CHAPTER

56

WINDOWS

CHAPTER 56
WINDOWS

Subject/Page	Date
EFFECTIVE PAGES	
1 thru 2	Jul 10/2009
56–CONTENTS	
1	Nov 10/2004
2	BLANK
56-00-00 GENERAL	
1	Nov 01/2003
2	BLANK
56-10-02 IDENTIFICATION 1	
1	Jul 10/2004
2	Mar 10/2004
3	Nov 01/2003
4	Nov 01/2003
5	Nov 01/2003
6	Nov 01/2003
7	Nov 01/2003
8	Nov 01/2003
9	Nov 01/2003
10	BLANK
56-10-02 ALLOWABLE DAMAGE GENERAL	
101	Nov 01/2003
102	Nov 01/2003
56-10-02 ALLOWABLE DAMAGE 1	
101	Nov 01/2003
102	Nov 01/2003
103	Nov 01/2003
104	Nov 10/2005
105	Nov 10/2005
106	Nov 10/2005
107	Nov 10/2005
108	Nov 10/2005
109	Nov 10/2005
110	BLANK
56-10-02 ALLOWABLE DAMAGE 2	
101	Nov 01/2003
102	Nov 01/2003
103	Nov 01/2003
104	Jul 10/2007
105	Jul 10/2005
56-10-02 ALLOWABLE DAMAGE 2 (cont)	
106	Nov 01/2003
107	Nov 01/2003
108	Nov 01/2003
56-10-02 ALLOWABLE DAMAGE 3	
101	Nov 01/2003
102	Nov 01/2003
103	Nov 01/2003
104	Nov 10/2005
105	Nov 10/2005
106	Nov 10/2005
107	Nov 10/2005
108	Nov 10/2005
56-10-02 ALLOWABLE DAMAGE 4	
101	Nov 01/2003
102	Nov 01/2003
103	Nov 01/2003
104	Jul 10/2005
105	Jul 10/2005
106	Nov 01/2003
107	Nov 01/2003
108	Nov 01/2003
56-10-02 ALLOWABLE DAMAGE 5	
101	Nov 01/2003
102	Nov 01/2003
103	Nov 01/2003
104	Jul 10/2005
105	Jul 10/2005
106	Nov 01/2003
107	Nov 01/2003
108	Nov 01/2003
56-10-02 REPAIR 1	
201	Nov 10/2006
202	BLANK
56-20-02 IDENTIFICATION 1	
1	Jul 10/2004
2	Mar 10/2004
3	Nov 01/2003
4	Nov 01/2003
56-20-02 IDENTIFICATION 1 (cont)	
5	Nov 01/2003
6	BLANK
56-20-02 ALLOWABLE DAMAGE 1	
101	Mar 10/2007
102	Nov 01/2003
103	Nov 01/2003
104	Nov 01/2003
105	Nov 01/2003
106	Jul 10/2004
107	Jul 10/2004
108	Nov 10/2004
109	Nov 10/2004
110	Jul 10/2005
56-30-00 IDENTIFICATION 0	
1	Mar 10/2004
2	Mar 10/2004
56-30-02 IDENTIFICATION 1	
1	Jul 10/2004
2	Jul 10/2004
3	Jul 10/2004
4	BLANK
56-30-02 IDENTIFICATION 2	
1	Jul 10/2004
2	Mar 10/2004
3	Nov 01/2003
4	BLANK
56-30-02 IDENTIFICATION 3	
1	Jul 10/2004
2	Jul 10/2004
3	Jul 10/2004
4	BLANK
56-30-02 ALLOWABLE DAMAGE 1	
101	Nov 10/2004
102	Nov 01/2003
103	Nov 01/2003
104	Nov 01/2003
105	Jul 10/2004
106	Mar 10/2007
107	Nov 10/2004

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

56-EFFECTIVE PAGES

Subject/Page	Date	Subject/Page	Date	Subject/Page	Date
56-30-02 ALLOWABLE DAMAGE 1 (cont)					
108	Nov 10/2004				
109	Nov 10/2004				
110	BLANK				
56-30-02 REPAIR 1					
201	Nov 10/2006				
202	BLANK				

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

56-EFFECTIVE PAGES

CHAPTER 56
WINDOWS

SUBJECT	CHAPTER SECTION SUBJECT
WINDOWS - GENERAL	56-00-00
GENERAL - Windows	
FLIGHT COMPARTMENT WINDOW STRUCTURE	56-10-02
IDENTIFICATION 1 - Flight Compartment Window Structure	
ALLOWABLE DAMAGE GENERAL - Flight Compartment Window Frames	
ALLOWABLE DAMAGE 1 - Flight Compartment Window Frame Number 1	
ALLOWABLE DAMAGE 2 - Flight Compartment Window Frame Number 2	
ALLOWABLE DAMAGE 3 - Flight Compartment Window Frame Number 3	
ALLOWABLE DAMAGE 4 - Flight Compartment Window Frame Number 4	
ALLOWABLE DAMAGE 5 - Flight Compartment Window Frame Number 5	
REPAIR 1 - Flight Compartment Window Frames	
CABIN WINDOW STRUCTURE	56-20-02
IDENTIFICATION 1 - Cabin Window Frames	
ALLOWABLE DAMAGE 1 - Passenger Cabin Window Frames	
DOOR WINDOWS	56-30-00
IDENTIFICATION GENERAL - Door Window Locations	
DOOR WINDOW STRUCTURE	56-30-02
IDENTIFICATION 1 - Forward Entry and Forward Galley Doors	
IDENTIFICATION 2 - Automatic Overwing Exit Door Window Frames	
IDENTIFICATION 3 - Aft Door Window Frames	
ALLOWABLE DAMAGE 1 - Door Window Structure	
REPAIR 1 - Door Window Structure	

56-CONTENTS

GENERAL - WINDOWS

1. General

A. Chapter 56 gives the identification, allowable damage, and repair information for the structural components of:

(1) The flight compartment windows

(2) The cabin windows

(3) The passenger entry door windows

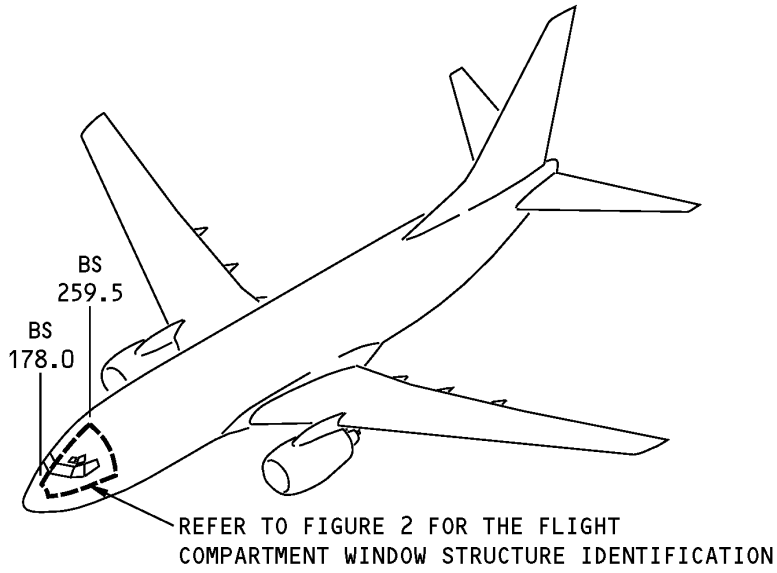
2. References

Reference	Title
AMM 56-00-00	Windows - General

3. Window Data

A. Refer to AMM 56-00-00 for the information that is applicable to the window panes.

IDENTIFICATION 1 - FLIGHT COMPARTMENT WINDOW STRUCTURE

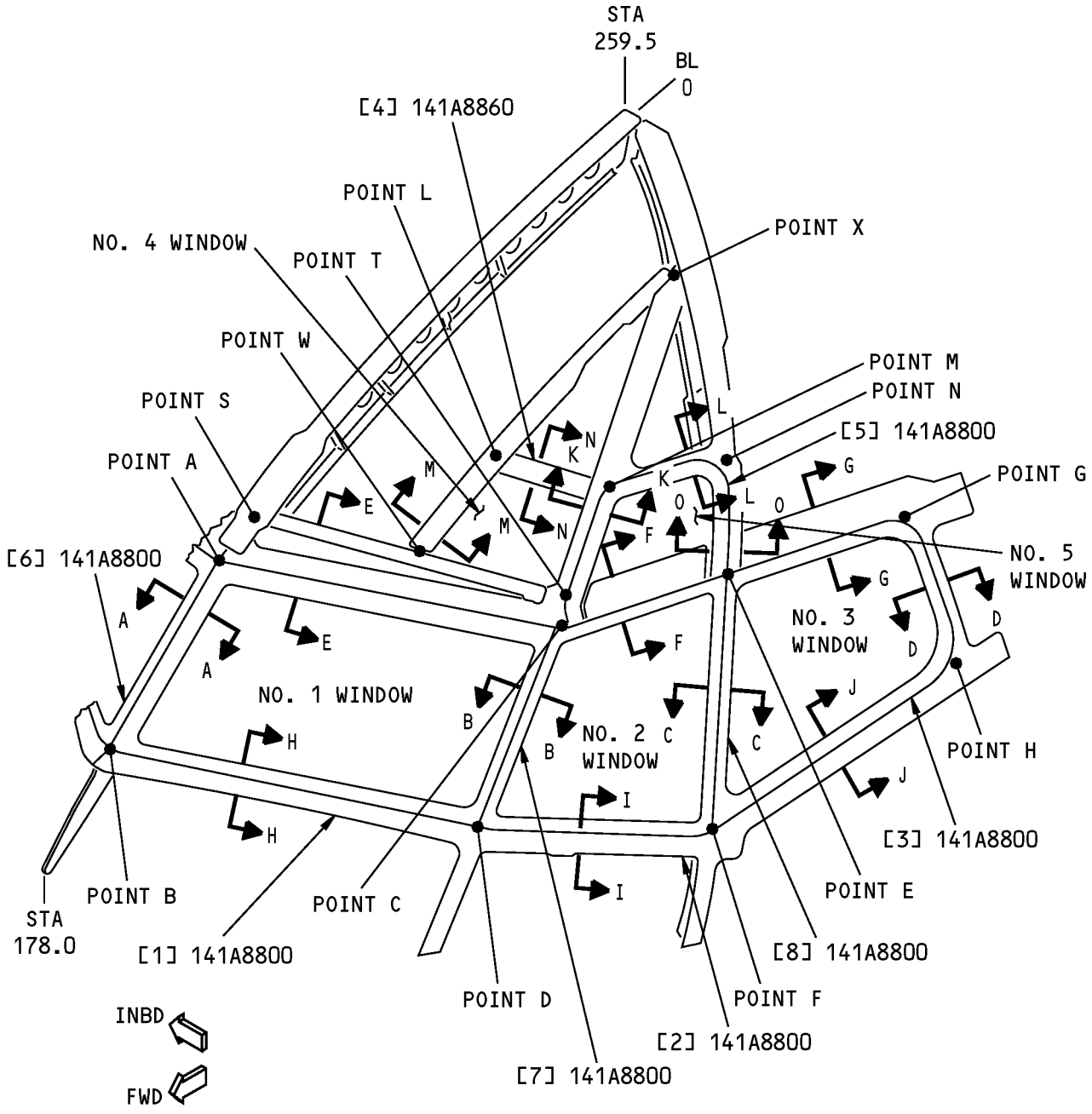


NOTE: REFER TO TABLE 1 FOR THE REFERENCE DRAWINGS.

Flight Compartment Windows Structure Location
Figure 1

Table 1:

REFERENCE DRAWINGS	
DRAWING NUMBER	**TITLE**
141A8800	Frame Installation - Cab Windows
141A8840	Q-R Sill Installation - Cab
141A8850	Sill Installation - WL 234.00, Cab
141A8860	Frame Installation - Cab Crown
141A8880	Fitting Installation - BL 0.00 and BL 5.7 Cab Nose

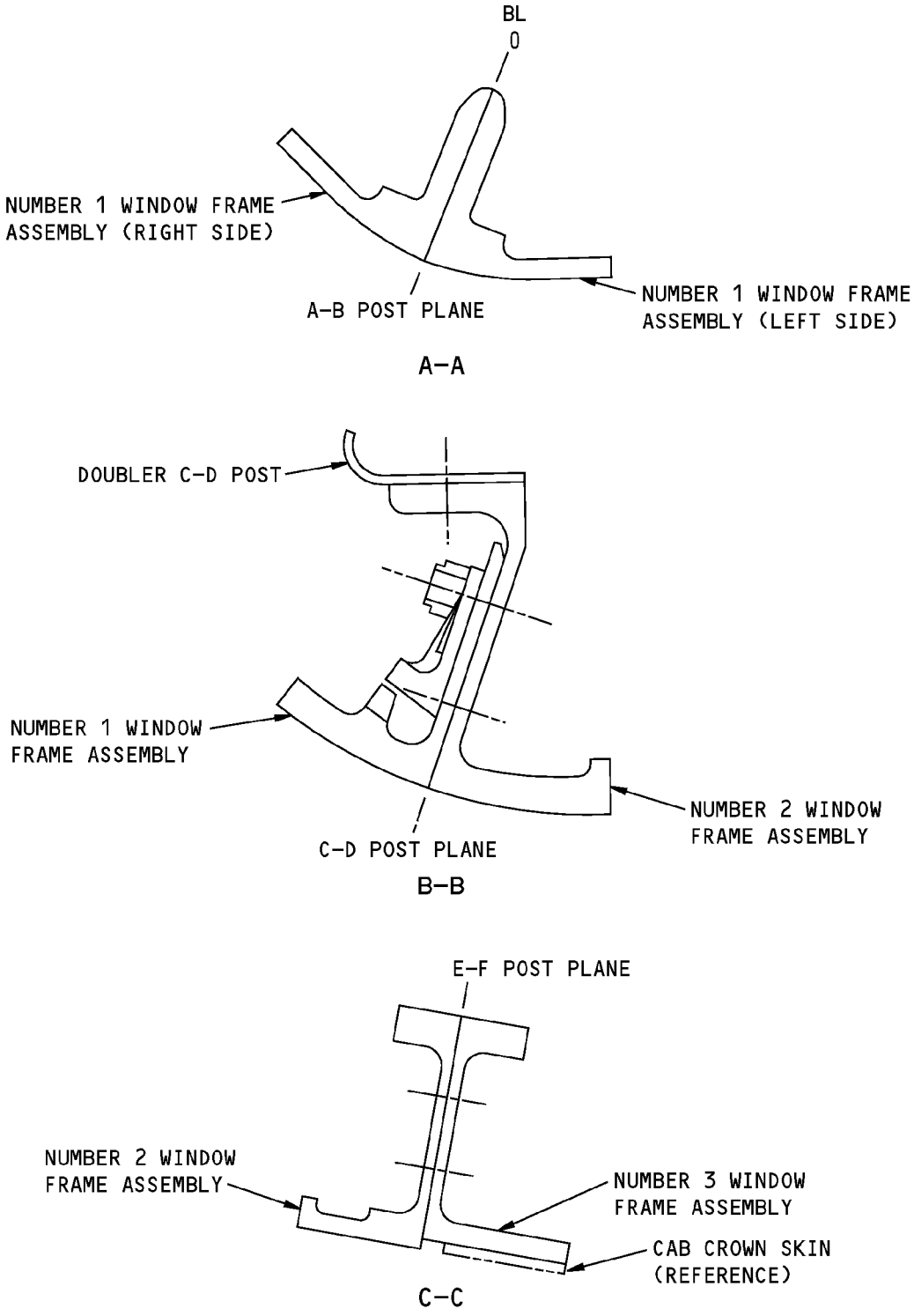


NOTE: REFER TO TABLE 2 FOR THE LIST OF MATERIALS.

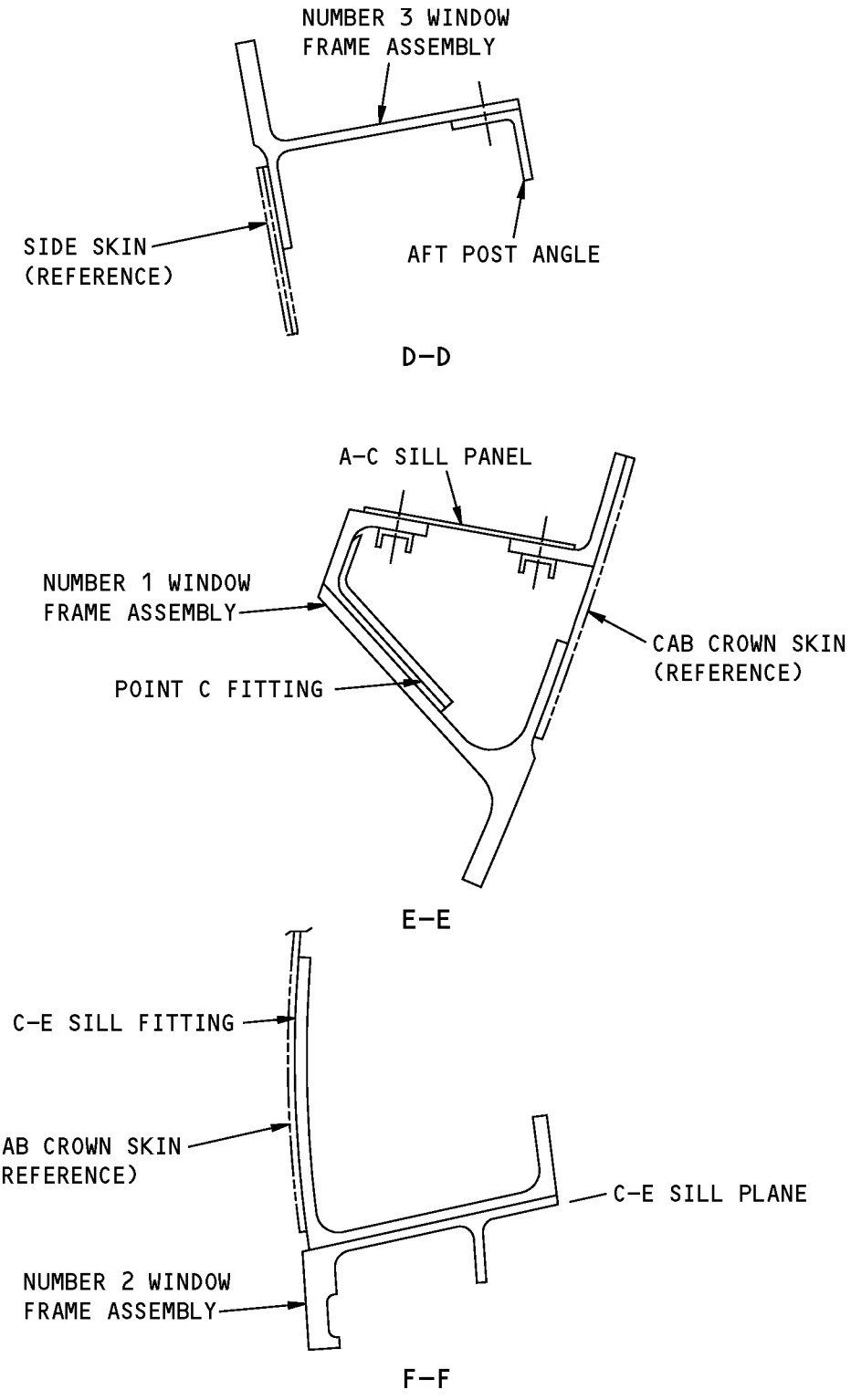
LEFT SIDE IS SHOWN, RIGHT SIDE IS OPPOSITE

A

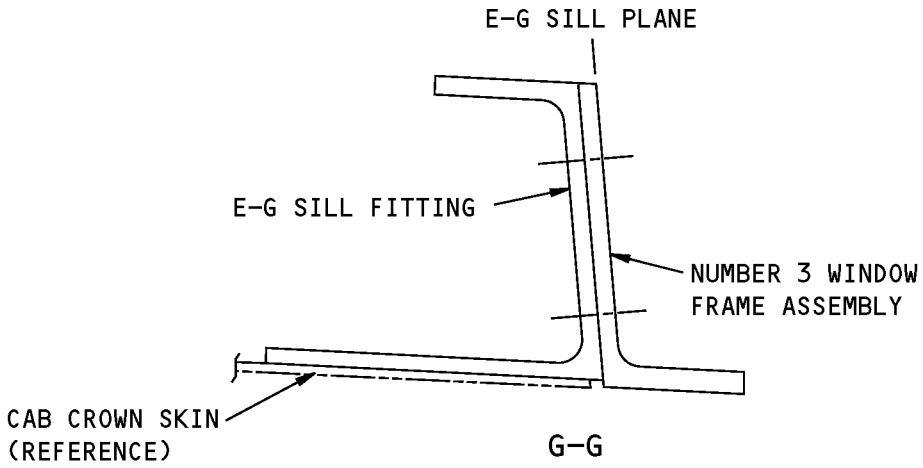
Flight Compartment Windows Structure Identification
Figure 2 (Sheet 1 of 6)

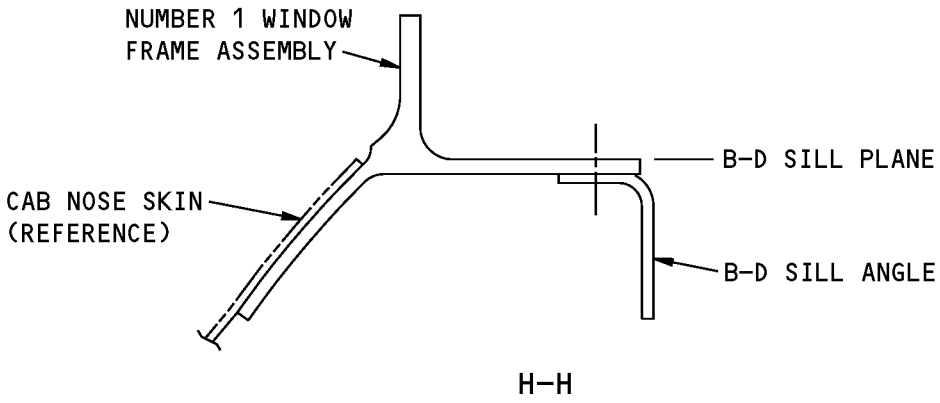


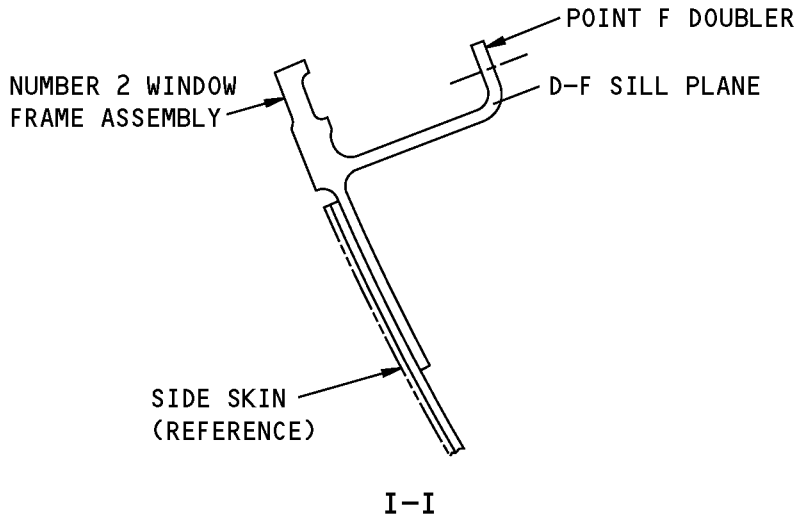
Flight Compartment Windows Structure Identification
Figure 2 (Sheet 2 of 6)



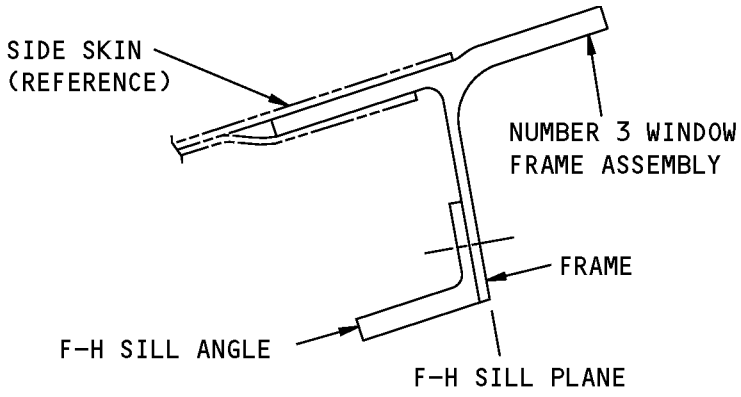
Flight Compartment Windows Structure Identification
Figure 2 (Sheet 3 of 6)



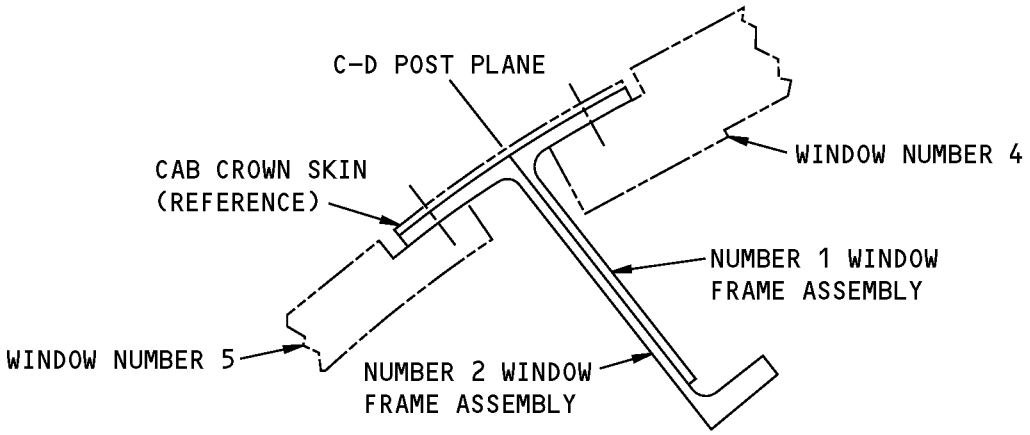




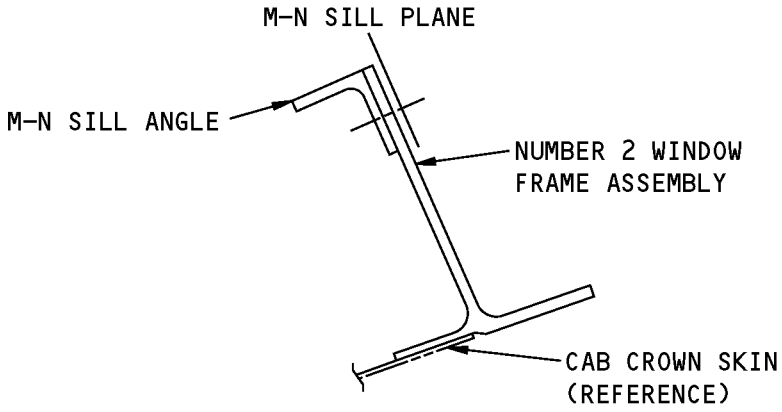
Flight Compartment Windows Structure Identification
Figure 2 (Sheet 4 of 6)



J-J

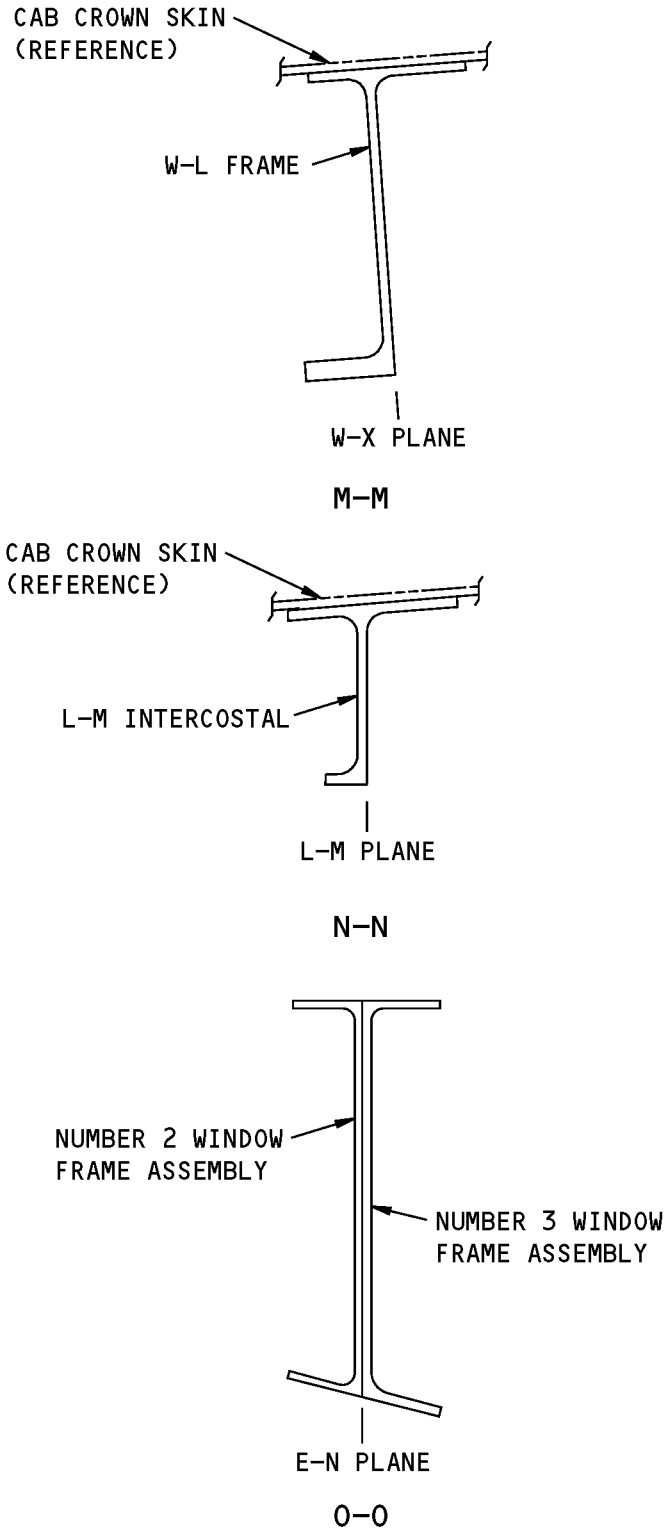


K-K



L-L

Flight Compartment Windows Structure Identification
Figure 2 (Sheet 5 of 6)



Flight Compartment Windows Structure Identification
Figure 2 (Sheet 6 of 6)

Table 2:

LIST OF MATERIALS FOR FIGURE 2				
ITEM	**DESCRIPTION**	**T*[1]**	**MATERIAL**	**EFFECTIVITY**
[1]	Window Frame Assembly			
	Frame		7075-01 die forging as given in BMS 7-186	
	A-C Sill Fitting		7050-T7451 plate as given in BMS 7-323	
	A-C Sill Panel (2)		7075-T6 clad sheet as given in QQ-A-150/13	
	B-D Sill Angle	0.112 (2.84)	Nickel alloy 625 sheet as given in AMS 5542. Heat treated to condition II as given in BAC 5616	
	Point A Fitting		7050-T7451 plate as given in AMS 4050	
	Point B Fitting		15-5PH bar as given in AMS 5659, solution treated. Heat treat to 180-200 KSI as given in BAC 5619	
	Point C Fitting		15-5PH bar as given in AMS 5659, solution treated. Heat treat to 180-200 KSI as given in BAC 5619	
	Attach Fitting (STA 178, BL 0.0 to B-D Sill)		7050-T7451 plate as given in AMS 4050	
	Attach Fitting (Window Frame, B-D Sill at C-D Post)		7050-T7451 plate as given in AMS 4050	For airplanes cum line numbers 1 thru 563
			15-5PH bar as given in AMS 5659, solution treated. Heat treat to 180-200 KSI as given in BAC 5619	For airplanes cum line numbers 564 and on
[2]	Window Frame Assembly			
	Frame		Ti-6Al-4V die forged titanium as given in BMS 7-247	
	C-E Sill Fitting		7050-T7451 plate as given in BMS 7-323	
	M-N Sill Angle		BAC1503-100746 7075-T73511 extrusion as given in QQ-A-200/11	
[3]	Window Frame Assembly			
	Frame		7075-01 die forging as given in BMS 7-186	
	F-H Sill Angle		BAC1514-2704 7075-T73511 extrusion as given in QQ-A-200/11	
	E-G Sill Fitting		7050-T7451 plate as given in BMS 7-323	
	Aft Post Angle		BAC1503-100071 7075-T73511 extrusion as given in QQ-A-200/11	
[4]	Window Frame Assembly			
	S-T Sill Fitting		7050-T7451 plate as given in BMS 7-323	
	L-M Intercostal		7050-T7451 plate as given in BMS 7-323	
	W-X Frame		7050-T7451 plate as given in AMS 4050	
	M-X Frame		7050-T7451 plate as given in AMS 4050	
	Point X Fitting		7050-T7451 plate as given in BMS 7-323	
[5]	Window Frame Assembly			
	Frame		Ti-6Al-4V die forged titanium as given in BMS 7-247	
	M-N Sill Angle		BAC1503-100746 7075-T73511 extrusion as given in QQ-A-200/11	

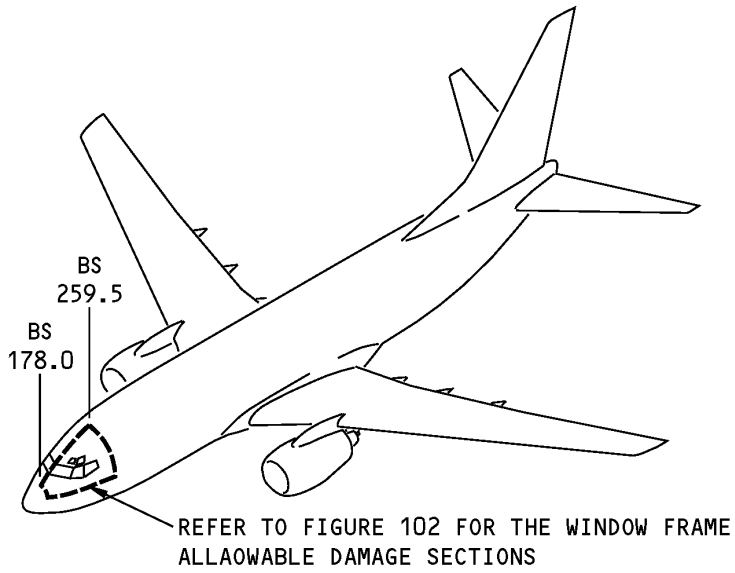
LIST OF MATERIALS FOR FIGURE 2				
ITEM	**DESCRIPTION**	**T*[1]**	**MATERIAL**	**EFFECTIVITY**
	C-E Sill Fitting		7050-T7451 plate as given in BMS 7-323	
[6]	A-B Post Assembly			
	Frame		7075-01 die forging as given in BMS 7-186	
	Point A Fitting (2)		7050-T7451 plate as given in AMS 4050	
	Point B Fitting		15-5PH bar as given in AMS 5659 solution treated to 180-200 KSI	
	Fitting, BL 0.00 (Station 178.0)		7050-T7451 plate as given in AMS 4050	
[7]	C-D Post Assembly			
	Frame		7075-01 die forging as given in BMS 7-186	
	Frame		Ti-6Al-4V die forged titanium as given in BMS 7-247	
	Point M Splice Fitting		BAC1503-100962 7075-T73511 extrusion as given in QQ-A-200/11	
	Point M Splice Strap		7075-T7351 plate as given in QQ-A-250/12	
	C-D Post Doubler	0.056 (1.42)	15-5PH sheet as given in BMS 7-240, Type I. Heat treated to 150-170 KSI as given in BAC 5619	
[8]	E-F Post Assembly			
	Frame		Ti-6Al-4V die forged titanium as given in BMS 7-247	
	Frame		7075-01 die forging as given in BMS 7-186	
	Point F Doubler	0.040 (1.02)	15-5PH sheet as given in BMS 7-240, Type I. Heat treated to 150-170 KSI as given in BAC 5619	
	Forward Clip at Water Line 227.0		BAC1489-359 7075-T62 clad sheet as given in QQ-A-250/13	
	Aft Clip at Water Line 227.0		BAC1492-221 7075-T62 clad sheet as given in QQ-A-250/13	

*[1] Note: T = Pre-manufactured thickness in inches (millimeters).

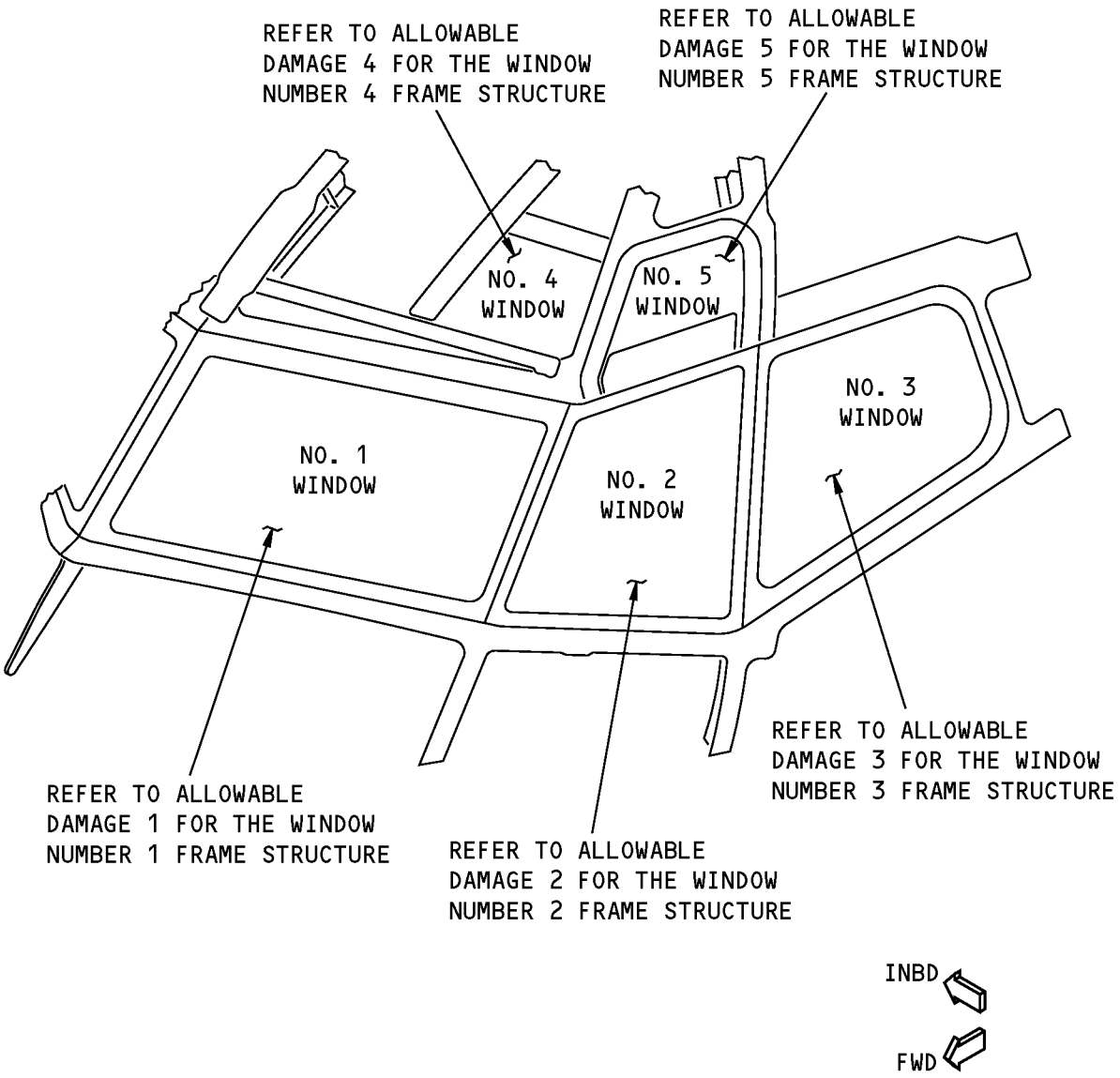
ALLOWABLE DAMAGE GENERAL - FLIGHT COMPARTMENT WINDOW FRAMES

1. Applicability

A. Allowable Damage General is applicable to damage on the flight compartment window frames shown in Flight Compartment Windows Structure Location, Figure 101/ALLOWABLE DAMAGE GENERAL.



Flight Compartment Windows Structure Location
Figure 101



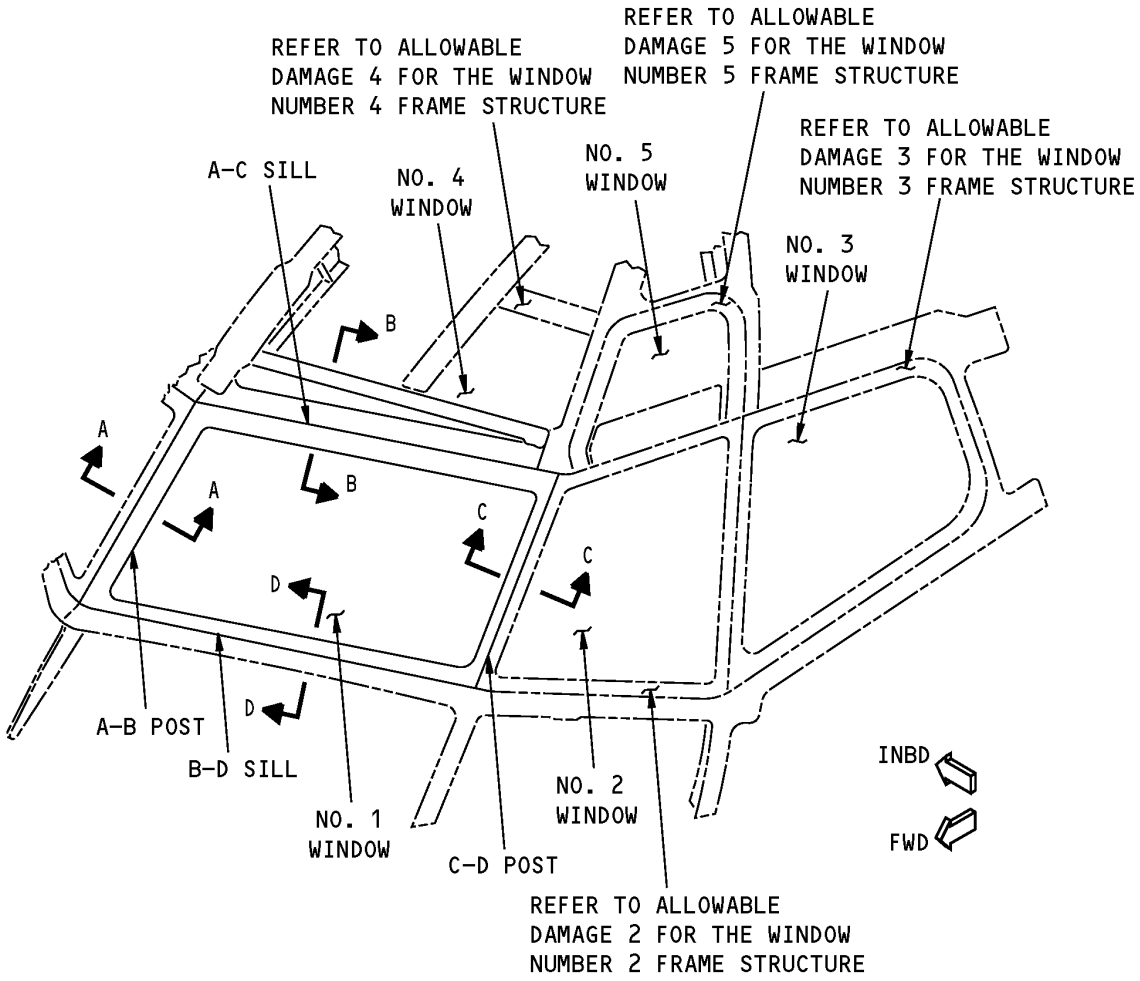
LEFT SIDE IS SHOWN, RIGHT SIDE IS OPPOSITE

Window Frames Allowable Damage Sections
Figure 102

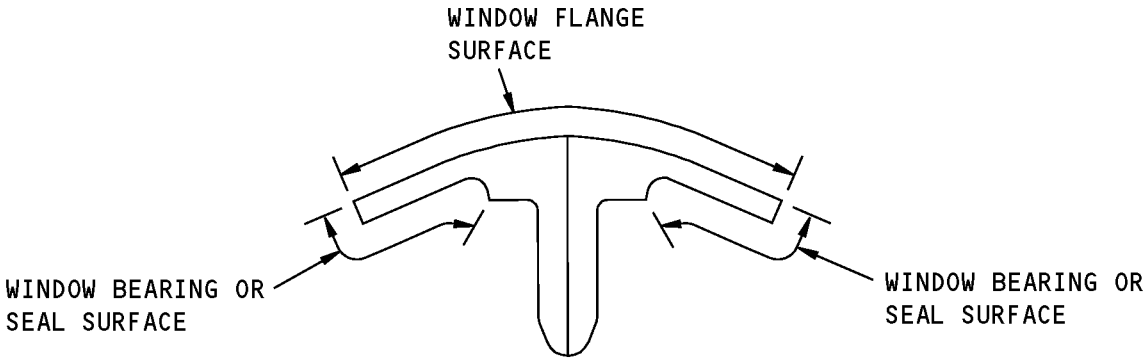
ALLOWABLE DAMAGE 1 - FLIGHT COMPARTMENT WINDOW FRAME NUMBER 1

1. Applicability

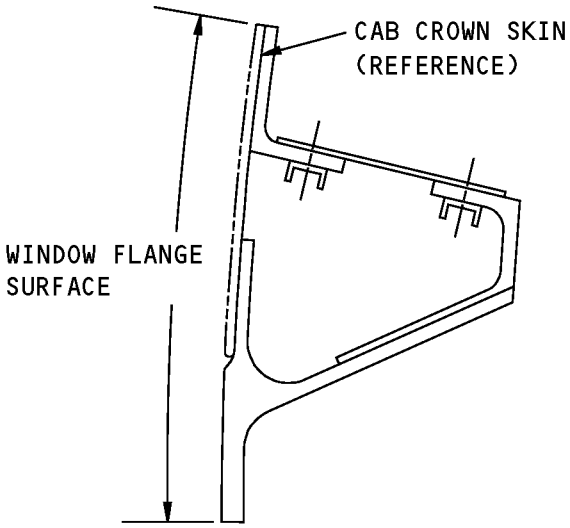
A. Allowable Damage 1 is applicable to damage on the flight compartment window frame number 1 shown in Number 1 Window Frame Sections, Figure 101/ALLOWABLE DAMAGE 1.



Number 1 Window Frame Sections
Figure 101 (Sheet 1 of 3)

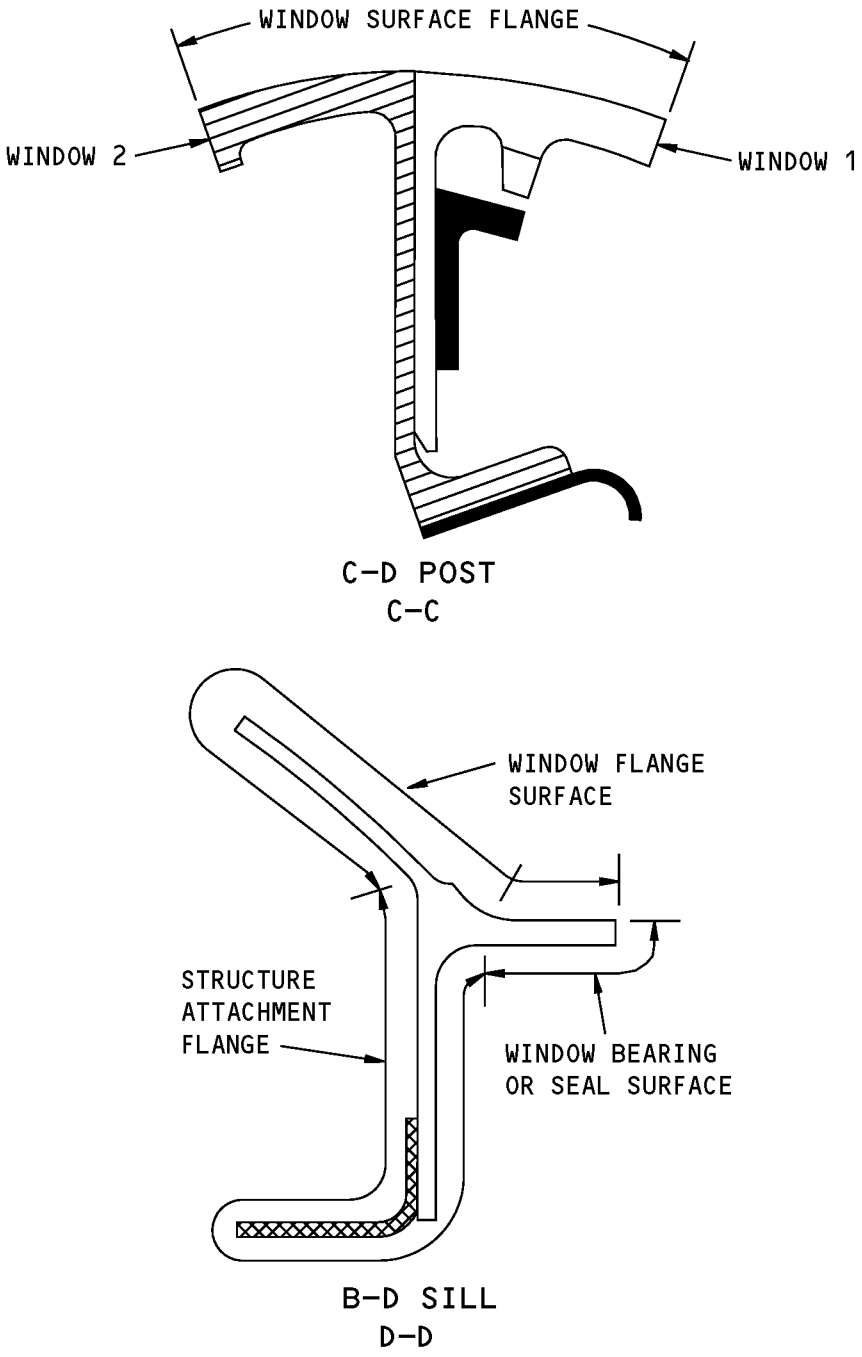


A–B POST
A–A



A–C SILL
B–B

Number 1 Window Frame Sections
Figure 101 (Sheet 2 of 3)



Number 1 Window Frame Sections
Figure 101 (Sheet 3 of 3)

2. General

A. Refer to Table 101/ALLOWABLE DAMAGE 1 for a list of the references for the allowable damage data.

B. Refer to Paragraph 4./ALLOWABLE DAMAGE 1 for the allowable damage limits.

WARNING: SMALL PARTICLES OF TITANIUM ARE FLAMMABLE. IN A SUFFICIENT CONCENTRATION, AN EXPLOSION CAN OCCUR. EXTINGUISH FIRES OF TITANIUM WITH FULLY DRY TALC, CALCIUM CARBONATE, SAND OR GRAPHITE. APPLY THE POWDER TO A DEPTH OF 1/2 INCH OR MORE ON THE AREA THAT IS ON FIRE. DO NOT USE FOAM, WATER, HALON, CARBON TETRACHLORIDE, OR CARBON DIOXIDE. WATER THAT TOUCHES MOLTEN TITANIUM CAN CAUSE A STEAM EXPLOSION.

C. Refer to SOPM 20-10-07 for the machining procedures you can use when you work with titanium.

D. Remove the damage as necessary from the sills and posts.

(1) Refer to 51-10-02 for inspection and removal of the damage.

(2) Refer to 51-30-03 for the possible sources of the abrasive and other materials you can use to remove the damage.

(3) Refer to 51-30-05 for the possible sources of the equipment and tools you can use to remove the damage.

Table 101:

PARAGRAPH REFERENCES FOR THE ALLOWABLE DAMAGE LIMITS	
WINDOW NUMBER 1 FRAME SECTIONS	**PARAGRAPH**
A-B POST	4.A
A-C SILL	4.B
C-D POST	4.C
B-D SILL	4.D

E. After you remove the damage on the parts made from nickel and titanium, do the steps that follow:

(1) Do a High Frequency Eddy Current (HFEC) inspection of the damaged area to find the dimensions of the damage. Refer to 51-10-02 and 737 NDT Part 6, 51-00-00, Figure 4 for inspection procedures.

NOTE: The dye penetrant inspection is permitted as an alternative to the HFEC inspection. Refer to SOPM 20-20-02 for the dye penetrant inspection procedure.

(2) Apply a chemical conversion coating to the bare surfaces of the reworked areas. Refer to 51-20-01.

(3) Apply one layer of BMS 10-11, Type I primer to the reworked area. Refer to SOPM 20-41-02.

F. After you remove the damage on the parts not made of nickel or titanium, make an inspection as follows:

(1) Do a High Frequency Eddy Current (HFEC) inspection of the damaged area at all locations to make sure that there are no surface cracks. Refer to 51-10-02 and 737 NDT Part 6, 51-00-00, Figure 4 for inspection procedures.

NOTE: The dye penetrant inspection is permitted as an alternative to the HFEC inspection. Refer to SOPM 20-20-02 for the dye penetrant inspection procedure.

(2) Do a conductivity inspection of the damaged areas at all lightning strike damage areas as given in NDT Part 6, 51-00-00, Figure 3.

(a) Do a conductive test and heat evaluation as given in 51-20-02, GENERAL and 51-20-03, GENERAL.

(b) Make sure there is a minimum surface smoothness of 63 microinches Ra to all locations.

G. After you make an inspection and there is no damage, do as follows for the aluminum parts:

WARNING: MAKE SURE THAT YOU WEAR EYE PROTECTION WHEN YOU USE THE FLAP PEEN WHEEL. IF YOU DO NOT OBEY, AN INJURY CAN OCCUR.

(1) Flap peen or shot peen the reworked areas.

(a) Refer to 51-20-06 for shot peen intensity and shot number.

(b) Refer to SOPM 20-10-03 for flap peen and shot peen procedures.

(2) Apply a chemical conversion coating to the bare surfaces of the reworked areas. Refer to 51-20-01.

(3) Apply one layer of BMS 10-11, Type I primer to the reworked area. Refer to SOPM 20-41-02.

H. After you remove the damage on parts made from Corrosion Resistant Steel (CRES), do the steps that follow:

(1) Do a Magnetic Particle inspection of the damaged area to find the dimensions of the damage. Refer to SOPM 20-20-01 for inspection procedures.

NOTE: The dye penetrant inspection is permitted as an alternative to the HFEC inspection. Refer to SOPM 20-20-02 for the dye penetrant inspection procedure.

(2) Apply cadmium plating to the bare surfaces of the (CRES) parts. Refer to SOPM 20-42-05.

(3) Apply one layer of BMS 10-11, Type I primer to the reworked area. Refer to SOPM 20-41-02.

3. References

Reference	Title
51-10-02	INSPECTION AND REMOVAL OF DAMAGE
51-20-01	PROTECTIVE TREATMENT OF METALLIC AND COMPOSITE MATERIALS
51-20-02, GENERAL	Heat Treat Verification - Hardness and Conductivity Testing
51-20-03, GENERAL	Heat Damage Analysis
51-20-06	SHOT PEENING
51-30-03	NON-METALLIC MATERIALS
51-30-05	EQUIPMENT AND TOOLS FOR REPAIRS
AMM 56-11-00	FLIGHT COMPARTMENT WINDOWS
SOPM 20-10-03	General - Shot Peening Procedures
SOPM 20-10-07	Machining of Titanium
SOPM 20-20-01	Magnetic Particle Inspection
SOPM 20-20-02	Penetrant Methods of Inspection
SOPM 20-41-02	Application of Chemical and Solvent Resistant Finishes
SOPM 20-42-05	Bright Cadmium Plating
737 NDT Part 6, 51-00-00	Structures - General
737 NDT Part 6, 51-00-01	Aluminum Part Surface Inspection

4. Allowable Damage Limits

A. No. 1 Window, A-B Post

(1) Cracks:

(a) Remove the damage as shown in Allowable Damage Limits, Figure 102/ALLOWABLE DAMAGE 1, Details A , B , and D .

(2) Nicks, Scratches, Gouges, and Corrosion:

(a) Remove the damage as shown in Allowable Damage Limits, Figure 102/ALLOWABLE DAMAGE 1, Details A , B , C , D , and E .

(3) Dents are not permitted.

(4) Holes and Punctures are not permitted.

B. No. 1 Window, A-C Sill

(1) Cracks:

(a) Remove the damage as shown in Allowable Damage Limits, Figure 102/ALLOWABLE DAMAGE 1, Details A , B , and D .

(2) Nicks, Scratches, Gouges, and Corrosion:

(a) Remove the damage as shown in Allowable Damage Limits, Figure 102/ALLOWABLE DAMAGE 1, Details A , B , C , D , and E .

(3) Dents are not permitted.

(4) Holes and Punctures are not permitted.

(5) Lightning Strike

(a) The damage is permitted as shown in Figure 102, Details A, B, C, and D.

NOTE: For damage at a fastener location, remove and replace the fasteners. Countersink and install the new fastener as given in the initial drawing requirements.

C. No. 1 Window, C-D Post

(1) Cracks:

(a) Remove the damage as shown in Allowable Damage Limits, Figure 102/ALLOWABLE DAMAGE 1, Details A , B , and D .

(2) Nicks, Scratches, Gouges, and Corrosion:

(a) Remove the damage as shown in Allowable Damage Limits, Figure 102/ALLOWABLE DAMAGE 1, Details A , B , C , D , and E .

(3) Dents are not permitted.

(4) Holes and Punctures are not permitted.

D. No. 1 Window, B-D Sill

(1) Cracks:

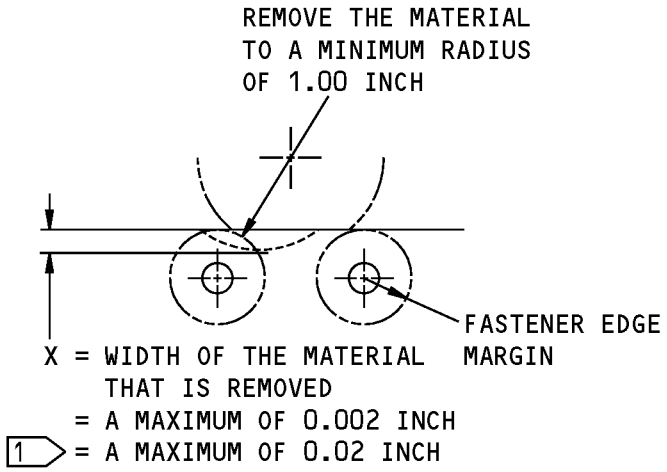
(a) Remove the damage as shown in Allowable Damage Limits, Figure 102/ALLOWABLE DAMAGE 1, Details A , B , and D .

(2) Nicks, Scratches, Gouges, and Corrosion:

(a) Remove the damage as shown in Allowable Damage Limits, Figure 102/ALLOWABLE DAMAGE 1, Details A , B , C , D , and E .

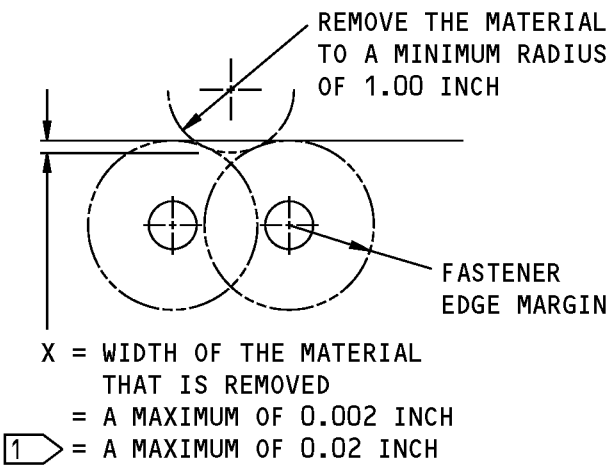
(3) Dents are not permitted.

(4) Holes and Punctures are not permitted.



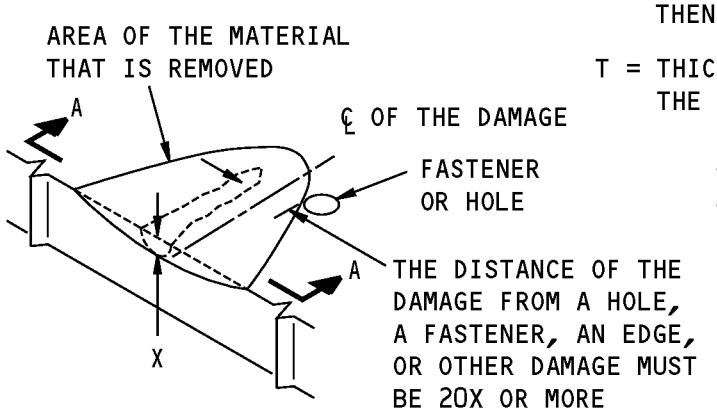
REMOVAL OF DAMAGED MATERIAL AT EDGES WHERE THE FASTENER EDGE MARGINS DO NOT HAVE AN OVERLAP

A



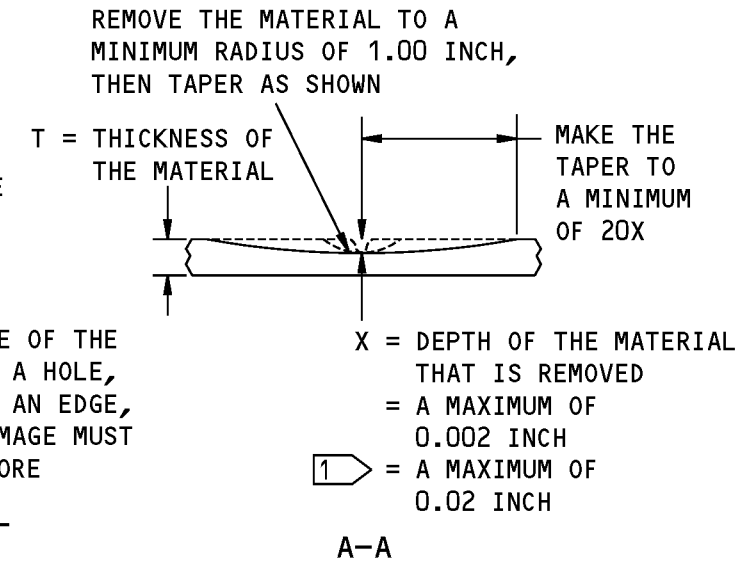
REMOVAL OF DAMAGED MATERIAL AT EDGES WHERE THE FASTENER EDGE MARGINS HAVE AN OVERLAP

B



REMOVAL OF DAMAGED MATERIAL ON A SURFACE

C

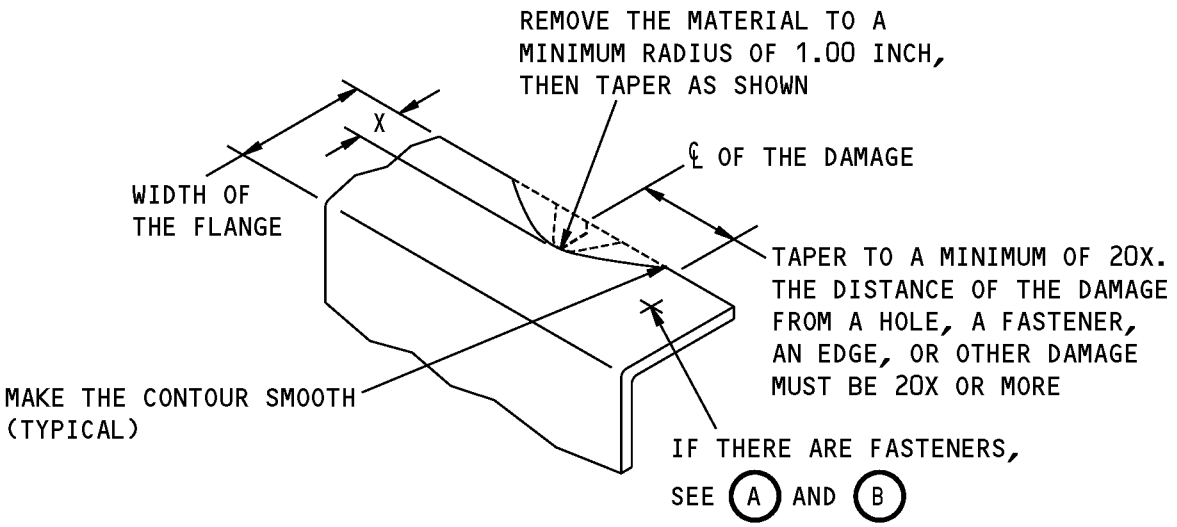


A–A

NOTES

1 THESE LIMITS ARE ONLY APPLICABLE TO THE WINDOW FRAME NUMBER 1, A-C SILL

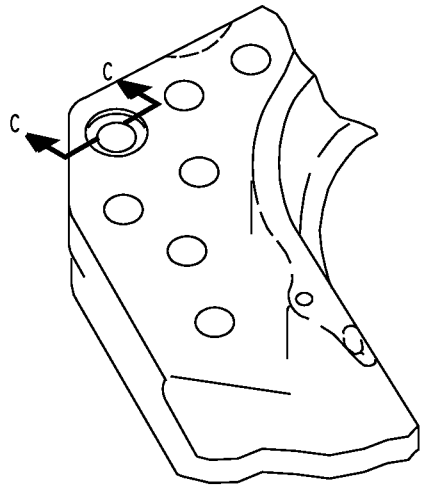
Allowable Damage Limits
Figure 102 (Sheet 1 of 2)

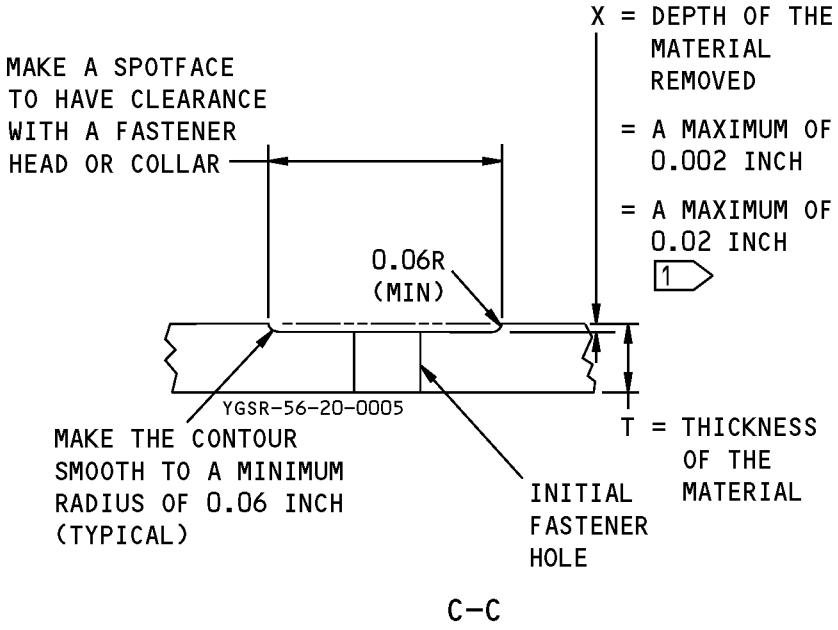


X = WIDTH OF THE MATERIAL THAT IS REMOVED
= A MAXIMUM OF 0.002 INCH
1 = A MAXIMUM OF 0.02 INCH

REMOVAL OF DAMAGED MATERIAL ON AN EDGE

D





C–C

REMOVAL OF DAMAGED MATERIAL AT A FASTENER HOLE

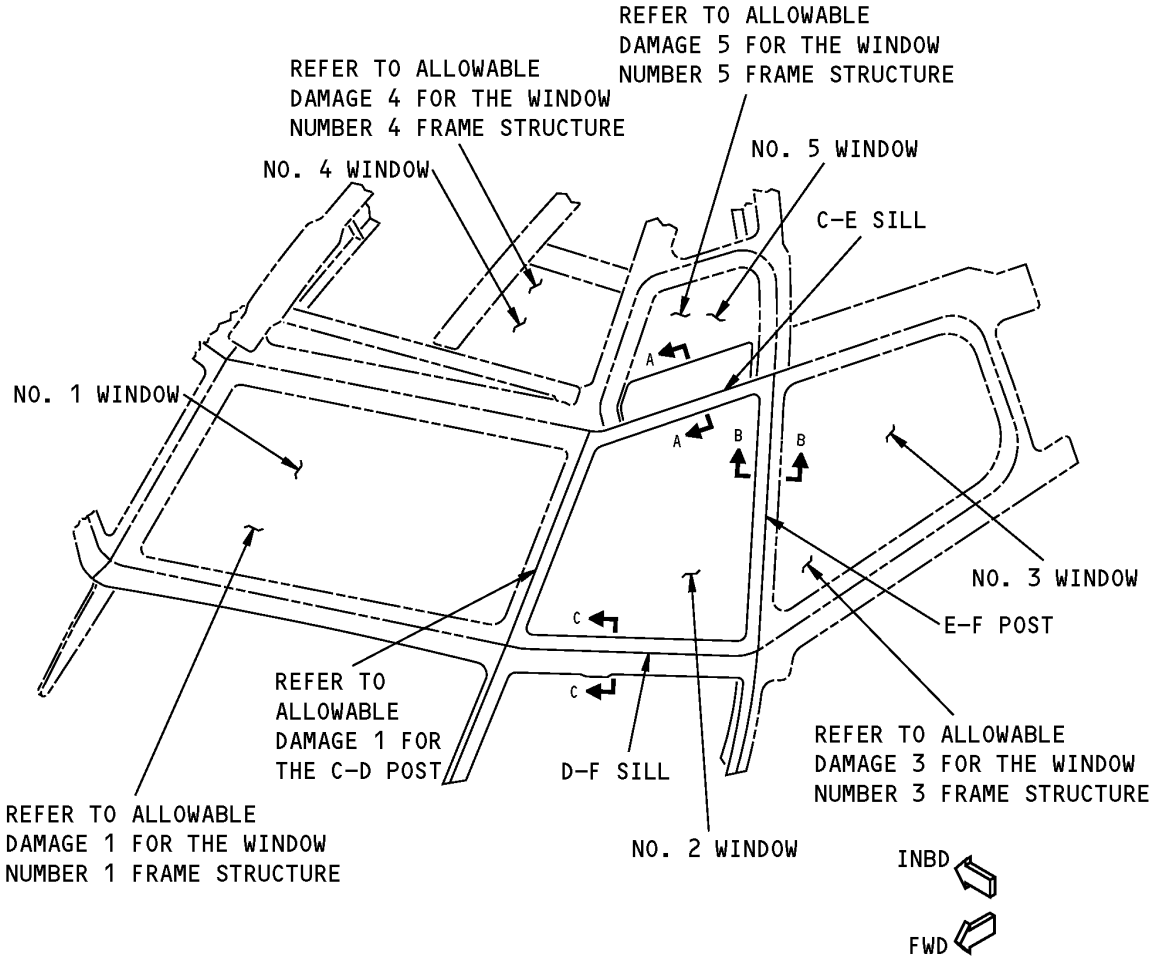
E

Allowable Damage Limits
Figure 102 (Sheet 2 of 2)

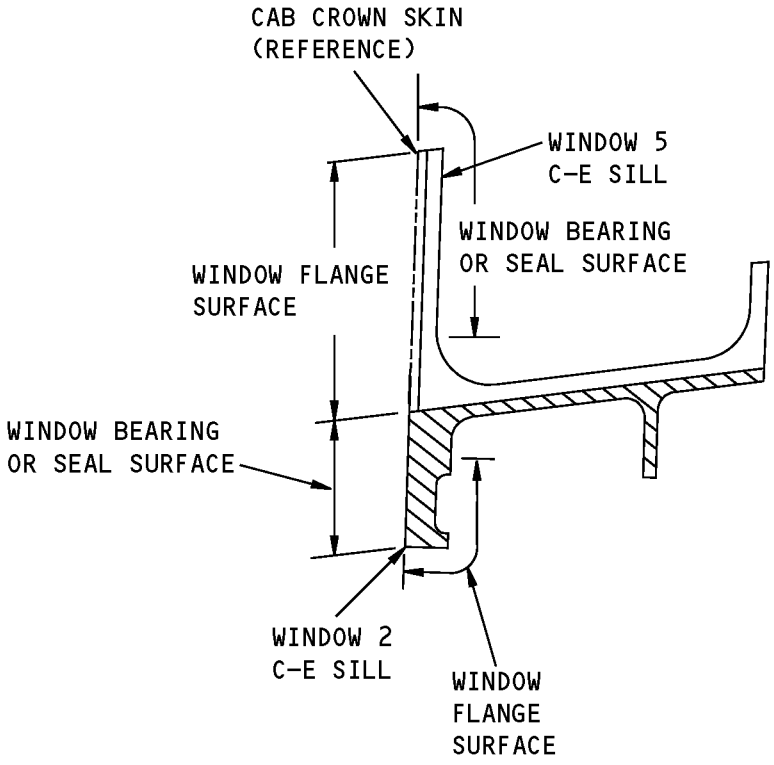
ALLOWABLE DAMAGE 2 - FLIGHT COMPARTMENT WINDOW FRAME NUMBER 2

1. Applicability

A. Allowable Damage 2 is applicable to damage on the flight compartment window frame number 2 as shown in Number 2 Window Frame Sections, Figure 101/ALLOWABLE DAMAGE 2.



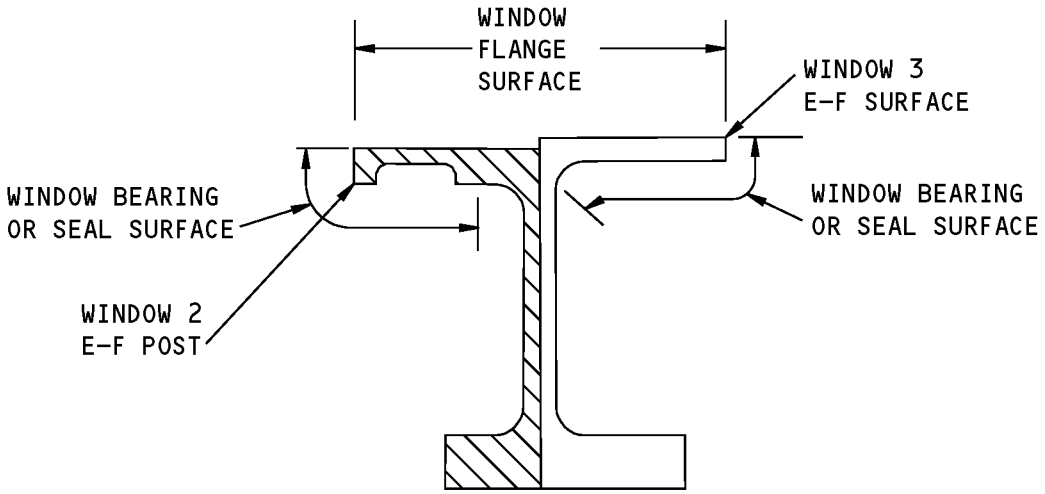
Number 2 Window Frame Sections
Figure 101 (Sheet 1 of 3)



C-E SILLS

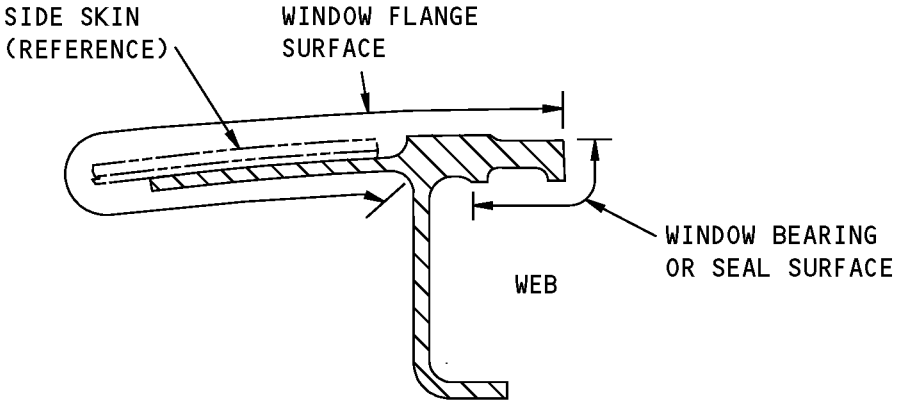
A-A

Number 2 Window Frame Sections
Figure 101 (Sheet 2 of 3)



E-F POSTS

B-B



D-F SILL
(ROTATED 90° CLOCKWISE)

C-C

ALUMINUM

TITANIUM

Number 2 Window Frame Sections
Figure 101 (Sheet 3 of 3)

2. General

A. Refer to Table 101/ALLOWABLE DAMAGE 2 for a list of the references for the allowable damage data.

B. Refer to Paragraph 4./ALLOWABLE DAMAGE 2 for the allowable damage limits.

WARNING: SMALL PARTICLES OF TITANIUM ARE FLAMMABLE. IN A SUFFICIENT CONCENTRATION, AN EXPLOSION CAN OCCUR. EXTINGUISH FIRES OF TITANIUM WITH FULLY DRY TALC, CALCIUM CARBONATE, SAND OR GRAPHITE. APPLY THE POWDER TO A DEPTH OF 1/2 INCH OR MORE ON THE AREA THAT IS ON FIRE. DO NOT USE FOAM, WATER, HALON, CARBON TETRACHLORIDE, OR CARBON DIOXIDE. WATER THAT TOUCHES MOLTEN TITANIUM CAN CAUSE A STEAM EXPLOSION.

C. Refer to SOPM 20-10-07 for the machining procedures you can use when you work with titanium.

D. Remove the damage as necessary from the sills and post.

(1) Refer to 51-10-02 for inspection and removal of the damage.

(2) Refer to 51-30-03 for the possible sources of the abrasive and other materials you can use to remove the damage.

(3) Refer to 51-30-05 for the possible sources of the equipment and tools you can use to remove the damage.

Table 101:

PARAGRAPH REFERENCES FOR THE ALLOWABLE DAMAGE LIMITS	
WINDOW NUMBER 2 FRAME SECTIONS	**PARAGRAPH**
C-E SILL	4.A
E-F POST	4.B
D-F SILL	4.C

E. After you remove the damage on a parts made from titanium, do the steps that follow:

(1) Do a High Frequency Eddy Current (HFEC) inspection of the damaged area to find the dimensions of the damage. Refer to 51-10-02 and 737 NDT Part 6, 51-00-00, Figure 4 for inspection procedures.

NOTE: The penetrant inspection is permitted as an alternative to the HFEC inspection. Refer to SOPM 20-20-02 for the penetrant inspection procedure.

(2) Apply a chemical conversion coating to the bare surfaces of the reworked areas. Refer to 51-20-01.

NOTE: Surface protection is necessary to prevent galvanic corrosion between dissimilar metals.

(3) Apply one layer of BMS 10-11, Type I primer to the reworked area. Refer to SOPM 20-41-02.

F. After you remove the damage on the parts, make an inspection as follows:

(1) Do a High Frequency Eddy Current (HFEC) inspection of the damaged area to find the dimensions of the damage. Refer to 51-10-02 and 737 NDT Part 6, 51-00-00, Figure 4 for inspection procedures.

NOTE: The penetrant inspection is permitted as an alternative to the HFEC inspection. Refer to SOPM 20-20-02 for the penetrant inspection procedure.

G. After you make the inspection and there is no damage, do as follows for the aluminum parts:

WARNING: MAKE SURE THAT YOU WEAR EYE PROTECTION WHEN YOU USE THE FLAP PEEN WHEEL. IF YOU DO NOT OBEY, AN INJURY CAN OCCUR.

(1) Flap peen or shot peen the reworked areas.

(a) Refer to 51-20-06 for shot peen intensity and shot number.

(b) Refer to SOPM 20-10-03 for flap peen and shot peen procedures.

(2) Apply a chemical conversion coating to the bare surfaces of the reworked areas. Refer to 51-20-01.

(3) Apply one layer of BMS 10-11, Type I primer to the reworked area. Refer to SOPM 20-41-02.

3. References

Reference	Title
51-10-02	INSPECTION AND REMOVAL OF DAMAGE
51-20-01	PROTECTIVE TREATMENT OF METALLIC AND COMPOSITE MATERIALS
51-20-06	SHOT PEENING
51-30-03	NON-METALLIC MATERIALS
51-30-05	EQUIPMENT AND TOOLS FOR REPAIRS
AMM 56-11-00	FLIGHT COMPARTMENT WINDOWS
SOPM 20-10-03	General - Shot Peening Procedures
SOPM 20-10-07	Machining of Titanium
SOPM 20-20-02	Penetrant Methods of Inspection
SOPM 20-41-02	Application of Chemical and Solvent Resistant Finishes
737 NDT Part 6, 51-00-00	Structures - General
737 NDT Part 6, 51-00-00, Figure 4	Surface Inspection of Aluminum Parts

4. Allowable Damage Limits

A. Number 2 Window, C-E Sill

(1) Cracks:

(a) Remove the damage as shown in Allowable Damage Limits, Figure 102/ALLOWABLE DAMAGE 2, Details A , B , and D .

(2) Nicks, Scratches, Gouges, and Corrosion:

(a) Remove the damage as shown in Allowable Damage Limits, Figure 102/ALLOWABLE DAMAGE 2, Details A , B , C , D , and E .

(3) Dents are not permitted.

(4) Holes and Punctures are not permitted.

B. Number 2 Window, E-F Post

(1) Cracks:

(a) Remove the damage as shown in Allowable Damage Limits, Figure 102/ALLOWABLE DAMAGE 2, Details A , B , and D .

(2) Nicks, Scratches, Gouges, and Corrosion:

(a) Remove the damage as shown in Allowable Damage Limits, Figure 102/ALLOWABLE DAMAGE 2, Details A , B , C , D , and E .

(3) Dents are not permitted.

(4) Holes and Punctures are not permitted.

C. Number 2 Window, D-F Sill

(1) Cracks:

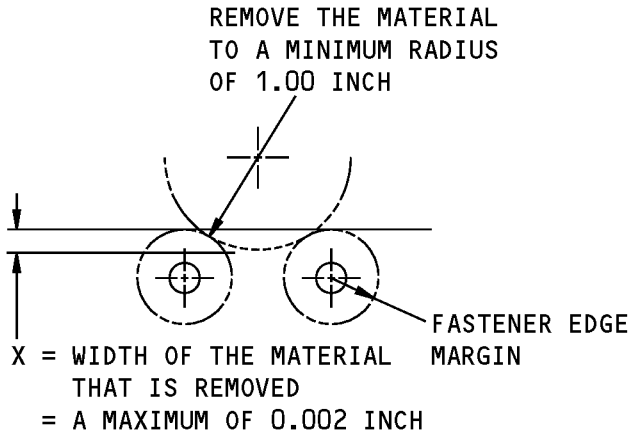
(a) Remove the damage as shown in Allowable Damage Limits, Figure 102/ALLOWABLE DAMAGE 2, Details A , B , and D .

(2) Nicks, Scratches, Gouges, and Corrosion:

(a) Remove the damage as shown in Allowable Damage Limits, Figure 102/ALLOWABLE DAMAGE 2, Details A , B , C , D , and E .

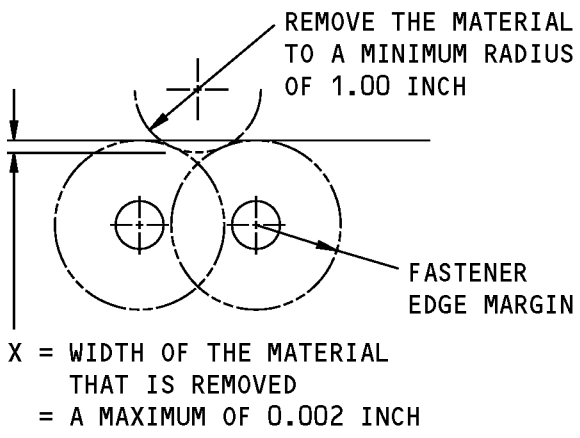
(3) Dents are not permitted.

(4) Holes and Punctures are not permitted.



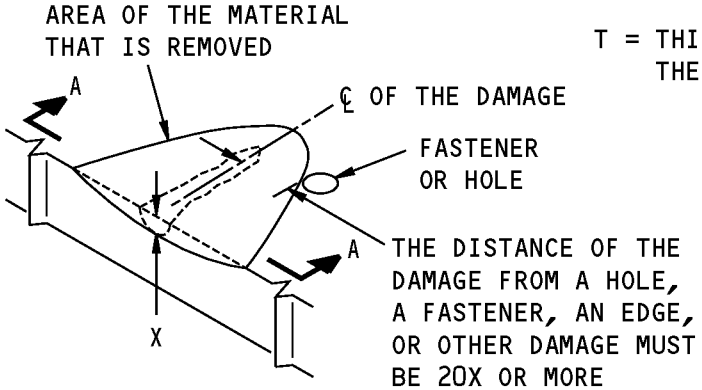
REMOVAL OF DAMAGED MATERIAL AT EDGES WHERE THE FASTENER EDGE MARGINS DO NOT HAVE AN OVERLAP

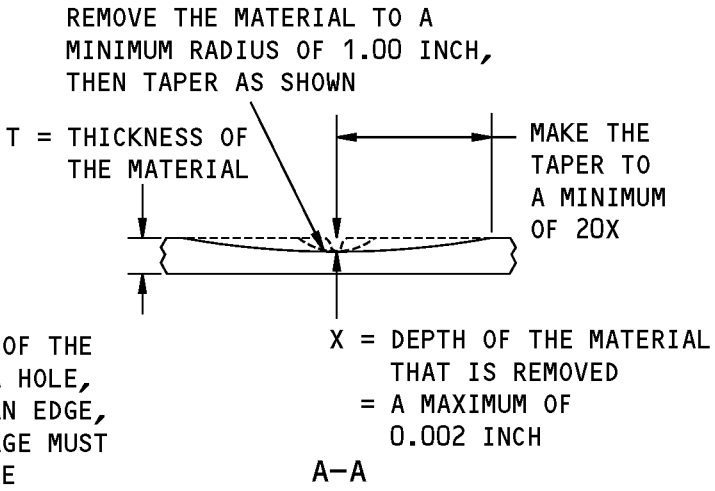
(A)



REMOVAL OF DAMAGED MATERIAL AT EDGES WHERE THE FASTENER EDGE MARGINS HAVE AN OVERLAP

(B)

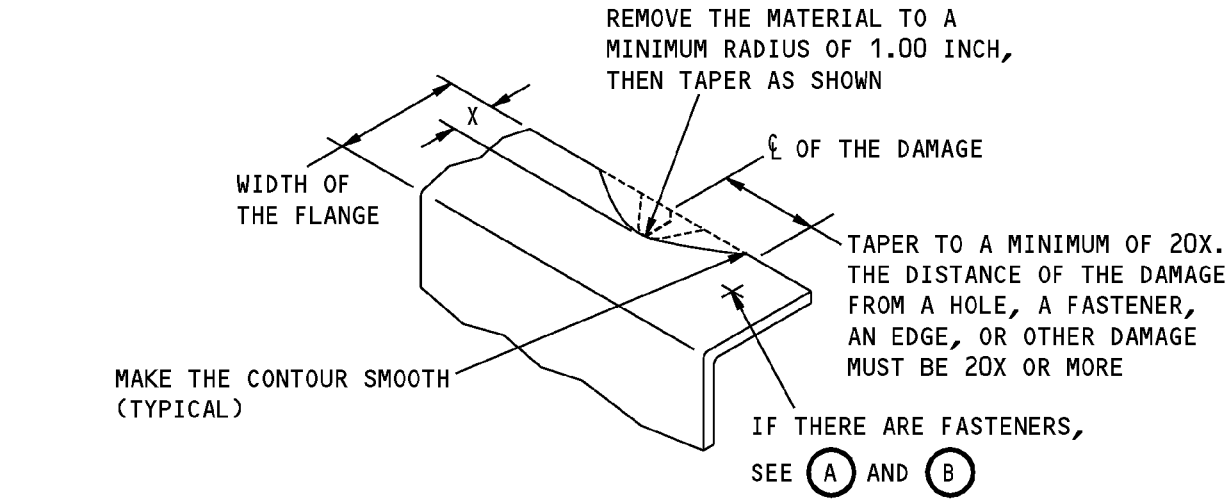




REMOVAL OF DAMAGED MATERIAL ON A SURFACE

(C)

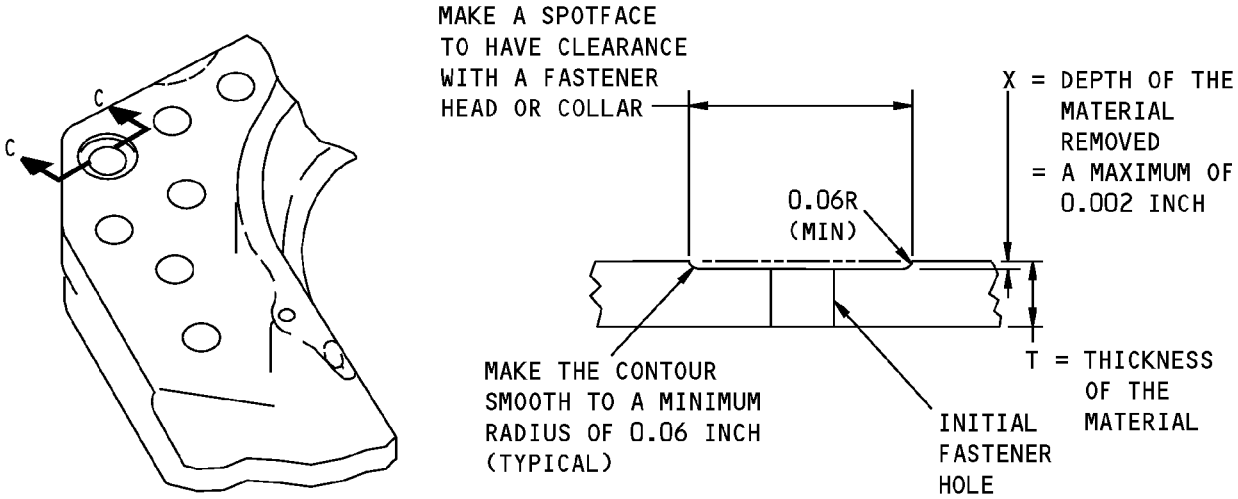
Allowable Damage Limits
Figure 102 (Sheet 1 of 2)



X = WIDTH OF THE MATERIAL THAT IS REMOVED
= A MAXIMUM OF 0.002 INCH

REMOVAL OF DAMAGED MATERIAL ON AN EDGE

D



REMOVAL OF DAMAGED MATERIAL AT A FASTENER HOLE

E

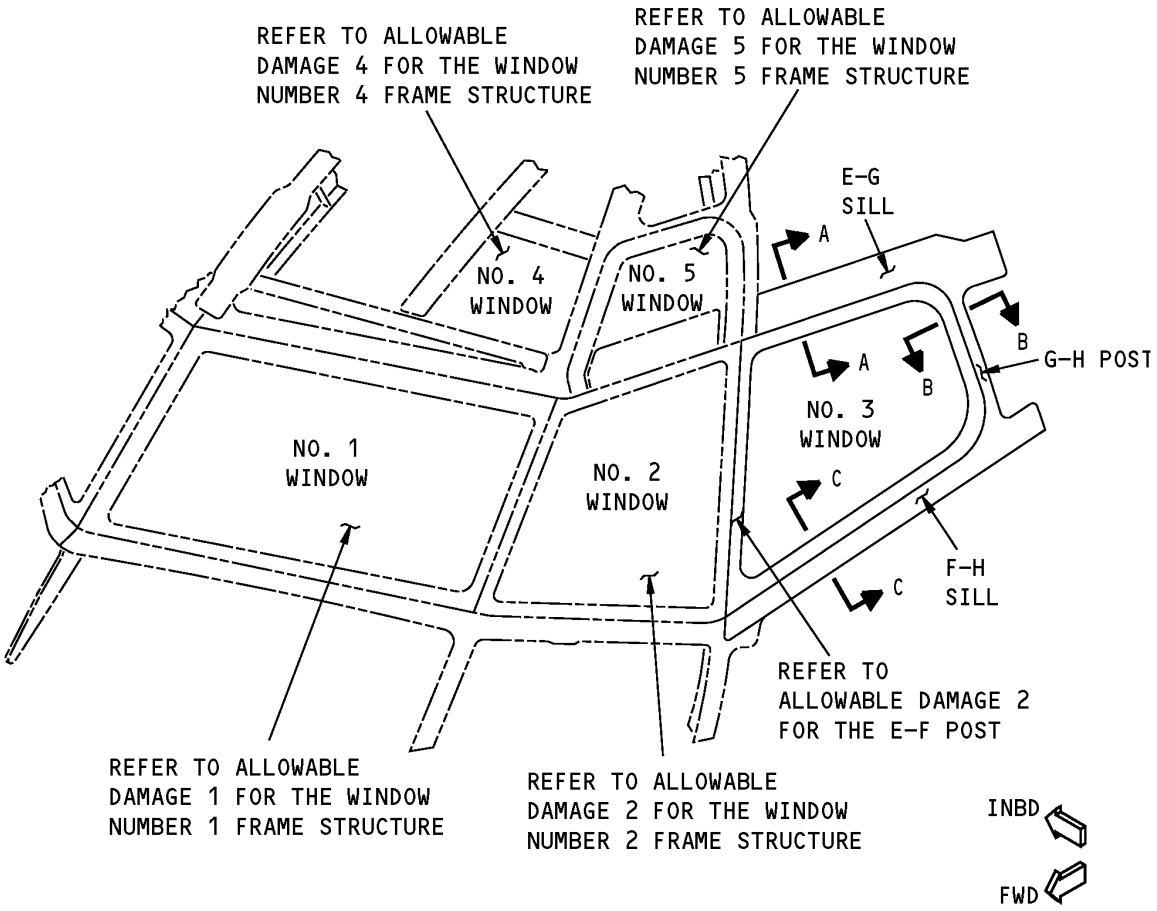
C–C

Allowable Damage Limits
Figure 102 (Sheet 2 of 2)

ALLOWABLE DAMAGE 3 - FLIGHT COMPARTMENT WINDOW FRAME NUMBER 3

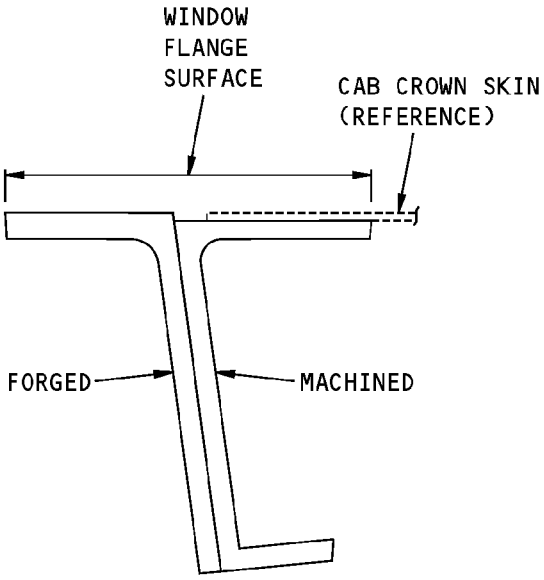
1. Applicability

A. Allowable Damage 3 is applicable to damage on the flight compartment window frame number 3 as shown in Number 3 Window Frame Sections, Figure 101/ALLOWABLE DAMAGE 3.

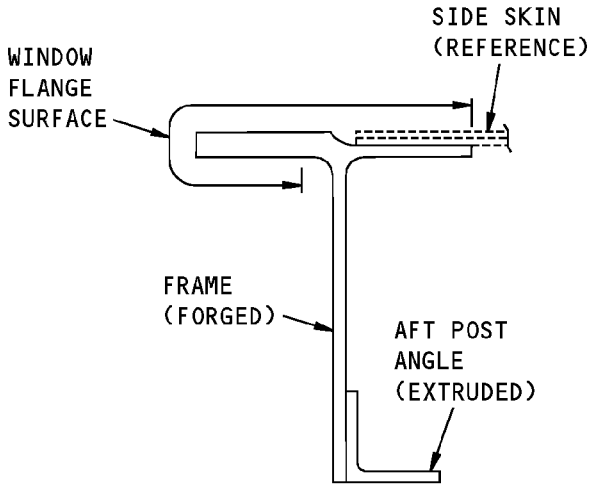


LEFT SIDE IS SHOWN, RIGHT SIDE IS OPPOSITE

Number 3 Window Frame Sections
Figure 101 (Sheet 1 of 3)



E-G SILL
(ROTATED 90° CLOCKWISE)
A-A

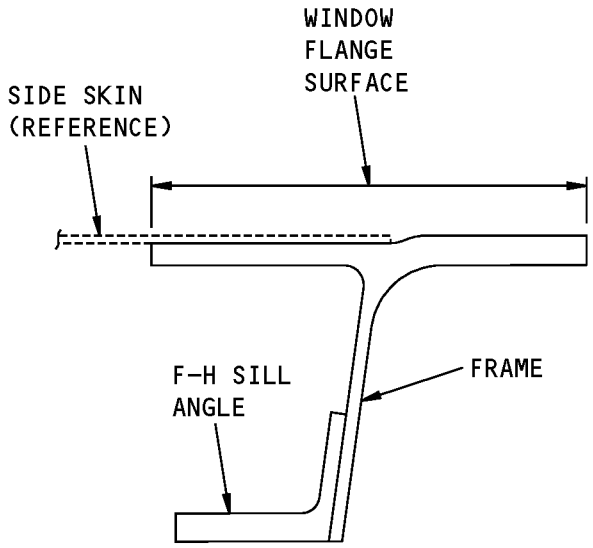


G-H POST
B-B

NOTES

- ALL PARTS IDENTIFIED ARE MADE FROM ALUMINUM.

Number 3 Window Frame Sections
Figure 101 (Sheet 2 of 3)



F-H SILL
(ROTATED 90° CLOCKWISE)
C-C

Number 3 Window Frame Sections
Figure 101 (Sheet 3 of 3)

2. General

A. Refer to Table 101/ALLOWABLE DAMAGE 3 for a list of the references for the allowable damage data.

B. Refer to Paragraph 4./ALLOWABLE DAMAGE 3 for the allowable damage limits.

C. Remove the damage as necessary from the sills and post.

(1) Refer to 51-10-02 for inspection and removal of the damage.

(2) Refer to 51-30-03 for possible sources of the abrasive and other materials you can use to remove the damage.

(3) Refer to 51-30-05 for possible sources of the equipment and tools you can use to remove the damage.

Table 101:

PARAGRAPH REFERENCES FOR THE ALLOWABLE DAMAGE LIMITS	
WINDOW NUMBER 3 FRAME SECTIONS	**PARAGRAPH**
E-G SILL	4.A
G-H POST	4.B
F-H SILL	4.C

D. After you remove the damage on parts, do the steps that follow:

(1) To all locations make sure that htere are no surface cracks. (HFEC) inspection of the damaged area. Refer to 51-10-02 and 737 NDT Part 6, 51-00-00, Figure 4 for inspection procedures.

NOTE: The penetrant inspection is permitted as an alternative to the HFEC inspection. Refer to SOPM 20-20-02 for the penetrant inspection procedure.

(2) To all lightning strike damage areas do a conductivity inspection of the damaged areas as given in NDT Part 6, 51-00-00, Figure 3.

(a) Do a conductive test and heat evaluation as given in 51-20-02, GENERAL and 51-20-03, GENERAL.

(b) Make sure there is a minimum surface finish of 63 micro inches to all locations.

WARNING: MAKE SURE THAT YOU WEAR EYE PROTECTION WHEN YOU USE THE FLAP PEEN WHEEL. IF YOU DO NOT OBEY, AN INJURY CAN OCCUR.

(3) Flap peen or shot peen the reworked areas.

(a) Refer to 51-20-06 for shot peen intensity and shot number.

(b) Refer to SOPM 20-10-03 for flap peen and shot peen procedures.

(4) Apply a chemical conversion coating to the bare surfaces of the reworked areas. Refer to 51-20-01.

(5) Apply one layer of BMS 10-11, Type I primer to the reworked area. Refer to SOPM 20-41-02.

3. References

Reference	Title
51-10-02	INSPECTION AND REMOVAL OF DAMAGE
51-20-01	PROTECTIVE TREATMENT OF METALLIC AND COMPOSITE MATERIALS
51-20-02, GENERAL	Heat Treat Verification - Hardness and Conductivity Testing

(Continued)

Reference	Title
51-20-03, GENERAL	Heat Damage Analysis
51-20-06	SHOT PEENING
51-30-03	NON-METALLIC MATERIALS
51-30-05	EQUIPMENT AND TOOLS FOR REPAIRS
AMM 56-11-00	FLIGHT COMPARTMENT WINDOWS
SOPM 20-10-03	General - Shot Peening Procedures
SOPM 20-20-02	Penetrant Methods of Inspection
SOPM 20-41-02	Application of Chemical and Solvent Resistant Finishes
737 NDT Part 6, 51-00-00	Structures - General
737 NDT Part 6, 51-00-00, Figure 4	Surface Inspection of Aluminum Parts

4. Allowable Damage Limits

A. Number 3 Window, E-G Sill

(1) Cracks:

(a) Remove the damage as shown in Allowable Damage Limits, Figure 102/ALLOWABLE DAMAGE 3, Details A , B , and D .

(2) Nicks, Scratches, Gouges, and Corrosion:

(a) Remove the damage as shown in Allowable Damage Limits, Figure 102/ALLOWABLE DAMAGE 3, Details A , B , C , D , and E .

(3) Dents are not permitted.

(4) Holes and Punctures are not permitted.

(5) Lightning Strike

(a) The damage is permitted as shown in Figure 102, Details A, B, C, and D.

NOTE: For damage at a fastener location, remove and replace the fastener. Countersink and install the new fastener as given in the initial drawing requirements.

B. Number 3 Window, G-H Post

(1) Cracks:

(a) Remove the damage as shown in Allowable Damage Limits, Figure 102/ALLOWABLE DAMAGE 3, Details A , B , and D .

(2) Nicks, Scratches, Gouges, and Corrosion:

(a) Remove the damage as shown in Allowable Damage Limits, Figure 102/ALLOWABLE DAMAGE 3, Details A , B , C , D , and E .

(3) Dents are not permitted.

(4) Holes and Punctures are not permitted.

(5) Lightning Strike

(a) The damage is permitted as shown in Figure 102, Details A, B, C, and D.

NOTE: For damage at a fastener location, remove and replace the fastener. Countersink and install the new fastener as given in the initial drawing requirements.

C. Number 3 Window, F-H Sill

(1) Cracks:

(a) Remove the damage as shown in Allowable Damage Limits, Figure 102/ALLOWABLE DAMAGE 3, Details A , B , and D .

(2) Nicks, Scratches, Gouges, and Corrosion:

(a) Remove the damage as shown in Allowable Damage Limits, Figure 102/ALLOWABLE DAMAGE 3, Details A , B , C , D , and E .

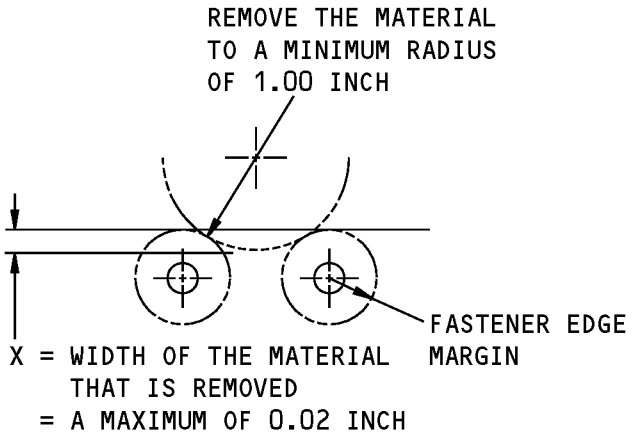
(3) Dents are not permitted.

(4) Holes and Punctures are not permitted.

(5) Lightning Strike

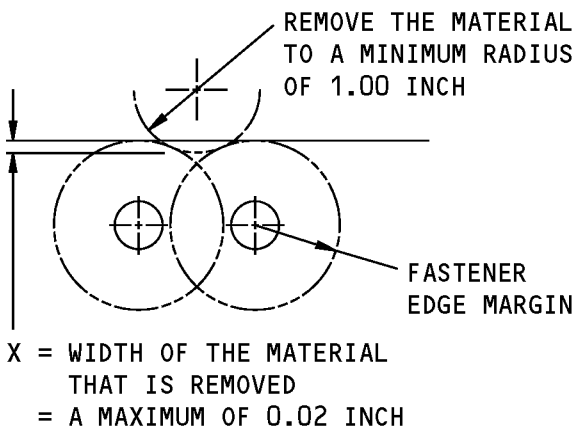
(a) The damage is permitted as shown in Figure 102, Details A, B, C, and D.

NOTE: For damage at a fastener location, remove and replace the fastener. Countersink and install the new fastener as given in the initial drawing requirements.



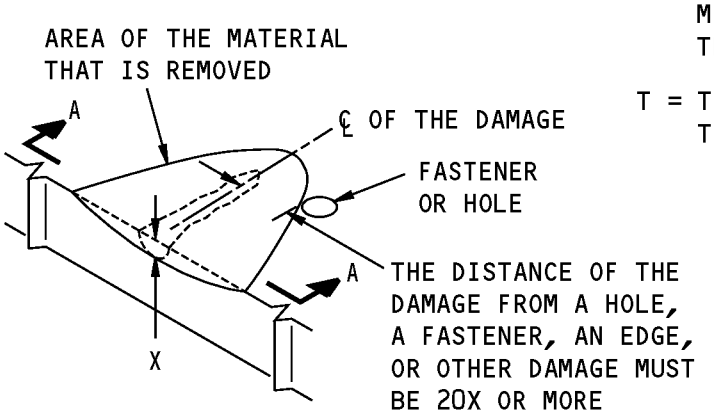
REMOVAL OF DAMAGED MATERIAL AT EDGES WHERE THE FASTENER EDGE MARGINS DO NOT HAVE AN OVERLAP

A



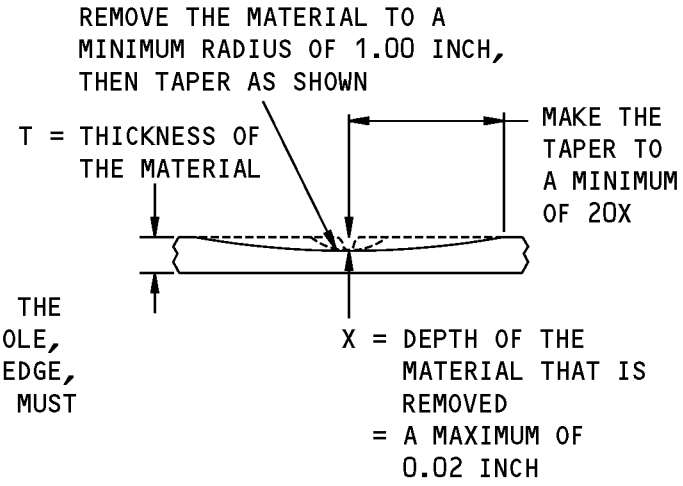
REMOVAL OF DAMAGED MATERIAL AT EDGES WHERE THE FASTENER EDGE MARGINS HAVE AN OVERLAP

B



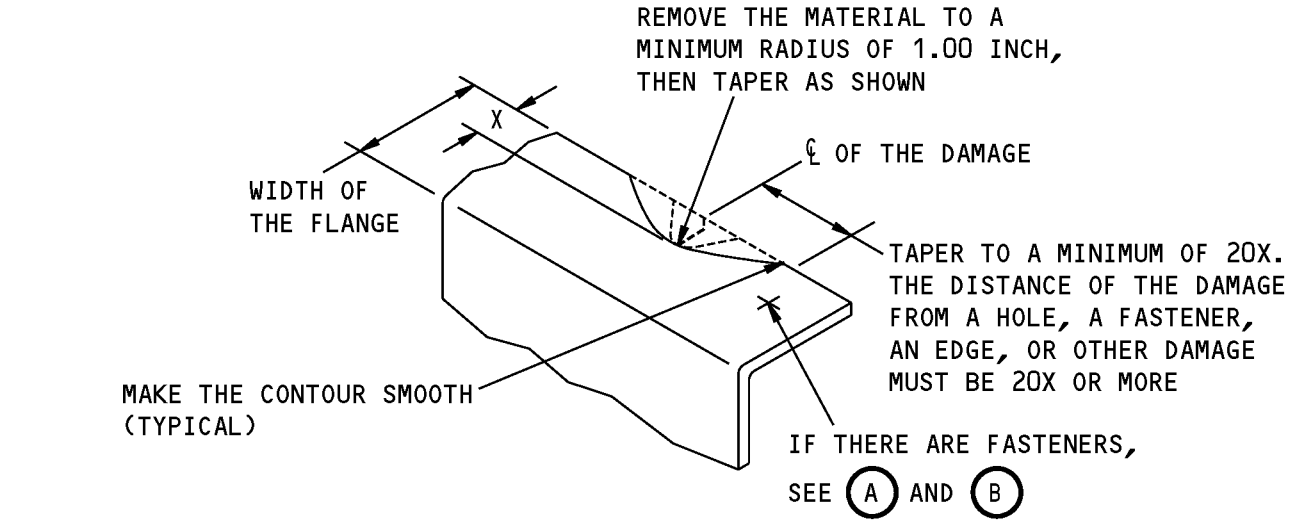
REMOVAL OF DAMAGED MATERIAL ON A SURFACE

C



A–A

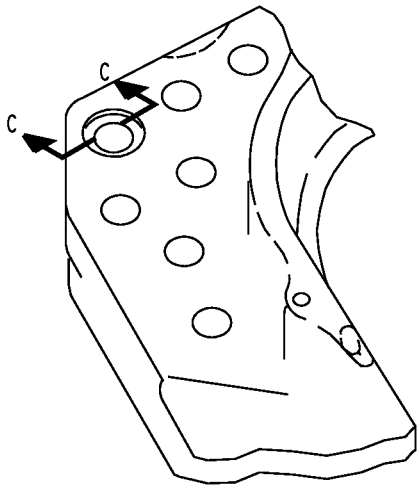
Allowable Damage Limits
Figure 102 (Sheet 1 of 2)

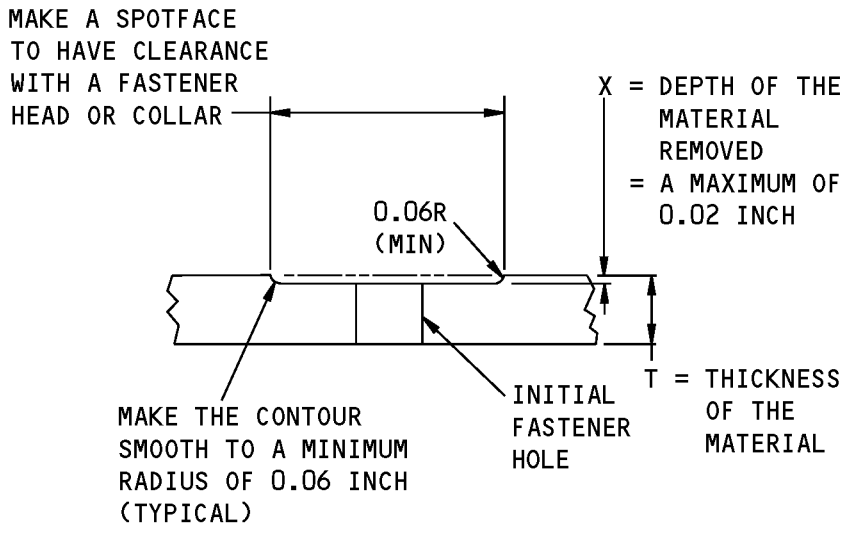


X = WIDTH OF THE MATERIAL THAT IS REMOVED
= A MAXIMUM OF 0.02 INCH

REMOVAL OF DAMAGED MATERIAL ON AN EDGE

D





REMOVAL OF DAMAGED MATERIAL AT A FASTENER HOLE

C–C

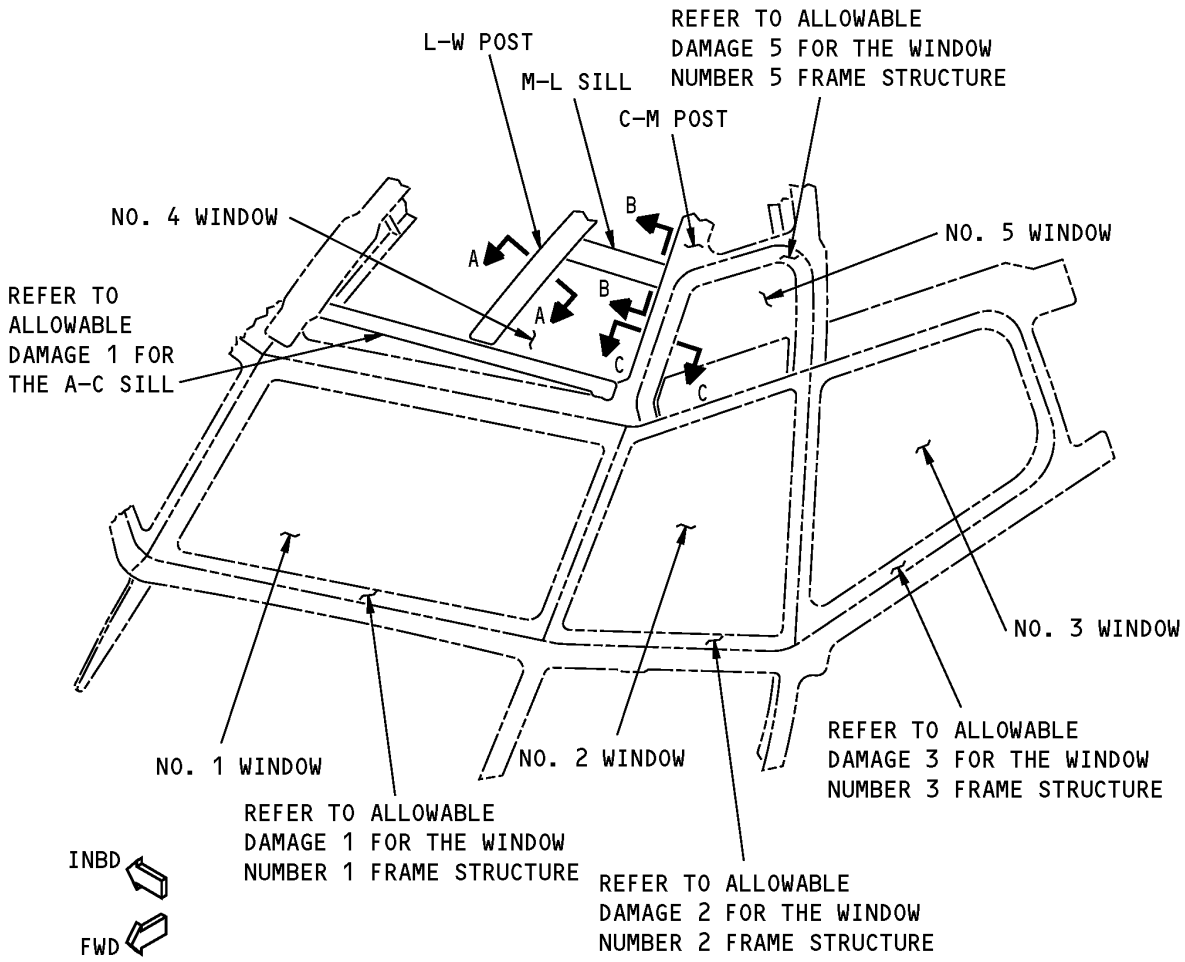
E

Allowable Damage Limits
Figure 102 (Sheet 2 of 2)

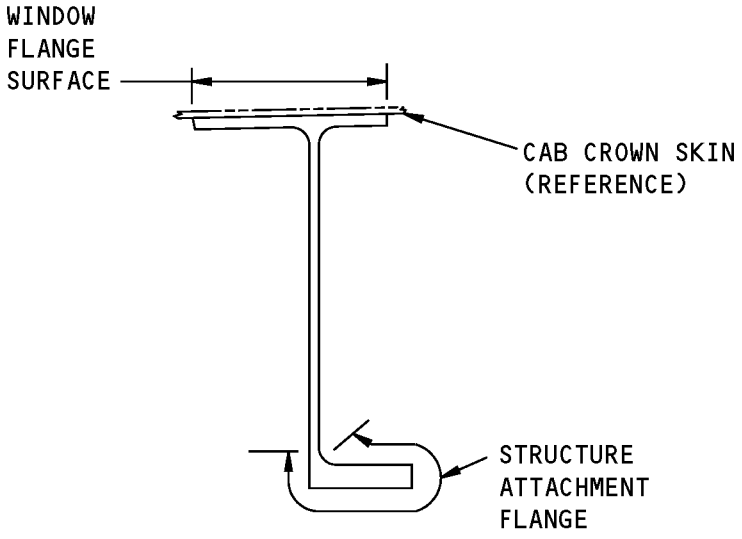
ALLOWABLE DAMAGE 4 - FLIGHT COMPARTMENT WINDOW FRAME NUMBER 4

1. Applicability

A. Allowable Damage 4 is applicable to damage on the flight compartment window frame number 4 as shown in Number 4 Window Frame Sections, Figure 101/ALLOWABLE DAMAGE 4.

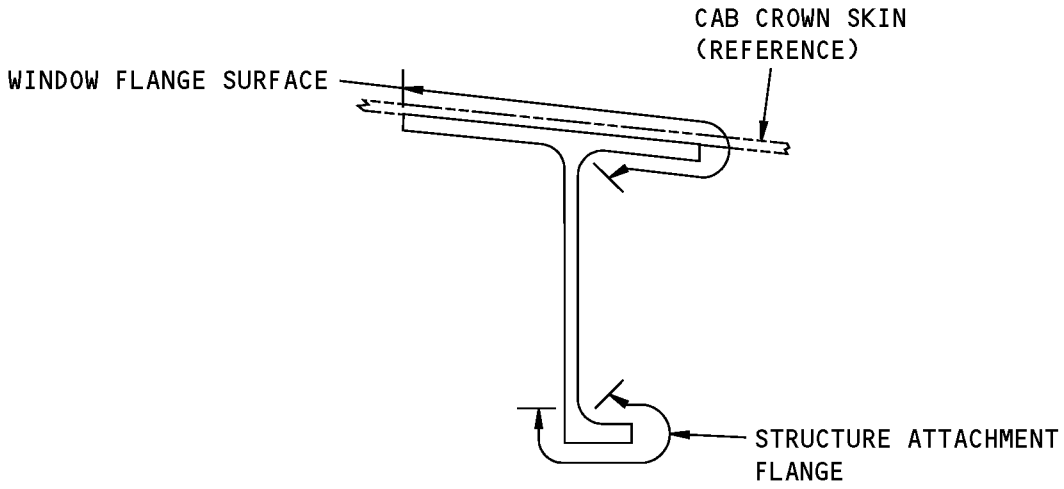


Number 4 Window Frame Sections
Figure 101 (Sheet 1 of 3)



L-W POST

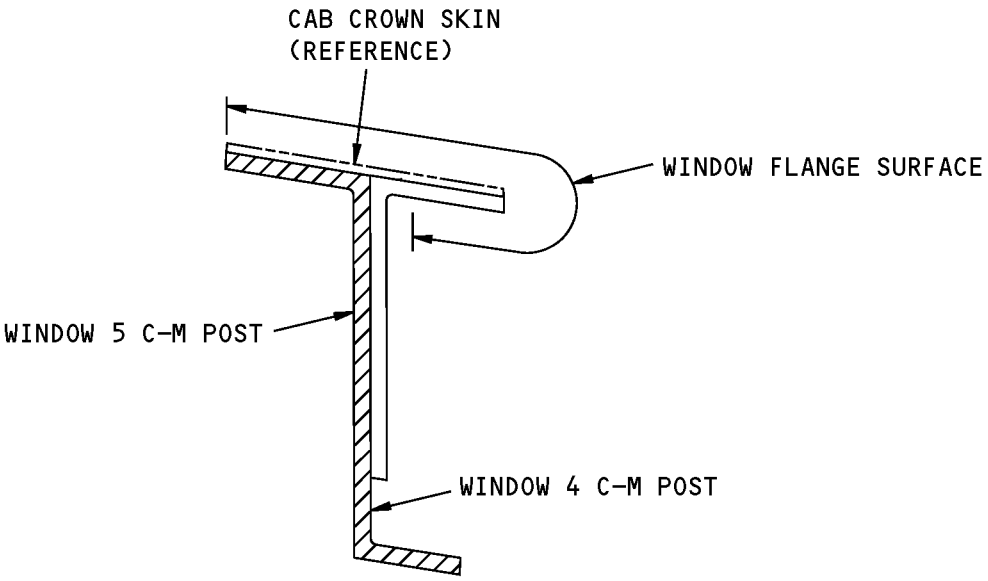
A-A



M-L SILL

B-B

Number 4 Window Frame Sections
Figure 101 (Sheet 2 of 3)



ALUMINUM
TITANIUM

Number 4 Window Frame Sections
Figure 101 (Sheet 3 of 3)

2. General

A. Refer to Table 101/ALLOWABLE DAMAGE 4 for a list of the references for the allowable damage data.

B. Refer to Paragraph 4./ALLOWABLE DAMAGE 4 for the allowable damage limits.

WARNING: SMALL PARTICLES OF TITANIUM ARE FLAMMABLE. IN A SUFFICIENT CONCENTRATION, AN EXPLOSION CAN OCCUR. EXTINGUISH FIRES OF TITANIUM WITH FULLY DRY TALC, CALCIUM CARBONATE, SAND OR GRAPHITE. APPLY THE POWDER TO A DEPTH OF 1/2 INCH OR MORE ON THE AREA THAT IS ON FIRE. DO NOT USE FOAM, WATER, HALON, CARBON TETRACHLORIDE, OR CARBON DIOXIDE. WATER THAT TOUCHES MOLTEN TITANIUM CAN CAUSE A STEAM EXPLOSION.

C. Refer to SOPM 20-10-07 for the machining procedures you can use when you work with titanium.

D. Remove the damage as necessary from the sills and posts.

(1) Refer to 51-10-02 for inspection and removal of the damage.

(2) Refer to 51-30-03 for the sources of the abrasive and other materials you need to remove the damage.

(3) Refer to 51-30-05 for the sources of the equipment and tools you need to remove the damage.

Table 101:

PARAGRAPH REFERENCES FOR THE ALLOWABLE DAMAGE LIMITS	
WINDOW NUMBER 4 FRAME SECTIONS	**PARAGRAPH**
T-W SILL	4.A
L-W POST	4.B
M-L SILL	4.C
C-M POST	4.D

E. After you remove the damage on the parts made from titanium, do the steps that follow:

(1) Do a High Frequency Eddy Current (HFEC) inspection of the damaged area to find the dimensions of the damage. Refer to 51-10-02 and 737 NDT Part 6, 51-00-00, Figure 4 for inspection procedures.

NOTE: The penetrant inspection is permitted as an alternative to the HFEC inspection. Refer to SOPM 20-20-02 for the penetrant inspection procedure.

(2) Apply a chemical conversion coating to the bare surfaces of the reworked areas. Refer to 51-20-01.

(3) Apply one layer of BMS 10-11, Type I primer to the reworked area. Refer to SOPM 20-41-02.

F. After you remove the damage on parts, make an inspection as follows:

(1) Do a High Frequency Eddy Current (HFEC) inspection of the damaged area to find the dimensions of the damage. Refer to 51-10-02 and 737 NDT Part 6, 51-00-00, Figure 4 for inspection procedures.

NOTE: The penetrant inspection is permitted as an alternative to the HFEC inspection. Refer to SOPM 20-20-02 for the penetrant inspection procedure.

G. After you make the inspection and there is no damage, do as follows for the aluminum parts:

WARNING: MAKE SURE THAT YOU WEAR EYE PROTECTION WHEN YOU USE THE FLAP PEEN WHEEL. IF YOU DO NOT OBEY, AN INJURY CAN OCCUR.

(1) Flap peen or shot peen the reworked areas.

(a) Refer to 51-20-06 for shot peen intensity and shot number.

(b) Refer to SOPM 20-10-03 for flap peen and shot peen procedures.

(2) Apply a chemical conversion coating to the bare surfaces of the reworked areas. Refer to 51-20-01.

(3) Apply one layer of BMS 10-11, Type I primer to the reworked area. Refer to SOPM 20-41-02.

3. References

Reference	Title
51-10-02	INSPECTION AND REMOVAL OF DAMAGE
51-20-01	PROTECTIVE TREATMENT OF METALLIC AND COMPOSITE MATERIALS
51-20-06	SHOT PEENING
51-30-03	NON-METALLIC MATERIALS
51-30-05	EQUIPMENT AND TOOLS FOR REPAIRS
AMM 56-11-00	FLIGHT COMPARTMENT WINDOWS
SOPM 20-10-03	General - Shot Peening Procedures
SOPM 20-10-07	Machining of Titanium
SOPM 20-20-02	Penetrant Methods of Inspection
SOPM 20-41-02	Application of Chemical and Solvent Resistant Finishes
737 NDT Part 6, 51-00-00	Structures - General
737 NDT Part 6, 51-00-00, Figure 4	Surface Inspection of Aluminum Parts

4. Allowable Damage Limits

A. No. 4 Window, T-W Sill

(1) Cracks:

(a) Remove the damage as shown in Allowable Damage Limits, Figure 102/ALLOWABLE DAMAGE 4, Details A , B , and D .

(2) Nicks, Scratches, Gouges, and Corrosion:

(a) Remove the damage as shown in Allowable Damage Limits, Figure 102/ALLOWABLE DAMAGE 4, Details A , B , C , D , and E .

(3) Dents are not permitted.

(4) Holes and Punctures are not permitted.

B. No. 4 Window, L-W Post

(1) Cracks:

(a) Remove the damage as shown in Allowable Damage Limits, Figure 102/ALLOWABLE DAMAGE 4, Details A , B , and D .

(2) Nicks, Scratches, Gouges, and Corrosion:

(a) Remove the damage as shown in Allowable Damage Limits, Figure 102/ALLOWABLE DAMAGE 4, Details A , B , C , D , and E .

(3) Dents are not permitted.

(4) Holes and Punctures are not permitted.

C. No. 4 Window, M-L Sill

(1) Cracks:

(a) Remove the damage as shown in Allowable Damage Limits, Figure 102/ALLOWABLE DAMAGE 4, Details, A, B, and D.

(2) Nicks, Scratches, Gouges, and Corrosion:

(a) Remove the damage as shown in Allowable Damage Limits, Figure 102/ALLOWABLE DAMAGE 4, Details A , B , C , D , and E .

(3) Dents are not permitted.

(4) Holes and Punctures are not permitted.

D. No. 4 Window, C-M Post

(1) Cracks

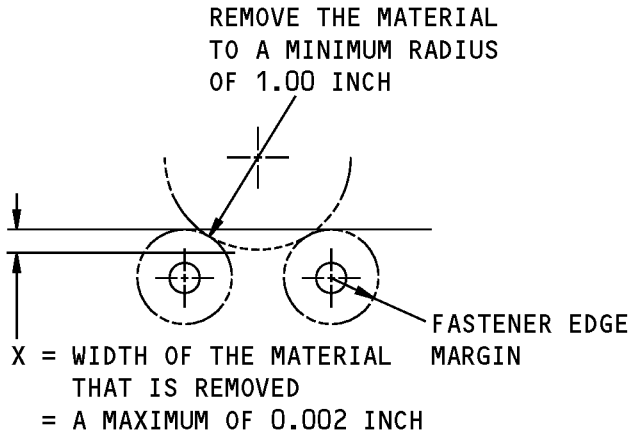
(a) Remove the damage as shown in Allowable Damage Limits, Figure 102/ALLOWABLE DAMAGE 4, Details, A, B, and D.

(2) Nicks, Scratches, Gouges, and Corrosion:

(a) Remove the damage as shown in Allowable Damage Limits, Figure 102/ALLOWABLE DAMAGE 4, Details A , B , C , D , and E .

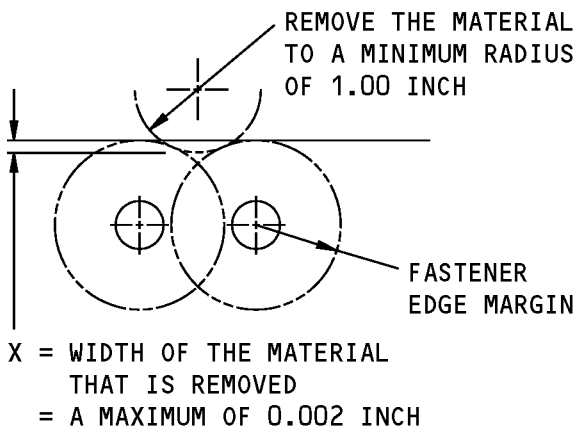
(3) Dents are not permitted.

(4) Holes and Punctures are not permitted.



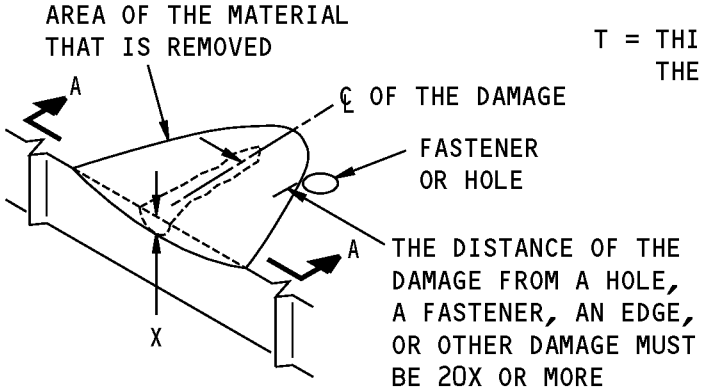
REMOVAL OF DAMAGED MATERIAL AT EDGES WHERE THE FASTENER EDGE MARGINS DO NOT HAVE AN OVERLAP

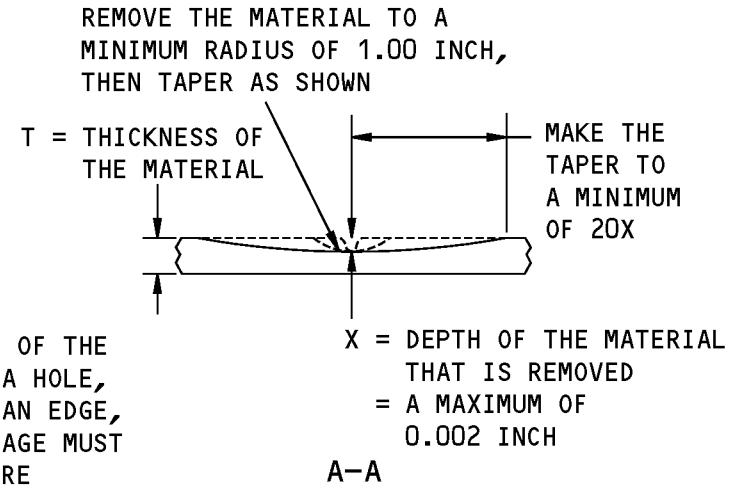
A



REMOVAL OF DAMAGED MATERIAL AT EDGES WHERE THE FASTENER EDGE MARGINS HAVE AN OVERLAP

B

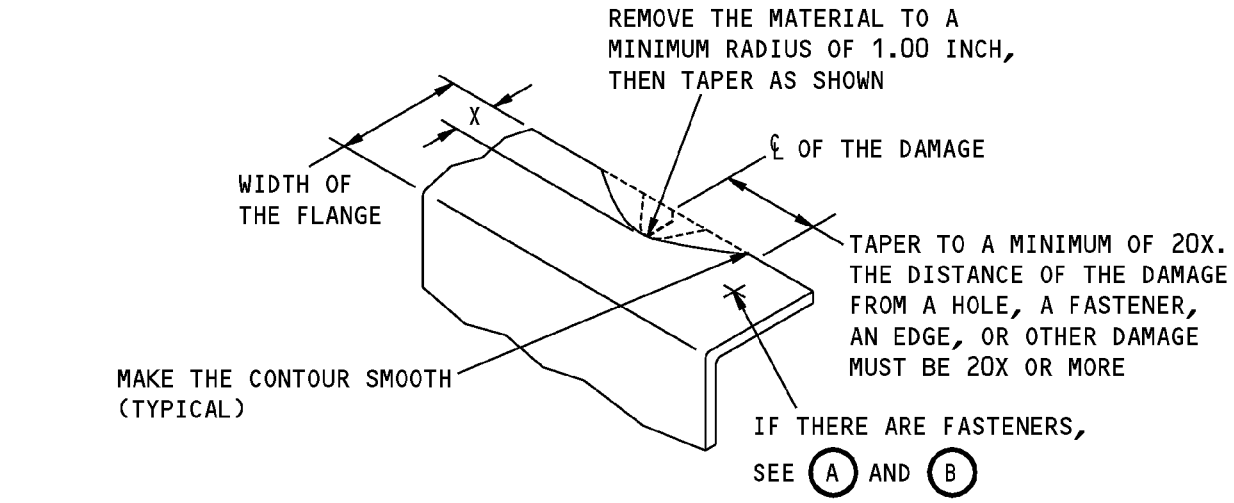




REMOVAL OF DAMAGED MATERIAL ON A SURFACE

C

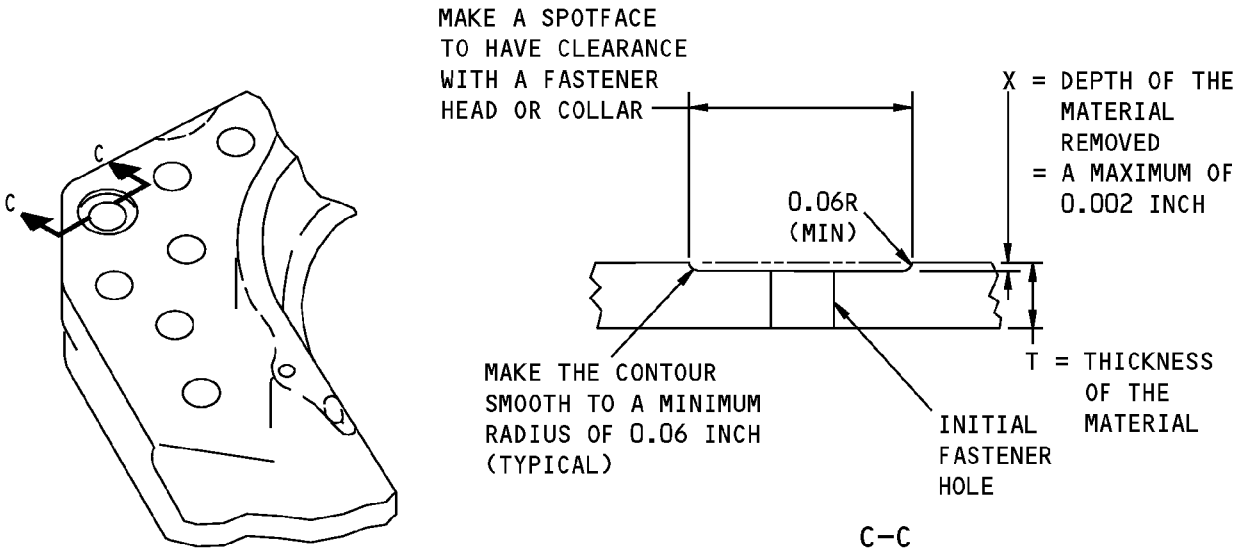
Allowable Damage Limits
Figure 102 (Sheet 1 of 2)



X = WIDTH OF THE MATERIAL THAT IS REMOVED
= A MAXIMUM OF 0.002 INCH

REMOVAL OF DAMAGED MATERIAL ON AN EDGE

D



REMOVAL OF DAMAGED MATERIAL AT A FASTENER HOLE

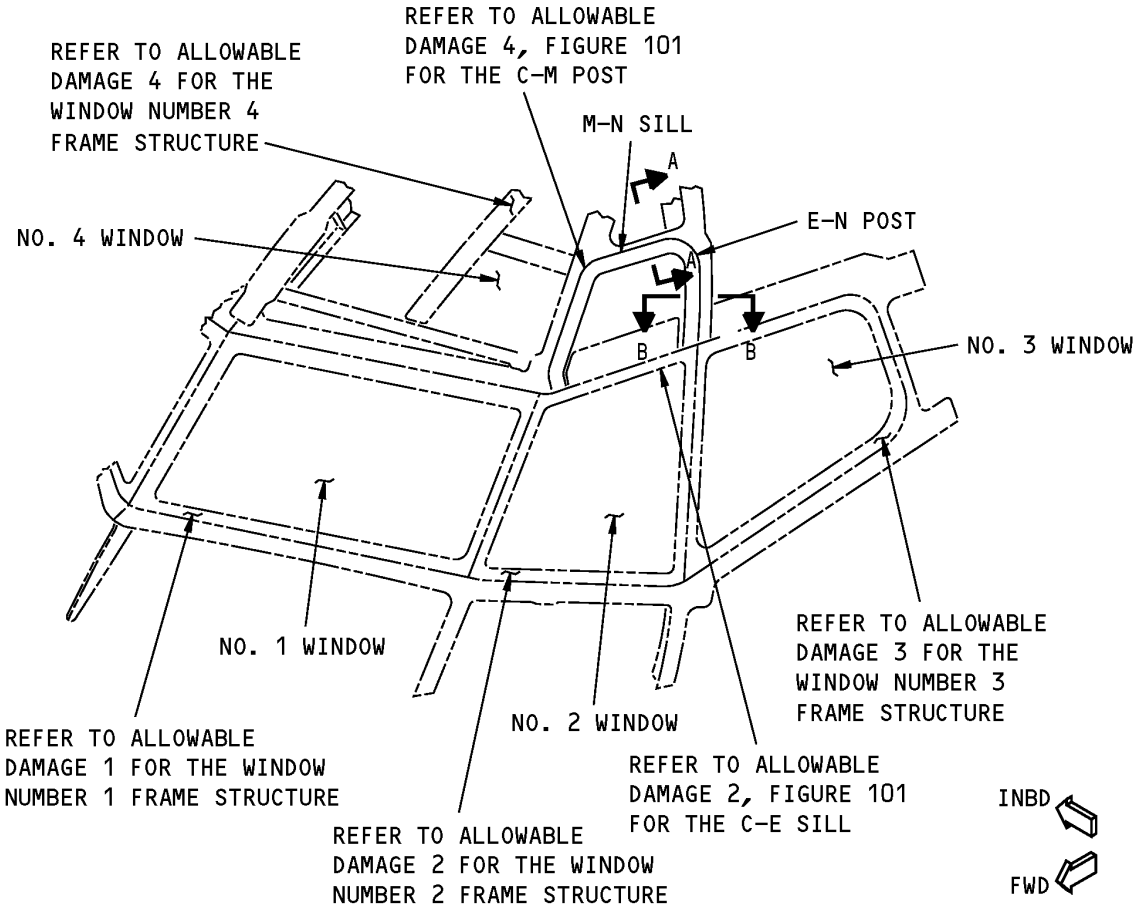
E

Allowable Damage Limits
Figure 102 (Sheet 2 of 2)

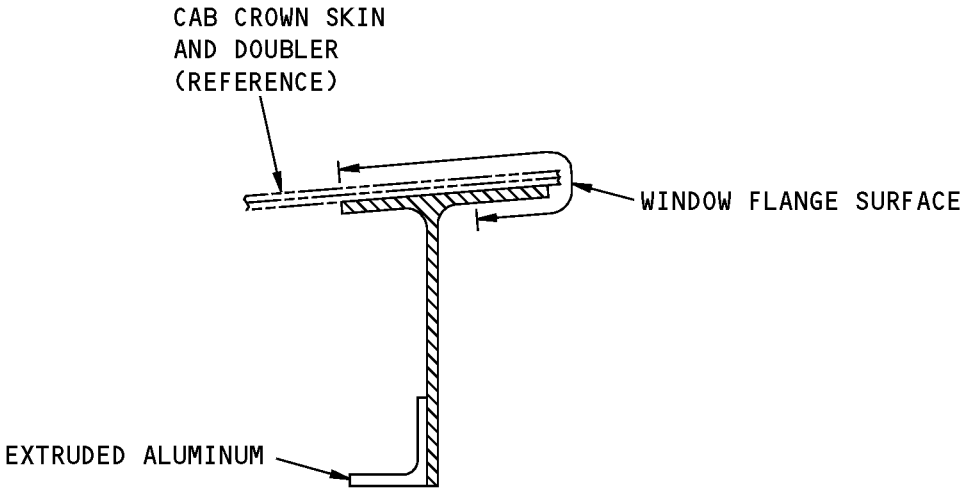
ALLOWABLE DAMAGE 5 - FLIGHT COMPARTMENT WINDOW FRAME NUMBER 5

1. Applicability

A. Allowable Damage 5 is applicable to damage on the flight compartment window frame number 5 as shown in Number 5 Window Frame Sections, Figure 101/ALLOWABLE DAMAGE 5.



Number 5 Window Frame Sections
Figure 101 (Sheet 1 of 3)



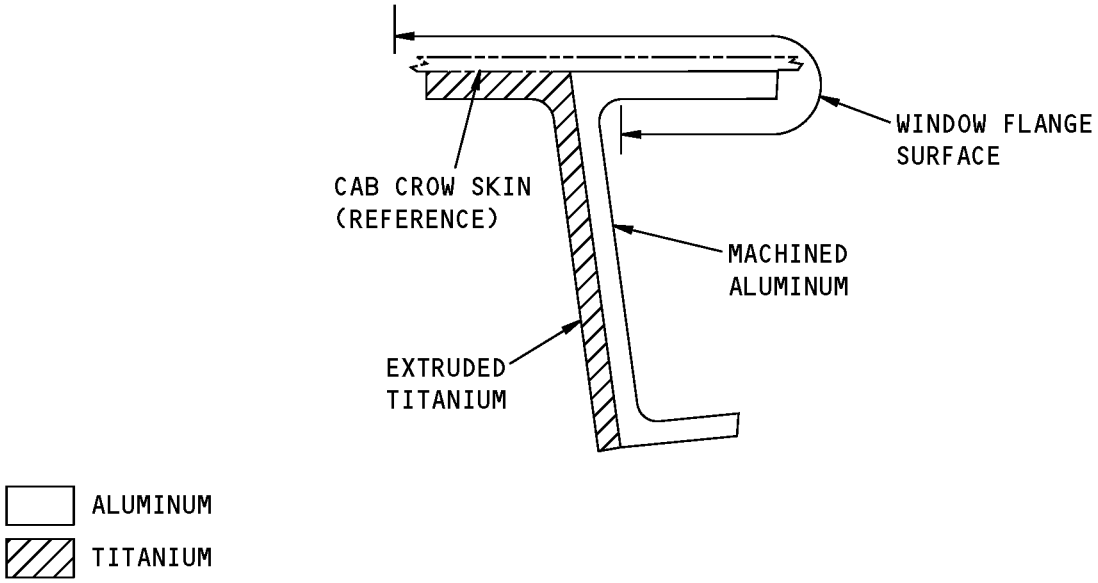
ALUMINUM

TITANIUM

NOTE: THE PARTS SHOWN ARE EXTRUDED

M-N SILL
A-A

Number 5 Window Frame Sections
Figure 101 (Sheet 2 of 3)



Number 5 Window Frame Sections
Figure 101 (Sheet 3 of 3)

2. General

A. Refer to Table 101/ALLOWABLE DAMAGE 5 for a list of the references for the allowable damage data.

B. Refer to Paragraph 4./ALLOWABLE DAMAGE 5 for the allowable damage limits.

WARNING: SMALL PARTICLES OF TITANIUM ARE FLAMMABLE. IN A SUFFICIENT CONCENTRATION, AN EXPLOSION CAN OCCUR. EXTINGUISH FIRES OF TITANIUM WITH FULLY DRY TALC, CALCIUM CARBONATE, SAND OR GRAPHITE. APPLY THE POWDER TO A DEPTH OF 1/2 INCH OR MORE ON THE AREA THAT IS ON FIRE. DO NOT USE FOAM, WATER, HALON, CARBON TETRACHLORIDE, OR CARBON DIOXIDE. WATER THAT TOUCHES MOLTEN TITANIUM CAN CAUSE A STEAM EXPLOSION.

C. Refer to SOPM 20-10-07 for the machining procedures you can use when you work with titanium.

D. Remove the damage as necessary for the sill and post.

(1) Refer to 51-10-02 for inspection and removal of the damage.

(2) Refer to 51-30-03 for the possible sources of the abrasive and other materials you can use to remove the damage.

(3) Refer to 51-30-05 for the possible sources of the equipment and tools you can use to remove the damage.

Table 101:

PARAGRAPH REFERENCES FOR THE ALLOWABLE DAMAGE LIMITS	
WINDOW NUMBER 5 FRAME SECTIONS	**PARAGRAPH**
M-N SILL	4.A
E-N POST	4.B

E. After you remove the damage on the parts made from titanium, do the steps that follow:

(1) Do a High Frequency Eddy Current (HFEC) inspection of the damaged area to find the dimensions of the damage. Refer to 51-10-02 and 737 NDT Part 6, 51-00-00, Figure 4 for inspection procedures.

NOTE: The penetrant inspection is permitted as an alternative to the HFEC inspection. Refer to SOPM 20-20-02 for the penetrant inspection procedure.

(2) Apply a chemical conversion coating to the bare surfaces of the reworked areas. Refer to 51-20-01.

(3) Apply one layer of BMS 10-11, Type I primer to the reworked area. Refer to SOPM 20-41-02.

F. After you remove the damage on the parts make an inspection as follows:

(1) Do a High Frequency Eddy Current (HFEC) inspection of the damaged area to find the dimensions of the damage. Refer to 51-10-02 and 737 NDT Part 6, 51-00-00, Figure 4 for inspection procedures.

NOTE: The penetrant inspection is permitted as an alternative to the HFEC inspection. Refer to SOPM 20-20-02 for the penetrant inspection procedure.

G. After you make the inspection and there is no damage, do as follows for the aluminum parts:

WARNING: MAKE SURE THAT YOU WEAR EYE PROTECTION WHEN YOU USE THE FLAP PEEN WHEEL. IF YOU DO NOT OBEY, AN INJURY CAN OCCUR.

(1) Flap peen or shot peen the reworked areas.

(a) Refer to 51-20-06 for shot peen intensity and shot number.

(b) Refer to SOPM 20-10-03 for flap peen and shot peen procedures.

(2) Apply a chemical conversion coating to the bare surfaces of the reworked areas. Refer to 51-20-01.

(3) Apply one layer of BMS 10-11, Type I primer to the reworked area. Refer to SOPM 20-41-02.

3. References

Reference	Title
51-10-02	INSPECTION AND REMOVAL OF DAMAGE
51-20-01	PROTECTIVE TREATMENT OF METALLIC AND COMPOSITE MATERIALS
51-20-06	SHOT PEENING
51-30-03	NON-METALLIC MATERIALS
51-30-05	EQUIPMENT AND TOOLS FOR REPAIRS
AMM 56-11-00	FLIGHT COMPARTMENT WINDOWS
SOPM 20-10-03	General - Shot Peening Procedures
SOPM 20-10-07	Machining of Titanium
SOPM 20-20-02	Penetrant Methods of Inspection
SOPM 20-41-02	Application of Chemical and Solvent Resistant Finishes
737 NDT Part 6, 51-00-00	Structures - General
737 NDT Part 6, 51-00-00, Figure 4	Surface Inspection of Aluminum Parts

4. Allowable Damage Limits

A. No. 5 Window, M-N Sill

(1) Cracks:

(a) Remove the damage as shown in Allowable Damage Limits, Figure 102/ALLOWABLE DAMAGE 5, Details A , B , and D .

(2) Nicks, Scratches, Gouges, and Corrosion:

(a) Remove the damage as shown in Allowable Damage Limits, Figure 102/ALLOWABLE DAMAGE 5, Details A , B , C , D , and E .

(3) Dents are not permitted.

(4) Holes and Punctures are not permitted.

B. No. 5 Window, E-N Post

(1) Cracks:

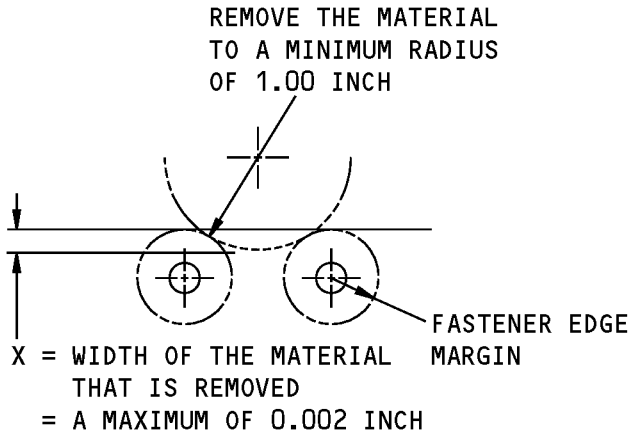
(a) Remove the damage as shown in Allowable Damage Limits, Figure 102/ALLOWABLE DAMAGE 5, Details, A, B, and D.

(2) Nicks, Scratches, Gouges, and Corrosion:

(a) Remove the damage as shown in Allowable Damage Limits, Figure 102/ALLOWABLE DAMAGE 5, Details A , B , C , D , and E .

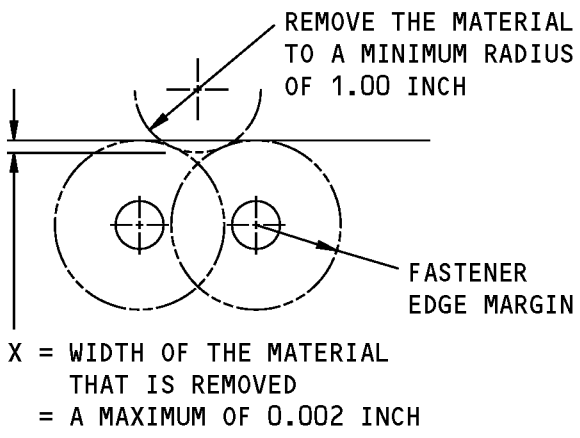
(3) Dents are not permitted.

(4) Holes and Punctures are not permitted.



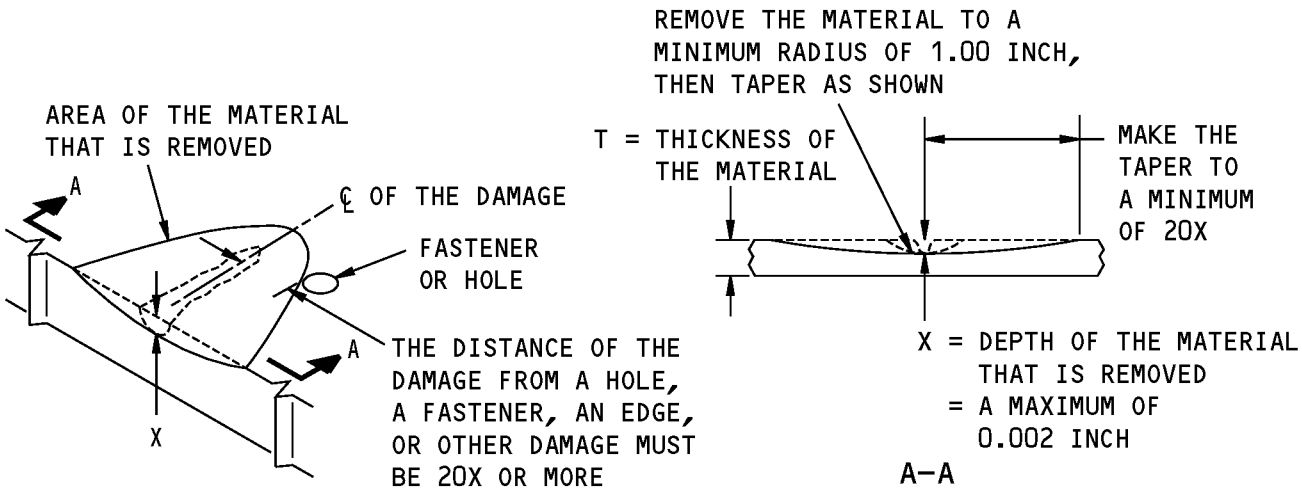
REMOVAL OF DAMAGED MATERIAL AT EDGES WHERE THE FASTENER EDGE MARGINS DO NOT HAVE AN OVERLAP

A



REMOVAL OF DAMAGED MATERIAL AT EDGES WHERE THE FASTENER EDGE MARGINS HAVE AN OVERLAP

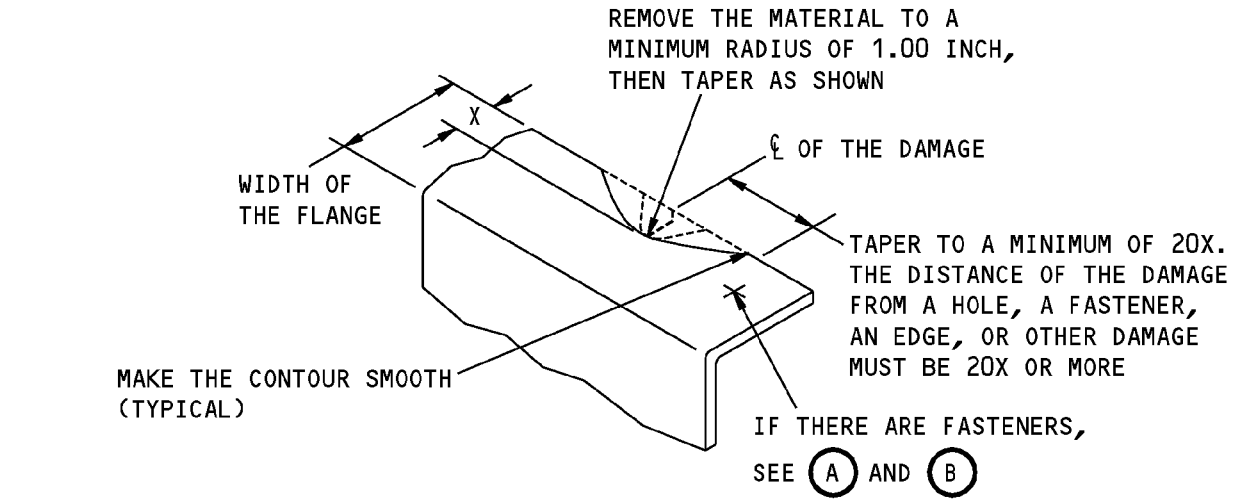
B



REMOVAL OF DAMAGED MATERIAL ON A SURFACE

C

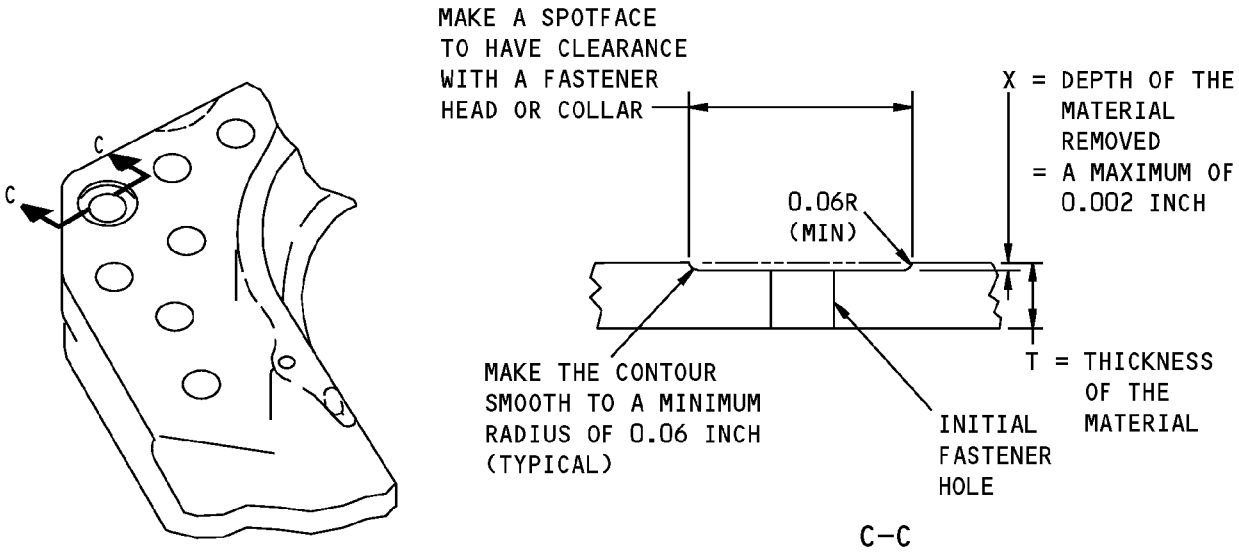
Allowable Damage Limits
Figure 102 (Sheet 1 of 2)



X = WIDTH OF THE MATERIAL THAT IS REMOVED
= A MAXIMUM OF 0.002 INCH

REMOVAL OF DAMAGED MATERIAL ON AN EDGE

D

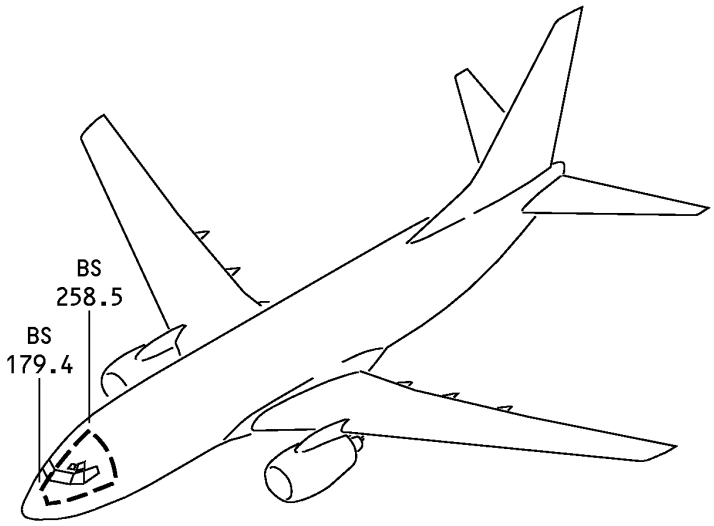


REMOVAL OF DAMAGED MATERIAL AT A FASTENER HOLE

E

Allowable Damage Limits
Figure 102 (Sheet 2 of 2)

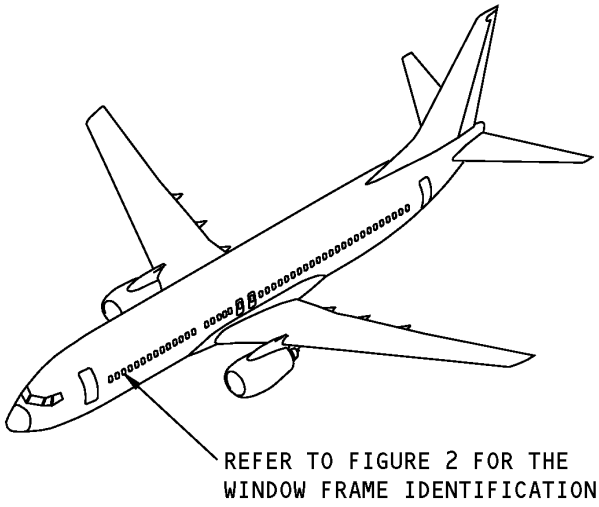
REPAIR 1 - FLIGHT COMPARTMENT WINDOW FRAMES



NOTE: THERE ARE NO REPAIRS FOR THIS PART IN THE STRUCTURE REPAIR MANUAL AT THIS TIME.

Flight Compartment Windows Structure Repair
Figure 201

IDENTIFICATION 1 - CABIN WINDOW FRAMES

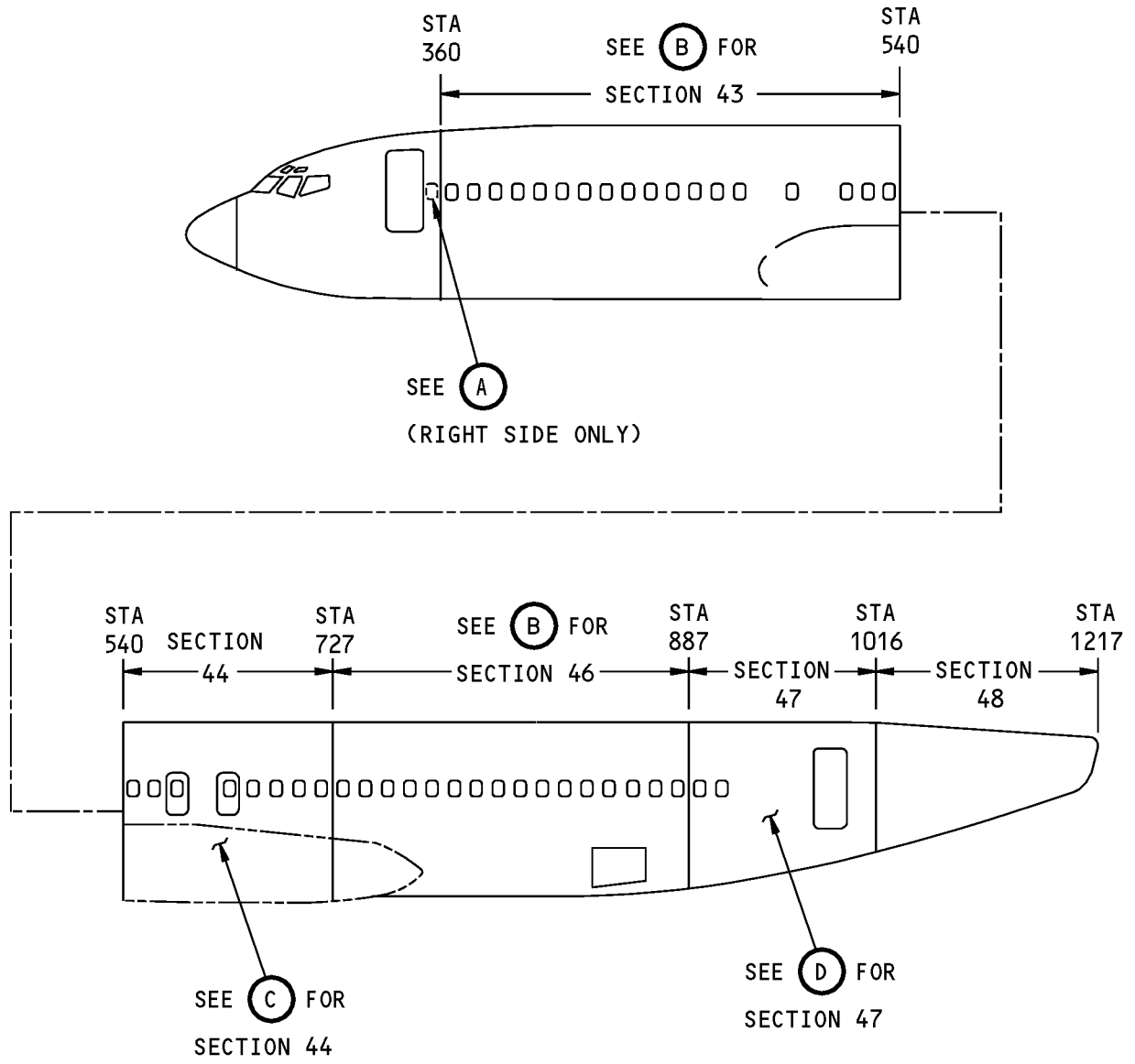


NOTE: REFER TO TABLE 1 FOR REFERENCE DRAWINGS.

Cabin Window Locations
Figure 1

Table 1:

REFERENCE DRAWINGS	
DRAWING NUMBER	**TITLE**
140A4001	Fuselage Miscellaneous Functional Collector
149A4000	Window Installation - Passenger Cabin

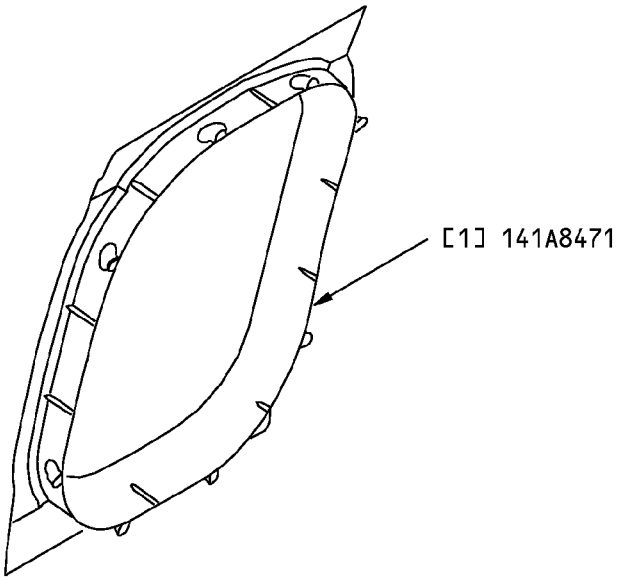


LEFT SIDE IS SHOWN, RIGHT SIDE IS OPPOSITE

NOTES

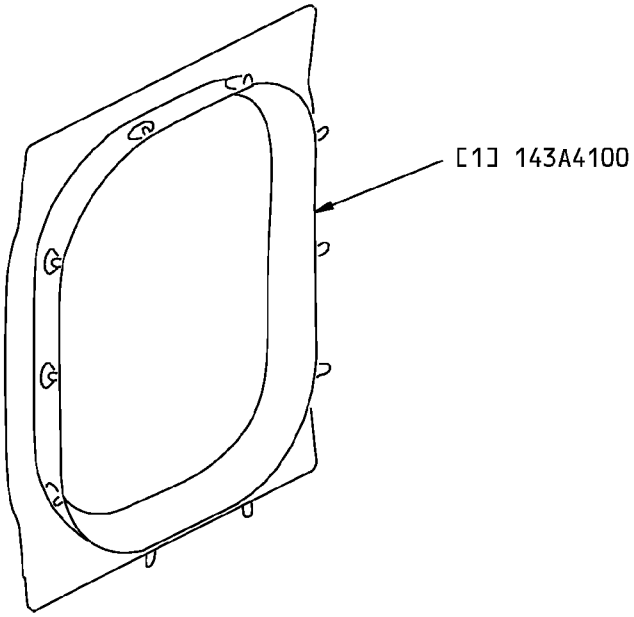
- REFERTO TABLE 2 FOR THE LIST OF MATERIALS.

Cabin Window Frame Identification
Figure 2 (Sheet 1 of 3)



WINDOW FRAME – SECTION 41

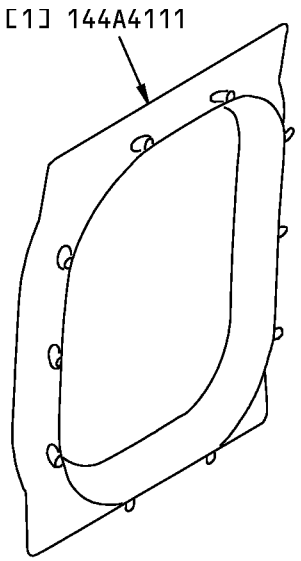
A



TYPICAL WINDOW FRAME
SECTIONS 43 AND 46

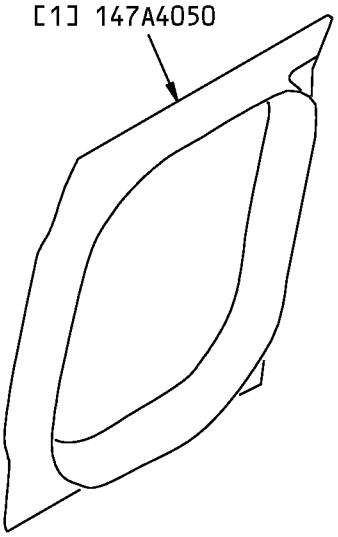
B

Cabin Window Frame Identification
Figure 2 (Sheet 2 of 3)



TYPICAL WINDOW FRAME – SECTION 44

C



TYPICAL WINDOW FRAME – SECTION 47

D

Cabin Window Frame Identification
Figure 2 (Sheet 3 of 3)

Table 2:

LIST OF MATERIALS FOR FIGURE 2				
ITEM	**DESCRIPTION**	**T*[1]**	**MATERIAL**	**EFFECTIVITY**
[1]	Window Frame		7075-T73 die forging as given in BMS 7-186	

*[1] Note: T = Pre-manufactured thickness in inches (millimeters).

ALLOWABLE DAMAGE 1 - PASSENGER CABIN WINDOW FRAMES

1. Applicability

A. This subject gives the allowable damage limits for the passenger cabin window frames shown in Cabin Window Locations, Figure 101/ALLOWABLE DAMAGE 1. Refer to Table 101 and Table 102 for the window frame permitted damage locations.

2. General

A. Refer to Cabin Window Frame Allowable Damage Zones, Figure 102/ALLOWABLE DAMAGE 1 for the definitions of the allowable damage zones.

B. Remove the damaged material as necessary.

(1) Refer to 51-10-02 for the inspection and removal of damage.

(2) Refer to 51-30-03 for possible sources of the abrasive and other materials you can use to remove the damage.

(3) Refer to 51-30-05 for possible sources of the equipment and tools you can use to remove the damage.

(4) No more than 15 percent of the initial area of the cross-section can be removed from the window frame. Use the nominal thickness on the production drawing to calculate the initial area.

C. Remove the damaged material as necessary.

(1) Refer to 51-10-02 for the inspection and removal of damage.

(2) Refer to 51-30-03 for possible sources of the abrasive and other materials you can use to remove the damage.

(3) Refer to 51-30-05 for possible sources of the equipment and tools you can use to remove the damage.

(4) For airplanes that have completed Service Bulletin 737-21-1149, no more than 10 percent of the initial area of the cross-section can be removed from the window frame. Use the nominal thickness on the production drawing to calculate the initial area.

(5) For airplanes that have not completed Service Bulletin 737-21-1149, no more than 15 percent of the initial area of the cross-section can be removed from the window frame. Use the nominal thickness on the production drawing to calculate the initial area.

D. After the damage is removed, do the steps that follow:

WARNING: MAKE SURE THAT YOU WEAR EYE PROTECTION WHEN YOU SHOT PEEN. IF YOU DO NOT OBEY, AN INJURY CAN OCCUR.

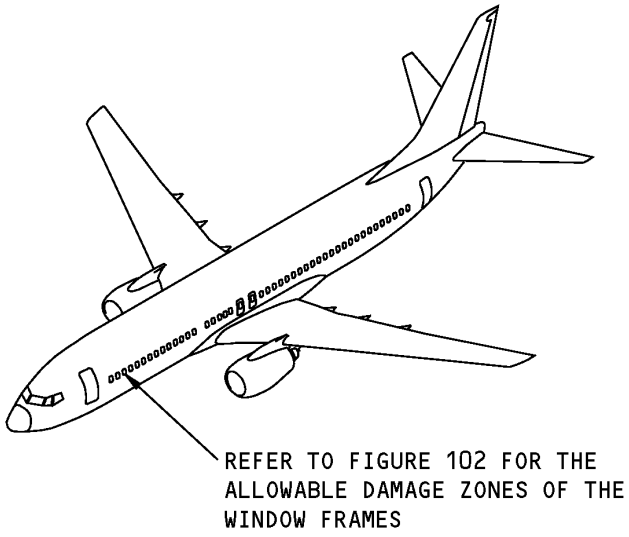
(1) Shot peen the reworked areas.

(a) Refer to 51-20-06 for shot peen intensity and shot number.

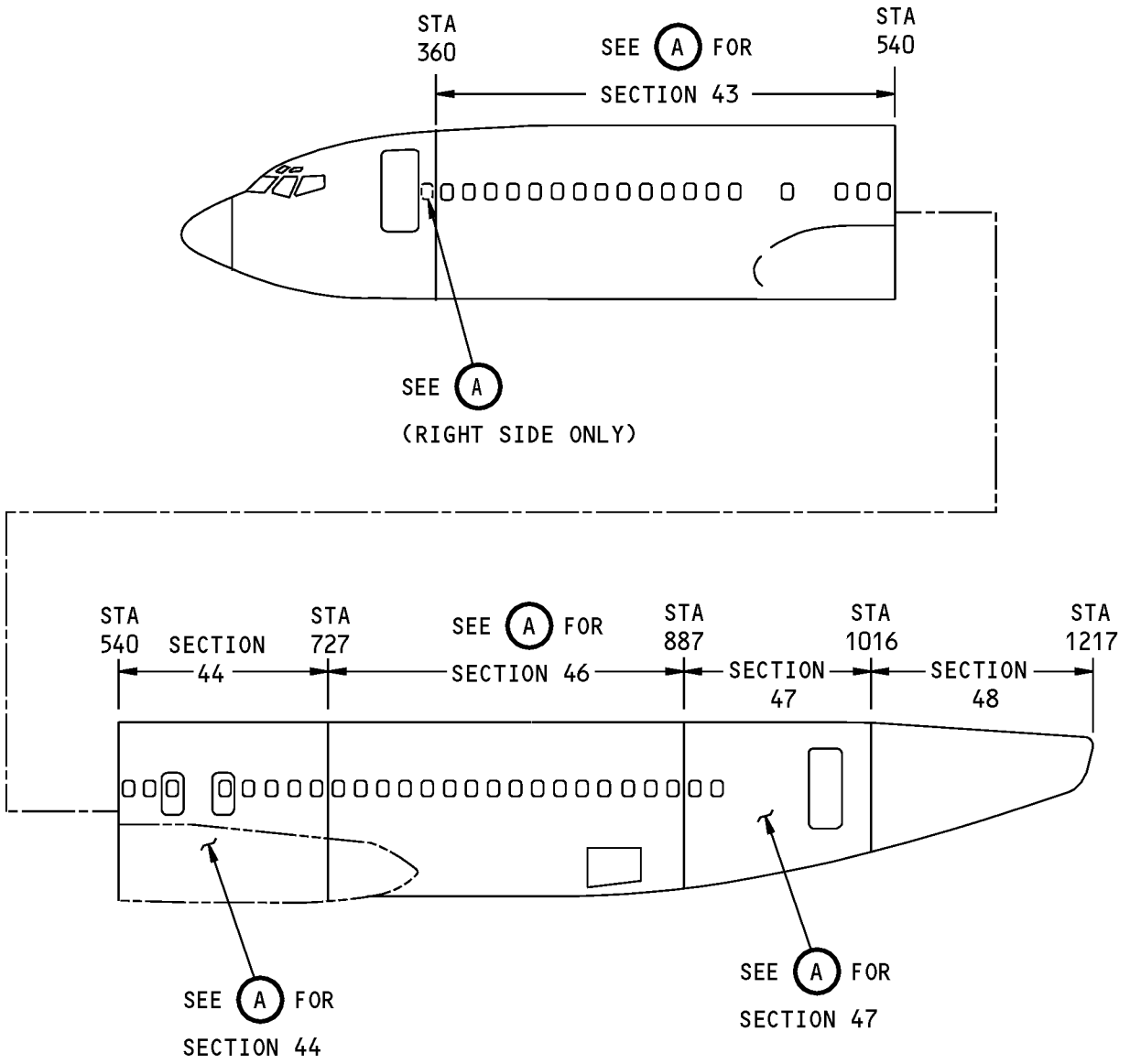
(b) Refer to SOPM 20-10-03 for shot peen procedures.

(2) Apply a chemical conversion coating to the reworked areas. Refer to 51-20-01.

(3) Apply two layers of BMS 10-11, Type I primer to the reworked areas. Refer to SOPM 20-41-02.



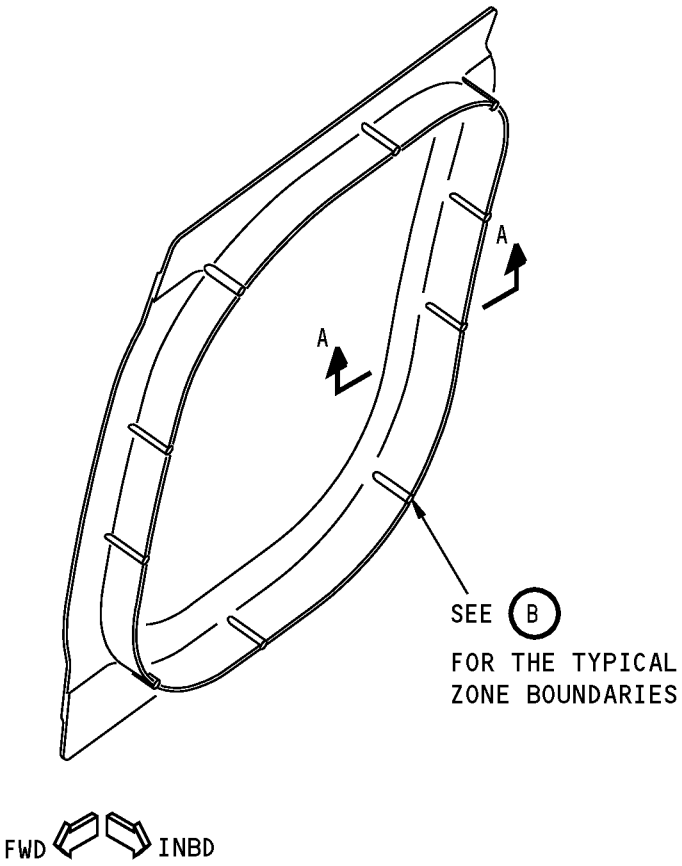
Cabin Window Locations
Figure 101



NOTE: REFER TO TABLE 101 FOR THE ALLOWABLE DAMAGE LIMITS.

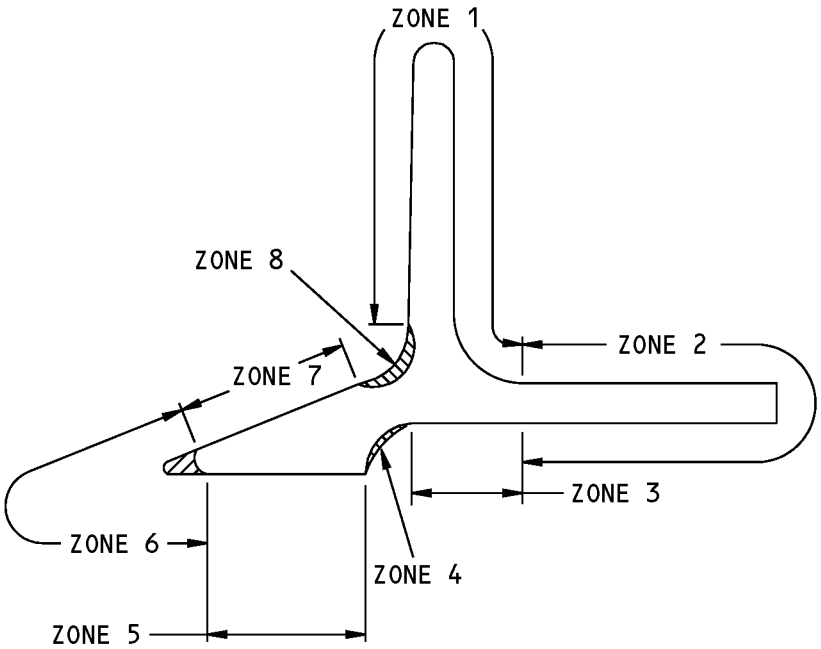
LEFT SIDE IS SHOWN, RIGHT SIDE IS OPPOSITE

Cabin Window Frame Allowable Damage Zones
Figure 102 (Sheet 1 of 3)



TYPICAL WINDOW FRAME
A

Cabin Window Frame Allowable Damage Zones
Figure 102 (Sheet 2 of 3)



A–A

PARAGRAPH REFERENCES FOR THE ALLOWABLE DAMAGE LIMITS	
ZONE	PARAGRAPH
ZONE 1	4.A
ZONE 2	4.A
ZONE 3	4.B
ZONE 4	4.C
ZONE 5	4.B
ZONE 6	4.D
ZONE 7	4.B
ZONE 8	4.E

TABLE 101

Cabin Window Frame Allowable Damage Zones
Figure 102 (Sheet 3 of 3)

3. References

Reference	Title
51-10-01	AERODYNAMIC SMOOTHNESS
51-10-02	INSPECTION AND REMOVAL OF DAMAGE
51-20-01	PROTECTIVE TREATMENT OF METALLIC AND COMPOSITE MATERIALS
51-20-06	SHOT PEENING
51-30-03	NON-METALLIC MATERIALS
51-30-05	EQUIPMENT AND TOOLS FOR REPAIRS
AMM 56-21-00 P/B 401	PASSENGER CABIN WINDOWS - REMOVAL/INSTALLATION
SOPM 20-10-03	General - Shot Peening Procedures
SOPM 20-41-02	Application of Chemical and Solvent Resistant Finishes

4. Allowable Damage Limits

A. Zones 1 and 2:

(1) Cracks:

(a) Remove the damage as shown in Allowable Damage Limits, Figure 103/ALLOWABLE DAMAGE 1, Details A , B , E , and F .

(2) Nicks, Gouges, Scratches, and Corrosion are permitted as shown in Allowable Damage Limits, Figure 103/ALLOWABLE DAMAGE 1, Details A , B , C , D , E , and F .

(3) Dents are not permitted.

(4) Holes and Punctures are not permitted.

B. Zones 3, 5, and 7:

(1) Cracks are not permitted.

(2) Nicks, Gouges, Scratches, and Corrosion are permitted as shown in Allowable Damage Limits, Figure 103/ALLOWABLE DAMAGE 1, Details C and F .

(3) Dents are not permitted.

(4) Holes and Punctures are not permitted.

C. Zone 4:

(1) Cracks are not permitted.

(2) Nicks, Gouges, Scratches, and Corrosion are permitted as shown in Allowable Damage Limits, Figure 103/ALLOWABLE DAMAGE 1, Details C and F .

(3) Dents are not permitted.

(4) Holes and Punctures are not permitted.

D. Zone 6:

(1) Cracks:

(a) Remove the damage as shown in Allowable Damage Limits, Figure 103/ALLOWABLE DAMAGE 1, Details E and F .

(2) Nicks, Gouges, Scratches, and Corrosion are permitted as shown in Allowable Damage Limits, Figure 103/ALLOWABLE DAMAGE 1, Details C , E , and F .

(3) Dents are not permitted.

(4) Holes and Punctures are not permitted.

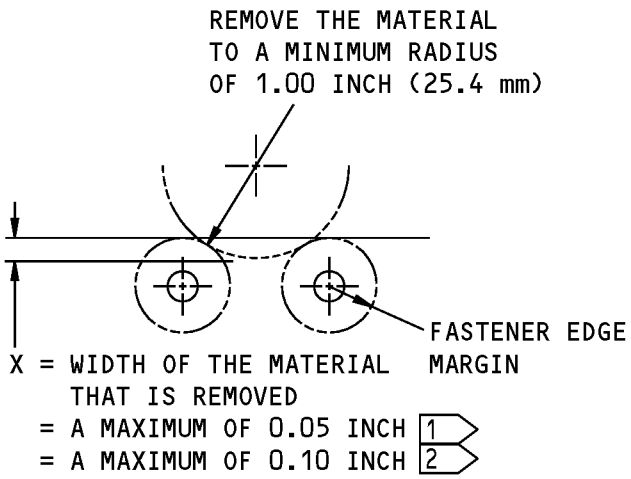
E. Zone 8:

(1) Cracks are not permitted.

(2) Nicks, Gouges, Scratches, and Corrosion are permitted as shown in Allowable Damage Limits, Figure 103/ALLOWABLE DAMAGE 1, Details C and F .

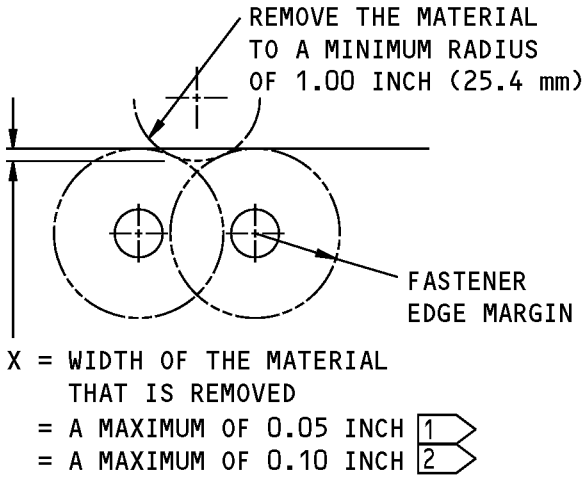
(3) Dents are not permitted.

(4) Holes and Punctures are not permitted.



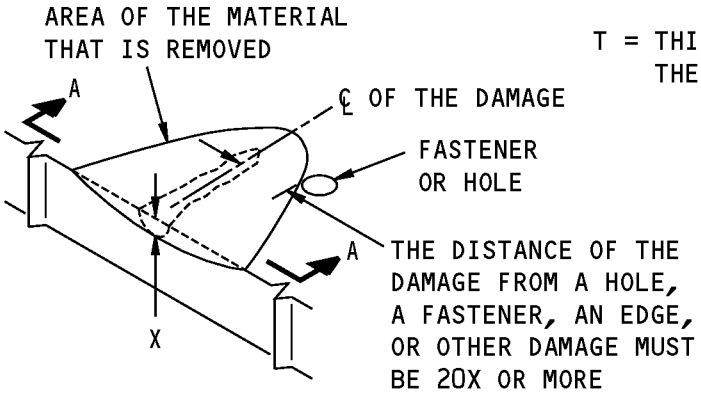
REMOVAL OF DAMAGED MATERIAL AT EDGES WHERE THE FASTENER EDGE MARGINS DO NOT HAVE AN OVERLAP

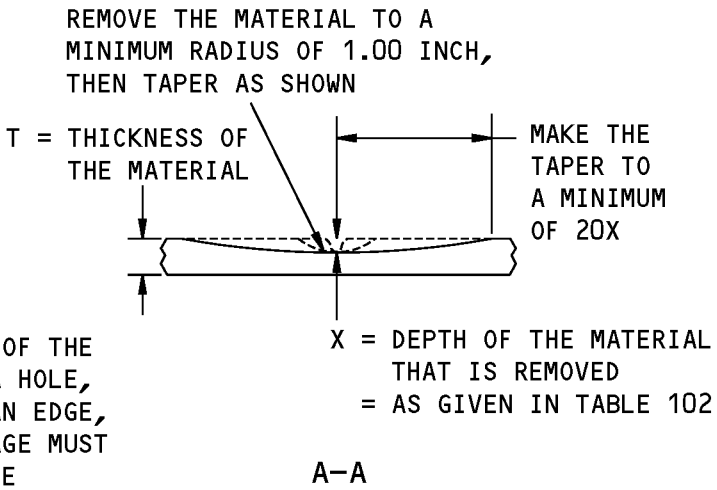
A



REMOVAL OF DAMAGED MATERIAL AT EDGES WHERE THE FASTENER EDGE MARGINS HAVE AN OVERLAP

B





REMOVAL OF DAMAGED MATERIAL ON A SURFACE

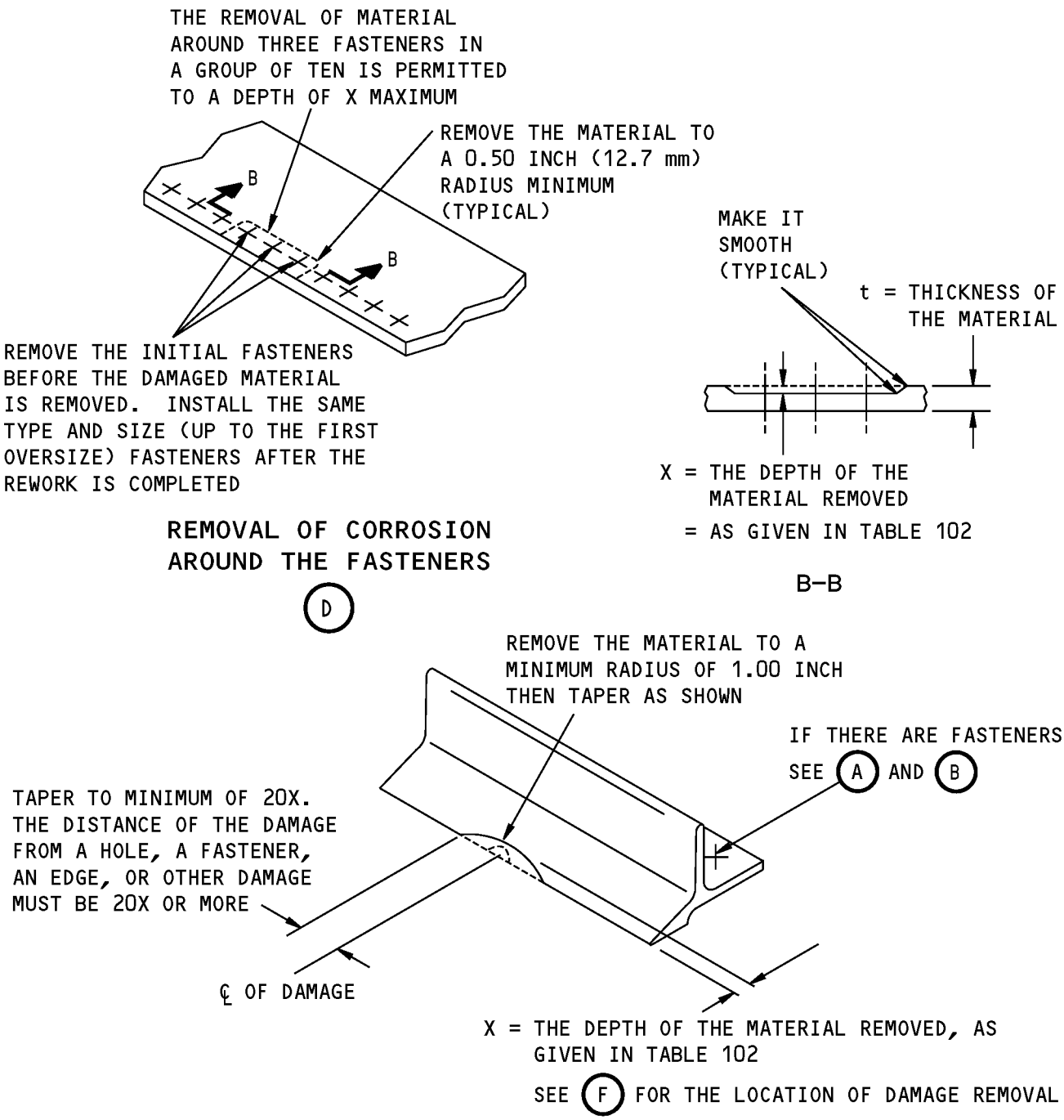
C

NOTES

1 FOR AIRPLANES THAT HAVE COMPLETED SERVICE BULLETIN 737-21-1149.

2 FOR AIRPLANES THAT HAVE NOT COMPLETED SERVICE BULLETIN 737-21-1149

Allowable Damage Limits
Figure 103 (Sheet 1 of 3)

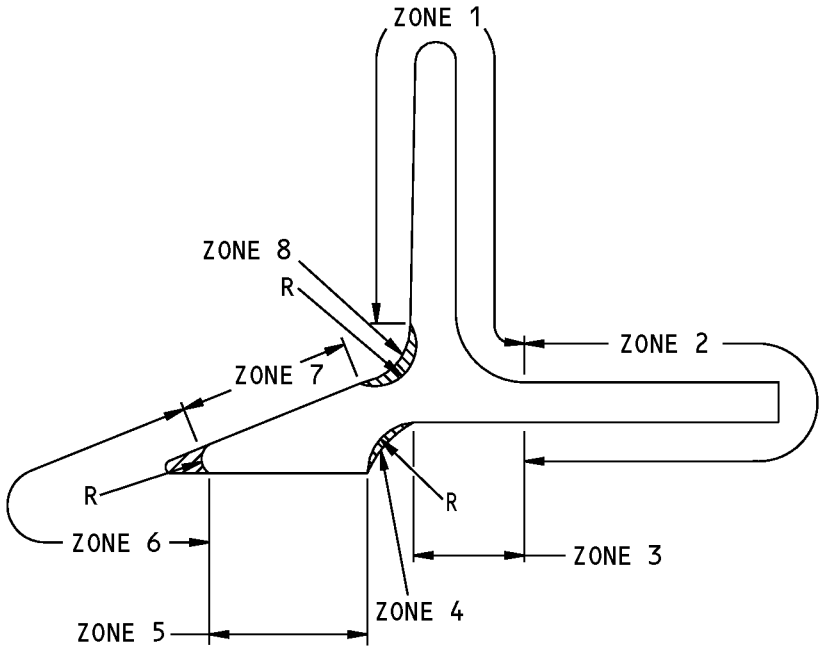


NOTE: THE REMOVAL OF THE DAMAGE SHOWN IS APPLICABLE TO ALL FLANGES OF THE PART.

REMOVAL OF DAMAGE MATERIAL AT AN EDGE

E

Allowable Damage Limits
Figure 103 (Sheet 2 of 3)



NOTE: REFER TO TABLE 102.

REMOVAL OF MATERIAL FROM THE FRAME

F

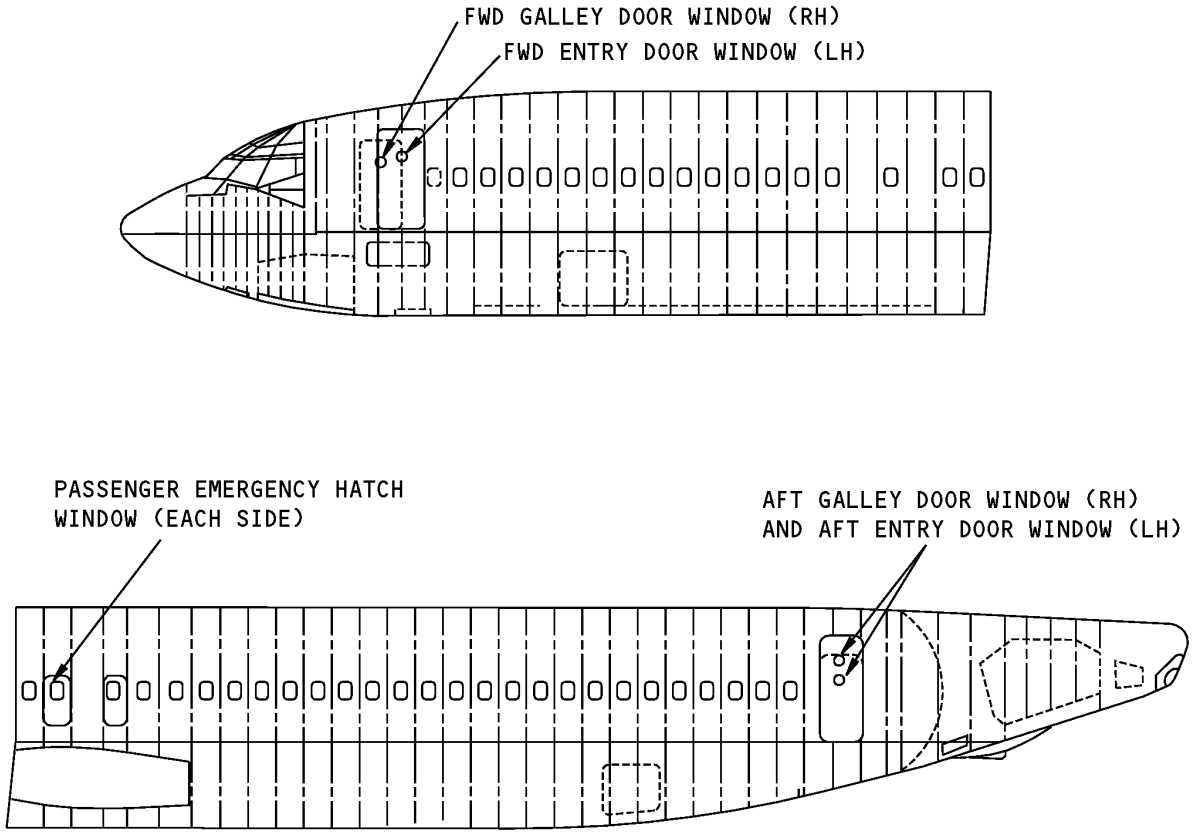
MAXIMUM TOTAL DEPTH OF MATERIAL REMOVAL (X)			
ZONE	(X) 2	(X) 1	RADIUS (R)
ZONE 1	0.031	0.015	—
ZONE 2	0.031	0.015	—
ZONE 3	0.020	0.010	—
ZONE 4	0.020	0.010	0.12 MINIMUMUM 0.25 MAXIMUM
ZONE 5	0.015	0.008	—
ZONE 6	0.062	0.031	0.06 MINIMUM
ZONE 7	0.015	0.008	—
ZONE 8	0.020	0.010	0.25 MINIMUM

TABLE 102

NOTE: ALL DIMENSIONS ARE IN INCHES.

Allowable Damage Limits
Figure 103 (Sheet 3 of 3)

IDENTIFICATION GENERAL - DOOR WINDOW LOCATIONS



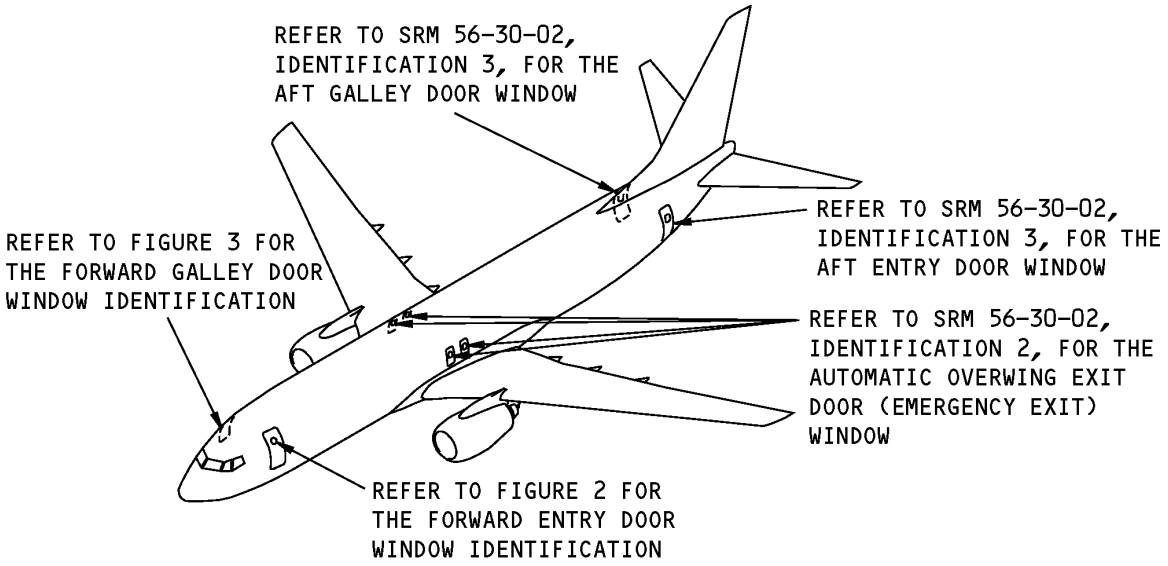
Door Window Location Diagram
Figure 1

Table 1:

REFERENCE DRAWINGS	
DRAWING NUMBER	**TITLE**
001A0101	Final Assembly - Product Collector
001A4001	Fuselage Product Collector
141A6100	Forward Entry Door-Assembly, Functional Product Collector
141A6200	Window Installation - Forward Entry Door
140A0030	Functional Collector - FWD Galley Door
141A6500	Door Installation - FWD Galley

REFERENCE DRAWINGS	
DRAWING NUMBER	**TITLE**
141A6516	Door Assembly - FWD Galley
140A0070	Functional Collector - Aft Entry Door
147A6500	Door Installation - Aft Entry
147A6116	Door Assembly - Aft Entry
140A0080	Functional Collector - Aft Galley Door
147A6500	Door Installation - Aft Galley
147A6502	Door Assembly - Aft Galley
65-02863	Window Assembly - Observation, 5 Inch Diameter
144A6300	Emergency Escape Hatch Functional Product Collector
144A6360	Window Installation - Emergency Escape Hatch

IDENTIFICATION 1 - FORWARD ENTRY AND FORWARD GALLEY DOORS

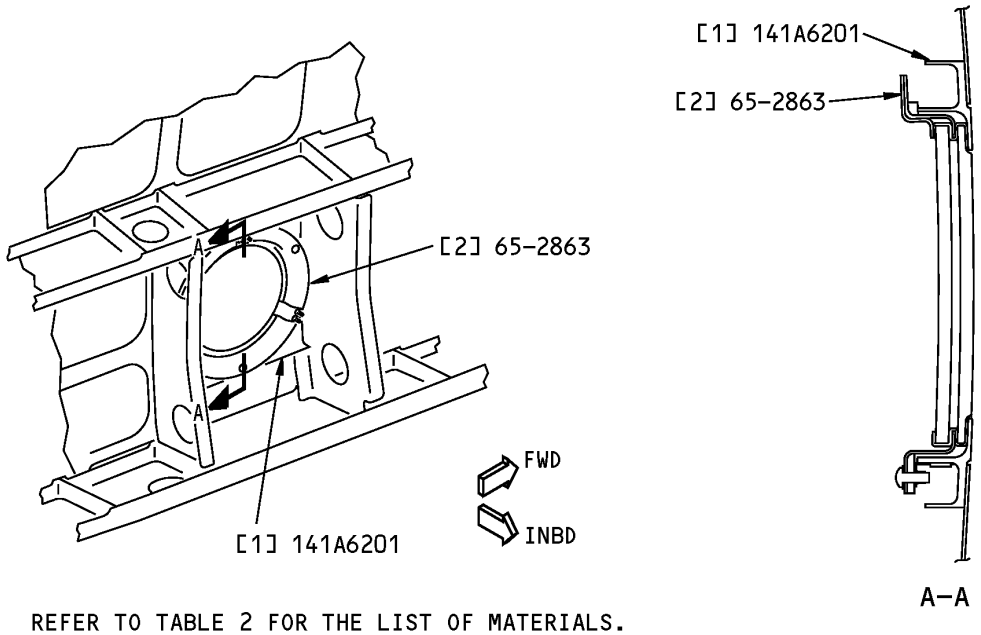


NOTE: REFER TO TABLE 1 FOR THE REFERENCE DRAWINGS.

Forward Door Window Frame Locations
Figure 1

Table 1:

REFERENCE DRAWINGS	
DRAWING NUMBER	**TITLE**
140A0030	Functional Collector - Forward Galley Door
141A6100	Forward Entry Door-Assembly, Functional Product Collector
141A6200	Forward Entry Door Window Installation
141A6500	Door Installation - Forward Galley
141A6516	Forward Galley Door Assembly



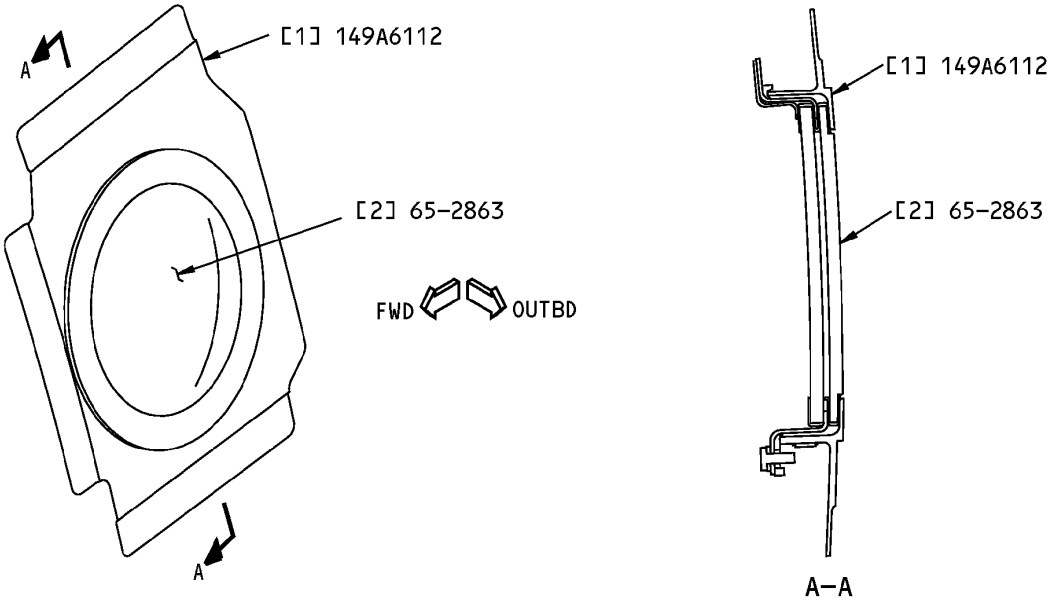
NOTE: REFER TO TABLE 2 FOR THE LIST OF MATERIALS.

Forward Entry Door Window Frame Identification
Figure 2

Table 2:

LIST OF MATERIALS FOR FIGURE 2				
ITEM	**DESCRIPTION**	**T*[1]**	**MATERIAL**	**EFFECTIVITY**
[1]	Frame		7050-T7451 plate	
[2]	Window Assembly			
	Inner Pane	0.250 (6.35)	Stretched acrylic sheet as given in BMS 8-34 Type II, Class 2, Grade B	
	Outer Pane	0.250 (6.35)	Stretched acrylic sheet as given in MIL-P-25690, Class 2	

*[1] Note: T = Pre-manufactured thickness in inches (millimeters).



NOTE: REFER TO TABLE 3 FOR THE LIST OF MATERIALS.

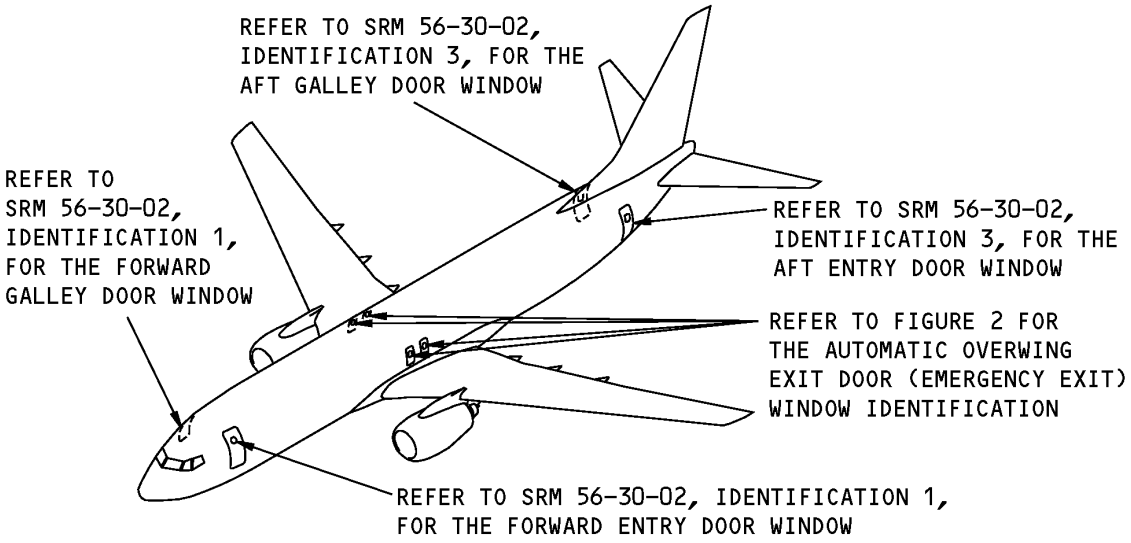
Forward Galley Door Window Frame Identification
Figure 3

Table 3:

LIST OF MATERIALS FOR FIGURE 3				
ITEM	**DESCRIPTION**	**T*[1]**	**MATERIAL**	**EFFECTIVITY**
[1]	Window Doubler		7075-T73 die forging as given in BMS 7-186	
[2]	Window Assembly			
	Inner Pane	0.250 (6.35)	Stretched acrylic sheet as given in BMS 8-34 Type II, Class 2, Grade B	
	Outer Pane	0.250 (6.35)	Stretched acrylic sheet as given in MIL-P-25690, Class 2	

*[1] Note: T = Pre-manufactured thickness in inches (millimeters).

IDENTIFICATION 2 - AUTOMATIC OVERWING EXIT DOOR WINDOW FRAMES

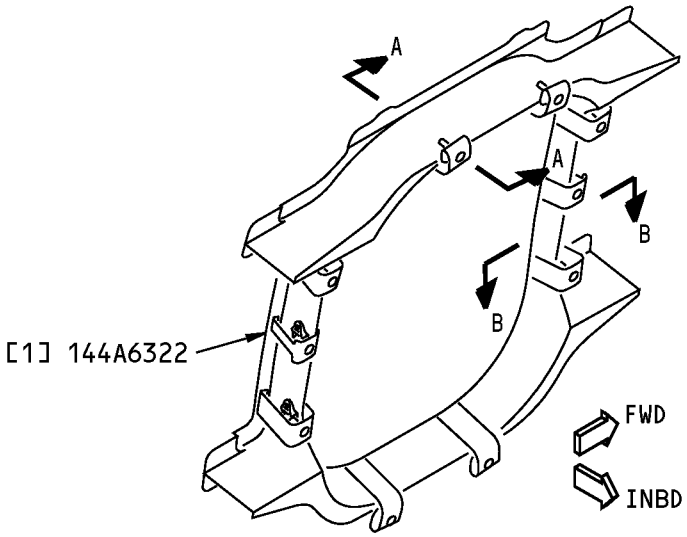


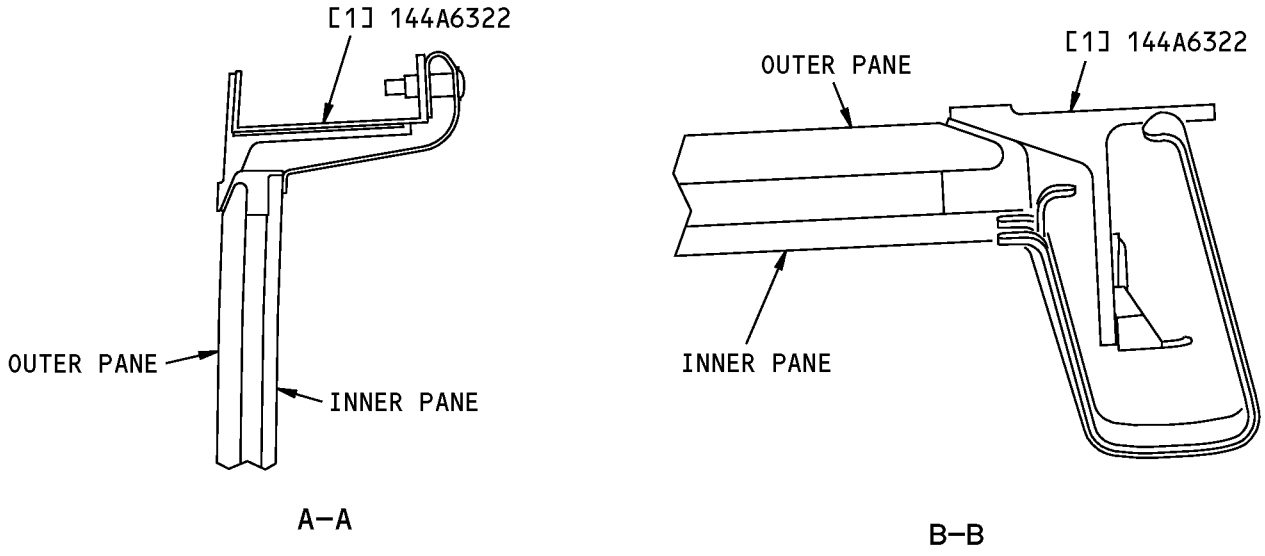
NOTE: REFER TO TABLE 1 FOR THE REFERENCE DRAWINGS.

Automatic Overwing Exit Door Window Frame Locations
Figure 1

Table 1:

REFERENCE DRAWINGS	
DRAWING NUMBER	**TITLE**
001A0101	Final Assembly - Product Collector
144A6300	Emergency Escape Hatch and Automatic Overwing Exit - Functional Product Collector
144A6320	Beam And Stop Installation - Emergency Escape Hatch





NOTE: REFER TO TABLE 2 FOR THE LIST OF MATERIALS.

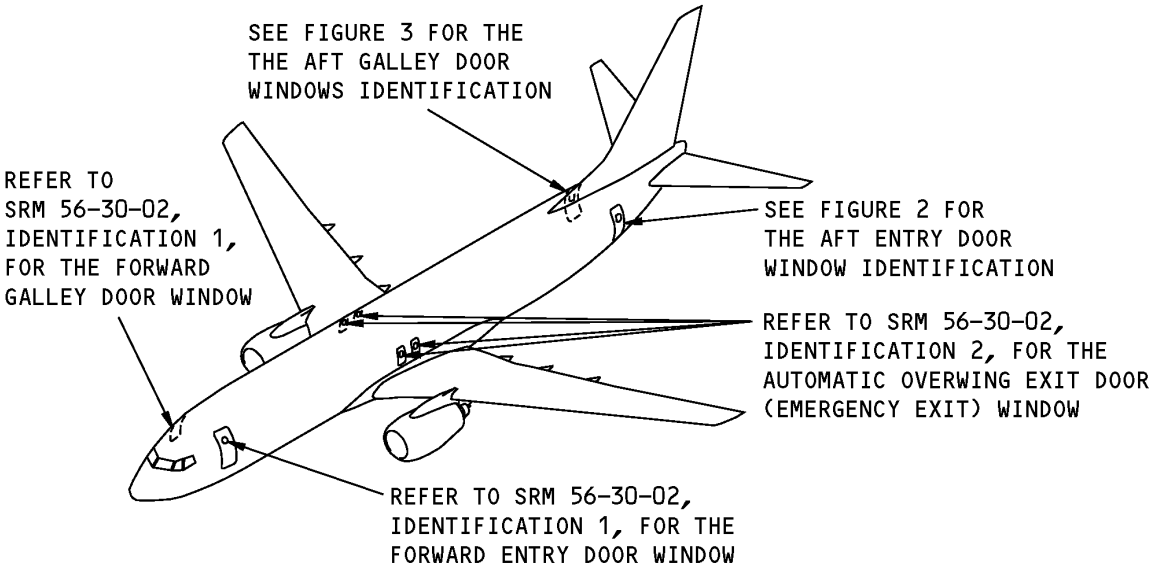
Automatic Overwing Exit Door Window Frame Identification
Figure 2

Table 2:

LIST OF MATERIALS FOR FIGURE 2				
ITEM	**DESCRIPTION**	**T*[1]**	**MATERIAL**	**EFFECTIVITY**
[1]	Frame		7050-T7451 plate as given in AMS 4050 (Grain direction controlled part)	

*[1] Note: T = Pre-manufactured thickness in inches (millimeters).

IDENTIFICATION 3 - AFT DOOR WINDOW FRAMES

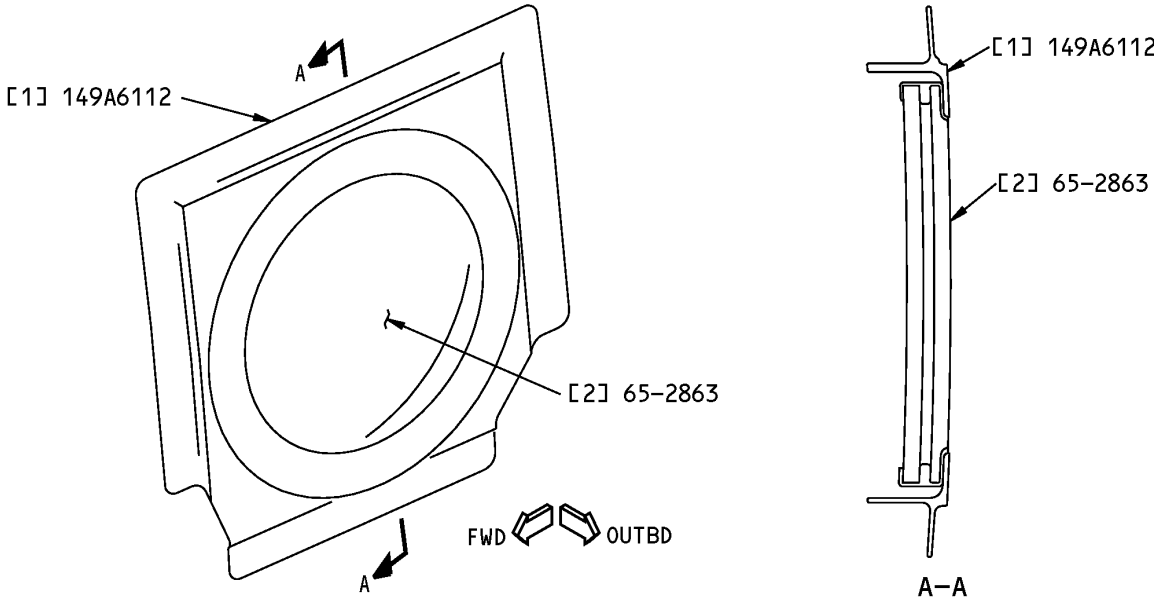


NOTE: REFER TO TABLE 1 FOR THE REFERENCE DRAWINGS.

Aft Door Window Frame Location
Figure 1

Table 1:

REFERENCE DRAWINGS	
DRAWING NUMBER	**TITLE**
140A0070	Functional Collector - Aft Entry Door
140A0080	Functional Collector - Aft Galley Door
147A6100	Door Installation - Aft Entry
147A6500	Door Installation - Aft Galley
147A6116	Aft Entry Door Window Assembly
147A6502	Aft Galley Door Window Assembly



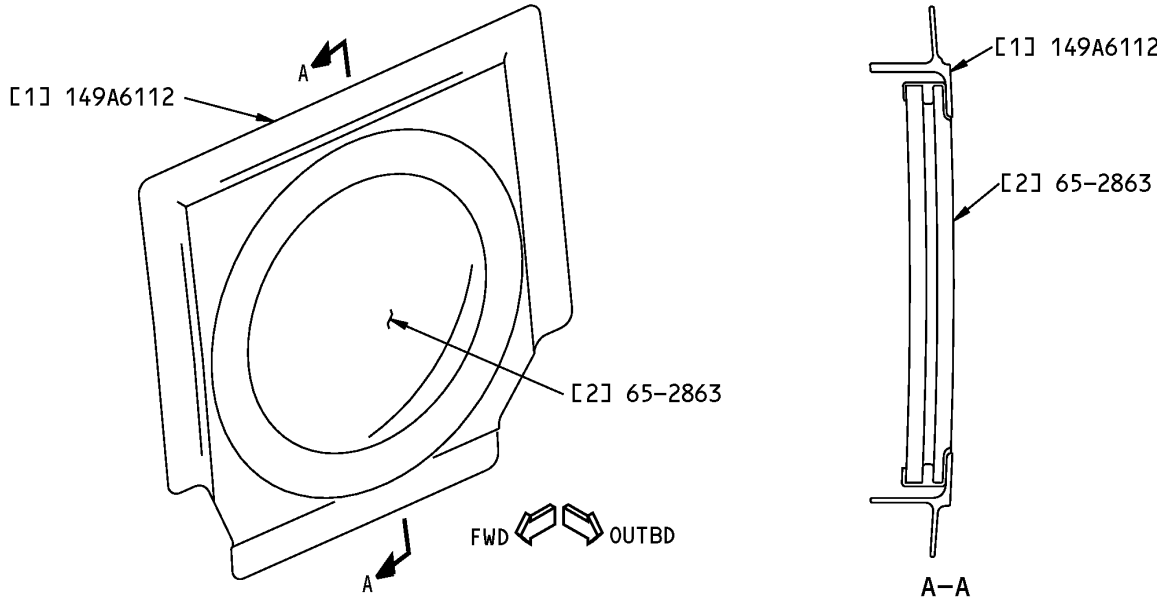
NOTE: REFER TO TABLE 2 FOR THE LIST OF MATERIALS.

Aft Entry Door Window Frame Identification
Figure 2

Table 2:

LIST OF MATERIALS FOR FIGURE 2				
ITEM	**DESCRIPTION**	**T*[1]**	**MATERIAL**	**EFFECTIVITY**
[1]	Window Doubler		7075-T73 die forging as given in BMS 7-186	
[2]	Window Assembly			
	Inner Pane	0.250 (6.35)	Stretched acrylic sheet as given in BMS 8-34 Type II, Class 2, Grade B	
	Outer Pane	0.250 (6.35)	Stretched acrylic sheet as given in MIL-P-25690, Class 2	

*[1] Note: T = Pre-manufactured thickness in inches (millimeters).



NOTE: REFER TO TABLE 3 FOR THE LIST OF MATERIALS.

Aft Galley Door Window Frame Identification
Figure 3

Table 3:

LIST OF MATERIALS FOR FIGURE 3				
ITEM	**DESCRIPTION**	**T*[1]**	**MATERIAL**	**EFFECTIVITY**
[1]	Window Doubler		7075-T73 die forging as given in BMS 7-186	
[2]	Window Assembly			
	Inner Pane	0.250 (6.35)	Stretched acrylic sheet as given in BMS 8-34 Type II, Class 2, Grade B	
	Outer Pane	0.250 (6.35)	Stretched acrylic sheet as given in MIL-P-25690, Class 2	

*[1] Note: T = Pre-manufactured thickness in inches (millimeters).

ALLOWABLE DAMAGE 1 - DOOR WINDOW STRUCTURE

1. Applicability

A. This subject gives the allowable damage limits for the door window structure shown in Door Window Frame Structure, Figure 101/ALLOWABLE DAMAGE 1.

2. General

A. Refer to Door Window Frame Structure Allowable Damage Area, Figure 102/ALLOWABLE DAMAGE 1 for the definitions of the allowable damage zones.

B. Refer to Table A. for a list of the paragraph references for the allowable damage data.

C. Remove the damaged material as necessary.

(1) Refer to 51-10-02 for the inspection and removal of damage.

(2) Refer to 51-30-03 for the possible sources of the abrasive and other materials you need to remove the damage.

(3) Refer to 51-30-05 for possible sources of the equipment and tools you need to remove damage.

(4) For airplanes that have completed Service Bulletin 737-21-1149, the total loss in cross sectional area of the window frame must not be more than 10 percent of the initial cross sectional area.

(5) For airplanes that have not completed Service Bulletin 737-21-1149, the total loss in cross sectional area of the window frame must not be more than 15 percent of the initial cross sectional area.

D. After the damage is removed, do the steps that follow:

WARNING: MAKE SURE THAT YOU WEAR EYE PROTECTION WHEN YOU SHOT PEEN. IF YOU DO NOT OBEY, AN INJURY CAN OCCUR.

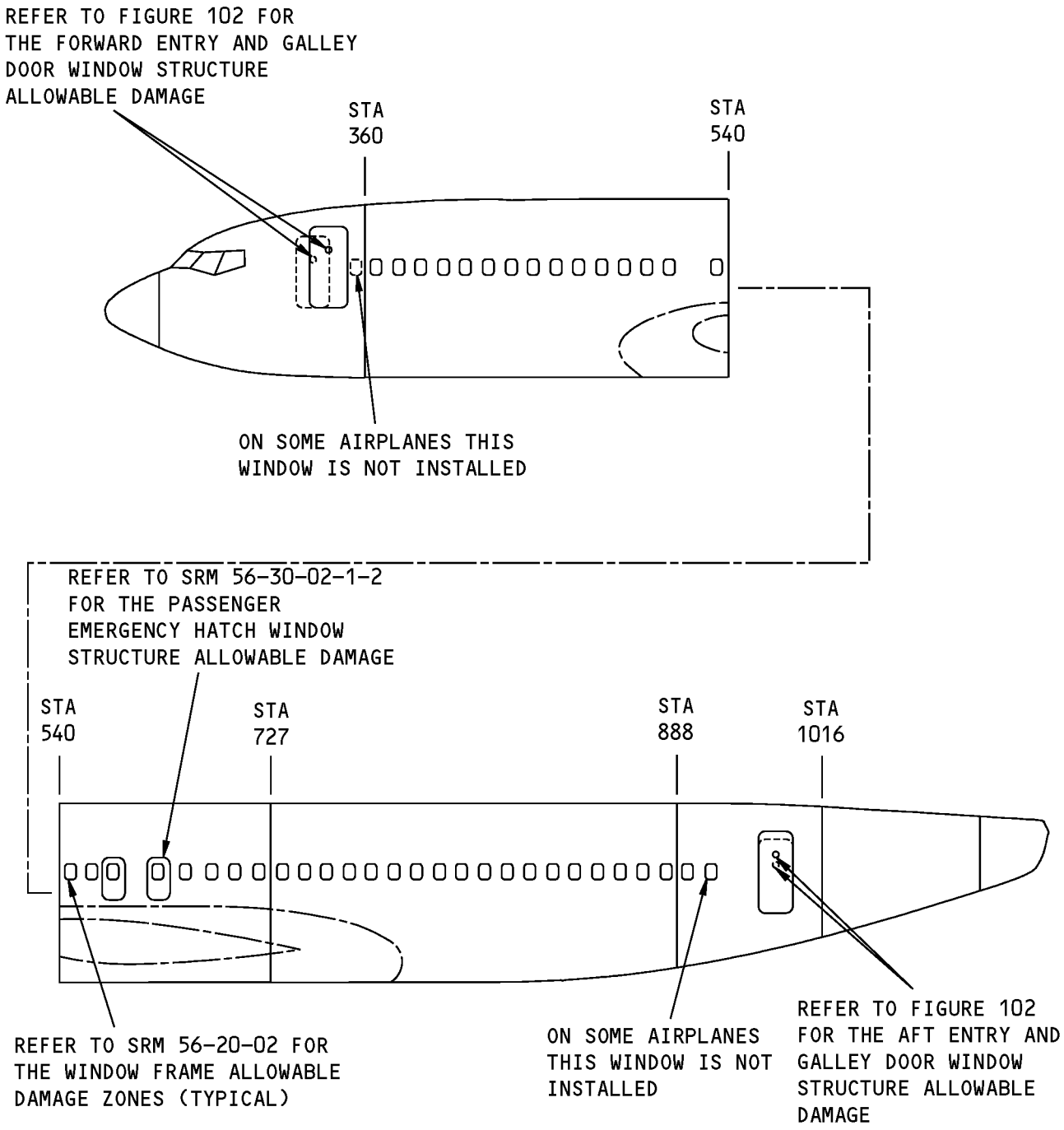
(1) Shot peen the reworked areas.

(a) Refer to 51-20-06 for shot peen intensity and shot number.

(b) Refer to SOPM 20-10-03 for shot peen procedures.

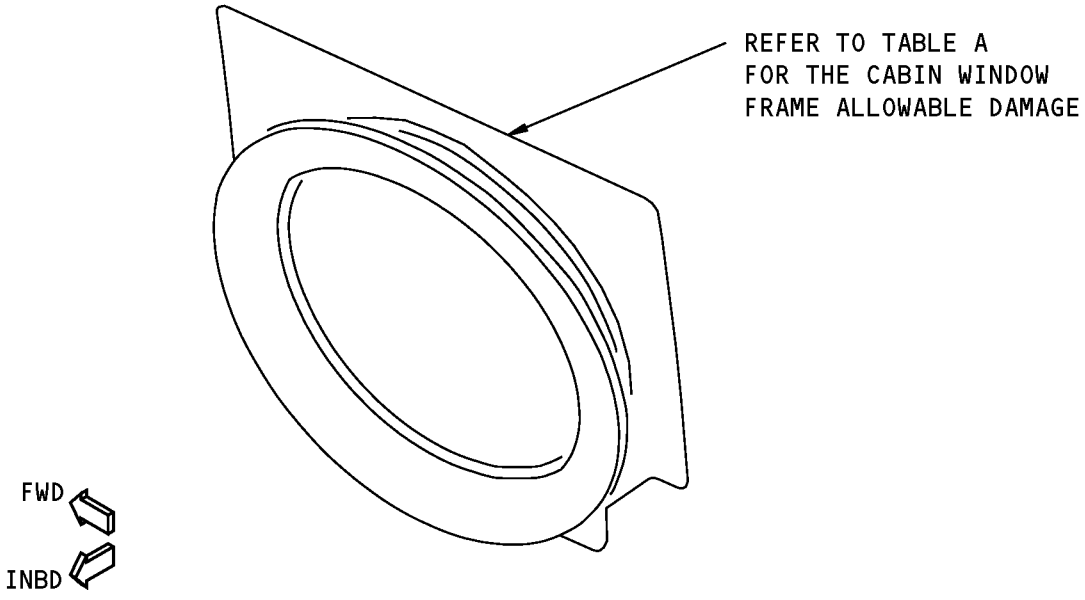
(2) Apply a chemical conversion coating to the reworked areas. Refer to 51-20-01.

(3) Apply two layers of BMS 10-11, Type I primer to the reworked areas. Refer to SOPM 20-41-02.



LEFT SIDE IS SHOWN, RIGHT SIDE IS OPPOSITE

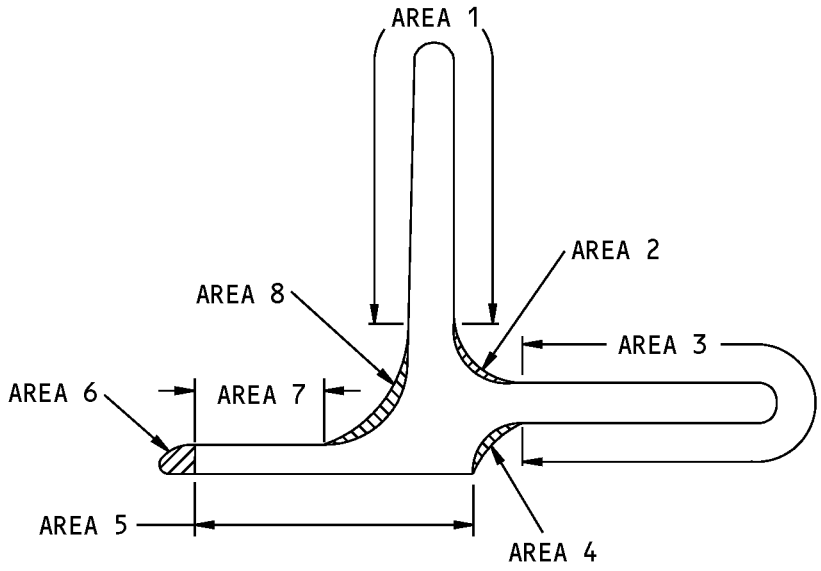
Door Window Frame Structure
Figure 101



TYPICAL WINDOW FRAME

A

Door Window Frame Structure Allowable Damage Area
Figure 102 (Sheet 1 of 2)



A–A

PARAGRAPH REFERENCES FOR THE ALLOWABLE DAMAGE LIMITS	
AREA	PARAGRAPH
AREA 1	4.A
AREA 2	4.B
AREA 3	4.C
AREA 4	4.B
AREA 5	4.D
AREA 6	4.E
AREA 7	4.F
AREA 8	4.B

TABLE A

Door Window Frame Structure Allowable Damage Area
Figure 102 (Sheet 2 of 2)

3. References

Reference	Title
51-10-01	AERODYNAMIC SMOOTHNESS
51-10-02	INSPECTION AND REMOVAL OF DAMAGE
51-20-01	PROTECTIVE TREATMENT OF METALLIC AND COMPOSITE MATERIALS
51-20-06	SHOT PEENING
51-30-03	NON-METALLIC MATERIALS
51-30-05	EQUIPMENT AND TOOLS FOR REPAIRS
SOPM 20-10-03	General - Shot Peening Procedures
SOPM 20-41-02	Application of Chemical and Solvent Resistant Finishes

4. Allowable Damage Limits

A. Area 1:

(1) Cracks:

(a) Remove the damage as shown in Allowable Damage Limits, Figure 103/ALLOWABLE DAMAGE 1, Details A , B , E , and F .

(2) Nicks, Gouges, Scratches, and Corrosion:

(a) Remove the damage as shown in Allowable Damage Limits, Figure 103/ALLOWABLE DAMAGE 1, Details A , B , C , E , and F if:

1) The damage is not more than 0.60 inch (15.2 mm) in length.

(3) Dents are not permitted.

(4) Holes and Punctures are not permitted.

B. Areas 2, 4, and 8:

(1) Cracks are not permitted.

(2) Nicks, Gouges, Scratches, and Corrosion:

(a) Remove the damage as shown in Allowable Damage Limits, Figure 103/ALLOWABLE DAMAGE 1, Details C and F if:

1) The damage is not more than 0.20 inch (5.1 mm) in length parallel to a window cutout

2) You keep a minimum radius of:

a) 0.12 inch (3.05 mm) in Area 2

b) 0.12 inch (3.05 mm) in Area 4

c) 0.19 inch (4.8 mm) in Area 8.

(3) Dents are not permitted.

(4) Holes and Punctures are not permitted.

C. Area 3:

(1) Cracks:

(a) Remove the damage as shown in Allowable Damage Limits, Figure 103/ALLOWABLE DAMAGE 1, Details A , B , E , and F .

(2) Nicks, Gouges, Scratches, and Corrosion:

(a) Remove the damage as shown in Allowable Damage Limits, Figure 103/ALLOWABLE DAMAGE 1, Details A , B , C , D , E , and F if:

1) The damage is not more than 0.60 inch (15.2 mm) in length.

(3) Dents are not permitted.

(4) Holes and Punctures are not permitted.

D. Areas 5:

(1) Cracks are not permitted.

(2) Nicks, Gouges, Scratches, and Corrosion:

(a) Remove the damage as shown in Allowable Damage Limits, Figure 103/ALLOWABLE DAMAGE 1, Detail C .

NOTE: If material is removed from both Area 5 and Area 7, the total material removed cannot be more than the value given in Table B.

(3) Dents are not permitted.

(4) Holes and Punctures are not permitted.

E. Area 6:

(1) Cracks:

(a) Remove the damage as shown in Allowable Damage Limits, Figure 103/ALLOWABLE DAMAGE 1, Details E and F .

(2) Nicks, Gouges, Scratches, and Corrosion:

(a) Remove the damage as shown in Allowable Damage Limits, Figure 103/ALLOWABLE DAMAGE 1, Details C , E , and F if:

1) You keep a 0.060 inch (1.52 mm) radius on all edges.

(3) Dents are not permitted.

(4) Holes and Punctures are not permitted.

F. Area 7:

(1) Cracks are not permitted.

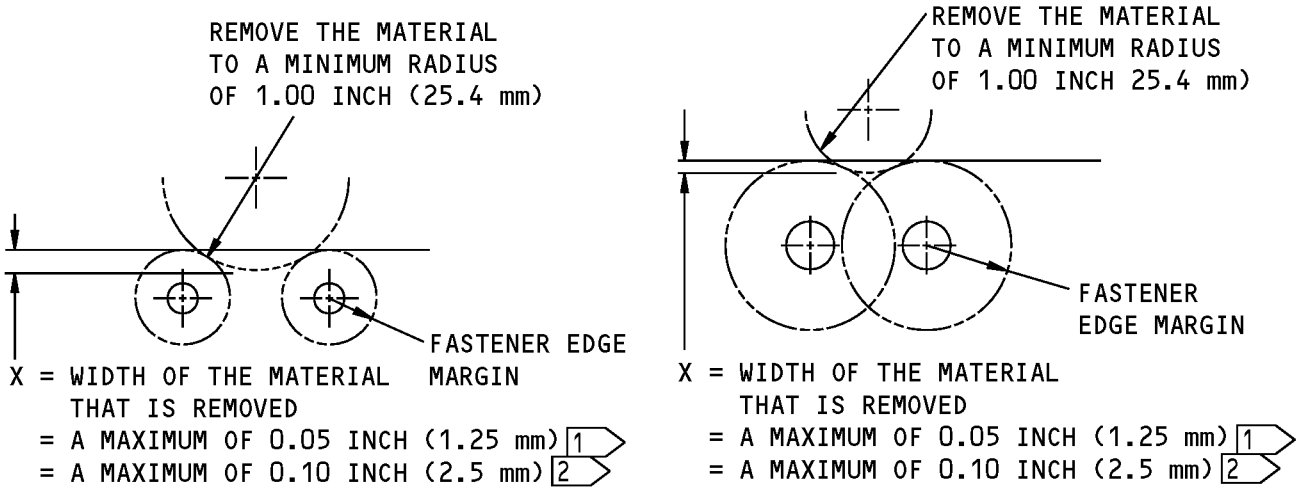
(2) Nicks, Gouges, Scratches, and Corrosion:

(a) Remove the damage as shown in Allowable Damage Limits, Figure 103/ALLOWABLE DAMAGE 1, Detail C and F .

NOTE: If material is removed from both Area 5 and Area 7, the total material removed cannot be more than the value given in Table B.

(3) Dents are not permitted.

(4) Holes and Punctures are not permitted.

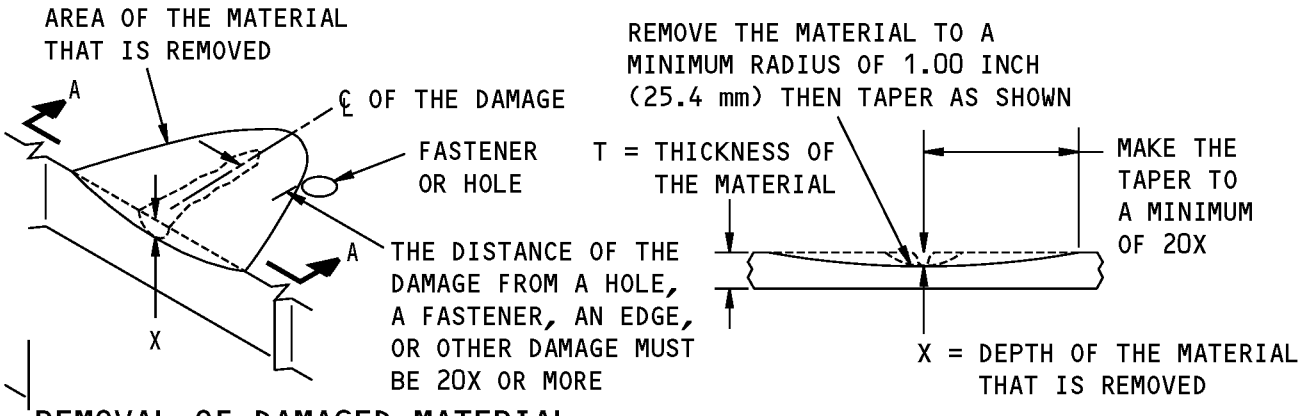


REMOVAL OF DAMAGED MATERIAL AT EDGES WHERE THE FASTENER EDGE MARGINS DO NOT HAVE AN OVERLAP

A

REMOVAL OF DAMAGED MATERIAL AT EDGES WHERE THE FASTENER EDGE MARGINS HAVE AN OVERLAP

B



REMOVAL OF DAMAGED MATERIAL ON A SURFACE

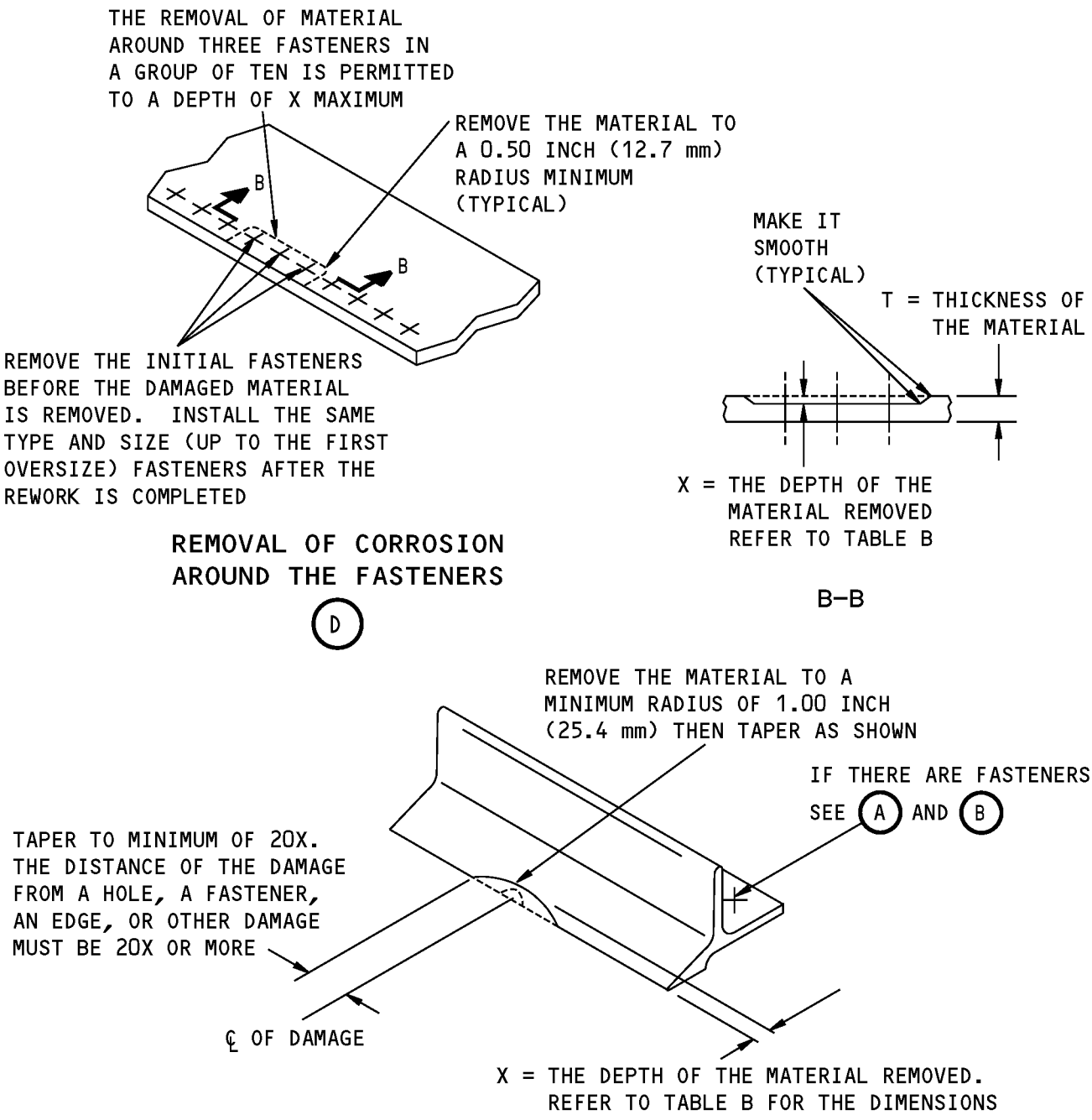
C

NOTES

- ALL DIMENSIONS ARE IN INCHES (mm).

1 FOR AIRPLANES THAT HAVE COMPLETED SERVICE BULLETIN 737-21-1149.
2 FOR AIRPLANES THAT HAVE NOT COMPLETED SERVICE BULLETIN 737-21-1149.
3 YOU ARE PERMITTED TO REMOVE THE MATERIAL IN THE RADIUS AREA UP TO A MAXIMUM RADIUS OF 0.25 INCH (6.35 mm).

Allowable Damage Limits
Figure 103 (Sheet 1 of 3)

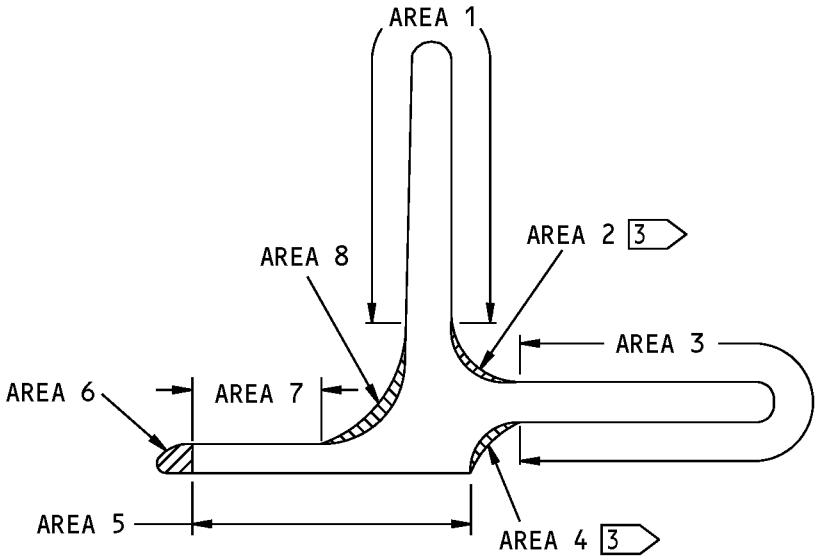


NOTE: THE REMOVAL OF THE DAMAGE SHOWN IS APPLICABLE TO ALL FLANGES OF THE PART.

REMOVAL OF DAMAGE MATERIAL AT AN EDGE

E

Allowable Damage Limits
Figure 103 (Sheet 2 of 3)



REMOVAL OF MATERIAL FROM THE FRAME AREAS

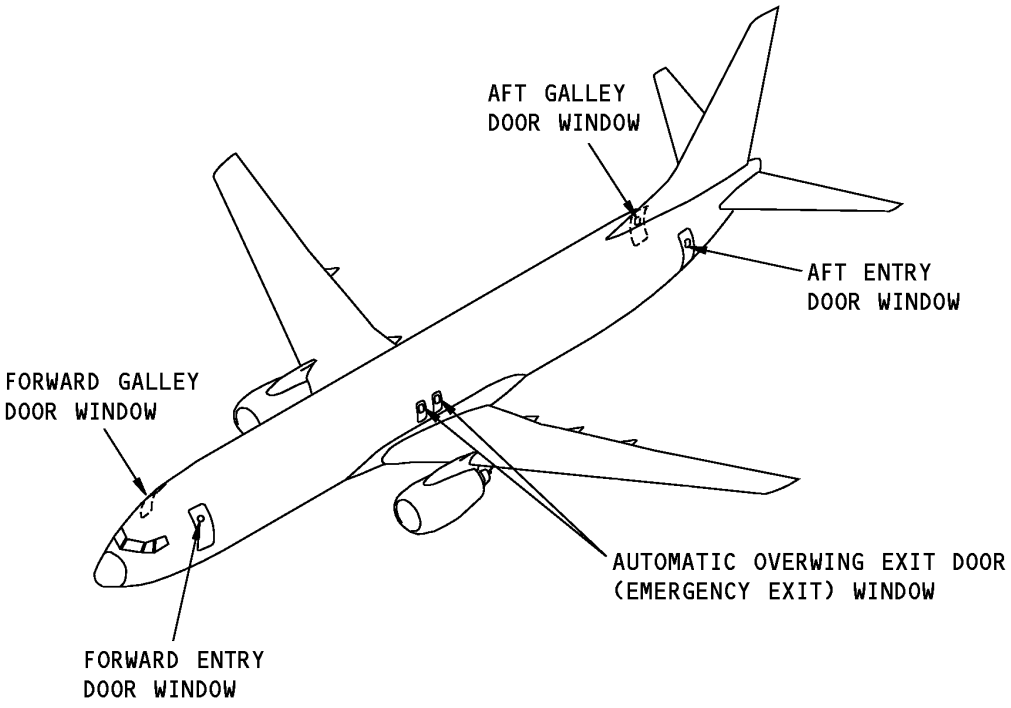
F

MAXIMUM TOTAL DEPTH OF MATERIAL REMOVAL (X)				
AREA	(X) 1	(X) 2	MINIMUM PERMITTED THICKNESS 1	MINIMUM PERMITTED THICKNESS 2
AREA 1	0.005 (0.13)	0.011 (0.28)	0.060 (1.52)	0.060 (1.52)
AREA 2	0.007 (0.18)	0.015 (0.38)	0.060 (1.52)	0.060 (1.52)
AREA 3	0.005 (0.13)	0.011 (0.28)	0.060 (1.52)	0.060 (1.52)
AREA 4	0.007 (0.18)	0.015 (0.38)	0.060 (1.52)	0.060 (1.52)
AREA 5	0.006 (0.15)	0.013 (0.33)	0.075 (1.91)	0.073 (1.85)
AREA 6	0.031 (0.79)	0.062 (1.6)	0.075 (1.91)	0.073 (1.85)
AREA 7	0.006 (0.15)	0.013 (0.33)	0.075 (1.91)	0.073 (1.85)
AREA 8	0.007 (0.18)	0.015 (0.38)	0.075 (1.91)	0.073 (1.85)

TABLE B

Allowable Damage Limits
Figure 103 (Sheet 3 of 3)

REPAIR 1 - DOOR WINDOW STRUCTURE



NOTE: THERE ARE NO REPAIRS FOR THE DOOR WINDOW STRUCTURE IN THE STRUCTURAL REPAIR MANUAL AT THIS TIME.

Door Window Structure Location
Figure 201