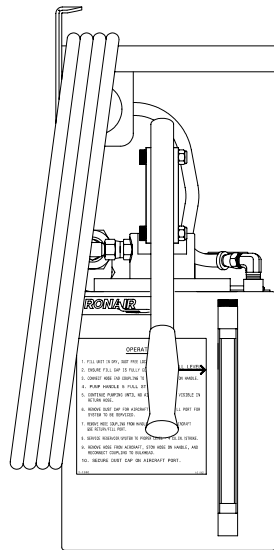




Operation & Service Manual



Model: 06-5022-6500-A7 Reservoir Service Unit

10/2002 – AA – Rev. 02

Includes Illustrated Parts Lists

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Model: 06-5022-6500-A7
Reservoir Service Unit

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**Model: 06-5022-6500-A7
Reservoir Service Unit**

1.0 GENERAL DESCRIPTION

The Tronair 06-5022-6500-A7 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 inches (53.3 cm)
- Width (Overall): 10-1/4 inches (26 cm)
- Depth (Overall): 14-3/8 inches (36.5 cm)
- Fluid: MIL-PRF-83282
- Filtration: 2 micron in line filter with replaceable element
- External Hose: 15 ft (4.6 m) 0.25 inch (6.35 mm) I.D.
- Reservoir: Sealed, 2 gallon (7.6 liter) capacity, stainless steel tank, with carrying handle
- Pump: 4 cubic inches (65.5 cu cms) per stroke (cycle). Maximum output pressure rating is 200 psi (13.8 bars).

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.
- Bulkhead plate for installation of size #12 bulkhead Q.D coupling.
- Transparent return line for purging air from system prior to servicing aircraft.
- Adapter fittings for connecting size #12, MS33656 and MS33657 type Q.D. couplings.

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.*

4.0 Preparation for Use continued on following page.

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4.0 PREPARATION FOR USE

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

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 06-5022-6500-A7 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.

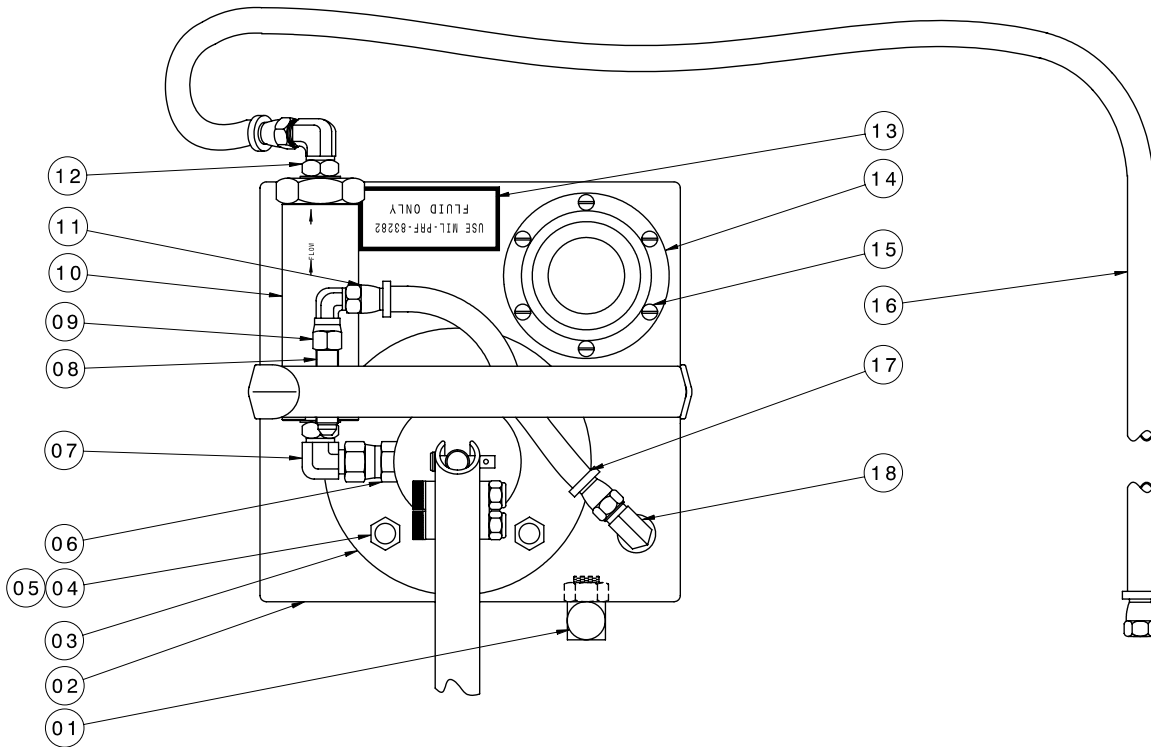
7.0 PARTS LISTS & ILLUSTRATIONS

Reference Pages 3 to 5 for Replacement Parts and Kits available.

**Model: 06-5022-6500-A7
Reservoir Service Unit**

Parts List

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



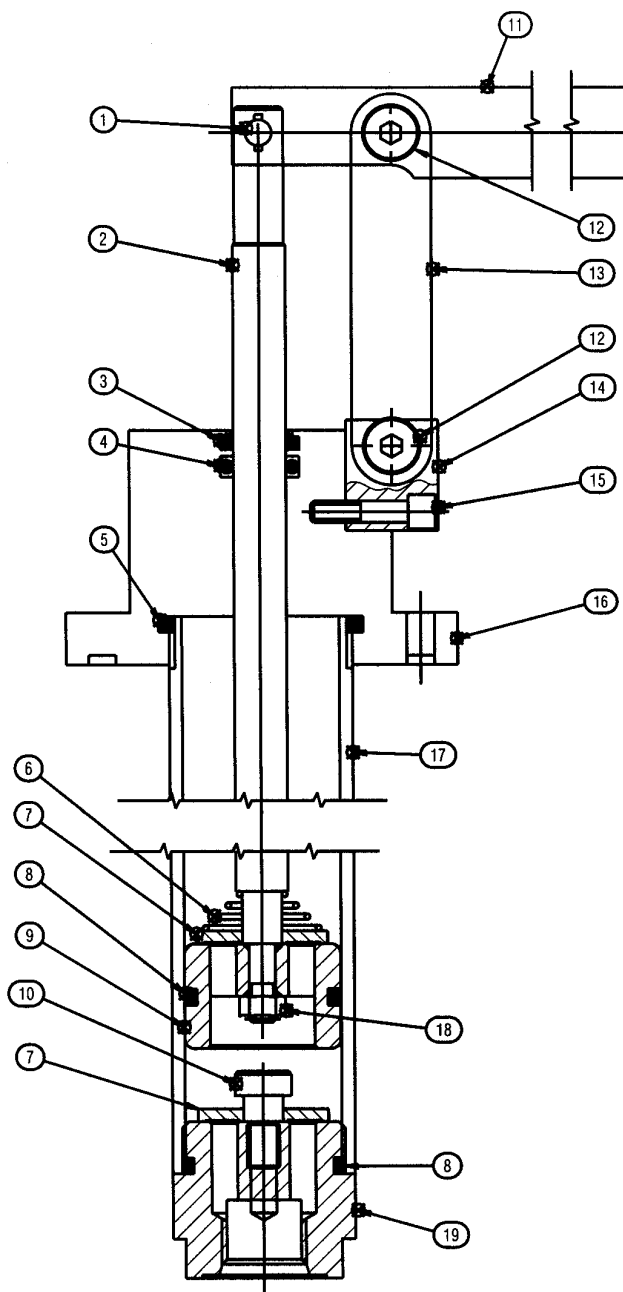
ITEM	PART NUMBER	DESCRIPTION	QTY
1	HC-1382-08	Gauge, Sight	1
2	Z-5578	Weldment, 2 gallon Container	1
3	HC-2195 (See Page 4)	Pump, Hand (Mineral Base)	1
4	G-1463-1070	Nut, 3/8-16 Acorn Hex	4
5	G-1250-1070N	Flatwasher, 3/8 Narrow	4
6	N-2036-03-S-B	Swivel, Female 37°	1
7	N-2001-08-S-B	Elbow, Straight Thread	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
11	N-2026-01-S	Swivel, JIC 37° Hose Fittings	2
12	N-2001-05-S-B	Elbow, Straight Thread	1
13	V-1101-01	Label, MIL-PRF-83282	1
14	HC-2166	Filler-Breather	1
15	G-1157-103506	Screw, #10-32 Pan Hd Crs Rec	6
16	Z-1698-01	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-2000-334	O-ring (Pump Mounting Gasket)	1
Not Shown	N-2055-08-S	Reducer, Tube	2
Not Shown	N-2450-08-8	Locknut, Bulkhead	1

Reference Page 5 for Replacement Kits.

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HC-2195 Hand Pump



HC-2156 Hand Pump (Mineral Base Fluid) Parts List

ITEM	PART NUMBER	DESCRIPTION	QTY
1	CXD-020004-010	Pin Linkage Assembly	1
2	CXD-020004-004	Piston Rod	1
3	07-206-U090	Wiper, Urethane	1
4	526-060	O-ring, BUNA	1
5	01-223-A070	O-ring, BUNA	1
6	CENT-TA-2098	Spring	1
7	CXD-020004-006	Flapper	2
8	526-120	O-ring	2
9	CXD-020004-005	Piston	1
10	09-AHDF-06-18 x 04	Shoulder Screw	1
11	CXD-020057-008	Pump Handle	1
12	CXD-020004-007	Pin Linkage Assembly	2
13	512-000	Strap	2
14	CXD-020004-009	Mounting Block	1
15	09-ADDF-0J-32 x 14	Socket Head Cap Screw	1
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

Parts List

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

REPLACEMENT KITS

<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>QTY</u>
K-3659	Kit, Filter Element; consists of: HC-2007-011 O-ring, Series 2 HC-2014-914 O-ring, Series 3 HC-2142 Element, Filter	 1 1 1
HK-3682	Kit, Pump Seal Replacement; consists of: Piston Seal End Cap Seals Rod Seal Rod Wiper	 1 2 1 1
HK-3768	Kit, Handle Replacement; consists of: Pump Handle with Grip Shoulder Bolts Elastic Stopnuts Clevis Pin Roll Pin	 1 2 2 1 1

Optional Quick Disconnect Couplings

Helicopter:	AH-64, OH-58, UH-1, UH-60
Hose End Coupling:	N-2417-06
Bulkhead Plate Coupling:	N-2705-06
Helicopter:	CH-47
Hose End Coupling:	N-2424-06
Bulkhead Plate Coupling:	N-2559-05