



TW SP202

Shop Press 20 T

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Installation, Operation and Parts Manual



Read this entire manual carefully before installation or operation of the Press.
Follow the instructions strictly.

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Instruction Manual

IMPORTANT

PLEASE READ THESE INSTRUCTIONS CAREFULLY. NOTE THE SAFETY INSTRUCTIONS AND WARNINGS. USE THE PRODUCT CORRECTLY AND WITH CARE FOR THE PURPOSE FOR WHICH IT IS INTENDED. FAILURE TO DO SO MAY CAUSE DAMAGE TO PROPERTY AND/OR SERIOUS PERSONAL INJURY. PLEASE KEEP THIS INSTRUCTION MANUAL SAFE FOR FUTURE USE.

1. SAFETY INSTRUCTIONS AND WARNINGS

- 1.1 Use a qualified person to maintain the press in good condition.
- 1.2 The maximum load is 20 tons. **DO NOT** exceed this rated capacity. Never apply excessive force to a workpiece and always use the pressure gauge to accurately determine the applied load.
- 1.3 Use this press for the purpose for which it is intended. **DO NOT** use it for any other purpose it is not designed to perform.
- 1.4 Keep children and unauthorized persons away from the work area.
- 1.5 Remove loose fitting clothing. Remove ties, watches, rings and other loose jewelry, and contain long hair.
- 1.6 Wear ANSI approved impact safety goggles, full-face impact safety shield and heavy-duty work gloves when operating the press.
- 1.7 Keep proper balance and footing, do not overreach and wear nonskid footwear.
- 1.8 Only use this press on a surface that is stable, level, dry and not slippery, and capable of sustaining the load. Keep the surface clean, tidy and free from unrelated materials and ensure that there is adequate lighting.
- 1.9 Inspect the press before each use. **DO NOT** use if bent, broken, cracked, leaking or otherwise damaged, any suspect parts are noted or it has been subjected to a shock load.
- 1.10 Check to ensure that all applicable bolts and nuts are firmly tightened.
- 1.11 Ensure that the workpiece is center-loaded and secure.
- 1.12 Keep hands and feet away from bed area at all times.
- 1.13 **DO NOT** use the shop press to compress springs or any other item that could disengage and cause a potential hazard. Never stand directly in front of loaded press and never leave loaded press unattended.
- 1.14 **DO NOT** operate the press when you are tired or under the influence of alcohol, drugs or any intoxicating medication.
- 1.15 **DO NOT** allow untrained persons to operate the press.
- 1.16 **DO NOT** make any modifications to the press.
- 1.17 **DO NOT** use brake fluid or any other improper fluid and avoid mixing different types of oil when adding hydraulic oil. Only good quality hydraulic jack oil can be used.
- 1.18 **DO NOT** expose the press to rain or any other kind of bad weather.
- 1.19 If the press needs repairing and/or there is any part that needs to be replaced, have it repaired by authorized technicians and only use the replacement parts supplied by the manufacturer.
- 1.20 **WARNING:** the warnings, cautions and instructions discussed in this instruction manual cannot cover all possible conditions and situations that may occur. It must be understood by the operator that common sense and caution are factors which cannot be built into this product, but must be supplied by the operator.

2. SPECIFICATIONS

Capacity	20 ton	Stroke	185 mm
Working Range	68.5-1028.5 mm	Bed Width	542 mm

3. ASSEMBLY

Use the exploded drawing as your guide to assemble. Lay all parts and assemblies out in front of you before beginning.

The following procedure is recommended:

- 3.1 Attach one base section (21) to left post and lower cross member (26) using bolts (25), washers (22), lock washers (23) and nuts (24), then attach another to right post and the lower cross member.
- 3.2 Put the press frame in an upright position, attach one upper cross beam (10) to left and right posts (20) using bolts (9), washers (13), lock washers (12) and nuts (11).
- 3.3 Put another upper crossbeam into position and insert the under plate (7) to the two upper cross beams at the same time, then secure this cross beam to the posts using bolts (9), washers (13), lock washers (12) and nuts (11).
- 3.4 Screw the upper round nut (6) onto the ram (3), insert the ram into the hole in the under plate (7), then screw the under round nut (8) onto the ram and attach the serrated saddle (5) to the ram.
- 3.5 Join the two press bed frame (18) together by inserting the four bolts (27) through the bushings (28) and the holes in the bed frames, then secure the four bolts by tighten the washer (14), lock washer (15) and nut (16) on it.
- 3.6 Insert bed frame pin (19) into the holes in the posts, then insert the joined press bed frame (18) into press frame and onto bed frame pin.
- 3.7 Attach the setting plate (31) to the right post using bolts (25), washers (22), lock washers (23) and nuts (24), then secure the pump assemblies using the screws (29) and washers (30), and then insert the handle to the handle bracket.
- 3.8 Connect the hydraulic hose coupler (P17) to the connection nut (R15) and assemble the pressure gauge (1) to the pressure gauge connection nut (R13) which is on the top of ram (3).
- 3.9 Tighten all bolts and screws.

4. BEFORE FIRST USE

- 4.1 **Note:** Before first use of this product, purge away air from the hydraulic system: open the release valve by turning it counterclockwise. Pump several full strokes to eliminate any air in the system.
- 4.2 Check all parts and conditions, if there are any broken parts, stop using it and contact your supplier immediately.

5. OPERATING INSTRUCTIONS

WARNING! Ensure that you read, understand and apply the safety instructions and warnings before use.

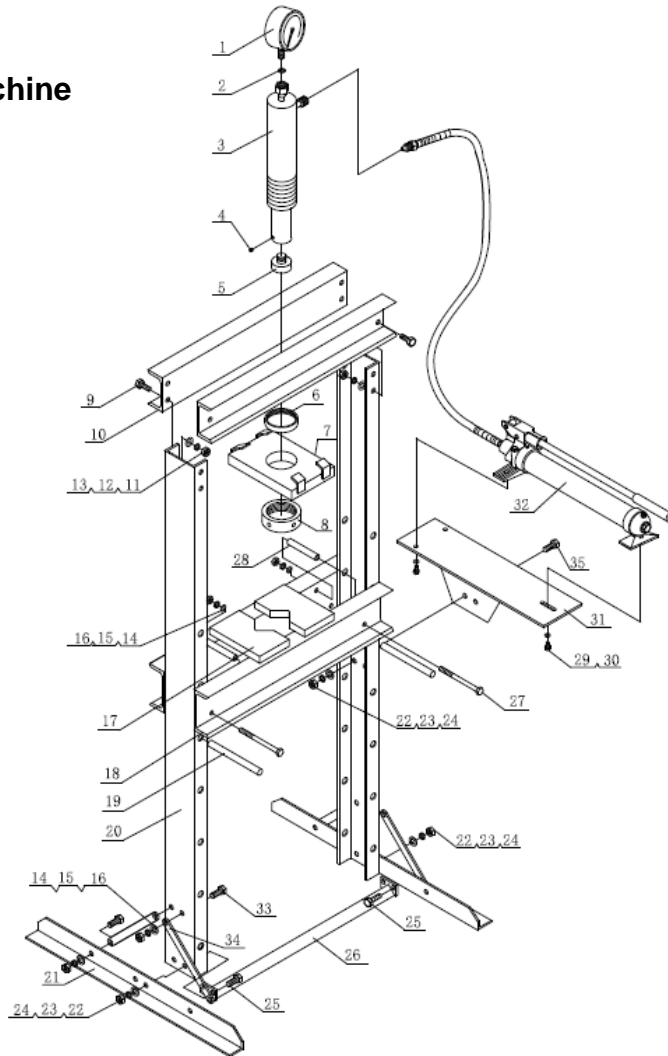
- 5.1 Place the heel block (17) on press bed frame (18), then insert workpiece onto the heel block.
- 5.2 Close the release valve by turning it clockwise until it is firmly closed.
- 5.3 Pump the handle until serrated saddle nears workpiece.
- 5.4 Align workpiece and ram to ensure center-loading.
- 5.5 Pump the handle to apply load onto workpiece.
- 5.6 When work is done, stop pumping the handle, slowly and carefully remove load from workpiece by turning the release valve counterclockwise in small increments.
- 5.7 Once the ram has fully retracted, remove workpiece from bed frame.

6. MAINTENANCE

- 6.1 Clean the outside of the press with dry, clean and soft cloth and periodically lubricate the joints and all moving parts with a light oil as needed.
- 6.2 When not in use, store the press in a dry location with ram and piston fully retracted.
- 6.3 Check the hydraulic oil: remove the oil filler screw (P06) on the pump, if it is not adequate, fill with high quality hydraulic jack oil as necessary, then replace the oil filler nut, purge away air from the hydraulic system as described in 4.1.

7. PARTS LIST

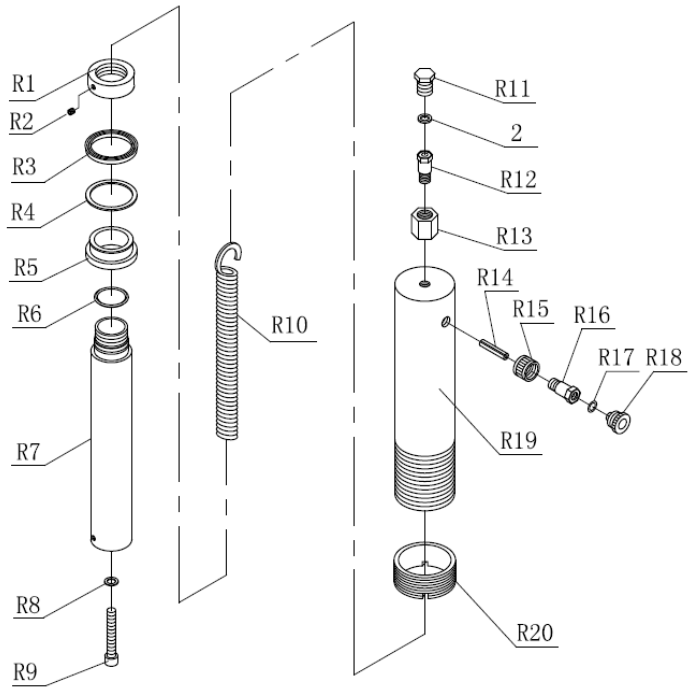
The Whole Machine



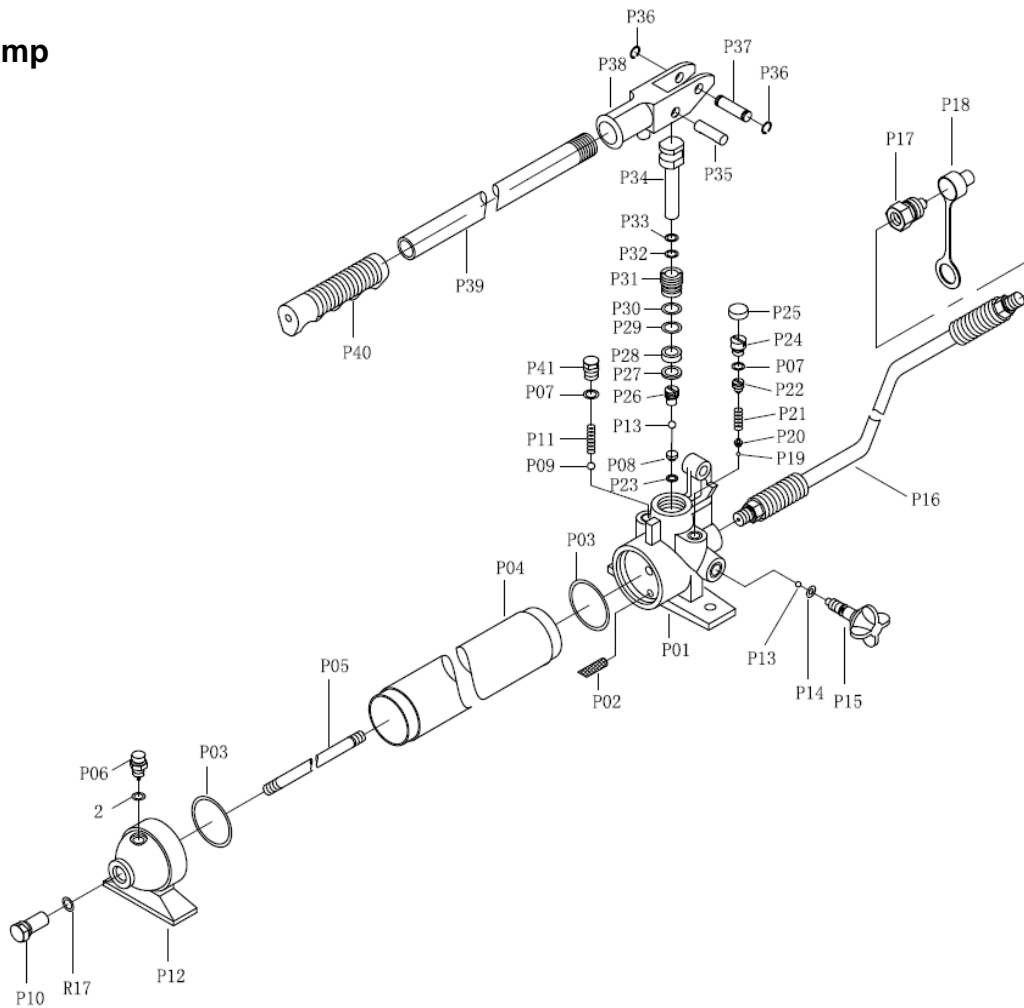
Part No.	Description	Qty	Part No.	Description	Qty
1	Pressure gauge	1	19	Bed frame pin	2
2	Nylon ring	1	20	Post	2
3	Ram	1	21	Base section	2
4	Lock nut	1	22	Flat washer	6
5	Serrated saddle	1	23	Lock washer	6
6	Upper round nut	1	24	Nut	6
7	Under plate	1	25	Bolt	4
8	Under round nut	1	26	Lower cross member	1
9	Bolt	8	27	Bolt	4
10	Upper crossbeam	2	28	Bushing	4
11	Flat washer	8	29	Bolt	3
12	Lock washer	8	30	Flat washer	3
13	Nut	8	31	Setting plate	1
14	Flat washer	12	32	Pump assy	1
15	Lock washer	12	33	Bolt	8
16	Nut	12	34	Support bar	4
17	Heel block	2	35	Bolt	2
18	Press bed frame	2			

Ram

Part No.	Description	Qty
R1	Nut	1
R2	Screw	1
R3	Sealing ring	1
R4	PTFE Ring	1
R5	Bushing	1
R6	O-ring	1
R7	Piston	1
R8	Copper Ring	1
R9	Screw	1
R10	Spring	1
R11	Screw	1
R12	Gauge coupler	1
R13	Gauge connection nut	1
R14	Pin	1
R15	Connection nut	1
R16	Coupler	1
R17	O-ring	1
R18	Dust cap	1
R19	Ram	1
R20	Limited ring	1
2	Nylon ring	1



Pump



Part No.	Description	Qty	Part No.	Description	Qty
P01	Pump	1	P23	Nylon ring	1
P02	Filter	1	P24	Screw	1
P03	O-ring	2	P25	Screw protector	1
P04	Reservoir	1	P26	Screw	1
P05	Tie rod	1	P27	Nylon ring	1
P06	Screw	1	P28	Sealing ring	1
P07	O-ring	2	P29	O-ring	1
P08	Base of valve	1	P30	Nylon ring	1
P09	Steel ball	1	P31	Base of pump core	1
P10	Screw	1	P32	O-ring	1
P11	Spring	1	P33	Nylon ring	1
P12	Pump foot	1	P34	Pump core	1
P13	Steel ball	2	P35	Pin	1
P14	O-ring	1	P36	Retaining ring	2
P15	Release valve	1	P37	Pin	1
P16	Hydraulic hose	1	P38	Base of handle	1
P17	Coupler	1	P39	Handle	1
P18	Dust cover	1	P40	Handle sleeve	1
P19	Steel ball	1	P41	Screw	1
P20	Base of steel ball	1	R17	O-ring	1
P21	Spring	1	2	Nylon ring	1
P22	Screw	1			1



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