



Electrohydraulic Press



OPERATION MANUAL

HP-63T, HP-100T, HP-150T

HP-200T, HP-300T

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Please read the OPERATING INSTRUCTION before using.

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Electric Hydraulic Press

1 Performance characteristics and application

Metalmaster Electric hydraulic press are a developed product based on the experiences found in the manufacture of press brakes and other hydraulic machines. They are formed with a frame, bench beam, bolt, table plates, high pressure hose, oil tanks, electrical boxes, and pumping stations, etc. (See figure 1).

.Performance Characteristics

1. Metalmaster electric hydraulic presses utilizes a single acting cylinder and operate through a manual selector valve to control the up and down stroke.
2. The main column is equipped with a table and beam that can be moved up and down by using the stroke of the cylinder to set the distance between the sizing block and cylinder spindle nose. The special lifting chains can be used to adjust the table up and down by using the cylinder. The table beam is them secured at the height with the 2 pins.
3. The pins are fitted with safety clips to insure that the pins can not be withdrawn during operation.
4. The electrical control system is equipped with an emergency stop button, which is convenient located to allow for a quick response if an emergency occurs.
5. Metalmaster Hydraulic presses are designed to meet the safety standards. Modifications to the machines should not be made and may void your warranty. Please read the "Risk Assessment" sheet supplied with the machine before operating

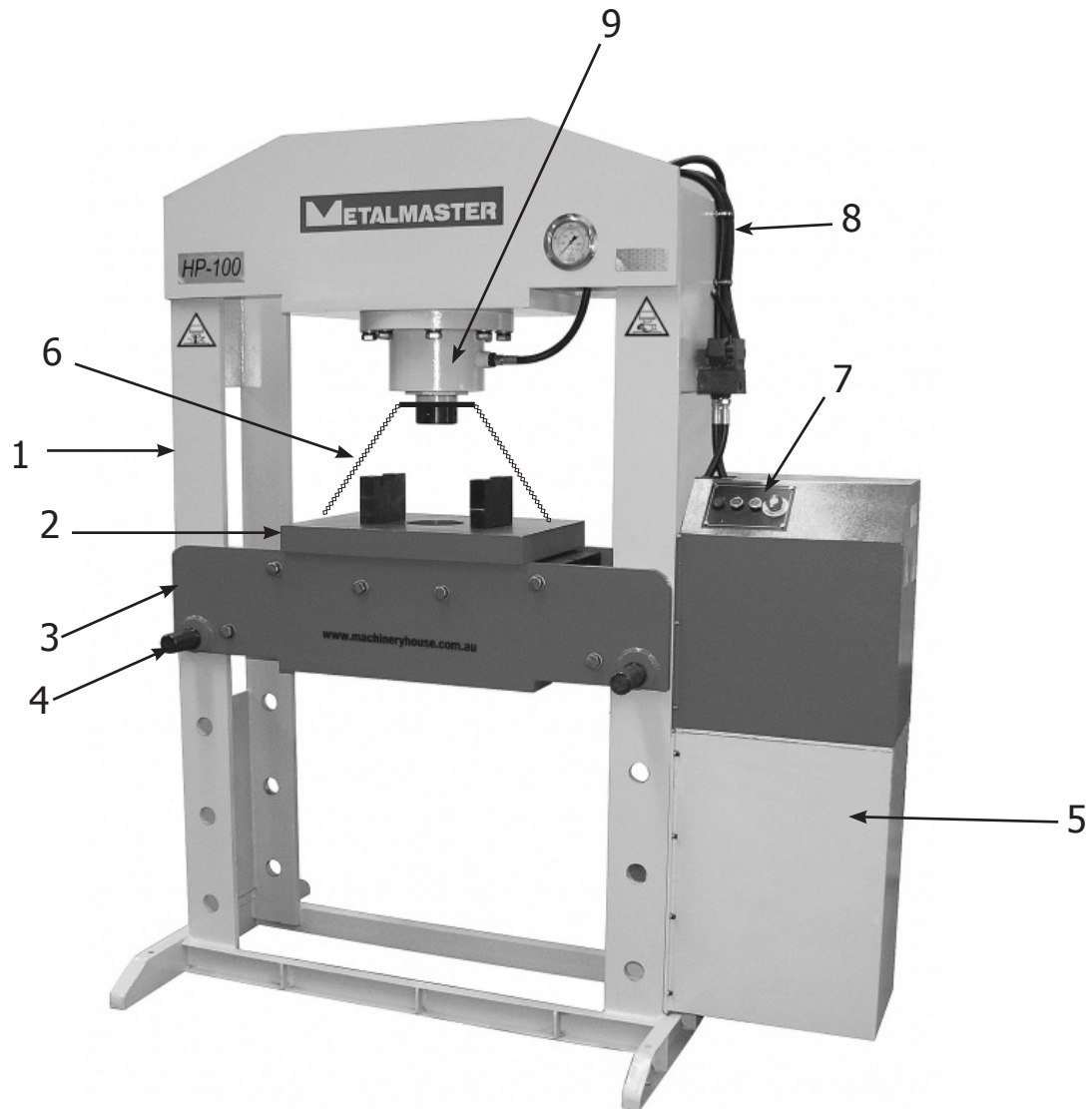


Fig.1

- | | |
|----------------|-----------------------|
| 1. Main frame | 2. Table Plate |
| 3. Bench Beam | 4. Pins |
| 5. Pump | 6. Lifting Tool |
| 7. Control box | 8. High Pressure Hose |
| 9. Cylinder | |

Application

1. Service Conditions:

Do not exceeding indoor ambient temperature higher than +40 °C, or less than -10 °C.
Voltage 415V ± 10%, frequency 50Hz.

2. Service Scope:

The machine is suitable for the machinery industry where processes such as a press-fit, or demolition, correction and forming operations are required.
Variable hydraulic pump station allows for rapid descending, slow proceeding and rapid return, which promotes efficiency and energy savings.

3. Checking The Oil

Before operating the press remove the plastic seal under the oil filler cap (Fig.3) so the tank can breathe.
Check the oil level by viewing the site glass (Fig.2)

4. Filling The Press With Oil

It is extremely important that new, clean, light hydraulic oil be used in this press, Superdraulic 46 or an equivalent. It is strongly recommended that the oil be filtered to remove any possible dirt. The piston should be in its maximum upper position when filling the reservoir. Fill the reservoir to the upper level on the site glass. UNDER NO CIRCUMSTANCES USE OLD DIRTY OIL.

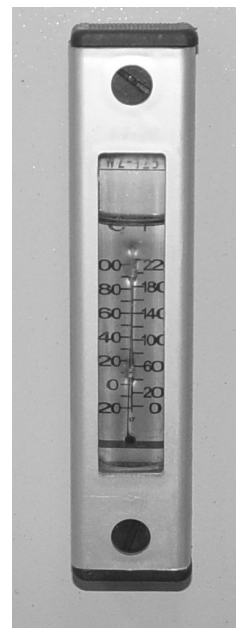


Fig.2

Fig.3



Operations And Controls

The operator should acquaint themselves with the use of the following controls:

1. Main isolating switch is situated on the back of the machine and must be turned "ON"



2. On/Off control panel contains the start and stop buttons and emergency stop. To operate the press the ON button is presses to start the pump. Under an emergency or if the pump needs to be stopped the large red stop button can be pressed. To unlock the emergency stop twist the red knob.



3. The handle attached to the operating valve is used to move the ram up and down. The handle is spring loaded and returns to the neutral position when released

The ram is a single speed ram but does reduce in speed under load



SPINDLE NOSE

1. The threaded spindle nose cap is designed for use with the chain retaining plate used to raise and lower the beam.



2. The threaded nose cap must not be used as a fine adjuster and when pressing and must at all times be adjusted so that there is no gap between the cap and the spindle



RAISING AND LOWERING THE BEAM

The operator should acquaint themselves with the method of lowering and raising the beam before any attempt is made.

1. Loosen the spindle cap so that the chain retaining plate can be fitted between the spindle and the spindle cap.



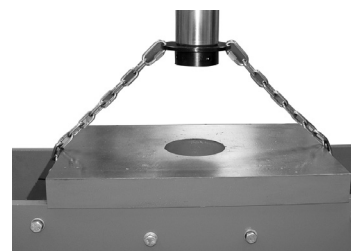
2. Mount the chain retaining plate between the spindle and spindle cap and tighten the spindle cap making sure that the plate is mounted firm and securely



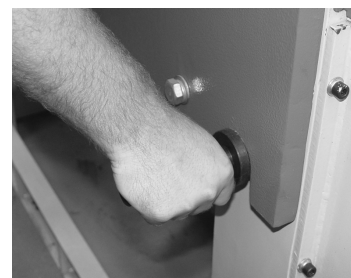
3. The ends of the chain are then secured to the anchor points on the beam making sure that the chain lengths are the same so that the beam will be level when it is listed



4. With the ends of the chain are secured to the anchor points on the beam slowly take the weight of the beam until the locating pins are loose.



5. With the pins now loose, remove the pins and raise or lower the beam using the cylinder. When the beam is at the desired height locate place the pins in the nearest pin hole.



Note! Never use fingers to locate or line up the holes



SLIDING HEAD TYPE

METALMASTER also supply a range of hydraulic presses with a Sliding Work Head. These presses allow for an expansion of many workshop applications. Once unlocked the head slides easily to the left and to the right.



To move the head first unlock the two clamps on the head, one on the R/H side and one on the left. If there is no hand wheel the head will slide very smoothly from side to side with no pressure on the cylinder. (Fig 1.)

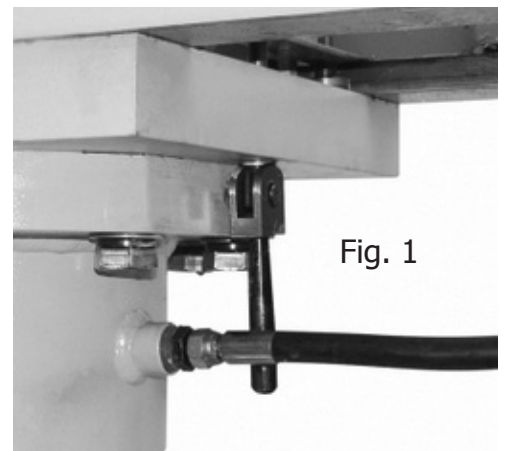


Fig. 1

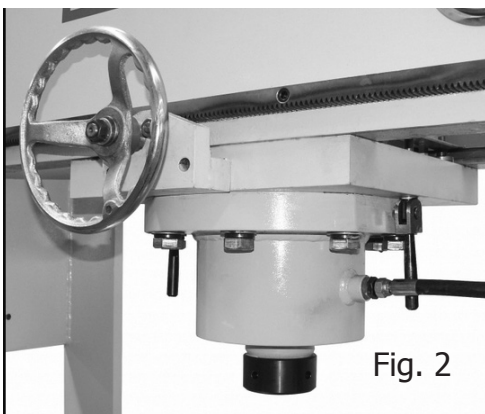


Fig. 2

Some larger models use a rack and pinion driven by a hand wheel to move the head.(Fig.2)

Note! The head should always be secured before it is used



Specifications

Model	HP-63/HPM-63	HP-100T/HPM-100T	HP-150T/HPM-150T	HP-200T/HPM-200T	HP-300T/HPM-300T
Capacity	60 Tonne	100 Tonne	150 Tonne	200 Tonne	300 Tonne
Piston Travel	325mm	363MM	390mm	420mm	380mm
Between Posts	895mm	1050mm	1100mm	1050mm	1200mm
Max Ram-Table	1000mm	1010mm	900mm	700mm	900mm
Voltage	415	415	415	415	415
Motor Power	4Kw	7.5Kw	7.5Kw	7.5Kw	22Kw
Dimensions LxWxH (mm)	1900x930x2030	1970x1050s2230	2020x1120x2160	2280x1130x2530	2360x1220x2470
Weight (Kgs)	1060	1650	1950	2680	3700

TROUBLE SHOOTING

FAULTS	POSSIBLE REASON	ACTION
Insufficient Pressure	<ol style="list-style-type: none"> 1. Gauge Failure 2. Blocked hole in either the safety relieve valve, or poppet valve 3. Loose or leaking joint or damaged seal. 4. Blocked oil filter 	<ol style="list-style-type: none"> 1. Check pressure gauge and repair or replace. 2. Check the seats on the safety and poppet valve for blockage 3. Tighten lacking joints and replace damaged seals 4. Clean filter
Slow Flowing Tank	<ol style="list-style-type: none"> 1. Low oil temperature 2. Low oil level causing oil pump suction to be interrupted 3 Oil leaks restriking the flow. 	<ol style="list-style-type: none"> 1. Control the oil temperature to 20 - 40 C 2. Top up oil level to operating level 3. Check for leaks and tighten joints and replace damaged seals

For all other problems please contact the service department of the dealer you purchased the unit from or contact the manufacturers agent on service@machineryhouse.com.au

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CARE AND MAINTENANCE

1. Before any maintenance is commenced switch the isolating switch to "OFF" If the power is supplied through a switch and plug if possible remove the plug from the power point
2. Periodically check the joints and seals for leaks which could cause the machines performance to be restricted.
Note ! Before examining the machine for leaks move the cylinder rod to the lowest position (except when examine the cylinder)
3. Remove and wash the oil filter every six months
4. Used hydraulic oil must be filtered before. Replacement hydraulic oil with the same specification every one to two years to insure normal running.
5. Keep the press surfaces clean and free of dirt and maintain the press regularly to insure the press remains in good working order.
6. If the machine is not to be used for a long period of time, it should be cleaned and machine parts should be coated with rust preventing oil. Remove the oil from the oil tank. Raise the cylinder rod to the top position and place a piece of wood between the cylinder rod and the table to avoid the cylinder rod dropping due to the dead weight of the cylinder.
7. The machine should be stored in a dry place with a temperature not lower than -15 C
8. Before any maintenance is commenced switch the isolating switch to "OFF" If the power is supplied through a switch and plug if possible remove the plug from the power point
9. The pressure should never be adjusted unless under the supervision of the manufacturers staff or service persons.
10. Always use the press and its hydraulic system as designed to be used by the manufacturer.

WARNING

General Machinery Safety Instructions

Machinery House
requires you to read this entire Manual before using this machine.

- 1. Read the entire Manual before starting machinery.** Machinery may cause serious injury if not correctly used.
- 2. Always use correct hearing protection when operating machinery.** Machinery noise may cause permanent hearing damage.
- 3. Machinery must never be used when tired, or under the influence of drugs or alcohol.** When running machinery you must be alert at all times.
- 4. Wear correct Clothing.** At all times remove all loose clothing, necklaces, rings, jewelry, etc. Long hair must be contained in a hair net. Non-slip protective footwear must be worn.
- 5. Always wear correct respirators around fumes or dust when operating machinery.** Machinery fumes & dust can cause serious respiratory illness. Dust extractors must be used where applicable.
- 6. Always wear correct safety glasses.** When machining you must use the correct eye protection to prevent injuring your eyes.
- 7. Keep work clean and make sure you have good lighting.** Cluttered and dark shadows may cause accidents.
- 8. Personnel must be properly trained or well supervised when operating machinery.** Make sure you have clear and safe understanding of the machine you are operating.
- 9. Keep children and visitors away.** Make sure children and visitors are at a safe distance for you work area.
- 10. Keep your workshop childproof.** Use padlocks, Turn off master power switches and remove start switch keys.
- 11. Never leave machine unattended.** Turn power off and wait till machine has come to a complete stop before leaving the machine unattended.
- 12. Make a safe working environment.** Do not use machine in a damp, wet area, or where flammable or noxious fumes may exist.
- 13. Disconnect main power before service machine.** Make sure power switch is in the off position before re-connecting.
- 14. Use correct amperage extension cords.** Undersized extension cords overheat and lose power. Replace extension cords if they become damaged.
- 15. Keep machine well maintained.** Keep blades sharp and clean for best and safest performance. Follow instructions when lubricating and changing accessories.
- 16. Keep machine well guarded.** Make sure guards on machine are in place and are all working correctly.
- 17. Do not overreach.** Keep proper footing and balance at all times.
- 18. Secure workpiece.** Use clamps or a vice to hold the workpiece where practical. Keeping the workpiece secure will free up your hand to operate the machine and will protect hand from injury.
- 19. Check machine over before operating.** Check machine for damaged parts, loose bolts, Keys and wrenches left on machine and any other conditions that may effect the machines operation. Repair and replace damaged parts.
- 20. Use recommended accessories.** Refer to instruction manual or ask correct service officer when using accessories. The use of improper accessories may cause the risk of injury.
- 21. Do not force machinery.** Work at the speed and capacity at which the machine or accessory was designed.
- 22. Use correct lifting practice.** Always use the correct lifting methods when using machinery. Incorrect lifting methods can cause serious injury.
- 23. Lock mobile bases.** Make sure any mobile bases are locked before using machine.
- 24. Allergic reactions.** Certain metal shavings and cutting fluids may cause an allergic reaction in people and animals, especially when cutting as the fumes can be inhaled. Make sure you know what type of metal and cutting fluid you will be exposed to and how to avoid contamination.
- 25. Call for help.** If at any time you experience difficulties, stop the machine and call you nearest branch service department for help.



TEST REPORT

Model Number
.....

Serial Number
.....

Date of Manufacturing/...../.....

Electrics

Electric Motor

Hydraulics Pump

Hydraulics

The product has been checked and is manufactured in accordance with the code of standard for Hydraulic Presses

Examiner:

Date:/...../.....