



## ROLL BED PRESS FRAME

Max. Capacity: 80/100 or 150/200 Ton (72.56/90.70 or 136.05/181.40 t)

### NOTE:

- For a detailed parts list or to locate a Power Team Authorized Hydraulic Service Center, contact your nearest Power Team facility. A list of all Power Team facilities is located at the end of this document.
- Carefully inspect the press upon arrival. The carrier, not the manufacturer, is responsible for any damage resulting from shipment.

## SAFETY DEFINITIONS

Safety symbols are used to identify any action or lack of action that can cause personal injury. Your reading and understanding of these safety symbols is very important.



**DANGER** - Danger is used only when your action or lack of action will cause serious human injury or death.



**WARNING** - Warning is used to describe any action or lack of action where a serious injury can occur.

**IMPORTANT** - Important is used when action or lack of action can cause equipment failure, either immediate or over a long period of time.

## SAFETY PRECAUTIONS

These instructions are intended for end-user application needs. Many problems with new equipment are caused by improper operation or installation. For a detailed parts list or to locate a Power Team Authorized Hydraulic Service Center contact your nearest Power Team facility. A list of all Power Team facilities is located at the end of this document.



**WARNING:** It is the operator's responsibility to read and understand the following safety statements,

- Only qualified operators should install, operate, adjust, maintain, clean, repair, or transport this machinery.
- These components are designed for general use in normal environments. These components are not specifically designed for lifting and moving people, agri-food machinery, certain types of mobile machinery or special work environments such as: explosive, flammable or corrosive. Only the user can decide the suitability of this machinery in these conditions or extreme environments. Power Team will supply information necessary to help make these decisions.

## SAFETY PRECAUTIONS - CONTINUED



**WARNING:** To help prevent personal injury,

### GENERAL

- ALWAYS read and carefully follow the operating instructions and safety precautions before assembling or using this press. Most problems with new equipment are caused by incorrect operation or assembly.
- Read and carefully follow the operating instructions and safety precautions for the pump and cylinder used with this press.
- Presses can exert extremely high forces at moderate hydraulic pump pressures. If you have any questions concerning how much force is exerted at a given pressure, contact your nearest Power Team facility (see listing at the end of this document).

### SET-UP

- The owner/operator of this press must see that it is installed and operated according to federal (OSHA), state, local European (EU), and other safety standards where applicable.
- Install the press in an isolated area, or shield the press to minimize danger to others. Hydraulic pressure can cause materials to break, possibly resulting in personal injury due to flying objects, falling objects, shifting loads and other hazards.
- This press is designed for shop maintenance applications. Guards, enclosures, monitors, interlocks, controls, restraints, and other devices must be used by the owner/operator when this press is used for specific applications with hazards best known by the owner/operator. For information regarding other applications, contact your nearest Power Team facility (see listing at the end of this document).
- Additions of specific safety equipment, such as permanent enclosures, guards or shields, light curtains, etc., to the press must be on separate, free-standing structures, or clamped to the press frame without cutting, drilling, welding or otherwise modifying the press structure or affecting its function. Such modifications can cause equipment damage and/or personal injury.
- Modifications to the structure and function of this press are not permitted, voids the warranty, may cause personal injury, and voids the Declaration of Incorporation.
- Any press accessories, fixtures, plates, or special equipment used with the press must have a maximum tonnage rating equal to or higher than the maximum tonnage rating of the press, or breakage and possible injury can occur.
- The owner/operator of the press must ensure that all safety-related decals are installed, maintained, and replaced if they become hard to read.

### OPERATION

- The press operator and anyone within sight of the press must wear protective eyewear that meets the requirements of OSHA, ANSI Z87.1-1968, or applicable EU standards.
- It is the owner/operator's responsibility to use appropriate guarding to contain any pieces that might break or fly apart when applying force. For added protection, always wrap the workpiece in a protective blanket before applying force. Contact your nearest Power Team facility (see listing at the end of this document) for more information about protective blankets.
- Keep hands out of the work area during a pressing operation.
- Workpieces must be well supported and aligned so that cylinder/ram force is straight, and parts being pressed cannot slip out or break.
- Use caution when loading and unloading the press.

# SAFETY PRECAUTIONS - CONTINUED

## BOLSTER ADJUSTMENT

- Keep hands, feet, legs, etc. out from under the bolster. Accidental slippage can result in personal injury.
- To help prevent accidents, never raise or lower the bolster if a load has been placed on it.
- When raising or lowering the bolster, place a support pin all the way through the front and the back uprights in the highest hole under the bolster that will not interfere with the new bolster position. Remove your hand from the support pins after the pins are in place. Failure to do so can result in personal injury if the bolster falls.
- Inspect the entire length of the lifting mechanism at least every three months, and replace any components that are worn or deformed. The bolster lift screws must be properly adjusted and free to turn. Regular lubrication and maintenance will help prevent accidental breakage or difficult movement.
- Do not load work or exert hydraulic force on the press bed until all bolster pins are in place, and the roll bed levers are in the UP position.

## FRAME ASSEMBLY

### NOTE:

- Some press models are shipped unassembled and require complete assembly; other models require minor assembly.
- Refer to Parts List #100787 (80/100 ton [72.56/90.70 t]) or #100786 (150/200 ton [136.05/181.40 t]) during the assembly procedure.
- In these instructions, "left" and "right" are determined by facing the press with the roll bed tracks positioned toward you.



### WARNING:

- Work carefully to help prevent personal injury during the assembly of this press. Due to the size and weight of the roll bed press components, extra care must be taken to help avoid injury. Work very carefully when assembling the upright and bolster assemblies; all components must be securely in position before installing fasteners.

1. See Figure 1. Attach the side plates to the uprights using the screws provided (#210244 or #210256). With the side plates positioned at 90° to the uprights, torque the screws to 800/900 ft. lbs. (1088/1224 N•m).
2. See Figure 2. Place the upper bolster on a pallet or other suitable support that is 5 to 10 inches (12.7 to 25.4 cm) high. Bring an upright/side plate assembly into the upper bolster in a horizontal position, and secure with two cross pins (#38166 or #44466) per side.

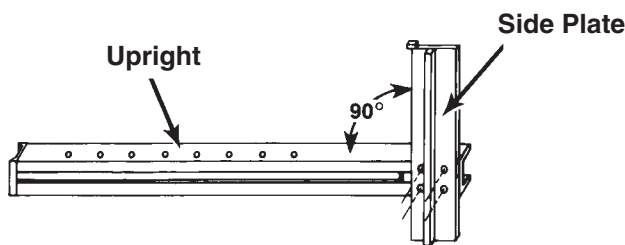


FIGURE 1

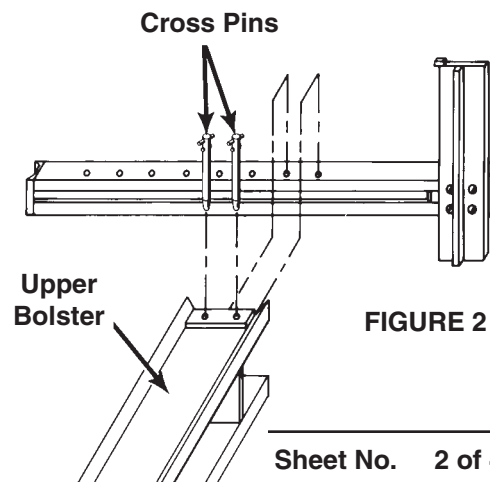


FIGURE 2

Note: Shaded areas reflect last revision(s) made to this form.

## FRAME ASSEMBLY - CONTINUED

3. See Figure 3. Assemble the uprights parallel to each other. **NOTE: The inside surface measurements must be the same at the top and the bottom.** Secure with straps on the top and tie straps and shims on the bottom. The upper straps and the side plates must be positioned 90° to the uprights. Check all measurements again. Torque sideplate fastening screws to 800/900 ft. lbs. (1088/1224 N•m). Torque top and tie strap fastening screws to 70/80 ft. lbs. (95.2/108.8 N•m).
4. Use the upper bolster pin holes in the uprights as strap attachment points to lift the press unit upright. The press can be lifted using an overhead crane or a fork lift. If a fork lift is used, the bolster must be positioned at the top of the press. Place the forks of the lift under the bolster, and safety chain the bolster to the fork lift to prevent the press from tipping as it is positioned upright. Check to see that all bolster pins are installed, and lift the press frame upright.

**WARNING:** To help prevent personal injury, a safety chain or strap must be used to keep the frame on the forks or in the hook of a crane. As the press is set upright, the forward motion of the press can cause it to continue forward and tip over.

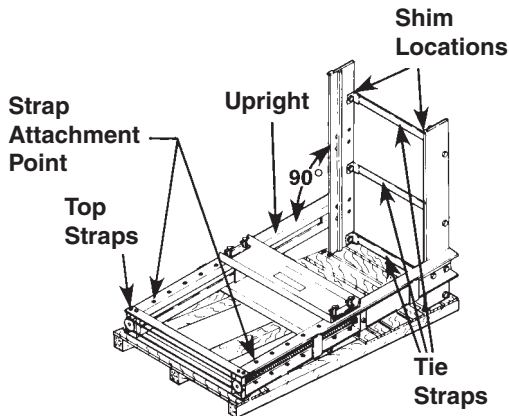


FIGURE 3

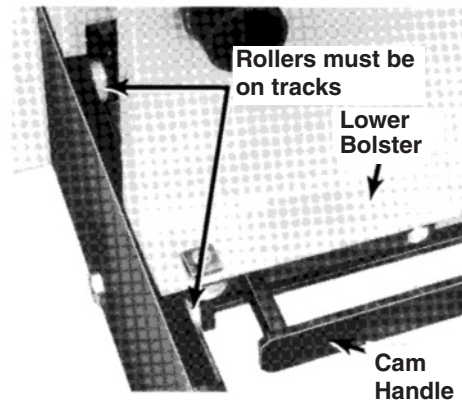


FIGURE 4

5. Leave the banding straps around the roller assemblies on the front and back lower bolster assembly until the bolsters are positioned on the press. Place the bolsters in position. The rollers on each end of the bolster must be on the tracks. See Figure 4.
6. Slide the lower guide tubes (#304988) inside the bolsters. Install the bolts (#10093) into the ends of both of the guide tubes.
7. Raise the lower bolster enough to insert the rear cams into the roll bracket with the screw heads between the roll bracket arms. One screw head should point straight down; the other screw head should point to the inside of the press. See Figure 5A. Slide the handles (#45654) with the front cams already assembled through the front roll bracket into the rear cam. The handle should be in the 2 o'clock position for the left side and in the 10 o'clock position for the right side. See Figure 15.

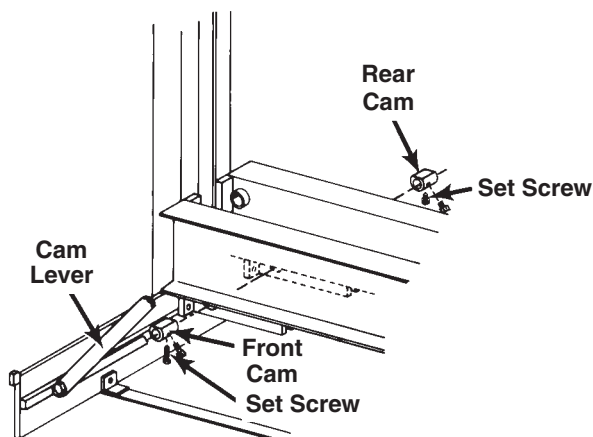


FIGURE 5

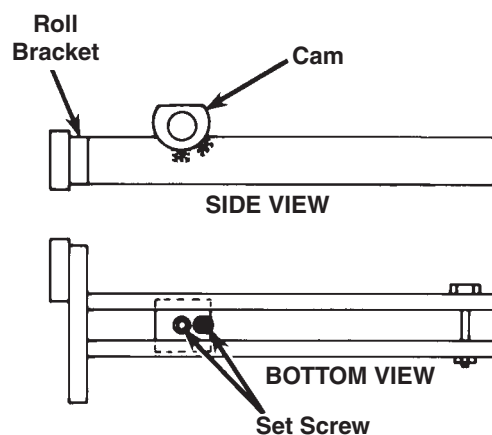


FIGURE 5A

# FRAME ASSEMBLY - CONTINUED

8. See Figure 6. Install the crank handle on to the left side of the press. A 1/4 inch (6.35 mm) bolt and lockwasher are included.
9. See Figure 7. Assemble the roller carriage wheels (Items 1, 2, 3, & 4). The lips of the carriage wheels (Item 4) must be located to the inside of the upper bolsters as shown in Figures 7 & 8. Install the threaded rods (Item 7) into the roller carriage, and secure with roller pins (Item 6). Place the completed assembly on top of the upper bolster. See Figures 7 & 8.
10. Remove the cylinder from its packing box. Install fittings in the cylinder.
11. **80/100 ton (72.56/90.70 t) presses:** Thread the cylinder into the mounting plate (Item 8, Figure 7) until all threads are engaged.  
**150/200 ton (136.05/181.40 t) presses:** Thread the cylinder into the mounting plate until the bottom hose fitting hits on the mounting plate counterbore (counterbore toward cylinder as shown in Figure 7). Position the cylinder inlet and outlet ports parallel with the upper press bolster and toward the hydraulic pump mounting position. Back the cylinder out of the threads only enough to position it correctly with hoses and fittings as shown in Figure 7).

**WARNING:** To help prevent personal injury, cylinders and mounting plates **MUST** have maximum thread engagement to withstand full load.

12. Assemble the cylinder into the upper bolster by first constructing cribbing until the assembled cylinder mounting plate is positioned on top and approximately 14 inches (35.56 cm) above the lower bolster.

**WARNING:** The lifted object can become unbalanced and fall when cribbing is being constructed. Extra caution is required to prevent personal injury or equipment damage during this step.

13. Remove the four bolster cross pins. Lower the upper bolster down over the cylinder assembly.
14. See Figure 7. Install the four threaded rods in the roller carriage into the cylinder mounting plate. Secure the carriage with locknuts on the bottom side of the cylinder mounting plate. Adjust the ease of travel of the carriage with the tightness of the locknuts. Insert the roll pins (Item 6) in both ends of the threaded rods after adjustments have been made.

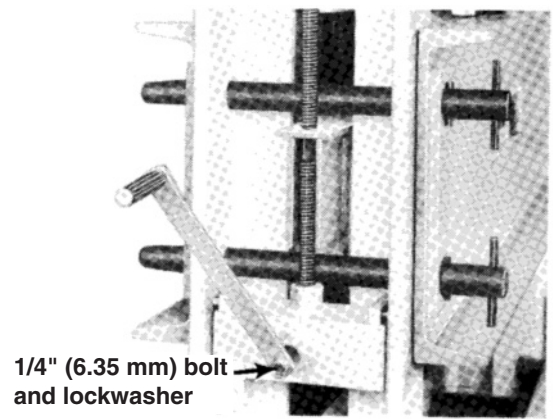


FIGURE 6

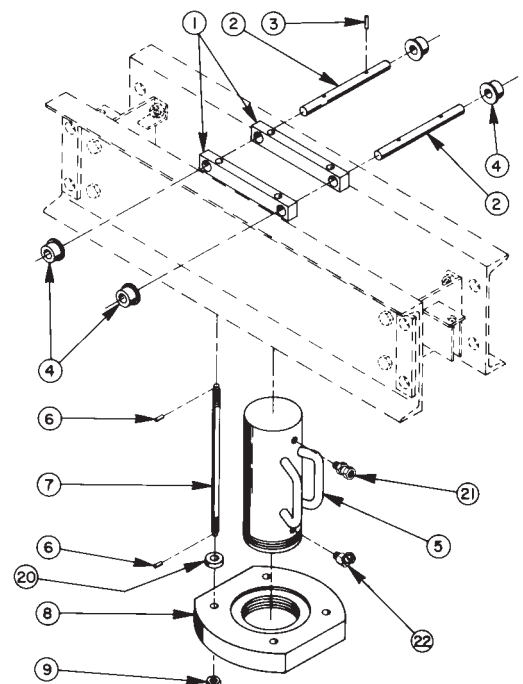


FIGURE 7

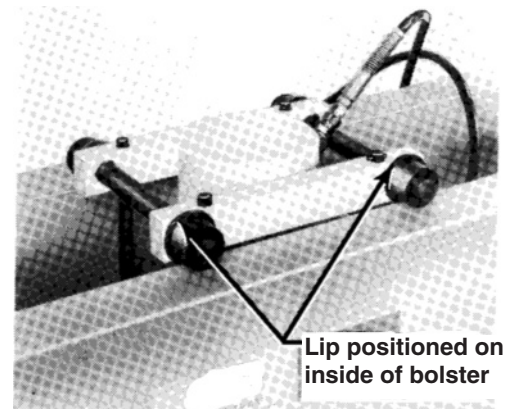


FIGURE 8

## FRAME ASSEMBLY - CONTINUED

15. Remove the pump from the packing box. Remove and save the two mounting bolts that attach the pump to the wooden packing board. They will be used to attach the pump to the press.

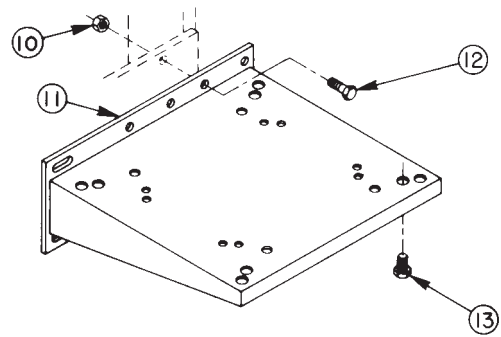


FIGURE 9

**Note: Pump PQ1204S is shown in these figures. Other pumps and cylinders may be used. Consult the manufacturer for mounting variations.**

16. See Figure 9. Mount the pump mounting bracket to the press frame with the two 3/8 inch (9.53 mm) locknuts and bolts.

17. Attach the pump to the mounting bracket using the two supplied 1/2 inch (12.7 mm) bolts and the two bolts retained from Step 15.

18. Connect the pump to the cylinder using the two hoses supplied. Valve port "A" (See Figure 10) must be connected to swivel connector (Figure 7, Item 21) on the cylinder. Valve port "B" must be connected to swivel connector (Figure 7, Item 22) on the cylinder.

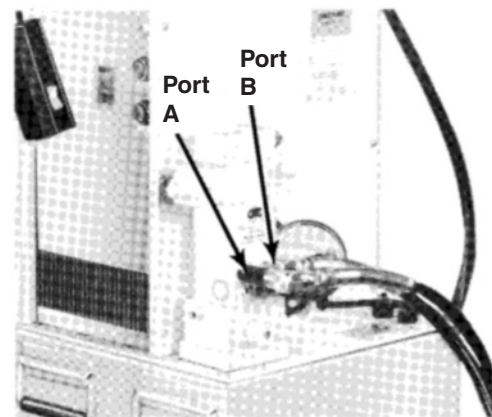
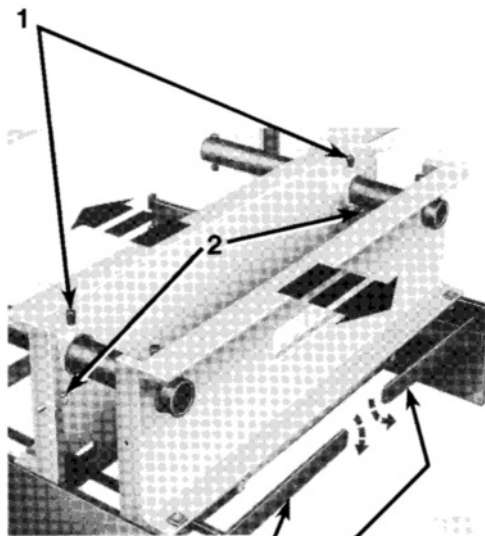


FIGURE 10

**IMPORTANT: Seal all external pipe connections with a high quality, nonhardening pipe sealant, such as Power Team HTS6.** Teflon tape can also be used to seal hydraulic connections if only one layer of tape is used. Apply the tape carefully to prevent it from being pinched by the coupler and broken off inside the system. Any loose pieces of tape could travel through the system and obstruct the flow of oil or cause jamming of precision-fit parts.

## ROLL BED OPERATION

1. See Figure 11. To adjust the space between the bed channels, loosen the set screws (Item 1). Extend the cotterless hitch pins (Item 2) into the space between the upright angles. This holds the rear bed channel and allows the front bed channel to be pushed or pulled to the desired spacing. Tighten the set screws before rolling the bed.



2. Place the cam levers in the DOWN position as shown in Figure 11 (not past horizontal) to raise the roll bed. Roll the bed out to the work-loading position. Place the work piece on the roll bed, and center it as much as possible. Raise the upper bolster if necessary to allow clearance for the work piece.

3. Roll the bed into position under the upper bolster. Place the roll bed levers in the UP position. This allows the bed to rest on the press frame. The bolster pins must be securely in place before applying hydraulic force.

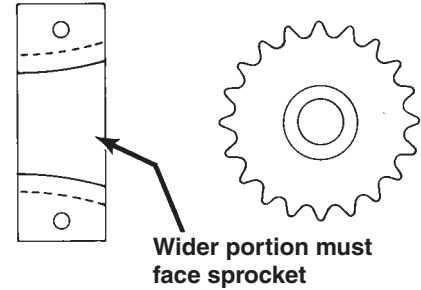
**IMPORTANT: If the roll bed is not lowered and resting on the press, the bolts will shear in the rollers when a hydraulic load is applied.**

Cam Levers

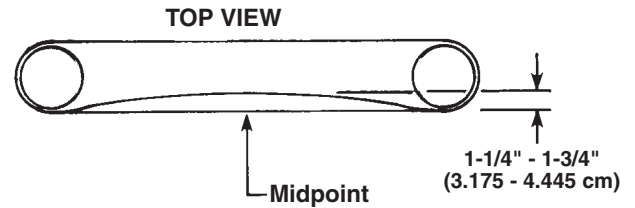
FIGURE 11

**MAINTENANCE**

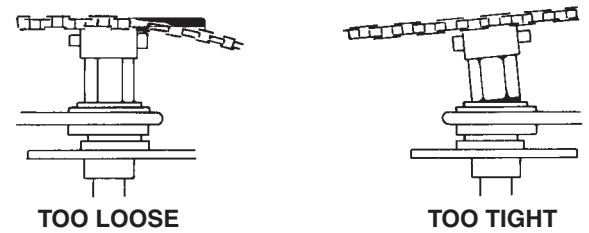
1. Lubricate the bolster lift screws periodically.
2. **Chain Adjustment:** See Figure 12. The wider portion of the chain guide must face the sprocket. The press must be square to align the chain sprocket. See Figure 15 and Detail A. Adjust the chain guide upward so the bearing surface of the chain guide just makes contact with the bottom of the chain coming off the sprocket. See Figure 13. Adjust chain tension until 8-12 lbs. (3.63-5.45 kg) of side force produces 1-1/4 to 1-3/4 inches (31.75 to 44.45 mm) of deflection at midpoint. See Figure 14 and Detail A. Tighten or loosen both sides evenly to keep the lift screws in line with the bolster brackets as much as possible. Too much tension can cause the bolster chain sprocket to bend inward; not enough tension lets the chain go slack and out of alignment. The nut must be tight against the sprocket hub. See Detail A.
3. **Lower Bolster Clearance and Contact Guide:** See Detail B. For maximum bolster contact, the lower side plates should be adjusted inward and parallel to each other by adding or removing shims between the side plates and tie straps. The lower bolster should be positioned as close as possible to the uprights while still allowing the guide bearings to move freely. A maximum amount of contact must be allowed for the side plates.



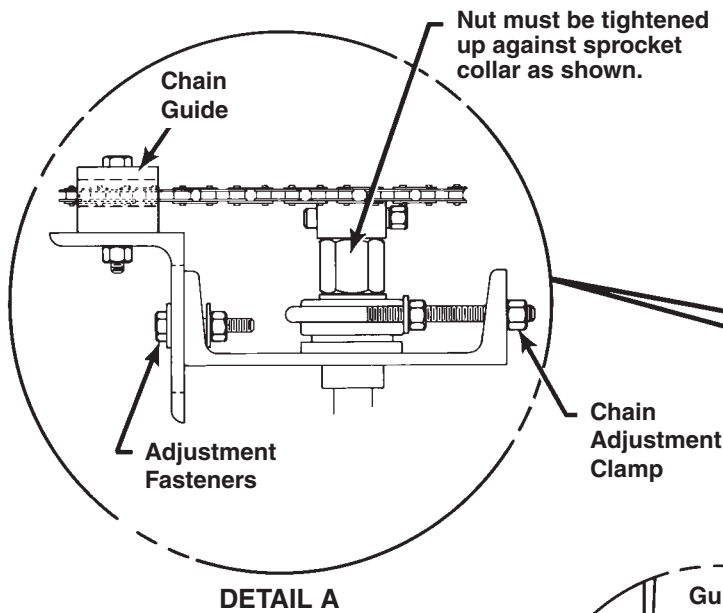
**FIGURE 12**



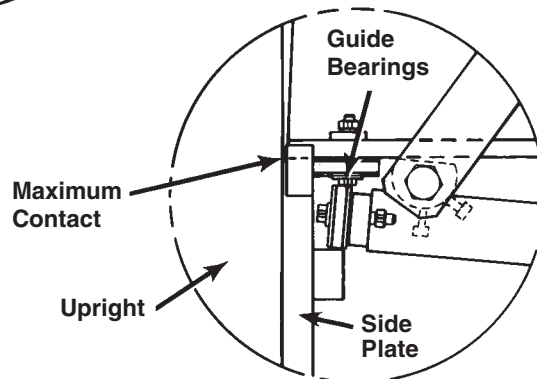
**FIGURE 13**



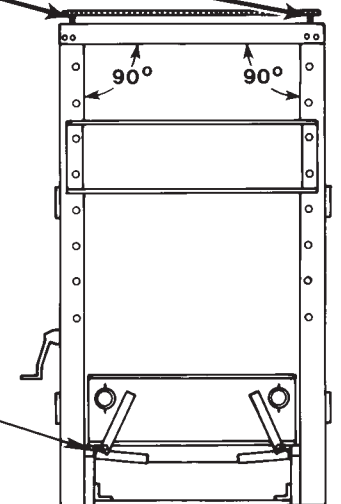
**FIGURE 14**



**DETAIL A**



**DETAIL B**



**FIGURE 15**

## POWER TEAM FACILITIES



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