



# ATD-7422W 20-Ton Air Bottle Jack Owner's Manual



## Features:

- Welded design for greater strength and eliminates leaks
- Chrome plated piston and ram for increased rust resistance and durability
- Extension screw for height adjustment
- Overload by-pass safety system prevents damage to jack
- Meets ASME PALD-2014 and CE standards

## Specifications

- Capacity: 20-Ton
- Min. Height: 9.65" (245 mm)
- Max. Height: 18.70" (475 mm)
- Net Weight: 35.27 lbs. (16 kg)
- Air Pressure: 100 psi - 145 psi

These instructions have been written to help the user more effectively use and maintain this jack. Some of the information applying to construction, installation, operation, inspection, and maintenance of hydraulic jacks was selected from ANSI B30.1 and ASME/ANSI PALD-1 safety standards for jacks.

## Product Description

This ATD Air Bottle Jack is designed to lift, but not sustain, rated capacity loads. It's designed to be used vertically. After lifting, loads must be immediately supported by appropriate means. This ATD Air Bottle Jack is **NOT** recommended for use in positioning construction trailers, houses or other building structures.

## Safety Precautions

**WARNING:** Failure to heed the following warnings can result in personal injury and/or equipment damage. These warnings cannot cover every situation, so have safety foremost in your mind when using this jack. It is the owner/operator's responsibility to properly use and maintain this equipment and the instruction labels. Carefully read and understand the instructions and warnings in this manual before operating this equipment. Keep this manual in a safe location for future reference.

- Read, understand, and follow the operating instructions, and the ANSI B30.1 and ASME PALD-1 safety standard for jacks. If the operator cannot read English, operating instructions and safety precautions must be read and discussed in the operator's native language.
- Wear eye protection that meets the requirements of ANSI Z87.1 and OSHA.
- Inspect the jack before each use; do not use the jack if it is damaged, altered, or in poor condition.
- To prevent tipping, set up the jack on a hard, level surface. Set vehicle parking brake and block tires.
- The load must not exceed the rated lifting capacity of the jack. Lift only dead weight.
- Center the load on the jack saddle, because off-center loads can damage seals and cause hydraulic failure.
- Use the jack for lifting purpose only. This jack is designed to LIFT loads, NOT SUPPORT loads. Immediately support a lifted load with jack stands.
- Stay clear of lifted loads.
- Use only approved hydraulic fluid, such as Mobil DTE13M or equivalent.

## Operating Instructions

- Jack operation is controlled either manually or by external air pressure. Either insert the handle into the handle socket to manually operate or connect to an external air pressure source (clean connections prior to assembly). To raise the jack, turn the release valve clockwise until tight and either manually pump with the provided handle or while connected to an air supply, depress the air valve.
- To lower the jack, **SLOWLY** open the release valve knob by turning it counterclockwise (CCW). Be careful not to turn valve quickly or more than twice, as sudden and dangerous lowering may occur.

## Preventive Maintenance

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

1. When the jack is not in use, keep the piston 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. Maintain the oil level at the bottom of the filler plug hole. If it is necessary to add oil, remove the filler plug, and fill the reservoir with Mobil DTE13M or equivalent.
3. 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 screw
  - f. Loose hardware
  - g. Modified or altered equipment

## Maintenance

**Important:** Use only a good grade hydraulic jack oil. Avoid mixing different types of fluid and **NEVER** use brake fluid, turbine oil, transmission fluid, motor oil or glycerin. Improper fluid can cause failure of the jack and the potential for sudden and immediate loss of load. We recommend Mobil DTE13M or equivalent.

## Checking/Adding oil

1. With saddle fully lowered and pump piston fully depressed, set jack in its upright, level position. Open the release valve (turn counter-clockwise, and remove the oil filler plug. The oil level should be up to the hole. If not, proceed to step 2.
2. Fill until oil is level with the filler screw hole, reinstall oil filler plug.

## Changing oil

For best performance and longest life, replace the complete fluid supply at least once per year.

1. With saddle fully lowered, remove the oil filler screw.
2. Lay the jack on its side and drain the fluid into a suitable container.

**Note:** Dispose of hydraulic fluid in accordance with local regulations.

3. Set jack in its upright, level position. Fill until oil is level with the filler screw hole, reinstall oil filler screw.

## Purging the hydraulic system of air

During transit the unit may become "air-bound" causing a spongy ram action. To purge the system, close the release valve (turn clockwise). Manually pump the jack to full height. Open the release valve and push down on the ram. Repeat these steps if necessary to completely purge the system.

## Lubrication

A periodic coating of light lubricating oil to pivot points and hinges will help to prevent rust and assure that pump assemblies move freely. Lubricate internal components. With the release valve open, manually pump the handle six times.

## Cleaning

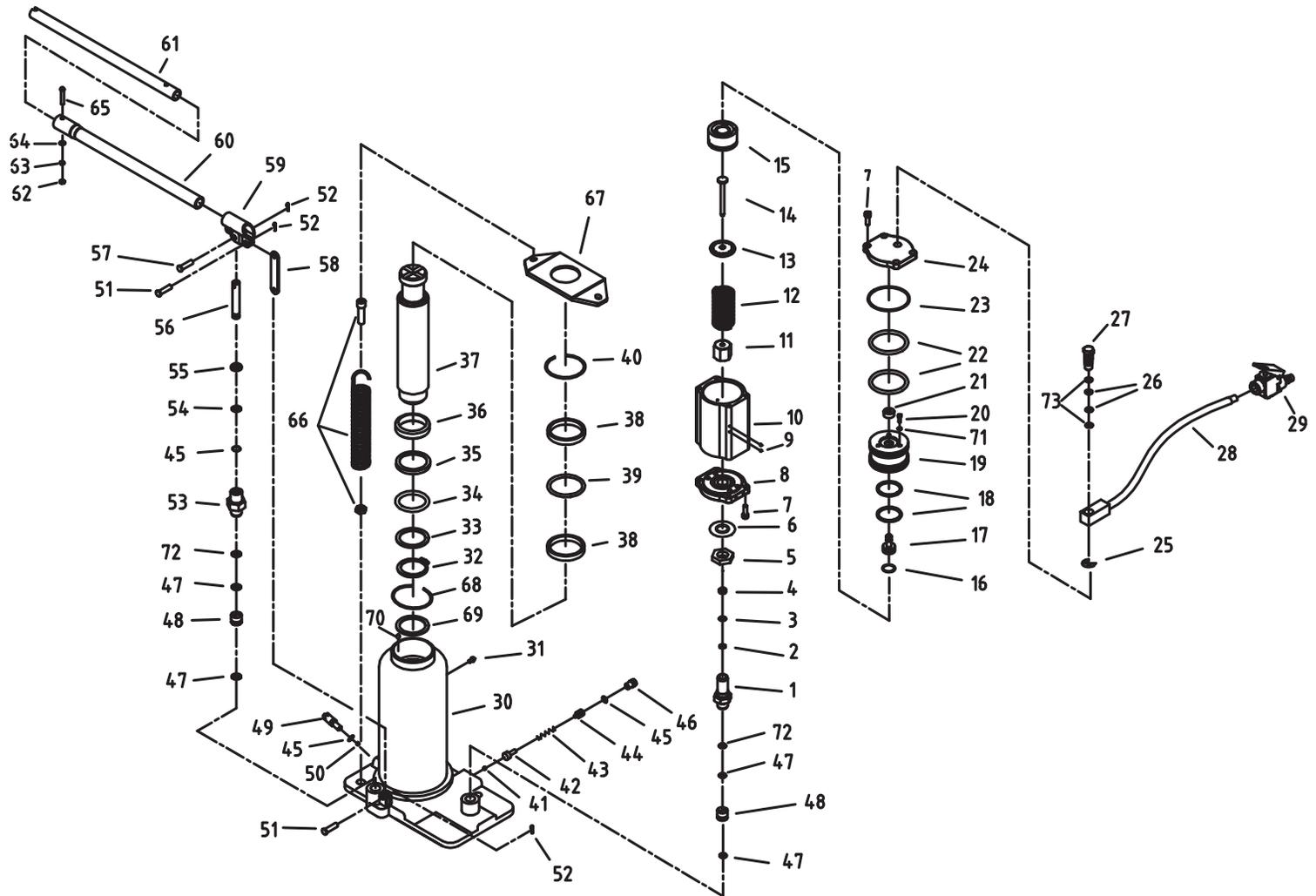
Periodically check the pump piston and ram for signs of rust or corrosion. Clean as needed and wipe with an oily cloth. **Note:** Never use sandpaper or abrasive material on these surfaces.

## Troubleshooting

Symptom	Causes	Remedy
Jack will not lift the load	<ol style="list-style-type: none"><li>1. The release valve is not tightly closed</li><li>2. The jack is overloaded</li><li>3. Inadequate air supply</li></ol>	<ol style="list-style-type: none"><li>1. Tighten the release valve</li><li>2. Rectify the overload condition</li><li>3. Check and ensure adequate air supply</li></ol>
Jack bleeds off after lifting	<ol style="list-style-type: none"><li>1. The release valve is not tightly closed</li><li>2. The jack is overloaded</li><li>3. The hydraulics unit is malfunctioning</li></ol>	<ol style="list-style-type: none"><li>1. Tighten the release valve</li><li>2. Rectify the overload condition</li><li>3. Contact the local service center</li></ol>
Jack will not lower after unloading	<ol style="list-style-type: none"><li>1. The reservoir is overfilled with hydraulic fluid</li><li>2. Linkage binding</li></ol>	<ol style="list-style-type: none"><li>1. Drain fluid to the proper oil level</li><li>2. Clean and lubricate moving parts</li></ol>
Poor lifting performance	<ol style="list-style-type: none"><li>1. Low fluid level</li><li>2. Air is trapped inside the hydraulic system</li></ol>	<ol style="list-style-type: none"><li>1. Ensure proper fluid level</li><li>2. With the ram retracted, remove the oil filler plug. Pump the jack with the release valve open to pressurize the air, reinstall the oil filler plug</li></ol>
The jack will not lift to its maximum height	Low fluid level	Ensure proper fluid level

# ATD®

## ATD-7422W



Not all components of the jack are replacement items, but are illustrated as a convenient reference of parts location. Call your distributor for current pricing. When ordering parts, give part number and parts description.

ITEM#	DESCRIPTION
1	PUMP CYLINDER
2	Y-SEAL
3	NYLON GASKET
4	COPPER WASHER
5	NUT
6	SPRING
7	SOCKET HEAD CAP SCREW
8	BASE COVER
9	STEEL BALL
10	AIR MOTOR HOUSING
11	NUT
12	SPRING
13	WASHER
14	AIR PUMP PLUNGER
15	AIR PISTON BASE
16	O-RING
17	AIR SHUTTLE VALVE
18	O-RING
19	AIR PISTON
20	SOCKET HEAD CAP SCREW
21	SHUTTLE VALVE SEAL
22	O-RING
23	O-RING
24	TOP COVER
25	SNAP RING
26	O-RING
27	COUPLER
28	AIR HOSE ASEMBLY
29	AIR VALVE ASSEMBLY
30	OIL TANK ASSEMBLY
31	OIL FILLER PLUG
32	SNAP RING
33	O-RING RETAINER
34	O-RING
35	SEAL WASHER
36	PISTON RING
37	RAM ASSEMBLY

ITEM#	DESCRIPTION
38	BUSHING
39	O-RING
40	SNAP RING
41	STEEL BALL
42	SAFETY VALVE BALL SEAT
43	SAFETY VALVE SPRING
44	SAFETY VALVE ADJUSTING SCREW
45	O-RING
46	SCREW
47	COPPER WASHER
48	VALVE BLOCK ASSEMBLY
49	RELEASE ASSEMBLY
50	STEEL BALL
51	LINK PIN
52	NYLON GASKET
53	PUMP CYLINDER
54	O-RING
55	NYLON GASKET
56	PUMP PLUNGER
57	PUMP PLUNGER PIN
58	LINK
59	SOCKET
60	CROSS HEAD SOCKET CAP SCREW
61	REAR HANDLE
62	HEX NUT
63	LOCK WASHER
64	FLAT WASHER
65	CROSS HEAD SOCKET CAP SCREW
66	RETURN SPRING (2)
67	SPRING LID
68	SNAP RING
69	BUTTERFLY SPRING
70	STEEL BALL
71	O-RING
72	SNAP RING
73	NYLON GASKET

**PRT7422W-01** - \* Hydraulic Seal Kit Includes: 31, 34, 35, 39, 45, 47, 54, 55 & 72

**PRT7421W-02** - \* Handle Assembly Includes: 60, 61, 62, 63, 64 & 65

**PRT7421W-04** - \* Air Pump Seal Kit Includes: 2, 3, 16, 21, 22, 23, 36 & 71

**PRT7380W-03** - \* Oil Filler Plug Includes: 31 Only

**PRT7421W-05** - \* Air Motor Kit Includes: 1-24, 71

**PRT7421W-06** - \* Air Hose Assembly Includes: 25, 26, 27, 28, 29 & 73

**PRT7421W-07** - \* Spring Kit Includes: (2) 66 & 67

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## WARRANTY

### 1 YEAR LIMITED WARRANTY

THIS WARRANTY AND CONFIRMED RECEIPT(S) SHOULD BE RETAINED BY THE CUSTOMER AT ALL TIMES

PURCHASED FROM: \_\_\_\_\_

DATE PURCHASED: \_\_\_\_\_

INVOICE/RECEIPT NUMBER: \_\_\_\_\_

Your ATD-7422W is warranted for a period of 12 months from the original purchase date.

For a period of one (1) year from your purchase date, ATD Tools Inc. will repair or replace (at its option) without charge, your ATD product if it was purchased new and the product has failed due to a defect in material or workmanship which you experienced during normal use of the product. This limited warranty is your exclusive remedy.

To access the benefits of this warranty, contact your supplier, or point of sale directly. You may be advised to return the product under warranty, freight prepaid, to your supplier for warranty determination.

If this ATD product is altered, abused, misused, modified, or undergoes service by an unauthorized technician, your warranty will be void. We are not responsible for damage to ornamental designs you place on this ATD product and such ornamentation should not cover any warnings or instructions or they may void the warranty. This warranty does not cover scratches, superficial dents, and other abrasions to the paint finish that occur under normal use. It also does not cover normal wear items such as but not limited to brushes, batteries, drill bits, drill chucks, pads or blades.

Subject to the law in your state:

- (1) Your sole and exclusive remedy is repair or replacement of the defective product as described above.
- (2) ATD is not liable for any incidental damages, including but not limited to, lost profits and unforeseeable consequences.
- (3) The repair and replacement of this product under the express limited warranty described above is your exclusive remedy and is provided in lieu of all other warranties, express or implied. All other warranties, including implied warranties and warranties of merchantability or fitness for a particular purpose are disclaimed and, if disclaimer is prohibited, these warranties are limited to one year from your date of purchase of this product.

Some states' laws do not allow limited durations on certain implied warranties and some states' laws do not allow limitations on incidental or consequential damages. You should consult the law in your state to determine how your rights may vary.

[Affix receipt or invoice here for safe keeping]