CHAPTER 56

WINDOWS

TABLE OF CONTENTS

Subject	Subject No.
WINDOWS	56-0
WINDOW FRAME MATERIALS IDENTIFICATION	56-1-1
WINDOW FRAME ALLOWABLE DAMAGE	56-2-1
WINDOW FRAME REPAIRS	56-3-1

WINDOWS

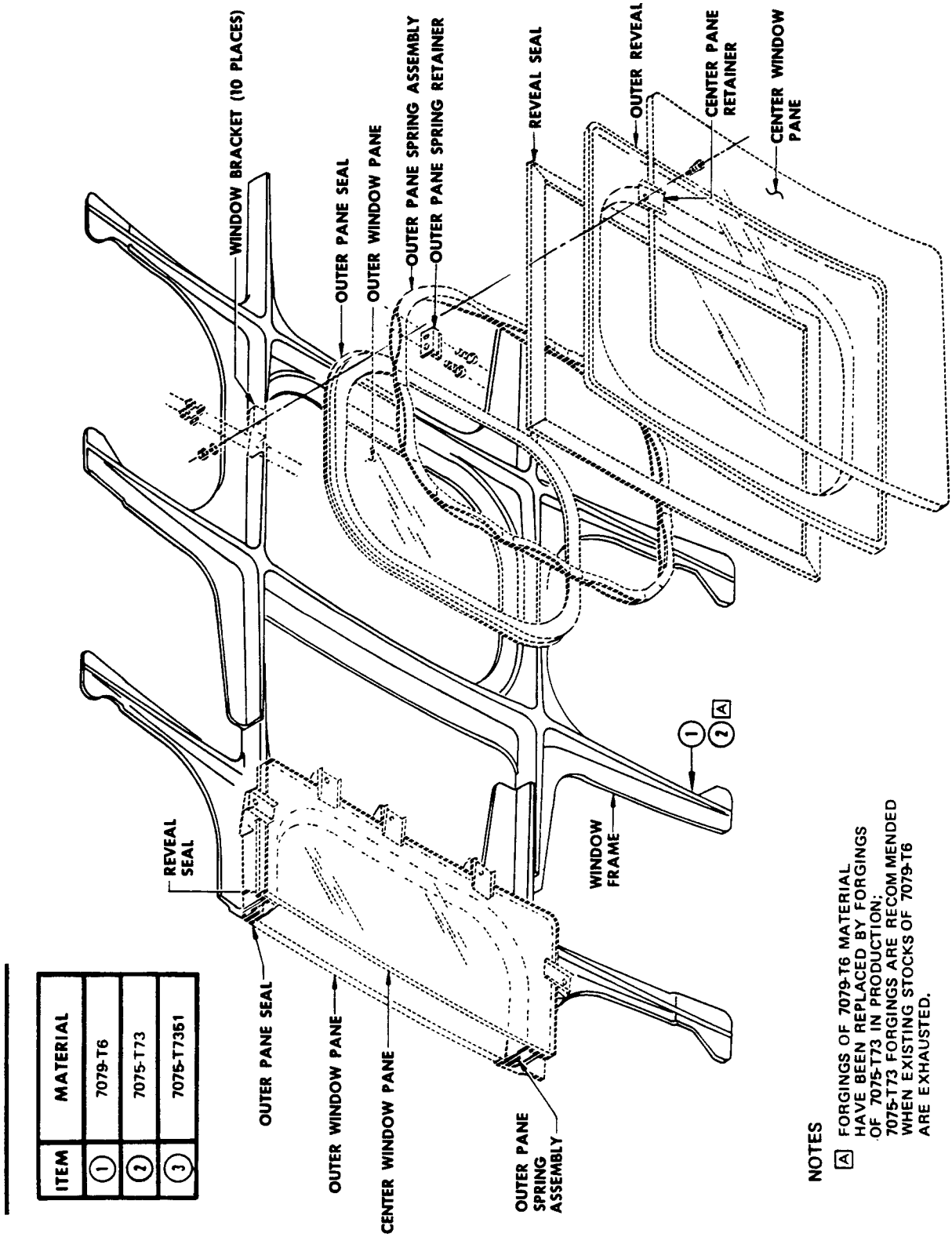
1. General

A. This chapter contains information regarding structural components of passenger and crew compartment window frames.

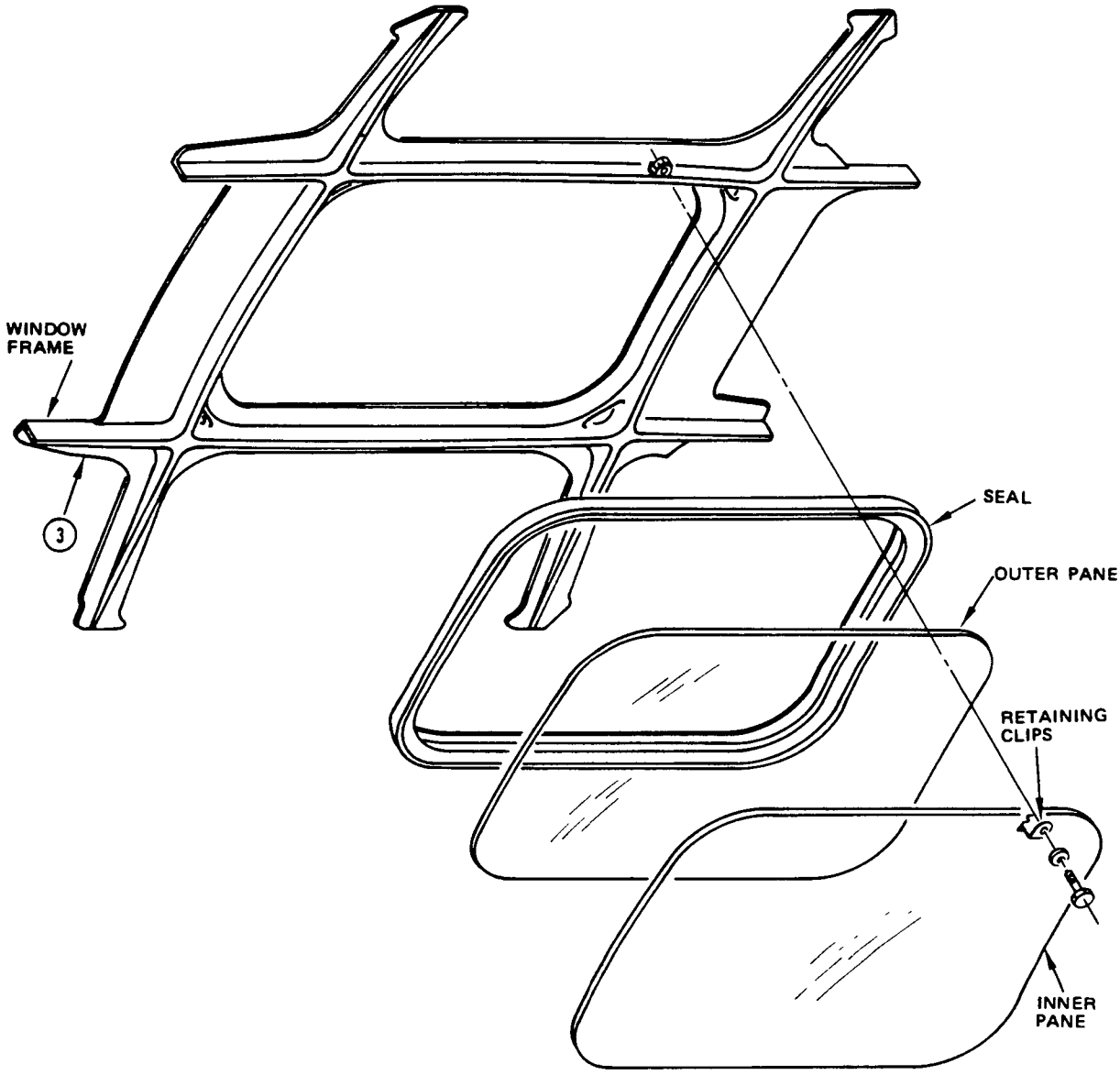
B. Materials of these structural components are tabulated, and their locations and arrangements shown by illustrations.

C. Allowable damage to window frames is defined and illustrated in 56-2-1. See 51-13-1 for clean-up of allowable damage.

END



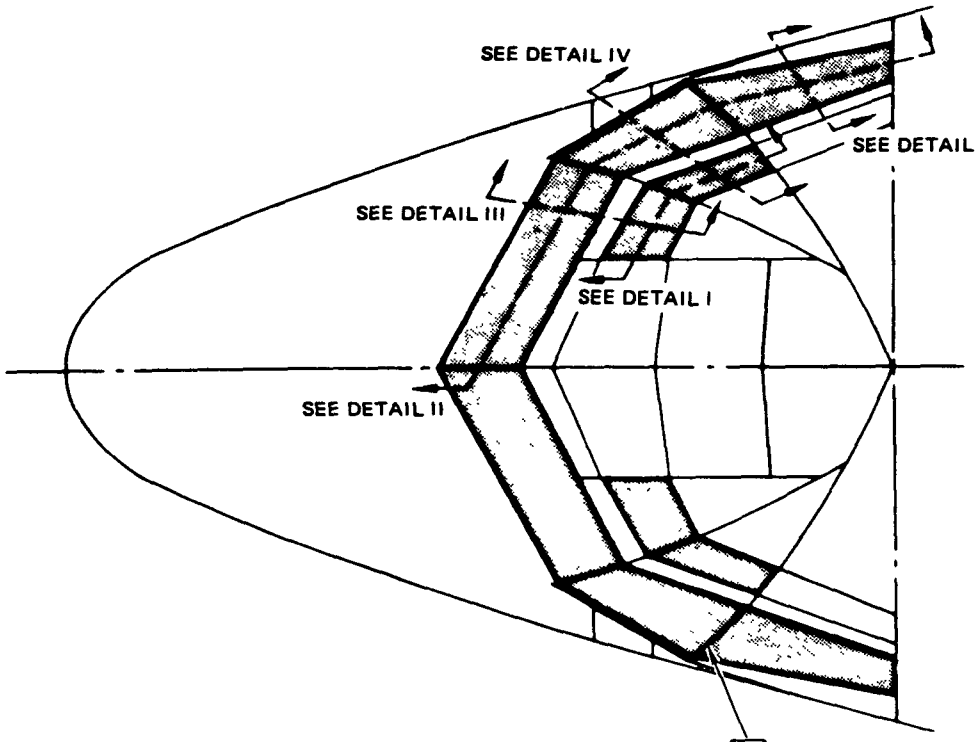
Passenger Window Materials Identification
Figure 1 (Sheet 1)

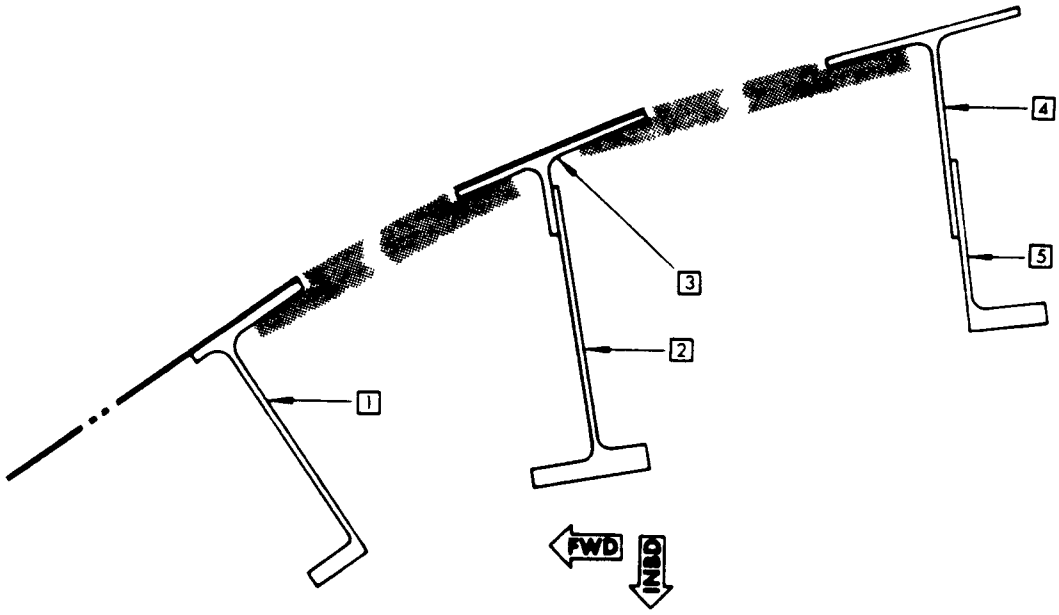


WINDOW INSTALLATION STA 1210 THRU 1230
(IM AIRPLANES ONLY)

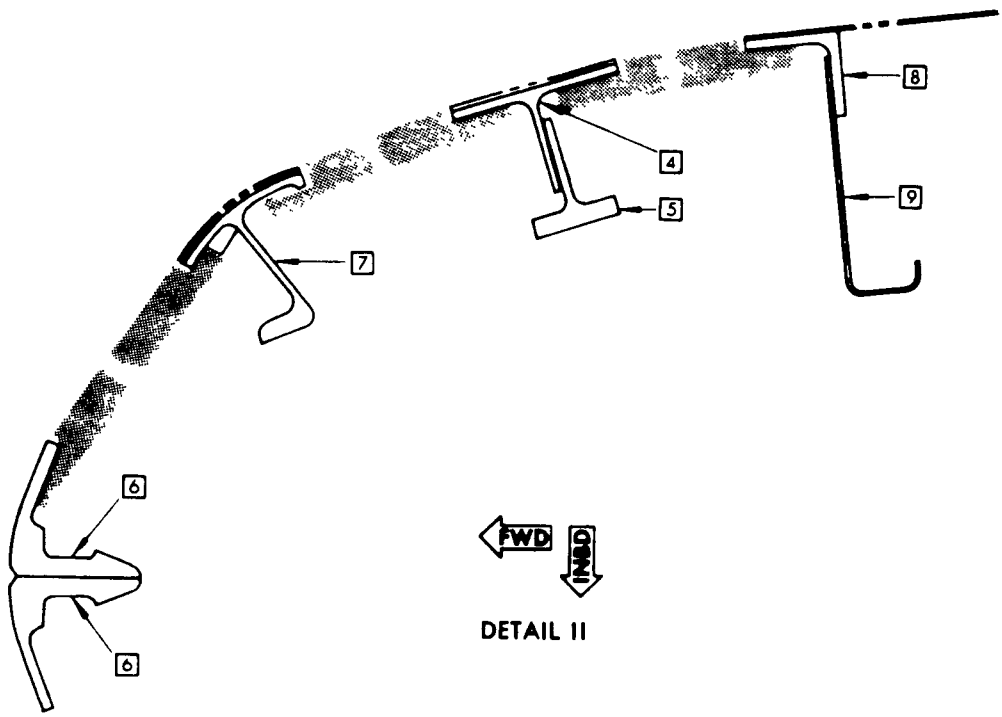
ITEM	MATERIAL	REPAIR FIG. NO.
1	BAC1506-864 7075-T6	
2	BAC1506-919 2024-T4	
3	BAC1506-921 2024-T42	
4	BAC1506-922 2024-T42	
5	BAC1506-923 2024-T42	
6	BAC1520-693 2024-T42	
7	BAC1506-1096 2024-T42	
8	AND10134-1408 2024-T42	
9	0.040 CLAD 7075-T6	
10	0.112 AISI 17-7PH STEEL SHEET	
11	BAC1506-867 2024-T4	
12	0.050 CLAD 7075-T6	
13	BAC1514-1097 2024-T4	
14	0.071 CLAD 7075-T6	
15	BAC1514-1089 2024-T4	

ITEM	MATERIAL	REPAIR FIG. NO.
16	0.090 CLAD 7075-T6	
17	BAC1505-100124 2024-T42	
18	BAC1506-889 2024-T4	
19	BAC1520-713 2024-T4	
20	BAC1514-1096 2024-T4	
21	0.032 CLAD 7075-T6	
22	BAC1506-920 2024-T4	
23	BAC1514-1087 7075-T6	
24	BAC1506-865 2024-T4	
25	BAC1520-694 2024-T4	
26	0.020 CRES SHEET 17-7PH MIL-S-25043	

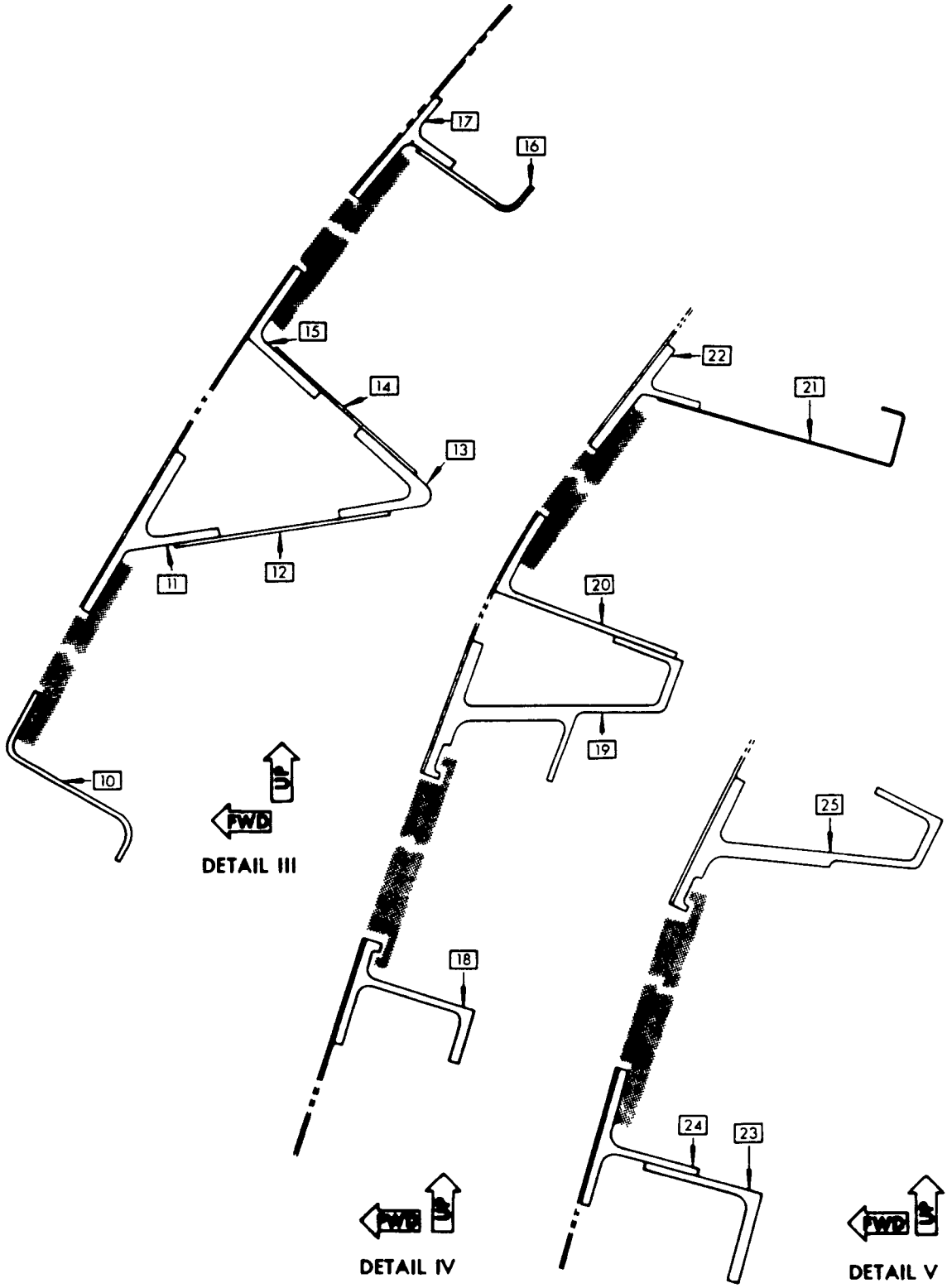

SEE DETAIL IV
SEE DETAIL V
SEE DETAIL III
SEE DETAIL I
SEE DETAIL II
26 LEFT AND RIGHT SIDE DOUBLER BETWEEN SKIN AND "E-F" WINDSHIELD POST AT LOWER SPLICE. FOR AIRPLANES WITH EARLY VERSION OF SB 2983 INCORPORATED ONLY. SEE 53-3-1, FIGS. 1 AND 5, AND 53-3-3, FIG. 1 FOR ADDITIONAL DATA.



DETAIL I



DETAIL II


17
16
15
14
13
11
12
10
FWD
DETAIL III
22
21
20
19
18
DETAIL IV
25
24
23
FWD
DETAIL V

WINDOW FRAME ALLOWABLE DAMAGE

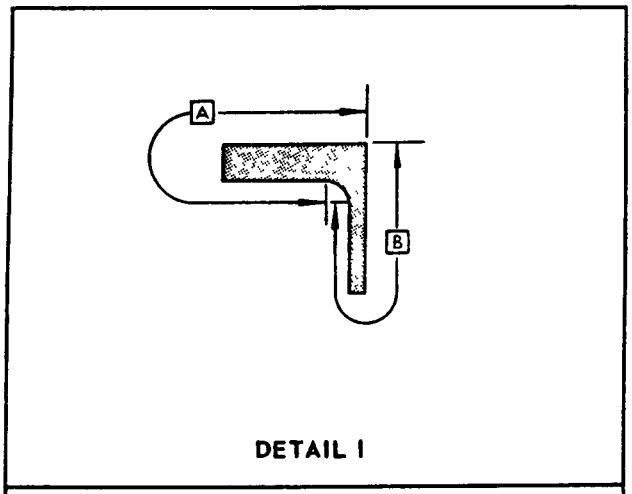
1. General

A. Gouges, scratches or abrasions in window frame forgings which do not exceed .01 inch deep are considered allowable. Such type of damage must not be greater than .25 inch in its maximum flat dimension. Nicks, gouges, scratches, or abrasions located on the edge of a window opening should be smoothed out to a roughness equivalent to 125 microinch and alodized per 51-8-0. The gap between the frame and the edge of the window should not exceed .15 in. after rework.

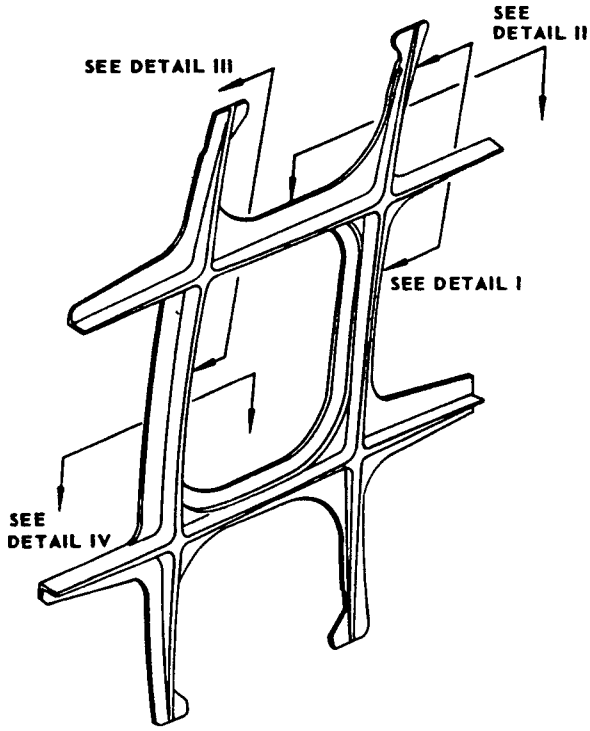
B. Damage other than described above must be carefully smoothed out by polishing to a surface roughness equivalent to 125 microinch or better, and alodized per 51-8-0.

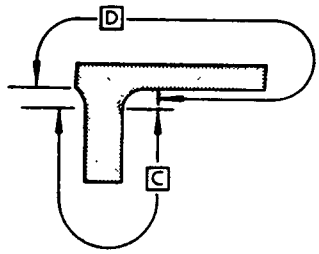
C. Maximum dimensions of nicks, gouges, scratches, or abrasions between fasteners on typical cross sections shall not exceed the tabulated and illustrated data in Figure 1, after clean up.

D. Damage of greater magnitude than that described above or damage adjacent to fasteners must be cleaned up, polished to a surface roughness of 125 microinch or better and reinforced, or the entire forging must be replaced.

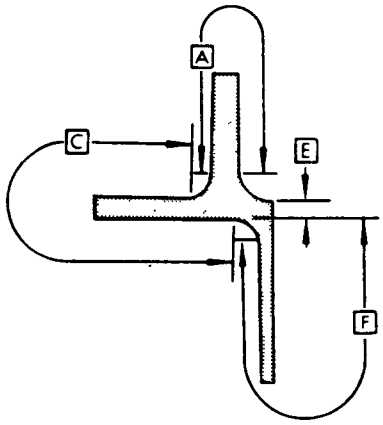


DETAIL I

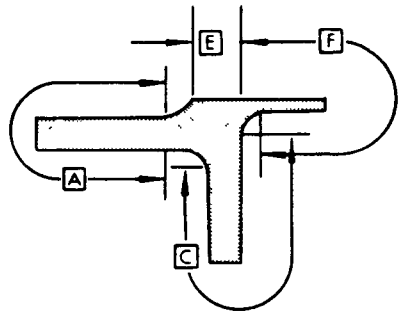




DETAIL II



DETAIL III



DETAIL IV

Allowable Damage - Passenger Window Frame
Figure 1 (Sheet 1 of 2)

WINDOW LOCATIONS	ALLOWABLE DIMENSIONS OF NICKS, SCRATCHES, GOUGES OR ABRASIONS AFTER CLEAN UP IN AREAS OF WINDOW FRAME FORGING CROSS SECTIONS.			
	DAMAGE LOCATED IN REGION OTHER THAN BETWEEN FASTENERS		DAMAGE LOCATED BETWEEN FASTENERS	
STA. 360-480 L.H. AND R.H.	A	.062 DEPTH	A	.062 DEPTH X .50 LONG MAX.
	B	.062 DEPTH	B	.062 DEPTH X .50 LONG MAX.
	C	.062 DEPTH X .50 LONG MAX.		
	D	.062 DEPTH	D	.062 DEPTH X .50 LONG MAX.
	E	.031 DEPTH		
	F	.10 THICKNESS REMAINING AFTER DAMAGE		
STA. 480-620 L.H. AND R.H. STA. 960N-1320 L.H. STA. 960N-1280 R.H.	A	.031 DEPTH	A	.031 DEPTH X .50 LONG MAX.
	B	.031 DEPTH	B	.031 DEPTH X .50 LONG MAX.
	C	.031 DEPTH X .50 LONG MAX.		
	D	.031 DEPTH	D	.031 DEPTH X .50 LONG MAX.
	E	.031 DEPTH		
	F	.10 THICKNESS REMAINING AFTER DAMAGE		
STA. 620-960N L.H. AND R.H.	A	.031 DEPTH	A	.031 DEPTH X .50 LONG MAX.
	B	.031 DEPTH	B	.031 DEPTH X .50 LONG MAX.
	C	.031 DEPTH X .50 LONG MAX.		
	D	.031 DEPTH	D	.031 DEPTH X .50 LONG MAX.
	E	.031 DEPTH		
	F	.10 THICKNESS REMAINING AFTER DAMAGE		

Allowable Damage - Passenger Window Frame
Figure 1 (Sheet 2 of 2)

1. See 56-1-1, figure 2 for frame details.

2. Gouges, scratches or abrasions in window frame extrusions, formed or flat sheets which do not exceed .005 depth are considered allowable.

3. Damage to extrusions other than as described, must be carefully smoothed out by polishing to a surface roughness equivalent to 125 microinch or better and alodized per 51-8-0.

4. Maximum depths after smoothing out of nicks, scratches, gouges, or abrasions of any length are tabulated in figure 2 for various thicknesses of extrusions.

5. Damage of greater magnitude than that tabulated must be cleaned up, polished to a surface roughness of 125 microinch or better and reinforced, or the entire extrusion must be replaced.

THICKNESS OF EXTRUSION	DIRECTION AND LOCATION OF DAMAGE		
	PERPENDICULAR TO EXTRUSION LENGTH		PARALLEL TO EXTRUSION LENGTH
	BETWEEN FASTENERS OR HOLES	AT FASTENERS OR HOLES	
LESS THAN .10	.010	.010	.010
.10 TO .16	.031	.016	.031
GREATER THAN .16	.045	.022	.045

Allowable Damage - Control Cabin Window Frame
Figure 2

WINDOW FRAME REPAIRS

1. Repairs to components of these structures will be released as required.

END