



## Operation & Service Manual



### **06-5052-3600 Hydraulic Service Unit**

12/2004 – Rev. OR

**Includes Illustrated Parts Lists**

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**Model: 06-5052-3600  
Hydraulic Service Unit**

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**Model: 06-5052-3600**  
**Hydraulic Service Unit**

REVISION  
OR

DATE  
12/2004

TEXT AFFECTED  
Original Release

**TRONAIR**

12/2004 – AA – Rev. OR

**Model: 06-5052-3600  
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. Only Tronair OEM replacement parts shall be used.

### 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

<b>Tank Capacity:</b>	8 gallon
<b>Maximum Pressure:</b>	500/4000 psig
<b>Fluid:</b>	Phosphate Ester
<b>Filtration:</b>	2 Micron
<b>Weight:</b>	65 lbs

### 3.0 FEATURES

- 15 foot hoses
- Pressure gauge
- Shut-off valve for component testing
- 4,000 psi high/low pump provides high flow and high pressure capability.
- Four-way valve for testing double acting cylinder
- Quick disconnects

### 4.0 PREPARATION FOR USE

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

1. Apply appropriate fluid label on reservoir near fill opening. (See Illustrated Parts List.)
2. Service reservoir - fill reservoir with appropriate clean fluid.
3. Adjust handle height to suit.

#### **Remove Air from Hydraulic Service Unit System by:**

1. Close manual pump release screw (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

1. Securely attach hose(s) to the aircraft.
2. Close pump release screw.
3. Open shut-off valve.
4. Select output hose #1 or #2 by rotating handle pointer to selected hose.
5. 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(s) from aircraft.

Install 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 pump release screw.

### 6.0 PARTS LIST

Reference following pages for ordering information of Replacement Parts and Kits.

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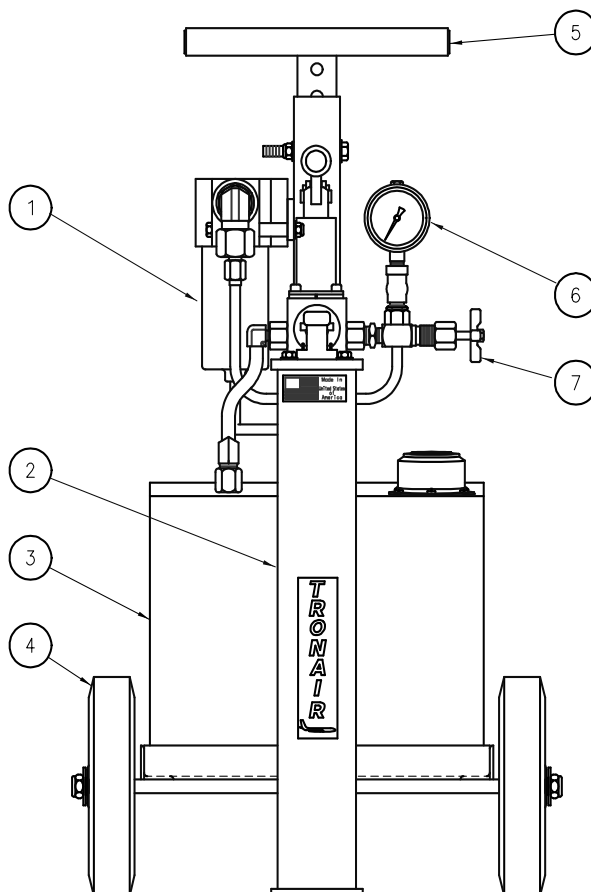
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Model: 06-5052-3600  
 Hydraulic Service Unit

**Parts List**  
**Hydraulic Service Unit**

When ordering replacement parts/kits, please specify model, serial number and color of your unit.



ITEM	PART NUMBER	DESCRIPTION	QTY
1	HC-1084 (See Page 4)	Assembly, Pressure Filter (Phosphate Ester)	1
2	Z-1201-02	Frame	1
3	H-1802	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 5)	Valve, Shut Off (Phosphate Ester)	1

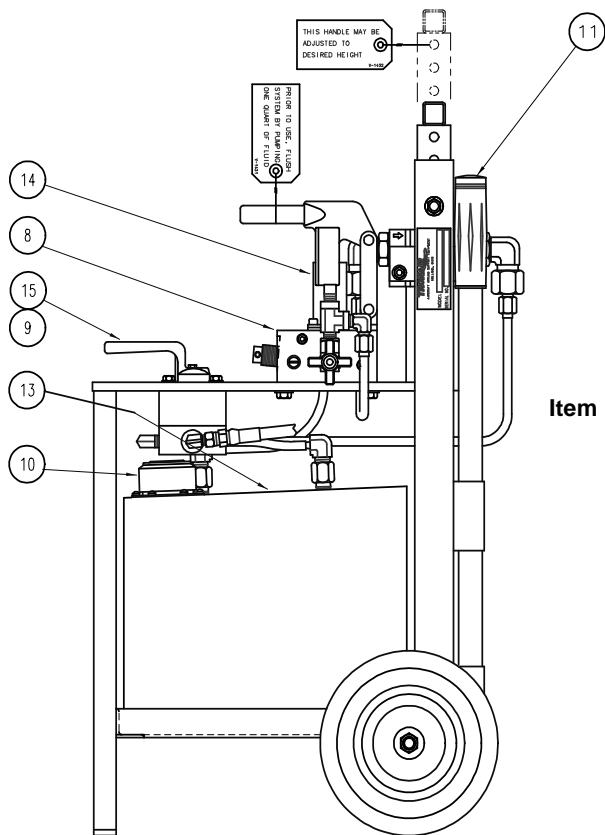
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Model: 06-5052-3600  
Hydraulic Service Unit

**Parts List**  
**Hydraulic Service Unit**

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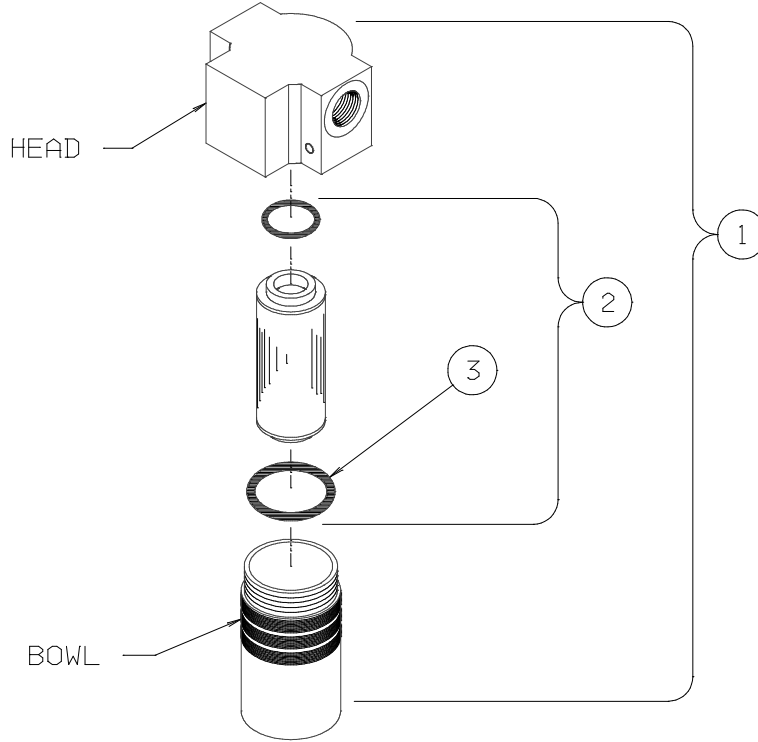
**NOTE:**  
Item 14 Hose Hidden Behind Pump

ITEM	PART NUMBER	DESCRIPTION	QTY
9	HC-1046-01	Valve, Selector	1
10	HC-1030	Breather	1
11	H-1009-01	Handle, Pump	1
13	V-1100	Label - Fluid Type	1
14	TF-1030-01*10.0	Hose, Pump Suction	1
15	TF-1030-01*03.5	Hose, Valve Return	1
Not Shown	TF-1041-05*180	Assembly, Hose	2
Not Shown	N-2419-01	Coupling, Q.D.	1
Not Shown	N-2418-02	Plug, Dust	1
8	<b>K-2466-02</b>	<b>Kit, Pump Replacement; consists of:</b>	
	HC-1035	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 and color of your unit.



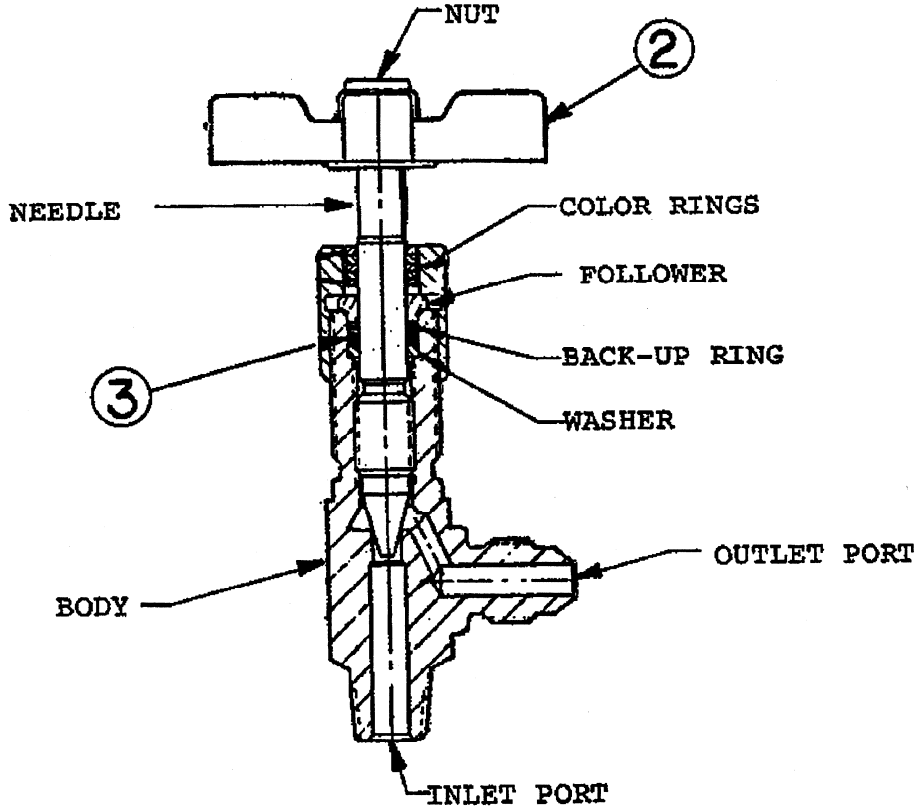
ITEM	PART NUMBER	DESCRIPTION	QTY
1	HC-1084	Assembly, Pressure Filter ( <i>Phosphate Ester</i> )	1
2	<b>K-1415</b>	<b>Kit, Filter Element; consists of:</b>	
	HC-1417	Element, Filter ( <i>Phosphate Ester</i> )	1
	HC-2006-136	O-Ring, Series 2	1
3	HC-2006-138	O-Ring, Bowl ( <i>Phosphate Ester</i> )	1



Model: 06-5052-3600  
 Hydraulic Service Unit

**Parts List**  
**HC-1101-02 Shut-Off Valve**

When ordering replacement parts/kits, please specify model, serial number and color of your unit.



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

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**APPENDIX I**

**HC-1035  
Hand Pump  
Parts List**





# HC-1035 Hydraulic Hand Pump

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## Parts List With Illustrations

08/1998 – Rev. 04

When ordering replacement parts/kits, please specify model, serial number and color of your unit.

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HC-1035  
Hydraulic Hand Pump

**Parts List**

This pump is compatible with Phosphate Ester Hydraulic Fluids.

Reference Parts List Illustration on following page.

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	568-121	Tie Rod	4
38	582-125	Flange	1
39	563-120	Tube - Low Pressure	1
40	583-120	Plug – 1/16 NPT	1
	<b>K-1030</b>	<b>Pump Valve Rebuilt Kit; consists of:</b>	<b>1</b>
◆ 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	
	<b>K-1095</b>	<b>Pump Check Valve Hard Part Kit; consists of:</b>	<b>1</b>
◆ 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.)	
	<b>K-1985</b>	<b>Relief Valve Rebuilt Kit; consists of:</b>	<b>1</b>
2		Screw Retainer	
3		Release Screw	
◆ 4		Release Ball	
5		Drive Pin	
◆ 6		O-ring - Release Screw	

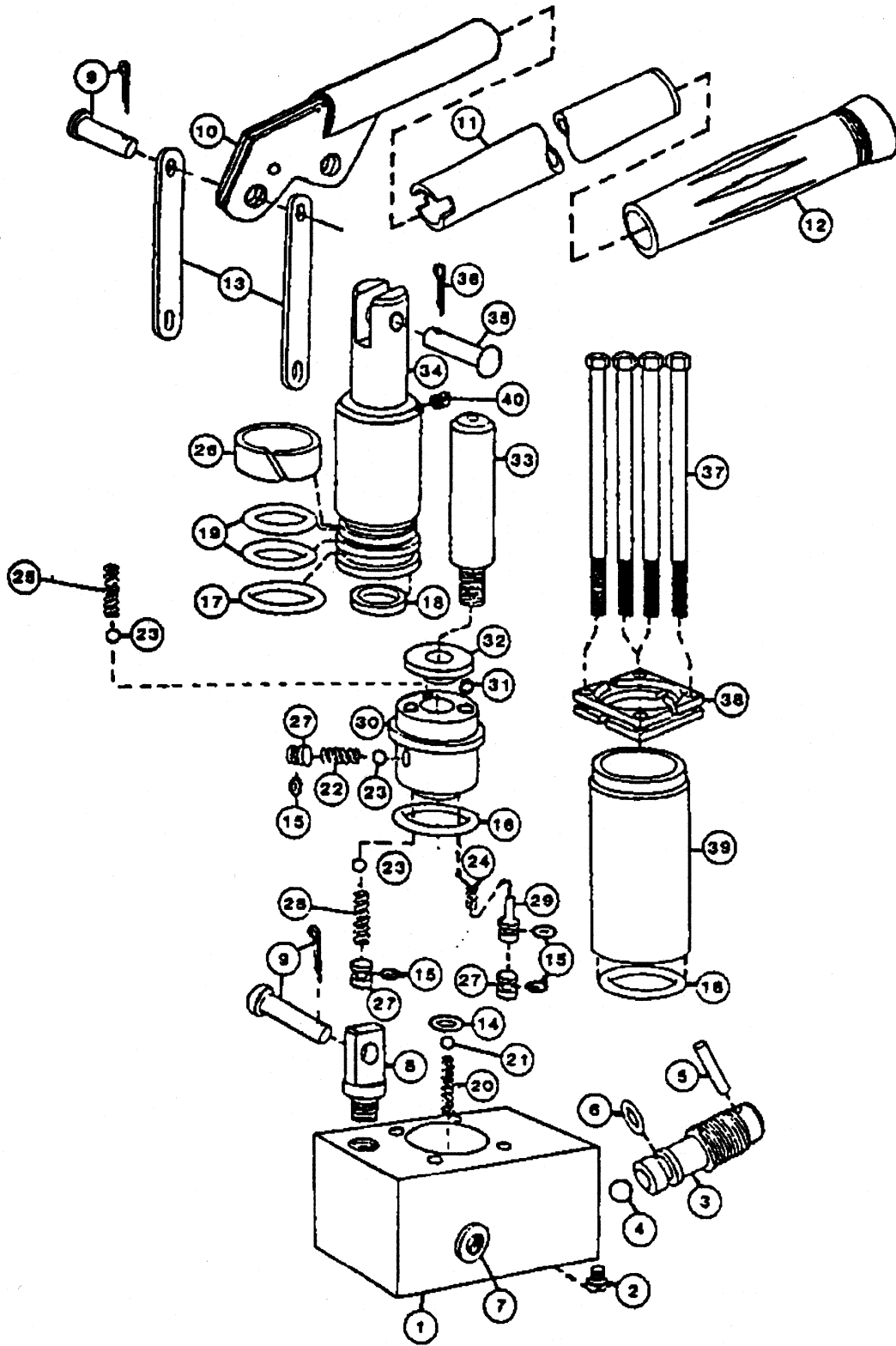
- NOTES:**
- 1) Items designated as kits contain all hardware necessary for installation.
  - 2) Unless otherwise listed, all replacement bolts should be Grade 5 or better.

◆ Items that are in more than one kit.



08/1998 – Rev. 04

# Parts List Illustration



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08/1998 - Rev. 04





**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.