

Assembly & Operating Instructions for:

014-00084	1834	203241	SPE256
014-00085	1836	203400	SPM256
016-00006	1837	201561	Y-125-A
016-00008	60178	211220	Y-125-B
1833	60222	SPA256	

SHOP PRESS

Max. Capacity: 25 Ton

These instructions are written for various model shop presses. Some models are shipped assembled and require a minor amount of assembly; others are shipped unassembled and require complete assembly. The complete assembly procedure is covered in these instructions for your reference. Check the contents of the shipping carton against the parts list to be certain that all parts are present before beginning assembly.

Safety Precautions



WARNING



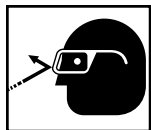
- All WARNING statements must be carefully observed to help prevent personal injury.
- Most problems with new equipment are caused by incorrect operation or assembly. Operators must read and carefully follow the operating instructions and safety precautions before assembling or using this press. If the operator cannot read English, operating instructions and safety precautions must be read and discussed in the operator's native language.

Si el operador no puede leer el inglés, las instrucciones de operación y las precauciones de seguridad deberán leerse y comentarse en el idioma nativo del operador.

Si l'utilisateur ne peut lire l'anglais, les instructions et les consignes de sécurité doivent lui être expliquées dans sa langue maternelle.



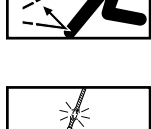
- Operators must read and carefully follow the operating instructions and safety precautions for the pump and ram used with this press.
- The owner of this press must see that it is installed and operated according to federal (OSHA), state, and local safety standards.
- Presses can exert extremely high forces at moderate hydraulic pump pressures. If you have any questions concerning how much force is exerted at a given pressure, contact our Technical Serv. Dept.
- This press is designed for shop maintenance applications. For information regarding other applications, contact the Technical Services Dept.



- The press operator and anyone within sight of the press must wear protective eyewear that meets the requirements of ANSI Z87.1 and OSHA. Keep hands out of the work area. The press should be located in an isolated area or shielded to minimize any danger to others. High hydraulic pressure can cause materials to break and possibly cause personal injury.



- It is impossible for the manufacturer to provide practical "all-purpose" shielding because this is a general purpose press that can be used in many different applications. The owner of the press must supply shielding that is practical and necessary for a particular application. Some safety is provided by wrapping the work in a protective blanket (see OTC catalog) before applying pressure.



- Work pieces must be well supported and aligned so when pressure is exerted, parts being pressed do not slip out or break.



- To prevent accidental slippage, do not place work pieces on the press bed or apply hydraulic force until all bolster pins are in place and all tension has been removed from the bolster lift cables.
- Do not stress adapters beyond their capacities. Any pushing or pulling adapters used with this press must have a maximum tonnage rating equal to or higher than the maximum tonnage rating of the press, or breakage can occur.

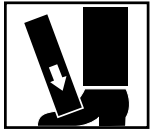


- The owner of the press must ensure that all safety-related decals are installed, maintained, and replaced if they become hard to read.

WARNING (cont'd)

Bolster Adjustment

A winch and cable assembly support the bolster when the support pins are not in place. The following rules must be observed to prevent personal injury:



- Keep hands, feet, legs, etc. out from under the bolster. Accidental slippage can result in personal injury.
- To prevent accidental slippage, all bolster support pins must be in place and all cables slack before placing a work piece on the press bed or starting a pressing operation.
- To prevent accidental cable breakage, never raise or lower the bolster if a load has been placed on it.
- When lowering the bolster, remove the work piece. Place one support pin all the way through each front and the back upright in the highest hole under the bolster that will not interfere with the new bolster position. Remove your hands from the support pins after the pins are in place.
- When raising the bolster, remove the work piece. Leave the support pins in place until the bolster is raised to its new position. Remove your hands from the support pins after the pins are in place.
- Inspect the entire length of the lifting cables at least every three months, and replace cables that appear frayed, worn, or crushed. The cables must run on the pulleys easily, and the pulleys must be free to turn. Correct cable maintenance helps prevent accidental cable breakage.

Assembly

(Item numbers refer to the Parts list No. 100551)

Important: During the assembly of the press, hand tighten nuts and bolts unless otherwise directed. Use a wrench on nuts and bolts after the assembly has been completed.

1. Place lower bolster assembly (Item #12) on 4" blocks approximately 24" long. Blocks must lay parallel to bolster sides. **IMPORTANT: The cable attaching holes in bolster lifting plates must be facing up.**
2. Attach foot angles (#13) to press uprights (#10 and #25) using cap screws (#20), washers (#19), and hex nuts (#8).
3. Attach spacer angle (#14) to press upright (#10) with cap screw (#20).
4. Slide the upright (with angle spacer attached) between bolster assembly (#12) until it bottoms against the bolster lifting plate.
5. Slide remaining press upright (#25) between bolster assembly (#12), and attach to angle spacer with cap screw (#20).
6. Mount one of the upper bolsters (#1) to top of uprights (#10 & #25) using cap screws (#7) and hex nuts (#5). The mounting hole for the ram plate (#11) must be facing down.
7. Insert pulley axle (#4) through one side of uppermost hole in press upright (#10 & #25). Place pulley (#3) on axle (#4) and push shaft into hole in other side of press upright. Use a general purpose grease on pulley axle for lubrication.
8. Mount remaining bolster to uprights using cap screws (#7) and hex nuts (#5). This holds pulley and axle in place.
9. Assemble cap screw (#2), washers (#26), and nut (#24) to pulley bracket.

CABLE THREADING DIAGRAM

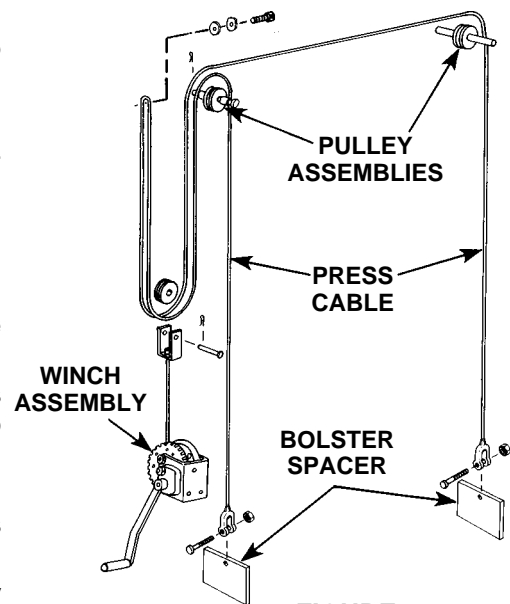


FIGURE 1

IMPORTANT: Do not tighten the cap screw at this time because the bolster lifting cable must slip over the cap screw between the washers and the pulley bracket.

10. Attach winch assembly to the winch mounting plate on the upright using cap screws (#18) and hex nuts (#24). Wrench tighten.
11. Attach one end of press cable (#3, sheet 3 of 3) to right side of lower bolster (#12) with cable anchoring cap screw (#1, sheet 3 of 3) and lock nut (#2, sheet 3 of 3). Thread remaining end of cable through pulley (#3) and attach to left side of lower bolster. To finish threading the press cable, refer to the cable threading diagram in Figure 1 on this page.
12. Turn winch to raise bolster assembly off blocks. Insert bolster pins (#15) under bolster.
13. Raise bolster to put tension on cable.
14. Level lower bolster. Tighten cable anchoring cap screw (#1, sheet 3 of 3) and nut (#2, sheet 3 of 3).

Hydraulic Connections

NOTE: If your press is model #1834 or #SPA256, the pump mounting bracket is not used; the pump is positioned on the shop floor for the convenience of the operator.

1. Attach the pump mounting bracket to the right hand press upright. Refer to the back of sheet 2 of 2, parts list #100551.
2. Assemble the gauge and hose to the pump using the hydraulic hose, gauge, adapters, and couplers that have been supplied.

IMPORTANT: Use a high grade of non-hardening pipe sealer to seal hydraulic connections. Teflon tape can be used if only ONE layer of tape is used. Leave the first thread exposed (no tape). Apply carefully to prevent the tape from being pinched by the coupler and broken off inside the system. Any loose pieces of tape could travel through the system and possibly obstruct the flow of oil.

3. Thread ram into ram mounting plate. **IMPORTANT:** The threads of the ram must be flush with the bottom of the mounting plate (full thread engagement).
4. Place the ram assembly on the lower bolster. **IMPORTANT:** The pipe plug on the ram must face the pump side of the press frame.
5. By operating the winch mechanism, raise the ram assembly to the upper bolster. Block the ram assembly if additional height is needed so the ram will reach the upper bolster when the lower bolster is raised.
6. Attach the ram mounting plate to the upper bolsters with cap screws (#16), hex nuts (#8), and beveled washers (#9). **NOTE:** Place the beveled washers on top of the bottom lip of the upper bolster. The larger dimension of the beveled washer is positioned to the outside of the bolster to give a level surface for tightening the hex nuts. With the bevel washers in the correct position, wrench tighten the hex nuts.
7. After the ram assembly has been secured to the upper bolster, lower the bolster assembly onto the bolster pins.
8. Bleed the hydraulic system by slowly operating the pump handle until an air-free stream of hydraulic oil flows from the hose.
9. Remove the pipe plug on the ram and attach the hydraulic hose.
10. Straighten the press and wrench tighten all hex nuts and cap screws.

IMPORTANT:

- Retract the ram when it isn't being used to prevent damage to the finished surface of the piston rod.
- When refilling the pump reservoir, use only high-grade hydraulic oil. Never use brake fluids or other substitutes.

