



ATD-7430B / ATD-7431B

1/2 Ton Telescopic Transmission Jack

Owner's Manual



ATD-7430B

ATD-7430B Features:

- Extra wide base lowers center of gravity and promotes stability
- Rugged, 4" polyurethane casters for smooth and easy movement, 2 with locks
- Foot release pedal provides controlled lowering of load
- Saddle adjusts to fit most pan configurations
- Chrome-plated, two-stage rams maximize the reach
- Nylon strap secures transmission to jack
- Meets or exceeds ASME/PASE 2019 standards

ATD-7430B Specifications:

- Capacity (Ton): 1/2
- Minimum Height: 37"
- Maximum Height: 77.5"
- Saddle Base: 11.4" x 11.4"
- Minimum Saddle Area: 6.3" x 6.3"
- Expanded Saddle Area Max.: 18" x 18"
- Saddle Range of Motion: Front & Rear: $\geq 30^\circ$; Left & Right: $\geq 10^\circ$
- Shipping Weight: 178.8 lbs.



ATD-7431B

ATD-7431B Features:

- Extra wide base lowers center of gravity and promotes stability
- Rugged, 4" polyurethane casters for smooth and easy movement, 2 with locks
- Foot release pedal provides controlled lowering of load
- Adjustable saddle adjusts for most pan configurations
- Chrome-plated, two-stage rams maximize the reach
- A compact, yet powerful air motor is equipped to raise the load to the desired height efficiently, effortlessly and safely
- Nylon strap secures transmission to jack
- Meets or exceeds ASME/PASE 2019 standards

ATD-7431B Specifications:

- Capacity (Ton): 1/2
- Minimum Height: 37"
- Maximum Height: 77.5"
- Saddle Base: 11.4" x 11.4"
- Minimum Saddle Area: 6.3" x 6.3"
- Expanded Saddle Area Max.: 18" x 18"
- Saddle Range of Motion: Front & Rear: $\geq 30^\circ$; Left & Right: $\geq 10^\circ$
- Air Pressure: 110-120 psi
- Shipping Weight: 187 lbs.

SAFETY AND GENERAL INFORMATION

Save these instructions. For your safety, read, understand, and follow the information provided with and on this device before using. The owner and/or operator should have an understanding of the device, its operating characteristics and safety operating instructions before operating the equipment. The owner and/or operator should be aware that use and repair of this product may require special skills and knowledge. Instructions and safety information should be read to and discussed with the operator in the operator's native language, making sure that the operator comprehends their contents, before use of this equipment is authorized. If any doubt exists as to the safe and proper use of this device, remove from service immediately.

Inspect before each use. Do not use if abnormal conditions such as cracked welds, damaged, loose or missing parts are noted. Any equipment that appears damaged in any way, is found to be worn, or operates abnormally should be removed from service until repaired. If the equipment has been or is suspected to have been subjected to an abnormal load or shock, immediately discontinue use until inspected by a factory authorized repair facility (contact distributor or manufacturer for list of authorized repair facilities). It is recommended that an annual inspection be made by an authorized repair facility. Labels and operator's manuals are available from the manufacturer.

PRODUCT DESCRIPTION

ATD Tools Hydraulic Transmission Jacks are designed to be used as an aid in the removal and installation of automotive and light truck transmissions, transfer cases and transaxles. These telescopic style transmission jacks are for use under an overhead lift or in a garage pit. For air option model ATD-7431B, ensure that your air source can dedicate 7.8 CFM @ 110-120 psi to each jack operated.

SPECIFICATIONS

Model	Capacity	Min. Height	Max. Height	Saddle Base	Expanded Saddle Area	Saddle Range of Motion	Weight
ATD-7430B	1,000 lbs.	37"	75.5"	6.3" x 6.3"	18" x 18"	Front & Rear: $\geq 30^\circ$ Left & Right: $\geq 10^\circ$	178.8 lbs.
ATD-7431B	1,000 lbs.	37"	75.5"	6.3" x 6.3"	18" x 18"	Front & Rear: $\geq 30^\circ$ Left & Right: $\geq 10^\circ$	187 lbs.

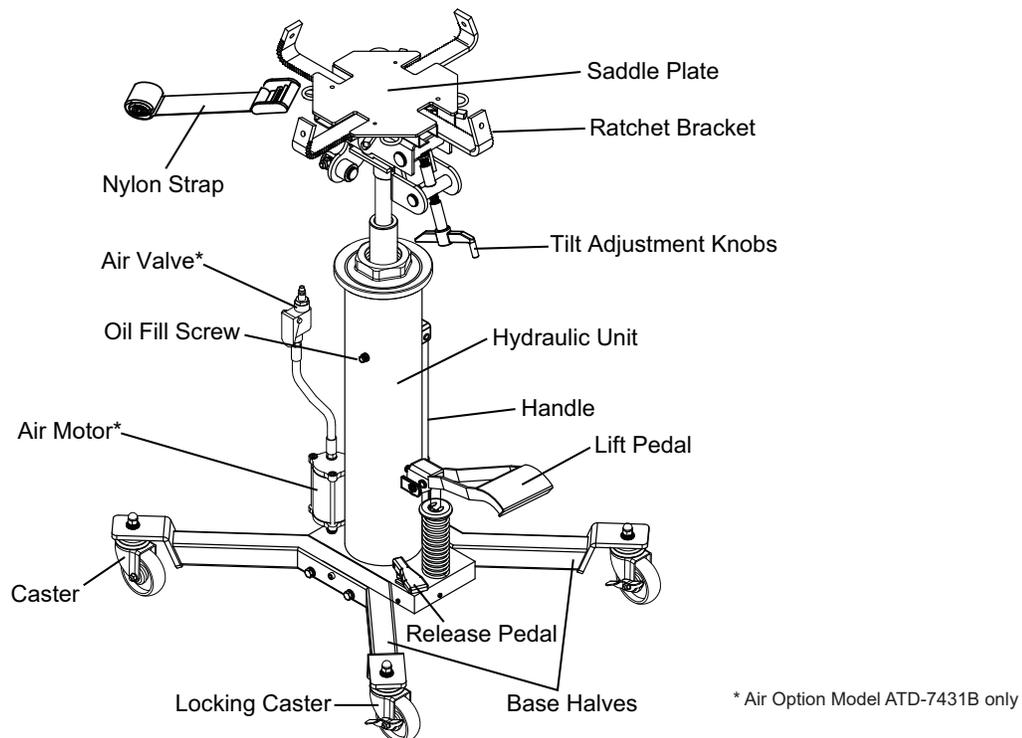


Figure 1 - Typical Transmission Jack Components (ATD-7431B shown)

CAUTION: READ CAREFULLY BEFORE UNPACKING PRODUCT.

PREPARATION

Assembly: Refer to Figure 2, on page 5.

1. Three major parts should be included in package:
 - (a) Hydraulic Power Unit (with Air Motor equipped on the ATD-7431B)
 - (b) Saddle Assembly
 - (c) 2 Base Half Pieces with Hardware Kit
2. Put the Hydraulic Power Unit in an upright position, assemble the Legs (34) to the Hydraulic Power Unit with Bolt (39), and Washers (40 & 41). Use the same procedure to the other base half. **Do not tighten yet.**
3. Assemble Casters (38 & 42) to the Leg Caster Bracket with Nut (35), and Washer (36 & 37)
4. Now you can tighten the 4 Bolts that assembles in the Legs (34) to the Hydraulic Power Unit in step 2.
5. Position and install the Saddle Assembly onto the Ram Piston and tighten the Bolt on the Saddle to secure the Saddle.

Before Use

1. Inspect jack before each use. Do not use if bent, broken or cracked components are noted. Ensure that casters move freely. Check for, and tighten any loose assemblies.
2. Verify that the product and the application are compatible.
3. With the Ram fully lowered, remove the oil filler screw to bleed the air in the reservoir.
4. Ensure oil level is just below the rim of the Oil Filler Screw hole. Reinstall the Oil Filler Screw.
5. For ATD-7431B, with Air Motor, pour a teaspoon of good quality air tool lubricant into the Air Valve (76 in Figure 3). Connect to air supply and operate for 3 seconds to evenly distribute lubricate.

NOTE: The Model ATD-7431B is equipped with a 1/4" NPT air coupler. If installing a different air coupler, use thread tape or compound on all air connections. To ensure dependable operation, install an inline air dryer and oiler.

6. Ensure that Jack rolls freely. Raise and lower the unloaded Jack throughout the lifting range before putting into service to ensure the Pump operates smoothly. Replace worn or damaged parts and assemblies with factory authorized replacement parts only.

Purging Air From The Hydraulic System

Air can accumulate within a hydraulic system during shipment or after prolonged use. This entrapped air causes the Jack to respond slowly or feel "spongy". Use the steps below to bleed the system.

1. Pump the jack to the highest point where the first and the second piston rams are both at maximum height.
2. Get the help of another person to keep the Release Pedal depressed, and activate the Foot Pedal about 20 times.
3. Let go of the Release Pedal; the air in the oil system should be bled successfully.

To bleed the air in the second cylinder:

1. Locate the Air Bleeder Screw at the top nut, which is on the top of the first piston rod.
2. Pump the Jack to its maximum height. Use an allen socket wrench to loosen the Air Bleeder Screw for no more than two 360° turns. Push the saddle assembly downward to force the air in the Cylinder out until nothing but oil drains out of the bleeder hole.
3. Tighten the Bleeder Screw and double check. It may be necessary to repeat the above steps several times.

OPERATION

Follow the instruction for removal and installation of transmission, transfer case or transaxle in accordance with the vehicle manufacturer's service manual.

1. When disassembling the transmission, position the transmission jack under the transmission. Depress the Foot Pedal to raise the Saddle to a height close to the center of the balance point of the transmission oil pan but do not touch the transmission.
2. Adjust the Ratchet Arms on the Saddle so that the angled section of the Arms will fit in the mounting flange around the perimeter of the transmission oil pan. Slowly pump the Jack to raise the Saddle to fully connect the transmission. Secure the transmission to the Jack's Saddle with the Nylon Safety Straps provided. If necessary, turn the fore and aft and side to side Tilt Knobs so the Saddle is in the proper alignment with the transmission pan before securing the load to the Saddle.

⚠ WARNING

- Study, understand, and follow all printed material provided with/on this product before use.
- Do not exceed rated capacity.
- Use only on hard, level surfaces capable of supporting rated capacity loads.
- Use of this jack is limited to the removal, installation and transportation of transmissions, transfer cases and transaxles. **DO NOT** use a transmission jack to raise or support a vehicle.
- Ensure the center gravity of load is centered on the saddle.
- Adequately support the vehicle before starting repairs.
- Use only the Nylon Safety Straps provided.
- If loaded jack must be moved, make sure that the load is secured, stable, and in its lowest position.
- This is a lifting and lowering device only.
- Transfer load immediately to appropriate support device for service or repair.
- No alterations shall be made to this product.
- Failure to heed these markings may result in personal injury and/or property damage.

⚠ WARNING



To avoid crushing and related injuries: **NEVER** work on, under or around a load supported only by a jack. Immediately transfer the load to an appropriate work station.

OPERATION (cont.)

IMPORTANT: Make sure the Nylon Tie Down Strap is very tight when securing the transmission to the Saddle, and before raising or lowering the transmission.

3. Remove the transmission from the engine according to the instructions in the vehicle service manual.
4. Once the transmission has been disassembled from the engine, very slowly depress the Release Pedal to lower the transmission all the way down.
5. **IMPORTANT:** Be sure all tools and personnel are clear before lowering load. Slowly depress Release Valve Pedal. When installing a transmission, refer to the above instructions and the vehicle manufacturer's installation manual.

IMPORTANT: Ensure load's center of gravity is centered on the Saddle and load is stable before moving Jack. An off center transmission could cause Jack to tip or flip over. **DO NOT** use this jack as a workstation.

Raise Saddle:

CAUTION! Do not operate your ATD-7431B jack by pumping the Lift Pedal and pressing the Air Valve at the same time.

1. Pump Foot Pedal or press Air Valve until Saddle reaches desired position.
2. Follow vehicle manufacturer's recommended procedures for removing the load as outlined in vehicle service manual or repair guide.
3. Secure load with provided Nylon Safety Straps.

Lower Saddle:

CAUTION! Be sure all tools and personnel are clear before lowering load. Slowly, gently apply downward pressure to the release valve pedal.

MAINTENANCE

Important: Use only 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 premature failure of the jack and the potential for sudden and immediate loss of load. We recommend Mobil DTE 13M or equivalent. Periodically check for leaks at air connections. Replace connections as needed.

Changing oil:

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

1. With the saddle fully lowered, set jack in its upright, level position. Remove 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 level, upright position and fill with oil until just below the rim of the oil filler hole. Reinstall the oil filler screw.
4. Perform **Purging air from the hydraulic system (page 3)**

Lubrication:

1. A periodic coating of light lubricating oil to pivot points, axles and hinges will help to prevent rust and assure that wheels, casters and pump assemblies move freely.
2. When used on a daily basis, air pump model should be internally lubricated before each use. Use only good quality air tool lubricant. If no inline oiler is used, pour a teaspoon of air tool oil into the inlet of the air supply inlet. Simply operate the jack using the air feature in order to fully distribute the oil.

Cleaning:

Periodically check the 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!

Storage:

When not in use, store the jack with saddle in lowest position and air supply disconnected.

TROUBLESHOOTING

Symptom	Possible Causes	Corrective Action
Jack does not lift	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 system.
	4. Load is above capacity of Jack.	4. Use correct equipment.
	5. Packing worn out or defective.	5. Install Seal Kit.
Jack advances slowly	1. Pump not working correctly.	1. Install Seal Kit, or replace power unit.
Jack lifts load, but doesn't hold	1. Cylinder Packing is leaking.	1. Install Seal Kit.
	2. Valve not working correctly (suction, delivery, release, or bypass)	2. Inspect valves. Clean and repair seat surfaces.
	3. Air-locked system.	3. Bleed system.
Jack leaks oil	1. Worn or damaged seals.	1. Install seal kit.
Jack will not retract	1. Release Valve is closed.	1. Open and clean release valve

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:

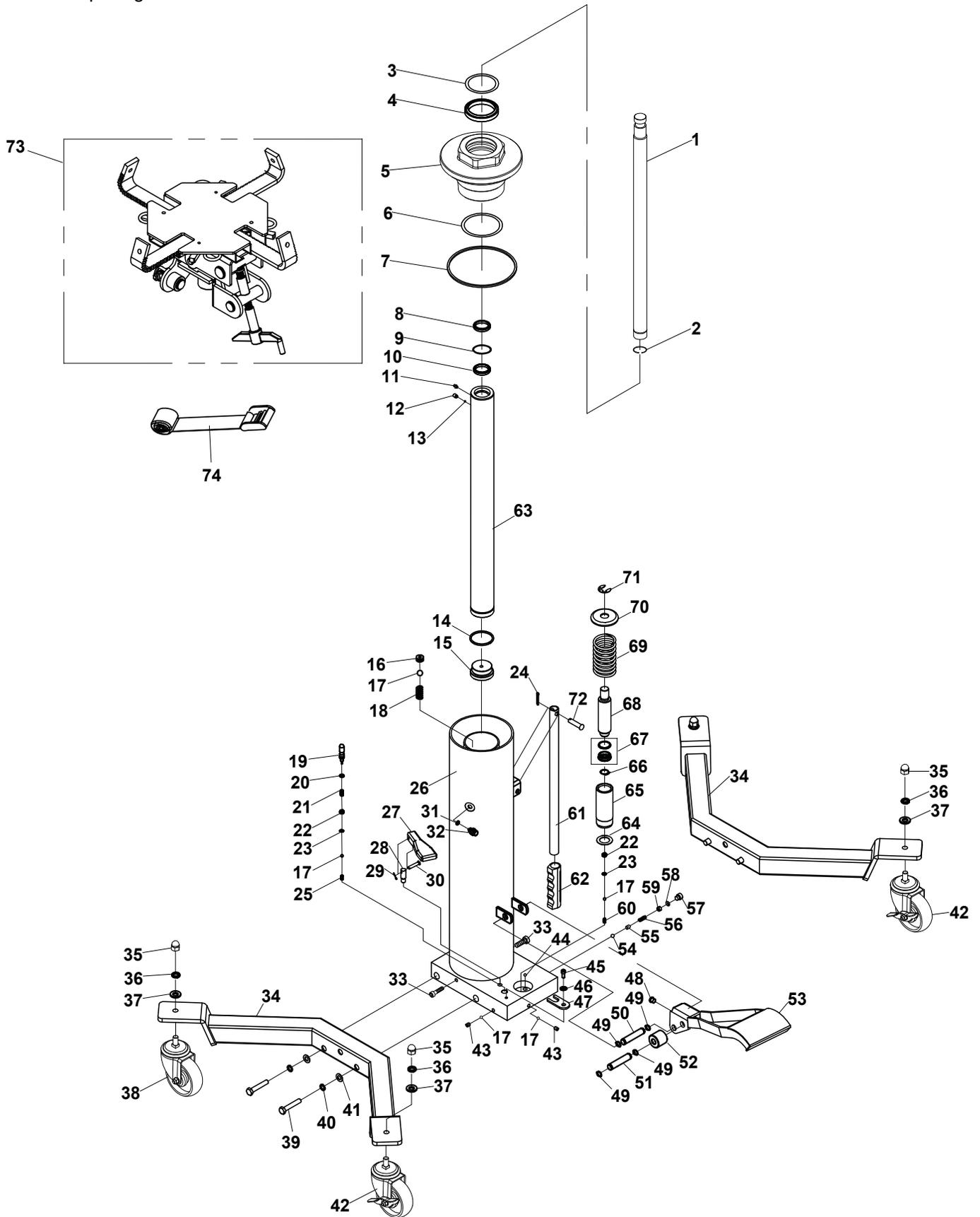


Figure 2 - Replacement Parts Illustration for model ATD-7430B

ITEM#	ORDERING PART#	PART DESCRIPTION	QTY
1		2ND STAGE PISTON	1
2		RETAINER RING	1
3		O-RING	1
4		OIL SEAL	1
5		CAP NUT	1
6		O-RING	1
7		SEAL RING	1
8		DUST RING	1
9		O-RING	1
10		OIL SEAL	1
11		OIL CAP	1
12		SCREW	1
13		STEEL BALL	1
14		RETAINER RING	1
15		COVER	1
16	PRT7430B-01-72 HYDRAULIC CYLINDER	SCREW	1
17		STEEL BALL	5
18		SPRING	1
19		RELEASE VALVE CORE	1
20		O-RING	1
21		SPRING	1
22		VALVE SEAT	2
23		NYLON WASHER	2
24		R-PIN	1
25		SPRING	1
26		PUMP	1
27		RELEASE VALVE PEDAL	1
28		PEDAL SEAT	1
29		R-PIN	1
30		PIN	1
31		SEAL RING	1
32		SCREW	1
33		SCREW	2
34		LEG	2
35		NUT	4
36		LOCK WASHER	4
37		FLAT WASHER	4

ITEM#	ORDERING PART#	PART DESCRIPTION	QTY
38	PRT7430B-35-38	CASTER W/BOLT AND WASHER	2
39		BOLT	4
40		LOCK WASHER	4
41		FLAT WASHER	4
42	PRT7430B-35-42	LOCKING CASTER W/BOLT AND WASHER	2
43		SCREW	2
44		STEEL BALL	1
45		SCREW	1
46		LOCK WASHER	1
47		LIMIT PLATE	1
48		RUBBER PLATE	1
49		SHAFT CLAMP	4
50		PIN	1
51		PIN	1
52		ROLLER	1
53		LIFT PEDAL	1
54		STEEL BALL	1
55		STEEL BALL SEAT	1
56		SPRING	1
57	PRT7430B-01-72 HYDRAULIC CYLINDER	SCREW	1
58		O-RING	1
59		SCREW	1
60		SPRING	1
61		HANDLE	1
62		HANDLE SLEEVE	1
63		1ST STAGE PISTON	1
64		WASHER	1
65		PUMP CORE SEAT	1
66		SHAFT CLAMP	1
67		OIL SEAL	1
68		PUMP CORE	1
69		SPRING	1
70		SPRING COVER	1
71		RETAINER RING	1
72		PIN	1
73	PRT7430B-73	SADDLE ASSEMBLY	1
74	PRT7430B-74	NYLON SAFETY STRAP	1

* - PRT7430B-SK - SEAL KIT CONTAINS 3, 4, 6, 8, 9, 10, 20, 23, 31, 58, 64, 67

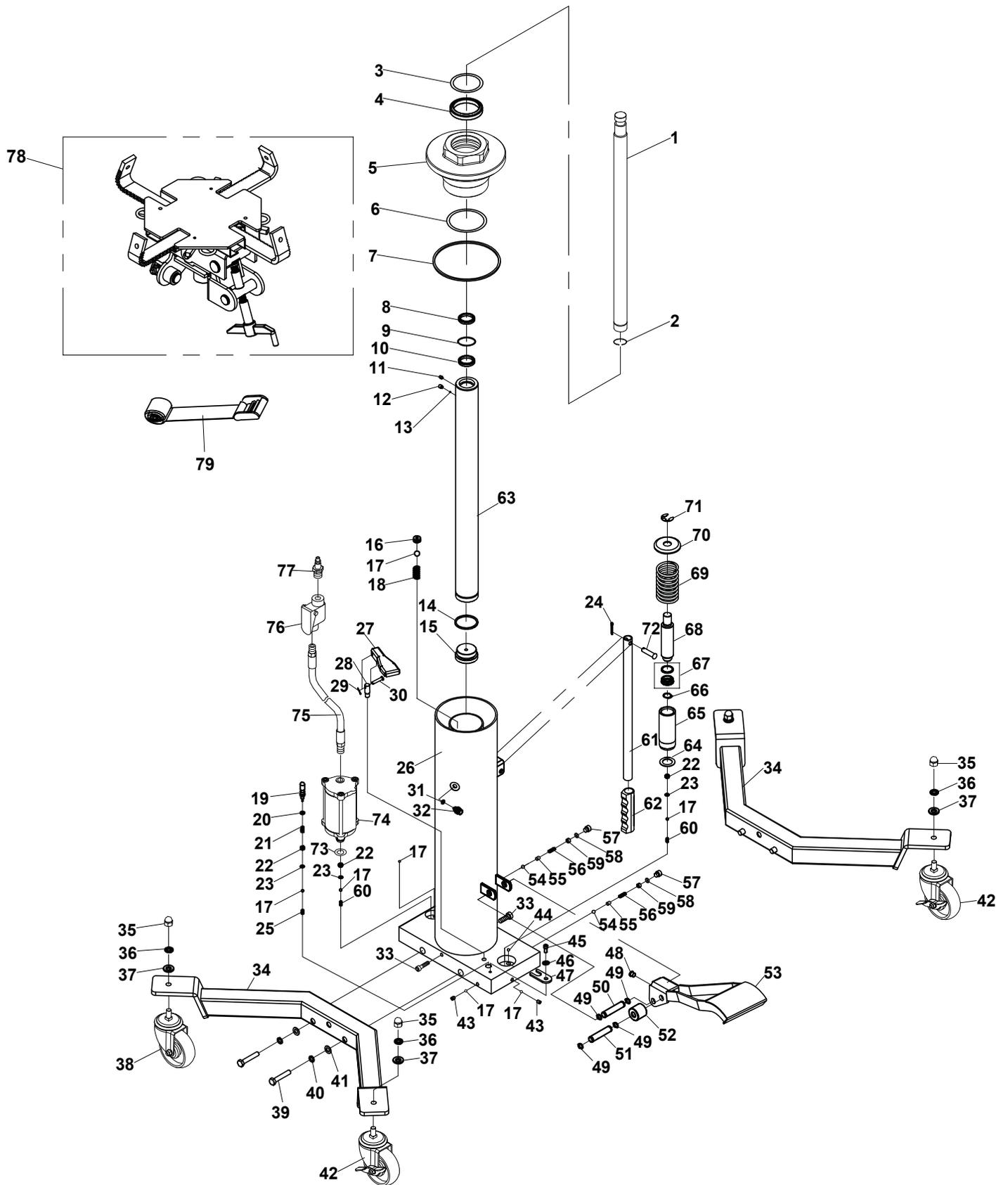


Figure 3 - Replacement Parts Illustration for model ATD-7431B

ITEM#	ORDERING PART#	PART DESCRIPTION	QTY
1		2ND STAGE PISTON	1
2		RETAINER RING	1
3		O-RING	1
4		OIL SEAL	1
5		TOP NUT	1
6		O-RING	1
7		SEAL RING	1
8		DUST RING	1
9		O-RING	1
10		OIL SEAL	1
11		OIL CAP	1
12		SCREW	1
13		STEEL BALL	1
14		RETAINER RING	1
15		COVER	1
16	PRT7431B-01-77	SCREW	1
17	HYDRAULIC	STEEL BALL	7
18	CYLINDER W/ AIR	SPRING	1
19	MOTOR	RELEASE VALVE CORE	1
20		O-RING	1
21		SPRING	1
22		VALVE SEAT	3
23		NYLON WASHER	3
24		R-PIN	1
25		SPRING	1
26		PUMP	1
27		RELEASE PEDAL	1
28		RELEASE PEDAL SEAT	1
29		R-PIN	1
30		PIN	1
31		SEAL RING	1
32		SCREW	1
33		SCREW	2
34		LEG	2
35		NUT	4
36		LOCK WASHER	4
37		FLAT WASHER	4
38	PRT7431B-35-38	CASTER W/BOLT AND WASHER	2
39		BOLT	4

ITEM#	ORDERING PART#	PART DESCRIPTION	QTY
40		LOCK WASHER	4
41		FLAT WASHER	4
42	PRT7431B-35-42	LOCKING CASTER W/BOLT AND WASHER	2
43		SCREW	2
44		STEEL BALL	1
45		SCREW	1
46		LOCK WASHER	1
47		LIMIT PLATE	1
48		RUBBER PLATE	1
49		SHAFT CLAMP	4
50		PIN	1
51		PIN	1
52		ROLLER	1
53		PEDAL	1
54		STEEL BALL	2
55		STEEL BALL SEAT	2
56		SPRING	2
57	PRT7431B-01-77	SCREW	2
58	HYDRAULIC	O-RING	2
59	CYLINDER W/ AIR	SCREW	2
60	MOTOR	SPRING	2
61		HANDLE	1
62		HANDLE SLEEVE	1
63		1ST STAGE PISTON ROD	1
64		WASHER	1
65		PUMP CORE SEAT	1
66		SHAFT CLAMP	1
67		OIL SEAL	1
68		PUMP CORE	1
69		SPRING	1
70		SPRING COVER	1
71		RETAINER RING	1
72		PIN	1
73	PRT7431B-73-74	COPPER WASHER	1
74	AIR MOTOR	AIR MOTOR	1
75	PRT7431B-75-77	AIR HOSE	1
76	AIR HOSE	AIR VALVE	1
77	ASSEMBLY	AIR HOSE CONNECTOR	1
78	PRT7431B-78	SADDLE ASSEMBLY	1
79	PRT7430B-74	NYLON SAFETY STRAP	1

* - PRT7431B-SK - SEAL KIT CONTAINS 3, 4, 6, 8, 9, 10, 20, 23, 31, 58, 64, 67, 73



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

PURCHASED FROM: _____

DATE PURCHASED: _____

INVOICE/RECEIPT NUMBER: _____

Your ATD-7430B or ATD-7431B 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]