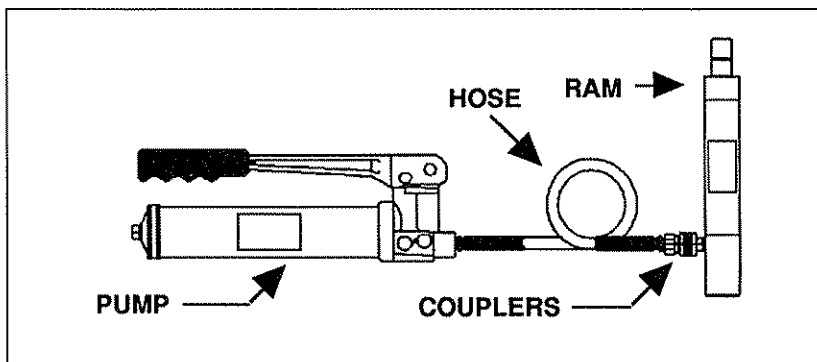




MODELS YA301E, YA708C, YA315B, YA544A POWER EQUIPMENT

OWNER/OPERATOR MANUAL



SPECIFICATIONS

<u>PUMP PRESSURE</u>	8,000 PSI
<u>PUMP OIL CAPACITY</u>	17.5 OZ
<u>RAM CAPACITY</u>	4 TON
<u>RAM EFFECTIVE AREA (SQUARE)</u>	0.994"
<u>RAM STROKE</u>	4.5"
<u>RAM HEIGHT EXTENDED</u>	16"
<u>RAM HEIGHT CLOSED</u>	11.5"
<u>SPREADER CAPACITY</u>	1 TON
<u>SPREADER (OPEN)</u>	3.5"
<u>TUBE EXTENSIONS CAPACITY</u>	2 TON
<u>OFFSET ATTACHMENTS CAPACITY</u>	1 TON
<u>HOSE MINIMUM BEND RADIUS</u>	3.5"
<u>HOSE CONSTRUCTION</u>	SAE 100R8 MINIMUM
<u>HOSE LENGTH</u>	5 FT

DESCRIPTION

The Power Equipment is comprised of a pump, ram, hose, couplers, extensions and attachments. A release valve is conveniently located on the pump. The pump also contains an automatic safety valve which protects the ram and hose from excessive hy-

draulic pressure. Couplers provide a quick means to connect the ram and hose together. Ram travel is limited by a positive ram stop. The attachments and extensions provide set-ups to push, pull, spread, straighten, bend, clamp and hold.

OWNER/OPERATOR RESPONSIBILITY

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

The instructions and warning 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 labels.

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

WARNING



FOR YOUR SAFETY

**USE VEHICLE STANDS TO
SUPPORT THE VEHICLE
BEFORE GETTING UNDER IT.**

ASSEMBLY

Remove pipe plug from pump assembly and connect hose. Remove and save the dust caps from the hose coupler and ram/spreader coupler. Connect the pump, hose and ram/spreader together by connecting the hose coupler to the ram/spreader coupler. Hand tighten only. Pliers or wrenches may damage the coupler nuts.



©SNAP-ON TOOLS CORPORATION, KENOSHA, WI 53141-1410

Copyright 1990
Printed in U.S.A.

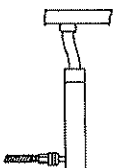
81SOYA544000A0

⚠ WARNING

FAILURE TO HEED THE FOLLOWING WARNINGS MAY RESULT IN INJURY AND/OR PROPERTY DAMAGE

DO NOT EXCEED CAPACITIES

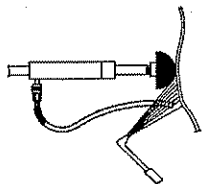
RAM	4 TON
SPREADER	1 TON
EXTENSIONS	2 TON
OFFSET ATTACHMENTS	1 TON



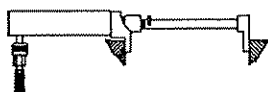
LIMIT LOAD TO 4 TON



DO NOT REACH UNDER UNSUPPORTED LOAD.



KEEP AWAY FROM HEAT



LIMIT OFFSET LOADS TO 1 TON



DO NOT CUT, KINK, OR DAMAGE HOSE. DO NOT USE IF HOSE OR FITTINGS ARE LEAKING.

NEVER RETIGHTEN THE HOSE COUPLER WHILE UNDER PRESSURE. OIL LEAKAGE CAN PENETRATE THE SKIN.

INSPECTION

Prior to operation or maintenance a visual inspection shall be made. Check for hydraulic leaks, bent extension tubes, cracked attachments, worn or missing parts. Check hose for kinks, blisters or leaks.

Check operation by closing pump release valve and pumping handle. Make sure pump and ram operate smoothly and are not binding. If pump or ram do not respond to pump action, refer to TROUBLESHOOTING and perform AIR PURGING procedure.

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

Any component that has been subjected to an abnormal load or shock, shall be inspected by a factory authorized service center.

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

OPERATION

Operation is controlled by pumping the handle and opening and closing the release valve on the pump. To extend the ram, firmly close by hand the release valve by turning clockwise and pumping the handle. To retract the ram, open the release valve by turning counterclockwise.

In order to operate the pump, the oil reservoir must be horizontal or the pump hose end down. The pump will not operate with the hose end up.

It is not necessary to vent the pump oil reservoir in normal operation. Venting the reservoir with the ram extended will cause the ram to remain partially extended when fully released. To fully retract the ram, open the oil gauge (dip stick) and then retighten. Always vent with the pump vertical to the floor. In the horizontal position, oil will flow out of the oil gauge hole.

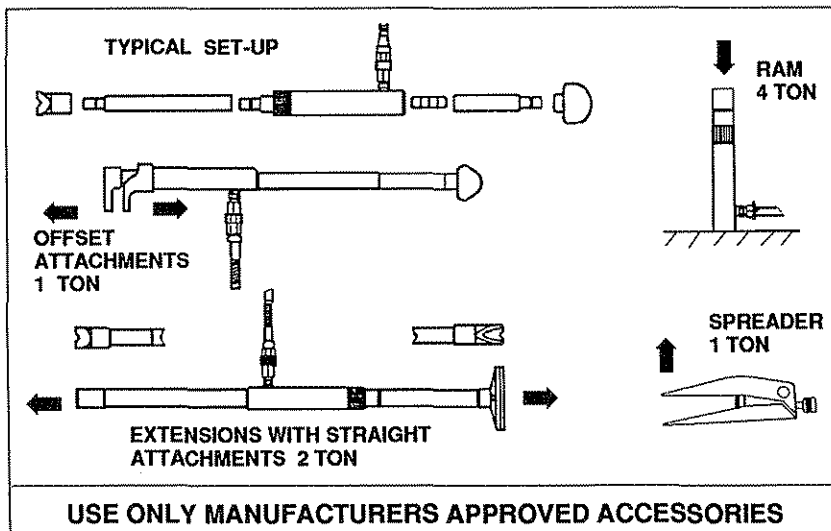
USING ATTACHMENTS AND EXTENSIONS

For a desired set-up, connect attachments and extensions together as required. Minimize the number of extension by using the longest possible extensions. It is important to position the extensions perpendicular to the load to prevent bending.

⚠ WARNING

DO NOT EXCEED CAPACITIES

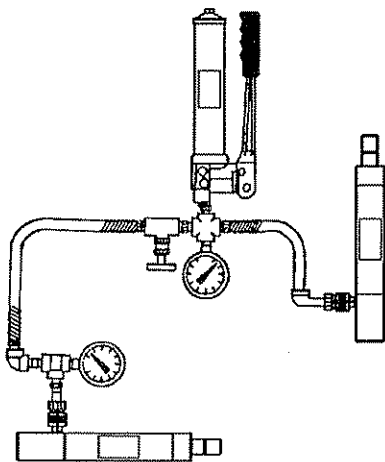
RAM	4 TON
SPREADER	1 TON
EXTENSIONS	2 TON
OFFSET ATTACHMENTS	1 TON



SPECIAL APPLICATIONS

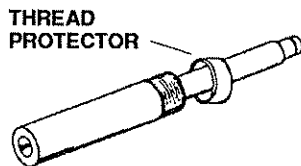
The Body-Jak® Equipment may be used in special applications with other equipment.

Use of ram without an adapter may damage or enlarge end of ram and cause adapters to bind.



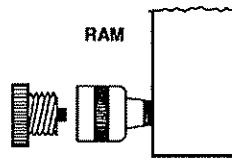
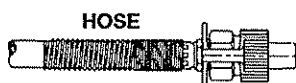
THREAD PROTECTION

When not being used, protect the rams external threads with the thread protector.



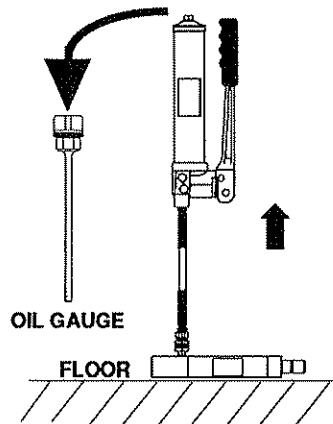
DUST/DIRT PROTECTION

Dust caps must be used on each half of the quick connect fittings when disconnected to keep out dirt and prevent damage to the coupling and oil leakage into the plastic case



MAINTENANCE

CHECKING PUMP OIL LEVEL



- Stand pump on end with oil gauge on top.
- Open release valve by turning counterclockwise and allow ram to fully retract.
- Remove oil gauge. Oil level will be indicated on gauge.
- If required, add clean hydraulic jack oil until level indicates full on oil gauge. Do not overfill.

CAUTION

BRAKE OR TRANSMISSION FLUIDS WILL DAMAGE EQUIPMENT SEALS.

- Close release valve by turning clockwise.

LUBRICATION

Lubricate as follows:

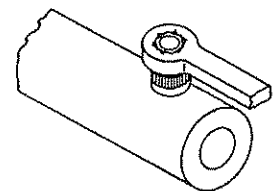
- Apply a light film of grease to extended ram.

- Apply oil to pump handle pins and spreader fulcrum pin.

- Apply grease to top of spreader ram piston.

COUPLER REMOVAL AND INSTALLATION

Use a box end wrench to remove or install a coupler. To prevent damage, do not use an open end wrench. Apply high pressure pipe sealant to pipe threads. Install dust cap if hose is not reconnected to coupler.



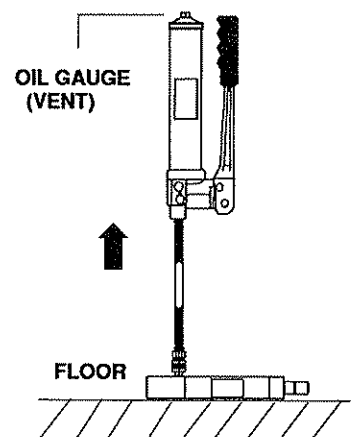
TROUBLESHOOTING

If the following procedures do not correct the problem, contact a factory authorized service center. When submitting equipment to be repaired, be sure to state the nature of the problem and indicate if a repair cost estimate is required.

AIR PURGING

To purge air from the hydraulic circuit, perform the following procedure:

- Position the pump vertically with the ram/spreader lower than the pump.



- B. Crack open oil gauge (vent) to release air.
- C. Open release valve and pump handle several times.
- D. Close release valve.
- E. Pump handle to fully extend ram/spreader. Open release valve to retract ram/spreader.
- F. If unit does not respond, repeat the above procedure until air is purged from hydraulic circuit.
- G. Retighten oil gauge.

COMMON PROBLEMS

PUMP FEELS SPONGY

- Air in hydraulic pump, ram or spreader. Perform AIR PURGING procedure.

RAM/SPREADER DOES NOT FULLY EXTEND.

- Pump oil level low or reservoir overfilled. Refer to CHECKING PUMP OIL LEVEL procedure.

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 sealing. Flush hydraulic circuit by fully extending the ram. Open release valve and at the same time push ram in by hand as quickly as possible. Repeat as necessary. If this procedure does not correct the problem, internal repairs are required.

RAM RETRACTS SLOWLY

- Ram hydraulic cylinder binding. Repair required.
- Air pressure build up in pump oil reservoir. Open oil gauge (vent) to allow air to vent.

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.

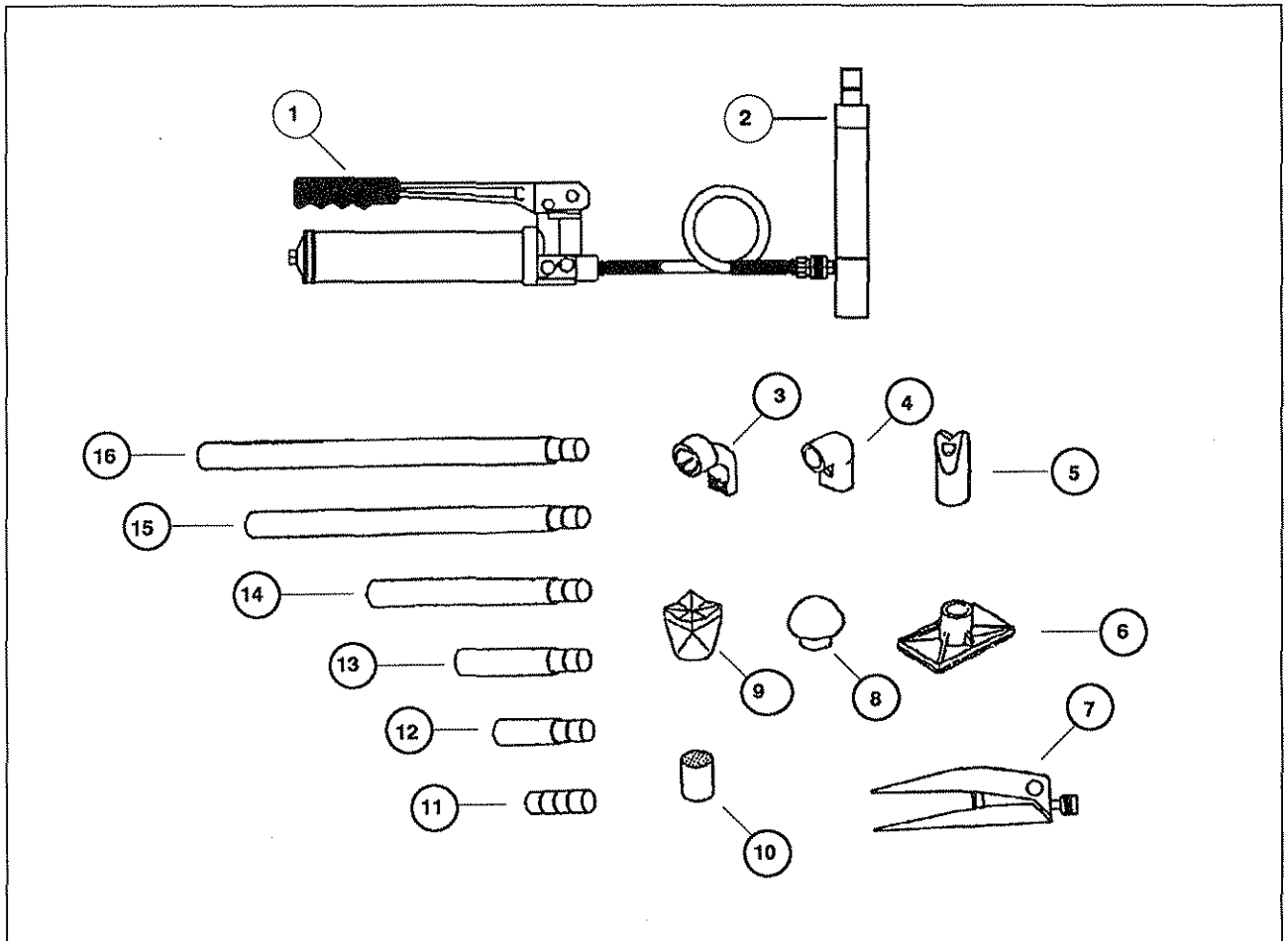
In no event shall Lincoln be liable for incidental or consequential damages. The liability of Lincoln on any claim or damage arising out of the sale, resale, or use of a jack or related service equipment shall in no event exceed the purchase price. SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION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

SERVICE PARTS

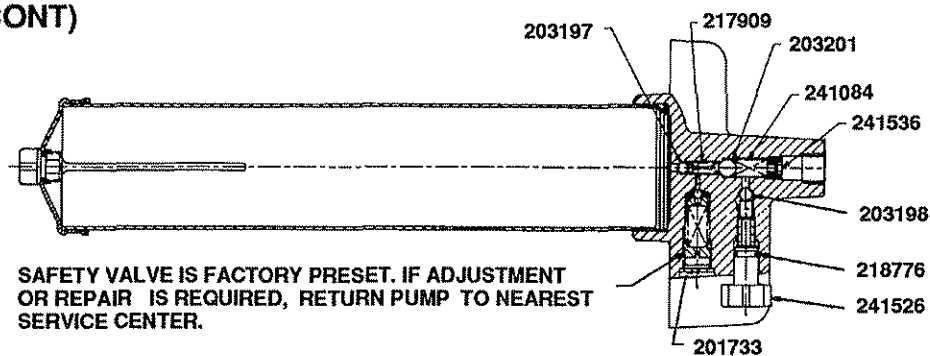
Lincoln provides Factory Authorized Service Centers that stock equipment and replacement parts. Contact Lincoln Customer Service, One Lincoln Way, St. Louis, MO 63120-1578, (314) 679-4300 for your nearest Service Center.

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

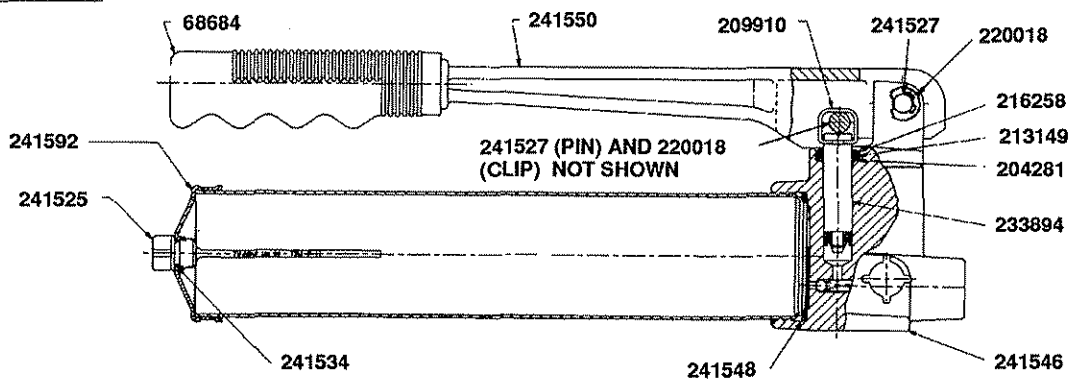


KEY NO.	MODEL/PART NO.	DESCRIPTION	QUANTITY
1	YA301	Pump	1
2	YA315	Ram	1
3	YA546-13	Body Toe	1
4	YA546-9	Ram Toe	1
5	YA546-14	Spring Spreader	1
6	YA546-16	Flat Head	1
7	YA708	Spreader	1
8	YA546-17	Rubber Head	1
9	YA546-11	Concave Head	1
10	YA546-10	Ram Cap	1
11	YA546-15	Connector	1
12	YA546-6	3" Extension	1
13	YA546-5	6" Extension	1
14	YA546-4	12" Extension	1
15	YA546-3	18" Extension	1
16	YA546-2	23" Extension	1

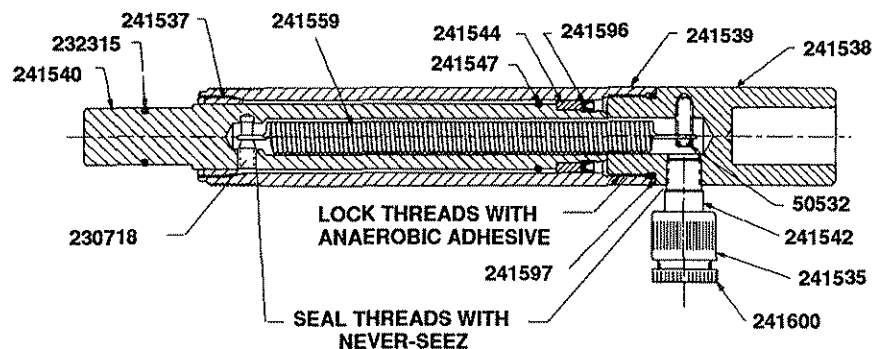
SERVICE PARTS (CONT)



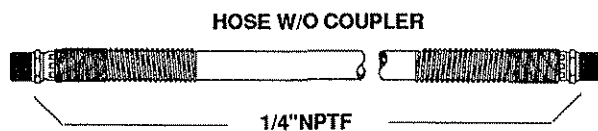
YA301 SERIES "E"



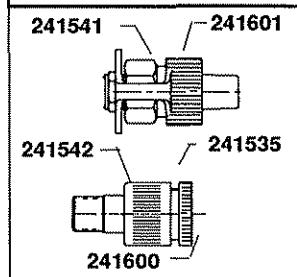
YA315 SERIES "B"



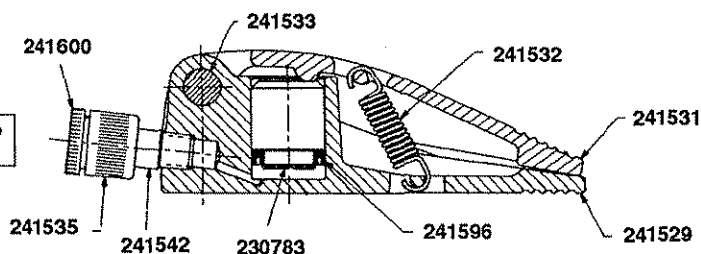
YA546-22 (6 FT)



YA544-2 COUPLER KIT



YA708 SERIES "C"



241562 RAM NAMEPLATE
241648 PUMP NAMEPLATE

SERVICE PARTS (CONT)

PARTS	QTY	DESCRIPTION
YA544-1	1	Plastic Storage Case
YA544-2	1	Coupler kit (mated pair)
YA546-22	1	6 ft. Hose w/o coupler
50532	1	1/4 0-20 set screw
68684	1	Handle grip
201733	1	Plug
203197	1●	Ball 3/16" Diameter
203198	1●	Ball 7/32" Diameter
203201	1●	Ball 5/16" Diameter
204281	1●	Washer
209910	1	Pump clip
213149	1●	Packing ring
216258	1●	Pump cover
217909	1●	Suction spring
218776	1●	O-ring
220018	2	Pump pin retainer ring
230662	1	Pipe plug
230718	1	Retainer-return spring
230720	1	Thread protector
230783	1	Ram
232315	1▲	Ring
233894	1●	Pump assembly
241084	1●	Discharge spring
241525	1	Oil gauge
241526	1	Release stem
241527	2	Pump pin
241529	1	Spreader (Lower Half)
241531	1	Spreader (Upper Half)
241532	1	Extension spring
241533	1	Fulcrum Pin
241534	1●	O-ring
241535	2■ ★	Ram/Spreader coupling nut
241536	1	Vented plug
241537	1	Retainer ring
241538	1	Cylinder end
241539	1	Cylinder
241540	1	Ram
241541	1■	Hose end coupling
241542	2■ ★	Ram/Spreader end coupling
241544	1▲	Back-up ring
241546	1	Pump housing
241547	1	Snap ring
241548	1	Lathe cut gasket
241550	1	Handle
241559	1	Spring extension
241562	1	Ram nameplate
241592	1	Oil pump reservoir
241596	2▲	U-cup
241597	1▲	O-ring
241600	2■ ★	Ram/Spreader dust cap
241601	1■	Hose dust cap
241648	1	Pump nameplate

● Included in Repair Kit 241656 for YA301 Pump.

▲ Included in Repair Kit 241657 for YA315 Ram

■ (1) each Included in YA544-2 Coupler Kit.

★ Same part used in Ram and Spreader.

