

HAND PUMP REPAIR PARTS SHEET OPERATING INSTRUCTIONS

P70

OPERATING INSTRUCTIONS

1. Introduction

Dirt - This will quickly ruin any hydraulic system. Simplex-Pine Pumps are equipped with filter screen in the reservoir. The user, must guard against dirt entering the system down-stream of this filter. Before hooking up a system, insure that couplings are clean and free of foreign matter. Dirt, sand, etc. can cause difficult assembly and premature wear to seals and steel components of your hydraulic equipment. After each use of the system, clean all couplings and assemble all dust caps.

Air Bleeding - Air in a hydraulic system can be hazardous because of the high pressures and the fact that air is compressible. Before loading any cylinder, air must be bled from the system.

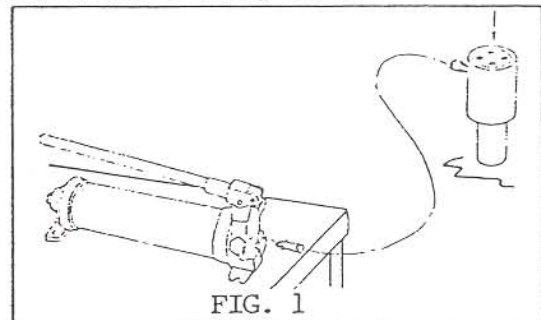
With single-acting and spring return cylinders, fully extend piston. Invert cylinder and allow it to retract (in the case of single-acting cylinders a load must be applied). Pump must be higher than cylinder). See Fig. 1.

With double-acting cylinders, the cylinder may be purged by fully extending and retracting piston several times. (It is not necessary to invert cylinder).

Air in the system can cause sluggish or hesitant action of piston when extending or retracting. When air has been purged, cylinder action will be smooth and uniform.

Air can enter your system in many ways, but the most common is by inadequate useable reservoir capacity. (Oil level drops below inlet and pump sucks air). A power pump allowed to

run under these conditions may be damaged or can homogenize the oil. Once air and oil have been mixed at high pressure, pump must be drained, cleaned and filled with clean, air free oil. Homogenized oil is easy to identify as it's milky in color.



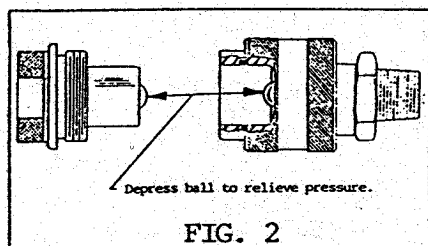
2. Assembly

- Remove plastic pipe plug from port "A". See Fig. 4.
- Assemble hose or quick-disconnect at port "A". (Use pipe sealant) (Teflon tape is NOT recommended).
- Assemble pump to cylinder.
- All Simplex-Pine cylinders and most pumps are equipped with quick-disconnect couplings. These couplings make assembly of your system simple and quick.

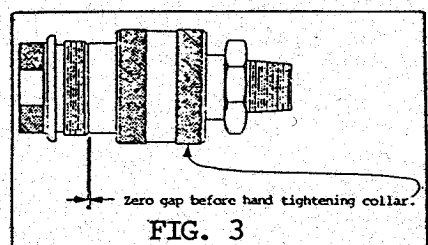
These couplings must be assembled by hand. If wrenches or pliers seem to be necessary for assembly, you are doing something wrong. The proper method of assembly is as follows:

All components: cylinders, pump and hoses, may have built up pressure since their last use. (This holds true for new equipment, as all components are factory tested and

therefore will contain oil. This pressure may be sufficient to prevent proper hand coupling. A simple test is to depress the steel ball in the end of the coupling with your finger or a soft tool. (Wood, aluminum, etc.). Any two couplings to be assembled must be tested in this manner. If ball can be easily depressed, couplings may be assembled. See Fig. 2 and 3.



If ball cannot be depressed by hand, it means internal pressure is excessive for proper assembly. The recommended method to relieve the pressure is with a loose mating coupling open to atmosphere.



Before disassembling a system, all pressure must be relieved before attempting to disconnect couplings.

If after many uses, couplings become difficult to assemble by hand, they should be replaced. Extra couplings should always be at hand.

Your system should never be disconnected while under pressure. If for some reason you wish to retain a load on your system for long periods, a cylinder mounted check valve should be used. (These can be found in the Templeton, Kenly & Co. Hydraulics Catalog or call the factory for assistance).

3. Operation

Ensure that breather is clear. Operate pump handle several times. Close release screw (Item 14) (Clockwise) hand tight.

To adjust relief valve (See Fig. 4)

1. Remove valve seal screw.
2. Remove valve seal (Note: Be careful not to puncture this seal).
3. Insert 1/8 hex wrench into valve adjusting screw.
4. To lower pressure setting, turn valve adjusting screw counter-clockwise. To raise pressure setting, turn valve adjusting screw clockwise.
5. Close release screw (turn clockwise).
6. Operate pump (Stroke pump several times after pressure builds to maximum setting).
7. If setting is not correct, open release screw (turn counter-clockwise). Turn hex wrench as required.
8. Close release screw. Repeat steps 7 thru 9 until proper setting is reached.
9. Assemble valve seal (lip side down). Push seal all the way down to adjusting screw.
10. Assemble valve seal screw.

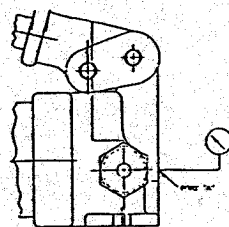
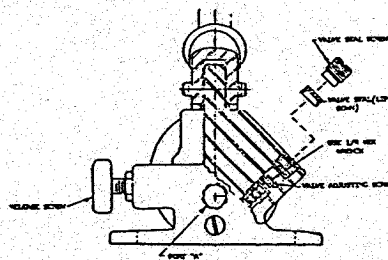


FIG. 4



4. Gage Installation

Pressure gage may be assembled to pump by assembling a gage adapter to port "A".

SIMPLEX

WARRANTY

Templeton, Kenly & Co. warrants to the purchaser of its products that if the product or any part thereof in the judgment of Templeton, Kenly & Co. is proven to be defective in material or workmanship within one year from the date of original purchase (two years on Heavy Duty Hydraulics and five years on Super Jacks), such defects will be repaired or replaced (at the company's option) free of charge for parts and labor.

This warranty does not apply to any product which has been damaged by accident or which has been mis-abused, altered, or repaired by anyone other than recognized Templeton, Kenly authorized Service Centers.

This warranty is in lieu of all other warranties expressed or implied, and no other person is authorized to assume for Templeton, Kenly & Co. any other liability in connection with the sale of this product.

TEMPLETON, KENLY & CO.

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PARTS LIST

| ITEM NO. | DESCRIPTION | QTY. | (34003) CONTROL NUMBER |
|----------|-----------------------------|------|------------------------|
| 1 | Housing | 1 | 92199 |
| 2 | Reservoir Tube | 1 | 92236 |
| 3 | Reservoir Support | 1 | 92238 |
| 4 | Pump Rest | 1 | 92237 |
| 5 | Split Lock Washer | 1 | 93946 |
| 6 | Hex. Head Cap Screw | 1 | 93557 |
| 7 | Operating Lever | 1 | 92553 |
| 8 | Handle Socket | 1 | 92224 |
| 9 | Pump Piston Pin | 2 | 92539 |
| 10 | Pump Piston Pin Clip | 4 | 92540 |
| 11 | 5/16" Ball | 1 | 91701 |
| 12 | Release Valve Packing | 1 | * |
| 13 | Release Screw Gland | 1 | 92206 |
| 14 | Release Screw | 1 | 92203 |
| 15 | Pump Piston Clip | 1 | 92535 |
| 16 | Pump Piston Assembly | 1 | 92530 |
| 17 | Pump Piston Packing Nut | 1 | 92226 |
| 18 | Pump Piston Packing | 1 | * |
| 19 | Breather Plug | 1 | 90534 |
| 20 | 3/16" Ball | 1 | 90548 |
| 21 | Safety Valve Spring Plunger | 1 | 92215 |
| 22 | Safety Valve Spring | 1 | 92216 |
| 23 | Safety Valve Screw | 1 | 92217 |
| 24 | Valve Seal | 1 | * |
| 25 | Valve Screw | 1 | 92543 |
| 26 | 1/4" Ball | 1 | 92549 |
| 27 | Pump Valve Spring Small | 1 | 92548 |
| 28 | 3/8" Ball | 1 | 92550 |
| 29 | Pump Valve Spring Large | 1 | 92551 |
| 30 | Valve Seal | 1 | * |
| 31 | Valve Screw | 1 | 92543 |
| | Packing Kit | | 92239 |

*Included In Packing Kit, Not Sold Separately

ENGINEERING DATA

1. Reservoir Capacity - 70 Cubic Inches
2. Piston Stroke - 1"
3. Volume Delivery - 0.15 Cubic Inches
4. Pressure Rating - 10,000 P.S.I. Maximum

