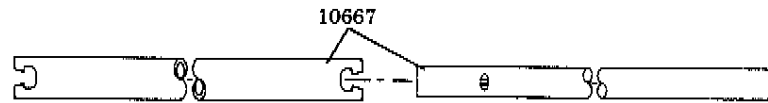


PORTABLE HYDRAULIC JACK

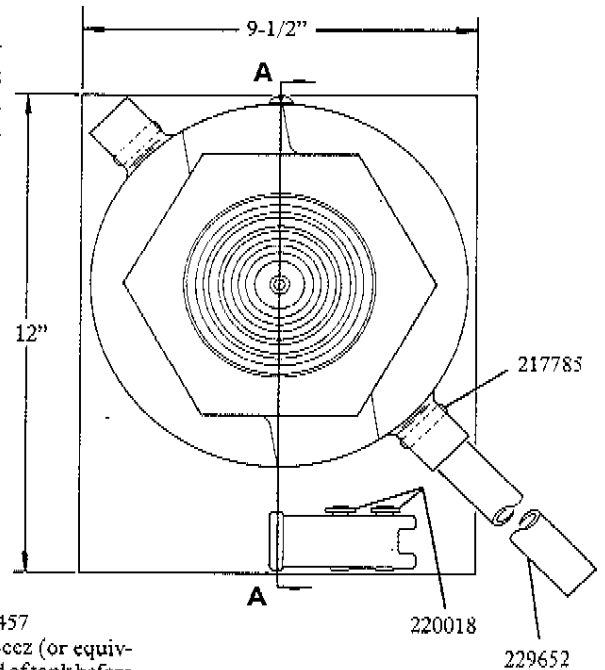
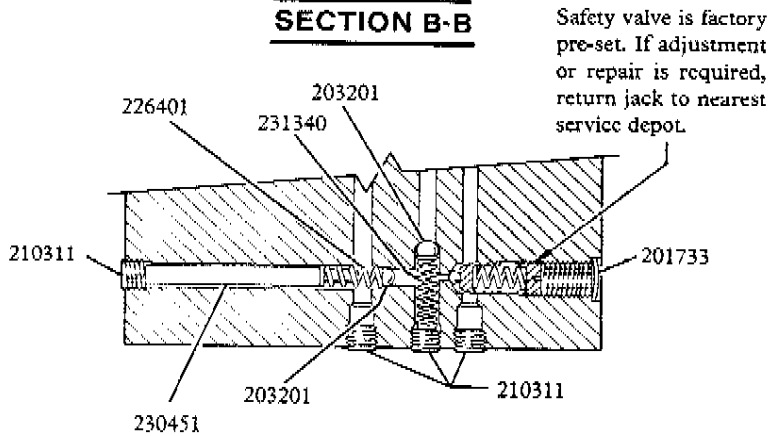
100 TON CAPACITY

Models 91-603 93603

Series "C"

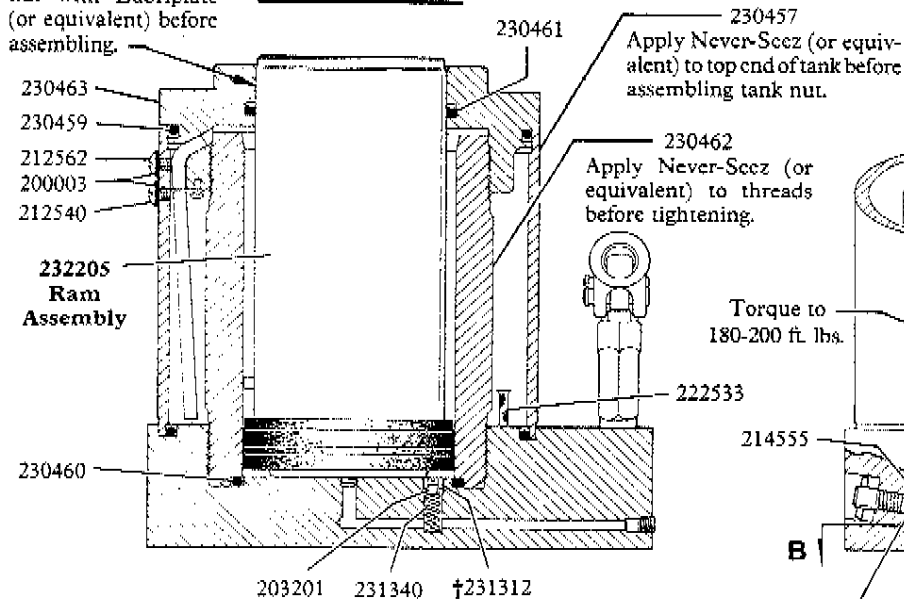


SECTION B-B



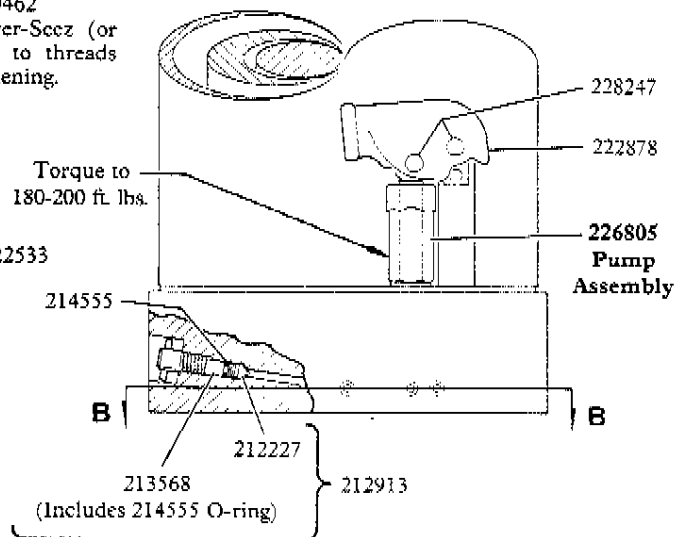
SECTION A-A

Lubricate I.D. of tank nut with Lubriplate (or equivalent) before assembling.



† Top of valve to be flush with top of base as shown.

Stake top of valve to prevent rotation.

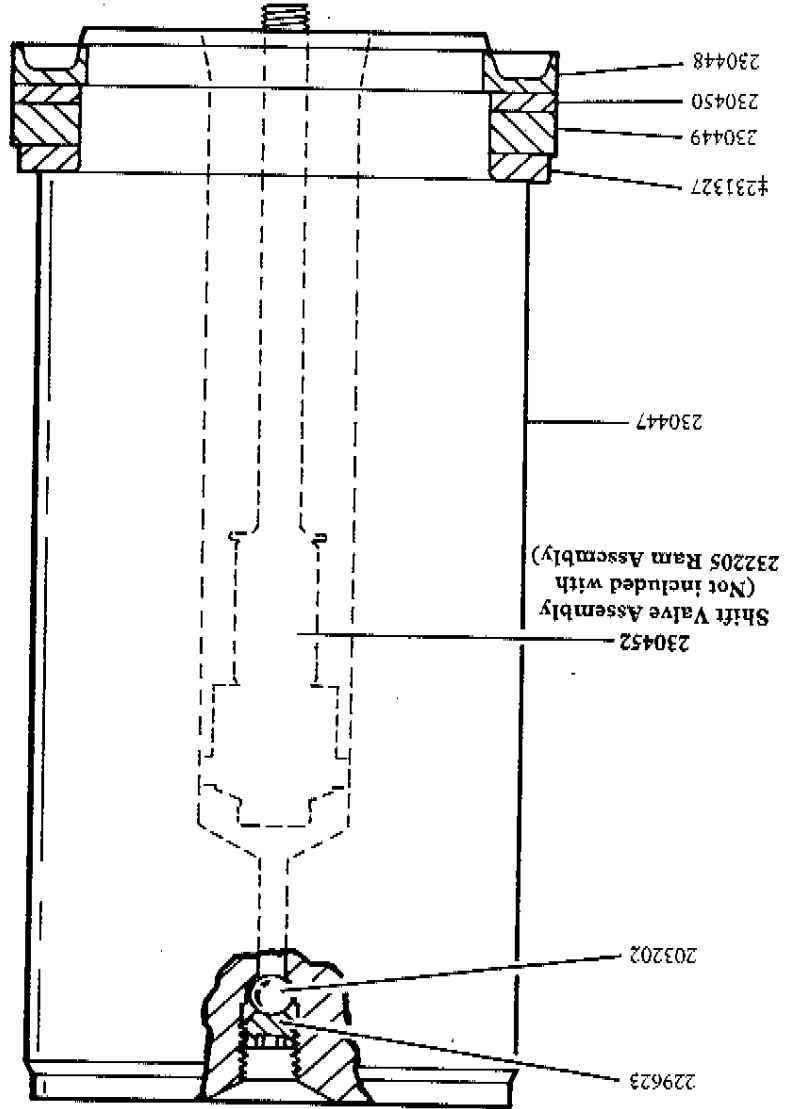


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One Lincoln Way
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SECTION - **W2**
PAGE - **12**

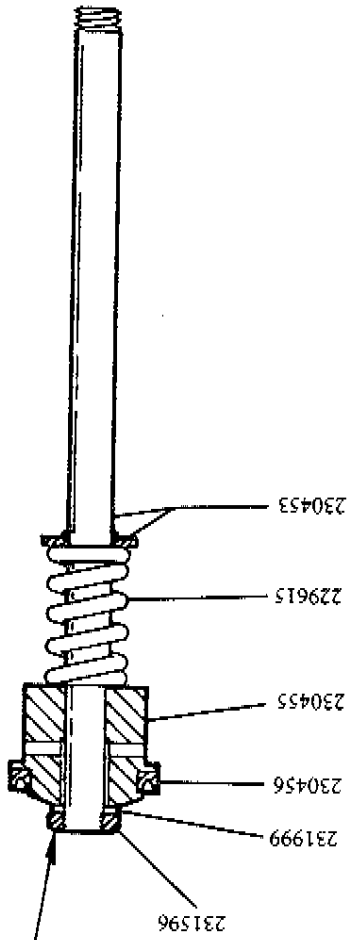
‡ Chamfer on 231327 Heel Plate Support to be against shoulder of ram as shown.



RAM ASSEMBLY
232205

SHIFT VALVE ASSEMBLY
230452

- 1) Chamfer on top as shown.
- 2) Nut to be flush with end of tube.
- 3) Stake nut two places to prevent rotation.

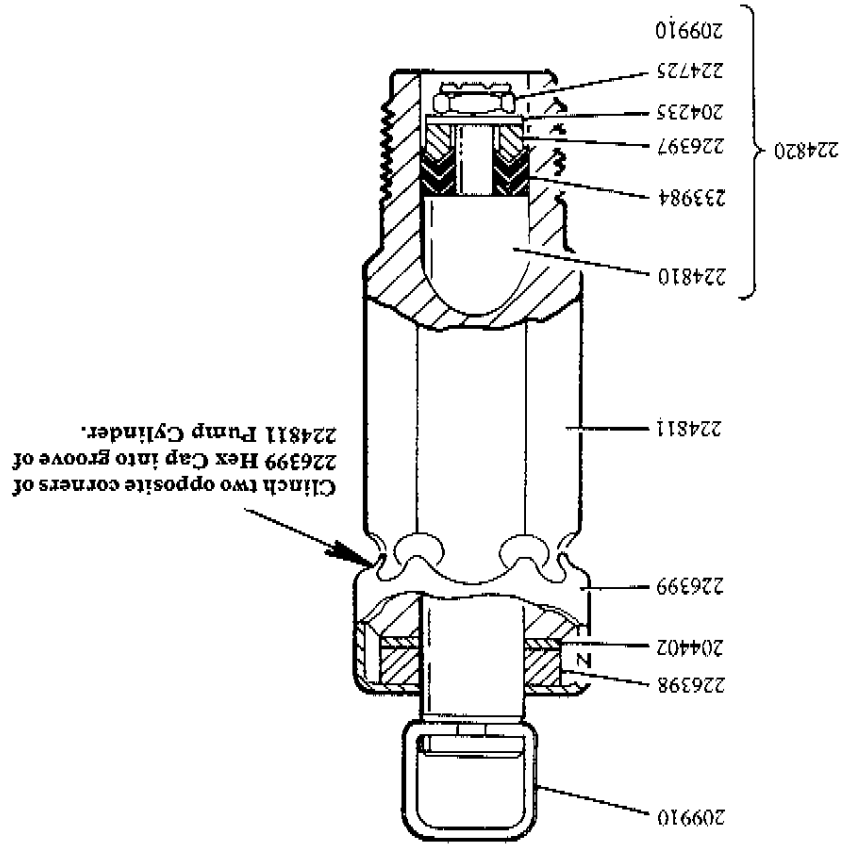


- 22481C
 - 233984
 - 226397
 - 204235
 - 224725
 - 20991C
- 22481C } 224820

- 22481
- 22639
- 20440
- 22639
- 20991

DESCRIPTION	PART	QUAN.
Handle assembly	10667	1
Gasket	200003	2
Expansion plug	201733	1
Ball	*203201	3
Ball	*203202	1
Washer	204235	1
Washer	204402	1
Pump chip	209910	1
Pipe plug	*210311	4
Valve	212227	1
Filler screw	212540	1
Vent screw	212562	1
Release stem & packing assembly	212913	1
Release stem & o-ring assembly	213568	1
O-ring	*214555	1
Roll pin	217785	2
Retaining ring	220018	2
Screen	*222533	1
Handle socket	222878	1
Locknut	224725	1
Piston	224810	1
Cylinder	224811	1
Pump piston assembly	224820	1
Washer (rubber)	*226397	1
Washer (felt)	*226398	1
Cap	226401	1
Sprng	226805	1
Pump assembly	228247	2
Pin	229615	1
Sprng	229623	1
Set screw	229652	2
Handle	230447	1
Ram	*230448	1
U-cup packing	230449	1
Heel plate	*230450	1
Washer	230451	1
Spacer	230452	1
Shift valve assembly	230453	1
Center tube & washer	230455	1
Shift valve	*230456	1
U-cup packing	230457	1
Oil tank	*230459	2
O-ring	*230460	1
O-ring	*230461	1
Quad ring	230462	1
Cylinder	230463	1
Tank nut	231312	1
Dump valve	231327	1
Heel plate support	231340	2
Sprng	231596	1
Nut	*231999	1
Seal	232205	1
Ram assembly	*233984	3
V-packing		

*Included in 91-381 & 240544 Repair Kits.



**226805
PUMP ASSEMBLY**

Shatter on top as
down.
nut to be flush with
end of tube.
take nut two places
to prevent rotation.

NBL

MODEL	LABEL KIT NO.	REPAIR KIT NO.
91-603	240158	91-381
93603	240159	240544

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.

A list of Authorized Service Departments will be furnished upon request.

IMPORTANT: As with any hydraulic unit, this unit may occasionally become "air bound" due to being tipped over during shipment. Refer to instructions above to purge air from the jack.

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.

PROBLEM	SOLUTION
1) Will not lift load. 2) Will not lift full height. 3) Pump feels "Spongy" under load.	1) Jack could be low on oil - with jack in upright position and ram fully lowered, remove filler screw (the lower screw on the reservoir) and fill reservoir with clean HYDRAULIC JACK OIL - correct oil level is reached when oil level is at bottom edge of filler screw hole. 2) Will not lift full height. 3) Pump feels "Spongy" under load. - Jack could be "air bound" - open the release valve one full turn and pump the handle vigorously. Close the release valve and pump to raise ram about 3". Loosen set screw in top of ram. Pump slowly until air stops bubbling around the set screw threads. Tighten set screw. Use adjustable spanner wrench in holes provided in top of ram to prevent rotation of ram.
1) Will not lift load. 2) Handle raises under load. 3) Handle lowers under load. 4) Will not hold load.	Valves might not be closing - open the release valve one full turn and pump the handle vigorously to flush the valves. Close the release valve and operate normally.
1) Will not work in horizontal position. 2) Leaks around release.	Jack in wrong position for horizontal operation - jack must be laying on its right side with the handle socket and release valve nearest ground. Jack could be low on oil - with jack in upright position and ram fully lowered, remove filler screw (the lower screw on the reservoir) and fill reservoir with clean HYDRAULIC JACK OIL - correct oil level is reached when oil level is at bottom edge of filler screw hole. Release valve seal may be damaged or worn out - thoroughly clean area around release valve and place jack in horizontal position with release valve facing upward BEFORE removing it. Remove the release stem and seal on release stem. Remove the o-ring seal and thoroughly clean the stem. Install new valve hole in jack base with clean lint-free rag. Liberally apply clean grease to seal on release stem. Re-install release valve parts and operate normally.
1) Will not lift full height. 2) Will not lower completely.	Air vent screw could be closed - make certain that vent is open about two full turns.

TROUBLESHOOTING

Height (Closed)	Power Raise	Maximum Height	Lift Cap Diameter
12"	6-1/4"	18-1/4"	4-3/8"

SPECIFICATIONS