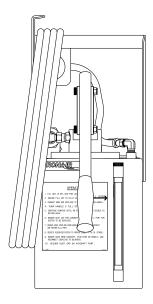


# **Operation & Service Manual**



Model: 06-5082-6700 Reservoir Service Unit

06/2014 - Rev. 01

**Includes Illustrated Parts Lists** 

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Model: 06-5082-6700 Reservoir Service Unit

This product can not be modified without the written approval of Tronair, Inc. Any modifications done without written approval voids all warranties and releases Tronair, Inc., its suppliers, distributors, employees, or financial institutions from any liability from consequences that may occur. Only Tronair OEM replacement parts shall be used.

#### 1.0 GENERAL DESCRIPTION

The Tronair 06-5082-6700 Reservoir Service Unit is a commercial unit with features added to support control of contamination in aircraft hydraulic systems through the servicing process.

There are three primary contaminants for hydraulic fluid; dirt, air, and water. The unit will remove dirt, metal, or other solid particles with a 2 micron filter located in the output (servicing) line. Re-circulating the fluid, prior to servicing, removes particulate contamination from the servicing line and couplings. This will also remove air, which will be visible in the transparent return hose. Pressure and vacuum valves in the reservoir fill cap minimize tank breathing and thereby control the entry of water into the fluid.

#### 2.0 SPECIFICATIONS

Weight: Approximately 18 lbs (8.2 kg) Dry

Height: 21 in (53.3 cm)
Width (Overall): 10 ¼ in (26 cm)
Depth (Overall): 14 3/8 in (36.5 cm)
Fluid: MIL-PRF-87257 (Viton)

**Filtration:** 2 micron inline filter with replaceable element

**External Hose:** 15 ft (4.6 m) 0.25 in (6.35 mm) I.D.

**Reservoir:** Sealed, 2 g (7.6 liter) capacity, stainless steel tank, with carrying handle

Pump: 4 cubic in (65.5 cu cms) per stroke (cycle). Maximum output pressure rating is 200 psi (13.8 bar).

#### 3.0 FEATURES

- 8 inch (20.3 cm) sight glass for easy detection of fluid level.
- Sealed fill cap with pressure relief and vacuum breaker valves.
- Transparent return line for purging air from system prior to servicing aircraft.

#### 4.0 PREPARATION FOR USE

The unit is shipped fully assembled with the exception of customer supplied quick-disconnect couplings. Only the following steps are required to make it operational.

#### **CAUTION!**



Use only the type of fluid for which the unit is labeled. Using other fluids will cause contamination and seal deterioration.

- 1. Install the applicable quick-disconnect couplings to the service hose and bulkhead plate.
- 2. Connect the return hose to the bulkhead coupling.
- 3. Remove the fill cap and fill reservoir to maximum fill arrow.

#### NOTE: Filling must be accomplished in a dry area to control water contamination.

- 4. Connect the guick-disconnect coupling halves together.
- 5. Stroke hand pump several cycles to purge air from the service line.



Model: 06-5082-6700 Reservoir Service Unit

#### 5.0 OPERATION

The Reservoir Service Unit has a two inch fill cap for gravity filling from one quart or one gallon cans. The unit can also be filled with a pressure fill unit through the aircraft quick-disconnect coupling.

#### NOTE: Remove the fill cap from the 06-5082-6700 to vent the reservoir when filling with a pressure fill unit.

Filling must be accomplished in a dry area. The fill cap must always be kept securely closed when the reservoir is not being filled. The cap is equipped with a dual check valve to prevent humid air from contaminating the fluid. One portion of the check valve prevents the dry air in the reservoir from escaping until internal pressure reaches 5 psi (0.34 bar). The second portion of the valve prevents moist air from entering the reservoir until a vacuum of approximately 0.5 (1/2) psi (0.034 bar) is created. This fill cap automatically vents the unit to allow fluid to be dispensed but greatly limits the exchange of air with the atmosphere during daily temperature changes.

#### To Use the Reservoir Service Unit:

- 1. Stroke the pump several times prior to each servicing operation. Check to see that no air bubbles are visible in the clear hose that is returning fluid to the reservoir. If the pumps action is spongy, re-circulate the fluid using full strokes to eliminate air in the pump. The pump handle should stay completely down when released.
- 2. Remove the dust cap from the GSE return port of the system to be serviced. The onboard fill valve can be in any position.
- 3. Remove the hose quick-disconnect from the coupling mounted on the handle, and secure to the GSE return port.
- 4. Fill the reservoir to the proper level. The hand pump will dispense one quart per 15–17 strokes.
- 5. Remove the quick-disconnect from the GSE return port and immediately re-secure it to the mounting half on the handle of the Reservoir Service Unit.

#### 6.0 MAINTENANCE

- The filter is of a non-bypass design with a replaceable element. As the filter element becomes clogged, higher handle
  force may be required for a given flow rate. High handle force while in a re-circulating or other "free flow" condition
  indicates the need for filter element replacement.
- DO NOT force the pump handle when a clogged filter element is suspected.
- It is best to set up a filter maintenance schedule based on usage and actual fluid samples. For units with low usage, the filter element should be changed at least once annually.

#### 7.0 PARTS LISTS & ILLUSTRATIONS

Reference the following pages for Replacement Parts and Kits available.

#### 8.0 GUARANTEES/LIMITATION OF LIABILITY

Tronair products are warranted to be free of manufacturing or material defects for a period of one year after shipment to the original customer. This is solely limited to the repair or replacement of defective components. This warranty does not cover the following items:

- a) Parts required for normal maintenance
- b) Parts covered by a component manufacturers warranty
- c) Replacement parts have a 90-day warranty from date of shipment

If you have a problem that may require service, contact Tronair immediately. Do not attempt to repair or disassemble a product without first contacting Tronair, any action may affect warranty coverage. When you contact Tronair be prepared to provide the following information:

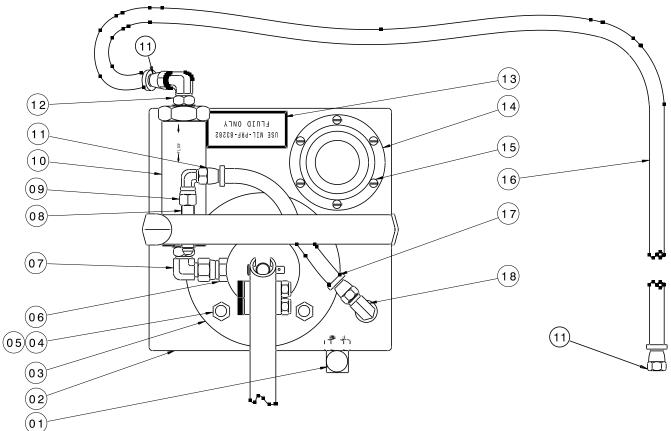
- a) Product Model Number
- b) Product Serial Number
- c) Description of the problem

If warranty coverage is approved, either replacement parts will be sent or the product will have to be returned to Tronair for repairs. If the product is to be returned, a Return Material Authorization (RMA) number will be issued for reference purposes on any shipping documents. Failure to obtain a RMA in advance of returning an item will result in a service fee. A decision on the extent of warranty coverage on returned products is reserved pending inspection at Tronair. Any shipments to Tronair must be shipped freight prepaid. Freight costs on shipments to customers will be paid by Tronair on any warranty claims only. Any unauthorized modification of the Tronair products or use of the Tronair products in violation of cautions and warnings in any manual (including updates) or safety bulletins published or delivered by Tronair will immediately void any warranty, express or implied.

The obligations of Tronair expressly stated herein are in lieu of all other warranties or conditions expressed or implied. Any unauthorized modification of the Tronair products or use of the Tronair products in violations of cautions and warnings in any manual (including updates) or safety bulletins published or delivered by Tronair will immediately void any warranty, express or implied and Tronair disclaims any and all liability for injury (WITHOUT LIMITATION and including DEATH), loss or damage arising from or relating to such misuse.



Parts List
When ordering Replacement Parts/Kits, please specify Model & Serial Number of your product.



| Item      | Part Number         | Description                        | Qty |
|-----------|---------------------|------------------------------------|-----|
| 1         | HC-2212-08          | Gauge, Sight                       | 1   |
| 2         | Z-5578              | Weldment, 2 gal (7.6 lt) Container | 1   |
| 3         | HC-2171 (See Page7) | Pump, Hand (Viton)                 | 1   |
| 4         | G-1463-1070         | Nut, 3/8-16 Acorn Hex              | 4   |
| 5         | G-1250-1070N        | Flatwasher, 3/8 Narrow             | 4   |
| 6         | N-2036-03-S-B       | Swivel, Female 37°                 | 1   |
| 7         | N-2001-08-S-B       | Elbow, Straight Thread             | 1   |
| 8         | N-2061-01           | Union, Bulkhead                    | 1   |
| 9         | N-2005-03-S         | Elbow, Swivel Nut                  | 1   |
| 10        | HC-2141             | Filter, In-Line (Viton)            | 1   |
|           | K-3659              | Element Kit                        | 1   |
| 11        | N-2026-01-S         | Swivel, JIC 37° Hose Fittings      | 4   |
| 12        | N-2001-05-S-B       | Elbow, Straight Thread             | 1   |
| 13        | V-2027              | Label, MIL-PRF-87257               | 1   |
| 14        | HC-2166             | Filler-Breather                    | 1   |
| 15        | G-1157-103506       | Screw, #10-32 Pan Hd Crs Rec       | 6   |
| 16        | Tf-1105-04*180      | Assembly, Hose                     | 1   |
| 17        | TF-1136-10*10.5     | Hose, Clear Vinyl Tubing           | 1   |
| 18        | N-2005-04-S         | Elbow, Male                        | 1   |
| Not Shown | HC-2007-334         | O-ring (Pump Mounting Gasket)      | 1   |
| Not Shown | Z-5677              | Assembly, Can Opener with Lanyard  | 1   |

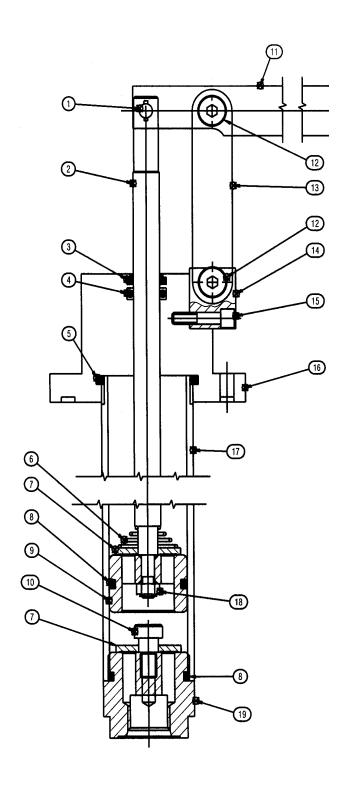




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## Parts List - HC-2171 (Viton) Hand Pump







Parts List - HC-2195 (Mineral Base) Hand Pump When ordering Replacement Parts/Kits, please specify Model & Serial Number of your product.

| Item      | Part Number        | Description                              | Qty |
|-----------|--------------------|--|-----|
| 2         | CXD-020004-004     | Piston Rod                               | 1   |
| 6         | CENT-TA-2098       | Spring                                   | 1   |
| 7         | CXD-020004-006     | Flapper                                  | 2   |
| 9         | CXD-020004-005     | Piston                                   | 1   |
| 10        | 09-AHDF-06-18 x 04 | Shoulder Screw                           | 1   |
| 13        | 512-000            | Strap                                    | 2   |
| 14        | CXD-020004-009     | Mounting Block                           | 1   |
| 15        | 09-ADDF-0J-32 x 14 | Socket Head Cap Screw                    | 2   |
| 16        | CXD-020004-002     | Cap & Mounting Flange                    | 1   |
| 17        | CXD-020004-003     | Tube                                     | 1   |
| 18        | 08-ADFH-04-28      | Prevailing Locknut                       | 1   |
| 19        | CXD-020004-001     | End Cap, Blind End                       | 1   |
| Not Shown | CXD-020057-001     | Grip, Handle                             | 1   |
|           | HK-3715            | Kit, Pump Seal Replacement; consists of: |     |
| 3         |                    | Wiper, Urethane                          | 1   |
| 4         |                    | O-ring, BUNA                             | 1   |
| 5         |                    | O-ring, BUNA                             | 1   |
| 8         |                    | O-ring                                   | 2   |
|           | HK-3768            | Kit, Handle Replacement; consists of:    |     |
| 1         |                    | Pin Linkage Assembly                     | 1   |
| 11        |                    | Pump Handle                              | 1   |
| 12        |                    | Pin Linkage Assembly                     | 2   |
| Not Shown | K-3659             | Kit, Filter Element; consists of:        |     |
|           | HC-2007-011        | O-ring, Series 2                         | 1   |
|           | HC-2014-914        | O-ring, Series 3                         | 1   |
|           | HC-2142            | Element, Filter                          | 1   |