



Operating Instructions and Parts Manual

Hydraulic Shop Presses

Models HSP-5A/15A/35A



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1.0 Warranty and Service

Thank you for your purchase of a machine from Baileigh Industrial. We hope that you find it productive and useful to you for a long time to come.

Inspection & Acceptance. Buyer shall inspect all Goods within ten (10) days after receipt thereof. Buyer's payment shall constitute final acceptance of the Goods and shall act as a waiver of the Buyer's rights to inspect or reject the goods unless otherwise agreed. If Buyer rejects any merchandise, Buyer must first obtain a Returned Goods Authorization ("RGA") number before returning any goods to Seller. Goods returned without an RGA will be refused. Seller will not be responsible for any freight costs, damages to goods, or any other costs or liabilities pertaining to goods returned without an RGA. Seller shall have the right to substitute a conforming tender. Buyer will be responsible for all freight costs to and from Buyer and repackaging costs, if any, if Buyer refuses to accept shipment. If Goods are returned in unsalable condition, Buyer shall be responsible for full value of the Goods. Buyer may not return any special-order Goods. Any Goods returned hereunder shall be subject to a restocking fee equal to 30% of the invoice price.

Specifications. Seller may, at its option, make changes in the designs, **specifications**, or components of the Goods to improve the safety of such Goods, or if in Seller's judgment, such changes will be beneficial to their operation or use. Buyer may not make any changes in the specifications for the Goods unless Seller approves of such changes in writing, in which event Seller may impose additional charges to implement such changes.

Limited Warranty. Seller warrants to the original end-user that the Goods manufactured or provided by Seller under this Agreement shall be free of defects in material or workmanship for a period of twelve (12) months from the date of purchase, provided that the Goods are installed, used, and maintained in accordance with any instruction manual or technical guidelines provided by the Seller or supplied with the Goods, if applicable. The original end-user must give written notice to Seller of any suspected defect in the Goods prior to the expiration of the warranty period. The original end-user must also obtain an RGA from Seller prior to returning any Goods to Seller for warranty service under this paragraph. Seller will not accept any responsibility for Goods returned without an RGA. The original end-user shall be responsible for all costs and expenses associated with returning the Goods to Seller for warranty service. In the event of a defect, Seller, at its sole option, shall repair or replace the defective Goods or refund to the original end-user the purchase price for such defective Goods. Goods are not eligible for replacement or return after a period of 10 days from date of receipt. The foregoing warranty is Seller's sole obligation, and the original end-user's exclusive remedy, with regard to any defective Goods. This limited warranty does not apply to: (a) die sets, tooling, and saw blades; (b) periodic or routine maintenance and setup, (c) repair or replacement of the Goods due to normal wear and tear, (d) defects or damage to the Goods resulting from misuse, abuse, neglect, or accidents, (f) defects or damage to the Goods resulting from improper or unauthorized alterations, modifications, or changes; and (f) any Goods that has not been installed and/or maintained in accordance with the instruction manual or technical guidelines provided by Seller.

EXCLUSION OF OTHER WARRANTIES. THE FOREGOING LIMITED WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED. ANY AND ALL OTHER EXPRESS, STATUTORY, OR IMPLIED WARRANTIES, INCLUDING BUT NOT LIMITED TO, ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE ARE EXPRESSLY DISCLAIMED. NO WARRANTY IS MADE WHICH EXTENDS BEYOND THAT WHICH IS EXPRESSLY CONTAINED HEREIN.

Limitation of Liability. IN NO EVENT SHALL SELLER BE LIABLE TO BUYER OR ANY OTHER PARTY FOR ANY INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES (INCLUDING, WITHOUT LIMITATION, LOST PROFITS OR DOWN TIME) ARISING FROM OR IN MANNER CONNECTED WITH THE GOODS, ANY BREACH BY SELLER OR ITS AGENTS OF THIS AGREEMENT, OR ANY OTHER CAUSE WHATSOEVER, WHETHER BASED ON CONTRACT, TORT OR ANY OTHER THEORY OF LIABILITY. BUYER'S REMEDY WITH RESPECT TO ANY CLAIM ARISING UNDER THIS AGREEMENT IS STRICTLY LIMITED TO NO MORE THAN THE AMOUNT PAID BY THE BUYER FOR THE GOODS.

Force Majeure. Seller shall not be responsible for any delay in the delivery of, or failure to deliver, Goods due to causes beyond Seller's reasonable control including, without limitation, acts of God, acts of war or terrorism, enemy actions, hostilities, strikes, labor difficulties, embargoes, non-delivery or late delivery of materials, parts and equipment or transportation delays not caused by the fault of Seller, delays caused by civil authorities, governmental regulations or orders, fire, lightening, natural disasters or any other cause beyond Seller's reasonable control. In the event of any such delay, performance will be postponed by such length of time as may be reasonably necessary to compensate for the delay.

Installation. If Buyer purchases any Goods that require installation, Buyer shall, at its expense, make all arrangements and connections necessary to install and operate the Goods. Buyer shall install the Goods in accordance with any Seller instructions and shall indemnify Seller against any and all damages, demands, suits, causes of action, claims and expenses (including actual attorneys' fees and costs) arising directly or indirectly out of Buyer's failure to properly install the Goods.

Work By Others; Safety Devices. Unless agreed to in writing by Seller, Seller has no responsibility for labor or work performed by Buyer or others, of any nature, relating to design, manufacture, fabrication, use, installation, or provision of Goods. Buyer is solely responsible for furnishing and requiring its employees and customers to use all safety devices, guards and safe operating procedures required by law and/or as set forth in manuals and instruction sheets furnished by Seller. Buyer is responsible for consulting all operator manuals, ANSI or comparable safety standards, OSHA regulations and other sources of safety standards and regulations applicable to the use and operation of the Goods.

Remedies. Each of the rights and remedies of Seller under this Agreement is cumulative and in addition to any other or further remedies provided under this Agreement or at law or equity.

Attorney's Fees. In the event legal action is necessary to recover monies due from Buyer or to enforce any provision of this Agreement, Buyer shall be liable to Seller for all costs and expenses associated therewith, including Seller's actual attorney fees and costs.

Governing Law/Venue. This Agreement shall be construed and governed under the laws of the State of Wisconsin, without application of conflict of law principles. Each party agrees that all actions or proceedings arising out of or in connection with this Agreement shall be commenced, tried, and litigated only in the state courts sitting in Manitowoc County, Wisconsin or the U.S. Federal Court for the Eastern District of Wisconsin. Each party waives any right it may have to assert the doctrine of "forum non conveniens" or to object to venue to the extent that any proceeding is brought in accordance with this section. Each party consents to and waives any objection to the exercise of personal jurisdiction over it by courts described in this section. Each party waives to the fullest extent permitted by applicable law the right to a trial by jury.

Summary of Return Policy:

- 10 Day acceptance period from date of delivery. Damage claims and order discrepancies will not be accepted after this time.
- You must obtain a Baileigh Industrial issued RGA number PRIOR to returning any materials.
- Returned materials must be received at Baileigh Industrial in new condition and in original packaging.
- Altered items are not eligible for return.
- Buyer is responsible for all shipping charges.
- A 30% re-stocking fee applies to all returns.

Baileigh Industrial Holdings LLC makes every effort to ensure that our posted specifications, images, pricing, and product availability are as correct and timely as possible. We apologize for any discrepancies that may occur. Baileigh Industrial Holdings LLC reserves the right to make any and all changes deemed necessary in the course of business including but not limited to pricing, product specifications, quantities, and product availability.

For Customer Service & Technical Support:

Please contact one of our knowledgeable Sales and Service team members at:
(920) 684-4990 or e-mail us at Baileigh-Service@jpwindustries.com

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3.0 IMPORTANT SAFETY INSTRUCTIONS

WARNING – To reduce risk of injury:

1. Read and understand all safety warnings on the machine and in this manual.
2. Replace warning labels if they become obscured or removed.
3. This press is designed and intended for use by properly trained and experienced personnel only. If you are not familiar with the proper and safe operation of a hydraulic press, do not use until proper training and knowledge have been obtained.
4. Wear ANSI approved impact safety goggles, full-face impact safety shield and heavy-duty work gloves when operating the press.
5. Keep children and unauthorized persons away from the work area.
6. Do not operate this press beyond its rated capacity. Use pressure gauge to determine load.
7. This press is designed for pressing, bending, and straightening purposes only.
8. Keep hands and feet away from pressing area and pinch points.
9. Do not operate this tool while tired or under the influence of drugs, alcohol or any medication.
10. Check the press for loose or damaged parts before each operation. Replace damaged parts and tighten all loose bolts before operating. Components are designed to withstand the rated capacity of the press – do not substitute components.
11. Make sure workpiece is center-loaded and secure on the bed before pressing.
12. Always apply load at center of ram.
13. Remove workpiece from table before attempting to raise or lower table.
14. Some parts being pressed may have a tendency to be ejected from the press or explode under pressure. Protect yourself accordingly, and do not allow bystanders near the machine.
15. Use good quality hydraulic pump oil only. Do not use brake fluid or other improper types.
16. Do not use tube extensions on the pump handle.
17. Do not use the press to compress springs or any other item that could disengage and cause a potential hazard.
18. Do not make any modifications to the press.
19. Failure to comply with these warnings may result in serious injury and/or damage to property.

⚠ WARNING: This product can expose you to chemicals including titanium dioxide which is known to the State of California to cause cancer, and lead which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to <http://www.p65warnings.ca.gov>.

⚠ WARNING: Some dust, fumes and gases created by power sanding, sawing, grinding, drilling, welding and other construction activities contain chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. Some examples of these chemicals are:

- lead from lead-based paint
- crystalline silica from bricks, cement, and other masonry products
- arsenic and chromium from chemically treated lumber

Your risk of exposure varies, depending on how often you do this type of work. To reduce your exposure to these chemicals, work in a well-ventilated area and work with approved safety equipment, such as dust masks that are specifically designed to filter out microscopic particles. For more information go to <http://www.p65warnings.ca.gov/> and <http://www.p65warnings.ca.gov/wood>.

4.0 Specifications

Model Number	HSP-5A	HSP-15A	HSP-35A
Stock Number	BA9-1232702	BA9-1232703	BA9-1232704
Capacity (ton).....	5	15	35
Ram Diameter (in.).....	1-3/4	2-1/2	3
Piston Stroke (in.)	4	4-3/4	4-1/2
Screw Stroke (in.)	3	4	2-3/4
Work Table (in.)	19 x 5-1/2	24-3/4 x 7-1/2	31 x 10-3/8
Lateral Movement (in.)	NA	10-3/16	13-3/8
Vertical Travel (in.).....	19	25	22-3/8
Base Size (in.).....	23-1/2 x 26	33-7/8 x 29-1/2	43 x 33-1/2
Height (in.)	51-1/2	64-1/2	68
Hydraulic oil capacity (mL).....	216	553	1350
Net Weight (lbs.)	159	378	682
Shipping Weight (lbs.)	202	462	781
Overall Dimensions, LxWxH (in.):			
	.....23-1/2 x 26 x 51-1/2 .....	.....33-7/8 x 29-1/2 x 64-1/2 .....	.....43 x 33-1/2 x 68

The specifications in this manual were current at time of publication, but because of our policy of continuous improvement, Baileigh Industrial reserves the right to change specifications at any time and without prior notice, without incurring obligations.

5.0 Features and Terminology

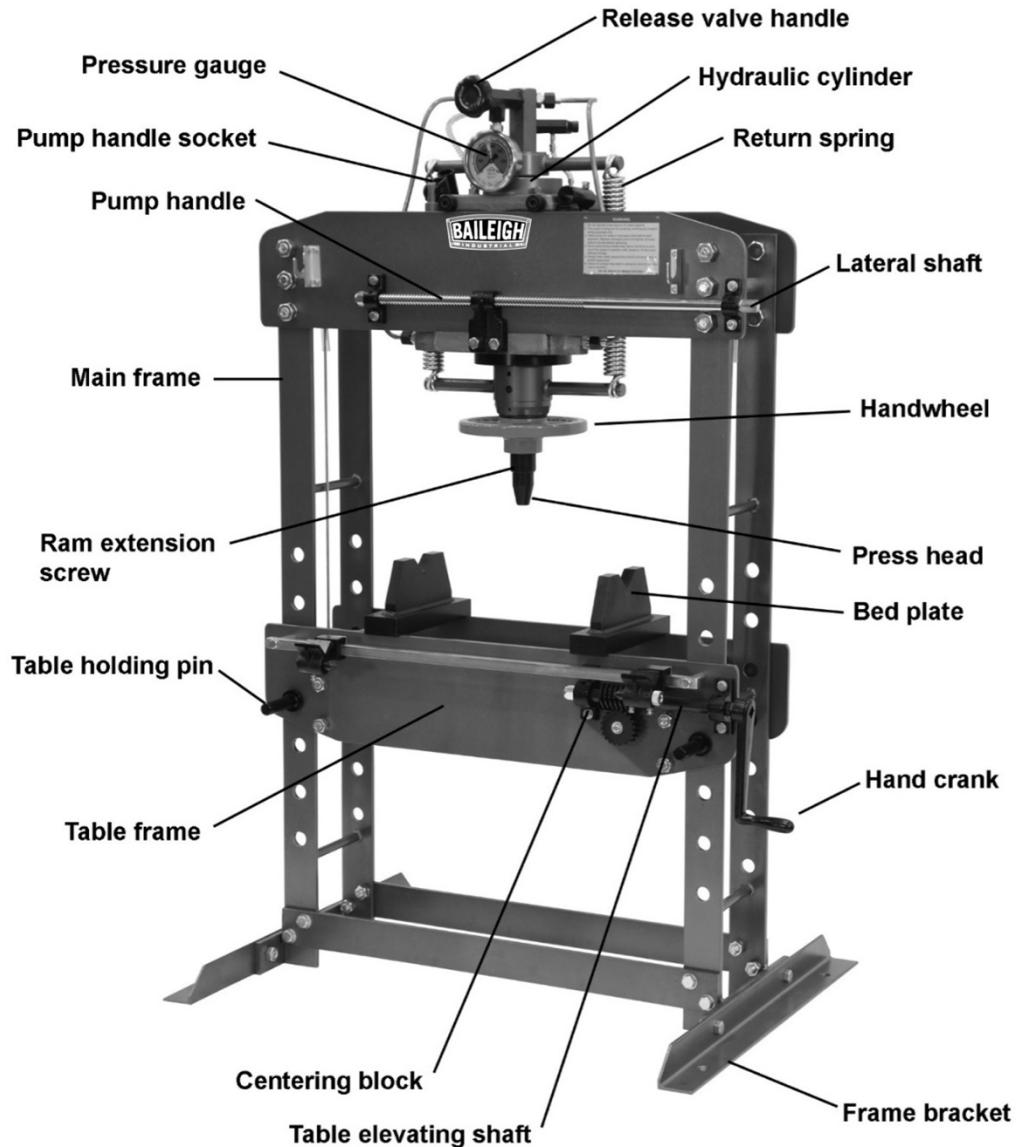


Figure 1

Model HSP-35A shown as representative; other models may vary

6.0 Assembly

Refer to Figure 1 for identification.

1. Use a lifting device, such as a hoist or forklift with straps, to position machine upright.
2. Bolt the frame brackets to the main frame with the provided screws and hex nuts. *Finger tighten only.*
3. The press should be placed within a well-lit area, upon a level floor, preferably concrete. Lower the press onto the floor, allowing it to stabilize on the brackets. Fully tighten the hex nuts on the frame brackets.
4. The hex filler plug (see parts breakdown: item #17 for HSP-5A; #8A for HSP-15A; #8D for HSP-35A) was installed for shipping purposes. Remove this and replace it with the provided vented plug.
5. Place the end of the pump handle into the handle socket and secure it with the screw.

7.0 Operation

Refer to Figure 1 for identification.

1. Remove all items from bed plates.
2. Remove table holding pins. (Support the table frame on the HSP-5A.)
3. Raise or lower table frame to desired position, so that when workpiece is mounted, it will be close to the ram press head.
Model HSP-5A: Raise or lower table frame by hand.
Models HSP-15A, -35A: Rotate crank handle to raise or lower table frame.
4. Re-insert table holding pins. Pins must be fully engaged through front and back holes of the frame.
5. Place workpiece onto bed plates.

A WARNING Make sure workpiece is center-loaded and secure before pressing, and that table holding pins are properly inserted. Some objects may have a tendency to pop out or explode under pressure. Exercise proper precautions.

6. If desired, slide ram assembly laterally (15- and 35-ton models only) by mounting the hand crank onto the lateral shaft and rotating it. **Do not attempt to slide ram during operation.**
7. The handwheel can be used to rapidly adjust the ram extension screw into or out of the plunger.
Note: The length of ram screw extending out of the piston should be kept as short as possible. Raise the table rather than extend the screw to its travel limit.
8. Close valve by rotating release valve handle clockwise as far as it will turn.
9. Pump the handle to lower the ram until it makes light contact with workpiece. Align the workpiece to ensure that desired contact point is directly beneath the press head. Slowly pump handle again until load begins to be applied to workpiece.
10. Remove your hand from workpiece area and step toward the side of the press (do not stand directly in front of workpiece). Continue slowly pumping to complete the operation.
11. When operation is complete, slowly retract ram by incrementally turning release valve handle counterclockwise.

8.0 Maintenance

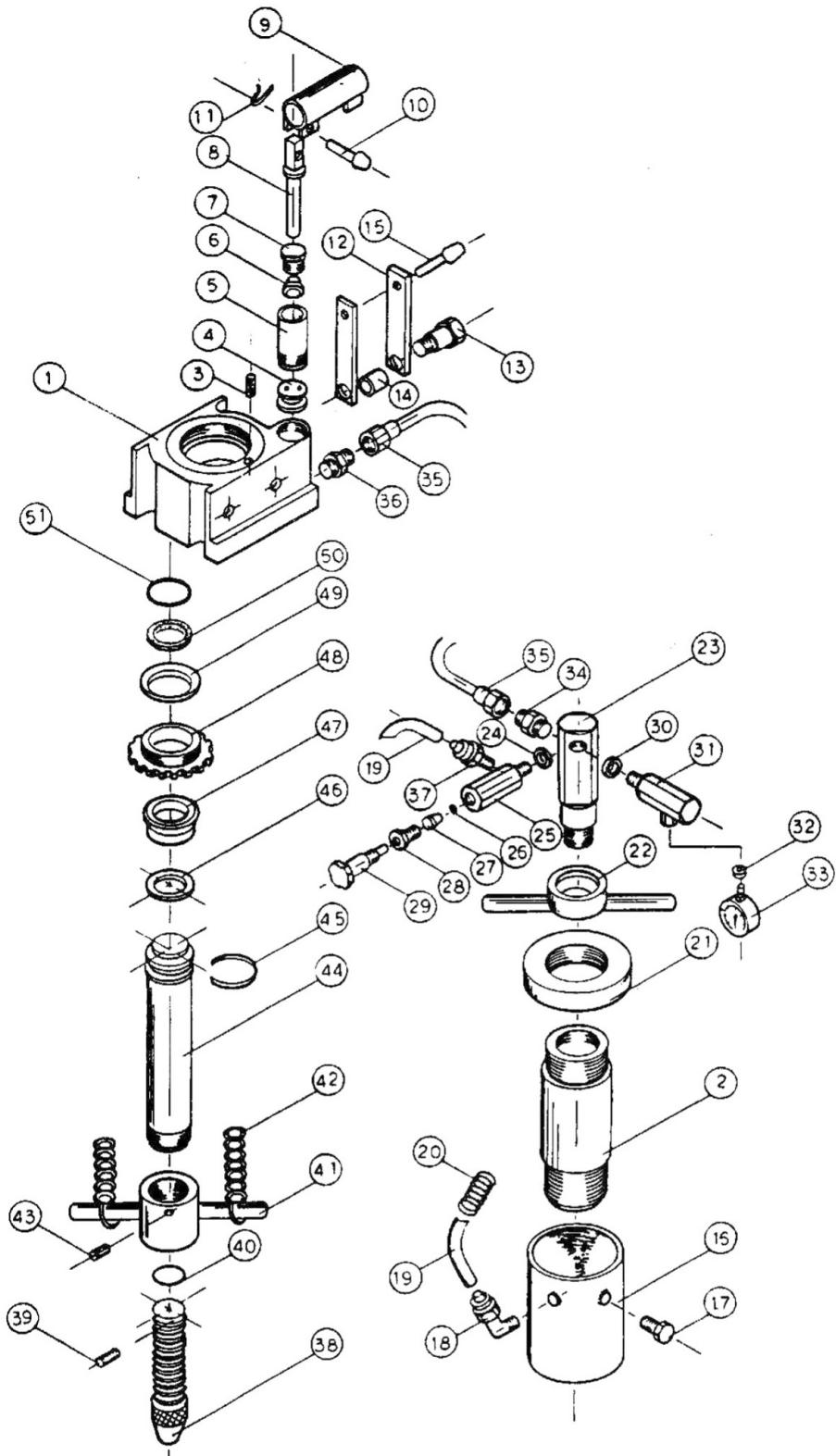
- Keep the press clean, and periodically lubricate joints and moving parts with light oil.
- Inspect the press before each use, for signs of damage, bent pins, missing or loose bolts, cracked welds, oil leaks, abnormal operation, and the like. Make repairs or replacements as needed before putting the machine back into service.
- Periodically remove filler plug (#17/HSP-5A; #8A/HSP-15A; #8D/HSP-35A) to check that hydraulic cylinder is filled with oil. Top off as needed with good quality hydraulic oil. Reinsert filler plug.
- Flush and replace the oil in the hydraulic cylinder approximately every 2 years. Refer to section 4.0 Specifications for oil capacity for your particular model.

9.0 Replacement Parts

Replacement parts are listed on the following pages. To order parts or reach our service department, call 1-800-274-6848 Monday through Friday, 8:00 a.m. to 5:00 p.m. CST. Having the Model Number and Serial Number of your machine available when you call will allow us to serve you quickly and accurately.

Non-proprietary parts, such as fasteners, can be found at local hardware stores, or may be ordered from Baileigh Industrial. Some parts are shown for reference only and may not be available individually.

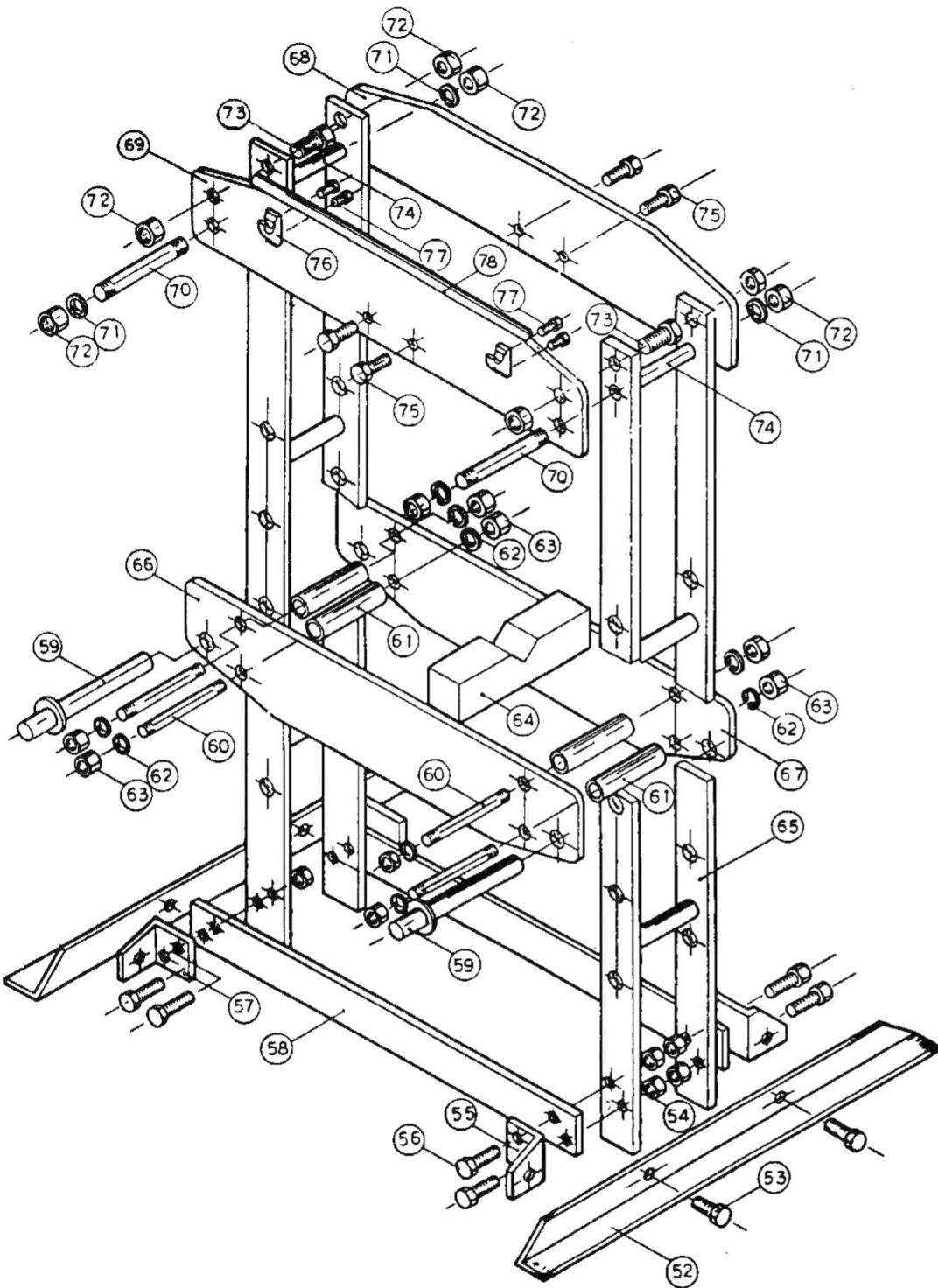
9.1.1 HSP-5A Head Assembly – Exploded View



9.1.2 HSP-5A Head Assembly – Parts List

Index No.	Part No.	Description	Size	Qty
1	HSP5A-1	Hydraulic Base		1
2	HSP5A-2	Cylinder		1
3	HP5A-3	Base Filter **		1
4	HP5A-4	Single Action Valve		1
5	HSP5A-5	Pump Cylinder		1
6	HP5A-6	Cup Seal **		1
7	HP5A-7	Release Valve Assembly		1
8	HP5A-8	Pin		1
9	HP5A-9	Handle Socket		1
10	HP5A-10	Bolt		1
11	HP5A-11	C-Clip		1
12	HP5A-12	Linking Sleeve		1
13	HP5A-13	Fixed Screw		2
14	HP5A-14	Spacer		1
15	HP5A-15	Bolt		1
16	HSP5A-16	Reservoir		1
17	HP5A-17	Hex Filler Plug w/Seal **		1
	HP5A-17V	Hex Filler Plug Vented		1
18	HP5A-18	Brass Tube Connector **		1
19	HP5A-19	Plastic Tube **		1
20	HP5A-20	Spring **		1
21	HSP5A-21	Top Base		1
22	HSP5A-22	Spring Top Holder		1
23	HSP5A-23	Oil Pass Connector		1
24	HP5A-24	Washer **		1
25	HP5A-25	Release Valve Block		1
26	HP5A-26	Steel Ball **		1
27	HP5A-27	Rubber Spacer **		1
28	HP5A-28	Release Valve Assembly		1
29	HP5A-29	Release Valve Spindle **		1
30	HP5A-30	Washer **		1
31	HP5A-31	Release Valve Block		1
32	HP5A-32	Washer **		1
33	HP5A-33	Pressure Gauge		1
34	HP5A-34	Male Connect Tube		1
35	HP5A-35	Bronze Tube		1
36	HP5A-36	Male Connector		1
37	HP5A-37	Brass Tube Connector **		1
38	HP5A-38	Extension Screw		1
39	HP5A-39	Stopper Roll Pin		1
40	HP5A-40	Stopper		1
41	HSP5A-41	Connector Post		1
42	HP5A-42	Return Spring		2
43	TS-0270031	Set Screw	5/16"-18 x 3/8"	1
44	HP5A-44	Plunger		1
45	HP5A-45	Support Ring **		1
46	HP5A-46	Support Seal **		1
47	HP5A-47	Cup Seal **		1
48	HP5A-48	Plug Nut		1
49	HP5A-49	Gasket		1
50	HP5A-50	Oil Absorber **		1
51	HP5A-51	Seal		1
	HP5A-RK	Hydraulic Repair Kit (includes items marked with **)		1

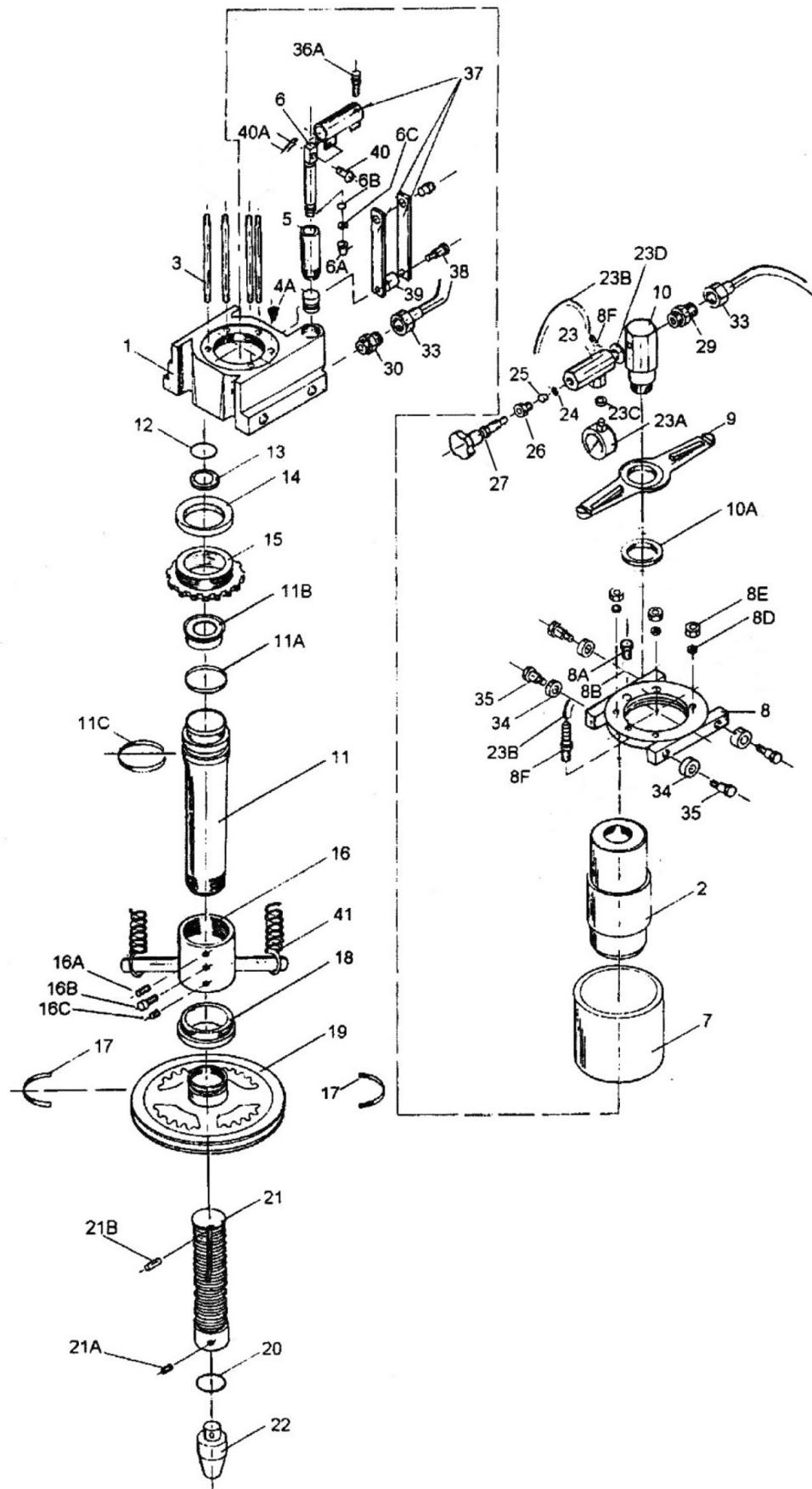
9.2.1 HSP-5A Frame Assembly – Exploded View



9.2.2 HSP-5A Frame Assembly – Parts List

Index No.	Part No.	Description	Size	Qty
52	HSP5A-52	Frame Bracket		2
53	TS-0060051	Hex Cap Screw	.3/8"-16 x 1"	4
54	TS-0561031	Hex Nut	.3/8"-16	12
55	HSP5A-55	Frame Base Bracket		2
56	TS-0060071	Hex Cap Screw	.3/8"-16 x 1-1/2"	8
57	HSP5A-57	Frame Base Bracket		2
58	HSP5A-58	Lower Frame Support		2
59	HP5A-59	Table Holder Pin		2
60	HP5A-60	Table Spindle		4
61	HP5A-61	Crank Shaft Sleeve		4
62	TS-0720111	Lock Washer	.1/2"	8
63	TS-0561051	Hex Nut	.1/2"-13	8
64	HP5A-64	Bed Plate		1
65	HSP5A-65	Main Frame (L-R post)		2
66	HSP5A-66	Table Frame (Front)		1
67	HSP5A-67	Table Frame (Rear)		1
68	HSP5A-68	Top Frame (rear)		1
69	HSP5A-69	Top Frame (front)		1
70	HP5A-70	Frame Spindle		1
71	TS-0720131	Lock Washer	.5/8"	8
72	TS-0561071	Hex Nut	.5/8"-11	8
73	TS-0071011	Hex Cap Screw	.5/8"-11 x 1-1/2"	4
74	HP5A-74	Spindle Sleeve		2
75	TS-0071011	Hex Cap Screw	.5/8"-11 x 1-1/2"	4
76	HP5A-76	Handle Holder		2
77	TS-0081031	Hex Cap Screw	.5/16"-18 x 3/4"	4
78	HP5A-78	Pump Handle		1
79	HSP5A-ID	Identification Label (not shown)		1
80	HP5A-WL	Warning Label (not shown)		1

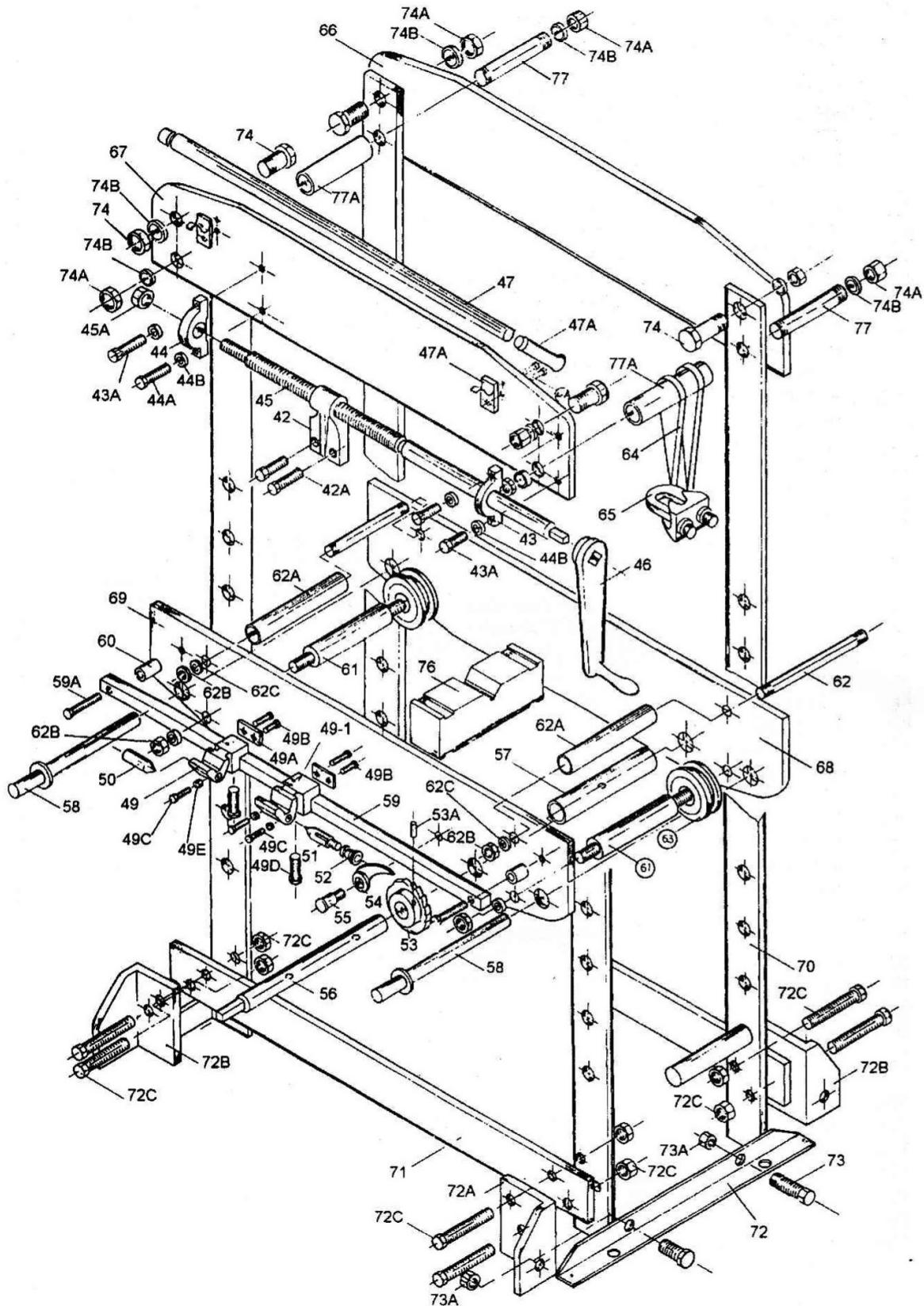
9.3.1 HSP-15A Head Assembly – Exploded View



9.3.2 HSP-15A Head Assembly – Parts List

Index No.	Part No.	Description	Size	Qty
1	HSP15A-01	Hydraulic Base		1
2	HSP15A-02	Cylinder		1
3	HP15A-03	Support Rod		4
4	HP15A-04	Single Action Valve **		1
4A	HP15A-04A	Base Filter **		1
5	HSP15A-05	Pump Cylinder		1
6	HP15A-06	Piston		1
6A	HP15A-06A	Cup Seal **		1
6B	HP15A-06B	Seal		1
6C	HP15A-06C	Wiper Seal		1
7	HSP15A-07	Reservoir		1
8	HSP15A-08	Top Base		1
8A	HP15A-08A	Hex Filler Plug w/ Seal		1
	HP15A-08AV	Hex Filler Plug Vented.....		1
8D	TS-0720091	Lock Washer .....	.3/8"	4
8E	TS-0561031	Hex Nut .....	.3/8"-16	4
8F	HP15A-08F	Brass Tube Connector **	1/8PT thread.....	2
9	HSP15A-09	Spring Top Holder		1
10	HSP15A-10	Oil Pass Connector		1
10A	HP15A-10A	Spacer		1
11	HP15A-11	Plunger		1
11A	HP15A-11A	Support Seal		1
11B	HP15A-11B	Cup Seal **		1
11C	HP15A-11C	Support Ring **		1
12	HP15A-12	Seal **		1
13	HP15A-13	Oil Absorber **		1
14	HP15A-14	Gasket		1
15	HP15A-15	Plug Nut Fixer		1
16	HSP15A-16	Connector Post		1
16A	HP15A-16A	Screw		1
16B	HP15A-16B	Screw		1
16C	HP15A-16C	Screw		1
17	HP15A-17	Handwheel Retainer Clip		2
18	HP15A-18	Handwheel Spacer		1
19	HSP15A-19	Handwheel		1
20	HP15A-20	Seal **		1
21	HP15A-21	Extension Screw		1
21A	HP15A-21A	Set Screw		1
21B	HP15A-21B	Stopper Roll Pin		1
22	HP15A-22	Press Head		1
23	HP15A-23	Release Valve Block		1
23A	HP15A-23A	Pressure Gauge		1
23B	HP15A-23B	Plastic Tube **		1
23C	HP15A-23C	Washer		1
23D	HP15A-23D	Spacer		1
24	HP15A-24	Steel Ball		1
25	HP15A-25	Release Valve Seal **		1
26	HP15A-26	Release Valve Nut		1
27	HP15A-27	Release Valve		1
29	HP15A-29	Male Connector **		1
30	HP15A-30	Male Connector		1
33	HP15A-33	Bronze Tube **		1
34	HP15A-34	Sliding Wheel		4
35	HP15A-35	Locking Screw		4
36A	HP15A-36A	Hand Stopper		1
37	HP15A-37	Complete Handle Sleeve Assembly		1
38	HP15A-38	Fixed Screw		1
39	HP15A-39	Spacer		1
40	HP15A-40	Pin		1
40A	HP15A-40A	Cotter Pin		1
41	HP15A-41	Return Spring		2
	HP15A-RKA	Hydraulic Repair Kit (includes items marked with **)		1

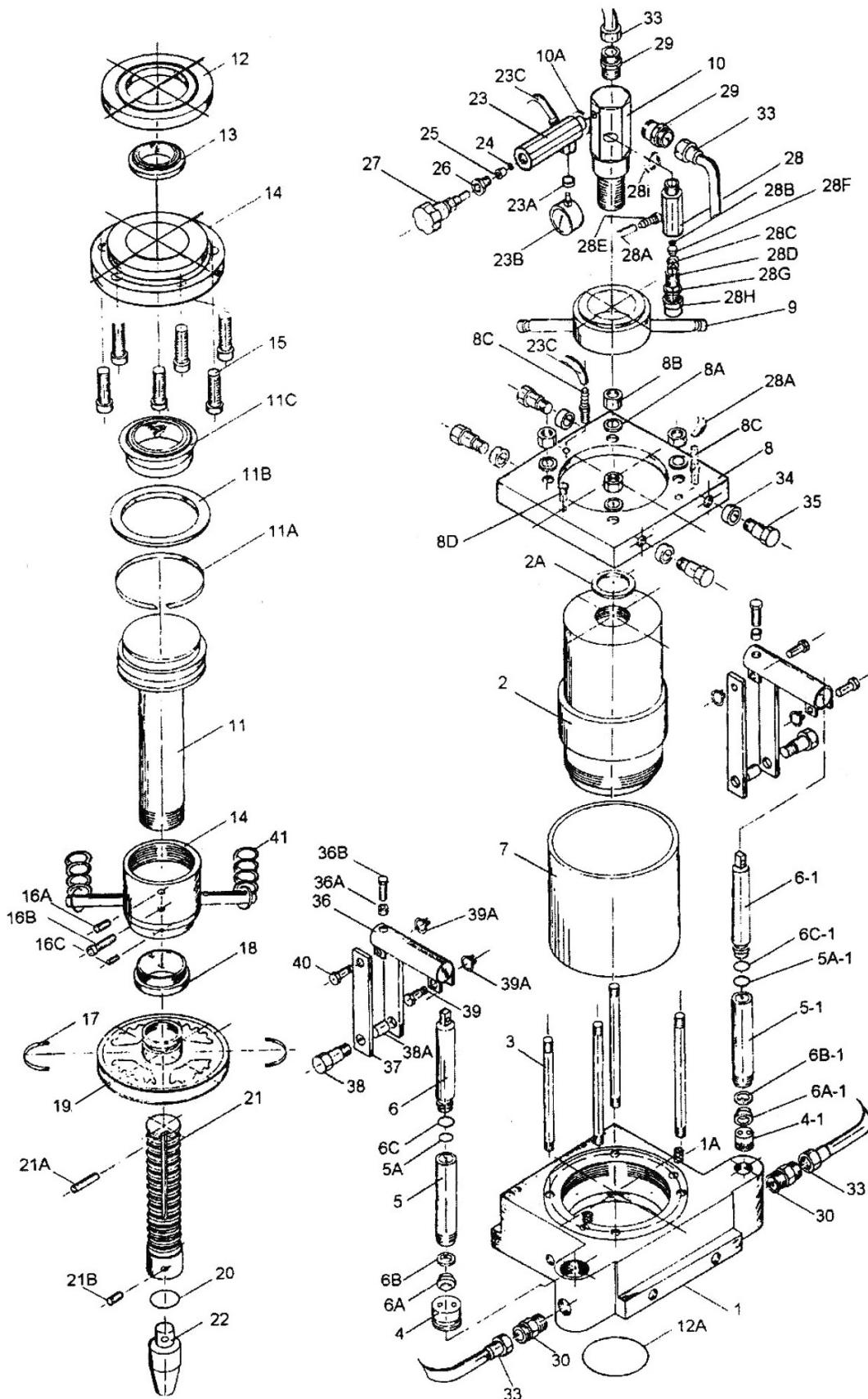
9.4.1 HSP-15A Frame Assembly – Exploded View



9.4.2 HSP-15A Frame Assembly – Parts List

Index No.	Part No.	Description	Size	Qty
42	HP15A-42	Shaft Holder		1
42A	TS-0070011	Hex Cap Screw	1/2"-13 x 1"	2
43	HP15A-43	Rolling Shaft Block without Thread		1
43A	TS-0060061	Hex Cap Screw	3/8"-16 x 1-1/4"	3
44	HP15A-44	Rolling Shaft Block with Thread		1
44A	TS-0060051	Hex Cap Screw	3/8"-16 x 1"	1
44B	HP15A-44B	Washer		4
45	HP15A-45	Rolling Shaft		1
45A	HP15A-45A	Nut		2
46	HP15A-46	Hand Crank		1
47	HP15A-47	Pump Handle		1
47A	HP15A-47A	Rubber Grip		1
48	HP15A-48	Handle Holder		2
48A	HP15A-48A	Handle Holder Screw		2
49	HP15A-49	V-Block Body		1
49A	HP15A-49A	Body Sliding Plate		2
49-1	HP15A-49-1	V-Block Body		1
49B	HP15A-49B	Body Sliding Plate		2
49C	HP15A-49C	Hex Screw		4
49D	HP15A-49D	Hex Screw		3
49E	HP15A-49E	Stopper		2
50	HP15A-50	Center Tails		2
51	HP15A-51	Adjustable Center – Tail Body		1
52	HP15A-52	Adjustable Center – Tail Knob		1
53	HP15A-53	Crank Gear		1
53A	HP15A-53A	Roll Pin		1
54	HP15A-54	Crank Gear Pawl		1
55	HP15A-55	Pawl Stud Screw		1
56	HP15A-56	Crank Gear Shaft		1
57	HP15A-57	Spindle Sleeve		2
58	HP15A-58	Table Holder Pin		1
59	HP15A-59	Square Bar		1
59A	HP15A-59A	Center Tail Assembly Screw		2
60	HP15A-60	Screw Spacer		2
61	HP15A-61	Cable Sliding Spindle		1
61A	HP15A-61A	Hex Nut		2
62	HP15A-62	Table Spindle		2
62A	HP15A-62A	Crank Shaft Sleeve		1
63	HP15A-63	Cable Slide Wheel		1
64	HP15A-64	Cable		1
65	HP15A-65	Wire Rope Clip		1
66	HSP15A-66	Top Frame (Rear)		1
67	HSP15A-67	Top Frame (Front)		2
68	HSP15A-68	Table Frame (Rear)		1
69	HSP15A-69	Table Frame (Front)		1
70	HSP15A-70	Main Frame (Left/Right Post)		2
71	HSP15A-71	Lower Frame Support		2
72	HSP15A-72	Frame Bracket		2
72A	HSP15A-72A	Frame Base Bracket		2
72B	HSP15A-72B	Frame Base Bracket		2
72C	HP15A-72C	Bolt		8
72D	HP15A-72D	Nut		8
73	HP15A-73	Bolt		4
73A	HP15A-73A	Nut		4
74	HP15A-74	Hex Bolt		4
76	HP15A-76	Bed Plate		2
77	HP15A-77	Frame Spindle		2
77A	HP15A-77A	Spindle Sleeve		2
78	HSP15A-ID	Identification Label (not shown)		1
80	HP5A-WL	Warning Label (not shown)		1

9.5.1 HSP-35A Head Assembly – Exploded View

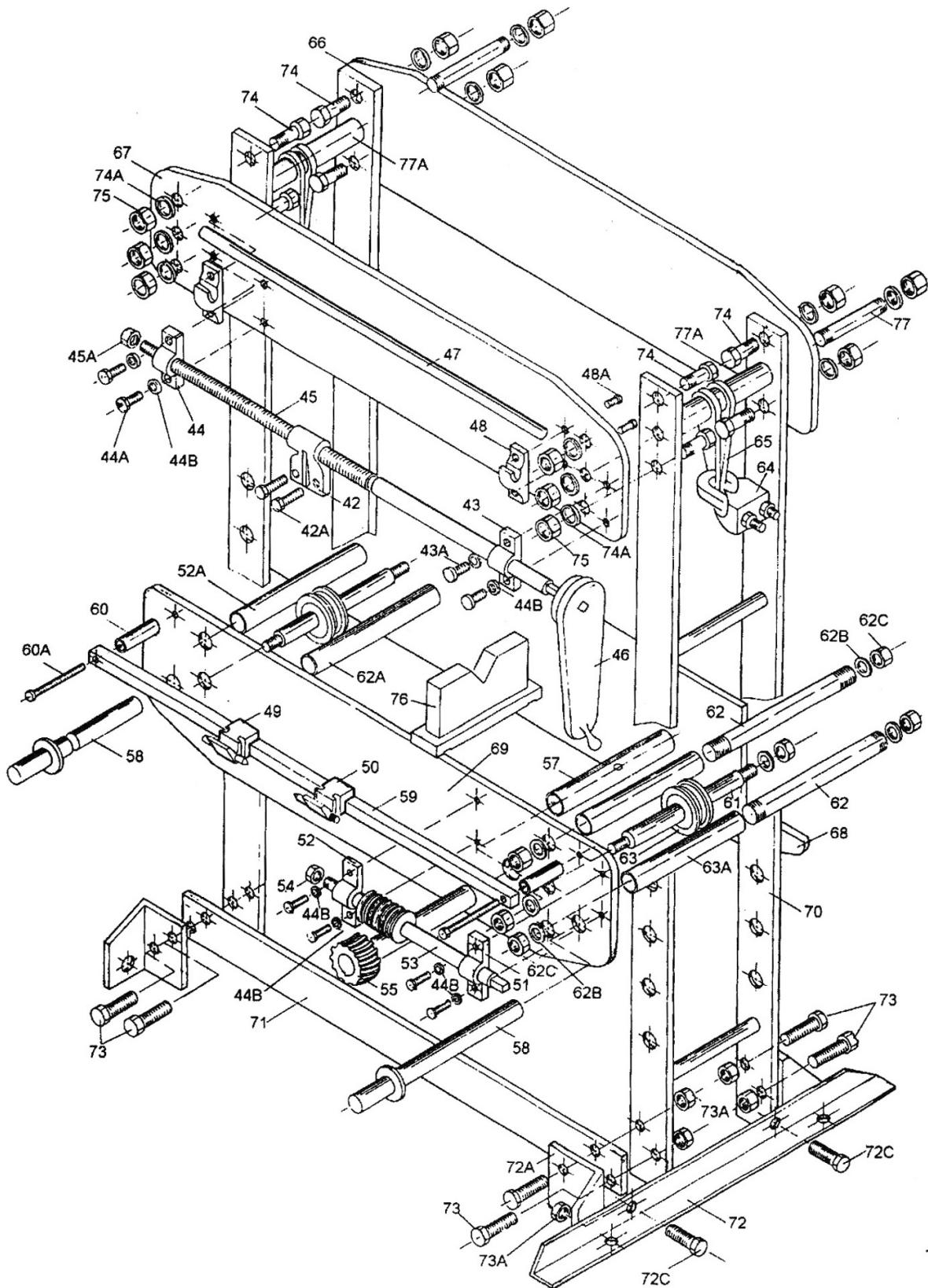


9.5.2 HSP-35A Head Assembly – Parts List

Index No.	Part No.	Description	Size	Qty
1	HSP35A-01	Base		1
1A	HP35A-01A	Base Filter **		2
2	HSP35A-02	Cylinder		1
2A	HP35A-02A	Spacer		1
3	HP35A-03	Support Rod		4
4	HP35A-04	Single Action Valve		1
4-1	HP35A-04-1	Single Action Valve		1
5	HP35A-05	Pump Cylinder – Fast		1
5-1	HP35A-05-1	Pump Cylinder – Slow		1
5A	HP35A-05A	O-Ring **		1
5A-1	HP35A-05A-1	O-Ring **		1
6	HP35A-06	Shaft		1
6-1	HP35A-06-1	Shaft		1
6A	HP35A-06A	Cup Seal **		1
6A-1	HP35A-06A-1	Cup Seal **		1
6B	HP35A-06B	Wiper Seal **		1
6B-1	HP35A-06B-1	Wiper Seal **		1
6C	HP35A-06C	O-Ring **		1
6C-1	HP35A-06C-1	O-Ring **		1
7	HSP35A-07	Reservoir		1
8	HSP35A-08	Hydraulic Base Top		1
8A	TS-0720111	Lock Washer	1/2"	4
8B	TS-0561051	Hex Nut	1/2"-13	4
8C	HP35A-08C	Brass Tube Connector		3
8D	HP35A-08D	Hex Filler Plug w/ Seal		1
	HP35A-08DV	Hex Filler Plug Vented		1
9	HSP35A-09	Connector Post		1
10	HSP35A-10	Oil Pass Connector		1
10A	HP35A-10A	Spacer		1
11	HP35A-11	Plunger		1
11A	HP35A-11A	Support Ring **		1
11B	HP35A-11B	Spacer Ring		1
11C	HP35A-11C	Cup Seal **		1
12	HP35A-12	Gasket		1
12A	HP35A-12A	O-Ring **		1
13	HP35A-13	Seal **		1
14	HP35A-14	Plunger Plate w/Gasket		1
15	TS-0209061	Socket Head Cap Screw	3/8"-16 x 1-1/4"	6
16	HP35A-16	Connector Post		1
16A	HP35A-16A	Socket Set Screw		1
16B	HP35A-16B	Socket Head Cap Screw		1
16C	HP35A-16C	Socket Set Screw		1
17	HP35A-17	Handwheel Retainer Clip		2
18	HP35A-18	Handwheel Spacer		1
19	HSP35A-19	Handwheel		1
20	HP35A-20	Seal		1
21	HP35A-21	Extension Screw		1
21A	HP35A-21A	Stopper Roll Pin		1
21B	HP35A-21B	Set Screw		1
22	HP35A-22	Press Head		1
23	HP35A-23	Release Valve Block		1
23A	HP35A-23A	Spacer		1
23B	HP35A-23B	Pressure Gauge		1
23C	HP35A-23C	Plastic Tube		1
24	HP35A-24	Steel Ball		1
25	HP35A-25	Release Valve Seal **		1
26	HP35A-26	Release Valve Nut		1
27	HP35A-27	Release Valve		1
28	HP35A-28	Safety Valve Block		1
28A	HP35A-28A	Plastic Tube		1
28B	HP35A-28B	Steel Ball		1

Index No.	Part No.	Description	Size	Qty
28C	HP35A-28C	Safety Spring		1
28D	HP35A-28D	Safety Valve Set Screw		1
28E	HP35A-28E	Brass Tube Connector		1
28F	HP35A-28F	Release Valve Seal **		1
28G	HP35A-28	Washer		1
28H	HP35A-28H	Hex Nut		1
28I	HP35A-28I	Spacer		1
29	HP35A-29	Male Connector		2
30	HP35A-30	Male Connector		2
33	HP35A-33	Bronze Tube		2
34	HP35A-34	Sliding Wheel		4
35	HP35A-35	Hex Locking Bolt		4
36	HP35A-36	Handle Socket		2
36A	TS-0561031	Hex Nut	3/8"-16	2
36B	TS-0060051	Hex Cap Screw	3/8"-16 x 1"	2
37	HP35A-37	Linking Sleeve		4
38	HP35A-38	Bottom Fixed Bolt		2
38A	HP35A-38A	Spacer		2
39	HP35A-39	Bolt		2
39A	HP35A-39A	C-Clip		4
40	HP35A-40	Bolt		2
41	HP35A-41	Return Spring		2
	.....HP35A-RK	Hydraulic Repair Kit (includes items marked with **)		1

9.6.1 HSP-35A Frame Assembly – Exploded View



9.6.2 HSP-35A Frame Assembly – Parts List

Index No.	Part No.	Description	Size	Qty
42	HP35A-42	Shaft Holder		1
42A	HP35A-42A	Hex Cap Head Bolt.....		2
43	HP35A-43	Rolling Shaft Block		1
43A	TS-0060061	Hex Cap Screw .....	.3/8"-16 x 1-1/4"	2
44	HP35A-44	Rolling Shaft Block		1
44A	TS-0060051	Hex Cap Screw .....	.3/8"-16 x 1"	2
44B	TS-0680041	Flat Washer .....	.3/8"	8
45	HP35A-45	Sliding Shaft		1
45A	TS-0561072	Hex Nut .....	.5/8"-18	1
46	HP35A-46	Hand Crank		1
47	HP35A-47	Handle		1
48	HP35A-48	Handle Holder		2
48A	TS-0051051	Hex Cap Screw .....	.5/16"-18 x 1"	4
49	HP35A-49	Center Post Assembly (left).....		1
50	HP35A-50	Center Post Assembly (right)		1
51	HP35A-51	Fixed Holder		1
52	HP35A-52	Shaft Fixed Block		1
53	HP35A-53	Drive Gear Shaft Assembly		1
54	HP35A-54	Hex Nut		1
55	HP35A-55	Worm Gear w/ Shaft		1
56	TS-0060051	Hex Cap Screw .....	.3/8"-16 x 1"	4
57	HP35A-57	Spacer Sleeve		1
58	HP35A-58	Table Holder Pin		1
59	HP35A-59	Square Bar		1
60	HP35A-60	Screw Spacer		2
60A	TS-0060151	Hex Cap Screw .....	.3/8" x 3-1/2"	2
61	HP35A-61	Slide Wheel Shaft		2
62	HP35A-62	Table Bolt		4
62A	HP35A-62A	Spindle Sleeve		8
62B	TS-0720131	Lock Washer .....	.5/8"	12
62C	TS-0561071	Hex Nut .....	.5/8"-11	12
63	HP35A-63	Cable Slide Wheel		2
64	HP35A-64	Wire Rope Clip		2
65	HP35A-65	Cable		1
66	HSP35A-66	Top Frame (Rear)		1
67	HSP35A-67	Top Frame (Front)		1
68	HSP35A-68	Table Frame (Rear)		1
69	HSP35A-69	Table Frame (Front)		1
70	HSP35A-70	Main Frame		2
71	HSP35A-71	Lower Frame Support		2
72	HSP35A-72	Base Frame Bracket		2
72A	HSP35A-72A	Frame Bracket (Left)		2
72B	HSP35A-72B	Frame Bracket (Right)		2
72C	TS-0071011	Hex Cap Screw .....	.5/8"-11 x 1-1/2"	4
73	TS-0071031	Hex Cap Screw .....	.5/8"-11 x 2"	8
73A	TS-0561071	Hex Nut .....	.5/8"-11	12
74	HP35A-74	Hex Head Bolt .....	.3/4" x 2"	8
74A	TS-0720141	Lock Washer .....	.3/4"	12
75	TS-0561081	Hex Nut .....	.3/4"-10	12
76	HP35A-76	V-Block Bed Plate		2
77	HP35A-77	Top Link Bolt		2
77A	HP35A-77A	Spacer Sleeve		2
78	HSP35A-ID	Identification Label (not shown)		1
80	HP5A-WL	Warning Label (not shown)		1

Notes

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