



Operation & Service Manual



**Model: 06-4035-3600
Hydraulic Service Unit**

03/2003 – AA – Rev. 15

Includes Illustrated Parts List

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**Model: 06-4035-3600
Hydraulic 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.

1.0 GENERAL DESCRIPTION

The Tronair Hydraulic Service Unit (HSU) is a compact unit designed to provide a source of clean, pressurized fluid for filling reservoirs, bleeding brakes and other maintenance functions.

2.0 SPECIFICATIONS

Tank Capacity: 8 gallons
Maximum Pressure: 500/4000 psig
Fluid: Phosphate Ester
Filtration: 3 Micron
Weight: 55 lbs

3.0 FEATURES

- 15 foot hose
- Pressure gauge
- Shut-off valve for component testing
- 4000 PSI hi-low pump provides high flow and high pressure capability

4.0 PREPARATION FOR USE

The HSU is shipped fully assembled and only the following steps are required to make the unit operational:

1. Service Reservoir: Fill reservoir with appropriate clean fluid.
2. Adjust handle height to suit.

Remove Air From HSU System By:

1. Close manual pump release screw. (Located at lower right corner of pump base block.)
2. Open shut-off valve. (Adjacent to pressure gauge.)
3. Move pump handle to top of stroke.
4. Remove pipe plug located near top side of piston cylinder.
5. Lower handle until there is fluid filling (spilling out) the top cavity.
6. Re-install pipe plug.
7. Flow fluid by actuating manual pump.

5.0 OPERATION

5.1 HYDRAULIC SERVICE UNIT OPERATION

Follow the steps below:

1. Securely attach hose to the aircraft.
2. Close pump release screw.
3. Open shut-off valve.
4. Transfer hydraulic fluid by actuating the manual hydraulic pump.

When Service Has Been Completed:

1. Open pump release screw to relieve hydraulic pressure.
2. Disconnect hose from aircraft.
3. Install hose end dust plug.

5.2 COMPONENT TESTING

- A shut-off valve has been provided to assure no back flow of fluid and therefore is to be closed after the required pressure has built up in the system.
- Pressure is relieved by opening this shut-off valve and the pump release screw.

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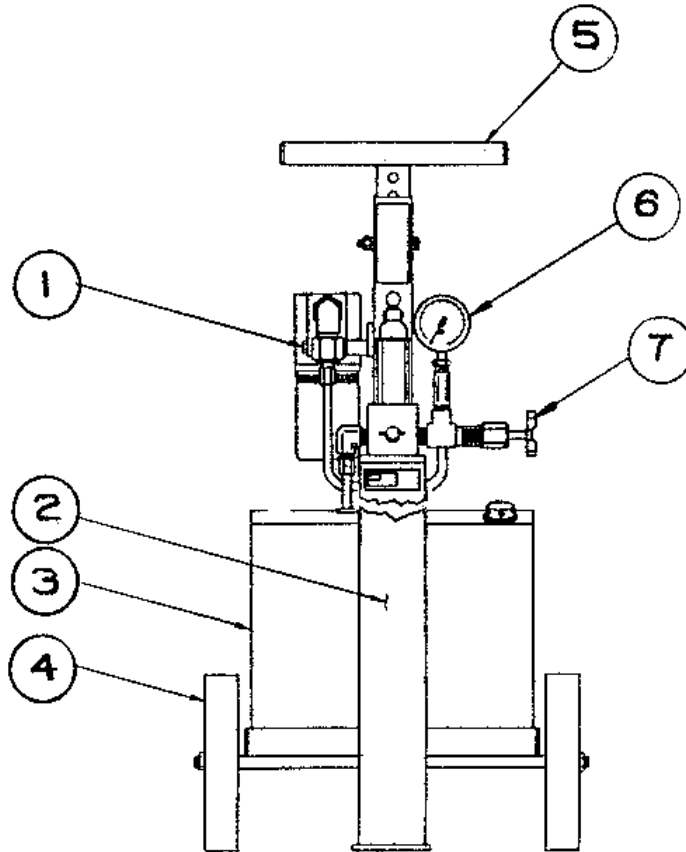
6.0 PARTS LIST

Reference Pages 3 – 6 for ordering information of Replacement Parts and Kits.

Parts List

Hydraulic Service Unit

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



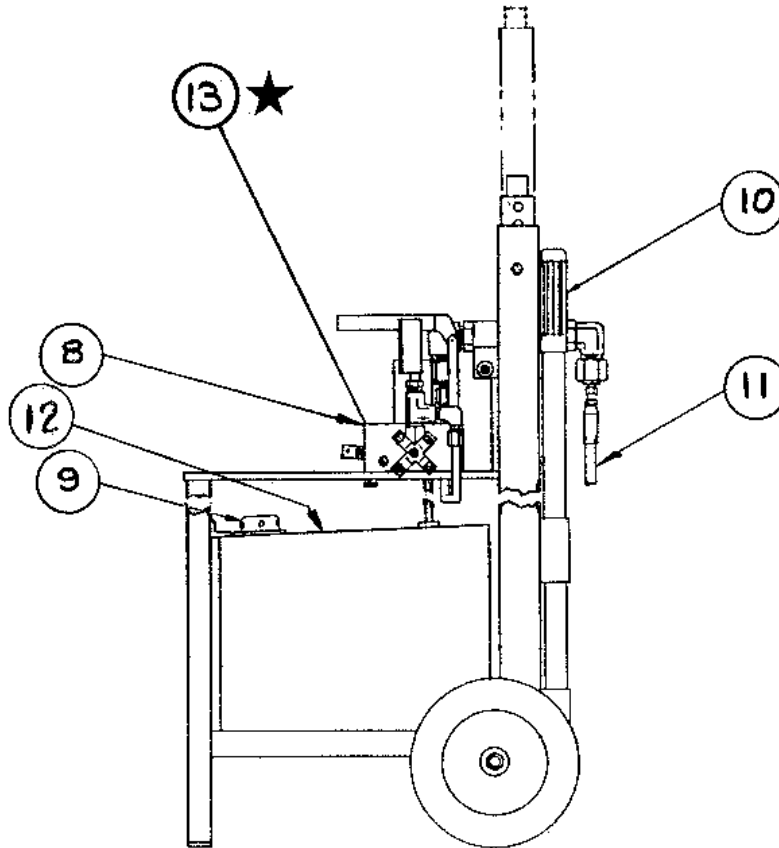
Note: Height not drawn to scale.

ITEM	PART NUMBER	DESCRIPTION	QTY
1.....	HC-1084 (See Page 5)	Assembly, Pressure Filter (Phosphate Ester)	1
2.....	Z-1218-02	Frame	1
3.....	C-189	Tank	1
4.....	U-1001-01	Wheel	2
5.....	Z-1083-01	Handle, Unit	1
6.....	HC-1042	Gauge, Pressure	1
7.....	HC-1101-02 (See Page 6)	Valve, Shut Off (Phosphate Ester)	1

Parts List

Hydraulic Service Unit

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



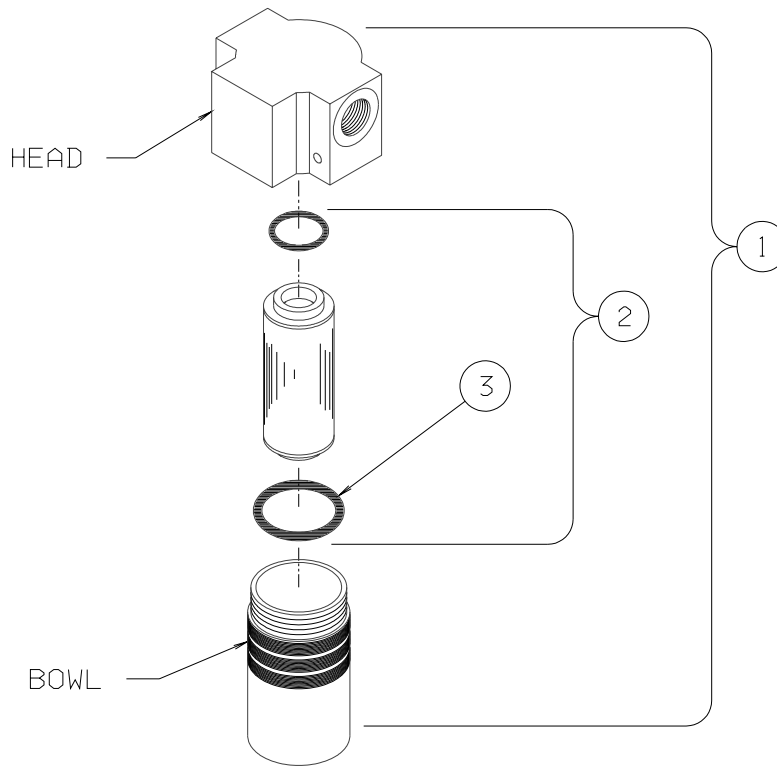
∅ Hose hidden behind pump.

ITEM	PART NUMBER	DESCRIPTION	QTY
9.....	HC-1030.....	Breather.....	1
10.....	H-1009-01.....	Handle, Pump.....	1
11.....	TF-1041-05*180.....	Assembly, Hose.....	1
12.....	V-1100.....	Label (Fluid Type).....	1
13.....	TF-1030-01*06.5.....	Hose, Pump Suction.....	1
Not Shown.....	K-1985.....	Screw, Replacement.....	1
8.....	K-2466-02	Kit, Pump Replacement; consists of:	
.....	HC-1035 (See Appendix I).....	Pump, 2 Stage Hydraulic (Phosphate Ester).....	1
.....	INS-1334.....	Instruction, Pump Replacement.....	1
.....	TF-1030-01*12.0.....	Hose.....	1

Parts List

HC-1084 Pressure Filter (4 inch) Assembly

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

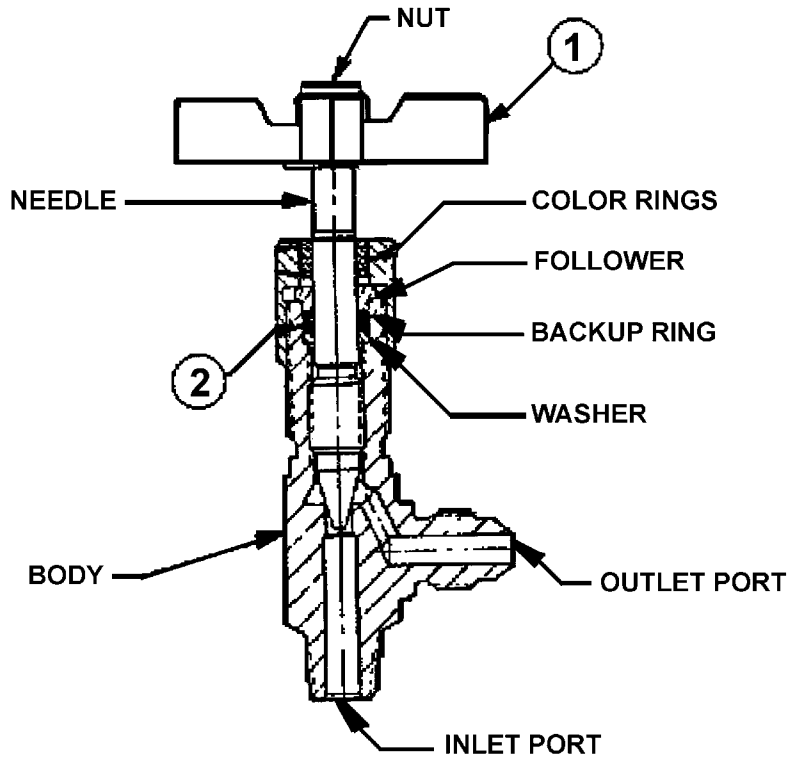


ITEM	PART NUMBER	DESCRIPTION	QTY
1	HC-1084	Assembly, Filter (Phosphate Ester)	1
2	K-1415	Kit, Filter Element (Phosphate Ester); <i>consist of:</i>	
	HC-1417	Element, Filter (Phosphate Ester)	1
	HC-2006-136	O-ring, Series 2	1
3	HC-2006-138	O-Ring, Bowl (Phosphate Ester)	1

Parts List

HC-1101-02 Shut-Off Valve

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



ITEM	PART NUMBER	DESCRIPTION	QTY
(Complete Component)	HC-1101-02	Assembly, Valve (Phosphate Ester)	1
1	HC-1082	Handle, Valve	1
2	HC-2006-011	O-ring (Phosphate Ester)	1



APPENDIX I

**HC-1035
Hand Pump
Parts List**



HC-1035 Hydraulic Hand Pump

Parts List With Illustrations

08/1998 – Rev. 04

** When ordering Replacement Parts/Kits, please specify Model, Color and Serial Number of your Unit.**

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Parts List

This pump is compatible with Phosphate Ester Hydraulic Fluids.

REPLACEMENT PARTS

Reference Parts List Illustration on Page 3.

ITEM	PART NUMBER	DESCRIPTION	QTY.
1	501-000	Pump Body	1
7	555-000	Bushing – 3/8 x 3/8 NPT	1
8	508-000	Pivot	1
9	510-001	Pin Assembly	2
10	509-000	Bracket - Pump Handle	1
11	511-240	Handle	1
12	529-000	Handle Grip	1
13	512-000	Strap	2
27	505-000	Plug	3
28	577-120	Spring - Outlet Plug (L.P.)	1
29	571-120	Piston - Bypass	1
30	560-120	Valve Body	1
31	569-120	Ball - Bypass	1
32	564-120	Retainer Plate	1
33	562-125	Piston - High Pressure	1
34	566-125	Piston - Low Pressure	1
35	531-000	Clevis Pin	1
36	532-000	Cotter Pin	1
37	568-120	Tie Rod	4
38	582-125	Flange	1
39	563-120	Tube - Low Pressure	1
40	583-121	Plug – 1/16 NPT	1

Parts List

Reference Parts List Illustration on Page 3.

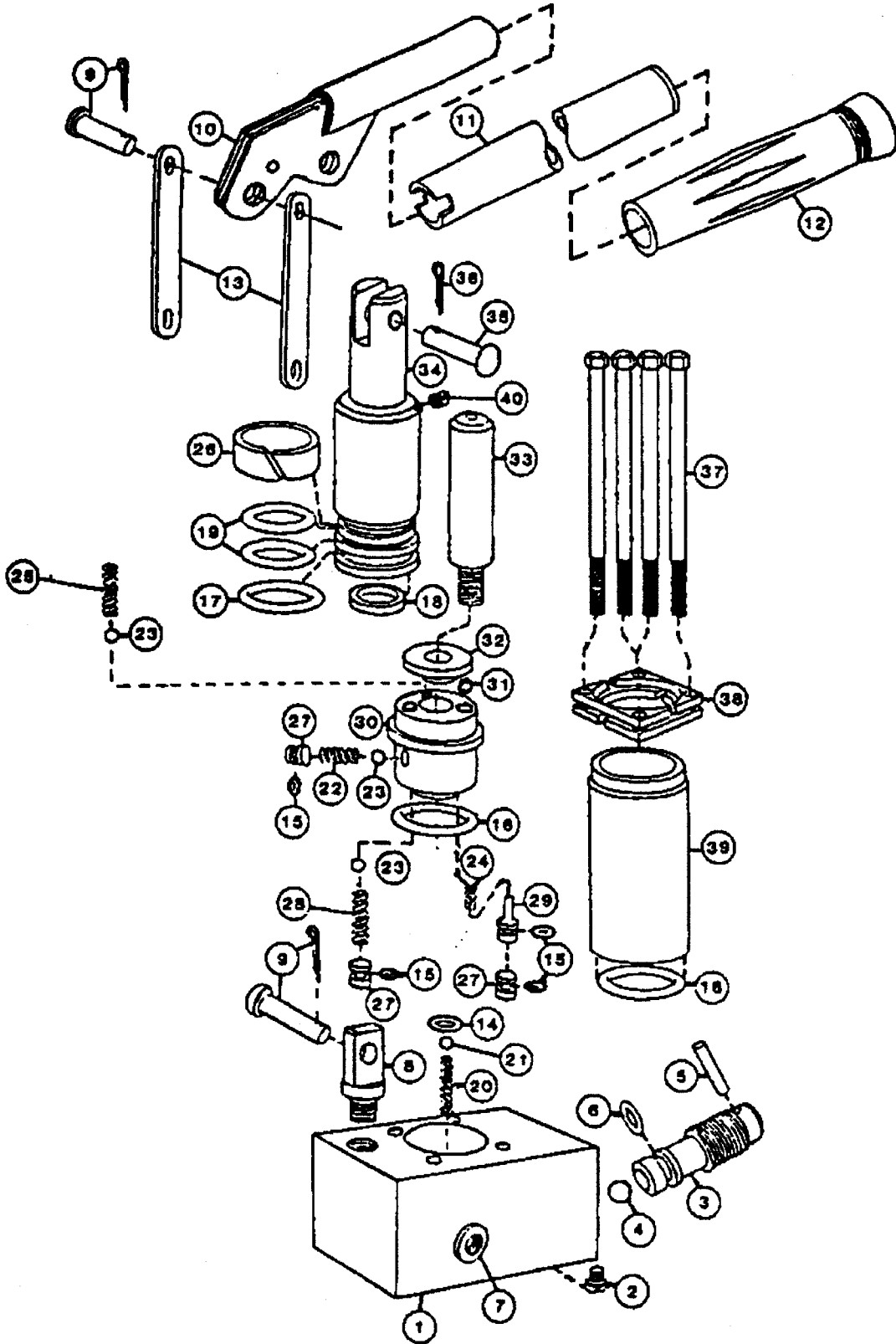
REPLACEMENT KITS

ITEM	PART NUMBER	DESCRIPTION	QTY.
	K-1030	Pump Valve Rebuilt Kit; <i>consists of:</i>	1
◆ 6.....		O-ring - Release Screw	
14.....		O-ring - Output Check	
15.....		O-ring - Inlet Check	
16.....		O-ring - Valve Body	
17.....		O-ring - Piston Seal	
18.....		Packing - Piston	
19.....		O-ring - Guide Shoe	
26.....		Piston Guide Shoe	
	K-1095	Pump Check Valve Hard Part Kit; <i>consists of:</i>	1
◆ 4.....		Release Ball	
20.....		Spring - Output Check	
21.....		Ball - Output Check	
22.....		Spring - Inlet Check	
23.....		Ball - Inlet Check	
24.....		Spring - Bypass	
25.....		Spring - Intake (L.P.)	
	K-1985	Relief Valve Rebuilt Kit; <i>consists of:</i>	1
2.....		Screw Retainer	
3.....		Release Screw	
◆ 4.....		Release Ball	
5.....		Drive Pin	
◆ 6.....		O-ring - Release Screw	

NOTES: 1) Items designated as kits contain all hardware necessary for installation.
 2) Unless otherwise listed, all replacement bolts should be Grade 5 or better.

◆ Items that are in more than one kit.

Parts List Illustration



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APPENDIX II

DOC-1004 Instrument Certification Notice



INSTRUMENT CERTIFICATION NOTICE

The gauge Certificates of Calibration supplied for the gauge(s) on this unit contain the calibration data for the actual instrument calibrated, along with the calibration date of the **STANDARD** used to perform the calibration check.

The due date for re-calibration of the instrument should be based upon the date the instrument was placed in service in your facility. Re-calibration should be done on a periodic basis as dictated by the end user's quality system or other overriding requirements.

Note that Tronair, Inc. does not supply certificates of calibration on flow meters or pyrometers unless requested at the time of placed order. These instruments are considered reference indicators only and are not critical to the test(s) being performed on the aircraft.

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