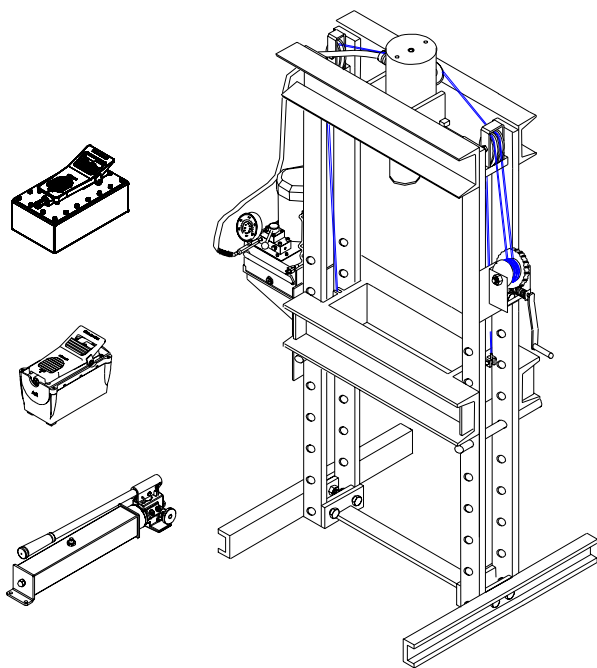




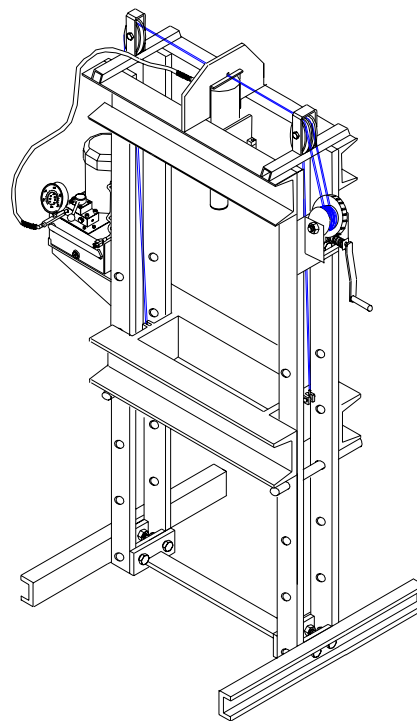
# Shop Presses

## Operating Instructions & Parts Manual

Model Number	Capacity
HW93400 thru HW93404	55 Ton
HW93610	100 Ton



Model HW93400, HW93401, HW93402 & HW93404



Model HW93610



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.

SFA Companies  
10939 N. Pomona Ave. Kansas City, MO 64153  
customerservices@heinwerner-automotive.com

**Read this manual and follow all the Safety Rules and Operating Instructions before using this product**



## TWO YEAR LIMITED WARRANTY

For a period of two (2) years from date of purchase, SFA Companies 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 SFA Companies Warranty Service Department, 10939 N. Pomona Ave., Kansas City, MO 64153.

Except where such limitations and exclusions are specifically prohibited by applicable law:

(1) THE CONSUMER'S SOLE AND EXCLUSIVE REMEDY SHALL BE THE REPAIR OR REPLACEMENT OF DEFECTIVE PRODUCTS AS DESCRIBED ABOVE.

(2) SFA COMPANIES SHALL NOT BE LIABLE FOR ANY CONSEQUENTIAL OR INCIDENTAL DAMAGE OR LOSS WHATSOEVER.

(3) ANY IMPLIED WARRANTIES, INCLUDING WITHOUT LIMITATION THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, SHALL BE LIMITED TO TWO YEARS, OTHERWISE THE REPAIR, REPLACEMENT OR REFUND AS PROVIDED UNDER THIS EXPRESS LIMITED WARRANTY IS THE EXCLUSIVE REMEDY OF THE CONSUMER, AND IS PROVIDED IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED.

(4) ANY MODIFICATION, ALTERATION, ABUSE, UNAUTHORIZED SERVICE OR ORNAMENTAL DESIGN VOIDS THIS WARRANTY AND IS NOT COVERED BY THIS WARRANTY.

Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you. 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. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

## 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/or operator of this equipment shall have an understanding of this equipment and safe operating procedures before attempting to use. The owner and/or 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 product is authorized. If any doubt exists as to the safe and proper use of this wheel dolly, remove from service immediately.

**Inspect before each use.** Do not use if there are broken, bent, cracked or otherwise damaged parts (including labels). If the press has been or suspected to have been subjected to a shock load (a load dropped suddenly and unexpectedly upon it), discontinue use until checked out by an authorized factory service center. Owners and operators of this equipment shall be aware that the use 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 factory authorized replacement parts only. Press that appears to be damaged in any way, is worn or operated abnormally shall be removed from service immediately. Labels and Manual are available from manufacturer.

## PRODUCT DESCRIPTION

Hein-Werner Shop Presses are designed for automotive, truck, implement, fleet, and industrial repair shops where pressing, bending, straightening, forming, holding is required. Each press includes a cylinder, an electric pump with pendant switch, a winch assembly which provides safe and fast way to raise and lower the bed frame, and a pressure gauge which provides for monitoring the applied press force.

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. It is not intended for use as an assembly table or as fixture stand used to secure a large, final assembly component. Refer to Cylinder and Pump manuals for more information.

**⚠ WARNING:** 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	Load Capacity	Cylinder Stroke	Cylinder Model	Pump Model	Pump Type	Bed Width	Press Size (H x W x L)	Min. Working space	Max. Working Space
HW93400	55 Ton	6 "	H5506	P2001	Manual	13 3/4"	79 1/8" x 56" x 30"	14"	55 1/2"
HW93401				PA2000	Air				
HW93402				PE0501T	Electric				
HW93403		13"	H5513	PA3801	Air				
HW93404				PE0501T	Electric				
HW93610	100 Ton	10"	H10010	PE1002T	Electric	16"	89 1/2" x 63" x 30"	11 1/4"	51"

HW93610 100 ton press inside bed width and depth are 22-1/2" X 10-1/2"

Cylinder:

Model	Capacity (ton)	Stroke (in)	Cylinder Effective Area (in <sup>2</sup> )	Oil Capacity (in <sup>3</sup> )	Collapsed Height (in)	Extended Height (in)	Outside Dia (in)	Ram Plunger Dia. (in)	Saddle Dia. (in)	Collar Thread	Collar Thread Length (in)
H5506	55	6.22	10.99	68.34	11.14	17.36	5	3.15	2.76	5"-12	2.17
H5513		13.27		145.77	18.15	31.42					
H10006	100	10.24	20.57	210.6	17.68	27.93	3.97	4.13		6 7/8"-12	1.73

Manual Pump (Hand pump):

Model	Usable Oil Capacity (in <sup>3</sup> )	Pressure Rating (psi)		Oil Displacement (in <sup>3</sup> )		Oil Outlet Port	Weight (lb.)
		1st Stage	2nd Stage	1st Stage	2nd Stage		
P2001	122	200	10,000	0.81	0.14	3/8"-18NPTF	21

Air Pump:

Model	Usable Oil Capacity (in <sup>3</sup> )	Pressure Rating (psi)	Oil output Flow Rate (in <sup>3</sup> /min)		Input Air Pressure Range (psi)	Weight (lb.)
			No Load	Load		
PA1500	91.5	10,000	65	11	90-175	18
PA2000	122.1		65	12		20
PA3801	232		65	11		27

Electric Pump:

Model	Usable Oil Capacity	Pressure Rating		Oil output Flow Rate		Valve Type	Motor Size (hp)	Current Draw (A)	Motor Voltage (V)	Weight (lb.)
		1st Stage	2nd Stage	1st Stage	2nd Stage					
PE0501T	1	580	10,000	293	18	Manual, 4-way, 3-position	0.5	8	115	58
PE1002T	2			397	37		1	15		63

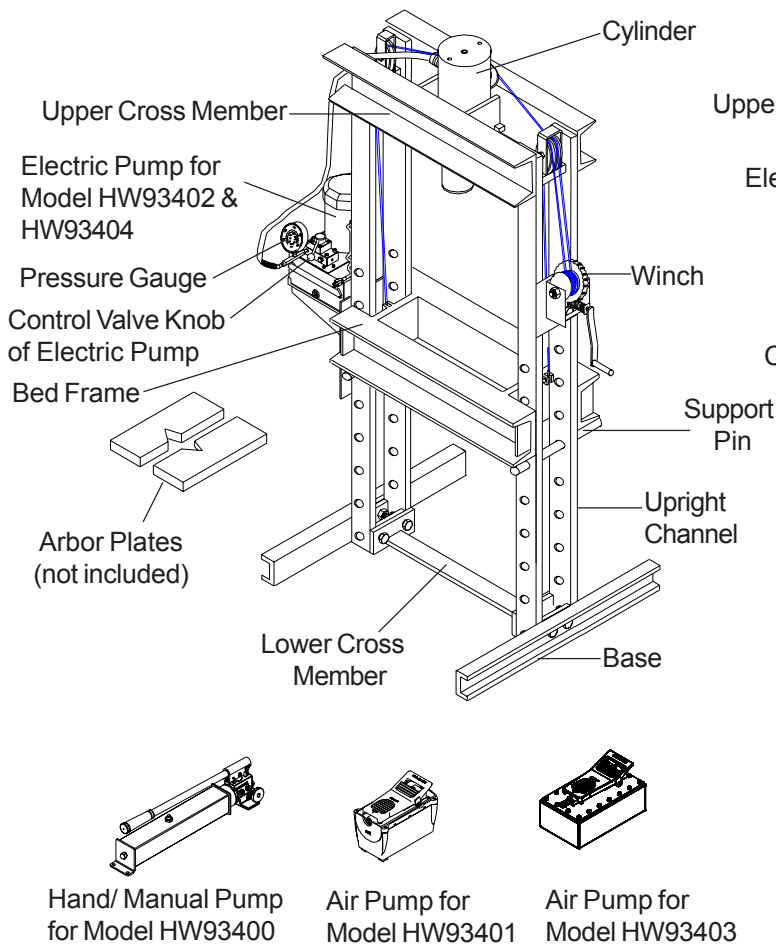


Figure 1: Model HW93400 thru HW93404 Components

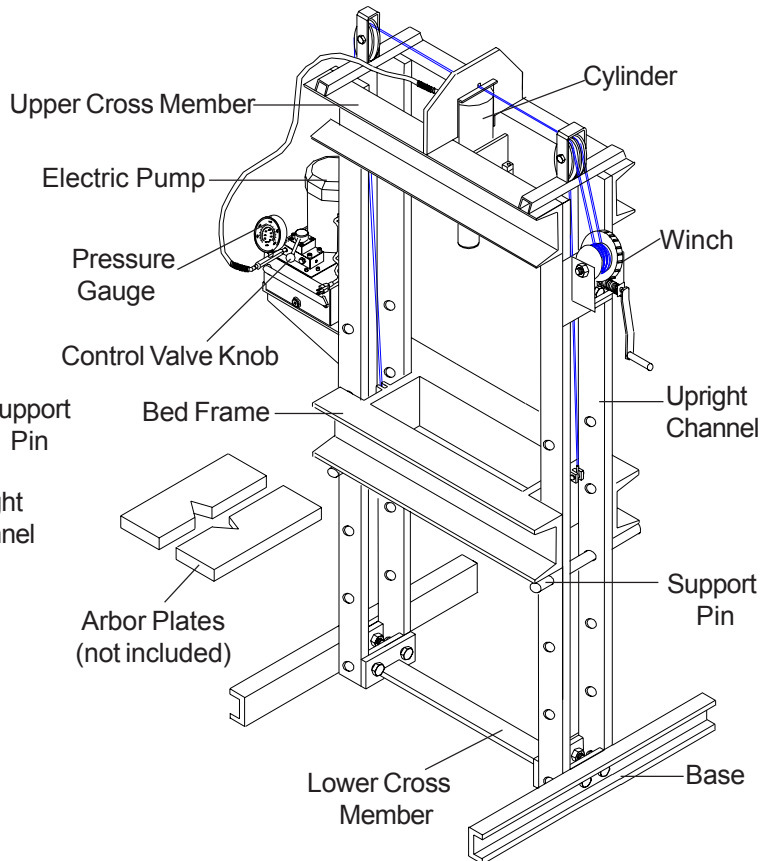


Figure 2: Model HW93610 Components

## BEFORE USE

1. Inspect before each use. Do not use if bent, broken or cracked components are noted. Check for and tighten any loose assemblies.
2. Verify that the product and the application are compatible, if in doubt call Hein-Werner Technical Service (816) 891-6390.
3. Before using this product, read the operator's manual completely and familiarize yourself thoroughly with the product, its components and recognize the potential hazards associated with its use.



## WARNING

- Study, understand, and follow all instructions provided with and on this device before use.
- Do not exceed rated capacity.
- Burst hazard exists if hose or connection pressure exceeds rated pressure.
- Use the device only on a hard, level surface.
- Always monitor the pressure gauge while operating.
- Always inspect hoses and connections for damage prior to use.
- 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 is center loaded, and a safety shield is installed around workpiece to 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.

## ASSEMBLY


1. Ensure bed frame at lowest position and winch cable is slack.
2. Install the winch assembly to the press using 3 bolts, washers and nuts.
3. Secure cylinder to the cylinder adapter plate, and mount the adapter plate to upper cross member using 4 bolts and washers.

**Note:** The cylinder comes with carrying handles, simply loosen the allen head socket screw to remove the handles.

4. Attach base sections to upright channels with 4 bolts and nuts.
5. Attach lower cross member to upright channels with 4 bolts and nuts.
6. For Model HW93400 thru HW93404 only, adjust the pump bracket to desire height and secure with bolts, nuts & washers provided.
7. Connect the pressure gauge and the hydraulic hose to the gauge adapter, then connect the gauge adapter to pump.


**Important:** Ensure thread tape or compound is use on connections.


8. Place the pump on the pump bracket and connect the other end of hydraulic hose to cylinder.

 Before disassemble, slide bed frame section down, into its lowest position.

## OPERATION

Refer to **BVA owner's manuals** for the cylinder and pump operation

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

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

1. Insert the support pins to desired height, then lower the bed frame using the winch until the cable is slack and the bed frame is resting fully on the support pins.
2. Place arbor plates on the bed frame. (optional)
3. Inset workpiece into bed frame, using every precaution necessary to ensure your safety and prevent property damage.
4. Operate the pump:
  - a) For HW93400 manual pump:  
Close the release valve by turning clockwise, and pump the handle to extend the cylinder ram. To retract, simply open the release valve of pump.
  - b) For HW93401 & HW93403 air pump:  
Connect to suitable air supply, press on the foot pedal to extend the cylinder ram. To retract, simply press the release valve by stepping on the raised, stirrup shaped portion of the foot pedal.
  - c) For HW93402, HW93404 & HW93610 electric pump:  
Turn the ON/OFF switch to start the electric pump and let the pump idle for a few minutes before put into operation. Use control valve knob to extend or retract the cylinder ram.

**Note:** Never operate pump with hose disconnected from cylinder. If operated in this condition, the hydraulic hose and connections become pressurized. This increases burst hazard.

5. Apply load to workpiece. **Do not overload the workpiece.**
6. Stabilize workpiece in a manner which will not allow it to inadvertently fall from the bed once the load is removed.
7. Once cylinder has fully retracted, remove workpiece.

**Note:** To protect your cylinder, do not continue to operate pump after cylinder plunger is fully extended or retracted.

## MAINTENANCE

Please refer to cylinder and pump's manuals for maintenance and how to **add/change hydraulic oil**. For best results, change the oil once a year. Use only good quality hydraulic oil. We recommend Mobil HW93291 for manual and air pumps, BVA hydraulic oil or equivalent for electric pump.

### Lubrication

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

### Storage

Depressurize the hydraulic system, disconnect the hydraulic hose and lower the bed frame to lowest position.

## TROUBLESHOOTING

A system failure may or may not be the result of a pump malfunction. The following information is intended to be used as an aid in determining if a problem exist.

Symptom	Possible Causes	Corrective Action
Motor will not start (for Model HW93402, HW93404 & HW93610 only)	<ul style="list-style-type: none"> <li>• No power or wrong voltage</li> <li>• Damaged power cord</li> <li>• Tripped circuit breaker</li> <li>• Loose or faulty wiring</li> </ul>	<ul style="list-style-type: none"> <li>• Check the power supply &amp; voltage</li> <li>• Contact Customer Service</li> <li>• Make sure breaker is of adequate size</li> <li>• Contact Customer Service</li> </ul>
Erratic ram action	<ul style="list-style-type: none"> <li>• Air in system or pump cavitation</li> <li>• External leak</li> <li>• Internal hydraulic leak</li> </ul>	<ul style="list-style-type: none"> <li>• Follow pump instructions for bleeding air</li> <li>• Tighten all connections</li> <li>• Contact Service Center</li> </ul>
Pump or ram fails to maintain pressure	<ul style="list-style-type: none"> <li>• Overload condition</li> <li>• External leak</li> <li>• Internal hydraulic leak</li> <li>• Ram seals leaking</li> <li>• Pump or valve malfunctioning</li> </ul>	<ul style="list-style-type: none"> <li>• Remedy overload condition</li> <li>• Tighten all connections</li> <li>• Contact Service Center</li> <li>• Contact Service Center</li> <li>• Check pump operating instructions</li> </ul>
Ram extends partially	<ul style="list-style-type: none"> <li>• Hydraulic oil level too low in pump</li> <li>• Load is above the capacity of system</li> <li>• Ram is sticking or binding</li> </ul>	<ul style="list-style-type: none"> <li>• Fill and bleed the system</li> <li>• Match the capacity to application</li> <li>• Contact Service Center</li> </ul>
Ram moves slower than normal	<ul style="list-style-type: none"> <li>• Loose connection or coupler</li> <li>• Restricted hydraulic line or fitting</li> <li>• Pump not working correctly</li> <li>• Ram seals leaking</li> </ul>	<ul style="list-style-type: none"> <li>• Tighten connection or coupler</li> <li>• Clean and replace if damaged</li> <li>• Check pump operating instructions</li> <li>• Replace cylinder</li> </ul>
Ram leaks hydraulic fluid	<ul style="list-style-type: none"> <li>• Worn or damaged seals</li> </ul>	<ul style="list-style-type: none"> <li>• Contact Service Center</li> </ul>
Ram will not retract or retracts slower than normal	<ul style="list-style-type: none"> <li>• Linkage binding</li> <li>• Loose couplers</li> <li>• Malfunctioning coupler</li> <li>• Weak or broken retraction springs</li> <li>• Ram damaged internally</li> <li>• Pump reservoir too full</li> </ul>	<ul style="list-style-type: none"> <li>• Lubricate all moving parts</li> <li>• Tighten couplers</li> <li>• Depressurize pump and hose, remove application, then replace a new coupler</li> <li>• Contact Service Center</li> <li>• Contact Service Center</li> <li>• Drain hydraulic fluid to correct level</li> </ul>
Motor cuts out ( for Model HW93402, HW93404 & HW93610 only)	<ul style="list-style-type: none"> <li>• Extension cord too long</li> <li>• Faulty motor</li> <li>• Overheated motor can trip circuit breaker</li> </ul>	<ul style="list-style-type: none"> <li>• Replace with shorter cord</li> <li>• Replace or repair</li> <li>• Allow motor to cool, reset circuit breaker</li> </ul>

## REPLACEMENT PARTS (refer to figures on page 7 & 8)

Not all components of the Press are replacement items, but are illustrated as convenient reference of location and position in the assembly sequence. When ordering parts, give Model number, serial number and parts description. Call or write for current pricing: Hein-Werner Customer Support, 10939 N. Pomona Ave. Kansas City, MO 64153; Tel:(816)891-6390; [customerservices@heinwerner-automotive.com](mailto:customerservices@heinwerner-automotive.com). For cylinder and pump service parts, please refer to BVA owner's manuals.

## Replacement Parts List for 55 Ton Model No. HW93400, HW93401, HW93402, HW93403 & HW93404

Item	Part No. for Model:					Description	Qty
	HW93400	HW93401	HW93402	HW93403	HW93404		
1a	400-002-001	400-002-001-B				Frame with Winch & Pump Bracket	1
1b	400-002-010					Frame only	1
2	400-002-002					Bed Frame	1
3	400-002-003					Support Pin	2
4	400-002-004					Base	2
5	400-002-005					Lower Cross Member	1
6	400-002-006					Winch	1
7	400-002-007					Pulley	4
8	400-002-008					Cable	2
9	400-002-009	400-002-011				Pump Bracket	1
10	400-002-012					Cylinder Adapter Plate	1
11	H5506			H5513		55 Ton Cylinder	1
12	CH38M					Male Half Coupler, 3/8"	1
13	CS3838	CS3838C	CS3838	CS3838C	CS3838	Hydraulic Hose, 3/8"ID	1
14	GW4014					Wet Pressure Gauge, 4", 10,000psi	1
15	CF3814					Gauge Adapter	1
16	AP55					Arbor Plates, 55 Ton	1
17	P2001(d)	PA2000 (c)	PE0501T (a)	PA3801 (b)	PE0501T (a)	Pump	1
18	118300-002-016	N/A	N/A	N/A	N/A	Pump Mounting Hardware Kit	1

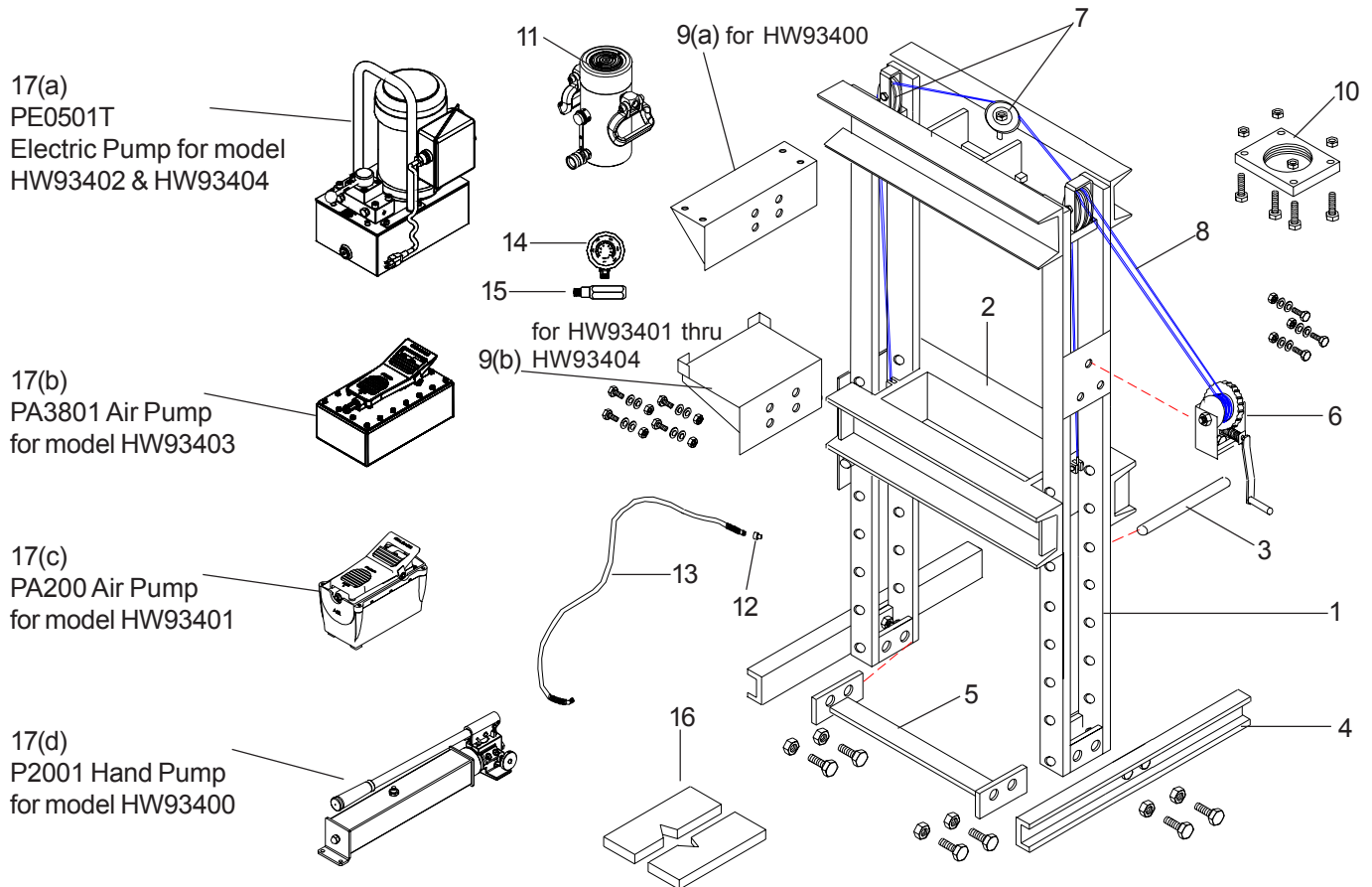


Figure 3: Replacement Parts Illustration for Model HW93400 thru HW93404

**Replacement Parts List for 100 Ton Press Model HW93610**

Item	Part#	Description	Qty
1a	610-002-001	Press Frame with Winch Assembly	1
1b	610-002-010	Press Frame only	
2	610-002-002	Bed Frame	1
3	610-002-003	Support Pin	2
4	610-002-004	Base	2
5	610-002-005	Lower Cross Member	1
6	610-002-006	Winch	1
7	610-002-007	Pulley	3
8	610-002-008	Cable	2
9	610-002-009	Ram Adapter Plate	1
10	H10010	10 Ton Ram, 10" Stroke	1
11	PE1002T	Electric Pump, 1 HP, 2 Gal	1
12	CS3838	Hydraulic Hose, 3/8"ID	1
13	GW4014	Wet Pressure Gauge, 4", 10,000psi	1
14	CF3814	Gauge Adapter	1
15	AP100	Arbor Plates, 100 Ton	1
16	CH38M	Male Half Coupler, 3/8"	1

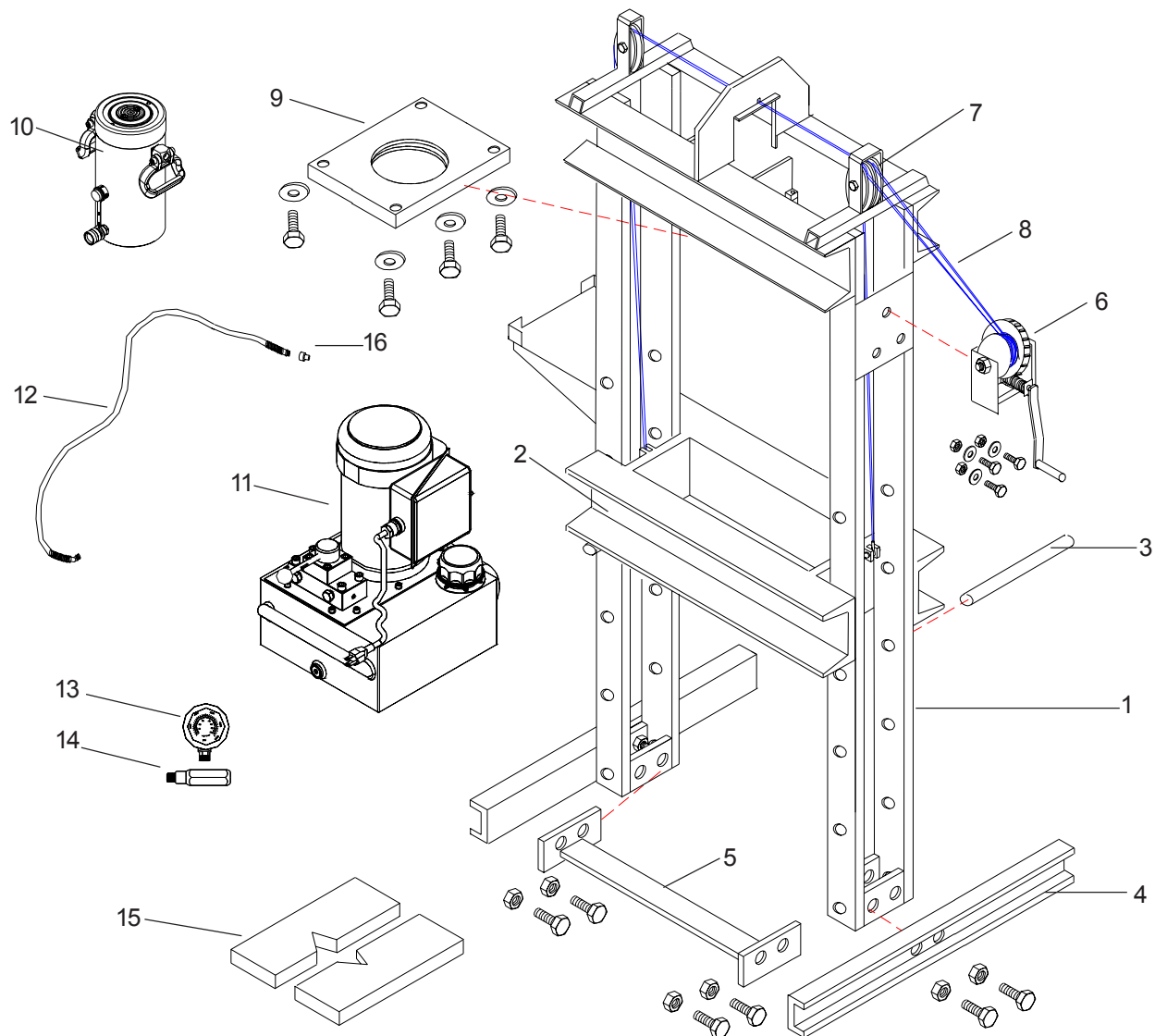


Figure 4: Replacement Parts Illustration for Model HW93610