

WALKER®

**SERVICE
DIVISION**

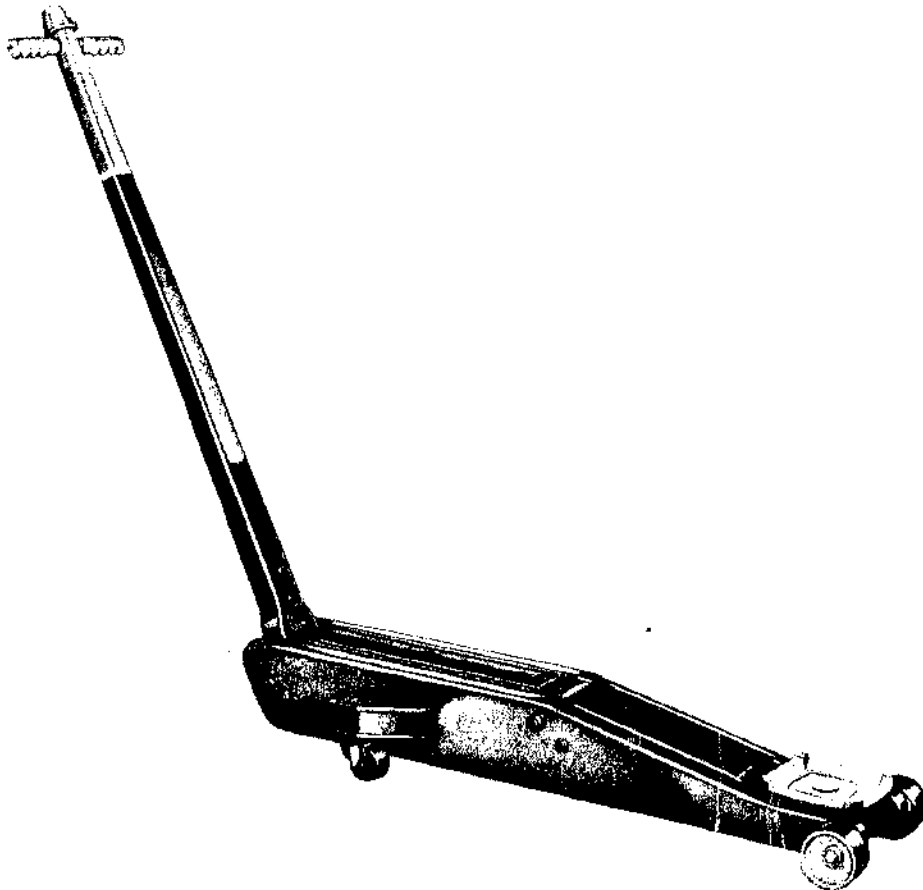
Jack Parts Sheet

MODEL 93655 (was J132)
SERIES "K"

MODEL 93656 (was J132R)
SERIES "K"

MODEL 93657 (was J134)
SERIES "J"

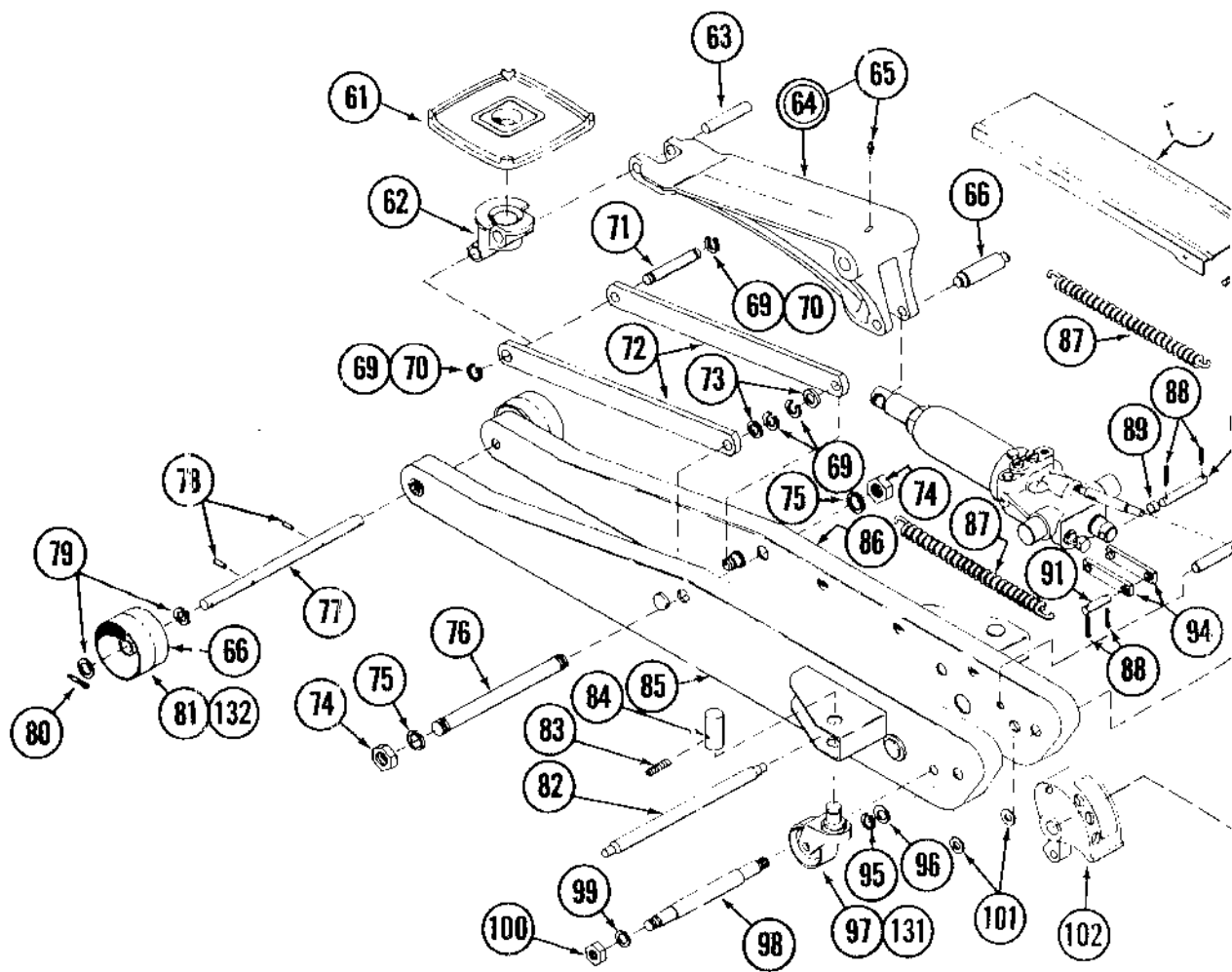
2 TON & 4 TON CAPACITY
SERVICE JACK



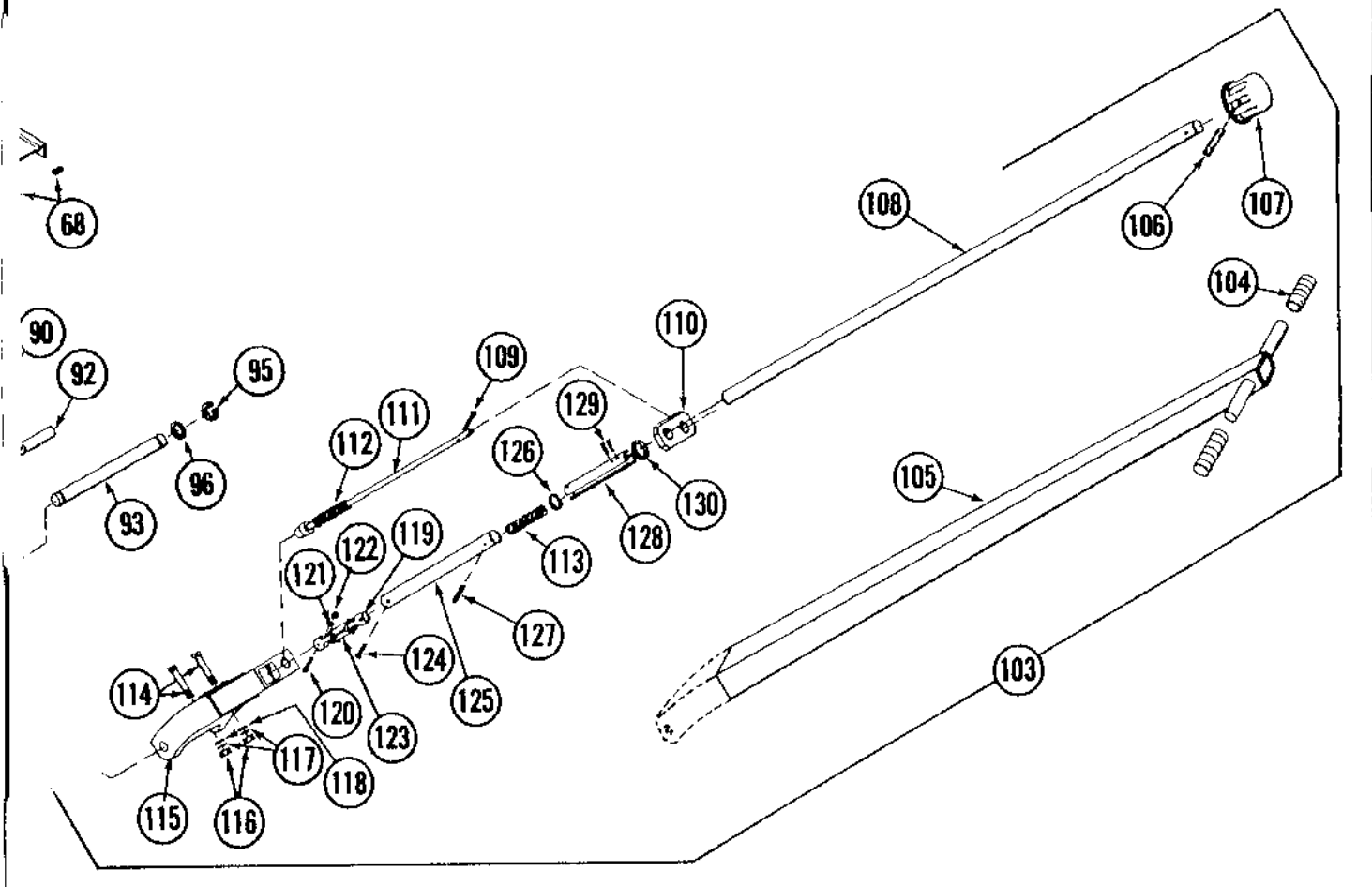
SERVICE

We have Factory-owned BRANCHES AND AUTHORIZED SERVICE DEPOTS located in the principal cities of the United States and Canada. They are operated by FACTORY TRAINED STAFFS and carry a comprehensive stock of REPAIR PARTS. Please contact the Factory or your Walker DISTRIBUTOR for location of Branch or Service Depot nearest you.

Walker Manufacturing GENERAL OFFICE: Racine, Wisconsin -- MANUFACTURING PLANT AND SERVICE DEPARTMENT: Jonesboro, Arkansas -- FACTORY SERVICE BRANCHES: Atlantic, Georgia -- Cleveland, Ohio -- Kansas City (Riverside), Missouri -- Philadelphia, Pennsylvania.
Form 22297 11-74



ORDER BY PA
SEE BACK PAGE



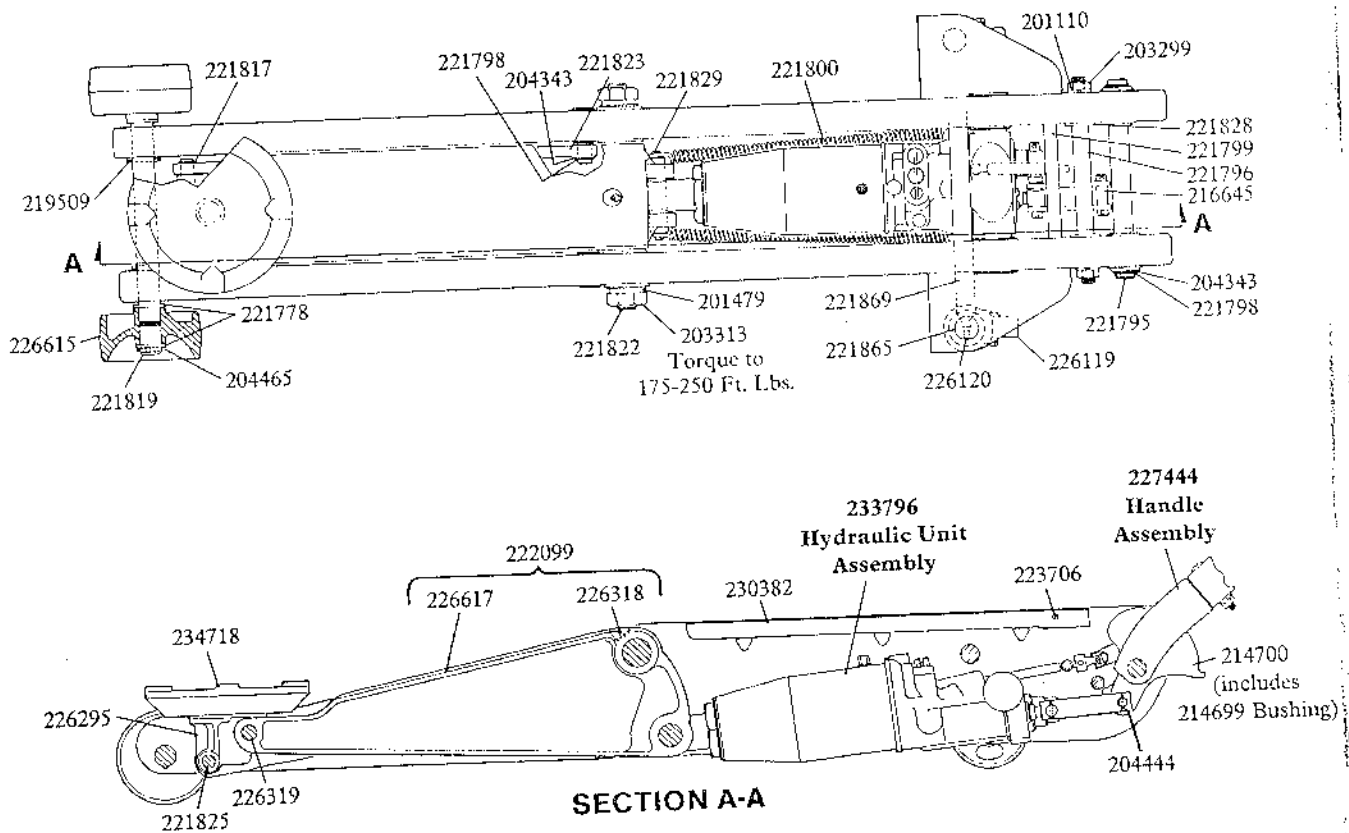
ORDER, NOT BY CODE NUMBER
COMPLETE NUMERICAL LISTING

HYDRAULIC SERVICE JACK

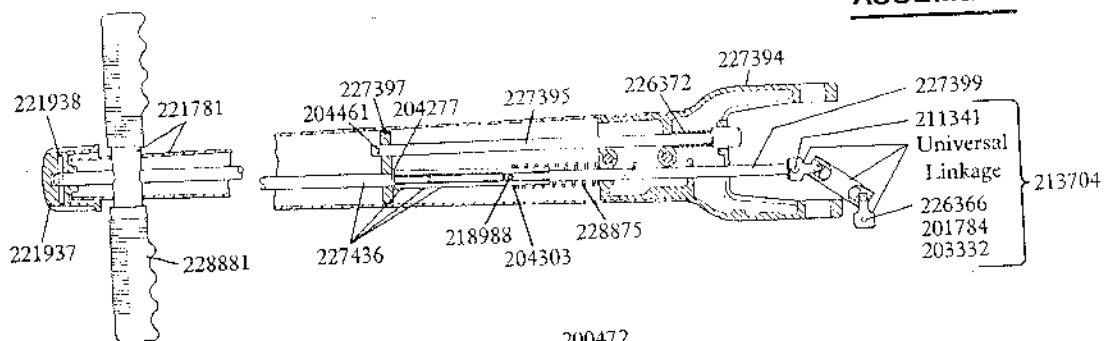
4 TON CAPACITY

Models 91-657
93657, YA-657

Series "K"



**227444
HANDLE
ASSEMBLY**



MODEL	LABEL KIT NO.	REPAIR KIT NO.
91-657	240174	91-386
93657	240175	240566
YA-657	240176	240566

LINCOLN

A DIVISION OF
McNEIL CORPORATION

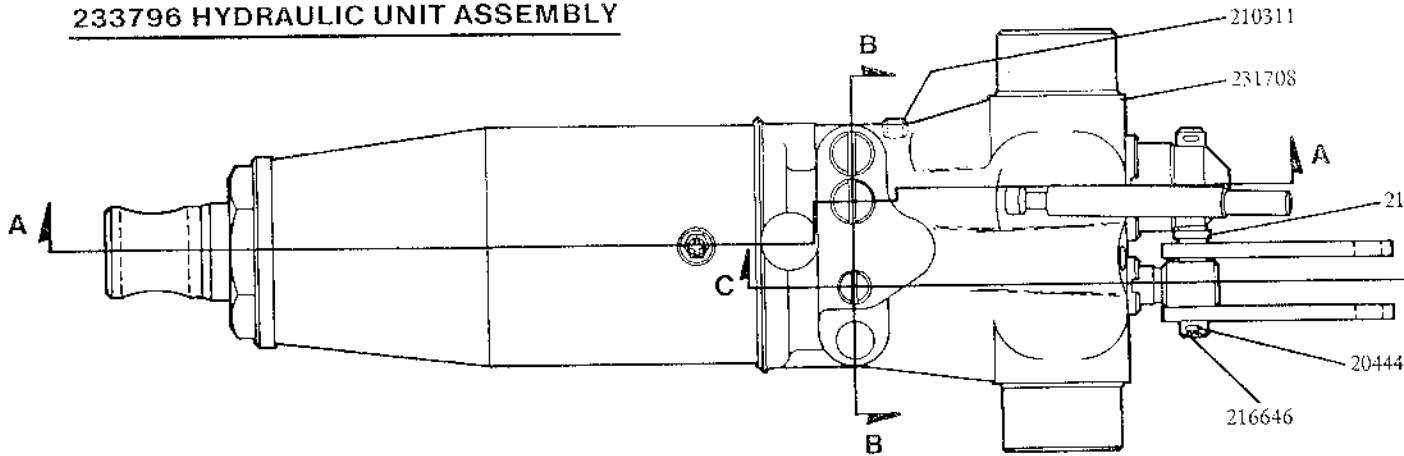
One Lincoln Way
St. Louis, MO 63120-1578
(314) 679-4200

SECTION - **W1**
PAGE - **15**

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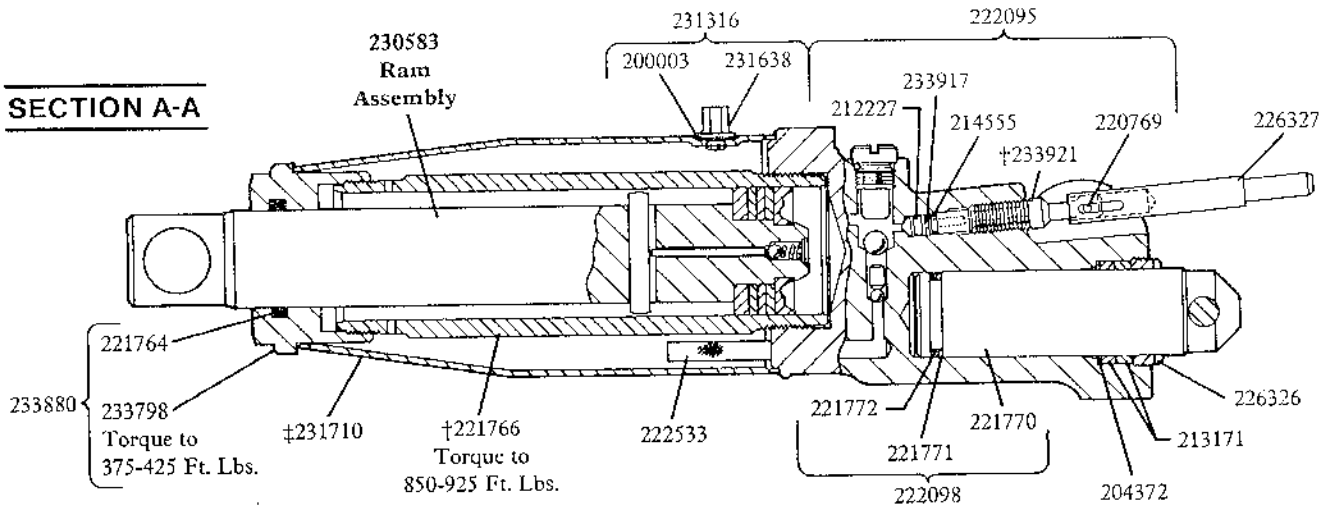
FORM 11325A

233796 HYDRAULIC UNIT ASSEMBLY

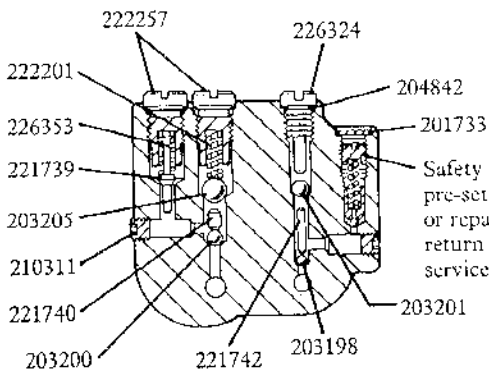


†NOTE: Apply Never-Seez (or comparable lubricant) to threads before tightening.

SECTION A-A



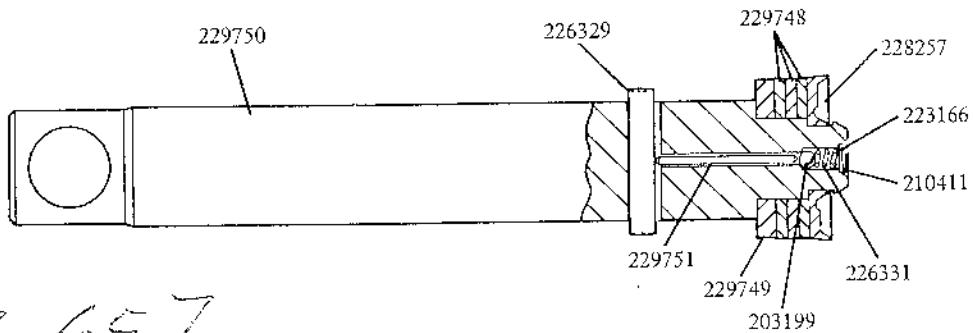
†NOTE: Apply Never-Seez (or comparable lubricant) to both ends and inside diameter of small end of tank before assembling.



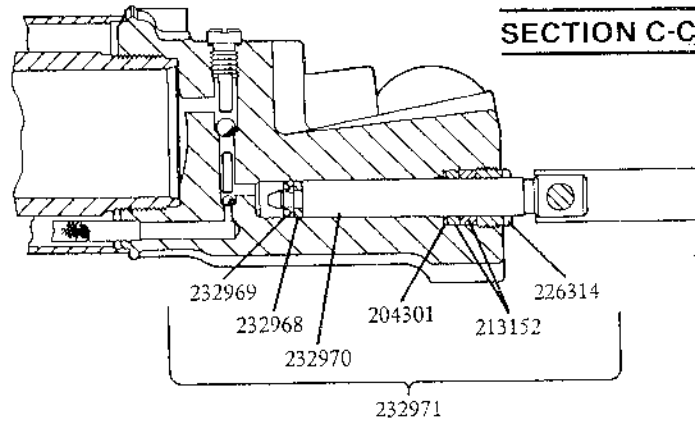
Safety valve is factory pre-set. If adjustment or repair is required, return jack to nearest service depot.

SECTION B-B

**230583
RAM
ASSEMBLY**

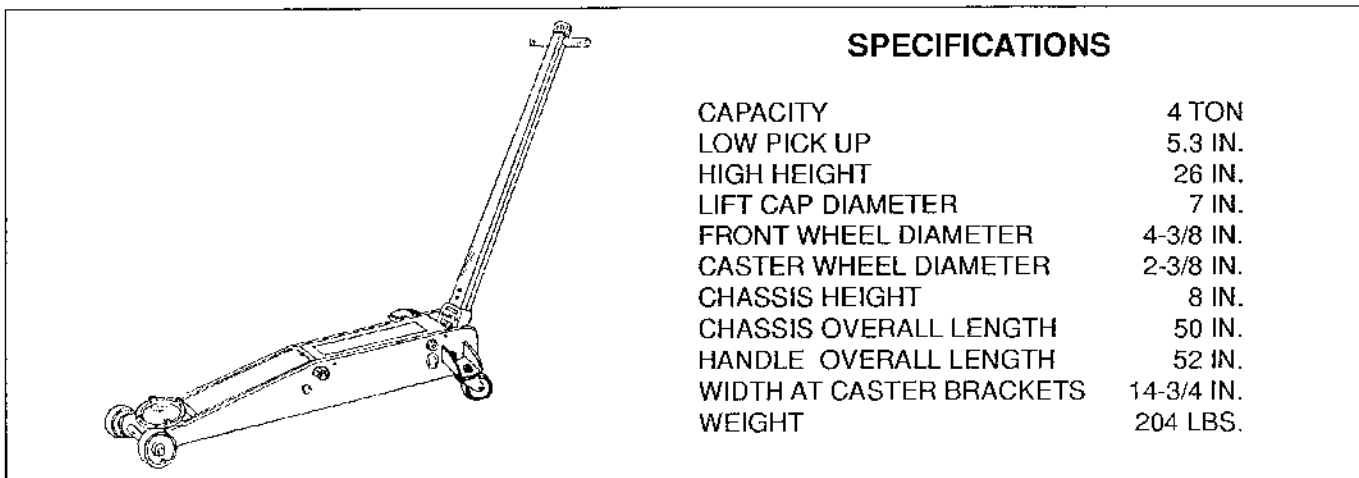


SECTION C-C



93 657

OWNER/OPERATOR MANUAL



SPECIFICATIONS

CAPACITY	4 TON
LOW PICK UP	5.3 IN.
HIGH HEIGHT	26 IN.
LIFT CAP DIAMETER	7 IN.
FRONT WHEEL DIAMETER	4-3/8 IN.
CASTER WHEEL DIAMETER	2-3/8 IN.
CHASSIS HEIGHT	8 IN.
CHASSIS OVERALL LENGTH	50 IN.
HANDLE OVERALL LENGTH	52 IN.
WIDTH AT CASTER BRACKETS	14-3/4 IN.
WEIGHT	204 LBS.

DESCRIPTION

Model W93657 jack is designed for shops where four wheel drive and small delivery trucks are serviced. The jack provides the following features:

- Provides high lift.
- Dual action pump raises the jack quickly to contact a vehicle lift surface.
- Long chassis and handle reaches under long frame vehicles.
- Handle adjusts to three pumping positions for operator convenience and low clearance vehicles.
- Automatic overload protection prevents overloading and exceeding the jack rated lifting capacity.

OWNER/OPERATOR RESPONSIBILITY

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

The instructions and warning contained in this manual shall be read and under-

stood 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 the warning label.

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



! WARNING

FAILURE TO FOLLOW WARNINGS MAY RESULT IN INJURY OR PROPERTY DAMAGE

-USE VEHICLE STANDS- AFTER LIFTING

- Use only as a lifting device.
- Center the load on the saddle.
- Lift only at locations suggested by the vehicle manufacturer.
- Use jack and vehicle stand saddle lugs for gripping.
- Do not exceed rated capacity.
- Use on hard level surfaces.
- Set parking brakes and chock wheels.
- Do not crawl under vehicle when placing stands.
- Lower the vehicle slowly.
- For safety, follow instructions in Owner's Manual.

INSPECTION

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

Check jack operation by closing release valve and pumping jack handle. Make sure jack operates smoothly and is not binding or requires lubrication. If jack does not respond to pump action, 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.

OPERATION

Jack operation is controlled by pumping the jack handle and opening and closing the release valve with the release knob located on the top of the jack handle. To raise the jack, firmly close the release valve by turning the release knob clockwise and pumping the jack handle. To lower the jack, open the release valve by turning the release knob counterclockwise.

The rate at which the jack raises is controlled automatically by the dual action pump. When the handle is first pumped, the pump will raise the jack quickly until the load is contacted. The pump then switches automatically to high pressure to raise the load.

The jack handle position may be changed by pulling out the release knob to disengage the lock and moving the handle to the desired position. Three handle positions are provided for operator convenience.

RAISING A VEHICLE

- A. Set vehicle parking brakes and block vehicle wheels.
- B. Open release valve by turning release knob counterclockwise and allow jack to fully retract.
- C. Position jack under desired vehicle lifting point suggested by manufacturer. Floor area in front of jack wheels must be free of obstructions to allow jack to move forward while lifting.
- D. Select the best handle position to operate the jack by pulling up on release knob.
- 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. Pump jack handle 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 and carefully lower vehicle on to vehicle stands or other appropriate supports.

LOWERING A VEHICLE

- A. Make sure release valve is closed by firmly turning release knob clockwise.
- B. Pump jack handle 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.

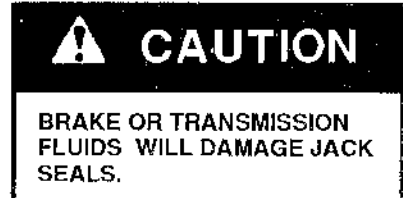
- E. When vehicle is fully lowered, remove jack from under vehicle.

MAINTENANCE

CHECKING HYDRAULIC OIL LEVEL

Fill hydraulic reservoir as follows:

- A. Open release valve by turning release knob counterclockwise and allow jack to fully retract.
- B. Raise front end of the cover over hydraulic unit assembly to gain access to filler plug on top of the reservoir.
- C. Clean dirt from around filler plug and remove filler plug from hydraulic unit assembly.
- D. Fill hydraulic reservoir with clean hydraulic jack oil to a level that just covers the hydraulic cylinder visible through the filler hole. Do not overfill.



- E. Reinstall filler plug in hydraulic unit assembly. Hand tightening is usually adequate.
- F. Lower cover over hydraulic unit assembly.

LUBRICATION

Lubricate jack as follows:

- A. Open release valve by turning release knob counterclockwise and allow jack to fully retract.
- B. Raise cover over hydraulic unit assembly by lifting the end opposite the handle.
- C. Apply motor oil to release mechanism universal joint, pump linkages and all moving joints at the lower end of the handle.

- D. Apply chassis grease to bell crank and fulcrum pin grease fitting. Also, apply motor oil to the cross pin on the end of the ram.
- E. Close release valve by turning release knob clockwise.
- F. Pump jack handle until jack is fully extended.
- G. Apply motor oil to all pin joints under lifting cap.
- H. Open release valve by turning release knob counterclockwise and allow jack to fully retract.
- I. Apply motor oil or chassis grease to wheels, caster swivel bearings, and the hydraulic unit trunion bushings until fully lubricated.
- J. If required, repeat steps C through I until jack operates and moves freely.
- K. Lower cover over hydraulic unit assembly.

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 and indicate if a repair cost estimate is required.

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. Open release valve by turning release knob on end of jack handle one full turn counterclockwise.
- B. Rapidly pump jack handle six or more full strokes to purge air from hydraulic circuit.

- C. Close release valve by turning release knob clockwise.
- D. Pump jack handle until jack is fully extended. Pump jack handle two or three more full strokes to activate the jacks over-travel limiting device.
- E. Open release valve by turning release knob counterclockwise and allow jack to retract quickly.
- F. Close release valve by turning release knob clockwise.
- G. Check pump action by pumping jack handle. If jack does not respond, repeat the above procedure several times until air is fully purged from the hydraulic system.

COMMON PROBLEMS

JACK FEELS SPONGY WHEN LIFTING VEHICLE.

- Air in hydraulic system. Refer to AIR PURGING procedure and purge air from system.

JACK WILL NOT LIFT TO FULL HEIGHT.

- Oil level low. Refer to CHECKING HYDRAULIC OIL LEVEL procedure in maintenance section of this manual.

JACK WILL NOT HOLD LOAD.

- Release valve not closed or not sealing. Internal repairs may be required.
- Dirt in hydraulic oil or pump ball valves not seating. Flush hydraulic circuit by closing release valve and pumping jack to maximum height. Open release valve and quickly lower jack by manually pushing on lift cap. Repeat if necessary. If this procedure does not correct the problem, internal repairs are required.

LIFTING ARM WILL NOT LOWER PROPERLY.

- Broken return springs. Replace return springs.

- Lift arm bearings are binding. Refer to LUBRICATION procedure and lubricate lift arm.
- Hydraulic cylinder ram binding. Repair hydraulic cylinder assembly.
- Fulcrum pin, parallel link pin or bell crank pin or ram cross pin also bent or worn. Repair jack as required.

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 pre-paid, 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.

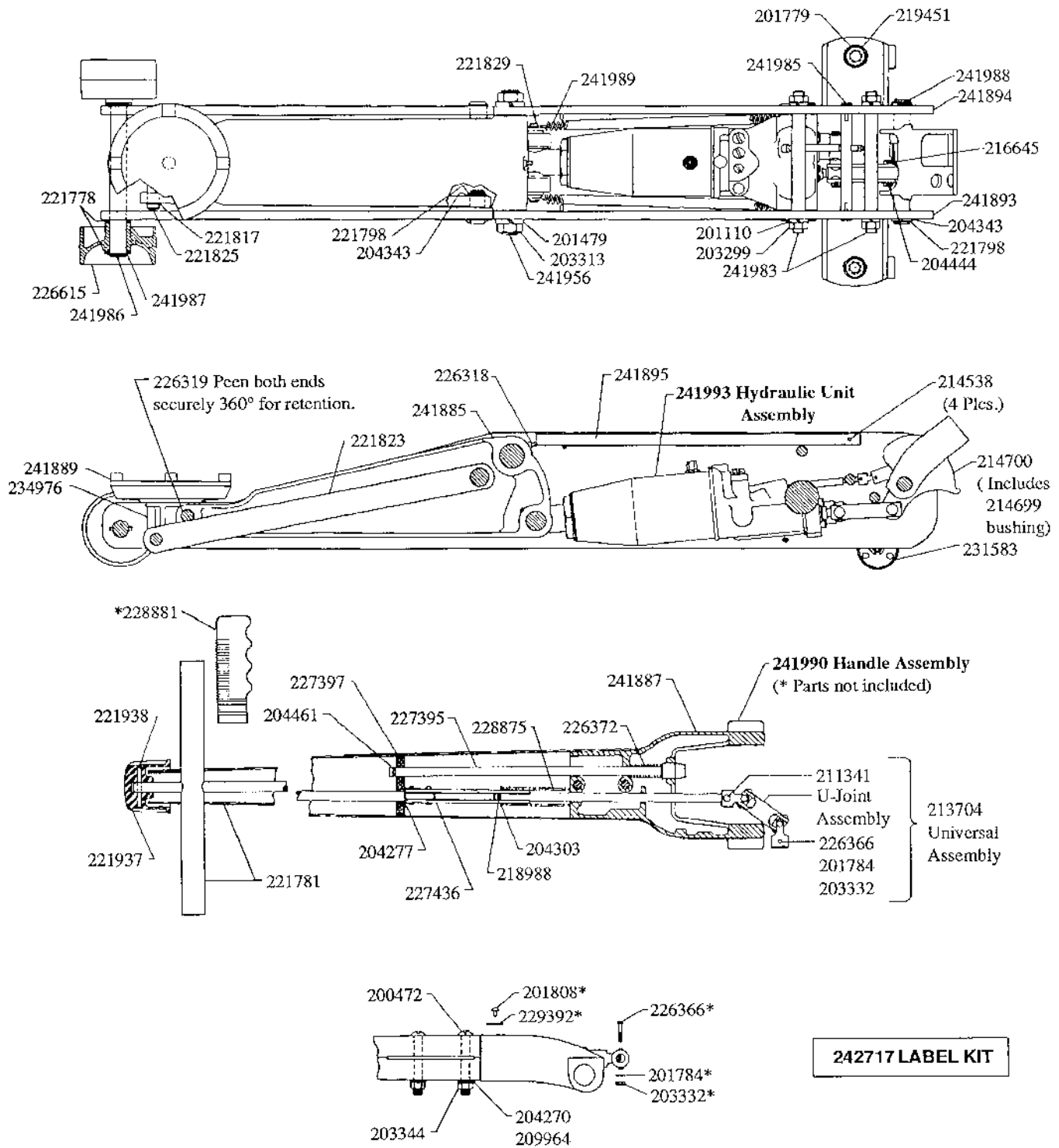
In no event shall Lincoln be liable for incidental or consequential damages. The liability of Lincoln on any claim or damage arising out of the sale, resale, or use of a jack or related service equipment shall in no event exceed the purchase price. SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION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

SERVICE PARTS

Lincoln provides Factory Authorized Service Centers that stock equipment and replacement parts. Contact Lincoln Customer Service, One Lincoln Way, St. Louis, MO 63120-1578, (314) 679-4300 for your nearest Service Center.

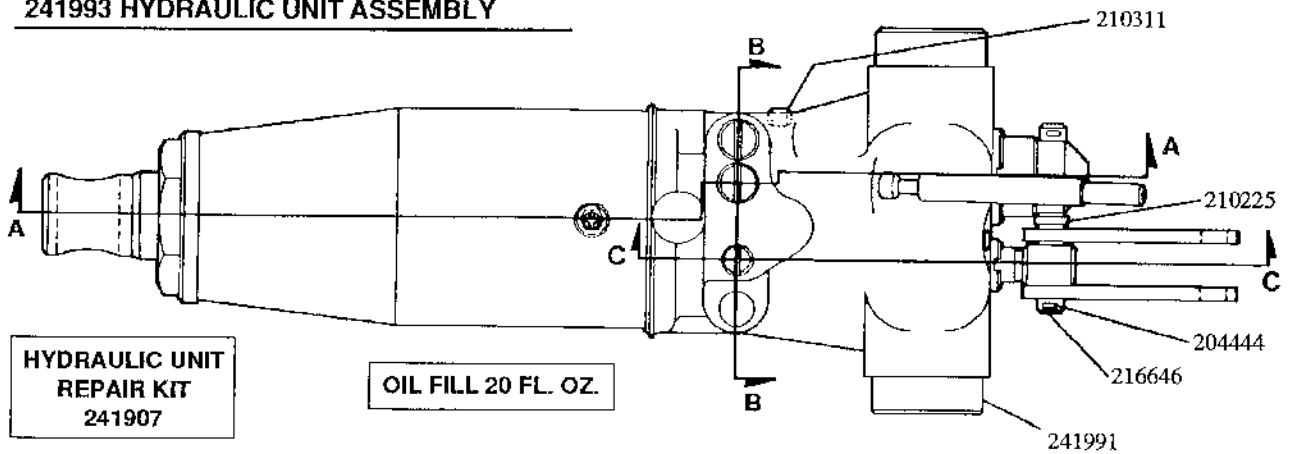
When ordering replacement parts, list: part number, description, model number, and series letter.



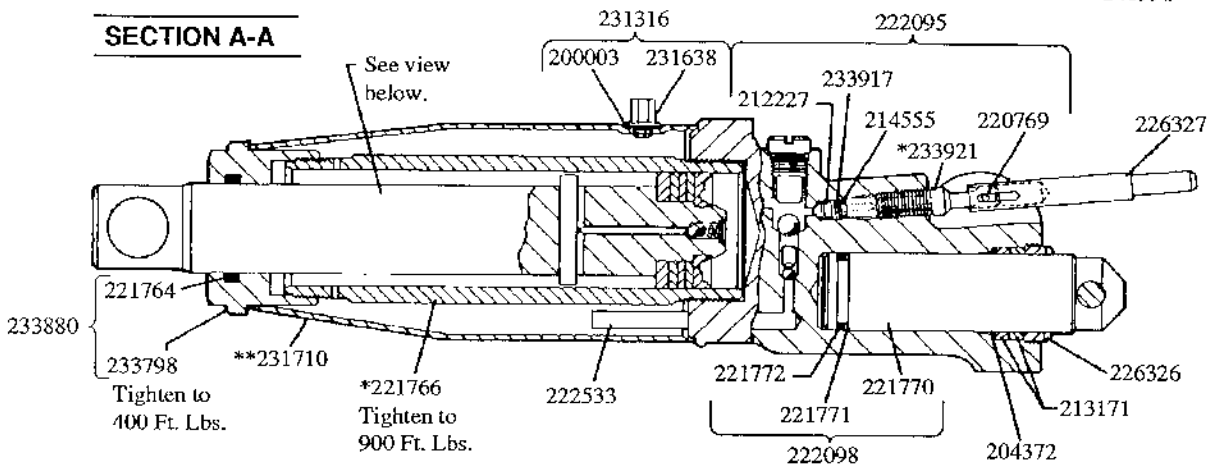
242717 LABEL KIT

SERVICE PARTS (CONT)

241993 HYDRAULIC UNIT ASSEMBLY

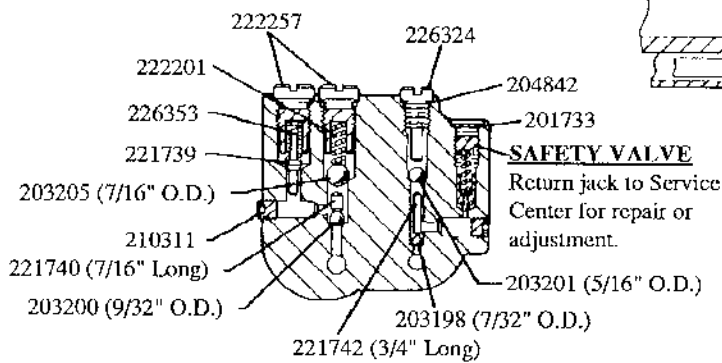


SECTION A-A

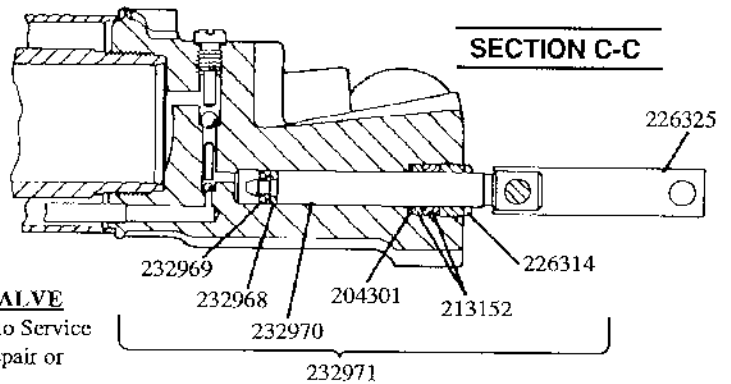


NOTE: * Apply Never-Seez to threads before tightening.
 ** Apply Never-Seez to both ends of tank before assembling.

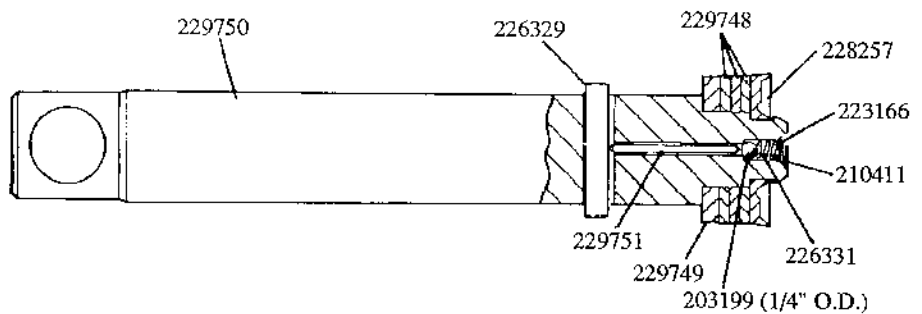
SECTION B-B



SECTION C-C



230583 RAM ASSEMBLY



SERVICE PARTS (CONT)

PART	QTY	DESCRIPTION	PART	QTY	DESCRIPTION
200003	1●	Gasket	222095	1	Release stem kit
200472	2	Screw	222098	1	Speed pump assembly
201110	4	Lockwasher	222201	1●	Spring
201479	2	Lockwasher	222257	2	Plug poppet valve
201733	1	Plug	222533	2●	Screen
201779	2	Lockwasher	223166	1●	Ram screen
201784	1	Lockwasher	226314	1	Gland nut
201808	2	Rivet	226318	1	Grease fitting
203198	1●	Ball (7/32" O.D.)	226319	1	Bellcrank pin
203199	1●	Ball (1/4" O.D.)	226324	1	Pressure plug
203200	1●	Ball (9/32" O.D.)	226325	2	Pump link
203201	1●	Ball (5/16" O.D.)	226326	1	Nut
203205	1●	Ball (7/16" O.D.)	226327	1	Slotted tube
203299	4	Jam nut	226329	1	Pin
203313	2	Jam nut	226331	1●	Spring
203332	1	Nut	226353	1●	Spring
203344	2	Jam nut	226366	1	Hex head bolt
204270	2	Washer	226372	1	Spring
204277	1	Washer	226615	2	Front wheel
204301	1	Washer	227395	1	Plunger assembly
204303	1	Washer	227397	1	Release link
204343	4	Washer	227436	1	Turning rod assembly
204372	1	Washer	228257	1●	U-cup
204444	3	Cotter pin	228875	1	Spring
204461	1	Cotter pin	228881	2	Grip
204842	1●	Copper gasket	229392	1	Serial plate
209964	2	Lockwasher	229748	3●	Heel plate
210225	1	Spacer	229749	1	Washer
210311	3	Pipe plug	229750	1	Ram
210411	1●	Washer	229751	1	Pin
211341	1	Rivet	230583	1	Ram assembly
212227	1	Release valve	231316	1	Vent valve assembly
213152	2●	Packing ring	231583	2	Rear caster
213171	2●	Packing ring	231638	1	Filler screw
213704	1	Universal assembly	231710	1	Oil tank
214538	4	Groove pin	232968	1●	Back-up washer
214555	1●	O-ring	232969	1●	U-cup
214699	1	Bushing	232970	1	Pressure pump
214700	1	Handle segment assembly	232971	1	Pressure pump kit
216645	1	Pin	233798	1	Tank nut
216646	1	Pump pin	233880	1	Tank nut and quad ring
218988	1	Roll pin	233917	1●	Plastic spring
219451	2	Hex nut	233921	1	Release stem
220769	1	Cross pin	234976	1	Cap housing
221739	1●	Poppet	241885	1	Bellcrank
221740	1	Ball stop plug (7/16" long)	241887	1	Handle socket
221742	1	Ball stop plug (3/4" long)	241889	1	Liftcap
221764	1●	Ram quad ring	241893	1	Sideplate assembly
221766	1	Cylinder	241894	1	Sideplate assembly
221770	1	Low pressure pump	241895	1	Hydraulic unit cover
221771	1●	Washer	241956	1	Fulcrum pin
221772	1●	Quad ring	241983	2	Sideplate tie rod
221778	4	Washer	241985	1	Support rod
221781	1	Handle and cross bar	241986	1	Front axle
221798	4	Retainer ring	241987	2	Retainer ring
221817	2	Retainer ring	241988	1	Handle pivot pin
221823	2	Parallel link	241989	2	Extension spring
221825	1	Parallel link pin	241990	1	Handle assembly
221829	1	Pin	241991	1	Hydraulic unit casting
221937	1	Turning knob	241993	1	Hydraulic unit assembly
221938	1	Roll pin			

● Included in 241907 Repair Kit.