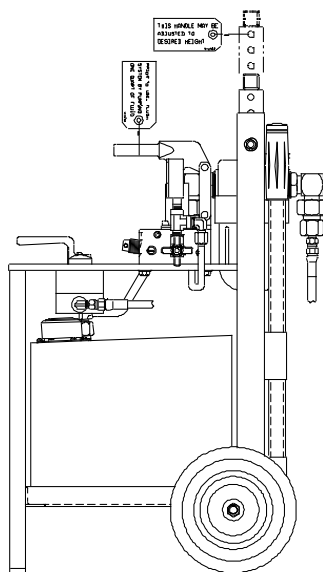




OPERATION & SERVICE MANUAL



**Model: 06-5041-0800
Fluid Service Unit**

01/2004 – Rev. OR

REVISION
OR

DATE
01/2004

TEXT AFFECTED
Original release



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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.

1.0 GENERAL DESCRIPTION

The Fluid Hydraulic Service Unit 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:	500/5000 PSIG
Fluids:	MIL-L-23699, MUIL-PRF-87257
Filtration:	3 Micron
Weight:	65 lbs

3.0 FEATURES

- 15 foot hose
- Pressure gauge
- Shut-off valve for component testing
- 5000 psi high/low pump provides high flow and high pressure capability
- Four-way valve for testing double acting cylinder

4.0 PREPARATION FOR USE

The Fluid Service Unit 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 Parts List Illustrations.)
2. **Service Reservoir:** Fill reservoir with appropriate clean fluid.
3. Adjust handle height to suit.

Remove Air From 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 USING YOUR FLUID SERVICE UNIT

To Use Follow the Steps Below:

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 desired 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.
3. Install hose end dust plug.

5.2 COMPONENT TESTING

A shut-off valve had been provided to assure no back flow of fluid. Therefore, shut-off valve 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.



6.0 PROVISION OF SPARES

6.1 SOURCE OF SPARE PARTS

Spare parts may be obtained from the manufacturer:

TRONAIR, Inc.

1 Air Cargo Pkwy East

Swanton, Ohio 43558 USA

Telephone: (419) 866-6301 or 800-426-6301

Fax: (419) 867-0634

E-mail: sales@tronair.com

Website: www.tronair.com

6.2 RECOMMENDED SPARE PARTS LISTS

Reference the following page(s) for Replacement Parts and Kits available.

7.0 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:

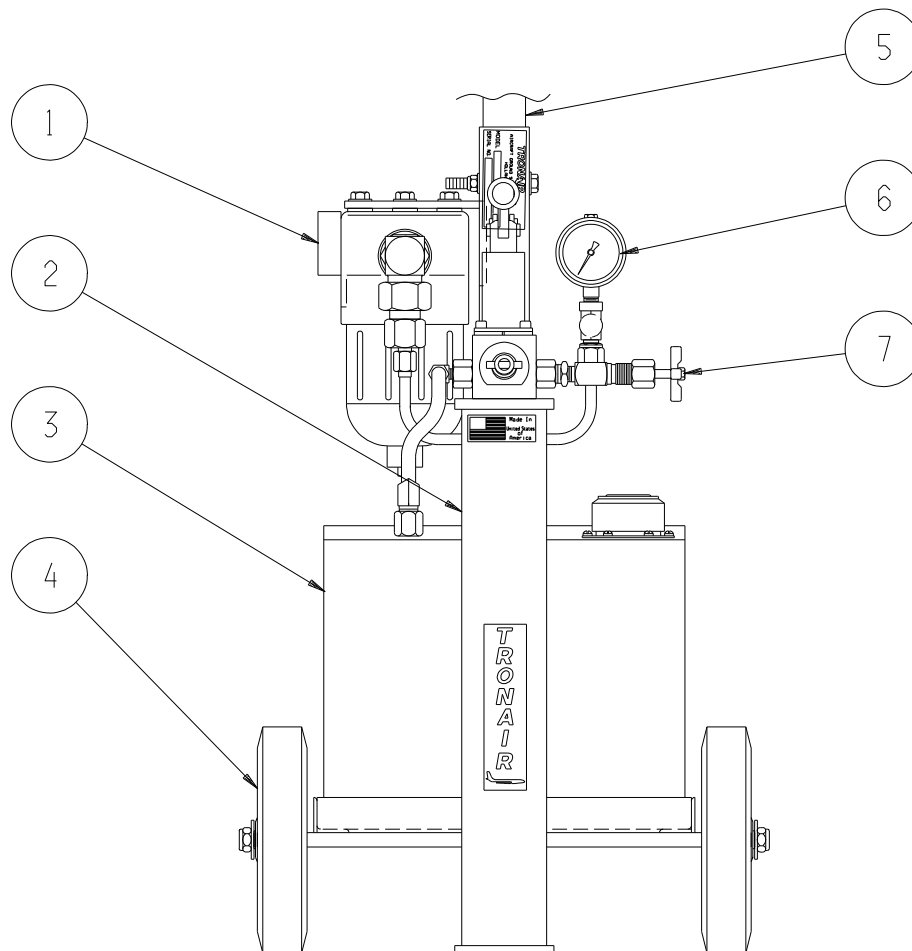
- a) Product Model Number
- b) Product Serial Number
- c) Description of the problem

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

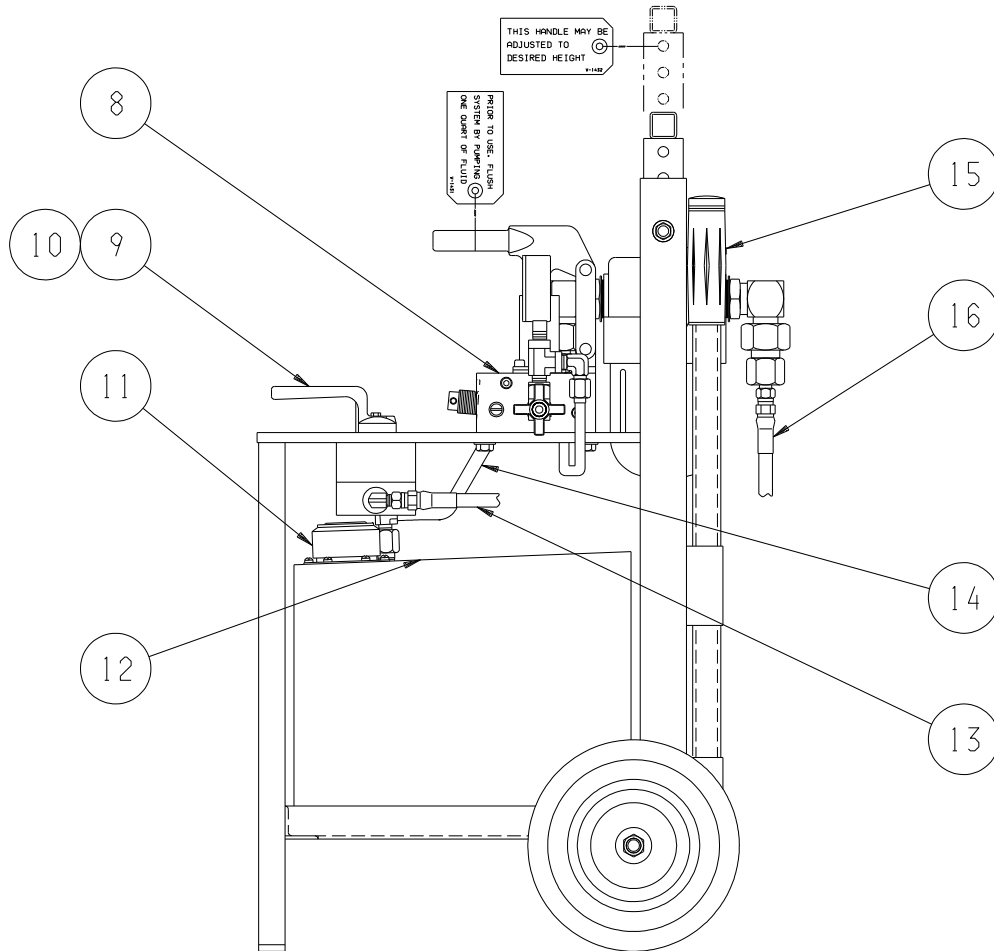
When ordering replacement parts/kits, please specify model, serial number and color of your unit.



Item	Part Number	Description	Qty
1	HC-1675 (See Page 5)	Assembly, Pressure Filter	1
2	Z-4185-01	Frame	1
3	H-1802	Tank	1
4	U-1001-01	Wheel	2
5	Z-1083-01	Handle, Unit	1
6	HC-1644	Gauge, Pressure	1
7	HC-1101-03 (See Page 9)	Valve, Shut-Off	1

Parts List

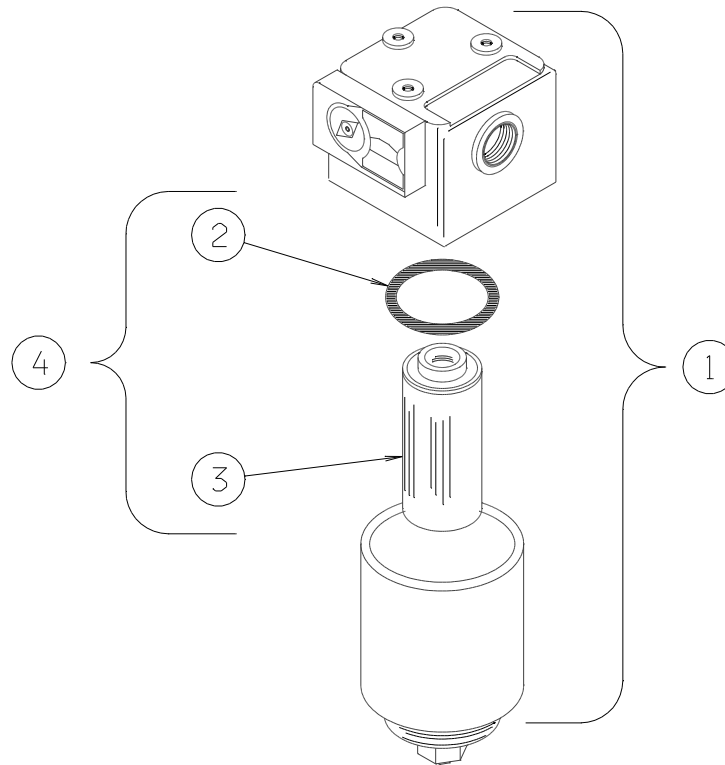
When ordering replacement parts/kits, please specify model, serial number and color of your unit.



Item	Part Number	Description	Qty
8	HC-2258 (See Pages 7 & 7)	Pump, 2 Stage, 5,000 psi (Mineral Base)	1
9	HC-2257	Valve, Selector	1
10	TF-1105-04*03.5	Hose, Valve Return	1
11	HC-1030	Breather	1
12	V-2051-01 or V-1035	Label (Fluid Type)	1
13	TF-1038-14-01*180	Assembly, Hose	1
14	TF-1105-04*08.0	Hose, Pump Suction	1
15	H-1009-01	Handle, Pump	1
16	TF-1038-14*22.0	Assembly, Hose	1

HC-1675 Pressure Filter Assembly

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



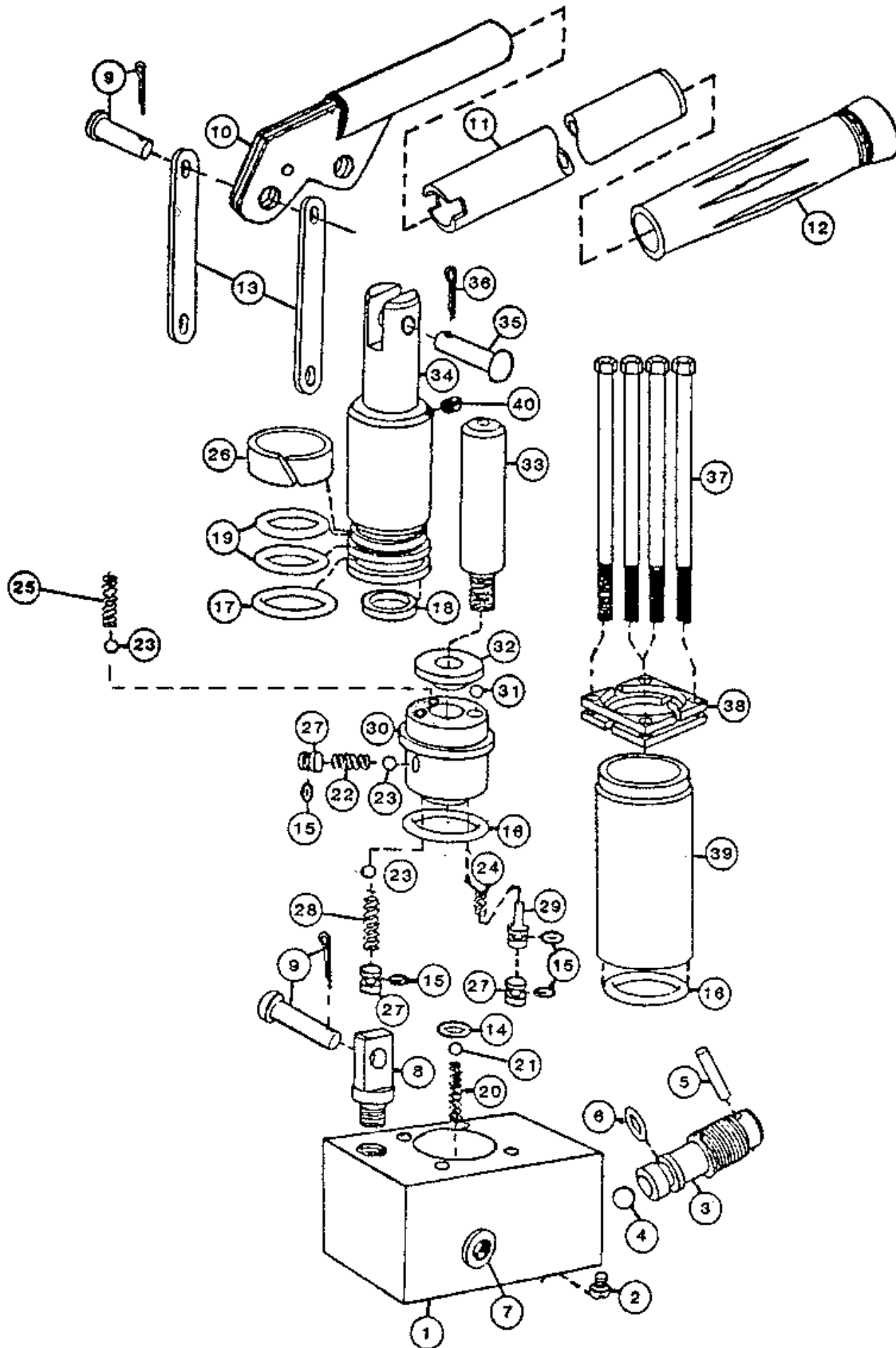
Item	Part Number	Description	Qty
1	HC-1675	Assembly, Pressure Filter	1
4	K-2318	Kit, Filter Element Replacement; consists of:	
2	HC-2007-235	O-ring, Series 2	1
3	HC-1676	Element, Filter (<i>Mineral Base</i>)	1



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HC-1854 - Hydraulic Hand Pump

This pump is compatible with MIL-H-5606/MIL-PRF-83282 Hydraulic Fluids.



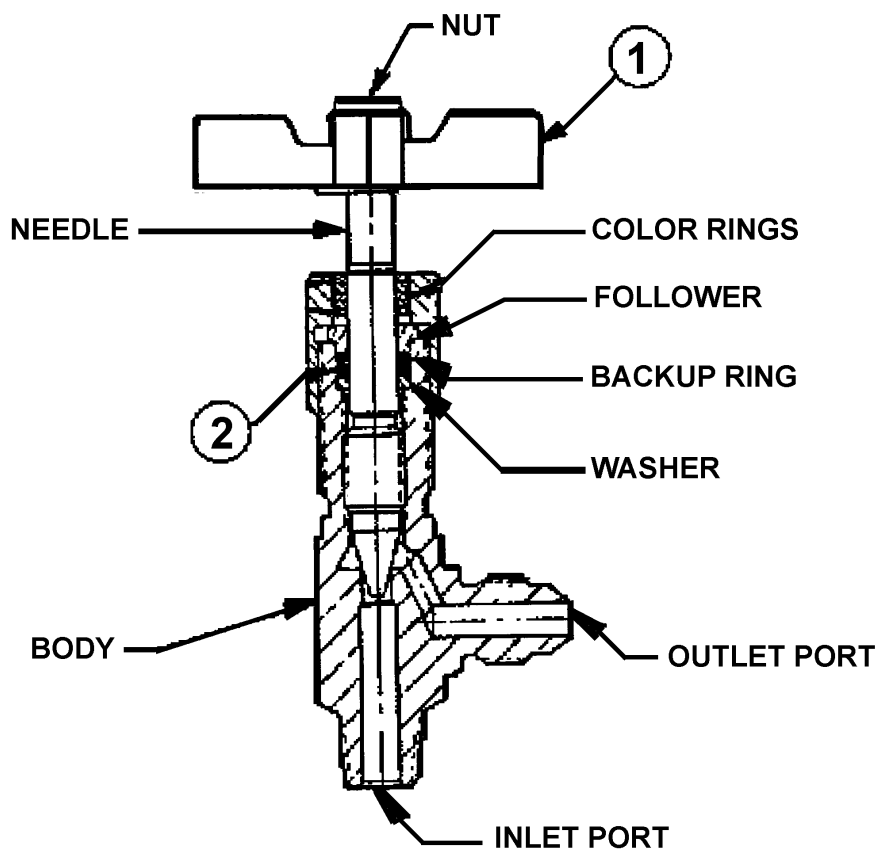
HC-2258 - Hydraulic Hand Pump*This pump is compatible with MIL-H-5606/MIL-PRF-83282 Hydraulic Fluids.*

Item	Part Number	Description	Qty
1	501-000	Pump Body	1
7	555-000	Bushing (3/8 x 1/8 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	561-125	Piston, Low Pressure	1
35	531-000	Clevis Pin	1
36	532-000	Cotter Pin	1
37	568-120	Tie Rod	4
38	582-120	Flange	4
39	563-120	Tube, Low Pressure	1
40	583-120	Plug, 5/16 NPT	1
	K-3841	Pump Valve Rebuilt Kit; consists of:	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; consists of:	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-3117	Relief Valve Rebuilt Kit; consists of:	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.

HC-1101-01 - Valve Shut-Off

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



Item	Part Number	Description	Qty
	HC-1101-01	Assembly, Valve (<i>Mineral Base</i>)	1
1	HC-1082	Handle, Valve	1
2	HC-2000-011	O-ring (<i>Mineral Base</i>)	1
	HC-1101-03	Assembly	1
1	HC-1082	Handle	1
2	HC-2007-011	O-ring	1