



## ATD-7354 50-Ton Air Axle Jack Owner's Manual



### Features:

- High speed air motor quickly raises the load to the desired height
- Air control knob allows precise lifting and lowering
- Heat-treated extension screw allows for maximum lift height
- Heavy-duty wheels with bearings for easy movement
- Includes 2.4", 3.9" and .8" adapters.
- 3 handle positions allow for easy storage, movement and access to lift point
- Meets or exceeds ASME/PASE 2014 standards

### Specifications:

- Capacity (Tons): 50
- Minimum Height: 11.3"
- Maximum Height: 25.08"
- Ram Travel: 5.87"
- Extension Screw: 3.94"
- Handle Length: 48.4"
- Weight: 125.7 lbs.



The safety alert symbol is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or property damage.

**Read this manual and follow all Safety Rules and Operating Instructions before using this product.**

## 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.

- Maintain the jack in good operational condition. Keep it clean for best and safest performance.
- The maximum load is 50 tons. **DO NOT** exceed this rated capacity.
- Use this jack for lifting purposes only. **DO NOT** use it for any other purpose.
- Keep children and unauthorized persons away from the work area.
- Remove poorly fitting clothing. Remove ties, watches, rings and other loose jewelry, and contain long hair.
- Wear ANSI approved safety goggles when operating the jack.
- Keep proper balance and footing, wear nonslip footwear and do not overreach.
- Only use this jack on a surface that is stable, level, dry, not slippery, and capable of sustaining the load.
- Keep your working surface clean, tidy and free from unrelated materials. Ensure that there is adequate lighting.
- Before lifting a vehicle, apply the emergency brake and chock all wheels in front and behind.
- Immediately after lifting, support the load with appropriate supporting equipment such as jack stands of adequate capacity. **DO NOT** work under a load which is supported only by a jack.
- Before lowering load ensure that there are no obstructions underneath and that all persons are standing clear.
- **DO NOT** attempt to move the load while on the jack. The jack must only be used in a static position for lifting and lowering loads. Ensure that the load remains stable at all times.
- **DO NOT** use the jack if damaged, any suspect parts are noted or it has been subjected to a shock load.
- **DO NOT** operate the jack when you are tired or under the influence of alcohol or drugs.
- **DO NOT** allow untrained persons to operate the jack.
- **DO NOT** make any modifications to the jack.
- **DO NOT** use brake fluid or any other improper fluid and avoid mixing different types of oil when adding hydraulic oil. Only a good quality hydraulic jack oil can be used. We recommend Mobil DTE-13M or equivalent.
- **DO NOT** expose the jack to rain or any other kind of bad weather.
- If the jack needs to be repaired and/or there are any parts that need to be replaced, have it repaired by authorized technicians and only use the replacement parts supplied by the manufacturer.



**WARNING:** The warnings, cautions 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.

## PRODUCT DESCRIPTION

Hydraulic Axle Jacks are designed to lift, but not support, rated capacity partial vehicle loads consisting of one end of a vehicle. Immediately after lifting, support loads with a pair of appropriately rated jack stands.

# ASSEMBLY INSTRUCTIONS

1. Handle assembly:
  - a) Assemble handle (22) by sliding top handle half into bottom handle half and securing with screw (S15).
  - b) Tie rod (S11) threads into upper tie rod (S7) and into lower slotted rod (S12) and fasten with nuts (S8)
  - c) Ensure R-Pin (S10) is in place near the bottom of the handle assembly.
  - d) Nuts (S8) can be adjusted to give you precision air control. (See figure 1 below)
2. Insert Handle (22) into the Handle socket (12) and secure with bolt (13). (See figure 2 below)
3. Adapter bracket mounts to handle by sliding the U-Bolts (24) around the handle assembly (22) and securing with nuts (25). Adapters (26, 27 and 28) can be stored here for convenience.

*\*Note: for more detail on the above steps, please refer to exploded view drawings on pages 7 & 9.*

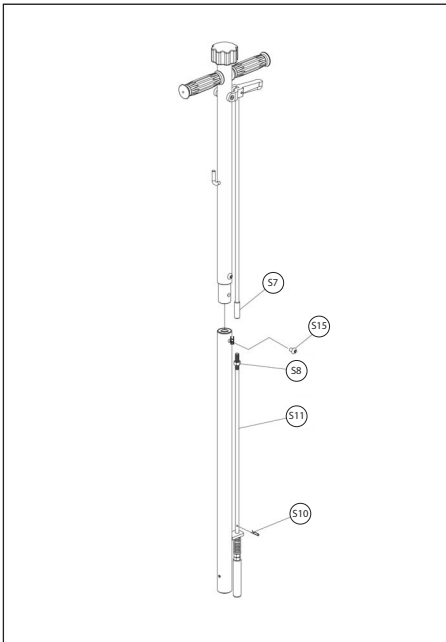


Figure 1

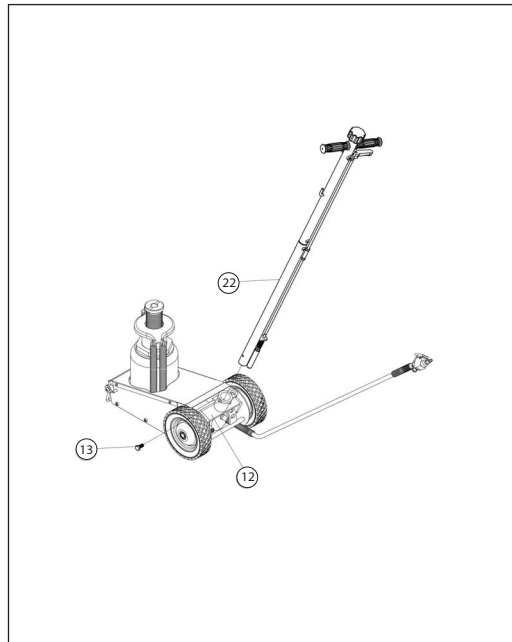


Figure 2

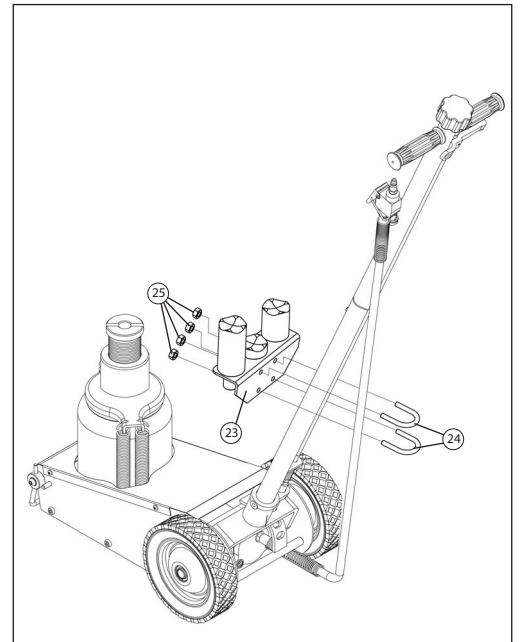


Figure 3

## Before Use

1. Verify that the product and application are compatible, if in doubt call ATD Tools, Inc. Technical Service.
2. Before using this product, read the operator's manual completely and familiarize yourself thoroughly with the product, its components and recognize the hazards associated with its use.
3. To familiarize yourself with basic operation, locate and turn the release valve (handle knob):
  - a. *Clockwise* until firm resistance is felt to further turning. This is the '**CLOSED**' release valve position used to **raise** the load.
  - b. *Counterclockwise*, no more than 1 full turn from closed position. This is the '**OPEN**' release valve position used to **lower** the load. The further the release valve is turned counterclockwise, the faster the load descends.
4. With ram fully lowered, remove oil filler plug. Check oil level. Proper oil level should be just below the rim of the opening. Reinstall oil filler plug.
5. Pour a teaspoon of good quality air tool lubricant into the air supply inlet of the lift control valve. Connect to air supply, then squeeze the lift control valve for 3 seconds to evenly distribute lubricant.

**NOTICE:** These models are equipped with 1/4" NPT air couplers. If installing a different air coupler, ensure thread tape or compound is used on connections. To ensure dependable, trouble-free operation an in line air dryer and oiler is recommended.

6. Ensure that the jack rolls freely. Raise and lower the unloaded ram throughout the lifting range before putting into service to ensure the jack operates smoothly. Replace worn or damaged parts and assemblies with ATD Tools, Inc. authorized replacement parts only.

## Bleeding/Venting Trapped Air

1. Open oil filler plug.
2. Open release valve.
3. Activate air motor to vent air for no less than 10 seconds.
4. Check oil level and reinstall filler plug.

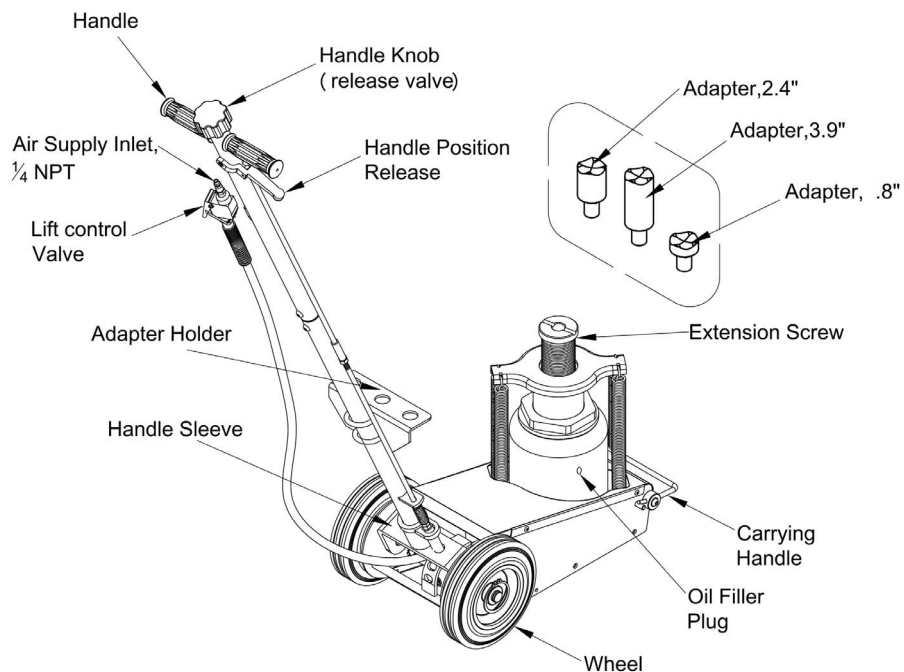


Figure 1 - Typical Truck Jack Nomenclature

## WARNING

- Study, understand, and follow all instructions before operating this device.
- Do not exceed rated capacity.
- Use only on hard, level surface.
- Lifting device only. Immediately after lifting, support the vehicle with appropriate means.
- Do not move or dolly the vehicle while on the jack.
- Lift only on areas of the vehicle as specified by the vehicle manufacturer.
- No alterations shall be made to this product.
- Failure to heed these warnings 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 hydraulic jack.
- **Always** use adequately rated jack stands.
- Chock each unlifted tire in both directions.
- **Do not** use this device to lift, level, lower, support or move a house, mobile home, travel trailer, camper or any building structure.
- **Be alert and sober** when using this product. Do not operate under the influence of drugs or alcohol.



The wheels provided with this jack are for positioning the jack under a load **ONLY!** The wheels are **not** load wheels. Do not try to dolly or move the vehicle with the jack!

## OPERATION (see Fig 1)

### Lifting

**Note:** The jack is equipped with handle position lock. To adjust the handle, release lock device by pulling the lever up, lever is spring loaded and will lock into desired position. Ensure lever locking mechanism is fully engaged before lifting.

1. Connect adequate air source to the air supply inlet.
2. Follow the vehicle manufacturer's recommended guidelines for lifting. Engage the emergency brake and chock each unlifted wheel in both directions to prevent inadvertent vehicle movement.
3. Close the release valve by turning the handle knob clockwise until firm resistance is felt.
4. Center jack saddle under lift point, then squeeze the lift control valve until saddle contacts the lift point. To lift, continue squeezing the lift control valve until load reaches desired height. Simply release your grip on the lift control valve to end lift event.
5. Transfer the load **immediately** to appropriately rated jack stands.



**WARNING:** Only attachments and/or adapters supplied by the manufacturer should be used. Lift only on area of the vehicle as specified by the vehicle manufacturer.



**WARNING: NEVER use hydraulic jack as a stand alone device! ALWAYS transfer the lifted load IMMEDIATELY to a pair of appropriately rated jack stands. Use one pair of jack stands per vehicle. Rated capacity is per pair only! Do not exceed rated capacity.**

### Lowering



**WARNING:** Be sure all tools and personnel are clear before lowering load. **Slowly open the release valve!** The more you turn the handle knob counterclockwise, the faster the load will come down. **Maintain control** of the rate of speed at which the load lowers at all times!

1. Raise load high enough to clear the jack stands.
2. Remove jack stands carefully (**always used in pairs**).
3. **Slowly** turn handle knob counterclockwise, but no more than 1 full turn and slowly lower the load.
4. After removing jack from under the vehicle, fully retract the jack to reduce ram exposure to rust and contamination.

## 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.

### Adding/ Changing Oil

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

1. With saddle fully lowered remove cover plate, then oil filler plug.
2. Lay jack on its side and drain fluid into a suitable container.

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

3. Set jack in its upright, level position.
4. Fill with oil. Proper oil level is just below the rim of the opening. Reinstall the oil filler plug.
5. Perform **Bleeding/Venting Trapped Air** procedure (page 4).

### Lubrication

A periodic coating of light lubricating oil to pivot points, axles and hinges will help to prevent rust and assure that wheels move freely and the pump functions smoothly. To help ensure trouble free operation, an in line air dryer and oiler is recommended.

### 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 ram surfaces!

### Storage

When not in use, store the jack with saddle fully lowered.

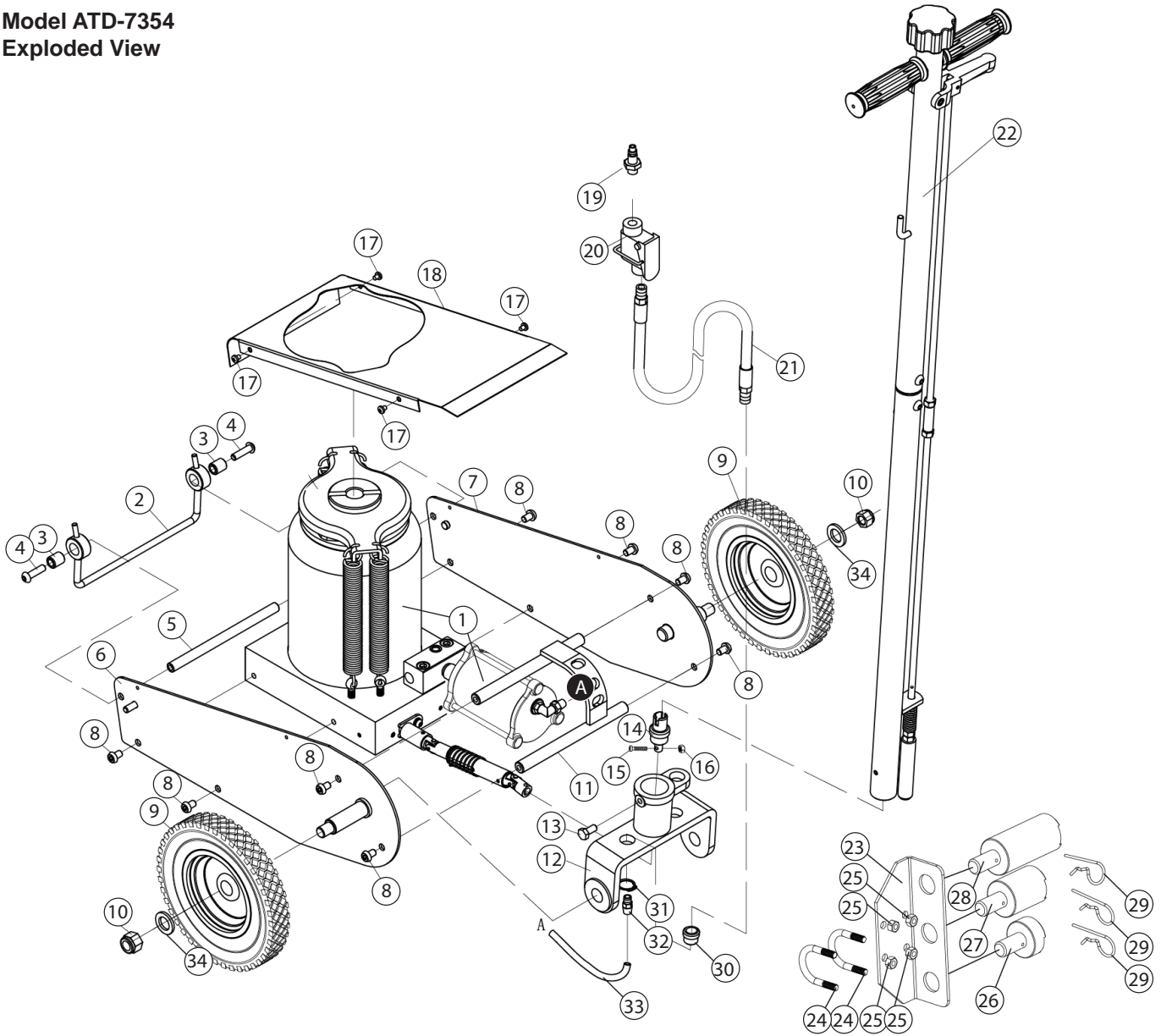
## TROUBLESHOOTING

Symptom	Possible Causes	Corrective Action
Jack will not lift	<ol style="list-style-type: none"> <li>1. Release valve not tightly closed</li> <li>2. Air trapped in system</li> <li>3. Weight capacity exceeded</li> <li>4. Air supply inadequate</li> <li>5. Hydraulic unit malfunction</li> </ol>	<ol style="list-style-type: none"> <li>1. Ensure release valve (#P1) tightly closed</li> <li>2. Follow Bleeding/Venting Trapped Air procedure on page 4</li> <li>3. Consider higher capacity jack</li> <li>4. Ensure adequate air supply</li> <li>5. Discontinue to use the product, contact ATD Tools Technical Service for solution</li> </ol>
Jack will lift, but cannot maintain pressure	<ol style="list-style-type: none"> <li>1. Release valve not tightly closed</li> <li>2. Release valve is broken</li> <li>3. Hydraulic unit malfunction</li> </ol>	<ol style="list-style-type: none"> <li>1. Ensure release valve (#P1) tightly closed</li> <li>2. Replace the release valve (#P1)</li> <li>3. Discontinue to use the product, contact ATD Tools Technical Service for solution</li> </ol>
Jack will not lower after unloading	<ol style="list-style-type: none"> <li>1. Oil reservoir is overfilled</li> <li>2. Release valve is broken</li> <li>3. Moving parts got stuck</li> </ol>	<ol style="list-style-type: none"> <li>1. Drain excessive fluid to proper level</li> <li>2. Replace the release valve (#P1)</li> <li>3. Clean and lubricate moving parts</li> </ol>
Poor lift performance	<ol style="list-style-type: none"> <li>1. Low fluid level</li> <li>2. Air trapped in system</li> </ol>	<ol style="list-style-type: none"> <li>1. Follow adding and changing oil procedure on page 6</li> <li>2. Follow Bleeding/Venting Trapped Air procedure on page 4</li> </ol>
Will not lift to full extension	Low fluid level	Follow adding and changing oil procedure on page 6

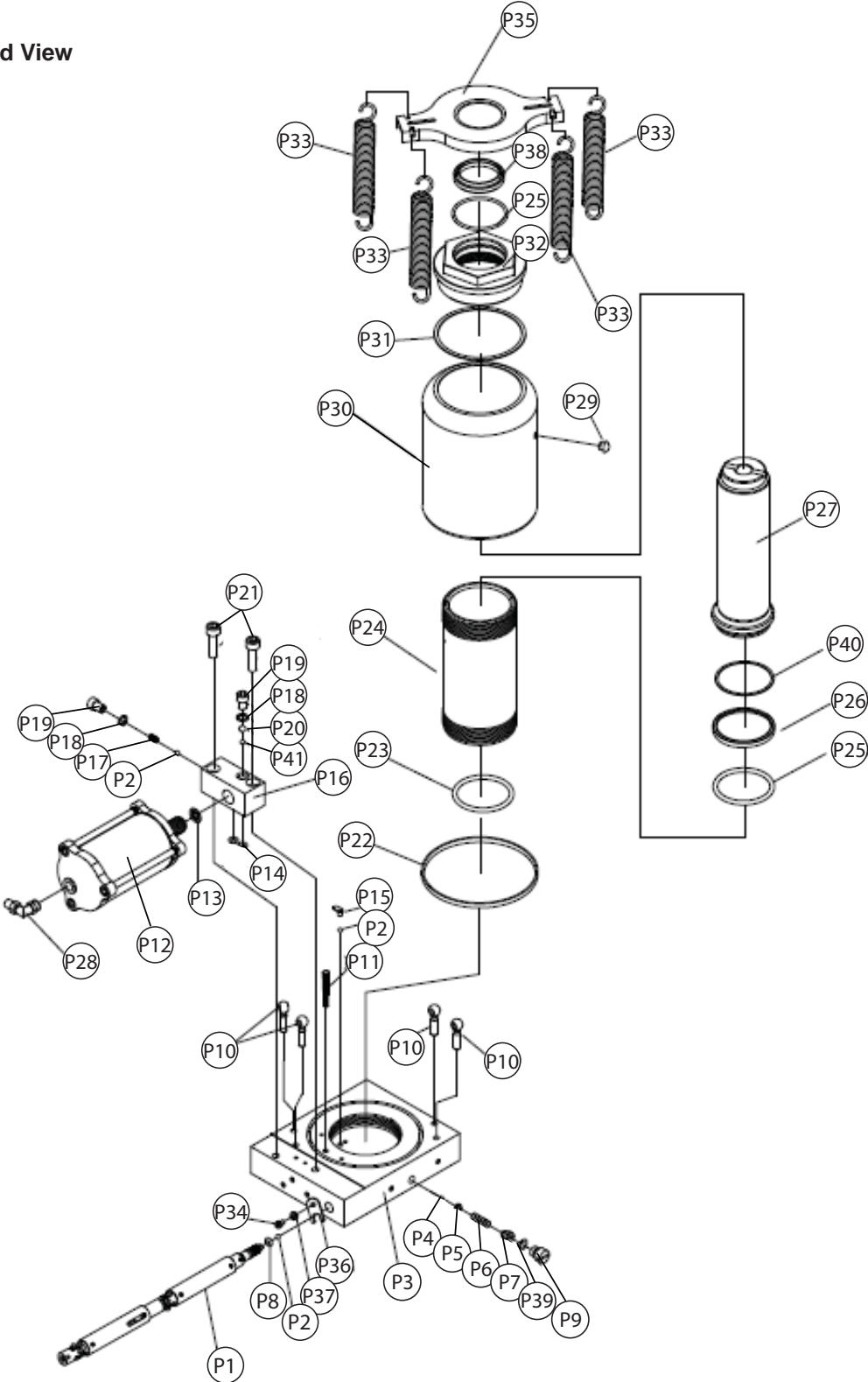
## REPLACEMENT PARTS

Please refer to the Parts drawing when ordering parts. Not all components of this kit are replacement items, but are illustrated as a convenient reference of location and position in the assembly sequence. When ordering parts, give model number, serial number and description. Call your distributor for current pricing.

### Model ATD-7354 Exploded View

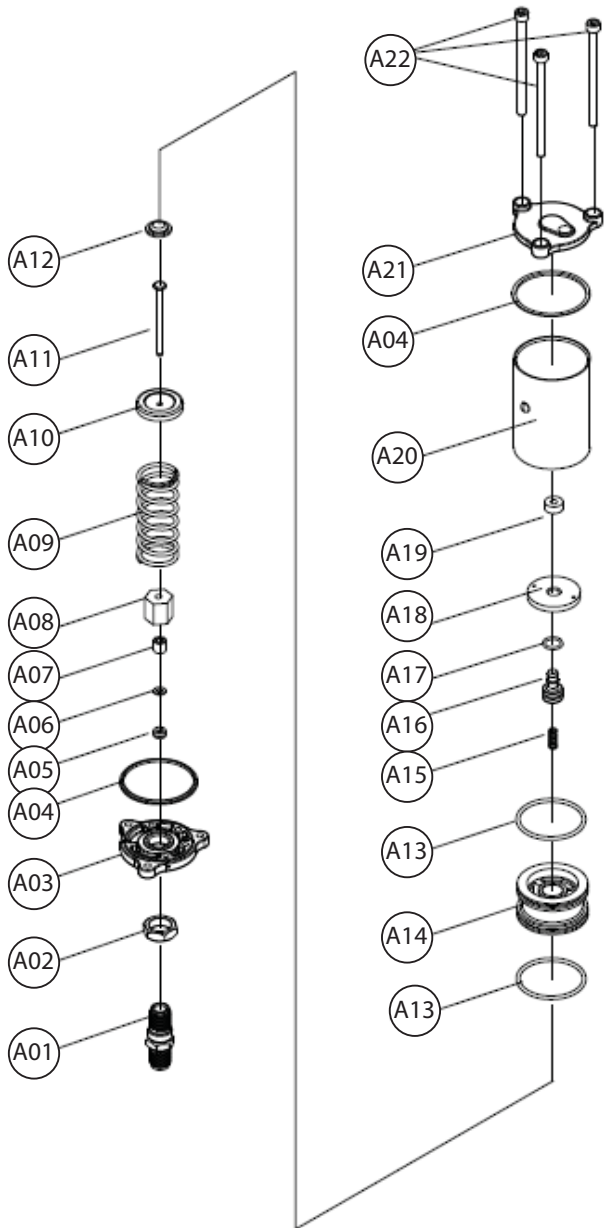


PRT7354-01  
Pump Exploded View

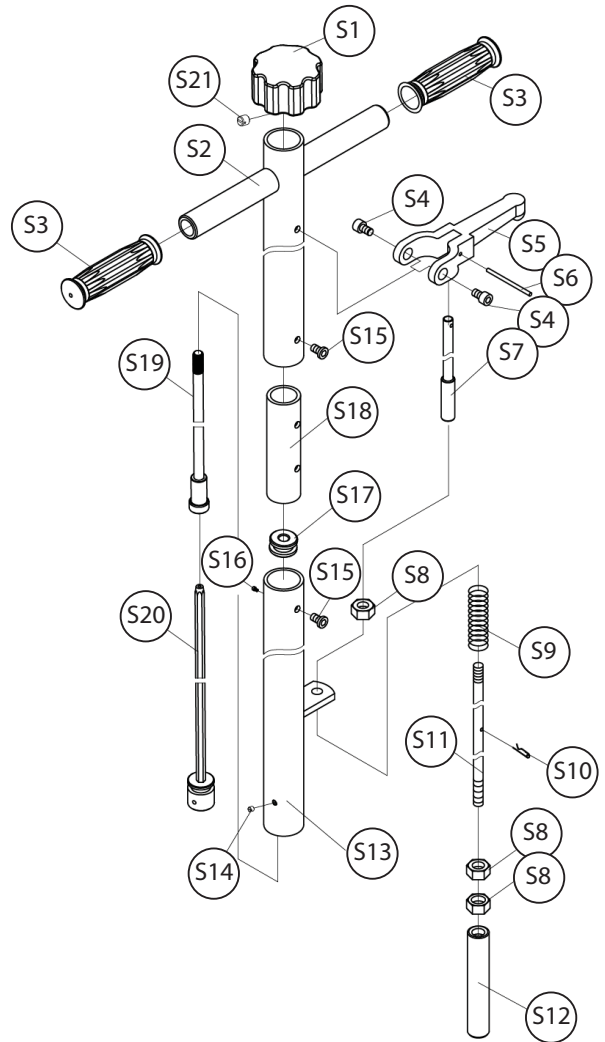




**PRT7354-P12**  
**Air Motor Exploded View**



**PRT7354-22**  
**Handle Exploded View**



ITEM#	ORDERING PART#	PART DESCRIPTION	QTY
1	PRT7354-01	PUMP ASSEMBLY W/AIR MOTOR	1
2	PRT7354-02	HANDLE	1
3	-	BUSHING	2
4	-	SCREW	2
5	-	CONNECTING ROD	1
6	-	LEFT SIDE PLATE	1
7	-	RIGHT SIDE PLATE	1
8	-	SCREW	8
9	PRT7354-09	WHEEL	2
10	-	RETAINING RING	2
11	-	HANDLE PIN	1
12	-	HANDLE SOCKET	1
13	-	BOLT	1
14	-	U-JOINT	1
15	-	SCREW	1
16	-	NUT	1
17	-	SCREW	4

ITEM#	ORDERING PART#	PART DESCRIPTION	QTY
18	-	COVER PLATE	1
19	-	COUPLER	1
20	PRT7354-20	AIR VALVE ASSEMBLY	3
21	PRT7354-21	AIR HOSE	1
22	PRT7354-22	HANDLE ASSEMBLY	1
23	-	ADAPTER BRACKET	1
24	-	U-BOLT	2
25	-	NUT	4
26	PRT7354-26	ADAPTER-I	1
27	PRT7354-27	ADAPTER-II	1
28	PRT7354-28	ADAPTER-III	1
29	-	R-PIN	3
30	PRT7354-30	AIR CONNECTION	1
31	-	RETAINING RING	1
32	PRT7354-32	CONNECTOR	1
33	PRT7354-33	AIR MOTOR SUPPLY HOSE	1
34	-	FLAT WASHER	2

ITEM#	ORDERING PART#	PART DESCRIPTION	QTY
P1	-	JOINT ASSY	1
P2	-	STEEL BALL	4
P3	-	BASE	1
P4	-	STEEL BALL	1
P5	-	BALL SEAT	1
P6	-	SPRING	1
P7	-	SCREW	1
P8	-	O-RING	1
P9	-	SCREW	1
P10	-	EYE BOLT	4
P11	-	FILTER	1
P12	PRT7354-P12	AIR MOTOR	1
P13	-	COPPER RING	1
P14	-	O-RING	2
P15	-	BALL RETAINER	1
P16	-	CONNECTING BLOCK	1
P17	-	SPRING	1
P18	-	COPPER RING	2
P19	-	SCREW	2
P20	-	STEEL BALL	1
P21	-	SCREW	2

ITEM#	ORDERING PART#	PART DESCRIPTION	QTY
P22	-	SEAL RING	1
P23	PRT7354-SK	O-RING	1
P24	-	CYLINDER	1
P25	PRT7354-SK	O-RING	2
P26	PRT7354-SK	BOWL WASHER	1
P27	-	PISTON ROD	1
P28	PRT7354-P28	AIR JOINT	1
P29	-	OIL PLUG	1
P30	-	OIL RESERVOIR	1
P31	-	NYLON RING	1
P32	-	CAP	1
P33	-	SPRING	4
P34	-	SCREW	1
P35	-	SPRING SEAT	1
P36	-	U-LIMITER	1
P37	-	LOCK WASHER	1
P38	-	DUST CAP	1
P39	-	O-RING	1
P40	-	NYLON RING	1
P41	-	STEEL BALL	1

ITEM#	ORDERING PART#	PART DESCRIPTION	QTY
A01	-	PUMP CORE SEAT	1
A02	-	ROUND NUT	1
A03	-	CYLINDER BASE	1
A04	PRT7354-SK	NYLON RING	2
A05	PRT7354-SK	U-RING	1
A06	PRT7354-SK	NYLON RING	1
A07	PRT7354-SK	COPPER RING	1
A08	-	ROUND NUT II	1
A09	-	SPRING	1
A10	-	CAP	1
A11	-	AIR PUMP CORE	1

ITEM#	ORDERING PART#	PART DESCRIPTION	QTY
A12	-	CAP	1
A13	PRT7354-SK	O-RING	2
A14	-	PISTON	1
A15	-	SPRING	1
A16	-	PISTON	1
A17	PRT7354-SK	O-RING	1
A18	-	PISTON CAP	1
A19	PRT7354-SK	SEAL RING	1
A20	-	CYLINDER	1
A21	-	CYLINDER CAP	1
A22	-	SCREW	3

ITEM#	ORDERING PART#	PART DESCRIPTION	QTY
S1	-	RELEASE KNOB	1
S2	-	UPPER HANDLE	1
S3	-	HANDLE GRIP	2
S4	-	SCREW	2
S5	-	HANDLE	1
S6	-	PIN	1
S7	-	TIE ROD	1
S8	-	NUT	1
S9	-	SPRING	1
S10	-	R-PIN	1
S11	-	TIE ROD	1

ITEM#	ORDERING PART#	PART DESCRIPTION	QTY
S12	-	SLOTTED ROD	1
S13	-	LOWER HANDLE	2
S14	-	SCREW	1
S15	-	SCREW	1
S16	-	SCREW	1
S17	-	BUSHING	1
S18	-	HANDLE CONNECTOR	1
S19	-	TIE ROD	1
S20	-	TIE ROD	1
S21	-	SCREW	1