

L1836 Rev. A 02/94

IMPORTANT RECEIVING INSTRUCTIONS: Visually inspect all components for shipping damage. If any shipping damage is found, notify carrier at once. Shipping damage is NOT covered by warranty. The carrier is responsible for all repair or replacement cost resulting from damage in shipment.

S A F E T Y F I R S T

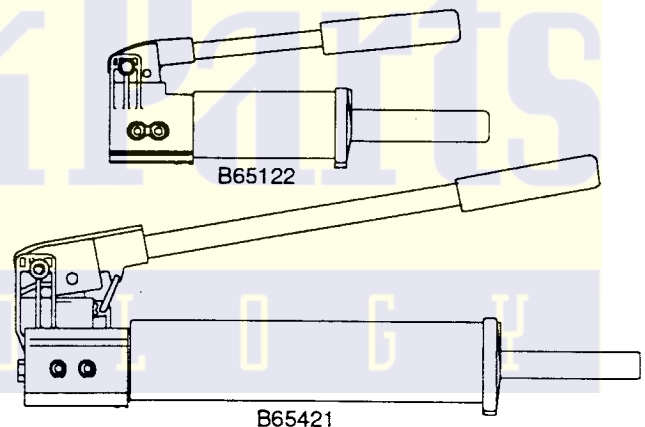
Carefully plan your system by selecting components designed to perform the intended operation and which will adequately perform with existing equipment. Always check the product limitations regarding pressure ranges, load capacities and set-up requirements. The system operating pressure must not exceed the pressure rating of the lowest rated component in the system. Read all CAUTIONS, WARNINGS, and INSTRUCTIONS included with, or attached to, each product. Follow all safety precautions to avoid personal injury or property damage during the system operation. THE MANUFACTURER CANNOT BE RESPONSIBLE FOR DAMAGE OR INJURY RESULTING FROM UNSAFE USE OF PRODUCT, LACK OF MAINTENANCE, OR INCORRECT PRODUCT AND SYSTEM APPLICATION.

■ DESCRIPTION

These 2-speed pumps are a convenient power source for operating hydraulic cylinders and tools. The pumps are portable and have 2 handles for easy operation.

Two-speed operation helps you save time. The first stage gives you rapid advance under no-load conditions. When the load on the cylinder or tool causes the system pressure to rise above 200 psi, the pump shifts to the second stage and continues to build pressure up to full rated pressure.

The pumps are ready to use with single-acting (1 hose) equipment. A directional control valve must be installed to use the pumps with double-acting (2 hoses) equipment.



Specifications		
	B65122	B65421
Usable Oil Capacity	15 cubic inches	50 cubic inches
Maximum Rated Pressure	7,000 psi	10,000 psi

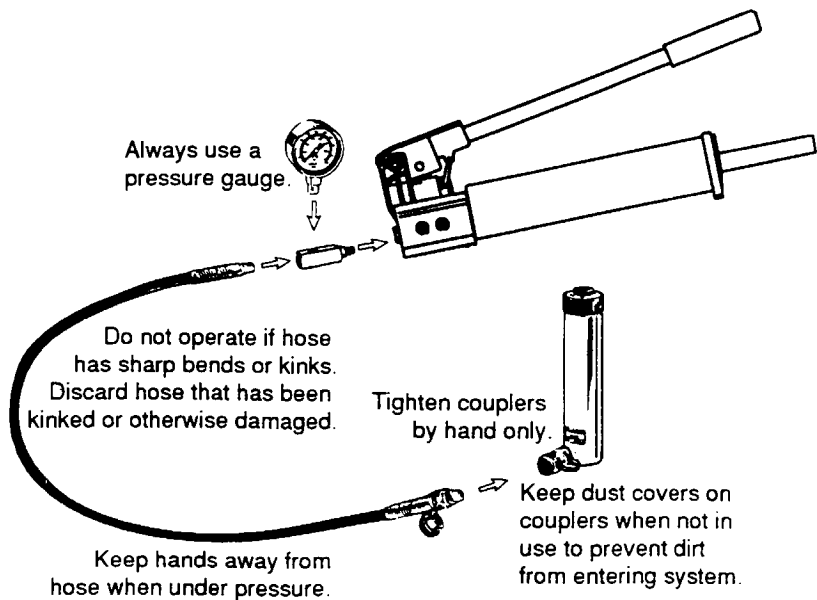
⚠ WARNING

Never exceed the maximum rated pressure for your pump or for the equipment you use with the pump. If you use cylinders with attachments, be aware that the maximum operating pressure decreases as you add more extensions to the cylinder. **WHENEVER A SETUP SEEMS UNSTABLE OR YOU SEE EXTENSIONS BEND, STOP OPERATING THE PUMP IMMEDIATELY** and use a different method to perform the work. Failure to observe this warning will lead to personal injury and/or equipment damage.

■ HYDRAULIC CONNECTIONS

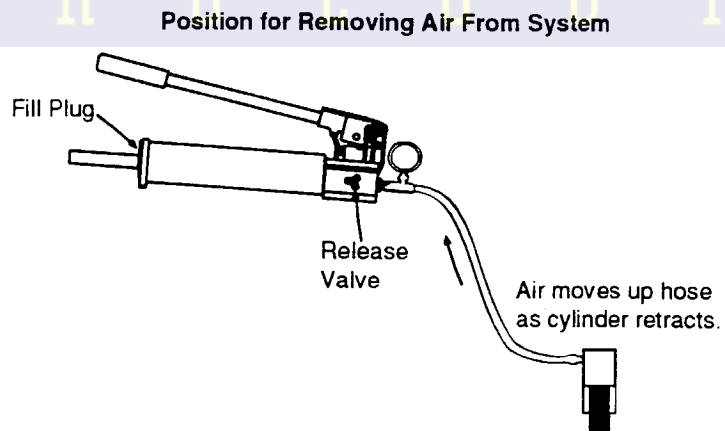
NOTE: When making pipe thread connections, use high quality sealing compound only on the threads of the male fittings. If you use Teflon tape, do not tape the first thread. Use tape sparingly. Loose Teflon tape in your pump can cause malfunctions and damage. Wrap tape so that it tightens upon assembly. (Clockwise with the threads facing you.)

1. Apply sealant to threads on pressure gauge, NPT hose fitting, and gauge adapter. Make connections as shown in picture at right.
2. Couple hose to cylinder or tool. Turn collar on cylinder half of coupler finger tight only. No tools are needed to make this connection.



■ PUMP AND CYLINDER OPERATION

1. Turn pump release valve clockwise to close.
2. Operate pump handle to advance cylinder.
3. Open pump release valve (counter-clockwise) to retract cylinder. If cylinder does not retract smoothly, remove air as described in step 4.
4.
 - a. Turn fill plug $\frac{1}{4}$ turn counter-clockwise to vent pump. Close release valve.
 - b. Position pump at higher elevation than cylinder and position cylinder with plunger end down.
 - c. Advance and retract cylinder a few times. The trapped air will move up to pump reservoir.
 - d. Close fill plug.
5. Pump may be operated in horizontal or vertical position. However, when operating pump in vertical position, hose end must be pointed down. If it is not, the pump will pick up air instead of oil and not build pressure properly.



■ MAINTENANCE

There are 3 things you can do to keep your pump in good operating condition.

1. Keep it clean. Do not allow dirt to build up on moving parts or enter the system through uncovered couplers. Keep cylinders retracted when not in use and use dust covers on couplers when not in use.
2. Keep pump reservoir full of clean oil. Drain all oil and refill with new oil every 12 months. Change oil more often under dirty environmental conditions. Fill reservoir only to level mark shown on fill plug, do not over-fill. To avoid over-filling the reservoir, be sure that all cylinders or tools are fully retracted before adding oil.
3. Keep the pump lubricated. Lubricate the beam pin, cross pin, and piston head regularly to extend pump life and improve performance. Use roller bearing grease.

■ TROUBLESHOOTING

Problem	Possible Cause	Solution
Cylinder does not advance, advances slowly, or advances in spurts.	Oil level in pump reservoir is low.	Add oil according to the Maintenance instructions above.
	Release valve open.	Close the release valve.
	Loose hydraulic coupler.	Check that all couplers are fully tightened. Loose couplers prevent oil from flowing properly.
	Load is too heavy.	Do not attempt to lift more than rated tonnage.
	Air trapped in system.	Remove air according to the Pump and Cylinder Operation instructions on page 2.
	Cylinder plunger binding.	Check for damage to cylinder. Have cylinder serviced by a qualified hydraulic technician.
Cylinder advances, but does not hold pressure.	Leaking connection.	Check that all connections are tight and leak free.
	Leaking seals.	Locate leak(s) and have equipment serviced by a qualified hydraulic technician.
	Internal leakage in pump.	Have pump serviced by a qualified hydraulic technician.
Cylinder does not retract, retracts part way, or retracts more slowly than normal.	Release valve closed.	Open release valve.
	Pump reservoir is over-filled.	Drain oil level to full mark. See Maintenance instructions above for filling instructions.
	Loose hydraulic coupler.	Check that all couplers are fully tightened. Loose couplers prevent oil from flowing properly.
	Air trapped in system.	Remove air according to the Pump and Cylinder Operation instructions on page 2.
	Hose I.D. too narrow.	Use larger diameter hydraulic hose. Especially when long runs are required.
	Cylinder retraction spring broken or other cylinder damage.	Have cylinder serviced by a qualified hydraulic technician.

LIMITED WARRANTY

Lincoln, a division of McNeil (Ohio) Corp., a subsidiary of Pentair, Inc., warrants that jacks and related service equipment sold with the brandnames Lincoln, Blackhawk Automotive, Blackhawk Automotive Banner, Blackhawk Automotive Porto-Power, Hein Werner Automotive, Hein Werner Automotive Winner will be free from defects in material and workmanship during one (1) year following the date of purchase. This warranty is extended to the original retailer purchaser only. If a jack or related service equipment proves to be defective during this warranty period, it will be prepaid or replaced without charge. To obtain repair or replacement, it must be shipped, transportation charges prepaid, with proof of date of purchase to a Lincoln authorized Warranty and Service Center, within one (1) year following the date of purchase. This warranty does not apply to parts damaged from accident, overload, or abuse, nor does it apply to any equipment which has been altered or used with special attachments other than those recommended by Lincoln. No other express warranty applies to jacks and related service equipment manufactured by Lincoln.

ANY IMPLIED WARRANTIES applicable to jacks and related service equipment manufactured by Lincoln, **INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, WILL LAST ONLY FOR ONE (1) YEAR FROM THE DATE OF PURCHASE. SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU.**

ONE EXCEPTION TO THE ABOVE WARRANTY BEING PORTO POWER HYDRAULIC PUMPS B65122 AND B65421 WHICH, HAVE A LIFETIME WARRANTY, FROM DATE OF DELIVERY TO USER AGAINST DEFECTS IN WORKMANSHIP AND MATERIALS. FREE REPAIR OR REPLACEMENT WILL BE MADE ON ALL ITEMS NOT STANDING UP TO THIS GUARANTEE. WARRANTY DOES NOT COVER ORDINARY WEAR AND TEAR, ABUSE OR MISUSE, OVERLOADING, ALTERED PRODUCTS, OR USE OF IMPROPER FLUIDS.

In no event shall Lincoln be liable for incidental or consequential damages. The liability of Lincoln on any claim for loss or damage arising out of the sale, resale, or use of a jack or related service equipment shall in no event exceed the purchase price.

SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU.

THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE.

**PORTO-POWER AND BLACKHAWK AUTOMOTIVE
ARE LICENSED TRADEMARKS.**

LINCOLN AUTOMOTIVE

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