HYDRAULIC DC POWER UNIT

Installation & Maintenance manual

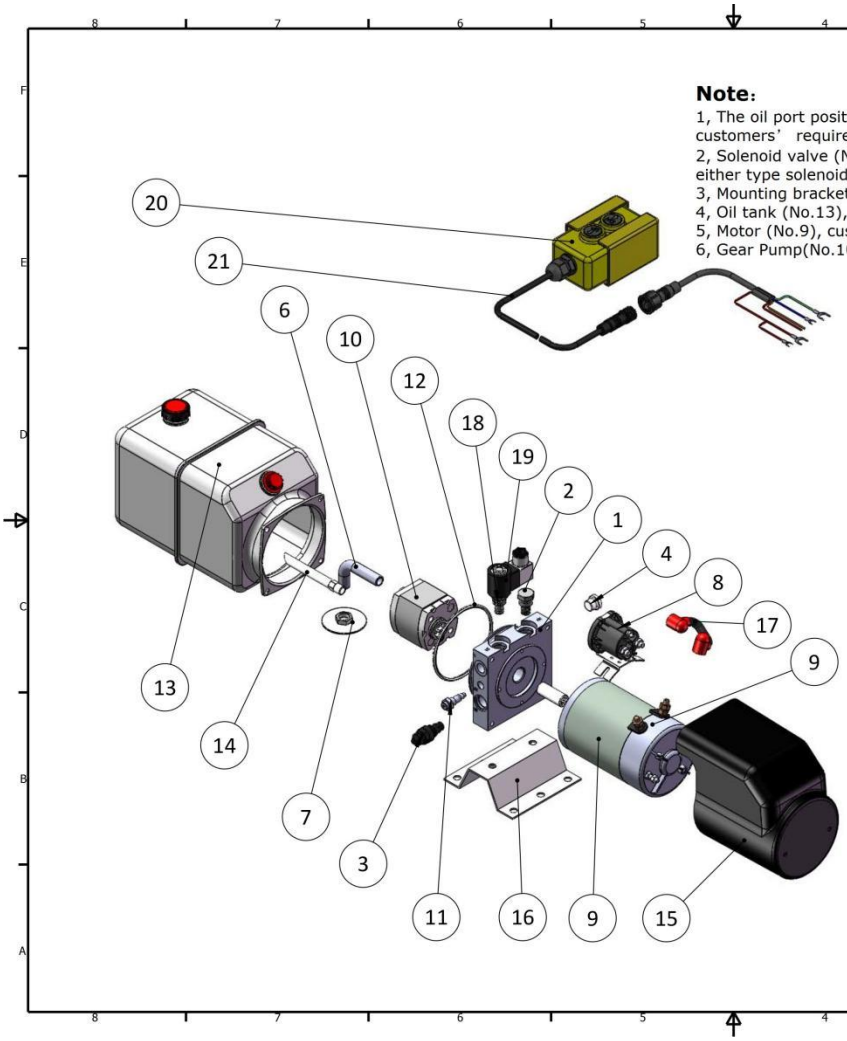
HCTDXXXX part numbers

1 Introduction:

Congratulations with purchasing this HCIC hydraulic power unit.
HCIC is a professional hydraulic system exporter company founded in 1998, the company is committed to the design,production and hydraulic transmission systems solutions for different industries.From agriculture to automotive and every industry in between, HCIC products are designed to meet the most demanding requirements.The production line was developed because we understand the need for professional performance and durability.
HCIC offers a wide range of DC and AC power pack .Each Hydraulic Unit has been 100% checking and testing before delivery. It should require no further adjustment other than connecting to a proper electrical supply and the driven hydraulic equipment, like a hose with the correct pressure rate and fill the oil tank with CLEAN hydraulic oils.



2 TECHNICAL SPECIFICATIONS AND SPARE PARTS



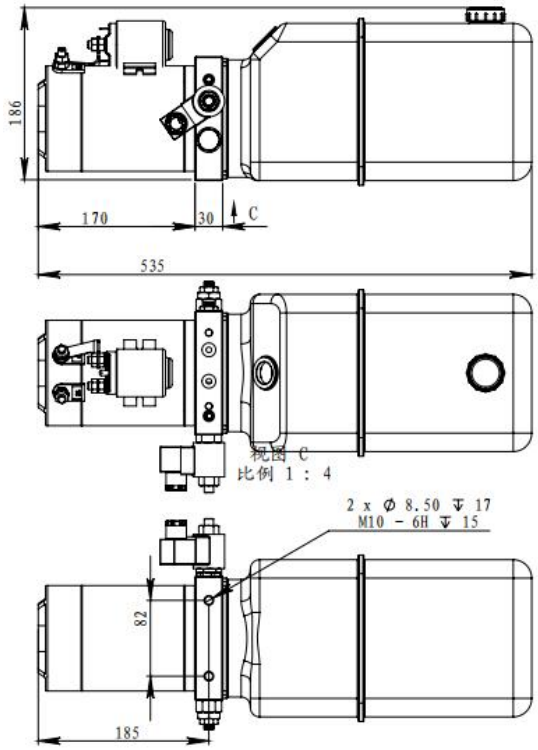
Note:

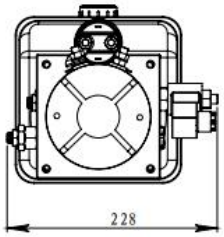
1, The oil port position on the center manifold(No.1) can be changed according to customers' requirement.
2, Solenoid valve (No.18) with or without manual unloading valve. Customers can choose either type solenoid valve.
3, Mounting bracket (No.16), it is option part.
4, Oil tank (No.13), customers can choose the capacity.
5, Motor (No.9), customers can choose the voltage(DC12V or DC24V) and the watt.
6, Gear Pump(No.10), customers can choose the displacement of the gear pump.

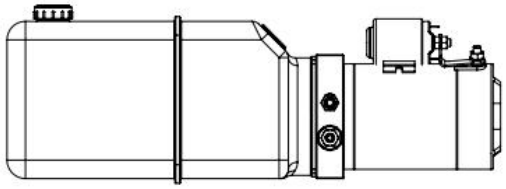
DC Hydraulic Power Unit Material List

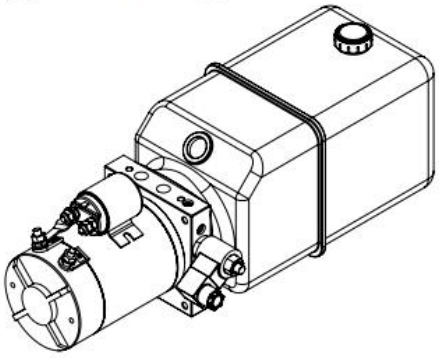
	ITEM	QTY
1	Centermanifold	1
2	Check Valve	1
3	Relief Valve	1
4	Oil Port Plug	1
5	Cloupling	1
6	Suction Pipe	1
7	Filter	1
8	DC Motor Starter	1
9	DC Motor	1
10	Gear Pump	1
11	Throttle Valve	1
12	O-ring	1
13	Plastic Tank	1
14	Return Pipe	1
15	Motor Cover	1
16	Mounting Bracket	1
17	Cable	1
18	2/2 NC Solenoid Valve	1
19	Coil for 8# Valve	1
20	2 Buttons Remote Pendant	1
21	3 wires Control Cable	1

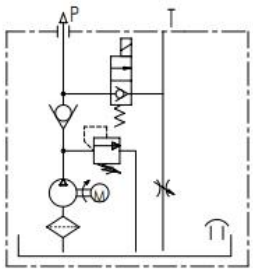
HCIC		名称 NAME: HYDRAULIC POWER UNIT	
		代号 NO.:	
设计 DESIGN: Jack	重量 WEIGHT: 15kg		A3
审核 CHECKED: David	比例 SCALE:		
日期 DATE:		版本 VERSION:	
文件目录 FILE DIRECTORY: 12v DC power unit		替换 REPLACE:	





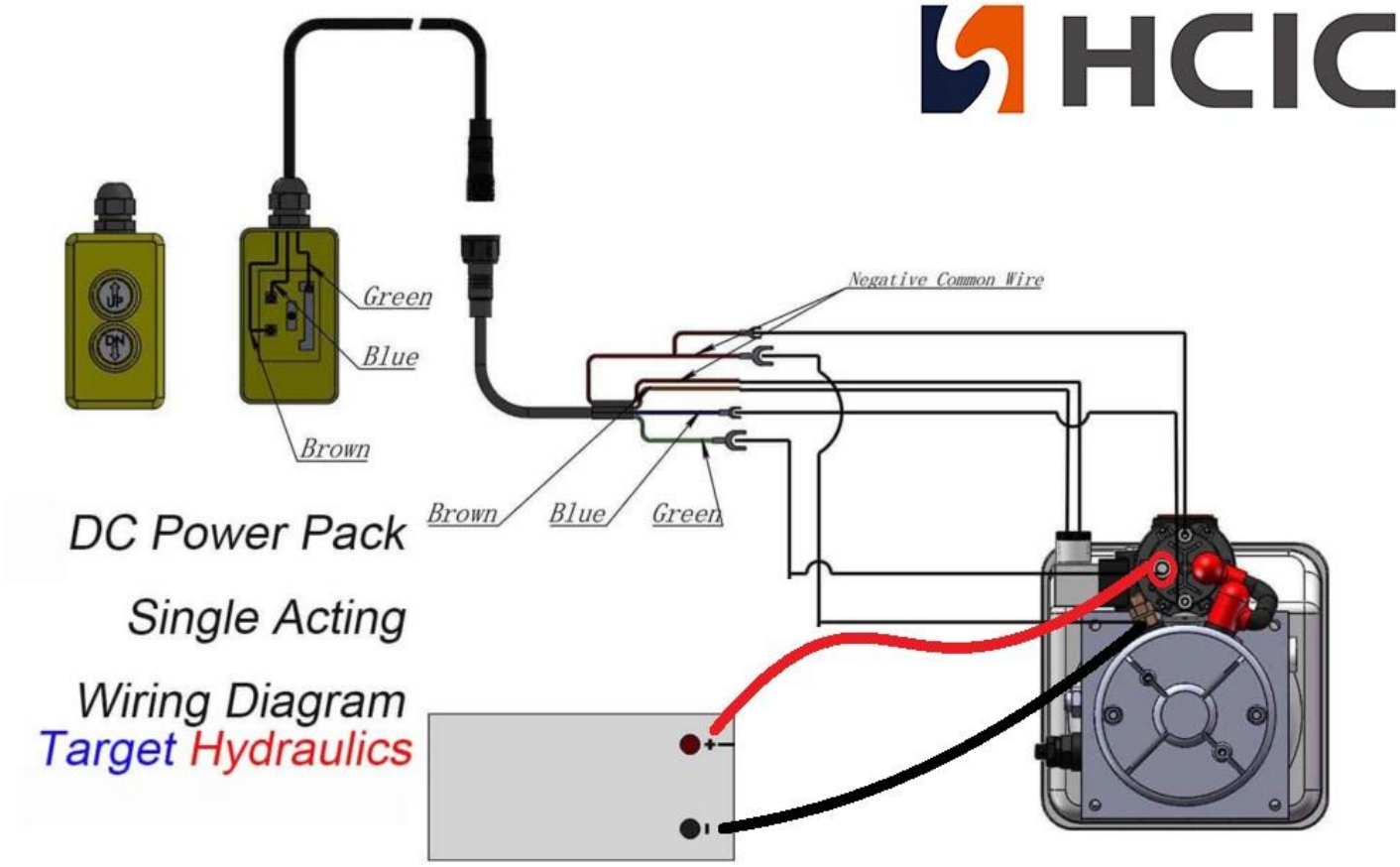






单位：mm

3 ELECTRICAL INSTALLATION



CAUTION:

.Ensure the battery cables are disconnected from the battery before connecting them to the power pack!

.Be sure the earth (black) cable of the start solenoid is also connected to this terminal.

.Connect the feed (+) cable from the battery onto the free terminal (+) of the start switch.

.Connect the feed (-) cable from the battery onto the free terminal (-) of the motor.

.The installer must be sure that the positive feed wire is protected with a fuse of adequate value (depending on the configuration of the power pack), which must be installed between the battery and the power pack

.The battery needs to be fully charged when operating. A voltage below 10 volt can damage the electrical system!

. We already connect the remote control, just need to connect the battery to the motor and motor starter.

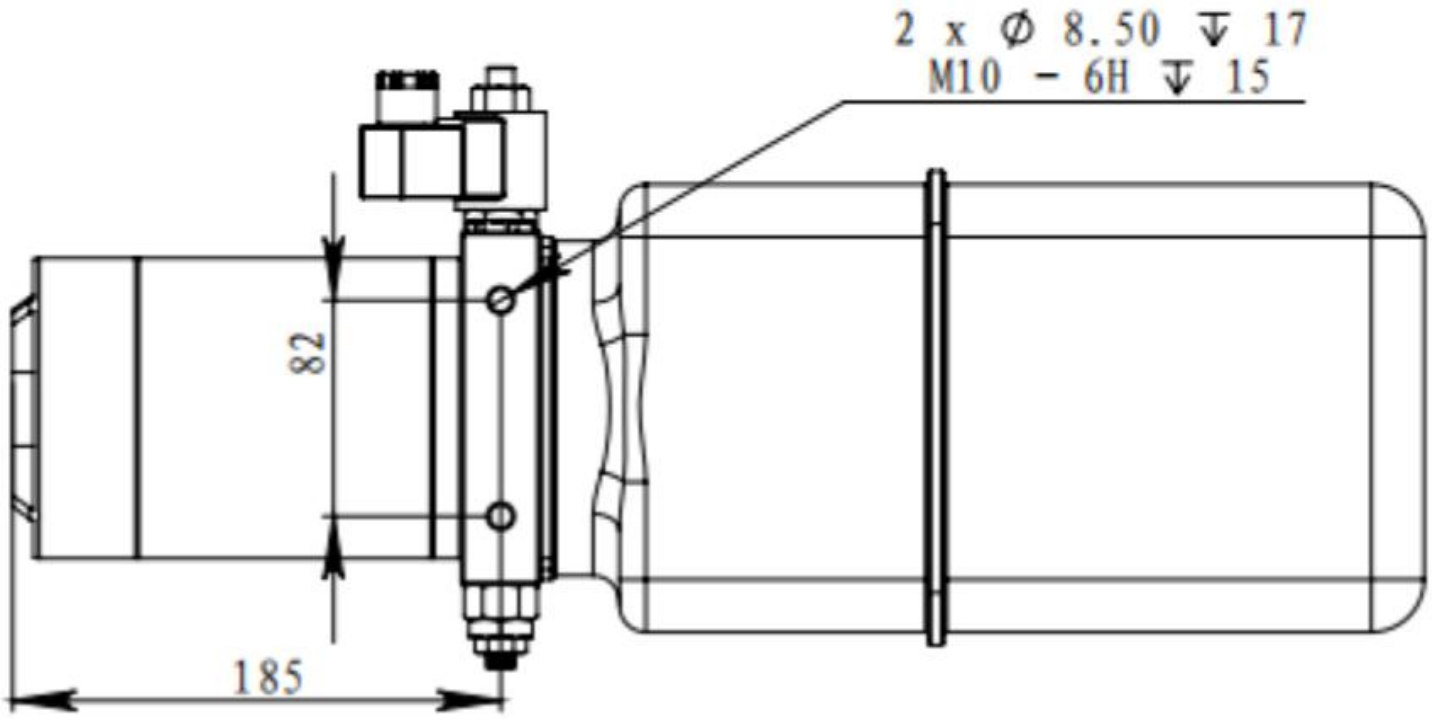
4 INSTALLATION OF THE UNIT

.The installation of the power pack must be done by qualified trained personnel. The installer is responsible for the correct power supply of the power pack, to be protected with a suitable fuse and a battery isolation switch.

.Fit the power pack in its designated position and tighten the mounting bolts (2 x M10 thread holes at bottom or on the side of the valve block depending on orientation of the valve block) at a torque of **50Nm.**

.The power pack can be mounted horizontally or vertically (tank down) depending on the type of the tank.

.Protect the power pack from corrosive environments



5 RECOMMENDED HYDRAULIC OILS

Most common used oil is ISO Viscosity Grade 32, 46 or 68 depending on the ambient temperature.

IMPORTANT:
In order to maximize the useful lifetime of the unit and the hydraulic oil, operating temperatures under the -20 and above 80˚C are not recommended.

Change the oil after the first 100 working hours and every 1000 hours after that, or at least once a year.

6 STARTING

Make sure the reservoir is filled with the recommended hydraulic oil. Pay attention to the oil level if the cylinder is extended and already filled with oil.
Make sure the battery have power.

IMPORTANT:
The power pack must never operate without oil !

PLEASE NOTE: If the oil flow doesn’t start on running the power pack, air might have to be bled from the system, at the highest point and with the system under pressure.
Air in the system generates uneven and noisy operation. It might also cause a sudden drop of the cylinder and system.

7 Cautions

1.Oil tank, hydraulic hoses and fitting must be cleaned before operating.
2.Hydraulic oil can't be higher than ISO4404406/1 4. Hydraulic oil should be filtered by 10-30um filter.
Most common used oil is ISO Viscosity Grade 32, 46
3.Oil pump must be working with sufficient oil, oil less forbidden.
4.DC motor could not work continuously, please use it as duty circle.
5.Change the oil after first 100 working hours. After that the oil change interval should be 1500 hours or at least once a year.
6. Keep sufficient oil in oil tank in if not use for long time, please start device once per week.
7. Battery most be full charge all time.
8. Check tight wire connection for full power efficacy

8.TROUBLE SHOOTING

GENERAL

1 Check to see that the motor is wired correctly with tight connections, and the proper voltage.
2 Check reservoirs oil level.
3 Check relief valve for proper setting with pressure gauge in outlet line.
4 Check for external leakages at cylinder, hoses and power unit.

Others

1. When the oil inlet system can't work or work unstable:
Suggestions: （1）Oil tank was on short of oil, please add the oil to the required oil level.
（2）Viscosity of the oil is too high, please use suitable viscosity oil.
（3）Suction filter was blocked, please dlean or replace the suction flter.
（4）Solenoid valve was blocked, please Clean the solenoid valve and Clean the oil.

2. When the system drops unstable:
Suggestions: （1）Solenoid valve was blocked, please clean the solenoid valve and change the oil.
（2）Check valve was blocked, please clean.

3.The motor can work but the system can't supply oil:
Suggestion: (1)Please check the filter and clean it or change the oil.

4. When the DC motor does not work:
Suggestions: (1)Check the Battery power
（2） Check the remote control.
（3） Check the solenoid switch of the DC motor.

5.The power unit is not going down:
Suggestion: （1)Check on solenoid valve and clean it.
(2)Check the remote control switch.
(3)Check on valve solenoid, manual unloading valve turn counter clockwise will come down immediately.
(note: some type solenoid valve do not have the manual unloading valve)

Warning:

Please keep the oil is clean, dirty oil will break the valves and pumps.
The motor duty is 2 minutes, do not let motor continuous working more than 2 minutes. The break time should be no less than 30 minutes.

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EC DECLARATION OF CONFORMITY

We declare under ours sales responsibility that ours hydraulic power packs model：

HCTDXXXX

HCTAXXXX

To which this declaration relates are in conformity with the following:

EN, EN ISO , ISO standards:

EN ISO 12100:2010, EN ISO 4413:2010
EN55014-1:2006+A1:2009+A2:2011
EN55014-2:1997+A1:2001+A2:2008,
EN61000-3-2:2014,EN61000-3-3:2013

Related to the directive(s):
2006/42/EC (Machinery)
2014/30/EU (Electromagnetic Compatibility)

China Jan 06,2022.

FOR AND ON BEHALF OF
JINAN HUACHEN INDUSTRIAL CO.,LTD.

韩喜玲

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GENERAL MANAGER