



# MODEL T27033 1/2-TON ARBOR PRESS INSTRUCTIONS

For questions or help with this product contact Tech Support at (570) 546-9663 or techsupport@grizzly.com

## Introduction

This arbor press is designed to perform small press jobs, such as staking, riveting, and installing/removing bearings. The ram accepts dies, inserts, and other tooling for custom work.

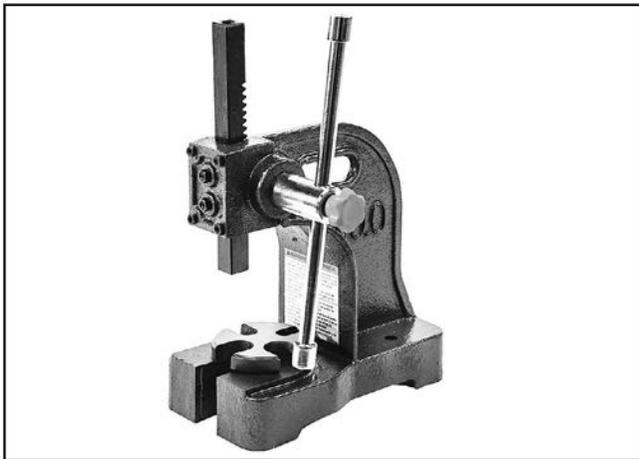


Figure 1. Model T27033 arbor press.

## Specifications

Press Capacity .....	1/2 Ton
Throat Depth.....	4 5/8"
Anvil Diameter .....	3 3/8"
Maximum Workpiece Height .....	4 5/8"
Full Range of Movement .....	4 5/8"
Ram Size .....	3/4" x 3/4"
Base Size .....	5 1/8" W x 9 3/8" D
Overall Size .....	5 1/8" W x 9 3/8" D x 9 3/8" H
Product Weight.....	17.5 lbs.

## NOTICE

Do not use this arbor press for operations beyond its capacity or modify it for increased leverage.

## Component Inventory

Description	Qty
A. Sliding Handle Assembly .....	1
B. Lock Knob .....	1
C. Table.....	1
D. Square Die .....	1
E. Cone-Point Die.....	1
F. Round-Nose Die .....	1

**⚠ WARNING**  
Material under pressure could fly apart and cause impact injuries. Always wear safety glasses when using this press.

Keep hands and fingers away from the ram when applying downward pressure to avoid pinching injuries.

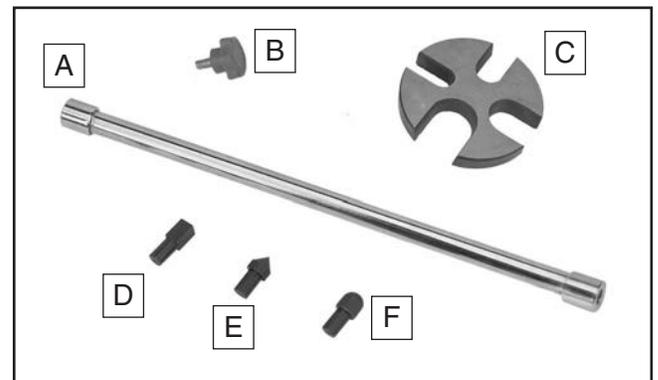


Figure 2. Component inventory.

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## Cleanup

The unpainted surfaces of your machine are coated with a heavy-duty rust preventative that prevents corrosion during shipment and storage. This rust preventative works extremely well, but it will take a little time to clean.

Be patient and do a thorough job cleaning your machine. The time you spend doing this now will give you a better appreciation for the proper care of your machine's unpainted surfaces.

There are many ways to remove this rust preventative, but the following steps work well in a wide variety of situations. Always follow the manufacturer's instructions with any cleaning product you use and make sure you work in a well-ventilated area to minimize exposure to toxic fumes.

### Before cleaning, gather the following:

- Disposable Rags
- Cleaner/degreaser (WD•40 works well)
- Safety glasses & disposable gloves
- Putty knife (optional)

### Basic steps for removing rust preventative:

1. Put on safety glasses.
2. Coat rust preventative with liberal amount of cleaner/degreaser (see **Page 8** for offerings from Grizzly), then let it soak for 5–10 minutes.
3. Wipe off surfaces. If cleaner/degreaser is effective, rust preventative will wipe off easily. Use a putty knife to scrape off as much as possible, then wipe off remainder with rag.
4. Repeat **Steps 2–3** as necessary until clean, then coat all unpainted surfaces with a quality metal protectant (see **Accessories** on **Page 8**).

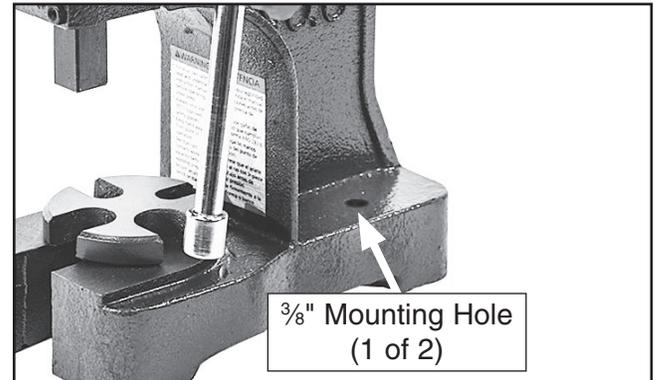
## NOTICE

Avoid chlorine-based solvents, such as acetone or brake parts cleaner, that may damage painted surfaces.

## Mounting

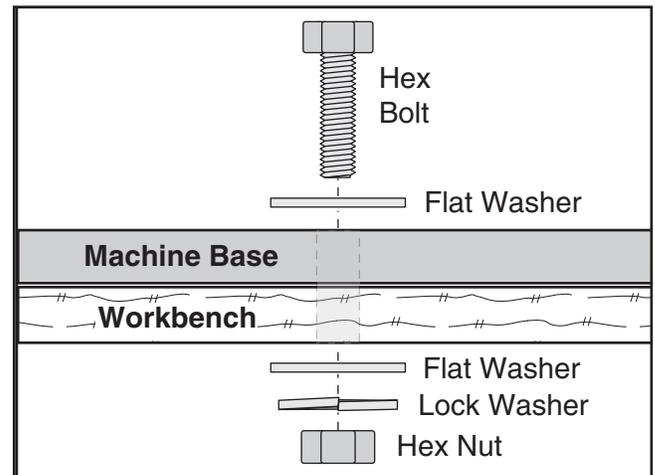
Because of the dynamic forces involved in operating the arbor press, we strongly recommend that you mount it to a benchtop or other stable work surface to prevent it from moving during operation and causing accidental injury or damage.

The base of the arbor press has  $\frac{3}{8}$ " mounting holes on each side of the base (see **Figure 3**).



**Figure 3.** Mounting hole (1 of 2).

The strongest mounting option is a "Through Mount" (see example below) where holes are drilled all the way through the workbench—and hex bolts, washers, and hex nuts are used to secure the machine in place.



**Figure 4.** Example of a "Through Mount" setup.



Another option is a "Direct Mount" (see example below) where the machine is secured directly to the workbench with lag screws and washers.

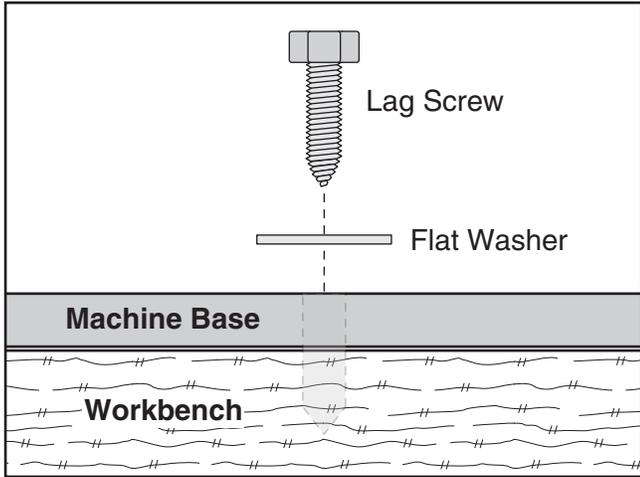


Figure 5. Example of a "Direct Mount" setup.

### Assembly

<b>Tool Needed</b>	<b>Qty</b>
Hex Wrench 4mm.....	1

#### To assemble arbor press:

1. Remove cap screw and end-cap from one end of sliding handle assembly (see Figure 6).

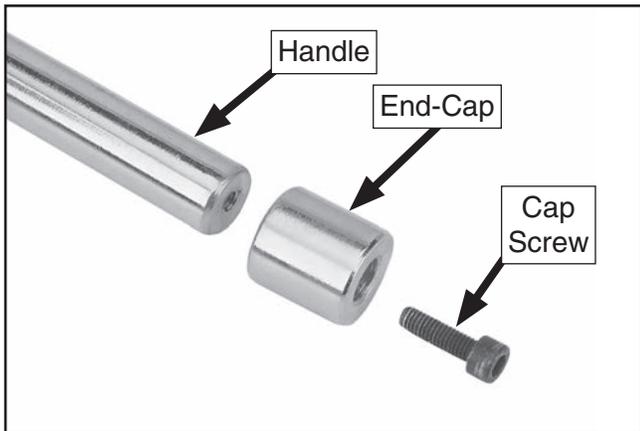


Figure 6. Handle end-cap removed.

2. Insert handle through hub and re-install end-cap, as shown in Figure 7.

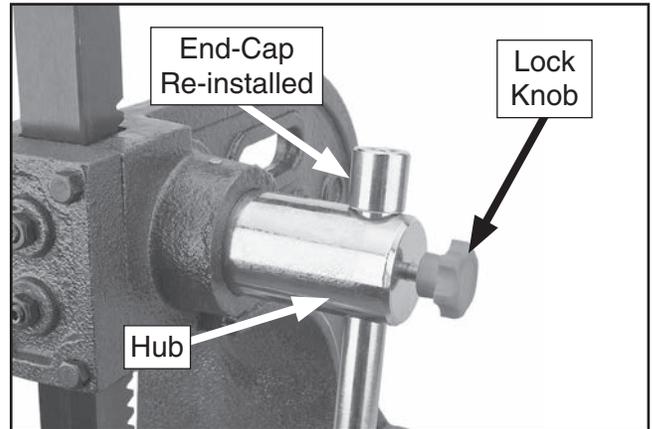


Figure 7. Sliding handle properly installed in hub.

3. Thread lock knob into hub, as shown in Figure 7. When tightened, knob secures handle in position relative to hub.
4. Raise ram by rotating handle, and insert table plate into base (see Figure 8).
5. Rotate table plate to align desired opening size under ram (see Figure 8).

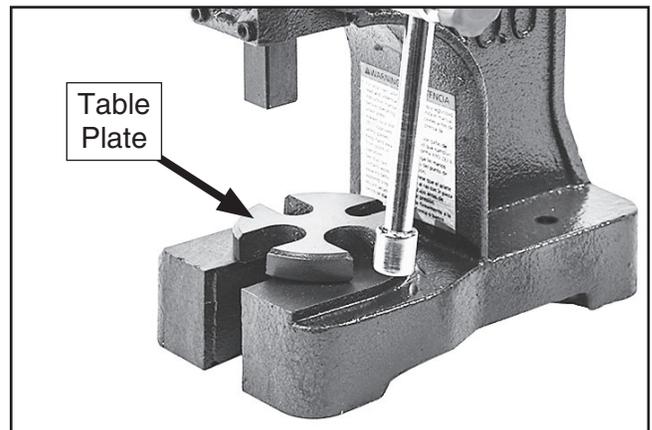
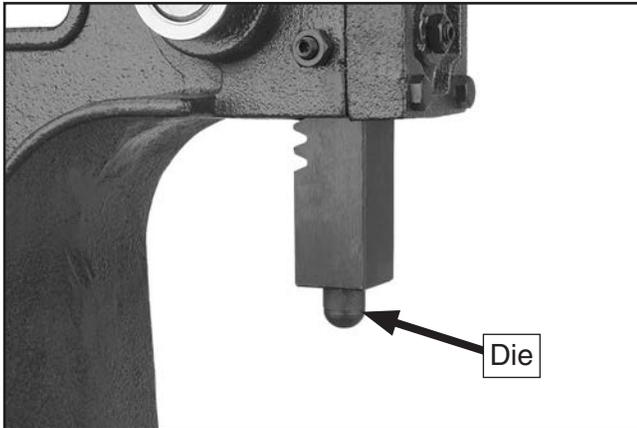


Figure 8. Table plate installed.



## Installing Dies/Tooling

The included dies (or custom tooling) are inserted into the ram bore, which has a 1/2" diameter, 1/2" depth, and a magnet inside bore to hold the tooling in place (see **Figure 9** for an example).



**Figure 9.** Example of die installed in ram.

## Flipping Ram

The ram can be flipped end-over-end, to switch between the solid end and the end with the bore, depending on the operation.

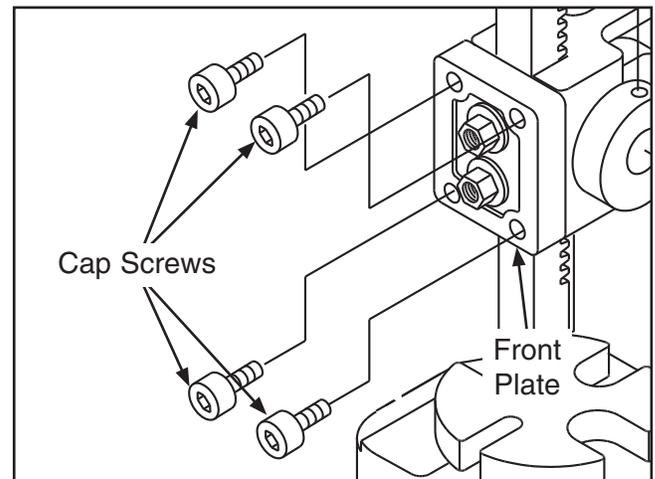
### Tool Needed

**Qty**

Hex Wrench 4mm..... 1

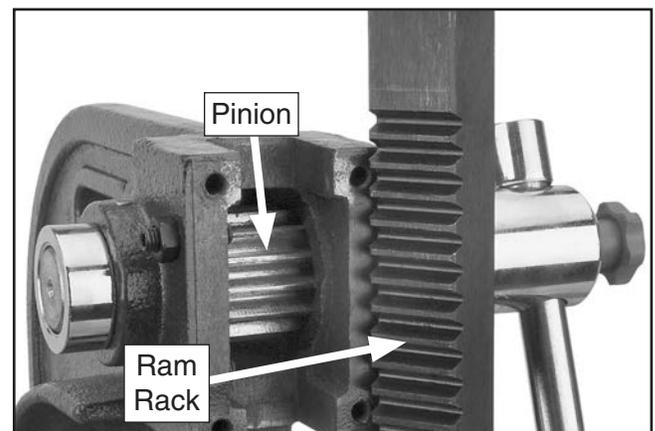
### To flip ram:

1. Remove four cap screws shown in **Figure 10**, and remove front plate (see **Figure 11**).



**Figure 10.** Removing cap screws that secure front plate.

2. Remove ram rack from press, then flip it end-over-end, and re-install, ensuring rack and pinion mesh together properly.



**Figure 11.** Ram rack and pinion.

3. Re-install front plate.



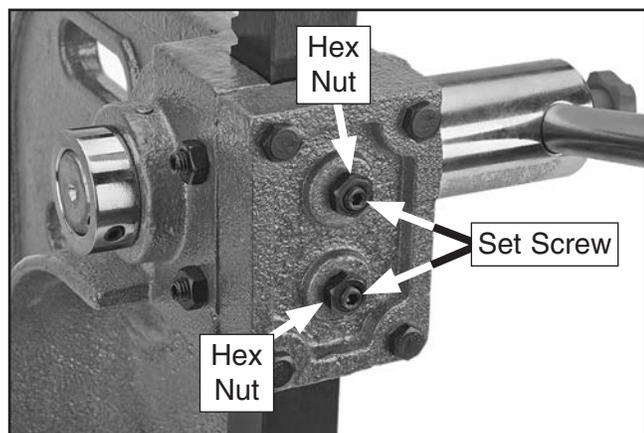
## Adjusting Ram Play

The ideal adjustment allows the ram to move with very little play, but not be overly stiff during pressing operation. Set screws on the front and left side of the ram housing (see **Figure 12**) adjust the amount of ram free-play.

Tools Needed	Qty
Wrench or Socket 10mm.....	1
Hex Wrench 3mm.....	1

### To adjust ram play:

1. Loosen hex nuts on set screws (see **Figure 12**).



**Figure 12.** Example of ram free-play adjustment controls.

2. Equally adjust each pair of set screws a small amount in same direction (clockwise to decrease free-play, or counterclockwise to increase free-play).
3. Use sliding handle to move ram up and down a few times. Adjust set screws as necessary.
4. When you are satisfied with ram free-play, retighten hex nuts without moving set screws.

## Cleaning & Protecting

Wipe down the arbor press with a clean shop rag and mineral spirits. When dry, protect the unpainted surfaces by applying a thin film of ISO 32 oil (see **Page 8**).

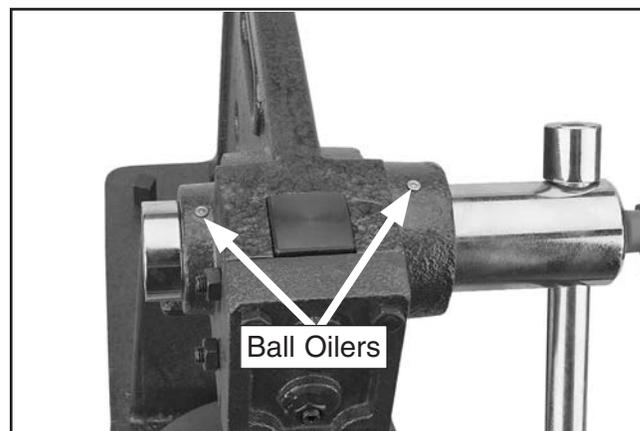
## Lubrication

Proper lubrication allows the arbor press to function smoothly during operation. Lubrication is required when arbor press is no longer smooth through its full range of motion. Ensure ram free play is adjusted properly before lubricating components.

### Ball Oilers

Oil Type .....	Model T23963 or ISO 32 Equivalent
Oil Amount.....	2 Pumps
Lubrication Frequency .....	As Needed

Proper lubrication of the two ball oilers (see **Figure 13**) is done with a pump-type oil can.



**Figure 13.** Ball oiler locations for lubricating.

Push the tip of the oil can nozzle against the ball oiler to create a hydraulic seal, then pump the oil can twice. If you see sludge and contaminants coming out of the lubrication area, continue pumping the oil can until the oil runs clear. Move the components through the entire path of travel a few times to distribute the oil. When finished, wipe away the excess oil.



### Rack and Pinion

Grease.....Model T23964 or NLGI#2 Equivalent  
Grease Amount ..... As Needed  
Lubrication Frequency..... As Needed

### Tool Needed

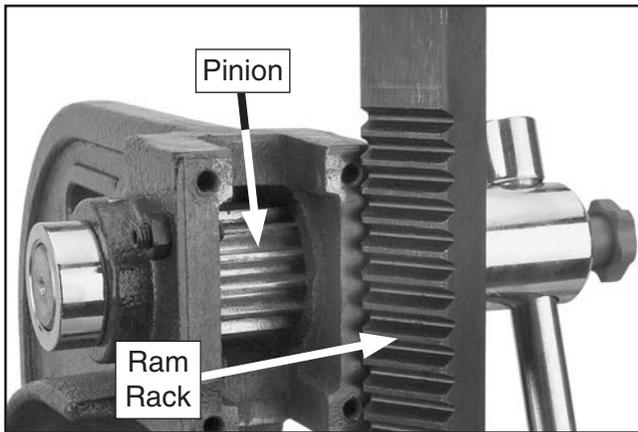
Qty

Hex Wrench 4mm..... 1

### To lubricate rack and pinion:

1. Remove front plate and ram to expose rack and pinion (see **Figure 14**).

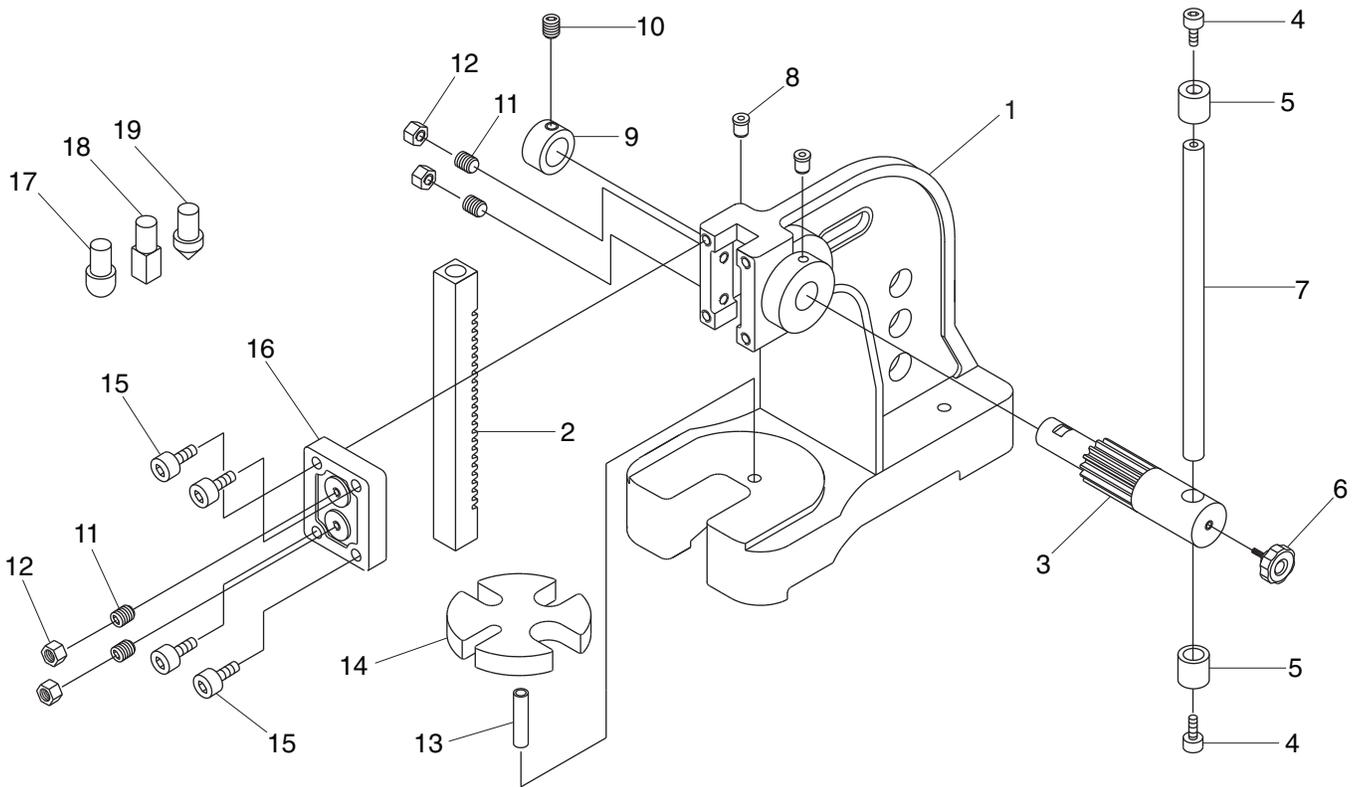
2. Use shop rags, stiff brush, and mineral spirits to clean teeth of ram rack and pinion.
3. When dry, apply a light coat of grease to ram rack and pinion teeth.
4. Re-install ram rack and front plate.
5. Use sliding handle to move ram rack up and down several times to distribute grease.



**Figure 14.** Rack and pinion components to be greased



# Parts



## REF PART # DESCRIPTION

1	PT27033001	BODY
2	PT27033002	RAM
3	PT27033003	PINION SHAFT
4	PT27033004	CAP SCREW M6-1 X 16
5	PT27033005	HANDLE END-CAP
6	PT27033006	KNOB BOLT M8-1.25 X 14
7	PT27033007	SLIDING HANDLE
8	PT27033008	BALL OILER 6MM PRESS-IN
9	PT27033009	LOCK COLLAR
10	PT27033010	SET SCREW M8-1.25 X 8

## REF PART # DESCRIPTION

11	PT27033011	SET SCREW M6-1 X 20
12	PT27033012	HEX NUT M6-1
13	PT27033013	TABLE PIN
14	PT27033014	TABLE
15	PT27033015	CAP SCREW M6-1 X 25
16	PT27033016	FRONT PLATE
17	PT27033017	DIE, ROUND NOSE
18	PT27033018	DIE, SQUARE HEAD
19	PT27033019	DIE, CONE POINT



## Accessories

### **! WARNING**

Installing unapproved accessories may cause machine to malfunction, resulting in serious personal injury or machine damage. To reduce this risk, only install accessories recommended for this machine by Grizzly.

### **NOTICE**

Refer to our website or latest catalog for additional recommended accessories.

#### High-Pressure Oil Can H7615—Steel Nozzle

Whether you are lubricating cutting tools or maintaining machinery in top operating condition, you will appreciate this High-Pressure Oil Can. Holds 5 ounces of oil and is trigger-activated.



Figure 15. High-pressure oil can.

#### G2544—Solvent Cleaner & Degreaser T23692—Orange Power Degreaser Great products for removing shipping grease.



Figure 16. Cleaner/degreasers.

**T26685—ISO 32 Moly-D Machine Oil, 1 gal.**  
Moly-D oils are some of the best we've found for maintaining the critical components of machinery because they tend to resist run-off and maintain their lubricity under a variety of conditions—as well as reduce chatter or slip.



Figure 17. ISO 32 machine oil.

**T23964—Armor Plate with Moly-D Multi-Purpose Grease, 14.5 oz. (NLGI#2 Equivalent)**  
Armor Plate with Moly-D is a rich green moly grease that provides excellent stability and unsurpassed performance under a wide range of temperatures and operating conditions. Armor Plate grease is entirely unique due to the fact that the moly in it is solubilized, which provides superior performance to other greases containing the black solid form of molybdenum disulfide.



Figure 18. T23964 Armor Plate with Moly-D Multi-Purpose Grease

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