

# MODEL T34348 30-TON HYDRAULIC SHOP PRESS

#### **OWNER'S MANUAL**

(For models manufactured since 12/24)



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V1.04.25



This manual provides critical safety instructions on the proper setup, operation, maintenance, and service of this machine/tool. Save this document, refer to it often, and use it to instruct other operators.

Failure to read, understand and follow the instructions in this manual may result in fire or serious personal injury—including amputation, electrocution, or death.

The owner of this machine/tool is solely responsible for its safe use. This responsibility includes but is not limited to proper installation in a safe environment, personnel training and usage authorization, proper inspection and maintenance, manual availability and comprehension, application of safety devices, cutting/sanding/grinding tool integrity, and the usage of personal protective equipment.

The manufacturer will not be held liable for injury or property damage from negligence, improper training, machine modifications or misuse.



Some dust created by power sanding, sawing, grinding, drilling, and other construction activities contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:

- Lead from lead-based paints.
- Crystalline silica from bricks, cement and other masonry products.
- Arsenic and chromium from chemically-treated lumber.

Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals: Work in a well ventilated area, and work with approved safety equipment, such as those dust masks that are specially designed to filter out microscopic particles.

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#### INTRODUCTION

#### **Contact Info**

We stand behind our machines! If you have questions or need help, contact us with the information below. Before contacting, make sure you get the serial number and manufacture date from the machine ID label. This will help us help you faster.

Grizzly Technical Support 1815 W. Battlefield Springfield, MO 65807 Phone: (570) 546-9663 Email: techsupport@grizzly.com

We want your feedback on this manual. What did you like about it? Where could it be improved? Please take a few minutes to give us feedback.

Grizzly Documentation Manager P.O. Box 2069 Bellingham, WA 98227-2069 Email: manuals@grizzly.com

#### **AWARNING**

Like all machinery there is potential danger when operating this machine. Accidents are frequently caused by lack of familiarity or failure to pay attention. Use this machine with respect and caution to decrease the risk of operator injury. If normal safety precautions are overlooked or ignored, serious personal injury may occur.

# **A**CAUTION

No list of safety guidelines can be complete. Every shop environment is different. Always consider safety first, as it applies to your individual working conditions. Use this and other machinery with caution and respect. Failure to do so could result in serious personal injury, damage to equipment, or poor work results.

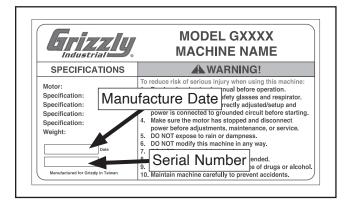
#### **Manual Accuracy**

We are proud to provide a high-quality owner's manual with your new machine!

We made every effort to be exact with the instructions, specifications, drawings, and photographs in this manual. Sometimes we make mistakes, but our policy of continuous improvement also means that sometimes the machine you receive is slightly different than shown in the manual.

If you find this to be the case, and the difference between the manual and machine leaves you confused or unsure about something, check our website for an updated version. We post current manuals and manual updates for free on our website at www.grizzly.com.

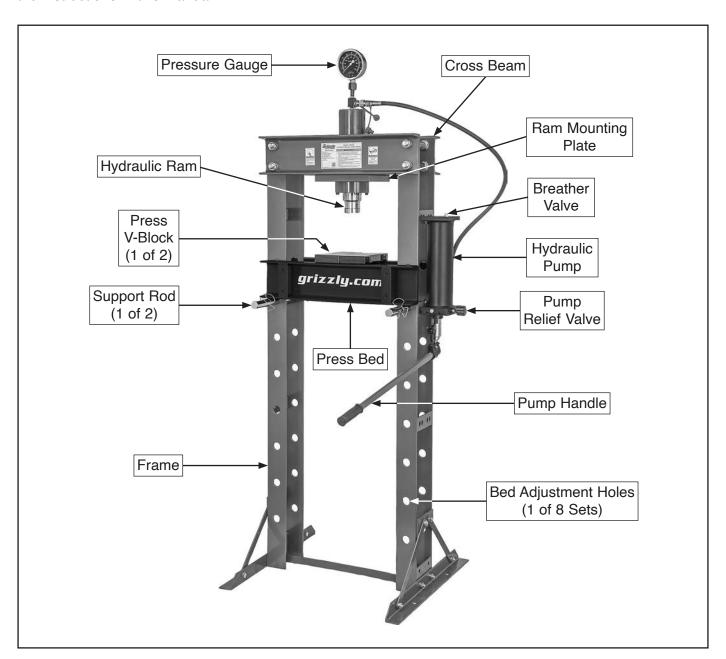
Alternatively, you can call our Technical Support for help. Before calling, make sure you write down the **manufacture date** and **serial number** from the machine ID label (see below). This information is required for us to provide proper tech support, and it helps us determine if updated documentation is available for your machine.

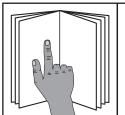




## Identification

Become familiar with the names and locations of the controls and features shown below to better understand the instructions in this manual.

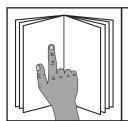




#### **AWARNING**

To reduce your risk of serious injury, read this entire manual BEFORE using machine.

# Controls & Components



#### **AWARNING**

To reduce your risk of serious injury, read this entire manual BEFORE using machine.

Refer to the following figures and descriptions to become familiar with the basic controls and components of this machine. Understanding these items and how they work will help you understand the rest of the manual and minimize your risk of injury when operating this machine.

#### Main

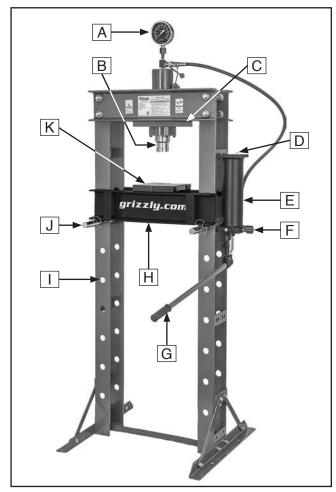


Figure 1. Main components overview.

- **A. Pressure Gauge:** Shows hydraulic pressure (in tons) being applied to workpiece.
- **B. Hydraulic Ram:** Applies up to 60,000 lbs. (30 U.S. tons) of pressure against workpiece.
- C. Ram Mounting Plate: Secures hydraulic ram to rolling mounting blocks. Can be manually positioned left/right along length of cross beam.
- **D. Breather Valve:** Prevents excess hydraulic pump pressure.
- **E. Hydraulic Pump:** Holds hydraulic fluid for operation of hydraulic ram.
- **F. Pump Relief Valve:** Releases pressure from hydraulic ram to release workpiece.
- **G.** Pump Handle: Generates hydraulic pressure in ram when pumped up and down. Moves ram downward.
- **H. Press Bed:** Platform that supports workpiece and press V-blocks.
- I. Bed Adjustment Holes: Holds support rods to position press bed at desired height.
- J. Support Rod (1 of 2): Supports press bed using bed adjustment holes in machine frame.
- K. Press V-Block (1 of 2): Supports round workpieces or workpieces too small to be supported by press bed.





# MACHINE DATA SHEET

Customer Service #: (570) 546-9663 · To Order Call: (800) 523-4777 · Fax #: (800) 438-5901

# MODEL T34348 30-TON HYDRAULIC SHOP PRESS

Product Dimensions:	
Weight	296 lbs.
Width (side-to-side) x Depth (front-to-back) x Height	
Footprint (Length/Width)	
Shipping Dimensions:	
Type	Wood Crate
Content	Machine
Weight	335 lbs.
Length x Width x Height	67 x 20 x 10 in.
Must Ship Upright	No
Main Specifications:	
Operation Information	
Ram Maximum Applied Force	60,000 lbs. (30 U.S. Tons)
Ram Maximum Stroke	6-3/4 in.
Gauge Convention	U.S. Tons & Metric Tons
Ram Piston Diameter	2.75 in.
Ram Face Diameter	2.28 in.
Piston Bore Diameter	1 in.
Bed Width (Useable)	18 in.
Bed Gap Size	6 in.
Maximum Distance to Bed	40-1/2 in.
Minimum Distance to Bed	2 in.
Bed Support Rod Diameter	1-1/8 in.
Number of Bed Adjustment Holes	
Bed Adjustment Hole Spacing	5-1/2 in. On Center
Hydraulic Fluid Type	Standard Hydraulic Jack Oil
Construction	
Frame	Steel
Base	
Press V-Block	
Paint Type/Finish	
Other Specifications:	
Country of Origin	China
Warranty	
Approximate Assembly & Setup Time	
Serial Number Location	
ISO 9001 Factory	

#### Features:

Built-In Pressure Gauge Adjustable Bed Includes Two Steel Press V-Blocks Hand Pump Hydraulic Operation



#### **SECTION 1: SAFETY**

# For Your Own Safety, Read Instruction Manual Before Operating This Machine

The purpose of safety symbols is to attract your attention to possible hazardous conditions. This manual uses a series of symbols and signal words intended to convey the level of importance of the safety messages. The progression of symbols is described below. Remember that safety messages by themselves do not eliminate danger and are not a substitute for proper accident prevention measures. Always use common sense and good judgment.

# **ADANGER**

Indicates an imminently hazardous situation which, if not avoided, WILL result in death or serious injury.

## **AWARNING**

Indicates a potentially hazardous situation which, if not avoided, COULD result in death or serious injury.

# **A**CAUTION

Indicates a potentially hazardous situation which, if not avoided, MAY result in minor or moderate injury. It may also be used to alert against unsafe practices.

#### **NOTICE**

Alerts the user to useful information about proper operation of the machine to avoid machine damage.

## **Safety Instructions for Machinery**

#### **AWARNING**

**OWNER'S MANUAL.** Read and understand this owner's manual BEFORE using machine.

**TRAINED OPERATORS ONLY.** Untrained operators have a higher risk of being hurt or killed. Only allow trained/supervised people to use this machine. When machine is not being used, disconnect power, remove switch keys, or lock-out machine to prevent unauthorized use—especially around children. Make your workshop kid proof!

**DANGEROUS ENVIRONMENTS.** Do not use machinery in areas that are wet, cluttered, or have poor lighting. Operating machinery in these areas greatly increases the risk of accidents and injury.

**MENTAL ALERTNESS REQUIRED.** Full mental alertness is required for safe operation of machinery. Never operate under the influence of drugs or alcohol, when tired, or when distracted.

#### ELECTRICAL EQUIPMENT INJURY RISKS.

You can be shocked, burned, or killed by touching live electrical components or improperly grounded machinery. To reduce this risk, only allow qualified service personnel to do electrical installation or repair work, and always disconnect power before accessing or exposing electrical equipment.

**DISCONNECT POWER FIRST.** Always disconnect machine from power supply BEFORE making adjustments, changing tooling, or servicing machine. This prevents an injury risk from unintended startup or contact with live electrical components.

**EYE PROTECTION.** Always wear ANSI-approved safety glasses or a face shield when operating or observing machinery to reduce the risk of eye injury or blindness from flying particles. Everyday eyeglasses are NOT approved safety glasses.



#### **AWARNING**

WEARING PROPER APPAREL. Do not wear loose clothing, gloves, neckties, or jewelry that can become entangled in moving parts. Always tie back or cover long hair. Wear non-slip footwear to reduce risk of slipping and losing control or accidentally contacting cutting tool or moving parts.

**HAZARDOUS DUST.** Dust created by machinery operations may cause cancer, birth defects, or long-term respiratory damage. Be aware of dust hazards associated with each workpiece material. Always wear a NIOSH-approved respirator to reduce your risk.

**HEARING PROTECTION.** Always wear hearing protection when operating or observing loud machinery. Extended exposure to this noise without hearing protection can cause permanent hearing loss.

**REMOVE ADJUSTING TOOLS.** Tools left on machinery can become dangerous projectiles upon startup. Never leave chuck keys, wrenches, or any other tools on machine. Always verify removal before starting!

**USE CORRECT TOOL FOR THE JOB.** Only use this tool for its intended purpose—do not force it or an attachment to do a job for which it was not designed. Never make unapproved modifications—modifying tool or using it differently than intended may result in malfunction or mechanical failure that can lead to personal injury or death!

**AWKWARD POSITIONS.** Keep proper footing and balance at all times when operating machine. Do not overreach! Avoid awkward hand positions that make workpiece control difficult or increase the risk of accidental injury.

CHILDREN & BYSTANDERS. Keep children and bystanders at a safe distance from the work area. Stop using machine if they become a distraction.

**GUARDS & COVERS.** Guards and covers reduce accidental contact with moving parts or flying debris. Make sure they are properly installed, undamaged, and working correctly BEFORE operating machine.

**FORCING MACHINERY.** Do not force machine. It will do the job safer and better at the rate for which it was designed.

**NEVER STAND ON MACHINE.** Serious injury may occur if machine is tipped or if the cutting tool is unintentionally contacted.

**STABLE MACHINE.** Unexpected movement during operation greatly increases risk of injury or loss of control. Before starting, verify machine is stable and mobile base (if used) is locked.

**USE RECOMMENDED ACCESSORIES.** Consult this owner's manual or the manufacturer for recommended accessories. Using improper accessories will increase the risk of serious injury.

**UNATTENDED OPERATION.** To reduce the risk of accidental injury, turn machine *OFF* and ensure all moving parts completely stop before walking away. Never leave machine running while unattended.

**MAINTAIN WITH CARE.** Follow all maintenance instructions and lubrication schedules to keep machine in good working condition. A machine that is improperly maintained could malfunction, leading to serious personal injury or death.

**DAMAGED PARTS.** Regularly inspect machine for damaged, loose, or mis-adjusted parts—or any condition that could affect safe operation. Immediately repair/replace BEFORE operating machine. For your own safety, DO NOT operate machine with damaged parts!

MAINTAIN POWER CORDS. When disconnecting cord-connected machines from power, grab and pull the plug—NOT the cord. Pulling the cord may damage the wires inside. Do not handle cord/plug with wet hands. Avoid cord damage by keeping it away from heated surfaces, high traffic areas, harsh chemicals, and wet/damp locations.

**EXPERIENCING DIFFICULTIES.** If at any time you experience difficulties performing the intended operation, stop using the machine! Contact our Technical Support at (570) 546-9663.



## **Additional Safety for Hydraulic Presses**

#### **AWARNING**

Serious injury can occur from getting hands, fingers, etc. crushed by ram or workpieces. Death can result from getting accidentally injected by hydraulic oil. Workpieces ejected by press can strike operator or bystanders. To minimize risk of injury, anyone operating this machine MUST completely heed hazards and warnings below.

**CRUSHING HAZARD:** Ram can crush fingers, hands, or other body parts. Always keep body parts away from ram during operation.

**CAPACITY:** Never exceed pressure rating of hydraulic system. Doing so could result in machine failure, explosion of high pressure components, or bodily injury as a result of flying debris or sudden unexpected movement or breakage.

**BED SUPPORT RODS:** Always ensure bed support rods evenly support press bed. Failure to support press bed could lead to bed accidentally dropping during setup or operation, which may result in crushing injury.

WORKPIECE SUPPORT: When a part is pressed free, a workpiece may shift suddenly or fall from the press, causing a crushing injury to your foot or leg. Use a catch basket and support long or awkward workpieces with stands or chains, or have an assistant support a long workpiece during pressing operations.

WORKPIECE POSITION: Workpieces positioned off-center below hydraulic ram can be ejected unexpectedly, striking operator or bystanders with great force. Always ensure workpiece is positioned so force is evenly distributed. Immediately stop and retract ram if workpiece shifts during pressing operation.

OIL INJECTION HAZARD: Pressure developed from this machine may be high enough to penetrate your skin and enter your bloodstream. Hydraulic oil injected into your bloodstream is a medical emergency. If not treated immediately, this blood poisoning could result in an aggressive infection, amputation, or death. Keep body parts away from any high-pressure hydraulic leak.

PROJECTILE HAZARD: Being hit by a launched workpiece or press tooling can cause severe impact injury or death. Stand out of the way of any possible projectile path. Never press with rods or pins that are long enough to shift off-center and kick out under a load. Never stack rods and spacers to create an extended press pin. If pressing must occur with an extended press pin, the pin must be fastened with a safety chain or the press pin must be enclosed in a safety cage to eliminate a projectile hazard.

**MAINTENANCE/SERVICE:** Always bleed air from hydraulic system and purge all hydraulic pressure before performing any inspections, adjustments, and maintenance.



## **Additional Safety for Hydraulic Systems**

#### **AWARNING**

Infection, amputation, or death can result from contact with leaking hydraulic fluid under high pressure. Additionally, leaking hydraulic fluid is a serious slip hazard and fire hazard. To reduce these risks, anyone operating this machine MUST completely heed the hazards and warnings below

INJECTION INJURIES. Immediately seek medical attention if injection injury occurs. Leaking hydraulic fluid often has enough pressure to penetrate skin, which can lead to infection, amputation, or death. Hydraulic fluid can enter the skin through small wounds that are barely noticeable. Minimizing the time between injury and removal of the injected material is critical to successful treatment.

**CHECK FOR LEAKS.** Never use your hands to check for hydraulic leaks. Small leaks can be invisible to the naked eye. Use a piece of wood or cardboard to find suspected leaks.

**EYE INJURIES.** Safety glasses may not be sufficient to protect against pressurized hydraulic fluid. Depressurize hydraulic system before approaching a known leak.

**FLUID CONTAMINATION.** Make sure hydraulic system maintenance is performed in a clean and dust-free work area. Remove all contaminants from near hydraulic system openings and components prior to maintenance, to prevent debris from entering the hydraulic system. Always use lint-free rags when cleaning components. Contaminated hydraulic fluid may damage the machine and cause hydraulic system failure that can result in serious injury or death.

**DO NOT OPERATE WITH LEAKS.** Immediately stop machine and depressurize hydraulic system if a leak is discovered or suspected. Operating hydraulic system with leaks may increase the hazard of the situation and damage the machine.

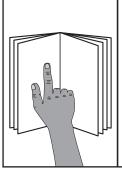
COMPONENT REPLACEMENT. Only use highpressure hydraulic hose and steel hydraulic fittings with compatible threads when replacing components in the hydraulic system. DO NOT overtighten or use soft metal fittings such as brass or aluminum.

**DEPRESSURIZE FOR MAINTENANCE.** Always purge air and depressurize hydraulic system before performing any service or maintenance. Verify hydraulic pressure is at 0 PSI before proceeding with maintenance.

PREVENTING LEAKS. Always support and restrain hydraulic hoses to minimize friction during operation that could lead to machine damage that may result in serious injury. Regularly inspect and perform maintenance on the hydraulic system. Following a regular schedule will decrease the likelihood of damage to the machine and reduce the risk of associated hazards.



# **SECTION 2: SETUP**



#### WARNING

This machine presents serious injury hazards to untrained users. Read through this entire manual to become familiar with the controls and operations before operating the machine!



#### **AWARNING**

Wear safety glasses during the entire setup process!



#### **AWARNING**

**HEAVY LIFT!** 

Straining or crushing injury may occur from improperly lifting machine or some of its parts. To reduce this risk, get help from other people and use a forklift (or other lifting equipment) rated for weight of this machine.

#### **Needed for Setup**

The following items are needed, but not included, for the setup/assembly of this machine.

Des	scription Qty
•	Forklift or Hoist
	(rated for at least 450 lbs.)
•	Additional Person1
•	Safety Glasses (for each person)1 Pr.
•	Goggles 1 Pr.
•	Face Shield1
•	Power Drill w/Phillips Head Bit #21
•	Crowbar/Pry Bar1
•	Hex Wrenches 3, 6mm1 Ea.
•	Wrenches or Sockets 14, 27mm 1 Ea.
•	Wrenches or Sockets 17, 30mm2 Ea.
•	Socket Extension (3" Min) As Needed
•	Socket Wrench As Needed
•	Step Ladder As Needed
•	Disposable Rags As Needed
•	Disposable Gloves As Needed
•	PTFE Thread-Sealant Tape As Needed
•	Cleaner/Degreaser (Page 13) As Needed
•	Mounting Hardware (Page 18) As Needed

## Unpacking

This machine was carefully packaged for safe transport. When unpacking, separate all enclosed items from packaging materials and inspect them for shipping damage. *If items are damaged, please call us immediately at (570) 546-9663.* 

**IMPORTANT:** Save all packaging materials until you are completely satisfied with the machine and have resolved any issues between Grizzly or the shipping agent. You MUST have the original packaging to file a freight claim. It is also extremely helpful if you need to return your machine later.



## **Inventory**

The following is a list of items shipped with your machine. Before beginning setup, lay these items out and inventory them.

If any non-proprietary parts are missing (e.g. a nut or a washer), we will gladly replace them; or for the sake of expediency, replacements can be obtained at your local hardware store.

Cra	ate Inventory (Figure 2)	₽ty
A.	Columns	
В.	Press Bed	
C.	Cross Beam	1
D.	Center Brace	
E.	Frame Supports	2
F.	Angle Braces	
G.	Hydraulic Pump Handle	1
Н.	Hydraulic Ram	1
I.	Hydraulic Pump	1
J.	Support Rods	2
K.	Press V-Blocks	
L.	Rolling Mounting Blocks	
Μ.	Retaining Rings	
N.	Ram Mounting Plate	1
Ο.	Pressure Gauge	1
P.	Hardware Bag (Not Shown)	
	-Hex Bolts M20-2.5 x 50 (Cross Beam).	
	-Hex Nuts M20-2.5 (Cross Beam)	
	-Flat Washers 20mm (Cross Beam)	
	-Lock Washers 20mm (Cross Beam)	
	—Hex Bolts M10-1.5 x 35 (Center)	
	-Hex Nuts M10-1.5 (Center)	
	-Flat Washers 10mm (Center)	
	-Lock Washers 10mm (Center)	
	-Hex Bolts M10-1.5 x 35 (Angle Brace)	
	-Hex Nuts M10-1.5 (Angle Brace)	
	-Flat Washers 10mm (Angle Brace)	
	-Lock Washers 10mm (Angle Brace)	
	-Hex Bolts M10-1.5 x 110 (Ram)	
	—Springs 2 x 16 x 48 (Ram)	
	—Cap Screws M8-1.25 X 55 (Ram)	4

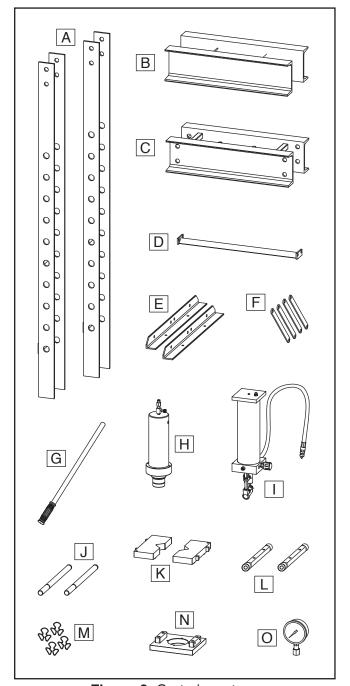


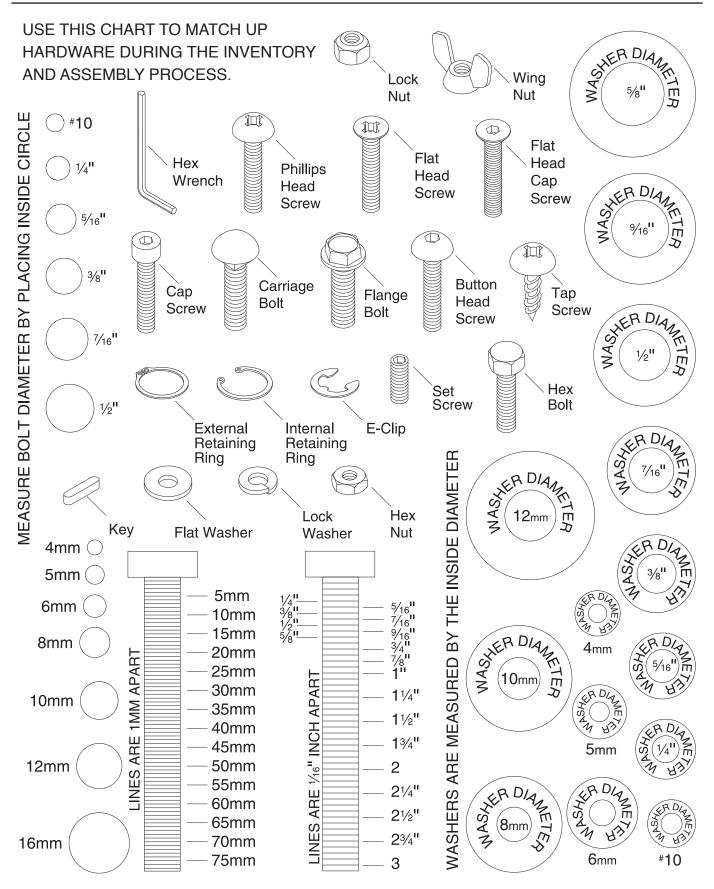
Figure 2. Crate inventory.

#### **NOTICE**

If you cannot find an item on this list, carefully check around/inside the machine and packaging materials. Often, these items get lost in packaging materials while unpacking or they are pre-installed at the factory.



# **Hardware Recognition Chart**



#### 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 the rust preventative with a liberal amount of cleaner/degreaser, then let it soak for 5–10 minutes.
- Wipe off the surfaces. If your cleaner/degreaser is effective, the 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 the rag.
- 4. Repeat **Steps 2–3** as necessary until clean, then coat all unpainted surfaces with a quality metal protectant to prevent rust.



#### WARNING

Gasoline and petroleum products have low flash points and can explode or cause fire if used to clean machinery. Avoid using these products to clean machinery.



#### **A**CAUTION

Many cleaning solvents are toxic if inhaled. Only work in a well-ventilated area.

#### **NOTICE**

Avoid harsh solvents like acetone or brake parts cleaner that may damage painted surfaces. Always test on a small, inconspicuous location first.

#### T23692—Orange Power Degreaser

A great product for removing the waxy shipping grease from the **non-painted** parts of the machine during clean up.

Order online at www.grizzly.com OR Call 1-800-523-4777



Figure 3. T23692 Orange Power Degreaser.

#### **Site Considerations**

#### **Physical Environment**

The physical environment where the machine is operated is important for safe operation and longevity of components. For best results, operate this machine in a dry environment that is free from excessive moisture, hazardous chemicals, airborne abrasives, or extreme conditions. Extreme conditions for this type of machinery are generally those where the ambient temperature range is outside 41°–104°F; the relative humidity range is outside 20–95% (non-condensing); or the environment is subject to vibration, shocks, or bumps.

#### Space Allocation

Consider the largest size of workpiece that will be processed through this machine and provide enough space around the machine for adequate operator material handling or the installation of auxiliary equipment. With permanent installations, leave enough space around the machine to open or remove doors/covers as required by the maintenance and service described in this manual. See below for required space allocation.

#### Weight Load

Refer to the **Machine Data Sheet** for the weight of your machine. Make sure that the surface upon which the machine is placed will bear the weight of the machine, additional equipment that may be installed on the machine, and the heaviest workpiece that will be used. Additionally, consider the weight of the operator and any dynamic loading that may occur when operating the machine.

#### Lighting

Lighting around the machine must be adequate enough that operations can be performed safely. Shadows, glare, or strobe effects that may distract or impede the operator must be eliminated.



#### **A**CAUTION

Children or untrained people may be seriously injured by this machine. Only install in an access restricted location.

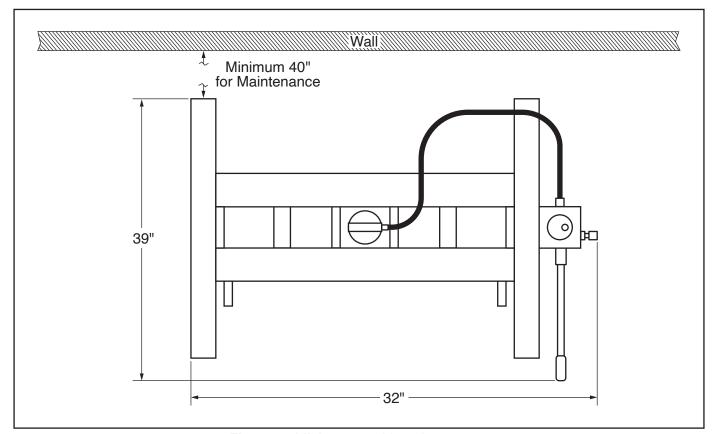


Figure 4. Minimum working clearances.



#### **Assembly**



#### **AWARNING**

**HEAVY LIFT!** 

Straining or crushing injury may occur from improperly lifting machine or some of its parts. To reduce this risk, get help from other people and use a forklift (or other lifting equipment) rated for weight of this machine.

The machine must be fully assembled before it can be operated. Before beginning the assembly process, refer to **Needed for Setup** and gather all listed items. To ensure the assembly process goes smoothly, first clean any parts that are covered or coated in heavy-duty rust preventative (if applicable).

#### To assemble machine:

- Move crate to desired location, then remove crate top and sides, and any loose items inside crate.
- 2. With help from an assistant, stand (2) columns upright and attach (2) frame supports and center brace using (4) M10-1.5 x 35 hex bolts, 10mm flat washers, 10mm lock washers, and M10-1.5 hex nuts (see **Figure 5**). Do not fully tighten fasteners at this time.
- **3.** Attach (4) angle braces to frame supports and columns using (8) M10-1.5 x 35 hex bolts, 10mm flat washers, 10mm lock washers, and M10-1.5 hex nuts (see **Figure 5**). Do not fully tighten fasteners at this time.

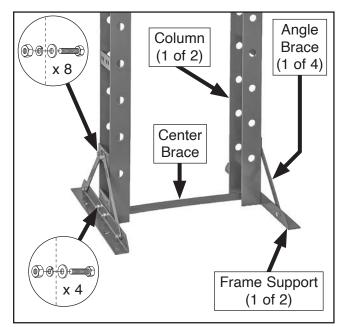


Figure 5. Frame components installed.

4. With help from an assistant, secure cross beam to top of columns with (8) M20-2.5 x 50 hex bolts, 20mm flat washers, 20mm lock washers, and M20-2.5 hex nuts, as shown in Figure 6.

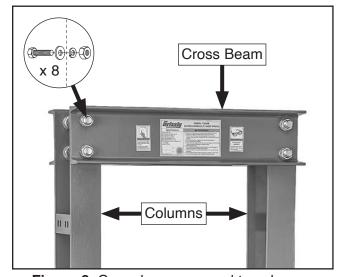
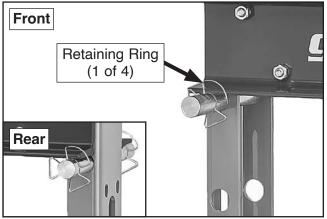


Figure 6. Cross beam secured to columns.

 Fully tighten all fasteners installed in Steps 2–4, then anchor machine to floor (see Anchoring to Floor on Page 18). 6. Install (1) retaining ring on front groove in each support rod (see **Figure 7**).

**Note:** Retaining ring groove closest to end of support rod should be positioned at rear of machine (see **Figure 7**). This provides a "handle" on front of support rods.



**Figure 7.** Example of retaining rings on support rods (shown with bed installed for reference).

#### **A**CAUTION

ALWAYS verify bed support rods are supporting bed evenly! Failure to support press bed evenly could lead to bed accidentally dropping during setup or operation, which may result in crushing injury.

- Insert (2) support rods through bed adjustment holes (see Figure 8), and install (1) retaining ring on rear groove in each support rod (see Figure 7).
- **8.** With help from an assistant, lift press bed into position and place it between retaining rings on support rods (see **Figure 8**).

**Note:** Lift one side of press bed higher than the opposite side to provide enough clearance for press bed to fit between columns.

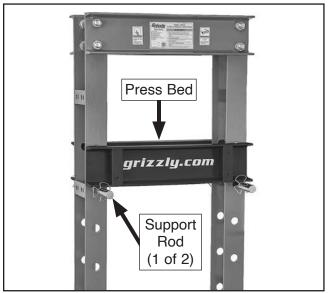
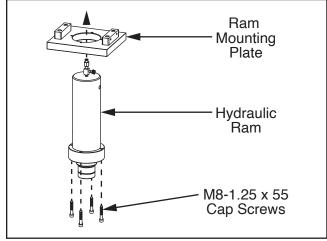


Figure 8. Bed installed on support rods.

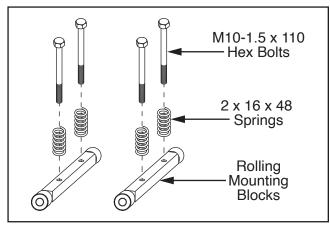
9. Insert hydraulic ram through ram mounting plate and secure with (4) M8-1.25 x 55 cap screws (see **Figure 9**).



**Figure 9.** Securing hydraulic ram to ram mounting plate.

**10.** Insert (4) M10-1.5 x 110 hex bolts through 2 x 16 x 48 springs and (2) rolling mounting blocks (see **Figure 10**).

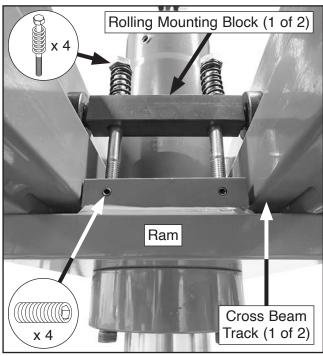




**Figure 10.** Inserting fasteners through rolling mounting blocks.

- **11.** Loosen (4) set screws on ram mounting plate (see **Figure 11**).
- 12. Place (2) rolling mounting blocks on top of (2) cross beam tracks, and with help from an additional person, lift hydraulic ram between cross beam tracks and secure with (4) hex bolts from **Step 10** (see **Figure 11**).

**Note:** Tighten hex bolts until they are fully threaded in ram mounting plate, and ram no longer moves side to side.



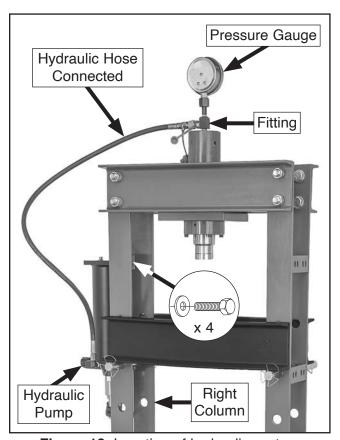
**Figure 11.** Hydraulic ram secured to rolling mounting blocks.

- **13.** Tighten (4) set screws on ram mounting plate to secure hex bolts.
- **14.** Mount hydraulic pump to right column with (4) pre-installed M10-1.5 x 20 hex bolts and 10mm flat washers (see **Figure 12**).
- **15.** Remove cap from threads and attach pressure gauge to fitting on top of hydraulic ram (see **Figure 12**).

**Note:** Use PTFE thread-sealant tape on pressure gauge threads to ensure a proper seal during pressing operations.

**16.** Remove cap from threads, and connect hydraulic hose from hydraulic pump to fitting on hydraulic ram (see **Figure 12**).

**Note:** Use PTFE thread-sealant tape on threaded fittings to ensure a proper seal during pressing operations.



**Figure 12.** Location of hydraulic system components.

**17.** Install hydraulic pump handle on hydraulic pump with pre-installed M8-1.25 x 16 hex bolt and 8mm flat washer (see **Figure 13**).

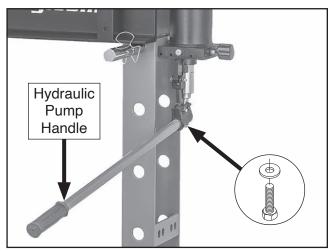


Figure 13. Hydraulic pump handle installed.

**18.** Place V-blocks on press bed, as desired (see **Figure 14**).

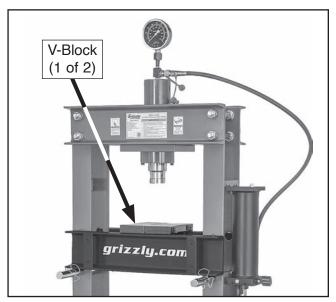


Figure 14. V-blocks placed on press bed.

- Proceed to Bleeding Hydraulic System on Page 26.
- 20. Clean and lubricate cross beam track and ram piston as instructed in Lubrication on Page 26 before beginning operations.

## **Anchoring to Floor**

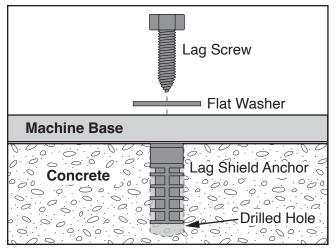
Number of Mounting Holes	4
Diameter of Mounting Hardware	5/8"

Anchoring machinery to the floor prevents tipping or shifting that may occur during operations involving large or heavy workpieces. Due to the dynamic forces encountered during operations with this machine, you MUST secure the machine to the floor.

If the machine will be installed in a commercial or workplace setting, local codes may legally require that it be anchored to the floor.

#### **Anchoring to Concrete Floors**

Lag shield anchors with lag screws (see below) are a popular way to anchor machinery to a concrete floor, because the anchors sit flush with the floor surface, making it easy to unbolt and move the machine later, if needed. However, anytime local codes apply, you MUST follow the anchoring methodology specified by the code.



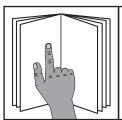
**Figure 15.** Popular method for anchoring machinery to a concrete floor.

# **SECTION 3: OPERATIONS**

#### **Operation Overview**

The purpose of this overview is to provide the novice machine operator with a basic understanding of how the machine is used during operation, so the machine controls/components discussed later in this manual are easier to understand.

Due to the generic nature of this overview, it is **not** intended to be an instructional guide. To learn more about specific operations, read this entire manual, seek additional training from experienced machine operators, and do additional research outside of this manual by reading "how-to" books, trade magazines, or websites.



#### **AWARNING**

To reduce your risk of serious injury, read this entire manual BEFORE using machine.

#### WARNING

To reduce risk of eye injury from flying debris, always wear safety glasses and a face shield when operating this machine.





#### **NOTICE**

If you are not experienced with this type of machine, WE STRONGLY RECOMMEND that you seek additional training outside of this manual. Read books/magazines or get formal training before beginning any projects. Regardless of the content in this section, Grizzly Industrial will not be held liable for accidents caused by lack of training.

# To complete a typical operation, the operator does the following:

- Examines workpiece to make sure it is suitable for pressing.
- **2.** Adjusts press bed height to accommodate workpiece.
- Places workpiece on press bed or V-blocks as needed, and either centers workpiece pressing point under ram or centers ram over workpiece pressing point.
- 4. Puts on safety glasses and face shield.
- **5.** Closes pump relief valve and opens breather valve on hydraulic pump.
- **6.** Pumps handle to lower ram until it just touches workpiece.
- 7. Verifies workpiece has not shifted position and completes pressing operation.
- **8.** Releases hydraulic pressure to raise ram, and removes workpiece from press bed.



#### **Workpiece Inspection**

Some workpieces are not safe to press or may require modification before they are safe to press. Follow the inspection procedures on this page before selecting a workpiece for press operations.

#### **AWARNING**

Always use minimum amount of pressure required when operating and DO NOT compress springs or any object that could potentially fracture and create an explosive hazard, or machine damage and serious personal injury could occur.

Follow these inspection procedures before pressing a workpiece:

- Observe workpiece setup. Viewing the workpiece from multiple angles may reveal an unsafe press condition. ALWAYS ensure ram is centered over workpiece before attempting any operation.
- Protection from falling workpieces. Injury
  to the operator or damage to the machine
  and workpiece can occur if workpiece
  becomes dislodged during press operation.
  Verify workpiece has not shifted position, is
  fully supported, and is square with the ram
  before beginning operations.

**Note:** Place padding around the machine to protect from falling workpieces.

 Material strength. Verify workpiece material will fully withstand pressure applied by press during operation.

- Assembled parts. Disassemble any unnecessary parts before pressing to prevent hidden components (springs, retainers, irregular-shaped objects, etc.) from being ejected from press and causing serious personal injury or damage to machine.
- Cleaning and inspecting material. Clean workpiece and ensure that all foreign material or damage is removed from the workpiece being pressed. Apply a light machine oil sparingly to bearings and bushings before assembling to help prevent components seizing during operation.
- Special considerations. This press is designed for molding, casting, and forming metal workpieces, and assembling/disassembling bearings and bushings. Pressing workpieces beyond the range of this design may require alternative support that is outside the scope of this manual.



**Figure 16.** Example of typical hydraulic press operation using V-blocks on press bed.



# Adjusting Press Bed Height

#### NOTICE

Machine damage may occur if ram exerts maximum force when extended beyond 75% of its total length. DO NOT over-extend ram; raise bed as necessary to reduce ram stroke.

It is important that the press bed be set to keep the workpiece as close to the ram as possible to ensure optimum operation.

#### To adjust press bed height:

- Rotate pump relief valve and breather valve (see Figure 17) counterclockwise to release hydraulic system pressure.
- **2.** Remove workpiece and V-blocks from press bed, if installed (see **Figure 17**).

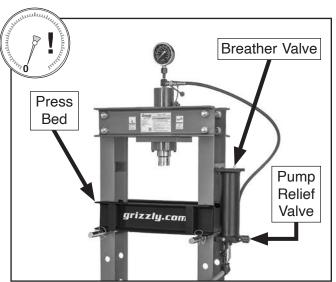


Figure 17. Location of pressure relief and press bed components.

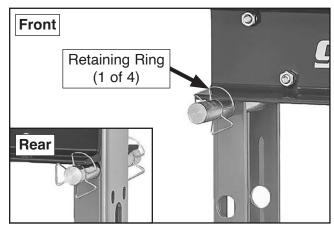
**3.** With help from an additional person, lift press bed off of support rods and set aside.

**Note:** Lift one side of press bed higher than the opposite side to help clear columns during removal.

#### **A**CAUTION

ALWAYS verify bed support rods are supporting bed evenly! Failure to support press bed evenly could lead to bed accidentally dropping during setup or operation, which may result in crushing injury.

- 4. Remove (2) retaining rings on rear of support rods, then remove (2) support rods and insert them in bed adjustment holes at desired height (see **Figure 18**).
- Install (2) retaining rings removed in Step 4 on rear grooves in support rods to secure (see Figure 18).



**Figure 18.** Example of retaining rings on support rods (bed shown in place for reference).

**6.** With help from an additional person, lift press bed into position and place it between retaining rings on support rods.

**Note:** Lift one side of press bed higher than the opposite side to provide enough clearance for press bed to fit between columns.

#### **Positioning Ram**

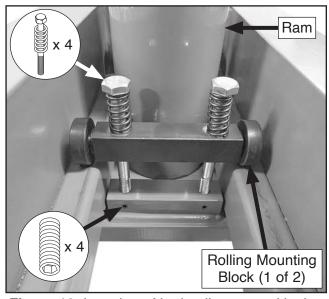
The hydraulic ram can be positioned horizontally along the cross beam to align with off-center workpieces.

Items Needed	Qty
Socket 17mm	1
Socket Extension (3" Minimum)	1
Socket Wrench	1
Hex Wrench 3mm	1

#### To position ram:

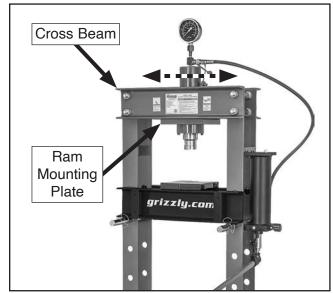
- Adjust press bed height (see Adjusting Press Bed Height on Page 21) to allow ram adequate space above workpiece.
- 2. Loosen (4) set screws on ram mounting plate (see Figure 19).
- Loosen (4) hex bolts on rolling mounting blocks (see Figure 19). Loosen each hex bolt evenly 1–2 turns at a time until ram can be moved side to side.

**IMPORTANT:** Do not fully remove hex bolts or ram will drop from cross beam!



**Figure 19.** Location of hydraulic ram positioning components.

**4.** Place workpiece on press bed and roll ram mounting plate along cross beam until it is directly above workpiece press point (see **Figure 20**).



**Figure 20.** Movement of hydraulic ram along cross beam.

- **5.** Tighten (4) hex bolts on rolling mounting blocks (see **Figure 19**) until they are fully threaded in ram mounting plate, and ram no longer moves side to side.
- 6. Tighten (4) set screws on ram mounting plate (see **Figure 19**).
- 7. Lower ram until it just touches workpiece to verify ram remains stationary and workpiece does not shift during operation.



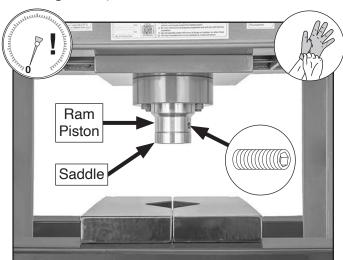
# Changing Ram Saddle

The Model T34348 hydraulic ram saddle can be replaced with a variety of dies, brakes, and saddles (not included) that fit into a 1" piston bore.

Items Needed	Qty
Hex Wrench 3mm	1
Work Gloves	1 Pr.

#### To change ram saddle:

- Rotate pump relief valve and breather valve counterclockwise to release hydraulic system pressure.
- 2. Grasp hydraulic ram saddle with one hand and loosen set screw on ram piston (see Figure 21), then remove saddle.
- Install replacement saddle flush against ram piston, then tighten set screw to secure (see Figure 21).



**Figure 21.** Location of hydraulic ram saddle components.

Tug replacement saddle to make sure it does not come off.

**IMPORTANT:** A secure fit is critical for safe operation while pressing a workpiece!

#### **Adjusting Pressure**

#### **A**CAUTION

NEVER exceed maximum rated pressure of 60,000 lbs. (30 U.S. tons) or machine damage and personal injury could occur!

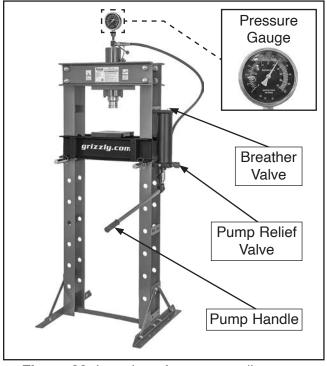
#### CAUTION

Always open breather valve before operating press. Excessive pressure in hydraulic pump may damage machine and cause serious personal injury.

**IMPORTANT:** Always ensure breather valve is open before adjusting hydraulic pressure!

The amount of force applied to the workpiece can be adjusted using the pump relief valve and the pump handle (see **Figure 22**).

- Rotate pump relief valve fully *clockwise*, then pump handle to *increase* pressure.
- Rotate pump relief valve counterclockwise to decrease pressure.



**Figure 22.** Location of pressure adjustment components.



## **Pressing Workpiece**

Refer to Additional Safety for Hydraulic Presses on Page 8 and Additional Safety for Hydraulic Systems on Page 9 before beginning operations. See Workpiece Inspection on Page 20 before selecting a workpiece to press.

The Model T34348 is designed for molding, casting, and forming metal workpieces, and assembling/disassembling bearings and bushings. Pressing workpieces beyond the range of this design may require using an appropriate fixture that is outside the scope of this manual.

**IMPORTANT:** Never exceed maximum applied pressure of 60,000 lbs. (30 U.S. tons).

#### To press a workpiece:

 Adjust press bed height (see Adjusting Press Bed Height on Page 21) to allow ram adequate space for operation.

#### **NOTICE**

Machine damage may occur if ram exerts maximum force when extended beyond 75% of its total length. DO NOT over-extend ram; raise bed as necessary to reduce ram stroke.

- 2. Place workpiece on press bed or V-blocks and center under ram (see Figure 23).
  - If pressing a small or round workpiece, use V-blocks to provide additional support.
  - If pressing a large workpiece, place workpiece directly on press bed.

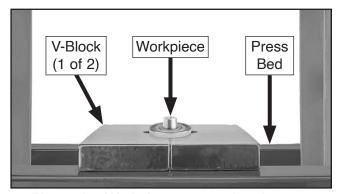
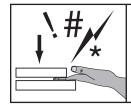


Figure 23. Workpiece centered under ram.

**3.** Rotate pump relief valve clockwise to close hydraulic system.



#### **AWARNING**

Crushing hazard! Always keep hands clear when using this machine.

**4.** Pump handle to lower ram until it just touches workpiece, as shown in **Figure 24**.



Figure 24. Ram extended to workpiece.

# **A**CAUTION

Always ensure workpiece is positioned so force is evenly distributed. Off-center workpieces can be ejected unexpectedly from force of hydraulic ram, striking operator or bystanders and causing impact injury.

- **5.** Verify workpiece has not shifted position, remains fully supported, and is square with ram, then complete pressing operation.
  - If pressing workpiece to specific pressure, pump handle until desired pressure is shown on pressure gauge.
  - If pressing workpiece to specific angle or shape, apply pressure to workpiece gradually, and regularly release pressure to check workpiece until correct angle/ shape is achieved.
- **6.** Rotate pump relief valve counterclockwise to raise ram, then remove workpiece.



## **SECTION 4: MAINTENANCE**



#### **AWARNING**

Always wear safety glasses while servicing to prevent serious personal injury.

#### **Schedule**

For optimum performance from this machine, this maintenance schedule must be strictly followed.

#### **Ongoing**

To minimize your risk of injury and maintain proper machine operation, stop using the machine immediately if you ever observe any of the items below, and fix the problem before continuing operations:

- Loose mounting bolts.
- Leaking hydraulic oil.
- Damaged seals or valves.
- Unprotected metal surfaces.
- Dust or debris around machine.
- Any other unsafe condition.

#### Daily

- Clean ram cross beam track.
- Clean/lubricate ram piston surface.

#### Monthly

- Inspect support rods for wear/damage.
- Inspect press bed for wear/damage.

#### **Annually**

 Inspect hydraulic oil for contamination, and change oil if required (Page 28).

# Cleaning & Protecting

Cleaning the Model T34348 is relatively easy. Wipe off any dust or debris with a dry cloth. If any oil or grease has built up, use a grease dissolving cleaner to remove it.

Keep metal surfaces rust free with regular applications of products like SLIPIT® (see **Figure 25**).

Bare metal surfaces can quickly develop surface rust if not coated. Machinery stored near windows in direct sunlight or where paints, thinners, or certain gasses are open to the air can experience bleaching, discoloring of paint or yellowing of clear plastic guards.

#### **Recommended Metal Protectants**

G5562—SLIPIT® 1 Qt. Gel G5563—SLIPIT® 11 Oz. Spray



**Figure 25.** Recommended products for protecting unpainted cast iron/steel parts on machinery.

#### Lubrication

Clean the cross beam tracks, and clean/lubricate the ram piston daily before beginning operations.

Items Needed		Qty
Light Machine Oil	As	Needed
Clean Shop Rags	As	Needed
Disposable Gloves	As	Needed

#### **Cross Beam Tracks**

Wipe cross beam tracks with a clean rag to remove any debris that may interfere with ram movement (see **Figure 26**).

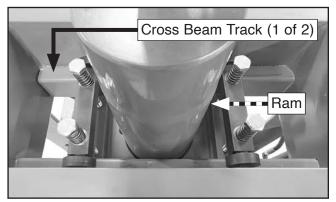


Figure 26. Location of cross beam tracks.

#### **Ram Piston**

Lower ram a few inches, then wipe ram piston using a clean rag coated with light machine oil to remove debris and prevent contaminates from entering hydraulic system (see **Figure 27**).

**IMPORTANT:** While holding rag, grasp exposed piston at the top and pull rag down across piston surface in a single motion. This helps prevent debris from becoming embedded in the ram seals.

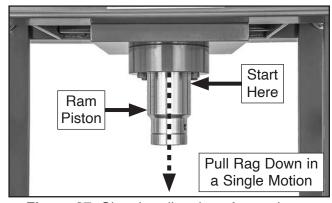


Figure 27. Cleaning direction of ram piston.

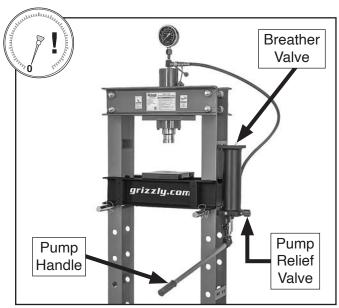
## Bleeding Hydraulic System

Ensure there is as little air as possible in the hydraulic system at all times. Trapped air can cause the ram to act erratically during operations. Air has been properly bled when the ram moves smoothly through its full cycle.

**IMPORTANT:** Always ensure breather valve is open before bleeding hydraulic system!

#### To bleed hydraulic system:

- 1. Rotate pump relief valve counterclockwise to open hydraulic system (see **Figure 28**).
- 2. Pump handle several full strokes to bleed air from hydraulic system (see Figure 28).



**Figure 28.** Location of hydraulic system components.

- **3.** Rotate pump relief valve fully clockwise to close hydraulic system, then pump handle to cycle ram through its full range of motion.
  - If ram does not move, or movement is erratic, verify hydraulic oil level (see Adding Hydraulic Oil on Page 27).
  - If ram movement is smooth and consistent through its full range of motion, no further action is required.



#### **Adding Hydraulic Oil**

The Model T34348 features a sealed hydraulic system. Periodically check hydraulic oil level and add oil as needed.

Items Needed	Qty
Open-End Wrench 14mm	1
Small Funnel	1
Flashlight	1
Face Shield	1
Goggles	1 Pr.
ISO-15 or ISO-22 Hydraulic Oil	As Needed
Clean Shop Rags	As Needed
Disposable Gloves	As Needed

#### To add hydraulic oil:

1. Rotate breather valve and pump relief valve counterclockwise to release hydraulic system pressure (see Figure 29).

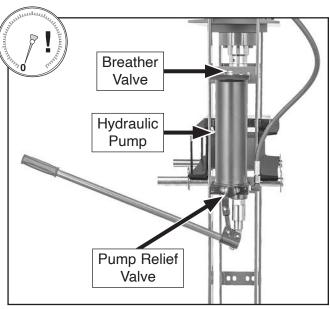


Figure 29. Location of hydraulic system components.



#### **A**WARNING

**POISON HAZARD** Hydraulic oil is poisonous. Use personal protective equipment when handling hydraulic oil, and immedi-

- Remove breather valve plug (see Figure 30) and verify hydraulic oil level:
  - If hydraulic oil level is visible approximately 1/4" below threads in breather valve plug hole, no additional oil is required.
  - If hydraulic oil level is not visible, add oil until oil level reaches approximately 1/4" below threads in breather valve plug hole.

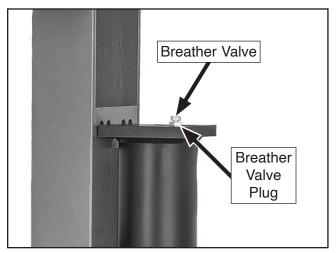


Figure 30. Location of breather valve plug.

Install breather valve plug and proceed to Bleeding Hydraulic System on Page 26.

# Changing Hydraulic Oil

The hydraulic oil should be inspected for contamination annually, or when ram movement is erratic and hydraulic system contamination is suspected.

Synthetic hydraulic oil has a typical shelf life of five years when stored in its original container. However, the service life of hydraulic oil is shorter and may need to be replaced more frequently depending on the operating environment.



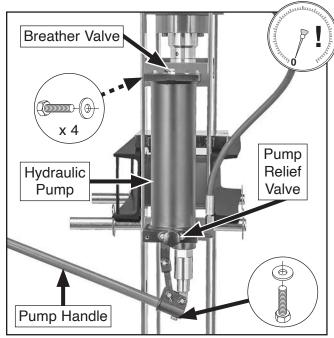
# AWARNING POISON HAZARD

Hydraulic oil is poisonous. Use personal protection when handling hydraulic oil, and immediately clean up any spills.

Items Needed	Qty
Wrench or Socket 14, 17mm	1 Ea.
Drain Pan or 5-Gallon Bucket	1
Small Funnel	1
Flashlight	1
Face Shield	1
Goggles	1 Pr.
ISO-15 or ISO-22 Hydraulic Oil A	s Needed
Clean Shop Rags A	s Needed
Disposable Gloves A	s Needed

#### To change hydraulic oil:

- Rotate breather valve and pump relief valve counterclockwise to release hydraulic system pressure (see Figure 31).
- Remove hex bolt and flat washer securing pump handle (see Figure 31), then remove handle.
- **3.** Remove (4) hex bolts and flat washers securing hydraulic pump (see **Figure 31**), then place hydraulic pump in drain pan.



**Figure 31.** Location of hydraulic system components.

 Remove breather valve plug on hydraulic pump (see Figure 32), and drain all hydraulic oil into drain pan.

**Note:** Rotate hydraulic pump and tilt back and forth to help drain oil from pump.

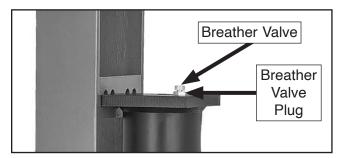


Figure 32. Location of breather valve plug.

- 5. Install hydraulic pump using fasteners removed in **Step 3**, then install pump handle and secure with fasteners removed in **Step 2**.
- **6.** Remove drain pan and dispose of hydraulic oil according to state and federal regulations.
- 7. Ensure hydraulic pump is straight and level, then fill pump with ISO-15 or ISO-22 hydraulic oil until level reaches approximately 1/4" below threads in breather valve plug hole.
- 8. Install breather valve plug and proceed to Bleeding Hydraulic System on Page 26.



# **SECTION 5: SERVICE**

Review the troubleshooting procedures in this section if a problem develops with your machine. If you need replacement parts or additional help with a procedure, call our Technical Support. **Note:** *Please gather the serial number and manufacture date of your machine before calling.* 

# **Troubleshooting**

#### **Operations**

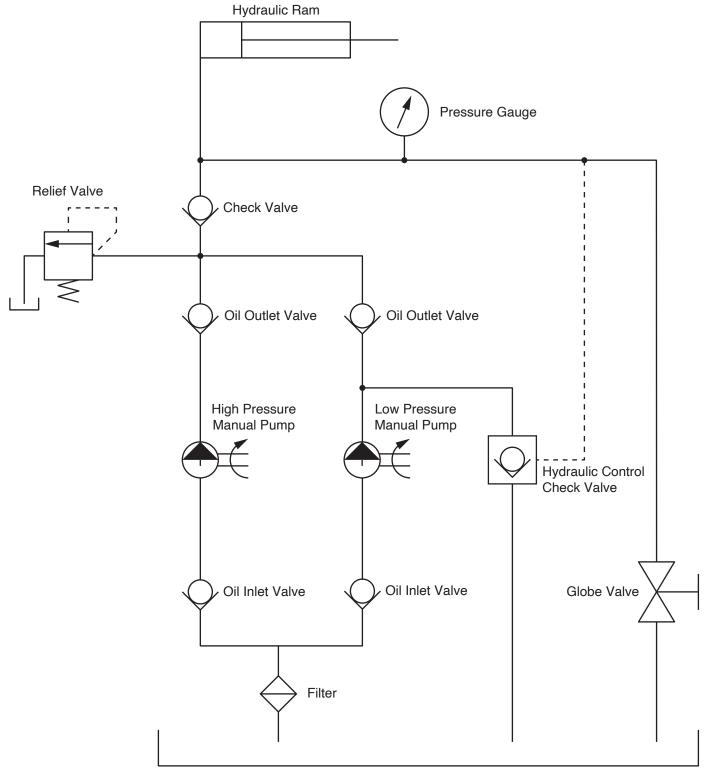
Symptom	Possible Cause	Possible Solution
Ram does not	Pump relief valve open.	Tighten pump relief valve (Page 23).
move.	2. Hydraulic oil level too low.	2. Add hydraulic oil to proper level (Page 27).
	3. Hydraulic system leaking.	3. Locate source of leak and replace leaking part.
	4. Obstruction in hydraulic line.	4. Check hydraulic line for obstructions.
	5. Pump relief valve at fault.	5. Replace pump relief valve.
	6. Hydraulic ram at fault.	6. Replace hydraulic ram.
	7. Hydraulic pump at fault.	7. Replace hydraulic pump.
Ram moves	Pump relief valve open.	1. Tighten pump relief valve (Page 23).
slowly or	2. Air present in hydraulic system.	2. Bleed hydraulic system (Page 26).
applies	Hydraulic system leaking.	3. Locate source of leak and replace leaking part.
insufficient	4. Hydraulic pump screen clogged.	4. Replace hydraulic pump screen.
pressure.	5. Obstruction in hydraulic hose.	5. Check hydraulic hose for obstructions.
	6. Pump relief valve at fault.	6. Replace pump relief valve.
	7. Hydraulic ram seals at fault.	7. Replace hydraulic ram seals.
	8. Hydraulic pump at fault.	8. Replace hydraulic pump.
Ram moves	Air present in hydraulic system.	Bleed hydraulic system (Page 26).
erratically.	2. Hydraulic oil level too low.	2. Add hydraulic oil to proper level (Page 27).
	Hydraulic system leaking.	3. Locate source of leak and replace leaking part.
	4. Hydraulic oil contaminated.	4. Drain and replace hydraulic oil (Page 28).
Ram saddle	Ram saddle set screw loose.	1. Tighten ram saddle set screw (Page 23).
loose in piston.	2. Ram saddle set screw damaged or worn.	Replace ram saddle set screw.
Machine	Machine incorrectly mounted to floor.	1. Tighten mounting hardware (Page 18); adjust or
wobbles during		shim as needed.
operations.	2. Machine component(s) loose.	2. Inspect fasteners for security; tighten with thread-
		locking fluid if required.



# **SECTION 6: HYDRAULICS**

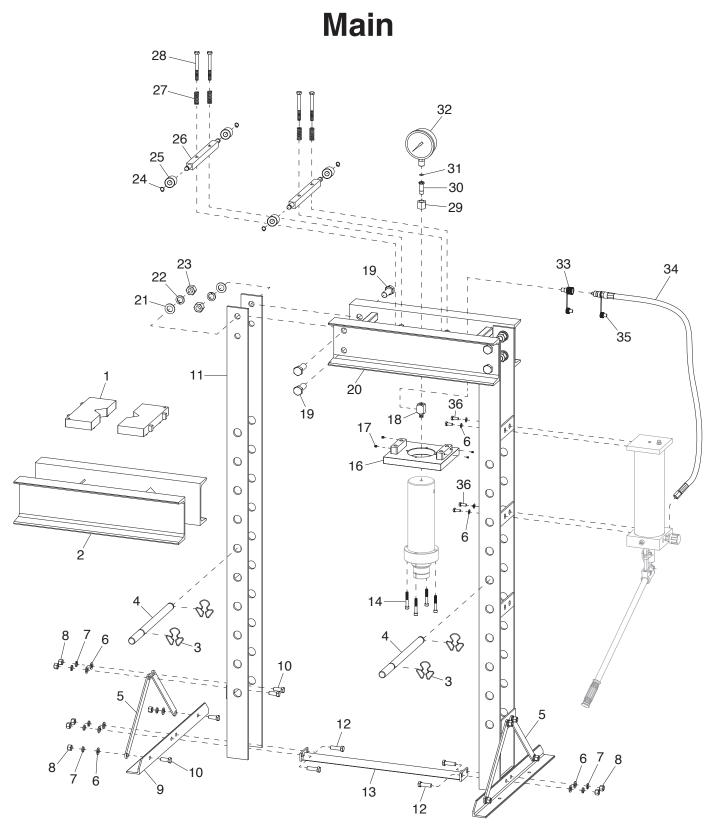
Before servicing the hydraulic system on your machine, refer to **Additional Safety for Hydraulic Systems** on **Page 9** for safety information about hydraulics to reduce your risk of injury.

# **Hydraulic System Schematic**



# **SECTION 7: PARTS**

We do our best to stock replacement parts when possible, but we cannot guarantee that all parts shown are available for purchase. Call **(800) 523-4777** or visit **www.grizzly.com/parts** to check for availability.



# **Main Parts List**

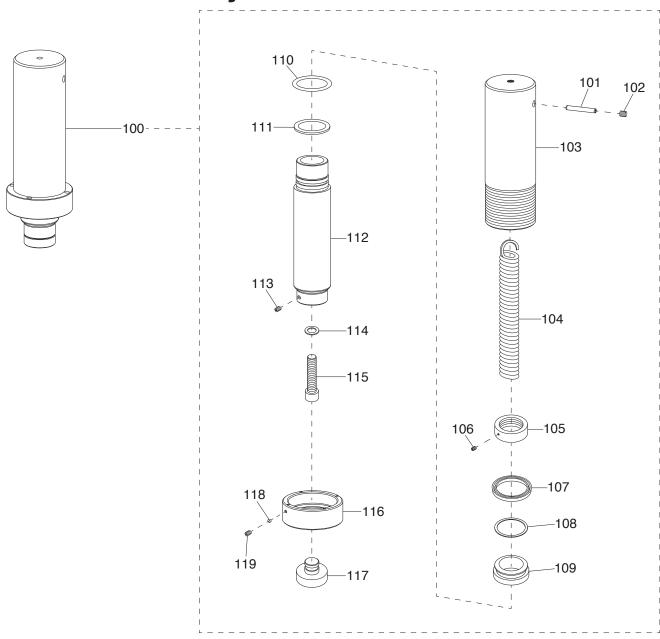
REF	PART#	DESCRIPTION
1	PT34348001	PRESS V-BLOCK
2	PT34348002	PRESS BED
3	PT34348003	RETAINING RING
4	PT34348004	SUPPORT ROD
5	PT34348005	ANGLE BRACE
6	PT34348006	FLAT WASHER 10MM
7	PT34348007	LOCK WASHER 10MM
8	PT34348008	HEX NUT M10-1.5
9	PT34348009	FRAME SUPPORT
10	PT34348010	HEX BOLT M10-1.5 X 35
11	PT34348011	COLUMN
12	PT34348012	HEX BOLT M10-1.5 X 35
13	PT34348013	CENTER BRACE
14	PT34348014	CAP SCREW M8-1.25 X 55
16	PT34348016	RAM MOUNTING PLATE
17	PT34348017	SET SCREW M6-1 X 8
18	PT34348018	PIPE ADAPTER M20-1.5, M14-1.5 X 25
19	PT34348019	HEX BOLT M20-2.5 X 50

REF	PART #	DESCRIPTION
20	PT34348020	CROSS BEAM
21	PT34348021	FLAT WASHER 20MM
22	PT34348022	LOCK WASHER 20MM
23	PT34348023	HEX NUT M20-2.5
24	PT34348024	EXT RETAINING RING 16MM
25	PT34348025	BLOCK ROLLER
26	PT34348026	MOUNTING BLOCK
27	PT34348027	COMPRESSION SPRING 2 X 16 X 48
28	PT34348028	HEX BOLT M10-1.5 X 110
29	PT34348029	PIPE NUT M20-1.5
30	PT34348030	PIPE FITTING 1/4 NPT X 44
31	PT34348031	SEAL 10MM, NYLON
32	PT34348032	PRESSURE GAUGE
33	PT34348033	PIPE FITTING 1/4 NPT
34	PT34348034	HYDRAULIC HOSE 1/4 ID X 40" L
35	PT34348035	FITTING CAP
36	PT34348036	HEX BOLT M10-1.5 X 20





# **Hydraulic Ram**



100	PT34348100	HYDRAULIC RAM ASSEMBLY
101	PT34348101	ROLL PIN 10 X 65
102	PT34348102	RAM PLUG 1/4 NPT
103	PT34348103	RAM CYLINDER BARREL
104	PT34348104	RAM RETURN SPRING
105	PT34348105	RAM ADJUSTMENT NUT
106	PT34348106	SET SCREW M6-1 X 8
107	PT34348107	U-CUP SEAL W/O-RING 70 X 6

PISTON SEAT

WEAR RING 80 X 70 X 2, PTFE

**DESCRIPTION** 

REF	PARI#	DESCRIPTION
110	PT34348110	O-RING 55 X 3.55
111	PT34348111	O-RING 61 X 1.3, PTFE
112	PT34348112	RAM PISTON ROD
113	PT34348113	SET SCREW M6-1 X 8
114	PT34348114	PUMP GASKET 31.5 X 28 X 25, COPPER
115	PT34348115	CAP SCREW M10-1.5 X 70
116	PT34348116	RAM COLLAR
117	PT34348117	RAM SADDLE
118	PT34348118	SPACER BLOCK, NYLON
119	PT34348119	SET SCREW M8-1.25 X 10

**REF PART#** 

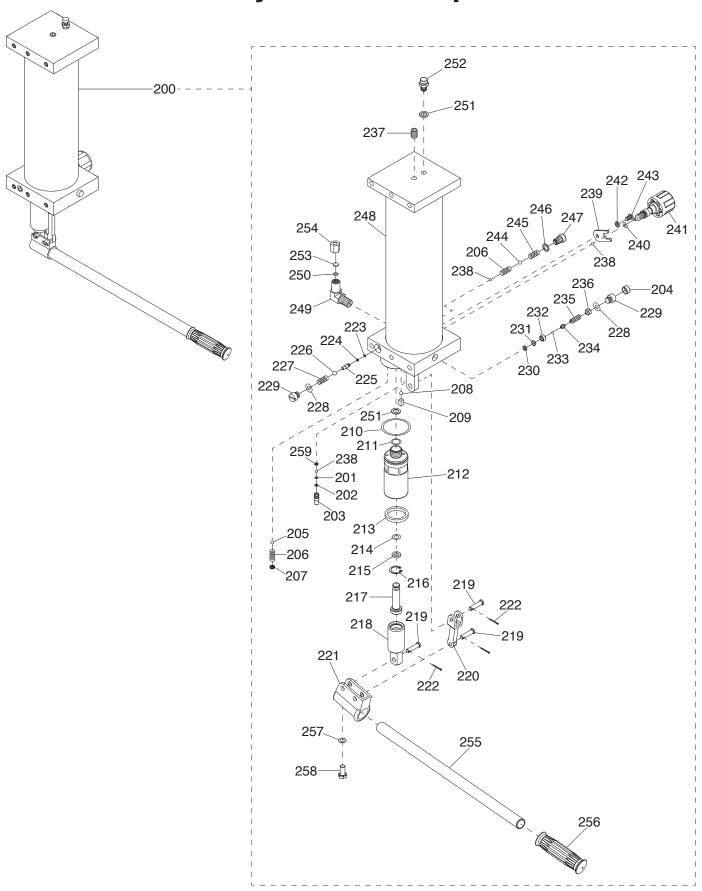
PT34348108

PT34348109

108

109

# **Hydraulic Pump**



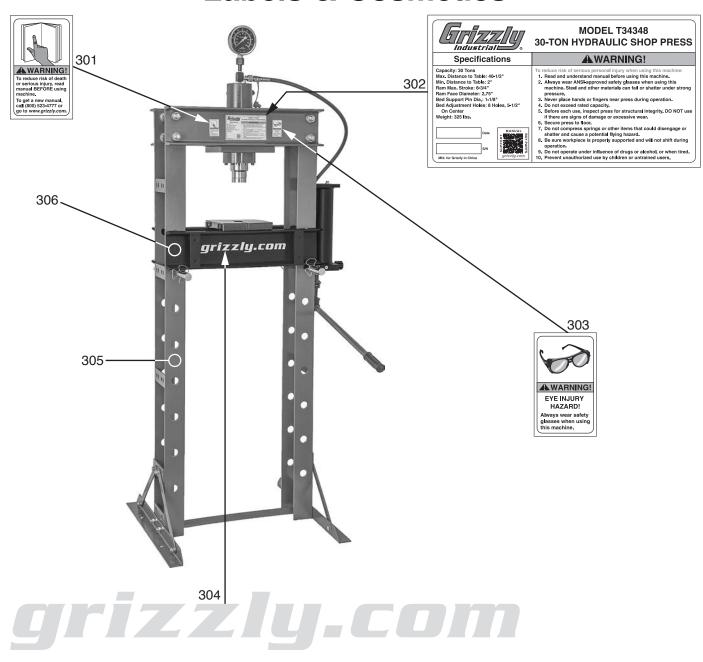
-34-

# **Hydraulic Pump Parts List**

REF	PART#	DESCRIPTION
200	PT34348200	HYDRAULIC PUMP ASSEMBLY
201	PT34348201	O-RING 5.5 X 1.5 SM6
202	PT34348202	SEAL 8 X 5.7 X 1, PTFE
203	PT34348203	VALVE SEAT
204	PT34348204	SCREW CAP
205	PT34348205	STEEL BALL 6MM
206	PT34348206	COMPRESSION SPRING 0.25 X 6 X 9.5
207	PT34348207	RELIEF VALVE PLUG M8-1 X 4
208	PT34348208	STEEL BALL 6.5MM
209	PT34348209	LIMIT BLOCK 6 X 6 X 9.2MM
210	PT34348210	PUMP GASKET 12 X 18.2 X 1, COPPER
211	PT34348211	O-RING 34.4 X 3.1 G35
212	PT34348212	PUMP CORE SEAT
213	PT34348213	HOSE COUPLING GASKET 28 X 35.5 X 5
214	PT34348214	O-RING 6.5 X 3
215	PT34348215	SEAL 7 X 12 X 1.5
216	PT34348216	INT RETAINING RING 20MM
217	PT34348217	PUMP CORE SHAFT
218	PT34348218	PUMP HANDLE SEAT
219	PT34348219	CLEVIS PIN 8 X 32
220	PT34348220	CLEVIS ROD END
221	PT34348221	PUMP HANDLE SLEEVE
222	PT34348222	COTTER PIN M2 X 20 STANDARD
223	PT34348223	O-RING 3.1 X 1.6
224	PT34348224	SEAL 3.3 X 6 X 1.2, NYLON
225	PT34348225	RELIEF VALVE SHAFT M58 X 18
226	PT34348226	STEEL BALL 8MM
227	PT34348227	COMPRESSION SPRING 1.4 X 3.5 X 14.5
228	PT34348228	O-RING 7.8 X 2.2
229	PT34348229	SHOULDER SCR M10-1 X 5, 14 X 7, HEADLESS

REF	PART #	DESCRIPTION
230	PT34348230	SEAL 6 X 8.6 X 1, COPPER
231	PT34348231	SPACER 2.5 X 8.5 X 3MM
232	PT34348232	HEX SHAFT COLLAR 5.5MM, M10-1
233	PT34348233	STEEL BALL 3.5MM
234	PT34348234	STEEL BALL SEAT
235	PT34348235	COMPRESSION SPRING 2 X 5.5 X 20
236	PT34348236	SHOULDER SCREW M12-1 X 8.5, 3 X 3
237	PT34348237	PUMP PLUG 1/8 NPT
238	PT34348238	STEEL BALL 5MM
239	PT34348239	LIMIT BRACKET
240	PT34348240	O-RING 7 X 3
241	PT34348241	KNOB BOLT M10-1 X 10
242	PT34348242	LOCK WASHER 6MM
243	PT34348243	BUTTON HD CAP SCR M6-1 X 10
244	PT34348244	STEEL BALL 7.5MM
245	PT34348245	COMPRESSION SPRING 0.4 X 9 X 17.4
246	PT34348246	SEAL 10.2 X 14 X 1.5, COPPER
247	PT34348247	CAP SCREW M10-1 X 21
248	PT34348248	PUMP CYLINDER
249	PT34348249	90-DEG ADAPTER 1/4 NPT, M14-1.5
250	PT34348250	O-RING 5.2 X 1.9
251	PT34348251	SEAL 10 X 15 X 2, NYLON
252	PT34348252	BREATHER VALVE M14-1.5 X 25
253	PT34348253	SEAL 12.3MM, NYLON
254	PT34348254	HOSE NUT M14-1.5
255	PT34348255	PUMP HANDLE
256	PT34348256	PUMP HANDLE GRIP
257	PT34348257	FLAT WASHER 8MM
258	PT34348258	HEX BOLT M8-1.25 X 16
259	PT34348259	VALVE WASHER W/SCREEN 7.5MM
	-	•

#### **Labels & Cosmetics**



REF	PART#	DESCRIPTION
201	DT04040004	

301	PT34348301	READ MANUAL LABEL
302	PT34348302	MACHINE ID LABEL
303	PT34348303	SAFETY GLASSES LABEL

REF	PART#	DESCRIPTION
304	PT34348304	GRIZZLY.COM LABEL 13.5", BEIGE
305	PT34348305	TOUCH-UP PAINT, GRIZZLY GREEN
306	PT34348306	TOUCH-UP PAINT, GLOSS BLACK

# **AWARNING**

Safety labels help reduce the risk of serious injury caused by machine hazards. If any label comes off or becomes unreadable, the owner of this machine MUST replace it in the original location before resuming operations. For replacements, contact (800) 523-4777 or www.grizzly.com.



#### **WARRANTY & RETURNS**

Grizzly Industrial, Inc. warrants every product it sells for a period of **1 year** to the original purchaser from the date of purchase. This warranty does not apply to defects due directly or indirectly to misuse, abuse, negligence, accidents, repairs or alterations or lack of maintenance. This is Grizzly's sole written warranty and any and all warranties that may be implied by law, including any merchantability or fitness, for any particular purpose, are hereby limited to the duration of this written warranty. We do not warrant or represent that the merchandise complies with the provisions of any law or acts unless the manufacturer so warrants. In no event shall Grizzly's liability under this warranty exceed the purchase price paid for the product and any legal actions brought against Grizzly shall be tried in the State of Washington, County of Whatcom.

We shall in no event be liable for death, injuries to persons or property or for incidental, contingent, special, or consequential damages arising from the use of our products.

The manufacturers reserve the right to change specifications at any time because they constantly strive to achieve better quality equipment. We make every effort to ensure that our products meet high quality and durability standards and we hope you never need to use this warranty.

In the event you need to use this warranty, contact us by mail or phone and give us all the details. We will then issue you a "Return Number," which must be clearly posted on the outside as well as the inside of the carton. We will not accept any item back without this number. Proof of purchase must accompany the merchandise.

Please feel free to write or call us if you have any questions about the machine or the manual.

Thank you again for your business and continued support. We hope to serve you again soon.

For further information about the warranty, visit https://www.grizzly.com/forms/warranty or scan the QR code below to be automatically directed to our warranty page.





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