



# MODEL T1184/T1185/T1186 RATCHETING ARBOR PRESS INSTRUCTIONS

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

## Introduction

This machine is designed to perform small press jobs, such as staking, riveting, and installing/removing bearings.



Figure 1. Model T1184 arbor press.

## Specifications

### T1184

Press Capacity ..... 2 Tons  
Throat Depth..... 7 $\frac{1}{2}$ "  
Maximum Workpiece Height ..... 8 $\frac{1}{2}$ "  
Ram Size ..... 1 $\frac{3}{4}$ " x 1 $\frac{3}{16}$ "  
Base Size ..... 6 $\frac{3}{4}$ " W x 15 $\frac{3}{4}$ " D  
Overall Size ..... 6 $\frac{3}{4}$ " W x 7 $\frac{1}{2}$ " D x 17 $\frac{1}{2}$ " H  
Weight ..... 67 lbs.

### T1185

Press Capacity ..... 3 Tons  
Throat Depth..... 8 $\frac{1}{4}$ "  
Maximum Workpiece Height ..... 12 $\frac{1}{4}$ "  
Ram Size ..... 2 $\frac{5}{16}$ " x 1 $\frac{5}{8}$ "  
Base Size ..... 8" W x 18" D  
Overall Size ..... 8" W x 8 $\frac{1}{2}$ " D x 23" H  
Weight ..... 106 lbs.

### T1186

Press Capacity ..... 5 Tons  
Throat Depth..... 12 $\frac{1}{4}$ "  
Maximum Workpiece Height ..... 18 $\frac{1}{8}$ "  
Ram Size ..... 2 $\frac{7}{8}$ " x 2 $\frac{3}{16}$ "  
Base Size ..... 9 $\frac{1}{2}$ " W x 26" D  
Overall Size ..... 9 $\frac{1}{2}$ " W x 12 $\frac{1}{4}$ " D x 32 $\frac{1}{4}$ " H  
Weight ..... 265 lbs.

	<p><b>! WARNING</b> Material under pressure could fly apart and cause impact injuries. Always wear safety glasses when using this press.</p>
	<p>Keep hands and fingers away from ram when applying downward pressure to avoid pinching injuries.</p>

<h2>NOTICE</h2> <p>This arbor press is designed to only be used for small parts. Do not use this arbor press for operations beyond its capacity or modify it for increased leverage.</p>
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## Small Item Inventory

Description	Qty
A. Handwheel Handle .....	1
B. Handle .....	1
C. Hex Wrenches 5, 6, 8mm.....	1 Ea.
D. Open-Ended Wrench 14/17mm .....	1

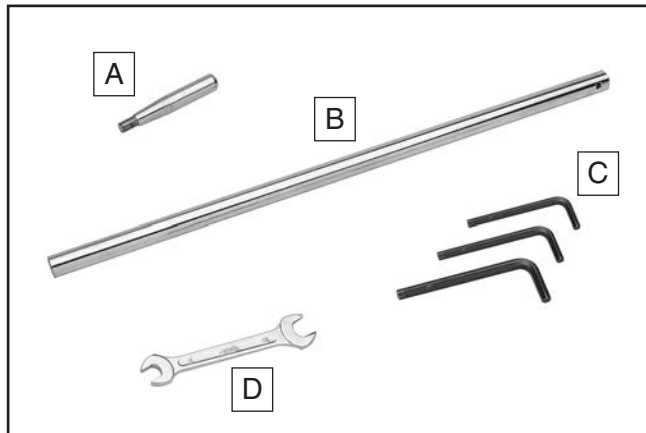


Figure 2. Small item inventory.

	<p><b>!WARNING</b>  <b>HEAVY LIFT!</b>            Straining or crushing injury may occur from improperly lifting the arbor press. To reduce this risk, get help from other people or lifting equipment rated for weight of the arbor press.</p>
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	<p><b>!WARNING</b>  <b>SUFFOCATION HAZARD!</b>            Keep children and pets away from plastic bags or packing materials shipped with this machine.</p>
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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
- Plastic paint scraper (optional)

### Basic steps for removing rust preventative:

1. Put on safety glasses.
2. Coat rust preventative with a 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 your cleaner/degreaser is effective, rust preventative will wipe off easily. If you have a plastic paint scraper, scrape off as much as you can first, then wipe off the rest with a rag.
4. Repeat **Steps 2–3** as necessary until clean, then coat all unpainted surfaces with a quality metal protectant to prevent rust.

## NOTICE

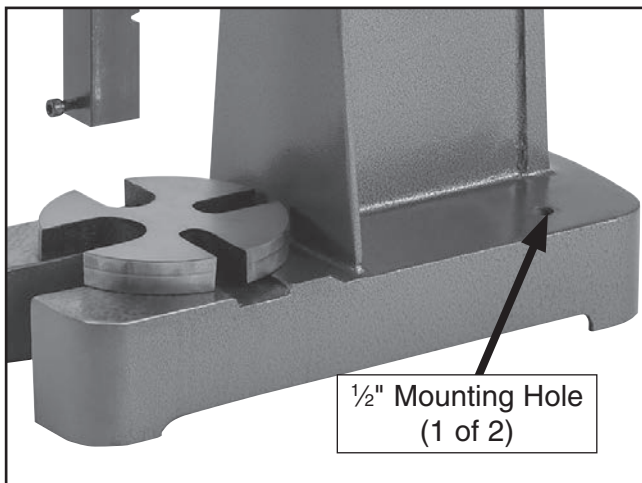
Avoid chlorine-based solvents, such as acetone or brake parts cleaner, that may damage painted surfaces.



## Mounting

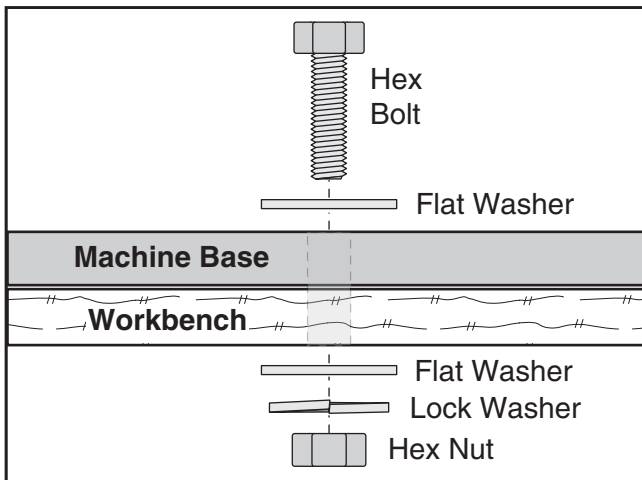
Because of the dynamic forces involved in operating the arbor press, we strongly recommend mounting it to a benchtop or other stable working surface to prevent it from moving during operation and causing accidental injury or damage.

The base of the arbor press has two 1/2" mounting holes on each side of the upright (see **Figure 3**).



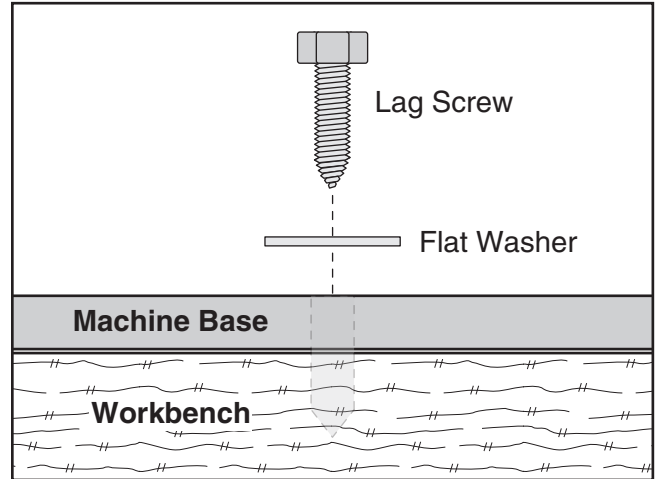
**Figure 3.** Mounting hole (1 of 2).

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

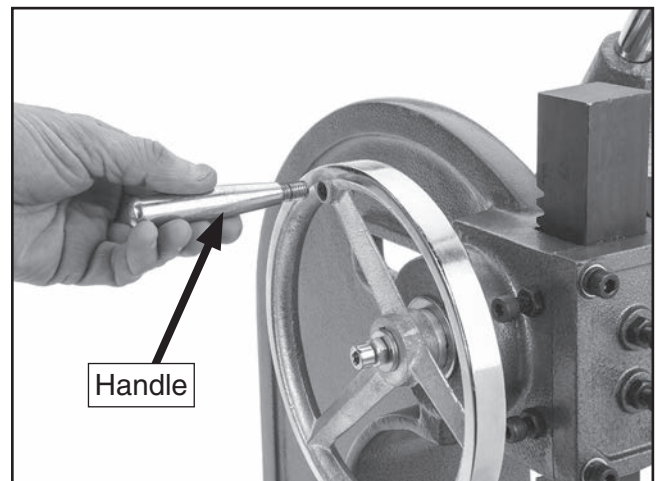
### Tools Needed

	<b>Qty</b>
Hex Wrench 5mm.....	1
Wrench 14mm .....	1

This machine arrives with the base plate pre-installed at the factory. Follow these instructions for final assembly of the pinion hub and handle assembly.

### To assemble arbor press:

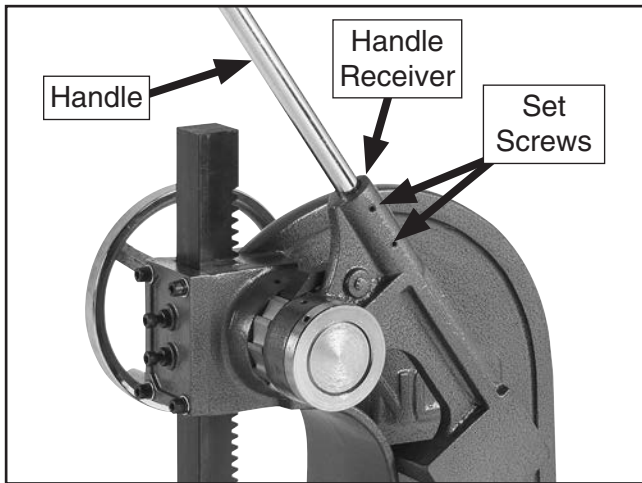
1. Attach handwheel handle to handwheel (see **Figure 6**).



**Figure 6.** Attaching handle to handwheel.



2. Insert handle into handle receiver (see **Figure 7**) and tighten both set screws.



**Figure 7.** Handle inserted into receiver.

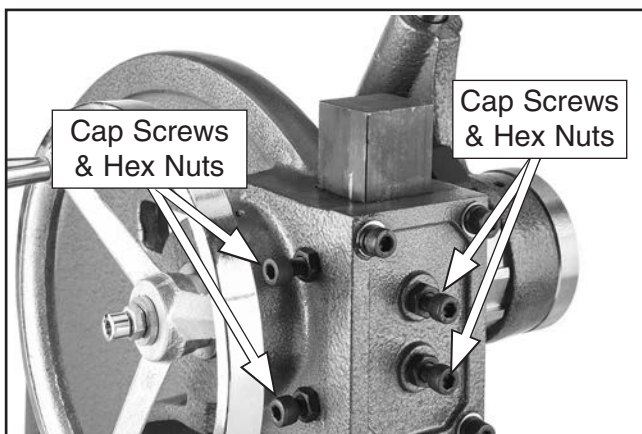
### Adjusting Ram Play

Cap screws on the front and left side of the ram housing (see **Figure 8**) adjust the amount of ram free-play. Ideally the ram should move with very little play but not be overly stiff.

<b>Tools Needed</b>	<b>Qty</b>
Open-Ended Wrench 14mm.....	1
Hex Wrench 6mm.....	1

#### To adjust ram free-play:

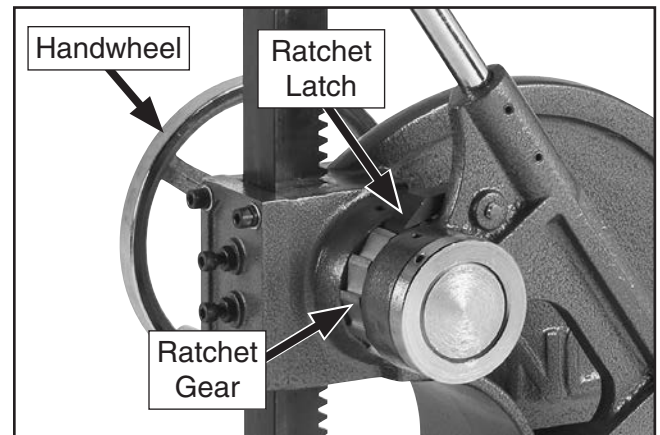
1. Loosen cap screws shown in **Figure 8**.



**Figure 8.** Cap screws used to adjust ram free-play.

2. Equally adjust each pair of cap screws a small amount in the same direction. Turn clockwise to decrease free-play or counterclockwise to increase free-play.

3. Use handle to move ram down a few times to check adjustment, then lift ratchet latch (see **Figure 9**) and raise ram upward using handwheel. If necessary, further adjust cap screws as described in **Step 2**.



**Figure 9.** Ratchet latch components.

4. When you are satisfied with the amount of ram free-play, retighten hex nuts (shown in **Figure 8**) without moving cap screws.

### Using Ratchet Latch

The ratchet latch connected to the handle allows the user to consistently move the ram downward to apply pressure to the workpiece. The ratcheting motion of the handle allows the handle to return to the vertical position while the ram maintains pressure on the workpiece.

#### To use ratchet latch:

1. To lower ram, engage ratchet latch with ratchet gear, as shown in **Figure 9**.
2. Pull handle downward to lower ram. Ratchet gear will move with handle rotation.
3. Raise handle again until back of handle assembly contacts press body. Repeat downward motion until pressing operation is complete.
4. To release ram pressure, lift ratchet latch and raise handle until it stops.
5. Turn handwheel counterclockwise to raise ram to starting position.



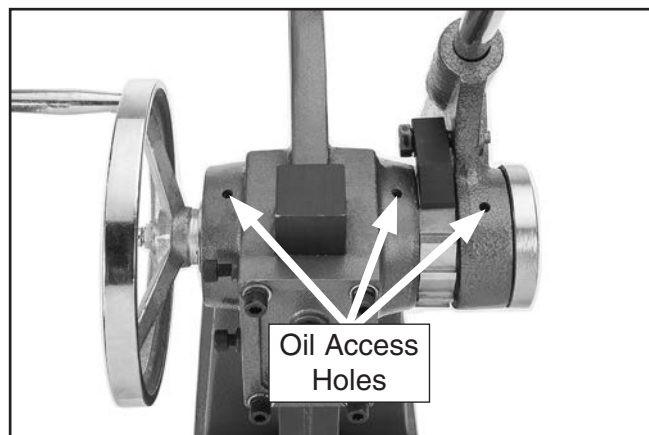
## Cleaning & Protecting

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

## Oiling Pinion Hub Shaft

Oil Type .....T26685 or ISO 32 Equivalent  
Oil Amount..... 1–2 Pumps  
Lubrication Frequency .....8 Hrs. of Operation

Proper lubrication of the pinion hub shaft is done with a pump-type oil can with a cone tip through the oil access holes (see **Figure 10**).



**Figure 10.** Locations of oil access holes to lubricate pinion hub shaft.

Push the tip of the oil can nozzle against the oil access hole, and pump oil can once or 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.

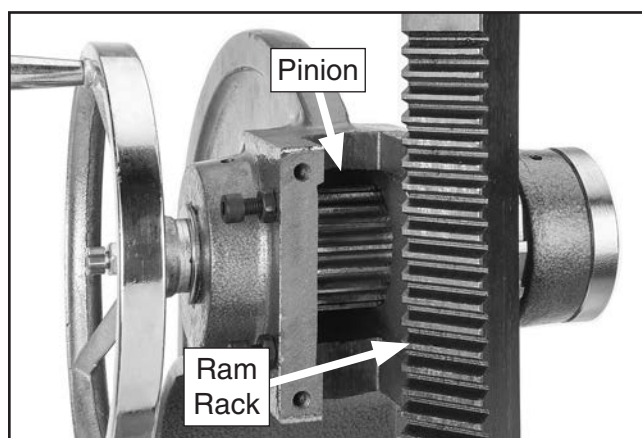
## Greasing Rack & Pinion

Grease.....T23964 or NLGI#2 Equivalent  
Grease Amount ..... As Needed  
Lubrication Frequency .....40 Hrs. of Operation

Items Needed	Qty
Hex Wrench 6mm.....	1
Shop Rag .....	As Needed
Stiff Bristle Brush.....	1

### To grease rack and pinion:

1. Remove front plate, then remove ram to expose pinion and rack (see **Figure 11**).



**Figure 11.** Ram rack and pinion exposed after removing front plate.

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





# T1184/T1185/T1186 Parts Breakdown



**Please Note:** We do our best to stock replacement parts whenever possible, but we cannot guarantee that all parts shown here are available for purchase. Call (800) 523-4777 or visit our online parts store at [www.grizzly.com](http://www.grizzly.com) to check for availability.



## T1184 Parts List

REF	PART #	DESCRIPTION
1	PT1184001	MACHINE BODY
2	PT1184002	TABLE
3	PT1184003	HANDLE
4	PT1184004	ROLL PIN 6 X 20
5	PT1184005	SWING ARM
6V3	PT1184006V3	HANDWHEEL TYPE-5 148D X 16B-K X M10-1.5 V3
7	PT1184007	HEX NUT M8-1.25
8	PT1184008	CAP SCREW M8-1.25 X 20
9	PT1184009	SHLDR HEX BOLT M10-1.5 X 25, 12MM
10	PT1184010	RATCHET LATCH
11	PT1184011	HANDWHEEL HANDLE M10-1.5 X 15, 95L
12	PT1184012	RATCHET GEAR
13	PT1184013	SET SCREW M8-1.25 X 10
14	PT1184014	RAM

REF	PART #	DESCRIPTION
15	PT1184015	LOCK COLLAR
16	PT1184016	KEY 5 X 5 X 10
17	PT1184017	KEY 8 X 10 X 16
18	PT1184018	FLAT WASHER 18MM
19	PT1184019	PINION SHAFT
20	PT1184020	FLAT WASHER 8MM
21	PT1184021	CAP SCREW M8-1.25 X 35
22	PT1184022	LOCK WASHER 8MM
23	PT1184023	HEX NUT M8-1.25
24	PT1184024	HEX WRENCH 5MM
25	PT1184025	HEX WRENCH 6MM
26	PT1184026	HEX WRENCH 8MM
27	PT1184027	OPEN-ENDED WRENCH 14/17MM
28	PT1184028	ROLL PIN 6 X 35

## T1185 Parts List

REF	PART #	DESCRIPTION
1	PT1185001	MACHINE BODY
2	PT1185002	TABLE
3	PT1185003	HANDLE
4	PT1185004	ROLL PIN 6 X 20
5	PT1185005	SWING ARM
6V2	PT1185006V2	HANDWHEEL TYPE-5 190D X 18B-K X M10-1.5 V2
7	PT1185007	HEX NUT M8-1.25
8	PT1185008	CAP SCREW M8-1.25 X 20
9	PT1185009	SHLDR HEX BOLT M10-1.5 X 25, 12MM
10	PT1185010	RATCHET LATCH
11	PT1185011	HANDWHEEL HANDLE M10-1.5 X 15, 95L
12	PT1185012	RATCHET GEAR
13	PT1185013	SET SCREW M8-1.25 X 10
14	PT1185014	RAM

REF	PART #	DESCRIPTION
15	PT1185015	LOCK COLLAR
16	PT1185016	KEY 5 X 5 X 10
17	PT1185017	KEY 8 X 10 X 16
18	PT1185018	FLAT WASHER 18MM
19	PT1185019	PINION SHAFT
20	PT1185020	FLAT WASHER 8MM
21	PT1185021	CAP SCREW M8-1.25 X 35
22	PT1185022	LOCK WASHER 8MM
23	PT1185023	HEX NUT M8-1.25
24	PT1185024	HEX WRENCH 5MM
25	PT1185025	HEX WRENCH 6MM
26	PT1185026	HEX WRENCH 8MM
27	PT1185027	OPEN-ENDED WRENCH 14/17MM
28	PT1185028	ROLL PIN 6 X 35

## T1186 Parts List

REF	PART #	DESCRIPTION
1	PT1186001	MACHINE BODY
2	PT1186002	TABLE
3	PT1186003	HANDLE
4	PT1186004	ROLL PIN 6 X 20
5	PT1186005	SWING ARM
6	PT1186006	HANDWHEEL TYPE-2 195D X 18B-K X M10-1.5
7	PT1186007	HEX NUT M8-1.25
8	PT1186008	CAP SCREW M8-1.25 X 20
9	PT1186009	SHLDR HEX BOLT M10-1.5 X 25, 12MM
10	PT1186010	RATCHET LATCH
11	PT1186011	HANDWHEEL HANDLE M10-1.5 X 15, 95L
12	PT1186012	RATCHET GEAR
13	PT1186013	SET SCREW M8-1.25 X 10
14	PT1186014	RAM

REF	PART #	DESCRIPTION
15	PT1186015	LOCK COLLAR
16	PT1186016	KEY 5 X 5 X 10
17	PT1186017	KEY 8 X 10 X 16
18	PT1186018	FLAT WASHER 18MM
19	PT1186019	PINION SHAFT
20	PT1186020	FLAT WASHER 8MM
21	PT1186021	CAP SCREW M8-1.25 X 40
22	PT1186022	LOCK WASHER 8MM
23	PT1186023	HEX WRENCH 5MM
24	PT1186024	HEX WRENCH 6MM
25	PT1186025	HEX WRENCH 8MM
26	PT1186026	OPEN-ENDED WRENCH 14/17MM
27	PT1186027	ROLL PIN 6 X 35



## 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.

#### **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 12.** T23964 Armor Plate with Moly-D Multi-Purpose Grease.

#### **G2544—Solvent Cleaner & Degreaser**

#### **T23692—Orange Power Degreaser**

Great products for removing shipping grease.



**Figure 13.** Cleaner/degreasers.

#### **H7615—High-Pressure Oil Can**

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 has a trigger-activated, high-pressure pump.



**Figure 14.** H7615 High-Pressure Oil Can.

#### **T26685—Moly-D Multi-Function Machine Oil - ISO 32, 1 Gallon**



**Figure 15.** Moly-D Multi-Function Machine Oil.

**order online at [www.grizzly.com](http://www.grizzly.com) or call 1-800-523-4777**

