CHAPTER 53

FUSELAGE

TABLE OF CONTENTS

FUSELAGE

1. General

A. This chapter contains information concerning structural components of the entire fuselage and the floor, except the radome section.

B. Materials of these structural components, are tabulated, and their locations and arrangement shown by illustrations. The pressurized areas are shown on 53-1-2.

C. Allowable damage to structural components is defined and illustrated in 53-2-1.

D. Typical repairs with instructions and illustrations are included in this chapter.

E. Repairs to damaged skin aft of Body Station 1592 may be accomplished by a fiberglass cloth overlay procedure as described by 51-9-2.

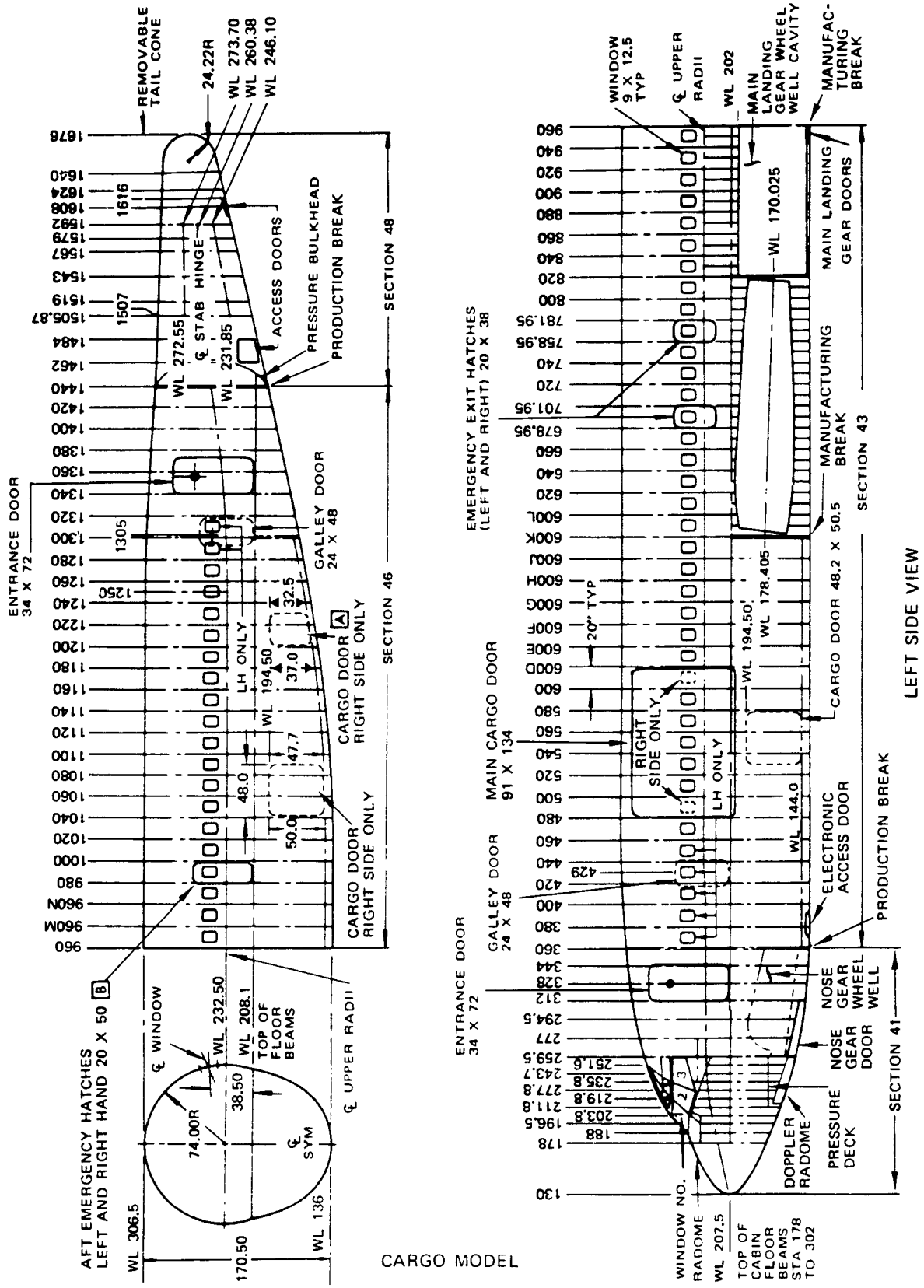
F. Sealing procedure of structural repairs in the pressurized sections of the fuselage is similar to integral fuel tank sealing as described in 57-2-2. Use the extensive level of sealing as defined and indicated in 51-3-0 of the Maintenance Manual in conjunction with repairs to damage of the pressurized section. Use BMS 5-19 sealant or approved alternatives (Ref 51-1-3).

G. Leakage testing should be done per 53-5-1 of the Maintenance Manual for the examples which follow.

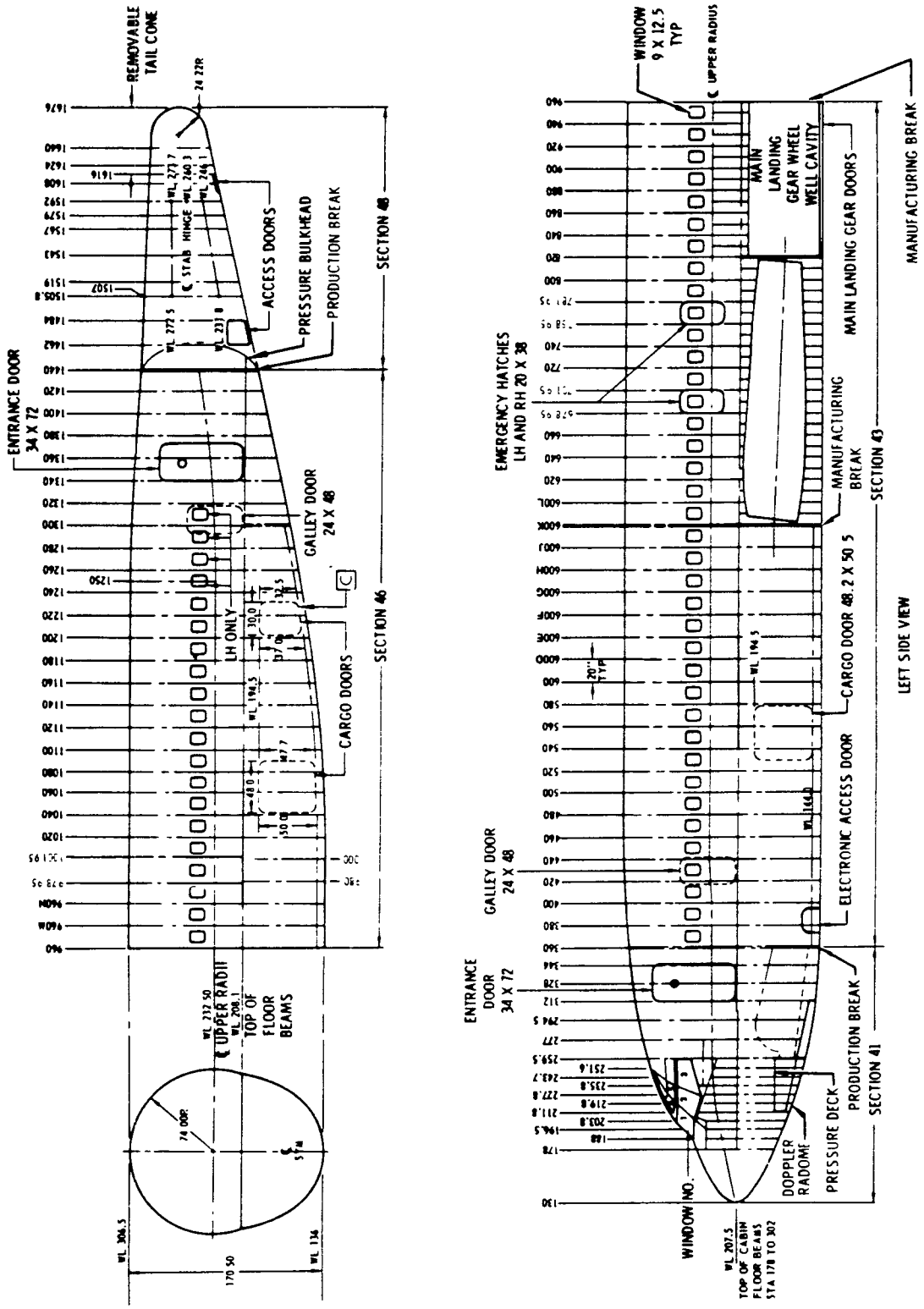
(1) Repairs involving several frames and/or bulkheads and adjacent skin panels.

(2) Repairs or replacement of structure adjacent to main entry doors, cargo doors, emergency hatches, or galley doors.

(3) Repairs to main entry doors, cargo doors, galley doors or emergency hatches.

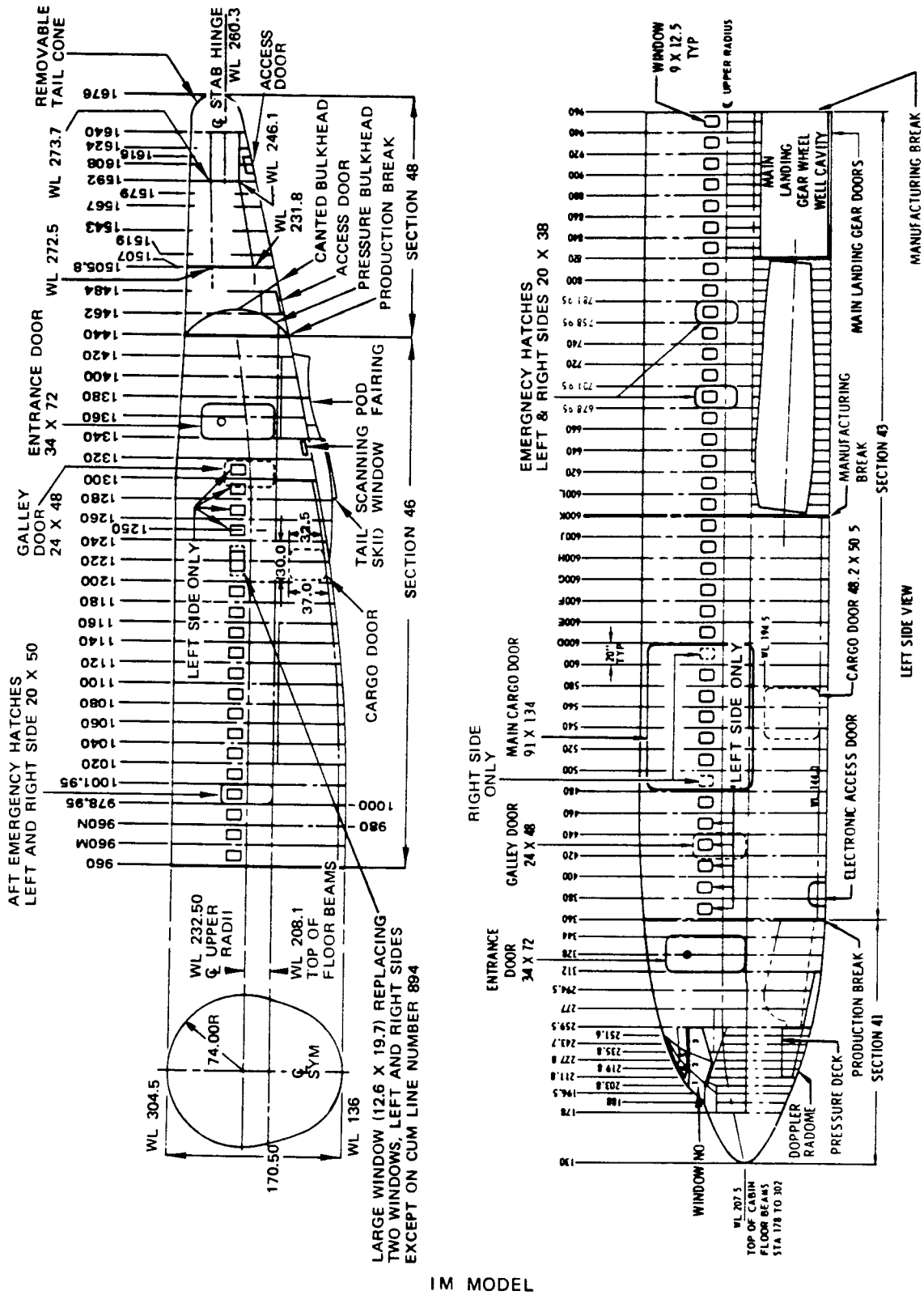


Fuselage Station and Contour Diagram
Figure 1 (Sheet 1)



PASSENGER MODEL

Fuselage Station and Contour Diagram
Figure 1 (Sheet 2)



IM MODEL

SRM 320
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Fuselage Station and Contour Diagram
Figure 1 (Sheet 3)

NOTE

[A] NO CARGO DOOR AT THIS LOCATION FOR THE FOLLOWING AIRPLANES: PA 17674, 17677, 17680, 17683, 17686, 17689

[B] FOR ALL CARGO AIRPLANES EXCEPT NW

[C] NO CARGO DOOR AT THIS LOCATION FOR TW PASSENGER AIRPLANES

[D] FUSELAGE CROWN

[E] STA 294.50 TO STA 480 AND STA 1270 TO STA 1440 CONTOUR IS DEFINED BY A STRAIGHT LINE

[F] STA 480 TO STA 1270 CONTOUR IS DEFINED BY A CIRCULAR ARC

UPPER BODY CONTOUR

STA.	WLA	WLB	WLC	WLD	BLE	BLF	R
294.50	293.21	232.57	220.00	208.10	60.51	59.55	60.74
307.00	294.67	232.49	220.00	208.10	61.93	61.17	62.18
312.00	296.29	232.32	220.00	208.10	63.73	62.73	63.97
328.00	298.42	231.87	220.00	208.10	66.30	65.26	66.55
344.00	300.04	231.30	220.00	208.10	68.48	67.39	68.74
360.00	301.17	230.70	220.00	208.10	70.20	69.07	70.47
370.00	301.73	230.40	220.00	208.10	71.05	69.83	71.33
380.00	302.28	230.23	220.00	208.10	71.68	70.35	72.05
390.00	302.82	230.20	220.00	208.10	72.09	70.53	72.62
400.00	303.37	230.31	220.00	208.10	72.37	70.53	73.06
420.00	304.43	230.83	220.00	208.10	72.79	70.53	73.60
440.00	305.42	231.56	220.00	208.10	72.94	70.53	73.86
460.00	306.21	232.24	220.00	208.10	72.94	70.53	73.97
480 THRU 1220	306.50	232.50	220.00	208.10	72.94	70.53	74.00
1240	306.50	232.50	220.00	208.10		70.45	74.00
1250	306.50	232.50	220.00	208.10	72.94		74.00
1260	306.47	232.56	220.00	208.10	72.83	69.96	73.91
1280	306.18	233.04	220.00	208.10		68.74	73.14
1300	305.64	233.95	220.00	208.10		66.75	71.69
1320	304.89	235.22	220.00	208.10		64.02	69.67
1340	304.10	236.82	220.00	208.10		60.50	67.19
1360	303.03	238.68	220.00	208.10		56.24	64.35
1380	301.99	240.76	220.00	208.10		51.32	61.23
1400	300.92	243.03	220.00	208.10		45.66	57.89
1420	299.81	245.44	220.00	208.10		38.90	54.37

Fuselage Station and Contour Diagram
Figure 1 (Sheet 3)

LOWER BODY CONTOUR

STA 188		STA 196.5		STA 203.8		STA 211.8		STA 219.8		STA 227.8		STA 235.8	
WL X	BL Z	WL X	BL Z	WL X	BL Z	WL X	BL Z	WL X	BL Z	WL X	BL Z	WL X	BL Z
												155	5.027
								160	7.086	160	15.834	160	22.167
				165	1.327	165	15.470	165	21.205	165	25.446	165	28.929
		170	13.087	170	18.992	170	23.619	170	27.358	170	30.569	170	33.418
175	15.708	175	21.201	175	24.895	175	28.357	175	31.411	175	34.174	175	36.712
180	21.712	180	25.686	180	28.572	180	31.634	180	34.351	180	35.875	180	39.239
185	25.351	185	28.708	185	31.349	185	34.046	185	36.574	185	38.950	185	41.221
190	27.841	190	30 878	190	33 327	190	35.871	190	38.287	190	40.591	190	42.791
195	29.515	195	32 471	195	34.809	195	37.264	195	39.615	195	41.869	195	44.034
200	30.886	200	33.642	200	35.918	200	38.323	200	40.637	200	42.865	200	45.011
205	31.776	205	34.485	205	36.732	205	39.113	205	41.410	205	43.527	205	45.766
210	32.355	210	35 065	210	37.306	210	39.682	210	41.976	210	44.192	210	46.331
215	32.708	215	35 428	215	37.679	215	40.064	215	42.355	215	44.588	215	46.734
220	32.845	220	35.607	220	37.882	220	40.287	220	42.604	220	44.838	220	46.994
196.344	30	209.321	35	195.761	35	225	40.371	225	42.709	225	44.959	225	47.127
184.421	25	187.784	30	182.283	30	213.981	40	196.733	40	188.046	40	199.937	45
178 150	20	179.081	25	175.114	25	187.444	35	181.327	35	176.390	35	181.782	40
174.598	15	173.993	20	170.677	20	177.303	30	173.055	30	169.340	30	172.227	35
172.437	10	170 847	15	167 861	15	171.250	25	167.786	25	164.651	25	165.044	30
171.329	5	168.951	10	166.150	10	167.342	20	164.280	20	161.458	20	161.801	25
171.0	0	167.980	5	165.252	5	164.808	15	161.965	15	159.318	15	158.857	20
		167.587	0	164 982	0	163.246	10	160.522	10	157.971	10	156.859	15
						162.419	5	159.750	5	157.245	5	155.589	10
						162.169	0	159.516	0	157.023	0	154.900	5
												154.589	0

Fuselage Station and Contour Diagram
Figure 1 (Sheet 4)

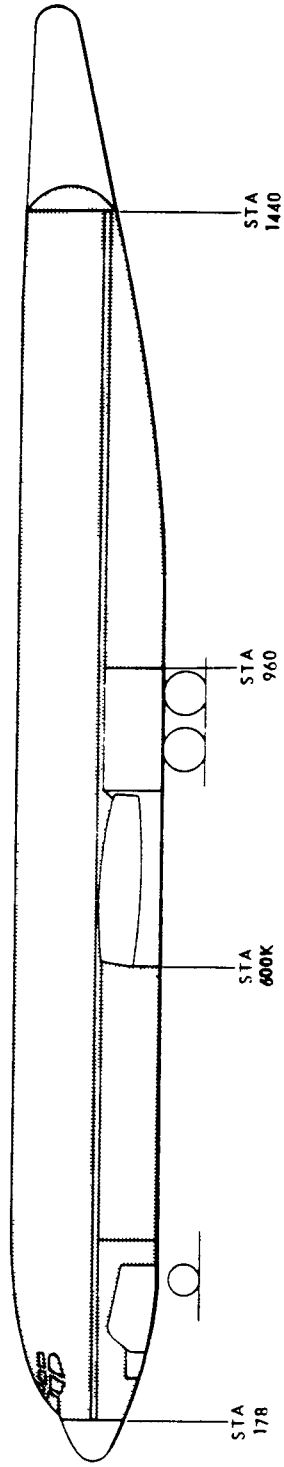
LOWER BODY CONTOUR

STA 243.7		STA 251.5		STA 259.5		STA 277		STA 294.5		STA 312	
WL X	BL Z	WL X	BL Z	WL X	BL Z	WL X	BL Z	WL X	BL Z	WL X	BL Z
										140	1.612
								145	18.818	145	25.231
				150	12.550	150	23.620	150	29.756	150	34.032
155	16.222	155	21.517	155	25.429	155	31.817	155	36.496	155	40.097
160	26.130	160	29.397	160	32.204	160	37.334	160	41.425	160	44.725
165	31.896	165	34.532	155	36.909	165	41.470	155	45.270	165	48.425
170	35.954	170	38.301	170	40.460	170	44.720	170	48.367	170	51.453
175	39.037	175	41.210	175	43.248	175	47.340	175	50.907	175	53.967
180	41.437	180	43.516	180	45.483	180	49.481	180	53.010	180	56.069
185	43.344	185	45.365	185	47.293	185	51.240	185	54.757	185	57.828
190	44.858	190	46.858	190	48.762	190	52.686	190	56.206	190	59.297
195	45.086	195	48.059	195	49.952	195	53.870	195	57.400	195	60.515
200	47.051	200	49.016	200	50.905	200	54.827	200	58.373	200	61.513
205	47.802	205	49.766	205	51.655	205	55.588	205	59.151	205	62.315
210	48.370	210	50.336	210	52.232	210	56.175	210	59.755	210	62.940
215	48 778	215	50 751	215	52.652	215	56.609	215	60.203	215	63.405
220	49 046	220	51.026	220	52.934	220	56.903	220	60.509	220	63.724
225	49.190	225	51.178	225	53.092	225	57.072	225	60.684	225	63.909
190.489	45	206.881	50	195.228	50	201.037	55	230	60.741	230	63.968
175.867	40	183.921	45	178.82	45	181.377	50	212.527	60	192.755	60
168.573	35	172.771	40	169.277	40	170 487	45	185.774	55	177.345	55
163.129	30	165 549	35	162.783	35	163.073	40	173.102	50	167.481	50
159.234	25	160.502	30	158.133	30	157.685	35	164.610	45	160.336	45
156.490	20	156.889	25	154.750	25	153.675	30	158.412	40	154.908	40
154.608	15	154.311	20	152.311	20	150.680	25	153.729	35	150.700	35
153.402	10	152.526	15	150.608	15	148.477	20	150.151	30	147.426	30
152.744	5	151.374	10	149 501	10	146.915	15	147.427	25	144.898	25
152.541	0	150.741	5	148.890	5	145.886	10	145.393	20	142.988	20
		150.545	0	148.700	0	145.313	5	143.934	15	141.604	15
						145.133	0	142.953	10	140 676	10
								142.417	5	140.150	5
								142.244	0	139.983	0

LOWER BODY CONTOUR

STA 328		STA 344		STA 360		STA 370		STA 380		STA 390 - 600K 960 - 1000	
WL X	BL Z	WL X	BL Z	WL X	BL Z	WL X	BL Z	WL X	BL Z	WL X	BL Z
140	15.049	140	19.614	140	22.131	140	23.032	140	23.542	140	23.699
145	28.976	145	31.511	145	33.148	145	33.773	145	34.132	145	34.255
150	36.907	150	39.007	150	40.427	150	40.987	150	41.327	150	41.433
155	42.655	155	44.594	155	45.946	155	46.495	155	46.834	155	46.944
160	47.146	160	49.027	160	50.371	160	50.928	160	51.279	160	51.395
165	50.788	165	52.558	165	54.020	165	54.597	165	54.964	165	55.088
170	53.801	170	55.686	170	57.080	170	57.680	170	58.065	170	58.199
175	56.322	175	58.235	175	59.569	175	60.294	175	60.699	175	60.841
180	58.444	180	60.391	180	61.866	180	62.517	180	62.941	180	63.092
185	60.230	185	62.214	185	63.731	185	64.406	185	64.850	185	65.009
190	61.730	190	63.751	190	65.307	190	66.005	190	66.467	190	66.633
195	62.978	195	65.035	195	66.628	195	67.349	195	67.825	195	67.999
200	64.005	200	66.094	200	67.722	200	68.462	200	68.952	200	69.132
205	64.833	205	66.951	205	68.608	205	69.365	205	69.868	205	70.054
210	65.481	210	67.624	210	69.305	210	70.078	210	70.590	207	70.367
215	65.964	215	68.128	215	69.830	215	70.613	215	71.134	210	70.781
220	66.297	220	68.475	220	70.192	220	70.983	220	71.510	215	71.328
225	66.490	225	68.677	225	70.403	225	71.199	225	71.730	220	71.707
230	66.552	230	68.742	230	70.471	230	71.269	230	71.801	225	71.928
206.172	65	194.852	65	217.087	70	209.386	70	205.824	70	230	72.000
184.304	60	179.029	60	188.956	65	186.758	65	185.431	65	207.912	70.5
172.269	55	168.789	55	175.704	60	174.396	60	173.592	60	204.674	70
163.833	50	161.250	50	166.509	55	165.608	55	165.063	55	184.976	65
157.471	45	155.416	45	159.541	50	158.858	50	158.458	50	173.319	60
152.520	40	150.799	40	154.055	45	153.524	45	153.204	45	164.869	55
148.619	35	147.116	35	149.661	40	149.222	40	148.959	40	158.325	50
145.545	30	144.185	30	146.125	35	145.745	35	145.520	35	153.102	45
143.148	25	141.882	25	143.291	30	142.949	30	142.748	30	148.878	40
141.322	20	140.116	20	141.050	25	140.731	25	140.546	25	145.451	35
139.989	15	138.819	15	139.322	20	139.017	20	138.841	20	142.687	30
139.090	10	137.940	10	138.048	15	137.750	15	137.578	15	140.489	25
138.577	5	137.436	5	137.179	10	136.885	10	136.714	10	138.786	20
138.413	0	137.274	0	136.680	5	136.386	5	135.216	5	137.523	15
				136.519	0	136.225	0	136.055	0	136.560	10
										136.161	5
										136.000	0

Fuselage Station and Contour Diagram
Figure 1 (Sheet 6)



Pressurized Area Diagram
Figure 1

FAYING SURFACE SEALING FOR FUSELAGE SKINS

1. General

A. All skin repairs made to the pressurized section of the fuselage must be sealed to prevent the loss of cabin pressure and the seepage of moisture and other contaminants between the faying surfaces of the skins. All bonded metal structural repairs must be sealed as described in 51-9-1. All nonbonded "external" repairs to fuselage skins must be made with a faying surface seal as described below. After installation, seal against moisture and contamination as detailed in 51-9-1, paragraphs 5 and 6.

B. Sealing Procedure

(1) Clean repair parts and existing structure and make a faying surface seal as follows:

(a) Preliminary cleaning can be accomplished using a bristle brush or a cloth and Fuller TL-4119, stripper and cleaner, a methyl ethyl ketone or an equivalent solvent. Wipe off all solvent (while still wet) using a clean cloth.

(b) Using new or laundered white absorbent material, repeat cleaning operation until affected areas are thoroughly clean.

(c) Remove all traces of solvent using a supply of oil and water-free air.

(d) Moisten a clean cloth with the cleaning solvent and wipe clean the faying surfaces. Wipe dry.

(2) Alodize repair parts and bare or cut edges of structure as detailed in 51-8-0.

(3) Apply a coat of corrosion inhibiting adhesive primer to the faying surfaces of the joint as described in 51-9-1.

(4) Make a faying surface seal as follows:

(a) Apply sealant to one faying surface using a sealant gun, spatula, roller or spray gun. See figure 2 for alternative sealants. Spread the sealant to uniformly cover the entire surface (a roller will give the best results). The sealant should be thick enough to completely cover the faying surface, but thin enough to minimize the size of bead of extruded sealant at all edges after repair has been made. A thickness of roughly 0.010 inch of sealant on one faying surface is normally sufficient to produce the required bead.

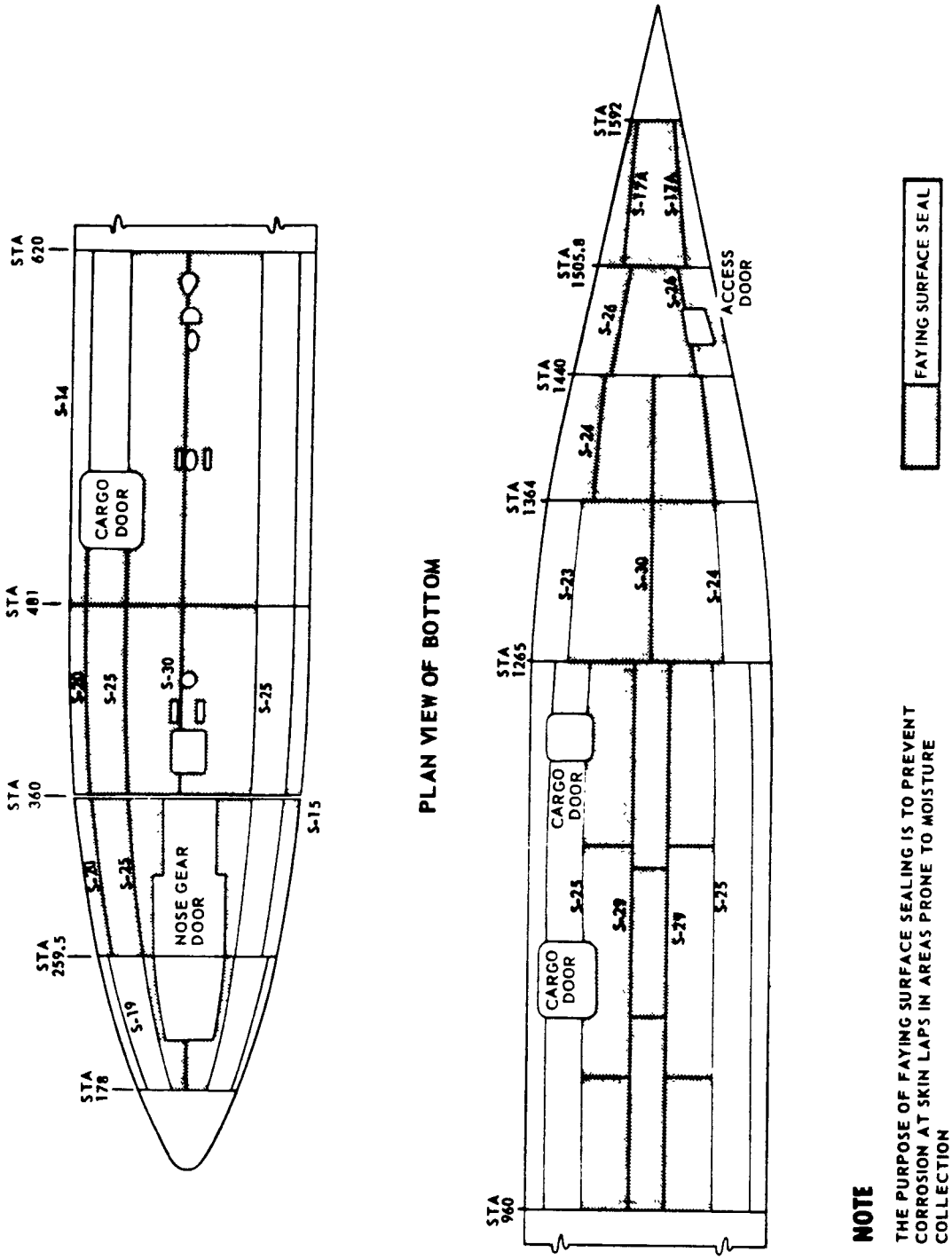
(b) Install repair parts within the pot life of the sealant.

(c) After the repair is complete, check that a small bead of sealant is visible around the edges of all the repair parts. Remove excessive sealant using a plastic or wooden tool and a clean cloth dampened with the cleaning solvent.

(d) Seal all cut edges, the junction of repair parts with the main structure and the fasteners as detailed in 51-9-1.

(e) Apply a coat of BMS 10-11, type 1 primer over the sealant.

NOTE: This primer coat may be applied immediately after completing the sealing operation.



NOTE

THE PURPOSE OF FAYING SURFACE SEALING IS TO PREVENT CORROSION AT SKIN LAPS IN AREAS PRONE TO MOISTURE COLLECTION

Faying Surface Sealing Diagram - Lower Fuselage
Figure 1

TYPE OF APPLICATION					SEALANT COLOR
INJECTION INTO VOIDS OR WET FASTENER INSTALLATION	FILLET [C]	FASTENER INTERNAL HEAD AND SEALANT BLEED HOLES		FAYING SURFACE [C] [D]	
		BRUSH	SPRAY		
PR1436G-A1/2 -A2 [A]	PR1436G-B1/2 [A] -B2	PR1436G-A1/2 [A] -A2	PR1436G-E2 [A]	PR1436G-C2 [A]	ALUMINIZED
PR1431G TYPE I [A] [B]	–	–	–	PR1431G TYPE I	YELLOW-GREEN
–	PRO-SEAL 890-B1/2 -B2	PRO-SEAL 890-A1/2 -A2	–	–	BLACK
–	3C-414-B2	3C-414-B2 (THINNED 12% WITH MEK)	–	3C414-B2	GRAY
–	–	EC5922	EC5922	–	TRANSPARENT

RECOMMENDED SEALANTS
TABLE I

NOTE

[A] THE PR1431G AND PR1436G SEALANTS CONTAIN CHROMATE AND PROVIDE BETTER CORROSION PROTECTION THAN THE OTHER SEALANTS LISTED.

[B] STORAGE LIFE OF SEALANT PR1431G IS ABOUT 6 MONTHS WHEN STORED AT 40°F AND ABOUT 3 MONTHS WHEN STORED AT 80°F.

[C] SEE FIGURE 3 FOR SEALANT CURE PROPERTIES.

[D] USE OF SEALANTS OTHER THAN THOSE LISTED MAY RESULT IN REDUCED REPAIR SERVICE LIFE.

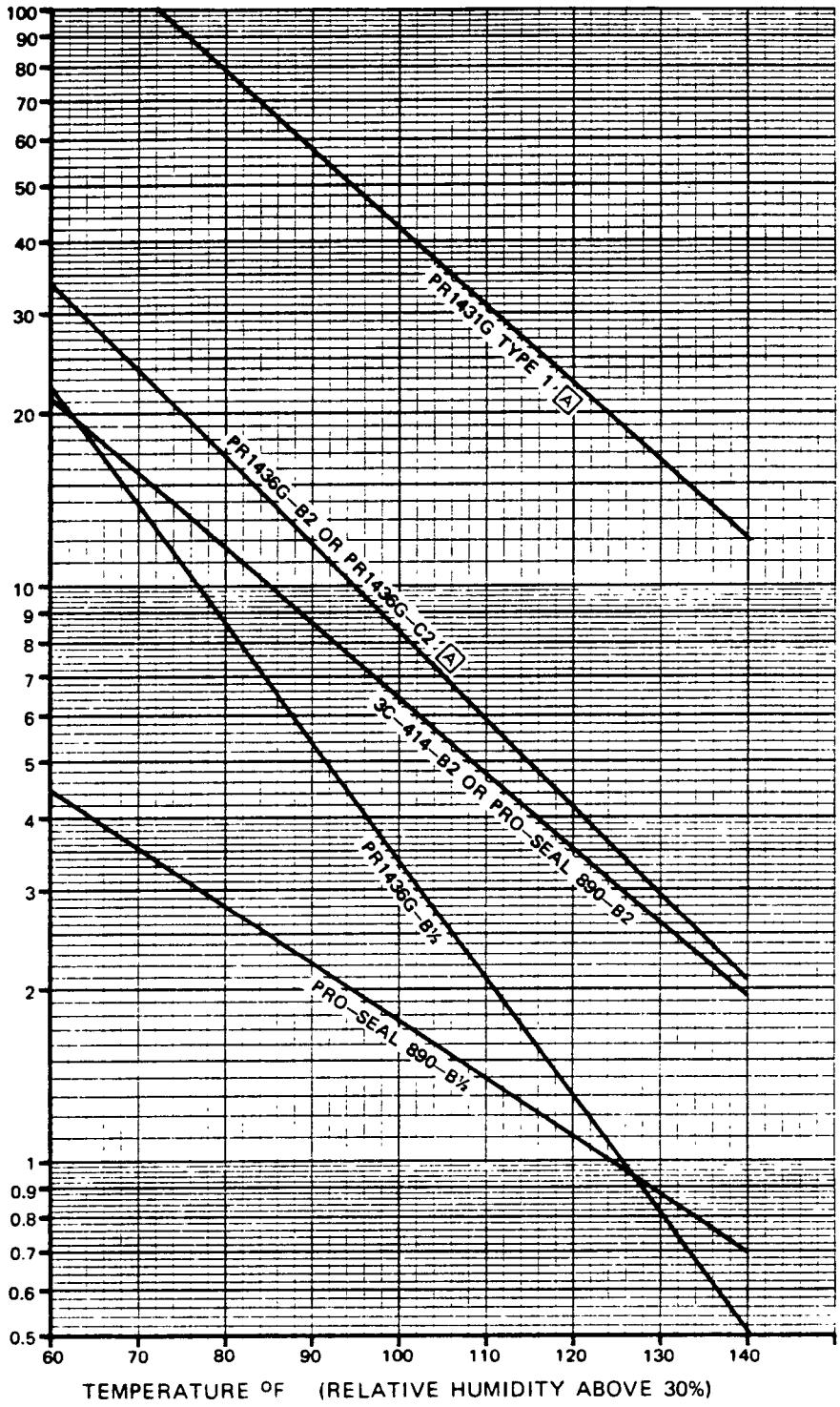
Sealing Requirements at Lap Splices
Figure 2 (Sheet 1)

Vendor Part Number	Vendor
EC2216	Minnesota Mining and Mfg. Co. 100 Andover Park West Seattle, Washington 98188
PR1436G or PR1431G Type I	Products Research and Chemical Corp. 2919 Empire Avenue Burbank, California 91504
3C-414	Churchill Chemical Corp. 3137 E. 26th Street Los Angeles, California 90023
020-702 513-707 910-787	DeSoto Inc., Chemical Coatings Div. 4th and Cedar Streets Berkeley, California 94710
Alodine 1200	AMCHEM Products Inc. Spring Garden Street Ambler, Pa. 19002
Pro-Seal 890	Coast Pro-Seal and Mfg. Co. 19451 Susana Road Compton, California 90221
EC5922	Minnesota Mining and Mfg. Co. 3M Center St. Paul, Minnesota 55101

Vendor Information

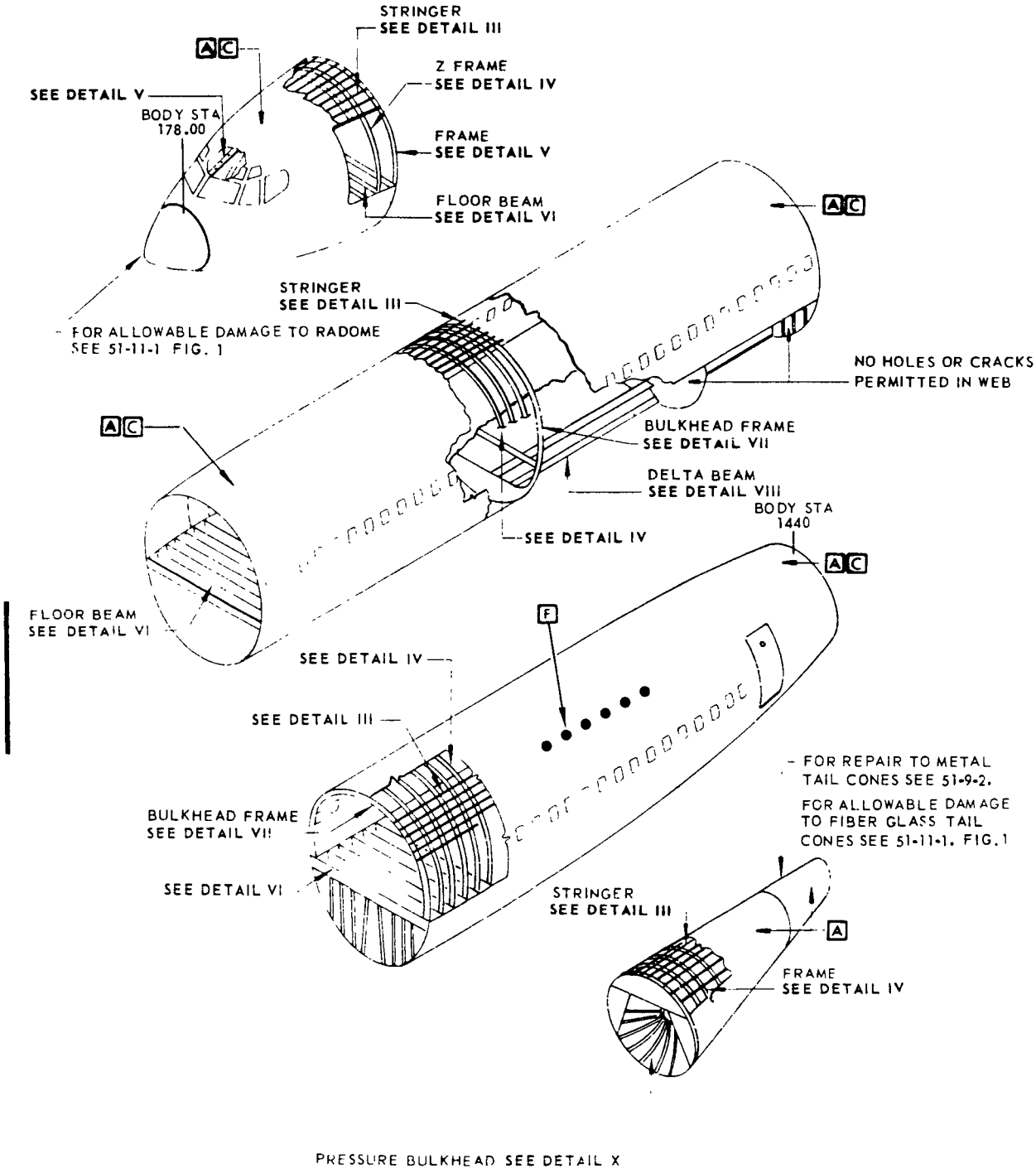
TABLE II

Sealants and Associated Materials
Figure 2 (Sheet 2)



[A] FIRST 24 HOURS OF CURING IS TO BE AT AMBIENT TEMPERATURE TO PRECLUDE THE FORMATION OF BUBBLES IN THE SEALANT

Cure Properties for Fillet and Faying Surface Sealants
Figure 3


STRINGER
SEE DETAIL III
Z FRAME
SEE DETAIL IV
FRAME
SEE DETAIL V
FLOOR BEAM
SEE DETAIL VI
SEE DETAIL V
BODY STA
178.00
AC
FOR ALLOWABLE DAMAGE TO RADOME
SEE 51-11-1 FIG. 1
STRINGER
SEE DETAIL III
NO HOLES OR CRACKS
PERMITTED IN WEB
BULKHEAD FRAME
SEE DETAIL VII
DELTA BEAM
SEE DETAIL VIII
SEE DETAIL IV
BODY STA
1440
FLOOR BEAM
SEE DETAIL VI
F
SEE DETAIL IV
SEE DETAIL III
FOR REPAIR TO METAL
TAIL CONES SEE 51-9-2.
FOR ALLOWABLE DAMAGE
TO FIBER GLASS TAIL
CONES SEE 51-11-1. FIG.1
BULKHEAD FRAME
SEE DETAIL VII
SEE DETAIL VI
STRINGER
SEE DETAIL III
A
FRAME
SEE DETAIL IV
PRESSURE BULKHEAD SEE DETAIL X

NOTES

- FOR GENERAL REPAIR PROCEDURES REFER TO 51-13-1, PAR. 2
- CLEAN UP NICKS TO 1.00 MIN RADIUS
- FOR AERODYNAMIC SMOOTHNESS REQUIREMENT REFER TO 51-4-1
- IN THE FUSELAGE CAVITY, MAXIMUM ALLOWABLE CROSS SECTION AREA REMOVED INCLUDING ALL EXISTING HOLES SHALL NOT EXCEED 15% OF THE TOTAL CROSS SECTIONAL AREA (SKIN AND CONTIGUOUS INTERNAL STRUCTURE) IN ANY LOCAL REGION EXCEPT IN THE CROWN AREA BETWEEN BS 600 AND BS 1160, S-6LH AND S-6RH WHERE ONLY 10% OUT IS ALLOWED
- MAXIMUM DEPTH OF SCRATCH OR GOUGE NOT TO EXCEED 1/4 MATERIAL THICKNESS PROVIDING REQUIREMENTS IN ABOVE PARAGRAPH ARE MAINTAINED. ROUND OUT AND TREAT ALL SCRATCHES AND GOUGES PER DETAIL I
- MAINTAIN EDGE MARGIN ON ALL FASTENERS

[A] MAXIMUM OF DEPTH OF A SCRATCH OR GOUGE IN THE SKIN AND PRESSURE WEBS, IS NOT TO EXCEED THAT GIVEN IN FIG. 2. ROUND OUT AND TREAT ALL SCRATCHES AND GOUGES PER DETAIL I. FOR ADDITIONAL LIMITATIONS AND REPAIR INFORMATION SEE FIG. 2

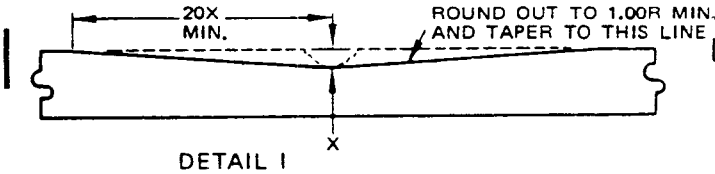
[B] AFTER CLEAN UP

[C] SMOOTH DENTS IN THE FUSELAGE SKIN WHICH DO NOT EXCEED THE LIMITS ESTABLISHED BY FIG. 4 AND WHICH HAVE NO PULLED OR LOOSE RIVETS, CREASES, GOUGES OR CRACKS ARE CONSIDERED ALLOWABLE. REPAIR DENTS WHICH EXHIBIT PULLED OR LOOSE RIVETS, CREASES, GOUGES OR CRACKS PER FIG. 2

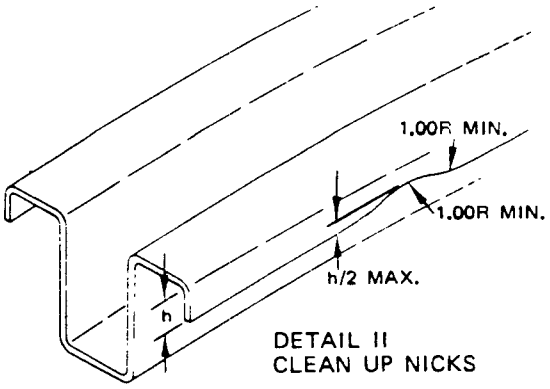
[D] PLUG HOLES WITH RIVETS

[E] PLUG ONLY IF OUTSIDE THE CENTER HALF OF WEB WIDTH. PLUG WITH RIVETS TO MAX. DIA OF 0.25. BEYOND THIS DIA. PLUG WITH 5056 SLUGS INSTALLED WET WITH PRIMER. IF MATERIAL IS 2024 DO NOT INSTALL 5056 SLUGS

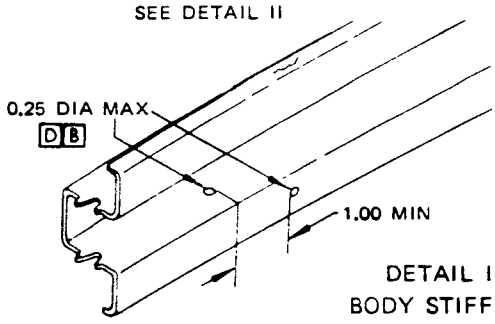
[F] FOR REPAIR OF LIGHTNING STRIKE DAMAGE SEE 53-3-2, FIG. 22



DETAIL I
SECTION THROUGH GOUGE

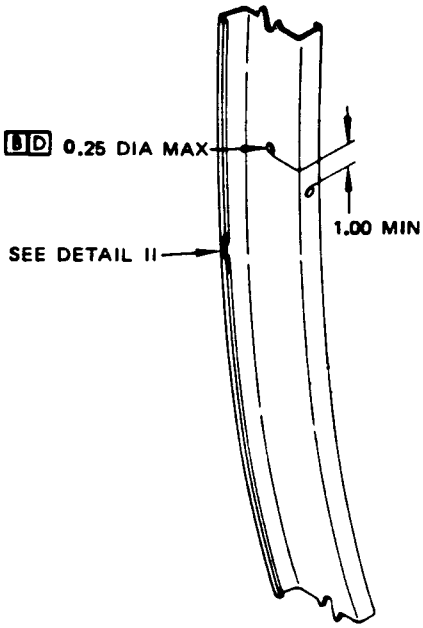


DETAIL II
CLEAN UP NICKS

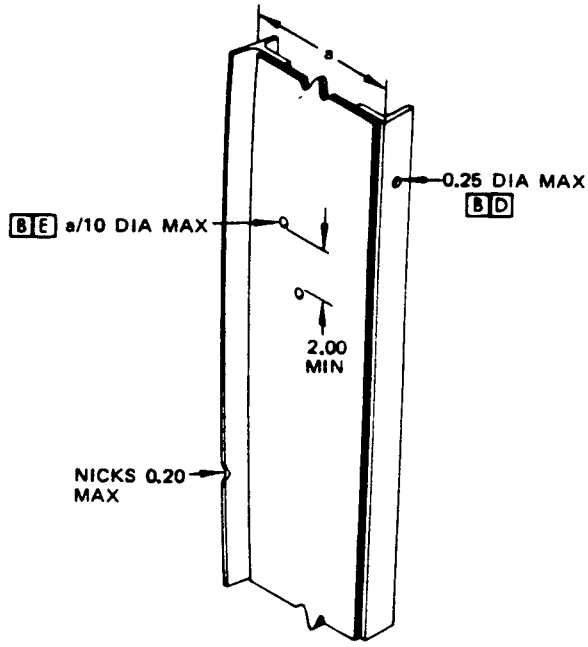


DETAIL III
BODY STIFFENERS

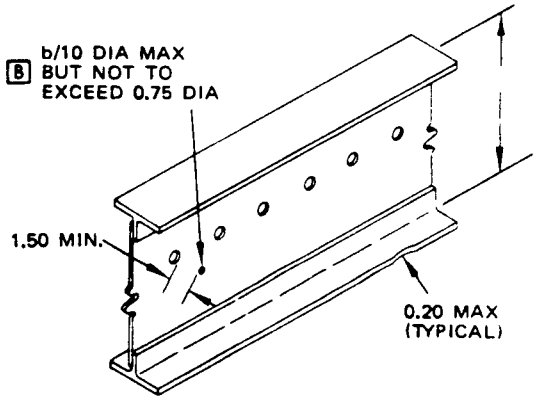
Allowable Damage - Fuselage
Figure 1 (Sheet 2)



DETAIL IV
ZEE FRAMES

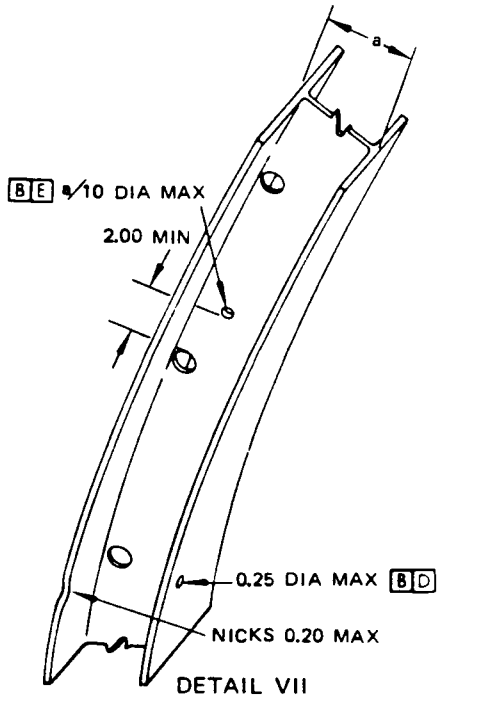


DETAIL V
CHORD AND WEB TYPE FRAMES



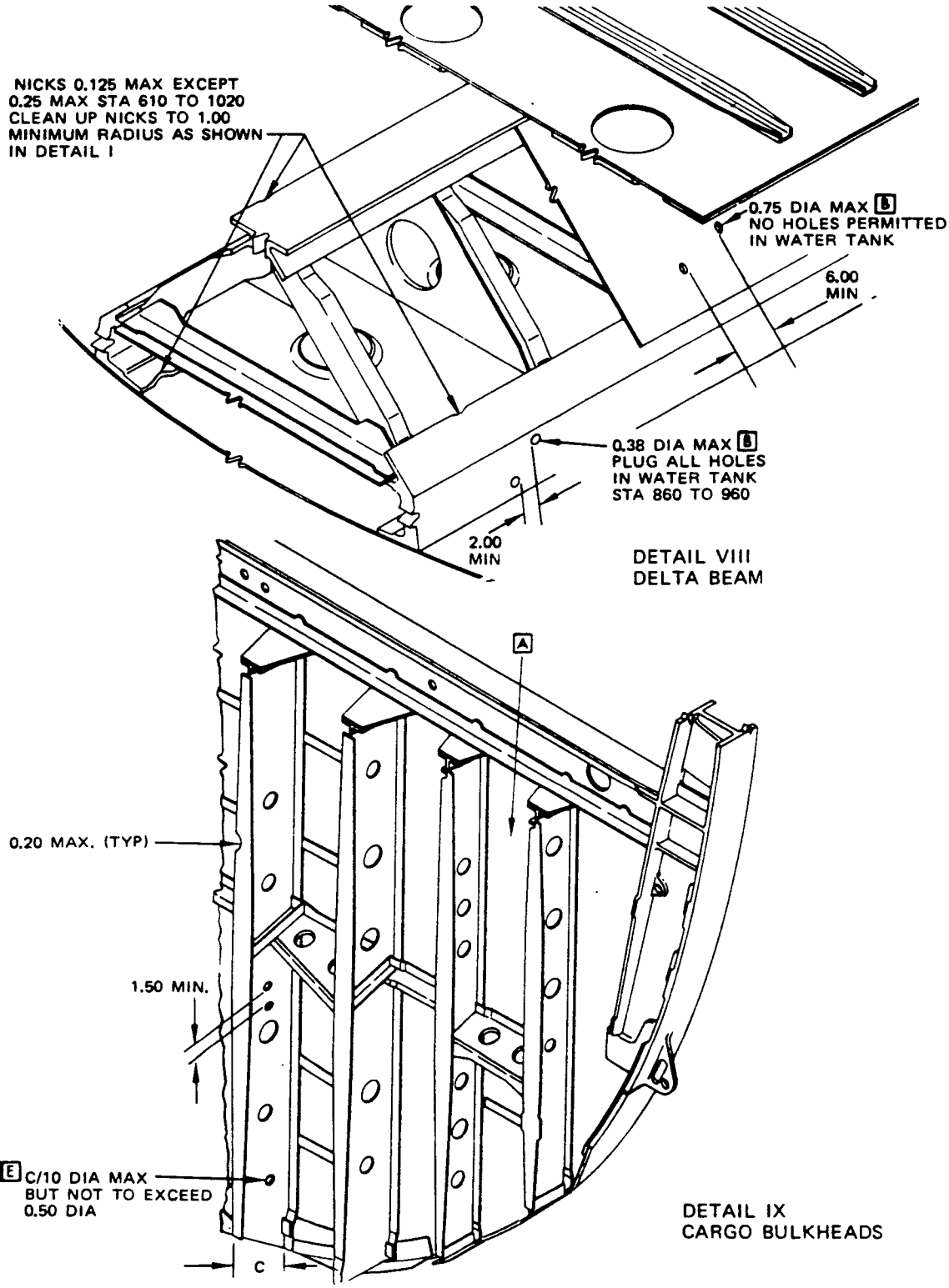
DETAIL VI
FLOOR BEAMS

FWD

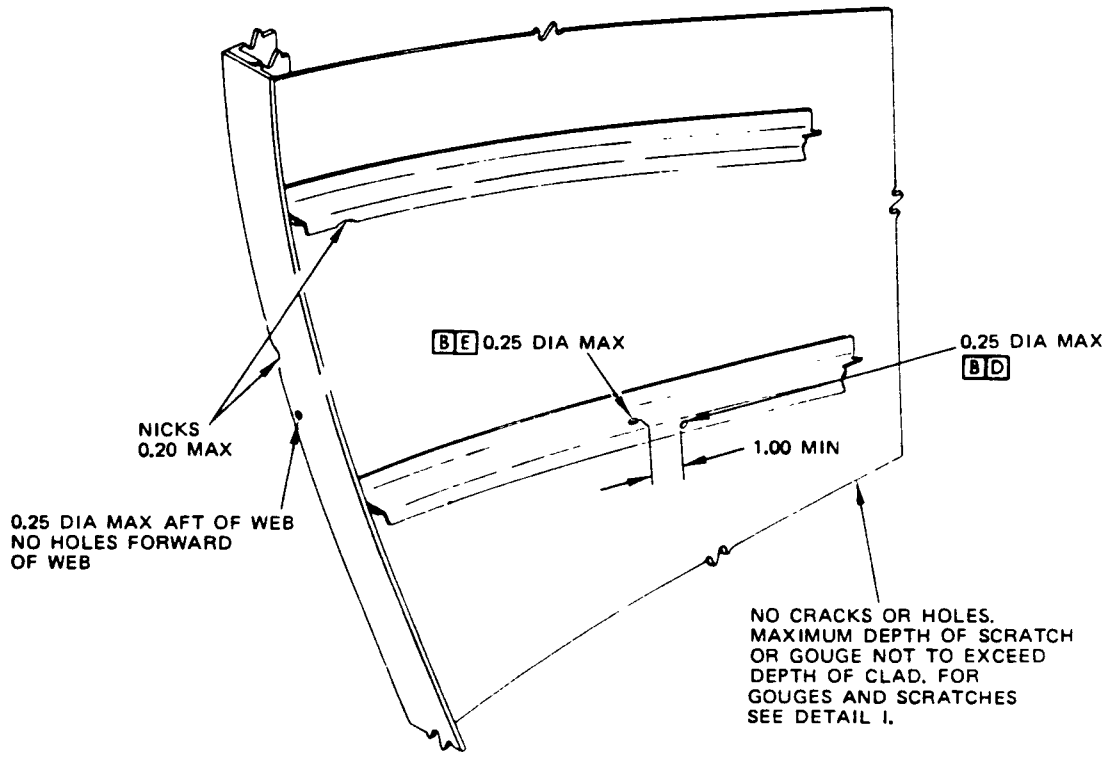


DETAIL VII
BODY BULKHEAD FRAMES

Allowable Damage - Fuselage
Figure 1 (Sheet 3)

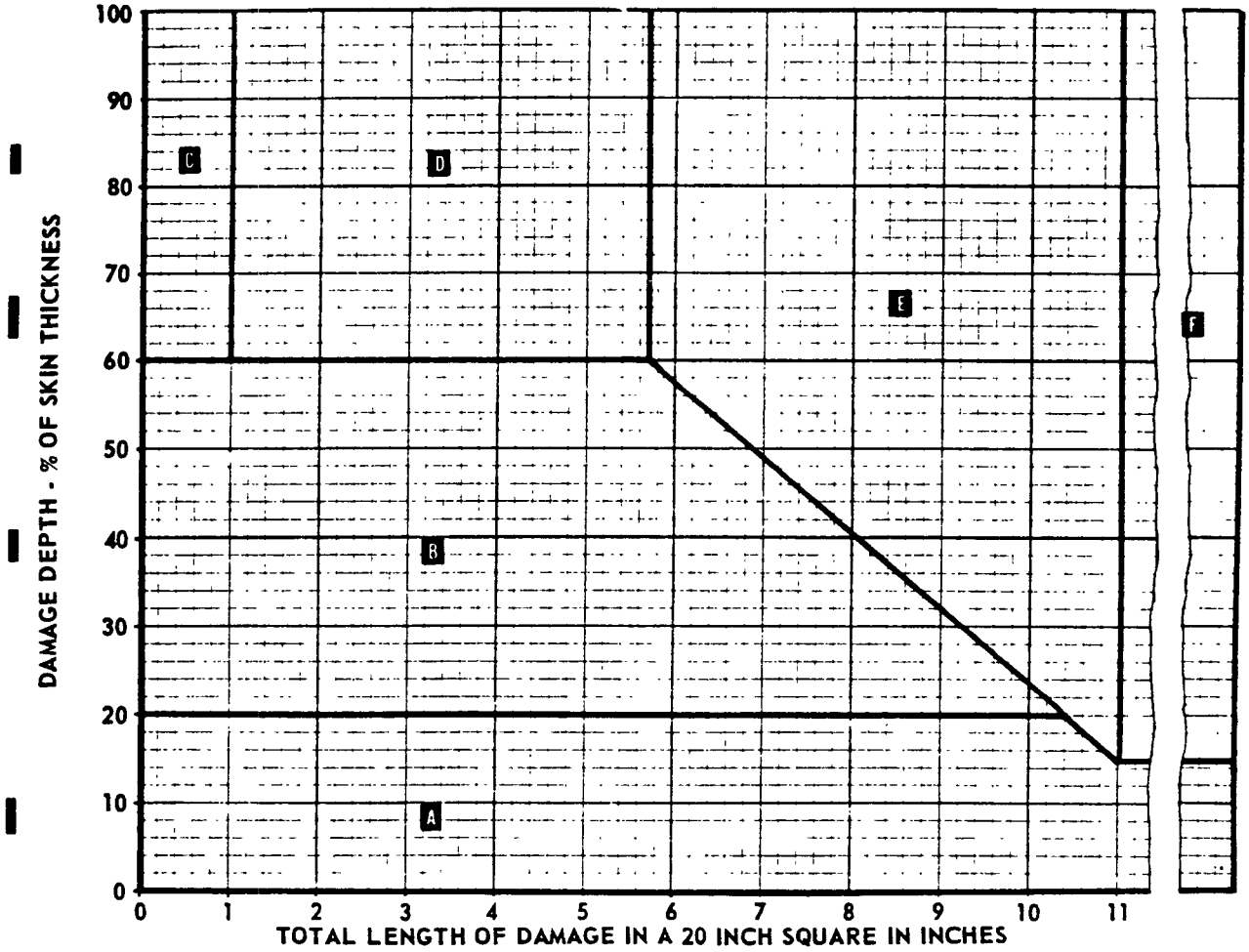


Allowable Damage - Fuselage
Figure 1 (Sheet 4)



DETAIL X
PRESSURE BULKHEAD

Allowable Damage - Fuselage
Figure 1 (Sheet 5)



NOTE

A CLEAN UP PER 53-2-1 FIGURE 1 DETAIL I, PERMITS UNLIMITED OPERATION.

B CLEAN UP PER 53-2-1 FIGURE 1 DETAIL I, PERMITS OPERATION LIMITED TO 50 HOURS. AFTER 50 HOURS, REPAIR PER 53-3-2 FIGURES 1 THROUGH 6, EXCEPT AS MODIFIED BY FIGURE 3.

C REPAIR PER 53-3-2 FIGURE 10, EXCEPT AS MODIFIED BY FIGURE 3.

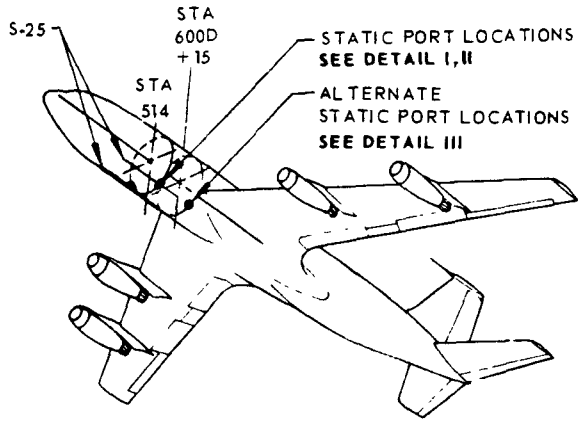
D CLEAN UP DAMAGE. STOP DRILL .25 INCH MINIMUM DIAMETER THE ENDS OF ALL CRACKS OR TEARS. IT IS PERMISSIBLE TO FLY THE AIRPLANE ON A NON-REVENUE FERRY FLIGHT FOR REPAIRS, WITH A MAXIMUM CABIN PRESSURE DIFFERENTIAL OF 5.8 PSIG. REPAIR PER 53-3-2 FIGURES 1 THROUGH 6, EXCEPT AS MODIFIED BY FIGURE 3.

E CLEAN UP DAMAGE. STOP DRILL .25 INCH MINIMUM DIAMETER, THE ENDS OF ALL CRACKS OR TEARS. IT IS PERMISSIBLE TO FLY THE AIRPLANE ON A NON-REVENUE FERRY FLIGHT FOR REPAIRS, PROVIDED THE FOLLOWING ARE COMPLIED WITH:

1. NOTIFY BOEING AIRPLANE COMPANY, TRANSPORT DIVISION, STRUCTURES STAFF, PRIOR TO THE FLIGHT.
2. MAXIMUM CABIN PRESSURE DIFFERENTIAL IS NOT TO EXCEED ZERO PSIG.
3. REPAIR PER 53-3-2 FIGURES 1 THROUGH 6, EXCEPT AS MODIFIED BY FIGURE 3, AFTER FLIGHT.

F APPROVAL OF BOEING AIRPLANE COMPANY TRANSPORT DIVISION, STRUCTURES STAFF IS REQUIRED PRIOR TO ANY FLIGHT.

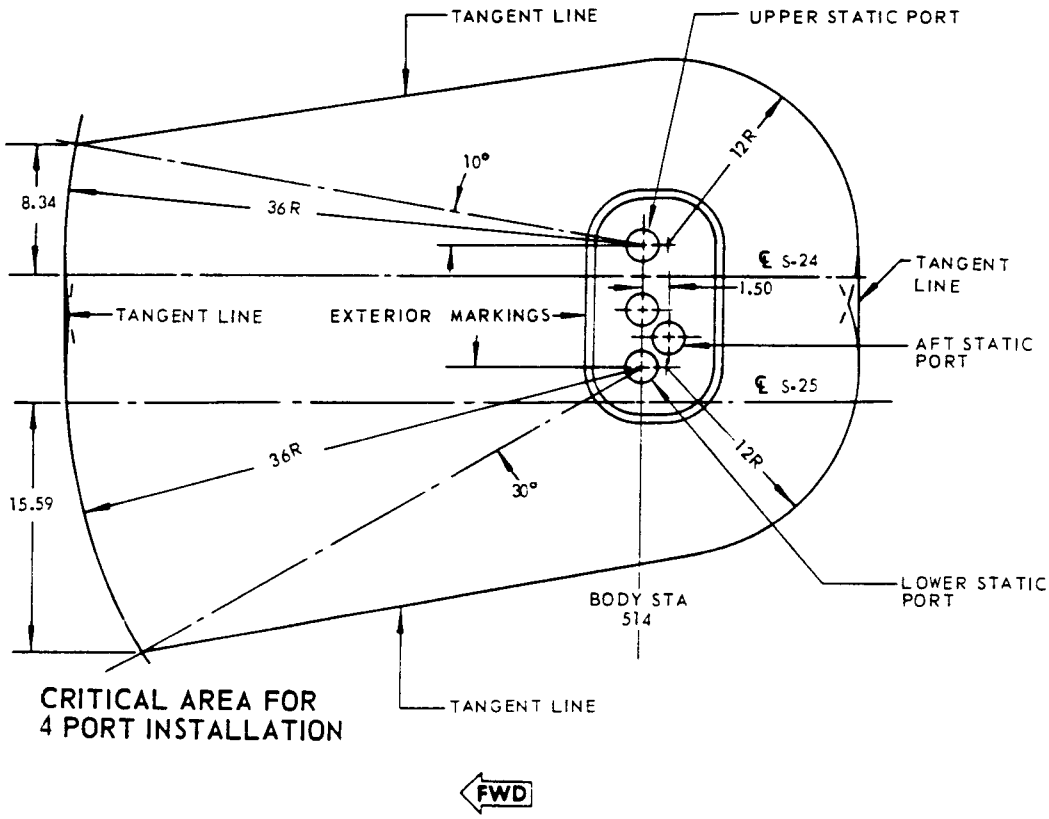
Damage Limitations for Fuselage Skins
Figure 2



NOTE

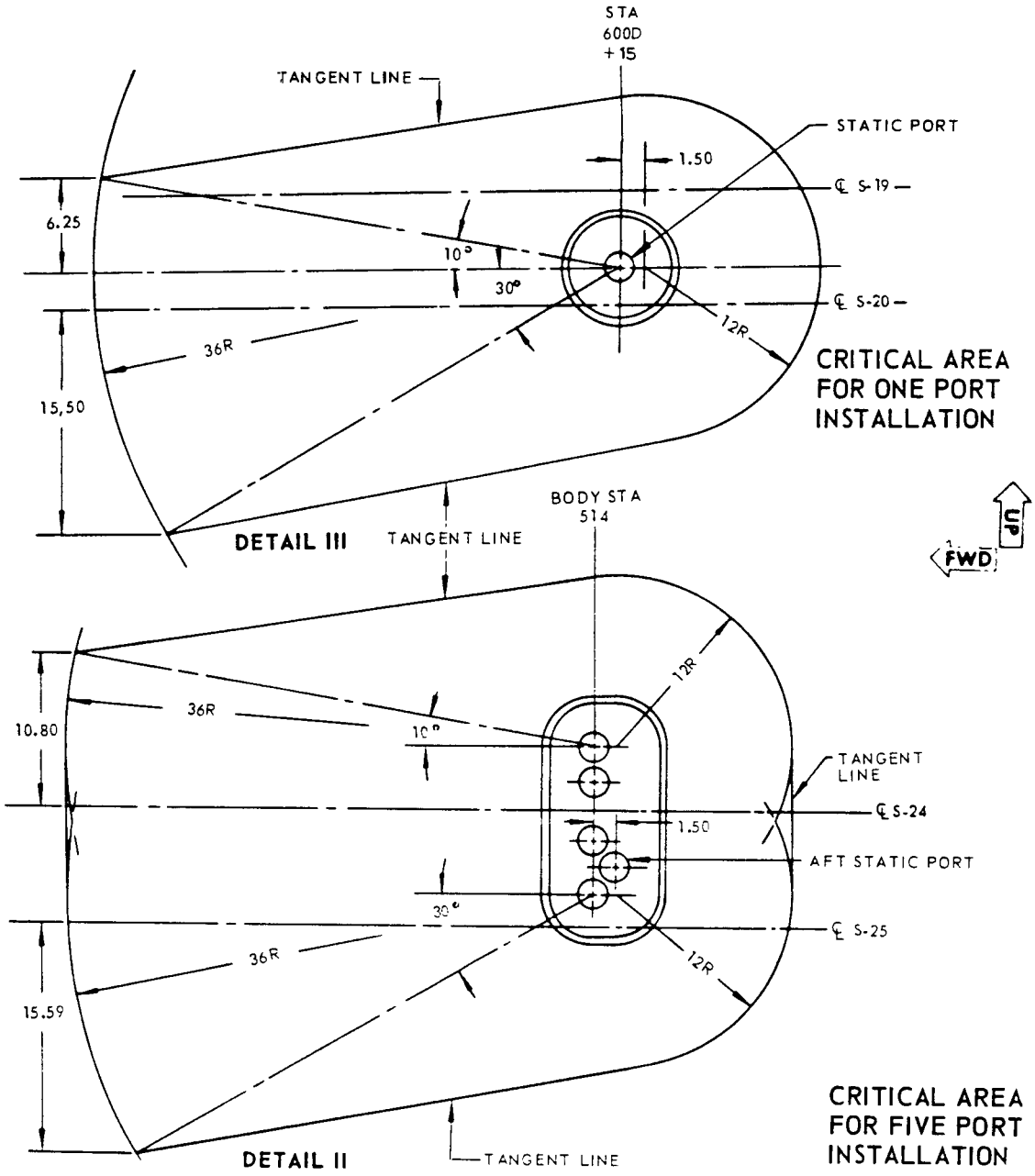
- FOR INSTALLATION OR REPLACEMENT OF STATIC PORTS SEE 34-2-31 OF THE MAINTENANCE MANUAL.
- SEE DETAILS FOR TYPICAL STATIC PORT INSTALLATIONS. INSTALL FLUSH SKIN REPAIRS PER 53-3-2 FIGURES 2, 4 OR 6 AS APPLICABLE, WHEREVER PRACTICAL. THE EXTERIOR SURFACE OF A STATIC PORT WITHIN A THREE-INCH RADIUS OF THE PORT SHALL BE FLUSH WITHIN 0.015 INCH MAXIMUM MEASURED AS A CLEARANCE BETWEEN THIS SURFACE AND THE EDGE OF A SIX INCH STRAIGHT EDGE PLACED HORIZONTALLY AGAINST THE SURFACE AND CENTERED ON THE PORT CENTERLINE. THIS MEASUREMENT SHALL BE TAKEN ACROSS THE CENTER OF THE PORT AND ONE INCH ABOVE AND BELOW THE PORT. ALL RIVETS WITHIN A THREE-INCH RADIUS OF EACH PORT SHALL BE FLUSH WITH THE SKIN WITHIN .005 MAXIMUM.
- WHERE SUCH FLUSH SKIN INSTALLATIONS ARE IMPRACTICAL, NONFLUSH PATCHES ARE PERMISSIBLE PROVIDED THE FOLLOWING LIMITATIONS ARE NOT EXCEEDED:
  1. ANY EDGE OR CORNER OF A PROTRUDING PATCH MUST NOT BE LOCATED WITHIN THE CRITICAL AREA SHOWN.
  2. PATCH MATERIAL GAGE MUST NOT EXCEED .080.
  3. PATCH EDGES MUST BE BEVELED PER 53-3-2 FIGURE 1.

Damage Limitations for Fuselage Skin in Vicinity of Static Pressure Ports (Section 43 Fwd)
Figure 3 (Sheet 1 of 3)

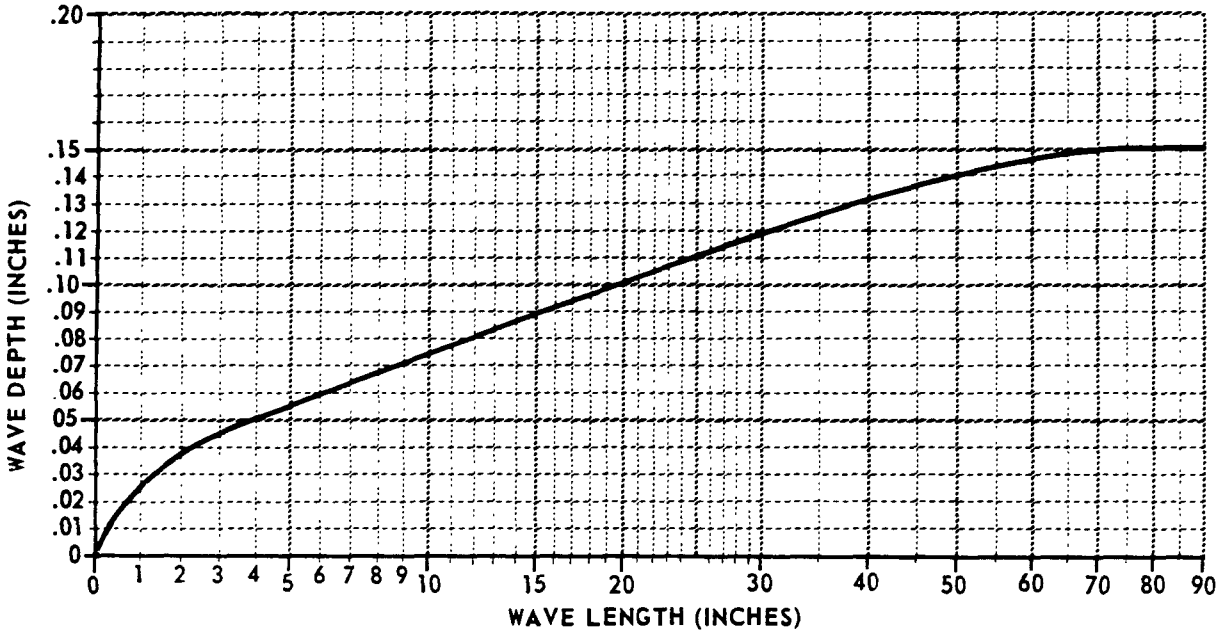


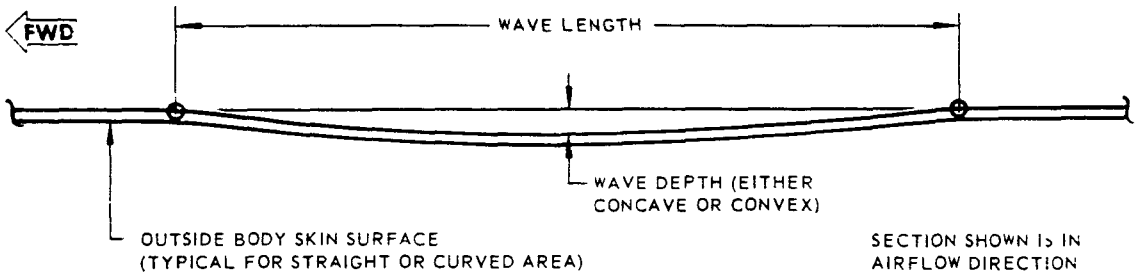
DETAIL I

Damage Limitations for Fuselage Skin in Vicinity of Static Pressure Ports (Section 43 Fwd)
Figure 3 (Sheet 2 of 3)



Damage Limitations for Fuselage Skin in Vicinity of
Static Pressure Ports (Section 43 Fwd)
Figure 3 (Sheet 3 of 3)





NOTE

DENT LIMITATIONS FOR FUSELAGE AND DOOR SKIN STA 178-1440

1. AERODYNAMIC SKIN SMOOTHNESS REQUIREMENT OVER CONTINUOUS SKIN FOR OPTIMUM PERFORMANCE OF A PRODUCTION AIRPLANE IS INDICATED BY THE LIMITS SHOWN ON THE CURVE EXCEPT AS SHOWN IN 4.

2. IF DENTS EXCEED THE LIMITS OF THE CURVE AND THERE IS NO EVIDENCE OF SHEARED OR LOOSE FASTENERS OR ELONGATED HOLES AT FASTENERS IN THE DENT AREA AND IT IS NOT POSSIBLE TO MAKE AN IMMEDIATE REPAIR, THEN PERIODICALLY EXAMINE THE DENT FOR POSSIBLE DEVELOPMENT OF CORROSION AND FATIGUE CRACKS.

   CAUTION: DO NOT FILL DENTS WHICH EXCEED THE ABOVE LIMITS SHOWN ON THE CURVE.

3. IF FATIGUE CRACKS DEVELOP IN THE DENT AREA EVALUATE THE DAMAGE AND REPAIR AS OUTLINED IN FIGURE 2.

4. A DENT IN THE VICINITY OF A STATIC PORT WITHIN A THREE-INCH RADIUS OF THE PORT SHALL NOT EXCEED 0.015 INCH MAXIMUM MEASURED AS A CLEARANCE BETWEEN THE DENT AND THE EDGE OF A SIX INCH STRAIGHT EDGE PLACED HORIZONTALLY AGAINST THE DENT AND CENTERED ON THE PORT CENTERLINE. THIS MEASUREMENT SHALL BE TAKEN ACROSS THE CENTER OF THE PORT AND ONE INCH ABOVE AND BELOW THE PORT.

Dent Limitations for Fuselage and Door Skin (Sta 178-1440)
Figure 4

REPAIR INSTRUCTIONS

1. Mechanically remove corrosion from seat tracks by using aluminum oxide abrasive paper or other acceptable tools per 51-13-1, Fig. 1.

2. Vacuum clean to remove residue.

3. Clean the reworked area with solvent.

4. Alodize per 51-8-0 and finish with special primer per BMS 10-11, type 1.

   WARNING: SINCE THE SOLUTION CONTAINS CHROMIC ACID, CARE SHOULD BE TAKEN TO AVOID SKIN CONTACT.

   CAUTION: ALODINE MAY STAIN FABRICS, THEREFORE A MASK OVER NEAR-BY FLOOR COVERING IS RECOMMENDED. REMOVE THE CARPETING IF REQUIRED.

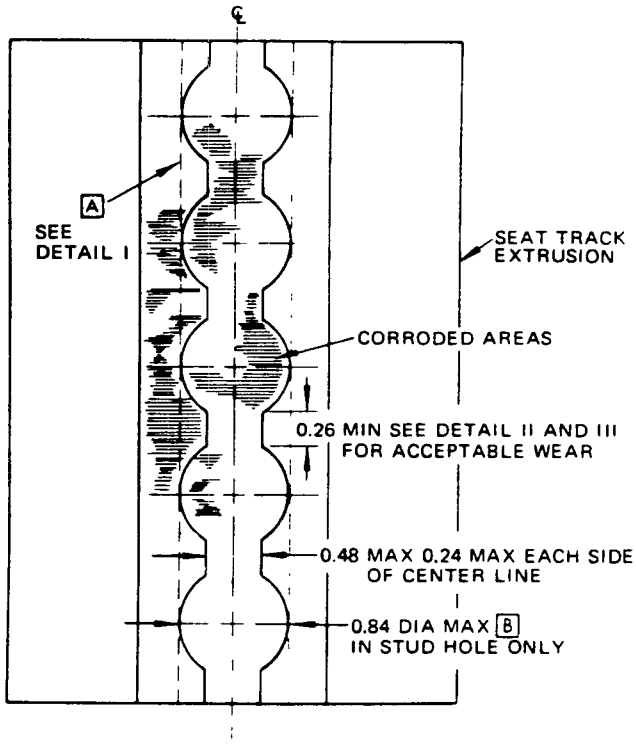
NOTE

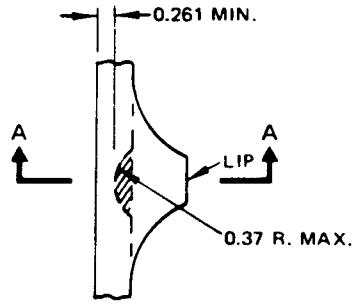
- NO HOLES ALLOWED OTHER THAN THOSE REQUIRED FOR MANUFACTURING.

[A] SEE DETAIL I FOR MAXIMUM CLEAN-UP IN THIS AREA.

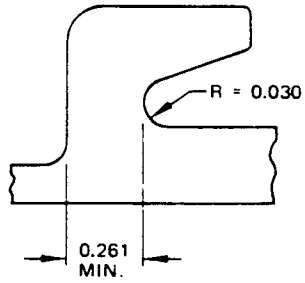
[B] DIMENSION FOR STUD HOLE ONLY. DOES NOT APPLY TO "LIP" REGION.

[C] DIMENSION AFTER DAMAGE REMOVAL.

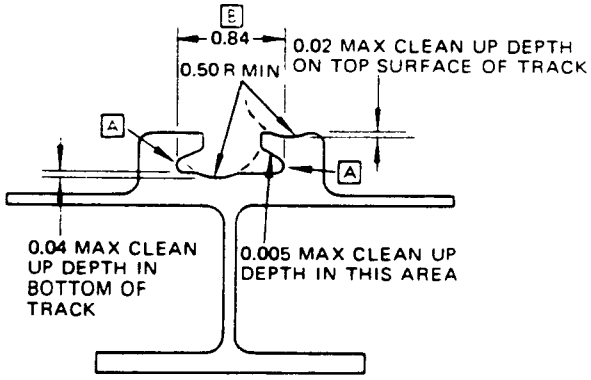




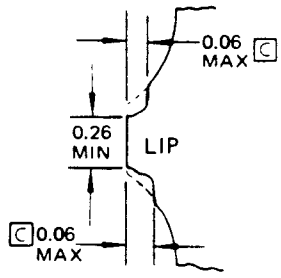
DETAIL I



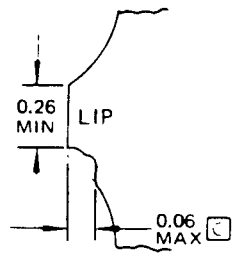
SECTION A–A



SECTION THROUGH CLEAN UP



DETAIL II



DETAIL III

ALLOWABLES SHOWN ARE THE SAME FOR SECTION OF SEAT TRACK OVER THE WING

Allowable Damage - Fuselage Seat Track
Figure 5 (Sheet 2)

REPAIR INSTRUCTIONS

1. Mechanically remove gouges, burrs, or corrosion from fitting by using aluminum oxide abrasive paper or other acceptable tools per 51-13-1 fig. 1.
2. Vacuum clean to remove residue.
3. Clean the reworked area with solvent.
4. Alodize per 51-8-0 and finish with special primer per BMS-10-11 Type 1.

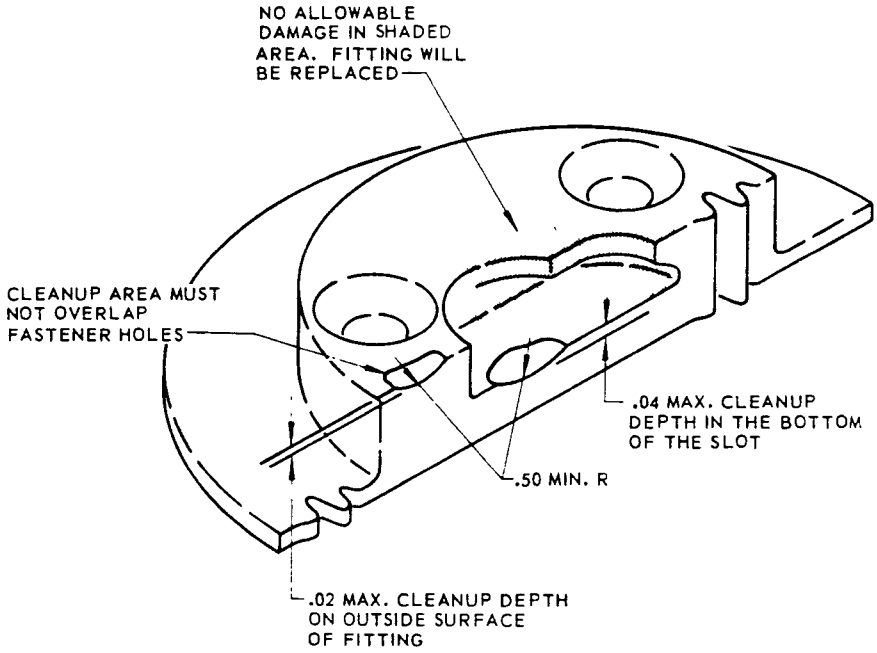
CAUTION: SINCE THE SOLUTION CONTAINS CHROMIC ACID CARE SHOULD BE TAKEN TO AVOID SKIN CONTACT.

NOTE

NO CRACKS ALLOWED

NO HOLES ALLOWED OTHER THAN THOSE REQUIRED FOR MANUFACTURING.

DAMAGE BEYOND THE ALLOWABLE DAMAGE DESCRIBED, REQUIRES REPLACEMENT OF THE FITTING OR REMOVAL.



EFFECTIVITY
ALL CARGO AIRPLANES

Allowable Damage - Cargo Tie Down Fitting
Figure 6

NOTES

- THESE LIMITS ARE VALID FOR 707-320, -420, -320B AND -320C AIRPLANES
- WHEN CORROSION OR SKIN DAMAGE EXCEEDS THE ALLOWABLE LIMITS OF NOTE [A] , REPAIR AS DETAILED IN 53-3-2, FIG. 21

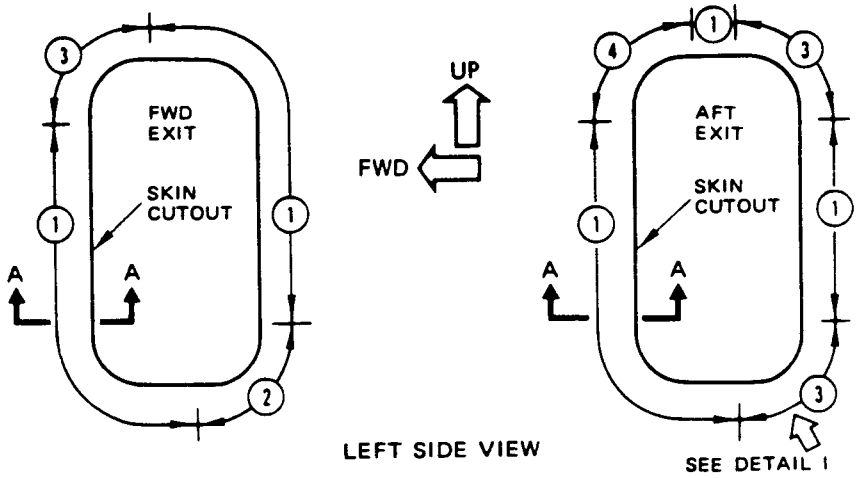
[A] WIDTH OF CLEANUP APPLIES ONLY TO DAMAGE WHICH IS CONTAINED WITHIN THE LESSER OF THE FOLLOWING WIDTHS:

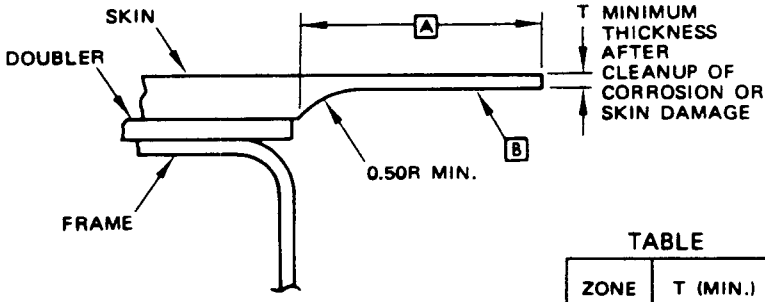
a. 1.5 inches from the edge of skin

b. Edge of skin to edge of doubler

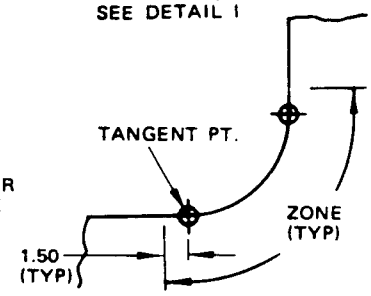
c. Edge of skin to edge of frame

[B] FILL CLEANUP AREA WITH BMS 5-28 TYPE 3 AS REQUIRED TO PROVIDE SMOOTH SURFACE FOR DOOR SEAL





SECTION A–A



DETAIL I

TABLE

ZONE	T (MIN.)
1	0.080
2	0.120
3	0.150
4	0.220

Allowable Damage - Fuselage Skin - Corrosion
Removal at Emergency Exit Cutouts
Figure 7 (Sheet 1)

NOTES

[A] FOR AIRPLANES:
AF 17613
BA 17703
PA 17592 THRU 17599
TW 17673

[B] FOR ALL TURBOJET AIRPLANES NOT LISTED IN NOTE [A]

[C] FOR AIRPLANES:
AF 17613 THRU 17618
AI 17722 THRU 17724
BA 17703 THRU 17706
LH 17718 THRU 17720
PA 17674, 17677, 17680, 17683, 17592 THRU 17606
RG 17905
SN 17623 THRU 17625
TW 17673, 17675, 17676, 17678, 17679, 17681, 17682, 17684

[D] FOR ALL TURBOJET AIRPLANES NOT LISTED IN NOTE [C]

[E] FOR AIRPLANES:
AF 17613 THRU 17622, 17918 THRU 17922
AI 17722 THRU 17724
BA 17703 THRU 17710
LH 17718 THRU 17721
PA 17674, 17677, 17680, 17683, 17686, 17689, 17592 THRU 17608
RG ALL TURBOJETS
SA ALL TURBOJETS
SN 17623 THRU 17626
TW ALL TURBOJETS

[F] FOR ALL TURBOJET AIRPLANES NOT LISTED IN NOTE [E]

[G] FOR PA 17592 AND 17593 AIRPLANES ONLY

[H] FOR ALL AIRPLANES NOT LISTED IN NOTE [G]

[J] FOR BA 18413 AIRPLANE ONLY

[K] FOR ALL TURBOJET AIRPLANES EXCEPT BA 18413

[L] FOR ALL TURBOJET AIRPLANES EXCEPT BA 18413 AND THOSE LISTED IN NOTE [C]

[M] REFER TO 53-2-1, FIG. 2 NOTE [C]

[N] FOR CUM LINE NUMBER 13 IF NOT COVERED IN [S]

[P] FOR ALL TURBOJET AIRPLANES EXCEPT CUM LINE NUMBER 13 IF NOT COVERED IN [S]

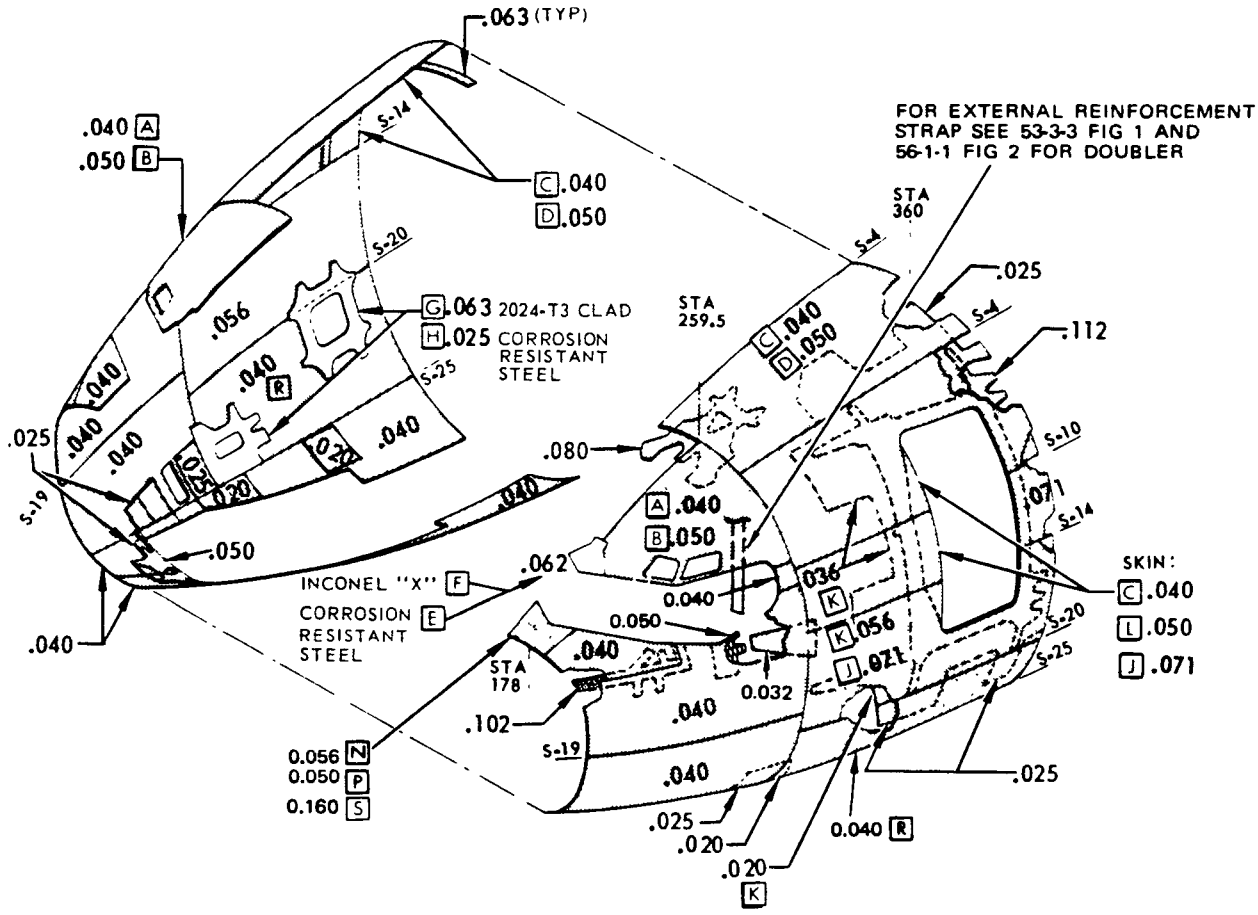
[R] ON AIRPLANES WITH SKIN REPLACEMENT PORTION OF SB 295 INCORPORATED THE 0.040 SKIN IS REPLACED WITH 0.050 SKIN

[S] ON AIRPLANES WITH PREVENTIVE MODIFICATION OF SB 3393 INCORPORATED

Section 41 Skin Materials Identification
Figure 1 (Sheet 1)

SKIN REPAIR INDEX	
LOCATION OF DAMAGE	REPAIR FIG. NO.
BETWEEN STRINGERS	53-3-2 FIG. 1, 2,10 & 19 [M]
AT STRINGERS	53-3-2 FIG. 3 & 4
AT LAP JOINT	53-3-2 FIG. 5 & 6
SPOTWELDED SKIN	53-3-2 FIG. 14
AT WINDOW FRAME EDGES	53-3-2 FIG. 15

	CLAD 2024-T3 OR CLAD 2024-T4
	CLAD 7075-T6
	CORROSION RESISTANT STEEL



Section 41 Skin Materials Identification
Figure 1 (Sheet 2)

NOTES

[A] FOR CUM LINE NUMBERS:
13, 20, 58, 61, 62, 68, 70, 71, 75, 76, 83, 84, 91, 98, 107, 121, 122

[B] FOR CUM LINE NUMBERS:
35, 101, 112, 113, 127, 128, 144, 145, 163, 164, 169, 170, 171, 175, 176, 209, 212, 217, 266, 330, 334

[C] FOR CUM LINE NUMBERS:
65, 81, 82, 90, 93, 94, 100, 105, 106, 110, 111, 115, 126, 138, 151, 152, 153, 159, 160, 161, 162, 167, 168, 192, 200, 205, 216, 264, 269, 271, 272, 274, 275, 282, 283, 293, 302, 328, 353

[D] FOR CUM LINE NUMBERS:
78, 92, 99, 114, 118, 129, 133, 134, 154, 155

[E] FOR CUM LINE NUMBERS:
35, 69, 73, 74, 79, 80, 86, 88, 89, 90, 101, 103, 104, 106, 112, 113, 115, 116, 117, 123, 124, 125, 127, 128, 135, 136, 137, 144, 145, 162, 163, 164, 169, 170, 171, 175, 176, 192, 205, 216, 266, 271, 272, 302, 330, 334

[F] FOR CUM LINE NUMBERS:
13, 20, 35, 58, 61, 62, 65, 68 THRU 71, 73 THRU 76, 78 THRU 84, 86, 88 THRU 94, 98 THRU 101, 103 THRU 107, 110 THRU 117

[G] FOR CUM LINE NUMBERS:
118, 121 THRU 129, 133 THRU 139, 144, 145, 151 THRU 155, 159 THRU 164, 167 THRU 171, 175, 176, 192, 200, 205, 209, 212, 216, 217, 264, 266, 269, 271, 272, 274, 275, 282, 283, 293, 302, 328, 330, 334, 353

[H] FOR AIRPLANES WITH SKIN REPLACEMENT PORTION OF SB 2951 INCORPORATED, THE 0.040 SKIN IS REPLACED WITH 0.050 SKIN

[J] FOR CUM LINE NUMBERS:
35, 90, 94, 100, 101, 105, 106, 112 THRU 115, 127, 128, 129, 144, 145, 162, 163, 164, 169, 170, 171, 175, 176, 192, 200, 205, 216, 266, 271, 272, 282, 302, 330, 334, 353

[K] TYPICAL BOTH LEFT AND RIGHT SIDE

[L] FOR AIRPLANES WITH SKIN REPLACEMENT PORTION OF SB 2951 INCORPORATED, THE 0.040 SKIN IS REPLACED WITH 0.050 SKIN MACHINED FROM 0.071

[M] FOR AIRPLANES WITH SKIN REPLACEMENT PORTION OF SB 2951 INCORPORATED, THE 0.040 SKIN IS REPLACED WITH 0.050 SKIN MACHINED FROM 0.080

[N] FOR CUM LINE NUMBERS:
13, 20, 35, 58, 61, 65, 62, 68, 69, 70

[O] FOR AIRPLANES NOT LISTED IN [N]

[P] FOR CUM LINE NUMBERS:
13, 20, 58, 61, 62, 65, 68 THRU 71, 73 THRU 76, 78 THRU 84, 86, 88, 89, 91, 92, 93, 98, 99, 103, 104, 107, 110, 111, 116, 117, 118, 121 THRU 126, 133 THRU 139, 151 THRU 155, 159, 160, 161, 167, 168, 209, 212, 217, 264, 269, 273, 283, 293, 328

[Q] 4130 STEEL HT 180-200 KSI

[R] 0.125 CLAD 2024-T3 EXTERNAL DOUBLER AT STA 820, S-10 THRU S-14 ON AIRPLANES WITH PREVENTIVE MODIFICATION PART OF SB 3108 INCORPORATED

NOTES (CONT)

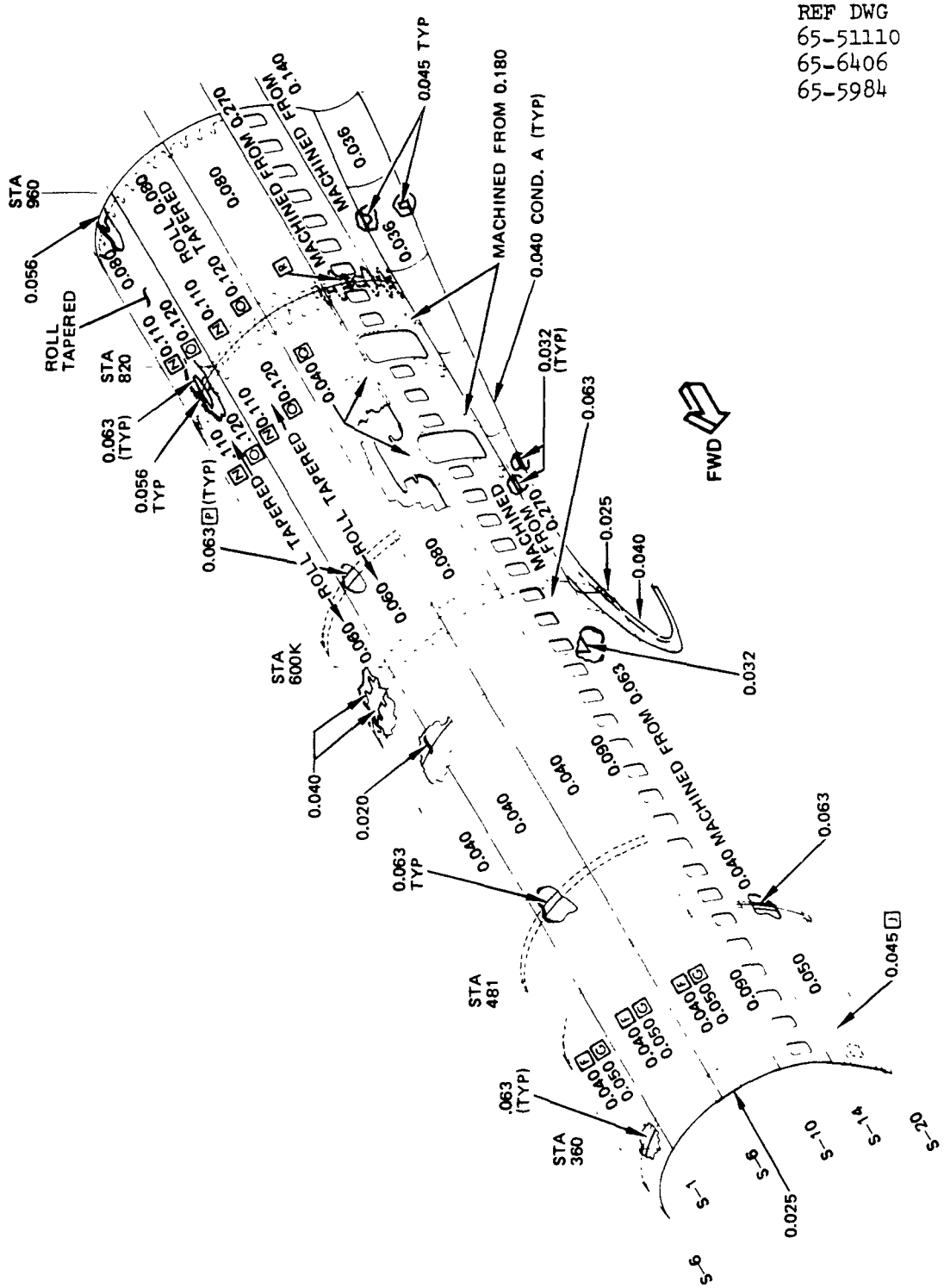
[S] ALSO REFER TO 53-2-1 FIG. 2 FOR AIRPLANES IN [A]

SKIN REPAIR INDEX	
LOCATION OF DAMAGE	REPAIR FIG. NO.
BETWEEN STRINGERS	53-3-2 FIG. 1,2, 10 & 19 [S]
AT STRINGER	53-3-2 FIG. 3 & 4
AT LAPJOINT	53-3-2 FIG. 5 & 6
WING FAIRING	53-3-2 FIG. 12 51-9-2 FIG. 1
SPOTWELDED SKIN	53-3-2 FIG. 14

	CLAD 2024-T3 OR CLAD 2024-T4
	2024-T3 OR 2024-T4
	MAGNESIUM

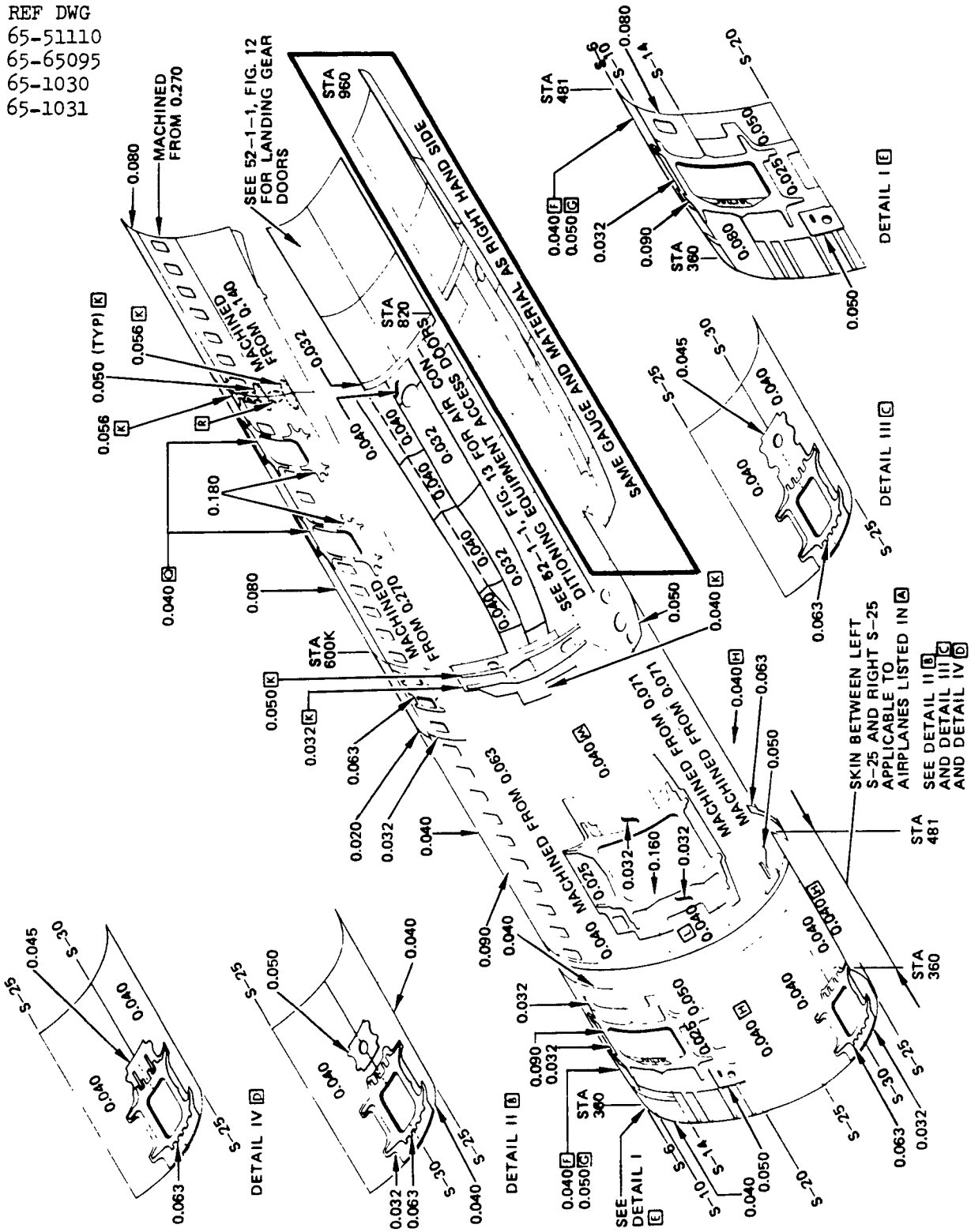
Section 43 Skin Material Identification
Figure 2 (Sheet 2)

REF DWG
65-51110
65-6406
65-5984



Section 43 Skin Material Identification
Figure 2 (Sheet 3)

REF DWG
65-51110
65-65095
65-1030
65-1031



Section 43 Skin Material Identification
Figure 2 (Sheet 4)

NOTES

[A] FOR AIRPLANES NOT LISTED IN

[B] FOR AIRPLANES:
PA 17592 AND 17593

[C] FOR AIRPLANES:
AF 17613
BA 17703
PA 17592 THRU 17601
SN 17623

[D] FOR ALL AIRPLANES EXCEPT THE FOLLOWING:
AF 17613
BA 17703
PA 17592 THRU 17601
SN 17623
TW 17673 THRU 17676

[E] FOR AIRPLANES WITH FLIGHT CHARACTERISTICS IMPROVEMENT PROGRAM EMBODIED (REF SB 844 AND 845)

[F] FOR AI, LY AND RG AIRPLANES

[G] FOR AF, BA, LH, PA 17592 THRU 17608, PA 18083 THRU 18085, SA AND SN AIRPLANES

[H] FOR AIRPLANES:
AF 17613 THRU 17622, 17918 THRU 17924
AI 17722 THRU 17724
BA 17703 THRU 17717
LH 17718 THRU 17721
PA 17592 THRU 17608
RG 17905, 17906
SA 17928 THRU 17930
SN 17627
TW 17673, 17675, 17676, 17678, 17679, 17681, 17682, 17684, 17685, 17687, 17688, 17690

[J] FOR AIRPLANES:
AA 18689 THRU 18692, 18938 THRU 18940, 19235 THRU 19237, 19380 THRU 19384, 19433, 19515 THRU 19519, 19581 THRU 19588
AF 18245 THRU 18247, 18375, 18456 THRU 18459, 18685 THRU 18686, 18881, 18941, 19291, 19292, 19521, 19522, 19723, 19724
AI 18055, 18414, 18415
AV 19741
BA 18372 THRU 18373, 18411 THRU 18413, 18924, 18925, 19488, 19590
BN 19104 THRU 19108, 18440, 19529 THRU 19531
CO 18886, 18887, 19177, 19178, 19350, 19353
EJ 19417, 19664
ET 19736
FT 18975, 18976, 19354, 19355
IN 18737, 18880, 19001, 19410
LA 19000
LH 18056, 18462, 19463, 18819, 18923, 18932, 18937, 18926 THRU 18931, 19315 THRU 19317
LY 18070, 18071, 18357, 19004, 19502
NW 18584 THRU 18586, 18693, 18710, 18746 THRU 18748, 18888, 18889, 18921, 18922, 18964, 19034, 19163, 19164, 19168, 19209, 19210, 19263, 19411, 19412, 19434, 19443, 19631 THRU 19634
OA 19848, 18949, 18950
PA 18083 THRU 18085, 18335 THRU 18339, 18832 THRU 18842, 18956 THRU 18960, 19264 THRU 19266, 19275 THRU 19278, 19361 THRU 19366, 19374, 19376, 19378, 19693 THRU 19698, 18579, 18580, 18591

NOTES (CONTINUED)

[J] (CONTINUED)

18714, 18718, 18765 THRU 18767, 18790, 18824, 19267 THRU 19274, 19467 THRU 19373, 19375, 19377, 19379

[K] FOR AIRPLANES:
TW 17673 THRU 17676

[L] FOR AIRPLANES:
PA 17674, 17677, 17680, 17683, 17686, 17689
TW 17678, 17690

[M] FOR AIRPLANES WITH EDGE PROTECTION ON THE AFT EDGE OF CENTER AND AFT DOOR CUTOUTS INSTALLED IN PRODUCTION AND AIRPLANES WITH SB 2821 INCORPORATED

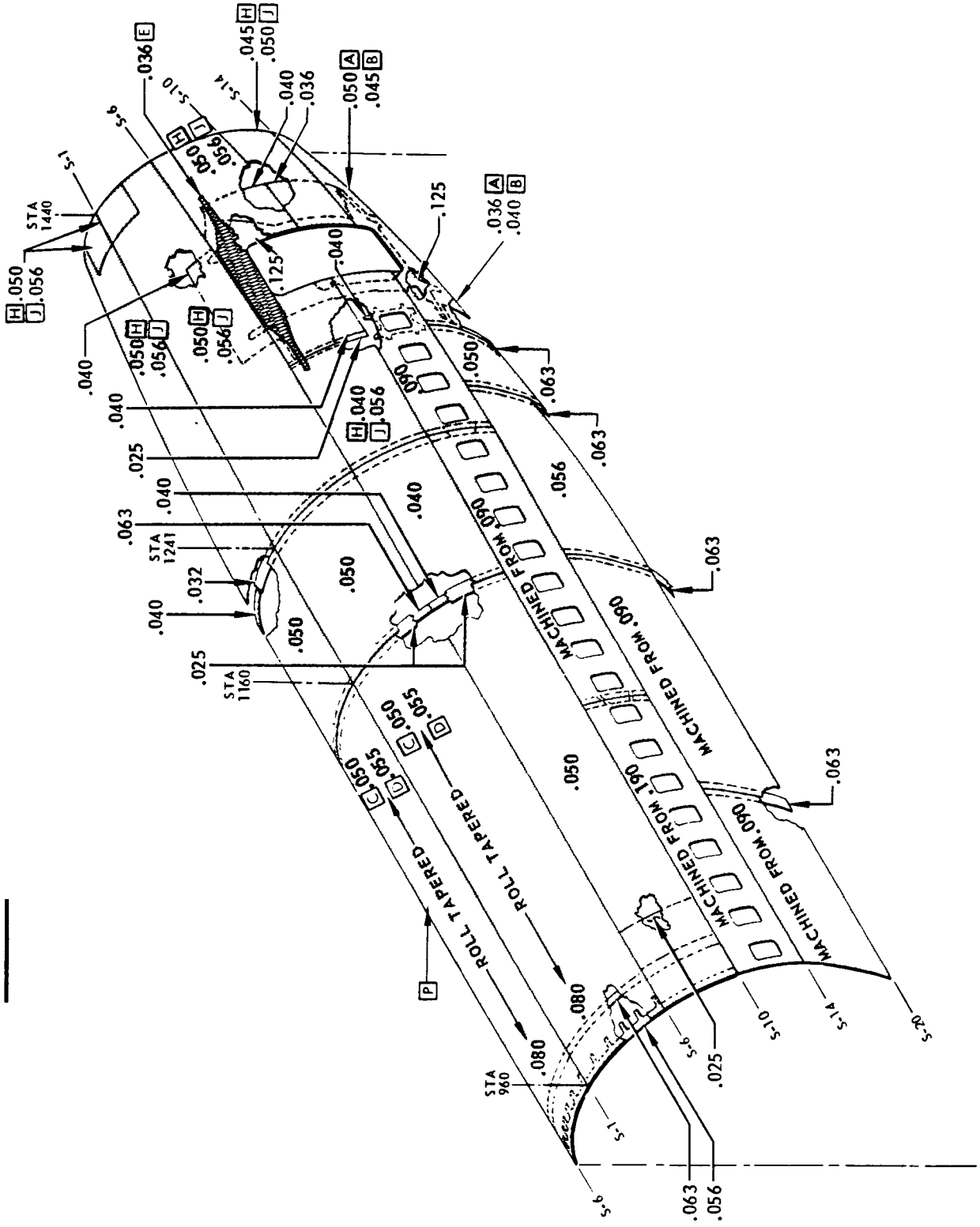
[N] REFER ALSO TO 53-2-1, FIG. 2, NOTE [C] FOR TIME-LIMITED REPAIR OF CLEANED-UP DAMAGE NOT GREATER THAN 1 INCH IN DIAMETER.

[P] 0.250 7075-T6 OR CLAD 7075-T6 EXTERNAL LONGITUDINAL STRAPS BETWEEN S-9L AND S-9R AND BETWEEN STA 960 AND STA 1140 ON AIRPLANES WITH SB 2923 INCORPORATED.

SKIN REPAIR INDEX	
LOCATION OF DAMAGE	REPAIR FIG. NO.
BETWEEN STRINGERS	53-3-2 FIG. 1,2,10 & 19 [N]
AT STRINGER	53-3-2 FIG 3 & 4
AT LAPJOINT	53-3-2 FIG. 5 & 6
WING FAIRING	53-3-2 FIG. 12 51-9-2 FIG. 1
SPOTWELDED SKIN	53-3-2 FIG. 14

	CORROSION RESISTANT STEEL AISI 301 ½ HARD
	CLAD 2024-T3 OR CLAD 2024-T4
	2024-T4
	4130 STEEL

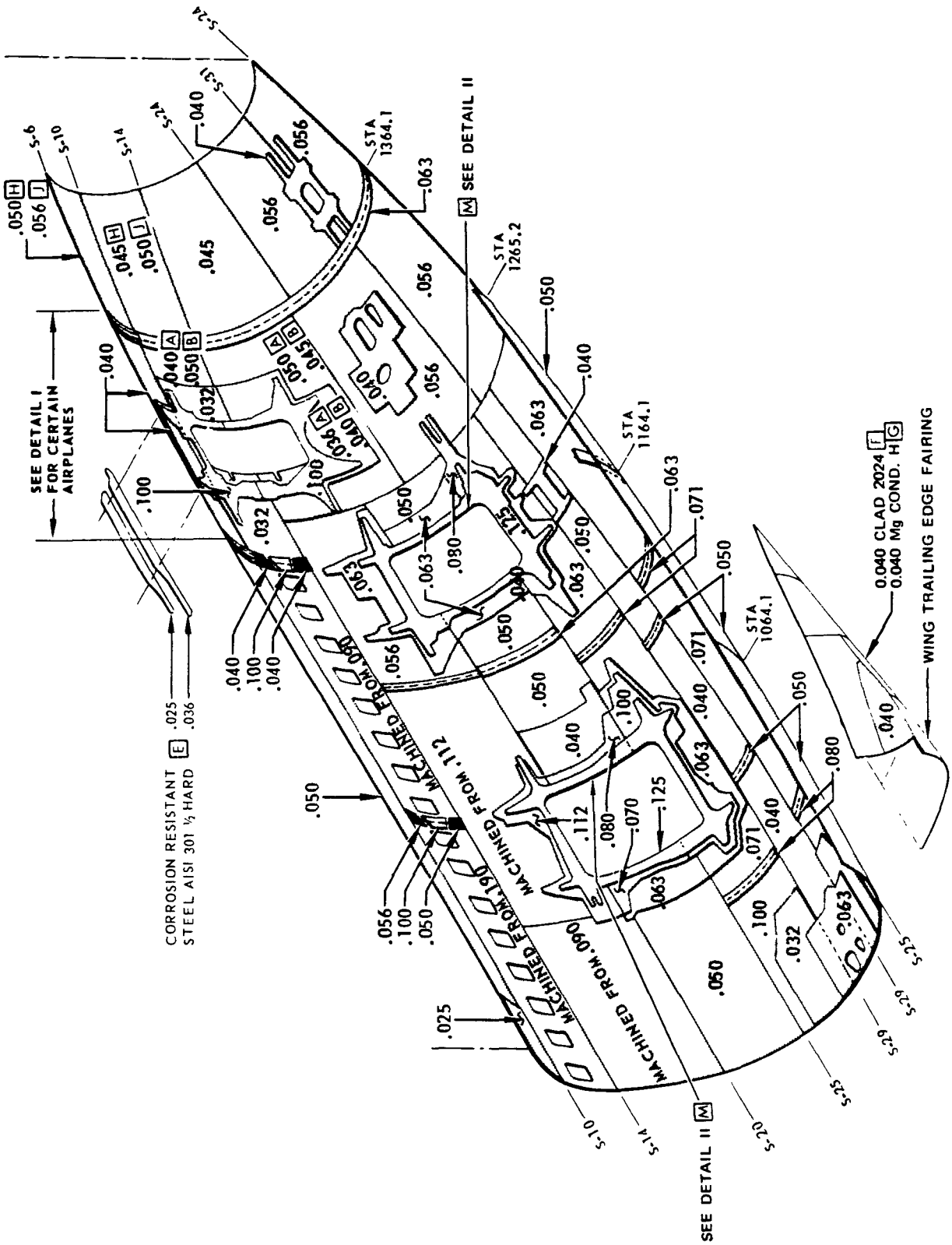
Section 46 Skin Materials Identification
Figure 3 (Sheet 2)



Section 46 Skin Materials Identification
Figure 3 (Sheet 3)

EFFECTIVITY

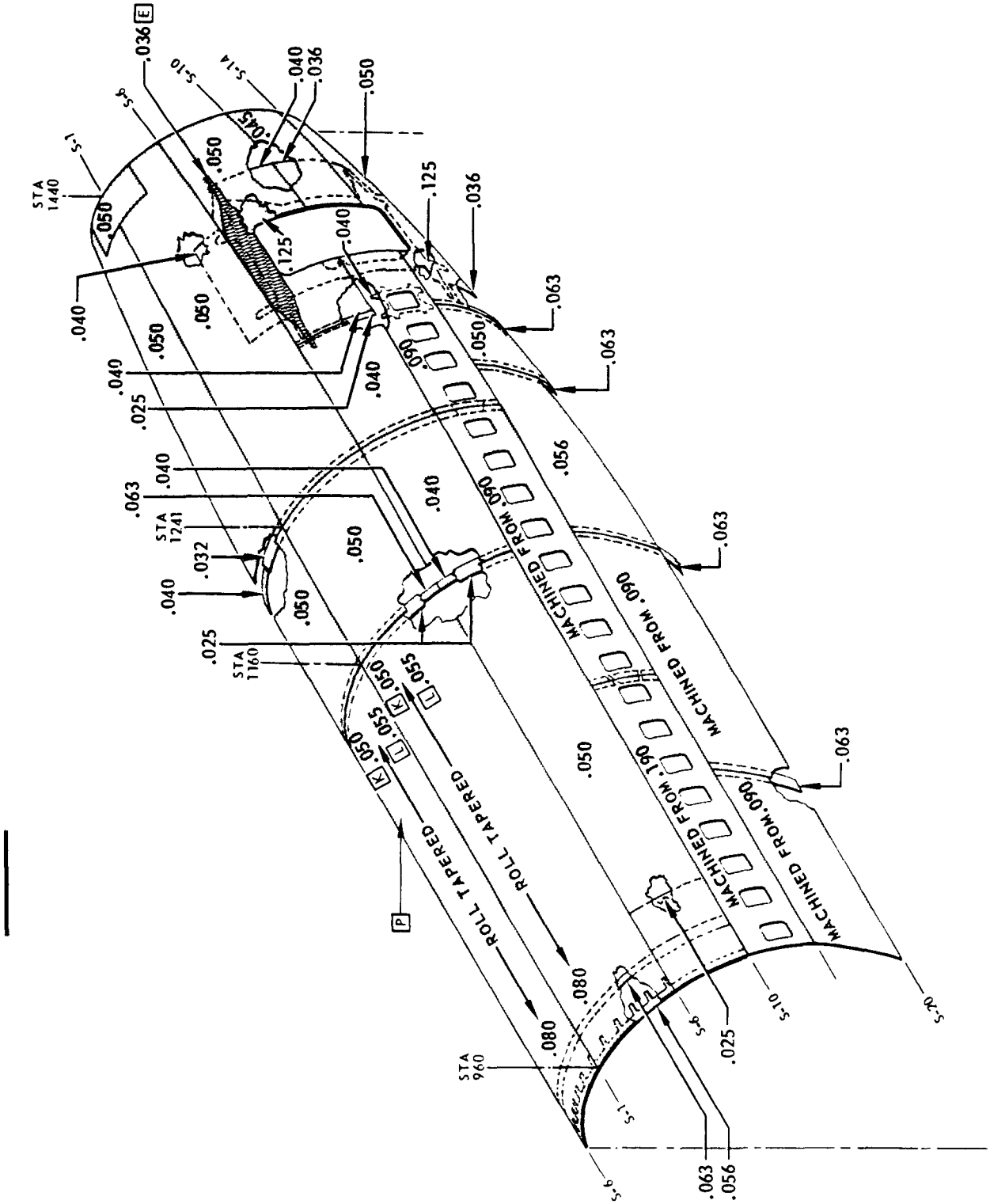
TURBOJET AIRPLANES FOR
AI, AF, BA, LH, LY,
PA 17592 THRU 17608,
18083 THRU 18085,
RG, SA, SN



Section 46 Skin Materials Identification
Figure 3 (Sheet 4)

EFFECTIVITY

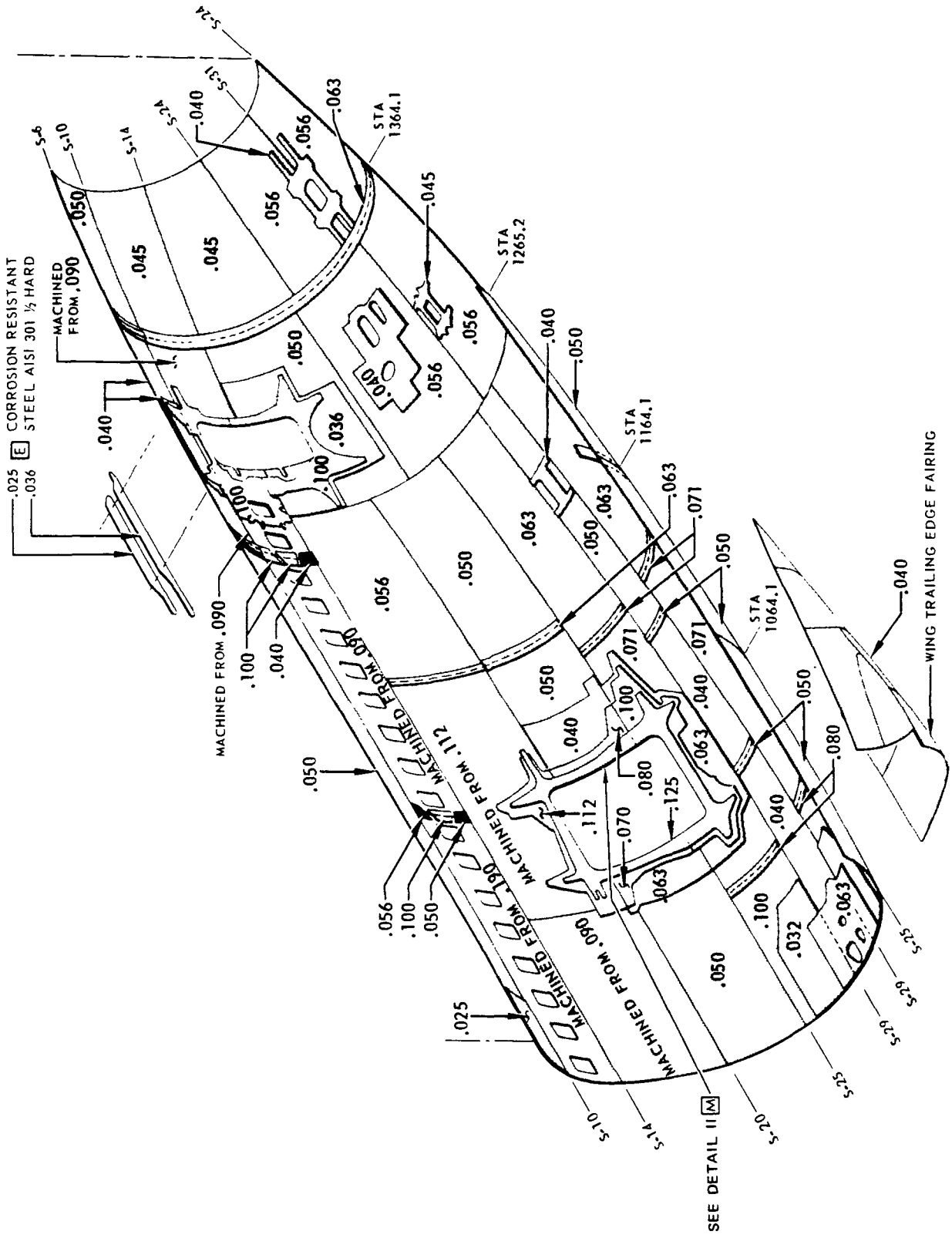
TURBOJET AIRPLANES FOR PA 17674 THRU 17689, TW



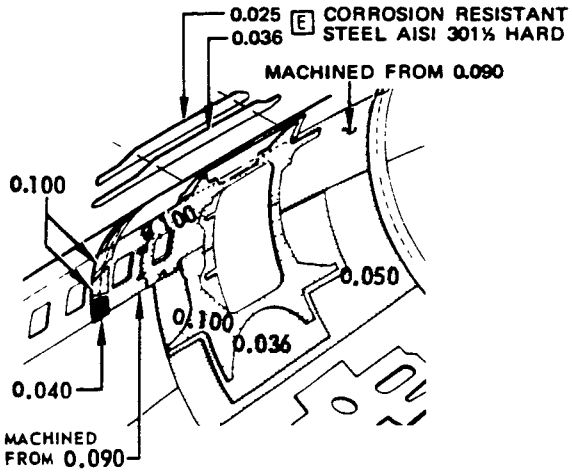
Section 46 Skin Materials Identification
Figure 3 (Sheet 5)

EFFECTIVITY

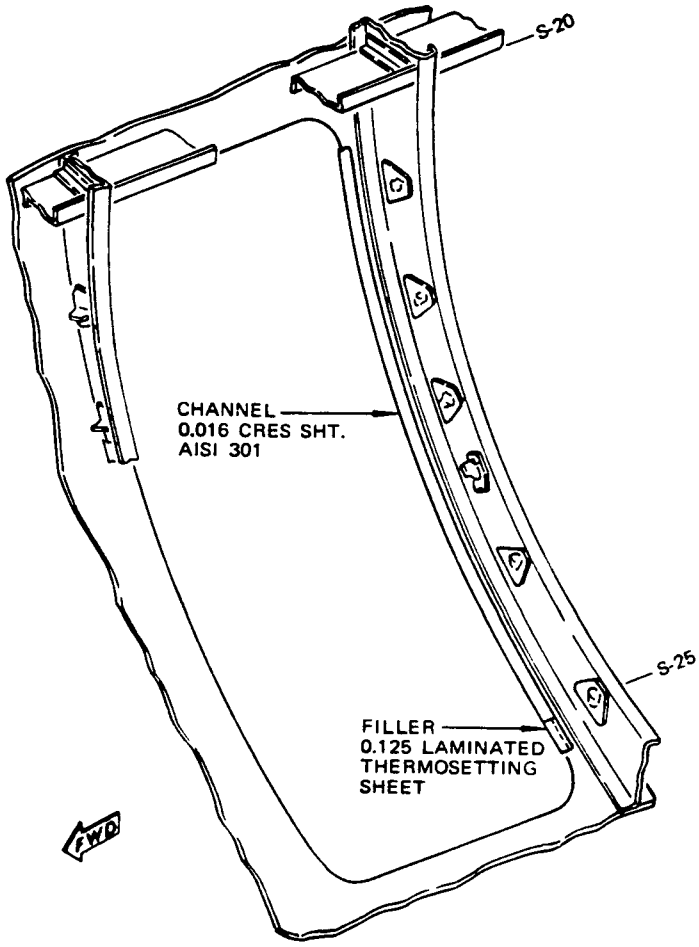
TURBOJET AIRPLANES FOR PA 17674 THRU 17689, TW



Section 46 Skin Materials Identification
Figure 3 (Sheet 6)



FOR BA, LH AND LY AIRPLANES
DETAIL I



AFT EDGE PROTECTION AT CENTER AND AFT CARGO DOOR CUTOUTS
DETAIL II

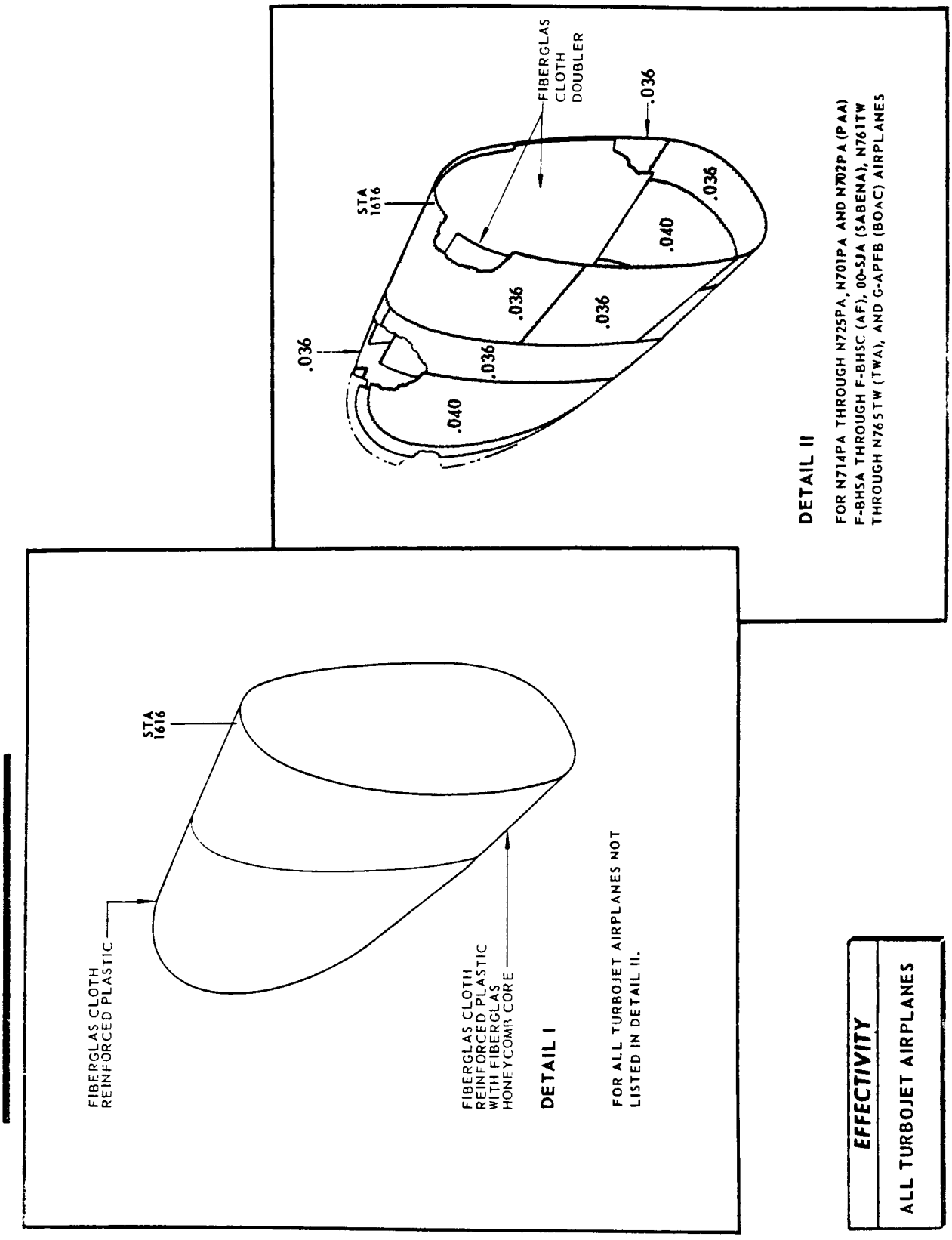
Section 46 Skin Materials Identification
Figure 3 (Sheet 7)

EFFECTIVITY

ALL TURBOJET AIRPLANES

SKIN REPAIR INDEX	
LOCATION OF DAMAGE	REPAIR FIG. NO.
BETWEEN STRINGERS C	53-3-2 FIG. 1,2,10 & 19
AT STRINGER	53-3-2 FIG. 3 & 4
AT LAP JOINT	53-3-2 FIG. 5 & 6
METAL TAIL CONE	51-9-2 FIG. 1
FIBERGLASS TAIL CONE	51-11-1 FIG. 1
STABILIZER FAIRING (MAG)	53-3-2 FIG. 13

Section 48 Skin Materials Identification
Figure 4 (Sheet 1)



EFFECTIVITY

ALL TURBOJET AIRPLANES

Section 48 Skin Materials Identification
Figure 4 (Sheet 2 of 2)

NOTES

[A] FOR AIRPLANES:
AF 18456 THRU 18458
PA 18335 THRU 18339, 18579
TW 18405 THRU 18409

[B] FOR ALL TURBOFAN AIRPLANES NOT IN NOTE [A]

[C] SEE ALSO 53-2-1 FIG. 2 NOTE [C]

[D] FOR CUM LINE NUMBERS:
843 AND ON

[E] FOR TURBOFAN AIRPLANES UP TO CUM LINE NUMBERS 863 IF NOT COVERED IN [L]

[F] FOR CUM LINE NUMBERS 864 AND ON IF NOT COVERED IN [L]

[G] CRES 17-7PH TO BMS 7-12A SOFT TEMPER COND 2D FOR AIRPLANE CUM LINE NUMBER 268 THRU 904

CRES AISI 301 SURFACE COND 2D 1/2 HARD TO MIL-S-5059 FOR AIRPLANE CUM LINE NUMBERS 905 AND ON

[H] FOR CUM LINE NUMBERS:
268 THRU 842

[I] ON AIRPLANES WITH SKIN REPLACEMENT PORTION ON SB 2951 OR SB 2952 INCORPORATED, THE 0.040 SKIN IS REPLACED WITH 0.050 SKIN

[J] FOR TURBOFAN AIRPLANES THRU CUM LINE NUMBER 922

[K] FOR CUM LINE NUMBERS:
923 AND ON

[L] ON AIRPLANES WITH PREVENTIVE MODIFICATION OF SB 3393 INCORPORATED

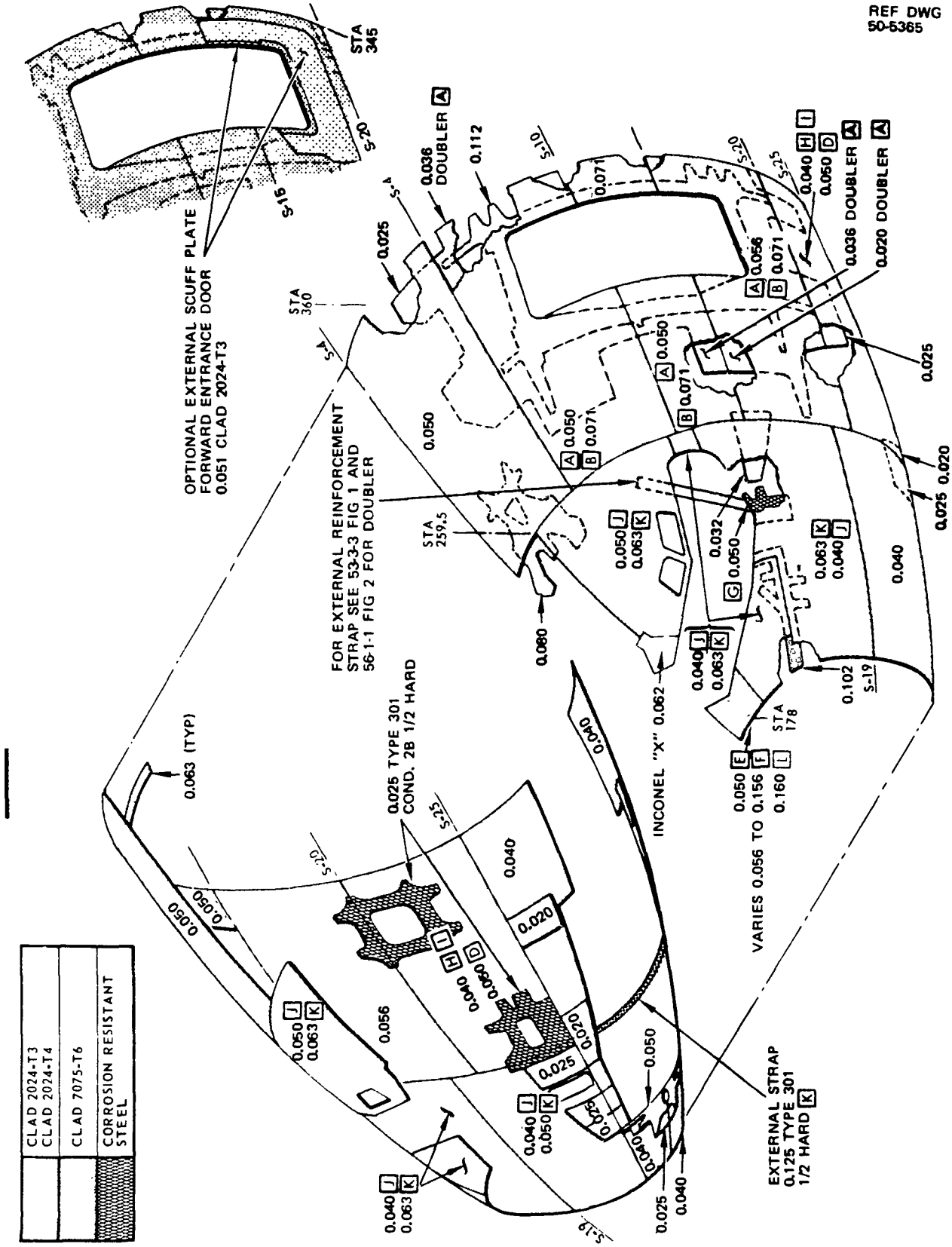
SKIN REPAIR INDEX	
LOCATION OF DAMAGE	REPAIR FIG. NO.
BETWEEN STRINGERS	53-3-2, FIG. 1,2,10 & 20
AT STRINGER	53-3-2 FIG. 3 & 4
AT LAP JOINT	53-3-2 FIG. 5 & 6
SPOTWELDED SKIN	53-3-2 FIG. 14
AT WINDOW FRAME EDGES	53-3-2 FIG. 15

Section 41 Skin Materials Identification
Figure 5 (Sheet 1)

EFFECTIVITY

ALL TURBOFAN AIRPLANES:

REF DWG 50-5365



Section 41 Skin Materials Identification
Figure 5 (Sheet 2)

NOTES

[A] FOR ALL AIRPLANES EXCEPT 707-351B

[B] FOR PASSENGER AIRPLANES UP TO CUM LINE NUMBER 706

[C] FOR PASSENGER AIRPLANES NOT LISTED IN [B]

[D] DELETED

[E] FOR CARGO AIRPLANES CUM LINE NUMBERS:
828 AND ON

[F] FOR PASSENGER AIRPLANES CUM LINE NUMBERS:
836 AND ON

[G] FOR PASSENGER AIRPLANES CUM LINE NUMBERS:
851 AND ON

[H] FOR PASSENGER AIRPLANES CUM LINE NUMBERS:
268 THRU 842

[J] FOR PASSENGER AIRPLANES CUM LINE NUMBERS:
851, 853 AND ON

[K] FOR PASSENGER AIRPLANES CUM LINE NUMBERS:
342 AND ON

[L] FOR CUM LINE NUMBERS:
857, 859

[M] WINDOWS REPLACED WITH WINDOW PLUGS 0.50 CLAD 2024-T851 AND 0.125 CLAD 7075-T6

[N] FOR CUM LINE NUMBERS:
843, 864

[O] FOR CARGO AIRPLANES CUM LINE NUMBERS:
332 THRU 868

[P] FOR CARGO AIRPLANES CUM LINE NUMBERS:
871 AND ON

[Q] FOR AIRPLANES WITH CROWN SKIN PANELS INSTALLED BY INCORPORATION OF SB 2862

[R] 0.250 7075-T6 OR CLAD 7075-T6 EXTERNAL LONGITUDINAL STRAPS AT S-5L THRU S-5R BETWEEN STA 560 AND STA 600K ON AIRPLANES WITH SB 2923 INCORPORATED

[S] 0.125 CLAD 2024-T3 EXTERNAL DOUBLER ON AIRPLANES WITH SB 3098 INCORPORATED

[T] FOR CUM LINE NUMBERS:
876, 881, 886, 890, 894, 895, 908, 910, 912, 914, 915, 917, 918

[U] ON AIRPLANES WITH SKIN REPLACEMENT PORTION OF SB 2951 INCORPORATED, THE 0.040 SKIN IS REPLACED WITH 0.050 SKIN

[V] FOR CUM LINE NUMBERS:
305, 320, 323, 326, 331, 333, 398, 399, 400, 415, 424, 435, 446, 454, 455, 457, 460 THRU 462, 464, 465, 468, 469, 476, 482, 483, 485, 487, 496, 545, 547, 559, 568, 585, 607, 674, 685, 687, 704, 766, 772, 773, 784, 785, 789, 799, 802, 810, 812, 851, 853

[W] FOR CUM LINE NUMBERS:
843 AND ON

[X] FOR CUM LINE NUMBERS:
332 THRU 841

NOTES (CONTINUED)

[Y] ON AIRPLANES WITH SKIN REPLACEMENT PORTION OF SB 2952 INCORPORATED, THE 0.040 SKIN IS REPLACED WITH 0.050 SKIN

[Z] FOR CUM LINE NUMBERS:
332 THRU 847

[AA] FOR CUM LINE NUMBERS:
848 AND ON

[AB] FOR PASSENGER AIRPLANES UP TO CUM LINE NUMBER 706 EXCEPT CUM LINE NUMBERS:
342, 343, 345, 348, 352

[AC] FOR PASSENGER AIRPLANES NOT LISTED IN [AB]

[AD] FOR CUM LINE NUMBERS:
731, 742, 751, 767 THRU 770, 774 THRU 776, 778, 780 THRU 783, 790 THRU 793, 797, 798, 803, 836, 840, 842, 856, 858 AND AIRPLANES WITH SB 2567 INCORPORATED

[AE] FOR CUM LINE NUMBERS:
795, 796, 804, 805, 808, 811, 817, 818, 820, 821

[AF] ON AIRPLANES WITH SKIN REPLACEMENT PORTION OF SB 2951 INCORPORATED, THE 0.040 SKIN IS REPLACED WITH 0.050 SKIN MACHINED FROM 0.080

[AG] FOR CUM LINE NUMBERS:
715, 729, 732, 736, 738, 740, 748, 752, 753, 754, 755, 761, 762, 763, 786, 788, 800, 806, 819, 831, 832, 839, 848, 863, 866

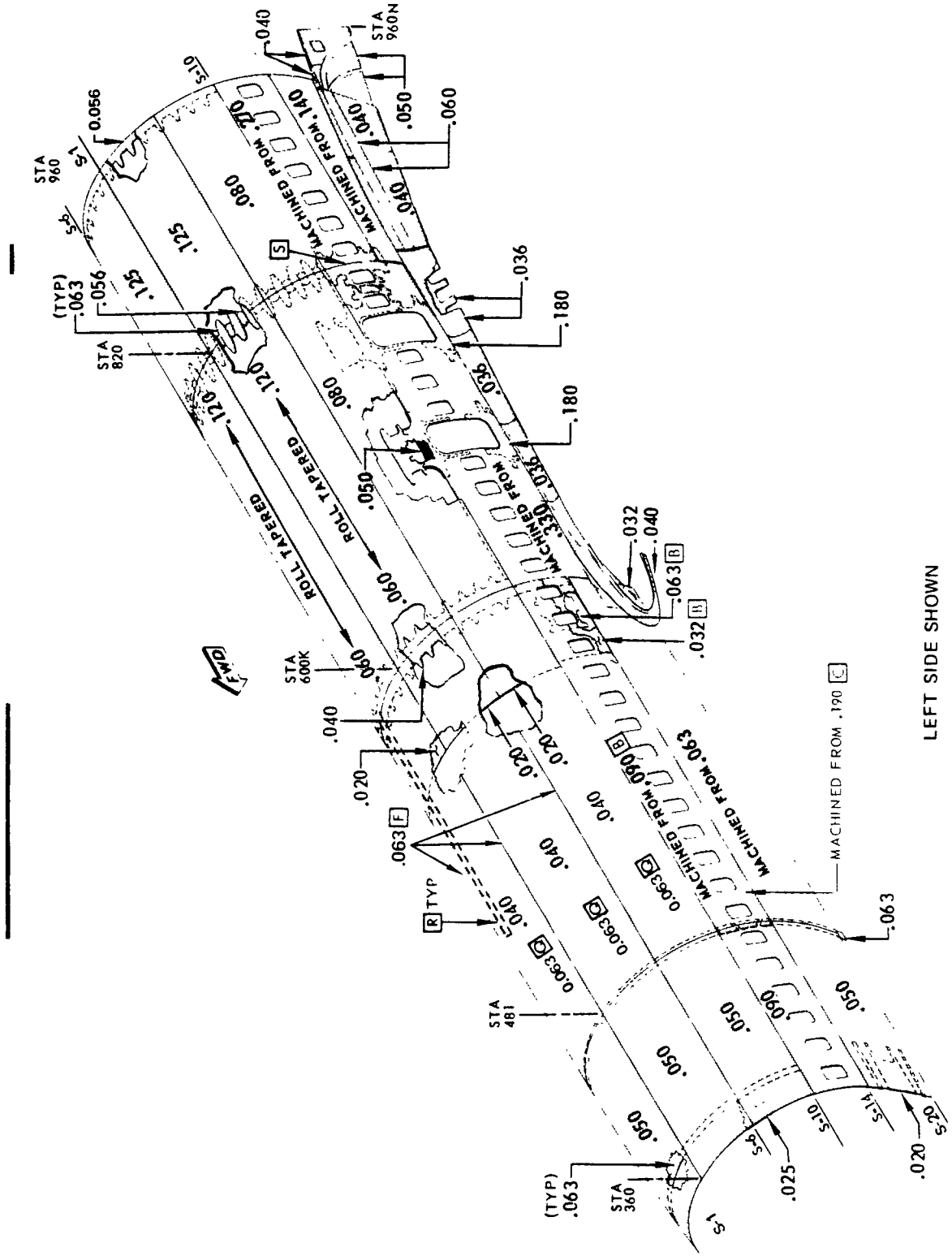
[AH] FOR CUM LINE NUMBERS:
876, 881, 886, 890, 894, 895, 908, 910, 912, 914, 915, 917, 918

[AJ] FOR CUM LINE NUMBERS:
608, 610, 612, 614, 616, 619, 627, 638, 639, 641, 647, 650, 663, 668, 670, 686, 692, 701, 710, 714, 719, 722, 724, 727, 741

[AK] FOR AIRPLANES WITH THE PREVENTIVE MODIFICATION OF SB 2567 INCORPORATED

SKIN REPAIR INDEX	
LOCATION OF DAMAGE	REPAIR FIG. NO.
BETWEEN STRINGERS	53-3-2 FIG. 1,2,10 & 19
AT STRINGER	53-3-2 FIG. 3 & 4
AT LAP JOINT	53-3-2 FIG. 5 & 6
SPOT WELDED SKIN	53-3-2 FIG. 14
WING FAIRING	53-3-2 FIG. 12 & 51-9-2 FIG. 1
AT FORE AND AFT DRIFT PINS	53-3-2 FIG. 17

	CLAD 2024-T3 CLAD 2024-T4
	2024-T3 2024-T4
	4130 STEEL

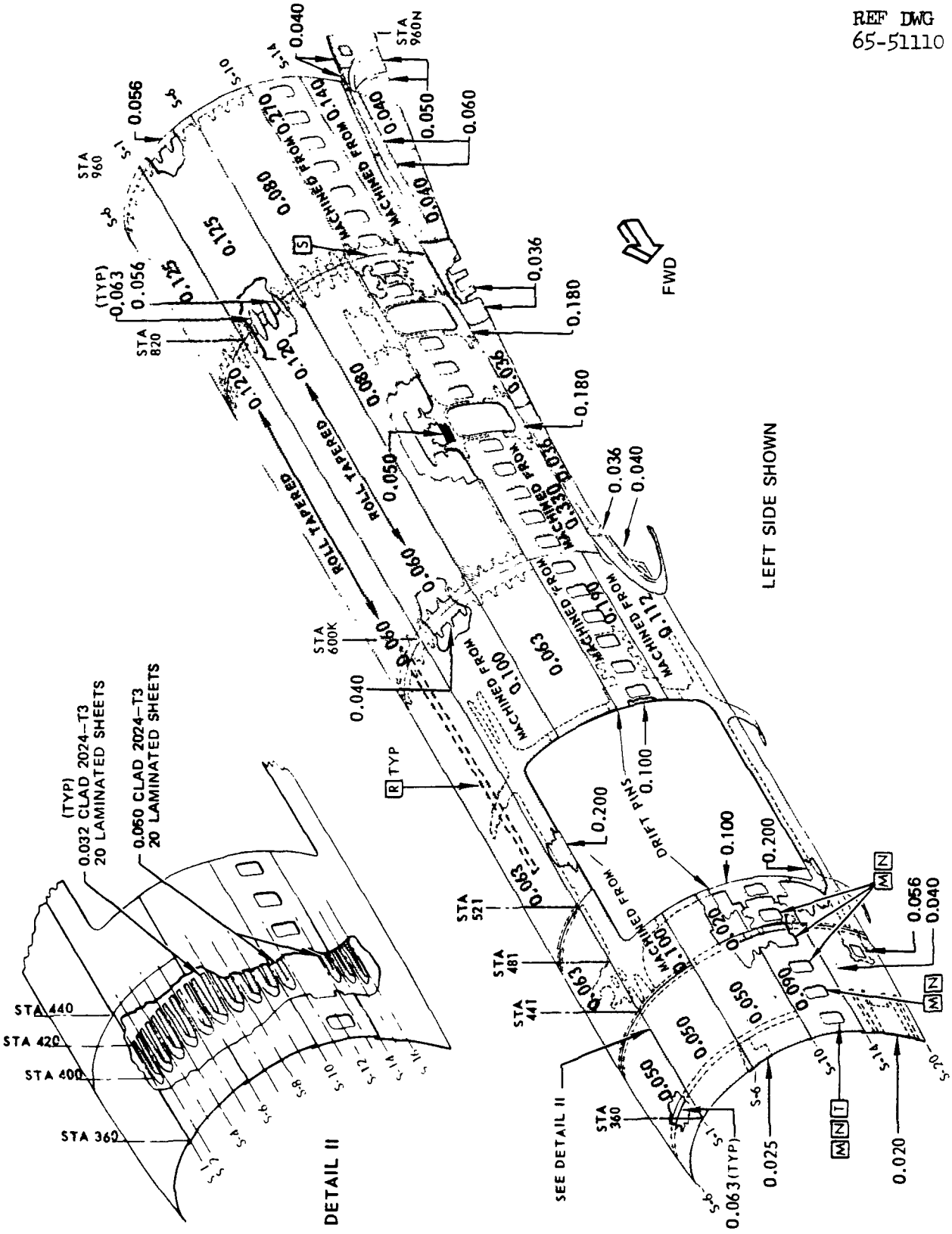


Section 43 Skin Material Identification - Turbofan Airplanes
Figure 6 (Sheet 3)

EFFECTIVITY

ALL CARGO AIRPLANES

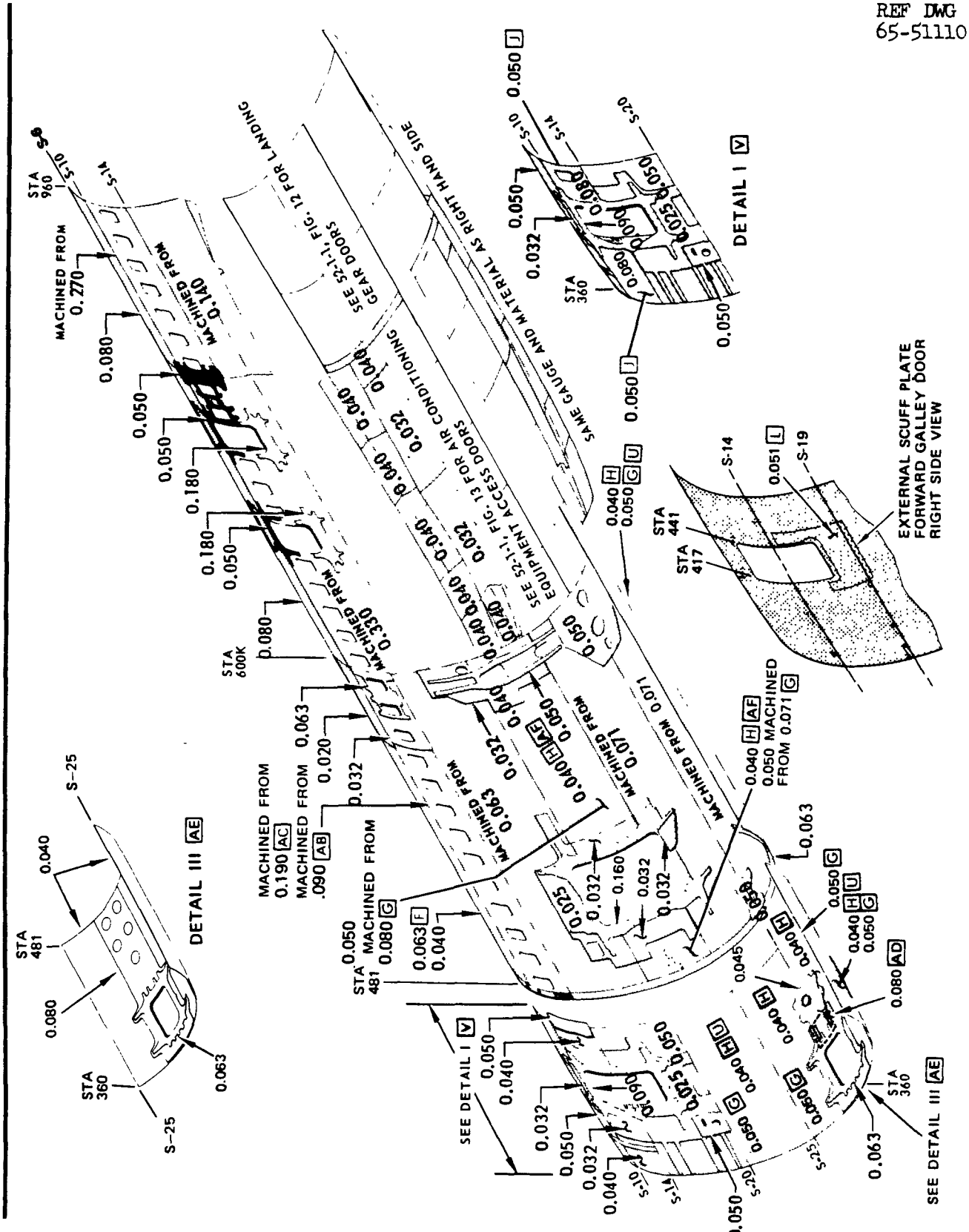
REF DWG
65-51110



Section 43 Skin Material Identification - Turbofan Airplanes
Figure 6 (Sheet 4)

SRM
Jan 10/79

REF DWG
65-51110

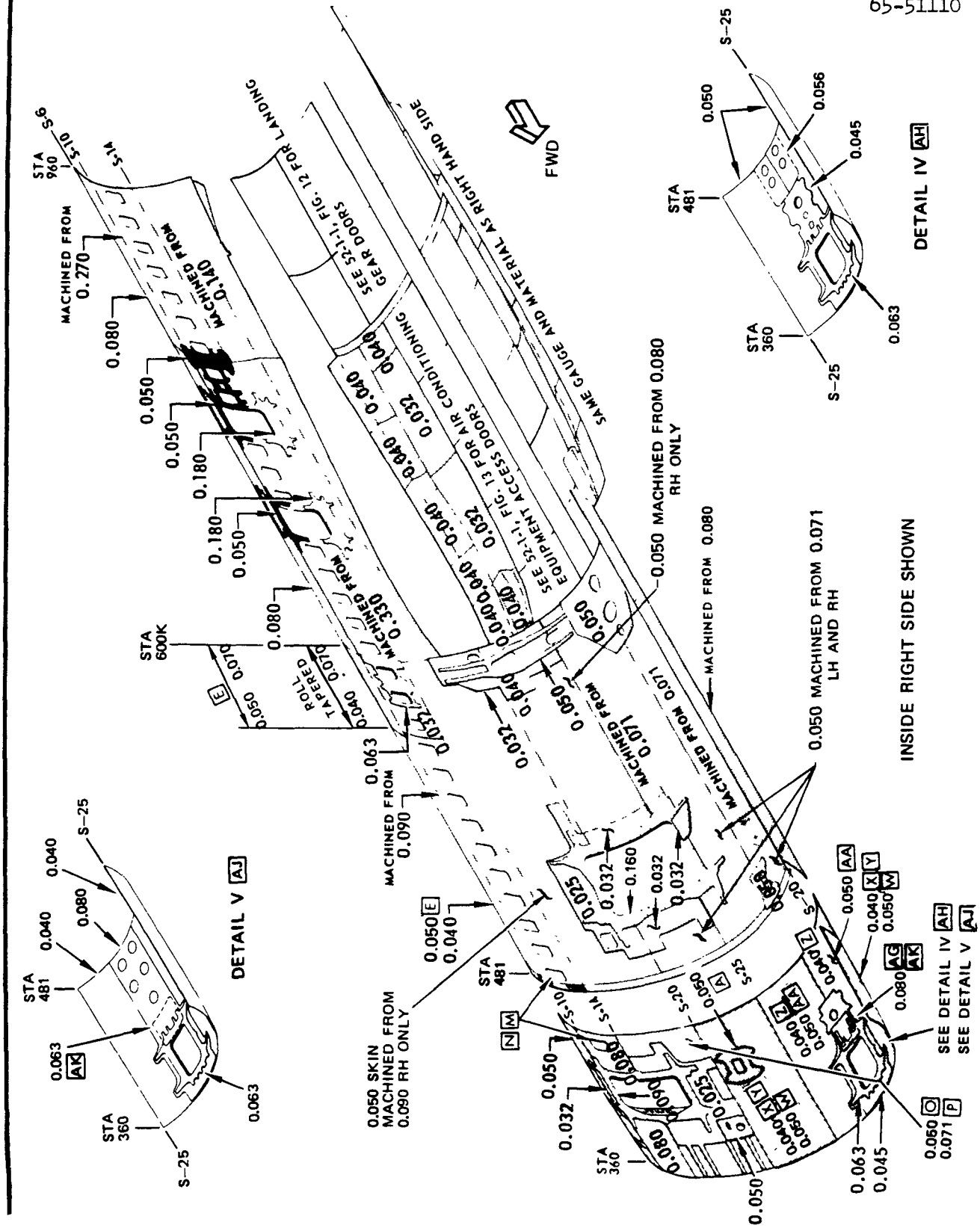


Section 43 Skin Material Identification - Turbofan Airplanes
Figure 6 (Sheet 5)

EFFECTIVITY

ALL CARGO AIRPLANES

REF DWG
65-51110



Section 43 Skin Material Identification - Turbofan Airplanes
Figure 6 (Sheet 6)

NOTE

[A] FOR QANTAS AIRPLANES ONLY

[B] SEE ALSO 53-2-1, FIG. 2, NOTE [C]

[C] FOR AIRPLANES WITH CROWN SKINS INSTALLED BY INCORPORATION OF SB 2862

[D] AISI 321 OR 347, MIL-S-6721, ANNEALED

[E] AISI 301, MIL-S-5059, COMP 301, SURFACE COND 2D, 1/2 HARD

[F] ITEMS FOR APU EXHAUST DOOR OPENING BETWEEN S-18 AND S-20, STA 960M AND 960N. RIGHT SIDE ONLY FOR RO 20804

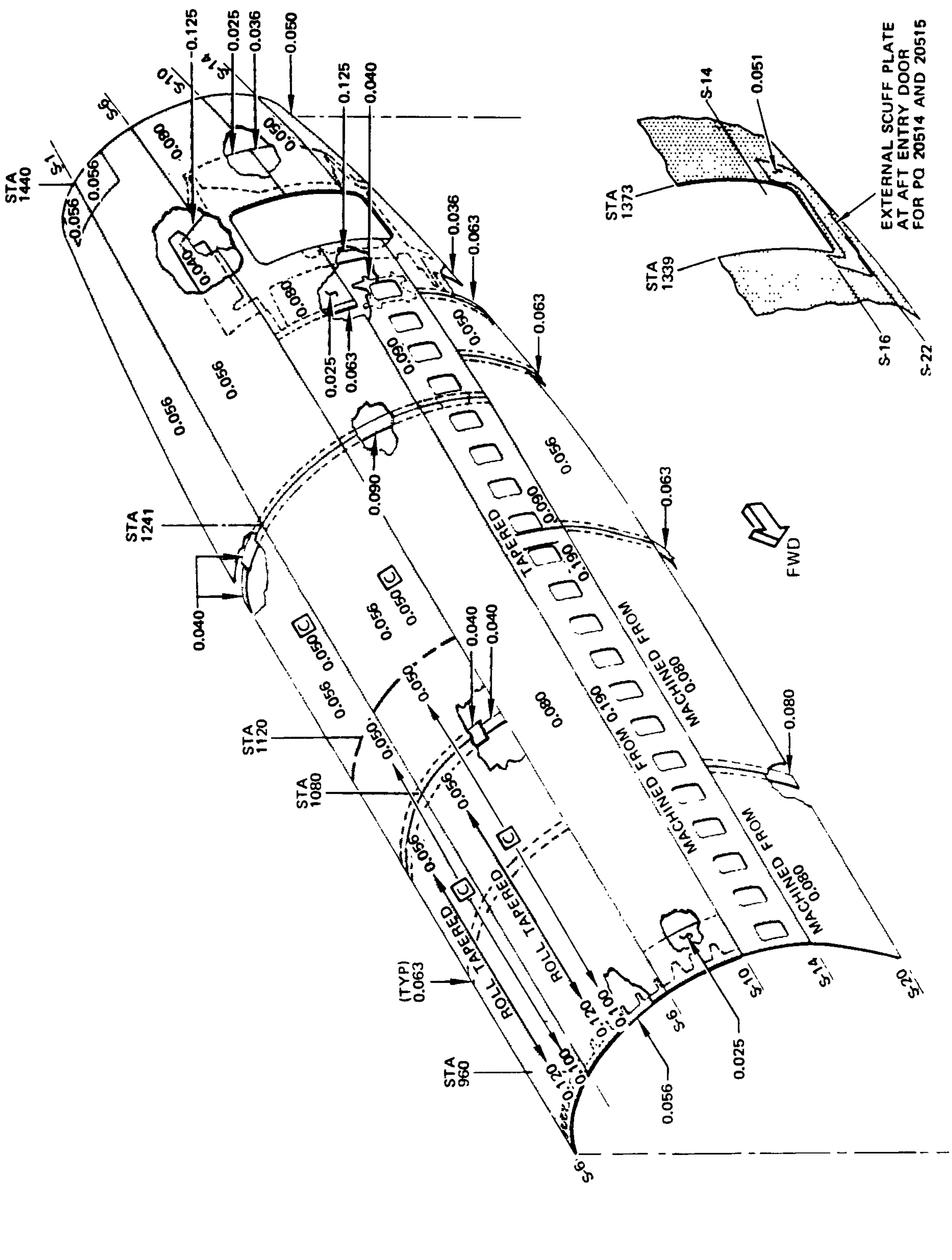
[G] FOR THE FOLLOWING AIRPLANES: IM 20830 THRU 20835

[H] 0.250 FIBERGLASS REINFORCED POLYIMIDE INSULATOR AND 0.190 CRES DOUBLER AROUND DOOR CUT-OUT. FOR RO 20804 ONLY

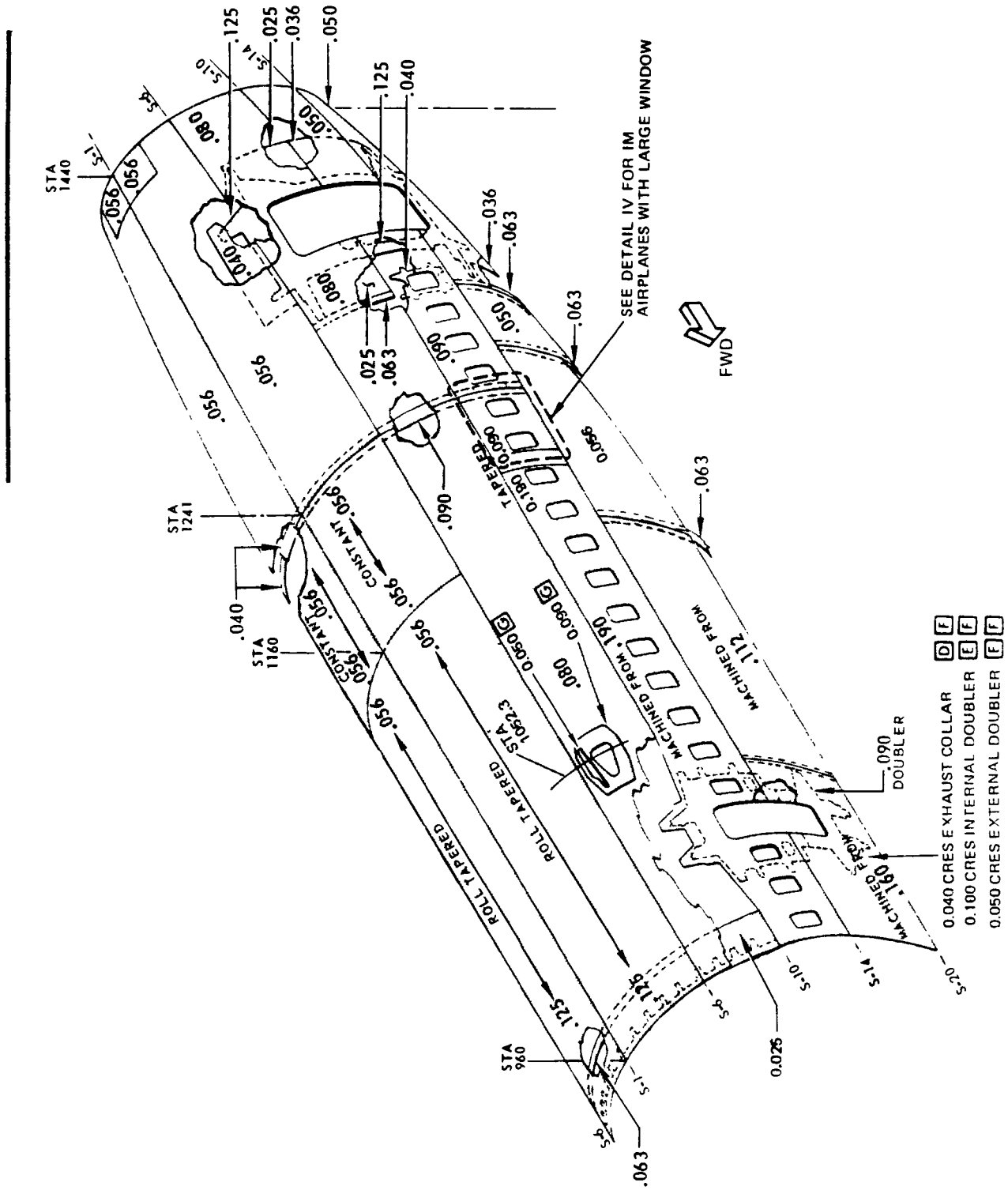
SKIN REPAIR INDEX	
LOCATION OF DAMAGE	REPAIR FIG. NO.
BETWEEN STRINGERS	53-3-2 FIG. 1, 2 10 & 19 [B]
AT STRINGER	53-3-2 FIG. 3&4
AT LAPJOINT	53-3-2 FIG. 5&6
SPOTWELDED SKIN	53-3-2 FIG. 14

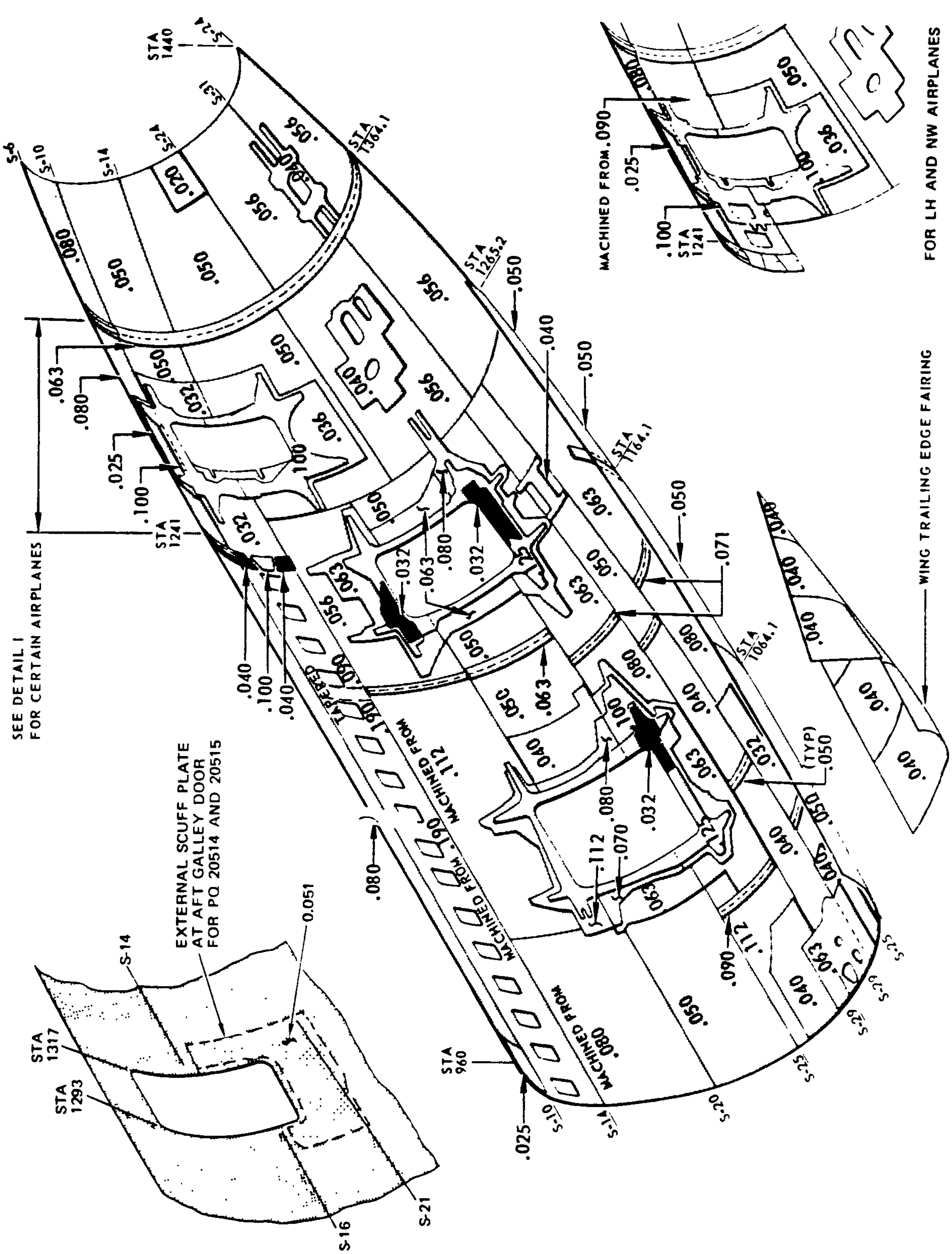
	CLAD 2024-T3 CLAD 2024-T4
	2024-T3 2024-T4
	4130 STEEL

Section 46 Skin Materials Identification - Turbofan Airplanes
Figure 7 (Sheet 1)


EXTERNAL SCUFF PLATE
AT AFT ENTRY DOOR
FOR PQ 20514 AND 20515
STA 1440
STA 1373
STA 1339
STA 1241
STA 1120
STA 1080
STA 960
ROLL TAPERED
MACHINED FROM 0.080
MACHINED FROM 0.190
FWD
(TYP) 0.063

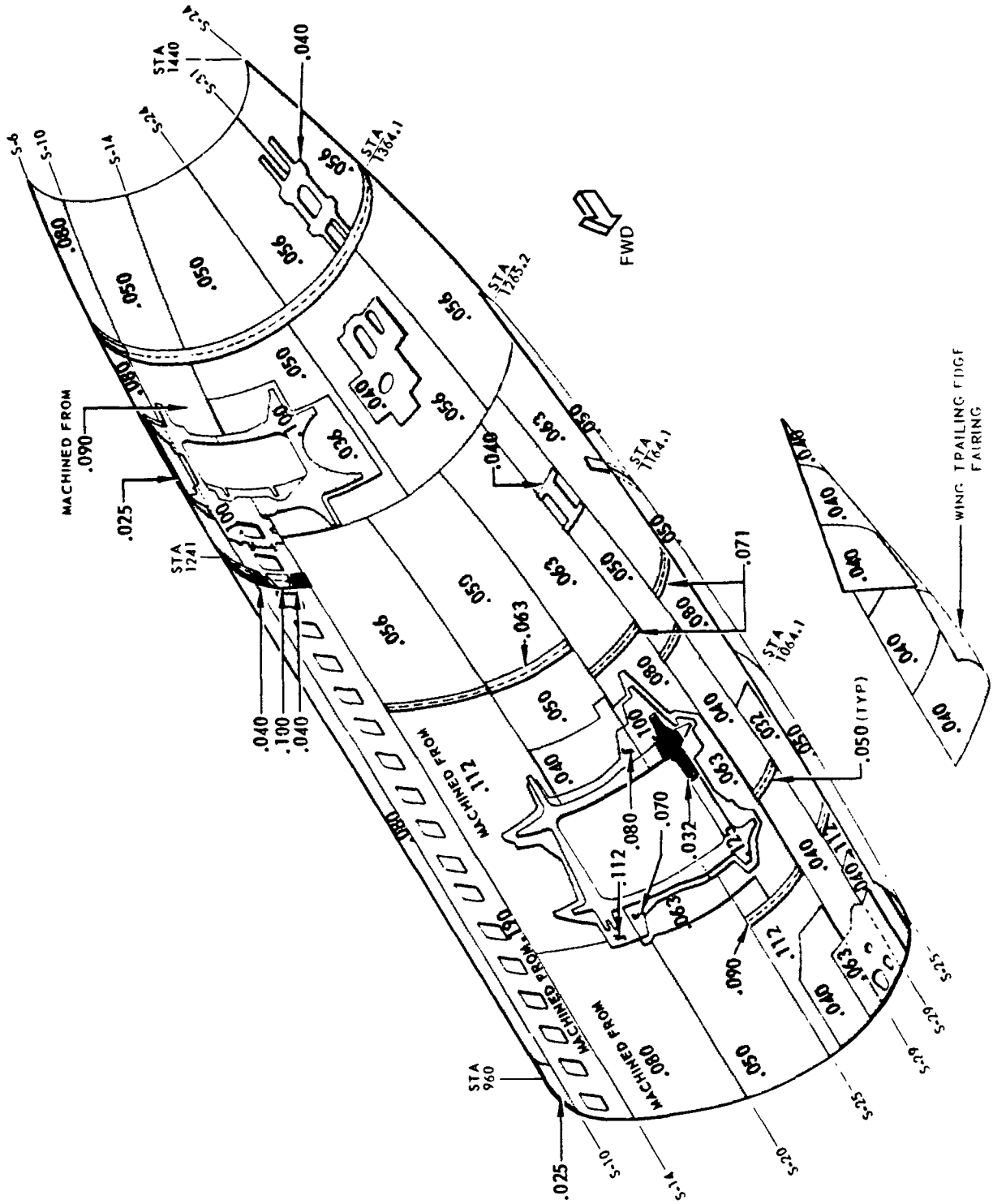
EFFECTIVITY
ALL CARGO AIRPLANES EXCEPT NW





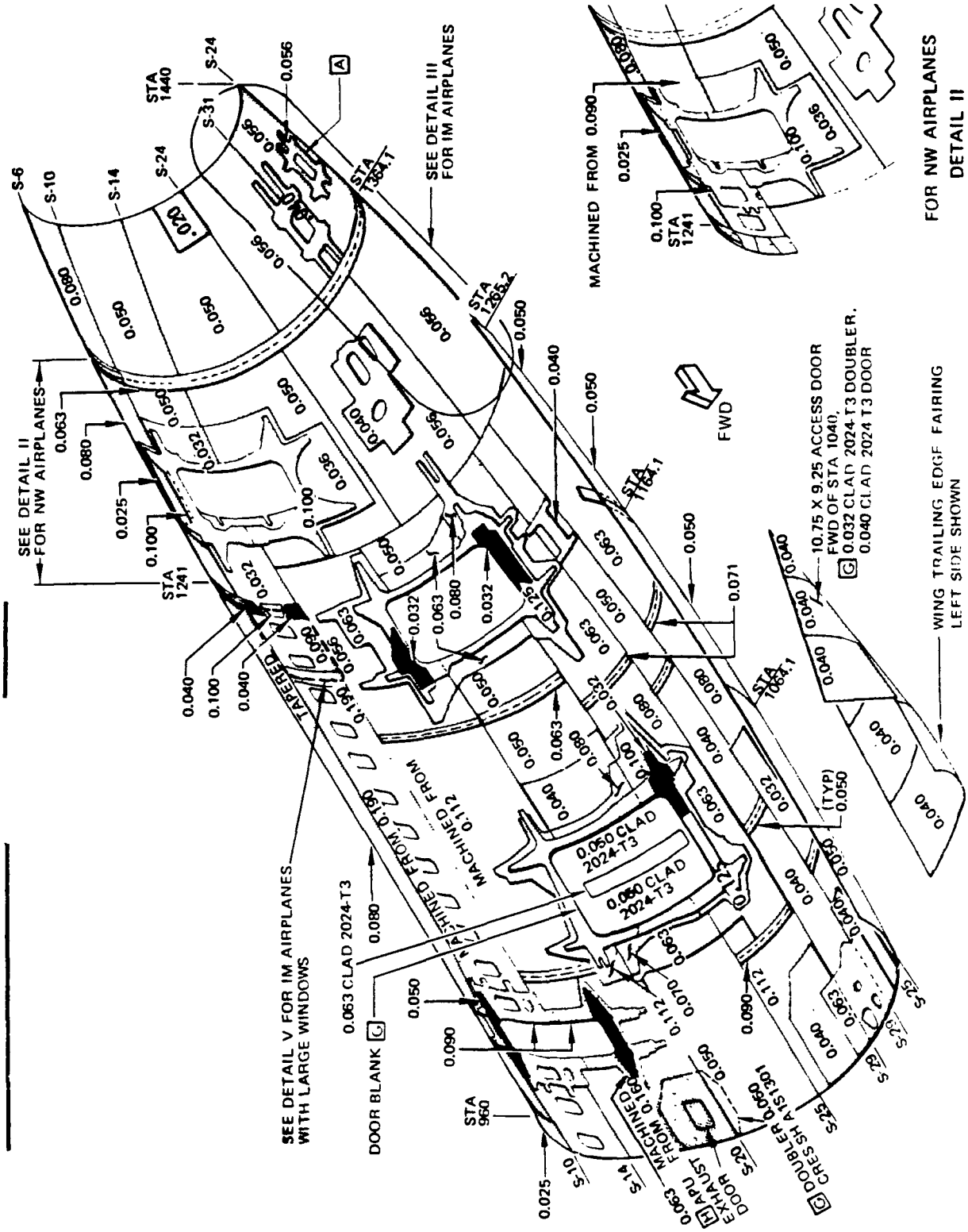
SEE DETAIL I FOR CERTAIN AIRPLANES
EXTERNAL SCUFF PLATE AT AFT GALLEY DOOR FOR PQ 20514 AND 20515
FOR LH AND NW AIRPLANES
DETAIL I
WING TRAILING EDGE FAIRING
MACHINED FROM .090
MACHINED FROM .112
MACHINED FROM .190
MACHINED FROM .080
TAPERED
STA 1440
STA 1364.1
STA 1265.2
STA 1241
STA 1164.1
STA 1064.1
STA 960
STA 1317
STA 1293

EFFECTIVITY
TURBOFAN AIRPLANES
TW ONLY

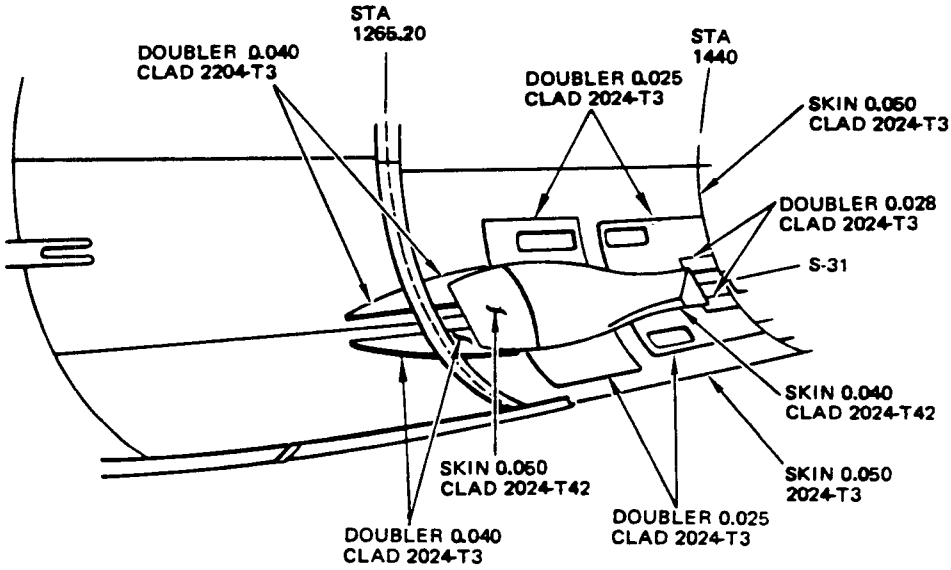


EFFECTIVITY

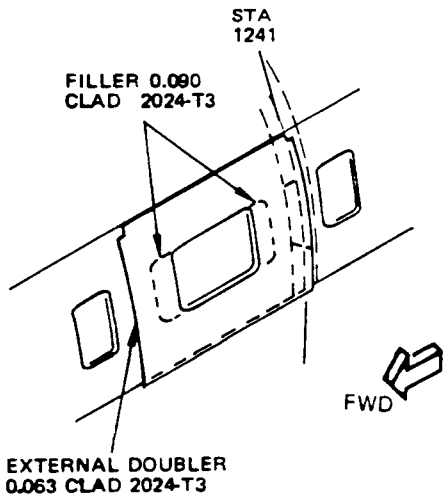
ALL CARGO AIRPLANES EXCEPT AS NOTED



Section 46 Skin Materials Identification - Turbofan Airplanes
Figure 7 (Sheet 6)

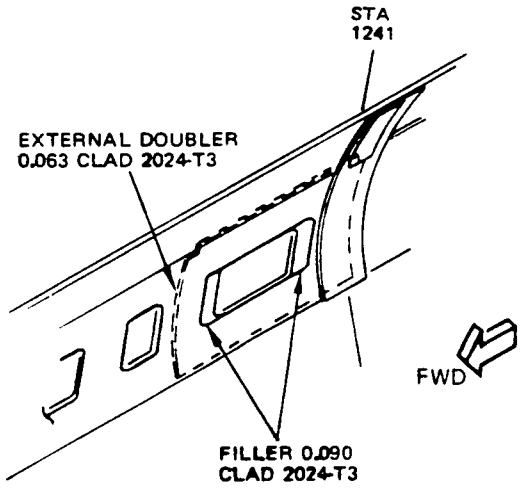


DETAIL III [G]



DETAIL IV

(FOR IM AIRPLANES WITH LARGE WINDOW)



DETAIL V

(FOR IM AIRPLANES WITH LARGE WINDOW)

Section 46 Skin Materials Identification - Turbofan Airplanes
Figure 7 (Sheet 7)

EFFECTIVITY
ALL TURBOFAN AIRPLANES

NOTE

[A] FIBERGLASS CLOTH REINFORCED PLASTIC

[B] FIBERGLASS CLOTH REINFORCED PLASTIC WITH FIBERGLASS HONEYCOMB CORE

[C] SEE ALSO 53-2-1, FIG. 2, FOR DAMAGE LIMITATIONS

[D] FOR AIRPLANES WITH SB 2422 INCORPORATED

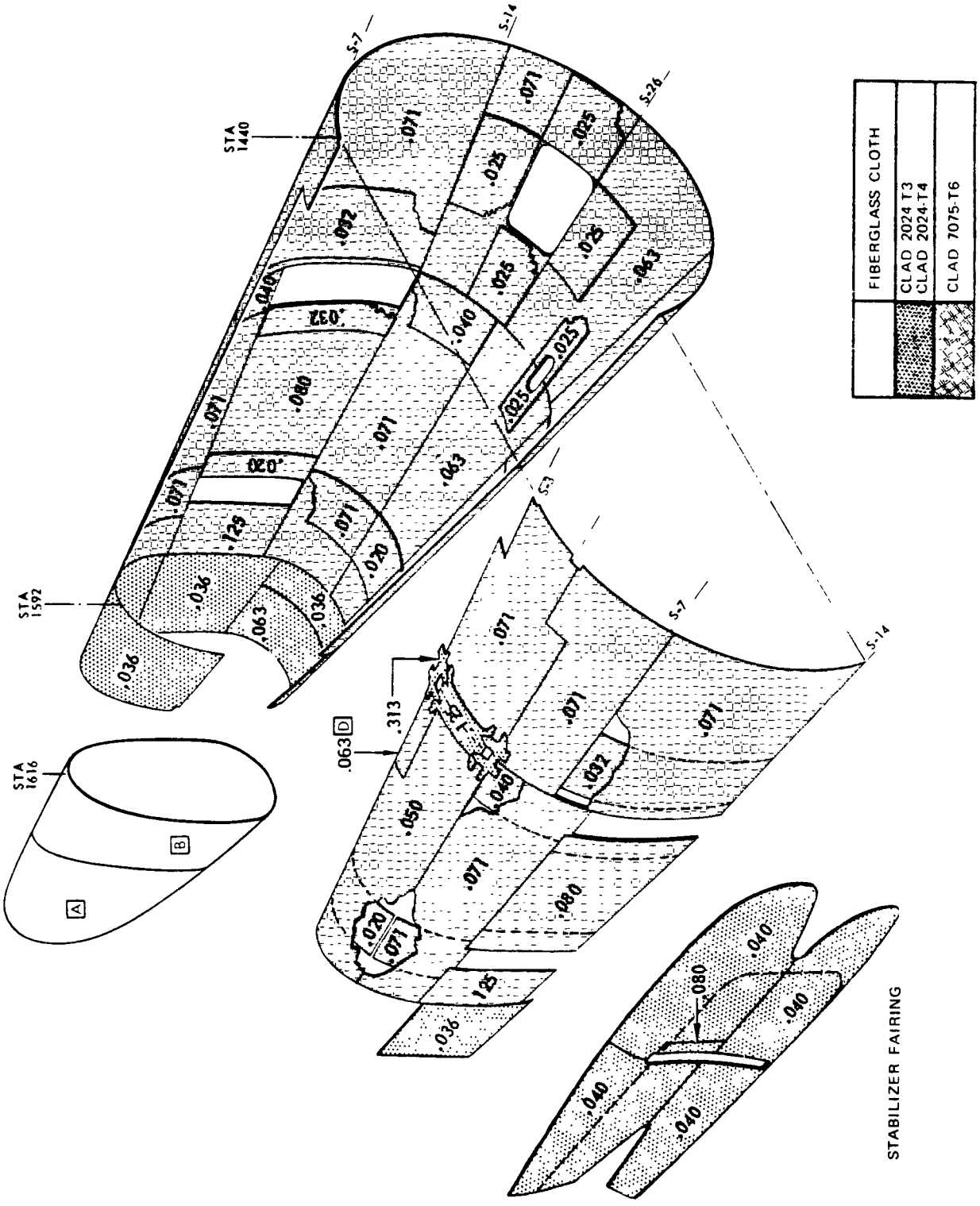
[E] FOR AIRPLANES: IM 20830 THRU 20835

[F] PASSENGER/CARGO CONFIGURATION WITH BOOM REMOVED

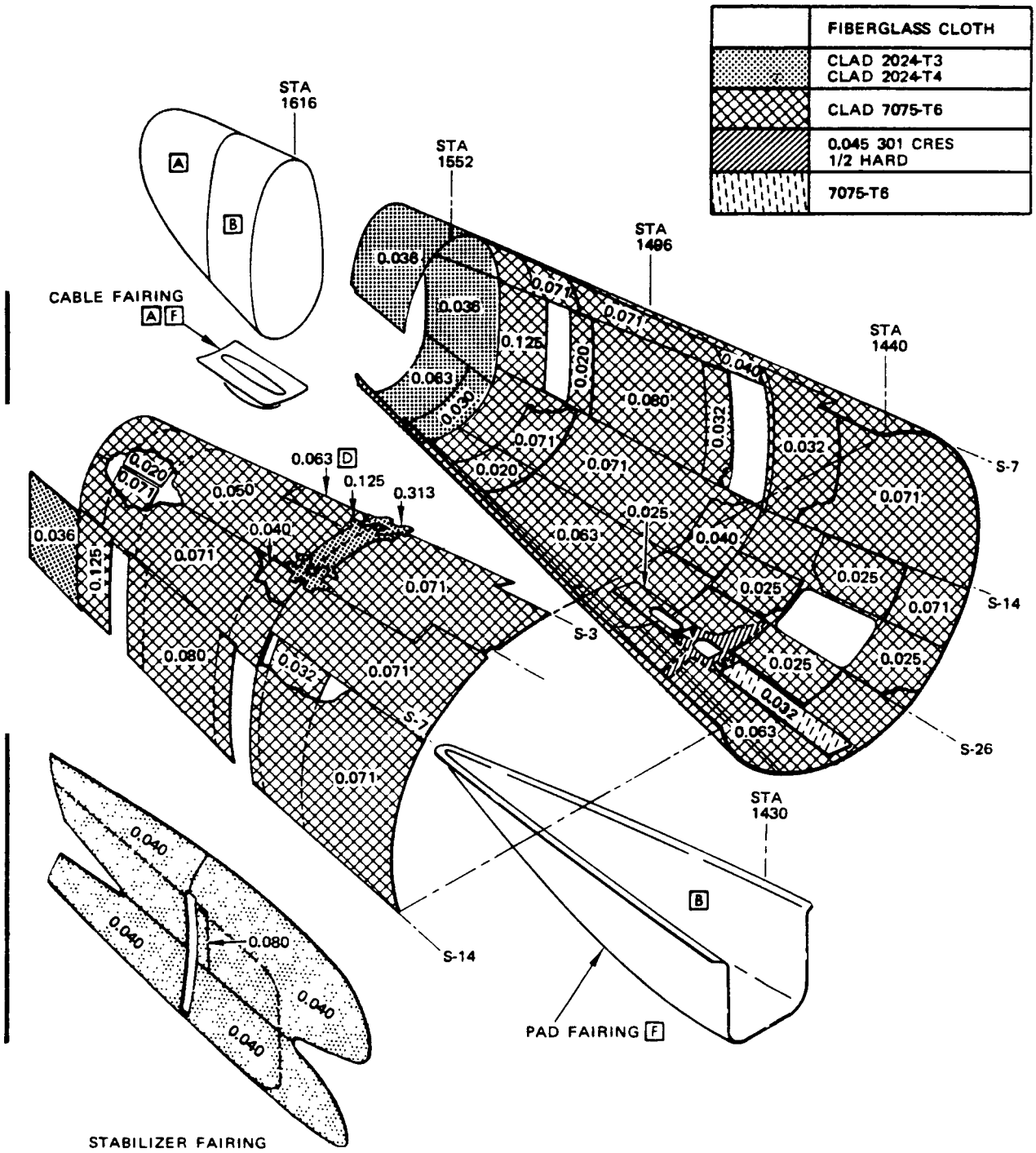
SKIN REPAIR INDEX	
LOCATION OF DAMAGE	REPAIR FIG. NO.
ALUMINUM SKINS	
BETWEEN STRINGERS [C]	53-3-2 FIG. 1,2,10 & 19
AT STRINGER	53-3-2 FIG. 3 & 4
AT LAP JOINT	53-3-2 FIG. 5 & 6
FIBERGLASS SKINS	
FIBERGLASS LAMINATED PARTS	51-11-1 FIG. 1
FIBERGLASS HONEYCOMB POD FAIRING [F]	51-11-1 FIG. 3,7 & 12

EFFECTIVITY

TURBOFAN AIRPLANES
EXCEPT IM MODEL



Section 48 Skin Materials Identification Turbofan Airplanes
Figure 8 (Sheet 2)



E

Section 48 Skin Materials Identification Turbofan Airplanes
Figure 8 (Sheet 3)

REPAIR INSTRUCTIONS

External repair as shown allows either solid rivet or blind rivet repair. Refer to applicable repair instructions.

SOLID RIVET REPAIR

1. Trim the damaged skin to form a rectangular shape. Make the cutout parallel to a stringer centerline.

2. Return all indented or projecting skin to contour. Remove all burrs, nicks, scratches, sharp edges or corners from damaged skin.

3. Make the repair plate and drill the fastener holes.

4. Alodize the cut edges of new and existing parts.

5. Install the repair plate with the fasteners specified in Table I, making a faying surface seal in accordance with 53-1-3. A bead of sealant should be apparent all around cutout in skin after installation. Where there is sufficient sealant squeezed out it may be formed into a fillet, otherwise an additional fillet seal should be applied.

6. Restore the finish according to 51-2 of the Maintenance Manual.

BLIND RIVET REPAIR

NOTE: Refer to general notes for fastener seating and inspection requirements prior to making blind rivet repair.

1. Trim the damaged skin to form a rectangular shape. Make the cutout parallel to a stringer centerline.

2. Return all indented or projecting skin to contour. Remove all burrs, nicks, scratches, sharp edges or corners from damaged skin.

3. Make the repair plate and drill the fastener holes.

4. Alodize the cut edges of new and existing parts.

5. Prime the alodized edges of existing parts and all interior surfaces of new parts.

6. Install the repair plate with the fasteners specified in Table II, making a faying surface seal in accordance with 53-1-3.

   NOTE: Special care should be taken when applying sealant to faying surfaces to ensure that a bead of sealant will be squeezed out all around the skin cutout upon repair plate installation.

7. Restore the finish according to 51-2 of the Maintenance Manual.

Fuselage Skin Between Stringers - External Repair
Figure 1 (Sheet 1)

NOTES

- BLIND RIVET REPAIRS SHOULD NOT BE USED WHERE DOUBLERS, TRIPLERS AND NONTYPICAL STRUCTURE EXIST UNLESS IT CAN BE DEFINITELY ESTABLISHED THAT THE BLIND RIVETS WILL BE PROPERLY SEATED ON THE INTERNAL STRUCTURE AND THAT ADEQUATE RIVET SPACING AND EDGE MARGINS ARE MAINTAINED

- BLIND RIVET REPAIRS SHOULD BE INSPECTED EVERY 2,500 FLIGHTS AND REPLACED WITH A FLUSH OR NONFLUSH SOLID FASTENER REPAIR AT NEXT OVERHAUL, BUT NOT LATER THAN 20,000 FLIGHTS AFTER INSTALLATION [E]

- WHEN BLIND RIVETS ARE REPLACED WITH SOLID RIVETS, USE THE SOLID RIVETS SPECIFIED IN TABLE I EXCEPT THAT THE SOLID RIVETS MUST BE A MINIMUM OF 1/32 LARGER IN DIAMETER THAN THE NOMINAL SIZE OF THE BLIND RIVETS BEING REPLACED

- REFER TO THE FOLLOWING WHEN MAKING THIS REPAIR:

  51-8-0 FOR PROTECTIVE TREATMENT OF METAL

  51-2 FOR FASTENER CODE, REMOVAL AND INSTALLATION, HOLE SIZES, EDGE MARGINS AND COUNTERSINKING

  51-4-1 FOR LIMITATIONS FOR EXTERNAL REPAIRS AND AERODYNAMIC SMOOTHNESS REQUIREMENTS

[A] SAME MATERIAL AND HEAT-TREAT AS ORIGINAL SKIN AND TWO GAGES GREATER

[B] REPAIRS MAY BE MADE WITH PROTRUDING HEAD FASTENERS AT THE OPERATOR'S OPTION. REFER TO 51-4-1 FOR AERODYNAMIC SMOOTHNESS REQUIREMENTS

[C] WHEN USING MS20426 FASTENERS THE COUNTERSINK DEPTH MUST NOT EXCEED THAT WHICH IS GIVEN FOR BACR15CE FASTENERS

[D] INSTALL IN HOLES SWABBED WITH BMS 5-95 SEALANT

[E] THIS REPAIR HAS FAA (DER) APPROVAL CONTINGENT ON ACCOMPLISHMENT OF THE INSPECTIONS AT THE INTERVALS CONTAINED HEREIN

SYMBOLS

+ EXISTING FASTENER LOCATIONS. REFER TO NOTES ON FACE OF DRAWING

⊹ REPAIR FASTENER LOCATIONS. SEE TABLE I OR TABLE II AS APPLICABLE

REPAIR MATERIAL			
PART		QTY	MATERIAL
(1)	PLATE	1	[A]

Fuselage Skin Between Stringers - External Repair
Figure 1 (Sheet 2)

ORIGINAL SKIN GAGE	PREFERRED FASTENER	OPTIONAL FASTENER ⌖ C	SPACING P	EDGE MARGIN
0.040–0.045	BACR15CE5D	MS20426D5	1.56–1.61	0.39
0.050–0.063	BACR15CE6D	MS20426D6	1.87–1.94	0.47
0.071–0.100	BACR15CE8D	MS20426D8	2.38–2.56	0.63
0.112–0.125	BACR15CE8D	MS20426D8 MS20470 B	2.03–2.14	0.63

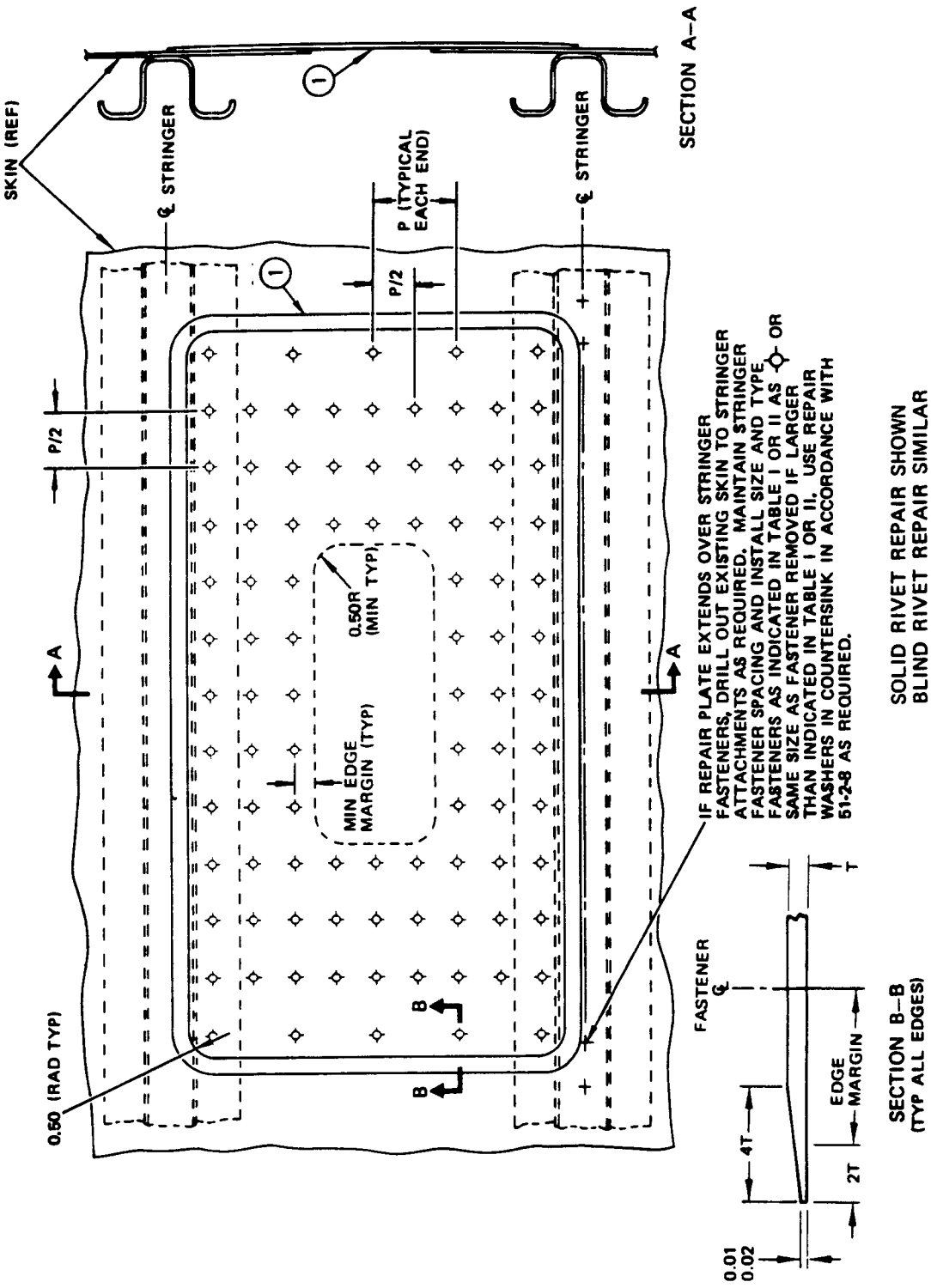
FOR SOLID RIVET REPAIR ONLY

TABLE I

ORIGINAL SKIN GAGE	PREFERRED FASTENER ⌖ D	NUMBER OF ROWS		SPACING P	EDGE MARGIN
		LONGITUDINAL	CIRCUMFERENTIAL		
0.040–0.045	NAS1738E4	3	3½	1.56–1.61	0.32
0.050	NAS1738E5	3	3½	1.87–1.94	0.32
0.063	NAS1738E5	4	4½	1.87–1.94	0.36
0.071	NAS1738E6	4	4½	2.38–2.56	0.36
0.080–0.090	NAS1738E6	5	5½	2.38–2.56	0.47
0.100	NAS1738E6	6	6½	2.38–2.56	0.47
0.112–0.125	NAS1738E6	6	6½	2.03–2.14	0.47

FOR BLIND RIVET REPAIR ONLY

TABLE II



Fuselage Skin Between Stringers - External Repair
Figure 1 (Sheet 4)

REPAIR INSTRUCTIONS

If an external repair has previously been made according to Fig. 1, drill out the fasteners and remove the external plate and all sealant material. Complete steps 3 thru 10.

1. Trim out the damaged skin to form a rectangular opening parallel to the stringer centerline.

2. Return all indented or protruding skin to contour. Remove all burrs, nicks, scratches, sharp edges or corners from the damaged skin.

3. Make part 2 to fit the skin cutout leaving a gap of 0.050 to 0.070 all around.

4. Make part 1 and locate fastener holes. If an external plate is being replaced by a flush repair, the doubler, part 1, can be positioned and back drilled from the existing fastener holes in the skin.

5. Alodize the cut edges of new and existing parts.

6. To enable the doubler part 1 to be positioned, remove the skin to stringer fasteners along one stringer to an extent that will allow stringer to be moved enough to permit part 1 to be inserted under stringer flanges.

7. Install repair parts with the fasteners specified in Table I, making a faying surface seal in accordance with 53-1-3. A bead of sealant should be apparent all around the doubler 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. Reinstall fasteners of the same size and type along stringer.

9. Apply BMS 5-79 sealant in the gap between the filler, part 2, and the skin.

10. Refinish according to 51-2 of the Maintenance Manual.

NOTES

- REFER TO THE FOLLOWING WHEN MAKING THIS REPAIR:

  51-2 FOR FASTENER CODE, REMOVAL AND INSTALLATION, HOLE SIZES AND EDGE MARGINS

  51-8-0 FOR PROTECTIVE TREATMENT OF METAL

  51-4-1 FOR AERODYNAMIC SMOOTHNESS REQUIREMENTS

  53-1-3 FOR FAYING SURFACE SEALS

Fuselage Skin between Stringers Flush Repair
Figure 2 (Sheet 1)

NOTES (CONTINUED)

[A] SAME MATERIAL AND HEAT-TREAT AND ONE GAGE GREATER THAN EXISTING SKIN

[B] SAME MATERIAL AND HEAT-TREAT AS EXISTING SKIN. SAME GAGE AS SKIN OR SKIN AND DOUBLER

[C] REPAIRS MAY BE MADE USING PROTRUDING HEAD FASTENERS AT THE OPERATORS OPTION. REFER TO 51-4-1 FOR AERODYNAMIC SMOOTHNESS REQUIREMENTS

[D] WHEN USING MS20426 FASTENERS THE COUNTERSINK DEPTH MUST NOT EXCEED THAT WHICH IS GIVEN FOR BACR15CE FASTENERS. SEE TABLE II

[E] WHERE AN EXTERNAL REPAIR PLATE HAS BEEN INSTALLED WITH BLIND RIVETS, USE THE SOLID RIVETS SPECIFIED IN TABLE I, EXCEPT THAT THE SOLID RIVETS MUST BE A MINIMUM OF 1/32 LARGER IN DIAMETER THAN THE NOMINAL SIZE OF THE BLIND RIVETS

[F] MICROSHAVE FASTENER HEADS TO MAINTAIN AERODYNAMIC SMOOTHNESS REQUIREMENTS IN 51-4-1

SYMBOLS

REPAIR FASTENER LOCATIONS SEE TABLE I

REPAIR FASTENER LOCATIONS, SEE TABLE I

EXISTING FASTENER LOCATIONS. REFER TO NOTES ON FACE OF DRAWING

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

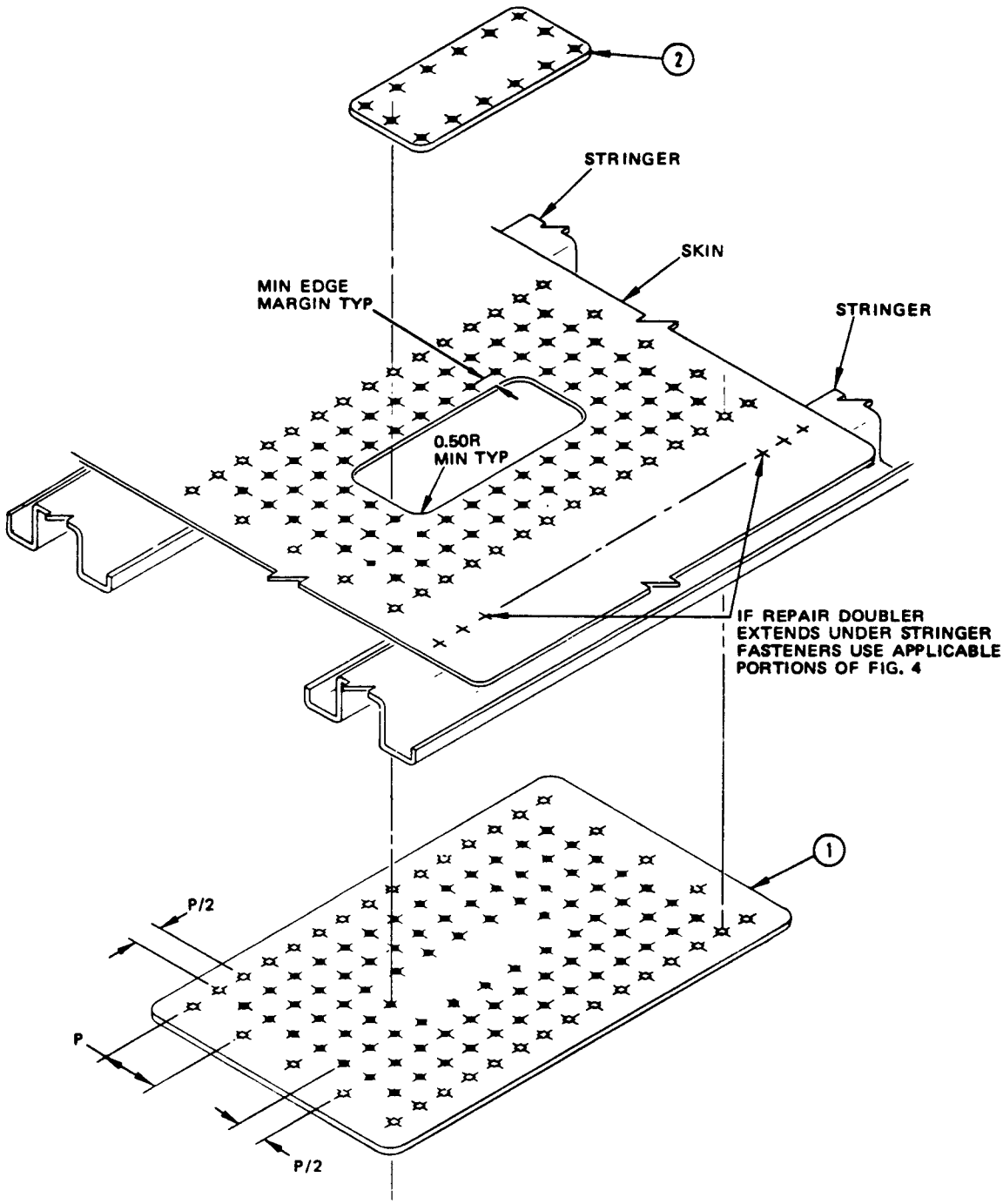
ORIGINAL SKIN GAGE	PREFERRED FASTENER		OPTIONAL FASTENER		SPACING P	EDGE MARGIN
	⌖ [E]	✦ [E]	⌖ [D][E]	✦ [D][E]		
0.040–0.045	BACR15CE-6D	BACR15CE-5D	MS20426-D6	MS20426-D5	1.56–1.61	0.43
0.050–0.063	BACR15DS-7D	BACR15CE-6D	MS20426-D7	MS20426-D6	1.87–1.94	0.49
0.071–0.100	BACR15DS-9D	BACR15CE-8D		MS20426-D8	2.38–2.56	0.61
0.112–0.125	BACR15DS-9D	BACR15CE-8D		MS20426-D8	2.03–2.14	0.61
			MS20470 [C]			

TABLE I

ORIGINAL SKIN GAGE	FASTENER DIAMETER	⌖ [F] DEPTH OF COUNTERSINK	FASTENER DIAMETER	✦ [F] DEPTH OF COUNTERSINK
0.040 AND 0.045	3/16	0.027	5/32	0.027
0.050 AND THICKER	3/16	0.027	5/32	0.039
0.050	7/32	0.040	3/16	0.040
0.063 AND THICKER	7/32	0.040	3/16	0.048
0.071	9/32	0.057	1/4	0.057
0.080 AND THICKER	9/32	0.057	1/4	0.062

TABLE II

Fuselage Skin between Stringers Flush Repair
Figure 2 (Sheet 2)



Fuselage Skin Between Stringers - Flush Repair
Figure 2 (Sheet 3)

REPAIR INSTRUCTIONS

External repair as shown allows either solid rivet or blind rivet repair. Refer to applicable repair instructions.

SOLID RIVET REPAIR

1. Trim the damaged skin across the stiffener to a rectangular shape and parallel to the stringer. If the stringer is damaged, repair as shown in 53-3-4.
2. Drill out existing fasteners in the skin to stringer attachment as required.
3. Return all indented or projecting skin to contour. Remove all burrs, nicks, scratches, sharp edges or corners from the damaged area.
4. Make the repair parts and drill the appropriate fastener holes.
5. Alodize the cut edges of new and existing parts.
6. Install repair parts with the fasteners specified in Table I, making faying surface seals between all parts in accordance with 53-1-3. A bead of sealant should be apparent all around cutout in skin after installation. Where there is sufficient sealant squeezed out it may be formed into a fillet, otherwise an additional fillet seal should be applied.
7. Restore the finish according to 51-2 of the Maintenance Manual.

BLIND RIVET REPAIR

NOTE: Refer to general notes for fastener seating and inspection requirements prior to making blind rivet repair.

1. Trim the damaged skin across the stiffener to a rectangular shape and parallel to the stringer. If the stringer is damaged repair as shown in 53-3-4.
2. Drill out existing fasteners in the skin to stringer attachment as required.
3. Return all indented or projecting skin to contour. Remove all burrs, nicks, scratches, sharp edges or corners from the damaged area.
4. Make the repair parts and drill the appropriate fastener holes.
5. Alodize the cut edges of new and existing parts.
6. Prime the alodized edges of existing parts and all interior surfaces of new parts.
7. Install repair parts with the fasteners specified in Table II, making faying surface seals between all parts in accordance with 53-1-3.

   NOTE: Special care should be taken when applying sealant to faying surfaces to ensure that a bead of sealant will be squeezed out all around the skin cutout and filler upon repair plate installation.

8. Restore the finish according to 51-2 of the Maintenance Manual.

NOTES

- BLIND RIVET REPAIRS SHOULD NOT BE USED WHERE DOUBLERS, TRIPLERS AND NONTYPICAL STRUCTURE EXIST UNLESS IT CAN BE DEFINITELY ESTABLISHED THAT THE BLIND RIVETS WILL BE PROPERLY SEATED ON THE INTERNAL STRUCTURE AND THAT ADEQUATE RIVET SPACING AND EDGE MARGINS ARE MAINTAINED

- BLIND RIVET REPAIRS SHOULD BE INSPECTED EVERY 2,500 FLIGHTS AND REPLACED WITH A FLUSH OR NON-FLUSH SOLID FASTENER REPAIR AT NEXT OVERHAUL, BUT NOT LATER THAN 20,000 FLIGHTS AFTER INSTALLATION [F]

- WHEN BLIND RIVETS ARE REPLACED WITH SOLID RIVETS, USE THE SOLID RIVETS SPECIFIED IN TABLE I EXCEPT THAT THE SOLID RIVETS MUST BE A MINIMUM OF 1/32 LARGER IN DIAMETER THAN THE NOMINAL SIZE OF THE BLIND RIVETS

- REFER TO THE FOLLOWING WHEN MAKING THE REPAIR:

  51-8-0 FOR PROTECTIVE TREATMENT OF METAL

  51-2 FOR FASTENER CODE, REMOVAL AND INSTALLATION, HOLE SIZES AND EDGE MARGINS AND COUNTERSINKING

  51-1-3 FOR FAYING SURFACE SEALING

[A] SAME MATERIAL AND HEAT TREAT AS ORIGINAL SKIN AND TWO GAGES GREATER

[B] SAME MATERIAL, HEAT TREAT AS ORIGINAL SKIN, SAME GAGE AS SKIN OR SKIN AND DOUBLER

[C] REPAIRS MAY BE MADE WITH PROTRUDING HEAD FASTENERS AT THE OPERATOR'S OPTION. REFER TO 51-4-1 FOR AERODYNAMIC SMOOTHNESS REQUIREMENTS

[D] WHEN USING MS20426 FASTENERS THE COUNTERSINK DEPTH MUST NOT EXCEED THAT WHICH IS GIVEN FOR BACR15CE FASTENERS

[E] INSTALL IN HOLES SWABBED WITH BMS 5-95 SEALANT

[F] THIS REPAIR HAS FAA (DER) APPROVAL CONTINGENT ON ACCOMPLISHMENT OF THE INSPECTIONS AT THE INTERVALS CONTAINED HEREIN

SYMBOLS

+ EXISTING FASTENER LOCATIONS. REFER TO NOTES ON FACE OF DRAWING

⊹ REPAIR FASTENER LOCATIONS. SEE TABLE I OR TABLE II AS APPLICABLE

REPAIR MATERIAL			
PART		QTY	MATERIAL
(1)	PLATE	1	[A]
(2)	FILLER	1	[B]

Fuselage Skin at Stringer - External Repair
Figure 3 (Sheet 2)

ORIGINAL SKIN GAGE	PREFERRED FASTENER	OPTIONAL FASTENER ⌖ D	SPACING P	EDGE MARGIN
0.040–0.045	BACR15CE5D	MS20426D5	1.56–1.61	0.39
0.040–0.063	BACR15CE6D	MS24026D6	1.87–1.94	0.47
0.071–0.100	BACR15CE8D	MS20426D8	2.38–2.56	0.63
0.112–0.125	BACR15CE8D	MS20426D8 MS20470 C	2.03–2.14	0.63

FOR SOLID RIVET REPAIR ONLY

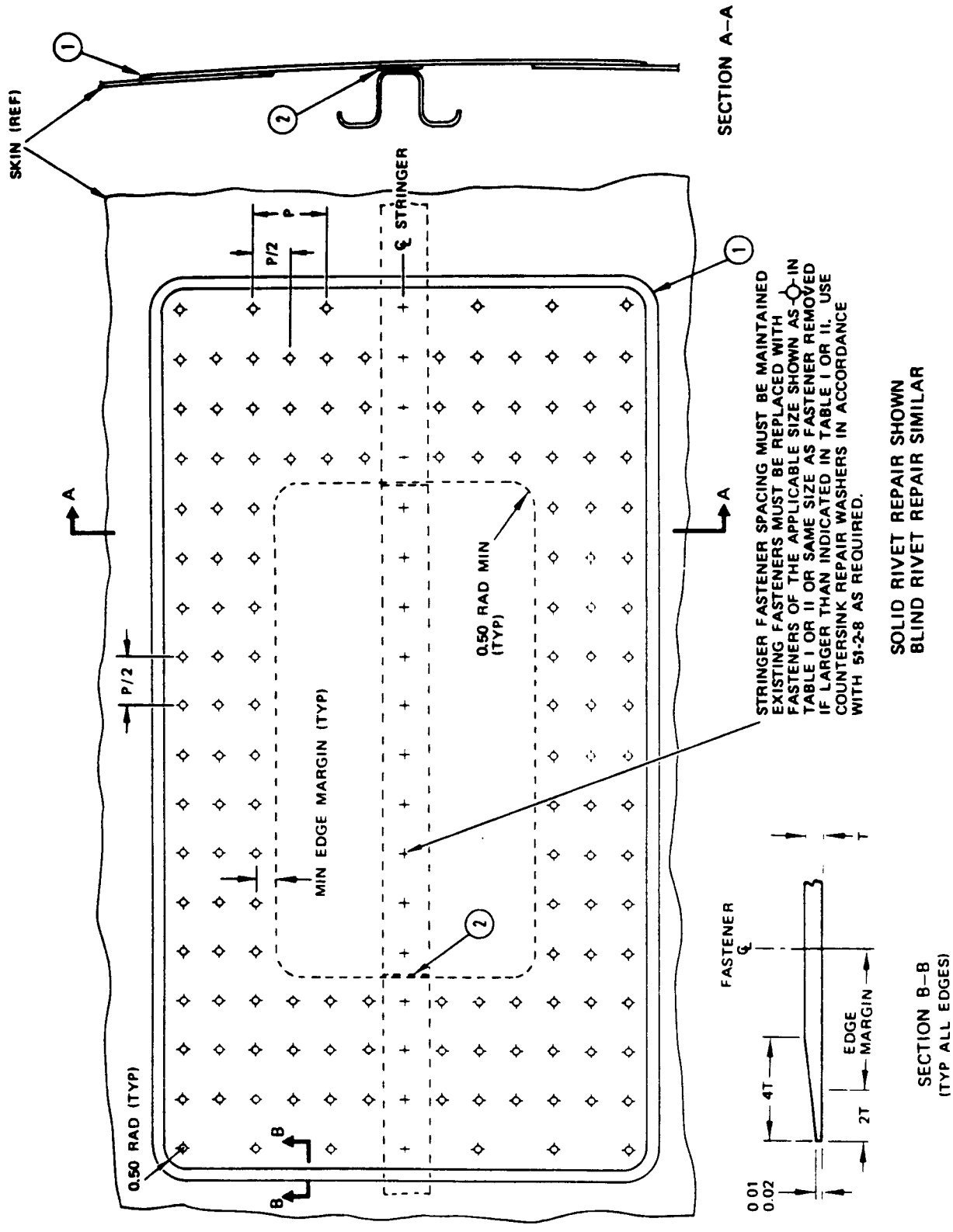
TABLE I

ORIGINAL SKIN GAGE	PREFERRED FASTENER ⌖ E	NUMBER OF ROWS		SPACING P	EDGE MARGIN
		LONGITUDINAL	CIRCUMFERENTIAL		
0.040–0.045	NAS1738E4	3	3 1/2	1.56–1.61	0.32
0.050	NAS1738E5	3	3 1/2	1.87–1.94	0.32
0.063	NAS1738E5	4	4 1/2	1.87–1.94	0.36
0.071	NAS1738E6	4	4 1/2	2.38–2.56	0.36
0.080–0.090	NAS1738E6	5	5 1/2	2.38–2.56	0.47
0.100	NAS1738E6	6	6 1/2	2.38–2.56	0.47
0.112–0.125	NAS1738E6	6	6 1/2	2.03–2.14	0.47

FOR BLIND RIVET REPAIR ONLY

TABLE II

FAA Approved Repair



Fuselage Skin at Stringer - External Repair
Figure 3 (Sheet 4)

REPAIR INSTRUCTIONS

(FOR SPOTWELDED SKIN)

1. If an external repair has previously been made, drill out the fasteners and remove the external plate and all sealant material.

2. Damage to skin where it is spotwelded to a stiffener requires its separation from the stringer in the local damage area.

3. Spotface the stringer as required at spotwelds to a maximum depth of stringer thickness minus 0.005. Do not cut through to the skin. Spotface only that portion of the stringer which is to be removed.

4. Cut out the stringer to suit the size of the proposed repair doubler. Do not cut through to the skin.

5. Break the stringer loose from the skin and microshave any remaining weld nuggets attached to inner skin contour.

6. Trim the damaged skin to form a rectangular opening parallel to the stringer. (Cutout in skin may exist if external repair was made.)

7. Return all indented or projecting skin to contour. Remove all burrs, nicks, scratches, sharp edges or corners from skin or stringer.

8. Make part 2, same gage as existing skin and to match skin cutout leaving a gap of 0.05-0.07 all around.

9. Refer to 53-3-4, Fig. 1 or 2 for details of stringer repair and make the repair parts.

10. Make part 1 one gage greater than existing skin thickness and locate fastener positions. If an external plate is being replaced, locate the fasteners in part 1 to match the existing locations in the skin.

11. Use part 3 between nesting stringer and existing stringer when stringer gage is less than skin gage.

12. Use part 4 between nesting stringer and doubler when doubler gage is less than stringer gage.

13. Alodize the cut edges of new and existing parts.

14. Install the repair parts with the fasteners specified in Table I, making faying surface seals between all parts in accordance with 53-1-3. 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.

15. Apply BMS 5-79 sealant in the gap between the filler, part 1, and the skin.

16. Refinish according to 51-2 of the Maintenance Manual.

REPAIR INSTRUCTIONS

(FOR RIVETED SKIN)

1. If an external repair has previously been made, drill out the fasteners and remove the external plate and all sealant material.

2. Trim the damaged skin to form a rectangular opening parallel to the stringer. Do not cut into stringer. (Cutout in skin may exist if external repair was made.)

3. Return all indented or projecting skin to contour. Remove all burrs, nicks, scratches, sharp edges or corners from the damage area.

4. Make part 2, same gage as existing skin and to match skin cutout leaving a gap of 0.05 to 0.07 all around.

5. Make part 1 one gage greater than existing skin thickness. Include end tabs at stringer location where the original skin gage does not exceed 0.045.

6. Locate fastener positions. If an external plate is being replaced, locate the fasteners in part 1 to match the existing locations in the skin.

7. Make part 5 if the original skin gage exceeds 0.045.

8. Alodize the cut edges of new and existing parts.

9. Install the repair parts with the fasteners specified in Table I, making faying surface seals between all parts in accordance with 53-1-3. 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.

10. Apply BMS 5-79 sealant in the gap between the filler, part 2, and the skin.

11. Refinish according to 51-2 of the Maintenance Manual.

NOTES

REFER TO THE FOLLOWING WHEN MAKING THIS REPAIR:

51-2 FOR FASTENER CODE, REMOVAL AND INSTALLATION, HOLE SIZES AND EDGE MARGINS

51-8-0 FOR PROTECTIVE TREATMENT OF METAL

51-4-1 FOR AERODYNAMIC SMOOTHNESS REQUIREMENTS

51-1-3 FOR FAYING SURFACE SEALS

[A] SAME MATERIAL AND HEAT-TREAT AND ONE GAGE GREATER THAN EXISITNG SKIN

[B] SAME MATERIAL AND HEAT-TREAT AS EXISTING SKIN. SAME GAGE AS SKIN OR SKIN AND DOUBLER

[C] USE WHEN REQUIRED, GAGE TO SUIT CONDITIONS OF NESTING HAT SECTION FIT

[D] REPAIR MAY BE MADE USING PROTRUDING HEAD FASTENERS AT THE OPERATORS OPTION. REFER TO 51-4-1 FOR AERODYNAMIC SMOOTHNESS REQUIREMENTS

[E] WHEN USING MS20426 FASTENERS, THE COUNTERSINK DEPTH MUST NOT EXCEED THAT WHICH IS GIVEN FOR BACR15CE FASTENERS. SEE TABLE II

[F] SEE 53-3-4, FIG. 1 OR 2 FOR ALL DETAILS OF STRINGER REPAIR INCLUDING NUMBER AND TYPE OF FASTENERS TO BE USED

[G] USE WHERE ORIGINAL SKIN GAGE DOES NOT EXCEED 0.045

[H] USE WHERE ORIGINAL SKIN GAGE EXCEEDS 0.045

[J] WHERE ORIGINAL SKIN GAGES ARE 0.063 OR GREATER AND WHERE AN EXTERNAL REPAIR PLATE HAD BEEN INSTALLED WITH BLIND FASTENERS TO FIG. 3, ADDITIONAL ROWS OF FASTENERS ARE USED. IN THIS CASE INSTALL FASTENERS INDICATED BY ⌖ IN TABLE I AT ALL REPAIR FASTENER LOCATIONS

[K] WHERE AN EXTERNAL REPAIR PLATE HAS BEEN INSTALLED WITH BLIND RIVETS, USE THE SOLID RIVETS SPECIFIED IN TABLE I, EXCEPT THAT THE SOLID RIVETS MUST BE A MINIMUM OF 1/32 LARGER IN DIAMETER THAN THE NOMINAL SIZE OF THE BLIND RIVETS

[L] MICROSHAVE FASTENER HEADS TO MAINTAIN AERODYNAMIC SMOOTHNESS REQUIREMENTS IN 51-4-1

SYMBOLS

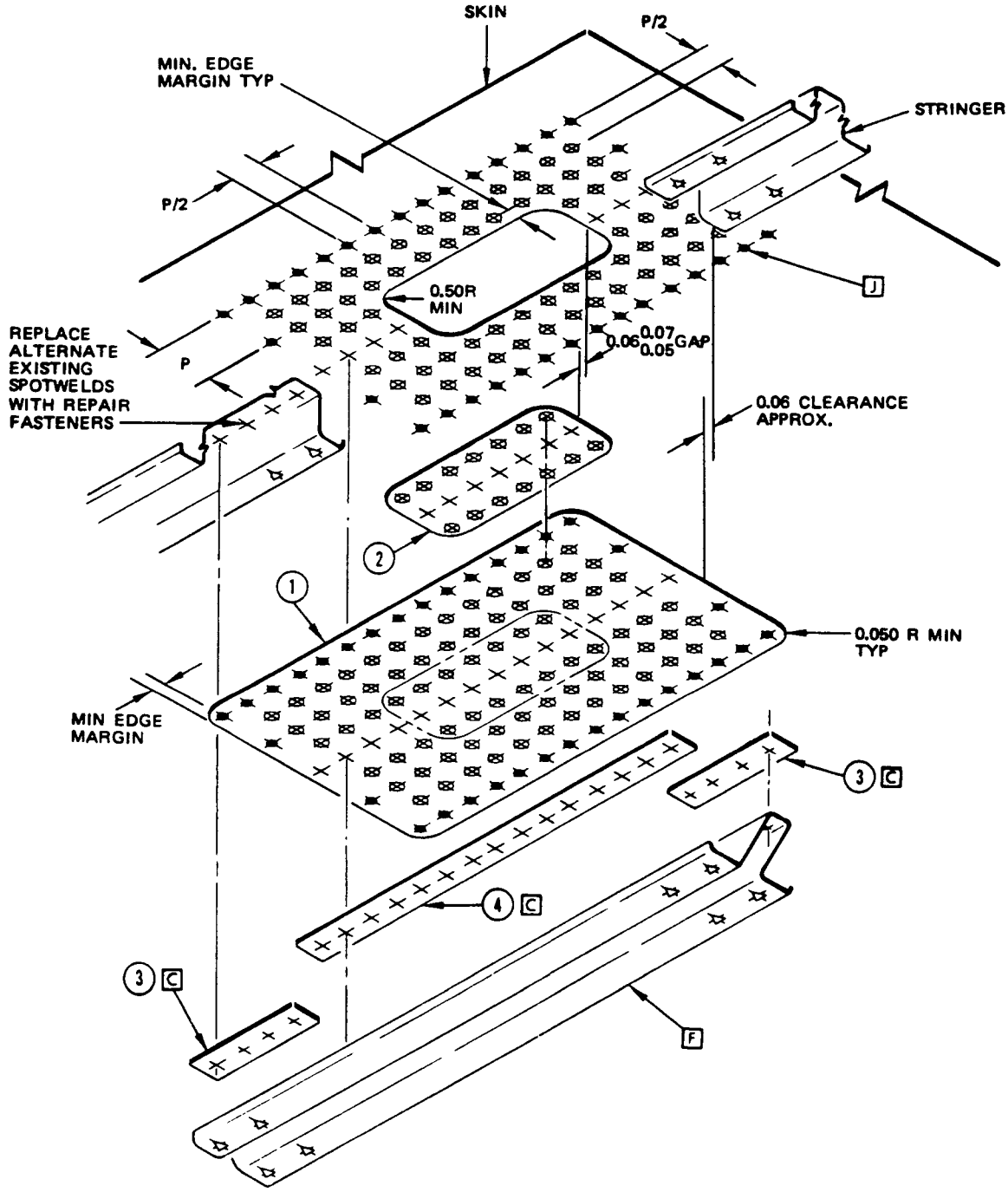
+ EXISTING FASTENER LOCATION. REFER TO NOTES ON FACE OF DRAWING

⌖ REPAIR FASTENER LOCATION. SEE TABLE I

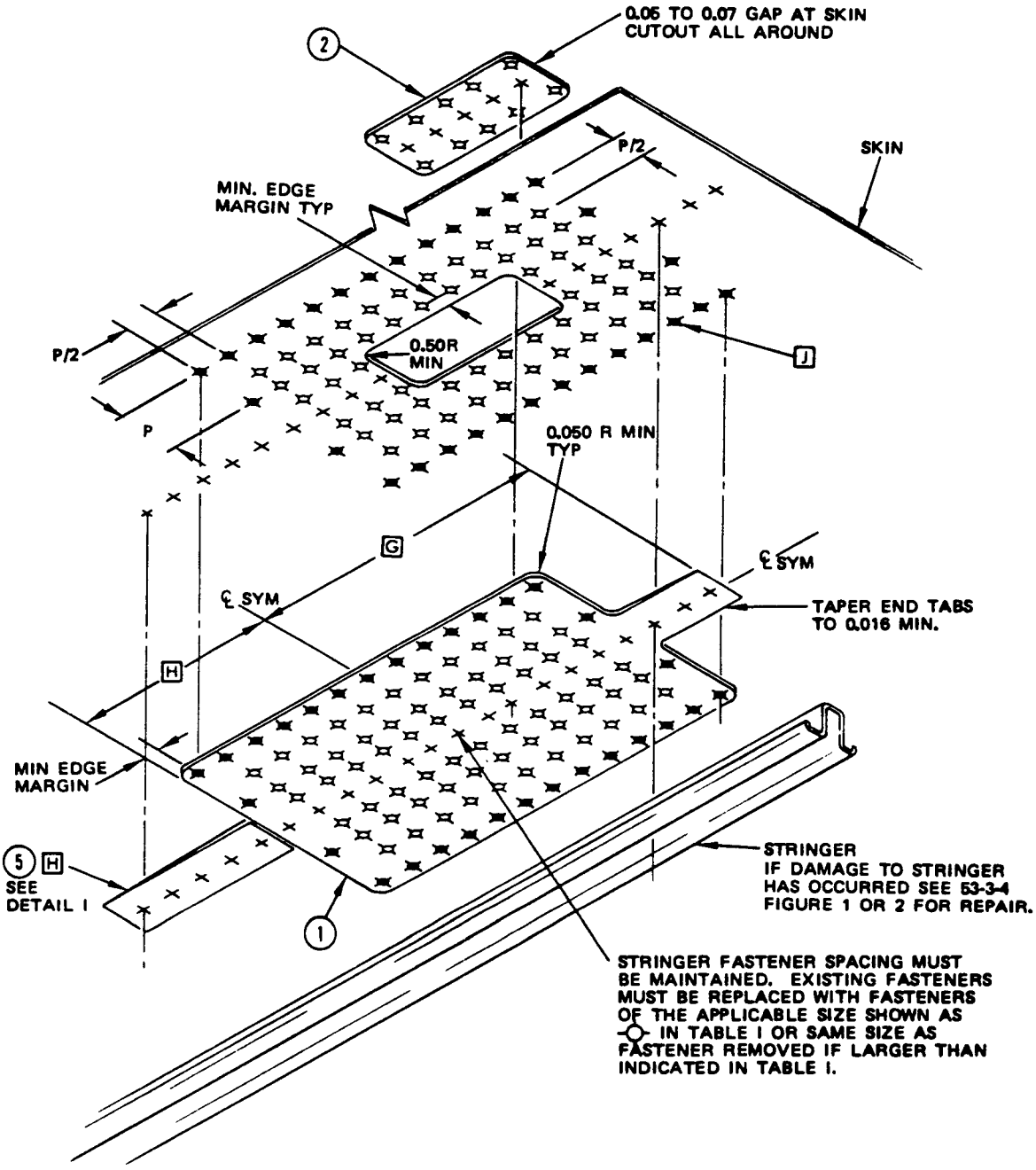
◆ REPAIR FASTENER LOCATION. SEE TABLE I

✧ STRINGER REPAIR FASTENER LOCATION. REFER TO 53-3-4, FIG.1 OR 2

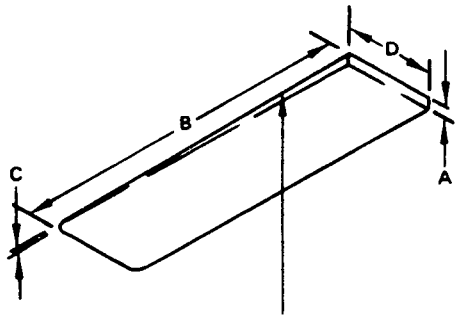
REPAIR MATERIAL			
PART		QTY	MATERIAL
1	DOUBLER	1	[A]
2	FILLER	1	[B]
3	SHIM	2	2024-T4 [C]
4	SHIM	1	2024-T4 [C]
5	SHIM	2	2024-T3



SPOT WELDED SKIN REPAIR



RIVETED SKIN REPAIR



DETAIL I

DIMENSIONS FOR PART NO. 5				
ORIGINAL SKIN GAGE	DIM. A	DIM. B	DIM. C	DIM. D
0.050	0.056	6.0	0.02 0.01	1.00
0.056	0.063	6.0	0.02 0.01	1.00
0.063	0.071	6.0	0.02 0.01	1.00
0.071	0.080	6.0	0.02 0.01	1.00
0.080	0.090	6.0	0.02 0.01	1.00
0.090	0.100	6.0	0.02 0.01	1.00
0.100	0.125	6.0	0.02 0.01	1.00
0.125	0.160	6.0	0.02 0.01	1.00

ORIGINAL SKIN GAGE	PREFERRED FASTENER [K]		OPTIONAL FASTENER [K]		SPACING P	EDGE MARGIN
	◆	⊙	◆ [E]	⊙ [E]		
0.040–0.045	BACR15CE-6D	BACR15CE-5D	MS20426-D6	MS20426-D5	1.56-1.61	0.43
0.050–0.063	BACR15DS-7D	BACR15CE-6D	MS20426-D7	MS20426-D6	1.87-1.94	0.49
0.071–0.100	BACR15DS-9D	BACR15CE-8D		MS20426-D8	2.38-2.56	0.61
0.112–0.125	BACR15DS-9D	BACR15CE-8D		MS20426-D8	2.03-2.14	0.61
			MS20470 [D]			

TABLE I

ORIGINAL SKIN GAGE	FASTENER DIAMETER ◆ [L]	DEPTH OF COUNTERSINK	FASTENER DIAMETER ⊙ [L]	DEPTH OF COUNTERSINK
0.040 AND 0.045	3/16	0.027	5/32	0.027
0.050 AND THICKER	3/16	0.027	5/32	0.039
0.050	7/32	0.040	3/16	0.040
0.063 AND THICKER	7/32	0.040	3/16	0.048
0.071	9/32	0.057	1/4	0.057
0.080 AND THICKER	9/32	0.057	1/4	0.062

TABLE II

REPAIR INSTRUCTIONS

1. This is an external repair for damage at a skin lap joint. Damage is assumed to be to skin only. If the stringer is damaged enough to warrant repair proceed as outlined in 53-3-2 figure 6.

2. Trim each damaged skin on each side and across the stringer In order to obtain a rectangularly shaped cutout, one side parallel to the stringer. Do not damage the stringer.

3. Return all indented or projecting skin to contour. Remove all burrs, nicks, scratches, sharp edges and corners from the damage area.

4. Where skin is countersunk for existing BAC-R15CE rivets, countersink skin sufficiently to accomodate AN426 rivets of the same diameter as existing rivets, and install special washers per 51-2-8 Figure 4.

5. Make an assembly of parts 1, 2, and 3 with tack riveting.

6. Position the assembly and drill all holes except through existing countersunk holes in skin.

7. Secure the assembly in place and backdrill from existing holes through special washers and part 1.

8. Install rivets making a faying surface seal between the assembly and the skin per 52-1-3.

9. Replace original finish per 51-2-0 of the 707 Maintenance Manual.

REPAIR MATERIAL			
PART		QTY.	MATERIAL
(1)	PLATE	1	[A]
(2)	FILLER	1	CLAD 2024-T3 [B]
(3)	FILLER	1	CLAD 2024-T3 [C]

NOTE

- SEE 51-2-0 FOR FASTENER CODE, REMOVAL AND INSTALLATION, HOLE SIZES AND EDGE MARGINS.
- SEE 51-8-0 FOR METAL PROTECTIVE TREATMENT
- SEE 51-13-1 FOR DEFINITION OF AN EXTERNAL REPAIR

ORIGINAL FASTENER LOCATIONS

REPAIR FASTENER LOCATIONS

[A] SAME MATERIAL AND HEAT TREAT. ONE GAGE GREATER THAN THE LARGER OF EITHER LAPPED OR OVER LAPPING SKIN.

[B] SAME GAGE AS OVER LAPPING SKIN.

[C] SAME GAGE AS TOTAL THICKNESS OF OVERLAPPING AND OVERLAPPED SKIN.

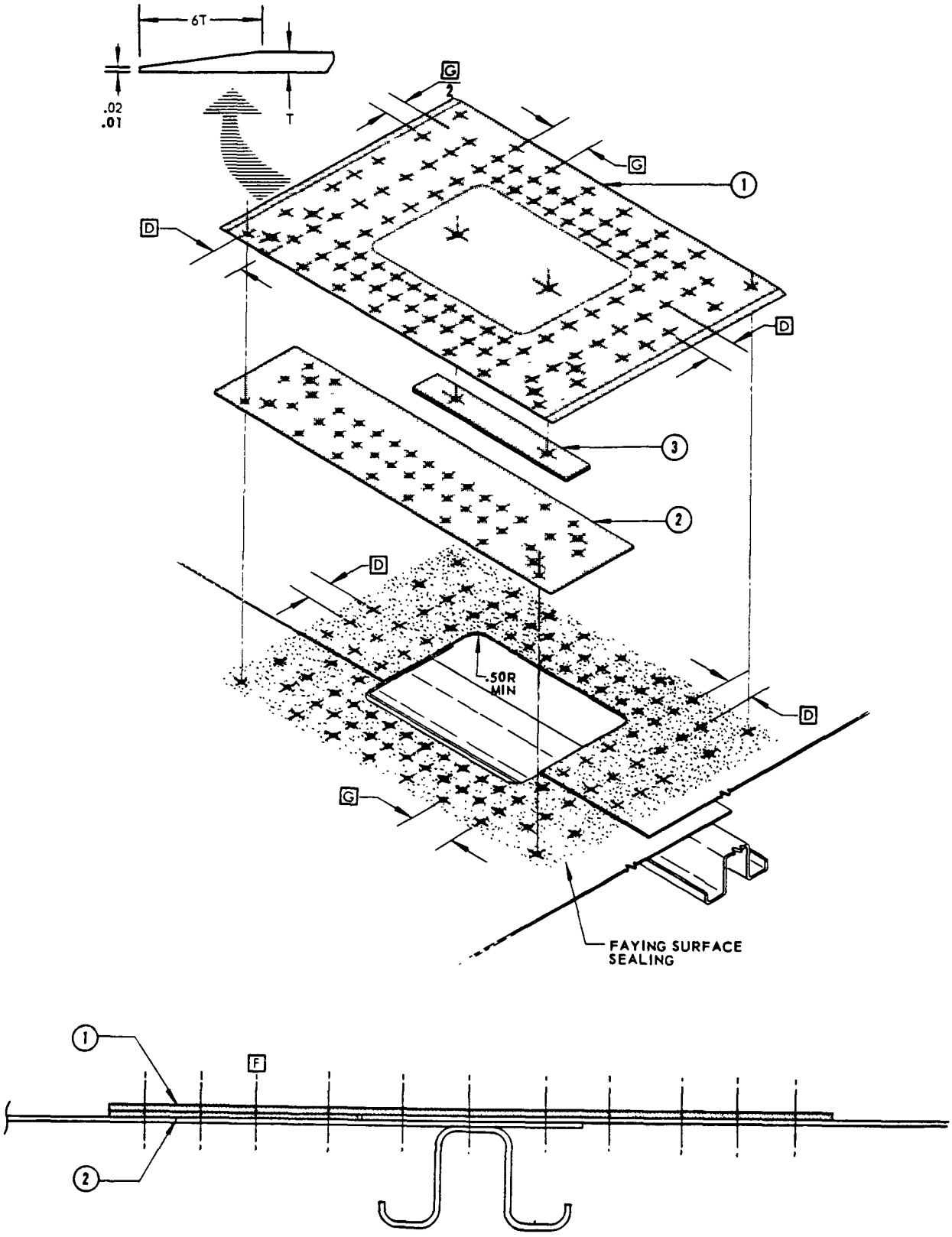
[D] EXISTING FASTENER SPACING AT SPLICE

[E] FOR PERFORMANCE CONSIDERATIONS IN REGIONS OF CRITICAL SMOOTHNESS SEE 51-4-1.

[H] SEE 51-2-3

ORIGINAL SKIN GAGES	FASTENER [F]		SPACING [G]	EDGE MARGIN
	PREFERRED	ALTERNATE		
.040, .045	BAC-R15CE-5D	AN470D-5 BB352-5	1.25-1.35	.36
.050, .063	BAC-R15CE-6D	AN470D-6 BB352-6	1.40-1.60	.42
.071, .110	BAC-R15CE-8D	AN470D-8 BB352-8	1.85-2.15	.55

Fuselage Skin Lap Joint - External Repair
Figure 5 (Sheet 1 of 2)



Fuselage Skin Lap Joint - External Repair
Figure 5 (Sheet 2 of 2)

REPAIR INSTRUCTIONS

1. Remove external patch plate assembly and all faying surface sealant if a temporary repair per figure 5 is presently installed.

2. Cut the damaged skins on each side and across the stiffener in order to obtain a rectangular cutout. Remove all scratches, gouges or nicks from cutout.

3. Cut the stringer with a suitable tool to allow the insertion of the doubler plate, part 3.

NOTE:

Do not cut the skin.

4. Determine the number and types of fasteners required to install the nesting channels and fillers to the skin and inboard flanges of the stiffener, per 53-3-4, figure 1. Use existing fastener locations for repair fasteners in the skin beyond doubler, part 3 and install repair components.

5. Make fillet and fastener seals per 51-3-0 of the 707 Maintenance Manual.

6. Apply aerodynamic smoother, BMS 5-79, per 51-3-0 of the 707 Maintenance Manual, in critical areas.

7. Replace original finish per 51-2-0 of the 707 Maintenance Manual.

REPAIR FASTENER		
ORIGINAL GAGE SKIN	FASTENER [F] [H]	[G] SPACING
0.040–0.045	BAC-R15CE-D5	1.35 1.25
0.050–0.063	BAC-R15CE-D6	1.60 1.40
0.071–0.110	BAC-R15CE-D8	2.15 1.85

REPAIR MATERIAL			
PART		QTY.	MATERIAL
(1)	FILLER	1	[A]
(2)	FILLER	1	[B]
(3)	PLATE	1	[C]
(4)	CHANNEL	1	[D]
(5)	CHANNEL	2	[D]
(6)	ANGLE	2	[D]
(7)	FILLER	2	CLAD 2024-T3 GAGE AS REQUIRED

NOTES

- SEE 51-2-0 FOR FASTENER CODE, REMOVAL AND INSTALLATION, HOLE SIZES AND EDGE MARGINS.
- SEE 51-8-0 FOR METAL PROTECTIVE TREATMENT

[A] SAME MATERIAL AND GAGE AS OVERLAPPING SKIN.

[B] SAME MATERIAL AND GAGE AS OVERLAPPED SKIN.

[C] SAME MATERIAL AND HEAT TREAT. ONE GAGE GREATER THAN THE LARGER OF THE LAPPING OR OVERLAPPED SKIN.

[D] SAME MATERIAL AND HEAT TREAT AS ORIGINAL STIFFENER.

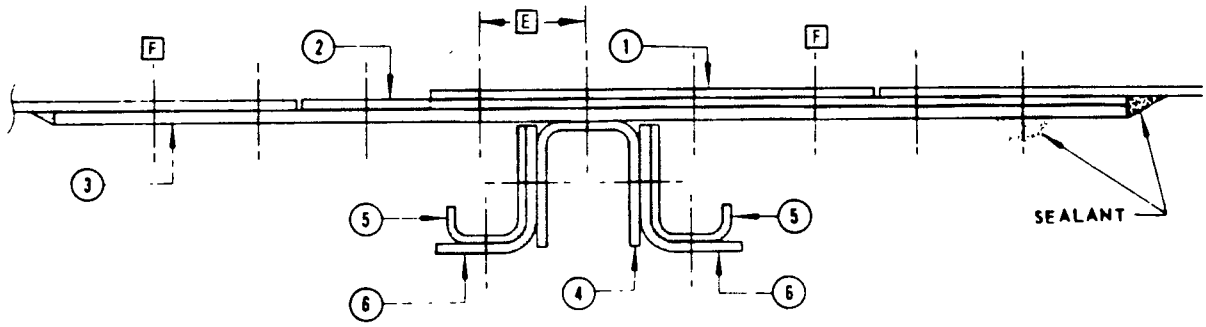
[E] EXISTING FASTENER SPACING AT SPLICE.

[H] SEE 51-2-3

SYMBOLS

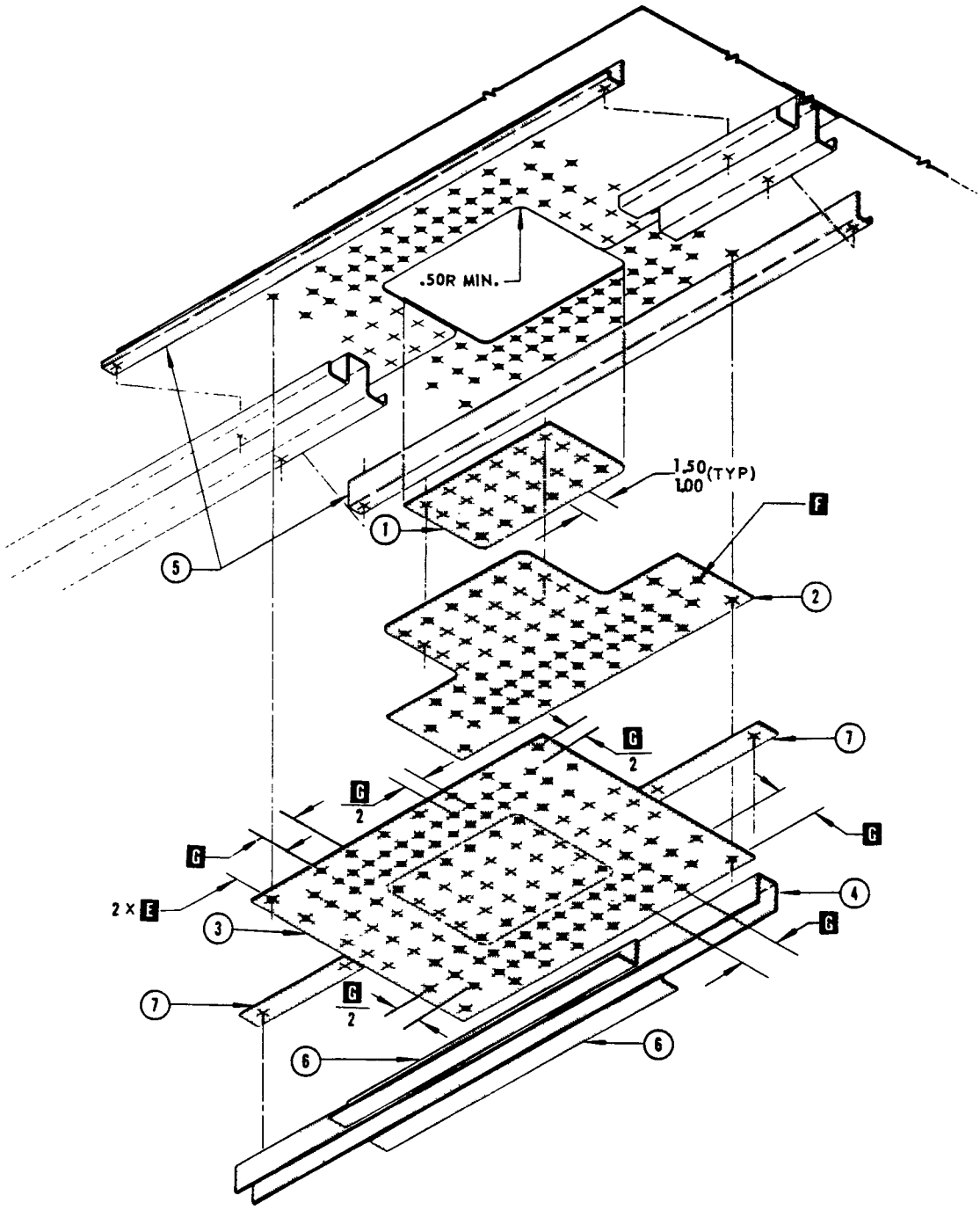
+ ORIGINAL FASTENER LOCATIONS

✦ REPAIR FASTENER LOCATIONS

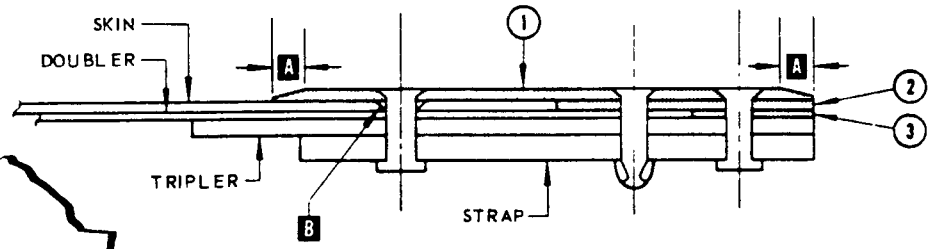


SECTION THROUGH DAMAGE

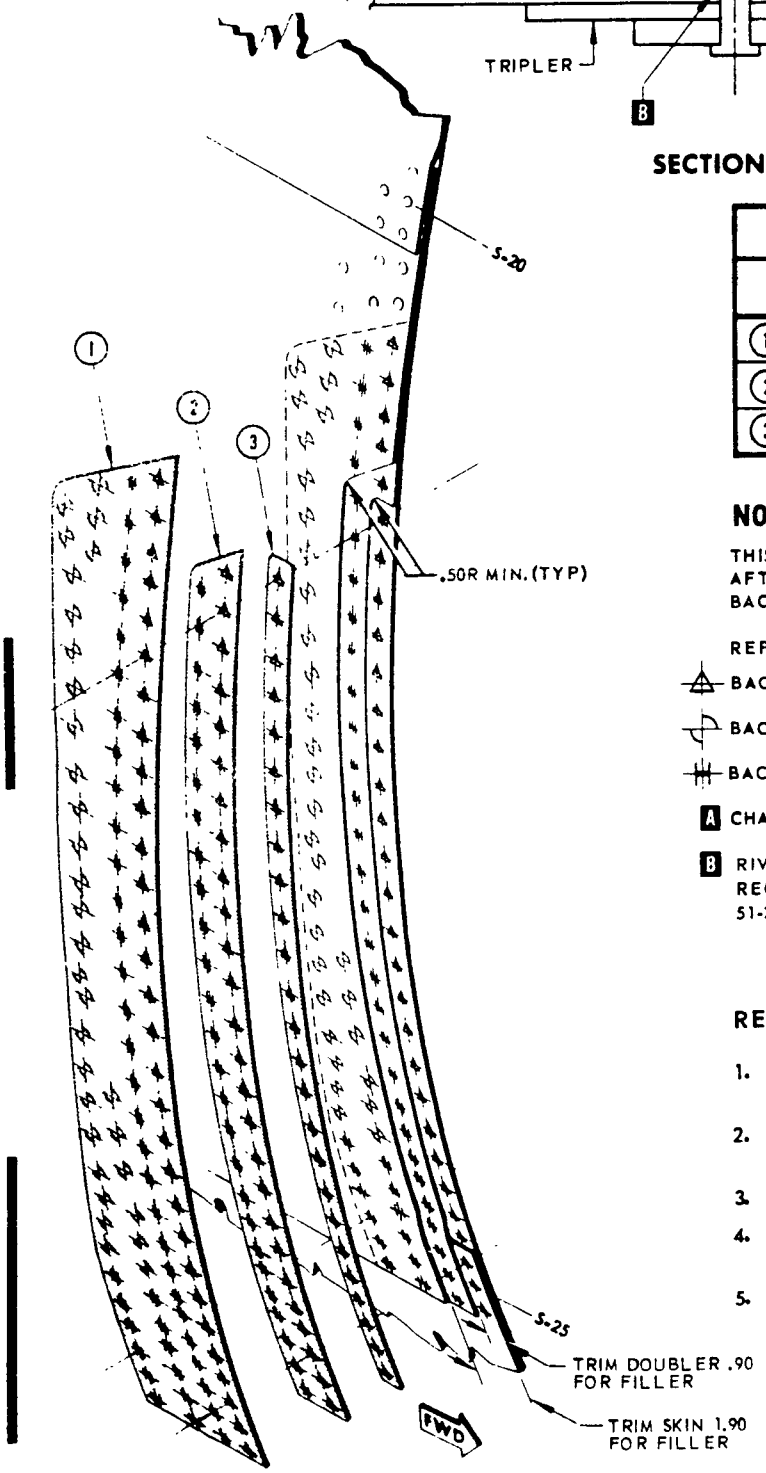
Skin Lap Joint Flush Repair
Figure 6 (Sheet 1)



Fuselage Skin Lap Joint Flush Repair
Figure 6 (Sheet 2 of 2)



SECTION THROUGH REPAIR



REPAIR MATERIAL			
PART		QTY.	MATERIAL
1	PLATE	1	.063 CLAD 2024-T3
2	FILLER	1	.050 CLAD 2024-T3
3	FILLER	1	.040 CLAD 2024-T3

NOTE

THIS REPAIR WAS EFFECTED BY ONE OPERATOR AFTER THE SKIN AND DOUBLER HAD BEEN PEELED BACK DURING TAKE-OFF THROUGH SNOW AND SLUSH.

REPAIR FASTENERS:

- BAC R15CE-6D PREFERRED, AN426-D6 OPTIONAL
- BAC-R15AD-D7
- BAC-15AW-6 (HOLE SIZE .200 $^{.203}_{.200}$)

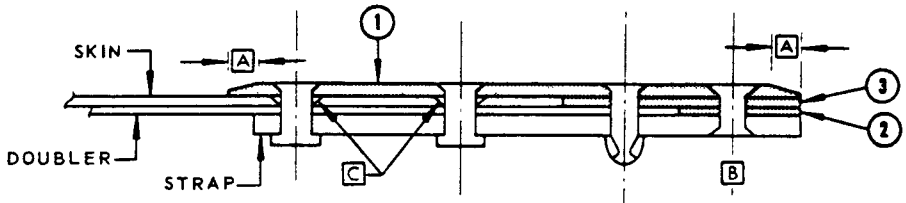
A CHAMFER FWD AND AFT EDGES .20 MIN.

B RIVETS THROUGH 1 OUTSIDE OF SKIN PATCH AREA WILL REQUIRE INSTALLATION OF SPECIAL WASHERS PER 51-2-8 FIGURE 4.

REPAIR INSTRUCTIONS:

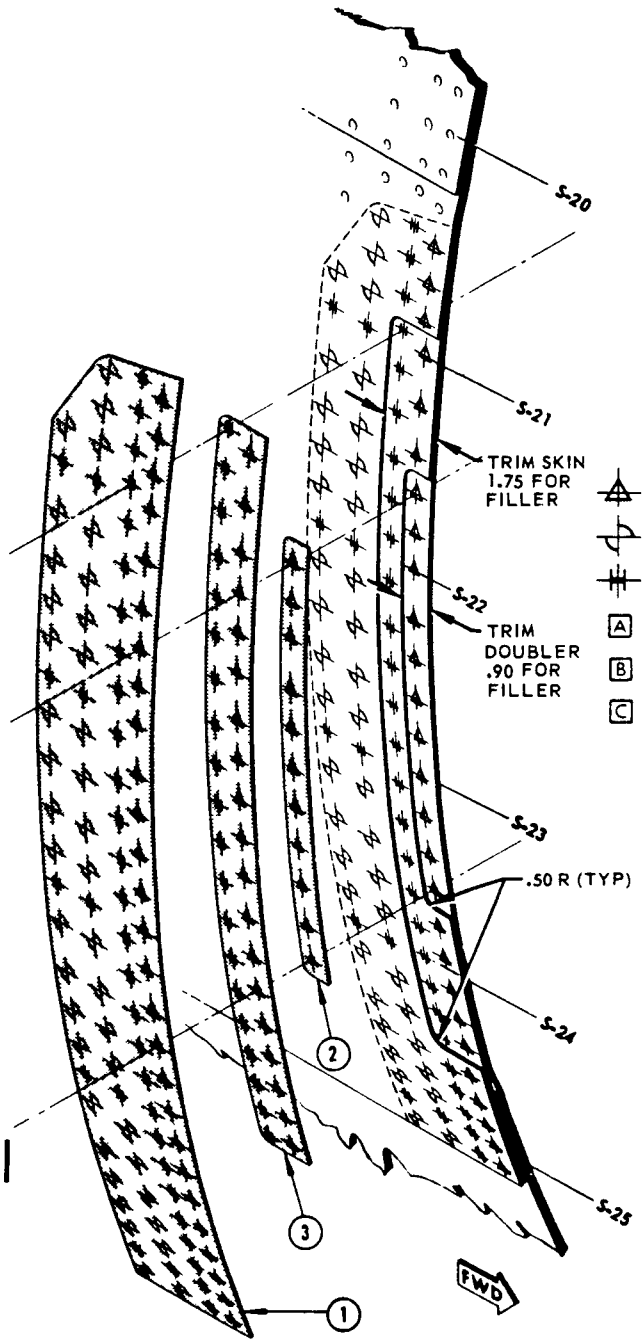
1. Cut out damaged portions of skin and doubler as shown.
2. Remove all sharp edges, scratches, burrs or nicks and bring protruding or dented skin to contour.
3. Fabricate repair parts 1 , 2 and 3.
4. Install repair parts. Apply faying surface seal per 53-1-3 between part 1 and skin.
5. Replace original finish per 51-2-0 of the 707 Maintenance Manual.

Skin Repair - Aft Edge Center Cargo Door Opening
Figure 7



SECTION THROUGH DAMAGE

REPAIR MATERIAL			
PART		QTY.	MATERIAL
(1)	PLATE	1	.063 CLAD 2024-T3
(2)	FILLER	1	.063 CLAD 2024-T3
(3)	FILLER	1	.050 CLAD 2024-T3



NOTE

THIS REPAIR WAS EFFECTED BY ONE OPERATOR AFTER THE SKIN AND DOUBLER HAD BEEN PEELED BACK DURING TAKE-OFF THROUGH SNOW AND SLUSH.

REPAIR FASTENERS:

BAC R15CE-6D PREFERRED, AN426-D6 OPTIONAL

BAC-R15AD-D7

BAC-15AW-6 (HOLE SIZE .200 $^{.203}_{.200}$)

A CHAMFER FWD AND AFT EDGES .20 MINIMUM.

B FLUSH BOTH SIDES.

C RIVETS THROUGH (1) OUTSIDE OF SKIN PATCH AREA WILL REQUIRE INSTALLATION OF SPECIAL WASHERS PER 51-2-8 FIGURE 4.

REPAIR INSTRUCTIONS

1. Cut out damaged portions of skin and doubler as shown.
2. Remove all sharp edges, scratches, burrs or nicks and bring protruding or indented skin to contour.
3. Fabricate repair parts (1), (2) and (3).
4. Install repair parts. Apply faying surface seal per 53-1-3 between part (1) and skin.
5. Replace original finish per 51-2-0 of the 707 Maintenance Manual.

EFFECTIVITY
PAA (N714PA THRU N730PA) PAA (N757PA THRU N759PA) AF, SABENA, DLH, AII, BOAC, VARIG, SAA AND EL AL

Skin Repair - Aft Edge Aft Cargo Door Opening
Figure 8

REPAIR INSTRUCTIONS

1. Remove original doubler and cut out damaged portion of skin to rectangular shape parallel with access hole. Make cutout of sufficient size to contain limits of damage. Remove all sharp edges, scratches, burrs or nicks and bring protruding or indented skin to contour.
2. Fabricate repair parts 1, 2 and 3 making part 3 of sufficient length to accommodate 3 rivets in each flange past damaged area
3. Install repair parts.
4. Replace original finish per 51-2-0 of the 707 Maintenance Manual.

NOTE: If skin is not cracked it is sufficient to just remove sharp edges, scratches, burrs and nicks and bring protruding or indented skin to contour.

NOTE

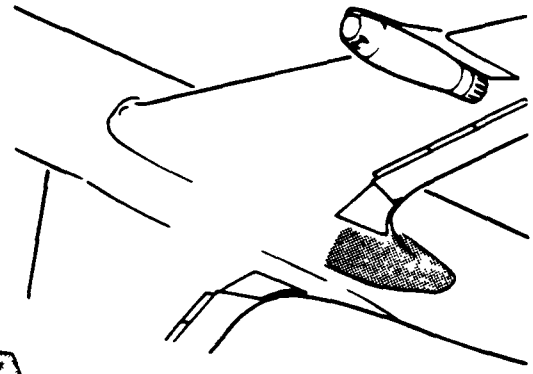
BREAK SHARP EDGES 0.03 ALL REPAIR PARTS AND TRIMMED ORIGINAL PARTS

+ ORIGINAL FASTENER LOCATIONS

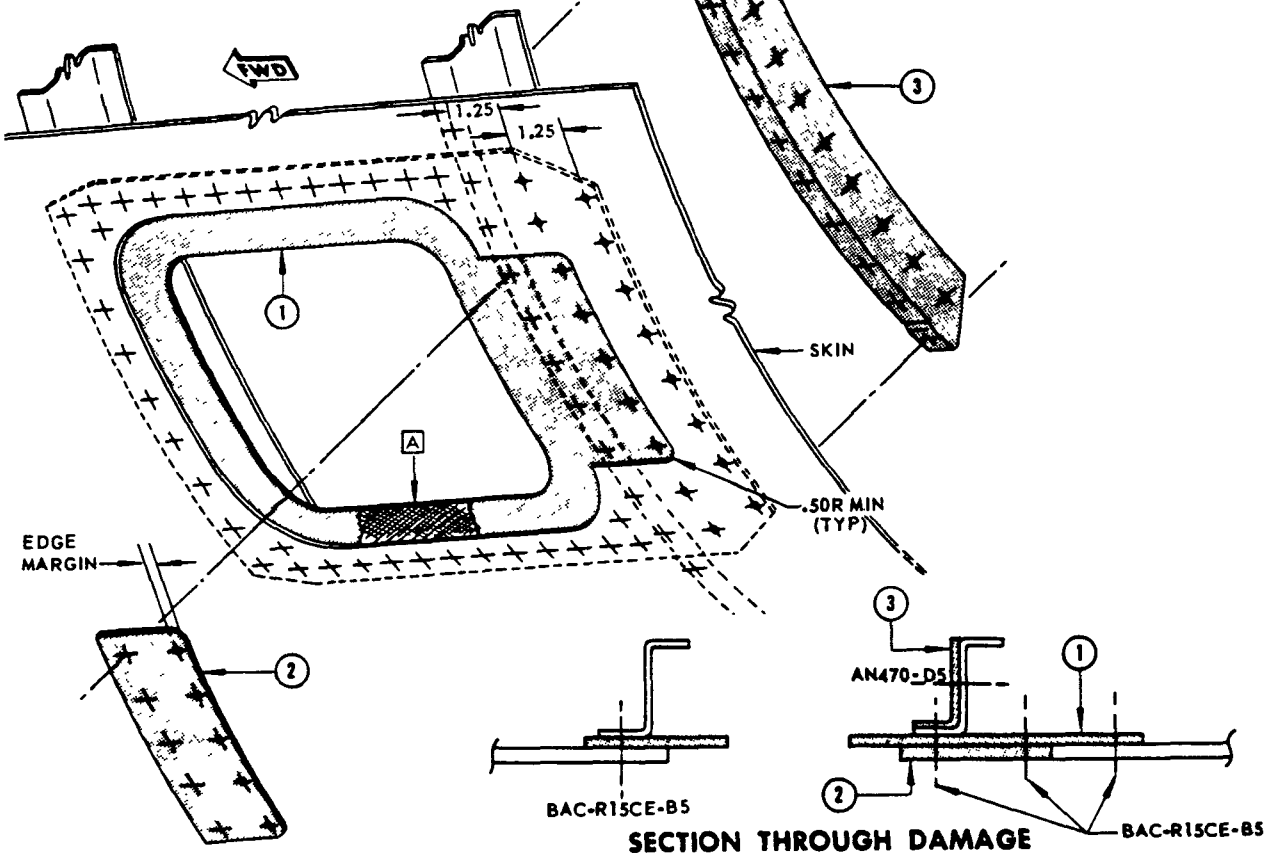
✦ REPAIR FASTENER LOCATIONS

[A] ATTACH ADHESIVE BACKING 2 MIL. MYLAR TAPE P-255.

THIS REPAIR WAS EFFECTED BY ONE OPERATOR AFTER THE SKIN AND DOUBLER HAD BEEN PEELED BACK DURING TAKE-OFF THROUGH SNOW AND SLUSH.



REPAIR MATERIAL			
PART		QTY.	MATERIAL
(1)	DOUBLER	1	.032 CLAD 2024-T3
(2)	PLATE	1	.040 SAME MATERIAL AS ORIGINAL SKIN
(3)	ANGLE	1	.025 CLAD 2024-T4

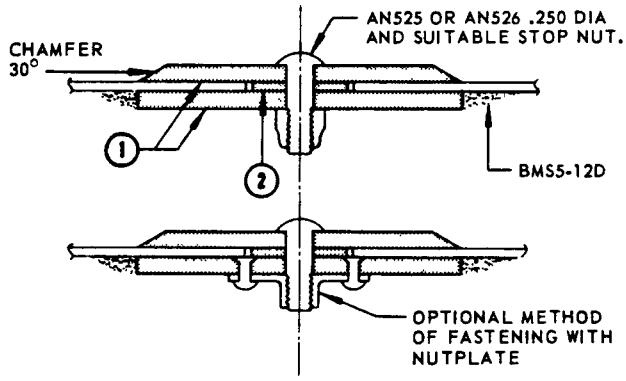


SECTION THROUGH DAMAGE

Skin Repair - Wing Body Fairing, Aft - Aft Edge Access Hole
Figure 9

REPAIR INSTRUCTIONS

1. Round out and deburr the damaged hole to 1-inch diameter maximum. The center of the repair hole should not be less than four (4) times the hole diameter from the edge of any cutout.
2. Install parts 1 and 2. It is not desirable to have any fastener in part 1 area, and the skin surface within the part 1 area should be of constant thickness.
3. The repair should be dismantled and the structure inspected every 200 to 300 hours. If it is desired to continue beyond the 200 to 300 hour inspection, the inner doubler may be bonded to the skin as optional in order to facilitate inspections. [A] This repair must be replaced at the next major base check (after 2500 hours maximum), in fuselage pressurized skin areas other than doors, by a repair as shown in figures 2, 4 and 19.
4. Replace original finish per 51-2-0 of 707 Maintenance Manual.



SECTION THROUGH REPAIR

NOTE

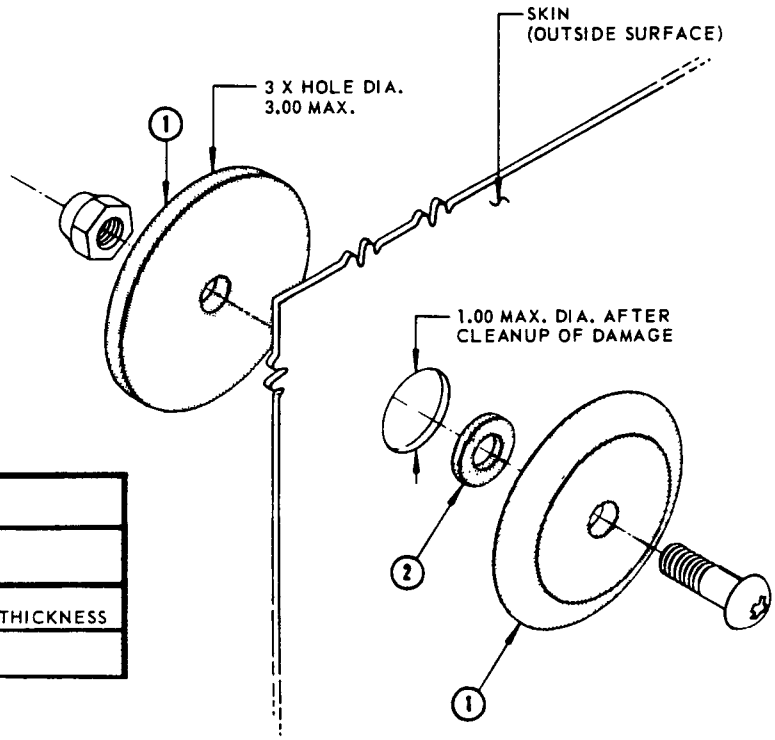
SEE 51-8-0 FOR METAL PROTECTIVE TREATMENT

SEE 51-2-0 FOR FASTENER CODE, REMOVAL AND INSTALLATION

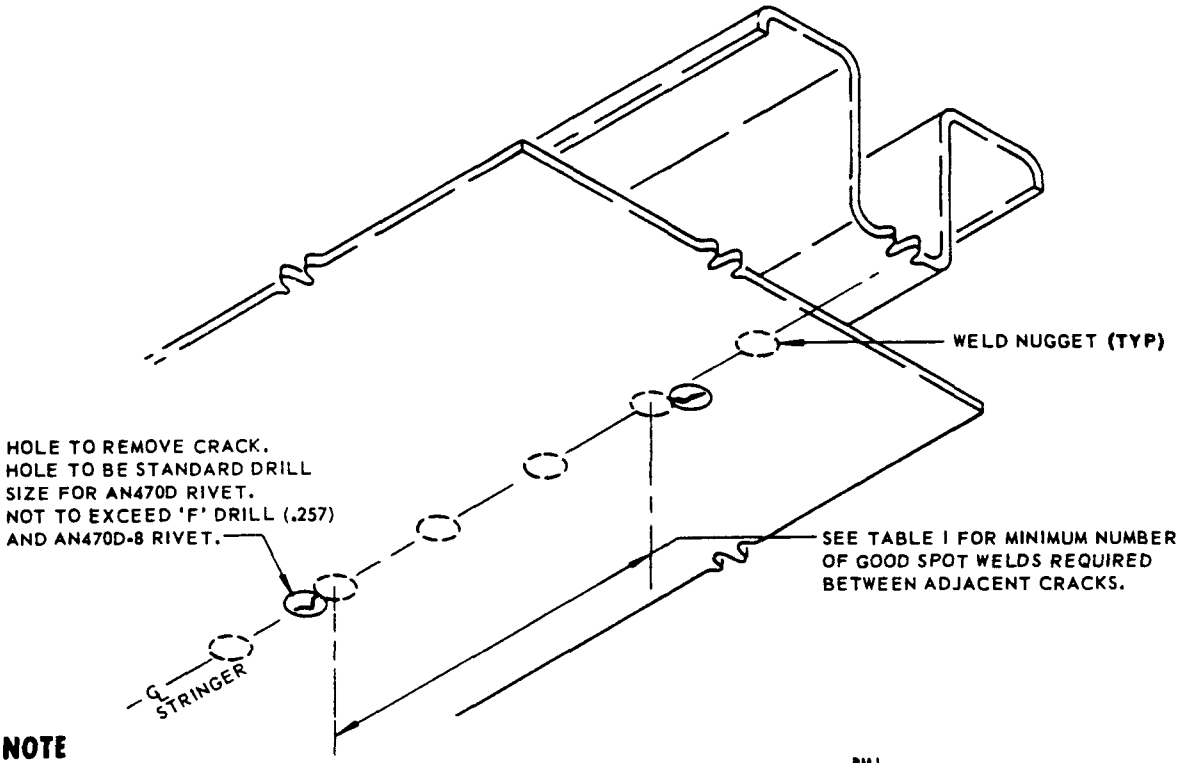
REPAIR APPLICABLE TO SMALL HOLES IN PRESSURIZED AREAS WITH TOTAL SKIN THICKNESS OF .125 MAXIMUM

FOR PERFORMANCE CONSIDERATIONS IN REGIONS OF CRITICAL SMOOTHNESS SEE 51-4-1

[A] THIS REPAIR HAS FAA (DER) APPROVAL CONTINGENT ON ACCOMPLISHMENT OF THE INSPECTIONS AT THE INTERVALS CONTAINED HEREIN.



REPAIR MATERIAL			
PART		QTY	MATERIAL
(1)	DOUBLER	2	2024-T4 OR BETTER TWICE TOTAL SKIN THICKNESS
(2)	FILLER	1	2024-T4 SAME GAGE AS SKIN



NOTE

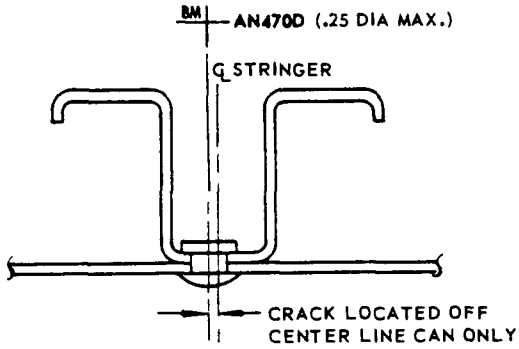
SMALL CRACKS AT INDIVIDUAL SPOT WELDS CAN BE DRILLED OUT COMPLETELY AND THE HOLE FILLED BY INSERTION OF A PROTRUDING HEAD RIVET PROVIDED THAT THE FOLLOWING LIMITATIONS ARE OBSERVED: –

(a) NO CRACK MAY BE LONGER THAN CAN BE CONTAINED WITHIN THE DIAMETER OF THE LARGEST RIVET HOLE PERMITTED FOR THE SKIN AND STRINGER COMBINATION.

(b) EACH CRACK MUST BE ON OR VERY CLOSE TO THE CENTER LINE OF SPOT WELDS IN ORDER TO AVOID INTERFERENCE BETWEEN RIVET AND STRINGER WALLS.

(c) SEE TABLE I FOR MINIMUM NUMBER OF GOOD SPOT WELDS REQUIRED BETWEEN ADJACENT CRACKS REPAIRED IN THIS WAY.

(d) NUMEROUS CRACKS REPAIRED IN THIS WAY MAY RESULT IN AN AERODYNAMIC PENALTY. FOR DEFINITION OF AERODYNAMIC SMOOTHNESS AND CRITICAL AREAS SEE 51-4-1.



SECTION THROUGH REPAIR

REPAIR INSTRUCTIONS

1. Drill out crack completely with a single hole and install an AN470D rivet. Largest allowable rivet is .25 DIA for which standard drill size is 'F' drill (.257).

2. If a crack cannot be eliminated in this way, make repair per 53-3-2, fig. 3 or fig. 4.

TABLE I

SKIN GAGE	MINIMUM NUMBER OF GOOD SPOT WELDS BETWEEN CRACKS
.040	4
.045	3
.050 & ABOVE	2

Repair of Spot Welded Skins - Small Cracks
Figure 11

REPAIR INSTRUCTIONS

1. Repairs illustrated for the indicated specific locations may be used also to repair damaged fastener holes in fairings at other applicable locations on the airplane.

2. Remove existing screws from the worn holes in the fairing.

3. Smooth out the worn holes in the fairing, enlarging them so as to allow at least 0.2 inch movement of the repair fastener within the hole, in the direction of the principal wear of the existing holes.

   CAUTION: DO NOT DAMAGE THE SKIN TO WHICH THE FAIRING IS ATTACHED.

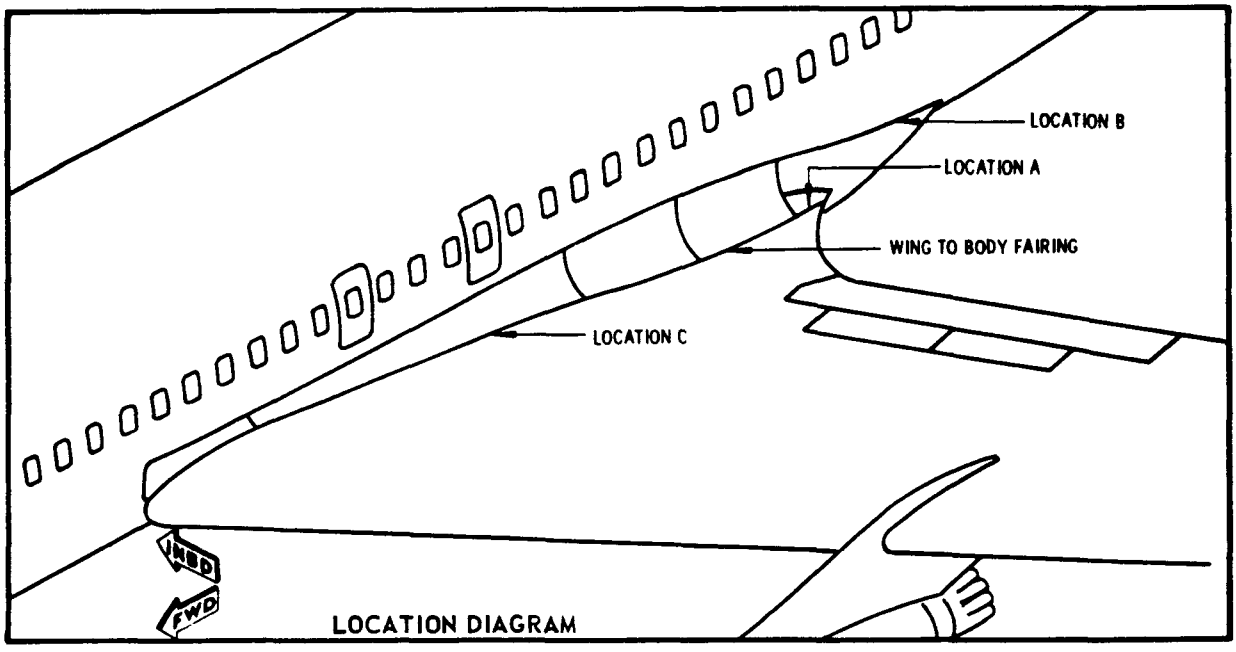
4. Fabricate a stainless steel strip 1 to cover the edge of the fairing, with holes to match the enlarged holes in the fairing.

5. When required, renew protection of faying surfaces by installing a new strip of Mylar tape 8 .

6. Immediately before assembling the repair, apply adhesive between part 1 and the fairing.

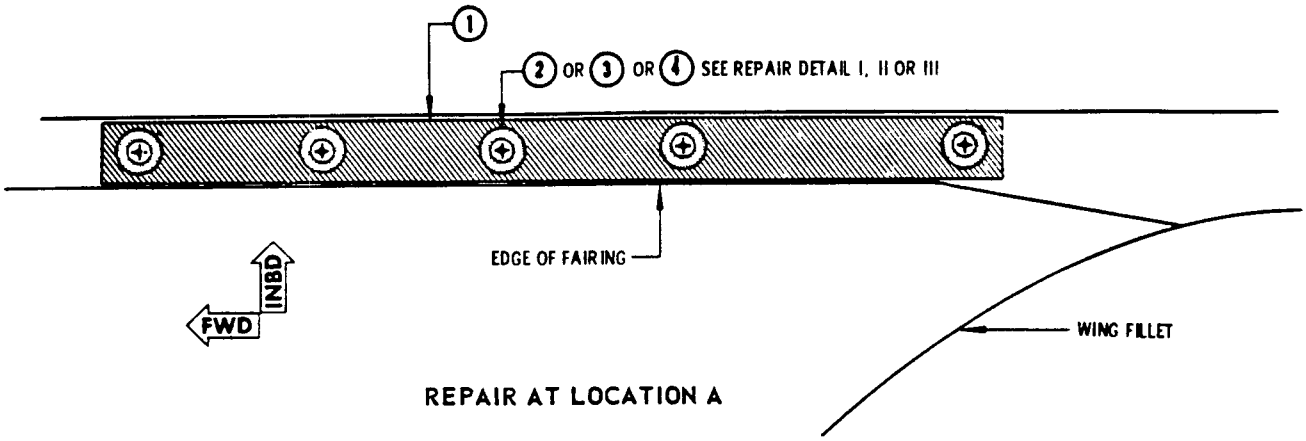
7. Assemble the repair and install screws in the previous locations.

REPAIR MATERIAL		
(1)	STRIP	CORROSION RESISTANT STEEL, .012 MIN. THICKNESS
(2)	WASHER	COUNTERSUNK WASHER,STEEL, .040 MIN. THICKNESS
(3)	WASHER	PLAIN WASHER,STEEL, .032 MIN. THICKNESS
(4)	WASHER	DIMPLED WASHER,STEEL, .016 MIN. THICKNESS (NAS 1169-10L OR BAC-W10U-B101)
(5)	SCREW	NAS 517-3 OR NAS 514-P1032
(6)	SCREW	NAS 623-3 OR BAC-B30BH-3
(7)	ADHESIVE	BMS 5-14 ADHESIVE OR BMS 5-12 SEALANT
(8)	TAPE	ADHESIVE BACKING P-255 MYLAR TAPE (2 MIL.) PERMACEL TAPE CORP., NEW BRUNSWICK, NEW JERSEY

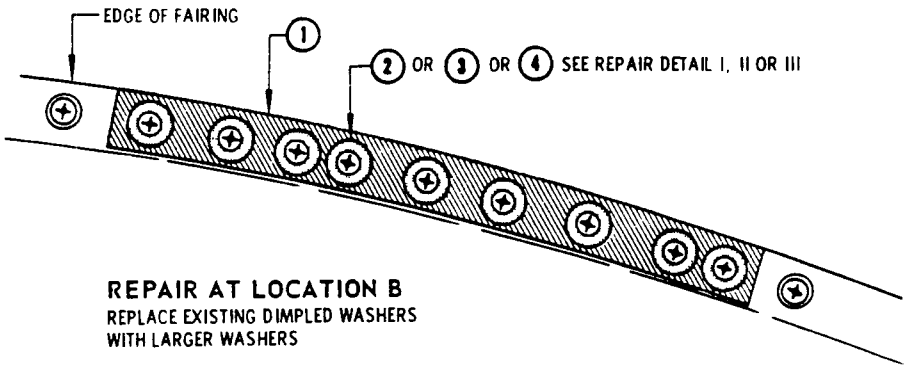


LOCATION DIAGRAM

Fairing Worn Fastener Hole Repair
Figure 12 (Sheet 1 of 2)

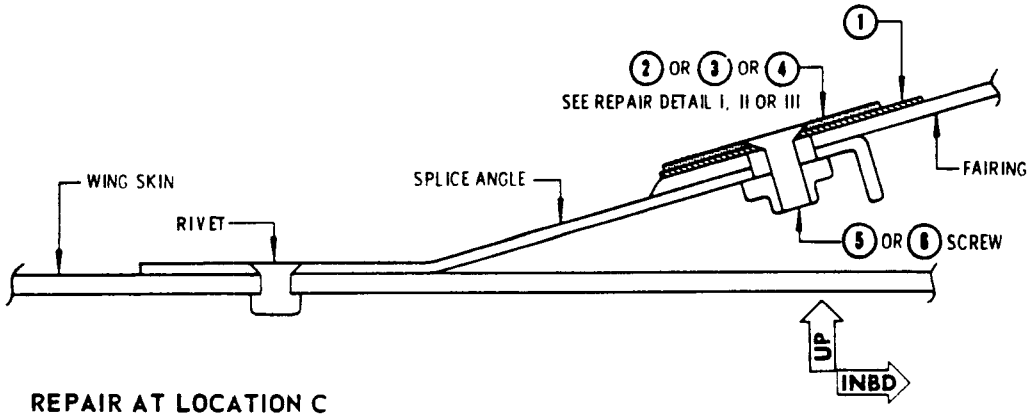


REPAIR AT LOCATION A



REPAIR AT LOCATION B

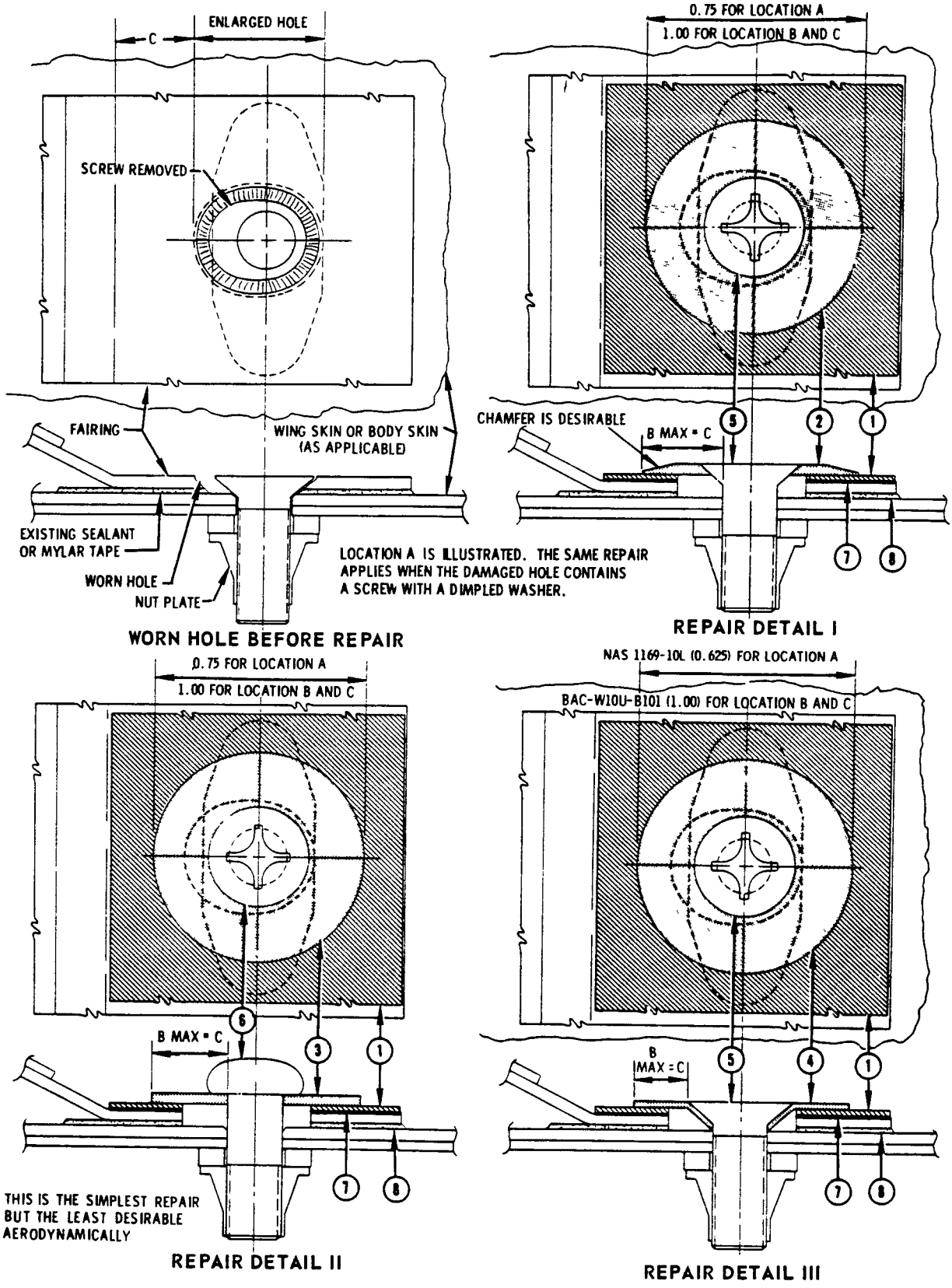
REPLACE EXISTING DIMPLED WASHERS WITH LARGER WASHERS



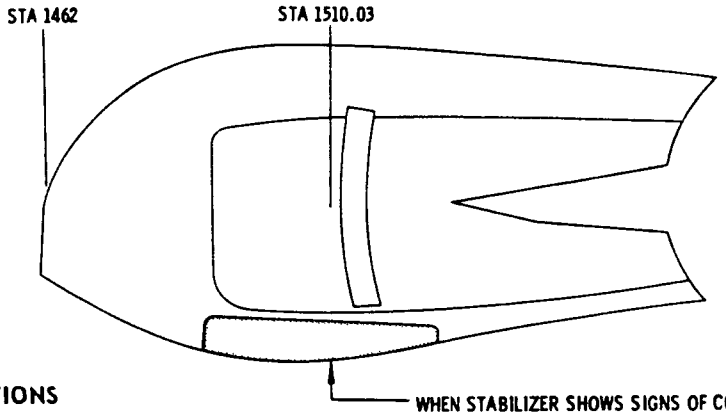
REPAIR AT LOCATION C

TO PREVENT LOOSENING OF RIVETS IN THE WING SKIN, ALLOW MOVEMENT OF THE FAIRING BY ENLARGING THE SCREW HOLES IN THE FAIRING AND PERFORM THE REPAIR AS DESCRIBED IN THE REPAIR INSTRUCTIONS.

Fairing Worn Fastener Hole Repair
Figure 12 (Sheet 2 of 3)



Fairing Worn Fastener Hole Repair
Figure 12 (Sheet 3 of 3)



REPAIR INSTRUCTIONS

1. Remove fasteners attaching fairing to body.
2. Cut out section of fairing as shown in detail 1.
3. Remove foam as shown in detail 1.

CAUTION

Do not damage original finish on body skin and fairing.

4. Rework body skin, if corroded, per Maintenance Manual 51-2-0. Refinish per the same reference.
5. Bond to body skin rub strip, item 1, with faying surface sealant BMS 5-26 [E]
6. Rivet horizontal splice strap, item 2, to fairing.
7. Attach repair panel, item 3, to horizontal splice strap, insert fillers, items 4 and 5, in place and secure. Attach bottom of repair panel to body skin picking up original hole locations and inserting washers AN960-PD516 between fairing and body skin at JO-Bolt locations and AN960-PD10 at rivet locations.
8. Attach splice plate item 6.

THIS REPAIR IS FOR MAGNESIUM FAIRINGS ONLY

NOTE

[A] DO NOT CUT ORIGINAL SPLICE STRAP

[B] REPAIR MAY BE EXTENDED 6.0 INCHES (MAX) FORWARD IF NECESSARY

[C] REPAIR MAY BE EXTENDED 12.0 INCHES (MAX) AFT IF NECESSARY

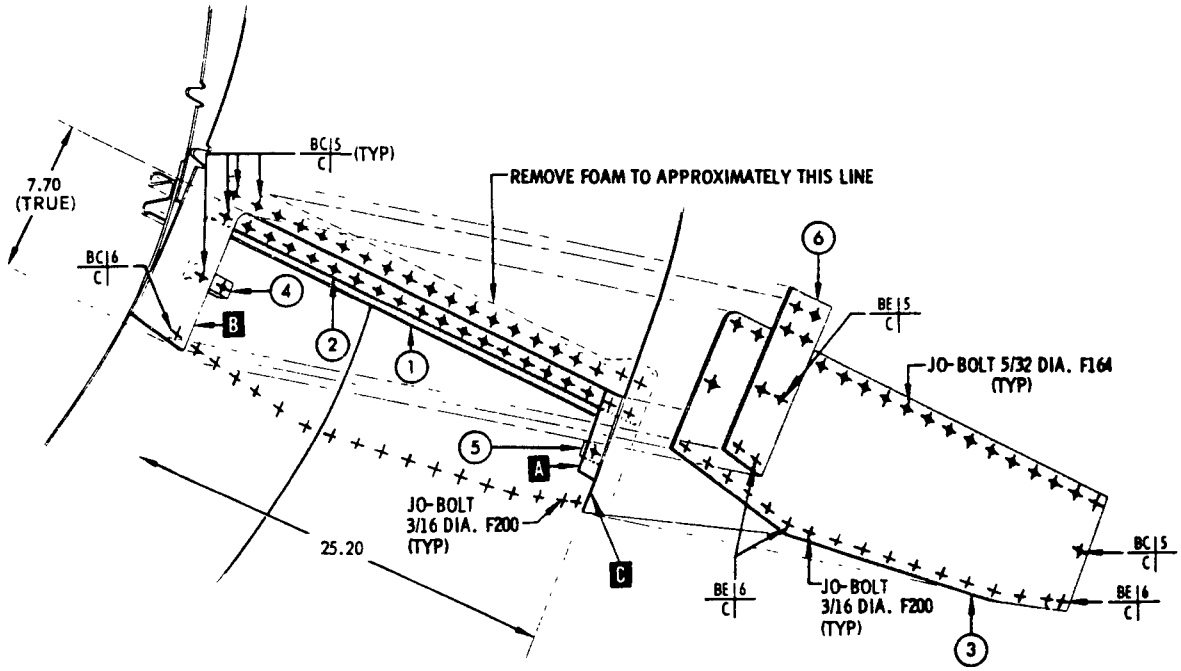
[D] INSTALL JO-BOLTS WITH WET ZINC CHROMATE PRIMER MIL-P-6889 OR CORROSION PREVENTIVE COMPOUND MIL-C-11796, CLASS 3

[E] SEE 51-1-2

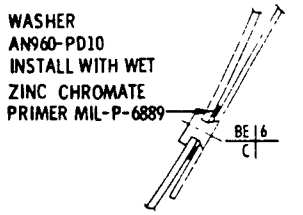
REPAIR MATERIAL

PART		QTY	MATERIAL
(1)	RUB STRIP	1	1/16 X 1.0 X 25.5 INCHES [E] PLASTIC PHENOLIC LAMINATE COTTON FABRIC BASE PER MIL-P-15035 TYPE FBM OR FBG
(2)	SPLICE STRAP	1	.040 CLAD 2024-T3
(3)	REPAIR PANEL	1	.040 CLAD 2024-T3
(4)	FILLER	1	3/8 X .80 X 2.5 INCHES [E] PLASTIC PHENOLIC LAMINATE COTTON BASE PER MIL-P-15035 TYPE FBM OR FBG
(5)	FILLER	1	1/4 X .80 X .80 INCHES [E] PLASTIC PHENOLIC LAMINATE COTTON BASE PER MIL-P-15035 TYPE FBM OR FBG
(6)	SPLICE STRAP	1	.040 CLAD 2024-T3

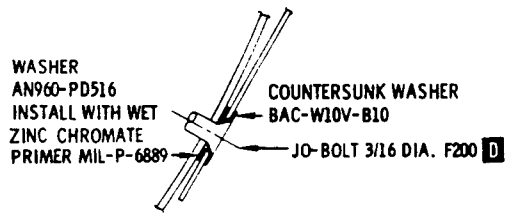
Stabilizer Fairing - Corrosion Repair
Figure 13 (Sheet 1 of 2)



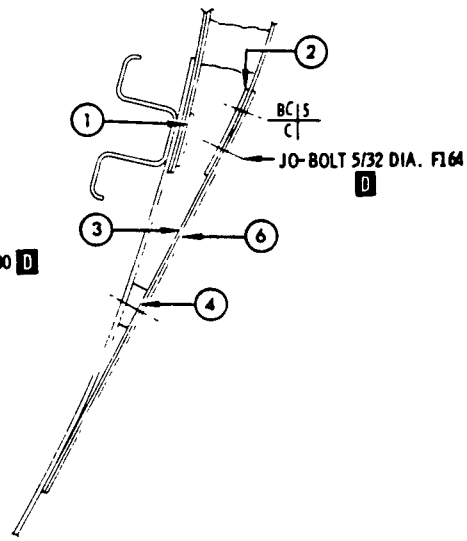
DETAIL I



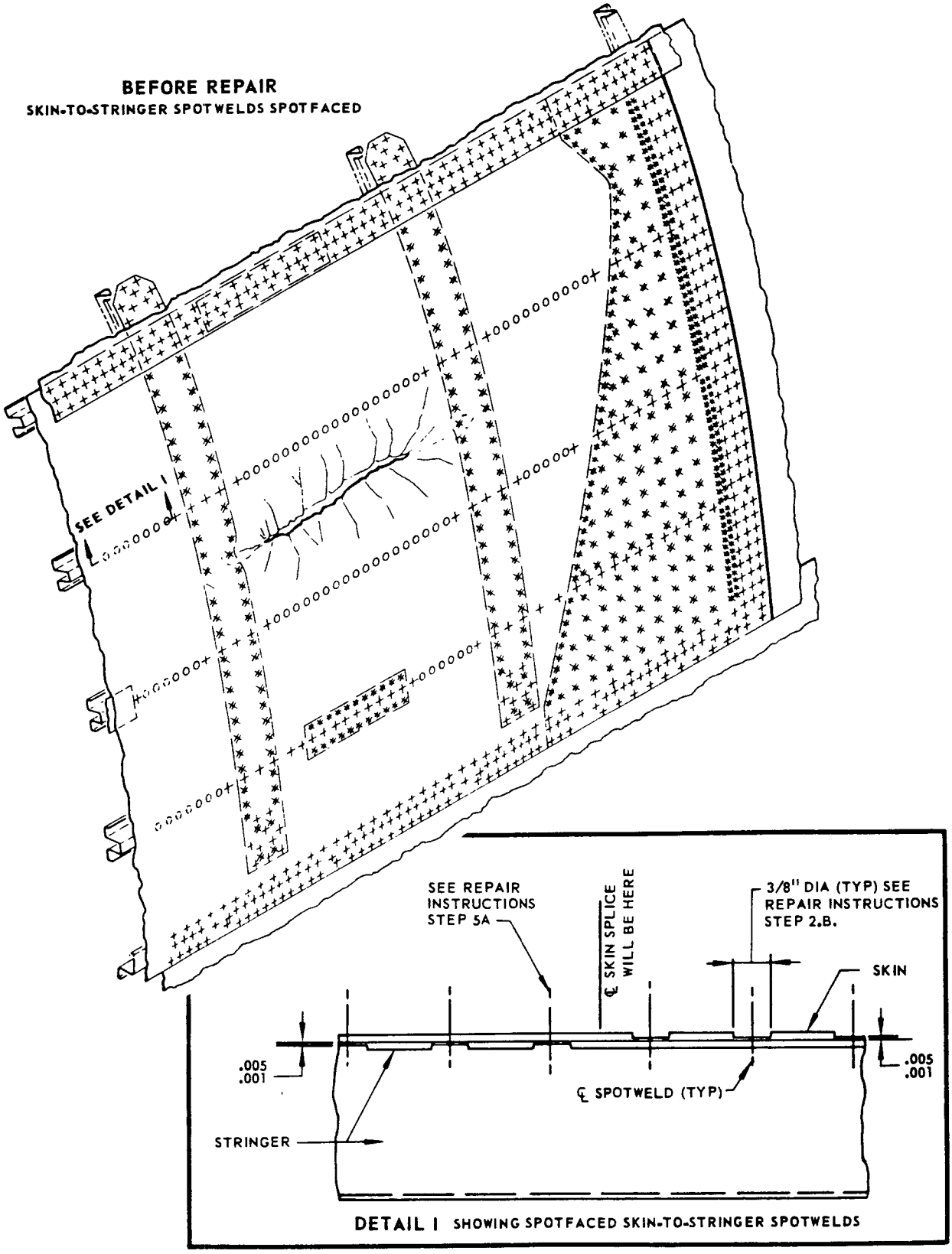
SECTION THROUGH
RIVET



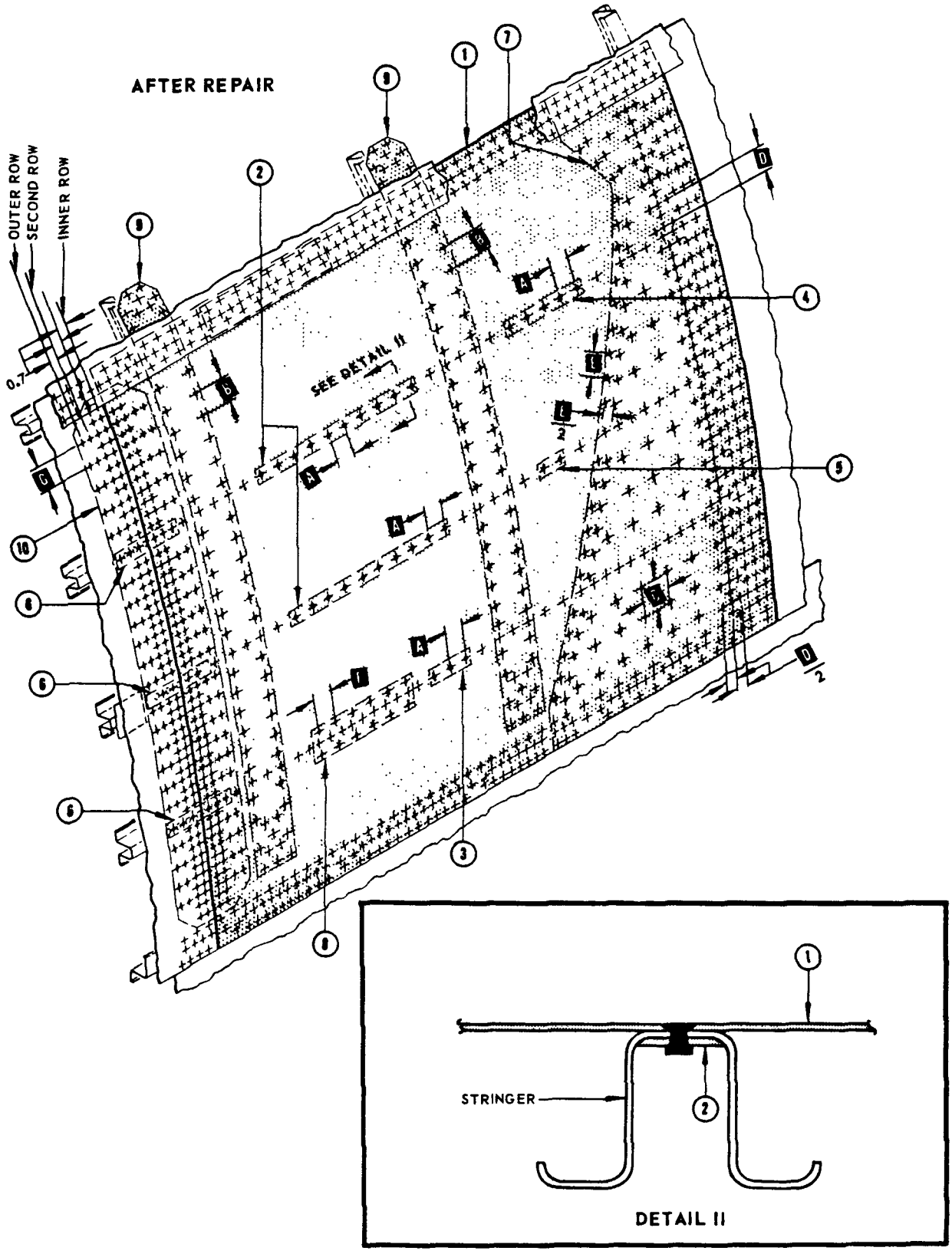
SECTION THROUGH
JO BOLT



SECTION THROUGH DAMAGE



Spot-Welded Skin Panel - Riveted Repair
Figure 14 (Sheet 1 of 6)



Spot-Welded Skin Panel - Riveted Repair
Figure 14 (Sheet 2 of 6)

REPAIR INSTRUCTIONS

1. The repair procedure outlined in this typical repair is applicable to all skin panels of the airplane fuselage that have stringers, doublers or straps spotwelded to the skin.
2. Remove damaged skin:
   - A. Remove fasteners as described in 51-2-2.
     NOTE: Before removing fasteners, mark fastener type and size on the skin next to the fastener locations, in order that they may be replaced in their original locations.
   - B. Spotface skin-to-stringer spotwelds with a tool that can be adjusted to an exact depth of cut, such as the microshaver shown in 51-4-1, figure 2. In order not to cut into undamaged stringers, set the microshaver to a depth of cut slightly less than the skin thickness, as detailed in the right hand side of detail I.
     NOTE: See step 5.A. for spotfacing at repair skin splice.
   - C. Remove damaged portion of the skin panel or the entire skin panel with its attached doublers by breaking loose the spotfaced spot-welds using finger pressure
3. Prepare stringers:
   - A. Replace damaged stringers or repair them per 53-3-4.
   - B. Remove burrs from undamaged stringers and fabricate radius fillers to be used behind the stringers in previous spotweld attachment areas.
4. Fabricate new skin panel:
   - A. Using the removed skin as a template, cut new skin and locate fasteners in their original locations.
   - B. Fabricate new doublers and straps to replace original spotwelded doublers and straps.
   - C. Attach doublers and straps to the new skin panel in their original locations. Replace original fasteners in their previous locations, and replace spotwelds with countersunk shear head rivets as shown in the illustration.
5. Fabricate skin splice:
   (Applicable only if the entire skin panel is not replaced.)
   - A. Unbutton skin-to-stringer spotwelds at the splice by spotfacing, to permit insertion of the splice plate. In order not to damage the remaining original skin, spotface the spotwelds from the stringer side, as detailed in the left hand side of detail I.
   - B. Lay out rivet pattern per Table 5.
     In remaining original skin, locate skin-to-stringer rivets between spotfaced spotweld locations.
   - C. Fabricate splice plate and rivet it to the skin.
6. Install new skin panel:
   - A. Replace removed original fasteners with equivalent fasteners in their original locations.
   - B. Replace skin-to-stringer spotwelds with shear-head countersunk rivets through skin, stringer and radius filler as illustrated in detail 2.
7. Apply sealant as described in 53-1-3.
8. Apply zinc chromate primer to the inside surface of the skin panel and otherwise restore the original surface finish as described in the Maintenance Manual, section 51-2-0.

NOTE

- ORIGINAL FASTENER LOCATIONS
- REPAIR FASTENER LOCATIONS
- SPOTWELD LOCATIONS
- SPOTWELDS SPOTFACED IN SKIN } SEE DETAIL I
- SPOTWELDS SPOTFACED IN STRINGER }

BREAK SHARP EDGES 0.03 ALL REPAIR PARTS AND TRIMMED ORIGINAL PARTS

REPAIR RIVET SPACING:

- A SEE TABLE 1 AND ILLUSTRATION
- B SEE TABLE 2 AND ILLUSTRATION
- C SEE TABLE 3 AND ILLUSTRATION
- D SEE TABLE 4 AND ILLUSTRATION
- E SEE TABLE 4 AND ILLUSTRATION
- F SEE TABLE 4 AND ILLUSTRATION
- G SEE TABLE 5 AND ILLUSTRATION

- H APPLIES TO .071 OR THICKER SKIN BELOW STRINGER 10 ONLY, NOT IN FUSELAGE CROWN I
- I CRITICAL FUSELAGE CROWN AREA IS AFT OF STATION 481 ABOVE STRINGER 10 (ABOVE WINDOW PANELS)
- J SPACING APPLICABLE IN CLAD 2024-0 HT TR-T4 SKIN
- K SAME MATERIAL AND GAGE AS ORIGINAL
- L SAME MATERIAL AS STRINGER BUT ONE GAGE THICKER
- M SAME MATERIAL AS SKIN BUT ONE GAGE THICKER

REPAIR MATERIAL

PART		QTY	MATERIAL
1	SKIN	1	K
2	FILLER	2	L
3	FILLER	1	L
4	FILLER	1	L
5	FILLER	1	L
6	FILLER	3	L
7	DOUBLER	1	K
8	DOUBLER	1	K
9	STRAP	2	K
10	SPLICE	1	M

Spot-Welded Skin Panel - Riveted Repair
Figure 14 (Sheet 3 of 6)

TABLE 1

SKIN-TO-STRINGER RIVETS

SKIN GAGE	RIVET SIZE	BAC-R15CE-D5 COUNTERSUNK RIVETS	
		SPACING – INCHES A	
		AFT OF STA 481	FWD OF STA 481 J
.040	5/32	1.1	1.4
.045 OR .050	5/32	1.1	1.1

TABLE 2

SKIN-TO-STRAP RIVETS

STRAP GAGE	SKIN GAGE	BAC-R15CE-D RIVETS	
		SIZE	SPACING – INCHES B
.063 OR .056	.040 OR .045	5/32	1.4
	.050	3/16	1.7
	.056 OR .063	3/16	1.6
	.071 AND THICKER	1/4	2.2

TABLE 3

SKIN-TO-DOUBLER FIELD RIVETS

SKIN GAGE	DOUBLER GAGE	BAC-R15CE-D RIVETS	
		SIZE	SPACING – INCHES C
.040 OR .045	.025 OR .020	5/32	1.4
	.032	5/32	1.6
	.040 OR THICKER	5/32	2.0
.050 TO .063	.032 OR THINNER	3/16	1.6
	.040	3/16	2.0
	.045	3/16	2.25
.071 OR THICKER H	.025 .032 .040 .045	1/4	1.25 1.6 2.0 2.25

TABLE 4

SKIN-TO-DOUBLER PERIPHERAL RIVETS

SKIN GAGE	DBLR GAGE	ORIGINAL SPOTWELDS		REQUIRED BAC-R15CE-D RIVETS				
						SPACING – INCHES		
		NUMBER OF ROWS	SPACING IN INCHES	RIVET SIZE	NUMBER OF ROWS	OUTER ROW D E F	MIDDLE ROW	INNER ROW
.040 OR .045	.020 OR .025	1	0.65 OR OVER	5/32	1	1.34	—	—
		1	LESS THAN 0.65		2	1.34	—	1.34
		2	0.65 OR OVER		2	1.34	—	1.34
		2	LESS THAN 0.65		2	1.34	—	0.67
	.032	1	0.75 OR OVER	5/32	1	1.34	—	—
		1	LESS THAN 0.75		2	1.34	—	1.34
		2	0.75 OR OVER		2	1.34	—	1.34
		2	LESS THAN 0.75		2	1.34	—	0.67
.040	.036	1	0.85 OR OVER	5/32	1	1.34	—	—
		1	LESS THAN 0.85		2	1.34	—	1.34
		2	0.85 OR OVER		2	1.34	—	1.34
		2	0.55 TO 0.85		2	1.34	—	0.67
		2	LESS THAN 0.55		3	1.34	0.67	1.34
	.040	1	0.95 OR OVER	5/32	1	1.34	—	—
		1	LESS THAN 0.95		2	1.34	—	1.34
		2	0.65 OR OVER		2	1.34	—	0.67
		2	LESS THAN 0.65		3	1.34	0.67	1.34
.045	.036	1	0.75 OR OVER	5/32	1	1.34	—	—
		1	LESS THAN 0.75		2	1.34	—	1.34
		2	0.75 OR OVER		2	1.34	—	1.34
		2	LESS THAN 0.75		2	1.34	—	0.67
	.040	1	0.85 OR OVER	5/32	1	1.34	—	—
		1	LESS THAN 0.85		2	1.34	—	1.34
		2	0.85 OR OVER		2	1.34	—	1.34
		2	LESS THAN 0.85		2	1.34	—	0.67
	.045	1	1.00 OR OVER	5/32	1	1.34	—	—
		1	LESS THAN 1.00		2	1.34	—	1.34
		2	0.65 OR OVER		2	1.34	—	0.67
		2	LESS THAN 0.65		3	1.34	0.67	1.34
.050 TO .063	.020 OR .025	1	0.70 OR OVER	3/16	1	1.70	—	—
		1	LESS THAN 0.70		2	1.70	—	1.70
		2	0.70 OR OVER		2	1.70	—	1.70
		2	LESS THAN 0.70		2	1.70	—	0.85
	.032	1	0.75 OR OVER	3/16	1	1.70	—	—
		1	LESS THAN 0.75		2	1.70	—	1.70
		2	0.75 OR OVER		2	1.70	—	1.70
		2	LESS THAN 0.75		2	1.70	—	0.85
.050	.040	1	0.80 OR OVER	3/16	1	1.70	—	—
		1	LESS THAN 0.80		2	1.70	—	1.70
		2	0.80 OR OVER		2	1.70	—	1.70
		2	LESS THAN 0.80		2	1.70	—	0.85
	.045	1	0.95 OR OVER	3/16	1	1.70	—	—
		1	LESS THAN 0.95		2	1.70	—	1.70
		2	0.65 OR OVER		2	1.70	—	0.85
		2	LESS THAN 0.65		3	1.70	0.85	1.70
.056 OR .063	.040	1	0.75 OR OVER	3/16	1	1.60	—	—
		1	LESS THAN 0.75		2	1.60	—	1.60
		2	0.75 OR OVER		2	1.60	—	1.60
		2	LESS THAN 0.75		2	1.60	—	0.80

Spot-Welded Skin Panel - Riveted Repair
Figure 14 (Sheet 5 of 6)

TABLE 4

SKIN-TO-DOUBLER PERIPHERAL RIVETS (CONT.)

SKIN GAGE	DBLR GAGE	ORIGINAL SPOTWELDS		REQUIRED BAC-R15CE-D RIVETS				
						SPACING – INCHES		
		NUMBER OF ROWS	SPACING IN INCHES	RIVET SIZE	NUMBER OF ROWS	OUTER ROW [D] [E] [F]	MIDDLE ROW	INNER ROW
.056 OR .063	.045	1	0.80 OR OVER	3/16	1	1.60	—	—
		1	LESS THAN 0.80		2	1.60	—	1.60
		2	0.80 OR OVER		2	1.60	—	1.60
		2	LESS THAN 0.80		2	1.60	—	0.80
.071 OR THICKER	.020 OR .025	1	0.65 OR OVER	1/4	1	2.14	—	—
		1	LESS THAN 0.65		2	2.14	—	2.14
		2	0.65 OR OVER		2	2.14	—	2.14
		2	LESS THAN 0.65		2	2.14	—	1.07
	.032 OR .036	1	0.70 OR OVER	1/4	1	2.14	—	—
		1	LESS THAN 0.70		2	2.14	—	2.14
		2	0.70 OR OVER		2	2.14	—	2.14
		2	LESS THAN 0.70		2	2.14	—	1.07
	.040	1	0.75 OR OVER	1/4	1	2.14	—	—
		1	LESS THAN 0.75		2	2.14	—	2.14
		2	0.75 OR OVER		2	2.14	—	2.14
		2	LESS THAN 0.75		2	2.14	—	1.07
	.045	1	0.80 OR OVER	1/4	1	2.14	—	—
		1	LESS THAN 0.80		2	2.14	—	2.14
		2	0.80 OR OVER		2	2.14	—	2.14
		2	LESS THAN 0.80		2	2.14	—	1.07

TABLE 5

SKIN SPLICE RIVETS

SKIN GAGE	SPLICE PLATE GAGE	RIVET SIZE	BAC-R15CE-D COUNTERSUNK RIVETS REQUIRED							
			IN FUSELAGE CROWN AREA [I]					OUTSIDE FUSELAGE CROWN [I]			
			NUMBER OF ROWS	SPACING – INCHES [G]				NUMBER OF ROWS	SPACING – INCHES [G]		
				OUTER ROW	SECOND ROW	THIRD ROW	INNER ROW		OUTER ROW	MIDDLE ROW	INNER ROW
.040	.045	5/32	4	1.34	1.34	0.67	0.67	3	1.34	0.67	0.67
.045	.050	5/32	4	1.34	1.34	0.67	0.67	3	1.10	0.55	1.10
.050	.056	3/16	4	1.70	1.70	0.85	0.85	2	1.10	—	0.55
.056	.063	3/16	4	1.60	1.60	0.80	0.80	2	1.20	—	0.60
.063	.071	3/16	4	1.60	1.60	0.80	0.80	2	1.30	—	0.65
.071	.080	1/4	4	2.14	2.14	1.07	1.07	2	1.10	—	1.10
.080	.090	1/4	4	2.10	2.10	1.05	1.05	2	1.10	—	1.10

Spot-Welded Skin Panel - Riveted Repair
Figure 14 (Sheet 6 of 6)

REPAIR INSTRUCTIONS

1. Remove fasteners, windows and all equipment as necessary to gain access for installing repair plate.

2. Temporarily insert a corrosion resistant steel plate under any cracks in the skin.

3. Locate and drill a 0.25 -inch diameter stop hole through the skin only and at least 0.12 inch beyond the end of any crack.

4. Make repair plate and bend to match contour of fuselage.

5. Enlarge the original holes affected by this repair except for the window attachment bolts. Locate and drill the required additional and matching holes in the repair plate and fuselage.

6. Alodize the repair plate and holes in skin and structure as detailed in 51-8-0.

7. Install repair washers as detailed in 51-2-8.

8. Install the repair plate, making a faying surface seal as detailed in 53-1-3, using the indicated fasteners.

9. Refinish.

10. Reinstall window per Maintenance Manual 56-1-41.

NOTES

- USE THESE REPAIRS FOR DAMAGED SKINS AND CRACKS UP TO 1.50 INCHES IN LENGTH. REFER TO THE BOEING COMPANY SERVICE UNIT FOR REPAIRS TO DAMAGE IN EXCESS OF THIS

- BREAK SHARP EDGES OF ORIGINAL AND REPAIR PARTS 0.15 TO 0.30

- REMOVE ALL NICKS, SCRATCHES, BURRS, SHARP EDGES AND CORNERS FROM ORIGINAL AND REPAIR PARTS

- ALL DIMENSIONS SHOWN IN INCHES

- REFER TO THE FOLLOWING WHEN USING THIS REPAIR

  51-8-0 FOR PROTECTIVE TREATMENT OF METAL

  51-4-1 FOR AERODYNAMIC SMOOTHNESS REQUIREMENTS

  53-1-3 FOR SEALING OF FUSELAGE SKIN REPAIRS

  51-2-0 OF THE 707 MAINTENANCE MANUAL FOR INTERIOR AND EXTERIOR FINISHES

  51-3-0 OF THE 707 MAINTENANCE MANUAL FOR SEALS AND SEALING

[A] MAINTAIN A MINIMUM EDGE THICKNESS OF 0.060 INCH AT EDGES OF REPAIR PLATE. TAPER AS INDICATED. SEE 51-70 FOR PERFORMANCE CONSIDERATIONS IN REGIONS OF CRITICAL SMOOTHNESS

[B] MAKE A FAYING SURFACE SEAL AND INSTALL ALL FASTENERS WET WITH PRIMER AS REQUIRED BY 51-9-1

[C] SOME AIRPLANES HAVE A 0.025-INCH INCONEL X, AMS 5542, GUSSET INSTALLED BETWEEN THE SKIN AND THE WINDOW FRAME. IF THIS IS DAMAGED OR CRACKED REMOVE ALL NECESSARY FASTENERS AND SKIN AND REPLACE THE GUSSET OR SEE FIGURE 15A THIS SECTION FOR ALTERNATE REPAIR

Skin Repair - Control Cabin
Figure 15 (Sheet 1)

NOTES (CONTINUED)

[D] WHERE HOLES ARE COUNTERSUNK ON BOTH INNER AND OUTER SURFACES OF STRUCTURE, ENLARGE COUNTERSINKS ON INNER SURFACE (AS REQUIRED) TO ACCOMMODATE REPAIR FASTENERS

[E] INSTALL REPAIR WASHERS, AT REQUIRED BY 51-2-8, IN ALL COUNTERSUNK OR DIMPLED HOLES OF ORIGINAL STRUCTURE WHICH WILL BE COVERED BY REPAIR PARTS

[F] FINISH THE LEADING EDGE OF THE REPAIR PLATE, WITHIN THE INDICATED ARC, TO A SURFACE ROUGHNESS EQUIVALENT TO 63 MICRO-INCHES

[G] THESE RIVETS ARE TO BE INSTALLED ONLY WHEN THE EDGE MARGIN BETWEEN THE DRILLED HOLES AND THE CRACK, OR CRACK STOP HOLE, IS NOT LESS THAN D

[H] INSTALL THESE FASTENERS WET WITH PRIMER AS DETAILED IN 51-8-0

[I] SEE REPAIR INSTRUCTIONS 2 AND 3

[J] BOEING PART HAS A DIFFERENT SHAPE THAN REPAIR PART SHOWN. USE FASTENER LOCATIONS INDICATED ON ENGINEERING DRAWING 69-71946

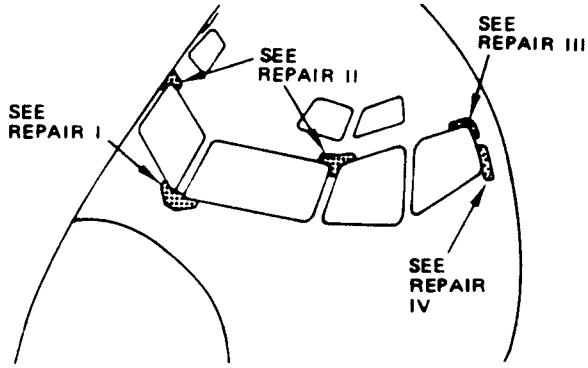
[K] BOEING PART NUMBER 65-45800-218 IS A SKIN REPLACEMENT, NOT A DOUBLER. THIS REPLACEMENT MAY BE MADE IN LIEU OF THE DOUBLER INSTALLATION. INSTALLATION SHOULD BE PER SB 3393.

Skin Repair - Control Cabin
Figure 15 (Sheet 1A)

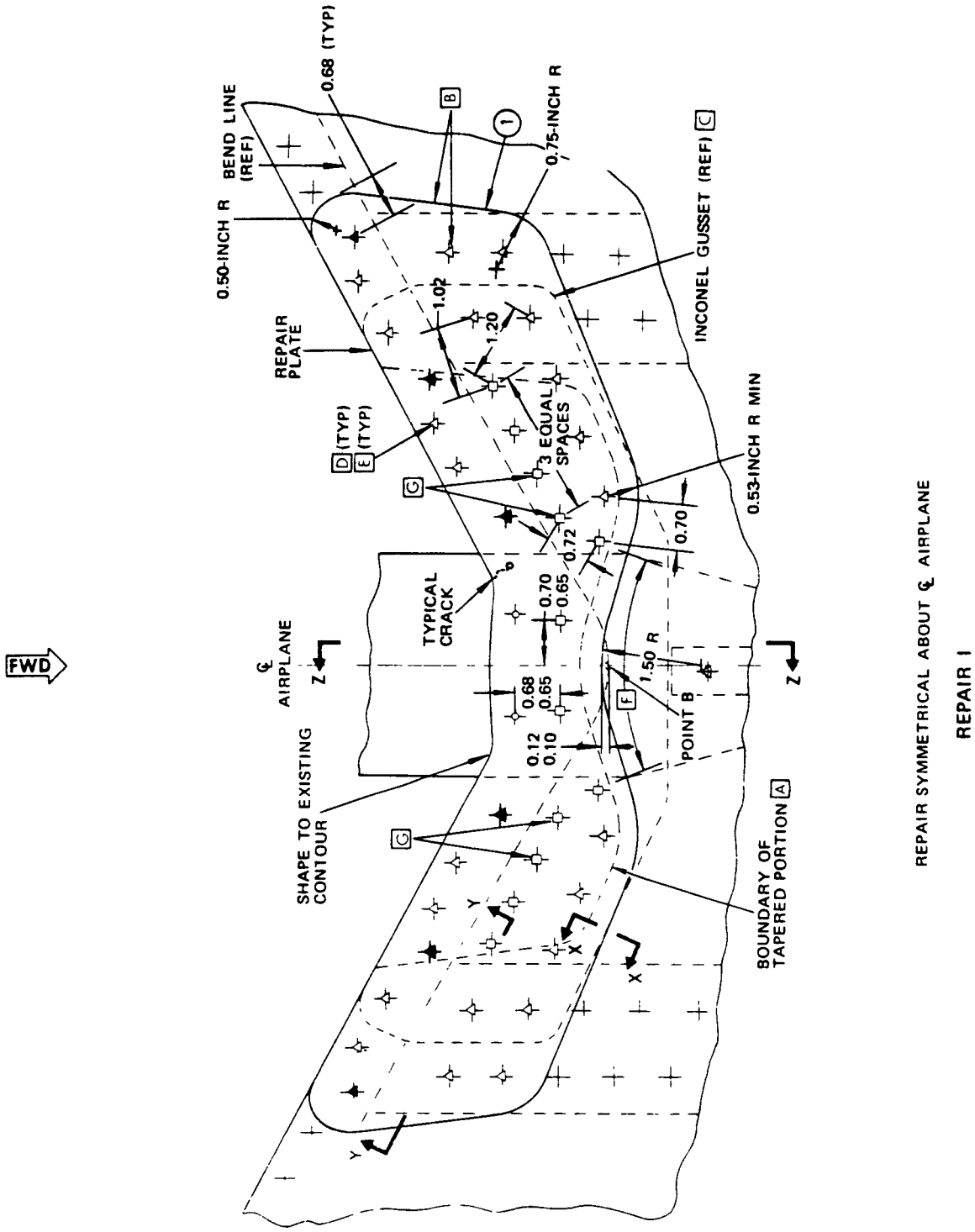
SYMBOLS

- ORIGINAL FASTENER LOCATION
- BACR15CE6D REPAIR FASTENERS IN EXISTING LOCATIONS
- BACR15CE6D REPAIR FASTENERS IN NEW LOCATIONS
- BACR15CE8D REPAIR FASTENERS IN EXISTING LOCATIONS
- BACB30LH3 FASTENER IN EXISTING LOCATIONS
- BACR15CE5D RIVET
- BACB30FN6 LOCKBOLT, BACC20M COLLAR
- NAS517-3-5 SCREW
- BACR15CE4D RIVET
- NAS517-3-3 SCREW
- NAS517-3-4 SCREW
- NAS517-3 SCREW (IN EXISTING LOCATION) DRILL 0.189 + 0.003/-0.000 HOLE IN REPAIR PLATE
- BACB30FQ6 1/64 OVERSIZE HI-LOK (IN EXISTING LOCATION)
- EXISTING RIVET LOCATION WHERE CRACK EXISTS INSTALL BACR15BA6AD RIVET IN COUNTERSINK 0.048 DEEP. MICROSHAVE HEAD AFTER INSTALLATION. WHERE NO CRACK EXISTS INSTALL BACR15CE6D RIVET

REPAIR MATERIAL			
PART		QTY	MATERIAL
(1)	PLATE	1	0.125 2024-0 HT-T4 OR BOEING P/N 65-45800-218 [K]
(2)	PLATE	1	0.080 CLAD 2024-0 HT-T4 OR BOEING P/N 69-71947-1 (-2 OPP)
(3)	REPAIR WASHER	AS REQD	2024-T4
(4)	PLATE [J]		0.080 CLAD 2024-T3 OR BOEING P/N 69-71946-1 (-2 OPP)
(5)	PLATE		0.080 CLAD 2024-T3 OR BOEING P/N 69-71946-3 (-4 OPP)

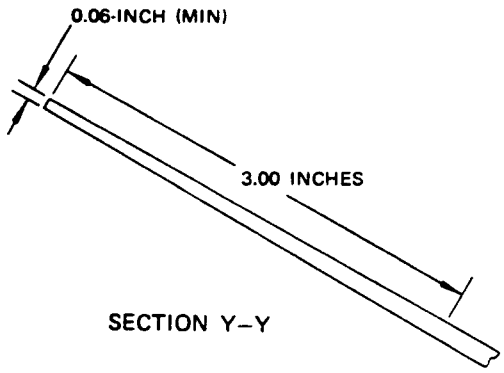


Skin Repair - Control Cabin
Figure 15 (Sheet 2)

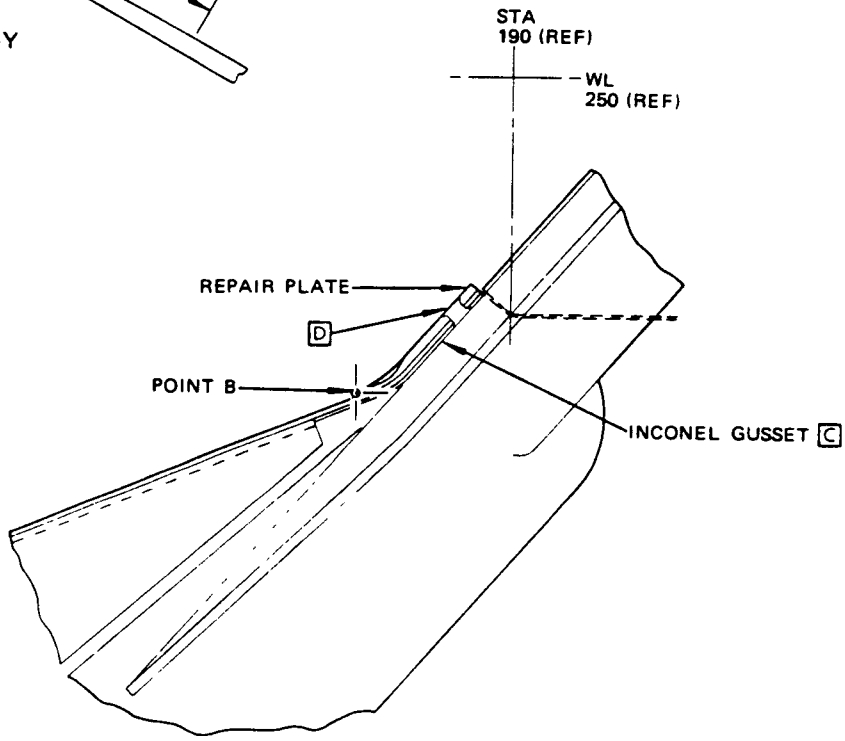


Skin Repair - Control Cabin
Figure 15 (Sheet 3)

SECTION X–X



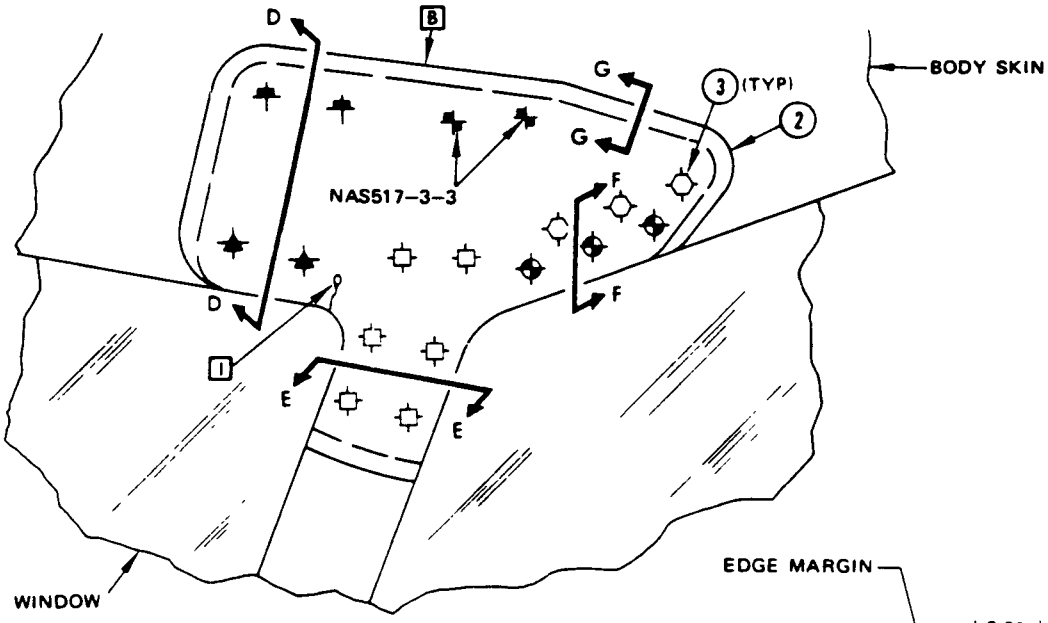
SECTION Y–Y

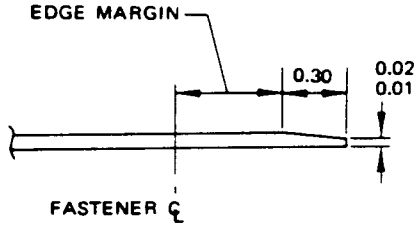


SECTION Z–Z

REPAIR I (CONT)

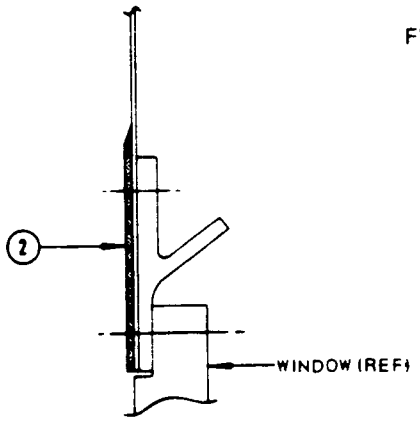
Skin Repair - Control Cabin
Figure 15 (Sheet 4)



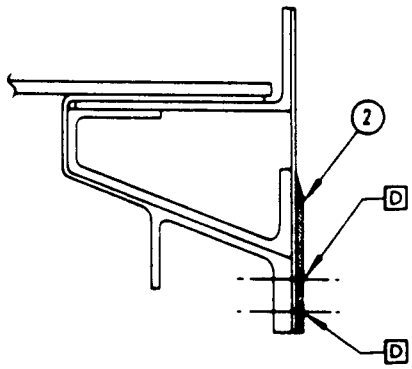


SECTION G–G

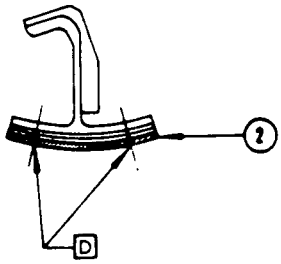
FWD



SECTION D–D



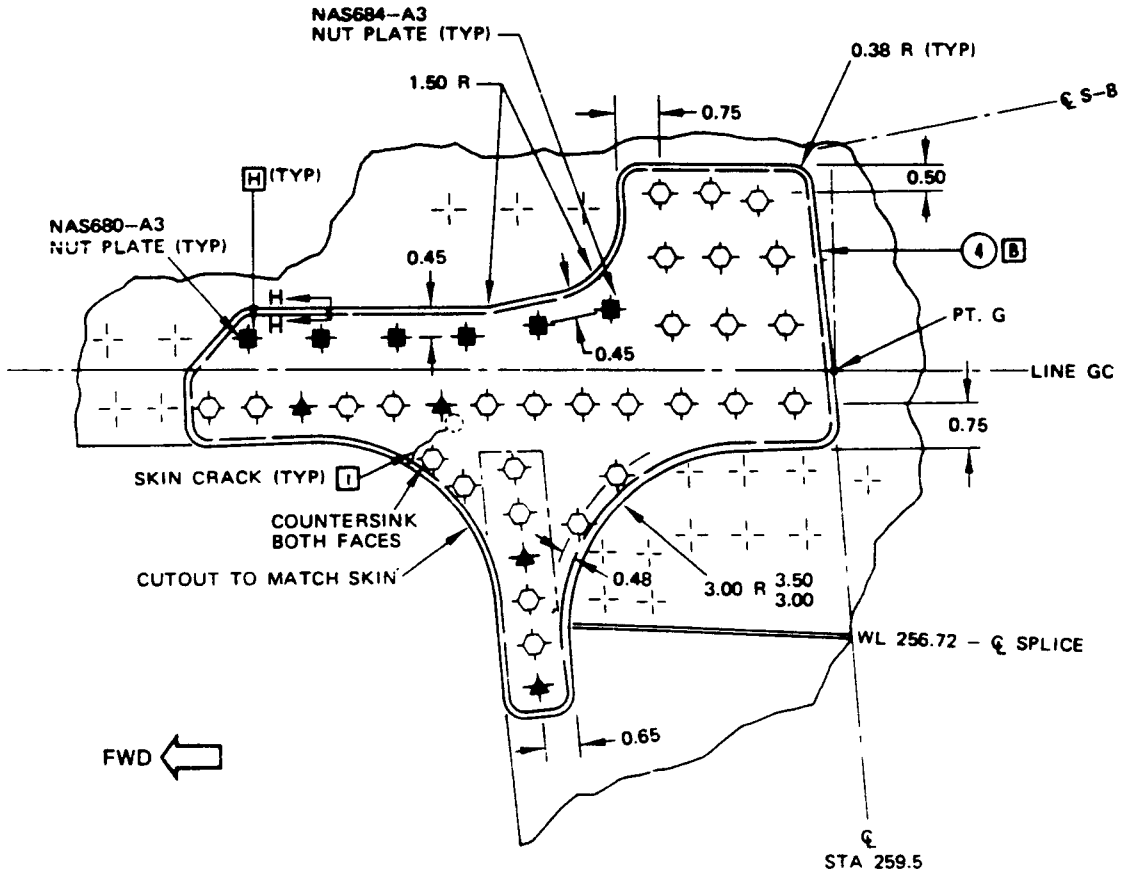
SECTION F–F

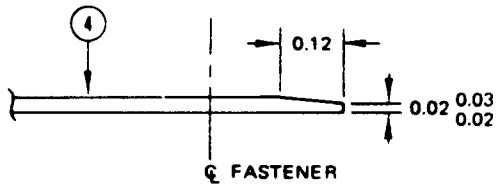


SECTION E–E

SECTIONS ADJACENT TO DAMAGE

REPAIR II

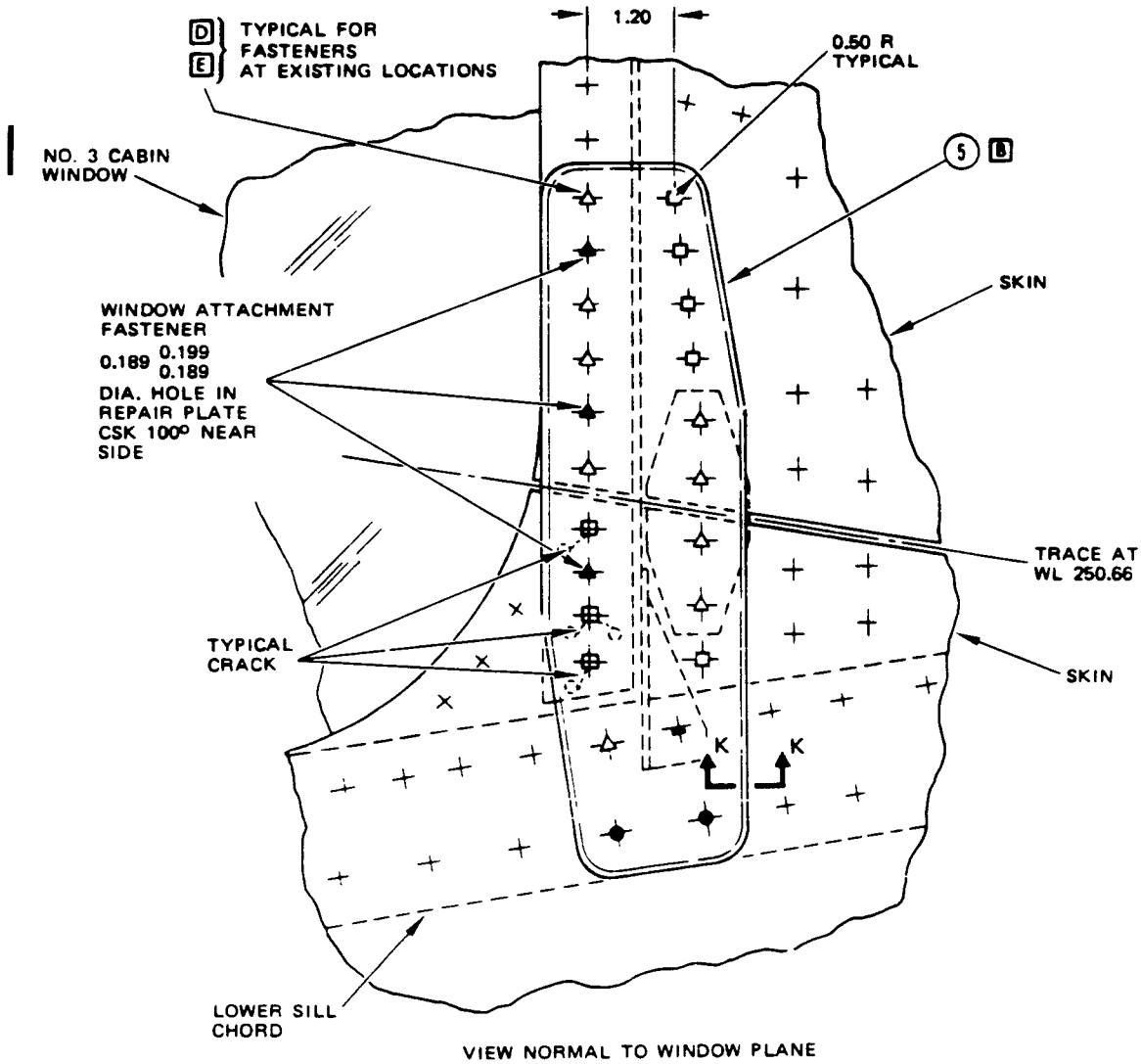




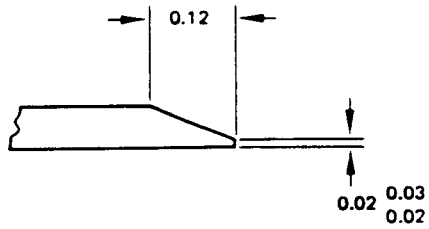
TYPICAL EDGE CHAMFER

SECTION H-H

REPAIR III



VIEW NORMAL TO WINDOW PLANE



SECTION K–K

REPAIR IV

REPAIR INSTRUCTIONS

1. Remove fasteners, windows and all equipment as necessary to gain access for installing repair plates.

2. Locate and drill a 0.25-inch diameter stop hole through the skin and gusset and at least 0.12 inch beyond the end of any crack. Take all necessary precautions to insure none of the underlying structural material is damaged.

3. Make repair plates and bend to match contour of fuselage.

4. Enlarge the original holes affected by this repair except for the window attachment bolts. Locate and drill the required additional and matching holes in the repair plates and fuselage.

5. Alodize the repair plates and holes in skin and structure as detailed in 51-8-0.

6. Install repair washers as detailed in 51-2-8.

7. Install the repair plates, making fay surface seal using BMS 5-95. Install indicated fasteners in close ream holes using BMS 5-95 wet sealant.

8. Refinish.

9. Reinstall window per Maintenance Manual 56-1-41.

NOTES:

- FOR CUM LINE NUMBERS: 367, 369, 379, 404, 407, 425, 428, 436, 438, 440, 443, 444, 445, 447 THRU 469, 471 THRU 472, 475 THRU 576, 478, 480, 482 THRU 485, 487, 494 THRU 505, 507 THRU 511, 513, 515 THRU 520, 522 THRU 525, 527 THRU 529, 531, 532, 534, 536, 537, 540 THRU 557, 559 THRU 563, 566, 568, 570, 572, 574, 576, 578, 580, 582, 584, 585, 587, 588, 590, 592, 596, 599, 601, 603, 605, 607 THRU 620, 623, 625 THRU 653, 655 THRU 668, 670 THRU 679, 681, 683 THRU 685, 687 THRU 690, 693 THRU 695, 697, 699, 700, 702 THRU 708, 711, 713, 716, 717, 720, 725, 729, 731, 732, 736, 737, 740, 742, 746, 748, 751 THRU 753, 761 THRU 763, 765 THRU 770, 772 THRU 776, 778 THRU 785, 788 THRU 793, 795 THRU 799, 802 THRU 806, 808, 810 THRU 818, 820, 821, 828, 840, 842, 845, 846, 848, 851, 853, 856

- USE THIS REPAIR FOR DAMAGED GUSSET AND SKINS AND CRACKS UP TO 1.50 INCHES IN LENGTH. REFER TO THE BOEING COMPANY SERVICE UNIT FOR REPAIRS TO DAMAGE IN EXCESS OF THIS AMOUNT.

- THIS REPAIR IS AN ALTERNATE REPAIR FOR THOSE AIRPLANES THAT HAVE GUSSET INSTALLED BETWEEN SKIN AND WINDOW FRAME

- BREAK SHARP EDGES OF ORIGINAL AND REPAIR PARTS 0.15 to 0.30

- REMOVE ALL NICKS, SCRATCHES, BURRS, SHARP EDGES AND CORNERS FROM ORIGINAL AND REPAIR PARTS

- ALL DIMENSIONS SHOWN IN INCHES

- REFER TO THE FOLLOWING WHEN USING THIS REPAIR:

  51-2-6 FOR FASTENER EDGE MARGINS

  51-8-0 FOR PROTECTIVE TREATMENT OF METAL

  51-4-1 FOR AERODYNAMIC SMOOTHNESS REQUIREMENTS

  53-1-3 FOR SEALING OF FUSELAGE SKIN REPAIRS

  51-2-0 OF THE 707 MAINTENANCE MANUAL FOR INTERIOR AND EXTERIOR FINISHES

Alternate Skin Repair - Control Cabin
Figure 15A (Sheet 1)

51-3-0 OF THE 707 MAINTENANCE MANUAL FOR SEALS AND SEALING

[A] MAINTAIN A MINIMUM EDGE THICKNESS OF 0.060 INCH AT EDGES OF REPAIR PLATE (1). TAPER AS INDICATED. SEE 51-70 FOR PERFORMANCE CONSIDERATIONS IN REGIONS OF CRITICAL SMOOTHNESS

[B] MAKE A FAYING SURFACE SEAL AND INSTALL FASTENERS WET WITH BMS 5-95 SEALANT

[C] 0.025-INCH INCONEL X, AMS 5542, GUSSET INSTALLED BETWEEN THE SKIN AND THE WINDOW FRAME

[D] WHERE HOLES ARE COUNTERSUNK ON BOTH INNER AND OUTER SURFACES OF STRUCTURE, ENLARGE COUNTERSINKS ON INNER SURFACE (AS REQUIRED) TO ACCOMMODATE REPAIR FASTENERS

[E] INSTALL REPAIR WASHERS, AS REQUIRED BY 51-2-8, IN ALL COUNTERSUNK OR DIMPLED HOLES OF ORIGINAL STRUCTURE WHICH WILL BE COVERED BY REPAIR PARTS

[F] FINISH THE LEADING EDGE OF THE REPAIR PLATE, WITHIN THE INDICATED ARC, TO A SURFACE ROUGHNESS EQUIVALENT TO 63 MICROINCHES

[G] THESE FASTENERS ARE TO BE INSTALLED ONLY WHEN THE EDGE MARGIN BETWEEN THE DRILLED HOLES AND THE CRACK STOP HOLE IS NOT LESS THAN D

[H] TAPER TO INDICATED THICKNESS

SYMBOLS

+ ORIGINAL FASTENER LOCATIONS

BACB30FQ6A REPAIR FASTENERS IN EXISTING LOCATIONS. USE OF 1/32 OVERSIZE IS PERMISIBLE

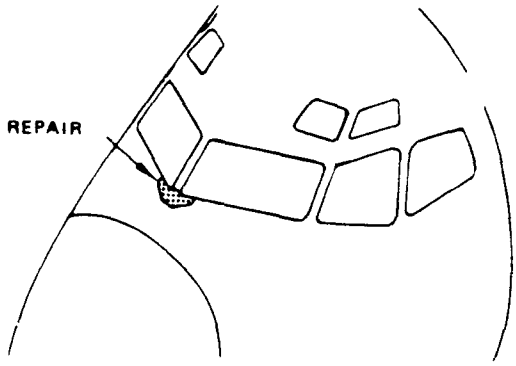
BACB30LH3 FASTENER IN EXISTING LOCATIONS

BACB30FN6A REPAIR FASTENERS IN NEW LOCATIONS

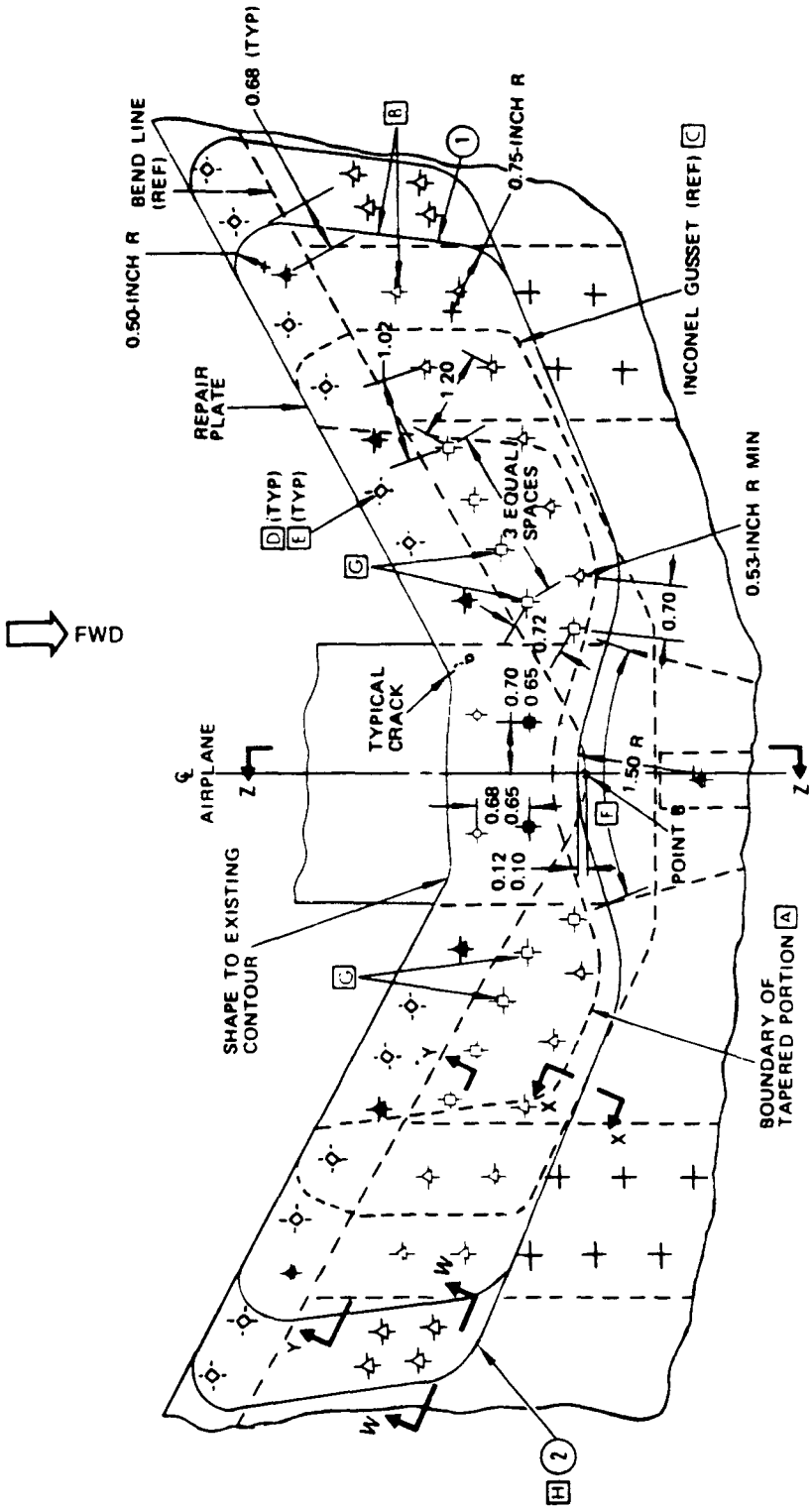
NAS1200M8-( )P REPAIR FASTENERS IN EXISTING LOCATIONS

NAS1200M6-( )P REPAIR FASTENERS IN NEW LOCATIONS

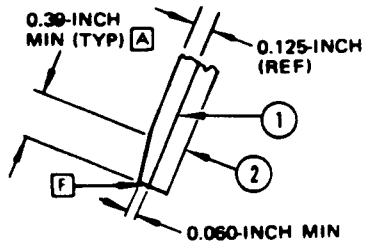
NAS1200M6-( )P REPAIR FASTENERS IN EXISTING LOCATIONS



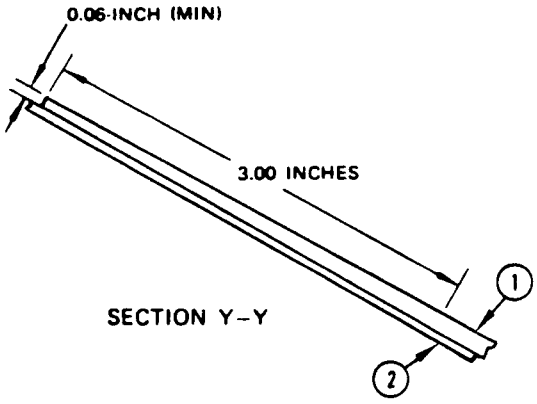
REPAIR MATERIAL			
PART		QTY	MATERIAL
(1)	PLATE	1	0.125-INCH 2024-0 HT-T4
(2)	PLATE	1	0.050 INCH 301 CRES 1/4 HARD SAME SHAPE AS (1) EXCEPT EXTENDED OUTBD FOR 2 ROWS OF FASTENERS
(3)	REPAIR WASHER [E]	AS REQD	ALUMINUM ALLOY 2024-T4



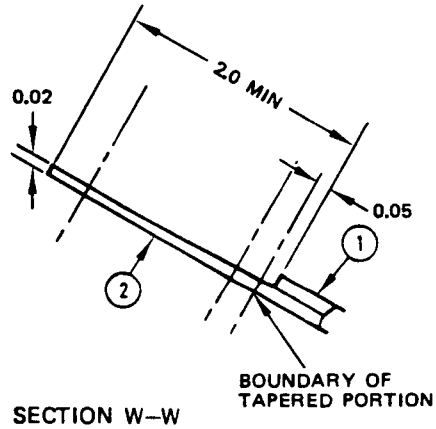
Skin Repair - Control Cabin
Figure 15A (Sheet 3)



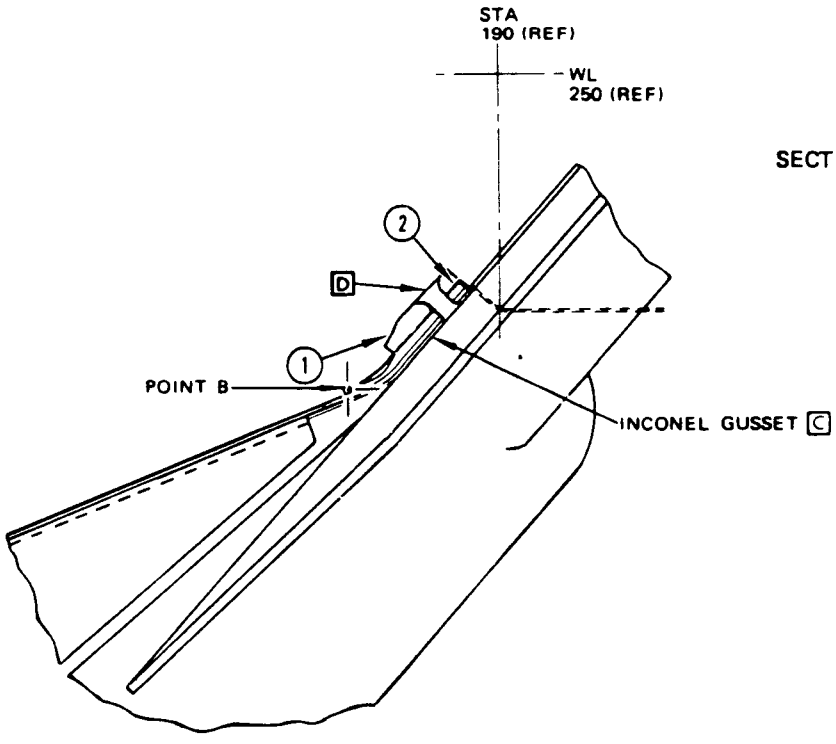
SECTION X–X



SECTION Y–Y



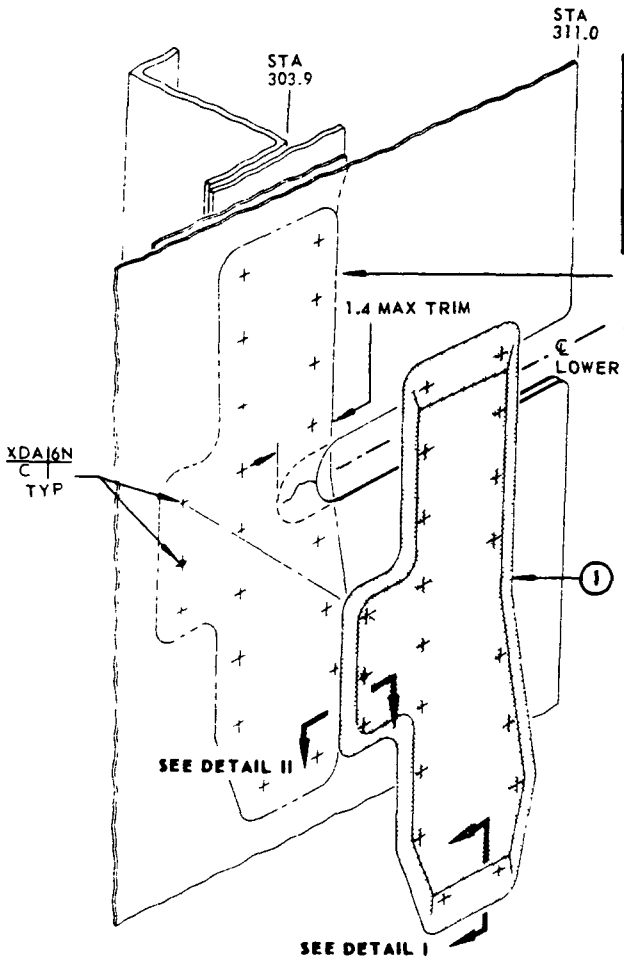
SECTION W–W



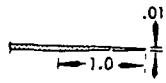
SECTION Z–Z

REPAIR I (CONT)

Skin Repair - Control Cabin
Figure 15A (Sheet 4)

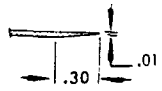


REPAIR MATERIAL			
PART		QTY.	MATERIAL
1	PLATE	1	.056 C.R. STEEL 1/2 HARD PER MIL-S-5059 OR EQUIVALENT



DETAIL I

TYPICAL BOTH ENDS



DETAIL II

TYPICAL CHAMFER EXCEPT AS NOTED IN DETAIL I

REPAIR INSTRUCTIONS

1. Trim out damaged skin, doubler and strap. Do not damage frame.
2. Remove fasteners as required for reinforcing plate and drill repair fastener location.
3. Fabricate part 1. Drill and countersink fastener holes.
4. Fabricate and apply repair washers per 51-2-8 figure 4.
5. Alodize trimmed and drilled section of original parts per 51-8-0.
6. Install part 1.
7. Finish per 51-2-0 of the Maintenance Manual.

NOTE

DAMAGE IS ASSUMED TO BE A CRACKED SKIN DOUBLER AND STRAP AT LOWER HINGE CUT OUT AT FORWARD ENTRY DOOR. THIS REPAIR MAY BE ADAPTED TO UPPER HINGE.

+ EXISTING FASTENER LOCATIONS.

✦ REPAIR FASTENER LOCATION.

MINIMUM NUMBER OF FASTENERS EACH SIDE OF HINGE ℄ SHOWN.

SEE 51-2-0 FOR FASTENER CODE, REMOVAL AND INSTALLATION, HOLE SIZES AND EDGE MARGINS.

SEE 51-8-0 FOR METAL PROTECTIVE TREATMENT.

BREAK SHARP EDGES 0.03 ALL REPAIR PARTS AND TRIMMED ORIGINAL PARTS.

FINISH PER 51-2-0 OF THE MAINTENANCE MANUAL.

FOR REQUIRED PERFORMANCE CONSIDERATIONS IN REGIONS OF CRITICAL SMOOTHNESS SEE 51-4-1.

Strap and Skin Plus Doubler Repair-Hinge Cutout at Forward Entry Door
Figure 16

STRUCTURAL REPAIR

PART		QTY.	USED AT BS 480		USED AT BS 600D	
			REF NO. [B]	REPLACED [C] PART REF NO.	REF NO. [B]	REPLACED [C] PART REF NO.
(1)	SERRATED PLATE	1	69-35275-1	66-16881-2		
(2)	LAMINATED SHIM	1	65-25345-46	BACS40B-44-74		
(3)	SERRATED PLATE	1			69-35275-2	66-16881-1
(4)	LAMINATED SHIM	1			65-25346-39	BACS40B-44-74

REPAIR INSTRUCTIONS

1 Open and secure main cargo door.

2 At forward and aft drift pin receptacle locations, trim skin as shown in Detail II. After trimming, brush alodize trimmed edge and apply two coats of zinc chromate primer.

3 Remove interior lining panels to gain access to back of frame in area of forward and aft drift pin receptacles.

4 Remove and retain drift pin receptacle 69-22645-1 from frame at station 480 and 600D.

5 Remove and discard serrated plate 66-16881-2 and laminated shim BACS40B44-74 from station 480, and serrated plate 66-16881-1 and laminated shim BACS40B44-74 from station 600D.

6 Install serrated plate 1 and laminated shim 2 (under plate) on station 480, and reinstall drift pin receptacle 69-22645-1.

NOTE: Tongue of serrated plate and laminated shim should fair with outer skin line

7 Install serrated plate 3 and laminated shim 4 (under plate) on station 600D and reinstall drift pin receptacle 69-22645-1.

NOTE: Tongue of serrated plate and laminated shim should fair with outer skin line.

8 Close cargo door and verify proper alignment of receptacles before replacement of lining. Make any necessary adjustments.

9 Replace interior lining.

10 Apply original finish per 51-2-0 of the Maintenance Manual to the repair area.

NOTE

REFERENCE: THE BOEING COMPANY, SERVICE BULLETIN NO. 2271, DEC 28, 1965.

SEE 51-2-0 FOR FASTENER CODE, REMOVAL AND INSTALLATION, HOLE SIZES AND EDGE MARGINS.

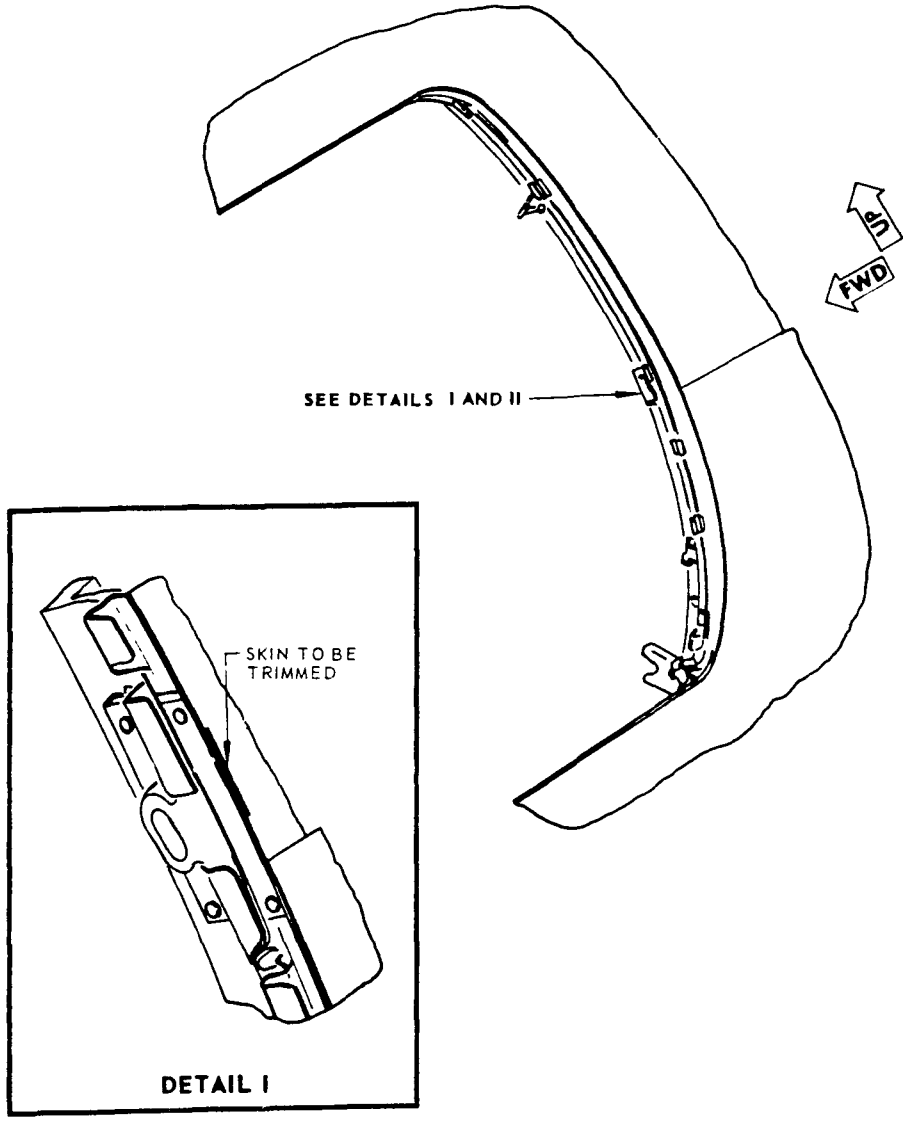
SEE 51-8-0 FOR METAL PROTECTIVE TREATMENT

[A] AFTER DELAMINATING SHIM, INSTALL WITH WET SKYDROL RESISTANT PRIMER TYPE 1. SEE 51-8-0.

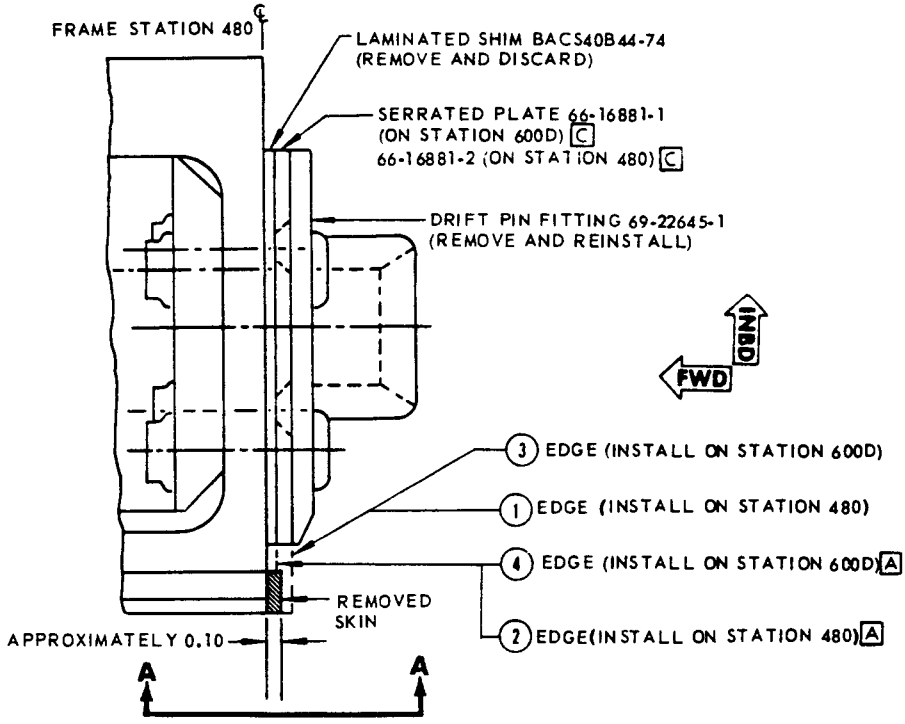
[B] OBTAINABLE FROM THE BOEING COMPANY SPARE PARTS DEPARTMENT.

[C] REMOVE AND DISCARD.

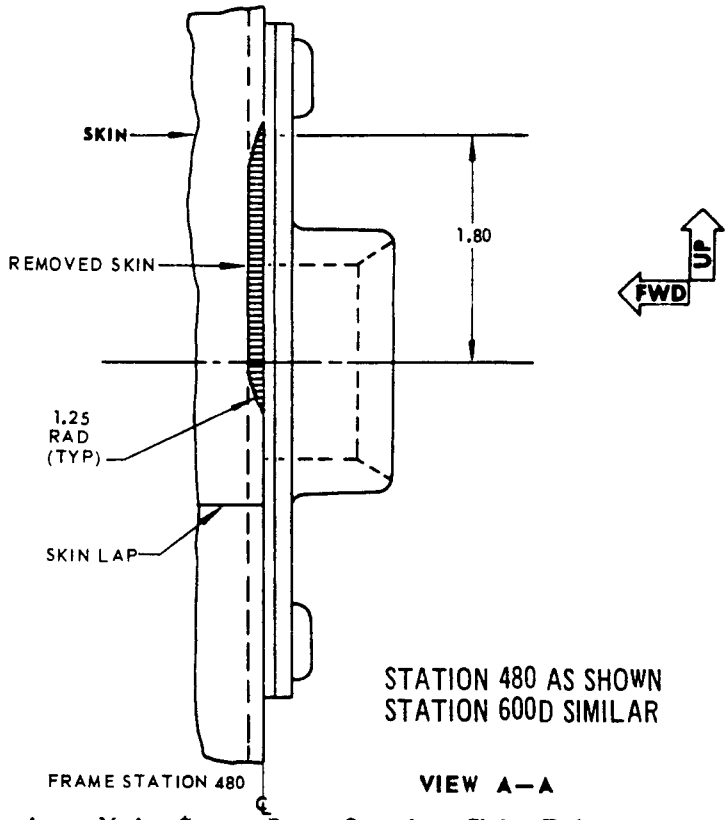
Skin Repair - Main Cargo Door Opening Skin Trim at Drift Pin Receptacle
Figure 17 (Sheet 1 of 3)



Skin Repair - Main Cargo Door Opening Skin Trim at Drift Pin Receptacle
Figure 17 (Sheet 2 of 3)



DETAIL II



Skin Repair - Main Cargo Door Opening Skin Trim at Drift Pin Receptacle
Figure 17 (Sheet 3 of 3)

REPAIR INSTRUCTIONS

1. Determine end of crack and stop drill 1/4" hole.
2. Drill out existing fasteners and the repair fastener locations as required for the installation of the reinforcing plate.
3. Fabricate part [1]. Drill and countersink fastener holes.
4. Eddy current examine the area as required per 51-2-10.
5. Alodize trimmed and drilled sections of original parts per 51-8-0.
6. Fabricate and apply repair washers per 51-2-8 figure 4.
7. Install part [1]
8. Finish per 51-2-0 of the Maintenance Manual.

NOTE

- DAMAGE IS ASSUMED TO BE A CRACKED SKIN OR STRAP AND SKIN AT LOWER HINGE CUT OUT AT THE AFT ENTRY DOOR. THIS REPAIR MAY BE ADAPTED TO THE UPPER HINGE.
- SEE 51-2-0 FOR FASTENER CODE, REMOVAL AND INSTALLATION, HOLE SIZES AND EDGE MARGINS.
- SEE 51-8-0 FOR METAL PROTECTIVE TREATMENT.
- BREAK SHARP EDGES 0.03 ON ALL REPAIR PARTS AND TRIMMED ORIGINAL PARTS.
- FINISH PER 51-2-0 OF THE MAINTENANCE MANUAL.
- FOR REQUIRED PERFORMANCE CONSIDERATIONS IN REGIONS OF CRITICAL SMOOTHNESS SEE 51-4-1.
- USE BACB30FN6 FASTENERS FOR INSTALLATION. USE BACB30LA6 FASTENERS IN LOCATIONS WHERE BACB30FN6 CANNOT BE INSTALLED.

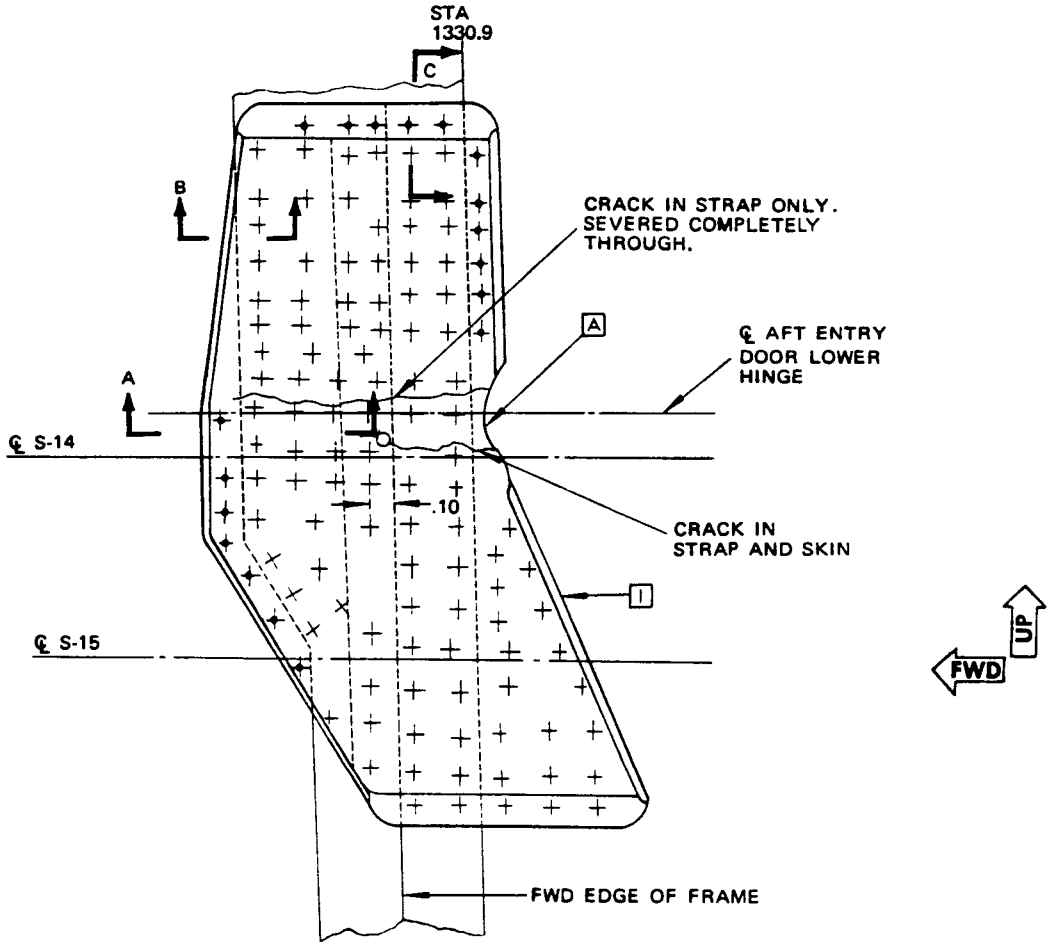
+ EXISTING FASTENER LOCATIONS

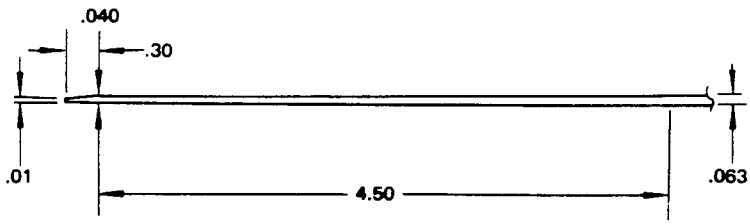
✦ REPAIR FASTENER LOCATION

[A] TRIM EDGE (APPROX. AS SHOWN) TO MATCH STRAP TRIM. MINIMUM RADIUS .75 INCH.

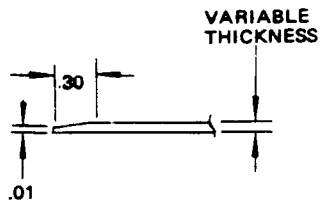
REPAIR MATERIAL			
PART		QTY	MATERIAL
1	PLATE	1	.063 AISI CRS 1/2 HARD

Aft Entry Door Lower Hinge Skin and Strap - Crack Repair
Figure 18 (Sheet 1 of 2)

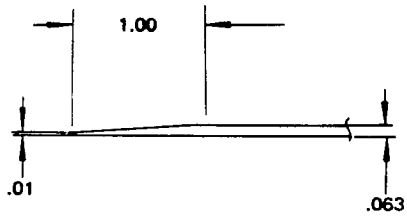




SECTION A A



SECTION B B



SECTION C C

Aft Entry Door Lower Hinge Skin and Strap - Crack Repair
Figure 18 (Sheet 2 of 2)

REPAIR INSTRUCTIONS

1. Round out and deburr the damaged hole to one-inch diameter maximum. The center of the repair hole should not be less than four (4) times the hole diameter from the edge of any cutout.
2. Fabricate repair parts 1 and 2
3. Alodize all raw surfaces of repair and repair parts per 51-8-0.
4. Prepare for bonding the mating surface of repair part and existing skin per 51-9-1
5. Install repair parts.
6. Fill gap between parts with aerodynamic smoother BMS 5-13 per 51-4-1, paragraph 2.A.
7. Replace original finish per 51-2-0 of the Maintenance Manual.

NOTE

- SEE 51-8-0 FOR METAL PROTECTIVE TREATMENT
- SEE 51-2-0 FOR FASTENER CODE, REMOVAL AND INSTALLATION
- REPAIR APPLICABLE TO SMALL HOLES IN PRESSURIZED AREAS WITH TOTAL SKIN THICKNESS OF .090 MAXIMUM. FOR PERFORMANCE CONSIDERATIONS IN REGIONS OF CRITICAL SMOOTHNESS SEE 51-4-1
- BREAK SHARP EDGES .03 FOR CUTOUT AND NEW PARTS.

┼ BACR15CE-D FASTENERS

✦ REPAIR FASTENER LOCATIONS

[D] SAME GAGE MATERIAL AND HEAT TREAT AS ORIGINAL SKIN

[E] SAME MATERIAL AND HEAT TREAT

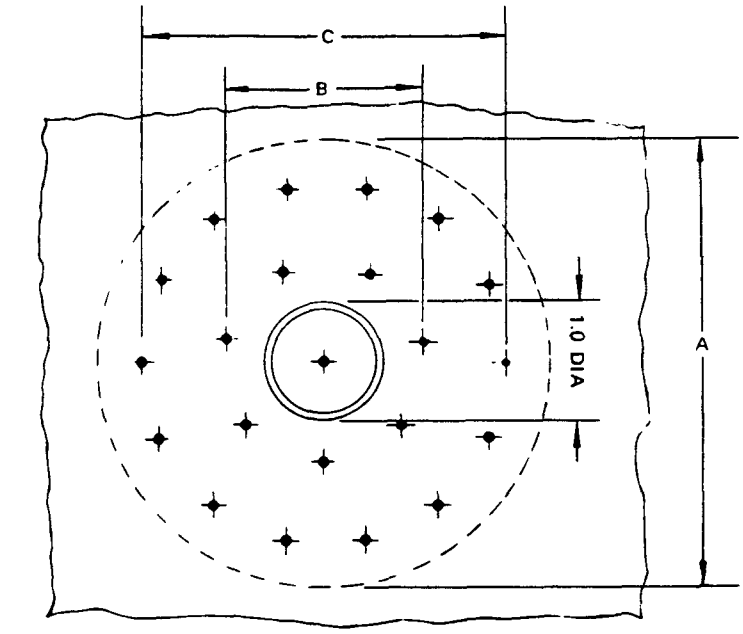
[F] THALCO 196
THALCO GLASS CLOTH FIBER PRODUCTS
LOS ANGELES, CALIFORNIA

[G] NOT REQUIRED WHEN BONDING PER 51-9-1 DATED MAY 5/70 IS EMPLOYED. EXISTING BONDED REPAIRS WHICH UTILIZED SCRIM CLOTH ARE SATISFACTORY AND NEED NOT BE REWORKED.

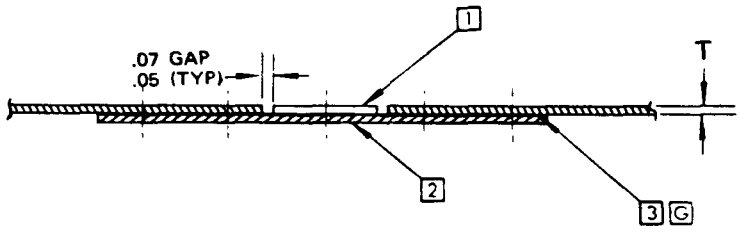
REPAIR MATERIAL			
PART		QTY	MATERIAL
[1]	FILLER	1	[D]
[2]	DOUBLER	1	[E]
[3]	SCRIM CLOTH	AS REQD	[F] [G]

Fuselage Skin - One Inch Dia Hole - Flush Repair
Figure 19 (Sheet 1 of 2)

T (SKIN INCHES)	T (PATCH INCHES)	A INCHES	B INCHES	C INCHES	INNER RIVET CIRCLE		OUTER RIVET CIRCLE	
					NUMBER	TYPE	NUMBER	TYPE
.040	.050	3.80	1.70	3.10	7	XF$\frac{5}{CT}$	14	XF$\frac{5}{CT}$
.045	.050	3.80	1.70	3.10	7	XF$\frac{5}{CT}$	14	XF$\frac{5}{CT}$
.050	.063	4.30	1.80	3.50	6	XF$\frac{6}{CT}$	13	XF$\frac{6}{CT}$
.063	.071	4.30	1.80	3.50	6	XF$\frac{6}{CT}$	13	XF$\frac{6}{CT}$
.071	.090	5.25	2.00	4.25	5	XF$\frac{8}{CT}$	12	XF$\frac{8}{CT}$
.090	.100	5.25	2.00	4.25	5	XF$\frac{8}{CT}$	12	XF$\frac{8}{CT}$

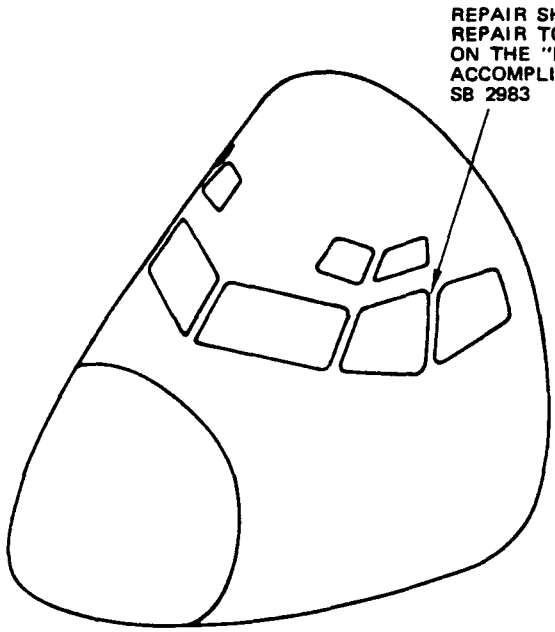


PLAN



SECTION THROUGH REPAIR

Fuselage Skin - One Inch Dia Hole - Flush Repair
Figure 19 (Sheet 2 of 2)



"E-F" Windshield Post - Doubler Repair - Control Cabin
Figure 20 (Sheet 1)

REPAIR INSTRUCTIONS

1. Clean up damaged skin as described in 53-2-1, Fig. 7.
2. Determine size and material required for repair doubler.
3. Remove fasteners in repair area as required.
4. If damage is in upper portion of opening requiring repair doubler to extend into skin lap area proceed to step 6.
5. If damage is in lower portion of opening proceed to step 7.

   NOTE: See zone diagram for limit or repair on aft exit cutout.

6. Cut away upper skin of lap joint and fabricate tapered filler to fit.
7. Install countersink washers in existing countersinks in skin at fastener locations common to repair doubler.
8. Fabricate repair doubler.
9. Position doubler and tapered filler (if used) in place and drill and/or ream all holes.
10. Countersink holes in doubler.
11. Remove repair part(s) and alodize all bare aluminum surfaces including cutouts in skin.
12. Fill irregularities left by damage removal as required to provide smooth surface for door seal with BMS 5-28, type 3.
13. Prime repair part(s) and reworked skin areas with 2 coats BMS 10-11 type I primer.
14. Install part(s) with BMS 5-95 faying surface seal.
15. Install steel fasteners wet with BMS 5-95 sealant.
16. Restore finish.

NOTES

- THIS REPAIR IS DESIGNED FOR THE REWORK OF CORROSION OR DAMAGE TO THE INSIDE SURFACE OF THE SKINS AT THE OVERWING EMERGENCY EXIT CUTOUTS
- REFER TO THE FOLLOWING WHEN MAKING THIS REPAIR:

  51-2 FOR FASTENER CODE REMOVAL AND INSTALLATION, HOLE SIZES, EDGE MARGINS, OVERSIZE FASTENERS AND COUNTERSINK REPAIR WASHERS

  51-8-0 FOR PROTECTIVE TREATMENT OF METAL REPAIR PARTS

  51-2-0 OF THE MAINTENANCE MANUAL FOR FINISH REQUIREMENTS

  51-3-0 OF THE MAINTENANCE MANUAL FOR SEALS AND SEALING

  51-14-1 FOR APPLICATION OF FILLING COMPOUND

Fuselage Skin - External Repair at Emergency Exit Cutouts
Figure 21 (Sheet 1)

NOTES (CONTINUED)

- BREAK SHARP EDGES 0.015 TO 0.030
- SPACE NEW REPAIR FASTENERS APPROXIMATELY AS SHOWN

[A] EXTEND REPAIR DOUBLER 3 ROWS OF FASTENERS PAST END OF DAMAGED SKIN

[B] IF REPAIR DOUBLER EXTENDS OVER CORNER TANGENT POINT, END DOUBLER MINIMUM OF 2 INCHES FROM TANGENT POINT

[C] IF REPAIR DOUBLER DOES NOT EXTEND OVER TANGENT POINT, END DOUBLER MINIMUM OF 2 INCHES FROM TANGENT POINT

[D] EXTEND REPAIR DOUBLER AROUND CORNER OF CUTOUT IF NECESSARY. DO NOT END AT CORNER

[E] DO NOT INSTALL IF EDGE MARGIN CANNOT BE MAINTAINED

[F] START TAPER AT EDGE OF SKIN LAP

[G] 0.10 CRES AISI 301 1/2 HARD

[H] 0.071 CLAD 2024-T3

[I] 0.10 CLAD 2024-T3

[J] 0.071 CRES AISI 301 1/2 HARD

[K] 0.125 CLAD 2024-T3

[L] SAME GAGE AS UPPER SKIN

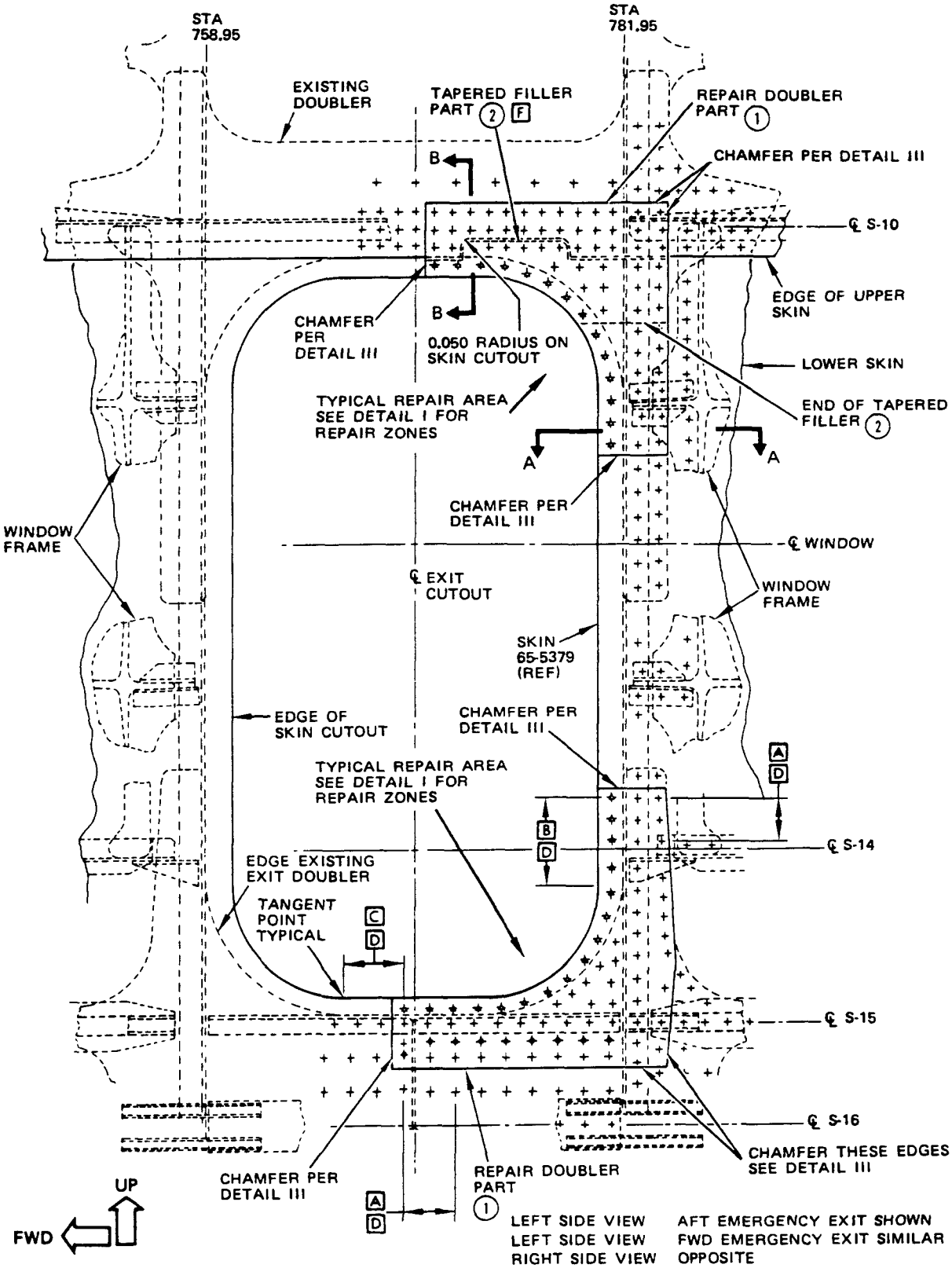
SYMBOLS

+ EXISTING FASTENER LOCATION. REPLACE EXISTING FASTENER REMOVED FOR REPAIR WITH SAME SIZE HI-LOK FASTENER BACB30FN OR 1/64 OVERSIZE BACB30FQ

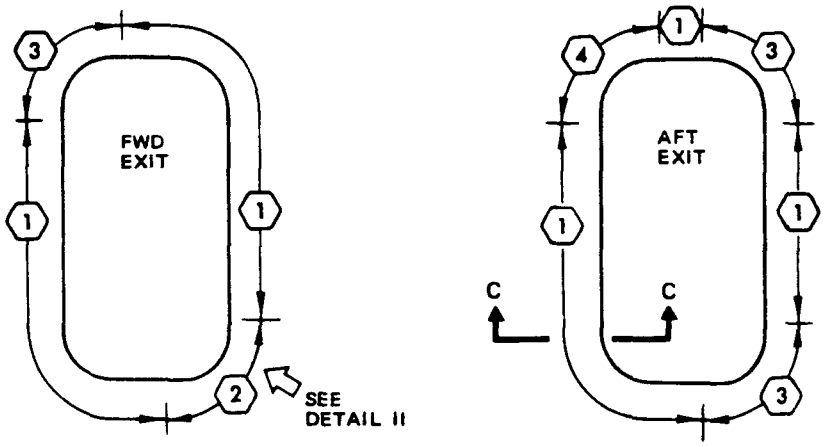
✦ REPAIR FASTENER HI-LOK BACB30FN8 (1/4 DIA)

✦ REPAIR FASTENER BACR15CE6D FLUSH BOTH SIDES

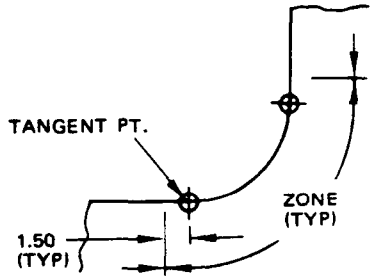
Fuselage Skin - External Repair at Emergency Exit Cutouts
Figure 21 (Sheet 2)



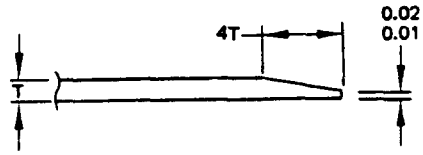
Fuselage Skin - External Repair at Emergency Exit Cutouts
Figure 21 (Sheet 3)



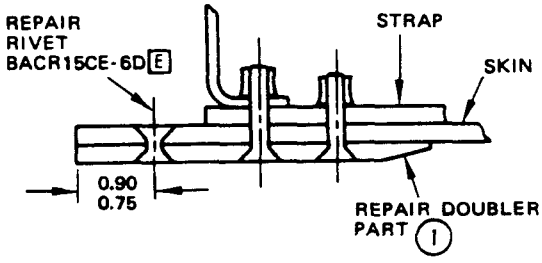
LEFT SIDE VIEW
SEE TABLE FOR ZONES
DETAIL I



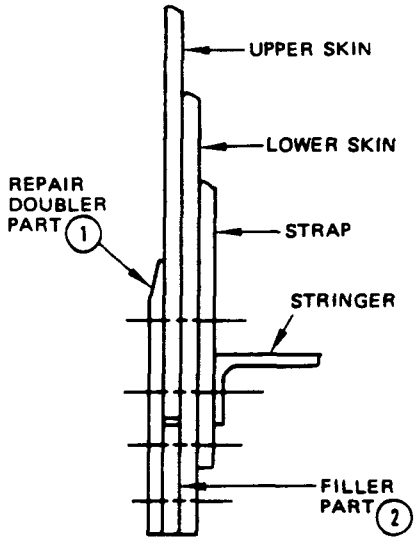
DETAIL II



TAPER DETAIL
DETAIL III

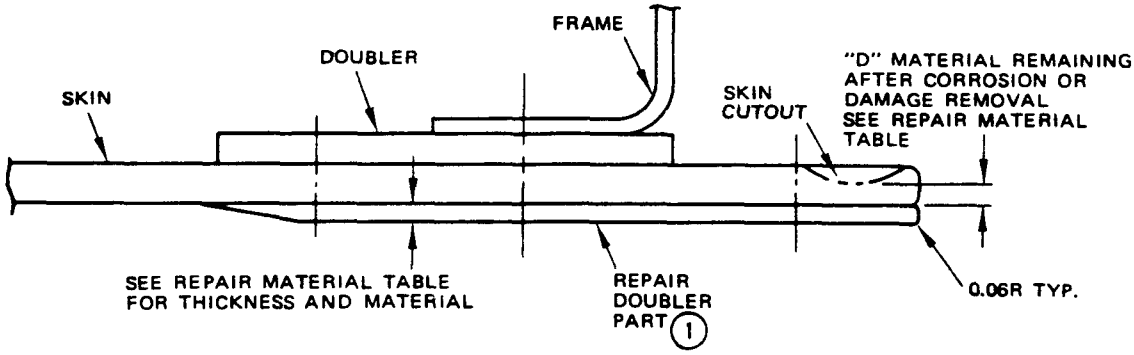


SECTION A–A



SECTION B–B

Fuselage Skin - External Repair at Emergency Exit Cutouts
Figure 21 (Sheet 4)

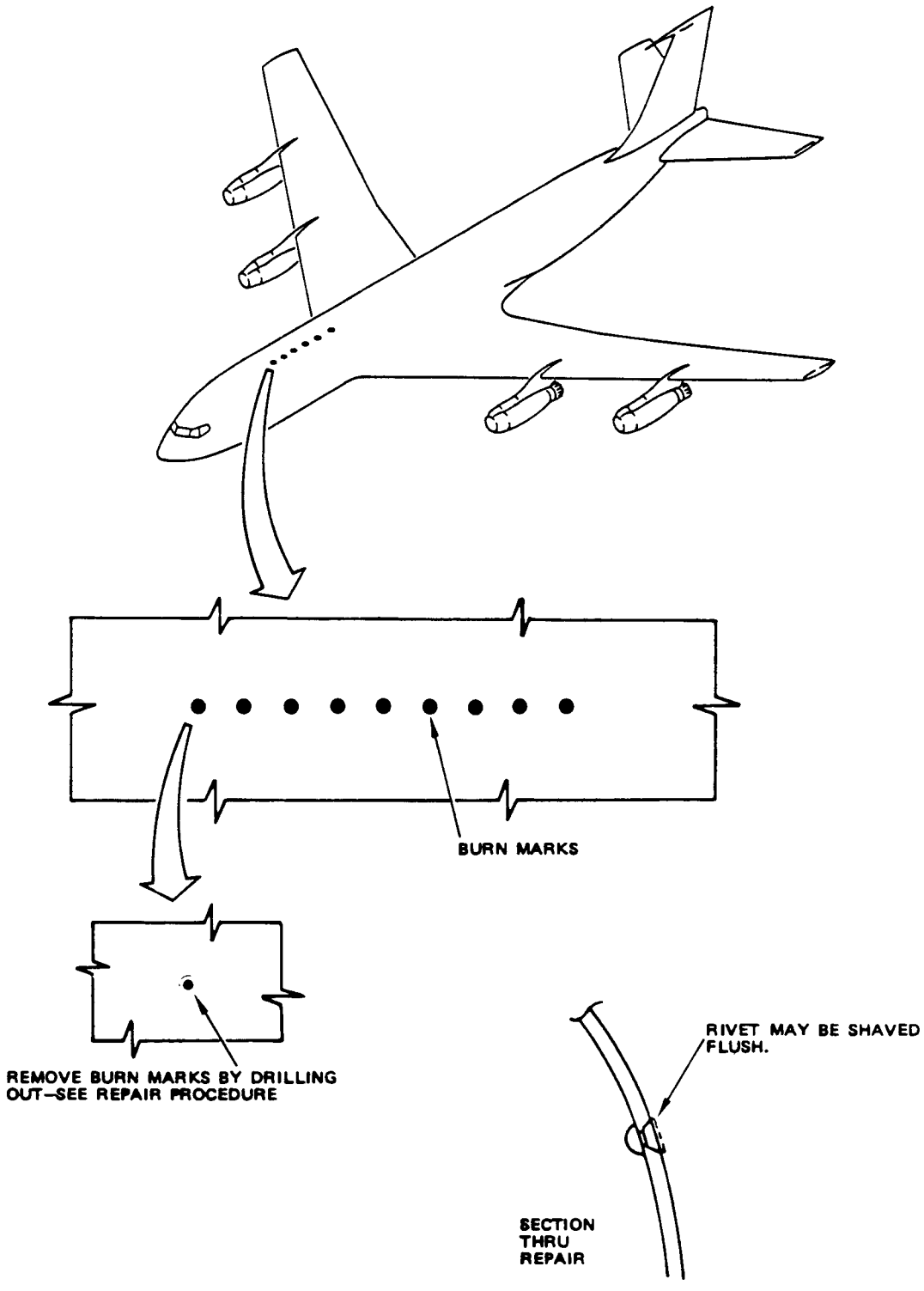


SECTION C–C

TYPICAL SECTION
ALL REPAIRS

REPAIR MATERIAL					
ZONE	MATERIAL LEFT "D"	PART		QTY	MATERIAL
(1)	0.079 - 0.000	(1)	DOUBLER	1	[G]
(2)	0.119 - 0.080			1	[H]
	0.079 - 0.000			1	[G]
(3)	0.149 - 0.100			1	[H]
	0.099 - 0.080			1	[I] OR [J]
	0.079 - 0.000			1	[G]
(4)	0.219 - 0.170			1	[H]
	0.169 - 0.150			1	[I] OR [J]
	0.149 - 0.130			1	[J] OR [K]
	0.129 - 0.000	(1)	DOUBLER	1	[G]
		(2)	FILLER	1	CLAD 2024-T3 [L]

Fuselage Skin - External Repair at Emergency Exit Cutouts
Figure 21 (Sheet 5)


BURN MARKS
REMOVE BURN MARKS BY DRILLING OUT—SEE REPAIR PROCEDURE
RIVET MAY BE SHAVED FLUSH.
SECTION THRU REPAIR

Lightning strikes are indicated on the body skin by a series of small burn marks.

These can be repaired as follows:

1. Use eddy current to determine extent of damage.

2. Blend out apparent damage plus 10% of original skin thickness.

3. Eddy current inspect again to confirm all cracks have been removed. Removal of damage must not exceed the limits shown in 53-2-1.

Damage that cannot be repaired by above methods may be repaired by using the following procedures and the repair index in Table I.

1. Drill out burn mark using a drill 0.06 larger diameter than the burn mark up to a hole size 0.25 inch diameter. For a hole size over 0.25 inch dia use a drill size 0.125 inch dia larger than the burn mark.

CAUTION:
- 1100F AND 5056 ALUMINUM RIVETS ARE NOT COMPATIBLE WITH THE 2024 SKIN AND MUST NOT BE USED.

2. Plug hole up to 0.375 inch dia with a solid protruding head rivet, or a countersunk head rivet, material 2117-T3 aluminum. If countersunk rivet is used, depth of countersunk must not exceed 60% of skin thickness. Countersunk head may be shaved flush with skin after driving tight.

NOTE:
- Wet install rivets with BMS5-95 sealant.
- Care should be exercised in bucking the larger diameter rivets in the thin skins to prevent permanent distortion to the skins.

CAUTION: THE USE OF A BLIND FASTENER IS A TIME LIMITED REPAIR AND MUST BE INSPECTED AT EVERY 10,000 HOURS FOR LOOSE FASTENERS [B] OR REPLACED WITH A SOLID RIVET.

3. If the inside area is inaccessible for driving solid rivets, blind NAS1398D or NAS1399D rivets may be used. Blind rivets must not be shaved and the countersink must not exceed 60% of skin thickness.

NOTES:
- For body skin allowable damage refer to 53-30-1.
- For sealants and sealing refer to 51-10-2.
- For eddy current inspection refer to "Non Destructive Test Manual D6-7170 Part 6".

[A] FOR SKINS UP TO 0.050 THICK USE 5/32 DIA RIVETS.
FOR SKINS 0.056 AND THICKER USE 3/16 DIA RIVETS.

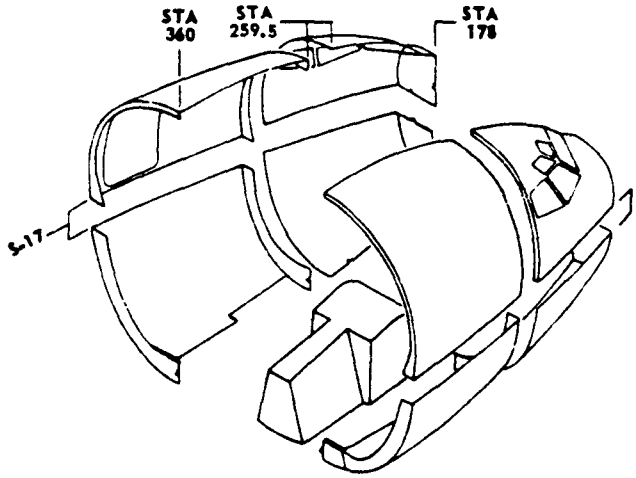
[B] THIS REPAIR HAS FAA (DER) APPROVAL CONTINGENT ON ACCOMPLISHMENT OF THE INSPECTIONS AT THE INTERVALS CONTAINED HEREIN.

Repair of Lightning Strikes on Pressurized Body Skins
Figure 22 (Sheet 2)

HOLE IN SKIN	REPAIR
UP TO 0.375 DIA	COUNTERSINK 60% SKIN THICKNESS EXTERNAL SURFACE. FILL HOLE WITH SOFT PROTRUDING HEAD RIVET. MACHINE FLUSH AFTER DRIVING.
BETWEEN 0.375 AND 1.00 DIA	REPAIR PER SMALL HOLE HOLE REPAIR PER 53-3-2 [A]
OVER 1.00 DIA	REPAIR PER SKIN REPAIR 53-3-2 [A]

REPAIR INDEX
TABLE I

STRUCTURAL REPAIR



ITEM	INBD CHORD		WEB OR FORMED SEC		OUTBD CHORD	
	MATERIAL	REPAIR FIG NO.	MATERIAL	REPAIR FIG NO.	MATERIAL	REPAIR FIG NO.
1			.100 CLAD 7075-T6			
2	AND10136-2401 7075-T6	51-14-4 FIG. 1			BAC 1503-100071 2024-T4	51-14-4 FIG. 1
3			.025 CLAD 7075-T6	51-14-2 FIG. 1		
4			.050 CLAD 7075-T6	51-14-2 FIG. 1		
5	AND10136-2404 7075-T6	51-14-4 FIG. 1			AND10136-2405 2024-T4	51-14-4 FIG. 1
6			.071 CLAD 7075-T6	51-14-2 FIG. 1		
7			.032 CLAD 7075-T6	51-14-2 FIG. 1		
8	AND10134-1206 2024-T42	51-14-4 FIG. 1			.071 CLAD 7075-T6	51-14-3 FIG. 1
9	AND10133-1001 2024-T42	51-14-4 FIG. 1	.025 CLAD 7075-T6	51-14-2 FIG. 1	BAC 1489-228 7075-T6 CLAD	51-14-3 FIG. 1
10	AND10133-1002 7075-T6	51-14-4 FIG. 1	.040 CLAD 7075-T6	51-14-2 FIG. 1	BAC 1506-118 2024-T42	51-14-4 FIG. 1
11	AND10133-1001 2024-T42	51-14-4 FIG. 1	.025 CLAD 7075-T6	51-14-2 FIG. 1	BAC 1489-217 2024-T4 CLAD	51-14-3 FIG. 1
12	BAC 1514-329 2024-T42	51-14-4 FIG. 1			BAC 1506-916 7075-T6	51-14-4 FIG. 1
13			.040 CLAD 7075-T6	51-14-2 FIG. 1		
14			.050 CLAD 7075-T6	51-14-2 FIG. 1		
15	AND10133-1001 7075-T6	51-14-4 FIG. 1	.032 CLAD 7075-T6	51-14-2 FIG. 1	BAC 1514-912 2024-T42	51-14-4 FIG. 1
16			BAC 1509-100013 2024-T4	51-14-4 FIG. 1		
17	AND10134-1407 2024-T42	51-14-4 FIG. 1	.032 CLAD 7075-T6	51-14-2 FIG. 1	BAC 1506-916 7075-T6	51-14-4 FIG. 1

ITEM	INBD CHORD		WEB OR FORMED SEC		OUTBD CHORD	
	MATERIAL	REPAIR FIG NO.	MATERIAL	REPAIR FIG NO.	MATERIAL	REPAIR FIG NO.
18			BAC 1518-195 2024-T42	51-14-4 FIG. 1	BAC 1506-916 2024-T42	51-14-4 FIG. 1
19	AND10134-1407 2024-T42	51-14-4 FIG. 1				
20	BAC 1514-967 2024-T42	51-14-4 FIG. 1			BAC 1506-916 7075-T6	51-14-4 FIG. 1
21			.063 CLAD 7075-T6	51-14-2 FIG. 1		
22			.040 CLAD 7075-T6	51-14-2 FIG. 1		
23	AND10134-1205 7075-T6	51-14-4 FIG. 1				
24	BAC 1514-329 2024-T42	51-14-4 FIG. 1			BAC 1506-939 7075-T6	51-14-4 FIG. 1
25	AND10133-2403 2024-T4	51-14-4 FIG. 1				
26	BAC 1506-1335 7075-T6	51-14-4 FIG. 1				
27	BAC 1506-864 7075-T6	51-14-4 FIG. 1				
28	BAC 1503-4223 7075-T6	51-14-4 FIG. 1	.080 CLAD 7075-T6		BAC 1505-100190 2024-T42	
29	AND10136-1304 7075-T6	51-14-4 FIG. 1	.063 CLAD 7075-T6	51-14-3 FIG. 1		
30	BAC 1506-919 2024-T4	51-14-4 FIG. 1			BAC 1506-921 2024-T42	51-14-4 FIG. 1
31	BAC 1506-923 2024-T42	51-14-4 FIG. 1			BAC 1506-922 2024-T42	51-14-4 FIG. 1
32	BAC 1506-729 7075-T6	51-14-4 FIG. 1	.071 CLAD 7075-T6			
33	AND10133-1202 2024-T42	51-14-4 FIG. 1	.040 CLAD 7075-T6	51-14-2 FIG. 1	BAC 1506-1308 2024-T42	51-14-4 FIG. 1
34			.050 CLAD 7075-T6	51-14-2 FIG. 1		
35			.063 CLAD 7075-T6			
36			.080 CLAD 7075-T6	51-14-2 FIG. 1		
37	AND10133-1202 2024-T42	51-14-4 FIG. 1	.040 CLAD 7075-T6	51-14-2 FIG. 1	BAC 1506-1308 7075-T6	51-14-4 FIG. 1
38	AND10134-1602 2024-T42	51-14-4 FIG. 1	.040 CLAD 7075-T6	51-14-3 FIG 1	BAC 1506-888 7075-T6	
39	AND10134-1602 2024-T42	51-14-4 FIG. 1	.063 CLAD 7075-T6	51-14-3 FIG. 1	BAC 1506-887 7075-T6	51-14-4 FIG. 1
40	BAC 1517-1154 2024-T42				BAC 1514-1273 2024-T42	
41	BAC 1505-29063 2024-T42	51-14-4 FIG. 1			BAC 1506-1104 2024-T42	51-14-4 FIG. 1
42			.032 CLAD 7075-T6	51-14-2 FIG. 1		

ITEM	INBD CHORD		WEB OR FORMED SEC		OUTBD CHORD	
	MATERIAL	REPAIR FIG NO.	MATERIAL	REPAIR FIG NO.	MATERIAL	REPAIR FIG NO.
(43)			.040 CLAD 7075-T6	51-14-2 FIG. 1		
(44)			.125 CLAD 7075-T6			
(45)	BAC 1503-100075 2024-T42	51-14-4 FIG. 1	.040 CLAD 7075-T6	51-14-2 FIG. 1	BAC 1506-1104 2024-T42	51-14-4 FIG. 1
(46)	BAC 1503-4203 2024-T4				BAC 1506-1104 2024-T42	
(47)			.045 CLAD 2024-T3	51-14-2 FIG. 1		
(48)			.032 CLAD 7075-T6	51-14-2 FIG. 1		
(49)			BAC 1517-1147 7075-T6 CLAD	53-3-5 FIG.1&4		
(50)	BAC 1514-405 2024-T42		.050 CLAD 7075-T6	51-14-2 FIG. 1	BAC 1489-235 7075-T6 CLAD	
(51)			.045 CLAD 7075-T6	51-14-3 FIG. 1		
(52)	BAC 1514-405 2024-T42		.050 CLAD 7075-T6	51-14-2 FIG. 1	BAC 1489-235 7075-T6 CLAD	
(53)			BAC 1514-1105 2024-T42			
(54)			BAC 1493-470 7075-T6 CLAD	53-3-5 FIG.1&4		
(55)			BAC 1517-705 7075-T6 CLAD	53-3-5 FIG.1&4		
(56)	AND10136-2403 2024-T42				BAC 1514-934 7075-T6	
(57)			.063 CLAD 7075-T6	51-14-2 FIG. 1		
(58)			.080 CLAD 7075-T6	51-14-2 FIG. 1		
(59)			BAC 1505-100201 7075-T6	51-14-4 FIG. 1		
(60)			AND10134-1206 7075-T6	51-14-4 FIG. 1		
(61)			AND10133-2004 2024-T4	51-14-4		
(62)			AND10134-3004 2024-T4	51-14-4 FIG. 1		
(63)			.090 7075-T6	51-14-2 FIG. 1		
(64)			BAC 1514-1113 7075-T6	51-14-4 FIG. 1		
(65)			AND10134-1408 7075-T6	51-14-4 FIG. 1		
(66)			BAC 1514-228 7075-T6	51-14-4 FIG. 1		
(67)			.090 CLAD 7075-T6	51-14-2 FIG. 1		

ITEM	INBD CHORD		WEB OR FORMED SEC		OUTBD CHORD	
	MATERIAL	REPAIR FIG NO.	MATERIAL	REPAIR FIG NO.	MATERIAL	REPAIR FIG NO.
(68)			AND10134-2008 2024-T4	51-14-4 FIG. 1		
(69)			.032 CLAD 2024-T3			
(70)	BAC 1503-100028 2024-T42	51-14-4 FIG. 1	.050 CLAD 7075-T6	51-14-2 FIG. 1	BAC 1489-235 7075-T6 CLAD	
(71)			BAC 1514-1107 2024-T42	53-3-6 FIG. 3		
(72)			BAC 1514-1106 2024-T42	53-3-6 FIG. 3		
(73)			.056 CLAD 7075-T6	51-14-2 FIG. 1		
(74)			BAC 1503-4223 7075-T6	51-14-4 FIG. 1		
(75)	BAC 1503-100028 2024-T42		.050 CLAD 7075-T6	51-14-2 FIG. 1	BAC 1489-235 7075-T6 CLAD	
(76)			AND10133-1002 7075-T6	51-14-4 FIG. 1		
(77)			BAC 1514-1104 2024-T42			
(78)			BAC 1503-5824 7075-T6	51-14-4 FIG. 1		
(79)			AND10136-3002 7075-T6	51-14-4 FIG. 1		
(80)			BAC 1517-1153 2024-T4			
(81)			AND10139-2403 7075-T6			
(82)			BAC 1503-2963 7075-T6	51-14-4 FIG. 1		
(83)			BAC 1506-1327 2024-T4	51-14-4 FIG. 1		
(84)			BAC 1506-1329 2024-T4	51-14-4 FIG. 1		
(85)	BAC 1503-2733 2024-T4	51-14-4 FIG. 1	.063 CLAD 7075-T6	51-14-2 FIG. 1	BAC 1503-100071 7075-T6	51-14-4 FIG. 1
(86)			.040 CLAD 2024-T4	51-14-2 FIG. 1		
(87)			BAC 1518-307 7075-T6	51-14-4 FIG. 1		
(88)			BAC 1489-267 2024-T4			
(89)			BAC 1514-1418 2024-T42			
(90)			BAC 1514-1419 2024-T42			
(91)			.090 CLAD 2024-T3	51-14-3 FIG. 1		
(92)			.032 CLAD 2024-T3	51-14-3 FIG. 1		

ITEM	UPPER CHORD		WEB OR FORMED SECTION		LOWER CHORD	
	MATERIAL	REPAIR FIG. NO.	MATERIAL	REPAIR FIG. NO.	MATERIAL	REPAIR FIG. NO.
(93)			0.040 CLAD 7075-T6			
(94)			0.020 CLAD 7075-T6			
(95)					0.025 + 0.025 CRES 301-1/4 HARD	
(96)					0.10 CLAD 2024-T4	
(97)					AND10137-0606 2024-T4 EXTR	
(98)					BAC1511-3772 2024-T4 EXTR	
(99)			0.063 2024-T42			
(100)			BAC1511-3720 2024-T3511			
(101)			BAC1511-3786 2024-T3511			
(102)					BAC1490-2669 7075-T6	
(103)					0.051 CLAD 2024-T4	
(104)			DOUBLER 0.071 CLAD 2024-T3			
(105)			WEB 0.056 CLAD 2024-T3			
(106)			REINFORCEMENT STRAP 0.125 CRES AISI 301 TO MIL-S-5059 COMP 301 SURFACE COND 2D 1/2 HARD			

Section 41 Structure Identification
Figure 1 (Sheet 4A)

NOTE

[A] FOR THE FOLLOWING:
ML 19737 THRU 19739
NW 19636, 19776, 19777, 19872

[B] FOR AIRPLANES WITH SB 2416 INCORPORATED

[C] FOR AIRPLANES WITH SB 2324 INCORPORATED

[D] FOR AIRPLANES WITH SB 2867 INCORPORATED

[E] FOR AIRPLANES WITH SB 2792 INCORPORATED

[F] FOR AIRPLANES WITH SB 3005 INCORPORATED

[G] FOR THE FOLLOWING AIRPLANES:
AA 18689 THRU 18692, 18938 THRU 18940, 19235 THRU 19237, 19380 THRU 19384, 19515 THRU 19519, 19581 THRU 19589, 19574 THRU 19577, 20087 THRU 20089, 20170 THRU 20179
AF 17614 THRU 17622, 17918, 17919, 17921 THRU 17924, 18245, 18246, 18375, 18456 THRU 18458, 18685, 18686, 18681, 18941, 19291, 19292, 19521, 19522, 19723, 19916, 19917
AI 17723, 17724, 18414, 18415, 18708, 18873, 19247, 19248, 19988
BA 17703 THRU 17705, 17707 THRU 17717, 18372, 18411 THRU 18413, 18425, 18924, 19498, 19821, 19843, 20374, 20375, 20456, 20457, 20517
BN 19104, 19105, 19107, 19108, 19440, 19531
BR 19415, 19767
CA 20714 THRU 20723
CI 20261, 20262
CO 18825, 18886, 18887, 19177, 19178, 19350, 19869
DC 20315 THRU 20319
EG 19590
EJ 19417, 19664, 19986
ET 19736, 19820
FT 18975, 18976, 19354, 19355
GR 19907 THRU 20000
IM 20830 THRU 20832
IN 18737, 18880, 19001, 19410
IR 20287, 20288, 20741
KE 20522
KU 20084 THRU 20086, 20546, 20547
LA 19000
LH 17718 THRU 17721, 18056, 18462, 18819, 18923, 18926 THRU 18932, 18937, 19315 THRU 19317, 20123, 20124, 20395
LV 19238 THRU 19241, 19961, 19962
LY 18070, 18071, 18357, 19004, 19502, 20097, 20122, 20301
ME 20224, 20259, 20260
MS 20341, 20342, 20760 THRU 20763
NW 18584 THRU 18586, 18693, 18710, 18746 THRU 18748, 18888, 18889, 18921, 18922, 18964, 19034, 19163, 19164, 19168, 19209, 19210, 19263, 19411, 19412, 19434, 19443, 19631, 19632 THRU 19636, 19672, 19773 THRU 19777
OA 18948 THRU 18950, 19760, 20035, 20036

NOTES (CONTINUED)

[G] (CONTINUED)

PA 17592 THRU 17608, 18083 THRU 18085, 18335 THRU 18339, 18579, 18591, 18714 THRU 18718, 18765 THRU 18767, 18832 THRU 18837, 18839 THRU 18842, 18956 THRU 18958, 18960, 19264 THRU 19278, 19361 THRU 19367, 19369, 19370, 19372, 19374 THRU 19379, 19693 THRU 19695, 19697 THRU 19699, 20016 THRU 20034

PK 19285, 19286, 19866, 20275, 20488

PQ 20514, 20515

QF 18808 THRU 18810, 18953 THRU 18955, 19293 THRU 19297, 19621 THRU 19630

RD 19416, 20076, 20077

RG 17905, 18694, 19321, 19322, 19433, 19840, 19822, 19842, 19870, 19871, 20008

RJ 20495

RO 20803 THRU 20805

SA 17928 THRU 17930, 18891, 19133, 19706, 20230, 20283, 20110

SD 20897, 20898

SN 17623, 17625 THRU 17627, 18374, 18460, 18890, 19162, 19996, 20198 THRU 20200

SQ 19351 THRU 19353, 19529, 19530, 19737 THRU 19739

SV 19809, 19810

TP 18961, 18962, 19740, 19969, 20136, 20297, 20298

TW 17674 THRU 17684, 17686 THRU 17690, 18405 THRU 18409, 18709, 18711, 18713, 18756, 18757, 18764, 18913 THRU 18916, 18918, 18978 THRU 18985, 19212 THRU 19214, 19224 THRU 19227, 19435, 19566, 19567, 19570 THRU 19573, 20058 THRU 20067, 20069, 20428, 20429

VM 20629

WA 19963 THRU 19967

WD 19789, 20043

WT 20474, 20669

WY 18582, 18583, 18707, 18991, 19179, 19441, 19442, 19715, 19716

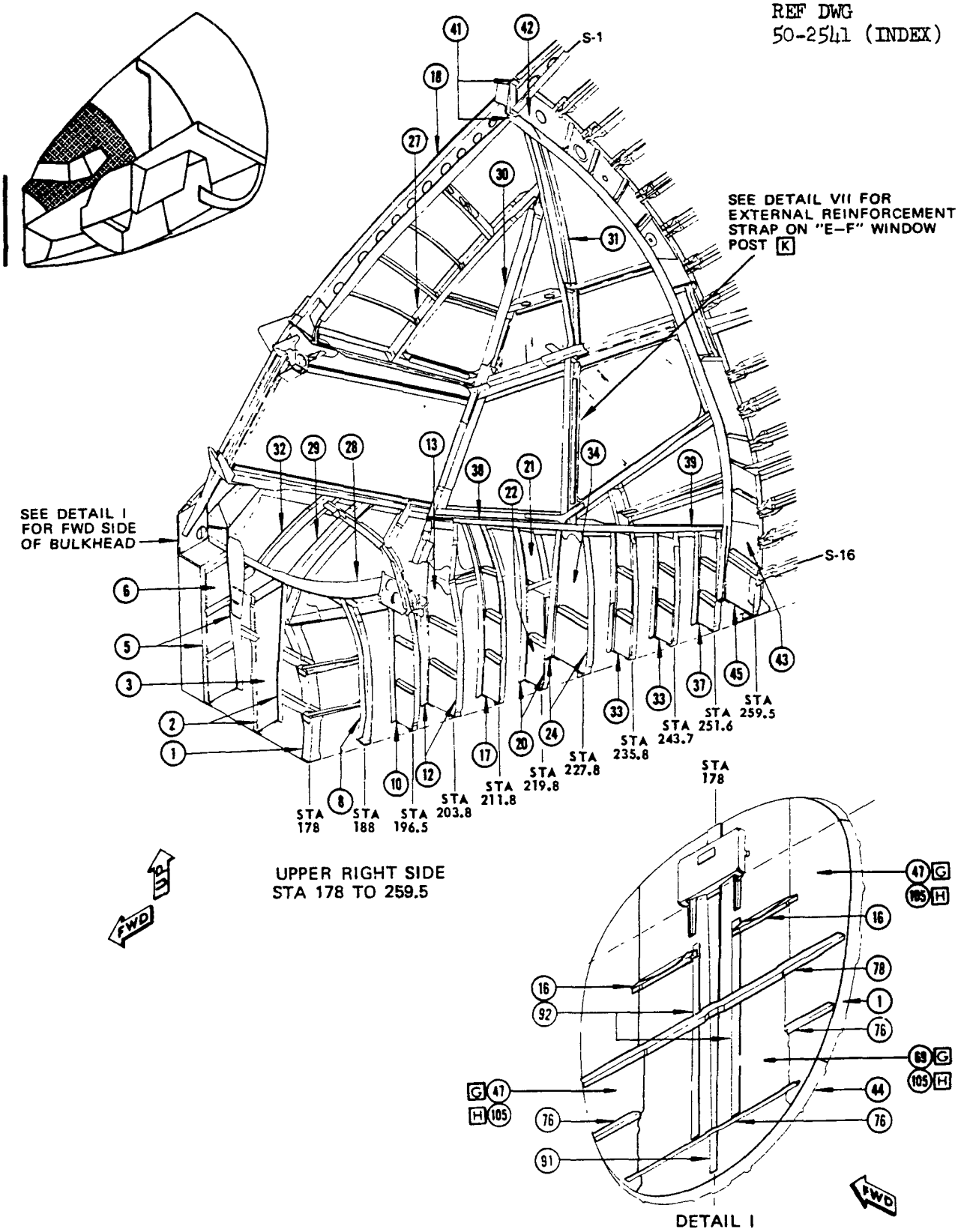
[H] FOR AIRPLANES NOT LISTED IN [G]

[J] FORGINGS OF 7079-T6 MATERIAL HAVE BEEN SUPERSEDED BY FORGINGS OF 7075-T73 MATERIAL ON LATE PRODUCTION AIRPLANES. FORGINGS OF 7075-T73 MATERIAL ARE RECOMMENDED FOR REPLACEMENT WHEN EXISTING STOCKS OF 7079-T6 MATERIAL ARE EXHAUSTED

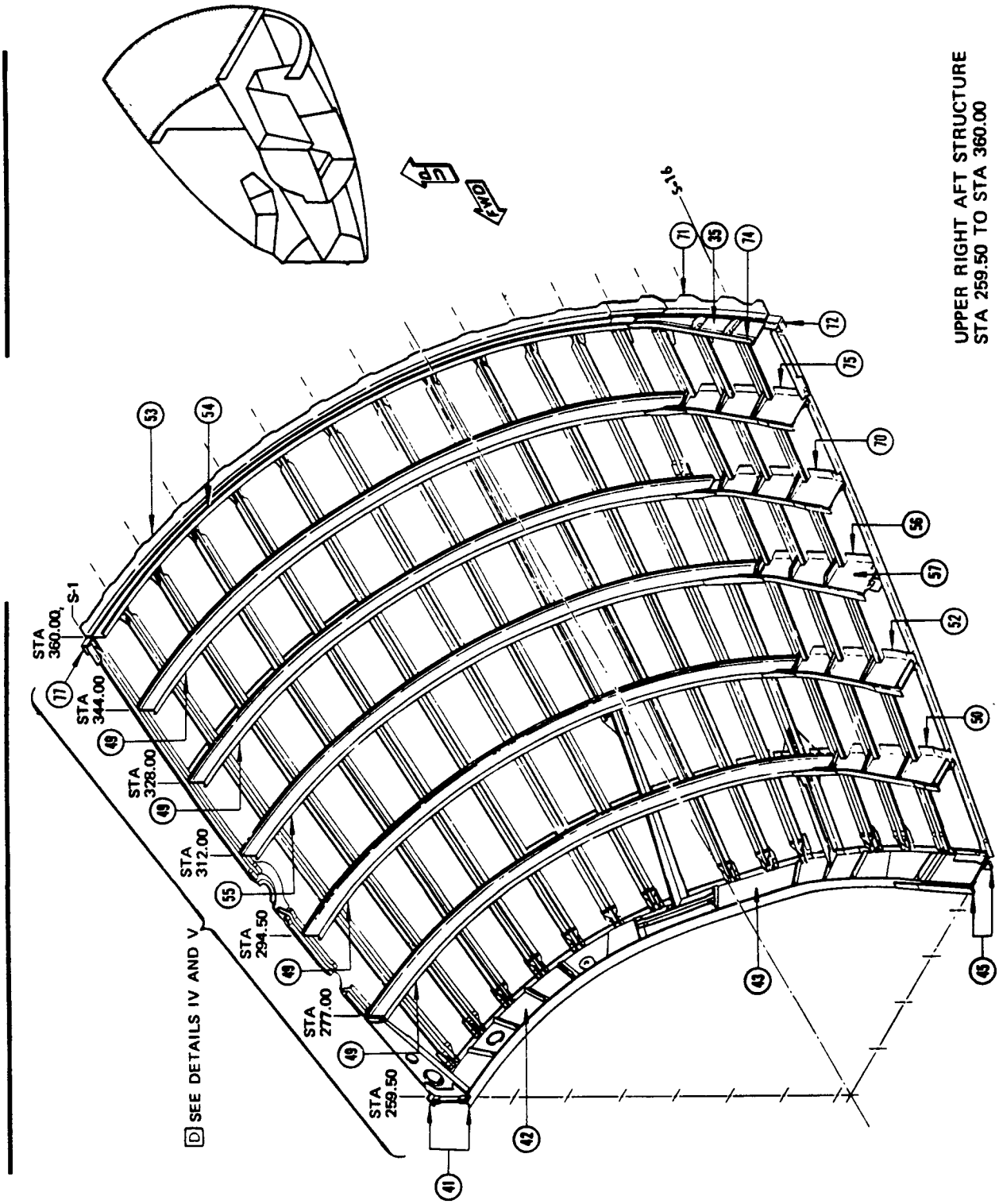
[K] FOR AIRPLANES WITH SB 2983 INCORPORATED AND FOR AIRPLANE CUM LINE NUMBER 905 AND ON

[L] FOR AIRPLANES WITH SB 2866 INCORPORATED

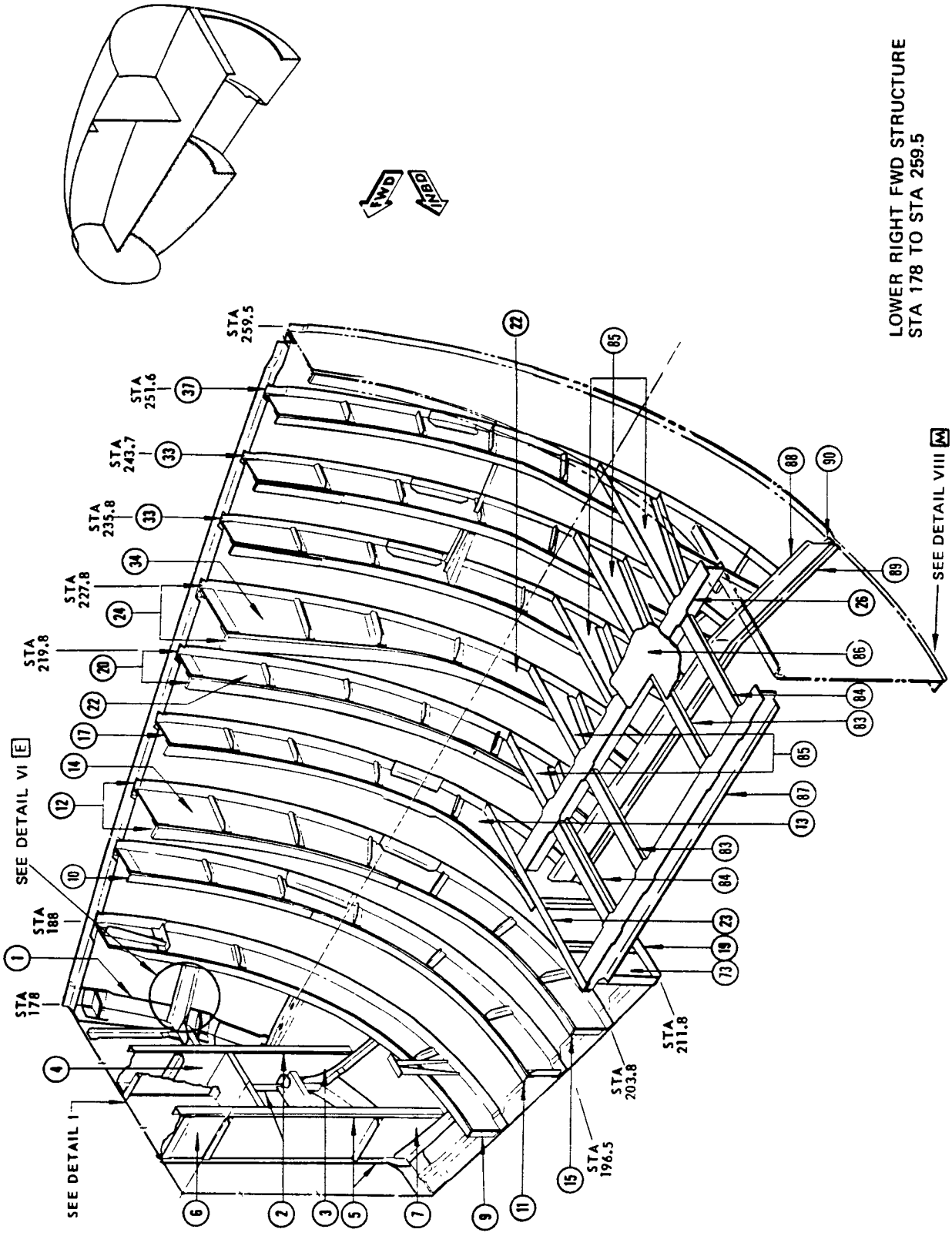
[M] FOR CUM LINE NUMBERS 13 THRU 922 WITH SB 3284 INCORPORATED AND FOR CUM LINE NUMBERS 923 AND ON



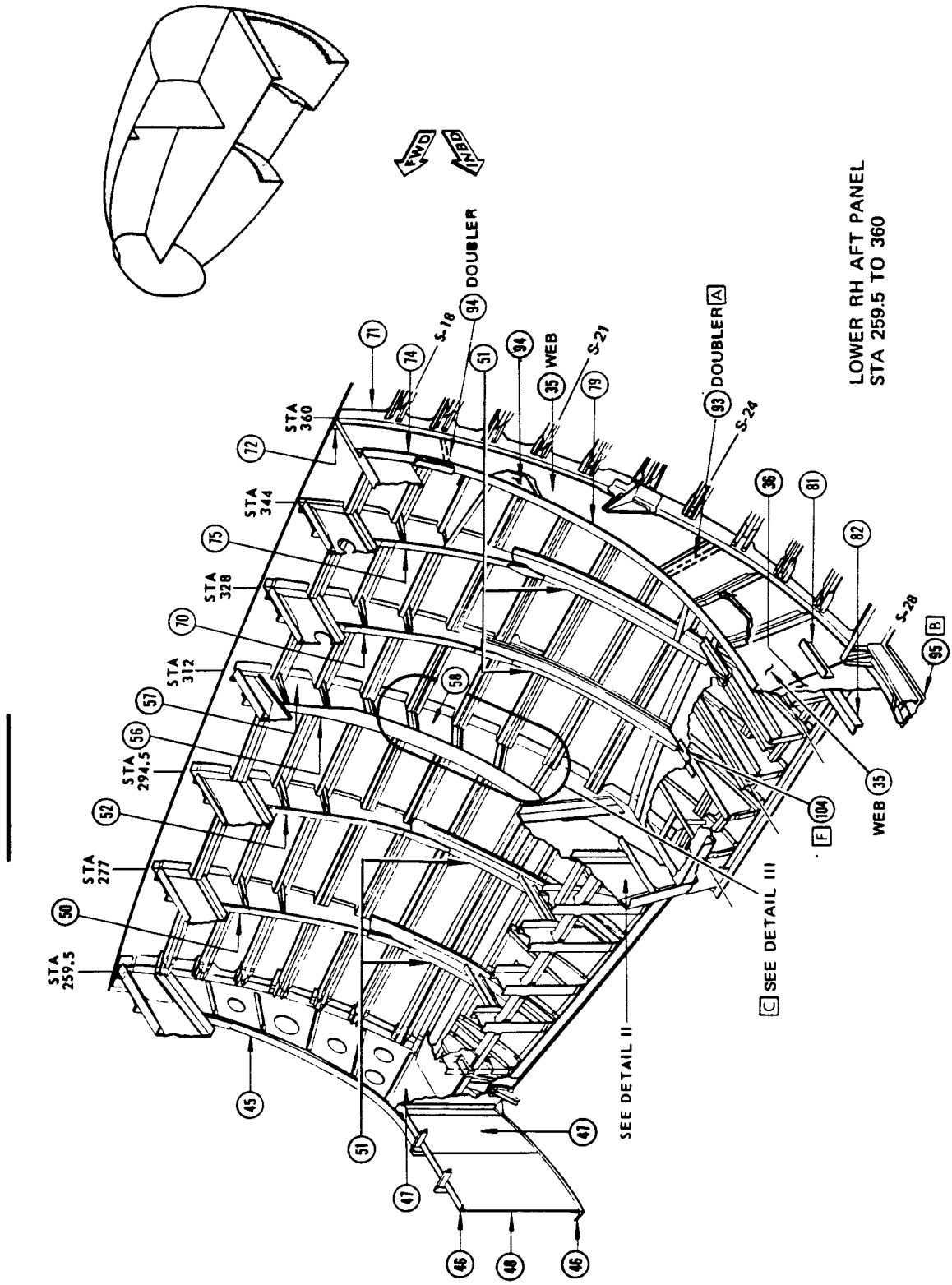
Section 41 Structure Identification
Figure 1 (Sheet 6)



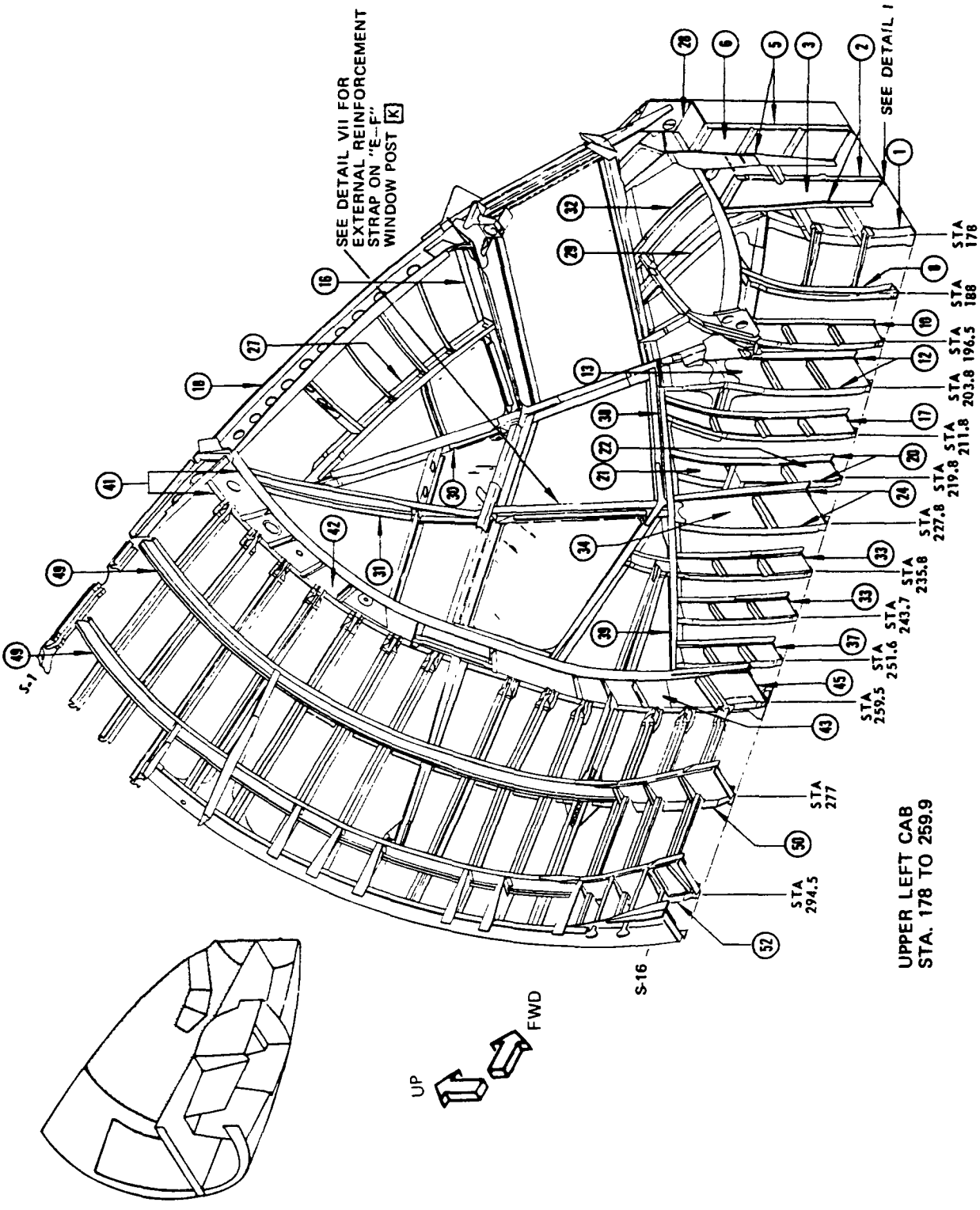
Section 41 Structure Identification
Figure 1 (Sheet 7)



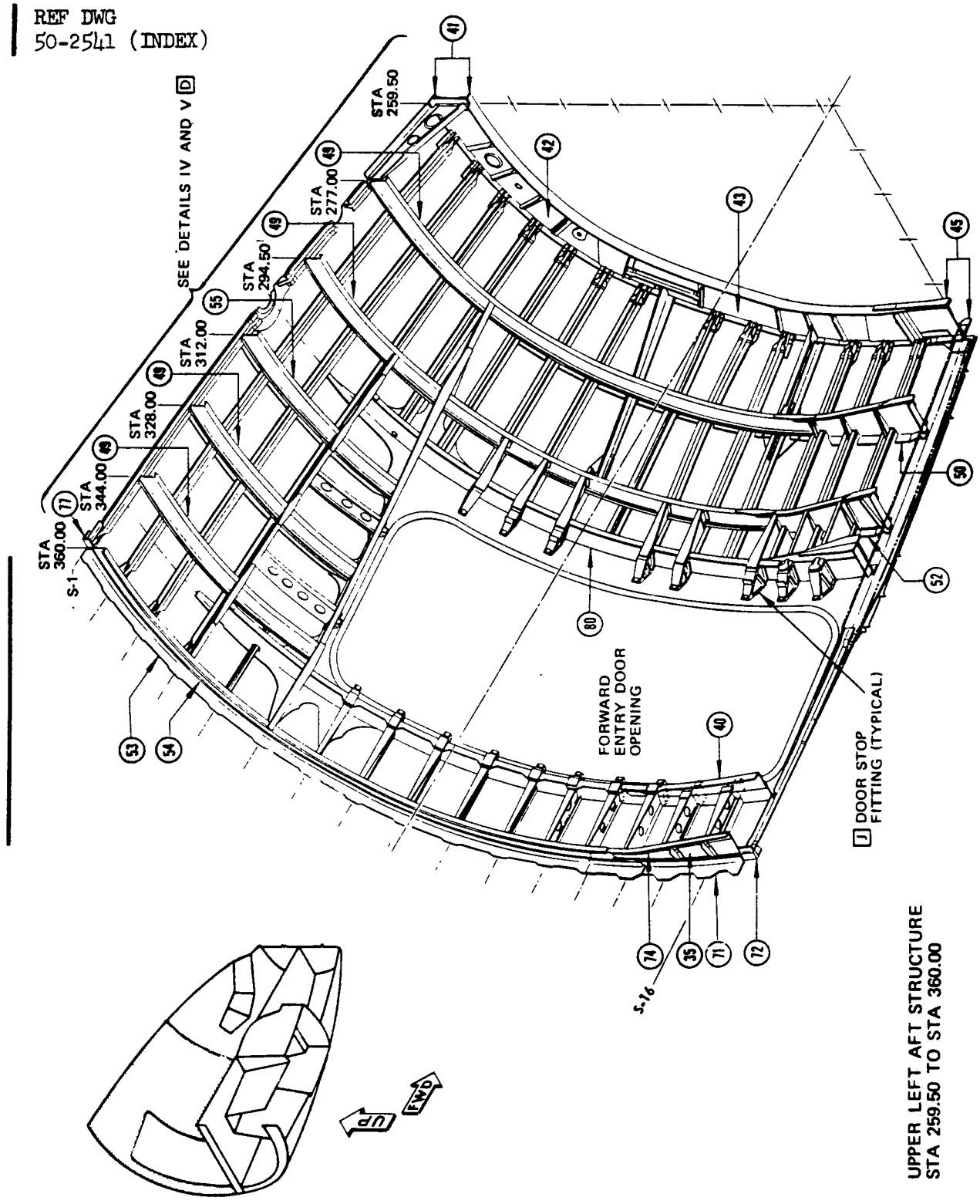
Section 41 Structure Identification
Figure 1 (Sheet 8)



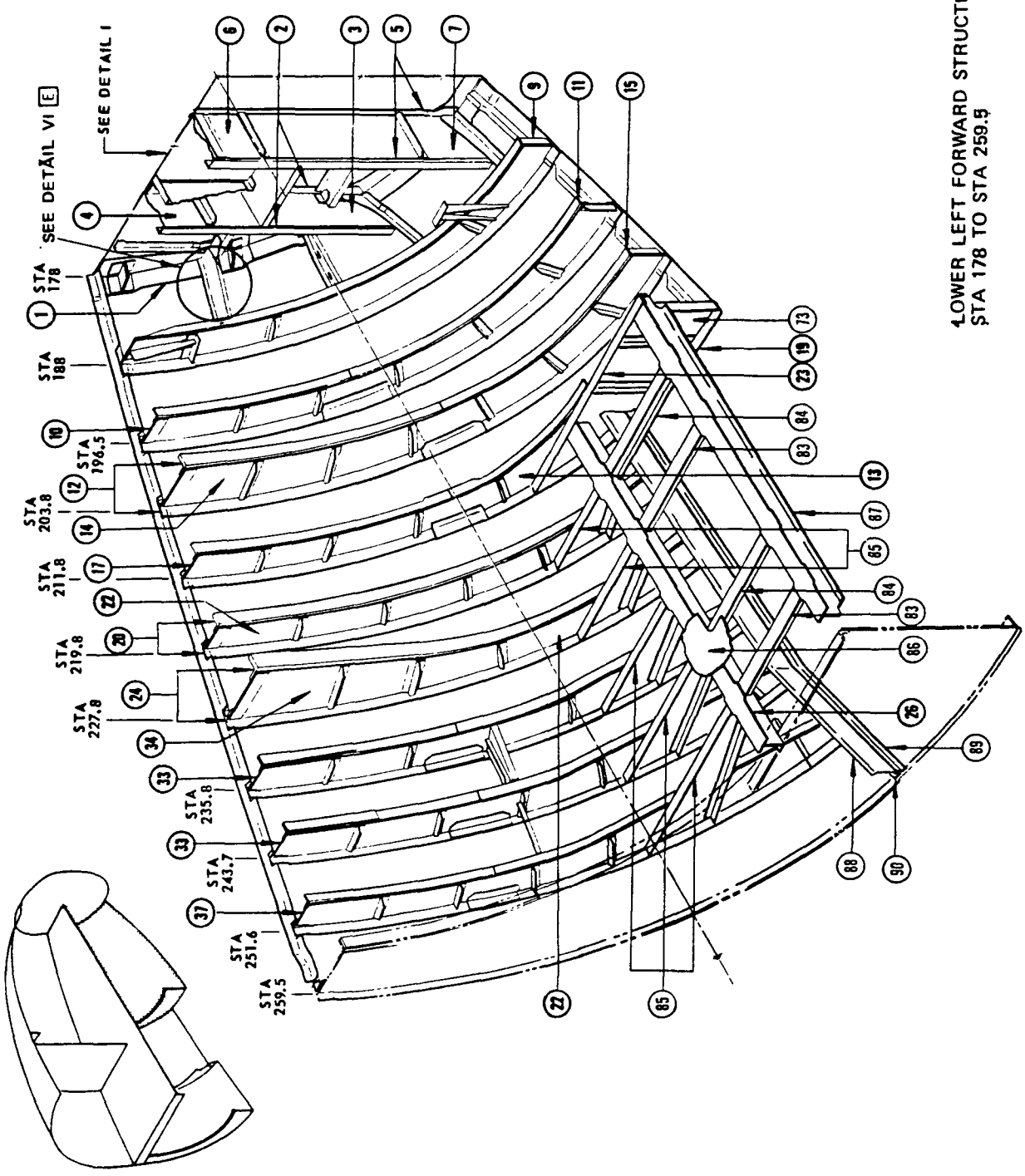
Section 41 Structure Identification
Figure 1 (Sheet 9)



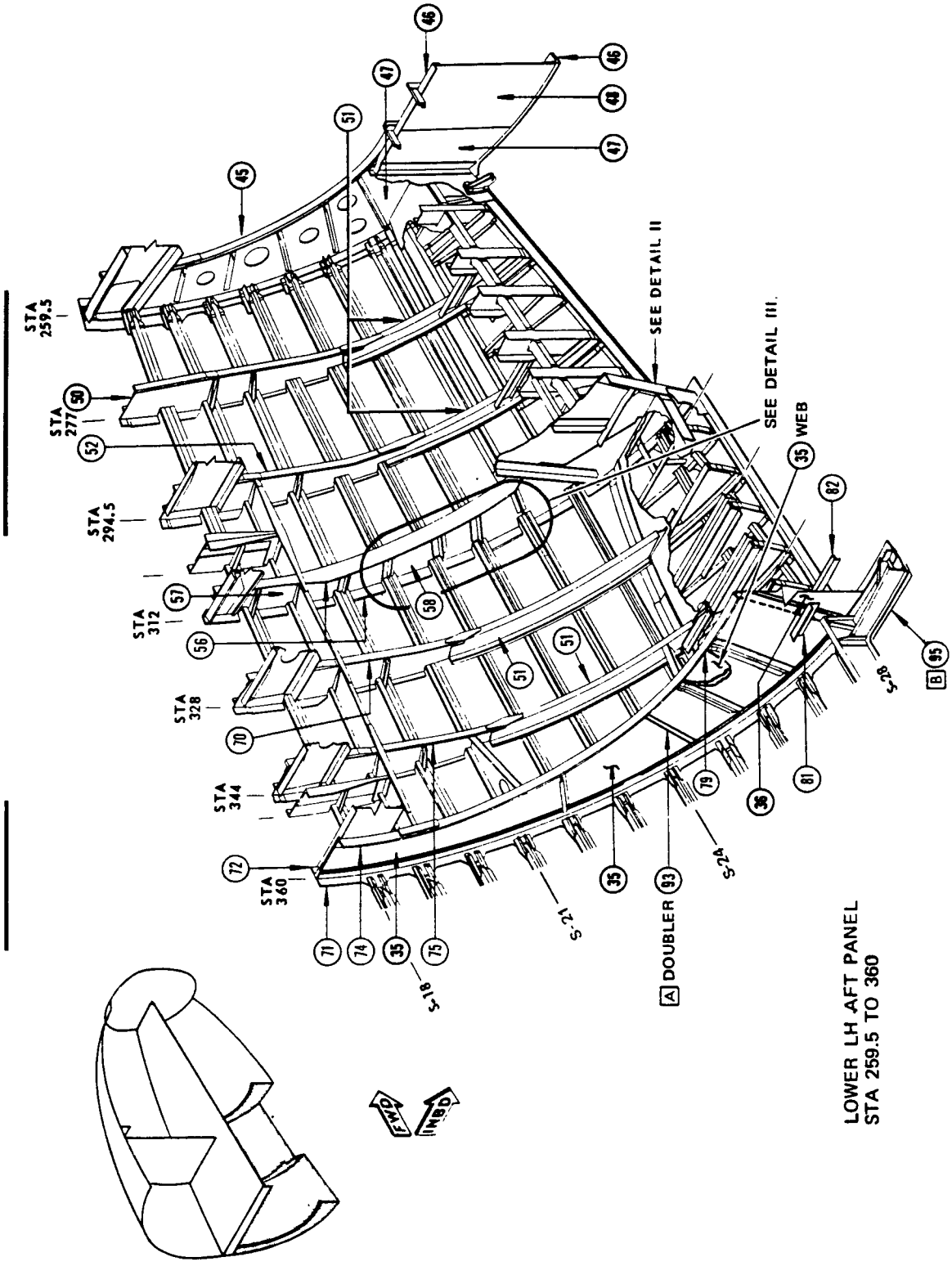
Section 41 Structure Identification
Figure 1 (Sheet 10)



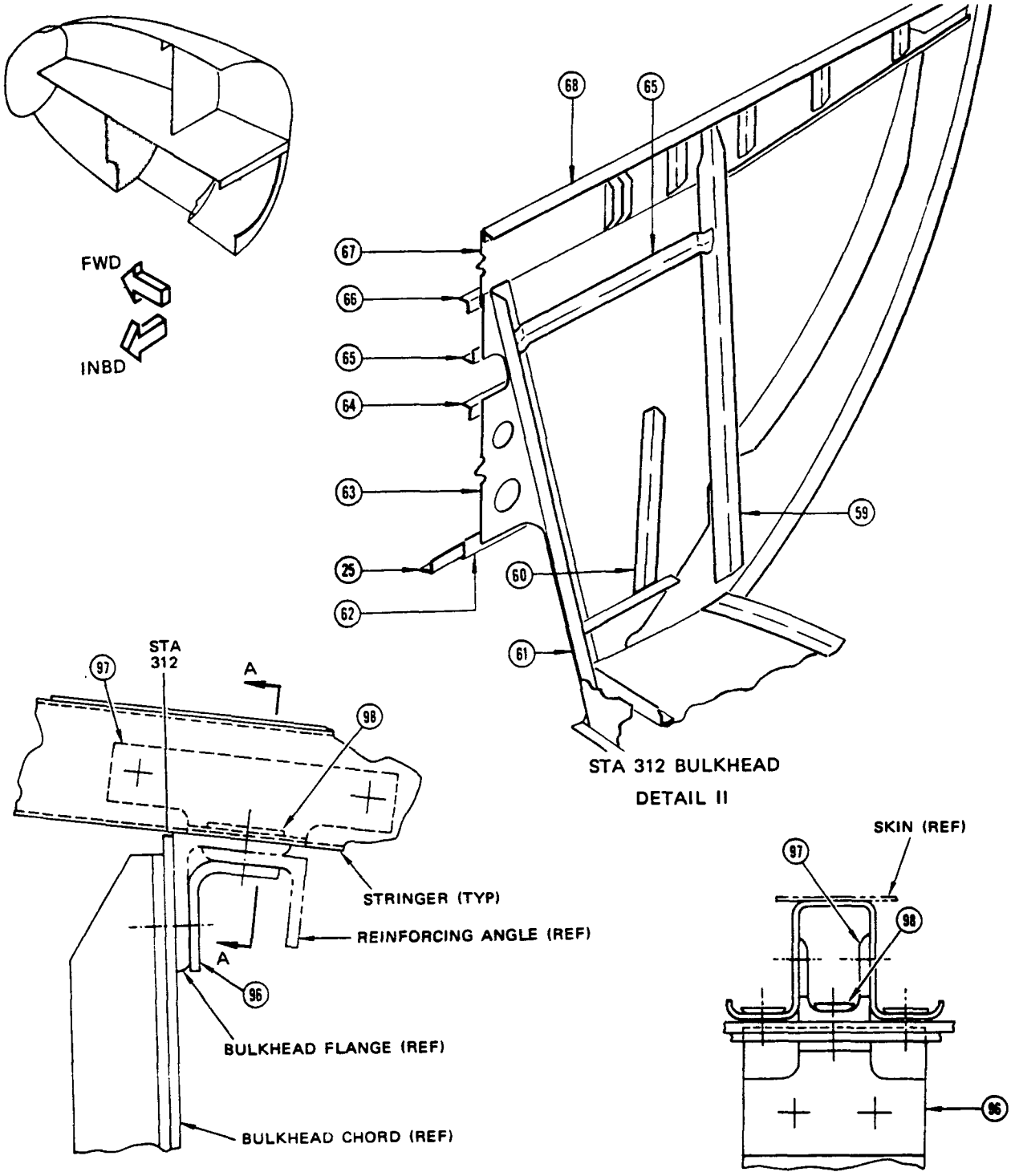
Section 41 Structure Identification
Figure 1 (Sheet 11)



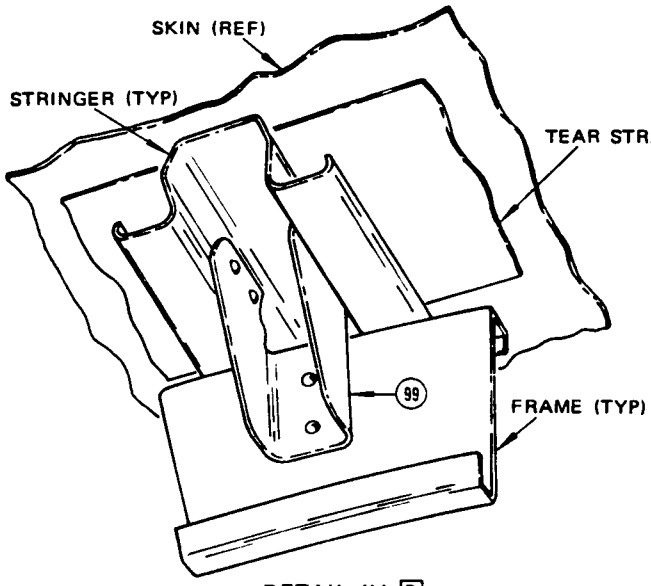
Section 41 Structure Identification
Figure 1 (Sheet 12)



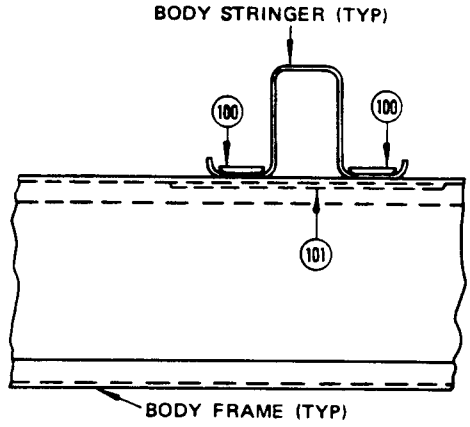
Section 41 Structure Identification
Figure 1 (Sheet 13)



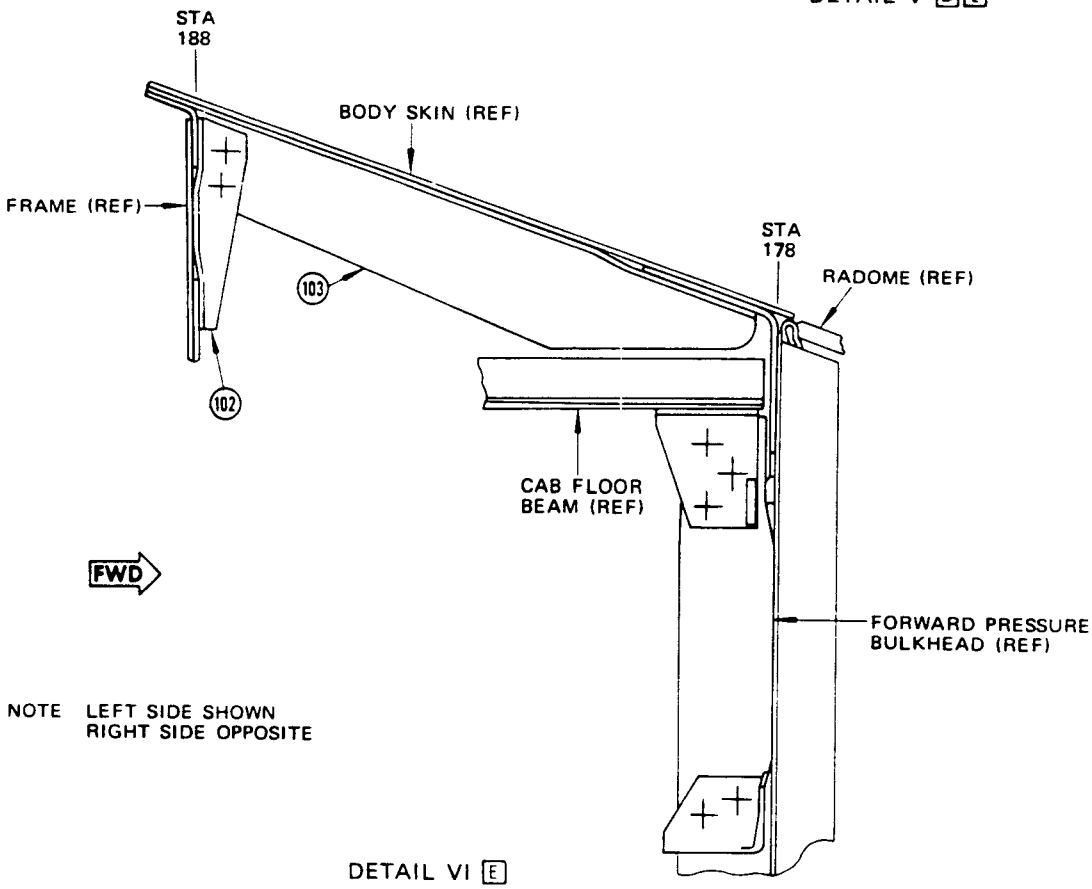
Section 41 Structure Identification
Figure 1 (Sheet 14)



DETAIL IV [D]



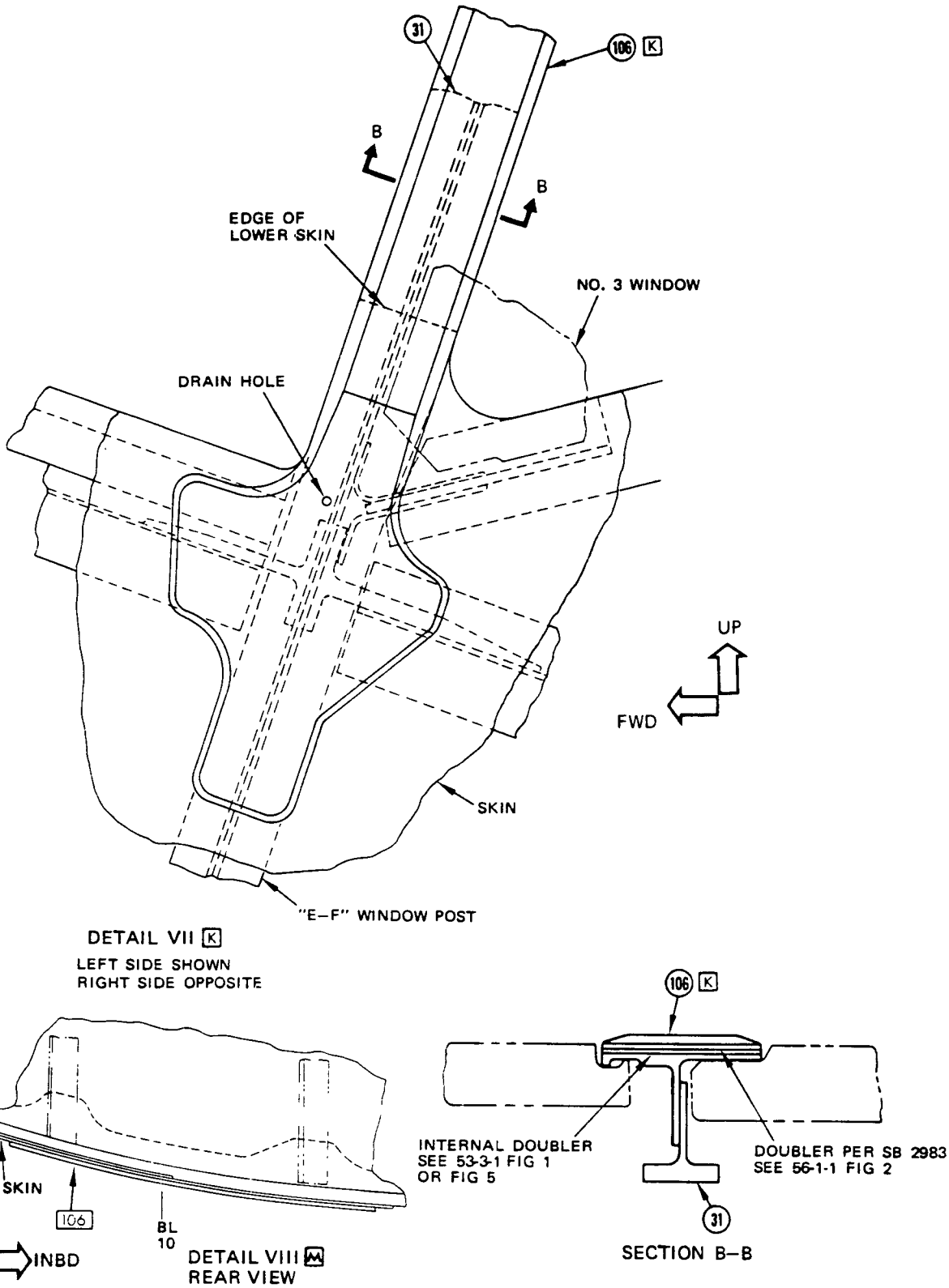
DETAIL V [D] [L]



NOTE LEFT SIDE SHOWN
RIGHT SIDE OPPOSITE

DETAIL VI [E]

Section 41 Structure Identification
Figure 1 (Sheet 15)



Section 41 Structure Identification
Figure 1 (Sheet 16)

ITEM	MATERIAL	REPAIR FIG NO.	ITEM	MATERIAL	REPAIR FIG NO.	ITEM	MATERIAL	REPAIR FIG NO.
1	BAC 1518-205 7075-T6	51-14-4 FIG. 1	18	BAC 1518-206 7075-T6		35	BAC 1514-1106 2024-T42	
2	0.125 7075-T6	51-14-3 FIG. 1	19	BAC 1518-207 7075-0		36	0.112 7075-T6	51-14-2 FIG. 1
3	BAC 1510-277 7075-T6		20	0.045 CLAD 7075-T6	51-14-2 FIG. 1	37	BAC 1493-493 7075-T6 CLAD	
4	AND 10140-3002 7075-T6	51-14-4 FIG. 1	21	0.100 CLAD 7075-T6		38	AND 10140-4004 7075-T6	51-14-4 FIG. 1
5	0.040 CLAD 2024-T3	51-14-2 FIG. 1	22	BAC 1503-4203 2024-T4		39	AND 10140-4001 7075-T6	
6	0.063 CLAD 2024-T3	51-14-2 FIG. 1	23	AND 10134-3004 2024-T4	51-14-4 FIG. 1	40	0.032 CLAD 7075-T6	51-14-2 FIG. 1
7	AND 10140-4003 7075-T6	51-14-4 FIG. 1	24	BAC 1514-1113 7075-T6	51-14-4 FIG. 1	41	0.071 CLAD 7075-T6	51-14-2 FIG. 1
8	0.050 CLAD 7075-T6	51-14-3 FIG. 1	25	BAC 1514-1108 7075-T6		42	0.080 CLAD 7075-T6	
9	AND 10138-2002 7075-T6	51-14-4 FIG. 1	26	BAC 1509-100109 7075-T6		43	0.160 7075-T6	
10	AND 10137-2004 7075-T6	51-14-4 FIG. 1	27	BAC 1506-899 7075-T6		44	BAC1527-47 4340 STEEL HT 150-170 KSI	
11	BAC 1510-276 7075-T6		28	AND 10135-1005 7075-T6	51-14-4 FIG. 1	45	0.080 + 0.040 7075-T6	
12	AND 10137-2602 7075-T6	51-14-4 FIG. 1	29	BAC 1514-934 7075-T6		46	BAC1527-48 4340 STEEL HT 150-170 KSI	
13	BAC 1514-1110 2024-T4		30	BAC 1490-2749 7075-T6 CLAD		47	0.080 + 0.032 7075-T6	
14	0.090 7075-T6	51-14-2 FIG. 1	31	0.125 CLAD 2024-T4		48	0.071 CLAD 2024-T3	
15	AND 10133-2004 2024-T4	51-14-4 FIG. 1	32	BAC 1493-494 7075-T6 CLAD		49	FORGING 7079-T6	
16	0.063 CLAD 7075-T6	51-14-3 FIG. 1	33	AND 10134-2008 7075-T6	51-14-4 FIG. 1	50	FORGING 7075-T73 [H]	
17	BAC 1514-1109 7075-T6		34	AND 10134-1206 7075-T6				

Nose Wheel Well Structure Identification
Figure 2 (Sheet 1)

NOTE

[A] FOR PA AIRPLANES 17592 THRU 17608, 18083 THRU 18085

[B] FOR ALL AIRPLANES NOT LISTED IN [A]

[C] FOR ALL AIRPLANE SERIAL NUMBERS UP TO AND INCLUDING THE LAST SERIAL NUMBER AS SHOWN:

AA	19582 EXCEPT 19574 THRU 19580
AF	19522
AI	19248
AR	19241
AV	19741
BA	19498, 18925
BN	19531
BO	19000
CO	19353
EJ	19664
FT	19355
IN	19410
LH	19317
LY	19502
ML	19739
NW	19631
OA	18950
PA	20034 EXCEPT 19370 THRU 19373 AND 19375, 19377, 19379
PK	19286
QF	19297
RD	19416
RG	19322
SN	19211
TP	19740
TW	19573 EXCEPT 19566, 19567
WY	19716
ZL	19767

[D] FOR AIRPLANES NOT LISTED IN [C]

[E] FOR AIRPLANES
BA 17703 THRU 17717, 18411 THRU 18413, 18372, 18373, AND ALL AIRPLANES ON WHICH BOEING SERVICE BULLETIN 2709, DATED JULY 10, 1968, HAS BEEN INCORPORATED

[F] FOR AIRPLANES
BA 18924, 18925, 19498, 19843, 19590, AND ALL AIRPLANES ON WHICH BOEING SERVICE BULLETIN 2709, DATED JULY 10, 1968, HAS BEEN INCORPORATED

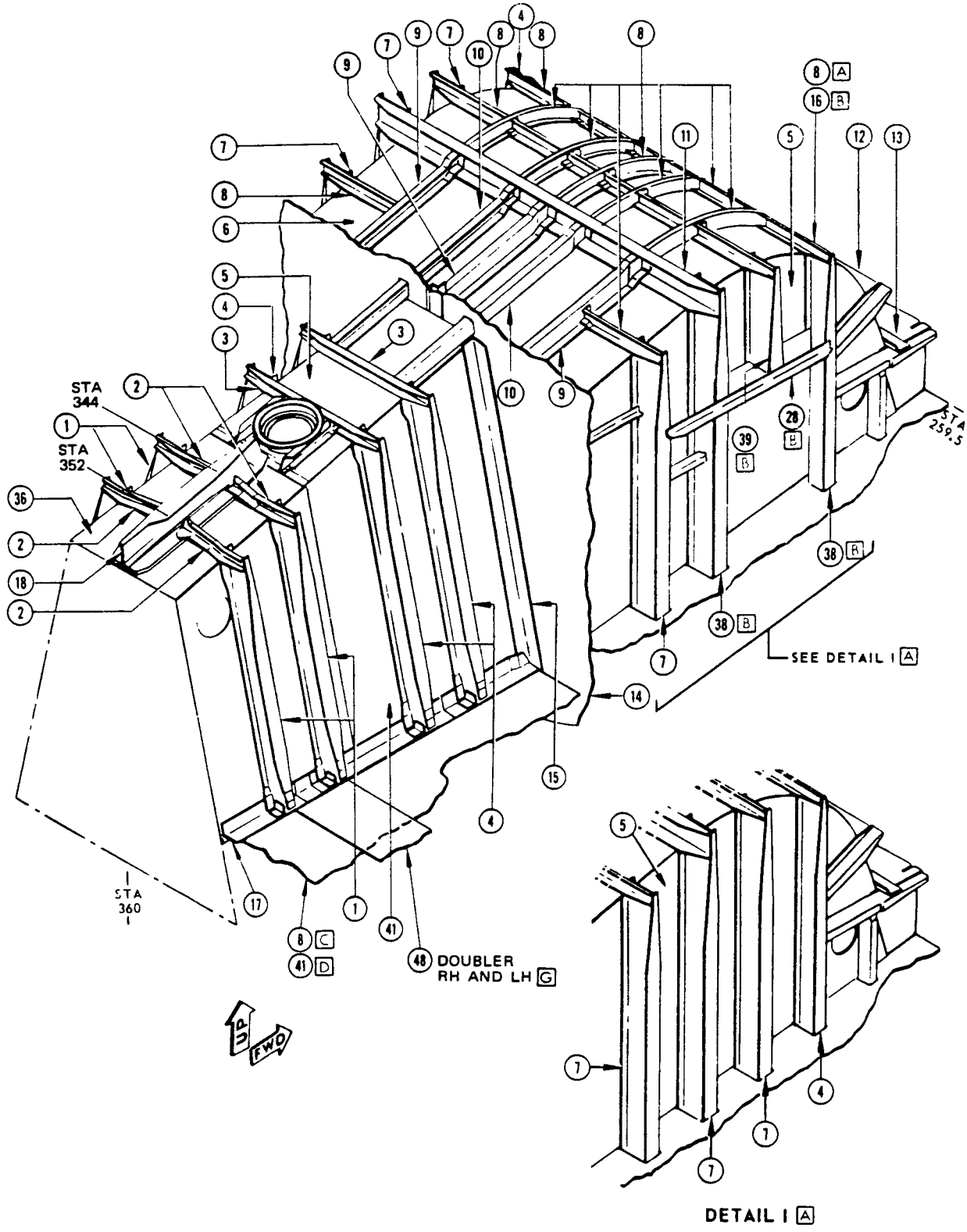
[G] FOR AIRPLANES WITH SERVICE BULLETIN 2961 INCORPORATED.

[H] FORGINGS OF 7079-T6 MATERIAL HAVE BEEN SUPERSEDED BY FORGINGS OF 7075-T73 MATERIAL ON LATE PRODUCTION AIRPLANES. FORGINGS OF 7075-T73 MATERIAL ARE REC RECOMMENDED AS REPLACEMENTS.

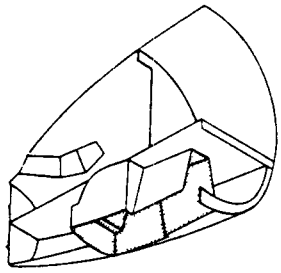
[J] FOR AIRPLANES WITH SERVICE BULLETIN 2838 INCORPORATED.

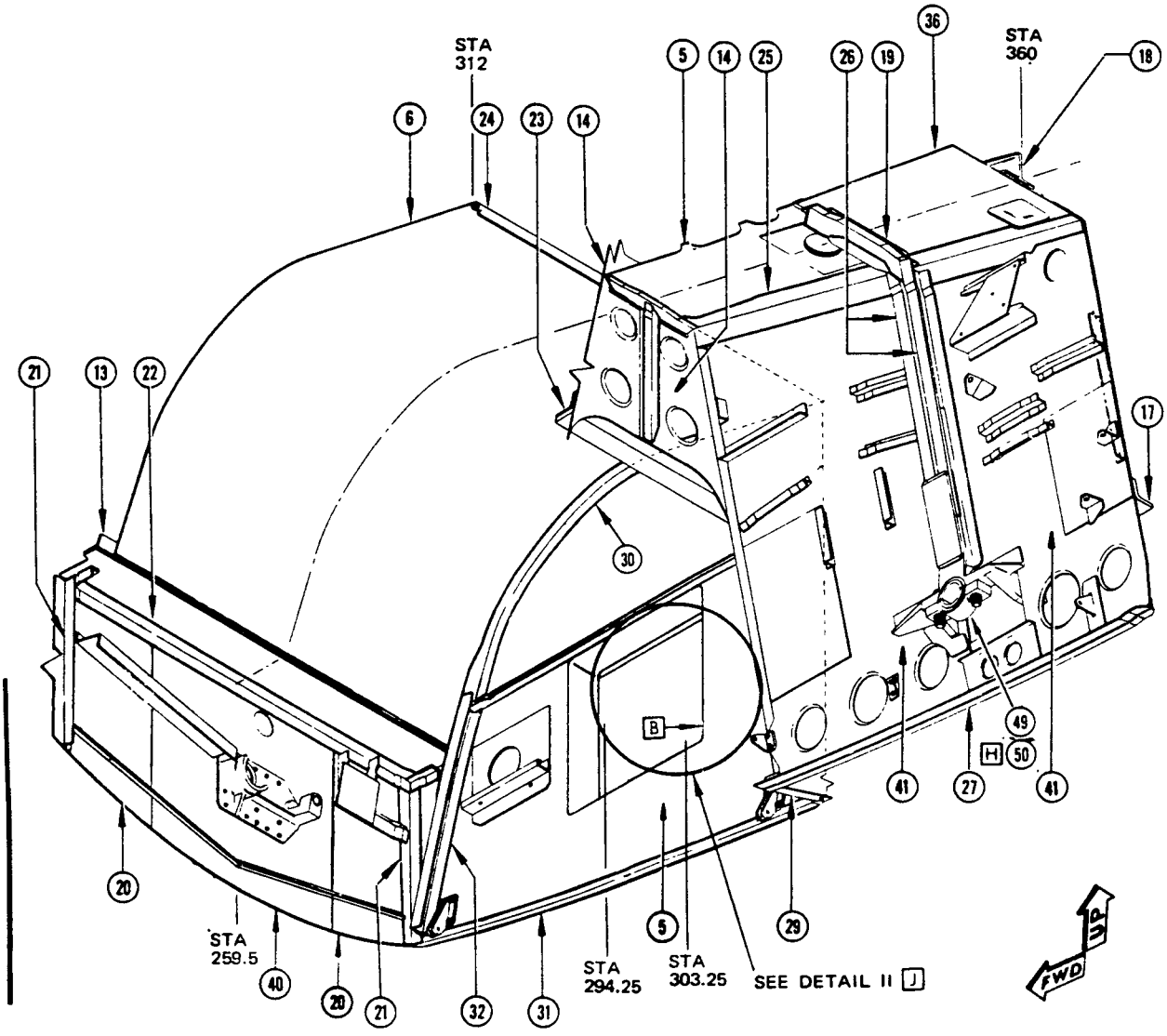
[K] NOT APPLICABLE TO
CO 18825, 18826, 18886, 18887, 19177, 19178, 19350 THRU 19353, 19869 THRU 19871 AND ALL PA 707-321, 707-321B AND 707-321C AIRPLANES.

Nose Wheel Well Structure Identification
Figure 2 (Sheet 2)

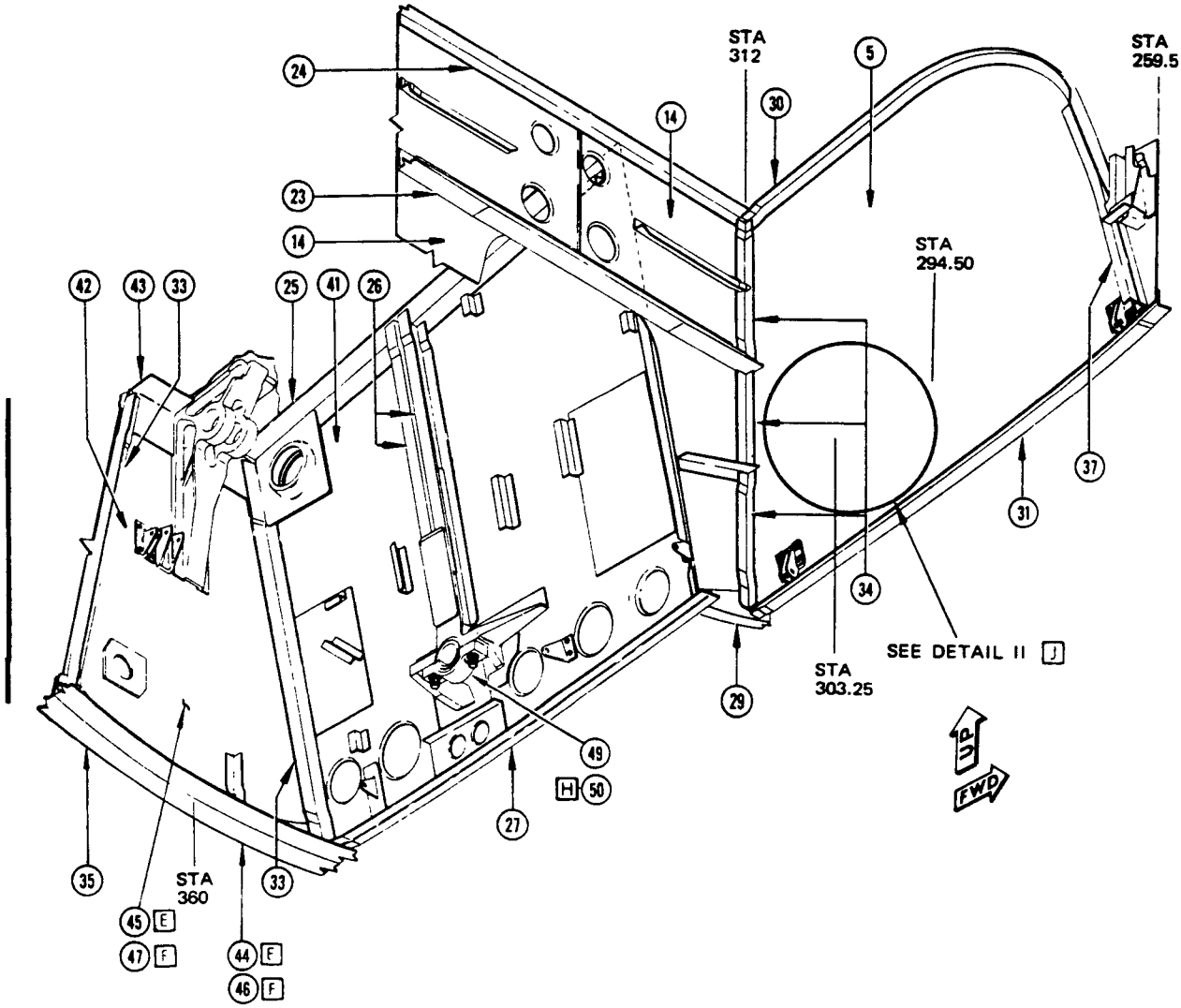


Nose Wheel Well Structure Identification
Figure 2 (Sheet 3)

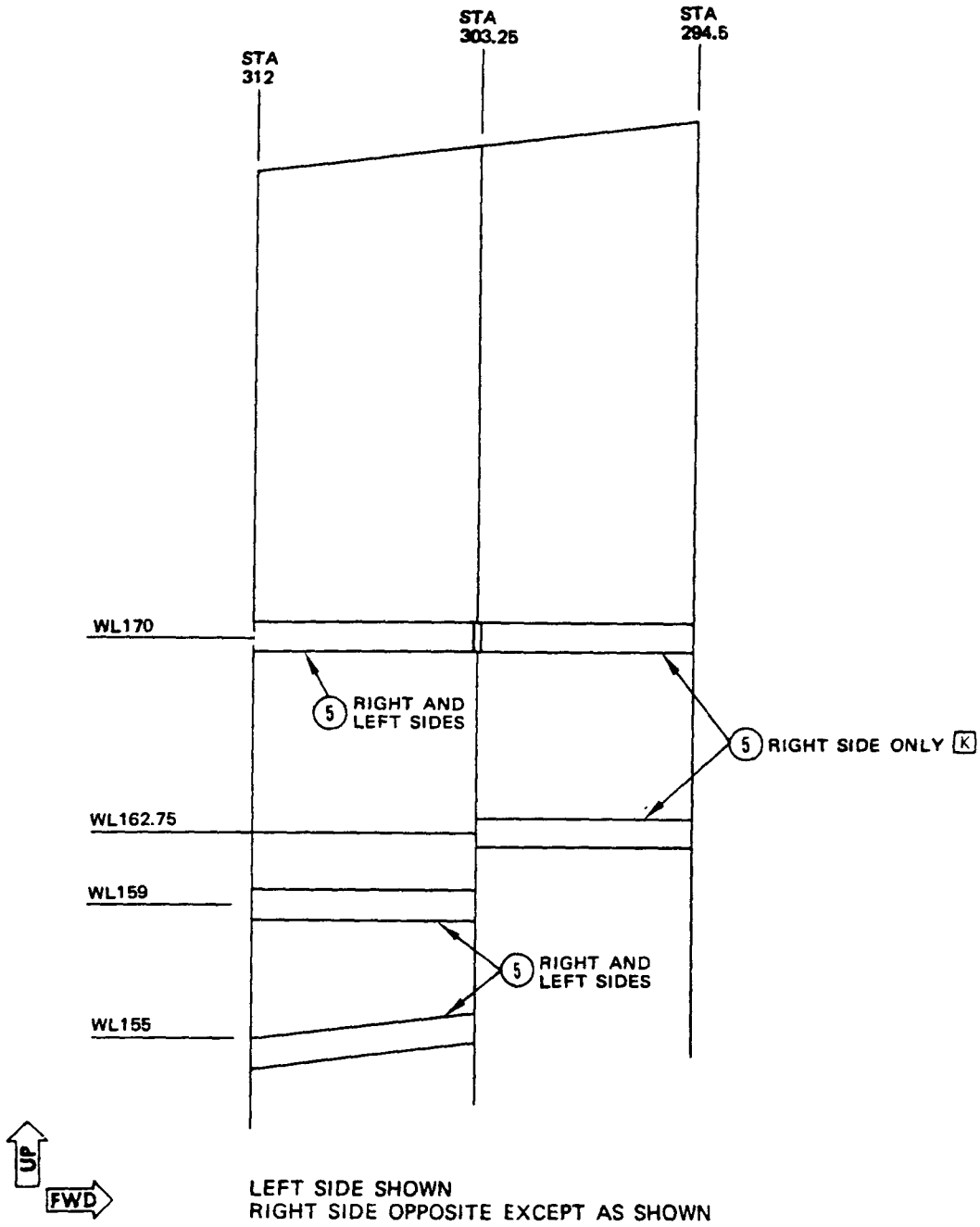




Nose Wheel Well Structure Identification
Figure 2 (Sheet 4)



Nose Wheel Well Structure Identification
Figure 2 (Sheet 5)

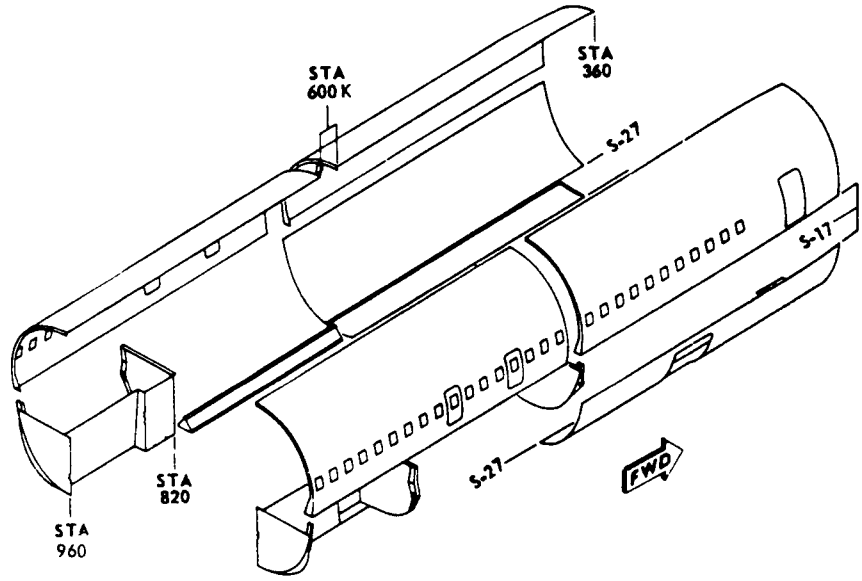


LEFT SIDE SHOWN
RIGHT SIDE OPPOSITE EXCEPT AS SHOWN

VIEW LOOKING OUTBOARD ON SIDEWALL PANEL J

DETAIL II

Nose Wheel Well Structure Identification
Figure 2 (Sheet 6)



ITEM	MATERIAL	REPAIR FIG. NO.
1	BAC1517-705 7075-T5 CLAD	53-3-5 FIG.1,4
2	0.045 CLAD 7075-T6	53-3-5 FIG.2,3
3	BAC1490-2763 7075-T6	53-3-5 FIG.2,3
4	0.050 CLAD 7075-T6	51-14-2 FIG. 1
5	0.040 CLAD 7075-T6	51-14-2 FIG. 1
6	0.080 CLAD 7075-T6	53-3-5 FIG.2,3
7	0.375 7075-T6	
8	0.063 CLAD 7075-T6	53-3-5 FIG.2,3
9	BAC1506-1165 7075-T6	
10	0.071 7075-T6	51-14-2 FIG. 1

ITEM	MATERIAL	REPAIR FIG. NO.
11	0.056 CLAD 7075-T6	51-14-2 FIG. 1
12	0.036 CLAD 7075-T6	
13	0.100 CLAD 7075-T6	
14	BAC1514-1278 7075-T6	
15	BAC1518-279 7075-T6	51-14-4 FIG. 1
16	BAC1514-1083 7075-T6	51-14-4 FIG. 1
17	BAC1518-256 7075-T6	51-14-4 FIG. 1
18	BAC1501-8301 7075-T6	
19	AND10134-1408 7075-T6	51-14-4 FIG. 1
20	BAC1505-100269 7075-T6	51-14-4 FIG. 1

Section 43 Structure Identification
Figure 3 (Sheet 1)

ITEM	MATERIAL	REPAIR FIG. NO.
21	BAC1505-100268 7075-T6	51-14-4 FIG. 1
22	0.112 CLAD 2024-T3	51-14-3 FIG. 1
23	BAC1503-5903 7075-T6	
24	7075-T6	
25	X7079S-T6	
26	BAC1490-2684 7075-T6	51-14-3 FIG. 1
27	0.56 2024-T4	
28	0.090 CLAD 7075-T6	
29	BAC1506-1318 7075-T6	
30	BAC1505-34222 7075-T6	51-14- FIG. 1
31	0.020 CLAD 7075-T6	51-14-2 FIG. 1
32	0.112 7075-T6	51-14-3 FIG. 1
33	0.032 CLAD 7075-T6	51-14-2 FIG. 1
34	0.025 CLAD 7075-T6	51-14-2 FIG. 1

ITEM	MATERIAL	REPAIR FIG. NO.
35	BAC1503-10874 7075-T6	51-14-4 FIG. 1
36	BAC1503-11780 7075-T6	
37	0.071 CLAD 7075-T6	51-14-3 FIG. 1
38	BAC1490-2510 7075-T6	51-14-3 FIG. 1
39	BAC1503-100135 7075-T6	51-14-4 FIG. 1
40	0.100 7075-T6	
41	0.125 7075-T6	
42	AND10134-1206 7075-T6	51-14-4 FIG. 1
43	0.090 7075-T6	51-14-2 FIG. 1
44	0.080 7075-T6	51-14-3 FIG. 1
45	BAC1517-1080 7075-T6	53-3-5 FIG.1,4
46	0.050 CLAD 2024-T3	51-14-2 FIG. 1
47	BAC1506-1116 7075-T6	51-14-4 FIG. 1
48	0.50 7075-T6	

Section 43 Structure Identification
Figure 3 (Sheet 2)

ITEM	MATERIAL	REPAIR FIG. NO.
49	BAC1506-1117 7075-T6	
50	BAC1505-100081 7075-T6	51-14-4 FIG. 1
51	BAC1505-100185 7075-T6	51-14- FIG. 1
52	X7079-T6	
53	BAC1518-191 7075-T6	51-14-4 FIG. 1
54	BAC1518-280 7075-T6	51-14-4 FIG. 1
55	BAC1517-1172 7075-T6	51-14-4 FIG. 1
56	BAC1514-1085 2024-T4	
57	BAC1517-1062 7075-T6 CLAD	53-3-5 FIG.1,4
58	BAC1517-1256 CLAD 7075-T6	53-3-5 FIG.1,4
59	BAC1517-1256 7075-T6	53-3-5 FIG.1,4
60	BAC1490-2510 7075-T6 CLAD	51-14-3 FIG. 1
61	BAC1490-2764 7075-T6 CLAD	53-3-5 FIG.2,3
62	BAC1517-706 7075-T6	53-3-5 FIG.1,4

ITEM	MATERIAL	REPAIR FIG. NO.
63	BAC1503-100084 7075-T6	
64	0.125 CLAD 2024-T3	
65	BAC1518-294 7075-T6	51-14-4 FIG. 1
66	BAC1518-304 7075-T6	51-14-4 FIG. 1
67	0.056 CLAD 2024-T3	51-14-2 FIG. 1
68	0.090 CLAD 7075-T6	51-14-2 FIG. 1
69	BAC1509-100153 7075-T6	
70	0.063 CLAD 2024-T4	51-14-3 FIG. 1
71	0.020 CLAD 2024-T4	
72	0.040 CLAD 2024-T3	51-14-2 FIG. 1
73	0.040 CLAD 2024-T4	51-14-3 FIG. 1
74	0.040 CLAD 2024-T4	51-14-3 FIG. 1
75	0.020 CLAD 2024-T3	51-14-2 FIG. 1
76	0.016 CLAD 2024-T3	51-14-3 FIG. 1

Section 43 Structure Identification
Figure 3 (Sheet 3)

ITEM	MATERIAL	REPAIR FIG. NO.
77	0.050 CLAD 2024-T4	51-14-2 FIG. 1
78	NYLON COATED NYLON FABRIC	
79	0.025 CLAD 2024-T3	
80	0.063 CLAD 2024-T4	51-14-3 FIG. 1
81	BAC1493-383 CLAD 2024-T4	
82	BAC1517-462 CLAD 2024-T4	51-14-3 FIG. 1
83	BAC1490-2540 CLAD 2024-T4	51-14-3 FIG. 1
84	BAC1505-100038 2024-T4	51-14-4 FIG. 1
85	BAC1513-286 2024-T4	
86	AND10133-1001 2024-T4	51-14-4 FIG. 1
87	BAC1490-2689 CLAD 2024-T3	
88	BAC1490-2526 CLAD 2024-T3	
89	BAC1490-2780 CLAD 2024-T4	
90	BAC1490-2575 CLAD 2024-T4	

ITEM	MATERIAL	REPAIR FIG. NO.
91	BAC1490-2640 CLAD 2024-T4	51-14-3 FIG. 1
92	BAC1490-2778 CLAD 2024-T4	
93	0.040 CLAD 2024-T4	
94	0.040 CLAD 2024-T4	51-14-2 FIG. 1
95	BAC1490-2690 CLAD 2024-T4	51-14-3 FIG. 1
96	5 PLIES NO. 181 GLASS FABRIC	51-9-2
97	0.020 + 0.020 CLAD BONDED 2024-T3	
98	0.050 4130 STEEL	
99	BAC1505-100283 7075-T6	
100	BAC1510-499 7075-T6 UPR CHORD	
	0.080 CLAD 7075-T6 WEB	
	BAC1514-1605 7075-T6 LWR CHORD	
101	AND10134-1205 7075-T6	
102	BAC1505-100484 2024-T4	

ITEM	MATERIAL	REPAIR FIG. NO.
103	7075-T651	
104	AND10134-1206 2024-T4 OUTER CHORD 0.063 2024-T3 WEB BAC1505-100484 2024-T4 INNER CHORD	
105	BAC1510-47 2024-T4	
106	0.19 4130 STEEL	
107	BAC1509-100210 7075-T6	
108	BAC1505-100484 2024-T4	
109	BAC1493-494 CLAD 7075-T6	51-14-3 FIG. 1
110	AND10134-2401 7075-T6	
111	BAC1511-966 7075-T6	
112	BAC1490-2510 7075-T6	
113	BAC1512-485 7075-T6	
114	AND10134-1408 7075-T6	
115	AND10136-1708 7075-T6	
116	AND10134-1206 7075-T6	

ITEM	MATERIAL	REPAIR FIG. NO.
117	BAC1512-432 7075-T6	
118	CLAD 0.080 7075-T6	
119	FORGING 7075-T73	
120	BAC1511-3786 2024-T3511	
121	BAC1511-3720 2024-T3511	
122	BAC1511-468 2024-T3511	
123	0 063 2024-T42	
124	CLIP 0.040 CLAD 2024-T42	
125	BULKHEAD FITTING 7075-T73 FORGING	
126	DOUBLER 0.156 17-7 PH CRES	
127	DOUBLER 0.156 4130 ST HT 150-170 KSI	
128	WINDOW FRAME ATTACH-MENT FITTING FORGING 7079-T6	
129	WINDOW FRAME ATTACH-MENT FITTING BAC 1514-1461 7075-T6511	
130	WINDOW FRAME ATTACH-MENT FITTING BAC 1514-1565 7075-T6511	

Section 43 Structure Identification
Figure 3 (Sheet 5)

ITEM	MATERIAL	REPAIR FIG. NO.
131	WINDOW FRAME ATTACHMENT FITTING FORGING 7075-T73	
132	ANGLE 0.063 CLAD 2024-T42	
133	CHANNEL 0.063 CLAD 2024-T42	
134	CHANNEL 0.032 CLAD 7075-T6	
135	CLIP 0.040 CLAD 2024-T3	
136	TEE AND10136-1505 7075-T6511	
137	ANGLE AND10134-2001 7075-T6511	
138	TEE BAC1505-101055 7075-T6511	
139	WEB - OUTBOARD 0.10 CLAD 2024-T3	
140	WEB - CENTER 0.056 CLAD 2024-T3	
141	ANGLE - STIFFENER BAC1503-100093 7075-T6	
142	DOUBLER 0.080 CLAD 2024-T3	
143	0.040 CLAD 2024-T42 OPTIONAL: 0.040 CLAD 2024-T3	
144	STIFFENER AND10134-1407 7075-T6 OR 7075-T6511	
145	STIFFENER AND10134-1206 7075-T6 OR 7075-T6511	
146	CLIP AND10134-1407 7075-T6 OR 7075-T6511	
147	CLIP AND10134-1403 7075-T6 OR 7075-T6511	
148	STIFFENER BAC1509-10041 7075-T6	
149	STIFFENER BAC1518-221 7075-T6 OR 7075-T6511	
150	CLIP 0.080 7075-T6	
151	APU INLET PORT DOUBLERS 0.025 2024-T3 + 0.025 + 0.063 + 0.090 7075-T6	

Section 43 Structure Identification
Figure 3 (Sheet 6)

NOTES

[A] FOR AIRPLANES:
AF 17613 THRU 17616
AI 17722
BA 17703
LH 17718
PA 17592 THRU 17604
SN 17623, 17624

[B] FOR AIRPLANES:
LY 18070, 18071, 18357, 19004, 19502, 20097, 20122, 20301
RG 17905, 17906, 18694, 19320 THRU 19322
SA 17928, 17929, 18891, 19133 AND ALL AIRPLANES NOT LISTED IN NOTES [A] AND [C]

[C] FOR AIRPLANES:
PA 17674, 17677, 17680
TW 17673, 17675, 17676, 17678, 17679

[D] FOR AIRPLANES:
PA 17683, 17686, 17689
TW 17681, 17682, 17684, 17685, 17687, 17688, 17690, 18405 THRU 18408

[E] FORWARD SKIN ENDS 20.00 INCHES AFT OF DUCT LEADING EDGE

[F] SKINS AFT OF FORWARD SKIN

[G] FOR AIRPLANES:
AF 17613 THRU 17622, 17918 THRU 17924
AI 17722 THRU 17724
BA 17703 THRU 17717
LH 17718 THRU 17721
PA 17592 THRU 17608
RG 17905, 19706, 18694, 19320 THRU 19322
SA 17928 THRU 17930, 18891, 19133, 19705, 19706, 20011, 20230, 20283
SN 17623 THRU 17627

[H] FOR PA 18083 THRU 18085 AND ALL OF THE FOLLOWING TURBOFAN AIRPLANES (WITH THE EXCEPTION OF THOSE LISTED IN [G]):
AA, AF, AI, AR, AV, BA, BN, BO, CO, EJ, ET, FT, IN, LH, LY, ML, MS, NW, OA, PA, PK, QF, RG, RD, SA, SB, SN, ST, SV, TP, TW, WA, WD, WY, ZC

[J] FOR TURBOJET AIRPLANES

[K] FOR TURBOFAN AIRPLANES

[L] FOR ALL CARGO AIRPLANES EXCEPT THE FOLLOWING:
NW 18584 THRU 18586, 18693, 18710, 19633 THRU 19636, 19872

[M] STRUCTURAL PLUGS AT THESE WINDOWS ON ALL QF 707-338C AIRPLANES

[N] FOR AIRPLANES WITH SERVICE BULLETIN 2014 INCORPORATED

[O] FOR AIRPLANES:
AA 18689 THRU 18692, 18938 THRU 18940, 19235 THRU 19237, 19380 THRU 19384, 19515 THRU 19519, 19581 THRU 19589, 19574 THRU 19577, 20081 THRU 20089, 20170 THRU 20179
AF 17613 THRU 17622, 17918 THRU 17924, 18245 THRU 18247, 18375, 18456 THRU 18459, 18685, 18686, 18881, 18941, 19291, 19292, 19521, 19522, 19723, 19724, 19916, 19917
AI 17722 THRU 17724, 18055, 18414, 18415, 18708, 18873, 19247, 19248, 19988
AR 11407, 19238 THRU 19241, 19961, 19962
AV 19741, 20340
BA 17703 THRU 17717, 18411 THRU 18413, 18372, 18373, 18924, 18925, 19498, 19590, 19821 19843, 20374, 20375, 20456, 20457, 20517

NOTE (CONTINUED)

◎ (CONTINUED)

BN 19104, 19105, 19107, 19108, 19440, 19531
BR 19415, 19767
CI 20261, 20262, 18710, 19178
CO 18825, 18887, 19177, 19350 THRU 19353, 19869
DC 20315, 20316, 20319
EJ 19417, 19664, 19486
ET 19736, 19820
FT 18975, 18976, 19354, 19355
GR 19997 THRU 20000
IN 18880, 19001, 19410
IR 20287, 20288, 20741
IU 20714 THRU 20717, 20718 THRU 20723
KE 20522
KU 20084 THRU 20086, 20546, 20547
LA 19000
LG 18737
LH 17718 THRU 17721, 18056, 18462, 18463, 18819, 18923, 18926 THRU 18932, 18937, 19315 THRU 19317, 20123, 20124, 20395
LY 18070, 18071, 18357, 19004, 19502, 20097, 20122, 20301
LW 18886
ME 20224, 20225, 20259, 20260
MW 19844, 19845, 20341, 20342, 20760 THRU 20763
NW 18584 THRU 18586, 18693, 18746 THRU 18748, 18888, 18889, 18921, 18922, 18964, 19034, 19163, 19164, 19168, 19209, 19210, 19263, 19411, 19412, 19434, 19443, 19631 THRU 19636, 19773 THRU 19777, 19872
OA 18948 THRU 18950, 19760, 20035, 20036
PA 17592 THRU 17608, 17674, 17677, 17680, 17683, 17686, 17689, 18083 THRU 18085, 18335 THRU 18339, 18579, 18580, 18591, 18714 THRU 18718, 18765 THRU 18767, 18790, 18824, 18832 THRU 18842, 18956 THRU 18960, 19264 THRU 19278, 19361 THRU 19366, 19367 THRU 19379, 19693 THRU 19699, 20016 THRU 20034
PK 19284 THRU 19286, 19866, 20275, 20487, 20488
PQ 20514, 20515
PW 18826
QF 18808 THRU 18810, 18953 THRU 18955, 19293 THRU 19297, 19621 THRU 19630
RD 19416, 20076, 20077
RG 17905, 17906, 18694, 19106, 19320 THRU 19322, 19433, 19822, 19840 THRU 19842, 19870, 19871, 20008
RJ 20494, 20495
SA 17928 THRU 17930, 18891, 19133, 19705, 19706, 20230, 20283, 20110
SN 17623 THRU 17627, 18374, 18460, 18890, 19162, 19211, 19996, 20198 THRU 20200
SQ 19737 THRU 19739, 19529, 19530
SV 19809, 19810
TP 18961, 18962, 19740, 19969, 20136, 20297, 20298
TW 17673, 17675, 17676, 17678, 17679, 17681, 17682, 17684, 17685, 17687, 17688, 17690, 18405 THRU 18409, 18709, 18711 THRU 18713, 18738, 18756, 18757, 18764, 18913 THRU 18918, 18978 THRU 18785, 19212 THRU 19214, 19224 THRU 19227, 19435, 19566, 19567, 19570 THRU 19573, 20058 THRU 20069, 20428, 20429

NOTES (CONTINUED)

[O] (CONTINUED)
VM 20629
WA 19963 THRU 19967
WD 19789, 20043
WT 20474, 20669
WY 18582, 18583, 18707, 18991, 19179, 19441, 19442, 19715, 19716

[P] FOR AIRPLANES NOT LISTED IN [O]

[R] FORGINGS OF 7079-T6 MATERIAL HAVE BEEN REPLACED BY FORGINGS OF 7075-T73 IN PRODUCTION; 7075-T73 FORGINGS ARE RECOMMENDED WHEN EXISTING STOCKS OF 7079-T6 ARE EXHAUSTED

[S] FOR 707-300B AND 300C AIRPLANES WITH SB 2863 INCORPORATED ON BODY CROWN STRINGER TO FRAME JOINTS BETWEEN STATIONS 481 AND 600K

[T] FOR 707-300B AND 300C AIRPLANES WITH SB 2867 INCORPORATED ON BODY CROWN STRINGER TO FRAME JOINTS BETWEEN STATIONS 360 TO 481

[U] STRINGER CLIPS ON STRINGERS 4, 5 AND 7 AT FRAME STATIONS 740, 760, 780, 800, 840, 860, 880, 900, 920, AND 940

[V] FOR AIRPLANES:
IR 20741
WT 20669

[W] SEE DETAIL IX FOR CLIP INSTALLATION

[X] FORGINGS OF 7079-T6 MATERIAL HAVE BEEN REPLACED BY 7075-T6511 EXTRUSIONS IN PRODUCTION. 7075-T6511 EXTRUSIONS ARE RECOMMENDED WHEN EXISTING STOCKS OF 7079-T6 FORGINGS ARE EXHAUSTED

[Y] FOR AIRPLANES WITH RADIUS AND STRINGER CLIPS INSTALLED BY INCORPORATION OF SB 2862

[Z] FOR AIRPLANE CUM LINE NUMBERS 869 AND ON AND AIRPLANES WITH SB 2976 INCORPORATED

[AA] STRINGER CLIPS ON STRINGERS 1 THRU 9 AT FRAME STATIONS 380, 400, 420, 440, 460 AND 480

[AB] FOR AIRPLANES CA 20716, 20717

[AC] FOR AIRPLANES:
CA 20718 THRU 20723
MS 20763

[AD] FOR AIRPLANES:
IM 20830 THRU 20835 (REF 9101 THRU 9199)

[AE] LATCH SUPPORT FITTINGS OF 7075-T73 MATERIAL HAVE BEEN SHOT-PEENED IN PRODUCTION USING NO. 230 TO 460 SHOT SIZE (INTENSITY .014A2). 7075-T73 SHOT-PEENED FITTINGS ARE RECOMMENDED WHEN REPLACEMENT IS NECESSARY.

[AF] FOR AIRPLANES WITH SB 3124 INCORPORATED.

[AG] STRINGER CLIPS ON STRINGERS 1 THRU 9 AT FRAME STATIONS 480 THRU 600J FOR 707-300 AND 400 AIRPLANES WITH SB 2908 INCORPORATED

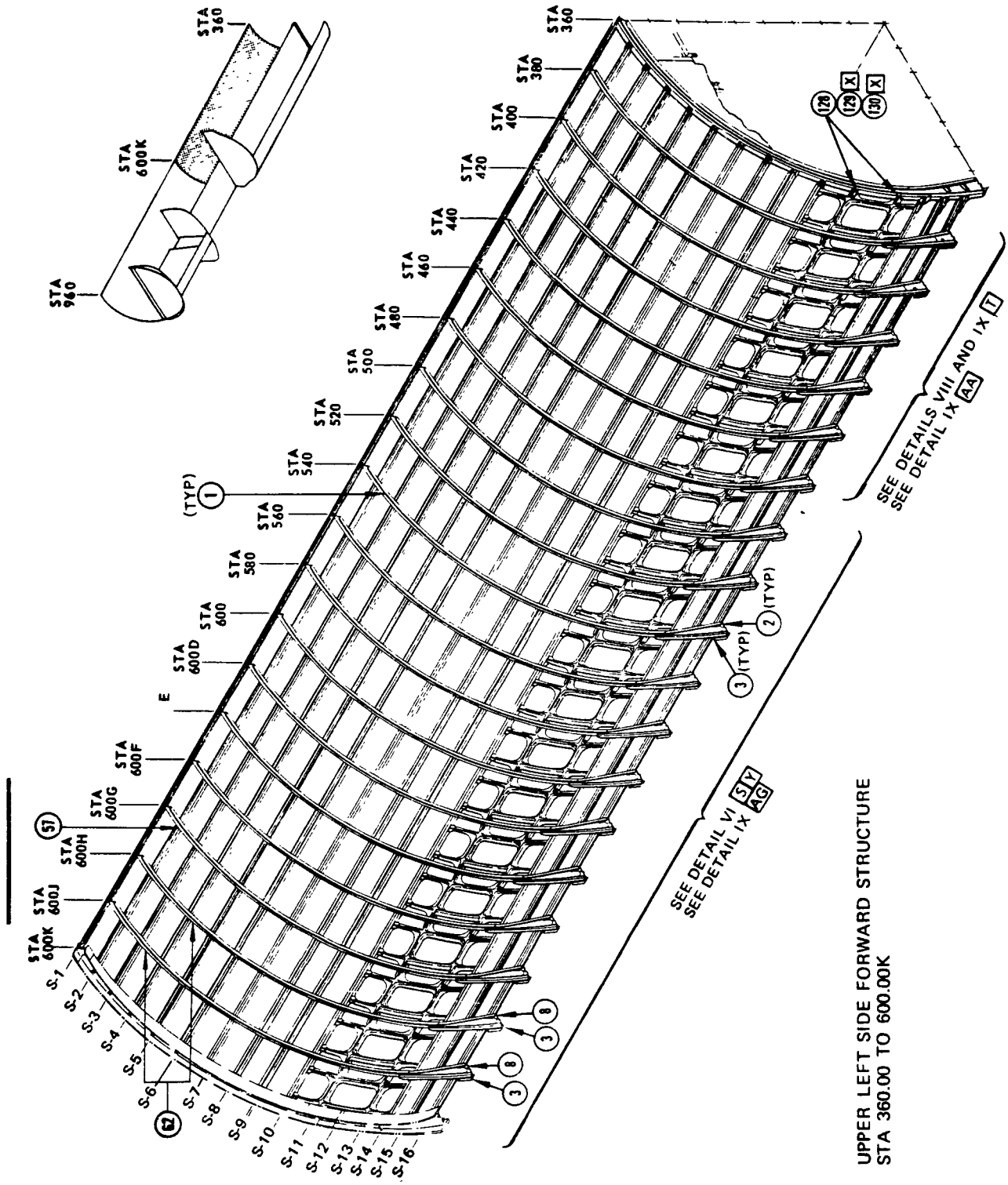
[AH] WINDOW PLUGGED AT THIS LOCATION

[AJ] FOR AIRPLANES WITH SB 2866 INCORPORATED

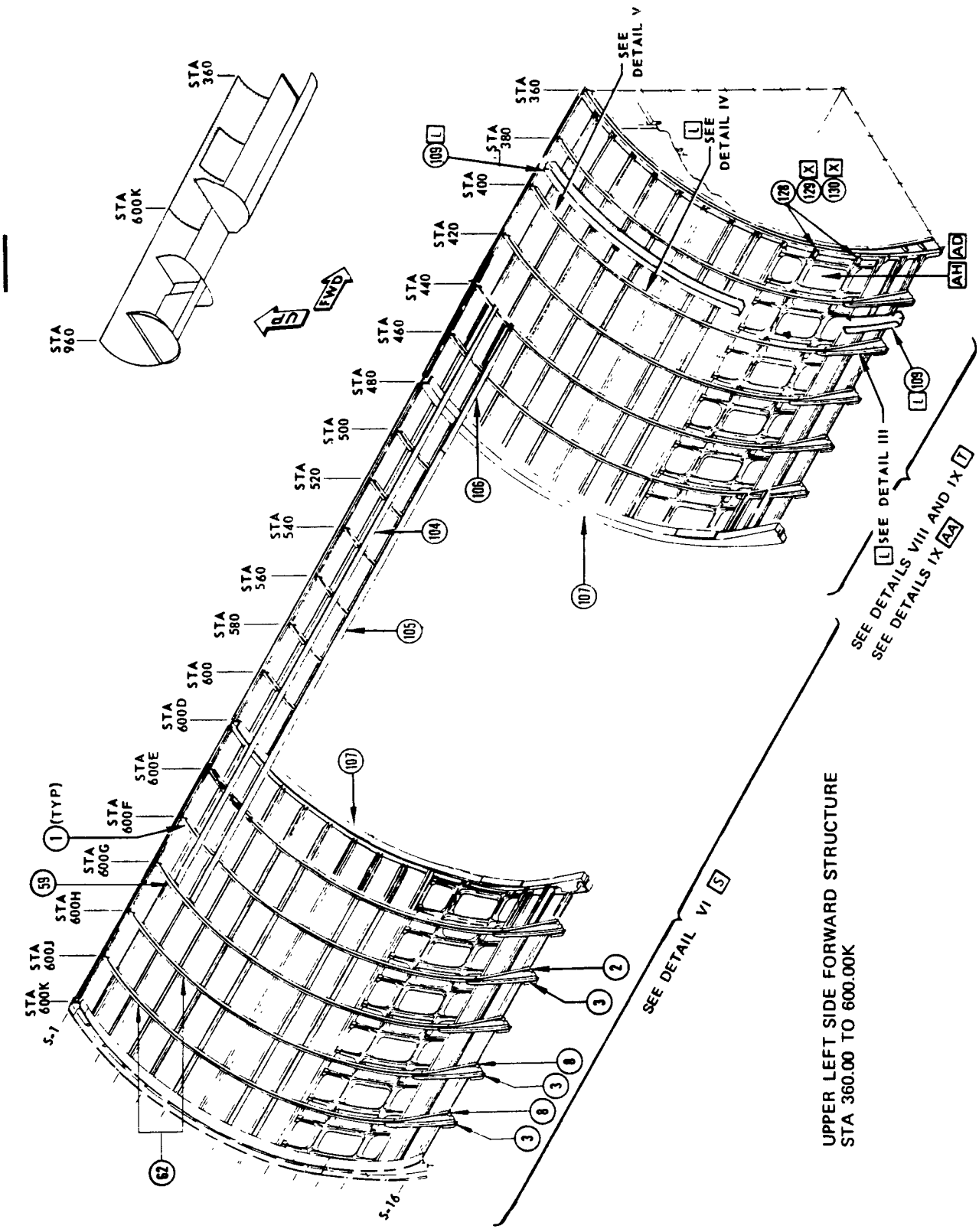
[AK] FOR CUM LINE NUMBERS:
883, 897, 903, 911

EFFECTIVITY

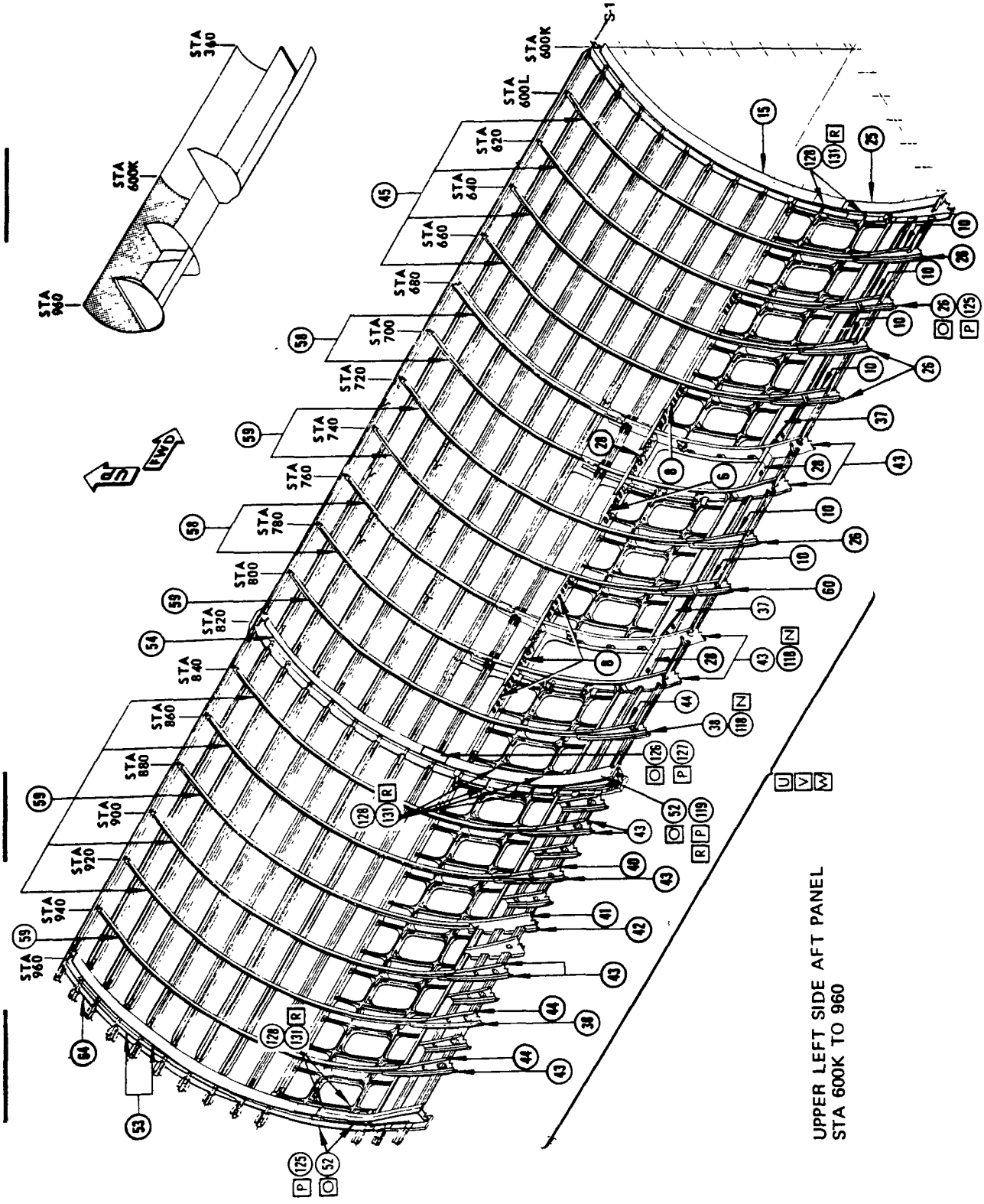
ALL AIRPLANES
EXCEPT CARGO



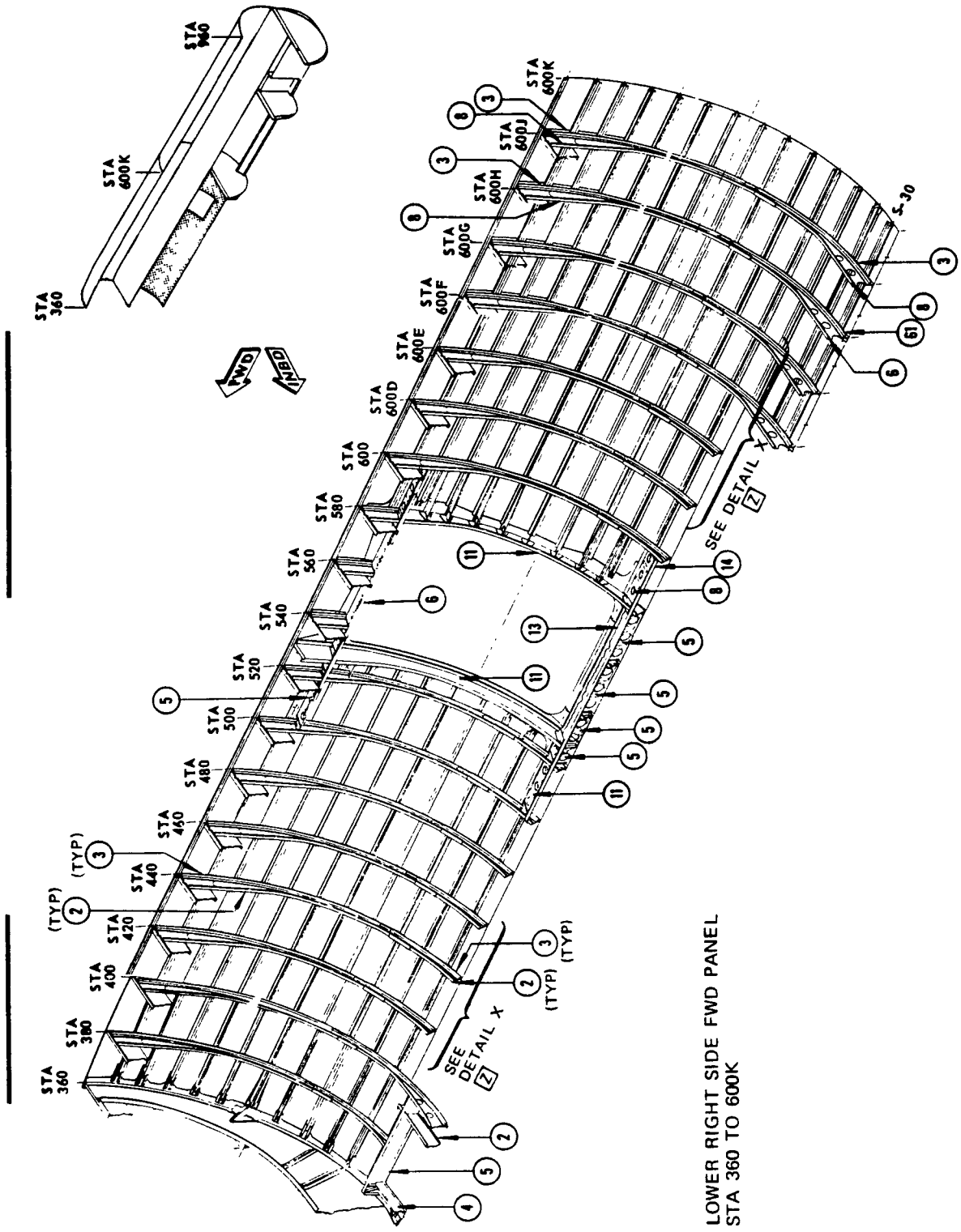
Section 43 Structure Identification
Figure 3 (Sheet 10)



Section 43 Structure Identification
Figure 3 (Sheet 11)



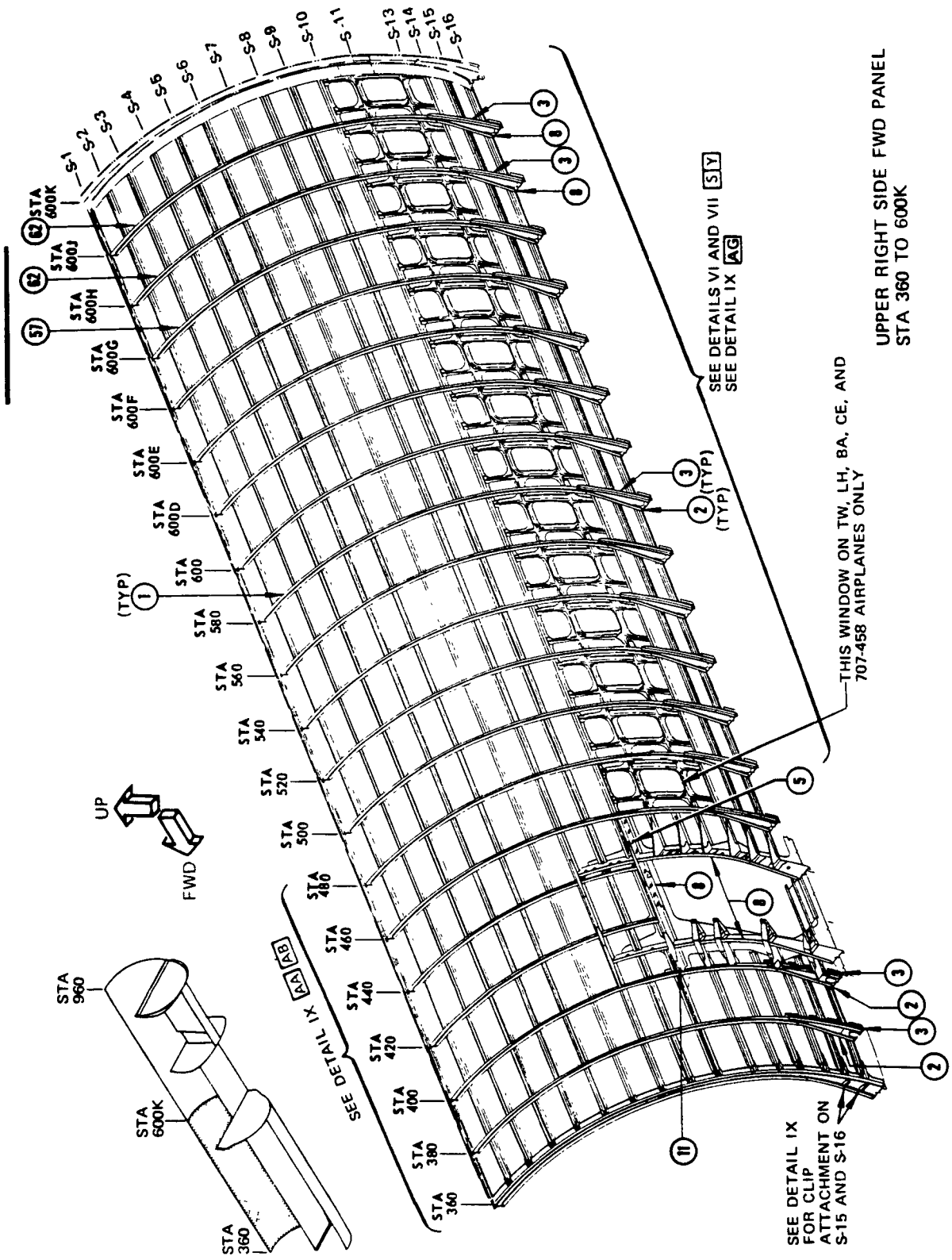
Section 43 Structure Identification
Figure 3 (Sheet 12)



Section 43 Structure Identification
Figure 3 (Sheet 13)

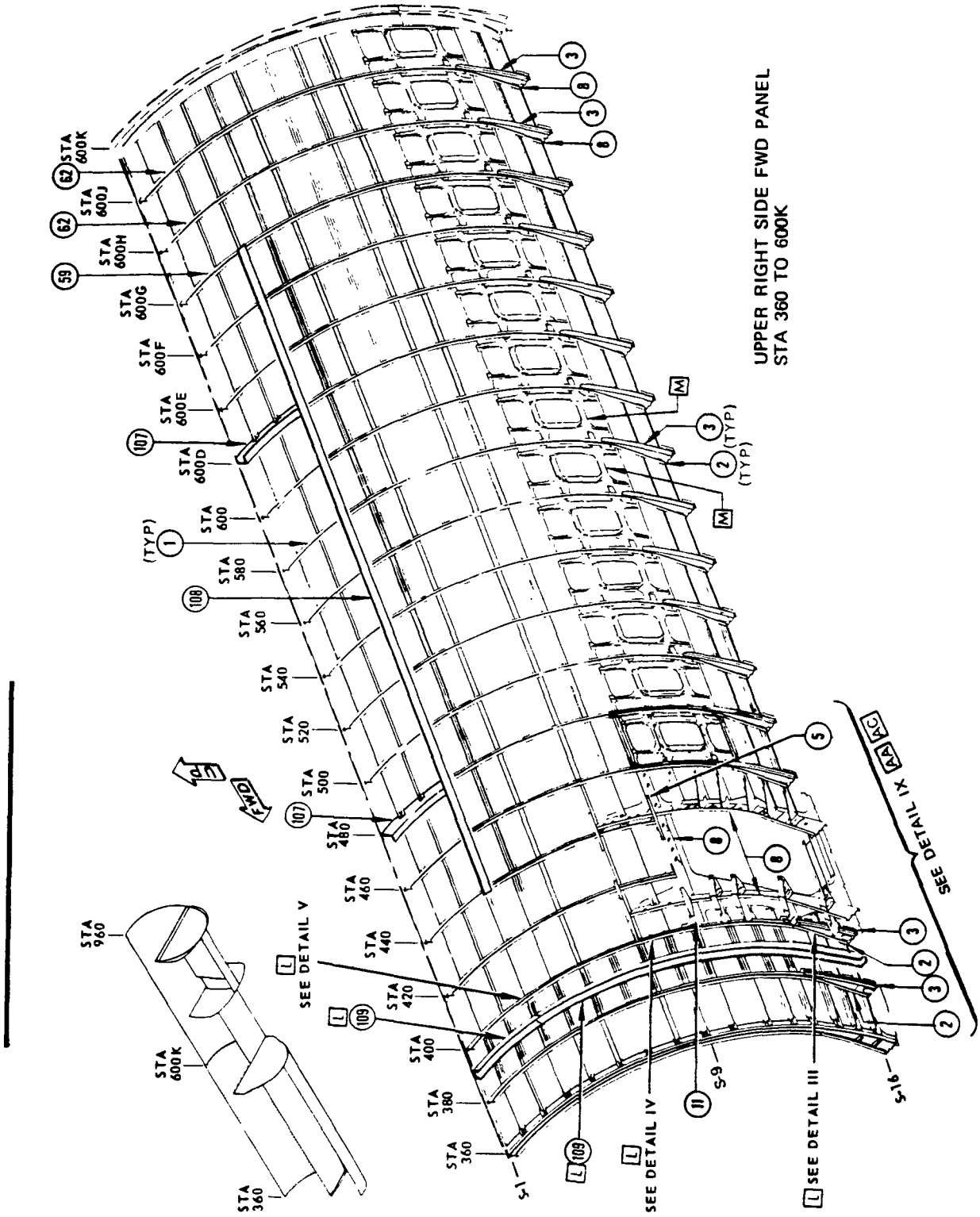
EFFECTIVITY

ALL AIRPLANES
EXCEPT CARGO

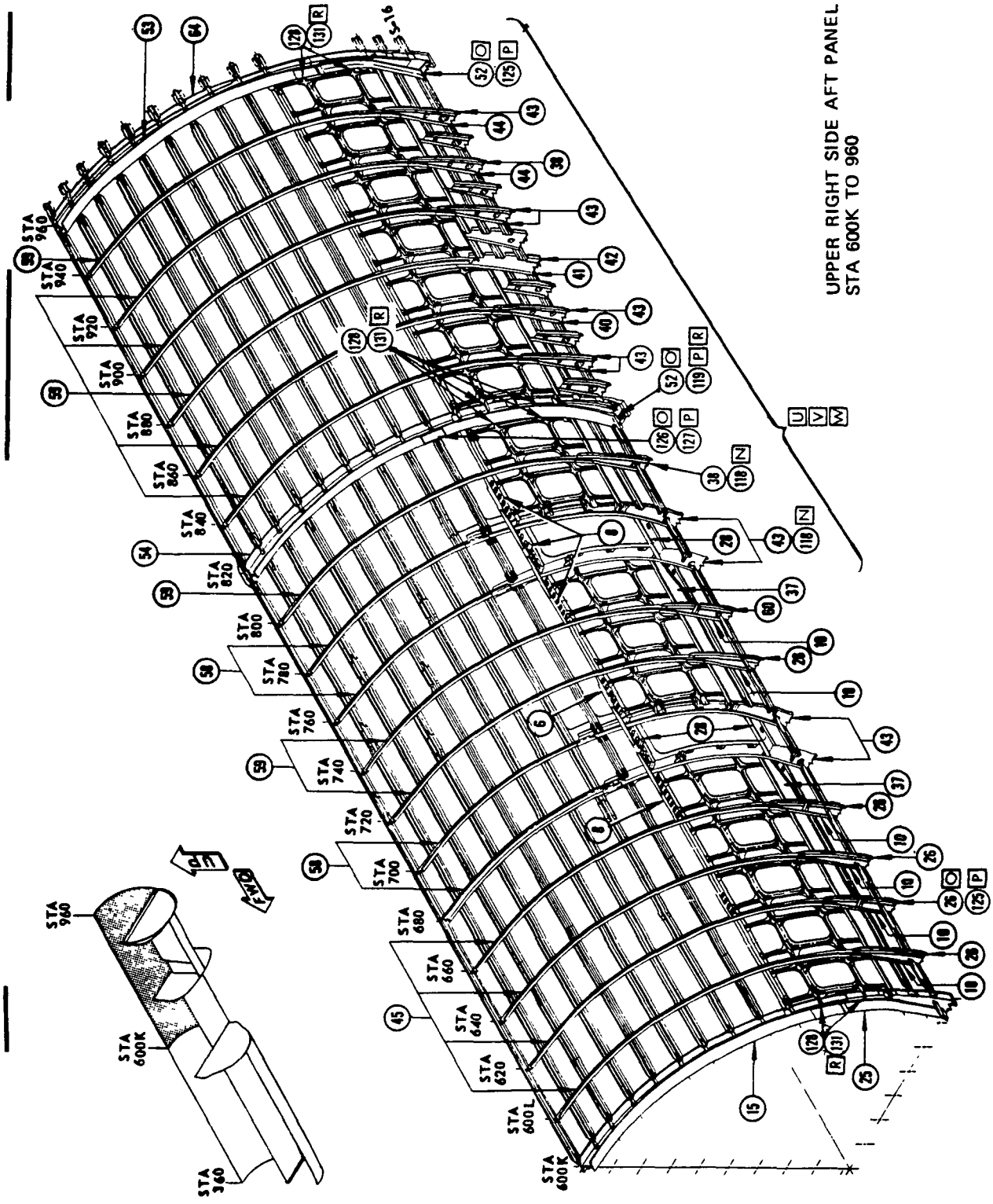


Section 43 Structure Identification
Figure 3 (Sheet 14)

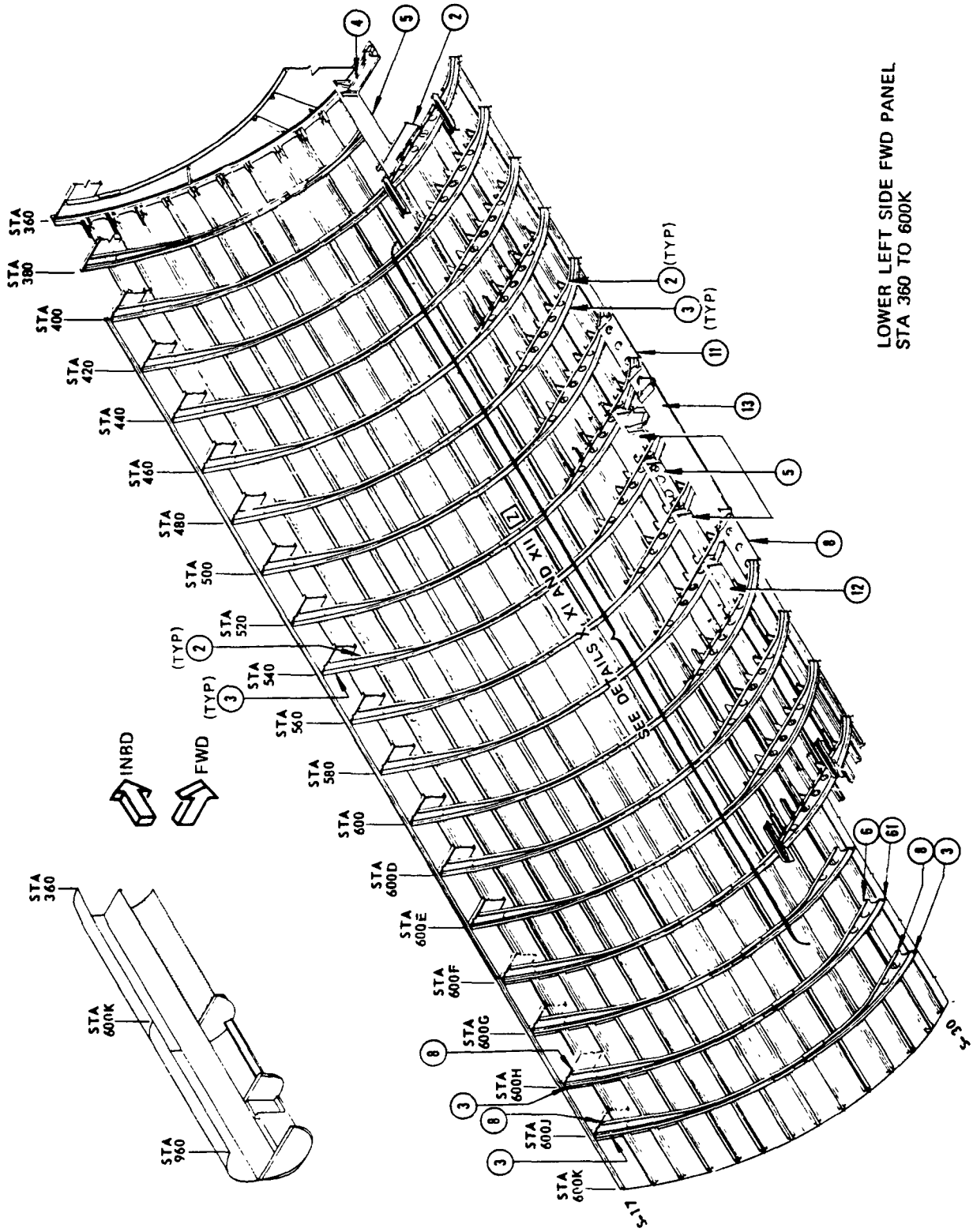
SRM
Jan 10/74



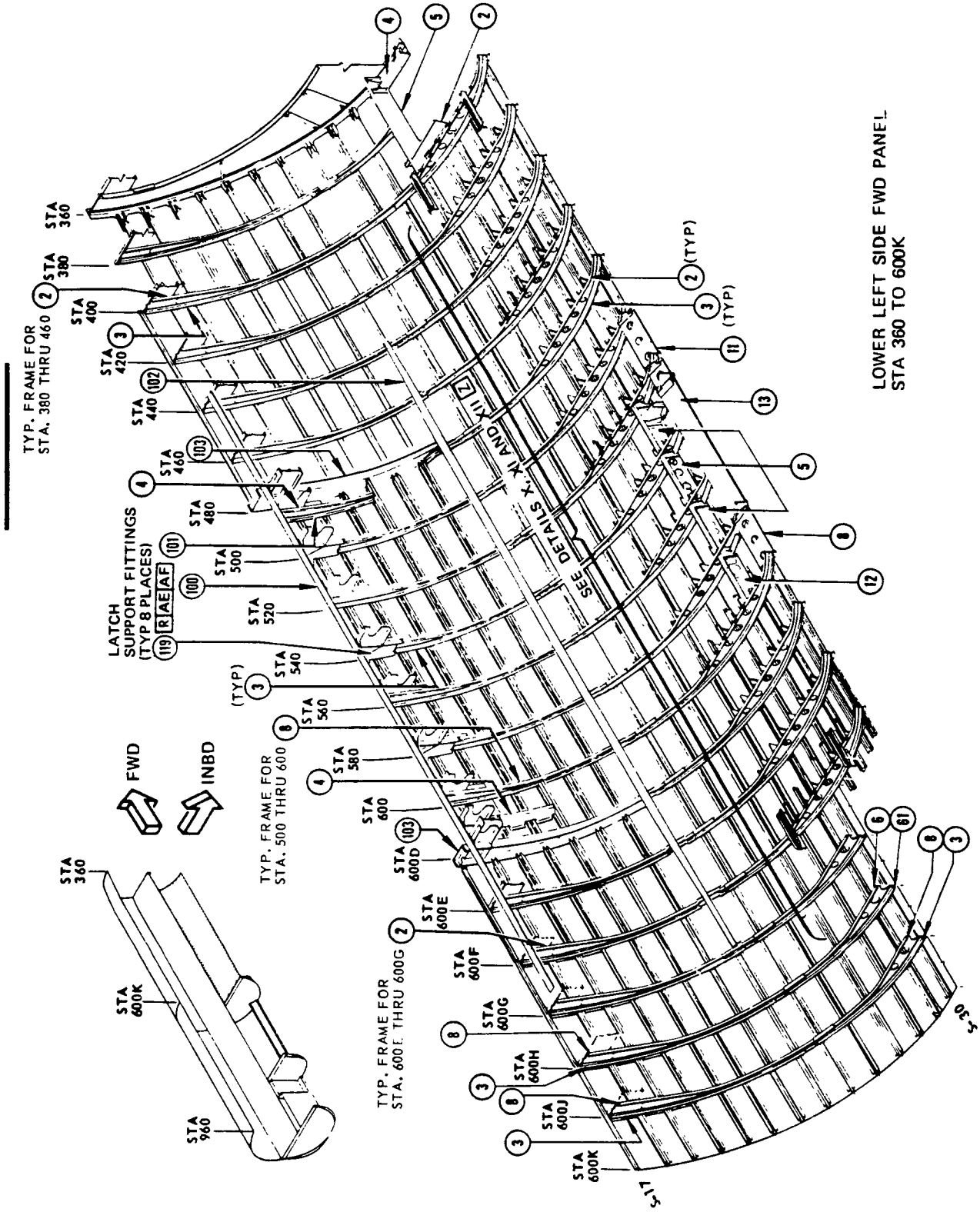
Section 43 Structure Identification
Figure 3 (Sheet 15)



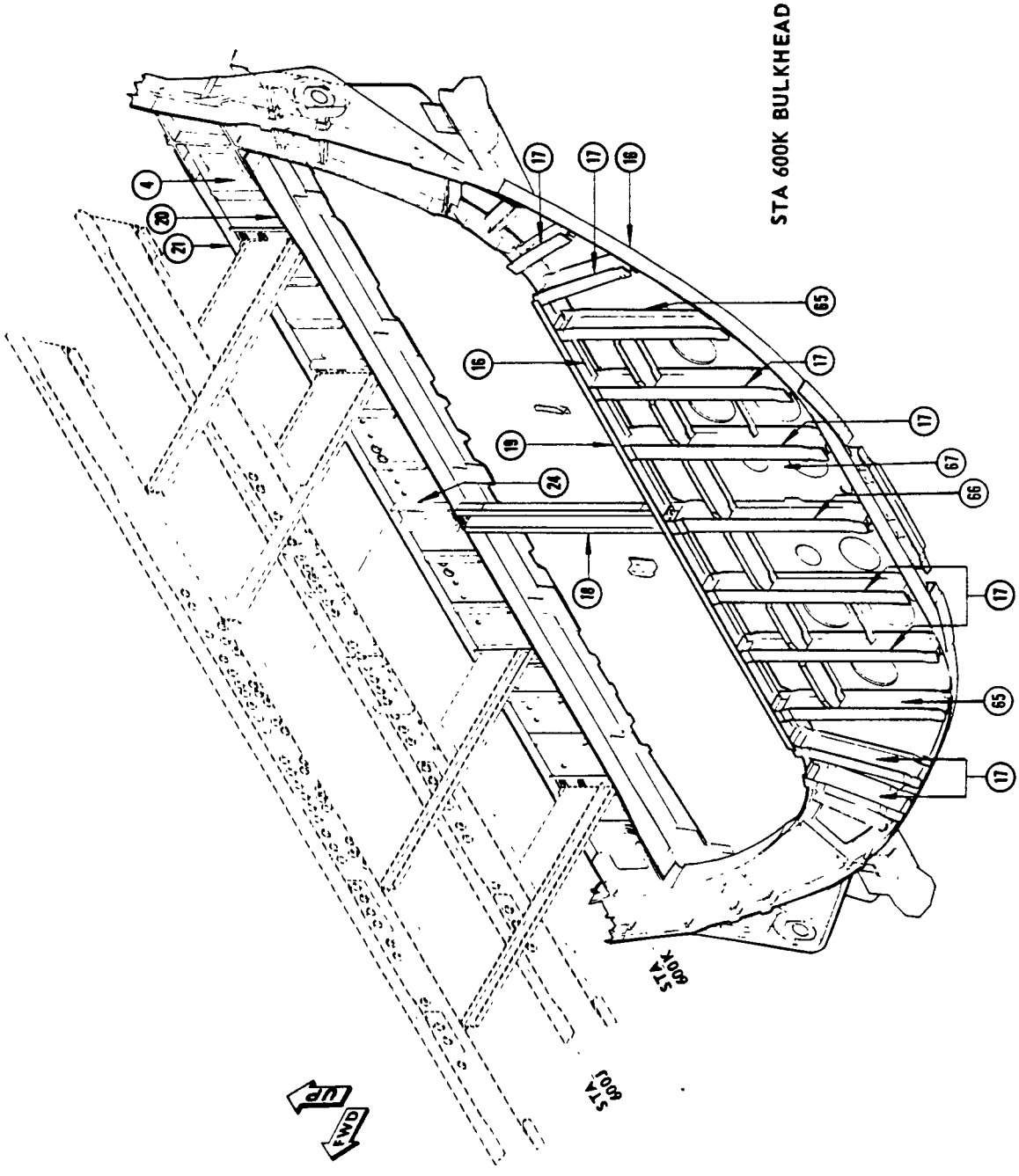
Section 43 Structure Identification
Figure 3 (Sheet 16)



Section 43 Structure Identification
Figure 3 (Sheet 17)



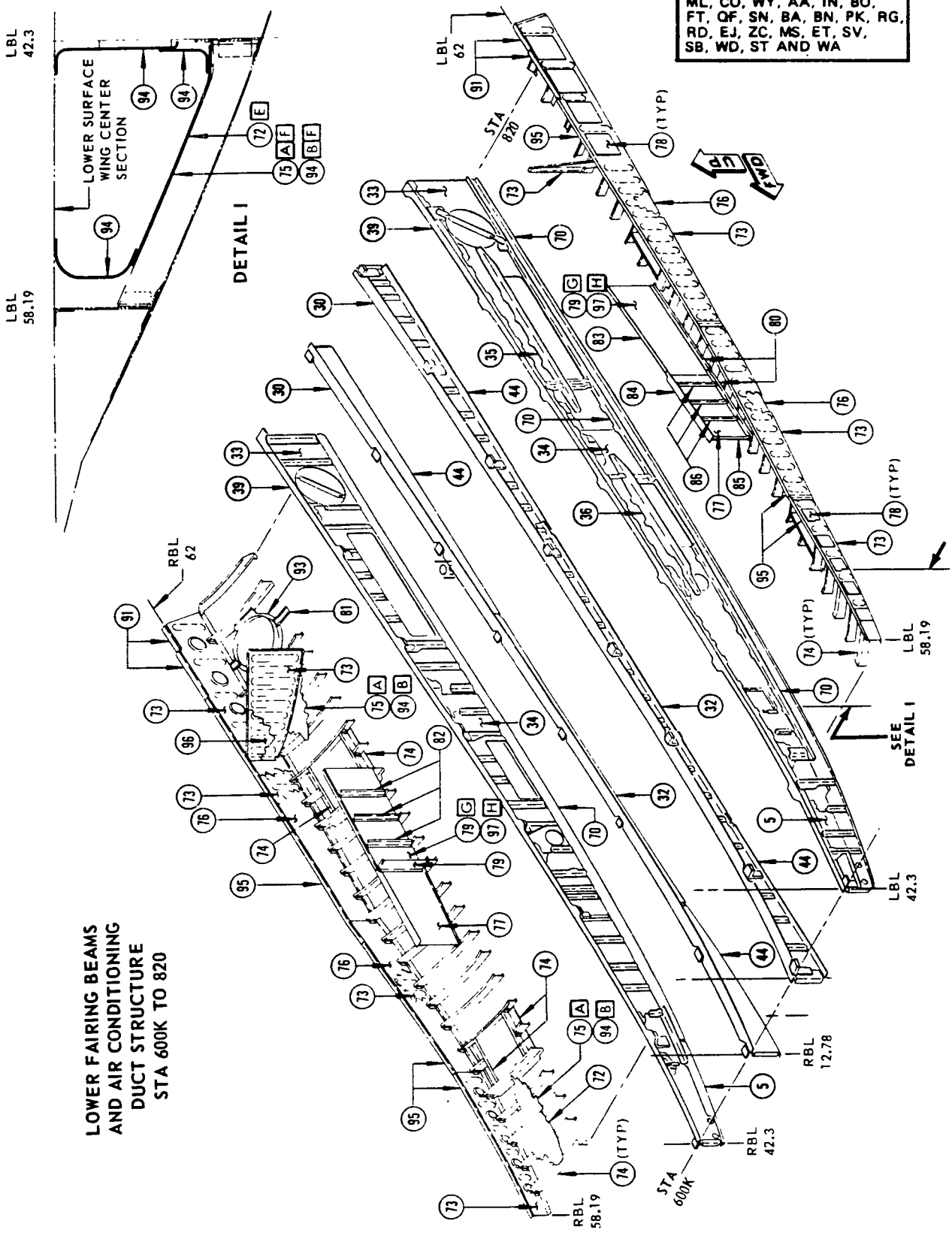
Section 43 Structure Identification
Figure 3 (Sheet 18)



Section 43 Structure Identification
Figure 3 (Sheet 19)

EFFECTIVITY

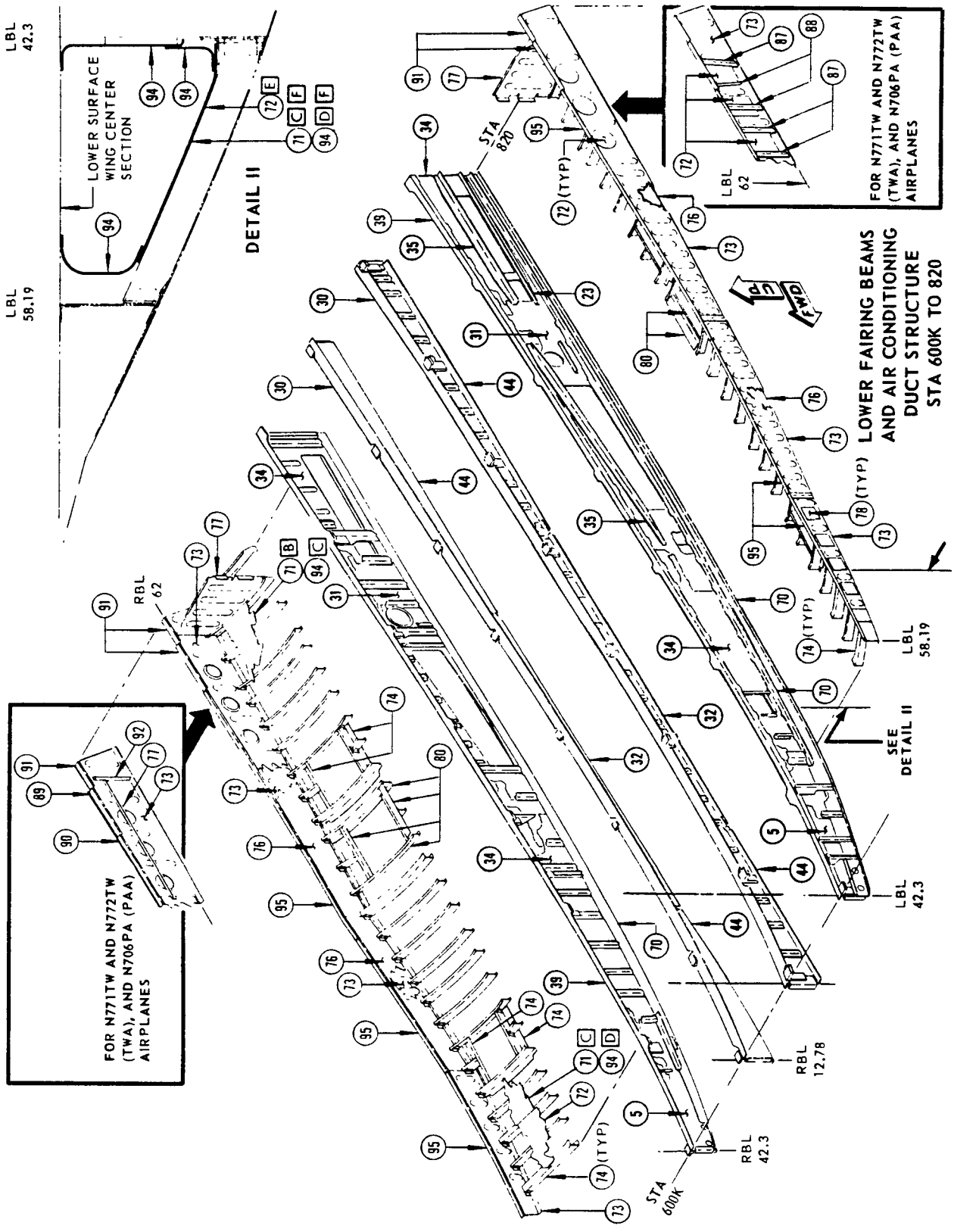
PA (N714PA THRU N730PA)
PA (N757PA THRU N758PA)
AND THE FOLLOWING
TURBOFAN AIRPLANES:
PA, TW, AF, LH, AI, SA,
TP, OA, LY, AR, NW, AV,
ML, CO, WY, AA, IN, BO,
FT, QF, SN, BA, BN, PK, RG,
RD, EJ, ZC, MS, ET, SV,
SB, WD, ST AND WA



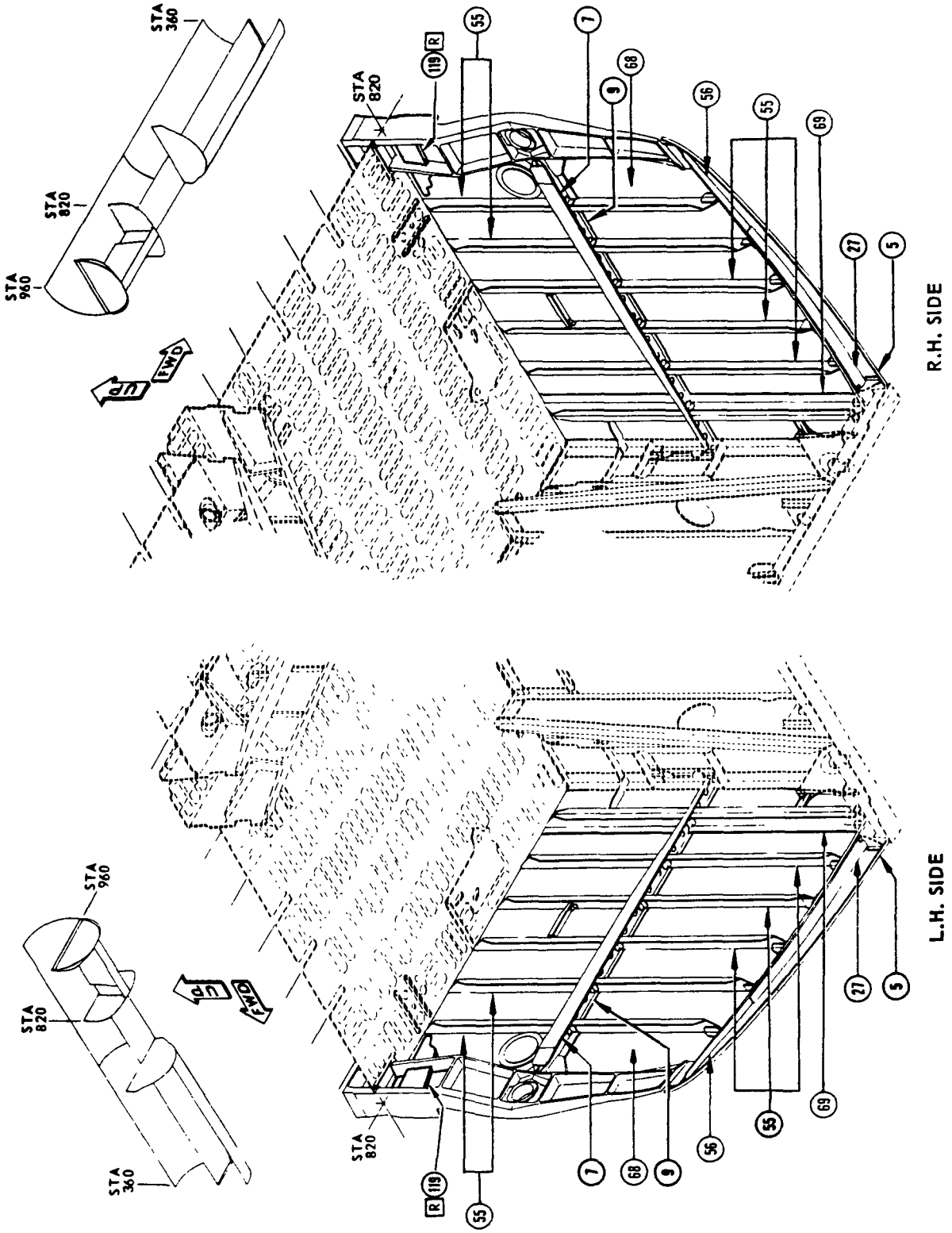
LOWER FAIRING BEAMS AND AIR CONDITIONING DUCT STRUCTURE STA 600K TO 820

Section 43 Structure Identification
Figure 3 (Sheet 20)

SRM
Jul 15/73

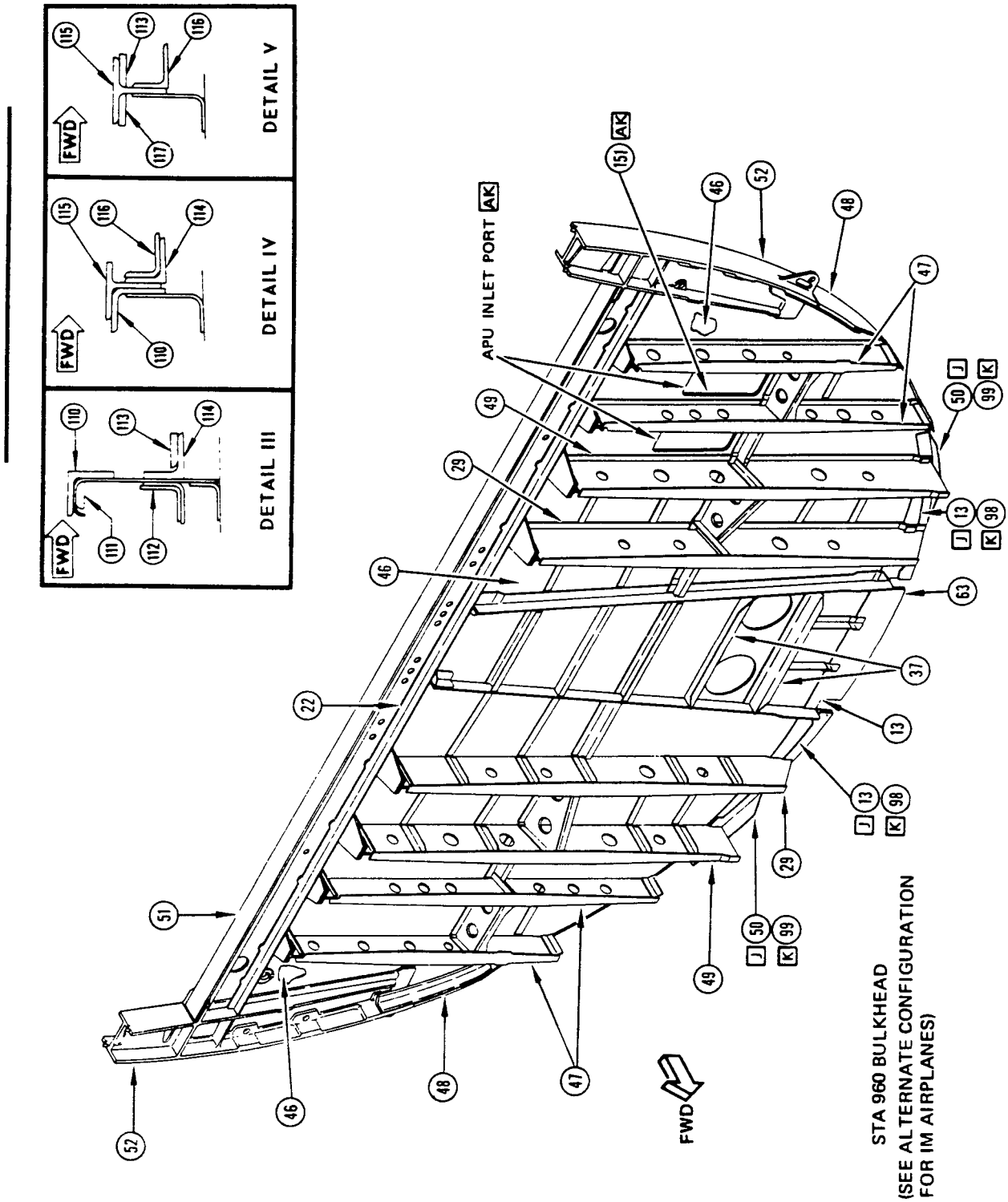


Section 43 Structure Identification
Figure 3 (Sheet 21)

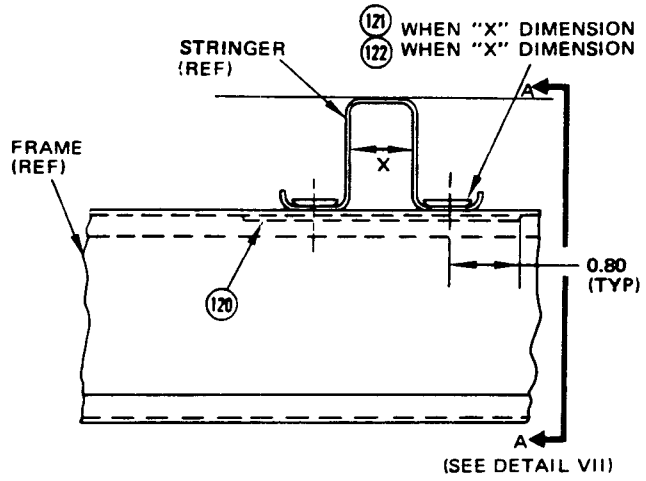


Section 43 Structure Identification
Figure 3 (Sheet 22)

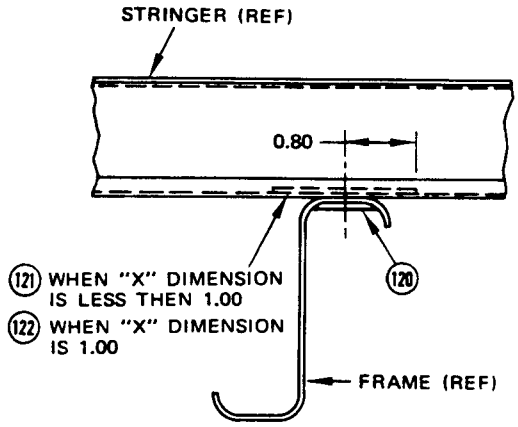
SRM
Jul 15/73



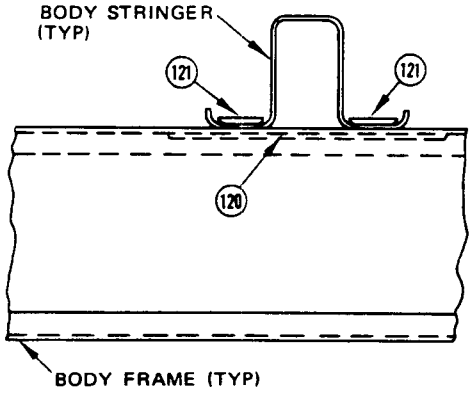
Section 43 Structure Identification
Figure 3 (Sheet 23)



DETAIL VI [S] [Y] [AJ]

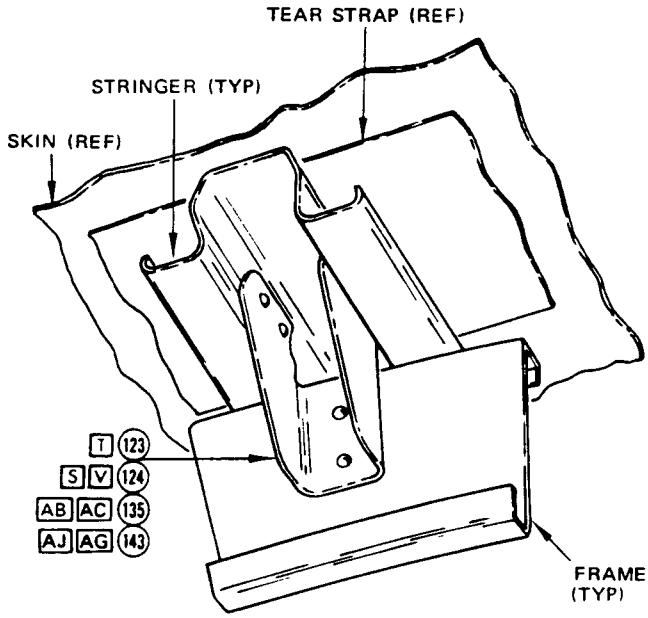


SECTION A–A (SEE DETAIL VI)
DETAIL VII [S] [Y] [AJ]

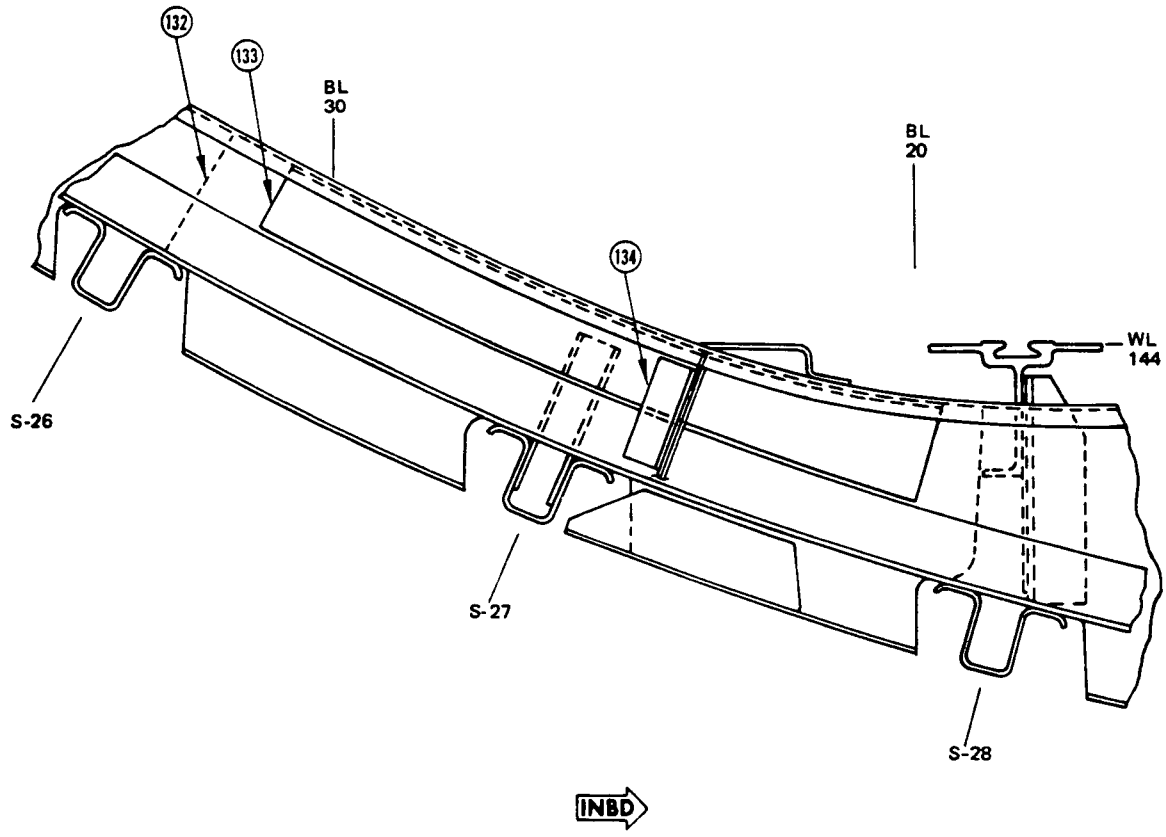


[T] FOR AIRPLANES WITH SB 2867 INCORPORATED

DETAIL VIII [T] [AJ]



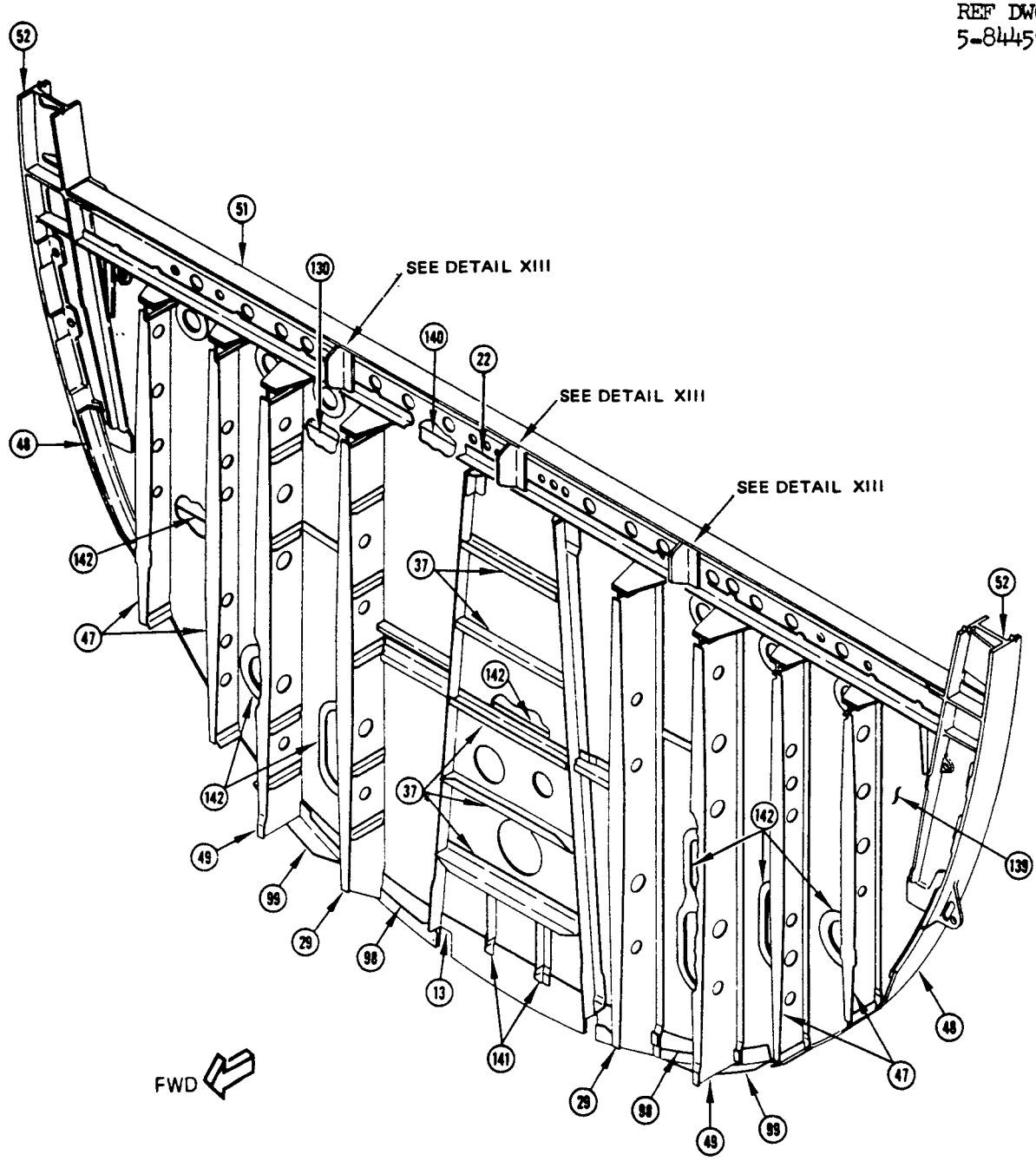
DETAIL IX [S] [T] [U] [V] [AA] [AD] [AJ]



DETAIL X Z

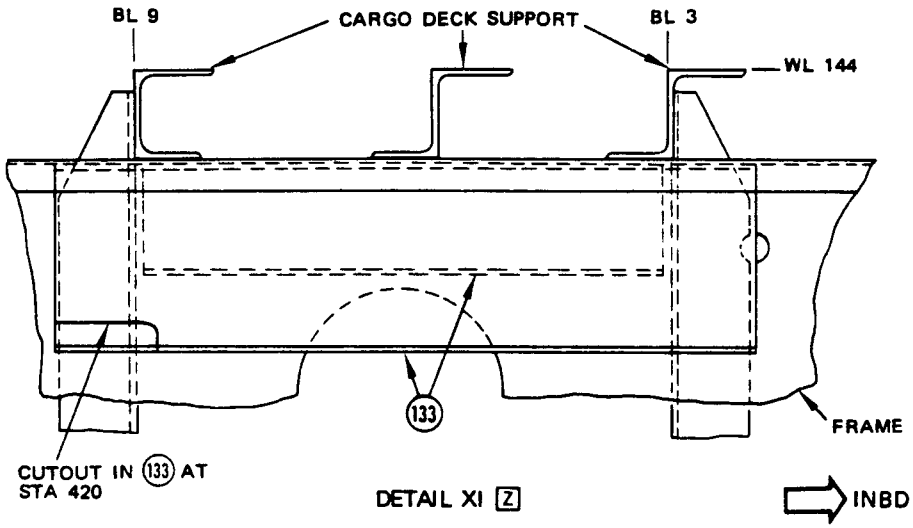
CARGO COMPARTMENT LOWER FRAME REINFORCEMENT
TYPICAL LEFT SIDE FRAMES, STATIONS 420 THRU 600G
RIGHT SIDE FRAMES, STATIONS 420, 440, 460, 600D,
600E, 600F AND 600G OPPOSITE

REF DWG
5-84459



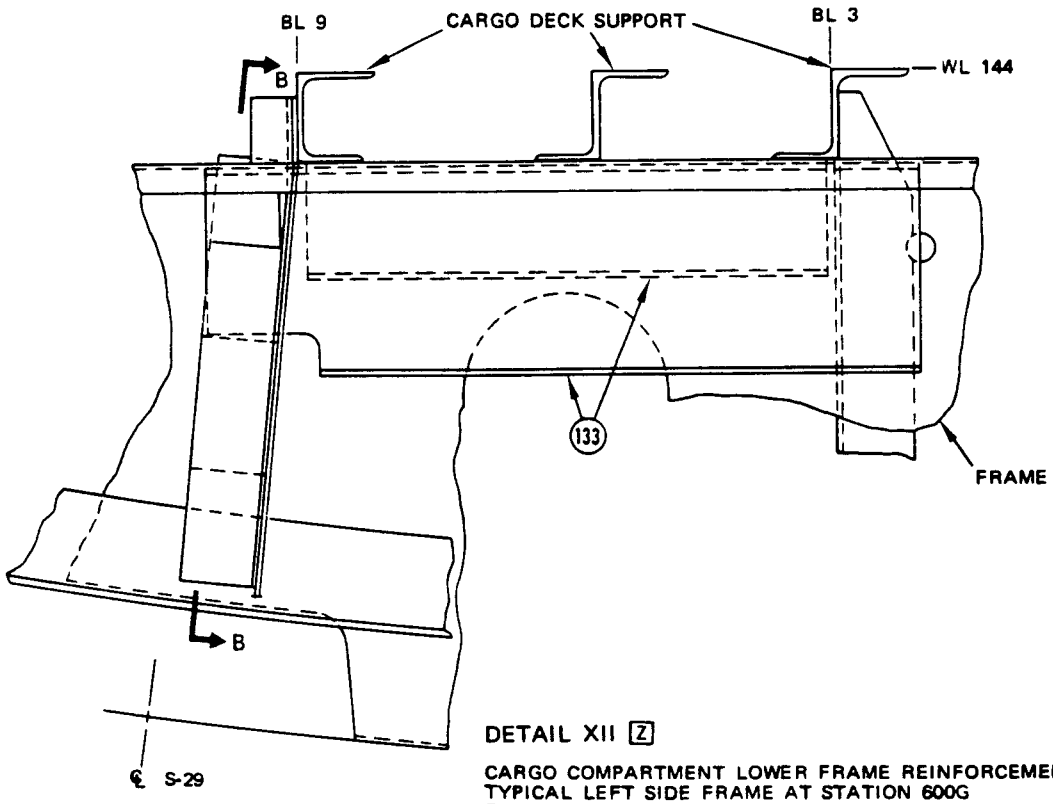
STA 960 BULKHEAD

Section 43 Structure Identification
Figure 3 (Sheet 26)



DETAIL XI Z

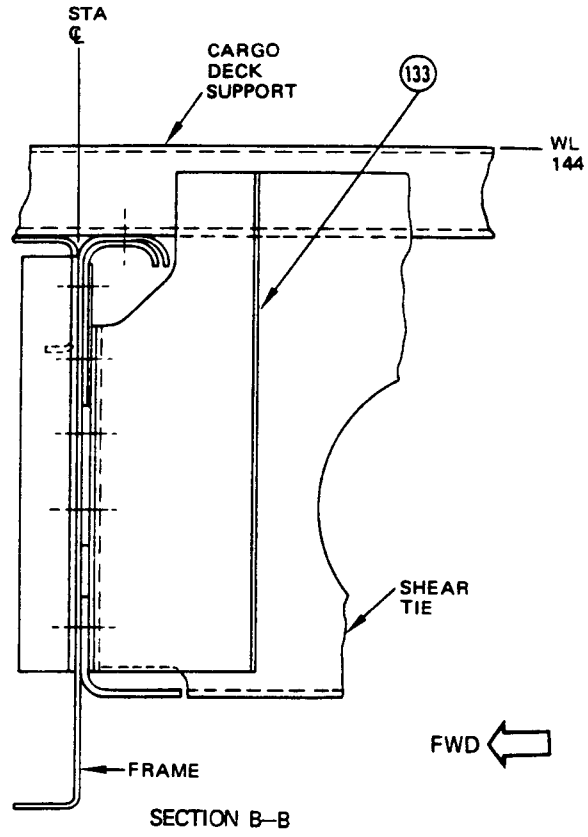
CARGO COMPARTMENT LOWER FRAME REINFORCEMENT
TYPICAL LEFT SIDE FRAMES STATIONS 420 THRU 600F AS SHOWN. RIGHT SIDE FRAMES STATIONS 420 THRU 500 AND STATIONS 540 THRU 600F OPPOSITE



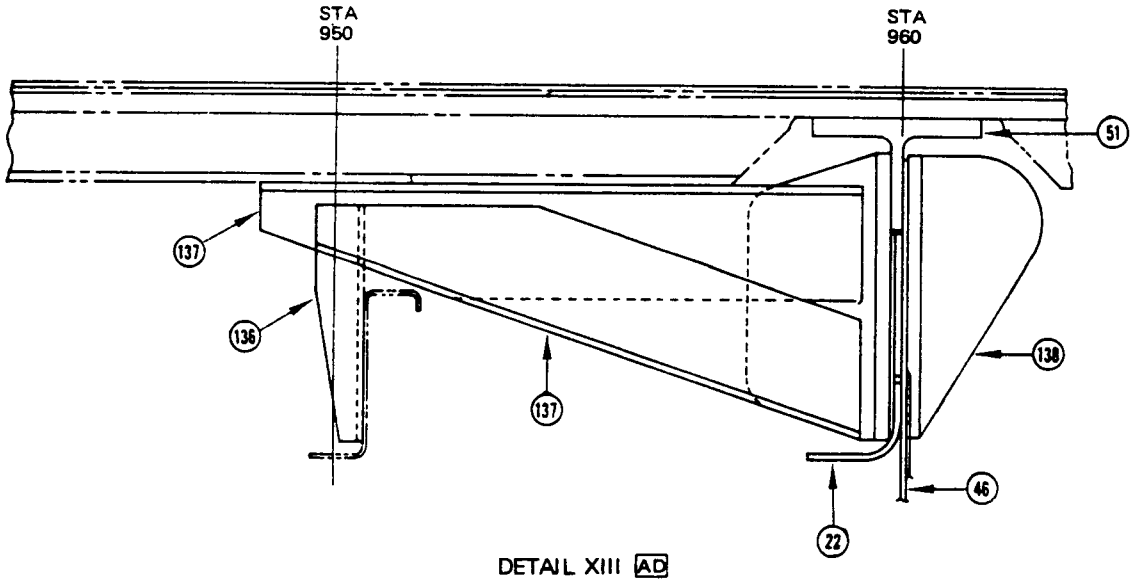
DETAIL XII Z

CARGO COMPARTMENT LOWER FRAME REINFORCEMENT
TYPICAL LEFT SIDE FRAME AT STATION 600G
RIGHT SIDE OPPOSITE

Section 43 Structure Identification
Figure 3 (Sheet 27)



SECTION B–B



DETAIL XIII AD

Section 43 Structure Identification
Figure 3 (Sheet 28)

ITEM	MATERIAL	REPAIR FIG NO.
1	DIE FORGING 7079-T6	
2	AND10134-1405 7075-T6	51-14-4 FIG. 1
3	AND10133-1403 7075-T6	51-14-4 FIG. 1
4	BAC1514-301 7075-T6	
5	AND10134-1407 7075-T6	51-14-4 FIG. 1
6	AND10136-2407 7075-T6	51-14-4 FIG. 1
7	.050 CLAD 7075-T6	51-14-3 FIG. 2
8	.063 CLAD 7075-T6	51-14-2 FIG. 1
9	.071 CLAD 7075-T6	51-14-2 FIG. 1
10	BAC1503-2812 7075-T6	51-14-4 FIG. 1
11	BAC1520-951 7178-T6	
12	BAC1505-100340 7075-T6	51-14-4 FIG. 1
13	BAC1503-100014 7075-T6	51-14-4 FIG. 1
14	FIBERGLAS HONEYCOMB PANEL	51-11-1 FIG. 1
15	BAC1514-715 7075-T6	
16	BAC1515-526 2024-T4	
17	BAC1520-921 7075-T6	
18	UPR CHORD 7075-T6 AND 10136-2405	51-14-4 FIG. 1
	WEB .080 CLAD 7075-T6	51-14-2 FIG. 1

ITEM	MATERIAL	REPAIR FIG NO.
18	LWR CHORD 7075-T6 BAC 1506-1341	51-14-4 FIG. 1
19	UPR CHORD 7075-T6 AND 10136-2404	51-14-4 FIG. 1
	WEB .063 CLAD 7075-T6	51-14-2 FIG. 1
	LWR CHORD 7075-T6 BAC 1506-1341	51-14-4 FIG. 1
20	UPR CHORD 7075-T6 BAC 1505-48423	51-14-4 FIG. 1
	WEB .050 CLAD 7075-T6	51-14-2 FIG. 1
	LWR CHORD 7075-T6 BAC 1505-100265	51-14-4 FIG. 1
21	UPR CHORD 7075-T6 BAC 1505-48423	51-14-4 FIG. 1
	WEB .080 CLAD 7075-T6	51-14-2 FIG. 1
	LWR CHORD 7075-T6 AND 10136-2404	51-14-4 FIG. 1
22	BAC 1518-297 7075-T6	
23	BAC 1503-100084 7075-T6	51-14-4 FIG. 1
24	AND10136-2401 7075-T6	51-14-4 FIG. 1
25	.050 CLAD 2024-T3	51-14-2 FIG. 1
26	AND10134-1603 7075-T6	51-14-4 FIG. 1
27	AND10134-2010 7075-T6	51-14-4 FIG. 1
28	AND10138-1205 7075-T6	51-14-4 FIG. 1
29	AND10138-1206 7075-T6	51-14-4 FIG. 1
30	BAC1510-317 7075-T6	

ITEM	MATERIAL	REPAIR FIG NO.
31	BAC1510-292 7075-T6	
32	.032 CLAD 2024-T3	51-14-2 FIG. 1
33	.040 CLAD 7075-T6	51-14-2 FIG. 1
34	BAC1514-1266 7075-T6	51-14-4 FIG. 1
35	AND10136-2407 7075-T6	51-14-4 FIG. 1
36	AND10134-1206 7075-T6	51-14-4 FIG. 1
37	BAC1517-1278 7075-T6	
38	BAC1505-100282 7075-T6	51-14-4 FIG. 1
39	.112 7075-T6	51-14-2 FIG. 1
40	BAC1520-992 7178-T6	
41	BAC1505-100253 7075-T6	51-14-4 FIG. 1
42	AND 10134-2401 7075-T6	51-14-4 FIG. 1
43	.090 CLAD 7075-T6	51-14-2 FIG. 1
44	.100 CLAD 7075-T6	51-14-2 FIG. 1
45	.080 CLAD 7075-T6	51-14-2 FIG. 1
46	.125 CLAD 7075-T6	
47	.080 CLAD 7075-T6	
48	.112 CLAD 7075-T6	
49	.090 CLAD 7075-T6	

Keel Beam Structure Identification - Station 600K-960
Figure 4 (Sheet 1)

ITEM	MATERIAL	REPAIR FIG. NO.	ITEM	MATERIAL	REPAIR FIG. NO.
50	0.032 CLAD 7075-T6		65	FORGING 7079-T6	
51	0.063 CLAD 7075-T6		66	WEB 0.040 CLAD 7075-T6	
52	0.025 CLAD 7075-T6			DOUBLER 0.025 CLAD 7075-T6	
53	BAC1510-284 7075-T6			DOUBLER 0.090 CLAD 7075-T6	
54	0.63 2024-T4		67	WEB 0.040 CLAD 7075-T6	
55	BAC1506-884 7075-T6			DOUBLER 0.025 CLAD 7075-T6	
56	UPR CHORD 7075-T6 BAC1503-100141	51-14-4 FIG. 1		FITTING MACHINED FROM 1.5 2024-T351	
	WEB 0.063 CLAD 7075-T6	51-14-2 FIG. 1	68	ACCESS DOOR 0.051 CLAD 7075-T6	
	LWR CHORD 7075-T6 BAC1505-100329	51-14-4 FIG. 1			
57	BAC1506-48423 7075-T6				
58	UPR CHORD 7075-T6 BAC1490-2685	51-14-4 FIG. 1			
	WEB 0.063 CLAD 7075-T6	51-14-2 FIG. 1			
	LWR CHORD 7075-T6 AND10134-1204	51-14-4 FIG. 1			
59	0.063 CLAD 2024-T3	51-14-2 FIG. 1			
60	0.060 CLAD 7075-T6	51-14-2 FIG. 1			
61	BAC1520-1119 7178-T6				
62	MACHINED FROM 0.250 7075-T6	51-14-2 FIG. 1			
63	MACHINED FROM 0.090 7075-T6	51-14-2 FIG. 1			
64	FORGING 7075-T73 [C]				

NOTE

[A] FOR TURBOJET AIRPLANES

[B] FOR TURBOFAN AIRPLANES

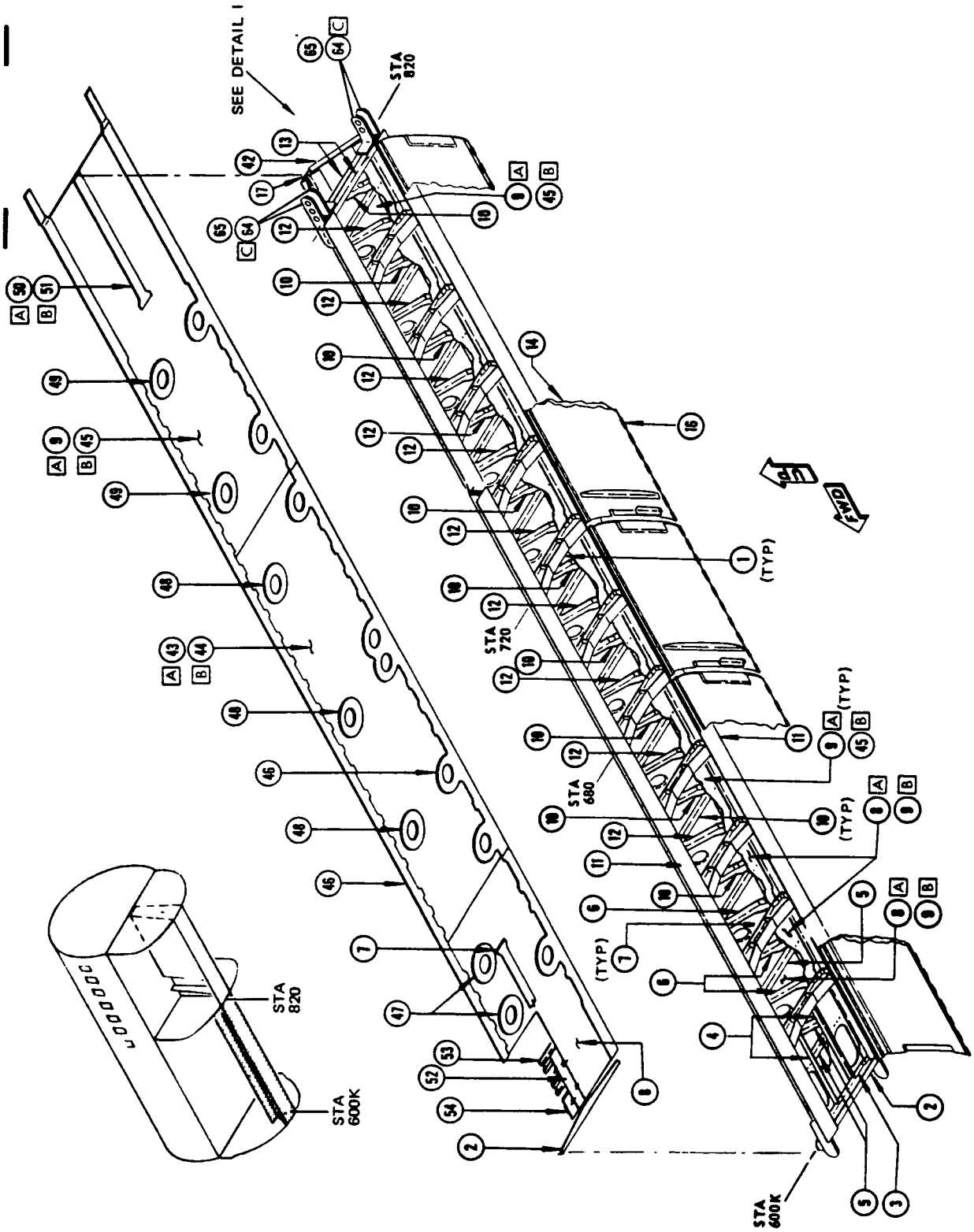
[C] FORGINGS OF 7079-T6 MATERIAL HAVE BEEN REPLACED BY FORGINGS OF 7075-T73 IN PRODUCTION; 7075-T73 FORGINGS ARE RECOMMENDED WHEN EXISTING STOCKS OF 7079-T6 ARE EXHAUSTED.

[D] WELDED ASSEMBLY

[E] FOR ALL AIRPLANES EXCEPT IM

[F] FOR IM AIRPLANES

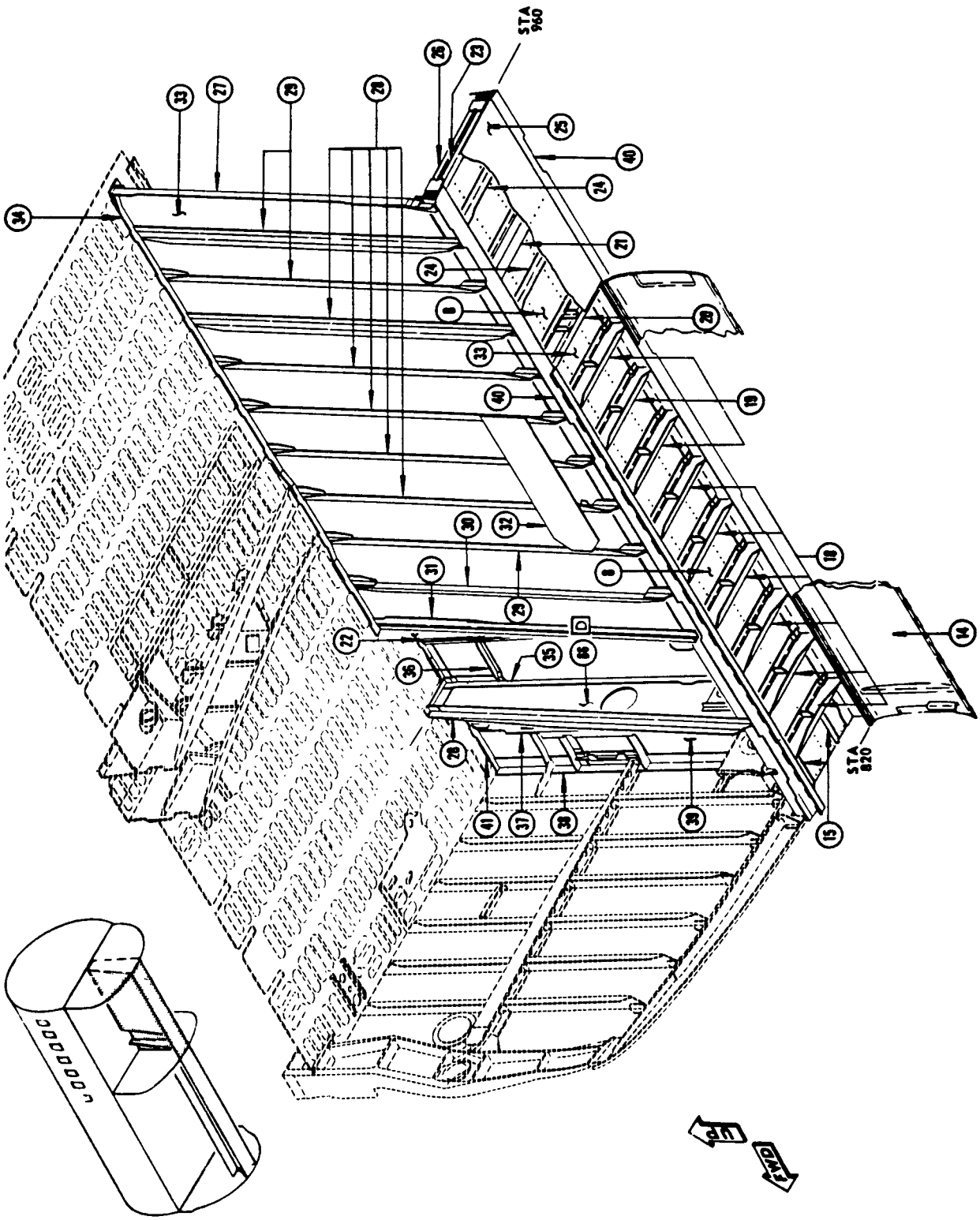
Keel Beam Structure Identification - Station 600K-960
Figure 4 (Sheet 2)



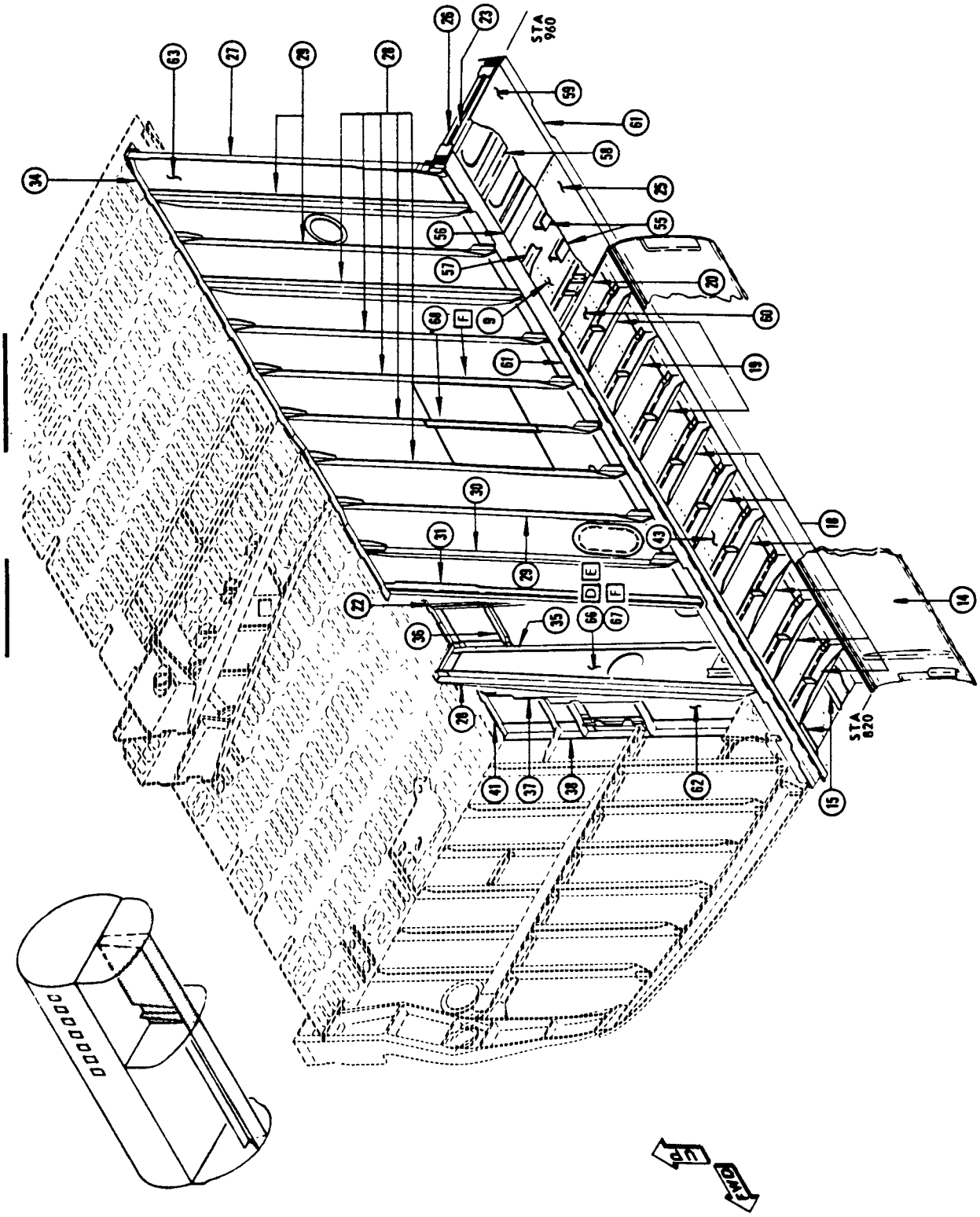
Keel Beam Structure Identification - Station 600K-960
Figure 4 (Sheet 3)

EFFECTIVITY

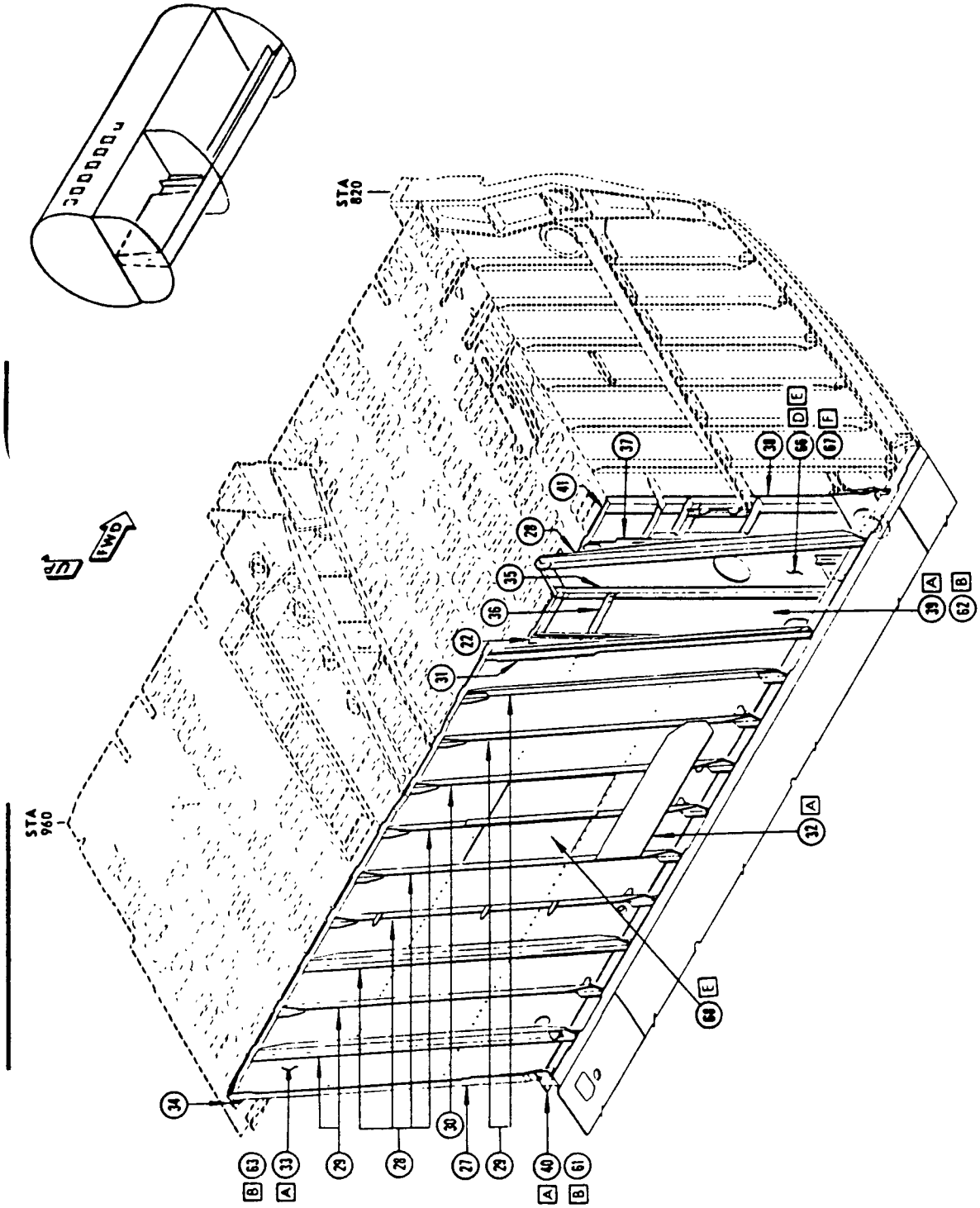
ALL TURBOJET AIRPLANES



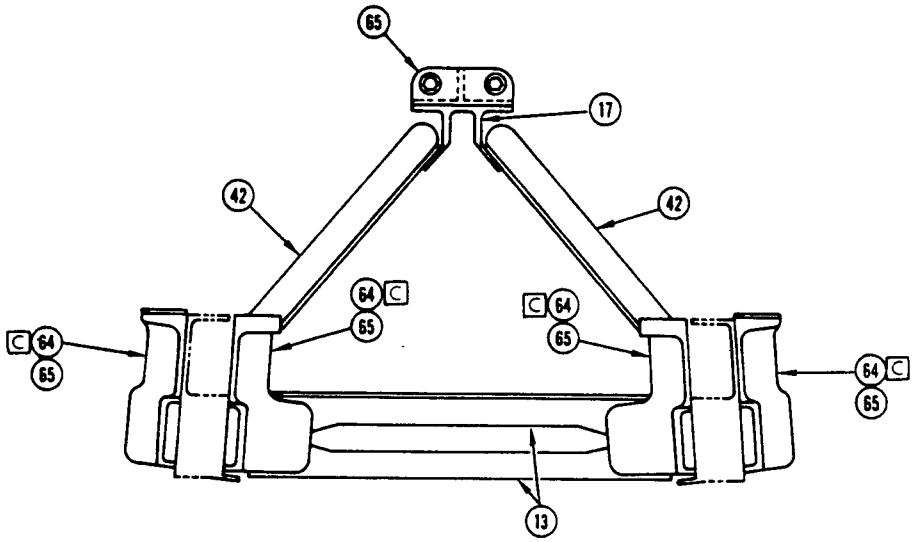
Keel Beam Structure Identification - Station 600K-960
Figure 4 (Sheet 4)



Keel Beam Structure Identification - Station 600K-960
Figure 4 (Sheet 5)

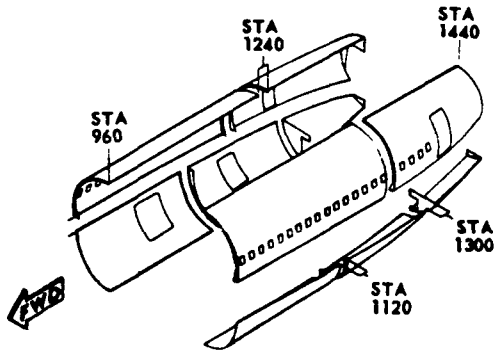


Keel Beam Structure Identification - Station 600K-960
Figure 4 (Sheet 6)



DETAIL I

Keel Beam Structure Identification - Station 600K-960
Figure 4 (Sheet 7)



ITEM	MATERIAL	REPAIR FIG. NO.
1	BAC1517-1004 7075-T6	53-3-5 FIG. 1&4
2	0.071 7075-T6	53-3-5 FIG. 2&3
3	BAC1490-2770 7075-T6	53-3-5 FIG. 2&3
4	BAC1514-123 7075-T6	
5	0.063 CLAD 7075-T6	53-3-5 FIG. 2, 3&6
6	BAC1490-2763 7075-T6	53-3-5 FIG. 2&3
7	BAC1517-1062 7075-T6 CLAD	53-3-5 FIG. 1, 2,3&4
8	0.071 CLAD 7075-T6	53-3-5 FIG. 2&3
9	BAC1490-2685 7075-T6	53-3-5 FIG. 2&3
10	BAC1517-1163 7075-T6 CLAD	53-3-5 FIG. 1&4
11	BAC1490-2690 7075-T6 CLAD	53-3-5 FIG. 2&3
12	0.056 CLAD 7075-T6	53-3-5 FIG. 2&3
13	AND10136-2001 7075-T6	
14	AND10137-1604 7075-T6	
15	BAC1493-209 7075-T6 CLAD	51-14-3 FIG. 1
16	BAC1514-1387 2024-T42	
17	AND10133-1002 7075-T6	51-14-4 FIG. 1
18	BAC1509-100125 7075-T6	51-14-4 FIG. 1
19	0.050 CLAD 7075-T6	53-3-5 FIG. 2&3
20	BAC1490-2506 7075-T6	53-3-5 FIG. 2&3
21	BAC1505-100255 7075-T6	
22	AND10137-1111 7075-T6	

ITEM	MATERIAL	REPAIR FIG. NO.
23	BAC1490-2760 7075-T6 CLAD	
24	0.025 CLAD 7075-T6	51-14-2 FIG. 1
25	BAC1517-1162 7075-T6	
26	BAC1517-1164 7075-T6 CLAD	53-3-5 FIG. 1&4
27	BAC1490-2527 7075-T6 CLAD	53-3-5 FIG. 2&3
28	AND10136-2004 7075-T6	
29	0.080 CLAD 7075-T6	
30	AND10135-1401 7075-T6	51-14-4 FIG. 1
31	BAC1490-2740 7075-T6 CLAD	53-3-5 FIG. 2&3
32	0.040 CLAD 7075-T6	51-14-2 FIG. 1
33	BAC1517-1194 7075-T6	53-3-5 FIG. 1&4
34	BAC1517-1193 7075-T6	53-3-5 FIG. 1&4
35	BAC1517-205 7075-T6	51-14-4 FIG. 1
36	AND10135-1201 7075-T6	51-14-4 FIG. 1
37	AND10137-2004 7075-T6	51-14-4 FIG. 1
38	BAC1517-1157 7075-T6	

ITEM	MATERIAL	REPAIR FIG. NO.
39	0.032 CLAD 2024-T4	
40	FORGING 7075-T6	
41	BAC1514-1388 2024-T42	
42	AND10134-1006 7075-T6	51-14-4 FIG. 1
43	BAC1509-100027 7075-T6	
44	BAC1509-100118 7075-T6	51-14-4 FIG. 1
45	BAC1506-937 2024-T42	
46	0.112 7178-T6	51-14-2 FIG. 1
47	BAC1517-1365 7075-T6	
48	BAC1517-1366 7075-T6	
49	0.045 CLAD 7075-T6	51-14-2 FIG. 1
50	AND10137-1012 7075-T6	
51	AND10136-2005 7075-T6	51-14-4 FIG. 1
52	BAC1490-2645 7075-T6	
53	AND10136-2003 7075-T6	
54	AND10137-1110 7075-T6	

ITEM	MATERIAL	REPAIR FIG. NO.
55	BAC1493-188 CLAD 7075-T6	51-14-3 FIG. 1
56	BAC1517-706 7075-T6	53-3-5 FIG. 1,4
57	BAC1517-1256 7075-T6	53-3-5 FIG. 1,4
58	BAC1517-1004 7075-T6 CLAD	53-3-5 FIG. 1,4
59	0.063 CLAD 7075-T6	
60	0.090 CLAD 7075-T6	
61	0.050 CLAD 7075-T6	
62	0.063 CLAD 7075-T6	
63	BAC1506-43 7075-T6	51-14-4 FIG. 1
64	0.063 2024-T42	
65	BAC1511-3720 2024-T3511	
66	BAC1511-3786 2024-T3511	
67	0.040 CLAD 2024-T42	
68	WINDOW FRAME ATTACHMENT FITTING FORGING 7079-T6	
69	WINDOW FRAME ATTACHMENT FITTING FORGING 7075-T73	

ITEM	MATERIAL	REPAIR FIG. NO.
70	0.040 CLAD 2024-T42 OPTIONAL: 0.040 CLAD 2024-T3	
71	INTERCOSTAL 0.056 CLAD 7075-T6 FRAME CLIP 0.063 CLAD 7075-T6	
72	APU PARTITION BULKHEAD OUTER CHORD: AND10136-2401 2024-T42 SIDE WEBS: 0.040 CLAD 2024-T3 LOWER WEB: 0.063 CLAD 2024-T3 INNER CHORD: AND10138-2003 2024-T3511	
73	APU PARTITION DOORS NONMETALLIC HONEYCOMB SANDWICH SKINS: BMS 8-79, TYPE 181, 3 PLY CORE: BMS 8-124, CLASS IV, TYPE V, GRADE 3	
74	APU PARTITION CEILING BEAM UPPER CHORD: AND10133-1203 2024-T3511 LOWER CHORD: AND10138-2003 2024-T3511 WEB: 0.040 CLAD 2024-T3	

Section 46 Structure Identification
Figure 5 (Sheet 3)

ITEM	MATERIAL	REPAIR FIG. NO.
75	INTERCOSTAL 0.063 CLAD 7075-T6 FRAME CLIP AND10136-2007 2024-T3511	
76	SHEAR TIE BAC1505-100350 7075-T6511	
77	GLASS FABRIC REINFORCED EPOXY RESIN SANDWICH 3-PLY SKINS BMS 8-79, TYPE 181 NONMETALLIC HONEYCOMB CORE BMS 8-124, CLASS IV, TYPE V, GRADE 3.0	
78	FRAME 0.063 CLAD 7075-T6	53-3-5 FIG. 2, 3 & 6
79	WEB 0.010 7075-T6	
80	UPPER CHORD BAC1503-100416 2024-T42	51-14-4 FIG. 1
81	LOWER CHORD BAC1503-100511 7075-T6	51-14-4 FIG. 1
82	INTERCOSTAL 0.063 7075-T6	
83	STANCHION AND10137-3002 7075-T6	51-14-4 FIG. 1
84	FRAME 0.063 CLAD 7075-T6	53-3-5 FIG. 2, 3 & 6
85	FLOOR SUPPORT 0.063 CLAD 7075-T6	
86	ANGLE BAC1490-2763 7075-T6	
87	FRAME 0.071 CLAD 7075-T6	53-3-5 FIG. 2, 3 & 6
88	SPLICE STRAP 0.125 CLAD 7075-T6	
89	SPLICE STRAP 0.112 CLAD 7075-T6	
90	ANGLE BAC1490-2734 7075-T6	
91	CHANNEL 0.125 CLAD 7075-T6	
92	CLIP 0.063 7075-T6	
93	INTERCOSTAL 0.090 7075-T6	
94	ANGLE AND10134-1405 7075-T6	
95	WEB 0.090 7075-T6	
96	INNER ANGLE 0.160 7075-T6	
97	OUTER ANGLE 0.250 CLAD 7075-T6	

Section 46 Structure Identification
Figure 5 (Sheet 4)

ITEM	MATERIAL	REPAIR FIG. NO.
98	CLIP CLAD 0.090 7075-T6	
99	FRAME BAC1517-1193 7075-T6	
100	ANGLE CLAD 0.071 7075-T6	
101	ANGLE BAC1490-2736 CLAD 7075-T6	
102	CLIP CLAD 0.071 7075-T6	
103	INTERCOSTAL 0.125 7075-T6	
104	BRACKET CLAD 0.080 7075-T6	
105	FRAME BAC1517-1193 7075-T6	
106	ANGLE BAC1489-264 7075-T6	
107	SHEAR TIE 0.056 CLAD 7075-T6	
108	SUPPORT CLAD 0.040 7075-T6	
109	BULB ANGLE BAC1504-8176 7075-T6511	

ITEM	MATERIAL	REPAIR FIG. NO.
110	CREASE BEAM 0.100 7075-T6	
111	ANGLE BAC1489-264 7075-T6	
112	ANGLE BAC1490-2736 7075-T6	
113	SHEAR TIE 0.071 7075-T6	
114	CHORD AND10134-2006 7075-T6511	
115	DOUBLER 0.025 CLAD 7075 T6	
116	DOUBLER 0.125 7075-T6	
117	WEB 0.032 CLAD 7075-T6	
118	CHORD ANGLE BAC1490-2738 2024-T42	
119	CHORD ANGLE BAC1490-2754 2024-T42	
120	STIFFENER AND10133-1001 7075-T6511	
121	DOUBLER 0.040 CLAD 7075-T6	

ITEM	MATERIAL	REPAIR FIG. NO.
122	TEE CLIP AND10136-3003 7075-T6511	
123	STIFFENER BAC1503-100096 7075-T6511	
124	BOTTOM FRAME 0.071 CLAD 7075-T6	
125	ANGLE BAC1490-2763 7075-T6	
126	CHANNEL 0.063 2024-T42	
127	WEB 0.063 2024-T42	
128	CHORD AND10136-2004 7075-T6	
129	SUPPORT BRACKET 0.063 CLAD 7075-T6	
130	BOTTOM FRAME 0.063 7075-T6	
131	ANGLE BAC1490-2734 7075-T6	
132	FRAME 0.063 CLAD 7075-T6	
133	FRAME 0.071 CLAD 7075-T6	
134	STRAP 0.100 7075-T6	
135	STRAP 0.125 7075-T6	
136	FRAME BAC1517-1193 7075-T6	
137	SHEAR TIE 0.056 CLAD 7075-T6	
138	STIFFENER AND10134-1407 7075-T6 OR 7075-T6511	
139	STIFFENER AND10134-1206 7075-T6 OR 7075-T6511	
140	STIFFENER BAC1509-100411 7075-T6	
141	STIFFENER BAC1518-221 7075-T6 OR 7075-T6511	
142	PLATE 0.080 7075-T6	
143	WEB 0.063 7075-T6	
144	ANGLE BAC1503-100039 7075-T6	
145	ANGLE TIE AND10134-1603 7075-T6 OR 7075-T6511	

ITEM	MATERIAL	REPAIR FIG. NO.
146	GUSSET CLAD 0.063 7075-T6	
147	ANGLE-ATTACH 0.080 7075-T6	
148	ANGLE AND10134-1406 7075-T6 OR 7075-T6511	
149	SUPPORT BRACKET 0.063 7075-T6	
150	CHANNEL 0.090 7075-T6	
151	ANGLE CHORD 0.090 7075-T6	
152	TEE INTERCOSTAL AND10136-2001 2024-T42 OR 7075-T6 OR 7075-T6511	
153	WEB 0.063 CLAD 2024-T3	
154	INTERCOSTAL 0.063 2024-T42	
155	VERTICAL BEAM BAC1506-2795 7075-T6 OR 7075-T6511	
156	INTERCOSTAL 0.056 CLAD 2024-T42	
157	INTERCOSTAL 0.050 CLAD 2024-T42	
158	CHORD ANGLE 0.080 CLAD 2024-T42	
159	INTERCOSTAL 0.040 CLAD 2024-T42	
160	CHANNEL BAC1493-207 CLAD 7075-T6	
161	BEAM BAC1493-333 7075-T6	
162	CHORD-LOWER AND10134-1602 7075-T65	
163	WEB CLAD 0.080 2024-T3	
164	REINFORCING PLATE 0.18 7075-T6	
165	CHANNEL CLAD 0.071 7075-T6	
166	STIFFENER BAC1490-2699 CLAD 7075-T6	
167	CHANNEL BAC1495-270 CLAD 7075-T6	
168	CHANNEL BAC1493-33 7075-T6	
169	ANGLE-STIFFENER BAC1490-2583 7075-T6	

ITEM	MATERIAL	REPAIR FIG. NO.
170	ANGLE SPLICE AND10134-1206 7075-T65	
171	ZEE CHORD REINFORCE AND10139-2009 7075-T65	
172	PLATE-CHORD 0.190 7075-T6	
173	WEB CLAD 0.050 2024-T3	
174	ANGLE CHORD BAC1503-100082 7075-T6	
175	ANGLE CHORD BAC1514-234 7075-T6	
176	BEAM BAC1517-1104 2024-T42	
177	CHORD-AFT AND10134-1604 7075-T65	
178	CHORD-FWD AND10133-1202 7075-T65	
179	STIFFENER-TEE AND10136-2005 7075-T65	
180	CHORD-TEE AND10136-2002 7075-T65	
181	STIFFENER-TEE AND10136-3005 7075-T65	
182	STIFFENER-TEE AND10136-2401 7075-T65	
183	TEE AND10136-2005 7075-T65	
184	OUTER CHORD 0.125 2024-T42	
185	FRAME FITTING BAC1518-555 7075-T73	
186	ANGLE BAC1490-2721 CLAD 7075-T6	
187	STIFFENER ANGLE BAC1503-10874 7075-T65	
188	CHORD ANGLE BAC1503-7395 7075-T65	
189	CHORD ANGLE BAC1503-100383 7075-T65	
190	STIFFENER ANGLE AND10133-1003 7075-T65	
191	CHORD-UPPER AND10134-3004 7075-T6511	
192	WEB 0.040 CLAD 7075-T6	
193	DOUBLER 0.25 7075-T651	

Section 46 Structure Identification
Figure 5 (Sheet 8)

ITEM	MATERIAL	REPAIR FIG. NO.
194	SHEAR TIE 0.125 CLAD 7075-T6	
195	WEB-POD 0.040 CLAD 2024-T42	
196	DOUBLER 0.100 7075-T6	
197	STIFFENER AND10136-2403 7075-T6511	
198	CHANNEL BAC1493-476 7075-T6	
199	WEB 0.063 CLAD 7075-T6	
200	CHORD AND10134-2404 7075-T6511	
201	FRAME-FORGING 7075-T73	
202	SHEAR TIE AND10136-2006 7075-T6	
203	SHEAR TIE AND10134-1206 7075-T6	
204	PLATE-SERRATED 0.090 CLAD 2024-T3	
205	HINGE BAC1505-29115 2024-T351	
206	WEB 0.071 2024-T42	
207	SUPPORT AND10194-1602 7075-T6511	
208	CHORD-MAIN AND10136-3004 7075-T6511	
209	TEE AND10136-2008 7075-T6511	
210	ANGLE AND10133-1003 7075-T6511	
211	LOWER CHORD BAC1514-1236 7075-T6	
212	FRAME 0.100 7075-T6	
213	ANGLE AND10133-1403 7075-T6511	
214	CHORD REINFORCE 0.050 7075-T6	
215	STRAP BAC1512-3377 7075-T6511	
216	STRAP 0.125 7075-T6	
217	CLIP 0.050 7075-T6	

ITEM	MATERIAL	REPAIR FIG. NO.
218	ATTACH ANGLE CLAD 0.100 2024-T3	
219	ANGLE AND10134-1206 7075-T6	
220	CHANNEL 0.071 7075-T6	
221	CREASE ANGLE, INNER 0.160 7075-T6	
222	CREASE ANGLE, OUTER 0.250 CLAD 7075-T6	
223	WEB 0.090 7075-T6	
224	FILLER 0.10 7075-T6	
225	ANGLE AND10134-1405 7075-T6511	
226	ANGLE BAC1514-1232 7075-T6511	
227	INTERCOSTAL 0.091 7075-T6	
228	INTERCOSTAL 0.125 7075-T6	

ITEM	MATERIAL	REPAIR FIG. NO.
229	TAPERED FILLER 0.025 7075-T6	
230	ANGLE 0.09 7075-T6	
231	CLIP 0.090 7075-T6	
232	STIFFENER AND10134-1206 7075-T6511	
233	STIFFENER AND10136-2006 7075-T6511	
234	POD WEB 0.040 CLAD 2024-T42	
235	LOWER CHORD BAC1514-1207 2024-T42	
236	SHEAR TIE 0.125 CLAD 7075-T6	
237	SPLICE PLATE 0.313 4340 STEEL 150-170 KSI	
238	SHEAR TIE AND10136-2006 7075-T6	
239	FORGING 7075-T73	

Section 46 Structure Identification
Figure 5 (Sheet 10)

ITEM	MATERIAL	REPAIR FIG. NO.
240	CHORD AND10134-2404 7075-T6511	
241	UPPER CHORD AND10134-3004 7075-T6511	
242	DOUBLER 0.10 CLAD 7075-T6	
243	WEB 0.046 CLAD 7075-T6	
244	WEB 0.063 CLAD 7075-T6	
245	BEAM - J SECTION BAC 1506 - 911 7075 - T6511	
246	ANGLE BAC 1514 - 359 7075 - T6511 OPTIONAL : AND 10134 - 3002	
247	ANGLE AND 10134 - 1404 7075 - T6511	

NOTES

[A] FOR TURBOJET AIRPLANES

[B] FOR TURBOFAN AIRPLANES

[C] FOR ALL CARGO AIRPLANES EXCEPT NW

[D] FOR ALL AIRPLANES NOT LISTED IN

[E] FOR AIRPLANES:
BA ALL
LH ALL
LY ALL
NW ALL
PA 17674, 17677, 17680, 17683, 17686, 17689
TW ALL

[F] FOR AIRPLANES WITH SB 2867 INCORPORATED

[G] FOR CARGO AIRPLANES:
IR 20741
WT 20669

[H] FORGINGS OF 7079-T6 MATERIAL HAVE BEEN REPLACED BY FORGINGS OF 7075-T73 IN PRODUCTION; 7075-T73 FORGINGS ARE RECOMMENDED WHEN EXISTING STOCKS OF 7079-T6 ARE EXHAUSTED

[I] FOR AIRPLANES WITH RADIUS FILLERS AND STRINGER CLIPS INSTALLED BY INCORPORATION OF SB 2862

[J] STRINGER CLIPS ON STRINGERS 1 THRU 9 AT FRAME STATIONS 960M, 960N, 980 AND 1020 THRU 1240 FOR 707-300 AND -400 AIRPLANES WITH SB 2908 INCORPORATED

[K] BETWEEN STATIONS 960N AND 980 AT STRINGERS S-18 AND S-20 THRU S-26 ON RO 20804 ONLY

[L] AT STATION 960N+9.5 ON AIRPLANE RO 20804 ONLY

[M] BETWEEN STRINGERS S-29 AND S-31, STATION 1260 TO STATION 1280 FOR IM AIRPLANES ONLY

[N] FOR AIRPLANES:
IM 20830 THRU 20835

[P] FOR AIRPLANES:
RO 20804, 20805

[Q] FOR STA 980 BULKHEAD ONLY

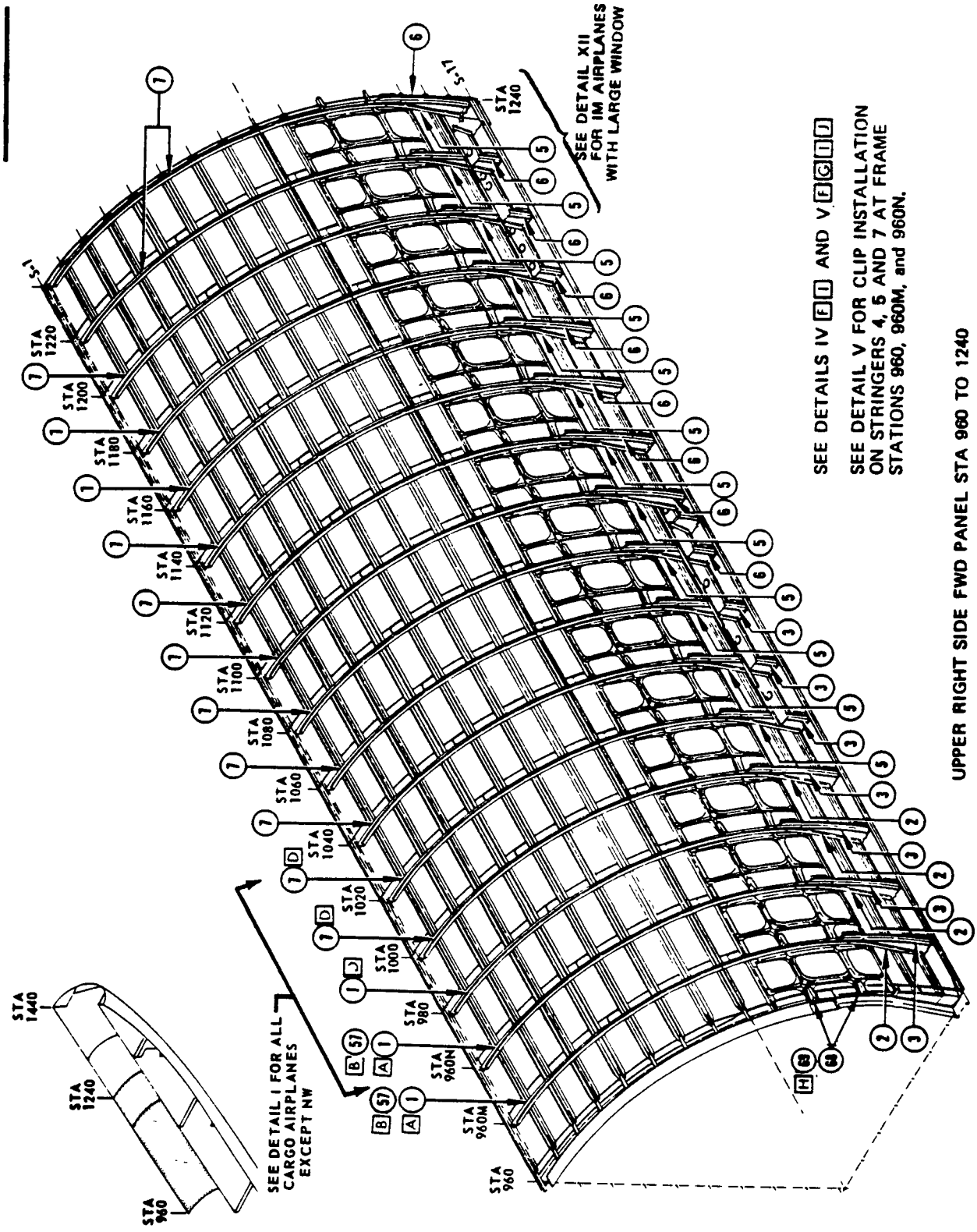
[R] FOR STA 1040 BULKHEAD ONLY

[S] FOR STA 1100 BULKHEAD ONLY

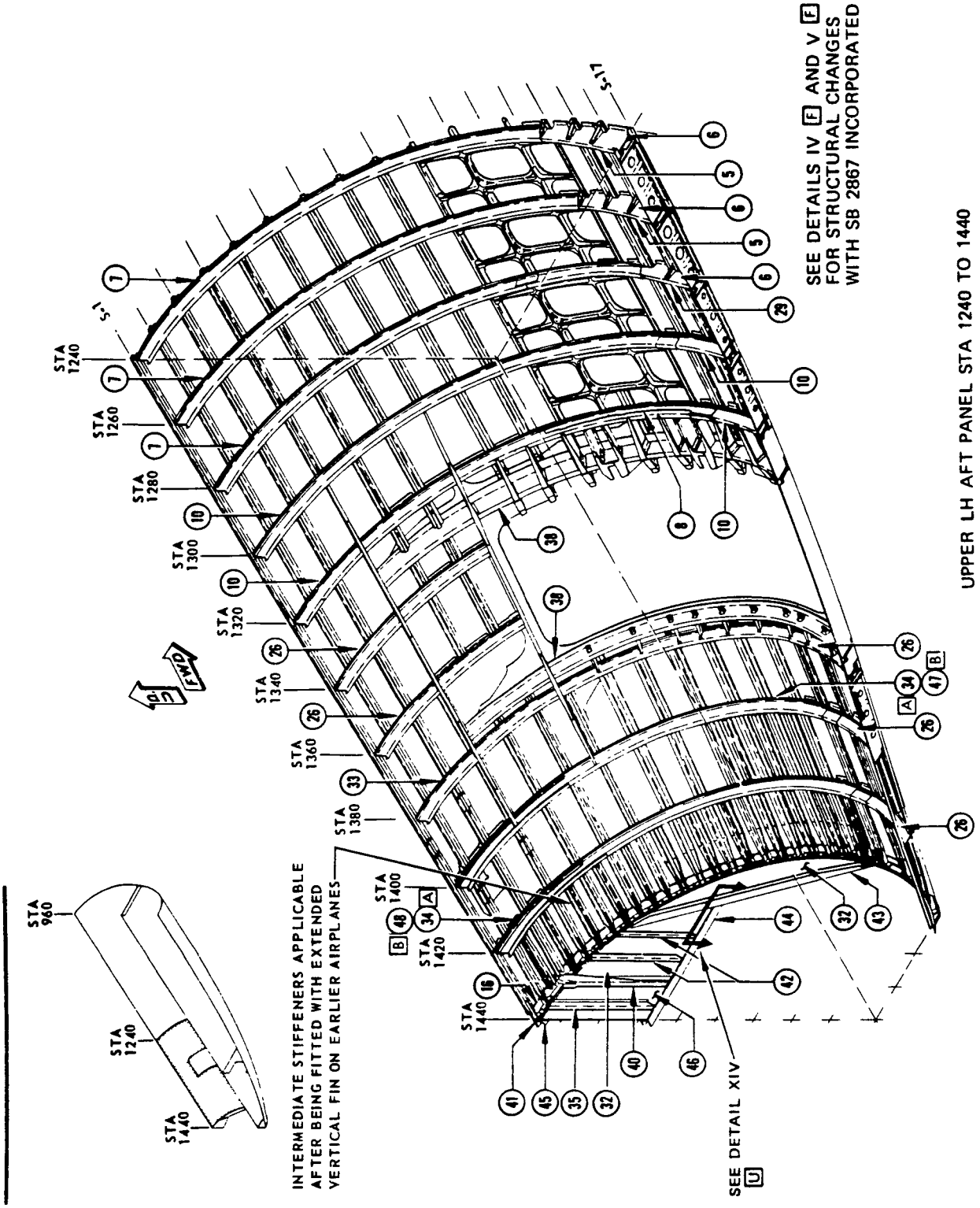
[T] FOR AIRPLANES WITH SB 2866 INCORPORATED

[U] FOR AIRPLANES PROVIDED WITH AFT RESTRAINT PROVISIONS FOR CARGO CONTAINERS

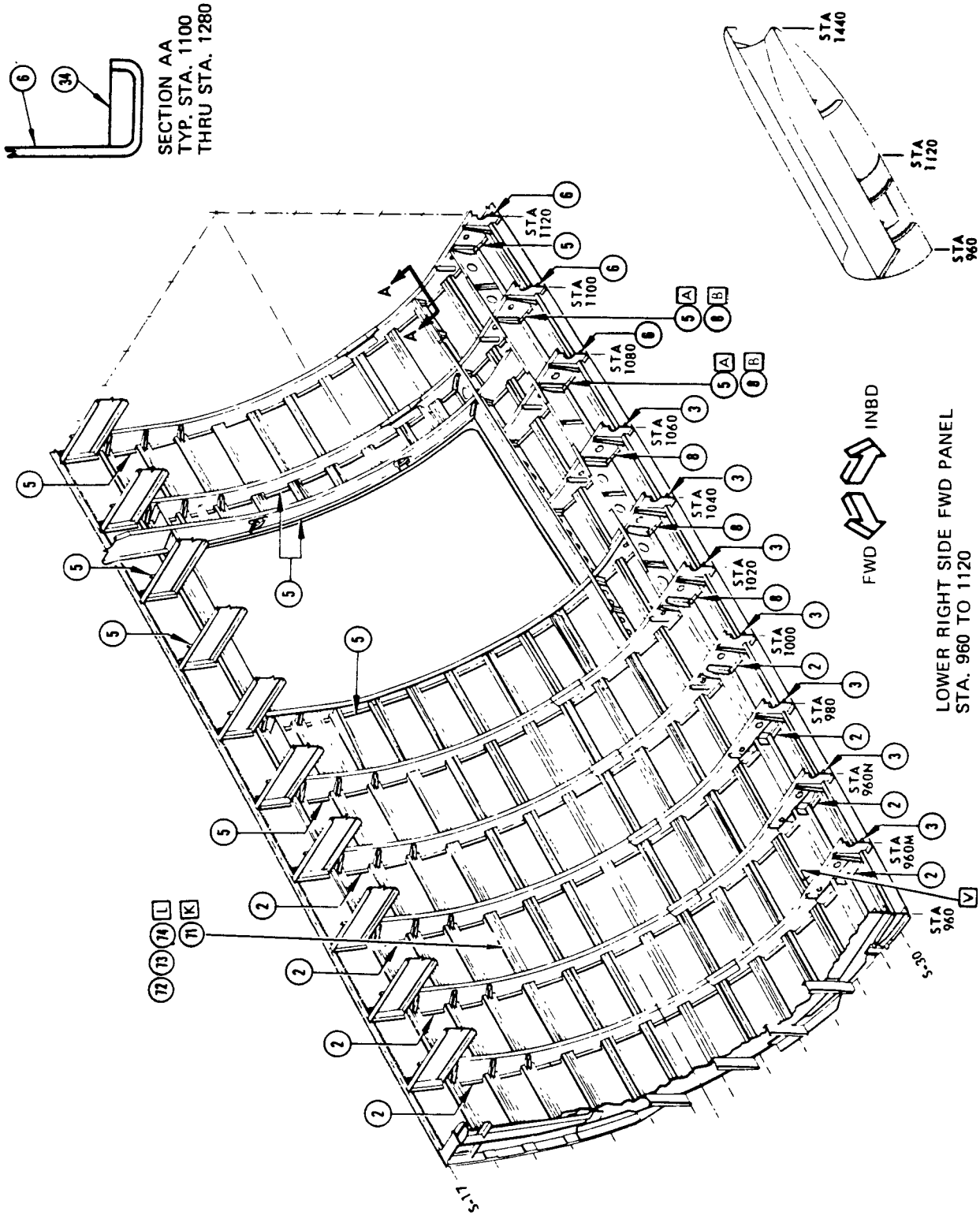
[V] STRUCTURE WILL VARY ON CUM LINE NO. 728 AFTER APU INSTALLATION PER MRW 1681-1-AR13.



Section 46 Structure Identification
Figure 5 (Sheet 11)



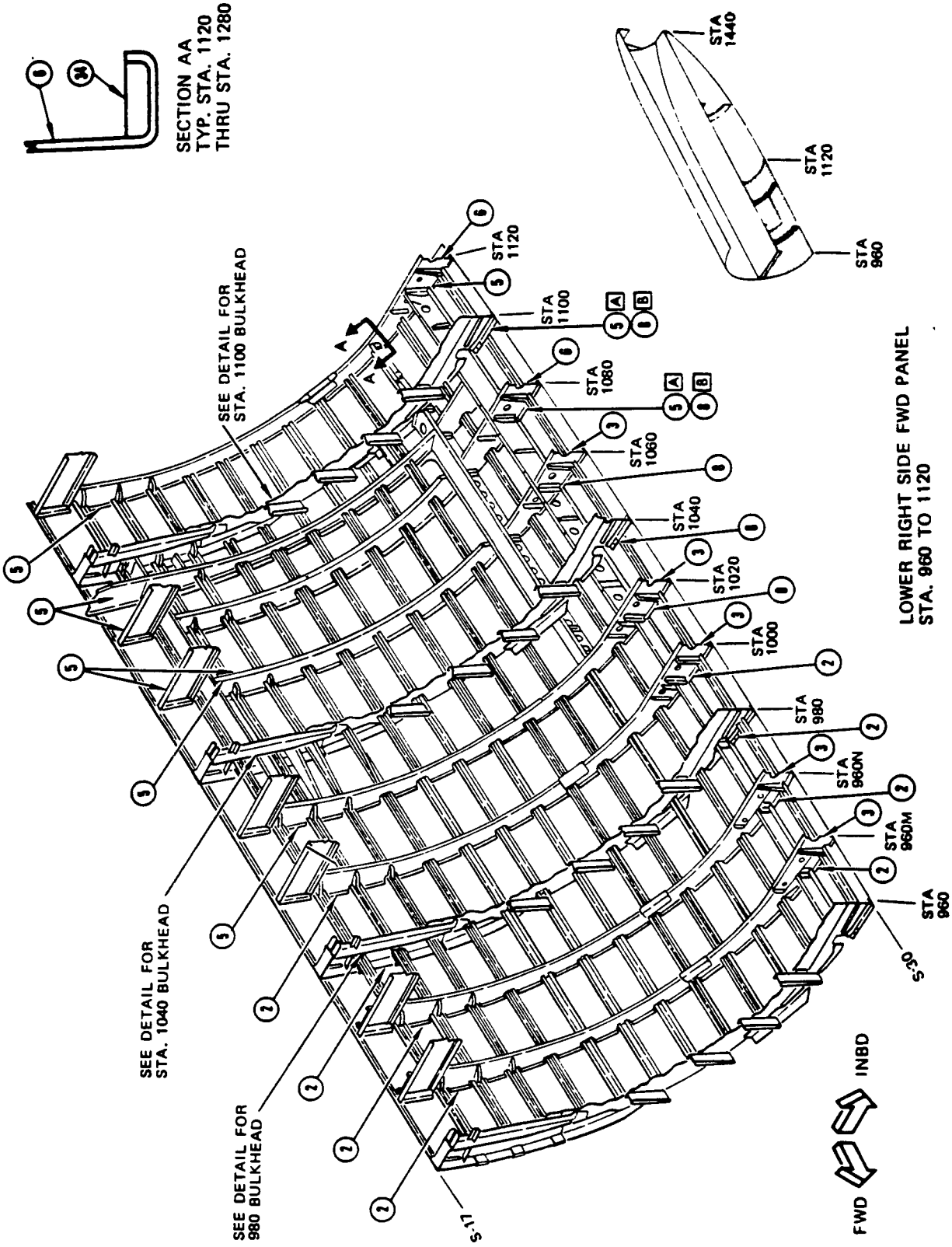
Section 46 Structure Identification
Figure 5 (Sheet 12)



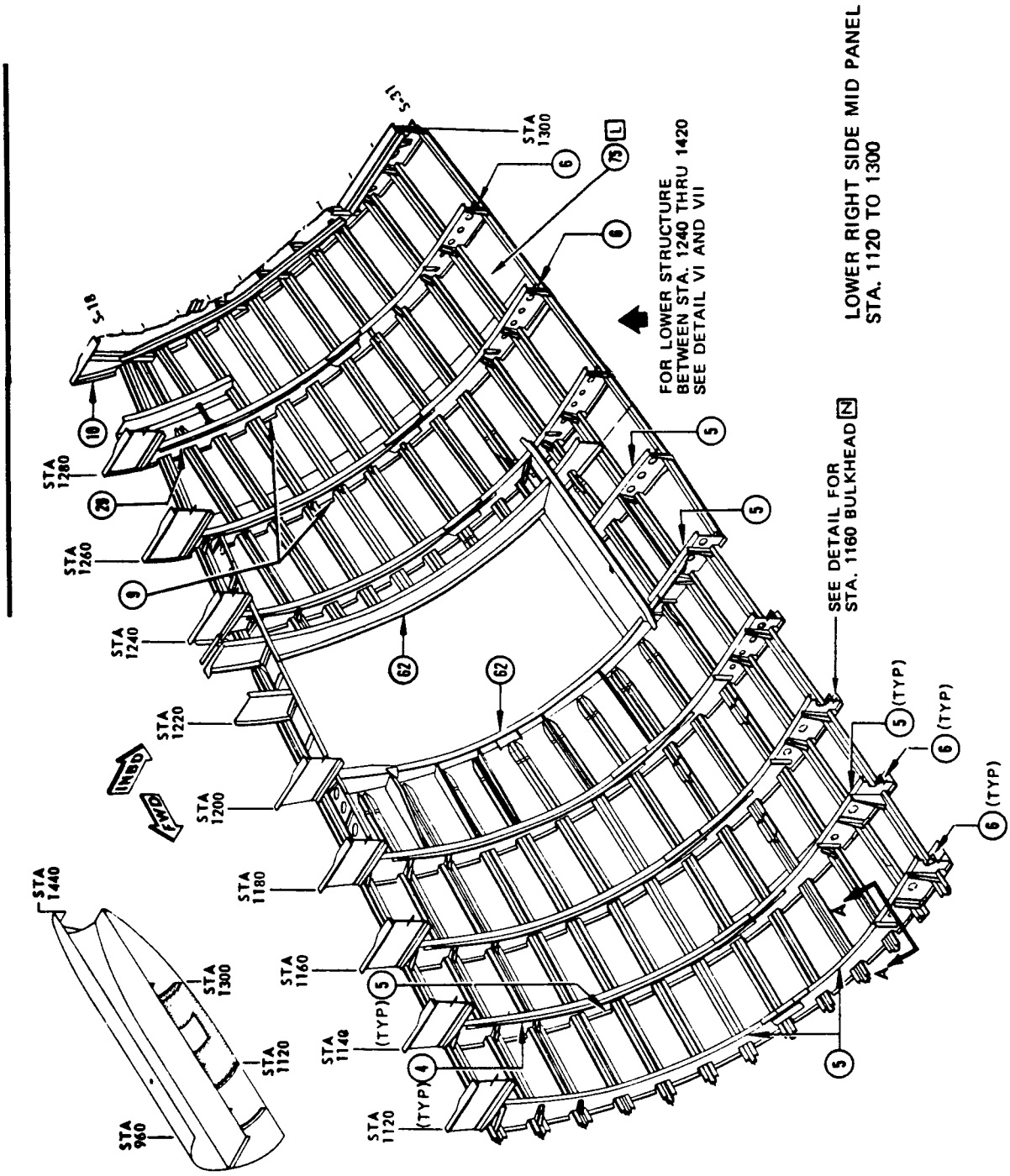
Section 46 Structure Identification
Figure 5 (Sheet 13)

EFFECTIVITY

FOR IM MODEL



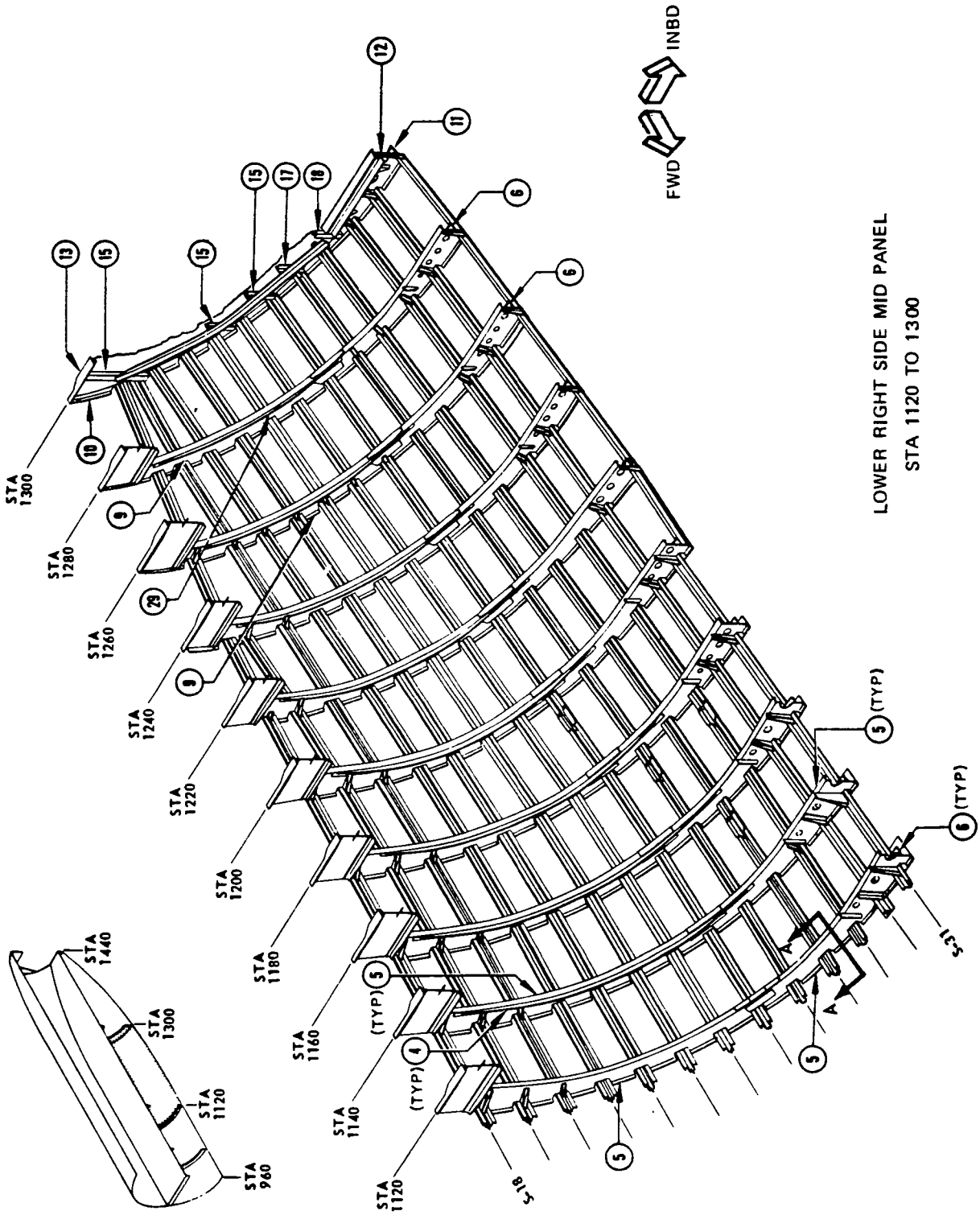
Section 46 Structure Identification
Figure 5 (Sheet 14)



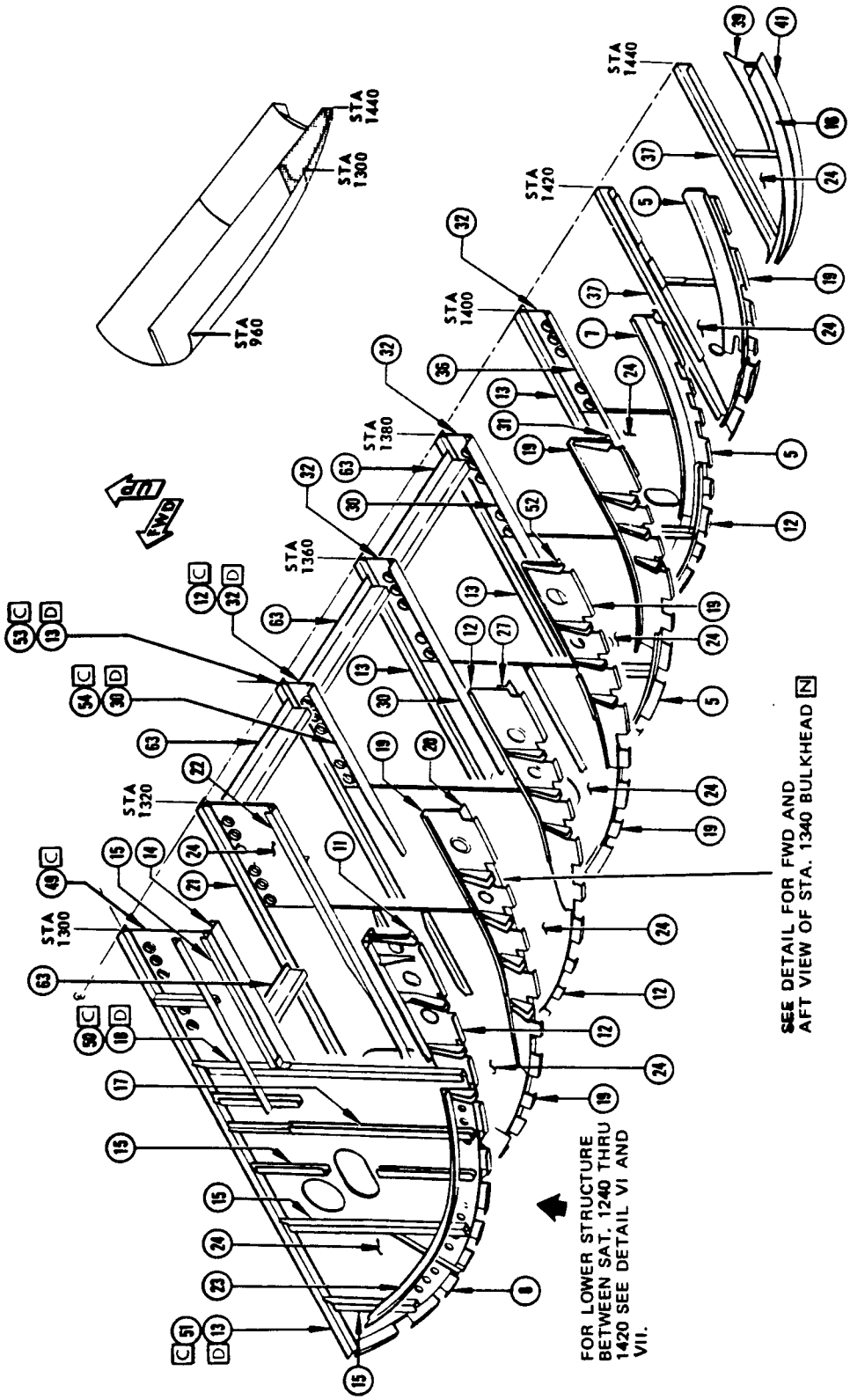
Section 46 Structure Identification
Figure 5 (Sheet 15)

EFFECTIVITY

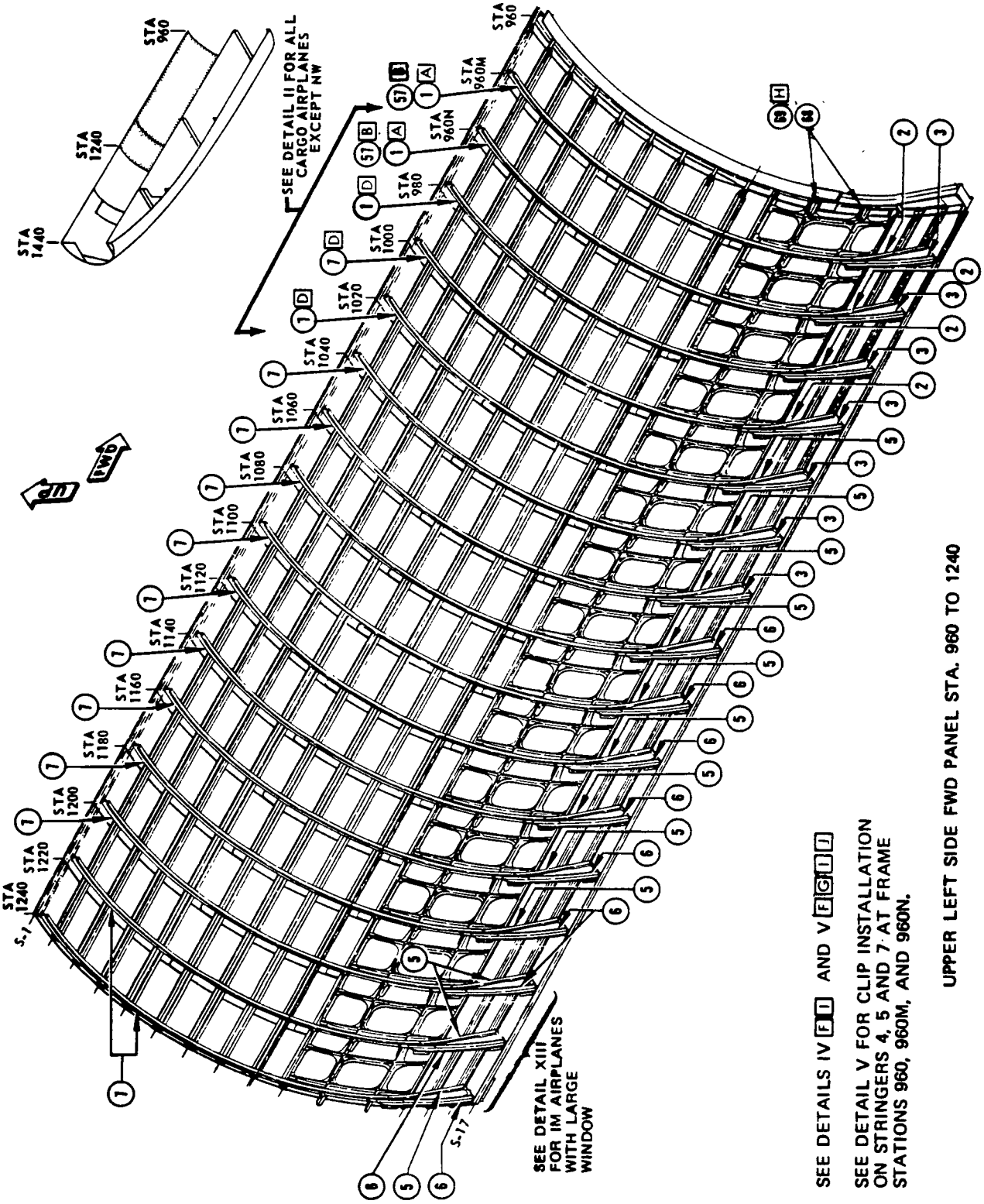
PA 17674, 17677, 17683, 17689 AND TW AIRPLANES ONLY



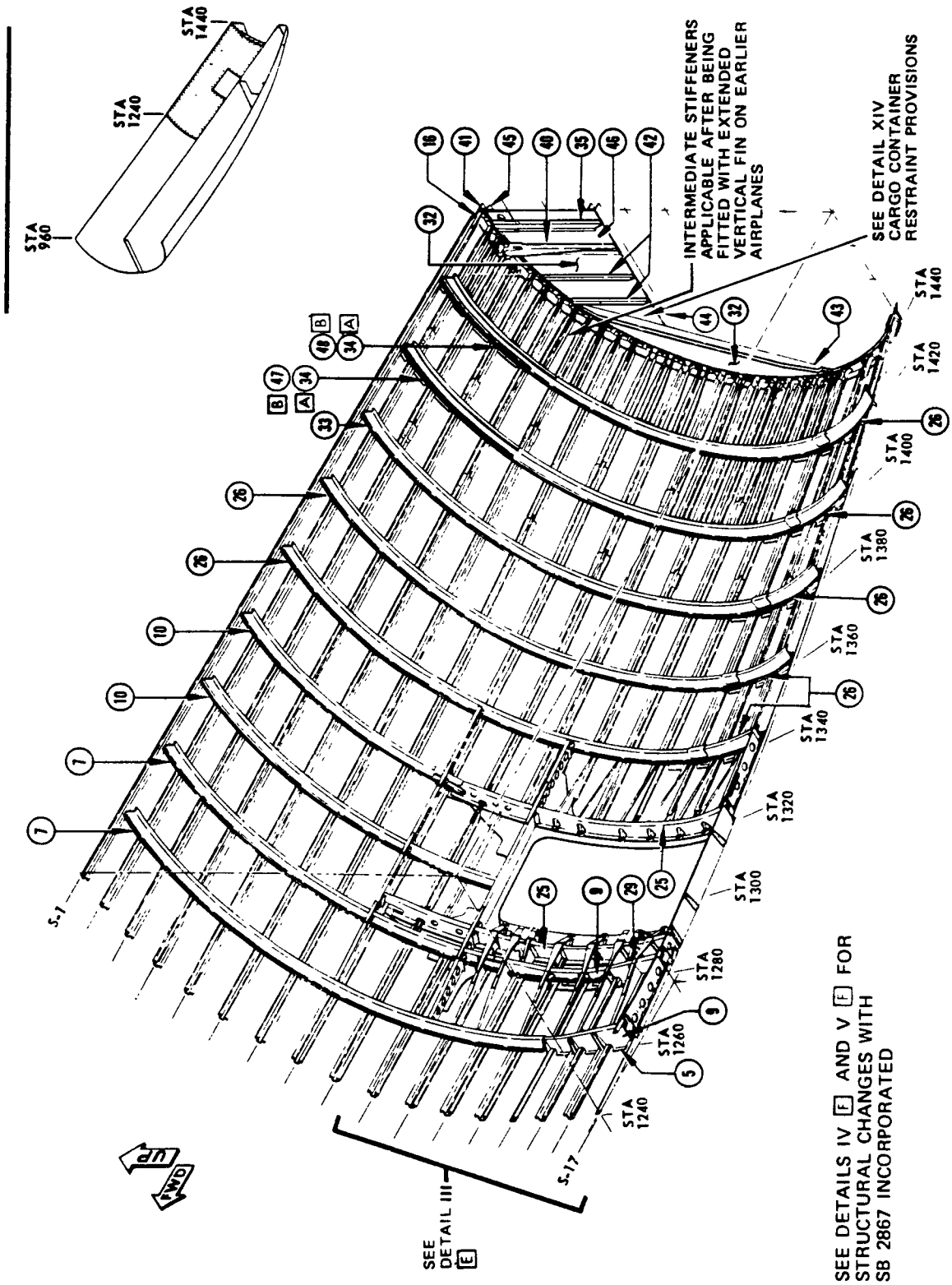
Section 46 Structure Identification
Figure 5 (Sheet 16)



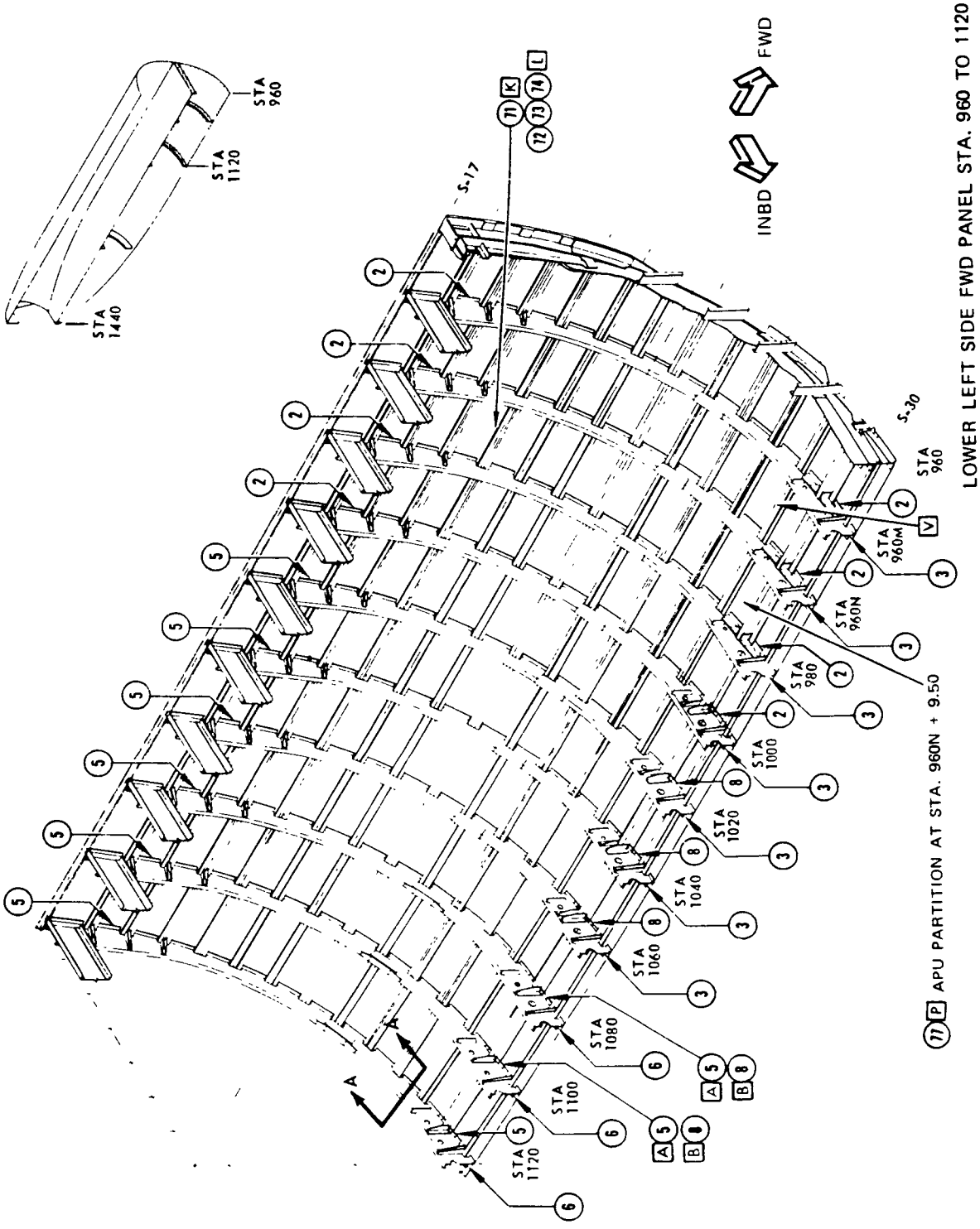
Section 46 Structure Identification
Figure 5 (Sheet 17)



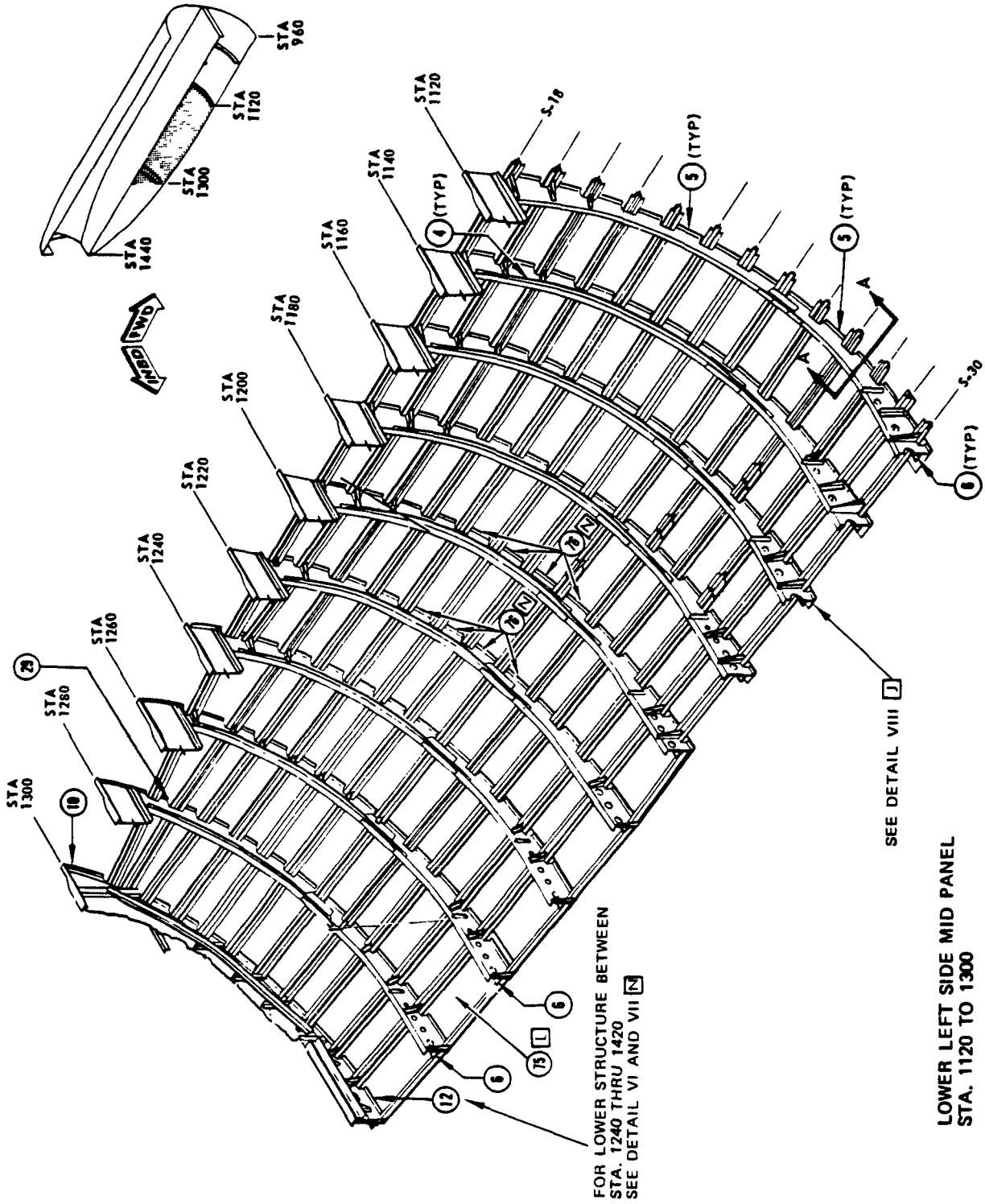
Section 46 Structure Identification
Figure 5 (Sheet 18)



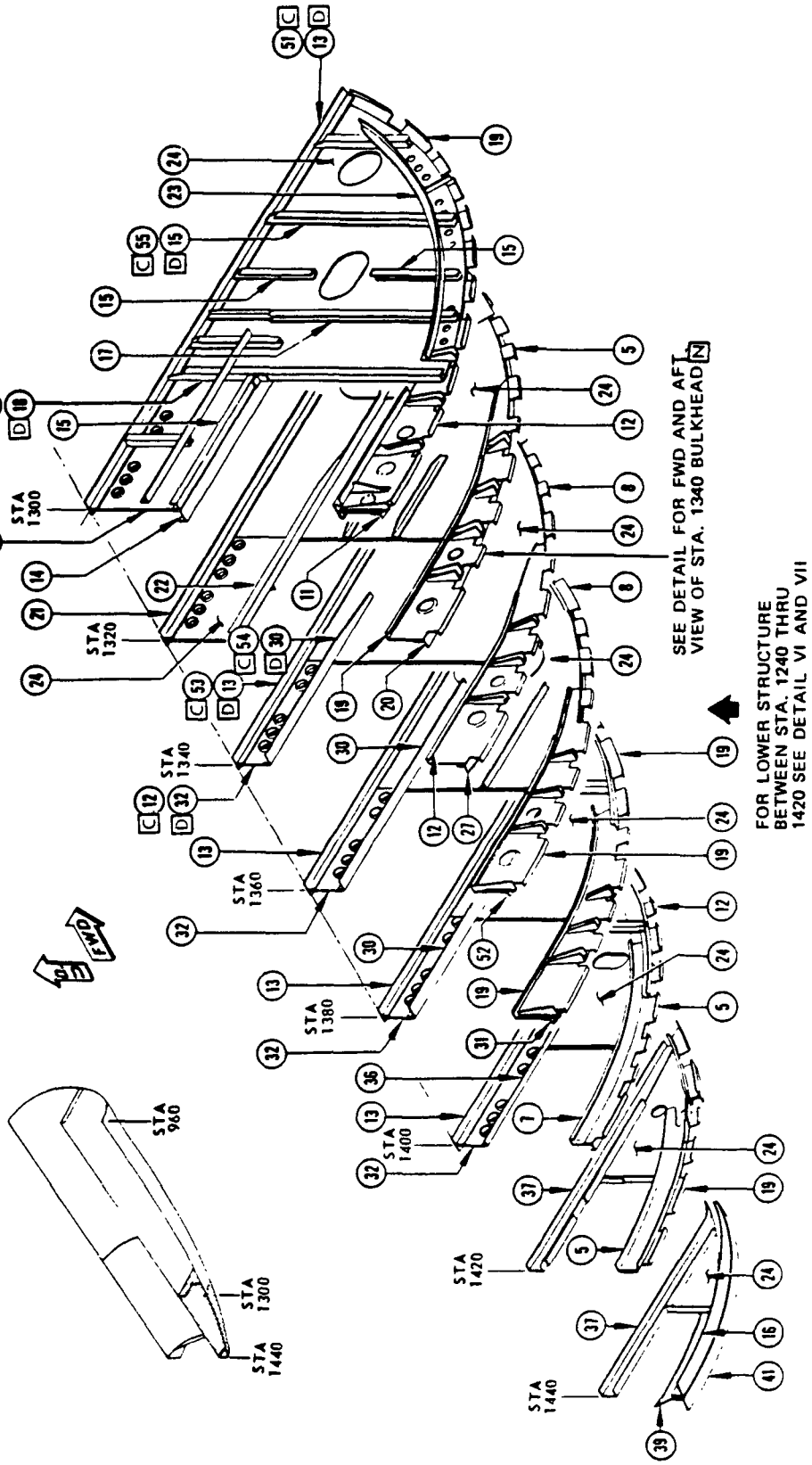
Section 46 Structure Identification
Figure 5 (Sheet 19)



Section 46 Structure Identification
Figure 5 (Sheet 20)

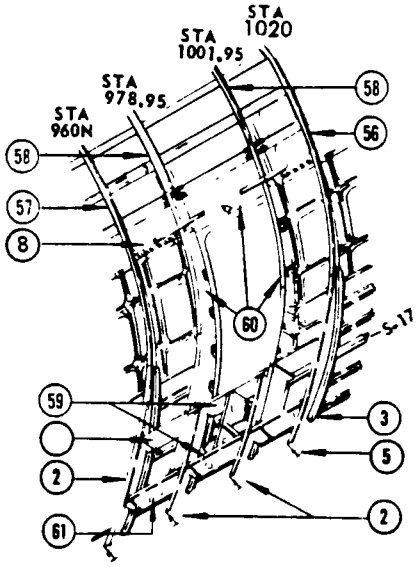


Section 46 Structure Identification
Figure 5 (Sheet 21)

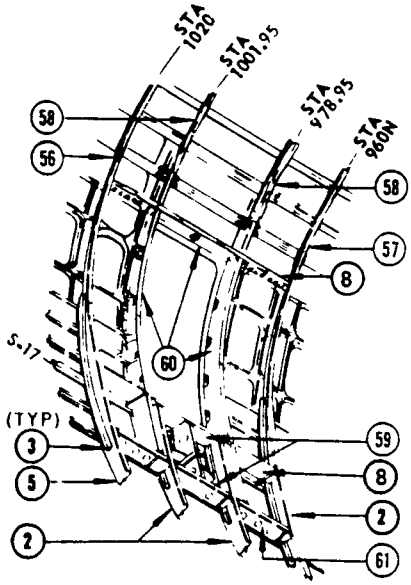


LOWER LEFT SIDE AFT PANEL
STA. 1300 TO 1440

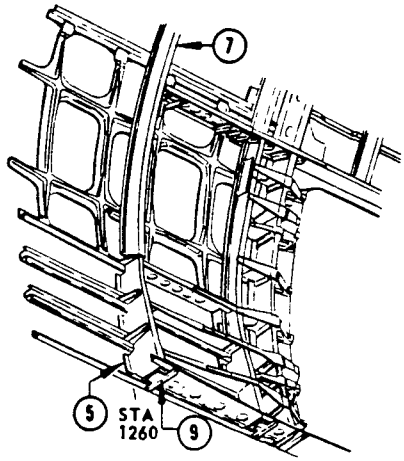
Section 46 Structure Identification
Figure 5 (Sheet 22)



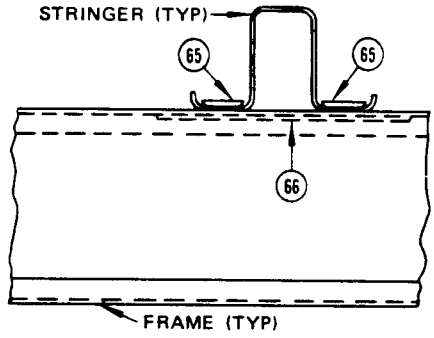
DETAIL I C



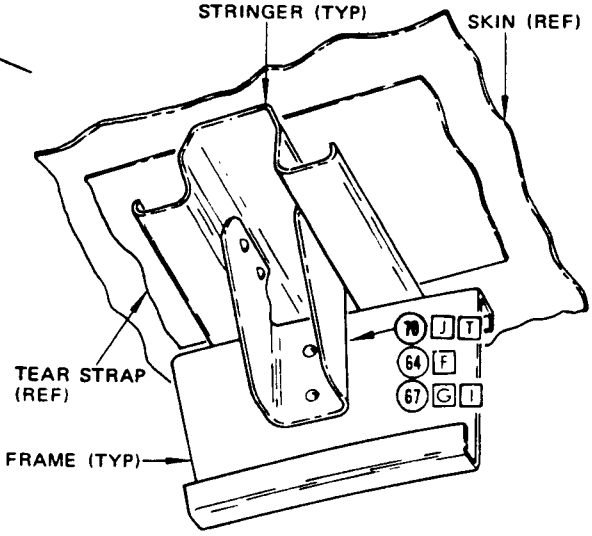
DETAIL II C



DETAIL III E

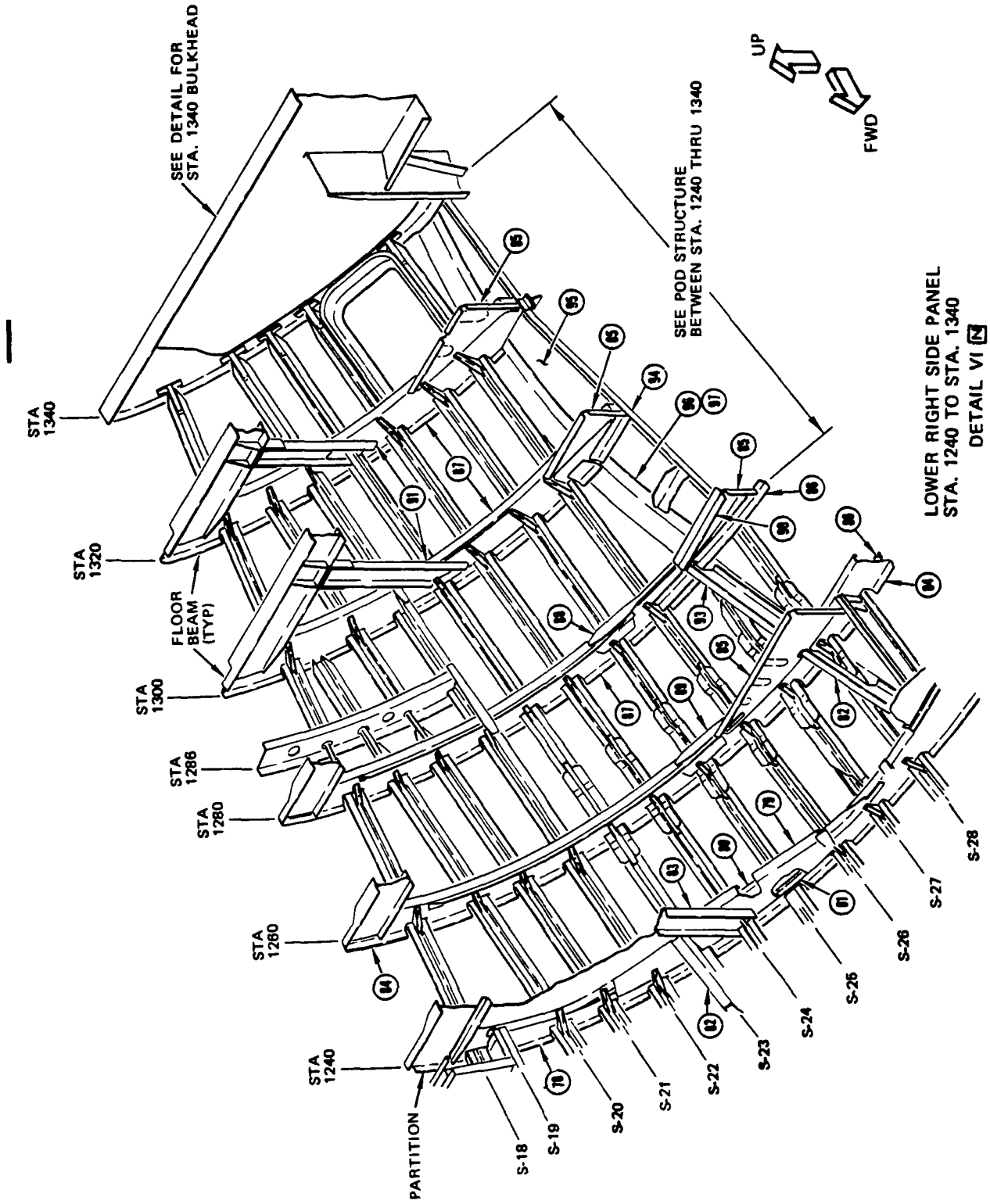


DETAIL IV F I T



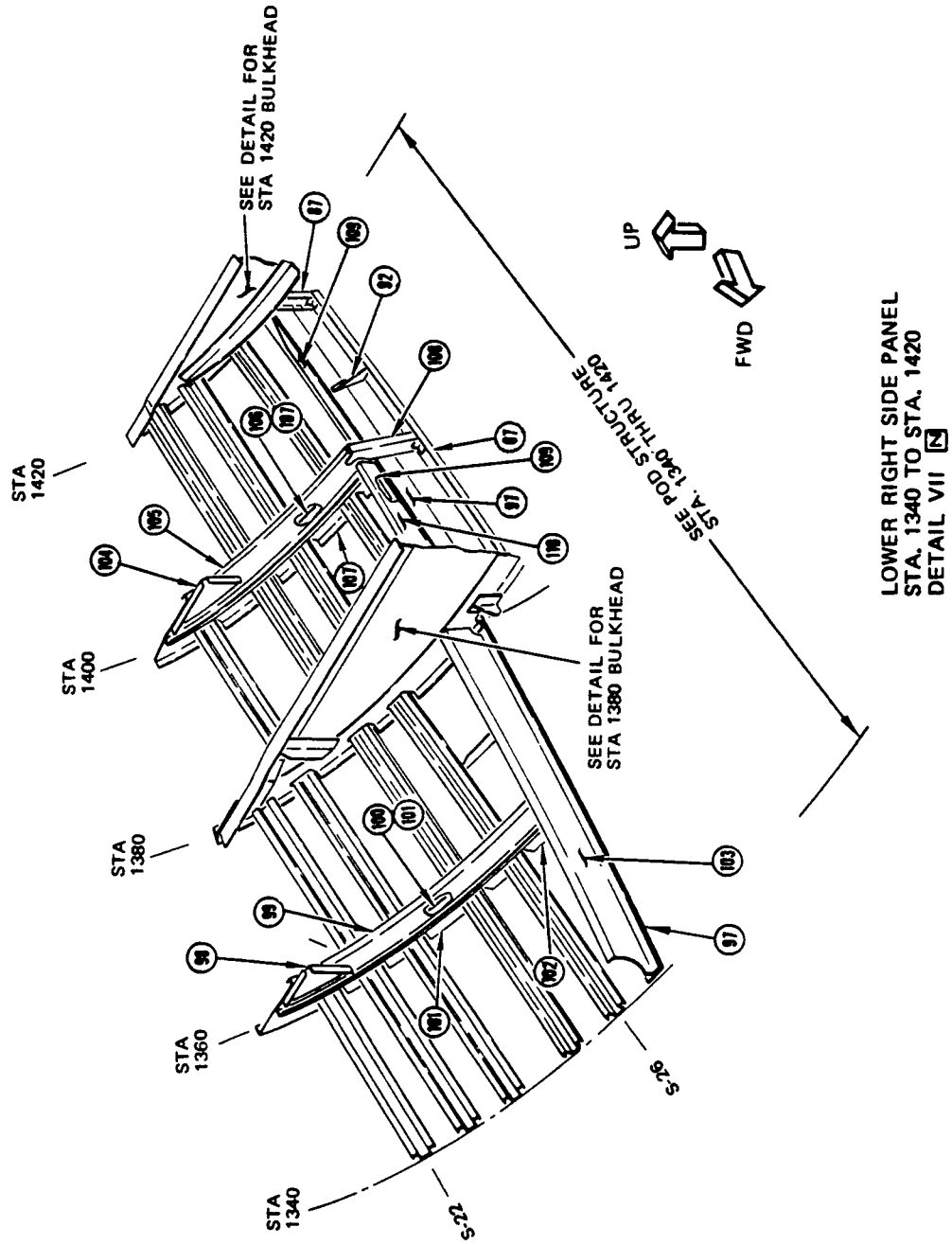
DETAIL V F G I J T

Section 46 Structure Identification
Figure 5 (Sheet 23)

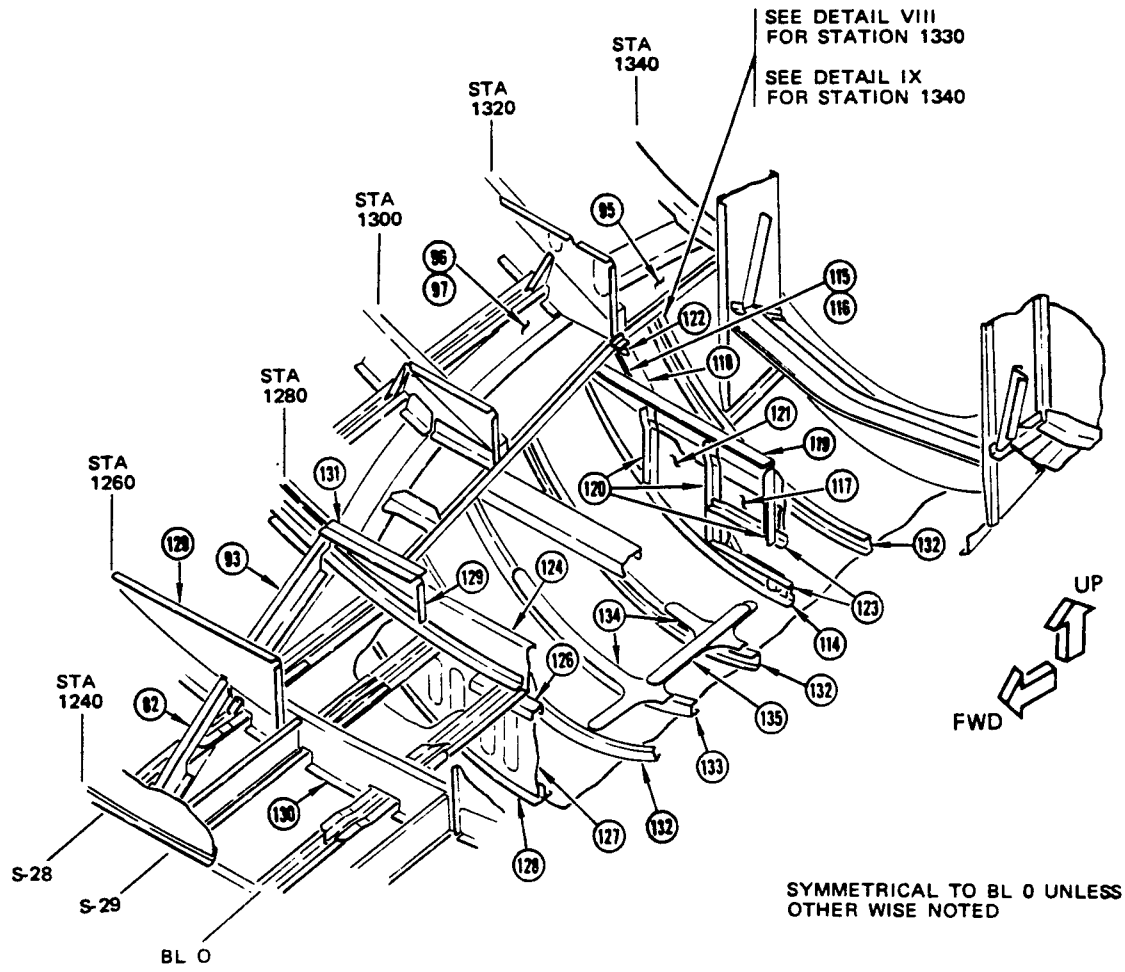


Section 46 Structure Identification
Figure 5 (Sheet 24)

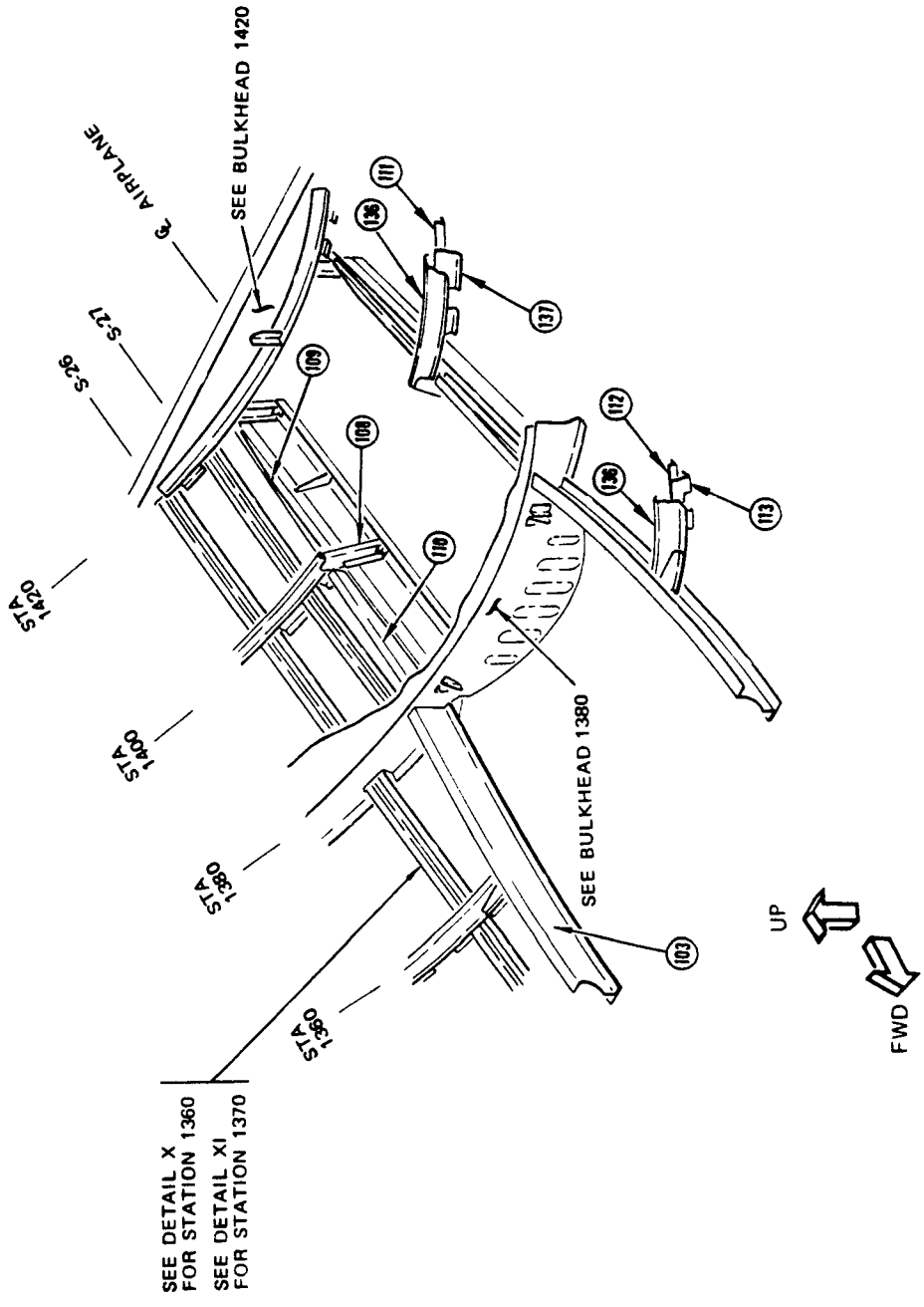
SRM
Jul 10/74



Section 46 Structure Identification
Figure 5 (Sheet 25)

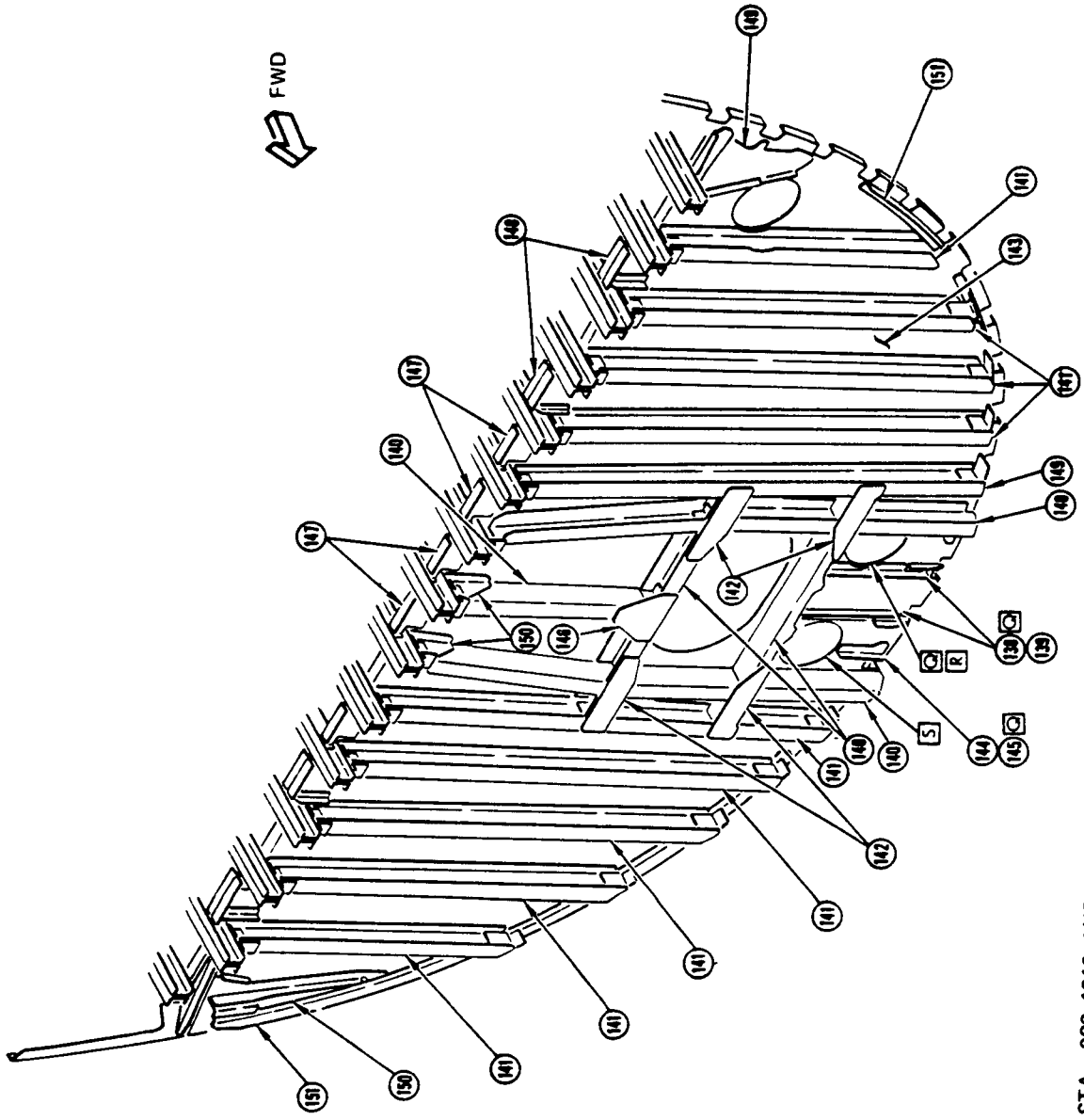


POD STRUCTURE
STA. 1240 THRU 1340



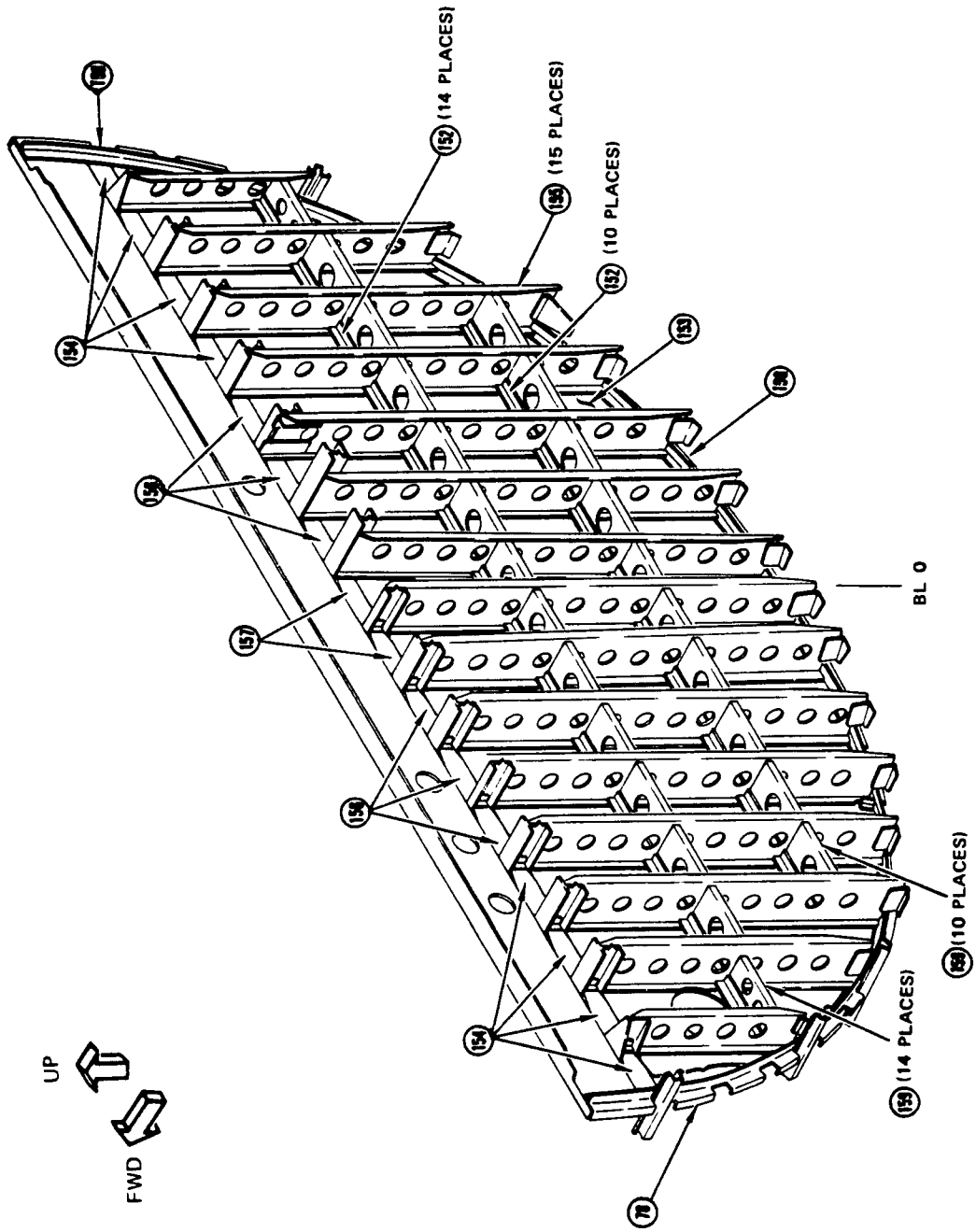
Section 46 Structure Identification
Figure 5 (Sheet 27)

REF DWG
65-87290
65-87291



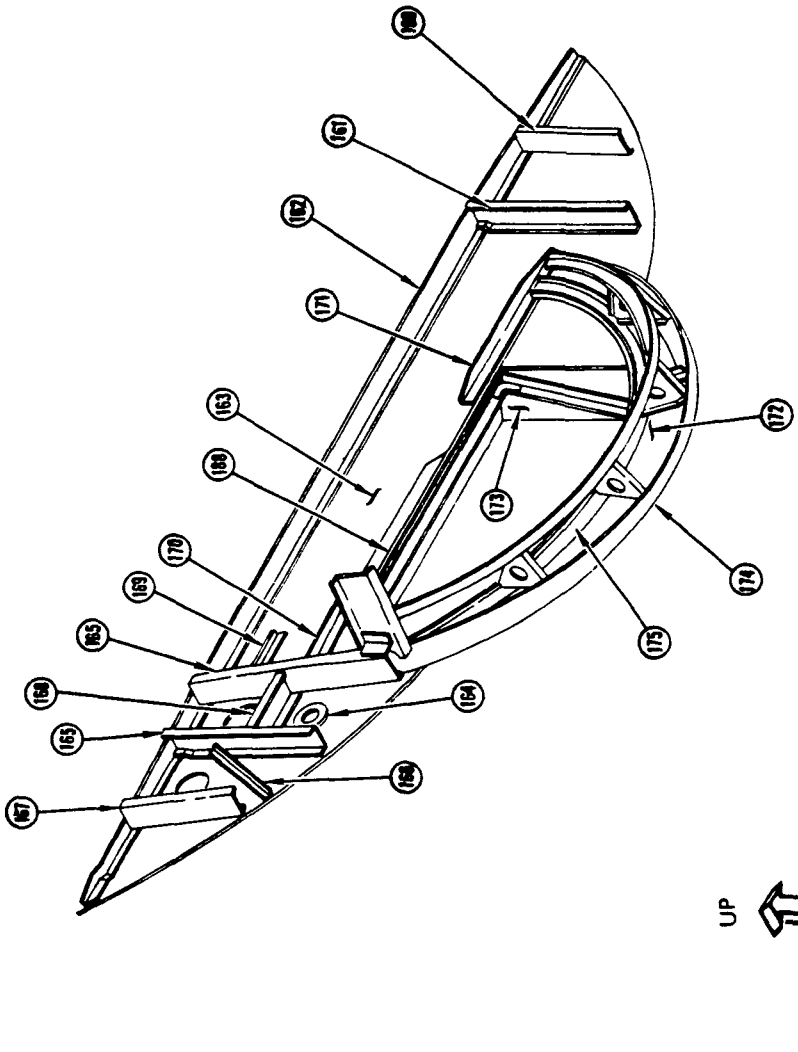
Section 46 Structure Identification
Figure 5 (Sheet 28)

REF DWG
65-87232



Section 46 Structure Identification
Figure 5 (Sheet 29)

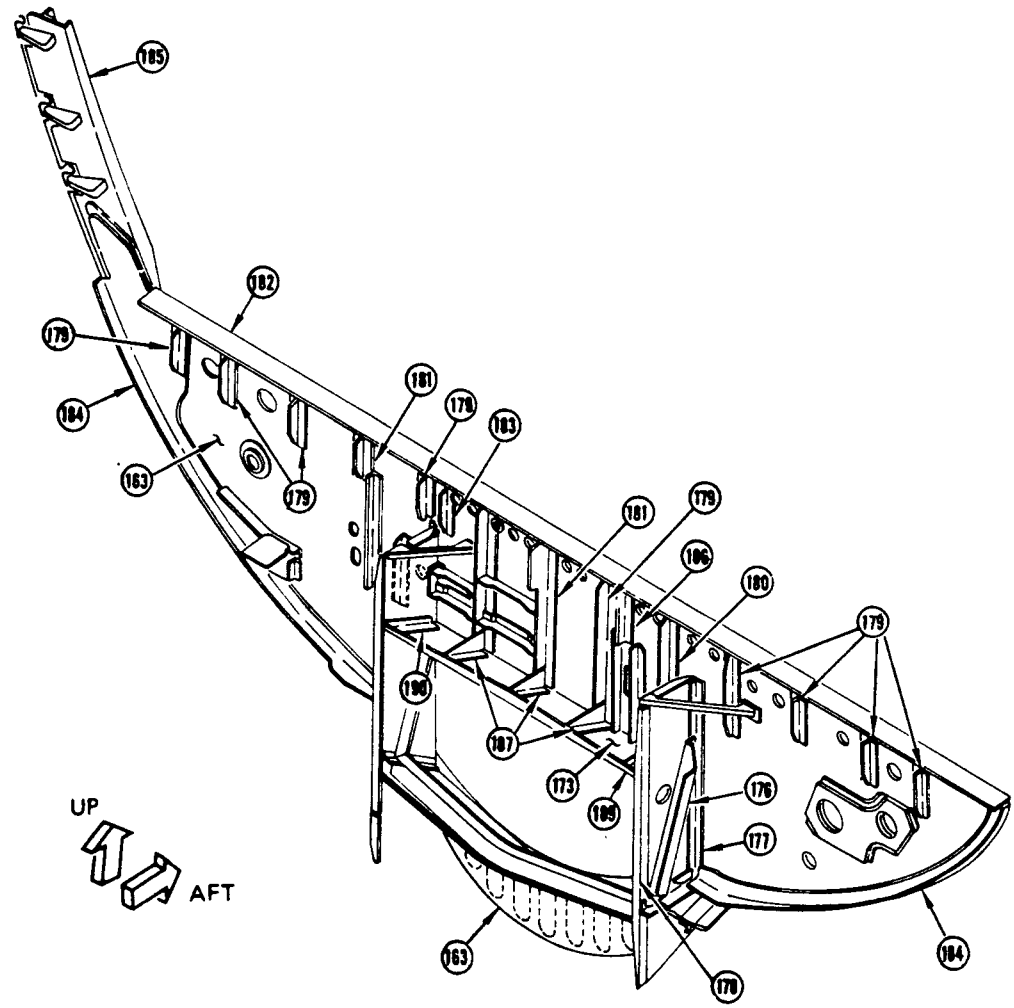
REF-DWG
65-86629



REAR VIEW
STA. 1340 BULKHEAD

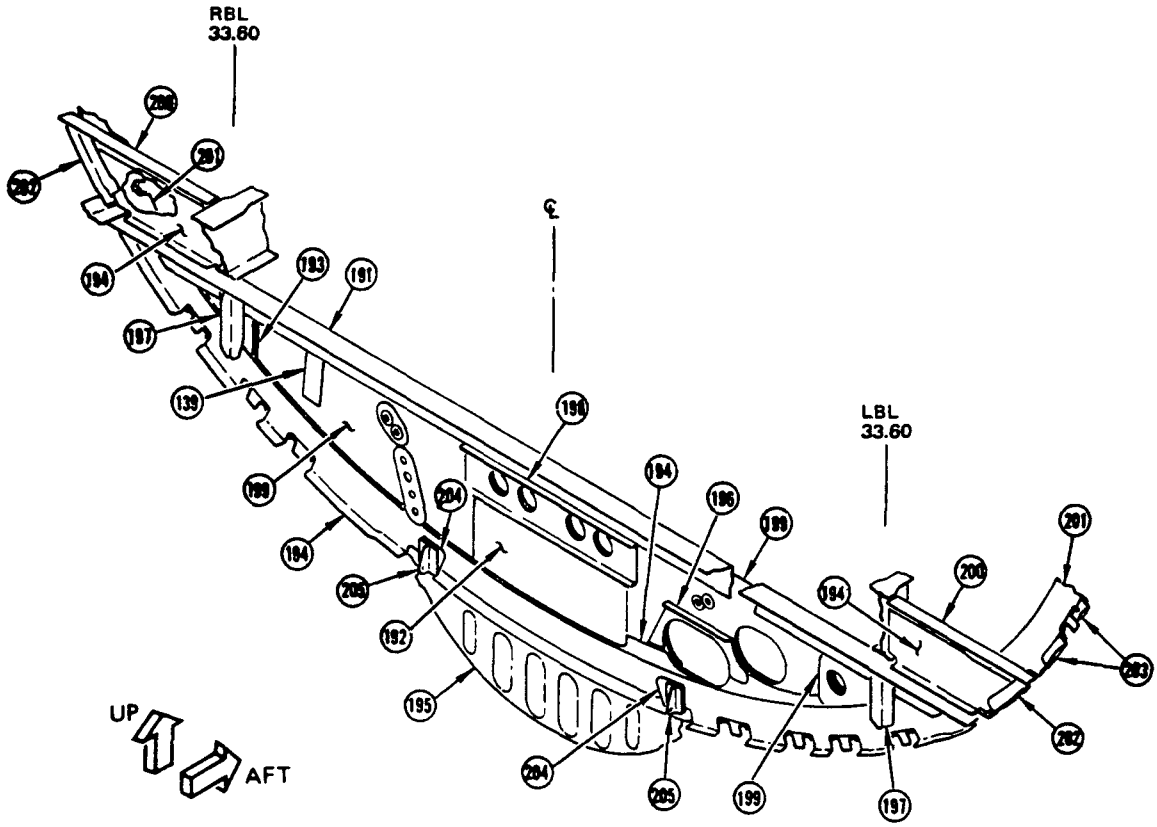
Section 46 Structure Identification
Figure 5 (Sheet 30)

REF DWG
65-86629



FRONT VIEW
STA. 1340 BULKHEAD

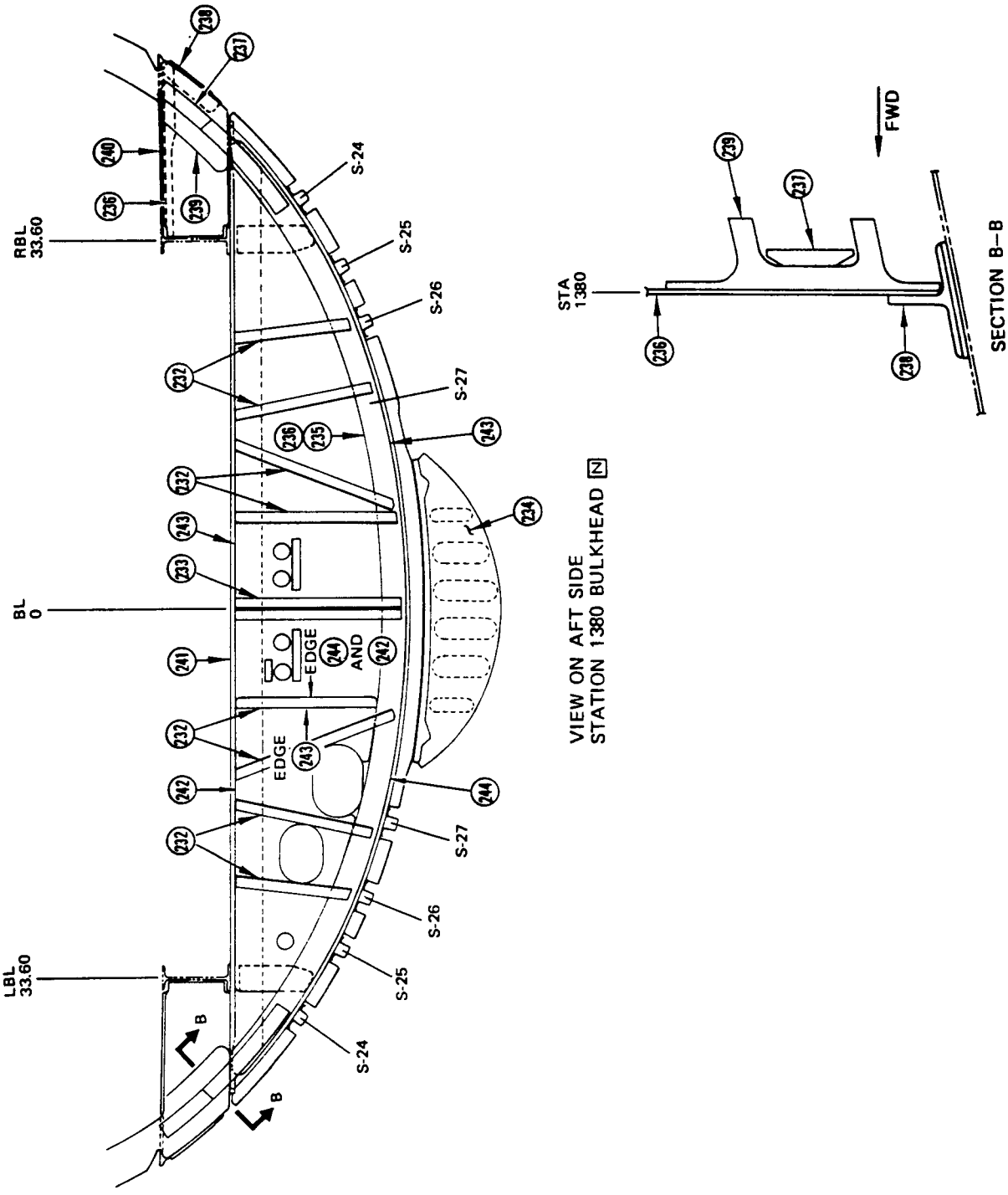
REF DWG
65-86631



STA. 1380 BULKHEAD

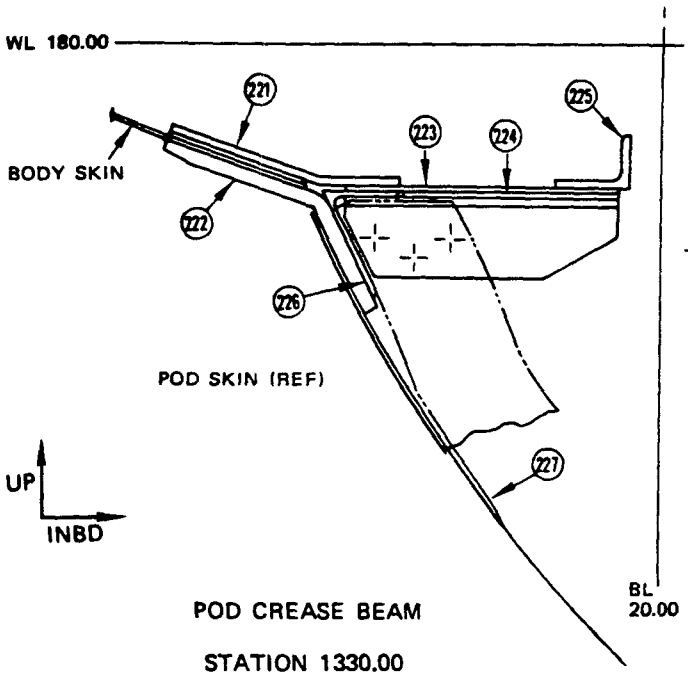
Section 46 Structure Identification
Figure 5 (Sheet 32)

REF DWG
65-86631

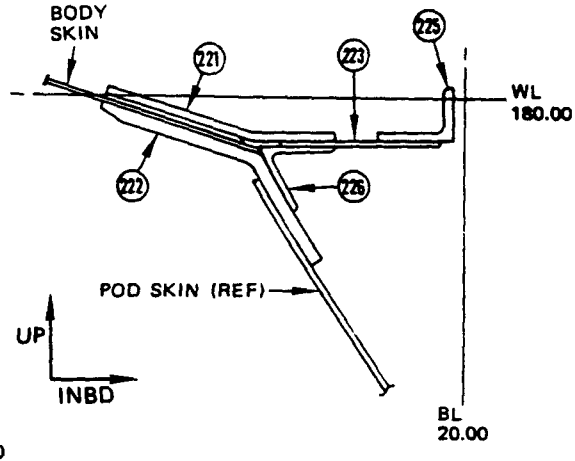


EFFECTIVITY
FOR IM 20830 THRU 20835 ONLY

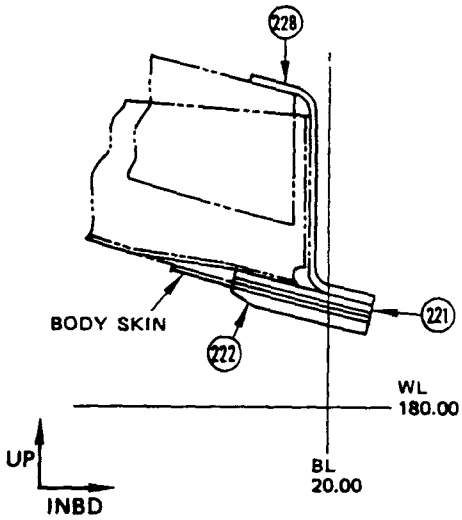
REF DWG
65-86623



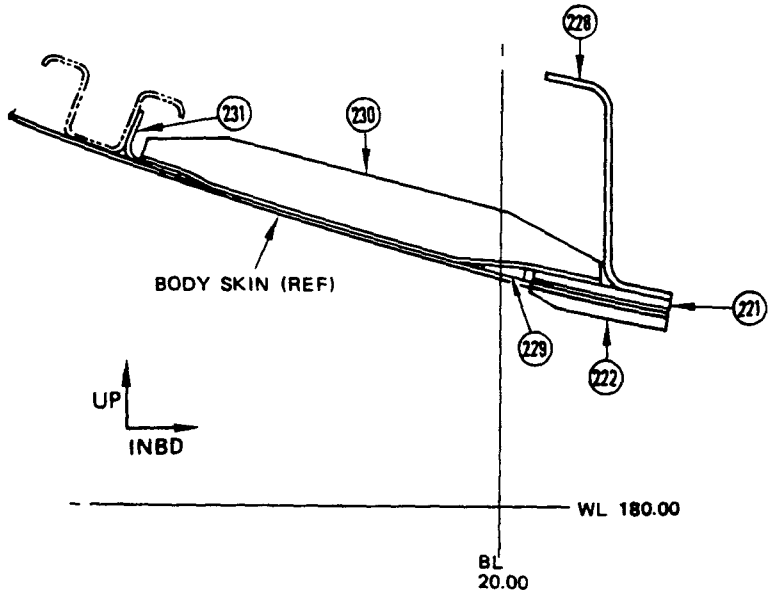
POD CREASE BEAM
STATION 1330.00
DETAIL VIII [N]



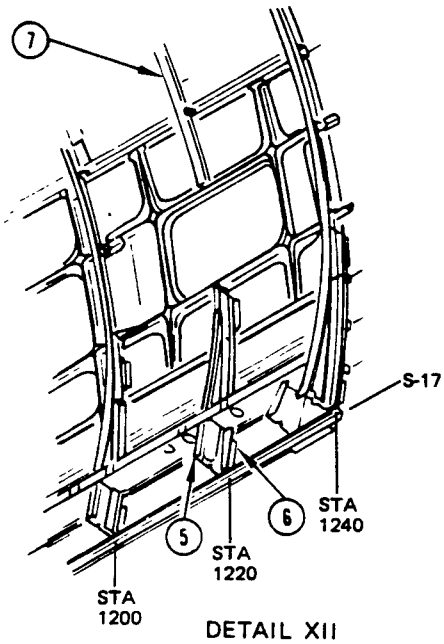
POD CREASE BEAM
STATION 1340.00
DETAIL IX [N]



POD CREASE BEAM
STATION 1360
DETAIL X [N]

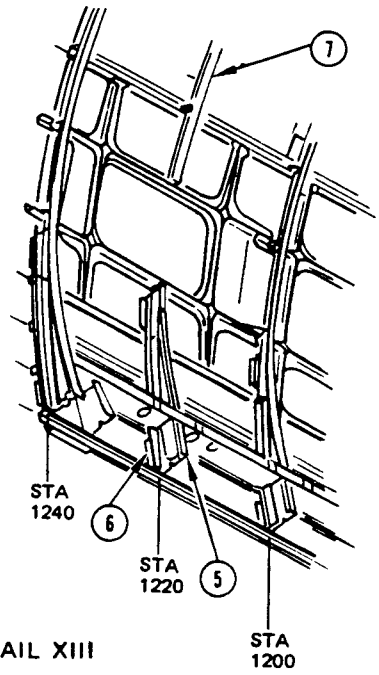


POD CREASE BEAM
STATION 1370.00
DETAIL XI [N]



DETAIL XII

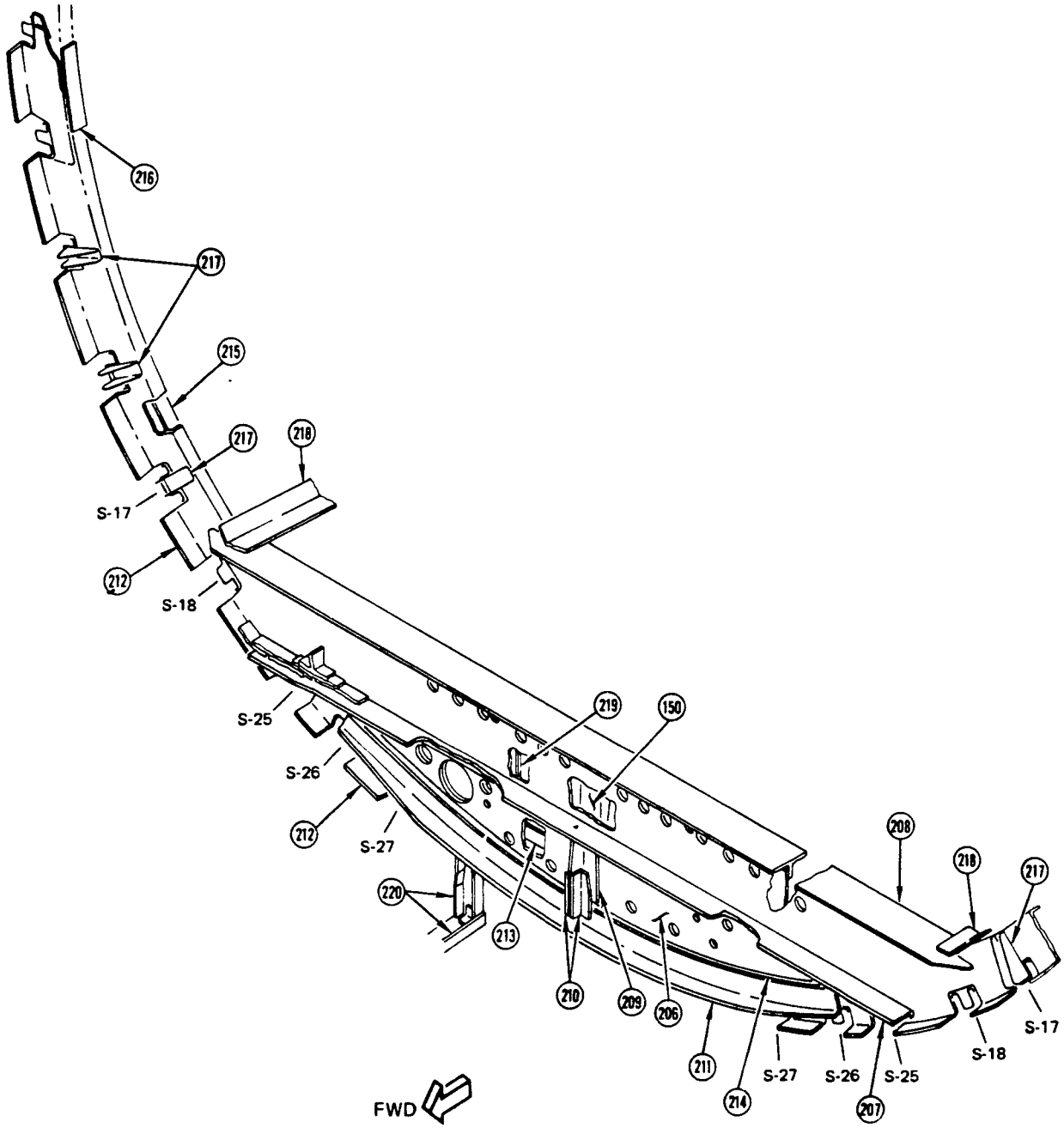
(IM AIRPLANES WITH LARGE WINDOW)



DETAIL XIII

(IM AIRPLANES WITH LARGE WINDOW)

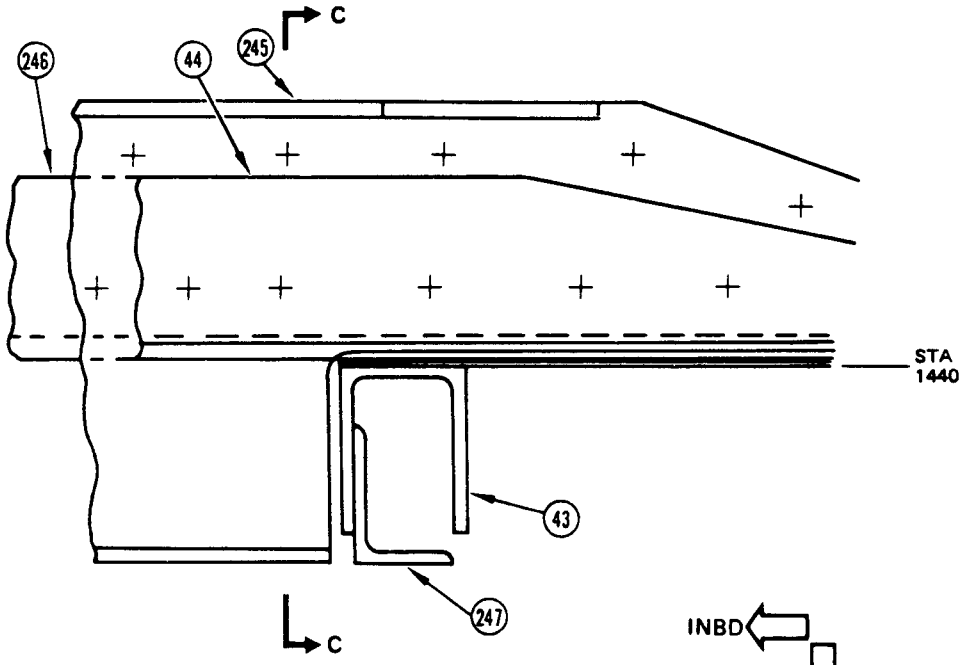
REF DWG
65-86633



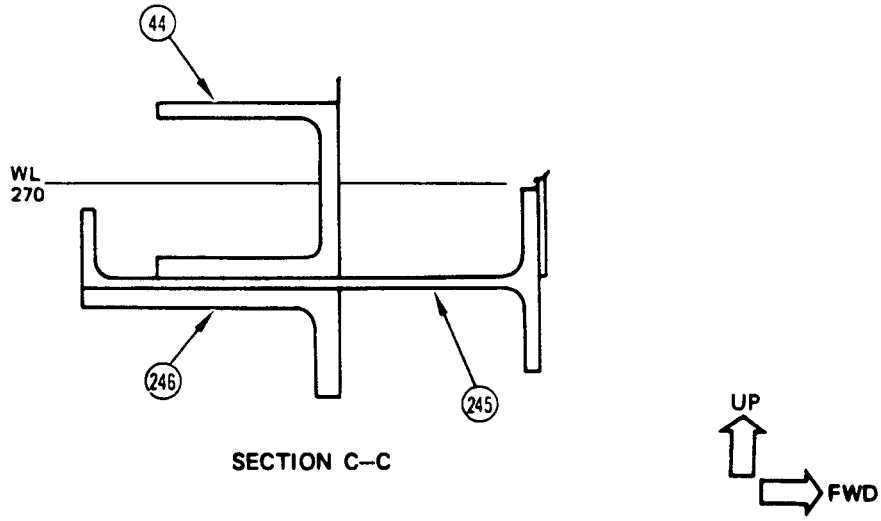
STA. 1420 BULKHEAD

Section 46 Structure Identification
Figure 5 (Sheet 33)

REF DWG
65-64938
5-86000



LEFT SIDE SHOWN
DETAIL XIV [U]



SECTION C–C

Section 46 Structure Identification
Figure 5 (Sheet 34)

ITEM	MATERIAL	REPAIR FIG NO.
1	BAC 1506-937 2024-T42	
2	0.063 CLAD 2024-T4	
3	0.032 CLAD 2024-T4	
4	0.040 CLAD 2024.T4	51-14-3 FIG. 1
5	0.100 7075-T6	
6	0.056 CLAD 7075-T6	51-14-2 FIG. 1
7	0.040 CLAD 2024-T3	51-14-2 FIG. 1
8	0.025 CLAD 7075-T6	51-14-2 FIG.
9	BAC 1517-706 7075-T6	53-3-5 FIG.1 & 4
10	BAC 1514-1057 7075-T6	51-14-4 FIG. 1
11	0.063 CLAD 7075-T6	51-14-2 FIG. 1
12	BAC 1517-1004 7075-T6 CLAD	53-3-5 FIG.1 & 4
13	BAC 1503-100095 7075-T6	51-14-4 FIG. 1
14	0.020 CLAD 7075-T6	51-14-2 FIG. 1
15	BAC 1490-2554 2024-T4 CLAD	51-14-3 FIG. 1
16	BAC 1506-655 7075-T6	
17	BAC 1505-10017 2024-T42	
18	BAC 1505-100052 7075-T6	
19	0.025 CLAD 2024-T4	51-14-2 FIG. 1
20	AND 10134-0602 2024-T4	51-14-4 FIG. 1
21	0.050 CLAD 7075-T6	51-14-2 FIG. 1
22	0.050 CLAD 2024-T4	
23	AND10133-2403 7075-T6	
24	0.100 CLAD 7075-T6	51-14-3 FIG 1
25	0.140 7075-T6	51-14-2 FIG. 1
26	BAC 1514-1128 7075-T6	
27	BAC 1514-1130 7075-T6	51-14-4 FIG. 1
28	AND 10136-1201 7075-T6	
29	0.040 CLAD 7075-T6	51-14-2 FIG. 1
30	0.071 CLAD 7075-T6	51-14-2 FIG. 1
31	BAC 1509-100152 7075-T6	51-14-4 FIG. 1
32	BAC 1505-100290 7075-T6	
33	AND 10133-0601 7075-T6	
34	BAC 1520-991 7075-T6	
35	BAC 1514-1371 7075-T6	51-14-4 FIG. 1
36	AND 10135-1602 7075-T6	51-14-4 FIG. 1
37	AND 10137-2404 7075-T6	51-14-4 FIG. 1
38	BAC 1490-2575 7075-T6 CLAD	51-14-3 FIG. 1
39	BAC 1506-1237 7075-T6	51-14-4 FIG. 1
40	0.100 CLAD 2024-T4	51-14-3 FIG. 1
41	BAC 1490-2684 7075-T6 CLAD	51-14-3 FIG. 1
42	BAC 1503-5824 7075-T6	51-14-4 FIG. 1
43	AND 10134-1006 7075-T6	51-14-4 FIG. 1
44	AND 10135-0501 7075-T6	51-14-4 FIG. 1
45	AND 10135-1005 7075-T6	51-14-4 FIG. 1
46	AND 10134-1204 7075-T6	51-14-4 FIG. 1
47	AND 10133-1203 7075-T6	51-14-4 FIG. 1
48	AND 10134-1205 7075-T6	51-14-4 FIG. 1
49	0.090 CLAD 7075-T6	51-14-3 FIG. 1
50	BAC 1505-100073 7075-T6	

Section 48 Structure Identification
Figure 6 (Sheet 1)

ITEM	MATERIAL	REPAIR FIG NO.
51	0.045 CLAD 7075-T6	51-14-2 FIG. 1
52	AND 10141-2001 7075-T6	
53	BAC 1520-706 7075-T6	
54	BAC 1514-906 7075-T6	
55	BAC 1514-658 7075-T6	51-14-4 FIG. 1
56	BAC 1503-1512 7075-T6	51-14-4 FIG. 1
57	BAC 1503-100028 7075-T6	51-14-4 FIG. 1
58	BAC 1506-964 7075-T6	51-14-4 FIG. 1
59	AND 10136-2401 7075-T6	51-14-4 FIG. 1
60	BAC 1509-100159 7075-T6	51-14-4 FIG. 1
61	0.125 CLAD 7075-T6	51-14-3 FIG. 1
62	BAC 1509-100049 7075-T6	
63	BAC 1506-1226 7075-T6	
64	BAC 1514-867 7075-T6	
65	AND 10135-1003 7075-T6	
66	AND 10134-1206 7075-T6	51-14-4 FIG. 1
67	AND 10133-1001 7075-T6	51-14-4 FIG. 1
68	BAC1506-1289 7075-T6	
69	BAC1505-100040 7075-T6	51-14-4 FIG. 1
70	BAC1506-1290 7075-T6	
71	PLASTIC GLASS FABRIC LAMINATE	51-11-1 FIG. 1
72	AND10136-3002 7075-T6	
73	AND10134-3004 2024-T42	
74	AND10133-2403 2024-T42	
75	BAC1505-100231 7075-T6	

ITEM	MATERIAL	REPAIR FIG. NO.
76	0.032 CLAD 2024-T4	53-3-6 FIG. 2
77	BAC1506-1970 [D] 7075-0 HT-T6	
78	7075-T73 FORGING [E]	
79	BAC1505-53281 7075-T6511 [E]	
80	AND10134-1203 7075-T6511 [E]	
81	STABILIZER HINGE FITTING FORGING 7079-T6	
82	STABILIZER HINGE FITTING FORGING 7075-T73	
83	STABILIZER HINGE COVER PLATE 2024-T4 BAR	
84	DOUBLER CLAD 0.032 2024-T42	
85	WEB 0.045 CLAD 7075-T6	
86	ANGLE BAC1503-100096 7075-T6511	
87	ANGLE BAC1503-100457 7075-T6511	
88	FLOOR ATTACH 0.045 CLAD 7075-T6	
89	BEAM 0.040 CLAD 2024-T3	
90	ANGLE BAC1490-2639 CLAD 7075-T6	
91	ANGLE BAC1490-2769 CLAD 7075-T6	
92	ANGLE BAC1490-2826 CLAD 7075-T6	
93	CHORD SUPPORT 0.063 CLAD 7075-T6	
94	STRINGER BAC1498-147 CLAD 7075-T6	
95	CHORD BAC1514-1138 2024-T42	
96	WEB 0.051 CLAD 7075-T6	
97	STRINGER BAC1498-114 CLAD 7075-T6	
98	STRUT BAC1518-233 7075-T6511	

Section 48 Structure Identification
Figure 6 (Sheet 2)

NOTE

[A] FOR ALL AIRPLANES

[B] FOR AIRPLANES:
- AA 18689 THRU 18692, 18938 THRU 18940
- AF 17613 THRU 17622, 17918 THRU 17924, 18245 THRU 18247, 18375, 18456 THRU 18459, 18685, 18686, 18941
- AI 17722 THRU 17724, 18055, 18414, 18415, 18708, 18873
- BA 17703 THRU 17717, 18373, 18411 THRU 18413, 18924, 18925
- CO 18825, 18826, 18886, 18887
- FT 18975, 18976
- IN 18737, 18880, 19001
- LA 19000
- LH 17718 THRU 17721, 18056, 18462, 18463, 18819, 18923, 18927 THRU 18930, 18937
- LY 18070, 18071, 18357, 19004
- NW 18746 THRU 18748, 18888, 18889, 18921, 18922, 18964, 19034
- PA 17608, 17674, 17677, 17680, 17683, 17686, 17689, 18083 THRU 18085, 18335 THRU 18339, 18579 THRU 18592, 18714 THRU 18718, 18765 THRU 18767, 18790, 18824, 18832 THRU 18842, 18956 THRU 18958
- QF 18808 THRU 18810, 18953 THRU 18955
- RG 17905, 17906, 18694
- SA 17928 THRU 17930, 18891
- SN 17623 THRU 17627, 18374, 18460, 18890
- TP 18961
- TW 17673, 17675, 17676, 17678, 17679, 17681, 17682, 17684, 17685, 17687, 17688, 17690, 18405 THRU 18409, 18709, 18711 THRU 18713, 18738, 18756, 18757, 18764, 18916 THRU 18918, 18978 THRU 18981, 20428
- WY 18582, 18583, 18707, 18991

[C] FOR AIRPLANES NOT LISTED IN [B]

[D] FOR AIRPLANES WITH SB 2422 INCORPORATED

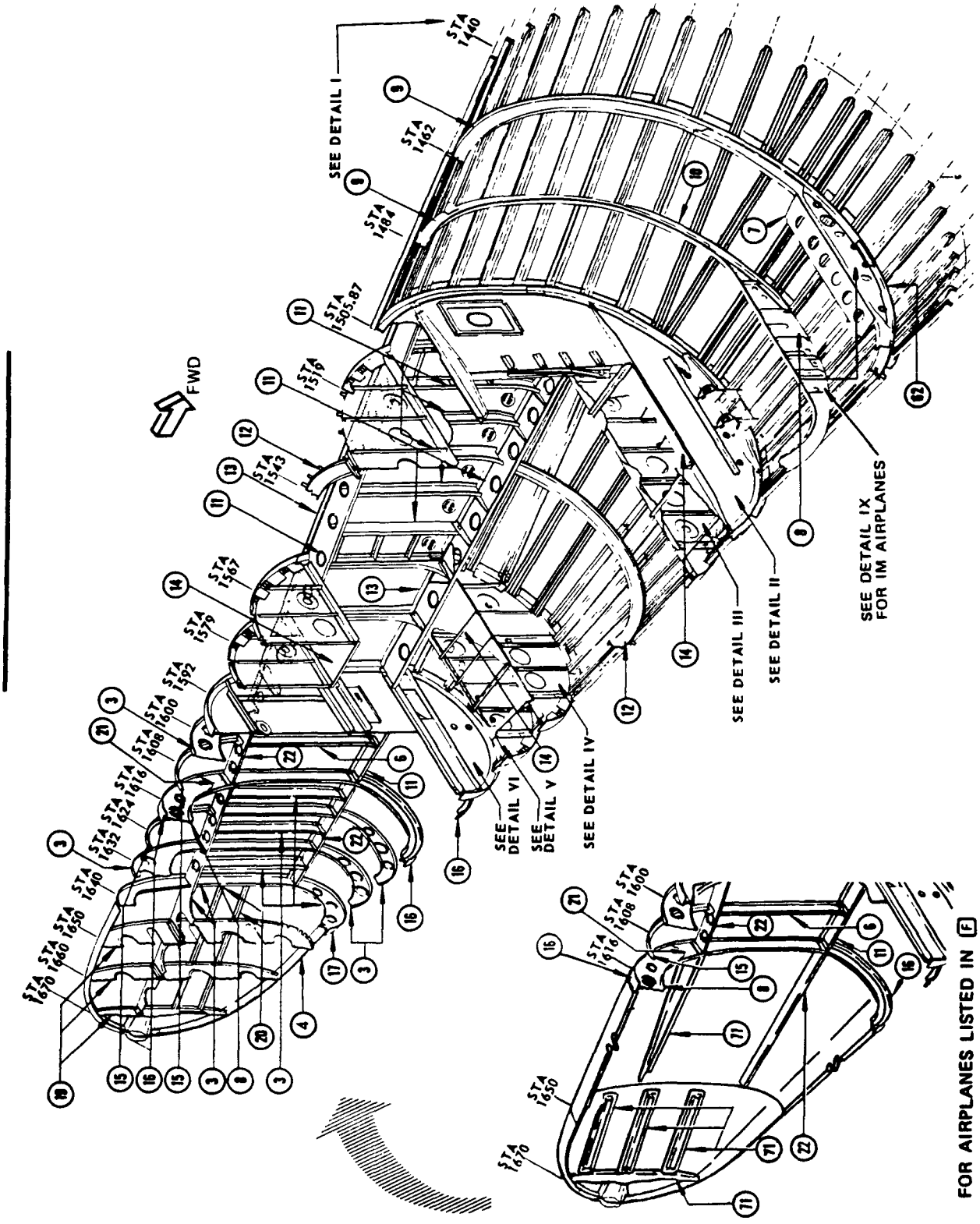
[E] FOR AIRPLANES WITH SB 2717 INCORPORATED

[F] FOR ALL TURBOFAN AIRPLANES AND THE FOLLOWING TURBOJET AIRPLANES:
- AI ALL
- AF 17616 AND ON
- BA 17704 AND ON
- LH ALL
- LY ALL
- PA 17604 THRU 17608, 17680, 17683, 17686, 17689, 18083 THRU 18085
- RG ALL
- SA ALL
- SN 17624 AND ON
- TW 17631, 17681, 17682, 17684 THRU 17690

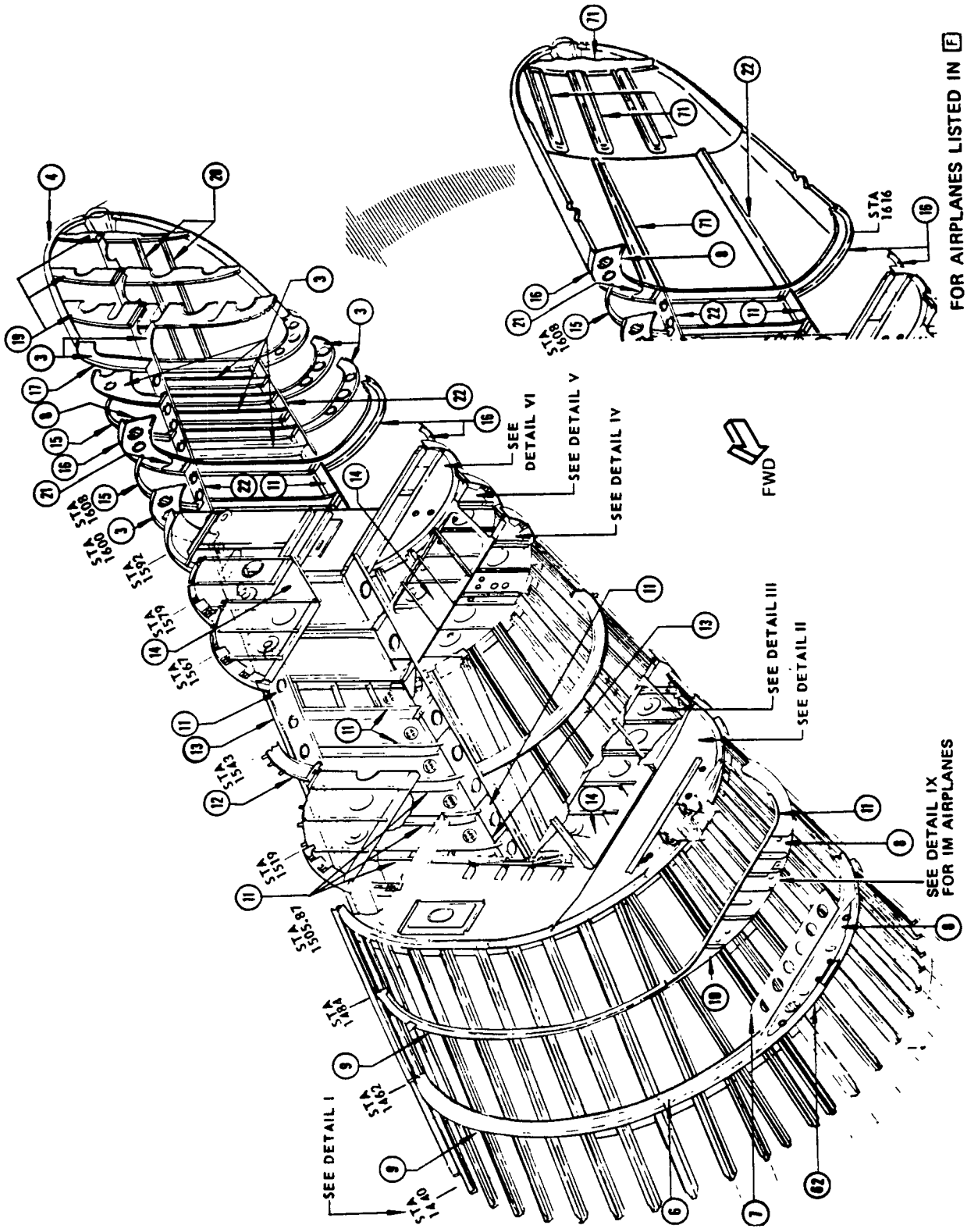
[G] FORGINGS OF 7079-T6 MATERIAL HAVE BEEN REPLACED BY FORGINGS OF 7075-73 IN PRODUCTION; 7075-T73 FORGINGS ARE RECOMMENDED WHEN EXISTING STOCKS OF 7079-T6 ARE EXHAUSTED.

[H] FOR AIRPLANES:

IM 20830 THRU 20835
(BOEING REF: 9101 THRU 9199)

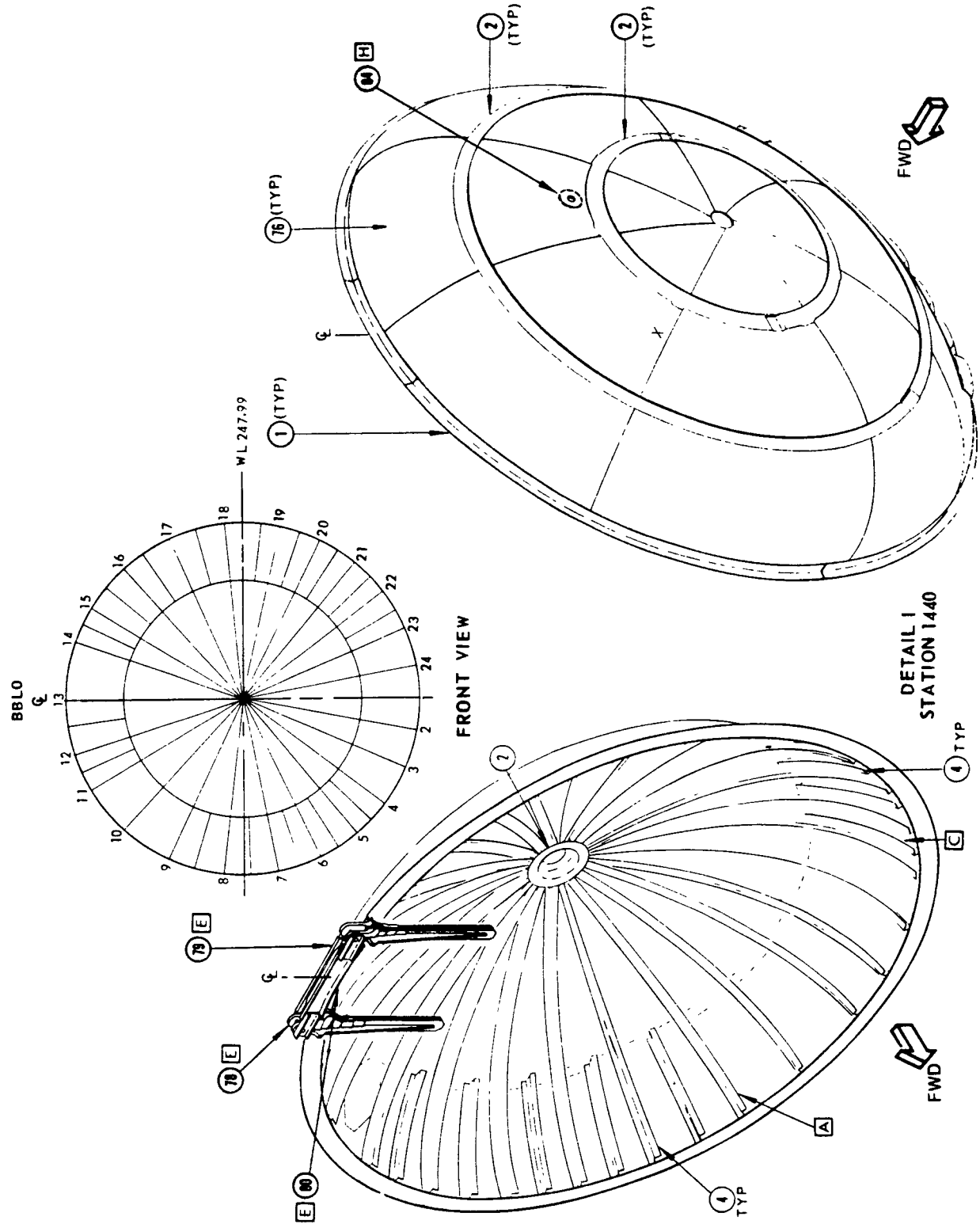


Section 48 Structure Identification
Figure 6 (Sheet 4)

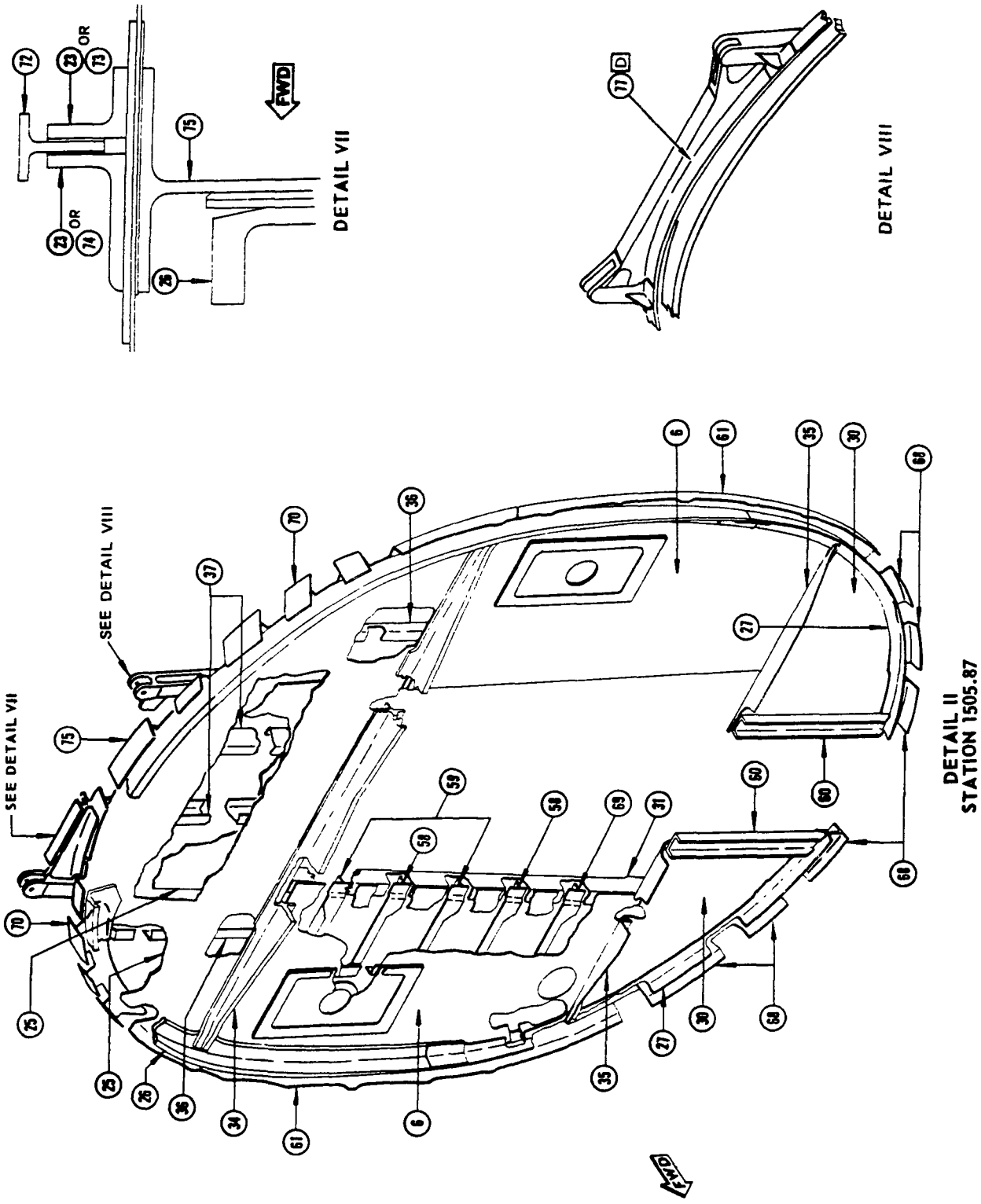


Section 48 Structure Identification
Figure 6 (Sheet 5)

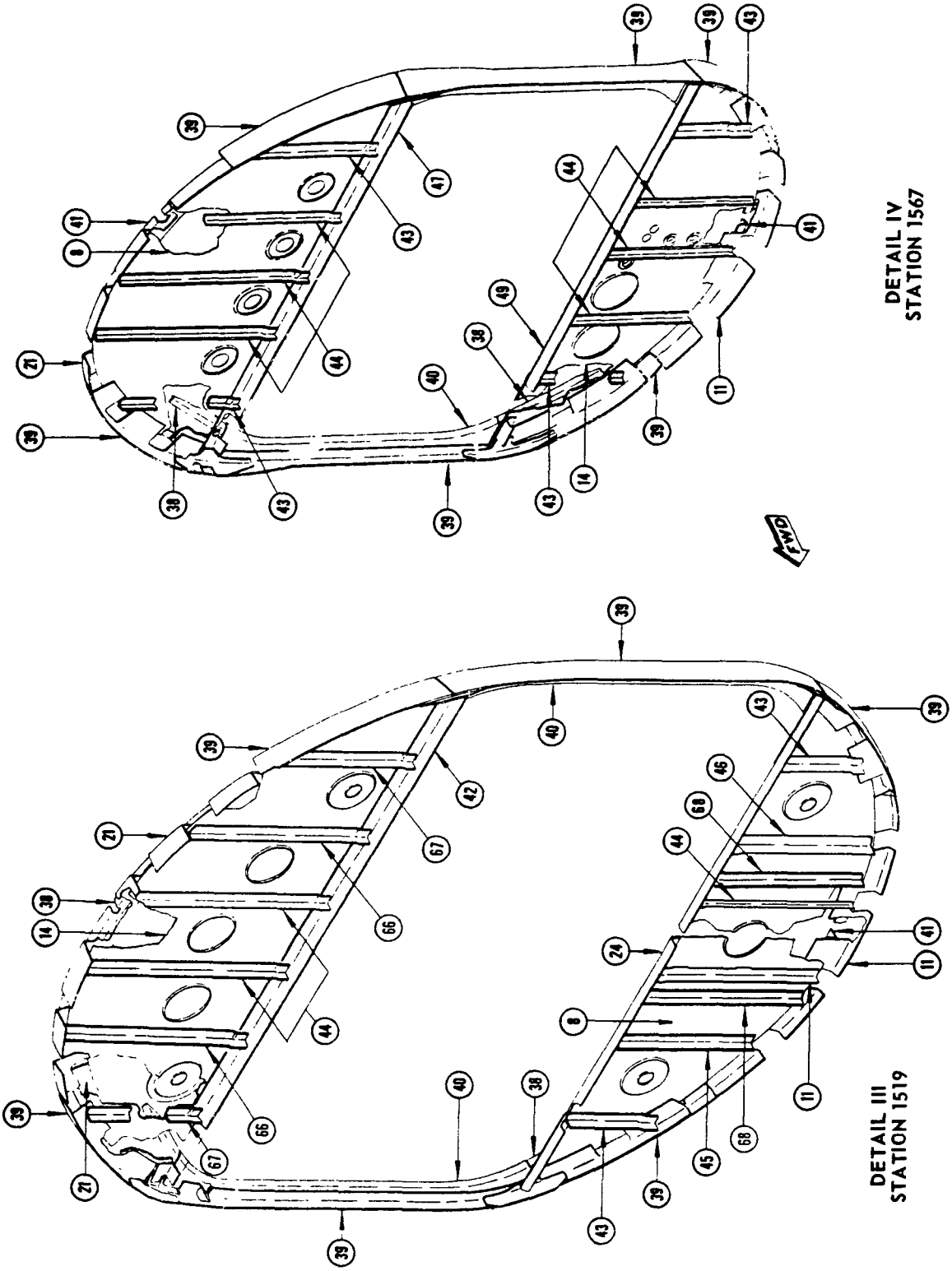
SRM
Jan 10/74



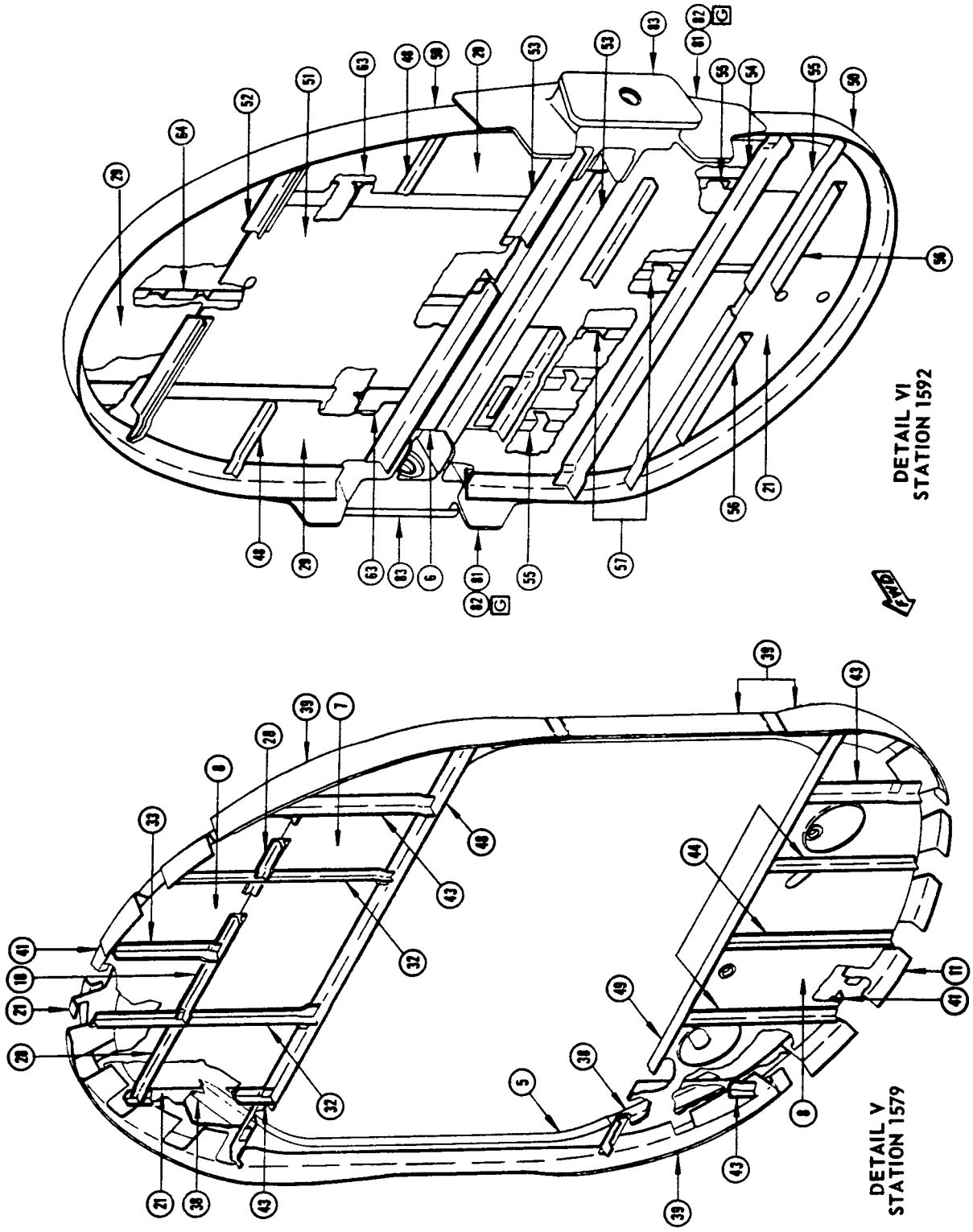
Section 48 Structure Identification
Figure 6 (Sheet 6)



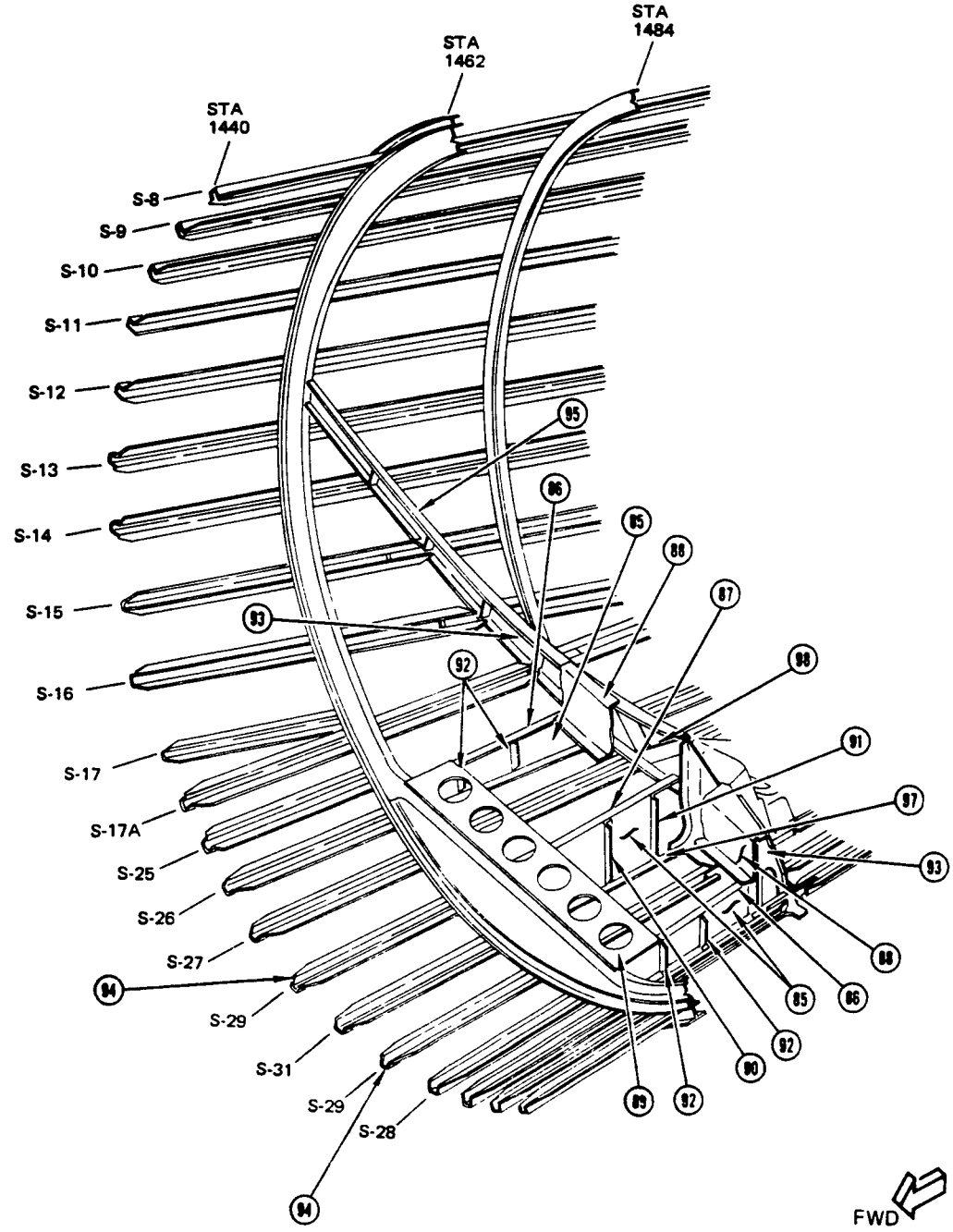
Section 48 Structure Identification
Figure 6 (Sheet 7)



Section 48 Structure Identification
Figure 6 (Sheet 8)



Section 48 Structure Identification
Figure 6 (Sheet 9)



DETAIL IX
IM AIRPLANES ONLY
STATION 1462-1484

ITEM	UPPER CHORD		WEB OR FORMED SEC.		LOWER CHORD	
	MATERIAL	REPAIR FIG NO.	MATERIAL	REPAIR FIG NO.	MATERIAL	REPAIR FIG NO.
1			BAC1505-100331 7075-T6	51-14-4 FIG. 1		
2	AND 10134-2008 2024-T4	51-14-4 FIG. 1	.032 CLAD 7075-T6	51-14-2 FIG. 1	AND 10134-1408 2024-T42	51-14-4 FIG. 1
3	BAC 1505-100263 2024-T4	51-14-4 FIG. 1			AND 10133-1001 7075-T6	51-14-4 FIG. 1
4			.063 CLAD 7075-T6	51-14-2 FIG. 1		
5			.040 CLAD 7075-T6	51-14-2 FIG. 1		
6	BAC 1514-156 2024-T4				AND 10133-1203 7075-T6	51-14-4 FIG. 1
7			.032 CLAD 7075-T6	51-14-2 FIG. 1		
8			.071 CLAD 7075-T6	51-14-2 FIG. 1		
9			.025 CLAD 7075-T6	51-14-2 FIG. 1		
10	AND 10134-2008 2024-T4	51-14-4 FIG. 1	.090 CLAD 7075-T6	51-14-2 FIG. 1	BAC 1514-228 7075-T6	
11	BAC 1505-100261 2024-T4	51-14-4 FIG. 1	.032 CLAD 7075-T6	51-14-2 FIG. 1	BAC 1514-658 2024-T4	
12	BAC 1505-100261 2024-T4	51-14-4 FIG. 1			BAC 1514-658 2024-T4	
13			.032 CLAD 7075-T6	51-14-2 FIG. 1		
14			BAC1518-379 7075-T6			
15	BAC 1506-1092 7075-T6	51-14-4 FIG. 1	.045 CLAD 7075-T6	51-14-2 FIG. 1	AND 10134-2003 7075-T6	51-14-4 FIG. 1
16	BAC 1505-100255 7178-T6	51-14-4 FIG. 1	.025 CLAD 7075-T6	51-14-2 FIG 1 53-3-7 FIG 14	BAC 1505-100254 7075-T6	53-3-7 FIG. 1
17	BAC 1505-100353 7178-T6	51-14-4 FIG. 1	.036 CLAD 7178-T6	51-14-2 FIG. 1	BAC 1505-100254 7075-T6	53-3-7 FIG. 1
18	BAC 1505-100354 7178-T6	51-14-4 FIG. 1	.045 CLAD 7178-T6	51-14-2 FIG. 1	BAC 1505-100254 7075-T6	53-3-7 FIG. 1
19	BAC 1505-100255 7178-T6	51-14-4 FIG. 1	.025 CLAD 7075-T6	51-14-2 FIG. 1	BAC 1505-100207 7075-T6	53-3-7 FIG. 1
20			BAC1506-990 7075-T6	51-14-4 FIG. 1		
21			BAC 1518-196 7075-T6			
22	BAC 1505-100353 7178-T6	51-14-4 FIG. 1	.025 CLAD 7178-T6	51-14-2 FIG. 1	BAC 1505-100254 7075-T6	53-3-7 FIG. 1
23	BAC 1505-100354 7178-T6	51-14-4 FIG. 1	.032 CLAD 7178-T6	51-14-2 FIG.	BAC 1505-100254 7075-T6	53-3-7 FIG. 1
24			FORGING 7079-T6			
25	BAC 1505-100255 7178-T6	51-14-4 FIG. 1	.025 CLAD 7075-T6	51-14-2 FIG. 1	BAC 1505-100273 7075-T6	53-3-7 FIG. 1

Passenger Floor Beams Material Identification
Figure 7 (Sheet 1)

ITEM	UPPER CHORD		WEB OR FORMED SEC.		LOWER CHORD	
	MATERIAL	REPAIR FIG NO.	MATERIAL	REPAIR FIG NO.	MATERIAL	REPAIR FIG NO.
26	BAC 1505-100354 7178-T6	51-14-4 FIG. 1	.032 CLAD 7178-T6	51-14-2 FIG. 1	BAC 1505-100273 7075-T6	53-3-7 FIG. 1
27	BAC 1505-100255 7178-T6		.025 CLAD 7075-T6	51-14-2 FIG. 1	BAC 1505-100272 7075-T6	53-3-7 FIG. 1
28	BAC 1505-100353 7178-T6		.025 CLAD 7075-T6	51-14-2 FIG. 1	BAC 1505-100272 7075-T6	53-3-7 FIG. 1
29	AND 10136-2404 7075-T6	51-14-4 FIG. 1			AND 10136-2005 7075-T6	51-14-4 FIG. 1
30			.032 CLAD 7075-T6	51-14-2 FIG. 1		
31			.025 CLAD 7075-T6	51-14-2 FIG. 1		
32			.063 CLAD 7075-T6	51-14-2 FIG. 1		
33	BAC 1505-100261 2024-T4	51-14-4 FIG. 1	.025 CLAD 7075-T6	51-14-2 FIG. 1	AND 10133-1001 2024-T4	51-14-4 FIG. 1
34	AND 10134-1204 7075-T6	51-14-4 FIG. 1	.032 CLAD 7075-T6	51-14-2 FIG. 1	BAC 1503-2731 7075-T6	51-14-4 FIG. 1
35	BAC1506-1108 7075-T6		.050 CLAD 7075-T6		BAC1505-100269 7075-T6	
36					BAC1505-100257 7075-T6	
37	BAC1506-1108 7075-T6		.025 CLAD 7075-T6		BAC1505-100264 7075-T6	
38	BAC1506-1611 7075-T6		.080 CLAD 7075-T6		BAC1505-100264 7075-T6	
39			BAC1518-375 7075-T6	53-3-7 FIG 14		
40					BAC1505-T00451 7075-T6	
41	BAC1503-100119 7075-T6		.050 CLAD 7075-T6		BAC1505-100264 7075-T6	
42	AND 10133-1203 7075-T6	51-14-4 FIG. 1	.040 CLAD 7075-T6	53-3-7 FIG. 2	.050 CLAD 7075-T6	51-14-3 FIG. 1
43	AND 10133-1203 7075-T6	51-14-4 FIG. 1	.045 CLAD 7075-T6		.071 CLAD 2024-T4 [A]	
44	AND 10134-2010 7075-T6	51-14-4 FIG. 1	.071 7075-T6			
45	AND 10133-1203 7075-T6	51-14-4 FIG. 1	.045 CLAD 7075-T6			
46	AND 10133-1203 7075-T6	51-14-4 FIG. 1	.050 CLAD 7075-T6	51-14-3 FIG. 1		
47	AND10134-1408 7075-T6	51-14-4 FIG. 1	.050 CLAD 7075-T6	51-14-3 FIG. 1		
48	AND10134-1408 7075-T6	51-14-4 FIG. 1	.080 CLAD 7075-T6		.10 7075-T6	51-14-3 FIG. 1
49	AND 10134-1408 7075-T6	51-14-4 FIG. 1	.080 CLAD 7075-T6		.100 7075-T6	51-14-3 FIG. 1
50	AND 10133-1203 7075-T6	51-14-4 FIG. 1	.080 CLAD 7075-T6	51-14-3 FIG. 1		

Passenger Floor Beams Material Identification
Figure 7 (Sheet 2)

ITEM	UPPER CHORD		WEB OR FORMED SEC.		LOWER CHORD	
	MATERIAL	REPAIR FIG NO.	MATERIAL	REPAIR FIG NO.	MATERIAL	REPAIR FIG NO.
(51)			BAC 1493-273 7075-T6 CLAD	51-14-3 FIG. 1		
(52)			BAC 1493-144 7075-T6 CLAD	51-14-3 FIG. 1		
(53)			BAC 1517-1168 7075-T6 CLAD	51-14-3 FIG. 1		
(54)	BAC 1520-792 7178-T6	53-3-7 FIG.3,16,17				
(55)			.063 CLAD 2024-T4			
(56)			.056 CLAD 2024-T4			
(57)			.10 CLAD 7075-T6			
(58)			BAC1518-378 7075-T6			
(59)			BAC1506-1181 7075-T6			
(60)			BAC 1506-714 7075-T6	51-14-4 FIG. 1		
(61)	AND10134-1408 7075-T6	51-14-4 FIG. 1	.063 CLAD 7075-T6		.10 CLAD 7075-T6	
(62)	AND10134-1408 7075-T6	51-14-4 FIG. 1			.080 7075-T6	
(63)	AND10134-2010 7075-T6		.071 CLAD 7075-T6		.112 CLAD 2024-T4	
(64)	BAC1520-1264 7178-T6					
(65)	BAC1520-1257 7178-T6	53-3-7 FIG 15				
(66)	BAC1520-1224 7178-T6					
(67)	BAC1520-841 7178-T6	53-3-7 FIG. 4				
(68)	BAC1520-1251 7178-T6					
(69)	BAC1514-156 2024-T4				AND10134-1603 7075-T6	
(70)	BAC1506-1092 7075-T6	51-14-4 FIG. 1	.045 CLAD 7075-T6	51-14-2 FIG. 1	BAC1514-880 7075-T6	
(71)	TYPICAL FLOOR PANEL ASSEMBLY	53-3-7 FIG. 5				
(72)	BAC1505-100255 7178-T6	51-14-4 FIG. 1	.071 CLAD 7075-T6	51-14-2 FIG 1 53-3-7 FIG 14	BAC1505-100254 7075-T6	53-3-7 FIG. 1

Passenger Floor Beams Material Identification
Figure 7 (Sheet 3)

ITEM	UPPER CHORD		WEB OR FORMED SECTION		LOWER CHORD	
	MATERIAL	REPAIR FIG. NO.	MATERIAL	REPAIR FIG. NO.	MATERIAL	REPAIR FIG. NO.
73	BAC1520-1221 7178-T6					
74	BAC1520-1259 7178-T6					
75	BAC1520-1337 7178-T6	53-3-7 FIG. 18				
76	BAC1520-1338 7178-T6	53-3-7 FIG. 18				
77	BAC1520-1340 7178-T6	53-3-7 FIG. 18				
78	BAC1520-1341 7178-T6					
79	BAC1520-1336 7178-T6					
80	BAC1520-1339 7178-T6					
81			0.100 CLAD 7075-T6		BAC1505-100539 7074-T6	
82			0.100 CLAD 7075-T6		BAC1505-100608 7075-T6	
83			0.090 CLAD 7075-T6		BAC1505-100540 7075-T6	
84			BAC1504-8180 7075-T6			
85					0.080 CLAD 7075-T6	
86			0.090 CLAD 7075-T6			
87			0.071 CLAD 7075-T6			
88	AND10134-1205 7075-T6511					
89			FORGING 7075-T73 AE			
90	BAC1520-792 7178-T6511					
91			BAC1534-33 SHIM STOCK			
92			ATTACH FITTING FORGING 7075-T73			
93			ATTACH FITTING FORGING 7079-T6			
94			SUPPORT FITTING FORGING 7075-T73			
95			3/32 BMS1-11 GR60 SYNTHETIC RUBBER			
96			SEAL PLATE AND 10134-2403 7075-T6511			

Passenger Floor Beams Material Identification
Figure 7 (Sheet 4)

ITEM	UPPER CHORD		WEB OR FORMED SECTION		LOWER CHORD	
	MATERIAL	REPAIR FIG. NO.	MATERIAL	REPAIR FIG. NO.	MATERIAL	REPAIR FIG. NO.
(97)	SEAL PLATE 0.100 CLAD 2024-T3					
(98)	BAC1520-1337 7178-T6511					
(99)	BEARING PLATE 0.180 CRES SHT 17-7PH HT 180-200 KSI					
(100)	ROLLED BAR 0.75 7075-T6511					
(101)	RAIL BAC1518-655 6061-T6 OPTIONAL AND10134-4007 7075-T6511					
(102)	SUPPORT BAL 1518-655 6061-T6 OPTIONAL AND10134-4007 7075-T6511					

NOTES

[A] LOWER CHORD ANGLE IS INSTALLED IN PRODUCTION ON LATER AIRPLANES ONLY

[B] FOR ALL CARGO AIRPLANES EXCEPT NW

[C] FOR ALL AIRPLANES NOT LISTED IN NOTE [B]

[D] FOR ALL CARGO AIRPLANES

[E] TYPICAL FLOOR BEAM FROM STA 420 TO 600J FOR ALL CARGO AIRPLANES EXCEPT NW

[F] TYPICAL FLOOR BEAM FROM STA 1120 TO 1280 FOR ALL CARGO AIRPLANES EXCEPT NW

[G] TYPICAL FLOOR BEAM FROM STA 960 TO 1120 FOR ALL CARGO AIRPLANES EXCEPT NW

[H] FOR AIRPLANES:

AI 17722 THRU 19247
AF 17613 THRU 17622, 17918 THRU 17924, 18245 THRU 18247, 18375, 18456 THRU 18459, 18685, 18686, 18941, 19291
AR 19238
BA 17703 THRU 17717, 18411 THRU 18413, 18372, 18373
LH 17718 THRU 17721, 18056, 18462 AND 18463, 18819, 18923, 18926 THRU 18931
LY 18070, 18071, 18357
NW 18584 THRU 18586, 18693
PA 17674, 17677, 17680, 17683, 17686, 17689, 17592 THRU 17608, 18083 THRU 18085, 18335 THRU 18339, 18832 THRU 18842, 18956 THRU 18960, 19264 THRU 19266
SA 17928 THRU 17930, 18891, 19133
SN 17623 THRU 17627, 18374, 18460
TW 17673, 17675, 17676, 17678, 17679, 17681, 17682, 17684, 17685, 17687, 17688, 17690, 18405 THRU 18409, 18764, 18913 THRU 18918, 18978 THRU 18985
TP 18961, 18962
RG 17905, 17906, AND 18694

[J] FOR AIRPLANES NOT LISTED IN [D] AND [H]

[K] DELETED

[L] DELETED

[M] FOR CARGO AIRPLANES UP TO CUM LINE NUMBER 488

[N] FOR CARGO AIRPLANES FROM CUM LINE NUMBER 494

[O] FOR CARGO AIRPLANES UP TO CUM LINE NUMBER 488 AND 588

[P] FOR CARGO AIRPLANES NOT LISTED IN [O]

[Q] FOR CARGO AIRPLANES UP TO CUM LINE NUMBER 488, 534 AND 588

[R] FOR CARGO AIRPLANES NOT LISTED IN [Q]

[S] FOR AIRPLANES:

AA 18689 THRU 18692
CO 18825
IN 18737
NW 18746 THRU 18748
PA 18579, 18580, 18591, 18714 THRU 18718, 18765 THRU 18767
TW 18709 AND 18738
WY 18582, 18583, 18707

[T] ALL AIRPLANES NOT LISTED IN [S]

Passenger Floor Beams Material Identification
Figure 7 (Sheet 5)

[U] FOR CARGO AIRPLANES WITH SERIAL NUMBERS OVER 20,000 AND FOR AIRPLANES LISTED:

AA 19381 THRU 19384, AND 19574 AND ON
NW 19443 AND ON
PK 19286 AND ON
QE 19295 AND ON
TW 19213 AND ON
WY 19442 AND ON

[V] FOR ALL CARGO AIRPLANES NOT LISTED IN [U]

[W] FOR ALL AIRPLANES NOT LISTED IN [D]

[X] FOR AIRPLANES LISTED:

AA 19433
BN 19104 THRU 19531
EG 19590
EJ 19417, 19664
ET 19736
NW 19163 THRU 19632
OA 18948 THRU 19760
PK 19784 THRU 19866
RD 19416
RG 19320 THRU 19322
SA 19705, 19706
SB 19840 THRU 19842
ST 19820 THRU 19822
SV 19809, 19810
WY 19179 THRU 19716

[Y] FOR ALL AIRPLANES NOT LISTED IN [X]

[Z] FOR FLOOR PANEL MATERIAL IDENTIFICATION, SEE FIGURE 14

[AA] FOR AIRPLANES

AA 19382 THRU 19384, 19519 AND 19581 THRU 19588
AF 19723 AND 19724
AV 19741
BA 19498
BN 19529 THRU 19531
CO 19869
EG 19590
EJ 19664
ET 19736
NW 19631 THRU 19634
PA 19361 THRU 19379 AND 19693 THRU 20034
PK 19286
QF 19296, 19297 AND 19621 THRU 19625
SA 19705 AND 19706
SB 19840 AND 19841
SV 19809 AND 19810
TP 19740
TW 19214, 19435 AND 19570 THRU 19572
WD 19789
WY 19715 AND 19716
ZC 19767

[AB] CLAD 2024-T4 FOR AIRPLANES NOT LISTED IN [AC]

[AC] CLAD 7075-T6 FOR ALL TURBOJET AIRPLANES THRU 18694 AND FOR TURBOFAN AIRPLANES THRU SERIAL NOS LISTED

AA 19583 EXCEPT 19574 THRU 19580
AF 19522
AI 19248
AR 19241
BA 19498
BN 19531
BO 19000
EG 19590
EJ 19664
FT 19355
IN 19410
LH 19317
LY 19502
NW 19632
OA 18950
PA 19376 EXCEPT 19375
PK 19286
QF 19622
RD 19416
RG 19322
SA 19133
SN 19211
SV 19810
TP 18962
TW 19435
WY 19716
ZC 19767

[AD] FOR AIRPLANES
DC 20315 THRU 20319
PQ 20514, 20515

[AE] FORGINGS OF 7079-T6 MATERIAL HAVE BEEN REPLACED BY FORGINGS OF 7075-T73 IN PRODUCTION; 7075-T3 FORGINGS ARE RECOMMENDED WHEN EXISTING STOCKS OF 7079-T6 ARE EXHAUSTED.

[AF] FOR AIRPLANES

AF 17613 THRU 17622, 17918 THRU 17924, 18245 THRU 18247, 18375, 18456, 19291
AI 17722 THRU 17724, 18055, 18414, 18415, 18708, 18873, 19247
AR 11407, 19238 THRU 19241
BA 17703 THRU 17717, 18372, 18373, 18411 THRU 18413
LH 17718 THRU 17721, 18056, 18462, 18463, 18819, 18923, 18926 THRU 18931, 19315, 19316
LY 18070, 18071, 18357, 19004, 19502
NW 18584 THRU 18586, 18693, 18710
PA 17572 THRU 17608, 17674, 18083 THRU 18085, 18335 THRU 18339, 18832 THRU 18842, 18956 THRU 18960, 19264 THRU 19266, 19275, 19276
RG 17905, 17906, 18694
SA 17928 THRU 17930, 18891, 19133
SN 17623 THRU 17627, 18374, 18460
TP 18961, 18962
TW 17673, 17675 THRU 17679, 17681, 17682, 17684, 17685, 17687, 17688, 17690, 18405 THRU 18409, 18764, 18913 THRU 18918, 18978 THRU 18985, 19224 THRU 19226

[AG] AA 20170 THRU 20179 ONLY

Passenger Floor Beams Material Identification
Figure 7 (Sheet 6)

NOTES (CONTINUED)

[AH] FOR AIRPLANES

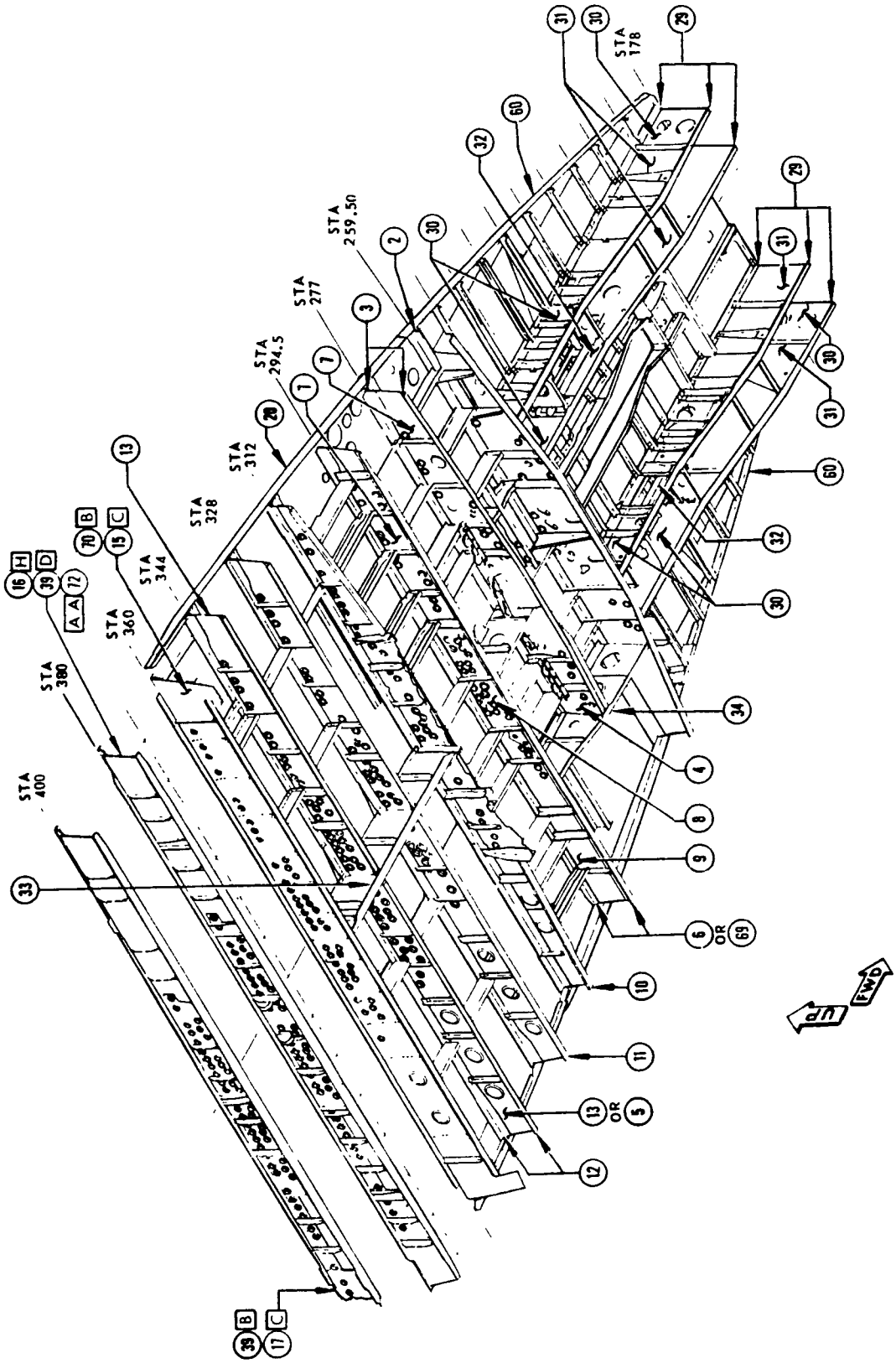
AA 18689 THRU 18692, 18938 THRU 18940, 19235 THRU 19237, 19380 THRU 19384, 19515 THRU 19519, 19581 THRU 19589, 19574 THRU 19577, 20081 THRU 20089, 20170 THRU 20179
AF 17613 THRU 17622, 17918 THRU 17924, 18245 THRU 18247, 18375, 18456 THRU 18459, 18685, 18686, 18881, 18941, 19291, 19292, 19521, 19522, 19723, 19724, 19916, 19917
AI 17722 THRU 17724, 18055, 18414, 18415, 18708, 18873, 19247, 19248, 19988
AR 11407, 19238 THRU 19241, 19961, 19962
AV 19741, 20340
BA 17703 THRU 17717, 18411 THRU 18413, 18372, 18373, 18924, 18925, 19498, 19590, 19821, 19843, 20374, 20375, 20456, 20457, 20517
BN 19104, 19105, 19107, 19108, 19440, 19531
BR 19415, 19767
CI 20261, 20262, 18710, 19178
CO 18825, 18887, 19177, 19350 THRU 19353, 19869
DC 20315, 20316, 20319
EJ 19417, 19664, 19986
ET 19736, 19820
FT 18975, 18976, 19354, 19355
GR 19997 THRU 2000
IN 18880, 19001, 19410
IR 20287, 20288, 20741
IU 20714 THRU 20717, 20718 THRU 20723
KE 20522
KU 20084 THRU 20086, 20546, 20547
LA 19000
LG 18737
LH 17718 THRU 17721, 18056, 18462, 18463, 18819, 18923, 18926 THRU 18932, 18937, 19315 THRU 19317, 20123, 20124, 20395
LY 18070, 18071, 18357, 19004, 19502, 20097, 20122, 20301
LW 18886
ME 20224, 20225, 20259, 20260
MS 19844, 19845, 20341, 20342, 20760 THRU 20763
NW 18584 THRU 18586, 18693, 18746 THRU 18748, 18888, 1889, 18921, 18922, 3964, 19034, 19163, 19164, 19168, 19209, 19210, 19263, 19411, 19412, 19434, 19443, 19631 THRU 19636, 19773 THRU 19777, 19872
QA 18948 THRU 18950, 19760, 20035, 20036
PA 17592 THRU 17608, 17574, 17677, 17680 17683, 17686, 17689, 18083 THRU 18085, 18335 THRU 18339, 18579, 18580, 18591, 18714 THRU 18718, 18765 THRU 18767, 18790, 18824, 18832 THRU 18842, 18956 THRU 18960, 19264 THRU 19278, 19361 THRU 19366, 19367 THRU 19379, 19693 THRU 19699, 20016 THRU 20034
PK 19284 THRU 19286, 19866, 20275, 20487, 20488
PQ 20514, 20515
PW 18826
QF 18808 THRU 18810, 18953 THRU 18955, 19293 THRU 19297, 19621 THRU 19630
RD 19416, 20076, 20077
RG 17905, 17906, 18694, 19106, 19320 THRU 19322, 19433, 19822, 19840 THRU 19842, 19870, 19871, 20008
RJ 20494, 20495
SA 17928 THRU 17930, 18891, 19133, 19705, 19706, 20230, 20283, 20110
SN 17623 THRU 17627, 18374, 18460, 18890, 19162, 19211, 19996, 20198 THRU 20200
SQ 19737 THRU 19739, 19529, 19530
SV 19809, 19810
TP 18961, 18962, 19740, 19969, 20136, 20297, 20298
TW 17673 THRU 17690, 18405 THRU 18409, 18709, 18711 THRU 18713, 18738, 18756, 18757, 18764, 18913 THRU 18918, 18978 THRU 18985, 19212 THRU 19214, 19224 THRU 19227, 19435, 19566, 19567, 19570 THRU 19573, 20058 THRU 20069
VM 20629
WA 19963 THRU 19967
WD 19789, 20043
WT 20474, 20669
WY 18582, 28583, 28707, 28991, 19179, 19441, 19442, 19715, 19716

[AI] FOR AIRPLANES NOT LISTED IN [AH]

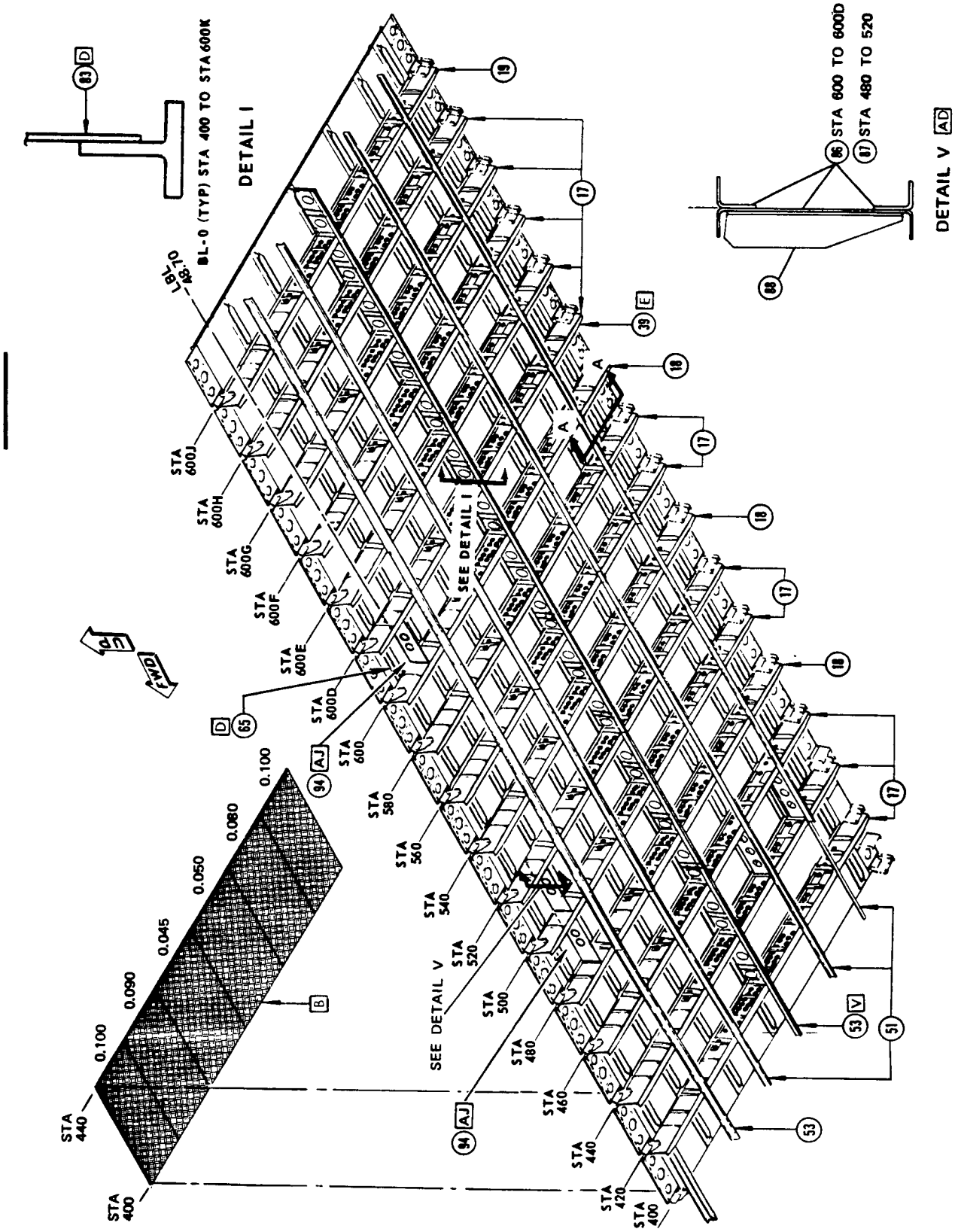
[AJ] TWO CARGO LOADER SUPPORT FITTINGS IN THIS AREA FOR IM AND PQ AIRPLANES AND AIRPLANES THAT HAVE INCORPORATED CARGO ELEVATOR PROVISIONS.

[AK] FOR CUM LINE NUMBERS. 883, 897, 903, 911

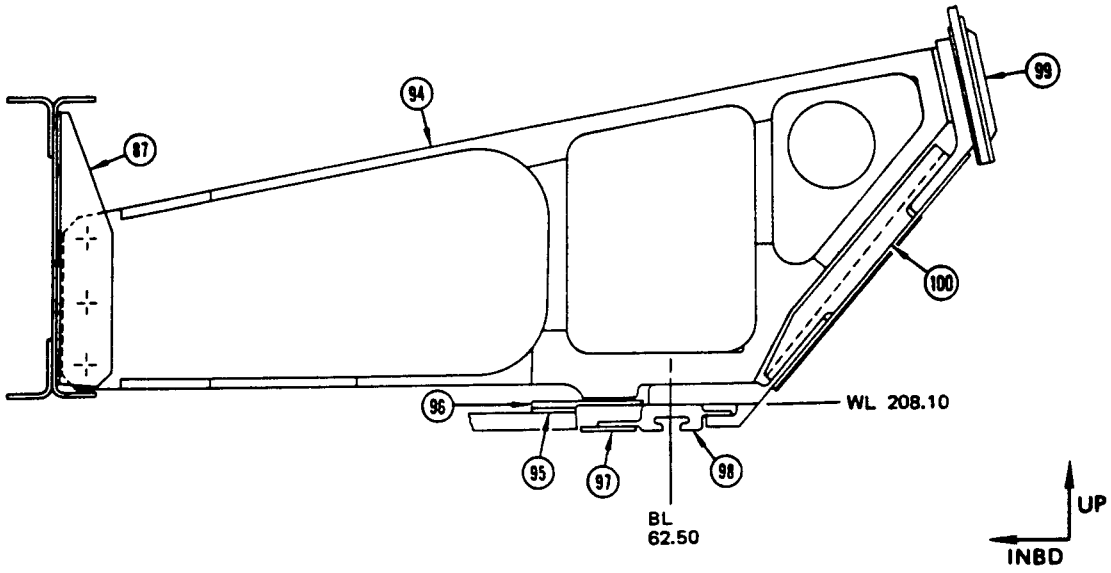
[AL] TWO CARGO LOADER SUPPORT FITTINGS IN THIS AREA FOR I.M. AIRPLANES



Passenger Floor Beams Material Identification
Figure 7 (Sheet 6B)

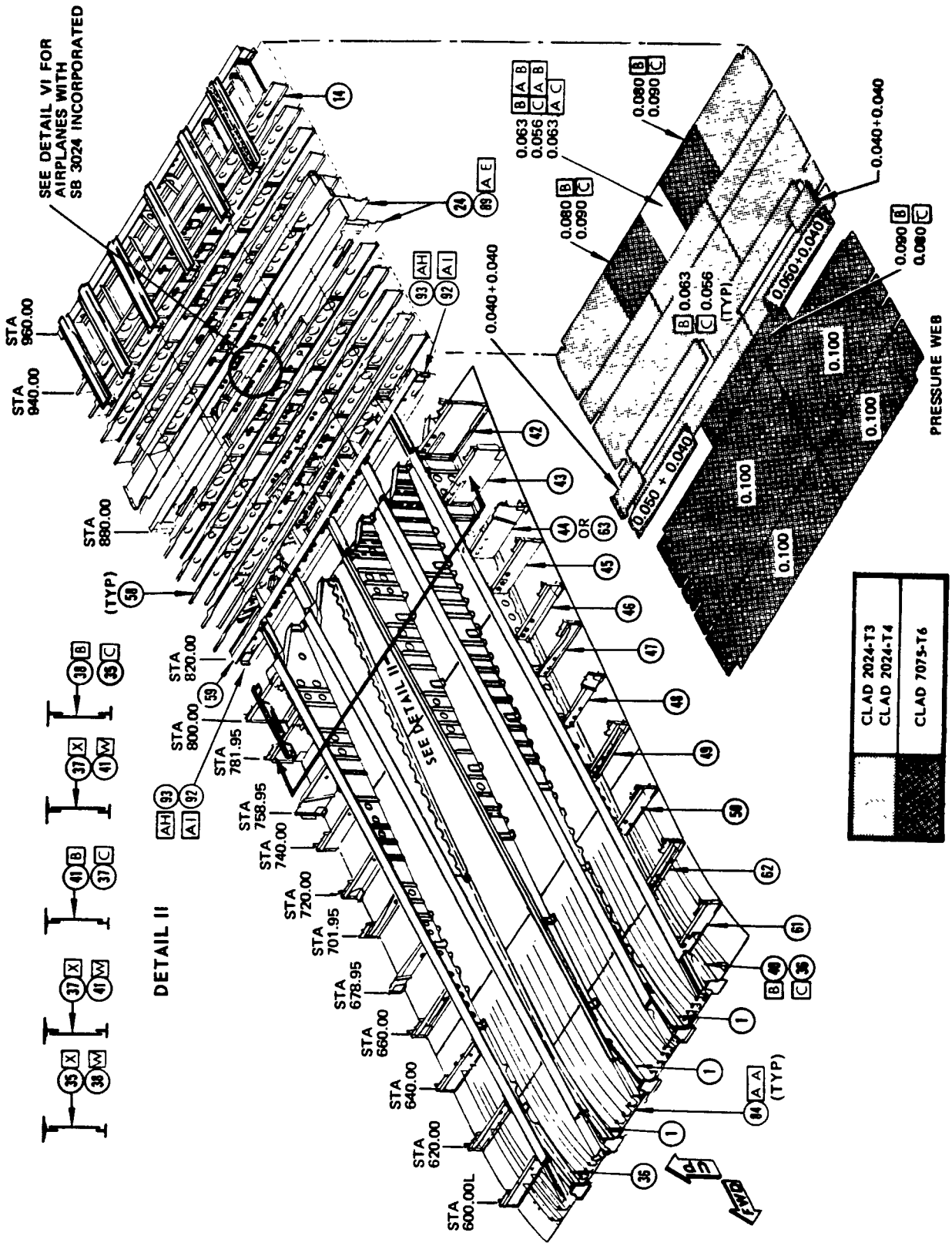


Passenger Floor Beams Material Identification
Figure 7 (Sheet 7)

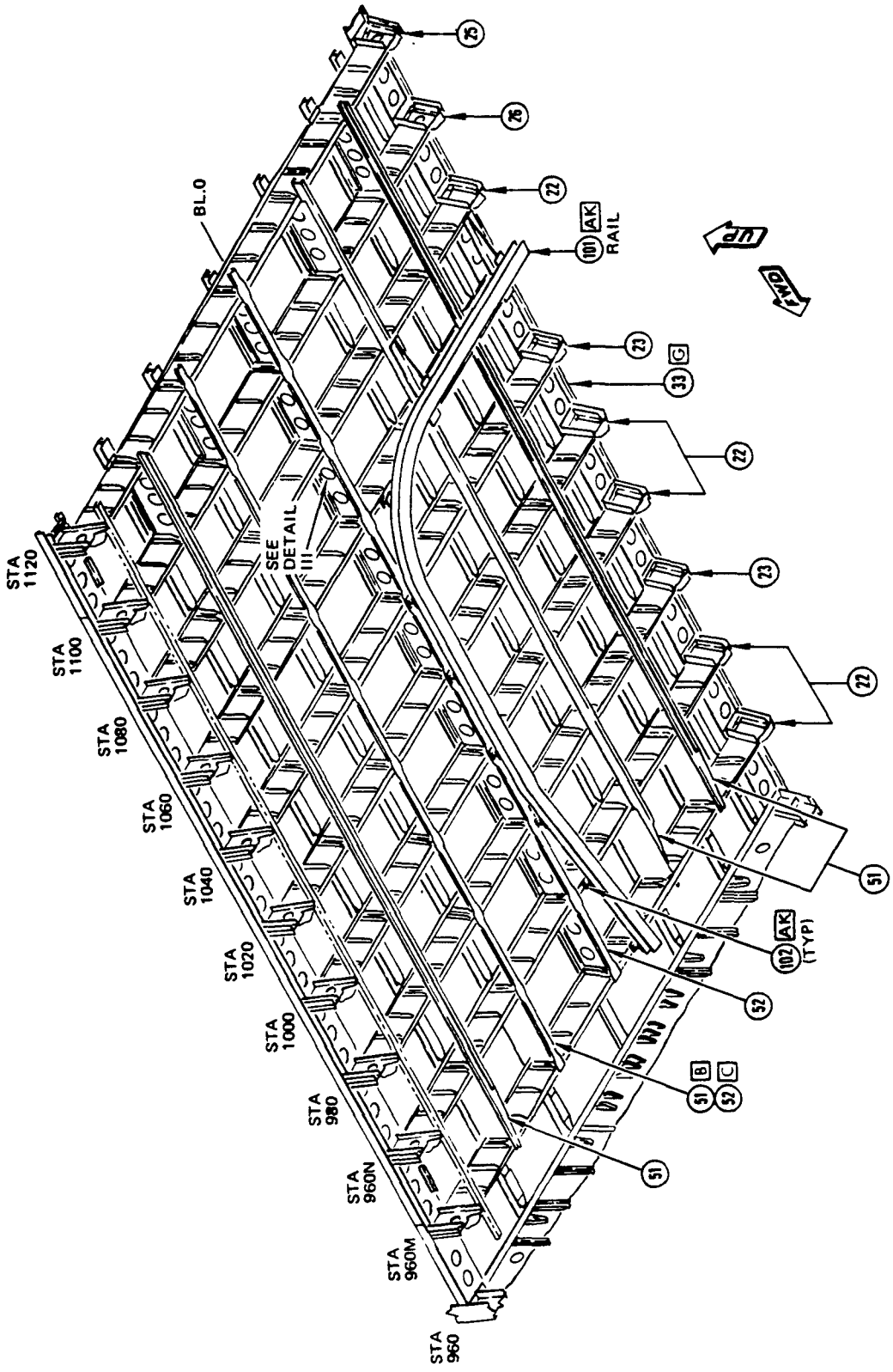


SUPPORT FITTING AL
CARGO RAIL

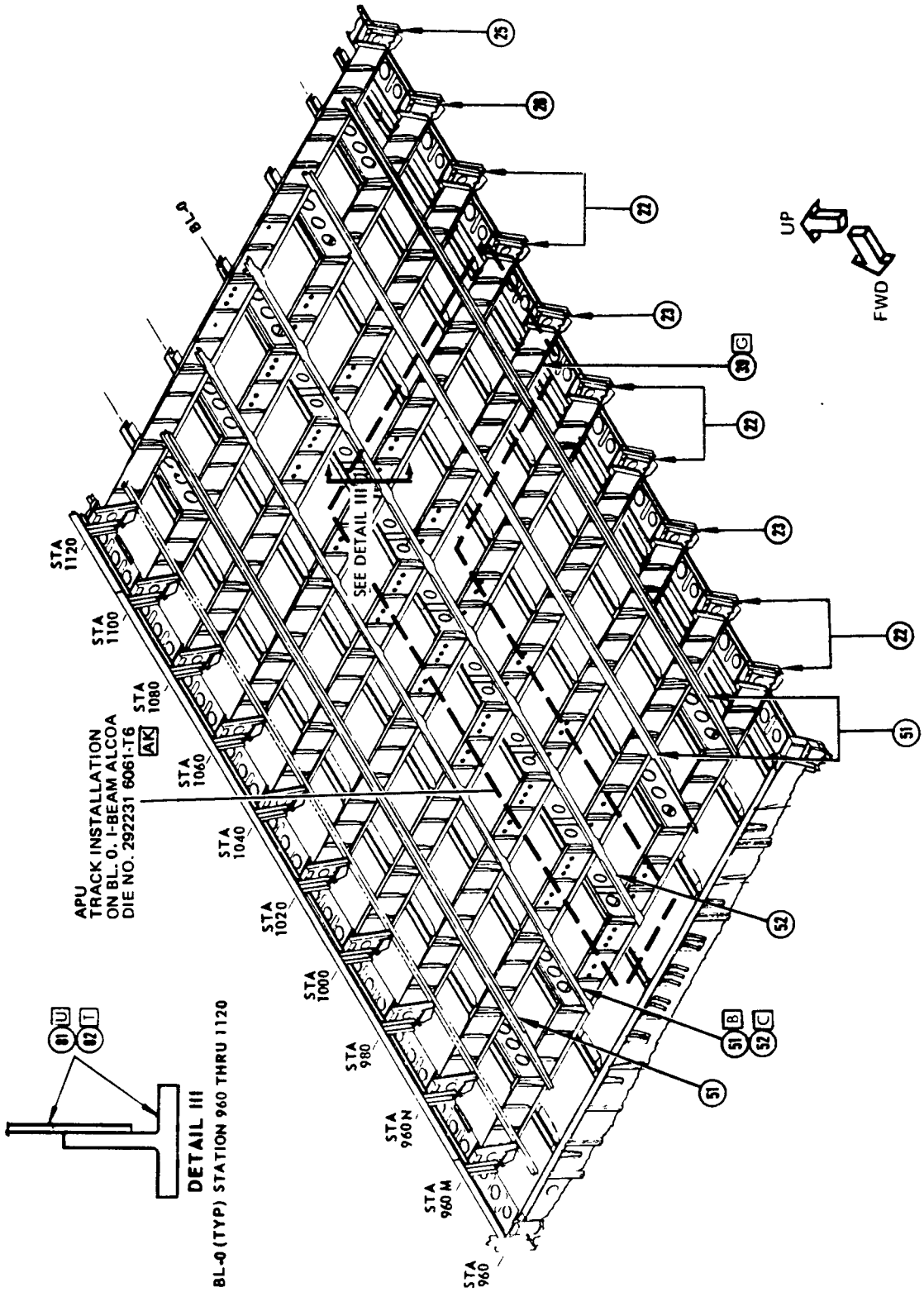
SECTION A–A



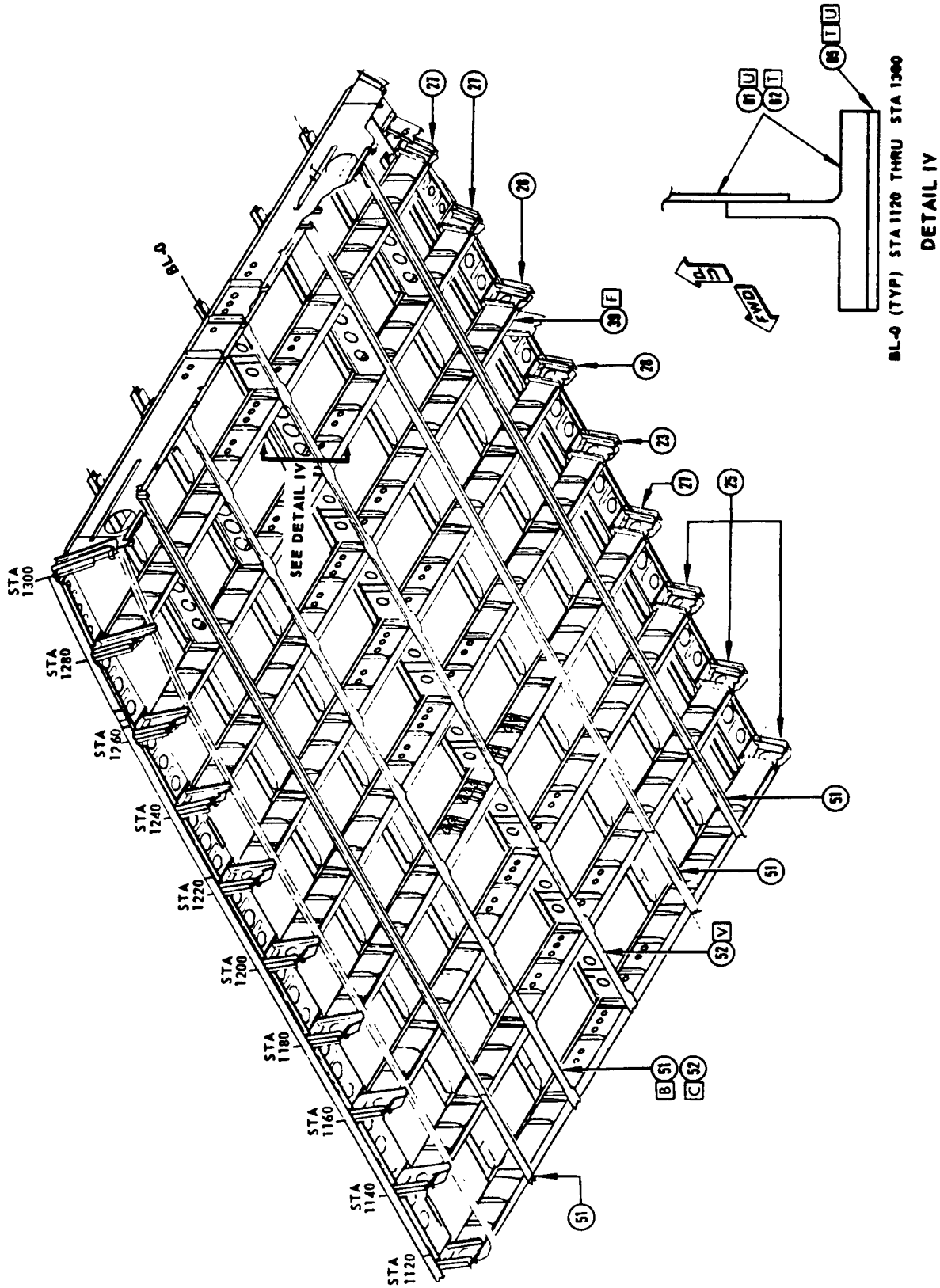
Passenger Floor Beams Material Identification
Figure 7 (Sheet 9)



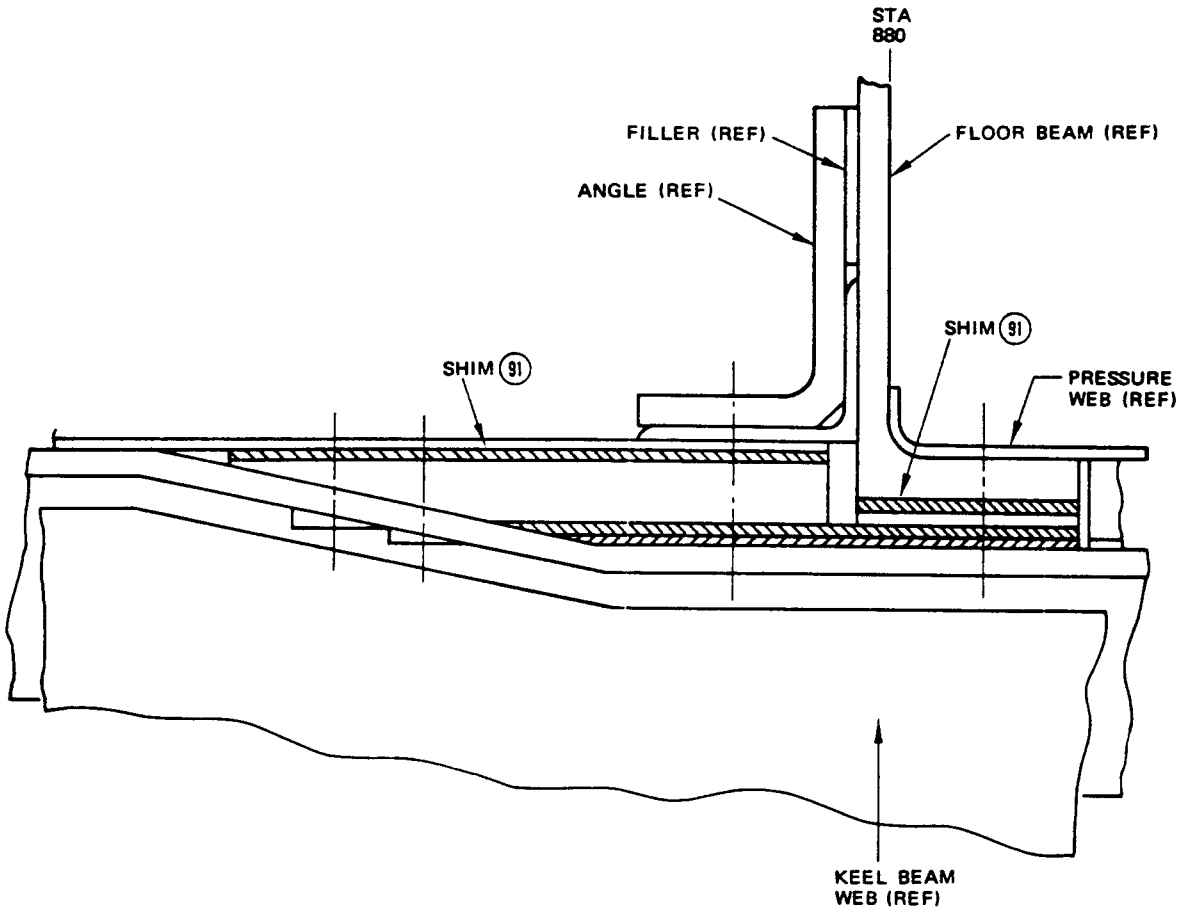
Passenger Floor Beams Material Identification
Figure 7 (Sheet 10)



Passenger Floor Beams Material Identification
Figure 7 (Sheet 11)



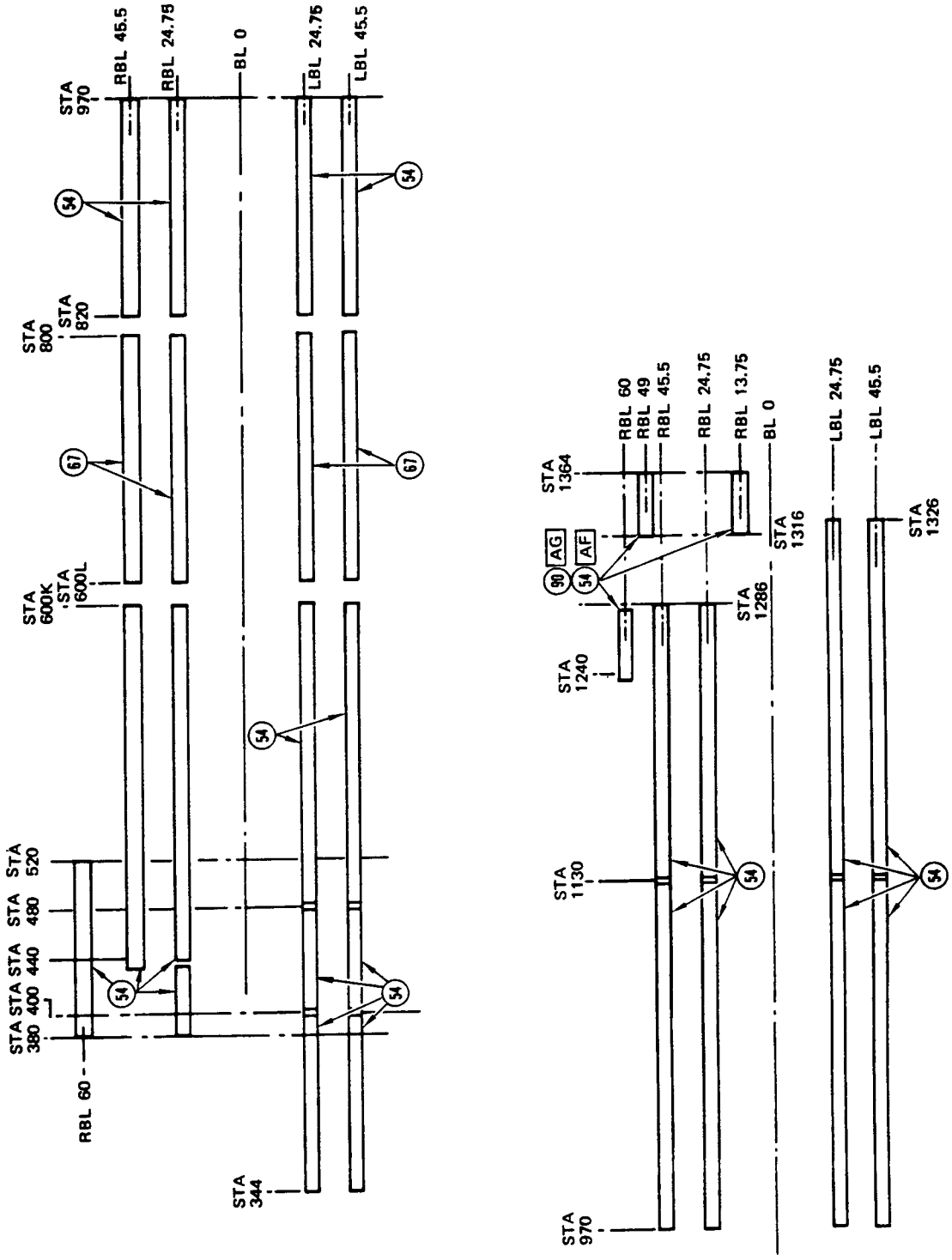
Passenger Floor Beams Material Identification
Figure 7 (Sheet 12)



FOR AIRPLANES WITH SHIMS
INCORPORATED BY SB 3024

DETAIL VI

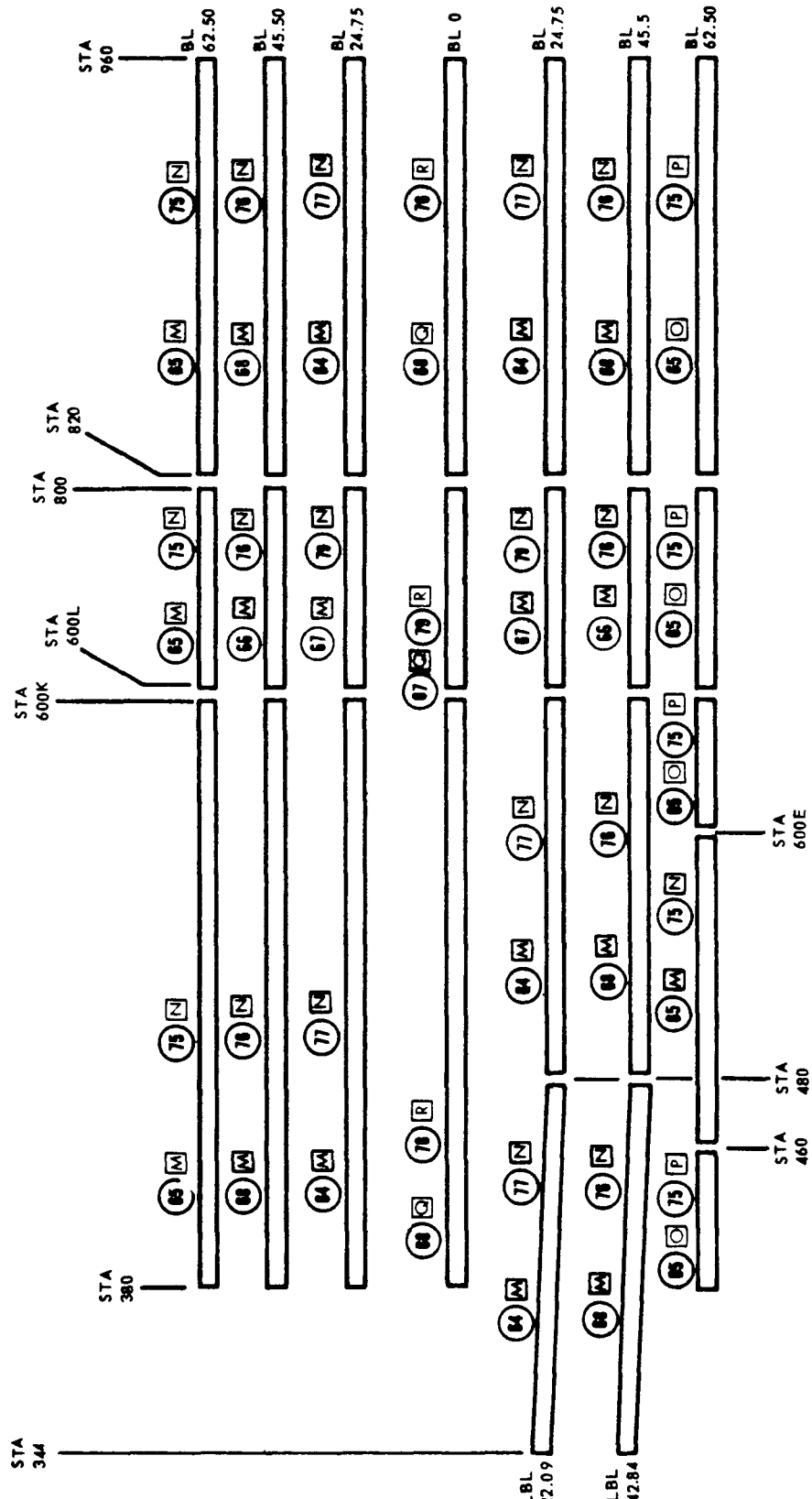
Passenger Floor Beams Material Identification
Figure 7 (Sheet 13)



SEAT TRACK CONFIGURATION

Passenger Floor Beams Material Identification
Figure 7 (Sheet 14)

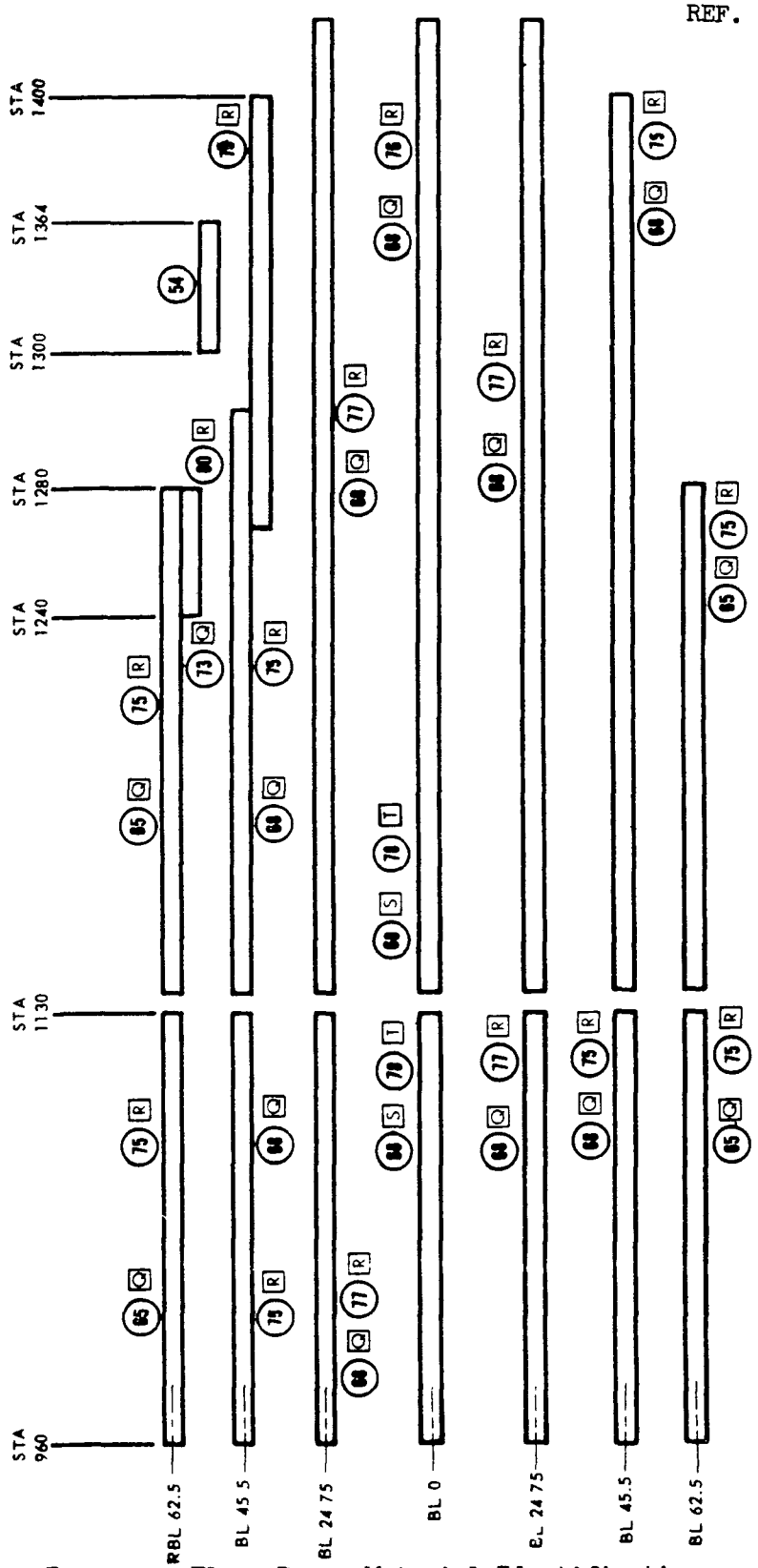
REF DWG
65-29840
65-29841
65-29842
65-31469
65-33553
69-1650
65-29860



Passenger Floor Beams Material Identification
Figure 7 (Sheet 15)

EFFECTIVITY
CARGO AIRPLANES

REF. DWG. 65-29854
65-14094



Passenger Floor Beams Material Identification
Figure 7 (Sheet 16)

ITEM	GAGE	SECTION NUMBER	STRINGER TYPE	REPAIR FIG. NO.
A	0.032	BAC 1498-95 7075-T6 CLAD	HAT SECTION (NARROW)	53-3-4 FIG. 1,2&3
B	0.040	BAC 1498-96 7075-T6 CLAD	HAT SECTION (NARROW)	53-3-4 FIG. 1,2&3
C	0.050	BAC 1498-97 7075-T6 CLAD	HAT SECTION (NARROW)	53-3-4 FIG. 1,2&3
D	0.056	BAC 1498-98 7075-T6 CLAD	HAT SECTION (WIDE)	53-3-4 FIG. 1 2&3
E	0.064	BAC 1498-99 7075-T6	HAT SECTION (WIDE)	53-3-4 FIG. 1 2&3
F	0.071	BAC 1498-100 7075-T6	HAT SECTION (WIDE)	53-3-4 FIG.1,2&3
G	0.080	BAC 1498-101 7075-T6	HAT SECTION (WIDE)	53-3-4 FIG 1,2&3
H	0.090	BAC 1498-102 7075-T6	HAT SECTION (WIDE)	53-3-4 FIG 1 2&3
J	0.045	BAC 1498-106 7075-T6 CLAD	HAT SECTION (NARROW)	53-3-4 FIG 1 2&3
K	0.040	BAC 1498-107 7075-T6 CLAD	HAT SECTION (NARROW-HEIGHT 1.19")	53-3-4 FIG 1,2&3
L	0.060 MIN	BAC 1517-1160 7075-T6	ZEE SECTION	51-14-4 FIG. 1
M	0.125 MIN	BAC 1517-1161 7075-T6	ZEE SECTION	51-14-4 FIG. 1
N	0.050	BAC 1498-109 7075-T6 CLAD	HAT SECTION (WIDE	53-3-4 FIG 1,2&3
P	0.032	BAC 1498-108 7075-T6 CLAD	HAT SECTION (NARROW-HEIGHT 1.19")	53-3-4 FIG 1,2&3
Q	0.056	BAC 1498-110 7075-T6 CLAD	HAT SECTION (NARROW)	53-3-4 FIG 1,2&3
R	0.050	BAC 1498-112 7075-T6 CLAD	HAT SECTION (NARROW)	53-3-4 FIG 1 2&3
S		SPECIAL		
T	0.045	BAC 1498-113 7075-T6 CLAD	HAT SECTION (WIDE)	53-3-4 FIG 1,2&3
U	0.063	BAC 1498-114 7075-T6	HAT SECTION (NARROW)	53-3-4 FIG.1,2&3
V	0.090 MIN	BAC 1517-1246 7075-T6	ZEE SECTION	51-14-4 FIG. 1
W	0.063	BAC1498-137 7075-T6	HAT SECTION (NARROW)	53-3-4 FIG.1,2&3
AD	0.080	BAC1509-100235 7075-T6	HAT SECTION	53-3-4 FIG. 1,2&3
AE	0.090	BAC1509-100236 7075-T6	HAT SECTION	53-3-4 FIG. 1,2&3
AF	0.080	BAC1498-146 7075-T6	HAT SECTION	53-3-4 FIG. 1,2&3
AG	0.090	BAC1498-147 7075-T6	HAT SECTION	53-3-4 FIG. 1,2&3
AH	0.140 MIN	MAKE FROM BAC1506-1140 7075-T6	TEE SECTION	51-14-4 FIG. 1
AK	0.060	BAC1506-1133 7075-T6	TEE SECTION	51-14-4 FIG. 1
AM	0.051	BAC1517-1085 CLAD 7075-T6	ZEE SECTION	
AN	0.050	CLAD 2024-T4	FORMED ANGLE	
AP	0.050	CLAD 2024-T4	FORMED ANGLE	
AQ	0.125 MIN	BAC1514-563 7075-T6	ANGLE	
AR	0.071	7075-T6	HAT SECTION	
AS	0.060	BAC1506-1132 7075-T6	TEE SECTION	51-14-4 FIG 1
AT	0.10 MIN	MAKE FROM BAC1514-815 2024-T4	ANGLE	
AU	0.094	AND10137-0606 7075-T6	CHANNEL	
AV		MAKE FROM BAC1506-1139 7075-T6	TEE SECTION	
AW	0.06 MIN.	BAC1506-1147 7075-T6	TEE SECTION	
AX	0.071	BAC1498-149 CLAD 7075-T6	HAT SECTION	53-3-4 FIG. 1, 2 & 3
AY	0.156	BAC1517-183 7075-T6	ZEE SECTION	
ZD, ZE	SEE NOTES FOR MATERIAL			

NOTES

WA FOR CUM LINE NUMBERS:
13, 20, 58, 61, 62, 68, 70, 71, 75, 76, 83, 84, 91, 98, 107, 121, 122, 209, 212, 217, 268, 270, 276, 287, 292, 403, 405, 406, 408, 409, 411, 417 THRU 419, 421, 466, 472, 475, 484, 527, 529, 531, 590, 592, 603, 605, 618, 620, 623, 628, 631, 633, 658, 661, 672, 673, 678, 684, 694, 697, 699, 767 THRU 769, 774 THRU 776, 780 THRU 783, 790 THRU 793, 797, 798

WB FOR CUM LINE NUMBERS:
73, 74, 79, 80, 86, 88, 89, 103, 104, 116, 117, 124, 125, 135 THRU 137, 305, 320, 323, 326, 331, 399, 400, 415, 424, 455, 462, 465, 468, 469, 476, 483, 485, 487, 496, 559, 568, 585, 607, 674, 685, 687, 704, 766, 772, 773, 784, 785, 789, 799, 802, 810, 812

WC FOR CUM LINE NUMBERS:
685, 687, 704, 766, 772, 773, 784, 785, 789, 799, 802, 810, 812

WD FOR CUM LINE NUMBERS:
435, 446, 454, 457, 459, 461, 464, 482, 545, 547, 551, 779 AND AIRPLANES WITH SB 2951 INCORPORATED

WE FOR CUM LINE NUMBERS:
455, 462, 465, 468, 469, 476, 483, 485, 487, 496, 559, 568, 585, 607, 674, 685, 687, 704, 766, 772, 773, 784, 785, 789, 799, 802, 810, 812

WF STRINGER 17 (REF WL 208.1) IS DOORSILL OUTER CHORD

WG FOR CUM LINE NUMBERS:
105, 275, 282, 283, 328, 353, 375, 402, 441, 520, 538

WH FOR AIRPLANES WITH SB 2951 INCORPORATED

WK FOR CUM LINE NUMBERS:
13, 20, 58, 61, 62, 68, 70, 71, 73 THRU 76, 79, 80, 83, 84, 86, 88, 89, 91, 98, 103, 104, 107, 116, 117, 121, 124, 125, 135 THRU 137, 209, 212, 217, 268, 270, 276, 287, 292, 305, 320, 323, 326, 331, 399, 400, 403, 405, 406, 408, 409, 411, 412, 415, 418, 419, 421, 424, 455, 462, 465, 466, 468, 469, 472

WM STRINGER 29 IS LOWER CHORD OF KEEL BEAM

WN STRINGERS ARE 7075-T6 TAPERED GAGE HAT SECTION

WO FOR CUM LINE NUMBERS:
122, 417, 475, 476, 483 THRU 485, 487, 496, 527, 529, 531, 559, 568, 585, 590, 592, 603, 605, 607, 618, 620, 623, 628, 631, 633, 658, 661, 672 THRU 674, 678, 684, 685, 687, 694, 697, 699, 704, 766 THRU 769, 772 THRU 776, 780 THRU 785, 789 THRU 793, 797 THRU 799, 802, 810, 812

WP FOR CUM LINE NUMBERS:
35, 112, 127, 128, 145, 163, 164, 169 THRU 171, 175, 266, 271, 330, 334

WQ FOR CUM LINE NUMBERS:
851, 853

Fuselage Stringer Identification
Figure 8 (Sheet 2)

NOTES (Cont)

WR FOR CUM LINE NUMBERS:
330, 334

WS FOR CUM LINE NUMBERS:
81, 82, 93, 110, 111, 126, 138, 139, 151 THRU 153, 160, 161, 167, 168, 264, 269, 293

WT FOR CUM LINE NUMBERS:
325, 327, 329, 359, 360, 471, 536

WU FOR CUM LINE NUMBERS:
269, 293

WV FOR CUM LINE NUMBERS:
325, 327, 329, 359, 360, 471

WW FOR CUM LINE NUMBERS:
536

WX FOR CUM LINE NUMBERS:
375, 402, 520, 538

WY FOR CUM LINE NUMBERS:
283, 328, 353, 375, 402, 441, 520, 538

WZ FOR CUM LINE NUMBERS:
78, 99, 105, 114, 118, 133, 134, 154, 155, 275, 282, 283, 328, 353, 375, 402, 441

XA FOR CUM LINE NUMBERS:
520, 538

XB FOR CUM LINE NUMBERS:
90, 106, 115, 162, 192, 205, 216, 272, 333, 398, 435, 446, 454, 457, 459, 461, 464

XC FOR CUM LINE NUMBERS:
482, 545, 547, 551

XD FOR CUM LINE NUMBERS:
90, 106, 115, 162, 192, 205, 216, 272

XE FOR CUM LINE NUMBERS:
333, 398, 435, 446, 454, 457, 459, 461, 464, 482, 545, 547, 551, 779

XF FOR CUM LINE NUMBERS:
779

XG FOR CUM LINE NUMBERS:
272, 398, 435, 446, 454, 457, 459, 461, 464

XH FOR CUM LINE NUMBERS:
482, 545, 547, 551, 779

XJ FOR CUM LINE NUMBERS:
456

XK FOR CUM LINE NUMBERS:
501, 676, 681, 713, 725, 751, 765, 770, 778, 803, 836, 840, 842

XL FOR CUM LINE NUMBERS:
795, 796, 804, 805, 808, 811, 817, 818, 820, 821, 869, 870, 880, 882, 896, 897, 900

XM FOR CUM LINE NUMBERS:
896, 897

XN FOR ALL NONCARGO AIRPLANES EXCEPT CUM LINE NUMBER 456

XO FOR CUM LINE NUMBERS:
475, 476, 483 THRU 485, 487, 496, 527, 529, 531, 559, 568, 585, 590, 592, 603, 605, 618, 620, 623, 628, 631, 633, 658, 661, 672 THRU 674, 678, 684, 685, 687, 688, 694, 697

NOTES (Cont)

[XP] FOR CUM LINE NUMBERS:
122, 417, 607, 699, 704, 766 THRU 769, 772 THRU 776, 780 THRU 785, 789 THRU 793, 797 THRU 799, 802, 810, 812

[XQ] FOR CUM LINE NUMBERS:
536

[XR] FOR CUM LINE NUMBERS:
501, 528, 542, 543, 555, 676, 681, 690, 695

[XS] FOR CUM LINE NUMBERS:
706, 713, 725, 731, 742, 751, 765, 770, 778, 795, 796, 803 THRU 805, 808, 811, 817, 818, 820, 821, 836, 840, 842, 869, 870, 880, 882, 896, 897

[XT] FOR CUM LINE NUMBERS:
475, 476, 478, 483 THRU 485, 487

[XU] FOR CUM LINE NUMBERS:
122, 417, 496, 527, 529, 531, 559, 568, 585, 590, 592, 603, 605, 607, 618, 620, 623, 628, 631, 633, 658, 661, 672 THRU 674, 678, 684, 685, 687, 694, 697, 699, 704, 766 THRU 769, 772 THRU 776, 780 THRU 785, 789 THRU 793, 797 THRU 799, 802, 810, 812

[XV] FOR CUM LINE NUMBERS:
333, 398, 435, 446, 454, 459, 461, 464

[XW] FOR CUM LINE NUMBERS:
482

[XX] FOR CUM LINE NUMBERS:
90, 106, 115, 162, 192, 205, 216, 272, 457, 545, 547, 551, 779

[XY] FOR CUM LINE NUMBERS:
528, 542, 543, 555

[XZ] FOR CUM LINE NUMBERS:
897

[ZA] FOR CUM LINE NUMBERS 681 AND 842 AND AIRPLANES WITH SB 2951 INCORPORATED

[ZB] FOR CUM LINE NUMBERS:
681, 713, 725, 751, 765, 770, 778, 803, 836, 840, 842

[ZC] FOR CUM LINE NUMBERS:
268, 270, 276, 287, 292, 403, 405, 406, 408, 409, 411, 417 THRU 419, 421, 466, 473, 475, 484, 527, 529, 531, 590, 592, 603, 605, 618, 620, 623, 628, 631, 633, 658, 661, 672, 673, 678, 684, 694, 697

[ZD] STRINGER MATERIAL IS [N] OR [AE] WITH [AG] OPTIONAL

[ZE] STRINGER MATERIAL IS [G] OR [AD] WITH [AF] OPTIONAL

[ZF] FOR CUM LINE NUMBERS:
333, 398, 435, 446, 454, 457, 459, 461, 464, 482, 545, 547, 551

[ZG] FOR CUM LINE NUMBERS:
779

[ZH] FOR CUM LINE NUMBERS:
699, 767 THRU 769, 774 THRU 776, 780 THRU 783, 790 THRU 793, 797, 798

[ZJ] FOR CUM LINE NUMBERS:
209, 212, 217

Fuselage Stringer Identification
Figure 8 (Sheet 4)

NOTES (Cont)

ZK FOR CUM LINE NUMBERS:
13, 20, 58, 61, 62, 68, 70, 71, 75, 76, 83, 84, 91, 98, 107, 121, 122

ZL FOR CUM LINE NUMBERS:
78, 99, 105, 114, 118, 133, 134, 154, 155, 353

ZM FOR CUM LINE NUMBERS:
704, 766, 772, 773, 784, 785, 789, 799, 802, 810, 812

ZN FOR CUM LINE NUMBERS:
81, 82, 93, 110, 111, 126, 138, 139, 151 THRU 153, 160, 161, 167, 168

ZO FOR CUM LINE NUMBERS:
264, 269, 293, 325, 327, 329, 359, 360, 471, 536

ZP FOR CUM LINE NUMBERS:
90, 106, 1105, 162

ZQ FOR CUM LINE NUMBERS:
192, 205, 216, 272

ZR FOR CUM LINE NUMBERS:
266, 330, 334

ZS FOR CUM LINE NUMBERS:
35, 112, 127, 128, 145, 163, 164, 169 THRU 171, 175, 271

ZT FOR CUM LINE NUMBERS:
275, 282, 283, 328

ZU FOR CUM LINE NUMBERS:
690, 695

ZV FOR CUM LINE NUMBERS:
706, 731, 742

ZW FOR CUM LINE NUMBERS:
305, 320, 323, 326, 331, 399, 400, 415, 424, 455, 462, 465, 468, 469, 476, 483, 485, 487, 496, 559, 568, 585, 607, 674, 685, 687

ZX FOR CUM LINE NUMBERS:
268, 270, 276, 287, 292, 305, 320, 323, 326, 331, 399, 400, 403, 405, 406, 408, 409, 411, 415, 417 THRU 419, 421, 424, 455, 462, 465, 466, 468, 469, 472, 475, 476, 483 THRU 485, 487, 496, 527, 529, 531, 559, 568

ZY FOR CUM LINE NUMBERS:
268, 270, 276, 287, 292, 305, 320, 323, 326, 331, 399, 400, 403, 405, 406, 408, 409, 411, 415, 417 THRU 419, 421, 424, 455, 462, 465, 466, 468, 469, 472, 475, 476

ZZ FOR CUM LINE NUMBERS:
483 THRU 485, 487, 496, 527, 529, 531, 559

YA FOR CUM LINE NUMBERS:
568

YB FOR CUM LINE NUMBERS:
585, 590, 592, 603, 605, 607, 618, 620, 623, 628, 631, 633, 658, 661, 672 THRU 674, 678, 684, 685, 687, 694, 697, 699, 704, 766 THRU 769, 772 THRU 776, 781 THRU 785, 789 THRU 793, 797 THRU 799, 802, 810, 812

YC FOR CUM LINE NUMBERS:
482, 545, 547, 551

YD FOR CUM LINE NUMBERS:
501, 528, 542, 543, 555, 676, 681, 690, 695, 706, 713, 725, 731, 742, 751, 765, 770, 778, 803, 836, 840, 842

YE FOR CUM LINE NUMBERS:
501, 528, 542, 543, 555

YF FOR CUM LINE NUMBERS:
690, 695, 706, 731, 742

Fuselage Stringer Identification
Figure 8 (Sheet 5)

NOTES (Cont)

YG FOR CUM LINE NUMBERS:
105, 114, 275, 282, 353, 375, 402,
520

YH FOR CUM LINE NUMBERS:
78, 99, 105, 114, 118, 133, 134,
154, 155, 275, 282, 283, 328, 353

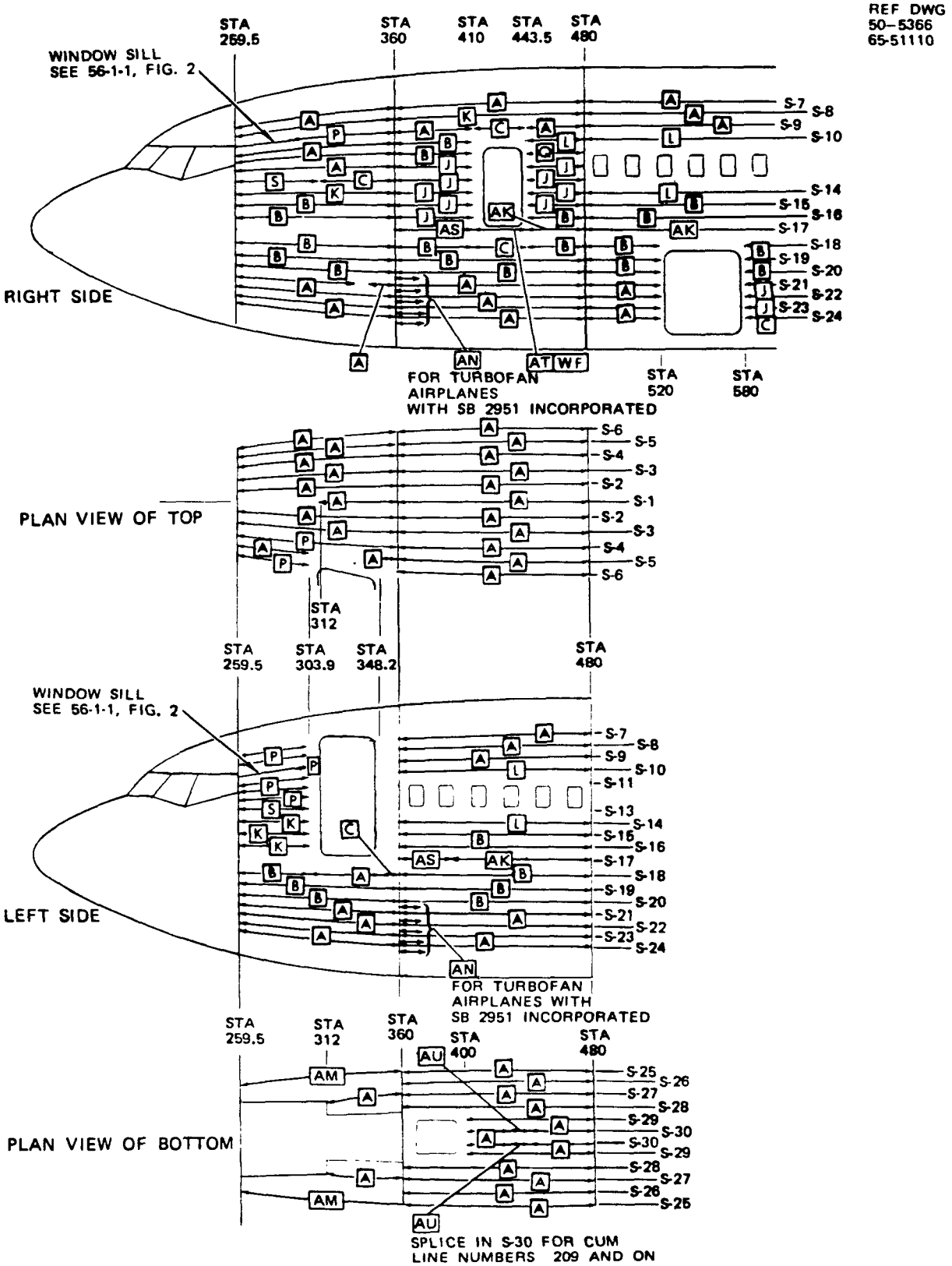
YJ FOR CUM LINE NUMBERS:
375, 402, 441, 520, 538

YK FOR CUM LINE NUMBERS:
795, 796, 804, 805, 808, 811, 817,
818, 820, 821

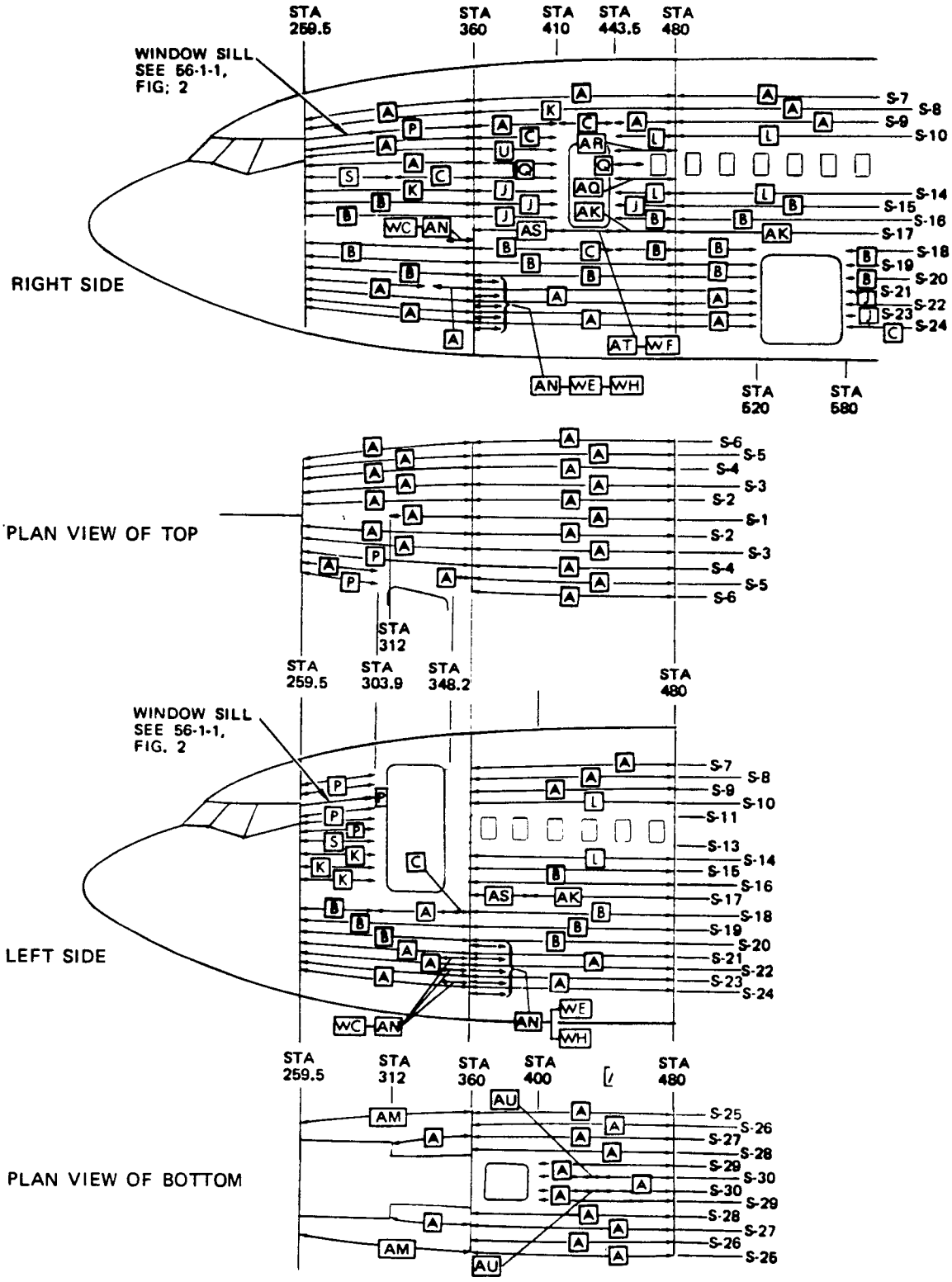
YL FOR CUM LINE NUMBERS:
869, 870, 880, 882, 896, 900

Fuselage Stringer Identification
Figure 8 (Sheet 6)

REF DWG
50-5366
65-51110

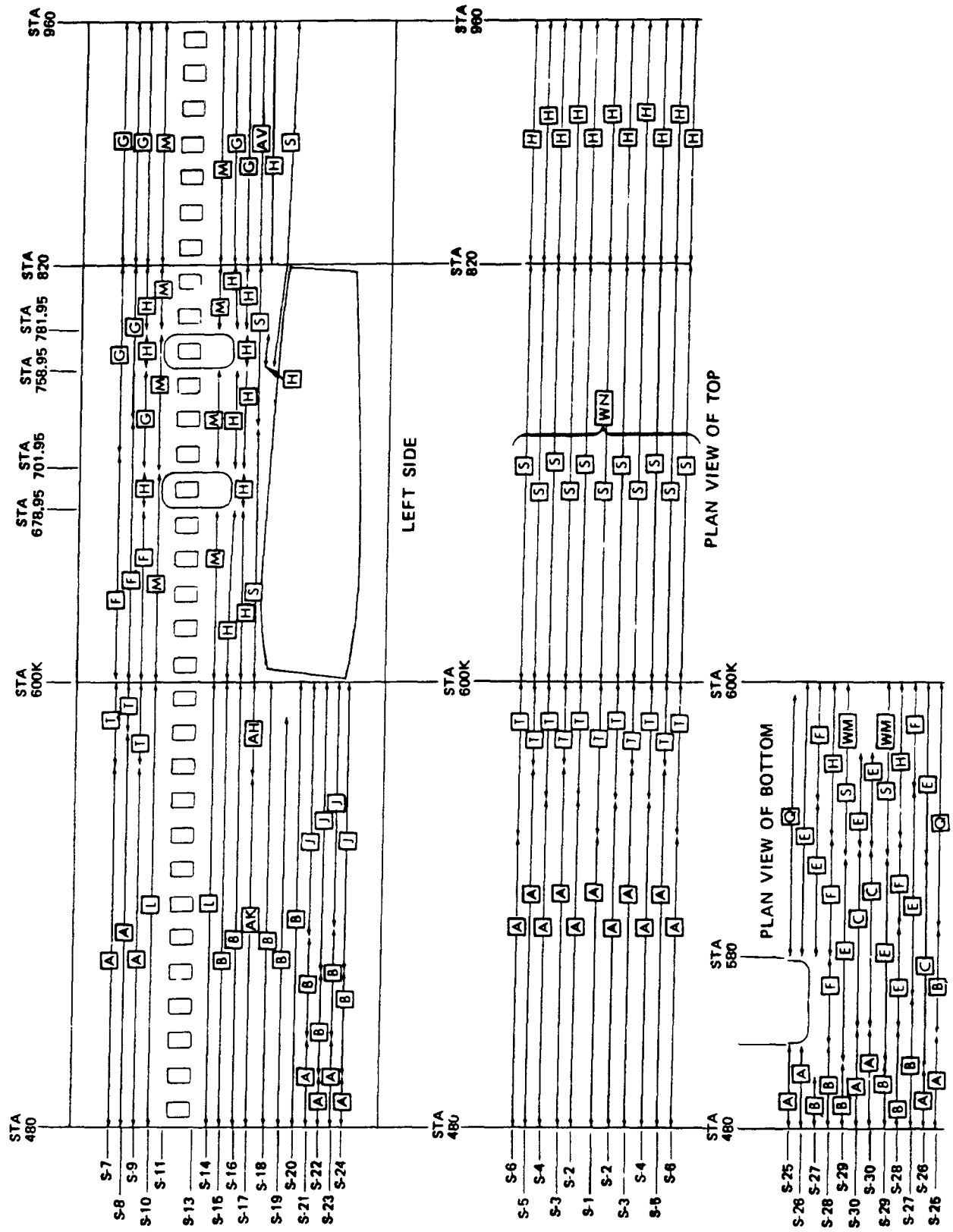


Fuselage Stringer Identification
Figure 8 (Sheet 7)

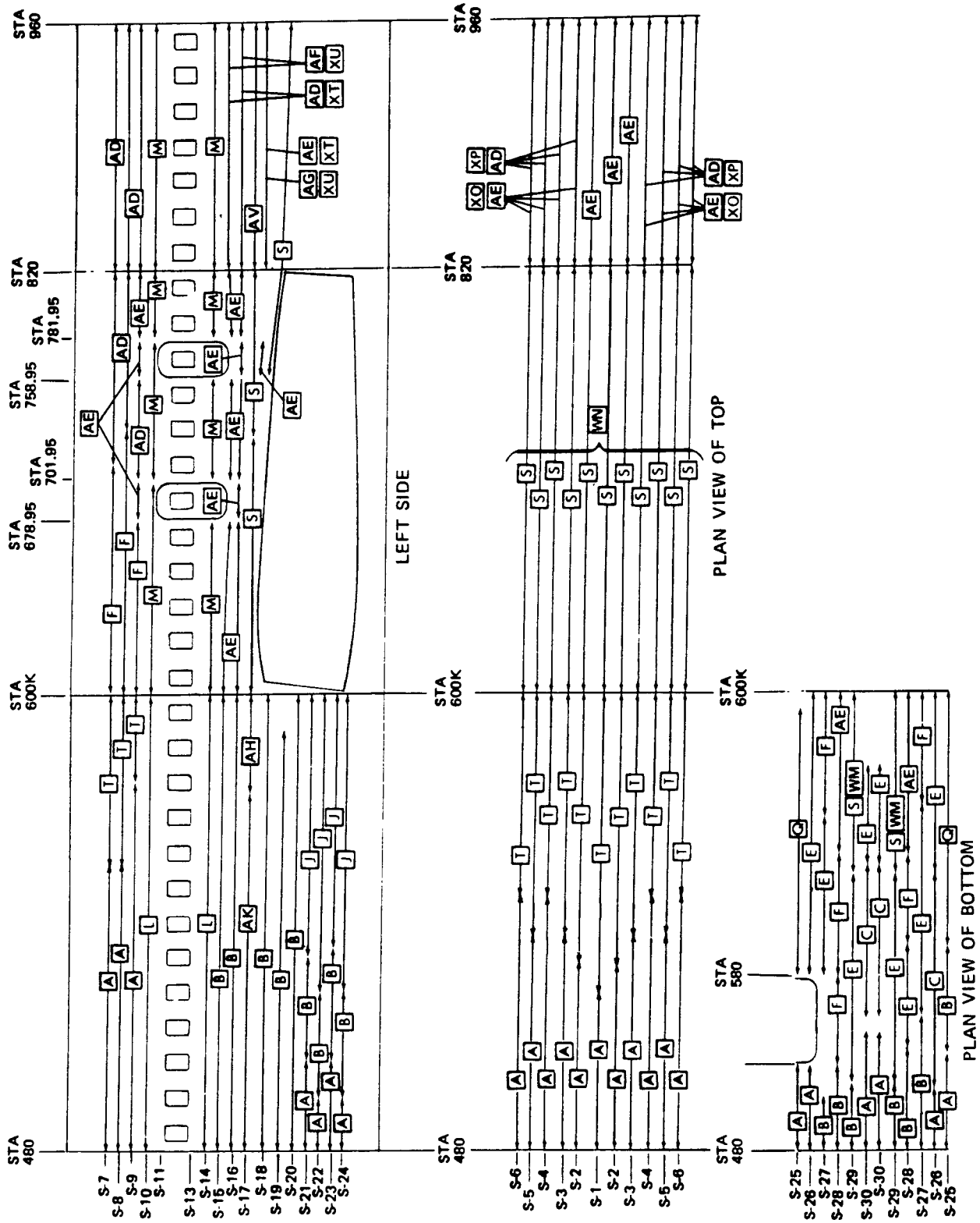


Fuselage Stringer Identification
Figure 8 (Sheet 8)

EFFECTIVITY
WK
NON-CARGO

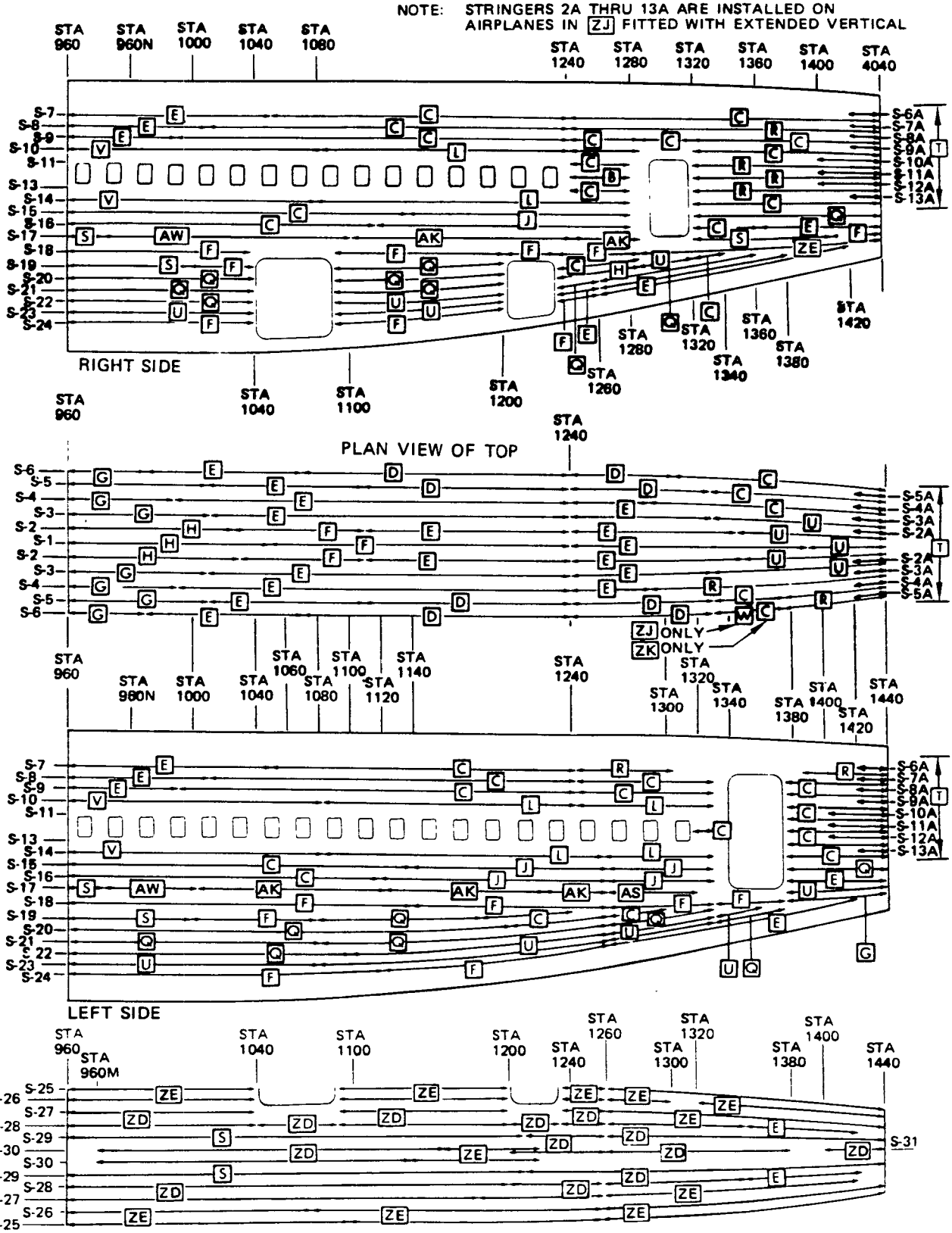


Fuselage Stringer Identification
Figure 8 (Sheet 9)

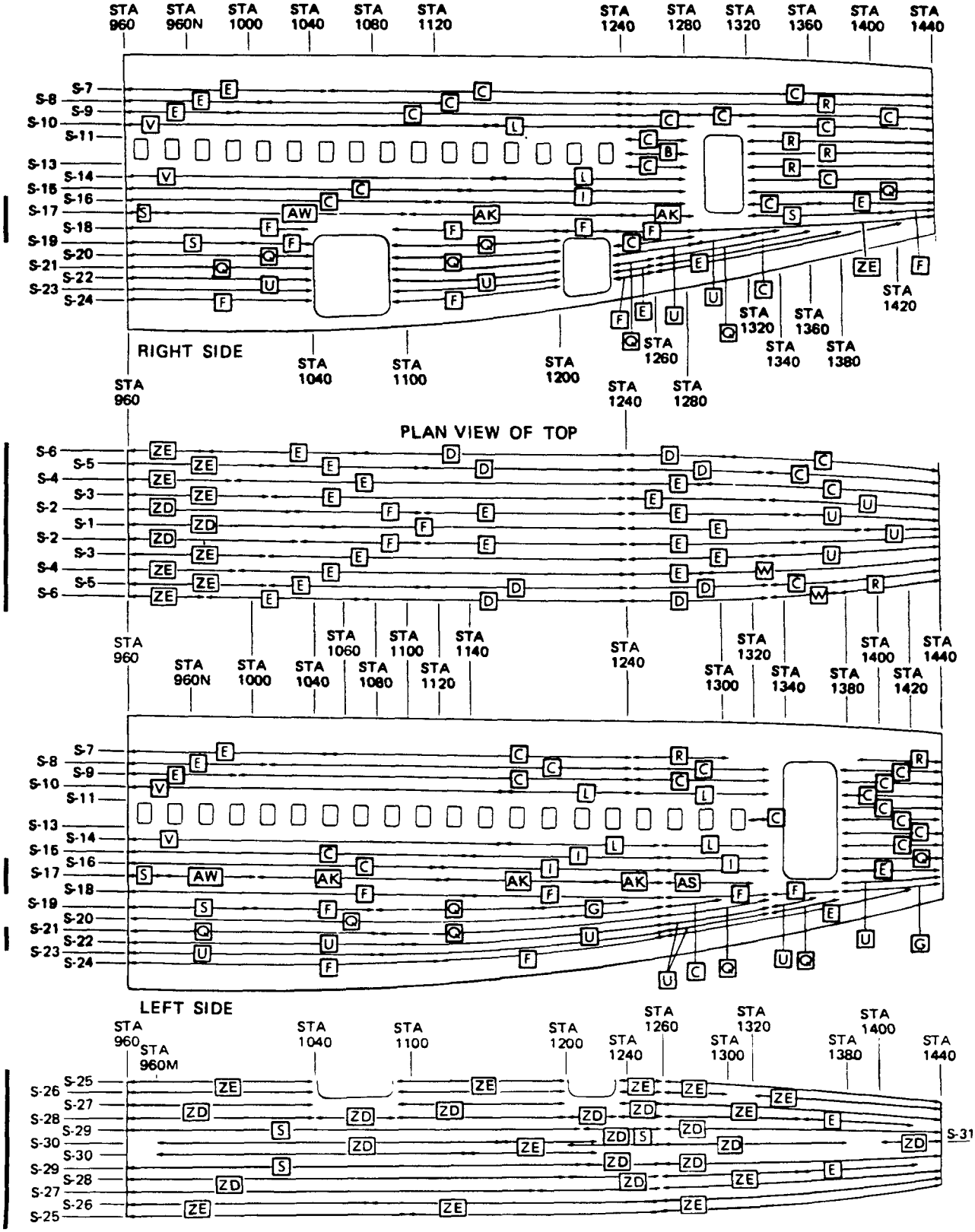


Fuselage Stringer Identification
Figure 8 (Sheet 10)

NOTE: STRINGERS 2A THRU 13A ARE INSTALLED ON AIRPLANES IN ZJ FITTED WITH EXTENDED VERTICAL

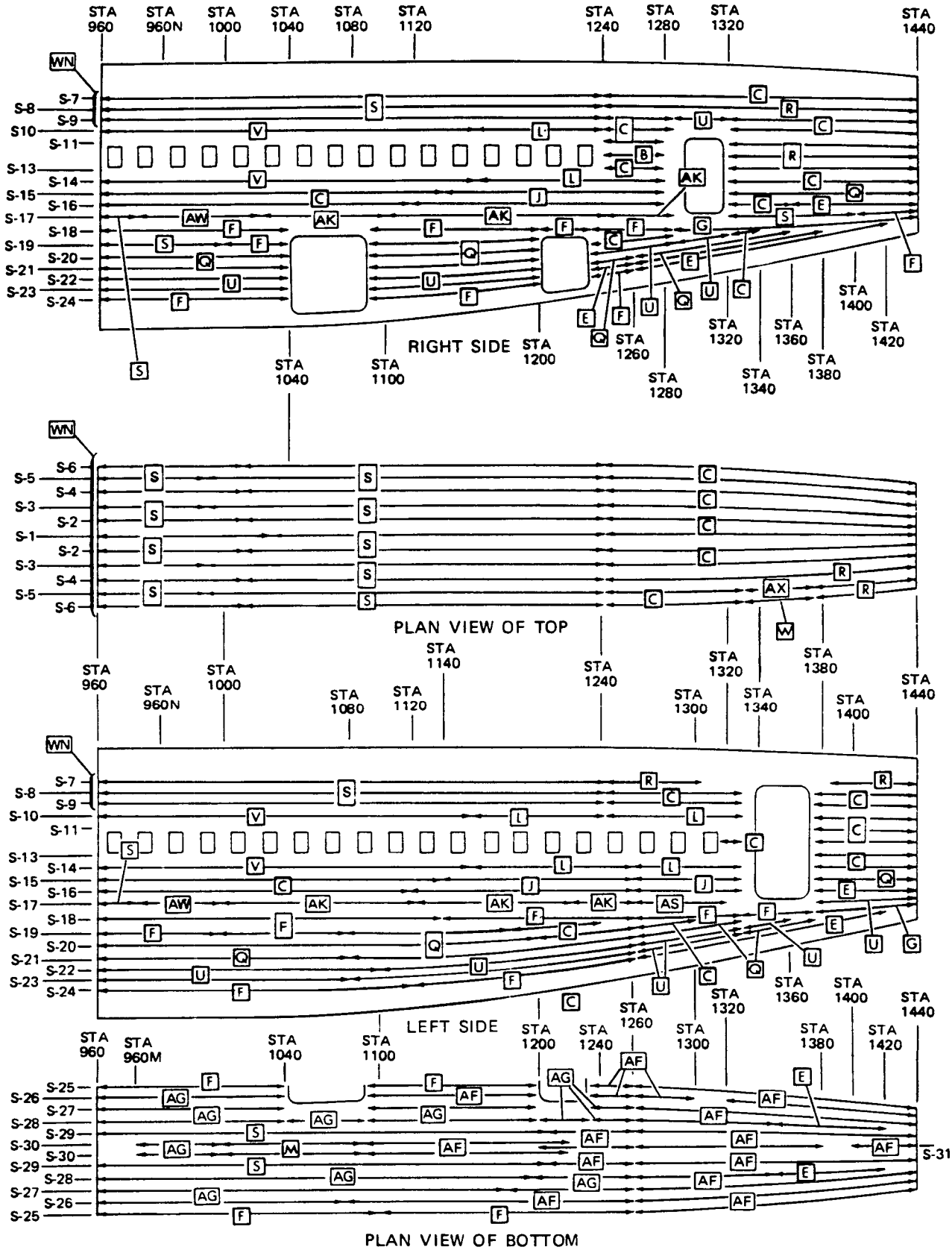


Fuselage Stringer Identification
Figure 8 (Sheet 11)

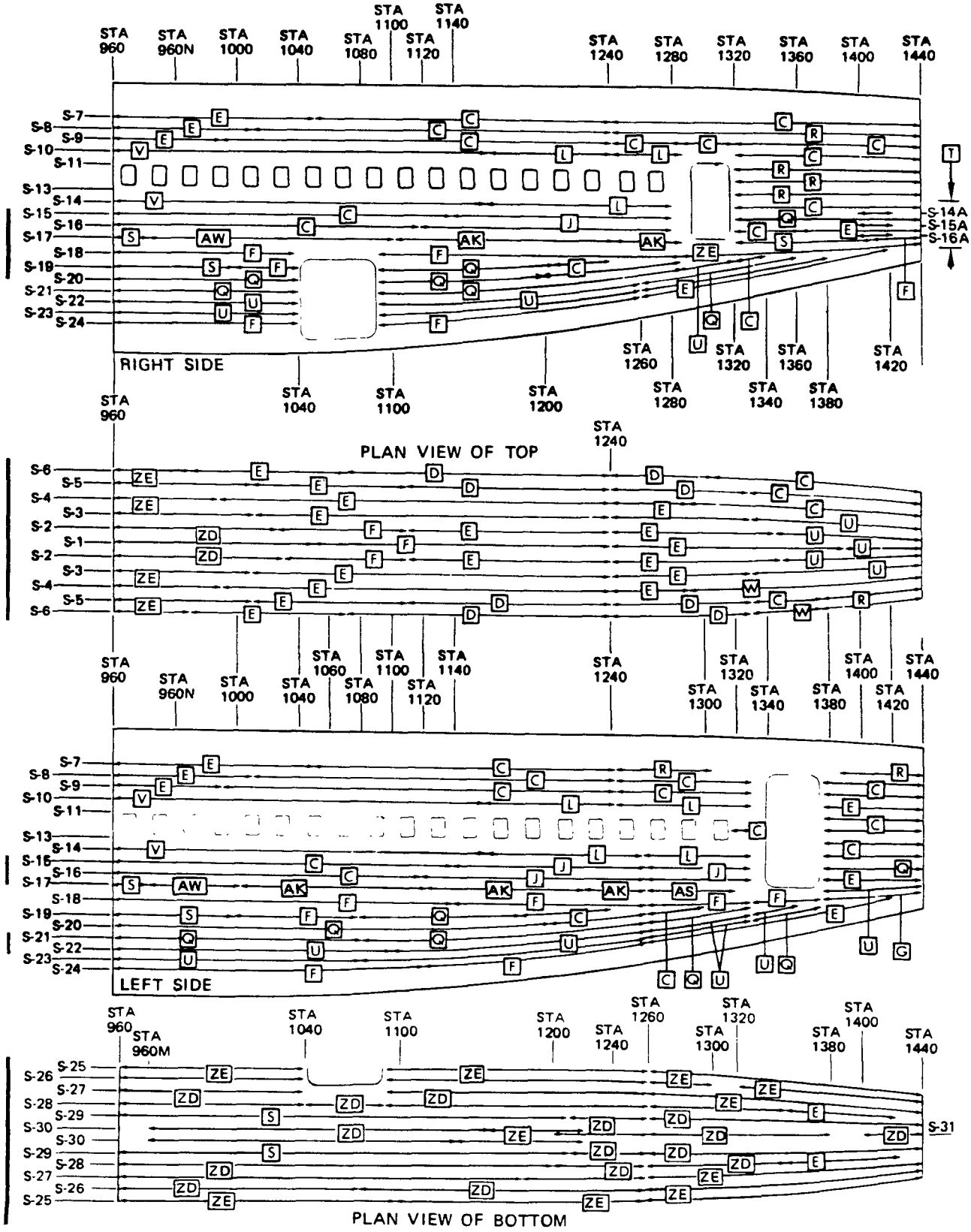


Fuselage Stringer Identification
Figure 8 (Sheet 12)

EFFECTIVITY
TURBOFAN AIRPLANES
ZH
NON-CARGO

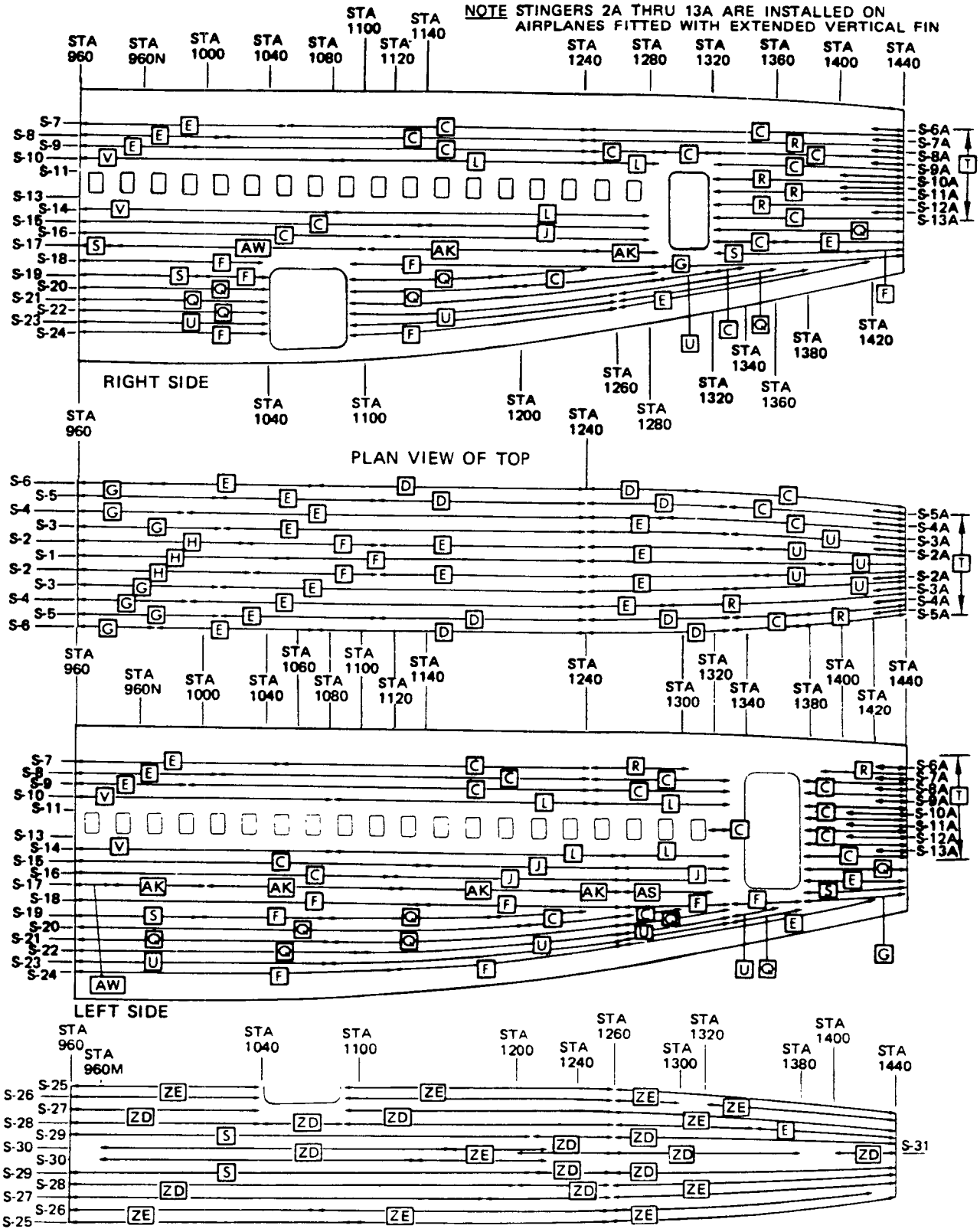


Fuselage Stringer Identification
Figure 8 (Sheet 13)

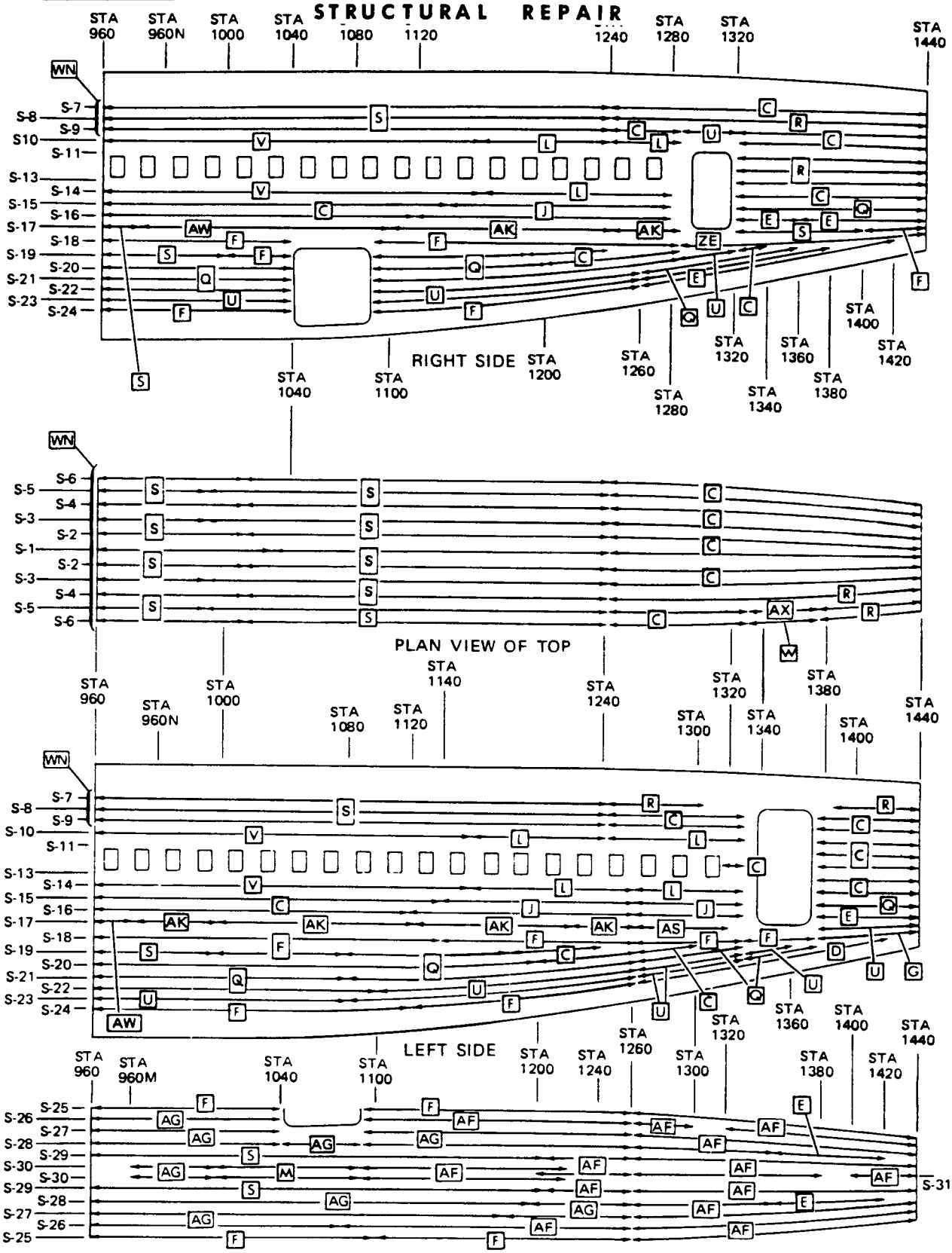


Fuselage Stringer Identification
Figure 8 (Sheet 14)

EFFECTIVITY
TURBOJET AIRPLANES:
WB
NON-CARGO

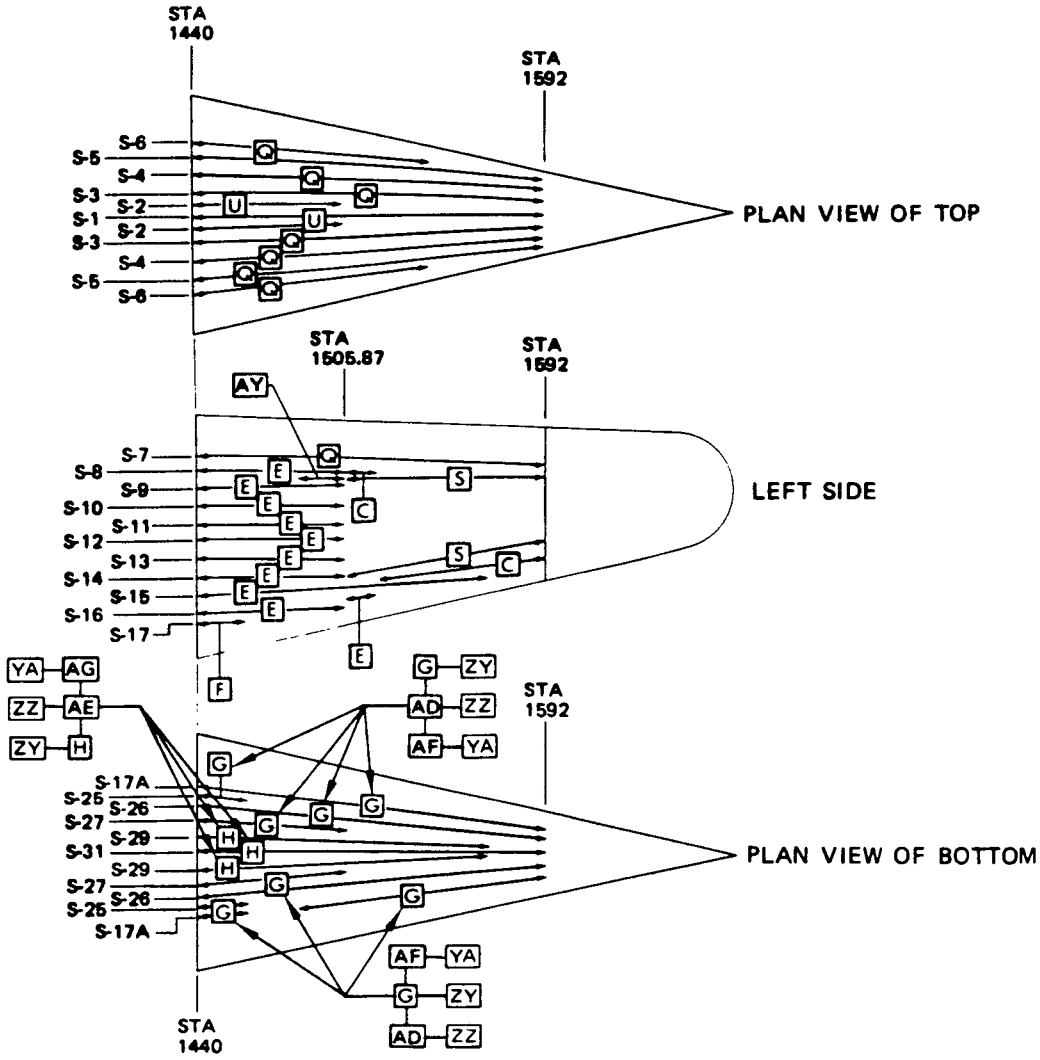


Fuselage Stringer Identification
Figure 8 (Sheet 15)

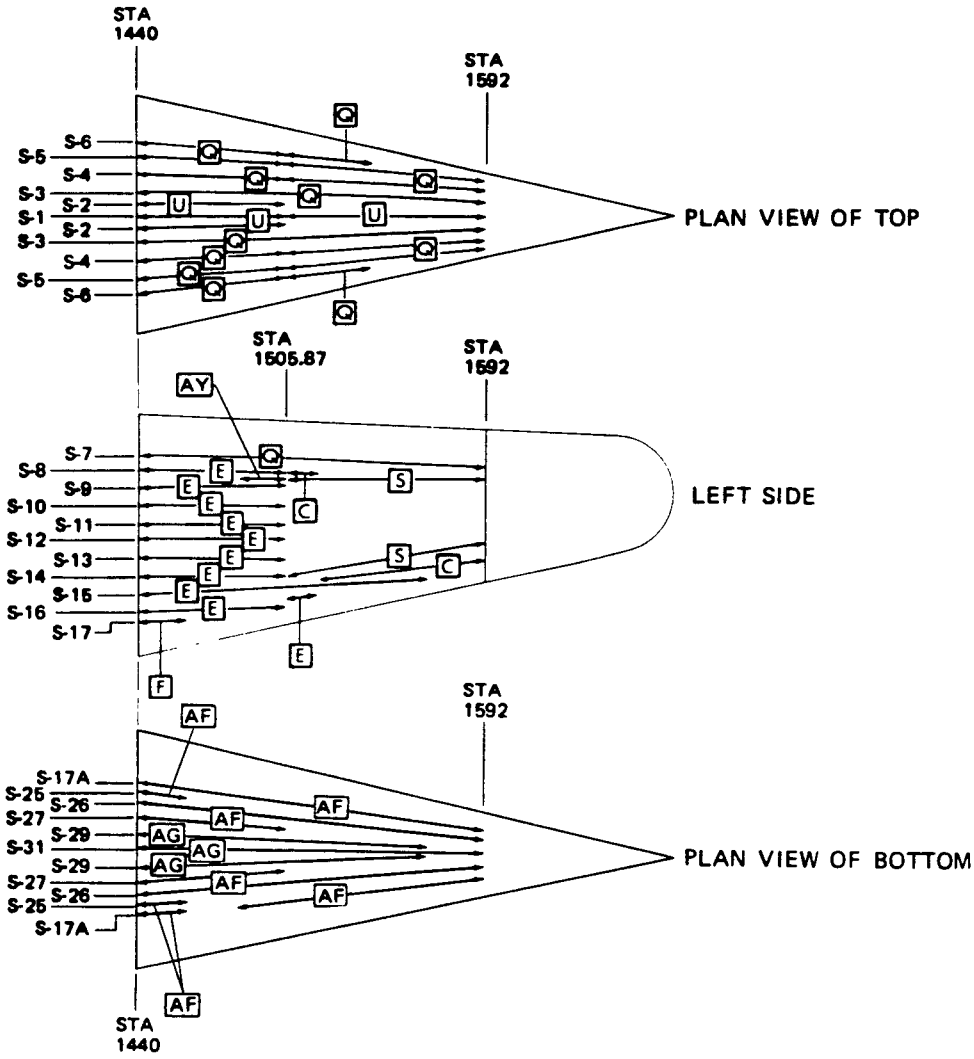


PLAN VIEW OF BOTTOM
Fuselage Stringer Identification
Figure 8 (Sheet 16)

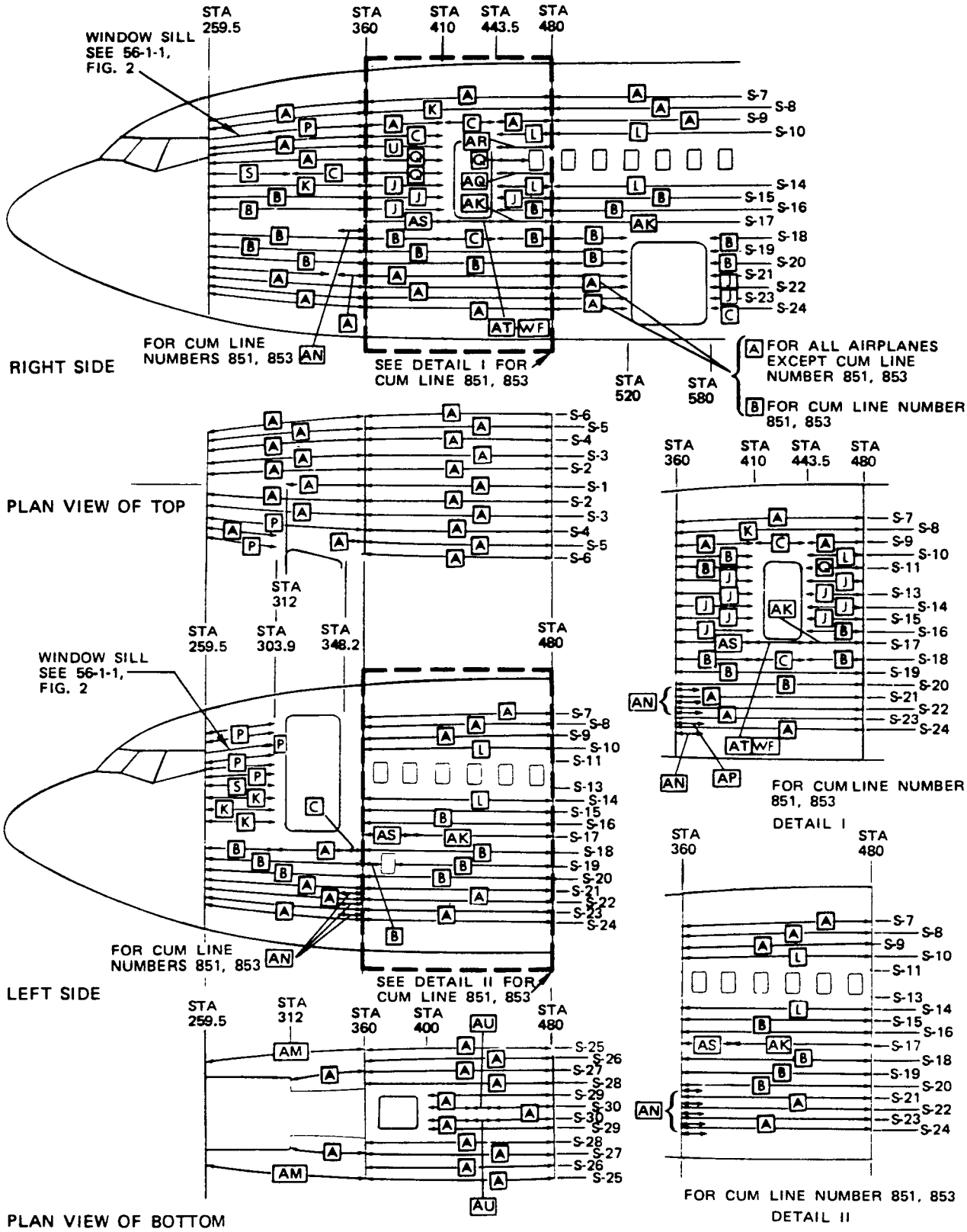
EFFECTIVITY
ZX
NON-CARGO



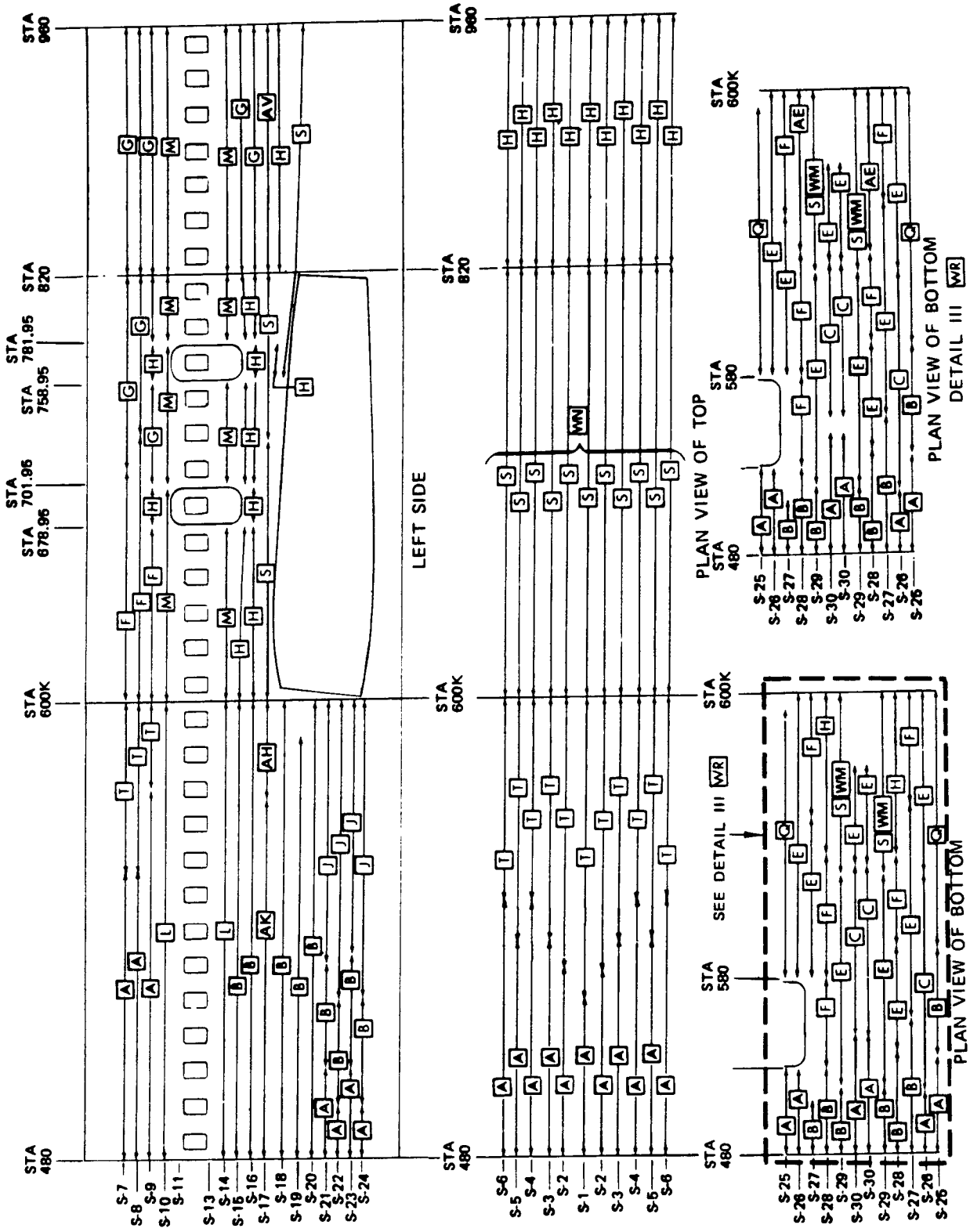
Fuselage Stringer Identification
Figure 8 (Sheet 17)



Fuselage Stringer Identification
Figure 8 (Sheet 18)

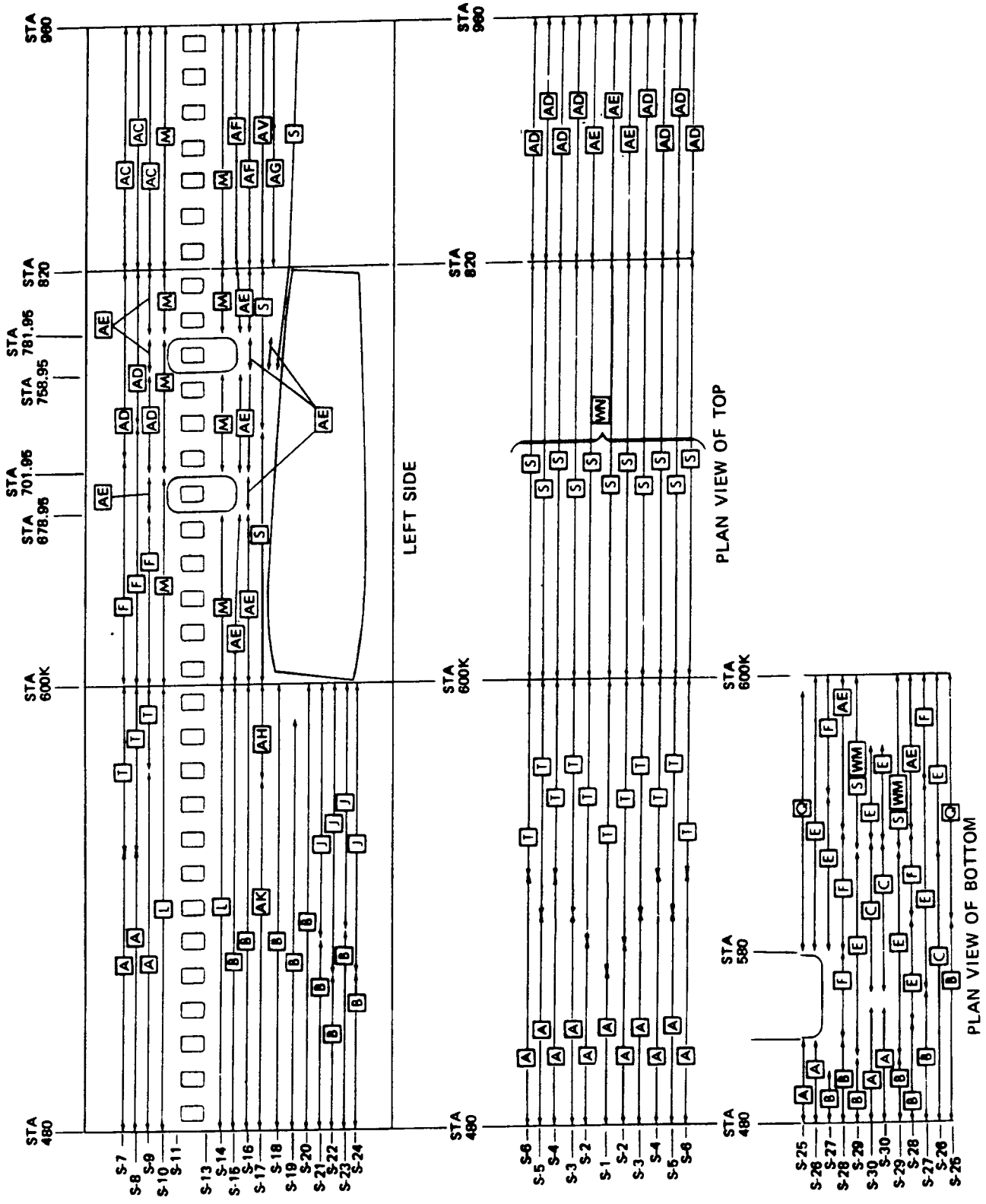


Fuselage Stringer Identification
Figure 8 (Sheet 19)

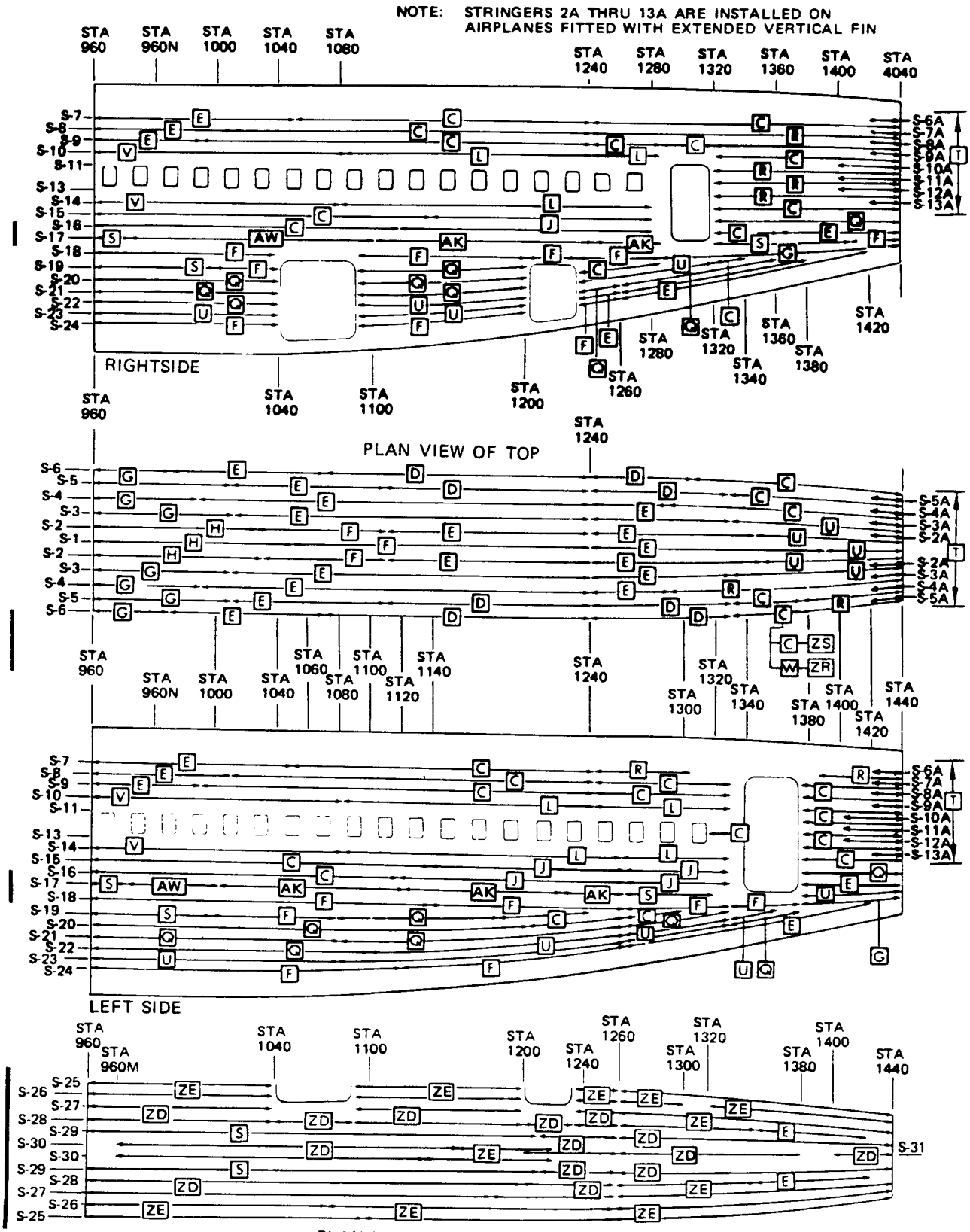


Fuselage Stringer Identification
Figure 8 (Sheet 20)

EFFECTIVITY
WQ
NON-CARGO

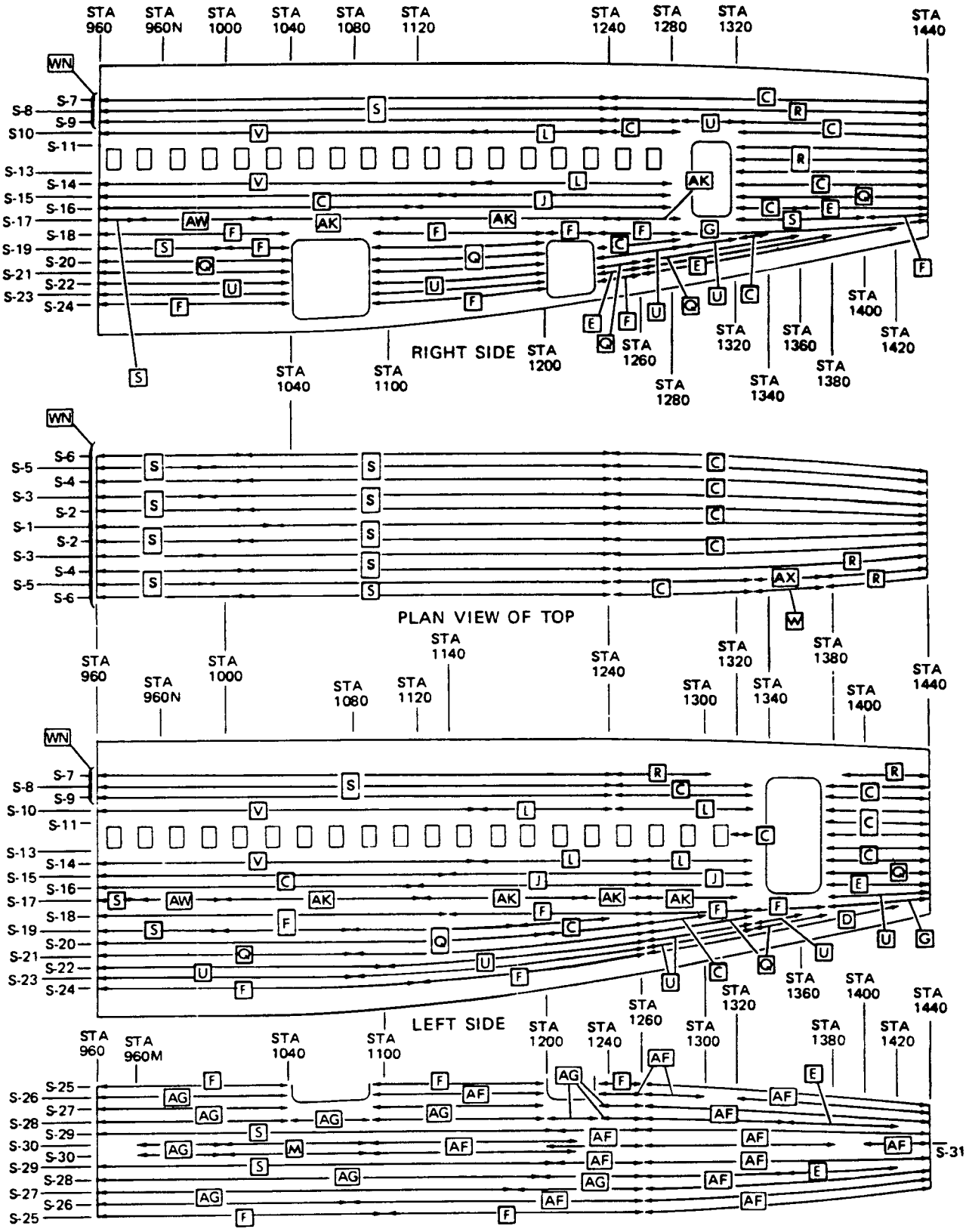


Fuselage Stringer Identification
Figure 8 (Sheet 21)

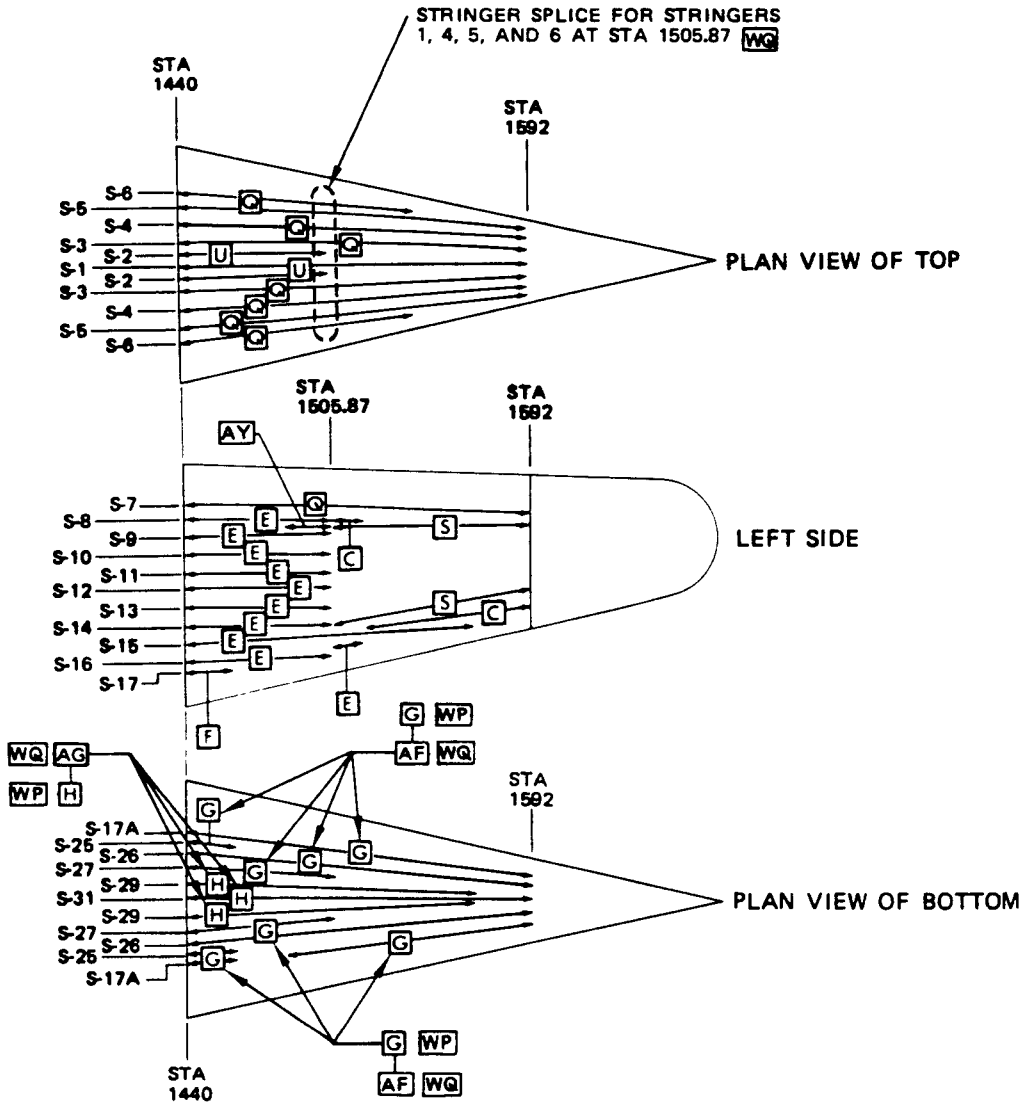


Fuselage Stringer Identification
Figure 8 (Sheet 22)

EFFECTIVITY
TURBOFAN AIRPLANES
WQ
NON-CARGO

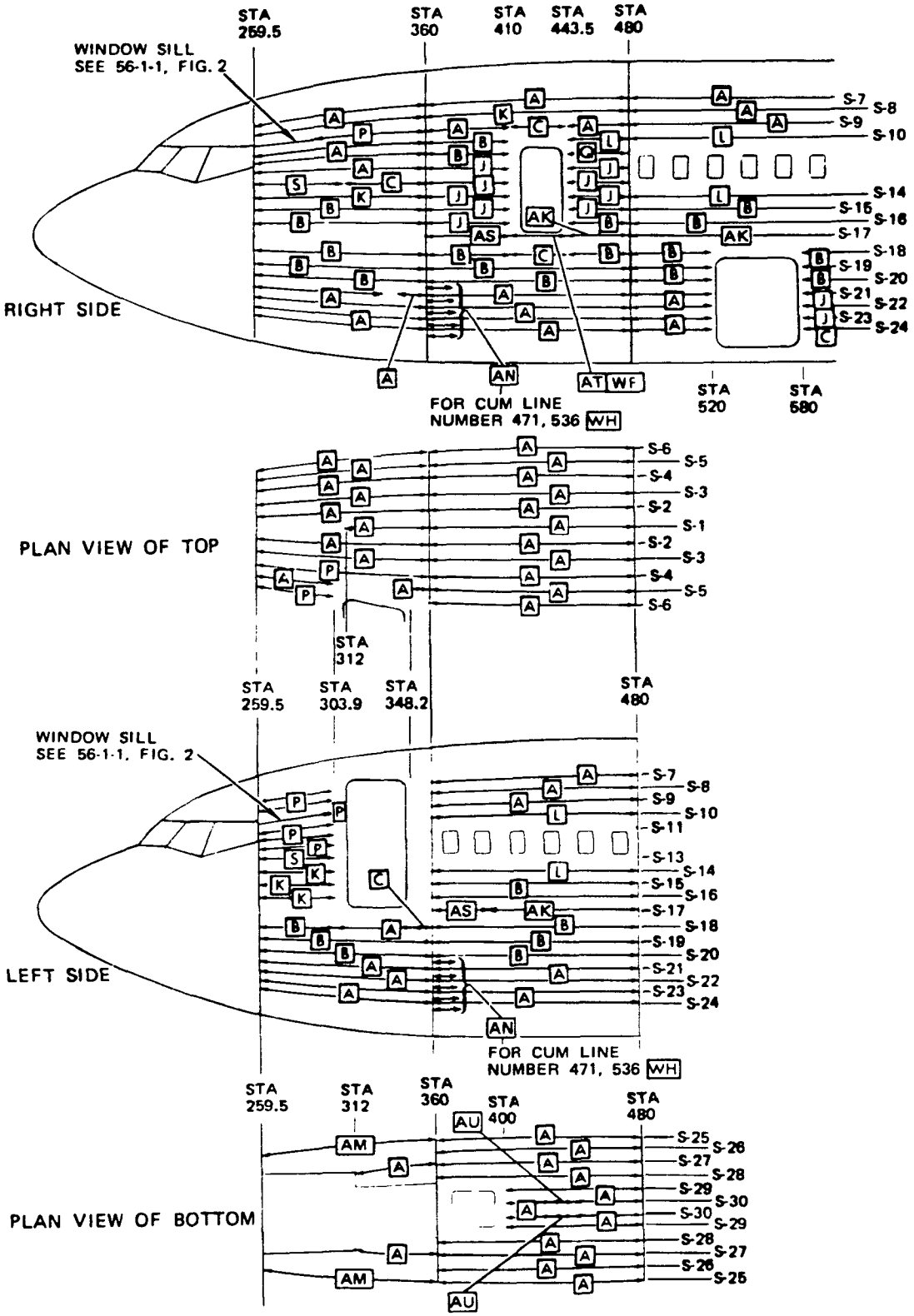


Fuselage Stringer Identification
Figure 8 (Sheet 23)

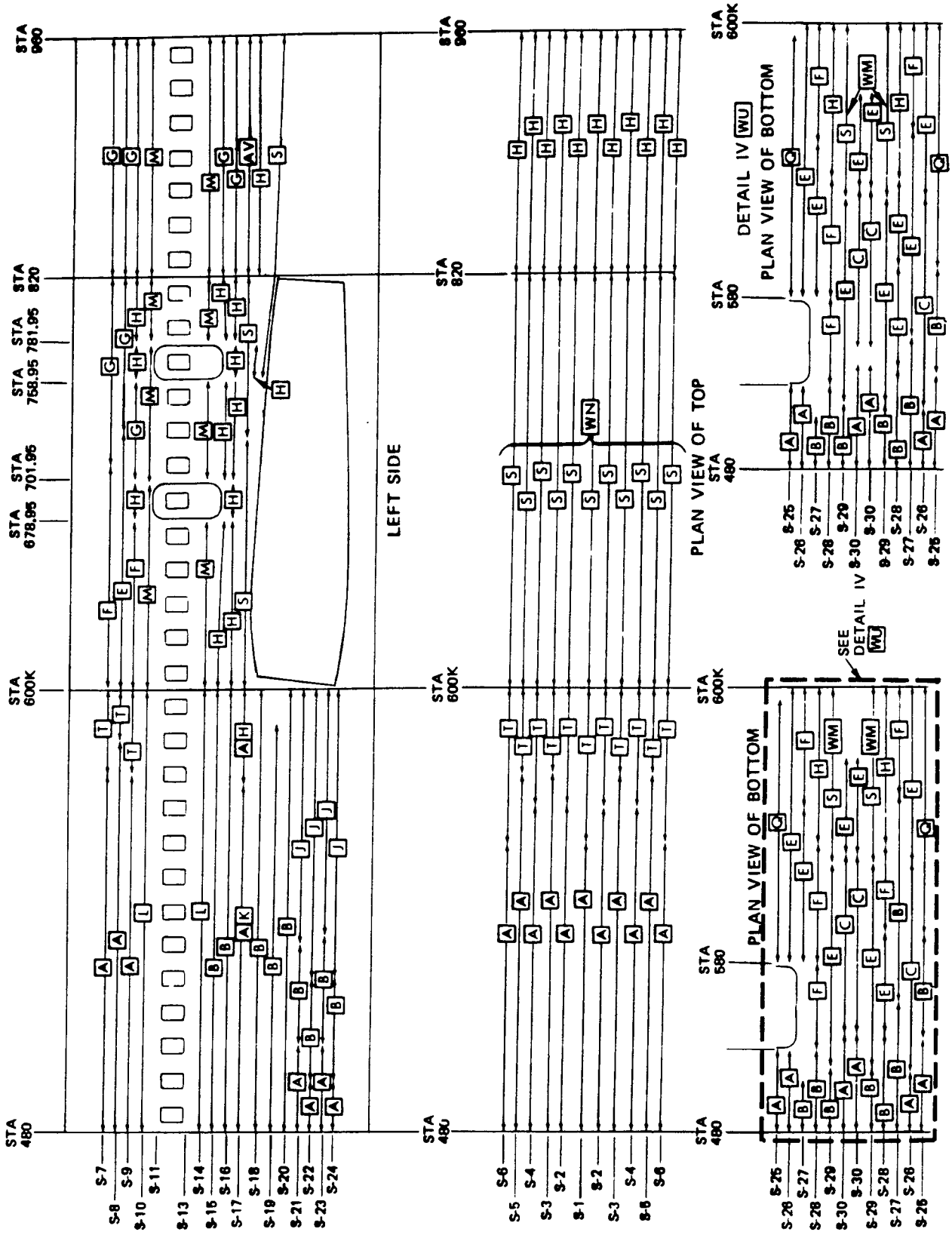


Fuselage Stringer Identification
Figure 8 (Sheet 24)

EFFECTIVITY
WS WT
NON-CARGO

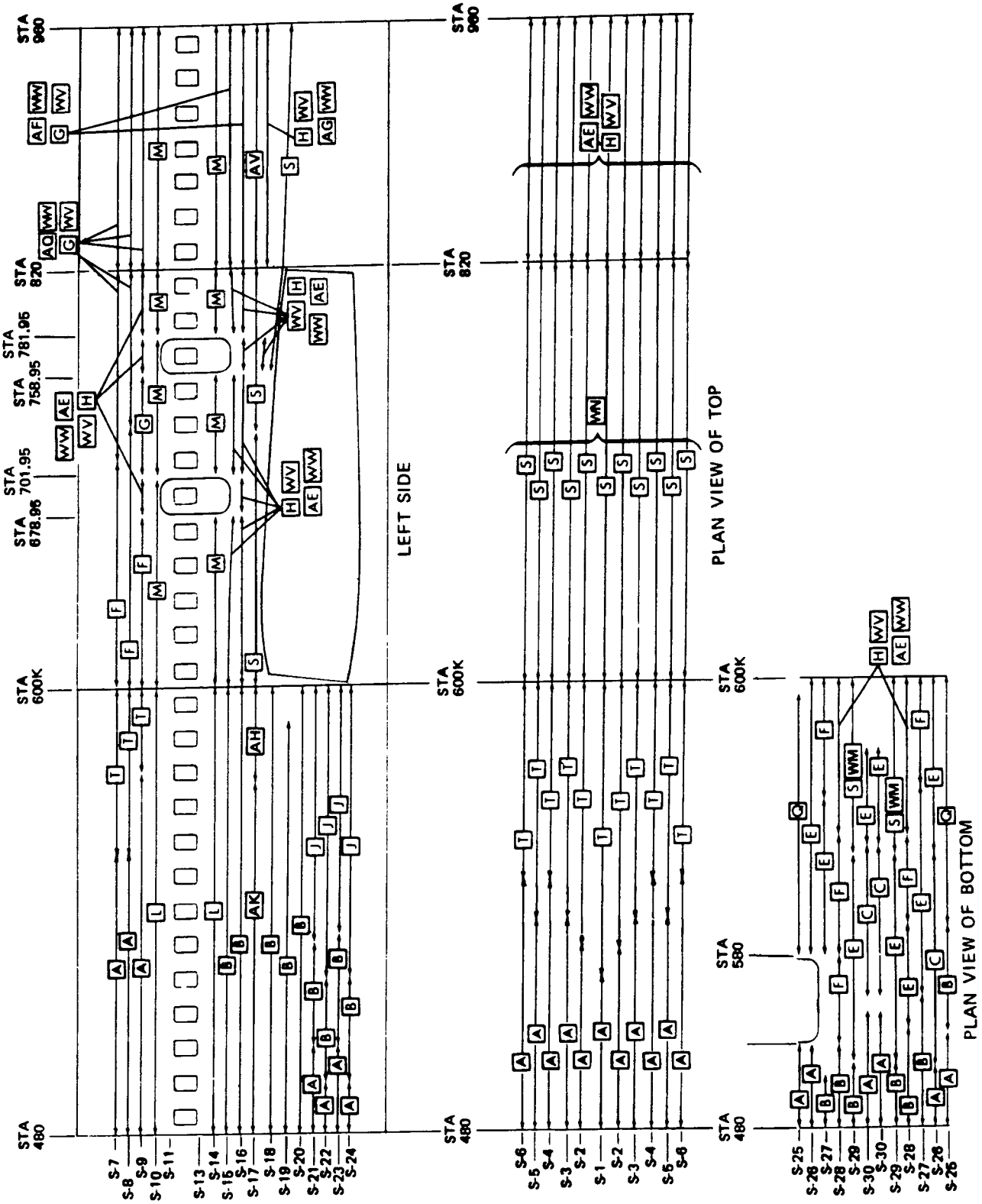


Fuselage Stringer Identification
Figure 8 (Sheet 25)

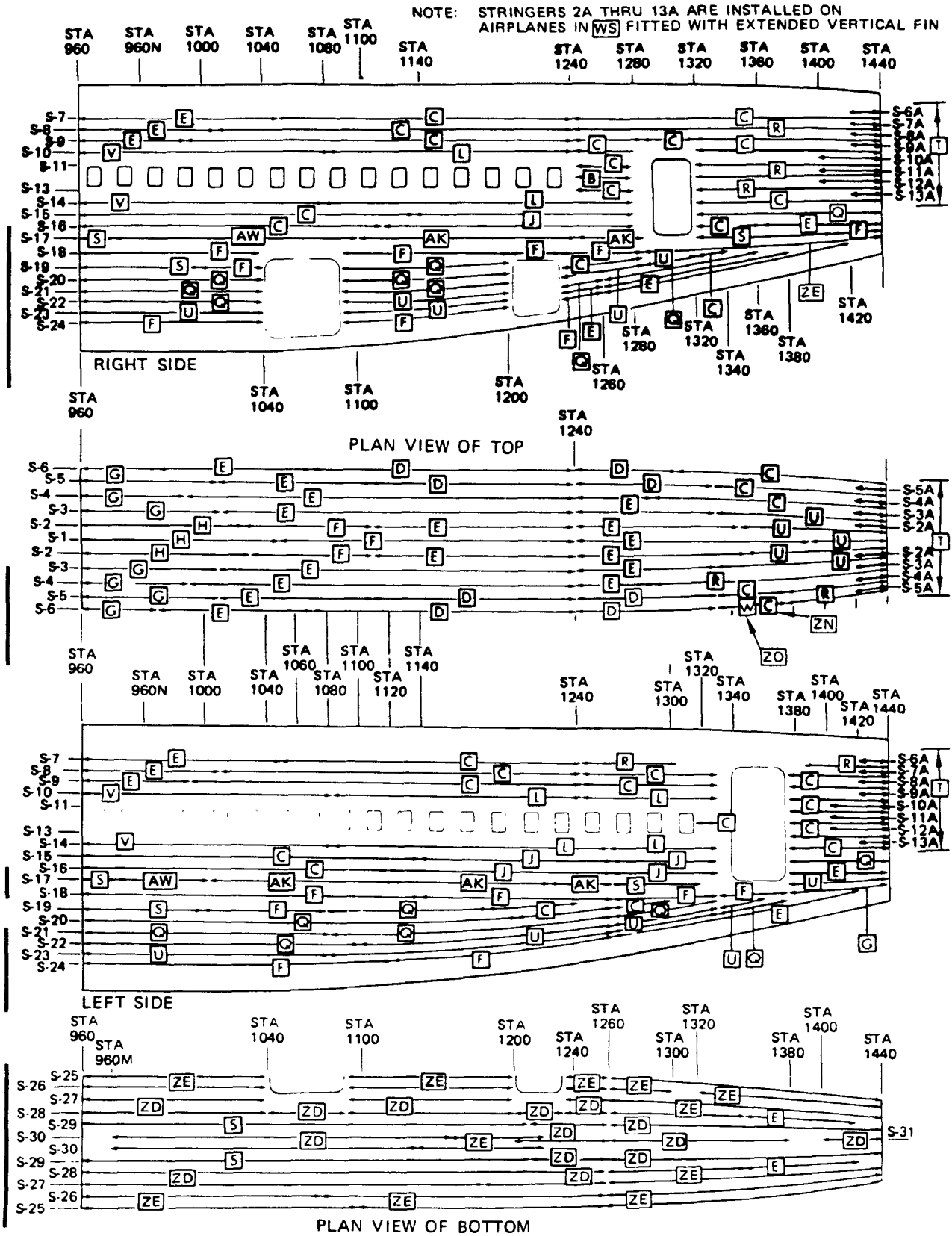


Fuselage Stringer Identification
Figure 8 (Sheet 26)

EFFECTIVITY
WT
NON-CARGO

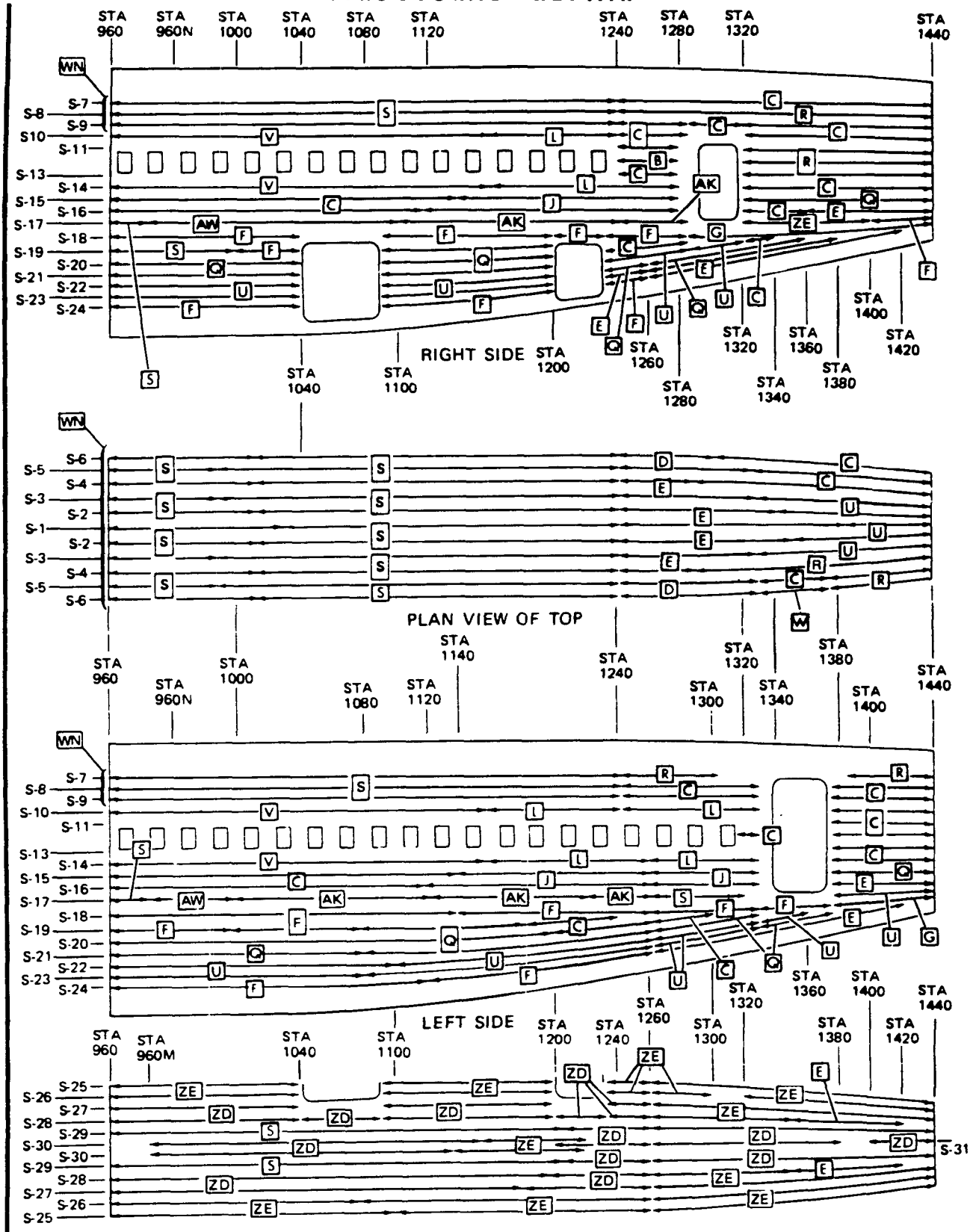


Fuselage Stringer Identification
Figure 8 (Sheet 27)

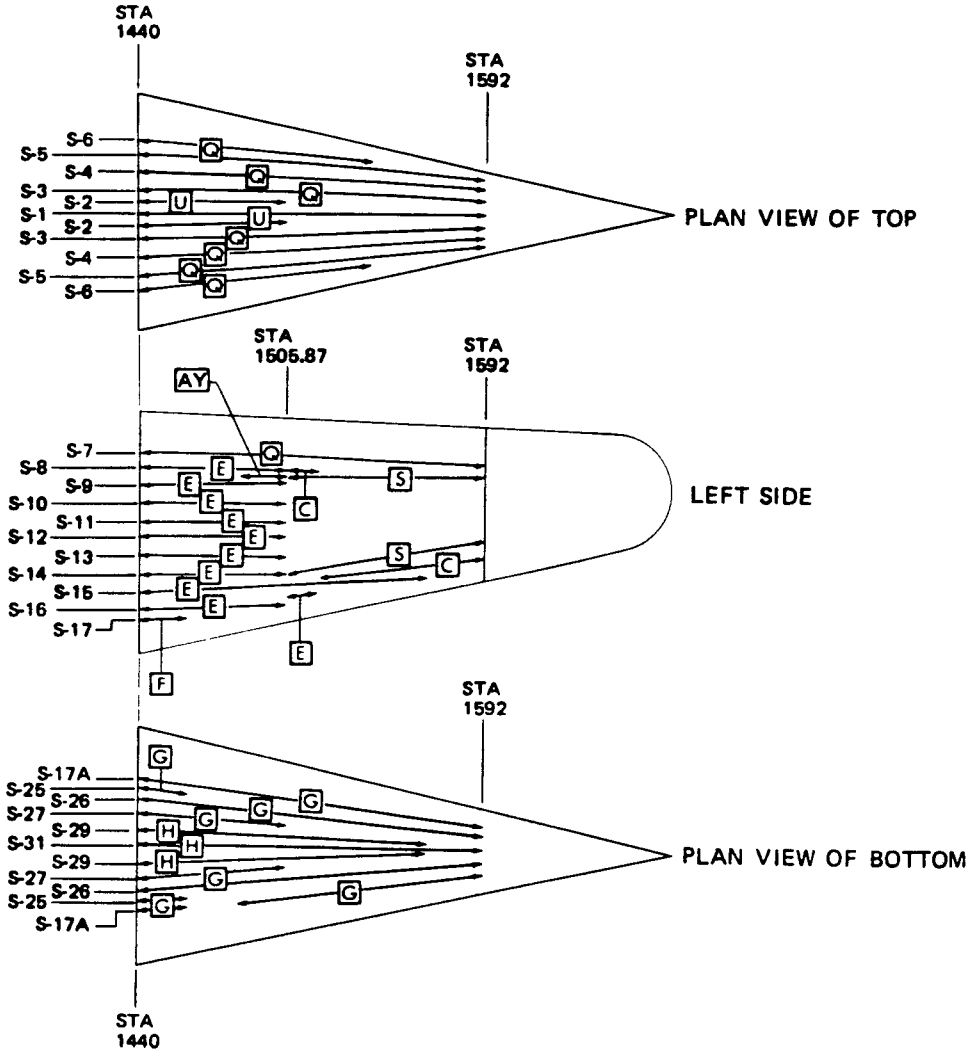


Fuselage Stringer Identification
Figure 8 (Sheet 28)

EFFECTIVITY
TURBOFAN AIRPLANES:
WT
NON-CARGO

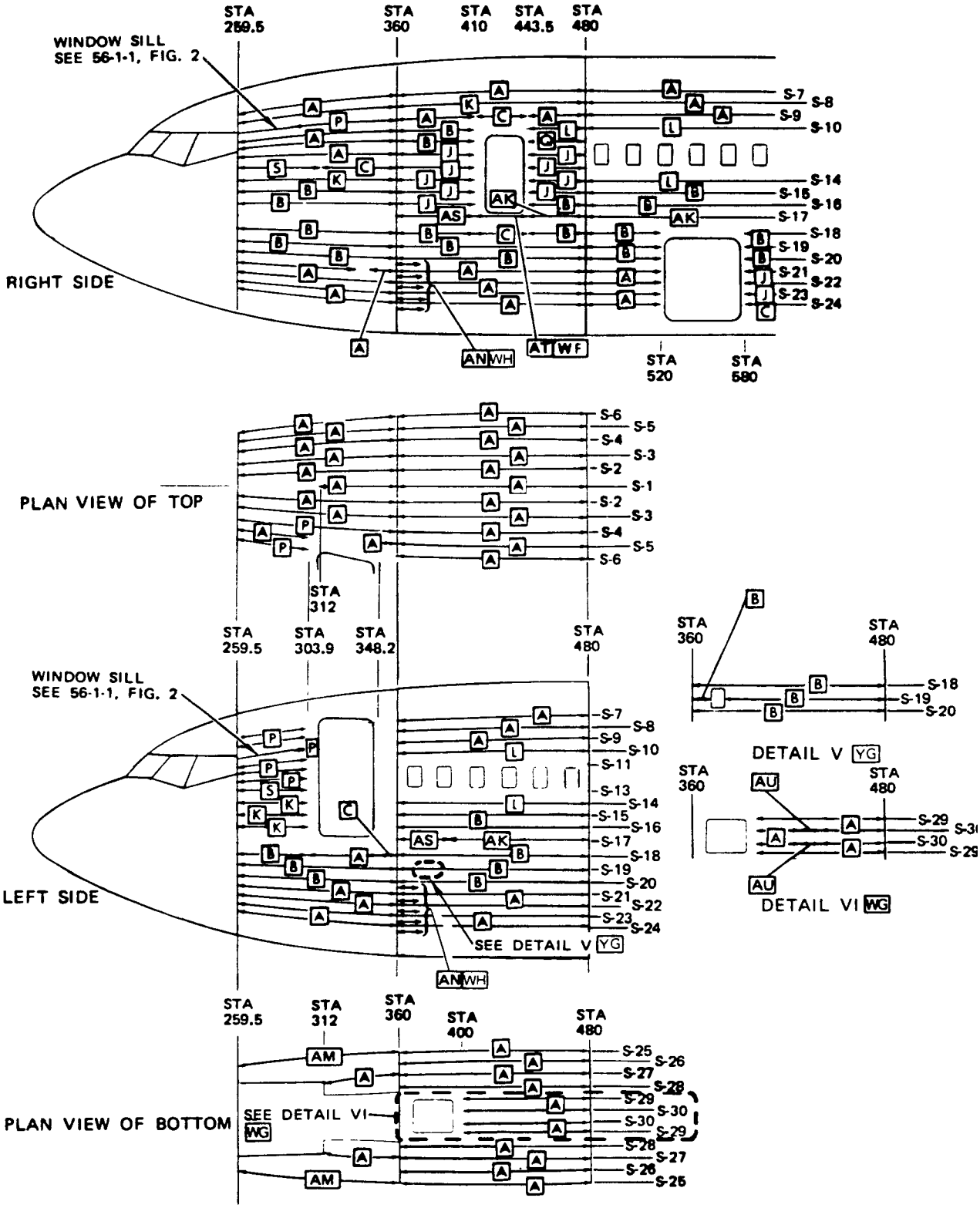


PLAN VIEW OF BOTTOM
Fuselage Stringer Identification
Figure 8 (Sheet 29)

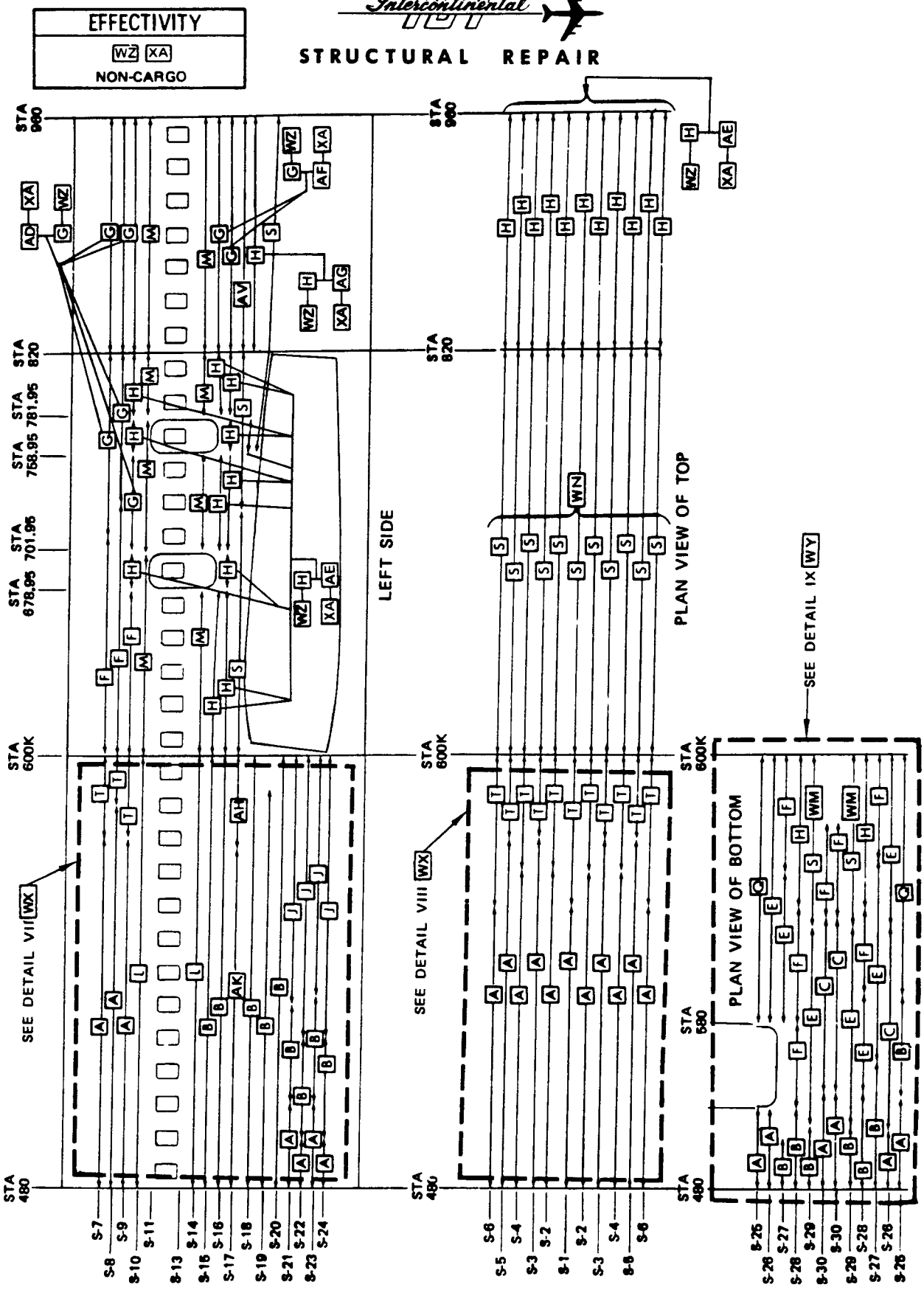


Fuselage Stringer Identification
Figure 8 (Sheet 30)

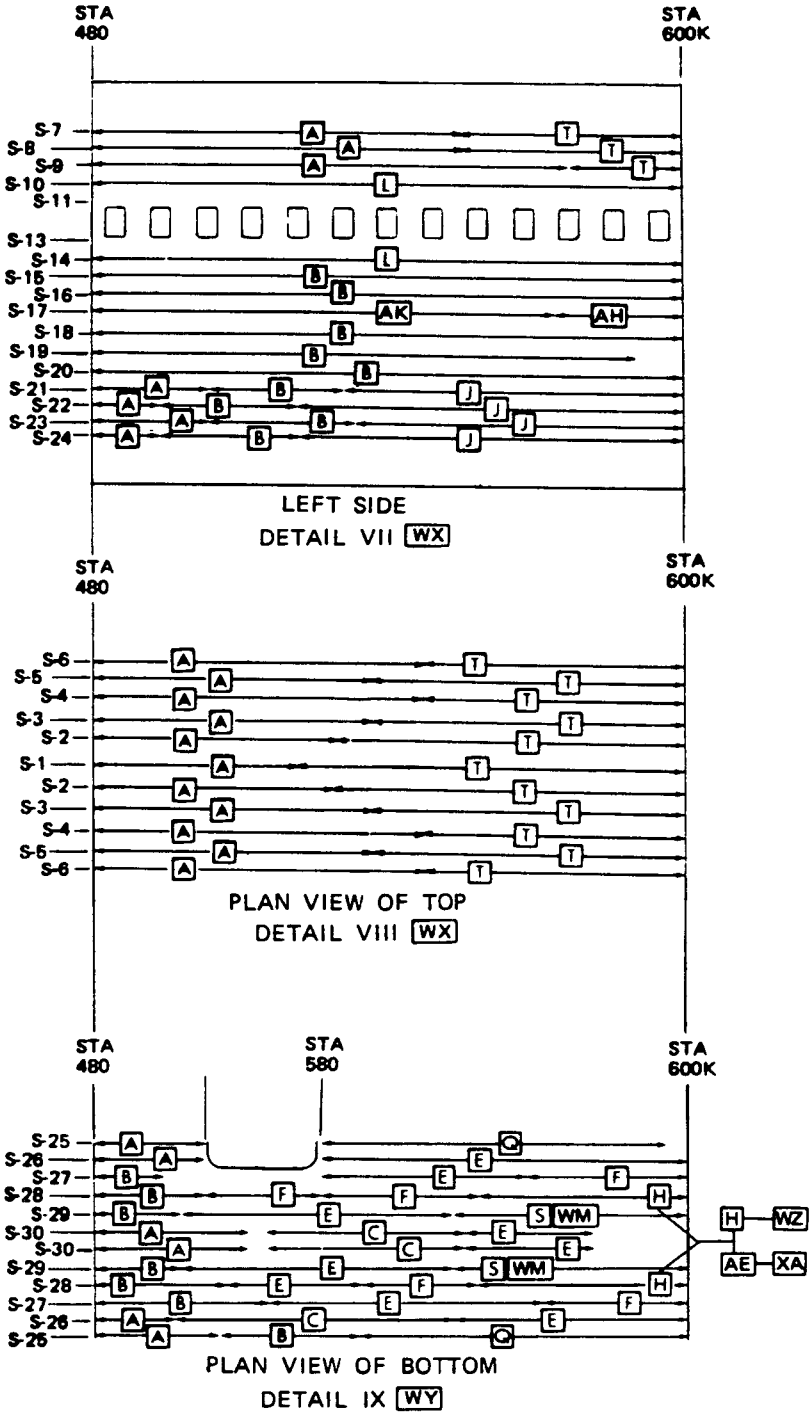
EFFECTIVITY
WZ XA
NON-CARGO



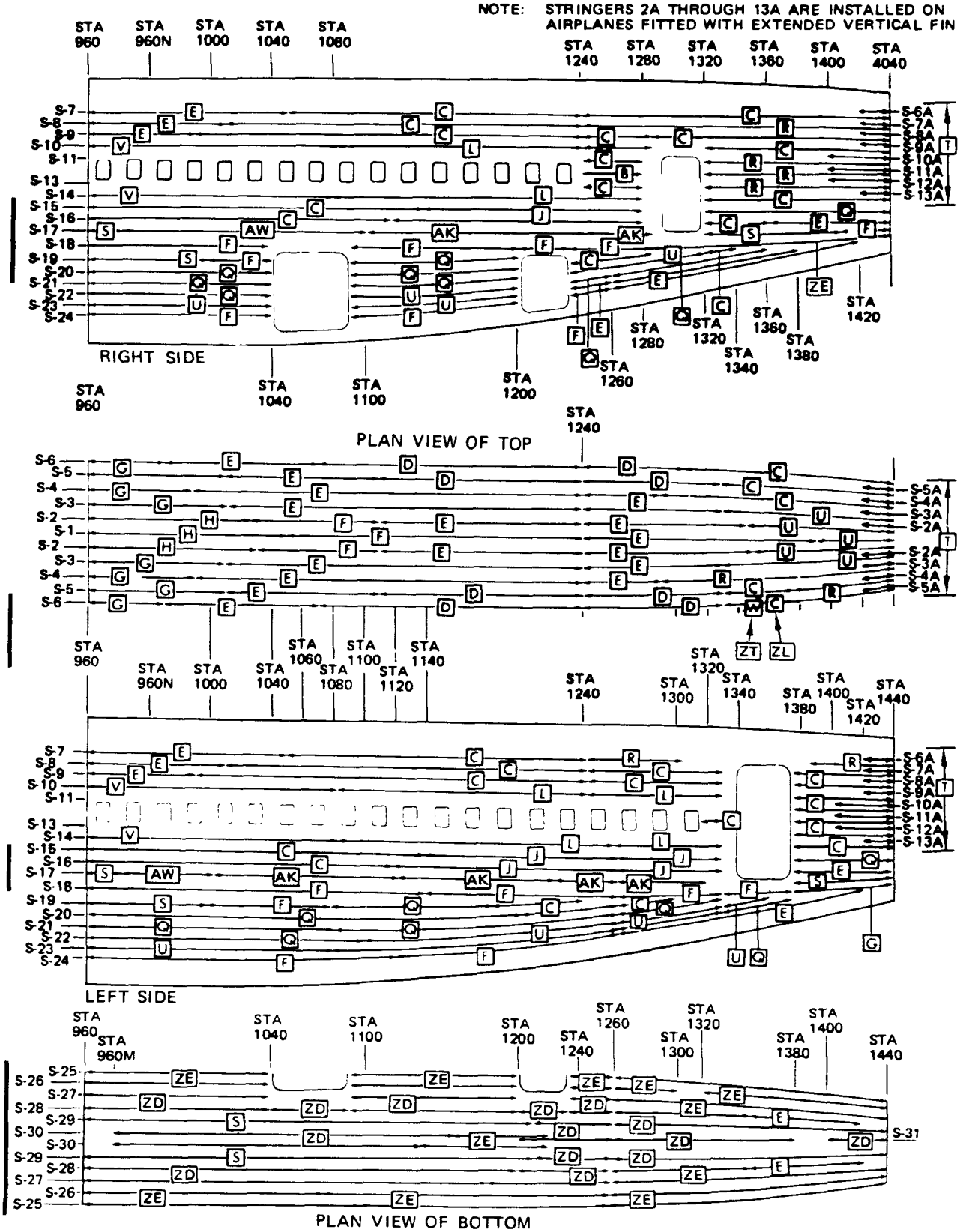
Fuselage Stringer Identification
Figure 8 (Sheet 31)



Fuselage Stringer Identification
Figure 8 (Sheet 32)

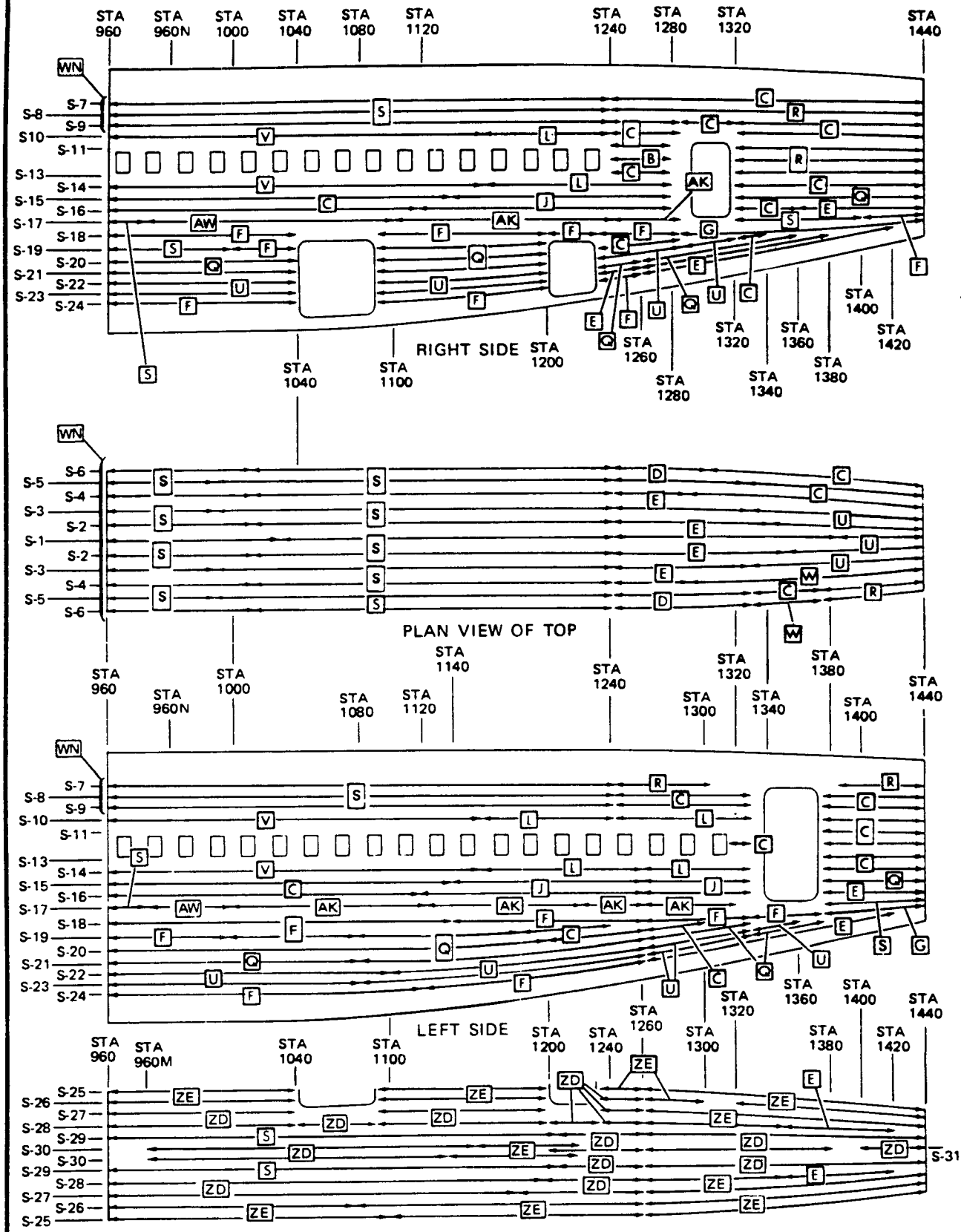


Fuselage Stringer Identification
Figure 8 (Sheet 33)



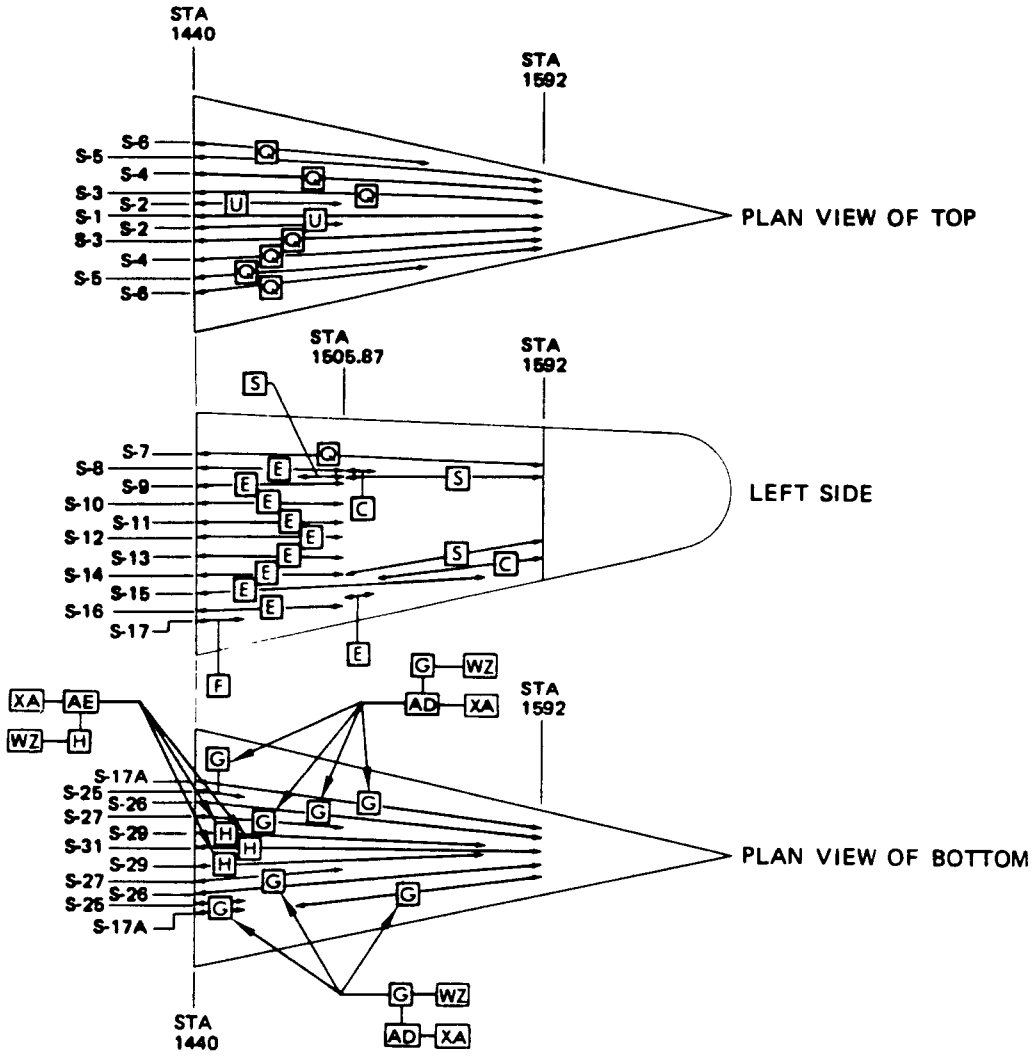
Fuselage Stringer Identification
Figure 8 (Sheet 34)

EFFECTIVITY
TURBOFAN AIRPLANES:
YJ
NON-CARGO



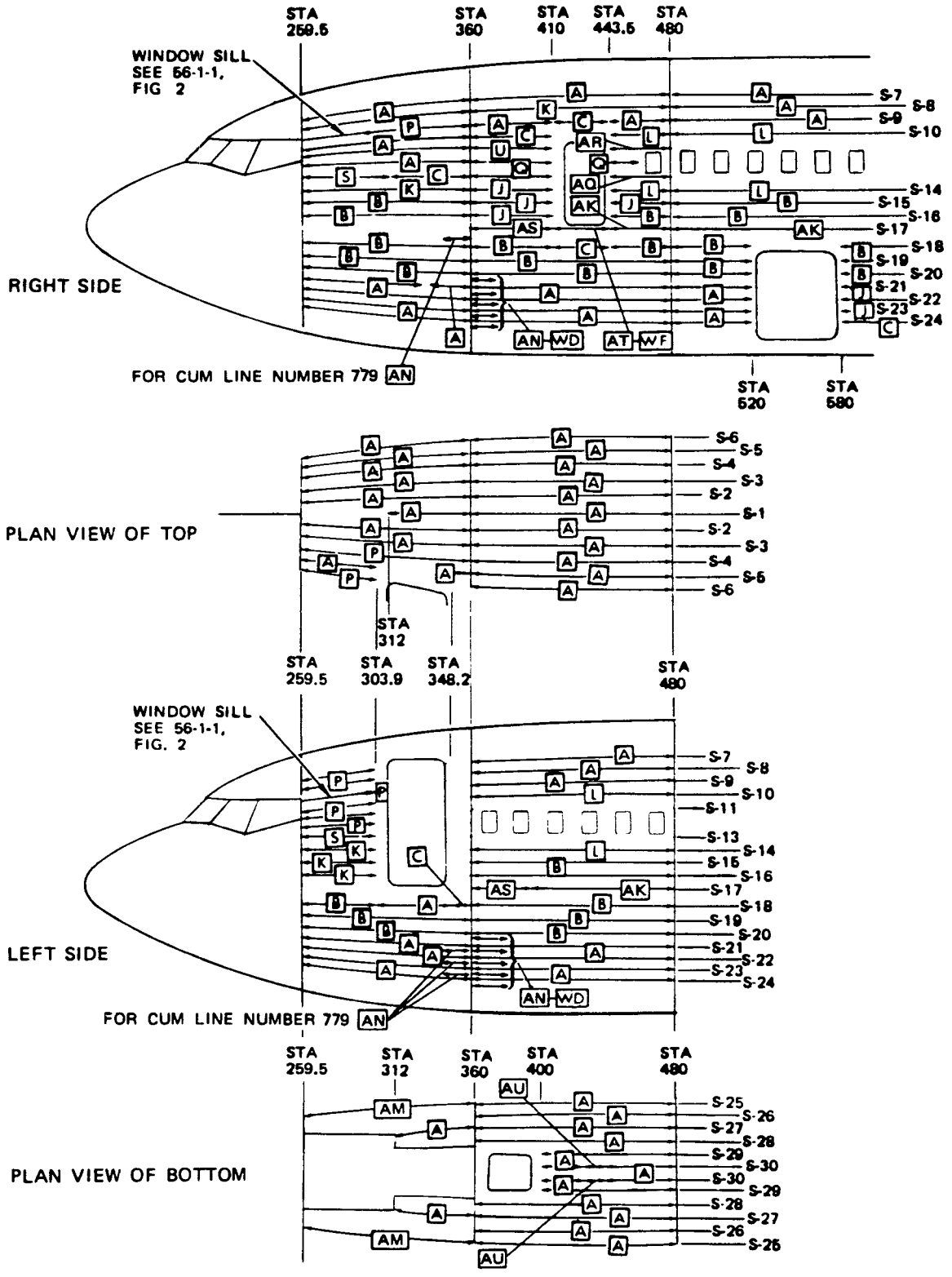
Fuselage Stringer Identification
Figure 8 (Sheet 35)

SRM 320
Jul 10/77

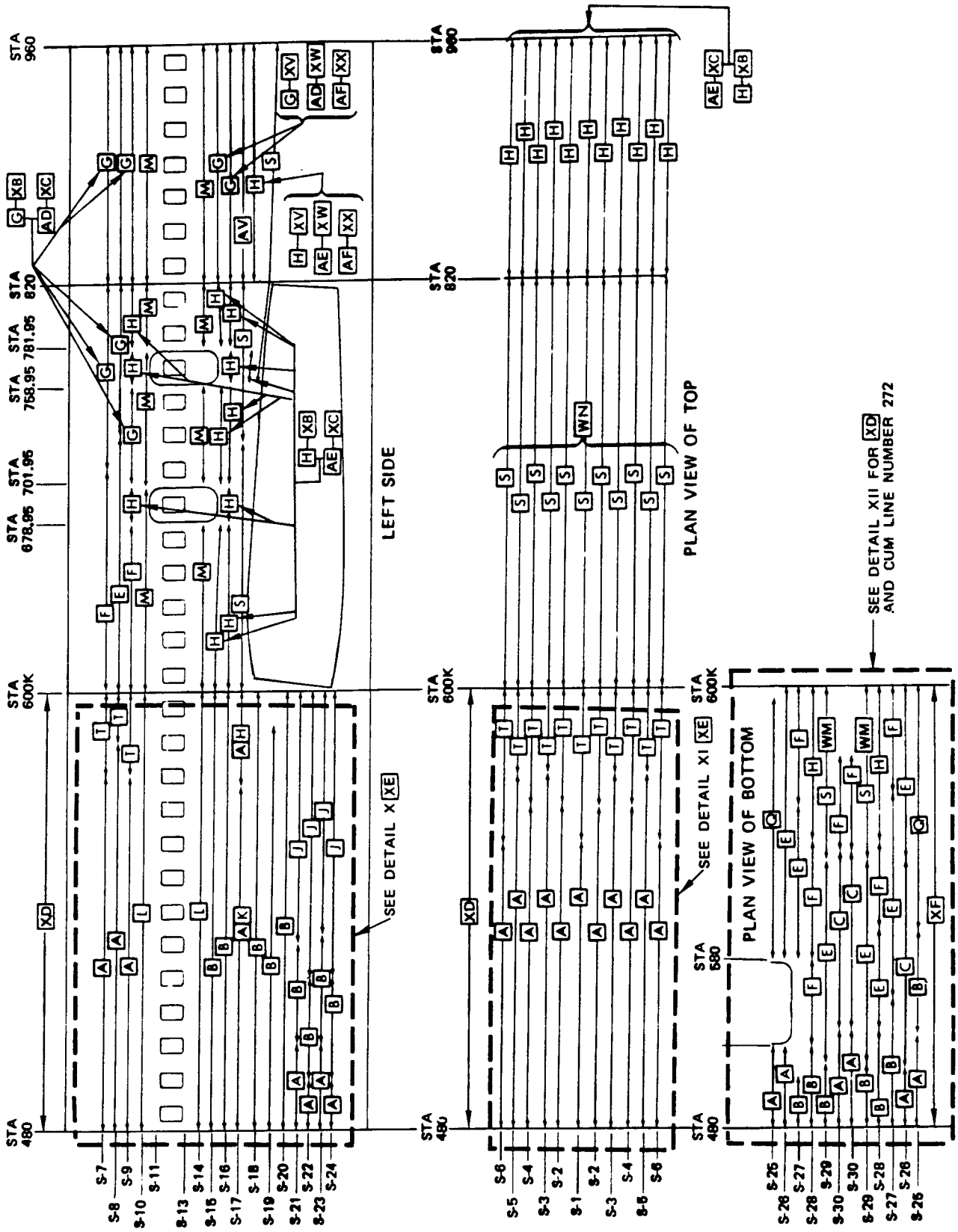


Fuselage Stringer Identification
Figure 8 (Sheet 36)

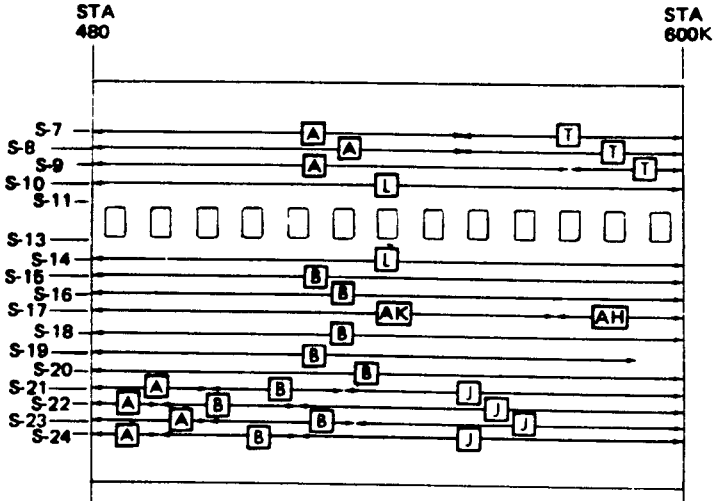
EFFECTIVITY
XD XE
NON-CARGO



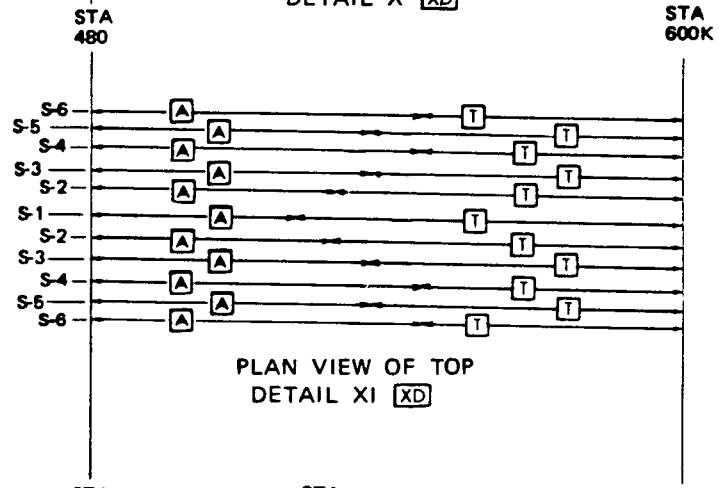
Fuselage Stringer Identification
Figure 8 (Sheet 37)



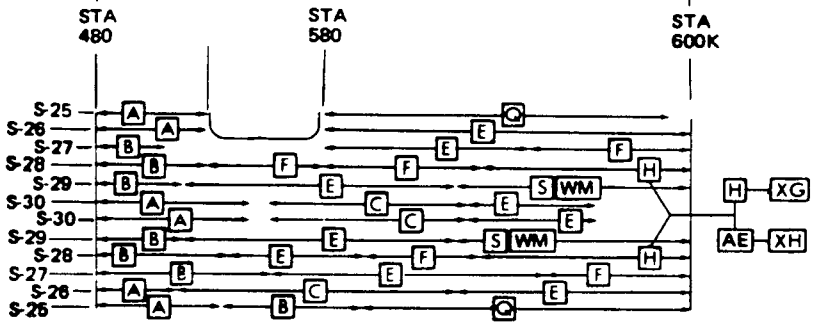
Fuselage Stringer Identification
Figure 8 (Sheet 38)



LEFT SIDE
DETAIL X XD

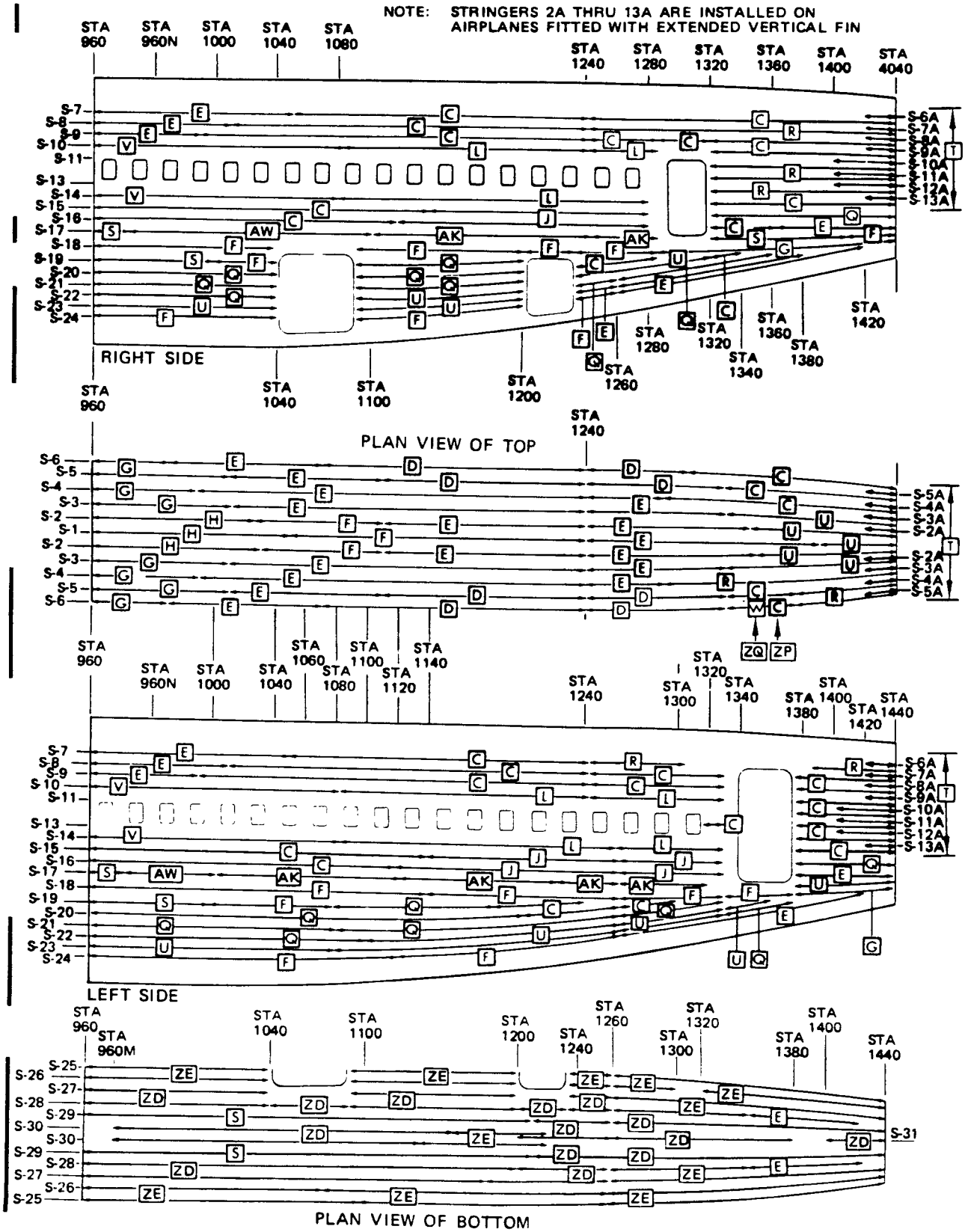


PLAN VIEW OF TOP
DETAIL XI XD



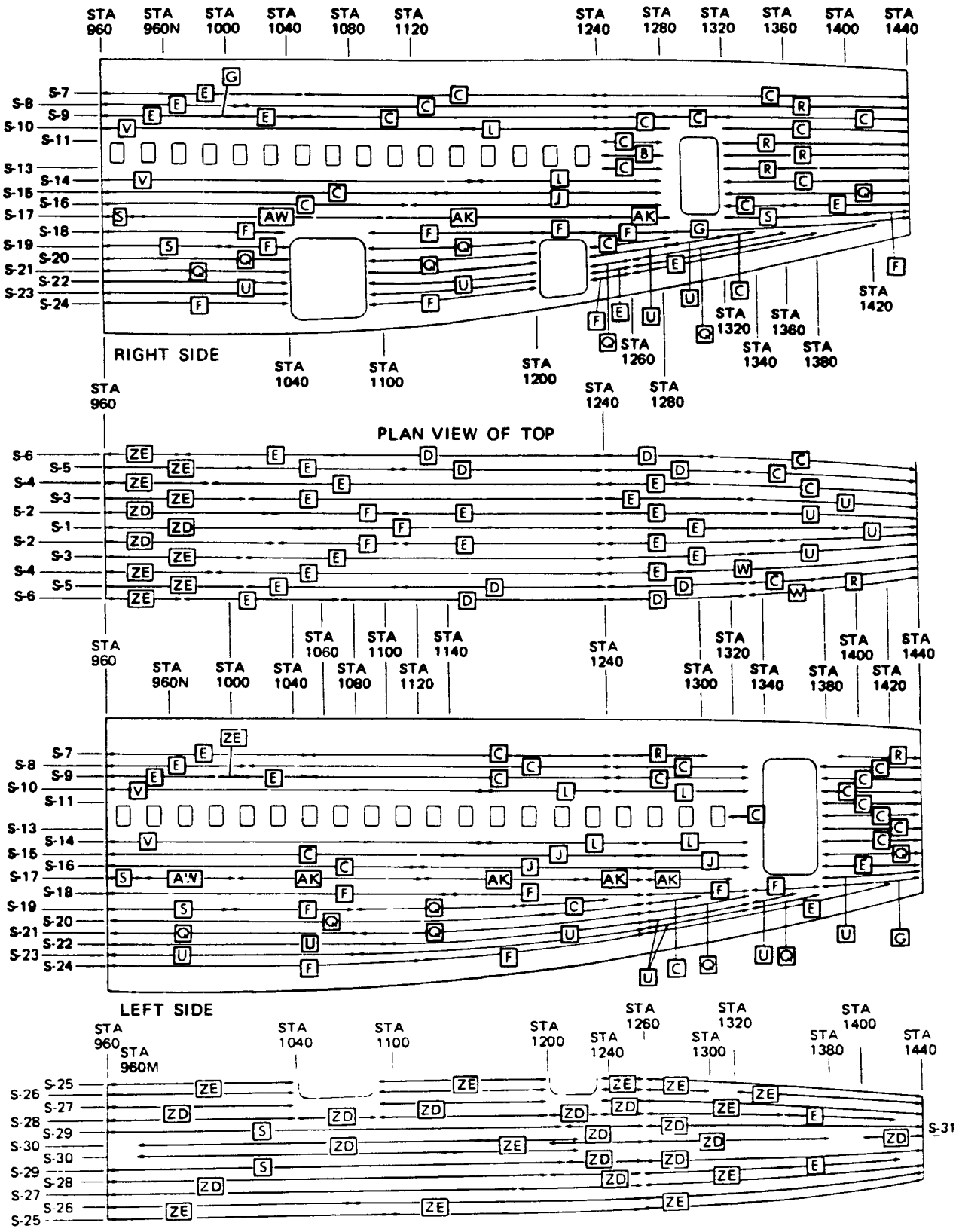
PLAN VIEW OF BOTTOM
DETAIL XII XD AND
CUM LINE NUMBER 272

Fuselage Stringer Identification
Figure 8 (Sheet 39)



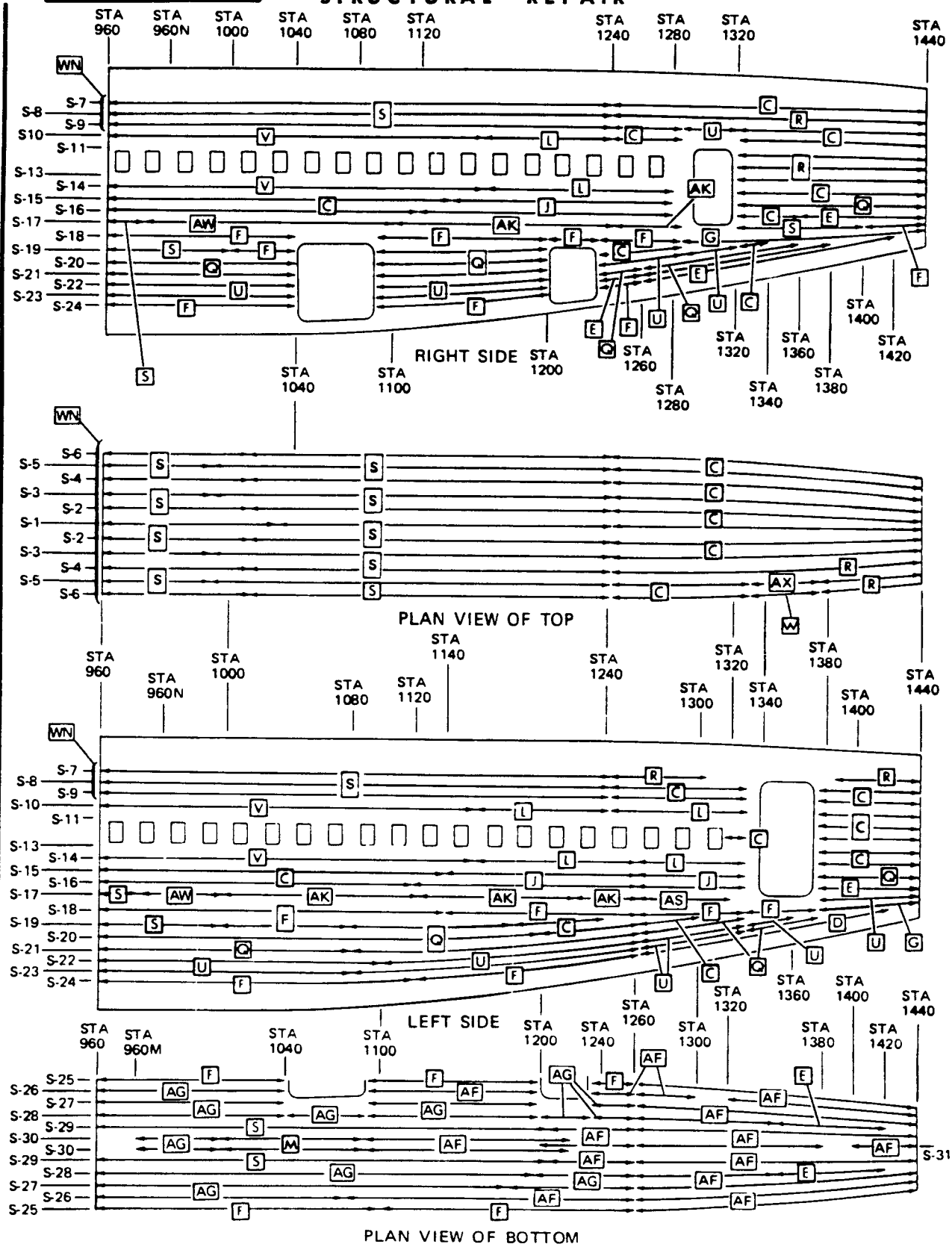
Fuselage Stringer Identification
Figure 8 (Sheet 40)

EFFECTIVITY
TURBOFAN AIRPLANES:
XE EXCEPT 779
NON-CARGO



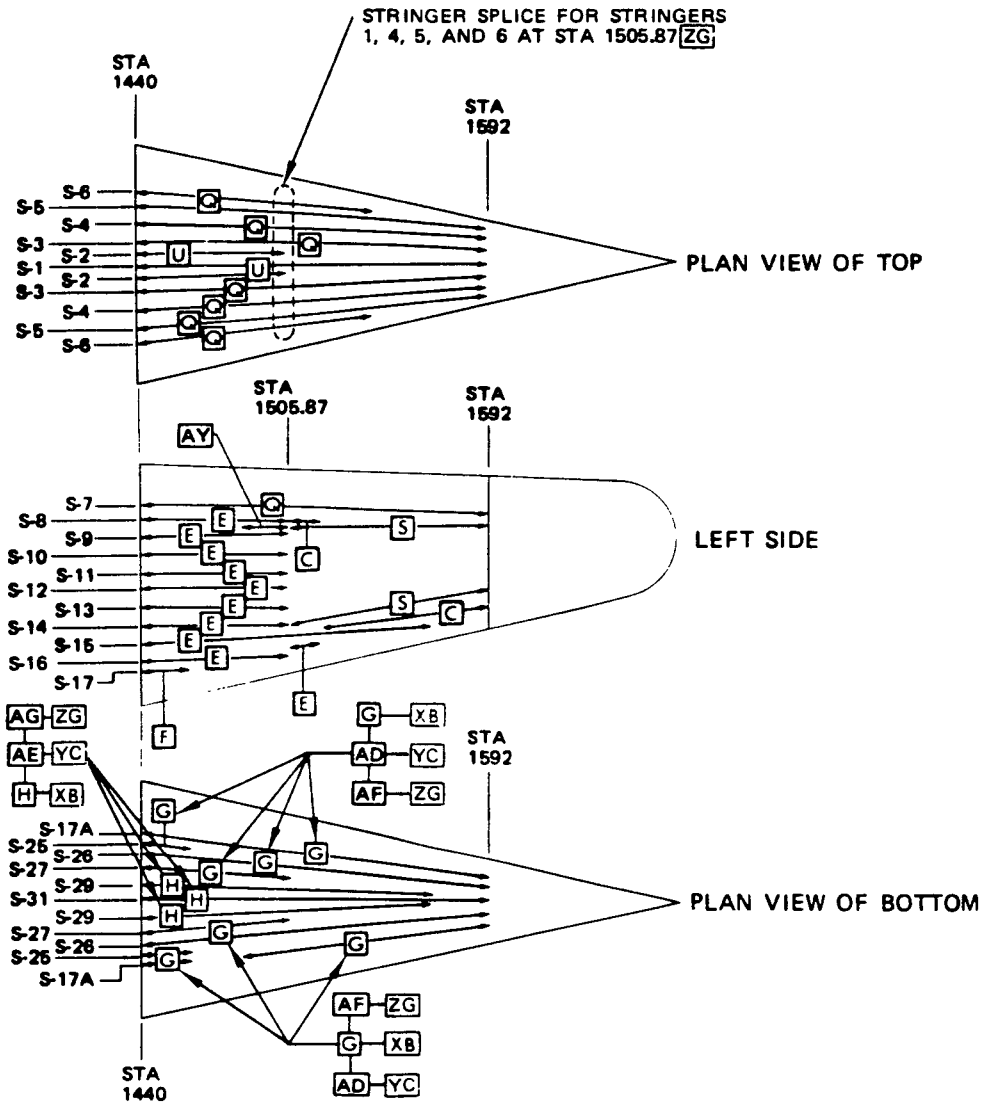
PLAN VIEW OF BOTTOM

Fuselage Stringer Identification
Figure 8 (Sheet 41)

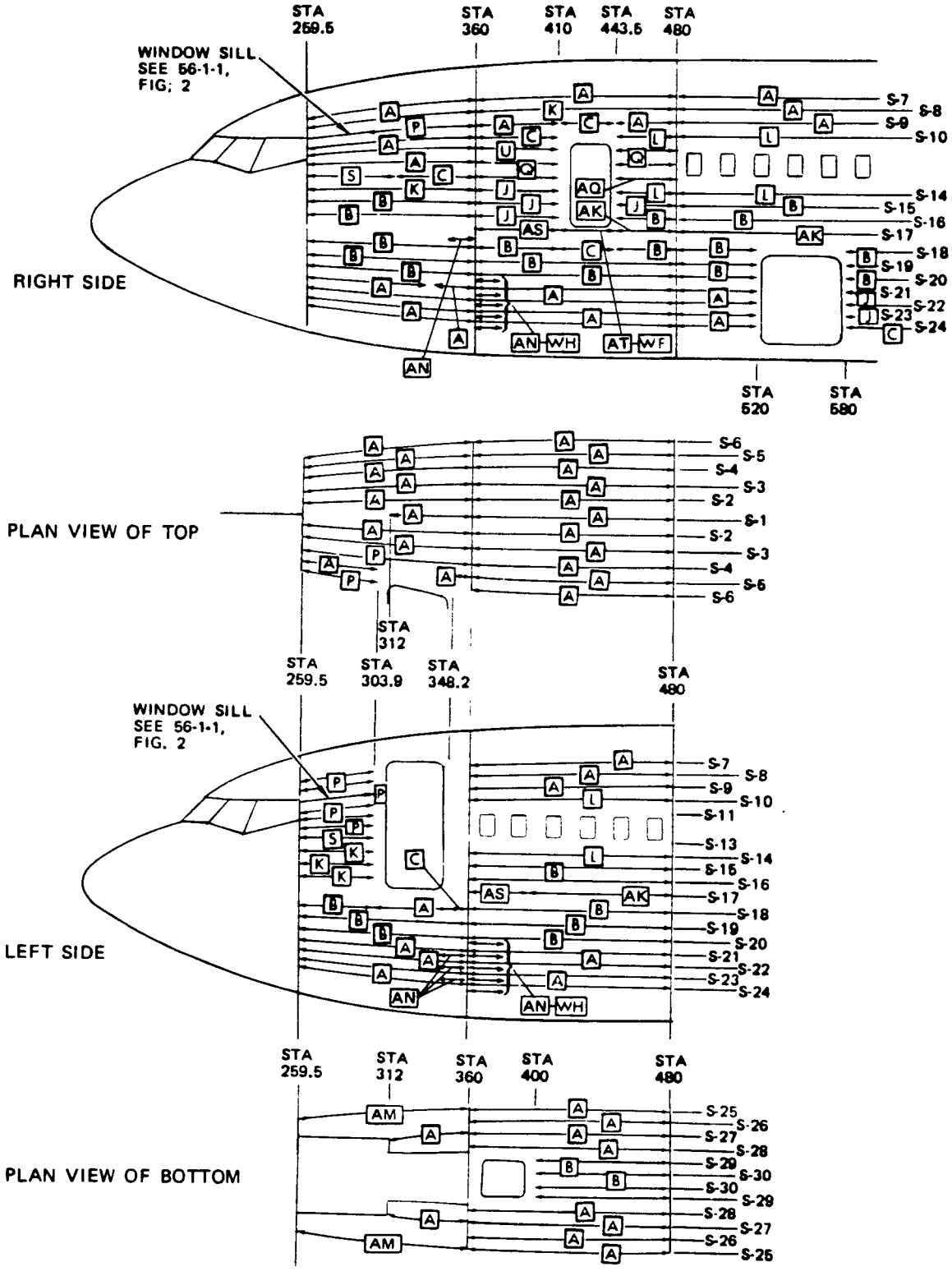


Fuselage Stringer Identification
Figure 8 (Sheet 42)

EFFECTIVITY
XD XE
NON-CARGO

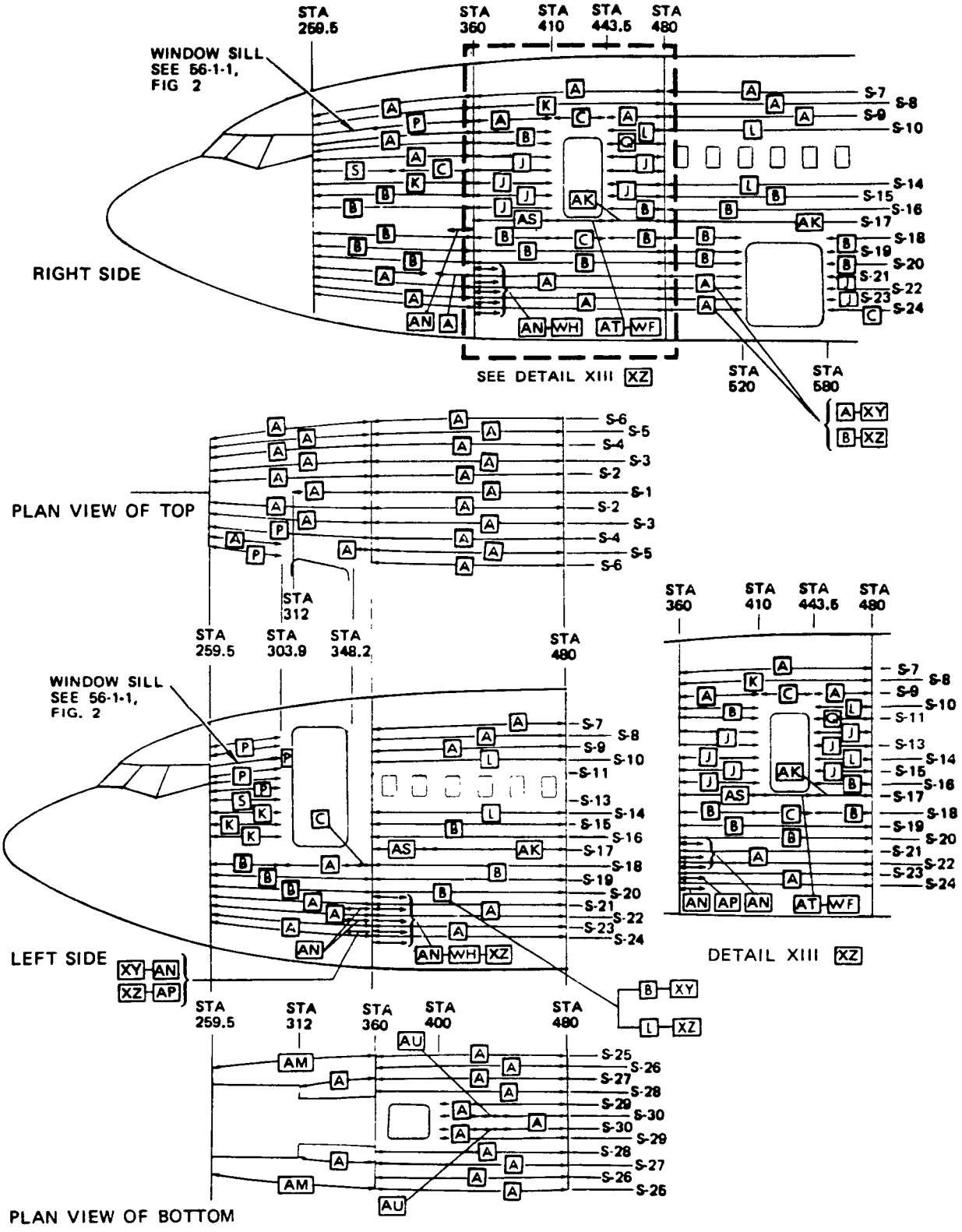


Fuselage Stringer Identification
Figure 8 (Sheet 43)

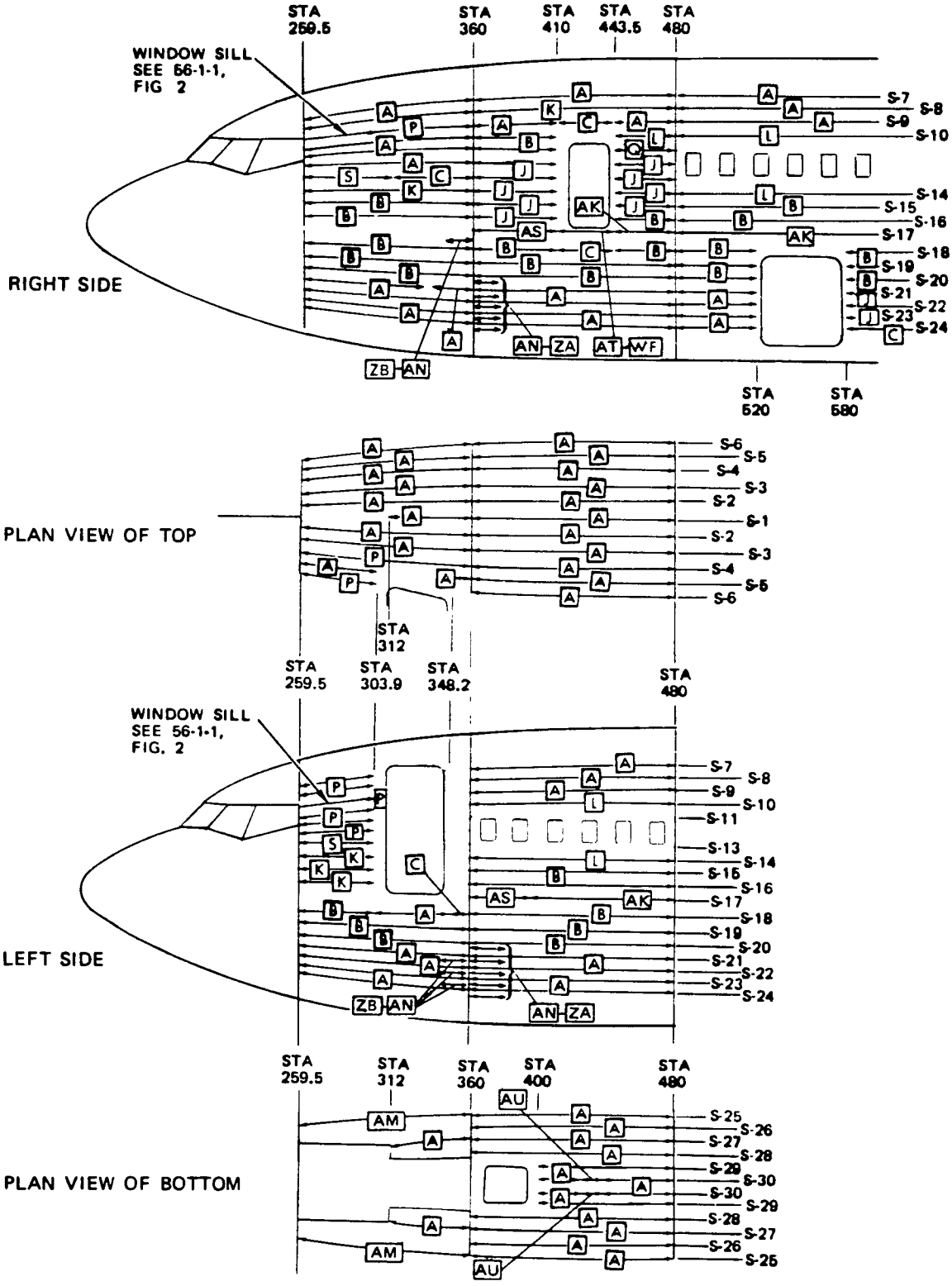


Fuselage Stringer Identification
Figure 8 (Sheet 44)

EFFECTIVITY
XY XZ
NON-CARGO

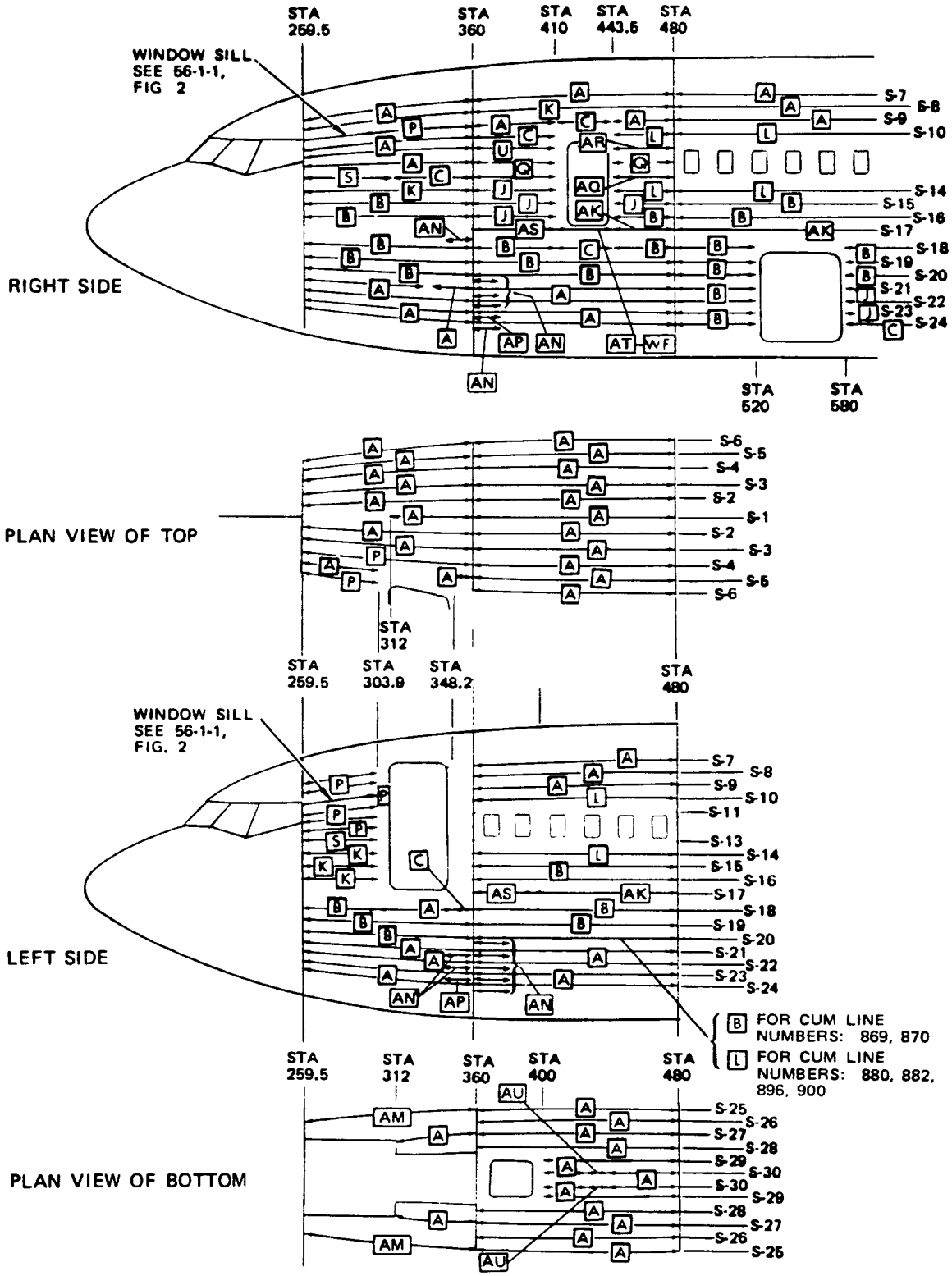


Fuselage Stringer Identification
Figure 8 (Sheet 45)

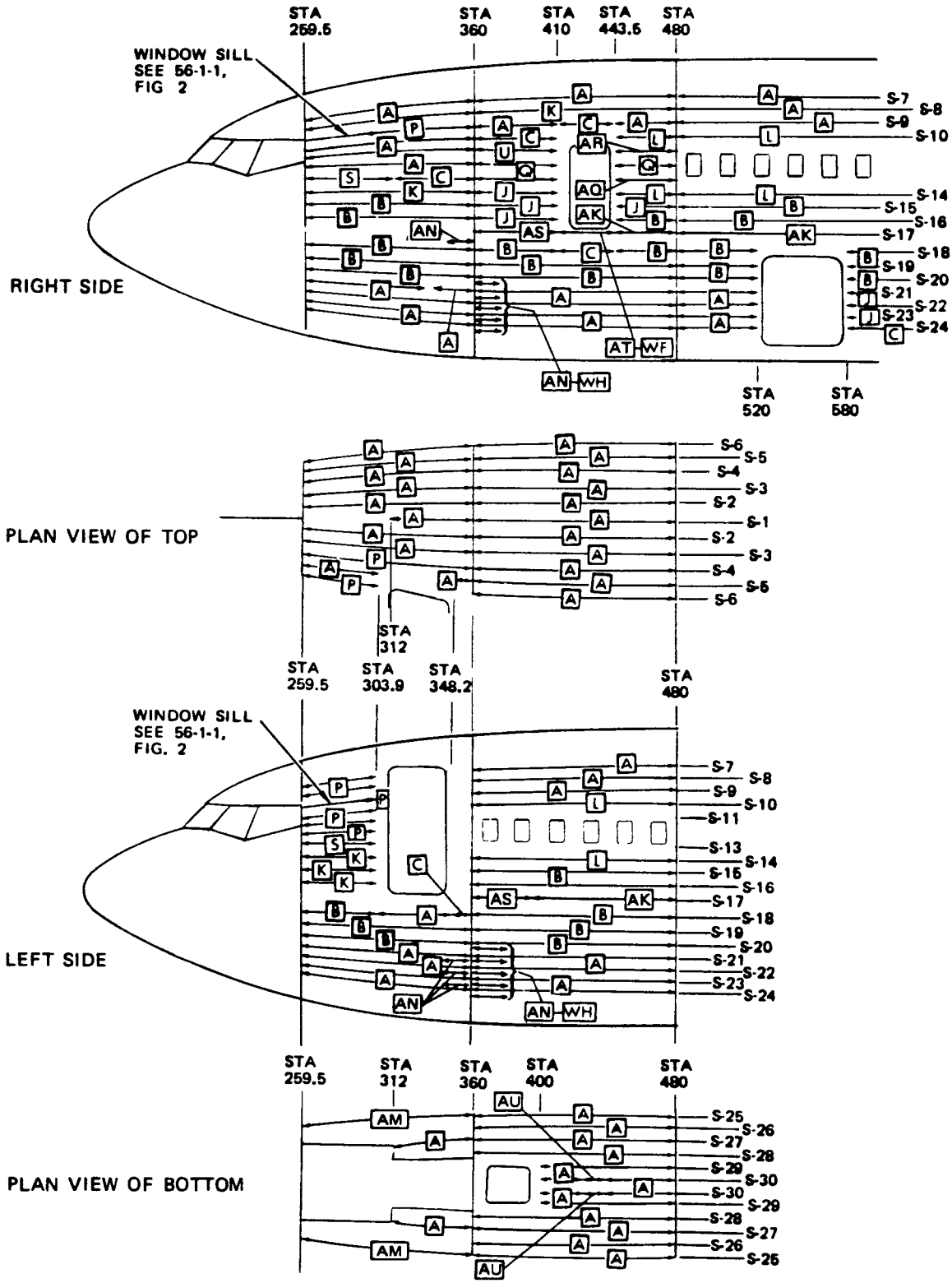


Fuselage Stringer Identification
Figure 8 (Sheet 46)

EFFECTIVITY
YL
NON-CARGO

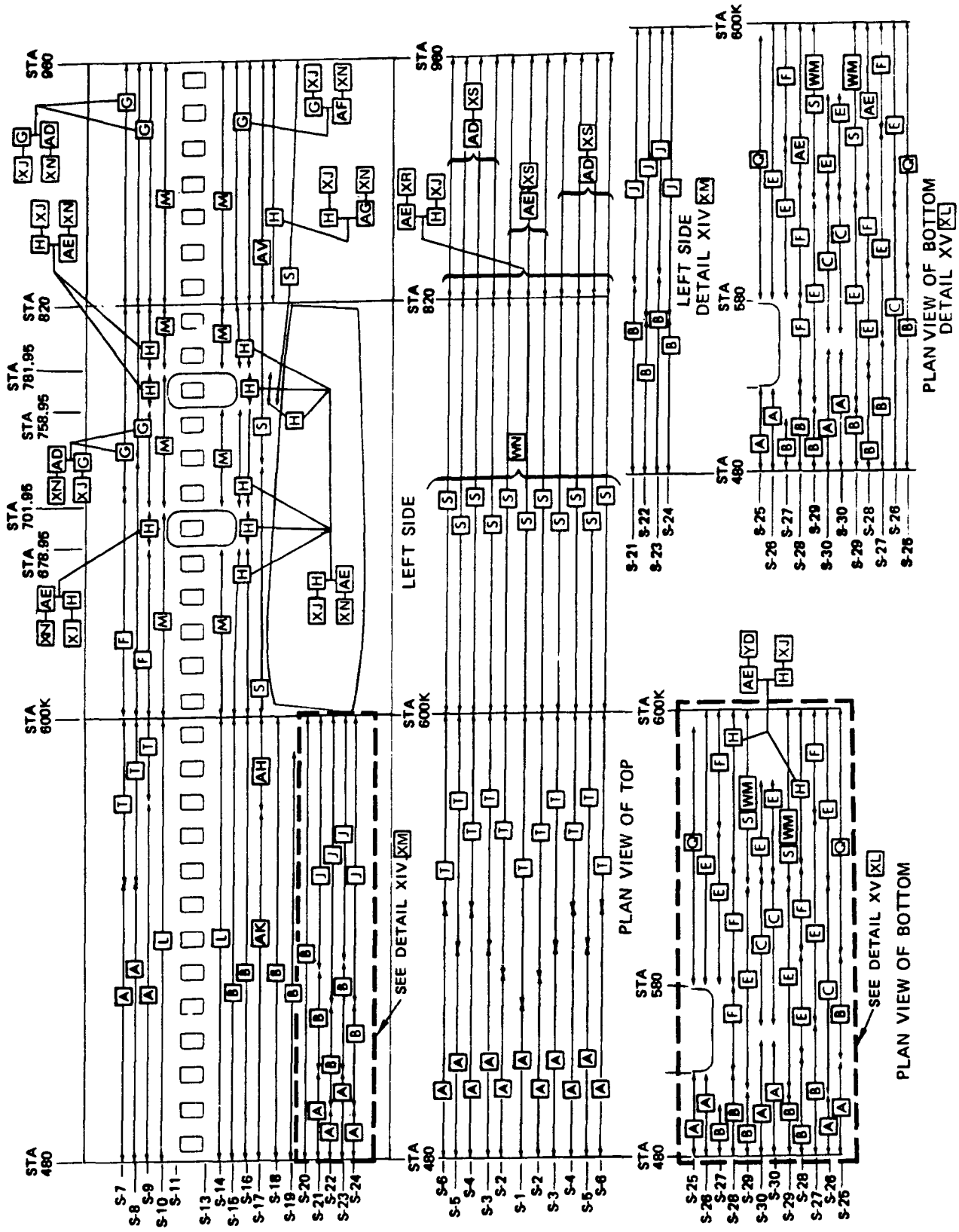


Fuselage Stringer Identification
Figure 8 (Sheet 47)

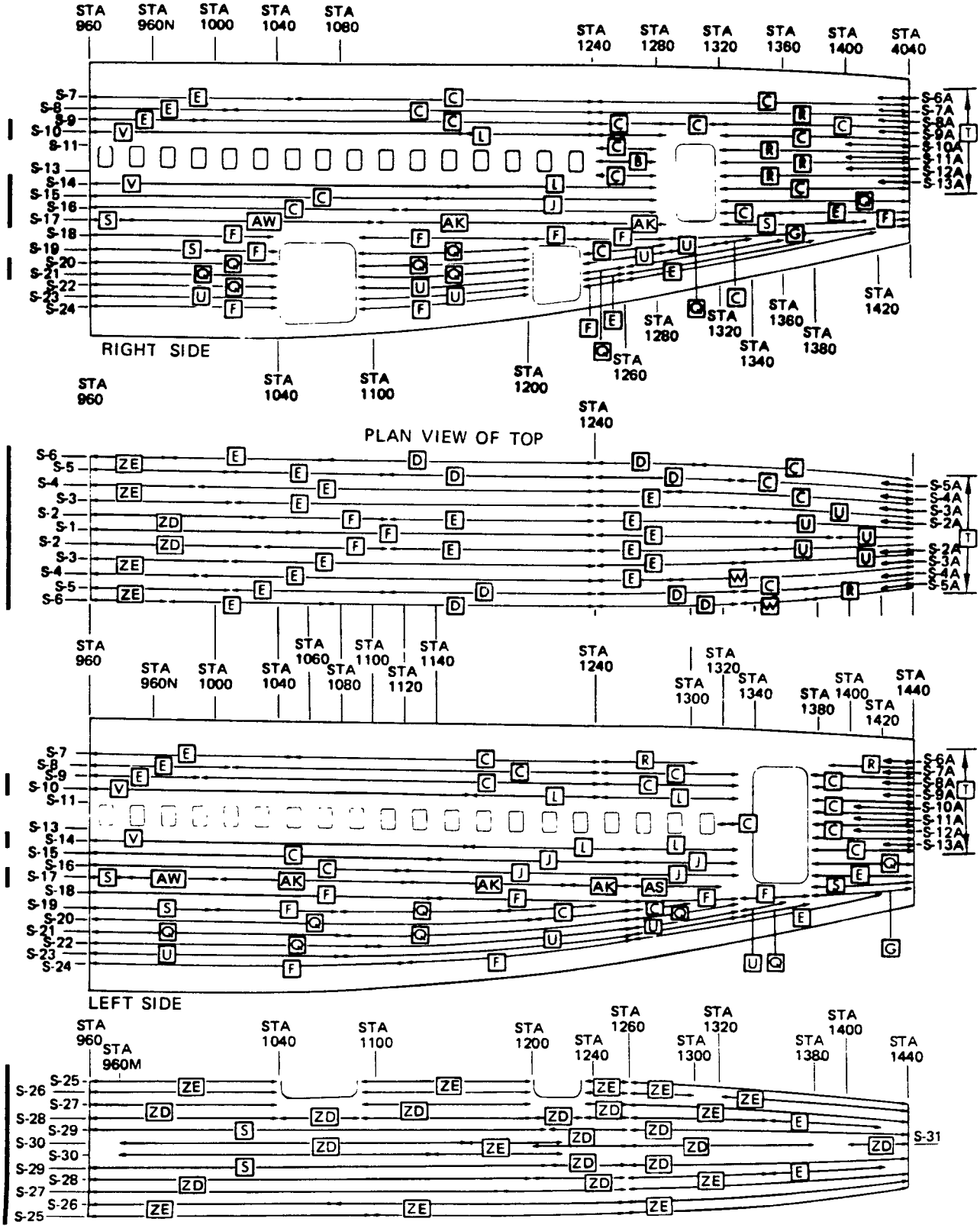


Fuselage Stringer Identification
Figure 8 (Sheet 48)

EFFECTIVITY
XR XS XJ
NON-CARGO

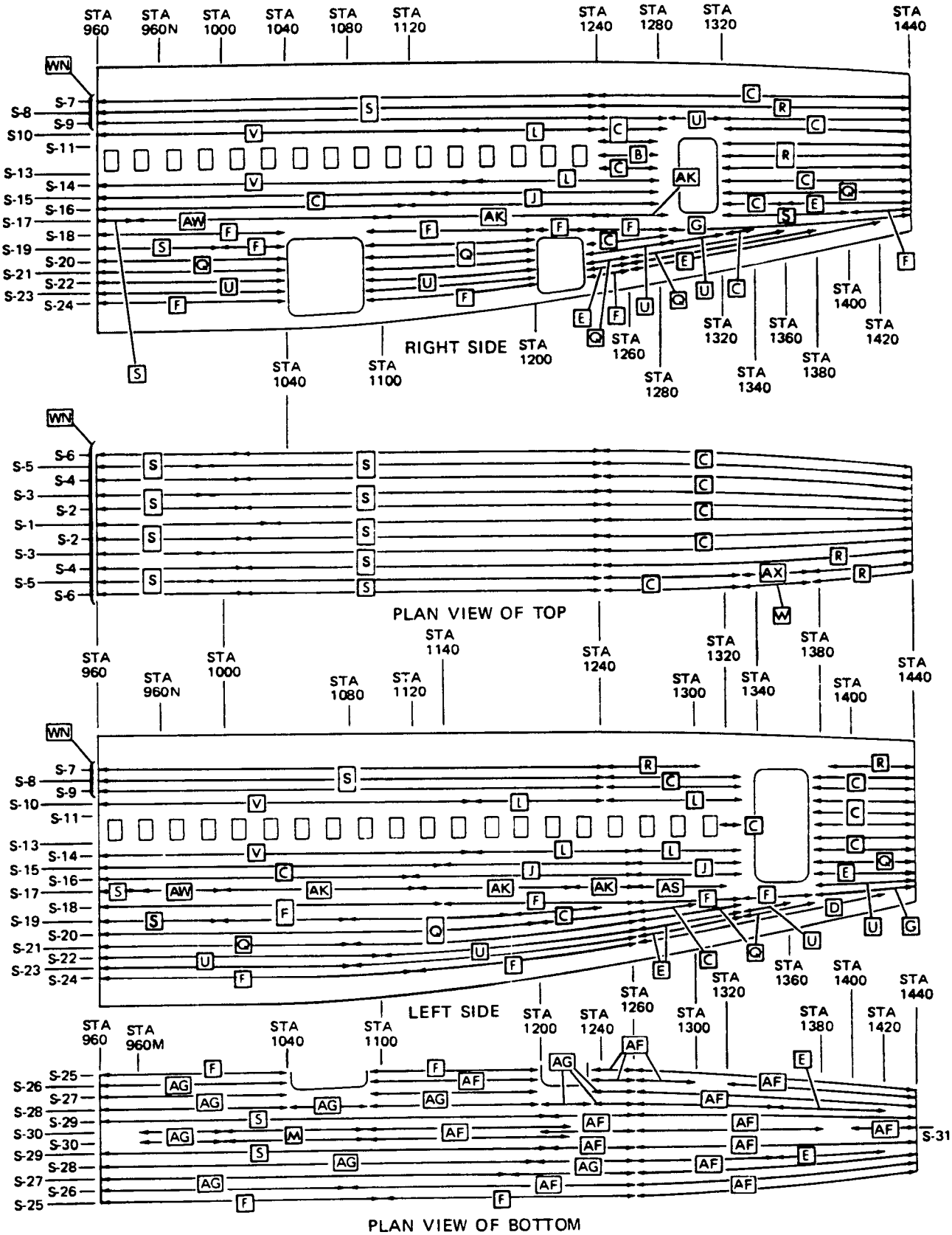


Fuselage Stringer Identification
Figure 8 (Sheet 49)



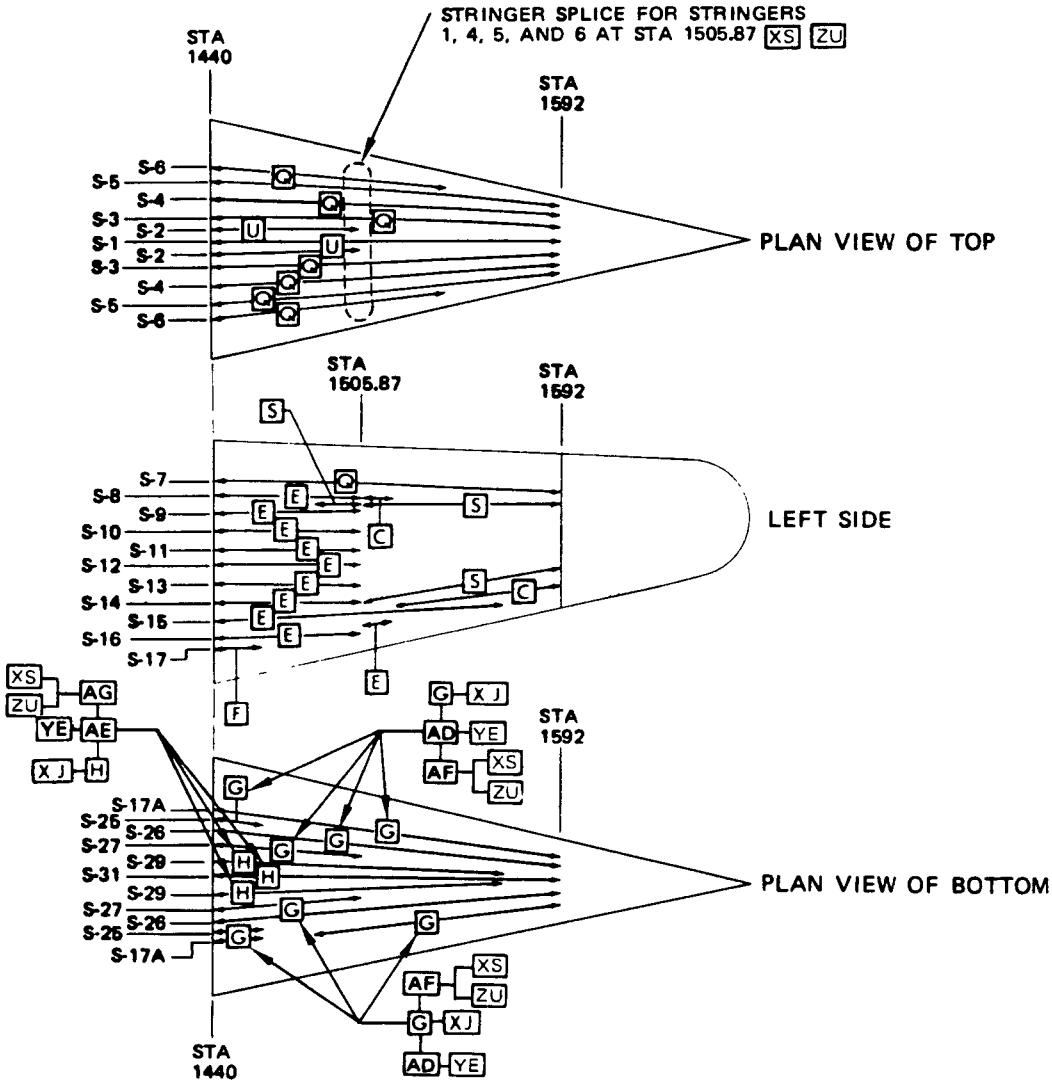
Fuselage Stringer Identification
Figure 8 (Sheet 50)

EFFECTIVITY
TURBOFAN AIRPLANES
XS
NON-CARGO



Fuselage Stringer Identification
Figure 8 (Sheet 51)

Ref Dwg
65-5354



Fuselage Stringer Identification
Figure 8 (Sheet 52)

ITEM	GAGE	SECTION NUMBER	STRINGER TYPE	REPAIR FIG. NO.
A	0.032	BAC1498-95 CLAD 7075-T6	HAT SECTION (NARROW)	53-3-4 FIG. 1, 2&3
B	0.040	BAC1498-96 CLAD 7075-T6	HAT SECTION (NARROW)	53-3-4 FIG. 1, 2&3
C	0.050	BAC1498-97 CLAD 7075-T6	HAT SECTION (NARROW)	53-3-4 FIG. 1, 2&3
D	0.056	BAC1498-98 CLAD 7075-T6	HAT SECTION (WIDE)	53-3-4 FIG. 1, 2&3
E	0.063	BAC1498-99 7075-T6	HAT SECTION (WIDE)	53-3-4 FIG. 1, 2&3
F	0.071	BAC1498-100 7075-T6	HAT SECTION (WIDE)	53-3-4 FIG. 1, 2&3
G	0.071	BAC1498-125 CLAD 7075-T6	HAT SECTION (NARROW)	53-3-4 FIG. 1, 2&3
H	0.091	BAC1498-127 CLAD 7075-T6	HAT SECTION (NARROW)	53-3-4 FIG. 1, 2&3
J	0.045	BAC1498-106 CLAD 7075-T6	HAT SECTION (NARROW)	53-3-4 FIG. 1, 2&3
K	0.040	BAC1498-107 CLAD 7075-T6	HAT SECTION (NARROW)	53-3-4 FIG. 1, 2&3
L		BAC1517-1160 7075-T6	ZEE SECTION	51-14-4 FIG. 1
M		BAC1517-1161 7075-T6	ZEE SECTION	51-14-4 FIG. 1
N	0.050	BAC1498-109 CLAD 7075-T6	HAT SECTION (WIDE)	53-3-4 FIG. 1, 2&3
P	0.032	BAC1498-108 CLAD 7075-T6	HAT SECTION (NARROW)	53-3-4 FIG. 1, 2&3
Q	0.056	BAC1498-110 CLAD 7075-T6	HAT SECTION (NARROW)	53-3-4 FIG. 1, 2&3
R	0.050	BAC1498-112 CLAD 7075-T6	HAT SECTION (NARROW)	53-3-4 FIG. 1, 2&3
S		SPECIAL		
T	0.045	BAC1498-113 CLAD 7075-T6	HAT SECTION (WIDE)	53-3-4 FIG. 1, 2&3
U	0.063	BAC1498-114 7075-T6	HAT SECTION (NARROW)	53-3-4 FIG. 1, 2&3
V		BAC1517-1246 7075-T6	ZEE SECTION	51-14-4 FIG. 1
Z	0.063	BAC1498-137 7075-T6	HAT SECTION (NARROW)	53-3-4 FIG. 1, 2&3
AA	0.120	BAC1509-100203 7075-T6	HAT SECTION	
AB		BAC1509-100204 7075-T6	HAT SECTION	
AC	0.071	BAC1498-149 7075-T6	HAT SECTION	
AD	0.080	BAC1509-100235 7075-T6	HAT SECTION	53-3-4 FIG. 1, 2&3
AE	0.090	BAC1509-100236 7075-T6	HAT SECTION	53-3-4 FIG. 1, 2&3
AF	0.080	BAC1498-146 7075-T6	HAT SECTION	53-3-4 FIG. 1, 2&3
AG	0.090	BAC1498-147 7075-T6	HAT SECTION	53-3-4 FIG. 1, 2&3
AH	0.050	CLAD 2024-T4	FORMED ANGLE	
AK	0.050	CLAD 2024-T42	FORMED ANGLE	
AM	0.051	BAC1517-1686 CLAD 7075-T6	ZEE SECTION	
AN	0.125 MIN	BAC1514-583 7075-T6	ANGLE	
AP	0.071	7075-T6	HAT SECTION	
AQ	0.090	BAC1506-1133 7075-T6	TEE SECTION	51-14-4 FIG. 1
AR	0.080	BAC1506-1121 7075-T6	TEE SECTION	51-14-4 FIG. 1
AS	0.10 MIN	MAKE FROM BAC1514-815 2024-T4	ANGLE	
AT	0.094	AND10137-6606 7075-T6	CHANNEL	
AU	0.140 MIN	MAKE FROM BAC1506-1140 7075-T6	TEE SECTION	
AW		MAKE FROM BAC1506-1139 7075-T6	TEE SECTION	

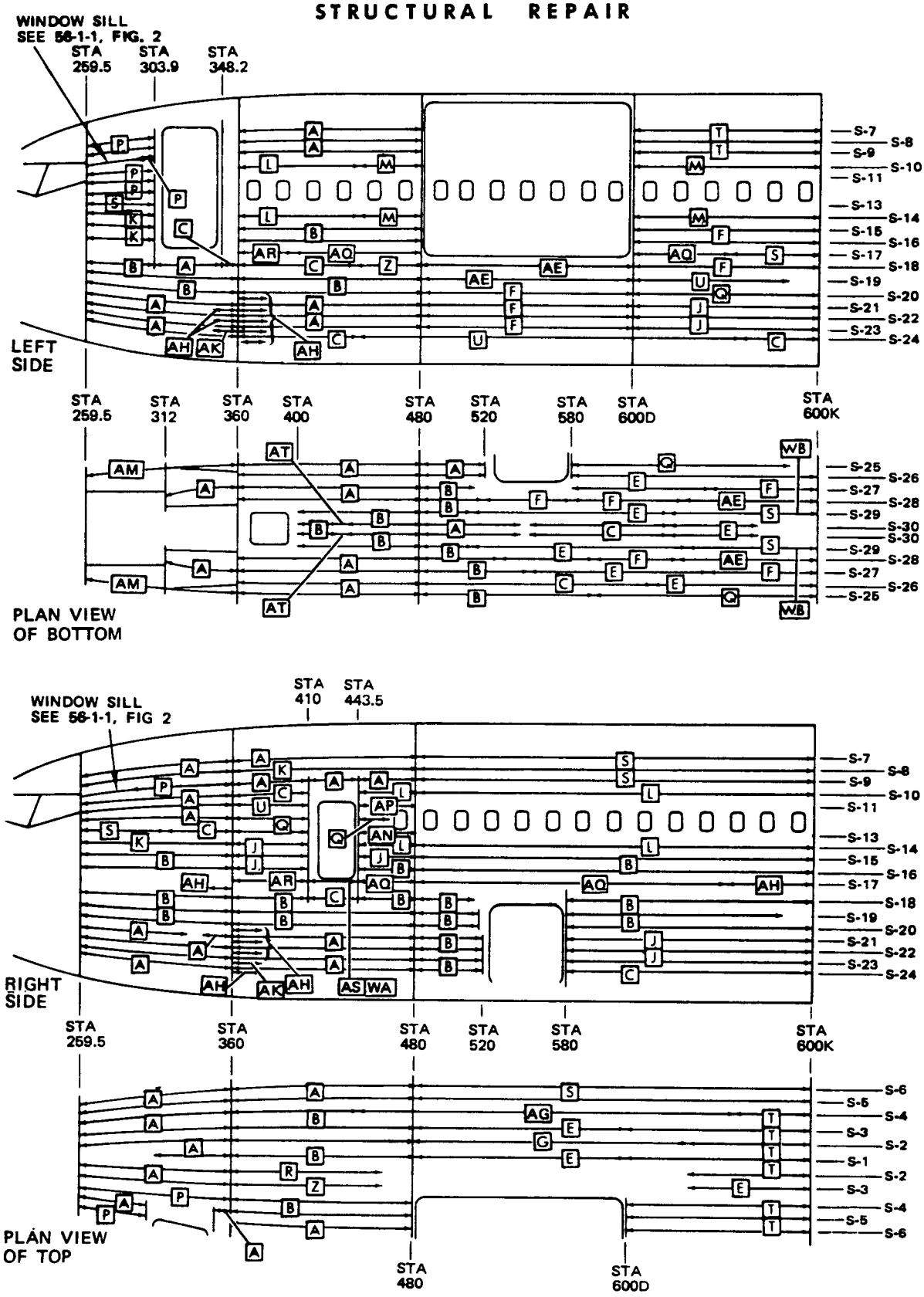
NOTES

WA STRINGER 17 (REF WL 208.1) IS DOOR SILL OUTER CHORD

WA STRINGER 29 IS LOWER CHORD OF KEEL BEAM

WC STRINGERS ARE TAPERED GAGE HAT SECTION 7075-T6

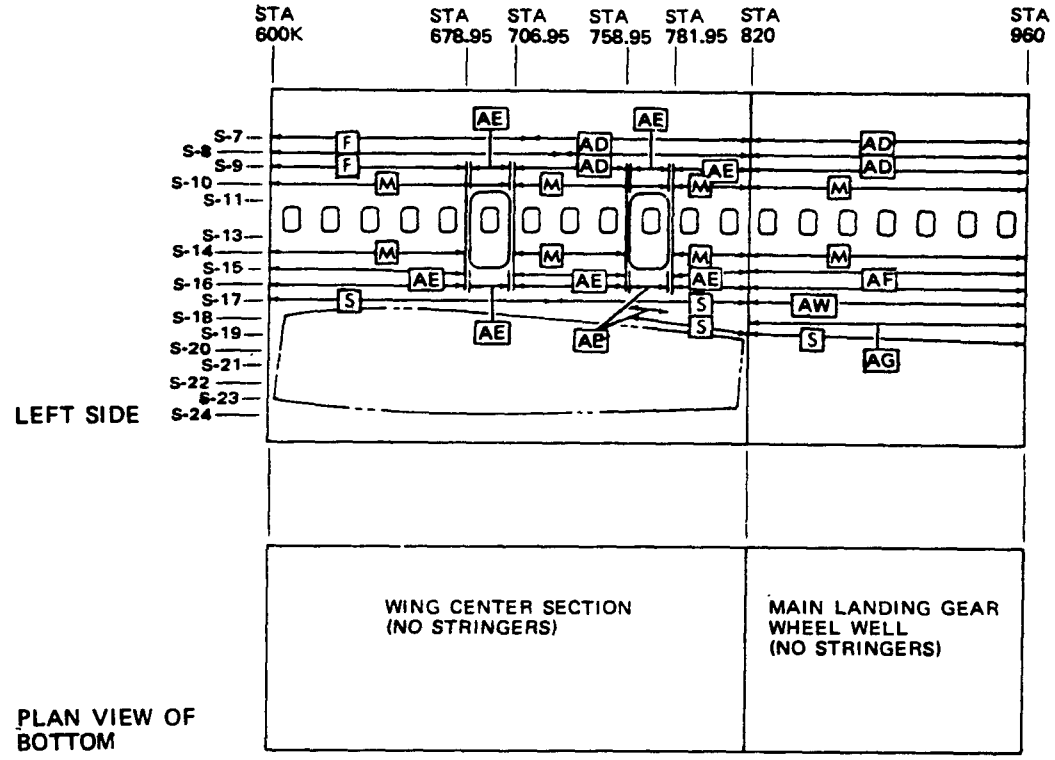
Fuselage Stringer Identification
Figure 9 (Sheet 1)



Fuselage Stringer Identification
Figure 9 (Sheet 2)

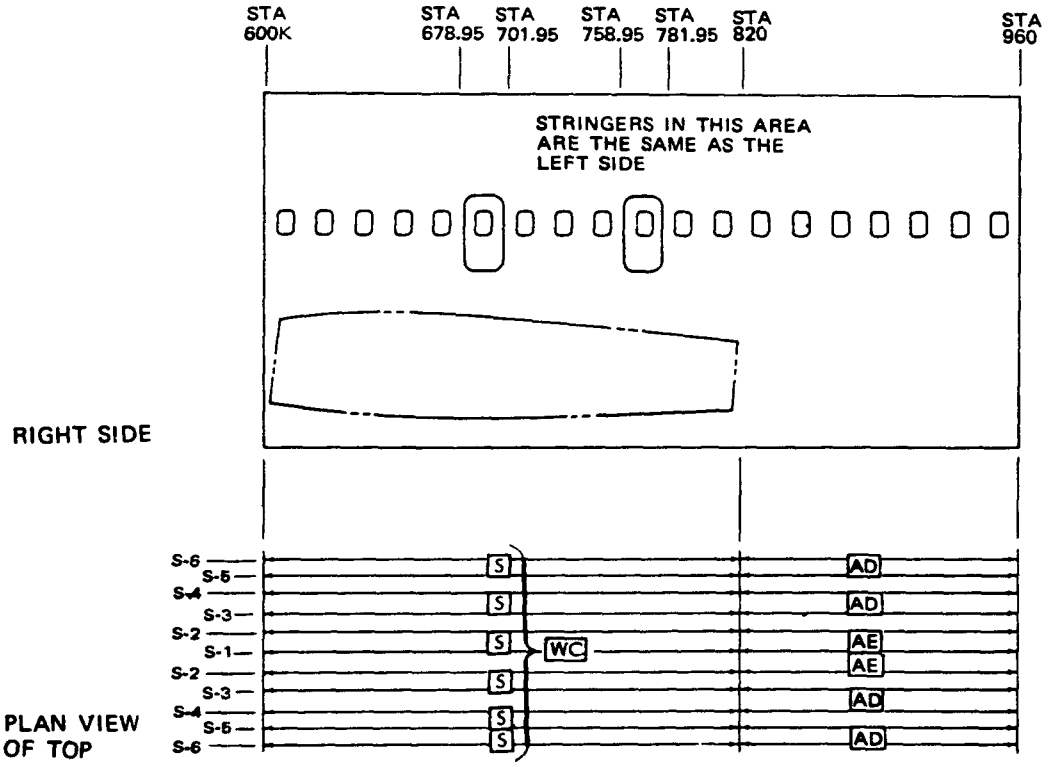
EFFECTIVITY

ALL IM AIRPLANES



LEFT SIDE

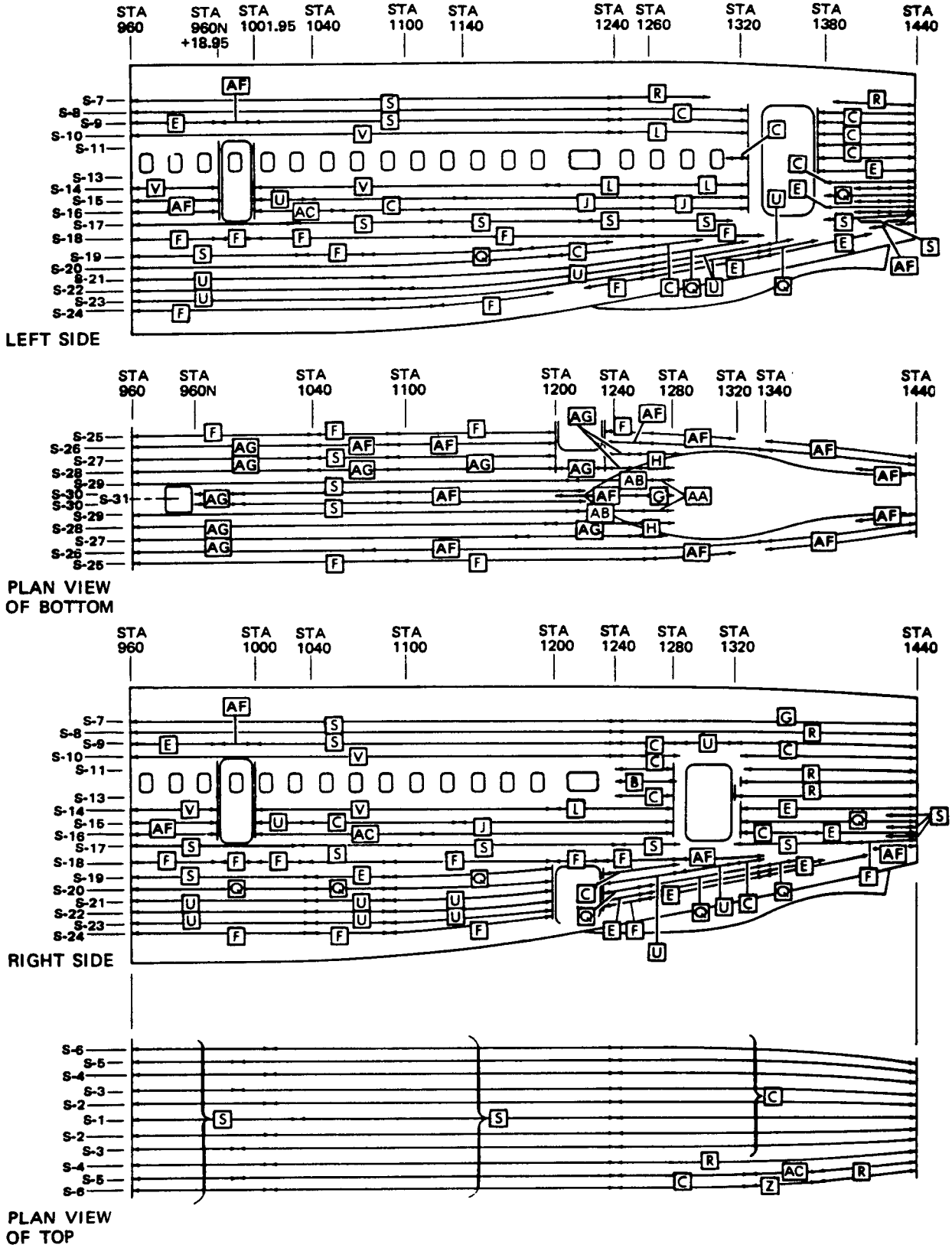
PLAN VIEW OF BOTTOM



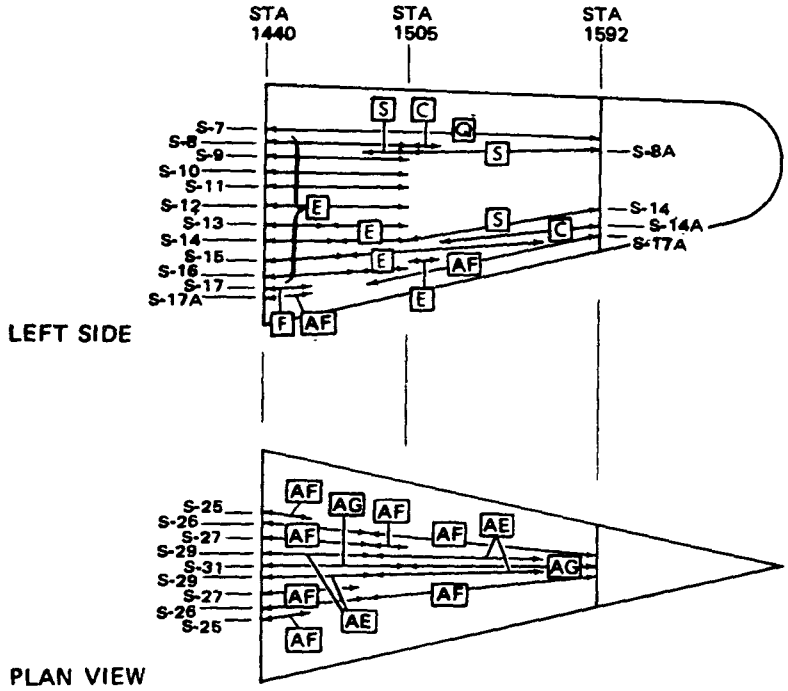
RIGHT SIDE

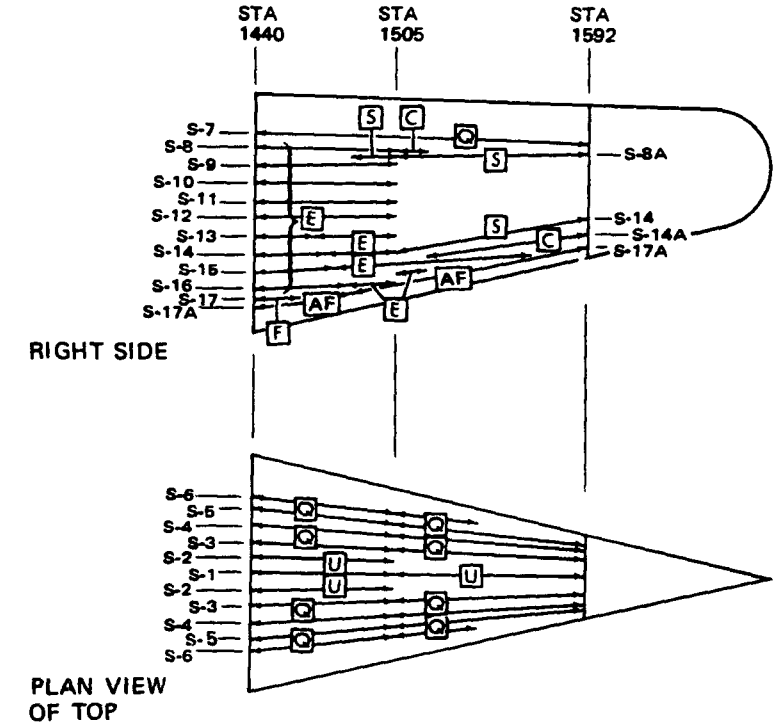
PLAN VIEW OF TOP

Fuselage Stringer Identification
Figure 9 (Sheet 3)



Fuselage Stringer Identification
Figure 9 (Sheet 4)





Fuselage Stringer Identification
Figure 9 (Sheet 5)

ITEM	GAGE	SECTION NUMBER	STRINGER TYPE	REPAIR FIG. NO.
A	0.032	BAC1498-95 7075-T6 CLAD	HAT SECTION (NARROW)	53-3-4 FIG. 1,2&3
B	0.040	BAC1498-96 7075-T6 CLAD	HAT SECTION (NARROW)	53-3-4 FIG. 1,2&3
C	0.050	BAC1498-97 7075-T6 CLAD	HAT SECTION (NARROW)	53-3-4 FIG. 1,2&3
D	0.056	BAC1498-98 7075-T6 CLAD	HAT SECTION (WIDE)	53-3-4 FIG. 1,2&3
E	0.063	BAC1498-99 7075-T6	HAT SECTION (WIDE)	53-3-4 FIG. 1,2&3
F	0.071	BAC1498-100 7075-T6	HAT SECTION (WIDE)	53-3-4 FIG. 1,2&3
G	0.080	BAC1498-101 7075-T6	HAT SECTION (WIDE)	53-3-4 FIG. 1,2&3
H	0.090	BAC1498-102 7075-T6	HAT SECTION (WIDE)	53-3-4 FIG. 1,2&3
J	0.045	BAC1498-106 7075-T6 CLAD	HAT SECTION (NARROW)	53-3-4 FIG. 1,2&3
K	0.040	BAC1498-107 7075-T6 CLAD	HAT SECTION (NARROW)	53-3-4 FIG. 1,2&3
L	—	BAC1517-1160 7075-T6	ZEE SECTION	51-14-4 FIG. 1
M	—	BAC1517-1161 7075-T6	ZEE SECTION	51-14-4 FIG. 1
N	0.050	BAC1498-109 7075-T6 CLAD	HAT SECTION (WIDE)	53-3-4 FIG. 1,2&3
P	0.032	BAC1498-108 7075-T6 CLAD	HAT SECTION (NARROW)	53-3-4 FIG. 1,2&3
Q	0.056	BAC1498-110 7075-T6 CLAD	HAT SECTION (NARROW)	53-3-4 FIG. 1,2&3
R	0.050	BAC1498-112 7075-T6 CLAD	HAT SECTION (NARROW)	53-3-4 FIG. 1,2&3
S	—	SPECIAL	—	—
T	0.045	BAC1498-113 7075-T6 CLAD	HAT SECTION (WIDE)	53-3-4 FIG. 1,2&3
U	0.063	BAC1498-114 7075-T6	HAT SECTION (NARROW)	53-3-4 FIG. 1,2&3
V	—	BAC1517-1246 7075-T6	ZEE SECTION	51-14-4 FIG. 1
Z	0.063	BAC1498-137 7075-T6	HAT SECTION (NARROW)	53-3-4 FIG 1, 2 & 3

ITEM	GAGE	SECTION NUMBER	STRINGER TYPE	REPAIR FIG. NO.
AA	0.120	BAC1509-100203 7075-T6	HAT SECTION	
AB	—	BAC1509-100204 7075-T6	HAT SECTION	
AC	0.071	BAC1498-149 7075-T6	HAT SECTION	
AD	0.080	BAC1509-100235 7075-T6	HAT SECTION	53-3-4 FIG. 1,2&3
AE	0.090	BAC1509-100236 7075-T6	HAT SECTION	53-3-4 FIG. 1,2&3
AF	0.080	BAC1498-146 7075-T6	HAT SECTION	53-3-4 FIG. 1,2&3
AG	0.090	BAC1498-147 7075-T6	HAT SECTION	53-3-4 FIG. 1,2&3
AH	0.063	BAC1498-137 2024-T42	HAT SECTION (NARROW)	53-3-4 FIG. 1, 2, 3
AK	0.050	CLAD 2024-T42	FORMED ANGLE	
AM	0.051	BAC1517-1085 CLAD 7075-T6	ZEE SECTION	51-14-3 FIG. 1
AN	0.050	CLAD 2024-T4	FORMED ANGLE	
AP	0.060	BAC1506-1133 7075-T6	TEE SECTION	51-14-4 FIG. 1
AQ	0.125 MIN	BAC1514-563 7075-T6	ANGLE	
AR	0.071	7075-T6	HAT SECTION	
AS	0.060	BAC1506-1132 7075-T6	TEE SECTION	51-14-4 FIG. 1
AT	0.10 MIN	MAKE FROM BAC1514-816 2024-T4	ANGLE	
AU	0.094	AND10137-0606 7075-T6	CHANNEL	
AV	0.140 MIN	MAKE FROM BAC1508-1140 7075-T6	TEE SECTION	
AW		MAKE FROM BAC1506-1139 7075-T6	TEE SECTION	
AX	0.06 MIN	BAC1506-1147 7075-T6	TEE SECTION	
AY	0.063	CLAD 7075-T6	ANGLE	
AZ	0.051	BAC1490-2543 CLAD 7075-T6	ANGLE	
BA	0.156	BAC1517-183 7075-T6	ZEE SECTION	

NOTES

WA STRINGER 17 (REF WL 208.1) IS DOORSILL OUTER CHORD

WB FOR CUM LINE NUMBERS 332 THRU 788 AND AIRPLANES WITH SB 2951 AND 2952 INCORPORATED

WC FOR CUM LINE NUMBERS THRU 846 EXCEPT AA CUM LINE NUMBERS 608, 612, 614, 616, 619, 638, 639, 650, 663, 668, 670, 686, 692, 701, 710, 714, 719, 722, 724, 727, 741

WD FOR CUM LINE NUMBERS 847 AND ON AND FOR AA AIRPLANES LISTED AS EXCEPTION IN WC

WE FOR AA AIRPLANES ONLY

WF FOR ALL CARGO AIRPLANES EXCEPT AA AIRPLANES

WG STRINGER 29 IS LOWER CHORD OF KEEL BEAM

WH FOR CUM LINE NUMBERS THRU 846

WK FOR CUM LINE NUMBERS: 847 AND ON

WL FOR CUM LINE NUMBERS: 332, 336, 341, 344, 346, 349, 350, 354 THRU 358, 362, 364 THRU 372, 376 THRU 379, 383, 386, 387, 404, 407, 413, 416, 425, 428, 430, 431, 434, 436 THRU 440, 443 THRU 445, 447 THRU 453, 458, 463, 467

WM FOR ALL CARGO AIRPLANES NOT LISTED IN WL

WN STRINGERS ARE 7075-76 MATERIAL TAPERED GAGE HAT SECTION

WO FOR CUM LINE NUMBERS: 477, 480, 494, 495, 497 THRU 500, 503 THRU 505, 507, 509 THRU 511, 513, 515 THRU 519, 521, 523 THRU 525, 537, 540, 541, 544, 546, 548 THRU 550, 552 THRU 554, 556, 557, 560, 563, 566, 570, 572, 574, 576, 578, 580, 582, 584, 587, 588, 594, 596, 601, 609 THRU 611, 613, 617, 625 THRU 627, 629, 630, 632, 634 THRU 637, 641 THRU 649, 651, 652, 654 THRU 657, 659, 660, 662, 664 THRU 667, 671, 675, 689, 691, 693, 696, 698

WP FOR CARGO AIRPLANES NOT LISTED IN WL AND WO

WR FOR CUM LINE NUMBERS: 416, 477, 488

WS FOR CARGO AIRPLANES NOT LISTED IN WL AND WR

WT FOR CUM LINE NUMBERS: 532 AND 561

WU FOR CARGO CUM LINE NUMBERS: 570 AND ON

WV STRINGER MATERIAL IS H OR AE WITH AG OPTIONAL

WW STRINGER MATERIAL IS G OR AD WITH AF OPTIONAL

WX FOR CUM LINE NUMBERS: 378, 383, 387, 451, 477, 557, 588, 613, 626, 629, 717, 720, 815

Fuselage Stringer Identification
Figure 10 (Sheet 2)

NOTES (CONTINUED)

[WY] FOR CUM LINE NUMBERS: 451, 477, 557, 588, 613, 626, 629, 717, 720, 788, 806, 815, 845, 846

[WZ] FOR CARGO CUM LINE NUMBERS: 428 AND ON

[ZA] FOR CUM LINE NUMBERS: 744, 809, 834, 837, 849, 852, 854, 857 AND ON

[ZB] FOR CARGO CUM LINE NUMBERS: 679 THRU 788

[ZC] FOR CARGO CUM LINE NUMBERS: 800 AND ON

[ZD] FOR CARGO CUM LINE NUMBERS: THRU 865

[ZE] FOR CARGO CUM LINE NUMBERS: 866 AND ON

[ZF] FOR CARGO CUM LINE NUMBERS 428 AND ON AND FOR CARGO AIRPLANES WITH SB 2951 AND 2952 INCORPORATED

[ZG] FOR ALL CARGO AIRPLANES THRU CUM LINE NUMBERS 502 AND 504, 505, 507 THRU 509, 534

[ZH] FOR CARGO AIRPLANES NOT LISTED IN [ZG]

[ZJ] FOR CARGO CUM LINE NUMBERS: 504 AND ON

[ZK] FOR CARGO CUM LINE NUMBERS: 700 AND ON

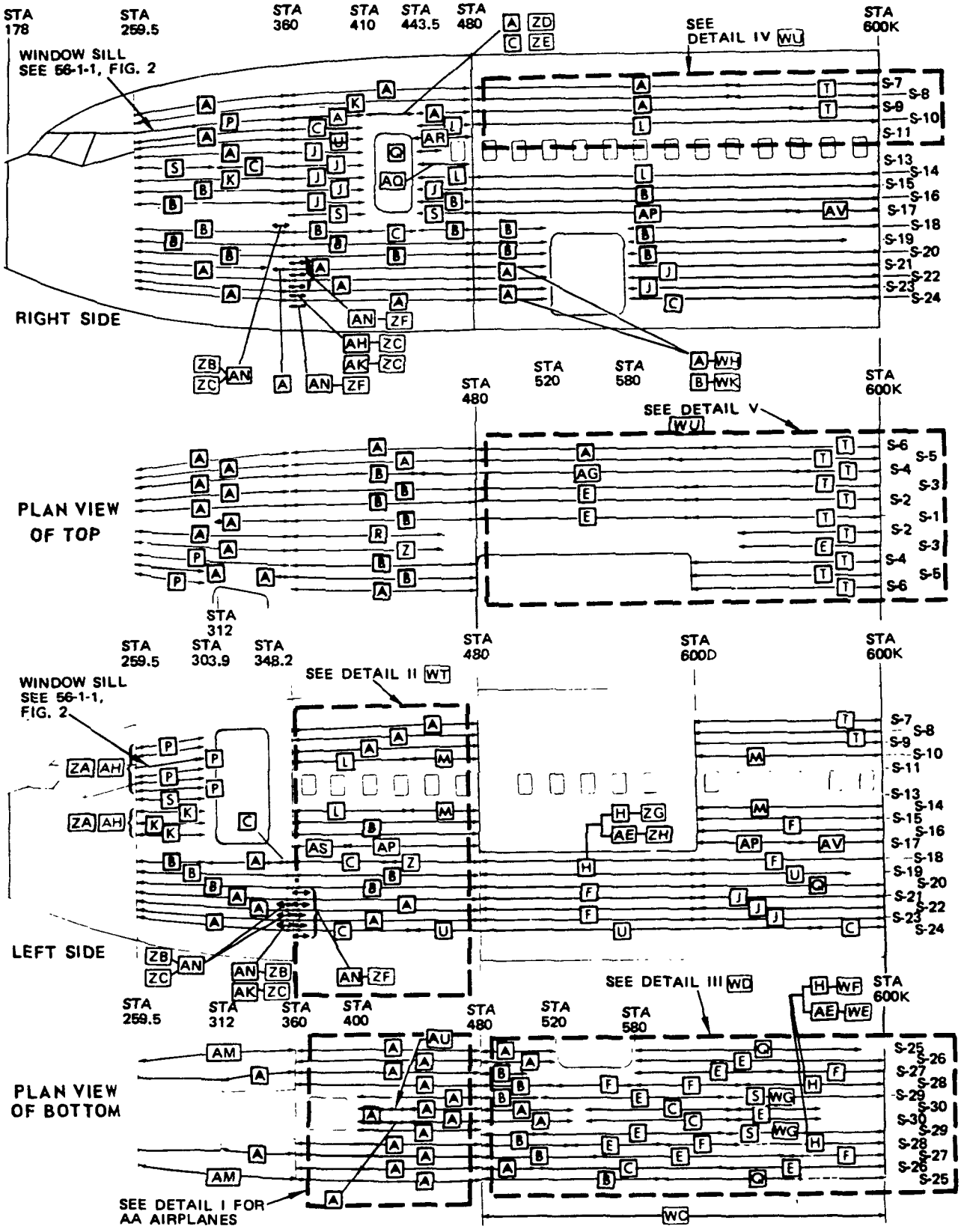
[ZL] FOR CUM LINE NUMBERS: 332, 336, 341 THRU 346, 348 THRU 350, 352, 354, 356 THRU 358, 362, 364 THRU 372, 376 THRU 379, 383, 386, 387, 404, 407, 413, 416, 425, 428, 430, 431, 434, 437 THRU 440, 443 THRU 445, 447 THRU 453, 458, 463, 467, 477, 480

[ZM] FOR CUM LINE NUMBERS: 488, 494, 495, 498 THRU 500, 504, 505, 507, 508, 510, 511, 513, 517 THRU 519, 521, 523, 525, 532, 537, 546, 550, 552, 561

[ZN] FOR CARGO AIRPLANES NOT LISTED IN [ZL] AND [ZM]

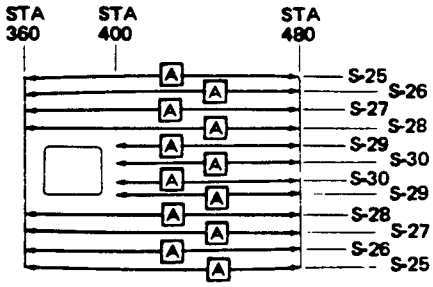
[ZO] FOR CARGO CUM LINE NUMBERS 428 THRU 503

EFFECTIVITY
ALL CARGO AIRPLANES

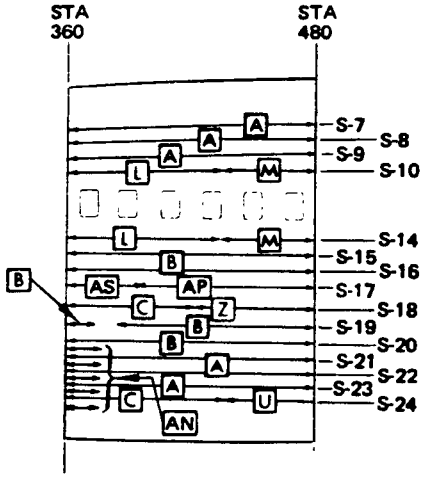


Fuselage Stringer Identification
Figure 10 (Sheet 4)

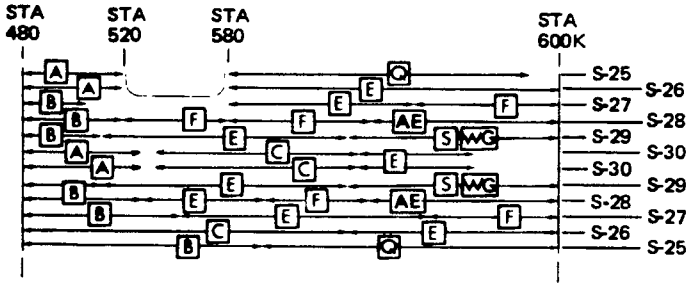
SRM 320
Jan 10/76



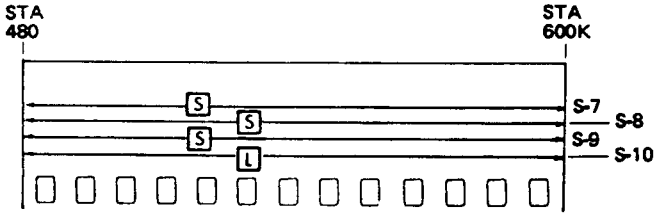
PLAN VIEW OF BOTTOM
DETAIL I
FOR AA AIRPLANES



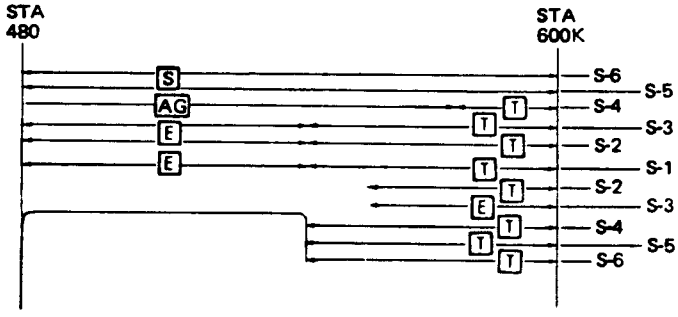
LEFT SIDE
DETAIL II WT



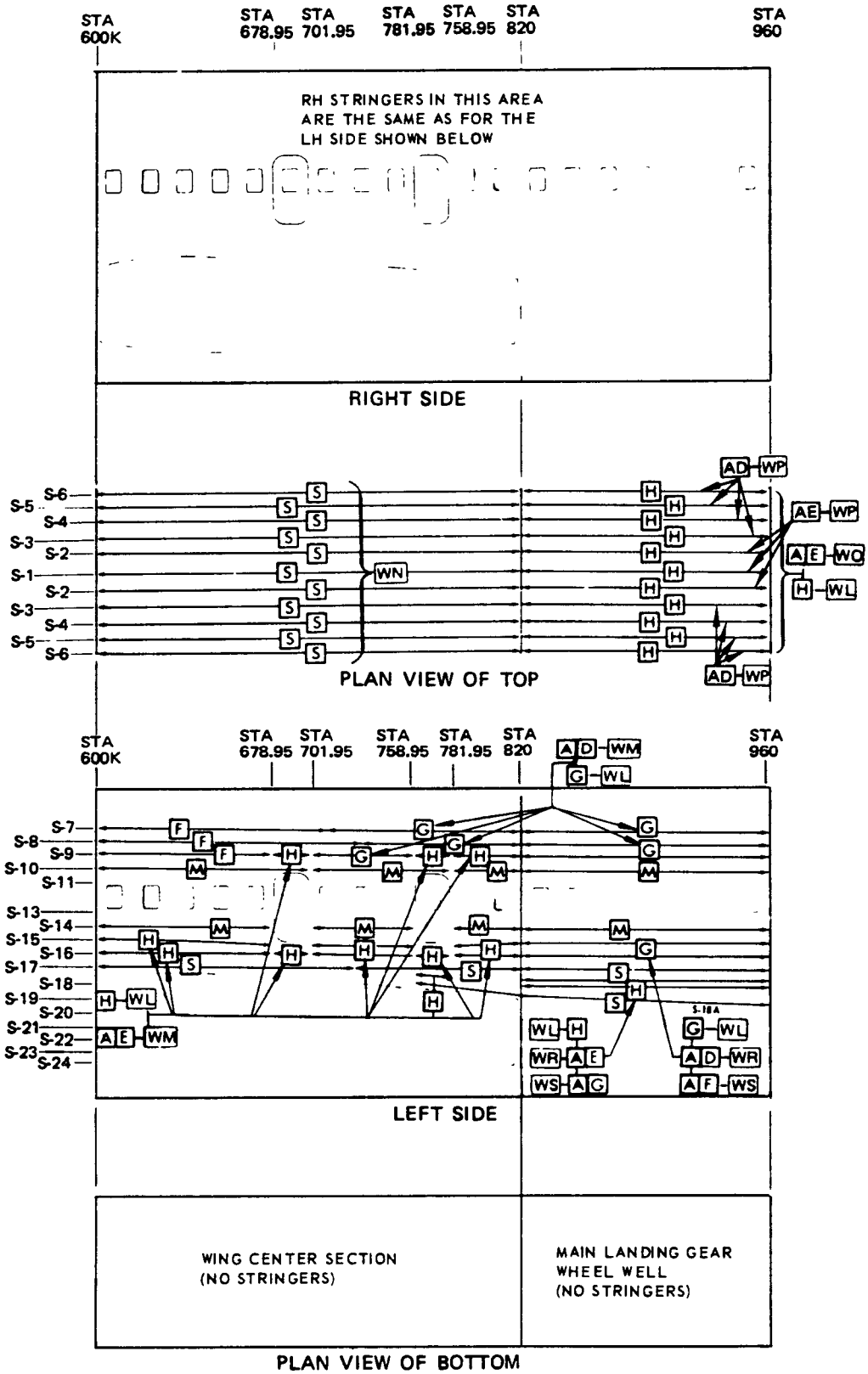
PLAN VIEW OF BOTTOM
DETAIL III WD



RIGHT SIDE
DETAIL IV WU



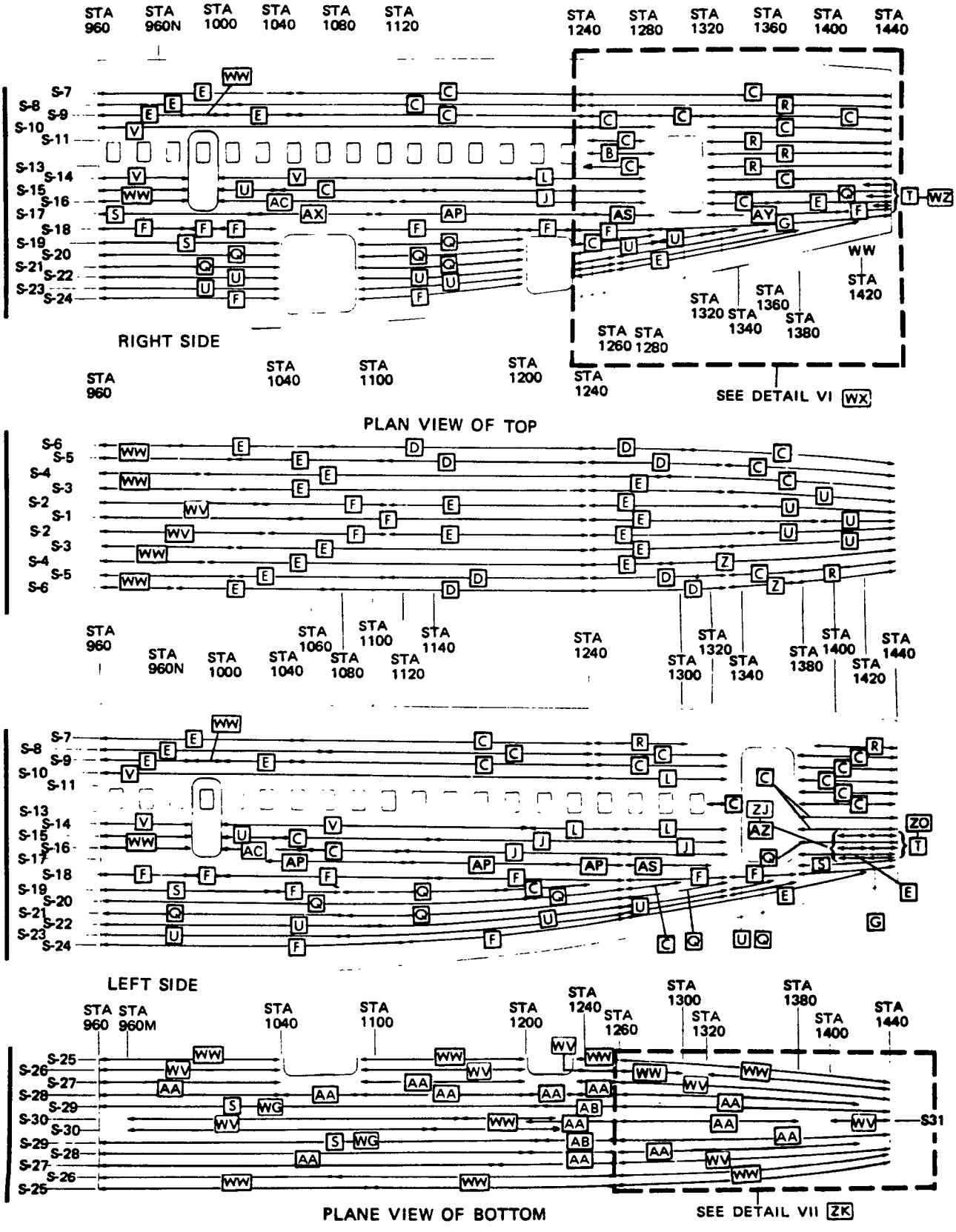
PLAN VIEW OF TOP
DETAIL V WU

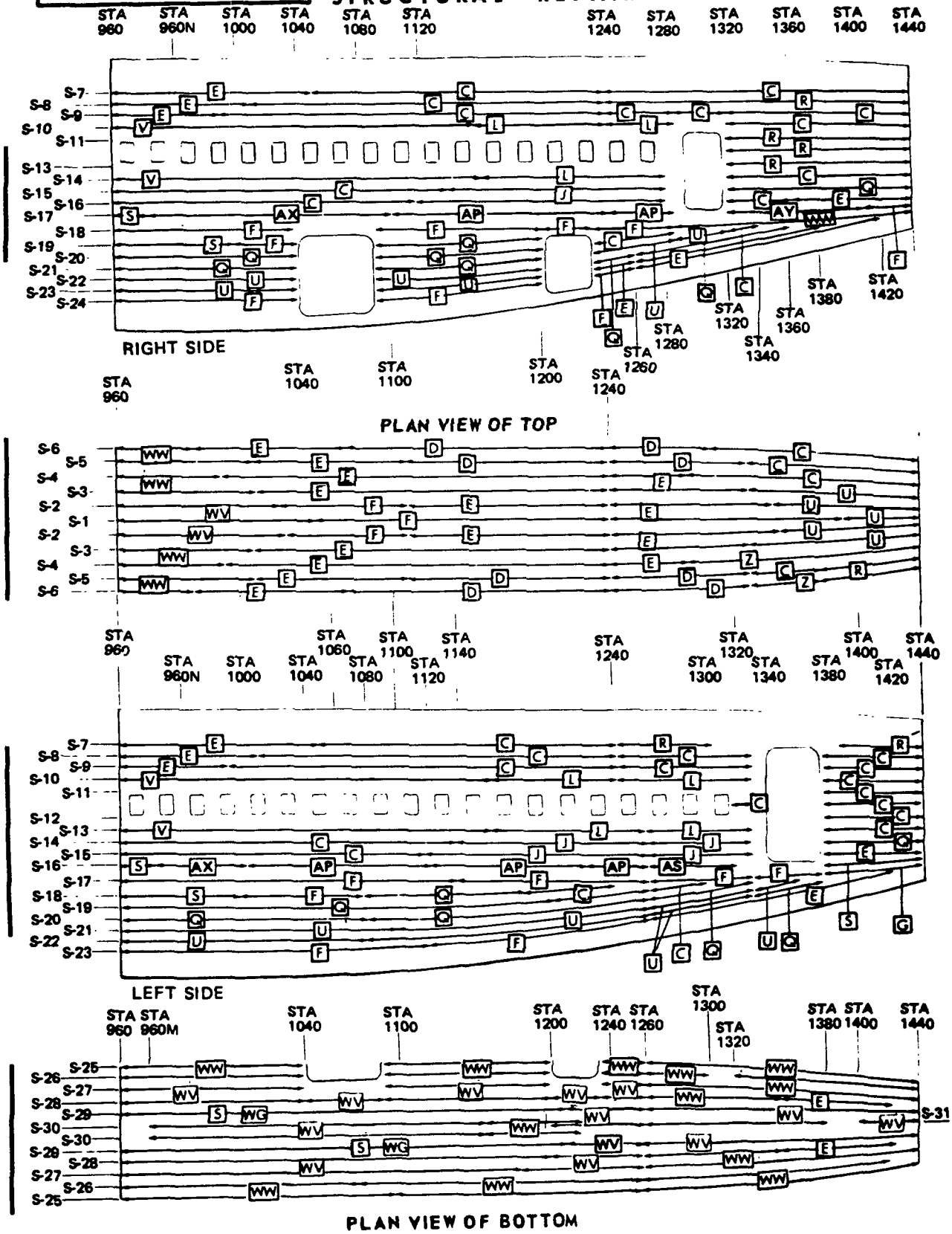


Fuselage Stringer Identification
Figure 10 (Sheet 6)

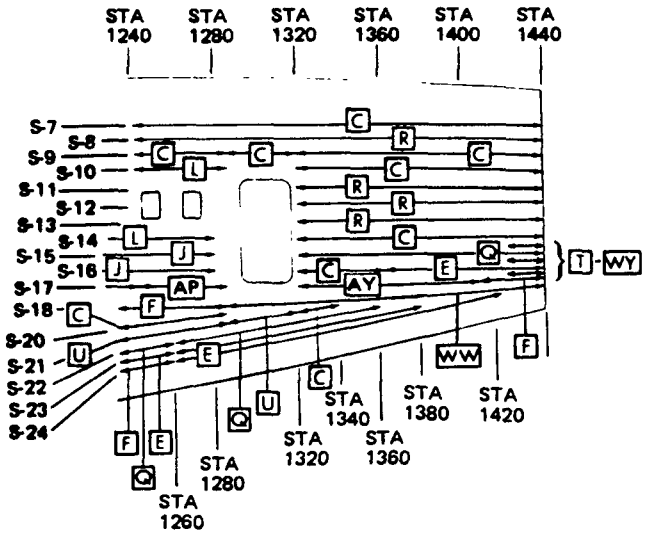
EFFECTIVITY

ALL CARGO AIRPLANES
EXCEPT NW AND CX

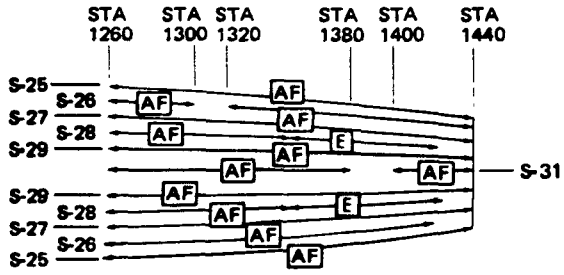




Fuselage Stringer Identification
Figure 10 (Sheet 8)

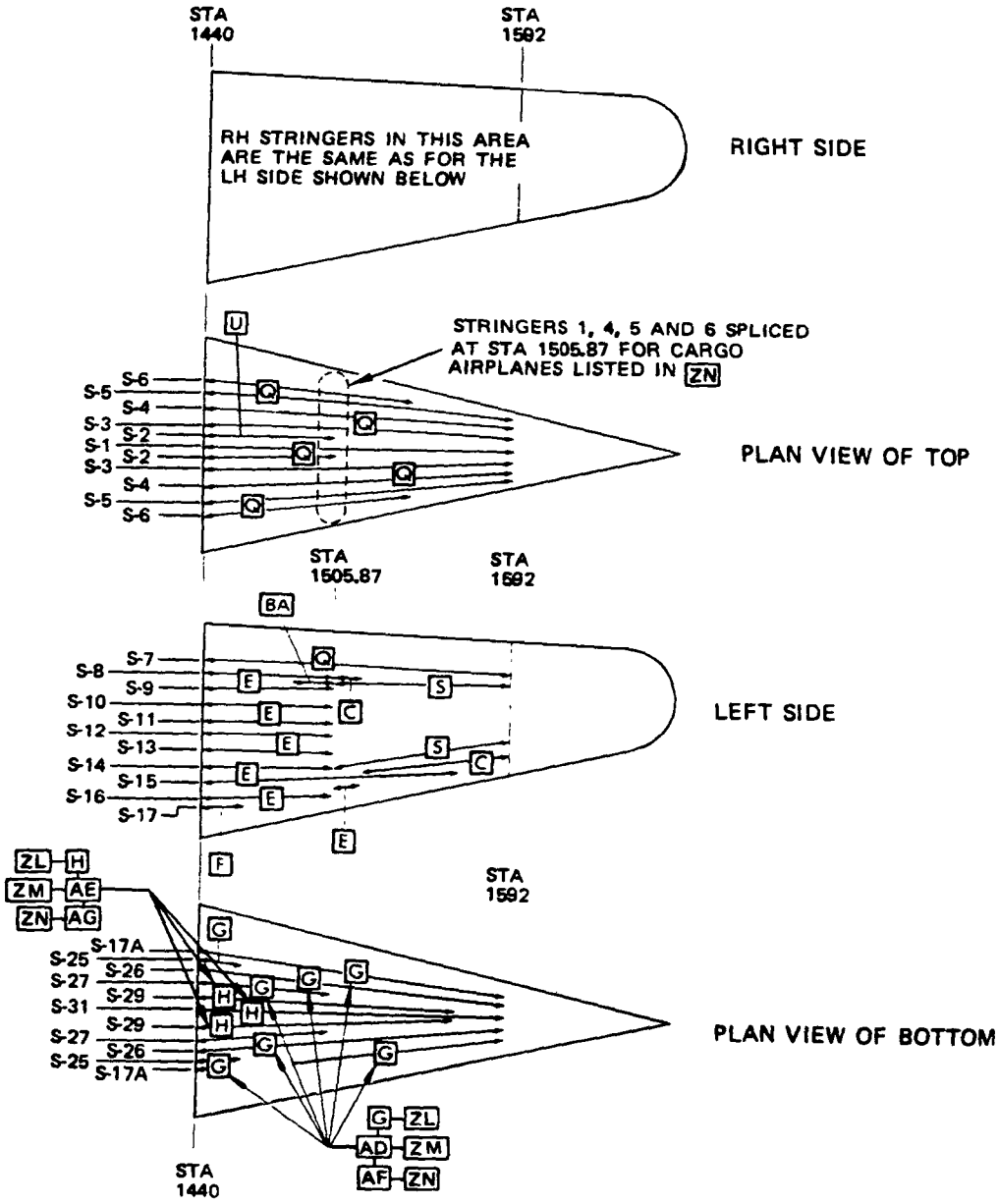


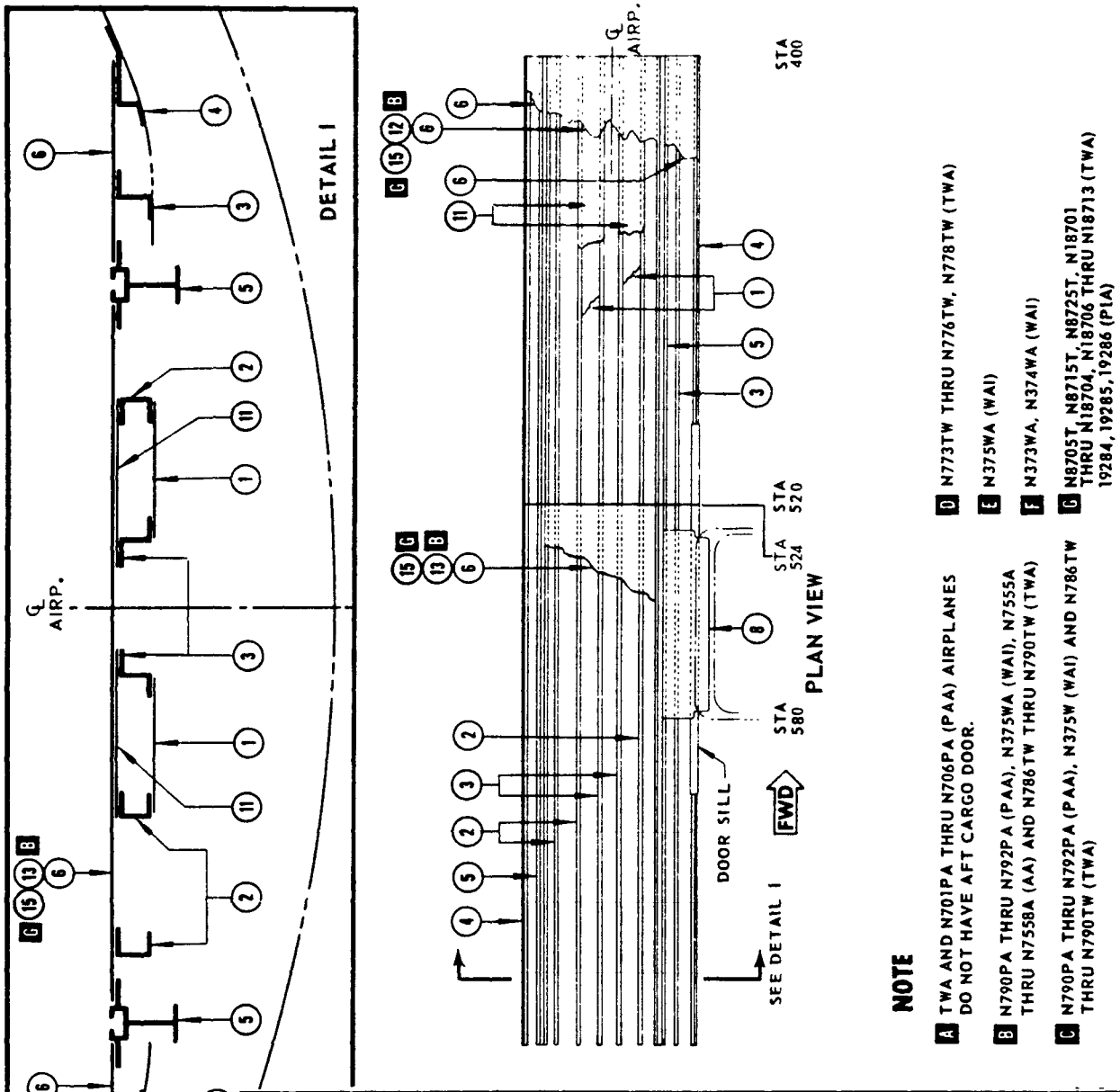
RIGHT SIDE
DETAIL VI WX



PLAN VIEW OF BOTTOM
DETAIL VII ZK

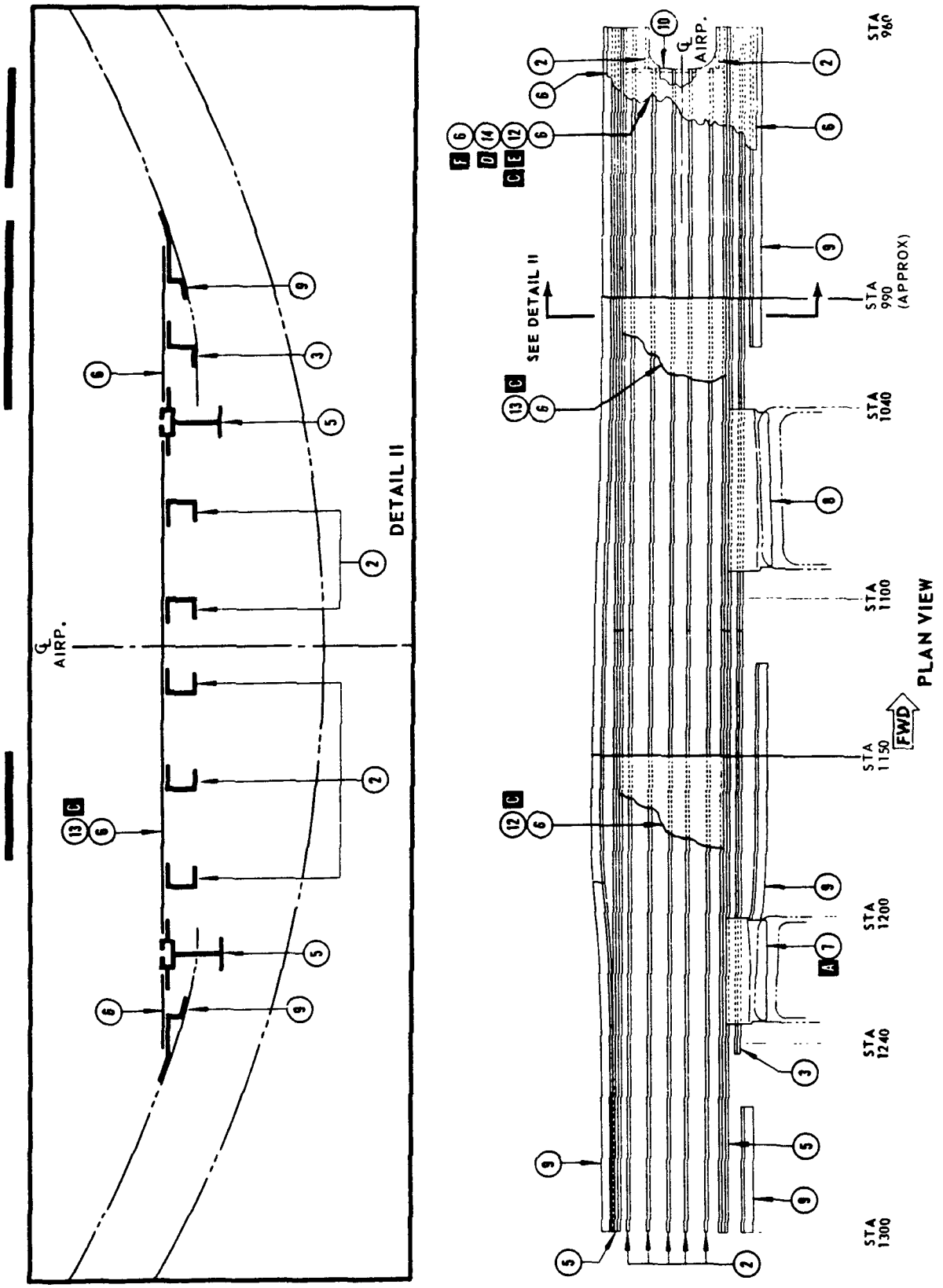
EFFECTIVITY
ALL CARGO AIRPLANES



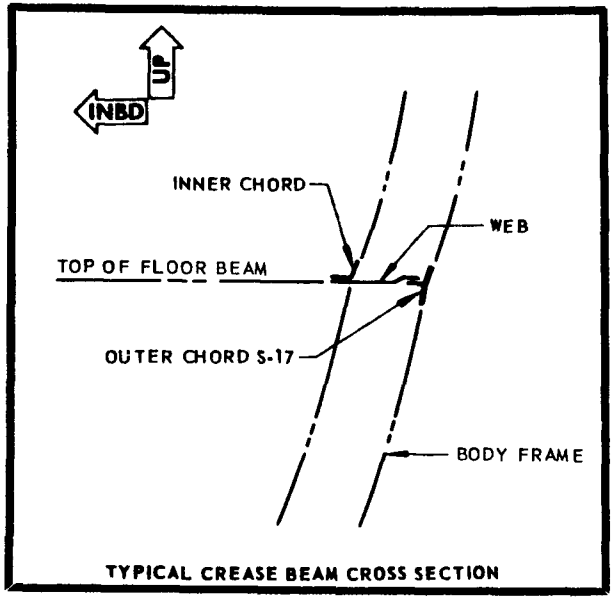


ITEM	MATERIAL	REPAIR FIG NO.
1	.016 CLAD 2024-T4	51-14-2 FIG. 1
2	BAC1509-100146 7075-T6	53-3-8 FIG. 1&2
3	BAC1517-1167 7075-T6	51-14-4 FIG. 1
4	BAC1496-338 CLAD 7075-T6	
5	BAC1520-843 7178-T6	
6	.040 CLAD 7075-T6	51-14-2 FIG. 1
7	.050 CRES TYPE AISI-301	
8	.040 CRES TYPE AISI-301	
9	BAC1496-340 7075-T6 CLAD	
10	AND10137-1011 7075-T6	51-14-4 FIG. 1
11	.016 CLAD 2024-T3	51-14-2 FIG. 1
12	.063 CLAD 2024-T3	51-14-2 FIG. 1
13	.071 CLAD 2024-T3	51-14-2 FIG. 1
14	.050 CLAD 7075-T6	51-14-2 FIG. 1
15	.090 CLAD 7075-T6	51-14-2 FIG. 1

Cargo Floor Structure Identification
Figure 11 (Sheet 1 of 2)



Cargo Floor Structure Identification
Figure 11 (Sheet 2 of 2)

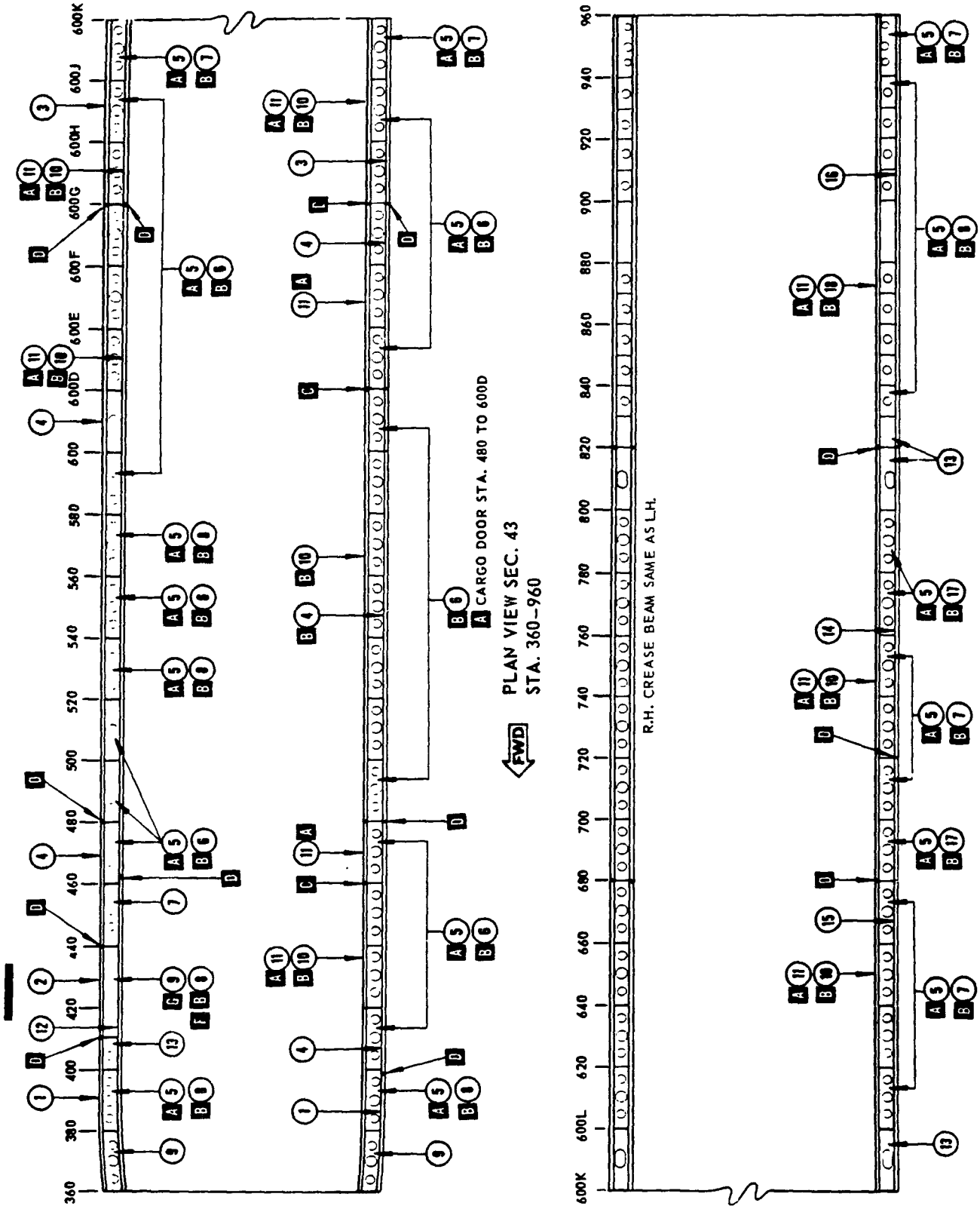


TYPICAL CREASE BEAM CROSS SECTION

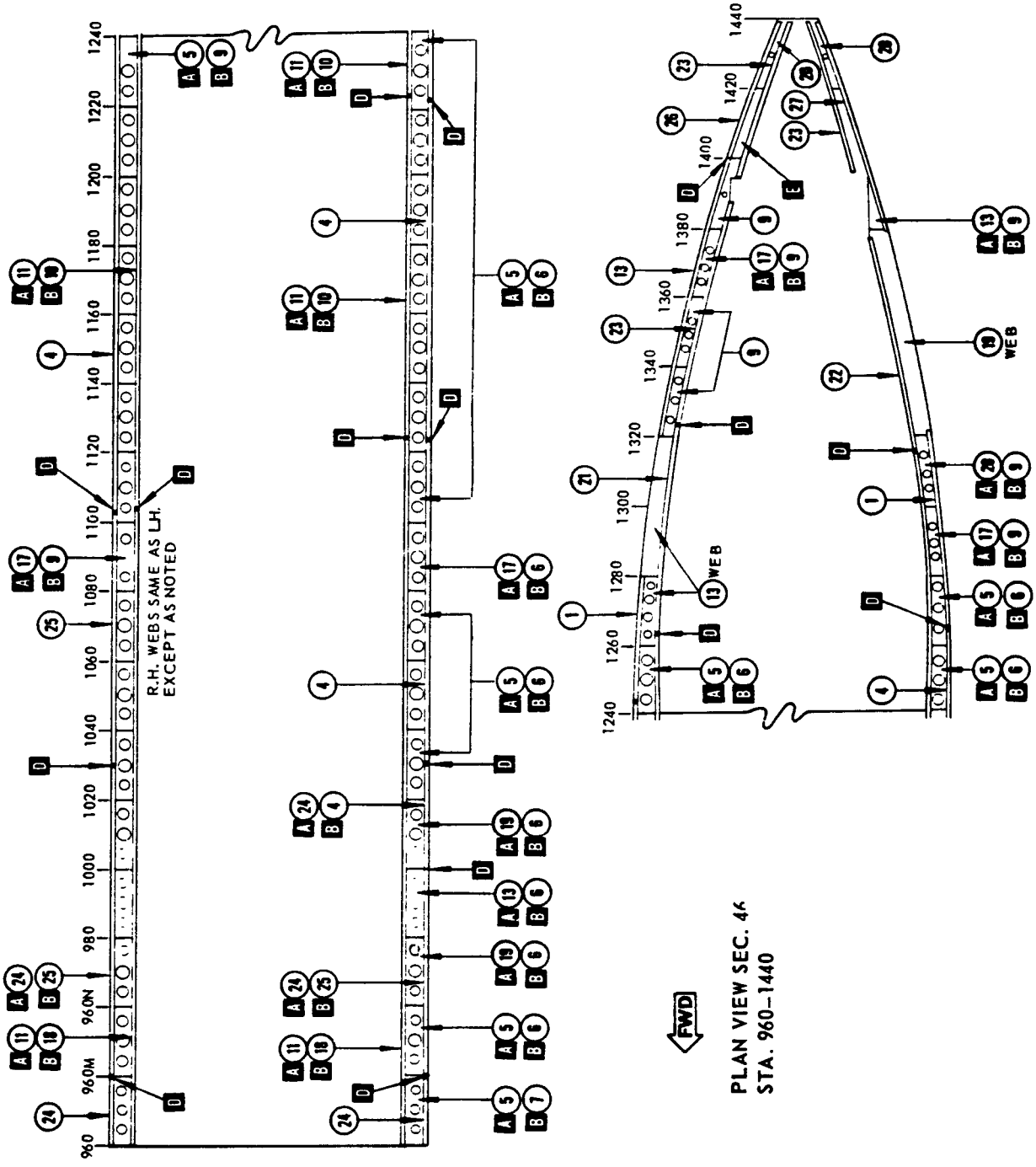
ITEM	MATERIAL	REPAIR FIG NO.	ITEM	MATERIAL	REPAIR FIG NO.
1	BAC1506-1132 7075-T6		19	.071 CLAD 7075-T6	
2	BAC1514-815 2024-T4		20	.050 CLAD 7075-T6	
3	BAC1506-1140 7075-T6		21	.080 CLAD 7075-T6	
4	BAC1506-1133 7075-T6		22	BAC1517-1292 7075-T6	
5	.056 CLAD 7075-T6		23	BAC1489-242 CLAD 7075-T6	
6	.036 CLAD 7075-T6		24	BAC1506-1148 7075-T6	
7	.040 CLAD 7075-T6		25	BAC1506-1147 7075-T6	
8	.025 CLAD 7075-T6		26	BAC1498-100 7075-T6	
9	.032 CLAD 7075-T6		27	BAC1498-114 CLAD 7075-T6	
10	BAC1515-531 7075-T6				
11	BAC1517-1443 CLAD 7075-T6				
12	BAC1489-243 7075-T6				
13	.063 CLAD 7075-T6				
14	BAC1506-1141 7075-T6				
15	BAC1506-1142 7075-T6				
16	BAC1506-1139 7075-T6				
17	.045 CLAD 7075-T6				
18	BAC1515-532 7075-T6				

NOTE

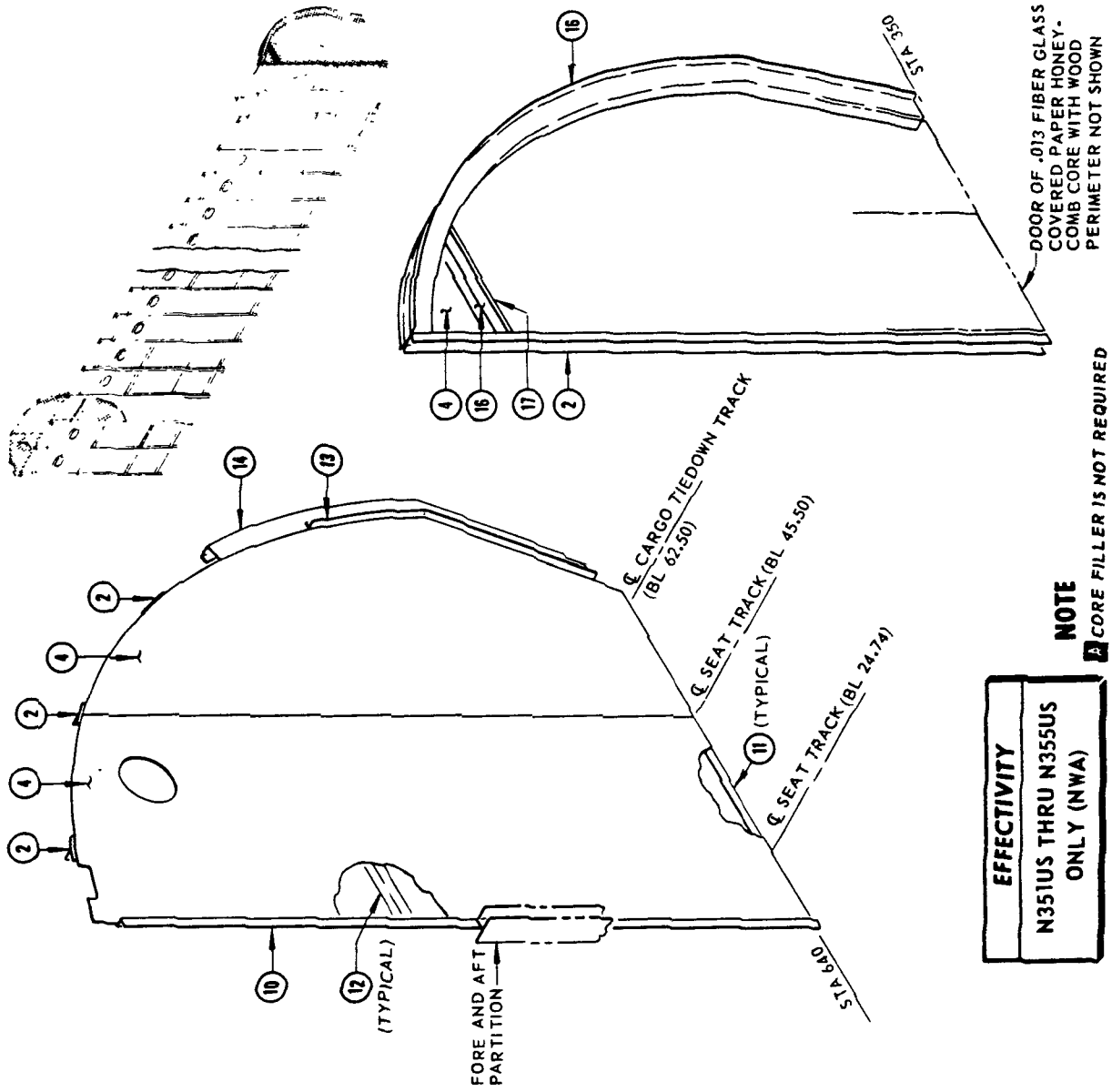
- A FOR CARGO AIRPLANES ONLY
- B FOR ALL AIRPLANES EXCEPT CARGO
- C CHORD JOINT FOR CARGO AIRPLANES
- D CHORD JOINT FOR ALL AIRPLANES
- E NO WEB STA. 1400-1420
- F FOR 707-351B AIRPLANES
- G FOR ALL CARGO AIRPLANES EXCEPT 707-351B



Crease Beam Structure Identification
Figure 12 (Sheet 2 of 3)

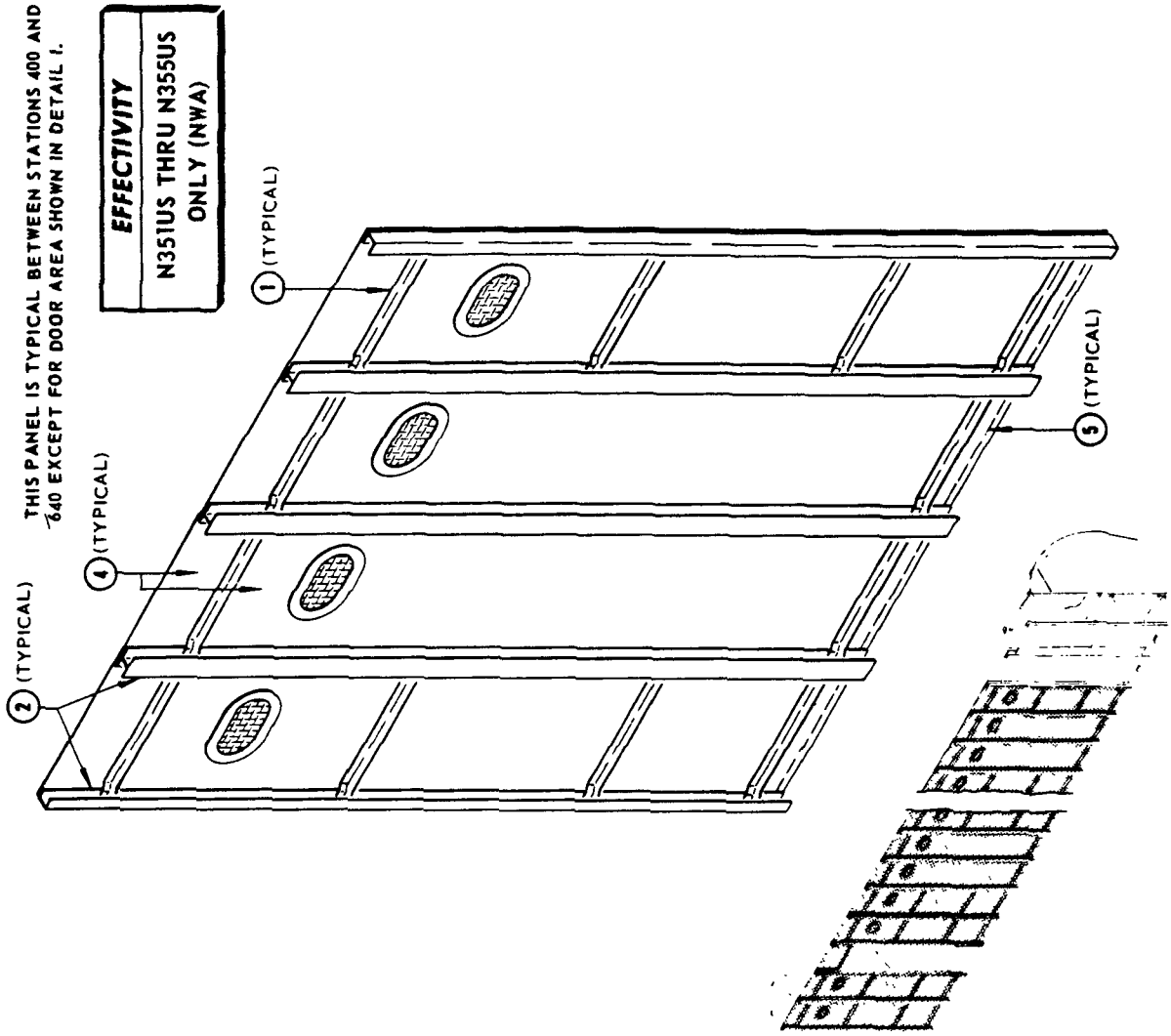


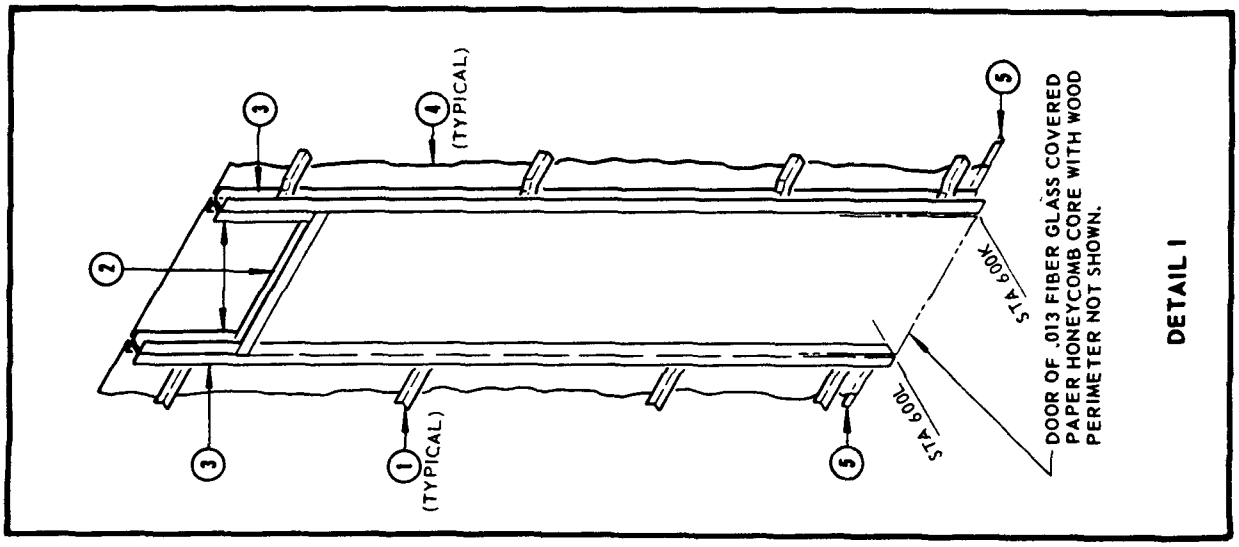
Crease Beam Structure Identification
Figure 12 (Sheet 3 of 3)



ITEM	MATERIAL	REPAIR FIG NO.
1	AND 10133-1001 7075-T6	51-14-4 FIG. 1
2	BAC1518-380 7178-T6	51-14-4 FIG. 1
3	BAC1509-100063 7178-T6	51-14-4 FIG. 1
4	.030 LAMINATED GLASS FABRIC	51-11-1 FIG. 7 4
5	BAC1490-2778 7075-T6 CLAD	51-14-3 FIG. 1
6	BAC1490-2587 7075-T6 CLAD	51-14-3 FIG. 1
7	.032 CLAD 7075-T6	
8	BAC1490-2710 2024-T3	51-14-3 FIG. 1
9	.375 PAPER HONEYCOMB WITH WOOD PERIMETER	
10	.040 CLAD 7075-T6	
11	BAC1490-2709 7075-T6 CLAD	51-14-3 FIG. 1
12	AND 10133-1003 7075-T6	51-14-4 FIG. 1
13	BAC1490-2548 7075-T6 CLAD	51-14-3 FIG. 1
14	.063 CLAD 7075-T6	51-14-3 FIG. 1
15	AND 10137-1205 7075-T6	51-14-4 FIG. 1
16	.071 CLAD 7075-T6	51-14-3 FIG. 1
17	BAC1509-100175 7075-T6	
18	AND 10133-1203 7075-T6	51-14-4 FIG. 1

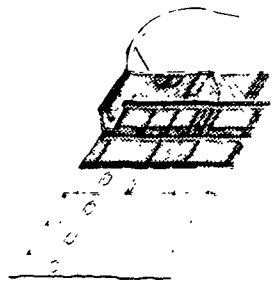
Upper Deck Cargo Compartment Partition Identification
Figure 13 (Sheet 1 of 3)

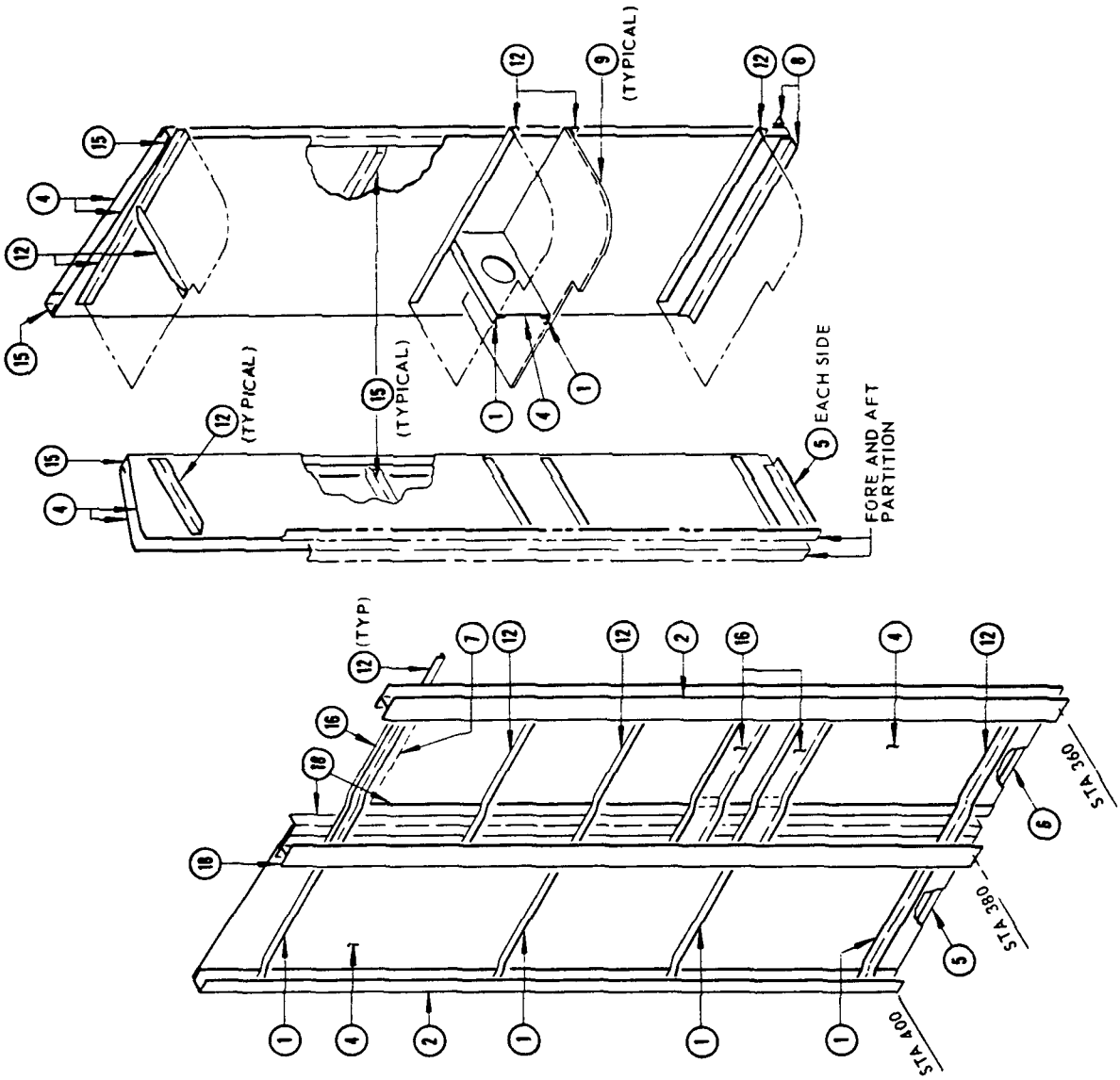




Upper Deck Cargo Compartment Partition Identification
Figure 13 (Sheet 2 of 3)

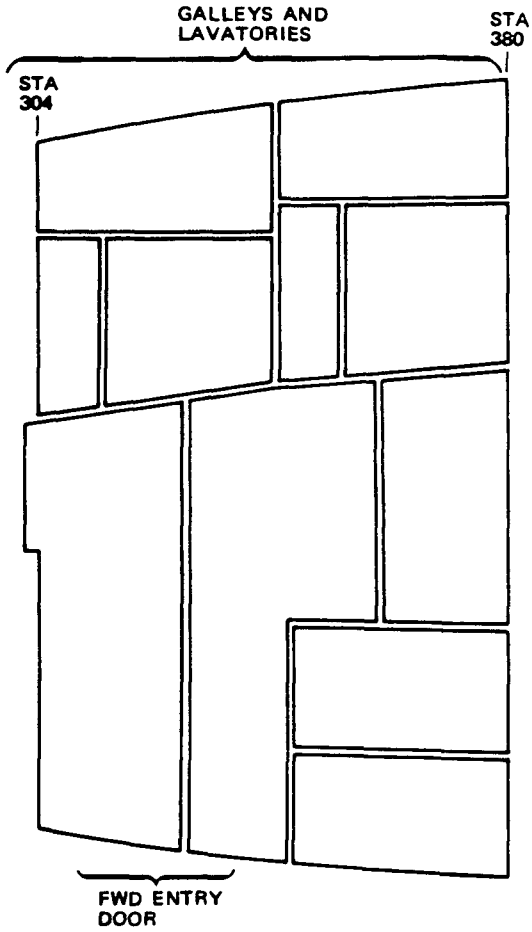
EFFECTIVITY
N351US THRU N355US ONLY (NWA)





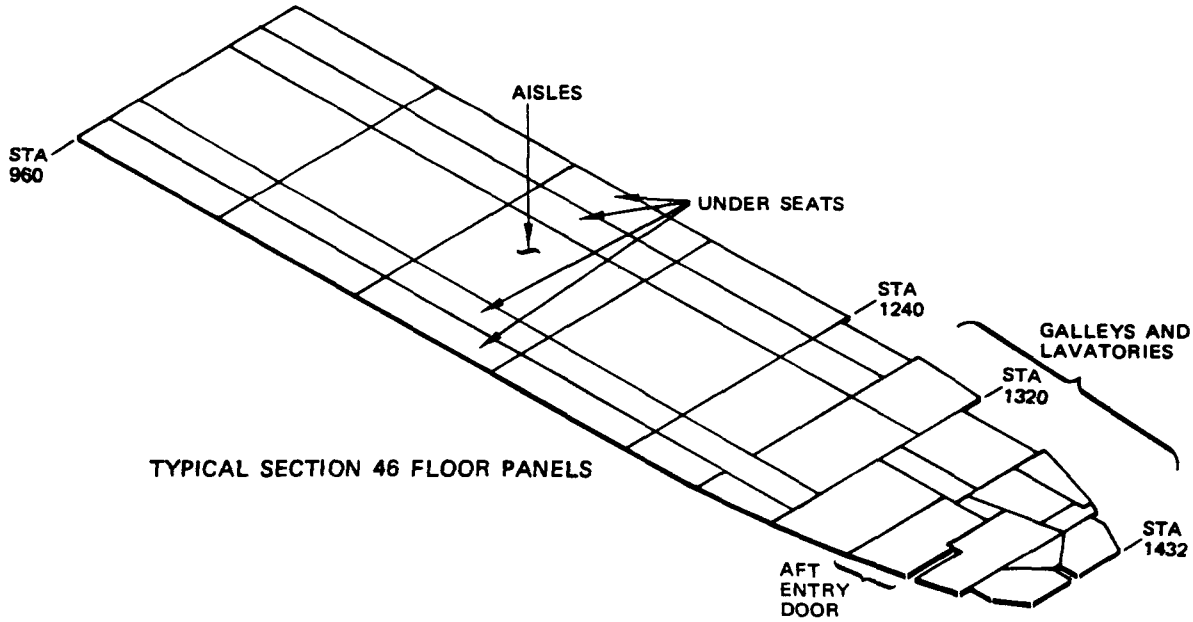
Upper Deck Cargo Compartment Partition Identification
Figure 13 (Sheet 3 of 3)

REF DWG
65-26322



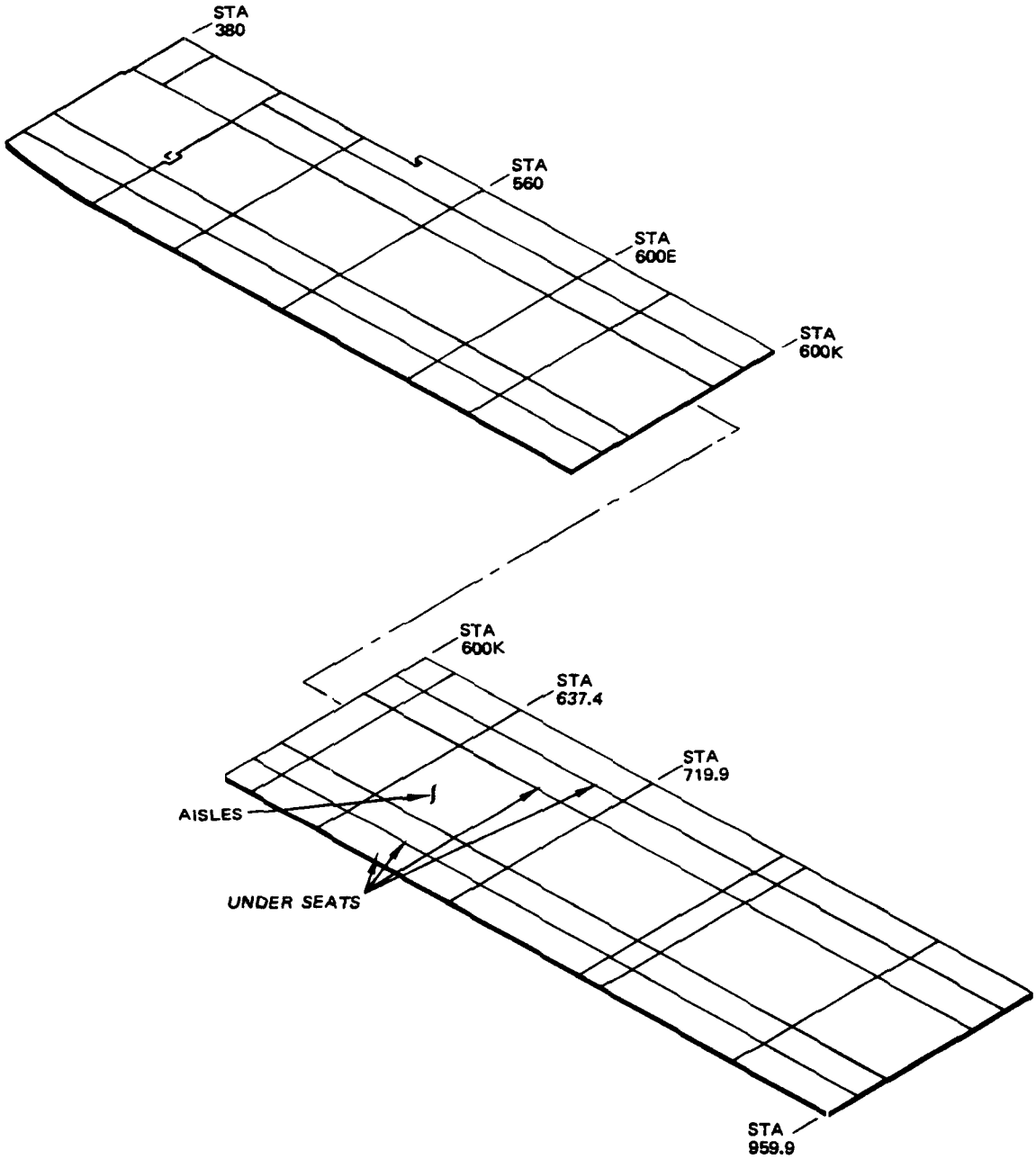
	ALUMINUM SHEET	CORRUGATED ALUMINUM WITH ALUMINUM FACE SHEETS	ALUMINUM FACED ALUMINUM HONEYCOMB	FIBERGLASS FACED PVC FOAM	FIBERGLASS FACED BALSA	ALUMINUM FACED PVC FOAM	PLYWOOD
VICINITY OF FWD ENTRY DOOR		●	●	●	●		
UNDER SEATS	●	●	●			●	●
AISLES	●	●	●	●		●	
UNDER GALLEYS AND LAVATORIES	●	●	●	●			
VICINITY OF AFT ENTRY DOOR		●	●	●			

TYPICAL SECTION 41 FLOOR PANELS



TYPICAL SECTION 46 FLOOR PANELS

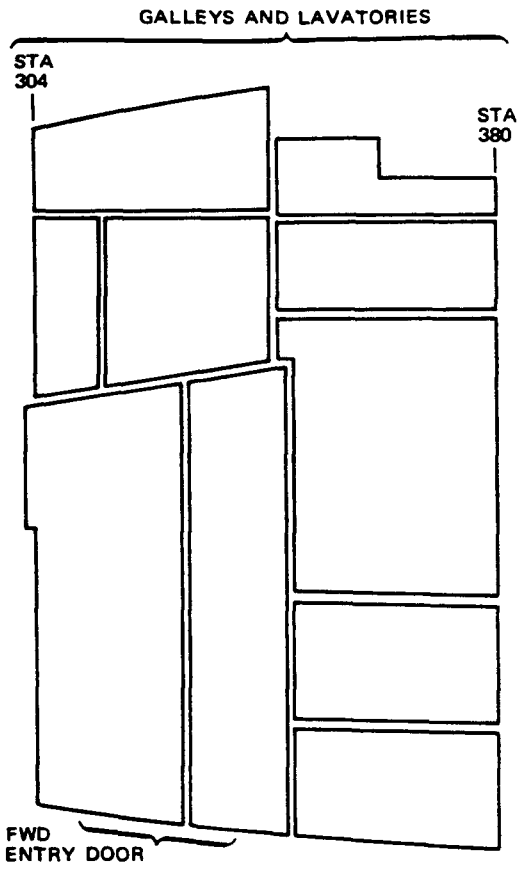
Main Deck Floor Panels - Passenger Airplanes
Figure 14 (Sheet 1)



TYPCIAL SECTION
43 FLOOR PANELS

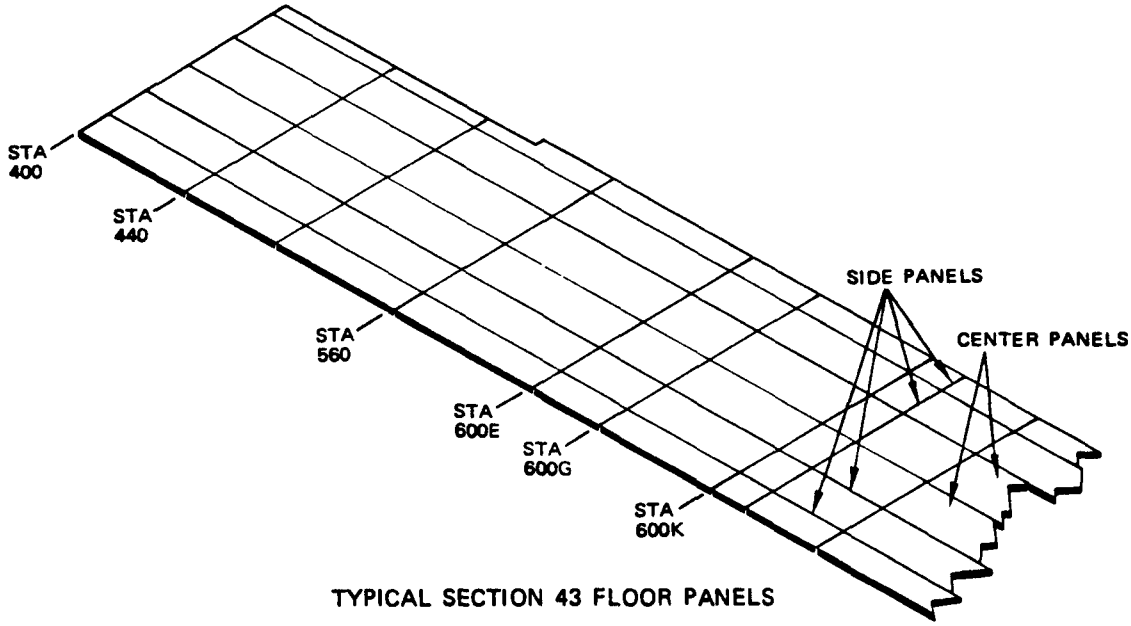
Main Deck Floor Panels - Passenger Airplanes
Figure 14 (Sheet 2)

REF DWG
65-26321
65-26322



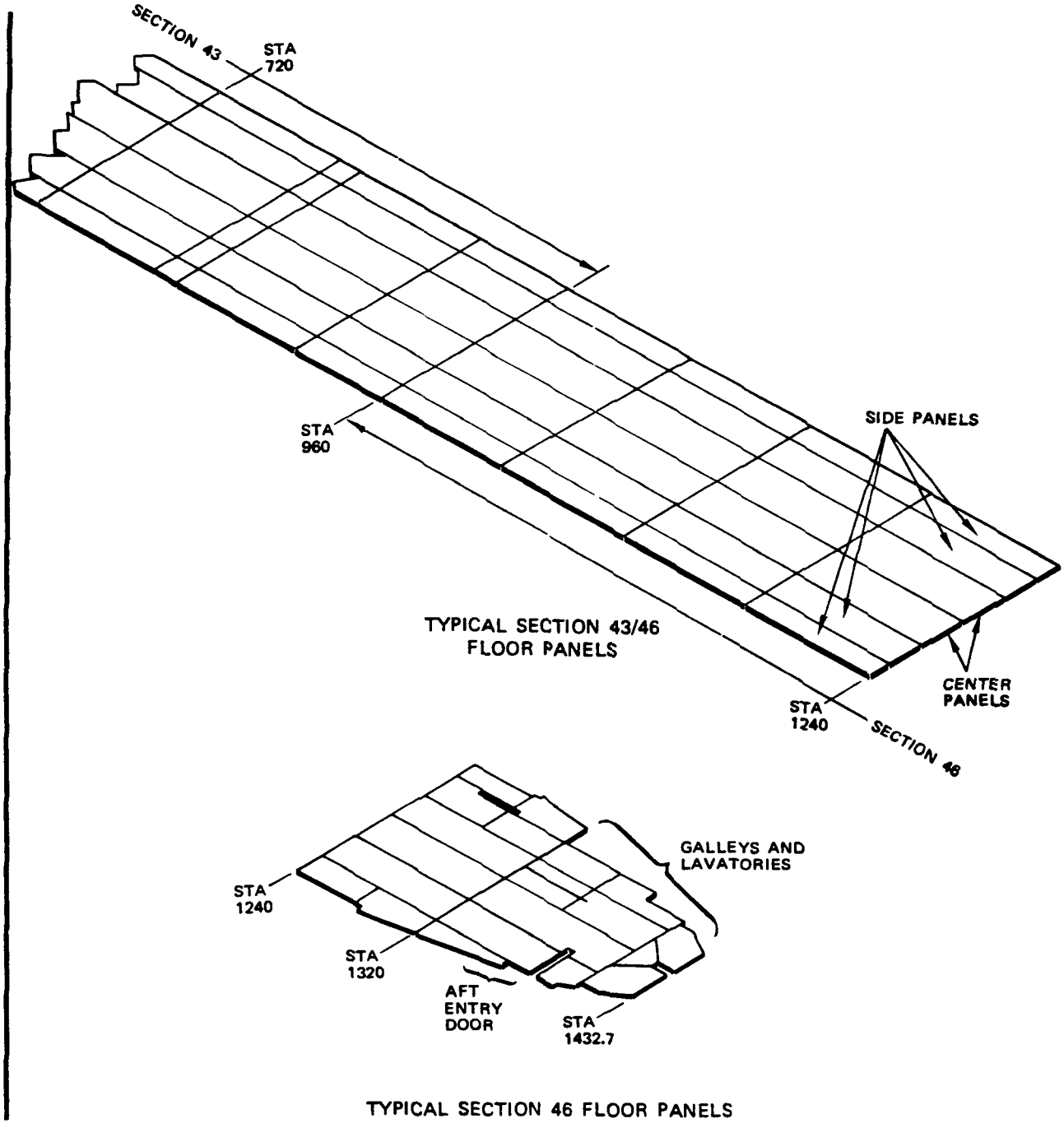
TYPICAL SECTION 41 FLOOR PANELS

	ALUMINUM SHEET	CORRUGATED ALUMINUM WITH ALUMINUM FACE SHEETS	ALUMINUM FACED ALUMINUM HONEYCOMB	FIBERGLASS FACED PVC	FIBERGLASS FACED BALSA
VICINITY OF FWD ENTRY DOOR	●	●		●	
SIDE PANELS		●			
CENTER PANELS		●			●
UNDER GALLEYS AND LAVATORIES	●	●	●	●	
VICINITY OF AFT ENTRY DOOR		●			



TYPICAL SECTION 43 FLOOR PANELS

Main Deck Floor Panels - Cargo Airplanes
Figure 14A (Sheet 1)



TYPICAL SECTION 46 FLOOR PANELS

Main Deck Floor Panels - Cargo Airplanes
Figure 14A (Sheet 2)

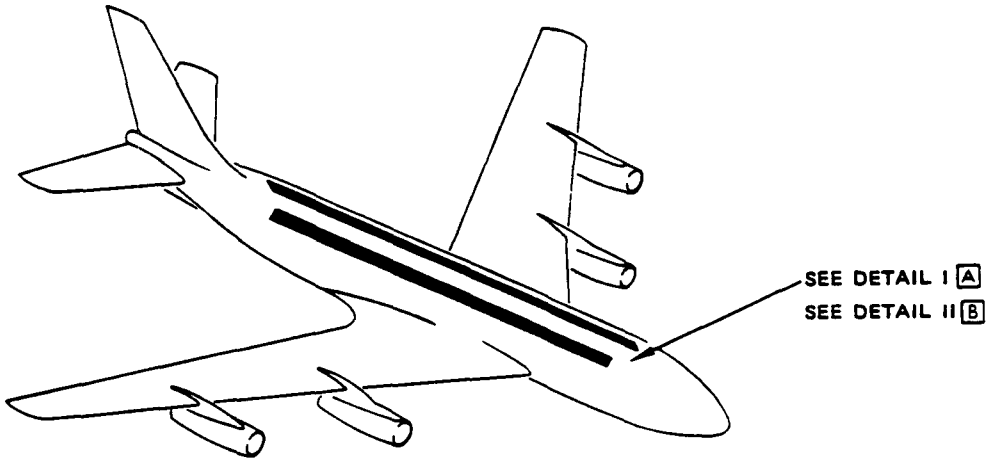
ITEM	MATERIAL	REPAIR FIG. NO.
1	7075-T73 FORGING	
2	BAC1501-2842 7075-T6	
3	BAC1517-1928 7075-T6511	
4	BAC1514-2288 7075-T6511	
5	AND10134-1005 7075-T6511	
6	AND10134-0702 7075-T6511	
7	BAC1493-426 CLAD 7075-T6	
8	0.063 7075-T6	
9	0.090 CLAD 7075-T6	
10	AND10134-1406 7075-T6511	
11	AND10157-1102 7075-T6511	
12	BAC1519-141 7075-T73511	
13	0.050 CLAD 7075-T6	
14	AND10137-1008 2024-T3511	
15	0.071 CLAD 7075-T6	
16	BAC1509-9021 7075-T6511	

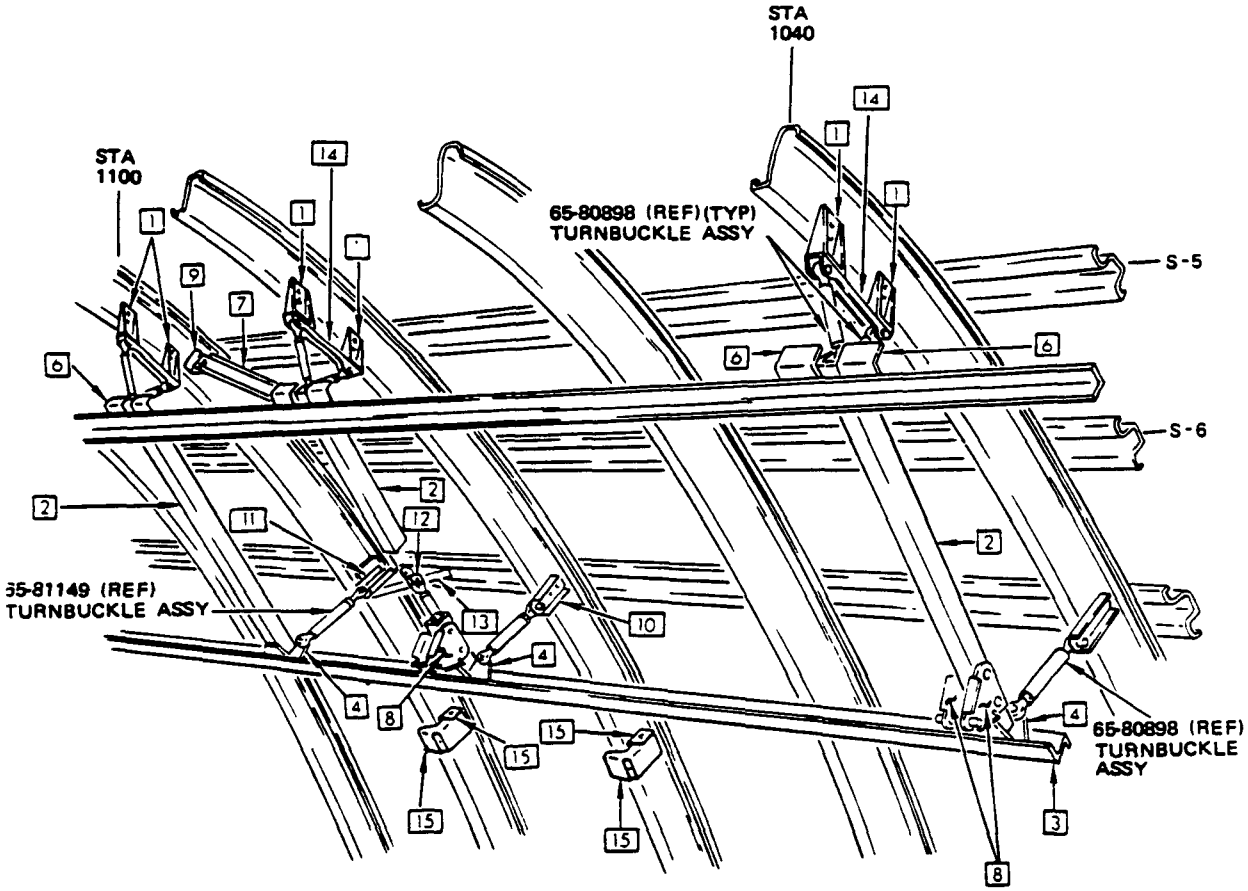
NOTES

[A] FOR ALL AIRPLANES WITH "SUPERJET" (WIDE-BODY) INTERIOR INCLUDING AIRPLANES WITH SB 3017, 3077 AND 3083 INCORPORATED EXCEPT AIRPLANES WITH SB 3344 INCORPORATED

[B] FOR AIRPLANES WITH SB 3344 INCORPORATED

Overhead Interior Support Structure Identification
Figure 15 (Sheet 1)

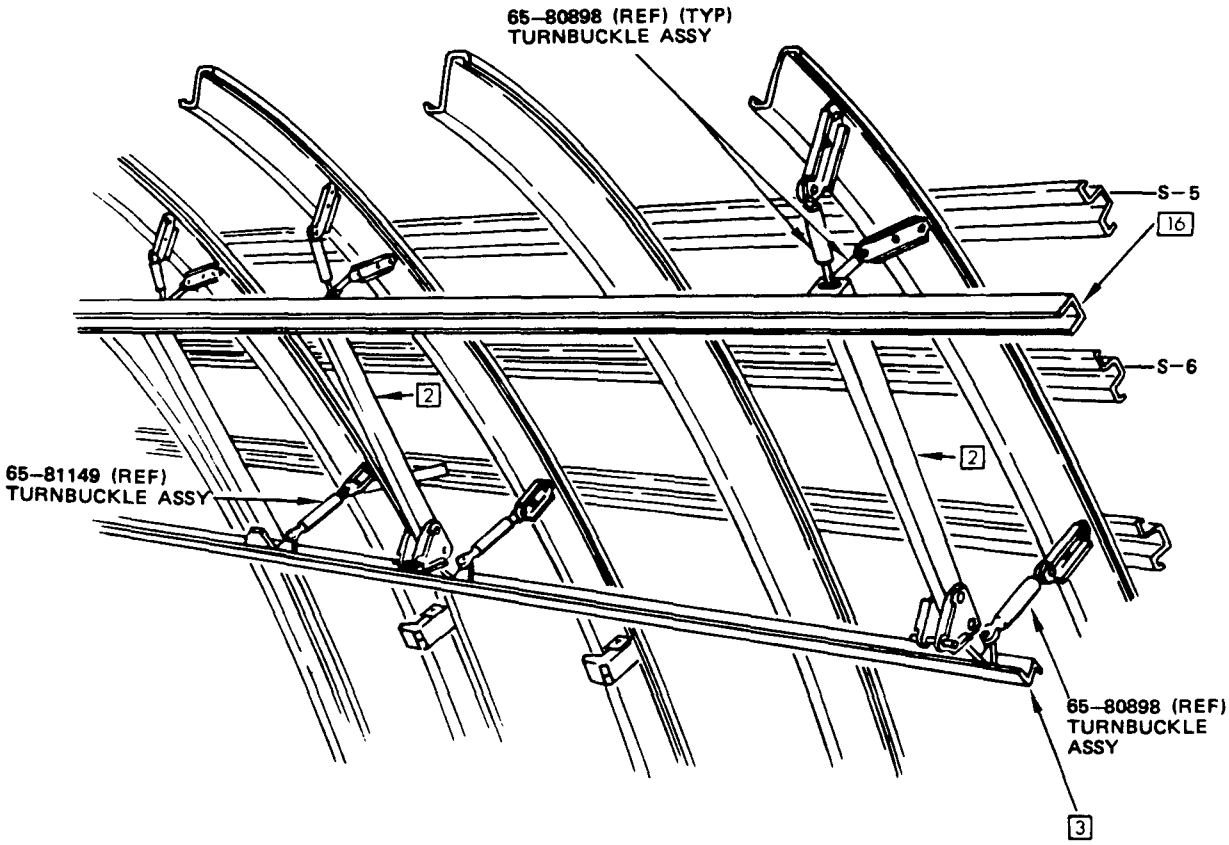




SUPPORT STRUCTURE A

DETAIL I

Overhead Interior Support Structure Identification
Figure 15 (Sheet 2)



SUPPORT STRUCTURE [8]

DETAIL II

Overhead Interior Support Structure Identification
Figure 15 (Sheet 3)

REPAIR INSTRUCTIONS

1. Damage to stringer where it is spot welded to skin requires its separation in the damaged area.
2. Spot face damaged portion of stringer at spot welds to a maximum depth of stringer thickness minus .005. Do not cut into skin.
3. Cut out damaged stringer taking care not to cut into skin.
4. Break stringer loose from skin and microshave any remaining weld nuggets attached to inner skin contour.
5. Determine thickness of damaged stringer and fabricate tapered and stepped plates using dimensions listed under original stringer gage as shown on sheet 3. The taper and length for part 1 is determined by the original riveting or spotweld spacing.
6. Seal driven heads of repair fasteners [C] with BMS5-12 per 51-3-0 of the 707 Maintenance Manual.

NOTE

REPAIR SHOWN FOR .056 STRINGER

SEE 53-3-4 FIGURE 2 FOR REPAIR OF STRINGER IN AREAS OTHER THAN CROWN

SEE 51-2-0 FOR FASTENER CODE, REMOVAL AND INSTALLATION, HOLE SIZES AND EDGE MARGINS

SEE 51-8-0 FOR METAL PROTECTIVE TREATMENT

FINISH PER 51-2-0 OF THE 707 MAINTENANCE MANUAL

┼ ORIGINAL FASTENER LOCATIONS

✦ REPAIR FASTENER LOCATIONS

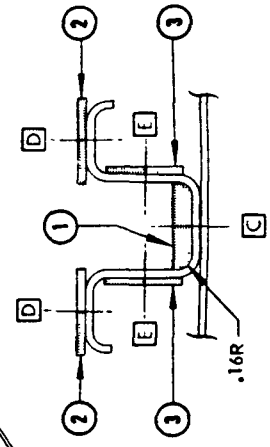
[A] STAGGER SPACING WITH RESPECT TO ROWS [C] AND [D]

[B] IN AREAS WHERE SKIN IS RIVETED TO STRINGER USE ORIGINAL RIVET SPACING, IN SPOTWELD AREA INSTALL FASTENER AT EVERY OTHER SPOTWELD

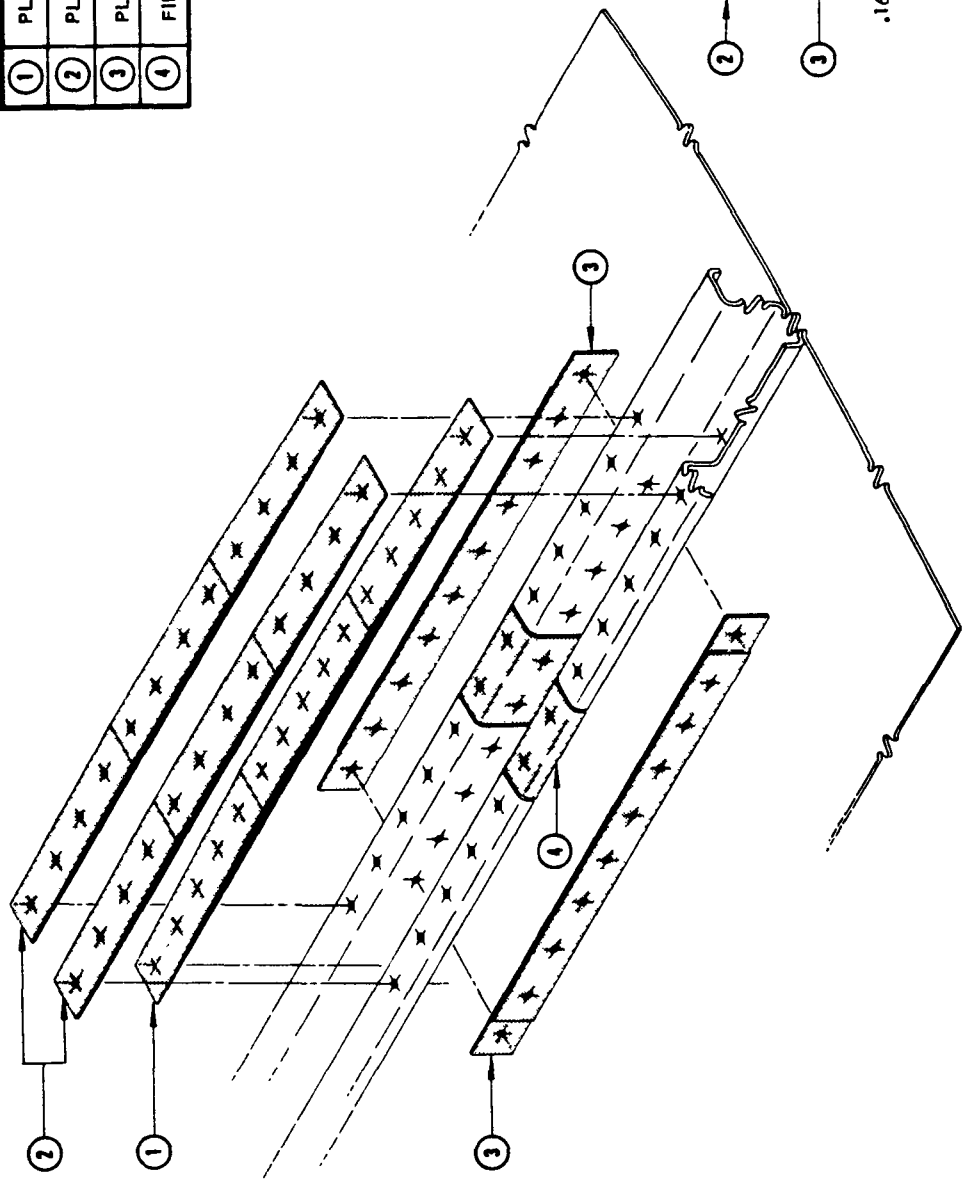
REPAIR FASTENERS

ORIGINAL SECTION GAGE	FASTENER [C]			FASTENER [D]			FASTENER [E]		
	TYPE	FASTENERS EACH SIDE OF DAMAGE	SPACING	TYPE	FASTENERS EACH SIDE OF DAMAGE	SPACING	TYPE	FASTENERS EACH SIDE OF DAMAGE	SPACING
.032	BACR15CE-D6	4	[B]	AN470D-6	4	1.00	AN470D-6	3	.75
.040	BACR15CE-D6	4	[B]	AN470D-6	4	1.00	AN470D-6	3	.75
.045	BACR15CE-D6	4	[B]	AN470D-6	4	1.00	AN470D-6	4	1.00 [A]
.050	BACR15CE-D6	4	[B]	AN470D-6	4	1.10	AN470D-6	3	.80
.056	BACR15CE-D6	6	[B]	AN470D-8	5	1.13	AN470D-8	4	1.15
.063 NARROW	BACR15CE-D6	6	[B]	AN470D-8	5	1.13	AN470D-6	3	1.25
.063 WIDE	BACR15CE-D8	5	[B]	AN470D-8	5	1.00	AN470D-8	4	1.50 [A]
.071	BACR15CE-D8	5	[B]	AN470D-8	5	1.00	AN470D-8	4	1.50 [A]

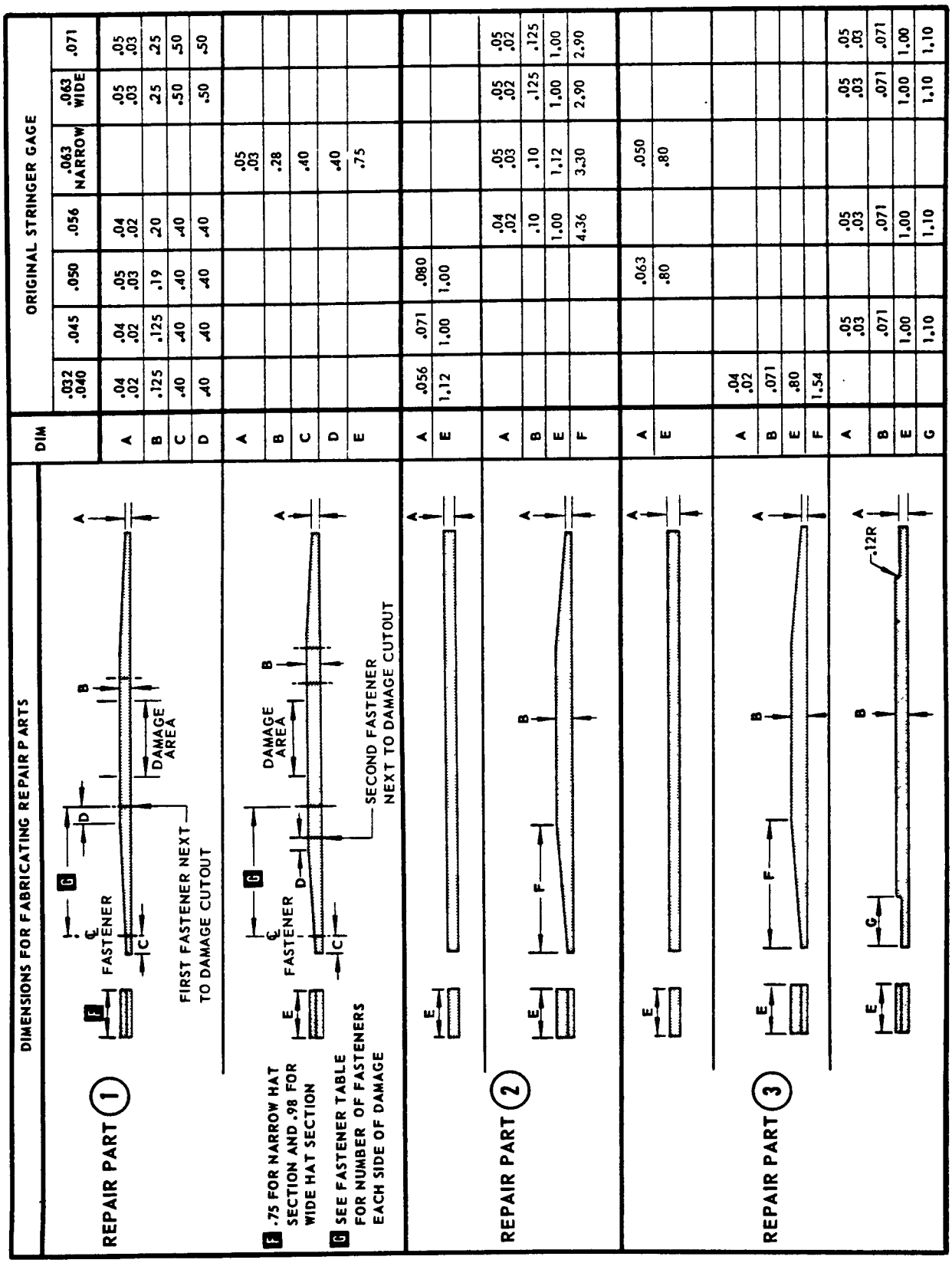
REPAIR MATERIAL			
PART		QTY.	MATERIAL
①	PLATE	1	2024-T3
②	PLATE	2	2024-T3
③	PLATE	2	2024-T3
④	FILLER	1	SAME AS ORIGINAL



SECTION THROUGH DAMAGE



Fuselage Stringer Repair - Crown Area, Continuous Skin
Figure 1 (Sheet 2 of 3)



DIM	ORIGINAL STRINGER GAGE .032 .040	.045	.050	.056	.063 NARROW	.063 WIDE	.071
A	.04 .02	.04 .02	.05 .03	.04 .02	.05 .03	.05 .03	.05 .03
B	.125	.125	.19	.20		.25	.25
C	.40	.40	.40	.40		.50	.50
D	.40	.40	.40	.40		.50	.50
A					.05 .03		
B					.28		
C					.40		
D					.40		
E					.75		
A	.056	.071	.080				
E	1.12	1.00	1.00				
A				.04 .02	.05 .03	.05 .02	.05 .02
B				.10	.10	.125	.125
E				1.00	1.12	1.00	1.00
F				4.36	3.30	2.90	2.90
A		.063			.050		
E		.80			.80		
A	.04 .02						
B	.071						
E	.80						
F	1.54						
A		.05 .03		.05 .03		.05 .03	.05 .03
B		.071		.071		.071	.071
E		1.00		1.00		1.00	1.00
G		1.10		1.10		1.10	1.10

Fuselage Stringer Repair - Crown Area, Continuous Skin
Figure 1 (Sheet 3 of 3)

REPAIR INSTRUCTIONS

1. Damage to stringer where it is spot welded to skin requires its separation in the damaged area.

2. Spot face damaged portion of stringer at spot welds to a maximum depth of stringer thickness minus 0.005. Do not cut into skin.

3. Cut out damaged stringer taking care not to cut into skin.

4. Break stringer loose from skin and microshave any remaining weld nuggets attached to inner skin contour.

5. Fabricate nesting hat section 1 as shown or if available use nesting repair section given in table.

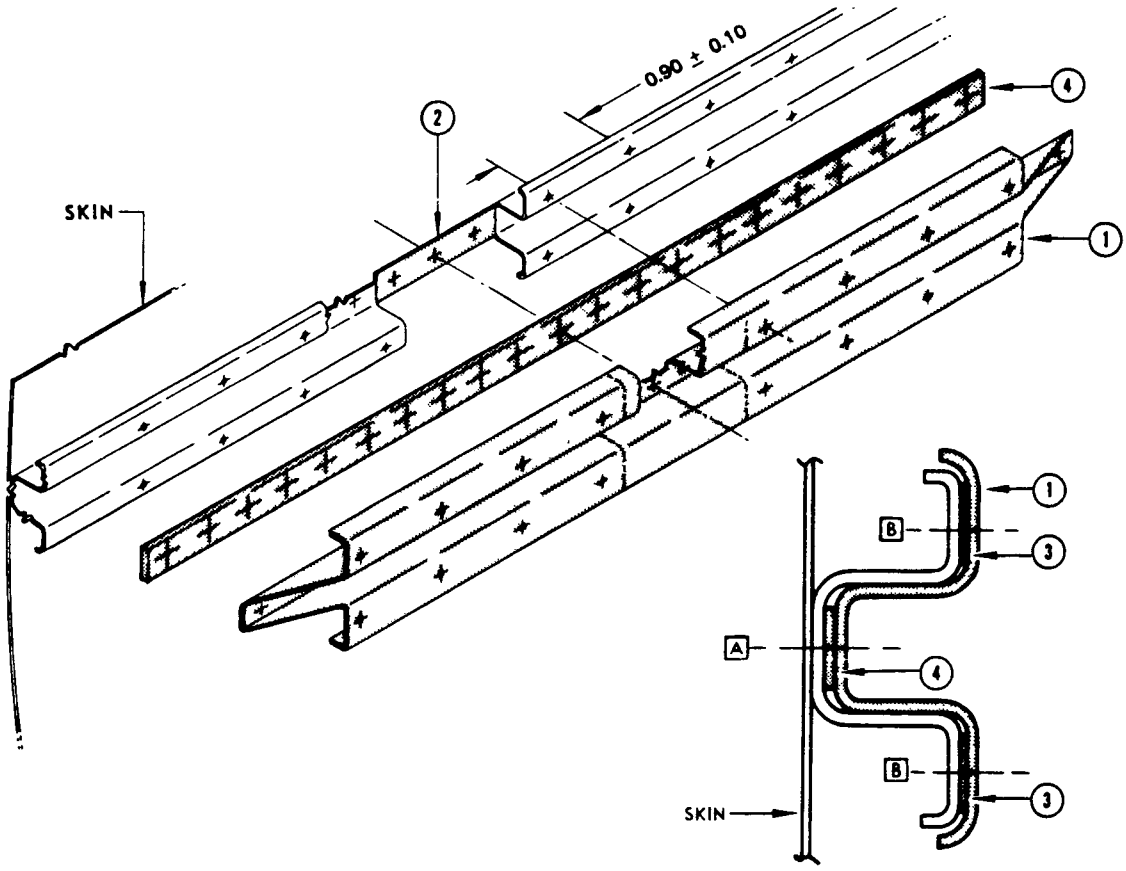
6. In areas where stringer is spotwelded to skin, locate fasteners [A] at every other spotweld. In areas where stringer is riveted to skin pick up existing rivet pattern. No additional rivets between existing rivet spacing are allowed.

ORIGINAL SECTION	CLAD 7075-T6 (1) NESTING REPAIR SECTION
BAC 1498-95 BAC 1498-96 BAC 1498-97 BAC 1498-106	BAC 1498-104 (0.051)
BAC 1498-110 BAC 1498-114 BAC 1498-137	BAC 1498-105 (0.064)
BAC 1498-107 BAC 1498-108 BAC 1498-112	BAC 1498-133 (0.050)
BAC 1498-98 BAC 1498-99 BAC 1498-109 BAC 1498-113	BAC 1498-124 (0.063)
BAC 1498-100	BAC 1498-125 (0.071)
BAC 1498-101 BAC 1498-102 BAC 1498-146 BAC 1498-147 BAC 1509-100235 BAC 1509-100236	BAC 1498-131 (0.090)

REPAIR MATERIAL			
PART		QTY	MATERIAL
(1)	HAT SECTION	1	SEE TABLE
(2)	FILLER	1	SAME GAGE AS ORIGINAL CLAD 7075-T6
(3)	SHIM [F]	2	2024-T4 OR 7075 T6 CLAD
(4)	FILLER [F]	1	

ORIGINAL SECTION GAGE	FASTENER [A]		FASTENER [B]	
	TYPE [H]	QTY	TYPE	QTY
0.032, 0.040, 0.045	BACR15CE5D [E]	6	MS20470D-6	3
0.050	BACR15CE5D [E]	6	MS20470D-6	4
0.056	BACR15CE6D [E]	6	MS20470D-6	4
0.063, 0.071	BACR15CE6D [E]	6	MS20470D-8	3
0.080, 0.090	BACB30FQ6A [C] [E]	5	BACB30FM6A	4
	BACR15CE8D [D] [E]	5	MS20470D-8	4
	BACB30FQ- [G] [E]	5	BACB30FM6A	4

Fuselage Stringer Repair - S-15 to S-30
Figure 2 (Sheet 1)



SECTION ADJACENT TO DAMAGE

NOTES

FINISH PER 51-2-0 OF THE MAINTENANCE MANUAL

NUMBER OF FASTENERS REQUIRED ARE FOR EACH SIDE OF DAMAGE

REPAIR OF 0.056 GAGE SHOWN

SEE FIG. 1 FOR STRINGER REPAIR IN CROWN AREA

[C] WHERE EXISTING SKIN TO STIFFENER RIVETS ARE BACR15CE6 OR SMALLER

[D] WHERE EXISTING SKIN TO STIFFENER RIVETS ARE AN426D-6 OR BACR15CE8

[E] REF 51-2-3 FOR FASTENER SUBSTITUTION

[F] USE WHEN REQUIRED. GAGE TO SUIT CONDITIONS OF NESTING FIT

[G] WHERE EXISTING SKIN TO STIFFENER FASTENERS ARE STEEL, REPLACE WITH MINIMUM 1/64 OVERSIZE HILOK

[H] 1/32 OVERSIZE ON EXISTING FASTENER DIAMETER IS PERMITTED TO OBTAIN REQUIRED FIT

SYMBOLS

+ ORIGINAL FASTENER LOCATIONS

✦ REPAIR FASTENER LOCATIONS

Fuselage Stringer Repair - S-15 to S-30
Figure 2 (Sheet 2)

REPAIR INSTRUCTIONS

1. When damage to a stiffener due to longitudinal cracks in the formed corners of the section, does not require repair per 53-3-4. Figure 2, or when it exceeds the limits of allowable damage per 53-2-1, install the tabulated repair parts after stop drilling and dye checking in the following manner:

   A. Inner flange corner.

      (1) Crack less than 0.38 in length. Stop drill 0.25 diameter both ends.

      (2) Crack 0.38 and greater. Stop drill each end 0.25 diameter and install part 1 as required.

   B. Outer flange corner.

      NOTE: Stop drilling in this region of a damaged stiffener must not damage the skin.

      (1) Crack less than 0.38 in length. Stop drill 0.25 diameter both ends.

      (2) Crack 0.38 inch and greater. Stop drill 0.25 diameter and install part 2 as required.

      (3) When stop drilling is not feasible and where dye checking indicates a crack which does not run into an original fastener hole, nor exceeds 0.75 inch in length, repair the damage by the installation of part 2 as required.

2. Install repair fasteners [A] in web and inboard flange of stiffener to maintain edge margin from stop drill holes.

3. Install repair fastener [B] in the outer flange of stiffener by using existing skin rivet locations, or 3/16 shear head rivets at every other spotweld location.

4. Finish repair installation with BMS 10-11 Type 1 primer 51-2-0 of the Maintenance Manual.

Cracked Stringer Typical Repair - S-15 to S-30
Figure 3 (Sheet 1)

ORIGINAL STRINGER BAC1498	REPAIR MATERIAL					
	PART	MATERIAL [F]	FASTENER [A]		FASTENER [B]	
			QTY	TYPE	QTY	TYPE
-95, -96, -107, -108	(1) CHANNEL	BAC1493-613 7075-T6 CLAD (0.040)	3	MS20470D5		
-96, -97, -106 -107, -109, -113, -112		BAC1493-521 7075-T6 CLAD (0.050)	3	MS20470D5		
-98, -99		BAC1493-514 7075-T6 CLAD (0.064)	4	MS20470D5		
-100, -146, -147, -101, BAC1509-100235, BAC1509-100236		BAC1493-515 7075-T6 CLAD (0.081)	5	MS20470D5		
-101 -102		BAC1493-522 7075-T6 CLAD (0.090)	5	MS20470D5		
-110, -114, -137		BAC1493-574 7075-T6 CLAD (0.063)	4	MS20470D5		
-95, -96, -97, -106 -107, -108, -112	(2) CHANNEL	BAC1493-520 7075-T6 CLAD (0.050)	4	MS20470D5	4	[C]
-98, -99		BAC1493-413 7075-T6 CLAD (0.064)	5	MS20470D5	5	[C]
-99 -100		BAC1493-246 7075-T6 CLAD (0.072)	6	MS20470D5	6	[C]
-101, -146, -147 -102, BAC1509-100235, BAC1509-100236		BAC1493-519 7075-T6 CLAD (0.090)	7	MS20470D5	7	[C]
-109, -113		BAC1493-209 7075-T6 CLAD (0.051)	4	MS20470D5	4	[C]
-110, -114 -137		BAC-1498-105 (0.064) 7075-T6 CLAD [G] OPTIONAL BAC1493-573 7075-T6 CLAD (0.063)	5	MS20470D5	5	[C]

Cracked Stringer Typical Repair - S15 to S30
Figure 3 (Sheet 2)

NOTES

REF 51-2-0 FOR FASTENER CODE, REMOVAL AND INSTALLATION, HOLE SIZES AND EDGE MARGINS

REF 51-8-0 FOR METAL PROTECTIVE TREATMENT

REPAIR OF BAC1498-98 SHOWN

[C] REPLACE RIVETS WITH SAME TYPE AND SIZE AS ORIGINAL. REPLACE STEEL FASTENERS WITH MINIMUM 1/64 OVERSIZE HILOK. 1/32 OVERSIZE ON EXISTING DIA IS PERMITTED TO OBTAIN REQUIRED FIT. IN SPOTWELD AREAS, REPLACE EVERY OTHER SPOTWELD WITH BACR15CE6D RIVETS

[D] REPAIR CRACKS OF ANY LENGTH WHICH OCCUR WITHIN 4.00 INCHES OF FRAME-STRINGER CONNECTION

[E] DELETED

[F] REF 51-3-1 FOR DIMENSIONS

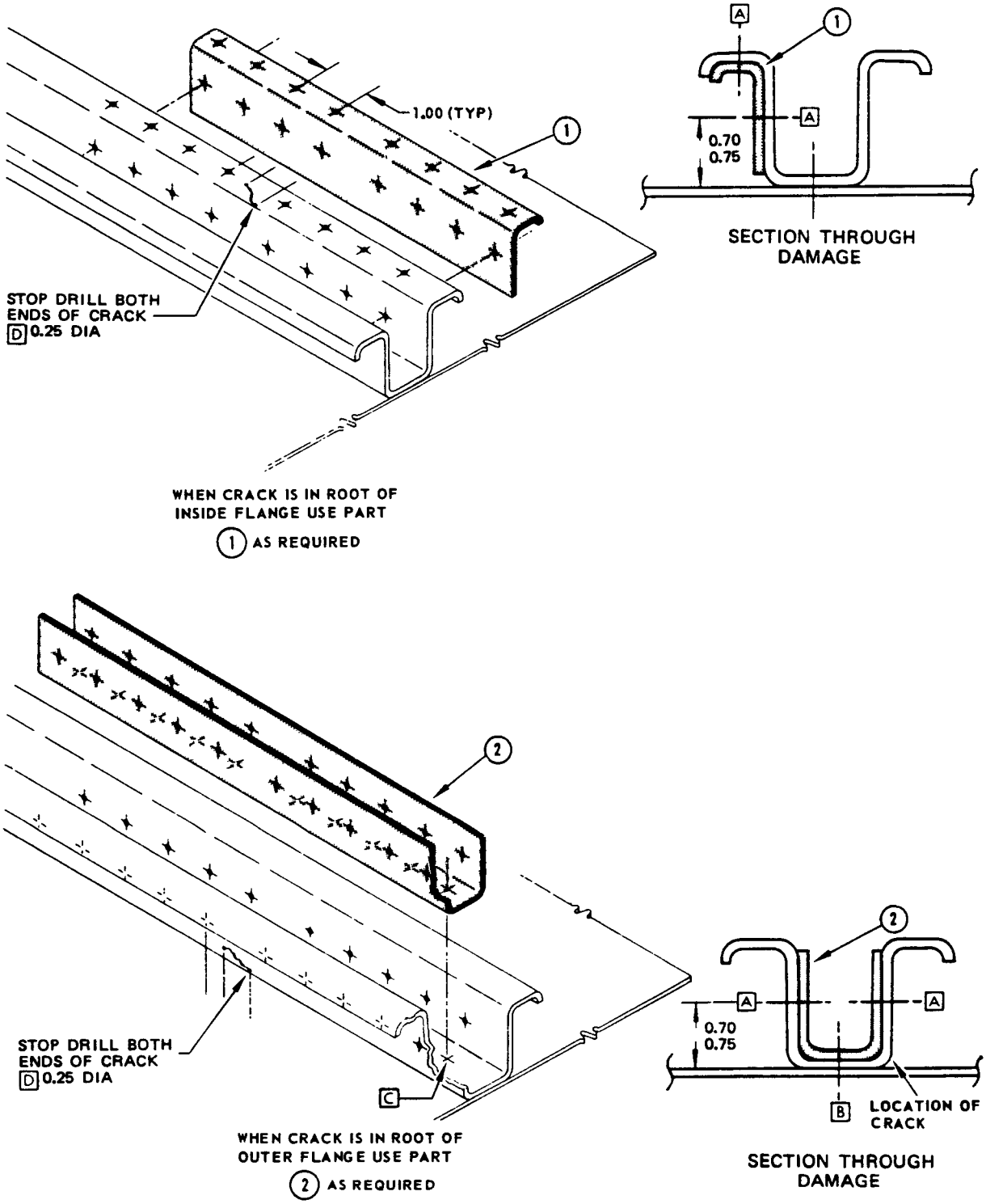
[G] TRIM HAT SECTION TO 1 INCH DEEP CHANNEL

SYMBOLS

+ ORIGINAL FASTENER LOCATIONS

✦ REPAIR FASTENER LOCATIONS

Cracked Stringer Typical Repair - S-15 to S-30
Figure 3 (Sheet 4)



Cracked Stringer Typical Repair - S15 to S30
Figure 3 (Sheet 4)

REPAIR INSTRUCTIONS

1. Cut out damaged stringer beyond edge of tearstrap, taking care not to damage skin. Maintain edge margin in existing stringer for the first fastener common to skin and stringer (approximately 2.5 inches from tearstrap centerline) on either side of tearstrap.

2. The filler section shall be the same gage as the damaged stringer. See table for recommended filler.

3. Determine thickness of damaged stringer and fabricate tapered straps, using dimensions listed under original stringer gage as shown.

   The taper and length for all straps is determined by original stringer-to-skin rivet or spotweld spacing. The first four fasteners common to the strap and stringer will be in the taper area. All the strap end fasteners, forward and aft of the damaged area shall end at the same body station.

4. Install channel clips [5], for narrow stringers and [6] for wide stringers. Do not install a fastener common to stringer and frame flanges.

5. Seal driven heads of repair fasteners [C] with BMS 5-12 or optional BMS 5-79 per 51-3-0 of the 707 Maintenance Manual.

NOTE

- REPAIR SHOWN IS FOR .040 GAGE STRINGER.
- SEE 51-2-0 FOR FASTENER CODE. REMOVAL/INSTALLATION HOLE SIZES AND EDGE MARGINS.
- SEE 51-8-0 FOR PROTECTIVE TREATMENT OF METAL.
- FINISH ACCORDING TO 51-2-0 OF THE MAINTENANCE MANUAL.

┼ ORIGINAL FASTENER LOCATIONS.

✦ REPAIR FASTENER LOCATIONS.

✳ SPOTWELD LOCATION.

[A] USE BAC 1511-468 RADIUS FILLERS FOR NARROW STRINGERS AND BAC 1511-645 FOR WIDE STRINGERS.

[B] IN AREAS WHERE SKIN IS RIVETED TO STRINGER USE ORIGINAL RIVET SPACING IN AREA. A FASTENER CAN BE INSTALLED AT EVERY SPOTWELD LOCATION.

[C] SEE REPAIR FASTENER INDEX.

[D] SEE REPAIR FASTENER INDEX.

[E] SEE REPAIR FASTENER INDEX.

[F] .75 WIDTH FOR NARROW HAT SECTION AND .98 FOR WIDE HAT SECTION.

[G] SEE FASTENER INDEX FOR NUMBER OF FASTENERS ON EACH SIDE OF DAMAGE.

[H] FASTENER SPACING .80 MIN AND 1.20 MAXIMUM.

[I] USE MS20470D6 WHEN SKIN GAGE IS LESS THAN .050.

[J] USE MS20470D8 WHEN SKIN GAGE IS LESS THAN .063 BUT GREATER THAN .050.

Fuselage Stringer Repair Upper Lobe Continuous Skin
Figure 4 (Sheet 1 of 5)

[K] REPAIR STRINGER SECTION. SEE TABLE FOR NESTING STRINGER SECTIONS.

[L] FILLER SEGMENTS TO BE SAME THICKNESS AS DAMAGED STRINGER.

[M] OPTIONAL MATERIAL 2024-T3.

[N] TWO CHANNEL CLIPS REQUIRED FOR EACH STRINGER TO FRAME INTERSECTION.

[O] BACR15CED6 IN SKINS OF .050 OR GREATER THICKNESS.

REPAIR MATERIAL			
PART		QTY	MATERIAL
[1]	PLATE	1	2024-T3
[2]	PLATE	2	2024-T3
[3]	PLATE	2	2024-T3
[4]	FILLER STRINGER	1	7075-T6 [M] [K]
[5]	CHANNEL CLIP	2	.063 CLAD 2024-T3 [N]
[6]	FILLER ANGLE	2	7075-T6 [L] [M]
[7]	FILLER CHANNEL	1	7075-T6 [L] [M]

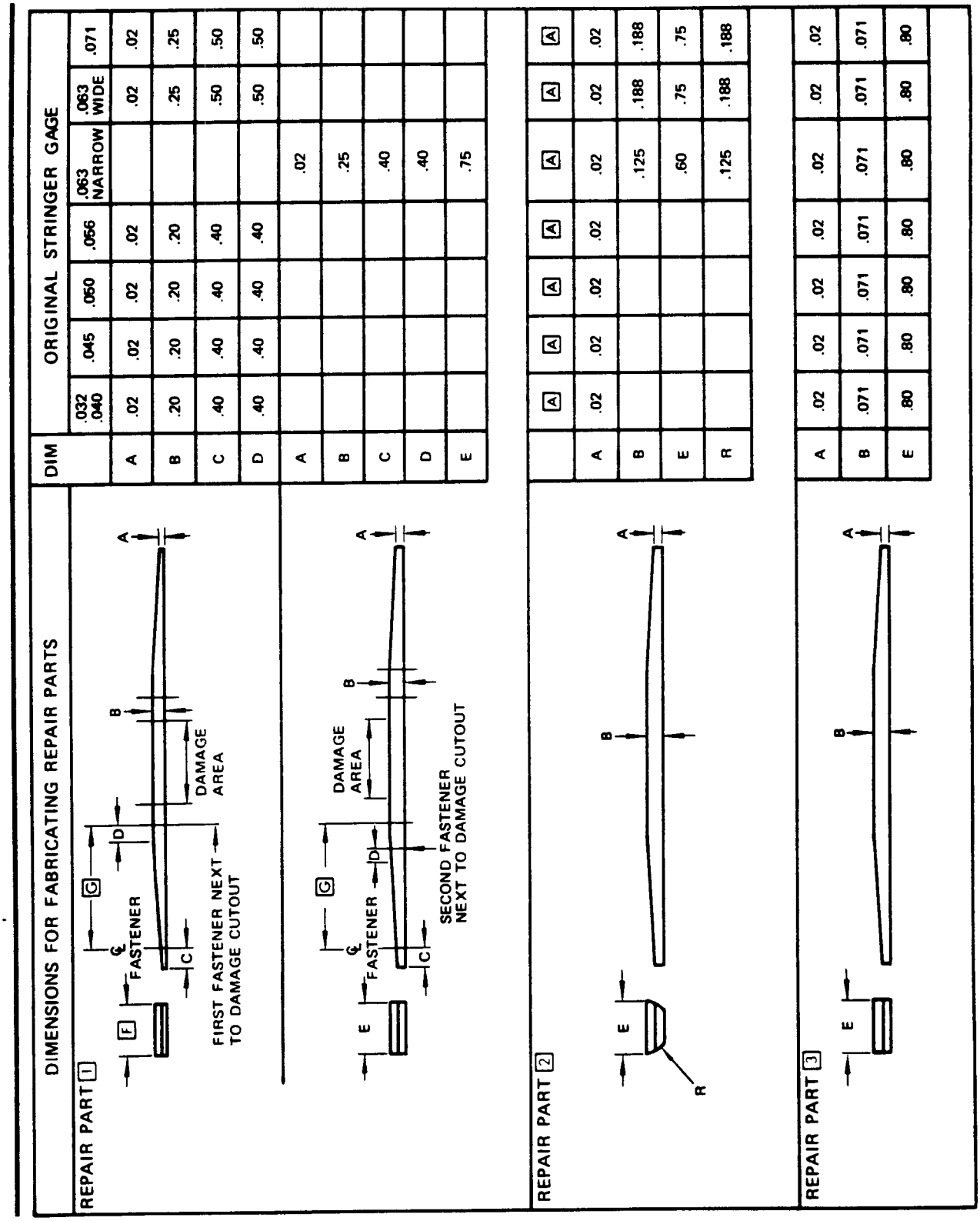
NESTING STRINGER SECTION REPAIR	
EXISTING STRINGER	REPAIR SECTION
BAC1498-95	BAC1498-108
-96	-107
-106	-136
-97	-112
-110	-137
-114	-137
-113	SECTION NOT AVAILABLE AT THIS TIME. USE OPTIONAL FILLER.
-109	
-98	
-99	
-100	
-101	
-102	

REPAIR FASTENERS						
ORIGINAL STRINGER SECTION GAGE	FASTENER [C]			FASTENERS [D] [E]		
	TYPE	FASTENERS EACH SIDE OF DAMAGE	SPACING	TYPE	FASTENERS EACH SIDE OF DAMAGE	SPACING
.032	BACR15CE-D6	[2] 4	[B]	MS20470-D6	4	[H]
.040	BACR15CE-D6	4			4	
.045	BACR15CE-D6	4			4	
.050	BACR15CE-D6	4			4	
.056	BACR15CE-D6	6			6	
.063 NARROW	BACR15CE-D6	[2] 6			6	
.063 WIDE	BACR15CE-D8	[1] 5			6	
.071	BACR15CE-D8	[1] 5			6	

[1] USE MS20470D8 WHEN SKIN GAGE IS LESS THAN .063

[2] USE MS20470D6 WHEN SKIN GAGE IS LESS THAN .050

Fuselage Stringer Repair Upper Lobe Continuous Skin
Figure 4 (Sheet 2 of 5)

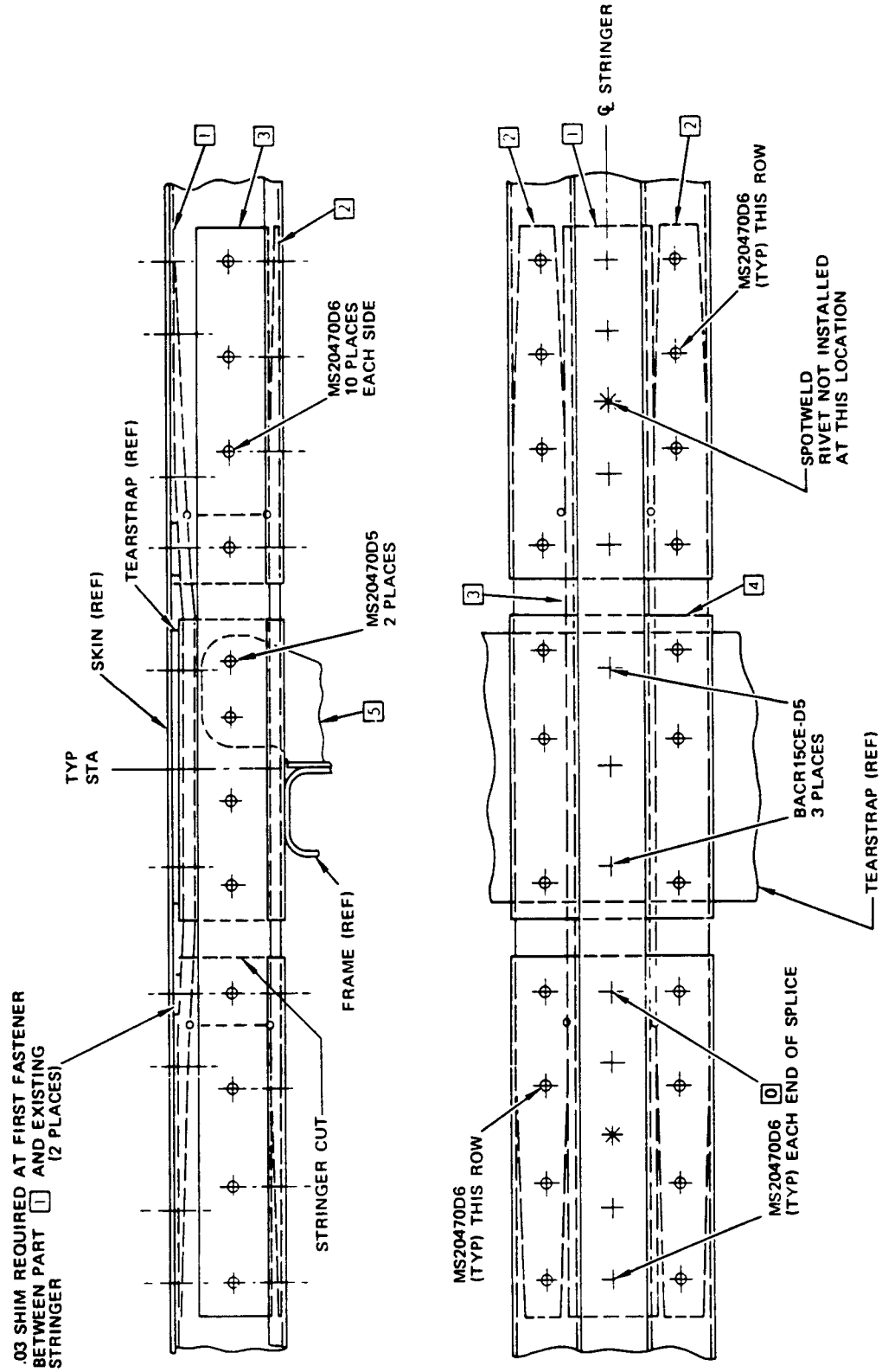


DIM	ORIGINAL STRINGER GAGE							
	.032 .040	.045	.050	.056	.063 NARROW	.063 WIDE	.071	
A	.02	.02	.02	.02		.02	.02	
B	.20	.20	.20	.20		.25	.25	
C	.40	.40	.40	.40		.50	.50	
D	.40	.40	.40	.40		.50	.50	
A					.02			
B					.25			
C					.40			
D					.40			
E					.75			

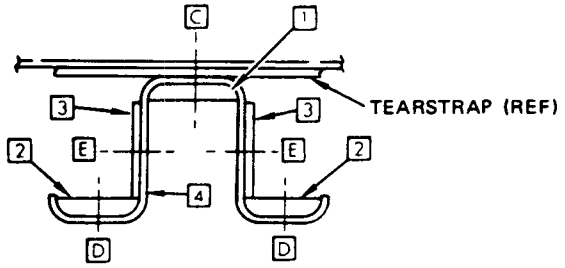
	A	B	E	R
A	.02	.188	.75	.188
B	.02	.188	.75	.188
E	.02	.125	.60	.125
R	.02	.125	.60	.125

	A	B	E
A	.02	.02	.02
B	.071	.071	.071
E	.80	.80	.80

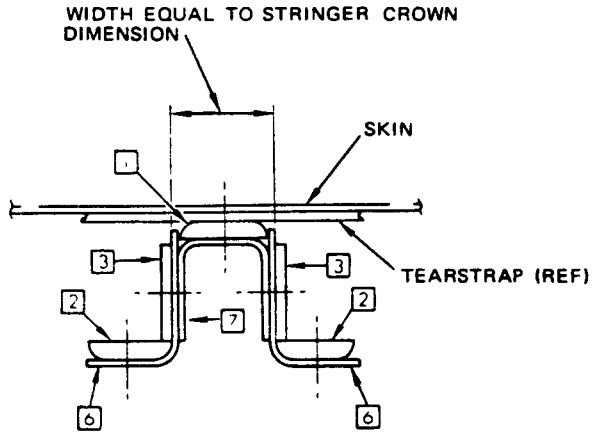
Fuselage Stringer Repair Upper Lobe Continuous Skin
Figure 4 (Sheet 3 of 5)



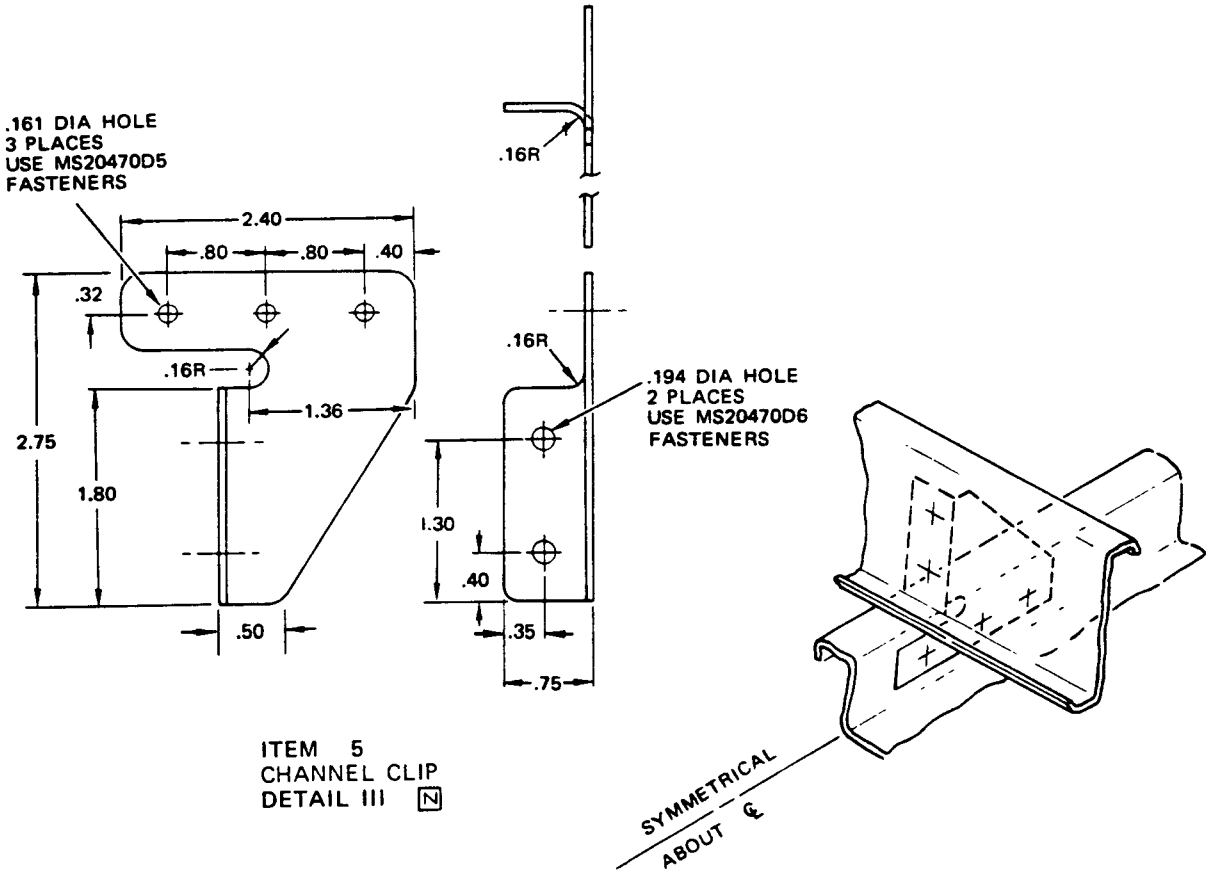
Fuselage Stringer Repair Upper Lobe Continuous Skin
Figure 4 (Sheet 4 of 5)



DETAIL I
SECTION THROUGH REPAIR



DETAIL II OPTIONAL
TO DETAIL I



ITEM 5
CHANNEL CLIP
DETAIL III [N]

Fuselage Stringer Repair Upper Lobe Continuous Skin
Figure 4 (Sheet 5 of 5)

REPAIR INSTRUCTIONS

1. Trim out the body frames as required.
2. If the skin has been damaged repair as required.
3. Remove all burrs, nicks, scratches sharp edges and corners from the damaged area and repair parts.
4. Remove stringer to body attachment as follows:
   a. If the stringer and frame flanges are riveted together remove the rivet and repair as shown in Detail I.
   b. If the stringer and frame are tied together with a channel, repair as shown in Detail II or III. Replace channel only if required.
5. Fabricate repair parts [1], [2], [3], [4], and [5] as required
6. Locate and drill fastener holes.
7. Alodize all cut edges on original and repair parts.
8. Install repair parts.
9. Refinish according to the Maintenance Manual.

NOTE

- THIS REPAIR IS APPLICABLE TO DAMAGED FUSELAGE ZEE FRAMES FORWARD OF BODY STATION 1110.
- SEE 51-2-0 FOR FASTENER CODE, REMOVAL AND INSTALLATION, HOLE SIZES AND EDGE MARGINS.
- SEE 51-8-0 FOR METAL PROTECTIVE TREATMENT.

┼ ORIGINAL FASTENER LOCATIONS.

✚ REPAIR FASTENER LOCATIONS.

[A] SAME GAGE AS ORIGINAL FRAME.

[B] DO NOT DRILL FOR AND INSTALL A FASTENER AT THIS LOCATION IF A FASTENER HAS NOT BEEN PREVIOUSLY INSTALLED.

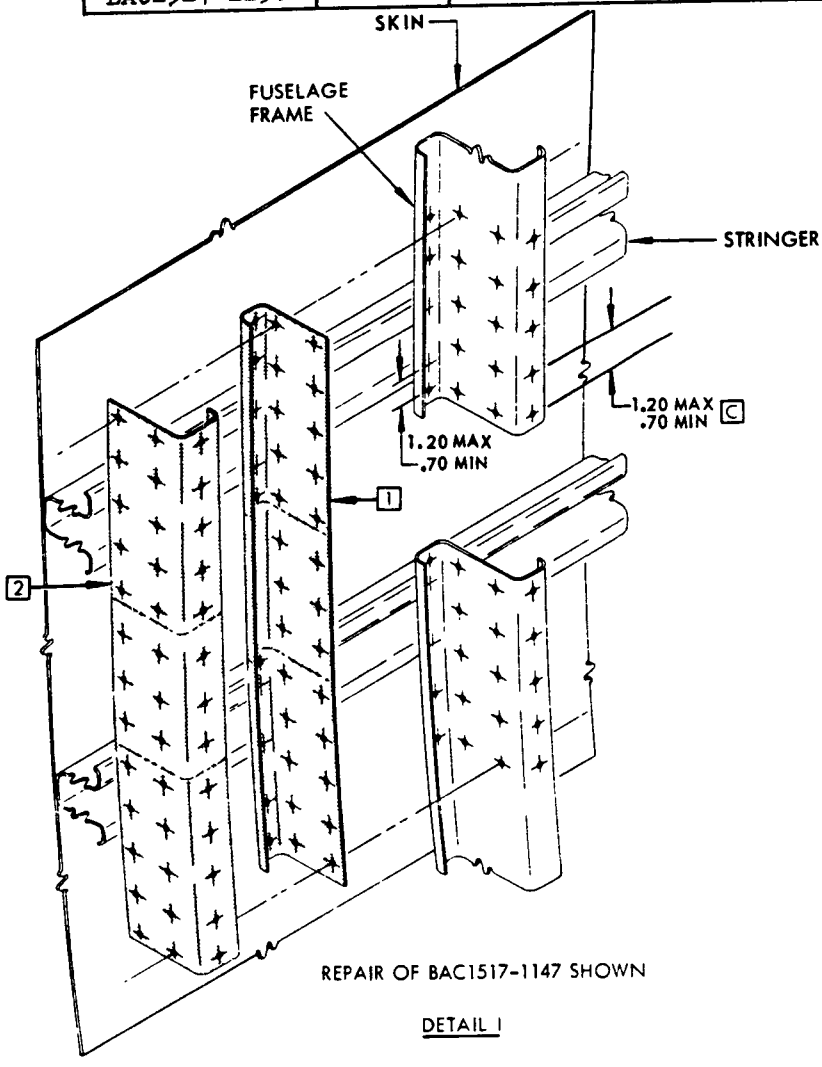
IF A FASTENER HAS BEEN PREVIOUSLY INSTALLED AT THIS LOCATION, REMOVE AND INSTALL FILLER PARTS [4] AND [5] WITH A FASTENER OF THE SAME DIAMETER, TYPE AND MATERIAL AS THE ORIGINAL. SEE DETAIL III, SECTION III.

[C] USE $\frac{1.30}{1.00}$ SPACING FOR MS20470D-8 RIVETS

REPAIR MATERIAL			
PART		QTY	MATERIAL
[1]	CHANNEL	1	7075-T6 CLAD [A]
[2]	CHANNEL	1	7075-T6 CLAD [A]
[3]	FILLER	1	7075-T6 CLAD [A]
[4]	FILLER	2	.12 7075-T6 CLAD
[5]	FILLER	2	7075-T6 CLAD [A]

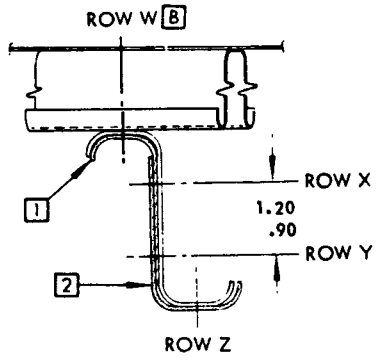
Fuselage "Z" Frame Repair
Figure 1 (Sheet 1 of 4)

REPAIR FASTENERS							
ORIGINAL ZEE SECTION	GAGE	FASTENER	MINIMUM NUMBER OF FASTENERS REQUIRED ON EACH SIDE OF DAMAGE IN EACH ROW				
			ROW				
			W	X	Y	Z	
BAC1517-1147	.045	MS20470D-5	5	5	5	5	
BAC1517-705	.050	MS20470D-5	5	5	5	5	
BAC1517-1062	.056	MS20470D-6	4	4	4	4	
BAC1517-1004	.071	MS20470D-6	5	5	5	5	
BAC1517-1080	.080	MS20470D-6	6	6	6	6	
BAC1517-1256	.090	MS20470D-8	4	4	4	4	C



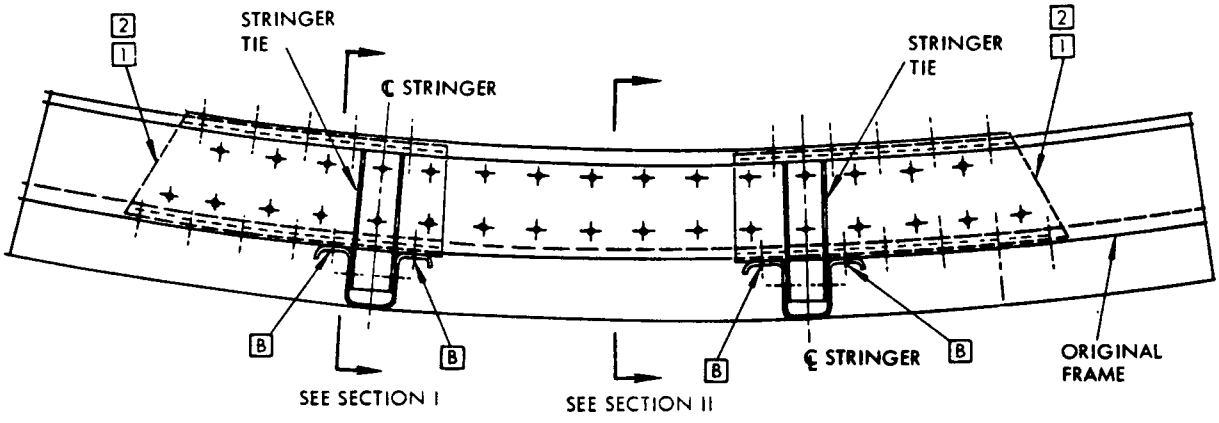
REPAIR OF BAC1517-1147 SHOWN

DETAIL I

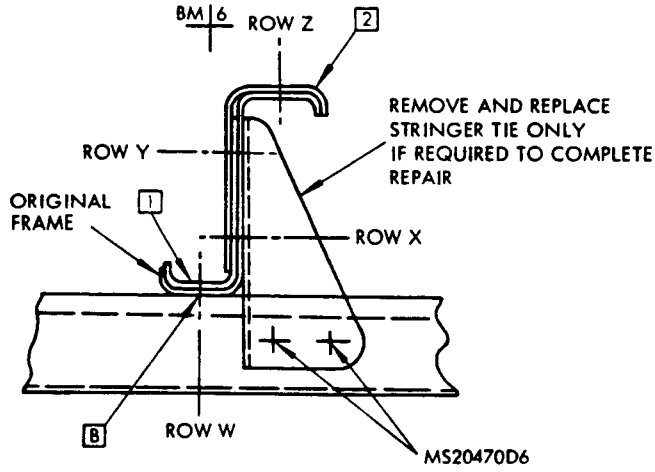


SECTION ADJACENT TO REPAIR

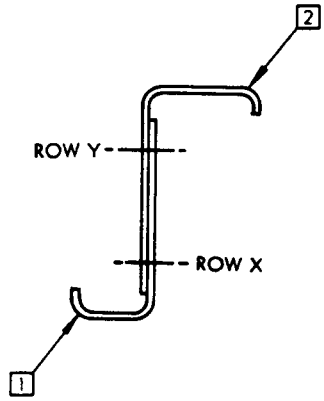
Fuselage "Z" Frame Repair
Figure 1 (Sheet 2 of 4)



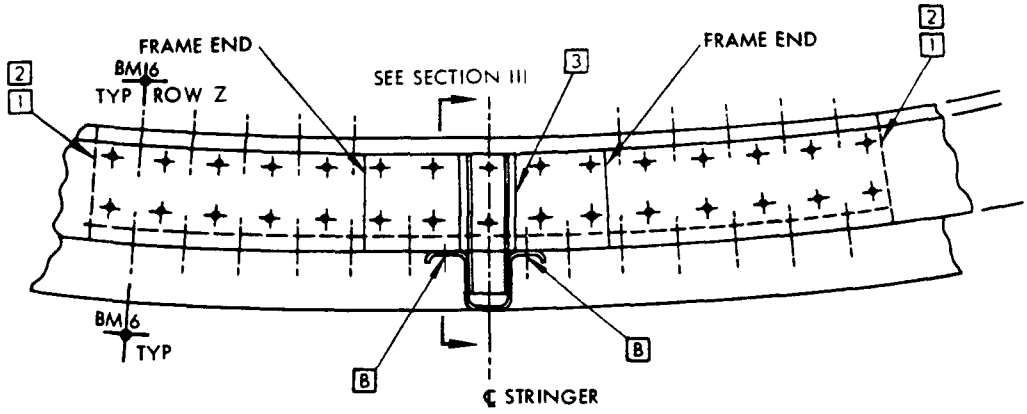
DETAIL II



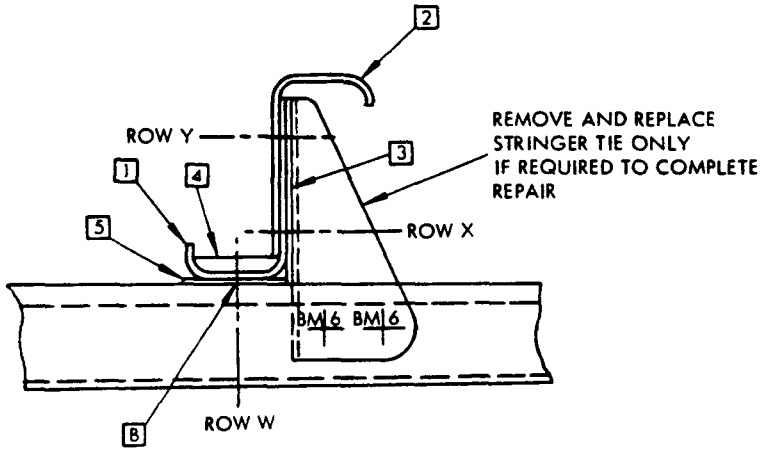
SECTION I



SECTION II



DETAIL III



SECTION III

Fuselage "Z" Frame Repair
Figure 1 (Sheet 4 of 4)

REPAIR INSTRUCTIONS

1. Trim the damaged portion of frame and remove all burrs, scratches, abrasions or sharp edges. Skin removal may be required for access.
2. Install angle part 1 with fasteners at original locations. See 53-3-2, Figures 1 and 2 for repair to damaged skin occuring within this damage zone.
3. Make fillet and fastener sealant applications for an absolute seal in pressurized areas with BMS 5-12D per 51-3-0 of the 707 Maintenance Manual.
4. Replace original finish per 51-2-0, of the 707 Maintenance Manual.

NOTE

SEE 51-2-0 FOR FASTENER CODE, REMOVAL AND INSTALLATION, HOLE SIZES AND EDGE MARGINS.

SEE 51-8-0 FOR METAL PROTECTIVE TREATMENT

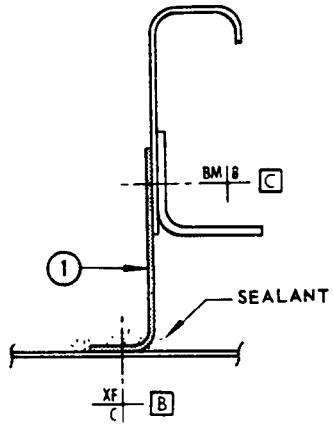
┼ ORIGINAL FASTENER LOCATIONS

[A] CLAD 7075-T6, ONE GAGE GREATER THAN ORIGINAL

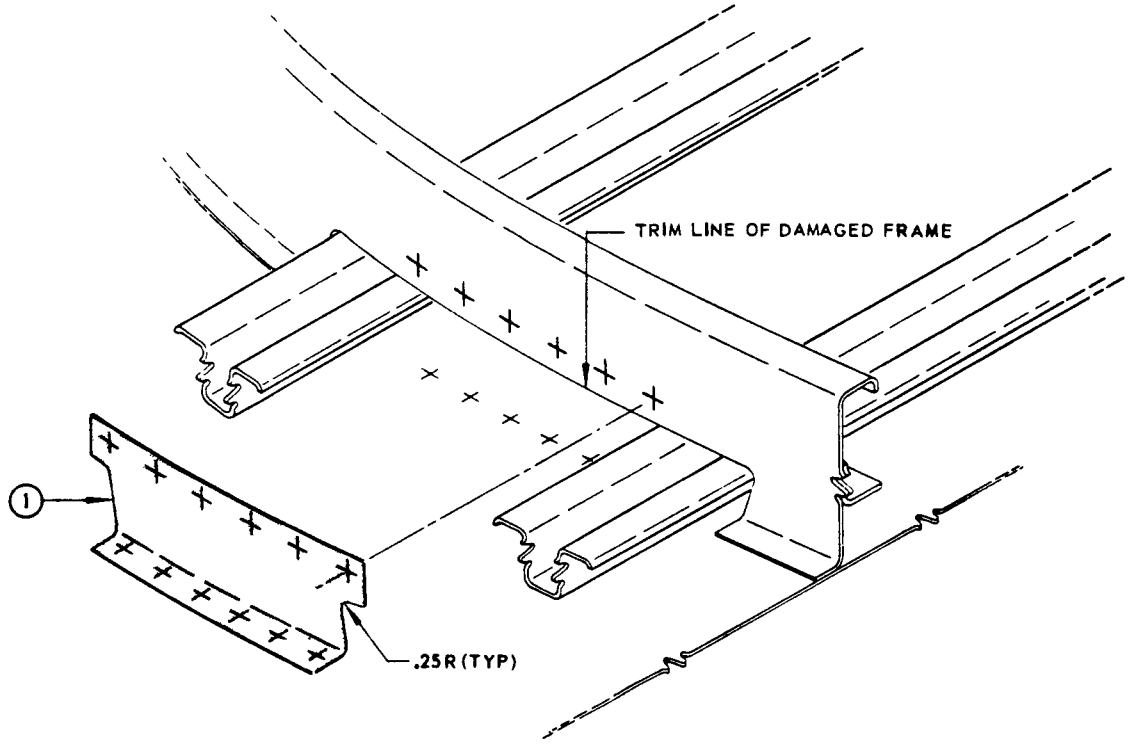
[B] SAME DIAMETER AS ORIGINAL

[C] REPLACE ANY HI-SHEAR RIVET WITH A 1/32 MAX OVERSIZE HS 42P AT ORIGINAL LOCATION

REPAIR MATERIAL			
PART		QTY.	MATERIAL
(1)	ANGLE	1	[A]



SECTION THROUGH DAMAGE



Fuselage Lower Frame Repair Between Stringers
Figure 2

REPAIR INSTRUCTIONS (PREFERRED METHOD)

1. Trim out all damaged area of the frame inboard of the stringer. Remove all scratches, burrs or sharp edges.
   NOTE: Do not cut skin when trimming the frame near the stringer.
2. If stringer is damaged repair it, per 53-3-4, Figure 2, prior to installation of parts for this repair.
3. Replace original finish per 51-2-0 of the Maintenance Manual.

NOTE

SEE 51-2-0 FOR FASTENER CODE, REMOVAL AND INSTALLATION, HOLE SIZES AND EDGE MARGINS.

SEE 51-8-0 FOR METAL PROTECTIVE TREATMENT.

REPAIR FASTENER LOCATIONS.

ORIGINAL FASTENER LOCATIONS.

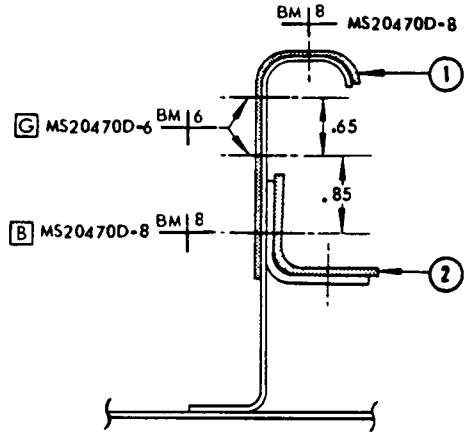
[A] ONE GAGE GREATER THAN ORIGINAL.

[B] REPLACE ANY HI-SHEAR RIVET WITH A 1/32 MAX OVERSIZE HS 42P AT ORIGINAL LOCATION.

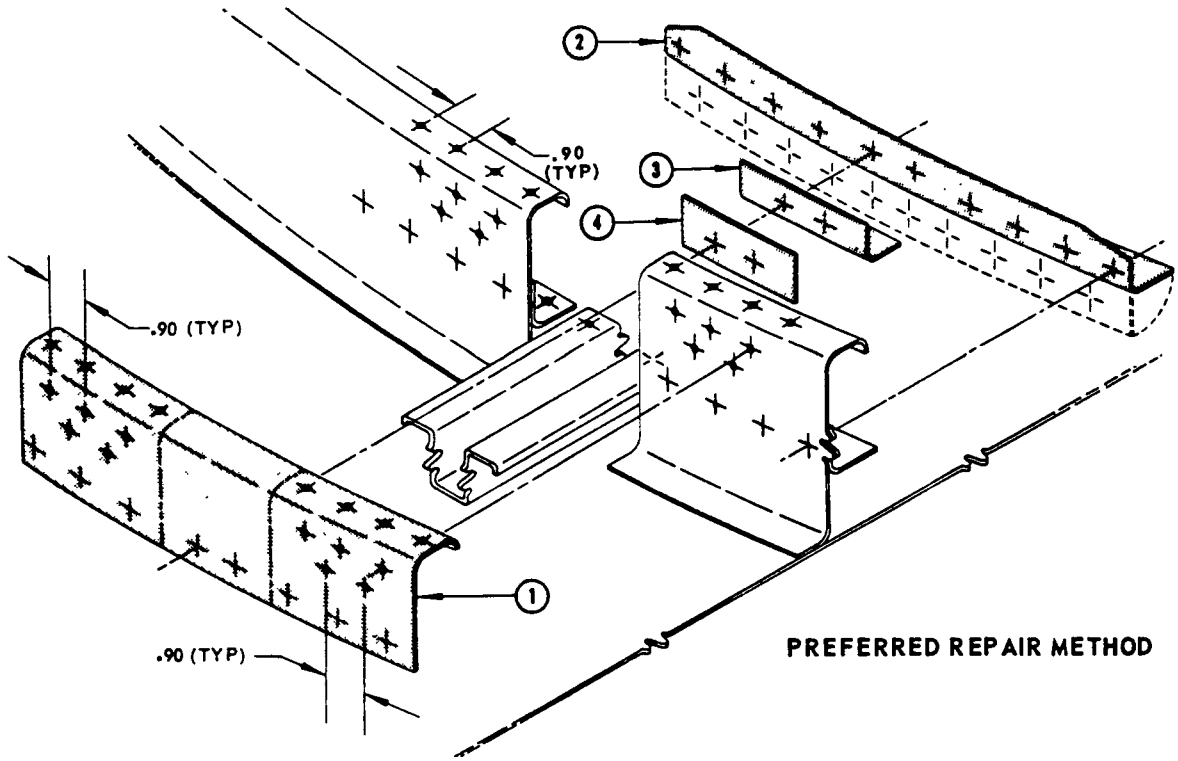
[C] CLAD 2024-T3 OR CLAD 7075-T6 SAME GAGE AS ORIGINAL FRAME.

[G] FOR FRAME .090 OR GREATER USE 1/4 INCH RIVET.

REPAIR MATERIAL			
PART		QTY.	MATERIAL
(1)	CHANNEL	1	CLAD 7075-0, HT-T6 [A]
(2)	ANGLE	1	CLAD 7075-0, HT-T6 [A]
(3)	ANGLE	1	[C]
(4)	FILLER	1	[C]



SECTION ADJACENT TO DAMAGE



PREFERRED REPAIR METHOD

Fuselage Lower Frame Repair at Stringer
Figure 3 (Sheet 1 of 2)

REPAIR INSTRUCTIONS (OPTIONAL METHOD)

1. Make cuts in the Z-frame and angle at the center line of typical stringers.
2. If a stringer is damaged, repair it per 53-3-4, figure 2, prior to installation of parts for this repair.
3. Replace original finish per 51-2-0 of the Maintenance Manual.

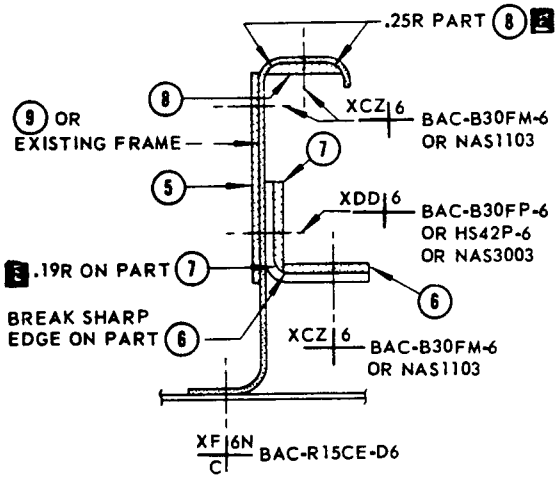
REPAIR MATERIAL			
PART		QTY.	MATERIAL
(5)	PLATE	2	CLAD 7075-T6 [A]
(6)	STRAP	2	7075-T6 [F]
(7)	STRAP	2	7075-T6 [F]
(8)	STRAP	2	7075-T6 [F]
(9)	Z FRAME	1	[D]

NOTE

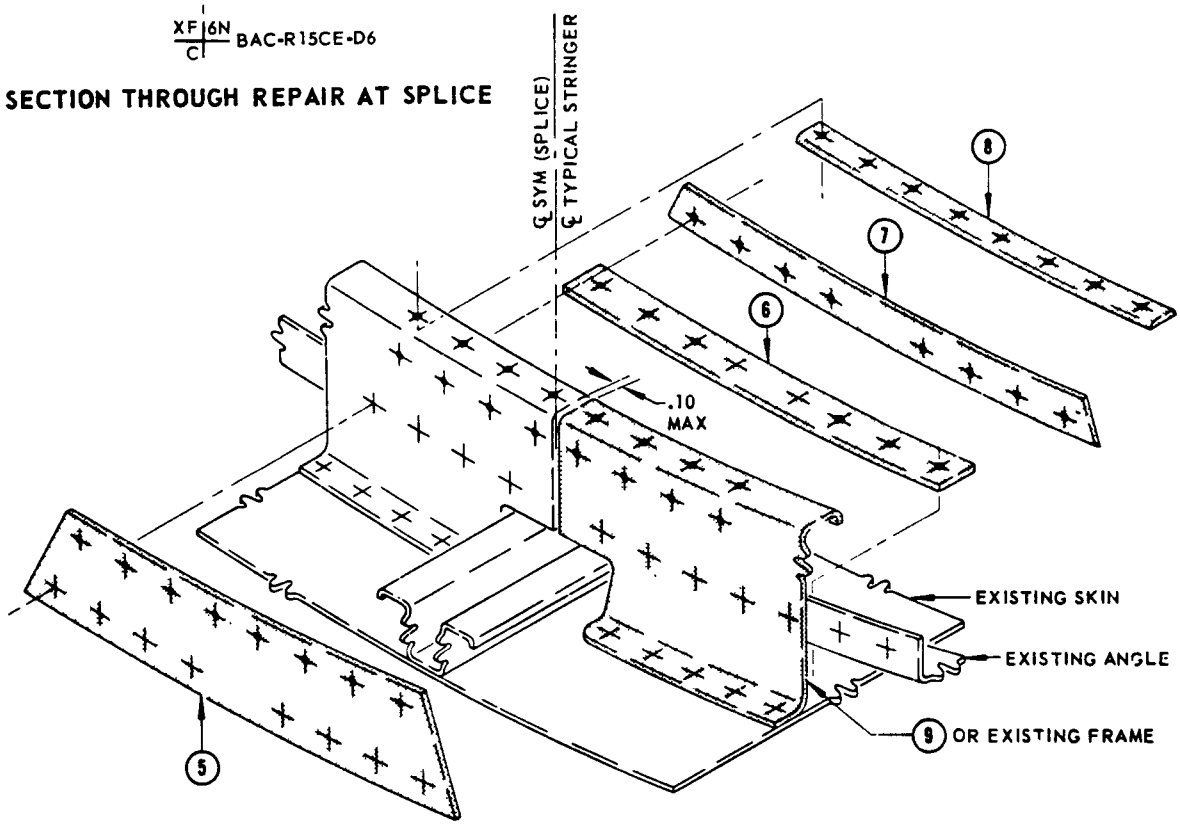
[D] MAKE FROM PRODUCTION SPARE PART FRAME.

[E] OPTIONAL: CHAMFER TO SUIT RADIUS OF ORIGINAL STRUCTURAL PART.

[F] TWICE THE GAGE OF AN ORIGINAL FRAME.



SECTION THROUGH REPAIR AT SPLICE



OPTIONAL REPAIR METHOD
(SPLICE AT ONE END OF REPAIR SHOWN - OPPOSITE END TYPICAL)

Fuselage Lower Frame Repair at Stringer
Figure 3 (Sheet 2 of 2)

REPAIR INSTRUCTIONS

1. Trim out the body frames as required.
2. If the skin has been damaged, repair as required.
3. Remove all burrs, nicks, scratches, sharp edges and corners from the damaged area and from the repair parts.
4. Remove stringer to body frame attachment as follows:
   A. If the stringer and frame flanges are riveted together, remove the rivet and repair as shown in detail I or III
   B. If the stringer and frame are tied together with a channel, repair as shown in detail II. Replace channel only if required.
5. Fabricate repair parts [1], [2], [3], [4], [5], [6], [7] and [P] as reqd.
6. Locate and drill fastener holes.
7. Alodize all cut edges on repair parts and original parts.
8. Install part [8] after installing fasteners through parts [6], [7] and [4].
9. Refinish according to the Maintenance Manual.

NOTE

- THIS REPAIR IS APPLICABLE TO PARTIALLY DAMAGED FUSELAGE FRAMES AND FOR REPAIRS AFTER THE BODY FRAMES HAVE BEEN TRIMMED TO ENABLE THE REMOVAL OF A STRINGER.
- SEE 51-8-0 FOR METAL PROTECTIVE TREATMENT.
- BREAK SHARP EDGES 0.03 ALL REPAIR PARTS AND TRIMMED ORIGINAL PARTS.
- SEE 51-2 FOR FASTENER CODE, REMOVAL AND INSTALLATION, HOLE SIZES AND EDGE MARGINS.
- NUMBER OF FASTENERS REQUIRED ARE FOR EACH SIDE OF DAMAGE.
- REPAIR OF .071 GAGE FRAME SHOWN IN DETAIL II. THIS REPAIR CAN BE USED AT OTHER LOCATIONS WHERE SIMILAR FRAME AND CONFIGURATION EXISTS. SEE DETAIL III FOR .090 GAGE FRAME.

+ ORIGINAL FASTENER LOCATIONS.

✦ REPAIR FASTENER LOCATIONS.

[A] AS REQUIRED BY SIZE OF DAMAGE.

[B] DO NOT DRILL FOR AND INSTALL A FASTENER AT THIS LOCATION IF A FASTENER HAS NOT BEEN PREVIOUSLY INSTALLED.

IF A FASTENER HAS PREVIOUSLY BEEN INSTALLED AT THIS LOCATION REMOVE AND INSTALL FILLER PARTS [2] AND [3] WITH A FASTENER OF THE SAME DIAMETER, TYPE AND MATERIAL AS THE ORIGINAL. SEE DETAIL I.

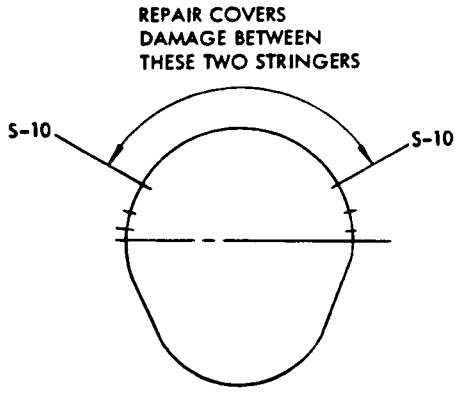
Fuselage Crown Frame Repair
Figure 4 (Sheet 1 of 6)

FRAME THICKNESS	FASTENER TYPE	MINIMUM NUMBERS OF FASTENERS REQUIRED ON EACH SIDE OF DAMAGE IN EACH ROW			
		ROW W	ROW X	ROW Y	ROW Z
.045 .050 .056 .063	MS20470D6	4	4	[A]	[A]
.071 .080	MS20470D8	3	3	[A]	[A]
.090	MS20470D8	4	3	[A]	[A]

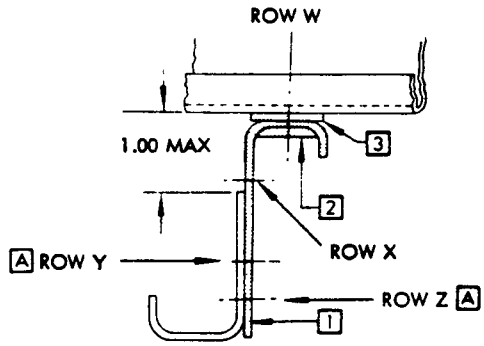
REPAIR MATERIAL							
ORIG.GAGE →		.045		.050		.056	
PART		QTY	MATERIAL	QTY	MATERIAL	QTY	MATERIAL
[1]	CHANNEL	1	.050 CLAD 7075-0, HT-T6	1	.056 CLAD 7075-0, HT-T6	1	.063 CLAD 7075-0, HT-T6
[2]	FILLER	2	.10 CLAD 7075-T6	2	.10 CLAD 7075-T6	2	.10 CLAD 7075-T6
[3]	FILLER	2	.045 CLAD 7075-T6	2	.050 CLAD 7075-T6	2	.056 CLAD 7075-T6
[4]	CHANNEL	1	.050 CLAD 7075-0, HT-T6	1	.056 CLAD 7075-0, HT-T6	1	.063 CLAD 7075-0, HT-T6
[5]	FILLER	1	.045 CLAD 7075-T6	1	.050 CLAD 7075-T6	1	.056 CLAD 7075-T6

REPAIR MATERIAL							
ORIG. GAGE →		.063		.071		.080	
PART		QTY	MATERIAL	QTY	MATERIAL	QTY	MATERIAL
1	CHANNEL	1	.071 CLAD 7075-0, HT-T6	1	.080 CLAD 7075-0, HT-T6	1	.090 CLAD 7075-0, HT-T6
2	FILLER	2	.10 CLAD 7075-T6	2	.125 CLAD 7075-T6	2	.125 CLAD 7075-T6
3	FILLER	2	.063 CLAD 7075-T6	2	.071 CLAD 7075-T6	2	.080 CLAD 7075-T6
4	CHANNEL	1	.071 CLAD 7075-0, HT-T6	1	.080 CLAD 7075-0, HT-T6	1	.090 CLAD 7075-0, HT-T6
5	FILLER	1	.063 CLAD 7075-T6	1	.071 CLAD 7075-T6	1	.080 CLAD 7075-T6

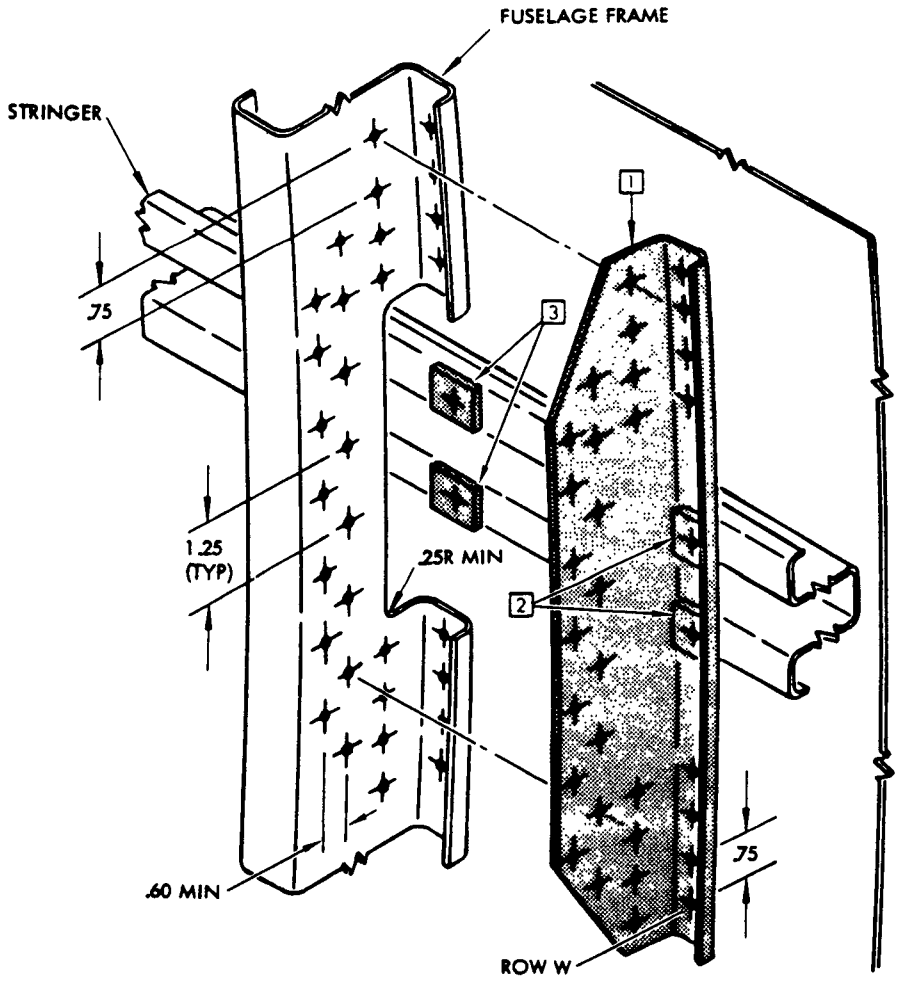
REPAIR MATERIAL			
ORIG. GAGE		.090	
PART		QTY	MATERIAL
1	CHANNEL	1	.10 CLAD 7075-0 HT-T6
2	FILLER		
3	FILLER	2	.090 CLAD 7075-T6
4	CHANNEL	1	.10 CLAD 7075-0 HT-T6
5	FILLER	1	.090 CLAD 7075-T6
6	FILLER	1	.10 CLAD 7075-T6
7	FILLER	2	.10 CLAD 7075-T6
8	FILLER	2	.10 CLAD 7075-T6



CROWN AREA OF FUSELAGE

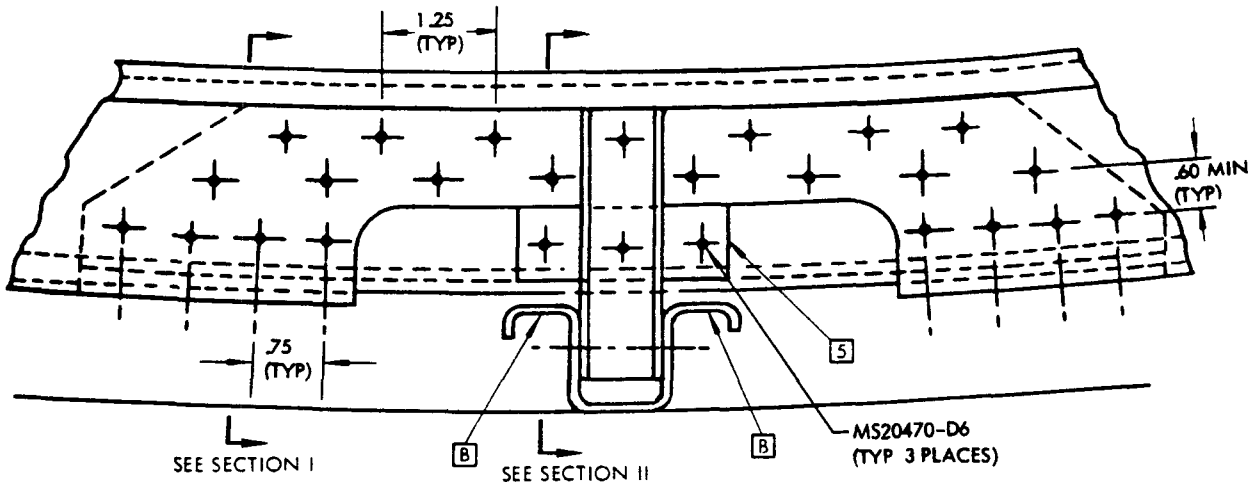


SECTION THROUGH REPAIR

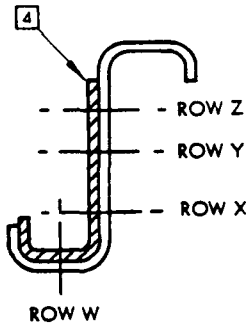


DETAIL I

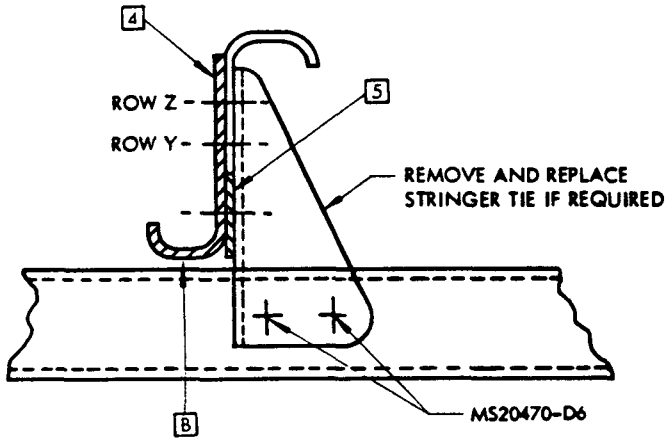
Fuselage Crown Frame Repair
Figure 4 (Sheet 4 of 6)



DETAIL II

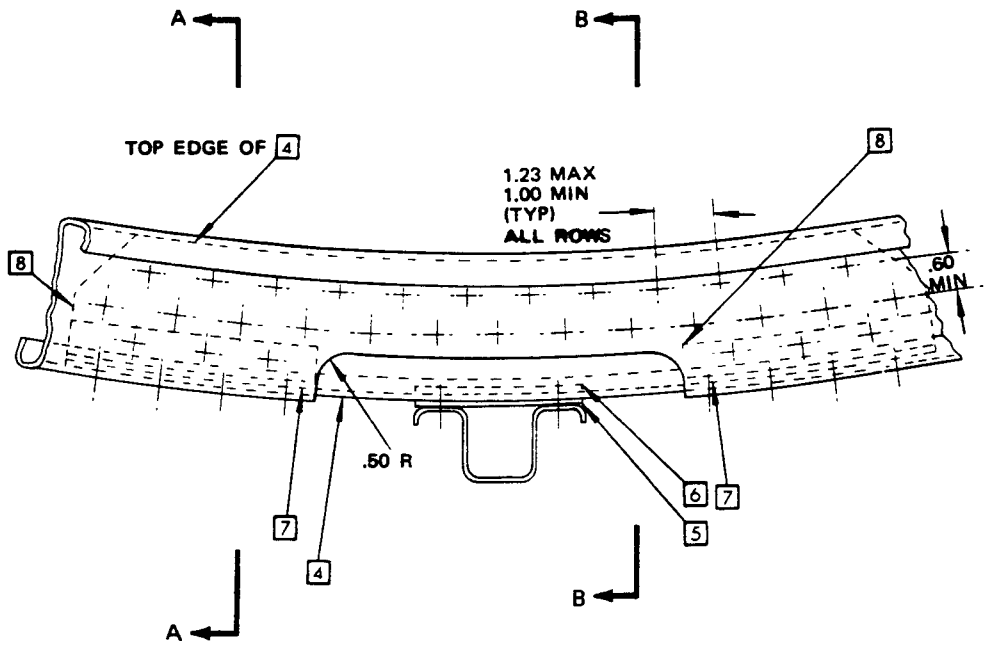


SECTION I

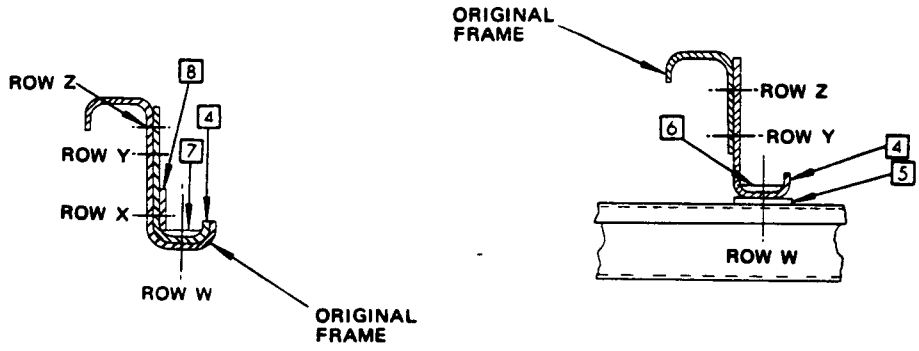


SECTION II

Fuselage Crown Frame Repair
Figure 4 (Sheet 5 of 6)



FRAME SHOWN IS 960M



SECTION A-A

SECTION B-B

FRAME SHOWN IS 960M

DETAIL III

Fuselage Crown Frame Repair
Figure 4 (Sheet 6 of 6)

REPAIR INSTRUCTIONS

1. Locate centerline of splice per Detail I for the applicable frame station.
2. Cut the outboard chord at the centerline of splice and remove that portion of the chord below the cut. Avoid damage to the frame web. Clean up sharp edges.
3. Fabricate all repair parts.
4. Install new chord segment and splice with repair parts.

NOTE

+ ORIGINAL FASTENER LOCATIONS

⊕ REPAIR FASTENER LOCATIONS

SEE 51-2-0 FOR FASTENER CODE, REMOVAL AND INSTALLATION, HOLE SIZES AND EDGE MARGINS

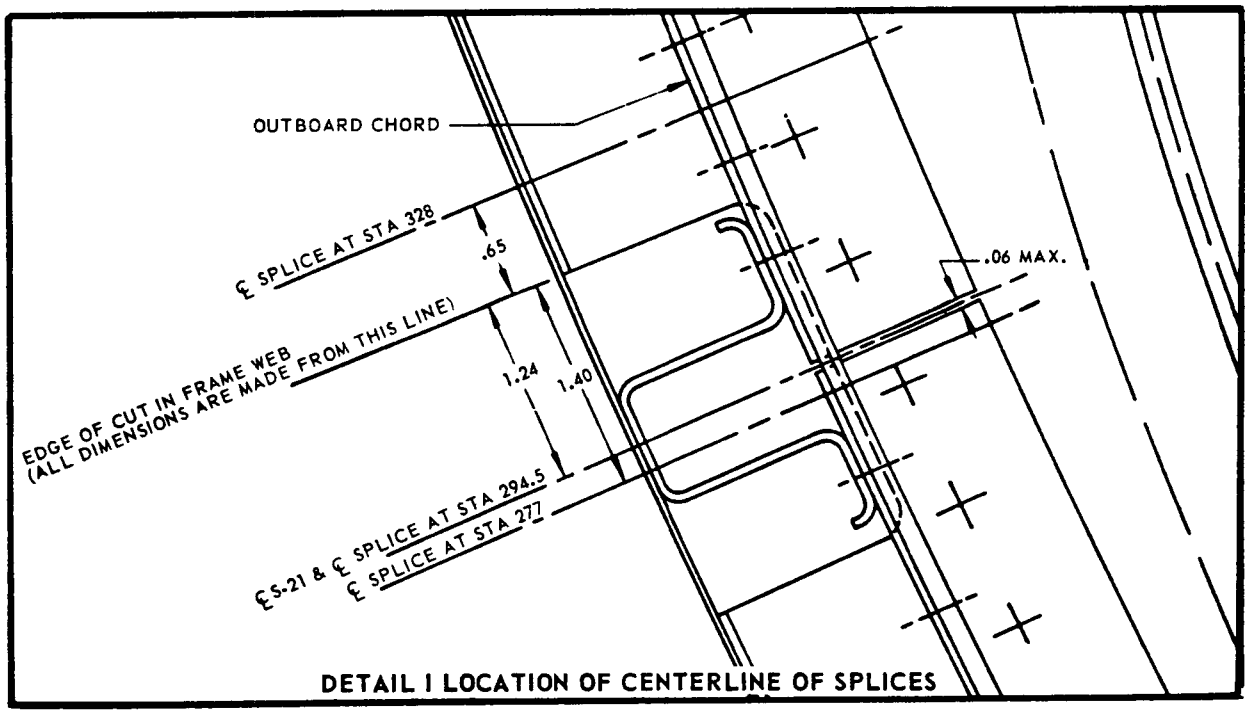
SEE 51-8-0 FOR METAL PROTECTIVE TREATMENT

FINISH PER 51-2-0 OF THE MAINTENANCE MANUAL

[A] 6 RIVET LOCATIONS USING 6 MS20470D-6 RIVETS OR 5 RIVET LOCATIONS USING 3 MS20470D-6 RIVETS PLUS 2 MS20470D-8 RIVETS.

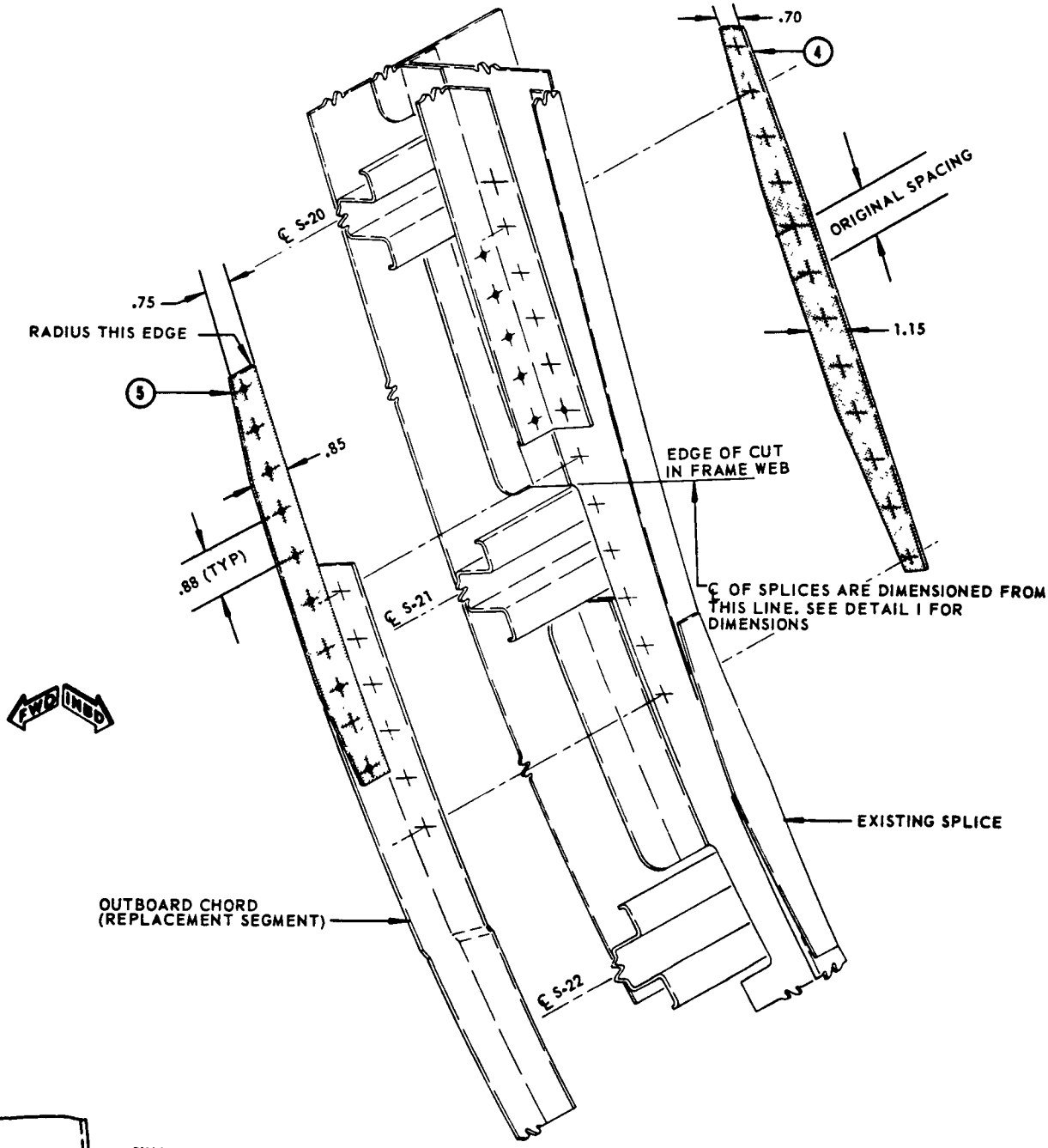
REPAIR MATERIAL

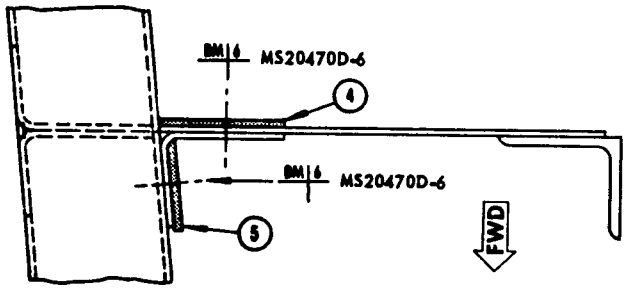
	PART	QTY	MATERIAL
(1)	STRAP	1	.071 CLAD 7075-T6
(2)	STRAP	1	.090 CLAD 7075-T6
(3)	FILLER	1	.045 CLAD 7075-T6
(4)	STRAP	1	.090 CLAD 7075-T6
(5)	STRAP	1	.090 CLAD 7075-T6



DETAIL I LOCATION OF CENTERLINE OF SPLICES

Frame Splice Outboard Chord - Section 41
Figure 5 (Sheet 1 of 3)

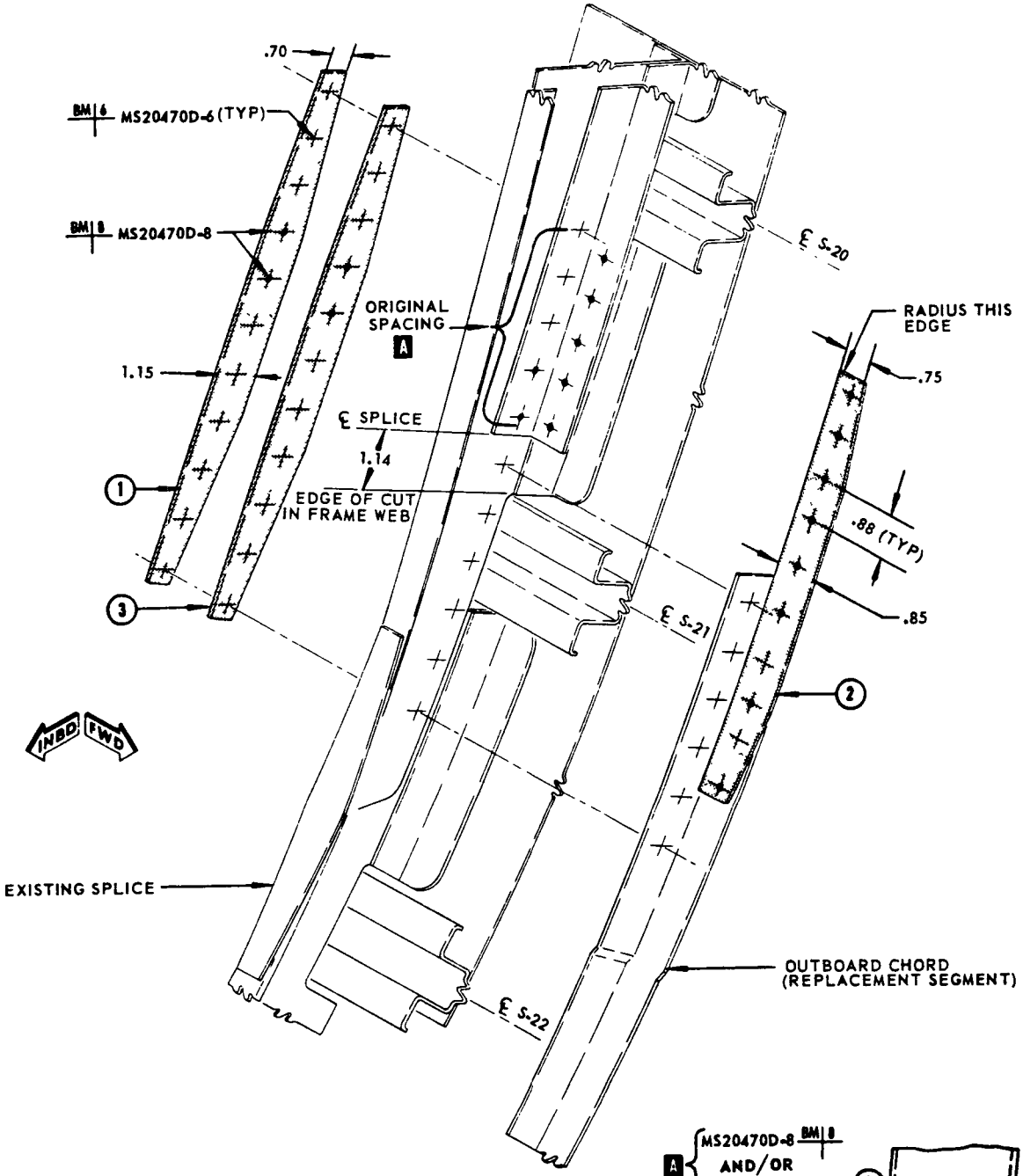




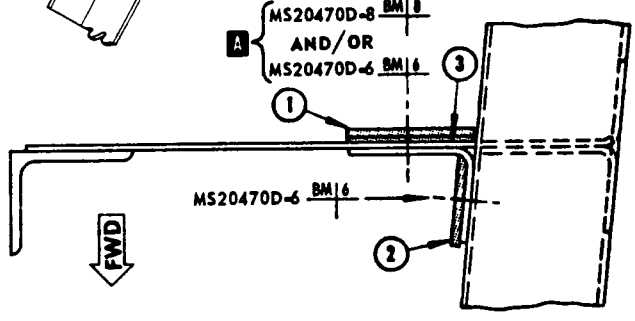
THIS REPAIR APPLICABLE TO STATIONS 277, 294.5 & 328

SECTION THROUGH REPAIR

Frame Splice Outboard Chord - Section 41
Figure 5 (Sheet 2 of 3)



THIS REPAIR APPLICABLE TO STATION 344



SECTION THROUGH REPAIR

Frame Splice Outboard Chord - Section 41
Figure 5 (Sheet 3 of 3)

REPAIR INSTRUCTIONS

1. Remove extrusion.
2. Trim out all damaged area of the frame inboard of the stringer. Remove all scratches, burrs, or sharp edges.
   NOTE: Do not cut skin when trimming frame near stringer.
3. If stringer is damaged repair per 53-3-4 fig. 1 prior to installation of parts for this repair.
4. Fabricate parts (1), (2), (3), (4), (5) and (6).
5. Alodize all raw edges of fabricated and reworked parts.
6. Install parts (1), (2), (3), (4) and (5).
7. Joggle extrusion as shown to accept part (5).
8. Install extrusion adding tapered filler part (6) at each end of joggle.
9. Replace original finish per 51-2-0 of the Maintenance Manual.

REPAIR MATERIAL			
PART		QTY.	MATERIAL
(1)	STRAP	1	.125 CLAD 7075-T6
(2)	ANGLE	1	CLAD 7075-0, HT-T6 A
(3)	FILLER ZEE	1	B
(4)	FILLER ANGLE	1	B
(5)	PLATE	1	CLAD 7075-T6 A
(6)	TAPERED FILLER	2	BAC 1513-150 7075-T6 OR 2024-T4

NOTE

THIS REPAIR APPLICABLE TO FRAMES SIMILAR TO FRAMES AT BODY STATION1200 AND BODY STATION 1260.

THIS REPAIR IS LIMITED TO THE REPAIR OF DAMAGED SHEET METAL FORMED SECTIONS AND THE FAIL SAFE ANGLE WHICH IS ATTACHED TO THE INNER STIFFENER FLANGES. DAMAGE TO THE FRAME CHORD EXTRUSION OR RADIUS FILLER SECTIONS IS NORMALLY REPAIRED BY COMPLETE REPLACEMENT OF THE EXTRUSION OR RADIUS FILLER.

SEE 51-8-0 FOR METAL PROTECTIVE TREATMENT

BREAK SHARP EDGES 0.03 ALL REPAIR PARTS AND TRIMMED ORIGINAL PARTS

SEE 51-2-0 FOR FASTENER CODE, REMOVAL AND INSTALLATION, HOLE SIZES AND EDGE MARGINS

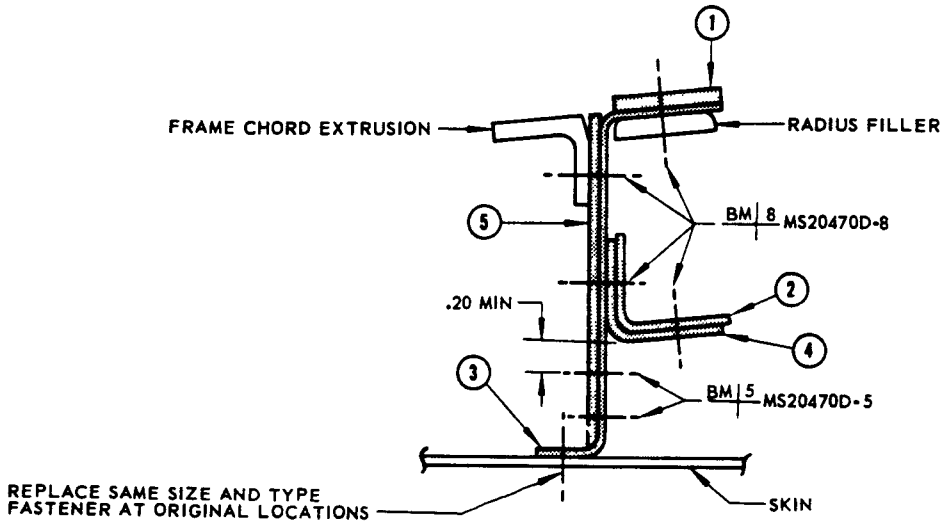
NUMBER OF FASTENERS REQUIRED ARE FOR EACH SIDE OF DAMAGE.

+ ORIGINAL FASTENER LOCATIONS

+ REPAIR FASTENER LOCATIONS

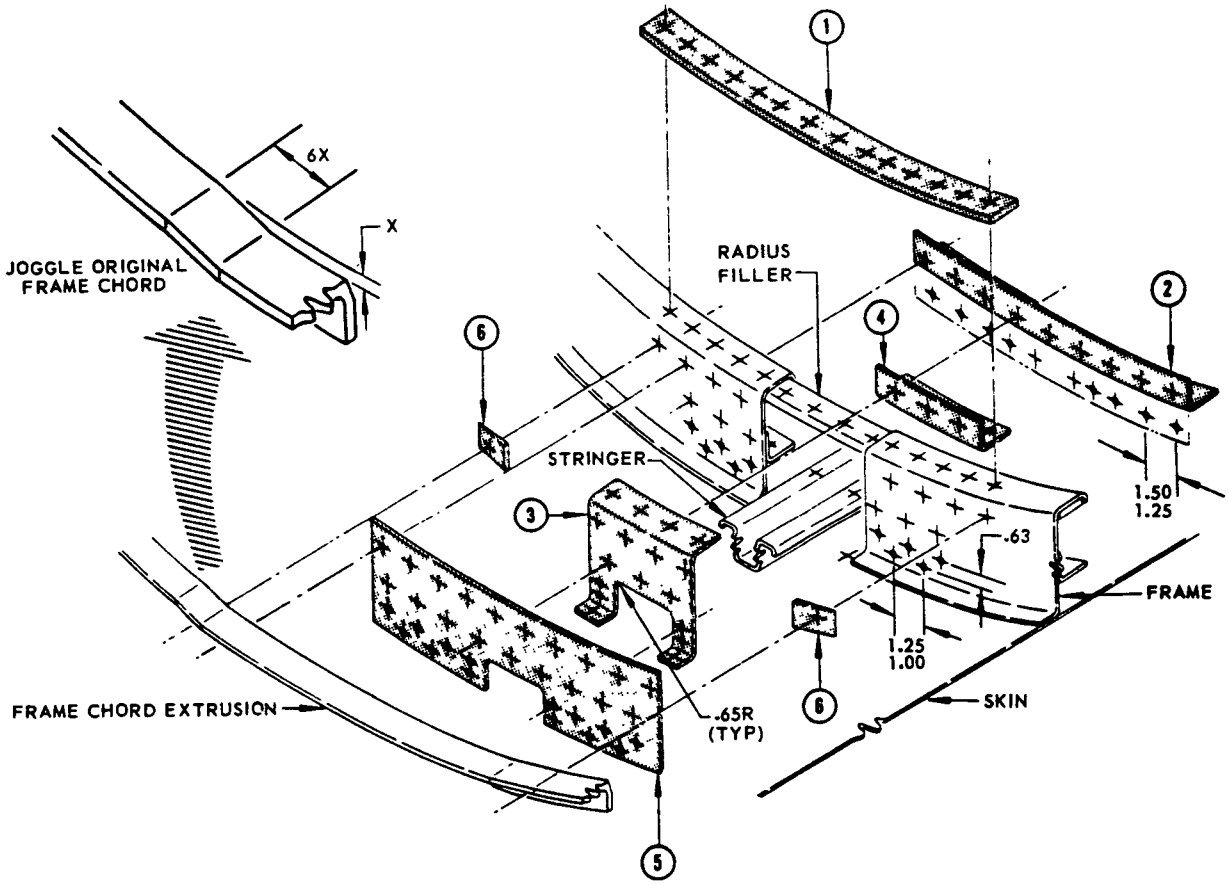
A ONE GAGE GREATER THAN ORIGINAL.

B CLAD 2024-T3 OR CLAD 7075-T6 SAME GAGE AS ORIGINAL.



SECTION THROUGH DAMAGE

Fuselage Lower Frame Repair at Stringer
Figure 6 (Sheet 1 of 2)



Fuselage Lower Frame Repair at Stringer
Figure 6 (Sheet 2 of 2)

REPAIR INSTRUCTIONS

1. Trim the existing frame flange or remove loose shear tie as applicable. Maintain fastener edge margins for repair rivets.

2. Enlarge cracked hole in skin to a maximum diameter of 0.50 inch.

3. Make repair parts. Ensure skin plug disk has clearance of 0.060 (± 0.010) inch in cleaned out fastener hole.

4. Install the repair parts using a faying surface seal. Install skin plug disk using a faying surface seal and a BACR15CE5D rivet.

5. Refinish as required by the 707 Maintenance Manual. Seal as required by 53-1-3 and 51-9-1.

NOTE

- REFER TO THE FOLLOWING WHEN USING THIS REPAIR.

  51-8-0 FOR PROTECTIVE TREATMENT OF METAL REPAIR PARTS.

  51-2 FOR FASTENER CODE, REMOVAL AND INSTALLATION, HOLE SIZES AND EDGE MARGINS.

  51-4-1 FOR AERODYNAMIC SMOOTHNESS REQUIREMENTS.

  53-1-3 FOR SEALING OF FUSELAGE SKIN REPAIRS.

  51-2-0 OF THE 707 MAINTENANCE MANUAL FOR INTERIOR AND EXTERIOR FINISHES.

  51-3-0 OF THE 707 MAINTENANCE MANUAL FOR SEALS AND SEALING.

- THESE REPAIRS MAY BE USED WHERE A SKIN CRACK OR LOOSE FASTENER EXISTS AT EITHER OR BOTH ENDS OF A SHEAR TIE.

- THESE REPAIRS ARE DESIGNED FOR THE LOWER LOBE OF THE FUSELAGE BETWEEN STATIONS 360 AND 620 AND STRINGERS S-20 AND S-26 LEFT AND RIGHT SIDES.

- BREAK SHARP EDGES OF ORIGINAL AND REPAIR PARTS 0.015 TO 0.030 INCH.

- REMOVE ALL NICKS, SCRATCHES, BURRS, SHARP EDGES AND CORNERS FROM ORIGINAL AND REPAIR PARTS.

[A] CUT OFF FRAME FLANGE OR REMOVE LOOSE SHEAR TIE AND REPLACE WITH ANGLE [1] .

[B] PICK UP A MINIMUM OF TWO EXISTING FASTENERS IN SKIN LAP AREAS.

[C] MAKE TAPERED FILLER [3] TO SUIT LOCATION.

[D] TYPICAL SPACING WHEN NEW FASTENERS ARE TO BE INSTALLED.

[E] WHERE SKIN CRACKS ARE IN EXCESS OF THESE LIMITS, REPAIRS MAY BE MADE USING THE APPLICABLE REPAIR IN 53-3-2.

[F] THIS REPAIR IS SIMILAR TO THE REPAIR EMBODIED IN SERVICE BULLETIN 2952 FOR 707-300C AIRPLANES.

Typical Repairs for Skin Crack at Shear Tie End Fasteners
Figure 7 (Sheet 1)

FASTENER LOCATION AND INSTALLATION

┼ BACR15CE5D RIVET COUNTERSUNK FLUSH IN SKIN.

⊕ BACR15CE6D RIVET IN EXISTING LOCATION.

⊕ MS20470D6 RIVET (IN EXISTING LOCATION WHERE APPLICABLE).

⊕ WHERE CRACKS ARE NOT DETECTED AT END FASTENERS, REPLACE AS FOLLOWS:

1. NONCRITICAL REGIONS OF AERODYNAMIC SMOOTHNESS.

   DRILL OUT EXISTING HOLE TO 0.281/0.296-INCH DIAMETER. INSTALL BACR15ET9B RIVET WITH MANUFACTURED HEAD ON OUTSIDE SURFACE OF SKIN.

2. CRITICAL AERODYNAMICALLY SMOOTH SURFACES.

   DRILL OUT EXISTING HOLE TO 0.286/0.294-INCH DIAMETER. COUNTERSINK SKIN 0.024 (± 0.003) INCH DEEP. INSTALL BACR15DS9B RIVET. SHAVE HEAD AS REQUIRED BY 51-4-1 PARAGRAPH 5.

⊕ WHERE SKIN IS CRACKED AROUND FASTENER HOLE AND DAMAGE IS CONTAINED WITHIN A 0.50-INCH CIRCLE CENTERED ON THE FASTENER HOLE [E], REWORK AS FOLLOWS:

1. ENLARGE HOLE TO 0.50-INCH DIAMETER.

2. MAKE A 7/16-INCH DIAMETER DISK TO MATCH ENLARGED HOLE IN SKIN. MAINTAIN A PERIPHERAL CLEARANCE OF 0.03 INCH. DRILL AND COUNTERSINK HOLE FOR BACR15CE5D RIVET.

3. INSTALL DISK AND SECURE WITH A BACR15CE5D RIVET, MAKING A FAYING SURFACE SEAL BETWEEN THE DISK AND THE REINFORCING DOUBLER. REFER TO 53-1-3.

⊕ MS20470B6 RIVET, MANUFACTURED HEAD ON OUTER SURFACE OF SKIN, EXCEPT AS FOLLOWS:

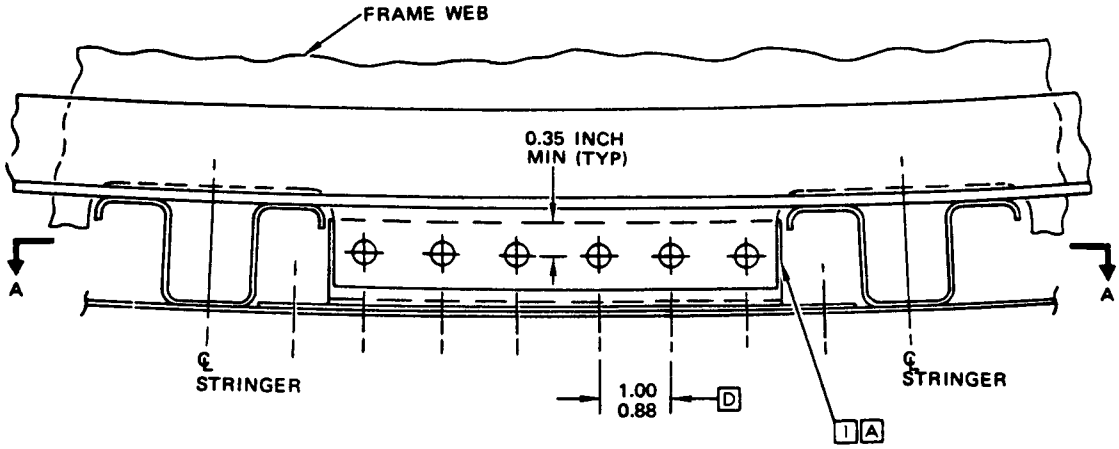
1. IN SKIN LAP REGIONS, WHEN 5/32-INCH DIAMETER RIVETS ARE TO BE REPLACED, INSTALL BACR15ET7B RIVETS (MANUFACTURED HEAD ON OUTER SURFACE OF SKIN) IN 0.218/0.233-INCH DIAMETER HOLES.

2. IN SKIN LAP REGIONS, WHEN 3/16-INCH DIAMETER RIVETS ARE TO BE REPLACED, INSTALL BACR15ET9B RIVETS (MANUFACTURED HEAD ON OUTER SURFACE OF SKIN) IN 0.281/0.296-INCH DIAMETER HOLES.

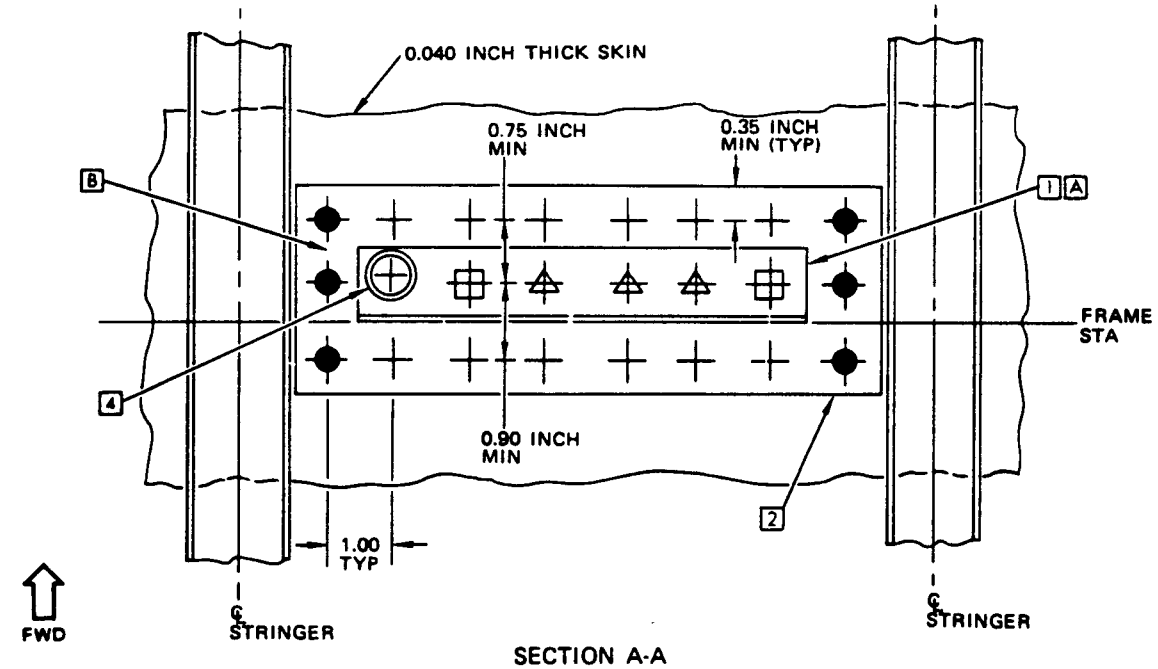
3. ON CRITICAL AERODYNAMICALLY SMOOTH SURFACES, WHETHER OR NOT IN THE SKIN LAP REGIONS, INSTALL BACR15CE8B RIVETS IN HOLES COUNTERSUNK 0.024 (± 0.003) INCH DEEP. SHAVE HEAD AFTER INSTALLATION AS REQUIRED BY 51-4-1.

REPAIR MATERIAL			
PART		QTY	MATERIAL
[1]	ANGLE	1	0.050/0.063 CLAD 7075-T6 SHEET
[2]	STRAP	1	0.032 CLAD 2024-T3 OR 2024-T4 OR 2024-T42
[3]	TAPERED FILLER	1	MAKE FROM 0.040 2024-T3
[4]	DISK	AR	0.040 CLAD 2024-T3 OR T4

Typical Repairs for Skin Crack at Shear Tie End Fasteners
Figure 7 (Sheet 2)



REAR VIEW

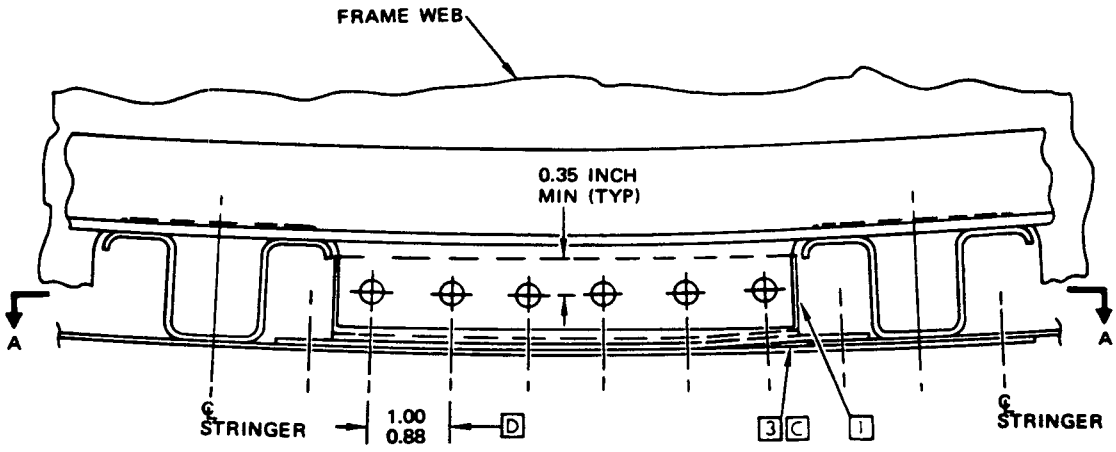


SECTION A-A

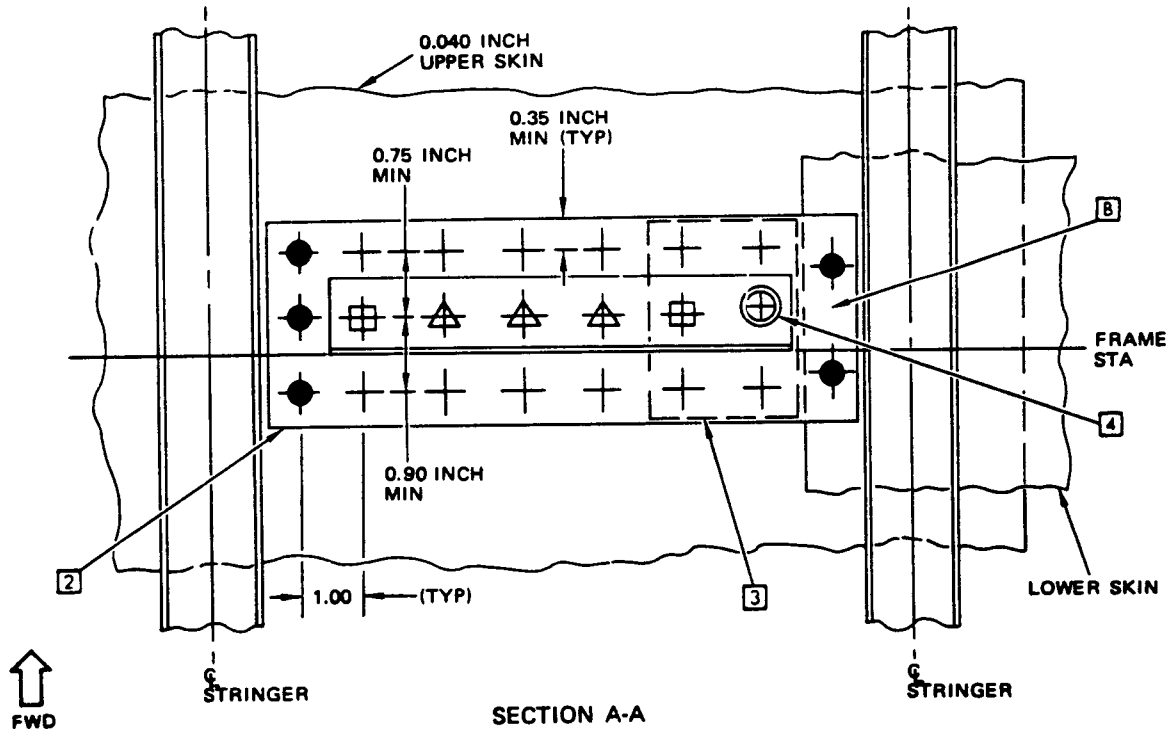
REPAIR FOR SKIN CRACK AT SHEAR-TIE END FASTENER

REPAIR 1 F

Typical Repairs for Skin Crack at Shear Tie End Fasteners
Figure 7 (Sheet 3)



REAR VIEW



SECTION A-A

REPAIR FOR SKIN CRACK AT SHEAR-TIE END FASTENER ADJACENT TO SKIN LAP SPLICE
REPAIR II F

Typical Repairs for Skin Crack at Shear Tie End Fasteners
Figure 7 (Sheet 4)

FAA Approved Repair

BOEING Intercontinental 707

STRUCTURAL REPAIR

REPAIR INSTRUCTIONS

1. Remove stiffener shown and save for reinstallation.
2. Cut web at centerline of stiffener.
3. Fabricate doubler part (1) and new lower portion of the web part (2).
4. Drill new fastener holes in stiffener and the complete fastener hole pattern in the doubler. Drill new and existing portions of the web.
5. Assemble repair.

NOTE

FINISH PER 51-2-0 OF THE MAINTENANCE MANUAL

SEE 51-8-0 FOR METAL PROTECTIVE TREATMENT

BREAK SHARP EDGES 0.03 ALL REPAIR PARTS AND TRIMMED ORIGINAL PARTS

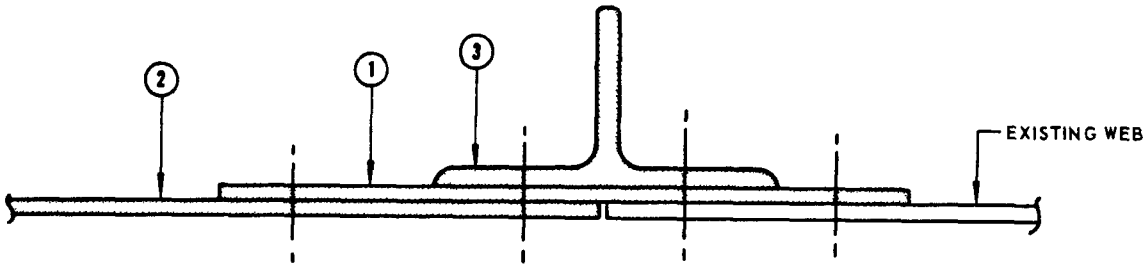
SEE 51-2-0 FOR FASTENER CODE, REMOVAL AND INSTALLATION, HOLE SIZES AND EDGE MARGINS

+ ORIGINAL FASTENER LOCATIONS

+ REPAIR FASTENER LOCATIONS

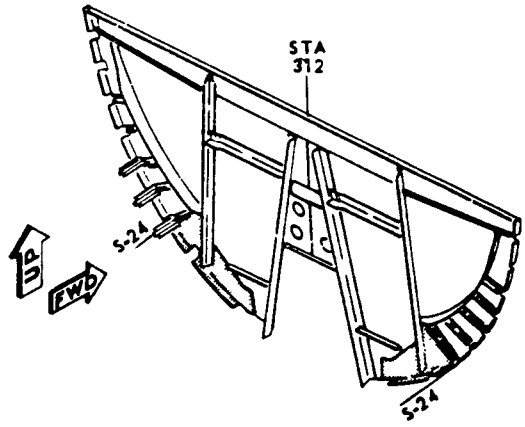
REPAIR MATERIAL

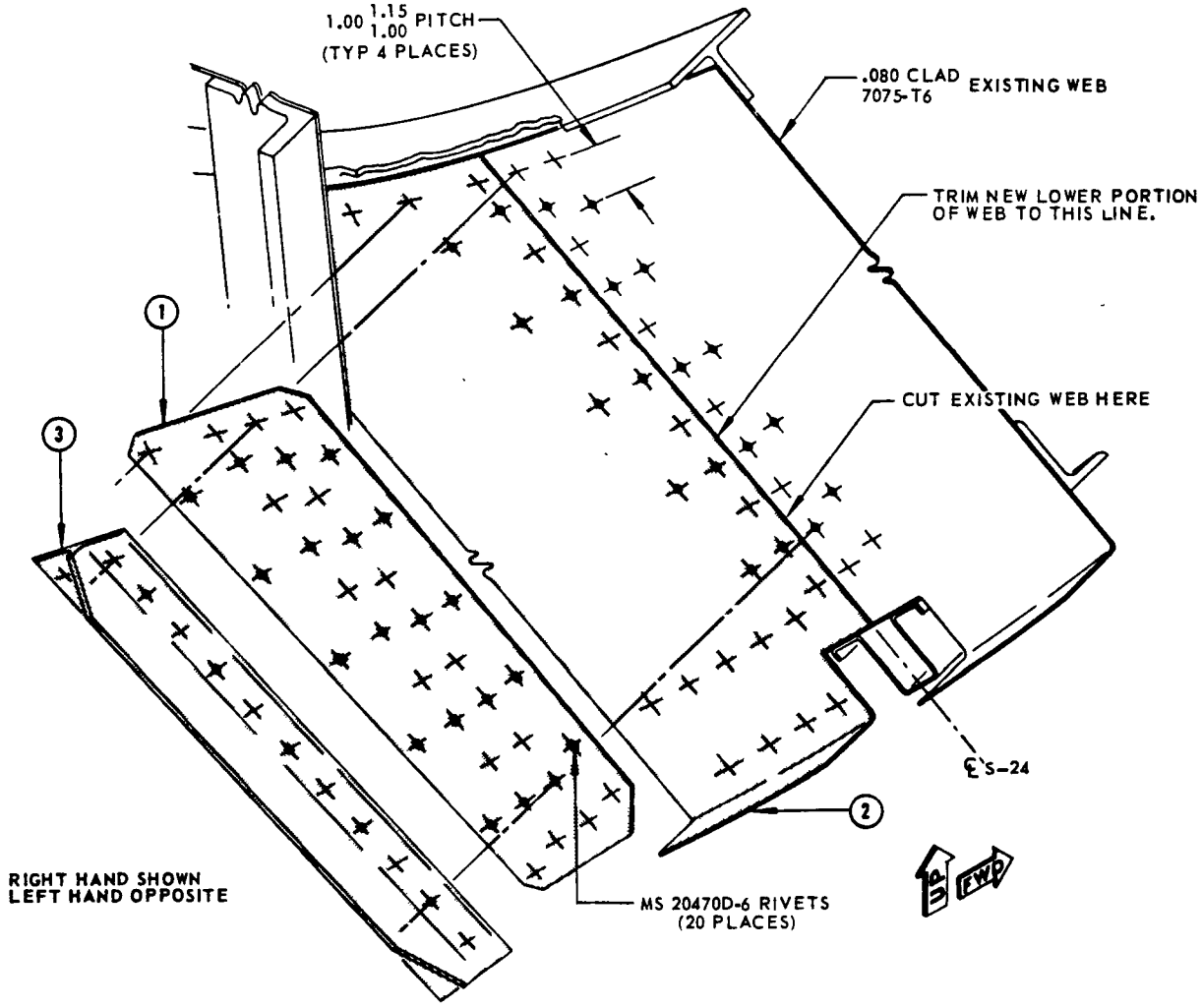
PART		QTY.	MATERIAL
(1)	PLATE	1	.080 CLAD 7075-T6
(2)	WEB	1	.080 CLAD 7075-T6
(3)	TEE	1	AND 10136-1702 7075-T6



SECTION THROUGH REPAIR

Bulkhead Web Splice Repair - Sta. 312
Figure 1 (Sheet 1 of 2)





Bulkhead Web Splice Repair - Sta. 312
Figure 1 (Sheet 2 of 2)

FAA Approved Repair

BOEING Intercontinental 707

STRUCTURAL REPAIR

REPAIR INSTRUCTIONS

1. Gain access to the aft side of the pressure bulkhead.
2. Stop drill .25 diameter, the ends of crack.
3. Fabricate part (1) to contour of bulkhead, layout and drill fastener holes. Attach ends of part (1) to existing ribs.
4. Alodize all raw edges of repair and repair parts per 51-8-0.
5. Prepare faying surface for sealing between part (1) and pressure bulkhead similar to 53-1-3.
6. Install part (1).
7. Finish per 51-2-0 of the Maintenance Manual.

NOTE

SEE 51-8-0 FOR METAL PROTECTIVE TREATMENT

BREAK SHARP EDGES 0.03 ALL REPAIR PARTS AND TRIMMED ORIGINAL PARTS

SEE 51-2-0 FOR FASTENER CODE, REMOVAL AND INSTALLATION, HOLE SIZES AND EDGE MARGINS

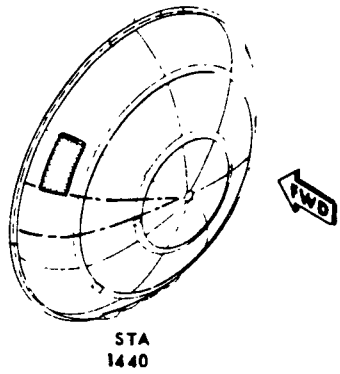
FOR SEALING SEF 53-1-3

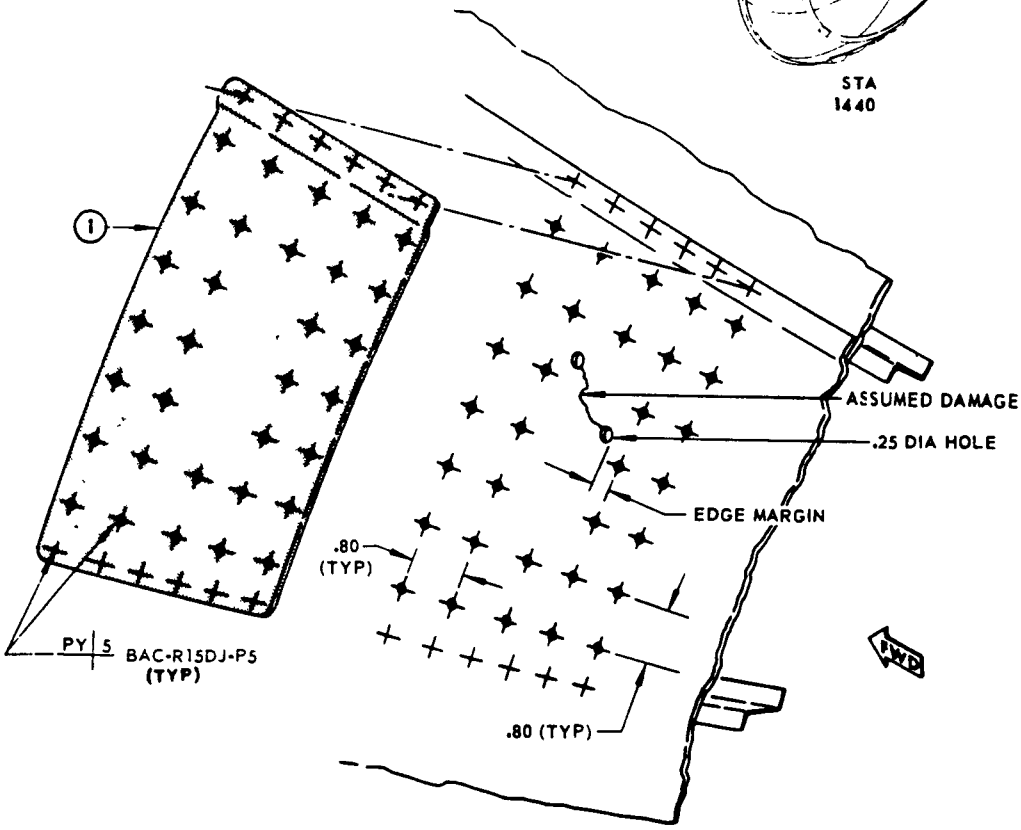
+ ORIGINAL FASTENER LOCATIONS

✦ REPAIR FASTENER LOCATIONS

[A] OPTIONAL .032 CLAD 2024-0 HT-T4 IF REQUIRED

REPAIR MATERIAL			
PART		QTY.	MATERIAL
(1)	PLATE	1	.032 CLAD 2024-T4 [A]





Repair to Pressure Bulkhead at Station 1440
Figure 2

	PART		MATERIAL	BOEING PART NUMBERS [A]			
				CARGO		NON CARGO	
					UNDRILLED		UNDRILLED
1	LH FWD CHORD	1		50-5370-210	65-98427-112	50-5370-133	65-98427-108
2	RH FWD CHORD	1		50-5370-212	65-98427-114	50-5370-135	65-98427-110
3	LH AFT CHORD	1		50-5370-211	65-98427-113	50-5370-134	65-98427-109
4	RH AFT CHORD	1		50-5370-213	65-98427-115	50-5370-136	65-98427-111
5	SPLICE ANGLE	1		9-64874-3004		9-64874-3002	
6	SPLICE ANGLE	1		9-64874-2001		9-64874-2001	
7	SPLICE ANGLE	1		50-5370-63		50-5370-63	
8	SPLICE ANGLE	1	.112 4130 STEEL [C]	65-98427-100 [D]		65-98427-100 [D]	
9	SPLICE ANGLE	1	.112 4130 STEEL [C]	65-98427-102 [D]		65-98427-102 [D]	
10	SPLICE ANGLE	1	.112 4130 STEEL [C]	65-98427-101 [D]		65-98427-101 [D]	
11	SPLICE ANGLE	1	.112 4130 STEEL [C]	65-98427-103 [D]		65-98427-103 [D]	
12	SPLICE PLATE	1	.063 7075-T6 CLAD				
13	SPLICE PLATE	1	.063 7075-T6 CLAD				
14	SPLICE PLATE	1	.063 7075-T6 CLAD				
15	DOUBLER	1	.090 7075-T6 CLAD				
16	DOUBLER	1	.090 7075-T6 CLAD				
17	DOUBLER ANGLE	1	.090 - OT CLAD HT T6				
18	STRINGER CLIP	6		6-72492-2000		6-72492-2000	
19	WEB	1	.080 7075-T6 CLAD				
20	FILLER	AS REQD	.10 2024-T3 CLAD				

NOTE

THIS REPAIR IS APPLICABLE TO CHORDS AND WEB OF BULKHEAD AT BS 360 BELOW WL 148. CRACKS IN THE FORWARD CHORD PROPAGATING FROM QUICK RELEASE FASTENER HOLES MAY BE REPAIRED BY REMOVING THE FORWARD CHORD AS ILLUSTRATED ON THE SIDE IN WHICH THE CRACK OCCURS. LEAVE EDGE MARGIN FOR ORIGINAL AND REPAIR FASTENERS. TAKE PRECAUTIONS TO PREVENT DAMAGE TO THE WEB. REPLACE THE PORTION OF THE FORWARD CHORD USING APPLICABLE SECTIONS OF THIS REPAIR.

MINIMUM NUMBER OF FASTENERS AS SHOWN.

BREAK SHARP EDGES 0.03 ON ALL REPAIR AND TRIMMED ORIGINAL PARTS.

SEE 51-7-1 FOR SUPPORT OF AIRPLANE.

SEE 51-2-0 FOR FASTENER CODE, REMOVAL AND INSTALLATION, HOLE SIZES AND EDGE MARGINS.

SEE 51-2-4 FOR TORQUE VALUES FOR BOLTS.

RESTORE REQUIRED SURFACE FINISH PER 51-2-0 OF THE MAINTENANCE MANUAL.

[A] SPARE PARTS MAY BE OBTAINED FROM THE BOEING SPARE PARTS DEPT.

[B] SEE 51-8-0 FOR METAL PROTECTIVE TREATMENT.

[C] HEAT TREAT 150,000-170,000 PSI.

[D] ALTERNATIVE, PREFERRED PART.

[E] ORIGINAL $\frac{0.436}{0.421}$ DIA HOLES IN FWD AND AFT RINGS ARE INCREASED TO $\frac{0.531}{0.516}$ DIA (REAMED OR DRILLED) TO ALLOW INSTALLATION OF TENSION BOLTS MS20006-16.

ORIGINAL SIZE AND TYPE FASTENER.

MS20470D (1/4 INCH)

BACR15CE (COUNTERSINK BOTH SIDES) 3/16 THRU SKIN ORIGINAL CHORDS AND SPLICE ANGLES 8, 9, 10, & 11, AT STRINGERS S-26 AND S-27.

3/16 BACR15CE

3/16 HI-LOK (HL-19) (CLOSE REAM HOLE).

1/4 HI-LOK (HL-18) (CLOSE REAM HOLE).

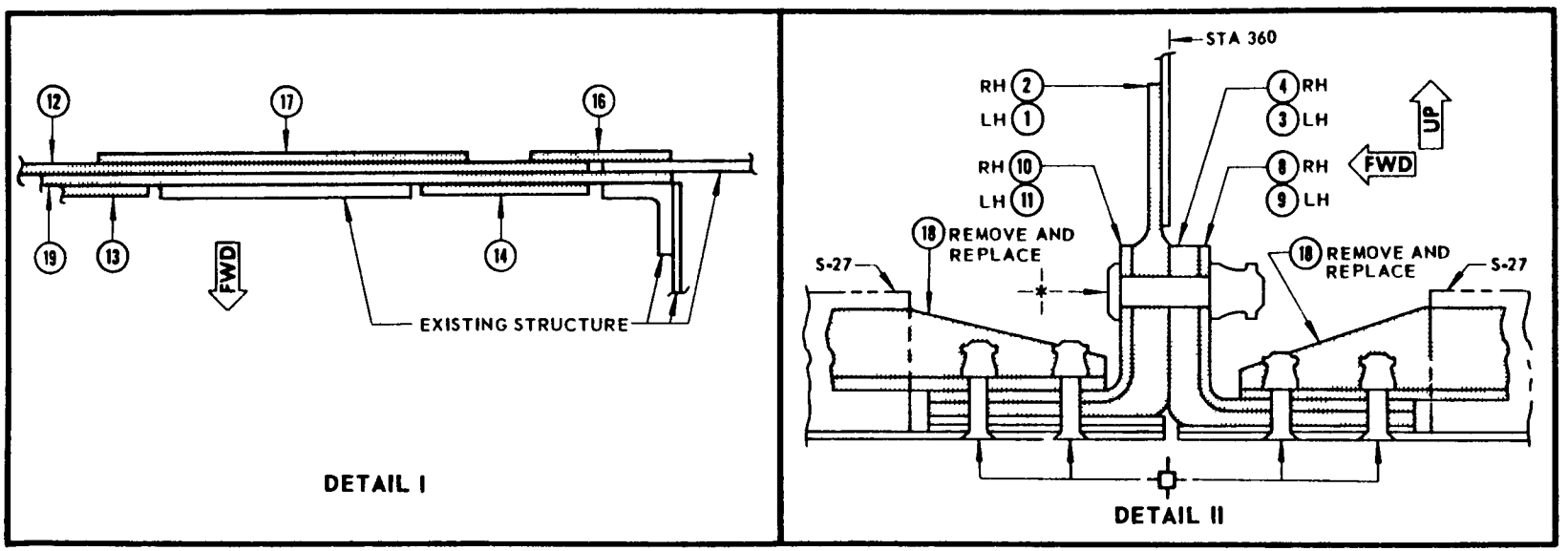
3/16 BACR15CE THRU SKIN AND ORIGINAL CHORD ONLY. (COUNTERSINK BOTH SIDES).

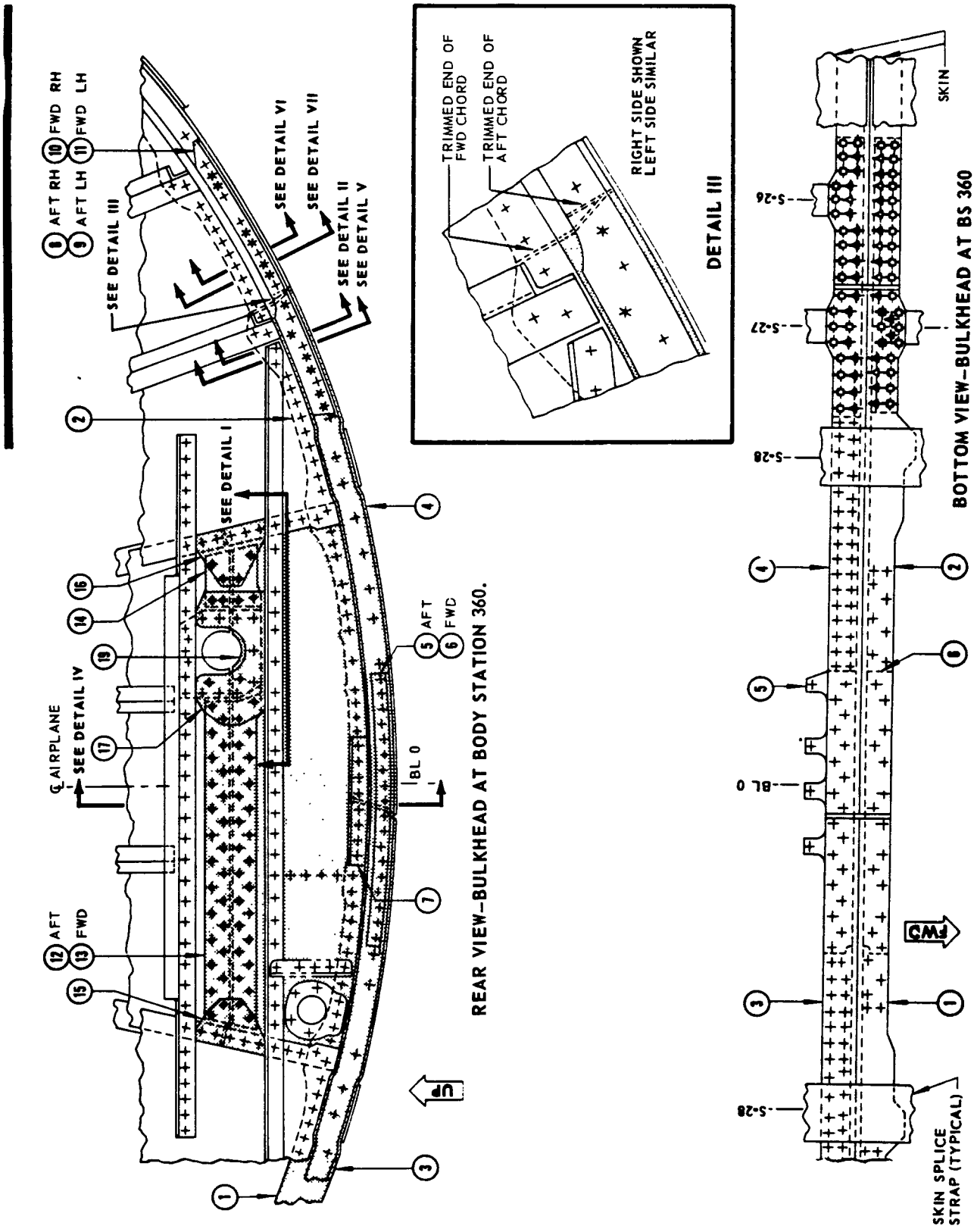
Bulkhead Repair - Body Station 360
Figure 3 (Sheet 1 of 5)

REPAIR INSTRUCTIONS

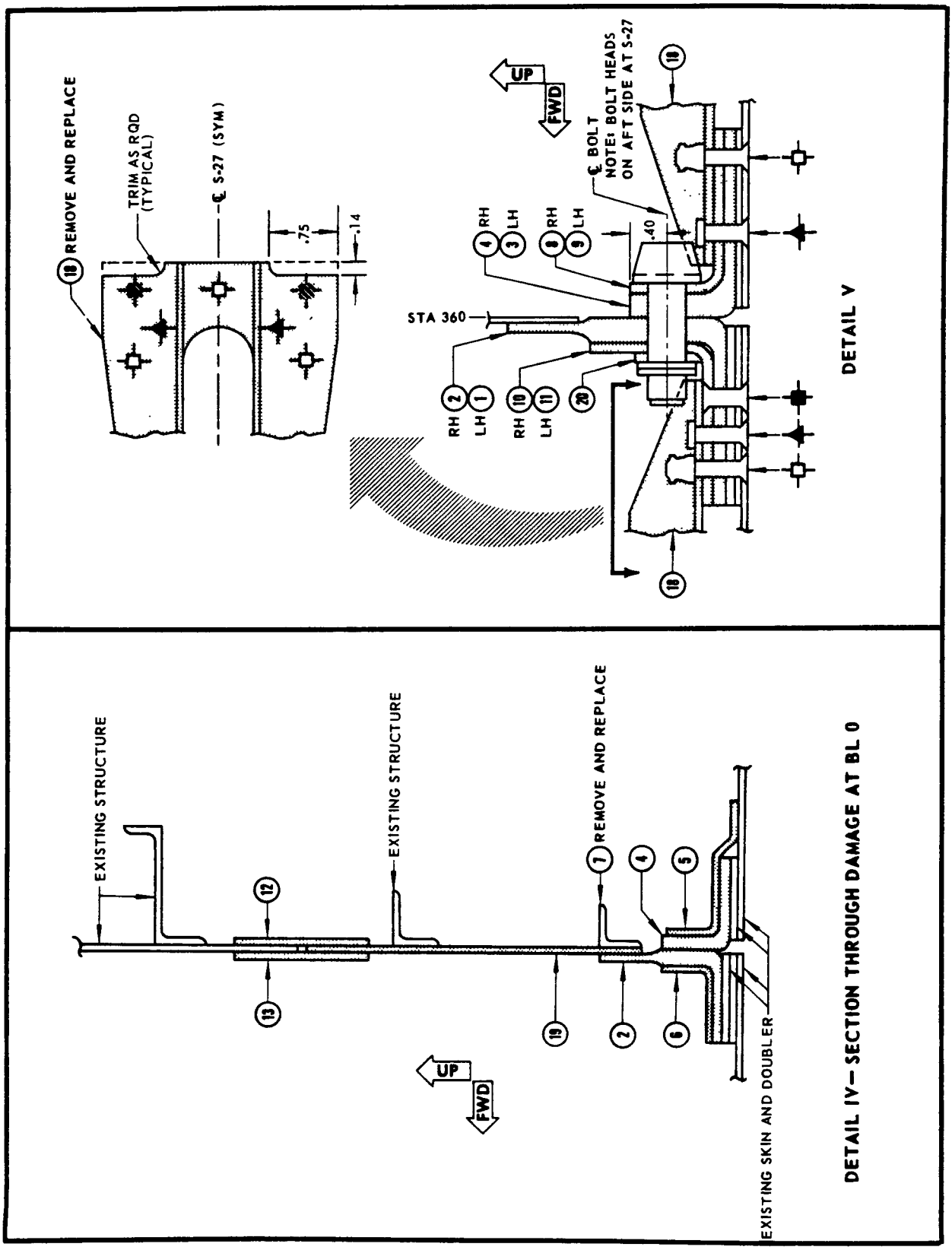
1. Support the airplane adequately to carry out all operations required to complete the repairs. See 51-7-0.
2. Remove skins as required to obtain access to damaged bulkhead.
3. Remove and retain flanges, brackets, stiffeners and doublers from the damaged section of the bulkhead. Arrangements to replace damaged items must be made. See the applicable section of the Maintenance Manual. Remove stringer clips L.H. and R.H. at S-27 on forward and aft side of the bulkhead and at S-26 at the aft side of the bulkhead.
4. Trim out damaged section of chords and web as indicated. Leave edge margin for both original and repair fasteners.
5. Fabricate parts 1, 2, 3, 4, 5 and 6 from spares as noted in repair materials. Trim 1, 2, 3 and 4 one inch longer than actually required.

   NOTE: Cadmium plate steel parts, alodize surfaces of aluminum alloy parts per 51-8-0.
6. Using production splice originally used in the airplane, splice parts 1, 2, 3, 4, 5 and 6 together.
7. Fabricate parts 8, 9, 10, and 11. As an alternative, use parts per D
8. Trim parts 1, 2, 3, and 4 to the exact length required. Add protective coating at trim cuts per 51-8-3.
9. Layout, drill, and ream close tolerance bolt holes through 1, 3, 9, 11 and forward and aft chords, also through 2, 4, 8, and 10 as indicated. Assemble temporarily.
10. Fabricate parts 12, 13, 14, 15, 16, 17, 19, and 20.
11. Layout and drill fastener holes. Part 17 replaces stiffener angle which backs up doubler. Alodize all raw surfaces of parts. Install parts leaving out fasteners attaching web to forward chord.
12. Remove fasteners from chord assembly and clean off all foreign matter. Alodize all raw surfaces of aluminum alloy parts and cadmium plate steel parts per 51-8-0. Reassemble and torque bolts to values obtained from 51-2-4.
13. Fabricate part 7. Layout and drill fastener holes. Alodize raw surfaces. Install part 7 and all fastener holes. Alodize raw surfaces. Install part 7 and all fasteners attaching web to chord.
14. Layout, drill, and countersink skin fasteners holes. Alodize raw surfaces per 51-8-0.
15. Revise part 18 at aft edges as required, to provide clearance for tension bolt installations at S-22, forward side only. Alodize trimmed surface per B . Install clips to stringers.
16. Install flanges, brackets, stiffeners, and doublers on the bulkhead.
17. Install skin fasteners.
18. Fill all external gaps in replacement skins with aerodynamic smoother BMS 5-13 per 51-3-0 of the Maintenance Manual.
19. Restore required surface finish per 51-2-0 of the Maintenace Manual.

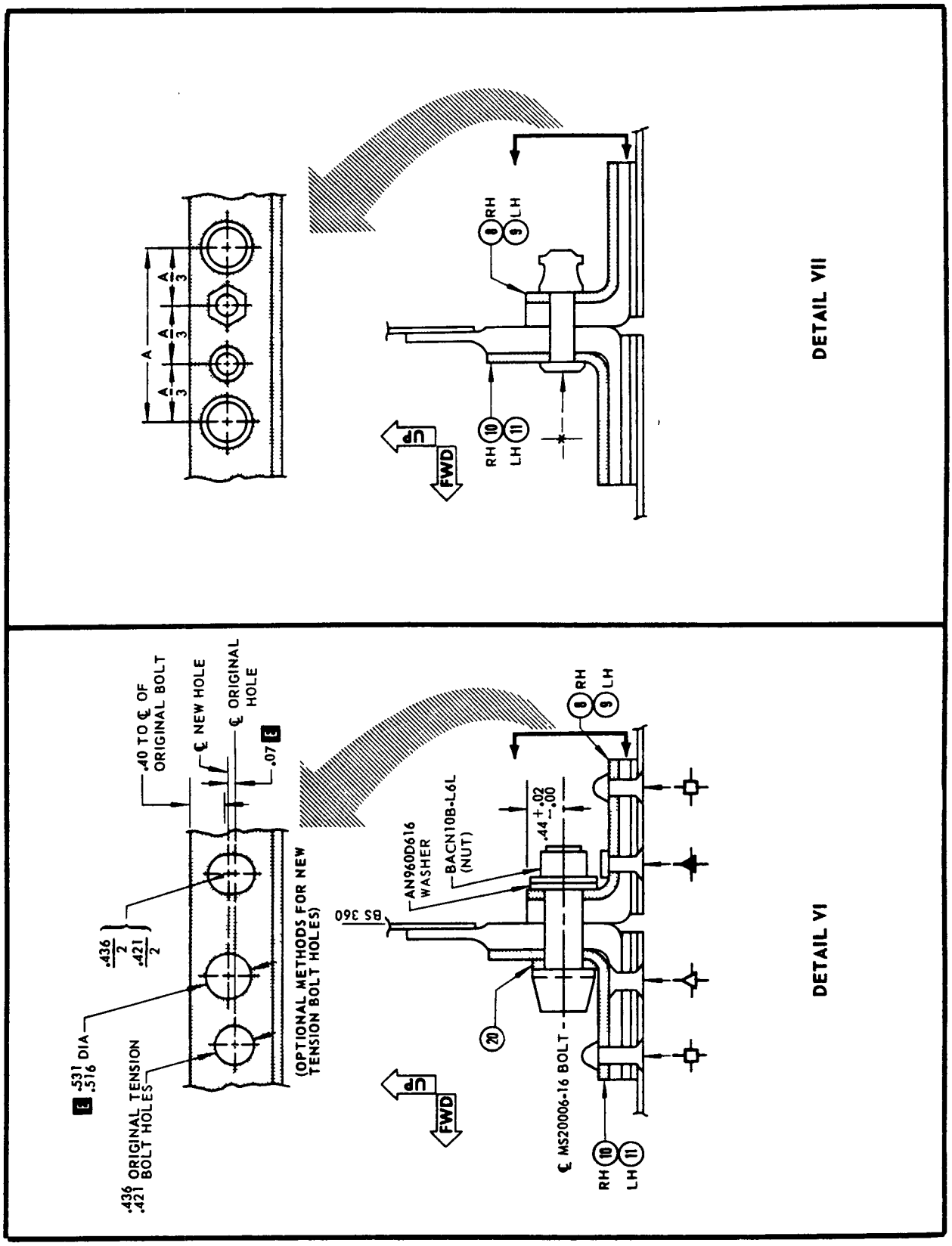




Bulkhead Repair - Body Station 360
Figure 3 (Sheet 3 of 5)



Bulkhead Repair - Body Station 360
Figure 3 (Sheet 4 of 5)



Bulkhead Repair - Body Station 360
Figure 3 (Sheet 5 of 5)

REPAIR INSTRUCTIONS

1. Raise and level airplane by supporting it at jack points I, II, III and VI as shown in 51-7-4, Fig. 2. The jacks at III and VI should have load reading capability.

2. Load jack at point VI to 12500 lbs ± 2500 lbs. The jack at point III should be monitored at all times and at no time should the load exceed a maximum allowable of 14100 lbs.

3. Remove all parts required to gain access to affected part.

4. Remove the 6 fasteners required to remove inboard clip angle.

5. Remove the 4 fasteners remaining which are aft of station 600k and are common to the splice angle and the lower chord of the keel beam.

6. The splice angle can now be repaired or replaced.

   CAUTION: IF SPLICE ANGLE IS TO BE REPLACED, THE REPLACEMENT ANGLE SHOULD BE BENT PER ENGINEERING DRAWING 65-5498 IN ANNEALED CONDITION TO ALIGN HOLES AND THEN HEAT TREATED TO T6 CONDITION.

   NOTE: In the event the inboard splice angles of stringer S-29 left-hand side and stringer S-29 right-hand side are to be repaired or replaced, it is important that the splice angle on one side be repaired or replaced and all fasteners reinstalled before any fasteners on the other side are removed.

7. Fabricate repair parts.

8. Cadmium plate repair parts (1), (2), (3), (4) and (5) per Overhaul Manual 20-42-02 and drill holes to existing parts.

9. Trim 65-3787-52 and -86 chords and 50-2529 web to clear splice plates.

10. Brush alodize repair parts (6), and (8) and raw edges of existing parts per 51-10-2.

11. Apply one coat of BMS 10-11, type I primer to all repair parts.

12. Insert compression plate (6), and filler (7) ((8) opp), between splice angles, making sure the end of the compression plate is in contact with the forward end of the keel beam chord for the full width of the compression plate. Clamp in place.

13. Preassemble repair parts. Locate and drill fastener holes as required.

Keel Beam Splice Angle Repair
Figure 4 (Sheet 1)

14. Install repair parts with fasteners indicated using BMS 5-95 faying surface sealant between all repair parts and between repair parts and existing parts. Install fasteners wet with BMS 5-95 sealant.

15. Reinstall all parts removed for access.

16. Restore airplane to normal.

NOTES

- This repair applies to keel beam splice angles cracked as shown in Detail I.
- Break sharp edges 0.03 all repair parts and trimmed original parts.
- Refer to the following when making this repair:

  51-10-2 for protective treatment of metal.

  20-42-02 of the Overhaul Manual for cadmium plating.

[A] Repair parts (2) and (8) are to be used when repairing left hand side

SYMBOLS

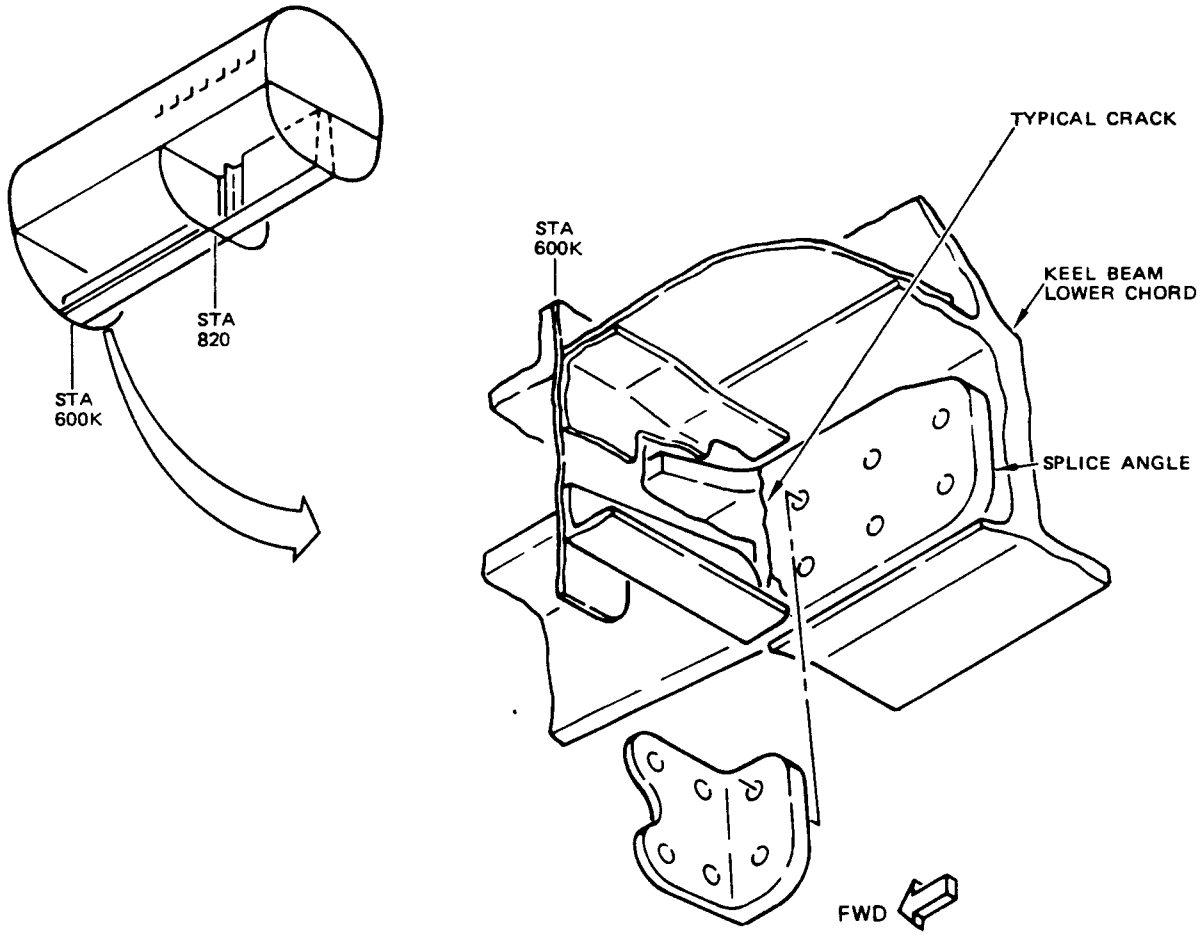
+ Repair fastener new hole

✦ Repair fastener existing hole

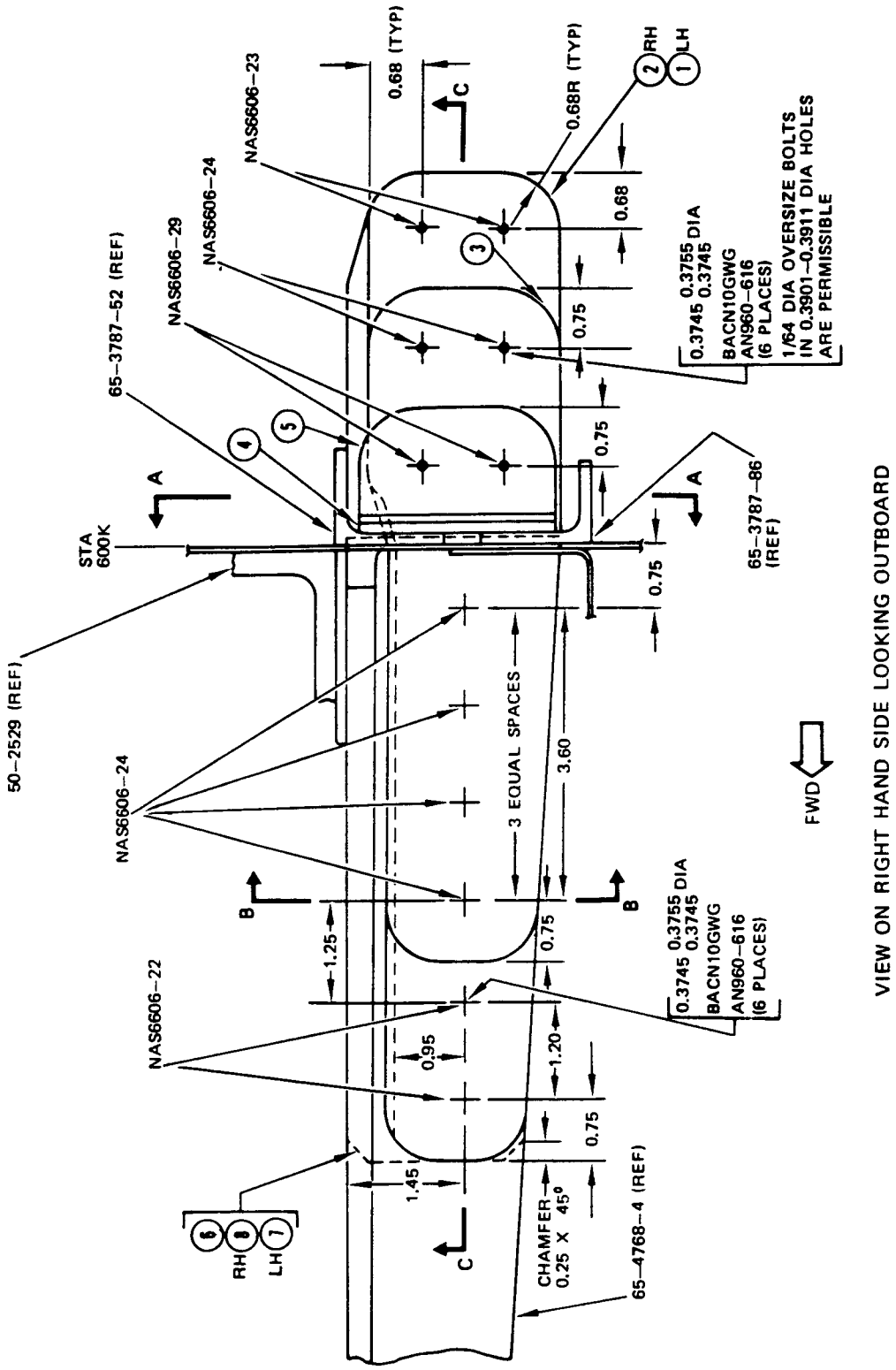
✦ Existing fastener reference only

REPAIR MATERIAL			
ITEM	PART	QTY	MATERIAL
(1)	SPLICE	1	0.125 301 - 1/2 H. CRES
(2)	OPPOSITE OF (1)	[A]	
(3)	SPLICE PLATE	1	0.09 301 - 1/2 H. CRES
(4)	CLIP ANGLE	1	0.125 301 - 1/2 H. CRES
(5)	CLIP ANGLE	1	0.08 301 - 1/2 H. CRES
(6)	COMPRESSION PLATE	1	0.050 7075 - T651 PLATE
(7)	FILLER	1	0.125 7075 - T6 SHEET TAPERED TO FIT
(8)	OPPOSITE OF (7)	[A]	

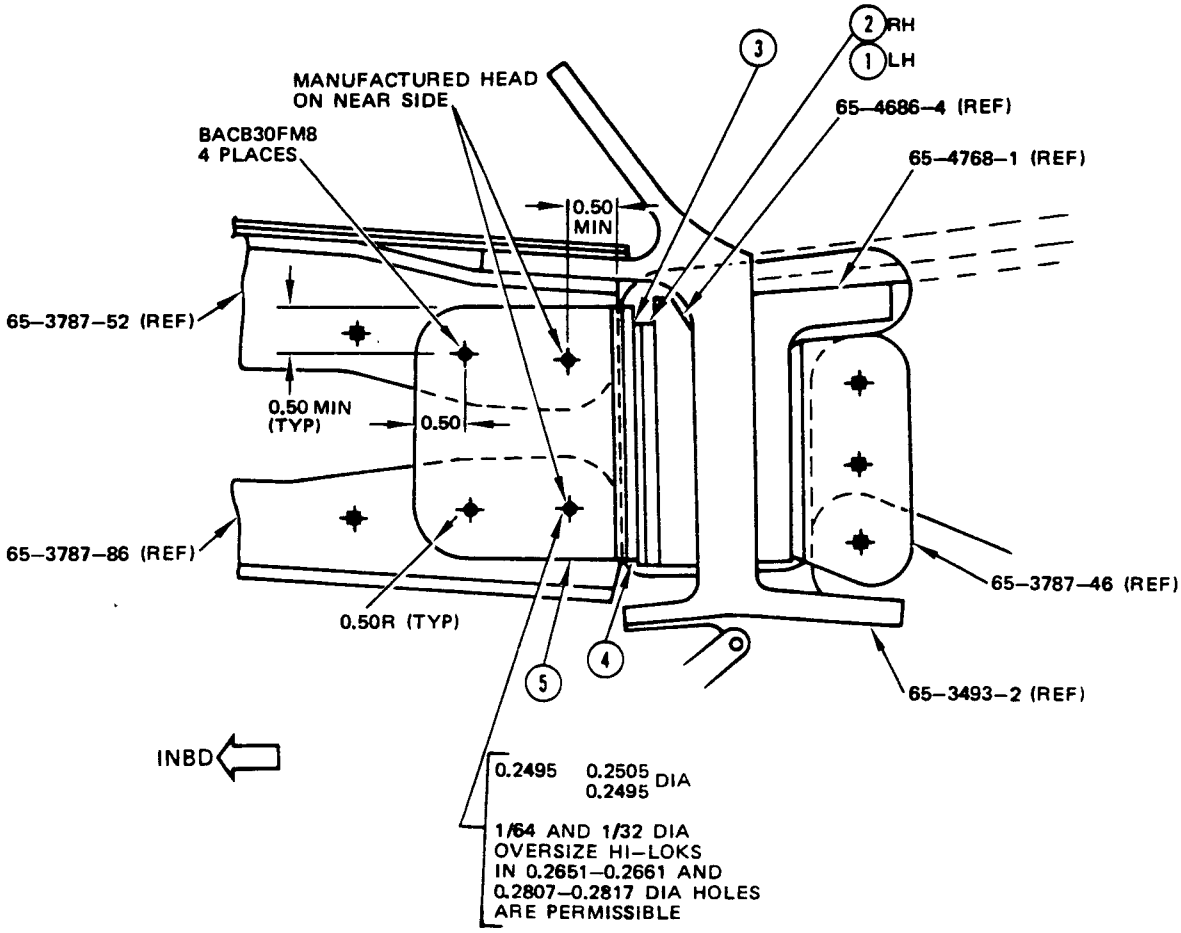
Keel Beam Splice Angle Repair
Figure 4 (Sheet 2)



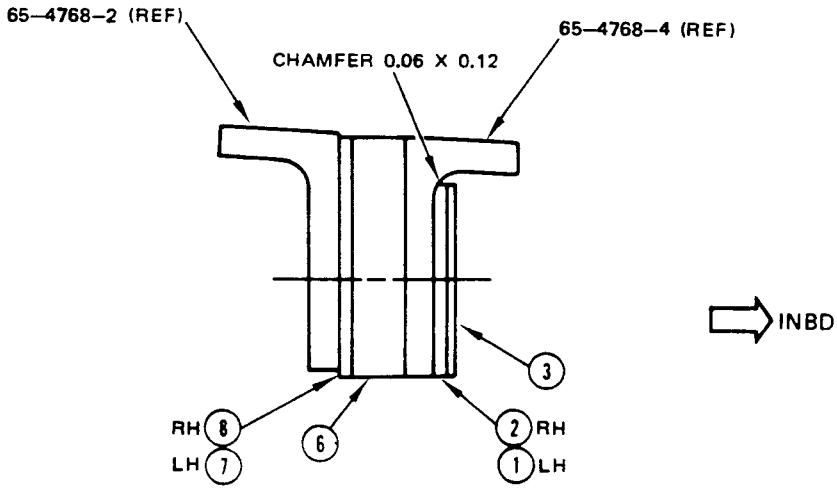
Keel Beam Splice Angle Repair
Figure 4 (Sheet 3)



Keel Beam Splice Angle Repair
Figure 4 (Sheet 4)

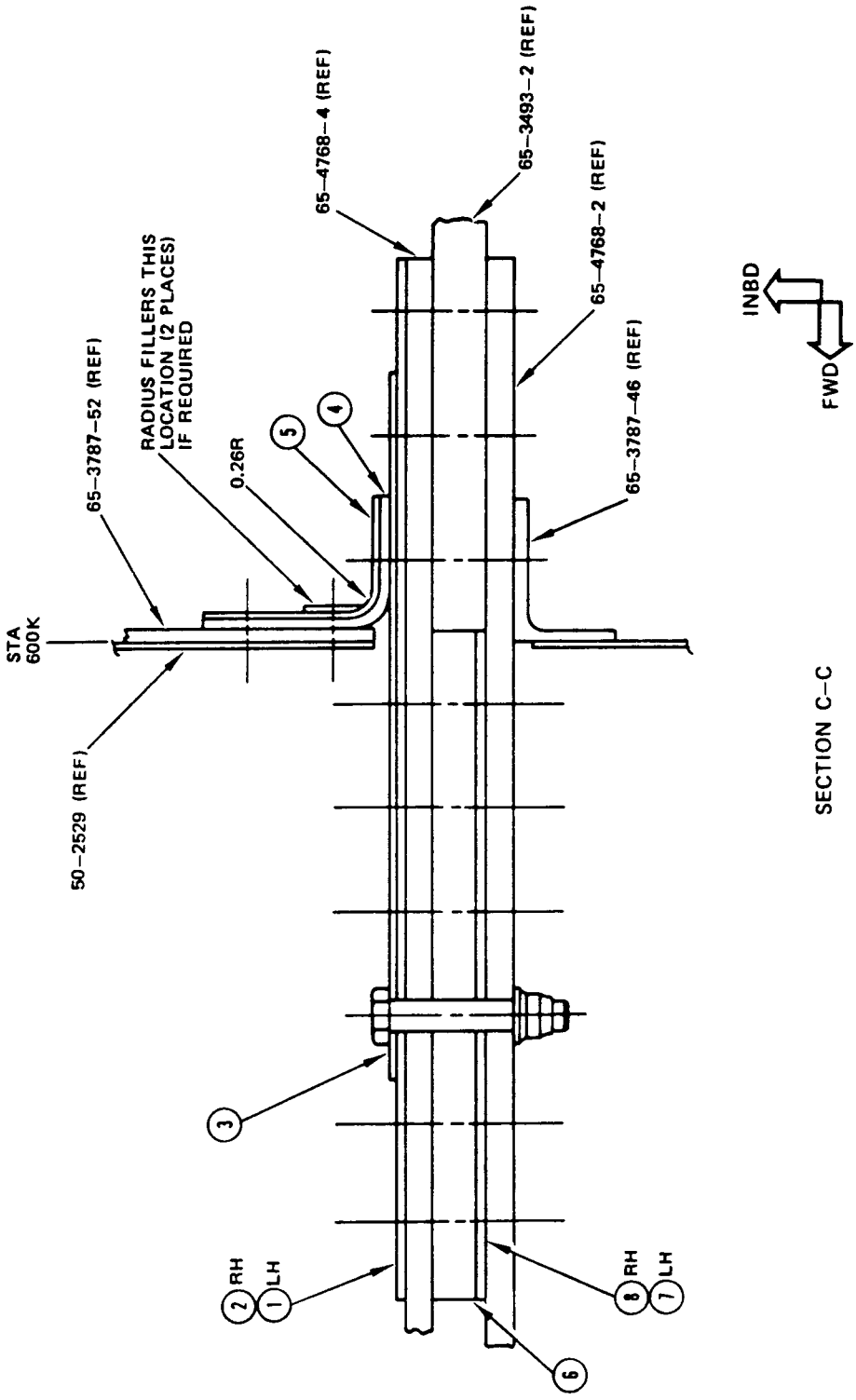


SECTION A–A



SECTION B–B

Keel Beam Splice Angle Repair
Figure 4 (Sheet 5)



Keel Beam Splice Angle Repair
Figure 4 (Sheet 6)

REPAIR INSTRUCTIONS

1. Gain access for repairs through BS 1592 bulkhead by removing access plate (Item 51, Fig. 6, 53-3-3).

REPAIR 1 - LOWER HORIZONTAL CHORD

1. Remove fasteners, sealant and equipment as required to accomplish repairs.
2. Stop drill ends of cracks per 51-2-10.
3. Remove sufficient fasteners from vertical web stiffeners to insert 0.032 inch thick steel alloy protective backing sheet between web stiffeners and web.
4. Remove approximately 1.10 inches from top end of web stiffeners to allow placement of repair items (2) and (3). Remove backing sheet.
5. Fabricate repair parts.
6. Position repair parts on repair area and locate and drill fastener holes.
7. Countersink holes in repair parts as required.
8. Remove all burrs, nicks, scratches, gouges, corrosion and sharp edges.
9. Apply alodine coating to all bare aluminum surfaces on repair parts and raw surfaces on original parts.
10. Install all repair parts with BMS 5-95 faying surface sealant.
11. Install fasteners wet with BMS 5-95 sealant.
12. Restore finish and return airplane to normal.

REPAIR 2 - UPPER HORIZONTAL CHORD

1. Remove fasteners, sealant and equipment as required to accomplish repairs.
2. Stop drill ends of cracks per 51-2-10.
3. Fabricate repair parts.
4. Position repair parts on repair area and locate and drill fastener holes.
5. Countersink holes in repair parts as required.
6. Remove all burrs, nicks, scratches, gouges, corrosion and sharp edges.
7. Apply alodine coating to all bare aluminum surfaces on repair parts and raw surfaces on original parts.
8. Install all repair parts with BMS 5-95 faying surface sealant.
9. Install fasteners wet with BMS 5-95 sealant.
10. Restore finish and return airplane to normal.

Bulkhead Chord Repair - Body Station 1592
Figure 5 (Sheet 1)

REPAIR 3 - OUTER CHORD

1. Remove fasteners, sealant and equipment as required to accomplish repairs.

2. Stop drill ends of cracks per 51-2-10.

3. Fabricate repair parts.

4. Position repair parts on repair area and locate and drill fastener holes.

5. Countersink holes in repair parts as required.

6. Remove all burrs, nicks, scratches, gouges, corrosion and sharp edges.

7. Apply alodine coating to all bare aluminum surfaces on repair parts and raw surfaces on original parts.

8. Install all repair parts with BMS 5-95 faying surface sealant.

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

10. Restore finish and return airplane to normal.

Bulkhead Chord Repair - Body Station 1592
Figure 5 (Sheet 2)

REPAIR MATERIAL			
	PART	QTY	MATERIAL
(1)	ANGLE	1	MAKE FROM BAC 1514-1270 7075-T6 OR EQUIVALENT
(2)	ANGLE	1	MAKE FROM BAC 1514-1270 7075-T6 OR EQUIVALENT
(3)	FILLER	1	0.090 7075-T6
(4)	STRAP	2	0.094 7075-T6
(5)	FILLER	2	0.120 7075-T6

REPAIR MATERIAL FOR REPAIR 1

TABLE I

REPAIR MATERIAL			
	PART	QTY	MATERIAL
(10)	ANGLE	1	MAKE FROM BAC 1514-1270 7075-T6 OR EQUIVALENT
(11)	ANGLE	1	MAKE FROM BAC 1514-1270 7075-T6 OR EQUIVALENT
(12)	FILLER	1	0.090 7075-T6

REPAIR MATERIAL FOR REPAIR 2
TABLE II

REPAIR MATERIAL			
	PART	QTY	MATERIAL
(6)	ANGLE	1	MAKE FROM BAC 1514-1655 [D] 7075-0 [F] OR EQUIVALENT
(7)	ANGLE	1	MAKE FROM BAC 1514-1655 [D] 7075-0 [F] OR EQUIVALENT
(8)	FILLER	1	0.090 7075-T6
(9)	RADIUS FILLER	1	0.12 7075-T6

REPAIR MATERIAL FOR REPAIR 3

TABLE III

Bulkhead Chord Repair - Body Station 1592
Figure 5 (Sheet 3)

NOTES

- ADDITIONAL FASTENERS TO THOSE INDICATED MAY BE REMOVED, IF REQUIRED, TO ACCOMPLISH REPAIRS. REPLACE THESE ADDITIONAL FASTENERS WITH SAME SIZE AND TYPE FASTENERS.
- SHIM REPAIR PARTS AS REQUIRED TO REDUCE GAPS TO 0.010 OR LESS BEFORE INSTALLATION OF FASTENERS.
- FOR HOLES NOT MEETING SIZE LIMITS OF 51-2-5 USE NEXT OVERSIZE HOLE AND FASTENER.
- REFER TO THE FOLLOWING WHEN MAKING THESE REPAIRS:

  51-2-0 FOR FASTENER CODES, REMOVAL AND INSTALLATION, HOLE SIZES AND EDGE MARGINS

  51-8-0 FOR PROTECTIVE TREATMENT OF METALS

  51-2-0 OF THE 707 MAINTENANCE MANUAL FOR FINISH REQUIREMENTS

  51-3-0 OF THE 707 MAINTENANCE MANUAL FOR SEALS AND SEALANTS

[A] FOR FASTENER REPLACEMENT IN FITTING USE SAME TYPE AND SIZE FASTENER

[B] REPAIRS FOR UPPER HORIZONTAL CHORD SIMILAR TO REPAIRS FOR LOWER HORIZONTAL CHORD EXCEPT PARTS (4) AND (5) NOT REQUIRED

[C] BACB30FN6 ON RIGHT SIDE OF BULKHEAD

[D] TWO NESTED 0.050 THICK 1/2 HARD 301 CRES FORMED ANGLES MAY BE SUBSTITUTED FOR THIS PART

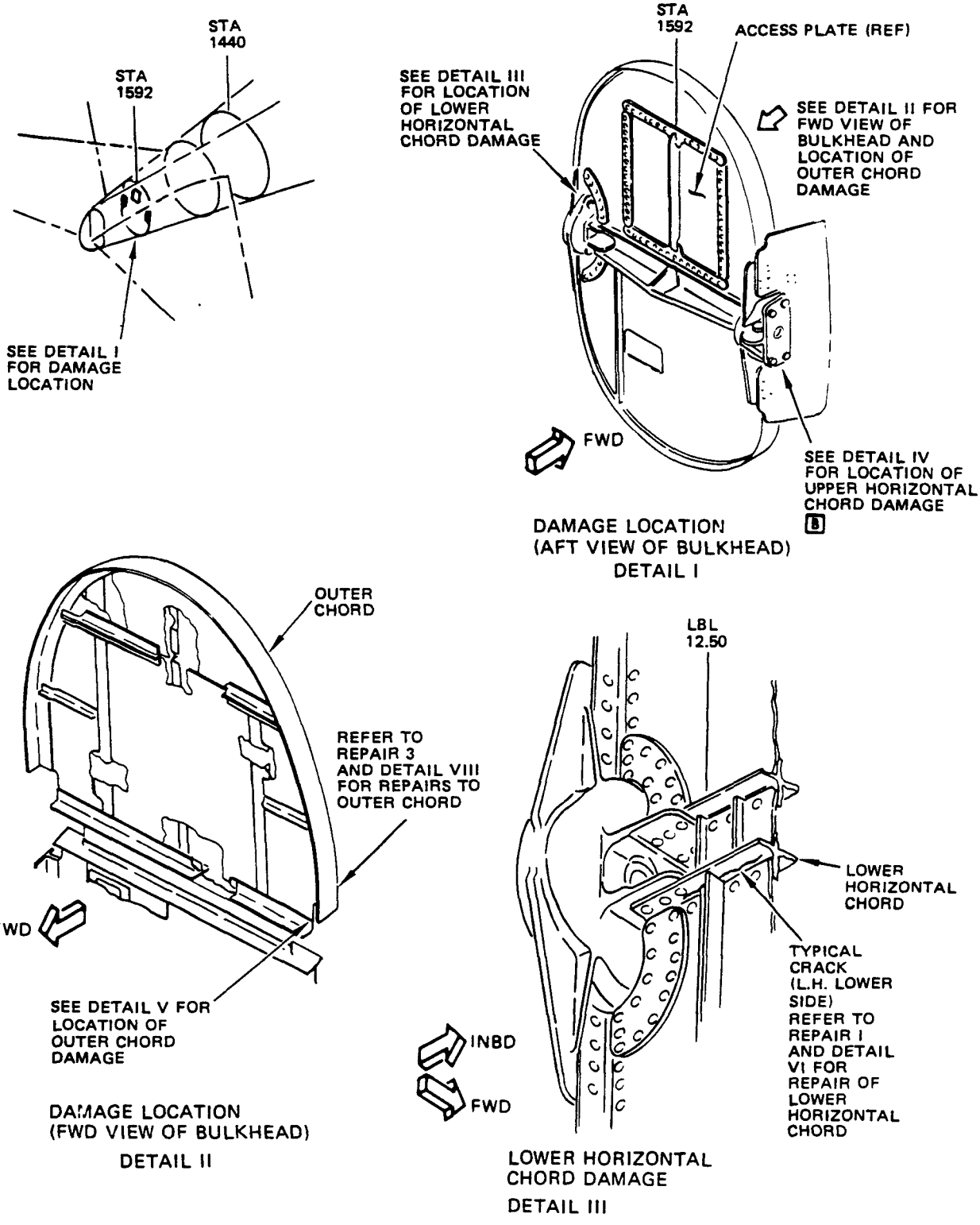
[E] IF CRACK RUNS INTO OUTER FLANGES CONTACT BOEING

[F] REPAIR PARTS (6) AND (7) MUST BE FORMED TO FIT AGAINST THE OUTER CHORD TEE. HEAT TREAT (6) AND (7) T6 AFTER FORMING IF 7075 ALUMINUM ANGLES ARE USED.

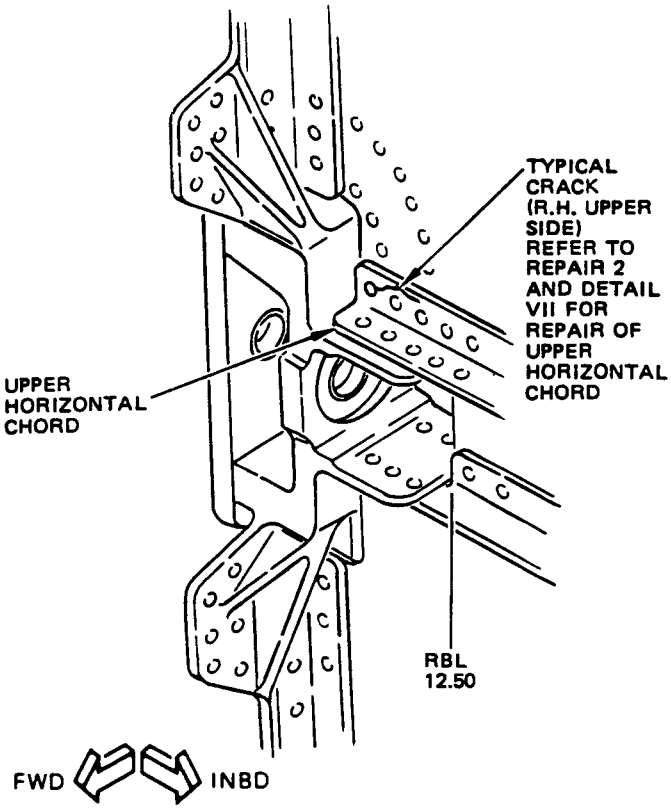
SYMBOLS

- EXISTING FASTENER LOCATION
- BACB30FM8
- BACB30FM8 IN NEW LOCATIONS
- BACB30FM6
- BACB30DX6
- BACB30DX8

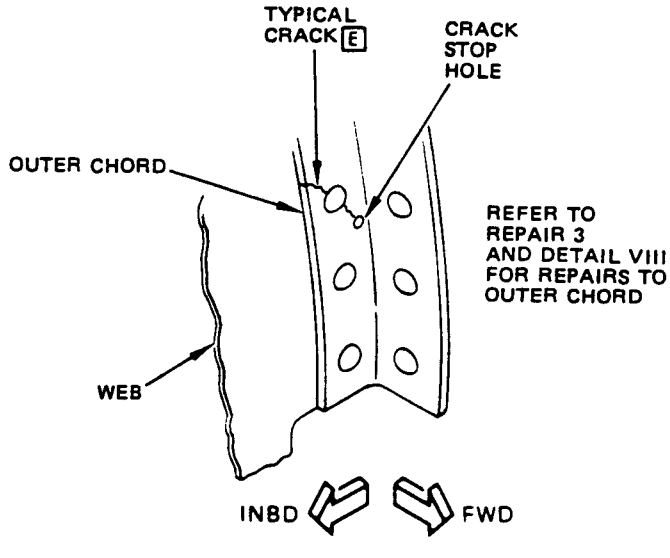
Bulkhead Chord Repair - Body Station 1592
Figure 5 (Sheet 4)



Bulkhead Chord Repair - Body Station 1592
Figure 5 (Sheet 5)

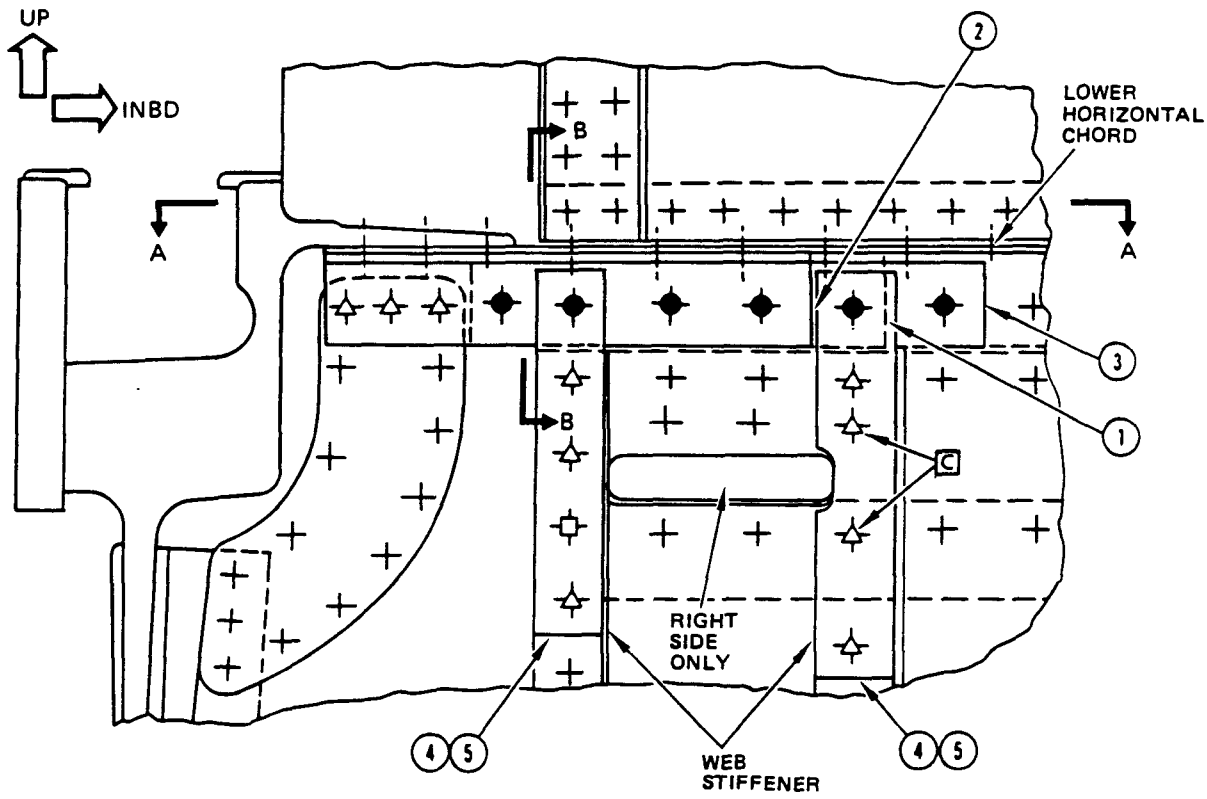


UPPER HORIZONTAL
CHORD DAMAGE
DETAIL IV [B]

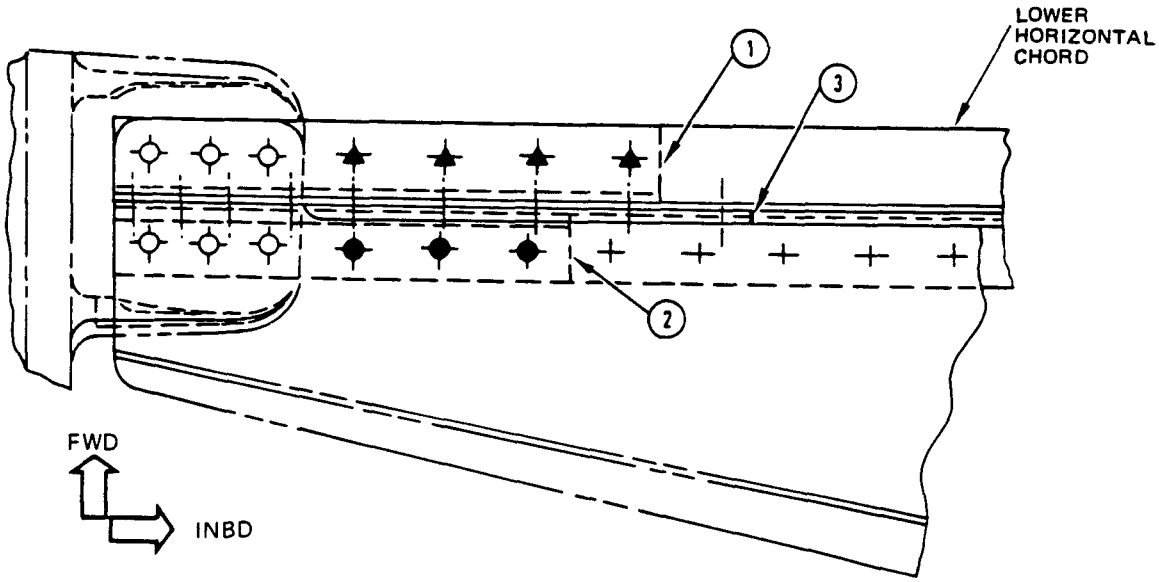


OUTER CHORD DAMAGE
DETAIL V

Bulkhead Chord Repair - Body Station 1592
Figure 5 (Sheet 6)

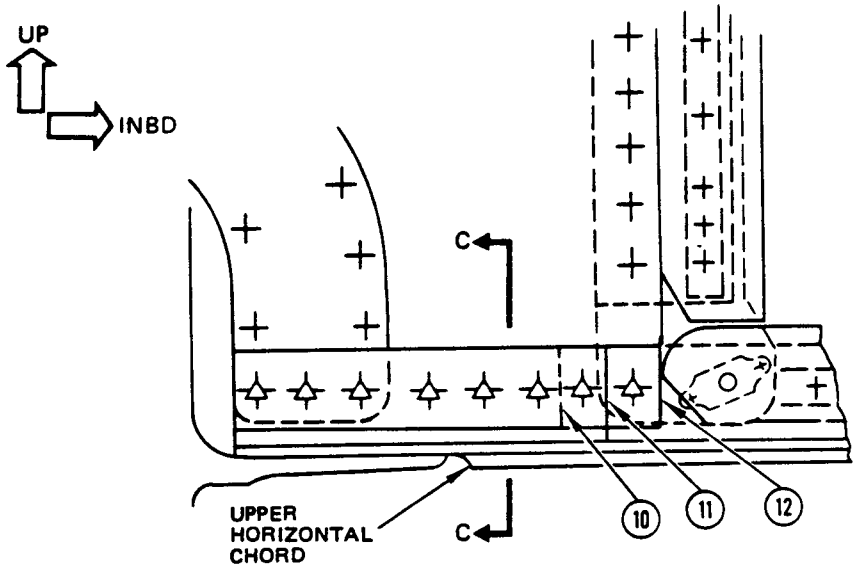


REPAIR OF LOWER HORIZONTAL CHORD
(LEFT SIDE SHOWN, RIGHT SIDE SIMILAR)
DETAIL VI

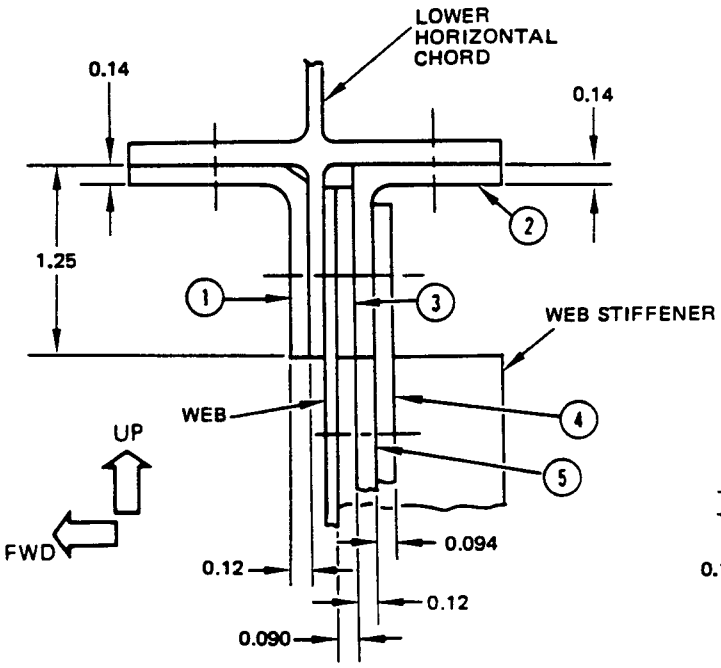


SECTION A–A

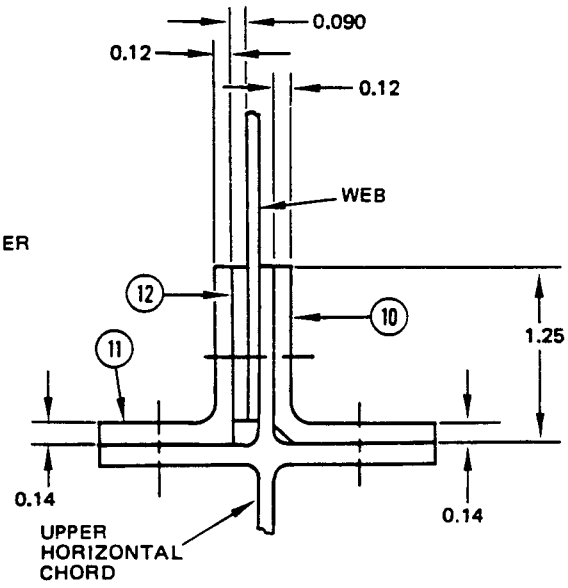
Bulkhead Chord Repair - Body Station 1592
Figure 5 (Sheet 7)



REPAIR OF UPPER HORIZONTAL CHORD
(LEFT SIDE SHOWN, RIGHT SIDE SIMILAR)
DETAIL VII [8]

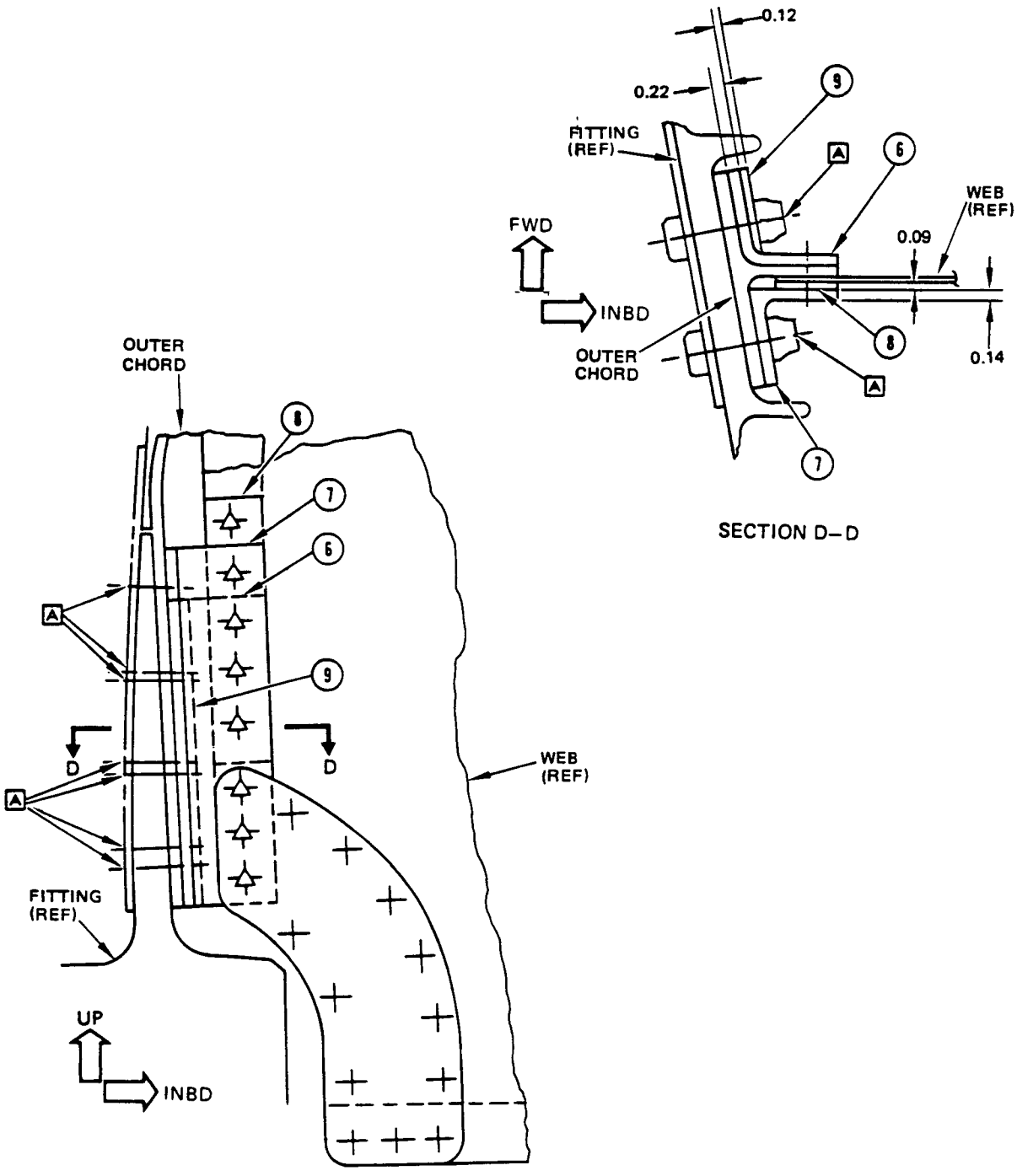


SECTION B–B



SECTION C–C

Bulkhead Chord Repair - Body Station 1592
Figure 5 (Sheet 8)



REPAIR OF OUTER CHORD
(LEFT SIDE SHOWN, RIGHT SIDE SIMILAR)

DETAIL VIII

Bulkhead Chord Repair - Body Station 1592
Figure 5 (Sheet 9)

PASSENGER FLOOR AND FLOOR BEAM REPAIRS

1. Passenger Floor Repair and Upper Cargo Deck Floor Repair

   A. See 51-10-1, figure 1 for the repair of aluminum honeycomb floor panels, where such panels might be used.

   B. See 53-3-7, figure 5 for the repair of spot welded aluminum alloy floor assemblies.

   C. See 53-3-7, figure 5 for the repair of PVC core, aluminum fixed floor panels.

2. Passenger Floor Beam Repair

   A. See figure 1.

REPAIR INSTRUCTIONS

1 This repair applies to damaged lower chord when removal of material within damage area is required.

2 Cut out damaged section as shown so that fastener edge margin is maintained.

3 For edge margins, fasteners, fastener collars and hole sizes see 51-2-0.

4 Break all sharp edges and corners of cleaned out damage area and repair parts.

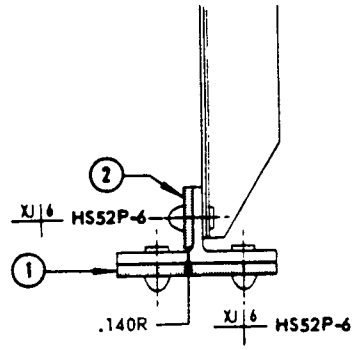
5 Clean and alodize per 51-8-0 original structure and repair parts prior to installation.

6 After repair is completed apply original finish per 707 Maintenance Manual, section 51-2-0.

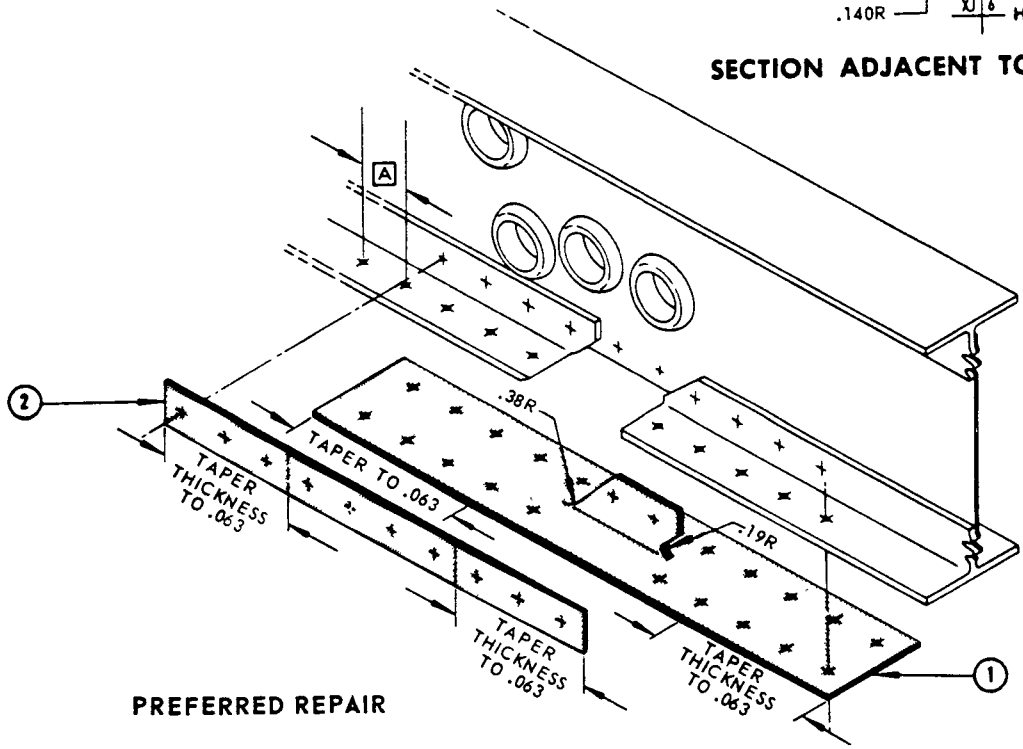
REPAIR MATERIAL			
PART		QTY	MATERIAL
(1)	TEE	1	AND 10136-2403 7075-T6
(2)	PLATE	1	.140 7075-T6
(3)	PLATE	1	.180 7075-T6
(4)	ANGLE	1	7075-T6 [B]
(5)	PLATE	1	.125 7075-T6
(6)	FILLER	1 [C]	.125 2024-T3 or T4, 7075-T6
(7)	FILLER	1 [C]	.160 2024-T3 or T4, 7075-T6

NOTE

- ● REPAIR APPLICABLE TO STA 380 TO 600J, 960M TO 1280
- ┼ ORIGINAL FASTENER LOCATIONS
- ◆ REPAIR FASTENER LOCATIONS
- [A] SAME SPACING AS IN VERTICAL CHORD LEG.
- [B] ONE GAGE GREATER THAN EXISTING WEB-DOUBLER COMBINATION
- [C] OR USE AND 10136-2403 EXTRUSION

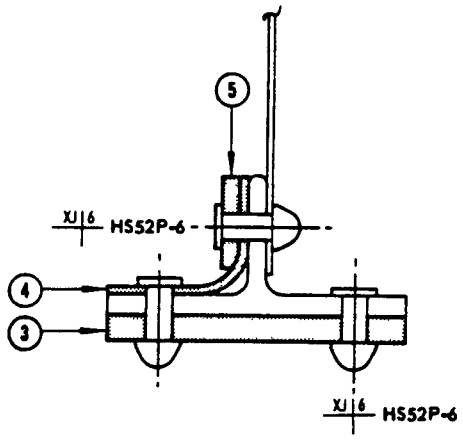


SECTION ADJACENT TO DAMAGE

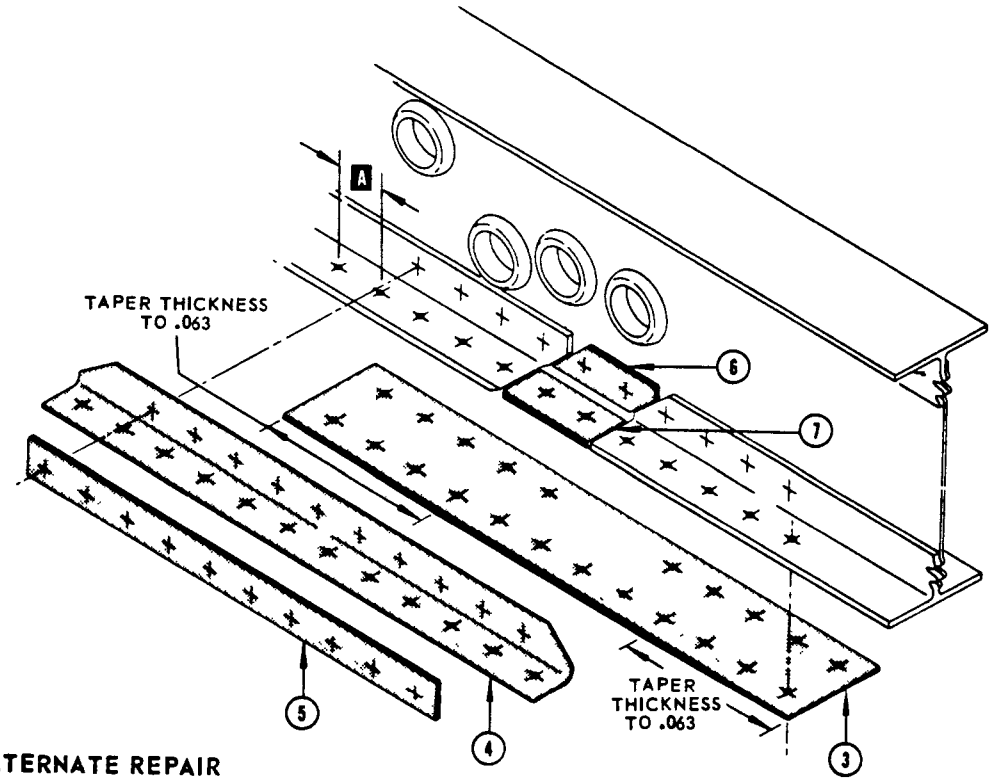


PREFERRED REPAIR

Lower Chord Repair - Passenger Floor Beam
Figure 1 (Sheet 1 of 2)



SECTION ADJACENT TO DAMAGE



ALTERNATE REPAIR

REPAIR MATERIAL			
PART		QTY.	MATERIAL
(1)	DOUBLER	1	.040 CLAD 7075-T6
(2)	FILLER	1	.040 CLAD 2024-T3/7075-T6
(3)	FILLER	1	.040 CLAD 2024-T3/7075-T6
(4)	CHORD	1	.050 CLAD 7075-0 HT-T6
(5)	FILLER	1	.040 CLAD 7075-0 HT-T6
(6)	DOUBLER	1	.040 CLAD 7075-T6
(7)	FILLER	1	.040 CLAD 2024-T3/7075-T6
(8)	FILLER	1	.040 CLAD 2024-T3/7075-T6
A	RIVET	14	ALPP6-T
B	RIVET	4	HS52P-6
C	RIVET	2	ALPP6-T

REPAIR INSTRUCTIONS

1. Trim out damaged area of web, etc.
2. Install doubler and fillers with same fastener diameter and type at original fastener locations. Add repair rivets as shown.
3. Restore original finish per 51-2-0 of the 707 Maintenance Manual.

NOTE

REFER TO SERVICE BULLETIN 308 FOR REQUIRED REVISIONS

REPAIR FASTENER LOCATION

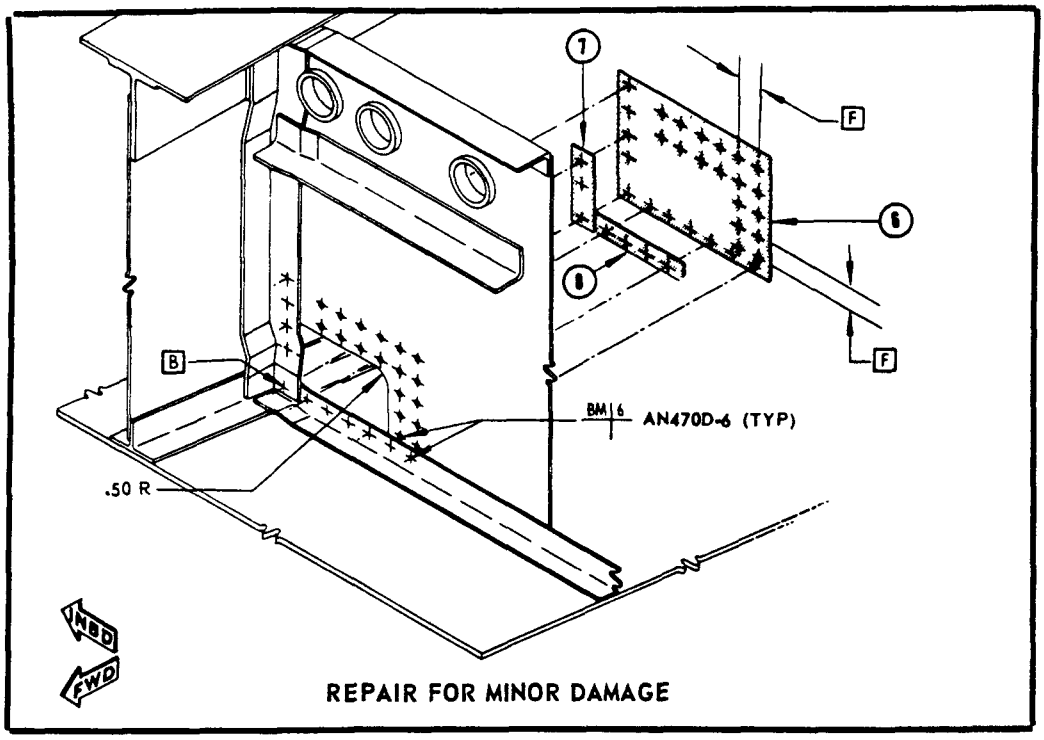
ORIGINAL FASTENER LOCATION

D JOGGLE TO MATCH EXISTING DOUBLER

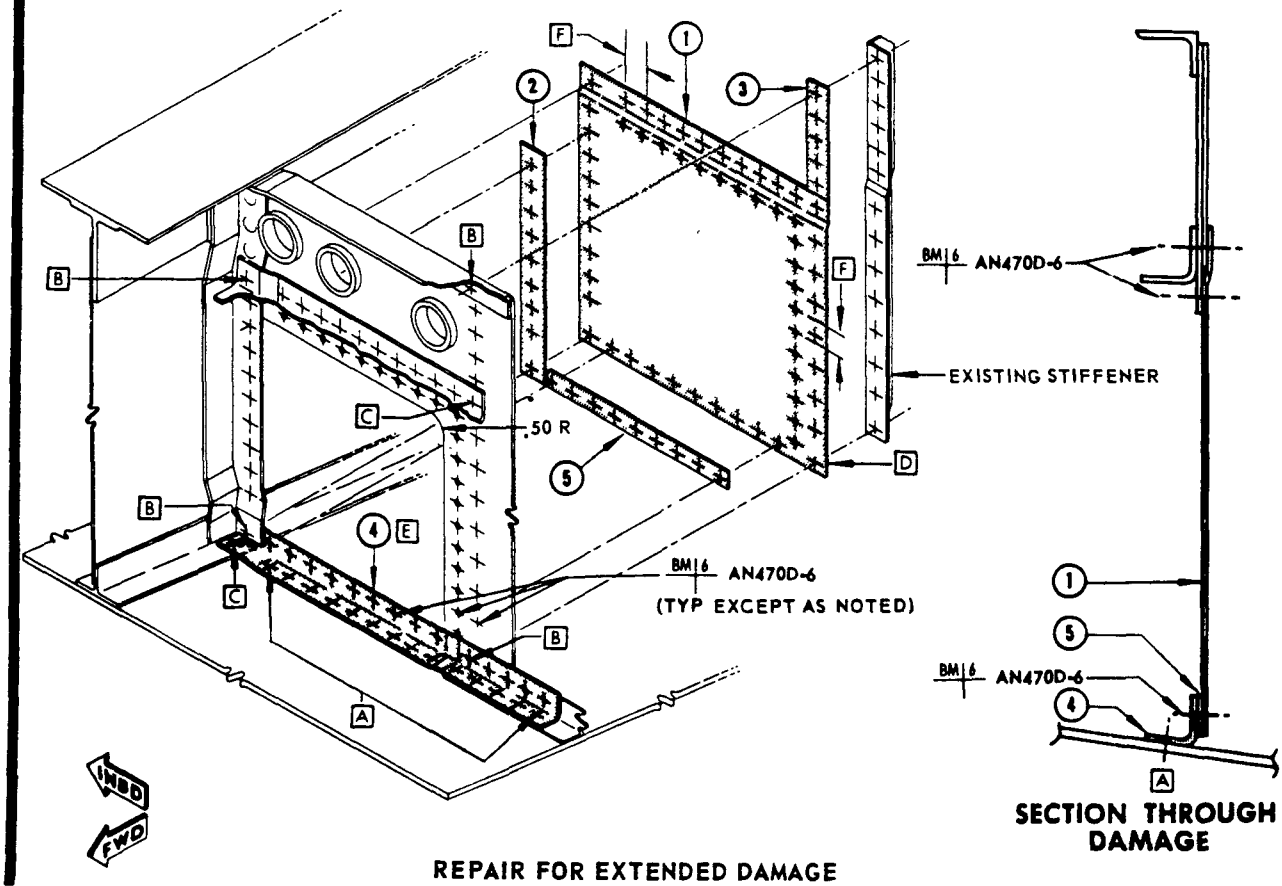
E JOGGLE INBOARD END TO MATCH FLOOR BEAM CHORD. DOUBLE JOGGLE OUTBOARD END TO MATCH FRAME CHORD AND WEB.

F SPACING .75 MINIMUM, .90 MAXIMUM

Overwing Stub Beam Station 800 - Repair to Web
Figure 2 (Sheet 1 of 2)



REPAIR FOR MINOR DAMAGE



SECTION THROUGH DAMAGE

REPAIR FOR EXTENDED DAMAGE

Overwing Stub Beam Station 800 - Repair to Web
Figure 2 (Sheet 2 of 2)

EFFECTIVITY
ALL AIRPLANES
EXCEPT CARGO

FAA Approved Repair

REPAIR INSTRUCTIONS

1. Remove damaged portion of seat track. Make each cut 8.4 inches back from a frame station as shown in illustration.
2. Insert new material and make splice at each end as shown in illustration.
3. A splice may be made between any pair of adjacent floor beams.
4. Repair splice shown is similar to production splices at station 968.40 and station 1128.40.

NOTE

FINISH PER 51-2-0 OF THE MAINTENANCE MANUAL

SEE 51-8-0 FOR METAL PROTECTIVE TREATMENT

BREAK SHARP EDGES 0.03 ALL REPAIR PARTS AND TRIMMED ORIGINAL PARTS

SEE 51-2-0 FOR FASTENER CODE, REMOVAL AND INSTALLATION, HOLE SIZES AND EDGE MARGINS

NUMBER OF FASTENERS REQUIRED IS FOR EACH SPLICE

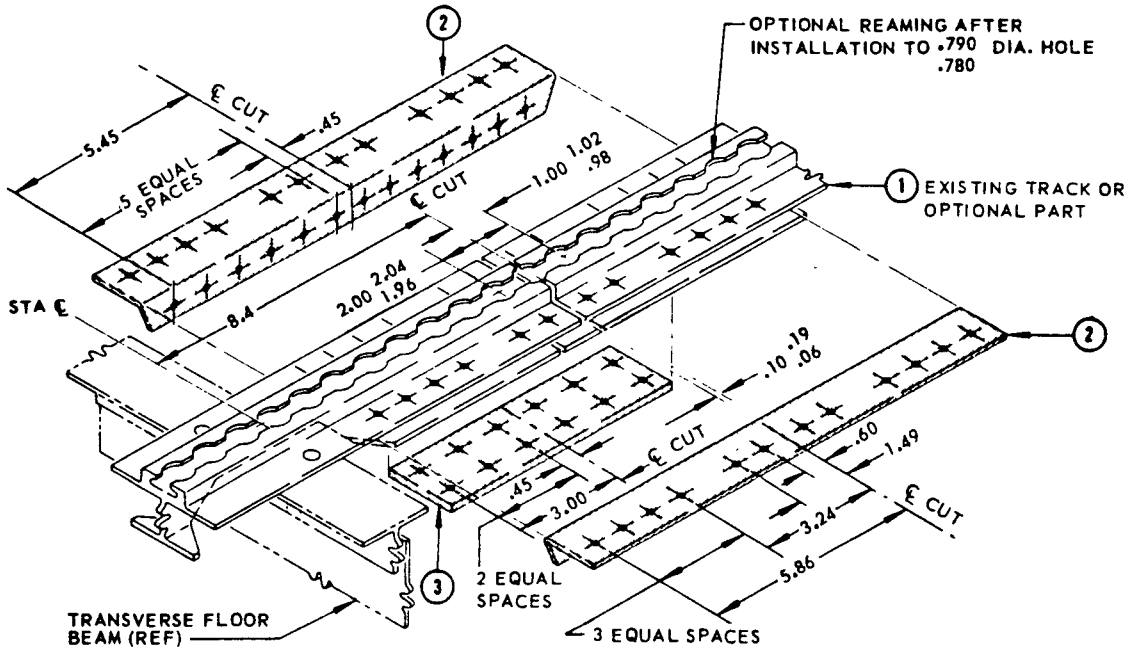
REPAIR FASTENER LOCATIONS

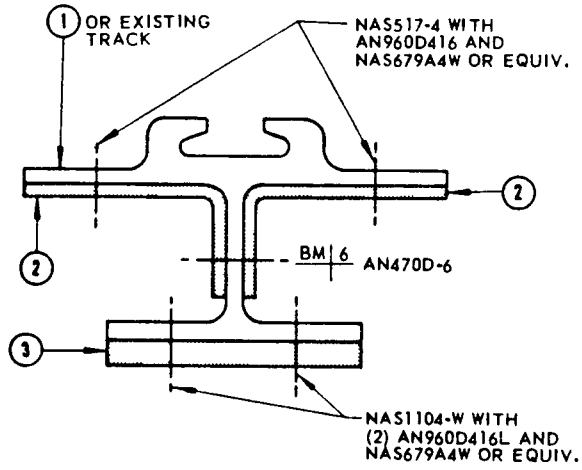
[A] PROCURE FROM BOEING SPARE PARTS DEPARTMENT

REPAIR MATERIAL

PART		QTY	MATERIAL	OPTIONAL PART [A]
(1)	EXTRUSION	1	BAC1520-792 7178-T6	65-9927-173
(2)	ANGLE	4	BAC1503-100122 7178-T6	
(3)	STRAP	2	.20 7178-T6 OR .25 7075-T6	

Seat Track Extrusion Repair
Figure 3 (Sheet 1 of 2)





SECTION THROUGH REPAIR

REPAIR INSTRUCTIONS

1. Cut and remove the damaged portion of track.

   NOTE: The minimum length of track replacement permitted is determined by the requirement for at least one fastener in an existing location between the raised-head fasteners at each end of the new section, i.e. three fasteners minimum to secure new section.

2. If the repair is at BL.0 or BL 45.50 extend the cutouts in the floor beam chord to permit the installation of the additional fasteners at the extremities of the new section of track.

3. Make the new portion of track.

4. Alodize the new portion of track and cut edges of existing parts.

5. Apply one coat of BMS 10-11, type 1 primer to the alodized surface.

6. Install the countersink repair washers in the holes in the existing track where raised-head fasteners are to be installed.

7. Install the new section of track. Install the fasteners wet with BMS 5-95 sealant.

8. Fill the gaps between the existing and new track with BMS 5-95 sealant.

NOTES

- FINISH PER 51-2-0 OF THE MAINTENANCE MANUAL
- REFER TO 51-8-0 FOR METAL PROTECTIVE TREATMENT

[A] CHAMFER 45° X 0.06 ENDS OF PART 1 AND ORIGINAL SECTION

[B] DELETED

[C] MAKE AND INSTALL PER 51-2-8, FIG 4

[D] INSTALL 0.030 LAMINATED ALUMINUM SHIM IF REQUIRED AT EACH FASTENER LOCATION BETWEEN TRACK AND FLOOR BEAM

[E] THIS PART MAY BE OBTAINED FROM THE BOEING SPARE PARTS DEPARTMENT. CUT TO FIT

[F] USE SAME EXTRUSION AS ORIGINAL

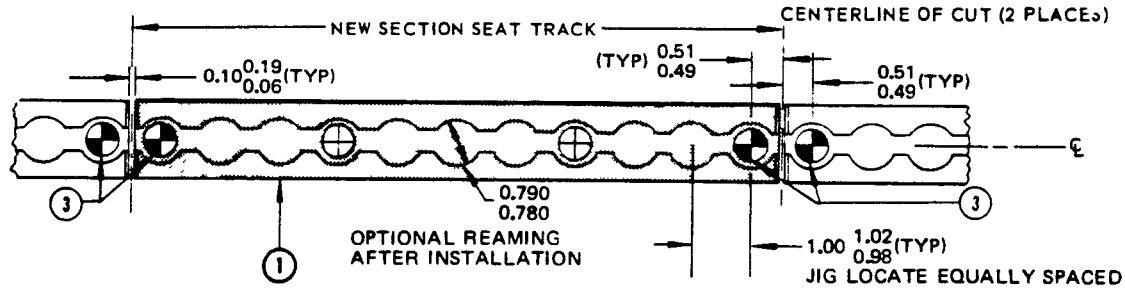
SYMBOLS

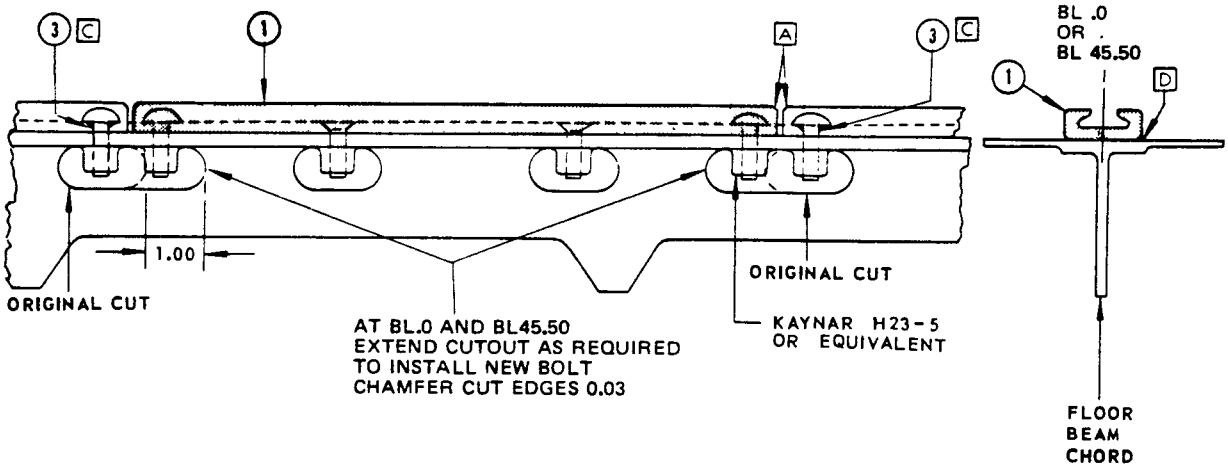
⊕ EXISTING 5/16 BOLTS

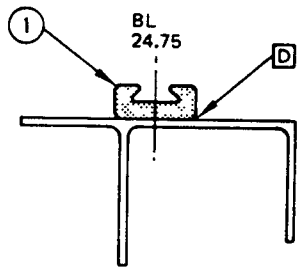
◕ NEW 5/16 BOLT NAS1218-5 OR NAS1217-5

EFFECTIVITY

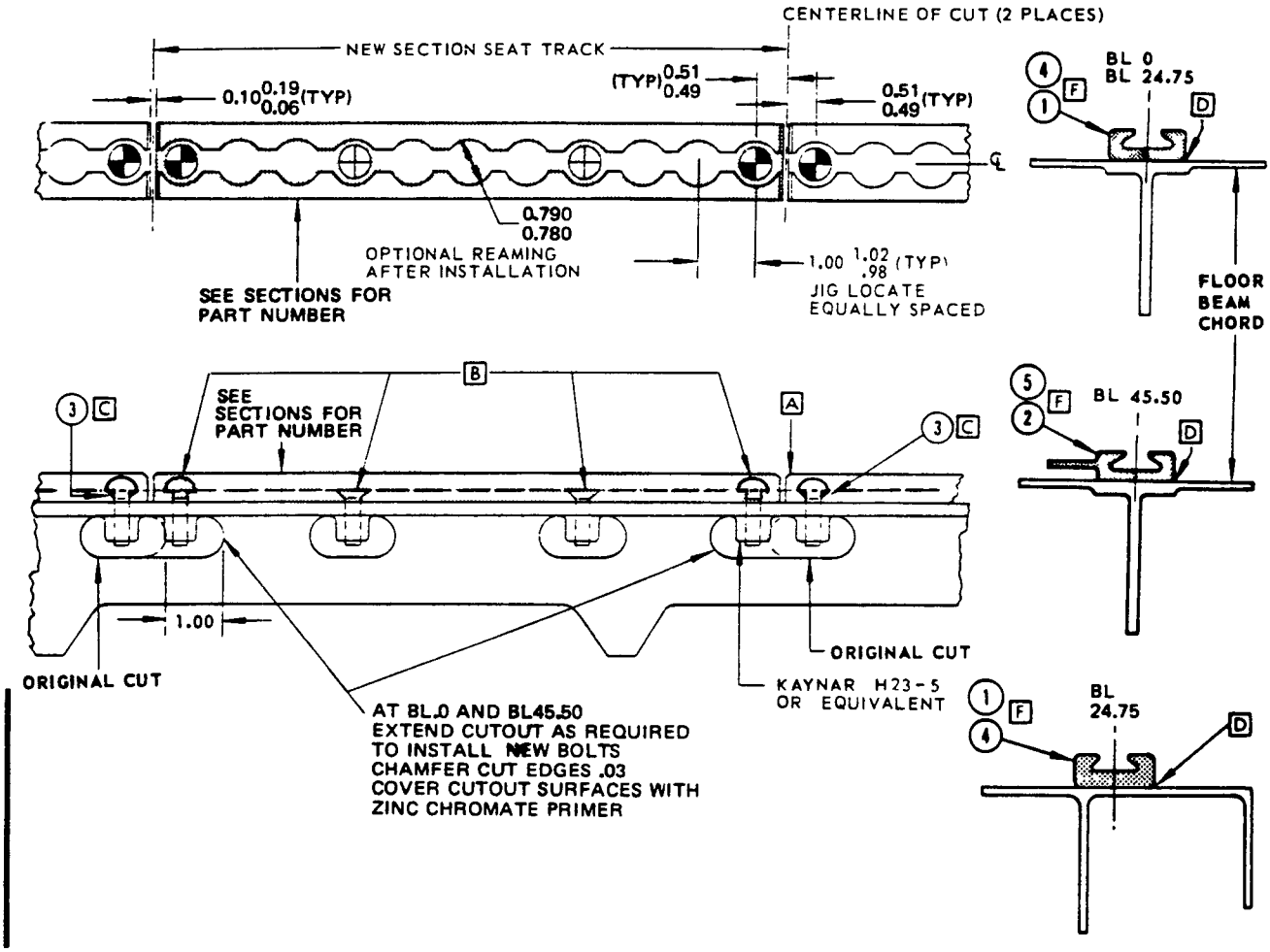
ALL AIRPLANES
EXCEPT CARGO







REPAIR MATERIAL				
PART		QTY	MATERIAL	OPTIONAL PART [E]
(1)	EXTRUSION	1	BAC1520-841 7178-T6	65-9927-174
(2)	EXTRUSION	1	BAC1520-1224 7178-T6	65-9927-178
(3)	REPAIR WASHER [C]	AS REQD	2024-T4	
(4)	EXTRUSION	1	BAC1520-1336 7178-T6	
(5)	EXTRUSION	1	BAC1520-1338 7178-T6	



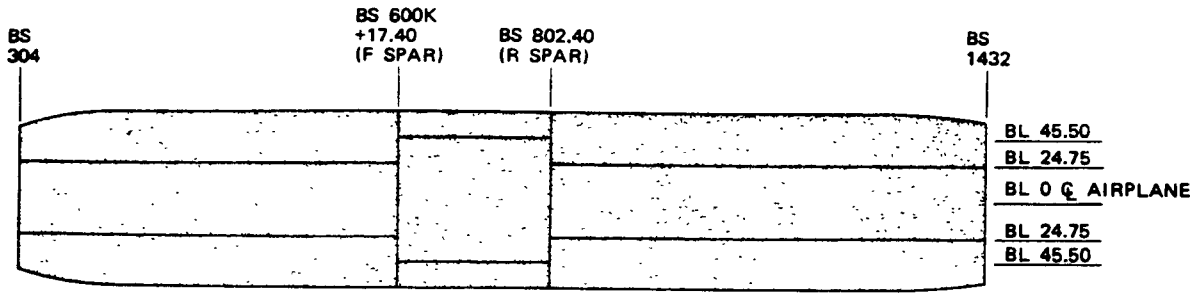
SECTIONS THROUGH REPAIRS

EFFECTIVITY
ALL CARGO AIRPLANES

Seat Track Overwing Repair
Figure 4 (Sheet 3)

SRM 320
Jan 10/76

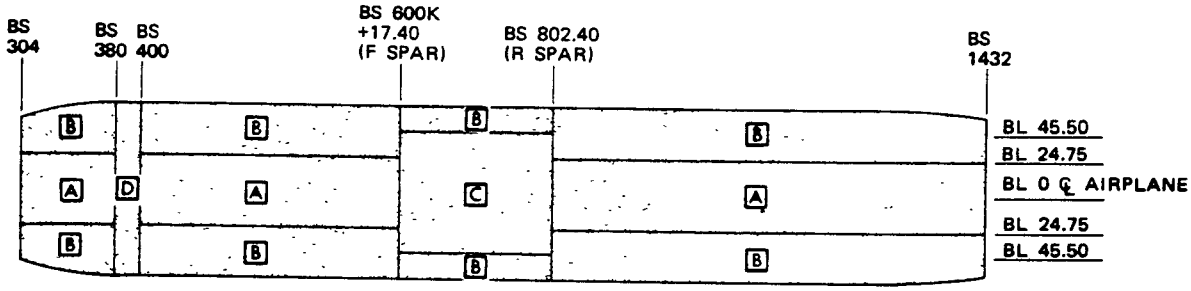
EFFECTIVITY
ALL AIRPLANES EXCEPT CARGO



NOTES

- FOR REPAIRS SEE INDEX

EFFECTIVITY
CARGO AIRPLANES WITHOUT PVC PANELS



NOTES

[A] THIS FLOOR AREA MAY BE REPAIRED BY 53-3-7, FIGURES 6 OR 7.

[B] THIS FLOOR AREA MAY BE REPAIRED BY 53-3-7, FIGURES 8, 9 OR 10.

[C] THIS FLOOR AREA MAY BE REPAIRED BY 53-3-7, FIGURES 11, 12 OR 13.

[D] REPAIR PER 53-3-7, FIGURES 6, 7, 8, 9 AND 10 ARE NOT APPLICABLE IN THIS FLOOR AREA.

REPAIR INDEX	
TYPE OF FLOOR	REPAIR FIG NO.
PVC SANDWICH HEATED AND NONHEATED	53-3-7 FIG 20
SPOTWELDED ALUMINUM	53-3-7 FIG 6, 7, 8, 9 AND 10
ALUMINUM HONEYCOMB SANDWICH	51-10-1 FIGS 3, 4 AND 5

Floor Panel Repair Index
Figure 5

NOTE

THIS REPAIR APPLICABLE TO ALL AIRPLANES AS SHOWN IN FIG. 5, FLOOR REPAIR INDEX.

SEE FIGURE 7 FOR OPTIONAL REPAIR.

REPAIR FASTENER BAC-R15DJ (BLIND BULBED CHERRY LOCK)

REPAIR FASTENER MS20426D-4

FINISH PER 51-2-0 OF THE MAINTENANCE MANUAL.

SEE 51-8-0 FOR METAL PROTECTIVE TREATMENT.

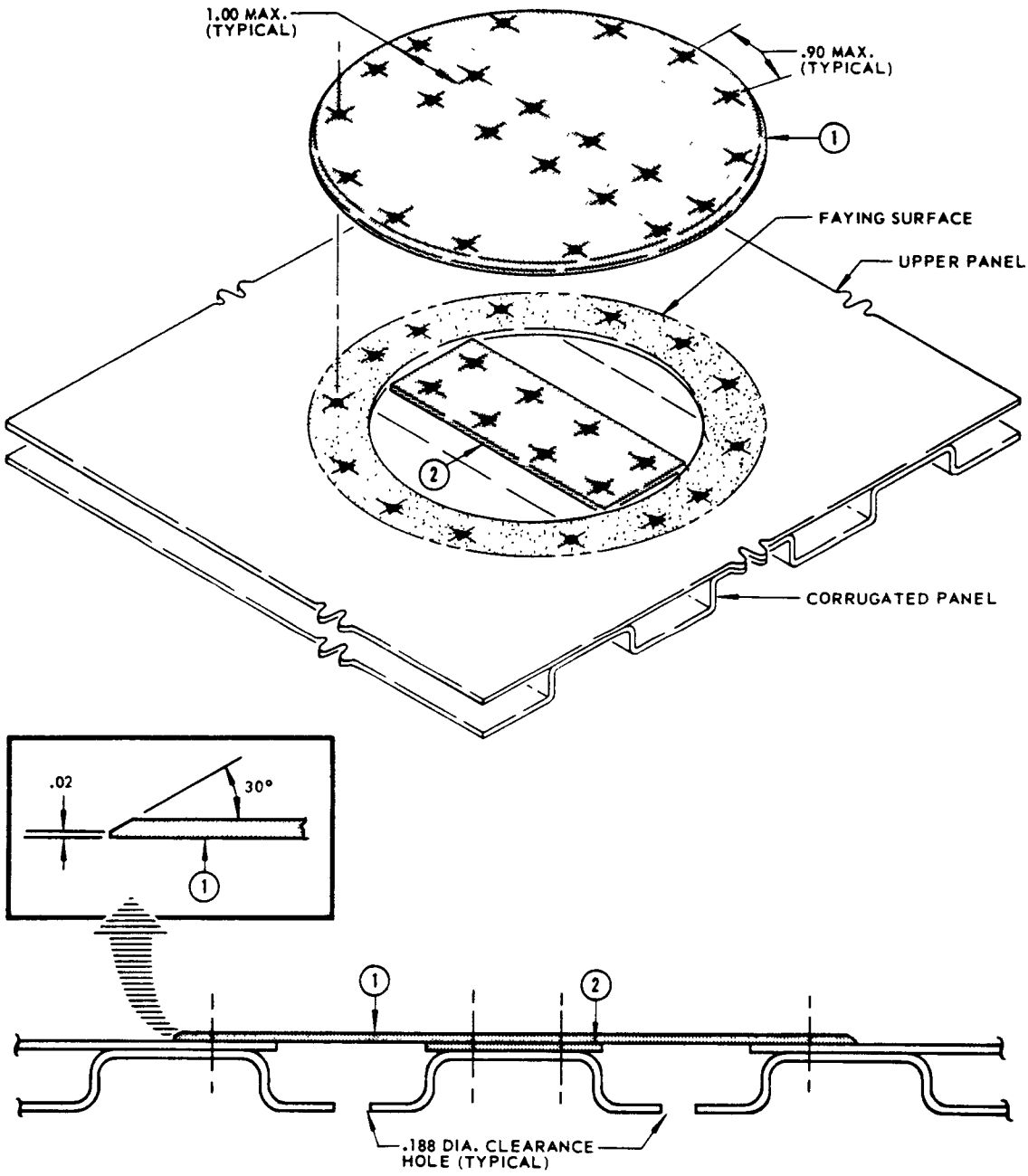
SEE 51-2-0 FOR FASTENER CODE, REMOVAL AND INSTALLATION, HOLE SIZES AND EDGE MARGINS.

REPAIR INSTRUCTIONS

1. Damage to upper panel where it is spotwelded to corrugated panel requires its separation in the damaged area. Spotface damaged portion of skin at spotwelds to a maximum depth of skin minus .005 in. Do not cut corrugated panel.
2. Cut out damaged skin, taking care not to cut the corrugated panel.
3. Break skin loose from corrugated panel and microshave any remaining weld nuggets attached to the corrugated panel.
4. Fabricate parts (1) and (2).
5. Alodize all raw edges of reworked and repair parts per 51-8-0.
6. Prepare faying surfaces for sealing similar to 53-1-3.
7. Install parts (1) and (2).
8. Finish per 51-2-0 of the Maintenance Manual.

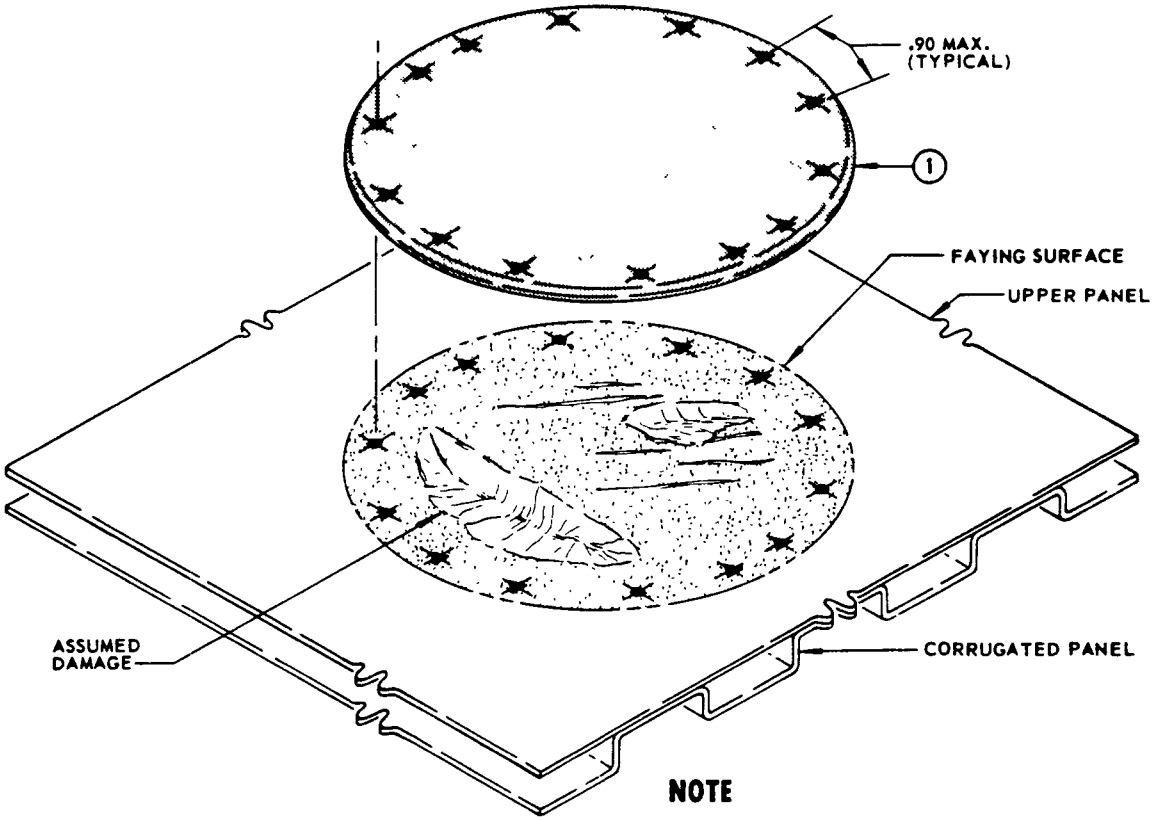
REPAIR MATERIAL			
PART		QTY.	MATERIAL
(1)	PLATE	1	.045 CLAD 7075-T6
(2)	FILLER	1	CLAD 2024-T4 SAME GAGE AS UPPER PANEL.

Main Deck Corrugated Flooring Repair
Figure 6 (Sheet 1 of 2)



SECTION THROUGH DAMAGE

STRUCTURAL REPAIR



REPAIR INSTRUCTIONS

1. Return upper panel to such a shape that part (1) will lie flat.
2. Fabricate part (1) to a size large enough to allow an edge margin on each side of fasteners.
3. Alodize all raw edges per 51-8-0.
4. Prepare faying surfaces for sealing similar to 53-1-3.
5. Install part (1).
6. Finish per 51-2-0 of the Maintenance Manual.

NOTE

THIS REPAIR APPLICABLE TO ALL AIRPLANES AS SHOWN IN FIG. 5, FLOOR REPAIR INDEX.

SEE FIGURE 6 FOR OPTIONAL REPAIR.

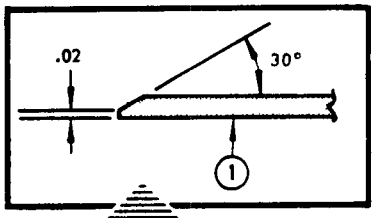
REPAIR FASTENER BAC-R15DJ (BLIND BULBED CHERRY LOCK)

REPAIR FASTENER MS20426D-4

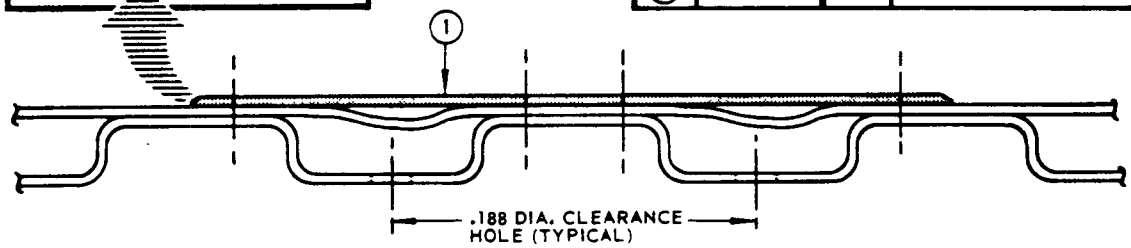
FINISH PER 51-2-0 OF THE MAINTENANCE MANUAL.

SEE 51-8-0 FOR METAL PROTECTIVE TREATMENT.

SEE 51-2-0 FOR FASTENER CODE, REMOVAL AND INSTALLATION, HOLE SIZES AND EDGE MARGINS.



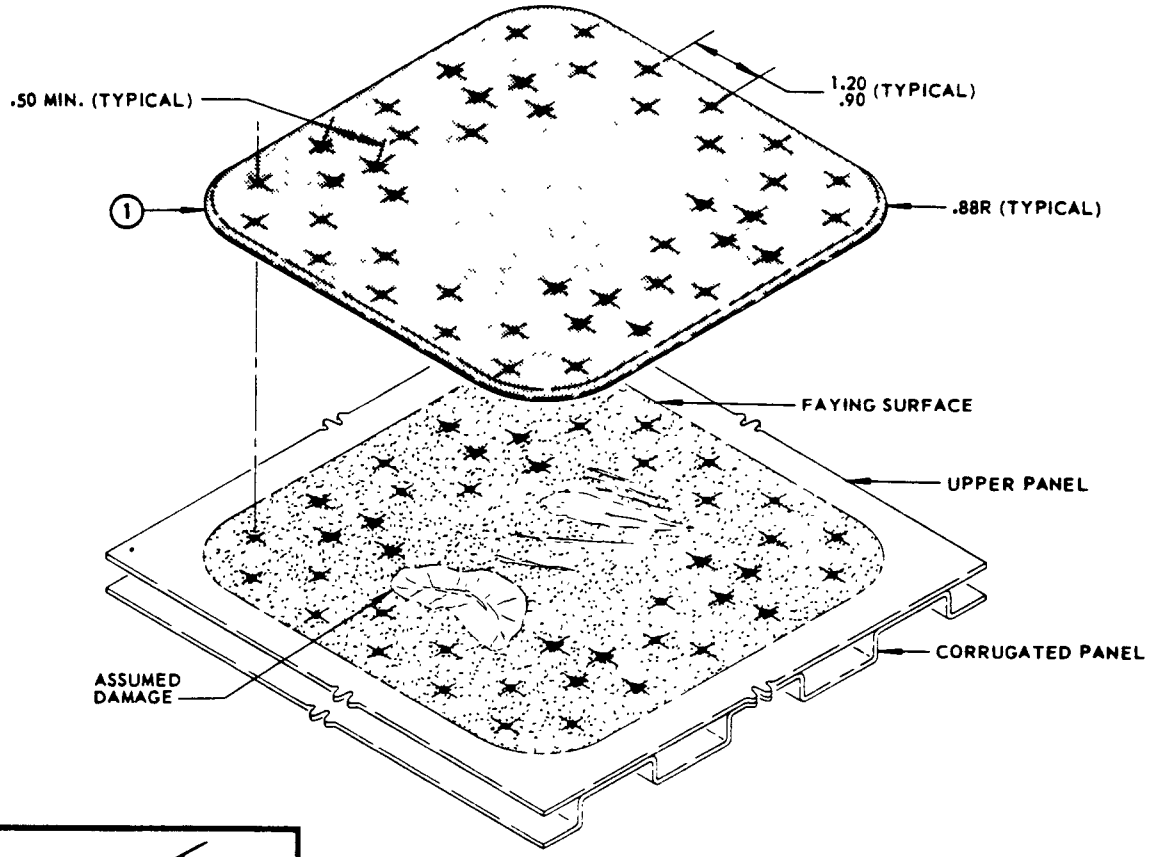
REPAIR MATERIAL			
PART		QTY.	MATERIAL
1	PLATE	1	.045-7075-T6 CLAD

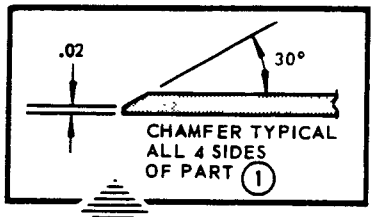


SECTION THROUGH DAMAGE

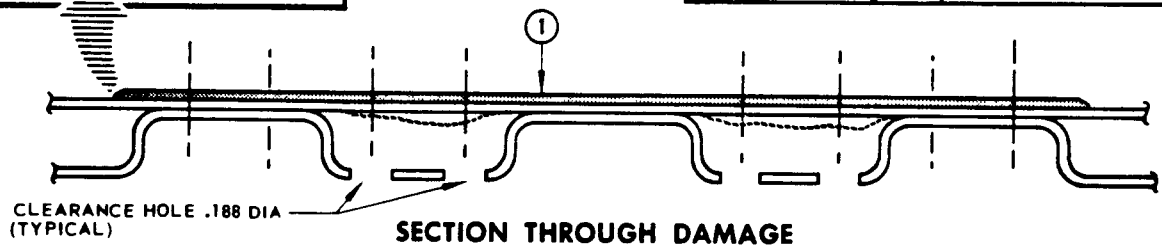
Main Deck Corrugated Flooring Repair
Figure 7

STRUCTURAL REPAIR





REPAIR MATERIAL			
PART		QTY.	MATERIAL
1	PLATE	1	.045 CLAD-7075-T6



SECTION THROUGH DAMAGE

REPAIR INSTRUCTIONS

1. Return damaged area of upper panel to such a shape that part (1) will lie flat.
2. Fabricate part (1) large enough to allow edge margin on each side of fasteners.
3. Alodize all raw edges per 51-8-0.
4. Prepare faying surface for sealing similar to 53-2-3.
5. Install part (1).
6. Finish per 51-2-0 of the Maintenance Manual.

NOTE

THIS REPAIR APPLICABLE TO ALL AIRPLANES AS SHOWN IN FIG. 5, FLOOR REPAIR INDEX.

REPAIR FASTENER BAC-R15DJ (BLIND BULBED CHERRY LOCK)

REPAIR FASTENER MS20426D-4

FINISH PER 51-2-0 OF THE MAINTENANCE MANUAL.

SEE 51-8-0 FOR METAL PROTECTIVE TREATMENT.

SEE 51-2-0 FOR FASTENER CODE, REMOVAL AND INSTALLATION, HOLE SIZES AND EDGE MARGINS.

Main Deck Corrugated Flooring Repair
Figure 8

NOTE

THIS REPAIR IS APPLICABLE WHERE EXTENSIVE DAMAGE REQUIRES REPAIR OF A SECTION OF CORRUGATED PANEL. SEE FLOOR REPAIR INDEX, FIGURE 5.

REPAIR FASTENER BAC B30FN WITH HL 79 COLLAR.

REPAIR FASTENER BAC-R15DJ (BLIND BULBED CHERRY LOCK)

REPAIR FASTENER MS20426D-4 OR -5

FINISH PER 51-2-0 OF THE MAINTENANCE MANUAL.

SEE 51-8-0 FOR METAL PROTECTIVE TREATMENT.

SEE 51-2-0 FOR FASTENER CODE, REMOVAL AND INSTALLATION, HOLE SIZES AND EDGE MARGINS.

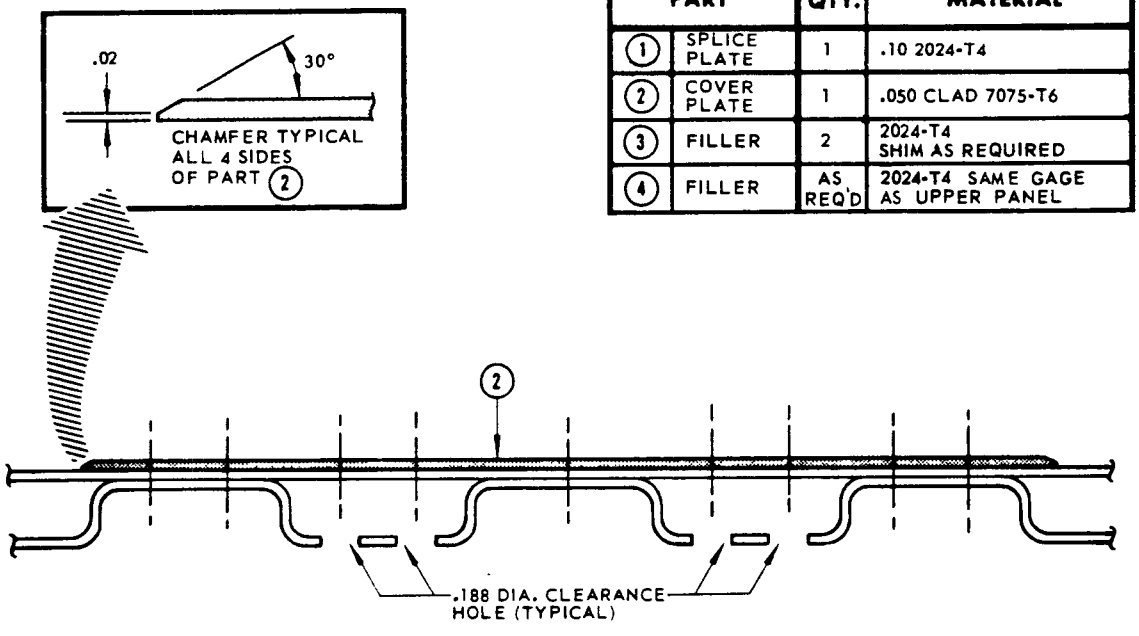
BREAK SHARP EDGES 0.03 ALL REPAIR PARTS AND TRIMMED ORIGINAL PARTS

REPAIR INSTRUCTIONS

1. Cut out damaged portion of upper panel and corrugated panel.
2. Fabricate part (1).
3. Trim out upper panel to allow installation of part (1) if required.
4. Fabricate parts (2), (3) and (4)
5. Alodize all bare edges of repair and reworked parts 51-8-0.
6. Prepare faying surface for sealing between upper panel and part (2) similar to 53-1-3.
7. Install parts (1), (2), (3) and (4).
8. Finish per 51-2-0 of the Maintenance Manual.

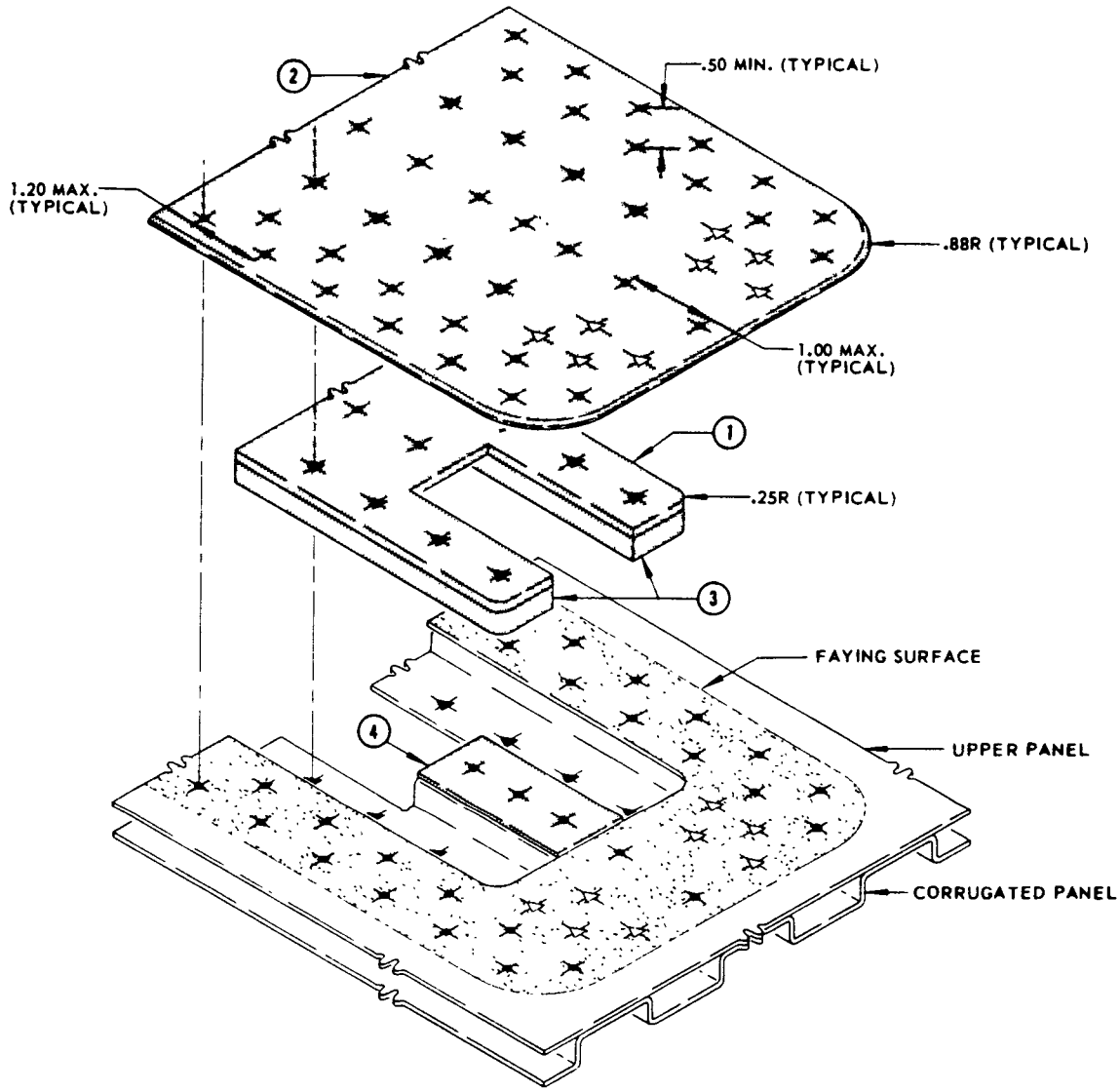
REPAIR MATERIAL

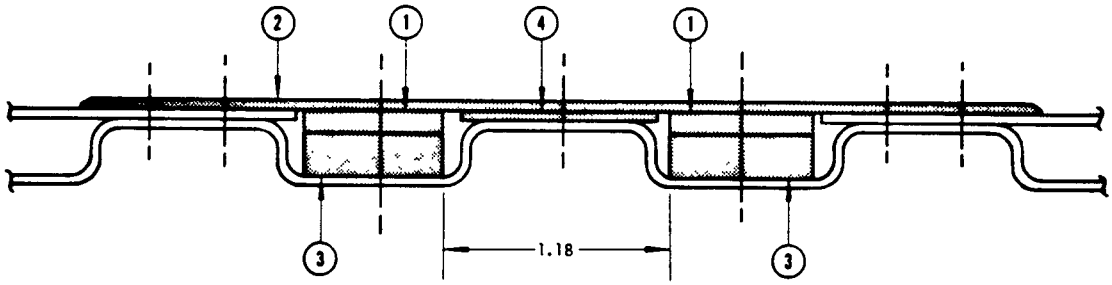
PART		QTY.	MATERIAL
(1)	SPLICE PLATE	1	.10 2024-T4
(2)	COVER PLATE	1	.050 CLAD 7075-T6
(3)	FILLER	2	2024-T4 SHIM AS REQUIRED
(4)	FILLER	AS REQ'D	2024-T4 SAME GAGE AS UPPER PANEL



SECTION THROUGH END OF DAMAGE

Main Deck Corrugated Flooring Repair
Figure 9 (Sheet 1 of 2)





SECTION THROUGH DAMAGE

Main Deck Corrugated Flooring Repair
Figure 9 (Sheet 2 of 2)

NOTE

THIS REPAIR IS APPLICABLE WHERE EXTENSIVE DAMAGE REQUIRES REMOVAL OF ONE CORRUGATION COMPLETELY ACROSS. SEE FIGURE 5, FLOOR REPAIR INDEX.

REPAIR FASTENER BAC B30EL3 (BOLT), NAS 679A3(NUT) AND AN960-10C (WASHER). TORQUE NUTS PER 51-2-4.

REPAIR FASTENER BAC B30FN WITH HL 79 COLLAR.

REPAIR FASTENER MS20426D-4

FINISH PER 51-2-0 OF THE MAINTENANCE MANUAL.

SEE 51-8-0 FOR METAL PROTECTIVE TREATMENT.

SEE 51-2-0 FOR FASTENER CODE, REMOVAL AND INSTALLATION, HOLE SIZES AND EDGE MARGINS.

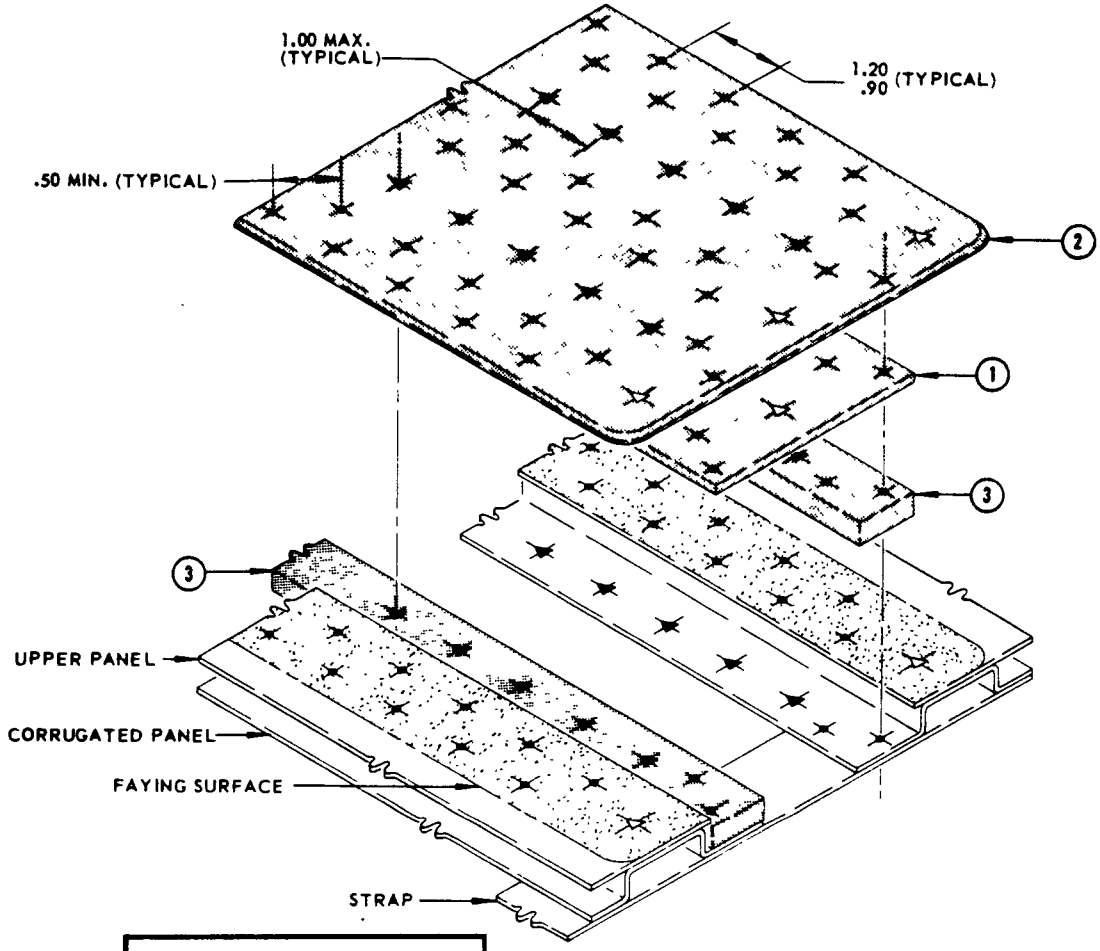
BREAK SHARP EDGES 0.03 ALL REPAIR PARTS AND TRIMMED ORIGINAL PARTS

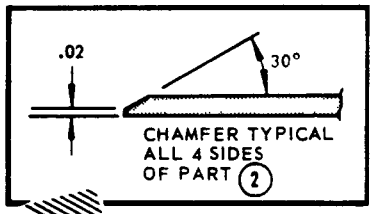
REPAIR INSTRUCTIONS

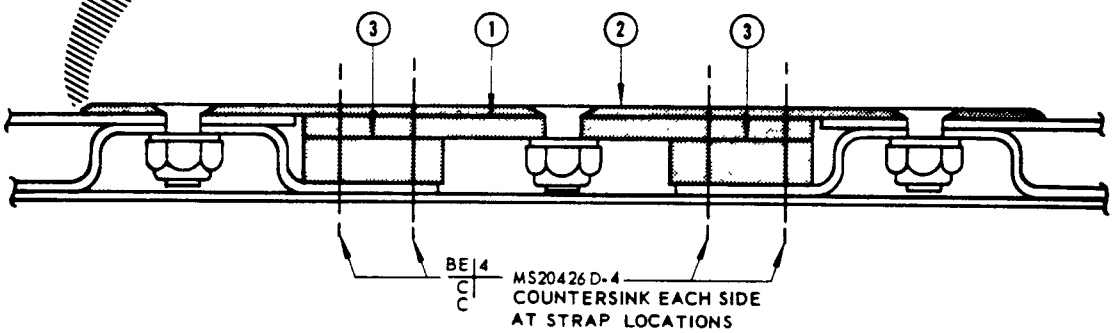
1. Cut out damaged portion of corrugated panel. Do not cut straps at ends.
2. Fabricate part (1).
3. Cut upper panel large enough to remove damaged portion and allow installation of part (1).
4. Fabricate parts (2) and (3).
5. Alodize all raw edges of repair and reworked original parts per 51-8-0.
6. Prepare faying surface for sealing between upper panel and part (2) similar to 53-1-3.
7. Install parts (1), (2) and (3).
8. Finish per 51-2-0 of the Maintenance Manual.

REPAIR MATERIAL			
PART		QTY.	MATERIAL
(1)	SPLICE PLATE	1	.10 2024-T4
(2)	COVER PLATE	1	.050 CLAD 7075-T6
(3)	FILLER	2	2024-T4 SHIM AS REQUIRED

Main Deck Corrugated Flooring Repair
Figure 10 (Sheet 1 of 2)







SECTION THROUGH END OF DAMAGE

Main Deck Corrugated Flooring Repair
Figure 10 (Sheet 2 of 2)

1. Remove insulation as required.
2. Return upper panel to such a shape part (1) will lie flat. If removal of a section of upper panel is desired (detail I) spotface spotwelds to a maximum depth of skin minus .055. Cut out damaged skin taking care not to cut corrugated panel. Break skin loose from corrugated panel and microshave any remaining weld nuggets attached to corrugated panel.
3. Fabricate parts (1) and (2) if required. Fabricate (1) large enough to allow edge margin on each side of three rows of fasteners.
4. Alodize all raw edges of reworked and repair parts per 51-8-0.
5. Prepare faying surfaces for sealing similar to 53-1-3.
6. Install parts (1) and (2) if required.
7. Finish per 51-2-0 of the Maintenance Manual.
8. Restore insulation to original condition in following manner: material 3/4 inch thick polyester urethane, foam density 2.0 lb - 2.5 lb/ft^3, color optional. General Plastics, Tacoma, Wn. Cement may be applied over BMS 10-11 primer. Clearance with webs and flanges = .12 $^{.24}_{.00}$
   (a) Remove dirt, grease and oil from the lower surface of the floor panel by wiping with a clean cloth.
   (b) Apply methyl ethyl ketone to surface by dispensing from squirt or squeeze type bottle. Do not dip cloth in solvent container.
   (c) Rub surface using soft bristle brush if necessary. Exchange cloths for clean ones frequently.
   (d) Repeat operations (b) and (c) until a lint free clean cloth shows no sign of soil.
   (e) BMS 5-55 adhesive must be thoroughly mixed before using and occasionally during use. For spraying thin with aliphatic naphtha and use within four hours.
   (f) Apply adhesive to both surfaces by brushing, spraying or roller coating.
   (g) Allow open assembly time of 5 to 20 minutes for adhesive to become tacky but not to transfer when touched lightly with the knuckle. When the area is large allow to dry tack free and reactivate by lightly wiping one surface with clean cheese cloth dampened with aliphatic naphtha.
   (h) Press or roll parts together. Entrapment of air pockets shall be avoided.
   (i) BMS 5-55 adhesive shall not be heat cured.
   (k) Clean up may be accomplished with aliphatic naphtha.

NOTE

THIS REPAIR IS APPLICABLE TO CARGO AIRPLANES BETWEEN RBL 45.5 AND LBL 45.5 IN THE OVERWING AREA AS SHOWN IN FIG. 5.

REPAIR FASTENER BAC-R15DJ (BLIND BULBED CHERRY LOCK)

FINISH PER 51-2-0 OF THE MAINTENANCE MANUAL

SEE 51-8-0 FOR METAL PROTECTIVE TREATMENT

BREAK SHARP EDGES 0.03 ALL REPAIR PARTS AND TRIMMED ORIGINAL PARTS

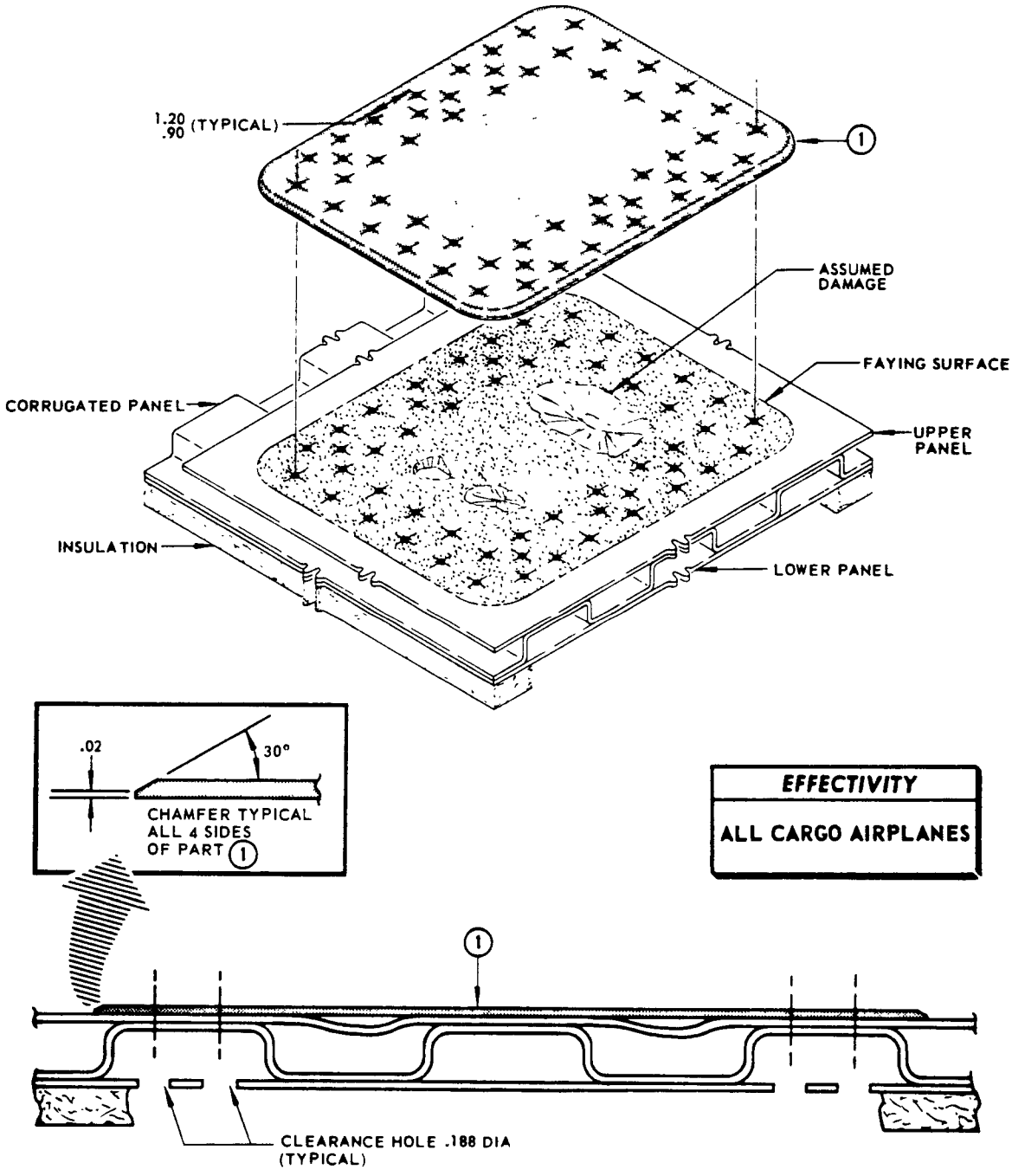
SEE 51-2-0 FOR FASTENER CODE, REMOVAL AND INSTALLATION, HOLE SIZES AND EDGE MARGINS

EFFECTIVITY
ALL CARGO AIRPLANES

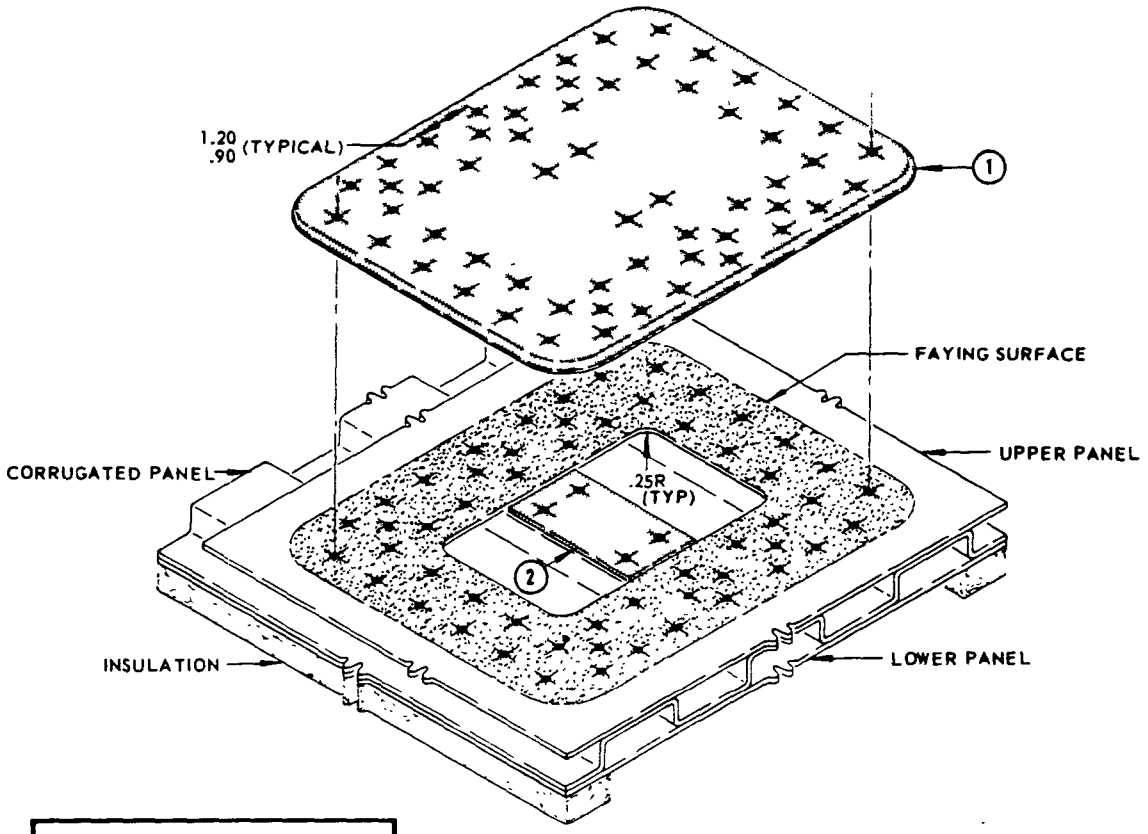
REPAIR MATERIAL

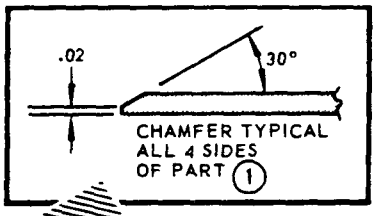
PART		QTY.	MATERIAL
(1)	PLATE	1	.045 CLAD 7075-T6
(2)	FILLER	AS REQ'D	CLAD 2024-T4 SAME GAGE AS UPPER PANEL

Main Deck Corrugated Flooring Repair
Figure 11 (Sheet 1 of 3)



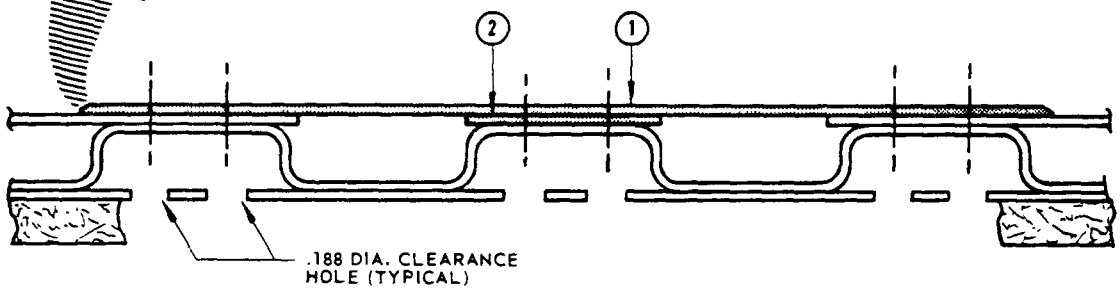
SECTION THROUGH DAMAGE





EFFECTIVITY

ALL CARGO AIRPLANES



SECTION THROUGH DAMAGE

DETAIL I - ALTERNATE REPAIR

Main Deck Corrugated Flooring Repair
Figure 11 (Sheet 3 of 3)

FAA Approved Repair

BOEING Intercontinental 707

STRUCTURAL REPAIR

NOTE

FINISH PER 51-2-0 OF THE MAINTENANCE MANUAL

SEE 51-8-0 FOR METAL PROTECTIVE TREATMENT

BREAK SHARP EDGES 0.03 ALL REPAIR PARTS AND TRIMMED ORIGINAL PARTS

SEE 51-2-0 FOR FASTENER CODE, REMOVAL AND INSTALLATION, HOLE SIZES AND EDGE MARGINS

THIS REPAIR IS APPLICABLE TO CARGO AIRCRAFT BETWEEN RBL 45.5 AND LBL 45.5 IN THE OVERWING AREA WHERE EXTENSIVE DAMAGE REQUIRES REPAIR OF A SECTION OF CORRUGATED PANEL. SEE FIGURE 5, FLOOR REPAIR INDEX.

✦ REPAIR FASTENER BAC-R15DJ (BLIND BULBED CHERRY LOCK)

✦ REPAIR FASTENER MS20426D-4 COUNTERSINK EACH SIDE

EFFECTIVITY
ALL CARGO AIRPLANES

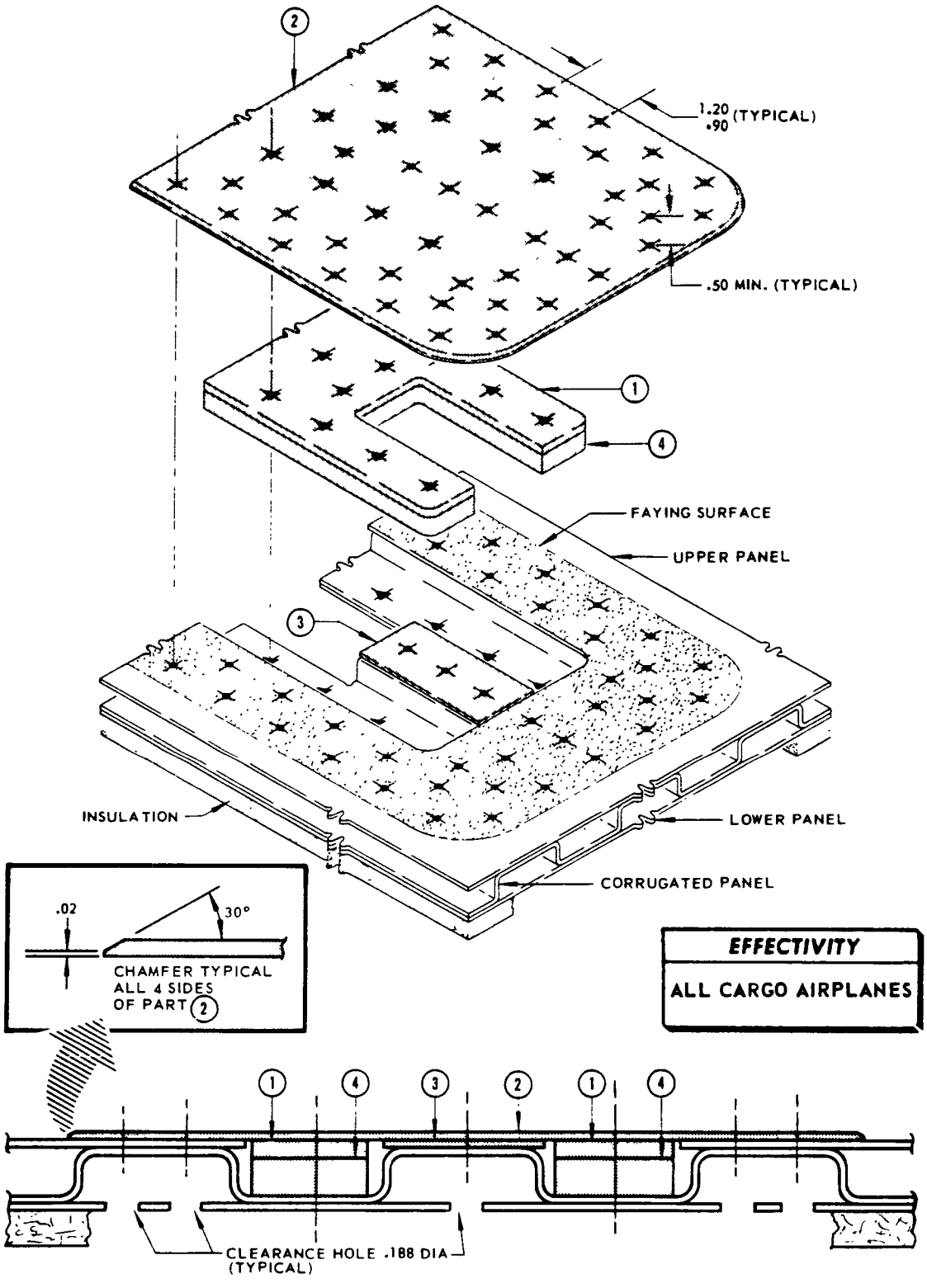
REPAIR INSTRUCTIONS

1. Remove insulation as required.
2. Cutout damaged portion of upper panel and corrugated panel and the part of lower panel necessary to cut out corrugated panel.
3. Fabricate part (1).
4. Trim out upper panel to allow installation of (1) if required.
5. Fabricate parts (2), (3) and (4).
6. Alodize all bare edges of repair and reworked parts per 51-8-0.
7. Prepare faying surfaces for sealing as per 53-1-3.
8. Install parts (1), (2), (3) and (4).
9. Finish per 51-2-0 of the Maintenance Manual.
10. For replacement of insulation see figure 10.

REPAIR MATERIAL

PART		QTY.	MATERIAL
(1)	SPLICE PLATE	1	.10 2024-T4
(2)	COVER PLATE	1	.050 CLAD 7075-T6
(3)	FILLER	AS REQ'D	2024-T4 SAME GAGE AS UPPER PANEL
(4)	FILLER	1	2024-T4 SHIM AS REQUIRED

Main Deck Corrugated Flooring Repair
Figure 12 (Sheet 1 of 2)



SECTION THROUGH DAMAGE

Main Deck Corrugated Flooring Repair
Figure 12 (Sheet 2 of 2)

NOTE

THIS REPAIR IS APPLICABLE WHERE EXTENSIVE DAMAGE REQUIRES REMOVAL OF ONE CORRUGATION COMPLETELY ACROSS. SEE FIGURE 5, FLOOR REPAIR INDEX.

REPAIR FASTENER BAC-R15DJ (BLIND BULBED CHERRY LOCK)

REPAIR FASTENER MS20426D-4 COUNTERSINK EACH SIDE

FINISH PER 51-2-0 OF THE MAINTENANCE MANUAL.

SEE 51-8-0 FOR METAL PROTECTIVE TREATMENT.

SEE 51-2-0 FOR FASTENER CODE, REMOVAL AND INSTALLATION, HOLE SIZES AND EDGE MARGINS.

BREAK SHARP EDGES 0.03 ALL REPAIR PARTS AND TRIMMED ORIGINAL PARTS

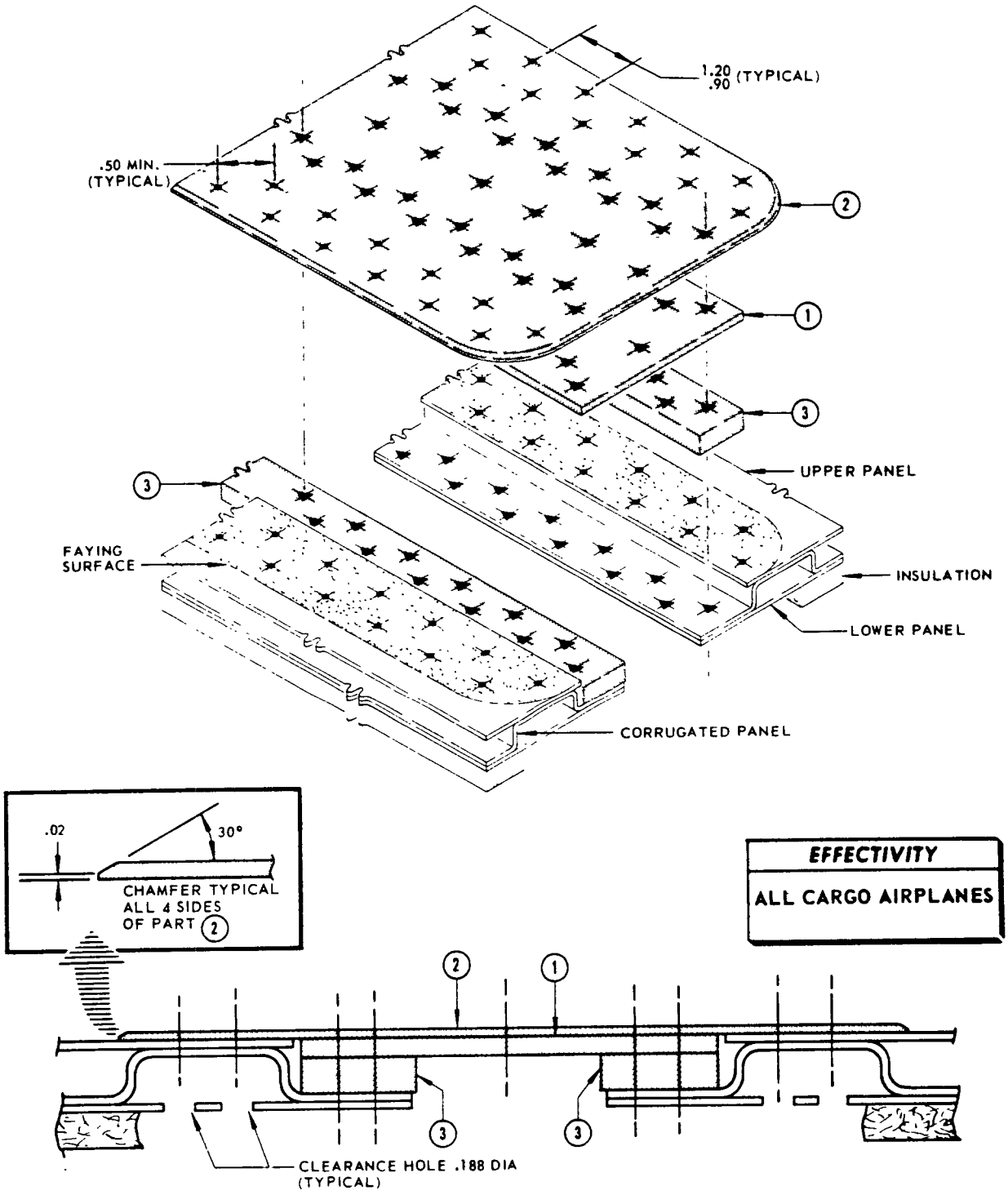
EFFECTIVITY
ALL CARGO AIRPLANES

REPAIR INSTRUCTIONS

1. Remove insulation as required.
2. Cut out damaged portion of corrugated panel and lower panel as illustrated.
3. Fabricate parts (1) and (3).
4. Trim upper panel large enough to remove damaged portion and allow installation of parts (1) and (3).
5. Fabricate part (2).
6. Alodize all raw edges of repair and reworked parts per 51-8-0.
7. Prepare faying surface for sealing between upper panel and part (2) and between parts (1) and (2) similar to 53-1-3.
8. Install parts (1), (2) and (3).
9. Finish per 51-2-0 of the Maintenance Manual.
10. For replacement of insulation see figure 10.

REPAIR MATERIAL			
PART		QTY.	MATERIAL
(1)	SPLICE PLATE	1	.10 2024-T4
(2)	COVER PLATE	1	.050 CLAD 7075-T6
(3)	FILLER	2	2024-T4 SHIM AS REQUIRED

Main Deck Corrugated Flooring Repair
Figure 13 (Sheet 1 of 2)



SECTION THROUGH DAMAGE

Main Deck Corrugated Flooring Repair
Figure 13 (Sheet 2 of 2)

REPAIR INSTRUCTIONS

1. Remove fasteners and cut out the damaged web.

   NOTE: DO NOT REMOVE CABLES.

2. Remove web and replace stiffeners as required.
3. Fabricate repair parts.
4. Locate and cut out fastener and control cable holes in the repair parts to match the original web.
5. Remove all burrs, nicks, scratches, sharp edges and corners. Chamfer or radius .03 on all cut edges of repair parts and original parts.
6. Brush alodine on all cut and trimmed edges per 51-8-0.
7. Install repair parts and all fasteners.
8. Restore original finish per the Maintenance Manual Chapter 51-2-0.
9. Install cable grommets.

NOTE

SEE 51-8-0 FOR METAL PROTECTIVE TREATMENT

SEE 51-2-0 FOR FASTENER CODE, REMOVAL AND INSTALLATION, HOLE SIZES AND EDGE MARGINS

+ ORIGINAL FASTENER LOCATIONS

+ REPAIR FASTENER LOCATIONS

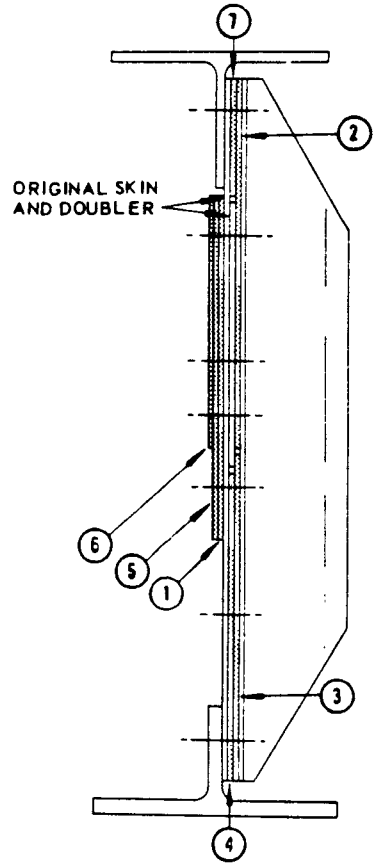
[A] REPLACE EXISTING FASTENERS WITH FASTENERS OF SAME SIZE AND TYPE AS USED ON THE ORIGINAL INSTALLATION

THIS REPAIR IS SUITABLE FOR WEB REPAIRS FROM BL 0 TO 31.65 AND MAY BE MODIFIED FOR USE IN OTHER AREAS

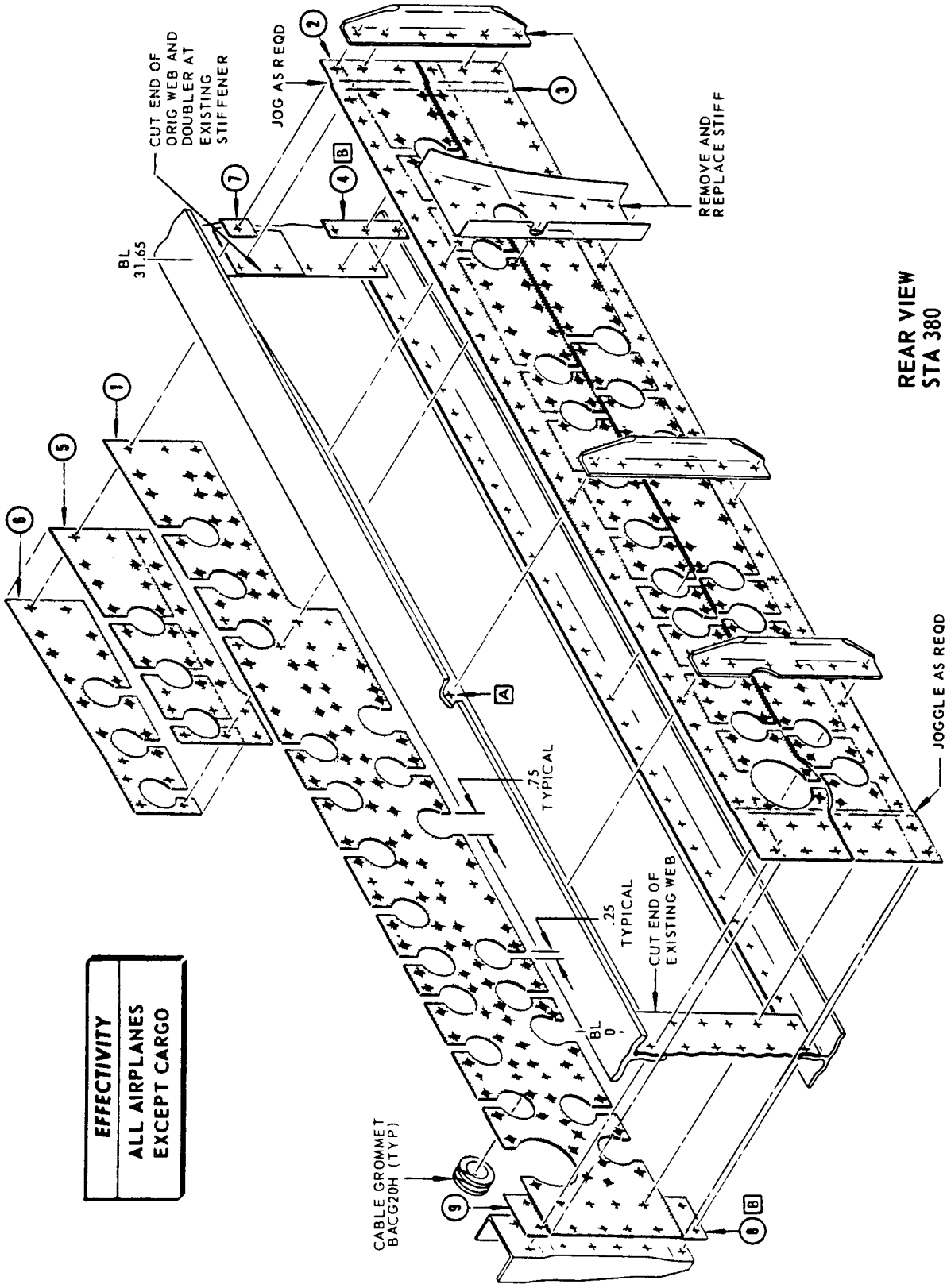
[B] THICKNESS AS REQUIRED

REPAIR MATERIAL

	PART	QTY.	MATERIAL
1	PLATE	1	.056 CLAD 2024-T3
2	PLATE	1	.056 CLAD 2024-T3
3	PLATE	1	.056 CLAD 2024-T3
4	FILLER	1	.020 CLAD 2024-T3 [B]
5	PLATE	1	.032 CLAD 2024-T3
6	PLATE	1	.032 CLAD 2024-T3
7	FILLER	1	.020 CLAD 2024-T3 [B]
8	FILLER	1	.056 CLAD 2024-T3 [B]
9	FILLER	1	.056 CLAD 2024-T3 [B]



SECTION THROUGH DAMAGE



Floor Beam Repair - Sta 330
Figure 14 (Sheet 2 of 2)

REPAIR INSTRUCTIONS

1. Remove floor panels and fasteners, as required, to gain access to the cargo track and cargo door sill.

   NOTE: After this repair has been accomplished the removal and replacement of parts (2), (3), (4), and (5) for future repairs may be made without removal of the floor panels.

2. Carefully cut the original cargo track at the indicated body stations shown. Do not cut or damage the underlying door sill. Trim and remove the filler strip or sections of the strip, as required.

3. Remove the damaged cargo track sections and fasteners as required.

4. Fabricate the repair parts.

   NOTE: Carefully locate fastener holes in the repair parts at the same locations as the original seat track. Use the original seat track as a jig fixture.

5. Chamfer the ends of the original cargo track extrusion and the repair track extrusion as shown.

6. Alodize the cut and chamfered ends of the original seat track and the repair track extrusion and finish with BMS 10-11F TYPE I primer.

7. Install repair parts with fasteners and nuts according to note [E] and [B]. Add shims if required, between extrusion and sill.

8. Replace the floor panel and all fasteners.

9. Replace fairing parts (7), (8), (9) or (10) and fairing fasteners as required.

10. Restore original finish per Maintenance Manual 51-2-0.

NOTE

- FINISH PER 51-2-0 OF THE MAINTENANCE MANUAL.
- SEE 51-8-0 FOR METAL PROTECTIVE TREATMENT.
- CHAMFER OR RADIUS SHARP EDGES .03 ON REPAIR PARTS AND ON CUT ORIGINAL PARTS.

+ ORIGINAL FASTENER LOCATION

+ REPAIR FASTENER LOCATION

[A] CHAMFER ENDS 45° X .06

[B] APPLY A BRUSH COAT OF BMS 5-19 TYPE A SEALANT TO THE COUNTERSUNK HEAD FASTENERS BEFORE INSTALLATION.

[C] INSTALL .030 LAMINATED ALUMINUM SHIM IF REQUIRED AT EACH FASTENER LOCATION.

[D] MAKE FROM BAC1520-1257 OR BAC1520-1337 PER DETAIL 1 OR USE BAC1520-1433.

[E] INSTALL NAS334 CPA FASTENERS AND MAZ3600-048 STANDARD PRESSED STEEL, OR MF1400-4 KAYNAR NUTPLATES OR EQUIVALENT 160,000 PSI NUTPLATES

STANDARD PRESSED STEEL, PRECISION FASTENER DIVISION
JENKINTOWN, PENNSYLVANIA

KAYNAR - THE KAYNAR MANUFACTURING COMPANY
800 S. STATE COLLEGE BOULEVARD
FULLERTON, CALIFORNIA

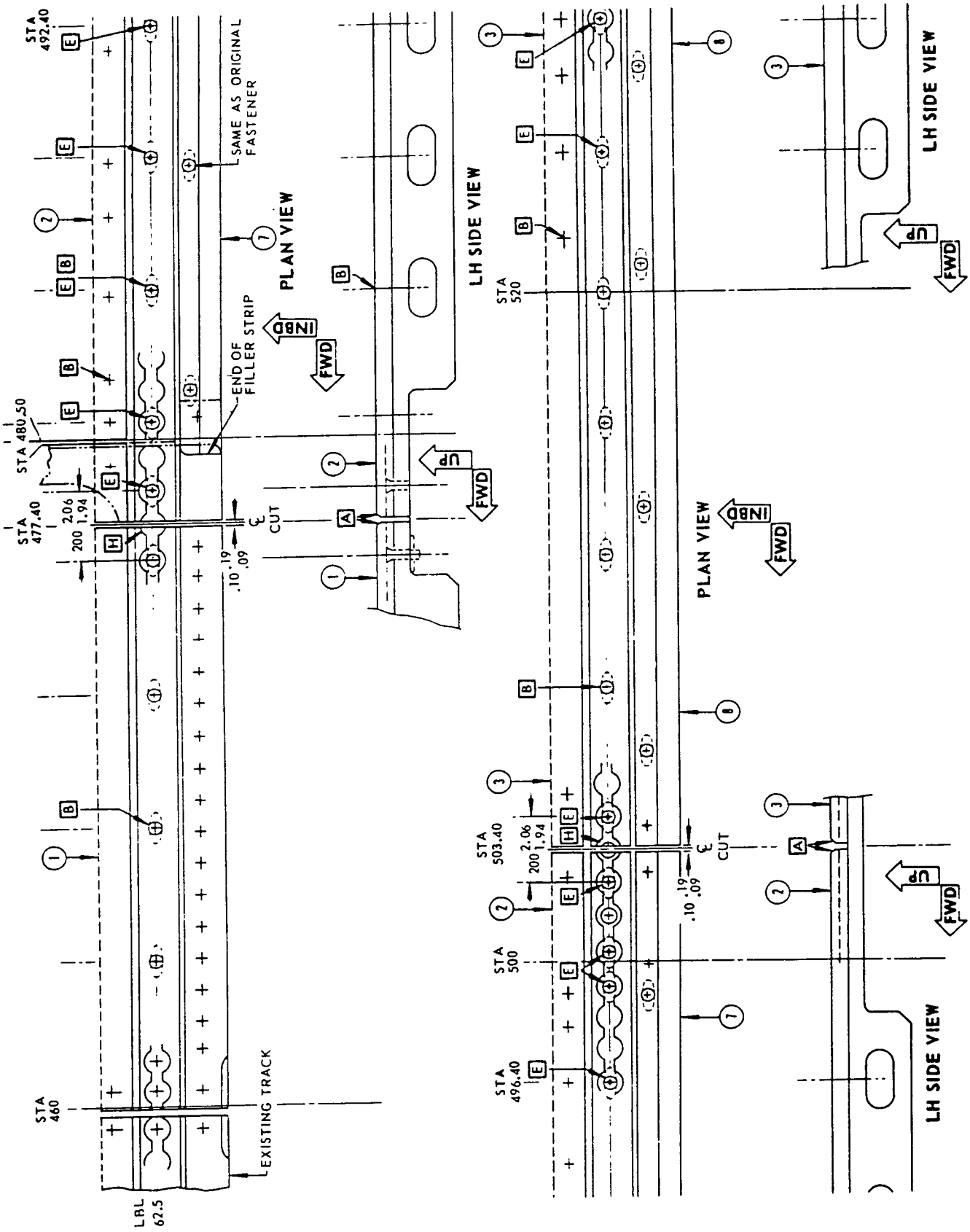
[F] CINCH-MONAD NOCK 1977 MARINA BOULEVARD SAN LEANDRO, CALIFORNIA OR EQUIVALENT ESSNA OR KAYNOR

[G] THESE PARTS MAY BE OBTAINED FROM THE BOEING SPARE PARTS DEPARTMENT. CUT TO FIT.

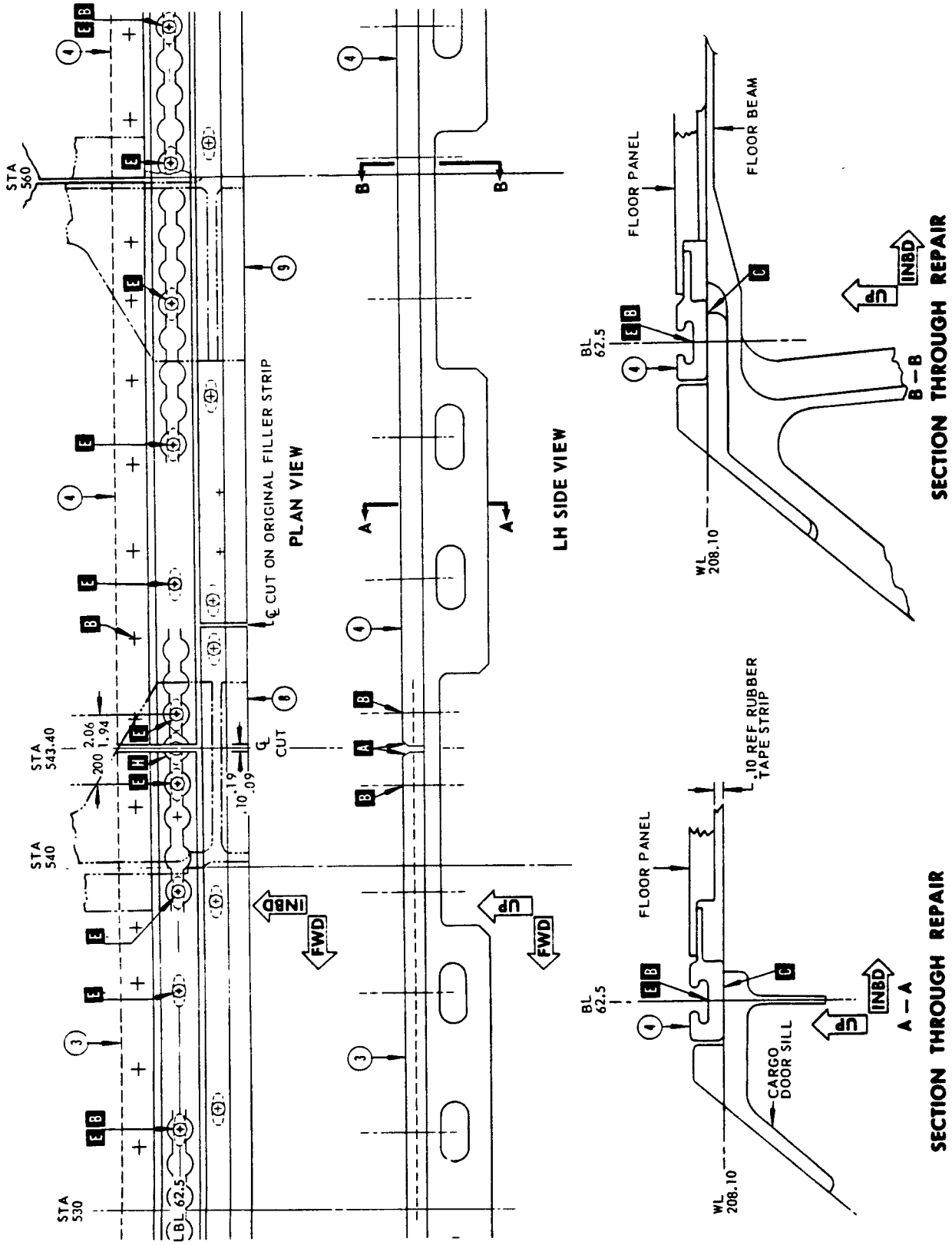
[H] .78 DIA MIN AFTER INSTALLATION, MACHINE FINISH 125 ✓

PART		QTY	MATERIAL	OPTIONAL PART
(1)	EXTRUSION	1	7178-T6 [D]	[G] 65-9927-182, -186, -184 AND -195
(2)		1		
(3)		1		
(4)		1		
(5)		1		
(6)	EXTRUSION	1	7178-T6 [D]	[G] 65-9927-182, -186, -184 AND -195
(7)	FILLER	1	MAKE FROM ORIGINAL PART	
(8)	FILLER	1		
(9)	FILLER	1		
(10)	FILLER	1	MAKE FROM ORIGINAL PART	

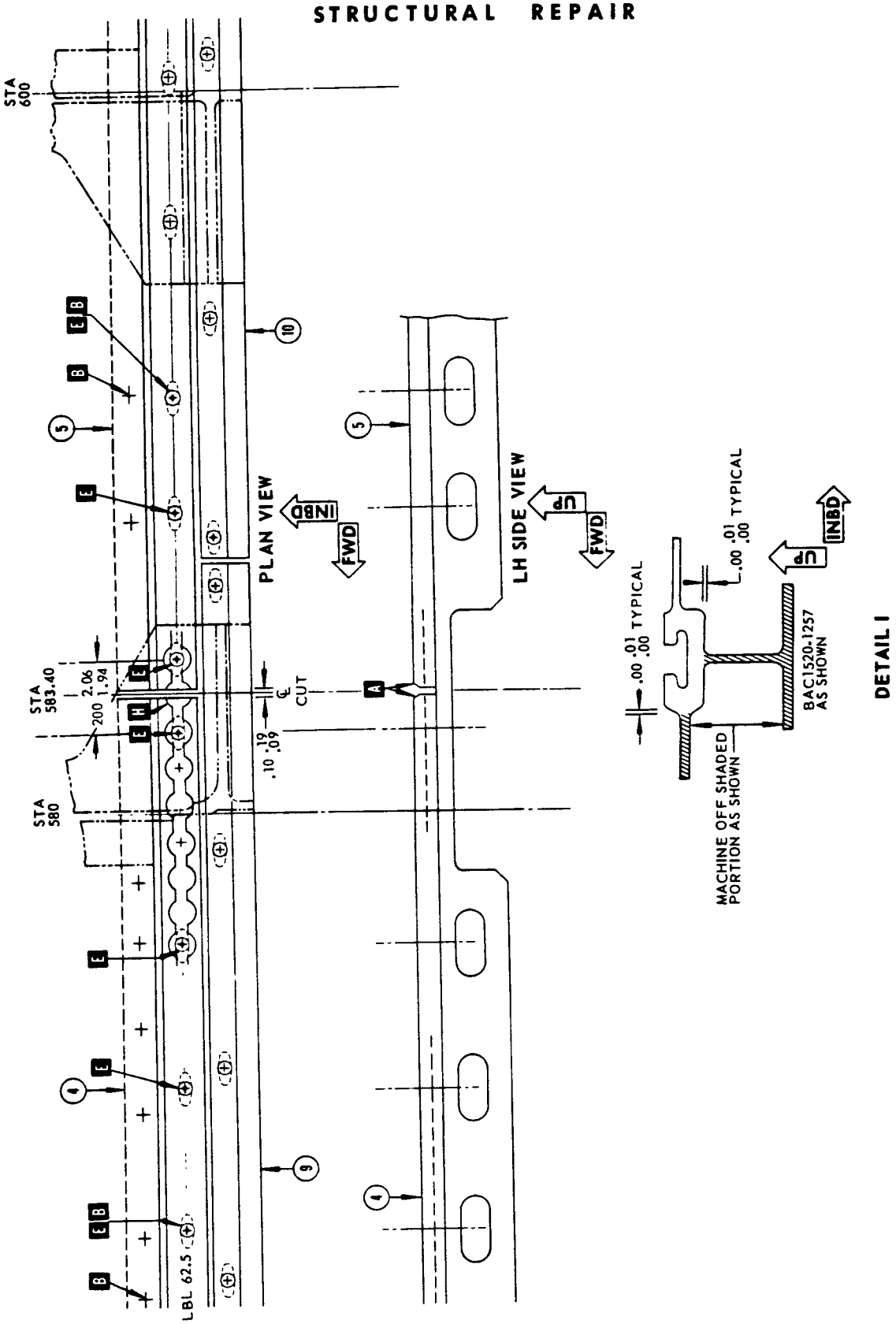
Cargo Door Sill Track Repair
Figure 15 (Sheet 1 of 5)



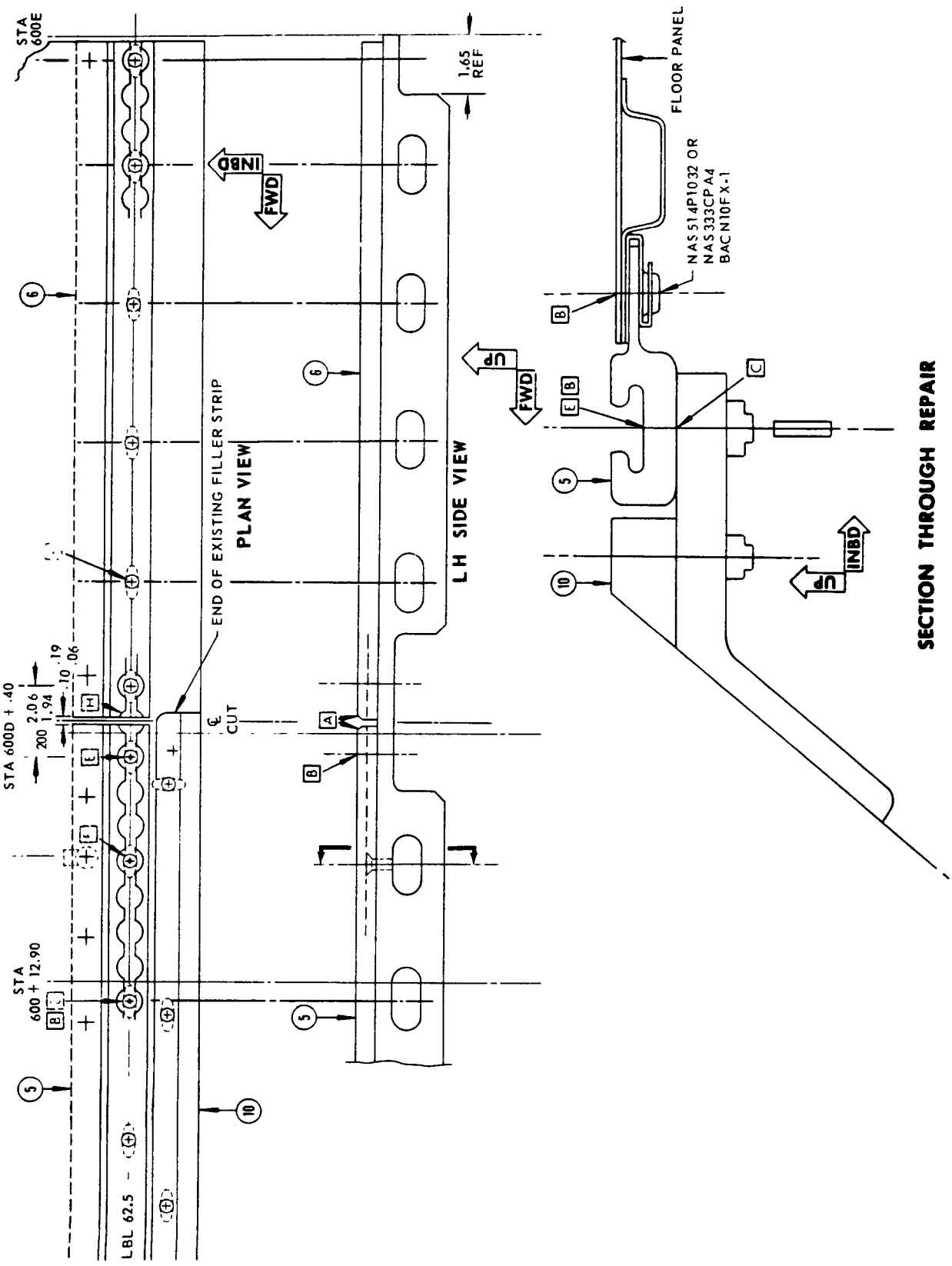
Cargo Door Sill Track Repair
Figure 15 (Sheet 2 of 5)



Cargo Door Sill Track Repair
Figure 15 (Sheet 3 of 5)



Cargo Door Sill Track Repair
Figure 15 (Sheet 4 of 5)



Cargo Door Sill Track Repair
Figure 15 (Sheet 5 of 5)

BOEING Intercontinental 707

STRUCTURAL REPAIR

EFFECTIVITY

ALL CARGO AIRPLANES

FAA Approved Repair

REPAIR INSTRUCTIONS

1. If damage is in region of forward galley at B.L. 62.5 remove sealant. Do not use tool harder than a hardwood scraper.
2. Remove damaged portion of seat track. Make each cut 8.4 inches from a frame station as shown in illustration. Alodize cut ends of original extrusion.
3. Insert new parts and make splice at each end as illustrated.
4. One splice may be made between any pair of adjacent floor beams.
5. Repair splice illustrated is similar to production splice at sta 960. ! 10.40 and sta 1130.40.
6. If required replace sealant BMS 5-95 class B per Maintenance Manual.

NOTES

THIS REPAIR NOT APPLICABLE B.S. 380-440 & B.S. 820-940.

FINISH PER 51-2-0 OF THE MAINTENANCE MANUAL.

SEE 51-8-0 FOR METAL PROTECTIVE TREATMENT.

BREAK SHARP EDGES 0.03 ALL REPAIR PARTS AND TRIMMED ORIGINAL PARTS.

SEE 51-2-0 FOR FASTENER CODE, REMOVAL AND INSTALLATION, HOLE SIZES AND EDGE MARGINS.

NUMBER OF FASTENERS REQUIRED IS FOR EACH SPLICE.

[A] CHAMFER 0.06 X 45° ENDS OF ORIGINAL AND NEW EXTRUSIONS.

[B] APPLY A BRUSHCOAT OF BMS 5-95 CLASS B SEALANT TO COUNTERSINK PORTION OF THE FASTENER HEAD BEFORE INSTALLATION (CARGO PLANES)

[C] PROCURE FROM BOEING SPARE PARTS DEPARTMENT

SYMBOLS

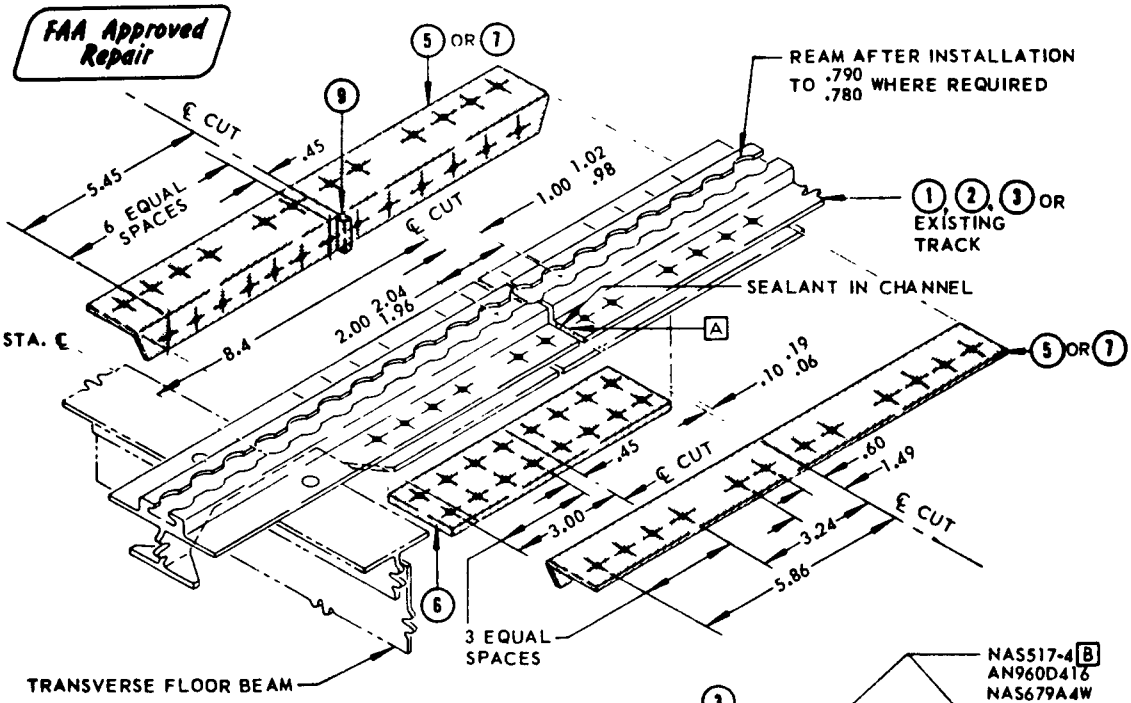
REPAIR FASTENER LOCATION.

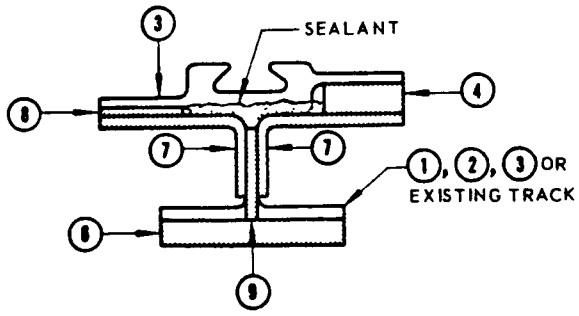
REPAIR MATERIAL

	PART	QTY	MATERIAL	OPTIONAL PART [C]
(1)	EXTRUSION	1	BAC1520-1264 7178-T6	65-9927-157
(2)	EXTRUSION	1	BAC1520-1251 7178-T6	65-9927-181
(3)	EXTRUSION	1	BAC1520-1257 7178-T6	65-9927-182
(4)	FILLER		0.33 2024-T4	
(5)	ANGLE	4	AND 10134-1601 7178-T6	
(6)	STRAP	2	0.20 7178-T6 OR 0.25 7075-T6	
(7)	ANGLE	4	BAC1503-100122 7178-T6	
(8)	FILLER	2	0.12 2024-T4	
(9)	SEAL PLUG	2	2024-T3, T4 OR 7075-16 0.08 0.16 0.05	

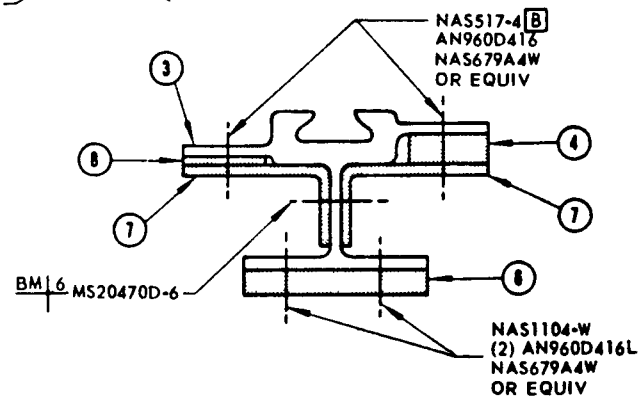
Seat Track Extrusion Repair (All Cargo Airplanes)
Figure 16 (Sheet 1)

FAA Approved Repair

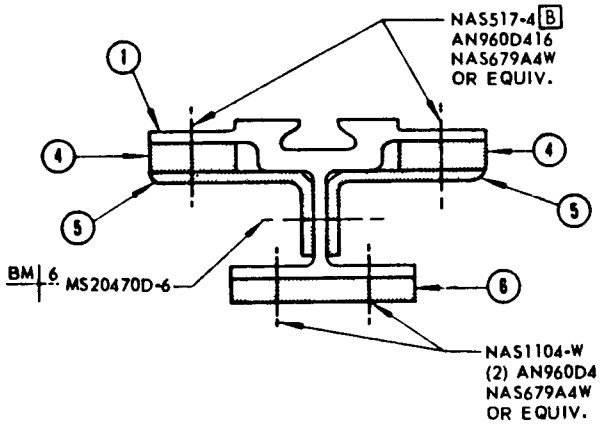




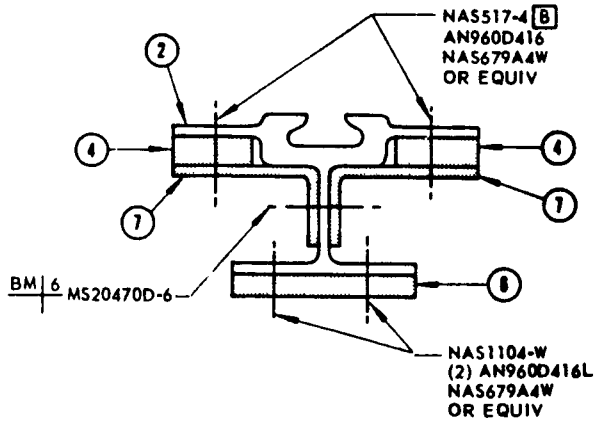
SECTION AT SPLICE



REPAIR OF BAC1520-1257 EXTRUSION
SECTION ADJACENT TO SPLICE



REPAIR OF BAC1520-1264 EXTRUSION
SECTION ADJACENT TO SPLICE



REPAIR OF BAC1520-1251 EXTRUSION
SECTION ADJACENT TO SPLICE

Seat Track Extrusion Repair (All Cargo Airplanes)
Figure 16 (Sheet 2 of 2)

EFFECTIVITY
OPTIONAL REPAIR FOR ALL AIRPLANES

FAA Approved Repair

REPAIR INSTRUCTIONS

1. If damage is in the region of forward galley door at BL62.5 remove sealant. Do not use a tool harder than a hardwood scraper.
2. Remove damaged section of seat track. Make each cut 10.40 from a frame station as shown in illustration.
3. Trim existing track extrusions as per seat track trim diagram shown below.
4. Fabricate part 1. Trim as per seat track trim diagram shown below.
5. Fabricate parts 2 and 3, provide cadmium plating per 51-3-3 for part 3.
6. Clean and alodize all surfaces reworked on existing track, parts 1 and 2 per 51-3-0.
7. Assemble.
8. If required replace sealant BMS 5-95 class B per Maintenance Manual.
9. Finish per 51-2-0 of the Maintenance Manual.

NOTES

FINISH PER 51-2-0 OF THE MAINTENANCE MANUAL.

BREAK SHARP EDGES 0.03 ALL REPAIR PARTS AND TRIMMED ORIGINAL PARTS.

SEE 51-2-0 FOR FASTENER CODE, REMOVAL AND INSTALLATION, HOLE SIZES AND EDGE MARGINS.

NUMBER OF FASTENERS REQUIRED IS FOR EACH SIDE OF DAMAGE AS SHOWN.

[A] CHAMFER 0.06 X 45° ENDS OF ORIGINAL AND NEW EXTRUSIONS

[B] APPLY A BRUSHCOAT OF BMS 5-95 CLASS B SEALANT TO COUNTERSINK PORTION OF THE FASTENER HEAD BEFORE INSTALLATION

[C] ONE SPLICE MAY BE MADE BETWEEN ANY PAIR OF ADJACENT FLOOR BEAMS

[D] SEE 51-8-0 FOR METAL PROTECTIVE TREATMENT AT FAYING SURFACES AND FASTENERS

[E] PROVIDE SEALANT IN CHANNEL SIMILAR TO METHOD SHOWN IN 53-3-7 FIGURE 16

[F] PROCURE FROM BOEING SPARE PARTS DEPARTMENT

SYMBOLS

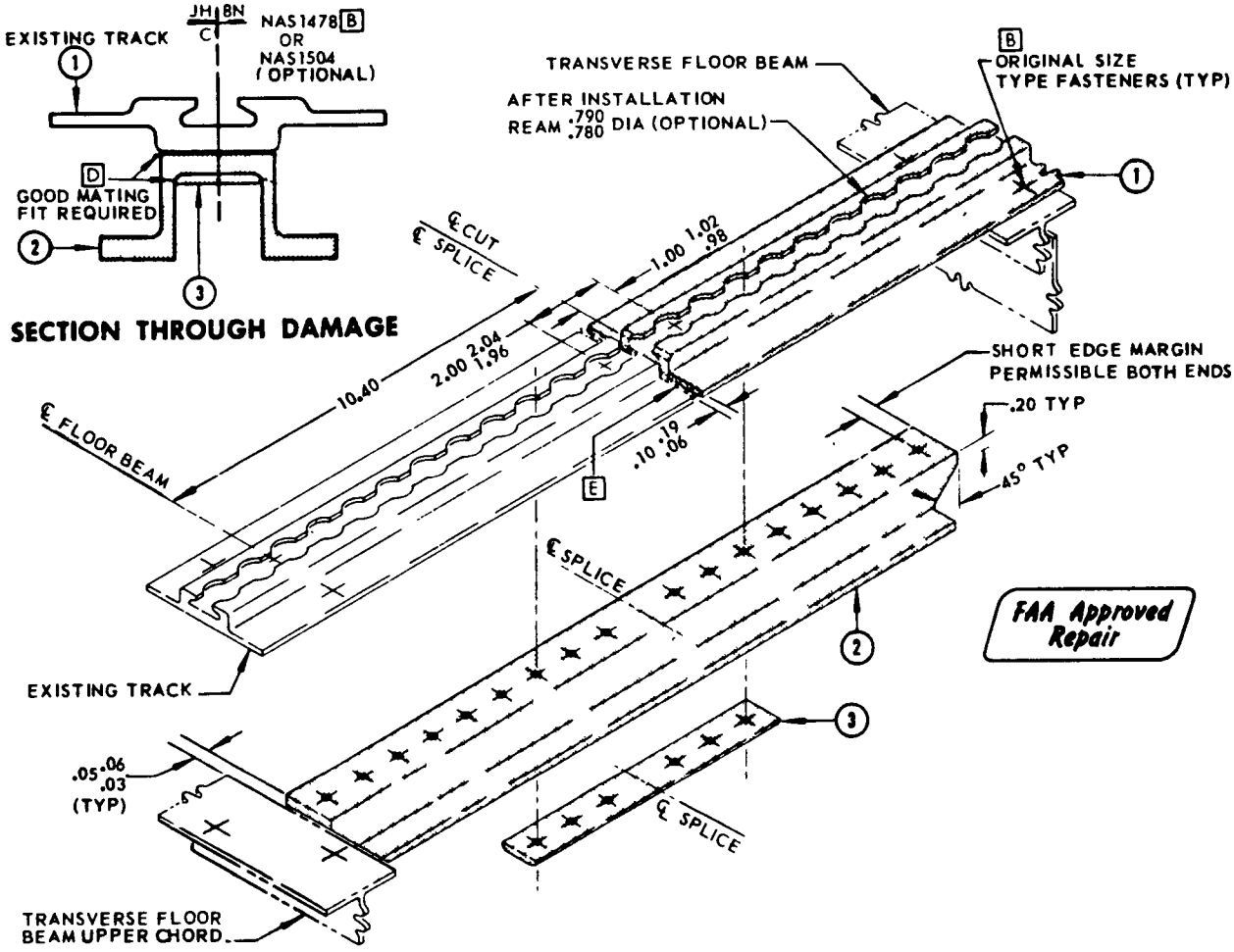
ORIGINAL FASTENER LOCATIONS

REPAIR FASTENER LOCATIONS

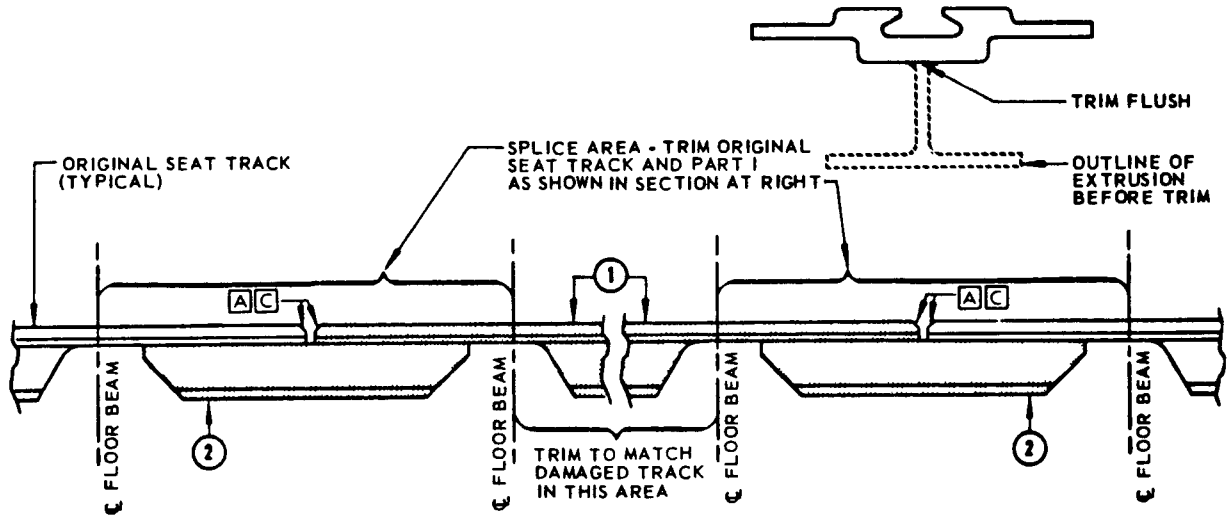
REPAIR MATERIAL

PART		QTY	MATERIAL	OPTIONAL PART [F]
(1)	EXTRUSION	1	BAC1520-1251 7178-T6 BAC1520-1264 7178-T6	65-9927-181 65-9927-157
(2)	EXTRUSION	2	BAC1510-190 7075-T6	
(3)	STRAP	2	0.10 4130 STEEL HT 150-170 KSI	

Seat Track Extrusion Repair (Optional)
Figure 17 (Sheet 1)



SEAT TRACK SPLICE – TYPICAL AT EACH END OF REPAIR



TYPICAL SEAT TRACK TRIM AREAS

Seat Track Extrusion Repair (Optional)
Figure 17 (Sheet 2 of 2)

REPAIR INSTRUCTIONS

1. Remove damaged section of track. Make each cut 4.40 inches back from frame station as shown in illustration.
2. Trim existing track extrusions to accommodate part [7].
3. Fabricate part [1], [2], [3], [4], [5], or [6], whichever one is applicable.
4. Fabricate part [7].
5. Clean and alodize all cut surfaces and drilled holes.
6. Assemble parts and fasteners.

NOTE

- THIS REPAIR IS APPLICABLE TO SEAT TRACKS BETWEEN STATIONS 820 AND 940 ONLY.
- BREAK SHARP EDGES .015 TO .030 ON ALL REPAIR PARTS AND TRIMMED ORIGINAL PARTS.
- NUMBER OF FASTENERS REQUIRED IS FOR EACH SPLICE.
- FINISH ACCORDING TO 51-2-0 OF THE MAINTENANCE MANUAL.
- FOR PROTECTIVE TREATMENT OF METAL SEE 51-8-0.
- SEE 51-2-0 FOR FASTENER CODE, INSTALLATION AND REMOVAL, HOLE SIZES AND EDGE MARGINS.

⌖ ONE REPAIR FASTENER EACH SIDE OF CUT AS SHOWN.

✦ ALL OTHER REPAIR FASTENERS.

[A] CHAMFER .06 X 45° ENDS OF NEW AND ORIGINAL TRACK EXTRUSIONS.

[B] APPLY A BRUSH COAT OF BMS 5-19 TYPE 'A' SEALANT TO COUNTERSINK PORTION OF FASTENER HEAD BEFORE INSTALLATION.

[C] ONE SPLICE MAY BE MADE BETWEEN ANY PAIR OF ADJACENT FLOOR BEAMS.

[D] PROVIDE SEALANT IN CHANNEL SIMILAR TO METHOD SHOWN IN 53-3-7 FIGURE 16.

[E] PROCURE FROM BOEING SPARE PARTS DEPARTMENT.

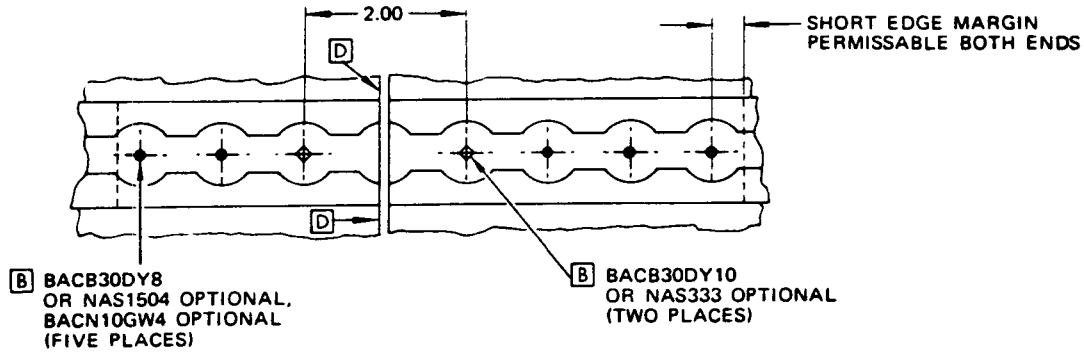
[F] OPTIONAL FASTENER IN THIS LOCATION:

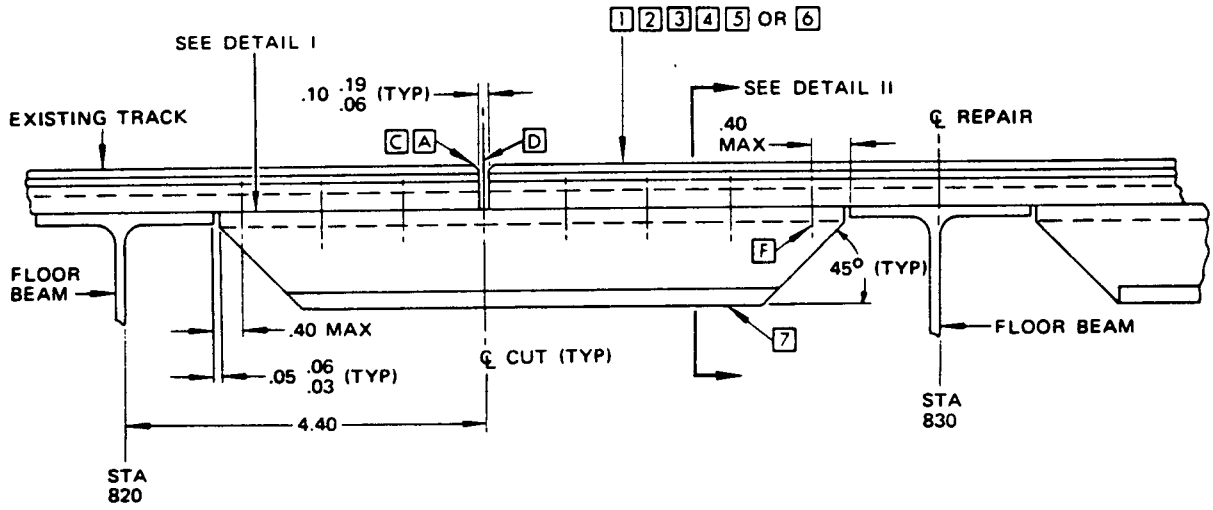
BACB30LU-6 BOLT
BACN10GW-3 NUT

Seat Track Extrusion Repair
Figure 18 (Sheet 1 of 4)

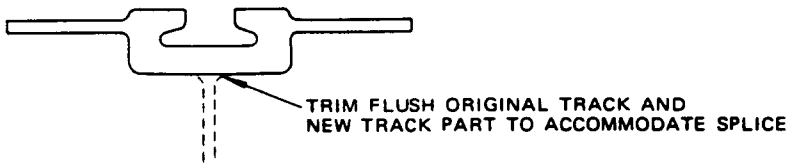
REPAIR MATERIAL							
				OPTIONAL PART [E]			
PART		QTY	MATERIAL	QTY	MATERIAL	QTY	MATERIAL
[1]	EXTR	1	BAC1520-1264 7178-T6	1	65-9927-157		
[2]	EXTR	1	BAC1520-1340 7178-T6				
[3]	EXTR	1	BAC1520-1257 7178-T6	1	65-9927-182		
[4]	EXTR	1	BAC1520-1337 7178-T6				
[5]	EXTR	1	BAC1520-1251 7178-T6	1	65-9927-181		
[6]	EXTR	1	BAC1520-1338 7178-T6				
[7]	CHAN EXTR	2	BAC1510-190 7075-T6				

Seat Track Extrusion Repair
Figure 18 (Sheet 2 of 4)



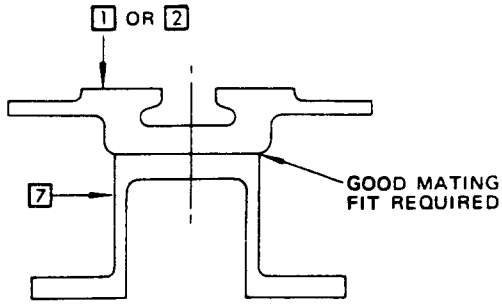


TYPICAL SPLICE IS SHOWN
FORWARD HALF OF REPAIR SHOWN
AFT HALF SIMILAR

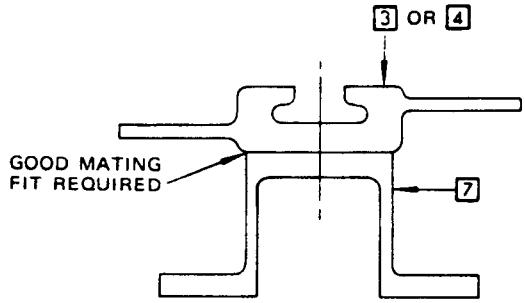


DETAIL I

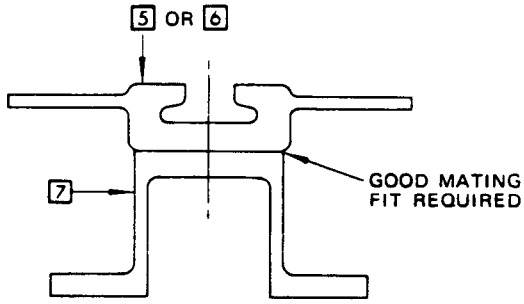
Seat Track Extrusion Repair
Figure 18 (Sheet 3 of 4)



REPAIR OF BAC1520-1264 AND BAC1520-1340



REPAIR OF BAC1520-1257 AND BAC1520-1337



REPAIR OF BAC1520-1251 AND BAC1520-1338

SECTION THROUGH REPAIR
USE WHICHEVER EXTRUSION IS APPLICABLE
FOR BUTTOCK LINES 0. BL 24.75, 45.50 AND 62.50
BETWEEN FRAME STATIONS 820 AND 940 ONLY.

DETAIL II

Seat Track Extrusion Repair
Figure 18 (Sheet 4 of 4)

REPAIR INSTRUCTIONS

1. Cut away damaged portion of seat track. See detail for cut location.

2. Make replacement section of track. Maintain gap dimensions at track joints. See note [E] .

3. Alodize entire surface of track section. Apply one coat of BMS 10-11, type 1, primer to the track extrusion surfaces.

4. Install replacement track using specified fasteners.

NOTE

- THIS REPAIR MAY BE USED AT ANY STANDARD BAY. NONSTANDARD BAYS ARE THOSE CONTAINING A TRACK SPLICE OR A SEAT TRACK WITHOUT LOWER FLANGES AND WEB. SEE DETAIL I.

- REFER TO THE FOLLOWING WHEN MAKING THESE REPAIRS:

  51-2-0 FOR FASTENERS CODE, REMOVAL, INSTALLATION, HOLE SIZES AND EDGE MARGINS.

  51-8-0 FOR PROTECTIVE TREATMENT OF METAL.

  51-2-0 OF THE 707 MAINTENANCE MANUAL FOR INTERNAL AND EXTERNAL FINISHES.

- BREAK SHARP EDGES OF ORIGINAL AND REPAIR PARTS 0.015 TO 0.030.

- REMOVE ALL NICKS, SCRATCHES, BURRS, SHARP EDGES AND CORNERS FROM ORIGINAL AND REPAIR PARTS.

✦ REPAIR FASTENER LOCATION.

[A] WHEN REPLACEMENT TRACK SPANS MORE THAN ONE BAY (20.00 REF) OF FLOOR BEAMS, USE EXISTING TYPE AND SIZE OF FASTENERS TO ATTACH TRACK AT INTERMEDIATE BEAMS.

[B] REPAIRS IN ALL NONSTANDARD BAYS MUST BE MADE USING THE APPROPRIATE REPAIR IN 53-3-7.

[C] SEE DWG 66-1573 FOR SEAT ATTACHMENT HOLE PATTERN WHEN FABRICATING TRACK FROM STANDARD EXTRUSION.

[D] AT EACH FLOOR BEAM OVER WHEEL WELL, USE BOLTS WITH SAME GRIP LENGTH AS ORIGINALLY INSTALLED BOLTS.

[E] NEW SEAT TRACK TO BE OF THE SAME BAC1520 EXTRUDED SECTION AND MATERIAL AS THE SEAT TRACK BEING REPLACED.

[F] TRACK LUGS TO BE MACHINED FROM THE EXISTING AND NEW SEAT TRACK AS SHOWN.

CAUTION: SEAT ATTACHMENTS MUST NOT BE LOCATED WHERE TRACK LUGS HAVE BEEN TRIMMED. MOVE SEAT TO NEAREST AVAILABLE POSITION.

[G] AT LOCATIONS WHERE THERE IS AN EXISTING FASTENER WITH A NOMINAL DIAMETER GREATER THAN 0.250. USE NAS623 SCREW, BACN10JC NUT AND AN960PD WASHER OF SAME NOMINAL DIAMETER AS EXISTING FASTENER FOR REPLACEMENT.

[H] DISREGARD THIS DIMENSION WHERE THERE ARE EXISTING FASTENER HOLES IN THE FLOOR BEAM. LOCATE FASTENERS IN REPLACEMENT TRACK TO MATCH.

Seat and Cargo Tracks - Repair Splice on Transverse Floor Beams
Figure 19 (Sheet 1)

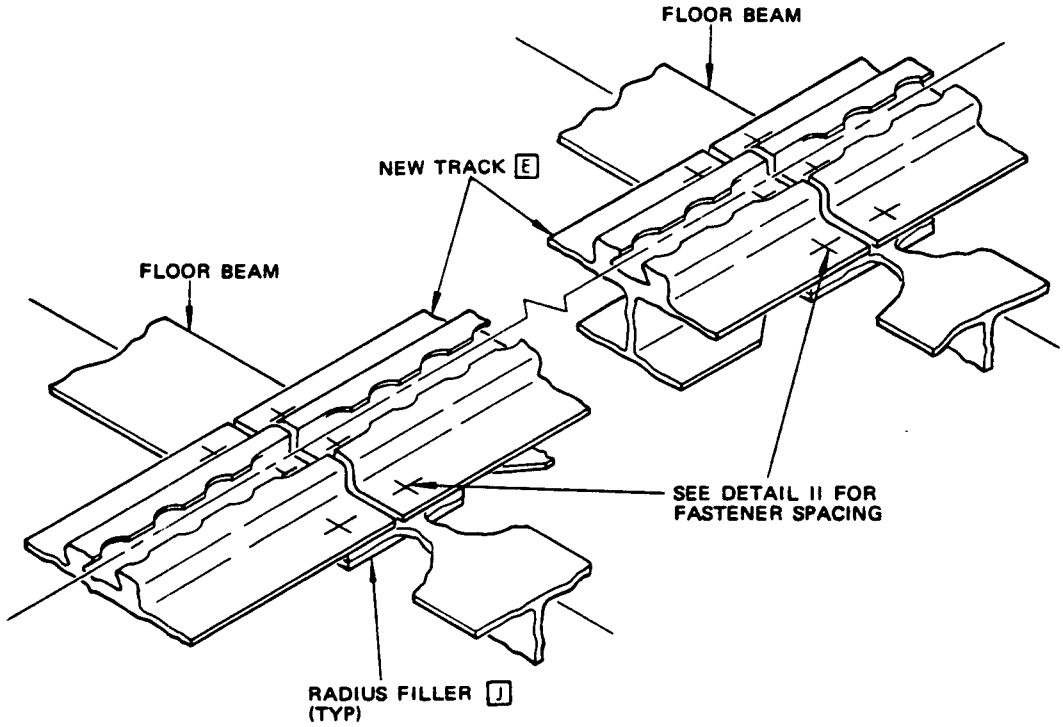
[J] TRIM RADIUS FILLER [5] TO SAME LENGTH AS WIDTH OF TRACK. NEW RADIUS FILLER NOT REQUIRED AT LOCATIONS WHERE A RADIUS FILLER OF REQUIRED THICKNESS (OR GREATER) IS INSTALLED.

REPAIR MATERIAL							
				OPTIONAL PART			
PART		QTY	MATERIAL	QTY	MATERIAL	QTY	MATERIAL
[1]	TRACK	1	BAC1520-1264 [E] 7178-T6	1	65-9927-157		
[2]	TRACK	1	BAC1520-1251 [E] 7178-T6	1	65-9927-181		
[3]	TRACK	1	BAC1520-1257 [E] 7178-T6	1	65-9927-182		
[4]	REPAIR WASHER	AS REQD	BAR 2024-T4	AS REQD	66-2955		
[5]	RADIUS FILLER	4	7075-T6 SEE TABLE I				

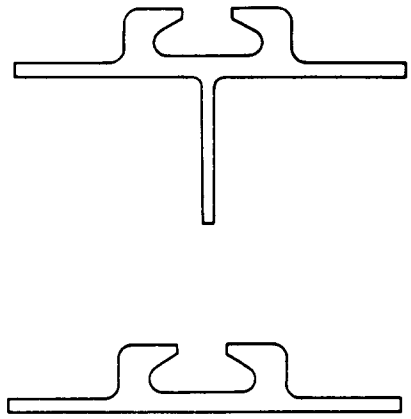
THICKNESS OF FLOOR BEAM HORIZONTAL FLANGE	REQUIRED MINIMUM THICKNESS OF RADIUS FILLER [J]
0.10	0.23
0.12	0.14
0.125	0.12
0.15	0.11
0.16 TO 0.24	0.08
GREATER THAN 0.24	NONE

TABLE I

Seat and Cargo Tracks - Repair Splice on Transverse Floor Beams
Figure 19 (Sheet 2)

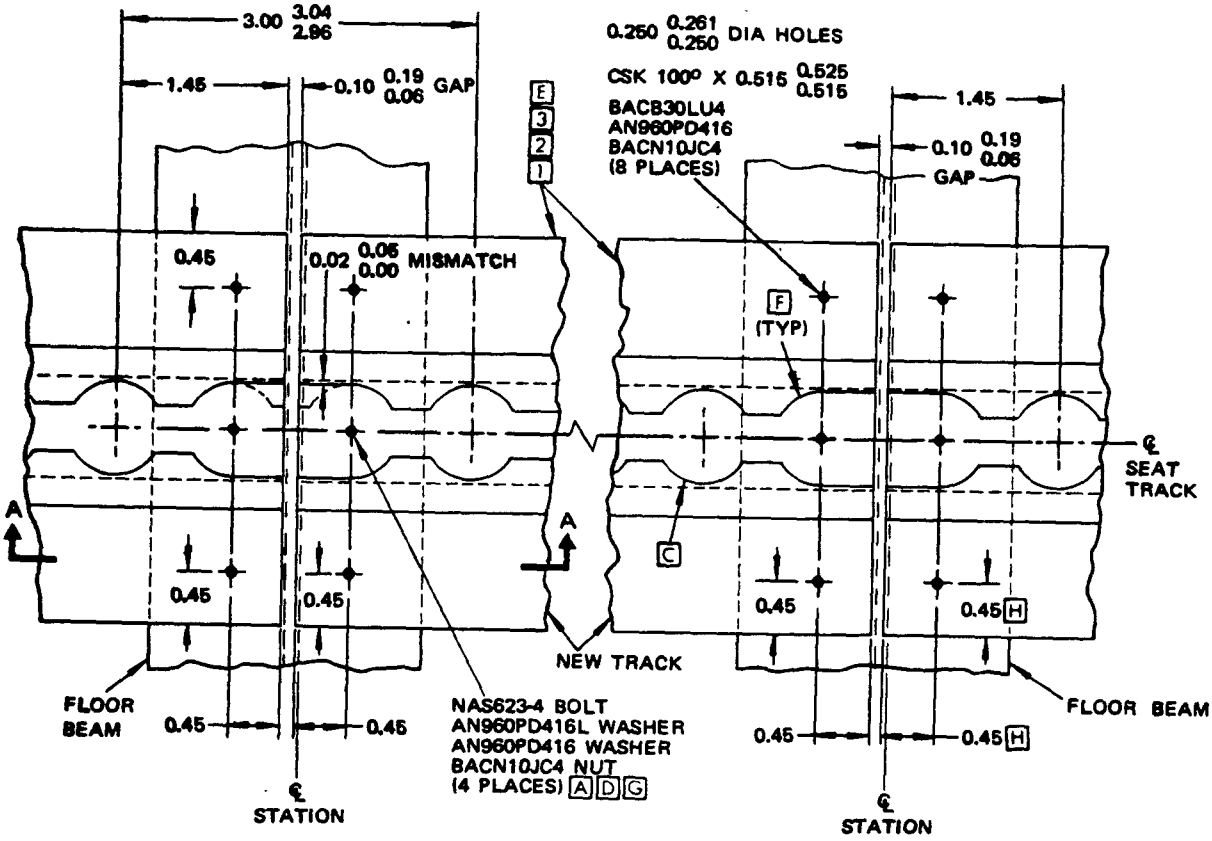


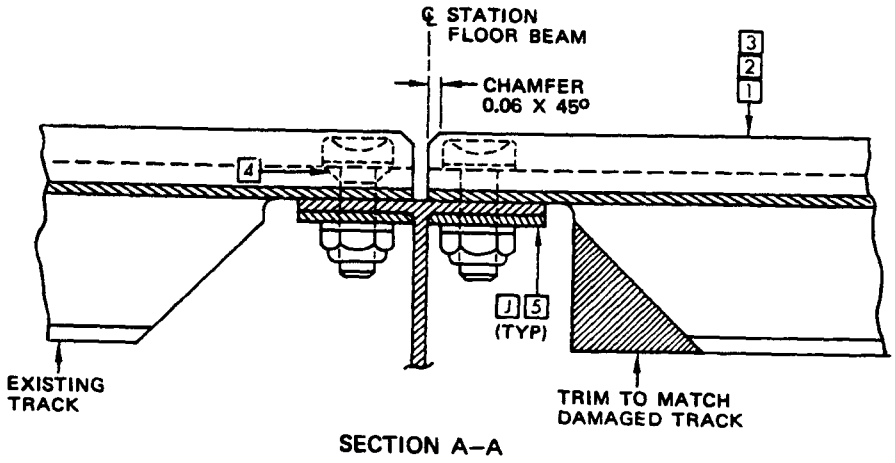
TYPICAL REPAIR FOR STANDARD BAYS [B]



REWORKED EXTRUSIONS IN NONSTANDARD BAYS
DETAIL I

Seat and Cargo Tracks - Repair Splice on Transverse Floor Beams
Figure 19 (Sheet 3)





SECTION A–A

TYPICAL REPAIR FOR STANDARD BAYS B
DETAIL II

Seat and Cargo Tracks - Repair Splice on Transverse Floor Beams
Figure 19 (Sheet 4)

SRM
Jul 5/72

REPAIR INSTRUCTIONS

DETAIL I

Repair procedure for damaged area less than 1 inch in diameter affecting only one skin of the panel.

1. Remove paint from skin at least 1 inch beyond damaged area.
2. If skin is broken, stop drill with 1/4 inch holes at ends of crack.
3. Clean area thoroughly with clean cloth moistened with MEK.
4. Fill cavity with potting compound (see 51-10-1, figure 15) to a level slightly above the surrounding surface.
5. Allow compound to cure. Sand to a smooth level surface.
6. Restore original finish according to 51-2-0 of the Maintenance Manual.

DETAIL II

Repair procedure for damaged area not exceeding 2 inches in diameter, or 2 inches on the side of a square, affecting only one skin of the panel.

1. Remove paint from the damaged area approximately 2 inches beyond indentation.
2. If skin is broken, stop drill with 1/4 inch holes at ends of crack.
3. Clean area thoroughly with clean cloth moistened with MEK.
4. Fill cavity with potting compound (see 51-10-1, figure 15) to a level slightly above the surrounding area.
5. Allow compound to cure. Sand to a smooth level surface.
6. Cover area 2 inches beyond damage with one layer of fiberglass cloth fabric.
7. Taper edges and smooth the area by sanding lightly.
8. Restore original finish according to 51-2-0 of the Maintenance Manual.

DETAIL III

Repair procedure for damaged area not exceeding 2 inches in diameter, or 2 inches on the side of a square, when both the upper and lower skins are damaged.

1. Cut out the damaged area of the panel with a router or other similar tool. (See 51-10-1, figure 9 and 12.)
2. Remove paint from the upper skin 2 inches beyond the panel cutout.
3. Clean area thoroughly with a clean cloth moistened with MEK.
4. Fabricate plates [1] and [2] and block [3].

   Assembly parts [1], [2] and [3] with adhesive (see 51-10-1, figure 14) as shown in step 1.

Passenger Floor Panels with PVC Cores - Repairs
Figure 20 (Sheet 1 of 11)

5. Apply EC2216 adhesive to the edges of the block and the edges of the cutout.

6. Place the repair plug in the panel cutout.

7. Drill the fastener holes and install the blind fasteners BACR15EB as shown in step 2.

8. Add the fiberglass cloth filler step 2.

9. Add four plies of fiberglass cloth as shown.

10. Taper the edges and smooth the surface by sanding lightly.

11. Restore original finish, according to 51-2-0 of the Maintenance Manual.

DETAIL IV

Procedure for plug-type repair, up to 6 inches in diameter, when one skin and core are damaged (unheated panel).

1. Remove panel.

2. Cutout the upper face of the panel to completely remove the damaged area. (See 51-10-1, Fig. 9 and 12 for tools.) Remove the core material carefully.

3. Wipe the dust and loose material from the area with a clean cloth moistened with MEK.

4. Fabricate a PVC block part number [3] same size as the cutout area.

5. Brush the vertical surfaces of the PVC with adhesive (51-10-1, Fig. 14) and place in position in the floor panel.

6. Fabricate repair parts [1] and [2]. Spread adhesive [H] over the upper and lower surface of PVC repair block in the panel. Install the plates on both upper and lower surfaces. Hold plate in place to ensure positive bond.

7. Apply four plies of Style 181 or 1581 ([F]) fiberglass cloth to the upper surface of the panel at the repair area (Ref 51-10-1, par. 5).

8. Fair the edges of the fiberglass for a width of 0.50 inch. Sand lightly to produce smooth surface.

DETAIL V

Procedure for plug-type repair affecting one skin and core (heated panel).

NOTE: Use this repair only in areas which contain heating element wiring. This repair should not be attempted until the panel has been X-rayed to locate heater wiring.

1. Remove panel and disconnect electrical connection at installation location.

2. Cut out the lower skin at least 1 inch larger in diameter than the damaged area in upper sheet. (See 51-10-1, Fig. 9 and 12 for cutout tools.)

3. Remove the core material that has been damaged. Do not damage the heater wires. Cut out the upper skin as stated above after pulling heater wires away from upper surface to prevent damage. Wipe the dust, chips and loose material from the area with a clean cloth moistened with MEK.

4. Repair the heater wire as necessary.

5. Fabricate the PVC core [3]. Include grooves in the upper surface of the core to accommodate the heater wire. Use adhesive (51-10-1, Fig. 14) on edges of [3] for installation.

6. Fabricate repair parts [1] and [2] for upper and lower surfaces. Spread adhesive over the upper and lower surfaces of [3]. Hold plates firmly in place to ensure positive bond.

7. Apply four plies of Style 181 or 1581 fiberglass cloth to the upper surface and three plies to the lower surface (Ref 51-10-1, par. 5).

8. Fair the edges of the fiberglass cloth for a width of 0.50 inch. Sand lightly to produce smooth surface.

DETAIL VIII

Repair procedure for damage to the edge or corner of a panel, when the upper skin is damaged but not broken.

1. Remove floor panel.

2. Straighten skin to the original shape.

3. Remove the damaged core material.

4. Mix the potting compound and place in void space in core (51-10-1, Fig. 15).

5. Allow potting compound to cure, sand smooth.

   CAUTION: EXERCISE CARE TO ENSURE THAT THIS REPAIR DOES NOT EXTEND INTO THE PANEL FAR ENOUGH TO DAMAGE THE HEATING ELEMENT.

6. For upper surface skin cracks stop drill each end with 0.250 drill. Repair with fiberglass per [F] and [G].

7. Reinstall floor panel.

Passenger Floor Panels with PVC Core - Repairs
Figure 20 (Sheet 3)

NOTES

[A] TYPE I, GRADE I, K55-A1-20-12 PVC FOAM, B.F. GOODRICH CO., AEROSPACE AND DEFENSE PRODUCTS DIVISION, 500 S. MAIN, AKRON, OHIO 44318

STYLE 181 OR 1581 GLASS FABRIC PLIES AS REQUIRED

[B] CHECK BY X-RAY TO DETERMINE IF HEATER WIRE IS BROKEN

[C] REFER TO 20-12-1 OF THE OVERHAUL MANUAL FOR HEATER WIRE REPAIR

[D] REFER TO 20-11-2 OF THE OVERHAUL MANUAL FOR PLUG REPAIR

[E] APPLY FIBERGLASS CLOTH FABRIC PER 51-10-1, PAR. 5

[F] FOR VENDOR OR SOURCE OF SUPPLY REFER TO 51-1-2

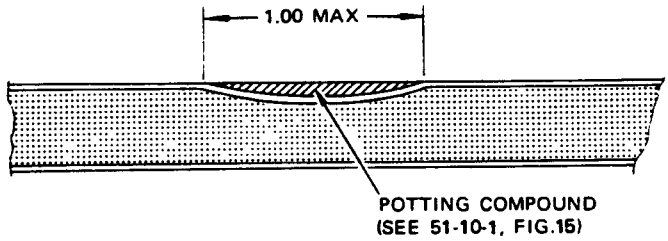
[G] SEE 51-10-1, FIG. 14

[H] APPLICABLE BETWEEN STATIONS 600K+17.40 AND STATION 802.40 AND FROM STATION 818.75 TO STATION 960

REPAIR MATERIAL			
PART		QTY	MATERIAL
[1]	PLATE	1	0.020 7075-T6 CLAD
[2]	PLATE	1	0.020 7075-T6 CLAD
[3]	BLOCK	1	PVC FOAM

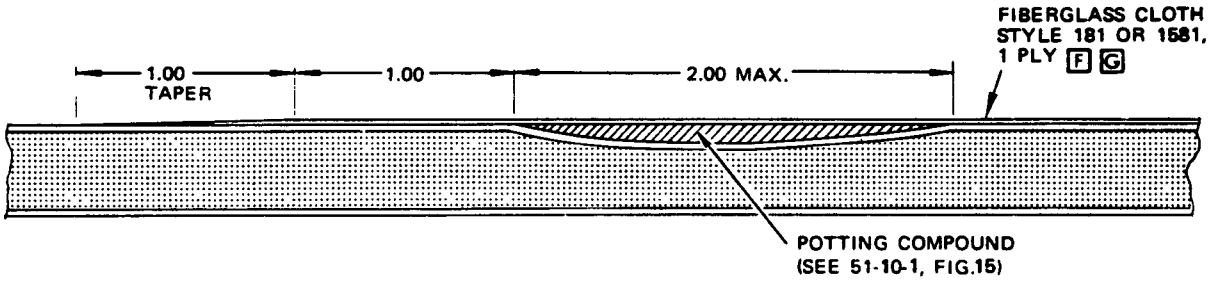
TYPE OF DAMAGE	REPAIR		
	NON-HEATED PANEL	HEATED PANEL	
		PREFERRED REPAIR	OPTIONAL REPAIR
DENTS UP TO ONE INCH DIAMETER	SEE DETAIL I	SEE DETAIL I [C]	
DENTS UP TO TWO INCH DIAMETER	SEE DETAIL II	SEE DETAIL II [C]	
OTHER DAMAGE TO UPPER OR LOWER FACES	SEE DETAIL III		
OTHER DAMAGE TO UPPER FACE (DOES NOT INCLUDE HEATER WIRE)		SEE DETAIL IV	
OTHER DAMAGE TO UPPER FACE (INCLUDES HEATER WIRE)		SEE DETAIL V [C][D][E]	SEE DETAIL VI [C][D][E]
HEATER WIRE DAMAGE ONLY AT UPPER FACE		SEE DETAIL VII [C]	
DAMAGE TO PVC AT CORNER OR EDGE. CRACK IN EITHER FACE	SEE DETAIL VIII		

Passenger Floor Panels with PVC Core - Repairs
Figure 20 (Sheet 4)



DENT – UPPER SURFACE
NON-HEATED FLOOR PANEL

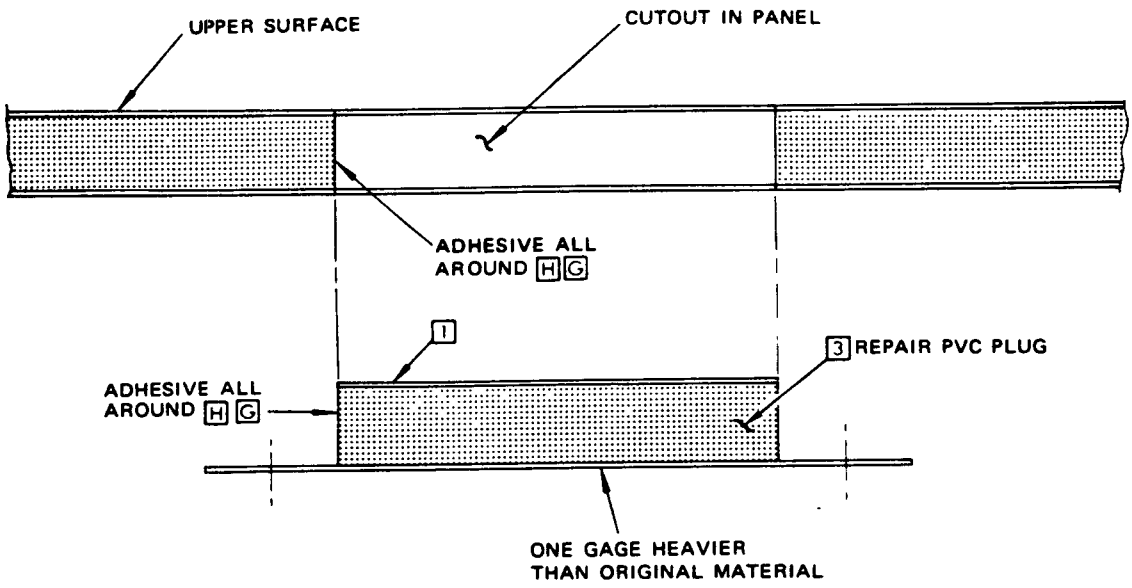
DETAIL I



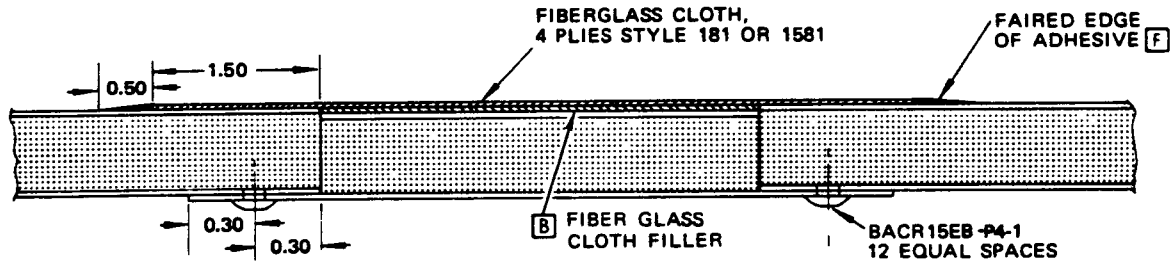
MAXIMUM UPPER SURFACE DAMAGE
NON-HEATED FLOOR PANEL

DETAIL II

Passenger Floor Panels with PVC Core - Repairs
Figure 20 (Sheet 5)



STEP 1

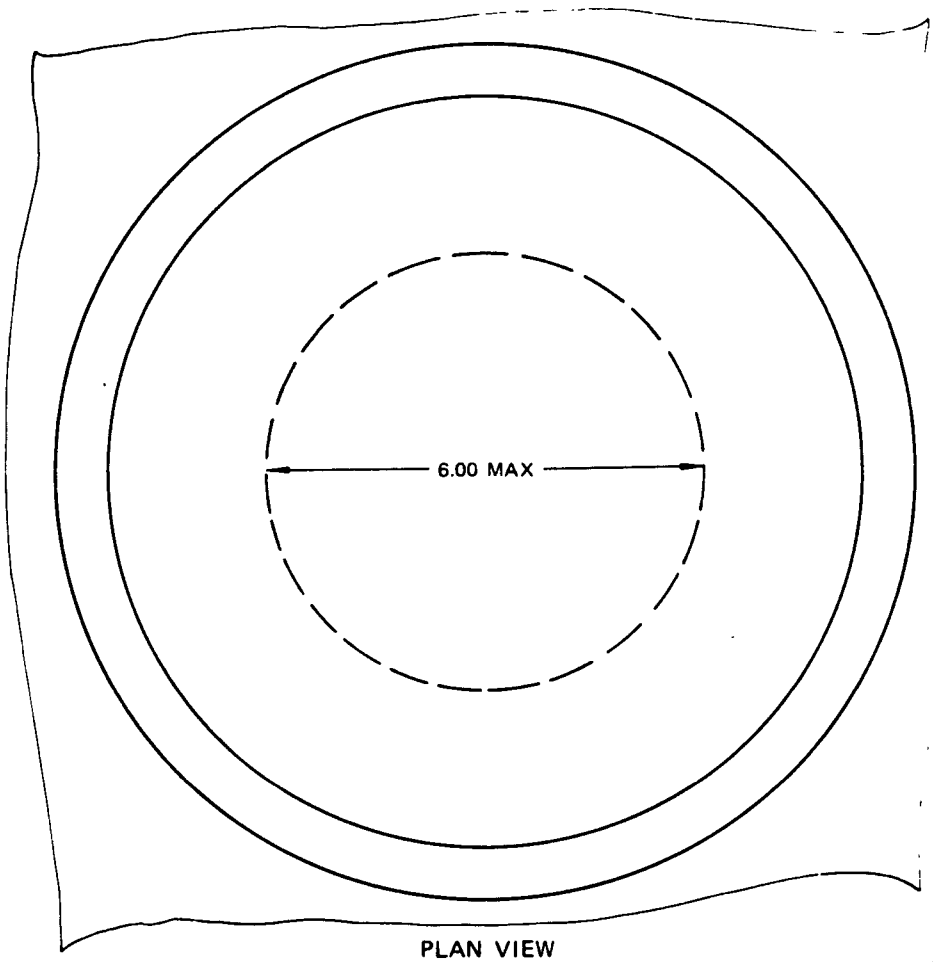


STEP 2

UPPER AND LOWER SURFACE DAMAGE
NON-HEATED FLOOR PANEL

DETAIL III

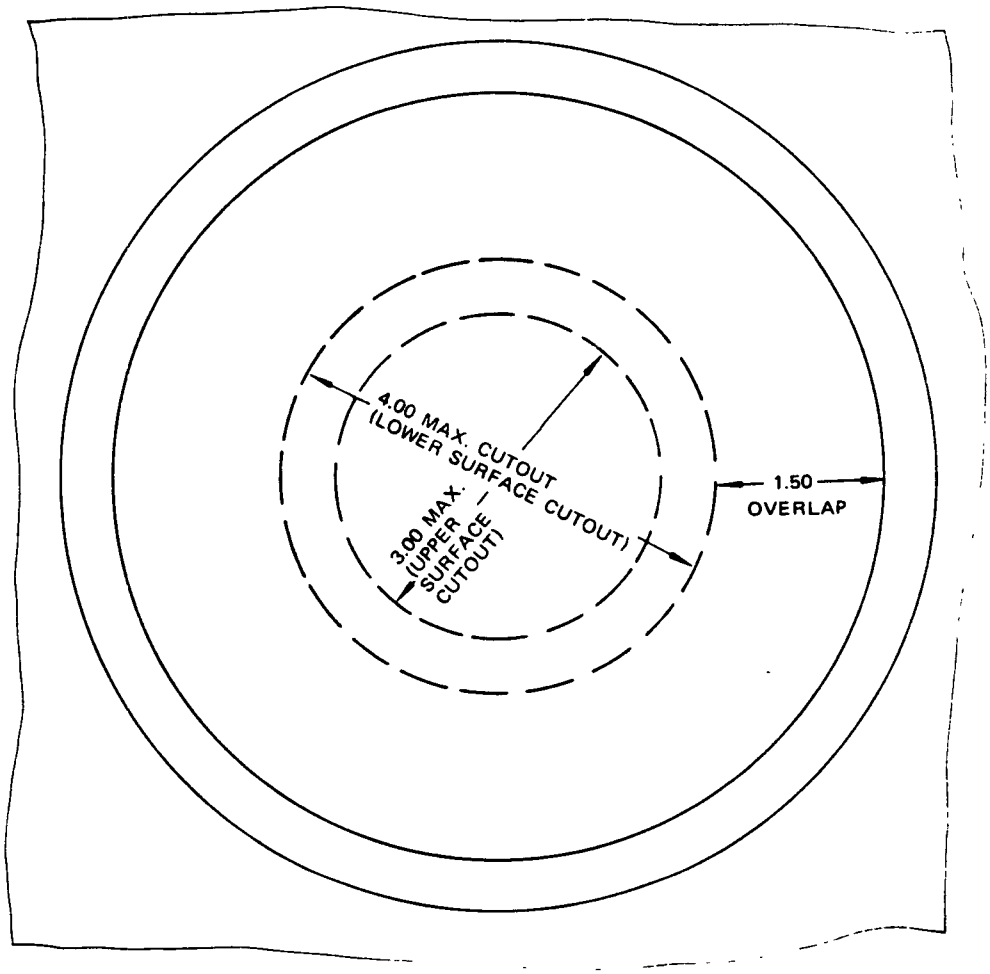
Passenger Floor Panels with PVC Core - Repairs
Figure 20 (Sheet 6)



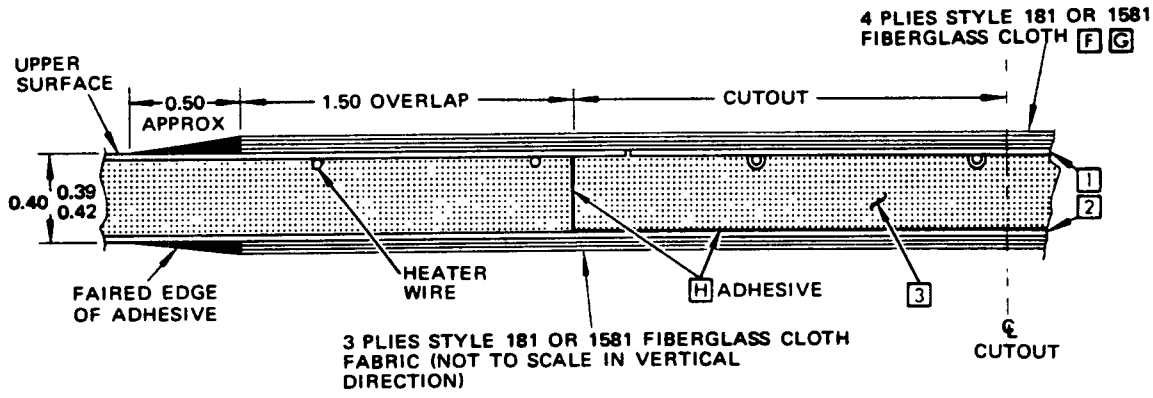
NOTE: THIS REPAIR TO BE USED ONLY IN AREA NOT CONTAINING HEATING ELEMENT

DETAIL IV

Passenger Floor Panels with PVC Core - Repair
Figure 20 (Sheet 7)



PLAN VIEW



SECTION THROUGH REPAIR
HEATED FLOOR PANEL
DETAIL V

Passenger Floor Panels with PVC Core - Repair
Figure 20 (Sheet 8)

SRM 320
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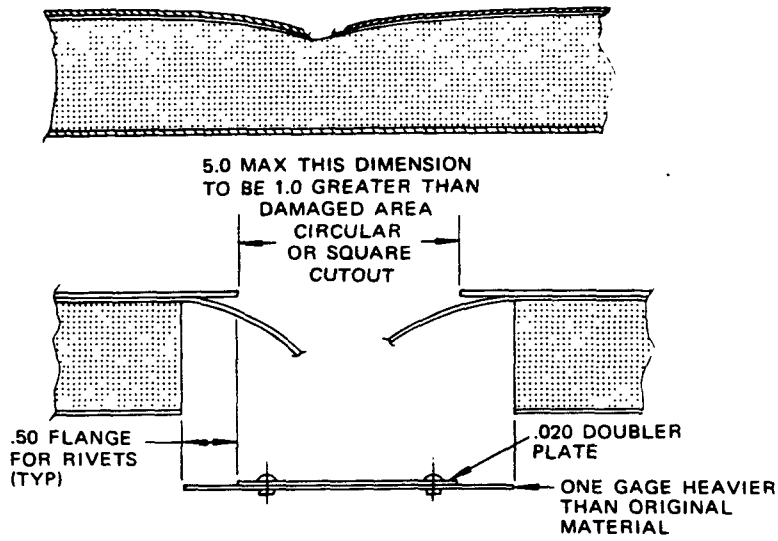
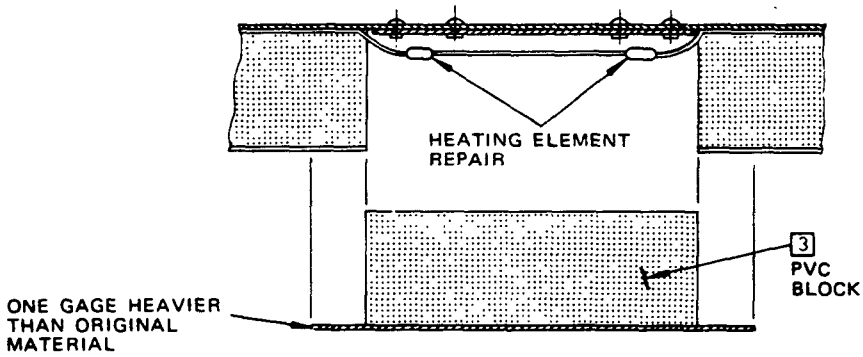
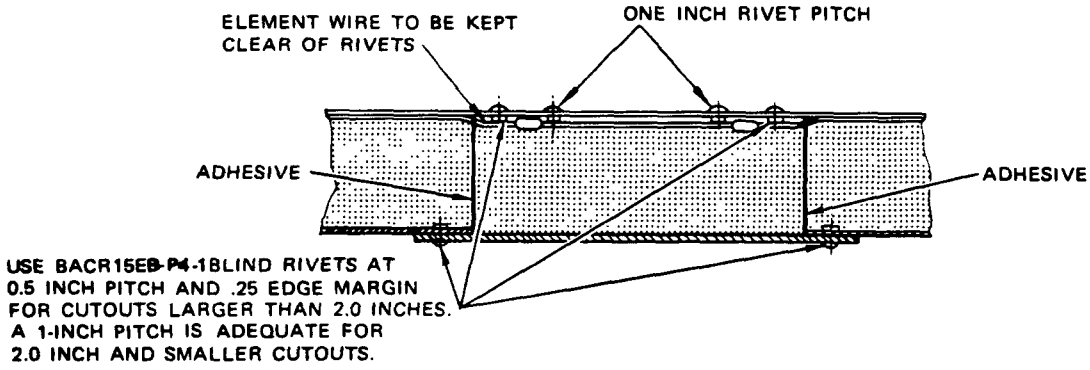
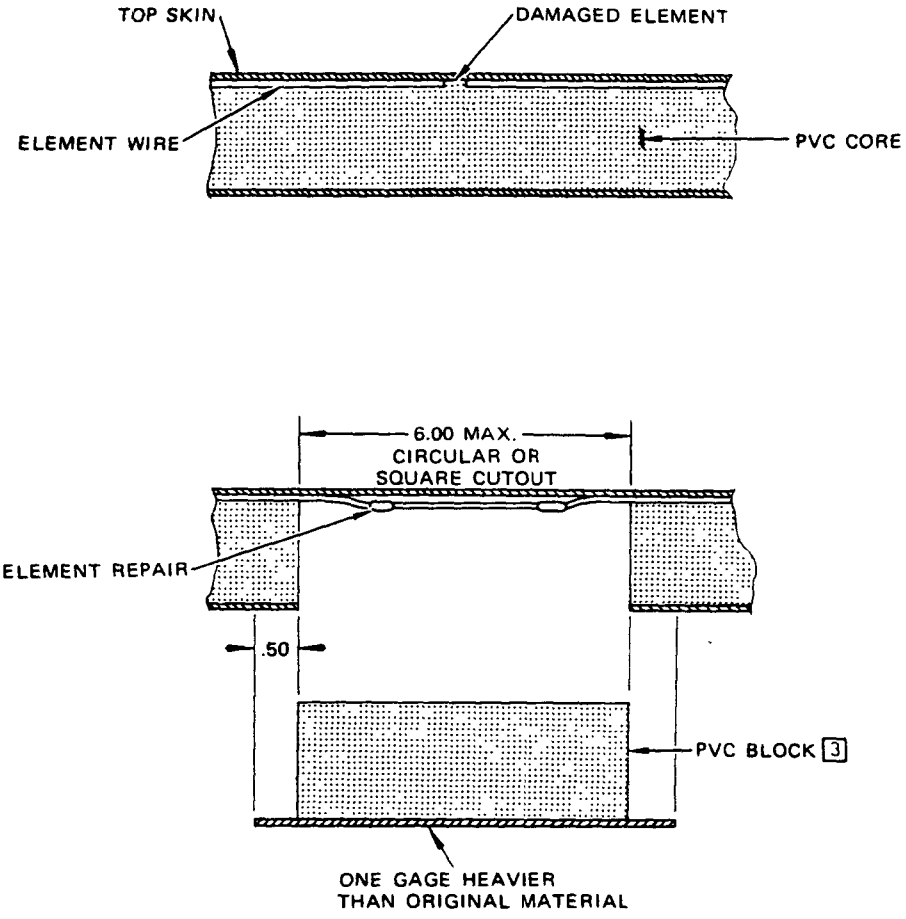






UPPER SURFACE DAMAGE
HEATED FLOOR PANEL
DETAIL VI

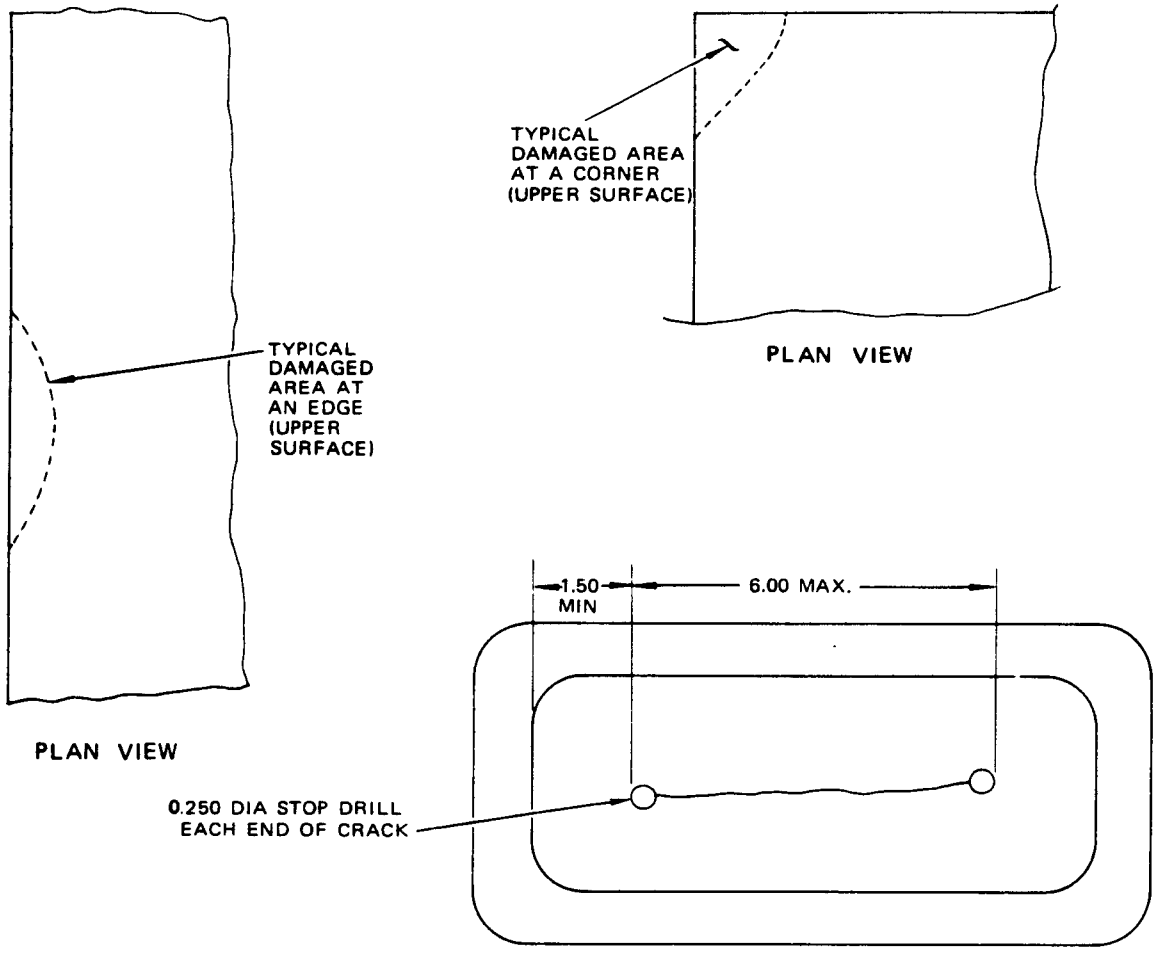
Passenger Floor Panels with PVC Core - Repair
Figure 20 (Sheet 9 of 11)

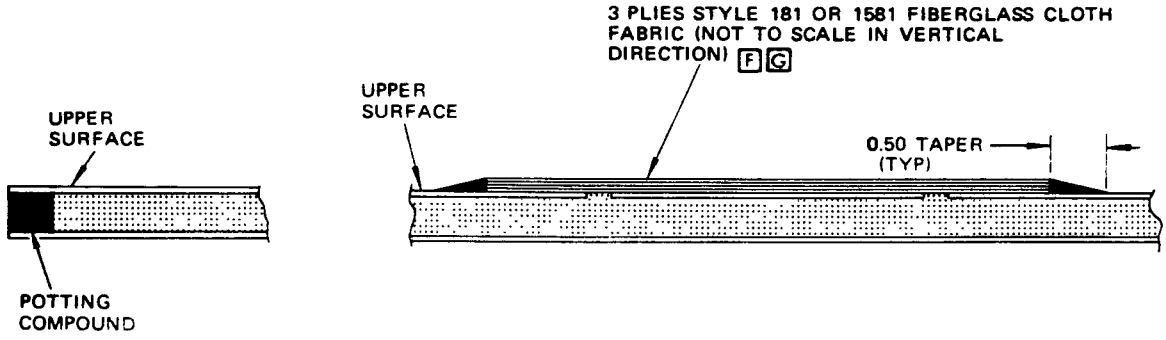


HEATER ELEMENT DAMAGE
HEATED FLOOR PANEL

DETAIL VII

Passenger Floor Panels with PVC Core - Repair
Figure 20 (Sheet 10 of 11)





SECTION THROUGH REPAIR

DETAIL VIII

Passenger Floor Panels with PVC Core - Repair
Figure 20 (Sheet 11)

FAA Approved Repair

BOEING Intercontinental 707

STRUCTURAL REPAIR

REPAIR INSTRUCTIONS

1. Remove floor deck by removing existing NAS514P-1032-10 screws.
2. Cut out damaged portion of beam in such a manner that adequate edge margin for repair fasteners is maintained.
3. Straighten out dents, remove all scratches, burrs, gauges and sharp edges.
4. Alodize repair parts and original structure from which finish has been removed during repair. See 51-8-0.
5. Make an assembly of part 1 and NAS686A-3 nutplate, and install NAS686A-3 nutplates to match floor deck dimple locations.
6. Install repair parts.
7. Replace original finish per 51-2-0 of the 707 Maintenance Manual.
8. Restore floor decking to beam.

NOTE

- BREAK SHARP EDGES 0.03 ALL REPAIR PARTS AND TRIMMED ORIGINAL PARTS.
- SEE 51-2-0 FOR FASTENER CODE, REMOVAL AND INSTALLATION, HOLE SIZES AND EDGE MARGINS.
- SEE 51-8-0 FOR METAL PROTECTIVE TREATMENT.

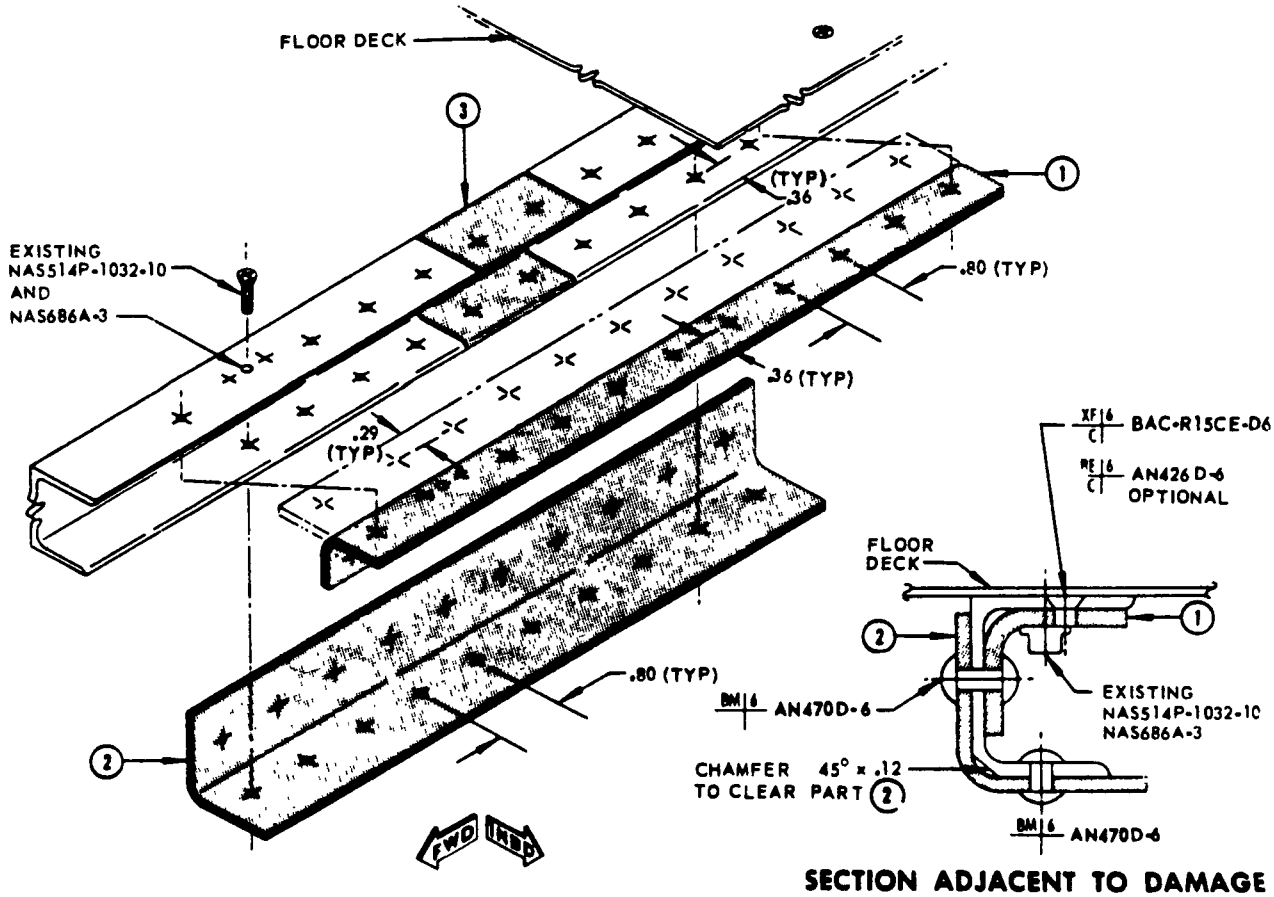
+ ORIGINAL FASTENER LOCATIONS

✦ REPAIR FASTENER LOCATIONS

USE DRILL STOP TO .25 INCH WHEN DRILLING THROUGH AFT COMPARTMENT FLOORS

REPAIR MATERIAL

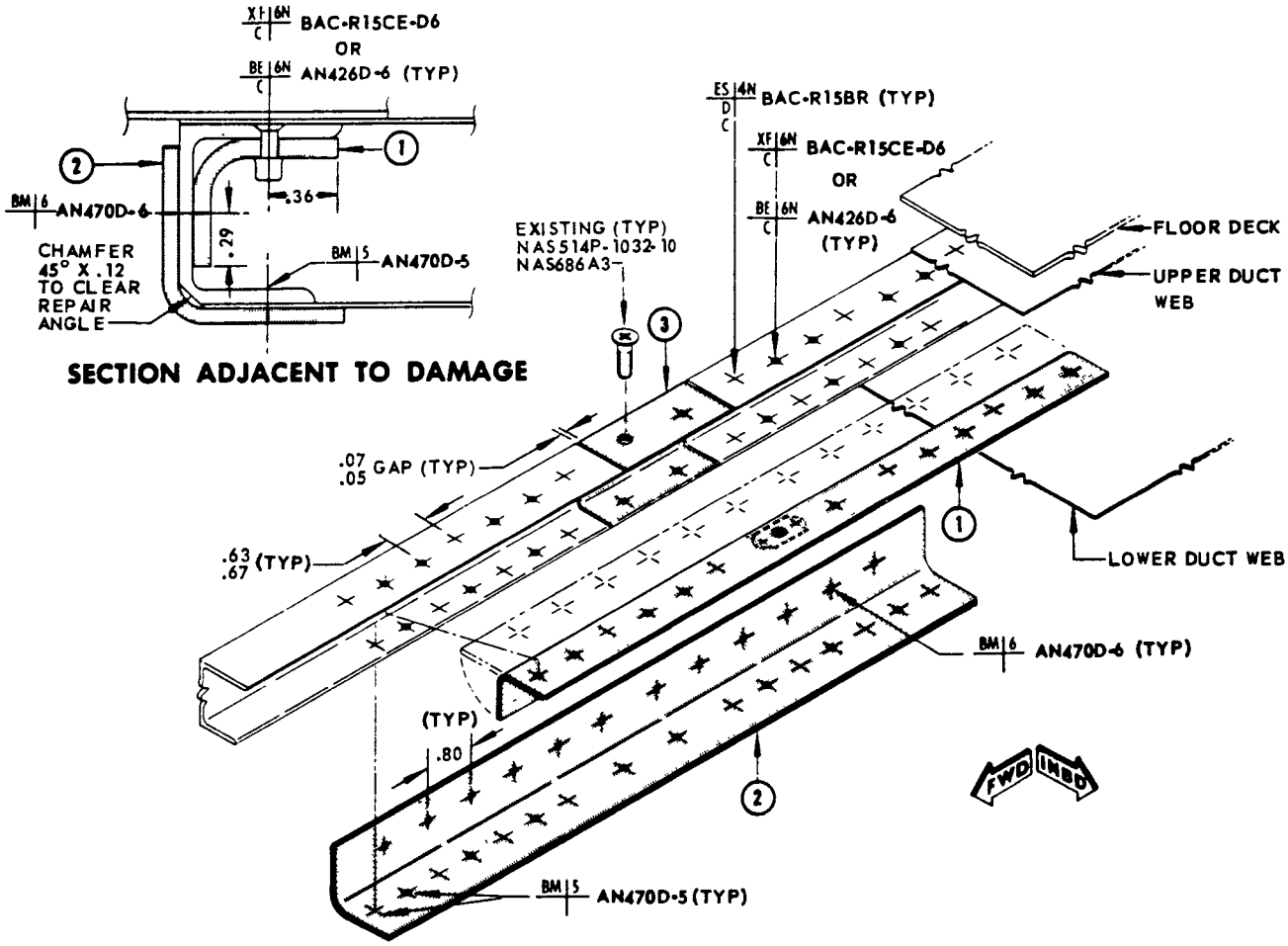
PART		QTY.	MATERIAL
(1)	ANGLE	1	BAC1490-2700 7075-T6
(2)	ANGLE	1	BAC1490-2583 7075-T6
(3)	FILLER	1	BAC1509-100146 7075-T6



SECTION ADJACENT TO DAMAGE

Cargo Floor Beam Repair - Aft Compartment
Figure 1

STRUCTURAL REPAIR



REPAIR INSTRUCTION:

1. Remove floor deck by removing existing NAS514 P-1032-10 screws. Remove bonded upper duct web and existing BACR15BR or AN426D4 rivets.
2. Cut out damaged portion of beam in such a manner that adequate edge margin for repair fasteners is maintained.
3. Straighten out dents, remove all scratches, burrs, gouges and sharp edges.
4. Alodize repair parts and original structure from which finish has been removed during repair. See 51-8-0.
5. Make an assembly of part 1 and NAS686A3 nutplate and install NAS686A3 nutplates to match floor deck and upper duct web dimpled locations.
6. Install repair parts.
7. Replace original finish per 51-2-0 of the Maintenance Manual.
8. Restore floor decking and duct web to beam. Bond upper duct web to beam per 51-9-1 if required.

REPAIR MATERIAL			
PART		QTY.	MATERIAL
1	ANGLE	1	BAC 1490-2700 7075-T6
2	ANGLE	1	BAC 1490-2583 7075-T6
3	FILLER	1	BAC 1509-100146 7075-T6 OR EQUIVALENT

NOTE

SEE 51-2-0 FOR FASTENER CODE, REMOVAL AND INSTALLATION, HOLE SIZES AND EDGE MARGINS.

BREAK SHARP EDGES .03 ALL REPAIR PARTS AND TRIMMED ORIGINAL PARTS.

SEE 51-8-0 FOR METAL PROTECTIVE TREATMENT.

ORIGINAL FASTENER LOCATION

REPAIR FASTENER LOCATION

Cargo Floor Beam Repair - Forward Compartment
Figure 2

REPAIR INSTRUCTIONS

1. Remove damaged portion of track. Make each cut at center of frame (not at center line of frame station, See Illustration).
2. Remove clip from damaged section of track.
3. Fabricate parts 1 and 2.
4. Position parts 1 and 2. Drill and countersink fastener holes. Space to suit floor panel fasteners. A minimum of 8 fasteners each side of cut.
5. Alodize all raw edges of repair parts and reworked original parts per 51-8-0.
6. Install parts 1 and 2. Use existing size and type fasteners to install clip.
7. Finish per 51-2-0 of the Maintenance Manual.

REPAIR MATERIAL

PART		QTY.	MATERIAL
(1)	EXTRUSION	1	BAC 1520-843 7178-T6
(2)	STRAP	4	.25 7178-T6

NOTE

BREAK SHARP EDGES 0.03 ALL REPAIR PARTS AND TRIMMED ORIGINAL PARTS.

SEE 51-2-0 FOR FASTENER CODE, REMOVAL AND INSTALLATION, HOLE SIZES AND EDGE MARGINS.

SEE 51-8-0 FOR METAL PROTECTIVE TREATMENT.

FINISH PER 51-2-0 OF THE MAINTENANCE MANUAL.

NUMBER OF FASTENERS REQUIRED IS FOR EACH SIDE OF DAMAGE.

SPACE FASTENERS ACCORDING TO THE EXISTING SPLICE IN THE TRACK AND TO SUIT FLOOR PANEL FASTENERS.

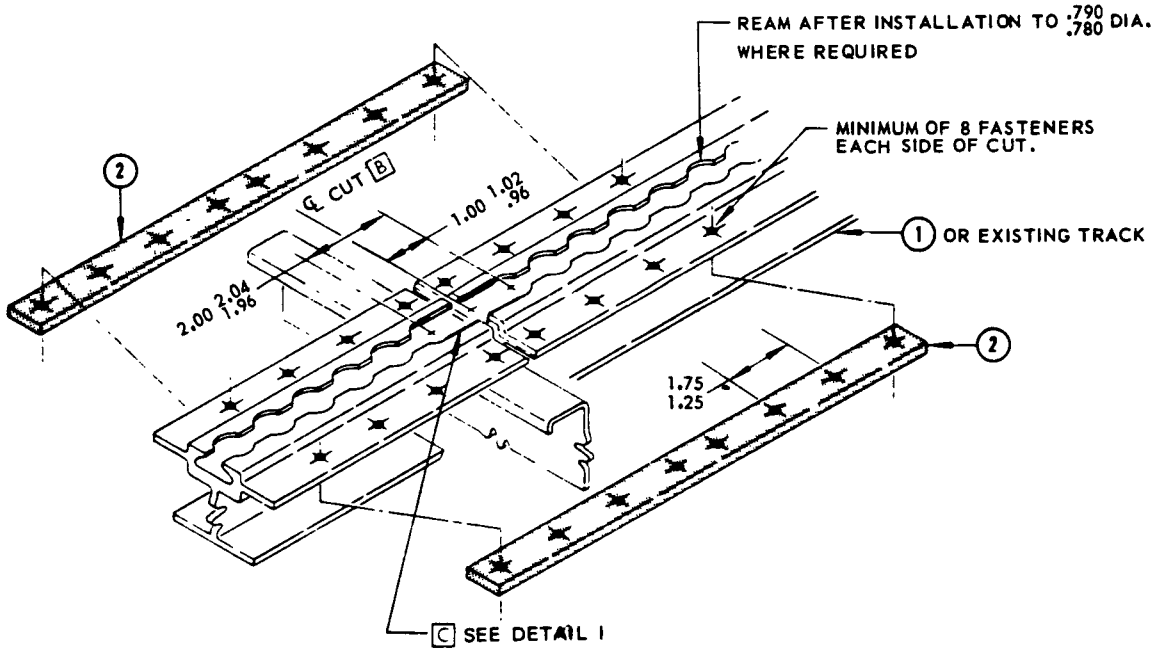
— ORIGINAL FASTENER LOCATIONS

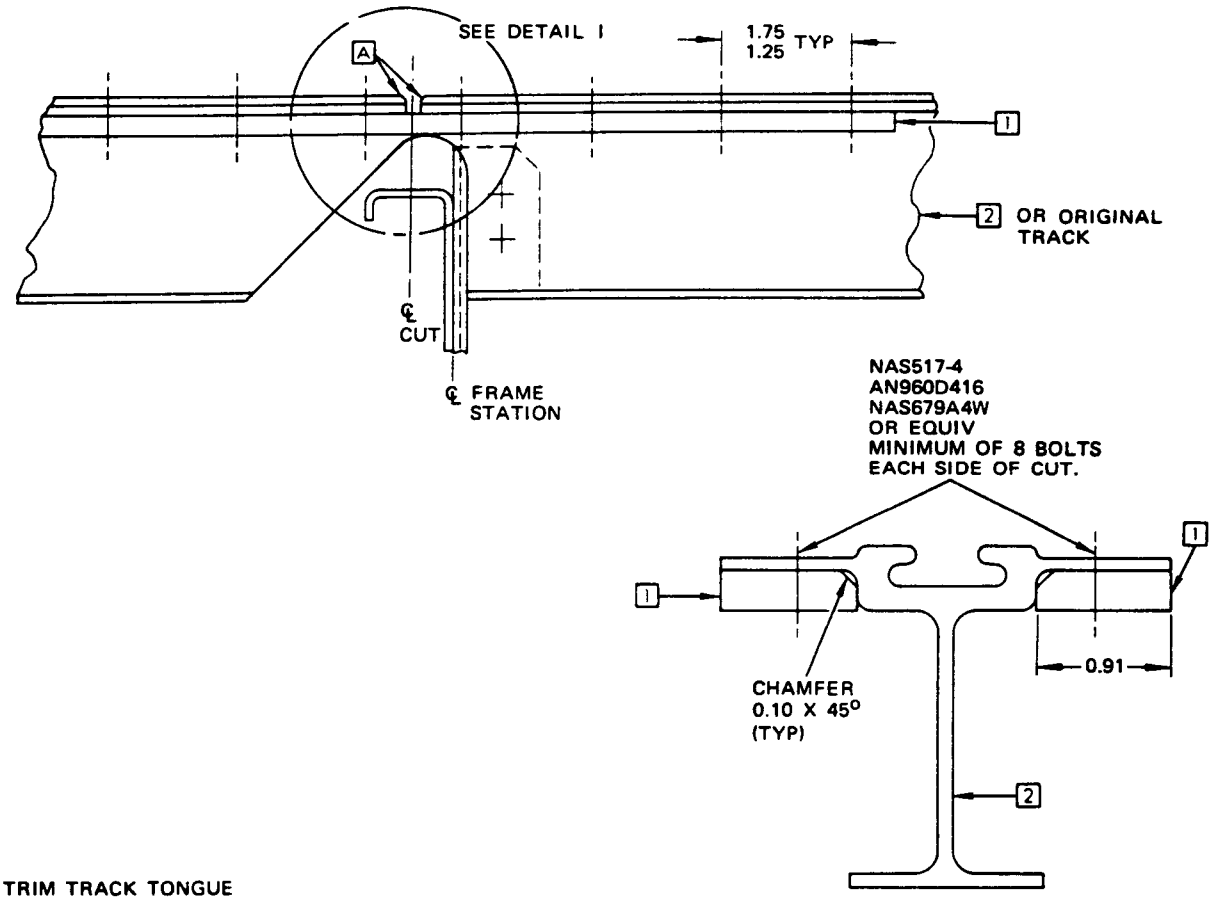
— REPAIR FASTENER LOCATION.

[A] CHAMFER .06 x 45° ENDS OF ORIGINAL AND NEW EXTRUSION.

[B] SEE 53-3-7 FIG 3 FOR AN APPLICABLE REPAIR WHEN CUTS FOR SPLICING ARE MADE BETWEEN FRAME STATIONS.

[C] TO PREVENT INSTALLATION OF CARGO TIE-DOWN AT REPAIR SPLICE





TYPICAL SPLICE AND TRACK TRIMMING REQUIREMENTS
DETAIL I

HORIZONTAL STABILIZER, CENTER SECTION - REMOVAL AND INSTALLATION

Removal Procedure (See detail I.)

1. Remove left and right horizontal stabilizers and elevators as detailed in 55-1-21 of the 707 Maintenance Manual.

2. Install rigging pins in the elevator forward and aft control quadrants. Disconnect the elevator control cables at the turnbuckles in the stabilizer jackscrew compartment and secure clear of work area.

3. Remove the four seals plates (guides for the slot shutter) on each side of the fuselage at stations 1567 and 1579.

4. Remove stabilizer fairing from left side of fuselage.

5. Remove the body skin bounded by fuselage stations 1519 and 1567 and stringers S-8A and S-14.

6. Remove the section of fuselage frame between the upper and lower longitudinal beams (stringer S-8A and S-14) at fuselage stations 1519, 1543 and 1567. The following components must be removed to facilitate removal of the frame section: (See details 3 through 5.)

   A. The forward and aft-facing splice angles at the junction of the frame at fuselage station 1519 and the upper longitudinal beam

   B. The forward and aft-facing splice angles at the junction of the frame at fuselage station 1567 and the upper longitudinal beam

   C. The chord splice channel at the junction of the frame at fuselage station 1519 and the upper longitudinal beam

   D. The fasteners at the junction of the frame and brace angle just above the lower longitudinal beam

7. Remove the stub frames between the upper and lower longitudinal beams at fuselage stations 1527, 1535, 1551 and 1559. (Remove fasteners at junction of frames and attaching angles.) (See detail VI.)

8. Remove the buffer arms and associated travel limiting devices from the forward face of the front spar of the stabilizer center section.

Horizontal Stabilizer - Center Section - Removal and Installation
Figure 1 (Sheet 1)

9. Support the center section using wood beams (approximately 4 inches by 4 inches cross-section) to relieve the weight on hinge fittings and the jackscrew actuator fitting. (See detail II.)

10. Remove the four bolts which attach the jackscrew actuator support fitting to the front spar. Refer to 55-1-21 of the 707 Maintenance Manual.

11. Disconnect the hinge housing and thrust brace at each end of the aft face of the rear spar. Disconnect the thrust brace from the lug at the hinge housing boss. Refer to 55-1-41 of the 707 Maintenance Manual.

12. Withdraw the center section from the fuselage using a crane and suitable sling, a fork-lift with an extension boom, or other suitable equipment.

    NOTE: The center section weighs approximately 500 pounds.

Installation Procedure

1. Lift center section up to aperture in tail section, using a fork-lift and extension beam, a crane and sling, or other suitable hoisting equipment. Carefully slide the center section into the fuselage and support in the approximately correct position.

   CAUTION: WHEN LIFTING THE CENTER SECTION BY SLING AND CRANE, USE RESTRAINT ROPES TO PREVENT CENTER SECTION FROM STRIKING AIRPLANE STRUCTURE.

2. Attach the hinge housing and thrust brace at each end of the aft face of the rear spar. Refer to 55-1-41 of the 707 Maintenance Manual

3. Connect the jackscrew actuator fitting and the buffer arms to the front spar. Refer to 55-1-21 of the 707 Maintenance Manual.

4. Check torque loading of all bolts installed in paragraphs 2 and 3.

5. Remove the rigging pins in the elevator forward and aft control quadrants. Reconnect the elevator controls.

6. Actuate the jackscrew to raise the center section for removal of shoring timbers from tail section.

7. Install frames and stub frames using same type and size of fasteners as originally used. Oversize fasteners may be installed in oversize holes. Refer to 51-2-0 and 51-2-1.

Horizontal Stabilizer - Center Section - Removal and Installation
Figure 1 (Sheet 2)

8. Reinstall body skins using same type and size of fasteners as originally used. Substitute oversize and alternative fasteners as required. Refer to 51-2-0 and 51-2-1.

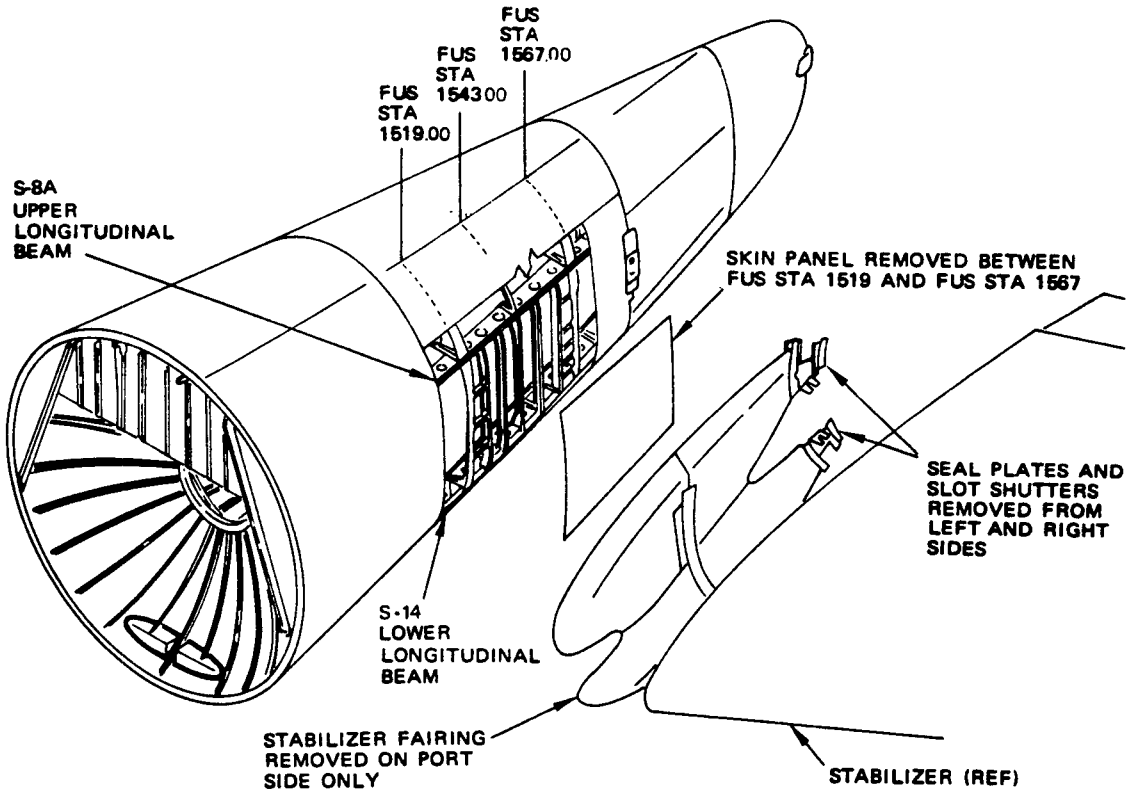
9. Install the stabilizer fairing.

10. Reinstall the four seal plates (guides for slot shutter) on each side of the tail section.

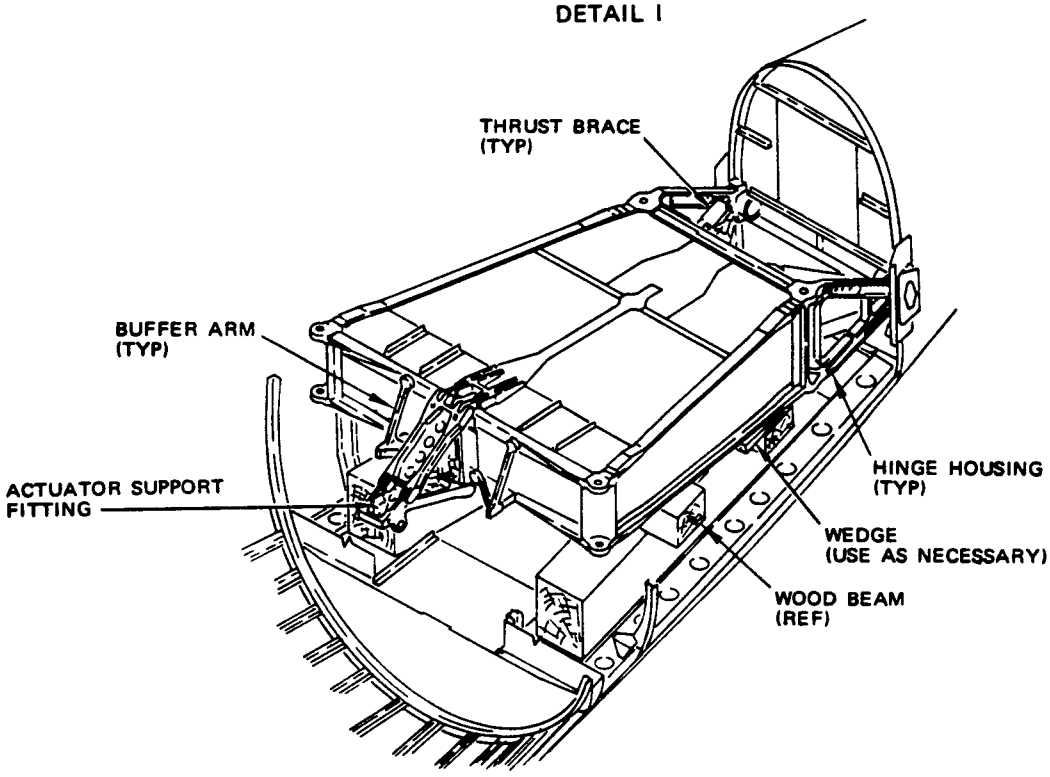
11. Install the horizontal stabilizer and elevators as detailed in 55-1-21 of the Maintenance Manual.

12. Adjust the tension of the elevator control cables and carry out a functional test of the horizontal stabilizer trim system and elevator controls as required by 27-10-0 and 27-7-0 of the Maintenance Manual.

Horizontal Stabilizer - Center Section - Removal and Installation
Figure 1 (Sheet 3)

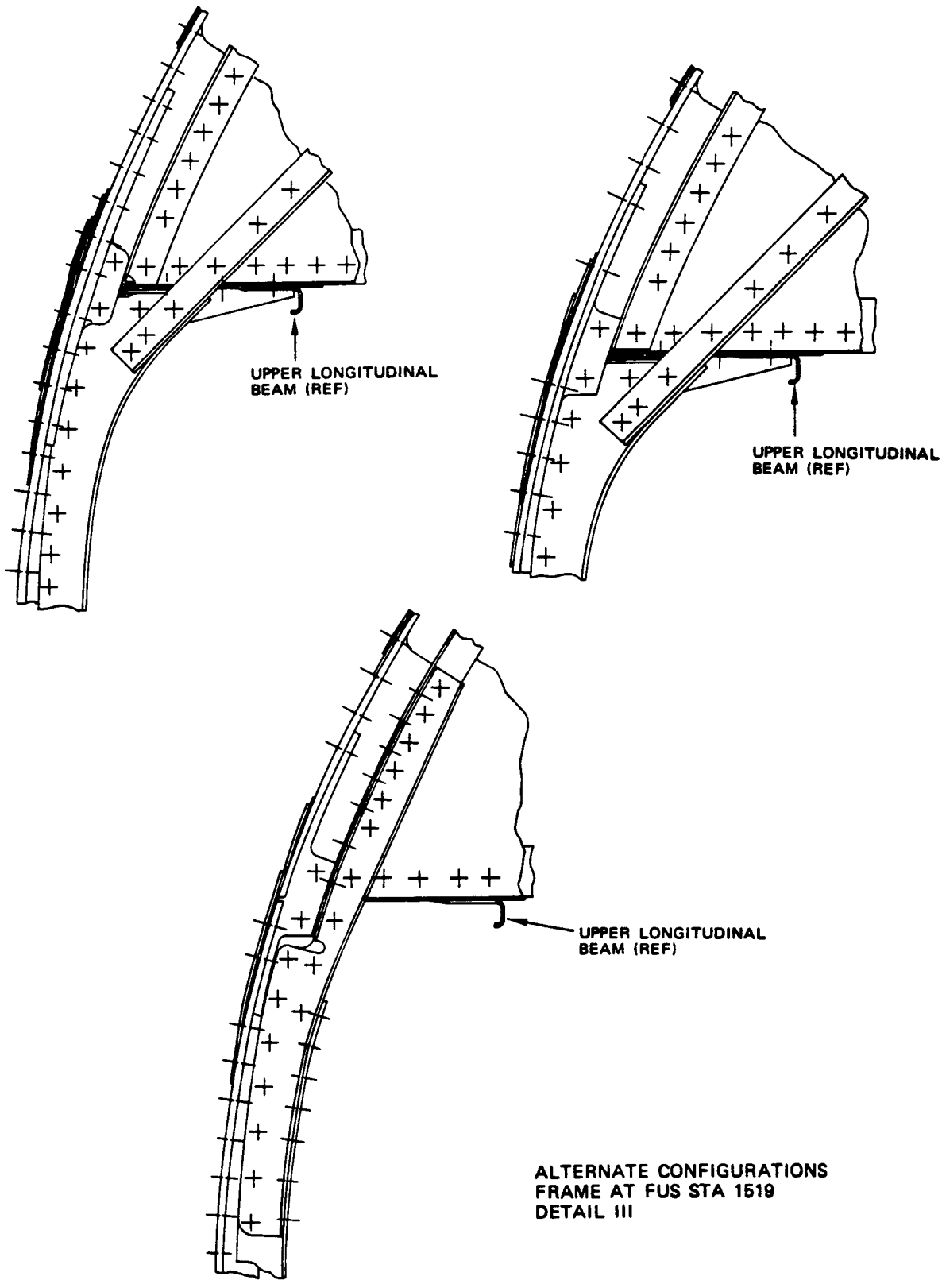


DETAIL I

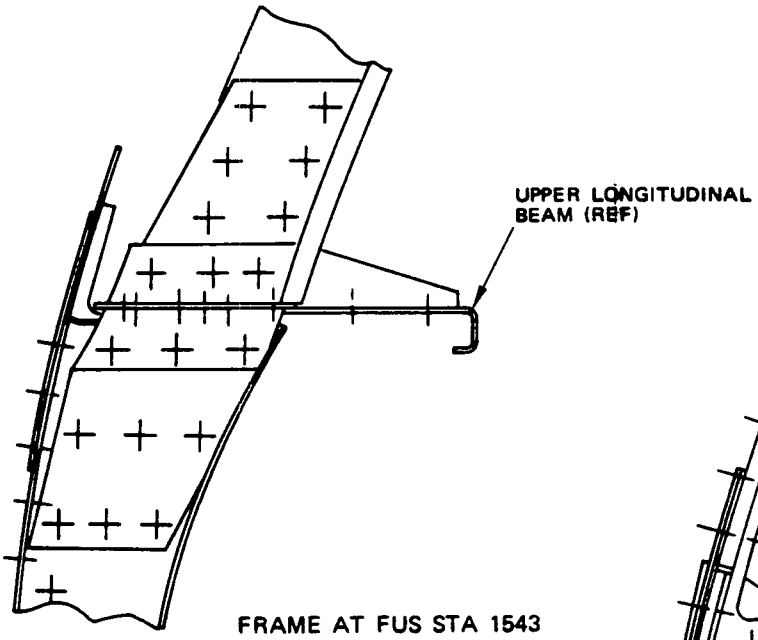


DETAIL II

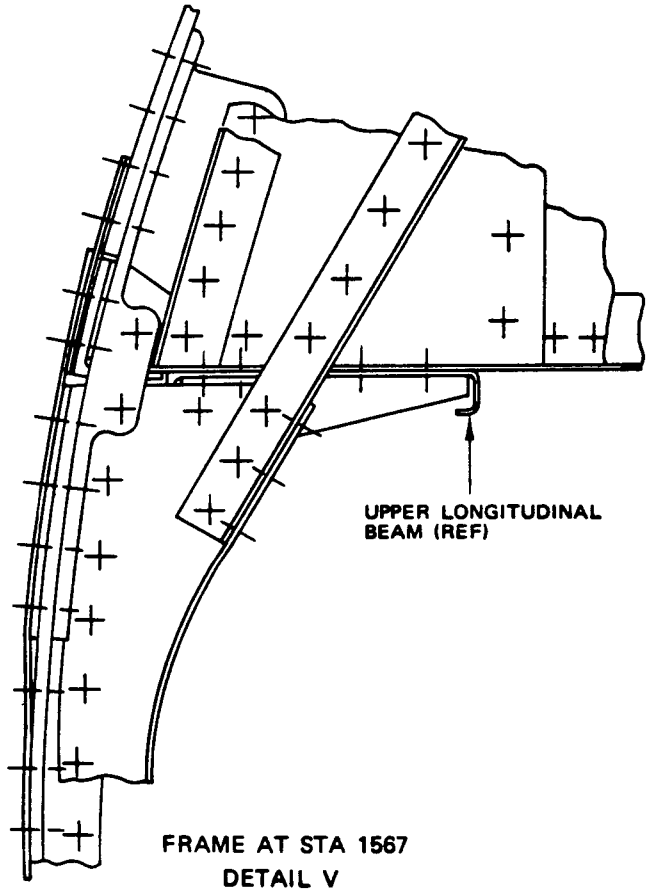
Horizontal Stabilizer - Center Section - Removal/Installation
Figure 1 (Sheet 4)



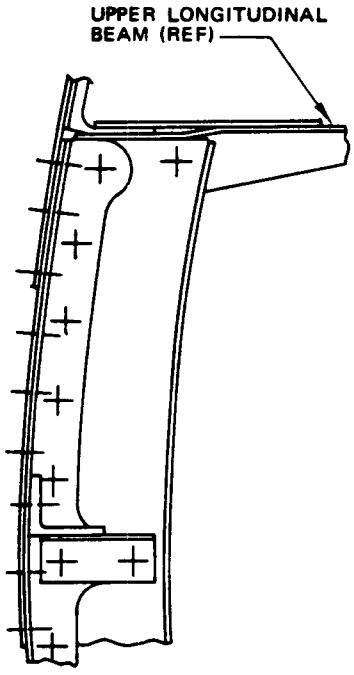
Horizontal Stabilizer - Center Section - Removal/Installation
Figure 1 (Sheet 5)



FRAME AT FUS STA 1543
DETAIL IV



FRAME AT STA 1567
DETAIL V



FRAME AT FUS STA 1559
TYPICAL STUB FRAMES

DETAIL VI

Horizontal Stabilizer - Center Section - Removal/Installation
Figure 1 (Sheet 6)

FITTINGS, MATERIALS AND HEAT TREATMENT

1. Fuselage structural fittings are normally replacement items and are identified in 53-3-3.

2. Refer to production drawings for heat treatment information.