TO: ALL HOLDERS OF PASSENGER WATER SYSTEM TANK ASSEMBLY OVERHAUL MANUAL, 38-16-04

REVISION NO. 8, DATED NOV 1/04

HIGHLIGHTS

DESCRIPTION OF CHANGE	TOPICS AFFECTED												
	D&O	D/Assy	Cleaning	Insp/Chk	Repair	Assy	F/C	Test	T/Shooting	S/Tools	Storage	IPL	L/Overhaul
Added tank assembly 65-49662-38 for a better fit												X	
Added clarifications and updated callouts	X	X	X		X	X	X	X	X	X	X	X	

PASSENGER WATER SYSTEM TANK ASSEMBLY

38-16-04

BOEING P/N 65-49662-1 thru -10, -12 thru -15, -17 thru -19, -21, -24 thru -38

AIRLINE P/N

THE FOLLOWING DIRECTIVES APPLY TO THIS SUBJECT

BOEING SERVICE BULLETIN	BOEING TEMPORARY REVISION	OTHER DIRECTIVES	DATE DIRECTIVE INCORPORATED INTO TEXT
		PRR 30351-1	Mar 10/70
		MC 3034-1	Mar 10/70
		PRR 32496-5	Jul 5/76
		PRR 33340-2	Dec 5/83
		PRR 33004-62	Jun 5/88
		PRR 35005-98	Dec 1/95

LIST OF EFFECTIVE PAGES

* Indicates pages revised, added or deleted in latest revision
F Indicates foldout pages - print one side only

	PAGE	DATE	PAGE	DATE	PAGE	DATE
	38-16-04					
*	T-1	Nov 1/04				
	T-2	BLANK				
*	LEP-1	Nov 1/04				
	LEP-2	BLANK				
*	T/C-1	Nov 1/04				
	T-C-2	BLANK				
*	1	Nov 1/04				
*	2	Nov 1/04				
*	3	Nov 1/04				
*	4	Nov 1/04				
*	4A	Nov 1/04				
	4B	BLANK				
	5	Jun 5/88				
	6	Jun 5/88				
*	7	Nov 1/04				
*	8	Nov 1/04				
*	9	Nov 1/04				
*	10	Nov 1/04				
*	10A	Nov 1/04				
	10B	BLANK				
	11	Sep 5/93				
*	12	Nov 1/04				

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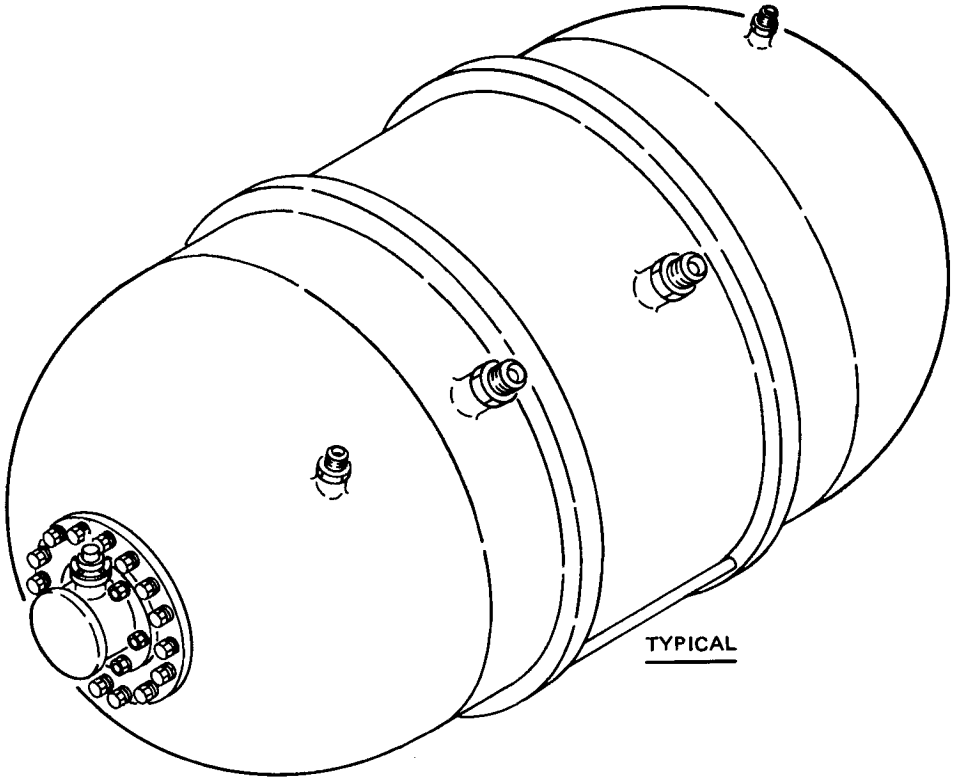
*[1] Special instructions are not necessary. Use standard industry practices.
*[2] Also use the instructions in SOPM 20-44-02 and 20-70-01.

PASSENGER WATER SYSTEM TANK ASSEMBLY



Passenger Water System Tank Assembly
Figure 1

1. DESCRIPTION AND OPERATION

A. Description

(1) The passenger water system tank assembly is a metal or fiberglass shell with outlets for supply, overflow, drainage and pressurization. Each unit includes a water quantity transmitter installation. Some units include a pressure switch installation.

B. Operation

(1) The passenger water system tank assembly supplies drinkable water to the galleys, drinking fountains, and lavatory washbasins.

C. Leading Particulars (approximate)

Diameter, overall -- 20 inches
Length -- 37 inches (all except 65-49662-26, -27, -28, -34)
-- 47 inches (65-49662-26, -27, -28, -34)
Total Operating Capacity -- 30 U.S. gallons (all except 65-49662-26, -27, -28, -34)
-- 44 U.S. gallons (65-49662-26, -27, -28, -34)
Empty Weight -- Metal tank 18 pounds
Fiberglass tank 15 pounds
Operating Pressure -- 50 pounds per square inch

2. DISASSEMBLY (Fig. 2)

WARNING: GIVE PROTECTION TO ALL PARTS OF PASSENGER WATER SYSTEM TANK ASSEMBLY FROM CONTAMINATION.

CAUTION: WHEN YOU REMOVE DOOR (5), BE CAREFUL NOT TO DAMAGE THE TRAILING TRANSMITTER FLOAT.

A. Before you disassemble the unit, clean the exterior surface (Ref. CLEANING).

B. Then use standard industry practices to disassemble the unit.

3. CLEANING

A. Clean the interior of tank assembly by Manual Cleaning Method 4 in SOPM 20-30-03.

B. With all openings capped or plugged, clean the exterior surface of the tank by Manual Cleaning Method 3 in SOPM 20-30-03.

NOTE: The water tank assembly and the complete water system will be disinfected per Airplane Maintenance Manual 38-11-0 at time of tank installation on the airplane.

C. Clean all disassembled parts of the water tank as follows:

(1) Prepare an alkaline cleaning solution of one part Oakite 61A (V44389), or equivalent, to 15 parts hot (160-190°F) water.

(2) Put the parts in the hot solution. Let the parts soak a minimum of 10 minutes.

NOTE: Be sure to put the parts in positions to let the solution circulate over all surfaces. Do not let parallel flat surfaces touch each other. Do not make air pockets.

(3) Examine the parts for dirt not removed by the soak. If you find dirty surfaces, scrub them with a stiff-bristle brush, and soak the parts again.

(4) After the soak, drain the cleaning tank and move the cleaned remaining parts into a clean rinse tank. Fully pressure spray rinse all parts with clean water.

4. REPAIR

WARNING: BE VERY CARFUL TO KEEP THE PARTS CLEAN. IF YOU THINK PARTS HAVE CONTAMINATION, CLEAN THEM AGAIN.

A. Use standard industry practices and the procedures in step B.

B. On metal tanks, replace damaged bosses and repair cracks in the tank by welds, by the standard procedures for welding titanium, and as follows:

(1) Use commercially pure A40 titanium wire for weld filler material.

(2) Give inert gas protection on the inside and outside of tank during welding.

(3) Make sure the welded area has a bright silver color. Discoloration towards blue is a sign that the protective gas atmosphere is not sufficient, and gives a bad weld.

(4) Penetrant examine all welds (SOPM 20-20-02).

(5) Clean tank as necessary (Ref CLEANING).

(6) After the repairs, do tests on the tank (Ref TESTING).

C. Refinish

(1) Hoop (32, Fig. 2) -- Passivate (F-17.25, which replaces F-17.09). Material: 321 CRES.

(2) Standpipe (39, Fig. 2) -- Passivate (F-8.07). Material: 347 CRES.

(3) Bracket Assy (10, Fig. 3) -- Touchup bare and unpainted areas (F-21.12).

(4) Angle (15, Fig. 3) -- Chemical treat and apply BMS 10-11, Type 1 primer (F-18.06) all over. Apply BMS 10-11, Type 2 enamel 702 white gloss (F-21.03) all over. Material: Al alloy.

(5) Bracket (20, Fig. 3) -- Chemical treat and apply BMS 10-11, Type 1 primer (F-18.06) all over. Apply BMS 10-11, Type 2 enamel 702 white gloss (F-21.03) all over. Material: Al alloy.

5. ASSEMBLY (Fig. 2)

WARNING: BE CAREFUL TO KEEP THE PARTS CLEAN. IF YOU THINK PARTS HAVE CONTAMINATION, CLEAN THEM AGAIN.

CAUTION: WHEN YOU INSTALL DOOR (5) WITH TRANSMITTER (11), BE CAREFUL NOT TO DAMAGE THE TRAILING TRANSMITTER FLOAT.

A. Use standard industry practices.

B. Tighten nut (6) to 25-30 lb-in.

6. TESTING

WARNING: BE CAREFUL TO KEEP THE PARTS CLEAN. IF YOU THINK PARTS HAVE CONTAMINATION, CLEAN THEM AGAIN.

NOTE: This procedure is for metal tanks only. Refer to the vendors instructions for tests of non-metal tanks.

A. Testing Equipment

(1) Test stand to hold the water tank assembly.

(2) Supply of clean water at 90 psi pressure

B. Preparation for Test

(1) Install the gage, fittings, and O-rings (IPL, Fig. 2 and 3).

(2) Cap or plug all tank fittings but the fill and air line fittings.

(3) Connect the water supply pipe to the tank fill fitting.

C. Proof Pressure Test

(1) Fill the tank until the water comes up to the air line fitting, then close the fitting.

(2) Continue to fill the tank until the pressure increases to 50 psi.

(3) Hold this pressure for 10 minutes. No leakage is permitted.

(4) Open the drain fitting and drain the tank. Then close the drain fitting.

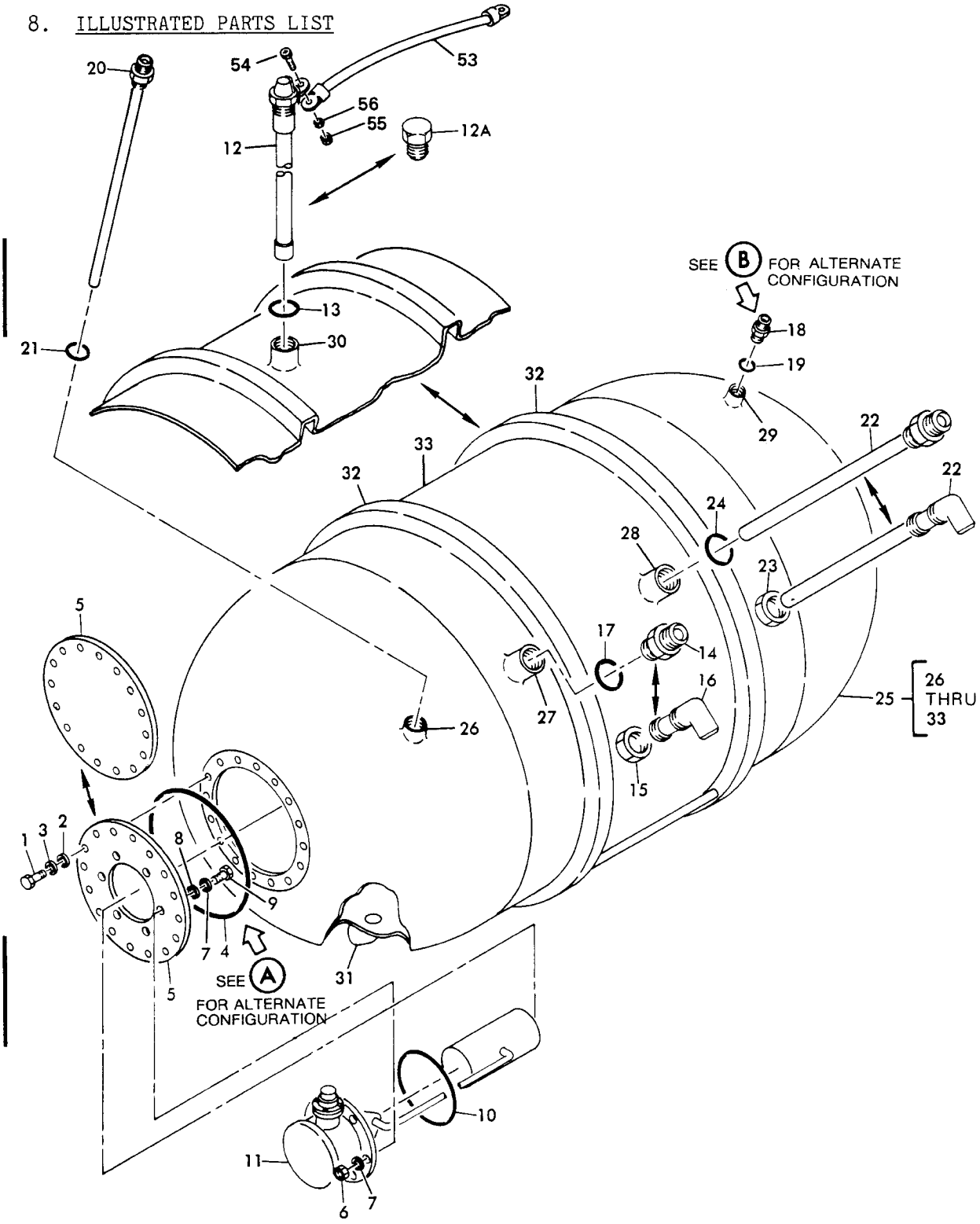
(5) Apply -9.6 psi air pressure (a vacuum of 20 inches of mercury) to the tank. There must be no permanent deformation.

D. Procedure After the Test

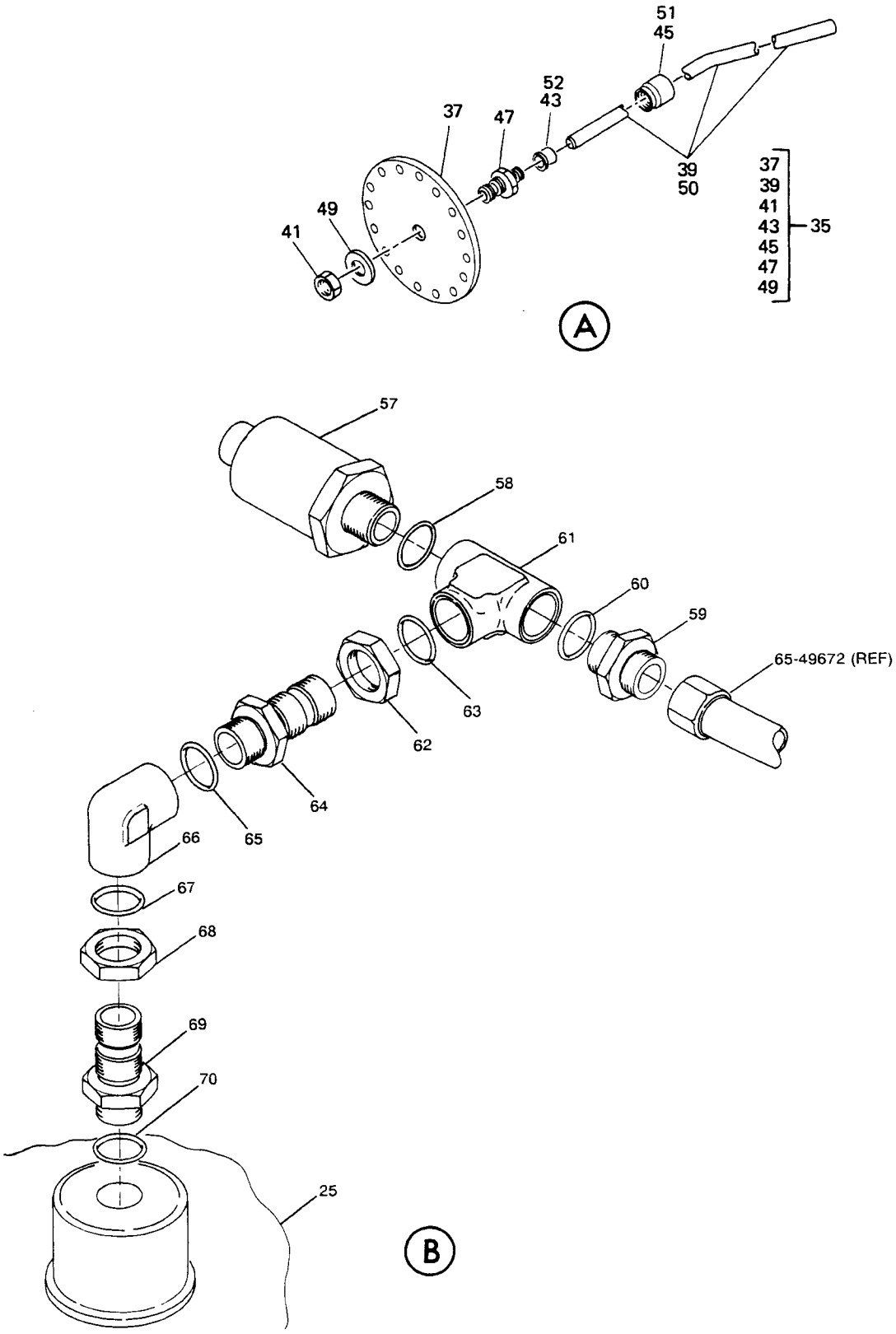
(1) Dry the inside of the tank with clean, dry air. Plug or cap all opened ports.

NOTE: You can spray-rinse the inside of the tank with clean, hot water before you dry it. The tank assembly will be chlorinated with other parts of the passenger water system after installation in the airplane. For further information, refer to Airplane Maintenance Manual 38-11-0.

8. ILLUSTRATED PARTS LIST



Passenger Water System Tank Assembly
Figure 2 (sheet 1)



Passenger Water System Tank Assembly
Figure 2 (sheet 2)

FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USE CODE	QTY PER ASSY
2-					
	65-49662-1		TANK ASSY, PASSENGER WATER SYSTEM	A	RF
	65-49662-2		TANK ASSY, PASSENGER WATER SYSTEM	B	RF
	65-49662-3		TANK ASSY, PASSENGER WATER SYSTEM	C	RF
	65-49662-4		TANK ASSY, PASSENGER WATER SYSTEM	D	RF
	65-49662-5		TANK ASSY, PASSENGER WATER SYSTEM	E	RF
	65-49662-6		TANK ASSY, PASSENGER WATER SYSTEM	F	RF
	65-49662-7		TANK ASSY, PASSENGER WATER SYSTEM	G	RF
	65-49662-8		TANK ASSY, PASSENGER WATER SYSTEM	H	RF
	65-49662-9		TANK ASSY, PASSENGER WATER SYSTEM	I	RF
	65-49662-10		TANK ASSY, PASSENGER WATER SYSTEM	J	RF
	65-49662-11		DELETED		
	65-49662-12		TANK ASSY, PASSENGER WATER SYSTEM	L	RF
	65-49662-13		TANK ASSY, PASSENGER WATER SYSTEM	M	RF
	65-49662-14		TANK ASSY, PASSENGER WATER SYSTEM	N	RF
	65-49662-15		TANK ASSY, PASSENGER WATER SYSTEM	O	RF
	65-49662-16		DELETED		
	65-49662-17		TANK ASSY, PASSENGER WATER SYSTEM	P	RF
	65-49662-18		TANK ASSY, PASSENGER WATER SYSTEM	Q	RF
	65-49662-19		TANK ASSY, PASSENGER WATER SYSTEM	R	RF
	65-49662-20		DELETED		
	65-49662-21		TANK ASSY, PASSENGER WATER SYSTEM (SEE FIG. 3 FOR DETAILS)		RF
	65-49662-24		TANK ASSY, PASSENGER WATER SYSTEM	S	RF
	65-49662-25		TANK ASSY, PASSENGER WATER SYSTEM	T	RF
	65-49662-26		TANK ASSY, PASSENGER WATER SYSTEM	U	RF
	65-49662-27		TANK ASSY, PASSENGER WATER SYSTEM	V	RF
	65-49662-28		TANK ASSY, PASSENGER WATER SYSTEM	W	RF
	65-49662-29		TANK ASSY, PASSENGER WATER SYSTEM	X	RF
	65-49662-30		TANK ASSY, PASSENGER WATER SYSTEM	Y	RF
	65-49662-31		TANK ASSY, PASSENGER WATER SYSTEM	Z	RF
	65-49662-32		TANK ASSY, PASSENGER WATER SYSTEM	BA	RF
	65-49662-33		TANK ASSY, PASSENGER WATER SYSTEM	CA	RF
	65-49662-34		TANK ASSY, PASSENGER WATER SYSTEM	DA	RF
	65-49662-35		TANK ASSY, PASSENGER WATER SYSTEM	EA	RF
	65-49662-36		TANK ASSY, PASSENGER WATER SYSTEM	FA	RF
	65-49662-37		TANK ASSY, PASSENGER WATER SYSTEM	GA	RF
	65-49662-38		TANK ASSY, PASSENGER WATER SYSTEM	HA	RF
1	MS20033-2		. BOLT	A-HR	16
2	BACS11W3C		. WASHER	A-HR	16
3	AN960C10L		. WASHER	A-HR	16
4	MS29513-261		. PACKING, O-RING	A-HR	1
5	69-44688-1		. DOOR	AF	1
5	69-51856-1		. DOOR	B-EH	1
6	BACN10JC4C		. NUT (REPLS NAS679C4W)	AF	6
7	AN960C416L		. WASHER	AF	12
8	BACS11W4CC		. WASHER	AF	6

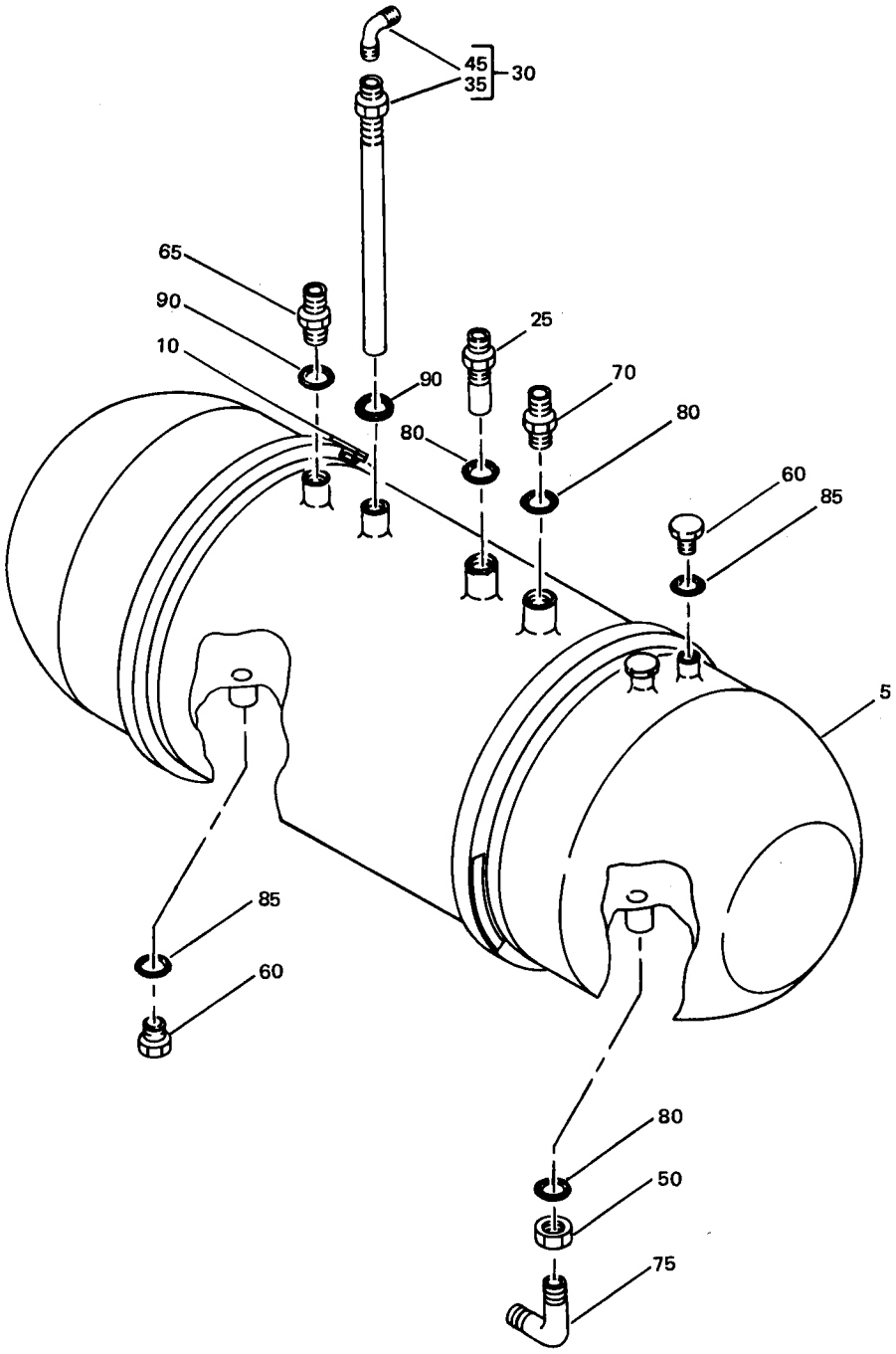
FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USE CODE	QTY PER ASSY
2-					
9	MS20034-3		. BOLT	AF	6
10	AN6230-12		. PACKING, O-RING	AF	6
11	EA1065A2406		. TRANSMITTER, V89305 (BOEING 10-60770-2)	AF	1
12	1145-0015		. TRANSMITTER, V86831 (BOEING 10-61383-1)	BDG-JN OTVXEA	1
-12	1145-0035		. TRANSMITTER, V86831 (BOEING 10-61383-3)	CELMP QRSUW Y-DA FA-HA	1
12A	MS21913-10J		. PLUG	F	1
-12A	BACP20AU10J		. PLUG (OPT)	F	1
13	MS28778-10		. PACKING, O-RING	B-J L-GA	1
14	BACU24K12		. UNION	A-CGILN PS-WY	1
-14	MS21902K12		. UNION	UXZ DA EA	1
-14	MS21902J12		. UNION (OPT TO MS21902K12)	UXZ DA EA	1
-14	MS21902-12T		. UNION (OPT TO MS21902K12)	DA EA	1
-14	MS21902-12T		. UNION	CA GA HA	1
15	AN924-12J		. NUT	D-FHJM OQR	1
16	MS21926-12J		. ELBOW	D-FHJM OQR	1
17	MS28778-12		. PACKING, O-RING		1
18	BACU24K6		. UNION	B-JL-RV WX	1
19	MS28778-6		. PACKING, O-RING	B-JL-RV WX Z-HA	1
20	69-38799-1		. STANDPIPE ASSY	A-Z CA-EA GA HA	1
-20	69-38799-15		. STANDPIPE ASSY	BA FA	1
21	MS28778-8		. PACKING, O-RING	A-Z CA-EA GA HA	1
-21	MS28778-12		. PACKING, O-RING	BA FA	1
22	69-38799-2		. STANDPIPE ASSY	ABGI	1
-22	69-38799-3		. STANDPIPE ASSY	CL	1
-22	69-38799-4		. STANDPIPE ASSY	DFHJ	1
-22	69-38799-5		. STANDPIPE ASSY	EMR	1

FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USE CODE	QTY PER ASSY
2-					
-22	69-38799-6		. STANDPIPE ASSY	NTVX EA	1
-22	69-38799-7		. STANDPIPE ASSY	PSUW Y-DA FA-GA	1
-22	69-38799-8		. STANDPIPE ASSY	O	1
-22	69-38799-9		. STANDPIPE ASSY	Q	1
23	AN924-12J		. NUT	D-FHJM OQR	1
24	MS28778-12		. PACKING, O-RING		1
25	65-49605-1		. TANK SHELL ASSY (LIMITED)	A	1
-25	65-49605-8		. TANK SHELL ASSY (LIMITED)	A	1
-25	65-49605-15		. TANK SHELL ASSY	BCG	1
-25	65-49605-17		. TANK SHELL ASSY	DEFR	1
-25	65-49605-20		. TANK SHELL ASSY	H	1
-25	10-61873-2		. TANK SHELL ASSY	I-O Q-TY CA GA HA	1
-25	10-61873-3		. TANK SHELL ASSY	P	1
-25	10-61873-4		. TANK SHELL ASSY	NOQ-T Y CA GA HA	1
-25	10-61873-6		. TANK SHELL ASSY	U-XZ DA EA	1
-25	10-61873-7		. TANK SHELL ASSY	B FA	1
-25	10-61873-8		. TANK SHELL ASSY	NOQ-T Y CA GA HA	1
-25	10-61873-9		. TANK SHELL ASSY	U-XZ DA EA	1
26	69-44480-1		. . BOSS (USED ON 65-49605-SERIES)		1
27	66-13583-1		. . BOSS (USED ON 65-49605-SERIES)		1
28	66-13583-1		. . BOSS (USED ON 65-49605-1,-8,-15,-20)		1
-28	66-13583-1		. . BOSS (USED ON 65-49605-17) (LIMITED)		1
-28	66-13583-5		. . BOSS (USED ON 65-49605-17,-20) (LIMITED)		1
29	66-13583-2		. . BOSS (USED ON 65-49605-SERIES)		1
30	69-51861-1		. . BOSS (USED ON 65-49605-15,-17,-20)		1
31	66-24282-1		. . BOSS (USED ON 65-49605-SERIES)		1
32	65-49605-5		. . HOOP (USED ON 65-49605-1)		2
32	65-49605-12		. . HOOP (USED ON 65-49605-8,-15,-17, -20)		2
33			. . WELDED ASSY		
35	65C13044-1		. END PLATE ASSY	GR	1
37	69-51856-2		. . END PLATE		1
39	69-67550-1		. . STANDPIPE		1

FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USE CODE	QTY PER ASSY
2-					
41	AN924-8J		. . BULKHEAD NUT		1
43	BACS13AP8W		. . SLEEVE, COUPLING		1
45	MS21921-8J		. . NUT, COUPLING		1
47	MS21924-8S		. . UNION, BULKHEAD		1
49	AN960C1216		. . WASHER		1
50	69-67550-1		DELETED		
51	MS21921-8J		DELETED		
52	BACS13BX08H		DELETED		
53	BACJ40A11-12		. JUMPER ASSY	IJL-Q S-HA	1
54	BACS12CB04-7		. SCREW	IJL-Q S-BA	1
55	BACN10JC04		. NUT	IJL-Q	1
-55	MS21042L4		. NUT	S-BA	1
56	AN960C4		. WASHER	IJL-Q S-BA	1
57	1G216		. PRESSURE SWITCH, V09049 (BOEING 60B50024-1)	STUX BA	1
-57	10-62205-1		. PRESSURE SWITCH	YZ	1
-57	10-62205-3		. PRESSURE SWITCH	CA-FA HA	1
-57	10-62205-2		. PRESSURE SWITCH	GA	1
58	MS28778-6		. PACKING, O-RING	STU X-HA	1
59	MS21902D6		. UNION	STU X-Z	1
-59	MS21902J6		. UNION	BA FA	1
60	MS28778-6		. PACKING, O-RING	STU X-HA	1
61	AN938D6		. TEE	STU X-Z CA-EA GA HA	1
-61	AN938J6		. TEE	FA	1
62	AN924-6J		. NUT	STU X-HA	1
63	MS28778-6		. PACKING, O-RING	STU X-HA	1
64	MS21924D6		. UNION	STU X-Z CA-EA GA HA	1
-64	MS21924J6		. UNION	BA FA	1
65	MS28778-6		. PACKING, O-RING	STU X-HA	1

FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USE CODE	QTY PER ASSY
2-66	AN939D6		. ELBOW	STU X-Z CA-EA GA HA	1
-66	AN939J6		. ELBOW	BA FA	1
-66	BACE21BT0606JN		. ELBOW (OPT TO AN939J6)	BA FA	1
67	MS28778-6		. PACKING, O-RING	STU X-HA	1
68	AN924-6J		. NUT	STU X-HA	1
69	MS21924D6		. UNION	STU X-Z CA-EA GA HA	1
-69	MS21924J6		. UNION	BA FA	1
-69	MS21902-6T		. UNION	DA EA	1
70	MS28778-6		. PACKING, O-RING	STU X-HA	1

- ITEM NOT ILLUSTRATED



Passenger Water System Tank Assembly
Figure 3

FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USE CODE	QTY PER ASSY
3-	65-49662-21		TANK ASSY, PASSENGER WATER SYSTEM	A	RF
5	32XT001-3		. TANK SHELL ASSY (V32500) (BOEING 10-61873-5)		1
10	417N2312-5		. BRACKET ASSY		1
15	417N2312-6		. . ANGLE		1
20	417N2312-7		. . BRACKET		1
25	66-14910-1		. OVERFLOW FITTING		1
30	69-38799-11		. STAND PIPE ASSY		1
35	69-38799-12		. . TUBE		1
40	69-38799-13		. . WELD FILLER MATERIAL		1
45	MS21926-8S		. . ELBOW		1
50	AN924-12J		. NUT		1
55	AN924-8J		. NUT		1
60	BACP20AU6J		. PLUG		3
65	BACR17E8-6		. UNION-REDUCER		1
70	BACU24K12		. UNION		1
75	MS21908J12		. ELBOW		1
80	MS28778-12		. PACKING, O-RING		3
85	MS28778-6		. PACKING, O-RING		2
90	MS28778-8		. PACKING, O-RING		2

VENDORS

VS5825	YOKOHAMA RUBBER CO., AEROSPACE DIV., 36-11 SHIMBASHI 5-CHOME, MINATO-KU, TOKYO 105-8685, JAPAN
V09049	CUSTOM CONTROL SENSORS, INC., 21111 PLUMMER STREET, CHATSWORTH, CALIFORNIA 91311-4905
V32500	EDO CORP., FIBER SCIENCE DIV., 506 BILLY MITCHELL RD., SALT LAKE CITY, UTAH 84116-2896
V86831	KAISER AEROSPACE AND ELECTRONICS CORP., ORANGE COUNTY PLANT, 17000 SOUTH RED HILL AVENUE, IRVINE CALIFORNIA 92614-5676
V89305	SIMMONDS PRECISION PRODUCTS, INC., INSTRUMENTS SYSTEMS DIVISION, 100 PANTON ROAD, VERGENNES, VERMONT 05491-1013