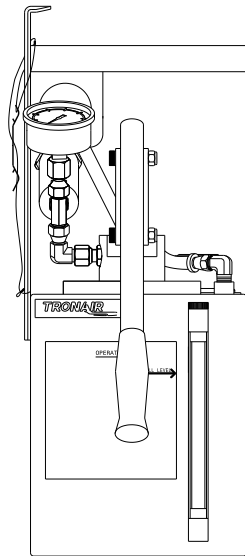




Operation & Service Manual



Model: 06-5081-6500 Brake Bleed Unit

04/2013 – Rev. 01

Includes Illustrated Parts Lists

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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 Brake Bleed 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. 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-5606 (Mineral Base)
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 in (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. 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. Connect output hose to modified cap on bulkhead plate.
2. Remove the fill cap and fill reservoir to maximum fill arrow.

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

3. Stroke hand pump several cycles to purge air from the service line.

5.0 OPERATION

The Brake Bleed Unit has a two inch fill cap for gravity filling from one quart or one gallon cans.

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. Fill unit in dry, dust free location. For brake and strut servicing use only MIL-PRF-5606
2. Ensure fill cap is fully closed
3. Connect hose end coupling to bulkhead nipple on handle
4. Pump handle 5 full strokes
5. Continue pumping until no air bubbles are visible in return hose
6. Connect to brake caliper
7. Connect additional hose to master cylinder, drain into a waste bucket
8. Service system – 4 cu.in/stroke, 30 psi maximum pressure
9. Remove hoses from aircraft, stow hoses on handle, and reconnect coupling to bulkhead

6.0 MAINTENANCE

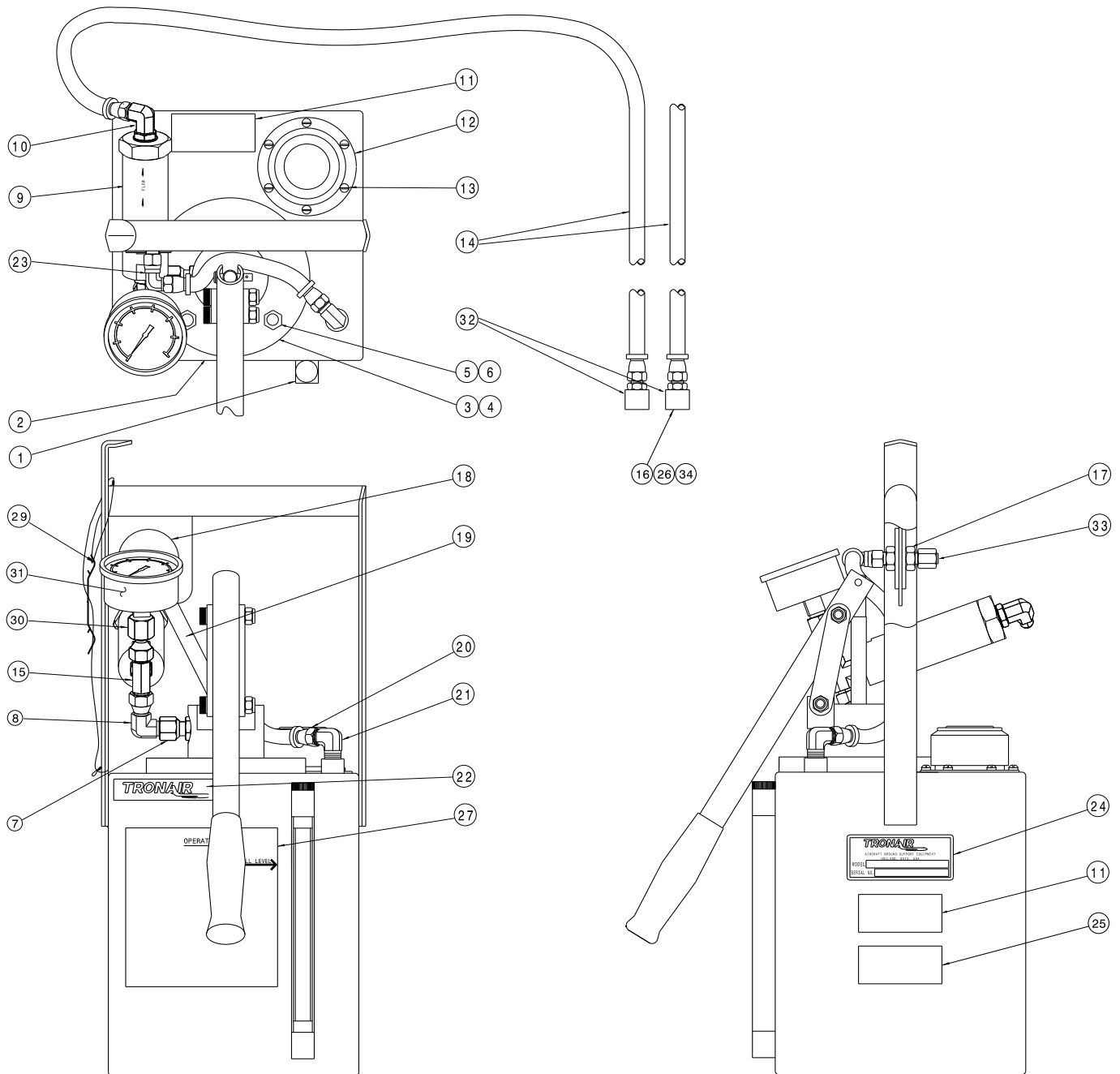
- The filter is of a non-bypass design with a replaceable element. As the filter element becomes clogged, higher handle force may be required for a given flow rate. High handle force while in a re-circulating or other “free flow” condition indicates the need for filter element replacement.
- DO NOT force 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 following pages for Replacement Parts and Kits available.

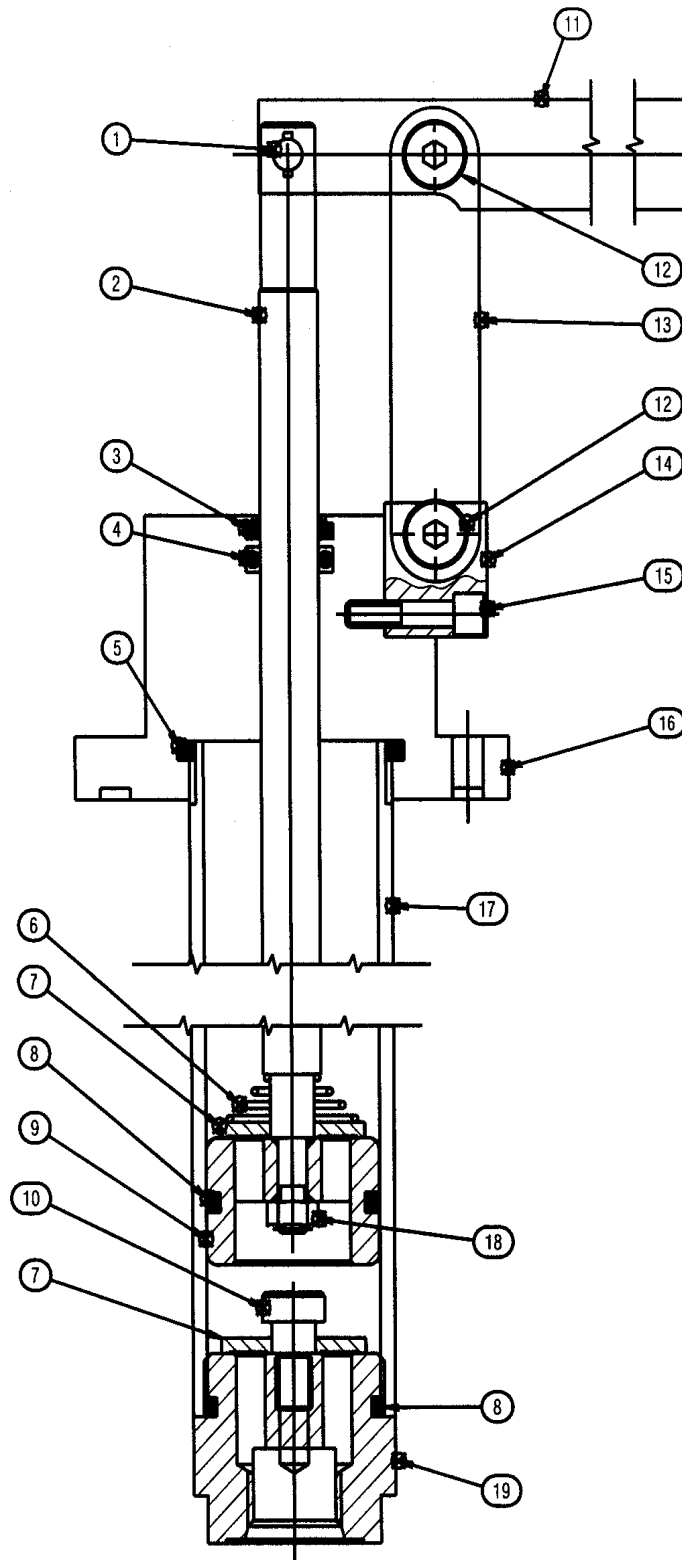
Parts List

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



Parts List

Item	Part Number	Description	Qty
1	HC-1382-08	Gauge, Sight	1
2	Z-5578	Weldment, 2 gal (7.6 lt) Container	1
3	HC-2195	Pump, Hand (Mineral Base)	1
5	G-1463-1070	Nut, 3/8-16 Acorn Hex	4
6	G-1250-1070N	Flatwasher, 3/8 Narrow	4
7	N-2036-03-S-B	Swivel, Female 37°	1
8	N-2002-05-S	Swivel, Elbow (-06)	1
9	HC-2141	Filter, In-Line (Viton)	1
10	N-2001-05-S-B	Elbow, Straight Thread	1
11	V-1102	Label, MIL-PRF-5606	3
12	HC-2166	Filler-Breather	1
13	G-1157-103506	Screw, #10-32 Pan Hd Crs Rec	6
14	Z-1698-01	Assembly, Hose	2
15	N-2092-03-S-B	Tee, Branch, Straight Thread	1
16	N-2099-03	Plug, Modified	1
17	N-2061-01	Union, Bulkhead	1
18	G-1473	Washer, ½ ID x 2 OD Flat	2
19	TF-1136-10*10.5	Hose, Clear Vinyl Tubing	1
20	N-2026-01-S	Swivel, JIC 37° Hose Fittings	2
21	N-2005-04-S	Elbow, Male	1
22	V-1197-01	Label, Tronair, Inc.	2
23	N-2002-03-S	Elbow, Swivel Nut (4)	1
24	V-1003	Label, Serial Number	1
25	V-1001	Label, Made In USA	1
26	H-1389	Cable, Nylon Coated	1
27	V-2468	Label, Operation	1
29	Z-5677	Assembly, Can Opener with Lanyard	1
30	N-2058-03-S	Adaptor, Swivel (6-4)	1
31	HC-2320	Gauge, Pressure 300 PSI	1
32	K-4395	Kit, Brake Adapter	2
33	N-2925	Cap, Modified	1
34	H-1390	Ferrule	2

Parts List - HC-2195 (Mineral Base) Hand Pump


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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-3682	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