COMPONENT MAINTENANCE MANUAL WITH ILLUSTRATED PARTS LIST

WASTE WATER DRAIN MAST ASSEMBLY

PART NUMBER 65-32603–1, –3

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COMPONENT MAINTENANCE MANUAL

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To: All holders of WASTE WATER DRAIN MAST ASSEMBLY 38-31-02.

Attached is the current revision to this COMPONENT MAINTENANCE MANUAL

The COMPONENT MAINTENANCE MANUAL is furnished either as a printed manual, on microfilm, or digital products, or any combination of the three. This revision replaces all previous microfilm cartridges or digital products. All microfilm and digital products are reissued with all obsolete data deleted and all updated pages added.

For printed manuals, changes are indicated on the List of Effective Pages (LEP). The pages which are revised will be identified on the LEP by an R (Revised), A (Added), O (Overflow, i.e. changes to the document structure and/or page layout), or D (Deleted). Each page in the LEP is identified by Chapter-Section-Subject number, page number and page date.

Pages replaced or made obsolete by this revision should be removed and destroyed.

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Location of Change	Description of Change
	NO HIGHLIGHTS

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

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TEMPORARY REVISION AND SERVICE BULLETIN RECORD

BOEING SERVICE BULLETIN	BOEING TEMPORARY REVISION	OTHER DIRECTIVE	DATE OF INCORPORATION INTO MANUAL

All revisions to this manual will be accompanied by transmittal sheet bearing the revision number. Enter the revision number in numerical order, together with the revision date, the date filed and the initials of the person filing.

Revision		Filed	
Number	Date	Date	Initials

Revision		Filed	
Number	Date	Date	Initials

Revision		Filed		Revision		Filed	
Number	Date	Date	Initials	Number	Date	Date	Initials

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When the temporary revision is incorporated or cancelled, and the pages are removed, enter the date the pages are removed and the initials of the person who removed the temporary revision.

Temporary Revision		Inserted		Removed	
Number	Date	Date	Initials	Date	Initials

Temporary Revision		Inserted		Removed	
Date	Initials	Number	Date	Date	Initials

Temporary Revision		Inserted		Removed	
Number	Date	Date	Initials	Date	Initials

Temporary Revision		Inserted		Removed	
Date	Initials	Number	Date	Date	Initials

INTRODUCTION

1. General

A. The instructions in this manual supply the data necessary to do the maintenance functions together with the test, fault isolation, repair, and replacement of the defective parts.

B. This manual is divided into different parts:

(1) Title Page

(2) Transmittal Letter

(3) Highlights

(4) List of Effective Pages

(5) Table of Contents

(6) Temporary Revision & Service Bulletin Record

(7) Record of Revisions

(8) Record of Temporary Revisions

(9) Introduction

(10) Procedures & IPL Sections

C. Components that can be repaired have a different repair number for each specified repair. To find the repair number location of a component, look in the Repair-General procedure at the beginning of the REPAIR section. The Repair-General procedure also has an explanation of the True Position Dimension symbols used.

D. All dimensions, measures, quantities and weights included are in English units. When metric equivalents are given they will be in the parentheses that follow the English units.

E. The introduction to the Illustrated Parts List (IPL) shows how the IPL data is used.

F. Design changes, optional parts, configuration differences and Service Bulletin modifications may cause different part numbers. These part numbers are identified in the IPL with an alphabetical letter which is added to the end of the basic item number. This new item number is referred to as an alpha-variant. Throughout the manual, IPL basic item number references also apply to alpha-variants unless shown differently.

G. The tool reference numbers found in the individual procedures and in the Special Tools, Fixtures, and Equipment section are used to identify if a tool is a standard tool (STD-XXXX), a commercial tool (COM-XXXX), or a Special Tool (SPL-XXXX). This reference number is also used to distinguish between tools with similar names in the same procedure. These reference numbers are for use in the documentation only. They are not to be used for ordering tools.

WASTE WATER DRAIN MAST ASSEMBLY - DESCRIPTION AND OPERATION

1. **Description and Operation**

   A. The drain mast assembly consists of two mast assembly halves with a heater sandwiched in between. The mast assembly drains waste water from the airplane.

2. **Leading Particulars (approximate)**

   A. Length – 18 inches

   B. Width – 1.5 inches

   C. Height – 10.5 inches

   D. Weight – 2 Pounds

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TESTING AND FAULT ISOLATION

(NOT APPLICABLE)

DISASSEMBLY

1. DISASSEMBLY

NOTE: Disassemble this component only as necessary to complete fault isolation, determine the serviceability of parts, perform required repairs, and restore the unit to serviceable condition.

A. Use standard industry practices to disassemble the assembly.

NOTE: Do not disassemble heater assy (60, IPL Figure 1) unless repair or replacement is necessary.

(NOT APPLICABLE)

CHECK

1. General

A. This procedure has the data to find defects in the specific parts.

B. Refer to the Standard Overhaul Practices Manual (SOPM) for the SOPM subjects identified in this procedure.

C. Refer to IPL Figure 1 for the item numbers.

2. Check procedures

A. References

Reference	Title
SOPM 20-20-02	PENETRANT METHODS OF INSPECTION

B. Procedure

(1) Check all parts for obvious defects in accordance with standard industry practices.

(2) Penetrant check drain half (25, 40) as specified in SOPM 20-20-02.

(3) Electrically check heater assy (60) as specified in vendor's instructions.

REPAIR

1. **Content**

   A. Repair, refinish, and replacement procedures are included in separate repair sections as follows:

Table 601:

P/N	NAME	REPAIRS
65-14036	MAST HALF ASSY	1-1

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MAST HALF ASSY - REPAIR 1-1

65-14036–7, –8

1. General

A. This procedure has the data necessary to replace the sleeves and refinish the mast half assembly.

B. Refer to the Standard Overhaul Practices Manual (SOPM) for the SOPM subjects identified in this procedure.

C. Refer to IPL Figure 1 for item numbers.

2. Sleeve Replacement

A. Consumable Materials

NOTE: Equivalent substitutes may be used.

Reference	Description	Specification
C00308	Compound - Corrosion Preventive, Petrolatum Hot Application	MIL-C-11796

B. References

Reference	Title
SOPM 20-60-02	FINISHING MATERIALS

C. Procedure (IPL Figure 1)

NOTE: For finishing materials, refer to SOPM 20-60-02

(1) Remove sleeves (30, 45, 50 and 55).

(2) Coat all areas of hole including countersink with corrosion preventive compound, C00308.

(3) Install new sleeves into drain half (25, 40) one-quarter to one-half turn below countersink. Remove tang.

3. Refinish

A. Consumable Materials

NOTE: Equivalent substitutes may be used.

Reference	Description	Specification
C00259	Primer - Chemical And Solvent Resistant Finish, Epoxy Resin	BMS10-11, Type I
C50015	Coating - Chemical Conversion - Alodine 1000	

B. References

Reference	Title
SOPM 20-30-02	STRIPPING OF PROTECTIVE FINISHES
SOPM 20-30-03	GENERAL CLEANING PROCEDURES
SOPM 20-41-01	DECODING TABLE FOR BOEING FINISH CODES
SOPM 20-60-02	FINISHING MATERIALS

C. Procedure (Drain Half (25, 40 IPL Figure 1)

NOTE: For stripping of protective finishes, refer to SOPM 20-30-02. For general cleaning procedure, refer to SOPM 20-30-03. For the decoding table for Boeing finish codes, refer to SOPM 20-41-01. For finishing materials, refer to SOPM 20-60-02.

(1) Apply Alodine 1000 coating, C50015 or colored film (F-17.01). Then apply primer, C00259 (SRF-12.205) to faying surfaces, mounting surfaces and all internal surfaces except sleeve locations.

ASSEMBLY

1. General

A. This procedure has the data necessary to assemble the waste water drain mast assembly.

B. Refer to the Standard Overhaul Practices Manual (SOPM) for the SOPM subjects identified in this procedure.

C. Refer to IPL Figure 1 for item numbers.

2. Assembly

A. Consumable Materials

NOTE: Equivalent substitutes may be used.

Reference	Description	Specification
A00247	Sealant - Pressure And Environmental - Chromate Type	BMS 5-95
G00148	Tape - Silicone - Permacel 2650	

B. References

Reference	Title
SOPM 20-50-11	APPLICATION OF AERODYNAMIC SMOOTHING SEALANT
SOPM 20-60-04	MISCELLANEOUS MATERIALS

C. Procedure (IPL Figure 1)

NOTE: For miscellaneous materials, refer to SOPM 20-60-04.

(1) Wrap heater assy (60) with Permacel 2650 tape, G00148, in area shown on ASSEMBLY, Figure 701, to a thickness that will fill space between heater assembly and drain mast. Fill any gaps in forward and aft end of opening up to 0.10 inch using sealant, A00247. Do not attempt to compress tape when tightening screws (5, 10, 15).

(2) Position heater assy (60) between mast assy halves (20, 35) and install screws (5, 10,15).

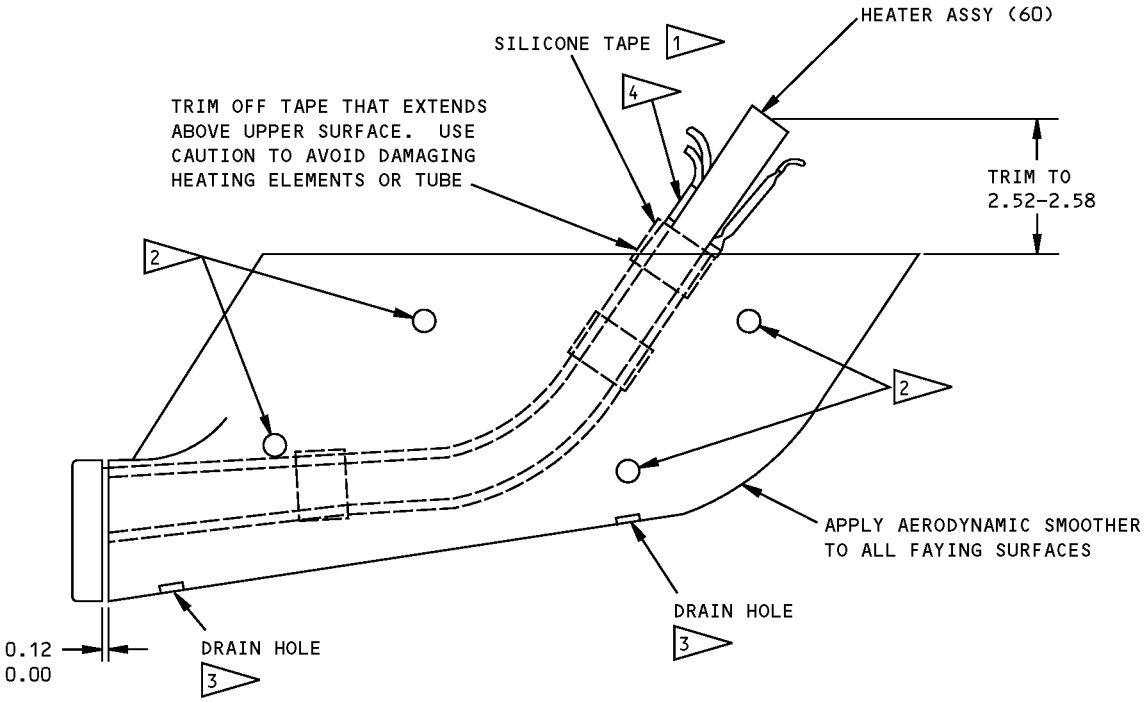
CAUTION: EXERCISE CARE WHEN TRIMMING TAPE TO AVOID DAMAGE TO HEATER ASSY (60).

(3) Trim off Permacel 2650 tape, G00148 that extends above upper surface of mast halves.

(4) Trim upper edge of heater assembly (60) to dimension shown on ASSEMBLY, Figure 701.

(5) Apply aerodynamic smoother sealant, A00247 as specified in SOPM 20-50-11 to head and tail end of screws to obtain flush surface on both sides of mast.

(6) Apply aerodynamic smoother sealant, A00247 as specified in SOPM 20-50-11 to faying surfaces of mast halves as shown. Drain holes at lower surface of mast assembly must be free of aerodynamic smoother.



1. WRAP TAPE AROUND HEATER ASSEMBLY TO A THICKNESS THAT CLAMPS HEATER FIRMLY IN PLACE WHEN FASTENERS ARE INSTALLED. DO NOT COMPRESS SILICONE RUBBER TAPE WHEN TIGHTENING SCREWS
2. FILL HEAD AND TAIL END OF ALL FASTENERS FLUSH WITH MAST SURFACES WITH AERODYNAMIC SMOOTHER
3. THIS AREA TO BE FREE OF AERODYNAMIC SMOOTHER
4. ELECTRICAL WIRING LEADS FOR HEATER ASSEMBLY CAN BE PLACED ON EITHER ONE SIDE OR BOTH SIDES OF HEATER.

ALL DIMENSIONS ARE IN INCHES

Assembly Details
Figure 701

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FITS AND CLEARANCES

(NOT APPLICABLE)

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SPECIAL TOOLS, FIXTURES, AND EQUIPMENT

(NOT APPLICABLE)

ILLUSTRATED PARTS LIST

1. Introduction

A. The Illustrated Parts List (IPL) contains an illustration and a list of component parts you can repair or replace. The Illustrated Parts Catalog (IPC) shows how to use the Boeing part number system.

B. This shows how parts are related: The relation of each item to its next higher assembly (NHA) is shown in the NOMENCLATURE column. Use the indenture system that follows:

1 2 3 4 5 6 7

. Assembly

. Attaching parts for assembly

. . Detail parts for assembly

. . Subassembly

. . Attaching parts for subassembly

. . . Detail parts for subassembly

. . . Sub-subassembly

. . . Attaching parts for subassembly

. . . . . Details parts for sub-subassembly

Detail Installation Parts (Included only if installation parts may be sent to the shop as part of assembly)

C. Each top assembly is given one use code letter (A, B, C, etc.) in the USAGE CODE column. All subsequent component parts in the list can have one or more of the use code letters to show effectivity to top assemblies. A component part without a use code applies to all top assemblies.

D. An alphabetical letter is added after the item number for optional parts, parts changed by a Service Bulletin, configuration differences (except left-handed and right-handed parts), last engineering releases, and parts added between item numbers in a sequence. The alphabetical letter will not be shown on the illustration for equivalent parts of the same part number.

E. Color-coded parts are identified with a single digit alpha following the dash number or with ''SP'' suffix. If the ''SP'' suffix is used, it represents consolidation of all color codes applicable for a given usage which are not separately listed. Orders for color-coded parts should include the registry number of the airplane for which the parts are ordered.

F. If a part number is 15 characters long but will not fit in the part number column, the part number will be displayed with a ''~'' at the end of the line and will be continued on the next line. The ''~'' denotes that the part number continues on the next line.

G. Parts changed by a Service Bulletin are shown by PRE SB XXXX and POST SB XXXX added to the NOMENCLATURE column.

(1) When a new top assembly is added by a Service Bulletin, PRE SB XXXX and POST SB XXXX will be added at the top assembly level only. The configuration differences at the detail part level are shown by use code letters.

(2) When the top assembly part number is not changed by the Service Bulletin, PRE SB XXXX and POST SB XXXX will be added at the detail level.

H. Interchangeable Parts

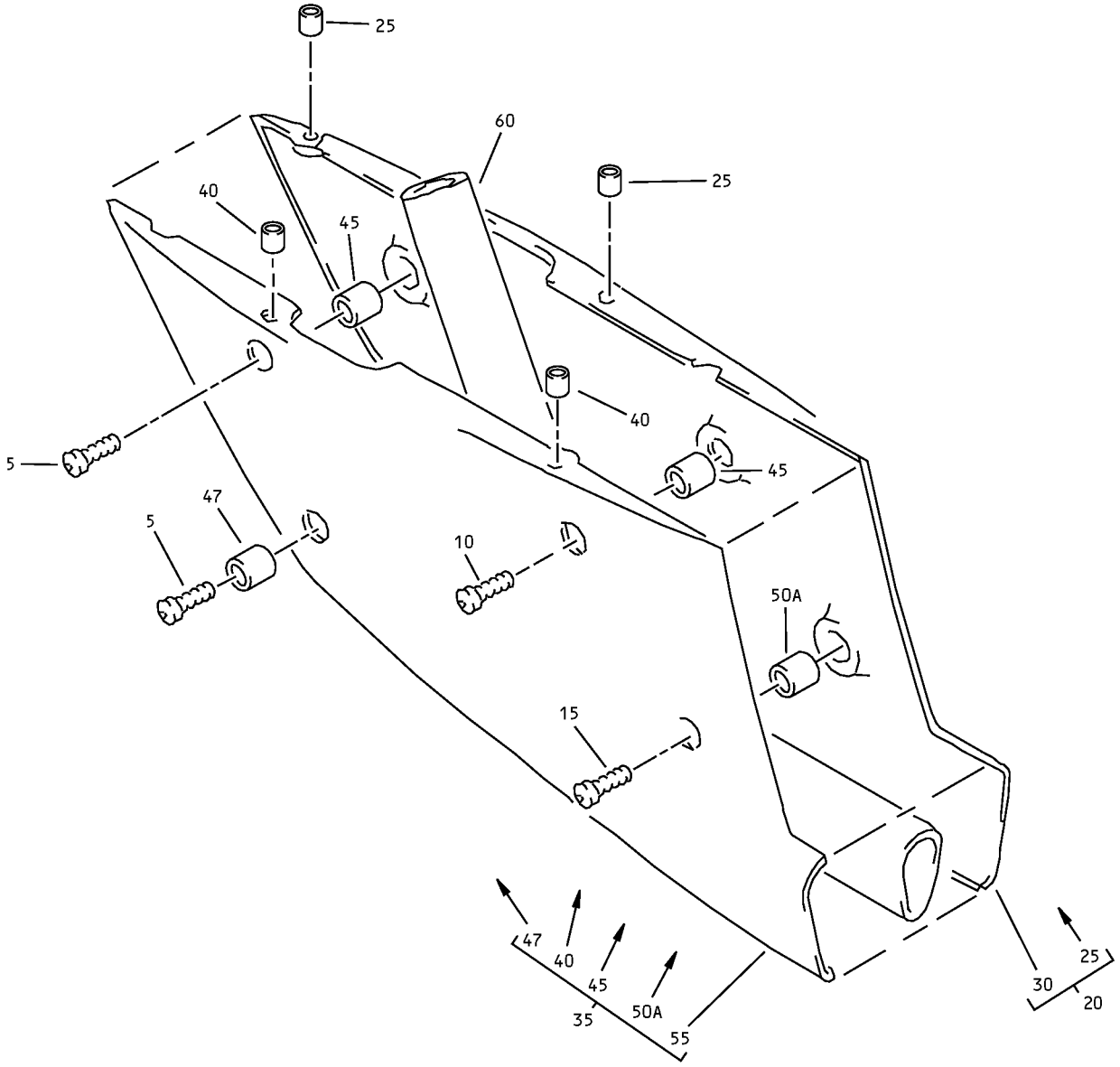
Optional (OPT)	The part is optional to and interchangeable with other parts that have the same item number.
Replaces, Replaced by and not interchangeable with (REPLACES, REPLACED BY AND NOT INTCHG/W)	The part replaces and is not interchangeable with the initial part.
Replaces, Replaced by (REPLACES, REPLACED BY)	The part replaces and is interchangeable with, or is an alternative to, the initial part.

VENDOR CODES

Code	Name
13545	GENERAL ELECTRIC CO AVIATION SERVICES SEATTLE OF AVIATION SEATTLE, WASHINGTON 98168-1978 OBSOLETE RECORD
26344	NEW HAVEN MFG CORP 446 BLAKE STREET NEW HAVEN, CONNECTICUT 06515-1238 OBSOLETE RECORD

NUMERICAL INDEX

PART NUMBER	AIRLINE PART NUMBER	FIGURE	ITEM	UNITS PER ASSEMBLY
10-61434-1		1	60A	1
10-61434-2		1	60	1
3591-3CN0190		1	50A	1
65-14036-10		1	55	1
65-14036-7		1	20	1
65-14036-8		1	35	1
65-14036-9		1	30	1
65-32603-1		1	1	RF
65-32603-3		1	1A	RF
8921180G1		1	60A	1
8921536G2		1	60	1
BACS13W3CN4		1	45	2
BACS13W4CN4		1	25	2
		1	40	2
MS21209F1-15		1	47	1
NAS603-12		1	5	2
NAS603-5		1	15	1
NAS603-9		1	10	1
NAS8203A12		1	5A	2
NAS8203A5		1	15A	1
NAS8203A9		1	10A	1



Waste Water Drain Mast Assembly
IPL Figure 1

FIG/ ITEM	PART NUMBER	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USAGE CODE	UNITS PER ASSY
1–					
–1	65-32603-1		MAST ASSY-WASTE WATER DRAIN	A	RF
–1A	65-32603-3		MAST ASSY-WASTE WATER DRAIN	B	RF
5	NAS603-12		. SCREW	A	2
–5A	NAS8203A12		. SCREW	B	2
10	NAS603-9		. SCREW	A	1
–10A	NAS8203A9		. SCREW	B	1
15	NAS603-5		. SCREW	A	1
–15A	NAS8203A5		. SCREW	B	1
20	65-14036-7		. MAST ASSY-HALF		1
25	BACS13W4CN4		. . SLEEVE		2
30	65-14036-9		. . DRAIN		1
35	65-14036-8		. MAST ASSY-HALF		1
40	BACS13W4CN4		. . SLEEVE		2
45	BACS13W3CN4		. . INSERT		2
47	MS21209F1-15		. . INSERT		1
50	351-3CN0190		DELETED		
–50A	3591-3CN0190		. . SLEEVE-STEEL WIRE (V26344)		1
55	65-14036-10		. . DRAIN		1
60	8921536G2		. HEATER ASSY (V13545) (SPEC 10-61434-2) (OPT ITEM 60A)		1
–60A	8921180G1		. HEATER ASSY (V13545) (SPEC 10-61434-1) (OPT ITEM 60)		1

–Item not Illustrated