

100T Electric Shop Press



Operation Manual

Important Information

1.1 Safety Information

1.1.1 Hazard Symbols Used in the Manuals

This manual includes the hazard symbols defined below when the operations or maintenance job involves a potential danger. These symbols describe the level of danger involved in performing a job on the tool and the precautions to take to avoid the hazard.

| Term | Sign | Description |
|---------------|---|--|
| Danger Label |  | Danger Labels indicate an imminently hazardous situation that if not avoided, WILL result in death or serious injury. |
| Warning Label |  | Warning Labels indicate a potentially hazardous situation, which if not avoided, COULD result in death or serious injury. |
| Caution Label |  | Caution Labels indicate a potentially hazardous situation, which if not avoided, MAY result in minor or moderate injury. |
| Note | NOTE: | Short piece of additional information with the purpose of adding or emphasizing important points in the text. |

1.1.2 Safety Requirements

Important

Make sure to read, understand, and strictly follow all safety related instructions before operation or maintenance of this equipment.

Intended Users

This manual is to be made available to all persons who are required to install, configure or service equipment described herein, or any other associated operation.

Application Area

The machinery described is intended for machinery production and assembling spare parts. It is used to press, size, assemble, rivet small parts in process and not for other use.

Personnel

Installation, operation and maintenance of the equipment should be carried out by qualified personnel. A qualified person is someone who is technically competent and familiar with all safety information and established safety practices with the installation process, operation and maintenance of this equipment; and with all the hazards involved.

1.1.3 Hazards



Personnel safety must have top priority. Thoroughly read the operation manuals to completely understand proper procedures before maintenance or inspection work.

Basic Safety Instructions



Failure to comply with the following could result in serious injury or death.

1. Periodic inspections or maintenance work must be carried out by two or more persons.
2. Read and understand the safety manual.
3. Read and understand all the attached manuals.
4. Attach visible signs on the equipment so that anyone recognizes and understands that maintenance or inspection is on going.
5. Post a list with emergency phone numbers nearby the working area.
6. Should be aware of what to do in case of an emergency (refer to the Procedures for Emergency Situations); know the location of the first-aid-kit, and the location of the fire extinguisher. Also learn how to use a fire extinguisher.
7. Alert anyone around the Tool whenever planning to operate it during maintenance or inspection work.
8. Always use proper hand tools and jigs during maintenance or inspections. Before operating the machine, check for any hand tools or jigs left inside it. For your own safety, **NEVER** try to remove them with the machine under operation. Consider **SAFETY FIRST**.
9. Please make sure that the operator must wear protective cloth, gloves, safety helmet, and shoes during operating.
10. To prevent back injury, heavy parts (or units), must be moved by two persons or more.
11. Before powering the machine, alert the persons around it.
12. Be careful not to be pinched by motion parts.
13. Use **ONLY CARRIER** specified for the tool, and set it in a correct position.
14. To avoid accidents, always be aware of any on-going work on the machine. Also, always stay focused on the job to be done. /

1.1.4 Safety Instruction



1. Before maintenance pressured parts in the machine, you **MUST** release the pressure in the pressured system. At the same time, **DO NOT** stand in the direction facing the charger, the operator should on the opposite side and remember **DO NOT** strike, press or transfer until it is discharged.
 2. When it is necessary to exchange die after running, operators should wear glove or use tools to operate avoid being hurt.
- NOTE:** Immediately stop operating the equipment if not working properly. Contact a certified technical support engineers for repair. The equipment must not be operated without approval from the certified technical support engineer.



Be careful when you are near the caution signs.

Safety for material used in the machine

The MSDS (Material Safety Data Sheet) information document of lubricant oils offered by supplier should be placed at the convenient place.

1.1.5 Prohibited Dangerous Actions



This section describes examples of dangerous actions not only during equipment operation, but also during maintenance and inspections. To avoid accidents, thoroughly read and understand the instructions below regarding dangers related to each mechanism prior to any maintenance or inspection work.

1.1.6 Environmental Pollution

If the substances you use come under the ordinances concerning environmental pollution, follow the ordinances to discharge and dispose of such substances. If you commission industrial waste companies, you should confirm the way of final processing.










Check for the security of people working around the Tool, before powering it back.

1.2 Warning Label

Below drawing show warning labels attached on the machine.

| | | |
|---|--|--|
| 1 | | Hand crush force from above |
| 2 | | Read operator's manual |
| 3 | | Consult technical manual for proper service procedures |
| 4 | | Must wear protective clothes |
| 5 | | Must wear protective gloves |

| | | |
|----|---|----------------------------|
| 6 |  | Must wear safety helmet |
| 7 |  | Must wear protective shoes |
| 9 |  | Caution, stumbling |
| 10 |  | Warning |
| 11 |  | Electrical power, danger! |
| 12 |  | High Temperature |
| 13 |  | No touching |

2 Compliance with standards

| European Community Directive | Manufacturer's Assurance | Harmonized Standards |
|--------------------------------|--------------------------|--|
| 2006/42/EC Machinery Directive | | EN60204-1:2006 Electrical Equipment of Industrial machines |

3 Specification

3.1 Application Area

The machinery described is intended for machinery production and assembling spare parts. It is used to press, size, assemble, rivet small parts in process and not for other use.

3.2 Dimension & Weight

Main body dimension : 1199x990x1900 (mm)

Weight: 755kgs

3.3 Environmental conditions

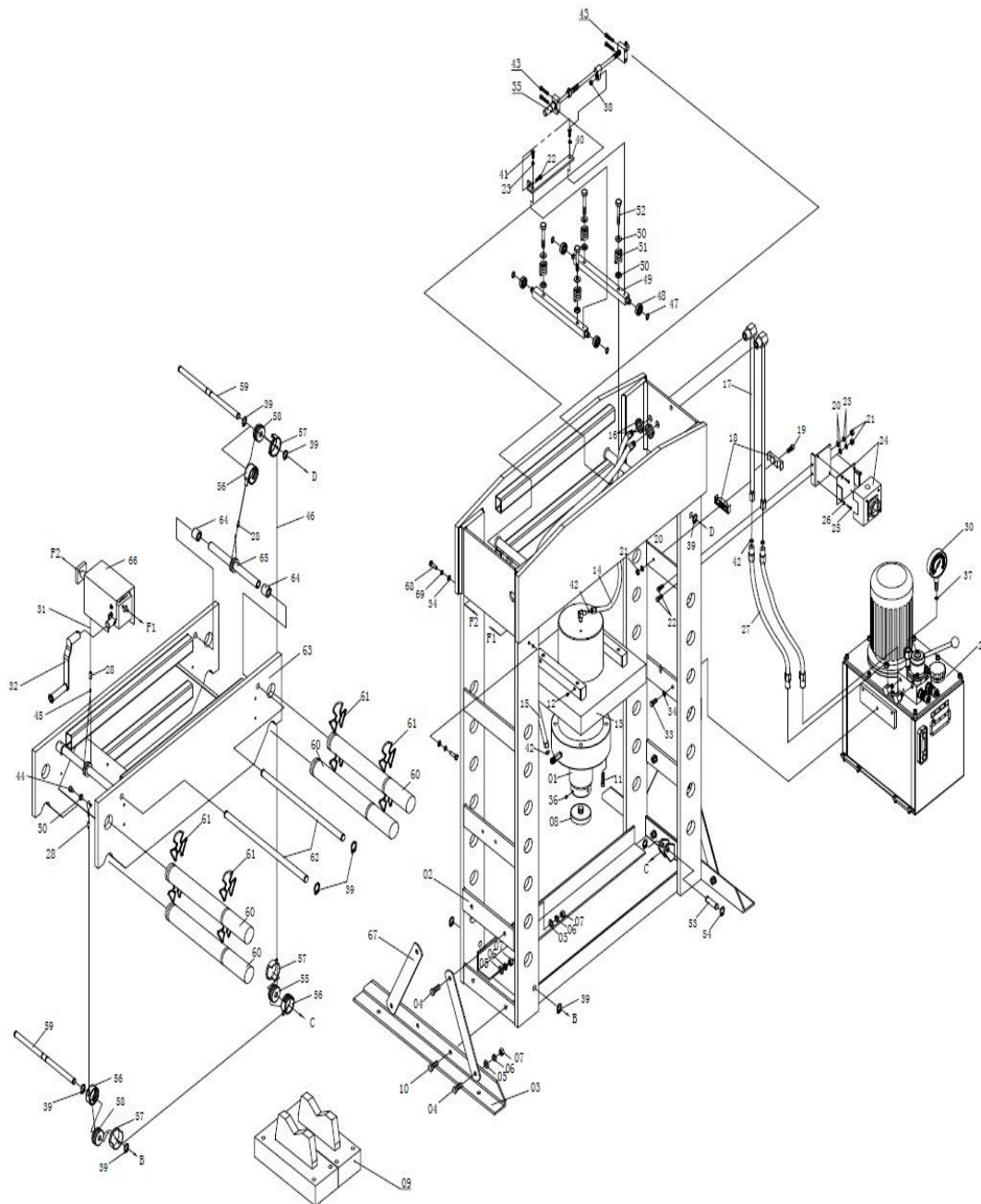
| | |
|-----------------------|--|
| Operating Temperature | -5°C to +40°C |
| Storage Temperature | -25°C to +55°C |
| Shipping Temperature | -25°C to +70°C (not exceeding 24 hours) |
| Altitude | Equipment should be installed at an altitude of maximum 1000m. |
| Humidity | Maximum 85% relative humidity at 40°C non-condensing. |
| Atmosphere | Non-flammable, corrosive and dust free. |
| Ambient light | >300LUX |
| Noise | — |

3.4 Technical Capacity

3.4.1 Mechanical part

| No. | Item | Unit | Value | |
|-----|--------------------|--------|----------|------|
| 1 | Capacity | Ton | 100 | |
| 2 | Stroke | mm | 300 | |
| 3 | Voltage | V | 120 | |
| 4 | Output | KW | 1.5 | |
| 5 | Working Range | mm | 177~1017 | |
| 6 | Bed Size | Width | 787mm | |
| 7 | speed | mm/s | — | |
| 8 | Height above floor | mm | 1900 | |
| 9 | Covered area | Width | mm | 1199 |
| | | Length | mm | 990 |
| 10 | Gross weight | Kg | 822 | |

3.5 Mechanical construction



4. Motor Instruction For Operation

4.1 Power Supply

Voltage: 120V AC

Frequency: 60HZ

Input power: 3---3.5KVA

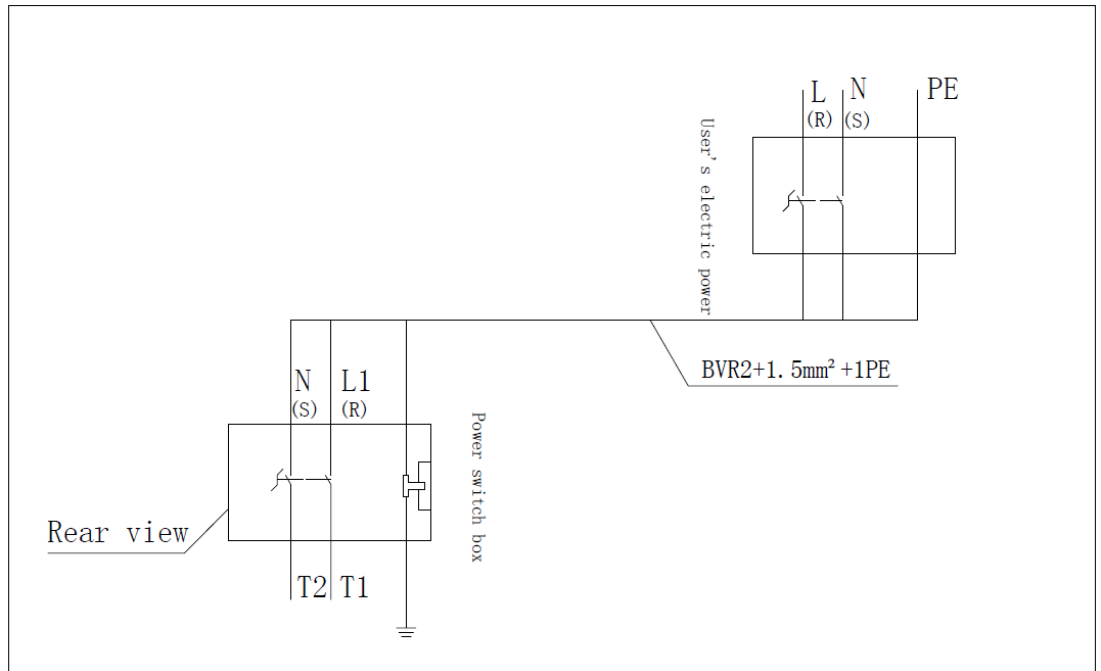
output power: In 5A

Ambient temperature: $\leq 40^{\circ}\text{C}$

Height above sea level: $\leq 1000\text{M}$

4.2 Mounting and Operating

- (1) Connect the end user's power source to the shop press' switch by cable according to sketch map as follows, and please make sure that the cable must be BVR 2+1.5mm² +1PE.
- (2) **Special Notice:**
For the sake of your society, please be sure to fasten the earth wire onto PE terminal box.



4.3 Attention: All work must be done under the premise of power-off. Otherwise your personal security will be likely to be a serious threat.

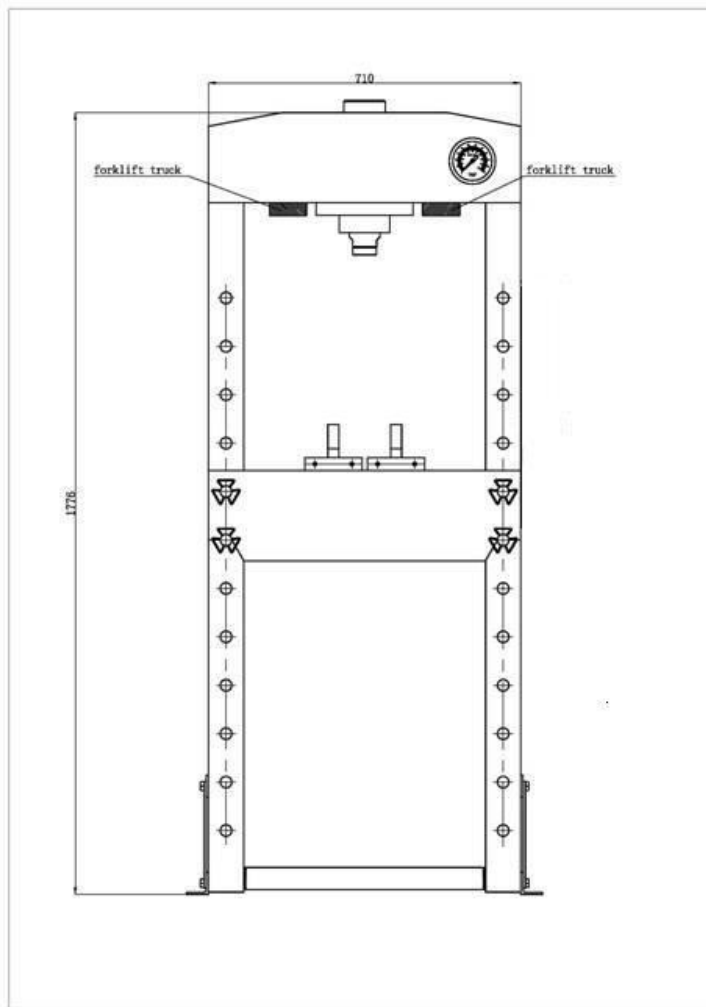
5.Prepare before using

5.1 Transport



The units are generally too heavy to be moved by hand. Therefore, use the correct transport and lifting equipment. The weights and dimensions of this machine (unit) are shown on the label in clause 3.

During moving the machine, please make sure to use the proper lifting equipment and follow the instructions as follows.



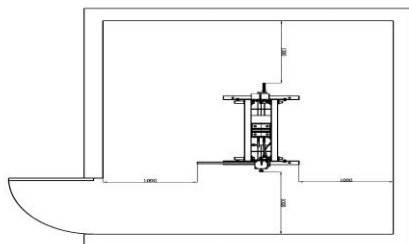
Hydraulic part

5.2 Working Area Conditions

Users should provide enough space for the equipment and the environment should be clean, non-flammable, corrosive and dust free.

CAUTION

A working area of 1,000mm is to be kept free both in front of and behind the machine while it is in operation so that it is always easily accessible.



5.3 Unpacking & Check

CAUTION

When open the packing, please make sure to use the proper tools, wear protective cloth, gloves, safety helmet

Make sure that the product and parts in box should be complete and identical with the part list. If not, please contact with the manufacturer in time.

5.4 Disposal of the packaging

The packaging of these machines consists of PVC film and carton box. The proper disposal of the packaging is the responsibility of the customer.

5.5 Installation

CAUTION

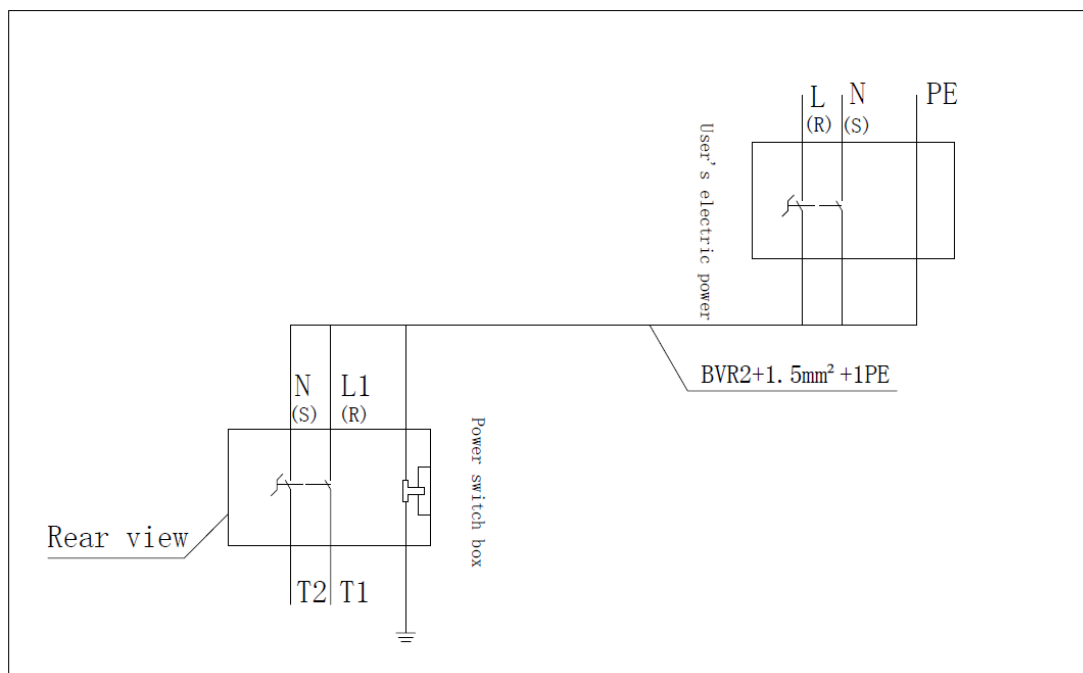
The machine must only be installed and commissioned by qualified personnel!

All relevant safety regulations must be strictly adhered to!

➤ Electrical wire connection

Notice:

- 1) The voltage must be 120V, and single-phase alternating current
- 2) The section area of electrical wire should be no less than 2 square mm
- 3) The electrical wire connection should meet EN60204-1 standard
- 4) Before connect the electrical wire, please read the operating manual carefully
- 5) The electrical wire must be connected by certified technical people
- 6) Please connect the electrical wire according to following drawings



Electrical Pump Assembling Put the electrical pump on the plate of the body frame of shop press (please refer to bellowing drawing)

- 1) Take off the filling plug and connect the oil hose to the electrical pump as following drawing:
- 2) Assemble the wire box to the shop press' frame by bolt
- 3) Connect the wire to the electrical power

Before the first use, please fix the machine to the floor by anchor bole. It must be ensured that the standing surface of the machine site is firm and horizontal, and that sufficient lighting is provided for.

5.6 Commissioning the machine



Before the commissioning

- Clean the machine thoroughly
- Check all parts and conditions, if there is any part broken, stop using it and contact your supplier immediately.
- [Open the breath valve on the oil tank and operate the machine for one minute to exhausting the air in the system, then close the breath valve.](#)

6 Operation

- Place the heel block on press bed frame, then insert workpiece onto the heel block.。
- Turn on the switch
- Turn the operation lever to “A” position, the piston rod will come down quickly.
- Align workpiece and ram to ensure center-loading.

When work is done, stop pumping the handle, slowly and carefully remove load from workpiece by turning the lever to “B” position, the piston rod will go back quickly.

- Once ram has fully retracted, remove workpiece from bed frame.

7.Maintenance

Maintenance should be acted before daily working everyday.

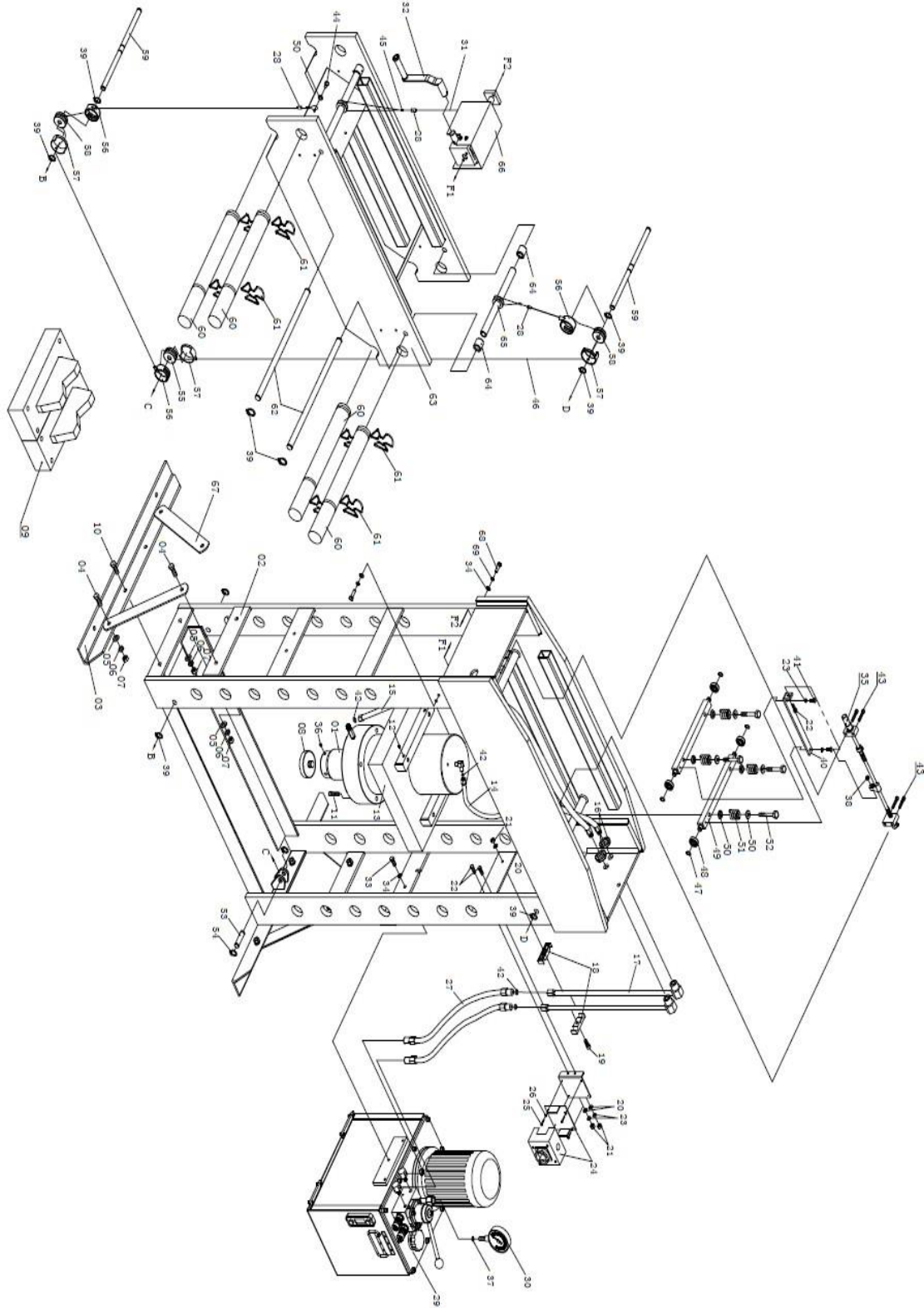
Clean the outside of the press with dry, clean and soft cloth and periodically lubricate the joints and all moving parts with a light oil as needed.

When not in use, store the press in a dry location with ram and piston fully retracted.

Check the hydraulic oil: remove the oil filler nut on the top of the reservoir, if the oil is not adequate, fill with 22#(ISO6743) hydraulic jack oil as necessary, then replace the oil filler nut, purge away air from the hydraulic system as described in 4.2.

The equipment must not be repaired or changed spare parts by whom without approval from the certified technical support engineer.

Annex A
Overall drawing of machine

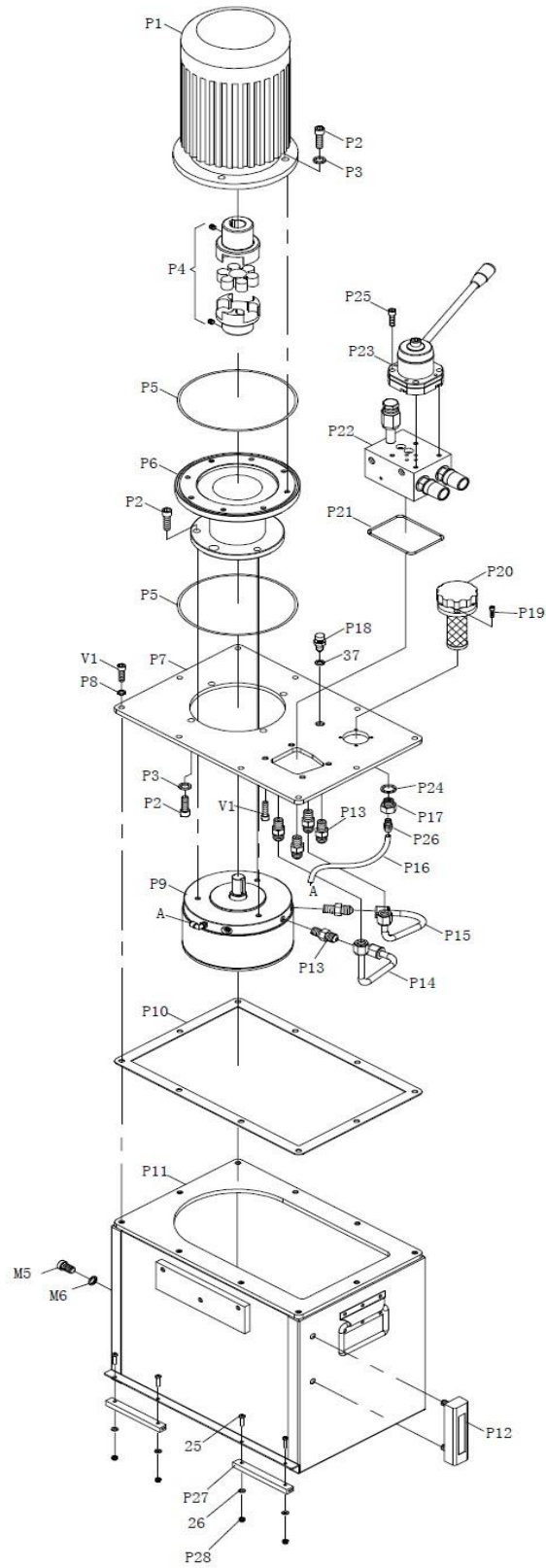


Part List

| No. | Description | Qty | No. | Description | Qty |
|-----|-------------------------|-----|-----|-----------------------|-----|
| 1 | Ram Assy | 1 | 36 | Screw | 1 |
| 2 | Frame | 1 | 37 | Nylon Washer | 1 |
| 3 | Foot Base | 2 | 38 | Nut | 1 |
| 4 | Bolt | 8 | 39 | Circlip | 12 |
| 5 | Washer | 12 | 40 | Beam | 1 |
| 6 | Lock Washer | 12 | 41 | Bolt | 2 |
| 7 | Nut | 12 | 42 | O-ring | 4 |
| 8 | Serrated Saddle | 1 | 43 | Screw | 4 |
| 9 | Steel Block | 1 | 44 | Bolt | 1 |
| 10 | Bolt | 4 | 45 | Connector | 3 |
| 11 | Screw | 4 | 46 | Cable | 1 |
| 12 | Screw | 4 | 47 | Circlip | 4 |
| 13 | Ram Plate | 1 | 48 | Bearing | 4 |
| 14 | Oil Hose | 1 | 49 | Rod | 2 |
| 15 | Oil Hose | 1 | 50 | Spring Cap | 9 |
| 16 | Nut | 2 | 51 | Spring | 4 |
| 17 | Seamless tube | 2 | 52 | Bolt | 4 |
| 18 | Pipe Clamp | 2 | 53 | Roller Pin | 1 |
| 19 | Screw | 1 | 54 | Circlip | 2 |
| 20 | Washer | 3 | 55 | Roller | 1 |
| 21 | Nut | 3 | 56 | Roller Cover1 | 3 |
| 22 | Bolt | 3 | 57 | Roller Cover2 | 3 |
| 23 | Lock Washer | 4 | 58 | Roller | 2 |
| 24 | Switch Box | 1 | 59 | Roller Pin | 2 |
| 25 | Screw | 4 | 60 | Pin | 4 |
| 26 | Washer | 4 | 61 | Circlip | 8 |
| 27 | Short Oil Hose | 2 | 62 | Raising Rod | 2 |
| 28 | Cable Sheath | 3 | 63 | Working Frame | 1 |
| 29 | Electric Hydraulic Pump | 1 | 64 | Drivepipe | 4 |
| 30 | Pressure Gauge | 1 | 65 | Drivepipe Assy2 | 2 |
| 31 | Cable | 1 | 66 | Underbeam Moving Assy | 1 |
| 32 | Handle | 1 | 67 | Support | 4 |
| 33 | Bolt | 3 | 68 | Bolt | 4 |
| 34 | Washer | 7 | 69 | Lock Washer | 4 |
| 35 | Ram Moving Assy | 1 | 70 | | |

Annex B

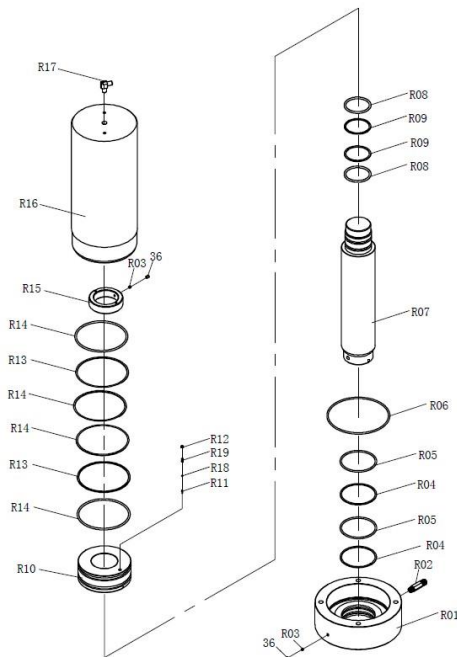
Electric Motor Pump



Part List

| No. | Description | Qty | No. | Description | Qty |
|-----|------------------------|-----|-----|---------------------|-----|
| P1 | Motor | 1 | P18 | Screw | 1 |
| P2 | Screw | 11 | P19 | Screw | 4 |
| P3 | Washer | 8 | P20 | Air Filter | 1 |
| P4 | Coupling | 1 | P21 | O-ring | 1 |
| P5 | O- ring | 2 | P22 | Shuttle Valve Plate | 1 |
| P6 | Connecting Piece | 1 | P23 | Shuttle Valve | 1 |
| P7 | Oil Tank Cover | 1 | P24 | Washer | 1 |
| P8 | Washer | 10 | P25 | Screw | 4 |
| P9 | Motor Pump | 1 | P26 | Connector | 1 |
| P10 | Washer | 1 | P27 | Shock Proof Cushion | 2 |
| P11 | Oil Tank | 1 | P28 | Nut | 4 |
| P12 | Liquid Indicator | 1 | 25 | Screw | 4 |
| P13 | Connector | 6 | 26 | Washer | 4 |
| P14 | High Pressure Oil Hose | 1 | 37 | Nylon Washer | 1 |
| P15 | Low Pressure Oil Hose | 1 | M5 | Screw | 1 |
| P16 | PU Hose | 1 | M6 | Washer | 1 |
| P17 | Connector | 1 | V1 | Screw | 14 |

Annex C Ram



Part List

| No. | Description | Qty |
|-----|--------------|-----|
| R01 | Ring For Ram | 1 |
| R02 | Connector I | 1 |
| R03 | Nylon Block | 2 |
| R04 | PTFE Ring | 2 |
| R05 | O-ring | 2 |
| R06 | O-ring | 1 |
| R07 | Piston Rod | 1 |
| R08 | O-ring | 2 |
| R09 | PTFE Ring | 2 |
| R10 | Piston | 1 |
| R11 | Valve Core | 1 |
| R12 | Screw | 1 |
| R13 | O-ring | 2 |
| R14 | PTFE Ring | 4 |
| R15 | Nut | 1 |
| R16 | Cylinder | 1 |
| R17 | Elbow | 1 |
| R18 | Steel ball | 1 |
| R19 | Spring | 1 |
| 36 | Screw | 2 |