

ITEM	DESCRIPTION	GAGE	MATERIAL	EFFECTIVITY
1	TRUNNION DOOR PANEL		ARAMID/GRAPHITE/EPOXY HONEYCOMB SANDWICH	
	SKIN			
	OUTER PLY		ARAMID FABRIC PER BMS 8-219, STYLE 285 [A]	
	INNER PLIES		GRAPHITE FABRIC PER BMS 8-168, CLASS II, TYPE II, STYLE 3K-70-PW [A]	
	CORE		NONMETALLIC HONEYCOMB PER BMS 8-124, CLASS I, TYPE I, GRADE 5.5	
2	HINGE		FORGED BLOCK OR DIE FORGING 7075-T73	
3	SUPPORT FITTING		FORGED BLOCK OR DIE FORGING 7075-T73	

LIST OF MATERIALS FOR DETAIL I

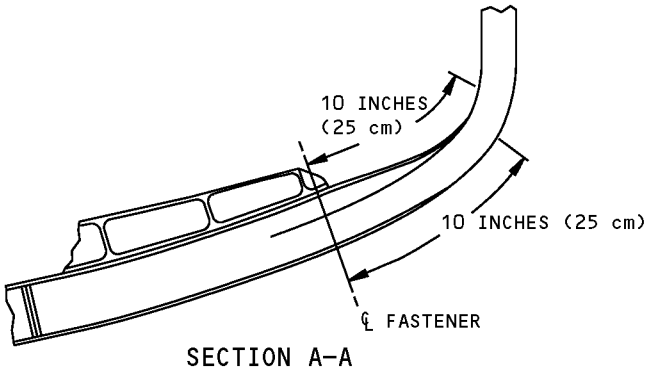
Trunnion Fairing Door Identification
Figure 1

ALLOWABLE DAMAGE 1 - MAIN LANDING GEAR DOOR



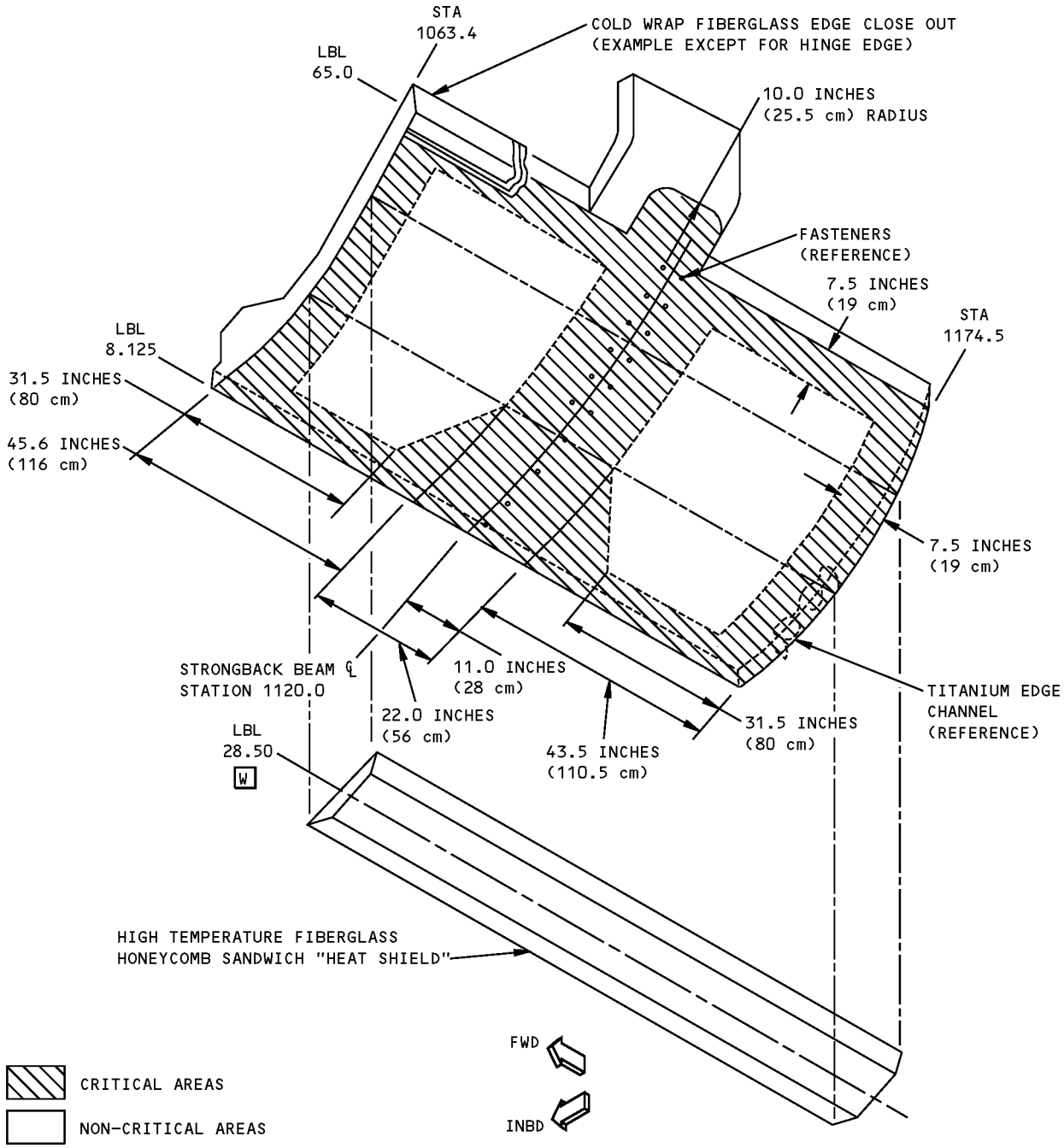
LEFT SIDE MAIN LANDING GEAR DOOR IS SHOWN, RIGHT SIDE IS OPPOSITE

DETAIL I AA



SECTION A-A

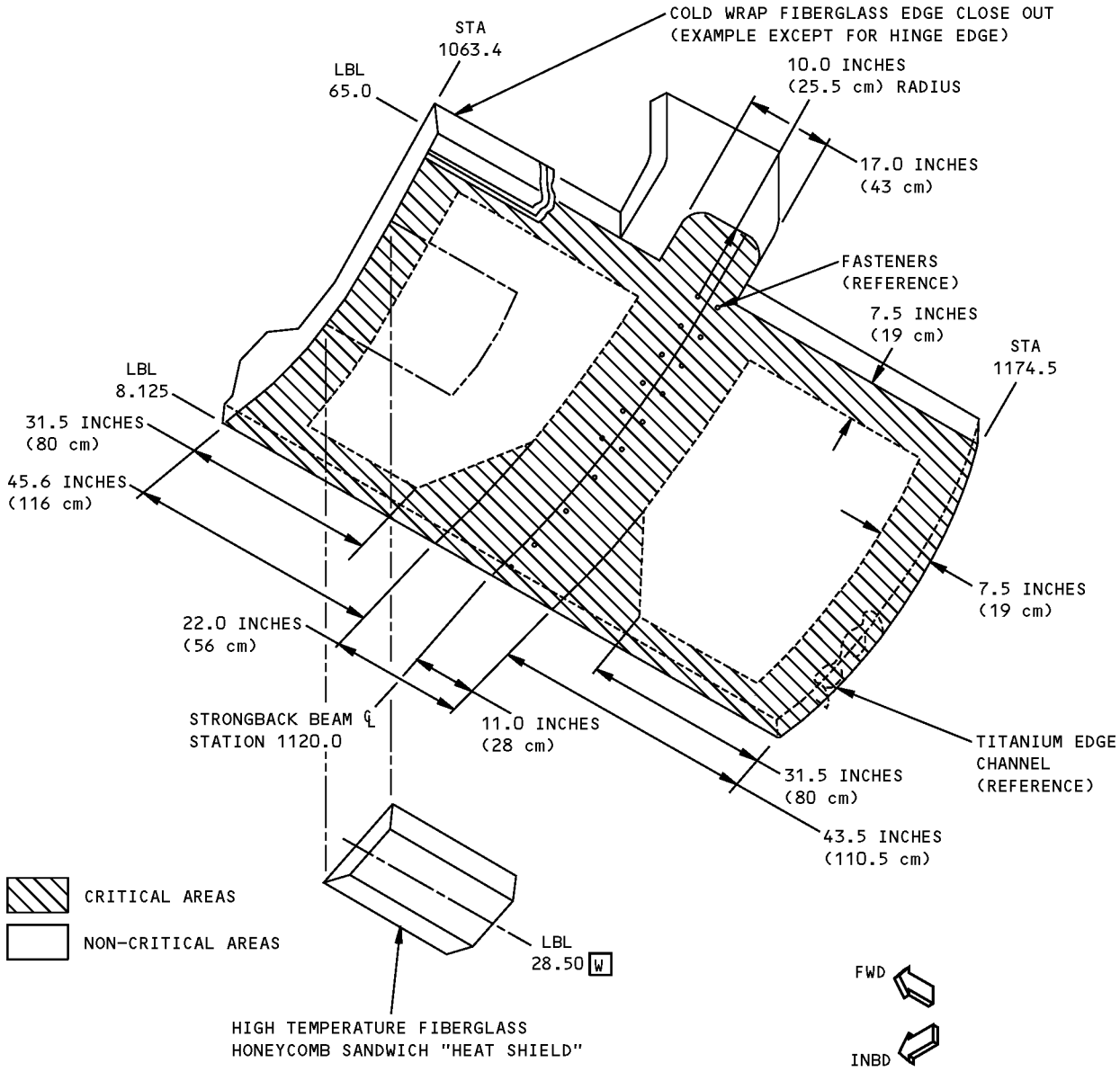
Allowable Damage - Main Landing Gear Door
Figure 101 (Sheet 1 of 10)



LEFT SIDE MAIN LANDING GEAR DOOR IS SHOWN, RIGHT SIDE IS OPPOSITE

DETAIL II X AA

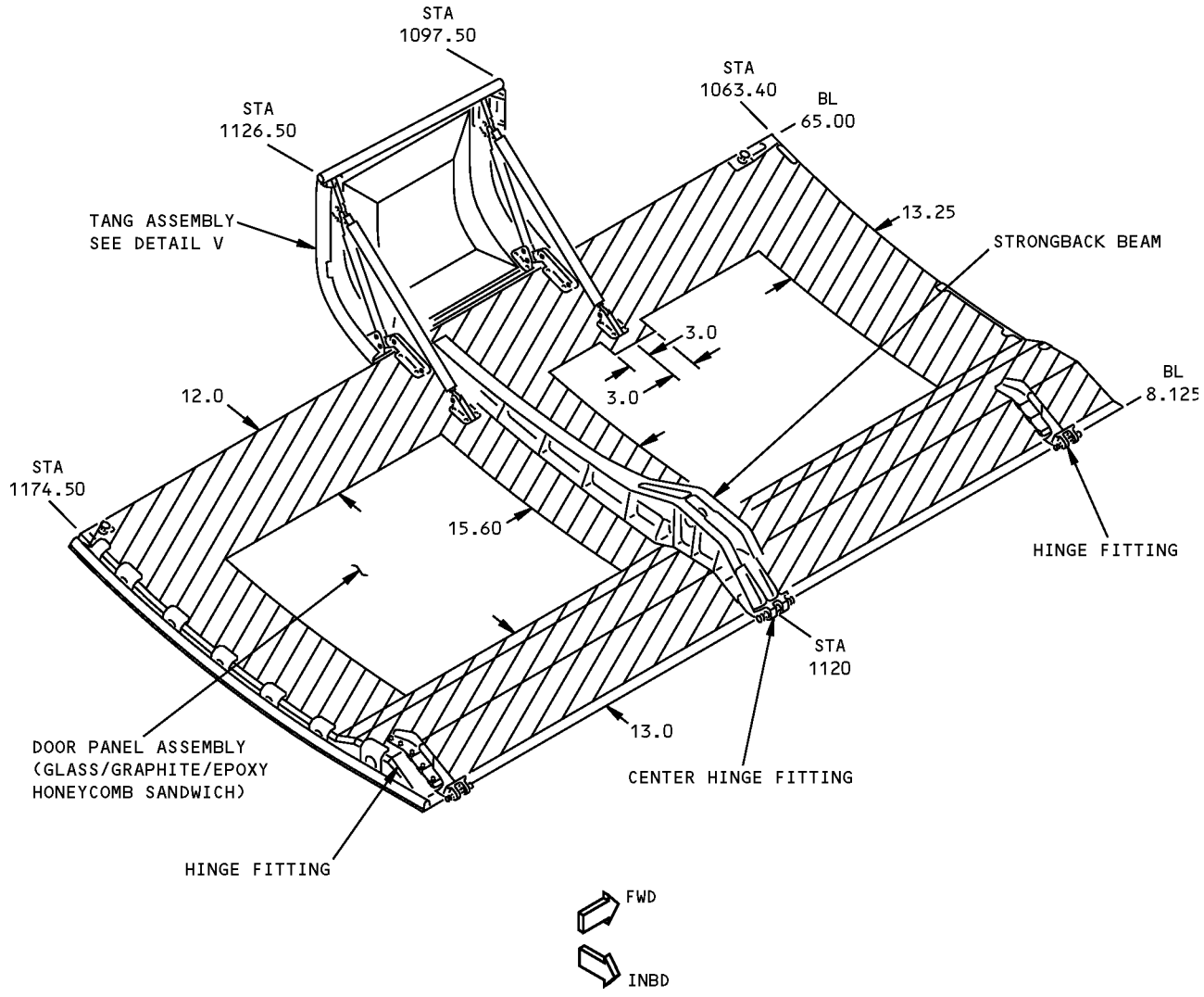
Allowable Damage - Main Landing Gear Door
Figure 101 (Sheet 2 of 10)



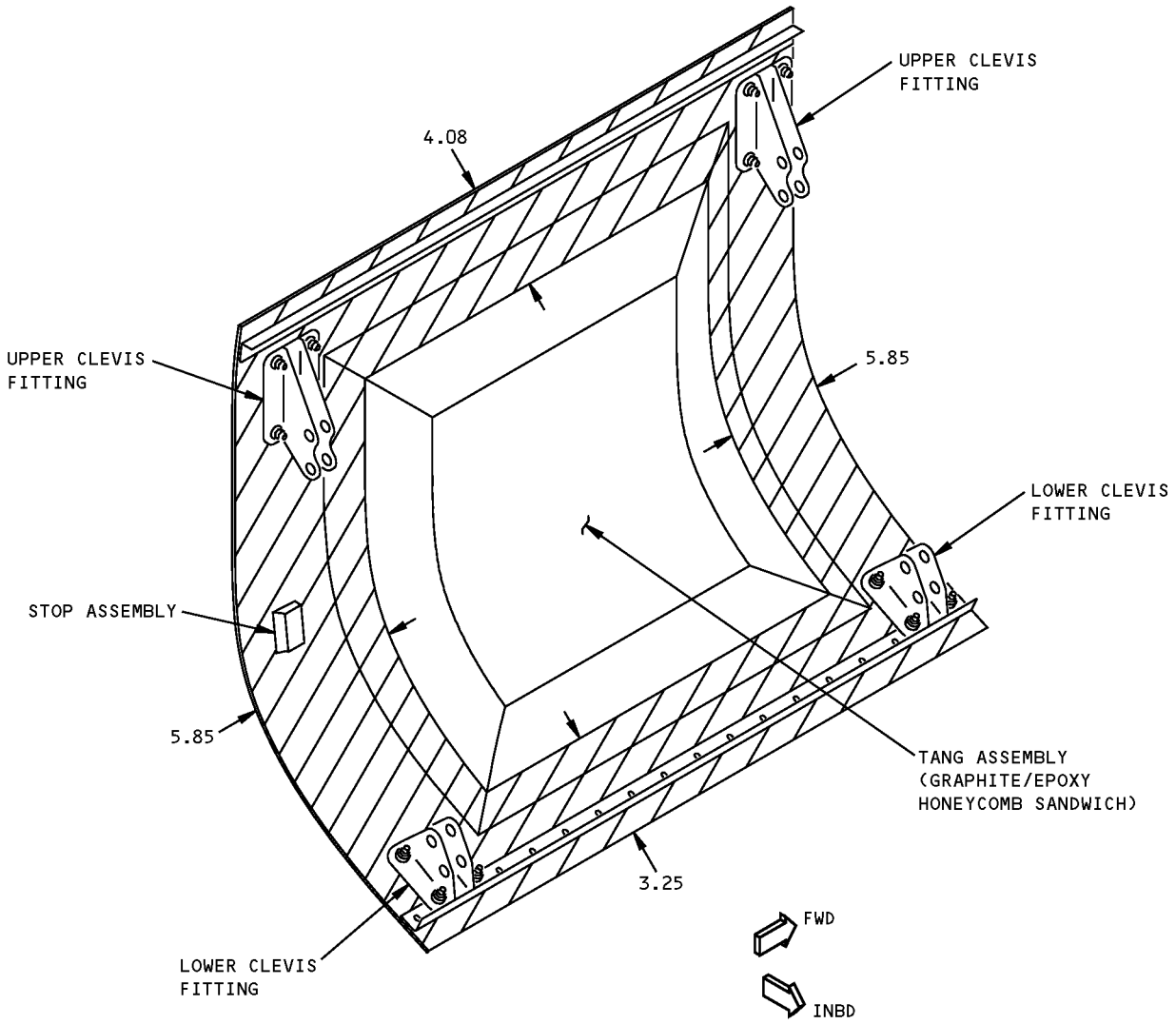
LEFT SIDE MAIN LANDING GEAR DOOR IS SHOWN, RIGHT SIDE IS OPPOSITE

DETAIL III Y AA

Allowable Damage - Main Landing Gear Door
Figure 101 (Sheet 3 of 10)



Allowable Damage - Main Landing Gear Door
Figure 101 (Sheet 4 of 10)

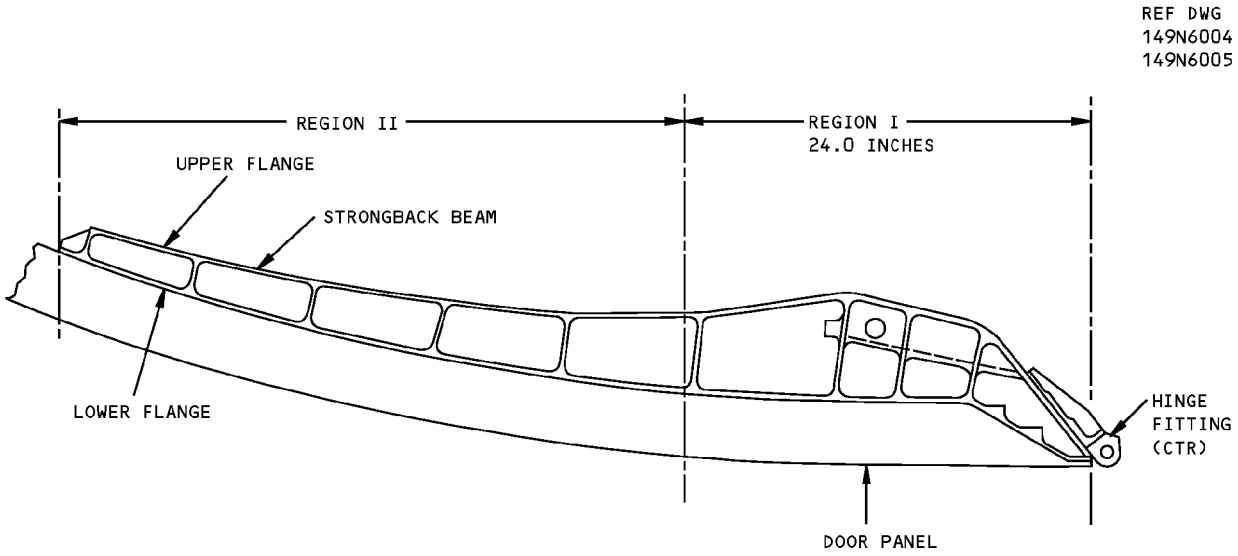


DETAIL V AB

CRITICAL AREA

NON-CRITICAL AREA

Allowable Damage - Main Landing Gear Door
Figure 101 (Sheet 5 of 10)



DETAIL IV

DESCRIPTION		CRACKS	NICKS, GOUGES AND CORROSION	DENTS	HOLES AND PUNCTURES	DELAMINATION
DOOR PANEL	COLD WRAPPED FIBERGLASS EDGES	[S]	[S]	[S]	[S]	[S]
	FACE SKIN-CRITICAL AREAS (SHADED)	[C]	[F]	[K]	[M]	[P]
	FACE SKIN-NON-CRITICAL AREAS	[T]	[G]	[K]	[N]	[Q]
STRONGBACK BEAM [R]	REGION I	NOT ALLOWED	[H]	NOT ALLOWED	NOT ALLOWED	NOT APPLICABLE
	REGION II	[D]				
HINGE FITTINGS [R]	FWD AND AFT	[D]	[I]	NOT ALLOWED	NOT ALLOWED	NOT APPLICABLE
	CENTER					
TITANIUM EDGE CHANNELS	LBL 28.50	[E]	[J]	[L]	NOT ALLOWED	NOT APPLICABLE
	RBL 53.80					
FIBERGLASS HEAT SHIELD	LBL 28.50 RBL 53.80	[T]	[U]	[K]	[O]	[V]

Allowable Damage - Main Landing Gear Door
Figure 101 (Sheet 6 of 10)

NOTES

- DAMAGE TO PANEL EDGES MAY BE CONFINED TO DELAMINATION OR MAY TAKE A FORM WHICH RESULTS IN DAMAGE TO FIBERS AND A LOSS OF EFFECTIVE CROSS-SECIIONAL AREA. THIS TYPE OF DAMAGE SHOULD BE REMOVED AND THE LIMITATIONS GIVEN FOR CRACKS APPLIED.
- REFINISH AREAS PER AMM 51-20
- REFER TO SRM 51-10-01 FOR AERODYNAMIC SMOOTHNESS REQUIREMENTS. WHERE THE DAMAGE EXCEEDS THE LIMITS SHOWN IN SRM 51-10-01, CONSIDERATION SHOULD BE GIVEN TO THE LOSS OF PERFORMANCE INVOLVED.
- REFER TO SRM 51-10-02 FOR INSPECTION AND REMOVAL OF DAMAGE

[A] REMOVE MOISTURE FROM DAMAGE AREA. USE OF VACUUM AND HEAT (MAX OF 125°F [52°C]) TO REMOVE MOISTURE FROM HONEYCOMB CELLS IS RECOMMENDED. PROTECT DAMAGE FROM ENTRANCE OF WATER, SUNLIGHT OR OTHER FOREIGN MATTER BY SEALING WITH ALUMINUM FOIL TAPE (SPEED TAPE) 3M-Y436 OR EQUIVALENT. RECORD LOCATION AND INSPECT AT AIRPLANE "A" CHECK. REPLACE ALUMINUM FOIL TAPE IF ANY PEELING OR DETERIORATION OF TAPE IS EVIDENT. REPAIR DAMAGE PER SRM 51-70 NO LATER THAN THE NEXT "C" CHECK.

[B] REMOVE MOISTURE FROM DAMAGE AREA. USE OF VACUUM AND HEAT (MAX OF 125°F (52°C)) TO REMOVE MOISTURE FROM HONEYCOMB CELLS IS RECOMMENDED. PROTECT DAMAGE FROM ENTRANCE OF WATER, SUNLIGHT OR OTHER FOREIGN MATTER BY SEALING WITH ALUMINUM FOIL TAPE (SPEED TAPE) 3M-Y436 OR EQUIVALENT. RECORD LOCATION AND INSPECT AIRPLANE EVERY 100 HOURS. REPLACE ALUMINUM FOIL TAPE IF ANY PEELING OR DETERIORATION OF TAPE IS EVIDENT. REPAIR DAMAGE PER SRM 51-70 BEFORE THE EXPIRATION OF 60 CALENDAR DAYS.

[C] 2.0 INCHES (50 mm) MAX DIMENSION (D) IN HONEYCOMB AREA IS ALLOWED PER SQUARE FOOT (930 SQUARE cm) AREA AND A MINIMUM OF 6D (EDGE TO EDGE) FROM ANY OTHER CRACK, FITTING OR FASTENER HOLE AND A MINIMUM OF 6.0 INCHES (150 mm) FROM MATERIAL EDGE.

[D] CLEAN UP EDGE CRACKS PER DETAILS VII AND X. CLEAN UP CORNER CRACKS PER DETAIL XI. OTHER CRACKS NOT ALLOWED. [B]

[E] CLEAN UP EDGE CRACKS PER DETAILS VII AND XIII. CLEAN UP CORNER CRACKS PER DETAIL XI. OTHER CRACKS NOT ALLOWED.

[F] DAMAGE ALLOWED ON SURFACE RESIN ONLY. DAMAGED TO FIBERS NOT ALLOWED. PROTECT EDGE DAMAGE PER [B].

[G] DAMAGE ALLOWED ON SURFACE RESIN ONLY. DAMAGE TO FIBERS NOT ALLOWED. PROTECT EDGE DAMAGE PER [A].

[H] CLEAN UP DAMAGE PER DETAILS VII, VIII, AND X. CLEAN UP CORNER DAMAGE PER DETAIL XI.

[I] CLEAN UP EDGE DAMAGE PER DETAILS VII AND X. CLEAN UP LUG DAMAGE PER DETAIL XII. CLEAN UP OTHER DAMAGE PER DETAIL VIII.

[J] REMOVE DAMAGE PER DETAILS VII, VIII, AND XIII.

[K] DENTS GENERALLY RESULT IN FIBER DAMAGE OR DELAMINATION. HOWEVER, PROVIDED THAT THERE IS NO FIBER DAMAGE OR DELAMINATION DENTS UP TO 2.0 INCHES (50 mm) DIA MAX ARE ALLOWED. ONE DENT PER SQUARE FOOT (930 SQUARE cm) OF AREA ALLOWED WHICH MUST BE A MINIMUM OF 6.0 INCHES (150 mm) FROM ANY OTHER DAMAGE, FASTENER HOLE OR PANEL EDGE. REFER TO APPLICABLE DAMAGE DATA IN TABLE IF FIBER DAMAGE OR DELAMINATION EXISTS.

[L] SEE DETAIL XIV.

Allowable Damage - Main Landing Gear Door
Figure 101 (Sheet 7 of 10)

NOTES (CONT)

[M] 2.0 MAX DIMENSION (D) IN HONEYCOMB AREA IS ALLOWED PER SQUARE FOOT OF AREA AND A MINIMUM OF 6D (EDGE TO EDGE) FROM ANY OTHER DAMAGE, FITTING OR FASTENER HOLE, AND A MINIMUM OF 6.0 INCHES FROM MATERIAL EDGE. DO NOT CLEAN UP DAMAGE EXCEPT TO REMOVE RESIN BURRS EXTENDING INTO SURFACE. [B]

[N] 2.0 MAX DIMENSION (D) IN HONEYCOMB AREA IS ALLOWED PER SQUARE FOOT OF AREA AND A MINIMUM OF 6D (EDGE TO EDGE) FROM ANY OTHER DAMAGE, FASTENER HOLE, OR FITTING. DO NOT CLEAN UP DAMAGE EXCEPT TO REMOVE RESIN BURRS EXTENDING INTO SURFACE. [A]

[O] 2.0 MAX DIMENSION (D) IN "HEAT SHIELD" ALLOWED PER SQUARE FOOT OF AREA AND A MINIMUM OF 6D (EDGE TO EDGE) FROM ANY OTHER DAMAGE OR MATERIAL EDGE. DO NOT CLEAN UP DAMAGE EXCEPT TO REMOVE RESIN BURRS EXTENDING INTO SURFACE CONTOUR AND PROTECT DAMAGE PER [A].

[P] 2.0 MAX DIMENSION (D) DELAMINATION IN HONEYCOMB AREA IS ALLOWED PER SQUARE FOOT OF AREA AND A MINIMUM OF 6D (EDGE TO EDGE) FROM ANY OTHER DAMAGE, FITTING OR FASTENER HOLE, AND A MINIMUM OF 6.0 FROM PANEL EDGE. REPAIR DELAMINATION IN HONEYCOMB AREA AS GIVEN IN SRM 51-70 BEFORE THE EXPIRATION OF 60 CALENDAR DAYS. PROTECT EDGE DAMAGE PER [B].

[Q] 2.0 MAX DIMENSION (D) DELAMINATION IN HONEYCOMB AREA IS ALLOWED PER SQUARE FOOT OF AREA AND A MINIMUM OF 6D (EDGE TO EDGE) FROM ANY OTHER DAMAGE, FITTING OR FASTENER HOLE. REPAIR DELAMINATION IN HONEYCOMB AREA AS GIVEN IN SRM 51-70 NO LATER THAN THE NEXT "C" CHECK. PROTECT EDGE DAMAGE PER [A].

[R] SHOT PEEN REWORKED AREAS AS GIVEN IN SRM 51-20-06 SHOT PEEN INTENSITIES WILL VARY WITH THE THICKNESS REMAINING AFTER REWORK.

[S] 12.0 MAX DIMENSION ALLOWED. MAXIMUM DEPTH OF DAMAGE, 0.50. PROTECT DAMAGE PER [B].

[T] 2.0 MAX DIMENSION (D) IN HONEYCOMB AREA IS ALLOWED PER SQUARE FOOT AREA AND A MINIMUM OF 6D (EDGE TO EDGE) FROM ANY OTHER DAMAGE, MATERIAL EDGE OR FASTENER HOLE. [A]

[U] DAMAGE ALLOWED ON SURFACE RESIN ONLY. DAMAGE TO FIBERS NOT ALLOWED. PROTECT EDGE DAMAGE PER [A].

[V] 2.0 MAX DIMENSION (D) DELAMINATION IN HONEYCOMB AREA IS ALLOWED PER SQUARE FOOT OF AREA AND A MINIMUM OF 6D (EDGE TO EDGE) FROM ANY OTHER DAMAGE OR MATERIAL EDGE. REPAIR DELAMINATION IN HONEYCOMB AREA AS GIVEN IN SRM 51-70 NO LATER THAN THE NEXT "C" CHECK. PROTECT EDGE DAMAGE PER [A].

[W] HEAT SHIELD ON THE RH DOOR IS CENTERED AT RBL 53.75.

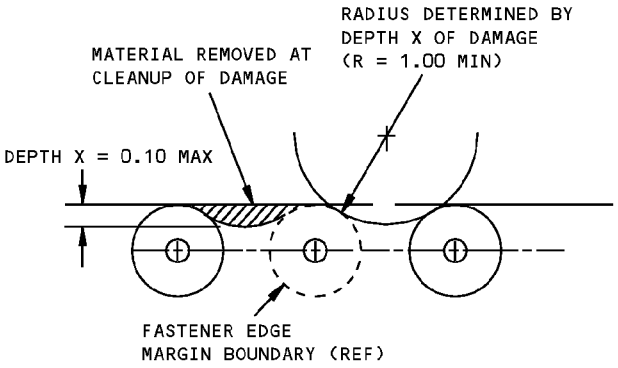
[X] FOR CUM LINE NUMBERS:
1 THRU 36

[Y] FOR CUM LINE NUMBERS:
37 AND ON

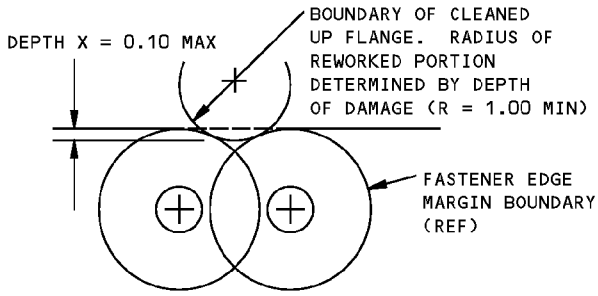
[AA] FOR ONE-PIECE DOOR AND TANG. REFER TO FIGURE 1.

[AB] FOR TWO-PIECE DOOR AND TANG. REFER TO FIGURE 1.

Allowable Damage - Main Landing Gear Door
Figure 101 (Sheet 8 of 10)

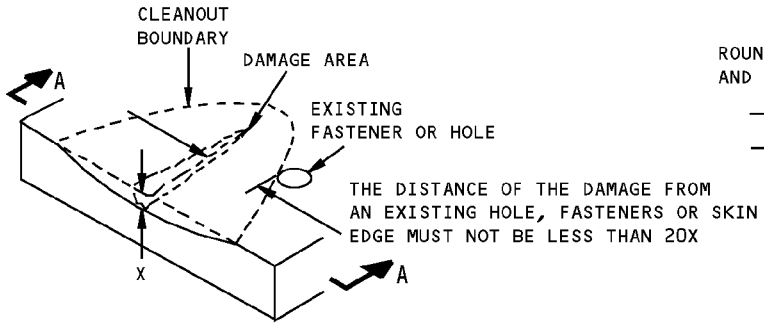


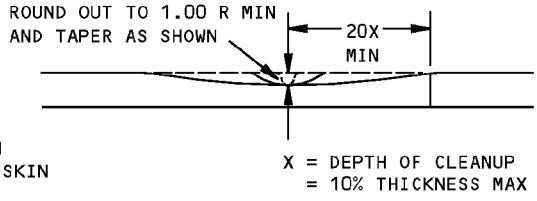
DAMAGE CLEANUP OF EDGES WHERE
FASTENER EDGE MARGINS DO NOT OVERLAP



DAMAGE CLEANUP OF EDGES WHERE
FASTENER EDGE MARGINS OVERLAP

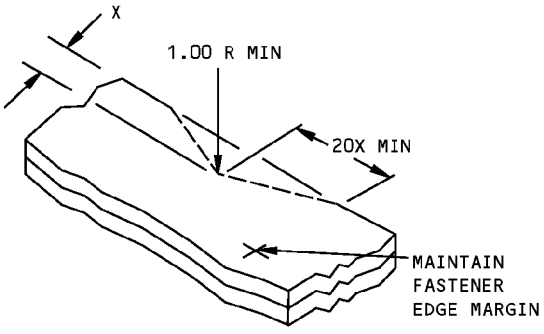
DETAIL VII





SECTION A–A

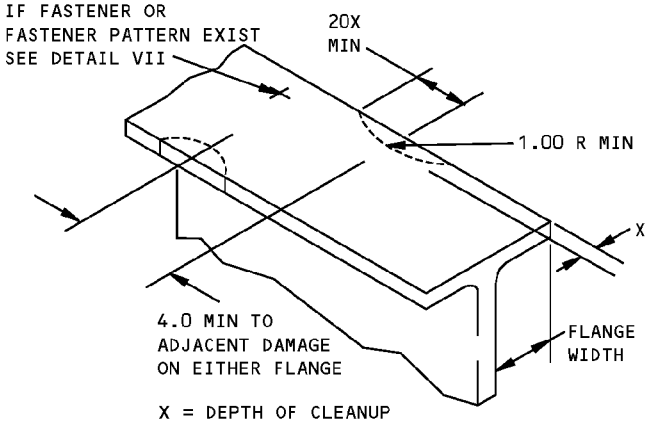
REMOVAL OF NICK, GOUGE AND SCRATCH DAMAGE ON A SURFACE
DETAIL VIII



X = DEPTH OF CLEANUP = 0.10 MAX

REMOVAL OF NICK OR CRACK
DAMAGE OF AN EDGE

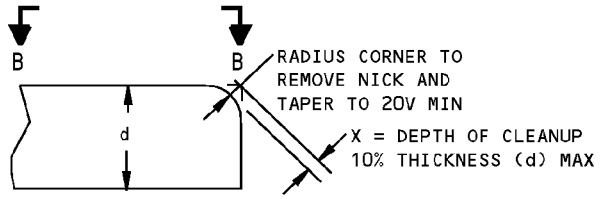
DETAIL IX

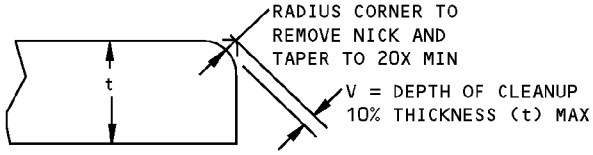


X = DEPTH OF CLEANUP
NOT TO EXCEED 10%
OF FLANGE WIDTH

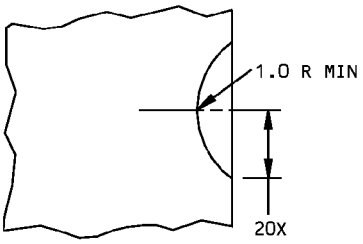
DETAIL X

Allowable Damage - Main Landing Gear Door
Figure 101 (Sheet 9 of 10)



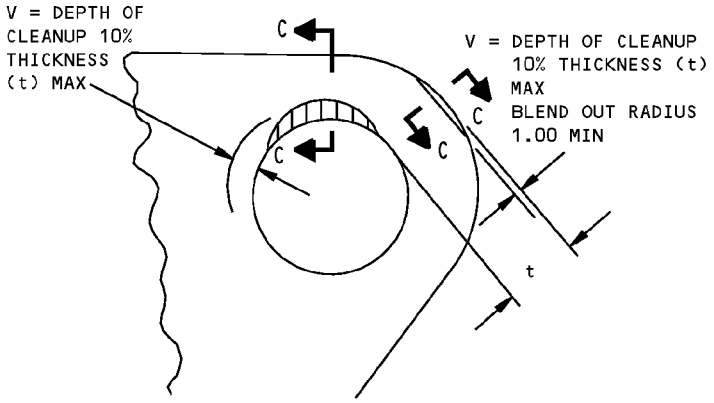


SECTION C–C
(ROTATED)



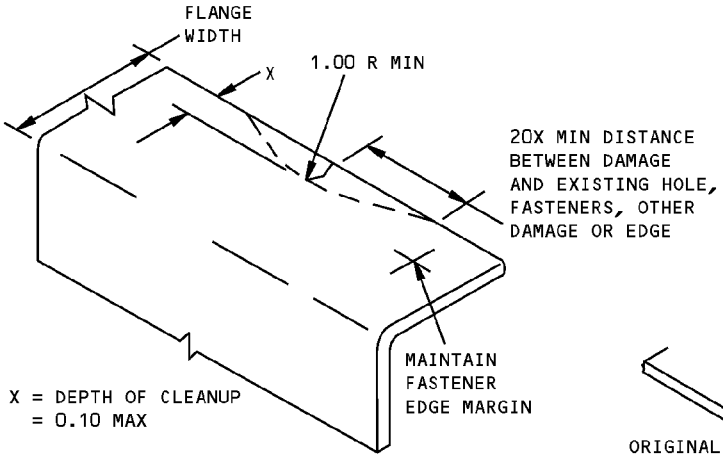
SECTION B–B

DETAIL XI



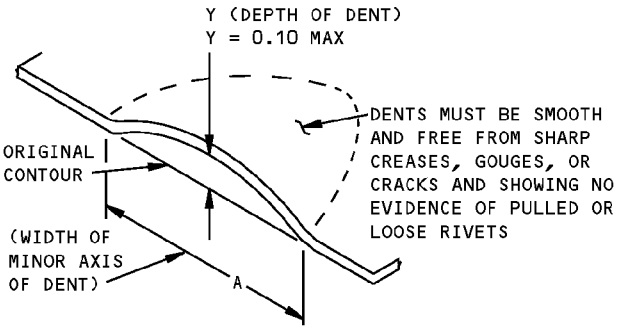
DAMAGE CLEANUP FOR EDGES OF LUG

DETAIL XII



REMOVAL OF NICK OR CRACK
DAMAGE ON AN EDGE

DETAIL XIII



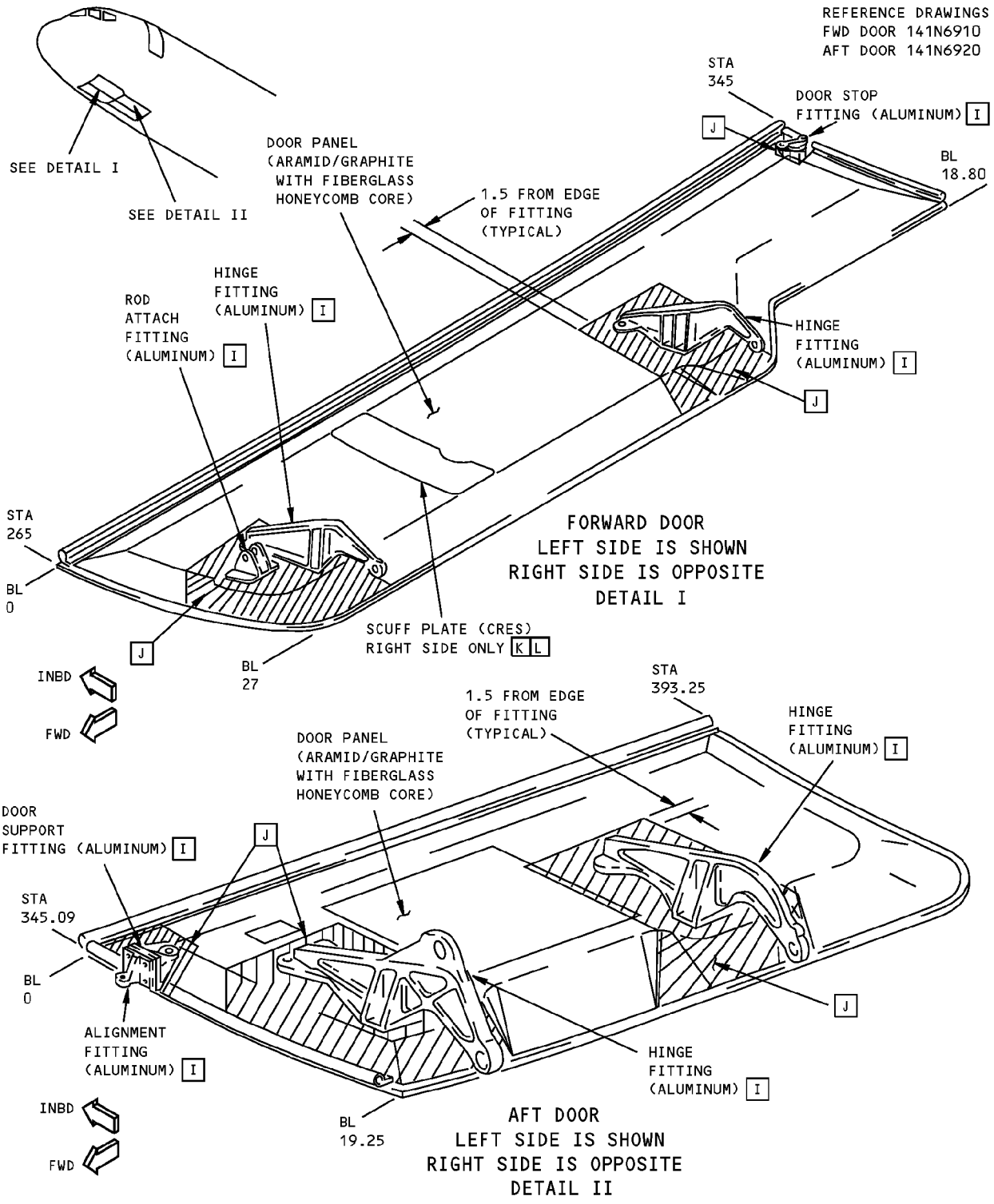
$\frac{A}{Y}$ MUST NOT BE LESS THAN 30

ALLOWABLE DAMAGE FOR DENT

DETAIL XIV

Allowable Damage - Main Landing Gear Door
Figure 101 (Sheet 10 of 10)

ALLOWABLE DAMAGE 2 - NOSE LANDING GEAR DOOR



Allowable Damage - Nose Landing Gear Door
Figure 101 (Sheet 1 of 5)

DESCRIPTION	CRACKS	NICKS, GOUGES AND CORROSION	DENTS	HOLES AND PUNCTURES	DELAMINATION
DOOR PANELS	[B]	[C]	[D]	[E]	[F]
HINGE FITTINGS	[G]	[H]	NOT ALLOWED	NOT ALLOWED	----
DOOR STOP FITTING	[G]	[H]	NOT ALLOWED	NOT ALLOWED	----
DOOR SUPPORT FITTING	[G]	[H]	NOT ALLOWED	NOT ALLOWED	----
ROD ATTACH FITTING	[G]	[H]	NOT ALLOWED	NOT ALLOWED	----
ALIGNMENT FITTING	[G]	[H]	NOT ALLOWED	NOT ALLOWED	----
SCUFF PLATE	[K]	[K]	[K]	[K]	----

NOTES

- REFINISH REWORKED AREAS PER AMM 51-20
- REFER TO SRM 51-10-01 FOR AERODYNAMIC SMOOTHNESS REQUIREMENTS. WHERE THE DAMAGE EXCEEDS THE LIMITS SHOWN IN SRM 51-10-01, CONSIDERATION SHOULD BE GIVEN TO THE LOSS OF PERFORMANCE INVOLVED
- CONDUCTIVE COATING ON ALL DOOR PANELS. FOR ALLOWABLE DAMAGE TO CONDUCTIVE COATING REFER TO AMM 51-20.
- TYPICAL DAMAGE TO A PANEL EDGEBAND MAY CONSIST OF EDGE CRUSHING, CRACKS OR DELAMINATION. DAMAGE AROUND HOLES MAY CONSIST OF OVALIZATION, FASTENER PULL-THROUGH OR CRACKS OUT OF HOLE. DAMAGE MAY REDUCE THE EFFECTIVE CROSS SECTIONAL AREA OF AN EDGEBAND. DAMAGE TO EDGES SHOULD BE BLENDED OUT TO LIMITATIONS GIVEN FOR COMPONENT

[A] PROTECT DAMAGE FROM ENTRANCE OF WATER, SUNLIGHT OR OTHER FOREIGN MATTER BY SEALING WITH ALUMINUM FOIL TAPE (SPEED TAPE) 3M-Y436 OR EQUIVALENT. RECORD LOCATION AND INSPECT AT AIRPLANE "A" CHECK. REPLACE ALUMINUM FOIL TAPE IF ANY PEELING OR DETERIORATION OF TAPE IS EVIDENT. REPAIR DAMAGE PER SRM 51-70 NO LATER THAN THE NEXT "C" CHECK.

[B] 0.50 MAX LENGTH IN HONEYCOMB AREA IS ALLOWED PER SQUARE FOOT OF AREA AND A MINIMUM OF 6 INCHES FROM ANY OTHER CRACK. EDGE CRACKS MUST BE REMOVED PER DETAILS III AND V. [A]

[C] DAMAGE ALLOWED ON SURFACE RESIN ONLY. DAMAGE TO FIBERS NOT ALLOWED. CLEAN UP EDGE DAMAGE PER DETAILS III AND V. [A]

[D] DENTS GENERALLY RESULT IN FIBER DAMAGE OR DELAMINATION. HOWEVER, IF THERE IS NO FIBER DAMAGE OR DELAMINATION, DENTS UP TO 1.10 DIA MAX ARE ALLOWED, ONE DENT PER SQUARE FOOT OF AREA ALLOWED WHICH MUST BE A MINIMUM OF 6 INCHES FROM ANY OTHER DAMAGE, FASTENER HOLE, OR PANEL EDGE. SEE [E] OR [F] IF FIBER DAMAGE OR DELAMINATION IS PRESENT

[E] 0.50 MAX DIA IN HONEYCOMB AREA ONLY PROVIDED DAMAGE IS MIN OF 2.5 D FROM OTHER DAMAGE, NEAREST HOLE, OR MATERIAL EDGE. DO NOT CLEAN UP DAMAGE EXCEPT TO REMOVE RESIN BURRS EXTENDING INTO SURFACE CONTOUR. [A]

[F] 0.50 MAX DIA IN HONEYCOMB AREA AND NOT TO EXCEED 25% OF HONEYCOMB CORE LENGTH PER SIDE. A MAXIMUM OF 0.03 DELAMINATION FROM EDGE IS ALLOWED. REPAIR DELAMINATION IN HONEYCOMB AREA PER SRM 51-70 AND NO LATER THAN THE NEXT AIRPLANE "C" CHECK. PROTECT EDGE DAMAGE PER [A].

[G] CLEAN UP EDGE CRACKS PER DETAILS III AND VI. CLEAN UP CORNER CRACKS PER DETAIL VII. OTHER CRACKS NOT ALLOWED. SEE DETAILS I AND II FOR APPLICABLE SHOT PEEN REQUIREMENTS.

[H] CLEAN UP EDGE DAMAGE PER DETAILS III, IV AND V. CLEAN UP CORNER DAMAGE PER DETAIL VII. CLEAN UP LUG DAMAGE PER DETAIL VIII. CLEAN UP OTHER DAMAGE PER DETAIL IV. DAMAGE NOT ALLOWED IN VICINITY OF BUSHINGS. SEE DETAILS I AND II FOR APPLICABLE SHOT PEEN REQUIREMENTS.

[I] SHOT PEEN REWORKED AREAS PER SRM 51-20-06. SHOT PEEN INTENSITIES WILL VARY WITH THE THICKNESS REMAINING AFTER REWORK

[J] CRITICAL AREA (SHADED). ALLOWABLE DAMAGE SAME AS ON REST OF PANEL, EXCEPT INSPECT EVERY "A" CHECK AND REPAIR WITHIN 90 DAYS

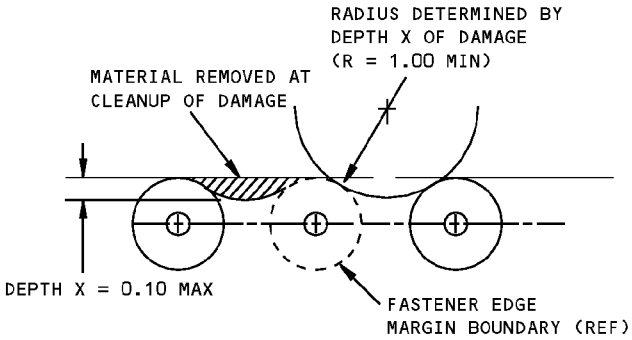
Allowable Damage - Nose Landing Gear Door
Figure 101 (Sheet 2 of 5)

NOTES (CONTINUED)

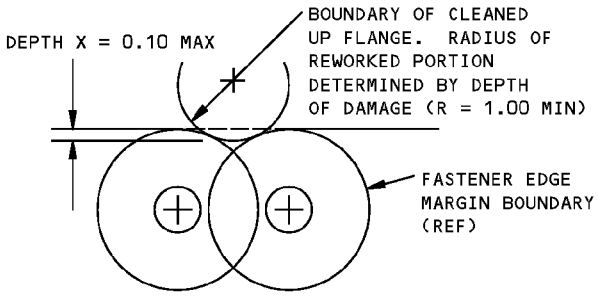
[K] A MISSING SCUFF PLATE IS PERMITTED. REMOVE AND DISCARD A DAMAGED OR LOOSE SCUFF PLATE AS GIVEN IN SRM 52-80-02, REPAIR 4, FLAGNOTE E. CHECK FOR DAMAGE IN THE DOOR PANEL IN THE AREA WHERE THE SCUFF PLATE WAS REMOVED.

[L] FOR CUM LINE NUMBERS:
805 THRU 869

Allowable Damage - Nose Landing Gear Door
Figure 101 (Sheet 3 of 5)

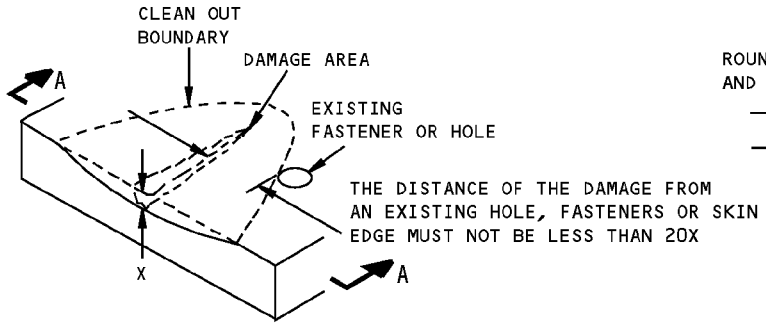


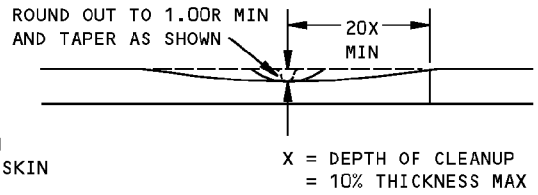
DAMAGE CLEANUP OF EDGES WHERE
FASTENER EDGE MARGINS DO NOT OVERLAP



DAMAGE CLEANUP OF EDGES WHERE
FASTENER EDGE MARGINS OVERLAP

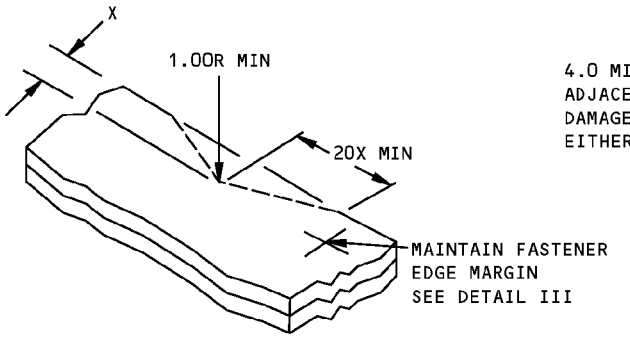
DETAIL III





SECTION A-A

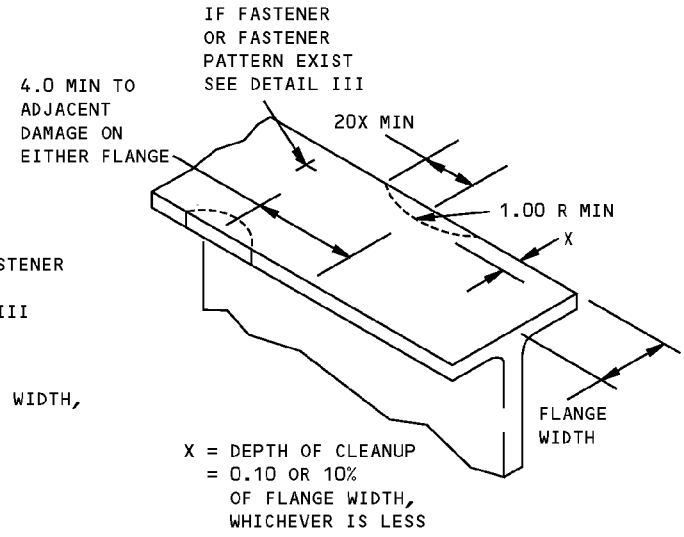
REMOVAL OF NICK, GOUGE AND SCRATCH DAMAGE ON A SURFACE
DETAIL IV



X = DEPTH OF CLEANUP = 0.10 OR 10% OF FLANGE WIDTH,
WHICHEVER IS LESS

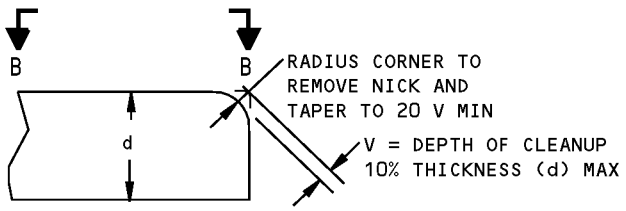
REMOVAL OF NICK OR CRACK
DAMAGE OF AN EDGE

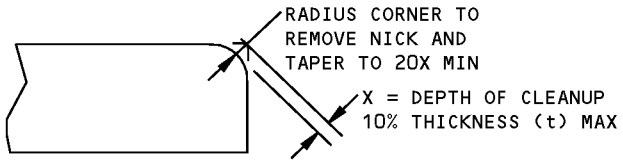
DETAIL V



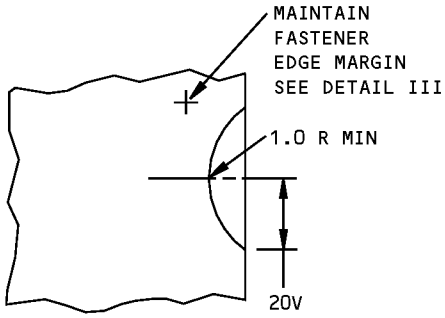
DETAIL VI

Allowable Damage - Nose Landing Gear Door
Figure 101 (Sheet 4 of 5)



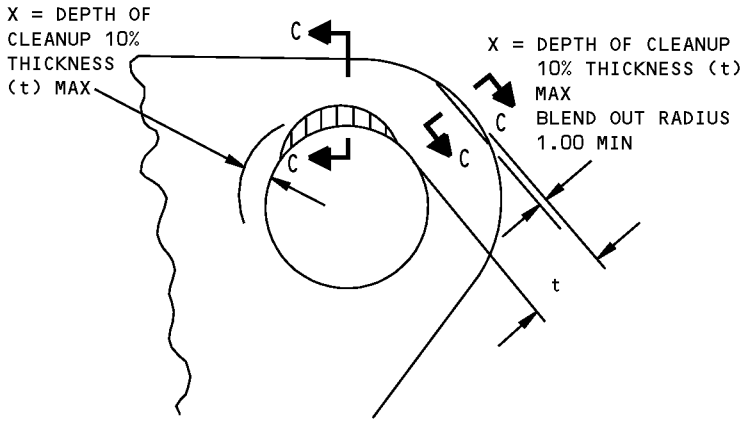


SECTION C–C
(ROTATED)



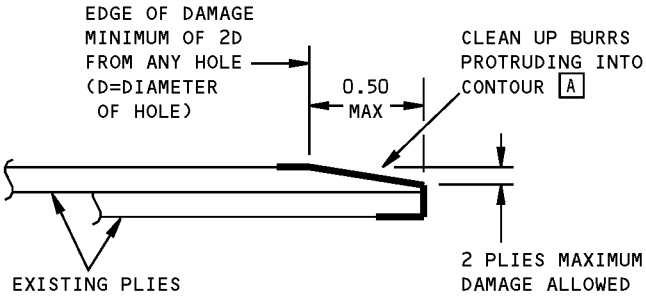
SECTION B–B

DETAIL VII



DAMAGE CLEANUP FOR EDGES OF LUG

DETAIL VIII

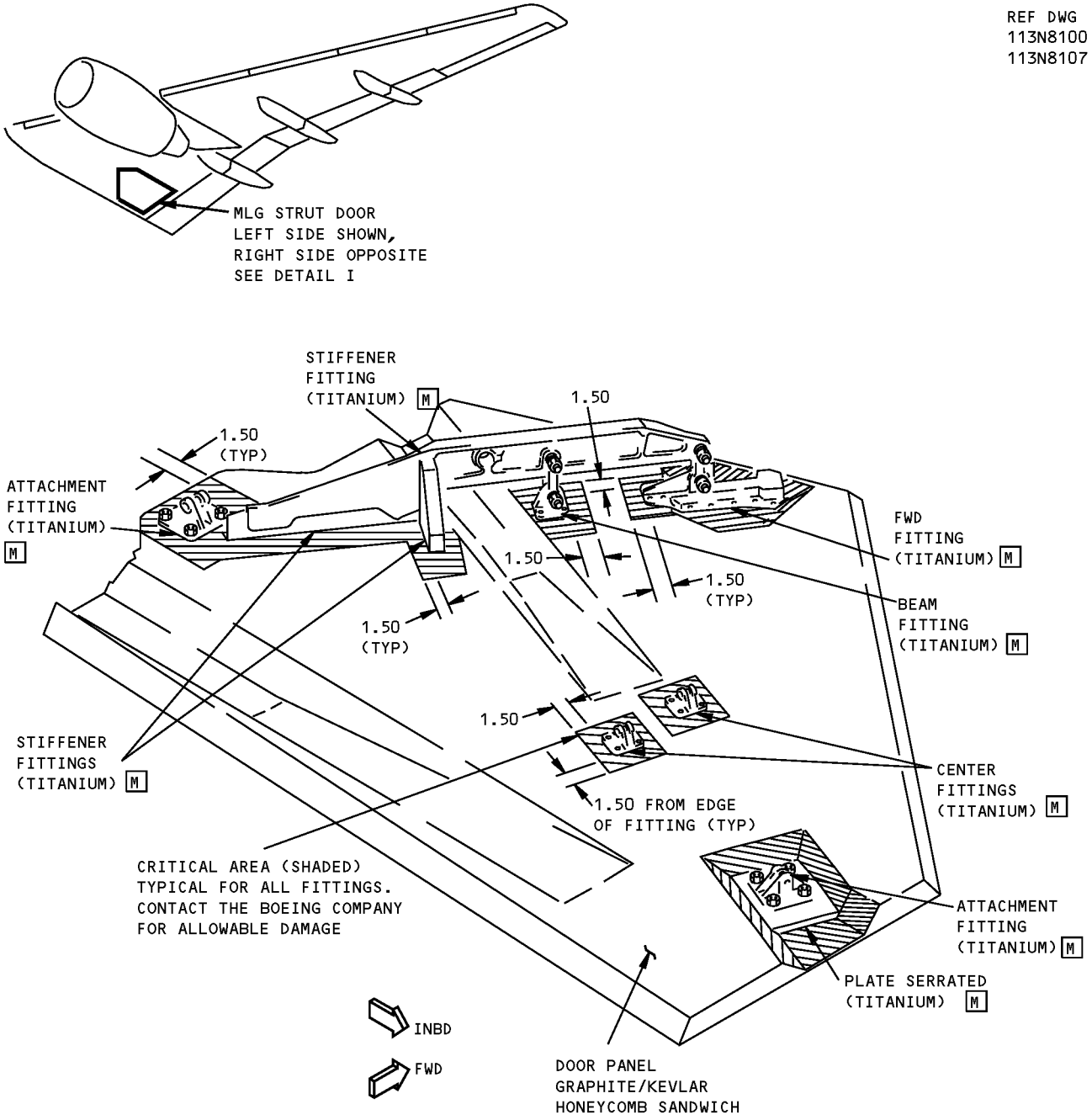


DAMAGE CLEANUP AND SEALING
OF EDGE EROSION

DETAIL IX

Allowable Damage - Nose Landing Gear Door
Figure 101 (Sheet 5 of 5)

ALLOWABLE DAMAGE 3 - MAIN LANDING GEAR STRUT DOOR



DETAIL I

Allowable Damage - Main Landing Gear Strut Door
Figure 101 (Sheet 1 of 5)

DESCRIPTION	CRACKS	NICKS, GOUGES AND CORROSION	DENTS	HOLES AND PUNCTURES	DELAMI-NATION	EDGE EROSION
DOOR PANEL	[B]	[C]	[D]	[E]	[F]	SEE DETAIL IX
PLATE SERRATED	[G]	[H]	SEE DETAIL IV	NOT ALLOWED	----	----
ATTACHMENT FITTINGS	[I]	[J]	NOT ALLOWED	NOT ALLOWED	----	----
CENTER FITTINGS	[I]	[J]	NOT ALLOWED	NOT ALLOWED	----	----
BEAM FITTING	[K]	[L]	NOT ALLOWED	NOT ALLOWED	----	----
FWD FITTING	[K]	[L]	NOT ALLOWED	NOT ALLOWED	----	----
STIFFENER FITTINGS	[K]	[L]	NOT ALLOWED	NOT ALLOWED	----	----

NOTES

- REFINISH REWORKED AREAS PER AMM 51-20
- REFER TO SRM 51-10-01 FOR AERODYNAMIC SMOOTHNESS REQUIREMENTS. WHERE THE DAMAGE EXCEEDS THE LIMITS SHOWN IN SRM 51-10-01, CONSIDERATION SHOULD BE GIVEN TO THE LOSS OF PERFORMANCE INVOLVED
- REFER TO SRM 51-10-02 FOR INSPECTION AND REMOVAL OF DAMAGE
- DAMAGE TO PANEL EDGES MAY BE CONFINED TO DELAMINATION OR MAY TAKE A FORM WHICH RESULTS IN DAMAGE TO FIBERS AND A LOSS OF EFFECTIVE CROSS-SECTIONAL AREA. THIS TYPE OF DAMAGE SHOULD BE REMOVED AND THE LIMITATIONS GIVEN FOR CRACKS APPLIED

[A] REMOVE MOISTURE FROM DAMAGE AREA. USE VACUUM AND HEAT (MAX OF 125°F (52°C)) TO REMOVE MOISTURE FROM HONEYCOMB CELLS IS RECOMMENDED. PROTECT DAMAGE FROM ENTRANCE OF WATER, SUNLIGHT OR OTHER FOREIGN MATTER BY SEALING WITH ALUMINUM FOIL TAPE (SPEED TAPE) 3M-Y436 OR EQUIVALENT. RECORD LOCATION AND INSPECT AT AIRPLANE "A" CHECK. REPLACE ALUMINUM FOIL TAPE IF ANY PEELING OR DETERIORATION OF TAPE IS EVIDENT. REPAIR DAMAGE PER SRM 51-70 NO LATER THAN THE NEXT "C" CHECK

[B] 2.0 INCHES (50 mm) MAX LENGTH ALLOWED IN HONEYCOMB AREA PER SQUARE FOOT (930 SQUARE cm) OF AREA AND A MINIMUM OF 6 INCHES (150 MM) FROM ANY OTHER CRACK. CLEAN UP EDGE CRACKS PER DETAILS II AND IV. CRACKS THROUGH CONSECUTIVE FASTENERS OR THROUGH THE PANEL EDGEBAND ARE ALLOWED PROVIDED DAMAGE DOES NOT EXCEED 10% OF EDGEBAND LENGTH PER SIDE [A]

[C] DAMAGE ALLOWED ON SURFACE RESIN ONLY. DAMAGE TO FIBERS NOT ALLOWED. CLEAN UP EDGE DAMAGE PER DETAILS II AND VI [A]

Allowable Damage - Main Landing Gear Strut Door
Figure 101 (Sheet 2 of 5)

[D] DENTS GENERALLY RESULT IN FIBER DAMAGE OR DELAMINATION. HOWEVER, PROVIDED THAT THERE IS NO FIBER DAMAGE OR DELAMINATION, DENTS UP TO 1.00 DIA MAX ARE ALLOWED. ONE DENT PER SQUARE FOOT OF AREA ALLOWED WHICH MUST BE A MINIMUM OF 6 INCHES FROM ANY OTHER DAMAGE, FASTENER HOLE, OR PANEL EDGE. SEE [E] OR [F] IF FIBER DAMAGE OR DELAMINATION IS PRESENT

[E] 1.00 MAX DIA ALLOWED PROVIDED DAMAGE IS MIN OF 3.0 D FROM OTHER DAMAGE, NEAREST HOLE, OR MATERIAL EDGE. DO NOT CLEAN UP DAMAGE EXCEPT TO REMOVE RESIN BURRS EXTENDING INTO SURFACE CONTOUR [A]

[F] 1.00 INCH MAX DIA IS ALLOWED IN HONEYCOMB AREA. A MAXIMUM OF 0.10 INCH DELAMINATION FROM EDGE IS ALLOWED. REPAIR DELAMINATION IN HONEYCOMB AREA PER 51-70 NO LATER THAN THE NEXT "C" CHECK. PROTECT EDGE DAMAGE PER [A]

[G] CRACKS NOT ALLOWED EXCEPT FOR EDGE CRACKS WHICH MUST BE REMOVED PER DETAILS II AND VI

[H] REMOVE DAMAGE PER DETAILS II, III AND V

[I] CRACKS NOT ALLOWED EXCEPT FOR EDGE CRACKS WHICH MUST BE REMOVED PER DETAIL VIII

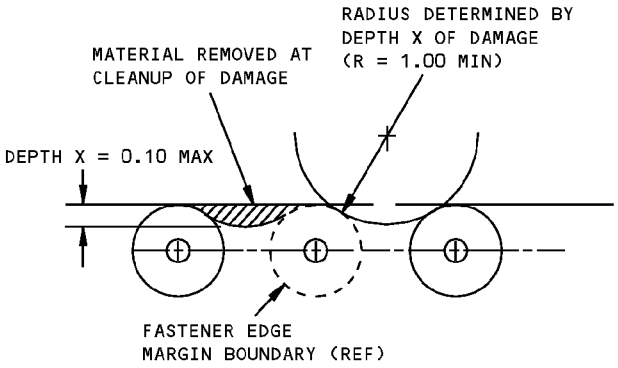
[J] FOR EDGE DAMAGE SEE DETAIL VIII. FOR LUG DAMAGE SEE DETAIL VII. FOR OTHER DAMAGE SEE DETAIL III. DAMAGE NOT ALLOWED IN VICINITY OF BUSHINGS

[K] CRACKS NOT ALLOWED EXCEPT FOR EDGE CRACKS WHICH MUST BE REMOVED PER DETAIL VIII. SEE DETAIL I FOR APPLICABLE SHOT PEEN REQUIREMENTS

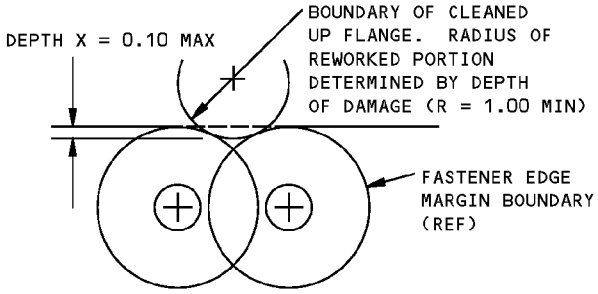
[L] FOR EDGE DAMAGE SEE DETAIL VIII. FOR LUG DAMAGE SEE DETAIL VII. FOR OTHER DAMAGE SEE DETAIL III. DAMAGE NOT ALLOWED IN VICINITY OF BUSHINGS. SEE DETAIL I FOR APPLICABLE SHOT PEEN REQUIREMENTS

[M] SHOT PEEN REWORKED AREA PER 51-20-06. SHOT PEEN INTENSITIES WILL VARY WITH THE THICKNESS REMAINING AFTER REWORK

Allowable Damage - Main Landing Gear Strut Door
Figure 101 (Sheet 3 of 5)

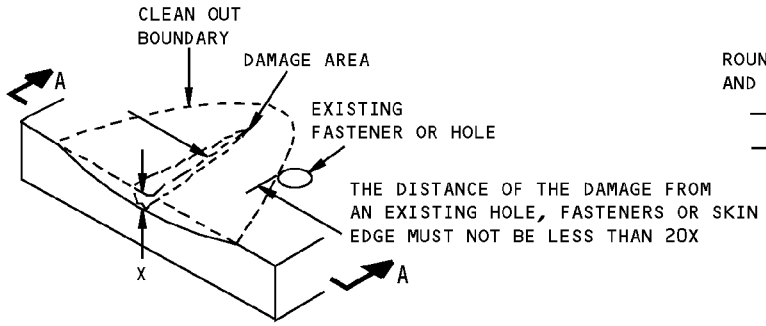


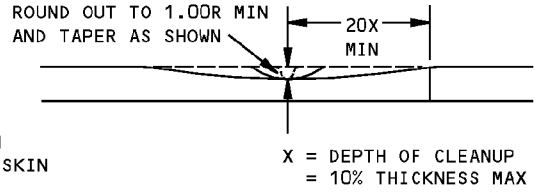
DAMAGE CLEANUP OF EDGES WHERE
FASTENER EDGE MARGINS DO NOT OVERLAP



DAMAGE CLEANUP OF EDGES WHERE
FASTENER EDGE MARGINS OVERLAP

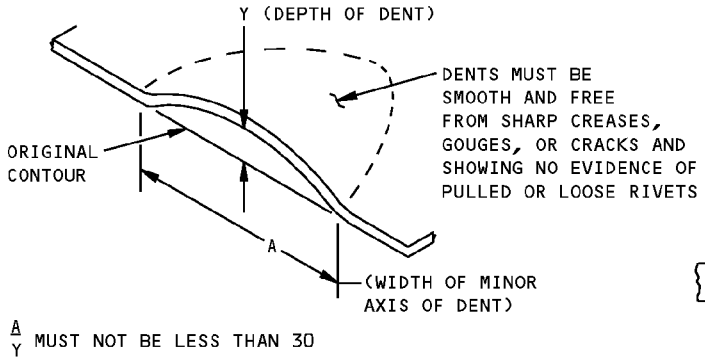
DETAIL II



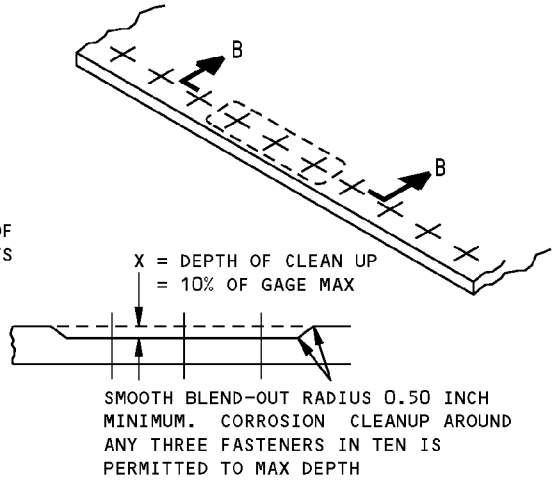


SECTION A–A

REMOVAL OF NICK, GOUGE AND SCRATCH DAMAGE ON A SURFACE
DETAIL III



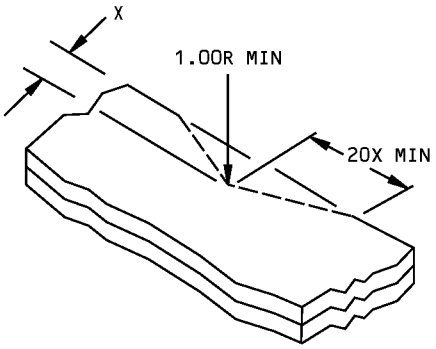
ALLOWABLE DAMAGE FOR DENT
DETAIL IV



SECTION B–B

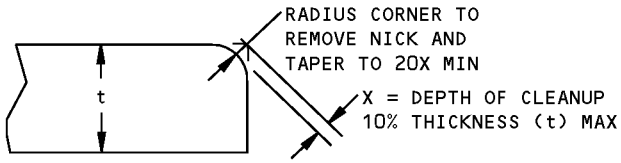
CORROSION CLEANUP
DETAIL V

Allowable Damage - Main Landing Gear Strut Door
Figure 101 (Sheet 4 of 5)

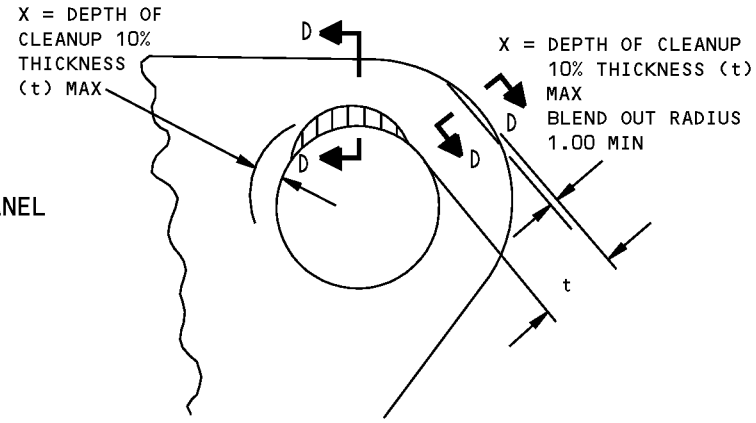


X = DEPTH OF CLEANUP = 0.10 MAX

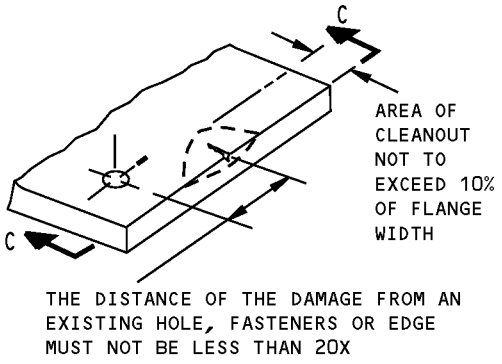
REMOVAL OF EDGE CRACK FROM DOOR PANEL
DETAIL VI



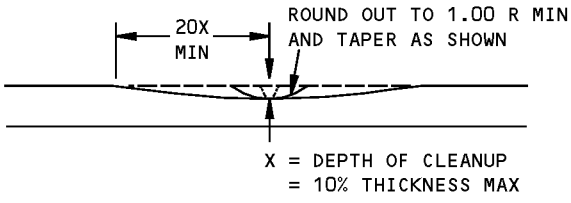
SECTION D–D
(ROTATED)



DAMAGE CLEANUP FOR EDGES OF LUG
DETAIL VII

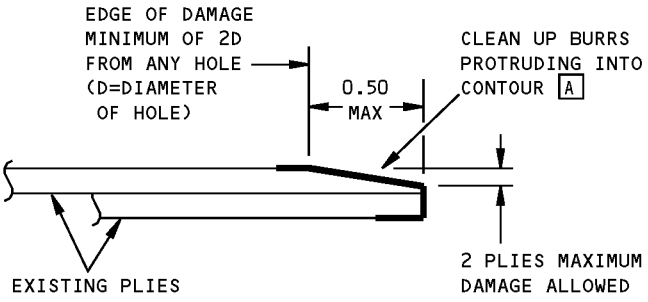


THE DISTANCE OF THE DAMAGE FROM AN EXISTING HOLE, FASTENERS OR EDGE MUST NOT BE LESS THAN 20X



SECTION C–C

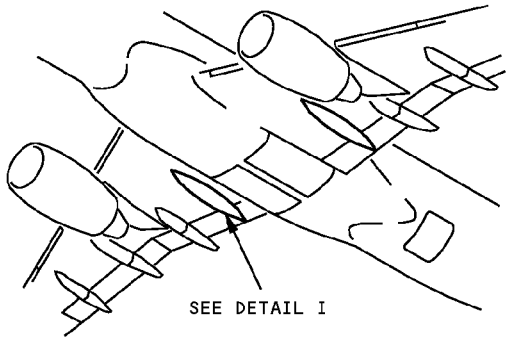
REMOVAL OF EDGE CRACK FROM FITTINGS
DETAIL VIII



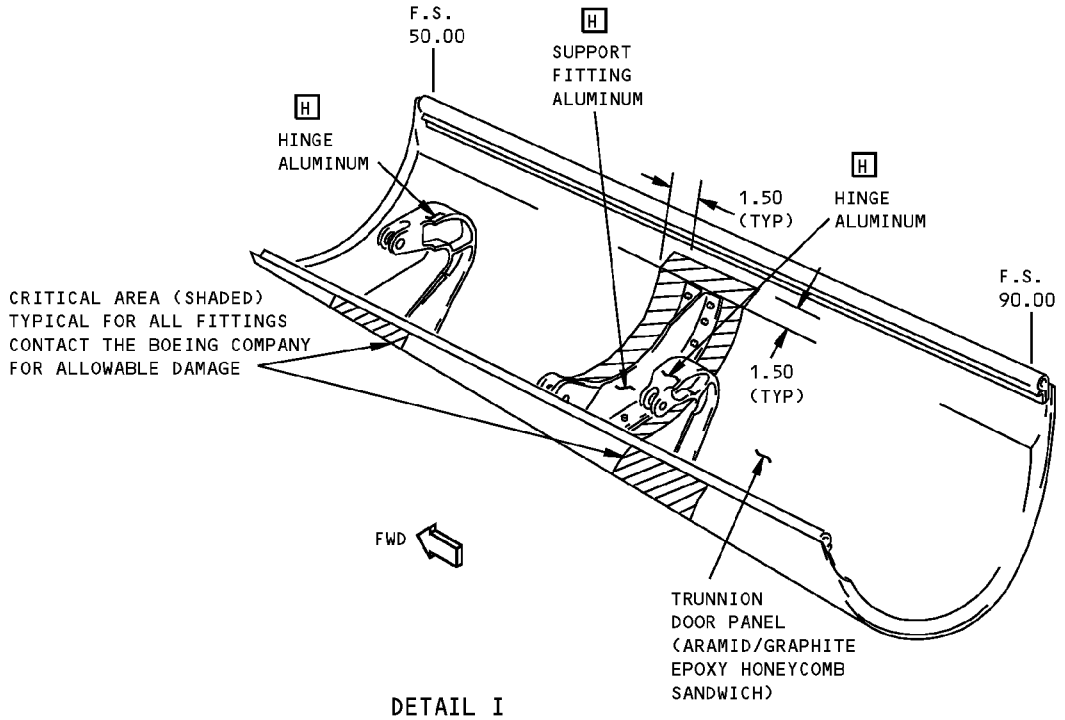
DAMAGE CLEANUP AND SEALING
OF EDGE EROSION
DETAIL IX

Allowable Damage - Main Landing Gear Strut Door
Figure 101 (Sheet 5 of 5)

ALLOWABLE DAMAGE 4 - TRUNNION FAIRING DOOR



REF DWG
113N1800



DETAIL I

DESCRIPTION	CRACKS	NICKS, GOUGES AND CORROSION	DENTS	HOLES AND PUNCTURES	DELAMI-NATION	EDGE EROSION
TRUNNION DOOR PANEL	B	C	D	E	F	SEE DETAIL II
HINGE	I	G	NOT ALLOWED	NOT ALLOWED	------	------
SUPPORT FITTING	I	G	NOT ALLOWED	NOT ALLOWED	------	------

Allowable Damage - Trunnion Fairing Door
Figure 101 (Sheet 1 of 4)

NOTES

- REFINISH REWORKED AREAS PER AMM 51-20 OF THE MAINTENANCE MANUAL
- REFER TO SRM 51-10-01 FOR AERODYNAMIC SMOOTHNESS REQUIREMENTS. WHERE THE DAMAGE EXCEEDS THE LIMITS SHOWN IN SRM 51-10-01, CONSIDERATION SHOULD BE GIVEN TO THE LOSS OF PERFORMANCE INVOLVED
- REFER TO SRM 51-10-02 FOR INSPECTION AND REMOVAL OF DAMAGE
- TYPICAL DAMAGE TO A PANEL EDGEBAND MAY CONSIST OF EDGE CRUSHING, CRACKS OR DELAMINATION. DAMAGE AROUND HOLES MAY CONSIST OF OVALIZATION, FASTENER PULL-THROUGH OR CRACKS OUT OF HOLE. DAMAGE MAY REDUCE THE EFFECTIVE CROSS-SECTIONAL AREA OF AN EDGEBAND. DAMAGE TO EDGES SHOULD BE BLENDED OUT TO LIMITATIONS GIVEN FOR COMPONENT

[A] REMOVE MOISTURE FROM DAMAGE AREA. USE OF VACUUM AND HEAT (MAX OF 125°F (52°C)) TO REMOVE MOISTURE FROM HONEYCOMB CELLS IS RECOMMENDED. PROTECT DAMAGE FROM ENTRANCE OF WATER, SUNLIGHT OR OTHER FOREIGN MATTER BY SEALING WITH ALUMINUM FOIL TAPE (SPEED TAPE). RECORD LOCATION AND INSPECT AT AIRPLANE "A" CHECK. REPLACE ALUMINUM FOIL TAPE IF ANY PEELING OR DETERIORATION OF TAPE IS EVIDENT. REPAIR DAMAGE PER SRM 51-70 NO LATER THAN THE NEXT "C" CHECK

[B] 0.50 (12.7 mm) MAX LENGTH IN HONEYCOMB AREA ALLOWED PER SQUARE FOOT OF AREA AND A MINIMUM OF 6 INCHES (150 mm) FROM ANY OTHER DAMAGE. CLEAN UP EDGE CRACKS PER DETAIL VI. CRACKS THROUGH CONSECUTIVE FASTENERS OR THROUGH THE PANEL EDGEBAND ARE ALLOWED PROVIDED DAMAGE DOES NOT EXCEED 10% OF EDGEBAND LENGTH PER SIDE [A]

[C] DAMAGE ALLOWED ON SURFACE RESIN ONLY. DAMAGE TO FIBERS NOT ALLOWED. CLEAN UP EDGE DAMAGE PER DETAILS III, VI [A]

[D] DENTS GENERALLY RESULT IN FIBER DAMAGE OR DELAMINATION. HOWEVER, IF THERE IS NO FIBER DAMAGE OR DELAMINATION, DENTS UP TO 2.25 SQUARE INCH (14.5 SQUARE cm) AREA ARE ALLOWED. ONE DENT PER SQUARE FOOT (930 SQUARE cm) OF AREA ALLOWED WHICH MUST BE A MINIMUM OF 6 INCHES (150 mm) FROM ANY OTHER DAMAGE, FASTENER HOLE, OR PANEL EDGE. SEE [E] OR [F] IF FIBER DAMAGE OR DELAMINATION IS PRESENT

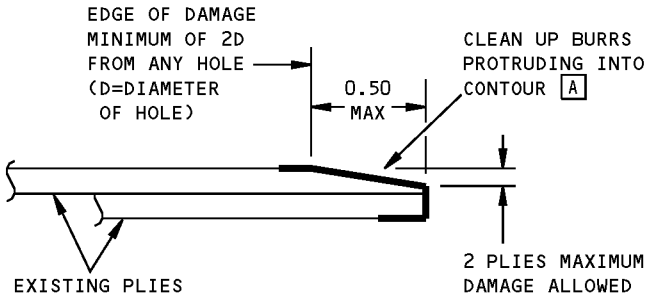
[E] 0.50 INCH (12.7 mm) MAX DIA ALLOWED PROVIDED DAMAGE IS MIN OF 3.0D FROM OTHER DAMAGE, NEAREST HOLE, OR MATERIAL EDGE. DO NOT CLEAN UP DAMAGE EXCEPT TO REMOVE RESIN BURRS EXTENDING INTO SURFACE CONTOUR [A]

[F] 0.50 INCH (12.7 mm) MAX DIA IS ALLOWED IN HONEYCOMB AREA. A MAXIMUM OF 0.03 INCH (0.75 mm) DELAMINATION FROM EDGE IS ALLOWED. REPAIR DELAMINATION IN HONEYCOMB AREA PER SRM 51-70 NO LATER THAN THE NEXT "C" CHECK. PROTECT EDGE DAMAGE PER [A]

[G] FOR EDGE DAMAGE SEE DETAIL VI. FOR LUG DAMAGE SEE DETAIL IV. FOR OTHER DAMAGE SEE DETAIL V. DAMAGE NOT ALLOWED IN VICINITY OF BUSHINGS. SEE DETAIL I FOR APPLICABLE SHOT PEEN REQUIREMENTS

[H] SHOT PEEN REWORKED AREAS PER SRM 51-20-06. SHOT PEEN INTENSITIES WILL VARY WITH THE THICKNESS REMAINING AFTER REWORK

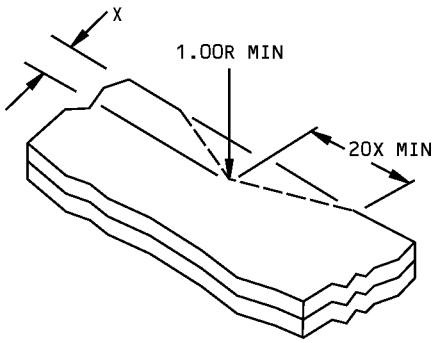
[I] CRACKS NOT ALLOWED EXCEPT FOR EDGE CRACKS WHICH MUST BE REMOVED PER DETAIL V



DAMAGE CLEANUP AND SEALING
OF EDGE EROSION

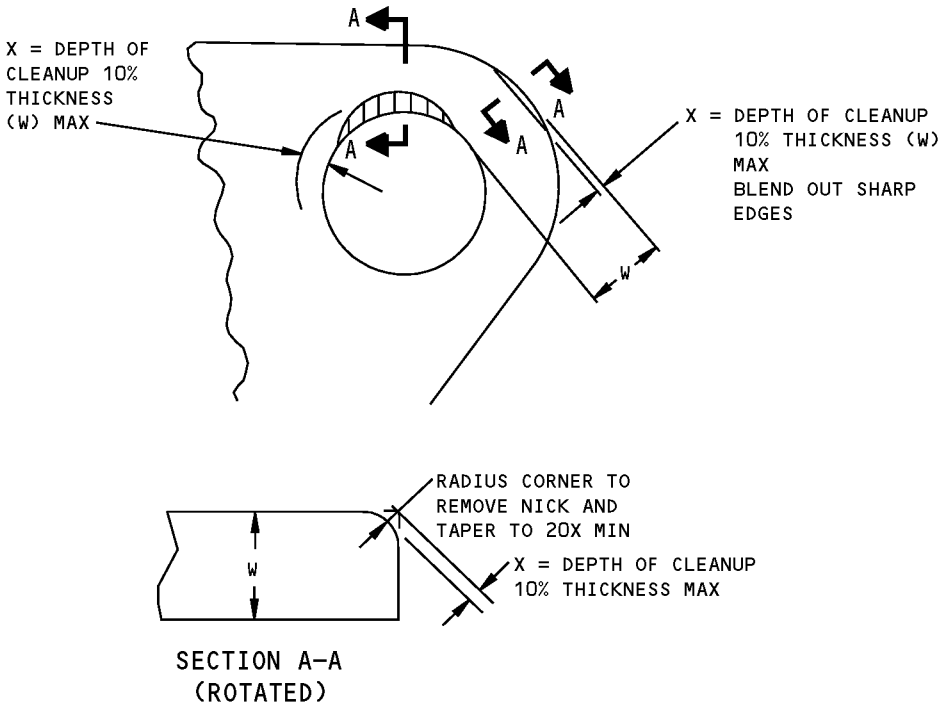
DETAIL II

Allowable Damage - Trunnion Fairing Door
Figure 101 (Sheet 2 of 4)



X = DEPTH OF CLEANUP = 0.10 MAX

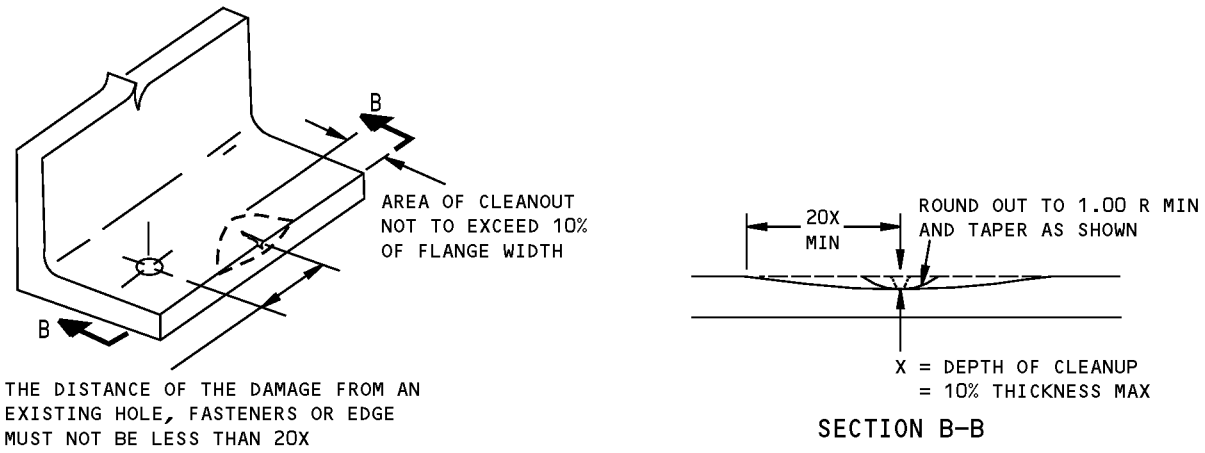
REMOVAL OF NICK OR CRACK DAMAGE OF AN EDGE
DETAIL III



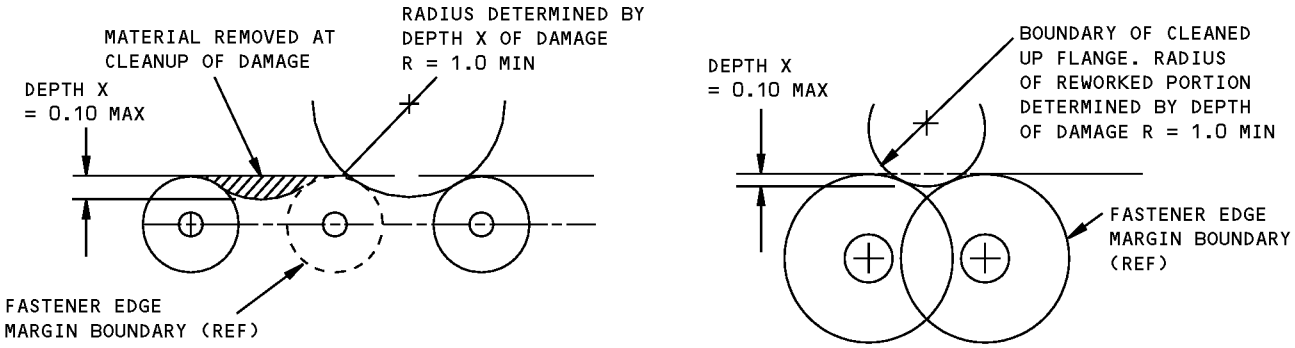
SECTION A–A
(ROTATED)

DAMAGE CLEANUP FOR EDGES OF LUG
DETAIL IV

Allowable Damage - Trunnion Fairing Door
Figure 101 (Sheet 3 of 4)



REMOVAL OF NICK OR CRACK DAMAGE ON AN EDGE
DETAIL V



DAMAGE CLEANUP OF EDGES WHERE FASTENER EDGE MARGINS DO NOT OVERLAP

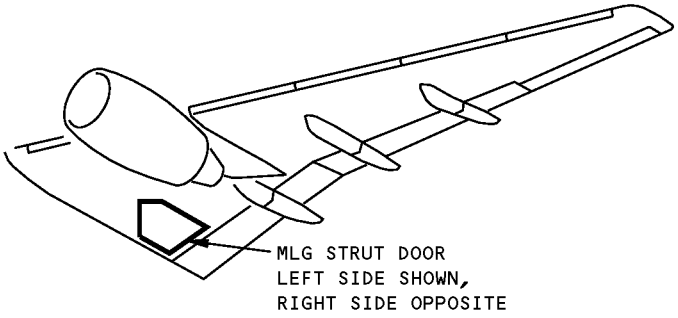
DAMAGE CLEANUP OF EDGES WHERE FASTENER EDGE MARGINS OVERLAP

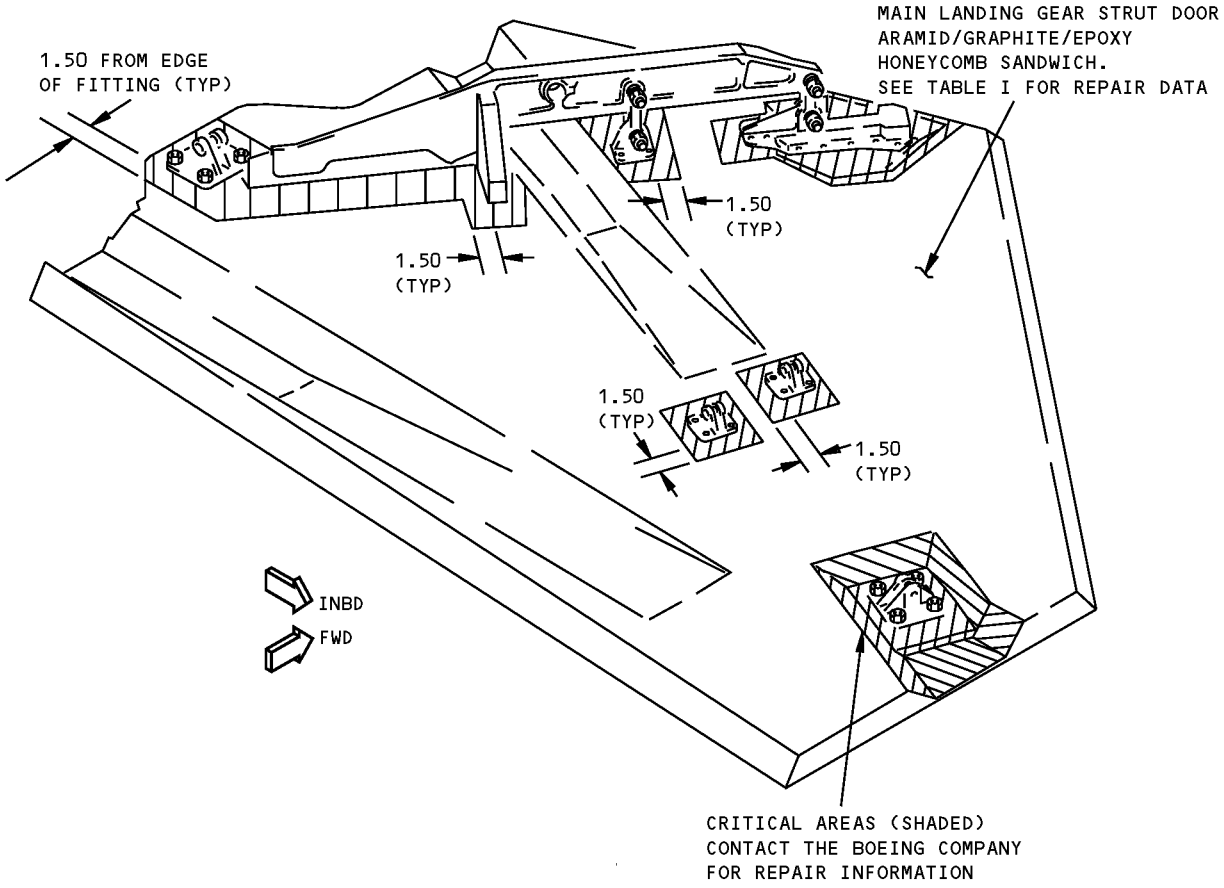
DETAIL VI

Allowable Damage - Trunnion Fairing Door
Figure 101 (Sheet 4 of 4)

REPAIR 1 - MAIN LANDING GEAR STRUT DOOR

REF DWG
113N8100
113N8107





Main Landing Gear Strut Door
Figure 201 (Sheet 1 of 2)

DAMAGE	INTERIM REPAIRS [B]	PERMANENT REPAIRS		
	WET LAYUP ROOM TEMP (SRM 51-70-03)	WET LAYUP 150°F (66°C)CURE (SRM 51-70-03)	WET LAYUP 200°F (93°C)CURE (SRM 51-70-17)	250°F (121°C) CURE (SRM 51-70-05)
CRACKS	UP TO 3.0 INCHES (75 mm) LONG, REPAIR WITH PATCH AS GIVEN IN SRM 51-70-03, PAR. 5.N. [A]	CLEAN UP DAMAGE AND REPAIR AS A HOLE	CLEAN UP DAMAGE AND REPAIR AS A HOLE	CLEAN UP DAMAGE AND REPAIR AS A HOLE
HOLES	3.0 INCHES (75 mm) MAX DIA NOT TO EXCEED 30% OF SMALLEST DIMENSION ACROSS HONEYCOMB PANEL AT THE DAMAGE LOCATION. FILL WITH BMS 5-28, TYPE 7 POTTING COMPOUND AND PATCH AS GIVEN IN SRM 51-70-03, PAR. 5.N. [A]	6.0 INCHES (150 mm) MAXIMUM DIA NOT TO EXCEED 50% OF SMALLEST DIMENSION ACROSS HONEYCOMB PANEL AT THE DAMAGE LOCATION. USE TWO EXTRA PLIES FOR EACH FACESHEET REPAIRED [C]	12.0 INCHES (300 mm) MAXIMUM DIA NOT TO EXCEED 50% OF SMALLEST DIMENSION ACROSS HONEYCOMB PANEL AT THE DAMAGE LOCATION. USE TWO EXTRA PLIES FOR EACH FACESHEET REPAIRED [C]	NO SIZE LIMIT
EDGE EROSION	———	FOR DAMAGE NOT LARGER THAN 35% OF EDGEBAND THICKNESS, REPAIR AS GIVEN IN SRM 51-70-03, PAR. 5.0. FOR LARGER DAMAGE, REPAIR AS GIVEN IN: SRM 51-70-03, PAR. 5.G.	SRM 51-70-17, PAR. 4.G.	SRM 51-70-05, PAR. 5.G.
DELAMI-NATION	CUT OUT AND REPAIR AS A HOLE			
NICKS AND GOUGES	IF THERE IS NO FIBER DAMAGE OR DELAMINATION, FILL NICKS OR GOUGES AS GIVEN IN SRM 51-70-03 IF YOU FIND FIBER DAMAGE OR DELAMINATION, THEN REPAIR AS A HOLE			
DENTS	UP TO 2.0 INCHES (50 mm) DIA WITH NO FIBER DAMAGE OR DELAMINATION, FILL WITH BMS 5-28, TYPE 7 POTTING COMPOUND AND PATCH AS GIVEN IN SRM 51-70-03, PAR. 5.L. [C] OVER 2.0 INCHES (50 mm) DIA OR WITH FIBER DAMAGE OR DELAMINATION, REPAIR AS A HOLE			

REPAIR DATA FOR 250°F (121°C) CURE HONEYCOMB PANELS
TABLE I

NOTES

- WHEN YOU USE THIS REPAIR, REFER TO:
  - AMM 51-21-01 FOR APPLICATION OF FINISHES
  - SRM 51-10-01, FOR AERODYNAMIC SMOOTHNESS REQUIREMENTS. WHERE THE DAMAGE IS MORE THAN THE LIMITS GIVEN IN SRM 51-10-01, THOUGHT SHOULD BE GIVEN TO THE LOSS OF PERFORMANCE THAT MAY OCCUR.

[A] LIMITED TO REPAIR OF DAMAGE TO ONE FACESHEET SKIN AND HONEYCOMB CORE. ONE REPAIR FOR EACH SQUARE FOOT (930 SQUARE cm) OF AREA AND MINIMUM OF 6.0 INCHES (150 mm) (EDGE TO EDGE) FROM ANY OTHER DAMAGE, FASTENER HOLE, OR EDGE OF PANEL

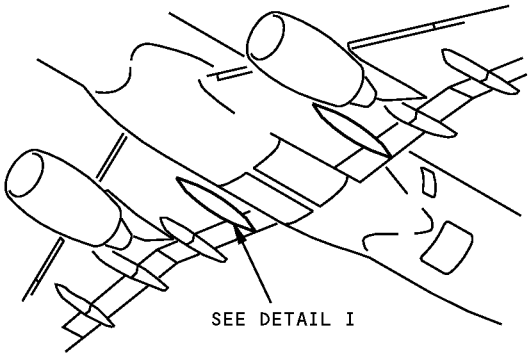
[B] INSPECT INTERIM REPAIR USING INSTRUMENTED NDT METHODS OR "TAP" TEST EVERY AIRPLANE "2A" CHECK. FOR "TAP" TEST, USE A SOLID METAL DISK AND TAP THE REPAIR AREA LIGHTLY BUT FIRMLY. VOID AREAS WILL GIVE A DULL SOUND INSTEAD OF A SHARP RING THAT YOU WILL HEAR ON A SOLID BONDED AREA. PERMANENT REPAIR IS REQUIRED IF ANY DETERIORATION IS FOUND. REFER TO SRM 51-70-03, PAR. 4.I. AND THE NONDESTRUCTIVE TEST MANUAL

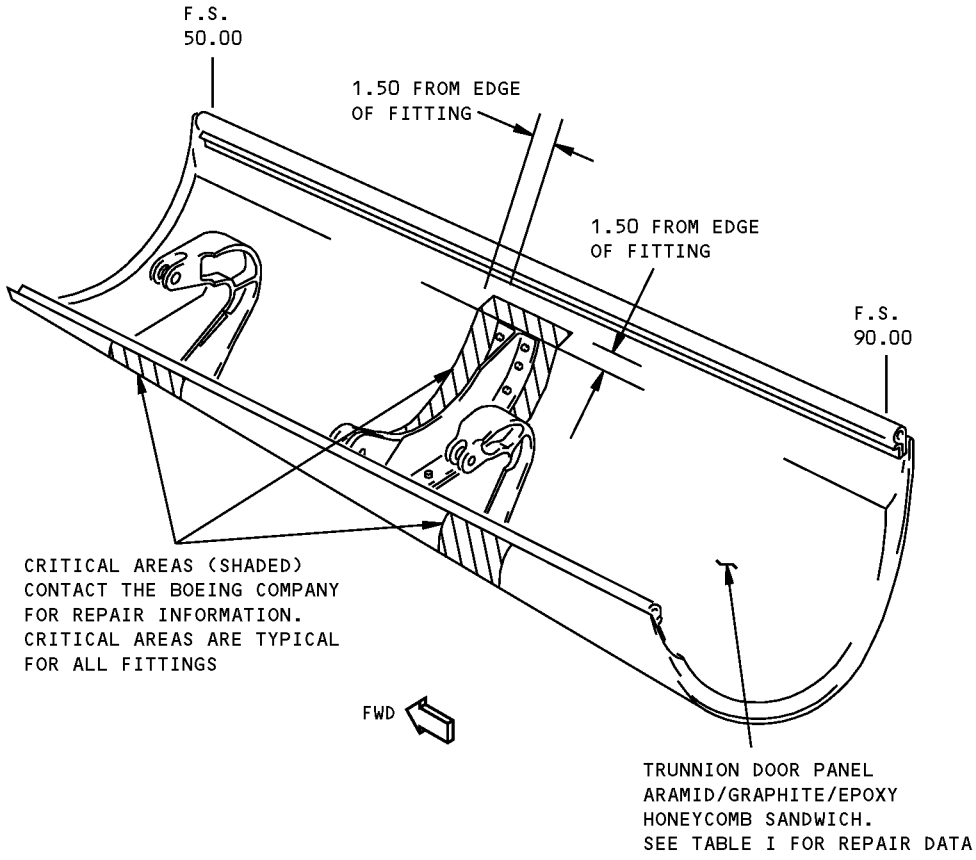
[C] ONE REPAIR FOR EACH SQUARE FOOT (930 SQUARE cm) OF AREA AND A MINIMUM OF 6.0 INCHES (150 mm) (EDGE TO EDGE) FROM ANY OTHER DAMAGE, FASTENER HOLE, EDGE OF PANEL, OR A MINIMUM OF 2.0 INCHES (50 mm) FROM TAPERED EDGE OF HONEYCOMB CORE

Main Landing Gear Strut Door
Figure 201 (Sheet 2 of 2)

REPAIR 2 - TRUNNION FAIRING DOOR

REF DWG
113N1800





DETAIL I

Trunnion Fairing Door
Figure 201 (Sheet 1 of 2)

DAMAGE	INTERIM REPAIRS [B]	PERMANENT REPAIRS		
	WET LAYUP ROOM TEMP (SRM 51-70-03)	WET LAYUP 150°F (66°C)CURE (SRM 51-70-03)	WET LAYUP 200°F (93°C)CURE (SRM 51-70-17)	250°F (121°C) CURE (SRM 51-70-05)
CRACKS	UP TO 3.0 INCHES (75 mm) LONG, REPAIR WITH PATCH AS GIVEN IN SRM 51-70-03, PAR. 5.N. [A]	CLEAN UP DAMAGE AND REPAIR AS A HOLE	CLEAN UP DAMAGE AND REPAIR AS A HOLE	CLEAN UP DAMAGE AND REPAIR AS A HOLE
HOLES	3.0 INCHES (75 mm) MAX DIA NOT TO EXCEED 30% OF SMALLEST DIMENSION ACROSS HONEYCOMB PANEL AT THE DAMAGE LOCATION. FILL WITH BMS 5-28, TYPE 7 POTTING COMPOUND AND PATCH AS GIVEN IN SRM 51-70-03, PAR. 5.N. [A]	6.0 INCHES (150 mm) MAXIMUM DIA NOT TO EXCEED 50% OF SMALLEST DIMENSION ACROSS HONEYCOMB PANEL AT THE DAMAGE LOCATION. USE TWO EXTRA PLIES FOR EACH FACESHEET REPAIRED [C]	12.0 INCHES (300 mm) MAXIMUM DIA NOT TO EXCEED 50% OF SMALLEST DIMENSION ACROSS HONEYCOMB PANEL AT THE DAMAGE LOCATION. USE TWO EXTRA PLIES FOR EACH FACESHEET REPAIRED [C]	NO SIZE LIMIT
EDGE EROSION	———	FOR DAMAGE NOT LARGER THAN 35% OF EDGEBAND THICKNESS, REPAIR AS GIVEN IN SRM 51-70-03, PAR. 5.0. FOR LARGER DAMAGE, REPAIR AS GIVEN IN: SRM 51-70-03, PAR. 5.G.	SRM 51-70-17, PAR. 4.G.	SRM 51-70-05, PAR. 5.G.
DELAMI-NATION	CUT OUT AND REPAIR AS A HOLE			
NICKS AND GOUGES	IF THERE IS NO FIBER DAMAGE OR DELAMINATION, FILL NICKS OR GOUGES AS GIVEN IN SRM 51-70-03 IF YOU FIND FIBER DAMAGE OR DELAMINATION, THEN REPAIR AS A HOLE			
DENTS	UP TO 2.0 INCHES (50 mm) DIA WITH NO FIBER DAMAGE OR DELAMINATION, FILL WITH BMS 5-28, TYPE 7 POTTING COMPOUND AND PATCH AS GIVEN IN SRM 51-70-03, PAR. 5.L. [C] OVER 2.0 INCHES (50 mm) DIA OR WITH FIBER DAMAGE OR DELAMINATION, REPAIR AS A HOLE			

REPAIR DATA FOR 250°F (121°C) CURE HONEYCOMB PANELS
TABLE I

NOTES

- WHEN YOU USE THIS REPAIR, REFER TO:
  - AMM 51-21-01 FOR APPLICATION OF FINISHES
  - SRM 51-10-01, FOR AERODYNAMIC SMOOTHNESS REQUIREMENTS. WHERE THE DAMAGE IS MORE THAN THE LIMITS GIVEN IN SRM 51-10-01, THOUGHT SHOULD BE GIVEN TO THE LOSS OF PERFORMANCE THAT MAY OCCUR.

[A] LIMITED TO REPAIR OF DAMAGE TO ONE FACESHEET SKIN AND HONEYCOMB CORE. ONE REPAIR FOR EACH SQUARE FOOT (930 SQUARE cm) OF AREA AND MINIMUM OF 6.0 INCHES (150 mm) (EDGE TO EDGE) FROM ANY OTHER DAMAGE, FASTENER HOLE, OR EDGE OF PANEL

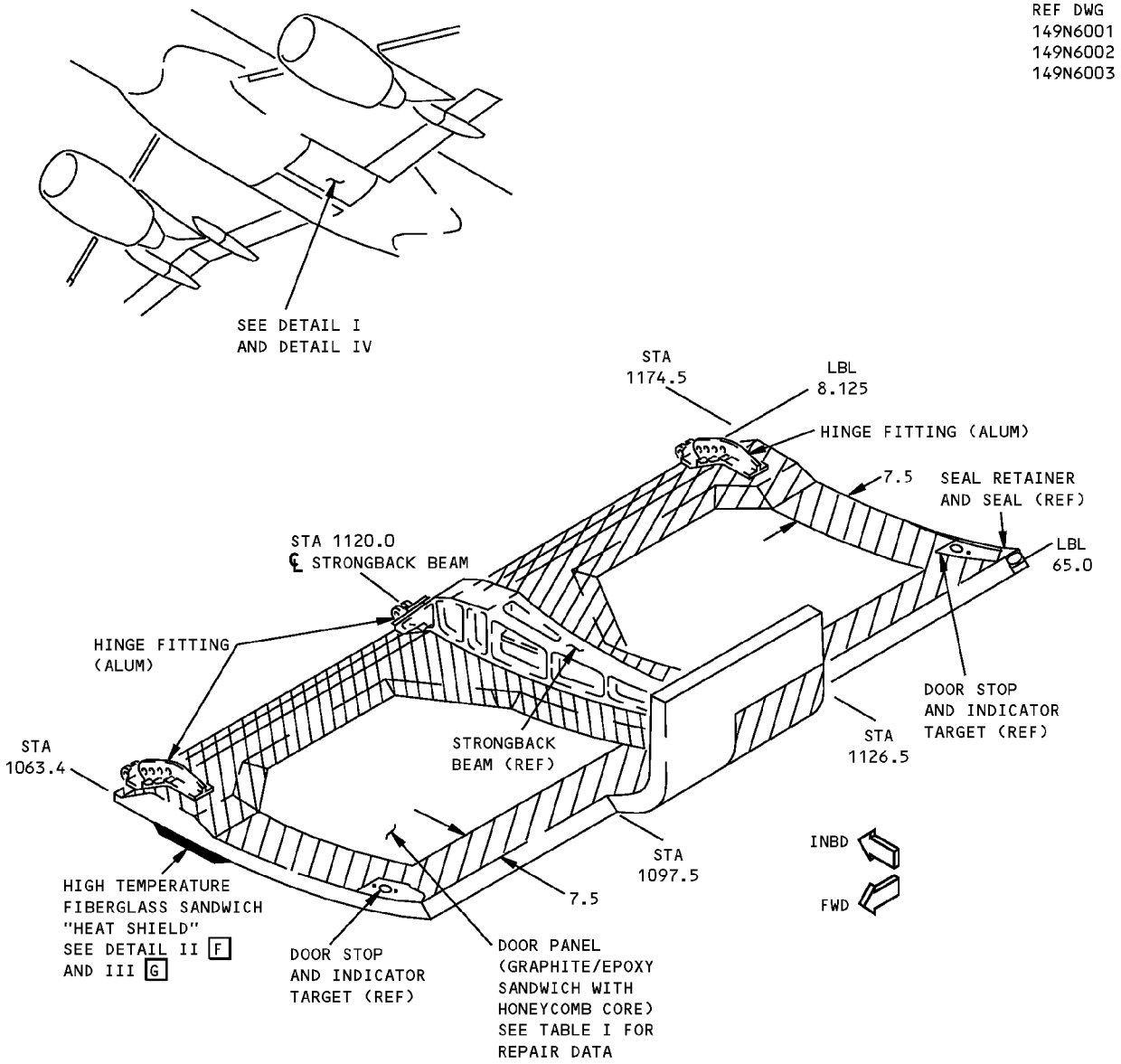
[B] INSPECT INTERIM REPAIR USING INSTRUMENTED NDT METHODS OR "TAP" TEST EVERY AIRPLANE "2A" CHECK. FOR "TAP" TEST, USE A SOLID METAL DISK AND TAP THE REPAIR AREA LIGHTLY BUT FIRMLY. VOID AREAS WILL GIVE A DULL SOUND INSTEAD OF A SHARP RING THAT YOU WILL HEAR ON A SOLID BONDED AREA. PERMANENT REPAIR IS REQUIRED IF ANY DETERIORATION IS EVIDENT. REFER TO SRM 51-70-03, PAR. 4.I. AND THE NONDESTRUCTIVE TEST MANUAL

[C] ONE REPAIR FOR EACH SQUARE FOOT (930 SQUARE cm) OF AREA AND A MINIMUM OF 6.0 INCHES (150 mm) (EDGE TO EDGE) FROM ANY OTHER DAMAGE, FASTENER HOLE, EDGE OF PANEL, OR A MINIMUM OF 2.0 INCHES (50 mm) FROM TAPERED EDGE OF HONEYCOMB CORE

Trunnion Fairing Door
Figure 201 (Sheet 2 of 2)

REPAIR 3 - MAIN LANDING GEAR DOOR

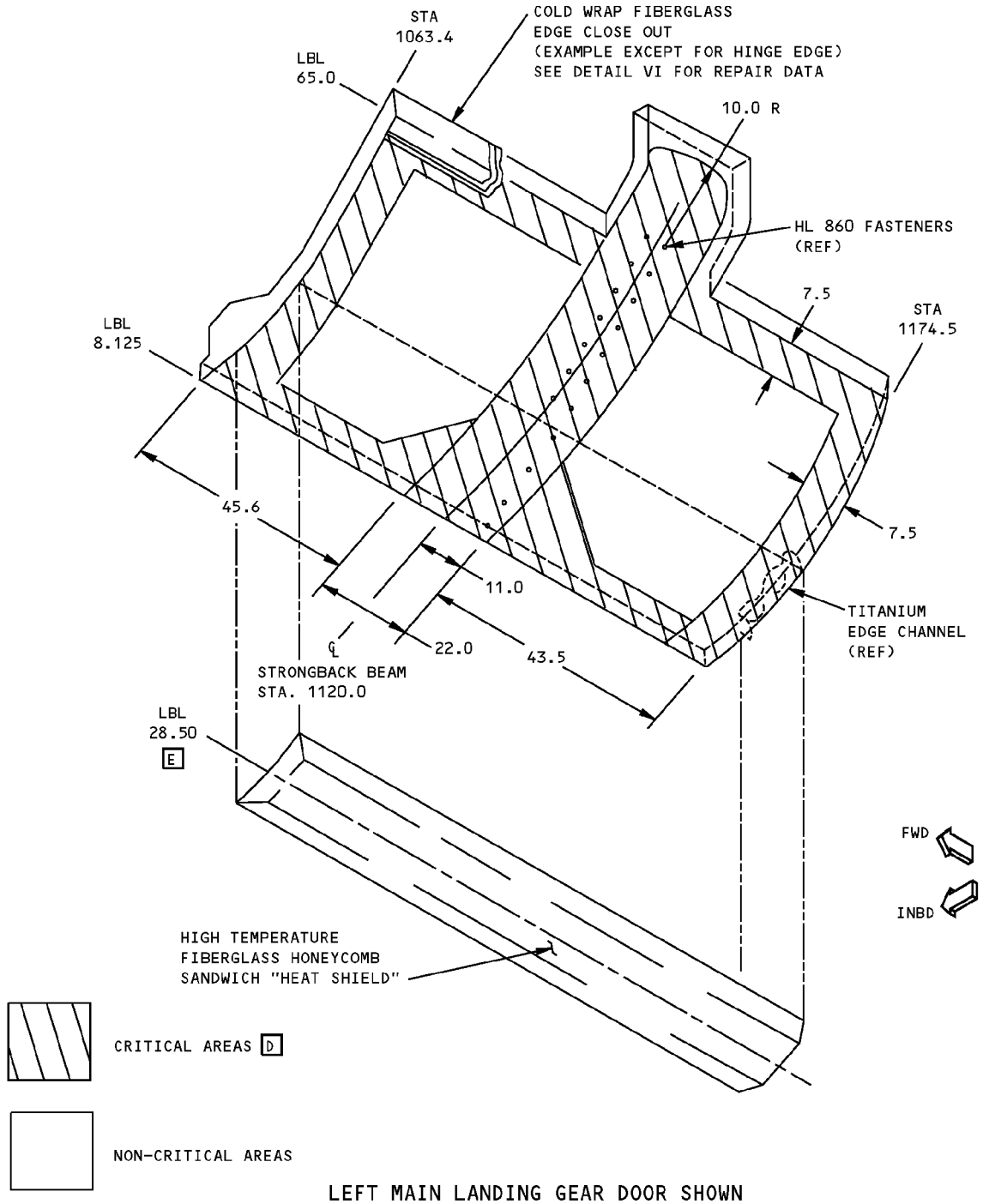
REF DWG
149N6001
149N6002
149N6003



LEFT MAIN LANDING GEAR DOOR SHOWN
RIGHT MAIN LANDING GEAR DOOR EQUIVALENT

DETAIL I H

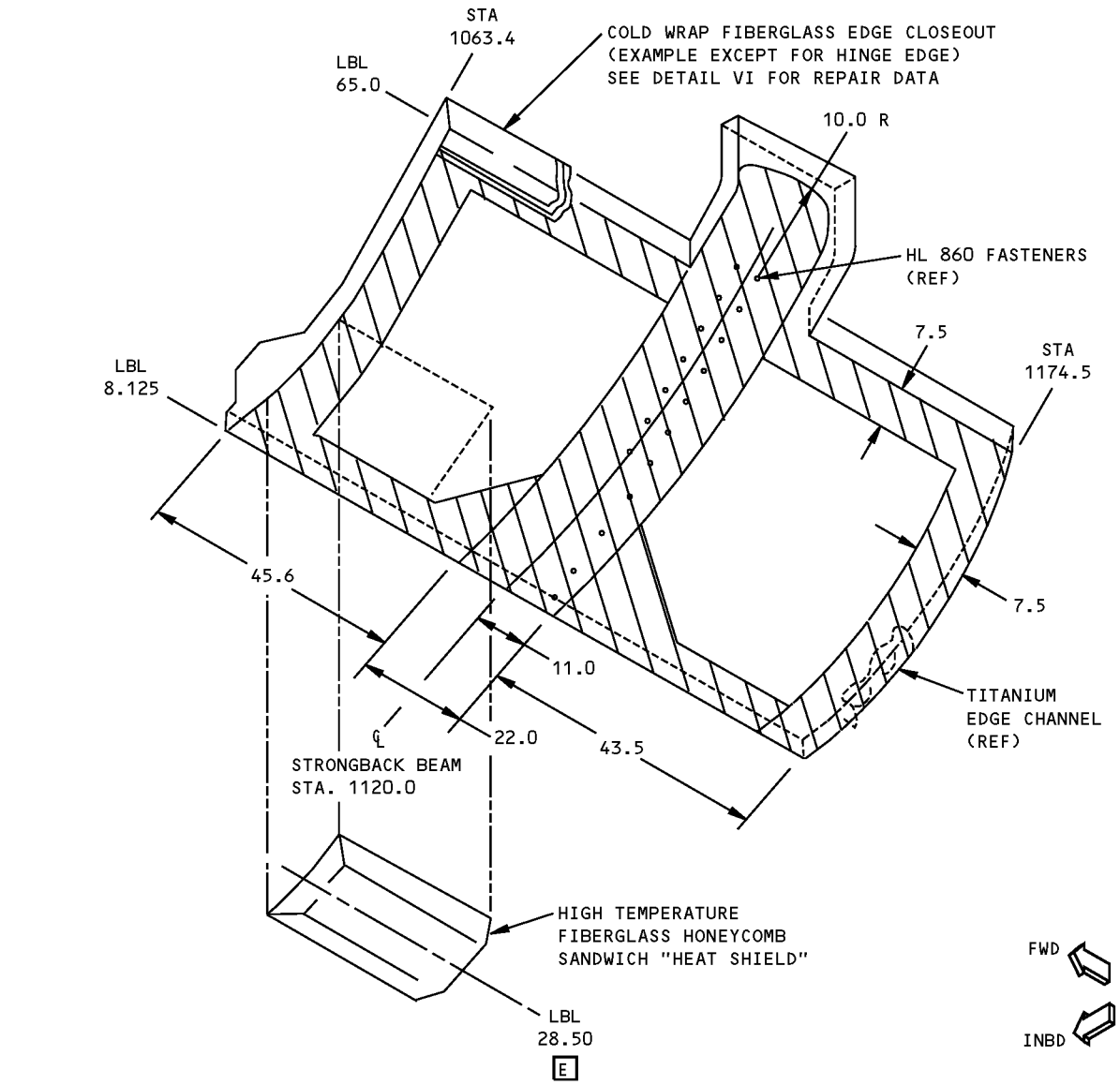
Main Landing Gear Doors
Figure 201 (Sheet 1 of 8)



LEFT MAIN LANDING GEAR DOOR SHOWN
RIGHT MAIN LANDING GEAR DOOR EQUIVALENT

DETAIL II F H

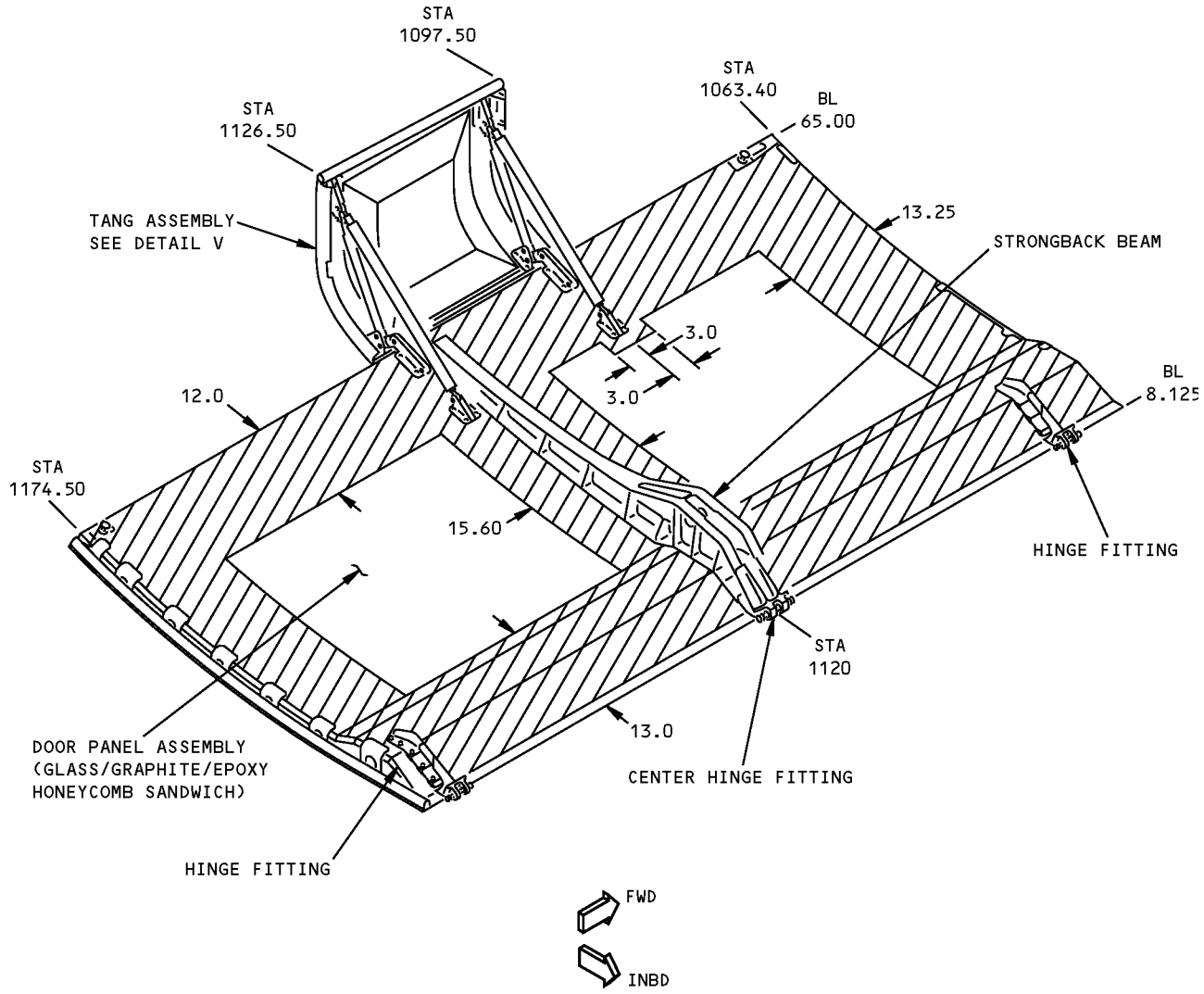
Main Landing Gear Doors
Figure 201 (Sheet 2 of 8)



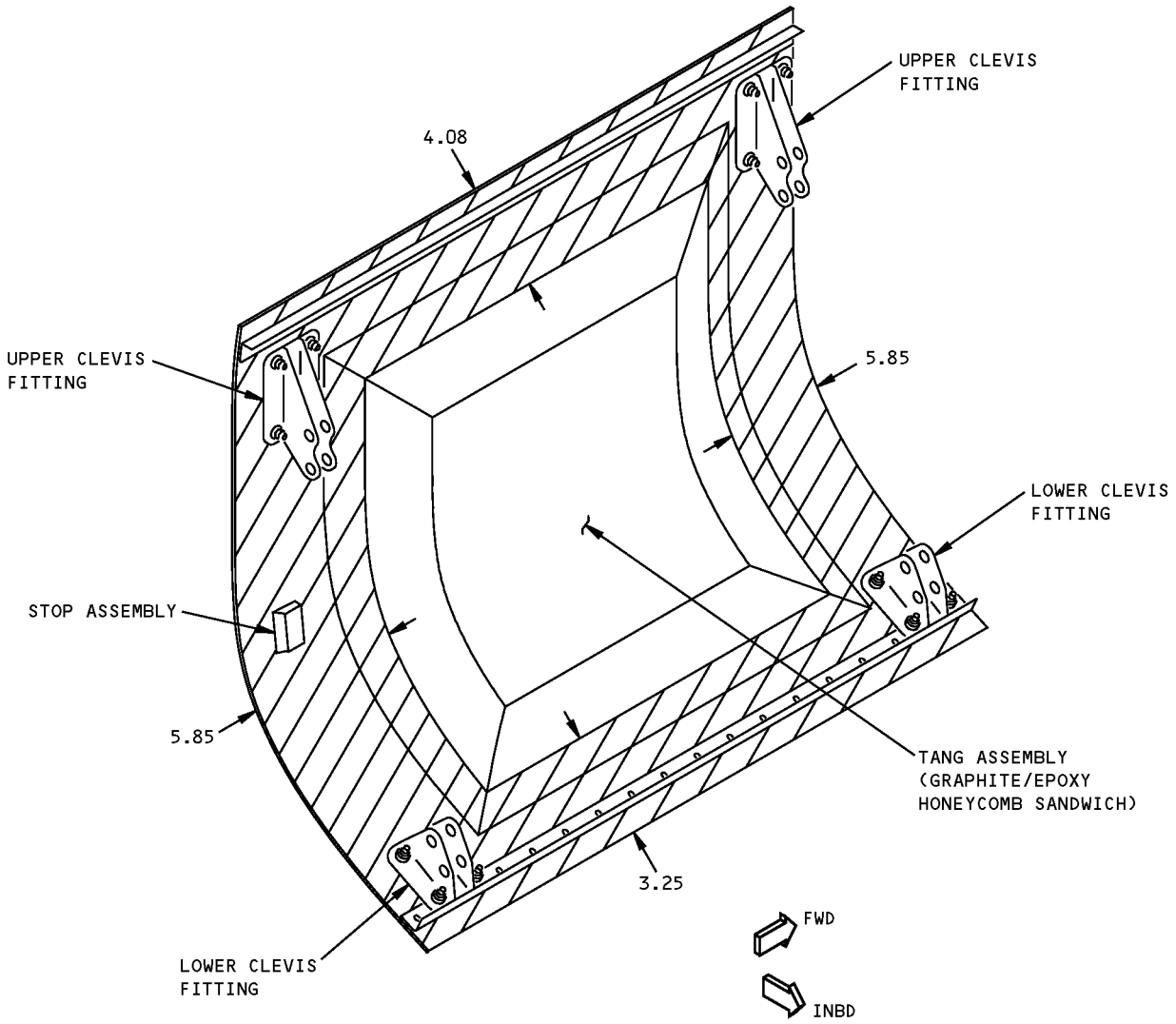
LEFT MAIN LANDING GEAR DOOR SHOWN
RIGHT MAIN LANDING GEAR DOOR EQUIVALENT

DETAIL III G H

Main Landing Gear Doors
Figure 201 (Sheet 3 of 8)



Main Landing Gear Doors
Figure 201 (Sheet 4 of 8)

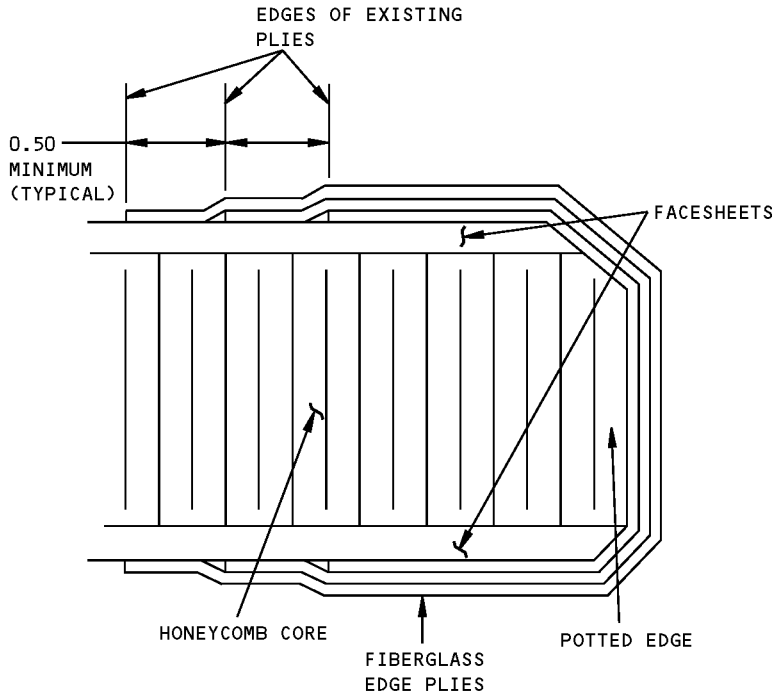


DETAIL V [I]

CRITICAL AREA [D]

NON-CRITICAL AREA

Main Landing Gear Doors
Figure 201 (Sheet 5 of 8)



SECTION THRU COLD WRAPPED FIBERGLASS EDGE (TYPICAL)

REPAIR OF FIBERGLASS WRAPPED EDGE

1. Remove plies in the damaged area.
2. Remove water and debris using vacuum and oil-free compressed air.
3. Clean damaged area with MIBK, MEK, or acetone.
4. Taper sand existing fiberglass edge plies allowing 0.50-inch overlap for each repair ply.
5. Apply one ply of BMS 9-3, Type H fiberglass for each damaged ply using BMS 8-201, Type II resin.
6. Cure repair as given in SRM 51-70-06.
7. Lightly sand the edge of the topmost repair ply to fair the edge.
8. Restore original finish as given in Chapter 51 of the Maintenance Manual.

DETAIL VI

Main Landing Gear Doors
Figure 201 (Sheet 6 of 8)

DAMAGE	INTERIM REPAIRS [B] [D]	PERMANENT REPAIRS		
	WET LAYUP 150°F (66°C)CURE (SRM 51-70-03)	WET LAYUP 200°F (93°C)CURE (SRM 51-70-17) [D]	250°F (121°C) CURE (SRM 51-70-05) [D]	350°F (177°C) CURE (SRM 51-70-04)
CRACKS	UP TO 3.0 INCHES (75 mm) LONG, REPAIR WITH PATCH AS GIVEN IN SRM 51-70-03, PAR. 5.N. [A]	CLEAN UP DAMAGE AND REPAIR AS HOLE.	CLEAN UP DAMAGE AND REPAIR AS HOLE.	CLEAN UP DAMAGE AND REPAIR AS HOLE.
HOLES	3.0 INCHES (75 mm) MAX DIA NOT TO EXCEED 30% OF SMALLEST DIMENSION ACROSS HONEYCOMB PANEL AT THE DAMAGE LOCATION. FILL WITH BMS 5-28, TYPE 7 POTTING COMPOUND AND PATCH AS GIVEN IN SRM 51-70-03, PAR. 5.N. [A]	12.0 INCHES (300 mm) MAXIMUM DIA NOT TO EXCEED 50% OF SMALLEST DIMENSION ACROSS HONEYCOMB PANEL AT THE DAMAGE LOCATION. USE TWO EXTRA PLIES FOR EACH FACESHEET REPAIRED [C]	6.0 INCHES (150 mm) MAXIMUM DIA NOT TO EXCEED 50% OF SMALLEST DIMENSION ACROSS HONEYCOMB PANEL AT THE DAMAGE LOCATION. USE TWO EXTRA PLIES FOR EACH FACESHEET REPAIRED [C]	NO SIZE LIMIT
DELAMI-NATION	CUT OUT AND REPAIR AS HOLE.			
NICKS AND GOUGES	IF THERE IS NO FIBER DAMAGE OR DELAMINATION, FILL NICKS OR GOUGES PER SRM 51-70-03. IF FIBER DAMAGE OR DELAMINATION EXISTS, REPAIR AS A HOLE.			
DENTS	UP TO 2.0 INCH (50 mm) DIA WITH NO FIBER DAMAGE OR DELAMINATION, FILL WITH BMS 5-28, TYPE 7 POTTING COMPOUND AND PATCH AS GIVEN IN SRM 51-70-03, PAR. 5.L. [C] OVER 2.0 INCHES (50 mm) DIA OR WITH FIBER DAMAGE OR DELAMINATION, REPAIR AS A HOLE			

REPAIR DATA FOR 350°F (177°C) CURE HONEYCOMB PANELS
TABLE I

Main Landing Gear Doors
Figure 201 (Sheet 7 of 8)

NOTES

- REFINISH REWORKED AREAS AS GIVEN IN 51-20 OF THE MAINTENANCE MANUAL.
- REFER TO SRM 51-10-02 FOR INSPECTION AND REMOVAL OF DAMAGE.
- REFER TO SRM 51-10-01 FOR AERODYNAMIC SMOOTHNESS REQUIREMENTS. WHERE THE DAMAGE EXCEEDS THE LIMITS SHOWN IN SRM 51-10-01, CONSIDERATION SHOULD BE GIVEN TO THE LOSS OF PERFORMANCE INVOLVED.
- REFER TO SRM 51-70-06 FOR GLASS FABRIC REINFORCED EPOXY LAMINATE AND NONMETALLIC HONEYCOMB SANDWICH REAIRS.

[A] LIMITED TO REPAIR OF DAMAGE TO ONE FACE-SHEET SKIN AND HONEYCOMB CORE. ONE REPAIR PER SQUARE FOOT (930 SQUARE cm) OF AREA AND MINIMUM OF 6.0 INCHES (150 mm) (EDGE TO EDGE) FROM ANY OTHER DAMAGE, FASTENER HOLE, OR EDGE OF PANEL.

[B] INSPECT INTERIM REPAIR USING INSTRUMENTED NDI METHODS OR "TAP" TEST EVERY AIRPLANE "2A" CHECK. FOR "TAP" TEST, USE A SOLID METAL DISK AND TAP THE REPAIR AREA LIGHTLY BUT FIRMLY. VOID AREAS WILL PRODUCE A DULL SOUND AS OPPOSED TO A SHARP RING ON A SOLID BONDED AREA. PERMANENT REPAIR IS REQUIRED IF ANY DETERIORATION IS EVIDENT. REFER TO SRM 51-70-03, PAR. 4.I. AND THE NONDESTRUCTIVE TEST MANUAL, D634N301.

[C] ONE REPAIR PER SQUARE FOOT (930 cm) OF AREA AND A MINIMUM OF 6.0 INCHES (150 cm) (EDGE TO EDGE) FROM ANY OTHER DAMAGE, FASTENER HOLE, OR EDGE OF PANEL.

[D] CONTACT THE BOEING COMPANY FOR REPAIR INFORMATION IN CRITICAL AREAS. INTERIM, 200°F (93°C), AND 250°F (121°C) CURE REPAIRS ARE NOT ALLOWED IN CRITICAL AREAS UNLESS SPECIFICALLY APPROVED BY THE BOEING COMPANY.

[E] HEAT SHIELD ON THE RH DOOR IS CENTERED AT RBL 53.75.

[F] FOR CUM LINE NUMBERS:
1 THRU 36

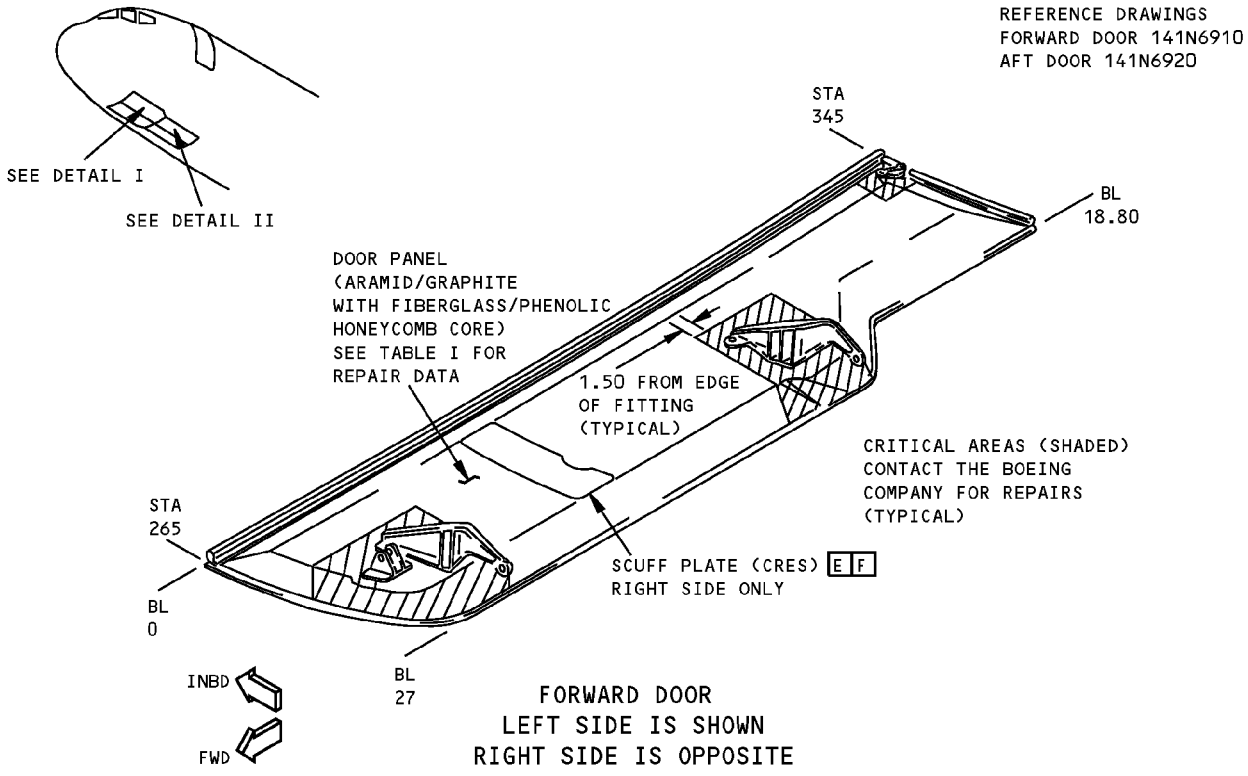
[G] FOR CUM LINE NUMBERS:
37 AND ON

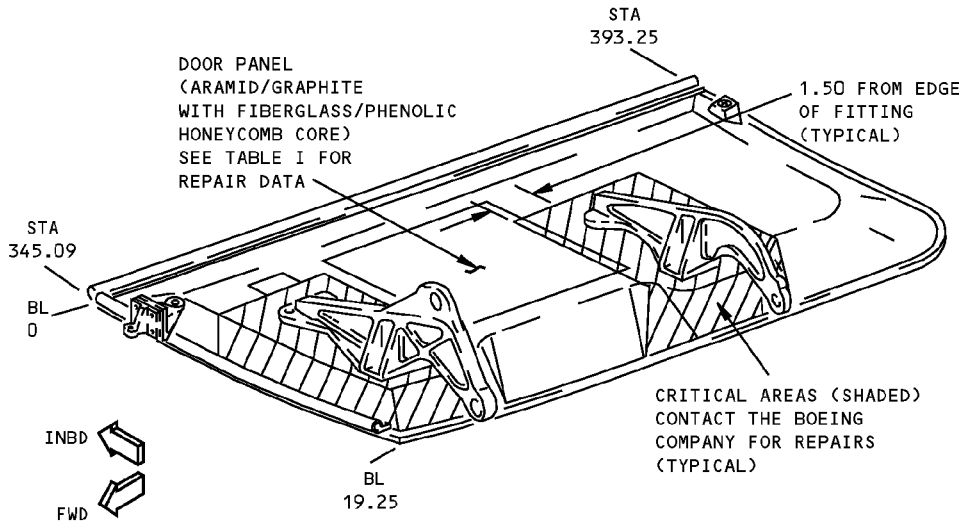
[H] FOR ONE-PIECE DOOR AND TANG. SEE DETAIL I.

[I] FOR TWO-PIECE DOOR AND TANG. SEE DETAIL IV.

Main Landing Gear Doors
Figure 201 (Sheet 8 of 8)

REPAIR 4 - NOSE LANDING GEAR DOORS





Nose Landing Gear Doors
Figure 201 (Sheet 1 of 3)

DAMAGE	INTERIM REPAIRS [B]	PERMANENT REPAIRS		
	WET LAYUP ROOM TEMP (SRM 51-70-03)	WET LAYUP 150°F (66°C)CURE (SRM 51-70-03)	WET LAYUP 200°F (93°C)CURE (SRM 51-70-17)	250°F (121°C) CURE (SRM 51-70-05)
CRACKS	UP TO 3.0 INCHES (75 mm) LONG, REPAIR WITH PATCH AS GIVEN IN SRM 51-70-03, PAR. 5.N. [A]	CLEAN UP DAMAGE AND REPAIR AS A HOLE	CLEAN UP DAMAGE AND REPAIR AS A HOLE	CLEAN UP DAMAGE AND REPAIR AS A HOLE
HOLES	3.0 INCHES (75 mm) MAX DIA NOT TO EXCEED 30% OF SMALLEST DIMENSION ACROSS HONEYCOMB PANEL AT THE DAMAGE LOCATION. FILL WITH BMS 5-28, TYPE 7 POTTING COMPOUND AND PATCH AS GIVEN IN SRM 51-70-03, PAR. 5.N. [A]	6.0 INCHES (150 mm) MAXIMUM DIA NOT TO EXCEED 50% OF SMALLEST DIMENSION ACROSS HONEYCOMB PANEL AT THE DAMAGE LOCATION. USE TWO EXTRA PLIES FOR EACH FACESHEET REPAIRED [C]	12.0 INCHES (300 mm) MAXIMUM DIA NOT TO EXCEED 50% OF SMALLEST DIMENSION ACROSS HONEYCOMB PANEL AT THE DAMAGE LOCATION. USE TWO EXTRA PLIES FOR EACH FACESHEET REPAIRED [C]	NO SIZE LIMIT
EDGE EROSION	----------	FOR DAMAGE NOT THAT IS LARGER THAN 35% OF EDGEBAND THICKNESS, REPAIR AS GIVEN IN SRM 51-70-03, PAR. 5.0. FOR LARGER DAMAGE, REPAIR AS GIVEN IN: SRM 51-70-03, PAR. 5.G.	SRM 51-70-17, PAR. 4.G.	SRM 51-70-05, PAR. 5.G.
DELAMI-NATION	CUT OUT AND REPAIR AS A HOLE [D]			
NICKS AND GOUGES	IF THERE IS NO FIBER DAMAGE OR DELAMINATION, FILL NICKS OR GOUGES AS GIVEN IN SRM 51-70-03 IF FIBER DAMAGE OR DELAMINATION EXISTS, REPAIR AS A HOLE			
DENTS	UP TO 2.0 INCHES (50 mm) DIA WITH NO FIBER DAMAGE OR DELAMINATION, FILL WITH BMS 5-28, TYPE 7 POTTING COMPOUND AND PATCH AS GIVEN IN SRM 51-70-03, PAR. 5.L. [C] OVER 2.0 INCHES (50 mm) DIA OR WITH FIBER DAMAGE OR DELAMINATION, REPAIR AS A HOLE			

REPAIR DATA FOR 250°F (121°C) CURE HONEYCOMB PANELS
TABLE I

NOTES

- WHEN YOU USE THIS REPAIR, REFER TO:
  - AMM 51-21-01 FOR APPLICATION OF FINISHES
  - SRM 51-10-01, FOR AERODYNAMIC SMOOTHNESS REQUIREMENTS. WHERE THE DAMAGE IS MORE THAN THE LIMITS GIVEN IN SRM 51-10-01, THOUGHT SHOULD BE GIVEN TO THE LOSS OF PERFORMANCE THAT MAY OCCUR.

[A] LIMITED TO REPAIR OF DAMAGE TO ONE FACESHEET SKIN AND HONEYCOMB CORE. ONE REPAIR FOR EACH SQUARE FOOT (930 SQUARE cm) OF AREA AND MINIMUM OF 6.0 INCHES (150 mm) (EDGE TO EDGE) FROM ANY OTHER DAMAGE, FASTENER HOLE, OR EDGE OF PANEL

[B] INSPECT INTERIM REPAIR USING INSTRUMENTED NDT METHODS OR "TAP" TEST EVERY AIRPLANE "2A" CHECK. FOR "TAP" TEST, USE A SOLID METAL DISK AND TAP THE REPAIR AREA LIGHTLY BUT FIRMLY. VOID AREAS WILL GIVE A DULL SOUND INSTEAD OF A SHARP RING THAT YOU WILL HEAR ON A SOLID BONDED AREA. PERMANENT REPAIR IS REQUIRED IF ANY DETERIORATION IS EVIDENT. REFER TO SRM 51-70-03, PAR. 4.I. AND THE NONDESTRUCTIVE TEST MANUAL

[C] ONE REPAIR FOR EACH SQUARE FOOT (930 SQUARE cm) OF AREA AND A MINIMUM OF 6.0 INCHES (150 mm) (EDGE TO EDGE) FROM ANY OTHER DAMAGE, FASTENER HOLE, EDGE OF PANEL, OR A MINIMUM OF 2.0 INCHES (50 mm) FROM TAPERED EDGE OF HONEYCOMB CORE

[D] REFER TO (REPAIR 5) FOR REPAIR OF DELAMINATED ARAMID SKIN PLIES

Nose Landing Gear Doors
Figure 201 (Sheet 2 of 3)

NOTES (CONTINUED)

[E] THERE ARE NO REPAIRS FOR THE SCUFF PLATE.

CAUTION: USE CARE WHEN REMOVING THE SCUFF PLATE. DAMAGE TO THE FLOOR PANEL CAN RESULT.

1. REMOVE AND DISCARD A DAMAGED OR LOOSE SCUFF PLATE.

   A. USE A PLASTIC SCRAPER TO CUT THE ADHESIVE BOND AT A CORNER OF THE SCUFF PLATE TO GET ACCESS UNDER THE PLATE.

   B. BEND THE CORNER OF THE PLATE BACK WITH PLIERS.

   C. GRADUALLY CUT AND PEEL THE PLATE AWAY FROM THE DOOR PANEL.

   D. USE CARE WHEN SCRAPING OFF ADHESIVE WITH VOIDS OR AIR BUBBLES REMAINING ON THE DOOR PANELS.

   E. WHEN THERE IS A THIN LAYER OF ADHESIVE, USE MPK TO CLEAN THE SURFACE OF THE DOOR PANEL.

   F. APPLY A FINISH AND PAINT AS NECESSARY.

NOTE: REFER TO SRM 52-80-02, ALLOWABLE DAMAGE 2 FLAGNOTE K.

[F] FOR CUMLINE NUMBERS:
805 THRU 869

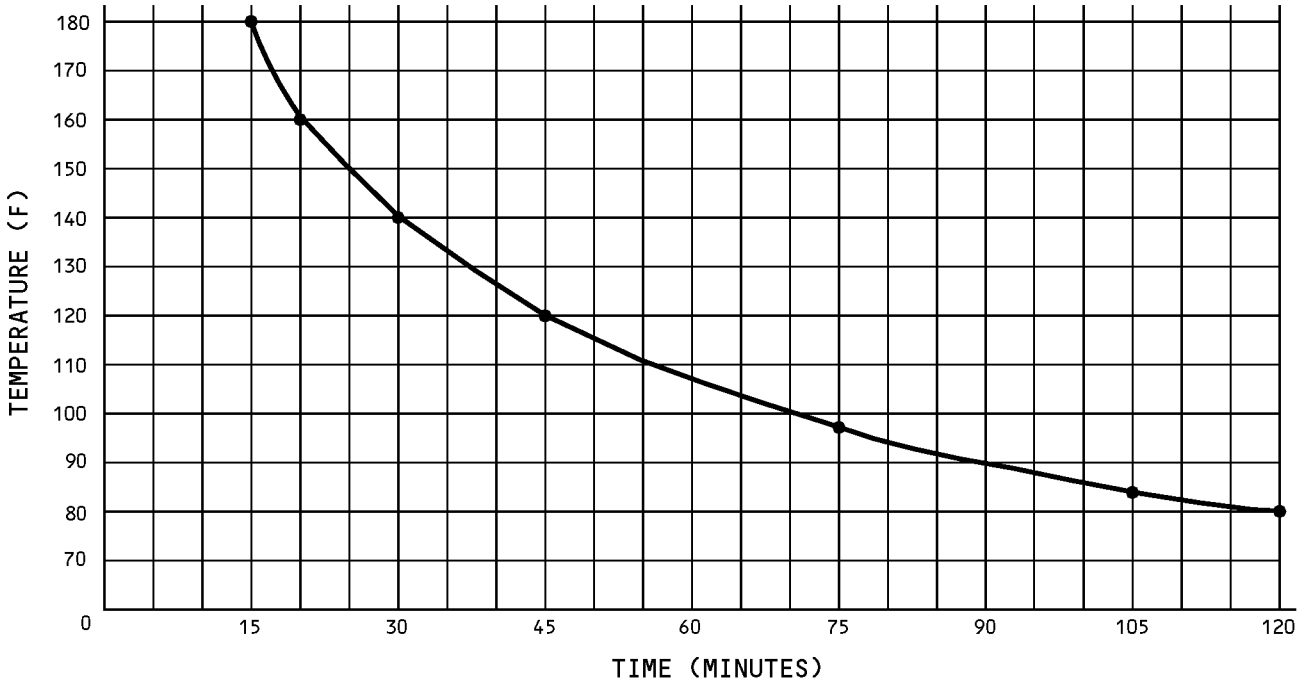
Nose Landing Gear Doors
Figure 201 (Sheet 3 of 3)

REPAIR 5 - REPAIR OF DELAMINATED ARAMID SKIN PLIES - NOSE LANDING GEAR DOOR

REPAIR INSTRUCTIONS

1. Remove the damaged area of the aramid ply or remove the entire ply.
2. Prepare the surface where the aramid ply has been removed as necessary.
   A. Contaminated surfaces:
      (1) Solvent clean by brushing with a stiff bristle brush and methyl ethyl ketone (MEK), methyl isobutyl ketone (MIBK), or acetone.
      (2) Blot with clean wipers to remove contaminated solvent.
      (3) Repeat as necessary to ensure a contamination-free surface.
   B. Uncontaminated surfaces where the aramid ply has just been removed do not require additional surface preparation.
3. Spray apply Dexter Laminar X-500 Surfacer, 8-W-5 as given in the manufacturer's instructions.
4. Allow surfacer to dry as shown in Detail I.
5. After the surfacer has cured, sand to a smooth finish with 200 or finer grit abrasive paper.
6. Solvent clean with MEK, MIBK, or acetone.
7. Apply BMS 10-79, type II primer and BMS 10-60, type II enamel as given in AMM 51-21. Use color as required by the airline.

Repair of Delaminated Aramid Skin Plies - Nose Landing Gear Door
Figure 201 (Sheet 1 of 2)



DRYING TIMES FOR LAMINAR X-500 SURFACER
DETAIL I

Repair of Delaminated Aramid Skin Plies - Nose Landing Gear Door
Figure 201 (Sheet 2 of 2)