Chapter/ Section	Page	Date
TAB-757		
LEP	1	APR 01/03
	2	APR 01/03
	3	APR 01/03
	4	APR 01/03
TOC	1	OCT 01/00
	2	OCT 01/00
06-00-00	1	OCT 01/00
	2/Blank	OCT 01/00
06-00-01	1	OCT 01/00
	2	OCT 01/00
	3	OCT 01/00
	4	OCT 01/00
	5	OCT 01/00
	6	OCT 01/00
	7	OCT 01/00
	8/Blank	OCT 01/00
27-00-00	1	OCT 01/00
	2/Blank	OCT 01/00
27-00-01	1	OCT 01/00
	2/Blank	OCT 01/00
27-00-02	1	OCT 01/00
	2/Blank	OCT 01/00
27-50-01	1	OCT 01/00
	2/Blank	OCT 01/00
27-50-02	1	OCT 01/00
	2/Blank	OCT 01/00
28-00-00	1	OCT 01/00
	2/Blank	OCT 01/00
28-00-01	1	OCT 01/00
	2/Blank	OCT 01/00
28-20-01	1	OCT 01/00
	2/Blank	OCT 01/00
28-40-01	1	OCT 01/00
	2/Blank	OCT 01/00
29-00-00	1	OCT 01/00
	2/Blank	OCT 01/00
29-00-01	1	OCT 01/00
	2/Blank	OCT 01/00
29-10-01	1	OCT 01/00
	2	OCT 01/00
32-00-00	1	OCT 01/00
	2/Blank	OCT 01/00
32-00-01	1	OCT 01/00
	2/Blank	OCT 01/00
32-10-01	1	OCT 01/00
	2	OCT 01/00
32-20-01	1	OCT 01/00
	2	OCT 01/00
	3	OCT 01/00
	4/Blank	OCT 01/00
34-00-00	1	OCT 01/00
	2/Blank	OCT 01/00
34-00-01	1	OCT 01/00
	2/Blank	OCT 01/00
34-30-01	1	OCT 01/00
	2/Blank	OCT 01/00

Chapter/ Section	Page	Date	Chapter/ Section	Page	Date	Chapter/ Section	Page	Date
34-40-01	1	OCT 01/00	52-10-01	7	OCT 01/00	53-00-01	1	OCT 01/00
	2	OCT 01/00		8/Blank	OCT 01/00		2	OCT 01/00
	3	OCT 01/00						
	4/Blank	OCT 01/00	52-20-01	1	OCT 01/00	53-10-01	1	OCT 01/00
				2	OCT 01/00		2	OCT 01/00
35-00-00	1	OCT 01/00		3	OCT 01/00		3	OCT 01/00
	2/Blank	OCT 01/00		4/Blank	OCT 01/00		4	OCT 01/00
35-00-01	1	OCT 01/00	52-30-01	1	OCT 01/00	53-10-02	1	OCT 01/00
	2/Blank	OCT 01/00		2	OCT 01/00		2	OCT 01/00
				3	OCT 01/00		3	OCT 01/00
35-20-01	1	OCT 01/00		4/Blank	OCT 01/00		4/Blank	OCT 01/00
	2/Blank	OCT 01/00						
			52-40-01	1	OCT 01/00	53-10-03	1	OCT 01/00
				2	OCT 01/00		2	OCT 01/00
52-00-00	1	OCT 01/00	52-40-02	1	OCT 01/00	53-10-04	1	OCT 01/00
	2/Blank	OCT 01/00		2	OCT 01/00		2/Blank	OCT 01/00
52-00-01	1	OCT 01/00	52-40-03	1	OCT 01/00	53-10-05	1	OCT 01/00
	2/Blank	OCT 01/00		2	OCT 01/00		2/Blank	OCT 01/00
				3	OCT 01/00			
52-10-01	1	OCT 01/00		4/Blank	OCT 01/00	53-30-01	1	OCT 01/00
	2	OCT 01/00					2	OCT 01/00
	3	OCT 01/00	53-00-00	1	OCT 01/00		3	OCT 01/00
	4	OCT 01/00		2/Blank	OCT 01/00		4	OCT 01/00
	5	OCT 01/00						
	6	OCT 01/00						

Chapter/ Section	Page	Date	Chapter/ Section	Page	Date	Chapter/ Section	Page	Date
53-30-02	1	OCT 01/00	53-40-05	1	OCT 01/00	53-90-01	1	OCT 01/00
	2/Blank	OCT 01/00		2/Blank	OCT 01/00		2	OCT 01/00
			53-60-01	1	OCT 01/00	53-90-02	1	OCT 01/00
53-30-03	1	OCT 01/00		2	OCT 01/00		2/Blank	OCT 01/00
	2/Blank	OCT 01/00		3	OCT 01/00			
				4	OCT 01/00	53-95-01	1	OCT 01/00
53-30-04	1	OCT 01/00					2	OCT 01/00
	2	OCT 01/00	53-60-02	1	OCT 01/00		3	OCT 01/00
				2/Blank	OCT 01/00		4/Blank	OCT 01/00
53-30-05	1	OCT 01/00						
	2	OCT 01/00	53-60-03	1	OCT 01/00	53-95-02	1	OCT 01/00
				2/Blank	OCT 01/00		2	OCT 01/00
53-40-01	1	OCT 01/00						
	2	OCT 01/00	53-60-04	1	OCT 01/00	54-00-00	1	OCT 01/00
	3	OCT 01/00		2/Blank	OCT 01/00		2/Blank	OCT 01/00
	4	OCT 01/00						
	5	OCT 01/00	53-60-05	1	OCT 01/00	54-00-01	1	OCT 01/00
	6/Blank	OCT 01/00		2/Blank	OCT 01/00		2/Blank	OCT 01/00
53-40-02	1	OCT 01/00	53-70-01	1	OCT 01/00	54-50-01	1	OCT 01/00
	2	OCT 01/00		2/Blank	OCT 01/00		2/Blank	OCT 01/00
			53-70-02	1	OCT 01/00			
53-40-03	1	OCT 01/00		2/Blank	OCT 01/00	54-50-02	1	OCT 01/00
	2	OCT 01/00					2/Blank	OCT 01/00
			53-80-01	1	OCT 01/00			
53-40-04	1	OCT 01/00		2/Blank	OCT 01/00	55-00-00	1	OCT 01/00
	2/Blank	OCT 01/00					2/Blank	OCT 01/00

Chapter/ Section	Page	Date	Chapter/ Section	Page	Date	Chapter/ Section	Page	Date
55-00-01	1	OCT 01/00	57-20-01	1	OCT 01/00			
	2/Blank	OCT 01/00		2	OCT 01/00			
55-10-01	1	OCT 01/00	57-20-02	1	OCT 01/00			
	2	OCT 01/00		2	OCT 01/00			
				3	OCT 01/00			
55-10-02	1	OCT 01/00		4	OCT 01/00			
	2/Blank	OCT 01/00						
			57-50-01	1	OCT 01/00			
55-20-01	1	OCT 01/00		2/Blank	OCT 01/00			
	2/Blank	OCT 01/00						
			57-50-02	1	OCT 01/00			
55-30-01	1	OCT 01/00		2/Blank	OCT 01/00			
	2	OCT 01/00						
55-30-02	1	OCT 01/00						
	2/Blank	OCT 01/00						
55-40-01	1	OCT 01/00						
	2/Blank	OCT 01/00						
57-00-00	1	OCT 01/00						
	2/Blank	OCT 01/00						
57-00-01	1	OCT 01/00						
	2/Blank	OCT 01/00						

CHAPTER

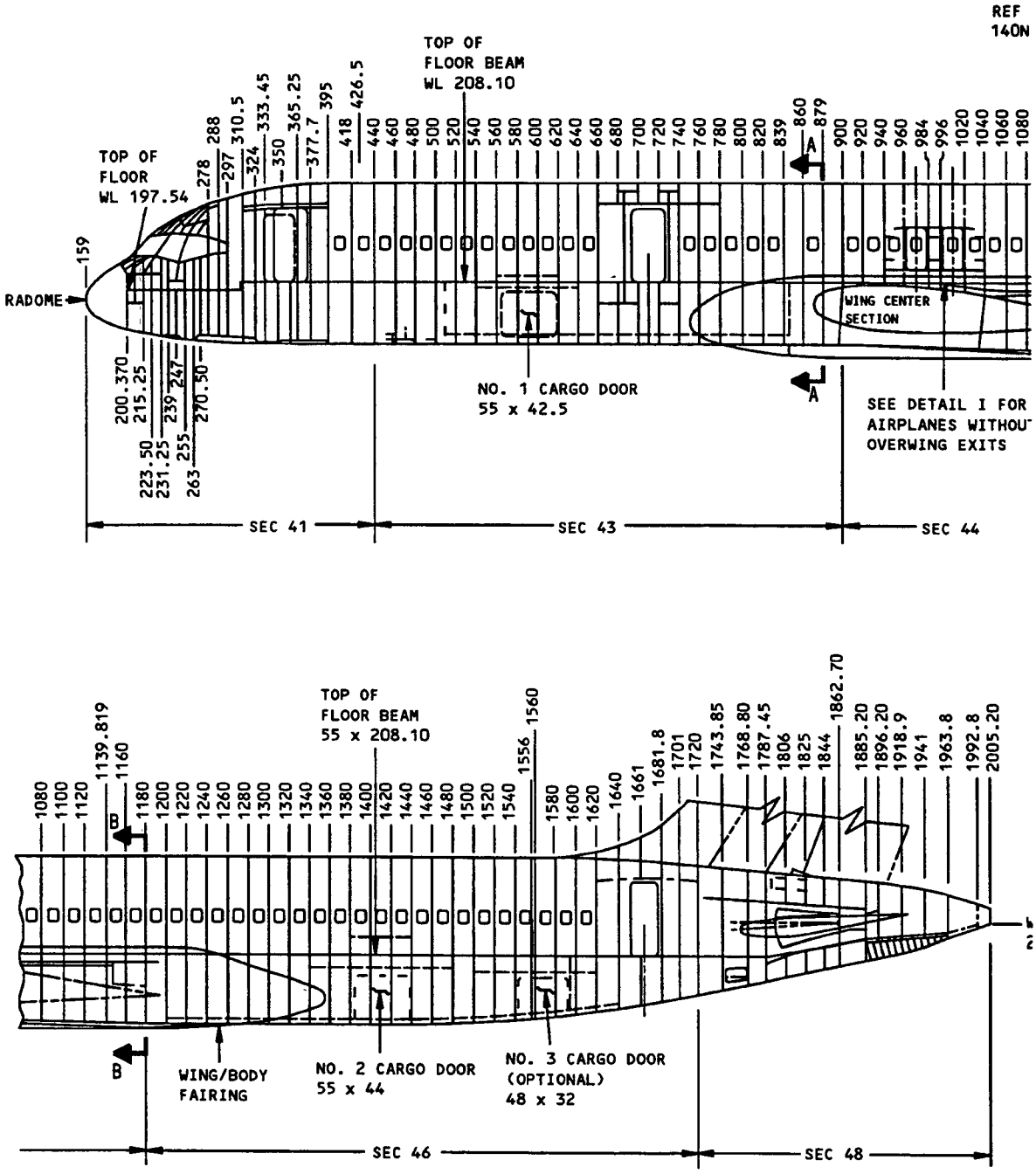
06

DIMENSIONS AND AREAS

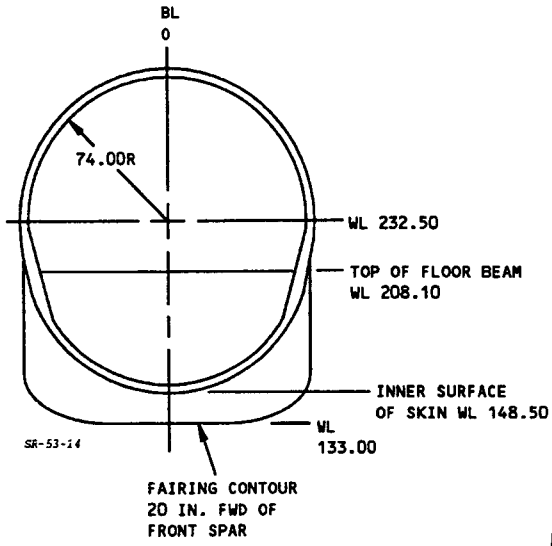
THIS PAGE INTENTIONALLY LEFT BLANK

AWG	American Wire Gage	MM	Maintenance Manual
BBL	Body Buttock Line	MPD	Maintenance Planning Data (or Document)
BRP	Body Reference Plane	MRB	Maintenance Review Board
BS or B STA	Body Station	NAC BL	Nacelle Buttock Line
CMM	Component Maintenance Manual	NAC STA	Nacelle Station
CRES	Corrosion Resistant Steel	NAC WL	Nacelle Water Line
CRT	Cathode Ray Tube	NDI	Nondestructive Inspection
DIA	Diameter	NDT	Nondestructive Test
DME	Distance Measuring Equipment	NLG	Nose Landing Gear
ELEV STA	Elevator Station	NOM	Nominal
ENG STA	Engine Station	OD	Outside Diameter
FIN STA	Fin Station	OHM	Overhaul Manual
FIN WL	Fin Water Line	R or RAD	Radius
FSS or FSS STA	Front Spar Station	RH	Right-hand
H & D	Herter and Driffield	RSS or RS STA	Rear Spar Station
ID	Inside Diameter	RUD STA	Rudder Station
kHz	Kilohertz	SB	Service Bulletin
KV	Kilovolt	SL	Service Letter
LE	Leading Edge	SFD	Source-to-Film Distance
LE STA	Leading Edge Station	SLAT STA	Slat Station
LH	Left-hand	SRM	Structural Repair Manual
MA	Milliamperes	STA	Station
MAS	Milliamp Seconds	STAB STA	Stabilizer Station
MHz	Megahertz	TR STA	Thrust Reverser Station
MLG	Main Landing Gear		

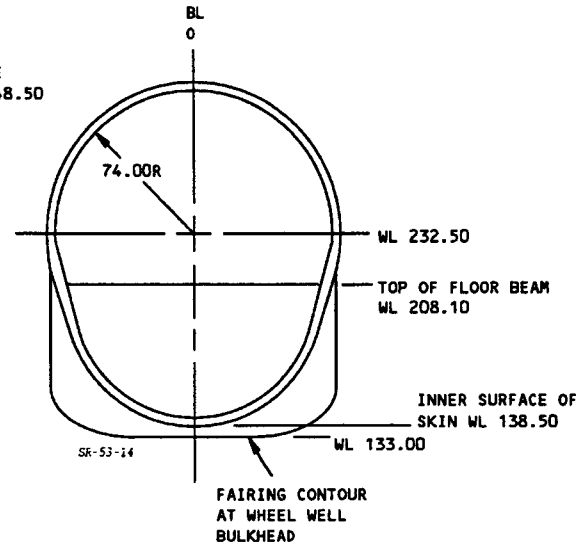
Abbreviations and Symbols
Figure 1



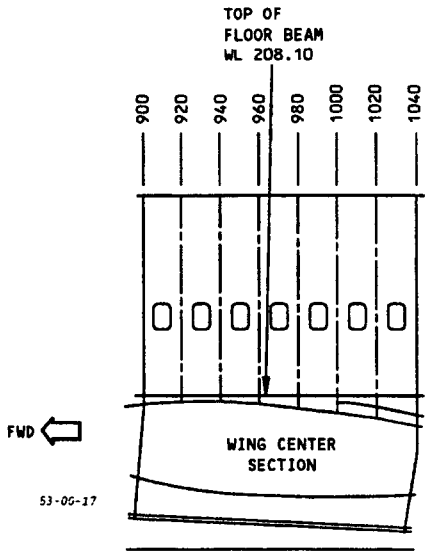
Fuselage Station Diagram
Figure 2 (Sheet 1)



SECTION A-A

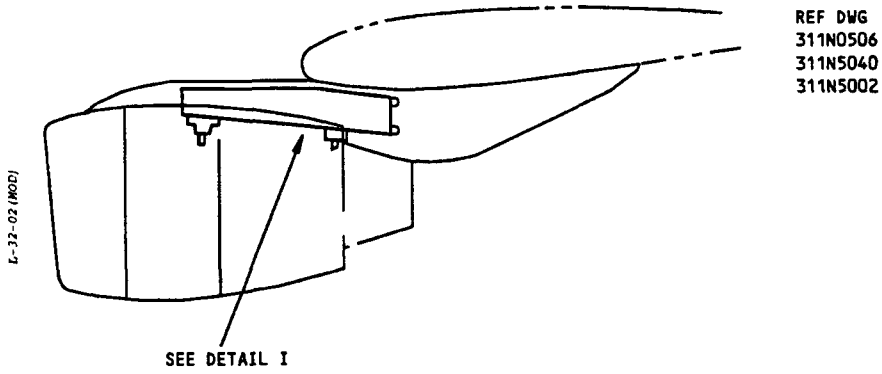


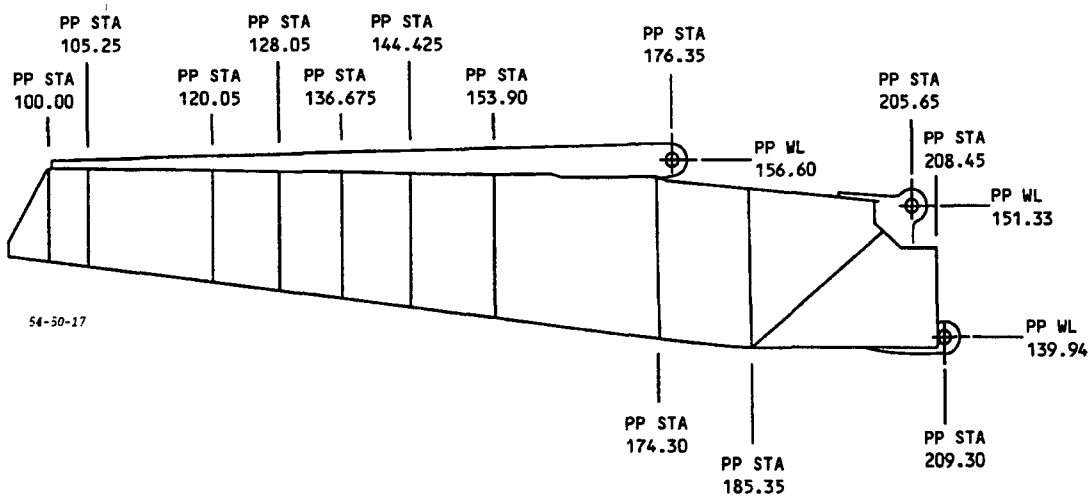
SECTION B-B



DETAIL I

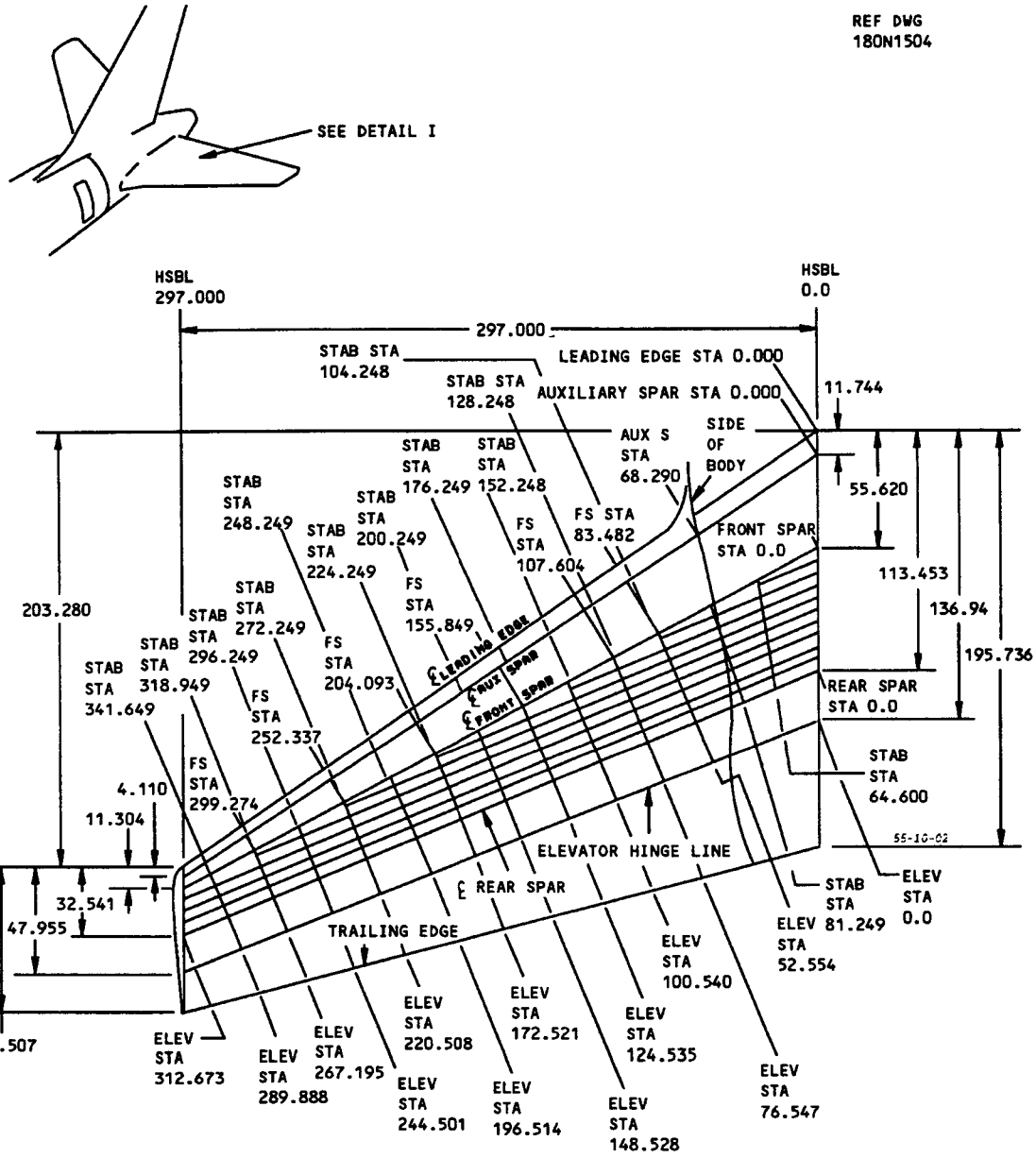
Fuselage Station Diagram
Figure 2 (Sheet 2)





DETAIL I

Strut Station Diagram - RB211-535 Engine
Figure 3



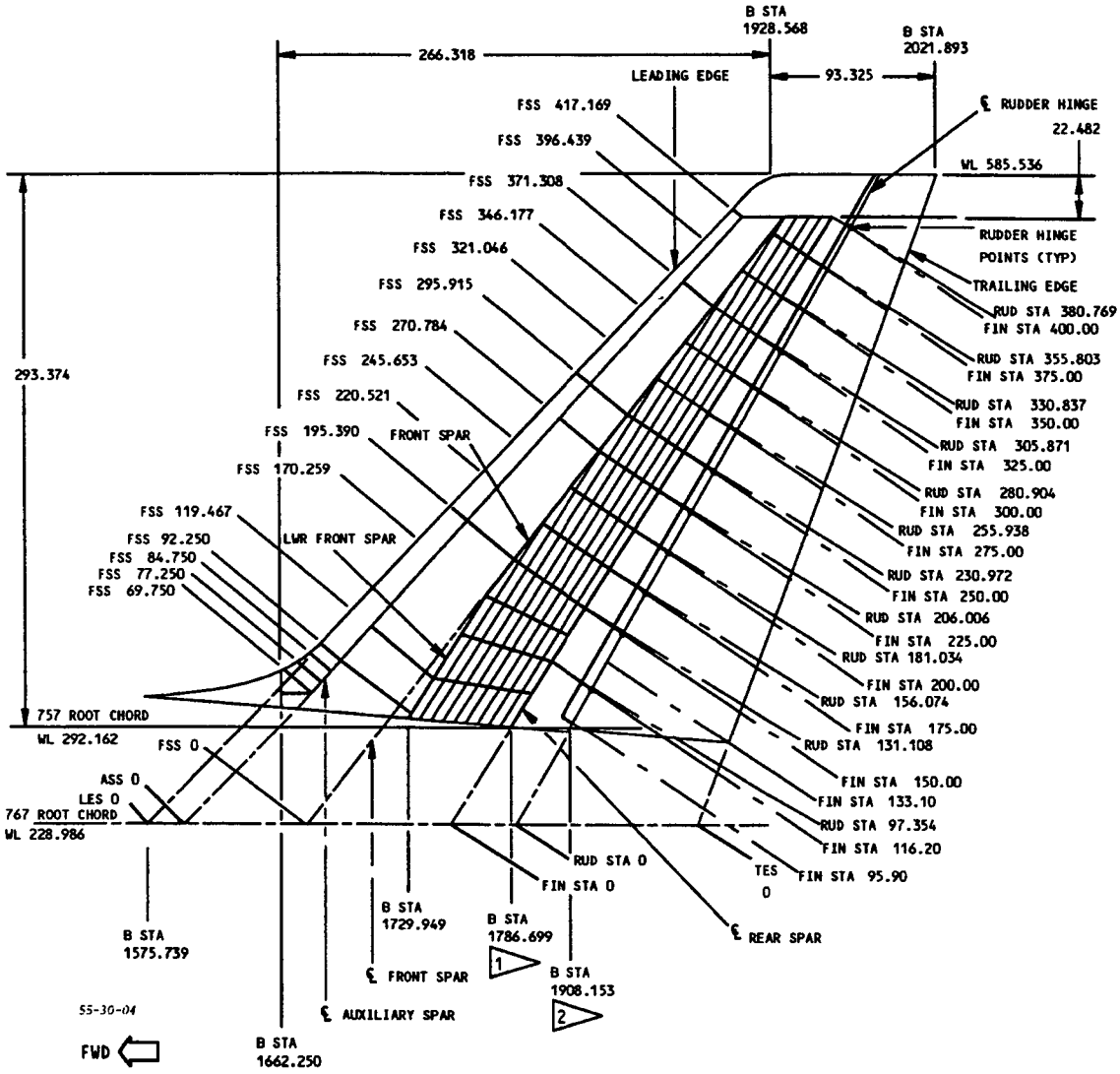
NOTES

- ALL DIMENSIONS ARE MEASURED ALONG OR PARALLEL TO HORIZONTAL STABILIZER REFERENCE PLANE

DETAIL I

- RIBS BETWEEN REAR SPAR AND ELEVATOR HINGE LINE ARE PERPENDICULAR TO HINGE LINE. RIBS BETWEEN FRONT AND REAR SPAR ARE PERPENDICULAR TO REAR SPAR

Horizontal Stabilizer Station Diagram
Figure 4

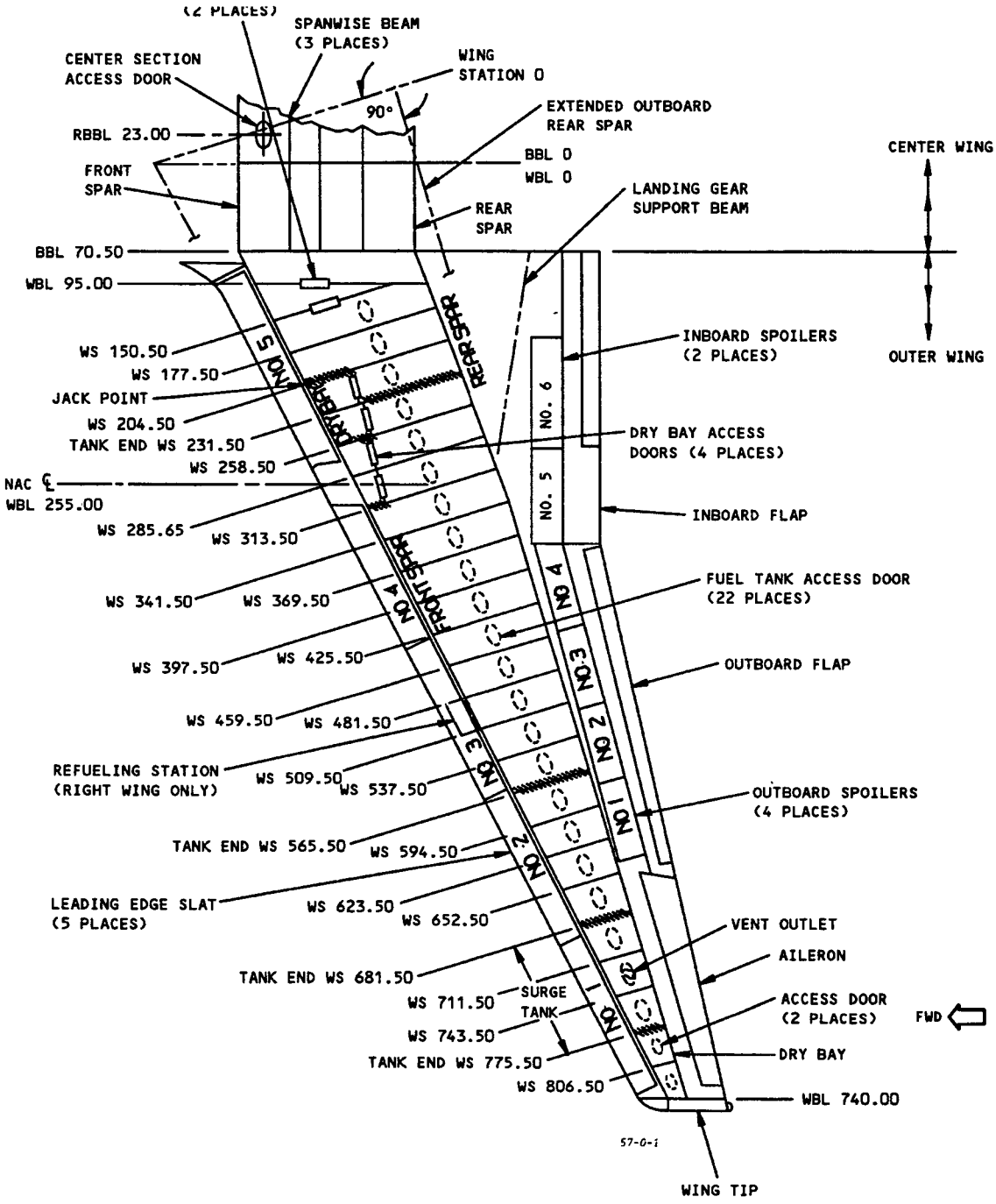


LEFT SIDE VIEW

NOTES

1. INTERSECTION OF ROOT CHORD AND REAR SPAR CENTERLINE
2. INTERSECTION OF ROOT CHORD AND RUDDER HINGE LINE

Vertical Stabilizer Station Diagram
Figure 5



Wing Station Diagram
Figure 6

THIS PAGE INTENTIONALLY LEFT BLANK

CHAPTER

27

FLIGHT CONTROLS

THIS PAGE INTENTIONALLY LEFT BLANK

AREA	PROBLEM	INDEX PREVENTION VOLUME 2	TERMINATING ACTION (IF ANY)
Control Cables	Corrosion of carbon-steel cables	27-00-02	
Flaps	Corrosion in trailing-edge-flap ballscrews	27-50-01	

SPECIFIC CORROSION PROBLEMS - FLIGHT CONTROLS
Figure 1

THIS PAGE INTENTIONALLY LEFT BLANK

CONTROL CABLES

1. General

A. Control cables are made of thin strands of tinned carbon steel. Cables are protected by a thin film of grease. Corrosion can occur where the grease film is not there and the cables are open to moisture.

2. Corrosion Prevention

A. At regular times, wipe off the grease with a dry, lint-free cloth and examine the cable for corrosion.

B. Apply a thin film of grease over the length of the cable per 12-21-31 of the Maintenance Manual after you examine the cable.

C. If corrosion starts, refer to Structural Repair Manual.

THIS PAGE INTENTIONALLY LEFT BLANK

1. General

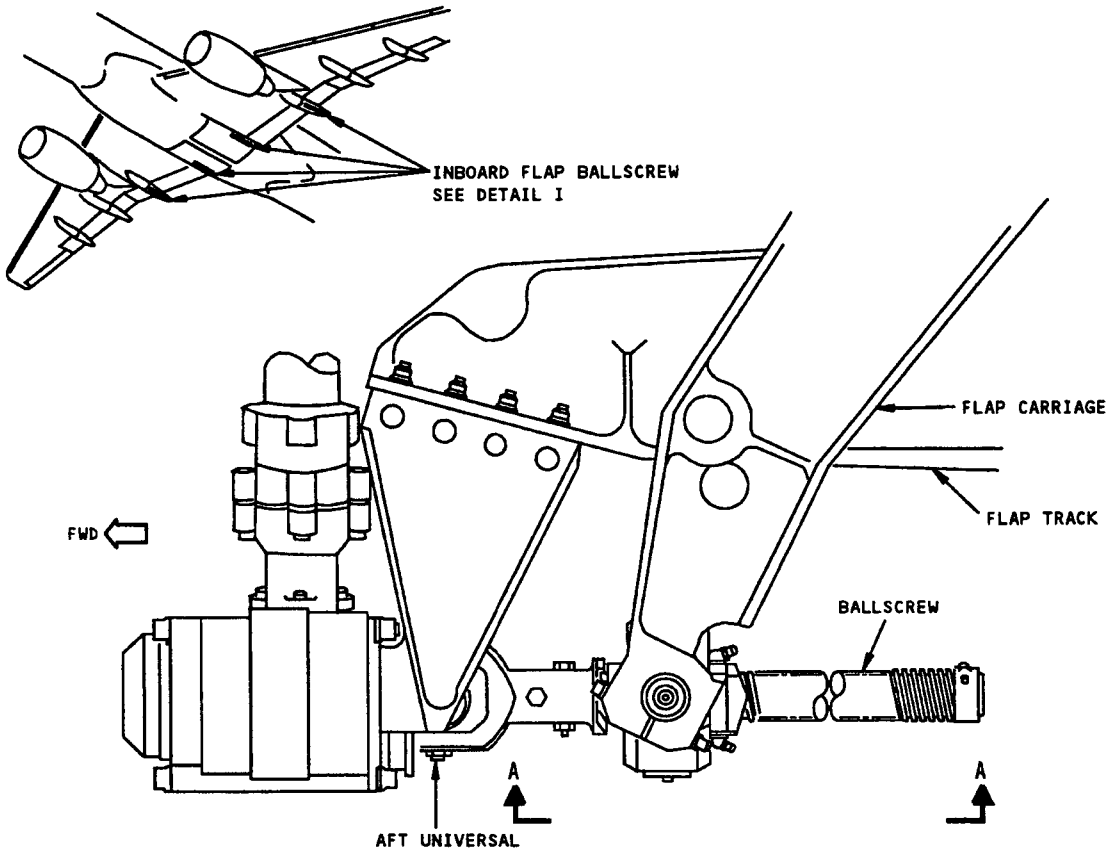
A. Corrosion can occur in the trailing edge flap ballscrews. This can be caused when the ballscrew is not lubricated sufficiently. The corrosion can decrease the size of the balls in the unit, which can cause malfunctions.

2. Corrosion Prevention

A. Make sure the ballscrews are lubricated at the correct frequency as specified in the Maintenance Manning Document. There are two tube fittings on the ballnut, one for each of the two independent ball circuits. Lubrication of one ball circuit does not supply lubrication to the other circuit. Thus, be sure to apply lubricant at each fitting.

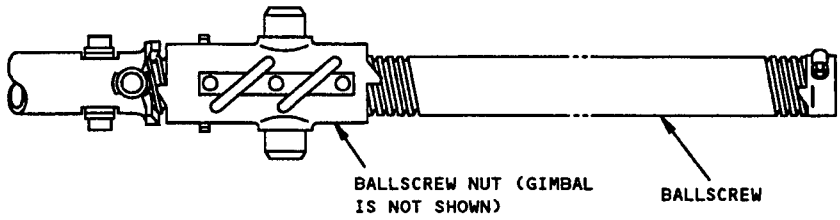
B. When you wash the trailing edge flap or wheel wells, be careful not to wash grease away from the ends of the ballnut, or water could get into the ballscrew assembly. We recommend you lubricate the ballscrews again after you wash these areas.

THIS PAGE INTENTIONALLY LEFT BLANK



INBOARD FLAP BALLSCREW
INBOARD TRANSMISSION SHOWN
(OUTBOARD TRANSMISSION OPPOSITE)

DETAIL I



A-A

Ballscrew Installation for the Inboard TE Flaps
Figure 1

THIS PAGE INTENTIONALLY LEFT BLANK

CHAPTER

28

FUEL

THIS PAGE INTENTIONALLY LEFT BLANK

AREA	PROBLEM	INDEX PREVENTION VOLUME 2	TERMINATING ACTION (IF ANY)
Fuel Shutoff and Crossfeed Valve Actuators	Corrosion at body joints and water entry into actuators	28-20-01	SB 28A0018
Fuel Temperature Bulbs	Corrosion at housing connections	28-40-01	

SPECIFIC CORROSION PROBLEMS - FUEL
Figure 1

THIS PAGE INTENTIONALLY LEFT BLANK

1. General

A. This system includes tanks, valves, actuators, pumps, and fuel lines. This system is used to distribute fuel among various tanks of the airplane, and to remove fuel from the airplane.

B. Corrosion can occur on the exterior of the fuel shutoff and crossfeed valve actuators, at body joints and fastener heads. If this corrosion gets in past the 0-rings, contamination and water can cause malfunctions of the actuators.

2. Corrosion Prevention

A. Make regular checks of the actuators for corrosion at body joints and fastener heads. If you find corrosion, replace the defective actuators per SB 28A0018.

B. Corrosion inhibiting compounds can be used on fuel vapor barriers.

C. Improved Corrosion Protection

(1) Fuel Shutoff and Crossfeed Actuators -- Airplanes line number 207 and on use actuators per PRR 54054, with the cadmium plated external screws and washers, and with sealant on the body joints and fastener heads. These improvements can be incorporated on other airplanes by actuator replacement per SB 28A0018.

THIS PAGE INTENTIONALLY LEFT BLANK

1. General

A. This system includes electrical sensors and connectors, and is used to indicate the quantity, temperature, and pressure of the fuel.

B. Corrosion can occur at the housing connection of the fuel temperature bulb. This is a vendor-supplied part.

2. Corrosion Prevention

A. Make regular checks of the temperature bulbs, and other sensors, for corrosion at the housing connections. If you find corrosion, replace the defective parts.

THIS PAGE INTENTIONALLY LEFT BLANK

CHAPTER

29

HYDRAULIC POWER

THIS PAGE INTENTIONALLY LEFT BLANK

AREA	PROBLEM	INDEX PREVENTION VOLUME 2	TERMINATING ACTION (IF ANY)
Hydraulic Plumbing	Corrosion of hydraulic lines, valves and fittings	29-10-01	29-10-01

SPECIFIC CORROSION PROBLEMS - HYDRAULIC POWER
Figure 1

THIS PAGE INTENTIONALLY LEFT BLANK

1. General

A. The high pressure hydraulic lines are unpainted corrosion resistant steel. The low pressure hydraulic lines are 5000 or 6000 series aluminum alloys. Valves and fittings are either anodized aluminum or corrosion resistant steel. Service experience has shown that these items are relatively corrosion free unless they are exposed to an extremely severe environment.

B. Clamps are usually manufactured from solid nylon or silicone rubber cushioned steel.

2. Corrosion Prevention

A. Make periodic visual inspections for white corrosion products on aluminum or black pits on corrosion resistant steel. When clamps are removed, inspect the tubing visually for signs of corrosion.

B. Refer to Volume 1, 20-60-00 for details of application of corrosion inhibiting compound BMS 3-23.

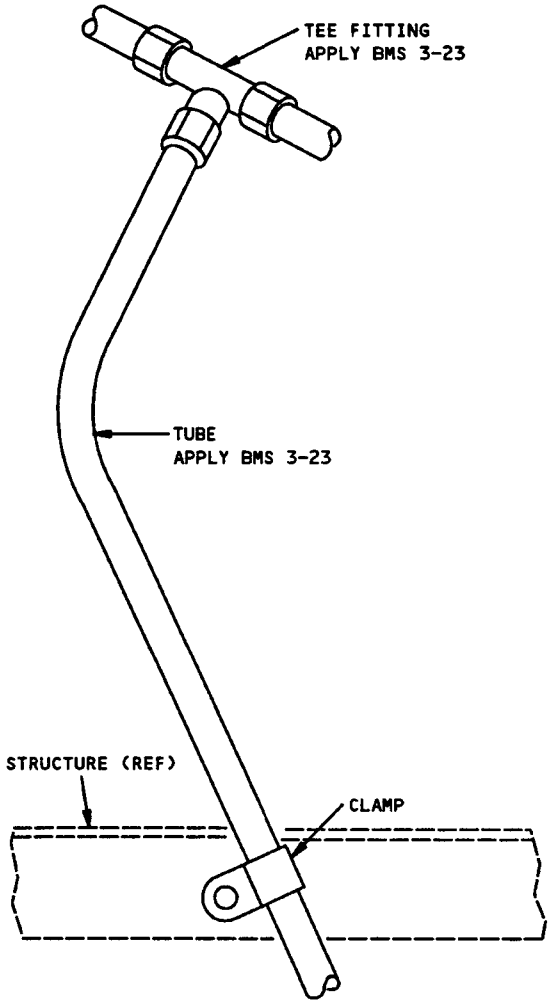
CAUTION: DO NOT APPLY BMS 3-23 TO SILICONE RUBBER OR RUBBER CLAMP CUSHIONS. BMS 3-23 MAY CAUSE SILICONE RUBBER TO SWELL.

C. For corrosion prevention, apply BMS 3-23 on tubings and fittings with a cloth wetted with the compound. This method will clean as well as lay a thin protective film.

D. Where corrosion has already started, refer to Structural Repair Manual for details of corrosion removal.

E. In cases where cleaning is accomplished with steam or high pressure water and detergent, reapply BMS 3-23.

F. Scratches or gouges should be treated at the first opportunity.



Hydraulic Plumbing
Figure 1

CHAPTER

32

LANDING GEAR

THIS PAGE INTENTIONALLY LEFT BLANK

AREA	PROBLEM	INDEX PREVENTION VOLUME 2	TERMINATING ACTION (IF ANY)
Main Landing Gear	Corrosion of MLG components	32-10-01	
	Corrosion of MLG forward Trunnion-fuse pin	32-10-01	
Nose Landing Gear	Corrosion of NLG components	32-20-01	
	Corrosion of shutoff valve in steering metering valve module	32-20-01	SB 32-0076 Retrofit
	Corrosion of manifold in steering metering valve	32-20-01	Parker SB 3800014-32-43

Specific Corrosion Problems - Landing Gear
Figure 1

THIS PAGE INTENTIONALLY LEFT BLANK

1. General

   A. The main landing gear is exposed to air contaminants and runway splash which can cause corrosion.

2. Corrosion Prevention

   A. Make periodic inspections as described in Volume 1, 20-20-00 to ensure that the protective finishes provided during manufacture remain intact. The preferred treatment for broken finishes is to replace the finish with the same protective system as used originally. Since in some cases it is impractical or impossible to use this approach between overhaul cycles, the treatment described in the following paragraphs is recommended.

   B. Where corrosion has already started, refer to Structural Repair Manual for details of corrosion removal.

   C. Apply BMS 3-23 water displacing corrosion inhibiting compound to damaged finish on exposed surfaces. Refer to Volume 1, 20-60-00 for details of application of BMS 3-23.

   D. After application of BMS 3-23, all grease fittings in the treated areas must be regreased.

   E. Precautions for Use of Corrosion Inhibiting Compound.

   CAUTION: DO NOT APPLY BMS 3-23 TO AREAS WHICH WILL BE SUBSEQUENTLY PAINTED OR SEALED.

   OBSERVE PRECAUTIONS OF VOLUME 1, 20-60-00 ABOUT SPRAYING CONTROL CABLES WITH BMS 3-23.

   (1) Apply BMS 3-23 to unpainted hydraulic tubing in the area.

   (2) Shield or protect pulleys, wire bundles, etc., in some manner to prevent direct application of BMS 3-23.

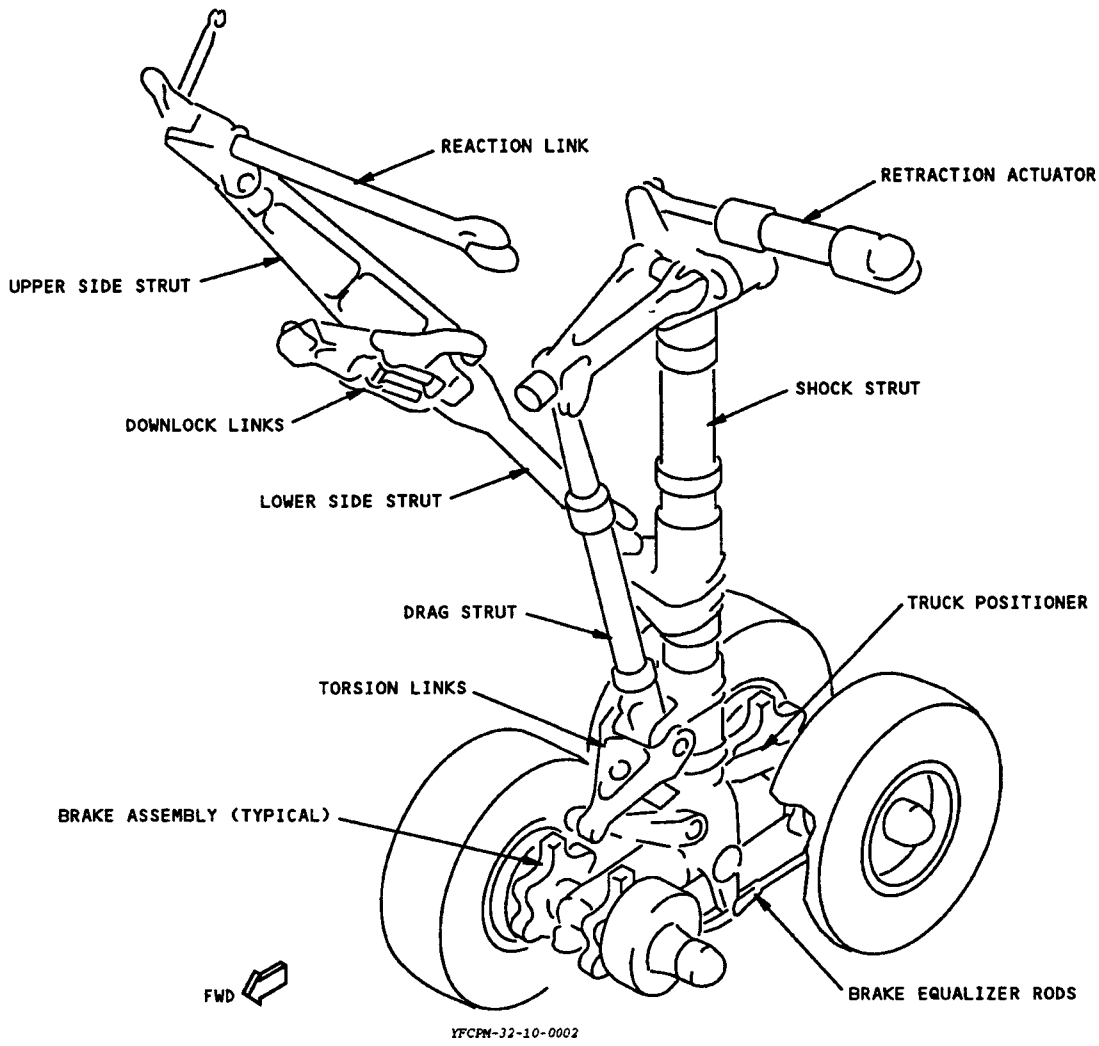
   (3) Mask off electrical connectors to avoid application to any electrical contacts.

   (4) Protect oxygen systems, including fittings, from contamination in accordance with chapter 35 of the Maintenance Manual.

   (5) Do not apply corrosion inhibiting compounds on grease joints or sealed bearings. These compounds dissolve grease and other lubricants. They are penetrating compounds and can get around the seals and into the bearings.

   F. Improved Corrosion Protection:

   (1) Forward Trunnion Fuse Pin: Beginning with airplane line number 805, the forward trunnion fuse pin will be replaced with a pin made from 15-5PH Cres material and plated with Class 3 chrome. This change is being incorporated by PRR 54807.



Main Landing Gear
Figure 1

1. General

   A. The nose landing gear is exposed to air contaminants and runway splash which can cause corrosion.

   B. Corrosion can occur in the shutoff valve and the manifold of the steering metering valve module.

2. Corrosion Prevention

   A. Make the regular inspections as in Volume 1, 20-00-00, to make sure that protective finishes stay serviceable. For the steering metering valve module, refer to SB 32-76 and Parker SB 3800014-32-43. The preferred treatment for broken finishes is to replace the finish with the same protective system as used originally. Since in some cases it is impractical or impossible to use this approach between overhaul cycles, the treatment described in the following paragraphs is recommended.

   B. Where corrosion has already started, refer to Structural Repair Manual for details of corrosion removal.

   C. Apply BMS 3-23 water displacing corrosion inhibiting compound to damaged finish on exposed surfaces. Refer to Volume 1, 20-60-00 for details of application of BMS 3-23.

   D. After application of BMS 3-23, all grease fittings in the treated area must be regreased.

   E. Precautions for Use of Corrosion Inhibiting Compound.

   CAUTION: DO NOT APPLY BMS 3-23 TO AREAS WHICH WILL BE SUBSEQUENTLY PAINTED OR SEALED.

   OBSERVE PRECAUTIONS OF VOLUME 1, 20-60-00 FOR SPRAYING CONTROL CABLES WITH BMS 3-23.

   (1) Apply BMS 3-23 to unpainted hydraulic tubing in the area.

   (2) Shield or protect pulleys, wire bundles, etc., in some manner to prevent direct application of BMS 3-23.

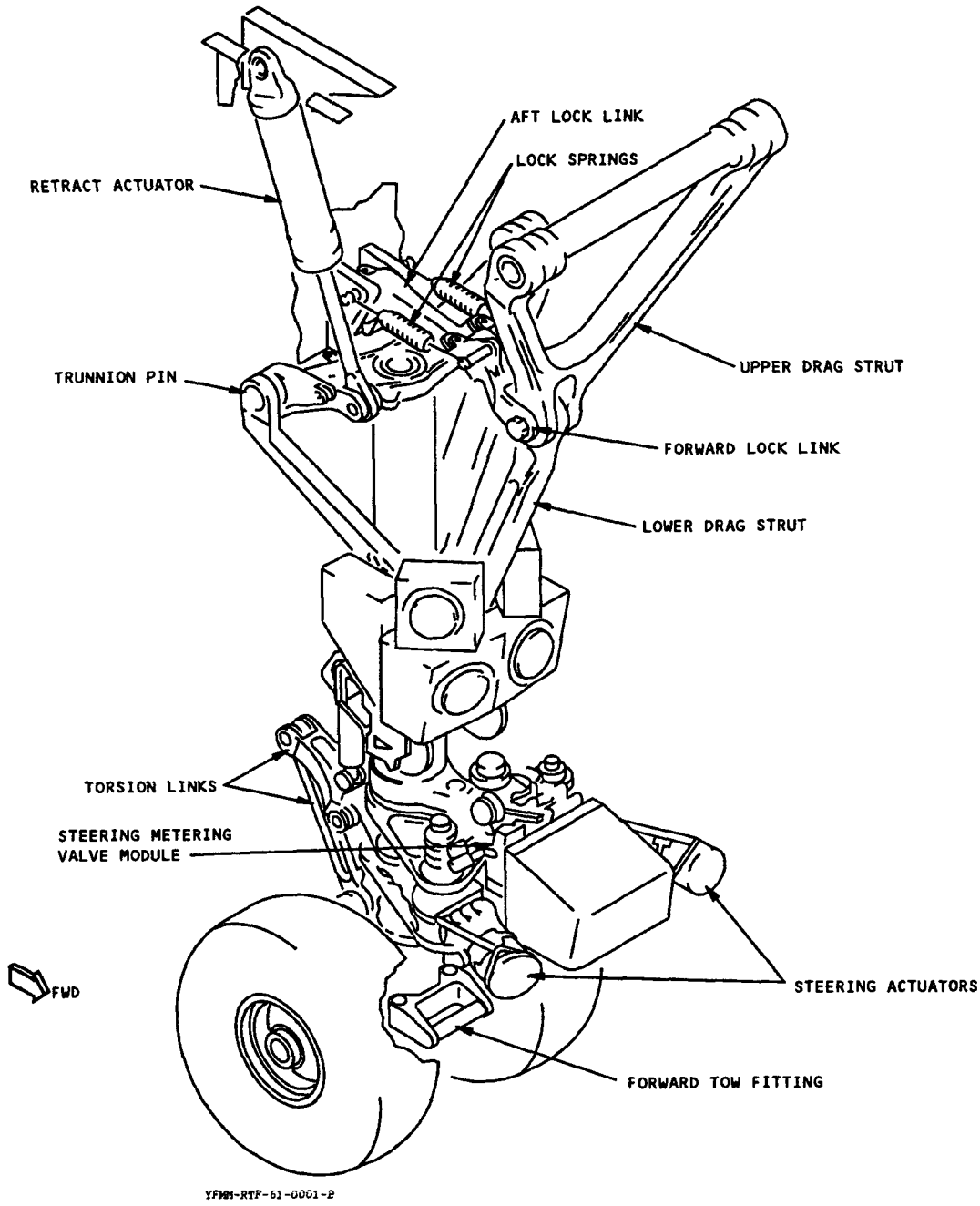
   (3) Mask off electrical connectors to avoid application to any electrical contacts.

   (4) Protect oxygen systems, including fittings, from contamination in accordance with chapter 35 of the Maintenance Manual.

   (5) Do not apply corrosion inhibiting compounds on grease joints or sealed bearings. These compounds dissolve grease and other lubricants. They are penetrating compounds and can get around the seals and into the bearings.

F. Improved Corrosion Protection

(1) Steering Metering Valve Module: Airplane line numbers 208,213,217 and on have modules per PRR 53911 with changes in the shutoff valve. The plunger, the retainer, and the valve lap assembly are CRES. The manifold has a drain hole. These changes can be incorporated on other airplanes per SB 32-0076. Parker SB 3800014-32-43 gives instructions for corrosion damage repair.



Nose Landing Gear
Figure 1

THIS PAGE INTENTIONALLY LEFT BLANK

CHAPTER

34

NAVIGATION

THIS PAGE INTENTIONALLY LEFT BLANK

AREA	PROBLEM	INDEX PREVENTION VOLUME 2	TERMINATING ACTION (IF ANY)
Radio Altimeter Antenna	Corrosion of fasteners and moisture intrusion into antenna	34-30-01	Inspection, treatment, and replacement per SB 34-0035
Traffic Alert Collision Avoidance System	Corrosion of connectors on lower antenna	34-40-01	SB34-0073

Specific Corrosion Problems - Navigation
Figure 1

THIS PAGE INTENTIONALLY LEFT BLANK

RADIO ALTIMETER ANTENNA

1. General

A. There are six radio altimeter antennas on the bottom of the fuselage. Intrusion of water at the antenna connector base will cause delamination and corrosion and eventually cause the antenna to be inoperable.

2. Corrosion Prevention

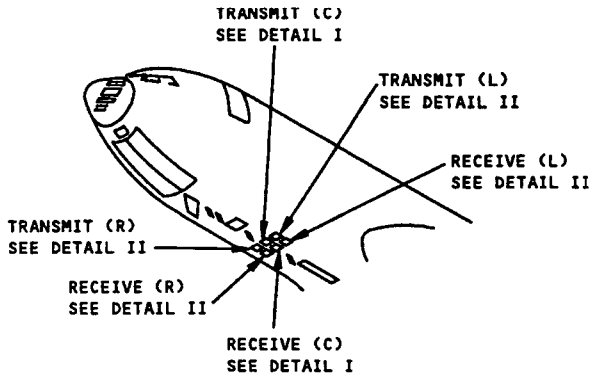
A. Periodically inspect the antennas for evidence of corrosion. Refer to Maintenance Manual Subject 34-33-02 for removal procedure.

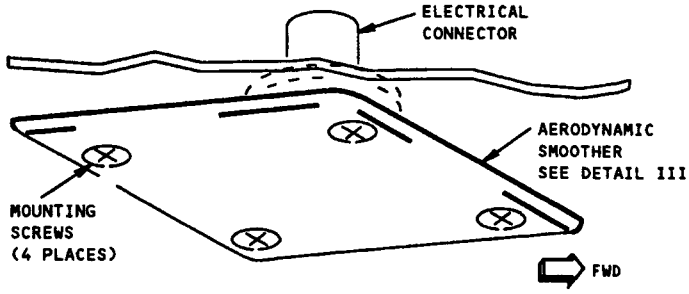
B. If corrosion is evident, replace with new antenna.

C. Clean faying surfaces of antenna and mounting surfaces and apply Alodine 1200. Airplanes line number 94 and on, plus those incorporating SB 34-0025, will have the antenna bases packed with grease.

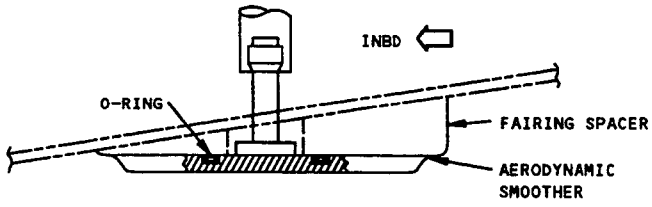
D. Apply BMS 3-23 to the connector base, including the nuts. Pack the connector base with BMS 3-24 grease from the O-ring on the backplate to above the nuts on the connector base.

E. Install and test the antenna per MM 34-33-02.

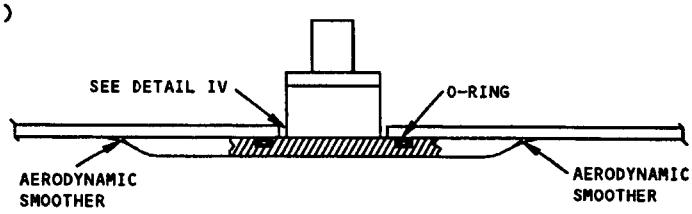




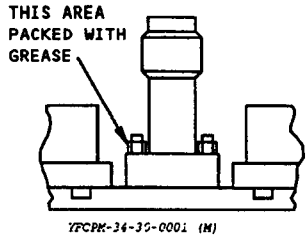
RADIO ALTIMETER ANTENNA (CENTER)
DETAIL I



RADIO ALTIMETER ANTENNA
(LEFT SHOWN, RIGHT OPPOSITE)
DETAIL II



AERODYNAMIC SEALANT (TYPICAL)
DETAIL III



DETAIL IV

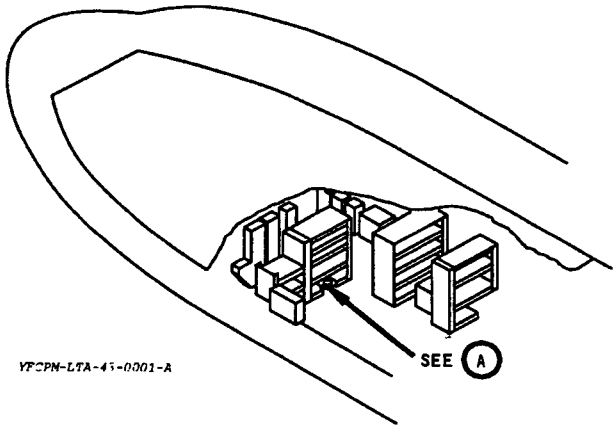
Radio Altimeter Antenna
Figure 1

1. General

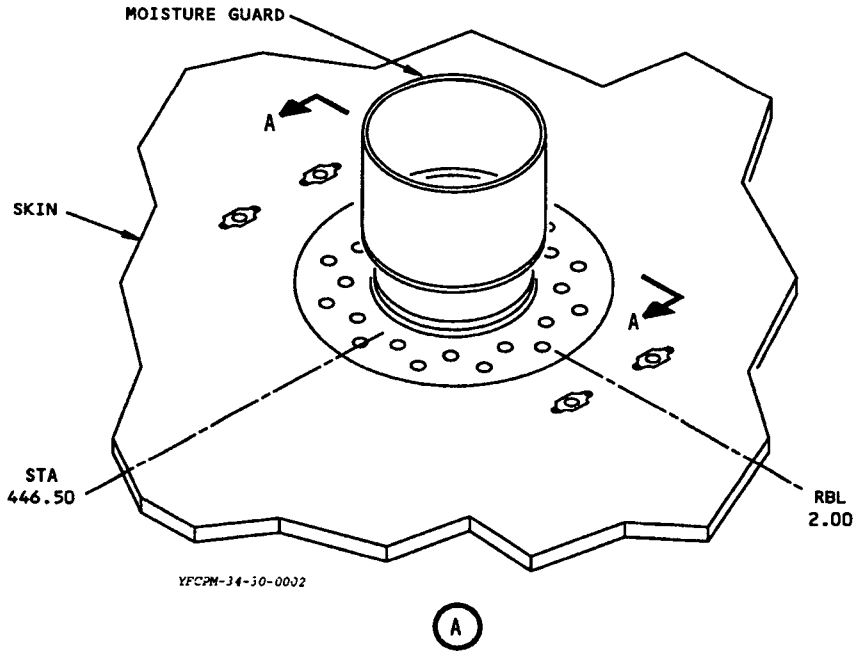
A. This system includes an antenna installed in the bilge area on the bottom skin of the airplane, at station 446.50. Water can collect in the low area around the hole in the skin, ring doubter, and coverplate. This can result in corrosion of the antenna connectors.

2. Corrosion Prevention

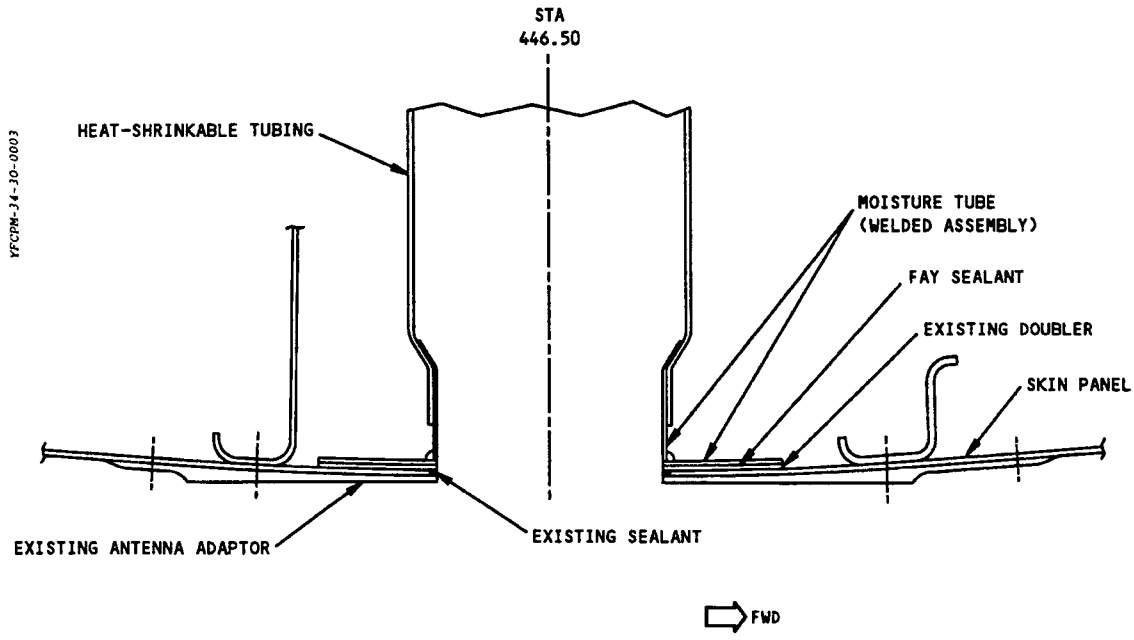
A. Make regular checks of the antenna connectors for corrosion. To prevent corrosion, install a moisture guard at the antenna location per SB 34-0073.



E3 ELECTRICAL RACK REMOVED



Traffic Alert and Collision Avoidance System Lower Antenna
Figure 1 (Sheet 1)



SECTION A-A

Traffic Alert and Collision Avoidance System Lower Antenna
Figure 1 (Sheet 2)

THIS PAGE INTENTIONALLY LEFT BLANK

CHAPTER

35

OXYGEN

THIS PAGE INTENTIONALLY LEFT BLANK

AREA	PROBLEM	INDEX PREVENTION VOLUME 2	TERMINATING ACTION (IF ANY)
Oxygen Mask Lanyards	Low strength of passenger oxygen mask lanyard	35-20-01	757-35-0014

Specific Corrosion Problems - Landing Gear
Figure 1

THIS PAGE INTENTIONALLY LEFT BLANK

1. General

A. Passenger oxygen masks are provided throughout the airplane to provide oxygen to the passengers if cabin pressure is lost for any reason.

2. Corrosion Prevention

A. Make periodic inspections as described in Volume 1, 20-20-00, to detect corrosion of any type as described in Volume 1, 20-10-00.

B. Improved Corrosion Protection

(1) PRR 54530-182 along with SRP 757-SRP-35-0010 is being released to install new qualified oxygen with lanyards and new pulley guards into oxygen box assemblies. This will include all 757 models. This is being done because of suspected low strength of present oxygen mask lanyards crimped ferrules, which may be susceptible to stress corrosion - Service Bulletin 757-35-0014 is being prepared to retrofit the fleet.

THIS PAGE INTENTIONALLY LEFT BLANK

CHAPTER

52

DOORS

THIS PAGE INTENTIONALLY LEFT BLANK

AREA	PROBLEM	INDEX PREVENTION VOLUME 2	TERMINATING ACTION (IF ANY)
Main Entry Doors	Corrosion of door interiors and door mechanisms	52-10-01	
Passenger Doors	Corrosion of torque tube bearings	52-10-01	SB 52-0025
	Corrosion of handle mechanism hub and bearings	52-10-01	SB 52-0027
	Corrosion of bearings in emergency power assist system	52-10-01	
	Corrosion caused by wet insulation blankets and slide packs	52-10-01	SB 52-0071
No. 3 Emergency Exit Doors	Corrosion of hatch interiors	52-20-01	
	Corrosion of alloy steel bearings	52-20-01	SB 52-0056
Cargo Doors	Corrosion of cargo door interior and door mechanisms	52-30-01	
Lavatory Service Panels	Corrosion of panels and adjacent skin	52-40-01	
Forward Access Door	Corrosion of door interior	52-40-02	
Electrical/ Electronics Access Door	Corrosion of door interior	52-40-03	

SPECIFIC CORROSION PROBLEMS - DOORS
Figure 1

THIS PAGE INTENTIONALLY LEFT BLANK

1. General

A. Areas of possible corrosion are the internal and external structure of the doors, connection points and mechanisms. Bearings in the mechanisms are a frequent corrosion problem.

B. The door openings should be treated at the same time as the doors.

2. Corrosion Prevention

A. Make periodic inspections as described in Volume 1, 20-20-00 to ensure that the protective finishes provided during manufacture remain intact.

(1) Remove liner and gain access to interior structure of door.

(2) Clean out drains and drain paths.

(3) Refer to Volume 1, 20-60-00 for details on the application of corrosion inhibiting compound.

(4) Apply corrosion inhibiting compound to the interior door structure, giving special attention to the lower corners.

(5) Do not apply corrosion inhibiting compounds on grease joints or sealed bearings. These compounds dissolve grease and other lubricants. They are penetrating compounds and can get around the seals and into the bearings.

(6) Do not apply corrosion inhibiting compounds on interior materials such as liners. The compounds change the flammable quality of these materials.

(7) Relubricate interior door fittings and bearings as necessary per the maintenance manual.

(8) Reinstall liner and restore door to normal.

B. Frequency of Application. Periodically inspect the door structure and condition of the corrosion inhibitor. Reapply corrosion inhibiting compound as required. Local areas where gouges and scratches have occurred should be treated at the first opportunity consistent with the maintenance schedule.

C. Improved Corrosion Protection

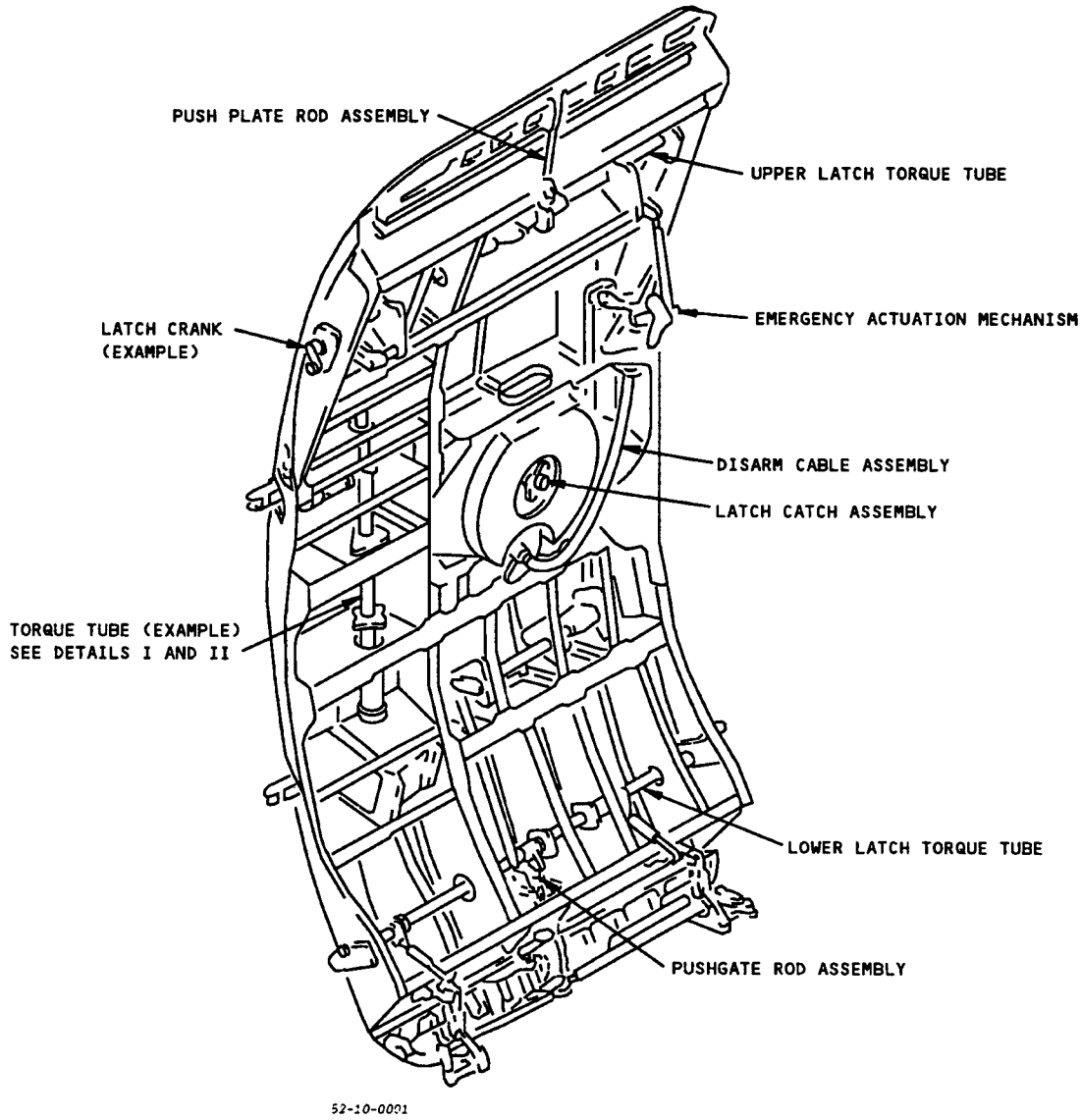
(1) On airplanes line numbers 163,166 thru 168,174,175,176,178 and on, stainless steel bearings per PRR 53752 replaced the alloy steel bearings in the torque tubes at the hinges. This change can be incorporated on other airplanes by SB 52-0025.

(2) At line number 191, stainless steel bearings per PRR 53752-1 replaced alloy steel bearings in the handle box assembly in the door handle mechanism. Anew handle mounting hub assembly is also used. These changes can be incorporated on other airplanes by SB 52-0027.

(3) At line number 455, a production change replaced alloy steel bearings with stainless steel bearings in the emergency power assist system and the support assembly. This change can be incorporated on other airplanes by SB 52-0055.

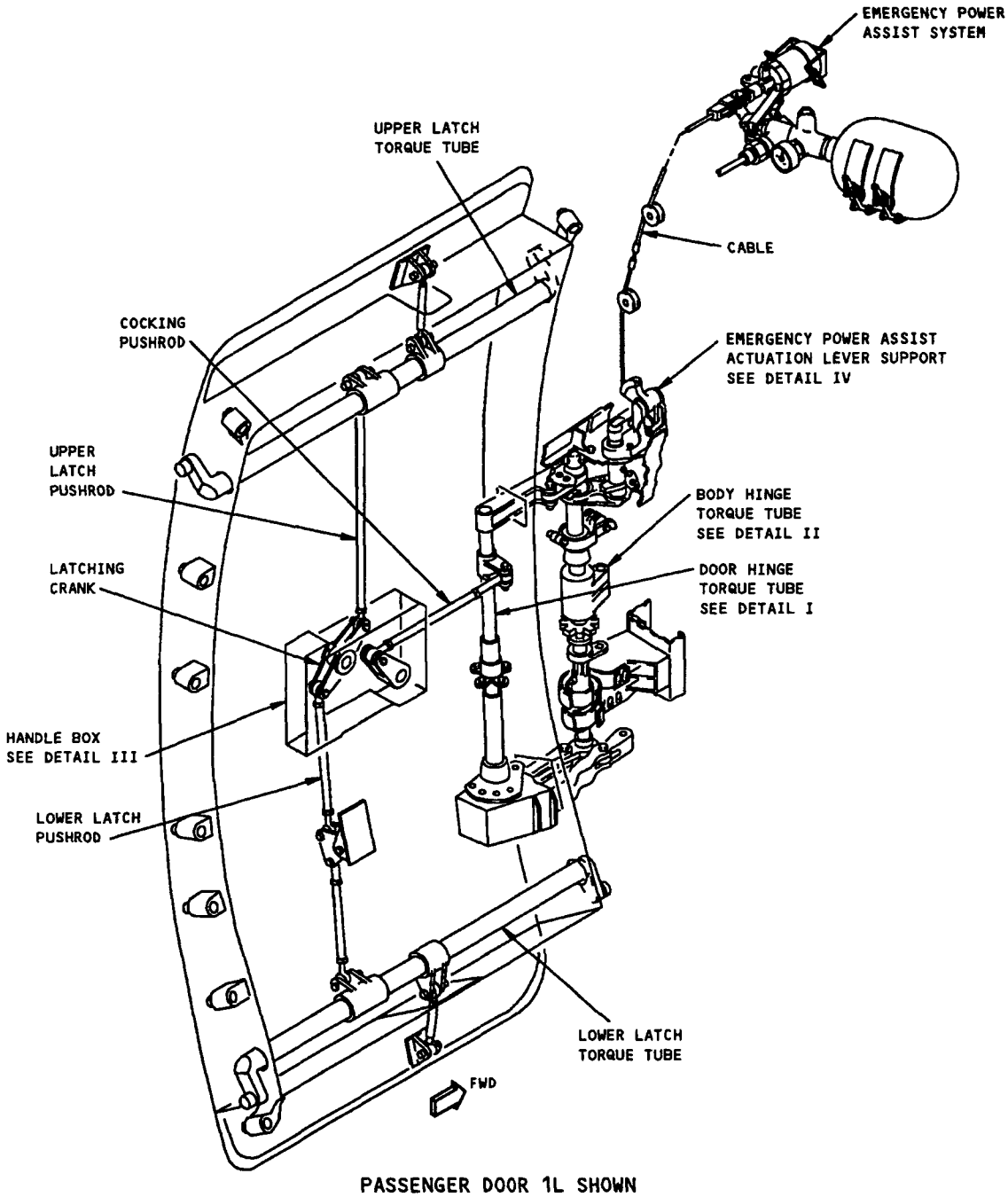
(4) Airplanes line numbers 519,545 have BMS 3-29 corrosion preventive compound on the passenger doors per RR 92038-3.

(5) On airplanes line numbers 1 to 771; Operators have reported soaked insulation blankets and slide packs on the passenger doors. Humid air from the cabin flows into the passenger door and condenses on the cold door structure during flight. Since the insulation blankets are attached to the door structure, condensation is absorbed by the insulation blankets. Also, when the airplane is on ground and the door is open, rainwater can go into the door from the door's top beam cutout. PRR 54530-166 will correct this problem. Related Service Bulletin 757-52-0071 gives instructions to remove the insulation blankets from the door structure, decrease the amount of airflow and rainwater into the door and direct the water drainage away from the insulation blankets. See related 757-SRP-52-0007 for further details.



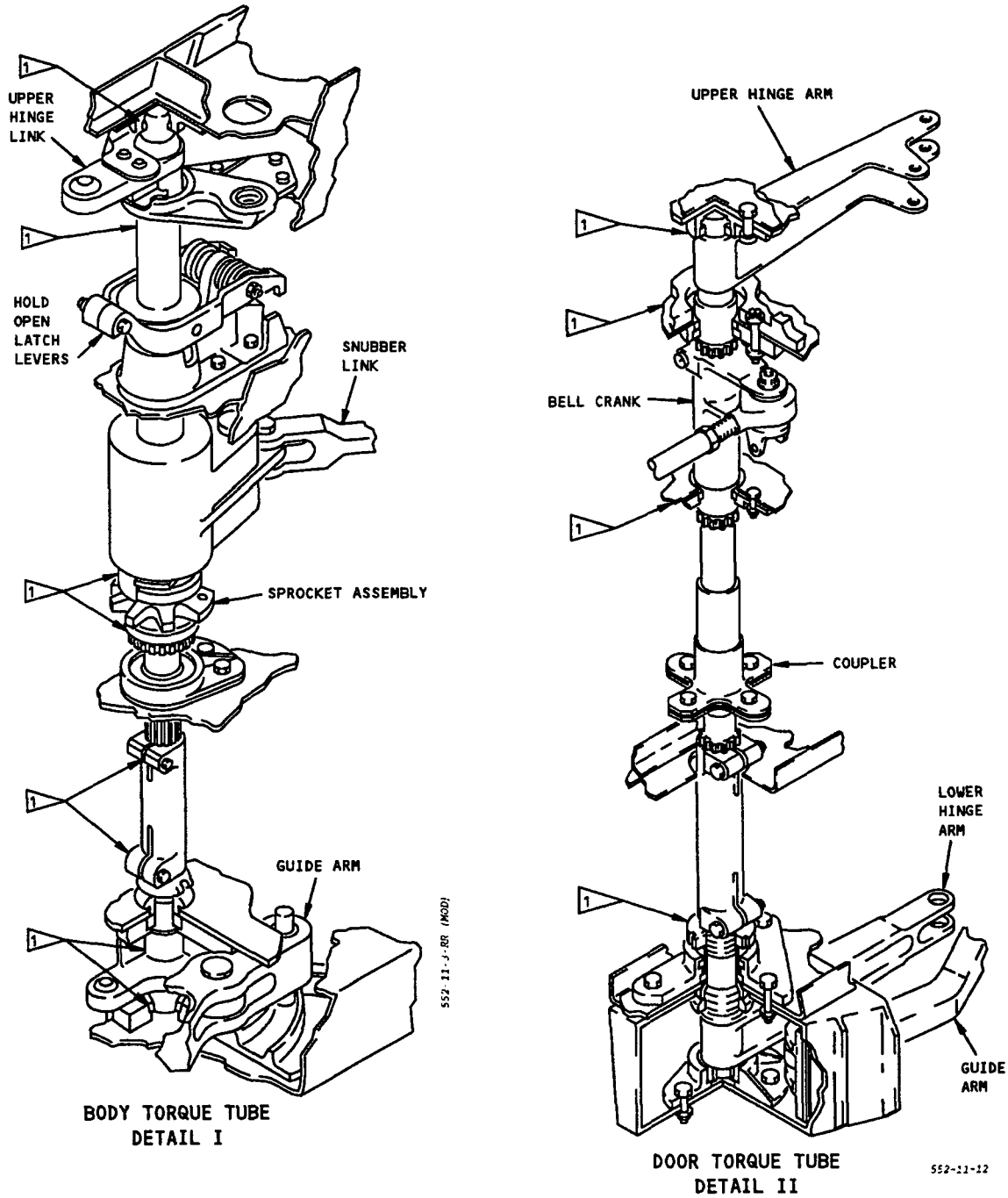
MAIN ENTRY DOOR (EXAMPLE)

Main Entry and Passenger Doors
Figure 1 (Sheet 1)

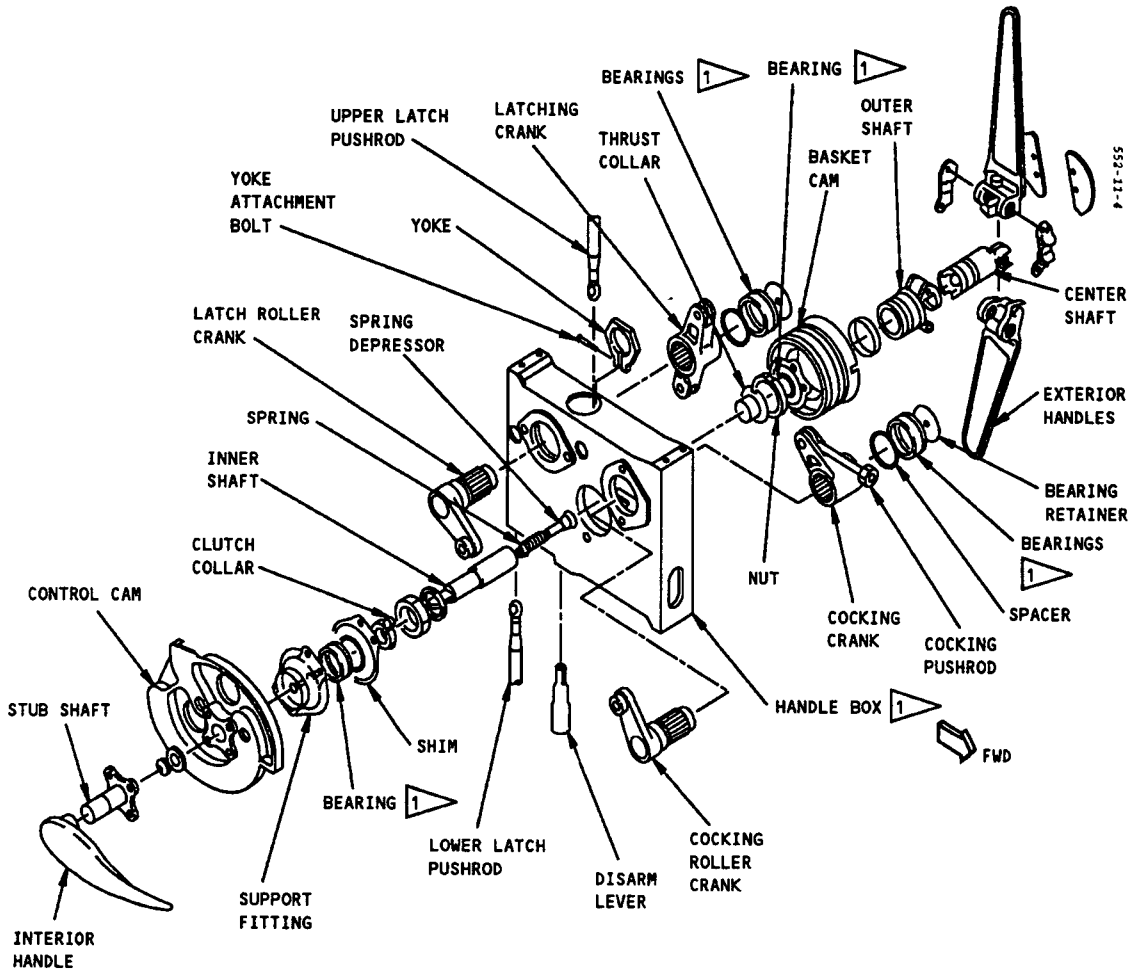


PASSENGER DOOR 1L SHOWN
OTHER PASSENGER DOORS SIMILAR

Main Entry and Passenger Doors
Figure 1 (Sheet 2

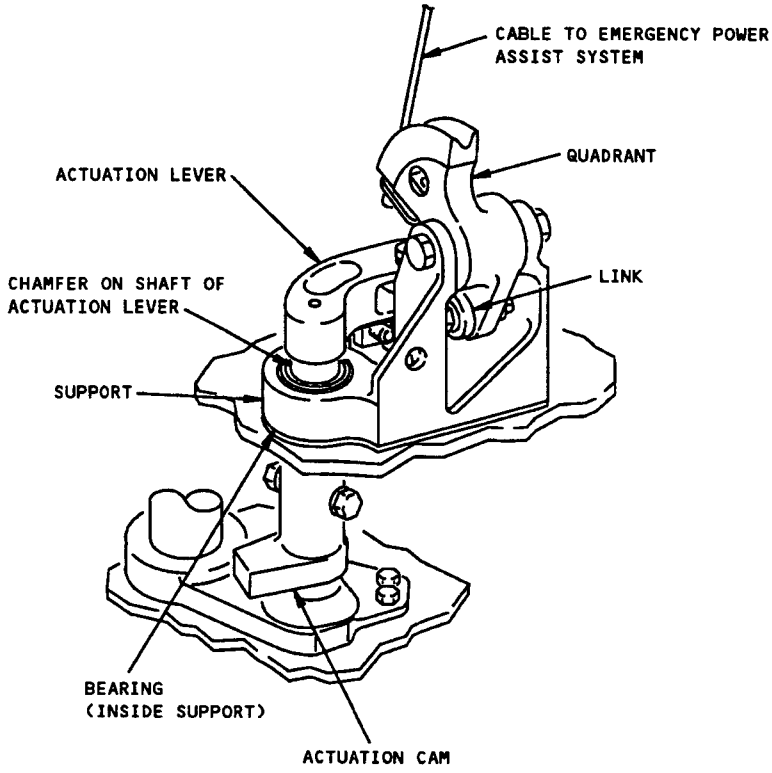


Main Entry and Passenger Doors
Figure 1 (Sheet 3)



DETAIL III

Main Entry and Passenger Doors
Figure 1 (Sheet 4)



DETAIL IV

Main Entry and Passenger Doors
Figure 1 (Sheet 5)

THIS PAGE INTENTIONALLY LEFT BLANK

1. General

A. Corrosion can occur on the door internal structure, lower corners and connection points and mechanisms.

B. Corrosion can occur on alloy steel bearings in the door mechanism.

2. Corrosion Prevention

A. Make periodic inspections as described in Volume 1, 20-20-00 to ensure that the protective finishes provided during manufacture remain intact.

B. Prevention Treatment

(1) Treat the door at the same time as the door opening.

(2) Remove liner and gain access to the interior of the door.

(3) Clean out drains and drain paths.

(4) Apply corrosion inhibiting compound to the interior of the door. Be sure you include the lower corners. Refer to Volume 1, 20-60-00 for details on the application of corrosion inhibiting compound.

(5) Do not apply corrosion inhibiting compounds on grease joints or sealed bearings. These compounds dissolve grease and other lubricants. They are penetrating compounds and can get around the seals and into the bearings.

(6) Do not apply corrosion inhibiting compounds on interior materials such as liners. The compounds change the flammable quality of these materials.

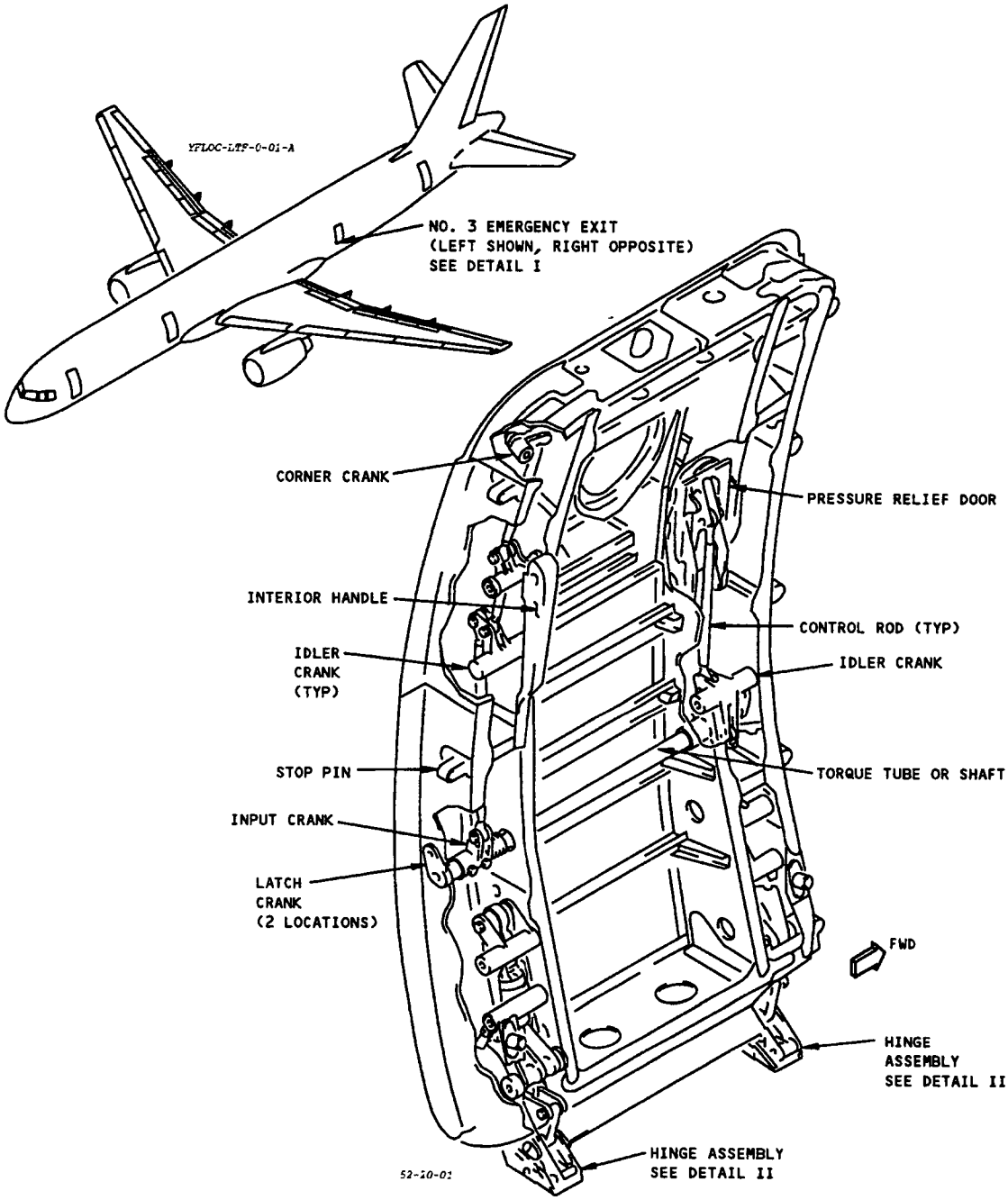
(7) Lubricate interior door fittings as necessary per the maintenance manual.

(8) Reinstall liner and restore door to normal.

C. Frequency of Application. Periodically inspect the structure and condition of the corrosion inhibitor. Reapply corrosion inhibiting compound as required. Local areas where gouges and scratches have occurred should be treated at the first opportunity consistent with the maintenance schedule.

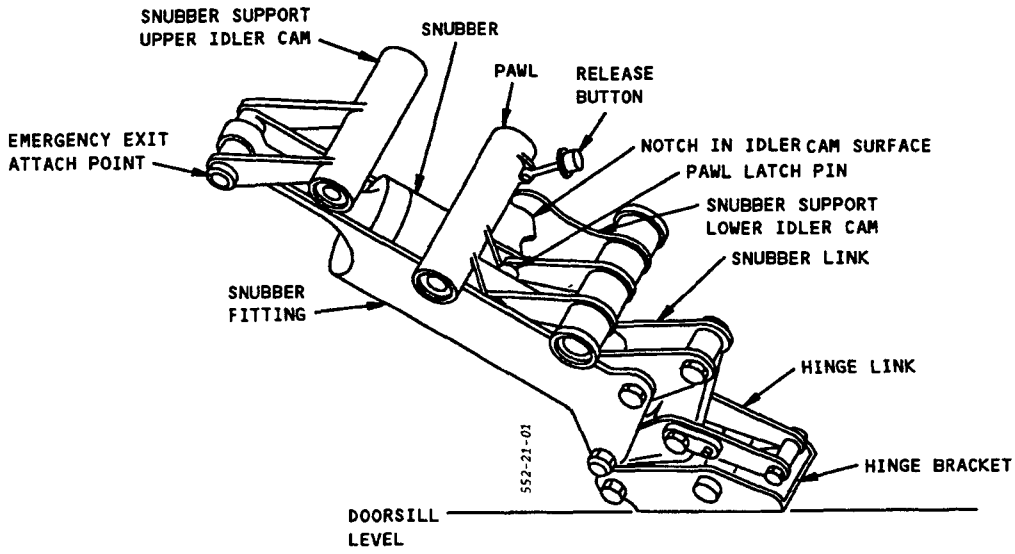
D. Improved Corrosion Protection

(1) At line number 534, PRR 54207 and 54460 replaced the alloy steel bearings with corrosion resistant steel bearings in the mechanism and linkages. Also, the bearing housings are filled with BMS 3-24 grease. These changes can be made on other airplanes with SB 52-0056.



NO. 3 EMERGENCY EXIT DOOR
DETAIL I

Emergency Exit Door
Figure 1 (Sheet 1)



HINGE ASSEMBLY
DETAIL II

Emergency Exit Door
Figure 1 (Sheet 2)

THIS PAGE INTENTIONALLY LEFT BLANK

1. General

A. Areas of possible corrosion are the internal structure of the door, connection points and mechanisms. The cargo door should be treated at the same time as the cargo door opening.

B. On airplanes line number 74 and on, BMS 3-23 corrosion inhibiting compound was applied to the interior of all cargo doors.

2. Corrosion Prevention

A. Make periodic inspections as described in Volume 1, 20-20-00 to ensure that the protective finishes provided during manufacture remain intact.

(1) Remove liner and gain access to interior structure of the door.

(2) Clean out drains and drain paths.

(3) Refer to Volume 1, 20-60-00 for details on the application of corrosion inhibiting compound.

(4) Apply corrosion inhibiting compound to the interior of the door, giving special attention to the lower corners.

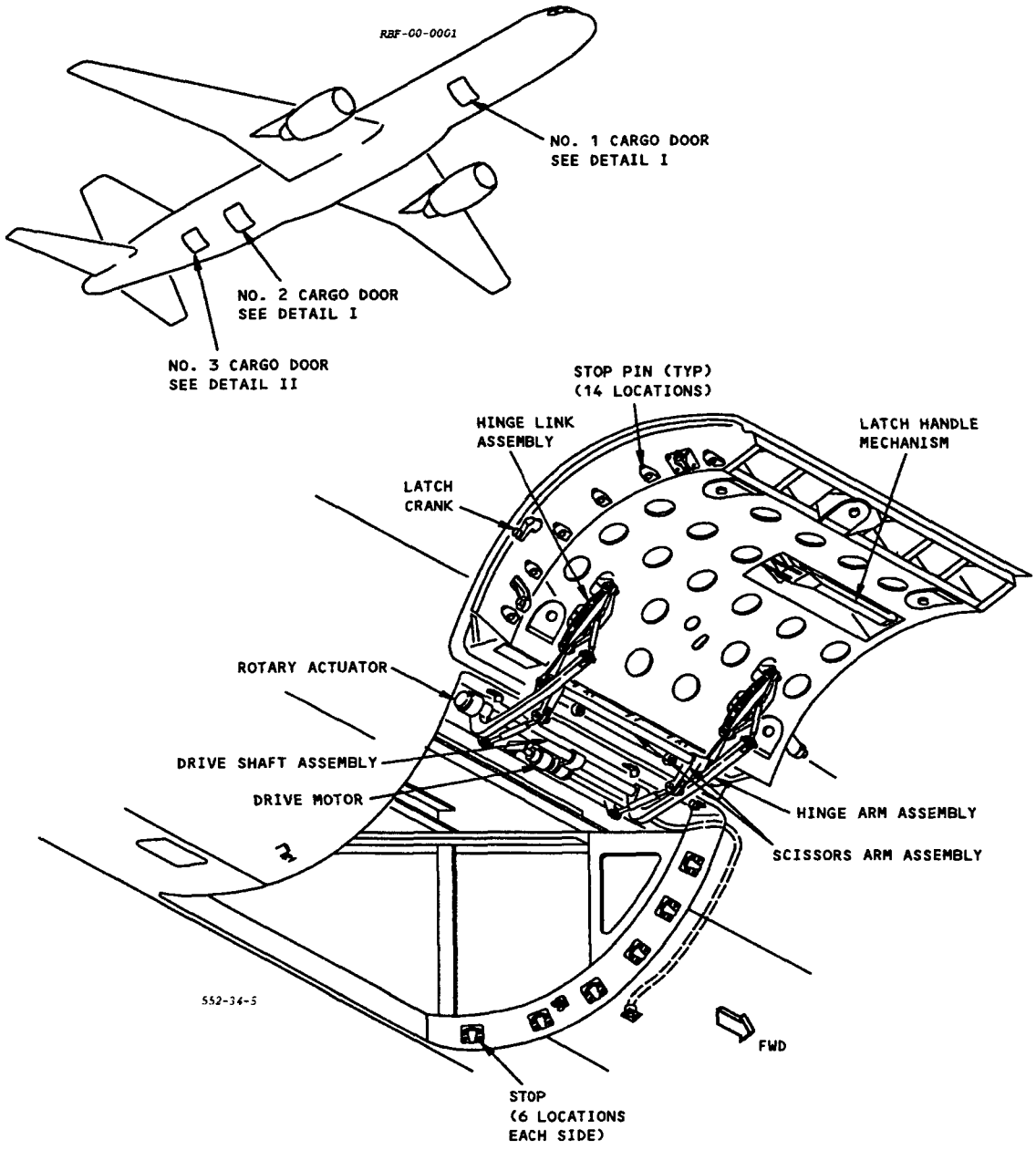
(5) Do not apply corrosion inhibiting compounds on grease joints or sealed bearings. These compounds dissolve grease and other lubricants. They are penetrating compounds and can get around the seals and into the bearings.

(6) Do not apply corrosion inhibiting compounds on interior materials such as cargo liners. The compounds change the flammable quality of these materials.

(7) Relubricate interior door fittings as necessary per the maintenance manual.

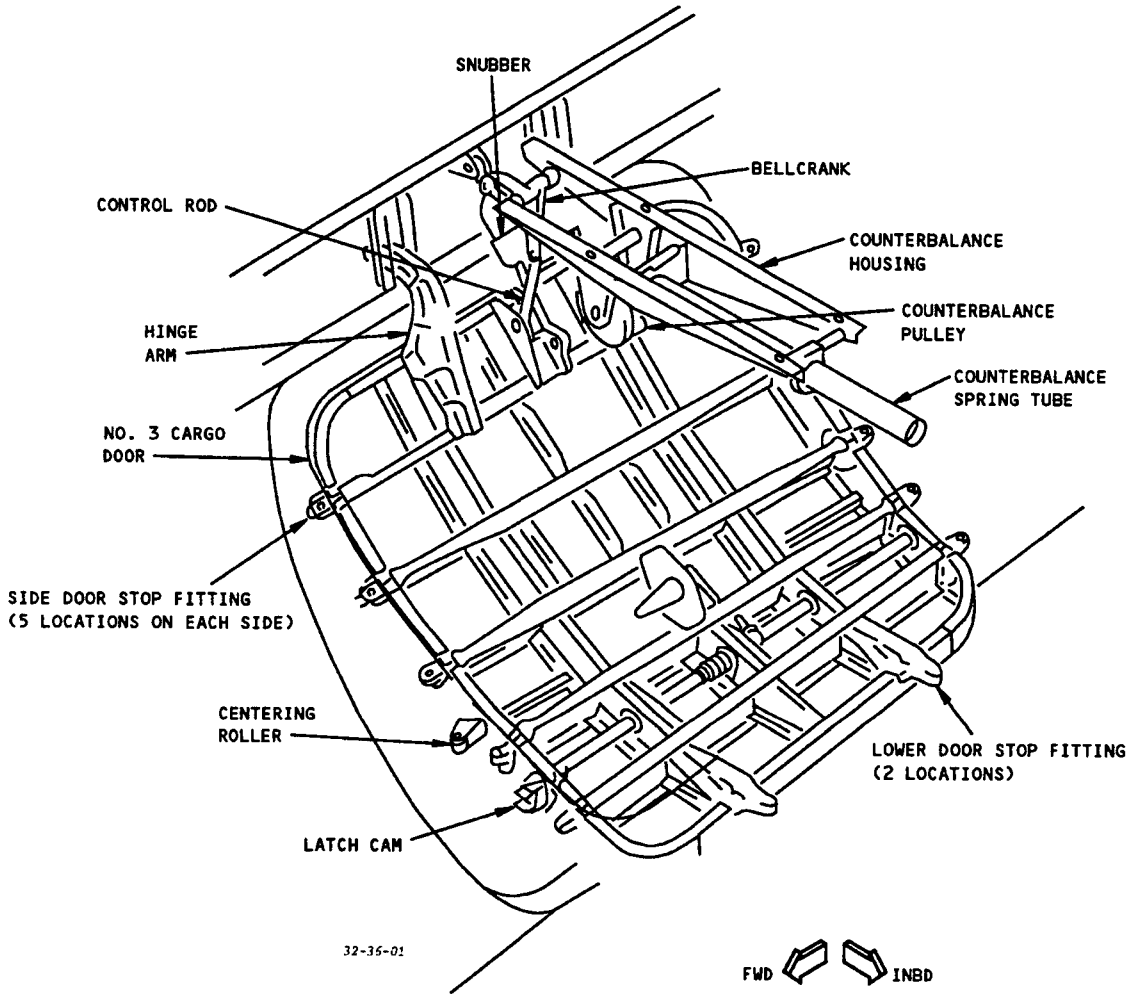
(8) Reinstall liner and restore door to normal.

B. Frequency of Application. Periodically inspect the door structure and condition of the corrosion inhibitor. Reapply corrosion inhibiting compound as required. Local areas where gouges and scratches have occurred should be treated at the first opportunity consistent with the maintenance schedule.



NO. 1 AND 2 CARGO DOOR
DETAIL I

Cargo Doors
Figure 1 (Sheet 1)



NO. 3 CARGO DOOR
DETAIL II

Cargo Doors
Figure 1 (Sheet 2)

THIS PAGE INTENTIONALLY LEFT BLANK

LAVATORY SERVICE PANELS

1. General

A. There are two lavatory service panels located at BS418 and BS1180. The area adjacent to and aft of the lavatory service panel and the door are susceptible to staining and corrosion due to leakage from the lavatory drain.

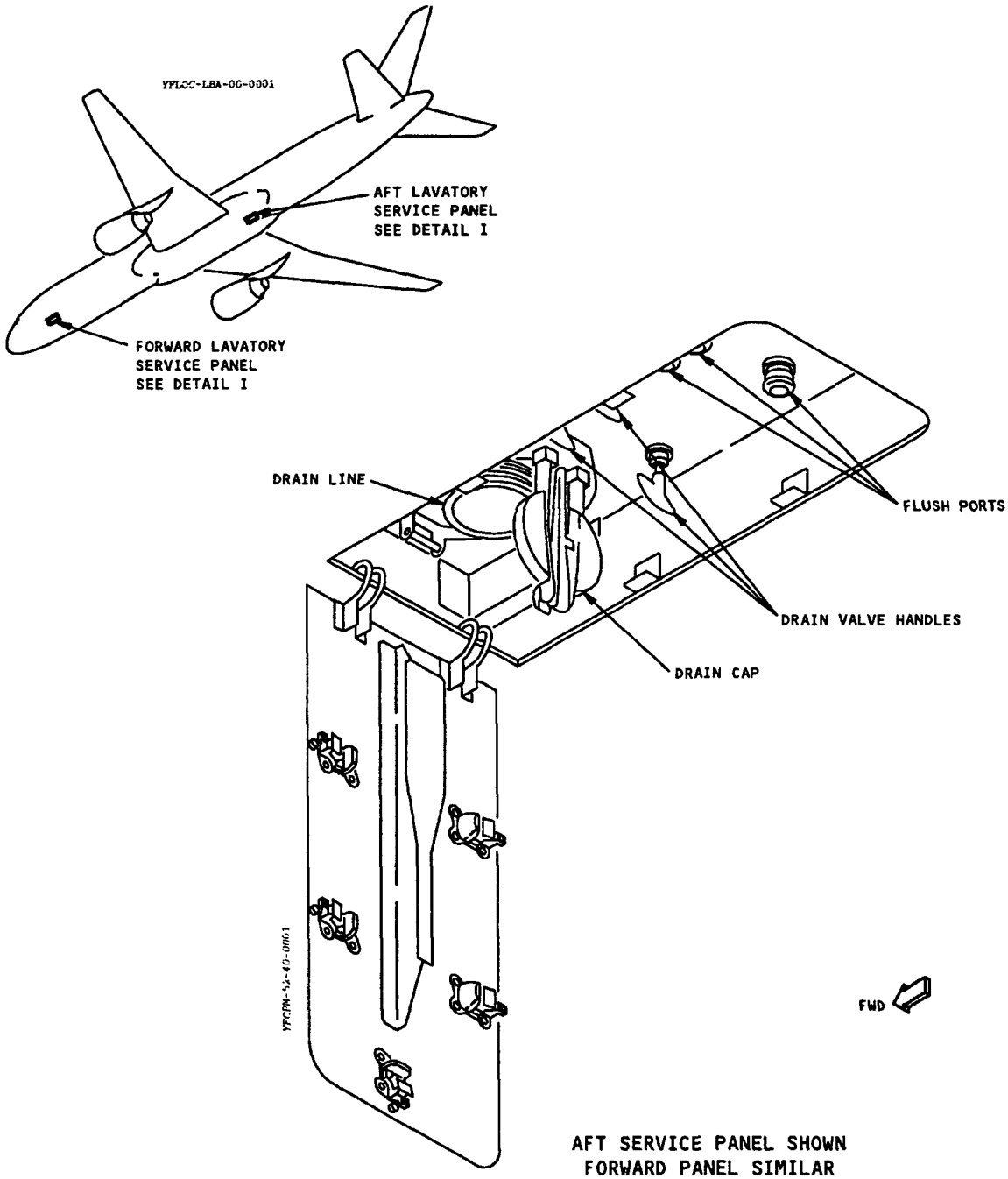
2. Corrosion Prevention

A. After servicing the toilet tank, the lavatory service panel area should be flushed with clean water.

B. Inspect lavatory service panel and fuselage skin aft of panel for damaged finish and corrosion annually.

C. For minor corrosion detected during the periodic inspections and to minimize the downtime of the airplane between overhaul cycles, apply a corrosion inhibiting compound per Volume 1, 20-60-00. Excess material should be wiped off with a clean, dry rag after 30 minutes.

D. Where extensive corrosion exists, remove corrosion per Structural Repair Manual for lavatory service panel and Structural Repair Manual for fuselage skin.



Lavatory Service Panels
Figure 1

1. General

A. The forward access door has a corrosion protective finish that consists of chemical finish (Alodine) on clad aluminum parts, anodize surface treatment on non-clad aluminum parts, a coat of BMS 10-11, type I, primer and a coat of BMS 10-11, type II, enamel. Faying surfaces of dissimilar metals and parts attached to the door skin are fay sealed with BMS 5-95 sealant. All areas of possible moisture accumulation are drained or filled with BMS 5125 leveling compound. The exterior surface of the door is unfinished during production unless otherwise requested by the operator.

B. Areas of possible corrosion are the internal structure of the door, connection points and mechanisms.

C. The door should be treated at the same time as the door opening.

2. Corrosion Prevention

A. Make periodic inspections as described in Volume 1, 20-20-00 to ensure that the protective finishes provided during manufacture remain intact.

(1) Gain access to interior structure of the door.

(2) Clean out drains and drain paths. Check condition of leveling compound (Ref Component Maintenance Manual, 52-48-44).

(3) Check that drain valve is free to open and close.

CAUTION: EXCESSIVE TIGHTENING OF PLUNGER TYPE DRAIN VALVE WILL CAUSE VALVE FLANGE TO CRACK OR BREAK.

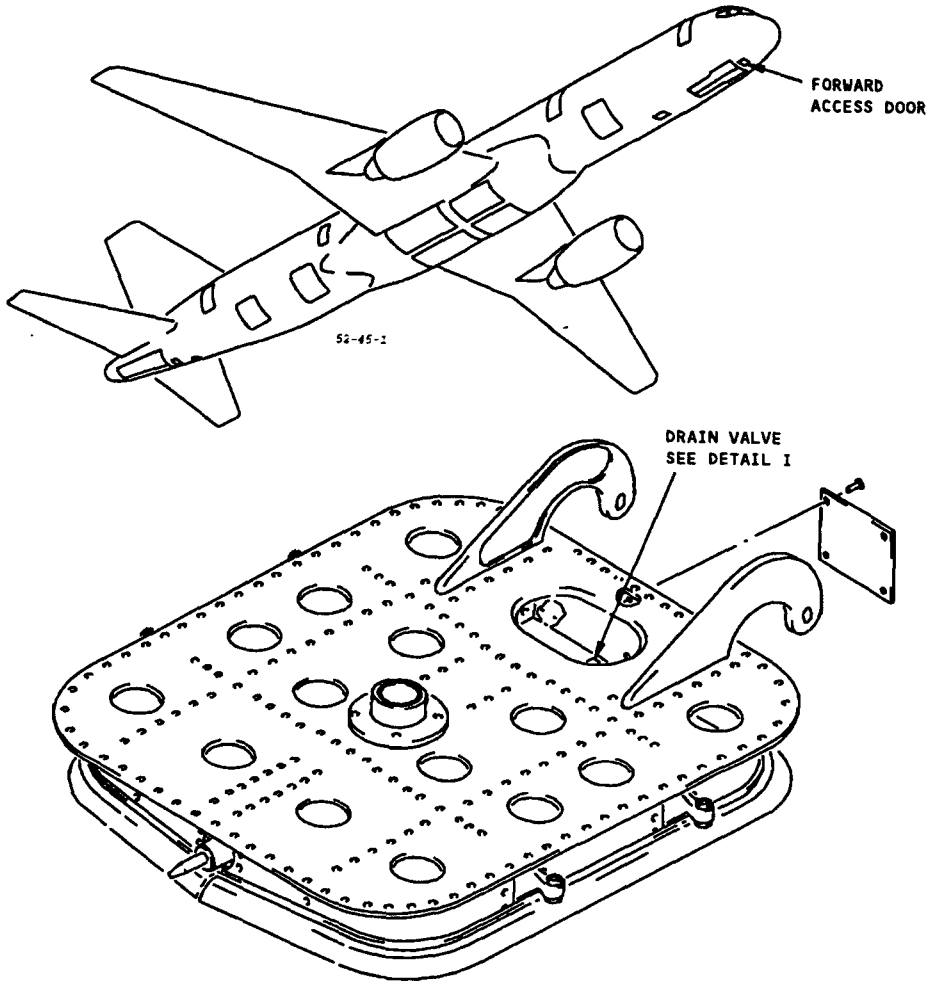
(4) If required, remove plunger type drain valve from outside of door, clean out obstructions and reinstall valve until flange contacts skin. Tighten to 15 lb-in. maximum.

(5) Refer to Volume 1, 20-60-00 for details on the application of corrosion inhibiting compound.

(6) Apply BMS 3-23 to the interior of the door, giving special attention to structural seams. Do not apply to drain valve or other operational mechanism.

(7) Restore door to normal.

B. Frequency of Application. Periodically inspect the door structure and condition of the corrosion inhibitor and leveling compound. Reapply corrosion inhibiting compound as required. Local areas where gouges and scratches have occurred should be treated at the first opportunity consistent with the maintenance schedule.



PLUNGER TYPE DRAIN VALVE

LEAF SPRING TYPE DRAIN VALVE

DETAIL I

Forward Access Door
Figure 1

1. General

A. The electrical/electronics access door has a corrosion protective finish that consists of chemical finish (Alodine) on clad aluminum parts, anodize surface treatment on non-clad aluminum parts, a coat of BMS 10-11, type I, primer and a coat of BMS 10-11, type II, enamel. Faying surfaces of dissimilar metals and parts attached to the door skin are fay sealed with BMS 5-95 sealant. All areas of possible moisture accumulation are drained or filled with BMS 5-125 leveling compound. The exterior of the door is unfinished during production unless otherwise requested by the operator.

B. Areas of possible corrosion are the internal structure of the door, connection points and mechanisms.

C. Corrosion can also occur on the frame structure under the latch fitting, which mates with the latch pin on the door. Refer to 53-30-01 for further information.

2. Corrosion Prevention

A. Make periodic inspections as described in Volume 1, 20-20-00 to ensure that the protective finishes provided during manufacture remain intact.

(1) Gain access to interior structure of the door.

(2) Clean out drains and drain paths. Check condition of leveling compound (Ref Component Maintenance Manual, 52-48-15).

(3) Check that drain valve is free to open and close.

CAUTION: EXCESSIVE TIGHTENING OF PLUNGER TYPE DRAIN VALVE WILL CAUSE VALVE FLANGE TO CRACK OR BREAK.

(4) If required, remove plunger type drain valve from outside of door, clean out obstructions and reinstall valve until flange contacts skin. Tighten to 15 lb-in. maximum.

(5) Refer to Volume 1, 20-60-00 for details on the application of corrosion inhibiting compound.

(6) Apply corrosion inhibiting compound to the interior of the door, giving special attention to the structural seams. Do not apply to drain valve or other operational mechanisms.

(7) Do not apply corrosion inhibiting compounds on grease joints or sealed bearings. These compounds dissolve grease and other lubricants. They are penetrating compounds and can get around the seals and into the bearings.

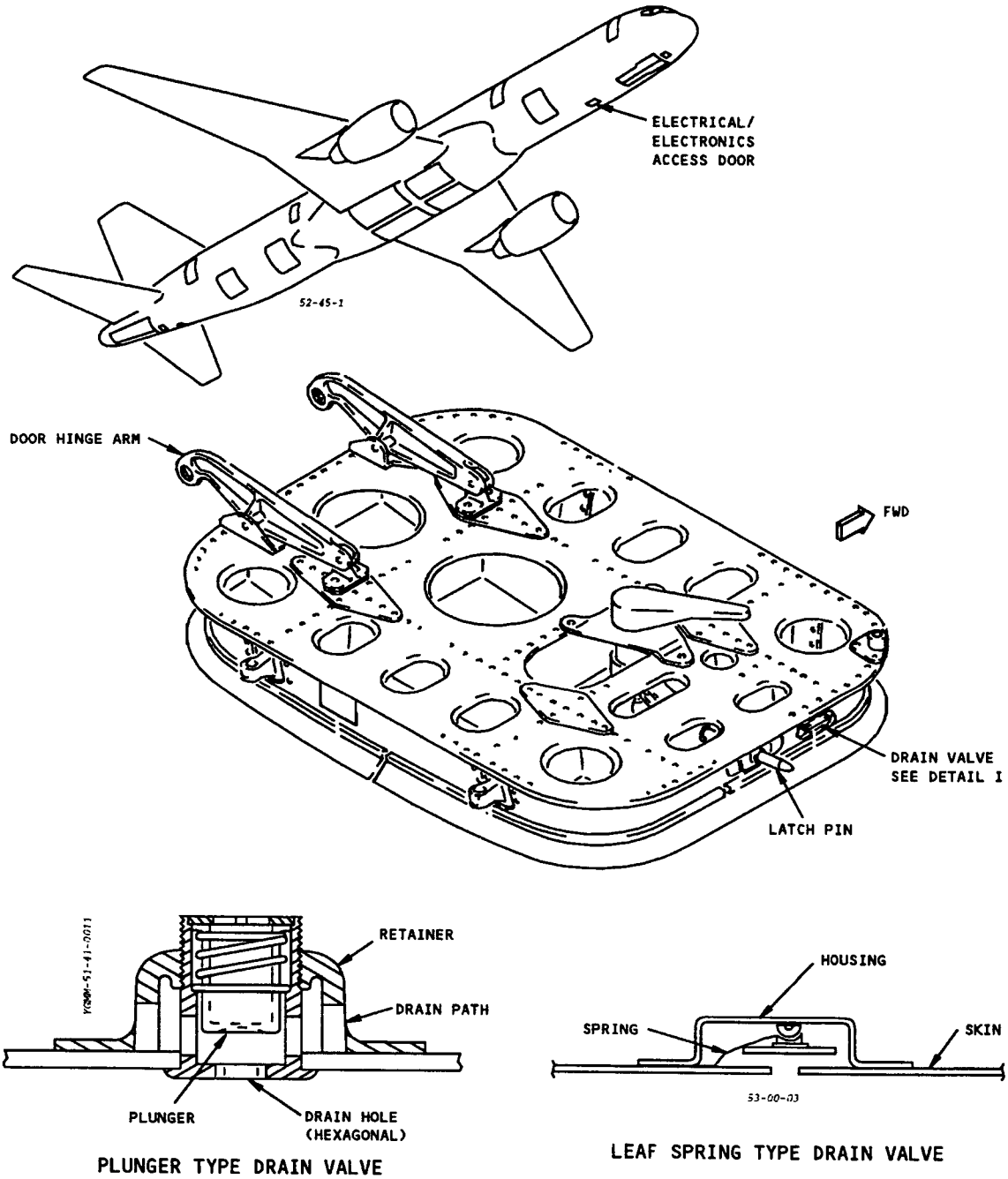
(8) Do not apply corrosion inhibiting compounds on interior materials such as liners. The compounds change the flammable quality of these materials.

(9) Relubricate interior door fittings as necessary.

(10) Restore door to normal.

B. Frequency of Application. Periodically inspect the door structure and condition of the corrosion inhibitor. Reapply corrosion inhibiting compound as required. Local areas where gouges and scratches have occurred should be treated at the first opportunity consistent with the maintenance schedule.

C. Treat the door opening at the same time as the door.



PLUNGER TYPE DRAIN VALVE

LEAF SPRING TYPE DRAIN VALVE

DETAIL I

Electrical/Electronics Access Door
Figure 1

THIS PAGE INTENTIONALLY LEFT BLANK

CHAPTER

53

FUSELAGE

THIS PAGE INTENTIONALLY LEFT BLANK

AREA	PROBLEM	INDEX PREVENTION VOLUME 2	TERMINATING ACTION (IF ANY)
Section 41	Corrosion of interior structure	53-10-01	
	Plugged drains	53-10-01	
	Corrosion of inside wheel well surfaces	53-10-01	
	Corrosion of door surrounding structure	53-10-01	
	Corrosion of galley/ lavatory floors and cargo bays	53-10-01	
Section 43	Corrosion of interior structures	53-30-01	
	Corrosion of external fuselage skin	53-30-01	
	Plugged drains	53-30-01	
	Corrosion of door surrounding structure	53-30-01	
	Corrosion under latch fitting for electrical/ electronics access door	53-30-01	
	Corrosion of fairing skin and structure	53-30-01	
	Corrosion of interior cargo compartment structure	53-30-01	
	Corrosion of panels and stringers in forward cargo compartment	53-30-01	
Section 44	Corrosion of interior structure	53-40-01	
	Plugged drains	53-40-01	

AREA	PROBLEM	INDEX PREVENTION VOLUME 2	TERMINATING ACTION (IF ANY)
	Corrosion of inside surface of main wheel well and keel beam	53-40-01	
	Corrosion of emergency exit door structure	53-40-01	
	Corrosion of fairing skin and structure	53-40-01	
Section 46	Corrosion of interior structures	53-60-01	
	Plugged drains	53-60-01	
	Corrosion of door surrounding structures	53-60-01	
	Corrosion of interior cargo compartment structure	53-60-01	
	Corrosion of fairing skin and structure	53-60-01	
	Corrosion of stringers, doubters, panels, splices and fillers in cargo compartment	53-60-01	
	Corrosion of panels aft of galley gutter STA 1716.30.	53-60-01	
Aft Pressure Bulkhead	Corrosion of pressure bulkhead fore and aft		
Section 48	Corrosion of interior structures		
Fuselage Skin Lap Joints	Corrosion of external/internal lap joints		
Galley and Lavatories	Corrosion of structure under galleys and lavatories		

SPECIFIC CORROSION PROBLEMS - FUSELAGE
Figure 1 (Sheets 1 - 2)

1. General

A. The fuselage is of semimonocoque construction divided in five sections. The first forward section is Section 41 extending from stations 190 to 440. The fiberglass radome is hinged at the top of the forward pressure bulkhead. Aft of the forward pressure bulkhead are the flight compartment and nose gear wheel well. Structural openings in Section 41 include flight compartment and passenger doors, and forward access door. Additional stringers, frames, and skin double reinforced windows and doors.

B. The fuselage skin was installed with butt joints and longitudinal lap joints that were generally flush riveted. Corrosion protection consists of anodize surface treatment or chemical conversion coating on aluminum structure and a coat of BMS 10-11, type 1, primer. The faying surfaces at skin laps and circumferential skin splices are either bonded or fay surface sealed. All non-aluminum fasteners which penetrate the exterior skin are installed with wet sealant. A coat of sprayable sealant is applied to the inboard flange of stringer 10 and above. A coat of BMS 3-23, type II corrosion inhibiting compound is applied to all structure within 2 inches of the body skin, and the body skin, from stations 292 to 414. On airplane line number 241 and on, per PRR 54133, this compound extends from station 199 aft and also includes the upper surface of the passenger floor.

C. The stringers, frames and skins have been found susceptible to corrosion due to moisture entrapment between the skin and insulation blankets. Corrosion can readily start where protective finishes have been broken or deteriorated (Ref 53-10-02, Fig. 1).

D. External drains are either leaf spring or plunger type drain valves which close when the airplane is pressurized. Drain paths through the internal structure lead to the external drain valves. Refer to 53-10-03, Fig. 1 for valve location.

E. The nose gear wheel well is a rigid box structure consisting of a ceiling, sidewalls, and end walls and is located in the forward fuselage. The nose gear attachment fittings are located in the wheel well.

F. The nose gear wheel well has a corrosion protective finish that consists of a chemical conversion coating (alodine) on clad aluminum parts, anodize surface treatment on non-clad parts, a coat of BMS 10-11, type I, primer and a coat of BMS 10-11, type II, enamel. The wheel well structure is assembled and installed with BMS 5-95 fay surface sealant. The entire pressure surface of the wheel well has a coat of BMS 3-23 applied after assembly and painting (Ref 53-10-04, Fig. 1).

(1) The surfaces inside the box structure are exposed to air contaminants and runway splash which can cause corrosion.

G. The corrosion protective finish for the structure surrounding the No. 1 passenger door opening consists of a chemical conversion coating (alodine) on clad aluminum parts, anodize surface treatment for non-clad parts and a coat of BMS 10-11, type I, primer. The doubters around the doors are installed with fay surface sealant. All non-aluminum fasteners which penetrate the exterior skin are installed with wet sealant. After assembly, a touchup coat of BMS 10-11, type I, primer is applied to bare fasteners and a coat of BMS 3-23 is applied except on the door assembly and door opening (Ref 53-10-05, Fig. 1).

(1) The primary corrosion area is under the door sill, floor panels, floor beams and doubters or triplers at the door opening. Contaminants are tracked in by passengers, crew members, cargo and service personnel or by driven rain/snow when door is opened.

(2) Insulation blankets are provided on cabin interiors for passenger comfort and to minimize the condensation of warm cabin air on cold skins and stringers. Corrosion has been experienced in areas where the blankets are not installed taut and wrap around stringers or contact the skins.

H. On airplane, line number 689, RR 92007-36 applies corrosion inhibiting compound BMS 3-29 on:

(1) Fastener heads on floor panels under galleys, galley work areas, doorways and lavatories.

(2) Underside surface of lower lobe cargo bay sidewalks and flanges common to sidewalk and deck liners.

I. Airplane, line number 707 and on; SRP 53-0052 applies BMS 3-29 Corrosion Inhibiting Compound on top of floor beams and moisture barrier tape on top of floor panels in all wet areas (galleys, lavatories, and doors).

2. Corrosion Prevention

A. Following cleaning of suspected areas, a thorough inspection as described in Volume 1, 20-20-00 is effective to ensure that protective finishes provided during manufacture remain intact. Refer to Volume 1, 20-60-00 for details on the application of corrosion inhibiting compound.

B. Where corrosion exists (noticeable bulges of the skin or white deposits of corrosion products at fastener heads of joint edges), refer to the index column in 53-00-01 for reference rework chapter.

C. For minor corrosion, to minimize the downtime of the airplane, the corrosion products should be cleaned off, followed by the application of a corrosion inhibiting compound into the affected area to retard the corrosion process (Ref Volume I, 20-60-00). The finish system should be restored at the first opportunity consistent with the maintenance schedule.

D. Prevention Treatment

(1) At first opportunity consistent with scheduled maintenance activity, corrosion prevention treatment should be accomplished in the external drains, wheel well opening, and door opening.

(2) External Drains:

(a) Clean out drains and drain paths.

(b) Check that drain valve is free to open and close.

CAUTION: OBSERVE DRAIN VALVE TORQUE LIMITS. EXCESSIVE TIGHTENING OF PLUNGER TYPE DRAIN VALVE WILL CAUSE VALVE FLANGE TO CRACK OR BREAK.

(c) If required, remove plunger type drain valve from outside the fuselage, clean out obstructions and reinstall valve until flange contacts skin. Tighten to 15 lb-in. maximum.

(3) Nose Wheel Well Opening:

(a) Treatment of the wheel well at the same time as the nose gear is recommended.

(b) Remove runway debris and generally clean the entire wheel well.

(c) Replace damaged or broken protective finishes if at all possible. Refer to Volume 1, 20-60-00 for protective finish systems.

(d) Apply BMS 3-23 to all exposed wheel well structure. Special effort should be made to apply the corrosion inhibitor along doubter edges, along faying surfaces and on fastener heads. The use of spray equipment with nozzle directed into faying surfaces is recommended.

(4) No. 1 Passenger Door Opening:

(a) Treatment of the door at the same time as the door opening is recommended.

(b) Remove traffic debris and generally clean the entire door opening area. Remove reveal and scuff plate where applicable.

(c) Relubricate all tube points per standard servicing procedures.

(d) Where accessible, apply corrosion inhibitor to the internal lower sill area.

(e) Special effort should be made to apply the corrosion inhibitor along doubter edges, along faying surfaces and on fastener heads. Spray all door and fuselage fittings at the faying surfaces. The use of spray equipment with nozzle directed into faying surface is recommended.

(f) Apply BMS 3-23 corrosion inhibiting compound to nose gear door operator support fitting and miscellaneous other fittings. Ensure that all lugs and lug faces are treated.

(5) If you clean an area with steam or high pressure water and detergent, apply the corrosion inhibitor again.

(6) Do not apply corrosion inhibiting compounds on grease joints or sealed bearings. These compounds dissolve grease and other lubricants. They are penetrating compounds and can get around the seals and into the bearings.

(7) Do not apply corrosion inhibiting compounds on insulation blankets. The compounds reduce the water-repellent quality of the blankets.

E. Frequency of Application

(1) Periodic inspection is required in areas identified as susceptible to corrosion and should be consistent to the schedules specified in the Maintenance Planning Document. Operators must be aware of reported problems and areas of occurrences.

(2) Periodic application of BMS 3-23 compound is necessary to areas identified and should be consistent to the schedule specified in the Maintenance Planning Document.

F. Improved Corrosion Protection:

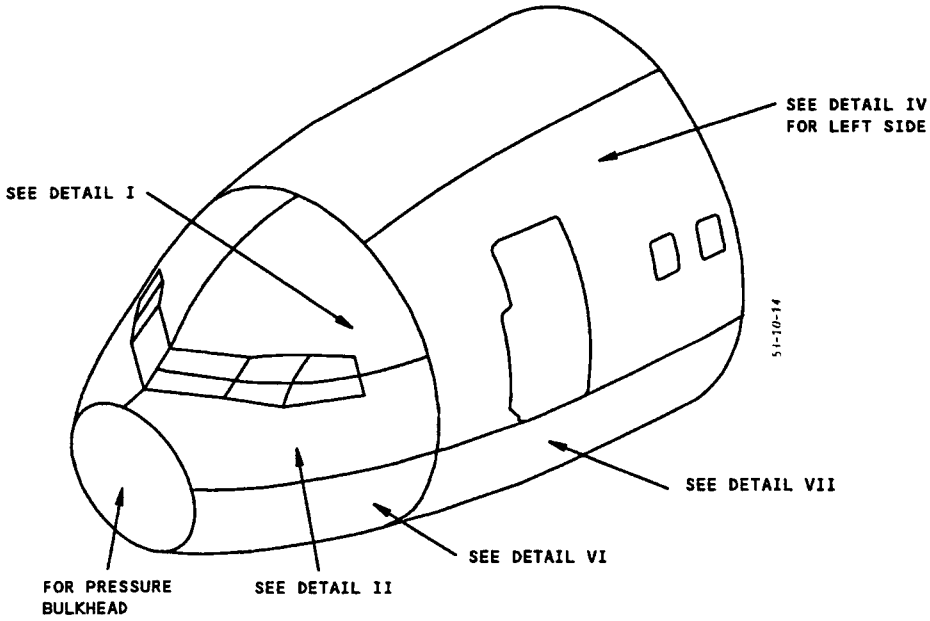
(1) On airplanes line number 55 and on, PRR N53010 added more drains in the frame structure in the nose wheel well area, and two drain valves adjacent to the nose wheel well. These changes can be incorporated on other airplanes per SB 53-0008.

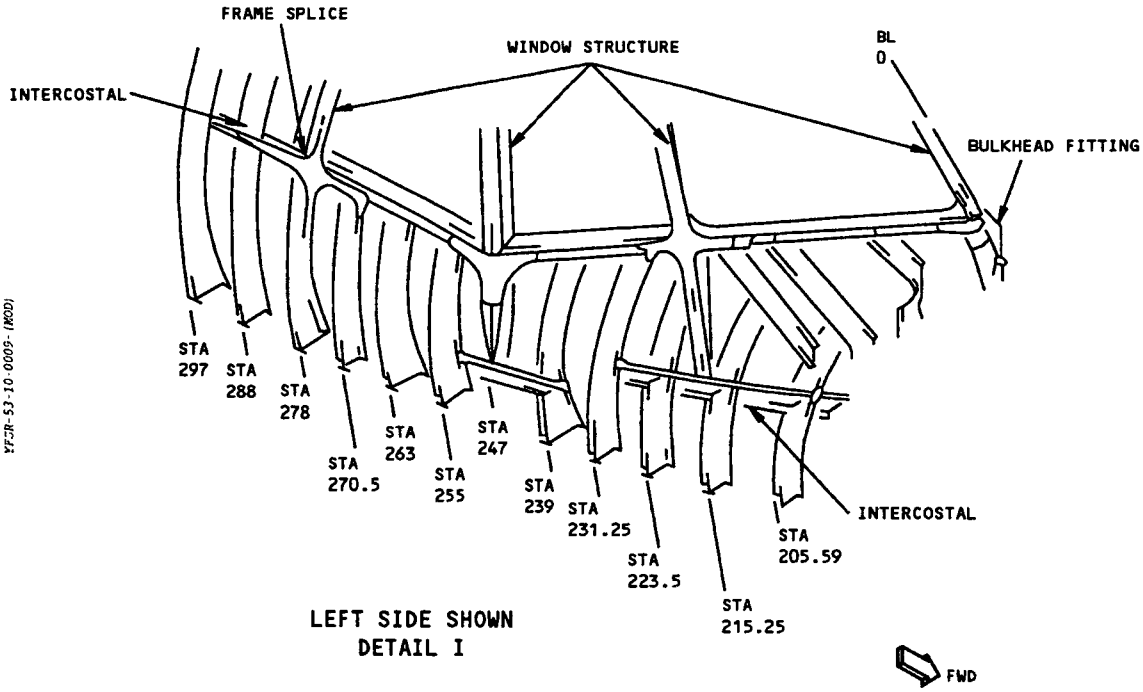
(2) On airplane line number 140 and on, per PRR 53423, one more coat of yellow primer BMS 10-11, type 1 is applied to structure that touches pillow blanket insulation.

(3) Between airplane numbers 241 and 268, BMS 5-95 sealant was added per PRR 54124 to all permanently-fastened parts not already sealed in the wheel well.

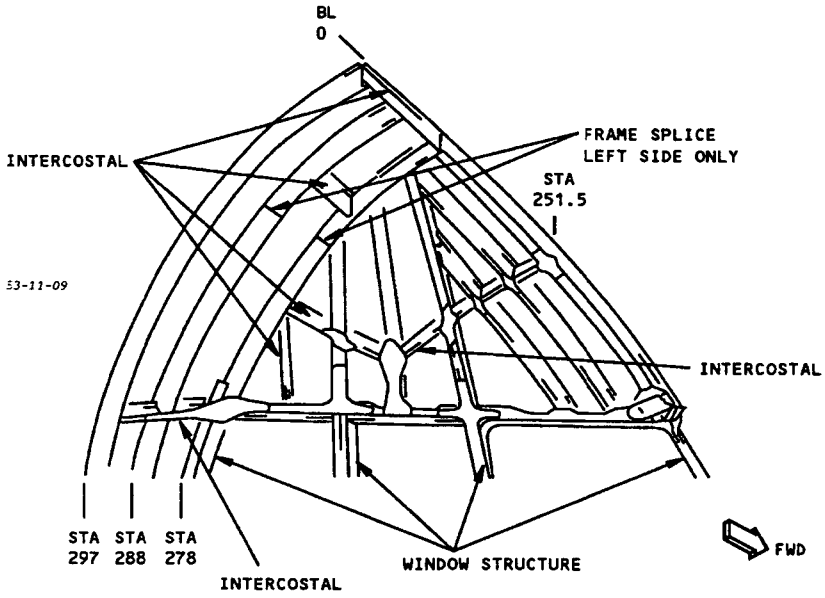
(4) Airplanes line number 258 and on have a drainage gutter per PRR 59816 in the cargo floor, near station 337.5. The gutter is the full width of the airplane and has a screened high-flow drain at each end.

(5) On airplanes line number 328 and on, PRR 54313 added BMS 3-26 corrosion preventive compound on top of the BMS 3-23 compound in the bilge area aft of the forward pressure bulkhead.

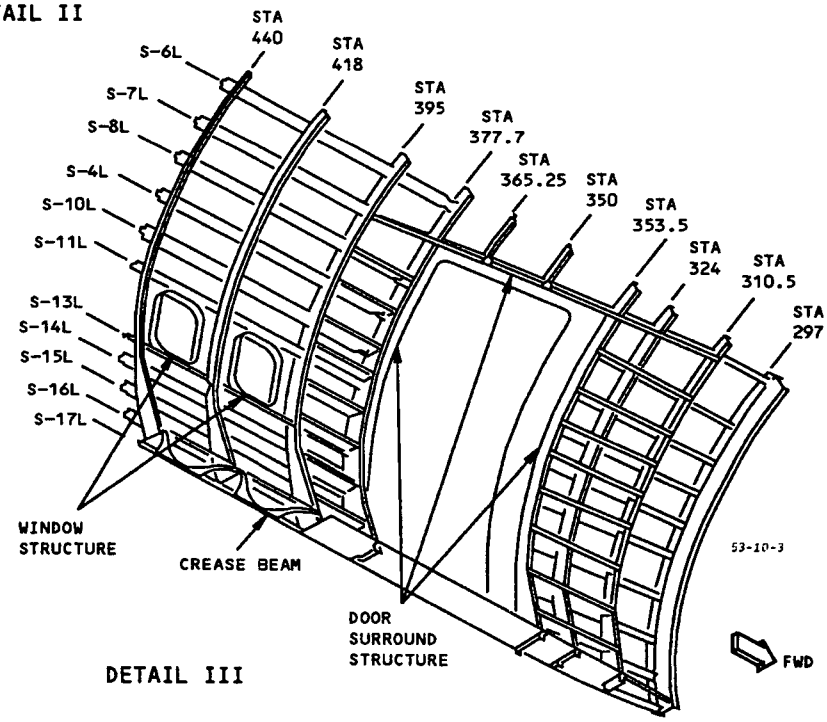




Section 41 Fuselage
Figure 1 (Sheet 1)

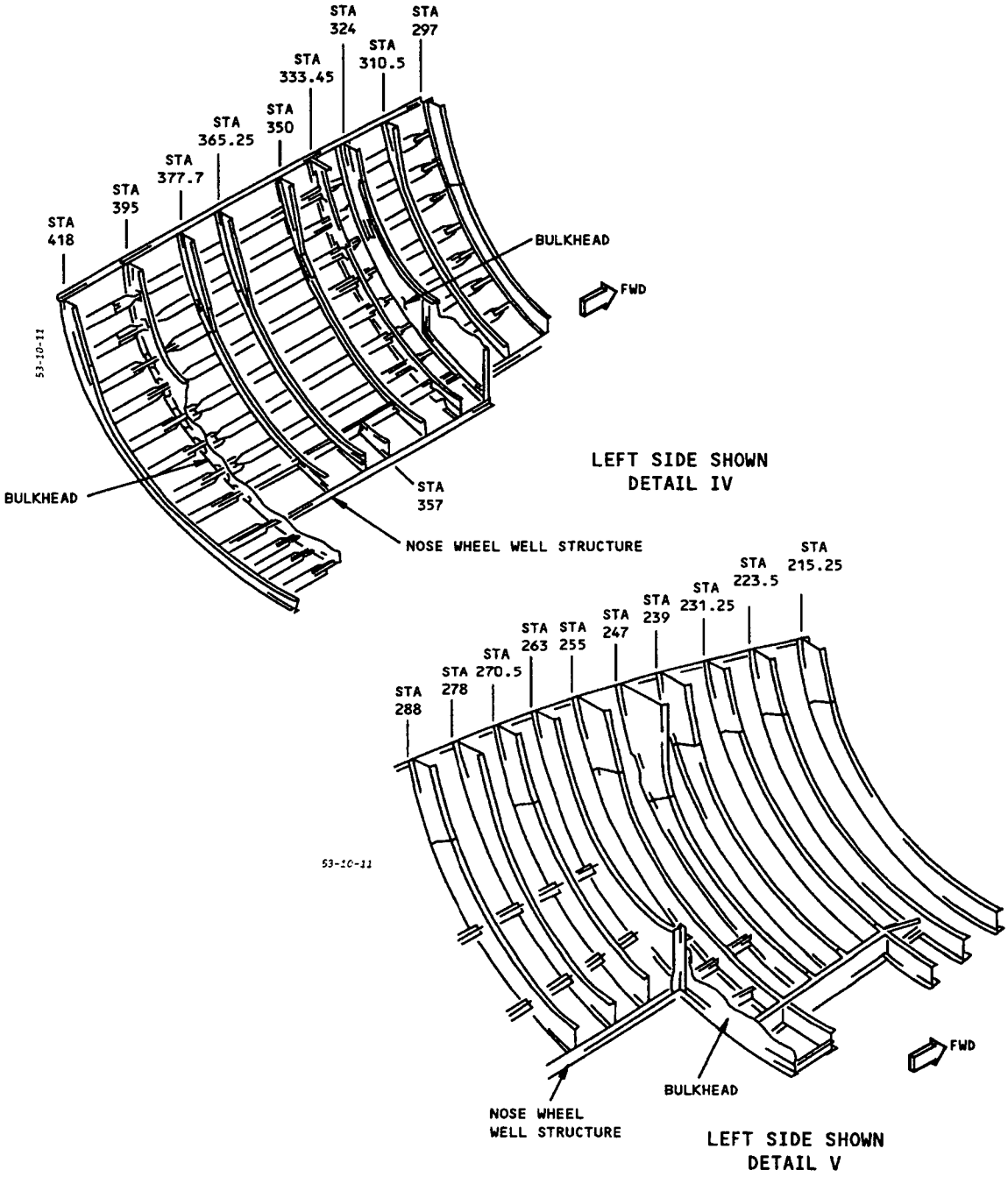


LEFT SIDE SHOWN
DETAIL II



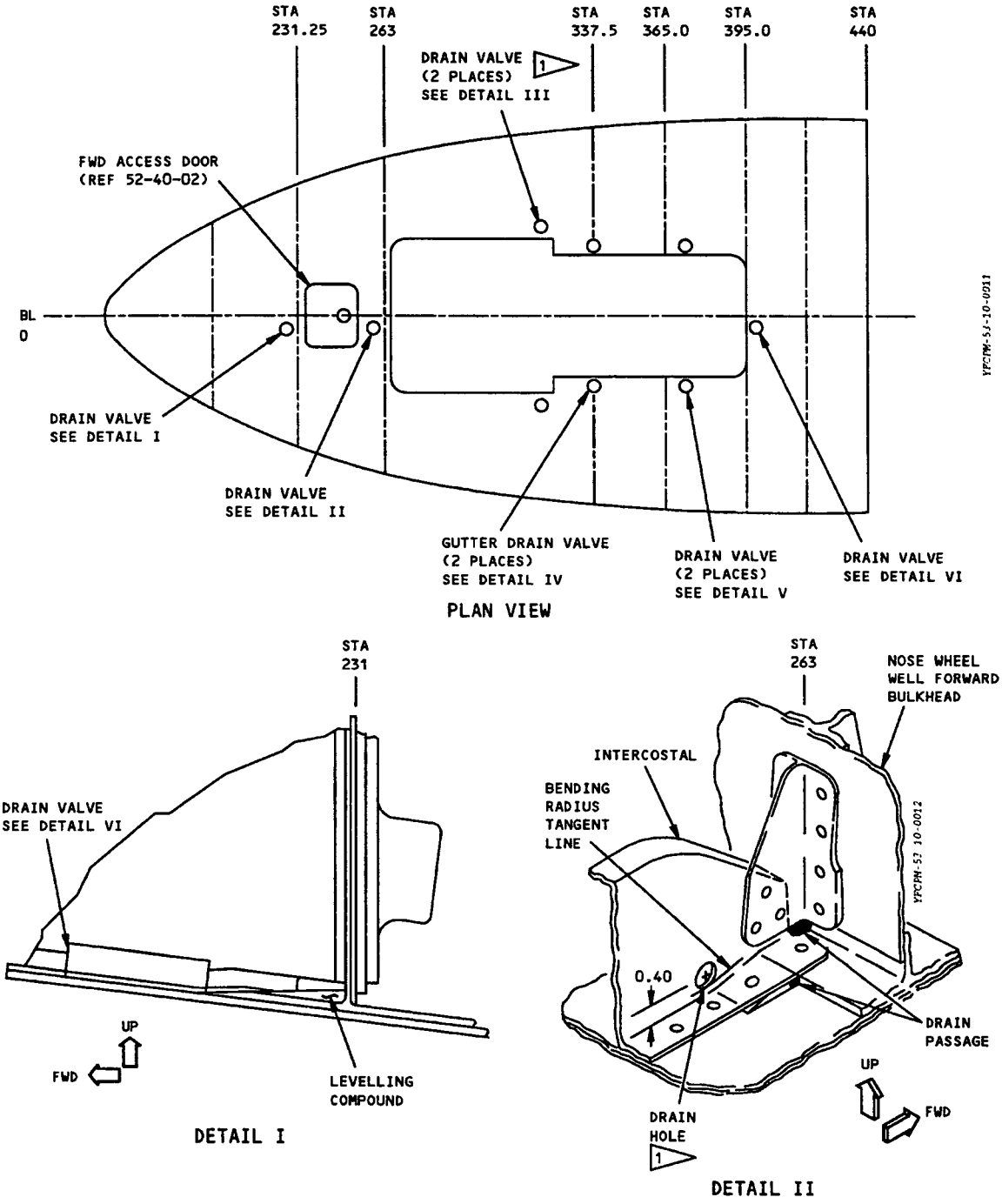
DETAIL III

Section 41 Fuselage
Figure 1 (Sheet 2)

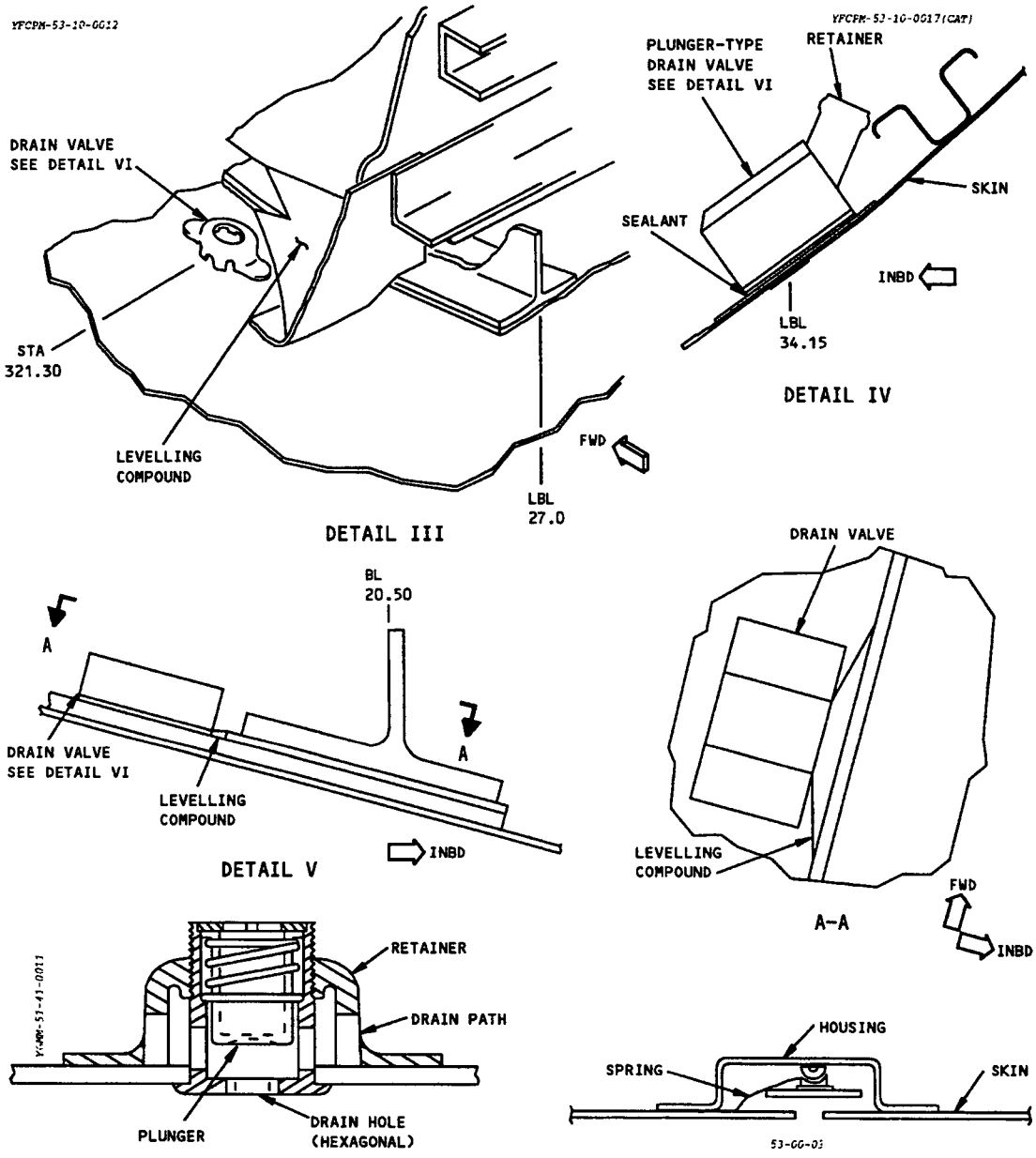


Section 41 Fuselage
Figure 1 (Sheet 3)

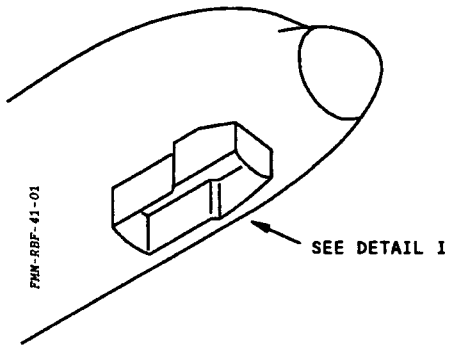
THIS PAGE INTENTIONALLY LEFT BLANK

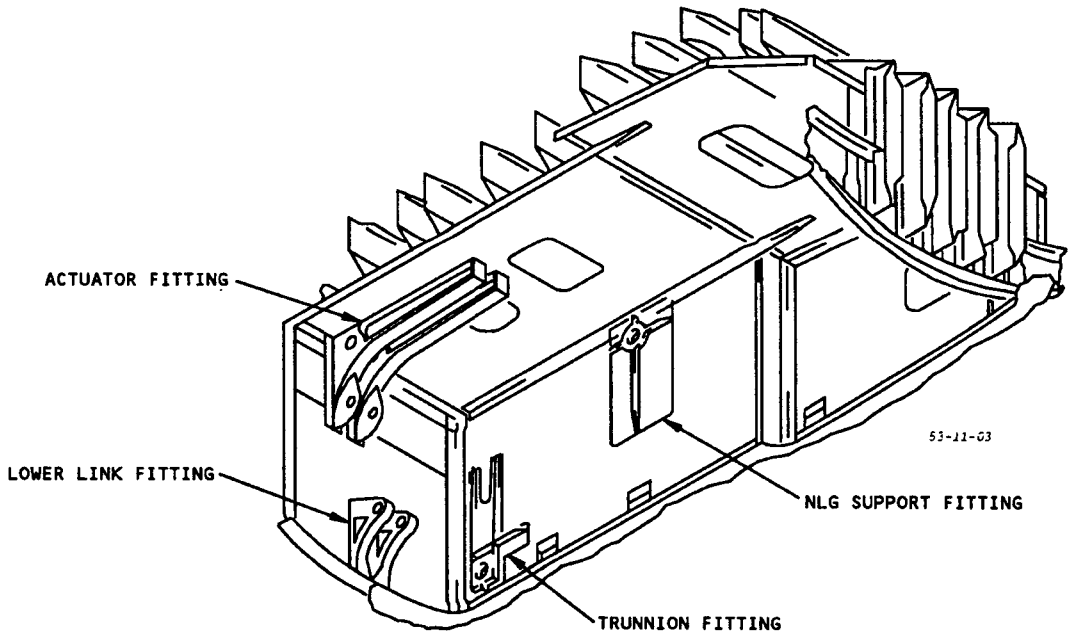


Section 41 External Drains
Figure 1 (Sheet 1)



Section 41 External Drains
Figure 1 (Sheet 2)

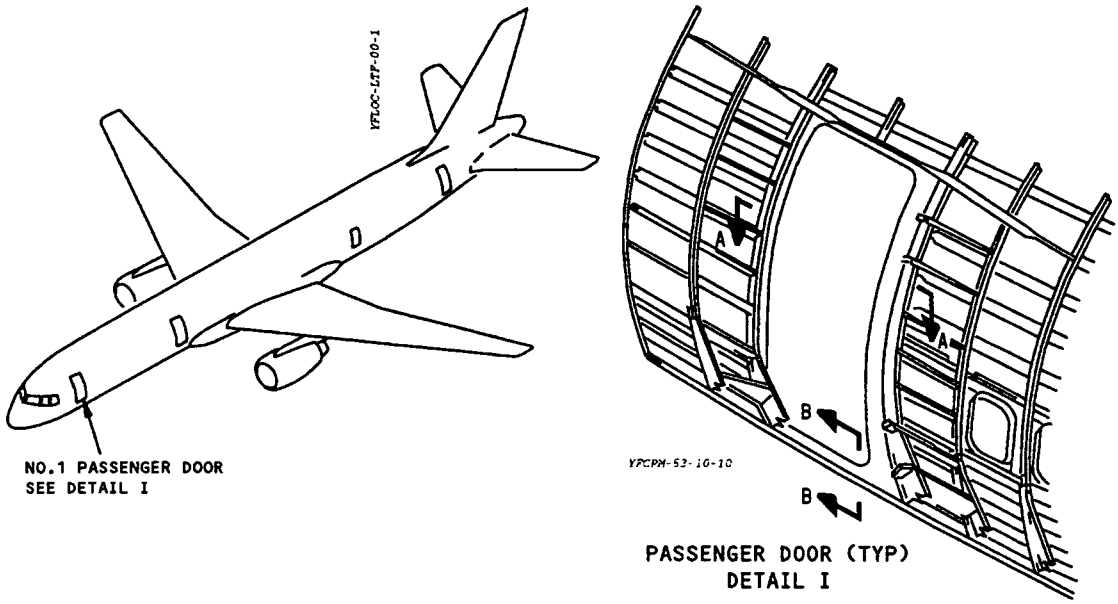


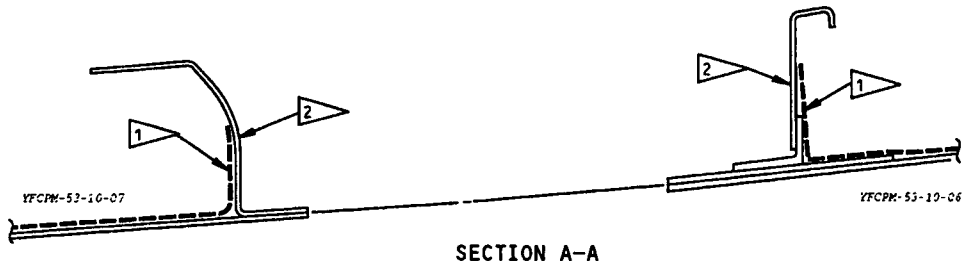


DETAIL I

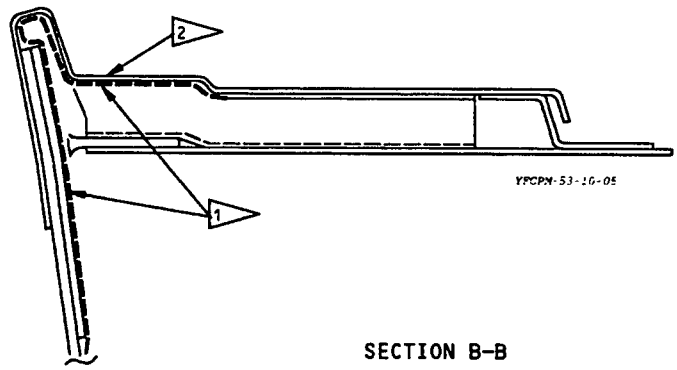
Section 41 Nose Landing Gear Wheel Well
Figure 1

THIS PAGE INTENTIONALLY LEFT BLANK





SECTION A-A



SECTION B-B

1 APPLY BMS 3-23, TYPE II TO ALL STRUCTURE WITHIN 2 INCHES OF, AND INCLUDING BODY SKIN. OVERSPRAY ALLOWED.

2 NO FINISH ALLOWED ON OPEN FACE OF DOOR FRAMES OR SCUFFPLATE.

Section 41 Door Openings
Figure 1

THIS PAGE INTENTIONALLY LEFT BLANK

1. General

A. Section 43 extends from stations 440 to 900. The upper lobe contains the passenger compartment with left and right passenger doors and windows. The lower lobe houses the electrical/electronics compartment and forward cargo compartment. Access to the electrical/electronics compartment during ground servicing is through a door aft of the nose gear wheel well doors. An in-flight access door is also provided. The forward cargo compartment door is approximately 42.5 by 55 inches and located on the right side of the fuselage. The forward section of the wing/body fairing attaches to section 43.

B. All non-aluminum fasteners which penetrate the exterior skin are installed with wet sealant. A coat of sprayable sealant is applied to the inboard flange of stringer 10 and above. A coat of BMS 3-23, type II corrosion inhibiting compound is applied to all structure within 2 inches of the body skin, and the body skin, from stations 654 to 766. On airplanes line number 241 and on, per PRR 54133, this compound extends the full length of Section 43, and also includes the upper surface of the passenger floor.

C. The stringers, frames and skins have been found susceptible to corrosion due to moisture entrapment between the skin and insulation blankets. Corrosion can readily start where protective finishes have been broken or deteriorated. Refer to 53-30-02, Fig. 1 for lower lobe structure.

D. External drains are either leaf spring or plunger type drain valves which close when the airplane is pressurized. Drain paths through the internal structure lead to the external drain valves. Refer to 53-30-03, Fig. 1 for valve location.

E. The corrosion protective finish for the structure surrounding the No. 1 cargo and No. 2 passenger door opening consists of a chemical conversion coating (alodine) on clad aluminum parts, anodize surface treatment for non-clad parts and a coat of BMS 10-11, type I, primer. The doubters around the doors are installed with fay surface sealant. All non-aluminum fasteners which penetrate the exterior skin are installed with wet sealant. After assembly, a touchup coat of BMS 10-11, type I, primer is applied to bare fasteners and a coat of BMS 10-11, type II, white enamel is applied around the doors. A coat of BMS 3-23 is applied except on the door assembly and door opening (Ref 53-30-04, Fig. 1).

(1) The primary corrosion area is under the door sill, floor panels, floor beams and doubters or triplers at door openings. Contaminants are tracked in by passengers, crew members, cargo and service personnel or by driven rain/snow when door is opened.

(2) Corrosion can also occur under the latch fitting for the electrical/electronics access door.

(3) Insulation blankets are provided on cabin interiors for passenger comfort and to minimize the condensation of warm cabin air on cold skins and stringers. Corrosion has been experienced in areas where the blankets are not installed taut and wrap around stringers or lay on the skins.

F. The wing-to-body fairing is constructed of nonmetallic sandwich material and is attached by an aluminum frame to the fuselage. The wing-to-body fairing frame has a corrosion protective finish that consists of chemical finish (alodine) on clad aluminum parts, anodize surface treatment of nonclad parts, a coat of BMS 10-11, type I, primer and BMS 10-11, type II, white enamel. All fairing structure permanently attached to the outside of the body skin is fay sealed with BMS 5-95 sealant. The outside of the body skin covered by the fairing is primed with BMS 10-79, type II, and a coat of BMS 10-60, type II, gray enamel. Where removable fairings contact the body skin, the body skins are coated with BMS 10-86 teflon coating. All fairing structure receives BMS 3-23 after assembly and installation. Beginning with line number 37, the surface contacted by the fairing access doors when in the closed position is coated with BMS 10-86, type 1, teflon filled coating (Ref 53-30-05, Fig. 1).

G. Airplane, line number 707 and on; SRP 53-0052 applies BMS 3-29 Corrosion Inhibiting Compound on top of floor beams and moisture barrier tape on top of floor panels in all wet areas (galleys, lavatories, and doors).

2. Corrosion Prevention

A. Following cleaning of suspected areas, a thorough inspection as described in Volume 1, 20-20-00 is effective to ensure that protective finishes provided during manufacture remain intact.

B. Where corrosion exists (noticeable bulges of the skin or white deposits of corrosion products at fastener heads or joint edges), refer to the index column in 53-00-01 for reference rework chapter.

C. For minor corrosion, to minimize the downtime of the airplane, the corrosion products should be cleaned off, followed by the application of a corrosion inhibiting compound into the affected area to retard the corrosion process (Ref Volume 1, 20-60-00). The finish system should be restored at the first opportunity consistent with the maintenance schedule.

D. Prevention Treatment

(1) At first opportunity consistent with scheduled maintenance activity, corrosion prevention treatment should be accomplished in the external drains and drain paths, cargo door area, and door openings.

(2) External Drains (Ref 53-30-03, Fig. 1)

(a) Clean out drains and drain paths.

(b) Check that drain valve is free to open and close.

CAUTION: OBSERVE DRAIN VALVE TORQUE LIMITS. EXCESSIVE TIGHTENING OF PLUNGER TYPE DRAIN VALVE WILL CAUSE VALVE FLANGE TO CRACK OR BREAK.

(c) If required, remove plunger type drain valve from outside the fuselage, clean out obstructions and reinstall valve until flange contacts skin. Tighten to 15 lb-in. maximum.

(3) No. 1 Cargo Compartment

(a) Remove sidewall lining and insulation blankets in the cargo compartment and beneath the main deck entry and cargo doors to expose frame, stringer, doubters and skin.

(b) Remove floor liners to gain access to bilge areas, if any.

(c) Remove ceiling lining for access to main deck floor beams and intercostals.

(d) Replace broken or damaged finishes. Refer to Volume 1, 20-60-00 for protective finish systems.

(e) Replace or repair broken or damaged leveling compounds used for drainage.

(f) Apply water displacing corrosion inhibiting compound to all exposed structure under the cargo floor and to the sidewalls beneath the upper lobe entry and cargo doors. The use of spray equipment with nozzle directed into faying surfaces is recommended. Do not apply excessively.

(g) Allow solvent to evaporate before reinstalling insulation blankets.

(h) Install blankets so they are taut.

(i) Install liners and floor panels. Install the floor panel fasteners with BMS 3-24 grease.

(4) No. 1 Cargo Door Opening

(a) Treatment of the door at the same time as the door opening is recommended.

(b) Remove traffic debris and generally clean the entire door opening area. Remove reveal and scuff plate where applicable.

(c) Replace damaged or broken finishes if at all possible. Refer to Volume 1, 20-60-00 for protective finish systems.

(d) Relubricate all tube points per standard servicing procedures.

(e) Where accessible, apply corrosion inhibitor to the internal lower sill area.

(f) Special effort should be made to apply the corrosion inhibitor along doubter edges, along faying surfaces and on fastener heads. Spray all doors and fuselage fittings at the faying surfaces. The use of spray equipment with nozzle directed into faying surface is recommended.

(5) Electrical/Electronics Access Door Opening (Ref 53-30-04, Fig. 1)

(a) Treatment of the door at the same time as the door opening is recommended.

(b) Replace damaged finish when possible. Refer to Volume 1, 20-60-00 for protective finish systems.

(c) Remove the latch fitting and the serrated plate from the sill and the stringer. Examine the mating surfaces for corrosion. If corrosion is slight, remove the corrosion. Then clean the mating surfaces. Install the serrated plate and the latch fitting with sealant and grease, as shown.

(6) If you clean an area with steam or high pressure water and detergent, apply the corrosion inhibitor again.

(7) Do not apply corrosion inhibiting compounds on interior materials such as cargo liners. The compounds change the flammable quality of these materials.

(8) Do not apply corrosion inhibiting compounds on insulation blankets. The compounds reduce the water-repellent quality of the blankets.

(9) Do not apply corrosion inhibiting compounds on grease joints or sealed bearings. These compounds dissolve grease and other lubricants. They are penetrating compounds and can get around the seals and into the bearings.

E. Frequency of Application

(1) Periodic inspection is required in areas identified as susceptible to corrosion and should be consistent to the schedules specified in the Maintenance Planning Document. Operators must be aware of reported problems and areas of occurrences.

(2) Periodic application of BMS 3-23 compound is necessary to areas identified and should be consistent to the schedule specified in the Maintenance Planning Document.

F. Improved Corrosion Protection

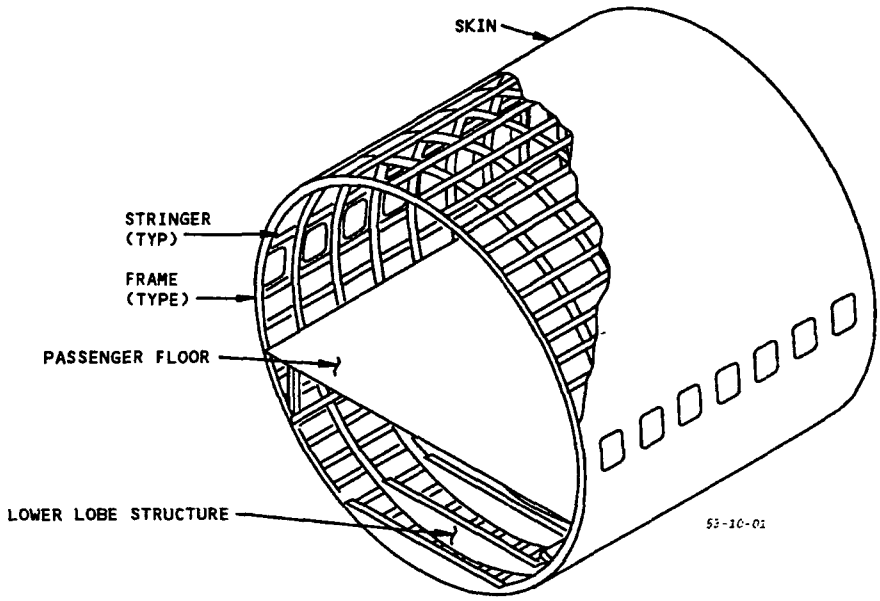
(1) On airplanes line number 140 and on, one more coat of yellow primer BMS 10-11, type 1 was applied per PRR 53423 to structure that touches pillow blanket insulation.

(2) On airplanes line number 74 and on, BMS 3-23, type 2 corrosion inhibiting compound was applied to structure around the cargo door.

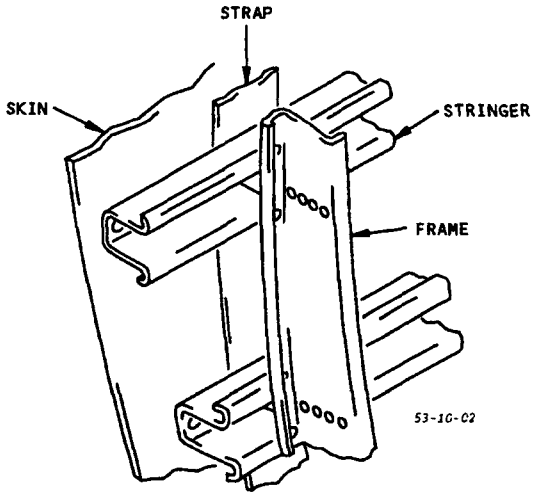
(3) On airplanes line number 83 and on, plus airplanes incorporating SB 53-0034, the drain holes were added to the sponge barriers and to the fairing attach zee.

(4) On airplanes line number 328 and on, PRR 54313 added BMS 3-26 corrosion preventive compound on top of the BMS 3-23 compound in the bilge area below the cargo floor.

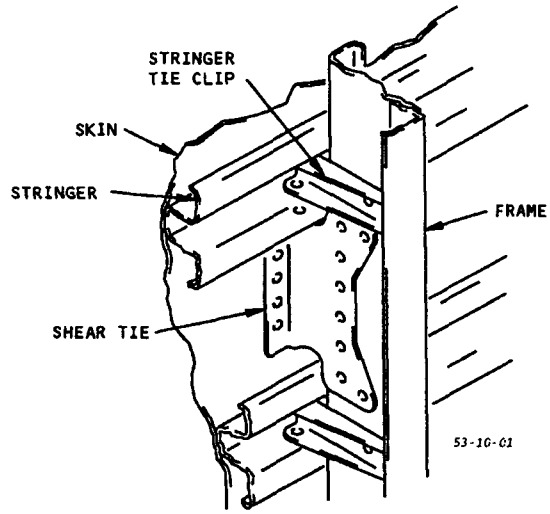
(5) On airplanes line number 721 and on, PRR 54530-143 added two coats of BMS 10-11, Type 1, primer to many panels and stringers in the forward cargo compartment. This came as a result of Service Related Problems 757-SRP-53-0062 and 0065.



FUSELAGE SECTION



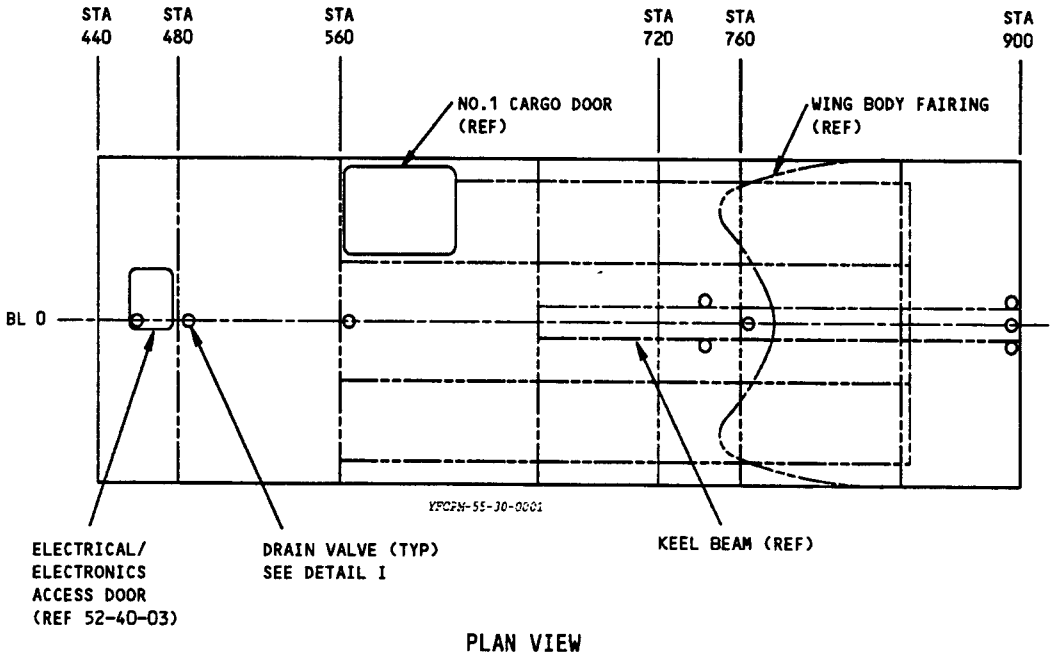
STRAP AND FRAME



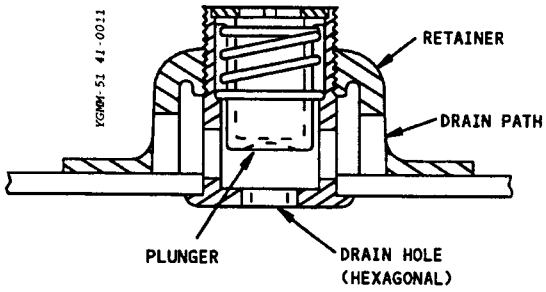
FRAME AND SHEAR TIE

Crown Frames, Stringers and Skin
Figure 1

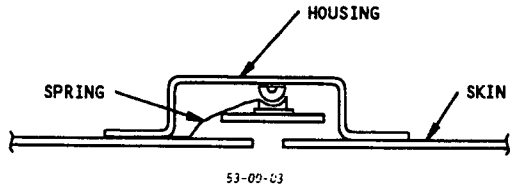
THIS PAGE INTENTIONALLY LEFT BLANK



PLAN VIEW



PLUNGER TYPE DRAIN VALVE

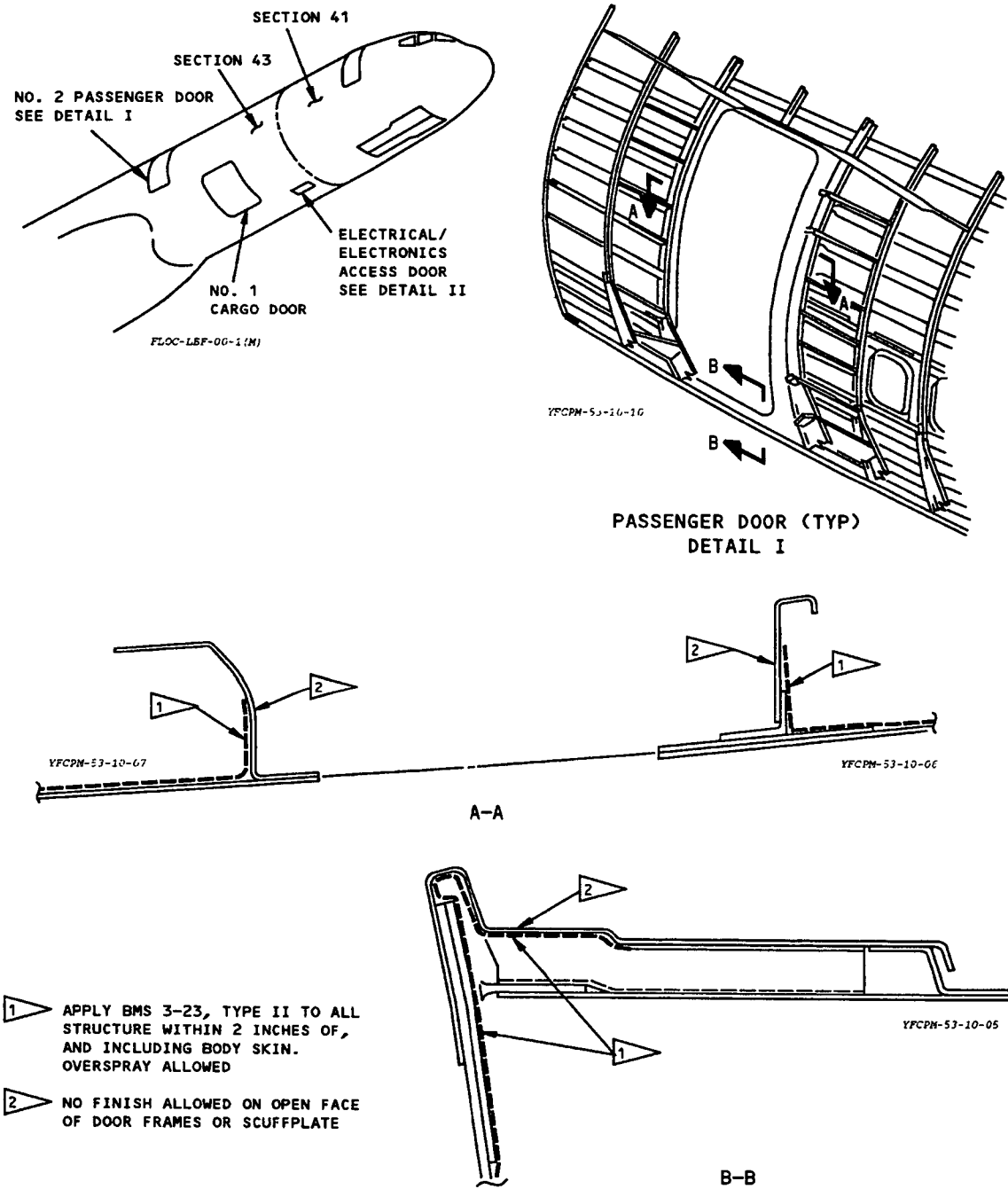


LEAF SPRING TYPE DRAIN VALVE

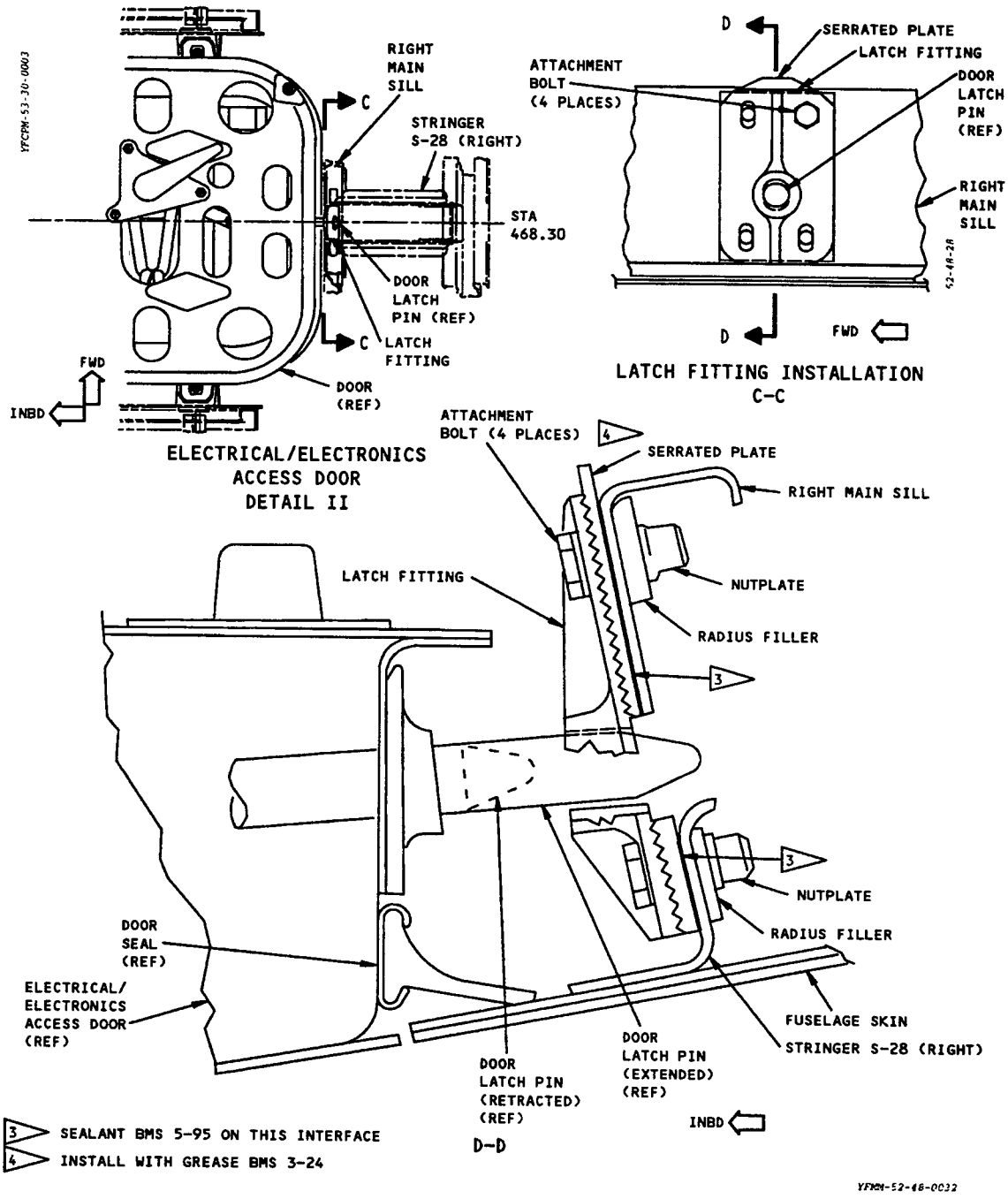
DETAIL I

Section 43 External Drains
Figure 1

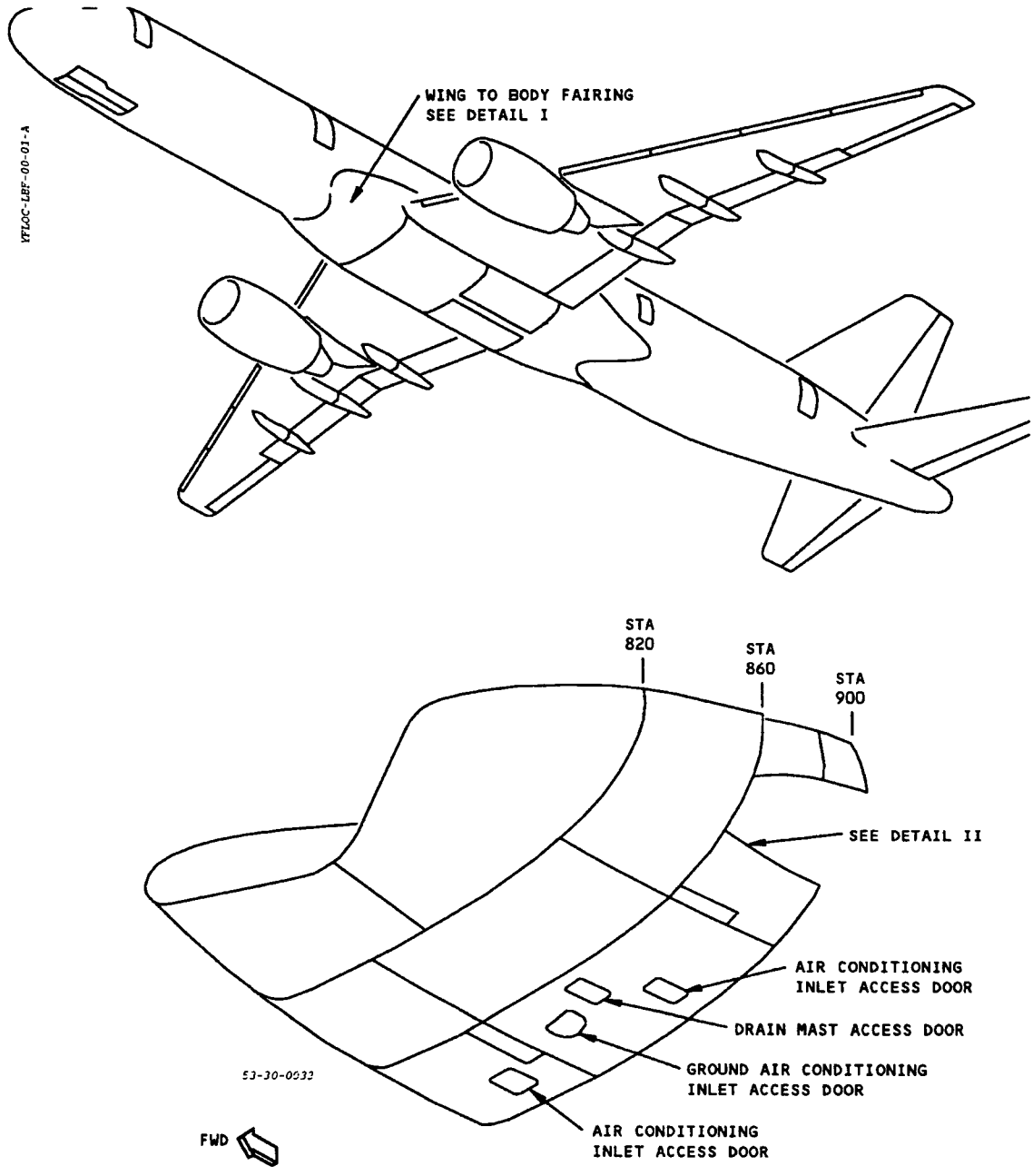
THIS PAGE INTENTIONALLY LEFT BLANK



Section 43 Door Openings
Figure 1 (Sheet 1)

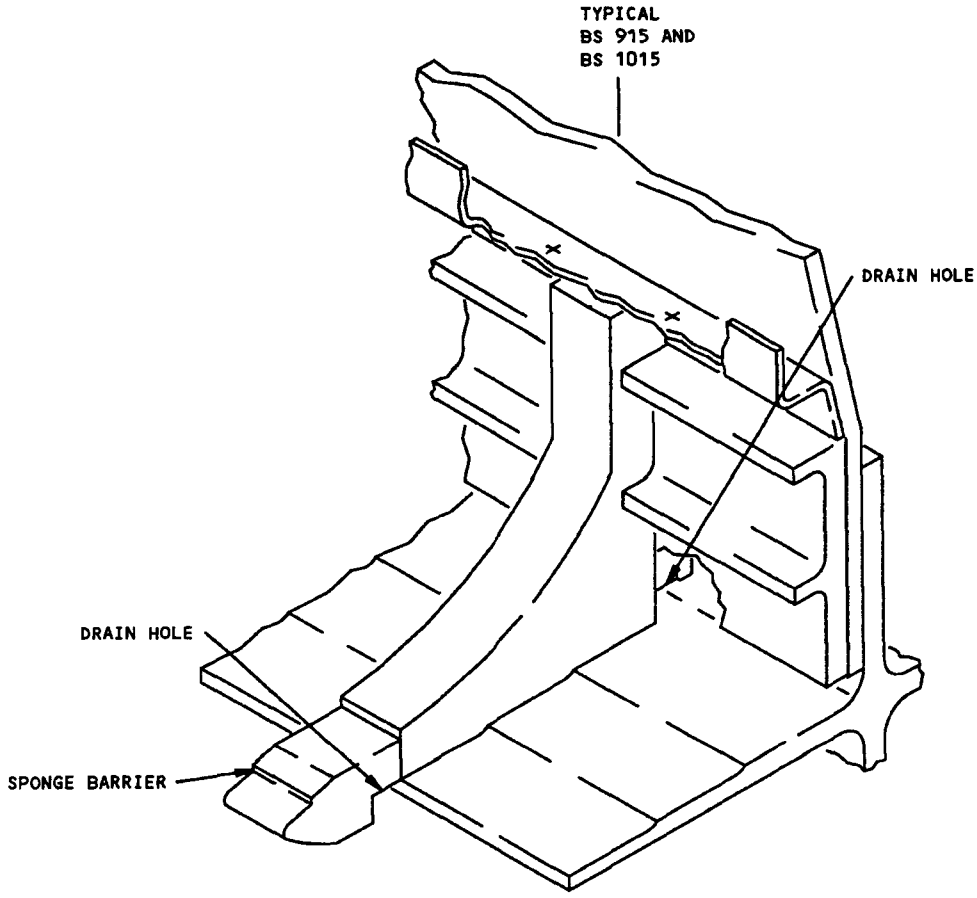


Section 43 Door Openings
Figure 1 (Sheet 2)



DETAIL I

Section 43 Door Openings
Figure 1 (Sheet 1)



FAIRING VAPOR BARRIER

DETAIL II

Section 43 Wing to Body Fairing
Figure 1 (Sheet 2)

1. General

A. Section 44 is the center section of the fuselage between the front spar bulkhead and wheel well bulkhead. The upper lobe contains the passenger compartment with windows. The lower lobe contains non pressurized main gear wheel wells and provisions for wing center section. Structural components of the main gear wheel wells include a rear spar bulkhead and wheel well bulkhead connected by a keel beam. The keel beam separates the left and right main gear wheel wells and supports the pressure deck. Main gear doors enclose the wheel wells.

B. The main gear wheel well and keel beam (Ref 53-40-03, Fig. 1) have a corrosion protective finish that consists of chemical conversion coating on clad aluminum parts, anodize surface treatment on non-clad aluminum parts, a coat of BMS 10-11, type I primer and a coat of BMS 10-11, type II enamel. The forward and aft wheel well bulkheads and the keel beam are assembled with BMS 5-95 fay surface sealant. All non-aluminum fasteners are installed with wet BMS 5-95 sealant. Interior surfaces of the keel beam from station 900 to station 1140 receive a coat of BMS 3-23 after assembly and painting. Beginning with line number 37, the surface contacted by access doors when in the closed position is coated with BMS 10-86, type 1 teflon-filled coating. Beginning at line number 577, for all package freighter airplanes, RR 92018-28 applies corrosion inhibiting compound BMS 3-23 and 3-29 to main landing gear wheel well (Ref 53-40-03, Fig. 1, sheet 2).

C. Corrosion can occur in the horizontal flange of the tee chord of the keel beam (Structural Item Interim Advisory 757-28).

D. The surfaces inside the wheel well are exposed to air contaminants and runway splash and are subject to corrosion.

E. External drains are either leaf spring or plunger type drain valves, and they close when the airplane is pressurized. Drain paths through the internal structure go to the external drain valves. Refer to 53-40-02, Fig. 1, for valve location.

F. A coat of BMS 3-23, type II corrosion preventive compound is applied to structure within 2 inches of the body skin, and the body skin itself, from stations 940 to 1040. On airplanes line number 241 and on, per PRR 54133, this compound extends the full length of Section 44, and also includes the upper surface of the passenger floor.

G. The corrosion protective finish for the structure surrounding the No. 1 cargo and No. 2 passenger door opening consists of a chemical conversion coating (alodine) on clad aluminum parts, anodize surface treatment for non-clad parts and a coat of BMS 10-11, type I primer. The doubters around the doors are installed with fay surface sealant. All non-aluminum fasteners which penetrate the exterior skin are installed with wet sealant. After assembly, a touchup coat of BMS 10-11, type I primer is applied to bare fasteners and a coat of BMS 10-11, type II white enamel is applied around the doors. A coat of BMS 3-23 is applied except on the door assembly and door opening (Ref 53-40-04, Fig. 1).

H. The primary corrosion area is under the door sill, floor panels, floor beams and doubters or triplers at door openings.

I. The stringers, frames and skins can get corrosion because of moisture caught between the skin and insulation blankets. Corrosion starts at broken protective finishes. The lower lobe structure is the same as in Section 43 (Ref 53-30-02, Fig. 1).

J. Insulation blankets are provided on cabin interiors for passenger comfort and to minimize the condensation of warm cabin air on cold skins and stringers. Corrosion can occur in areas where the blankets are not installed taut and wrap around stringers or contact the skins.

K. The wing-to-body fairing is constructed of nonmetallic sandwich material and is attached by an aluminum frame to the fuselage. The wing-to-body fairing frame has a corrosion protective finish that consists of chemical finish (alodine) on clad aluminum parts, anodize surface treatment of nonclad parts, a coat of BMS 10-11, type I primer and BMS 10-11, type II white enamel. All fairing structure permanently attached to the outside of the body skin is fay sealed with BMS 5-95 sealant. The outside of the body skin covered by the fairing is primed with BMS 10-79, type II, and a coat of BMS 10-60, type II gray enamel. Where removable fairings contact the body skin, the body skins are coated with BMS 10-86 teflon coating. All fairing structure receives BMS 3-23 after assembly and installation. Beginning with line number 37, the surface contacted by the fairing access doors when in the closed position is coated with BMS 10-86, type 1 teflon filled coating (Ref 53-40-05, Fig. 1).

L. Airplane, line number 707 and on; SRP 53-0052 applies BMS 3-29 Corrosion Inhibiting Compound on top of floor beams and moisture barrier tape on top of floor panels in all wet areas (galleys, lavatories, and doors).

2. Corrosion Prevention

A. Following cleaning of suspected areas, a thorough inspection as described in Volume 1, 20-20-00 is effective to ensure that protective finishes provided during manufacture remain intact.

B. There corrosion exists (noticeable bulges of the skin or white deposits of corrosion products at fastener heads or joint edges), refer to the index column in 53-00-01 for reference rework chapter.

C. For minor corrosion, to minimize the downtime of the airplane, the corrosion products should be cleaned off, followed by the application of a corrosion inhibiting compound into the affected area to retard the corrosion process (Ref Volume 1, 20-60-00). The finish system should be restored at the first opportunity consistent with the maintenance schedule.

D. Prevention Treatment

(1) At first opportunity consistent with scheduled maintenance activity, corrosion prevention treatment should be accomplished in the external drains, wheel well opening, door opening and wing to body fairing.

(2) External Drains:

(a) Clean out drains and drain paths.

(b) Check that drain valve is free to open and close.

CAUTION: OBSERVE DRAIN VALVE TORQUE LIMITS. EXCESSIVE TIGHTENING OF PLUNGER TYPE DRAIN VALVE WILL CAUSE VALVE FLANGE TO CRACK OR BREAK.

(c) If required, remove plunger type drain valve from outside the fuselage, clean out obstructions and reinstall valve until flange contacts skin. Tighten to 15 lb-in. maximum.

(3) Wheel Well and Keel Beam:

(a) Treatment of wheel well at the same time as the main gear is recommended.

(b) Remove runway debris and generally clean the entire wheel well area.

(c) Remove keel beam side panels to gain access to cavity area between stations 900 and 1040 and clean the cavity area.

NOTE: It is not necessary to remove every side panel. Remove only enough panels for easy access to the keel beam cavity and inner structure of the sidewalls.

(d) Apply water displacing corrosion inhibiting compound to the inner surface of the keel beam side panels and entire structure on the inside of the keel beam for the entire length.

(e) Apply water displacing corrosion inhibiting compound to the inside surface at the panels removed for access.

(f) Apply water displacing corrosion inhibiting compound to all exposed wheel well structure, including the exposed surfaces of the keel beam center web, and the wheel well pressure deck web. Special effort should be made to apply the corrosion inhibitor along doubter edges, faying surfaces and on fastener heads. The use of spray equipment with nozzle directed into faying surface is recommended.

(g) Apply water displacing corrosion inhibiting compound to landing gear attachment fittings. Ensure that all lugs and lug faces are treated.

(h) Apply water displacing corrosion inhibiting compound to the keel beam chords, main landing gear trunnion back-up fittings and skin.

(i) If toilet effluent leakage is observed in the keel beam area, remove keel beam side panels, wash and reapply corrosion inhibiting compound in all areas contaminated.

(j) In cases where the wheel well is cleaned with steam or high pressure water and detergent, reapplication of corrosion inhibiting compound is recommended.

(4) Emergency Exit Door Opening:

(a) Treatment of the door at the same time as the door opening is recommended.

(b) Remove debris and generally clean the entire door opening area. Remove reveal scuff plate where applicable.

(c) Special effort should be made to apply the corrosion inhibitor along the doubter edges, along faying surfaces and on fastener heads. Spray all doors and fuselage fittings at the faying surface. The use of spray equipment with nozzle directed into faying surface is recommended.

(d) Relubricate all tube points per standard servicing procedures.

(e) Where accessible, apply corrosion inhibitor to the internal lower area.

(5) Do not apply corrosion inhibiting compounds on interior materials such as cargo liners. The compounds change the flammable quality of these materials.

(6) Do not apply corrosion inhibiting compounds on insulation blankets. The compounds reduce the water-repellent quality of the blankets.

(7) Do not apply corrosion inhibiting compounds on grease joints or sealed bearings. These compounds dissolve grease and other Lubricants. They are penetrating compounds and can get around the seals and into the bearings.

E. Frequency of Application

(1) Periodic inspection is required in areas identified as susceptible to corrosion and should be consistent to the schedules specified in the Maintenance Planning Document. Operators must be aware of reported problems and areas of occurrences.

(2) Periodic application of BMS 3-23 compound is necessary to areas identified and should be consistent to the schedule specified in the Maintenance Planning Document.

F. Improved Corrosion Protection

(1) On airplanes line number 140 and on, PRR 53423 applies one more coat of yellow primer BMS 10-11, type 1 to the structure that touches pillow blanket insulation.

(2) On airplanes line number 137 and on, PRR 53685 replaces the original Corogard finish by BMS 10-100 (Aeroflex) on the upper and lower surfaces of the wing box, on the upper surface of the pressure deck, and in the area of the pressure-resistant beam.

(3) Between airplanes line numbers 241 and 268, PRR 54124 added BMS 5-95 sealant to all permanently-fastened parts not already sealed in the wheel wells.

(4) On airplanes line number 355 and on, PRR 54287 added a nylon filler between the level plate and the horizontal keel beam near station 1150. This change can be incorporated on earlier airplanes with SB 53-0054.

(5) On airplanes line number 328 and on, PRR 54313 added BMS 3-26 corrosion preventive compound on top of the BMS 3-23 compound on these areas:

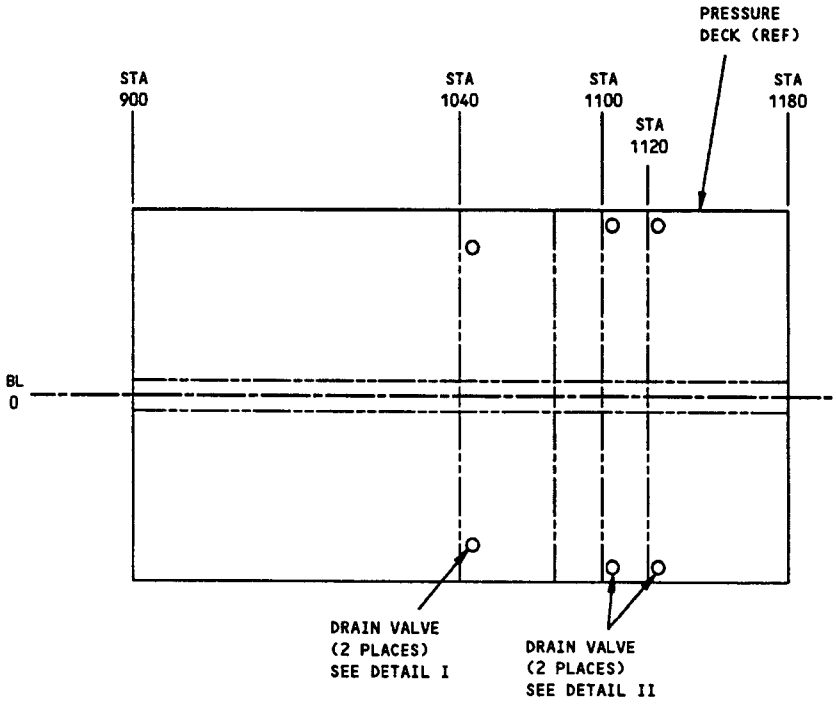
(a) The internal and external surfaces of the keel beam box.

(b) The top surface of the wing center section, between the front spar and the wheel well bulkhead.

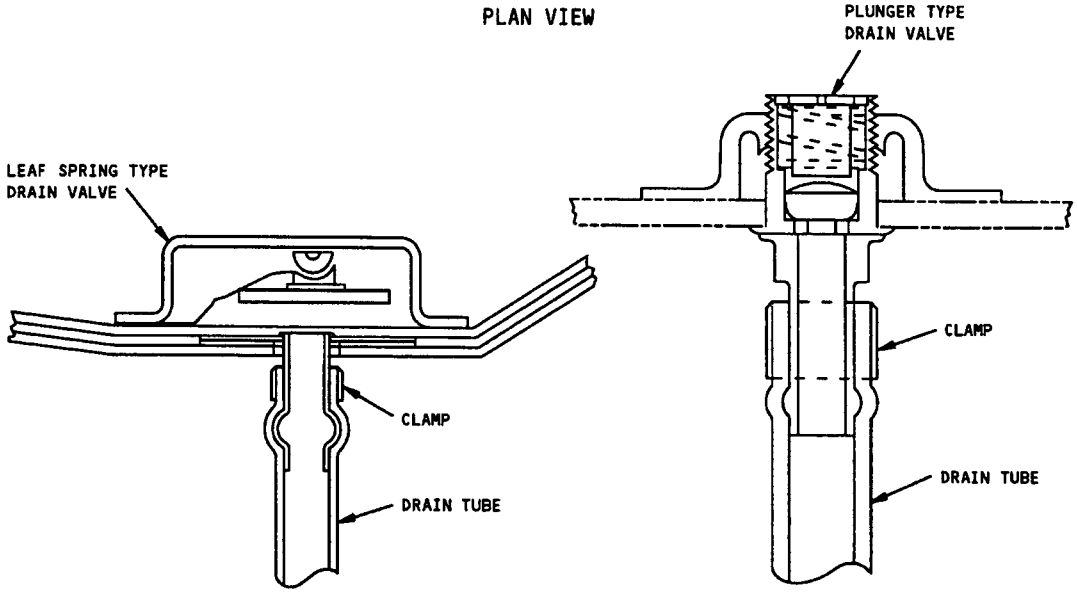
(c) The top surface of the pressure deck, 20 inches forward and aft of the rear spar.

(d) The bilge area aft of the main gear wheel wells.

THIS PAGE INTENTIONALLY LEFT BLANK

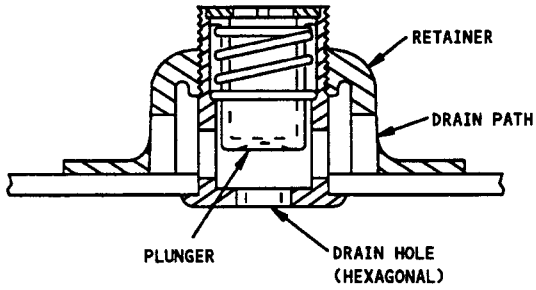


PLAN VIEW

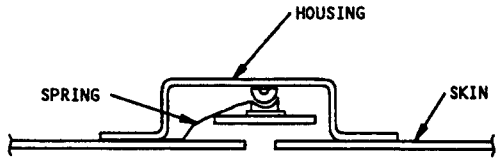


DETAIL I

Section 44 External Drains
Figure 1 (Sheet 1)



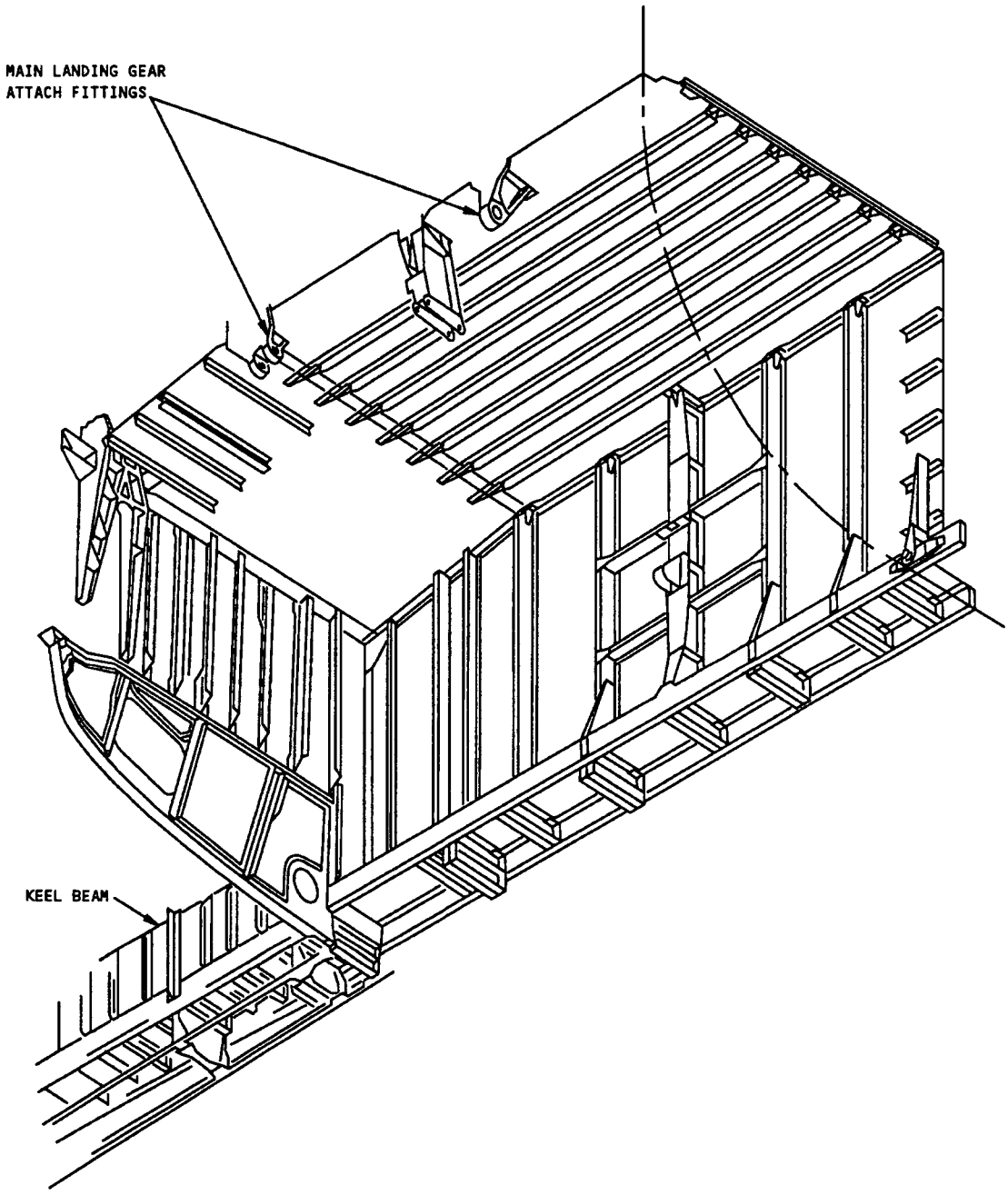
PLUNGER TYPE DRAIN VALVE



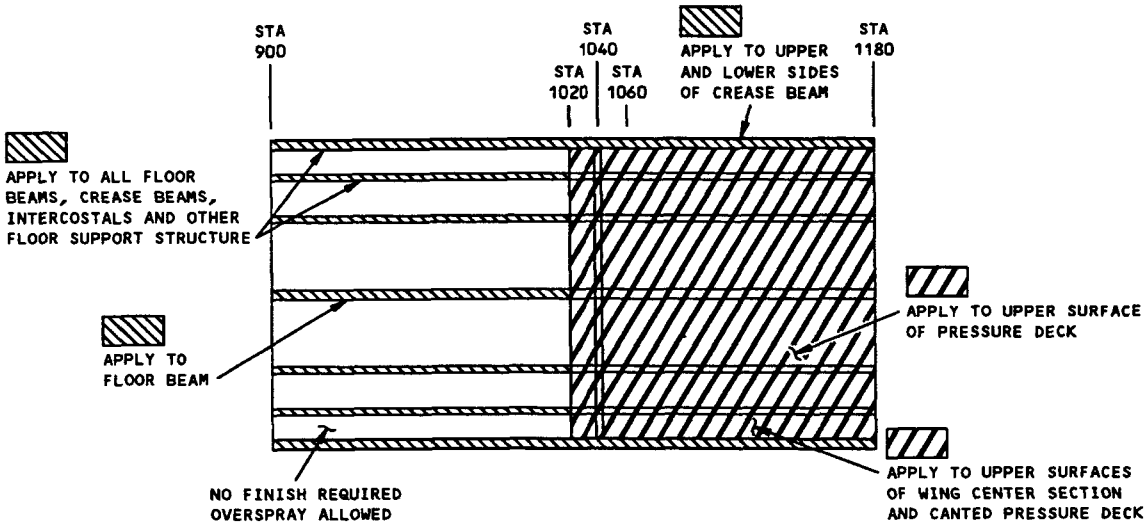
LEAF SPRING TYPE DRAIN VALVE

DETAIL II

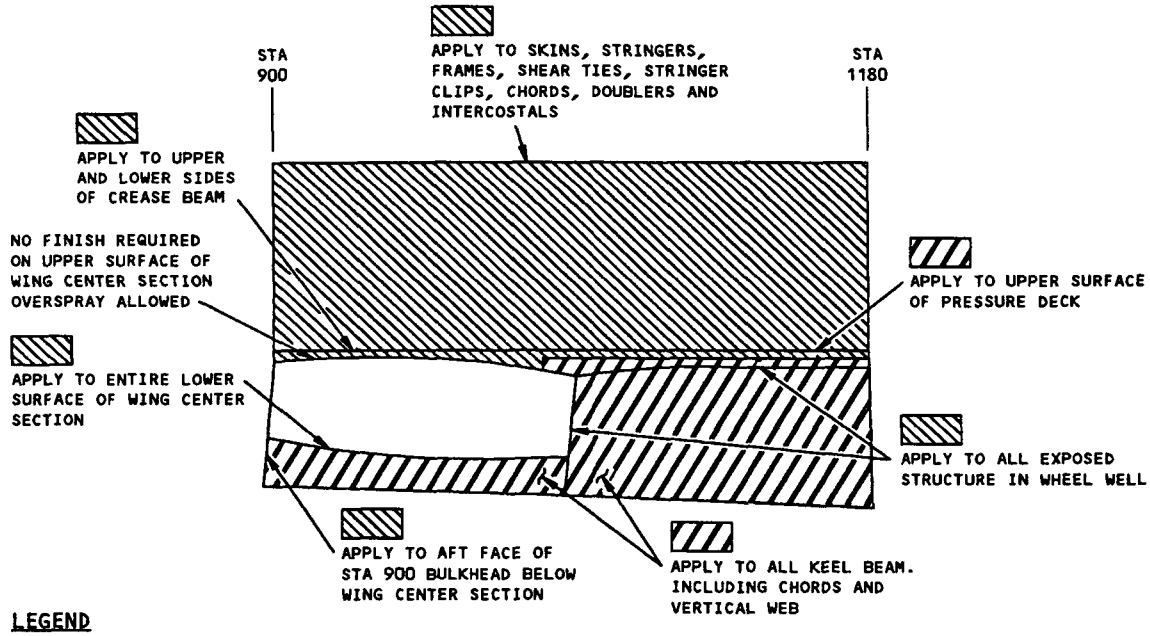
Section 44 External Drains
Figure 1 (Sheet 2)



Section 44 Main Landing Gear Wheel Well and Keel Beam
Figure 1 (Sheet 1)



MAIN DECK FLOOR SUPPORT STRUCTURE AND WING CENTER SECTION/PRESSURE DECK

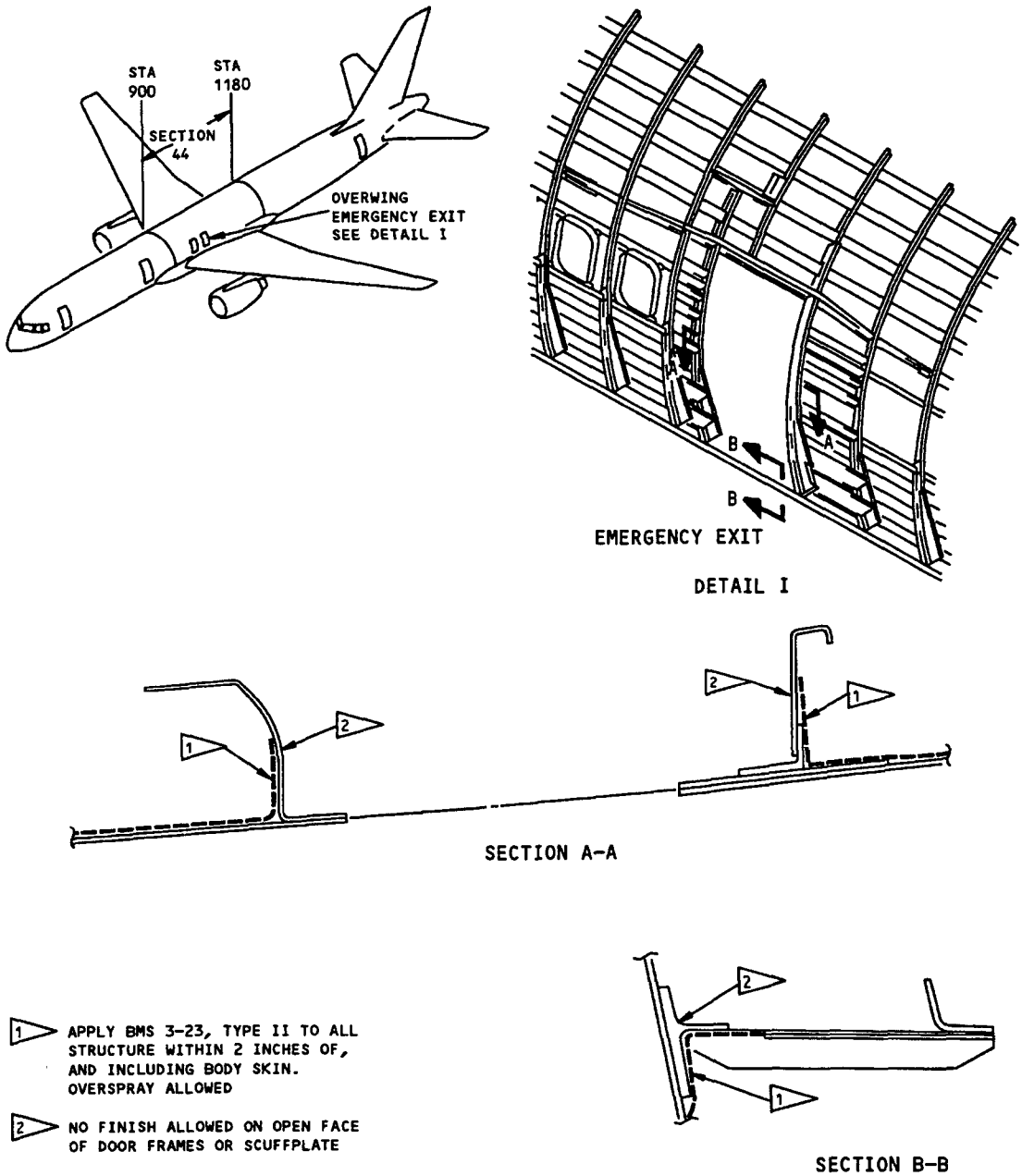


LEGEND

APPLY BMS 3-23, TYPE 11 OR BMS 3-29 CORROSION INHIBITING COMPOUND PER BAC 5877 TO ALL STRUCTURAL SEAMS AND ACCESSIBLE SURFACES WITHIN INDICATED AREA. EXCEPT AS NOTED.

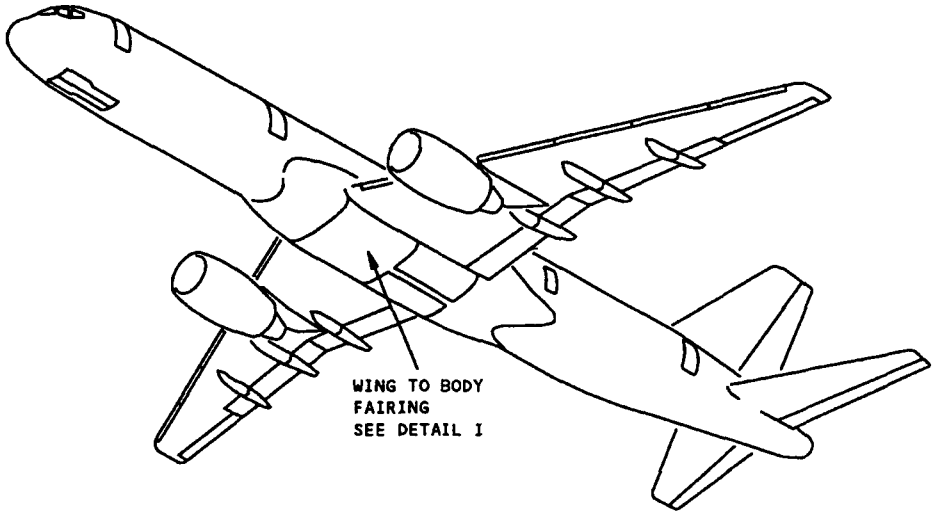
APPLY BMS 3-29 CORROSION INHIBITING COMPOUND PER BAC 5877 TO ALL STRUCTURAL SEAMS AND ACCESSIBLE SURFACES WITHIN INDICATED AREA.

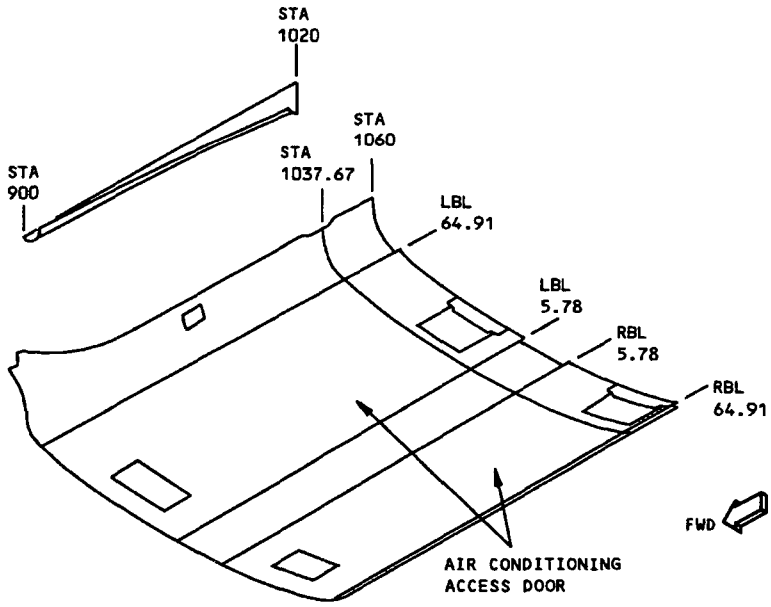
Section 44 Main Landing Gear Wheel Well and Keel Beam
Figure 1 (Sheet 2)



Section 44 Door Opening
Figure 1

THIS PAGE INTENTIONALLY LEFT BLANK





DETAIL I

Section 44 Wing to Body Fairing
Figure 1

THIS PAGE INTENTIONALLY LEFT BLANK

1. General

A. Section 46 extends from stations 1180 to 1720. The upper lobe contains the passenger compartment. Structural opening in the passenger compartment are left and right emergency exit doors, left and right passenger doors, and passenger windows. The lower lobe contains the aft cargo compartment. A right-hand cargo door has approximately 44 by 55 inches of clear opening. The aft section of the wing/body fairing attaches to section 46. The aft pressure bulkhead connects section 46 and section 48.

B. All non-aluminum fasteners which penetrate the exterior skin are installed with wet sealant. A coat of sprayable sealant is applied to the inboard flange of stringer 10 and above. A coat of BMS 3-23, type II corrosion inhibiting compound is applied to all structure within 2 of inches of the body skin, and the body skin itself, from stations 1609 to 1720. On airplanes line number 241 and on, per PRR 54133, this compound extends the full length of Section 46, and also includes the upper surface of the passenger floor.

C. The stringers, frames and skins have been found susceptible to corrosion due to moisture entrapment between the skin and insulation blankets. Corrosion can readily start where protective finishes have been broken or deteriorated. Refer to 53-60-02, Fig. 1 for lower lobe structure.

D. External drains are either leaf spring or plunger type drain valves which close when the airplane is pressurized. Drain paths through the internal structure lead to the external drain valves. Refer to 53-60-03, Fig. 1 for valve location.

E. The corrosion protective finish for the structure surrounding the No. 1 cargo and No. 2 passenger door opening consists of a chemical conversion coating (alodine) on clad aluminum parts, anodize surface treatment for non-clad parts and a coat of BMS 10-11, type I, primer. The doubters around the doors are installed with fay surface sealant. All non-aluminum fasteners which penetrate the exterior skin are installed with wet sealant. After assembly, a touchup coat of BMS 10-11, type I, primer is applied to bare fasteners and a coat of BMS 10-11, type II, white enamel is applied around the doors. A coat of BMS 3-23 is applied except on the door assembly and door opening (Ref 53-60-04, Fig. 1).

F. The primary corrosion area is under the door sill, floor panels, floor beams and doubters or triplers at door openings. Contaminants are tracked in by passengers, crew members, cargo and service personnel or by driven rain/snow when door is opened.

G. Insulation blankets are provided on cabin interiors for passenger comfort and to minimize the condensation of warm cabin air on cold skins and stringers. Corrosion has been experienced in areas where the blankets are not installed taut and wrap around stringers or lay on the skins.

H. Corrosion can occur along the upper chord of Body Station 1681.8 floor beam at the nutplates where the floor panel is attached.

2. Corrosion Prevention

A. Following cleaning of suspected areas, a thorough inspection as described in Volume 1, 20-20-00 is effective to ensure that protective finishes provided during manufacture remain intact.

B. Where corrosion exists (noticeable bulges of the skin or white deposits of corrosion products at fastener heads or joint edges), refer to the index column in 53-00-01 for reference rework chapter.

C. For minor corrosion, to minimize the downtime of the airplane, the corrosion products should be cleaned off, followed by the application of a corrosion inhibiting compound into the affected area to retard the corrosion process (Ref Volume 1, 20-60-00). The finish system should be restored at the first opportunity consistent with the maintenance schedule.

D. Prevention Treatment

(1) At first opportunity consistent with scheduled maintenance activity, corrosion prevention treatment should be accomplished in the external drains and drain paths, cargo door area, and door openings.

(2) External Drains:

(a) Clean out drains and drain paths.

(b) Check that drain valve is free to open and close.

CAUTION: OBSERVE DRAIN VALVE TORQUE LIMITS. EXCESSIVE TIGHTENING OF PLUNGER TYPE DRAIN VALVE WILL CAUSE VALVE FLANGE TO CRACK OR BREAK.

(c) If required, remove plunger type drain valve from outside the fuselage, clean out obstructions and reinstall valve until flange contacts skin. Tighten to 15 lb-in. maximum.

(3) No. 2 and 3 Cargo Compartment

(a) Remove sidewall lining and insulation blankets in the cargo compartment beneath the main deck entry and cargo doors to expose frame, stringer, doubters and skin.

(b) Remove floor liners to gain access to bilge areas, if any.

(c) Remove ceiling lining for access to main deck floor beams and intercostals.

(d) Replace broken or damaged finishes. Refer to Volume 1, 20-60-00 for protective finish systems.

(e) Replace or repair broken or damaged leveling compounds used for drainage.

(f) Apply water displacing corrosion inhibiting compound to all exposed structure under the cargo floor and to the sidewalls beneath the upper lobe entry and cargo doors. The use of spray equipment with nozzle directed into faying surfaces is recommended. Do not apply excessively.

(g) Allow solvent to evaporate before reinstalling insulation blankets.

(h) Install blankets so they are taut.

(i) Install liners and floor panels. Install the floor panel fasteners with BMS 3-24 grease.

(j) Apply water displacing corrosion inhibiting compound to skin and structure in Section 48. Refer to 53-70-01 for corrosion prevention of the aft pressure bulkhead which should be treated concurrently.

(4) No. 2 and 3 Cargo and No. 4 Passenger Door Opening

(a) Treatment of the door at the same time as the door opening is recommended.

(b) Remove traffic debris and generally clean the entire door opening area. Remove reveal and scuff plate where applicable.

(c) Replace damaged or broken finishes if at all possible. Refer to Volume 1, 20-60-00 for protective finish systems.

(d) Relubricate all tube points per standard servicing procedures.

(e) Where accessible, apply corrosion inhibitor to the internal lower still area.

(f) Special effort should be made to apply the corrosion inhibitor along doubter edges, along faying surfaces and on fastener heads. Spray all doors and fuselage fittings at the faying surfaces. The use of spray equipment with nozzle directed into faying surface is recommended.

(5) Do not apply corrosion inhibiting compounds on interior materials such as cargo liners. The compounds change the flammable quality of these materials.

(6) Do not apply corrosion inhibiting compounds on insulation blankets. The compounds reduce the water-repellent quality of the blankets.

(7) Do not apply corrosion inhibiting compounds on grease joints or sealed bearings. These compounds dissolve grease and other Lubricants. They are penetrating compounds and can get around the seals and into the bearings.

E. Frequency of Application

(1) Periodic inspection is required in areas identified as susceptible to corrosion and should be consistent to the schedules specified in the Maintenance Planning Document. Operators must be aware of reported problems and areas of occurrences.

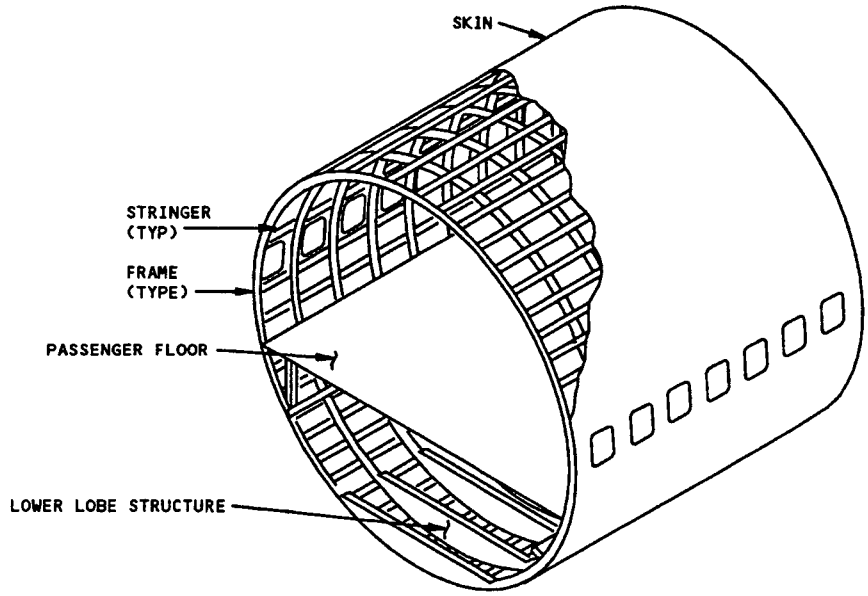
(2) Periodic application of BMS 3-23 compound is necessary to areas identified and should be consistent to the schedule specified in the Maintenance Planning Document.

F. Improved Corrosion Protection

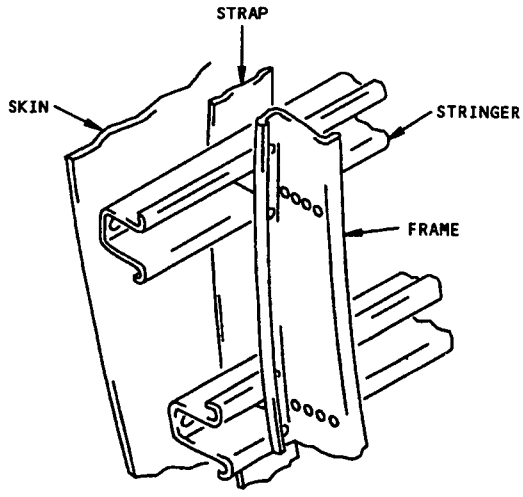
(1) On airplanes line number 328 and on, PRR 54313 added BMS 3-26 corrosion preventive compound in the bilge area below the cargo floor.

(2) On airplanes line number 721 and on, PRR 54530-143 added two coats of BMS 10-11, Type 1, primer to many stringers, doubters, panels, splices and fillers in the section 46 cargo compartment. This came as a result of Service Related Problem 757-SRP-53-0062 and 0065.

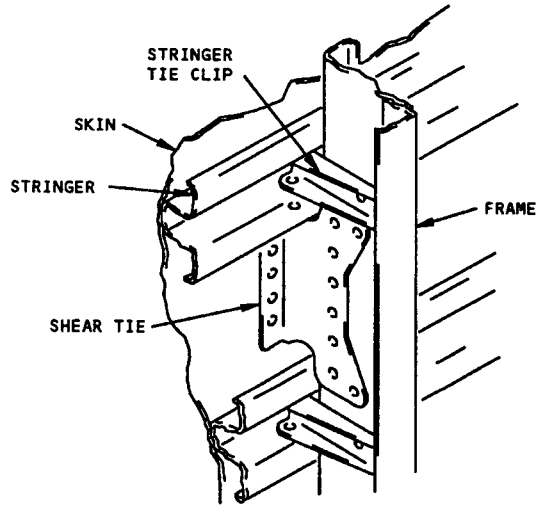
(3) On airplanes line number 720 and on, PRR 54530-155 added a phenolic block and BMS 5-95 sealant on end of galley gutter (STA 1716.30). Refer to Rapid Revision RR 92024-28 for more details.



FUSELAGE SECTION



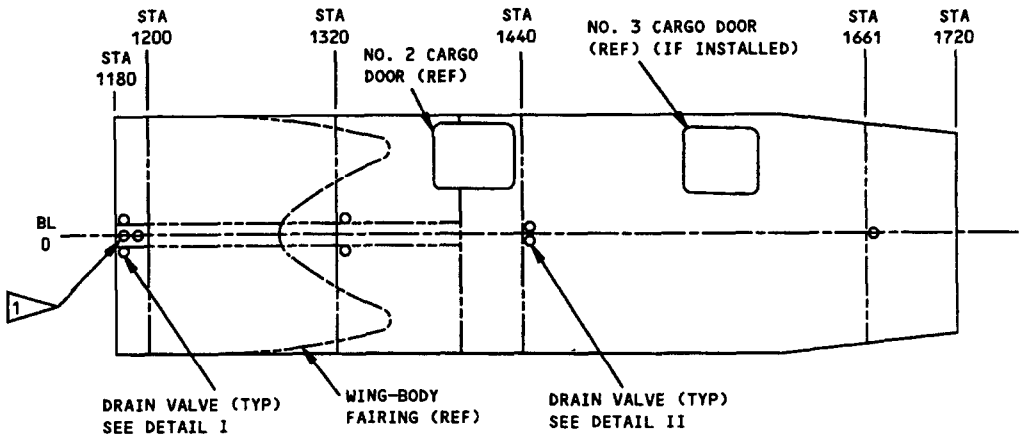
STRAP AND FRAME



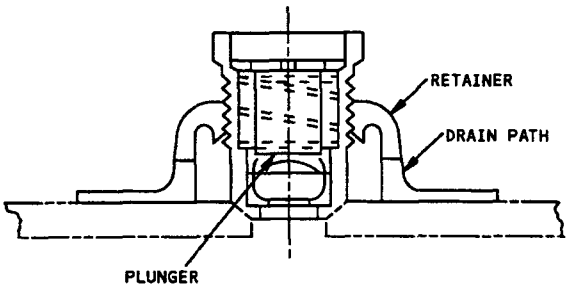
FRAME AND SHEAR TIE

Crown Frames, Stringers and Skin
Figure 1

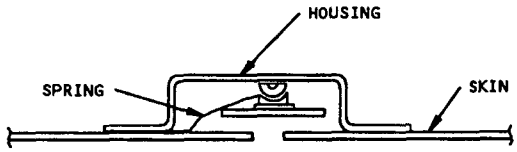
THIS PAGE INTENTIONALLY LEFT BLANK



PLAN VIEW

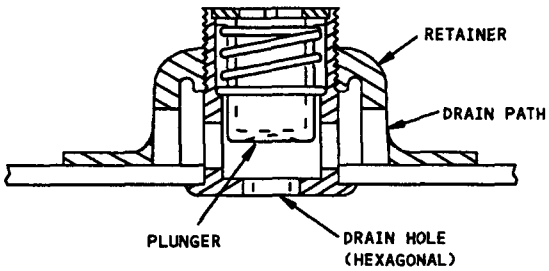


PLUNGER TYPE DRAIN VALVE

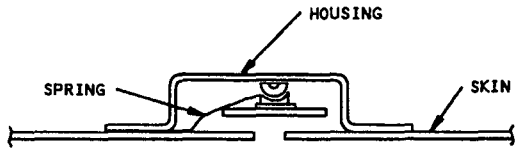


LEAF SPRING TYPE DRAIN VALVE

DETAIL I



PLUNGER TYPE DRAIN VALVE



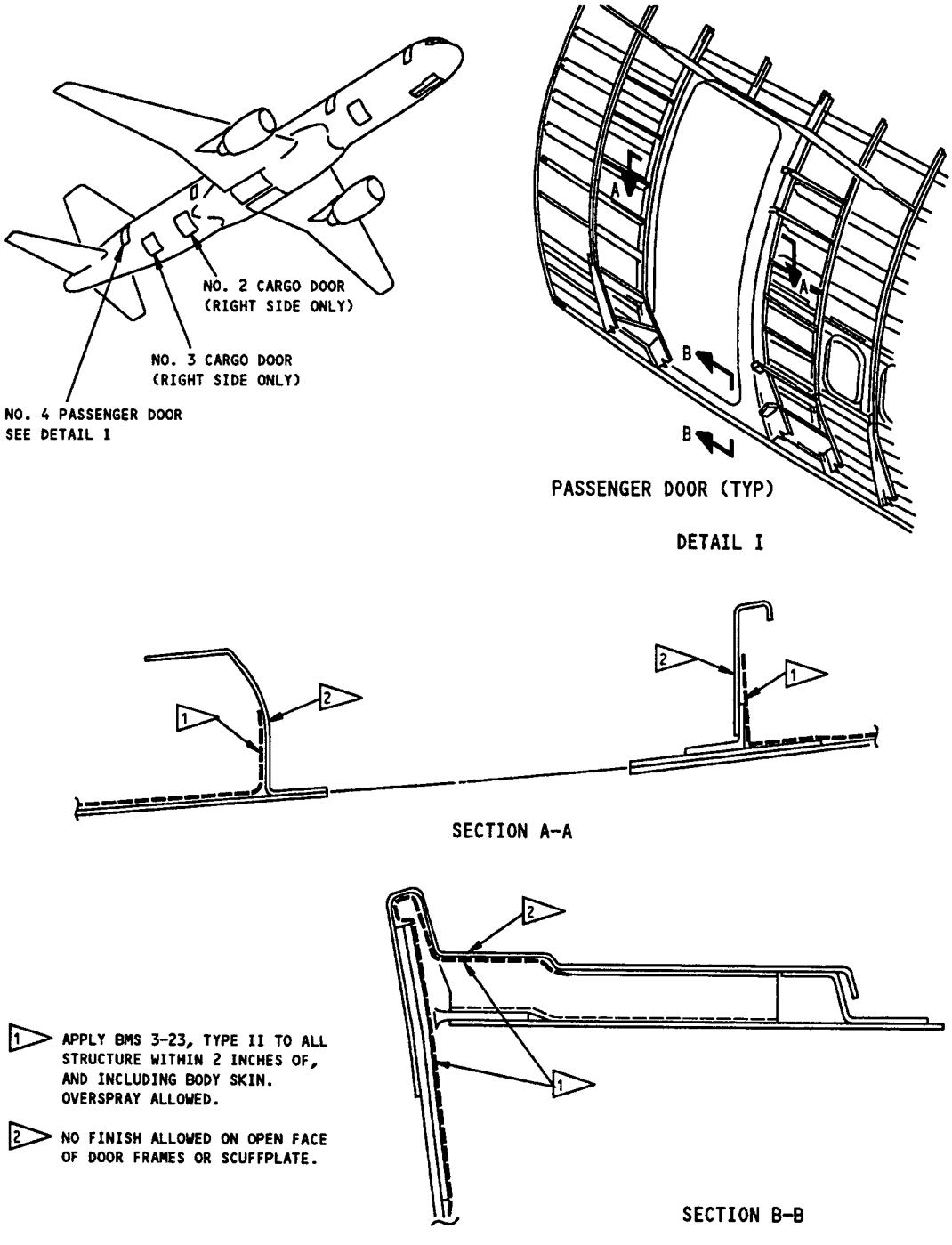
LEAF SPRING TYPE DRAIN VALVE

DETAIL II

1 NOT INSTALLED ON ALL AIRPLANES

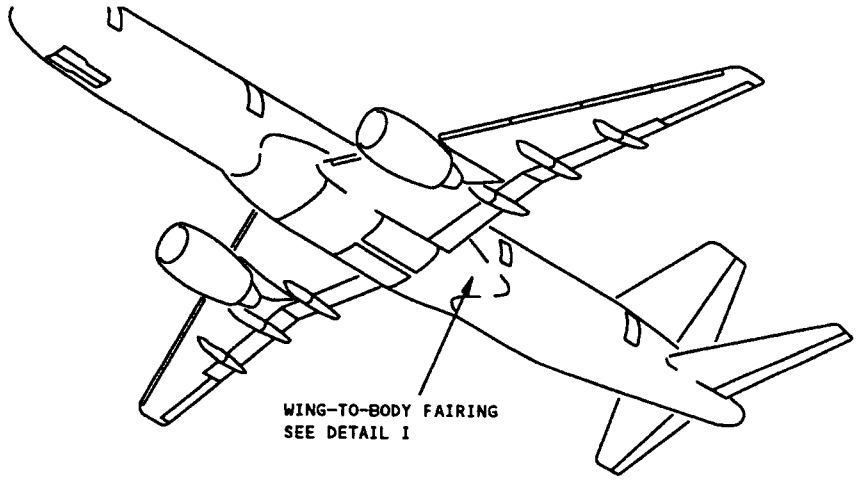
Section 46 External Drains
Figure 1

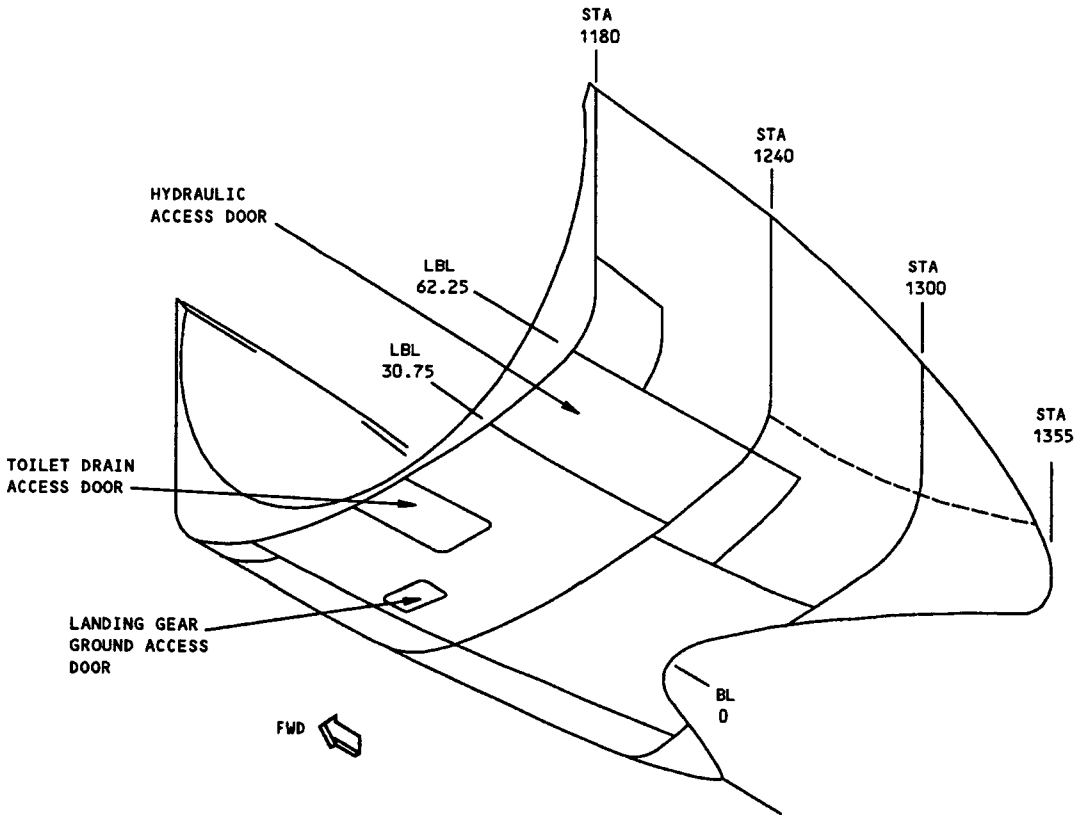
THIS PAGE INTENTIONALLY LEFT BLANK



Section 46 Door Openings
Figure 1

THIS PAGE INTENTIONALLY LEFT BLANK





DETAIL I

Section 46 Wing to Body Fairing
Figure 1

THIS PAGE INTENTIONALLY LEFT BLANK

1. General

A. The aft pressure bulkhead at station 1720 consists of web panels with stiffeners on the forward face. The pressure bulkhead forms the rear of the pressurized structure of the fuselage. Corrosion protection for the aft pressure bulkhead consists of chromic acid anodize surface treatment, a coat of BMS 10-11, type I, primer and, on the pressurized side, a coat of BMS 10-11, type II, enamel. All structure attached to the pressure bulkhead web is fay sealed with BMS 5-95. All fasteners that penetrate the bulkhead break ring are installed with wet sealant and are fillet sealed on the aft face of the bulkhead. A coat of BMS 3-23 is applied to the forward and aft face of the pressure bulkhead.

B. The aft face of the bulkhead is susceptible to corrosion due to moisture and contamination. The web lap splices and fastener heads leave unsupported areas of the paint system, which leads to cracking of the paint or flaking which are starting points for corrosion.

2. Corrosion Prevention

A. Following cleaning of suspected areas, a thorough inspection as described in Volume 1, 20-20-00 is effective to ensure that protective finishes provided during manufacture remain intact. Refer to Volume 1, 20-60-00 for details on the application of corrosion inhibiting compound.

B. For minor corrosion, to minimize the downtime of the airplane, the corrosion products should be cleaned off, followed by the application of a corrosion inhibiting compound into the affected area to retard the corrosion process (Ref Volume 1, 20-60-00). The finish system should be restored at the first opportunity consistent with the maintenance schedule.

C. Frequency of Application

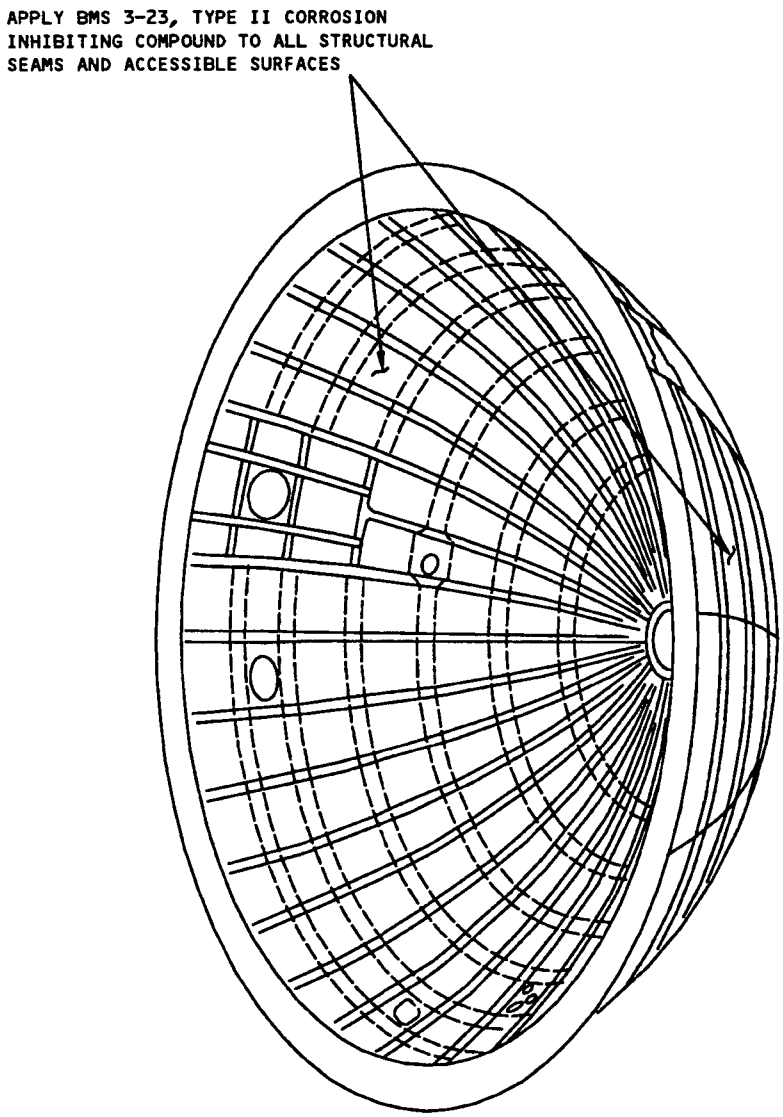
(1) Periodic inspection is required in areas identified as susceptible to corrosion and should be consistent to the schedules specified in the Maintenance Planning Document. Operators must be aware of reported problems and areas of occurrences.

(2) Periodic application of BMS 3-23 compound is necessary to areas identified and should be consistent to the schedule specified in the Maintenance Planning Document.

D. Improved Corrosion Protection

(1) On airplanes line number 328 and on, PRR 54313 added BMS 3-26 corrosion preventive compound on top of the BMS 3-23 compound on all forward surfaces of the aft pressure bulkhead below the floor.

THIS PAGE INTENTIONALLY LEFT BLANK



Aft Pressure Bulkhead
Figure 1

THIS PAGE INTENTIONALLY LEFT BLANK

NOTE: For coverage of galley and lavatories formerly covered here, refer to 53-95-01.

1. General

A. Section 48 extends from stations 1720 to 2005.2. This is the aft, unpressurized section of the fuselage. Section 48 includes the APU compartment, aft of the firewall at stations 1885 and 1896. The horizontal and vertical stabilizers attach to Section 48.

B. The corrosion protection for the interior aluminum between stations 1720 and 1885 consists of chromic acid anodize surface treatment and a coat of BMS 10-11, type 1 primer on the detail parts. Many parts are fay sealed with BMS 5-95 sealant: parts that touch the skin below stringer 17, fin support fittings, longerons, skin splices, chords and web doubters of the fin rear spar bulkhead. All non-aluminum fasteners are installed with wet sealant. A coat of BMS 10-11 type 1 primer is applied to all of the assembled interior. Below stringer 17, detail parts get a coat of BMS 10-11, type 2 enamel. BMS 3-23 corrosion inhibiting compound is applied to all interior surfaces after assembly and painting.

C. The APU firewall is made of titanium alloy. Below stringer 17, the titanium chords are sealed with BMS 5-63 sealant. The faying surfaces that touch the aluminum body structure are sealed with EC 5128 sealant. All edges of the firewall aft face are sealed with BMS 5-63 sealant.

D. Aft of station 1896, the aluminum skin is protected with phosphoric anodize surface treatment. The aluminum frames get chromic acid anodize surface treatment. Then both skin and frame surfaces get a coat of BMS 10-11, type 1 primer. The skin splices and frames, and the APU access door assembly, are fay sealed with BMS 5-63 sealant. After assembly, the entire interior gets a coat of BMS 10-11, type 1 primer and a coat of BMS 10-11, type 2 enamel.

2. Corrosion Prevention

A. After you clean the areas, do the inspection of Volume 1, 20-20-00 to make sure that protective finishes stay serviceable.

B. For less important corrosion, to decrease the downtime of the airplane, clean off the corrosion products. Apply corrosion inhibiting compound on the affected areas. Refer to Volume 1, 20-60-00 for how to apply corrosion inhibiting compound. Repair the finish system when the maintenance schedule permits.

C. Frequency of Application

(1) Regular inspection is required in areas which can get corrosion. Use the schedules in the Maintenance Planning Document. Operators must know of reported problems and areas.

(2) Regular application of BMS 3-23 corrosion preventive compound is necessary in areas identified. Use the schedules in the Maintenance Planning Document.

THIS PAGE INTENTIONALLY LEFT BLANK

1. General

A. Skin lap joints are joined by rivets and are supplemented by BMS 5-95 corrosion inhibiting adhesive primer (CIAP). The CIAP serves as an adhesive as well as a sealant to prevent contaminants from entering the splice. To further prevent the entrance of contaminants, lap splices on the airplane interior are fillet sealed with BMS 5-32, Class B sealant. Airplanes may be further protected by a weather fillet seal of BMS 5-79, class B applied to the edge of the exterior skin.

2. Corrosion Prevention

A. Following cleaning of suspected areas, a thorough inspection as described in Volume 1, 20-20-00 is effective to ensure that protective finishes provided during manufacture remain intact. Refer to Volume 1, 20-60-00 for details on the application of corrosion inhibiting compound.

B. For minor corrosion, to minimize the downtime of the airplane, the corrosion products should be cleaned off, followed by the application of a corrosion inhibiting compound into the affected area to retard the corrosion process (Ref Volume I, 20-60-00). The finish system should be restored at the first opportunity consistent with the maintenance schedule.

C. Prevention Treatment

(1) Internal Treatment:

(a) The treatment of internal surfaces described above should be made at the first opportunity splice area is exposed. Location of the area should be noted and monitored from the outside every 3 months for visual indication of corrosion progression.

(b) Apply water displacing corrosion inhibiting compound into lap joints, rivet heads, and/or heel of stringers as noted in the methods described below.

1) Insulation blankets should be protected or removed from the immediate treatment area to prevent spattering of the blankets. Insulation inadvertently spattered should be allowed to dry before installation.

2) Loose sealants should be removed but not replaced. Broken sealants should not be replaced.

3) Apply water displacing corrosion inhibiting compound into lap joint edges, rivet heads and heel of the stringer. The use of pressure spray equipment with nozzle directed into joint is recommended.

(c) Do not apply corrosion inhibiting compounds on interior materials such as cargo liners. The compounds change the flammable quality of these materials.

(d) Do not apply corrosion inhibiting compounds on insulation blankets. The compounds reduce the water-repellent quality of the blankets.

(2) External Treatment:

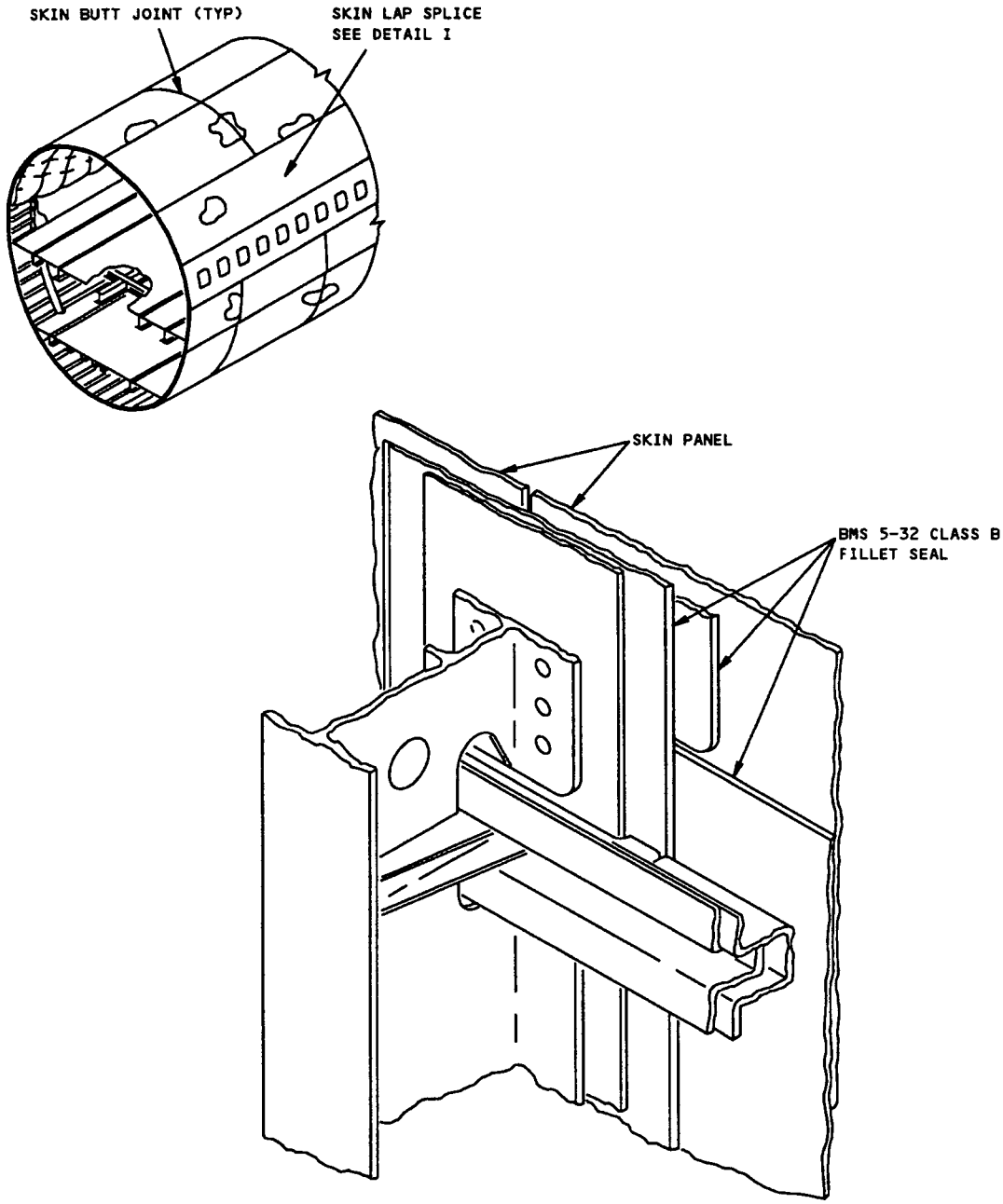
(a) For corrosion prevention, apply BMS 3-23 into lap joints and on lap joint rivet heads. On fillet sealed splices apply BMS 3-23 along the edge of panel and on lap joint rivet heads. Broken seals should not be replaced. BMS 3-23 should be left on for 30 minutes and the excess removed with a dry rag. The use of pressure spray equipment with nozzle directed into joint is recommended.

(b) Operators who wash frequently with detergent and those who operate in severe zones, should adjust their frequency of application of corrosion inhibiting compound.

D. Frequency of Application

(1) Periodic inspection is required to areas identified as susceptible to corrosion and should be consistent to the schedules specified in the Maintenance Planning Document. Operators must be aware of reported problems and areas of occurrences.

(2) Periodic application of BMS 3-23 compounds is necessary to areas identified and should be consistent to the schedule specified in the Maintenance Planning Document.



DETAIL I

Fuselage Skin Lap Joints
Figure 1

THIS PAGE INTENTIONALLY LEFT BLANK

1. General

A. The areas under galleys and lavatories are susceptible to corrosion because of spillage of fluids and food. Leakage from plumbing lines also contributes to corrosion. Seat tracks that are in the galley or lavatory areas are particularly susceptible because of their exposure to traffic debris and spillage which collect inside the track.

2. Corrosion Prevention

A. Following cleaning of suspected areas, a thorough inspection as described in Part 1, 20-20-00 is effective to ensure that protective finishes provided during manufacture remain intact.

B. For minor corrosion, to minimize the downtime of the airplane, the corrosion products should be cleaned off, followed by the application of a corrosion inhibiting compound into the affected area to retard the corrosion process (Ref Part 1, 20-60-00). The finish system should be restored at the first opportunity consistent with the maintenance schedule.

C. Prevention Treatment

(1) At first opportunity when scheduled maintenance work allows access to the structure, corrosion prevention treatment should be accomplished.

(2) Preferred access to the structure is from underneath the main deck.

(3) Remove sidewall lining and insulation blankets to expose frames, stringers, doubters and skin.

(4) Remove floor liners to gain access to bilge areas.

(5) Remove insulation blankets and liners (if any) from bulkheads in the immediate area below galleys or lavatories.

(6) Remove ceiling lining for access to main deck floor beams and intercostals.

(7) Open any plugged drains.

(8) Clear all drain paths.

(9) Replace broken or damaged finishes. Refer to Part 1, 20-60-00 for protective finish systems. Use interior finish system with polyurethane enamel topcoat.

(10) Replace or repair broken or damaged leveling compounds used for drainage.

(11) Apply corrosion inhibiting compound to all exposed structure under galleys and lavatories except where the crew oxygen bottle is located. Exposed structure of bulkheads should also be included. Special effort should be made to apply the corrosion inhibitor to the top of the floor beams where moisture may be trapped between the floor panel and floor beam. The use of spray equipment with nozzle directed into faying surfaces is recommended. Do not apply excessively.

(12) Allow solvent in the corrosion inhibitor to evaporate before reinstalling insulation blankets.

(13) Install blankets so they are taut.

(14) Reinstall liners and floor panels and restore airplane to normal.

(15) Do not apply corrosion inhibiting compounds on interior materials such as liners. The compounds change the flammable quality of these materials.

(16) Do not apply corrosion inhibiting compounds on insulation blankets. The compounds reduce the water-repellent quality of the blankets.

D. Frequency of Application

(1) Periodic inspection is required in areas identified as susceptible to corrosion and should be consistent to the schedules specified in the Maintenance Planning Document. Operators must be aware of reported problems and areas of occurrences.

(2) Periodic application of BMS 3-23 compound is necessary in areas identified and should be consistent to the schedule specified in the Maintenance Planning Document.

(3) Remove ceiling lining for access to main deck floor beams and intercostals.

(4) Open any plugged drains.

(5) Clear all drain paths.

(6) Replace broken or damaged finishes. Refer to Volume 1, 20-60-00 for protective finish systems. Use interior finish system with polyurethane enamel topcoat.

(7) Replace or repair broken or damaged leveling compounds used for drainage.

(8) Apply corrosion inhibiting compound to all exposed structure under galleys and lavatories except where the crew oxygen bottle is located. Exposed structure of bulkheads should also be included. Special effort should be made to apply the corrosion inhibitor to the top of the floor beams where moisture may be trapped between the floor panel and floor beam. The use of spray equipment with nozzle directed into faying surfaces is recommended. Do not apply excessively.

(9) Allow solvent in the corrosion inhibitor to evaporate before reinstalling insulation blankets.

(10) Install blankets so they are taut.

(11) Reinstall liners and floor panels and restore airplane to normal.

(12) Do not apply corrosion inhibiting compounds on interior materials such as liners. The compounds change the flammable quality of these materials.

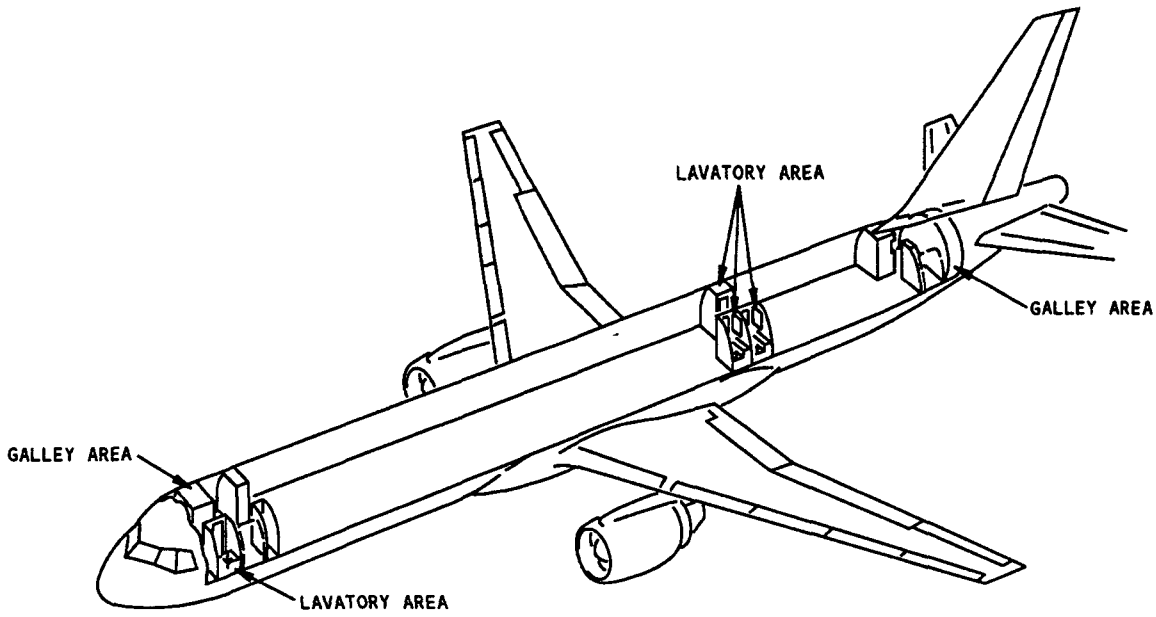
(13) Do not apply corrosion inhibiting compounds on insulation blankets. The compounds reduce the water-repellent quality of the blankets.

E. Frequency of Application

(1) Periodic inspection is required in areas identified as susceptible to corrosion and should be consistent to the schedules specified in the Maintenance Planning Document. Operators must be aware of reported problems and areas of occurrences.

(2) Periodic application of BMS 3-23 compound is necessary in areas identified and should be consistent to the schedule specified in the Maintenance Planning Document.

THIS PAGE INTENTIONALLY LEFT BLANK



NOTE: LOCATIONS OF GALLEYS AND LAVATORIES DEPENDENT ON OPERATOR'S CONFIGURATION

Galley and Lavatory Areas
Figure 1

THIS PAGE INTENTIONALLY LEFT BLANK

AREA	PROBLEM	INDEX PREVENTION VOLUME 2	TERMINATING ACTION (IF ANY)
Nacelle Struts	Corrosion of skin panels	54-50-01	SB 54-0022
	Corrosion of strut to wing fitting lug	54-50-01	PRR 54530-78

SPECIFIC CORROSION PROBLEMS - NACELLES/PYLONS
Figure 1

THIS PAGE INTENTIONALLY LEFT BLANK

AREA	PROBLEM	INDEX PREVENTION VOLUME 2	TERMINATING ACTION (IF ANY)
Nacelle Struts	Corrosion of skin panels	54-50-01	SB 54-0022
	Corrosion of strut to wing fitting lug	54-50-01	PRR 54530-78

SPECIFIC CORROSION PROBLEMS - NACELLES/PYLONS
Figure 1

THIS PAGE INTENTIONALLY LEFT BLANK

1. General

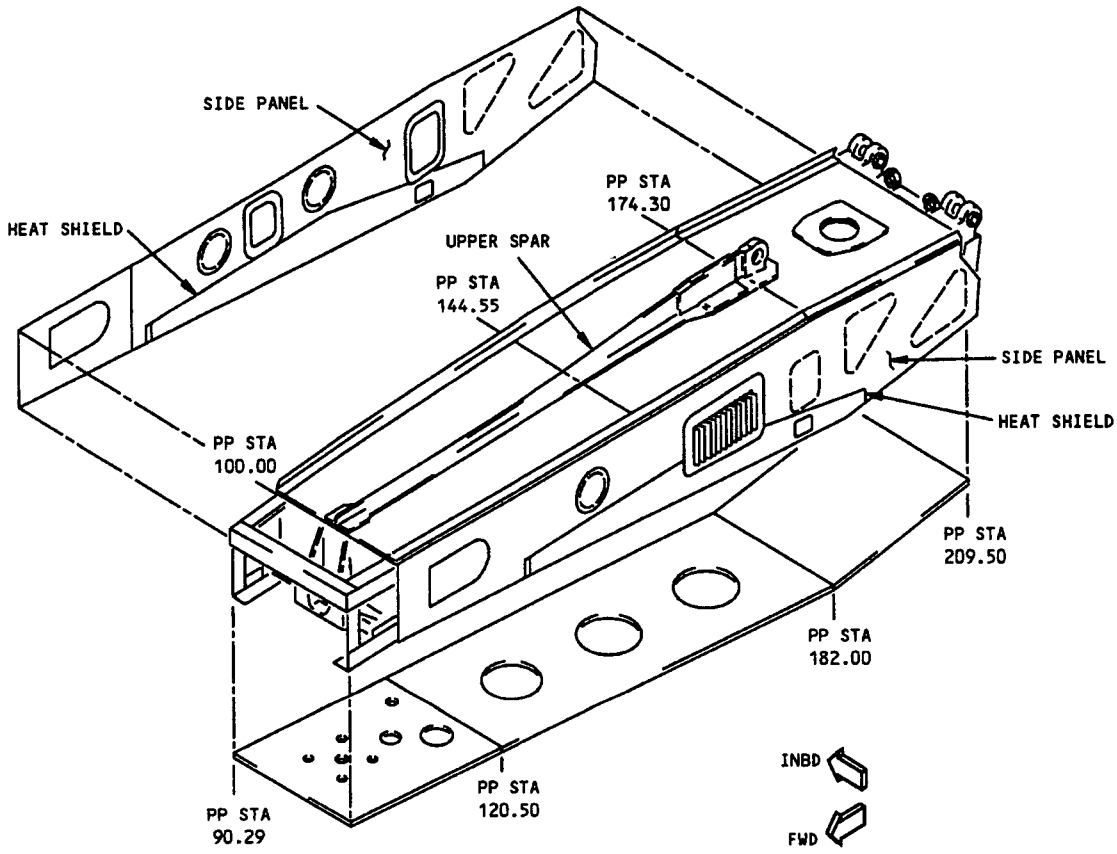
A. Corrosion can occur on the nacelle strut skins along the lower edge of the skin panels under the fiberglass heat shield and in the lug holding the strut to wing fitting bushing.

2. Corrosion Prevention

A. Make regular checks of the nacelle strut skins for corrosion under the fiberglass heat shields. Refer to SB 54-0022 for more details.

B. Corrosion may occur on the lug which holds the strut to wing fitting bushings. PRR 54530-78 provides for larger diameter bushings in strut to wing fittings. Refer to SB 757-54-0026 for more details.

THIS PAGE INTENTIONALLY LEFT BLANK



LEFT STRUT SHOWN
RIGHT STRUT OPPOSITE

Nacelle Strut
Figure 1

THIS PAGE INTENTIONALLY LEFT BLANK

CHAPTER

55

STABILIZERS

THIS PAGE INTENTIONALLY LEFT BLANK

AREA	PROBLEM	INDEX		TERMINATING ACTION (IF ANY)
		PREVENTION VOLUME 2	REWORK VOLUM E 3	
Horizontal Stabilizers	Corrosion of the skin, spars, trailing edge beam and center section	55-10-01	55-10-01	
Elevator	Corrosion of aluminum collars at bolts between ribs and spars	55-20-01	--	SB 55-0009
Vertical Stabilizers	Corrosion of the skin, spars, torque boxes and leading edge interior surfaces	55-30-01	55-30-01	
Rudder	Corrosion of aluminum collars at bolts between ribs and spars	55-40-01	--	SB 55-0009

SPECIFIC CORROSION PROBLEMS - STABILIZERS
Figure 1

THIS PAGE INTENTIONALLY LEFT BLANK

1. General

A. Areas of possible corrosion are the auxiliary, front, and rear spars, trailing edge beam, and inspar skin.

2. Corrosion Prevention

A. Make periodic inspections (Ref Volume 1, 20-20-00) of the stabilizer structure for corrosion and to make sure that the protective finishes stay serviceable.

B. If you find corrosion (bulges of the skin, or white deposits of corrosion products at fastener heads or joint edges) refer to Structural Repair Manual for corrosion removal.

C. For minor corrosion, to reduce the downtime of the airplane, clean off the corrosion products, and then apply corrosion inhibiting compound on the area. Refer to Volume 1, 20-60-01 for how to apply corrosion inhibiting compound.

D. Prevention Treatment

(1) When the scheduled maintenance work permits, do corrosion prevention treatment on the horizontal stabilizer.

(2) Apply corrosion inhibiting compound to the aft side of the rear spar, rear spar cavity, and to the fastener heads and skin joint on the upper and lower surfaces at the rear spar. Pay particular attention to attachment points and faying surfaces.

(3) Apply BMS 10-79, type 3 primer followed by BMS 10-100 (Aeroflex G12E25) coating when repair or replacement of the existing corrosion protection is required (Ref SL 20-6 and 51-7). The BMS 10-100 coating is chemically compatible with Corogard, but the two coatings have slight differences in color and finish.

E. Frequency of Application

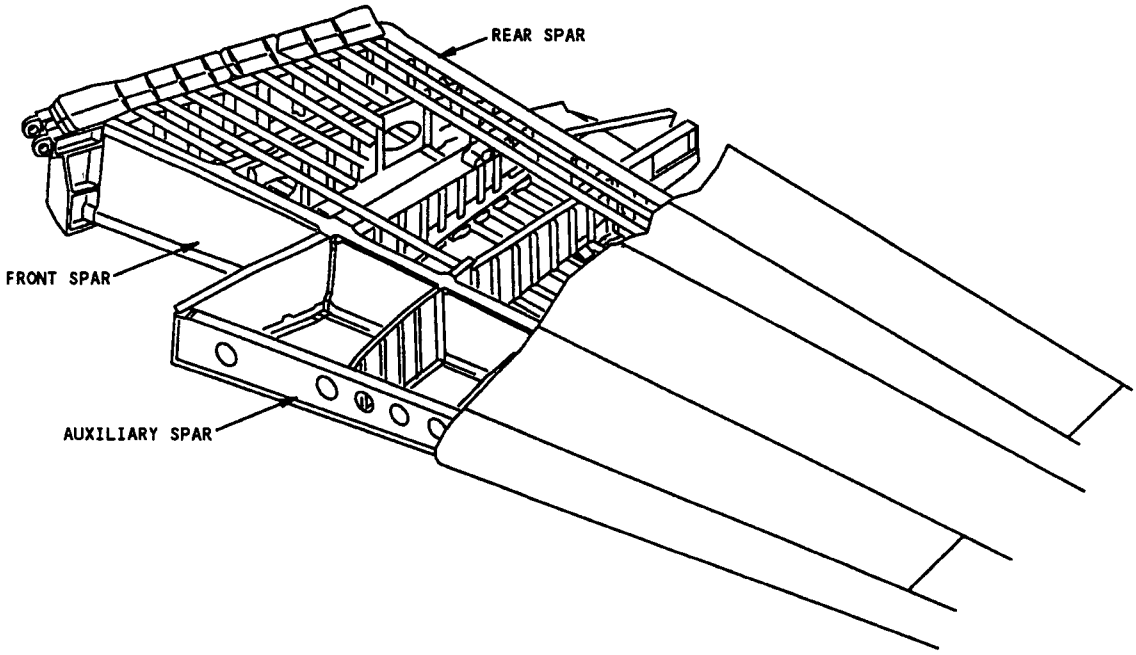
(1) Regular inspection is required in areas which can get corrosion, and should agree with the schedules in the Maintenance Planning Document. Operators must know of reported problems and areas.

(2) Regular application of BMS 3-23 compound is necessary in areas identified, and should agree with the schedules in the Maintenance Planning Document.

F. Improved Corrosion Protection

(1) On airplane line numbers 1 through 134, a Corogard corrosion preventive finish was applied on all interspar, upper stabilizer surfaces. But, on airplanes line number 135 and on, per PRR 53685, these surfaces get BMS 10-79 type 3 primer followed by BMS 10-100 (Aeroflex G12E25) corrosion protective finish. This change can be included on earlier airplanes with SL 20-6 and 51-7.

(2) On airplane line numbers 137 and on, per PRR 52850-10 and PRR 53685, the upper and lower surfaces of the horizontal stabilizer torque box get BMS 10-100 finish, instead of the Corogard finish used on earlier airplanes. This change can be included on earlier airplanes with SL 20-6 and 51-7.



Horizontal Stabilizer
Figure 1

THIS PAGE INTENTIONALLY LEFT BLANK

1. General

A. Corrosion-resistant steel (CRES) collars are used with the bolts that attach the ribs to the spars in graphite-epoxy elevators. But some airplanes between line numbers 224 and 258 could have aluminum collars instead of the CRES collars. Corrosion can occur on the aluminum collars.

2. Corrosion Prevention

A. To find out if the airplane has aluminum collars in the elevators, examine the elevators per SB 55-0009. This service bulletin also gives procedures for regular inspections and applicable repairs.

THIS PAGE INTENTIONALLY LEFT BLANK

1. General

A. BMS 3-23, type 2 corrosion inhibiting compound is applied to the aft surface of the rear spar, interior forward and aft torque boxes, forward surface of the front and auxiliary spars and the interior surface of the leading edge.

B. Areas of possible corrosion are the auxiliary, front, and rear spars, interior of forward and aft torque boxes and leading edge interior surface.

2. Corrosion Prevention

A. Make periodic inspections (Ref Volume 1, 20-20-00) of the vertical stabilizer interior and exterior for evidence of corrosion.

B. If you find corrosion (bulges of the skin, or white deposits of corrosion products at fastener heads or joint edges) refer to Structural Repair Manual for corrosion removal.

C. For minor corrosion, to reduce the downtime of the airplane, clean off the corrosion products. Then apply corrosion inhibiting compound on the area. Refer to Volume 1, 20-60-00 for how to apply corrosion inhibiting compound.

D. Prevention Treatment

(1) When the scheduled maintenance work permits, do corrosion prevention treatment on the vertical stabilizer.

(2) Apply BMS 3-23, type II corrosion inhibiting compound to the vertical stabilizer-to-body attachments when the area is made accessible.

(3) The following application is for enhanced corrosion protection of vertical fin rear spar and rear spar cavity access panels, body-to-forward torque box seal, fin tip, center forward and upper forward torque box panels. Apply BMS 10-11, Type 1 primer to all removable fastener holes including countersink and MIL-C-11796 Class 3 corrosion preventive compound to substructure in areas of holes only.

(4) Apply BMS 10-79, type 3 primer followed by BMS 10-100 (Aeroflex G12E25) coating when repair or replacement of the existing corrosion protection is required (Ref SL 20-6). The BMS 10-100 coating is chemically compatible with Corogard, but the two coatings have slight differences in color and finish.

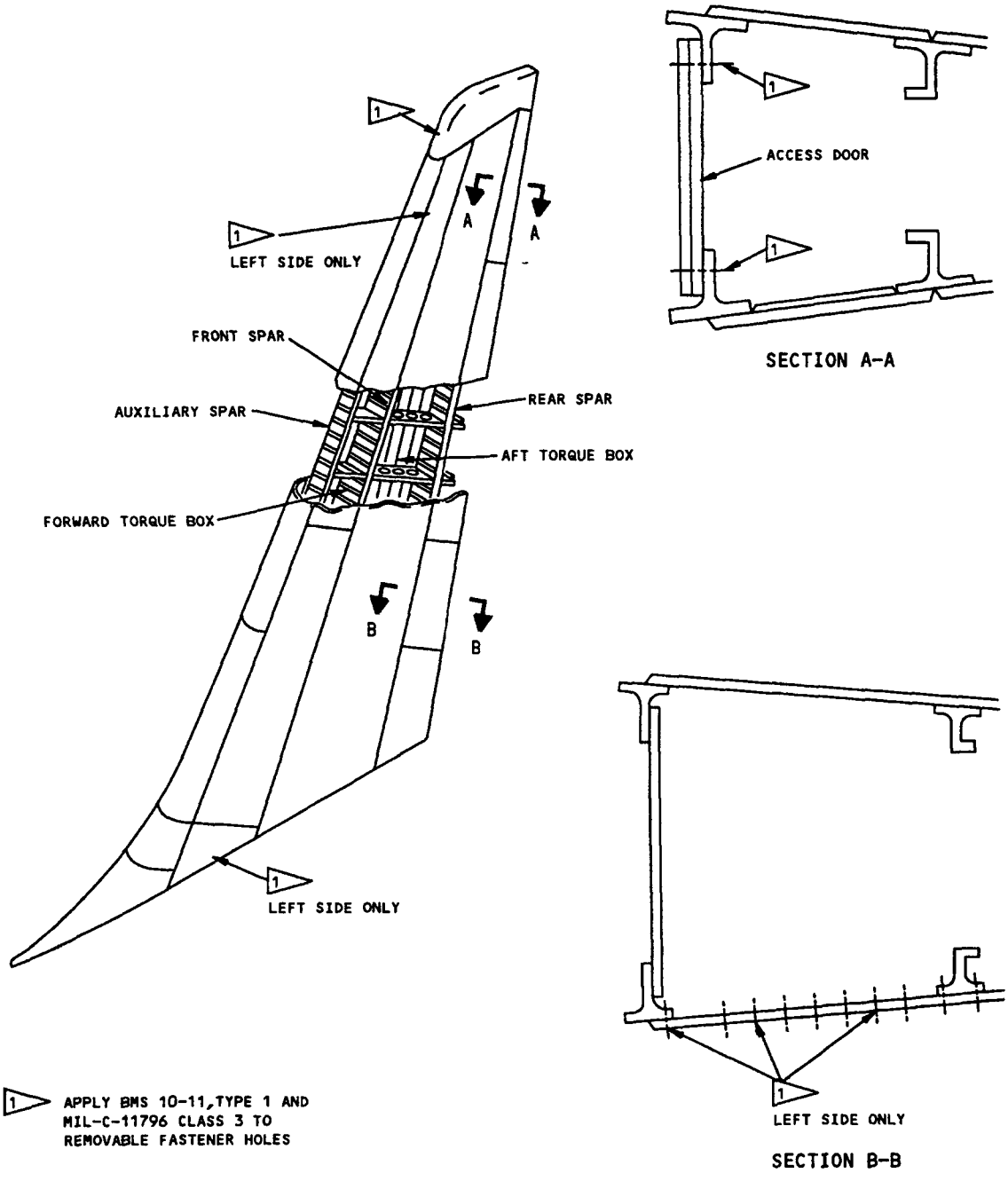
E. Frequency of Application

(1) Regular inspection is required in areas which can get corrosion, and should agree with the schedules in the Maintenance Planning Document. Operators must know of repeated problems and areas.

(2) Regular application of BMS 3-23 compound is necessary in areas identified, and should agree with the schedules in the Maintenance Planning Document.

F. Improved Corrosion Protection

(1) On airplane line numbers 1 through 134, a Corogard corrosion preventive finish was applied on all interspar surfaces. But, on airplanes line number 135 and on, per PRR 53685, these surfaces get BMS 10-79, type 3 primer followed by BMS 10-100 (Aeroflex G12E25) corrosion protective finish.



Vertical Stabilizer
Figure 1

THIS PAGE INTENTIONALLY LEFT BLANK

1. General

A. Corrosion-resistant steel (CRES) collars are used with the bolts that attach the ribs to the spars in graphite-epoxy rudders. But some airplanes between line numbers 224 and 258 could have aluminum collars instead of the CRES collars. Corrosion can occur on the aluminum collars.

2. Corrosion Prevention

A. To find out if the airplane has aluminum collars in the rudder, examine the elevators per SB 55-0009. This service bulletin also gives procedures for regular inspections and applicable repairs.

THIS PAGE INTENTIONALLY LEFT BLANK

CHAPTER

57

WINGS

THIS PAGE INTENTIONALLY LEFT BLANK

AREA	PROBLEM	INDEX PREVENTION VOLUME 2	TERMINATING ACTION (IF ANY)
Outer Wing	Corrosion of wing skin, sparsand dry bay	57-20-01	
	Plugged drain holes	57-20-01	
	Corrosion of main landing gearbeam, trunnion and fittings	57-20-01	
Trailing Edge and Trailing Edge Devices	Corrosion of flap rollers, trailing edge and trailing edge devices	57-50-01	----

SPECIFIC CORROSION PROBLEMS - WINGS
Figure 1

THIS PAGE INTENTIONALLY LEFT BLANK

1. General

A. The outer wing consists of the primary wing structure, fixed outer skin and support structures for main landing gear and flight control systems. The deployment of flight control surfaces exposes front and rear spars to inclement weather ground contaminants and thrust reverser soot. Spar chords are particularly susceptible to corrosion at fasteners common to the chord and web.

B. Overboard drains are the open hole type since the wing is a non pressurized area. Ref. 57-20-02, Fig. 1 for drain hole location.

2. Corrosion Prevention

A. Following cleaning of suspected areas, a thorough inspection as described in Volume 1, 20-20-00 is effective to ensure that protective finishes provided during manufacture remain intact.

B. Inspect web and chord interfaces for cracked or missing paint and for appearance of dark material at the interface. If dark material is present, the removal of spar cord fasteners is required to confirm corrosion.

C. Where corrosion exists (noticeable bulges of the skin or white deposits of corrosion products at fastener heads or joint edges), refer to Structural Repair Manual for details of corrosion removal.

D. For minor corrosion, to minimize the downtime of the airplane, the corrosion products should be cleaned off, followed by the application of a corrosion inhibiting compound into the affected area to retard the corrosion process (Ref Volume 1, 20-60-00). The finish system should be restored at the first opportunity consistent with the maintenance schedule.

E. Prevention Treatment

(1) At first opportunity consistent with scheduled maintenance activity, corrosion prevention treatment should be accomplished in and around the primary wing structure, on flight control and MLG support structures and on fixed outer skins.

(2) Drain Holes

(a) Make periodic inspections of drain holes. Use a pipe cleaner or thin wooden dowel to remove debris and contaminants from drain holes.

(3) Upper and Lower Inspar Skins-Apply BMS 10-79, type 3 primer and BMS 10-100 (Aeroflex G12E25) coating where repair or replacement of finish is required (Ref SL 20-6 and 51-7). The BMS 10-100 coating is chemically compatible with the Corogard that is on some airplanes. But the two coatings have slight differences in color and finish.

(4) Do not apply corrosion inhibiting compounds near engines, cowling, or other areas of high temperature, or where firewall sealant is used. The high temperatures can cause deterioration of the compounds. Corrosion inhibiting compounds can cause damage to the sealant.

(5) Corrosion inhibiting compounds can be used on fiberglass fairings and ducts if the temperature of the duct is not hotter than 220°F.

(6) Corrosion inhibiting compounds can be used on fuel vapor barriers.

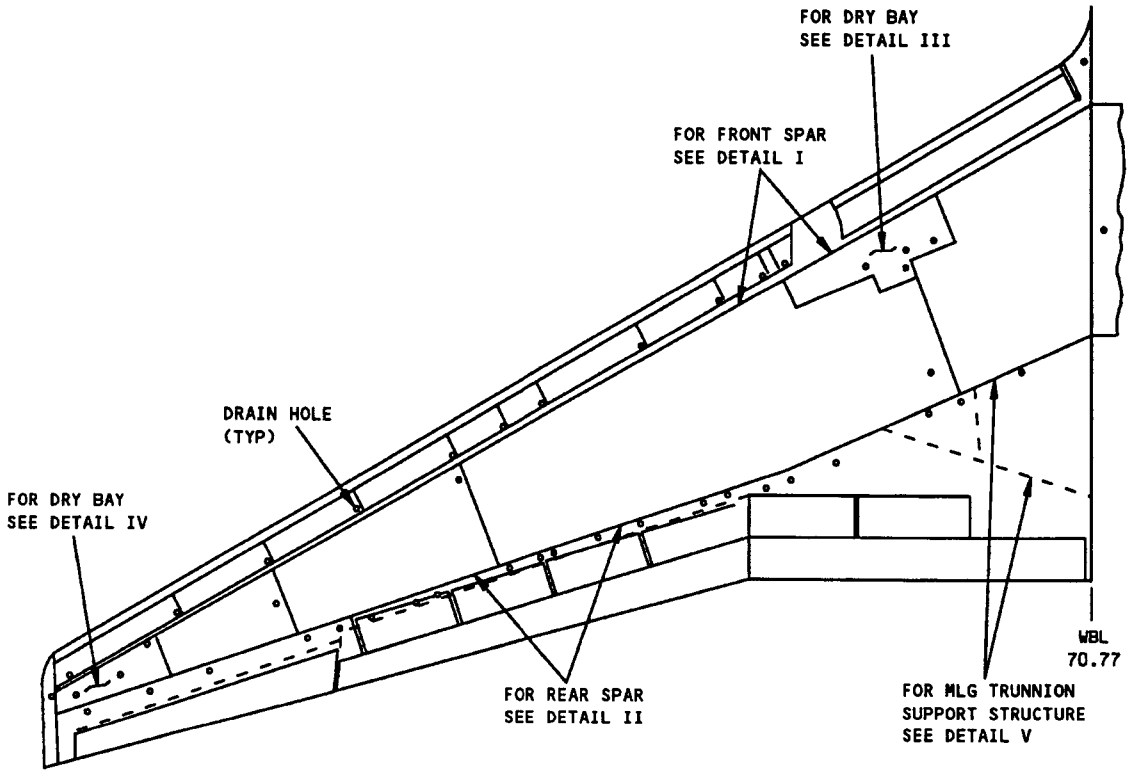
F. Frequency of Application

(1) Periodic inspection is required in areas identified as susceptible to corrosion and should be consistent to the schedules specified in the Maintenance Planning Document. Operators must be aware of reported problems and areas of occurrences.

(2) Periodic application of BMS 3-23 compound is necessary to areas identified and should be consistent to the schedule specified in the Maintenance Planning Document.

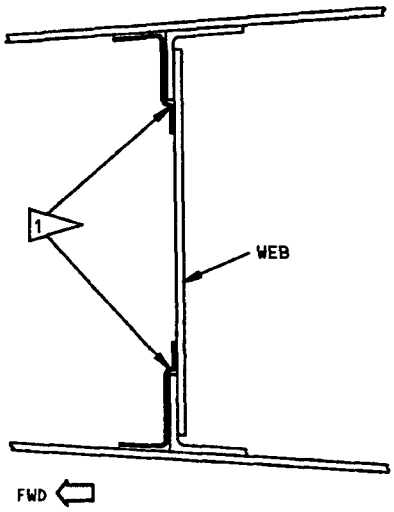
G. Improved Corrosion Protection

(1) On airplane line number 135 and on, PRR 53685 replaced the original primer and Corogard corrosion protection on upper inspar skin surfaces by BMS 10-79, type 3 primer and BMS 10-100 (Aeroflex G12E25) coating. Some operators have specified Crown Metro 10-P1-3 aluminized primer applied over BMS 10-79, type 3 primer instead of the Corogard or BMS 10-100 finish. The BMS 10-79 primer and BMS 10-100 enamel can be applied on earlier airplanes with SL 20-6 and 51-7.

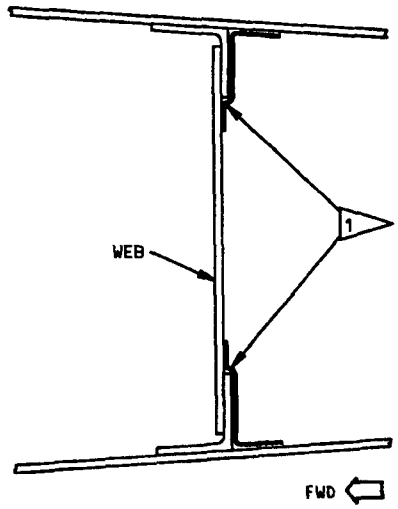


OUTER WING
TOP VIEW
(LEFT SIDE SHOWN, RIGHT SIDE SIMILAR)

Outer Wing
Figure 1 (Sheet 1)



WING FRONT SPAR
DETAIL I

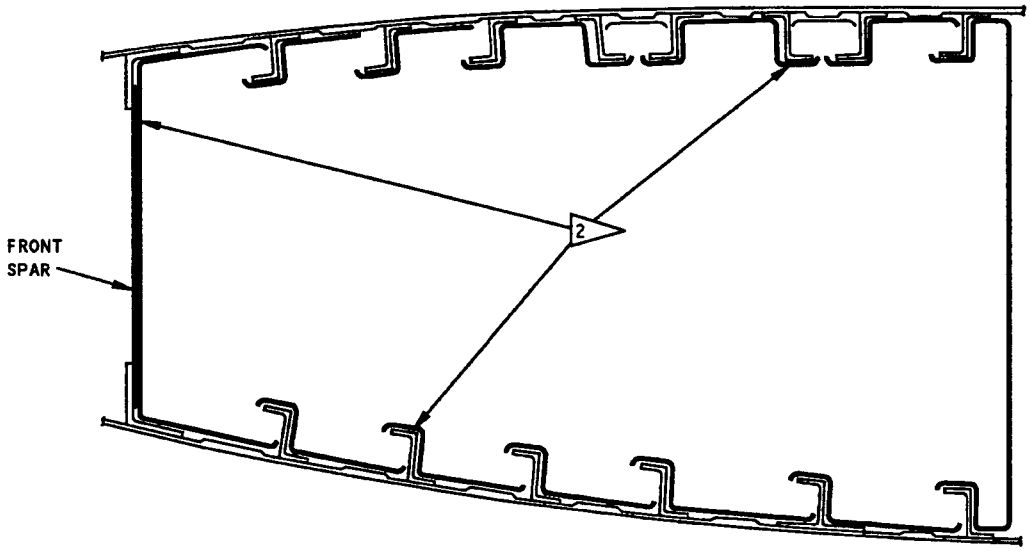


WING REAR SPAR
DETAIL II

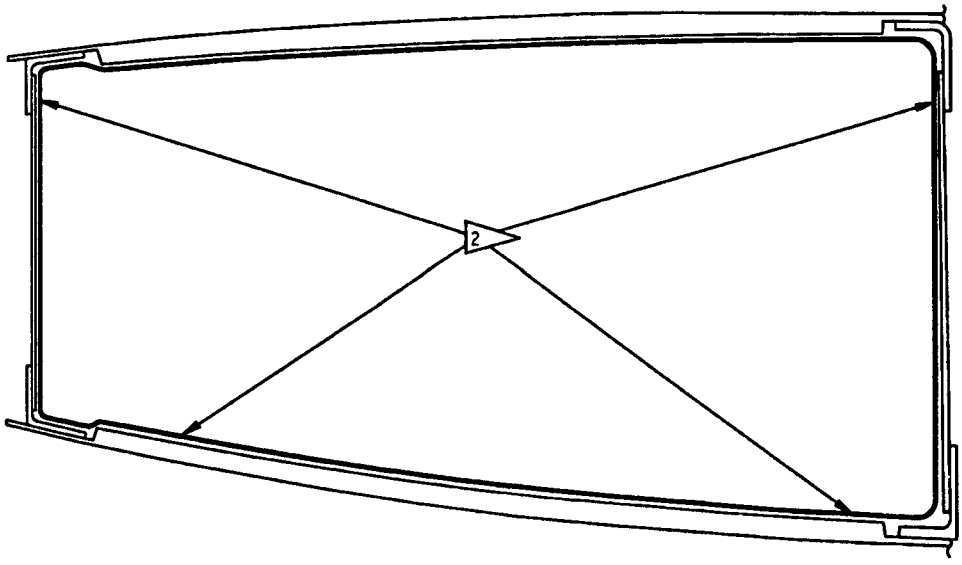
1 APPLY BMS 3-23, TYPE 2 CORROSION INHIBITING COMPOUND TO SEAMS OF ALL STRUCTURAL PARTS

2 APPLY BMS 3-23, TYPE 2 CORROSION INHIBITING COMPOUND TO ALL STRUCTURAL SURFACES

Outer Wing
Figure 1 (Sheet 2)

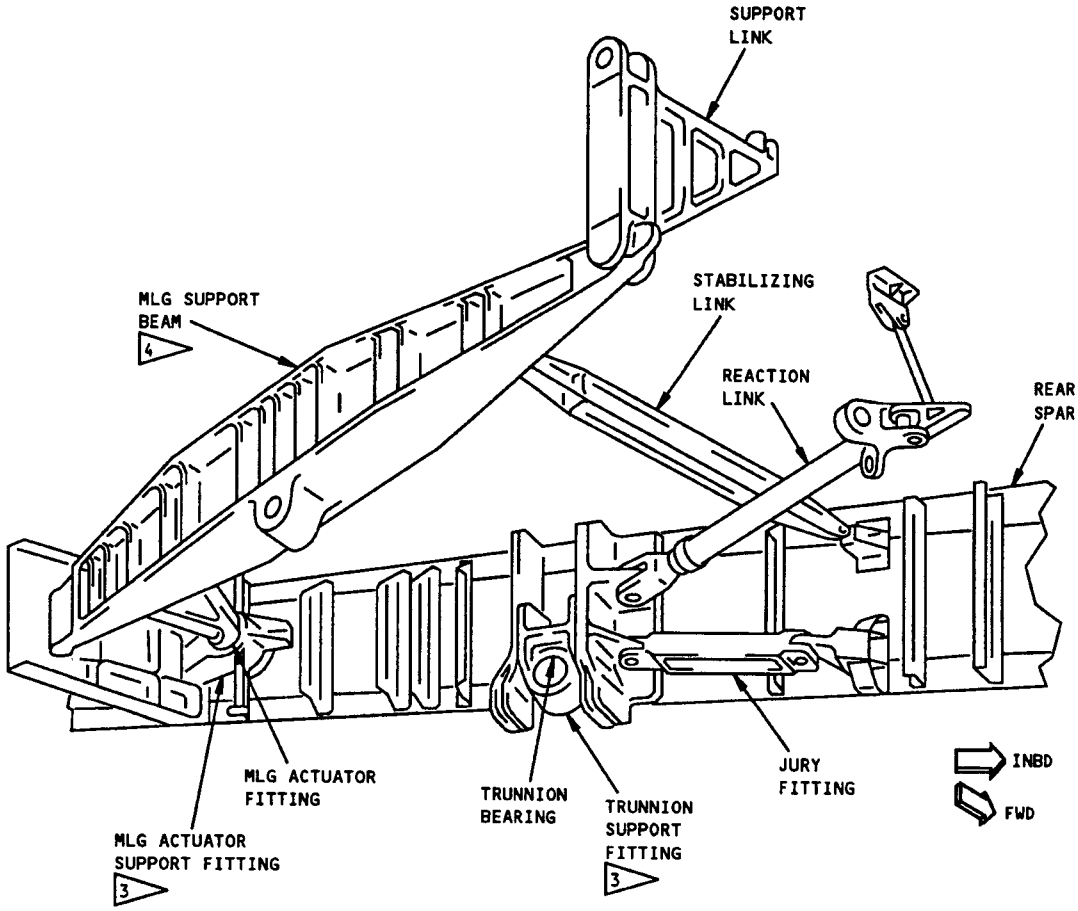


DETAIL III



DETAIL IV

Outer Wing
Figure 1 (Sheet 3)



MLG TRUNNION SUPPORT STRUCTURE
DETAIL V

3 APPLY BMS 3-23 LIBERALLY TO PERMIT PENETRATION BETWEEN FITTING AND REAR SPAR. PAY PARTICULAR ATTENTION TO FASTENERS AND FAYING SURFACES

4 APPLY BMS 3-23 TO ALL SURFACES INCLUDING CONNECTION POINTS

Outer Wing
Figure 1 (Sheet 4)

1. General

A. The wing trailing edge consists of the fixed wing trailing edge as well as removable trailing edge airfoils such as flaps and attach/attached fittings. The flap tracks, links, and roller assemblies are in an exposed location and subject to corrosion. Inadequate lubrication of the moveable components may lead to excessive wear, corrosion, and possible seizure shortening the expected service life.

B. Delamination and damage to the trailing edge wedge of both the inboard and out board flaps may occur. Refer to SB 757-57-0043 for inspection, repair, and replacement.

2. Corrosion Prevention

A. Following cleaning of suspected areas, a thorough inspection as described in Volume 1, 20-20-00 is effective to ensure that protective finishes provided during manufacture remain intact. Refer to Volume 1, 20-60-00 for details on the application of corrosion inhibiting compound.

B. Where corrosion exists (noticeable bulges of the skin or white deposits of corrosion products at fastener heads or joint edges), refer to the index column in 53-00-01 for reference rework chapter.

C. For minor corrosion, to minimize the downtime of the airplane, the corrosion products should be cleaned off, followed by the application of a corrosion inhibiting compound into the affected area to retard the corrosion process (Ref Volume 1, 20-60-00). The finish system should be restored at the first opportunity consistent with the maintenance schedule.

D. Prevention Treatment

(1) At first opportunity consistent with scheduled maintenance activity, do corrosion prevention treatment on the flap tracks, links and roller assemblies of all removable trailing edge airfoils.

(2) Periodically inspect the flap roller mechanism and lubricate the flap rollers and bearings with MIL-G-23827 grease.

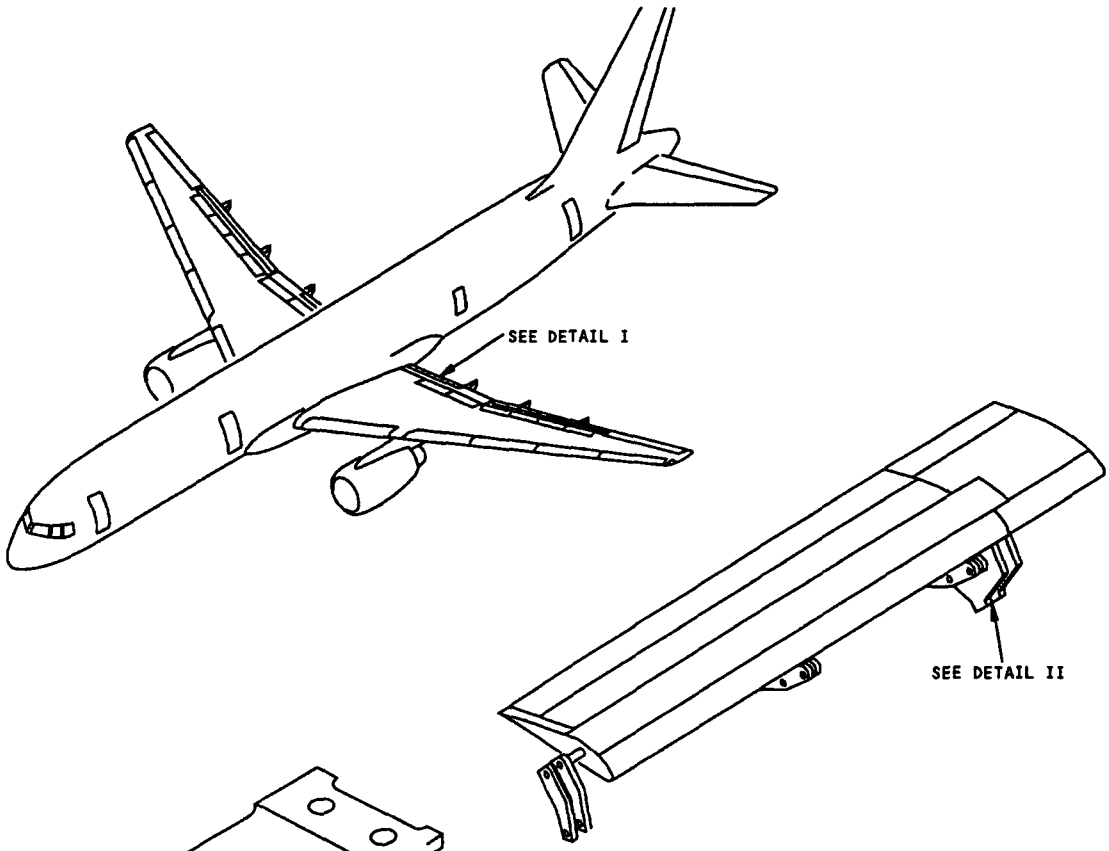
(3) Do not apply corrosion inhibiting compounds on grease joints or sealed bearings. These compounds dissolve grease and other lubricants. They are penetrating compounds and can get around the seals and into the bearings.

E. Frequency of Application

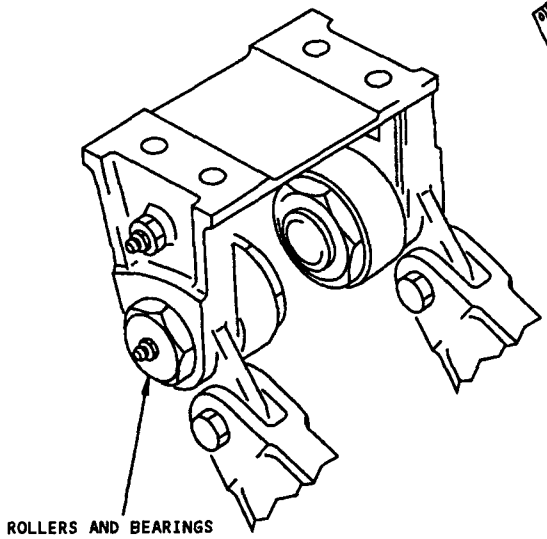
(1) Periodic inspection is required to areas identified as susceptible to corrosion and should be consistent to the schedules specified in the Maintenance Planning Document. Operators must be aware of reported problems and areas of occurrences.

(2) Periodic application of BMS 3-23 compounds is necessary to areas identified and should be consistent to the schedule specified in the Maintenance Planning Document.

THIS PAGE INTENTIONALLY LEFT BLANK



INBOARD TRAILING EDGE FLAP
DETAIL I



DETAIL II

Trailing Edge Flaps
Figure 1

THIS PAGE INTENTIONALLY LEFT BLANK