SHOP PRESS
ASSEMBLY INSTRUCTIONS

5212 - 12 Ton Manual Shop Press
5220 - 20 Ton Manual Shop Press
5220AH - 20 Ton Manual Shop Press with Pneumatic/ Hydraulic Power Unit

### PRESS SPECIFICATIONS

<table>
<thead>
<tr>
<th>Sunex Part No.</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
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<tr>
<td>5212</td>
<td>61.5&quot;</td>
<td>20&quot;</td>
<td>26&quot;</td>
<td>8.75&quot;</td>
<td>5&quot;</td>
<td>.75&quot;</td>
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<td>26&quot;</td>
<td>11.25&quot;</td>
<td>5.125&quot;</td>
<td>1&quot;</td>
<td>Y(2)</td>
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<tr>
<td>5220AH</td>
<td>64.5&quot;</td>
<td>24.5&quot;</td>
<td>26&quot;</td>
<td>11.25&quot;</td>
<td>5.125&quot;</td>
<td>1&quot;</td>
<td>Y(2)</td>
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</tbody>
</table>

A - Total Height  
B - Inside Width  
C - Press Feet Length  
D - Bed Width  
E - Stroke (ram travel distance from fully retracted position to fully extended position)  
F - Pin Diameter  
G - Press Plates Included

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Rev: 02/27/07
SAFETY INFORMATION

This operating manual contains important safety information. Read carefully and understand all information before operating this tool. Save this manual for future use.

**WARNING**
This symbol alerts you to the possibility of serious injury or death if instructions are not followed.

This symbol alerts you to the possibility of damage to or destruction of equipment if instructions are not followed.

Failure to heed these warnings may result in loss of load, damage to the press and/or failure resulting in personal injury. This operating manual contains important details concerning the safe operation of this tool. The user must read and understand these details before any use of the tool. This manual must be retained for future reference.

- Read, study, and understand all instruction manuals packed with this press before operating.
- Always wear safety goggles.
- Always wear ear plugs.
- Always wear hard hat and protective clothing when operating the press.
- Never tamper with hydraulic system pressure settings.
- Do not substitute bolts, pins or any part of the components. Use only genuine factory replacement parts.
- Always center load on ram plunger. Load must remain centered on press bed.
- Always use an accurate pressure gauge to measure pressing force.
- Do not exceed the rated capacity of this press.
- Never go near leaks. High pressure oil can puncture skin and cause serious injury, gangrene, or death. If injured, seek emergency medical help. Immediate surgery is required to remove oil.
- Keep hands and fingers out of the press and away from parts that may shift and pinch. Do not stand in front of work area when load is applied.
- Always use a bearing shield when positioning work to be pressed to ensure that the item that is to be pressed cannot be dislodged or broken during press work. This may result in the item being ejected from the press at a dangerous rate of speed.
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**WARNING**

**CAUTION**

- **INFORMATION**

**SAFETY INSTRUCTIONS**

- **CHECK YOUR LOCAL, STATE AND FEDERAL REGULATIONS REGARDING THE SAFE USE OF THIS EQUIPMENT.**
- Your safety is top priority. Please handle equipment with care.
- Fully retract unit and remove all items from the press bed frame.
- Support the press bed, and remove the pins.
- Raise or lower bed to desired height and reinstall press pins. Be certain pins are fully engaged in the parallel flanges of the upright columns.
- Position press on a flat, level, hard surface, preferably concrete.
- Make sure all nuts and bolts are tight.
- Clear the area of bystanders, especially small children, before using.
- Set the press bed to the required height. The press is most effective when the work piece is located 1 inch below the ram’s retracted position. The compression stroke can include the entire 5 inch working range.
- The press is designed to exert a force on anything which is positioned beneath its ram. The work piece can pop out from under the ram at a high rate of speed and injure someone.
- Pressing Bearings: It is essential that you use the bearing shield when pressing bearings on or off.

**LIMITED WARRANTY:**

SUNEX INTERNATIONAL, INC. WARRANTS TO ITS CUSTOMERS THAT THE COMPANY’S SUNEX TOOLS® BRANDED PRODUCTS ARE FREE FROM DEFECTS IN WORKMANSHIP AND MATERIALS. Sunex International, Inc. will repair or replace its Sunex Tools® branded products which fail to give satisfactory service due to defective workmanship or materials, based upon the terms and conditions of the following described warranty plans attributed to that specific product. This product carries a ONE-YEAR warranty. During this warranty period, Sunex Tools® will repair or replace at our option any part or unit which proves to be defective in material or workmanship.

Other important warranty information....

This warranty does not cover damage to equipment or tools arising from alteration, abuse, misuse, damage and does not cover any repairs or replacement made by anyone other than Sunex Tools® or its authorized warranty service centers. The foregoing obligation is Sunex Tools™ sole liability under this or any implied warranty and under no circumstances shall we be liable for any incidental or consequential damages. **Note: Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.**

Return equipment or parts to Sunex Tools®, transportation prepaid. Be certain to include your name and address, evidence of the purchase date, and description of the suspected defect.

If you have any questions about warranty service, please write to Sunex Tools®. This warranty gives you specific legal rights and you may also have other rights which vary from state to state. Repair kits and replacement parts are available for many of Sunex Tools® products regardless of whether or not the product is still covered by a warranty plan.

**SHIPPING ADDRESS:**

Sunex Tools
315 Hawkins Rd.
Travelers Rest, South Carolina 29690

**MAILING ADDRESS:**

Sunex Tools
P.O. Box 4215
Greenville, South Carolina 29608
Examine box contents, then proceed with the following instructions.

**Tools Needed**

1/2" and 5/16" Box Wrenches

**Accessories**

- 2" Punch - 1
  - Accessory only - Not needed for assembly
- Bearing Shield - 1
  - Accessory only - Not needed for assembly
- Press Plates - 2
  - Accessory only - Not needed for assembly
  
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<th>Size</th>
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<tr>
<td>5212</td>
<td>(2) 1&quot; x 2&quot; x 10&quot; Plates</td>
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<tr>
<td>5220</td>
<td>(2) 3/4&quot; x 3&quot; x 12&quot; Plates</td>
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<tr>
<td>5220AH</td>
<td>(2) 3/4&quot; x 3&quot; x 12&quot; Plates</td>
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**Parts List**

- Press Frame - 1
- Press Bed - 1
- Press Feet - 2
- Z Bar - 1
- 1/2"-13 x 1-1/2" Hex Head Bolts - 4
- 1/2" Nuts - 4
- Washers - 4
- 5/16"-13 x 1" Hex Head Bolt - 1
- Press Pins - 2
  
<table>
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<th>Size</th>
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<tr>
<td>5212</td>
<td>(2) 3/4&quot; x 10&quot; Pins</td>
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<tr>
<td>5220</td>
<td>(2) 1&quot; x 12&quot; Pins</td>
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<tr>
<td>5220AH</td>
<td>(2) 1&quot; x 12&quot; Pins</td>
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- Power Unit - 1 (5212 & 5220 ONLY)
  
<table>
<thead>
<tr>
<th>Size</th>
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<tr>
<td>5212</td>
<td>12 Ton Power Unit</td>
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<td>5220</td>
<td>20 Ton Power Unit</td>
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- Pneumatic Power Unit - 1 (5220AH ONLY)
  
<table>
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<th>Size</th>
<th>Count</th>
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</thead>
<tbody>
<tr>
<td>5220AH</td>
<td>20 Ton Pneumatic Power Unit</td>
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</table>
ASSEMBLY INSTRUCTIONS

1. Stand frame upside down
2. Slide bed onto frame
3. Slide bed down to bottom of frame

WARNING
Be aware of jagged edges on frame. Not all welds are smooth. Press bed can pinch or crush fingers. Wear safety gloves.

WARNING
Leg ends and press feet are sharp and potentially dangerous. Wear safety gloves and safety goggles.

Note: In the upright position, inner bracing should form an inverted “v” with the narrower space facing the top of the press.

Note: Position press feet on each side of the press. Attach one bolt, washer and nut on each side. Bolts should be attached OFFSET from one another.

Inside of frame

Front view
Use bolts, washers and nuts to attach Z Bar to both sides of the press.

Note: Check all bolts for tightness. If press rocks, or is not level, loosen press feet slightly to compensate and retighten.

WARNING
Bed must be at the BOTTOM of the frame before proceeding to the next step.

Note: When sliding bed to frame bottom, DO NOT use bed handles.
ASSEMBLY INSTRUCTIONS CONTINUED

**WARNING**

Pins must be COMPLETELY through BOTH SIDES of frame.

**PROCEDURE FOR BLEEDING AIR**

1. Align power unit with "V" in top plate (opening in "V" faces the front side of the press).
2. Insert punch into receptacle UNDER bottom plate.
3. Tighten screw to secure punch.
4. Open the release valve by rotating the handle counterclockwise ONE full turn.
5. Place pump in cradle. Pump 6 full strokes to purge air.
6. Close valve.
7. Pump until unit reaches full extension. Keep pumping under load to purge all air.
8. Open valve and push ram to its lowest position.
9. Close valve and operate normally.

**Note:** If the unit responds immediately to pump action, it is free of air and ready for operation. If not, repeat procedure.
PUMP INSTRUCTIONS FOR 5212 & 5220

8

1. Place the handle on the release valve and rotate clockwise until the valve is closed (hand tighten only).

2. Place the pump handle in the cradle. Move pump handle up and down to lower the carriage and apply force to the item being pressed.

3. To release pressure, remove the pump handle from the cradle and use the handle to slowly turn the release valve counterclockwise. The power unit cylinder will retract and the press cradle will return to the stored position.

Note: When not in use, store power unit with the piston in the fully retracted position and the release valve closed.

PUMP INSTRUCTIONS FOR 5220AH

8-AH

TO OPERATE MANUALLY

5220AH can be operated manually or with pneumatic/hydraulic assist. See step 8 (#1, 2, & 3) for manual operating instructions.

TO OPERATE WITH PNEUMATIC/HYDRAULIC ASSIST

After step 7 (#9): Ensure the oil level is just below the oil filler plug hole. Re-install the oil filler plug. Pour a teaspoon of good quality, air tool lubricant into the air supply inlet of the lift control valve.

Connect to air supply and operate for 3 seconds to evenly distribute lubricant. Check to ensure that the pump operates smoothly before putting into service. Replace worn or damaged parts and assemblies as needed with manufacturer’s authorized replacement parts.

1. Place the handle on the release valve and rotate clockwise until the valve is closed (hand tighten only).

2. To begin pneumatic operation, squeeze air hose trigger until ram comes into contact with the item to be pressed.

3. To end pneumatic operation, release the grip on the air hose trigger.

WARNING

Never wire, clamp or otherwise disable the lift control valve to function by any means other than by using the operator’s hand.
## REPLACEMENT PARTS LIST

5212 - 12 Ton Manual Shop Press  
5220 - 20 Ton Manual Shop Press  
5220AH - 20 Ton Manual Shop Press with Pneumatic/ Hydraulic Power Unit

<table>
<thead>
<tr>
<th>ITEM NO.</th>
<th>SUNEX PART NO.</th>
<th>DESCRIPTION</th>
<th>QTY.</th>
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<tr>
<td>1</td>
<td>RS345009</td>
<td>Spring</td>
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<td>2</td>
<td>RS20FT</td>
<td>Press Bed (5212)</td>
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<td>RS550049</td>
<td>Press Bed (5220 &amp; 5220AH)</td>
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<tr>
<td>3</td>
<td>RS12PP</td>
<td>Press Pin (5212)</td>
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<td>RS310012</td>
<td>Pushing Adapter</td>
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<td>RS550041</td>
<td>Press Plate</td>
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<td>RSBS1</td>
<td>Bearing Shield</td>
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<td>4920CAH</td>
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<td>10</td>
<td>RS49HDL12</td>
<td>Power Unit Handle</td>
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<td>11</td>
<td>RS5212BK</td>
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Only items identified by part number are available separately.