



ATD-7478

2,500 lbs. Powertrain Lifting Table

Owner's Manual



(Shown in down position)



(Shown in up position)

Features:

- Designed to handle heavy engine, drive axle assemblies, transmissions, electric vehicle batteries and other vehicle components
- Scissors lift design allows access to all (4) sides of a component
- Independent adjusting screws tilt the table 11° side-to-side, front-to-back
- (2) sets of heavy-duty ratcheting tie down straps secure vehicle component during movement and installation
- Mechanical safety latches at 30%, 50% and 80% of max. height provides additional operator safety
- Air/hydraulic foot pump with 10 ft. hydraulic hose extension
- (2) 8" diameter locking swivel casters for easy movement and secure positioning
- Meets or exceeds current ASME PASE standards

Specifications:

- Capacity @ 100 psi: 2,500 lbs.
- Lifting Range: 33" - 77"
- Table Size: 19.7" x 32"
- Table Tilt: +/- 11°
- Overall Size: 48" x 33" x 33"



Read this manual and follow all the safety rules and operating instructions before using this product. Failure to follow the instructions and safety warnings may result in personal injury or property damage.

RETAIN THIS MANUAL AT ALL TIMES

WARNINGS

NOTE: The warnings, precautions and instructions discussed in this instruction manual cannot cover all possible conditions and situations that may occur. It must be understood by the operator that common sense and caution are factors which cannot be built into this product, but must be supplied by the operator.

The use of portable automotive lifting devices is subject to certain hazards that cannot be prevented by mechanical means, but only by the use of care and common sense. It is essential to have qualified personnel involved in the use and operation of this lifting equipment that have been trained and qualified in its safe operation and proper use. Examples of hazards are dropping, tipping, or slipping of motor vehicles or any of their components caused by improperly securing loads, overloading, off-centered loads, use on poor surfaces, and/or using the equipment for a purpose for which it was not designed. It is the responsibility of the owner and operator to study and understand this product and follow the safety instructions prior to operating this equipment. If the operator is not fluent in English the product and safety instructions shall be read and discussed in the operator's native language by the purchaser, owner, or his designee.

A copy of these instruction/warnings should be kept intact and located in a convenient location for future reference. If this manual is lost or not readable a digital copy can be found at www.atdtools.com.

- Inspect the lift table before each use. **DO NOT** use the lift table if it is damaged, altered, modified, in poor condition, leaking hydraulic fluid, leaking air, or unstable due to loose or missing hardware. Take corrective action before proceeding.
- Use of this lift table is limited to the removal, installation, and transportation (in the lowered position) of transmissions, transfer cases, and engines. Consult the vehicle manufacturer for the component's center of balance. Off center loads can cause lift failure and/or loss of load.
- Make sure quick disconnect fittings are correctly and completely fastened together. Quick disconnect couplers should be hand tightened only.
- **DO NOT exceed 120 PSI** input air pressure.
- Never attempt to disconnect couplers while system is under pressure.
- **DO NOT** drop heavy objects on the foot pump hose.
- Keep hose away from sharp objects and eliminate abrasion.
- **DO NOT** lift table beyond its rated capacity of 2,500 lbs. **DO NOT** lift or support the vehicle with this lift table.
- Use only on a hard level surface.
- Fuel tanks must be emptied before removal, installation, or transport.
- Adequately support the vehicle before starting repairs. Consult the in ground or above ground lift manufacturer for the recommended support procedure and under hoist support stand locating points.
- Support the engine with a stand before unbolting the transmission from the engine.
- Never remove, install, or transport any component without first tightly securing it to the universal saddle.
- **DO NOT** move the lift table when the load is raised. **ALWAYS** lower the load completely before moving, storing, or using as a work table.
- **DO NOT** stand under a load that is raised by the lift table.
- No alterations shall be made to the lift table.

SETUP

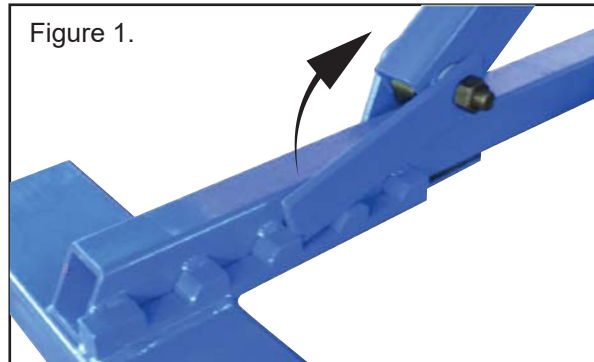
1. Refer to the exploded parts drawing for identification, location, and position of parts.
2. Use at least 1-1/2 wraps of Teflon tape (or suitable sealant) on all hose fitting threads. Make sure the first complete thread is free from tape or sealant so they do not enter and contaminate the hydraulic system.
3. The air quick disconnect configuration of your choice can be installed in the threaded hole underneath the foot pedal.
4. Install the hydraulic hose into the pump manifold's threaded hole. Thread the hose fitting into the pump manifold's threaded hole and turn until snug.
5. To prevent oil leak during transit a metal knob has been installed and tightened on the foot pump. Loosen the metal knob counterclockwise before first use.
6. Connect the air supply line to the foot pump. For best results air supply should be 5-10 CFM at 100 PSI and equipped with an air filter. **DO NOT EXCEED 120 PSI.**
7. The power train lift table is equipped with a universal saddle for better versatility.

OPERATING INSTRUCTIONS

1. **IMPORTANT:** Become familiar with the pedal operation of the air/hydraulic foot pump before using the lift table under load. Stepping on the **PUMP** end of the foot pump pedal will engage the pump and raises the lift table under load. To raise the saddle a small distance it is necessary to use incremental taps of your foot on the foot pedal until the saddle reaches the height. Lowering the saddle is accomplished by depressing the **RELEASE** end of the foot pump.
2. Lift the vehicle to the desired work height and support the vehicle in accordance with the manufacturer's recommended support procedure and the warnings given in this manual.
3. Follow the manufacturer's recommended service procedure for removing and installing the component.
4. When removing a transmission use an under hoist stand rated greater than the weight of the engine before unbolting the transmission from the engine.
5. Position the lift table directly under the component to be lifted. Connect shop air supply to the air/hydraulic foot pump. Use minimum 90 PSI air pressure and **DO NOT EXCEED 120 PSI.**
6. Depress the air/hydraulic pump foot pedal marked "**PUMP**" to raise the lift table saddle to a height very close to the center of balance point of the component but do not touch it.
7. **IMPORTANT:** The Power Train Lift/Table is equipped with mechanical safety latches that will help hold the unit in place at 30%, 60%, and 80% of the lift range. Refer to the parts drawing for location of the latches.
8. Depress the locking levers on the caster wheels to prevent the unit from moving.
9. Using the universal table adjust the blocks to fit the component configuration. Secure the blocks to the universal table by tightening the wingnuts under the table.
10. Adjust the tilt screws in order to align the saddle with the components lift surface. Gently raise the lift table saddle to support the component.

OPERATING INSTRUCTIONS CONTINUED

11. To lower the load, lift safety latch as shown in figure 1. Depress the air/hydraulic foot pump marked **RELEASE** and make sure the lift table's saddle and load do not interfere with any other undercar or undertruck components, wiring, fuel lines, brake lines, etc.
12. Follow the vehicle manufacturer's recommended service procedures and this manual's operating instructions when reinstalling the component.



PREVENTATIVE MAINTENANCE

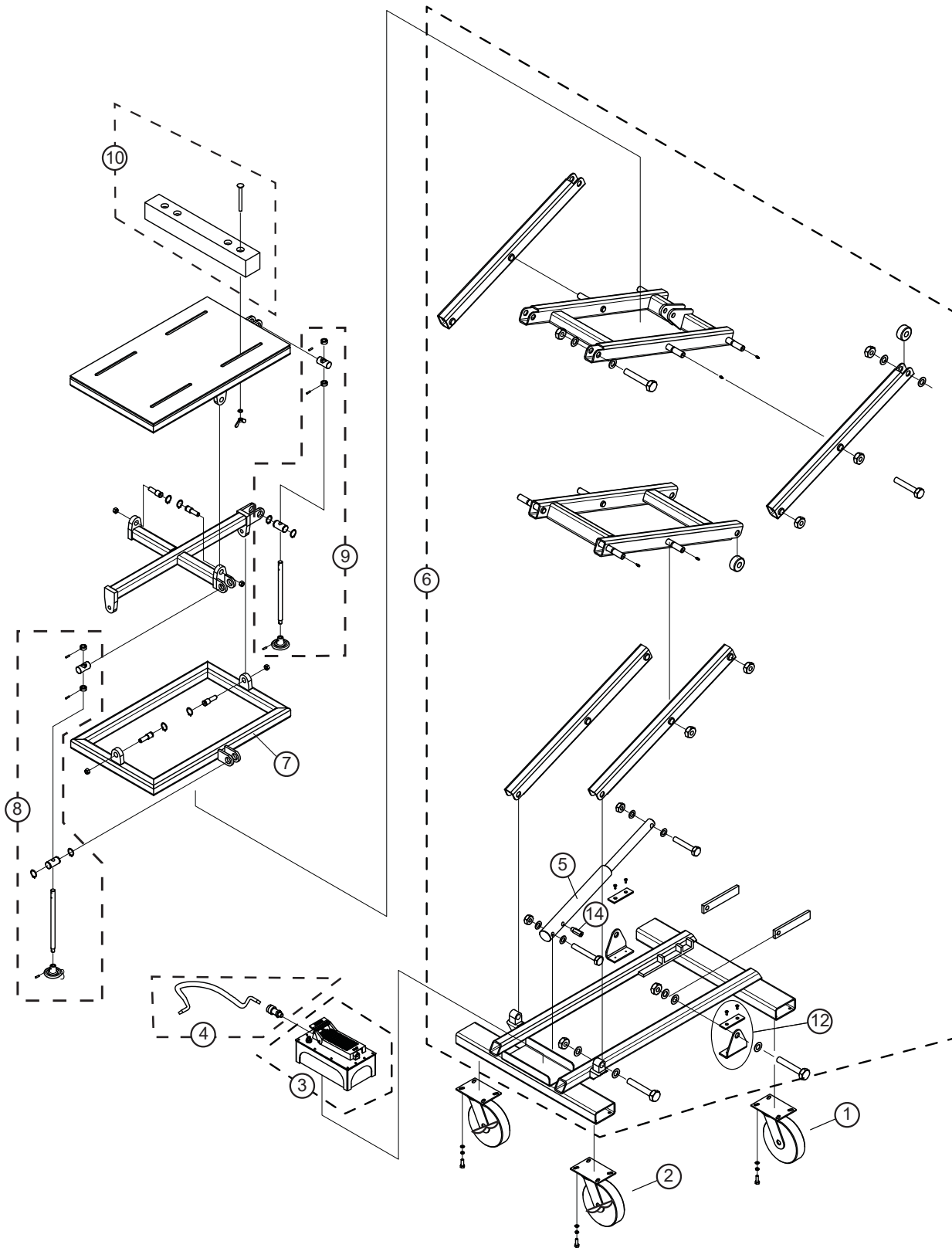
1. Always store the lift table in a well protected area where it will not be exposed to inclement weather, corrosive vapors, abrasive dust, or any other harmful elements. The lift table must be free of water, snow, sand and debris before using.
2. Leave hydraulic hose in the carton until needed.
3. Lubricate moving parts regularly with a general purpose grease. Inspect all lift arms, saddle base and cylinder assemblies.
4. Use a mild soap solution to wash external surfaces of the lift table but avoid any moving hydraulic components.
5. Inspect the lift table before each use. Do not use the lift table if any component is cracked, broken, bent, or leaks hydraulic fluid. DO NOT use the lift table if it has loose or missing hardware, components, or has been modified in any way. Take corrective action prior to using.
6. DO NOT attempt to make any hydraulic repairs unless you are a qualified hydraulic repair person that is familiar with this equipment.
7. For best results change hydraulic fluid once per year.

TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSE	CORRECTIVE ACTION
• Application will not extend, move, or respond to pressurized fluid	• Overload condition • Release valve not closed	• Remedy overload condition • Ensure release valve is closed
• Application responds to pressurized fluid but system does not maintain pressure	• Overload condition • Release valve not closed • Hydraulic unit malfunction	• Remedy overload condition • Ensure release valve is closed
• Application will not return fluid to pump • Cylinder will not retract	• Malfunctioning coupler • Reservoir overfilled	• Secure load by other means. Open release valve, depressurize pump and hose, remove coupler and replace • Secure load by other means. Open release valve, depressurize pump and hose, and drain fluid to proper level
• Application will not fully extend	• Fluid level low	• Secure load, depressurize pump, and ensure proper fluid level
• Unit will not lower	• Safety latches are in use	• Lower safety latches
• Poor performance	• Air trapped in system	• Allow pressurized reservoir air to escape
• Unit still does not operate		• Contact your ATD Tools distributor

REPLACEMENT PARTS

Not all components of this product are replacement items, but are illustrated as a convenient reference for position in the assembly sequence. When ordering parts, give model number, part number and description. Call your distributor for current pricing:

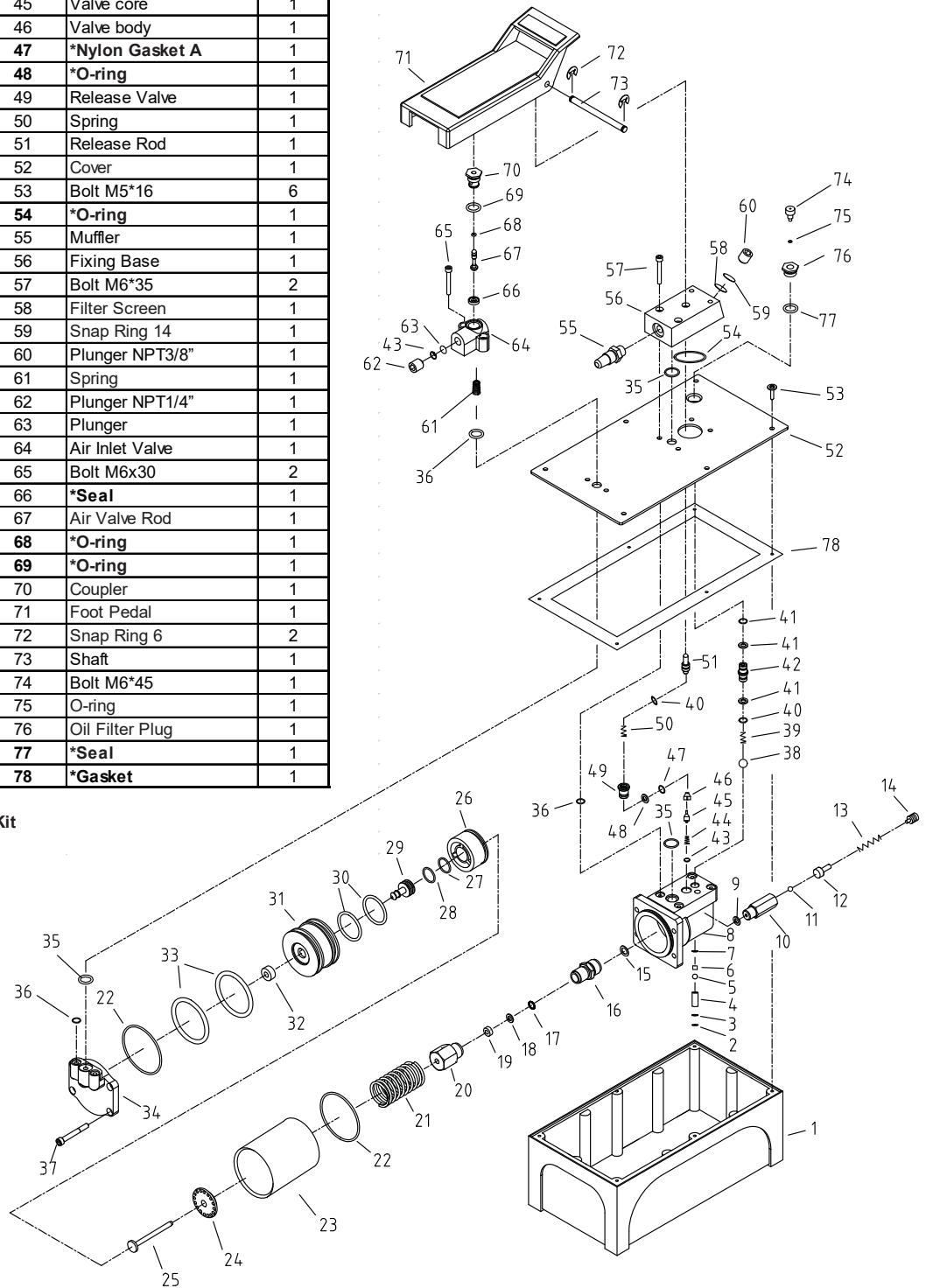


ITEM#	ORDERING PART#	PART DESCRIPTION	QTY
1	PRT7478-01	CASTER	2
2	PRT7478-02	LOCKING CASTER	2
3	PRT7478-03	HYDRAULIC PUMP	1
4	PRT7478-04	HOSE ASSEMBLY	1
5	PRT7478-05	CYLINDER	1
6	PRT7478-06	MAIN BODY FRAME	1
7	PRT7478-07	SADDLE BASE ASSEMBLY	1
8	PRT7478-08	SCREW B	1
9	PRT7478-09	SCREW A	1
10	PRT7478-10	SQUARE WOODEN BAR	2
11	PRT7478-11	CYLINDER REPAIR KIT	1
12	PRT7478-12	BRACKET ASSEMBLY (EACH)	1
13	PRT7478-13	PUMP REPAIR KIT	1
14	PRT7478-14	CHECK VALVE	1

Pump Parts List

Item No.	Description	Qty	Item No.	Description	Qty
1	Oil Reservoir	1	40	*O-ring	3
2	Snap Ring	1	41	*Nylon Gasket	2
3	Filter Screen	1	42	Coupler	1
4	Oil Intake Tube	1	43	Retainer M10	2
5	Steel Ball 6	1	44	Spring	1
6	Steel Wire Ring	1	45	Valve core	1
7	*Copper Washer	1	46	Valve body	1
8	Valve Block	1	47	*Nylon Gasket A	1
9	*Copper Washer	1	48	*O-ring	1
10	Safety Valve	1	49	Release Valve	1
11	Steel Ball 4	1	50	Spring	1
12	Ball Seat	1	51	Release Rod	1
13	Spring	1	52	Cover	1
14	Bolt	1	53	Bolt M5*16	6
15	*Copper Washer A	1	54	*O-ring	1
16	Pump Cylinder	1	55	Muffler	1
17	*Nylon Gasket	1	56	Fixing Base	1
18	*Seal	1	57	Bolt M6*35	2
19	Copper Washer	1	58	Filter Screen	1
20	Nut	1	59	Snap Ring 14	1
21	Spring	1	60	Plunger NPT3/8"	1
22	*O-ring	2	61	Spring	1
23	Air Pump Housing	1	62	Plunger NPT1/4"	1
24	Washer	1	63	Plunger	1
25	Pump Plunger	1	64	Air Inlet Valve	1
26	Air Piston Base	1	65	Bolt M6x30	2
27	*Guide ring	1	66	*Seal	1
28	*O-ring	1	67	Air Valve Rod	1
29	Air Shuttle Valve	1	68	*O-ring	1
30	*O-ring	2	69	*O-ring	1
31	Piston	1	70	Coupler	1
32	*Plug	1	71	Foot Pedal	1
33	*O-ring	2	72	Snap Ring 6	2
34	Rear Cover	1	73	Shaft	1
35	*O-ring	4	74	Bolt M6*45	1
36	*O-ring	6	75	O-ring	1
37	Bolt	4	76	Oil Filter Plug	1
38	Steel Ball 9	1	77	*Seal	1
39	Spring	1	78	*Gasket	1

* Included in the PRT7478-13 Seal Kit

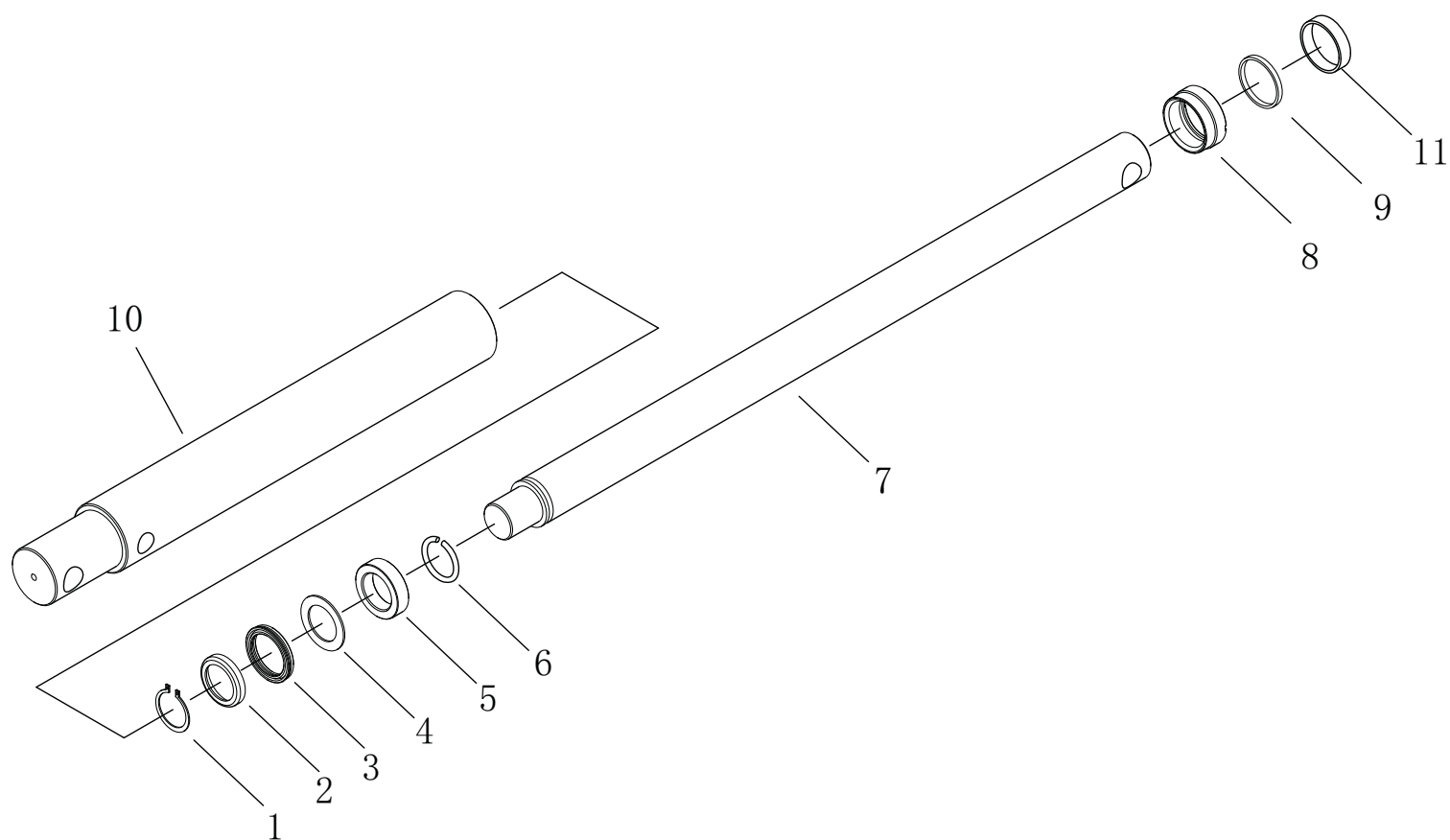


ATD-7478 Pump Exploded View

Cylinder Parts List

Item No.	Description	Qty
1	* Shaft ring	1
2	* Washer	1
3	* Y-shaped sealing ring	1
4	* Retaining ring	1
5	* Piston ring	1
6	* Wire retaining ring	1
7	Piston rod	1
8	* Limit sleeve	1
9	* Dust Seal	1
10	Oil cylinder welding parts	1
11	* Guide ring	1

* Included in PRT7478-11 Seal Kit



ATD-7478 Cylinder Exploded View



THIS MANUAL, WARRANTY AND CONFIRMED RECEIPT(S) SHOULD BE RETAINED BY THE CUSTOMER AT ALL TIMES
[Affix receipt or invoice for safe keeping]

PURCHASED FROM: _____

DATE PURCHASED: _____

INVOICE/RECEIPT NUMBER: _____

Your ATD-7478 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.

DISPOSAL OF PACKAGING AND PRODUCT. As the purchaser of this product you are responsible for disposing of the packaging in which it comes and for the product itself at end of use and must comply with all applicable environmental and/or other laws, rules, regulations and guidelines. If you transfer the product to any other person you must inform them of this responsibility. Consistent with EPR initiatives, most of our packaging and components are designated for resource recovery. These materials must be transferred to authorized facilities specializing in the processing and reclamation of industrial materials. In all circumstances, strict adherence to local environmental regulations is required to ensure proper material diversion.

