

# OPERATION MANUAL & PARTS CATALOGUE

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**CBD15W-LiX**  
Pallet Truck with Lithium Battery



## WARNING

Only drivers who have received formal training or are authorized can be allowed to drive the truck.

When operating the truck, please always wear safe shoes. When assembling or disassembling the truck, please always wear safety goggles.

When running, please watch out your feet to avoid injury crushed by drive wheel. Please do not use this product to carry people. Please do not use this truck on a slippery surface, such as grease, ice or snow.

Do not travel on too steep slopes to prevent cargo from slipping. Operators should not leave the truck in an active state to avoid accidents.

When using this truck, please observe the surroundings, do not distract.

Operation in refrigerating warehouse or some low temperature, salt containing or other corrosive environments shall be strictly forbidden. No operation in raining outdoor environment. This electric truck is only limited to utilization indoor with a hard flat floor.

Overloading operation is forbidden.

The piling of goods should be controlled to avoid sight blocking, goods falling-down or truck tipping-over

No sharp turn on narrow aisle. When turning, slow down the truck so as to ensure the safety of personnel and goods.

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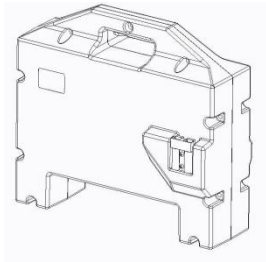
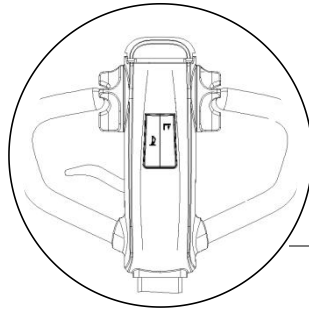
**04/ PARTS CATALOGUE**

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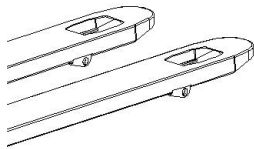
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# 01/ DESCRIPTION

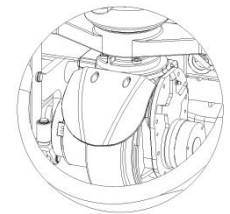
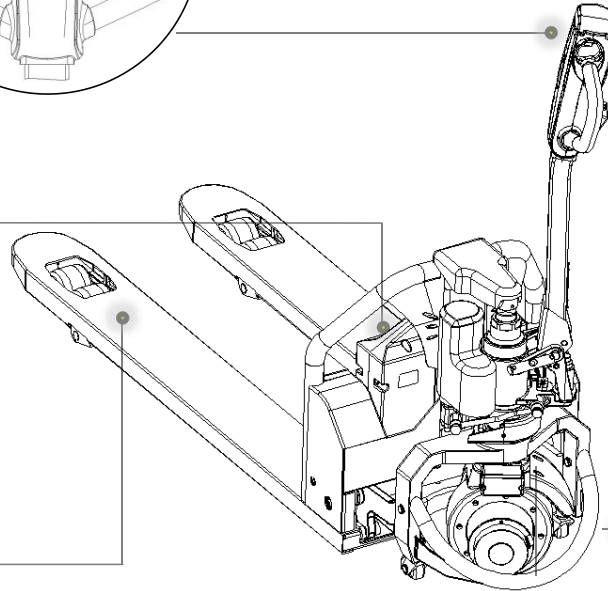
Multi-function controller handle



Lithium battery



Tapered forklift tip  
Tandem PU rollers  
(OPTION)

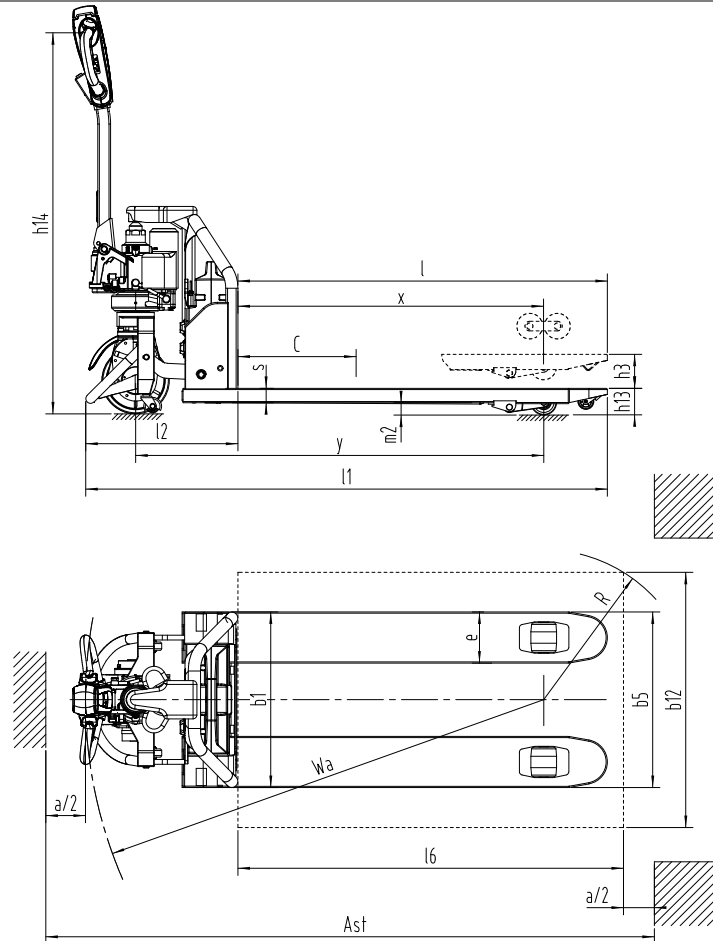


Driving wheel

<b>Manual Model</b>	<b>Model Name</b>		<b>CBD15W-Li</b>
	Load Capacity		1500 kg
Chassis Dimensions	Forks	Lowered Height	80 mm
		Fork Length	1150/1220 mm
		Overall Fork Widths	550/685 mm
	Maximum lifted height		190 mm
	Service Weight		135 kg
Battery	Battery type		lithium
	Rated Voltage		48V/20Ah
Turning Radius			1424/1494
Overall length			1623/1693



- The ambient air temperature does not exceed +40°C or below -10°C.
- For hard and flat ground only.
- It is forbidden to use this truck in flammable, explosive, acid-base or other corrosive environment.
- The loaded maximum gradeability is 5%.





The handle has been removed before leaving the factory for the safe transportation and packaging, so the user has to install the handle before use, the installation steps are as follows

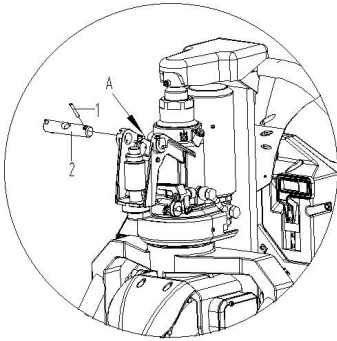


Fig. 1

1. Remove the pin 1 from pin 2, then pull out the pin 2.

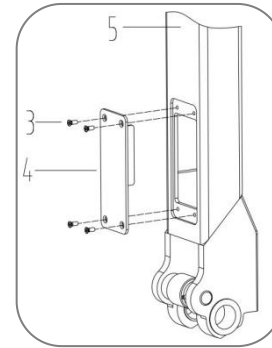


Fig. 2

2. Loose the screw 3, remove the cover plate 4 from handle assembly 5.



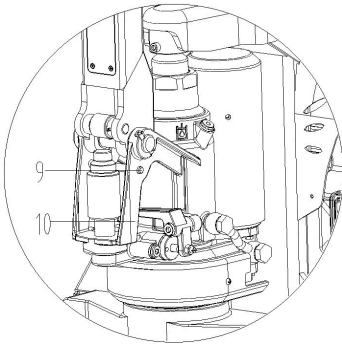


Fig. 3

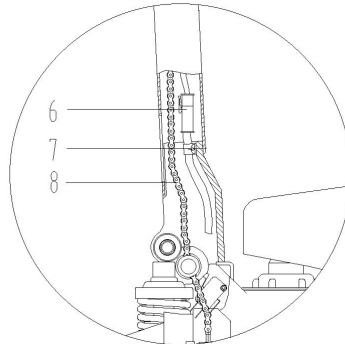


Fig. 4

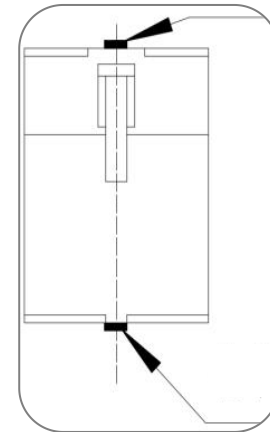


Fig. 5

3. Insert handle assembly 5 (Fig. 2) into A (Fig. 1), connect handle assembly 5 to pump body 10 by pin 2. Thread the rod chain 8 through the hole of pin 2. Pull the handle to horizontal position, take out pin 9 and save it for next time use.

Connect the wire of handle assembly 5 to the truck body through connector 6, tighten it with a harness for a reliable connection (see Fig.5). After that, fix it to handle assembly 5 by line card 7 according to Fig. 4.

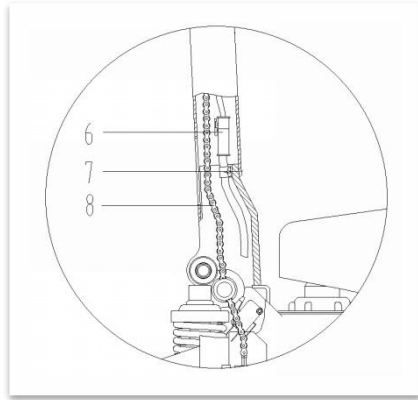


Fig. 4

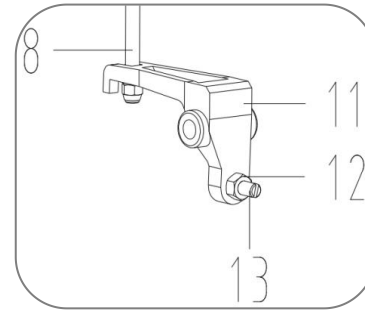
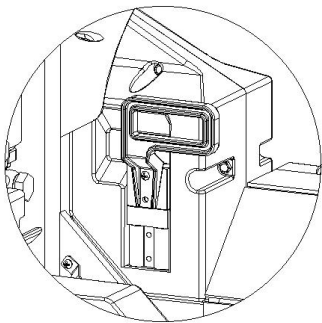


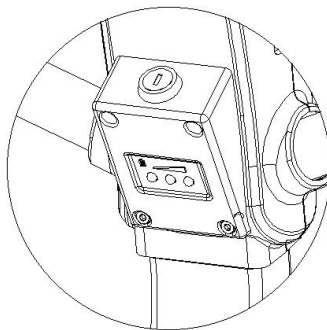
Fig. 6

4. See Fig. 4&6, fix the screw and nut at the end of chain 8 into the groove of lever plate 11.
5. Pass the pin 2 through pin 2 and fix, install the cover plate 4 onto handle assembly 5.

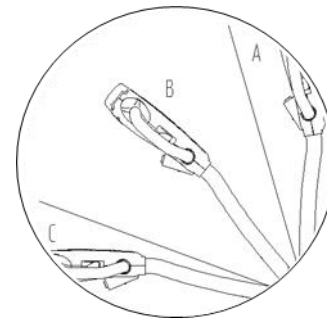
# 02/ OPERATION



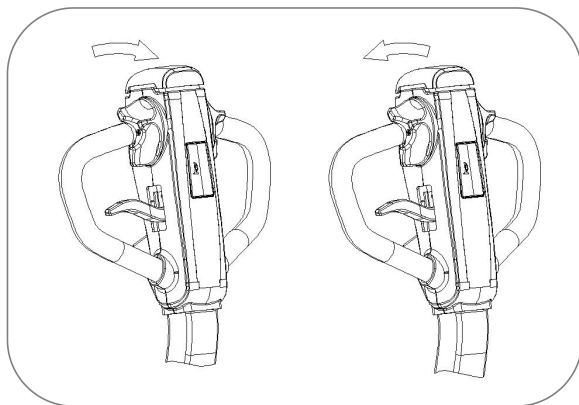
Plug in the battery connector.



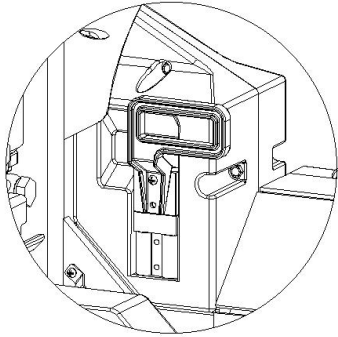
Turn on the key switch.



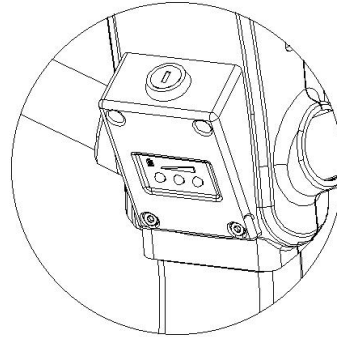
Pull the handle to section B.  
A and C are breaking section.



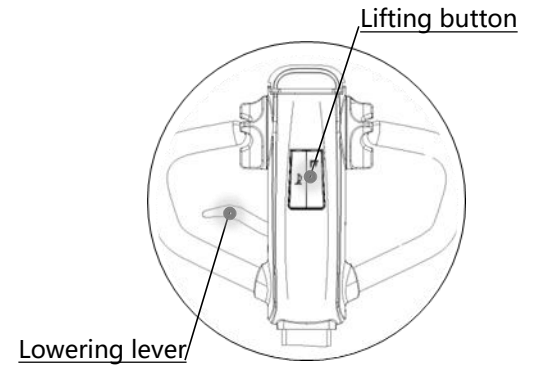
Rotate the accelerator to start the truck slowly (for safety,  
reason no abrupt acceleration).  
Return the accelerator to neutral position to stop the truck.



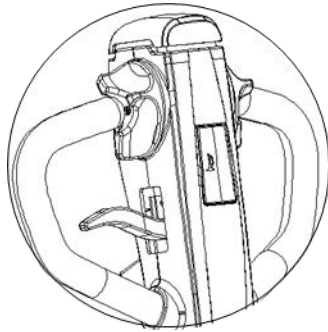
Plug in the battery connector.



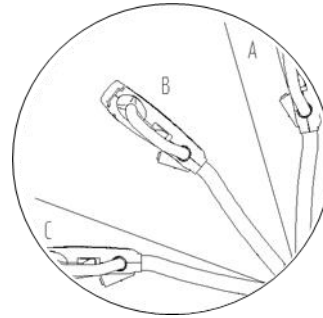
Turn on the key switch.



Press the lifting button on the handle to lift the forks. Pull the lever toward the operator to lower the forks.

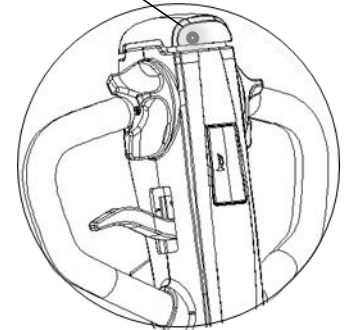


Release the accelerator for normal braking, the truck stops slowly by the regenerative brake of the motor until the brake lock the wheels.



Turn the handle to A or C quickly for emergency braking, the brake will lock the wheel to achieve the emergency braking.

Emergency reverse button



**THE EMERGENCY REVERSE BUTTON** minimizes the possibility of the driver being pressed by the steering arm while driving the truck in slow speed.

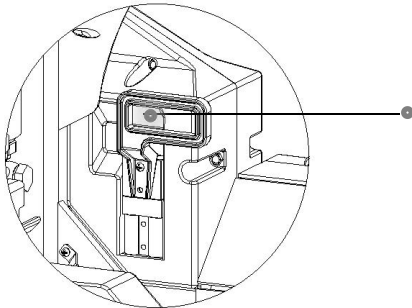
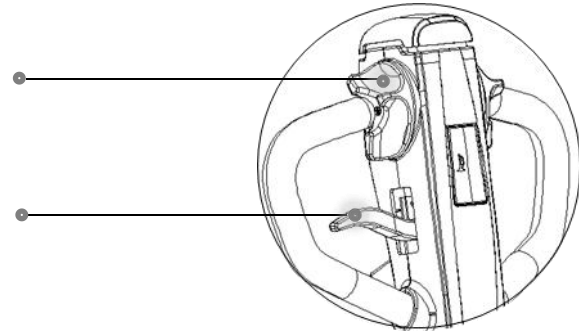
If the switch presses against the operator while the truck is driving toward the operator, the switch changes the direction of the truck.

It is a safety button which avoids the extrusion of the truck to protect the operator from injured when he meets the obstacles.

Release speed control button to stop the truck.

Lower the fork to the lowest position.

Turn off the key switch.



Disconnect the battery connector if park for a long time.



# 03/ MAINTENANCE

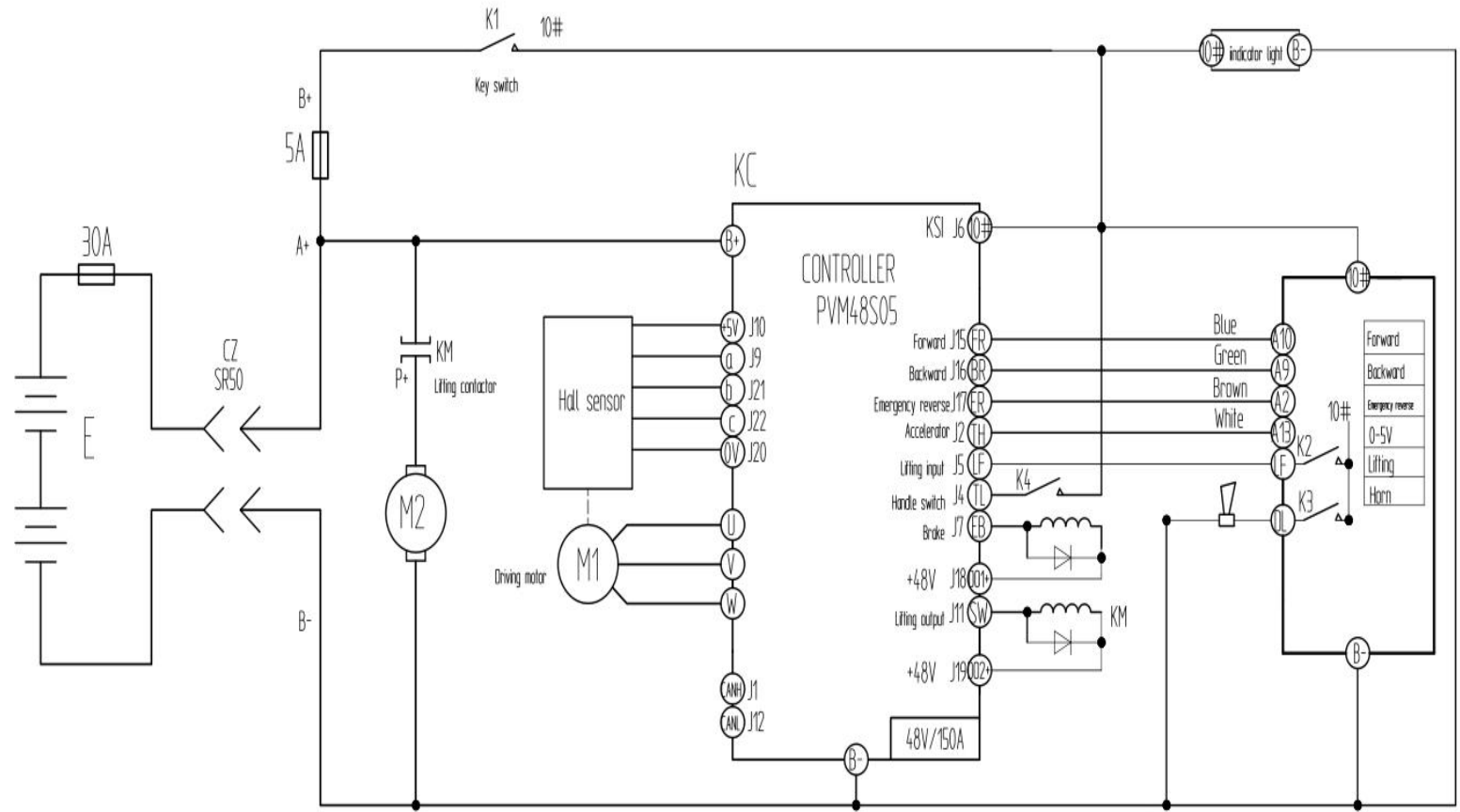
**Daily Maintenance:** To keep the surface clean and examine if the power supply cable is damaged.

**Weekly Maintenance:** To check the condition of the operational components, all fastening items, if oil leakage, if abnormal wearing in mechanical components exists, if abnormal temperature rises or sparks in electric equipment, etc.

### Periodic Maintenance

(Pls refer to the following table)

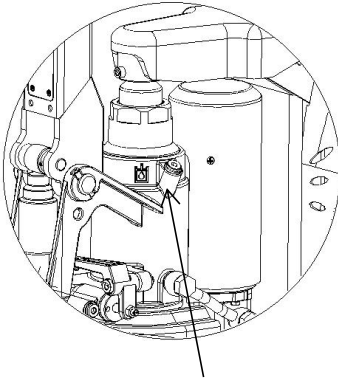
Electrical System Every three months check	Hydraulic system Yearly check	Mechanical system Every half a year check
<ul style="list-style-type: none"> <li><input type="checkbox"/> Check the reliability of electric connectors</li> <li><input type="checkbox"/> Check the function of switches</li> <li><input type="checkbox"/> Check the insulation of electric parts</li> <li><input type="checkbox"/> The insulation resistance of electric equipment and the forklift body <math>\geq 0.5M\Omega</math></li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Check the sealing of hydraulic components and check for damage</li> <li><input type="checkbox"/> Check the oil level</li> <li><input type="checkbox"/> Check the state of oil cylinders</li> <li><input type="checkbox"/> Check the condition of load limit valve</li> <li><input type="checkbox"/> Oil to be replaced yearly</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Check the gearbox for abnormal noise or leaks</li> <li><input type="checkbox"/> Check the bearing and rotating flexibility of the drive wheel</li> <li><input type="checkbox"/> Apply lubricant to rotating joints</li> <li><input type="checkbox"/> Check fastening items for fixation, retighten, if necessary</li> <li><input type="checkbox"/> Check the condition of the fork</li> </ul>



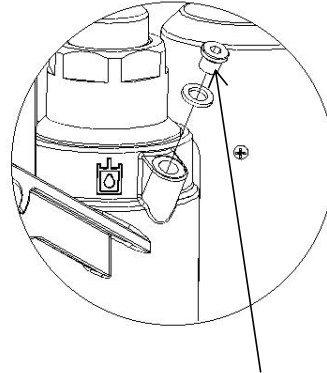
Code	Description	Possible causes and trouble shooting
1	Feedback overspeed	Controller fails, contact the manufacturer.
2	Kernel running error	Controller fails, contact the manufacturer.
8	Speed sensor missing	<p>No speed feedback detected. To solve the problem as following:</p> <ol style="list-style-type: none"> <li>1. Check the connection between speed sensor and controller;</li> <li>2. Check whether the signal of speed sensor is normal;</li> <li>3. Check the detection circuit of the controller.</li> </ol>
9	Direction of speed sensor is wrong.	<p>The direction or phase of Hall sensor ABC and motor UVW are inconsistent. To solve the problem as following:</p> <ol style="list-style-type: none"> <li>1. Adjust the Hall phase through the controller parameter P47; increase by 300 each time until the motor rotates normally. Then adjust 50 every time to find out the normal rotation range of the motor. Finally, the midpoint of the range is set as the parameter value.</li> <li>2. If the method of 1 cannot solve the problem, repeat step 1 after changing parameter P3.0 (feedback commutation).</li> </ol>
11	2-minute maximum current protection of motor	<p>The motor current lasts for more than 2 minutes and the maximum current lasts for more than 2 minutes.</p> <ol style="list-style-type: none"> <li>1. The motor is locked; check whether the brake is open and whether there is any foreign matter stuck in the driving mechanism.</li> <li>2. The controller parameters are not set properly, see motor parameter adjustment for details.</li> </ol>
12	Over current of controller	<p>Possible causes:</p> <ol style="list-style-type: none"> <li>1. The motor is short circuited.</li> <li>2. The direction or phase of Hall sensor ABC and motor UVW are inconsistent.</li> <li>3. Motor parameter p15 weak magnetic base speed setting error.</li> <li>4. In case of controller failure, contact the manufacturer.</li> </ol>

13	BUS charging fault	<p>Solve the problem as following:</p> <ol style="list-style-type: none"> <li>1. Check whether there is short circuit between u, V and W phases of motor.</li> <li>2. Check whether the battery voltage supply is too low.</li> <li>3. Check whether the drive coil is short circuited (do circuit and battery B -).</li> <li>4. Check whether do + terminal supplies power to equipment other than do.</li> </ol>
14	Main contactor connection failure	The contactor inside the controller is abnormal.
15	DRIVER1 connection failure	Check whether the Driver1 connection is normal.
16	Battery voltage is too low	Check the battery level; or the controller battery voltage level is set incorrectly.
17	Battery voltage is too high	Check the battery voltage; or the controller battery voltage level is set incorrectly.
18	Severe over temperature of power board	Controller protection, out of service.
20	Abnormal accelerator / braking pedal input	<p>The input signal of accelerator pedal or brake pedal is abnormal. Solve the problem as following:</p> <ol style="list-style-type: none"> <li>1. Check the connection between pedal and controller for short circuit and open circuit.</li> <li>2. Check whether the pedal is damaged;</li> <li>3. Check the parameter settings of the controller related to the pedal, especially the pedal type. (P91, P101) .</li> </ol>
22	5V output failure	<ol style="list-style-type: none"> <li>1. motor encoder short circuit;</li> <li>2. Other 5V external equipment is short circuited;</li> <li>3. In case of controller failure, contact the manufacturer.</li> </ol>

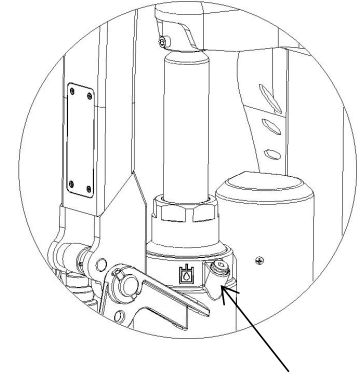
23	MACID detection failure	The controller can network ID number is set repeatedly. Solve the problem by resting it.
24	Main contactor drive failure	The contactor inside the controller is abnormal.
25	Power module failure	Controller failure.
26	Can node lost	<ol style="list-style-type: none"> <li>1. The controller is configured in parameter P1, and the interlock check is enabled in parameter P2Check. In actual operation, no corresponding module is found.</li> <li>2. Check the connection between each module and the working status of the module.</li> </ol>
29	The temperature measuring circuit inside the controller is abnormal.	Controller fails, contact the manufacturer.
31	Battery voltage is slightly low	The battery is low. Charge it as soon as possible.
32	Power board slightly over temperature	The controller reduces the load due to slight over temperature.
33	Power board low temperature	When the ambient temperature is too low, the controller reduces the load.
34	Slight over temperature of motor	the controller reduces the load.
36	Drive2 connection failure	Check connection of Drive 2.
37	Drive3 connection failure	Check connection of Drive 3.
38	EEPROM reading and writing parameter error	Controller fails, contact the manufacturer.
39	Parameter overrun error	If the parameter setting fails, contact the manufacturer.
40	Operation timing error	After reset, the key signal is not in the original position (throttle switch, direction switch, lifting / lowering, safety switch, emergency switch). The signal returns to its original position and the alarm is automatically eliminated.
41	Alarm for 20% remaining power	Charge
42	Alarm for 15% remaining power	Charge
43	Alarm not matched	The match enable parameter is set, but the match is not complete. See the automatic matching instructions for details.



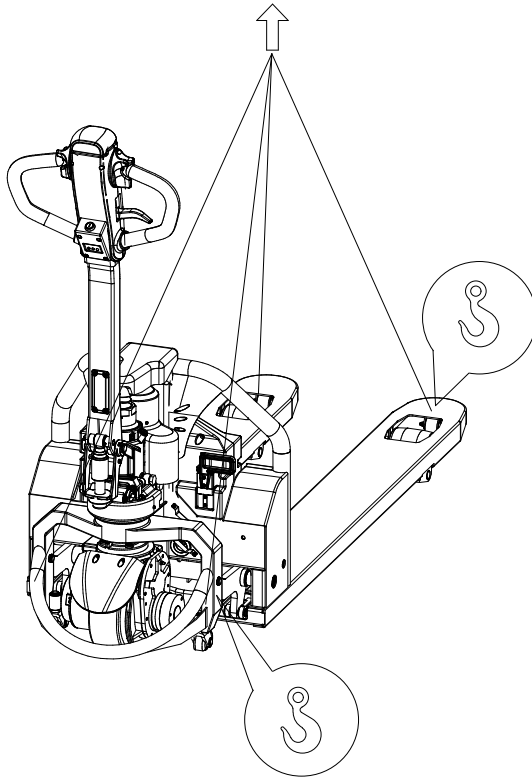
Find the oil filler



Remove the screw at the oil filler with No.5 hexagon wrench, the oil volume is 250ml.

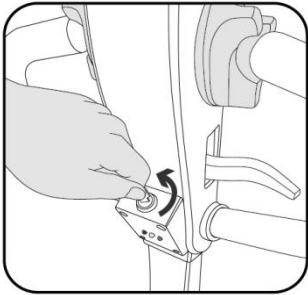


Lifting and lowering the handle for two to three times after oil filling, then lift the fork to max. height and tighten the screw. If the washer at the oil filler is damaged, replace it.

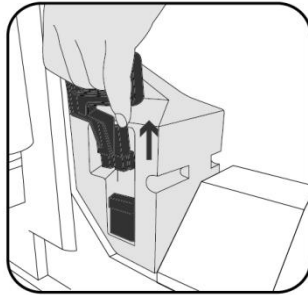


Fix and fasten the four hook positions according to the picture, then hoist the truck.

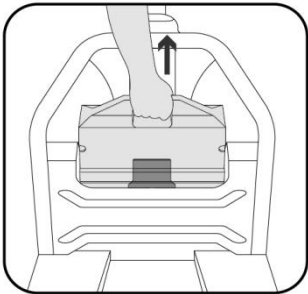




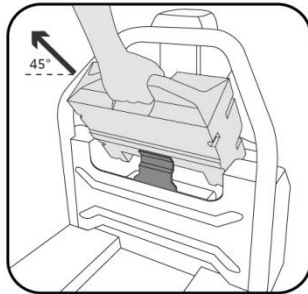
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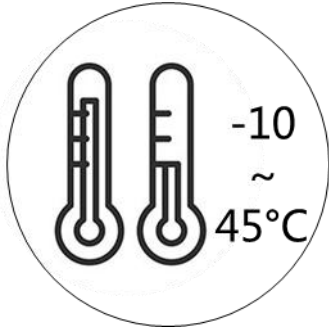


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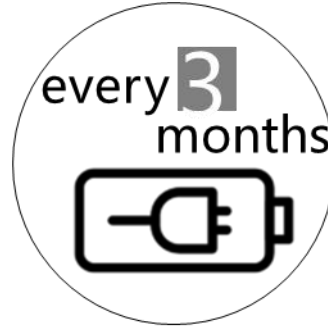


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1. Turn off the key switch.
2. Unplug the cable connector.
3. Pull the battery grip upwardly.
4. Remove the battery with a 45-degree angle to the ground.



Working ambient temperature of lithium battery is -10 ~ 45°C.



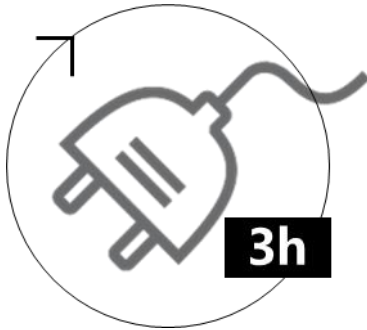
Charge and discharge the battery every 3 months when storing for a long time.



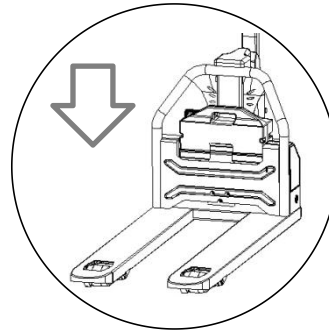
Keep the battery away from water or fire.



- Fully charge the battery before use.
- Do not short circuit the battery, which may permanently damage it.
- Do not weld the battery by yourself.
- Do not keep the battery in an unfavorable environment, such as extreme temperature, deep cycle, or often overcharge or over-discharge.
- When removing the battery, grasp the handle by hand, do not drag the wire.
- The battery may be hot after charging, cool it down in a ventilated environment.
- Do not try to separate, squeeze, or hit the battery. Battery lye is harmful to skin and eyes, and will corrode clothes.
- Keep the battery away from the child. Contact the doctor immediately if it is found swallowed accidentally.



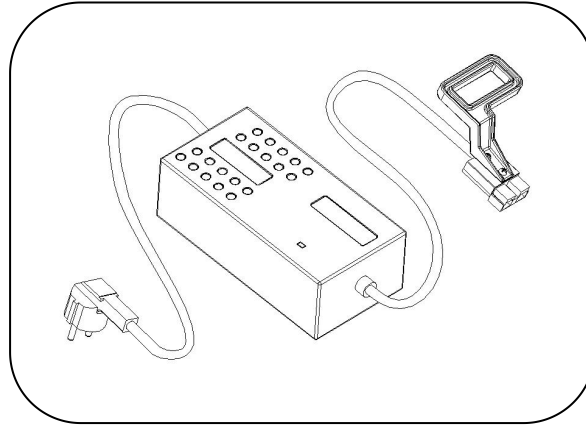
The lithium battery needs only 3 hours to achieve full charge.



Plug in the battery according to the right positive and negative electrodes.



With full charged battery, the truck can work for 4 hours continuously.



Li-ion charger



- Must use the special Li-ion charger of our company; working voltage of charger 48V, maximum charging voltage 54.6V, charging current 6-7A.
- Do not reversely charge the battery, check for the right positive and negative electrodes.
- Stop charging immediately if the battery is found abnormal hot during charging, recharge after cooling down naturally.
- Must hold the handle when unplug the battery connector, do not unplug the wire directly.

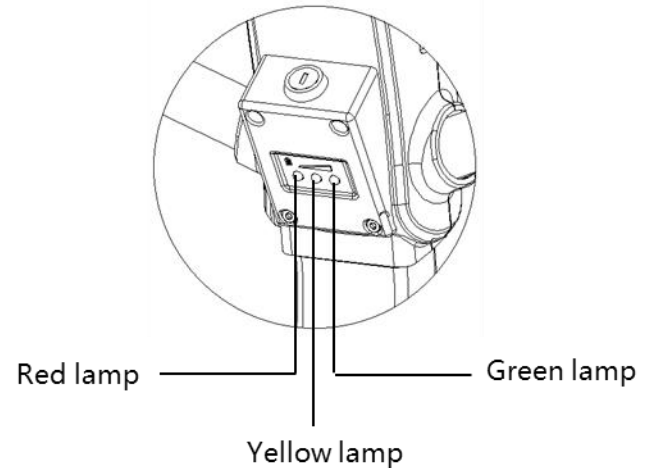
### Power Lamp Indicator

Green lamp always on: 70%-100% power

Yellow lamp always on: 40%-70% power

Red lamp always on: 10%-40% power

Red lamp flashes: Nearly empty battery voltage



- When the red lamp is on, it means low battery voltage, needs recharging.
- Red lamp flashes as a warning, indicating the truck is about to stop, charging is in need.
- If continue to use under the above circumstance, the power disconnect protection will be automatically carried out inside the lithium battery, and the truck will stop.

The table below provides some common failures of the truck in operation and the trouble shooting

No.	Faults	Analysis of cause	Trouble shooting
1	Hydraulic oil leakage	<ol style="list-style-type: none"> <li>1. Failed oil seal</li> <li>2. Slight damage or wear on the surface of one or two components</li> <li>3. Loose connection</li> </ol>	<ol style="list-style-type: none"> <li>1. Replace the oil seal</li> <li>2. Replace the damaged components</li> <li>3. Re-tighten the connection</li> </ol>
2	Fork does not lift	<ol style="list-style-type: none"> <li>1. Too great viscosity of hydraulic oil or hydraulic oil has not been injected</li> <li>2. Foreign matters in the oil</li> <li>3. The hydraulic power unit is damaged</li> </ol>	<ol style="list-style-type: none"> <li>1. Replace hydraulic oil</li> <li>2. Remove the foreign matter in oil or replace hydraulic oil</li> <li>3. Replace the hydraulic power unit</li> </ol>
3	Fork does not lower	Manual lowering valve is not adjusted well	Adjust the position of lowering valve screw
4	The motor is unable to operate	<ol style="list-style-type: none"> <li>1. Power supply switch has not been turned on</li> <li>2. Battery has completely discharged</li> <li>3. Brake has not been released</li> <li>4. Burnt fuse</li> </ol>	<ol style="list-style-type: none"> <li>1. Insert key and turn on power supply</li> <li>2. Charging</li> <li>3. Examine the stroke switch on the lever if it is pressed because of collision and if the braking switch has been reset.</li> <li>4. Replace the fuse</li> </ol>
5	The charger is unable to charge	Damaged charger	Replace the charger



The abandoned batteries and hydraulic oil should not be placed carelessly and must be treated according to the relevant local regulations and laws. Attention must be paid to environmental protection.

## Packing list of CBD15W-LiX Pallet truck with Lithium battery

Consignee:  
Contract No.:

Ex-work No.:  
Ex-work Date:

No.	Name	Qty	Net weight (kg)	Dimension (L×W×H)	Remarks
1	CBD15W-LiX pallet truck	1			A complete set
2	Accessory box	1			Technical documents, accessories and spare parts.

Note: 1. The following documents are in the file bag:

- |                             |          |
|-----------------------------|----------|
| ① Operation manual          | 1 volume |
| ② Parts catalogue           | 1 volume |
| ③ Qualification certificate | 1 copy   |
| ④ Packing list              | 1 copy   |

## 2. Accessories and spare parts

No.	Name	Application	Type & specification	Qty	Remarks
1	Key switch	Unlock the electric lock		2	
2	Charger	Lithium battery charging		1	
3	Fuse 5A	Electrical part		1	
4	Dust ring	Oil cylinder	DHS40	1	
5	Seal ring	Oil cylinder	UHS40	1	
6	O-ring	Oil cylinder	40X3.55	1	
7	O-ring	Oil cylinder	67X3.55	1	
8	O-ring	Oil cylinder	46.2X2.65	1	
9	Harness	Wiring harness connection	3X150	1	
10	Fixed button	Fix the wiring harness	ACC-2-B	1	
11	Screw	Fix the airing harness	M4X6	1	

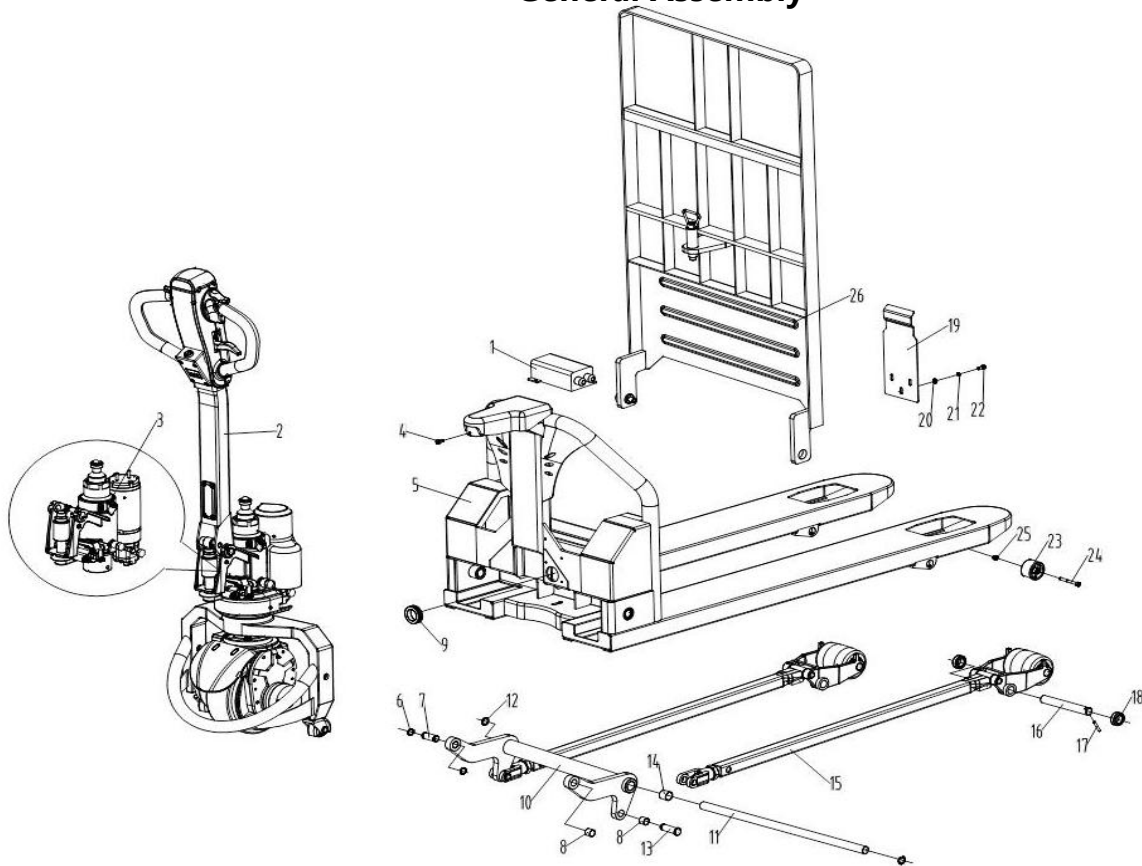
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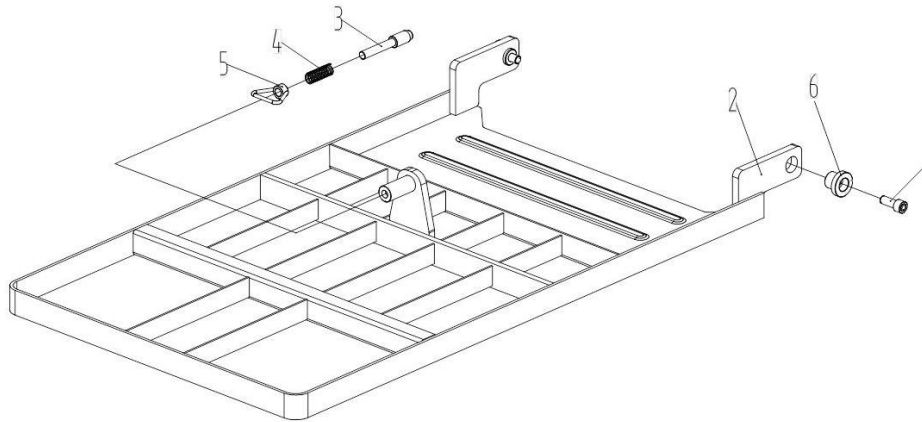
## Electric Pallet Truck (CBD15W-LiX) General Assembly



## General Assembly

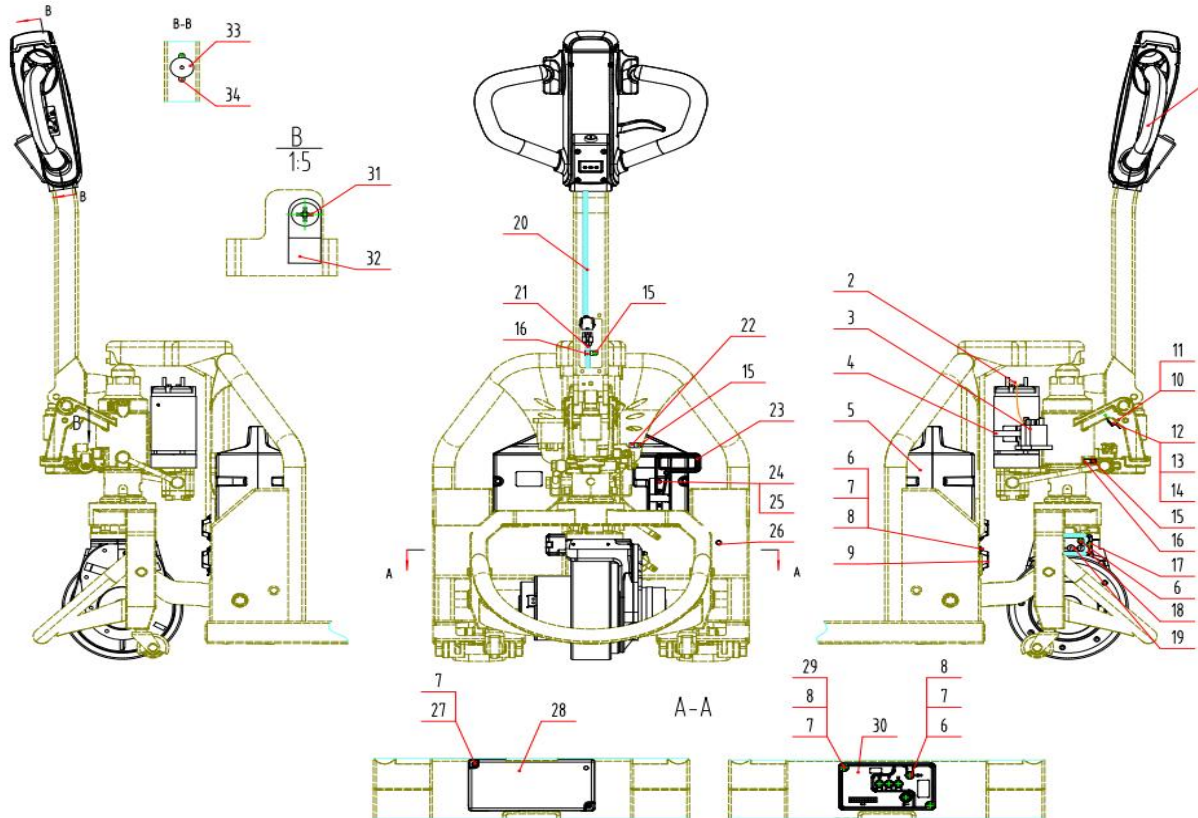
Item No	Drawing NO.	Part NO.	Name		Q'ty	Remarks
1	CBD15W-LiX.01A-00	NULL	Electrical system		1	
2	053.02.0005.04	NULL	Steering gear assembly		1	
3	CBD12W-Li.02-00	NULL	Hydraulic system		1	
4	GB/T70.1	41100000037	Screw M6X12		1	
5	CBD12W-Li.06A-00	30701000784	Truck frame assembly	550X1150	1	with reinforcing rib
		30701000785	Truck frame assembly	550X1220		with reinforcing rib
		30701000786	Truck frame assembly	550X1150with backrest		with reinforcing rib
		30701000787	Truck frame assembly	550X1220with backrest		with reinforcing rib
	CBD12W-Li.06B-00	30701000788	Truck frame assembly	685X1150		with reinforcing rib
		30701000789	Truck frame assembly	685X1220		with reinforcing rib
		30701000790	Truck frame assembly	685X1150with backrest		with reinforcing rib
		30701000791	Truck frame assembly	685X1220with backrest		with reinforcing rib
6	GB/T894.1	41305000008	Circlip for shaft 16		6	
7	001.02.0160.09	21701000024	Pin		2	
8	Q/NRY031	43100000018	Bearing SF-1-16.16		4	
9	260.06.0400.01	21001000001	Rubber coil		1	
10	141.02.0550.03	31601000033	Rocker arm assembly	550	1	
	141.02.0680.04	31601000034	Rocker arm assembly	685		
11	001.03.0200.50	21704000030	Shaft	550	1	
		21704000031	Shaft	685		
12	GB/T893.1	41304000005	Circlip for hole 20		2	
13	001.05.0160.16	21703000075	Shaft		2	
14	Q/NRY031	43100000033	Bearing SF-1-20.20		2	
15	CBD12W-Li.16-00	31605000009	Connecting rod and wheel carriage assembly	1150single wheel	2	
		31605000010	Connecting rod and wheel carriage assembly	1220single wheel		
		31605000011	Connecting rod and wheel carriage assembly	1150double wheel		
		31605000012	Connecting rod and wheel carriage assembly	1220doble wheel		
16	001.01.0200.39	21702000069	Pin		2	
17	GB/T879	41402000022	Pin 5X32		2	
18	020.03.0034.01	21312000028	Reverse-assisted wheel		4	
19	CBD12W-Li-01	22003000194	Battery platen		1	
20	GB/T97.1	41301000004	Washer 6		3	
21	GB/T93	41300000004	Washer 6		4	
22	GB/T70.1	41100000041	Screw M6X16		2	
23	020.04.0050.01	21312000094	Small wheel		2	
24	GB/T5782	41001000003	Screw M6X55		2	
25	GB/T889.1	41208000005	Locknut M6		2	
26	CBD12W-Li.22-00	30613000001	Backrest assembly	550	1	
		30613000002	Backrest assembly	685		

## Backrest Assembly



Item No	Drawing NO.	Part NO.	Name		Q'ty	Remarks
1	GB/T70.1	41100000128	Screw M12X30		2	
2	CBD12W-Li.22.01-00	30613000003	Backrest welding	550	1	
		30613000004	Backrest welding	685		
3	001.05.0180.21	21703000101	Pin		1	
4	040.01.0115.02	21605000020	Spring		1	
5	BFR.25-00	30915000004	Ring-pull		1	
6	BFR-01	21810000207	Platen		2	

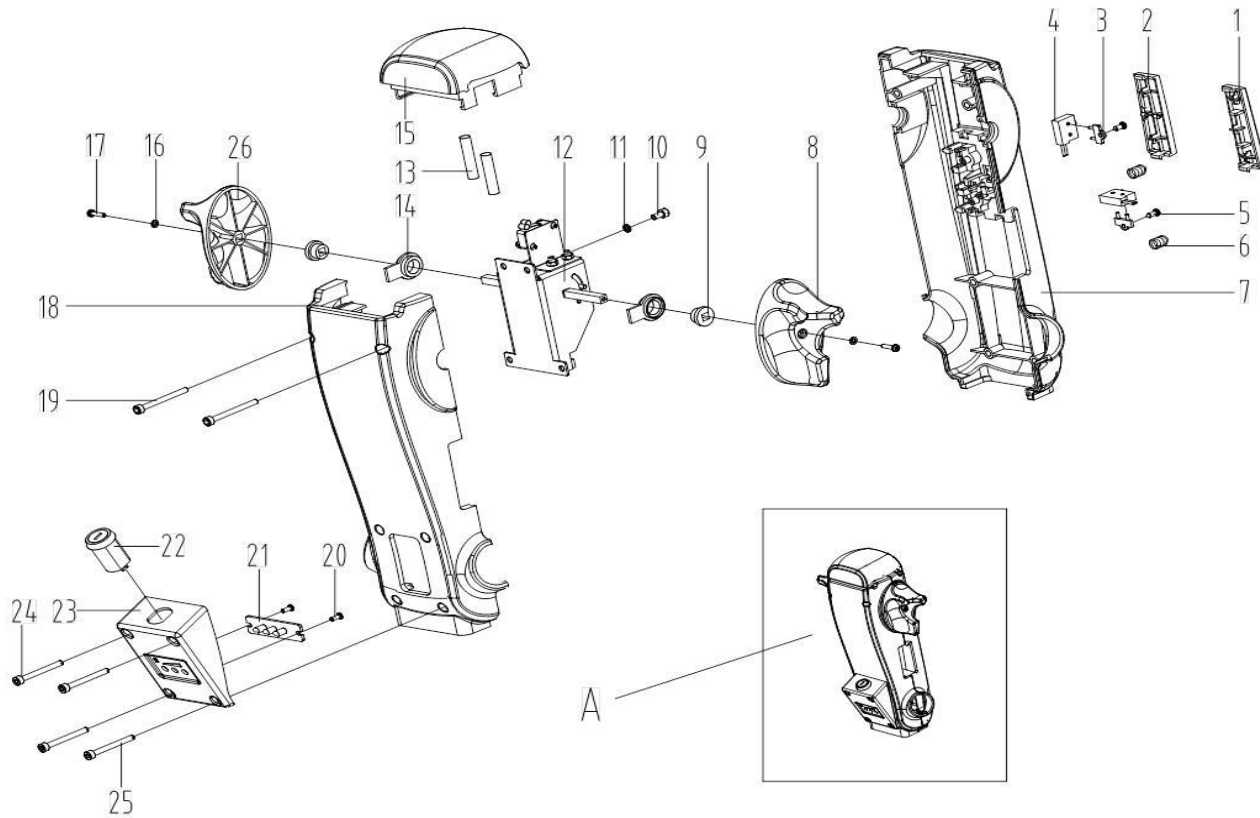
### Electrical System



## Electrical System

Item No	Drawing NO.	Part NO.	Name	Q'ty	Remarks
1	740.01.0005.01	30910000005	Tiller RYTL3-1	1	
2	CBD12W-Li.01.02-03	35404000058	P+ connecting wire	1	
3	761.02.4200.01	35902000013	Lifting contactor	1	
4	226.02.0800.01	21009000044	Hoop (diameter 70-89, width 12)	1	
5	CBD12W-Li.01.04-00	35304000002	Lithium-battery pack assembly	1	
6	GB/T818	41108000015	Screw M4X12	7	
7	GB/T93	41300000002	Washer 4	13	
8	GB/T97.1	41301000002	Washer 4	11	
9	CBD12W-Li.01-01	220030000547	Line buckle	2	
10	GB/T818	41108000007	Screw M3X25	2	
11	GB/T93	41300000001	Washer 3	2	
12	CBD12W-Li.01-03	21912000035	Plastic plate	1	
13	730.12.0201.02	35612000010	Microswitch TMV164-C	1	
14	CBD12W-Li.01-02	21910000082	Microswitch platen	1	
15	GB/T818	41108000011	Screw M4X8	3	
16	835.05.0000.02	21006000009	Fixed buckle ACC-2-B	2	
17	GB/T818	41108000023	Screw M4X35	2	
18	263.05.0000.43	20504000008	Line box	1	
19	835.06.0003.03	20431000006	Wiring board	1	
20	CBD12W-Li.01.02-02	35401000024	Handle wiring harness	1	
21	CBD15W-LiX.01A.02-01	35401000203	Truck body wiring harness	1	
22	835.05.0000.04	21006000011	Fixed buckle ACC-3-B	1	
23	826.03.0000.06	21404000009	Puller	1	
24	GB/T818	41108000020	Screw M4X25	2	
25	GB/T889.1	41208000002	Locknut M4	2	
26	835.08.0005.01	20422000001	diode base(5mm)	1	
27	GB/T70.1	41100000013	Screw M4X40	2	
28	263.04.0000.10	20521000004	Controller cover	1	
29	GB/T818	41108000017	Brushless controller	2	
30	711.05.4408.04	35106000010	Terminal	1	
31	GB/T818	41108000030	Locknut M5	1	
32	835.05.0000.05	21006000012	Screw M5X12	1	
33	CBD12W-Li.01-04	35703000007	Buzzer accessory	1	
34	GB/T818	41108000004	Screw M3X12	2	

## Handle tiller

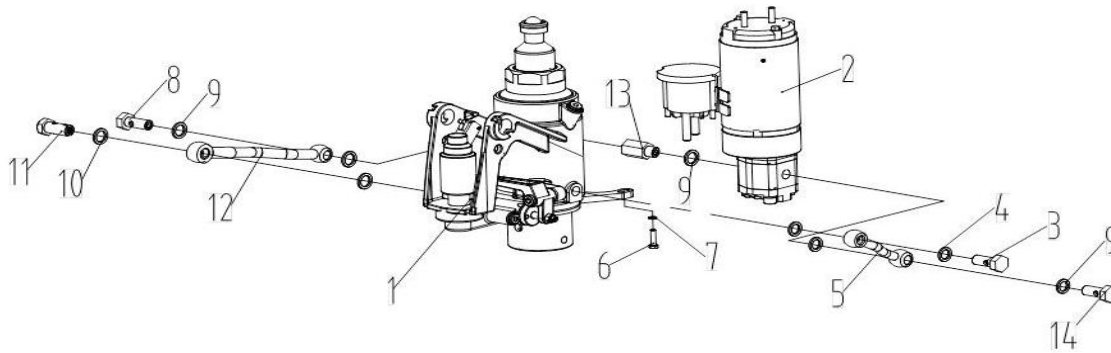


## Handle tiller

Item No	Drawing NO.	Part NO.	Name		Q'ty	Remarks
1	263.01.0000.07	20407000002	Horn button		1	
2	263.01.0000.17	20404000001	Lifting button		1	
3	263.99.0000.24	20418000021	Microswitch insert		2	
4	740.99.0007.02	35612000017	Microswitch		2	
5	GB/T845	41113000003	Screw ST2.9X6.5		2	
6	040.01.0108.05	21605000053	Spring		2	
7	263.05.0000.10	30916000003	Upper cover		1	
8	263.01.0000.05	20409000001	Rotary knob right		1	
9	263.99.0000.28	21808000031	Bush		2	
10	GB/T70.1	41100000005	Screw M4X8		2	
11	GB/T93	41300000002	Washer 4		2	
12	741.01.4801.02	35501000009	Accelerator ACC-12		1	
13	040.01.0108.04	21605000052	Brake spring		2	
14	263.99.0000.38	21816000005	Support cover		2	
15	263.01.0000.04	20403000002	Brake switch		1	
16	GB/T862.2	41313000001	Washer 3		2	
17	GB/T818	41108000004	Screw M3X12		2	
18	263.05.0000.44	30917000004	Lower cover		1	
19	GB/T70.1	41100000013	Screw M4X40 (black)		2	
20	GB/T845	41113000004	Screw ST2.9X9.5		2	
21	733.01.0248.01	35503000005	Instrument		1	
22	740.99.0008.01	35602000006	Key accessory		1	
23	263.05.0000.45	20429000003	Lock cover		1	
24	GB/T70.1	41100000020	Screw M4X65 (black)		2	
25	GB/T70.1	41100000017	Screw M4X55 (black)		2	
26	263.01.0000.22	20409000004	Rotary knob left		1	

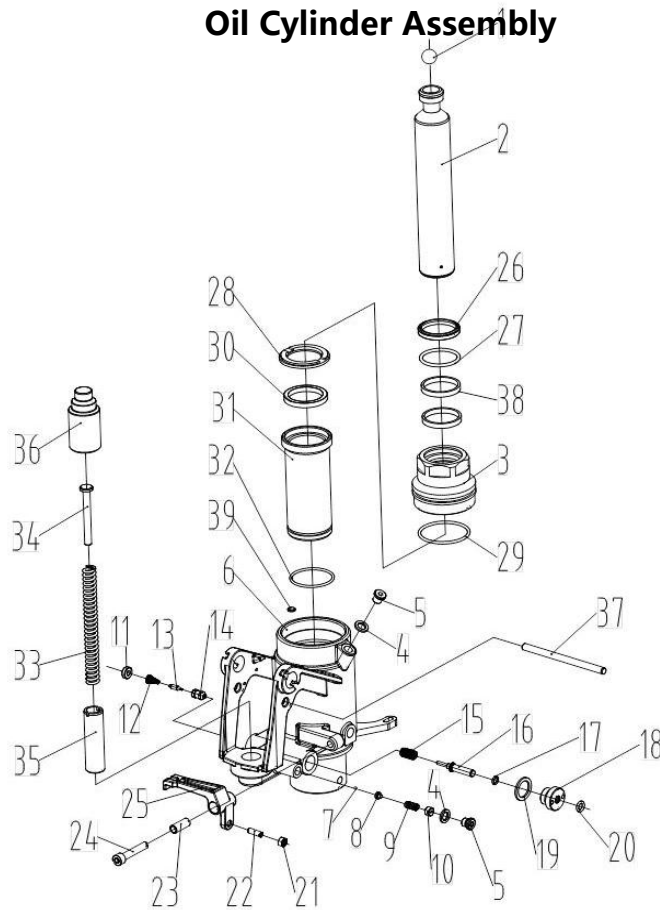


## Hydraulic System



Item No	Drawing NO.	Part NO.	Name	Q'ty	Remarks
1	490.03.1400.01	31001000128	Oil cylinder assembly	1	
2	CBD12W-Li.02.01B-00	30218000014	Motor pump	1	
3	428.00.0012.01	20313000165	Joint	1	
4	JB/T982	44007000026	Washer 12	2	
5	401.05.1282.01	31015000138	Oil inlet rigid pipe	1	
6	GB/T5783	41002000007	Screw M6X20	2	
7	GB/T93	41300000004	Washer 6	2	
8	428.00.0082.01	20313000178	Joint	1	
9	JB/T982	44007000022	Washer G1/4	5	
10	JB/T982	44007000008	Washer 14	2	
11	428.00.0014.02	20313000167	Joint	1	
12	401.05.1482.01	31015000139	Oil outlet rigid pipe	1	
13	420.09.8282.01	20313000087	Joint	1	
14	428.00.0082.02	20313000251	Joint	1	

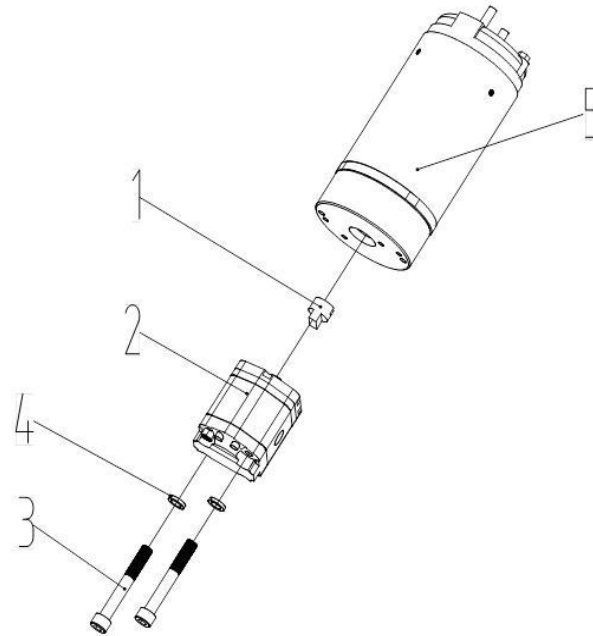
## Oil Cylinder Assembly



## Oil Cylinder Assembly

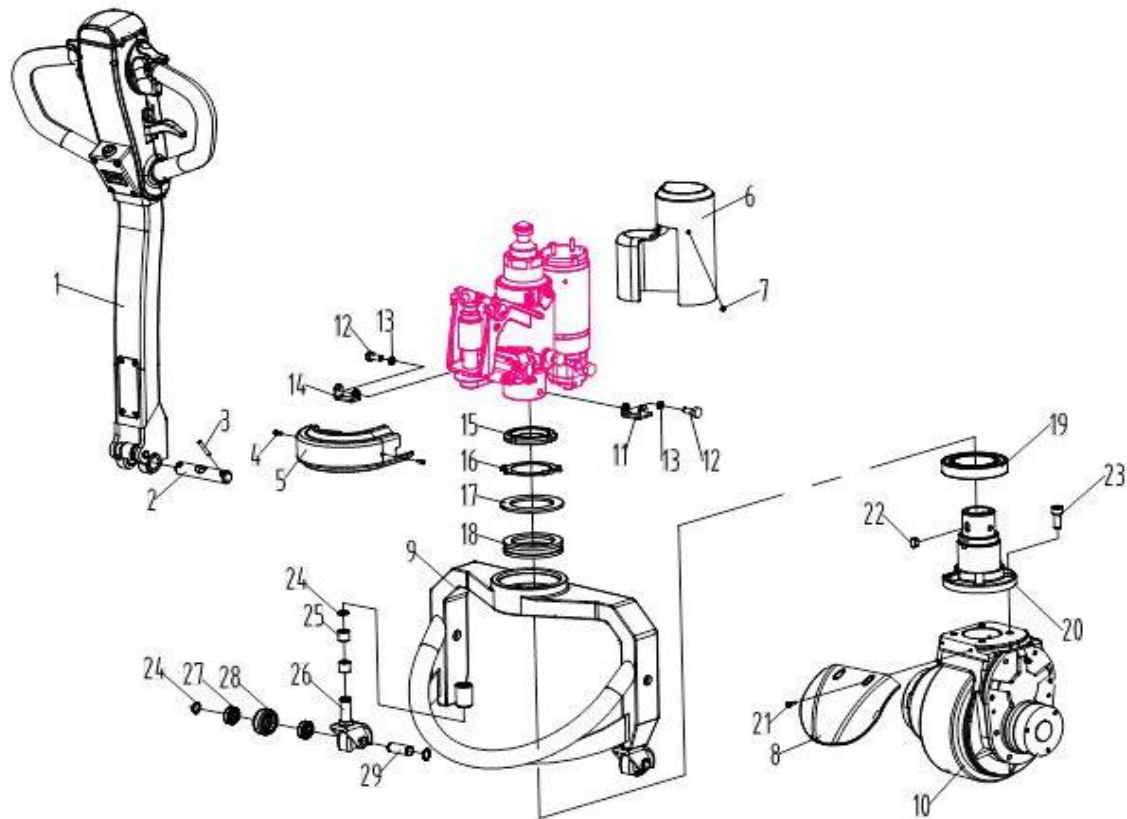
Item No	Drawing NO.	Part NO.	Name	Q'ty	Remarks
1	GB/T308	40002000017	Steel ball 3/4	1	
2	505.01.0400.01	20304000231	Piston rod	1	
3	506.09.0402.01	20307000024	Hood	1	
4	JB/T982	44007000005	Washer 10	2	
5	223.02.0010.02	20104000007	Plug	2	
6	510.01.0400.01	21205000040	Bottom seat	1	
7	GB/T308	40002000006	Steel ball 5	1	
8	506.15.0080.01	21210000006	Seat	1	
9	040.01.0206.06	21605000087	Spring	1	
10	506.16.0100.02	20101000032	Screw M10X1	1	
11	506.16.0140.04	20101000038	Screw	1	
12	040.01.0111.01	21605000046	Spring	1	
13	506.11.0050.01	20213000003	Valve core	1	
14	506.12.0050.01	20212000006	Valve body	1	
15	040.01.0108.01	21605000054	Spring	1	
16	506.04.0080.01	20218000001	Striker pin	1	
17	GB/T3452.1	44006000006	O-ring 6.9X1.8	1	
18	506.14.0080.02	20104000018	Striker pin seat	1	
19	JB/T982	44007000016	Washer 20	2	
20	GB/T3452.1	44006000010	O-ring 8X2.65	1	
21	GB/T6170	41200000005	Nut M6	1	
22	GB/T73	41104000004	Screw M6X25	1	
23	001.06.0100.10	21706000002	Shaft	1	
24	GB/T70.1	41100000073	Screw M8X45	1	
25	506.02.0100.01	21222000017	Lever plate	1	
26	Q/NRY032	44112000017	Dust ring DHS4048-5/6.5	1	
27	GB/T3452.1	44006000059	O-seal ring 40X3.55	1	
28	506.99.0000.93	20526000010	Platen	1	
29	GB/T3452.1	44006000093	O-seal ring 67X3.55	1	
30	Q/NRY032	44100000020	Seal ring UHS40-50-6	1	
31	506.99.0000.94	20308000260	Inner cylinder	1	
32	GB/T3452.1	44006000068	O-seal ring 46.2X2.65	1	
33	040.01.0312.02	21605000088	Spring	1	
34	506.99.0000.97	21703000299	Spring core	1	
35	506.99.0000.95	21810000151	Spring sleeve	1	
36	506.99.0000.96	20310000002	Outer sleeve	1	
37	001.03.0080.60	21704000011	Locking rod	1	
38	Q/NRY032	44115000003	Guide tape BST5806-6-2.5	2	Φ40
39	225.02.0100.01	21925000002	Magnetic steel	1	

## Motor Pump



Item No	Drawing NO.	Part NO.	Name		Q'ty	Remarks
1	CBD12W-Li.02.01B-01	21812000014	Connector		1	
2	480.01.0008.01	30218000011	Pump		1	
3	GB/T70.1	41100000034	Screw M5X70		2	
4	GB/T93	41300000003	Washer 5		2	
5	701.48.0800.03	35205000031	DC motor		1	

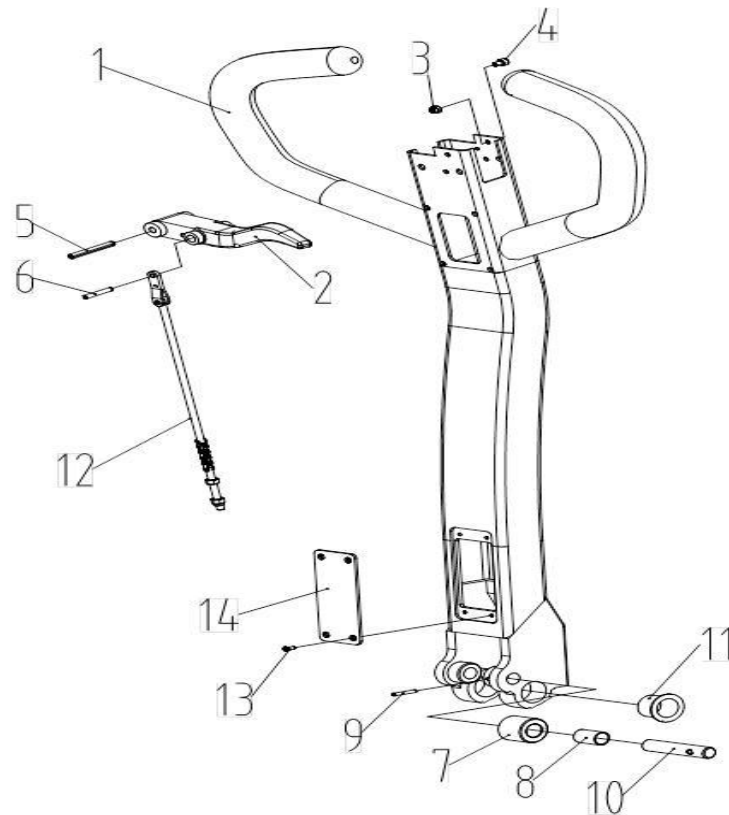
## Steering Gear Assembly



## Steering Gear Assembly

Item No	Drawing NO.	Part NO.	Name	Q'ty	Remarks
1	056.02.0107.05	30905000004	Handle assembly	1	
2	001.01.0200.18	21702000052	Pin	1	
3	GB/T879	41402000022	Pin 5X32	2	
4	GB/T818	41108000014	Screw M4X10	2	
5	263.04.0000.07	20521000002	Decorative cover	1	
6	263.04.0000.08	20521000003	Motor housing	1	
7	GB/T818	41108000028	Screw M5X10	2	
8	263.99.0000.43	20511000002	Mud guard	1	
9	066.03.0200.07	31110000020	Support seat assembly	1	
10	082.01.0210.01	30304000005	Driving wheel assembly	1	
11	065.05.0000.14	22003000021	Right support	1	
12	GB/T5783	41002000012	Screw M8X20	2	
13	GB/T93	41300000005	Washer 8	10	
14	065.05.0000.15	22003000022	Left support	1	
15	GB/T810	41212000001	Round nut M60X2	1	
16	GB/T858	41309000007	Washer 60	1	
17	220.01.0650.01	21809000062	Dust ring	1	
18	GB/T301	43010000026	Bearing 51113	1	
19	GB/T276	43001000084	Bearing 6013-2RS	1	
20	060.07.0000.08	21207000007	Base	1	
21	GB/T70.1	41100000007	Screw M4X10	2	
22	GB/T1096	42001000022	Flat key 8X7X14	1	
23	GB/T70.1	41100000094	Screw M10X20	4	
24	GB/T894.1	41305000007	Washer A type 15	6	
25	Q/NRY031	43100000014	Bearing SF-1-15.12	4	
26	012.03.0000.13	21305000007	Universal wheel carriage	2	
27	GB/T276	43001000010	Bearing 6902-2RS	4	
28	020.03.0042.02	21312000032	Wheel	2	
29	001.02.0150.03	21701000019	Shaft	2	

## Handle Assembly

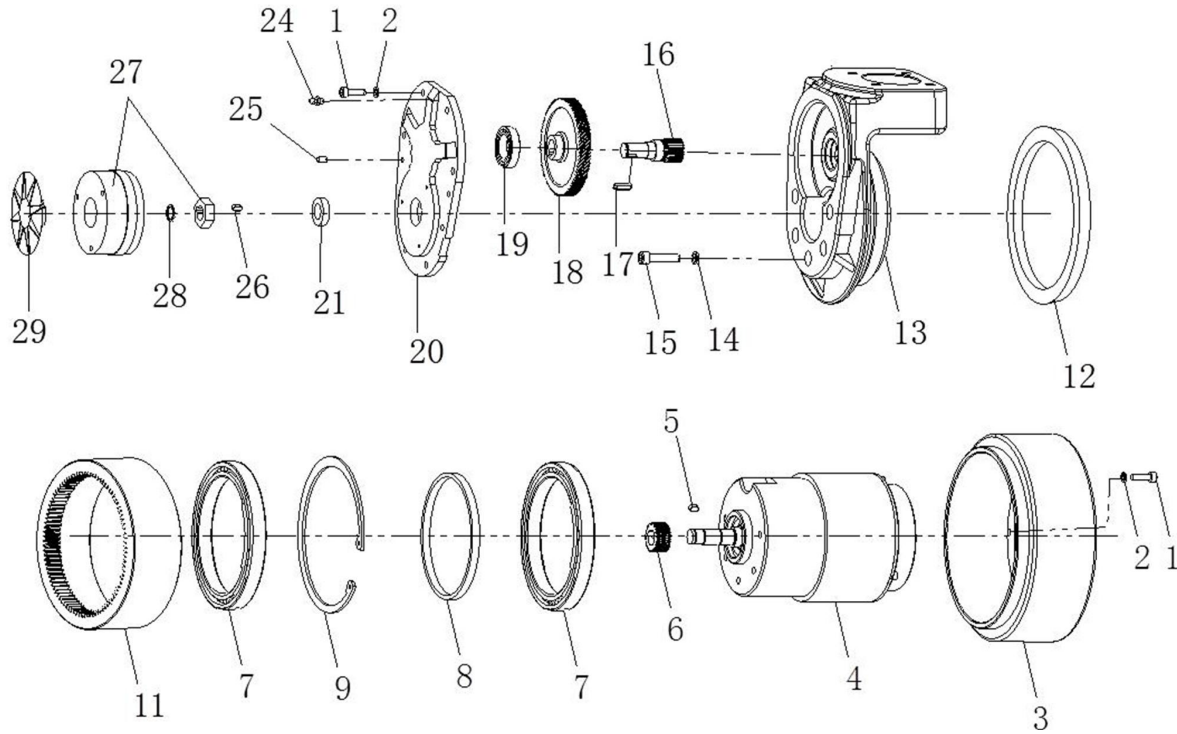


## Handle Assembly

Item No	Drawing NO.	Part NO.	Name		Q'ty	Remarks
1	056.02.0107.06	30909000003	Handle bar		1	
2	234.02.0000.04	21405000004	Knob		1	
3	GB/T889.1	41208000002	Locknut M4		1	
4	GB/T70.1	41100000005	Screw M4X8		1	
5	GB/T879	41402000038	Pin 6X40		1	
6	GB/T879	41402000010	Pin 4X25		1	
7	020.01.0026.02	21312000006	Pinch roller		1	
8	Q/NRY031	43100000009	Bearing SF-1-12.20		1	
9	GB/T879	41402000009	Pin 4X20		1	
10	001.01.0120.50	21702000013	Pin		1	
11	Q/NRY031	43101000016	Bearing SF-1F-200.165		2	
12	310.02.0000.13	30915000002	Pull rod assembly		1	
13	GB/T818	41108000011	Screw M4X8		4	
14	263.05.0000.46	20517000012	Plastic cover		1	Gray



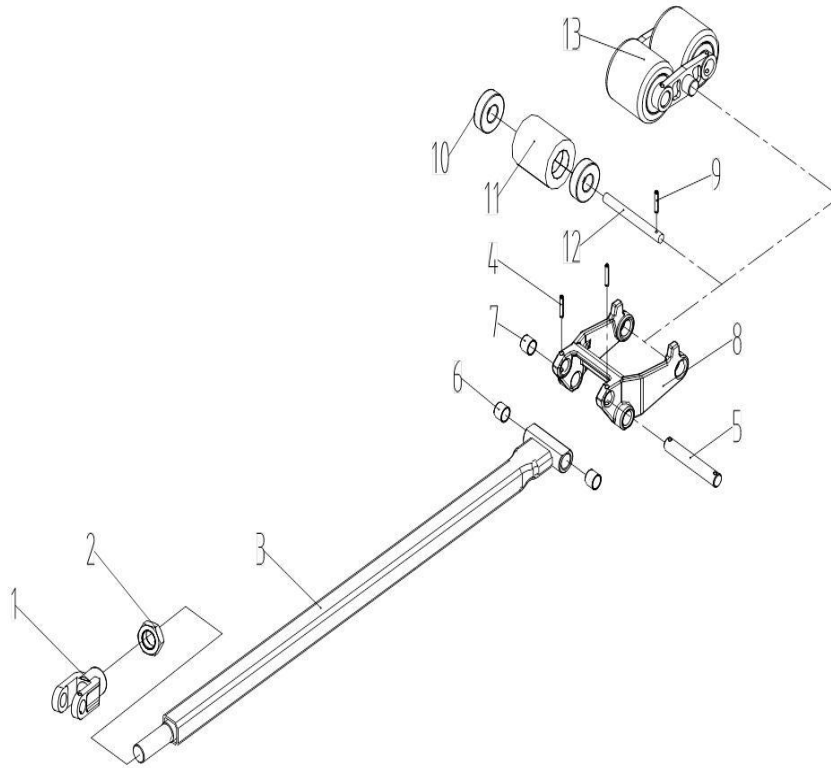
## Driving Wheel Assembly



## Driving Wheel Assembly

Item No	Drawing NO.	Part NO.	Part name	Q'ty	Remarks
1	GB/T 70.1	41100000043	Screw M6X20	16	
2	GB/T93	41300000004	Washer 6	16	
3	1115-220000-0B	90010000139	Driving wheel	1	
4	Z130BLD650-48A1-30S-00101	90030000071	Brushless motor	1	
5	GB/T1096	42001000006	Flat key 5X5X14	1	
6	1115-200005-0B	90010000140	Helical tooth	1	
7	GB/T276-94	43001000119	Bearing61824-2RS	2	
8	ZD-NL-571-001	90010000141	Adjustment washer	1	
9	GB/T893.1	41304000038	Retainning ring150	1	
11	1115-200002-0B-X	90010000142	Straight tooth ring	1	
12	GB/T13871-92	90010000143	Seal ringΦ155XΦ172X10	1	
13	ZD-RY-504-001	90010000144	Gear box	1	
14	GB/T93	41300000005	Washer 8	5	
15	GB/T 70.1	41100000071	Screw M8X35	5	
16	1115-200003-0B	90010000145	Straight tooth	1	
17	GB/T1096	42001000009	Flat key 5X5X20	1	
18	1115-200004-0B	90010000146	Large tooth	1	
19	GB/T276	43001000035	Bearing61905-ZZ	1	
20	ZD-RY-505-001	90010000147	Gear box cover	1	
21	GB/T13871	44005000036	Seal ring TC16X28X7	1	
24	GB/T7940.1	44001000003	Grease cupM8X1	1	
25	GB/T119.1	41400000006	Pin 5X16	1	
26	GB/T1096	42001000059	Flat key 5X5X8	1	
27	ZD-HZDC-362-001	90010000148	Brake	1	
28	GB/T894.1	41305000007	Retainning ring15	1	
29	ZD-ZJNL-076-001	90010000149	Brake stopple	1	

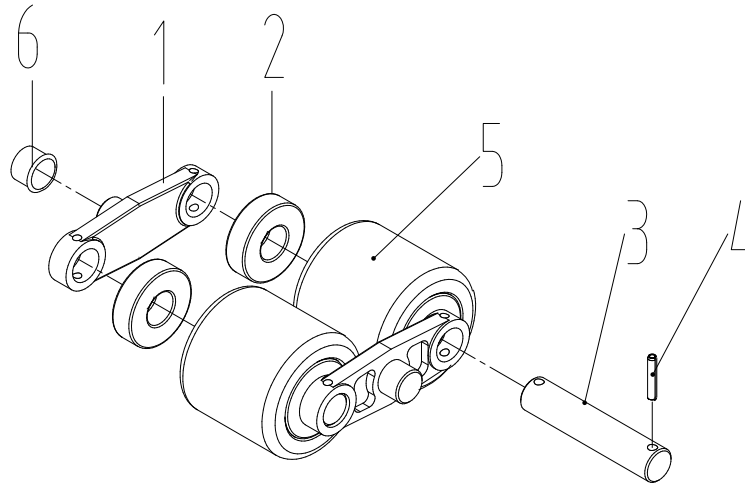
## Connecting Rod and Wheel Carriage Assembly



## Connecting Rod and Wheel Carriage Assembly

Item No	Drawing NO.	Part NO.	Name		Q'ty	Remarks
1	143.10.0000.10	21106000021	Joint		1	
2	GB/T6173	41203000008	Nut M22X1.5		1	
3	140.01.0101.11	31603000071	Connecting rod assembly	1150	1	
		31603000072	Connecting rod assembly	1220		
4	GB/T879	41402000019	Pin 5X28		1	
5	001.01.0160.09	21702000022	Pin		1	
6	Q/NRY031	43100000019	Bearing SF-1-16.20		1	
7	Q/NRY031	43100000035	Bearing SF-1-20.25		1	
8	012.07.0000.25	21306000036	Wheel carriage		1	
9	GB/T879	41402000022	Pin 5X32	With single wheel	2	
10	GB/T276	43001000025	Bearing 6204-2RS	With single wheel	2	
11	020.21.0080.05	21312000162	Wheel	With single wheel	1	
12	001.01.0200.27	21702000059	Pin	With single wheel	1	
13	010.01.2080.08	NULL	Double wheel assembly	With double fork wheel(Red PU wheel)	1	

## Double Wheel Assembly



Item No	Drawing NO.	Part NO.	Name		Q'ty	Remarks
1	012.01.0000.02	21221000009	Support plate		2	
2	GB/T276	43001000028	Bearing 6204-Z		4	
3	001.01.0200.15	21702000049	Pin		2	
4	GB/T879	41402000022	Pin 5X32		4	
5	020.21.0080.02	21312000152	Wheel		2	Red
6	Q/NRY031	43101000006	Bearing		2	



# Profession Makes Value