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# Bonny Doon Hydraulic Press Instructions

**IMPORTANT!** Read all safety, assembly and operating instructions before assembling or operating your Bonny Doon hydraulic press. Failure to do so can result in serious injury or death. **The warnings, precautions, and instructions covered in this document cannot cover all possible conditions and situations that may occur. The operator must understand that common sense and caution are factors that cannot be built into this product and must be supplied by the operator.**

**Save these instructions:** Protect this document and keep it available to have continuing access to the safety warnings and precautions as well as the assembly, operating, inspection, cleaning and maintenance procedures. **NOTICE:** Please save the shipping box and plywood blocks with flange for future shipping.

## Safety Warnings & Caution



1. **Keep work area clean.** Cluttered areas invite injuries.
2. **Keep children away.** All children should be kept well away from work area.
3. **Do not assemble or operate the press while under the influence of alcohol or drugs.** Read warning labels on prescriptions and other medications to determine if your judgment or reflexes may be impaired while taking them. If there is any doubt, do not attempt to assemble or operate this equipment.
4. **Keep away from moving parts during operation.** Keep fingers and hands away from moving parts while operating this equipment.
5. **Use eye and face protection.** Wear ANSI-approved impact-rated face and eye protection.
6. **Dress safely.** Protective gloves and non-skid footwear or safety shoes are recommended when working with and operating the hydraulic press; cover or tie hair securely back. Avoid loose clothing, hair and jewelry; these can get caught in moving parts.

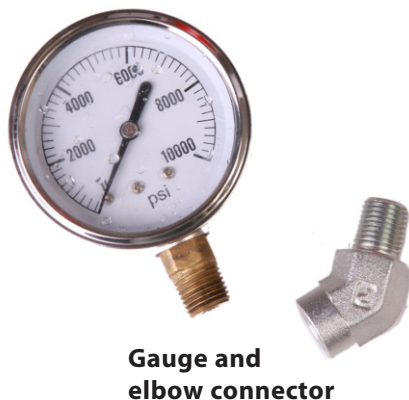
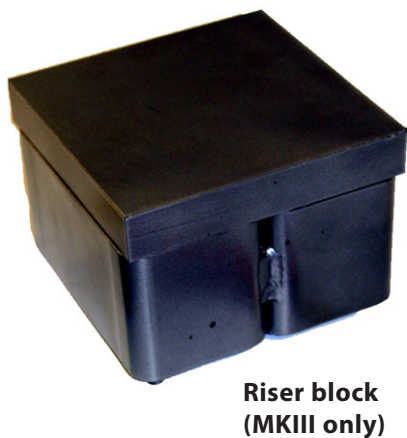
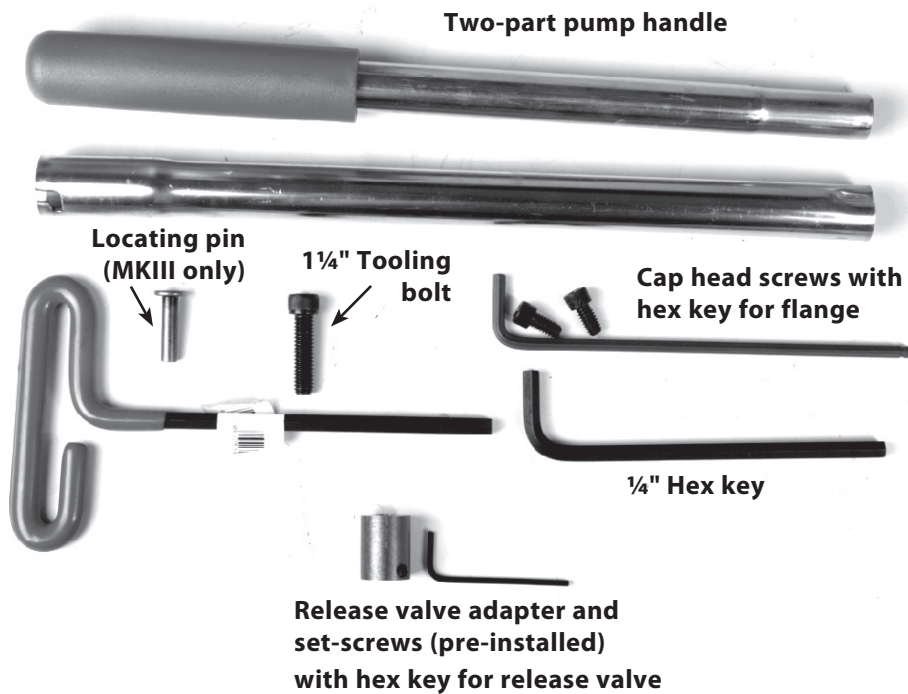
ANSI Warning Symbols and Definitions	
	This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.
	Indicates a hazardous situation which, if not avoided, will result in death or serious injury.
	Indicates a hazardous situation which, if not avoided, could result in death or serious injury.
	Addresses practices not related to personal injury.

7. **Always center your work on the platen,** do not press anything that is positioned off-center. Look at your set-up from multiple angles to ensure that everything is centered within the press.
8. **Contain the die and your workpiece whenever possible.** Use form-boxes or silhouette die containers to contain the urethane and dies.
9. **Always stand behind the upright columns of the press whenever using the press.** Ensure that anyone standing nearby is located behind the columns when operating the press.
10. **Do not compress springs.** Do not press cast iron, rocks, or any fragile or brittle objects. Do not press items that could disengage; this could cause a potential hazard.
11. **Stay alert.** Watch what you are doing. Use common sense. Do not operate any tool when you are tired.
12. **20-ton limit.** Do not operate the hydraulic jack beyond its rated capacity.
13. **Bolt your hydraulic press securely to your bench or work surface.**
14. **Don't overreach.** Keep proper footing and balance at all times.
15. **Replacement parts and accessories.** When servicing your press, use only identical replacement parts; use only accessories intended for use with this press.

# Identify All Parts

Manual Press

**NOTICE**  
**CAUTION**



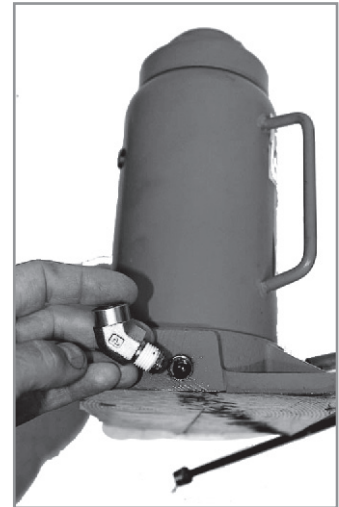
# Install Gauge



Lay the ram on its side with the plug at the bottom, facing up. Have some oil rags ready.



Use the supplied hex key to unscrew the plug located on the side of the ram near the bottom as shown. Oil may flow out of the hole; this is normal.



Insert the elbow connector in the port; hand-thread the connector at least two complete turns before using a wrench to prevent stripping of the threads.



Using the wrench, tighten the elbow connector, leaving the elbow opening in the "up" position as shown.

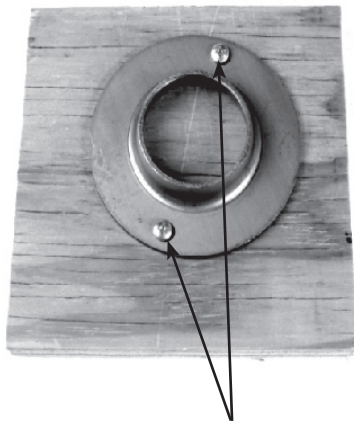


Hand-thread the gauge into the threaded hole carefully, ensuring perfect engagement of the threads. Be very careful to avoid cross-threading or stripping of the threads in the ram —this will void all warranties.



After the gauge has been hand-threaded, use a  $\frac{9}{16}$ " open end wrench and tighten the gauge firmly. Orient the gauge as shown above.





Unscrew the two wood screws that hold the flange to the plywood shipping plate. Replace the screws in the wood to save for future shipping.



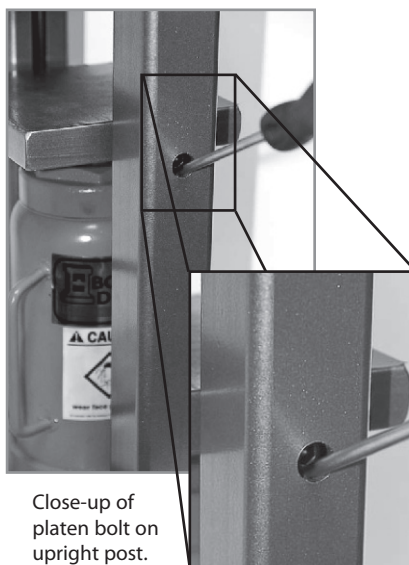
Place the flange over the top of the ram as shown.



Note the two threaded holes in the bottom of the lower platen; check the threads to make sure they are clear of debris.



Set the ram with flange onto the press frame and slide the ram into place.



Close-up of platen bolt on upright post.

If needed, use a screwdriver to pry up the platen bolt located inside the hole on one of the upright posts as you slide the ram into position at the center of the frame.



Thread the two supplied socket cap head screws through the holes in the flange and into the two threaded holes in the lower platen and tighten using the supplied hex key.



### For MKIII press only

Orient the hole in the ram body over the hole found on the press frame. Drop the locating pin in place to keep the ram centered on the frame.

The Classic press allows for up to 7" of space between the upper and lower platens, the MKIII allows for 10" between the two platens. This accommodates many of the large Bonny Doon tools such as the bracelet formers and the deep-draw kits.

**NOTICE**  
**CAUTION**

**Always use a minimum of 2" of tooling height in the press.** The ram is designed to raise the lower platen no more than 6", and it is best to raise the ram no more than 5½". Each of the three images below illustrate at least 2" of tooling height installed in the press.

## Always use a minimum of 2" of tooling height in the press.



Shown with 2" of spacer blocks



Shown with master tool holder, a mushroom former, and a contained urethane.



Shown with a bracelet forming kit.



Please note that there may be visible tool marks or paint missing from the handle and head of your ram. These parts are painted in the factory in Japan and are bent afterward to fit into the shipping boxes; this often leaves telltale marks and missing paint, which is normal and should not be judged as defect or inferior quality.

No VOCs are emitted at Bonny Doon via the painting of parts. All of our products are either powder-coated or left natural to minimize our carbon footprint and maximize sustainability. Only the finest-quality parts are used to ensure maximum longevity.

## Cleaning, Maintenance and Lubrication

**NOTICE**

**CAUTION**

**Inspect:** Before each use, inspect the general condition of the hydraulic press and the ram. Check for broken, cracked or bent parts, loose or missing parts, and any condition that may affect the proper operation of the equipment. If a problem occurs, have the problem corrected before using the equipment.

**Clean:** Clean the press and ram using a clean cloth and a detergent or mild cleaner. Store and use the press in a well-protected area free of corrosive vapors, abrasive dust and harmful elements. **Keep all warning labels clean and legible.**

**Oil Level:** The oil level is topped off when the press is shipped and may leak during transport. All hydraulics leak over time and use; if your press is leaking more than a tablespoon per week, it is in need of repair. If it is leaking less than a tablespoon per week, it is within the normal limits of use.

**Manual Press:** Check the level through the reservoir fill plug hole with the ram all the way down. The level should be  $\frac{1}{4}$ " below the bottom of the reservoir fill plug hole. You can use a paperclip or toothpick to check the level. Only use "Hydraulic Jack Oil" in your press and change the oil at least once a year. The first oil change should be performed no more than 12 months after purchase, then changed every 6–12 months thereafter (more frequently with heavy use).

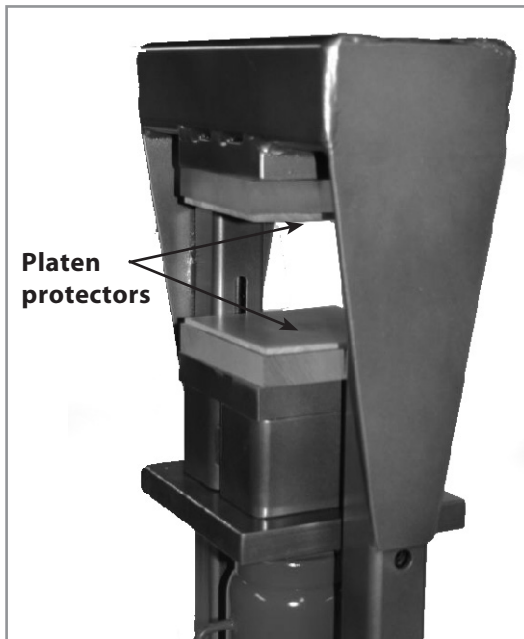
The ram should be lowered all the way down at the end of each day's use. This keeps the ram clean and free of dust and debris which wears on the seals.

**Never extend the a Bonny Doon manual ram more than 6" (and we recommend raising no more than 5½").** If the ram is overextended, a valve opens, allowing the hydraulic fluid to return directly to the reservoir. You know this is happening because, after each stroke beyond the max, the ram goes up only to go immediately down again. This is normal; simply open the pressure relief valve and allow the ram to lower back into the proper range. To help prevent over-extension, always use at least two 1"-thick platen protectors (see image, below left), which will prevent over-extension of the ram.

**Tip:** Tape a 6" ruler to one upright with the "0" mark of the ruler adjacent to the top side of the lower platen (see image, below right).

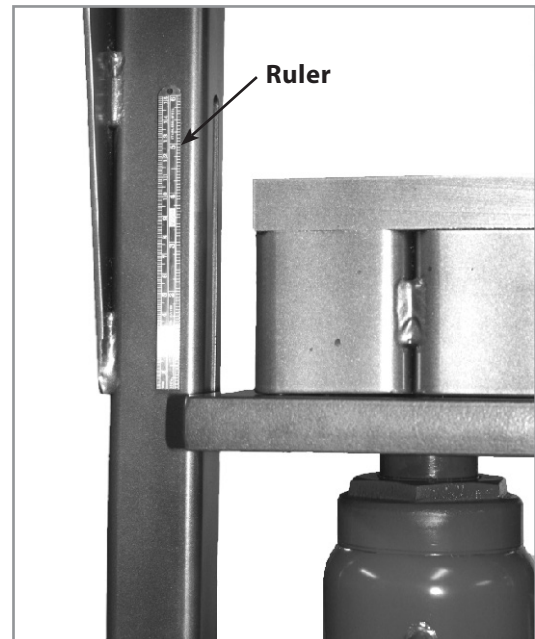
**Note:** Turn the T-handle counter-clockwise **only**  $\frac{1}{4}$ -turn (one quarter-turn) to open the valve that lowers the ram; turn the T-handle  $\frac{1}{4}$ -turn clockwise **only** to close the valve for raising the ram. Do not over-tighten or over-loosen the T-handle by turning it more than  $\frac{1}{4}$ -turn.

### Save all warnings and instructions for future reference.



Press shown with platen protectors in place (one upper and one lower) that keep the ram from over-extending.

MKIII riser block shown in place



Tape a ruler on an upright column, and use it to help prevent you from inadvertently over-extending the ram.

## Important!

Before first use, check for proper hydraulic oil level in the ram. Then thoroughly test the press for proper operation prior to its actual use. If the ram appears to be working improperly it may be necessary to bleed its hydraulic system of excess air.

To remove excess air from hydraulic system:

1. Remove the oil filler plug.
2. Turn the pressure release valve counter-clockwise two full turns.
3. Pump the pump handle several times quickly.
4. Check the oil level, and fill if needed.
5. Replace the oil filler plug.
6. Test several times by tightening the pressure release valve and raising the lower platen 2"–4", then releasing it.
7. If the press still does not operate properly after purging, do not use the press until it has been replaced or repaired by a qualified service technician.

## Troubleshooting

**TO PREVENT SERIOUS INJURY: Use caution when troubleshooting a malfunctioning press. Completely resolve all problems before use.**



**WARNING**

If the solutions presented in the troubleshooting guide below do not solve the problem, have a qualified technician inspect and repair the press before use. **BEFORE RETURNING THE PRESS TO OPERATION after the ram is repaired, test it carefully without a load by raising it and lowering it fully, checking for proper operation. NEVER use a damaged or malfunctioning hydraulic press.**

Symptoms						Probable Solution (make certain that the ram is not supporting a load while attempting any solution.)
Ram will not push to its force capacity	Ram lowers under load	Pump stroke feels spongy	Ram will not lift all the way	Handle moves up when ram is under load	Oil leaking from filler plug	
X	X					Check that release valve is fully closed.
X	X			X		Valves may be blocked and may not close fully. To flush the valves: 1. Lower the saddle and securely close the release valve. 2. Manually lift the saddle several inches. 3. Open the release valve and force the saddle down as quickly as possible.
X		X	X			Ram may be low on oil. Check the oil level and refill if needed.
						Ram may require bleeding—see instructions above.
					X	Unit may have too much hydraulic oil inside, check fluid level and adjust if needed.