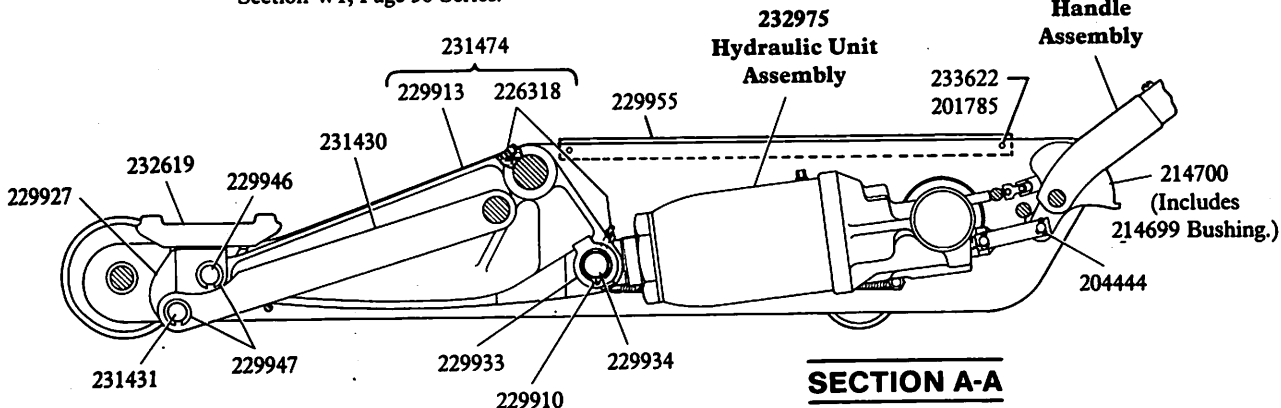
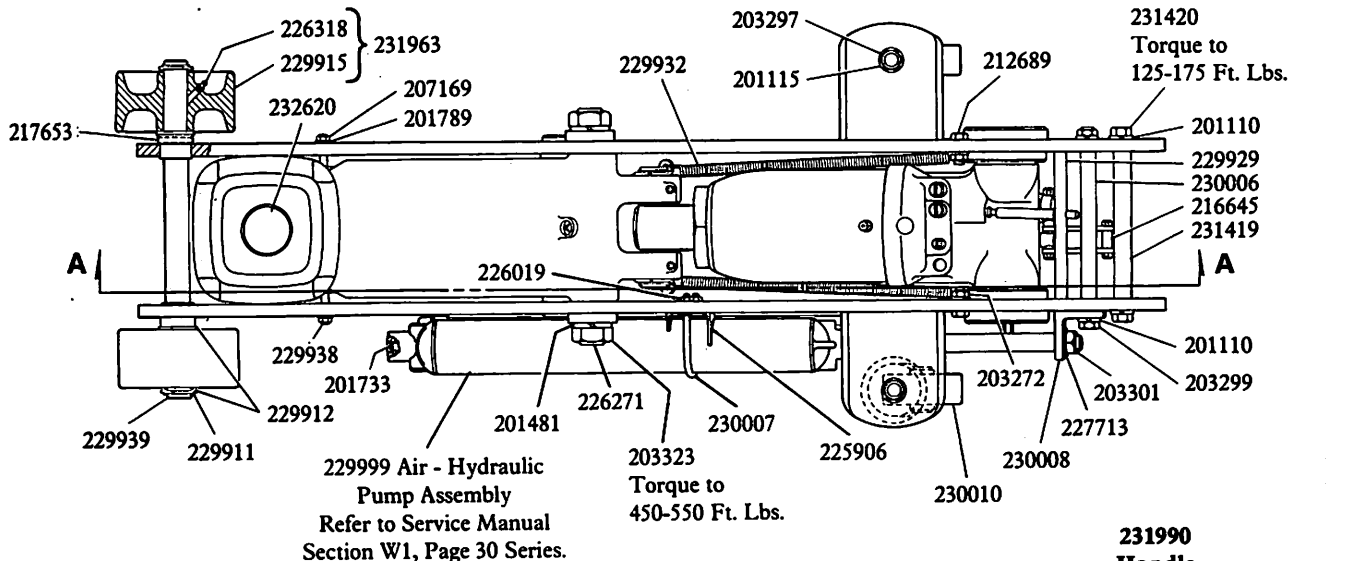
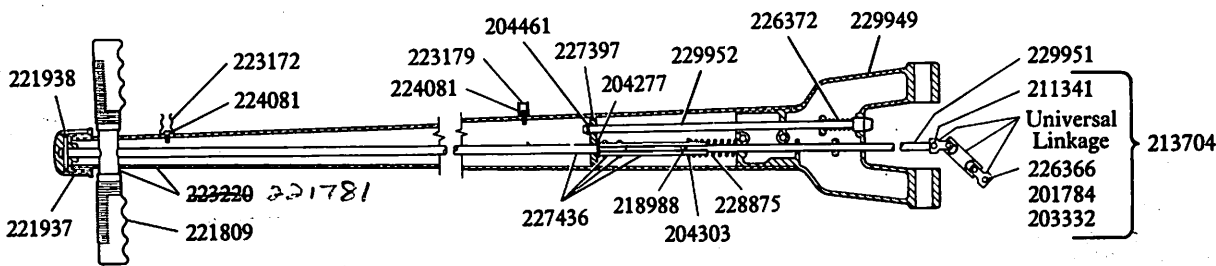


Model Nos. 91-662, 93662, YA-662  
**AIR/MANUAL  
HYDRAULIC SERVICE JACK**  
Series "D"

10 TON CAPACITY

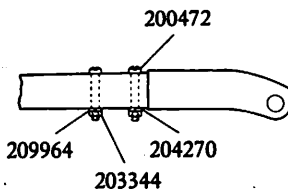


**SECTION A-A**



**231990  
HANDLE  
ASSEMBLY**

Model	Label Kit No.	Repair Kit No.
91-662	240631	91-419 (240617)
93662	240632	- 240618
YA-662	240634	- 240618



93662

## SERVICE PARTS

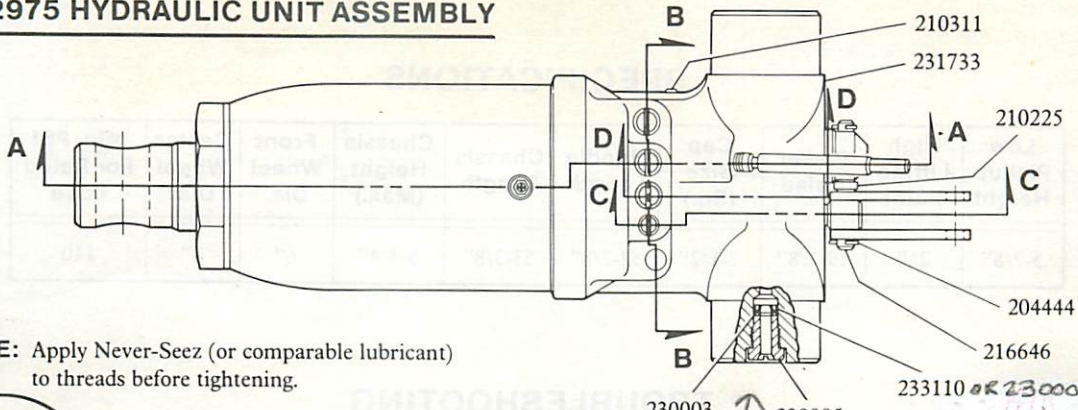
Part	Qty.	Description	Part	Qty.	Description
200003	1	Gasket	*226353	1	Spring
200472	2	Bolt	226366	1	Bolt
201110	4	Lockwasher	226372	1	Plunger spring
201115	2	Lockwasher	*226401	1	Spring
201481	2	Lockwasher	227397	1	Handle release link
201733	2	Expansion plug	227436	1	Turning rod assembly
201784	1	Lockwasher	227713	1	Lockwasher
201785	4	Lockwasher	228875	1	Spring
201789	2	Lockwasher	*229887	1	O-ring
*203198	1	Ball	*229888	1	O-ring
*203199	1	Ball	*229889	1	O-ring
*203200	2	Ball	229896	1	Ram & cylinder assembly
*203201	1	Ball	229897	1	Ram
*203207	2	Ball	229898	1	Cylinder
203272	2	Nut	*229899	1	U-cup packing
203297	2	Nut	*229900	1	Back-up washer
203299	2	Nut	229902	1	Cross pin
203301	1	Nut	229903	1	Pin
203323	2	Nut	229904	2	Plug
203332	1	Nut	229905	1	Plug
203344	2	Nut	229908	1	Spacer
204270	2	Washer	229909	1	Slotted tube
204277	1	Washer	229910	2	Retaining ring
204301	1	Washer	229911	2	Retaining ring
204303	1	Washer	229912	4	Washer
204372	1	Washer	229913	1	Bell crank
204444	4	Cotter pin	229915	2	Wheel
204461	1	Cotter pin	229927	1	Cap housing
*204842	1	Gasket	229929	1	Bearing
207169	2	Nut	229932	2	Spring
209964	2	Lockwasher	229933	2	Plate
210225	1	Spacer	229934	1	Pin
210311	4	Pipe plug	229938	1	Pin
*210411	1	Washer	229939	1	Axle
211341	1	Rivet	229946	1	Pin
212227	1	Release valve	229947	4	Retaining ring
212689	2	Bolt	229949	1	Handle socket
*213152	2	Packing ring	229951	1	Extension rod
*213171	2	Packing ring	229952	1	Plunger assembly
213704	1	Universal linkage assembly	229955	1	Cover
*214555	1	O-ring	229956	1	Heel plate
214699	1	Bushing	229999	1	Air/hydraulic pump assembly
214700	1	Handle segment & bushing	*230003	1	Back-up washer
216645	1	Pin	230005	1	Gland nut
216646	1	Pin	230006	1	Bumper pin
217653	2	Roll pin	230007	1	Hanger
218988	1	Roll pin	230008	1	Bracket
218991	1	Roll pin	230010	2	Caster
220769	1	Cross pin	230011	1	Spacer
221739	1	Poppet	231316	1	Filler plug & gasket
221742	1	Ball stop plug	231419	1	Fulcrum pin
221770	1	Speed pump	231420	2	Bolt
*221771	1	Back-up washer	231430	2	Parallel link
*221772	1	Quad ring	231431	1	Pin
221809	2	Handle grip	231474	1	Bell crank & fittings
221937	1	Release knob	231638	1	Filler plug & vent valve
221938	1	Roll pin	231718	1	Oil tank
222095	1	Release stem assembly	231733	1	Base
222098	1	Speed pump assembly	231945	1	Ram assembly
*222201	1	Spring	231963	1	Front wheel assembly
222257	1	Plug	231990	1	Handle assembly
*222533	3	Screen	232619	1	Lifting cap
*223166	1	Screen	232620	1	Swivel pin
223172	1	Hose clip	*232968	1	Back-up washer
223179	2	Hose clamp	*232969	1	U-cup packing
223220	1	Handle tube & cross bar	232970	1	Pressure pump
224081	2	Screw	232971	1	Pressure pump & gland packing ass'y.
225906	1	Bracket	232975	1	Hydraulic unit assembly
226019	2	Locknut	*233110	1	U-cup packing
226271	1	Fulcrum pin	233622	4	Screw
226314	1	Gland nut	233917	1	Plastic spring
226318	5	Grease fitting	233921	1	Release stem
226325	2	Pump link	241482	1	Tank nut
226326	1	Gland nut	*241483	1	Seal
*226331	1	Spring			



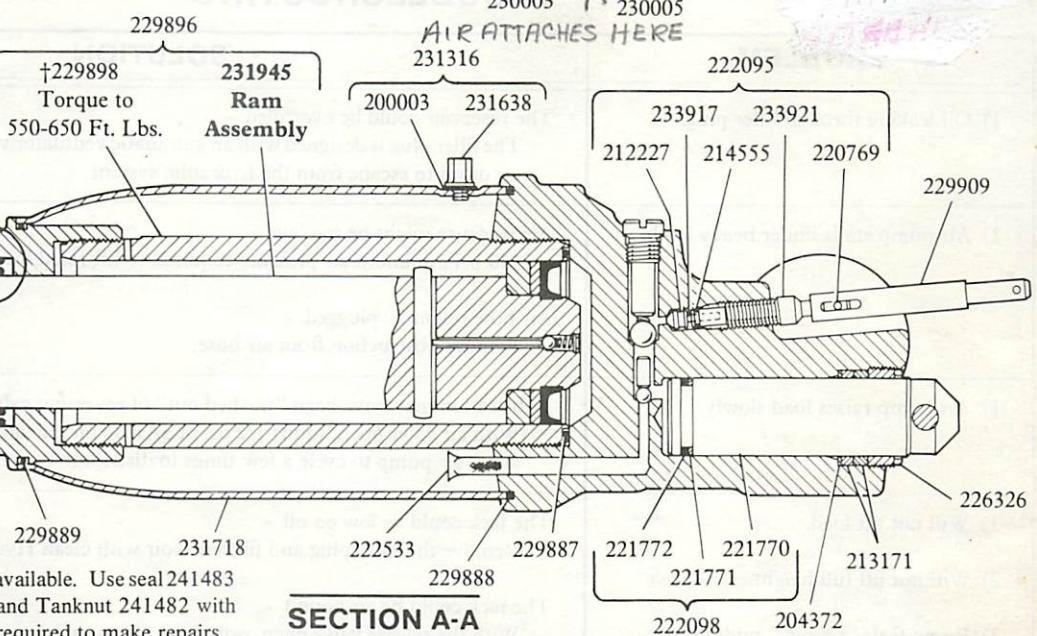
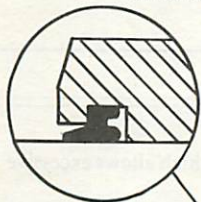
**TRI-CITY HYDRAULIC JACK SERVICE**  
 4628 N. Florida Avenue  
 Tampa, Florida 33603-3700  
 (813) 236-8551

\* Included in 91-419 (240617) and 240618 Repair Kits.

**232975 HYDRAULIC UNIT ASSEMBLY**

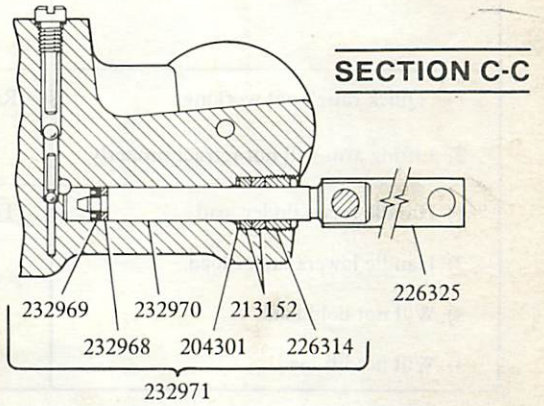
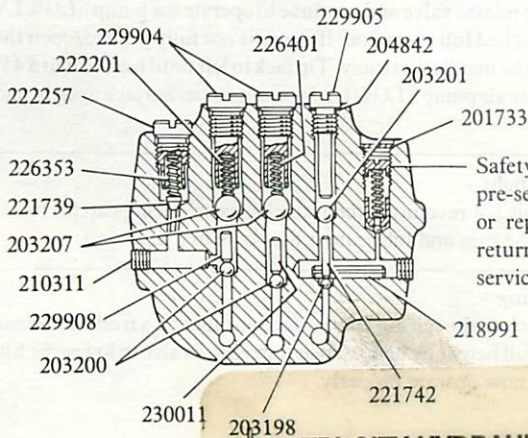


†NOTE: Apply Never-Seez (or comparable lubricant) to threads before tightening.

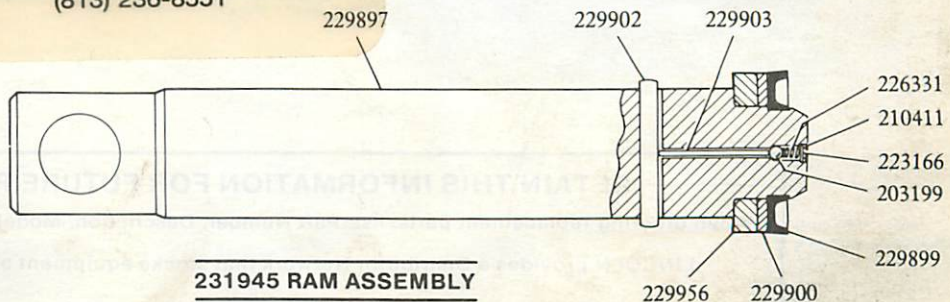
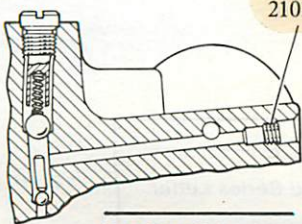


**NOTE:**

● Factory installed seal no longer available. Use seal 241483 included in Repair Kits listed and Tanknut 241482 with revised seal groove. Both are required to make repairs.



**TRI-CITY HYDRAULIC JACK SERVICE**  
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## SPECIFICATIONS

Low Pickup Height	High Lifting Point	Power Raise	Cap Size (Sq.)	Handle Length	Chassis Length	Chassis Height (Max.)	Front Wheel Dia.	Caster Wheel Dia.	Min. PSI For Rated Load
5-7/8"	25"	19-1/8"	7-1/2"	52-7/8"	53-3/8"	9-3/4"	6"	4"	140

## TROUBLESHOOTING

PROBLEM	SOLUTION
1) Oil leaking through filler plug.	The reservoir could be overfilled - The filler plug is designed with an automatic ventilator valve which allows excessive air or oil to escape from the hydraulic system.
1) Air pump stalls under heavy load.	Air pressure might be too low - 140 psi minimum air pressure required to lift rated load.  Air hose might be plugged - Remove obstruction from air hose.
1) Air pump raises load slowly.	Lubrication may have been "washed out" of reversing valve - With air valve open, squirt 1/2 oz. of SAE 30 oil into air inlet. Connect air hose and allow air pump to cycle a few times to distribute the oil internally.
1) Will not lift load. 2) Will not lift full height. 3) Pump feels "spongy" under load.	The jack could be low on oil - Remove the filler plug and fill reservoir with clean Hydraulic Jack Oil.  The jack could be air bound - With the release valve open, prime the air pump by operating it very SLOWLY for one minute. Then close the release valve and continue to operate the pump SLOWLY until the lifting cap has reached full extension. If pump is not fully primed, open the release valve and position the handle vertically. Tip jack to left until handle is at a 45° angle to the ground. Operate air pump SLOWLY for one minute. Set jack upright and repeat first procedure.
1) "Quick raise" not working. 2) Lifting arm will not retract properly.	Ram gland nut might be too tight - Loosen the gland nut about 1/4 revolution (counterclockwise), being careful to not scratch the ram. Extend the ram and lubricate it lightly with a heavy oil.
1) Handle raises under load. 2) Handle lowers under load. 3) Will not hold load. 4) Will not lift load.	The valves might not be closing - Lower the lifting arm and close the release valve. Place one foot on a front wheel and raise the lifting arm to its full height by hand. Open the release valve to lower the lifting arm. The jack should now operate properly.

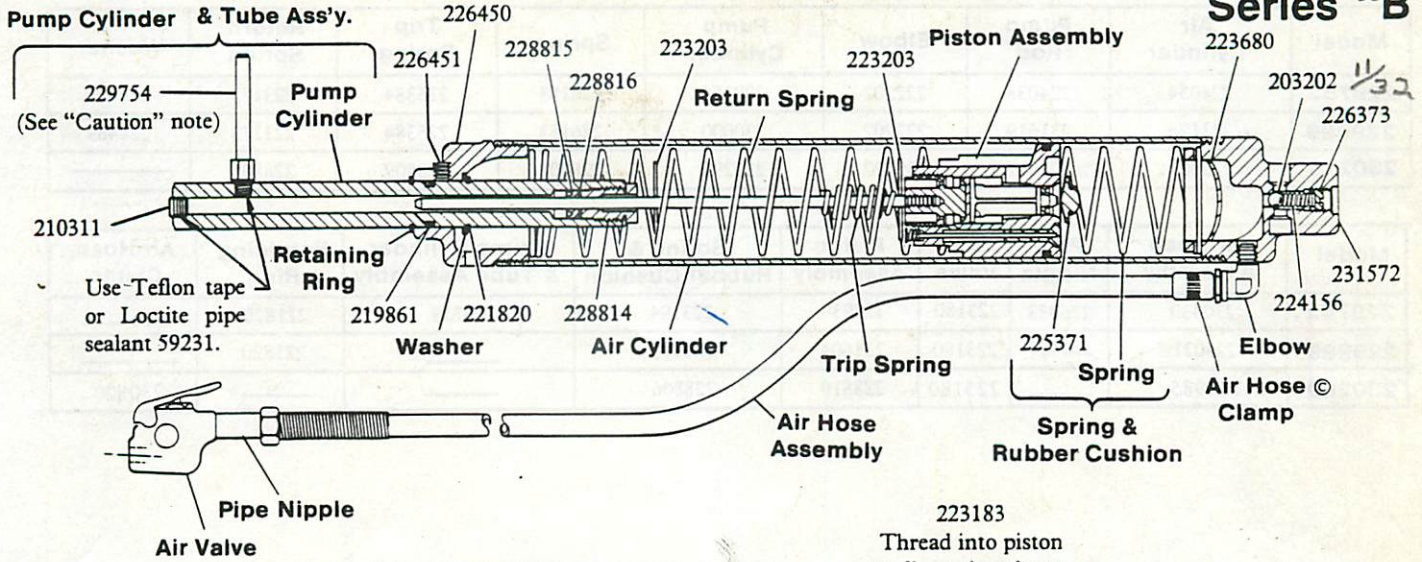
If the above procedures do not correct the problem, contact your nearest service depot. When submitting any jack or equipment to be repaired, be sure to state the nature of the problem and indicate whether an estimate of the repair cost is needed.

### RETAIN THIS INFORMATION FOR FUTURE REFERENCE

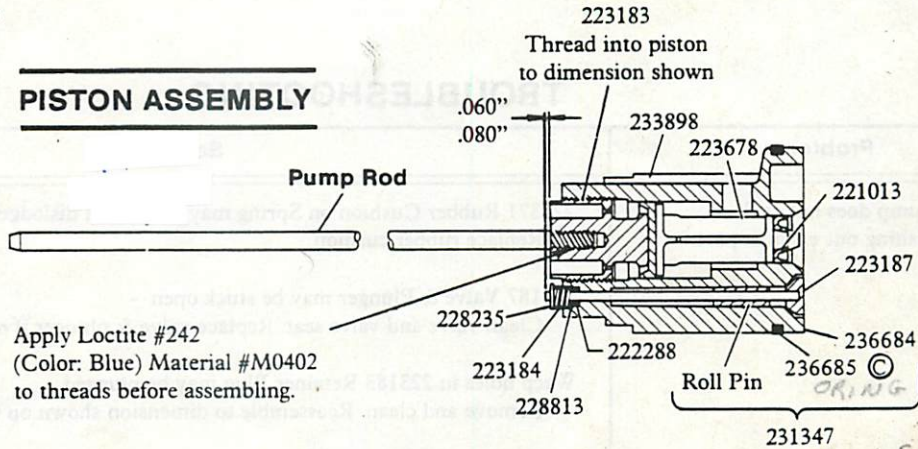
When ordering replacement parts, list: Part Number, Description, Model Number, and Series Letter.

LINCOLN provides a Distributor Network that stocks equipment and replacement parts.

Series "B"



### PISTON ASSEMBLY



**Caution:** Tube must be tightened to hold pressure, but not protrude into I.D. of pump cylinder.

Apply Loctite #242 (Color: Blue) Material #M0402 to threads before assembling.

### SERVICE PARTS

Part	Qty.	Description	Part	Qty.	Description
203202	1	Ball	226373	1	Adjusting screw
210311	1	Pipe plug	226450	1	End block
*219861	1	O-ring	226451	2	Set screw
*221013	1	U-cup packing	228235	1	Cotter pin
*222288	1	O-ring	228813	1	Washer
223183	1	Plug	228814	1	Gland nut
223184	1	Spring	228815	1	U-cup packing
*223187	1	Valve & plunger	228816	1	Washer
223203	2	Trip washer	229754	1	Extension tube
223678	1	Pump packing & piston ass'y.	231347	1	Piston & roll pin ass'y.
223680	1	Screen	231572	1	Cylinder cap
224156	1	Spring	236684	1	Piston
225371	1	Rubber cushion	236685	1	O-Ring

\* Included in 240564 Repair Kit for Models 91-662, 93662, YA-662, 91-666, 93666, YA-666, 91-667, 93667 & YA-667

© Indicates Change



Model	Air Cylinder	Pump Rod	Elbow	Pump Cylinder	Spring	Trip Spring	Return Spring	Washer
229752	224034	224038	222202	229755	226153	225384	223173	224469
229999	223176	231619	222202	230000	226153	225384	223173	224469
230289	228804	228812	230822	230291	228807	228809	228805	_____

Model	Air Hose Assembly	Pipe Nipple	Air Valve	Piston Assembly	Spring & Rubber Cushion	Pump Cylinder & Tube Assembly	Retaining Ring	Air Hose Clamp
229752	230430	226483	223180	228930	223194	229753	221820	_____
229999	224021	226483	223180	231604	223194	_____	221820	_____
230289	230985	_____	223180	228810	228806	_____	_____	230820

## TROUBLESHOOTING

Problem	Solution
1) Air pump does not cycle, air rushing out exhaust port.	<p>225371 Rubber Cushion on Spring may have been dislodged - Replace rubber cushion.</p> <p>223187 Valve &amp; Plunger may be stuck open - Clean valve and valve seat. Replace valve &amp; plunger if necessary.</p> <p>Weep holes in 223183 Retainer Plug may be plugged - Remove and clean. Reassemble to dimension shown on front page.</p> <p>Return Spring may be broken - Replace spring.</p>
2) Air pump does not cycle, no air from exhaust port.	<p>223187 Valve &amp; Plunger not opening - Check for bent 223202 Trip Washer or a bent or rusted valve plunger. Replace parts as necessary.</p>
3) Jack raises load slower than normal, air pump cycles slowly.	<p>Air restriction in line between air valve and air pump - Clear restriction from hose or air valve:</p> <p>Weep holes in 223183 Retainer Plug may be plugged - Remove and clean. Reassemble to dimension shown on front page.</p>
4) Jack raises load slower than normal, air pump cycles rapidly.	<p>Trip Spring may be deformed or broken - Replace trip spring.</p>

**———— RETAIN THIS INFORMATION FOR FUTURE REFERENCE ————**

When ordering replacement parts, list: Part Number, Description, Model Number, and Series Letter.

LINCOLN provides a Distributor Network that stocks equipment and replacement parts.