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### Parts List and Operating Instructions for:

9(	002A
90	003A
90	005A
9(	<b>A800</b>

# **HYDRAULIC JACK** Max. Capacity: 2 Ton, 3 Ton, 5 Ton, and 8 Ton (Standard Heights)

## **POWERTHONTM LIFETIME WARRANTY**

"Power Team" is a registered trademark of the SPX FLOW Hydraulic Technologies division of SPX FLOW Inc. ("SPX FLOW"). All Power Team products and parts, with the exceptions noted below, are warranted against defects in materials and workmanship for the life of the product or part. (The life of the product or part is defined as that point in time when it no longer safely or properly functions due to normal wear). Inflatable jacks, chains, batteries, electric motors, gas engines, knives and cutter blades which are sold with Power Team products are not covered by this warranty and instead are warranted as follows:

- Inflatable jacks and electronics are warranted against defects in materials and workmanship for a period of one year from date of purchase.
- Consumable parts or accessories, including without limitation, chains, batteries, knives and cutter blades are warranted against defects in materials and workmanship for a period of one year from date of purchase.
- All electric motors and gas engines are separately warranted by their respective manufacturer under the terms and conditions stated in their separate warranty.

The foregoing warranties do not cover ordinary wear and tear or any product or part that has been worn out, abused, heated, ground or otherwise altered, used for a purpose other than that for which it was intended or used in a manner inconsistent with any instructions regarding its use.

To qualify for warranty consideration, return the Power Team product, freight prepaid, to a Power Team authorized repair center or to the SPX FLOW factory. If any product or part manufactured by SPX FLOW found to be defective by SPX FLOW, in its sole judgment, SPX FLOW will, at its option, either repair or replace such defective product or part and return it via best ground transportation, freight prepaid. THIS REMEDY SHALL BE THE EXCLUSIVE REMEDY AVAILABLE FOR ANY DEFECTS IN THE PRODUCTS OR PARTS MANUFACTURED AND SOLD BY SPX FLOW OR FOR DAMAGES RESULTING FROM ANY OTHER CAUSE WHATSOEVER, INCLUDING WITHOUT LIMITATION, SPX FLOW'S NEGLIGENCE. SPX FLOW SHALL NOT, IN ANY EVENT, BE LIABLE TO ANY BUYER FOR CONSEQUENTIAL OR INCIDENTAL DAMAGES OF ANY KIND, WHETHER FOR DEFECTIVE OR NON-CONFORMING GOODS, NEGLIGENCE, ON THE BASIS OF STRICT LIABILITY OR FOR ANY OTHER REASON.

SPX FLOW's Warranty is expressly limited to persons who purchase Power Team products or parts for the resale or for use in the ordinary course of the buyer's business.

THIS WARRANTY IS EXCLUSIVE, AND SPX FLOW MAKES NO OTHER WARRANTY OF ANY KIND WHATSOEVER, EXPRESSED OR IMPLIED, WITH RESPECT TO THE PRODUCTS MANUFACTURED AND SOLD BY IT, WHETHER AS TO MERCHANT-ABILITY, FIT-NESS FOR A PARTICULAR PURPOSE, OR ANY OTHER MATTER. No agent, employee, or representative of SPX FLOW has any authority to bind SPX FLOW to any affirmation, representation, or warranty concerning Power Team products or parts, except as stated herein.

The purpose of this exclusive remedy shall be to provide the buyer with repair or replacement of products or parts manufactured by SPX FLOW found to be defective in materials or workmanship or negligently manufactured. This exclusive remedy shall not be deemed to have failed of its essential purpose so long as SPX FLOW is willing and able to replace said defective products or parts in the prescribed manner.

## 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.



Replacement parts are marked with an asterisk (\*) and contained in a Repair Kit. Refer to the following chart for the Repair Kit part number:

Model No.	Repair Kit No.		
9002A	310472		
9003A	310473		
9005A	310475		
9008A	310478		

#### **OPERATING INSTRUCTIONS**

- 1. To raise the jack, close the release valve tightly by turning it clockwise. Insert the handle into the pump receiver and operate the pump.
- 2. To lower the jack, slowly open the release valve knob by turning it counterclockwise.

NOTE: To use the jack in a horizontal position, the jack MUST be placed on its side so the pump is lower than the reservoir. See Figure 1.



Figure 1

## SAFETY PRECAUTIONS

ADDING OIL

Remove plug and add oil to indicate level.

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.

### **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

- e. Incorrectly functioning swivel heads or adjusting screws
- f. Loose hardware
- g. Modified or altered equipment
- d. Scored or damaged piston rod

### **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	1.	With jack sitting on its base and ram retracted, bleed air by opening release valve. Pump for 10 seconds.
	2.	Viscosity of oil too high	2.	Change to lower viscosity oil.
	3.	Internal leakage in cylinder	3.	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	1.	Release valve is open	1.	Close release valve
	2.	Low/no oil in reservoir	2.	Fill with oil and bleed system
	3.	Air-locked system	3.	Bleed the system
	4.	Load is above capacity of system	4.	Use correct equipment
Jack only extends partially	1.	Reservoir is low on oil	1.	Fill reservoir
	2.	Piston rod is binding	2.	Check for dirt, gummy deposits, or leaks. Check for misalignment, worn parts, or defective seals.
Jack advances slowly	1.	Pump not working correctly	1.	Rework pump
	2.	Leaking seals	2.	Replace seals
Jack advances but doesn't hold pressure	1.	Cylinder seals are leaking	1.	Replace seals
	2.	Pump check valve not working correctly	2.	Clean/replace check valve
	3.	Overload valve leaking or not adjusted correctly	3.	Replace/adjust overload valve
Jack leaks oil	1.	Worn or damaged seals	1.	Replace seals
Jack will not retract or retracts slowly	1.	Release valve is closed	1.	Open release valve
	2.	Cylinder damaged internally	2.	Send jack to authorized service center for repair
	3.	Reservoir too full	3.	Drain oil to correct level