



ATD-7454B

20-Ton Hydraulic Shop Press with Bottle Jack

Owner's Manual



Features:

- Ideal for the removal or installation of gears, bearings, universal joints, pulleys, wrist pins and other various press jobs
- Automatic ram retraction when jack valve is opened
- Multi-position bed for work height adjustment
- Rugged construction with rigid steel channel frames
- Heavy-duty reinforced angle steel bed provides a stable work area
- Hydraulic system is protected from internal damage by a bypass mechanism
- Excellent for bending, bonding or straightening operations
- Meets or exceeds ASME PASE 2019 standards

Specifications:

- Capacity: 20 Tons
- Press Size: 27.5" x 26" x 59.19"
- Min. Working Space: 2.5"
- Max Working Space: 30.81"
- Ram Stroke: 6.31"
- Bed Positions: 8



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.

SAFETY AND GENERAL INFORMATION

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

Inspect before each use. Do not use if broken, bent, cracked or damaged parts (including labels) are noted. Any shop press that appears damaged in any way, or operates abnormally or is missing parts should be removed from service immediately. If you suspect that any component of this product has been subjected to a shock load (a load dropped suddenly, unexpectedly upon it), immediately discontinue use until it has been checked by a service center. It is recommended that an annual inspection be done by qualified personnel. Labels and owner's manuals are available from the manufacturer. Contact your distributor to obtain them.

PRODUCT DESCRIPTION

ATD Tools Shop Presses are designed for automotive, truck, implement, fleet and industrial repair shops where pressing, bending, straightening and forming, is required. Typical applications include installation and removal of alternator and power steering pump bearings, axle bearings, transmission bearings, seals, U-joints and others. It is not intended for use as an assembly table or fixture stand used to secure a large, final component. Unlike presses equipped with a separately mounted pump, the power unit on this press can not be equipped with a pressure gauge, therefore monitoring the load must be done by other means, such as a load cell w/ digital indicator. Whatever means is chosen, the load measuring means should be calibrated annually.

SPECIFICATIONS

Model	Capacity	Press Size (L x W x H)	Max. Working Space	Min. Working Space
ATD-7454B	20-Ton	27-1/2" x 26" x 59-3/16"	30-13/16"	2-1/2"

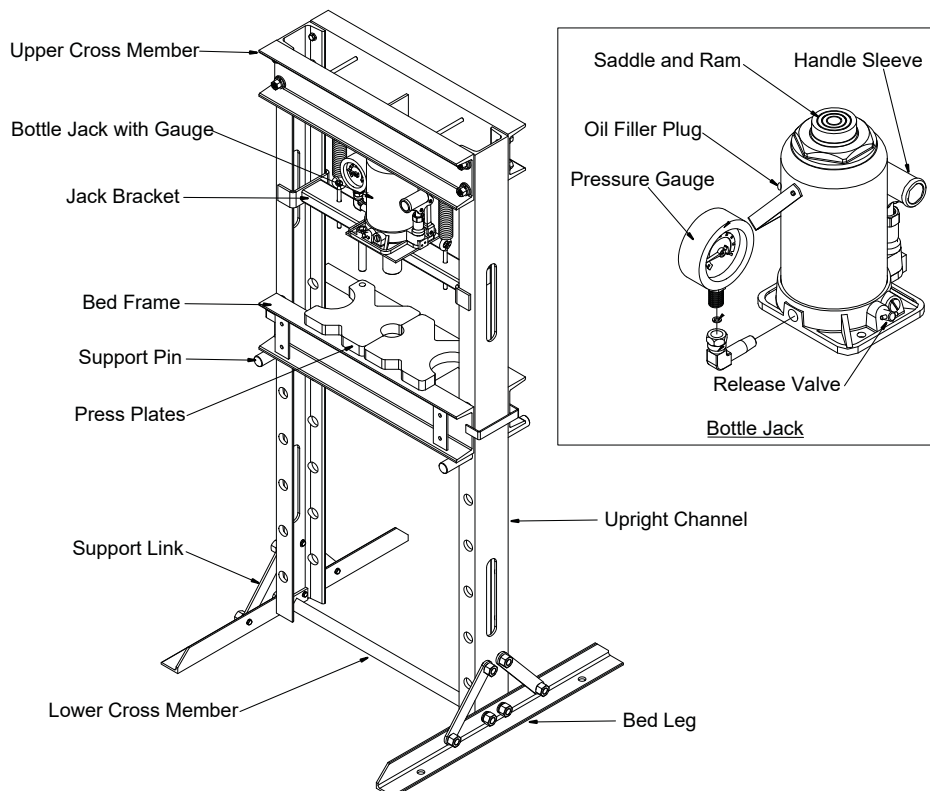


Figure 1 - ATD-7454B Shop Press Components

PREPARATION

Before Use

1. Verify that the product and application are compatible.
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.
 - a. Clockwise until firm resistance is felt to further turning. This is the '**CLOSED**' release valve position, used to extend the ram.
 - b. Counterclockwise but no more than 1 full turn from the closed position. This is the '**OPEN**' release valve position used to retract the ram.
4. With ram fully retracted, remove the oil filler plug. Insert the handle sleeve and pump 6 to 8 strokes. This will help release any pressurized air, which may be trapped within the reservoir. Ensure that the oil level is just below the oil filler hole. Reinstall the oil filler plug.
5. Check that the pump operates smoothly and that the extension screw will thread up/down easily before putting into service. Replace worn or damaged parts and assemblies with ATD Tools authorized replacement parts only.

Bleeding / Venting Trapped Air

With the release valve in the OPEN position (3b above) and with the ram fully lowered, remove the oil filler plug. Insert handle into the handle sleeve; then pump 6 to 8 full strokes. This will help release any pressurized air which may be trapped within the reservoir. Oil level should be even with the bottom of the oil filler hole. Reinstall the oil filler plug.

ASSEMBLY

(Refer to Figure 3)

Note: During assembly, **ONLY HAND TIGHTEN BOLTS** until step 9.

1. Attach lower Cross Member (20) and Base Leg (11) to Upright Channels (8) with Bolt (19), Flat Washer (12), Lock Washer (13) and Nut (14). Remember to **HAND TIGHTEN ONLY**.
2. Attach Support Links (18) to the Base Leg (11) and Upright Channels (8) with Bolt (10), Flat Washer (15), Lock Washer (16) and Nut (17). Remember again - **HAND TIGHTEN ONLY**.
3. Carefully slide Bed Frame (21) down to lowest possible position between the Upright Channels (8).
4. Attach Upper Cross Member (1) to Upright Channels (8) with Bolt (7), Flat Washer (2), Lock Washer (3), and Nut (4). **HAND TIGHTEN ONLY**.
5. Attach the Screw Hooks (26) to the Jack Bracket (25) with Flat Washer (24) and Nut (23). Leave Nut LOOSE to provide easier spring attachment later, in step 7.
6. Slide the Jack Bracket (25) down between Upright Channels (8) onto the Bed Frame (21).
7. Attach one end of the Springs (29) to the two Spring Retaining Rods of the Upper Cross Member (1) and the other end to the Screw Hooks (26) on the Jack Bracket.
8. Carefully place the Bottle Jack (27) on the Jack Bracket (25) between the two Jack Hooks (26) to prevent jack from inadvertently falling out.
9. The moment you've been waiting for - **TIGHTEN ALL APPLICABLE NUT AND BOLT ASSEMBLIES**.
10. Carefully bring the Bed Frame (21) up and secure it with Pins (9).
11. Place the Steel Block (22) on Bed Frame (21).
12. The press is now ready to use. Don't forget to insert the Handle (6) into Handle Sleeve of the Bottle Jack.

NOTICE: Should you need to disassemble, before disassembly, carefully slide bed to its fully lowered position.

Item	Hardware		Qty
2	FLAT WASHER	M16	8
3	LOCK WASHER	M16	8
4	NUT	M16	8
7	BOLT	M16x35	8
10	BOLT	M10x25	8
12	FLAT WASHER	M12	4
13	LOCK WASHER	M12	4
14	NUT	M12	4
15	FLAT WASHER	M10	8
16	LOCK WASHER	M10	8
17	NUT	M10	8
19	BOLT	M12x35	4
23	NUT	M8	2
24	FLAT WASHER	M8	2
28	SCREW HOOK	M8x20	2
31	O-RING	M5	1

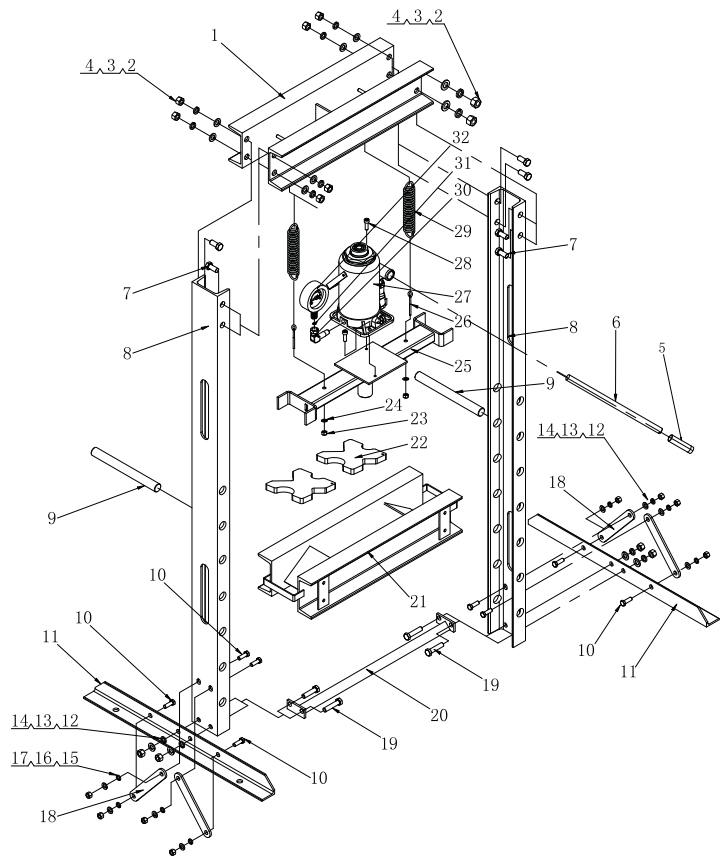


Figure 3 - Assembly Illustration for model ATD-7454B

⚠️ WARNING

- **Study, understand, and follow** all printed materials provided with/on this product before use.
- **Always** use an adequately rated, calibrated load cell with digital indicator to monitor pressing force.
- **Do Not** exceed rated capacity.
- Use this Shop Press **only** on a hard, level surface.
- **Always** wear safety goggles when working on or near this equipment.
- **Always** keep hands, feet and all other body parts away from loading area.
- **Never** leave loaded press unattended.
- **Projectile hazard!** Ensure workpiece and any attachment is centrally loaded and a safety **shield is installed around workpiece** to help protect against projectiles.
- **Do not** modify this device beyond installing a shield to protect against projectiles.
- Ensure the user is familiar with the controls and operational characteristics of this product and aware of the potential hazards associated with its use.
- **Failure to heed these warnings may result in personal injury and/or property damage.**

OPERATION



Projectile Hazard! Wear ANSI approved eye protection. Never stand directly in front of loaded press. Ensure that workpiece is center-loaded and secure. Reduce risk of flying debris by carefully following all operating instructions. Know your press and hazards associated with its use.



Crush Hazard! Keep hands and feet from bed area at all times. Insert the support pins to desired height, then lower the bed. Ensure bed frame is fully rested on the support pins.

1. Place arbor plates on the bed frame as needed.
2. Place workpiece on bed frame, using every precaution necessary to ensure your safety and prevent property damage. Position workpiece in a manner which will not allow it to inadvertently fall from bed.
3. Close release valve by turning it clockwise firmly, insert jack handle into handle sleeve, and pump the handle to extend the ram until ram nears workpiece.
4. Align ram and workpiece to ensure center loading.
5. Apply load to workpiece by pumping handle. **Do not overload workpiece**
6. Monitor the pressure gauge and calculate the applied load using the following formula as basic guideline:

Force = Pressure X Area

Effective Area of model ATD-7454B = 2.0in²

Problem: Determine the applied load in lbs. force on a workpiece being pressed by an ATD-7454B whose pressure gauge is reading 2200 psi.

Solution: 2200 X 2.0= **4,400 lbs.**

8. Stabilize workpiece in a manner which will not allow it to inadvertently fall from the bed once the load is removed, then turn release valve counterclockwise to retract the ram and remove workpiece. Do not turn the release valve counterclockwise more a 1 full turn.



To reduce the risk of personal injury and/or property damage, ensure that the rated working pressure of each pressurized attachment be **equal to or greater** than the rated working pressure developed by the pump.



Use only handle provided by manufacturer. The handle provided with this product will safely engage the release valve of bottle jack and operate the handle sleeve. If handle is worn, operates abnormally, or will not positively engage the release valve, **STOP**, discontinue use of the jack until a factory replacement handle can be acquired.



Unlike presses equipped with a separately mounted pump, the power unit on this press can not be equipped with a pressure gauge, therefore monitoring the load **must** be done by other means, such as a load cell with digital indicator. Whatever means is chosen, the load measuring means should be calibrated annually.



The hydraulic power unit provided with this device is intended to be used as an integral part of this press and not as a stand-alone jacking device separate of the press. **NEVER** use the hydraulic power unit provided with this press for any purpose other than that for which it is intended.

MAINTENANCE

Before each use, inspect press for damage. Do not use if bent, broken, cracked, leaking or otherwise damaged components are noted. Periodically, lightly oil all moving parts, including the pump piston and ram.

Adding/Changing oil to bottle jack

For Bottle Jack model **ATD-7454B**:

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. Mobil DTE 13M or equivalent recommended.

1. For best results, change fluid once a year.
2. Remove jack from press frame.
3. With ram fully lowered and pump piston fully depressed, set jack in its upright, level position. Remove oil filler plug.
4. Drain used fluid into a suitable container
Note: Dispose of hydraulic oil in accordance with local regulations.
5. Fill until oil is level with or just below filler plug hole.

Rust prevention

Check ram and pump piston for signs of rust on a regular basis. Clean as needed with a lint free, oil saturated cloth.

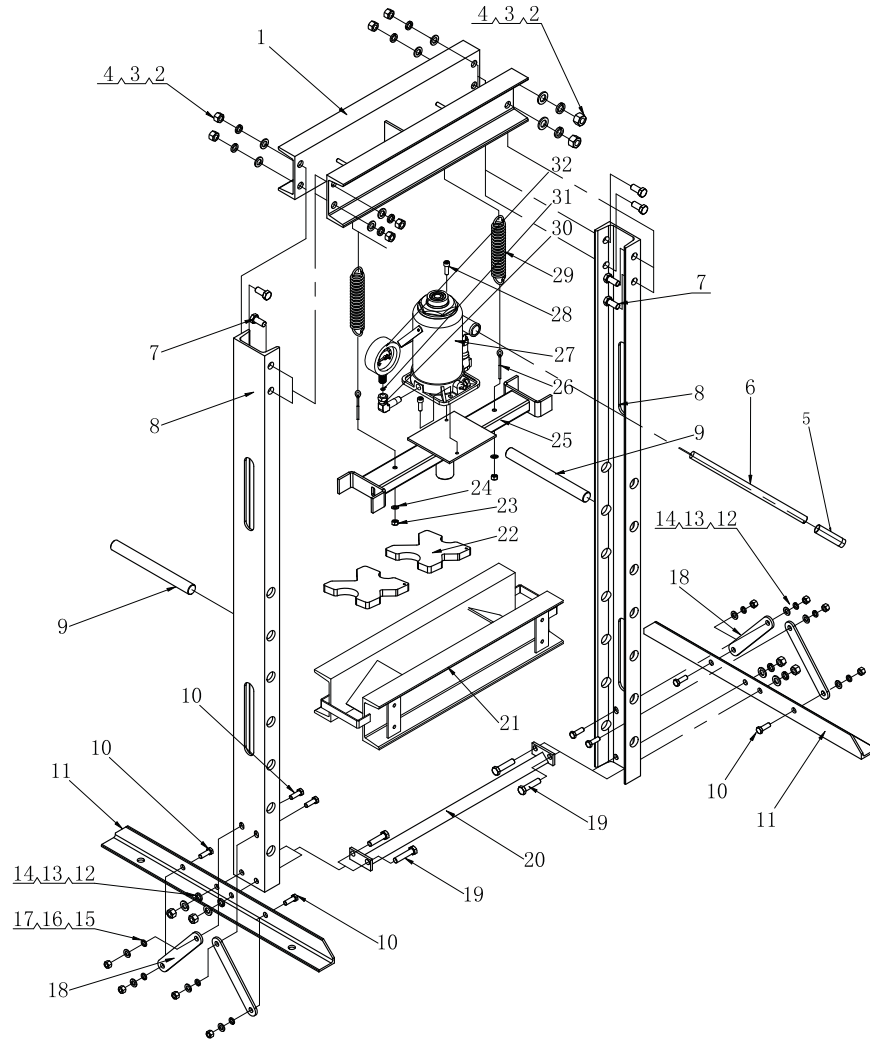
Never use sandpaper or abrasive material on these surface.

TROUBLESHOOTING:

Symptom	Possible Causes	Corrective Action
Ram will not press load	Release valve not tightly closed	Ensure release valve tightly closed
	Overload condition	Remedy overload condition
	Faulty/ Loose couplers	Replace/ tighten couplers
	Oil lever in pump is low	Fill and bleed system
Ram bleeds off after press operation	Release valve not tightly closed	Ensure release valve tightly closed
	Oil lever in pump is low	Fill and bleed system
	Ram or Bottle Jack malfunction	Contact your distributor for replacement
Ram will not retract after unloading	Reservoir overfilled	Drain fluid to proper level
	Linkage binding	Clean and lubricate moving parts
Poor lift performance	Fluid level low	Ensure proper fluid level
	Air trapped in system	With ram fully retracted, remove oil filler plug/screw to let pressurized air escape, then reinstall oil filler plug/screw
Ram will not extend to full extension	Fluid level low	Ensure proper fluid level

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#	DESCRIPTION	QTY
1	PRT7454B-01	UPPER CROSS MEMBER	1
2	PRT7454B-HK	FLAT WASHER	8
3	PRT7454B-HK	LOCK WASHER	8
4	PRT7454B-HK	NUT	8
5	PRT7454B-05-06	HANDLE COVER	1
6	PRT7454B-05-06	HANDLE	1
7	PRT7454B-HK	BOLT	8
8	PRT7454B-08	UPRIGHT CHANNEL	2
9	PRT7454B-09	SUPPORT PIN	2
10	PRT7454B-HK	BOLT	8
11	PRT7454B-11	BASE LEG	2
12	PRT7454B-HK	FLAT WASHER	4
13	PRT7454B-HK	LOCK WASHER	4
14	PRT7454B-HK	NUT	4
15	PRT7454B-HK	FLAT WASHER	8
16	PRT7454B-HK	LOCK WASHER	8

ITEM	ORDERING PART#	DESCRIPTION	QTY
17	PRT7454B-HK	NUT	8
18	PRT7454B-18	SUPPORT LINK	4
19	PRT7454B-HK	BOLT	4
20	PRT7454B-20	LOWER CROSS MEMBER	1
21	PRT7454B-21	BED FRAME	1
22	PRT7454B-22	ARBOR PLATES (PAIR)	1
23	PRT7454B-HK	NUT	2
24	PRT7454B-24	FLAT WASHER	2
25	PRT7454B-25	JACK BRACKET	1
26	PRT7454B-29	SCREW	2
27	PRT7454B-27	BOTTLE JACK W/GAUGE	1
28	PRT7454B-HK	SCREW HOOK	2
29	PRT7454B-29	SPRING	2
30	PRT7454B-30-32	GAUGE ADAPTER	1
31	PRT7454B-30-32	O-RING	1
32	PRT7454B-30-32	GAUGE	1

*PRT7454B-HK INCLUDES ITEM#s 2, 3, 4, 7, 10, 12, 13, 14, 15, 16, 17, 19, 23, 28 & 31

PREVENTATIVE MAINTENANCE RECORD LOG

DATE	MAINTENANCE PERFORMED



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

PURCHASED FROM: _____

DATE PURCHASED: _____

INVOICE/RECEIPT NUMBER: _____

Your ATD-7454B 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]