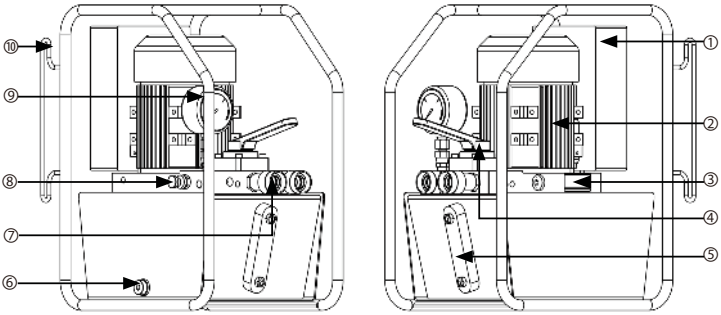
HC4007MV43 Introduction of product components:



NO	Name
1	Electric cabinet
2	Power-driven machine
3	Refueling and exhaust outlet
4	Manual directional valve
5	Oil level gauge
6	Oil outlet
7	Quick Interface
8	Pressure Regulating Valve
9	Manometer
10	Cable Collector

Function Introduction Of the Components:

Hand Shank

HC4007MV43 With single button handle, the button is self-reset button, when the hand switch is located in RC position, control the start and stop of the motor through the handle.

Pressure regulating valve

HC4007MV43 is equipped with a pressure regulating valve that can precisely control the pressure of the electric pump. It increases when the pressure is turned clockwise and decreases when it is turned counterclockwise. The electric pump is also equipped with an internal check valve. When it is started, the pressure can only be adjusted from low to high.

Manual directional valve

HC4007MV43 Equipped with three-bit four-way manual reversing valve, three-bit four-way reversing valve can realize double oil outlet, the median O (median pressure) and M (median P port oil) type optional. The manual reversing valve is equipped with three gears,respectively A, 'Hold' and B.

Class A: When in gear A, the oil flows out from port A, and flows back from port B to the oil tank after the completion of the system work.

Class B: When in gear B, the oil flows out of port B. After the system work is completed, return the oil from port A to the oil tank.

Air Evacuation Valve

Check the status of the exhaust valve for exhaust and sealing.Before starting, loosen the exhaust valve counterclockwise to ensure the ventilation function of the fuel tank; tighten the exhaust valve clockwise during handling or transportation to ensure the seal to prevent oil leakage.

Oil Level Indicator

Check the pump horizontal oil level before starting. The oil level should be above 2 / 3 of the upper oil level meter. If the oil level is too low, the long-time oil-free action will affect the service life of the pump head, affect the normal use of the pump, and may damage the motor. Please open the hydraulic oil port and inject the anti-wear hydraulic oil of the original pump (it is recommended to use the hydraulic oil brand number is ISO VG46).

- The observed oil level shall be observed after all execution elements return.

Product Use Steps:

1.Preparation before use

– Check all parts (handle, motor, pressure gauge, etc.) without damage, stable feet, and no loose joints.

– Check the rated voltage (HC4007MV43 electric hydraulic pump has two voltage options, respectively (115V / 230V).

Check the pump body nameplate to confirm the marked voltage of 220V /60 HZ

Electric control box with voltage prompt mark (AC220V)

•After confirming that the voltage is consistent, use the standard power outlet for reliable connection.If the voltage is inconsistent, never force the fitting connection to avoid burning the motor or causing a short circuit.

–Check the pump horizontal oil level, and the oil level should be above 2 / 3 of the upper oil level meter. When the hydraulic oil amount is insufficient, please open the refueling port and inject the anti-wear hydraulic oil of the original pump (it is recommended to use the hydraulic oil brand number is ISO VG46), and the maximum refueling amount is the top of the oil level gauge.

Hydraulic oil level meter

If the oil level is lower than 2 / 3, rotate the oil outlet.

–Check the status of the exhaust valve for exhaust and sealing functions. Before starting, loosen the exhaust valve handle counterclockwise to ensure the ventilation function of the oil tank; tighten the exhaust valve clockwise during handling or transportation to ensure the seal to prevent oil leakage.

Release the exhaust valve before starting

Release the exhaust valve counterclockwise

•If the exhaust valve is not opened to discharge the air, the normal operation of the equipment will be seriously affected. The air in the oil tank will cause pressure fluctuation and flow deviation, cause wear and failure of parts, and reduce the stability and accuracy of operation.

2. Start-up With The Pressure Setting

-Turn on the power, turn the hand switch to ''ON', touch the generator, check whether the motor is normal, observe the pressure gauge and check whether the initial reading of the pressure gauge is zero.

Press the start button of the handle.

When the system is unloaded, check that the initial reading of the pressure gauge is zero.

•If the initial reading of the pressure gauge is not zero or the motorpressure gauge is zero. operation is abnormal, stop immediately for troubleshooting.

-Set the working pressure and slowly rotate the regulator in the clockwise direction (i. e. toward the '+' direction), following the value of the pressure gauge. When the reading of the pressure gauge rises to the target pressure value, stop turning the regulating valve immediately and lock the regulating valve nut.

Turn the regulator slowly clockwise (in the '+' direction)

-Connect the load device. The HC4007MV43 electric pump is standard with two oil outlet. The thread of the oil outlet is NPT3/8, and a plug is included as standard. The rated pressure of the electric pump is 700 Bar. It is recommended to use the matching male and female connectors or oil pipes for connection.

Release the start button. After the motor stops running, keep the hydraulic oil pipe axially aligned and fully push it into the base of the oil outlet interface. Rotate the sealing joint, turn the outer locking ring clockwise to the limit mark and then tighten it.

The tubing axial alignment is fully pushed into the oil outlet

Tighten the outer lock ring

•HC4007MV43 The electric pump must be connected to the joint or hose with the same pressure or higher pressure when used. Connecting the joint or hose with the lower pressure level may cause the joint flying out or the tubing rupture, thus causing personal injury to the user. When connecting the tubing, ensure that the tubing is not excessively bent or heavy pressure on the tubing, otherwise the tubing will rupture and cause personal injury to the user.

3. Work Operation And Adjustment

-Press the start button and the motor begins to work.

-HC4007MV43 Equipped with three-bit four-way manual reversing valve, three-bit four-way reversing valve can realize double oil outlet oil, median O / M optional.

-Use the manual reversing valve to adjust the oil flow direction in the hydraulic system, with three gears optional, A,hold,B.

A: oil from port A, oil from port B.

•The hand-controlled reversing valve is equipped with two working oil ports, A and B, to push the valve stem to the corresponding gear to realize the switching of the oil circuit direction.

4. Monitoring In Operation

-Monitor the pressure representation value of the system in real time, dynamically maintain the working pressure at the target value by clockwise / counterclockwise fine-tuning pressure regulator, and control the pressure fluctuation within the target value ± 0.5MPa

-Pay attention to the oil level meter, if it is less than 1 / 3, stop the filling oil.

-Check whether the pipeline and interface are leaking, and whether the pressure gauge fluctuates abnormally.

-The electric control box is equipped with overload protector device. When the system is overloaded, the safety plug will automatically pop up and trigger the emergency stop protection. The operator must complete the reset of the plug before they can restart the equipment.

Overload protector

5.Unload And Stop

-Release the start button on the handle to turn off the motor. After the pressure gauge shows a reading of 0, cut off the power supply.

-Push the valve stem of the manual directional control valve smoothly to the middle position to cut off the oil circuit connection between Port A (oil inlet) and Port B (oil outlet), effectively preventing the circulating flow of pressure oil between the two ports.

-After all the actuators have returned, pull out the hydraulic oil pipes, tidy up the tools, and the work is completed.

Troubleshooting:

Troubleshooting Guide		
Issue	Possible causes.	Solution
1. The pump does not start	Not connected to a power source.	Check whether the circuit is connected normally and restart.
	The electrical circuit of the pump is short-circuited or tripped.	Check whether the circuit is connected normally and restart.
	The voltage is too low.	Check the voltage and turn off other electrical loads.
	The socket cord is too long and too thin	Replace the high-power socket strip
	The handle button is damaged.	Contact the manufacturer for repair.
	Pump components are damaged.	Contact the manufacturer for repair.
2. The motor stops during pressurization	The voltage is too low.	Check the voltage and turn off other electrical loads. Replace the strip and check the input voltage.
	Current overload	Check the system for large damping terms that are causing overpressure
3. The pump is not pressurized or the upper pressure is too low	Insufficient amount of oil.	Check the oil level and inject new hydraulic oil
	The relief valve is loose or not tightened	Tighten the relief valve
	Leakage from the outside of the pump.	Observe leaks and carry out repairs or replacement of accessories.
	The hydraulic oil is too dirty and blocking the suction port.	Change the hydraulic oil and clean the suction port.
	Leakage inside the pump.	Contact the manufacturer for repair.
	System leaks.	Check for system leaks and repair them.
4. The system establishes pressure, and the tool does not move	Overloaded.	Check and select the right load.
	System congestion.	Check if the system is clogged and unblock the system.
5. The flow is too small	The hydraulic oil is too dirty and blocking the suction port.	Change the hydraulic oil and clean the suction port.
	There is a throttle valve in the system	Adjust the throttle flow.
	System congestion.	Check if the system is clogged and unblock the system.
6. The tool cannot be returned normally	The tool backstroke has a large damping	Check and remove the large damping term.
	The system has a return throttle valve.	Check the system and adjust the throttle valve.
	The system throttle valve adjustment is smaller.	Check the circuit and readjust the flow valve.
	Motor failure.	Contact the manufacturer for repair.
7. Severe fever	The system throttle valve adjustment is smaller.	Check the circuit and readjust the flow valve.
	Motor failure.	Contact the manufacturer for repair.