

# **MALABAR**

**INTERNATIONAL**

***AIRCRAFT MAINTENANCE & SUPPORT EQUIPMENT***

***OWNER'S MANUAL FOR MALABAR MODEL***

## **PF53361-30WS**

***2 GALLON FLUID DISPENSER***

***READ  
AND  
SAVE***

**THIS  
INSTRUCTION  
MANUAL**

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

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***OVER 65 YEARS OF SERVICE & EXPERIENCE***

**GENERAL DESCRIPTION, OPERATION, SERVICE AND PARTS BREAKDOWN**

***MALABAR MODEL PF53361-30WS  
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 -----                | MOBIL 254        |              |
| 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 -----           | stainless steel  |              |

**GENERAL DESCRIPTION:**

The Malabar Model PF53361-30WS 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.
2. Use full steady pumping strokes when operating pump assembly during replenishing.
3. Disconnect the hose 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. NOTE: 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.

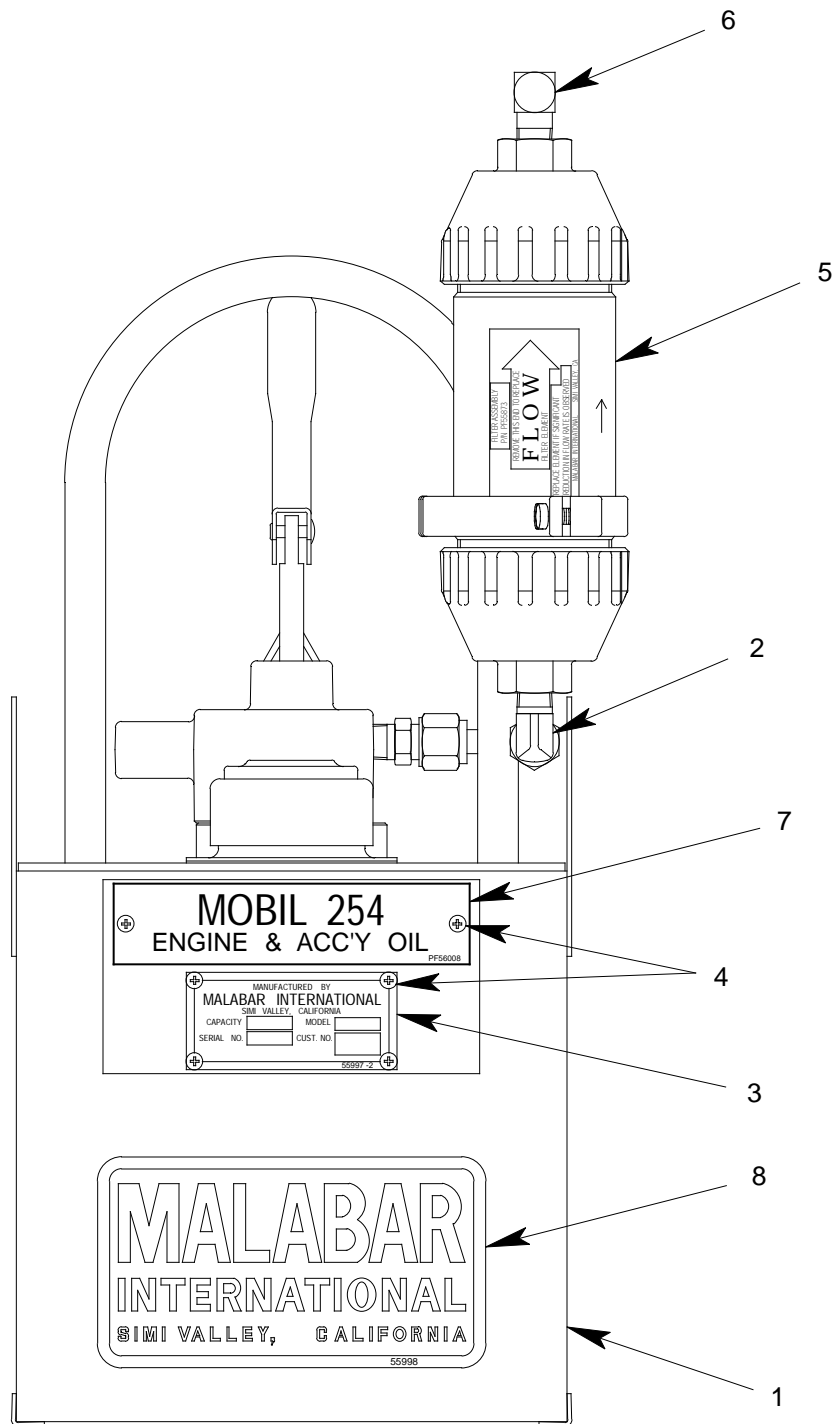
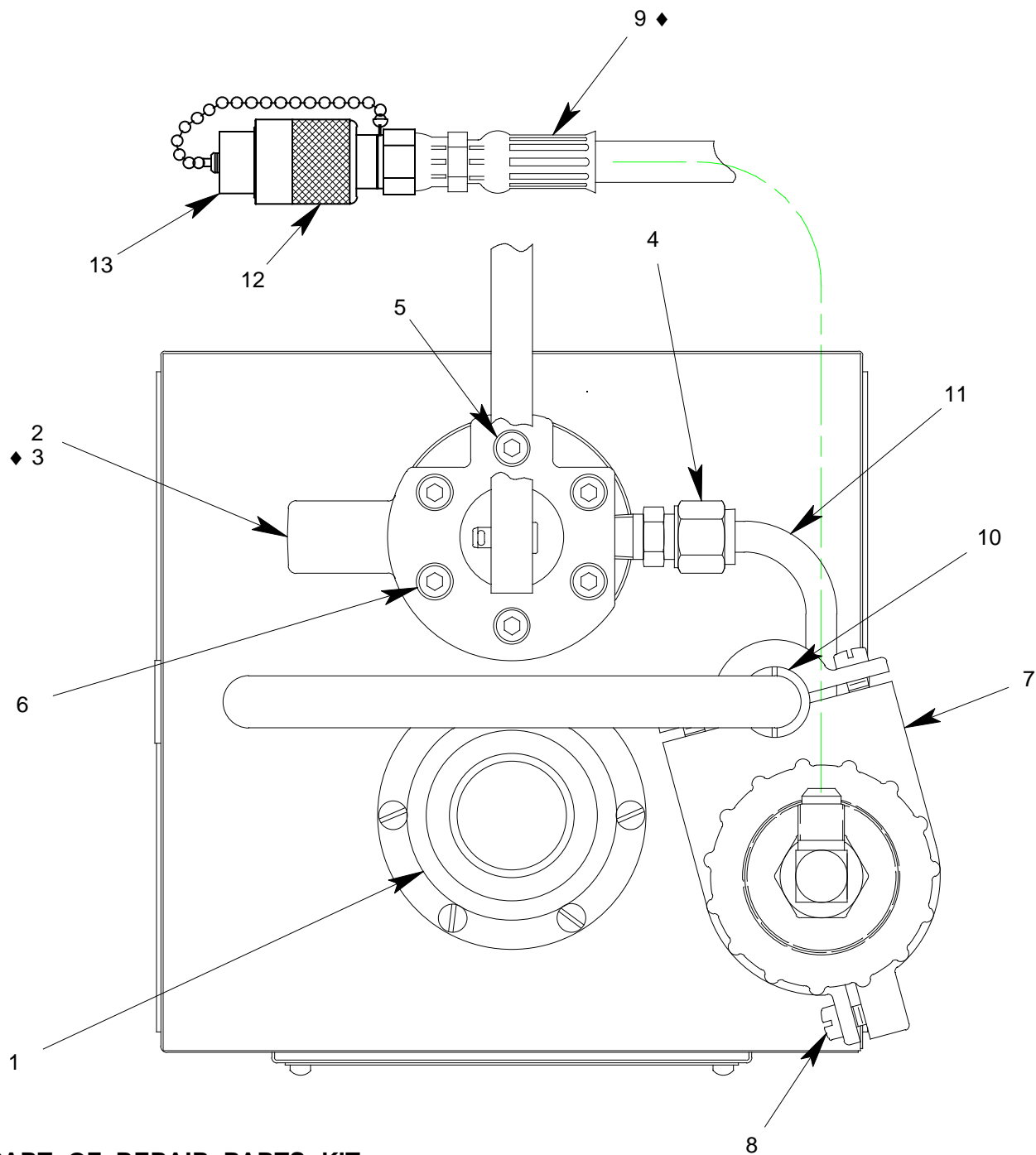


FIGURE 1A

**PF53361-30WS UNIT ASSEMBLY**

| NO. | QTY | PART NO.  | PART NAME                | NO. | QTY | PART NO. | PART NAME                |
|-----|-----|-----------|--------------------------|-----|-----|----------|--------------------------|
| 1   | 1   | PF55428-1 | FLUID TANK               | 5   | 1   | PF55873  | FILTER ASSEMBLY          |
| 2   | 1   | 722-014   | ELBOW, 3/8 T x 1/4 MPT   | 6   | 1   | 722-005  | ELBOW, 3/8 37° x 1/4 MPT |
| 3   | 1   | 55997-2   | NAMEPLATE                | 7   | 1   | PF56008  | PLACARD, MOBIL 254       |
| 4   | 6   | 397-010   | SELF TAPPING SCREW, 6-32 | 8   | 1   | 55998    | STICKER, MALABAR         |



◆ PART OF REPAIR PARTS KIT

FIGURE 1B

**PF53361-30WS UNIT ASSEMBLY**

| NO. | QTY | PART NO.  | PART NAME               | NO. | QTY | PART NO.  | PART NAME                     |
|-----|-----|-----------|-------------------------|-----|-----|-----------|-------------------------------|
| 1   | 1   | PF55447   | FILLPORT ASSEMBLY       | 8   | 3   | 342-010   | SCREW, FIL HD, 1/4-20 x 1" LG |
| 2   | 1   | PF55845-1 | PUMP ASSEMBLY           | 9   | 1   | PF55456-1 | HOSE ASSEMBLY                 |
| 3   | 1   | PF55672   | GASKET                  | 10  | 1   | PF56028   | SPLIT BUSHING                 |
| 4   | 1   | 721-009   | CONN., 3/8 T x 1/4 MPT  | 11  | AR  | 732-010   | TUBE, 3/8 O.D. x .065 WALL    |
| 5   | 1   | 323-039   | SHCS, 1/4-28 x 1 1/4 LG | 12  | 1   | 736-013   | COUPLING                      |
| 6   | 5   | 323-038   | SHCS, 1/4-28 x 1 3/4 LG | 13  | 1   | PF55987   | DUST PLUG & CHAIN             |
| 7   | 1   | PF55871-2 | YOKE CLAMP              |     |     |           |                               |

◆ PART OF REPAIR PARTS KIT

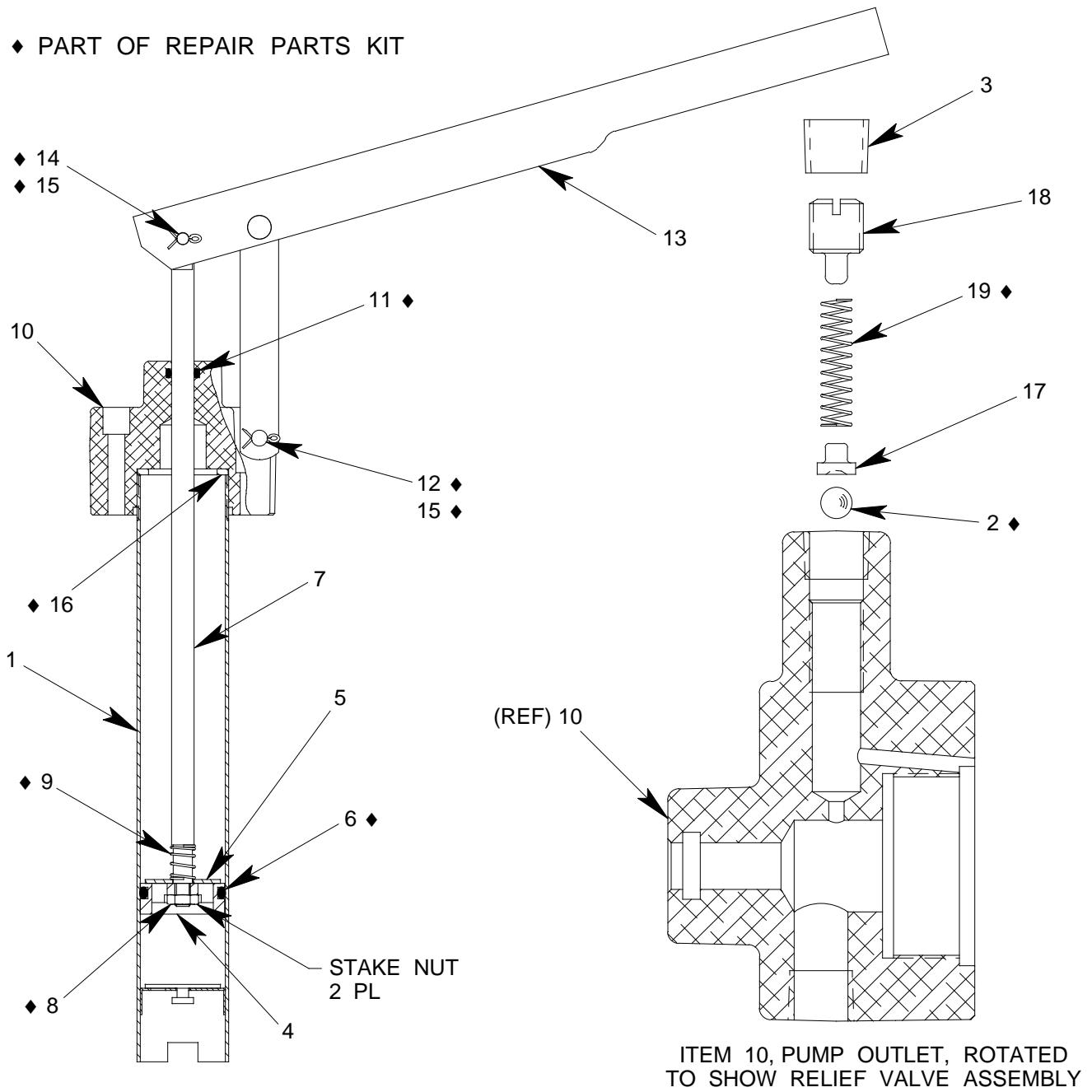
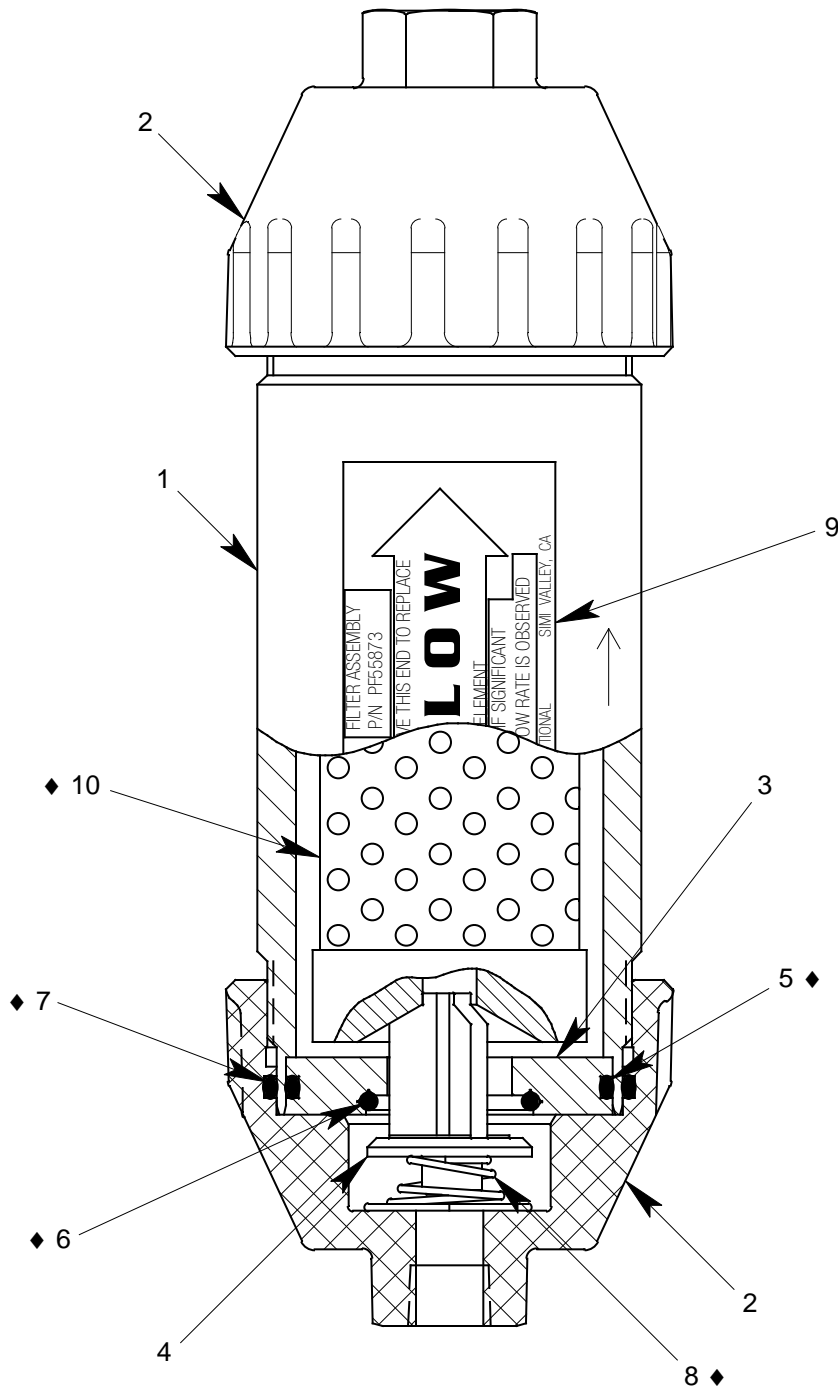


FIGURE 2

**PF55845-1 PUMP ASSEMBLY**

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



◆ 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**

| QTY | PART NO.    | PART NAME                          |
|-----|-------------|------------------------------------|
| 1   | PF55456-1   | HOSE ASSEMBLY                      |
| 1   | 55925-216   | O-RING                             |
| 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                |
| 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   | PF2-41PKDOC | REPAIR PARTS KIT LIST              |