Date: March 4, 1998

# **MALABAR**

INTERNATIONAL

## AIRCRAFT MAINTENANCE & SUPPORT EQUIPMENT

OWNER'S MANUAL FOR MALABAR MODEL

**PF53361PWS** 

2 GALLON FLUID DISPENSER

READ AND SAVE

THIS
INSTRUCTION
MANUAL

- \* GENERAL DESCRIPTION
- \* OPERATION
- \* SERVICE
- \* PARTS BREAKDOWN

For Service & Spare

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# MALABAR MODEL PF53361PWS 2 GALLON FLUID DISPENSER

**CAUTION: AIRCRAFT MANUFACTURER'S SPECIFICATIONS AND** 

INSTRUCTIONS MUST BE FOLLOWED. IN THE EVENT

OF CONTRADICTION BETWEEN AIRCRAFT

MANUFACTURER'S SPECIFICATIONS AND MALABAR'S,

AIRCRAFT MANUFACTURER'S WILL PREVAIL.

### **SPECIFICATIONS:**

Fluid	TURBINE OIL	
Reservoir capacity	2 U.S. gal	7.6 liters
Pump outlet pressure	100 psig	689 kPa
Volume per stroke	2.5 cubic in	41 cc
Relief valve setting	125 ± 10 psig	862 ± 69 kPa
Hose length	84 in	2134 mm
Net weight (empty)	12 lbs	5.4 kg
Filter rating	1 micron nominal	
Fluid tank color	green	

### **GENERAL DESCRIPTION:**

The Malabar Model PF53361PWS is a 2 gallon fluid dispenser used to service various commercial aircraft. The hand pump dispenser consists of a reservoir, pump assembly, relief valve, water stop filter assembly, and a fluid delivery hose with a coupling.

### PREPARATION FOR USE:

The unit is shipped fully assembled. Fill reservoir at fillport with approved fluid. Operate hand pump assembly a few strokes to bleed all air out of the system. The unit is now ready for use.

### **OPERATION:**

- 1. Remove dust plug from hose coupling and connect the hose coupling to the aircraft service point coupling.
- 2. Use full steady pumping strokes when operating pump assembly during replenishing.
- 3. Disconnect the quick disconnect coupling from the aircraft service point, replace the dust plug and store the unit in a dry, dust free location.

### **ILLUSTRATED PARTS LIST:**

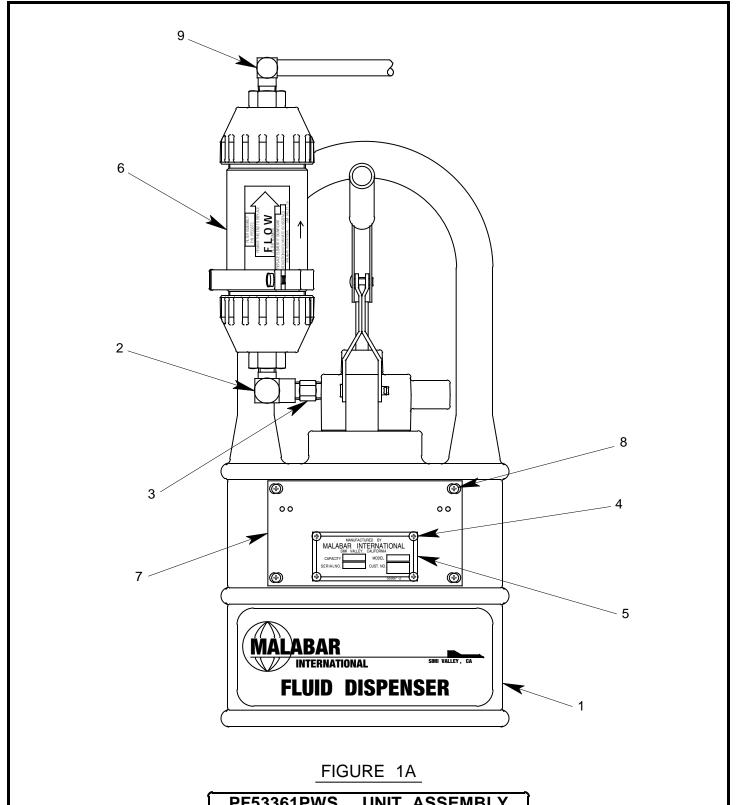
Refer to figure 1A & 1B for unit assembly (see sheets 3 & 4), figure 2 for pump assembly (see sheet 5) or figure 3 for filter assembly (see sheet 6).

### **SERVICING:**

- 1. The frequency of filter change depends on operating conditions. Generally, changes should be made every 3-4 months or sooner if more than normal resistance is felt on the pumping stroke at low pressure. Refer to item 10 in figure 3 (see sheet 6) to change element. Proper element must be installed, otherwise unit will not pump fluid.
- 2. <u>NOTE:</u> The relief valve should not be removed. The relief valve is set to by-pass oil back to the reservoir at  $125 \pm 10$  PSIG.

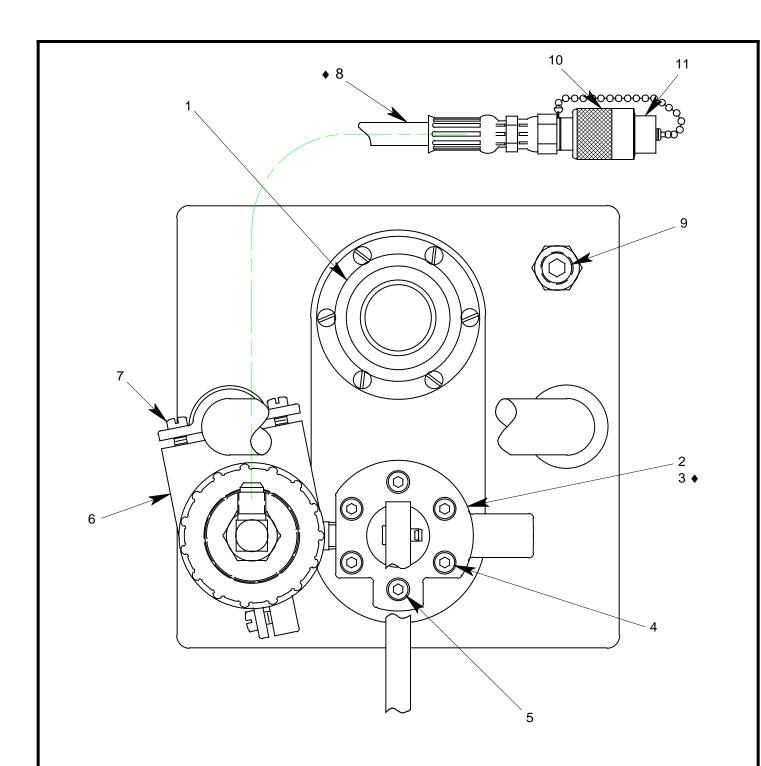
### REPAIR AND REPLACEMENT:

No definite time schedule can be established for the overhaul of the pump assembly for the replacement of the various moving parts. The number of times the pump assembly is operated materially affect the life of the working parts. The moving piston seal (item 6) and rod seal (item 11) are normally the first to wear (see sheet 5). This is usually indicated by leakage of fluid past the piston or rod. It is advisable to change piston seal (item 6), rod seal (item 11) and gasket (item 16) immediately if leakage is discovered. A repair parts kit (P/N PF2-41PK) is available and recommended to keep on hand at your facility. Refer to sheet 7 for the complete list of parts contained in the repair parts kit.



# PF53361PWS UNIT ASSEMBLY

NO.	QTY	PART NO.	PART NAME	NO.	QTY	PART NO.	PART NAME
1	1	PF55838-3	FLUID TANK	6	1	PF55873	FILTER ASSEMBLY
2	1	712-008	ELBOW, STREET, 1/4 NPT	7	1	PF55859	PLACARD PLATE
3	1	711-047	NIPPLE, HEX, 1/4 NPT x 1 1/2	8	4	344-011	FHMS, 6-32 x 7/16 LG
4	4	397-010	SELF TAPPING SCREW, 6-32	9	1	722-005	ELBOW
5	1	55997-2	NAMEPLATE				

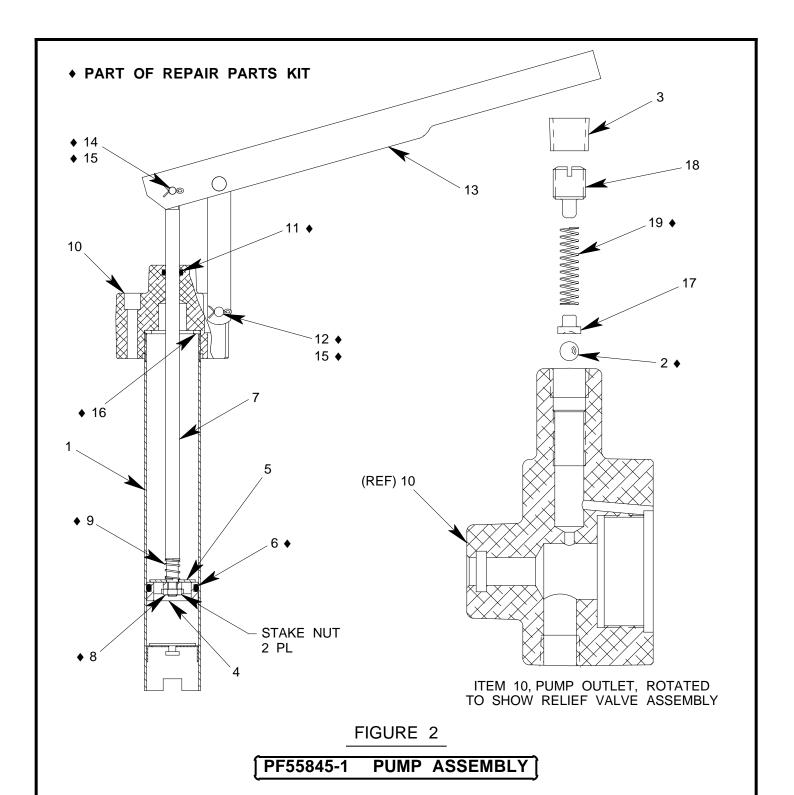


### **◆ PART OF REPAIR PARTS KIT**

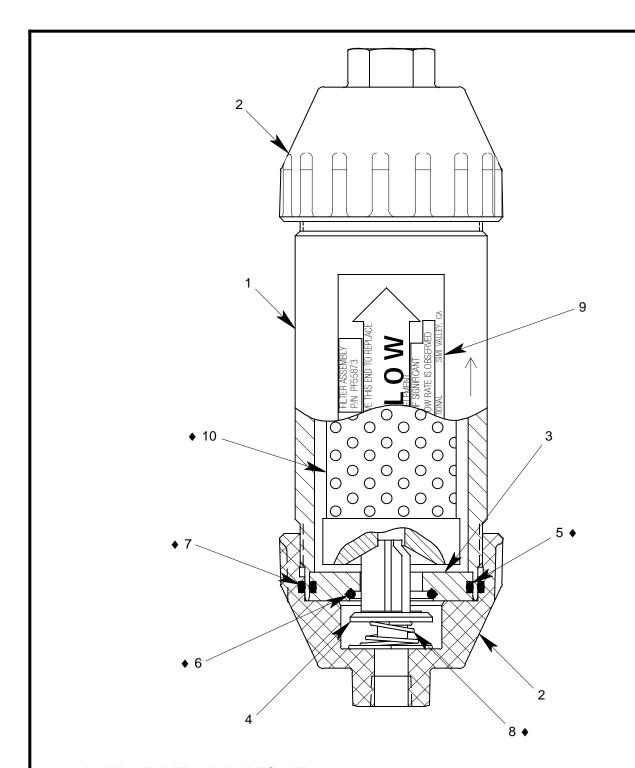
FIGURE 1B

# PF53361PWS UNIT ASSEMBLY

NO.	QTY	PART NO.	PART NAME	NO.	QTY	PART NO.	PART NAME
1	1	PF55447	FILLPORT ASSEMBLY	7	3	342-010	SCREW, FIL HD, 1/4-20 x 1" LG
2	1	PF55845-1	PUMP ASSEMBLY	8	1	PF55456-1	HOSE ASSEMBLY
3	1	PF55672	GASKET	9	1	717-007	PLUG, 3/8 NPT
4	5	323-038	SHCS, 1/4-28 x 1 3/4 LG	10	1	736-013	COUPLING
5	1	323-063	SHCS, 1/4-28 x 1" LG	11	1	PF55987	DUST PLUG & CHAIN
6	1	PF55871-1	YOKE CLAMP				



NO. QTY PART NO. PART NAME NO. QTY PART NO. PART NAME PF53376 TUBE ASSEMBLY 55925-110 O-RING 11 FH PIN, 1/4 DIA x 1 9/32 LG HANDLE ASSEMBLY 2 STEEL BALL, 1/4 DIA 373-006 1 412-004 12 1 3 717-006 PLUG, 1/4 NPT 1 13 1 494-017 4 PF53379 **PISTON** 14 AN393-17 FH PIN, 3/16 DIA x 17/32 LG 1 1 5 1 PF53380 PISTON CHECK DISC 15 2 372-011 COTTER PIN, 1/16 x 1/2 LG 6 1 55925-216 O-RING 16 1 PF54063 **GASKET** PF53378 PUMP PISTON ROD SPRING GUIDE 7 1 17 1 55153 HEX JAM NUT, 1/4-28 SET SCREW 8 1 352-011 18 1 55148 9 PF53406 19 **SPRING** 495-038 **SPRING** 1 PF55820-1 PUMP OUTLET 10



**◆ PART OF REPAIR PARTS KIT** 

FIGURE 3

PF55873 FILTER ASSEMBLY

NO.	QTY	PART NO.	PART NAME	NO.	QTY	PART NO.	PART NAME
1	1	PF55849	FILTER HOUSING	6	1	55925-120	O-RING
2	2	PF55852	FILTER HOUSING END CAP	7	2	55925-140	O-RING
3	1	PF55853	RETAINER DISC	8	1	495-039	SPRING
4	1	PF55850	RETAINER VALVE	9	1	PF55872	DECAL, FLOW
5	1	55925-135	O-RING	10	1	481-068	FILTER ELEMENT

# PF2-41PK REPAIR PARTS KIT

ART NAME   PART NAME   1   PF545456-1   ORING   ORING   ORING   SPRING   SPRING   SPRING   ORING   SPRING   ORIGING   ORIGIN		_	(112 11111 11217 1111 )
1 55925-216 O-RING 1 PF53406 SPRING 1 373-006 FLAT HEAD PIN, 1/4 DIA x 1 9/32 LG 2 372-011 COTTER PIN, 1/16 x 1/2 LG 1 AN393-17 FLAT HEAD PIN, 3/16 DIA x 17/32 LG 1 PF54063 GASKET 1 495-038 SPRING 1 412-004 STEEL BALL, 1/4 DIA 1 55925-135 O-RING 1 55925-135 O-RING 2 55925-140 O-RING 1 495-039 SPRING 1 481-068 FILTER ELEMENT 1 352-011 HEX JAM NUT, 1/4-28 GASKET			PART NAME
1       55925-110       O-RING         1       PF53406       SPRING         1       373-006       FLAT HEAD PIN, 1/4 DIA x 1 9/32 LG         2       372-011       COTTER PIN, 1/16 x 1/2 LG         1       AN393-17       FLAT HEAD PIN, 3/16 DIA x 17/32 LG         1       PF54063       GASKET         1       495-038       SPRING         1       412-004       STEEL BALL, 1/4 DIA         0-RING       O-RING         2       55925-120       O-RING         1       495-039       SPRING         1       481-068       FILTER ELEMENT         1       352-011       HEX JAM NUT, 1/4-28         1       PF55672       GASKET			
1       PF53406       SPRING         1       373-006       FLAT HEAD PIN, 1/4 DIA x 1 9/32 LG         2       372-011       COTTER PIN, 1/16 x 1/2 LG         1       AN393-17       FLAT HEAD PIN, 3/16 DIA x 17/32 LG         1       PF54063       GASKET         1       495-038       SPRING         1       412-004       STEEL BALL, 1/4 DIA         1       55925-135       O-RING         2       55925-140       O-RING         1       495-039       SPRING         1       481-068       FILTER ELEMENT         1       352-011       HEX JAM NUT, 1/4-28         1       PF55672       GASKET			
1       373-006       FLAT HEAD PIN, 1/4 DIA x 1 9/32 LG         2       372-011       COTTER PIN, 1/16 x 1/2 LG         1       AN393-17       FLAT HEAD PIN, 3/16 DIA x 17/32 LG         1       PF54063       GASKET         1       495-038       SPRING         1       412-004       STEEL BALL, 1/4 DIA         1       55925-135       O-RING         2       55925-140       O-RING         1       495-039       SPRING         1       481-068       FILTER ELEMENT         1       352-011       HEX JAM NUT, 1/4-28         1       PF55672       GASKET			
2 372-011 COTTER PIN, 1/16 x 1/2 LG 1 AN393-17 FLAT HEAD PIN, 3/16 DIA x 17/32 LG 1 PF54063 GASKET 1 495-038 SPRING 1 412-004 STEEL BALL, 1/4 DIA 1 55925-135 O-RING 2 55925-140 O-RING 1 495-039 SPRING 1 481-068 FILTER ELEMENT 1 352-011 HEX JAM NUT, 1/4-28 1 PF55672 GASKET			
1       AN393-17       FLAT HEAD PIN, 3/16 DIA x 17/32 LG         1       PF54063       GASKET         1       495-038       SPRING         1       412-004       STEEL BALL, 1/4 DIA         1       55925-135       O-RING         2       55925-120       O-RING         2       55925-140       O-RING         1       495-039       SPRING         1       481-068       FILTER ELEMENT         1       352-011       HEX JAM NUT, 1/4-28         1       PF55672       GASKET			
1       PF54063       GASKET         1       495-038       SPRING         1       412-004       STEEL BALL, 1/4 DIA         1       55925-135       O-RING         2       55925-120       O-RING         2       55925-140       O-RING         1       495-039       SPRING         1       481-068       FILTER ELEMENT         1       352-011       HEX JAM NUT, 1/4-28         1       PF55672       GASKET			COTTER PIN, 1/16 X 1/2 LG
1       495-038       SPRING         1       412-004       STEEL BALL, 1/4 DIA         1       55925-135       O-RING         2       55925-120       O-RING         2       55925-140       O-RING         1       495-039       SPRING         1       481-068       FILTER ELEMENT         1       352-011       HEX JAM NUT, 1/4-28         1       PF55672       GASKET			
1       412-004       STEEL BALL, 1/4 DIA         1       55925-135       O-RING         1       55925-120       O-RING         2       55925-140       O-RING         1       495-039       SPRING         1       481-068       FILTER ELEMENT         1       352-011       HEX JAM NUT, 1/4-28         1       PF55672       GASKET			
1       55925-135       O-RING         1       55925-120       O-RING         2       55925-140       O-RING         1       495-039       SPRING         1       481-068       FILTER ELEMENT         1       352-011       HEX JAM NUT, 1/4-28         1       PF55672       GASKET			
1       55925-120       O-RING         2       55925-140       O-RING         1       495-039       SPRING         1       481-068       FILTER ELEMENT         1       352-011       HEX JAM NUT, 1/4-28         1       PF55672       GASKET			
2 55925-140 O-RING 1 495-039 SPRING 1 481-068 FILTER ELEMENT 1 352-011 HEX JAM NUT, 1/4-28 1 PF55672 GASKET			
1       495-039       SPRING         1       481-068       FILTER ELEMENT         1       352-011       HEX JAM NUT, 1/4-28         1       PF55672       GASKET			
1 352-011 HEX JAM NUT, 1/4-28 1 PF55672 GASKET			
1 PF55672 GASKET	1		
			HEX JAM NUT, 1/4-28
1 PF2-41PKDOC REPAIR PARTS KIT LIST			
	1	PF2-41PKDOC	REPAIR PARTS KIT LIST