

ORIGINAL INSTRUCTIONS

Form No.102948



POWER TEAM[®]

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HYDRAULIC JACK
MAX. CAPACITY: 5 TON For 9105A & 9205A
10 Ton For 9210A
20 Ton for 9220A

Parts List and Operating Instructions for:

9105A
9205A
9210A
9220A

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SAFETY DEFINITIONS

Safety symbols are used to identify any action or lack of action that can cause personal injury. Your reading and understanding of these safety symbols is very important.

DANGER

Danger is used only when your action or lack of action will cause serious human injury or death.

WARNING

Warning is used to describe any action or lack of action where a serious injury can occur.

IMPORTANT

IMPORTANT is used when action or lack of action can cause equipment failure, either immediate or over a long period of time.

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.

Hydraulic Jack

Max. Capacity: 5 Ton

10 Ton For 9210A

20 Ton For 9220A

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.

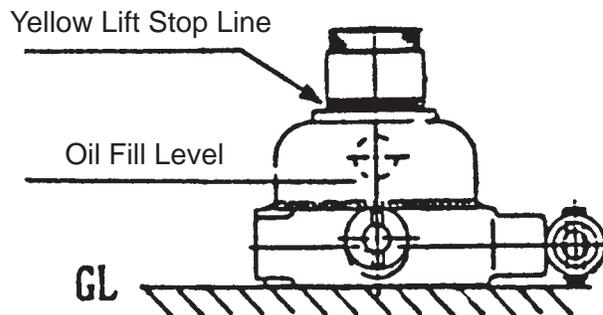
FILLING THE RESERVOIR



Do not overfill the reservoir! This jack's maximum lift stroke is determined by the amount of oil in its reservoir. If too much oil is added, the piston could extend beyond its length causing it to fall out of the jack.

1. Fill the Reservoir

- A. Fill with oil only to the level indicated in Figure 1.
- B. Always stop pumping the jack handle as soon as the yellow lift stop line appears on the piston.



OPERATING INSTRUCTIONS

IMPORTANT

This jack will operate properly in a vertical position (see Figure 2) or in one specific horizontal position. This horizontal position is when the flat side of the jack body casting is down (see Figure 3). In any other horizontal position this jack will not function properly.

1. Operate

- A. To raise the jack, close the release valve tightly by turning it clockwise. Insert the handle into the handle socket and operate the pump.



WARNING

Stop pumping when the yellow lift stop line appears on the piston.

- B. To lower the jack, slowly open the release valve stem by turning it counterclockwise.

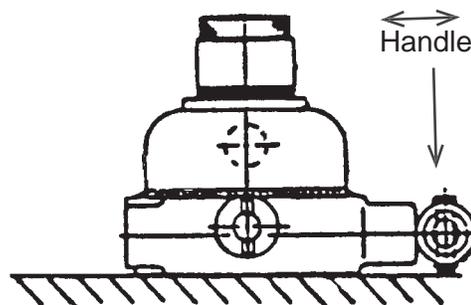


Figure 2

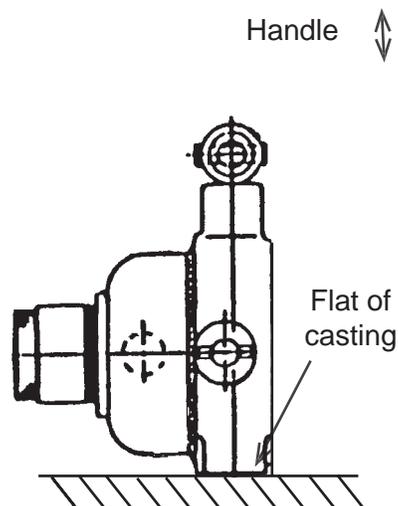


Figure 3

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. Maintenance

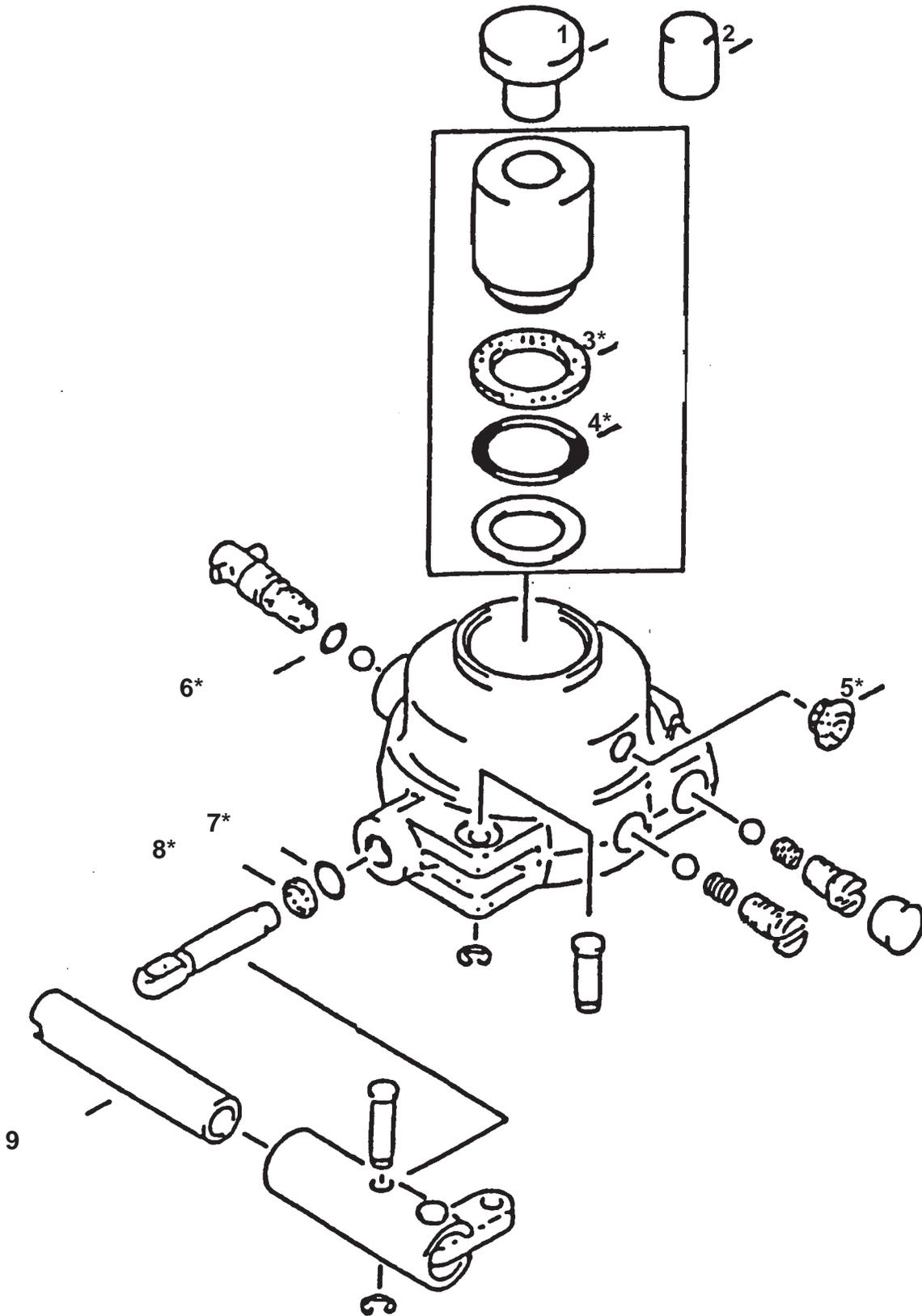
- A. When the jack is not in use, keep the piston and pump rods fully retracted. Store the jack on its base and in a well protected area where it will not be exposed to corrosive vapors, abrasive dust, or any other harmful elements.
- B. 2. Visually inspect the jack before each use. Take corrective action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

TROUBLESHOOTING GUIDE

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

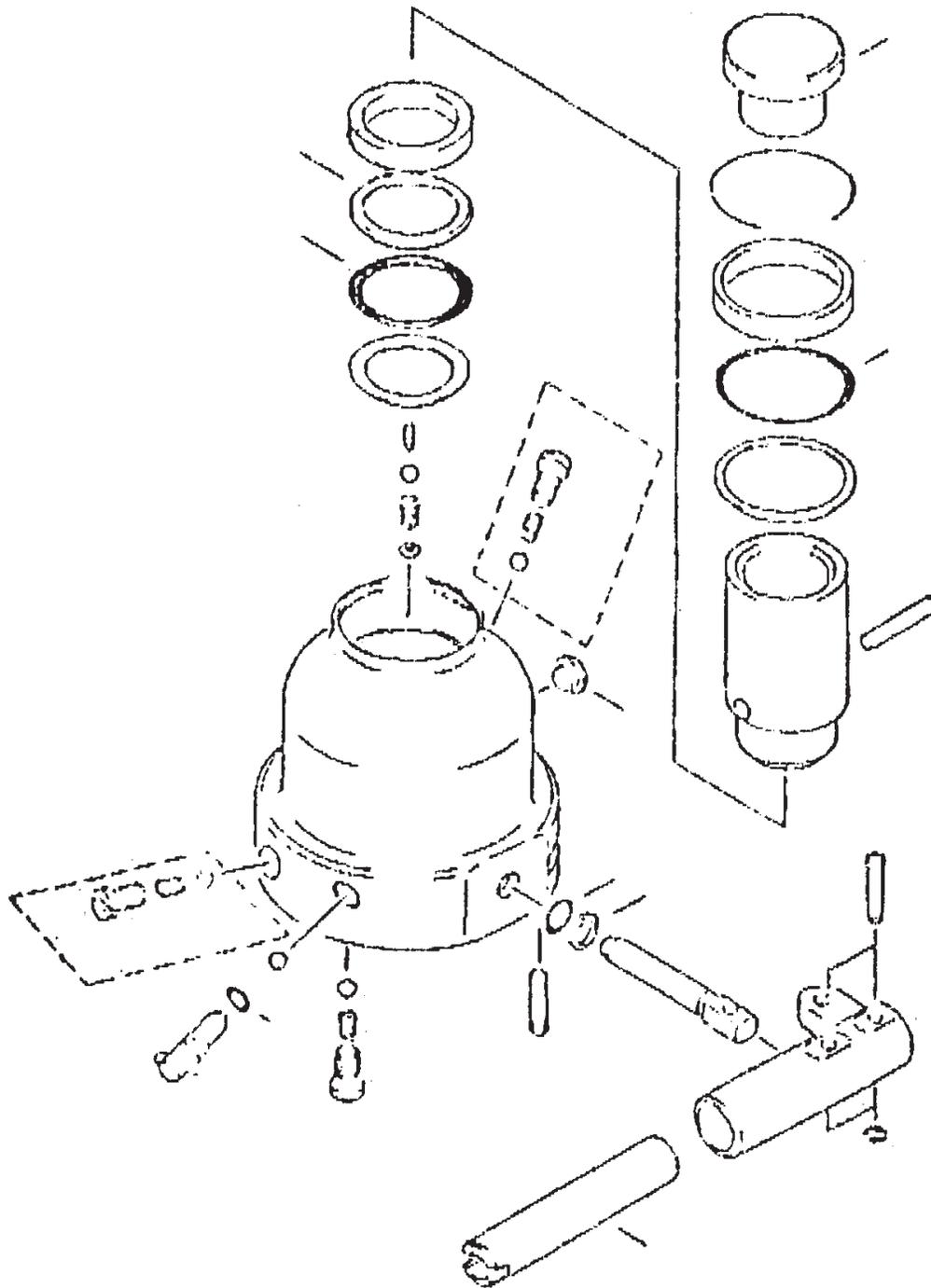
TROUBLE	CAUSE	SOLUTION
Erratic Action	1. Air in system.	1. With jack sitting on its base and ram retracted, bleed air by opening release valve. Pump for 10 seconds.
	2. Viscosity of oil too high.	2. Change to lower viscosity oil.
	3. Internal leakage in cylinder.	3. Replace worn seals. Check for excessive 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.
	5. Improper horizontal position.	5. Operates horizontally ONLY when flat of casting is downward (see Operating Instructions section).
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.

PARTS LIST FOR 9105A & 9205A



Item No.	Part No.	No. Req'd	Description
1	9105A-1	1	Supporting Plate
2	9105A-2	1	Adapter
3	*9105A-3	1	Ram Backup Ring
4	*9105A-4	1	Ram Packing
5	*9105A-5	1	Filler Plug
6	*9105A-6	1	Release Packing
7	*9105A-7	1	Pump Packing
8	*9105A-8	1	Pump Backup Ring
9	9105A-9	1	Handle
PARTS INCLUDED BUT NOT SHOWN			
	351713	1	Decal (For 9105A)
	351956	1	Decal (For 9205A)

Part numbers marked with an asterisk (*) are contained in Repair Kit No. 9105A-10.



Item No.	Part No.	No. Rq'd	Description
1	*9210A-5	1	Ram Packing (For 9210A)
	†9220A-3	1	Ram Packing (For 9220A)
2	*9210A-4	1	Ram Backup Ring (For 9210A)
	†9220A-2	1	Ram Backup Ring (For 9220A)
3	9210A-1	1	Supporting Plate (For 9210A)
	9110A-4	1	Supporting Plate (For 9220A)
4	*9210A-6	1	Cylinder Packing (For 9210A)
	†9110A-6	1	Cylinder Packing (For 9220A)
5	* †9105A-5	1	Filler Plug
6	* †9210A-3	1	Pump Packing
7	*9210A-2	1	Pump Backup Ring (For 9210A)
	†9220A-1	1	Pump Backup Ring (For 9220A)
8	9210A-7	1	Handle (For 9210A)
	9220A-5	1	Handle (For 9220A)
9	* †9105A-6	1	Release Packing
PARTS INCLUDED BUT NOT SHOWN			
	351957	1	Decal (For 9210A)
	351958	1	Decal (For 9220A)

Part numbers marked with an asterisk (*) are contained in Repair Kit No. 9210A-8.

Part numbers marked with a dagger (†) are contained in Repair Kit No. 9220A-7.

POWER TEAM FACILITIES



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DECLARATION OF CONFORMITY**EC DECLARATION OF CONFORMITY**

Serial # 10xx

Thierry Rouvelin
Vice President Engineering

We declare that our "-----" Models:

- 1.
- 2.
- 3.

Description of the product:

To which this declaration relates are in conformity with the following:

<u>EN, EN-ISO, ISO standards</u>	<u>Title</u>
Per the provisions of the Machinery Safety Directive	2006/42 EC
EN_ISO 12100-1	Basic concepts, general principles for design - Part 1
EN_ISO 12100-2	Basic concepts, general principles for design - Part 2
EN 13478:2001+A1:2008	Fire prevention and protection
EN ISO 14121-1:2007	Risk assessment - Part 1
EN 982:1996	Safety requirements for fluid power systems & their components – Hydraulics
EN 983:1996	Safety requirements for fluid power systems & their components - Pneumatics
EN ISO 13849-1:2008	Safety-related parts of control systems - Part 1
EN ISO 13849-2:2008	Safety-related parts of control systems - Part 2
EN 61310-2:1995	Indication, marking and actuation
EN 61310-3:1999	Indication, marking and actuation

<u>EN, EN-ISO, ISO standards</u>	<u>Title</u>
Per the provisions of the Noise Emission in the Environment by Equipment for Use Outdoors Directive	2000/14 EC
EN_3200L0014	Noise emission in the environment for use outdoors
ISO 3744:1994	Sound Power Level Measurements

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