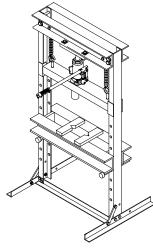
# **Operating Instructions Manual**

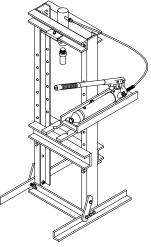


**Shop Press** 

Model 60120, 60123 & 65123 60200 60253 Capacity 12 Ton 20 Ton 25 Ton



(60200 shown)



(60253 shown)



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.

Read this manual and follow all the Safety Rules and Operating Instructions <u>before</u> using this product.

## SAFETY and GENERAL INFORMATION

**Save these instructions.** For your safety, read, understand, and follow the information provided with and on this product before using. The owner and operator of this equipment shall have an understanding of this product and safe operating procedures before attempting to use. The owner and operator shall be aware that use and repair of this product may require special skills and knowledge. Instructions and safety information shall be conveyed in the operator's native language before use of this jack is authorized. If any doubt exists as to the safe and proper use of this jack, remove from service immediately.

**Inspect before each use.** Do not use if broken, bent, cracked or damaged parts are noted. Any press that appears damaged in any way, or operates abnormally shall be removed from service immediately. If any component of this product has been subjected to a shock load (a load dropped suddenly, unexpectedly upon it), immediately discontinue use until checked by a factory authorized service center (contact distributor or manufacturer for list of authorized service centers). It is recommended that an annual inspection be done by qualified personnel. Labels and Operator's Manuals are available from manufacturer.

## **PRODUCT DESCRIPTION**

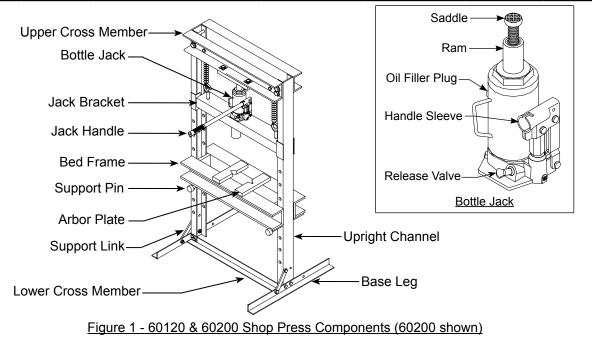
This Shop Press is designed for automotive, truck, implement, fleet, and industrial repair shops where pressing, bending, straightening and forming, is required. Typical applications include installation and removal of alternator and power steering pump bearings, axle bearings, transmission bearings, seals, u-joints and others. It is not intended for use as an assembly table or as fixture stand used to secure a large, final assembly component. **Unlike** presses equipped with a separately mounted pump, the power unit on this press **can not** be equipped with a pressure gauge, therefore monitoring the load must be done by other means, such as a load cell w/ digital indicator. Whatever means is chosen, the load measuring means shall be calibrated annually.



**For Models 60123, 60253 and 65123:** To reduce the risk of personal injury and/or property damage, ensure that the rated working pressure of each pressurized attachment be equal to or greater than the rated working pressure developed by the hydraulic pump.

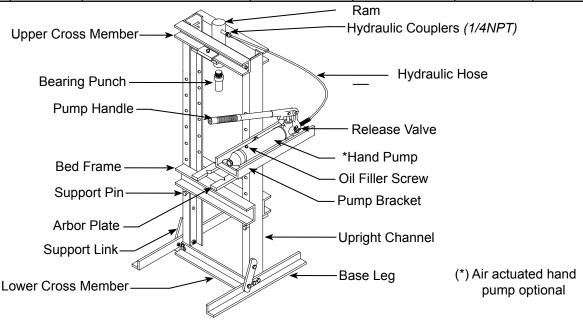
## SPECIFICATIONS

Model	Capacity	Dimensions (W x D x H)	Min. Working Space	Max. Working Space	Bed Position	Hydraulic Stroke
60120	12 Ton	22-3/4" x 18-1/2" x 59"	2-5/8"	34-3/8"	0	6"
60200	20 Ton	28" x 28" x 64-1/2"	2-1/2"	34-1/8"	0	6"



## **SPECIFICATIONS** (con't)

Model	Capacity	Dimensions (W x D x H)	Min. Working Space	Max. Working Space	Bed Position	Hydraulic Stroke
60123	12 Ton	28" x 28" x 59"	4-5/8"	36-3/8"	0	
60253	25 Ton	20 X 20 X 39	2-1/2"	34-1/4"	0	6"
65123	12 Ton	21-1/4" x 16-1/8" x 31-1/2"	4"	17-5/8"	4	



### Figure 2 - 60123, 60253 & 65123 Shop Press Components (60253 shown)

## PREPARATION

### **Before Use**

- 1. Verify that the product and application are compatible, if in doubt call Omega technical service.
- 2. Before using this product, read the operator's manual completely and familiarize yourself thoroughly with the product, its components and recognize the hazards associated with its use.
- 3. For Models 60120 & 60200: To familiarize yourself with basic operation of <u>bottle jack</u>, use the notched (or stamped) end of provided handle to engage and turn the release valve:
  - a. <u>Clockwise</u> until firm resistance is felt to further turning. This is the '**CLOSED**' release valve position used to **extend** the ram.
  - b. <u>Counter-clockwise</u>, but no more than 1 full turn from the closed position. This is the '**OPEN**' release valve position used to **retract** the ram.

For Models 60123, 60253 & 65123: To familiarize yourself with basic operation of <u>hand pump</u>, turn the release valve:

- a. <u>Clockwise</u> until firm resistance is felt to further turning. This is the '**CLOSED**' release valve position used to **extend** the ram.
- b. <u>Counter-clockwise</u>, but no more than 1 full turn from the closed position. This is the '**OPEN**' release valve position used to **retract** the ram.
- 4. For Models 60120 & 60200: With ram fully retracted and release valve closed, pump the operating handle. If the ram responds immediately, press is ready for use. If ram does not respond, follow the Bleeding/Venting instructions. For Models 60123, 60253 & 65123: With release valve opened, remove the oil filler screw. Ensure the oil level is within 1/4" (6mm) of the opening. Reinstall the oil filler screw.
- 5. For Models 60120 & 60200: Check that the pump operates smoothly and that the extension screw will thread up/ down easily before putting into service. Replace worn or damaged parts and assemblies with Omega authorized replacement parts only.

### **Bleeding / Venting Trapped Air**

With the release valve in the OPEN position (3b above) and with ram fully lowered, remove the oil filler plug. Insert handle into the handle sleeve; then pump 6 to 8 full strokes. This will help release any pressurized air which may be trapped within the reservoir. Oil level should be even with the bottom of the oil filler hole. Reinstall the oil filler plug.

### Assembly

### Model 60120: (Refer to Figure 3)

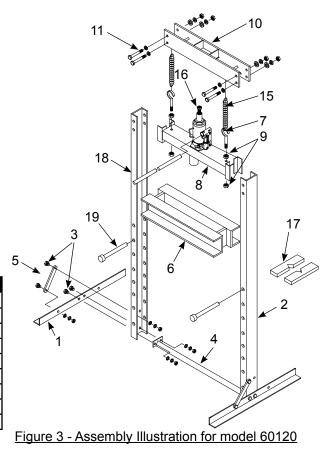
Note: Do not tighten any bolts unless told to do so.

- 1. Attach base legs (1) and lower cross member (4) to upright channels (2) with bolts, flat washers, lock washers and nuts (3). Hand tighten only.
- 2. Attach support links (5) to the base (1) and upright channels (2) with bolts, flat washers, lock washers and nuts (3).
- 3. Carefully slide bed frame (6) down to lowest possible position between the upright channels (2).
- 4. Attach screw hooks (7) to the jack bracket (8) with nuts (9) as shown in figure 3. Leave nut untighten to provide easy spring attachment.
- 5. Slide the jack bracket (8) down between upright channels (2) onto the bed frame (6).
- 6. Attach upper cross member (10) to upright channels (2) with bolts, flat washers, lock washers and nuts (11).
- 7. Attach one end of the springs (15) to the axles of upper cross member (10) and the other end to the screw hooks (7) on the jack bracket.
- 8. Carefully place the bottle jack (16) between the head plate of upper cross member (10) and jack bracket (8). Tighten the nuts (9) that hold screw hooks (7) to prevent jack from inadvertently falling out.

### 9. Tighten all applicable nut and bolt assemblies.

- 10. Carefully bring the bed frame (6) up and secure it with pins (9).
- 11. Place the Arbor Plates (17) on Bed Frame (6).
- 12. The press is now ready to use. Don't forget to insert the handle (18) into handle sleeve of bottle jack.

NOTICE: Before disassembly, carefully slide bed to its fully lowered position.



Siz	e of Hardwar	e Kits	Qty
3	bolt	M10x25	8
	flat washer	M10	8
	lock washer	M10	8
	nut	M10	8
9	nut	M8	4
11	bolt	M16x120	4
	flat washer	M16	8
	lock washer	M16	4
	nut	M16	4

### Assembly

### Model 60200: (Refer to Figure 4)

Note: Do not tighten any bolts unless told to do so.

- 1. Attach base legs (1) to upright channels (2) with bolts, lock washers and nuts (3). Hand tighten only.
- 2. Attach lower cross member (4) to upright channels (2) with bolts, lock washers and nuts (3).
- 3. Attach support links (5) to the base (1) and upright channels (2) with bolts, lock washers and nuts (3).
- 4. Carefully slide bed frame (6) down to lowest possible position between the upright channels (2).
- 5. Attach the screw hooks (7) to the jack bracket (8) with nuts (9). Leave nut untighten to provide easier spring attachment later.
- 6. Slide the jack bracket (8) down between upright channels (2) onto the bed frame (6).
- 7. Attach upper cross members (10) to upright channels (2) with bolts, flat washers, lock washers and nuts (11).
- 8. Attach head plate (12) to upper cross members (10) with bolts, lock washers and square washers (13).
- 9. Attach two bolts, lock washers and nuts (14) thru the upper cross member (10). Then attach one end of the springs (15) to the bolts (14) and the other end to the screw hooks (7) on the jack bracket.
- 10. Carefully place the bottle jack (16) between the head plate (12) and jack bracket (8). Tighten the nuts (9) that hold screw hooks (7) to prevent jack from inadvertently falling out.
- 11 Tighten all applicable nuts and bolt assemblies.
- 12. Carefully bring the bed frame (6) up and secure it with pins (19).
- 13. Place the Arbor Plates (17) on Bed Frame (6).
- 14. The press is now ready to use. Don't forget to insert the handle (18) into handle sleeve of bottle jack

**NOTICE:** Before **disassembly**, carefully slide bed to its fully <u>lowered</u> position.

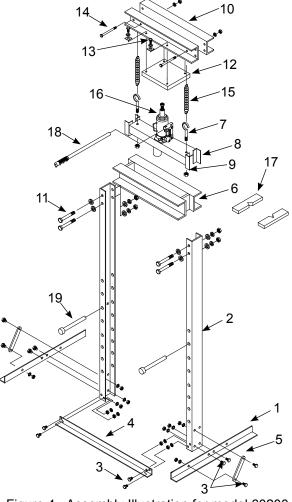


Figure 4 - Assembly	/ Illustration for	model 60200

Siz	e of Hardware M	Kits	Qty
3	bolt	M10x25	12
	lock washer	M10	12
	nut	M10	12
9	nut	M8	2
11	bolt	M16x150	4
	flat washer	M16	8
	lock washer	M16	4
	nut	M16	4
13	bolt	M10x25	4
	lock washer	M10	4
	square washer	M10	4
14	bolt	M10x130	2
	lock washer	M10	2
	nut	M10	2

### Assembly

### Models 60123 & 60253: (Refer to Figure 5)

Note: Do not tighten any bolts unless told to do so.

- 1. Attach base legs (1) to upright channels (2) with bolts, lock washers and nuts (3). Hand tighten only.
- 2. Attach lower cross member (4) to upright channels (2) with bolts, lock washers and nuts (3).
- 3. Attach support links (5) to the base (1) and upright channels (2) with bolts, lock washers and nuts (3).
- 4. Carefully slide bed frame (6) down to lowest possible position between the upright channels (2).
- 5. Slide head plate (7) to into upper cross members (8). Then, secure with bolts (9).
- 6. Attach the upper cross members assembly (8) to the upright channels (2) with bolts, flat washers, lock washers and nuts (10).
- 7. Thread the ram (11) to head plate (7) on upper cross members (8).
- 8. Attached pump support bracket (12) to upright channel (2) with three bolts, lock washers and nuts (3).

### 9. Tighten all aplicable nuts and bolt assemblies.

- 10. Place the hand pump (13) on pump support bracket (12).
- 11. To hold the pump, attach the fixed backets (14) and secure with bolts, lock washers and nuts (3).
- 12. Connect the male coupler end of hydraulic hose (15) to the female coupler of the ram (11) to complete the connections.
- 13. Carefully bring the bed frame (6) up and secure it with pins (16).
- 14. Place the Arbor Plates (17) on Bed Frame (6).
- 15. When necessary, replace the saddle of ram (11) with the bearing punch (18).
- 16. The press is now ready to use.

NOTICE: Before disassembly, carefully slide bed to its fully lowered position.

-	del 60123 e of Hardwa	re Kits	Qty
3	bolt	M10x25	19
	lock washer	M10	19
	nut	M10	19
9	bolt	10x25	2
10	bolt	M16x115	4
	flat washer	M16	8
	lock washer	M16	4
	nut	M16	4

-	Model 60253 Size of Hardware Kits				
3	bolt	M10x25	19		
	lock washer	M10	19		
	nut	M10	19		
9	bolt	10x25	2		
10	bolt	M16x150	4		
	flat washer	M16	8		
	lock washer	M16	4		
	nut	M16	4		

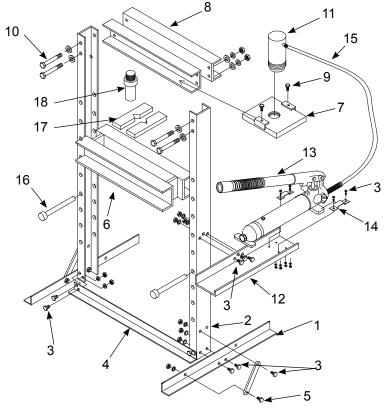


Figure 5 - Assembly Illustration for model 60123 & 60253

### Assembly

### Model 65123: (Refer to Figure 6)

Note: Do not tighten any bolts unless told to do so.

- 1. Attach base legs (1) and lower cross member (4) to upright channels (2) with bolts, lock washers and nuts (3). Hand tighten only.
- 2. Attach support links (5) to the base (No.1) and upright channels (2) with bolts, lock washers and nuts (3).
- 3. Carefully slide bed frame (6) down to lowest possible position between the upright channels (2).
- 4. Slide head plate (7) to into upper cross members (8). Then, secure with bolts (9).
- 5. Attach the upper cross members assembly (8) to the upright channels (2) with bolts, flat washers, lock washers and nuts (10).
- 6. Thread the ram (11) to head plate (7) on upper cross members (8).
- 7. Tighten all aplicable nuts and bolt assemblies.
- 8. Connect the male coupler end of hydraulic hose (12) to the female coupler of the ram (11) to complete the connections.
- 9. Bring the bed frame (6) up and secure it with pins (13).
- 10. Place the Arbor Plates (14) on Bed Frame (6).
- 11. When necessary, replace the saddle of ram (11).with the bearing punch (15).
- 12. The press is now ready to use.

NOTICE: Before disassembly, carefully slide bed to its fully lowered position.

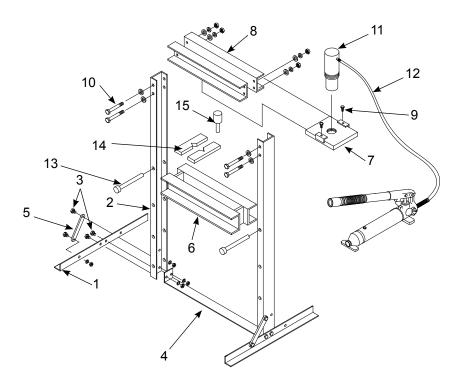


Figure 6 - Assembly	v Illustration	for model 65123

	del 65123		Qtv
Siz			
3	bolt	M10x30	8
	lock washer	M10	8
	nut	M10	8
9	bolt	10x30	2
10	bolt	M16x120	4
	flat washer	M16	8
	lock washer	M16	4
	nut	M16	4

## WARNING

- Study, understand, and follow all printed materials provided with/on this product before use.
- Always use an adequately rated, calibrated load cell with digital indicator to monitor pressing force!
- Do not exceed rated capacity.
- Use the device only on a hard, level surface.
- Always wear safety goggles when working on or near this equipment.
- Keep hands, feet and all other body parts away from loading area.
- Never leave loaded press unattended.
- Projectile hazard! Ensure workpiece and any attachment is centrally loaded and a **safety shield is installed** around workpiece to help protect against projectiles.
- Do not modify this device beyond installing a shield to protect against projectiles.
- 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.

### For Models 60123, 60253 & 65123 ONLY:

· Always install and monitor an in-line, calibrated pressure gauge while operating.

• Always inspect hoses and connections for damage prior to use.

### OPERATION

Projectile Hazard! Wear ANSI approved eye protection. Never stand directly in front of loaded press. Ensure that workpiece is center-loaded and secure. Reduce risk of flying debris by carefully following all operating instructions. Know your press and hazards associated with its use.

**Crush Hazard!** Keep hands and feet from bed area at all times.

- 1. Insert the support pins to desired height, then lower the bed. Ensure bed frame is fully rested on the support pins.
- 2. Place arbor plates on the bed frame as needed.
- 3. Place workpiece on 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.
- 4. a.)For Models 60120 & 60200: With notched (or stamped) end of jack handle, close release valve by turning it clockwise firmly, until tight.
  - b.) For Models 60123, 60253 & 65123: Close release valve by turning it clockwise firmly, and pump the handle to extend the ram until ram nears workpiece.
- 5. Pump until ram nears workpiece.
- 6. Align ram and workpiece to ensure center-loading.
- 7. Apply load to workpiece by pumping handle. Do not overload workpiece.

**For Models 60123, 60253 & 65123:** monitor the pressure gauge and calculate the applied load using the following formula as basic guideline: *Force = Pressure X Area* 

**1.** Effective **Area** of models 60123, 65123= 2.41 in<sup>2</sup>

2. Effective Area of model 60253= 5.14 in<sup>2</sup>

**Problem 1**: Determine the applied load in lbs. force on a workpeice being pressed by a 60123 whose pressure gauge is reading 9000 psi.

Solution 1: 9000 X 2.41= 21,690 lbsf

**Problem 2**: Determine the applied load in lbs. force on a workpeice being pressed by a 60253 whose pressure gauge is reading 2200 psi.

Solution 2: 2200 X 5.14= 11,308 lbsf

8. Stabilize workpiece in a manner which will not allow it to inadvertently fall from the bed once the load is removed, then turn release valve counter-clockwise to retract the ram and remove workpiece. Do not turn the release valve counter-clockwise more a 1 full turn.

Note: To protect your ram, do not continue to operate pump after it is fully extended or retracted.



To reduce the risk of personal injury and/or property damage, ensure that the rated working pressure of each pressurized attachment be **equal to or greater than** the rated working pressure developed by the hydraulic pump.

## **OPERATION** (con't)

9. Stabilize workpiece in a manner which will not allow it to inadvertently fall from the bed once the load is removed, then turn release valve counter-clockwise to retract the ram and remove workpiece. Do not turn the release valve counter-clockwise more a 1 full turn.

**For Models 60120 & 60200 Only:** Use only handle provided by manufacturer. The handle provided with this product will safely engage the release valve of bottle jack and operate the handle sleeve. If handle is worn, operates abnormally, or will not positively engage the release valve, **STOP**, discontinue use of the jack until a factory replacement handle and be qcquired.

**For Models 60120 & 60200 Only: Unlike** presses equipped with a separately mounted pump, the power unit on this press **can not** be equipped with a pressure gauge, therefore monitoring the load **must** be done by other means, such as a load cell w/digital indicator. Whatever means is chosen, the load measuring means shall be calibrated annually.

The hydraulic power unit provided with this device is intended to be used as an integral part of this press and not as a stand-alone jacking device separate of the press. **Never** use the hydraulic power unit provided with this press for any purpose other than that for which it is intended.

## MAINTENANCE

Before each use, inspect press for damage. Do not use if bent, broken, cracked, leaking or otherwise damaged components are noted. Periodically, lightly oil all moving parts, including the pump piston and ram.

### For Models 60120 & 60200:

### Adding/Changing oil to bottle jack

**Important:** Use only good grade hydraulic jack oil. 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 jack and the potential for sudden and immediate loss of load. Premium hydraulic jack oil or equivalent recommended.

- 1. Remove jack from press frame.
- 2. With ram fully lowered and pump piston fully depressed, set jack in its upright, level position. Remove oil filler plug.
- 3. Drain used fluid into a suitable container
- Note: Dispose of hydraulic oil in accordance with local regulations.
- 4. Fill until oil is level with or just below filler plug hole.
- 5. Perform Bleeding/Venting Trapped Air procedure.

## For Models 60123, 60253 & 65123 Only:

### Adding/Changing oil to hand pump

**Important:** Use only premium grade hydraulic oil. 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 ram and pump and the potential for sudden and immediate loss of load. Premium hydraulic jack oil or equivalent recommended.

For best results, change fluid once a year.

- 1. Depressurize and disconnect hydraulic hose from application.
- 2. Remove oil filler screw located on top of the reservoir.
- 3. Pour used fluid into a sealable container. **Note:** Dispose of hydraulic fluid in accordance with local regulations.
- A With summer in its unvisible the risental position, use a small function to fill researching to within 1/4" (Cr
- 4. With pump in its upright, horizontal position, use a small funnel to fill reservoir to within 1/4" (6 mm) of the opening.
- 5. Wipe up any spilled fluid and reinstall the vented oil filler plug.
- 6. Perform Bleeding/Venting Trapped Air procedure.

### Bleeding/Venting Trapped Air procedure:

- 1. Place pump at a higher elevation than the hose and ram as shown in figure 7.
- 2. Operate pump to fully extend and retract the ram 2 or 3 times. The objective is to force the air bubbles up hill and back to the pump reservoir.
- 3. To bleed the air from pump reservoir, simply open the oil filler screw. Re-install after bleeding.

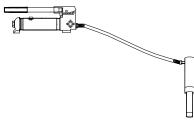


Figure 7 - Illustration to bleed air from system

### Rust prevention

Check ram and pump piston for signs of rust on a regular basis. Clean as needed with a lint free, oil saturated cloth.

### For Models 60123, 60253 & 65123 Only:

### How to remove faulty coupler:

If ram does not retract: Depressurize pump and hose, then remove the ram from application. Disconnect and replace with new coupler.

**Important:** Do not attempt to grasp ram with pliers or wrench without first wrapping the jaws of such tool with rags or similar padding.

## TROUBLESHOOTING

Symptom	Possible Causes	Corrective Action
Ram will not press load	<ul> <li>Release valve not tightly closed</li> <li>Overload condition</li> <li>For Models 60123, 60253 &amp; 65123:</li> <li>Faulty/ Loose couplers</li> <li>Oil level in pump is low</li> <li>Release valve not fully closed</li> </ul>	<ul> <li>Ensure release valve tightly closed</li> <li>Remedy overload condition</li> <li>Replace/ Tighten couplers</li> <li>Fill and bleed system</li> <li>Tighten release valve</li> </ul>
Ram bleeds off after press operation	<ul><li>Release valve not tightly closed</li><li>Ram malfunction</li></ul>	<ul> <li>Ensure release valve tightly closed</li> <li>Contact Omega Tech. Service</li> </ul>
Ram will not retract after unloading	Reservoir overfilled     Linkage binding	<ul> <li>Drain fluid to proper level</li> <li>Clean and lubricate moving parts</li> </ul>
	For Models 60123, 60253 & 65123: • Couplers loose	Check couplers
Poor pressing performance	<ul><li>Fluid level low</li><li>Air trapped in system</li></ul>	<ul> <li>Ensure proper fluid level</li> <li>Follow Bleeding/Venting instructions on Pg 4 or Pg 9 for Models 60123, 60253 &amp; 65123.</li> </ul>
Ram will not extend to full extension	Fluid level low	Ensure proper fluid level
Oil leak from ram	Ram malfunction	Contact Omega Tech. Service

## **REPLACEMENT 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, please give the Model number and parts description.

ltom	Part# fo	r model:	Description	
Item	60120	60200	Description	Qty
1	T060-05000-000	T126-00002-000	Upper Cross Member	1 (2 pcs for 60200)
2	T060-00	001-100	Spring	2
3	T060-00	002-100	Screw Hook	2
4	B120-10000-000	B200-10000-000	Bottle Jack	1
5	T060-04000-000	T126-02000-000	Jack Bracket	1
6	B080-20000-000	T126-03000-000	Jack Handle	1
7	T060-00003-100	T126-00001-000	Upright Channel	2
8	T060-02000-000	T125-01000-000	Support Pin	2
9	T184-00	004-000	Support Link	2
10	T060-00006-000	T184-00005-000	Base Leg	2
11	T060-03000-000	T125-02000-000	Bead Frame	1
12	T060-01000-100	T184-00006-000	Lower Cross Member	1
13	T184-90009-K01	T125-90009-K01	Arbor Plates Set	1
14	-	T126-01000-000	Head Plate	1
-	T060-06000-000	T126-04000-000	Hardware Kit	-

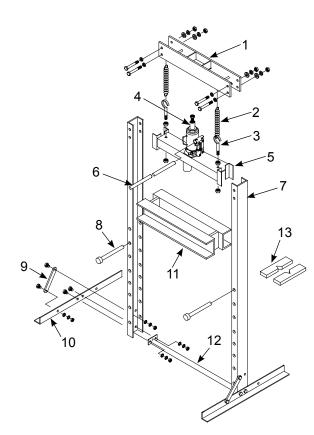


Figure 8 - Replacement Parts Illustration for 60120

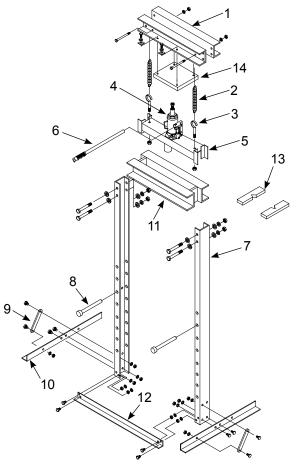


Figure 9 - Replacement Parts Illustration for 60200

## **REPLACEMENT 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, please give the Model number and parts description.

Item		Part# for model:		Description	Otv
litem	60253	60123	65123	Description	Qty
1	T125-00001-000	T184-00001-000	T213-00001-000	Upper Cross Member (1pc for 65123)	2
2	T125-00003-000	T184-00	008-000	Punch	1
3	T125-90009-K01	T184-90	009-K01	Arbor Plates (pair)	1
4	T125-02000-000	T184-02000-000	T213-01000-000	Bed Frame	1
5	T125-01000-000	T184-01	000-000	Support Pin	2
6	T125-00002-000	T184-00002-000	T213-00002-000	Upright Channel	2
7	T184-00	006-000	T213-00003-000	Lower Cross Member	1
8		T184-00004-000		Support Link	2
9	T184-00	005-000	T213-00004-000	Base Leg	2
10	T184-00	003-000	-	Pump Bracket	1
11		F100-90119-K02		Hand Pump	1
12	T125-00	008-000	-	Fixed Bracket	2
13		F040-90107-K02		Oil Filler Screw	1
14	T125-03000-000	T184-03	000-000	Head Plate	1
15	F250-30000-000	F100-30	000-000	Ram	1
16		F040-90009-K04		Coupler, Female 1/4NPT	1
10	F040-90009-K05			Coupler, Male 1/4NPT	1
17		F100-90009-K01		Pump Handle	1
-	T125-04000-000	T184-04000-000	T213-02000-000	Hardware Kit	-
*		55101		Air Actuated Pump (option)	-

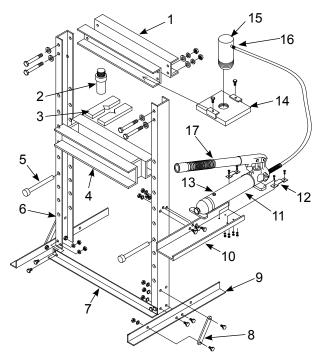


Figure 10 - Parts Illustration for 60123 & 60253

