



# *Shop Presses*

## Operating Instructions & Parts Manual

**Model Number**

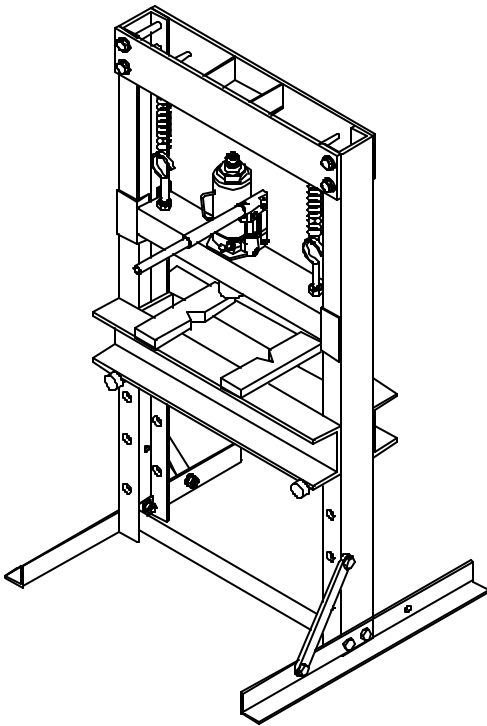
**SHP12**

**SHP20**

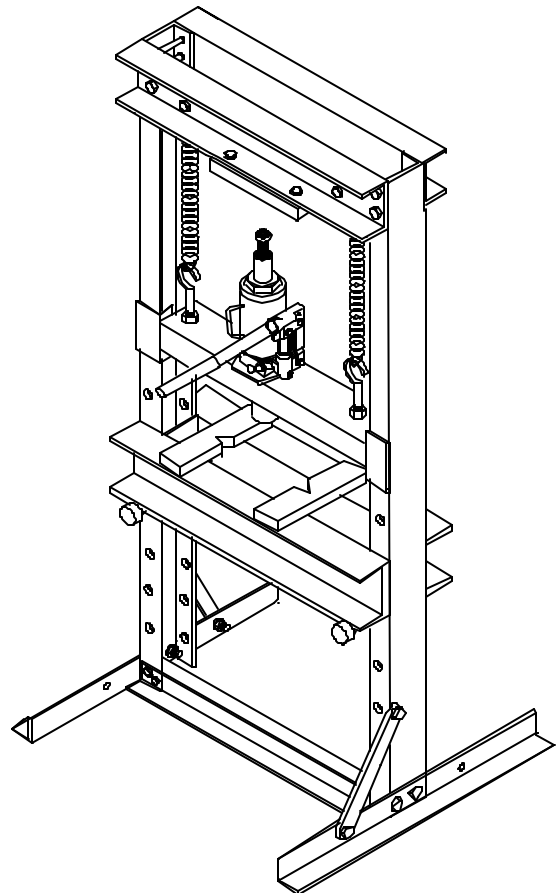
**Capacity**

**12 Ton**

**20 Ton**



Model SHP12



Model SHP20

**MAC TOOLS INC.**

505 N. Cleveland Ave. Suite 200  
Westerville, OH 43082

**Save these instructions.** For your safety, read, understand, and follow the information provided with and on this press. The owner and operator shall have an understanding of this product and safe operating procedures before attempting to use this product. Instructions and Safety information shall be conveyed in the operators native language before use of this product is authorized. Make certain that the operator thoroughly understands the inherent dangers associated with the use and misuse of the product. If any doubt exists as to the safe and proper use of this product, remove from service immediately.

**Inspect before each use.** Do not use if broken, bent, cracked or otherwise damaged parts are noted. If the press has been or suspected to have been subjected to a shock load, discontinue use until checked out by an authorized factory service center. Owners and operators of this equipment shall be aware that the use and subsequent repair of this equipment may require special training and knowledge. It is recommended that an annual inspection be done by qualified personnel and that any missing or damaged parts, decals, warning / safety labels or signs be replaced with authorized replacement parts only. Any press that appears to be damaged in any way, is worn or operates abnormally shall be removed from service immediately until such time as repairs can be made.

**Product Description**

Mac Tools shop presses are designed for use as an aid in assembling automotive and industrial components. Typical applications include installation and removal of alternator and power steering pump bearings, axle bearings, transmission bearings, seal, driveshaft bearings and u-joints and others. Each is designed to provide a positive means of performing clamping (gluing) and forming operations. It is not intended for use as an assembly table or as a fixture stand used to secure a large, final assembly component.

**SPECIFICATIONS**

Model	Capacity	Press Size ( L X W X H )	Max. Working Space	Min. Working Space
SHP12	12 Ton	22 3/4" x 18 1/2" x 59"	34 3/8"	2 5/8"
SHP20	20 Ton	28" x 28" x 64 1/2"	34 1/8"	2 1/2"

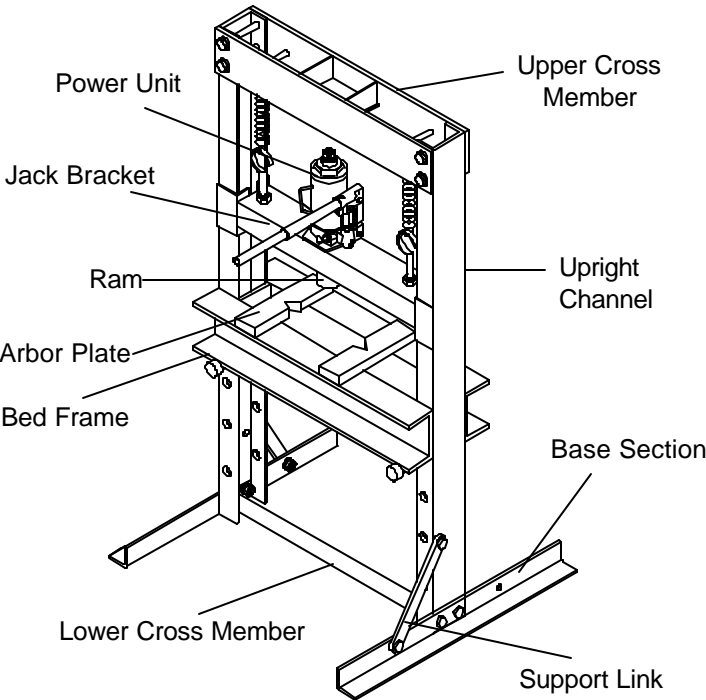


Figure 1 - Model SHP12 Components

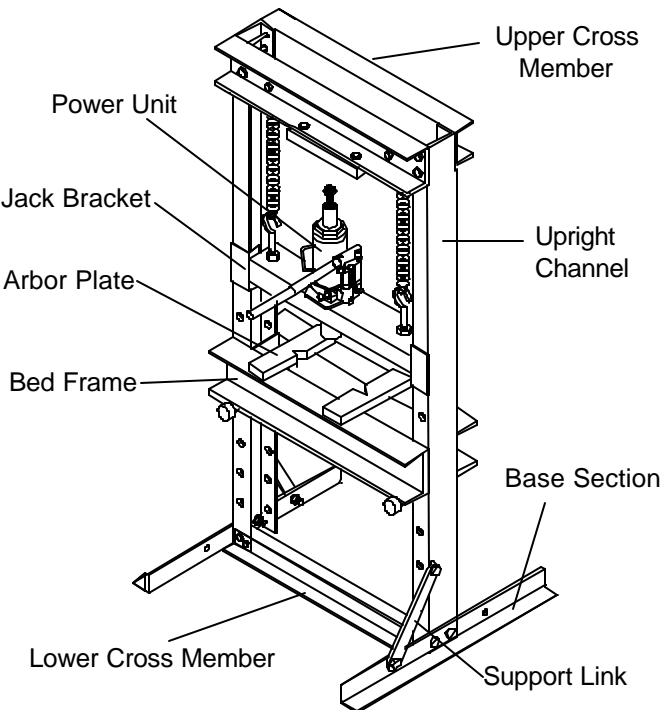


Figure 2 - Model SHP20 Components

## BEFORE USE

1. Read and understand instructional and warning materials provided with and on this product.
2. Thoroughly familiarize yourself with this product.
3. After assembly, check to ensure that applicable nuts and bolts are tight.
4. Inspect before each use. DO NOT USE if bent, broken, cracked, leaking or otherwise damaged components are noted.
5. Vent pressurized air from hydraulic unit as follows
  - a. Open release valve by turning counterclockwise no more than 1/2 full turn.
  - b. Remove oil filler plug (or screw) found centrally on reservoir.
  - c. Pump handle sleeve a few times, re-install oil filler plug (or screw).

**Note:** It is owners responsibility to maintain the Instructional and Warning materials found with and on this product. Replacement Owners manuals and decals are available from the manufacturer.

## WARNING

- Study, understand, and follow all instructions provided with and on this device before use.
- Inspect before use. Do not use if bent, broken, cracked or otherwise damaged components are noted.
- Always wear safety goggles when working on or near this equipment.
- Never apply excessive force to a workpiece and always use a force gauge to accurately determine the applied load.
- Keep hands and feet from loading area.
- Never leave loaded press unattended.
- Center load workpiece to help prevent objects from becoming propelled from the press.
- Press should be set up on a hard level surface.
- Ensure the user is familiar with the controls and operational characteristics of this product and aware of the potential hazards associated with its use.
- Failure to heed these markings may result in personal injury and/or property damage.

## ASSEMBLY

Minor assembly of these units is needed. Use the parts drawing as your guide to assembly. Lay all parts and assemblies out in front of you before beginning. We recommend the following procedure:

1. Attach base sections to left and right upright channels, then attach lower crossmember. Only hand tighten assemblies for now.
2. Attach support link on both side with provided bolts, nuts and washers.
2. Carefully slide bed frame section down, into its fully lowered position between the left and right upright channel, follow by jack bracket.
3. Attach the lower return spring retainers (threaded) to the jack bracket with nuts provided. Only thread 1 nut length, initially, to provide easy return spring attachment.
4. Attach upper crossmember section to left and right upright channels.
5. Attach return springs to upper crossmember, then to jack bracket.
6. Carefully slide the bottle jack into place between the upper crossmember and jack bracket. Tighten bolts on lower return spring retainers to prevent jack from inadvertently falling out.
7. Tighten all applicable nuts, bolts, assemblies.

**Caution:** Before disassembly, carefully slide bed frame section down, into its fully lowered position.



Risk of serious eye injury from projected or blown debris. Reduce risk by wearing safety goggles when working with or around press.

## OPERATION

### Safety Message:

**Projectile Hazard! Ensure that workpiece is centerloaded and secure. Reduce risk of flying debris by carefully following all operating instruction. Know your press and the hazards associated with its use. Keep hands and feet from bed area at all times. Always centerload workpiece.**

1. Insert workpiece into bed frame, using every precaution necessary to ensure your safety and prevent property damage. Position workpiece in a manner which will not allow it to inadvertently fall from bed.
2. Locate and close release valve by turning it clockwise firmly, until tight.
3. Insert operating handle into handle sleeve and pump until ram nears workpiece.
4. Align ram and workpiece to ensure centerloading.
5. Apply load to workpiece by pumping handle. **Do not overload workpiece.**
6. Remove load from workpiece by turning release valve counterclockwise. Stabilize workpiece in a manner which will not allow it to inadvertently fall from the bed once the load is removed.
7. Once ram has fully retracted, remove workpiece.

## MAINTENANCE

**Important:** Use only a good grade hydraulic jack oil. We recommend Mobil DTE 13M or equivalent. Avoid mixing different types of fluid and NEVER use brake fluid, turbine oil, transmission fluid, motor oil or glycerin. Improper fluid can cause premature failure of the bottle jack and the potential for sudden and immediate loss of load.

### **Adding oil**

1. With saddle fully lowered and pump piston fully depressed, set bottle jack in its upright, level position. Remove oil filler screw/plug.
2. Fill with oil until just below the rim of the oil filler screw/plug hole. Reinstall the oil filler screw/plug.

### **Changing oil**

For best performance and longest life, replace the complete fluid supply at least once per year.

1. With saddle fully lowered and pump piston fully depressed, remove the oil filler screw/plug.
2. Lay the jack on its side and drain the fluid into a suitable container.

**Note:** Dispose of hydraulic fluid in accordance with local regulations.

3. Fill with oil until just below the rim of the oil filler screw/plug hole. Reinstall the oil filler screw/plug.

### **Lubrication**

A periodic coating of light lubricating oil to pivot points and hinges will help to prevent rust and assure that pump assemblies move freely.

### **Cleaning**

Periodically check the pump piston and ram for signs of rust or corrosion. Clean as needed and wipe with an oily cloth.

**Note:** Never use sandpaper or abrasive material on these surfaces !

## TROUBLESHOOTING

Symptom	Possible Causes	Corrective Action
Jack will not press load	<ul style="list-style-type: none"> <li>• Release valve not tightly closed</li> <li>• Overload condition</li> </ul>	<ul style="list-style-type: none"> <li>• Ensure release valve tightly closed</li> <li>• Remedy overload condition</li> </ul>
Jack will press, but not maintain pressure	<ul style="list-style-type: none"> <li>• Release valve not tightly closed</li> <li>• Overload condition</li> <li>• Hydraulic unit malfunction</li> </ul>	<ul style="list-style-type: none"> <li>• Ensure release valve tightly closed</li> <li>• Remedy overload condition</li> <li>• Contact Mac Tools Tech. Service</li> </ul>
Jack will not retract after unloading	<ul style="list-style-type: none"> <li>• Linkage binding</li> </ul>	<ul style="list-style-type: none"> <li>• Lubricate all moving parts</li> </ul>
Poor extend performance	<ul style="list-style-type: none"> <li>• Fluid level low</li> <li>• Air trapped in system</li> </ul>	<ul style="list-style-type: none"> <li>• Ensure proper fluid level</li> <li>• With ram fully retracted, remove oil filler screw/plug to let pressurized air escape, then reinstall oil filler screw/plug</li> </ul>
Will not fully extend	<ul style="list-style-type: none"> <li>• Fluid level low</li> </ul>	<ul style="list-style-type: none"> <li>• Ensure proper fluid level</li> </ul>

## REPLACEMENT PARTS

Available Parts: Please refer to the Parts drawing when ordering parts. Not all components of the press are replacement items, but are illustrated as a convenient reference of location and position in the assembly sequence. When ordering parts, give Model number, serial number and description below. Call or write for current pricing: Mac Tools Inc. 505 N. Cleveland Ave. Suite 200 Westerville, OH 43082. Tel: 1800-MAC-TOOL (622-8665)

### Model SHP12

<u>Ref No.</u>	<u>Part#</u>	<u>Description</u>	<u>Qty</u>
1	T060-00003-100	Upright Channel	2
2	T060-00006-000	Base Section	2
3	T060-01000-100	Lower Cross Member	1
4	T060-05000-000	Upper Cross Member	1
5	T060-04000-000	Jack Bracket	1
6	T184-00004-000	Support Link	2
7	T060-00001-100	Spring	2
8	T060-00002-100	Hook	2
9	B120-10000-000	Hydraulic Power Unit	1
10	T060-03000-000	Bed Frame	1
11	T060-02000-000	Press Bed Pin	2
12	SHPVB	Arbor Plate	2
13	T126-03000-000	Handle	1
14	5101-16120-000	Bolt	4
15	5301-00016-000	Spacer 16	8
16	5306-00016-000	Lock Washer 16	4
17	5202-00016-000	Hex Nut M16	4
18	5202-00010-000	Hex Nut M10	8
19	5306-00010-000	Lock Washer 10	8
20	5102-10025-000	Bolt	8
21	5301-00010-000	Spacer 10	8
22	5202-00008-000	Hex Nut M18	4
--	T060-06000-000	Hardware Kit Pack	-
--	SHP12-L0	Label (s) (not shown)	-
--	SHP12-M0	Manual	1

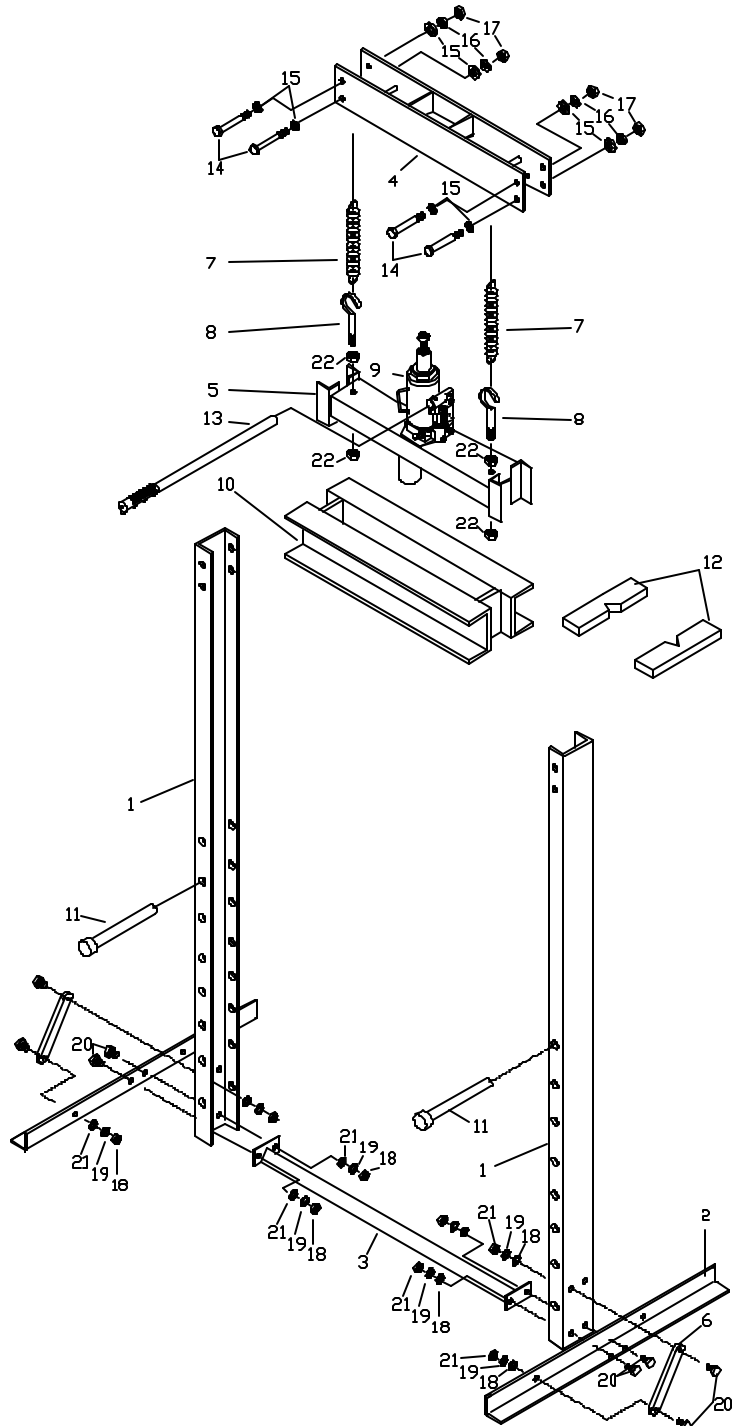


Figure 3 - Replacement Parts Illustration for Model SHP12

## ONE YEAR LIMITED WARRANTY

For a period of one (1) year from date of purchase, **Mac Tools Inc.** will repair or replace, at its option, without charge, any of its products, which fails due to a defect in material or workmanship under normal usage. This limited warranty is a consumer's exclusive remedy.

Performance of any obligation under this warranty may be obtained by returning the warranted product, freight prepaid, to **Mac Tools Inc.** Warranty Service Department, 505 N. Cleveland Ave. Suite 200 Westerville, OH 43082.

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