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

Parts List and Operating Instructions for:



9006X 9011X 9013X

Form No. 102945

HYDRAULIC JACK

Part No. 9006X Maximum Capacity: 6 Ton Part No. 9011X Maximum Capacity: 11 Ton Part No. 9013X Maximum Capacity: 13 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.

Sheet No. 1 of 5

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

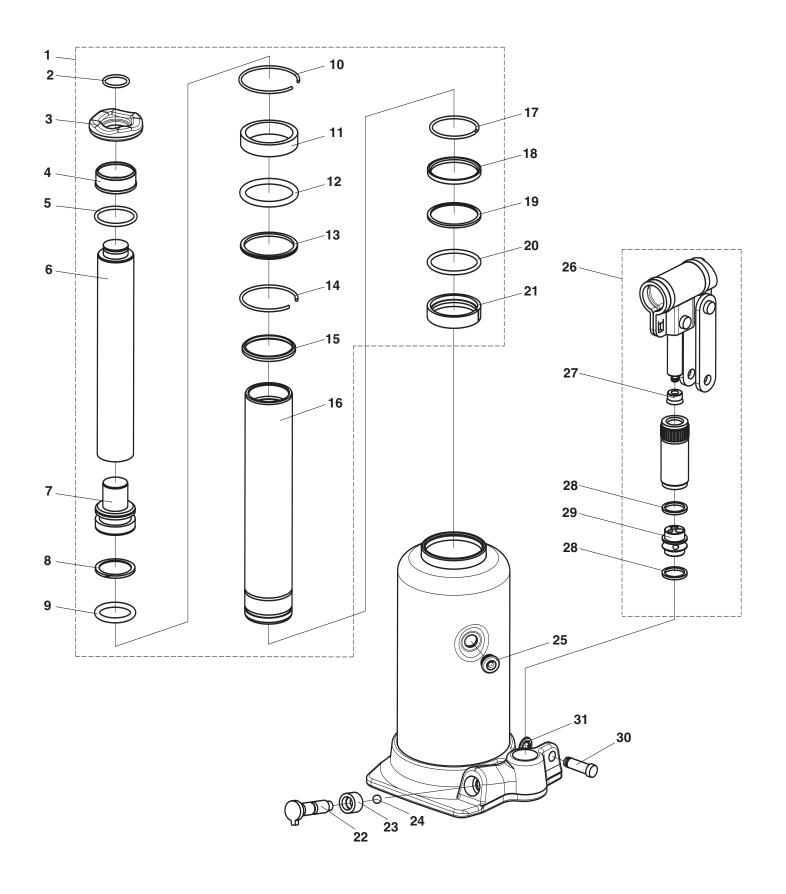
TROUBLE-SHOOTING GUIDE

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

TROUBLE	CAUSE	SOLUTION
Erratic Action	1. Air in system	 With jack sitting on its base and ram retracted, bleed air by opening release valve. Pump for 10 seconds.
	 Viscosity of oil too high Internal leakage in cylinder 	 Change to lower viscosity oil. Replace worn seals. Check for excessive contamination or wear.
	4. Cylinder sticking or binding	4. Check for dirt, gummy deposits, or leaks. Check for misalignment, worn parts, or defective seals.
Jack does not advance	 Release valve is open Low/no oil in reservoir Air-locked system Load is above capacity of system 	 Close release valve Fill with oil and bleed system Bleed the system Use correct equipment
Jack only extends partially	Reservoir is low on oil Piston rod is binding	 Fill reservoir Check for dirt, gummy deposits, or leaks. Check for misalignment, worn parts, or defective seals.
Jack advances slowly	Pump not working correctly Leaking seals	Rework pump Replace seals
Jack advances but doesn't hold pressure	Cylinder seals are leaking Pump check valve not working correctly	Replace seals Clean/replace check valve
	Overload valve leaking or not adjusted correctly	3. Replace/adjust overload valve
Jack leaks oil	1. Worn or damaged seals	Replace seals
Jack will not retract or retracts slowly	Release valve is closed Cylinder damaged internally	Open release valve Send jack to authorized service center for repair
	3. Reservoir too full	Drain oil to correct level

Sheet No.	2 of 5
Rev. 4	Date: April 18 2006

PARTS LIST FOR 9006X



PARTS LIST FOR 9006X

Item No.	Part No.	No. Req'd	Description
1	9006X-16	1	Kit, Telescoping Ram Complete
2	*	1	Spring Ring
3	*	1	Support Cap
4	•*	1	Guide Ring
5	*	1	Spring Ring
6	*	1	Ram
7	*	1	Ram Plug
8	•*	1	Backing Ring
9	•*	1	O-Ring
10	*	1	Spring Ring
11	•*	1	Support Ring
12	*	1	O-Ring
13	•*	1	Ring
14	*	1	Spring Ring
15	*	1	Ring
16	*	1	Outer Ram
17	*	1	Spring Ring
18	*	1	Ring
19	•*	1	Backing Ring
20	*	1	O-Ring
21	•*	1	Guide Ring
22	9006X-19		Release Rod
23	•9006X-20		Release Rod Seal
24	9006X-14		Ball
25	•9006X-3		Plug, Filler
26	XXXXXXXX		Kit, Pump Unit & Handle Bracket
27	†	1	Plunger Seal
28	•†	2	Seal
29	†	1	Valve Block
30	9006X-6		Link Pin
31	•9006X-7	1	Locking Washer

PARTS INCLUDED BUT NOT SHOWN

9006X-2 1 Jack Handle, Replacement **421680** 1 Decal

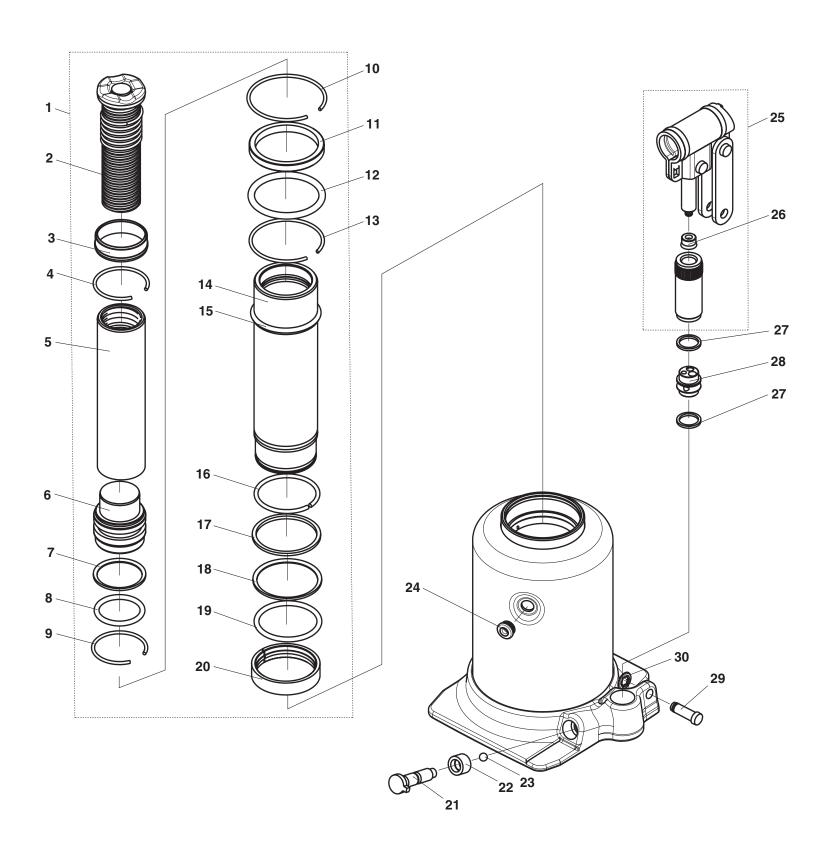
Parts marked with an asterisk (*) on this list are contained in Telescoping Ram Kit (Item 1.)

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 Repair Kit No. xxxxxxx.

Sheet No.	3 of 5
Rev. 4	Date: April 18 2006

PARTS LIST FOR 9011X



PARTS LIST FOR 9011X

Item No.	Part No.	No. Req'd	Description
1	9011X-14	1	Kit, Telescoping Ram Complete
2	*	1	Extension Screw
3	•*	1	Guide Ring
4	*	1	Spring Ring
5	*	1	Inner Ram
6	*	1	Ram Plug
7	•*	1	Backing Ring
8	•*	1	O-Ring
9	*	1	Spring Ring
10	•*	1	Spring Ring
11	*	1	Support Ring
12	•*	1	O-Ring
13	*	1	Spring Ring
14	*	1	Outer Ram
15	*	1	Stop Ring
16	*	1	Spring Ring
17	*	1	Support Ring
18	•*	1	Backing Ring
19	*	1	O-Ring
20	•*	1	Guide Ring
21	9006X-19	1	Release Rod
22	•9006X-20	1	Release Rod Seal
23	9006X-14	1	Ball
24	•9006X-3	1	Plug, Filler
25	xxxxxxxx	1	Kit, Pump Unit & Handle Bracket
26	†	1	Plunger Seal
27	•†	2	Seal
28	†	1	Valve Block
29	9033B-14	1	Link Pin
30	•9033B-15	1	Locking Washer

PARTS INCLUDED BUT NOT SHOWN

9006X-2 1 Jack Handle, Replacement421680 1 Decal

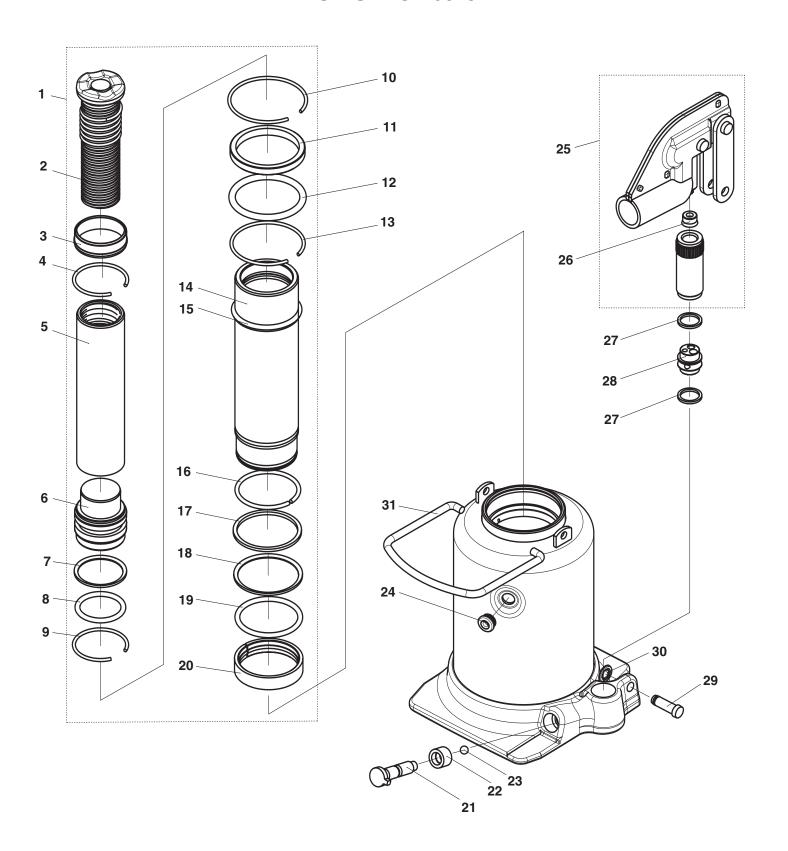
Parts marked with an asterisk (*) on this list are contained in Telescoping Ram Kit (Item 1.)

Parts marked with a dagger (†) are contained in Pump Piston and Handle Bracket Kit No. xxxxxxxx.

Parts marked with a bullet (•) are contained in Repair Kit No. xxxxxxx.

Sheet No.	4 of 5
Rev. 4	Date: April 18 2006

PARTS LIST FOR 9013X



PARTS LIST FOR 9013X

Item No.	Part No.	No. Req'd	Description
1	9013X-13	1	Kit, Telescoping Ram Complete
2	*	1	Extension Screw
3	•*	1	Guide Ring
4	*	1	Spring Ring
5	*	1	Inner Ram
6	*	1	Ram Plug
7	•*	1	Backing Ring
8	•*	1	O-Ring
9	*	1	Spring Ring
10	•*	1	Spring Ring
11	*	1	Support Ring
12	•*	1	O-Ring
13	*	1	Spring Ring
14	*	1	Outer Ram
15	*	1	Stop Ring
16	*	1	Spring Ring
17	*	1	Support Ring
18	•*	1	Backing Ring
19	*	1	O-Ring
20	•*	1	Guide Ring
21	9006X-19	1	Release Rod
	•9006X-20	1	Release Rod Seal
23	9006X-14	1	Ball
24	•9006X-3	1	Plug, Filler
25	XXXXXXXX	-	Kit, Pump Unit & Handle Bracket
26	†	1	Plunger Seal
27	•†	2	Seal
28	†	1	Valve Block
29	9033B-14	1	Link Pin
	•9033B-15	1	Locking Washer
31		1	Carrying Handle

PARTS INCLUDED BUT NOT SHOWN

9006X-2 1 Jack Handle, Replacement

421680 1 Decal

Parts marked with an asterisk (*) on this list are contained in Telescoping Ram Kit (Item 1.)

Parts marked with a dagger (†) are contained in Pump Piston and Handle Bracket Kit No. xxxxxxxx.

Parts marked with a bullet (•) are contained in Repair Kit No. xxxxxxx.

Sheet No.	5 of 5
Rev. 4	Date: April 18 2006





Hydraulic Technologies 5885 11th Street Rockford, IL 61109-3699 USA Telephone: 1-815-874-5556 FAX: 1-815-874-7853

Cust. Service/Order Entry Tel: 1-800-541-1418 FAX: 1-800-288-7031

Technical Services Tel: 1-800-477-8326 **FAX:** 1-800-765-8326



212 Jiang Ning Road CATIC Tower 23C Shanghai 200041, China Tel: 86 (21) 5289 5858 FAX: 86 (21) 5289 5866



Albert Thijsstraat 12 6471 WX Eygelshoven Netherlands **Tel:** 31 (45) 5678877 **FAX:** 31 (45) 5678878



7 Gul Circle Singapore 628978 Singapore

Tel: (65) 6265-3343 FAX: (65) 6265-6646

For more information, Internet address: http://www.powerteam.com (or) http://www.hytec.com