

MALABAR

INTERNATIONAL

AIRCRAFT MAINTENANCE & SUPPORT EQUIPMENT

OWNER'S MANUAL FOR MALABAR MODEL

PF53481-125PWS

5 GALLON FLUID DISPENSER

***READ
AND
SAVE***

**THIS
INSTRUCTION
MANUAL**

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

For Service & Spare
Parts, Please Contact:

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OVER 65 YEARS OF SERVICE & EXPERIENCE

GENERAL DESCRIPTION, OPERATION, SERVICE AND PARTS BREAKDOWN

MALABAR MODEL PF53481-125PWS 5 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 ----- | TURBO OIL 2197 | |
| Reservoir capacity ----- | 5 U.S. gal | 18.9 liters |
| Pump outlet pressure ----- | 100 psig | 689 kPa |
| Volume per stroke----- | 3.0 cubic in | 49 cc |
| Relief valve setting----- | 125 ± 10 psig | 862 ± 69 kPa |
| Hose length ----- | 120 in | 3048 mm |
| Net weight (empty)----- | 35 lbs | 15.9 kg |
| Filter rating ----- | 1 micron nominal | |
| Fluid tank color----- | yellow | |

GENERAL DESCRIPTION:

The Malabar Model PF53481-125PWS is a 5 gallon fluid dispenser used to service various commercial aircraft. The hand pump dispenser consists of a reservoir, pump assembly, lockable fillport, pressure gauge, 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:

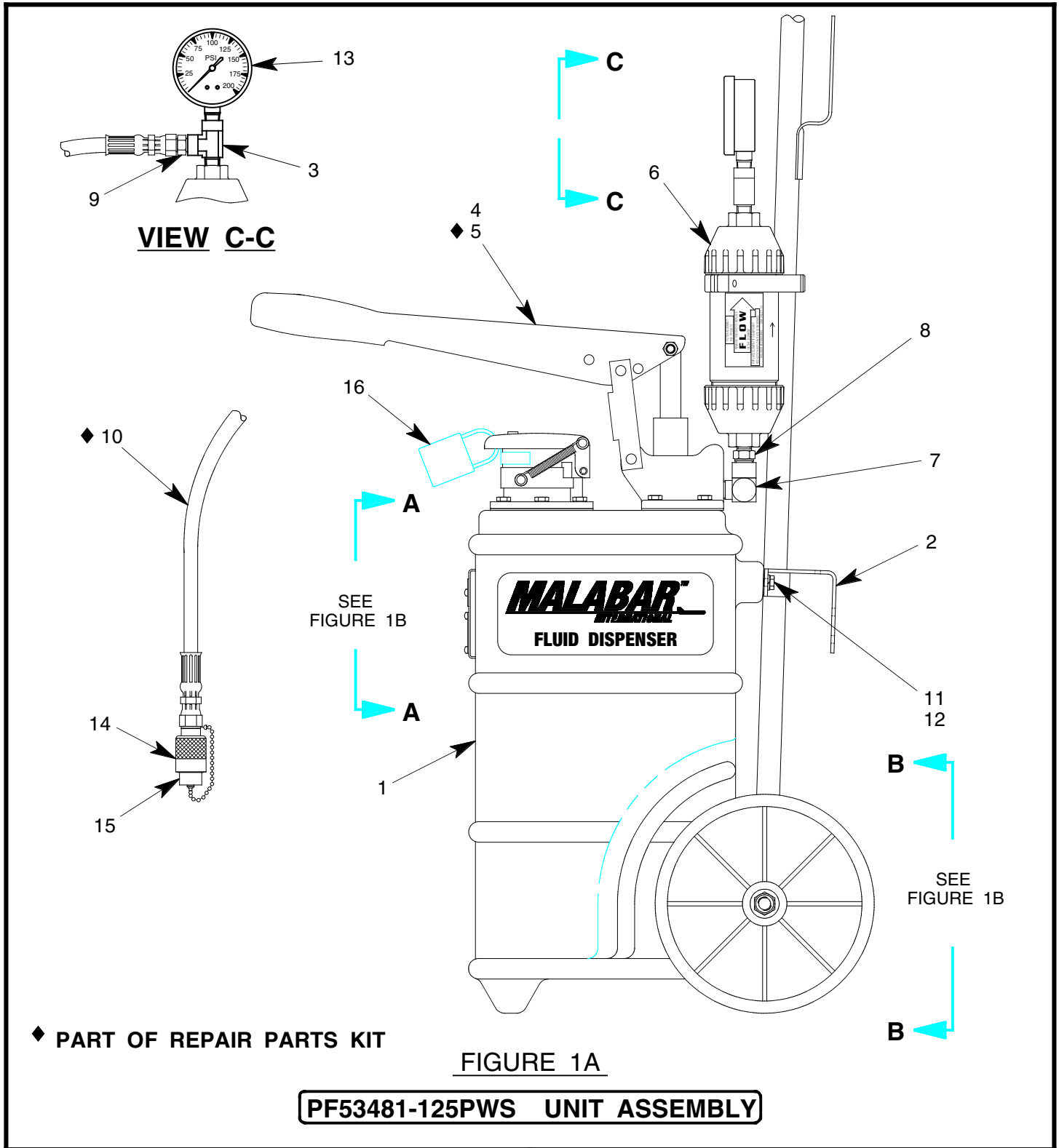
Refer to figure 1A, 1B & 1C for unit assembly (see sheets 3, 4 & 5) or figure 2 for pump assembly (see sheet 6).

SERVICING:

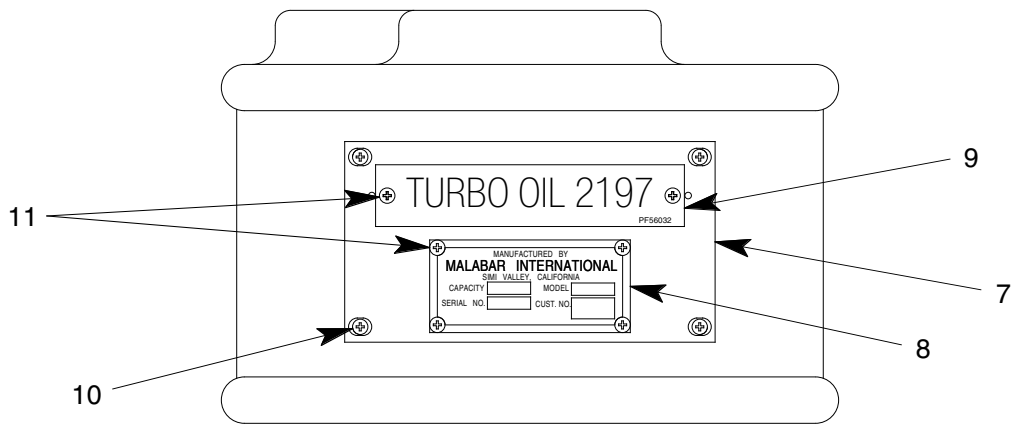
1. The frequency of filter change depends on operating conditions. Generally, changes should be made every 3-4 months or sooner if more than normal resistance is felt on the pumping stroke at low pressure. Refer to item 10 in figure 3 (see sheet 7) to change element. Proper element must be installed, otherwise unit will not pump fluid.
2. NOTE: The relief valve should not be removed. The relief is set to by-pass oil back to the reservoir at 125 ± 10 PSIG.

REPAIR AND REPLACEMENT:

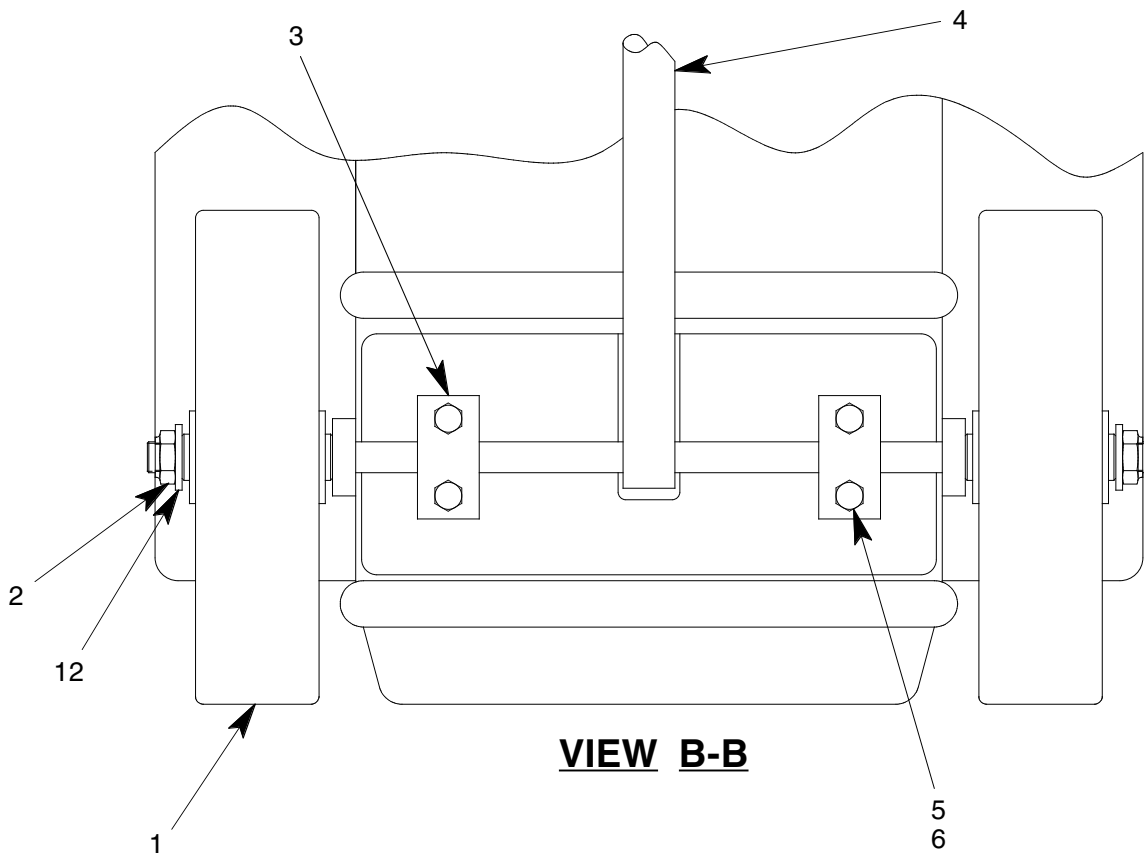
No definite time schedule can be established for the overhaul of the pump assembly for the replacement of the various moving parts. The number of times the pump assembly is operated materially affect the life of the working parts. The moving piston seal (item 14) and rod seal (item 15) are normally the first to wear (see sheet 6). This is usually indicated by leakage of fluid past the piston or rod. It is advisable to change piston seal (item 14) and rod seal (item 15) immediately if leakage is discovered. A repair parts kit (P/N PF5-6PK) is available and recommended to keep on hand at your facility. Refer to sheet 8 for the complete list of parts contained in the repair parts kit.



| NO. | QTY | PART NO. | PART NAME | NO. | QTY | PART NO. | PART NAME |
|-----|-----|-----------|---------------------------|-----|-----|----------|------------------------------|
| 1 | 1 | PF55836-7 | FLUID TANK | 9 | 1 | 721-004 | CONNECTOR, 3/8 37° x 1/4 NPT |
| 2 | 1 | PF55865 | HANDLE SUPPORT WELD | 10 | 1 | PF55456 | HOSE ASSEMBLY |
| 3 | 1 | 713-012 | TEE, 1/4 NPT | 11 | 2 | 329-007 | HHCS, 1/4-28 x 21/32 LG |
| 4 | 1 | PF55847-2 | PUMP ASSEMBLY | 12 | 2 | 363-001 | SPLIT LOCKWASHER, 1/4 |
| 5 | 1 | PF53602 | GASKET, PUMP | 13 | 1 | 482-050 | GAUGE, 0-200 PSIG |
| 6 | 1 | PF55873 | FILTER ASSEMBLY | 14 | 1 | 736-013 | COUPLING |
| 7 | 1 | 712-017 | ELBOW, STREET, 3/8 NPT | 15 | 1 | PF55987 | DUST PLUG AND CHAIN |
| 8 | 1 | 711-030 | NIPPLE, 1/4 NPT x 3/8 NPT | 16 | REF | _____ | LOCK SUPPLIED BY OTHERS |



VIEW A-A

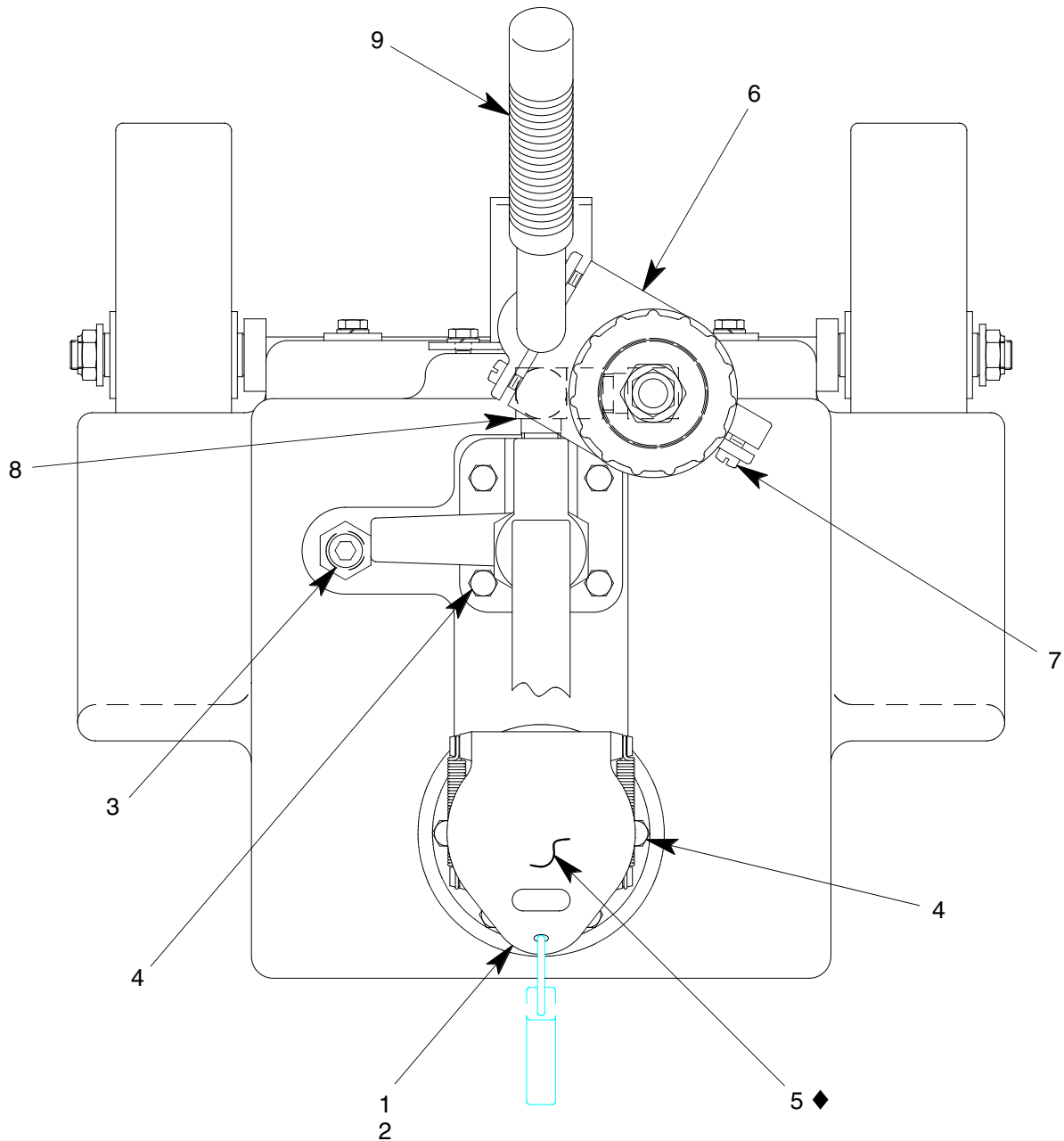


VIEW B-B

FIGURE 1B

PF53481-125PWS UNIT ASSEMBLY

| NO. | QTY | PART NO. | PART NAME | NO. | QTY | PART NO. | PART NAME |
|-----|-----|----------|-------------------------|-----|-----|----------|--------------------------|
| 1 | 2 | 492-002 | WHEEL | 7 | 1 | PF55859 | PLACARD PLATE |
| 2 | 2 | 355-013 | LOCKNUT | 8 | 1 | 55997-2 | NAMEPLATE |
| 3 | 2 | PF55858 | SUPPORT STRAP | 9 | 1 | PF56032 | PLACARD |
| 4 | 1 | PF55841 | AXLE-HANDLE WELDMENT | 10 | 4 | 344-011 | FHMS, 6-32 x 7/16 LG |
| 5 | 4 | 329-007 | HHCS, 1/4-28 x 21/32 LG | 11 | 6 | 397-010 | SELF TAPPING SCREW, 6-32 |
| 6 | 4 | 363-001 | SPLIT LOCKWASHER, 1/4 | 12 | 2 | 362-005 | FLAT WASHER, 1/2 SAE |



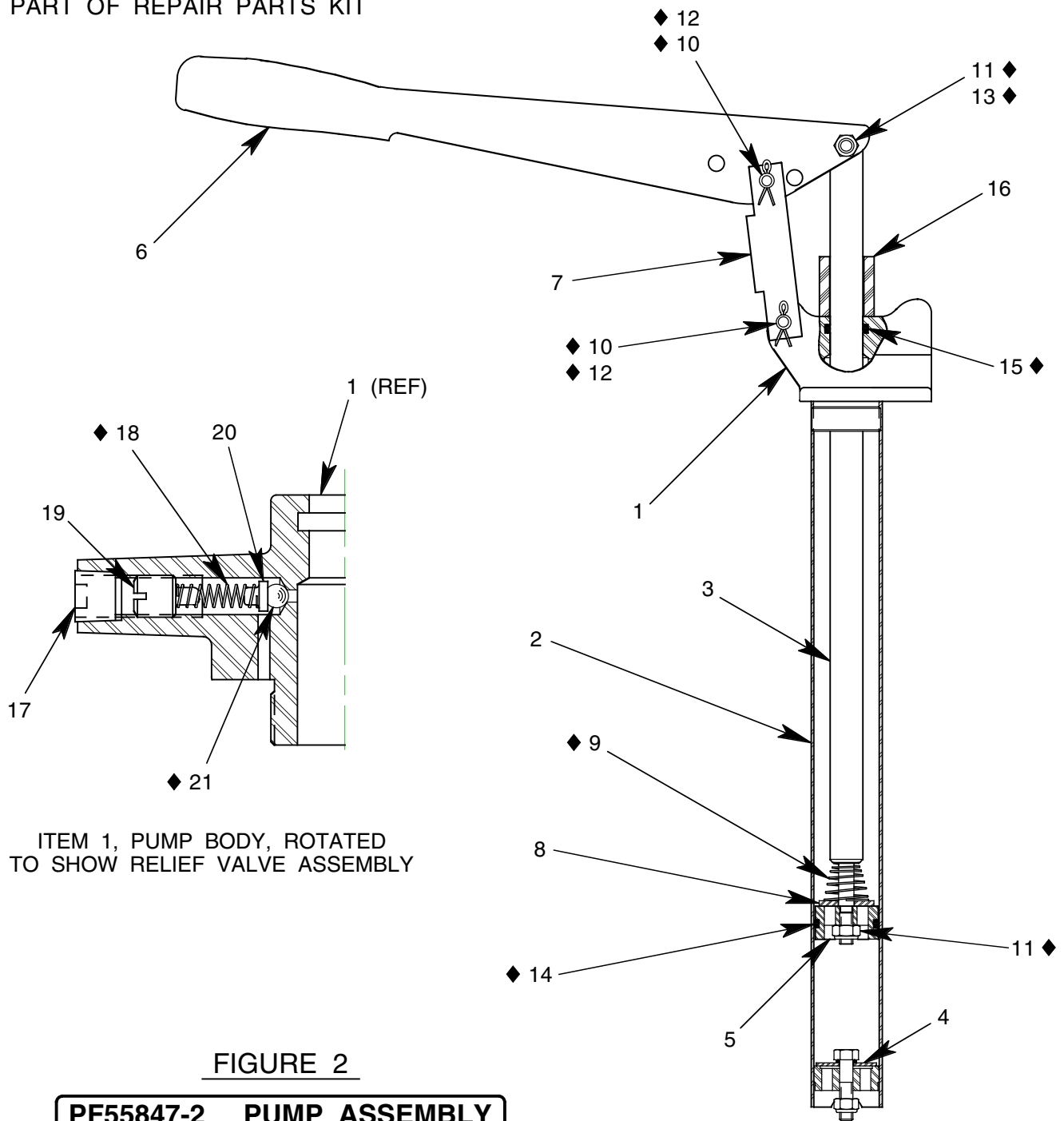
◆ PART OF REPAIR PARTS KIT

FIGURE 1C

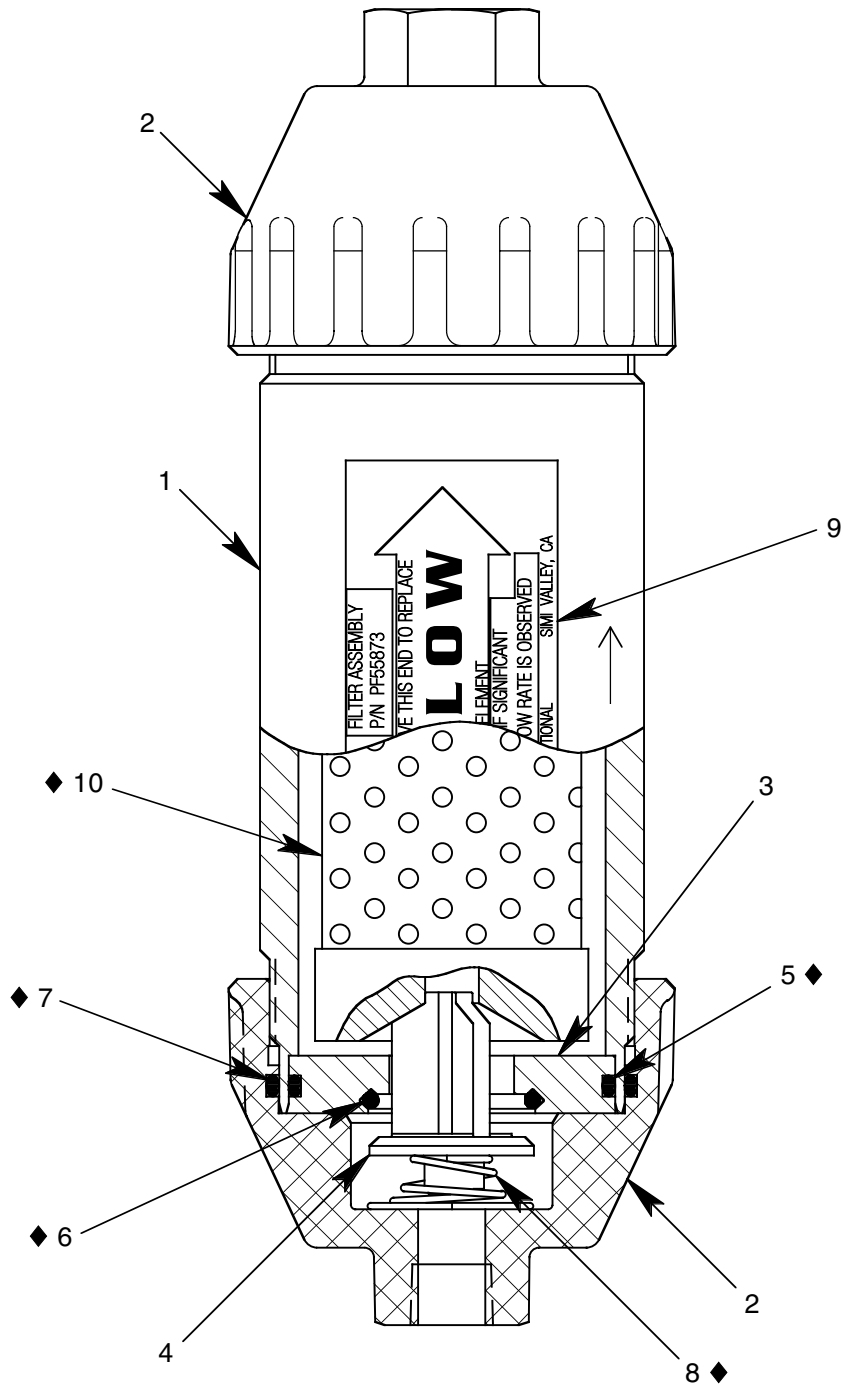
PF53481-125PWS UNIT ASSEMBLY

| NO. | QTY | PART NO. | PART NAME | NO. | QTY | PART NO. | PART NAME |
|-----|-----|-----------|-------------------------|-----|-----|-----------|-------------------------------|
| 1 | 1 | PF55956 | LOCKING FILLPORT ASSY | 6 | 1 | PF55871-2 | YOKE CLAMP |
| 2 | 1 | PF53628 | GASKET, FILLPORT | 7 | 3 | 342-010 | SCREW, FIL HD, 1/4-20 x 1" LG |
| 3 | 1 | 717-007 | PLUG, 3/8 NPT | 8 | 1 | 712-017 | ELBOW, STREET, 3/8 NPT |
| 4 | 10 | 329-007 | HHCS, 1/4-28 x 21/32 LG | 9 | 1 | 494-006 | HANDLE GRIP |
| 5 | 1 | 55925-329 | O-RING | | | | |

◆ PART OF REPAIR PARTS KIT



| NO. | QTY | PART NO. | PART NAME | NO. | QTY | PART NO. | PART NAME |
|-----|-----|----------|------------------------|-----|-----|-----------|----------------------------|
| 1 | 1 | PF55846 | PUMP BODY | 12 | 2 | 372-001 | COTTER PIN, 3/32 x 3/4 LG |
| 2 | 1 | PF53514 | TUBE | 13 | 1 | AN5-12A | HHCS, 5/16-24 x 1 11/32 LG |
| 3 | 1 | PF53515 | PLUNGER ROD | 14 | 1 | 55925-218 | O-RING |
| 4 | 1 | PF53594 | VALVE ASSEMBLY | 15 | 1 | 55925-210 | O-RING |
| 5 | 1 | PF53599 | PLUNGER BODY | 16 | 1 | PF55867 | HANDLE STOP |
| 6 | 1 | PF53517 | HANDLE | 17 | 1 | 717-006 | PLUG, 1/4 NPT |
| 7 | 1 | PF53533 | LINK | 18 | 1 | 495-038 | SPRING |
| 8 | 1 | PF53535 | VALVE PLATE | 19 | 1 | 55148 | SET SCREW |
| 9 | 1 | PF53600 | SPRING | 20 | 1 | 55153 | SPRING GUIDE |
| 10 | 2 | PF53518 | PIN | 21 | 1 | 412-004 | STEEL BALL, 1/4 DIA |
| 11 | 2 | 355-021 | SELF LOCK NUT, 5/16-24 | | | | |



◆ 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 |

PF5-6PK REPAIR PARTS KIT

| QTY | PART NO. | PART NAME |
|-----|------------|-------------------------------|
| 1 | PF55456 | HOSE ASSEMBLY |
| 1 | 55925-329 | O-RING |
| 1 | PF53602 | PUMP GASKET |
| 1 | PF53600 | SPRING |
| 2 | PF53518 | PIN |
| 2 | 355-021 | SELF LOCK NUT, 5/16-24 |
| 2 | 372-001 | COTTER PIN, 3/32 DIA x 3/4 LG |
| 1 | AN5-12A | HHCS, 5/16-24 x 1 11/32 LG |
| 1 | 55925-218 | O-RING |
| 1 | 55925-210 | O-RING |
| 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 | PF5-6PKDOC | REPAIR PARTS KIT LIST |