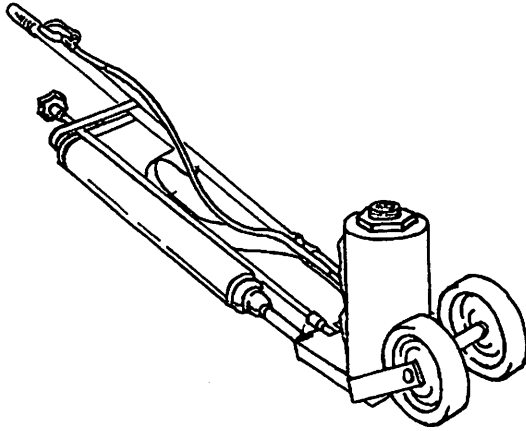


OWNER/OPERATOR MANUAL

SPECIFICATIONS



RATED LOAD CAPACITY	40,000 lbs
LOW PICK UP HEIGHT	9-1/2"
HIGH LIFTING POINT	17-1/2"
POWER RAISE	5-1/2"
SCREW EXTENSION	2-1/2"
BASE SIZE	8" x 5-1/2"
RAM DIAMETER	2-3/16"
HANDLE LENGTH	50"
WHEEL DIAMETER	6"
MAXIMUM AIR PRESSURE SUPPLY	150 psi
REQUIRED AIR PRESSURE FOR LIFTING LOADS	140 psi for 40,000 lbs 125 psi for 35,400 lbs 100 psi for 27,900 lbs 75 psi for 19,700 lbs

DESCRIPTION

Model YA731 is an air operated low pickup jack designed for truck and trailer emergency road service calls. The jack provides the following features:

- Operates with air.
- Compact, portable, easy to transport and store.
- Long handle and low height for lifting loaded trailers and trucks by the axles.
- Automatic overload protection prevents overloading and exceeding the jack rated lifting capacity.
- Two speed lifting action to quickly contact a load then power raise it.
- Screw extension provides low pickup height adjustments.

OWNER/OPERATOR RESPONSIBILITY

It is the owner/operator responsibility to properly use and maintain this equipment.

The instructions and warnings contained in this manual shall be read and understood by the owner/operator prior to operating this equipment.

If an owner/operator does not understand English, the contents of this manual shall be explained in the owner/operator native language to assure the owner/operator comprehends.

It is the owners/operators responsibility to maintain the legibility of all warning and instruction labels.

The owner/operator shall retain this manual for future reference to important warnings, operating and maintenance instructions.

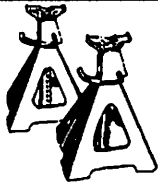
WARNING

FAILURE TO HEED THE FOLLOWING INSTRUCTIONS MAY RESULT IN PERSONAL INJURY AND/OR PROPERTY DAMAGE.

- Do not exceed rated capacity.
- Use only as a lifting device. Do not use to support a load or vehicle.
- Use jack on hard level surfaces.
- Center load on lift cap.
- Use vehicle stands or appropriate support after lifting a vehicle/load.
- Lift only at locations specified by the manufacturer.
- Do not crawl under a vehicle/load when placing stands or support.
- Lower a vehicle/load slowly.

WARNING

**FOR YOUR
SAFETY**



**USE VEHICLE STANDS OR
OTHER APPROPRIATE SUP-
PORT TO SUPPORT THE
VEHICLE /LOAD BEFORE
GETTING UNDER IT.**

OPERATION

BEFORE USING JACK

Prior to operation, a visual jack inspection shall be made. Check for bent or worn parts, hydraulic leaks, damaged, loose or missing parts.

Check jack operation by closing release valve, connecting air hose to jack and pressing air control valve. If jack responds immediately to air pressure, it is ready to use. If not, refer to TROUBLESHOOTING and perform AIR PURGING procedure.

If jack is damaged, badly worn, or operates abnormally it shall be removed from service. Contact a factory authorized service center for repair.

If the jack has been subjected to an abnormal load or shock, the jack shall be inspected by a factory authorized service center.

An annual jack inspection is recommended to be performed by a factory authorized service center.

USING JACK

- A. Set vehicle parking brakes and/or block vehicle wheels.
- B. Open release valve by turning release knob counterclockwise and allow jack to fully retract.
- C. Connect air hose to jack. 140 psi is required for rated lifting capacity (40,000 lbs.).
- D. Position jack under desired vehicle lifting point suggested by manufacturer.

- E. Firmly close release valve by turning release knob clockwise.
- F. The jack lift cap must contact the vehicle lift surface squarely and as close to center of lift cap as possible.
- G. Press air control valve and raise vehicle to desired height. DO NOT lift vehicle any higher than is needed to make repairs.
- H. DO NOT crawl under vehicle while positioning vehicle stands.
- I. Slowly turn release knob counterclockwise to open release valve and carefully lower vehicle on to vehicle stands or other appropriate supports.

REMOVING JACK

- A. Make sure release valve is closed by firmly turning release knob clockwise.
- B. Press air control valve and raise vehicle just enough to clear vehicle stands or support means.
- C. Remove vehicle stands or other support means from under vehicle. DO NOT crawl under vehicle when removing vehicle stands.
- D. Slowly turn release knob counterclockwise to open release valve and lower vehicle.
- E. When vehicle is fully lowered, remove jack from under vehicle.

MAINTENANCE

CHECKING HYDRAULIC OIL LEVEL

CAUTION

**BRAKE OR TRANSMISSION
FLUIDS WILL DAMAGE
EQUIPMENT SEALS.**

- A. Place jack in upright position.
- B. Open release valve and allow jack to retract to its lowest position.

- C. Remove filler screw.
- D. Fill oil tank with clean hydraulic jack oil. Do not overfill.
- E. Reinstall filler screw.

LUBRICATION

Lubricate jack as follows:

- A. Clean jack as required before applying lubricant.
- B. Apply motor oil to wheel bearings.

TROUBLESHOOTING

If the following procedures do not correct the problem, contact a factory authorized service center. When submitting a jack or equipment to be repaired, be sure to state the nature of the problem.

AIR PURGING

As with any hydraulic unit, the jack may occasionally become air bound due to being tipped over during shipment or handling. To purge air from jack hydraulic circuit, perform the following procedure:

- A. Close oil tank air vent by turning screw clockwise.
- B. Place a prop (approximately 12" high) under the jack base allowing handle end of jack to rest on floor.
- C. Connect external air hose to jack.
- D. Open release valve and cycle pump as slow as possible for 20 or more strokes..
- E. Place jack in upright position. Open oil tank air vent by turning screw counterclockwise one or two full turns.
- F. Close release valve and operate jack until ram has reached full extension. Let pump cycle slowly for 20 more strokes.
- G. Open release valve and manually push ram down until jack is fully lowered.

COMMON PROBLEMS

JACK WILL NOT LIFT TO FULL HEIGHT.

- Oil level low. Perform CHECKING HYDRAULIC OIL LEVEL procedure.
- Oil level to high. Remove filler screw. Open release valve and slowly push ram down until fully lowered. Replace filler screw when oil stops flowing.
- Air in hydraulic system. Perform AIR PURGING procedure.

JACK WILL NOT LIFT LOAD.

- Oil level low. Perform CHECKING HYDRAULIC OIL LEVEL procedure.
- Air in hydraulic system. Perform AIR PURGING procedure.
- Valves not closing. Make sure release valve is closed and try jack again. If jack still will not lift, open

release valve and allow jack to cycle 20 times to flush the valves.

JACK WILL NOT LOWER COMPLETELY.

- Oil tank air vent closed. Open air vent one or two full turns.

JACK FEELS SPONGY UNDER LOAD.

- Oil level low. Perform CHECKING HYDRAULIC OIL LEVEL procedure.
- Air in hydraulic system. Perform AIR PURGING procedure.

JACK STALLS UNDER HEAVY LOAD.

- Air pressure to low. Check air pressure supply. 140 psi required for rated lifting capacity (40,000 lbs.).
- Air hose restricted or leaking. Check air hose for restrictions or leaks.

JACK LIFTS LOAD TO SLOW.

- Air-hydraulic pump requires lubrication. To lubricate, open air valve on handle and squirt 1/2 ounce SAE 30 oil into air inlet. Connect air hose and operate jack to distribute oil internally.
- Air lines restricted or too small.
- Inadequate air supply.

REPAIR

Repair is limited to replacement of listed service parts. Special procedures and tools are required. If the jack requires repair, contact a factory authorized service center.

LIMITED WARRANTY

Lincoln, A Pentair Company, warrants that jacks and related service equipment manufactured by it will be free from defects in material and workmanship during the 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 repaired 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 the 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.

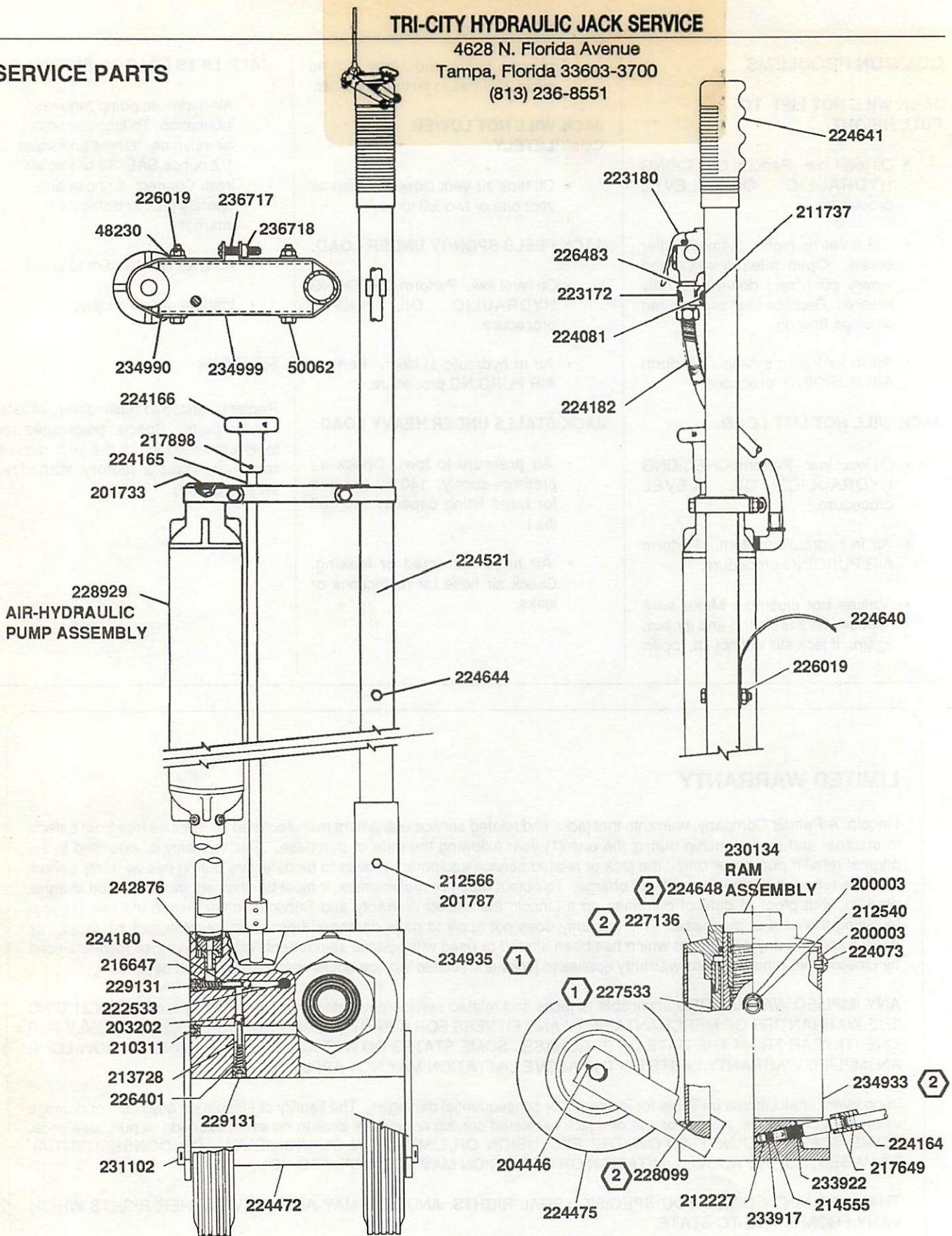
In no event shall Lincoln be liable for incidental or consequential damages. The liability of Lincoln on any claim or damage arising out of the sale, resale, or use of a jack or related service equipment shall in no event exceed the purchase price. SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION 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.

TRI-CITY HYDRAULIC JACK SERVICE

4628 N. Florida Avenue
Tampa, Florida 33603-3700
(813) 236-8551

SERVICE PARTS



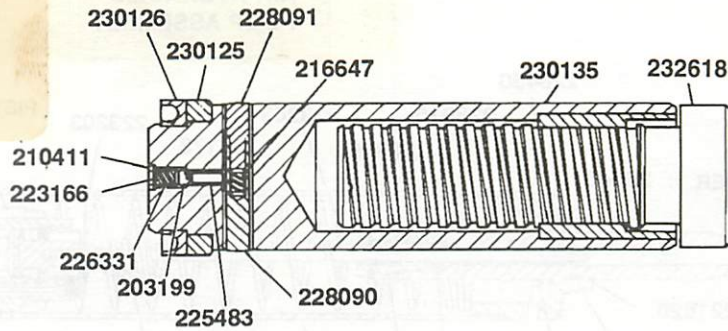
240221	LABEL KIT JACK REPAIR KIT PUMP REPAIR KIT
240579	
240564	

SERVICE PARTS (CONT)
TRI-CITY HYDRAULIC JACK SERVICE

4628 N. Florida Avenue
 Tampa, Florida 33603-3700
 (813) 236-8551



230134
RAM ASSEMBLY



NOTES:

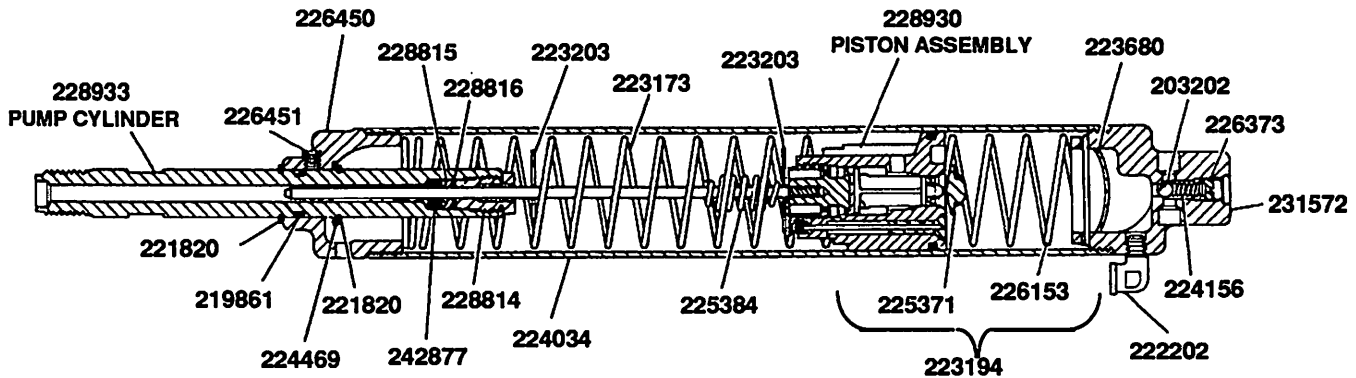
- 1 Apply Never-Seez (or equivalent) to threads and face at both ends of 227533 cylinder before assembling. Assemble to 234935 base and tighten to crush joint.
- 2 Lubricate 228099 O-ring, 22468 O-ring and upper and lower I.D. of 234933 tank and I.D. of 227136 tank nut with Lubriplate (or comparable lubricant) before assembling. Tighten to a crush point.

PART	QTY	DESCRIPTION	PART	QTY	DESCRIPTION
48230	2	Washer	224475	2	Wheel
50062	2	Bolt	224521	1	Handle
200003	2●	Gasket	224640	1	Balance strap
201733	1	Expansion plug	224641	1	Handle grip
201787	1	Lockwasher	224644	3	Bolt
203199	1●	Ball	224648	1●	O-ring
203202	3●	Ball	225483	1	Pin
204446	2	Cotter pin	226019	5	Locknut
210311	1	Pipe plug	226331	1	Spring
210411	1	Washer	226401	2	Spring
211737	1	Lockwasher	226483	1	Pipe nipple
212227	1	Poppet	227136	1	Tank nut
212540	1	Filler screw	227533	1	Ram cylinder
212566	1	Bolt	228090	1	Cross pin
213728	1	Spacer	228091	1	Cross pin
214555	1●	O-ring	228099	11	O-ring
216647	2	Spring	228929	1	Air-hydraulic pump assembly
217649	2	Roll pin	229131	2	Pipe plug
217898	1	Roll pin	230125	1	Heel plate
222533	1	Screen	230126	11	U-cup packing
223166	1	Screen	230134	1	Ram assembly
223172	1	Hose clip	230135	1	Ram
223180	1	Air valve	231102	1	Axle
224073	1	Air vent screw	232618	1	Extension screw assembly
224081	1	Screw	233917	1●	Plastic spring
224164	1	Adapter	233922	1	Release stem
224165	1	Rod	234933	1	Oil tank
224166	1	Hand knob	234935	1	Base
224180	1	Spacer	234990	2	Strap
224182	1	Air hose	234999	1	Support bracket
224472	1	Spacer	236717	1	Screw
			236718	1	Nut
			242876	1	Bushing

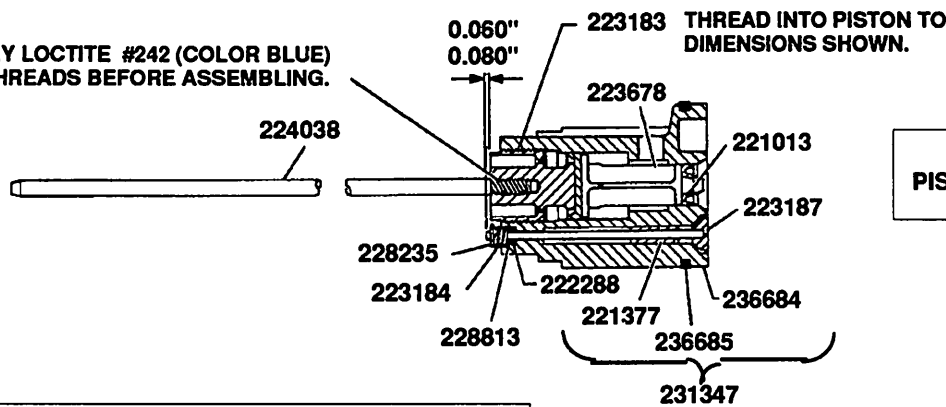
● Included in 240579 Repair Kit.

SERVICE PARTS (CONT)

228929 AIR-HYDRAULIC PUMP ASSEMBLY



APPLY LOCTITE #242 (COLOR BLUE)
TO THREADS BEFORE ASSEMBLING.



228930 PISTON ASSEMBLY

240564 AIR-HYDRAULIC PUMP REPAIR KIT

PART	QTY	DESCRIPTION	PART	QTY	DESCRIPTION
203202	1	Ball	224469	1	Washer
219861	1●▲	O-ring	225371	1	Rubber Cushion
221013	1●▲	U-cup packing	225384	1	Trip spring
221377	1	Roll Pin	226153	1	Spring
221820	2	Retaining ring	226373	1	Adjusting screw
222202	1	Elbow	226450	1	End block
222288	1●▲	O-ring	226451	2	Set screw
223173	1	Return Spring	228235	1	Cotter pin
223183	1	Plug	228813	1	Washer
223184	1	Spring	228814	1	Gland nut
223187	1▲	Valve & plunger	228815	1	U-cup packing
223194	1	Spring & rubber cushion ass'y.	228816	1	Washer
223203	2	Trip washer	228930	1	Piston assembly
223678	1	Pump packing & piston	228933	1	Pump cylinder
223680	1	Screen	231347	1	Piston & roll pin assembly
224034	1	Air cylinder	231572	1	Cylinder cap
224038	1	Pump rod	236684	1	Piston
224156	1	Spring	236685	1	Sealing ring
			242877	1	Bushing

▲ Included in 240564 Repair Kit.
● Included in 240579 Repair Kit.