



**HYDRAULIC TECHNOLOGIES**

*Hydraulic Technologies*

5885 11th Street

Rockford, IL 61109-3699 USA

*Tech. Services: (800) 477-8326*

*Fax: (800) 765-8326*

*Order Entry: (800) 541-1418*

*Fax: (800) 288-7031*

*Internet Address:*

*<http://www.powerteam.com>*

**Form No. 102943**

**Parts List and  
Operating Instructions for:**



**9015B**

**9022B**

**9033B**

## **HYDRAULIC JACK**

**Part No. 9015B Maximum Capacity: 15 Ton**

**Part No. 9022B Maximum Capacity: 22 Ton**

**Part No. 9033B Maximum Capacity: 33 Ton**

### **INTRODUCTION**

These instructions are written to help you, the user, more effectively use and maintain your Power Team jacks. Some of the information applying to construction, installation, operation, inspection, and maintenance of hydraulic jacks was selected from ANSI B30.1 and ASME PALD-1. The documents may be ordered from the American Society of Mechanical Engineers, United Engineering Center, 345 East 47th, New York, New York 10017.

## **SAFETY PRECAUTIONS**



**WARNING:** To help prevent personal injury and damage to equipment,

- Read, understand, and follow all instructions, including the ANSI B30.1 and ASME PALD-1 safety codes.
- Always wear approved safety glasses.
- Inspect the jack before each use; do not use the jack if it is damaged, altered, or in poor condition.
- Use the jack for jacking purposes only.
- Never exceed the rated capacity of the jack.
- Only use the jack on a hard level surface.
- Center the load on the jack saddle. Off-center loads can damage the seals and cause jack failure.
- Lift only dead weight.
- Stay clear of lifted loads. Use safety stands to support the load before making repairs.
- Use only Power Team hydraulic fluid.

**This guide cannot cover every situation, so always do the job with safety first.**

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**Rev. 4 Date: April 18 2006**

## **OPERATING INSTRUCTIONS**

1. To raise the jack, close the release valve tightly by turning it clockwise. Insert the handle into the handle socket and operate the pump.
2. To lower the jack, slowly open the release valve stem by turning it counterclockwise.
3. For horizontal operation, position jack on its side so that the release valve is down for full piston extension.

## **PREVENTIVE MAINTENANCE**

**IMPORTANT: The greatest single cause of failure in hydraulic units is dirt. Keep the jack clean and well lubricated to prevent foreign matter from entering the system. If the jack has been exposed to rain, snow, sand, or grit, it must be cleaned before it is used.**

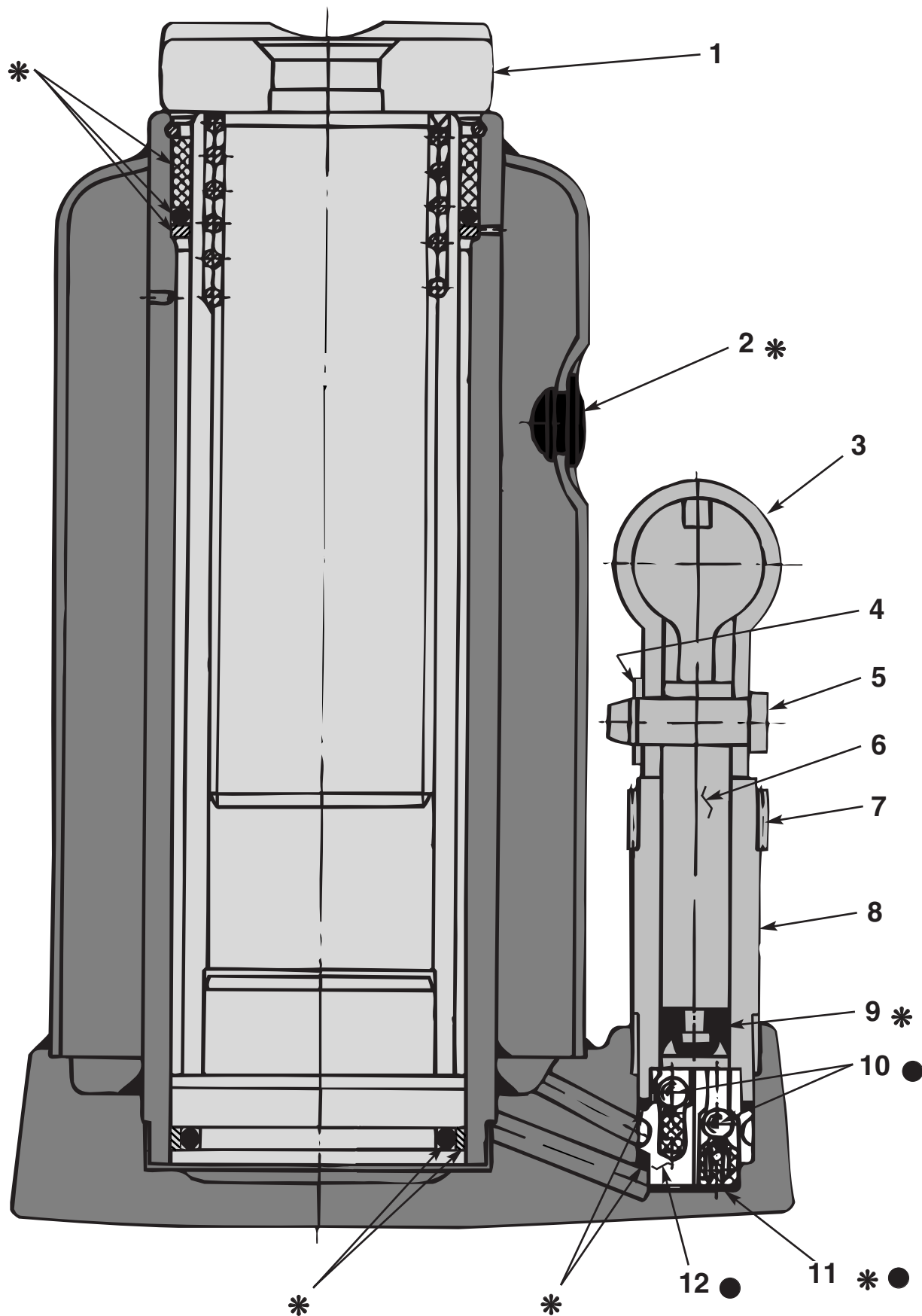
1. When the jack is not in use, keep the piston and pump rods fully retracted. Store the jack on its base and in a well protected area where it will not be exposed to corrosive vapors, abrasive dust, or any other harmful elements.
2. Visually inspect the jack before each use. Take corrective action if any of the following problems are found:
  - a. Cracked or damaged housing
  - b. Excessive wear, bending, or other damage
  - c. Leaking hydraulic fluid
  - d. Scored or damaged piston rod
  - e. Incorrectly functioning swivel heads or adjusting screws
  - f. Loose hardware
  - g. Modified or altered equipment

## TROUBLE-SHOOTING GUIDE

Repair procedures must be performed in a dirt-free environment by qualified personnel who are familiar with this equipment.

TROUBLE	CAUSE	SOLUTION
<b>Erratic Action</b>	<ol style="list-style-type: none"> <li>1. Air in system</li> <li>2. Viscosity of oil too high</li> <li>3. Internal leakage in cylinder</li> <li>4. Cylinder sticking or binding</li> </ol>	<ol style="list-style-type: none"> <li>1. With jack sitting on its base and ram retracted, bleed air by opening release valve. Pump for 10 seconds.</li> <li>2. Change to lower viscosity oil.</li> <li>3. Replace worn seals. Check for excessive contamination or wear.</li> <li>4. Check for dirt, gummy deposits, or leaks. Check for misalignment, worn parts, or defective seals.</li> </ol>
<b>Jack does not advance</b>	<ol style="list-style-type: none"> <li>1. Release valve is open</li> <li>2. Low/no oil in reservoir</li> <li>3. Air-locked system</li> <li>4. Load is above capacity of system</li> </ol>	<ol style="list-style-type: none"> <li>1. Close release valve</li> <li>2. Fill with oil and bleed system</li> <li>3. Bleed the system</li> <li>4. Use correct equipment</li> </ol>
<b>Jack only extends partially</b>	<ol style="list-style-type: none"> <li>1. Reservoir is low on oil</li> <li>2. Piston rod is binding</li> </ol>	<ol style="list-style-type: none"> <li>1. Fill reservoir</li> <li>2. Check for dirt, gummy deposits, or leaks. Check for misalignment, worn parts, or defective seals.</li> </ol>
<b>Jack advances slowly</b>	<ol style="list-style-type: none"> <li>1. Pump not working correctly</li> <li>2. Leaking seals</li> </ol>	<ol style="list-style-type: none"> <li>1. Rework pump</li> <li>2. Replace seals</li> </ol>
<b>Jack advances but doesn't hold pressure</b>	<ol style="list-style-type: none"> <li>1. Cylinder seals are leaking</li> <li>2. Pump check valve not working correctly</li> <li>3. Overload valve leaking or not adjusted correctly</li> </ol>	<ol style="list-style-type: none"> <li>1. Replace seals</li> <li>2. Clean/replace check valve</li> <li>3. Replace/adjust overload valve</li> </ol>
<b>Jack leaks oil</b>	<ol style="list-style-type: none"> <li>1. Worn or damaged seals</li> </ol>	<ol style="list-style-type: none"> <li>1. Replace seals</li> </ol>
<b>Jack will not retract or retracts slowly</b>	<ol style="list-style-type: none"> <li>1. Release valve is closed</li> <li>2. Cylinder damaged internally</li> <li>3. Reservoir too full</li> </ol>	<ol style="list-style-type: none"> <li>1. Open release valve</li> <li>2. Send jack to authorized service center for repair</li> <li>3. Drain oil to correct level</li> </ol>

PARTS LIST FOR 9015B



Item No.	Part No.	No. Req'd	Description
1	9015B-10	1	Ram, with Screw Extension - Complete
2	*9006X-3	1	Plug, Filler
3	†9006X-5	1	Support, Pump Lever
4	†9033B-15	1	Disc, Safety
5	†9033B-14	1	Stud, Collar
6	†9006X-6	1	Piston, Pump
7	†9006X-7	1	Bracket
8	†9006X-8	1	Guide, Pump Piston
9	†*9033B-9	1	Ring, Button Pack
10	•9006X-11	2	Ball, Inlet/Outlet
11	•*9006X-9	1	Gasket
12	•9015B-11	1	Inlet/Outlet Valve Insert

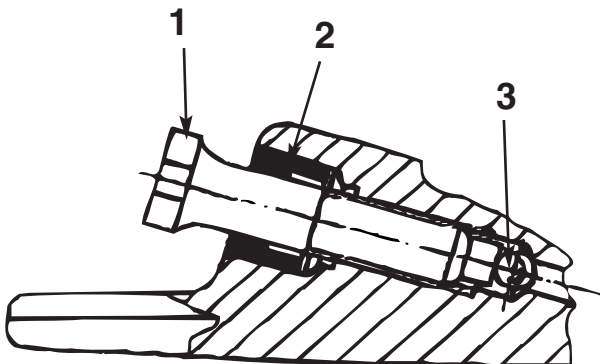
**PARTS INCLUDED BUT NOT SHOWN**

9006X-2	1	Handle, Replacement
421683	1	Decal

Parts marked with an asterisk (\*) on this list **and** on the jack illustrations are contained in Seal Kit No. 9015B-1.

Parts marked with a dagger (†) are contained in Pump Piston and Handle Bracket Kit No. 9006X-17.

Parts marked with a bullet (•) are contained in Inlet / Outlet Valve Insert Kit No. 9015B-4.

**RELEASE VALVE ASSEMBLY**

Item No.	Part No.	No. Req'd	Description
1	▲9006X-19	1	Rod
2	▲*9006X-20	1	Seal
3	▲9006X-14	1	Ball

Parts marked with an asterisk (\*) are contained in Seal Kit No. 9015B-1.

Parts marked with a triangle (▲) are contained in Release Valve Repair Kit No. 9006X-18.

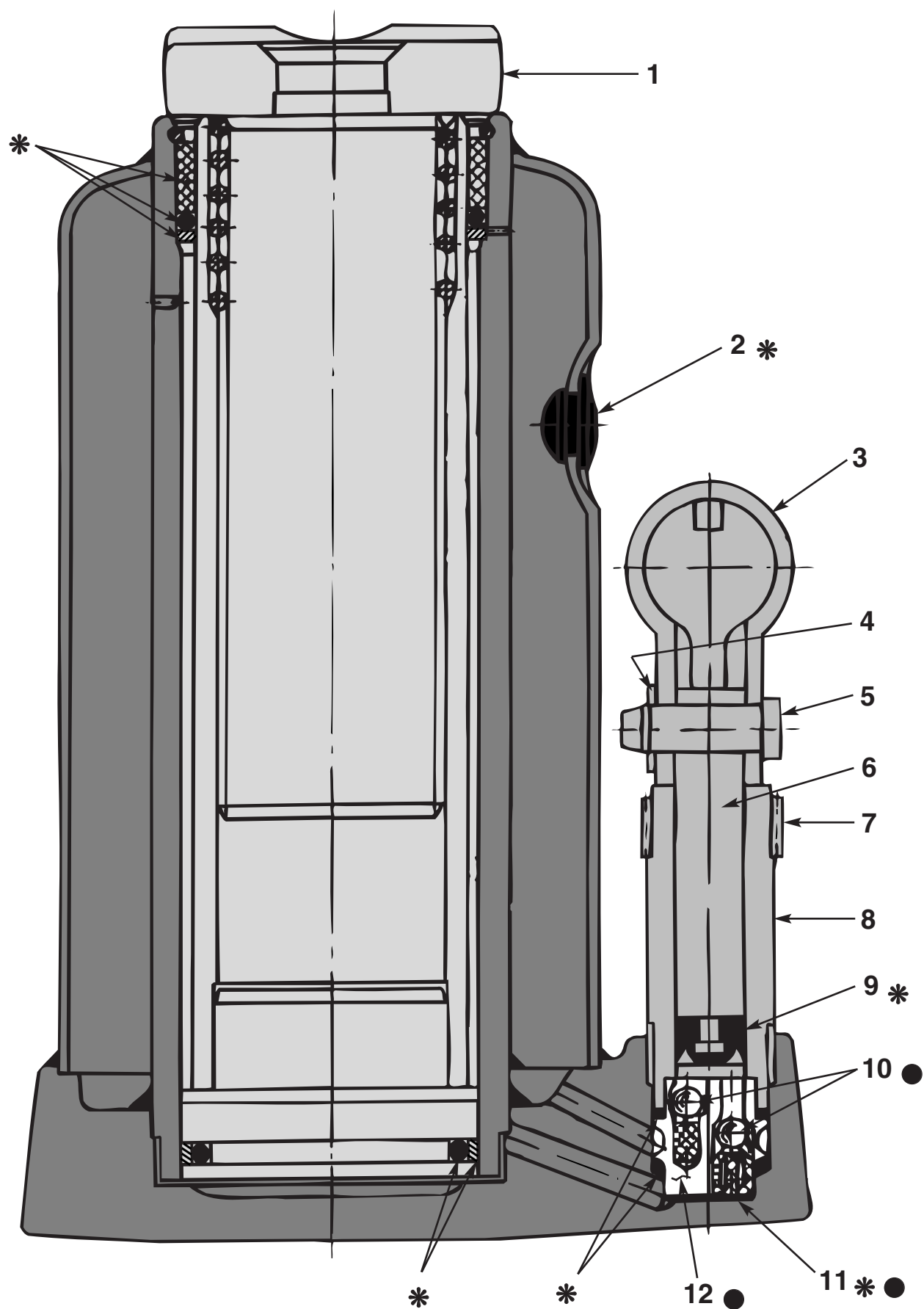
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## PARTS LIST FOR 9022B



Item No.	Part No.	No. Req'd	Description
1	9022B-9	1	Ram, with Screw Extension - Complete
2	*9006X-3	1	Plug, Filler
3	†9006X-5	1	Support, Pump Lever
4	†9033B-15	1	Disc, Safety
5	†9033B-14	1	Stud, Collar
6	†9006X-6	1	Piston, Pump
7	†9006X-7	1	Bracket
8	†9006X-8	1	Guide, Pump Piston
9	†*9033B-9	1	Ring, Button Pack
10	•9006X-11	2	Ball, Inlet/Outlet
11	•*9006X-9	1	Gasket
12	•9015B-11	1	Inlet/Outlet Valve Insert

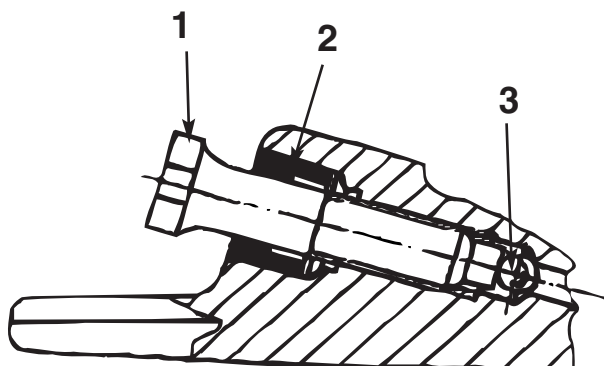
**PARTS INCLUDED BUT NOT SHOWN**

9006X-2	1	Handle, Replacement
421684	1	Decal

Parts marked with an asterisk (\*) on this list **and** on the jack illustrations are contained in Seal Kit No. 9022B-4.

Parts marked with a dagger (†) are contained in Pump Piston and Handle Bracket Kit No. 9006X-17.

Parts marked with a bullet (•) are contained in Inlet / Outlet Valve Insert Kit No. 9015B-4.

**RELEASE VALVE ASSEMBLY**

Item No.	Part No.	No. Req'd	Description
1	▲9006X-19	1	Rod
2	▲*9006X-20	1	Seal
3	▲9006X-14	1	Ball

Parts marked with an asterisk (\*) are contained in Seal Kit No. 9022B-4.

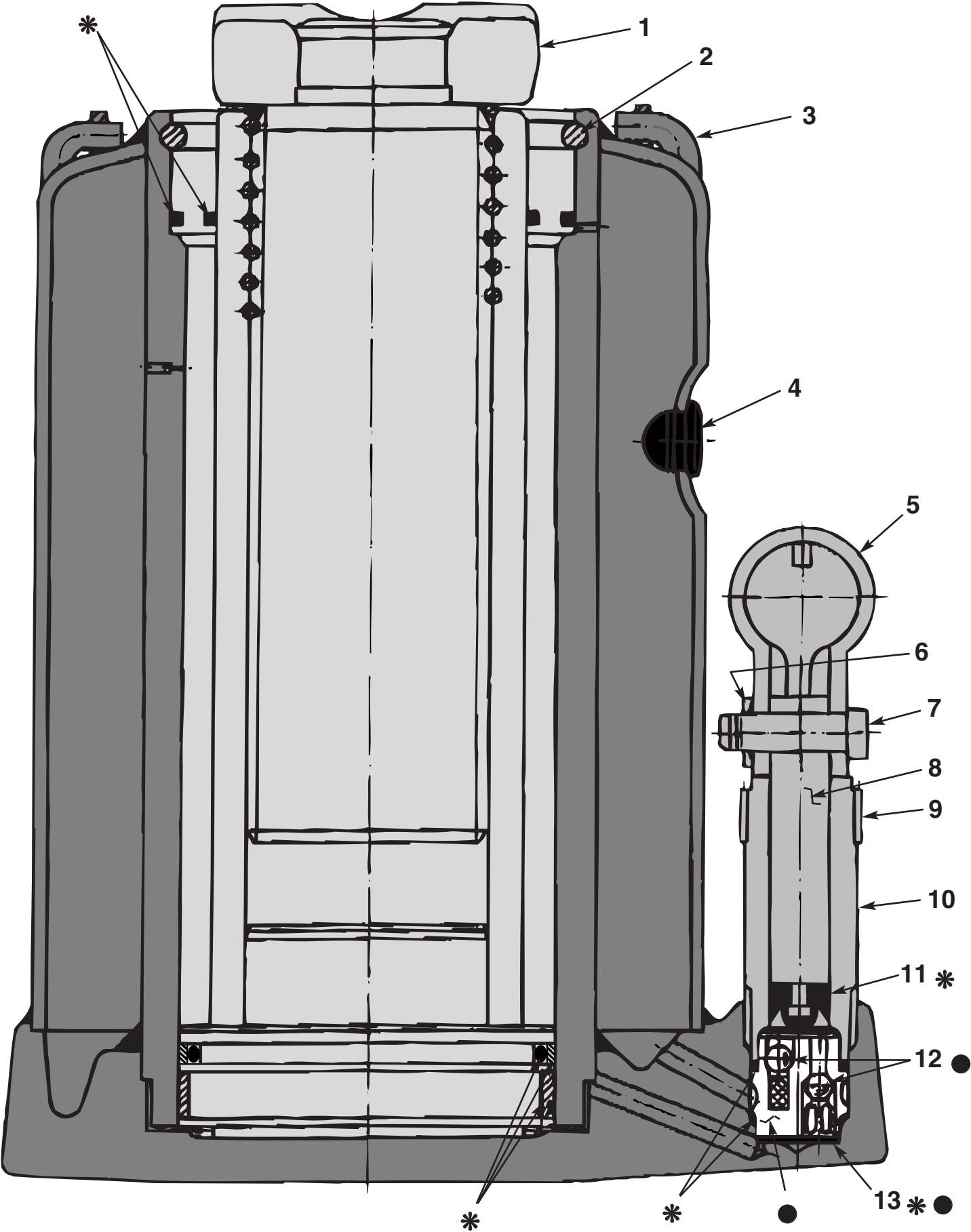
Parts marked with a triangle (▲) are contained in Release Valve Repair Kit No. 9006X-18.

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PARTS LIST FOR 9033B





Item No.	Part No.	No. Req'd	Description
1	9033B-18	1	Ram, with Screw Extension - Complete
2	9033B-12	1	Ring, Retaining
3	9033B-19	1	Handle, Carry
4	*9006X-3	1	Plug, Filler
5	†9006X-5	1	Support, Pump Lever
6	†9033B-15	1	Disc, Safety
7	†9033B-14	1	Stud, Collar
8	†9006X-6	1	Piston, Pump
9	†9006X-7	1	Bracket
10	†9006X-8	1	Guide, Pump Piston
11	†*9033B-9	1	Ring, Button Pack
12	•9006X-11	2	Ball, Inlet/Outlet
13	•*9006X-9	1	Gasket

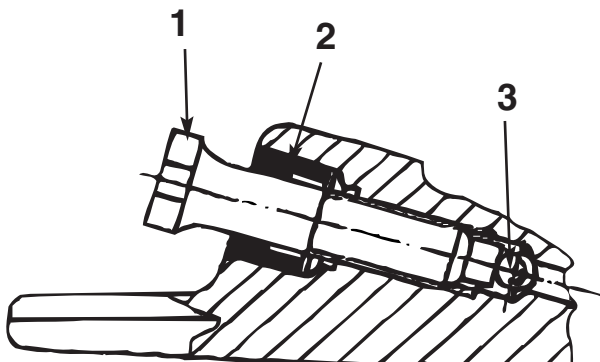
**PARTS INCLUDED BUT NOT SHOWN**

9006X-2	1	Handle, Replacement
421685	1	Decal

Parts marked with an asterisk (\*) on this list and on the jack illustrations are contained in Seal Kit No. 9033B-7.

Parts marked with a dagger (†) are contained in Pump Piston and Handle Bracket Kit No. 9006X-17.

Parts marked with a bullet (•) are contained in Inlet / Outlet Valve Insert Kit No. 9033B-4.

**RELEASE VALVE ASSEMBLY**

Item No.	Part No.	No. Req'd	Description
1	▲9006X-19	1	Rod
2	▲*9006X-20	1	Seal
3	▲9006X-14	1	Ball

Parts marked with an asterisk (\*) are contained in Seal Kit No. 9033B-7.

Parts marked with a triangle (▲) are contained in Release Valve Repair Kit No. 9006X-18.

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