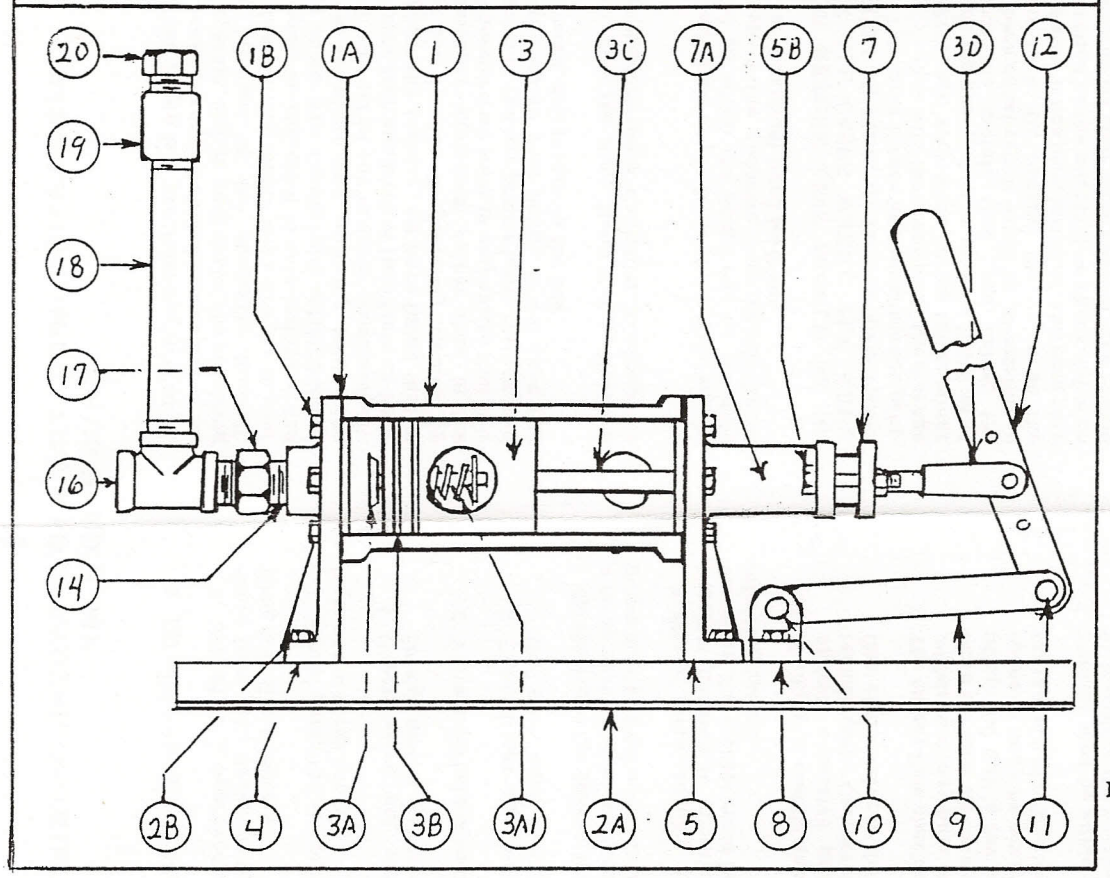
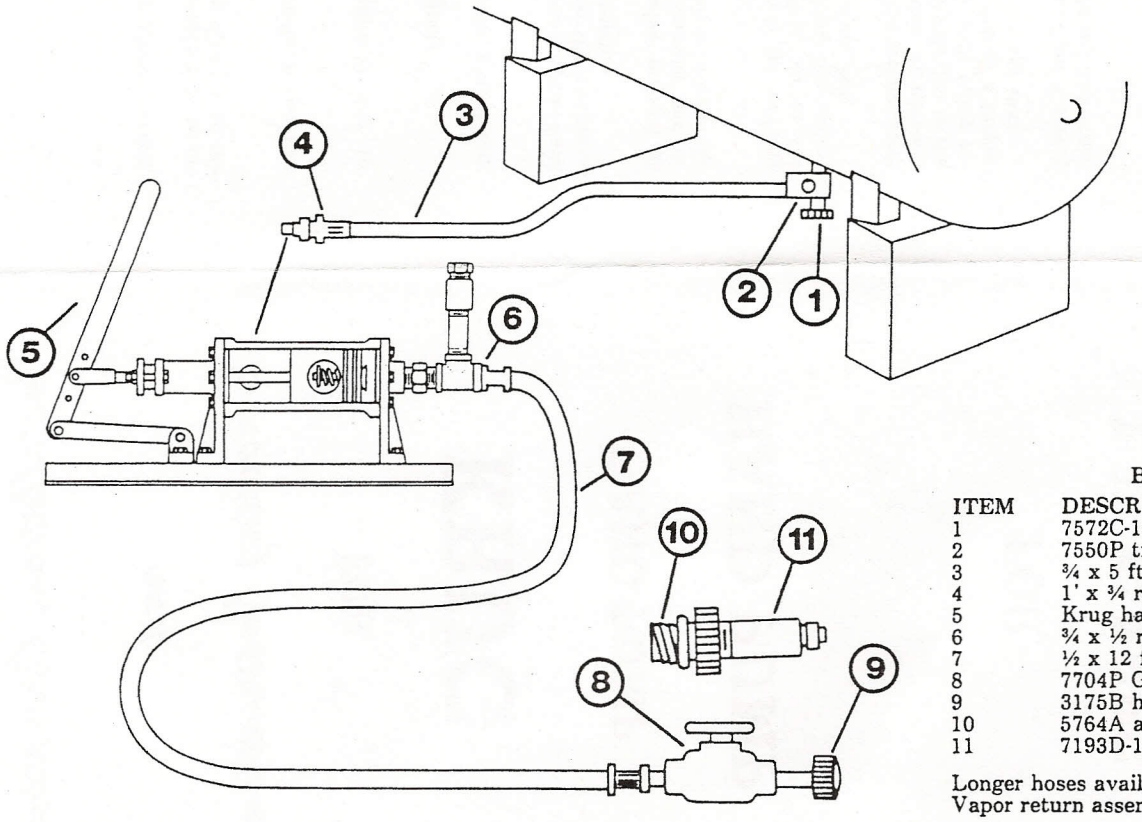
Krug Piston Type Hand Pump



PART NO.	QTY. PER	PART DESCRIPTION
1	1	Barrel
1A	2	Barrel Gaskets
1B	12	5/16 Cap Screws
2A	1	Base
2B	6	3/8 Bolts W/Nuts
3	1	Piston
3A	1	Piston Valve
3A1	1	Washer, Spring & Key
3B	2	Piston Ring
3C	1	Connecting Rod
3D	1	Clevis & Pin
4	1	Discharge Casting
5	1	Packing End Cast
5B	2	7/16 X 2 1/4 Bolts
7	1	Packing Gland
7A	1	Packing
8	1	Linkage Bracket
9	2	Handle Linkage
10	1	1-3/4 Linkage Pin
11	1	1-Linkage Pin
12	1	Handle
13	1	Handle Extension
14	1	3/4 Heavy Close Npl
16	1	3/4 Heavy Tee
17	1	Check Valve
18	1	3/4 X 7 Nipple
19	1	3/4 Steel Coupling
20	1	375 PSI Relief Valve

Repair Kit:
2 Barrel Gaskets, 12 Cap Screws,
2 Piston Rings, 1 Connecting Rod,
1 Clevis & Pin, 1 Set of Packing



BILL OF MATERIALS

ITEM	DESCRIPTION
1	7572C-14 chek-lok adaptor
2	7550P transfer valve
3	¾ x 5 ft. lpg hose swivel one end
4	1' x ¾ reducer bushing
5	Krug hand pump
6	¾ x ½ reducer bushing
7	½ x 12 ft. hose assembly
8	7704P Globe valve
9	3175B hose coupling
10	5764A adaptor
11	7193D-10 fill connector w/o-ring nose

Longer hoses available on request.
Vapor return assemblies available on request.

INSTALLATION, OPERATING AND SERVICING INSTRUCTIONS
KRUG HAND PUMP

The Krug Hand Pump is a precision engineered instrument. It does not require skilled mechanics to install; easy to operate, and, in most cases, the servicing required can be done by the purchaser himself. However, for best results, and to add extra life to your pump, care should be exercised in both installing and servicing your pump. The simple rules outlined below will aid you in installing and servicing your Krug pump, and will also serve you in minor trouble-shooting. By experience with hundreds of field tests on Krug pumps throughout the country, we have found that in most failures the trouble is generally caused by failures of auxiliary equipment rather than in the pump itself. Therefore we want to emphasize that it is most important that you use proper hose, fittings, and valves when you install your pump. It will save you time, trouble, work, and money in the end.

1. When installing the Krug Hand Pump, National Board of Fire Underwriters Pamphlet 58 should be followed.

2. A good, solid base or platform of concrete should be constructed on which the pump can be securely bolted. The top of the concrete base should be at ground level for maximum hand leverage.

3. A VAPOR RETURN LINE SHOULD BE INSTALLED IN ALL CASES WHERE THE KRUG PUMP IS USED FOR FILLING TRUCK AND TRACTOR TANKS. The vapor return line equalizes the pressure in the mobile tank with the pressure of the storage tank. Engine heat, and very often during the summer months, outside temperature may cause a build up of pressure inside the mobile tank, and unless the pressure has been equalized, it would be impossible to fill the mobile tank. On opening the valve on the equalizing line after it has been installed, extreme care should be exercised as the excess flow check valve on the mobile tank outlet may snap shut. If this should happen, close the manual shut off valve momentarily until it is possible to hear the excess flow check valve snap open again. Then open the shut-off valve very, very slowly.

4. Tighten the packing gland very evenly, use only sufficient pressure to stop packing from leaking and still allow easy travel of connecting rod. It is recommended that you do not use a wrench to tighten the packing gland nuts. Occasionally, a wrench may be necessary to overcome the friction caused by paint, rust or imperfect threads, etc. in which case extreme care should be execised. The connecting rod should be lubricated with oil or grease. Frequency depends upon use.

5. DO NOT FORCE THE PISTON AGAINST STOPS.

6. Use only U.L. approved packing which may be ordered from your dealer or by writing directly to the Krug L.P. Gas Products.

7. Should pump fail to operate properly, it could be from one of these causes:

1. Check valve not seating properly due to foreign matter on valve seat.

2. Valve in piston not seating properly.

3. Piston Rings may be worn to the extent that they allow liquid to by-pass.

Should any of the above causes be your trouble, have a competent qualified mechanic remedy the trouble or pump may be returned to factory for repairs.

8. Should pump require an excessive amount of physical pressure to operate, stop pumping and investigate. The trouble could be from one or more of the following causes.

1. If filling a mobile tank you may be working against excessive pressure built up in the mobile tank. Correct by checking the excess flow check valve in the vapor return line.

2. The excess flow check valve at the storage tank withdrawal may have snapped shut. To correct, close the shut off valve on the liquid line to the pump and wait a few moments until valve reopens. It may be necessary to install a larger excess flow check valve on the storage tank.

3. Packing may be adjusted far too tight. Correct by loosening the packing, lubricating and readjusting.

9. Handle should be in center position (straight up and down) when allowing fuel to flow freely through pump without manual operation. When pump is not in use, be sure to keep handle in forward position to avoid weathering of the connecting rod. However, due to pressure in the lines and in the pump cylinder, you will probably get a hydraulic action which will force the handle to the out position. To avoid this, use a light weight chain to secure the handle in the forward position.

Installation, Operating

and

Servicing Instructions

FOR

KRUG

HAND PUMP

HAND PUMP

FOR

L.P. GASES

The Krug Pump is manufactured by Krug L.P. Gas Products, Box 387, Madison, South Dakota 57042, and sold all over the world.