



**Operations & Maintenance Manual  
Full Powered Fork Over Stacker  
EB13CD**



## **Warning!**

The operator should strictly follow ISO 3691:1980 *Safety Specification for Industrial Vehicles* and it is prohibited for untrained people to operate the truck.

**We hope that our electric stacker will bring you more convenience!**

Before operating the stacker, please read and understand this manual carefully to know how to use and maintain the stacker safely.

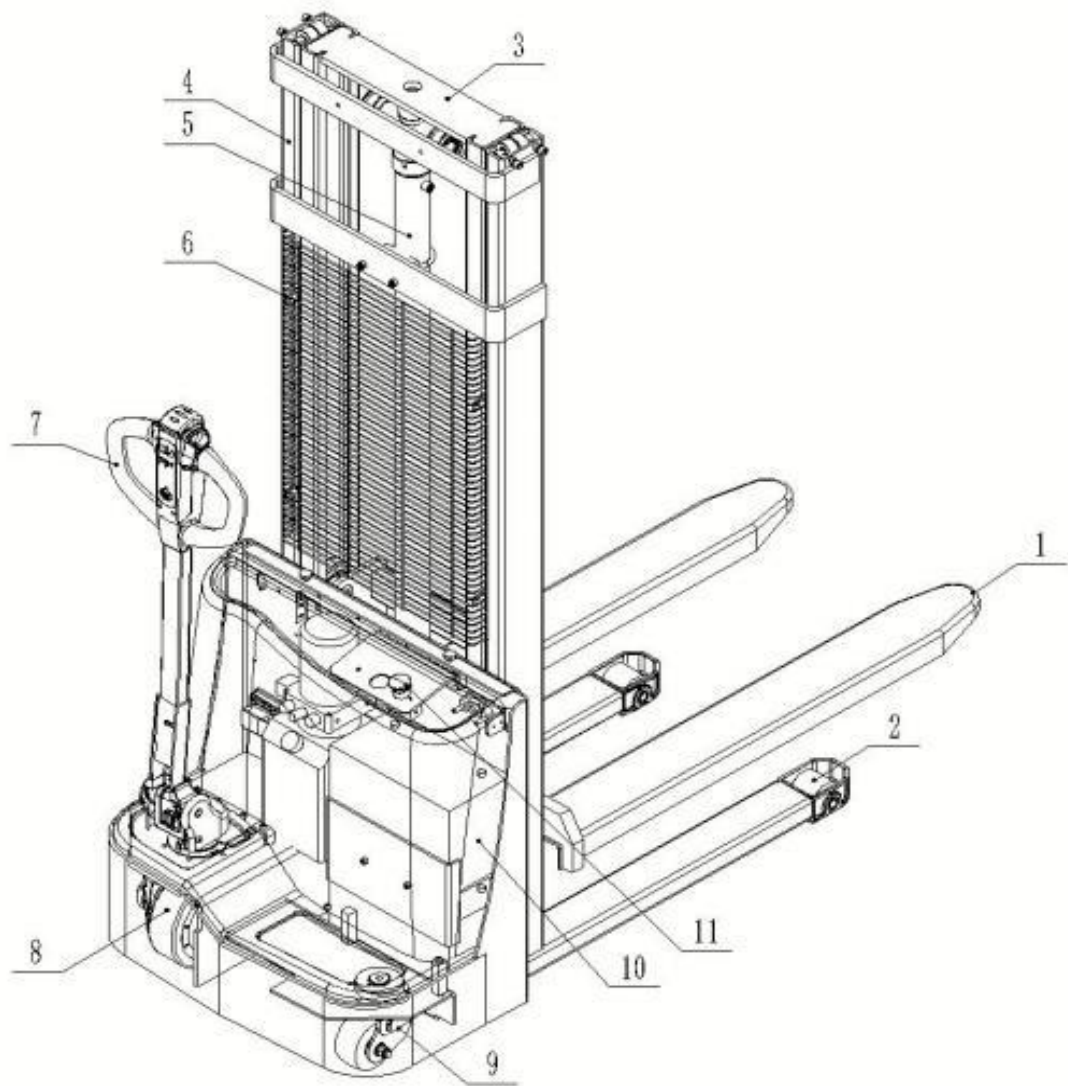
Please store/keep this manual for future use. If this manual or warning label is damaged or lost, contact your local dealer for a replacement.

Electric stacker, with advanced performance, comfortable operation, safe and reliable, low use, and maintenance cost, it is the ideal equipment for warehouses, workshops loading and unloading.

Our product design will be consistently updated and improved, and the content of this manual may differ from your stacker truck.

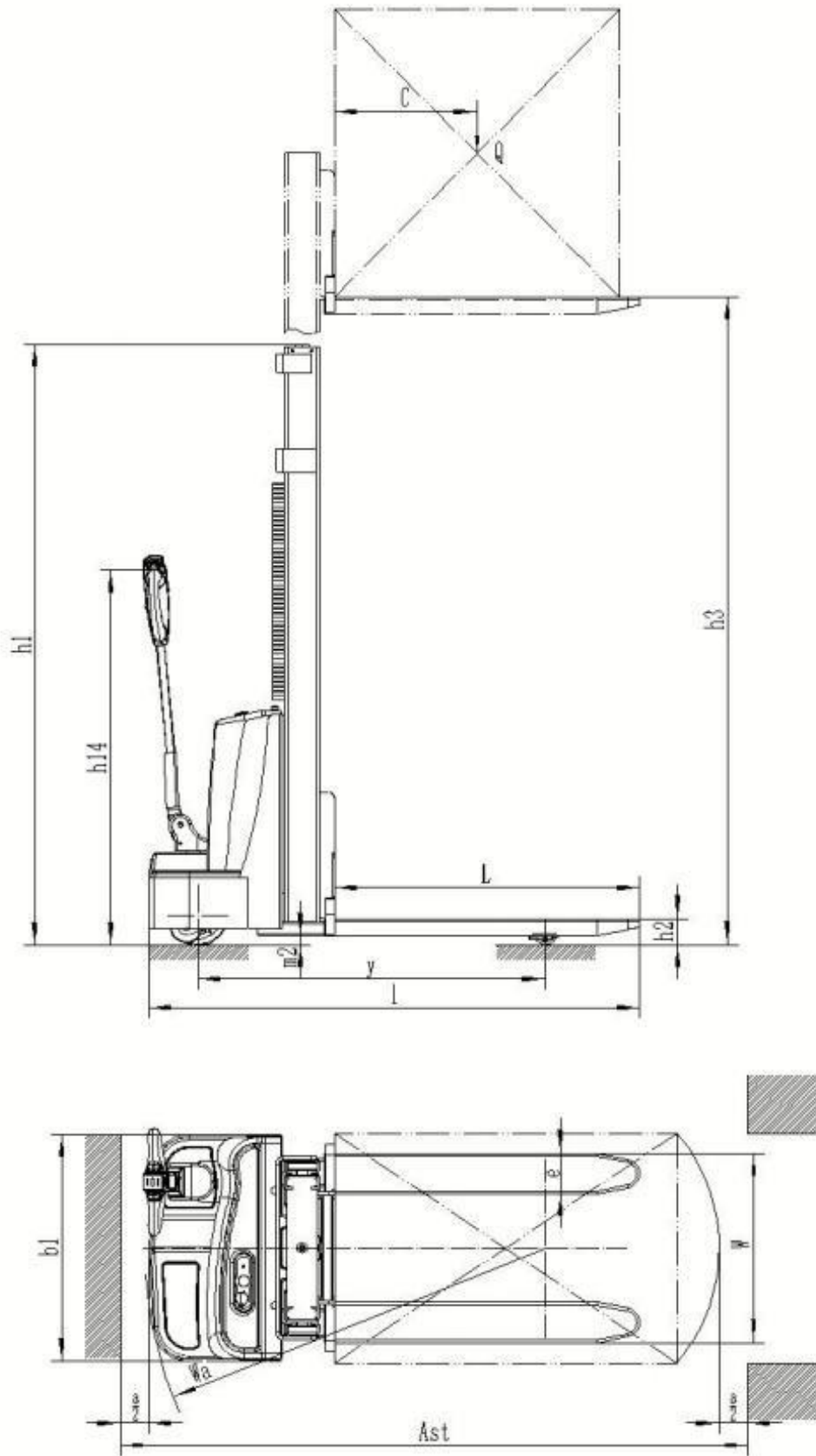
If you have any questions, please contact EKKO.

# 1、MAIN PARTS



Item no.	Description	Item no.	Description
1	Fork	7	Handle
2	Loading wheel	8	Drive wheel
3	Inner mast	9	Balance wheel
4	Outer mast	10	Battery
5	Oil pump	11	Emergency button
6	Protect mesh		

## 2. Main technical parameters



1. 1	Model		EB13CD	
1. 2	Drive type		battery	
1. 3	Operation type		walkie	
1. 4	Rated capacity	Q (lbs. )	2800	
1. 5	Load center	c (in)	20	
2. 1	Service weight	lbs.	992	
3. 1	Wheels material		PU	
4. 1	Max. lift height	h3 (in)	118	
4. 2	Lowered mast height	h1 (in)	82. 2	
4. 3	Extended mast height	h4 (in)	139. 4	
4. 2	Lowered fork height	h13 (in)	3. 54	
4. 3	Overall length	l1 (in)	67. 7	
4. 4	Overall width	b1 (in)	31. 1	
4. 5	Fork size	S/e/l (in)	2. 36/5. 6/42. 1	
4. 6	Fork width	b5 (in)	21. 6/26	
4. 7	Ground clearance	m2 (in)	0. 98	
4. 8	Turning radius	Wa (in)	55. 3	
5. 1	Traveling speed, laden/unload	mph	2. 2/2. 5	
5. 2	Lifting speed, laden/unload	in/s	3. 34/4. 33	
5. 4	Max. gradient, laden/unload	%	3/10	
5. 5	Brake		Electromagnetic brake	
6. 1	Drive motor power	kW	0. 75	
6. 2	Lift motor power	kW	2. 2	
6. 3	Battery voltage/rated capacity	V/Ah	2×12/65	2×12/85
6. 4	Battery weight	kg	17. 5×2	23×2
7. 1	Noise level at the driver's ear meets DIN12053	dB(A)	<70	

Table 1

### **3. Application**

Walkie pallet stacker uses batteries as the power supply and the AC motor as the driver, traveling by gear transmission. As the traveling and lifting of the truck are electrically driven, it possesses the characteristics of energy saving, high efficiency, stable operation, easy operation, safe and reliable, low noise and no pollution, etc.

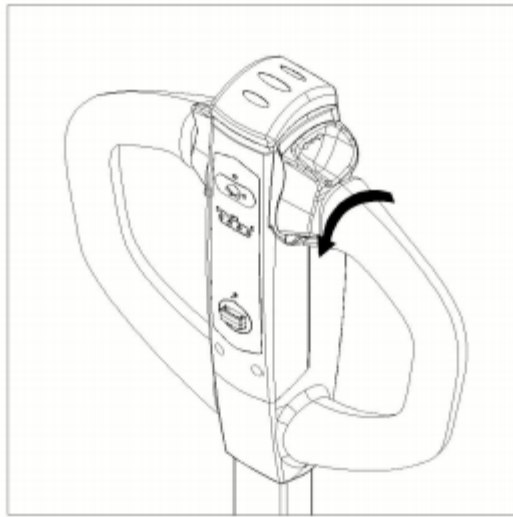
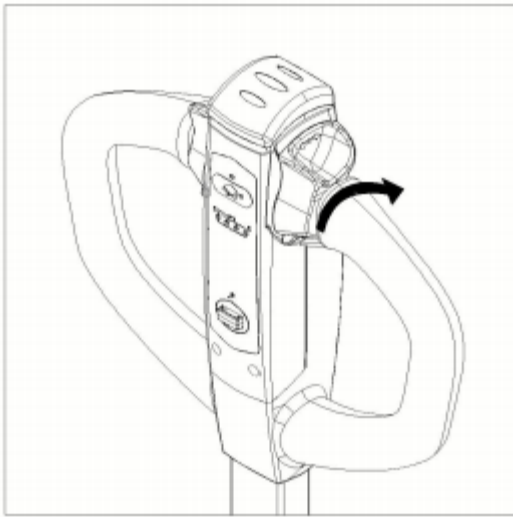
Operating environment:

- a. Walk-behind pallet stackers are best used indoors on hard, flat ground and are not suitable for use on slopes and on uneven ground. There should be no convex pits, gravel, etc. that would affect the rolling of the ground wheel.
- b. The altitude should be no more than 3,937 ft
- c. The ambient temperature should be no higher than +104°F and no lower than -77° F
- d. When the environmental temperature is + 104° F , relative humidity is not more than 50%, at lower temperature, the larger relative humidity is allowed
- e. It is prohibited to be used in corrosive environments such as flammable, explosive or acid-base environments.

### **4. Operation Instruction**

Correct use and operation of a forklift will bring great convenience to your work, while incorrect use of the vehicle can damage the vehicle and cause danger to the operator.

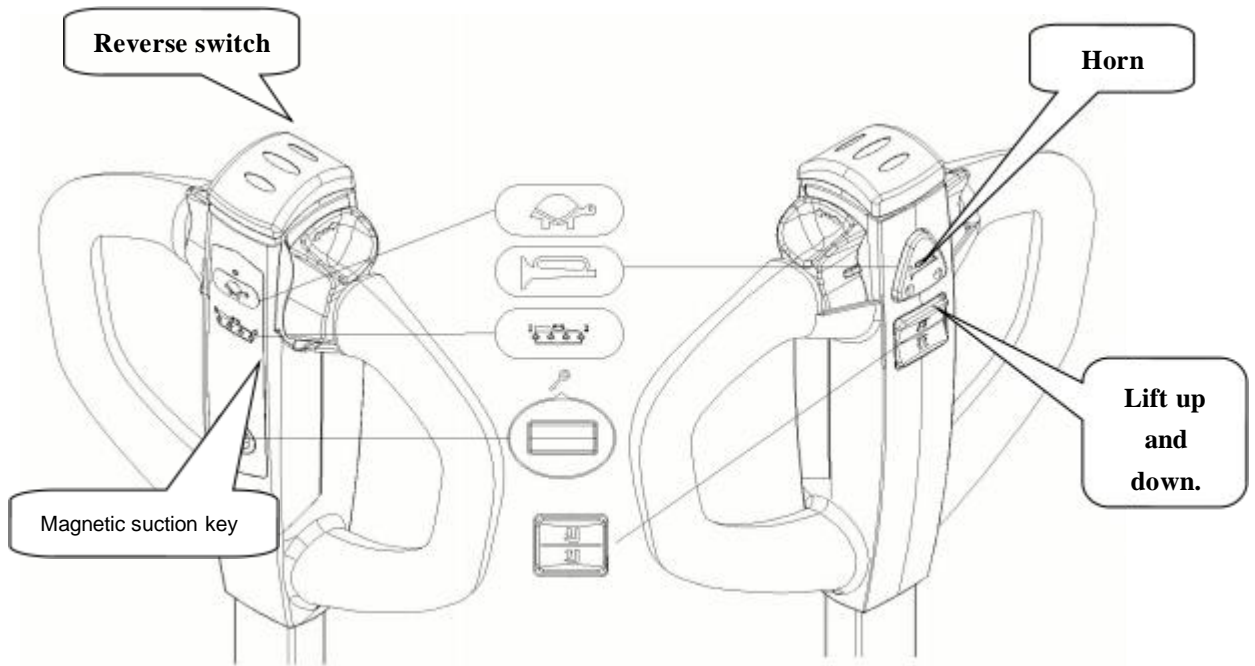
Before working, please check whether the vehicle is in good condition: whether the hydraulic lines are leaking, and whether the wheels are stuck. The use of defective trucks is prohibited.



**MOVE FORWARD**

**MOVE FORWARD**

- a. Push forward the speed button, the truck move forward. Speed and angle is proportional. Released the speed button, the truck speed will automatically slow to 0, and the truck will automatically stop.
- b. Push backward the speed button, the truck move reverse. Speed and angle is proportional. Released the speed button, the truck speed will automatically slow to 0, and the truck will automatically stop.



The red button at the top is the emergency reverse switch, When you touch this switch, the truck will be move in reverse.

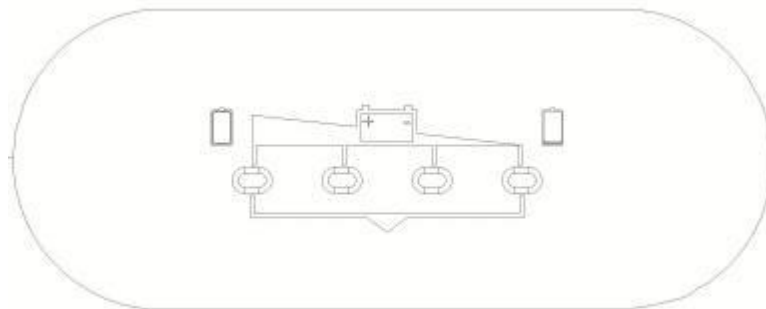
Up and down switch and horn button

The lift button is located on the right side above the rudder handle. Press this switch and the fork will move upward.

The drop button is located on the left side above the rudder handle. Press this switch to make the fork drop.

The horn button is located in the middle of the rudder handle. Press this switch to sound the horn.

Magnetic suction key: Put the magnetic suction key into the tiller hole, the car will be connected to the vehicle's main power supply. Remove the magnet key and cut off the



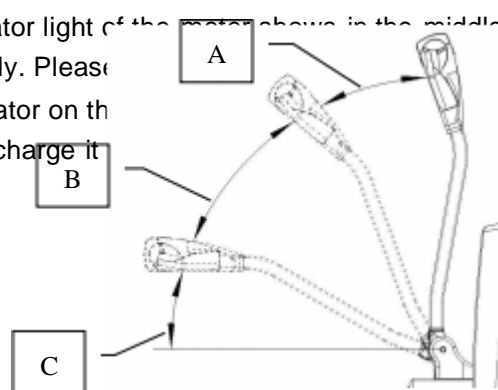
power supply

Indicator, only when the power switch and the magnetic key are opened, it will show the power storage condition, which is displayed by four indicator lights.

a If the indicator of the meter is displayed on the left, it indicates that the power supply is sufficient and can be used normally.

b When the indicator light of the meter shows in the middle, it means there is a small amount of power supply. Please

c, When the indicator on the meter shows on the right, it indicates that the power supply is insufficient. Please charge it



Drive and brake

When the handle is in area A and C, the automatic braking ensures.

Set the control handle to the travel range B, and the truck can move in forward or



backward.

## **5 Maintenance**

### **5.1 Operational safety and environmental protection**

- Any modification to the truck assemblies, in particular the safety mechanisms, is prohibited. The operational speeds of the truck must not be changed under any circumstances.
  
- Only original spare parts have been certified by our quality assurance department. To ensure safe and reliable operation of the fork lift, use only the manufacturer's spare parts. Used parts, oils and fuels must be disposed of in accordance with the relevant environmental protection regulations. For oil changes, contact the manufacturer's support department.

### **5.2 Maintenance Safety Regulations**

#### **Maintenance personnel**

Industrial trucks must only be serviced and maintained by the trained personnel. The manufacturer's service department has field technicians specially trained for these tasks. We therefore recommend a maintenance contract with the manufacturer's local service center.

#### **Electrical System**

Only suitably trained personnel may operate on the truck's electrical system. Before working on the electrical system, take all precautionary measures to avoid - electric shocks. For battery-operated trucks, also de-energize the truck by removing the key.

#### **Settings**

When repairing or replacing hydraulic, electric or electronic components or assemblies, always note the truck-specific settings.

#### **Tires**

The quality of tires affects the stability and performance of the truck. When replacing factory fitted tires only use original manufacturer's spare parts, as otherwise the data plate specifications will not be kept. When changing wheels and tires, ensure that the truck does not slew (e.g. when replacing wheels always left and right simultaneously).

### Lift chains

Lift chains wear rapidly if not lubricated.

The intervals stated in the service checklist apply to normal duty use. More demanding conditions (dust, temperature) require more regular lubrication.

The prescribed chain spray must be used in accordance with the instructions. Applying grease externally will not provide sufficient lubrication.

### Hydraulic hoses

The hoses must be replaced every six years. When replacing hydraulic components, also replace the hoses in the hydraulic system.

## 5.3 Servicing and inspection

Thorough and expert servicing is one of the most important requirements for the safe operation of the industrial truck. Failure to perform regular service can lead to truck failure and poses a potential hazard to personnel and equipment.

The service intervals stated are based on single shift operation under normal operating conditions. They must be reduced accordingly if the truck is to be used in conditions of extreme dust, temperature fluctuations or multiple shifts.

## 6. Battery Maintenance

### 6.1 Safety regulations for handling acid batteries

Park the truck securely before carrying out any work on the batteries.

Maintenance personnel: Batteries may only be charged, serviced or replaced by trained personnel. The present operator manual and the manufacturer's instructions concerning batteries and charging stations must be observed when carrying out the work.

#### Fire protection:

- Smoking and flames must be avoided when working with batteries.
- Wherever a truck is parked for charging there should be no inflammable material or operating fluids capable of creating sparks within 6 feet around the truck.
- The area must be well ventilated.
- Fire protection equipment must be provided.

#### Protection against electric shock:

- Battery has high voltage and energy.
- Do not bring short circuit.
- Do not get too close to the tool or you will damage the battery as this can create sparks.

## 6 Possible faults and trouble shooting

No.	Fault	Reason	Solution
1	Switch on the power, the power meter no display	The electrical box panel 10A fuse blown or damage of the power switch.	Replace fuse or power switch
2	Can not reach max. lift height	Lack of Hydraulic oil	Add hydraulic oil
3	Hydraulic pump station motor work with noise, pallet fork can not rise or fall.	Electromagnetic valve of the hydraulic pump with dirt jam or stuck.	Remove the valve core, clean with gasoline or kerosene.
4	After open the power switch, with display on power meter, but forks can not lift.	Ascension circuit 175A fuse blown or battery protection controller is damaged.	Replacing the fuse or battery protection controller. Such as broken again, should check whether the circuit is short circuit or device damage.
5	Oil leaking	Sealing / washer damage or failure, nipple joint is loose	Replace with the new seal and tighten joint

Table 2

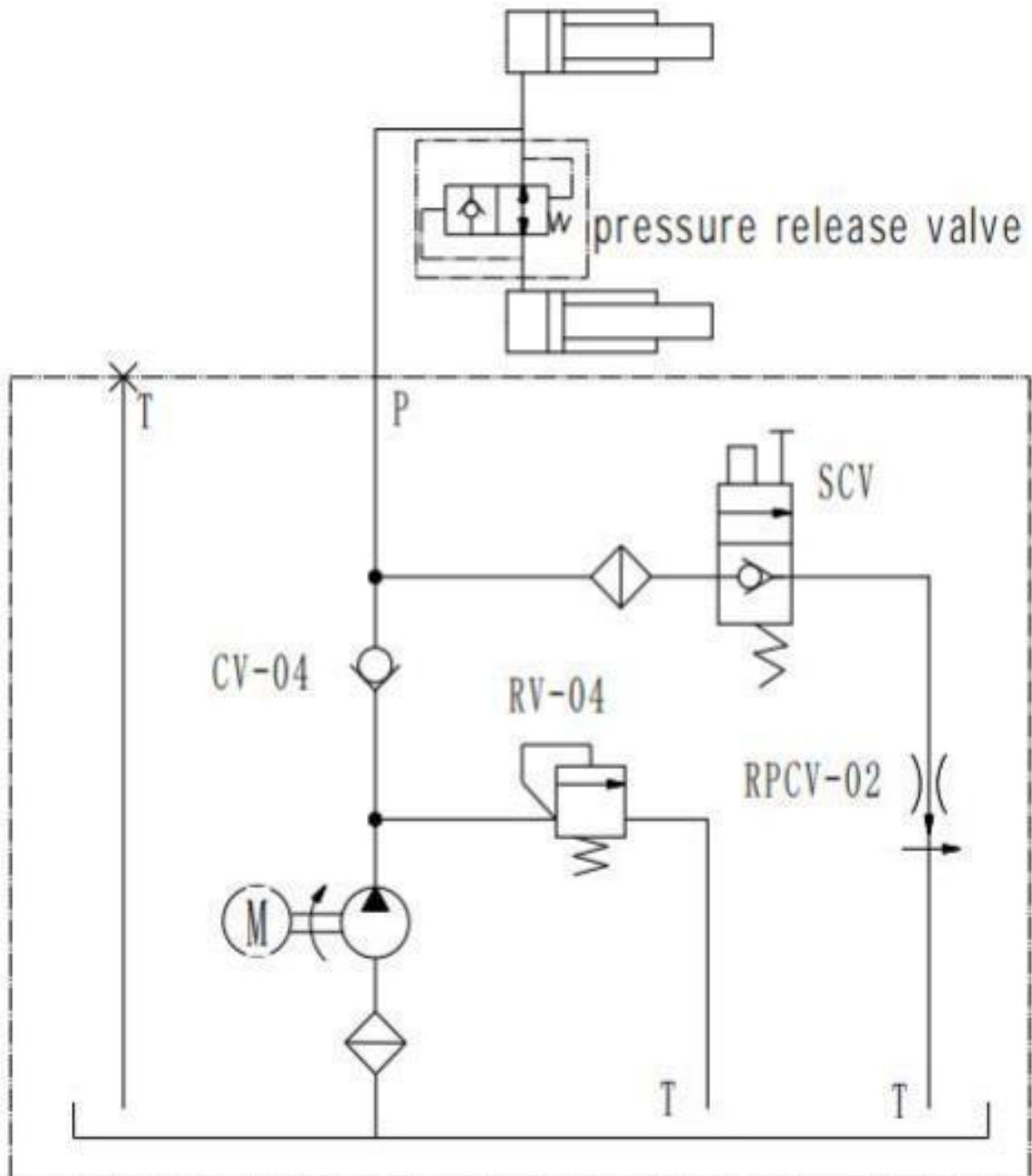
## 7 Packaging & transportation

It is strictly prohibited to turn or invert during transportation. Collision is strictly prohibited when lifting and loading the stacker. Do not damage the exterior of the stacker when opening the package

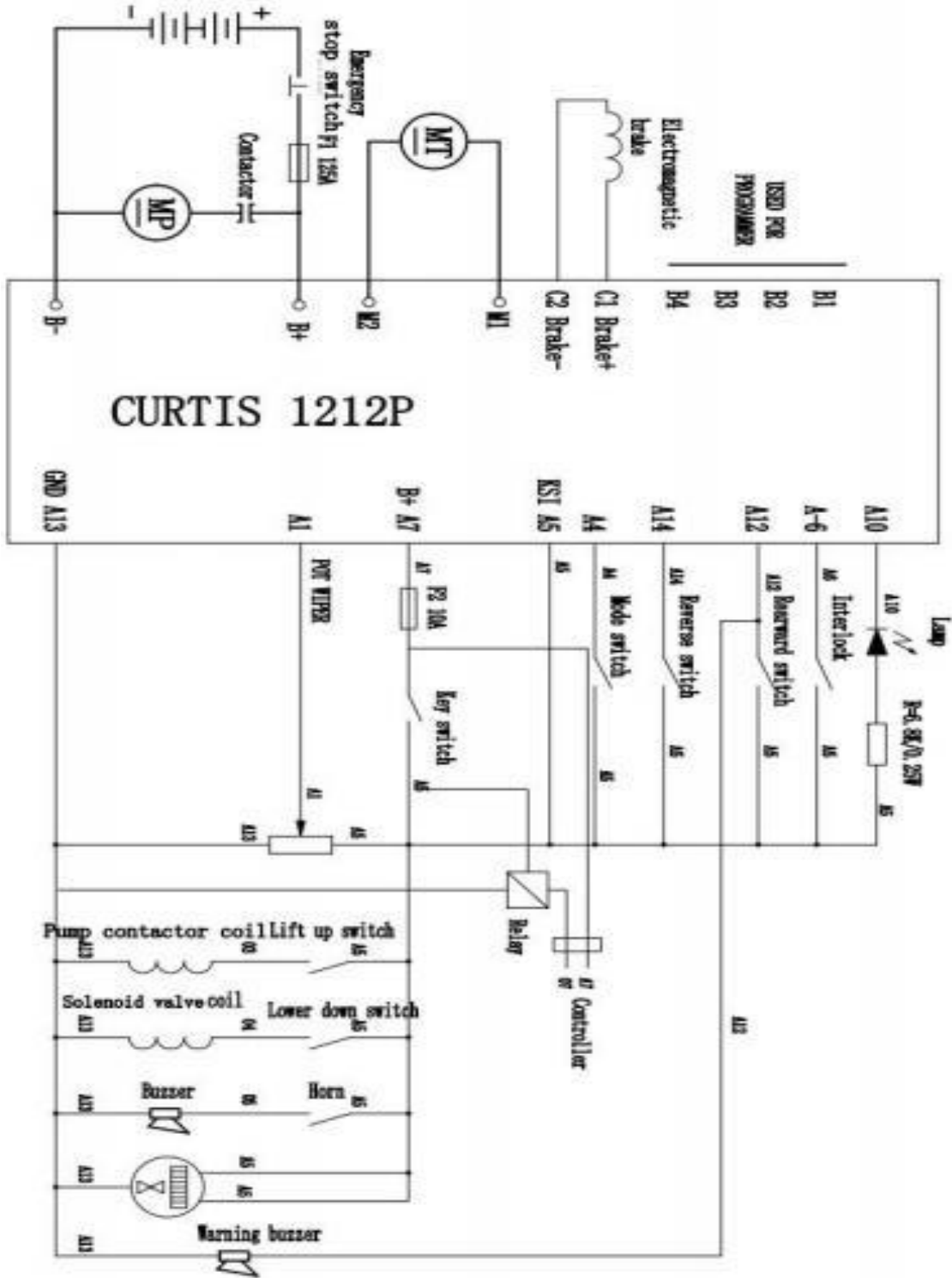
## 8 Warning (points for attention)

- 7.1 Read the manual carefully before operation and know well the performances of the truck.
- 7.2 It is strictly forbidden to press the lift or lower buttons while the truck is walking and frequently switching the two buttons, which might damage the truck and the goods.
- 7.3 Do not shake the lever rapidly or with high frequency.
- 7.4 It is not allowed to rapidly put heavy goods onto the forks.
- 7.5 The truck should not be overloaded. When overloaded, the truck will not be able to operate normally.
- 7.5 The center of gravity of the goods should be placed between the two forks, otherwise, the forks will be damaged and the goods will fall down in the process of operation.
- 7.6 Loose and unstable goods are not allowed to load onto the truck.
- 7.7 Do not store goods on the forks for a long period of time.
- 7.8 Turning rapidly on narrow road is strictly forbidden. In order to ensure the safety of the people and goods, the truck should turn slowly in this situation.
- 7.9 When the truck is not in use, the forks should be lowered to the lowest position.
- 7.10 Never put any part of your body under heavy goods and forks.
- 7.11 The truck is applicable for use on plane ground and should never be parked on a slope for a long period of time.
- 7.12 Overloading and over slope operations are strictly prohibited. Otherwise, the wheels will slip and damage the wheels and motor. The safety of people and cargo will also be affected.
- 7.13 Repairing on one's own before training is forbidden.
- 7.14 Operation of the truck under the stipulated voltage 20.4V is strictly forbidden.
- 7.15 It is strictly forbidden to directly connect the plug with AC power supply for charge except built-in charger.
- 7.16 All interconnecting devices should avoid water.
- 7.17 When the forks are lifted more than 19.6in, the truck must travel at the lowest speed, and travel can not exceed more than 6.5ft distance.

## 9. Hydraulic schematic diagram



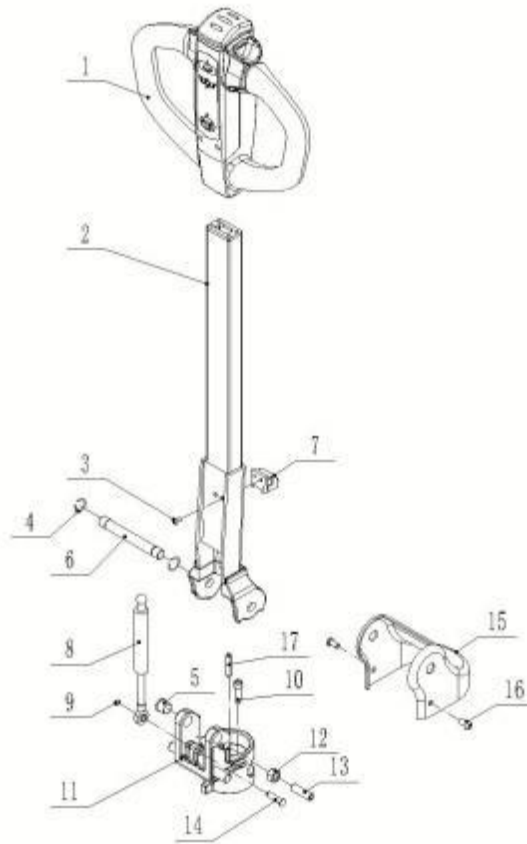
### 10. Electrical schematic diagram



**Parts Manual**  
**Full Powered Fork Over Stacker**  
**EB13CD**



## 1. Tiller system



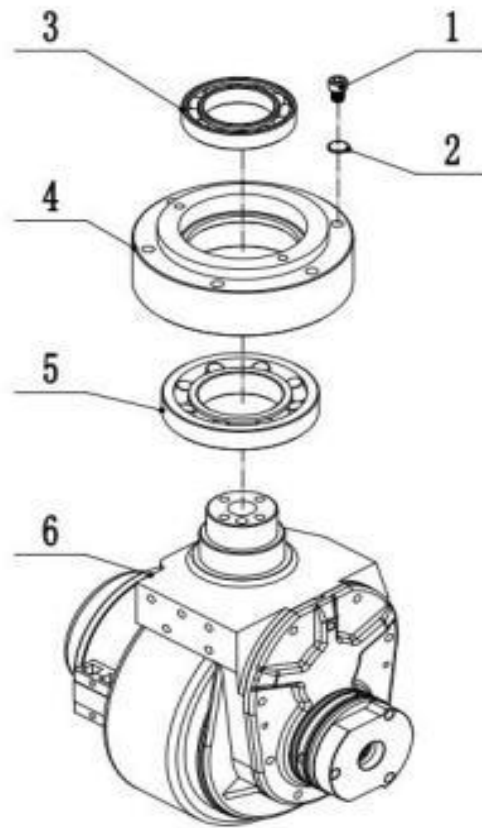
Drawing 1

Item	ERP No.	Drawing No.	Description	QTY	Note
1	11003000017	DQ131601006	Handle	1	
2	8B132009005	QBA15-1601200	Handle tube	1	
3	22101700019	GB70.2	Screw M6×12	2	
4	22600900003	GB894.1	Retainer 16	2	
5	2310050000001	SF-1-16170	Bushing	2	
6	72003000116	QDA12E-10004	Shaft	1	
7	8D086001001	QDA-01201	Support block	1	
8	72009010009	QBA15-1601001	Gas spring	1	
9	22600900011	GB894.1	Retainer 8	1	
10	22101600036	GB70.1	Screw M8×30	4	
11	7200600000135	QDA10EL-0300001	Steering seat	1	
12	22400300006	GB6170	Nut M12	1	
13	22102600012	GB77	Screw M12×40	1	
14	72003000301	SP150-03002	Shaft 8×35	1	
15	75000100025	QDA12E-53000	Down cover	1	
16	22101700008	GB70.2	Screw M8×16	2	
17	22800700022	GB879.1	Pin 8×40	1	

Chart 1-1



## 2. Drive wheel system

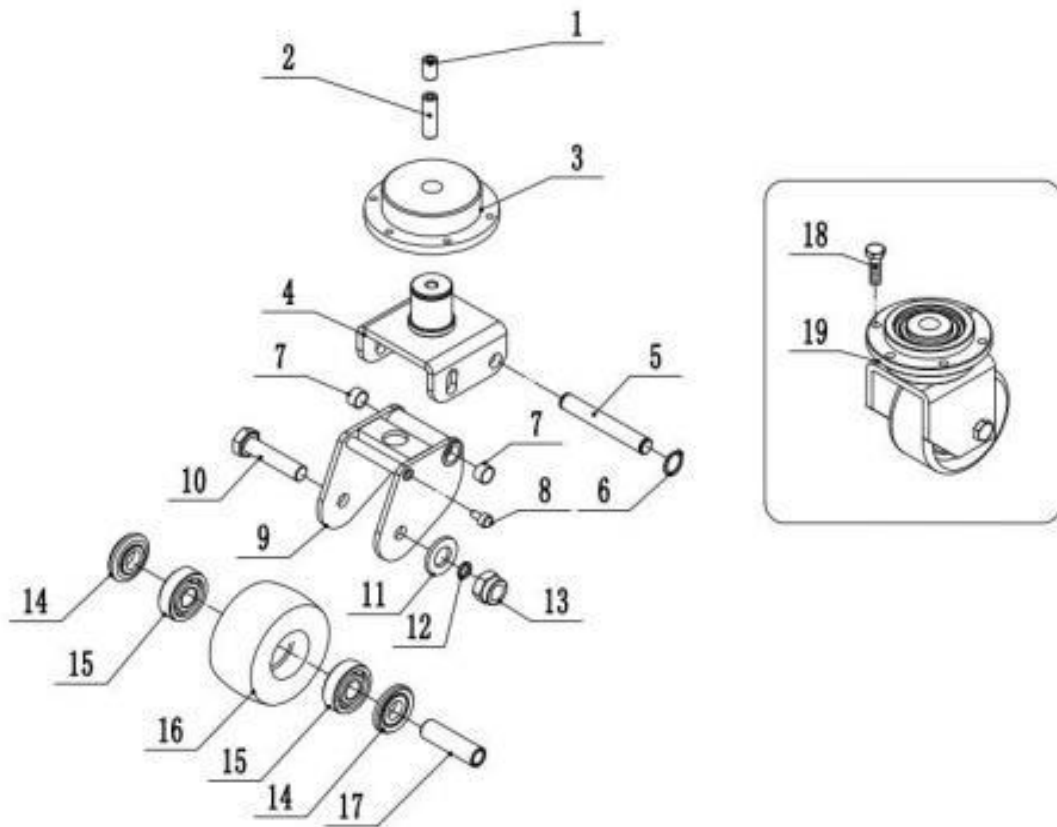


Drawing 2

Item	ERP No.	Drawing No.	Description	QTY	Note
1	22101600036	GB70.1	Screw M8×30	6	
2	22501200004	GB93	Washer 8	6	
3	23000100002	GB276	Bearing 6010	1	
4	72004000048	QDA12E-20003A	Bearing seat	1	
5	2300050000011	GB297	Bearing 32012	1	
6	71003000080	QBA15-02001	Drive wheel	1	

Chart 2-1

### 3. Balance wheel

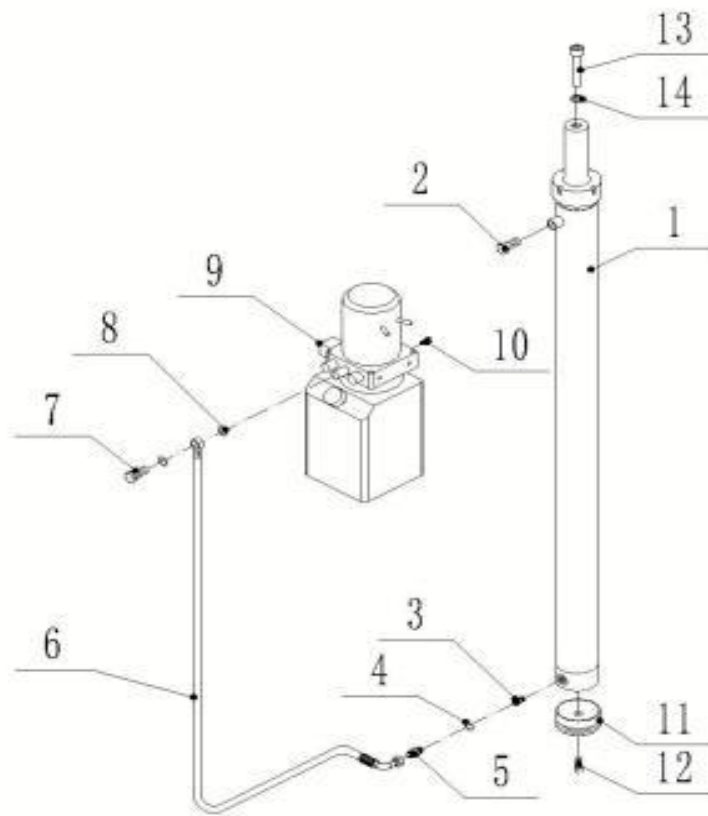


Drawing 3

Item	ERP No.	Drawing No.	Description	QTY	Note
1	22102600013	GB77	Screw M16×18	1	
2	22102600024	GB77	Screw M16×60	1	
3	23009900001	QBA20B-02083	Bearing	1	
4	8D057006001	QBA20B-02087	Wheel frame	1	
5	72003000128	QBA20B-02088	Shaft	1	
6	22600900010	GB894.1	Retainer 12	1	
7	23100100003	SF-1-1210	Bushing	2	
8	22101600024	GB70.1	Screw M6×10	2	
9	8D057005001	QBA20B-02086	Wheel frame	1	
10	22000300030	GB5782	Bolt M14×110	1	
11	22500100009	GB97.1	Washer 14	1	
12	22501200007	GB93	Washer 14	1	
13	22403000011	GB889.1	Nut M14	1	
14	75000300030	QBA20B-02091	Anti-dust washer	2	
15	23000100010	GB276	Bearing 6304	2	
16	7100300000103	QBA-04026	Caster	1	
17	7200400000412	QBA20B-02090	Liner tube	1	
18	22101600034	GB70.1	Screw M8×20	6	
19	8D19400100001	QDA10EL-1701000	Balance wheel assembly	1	

Chart 3-1

## 4. Hydraulic system

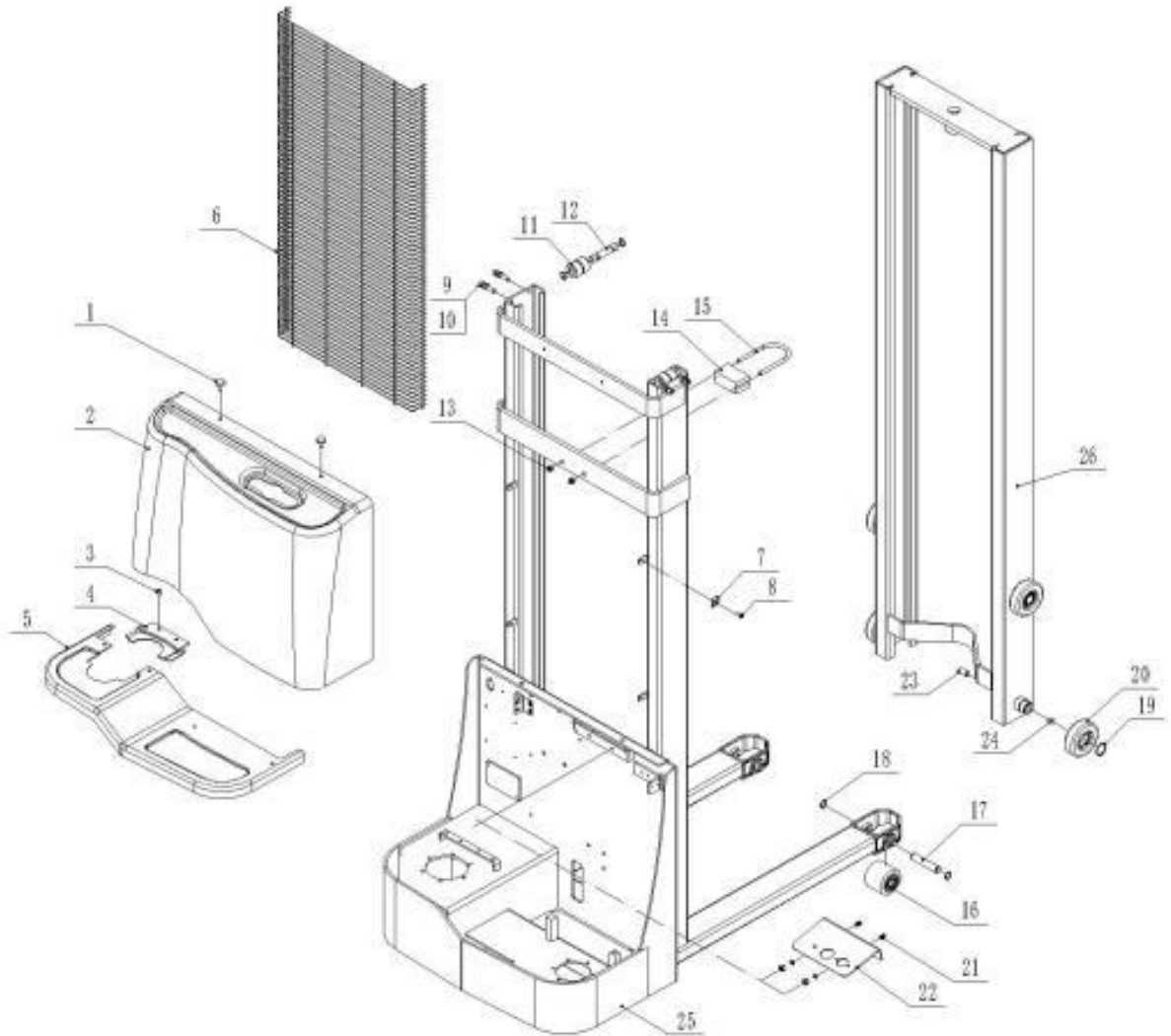


Drawing 4

Item	ERP No.	Drawing No.	Description	QTY	Note
1	73007000089	BDA-13016	1.6 M Cylinder	1	
	73007000091	BDA-13025	2.5 M Cylinder	1	
	73007000092	BDA-13030	3.0 M Cylinder	1	
	73007000094	BDA-13035	3.5 M Cylinder	1	
2	7300600000081	BDA-03033	Muffler M14×1.5	1	
3	73005000009	BDA-03023	Explosion-proof valve	1	
4	21001100002	JB982	Washer 14	1	
5	73006000044	BDA-03021	Connector	1	
6	73004000059	BDA-00026	High pressure oil tube	1	
7	73006000019	BDA-00020	Oil out joint	1	
8	21001100003	JB982	Washer 16	2	
9	73002000003	QDA12E-31000	Hydraulic station 24V/2.2KW	1	
10	22101600044	GB70.1	Screw M10×20	2	
11	72003000107	BDA-00018	Cushion block	1	
12	22101600045	GB70.1	Screw M10×25	1	
	22101600079	GB70.1	Screw M16×70	1	
	22501200008	GB93	Spring washer 16	1	

Chart 4-1

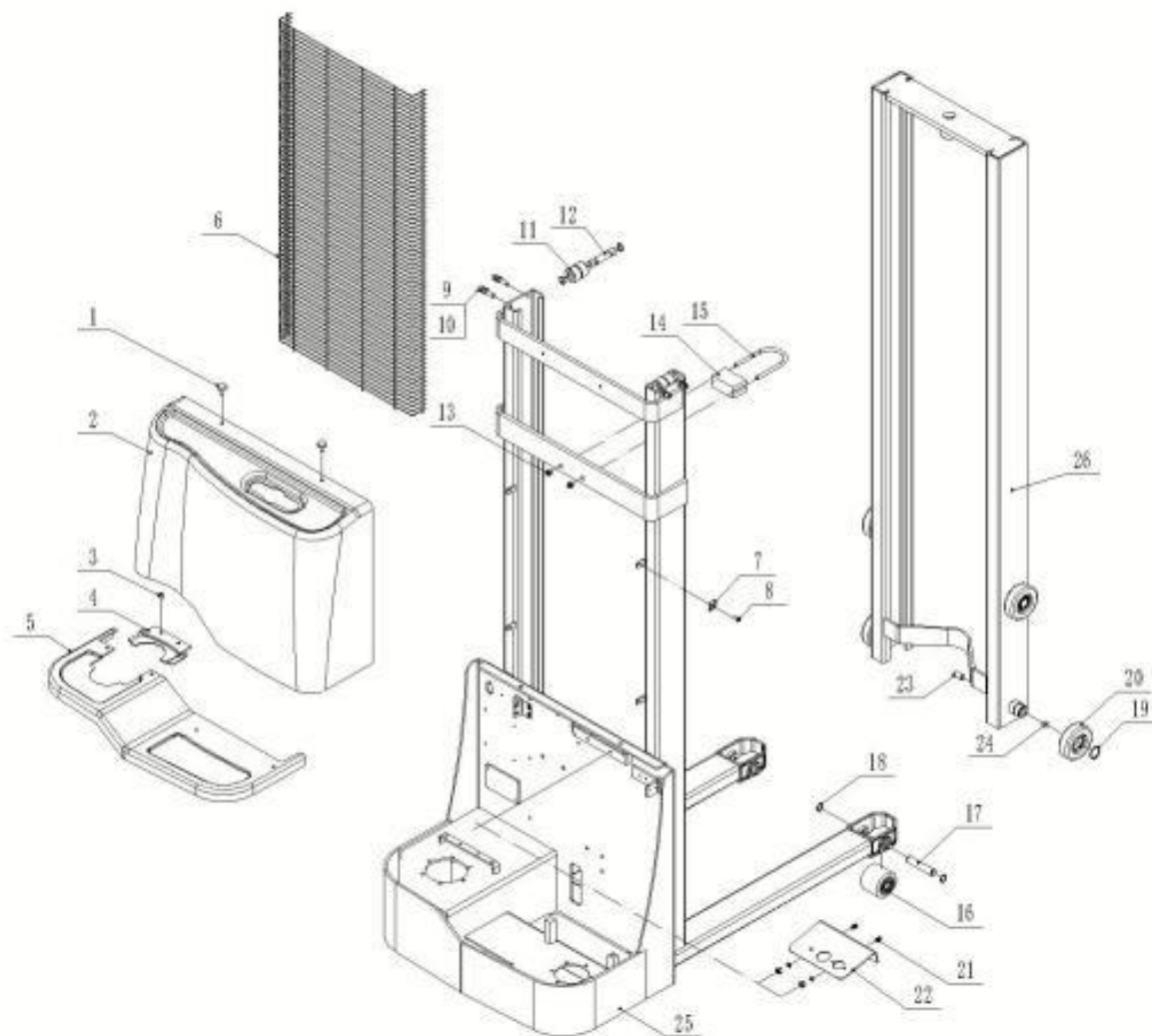
## 5. Double mast system



Drawing 5

Item	ERP No.	Drawing No.	Description	QTY	Note
1	72008000001	P15S0400002A	Screw M8×18	2	
2	75000400008	QDA12E-51000	Back cover	1	
3	75000400041	QDA12E-54000	Small down cover	1	
4	22101700007	GB70.2	Screw M8×12	5	
5	75000400009	QDA12E-52000	Down cover	1	
6	79000500022	BDA-00004-512	Mesh 2.5M	1	
	79000500009	BDA-00004-752	Mesh 3.0M	1	
	79000500024	BDA-00004-1008	Mesh 3.5M	1	
7	72002000191	BDA-00001	Fixed plate	6	
8	22101600087	GB70.1	Screw M6×16	6	
9	22101600048	GB70.1	Screw M10×50	4	
10	22400300005	GB6170	Nut M10	6	
11	71003000037	BDA-00030	Side roller	4	
12	72003000404	QDA15EM8200001	Shaft	2	

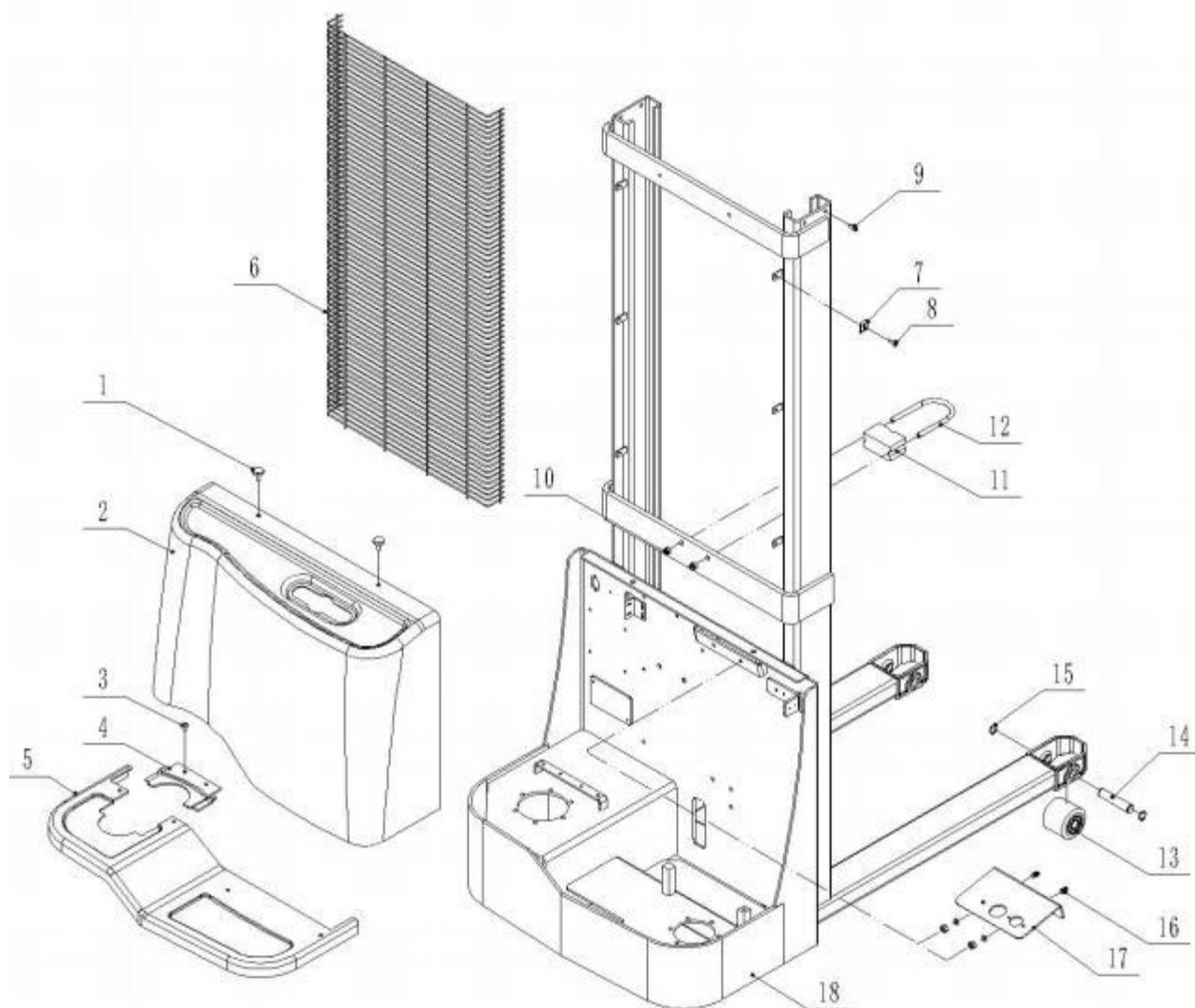
Chart 5-1



Item	ERP No.	Drawing No.	Description	QTY	Note
13	22403000008	GB889.1	Nut M10	4	
14	75000100024	BDA-00034B	Rubber pad	1	
15	72007000016	BDA-00003	Oil cylinder holding	1	
16	8D05100100007	QDA12E-00030	PU wheel with bearing 80×70	2	
17	72003000405	SDA-00001	Shaft	2	
18	22600900002	GB894.1	Retainer 20	4	
19	8D031011001	BDA-06010	Side roller 106	4	
20	22600900007	GB894.1	Retainer 35	4	
21	22101600043	GB70.1	Screw M10×16	2	
22	7200200000937	QDA10EL-0400002	Instrument desk	1	
23	22102600027	GB77	Screw M16×30	2	
24	23001800010	GB308	Steel ball Φ 19.05	2	
25	8D19200300006	QDA10EL-6425100	660 type 2.5M frame	1	
	8D19200300007	QDA10EL-6430100	660 type 3.0M frame	1	
	8D19200300002	QDA10EL-5425100	550 type 2.5M frame	1	
	8D19200300003	QDA10EL-5430100	550 type 3.0M frame	1	
26	8D032003015	BDA-06125	Inner mast 2.5M	1	
	8D032003016	BDA-06130	Inner mast 3.0M	1	

Chart 5-2

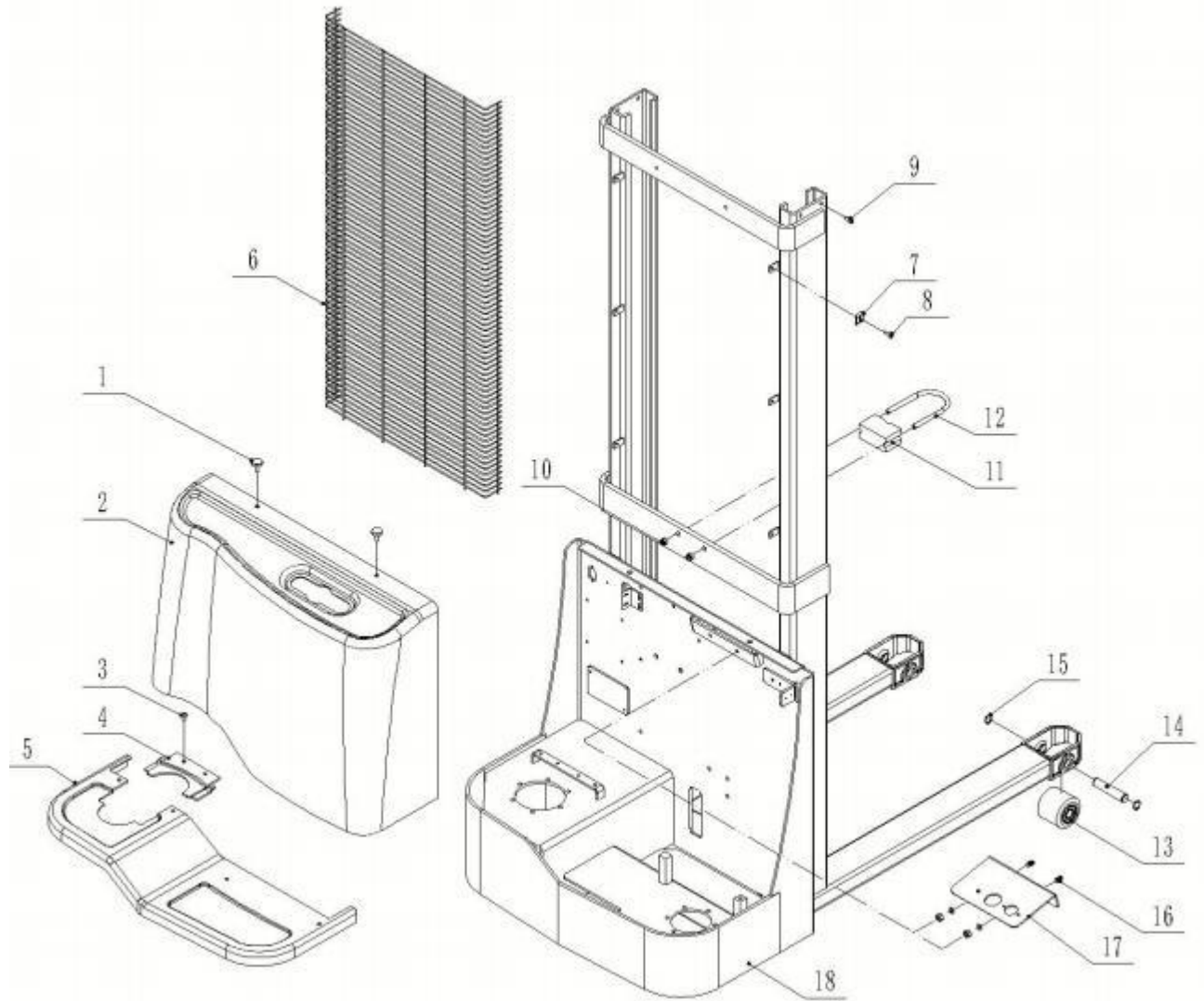
## 6. Single mast



Drawing 6

Item	ERP No.	Drawing No.	Description	QTY	Note
1	72008000001	P15S0400002A	Screw M8×18	2	
2	75000400008	QDA12E-51000	Back cover	1	
3	75000400041	QDA12E-54000	Small down cover	1	
4	22101700007	GB70.2	Screw M8×12	5	
5	75000400009	QDA12E-52000	Down cover	1	
6	79000500011	BDA-00004-928	Mesh 1.6M	1	
7	72002000191	BDA-00001	Fixed plate	6	
8	22101600087	GB70.1	Screw M6×16	6	
9	22101600115	GB70.1	Screw M10×30	4	
10	22403000008	GB889.1	Nut M10	2	

Chart 6-1



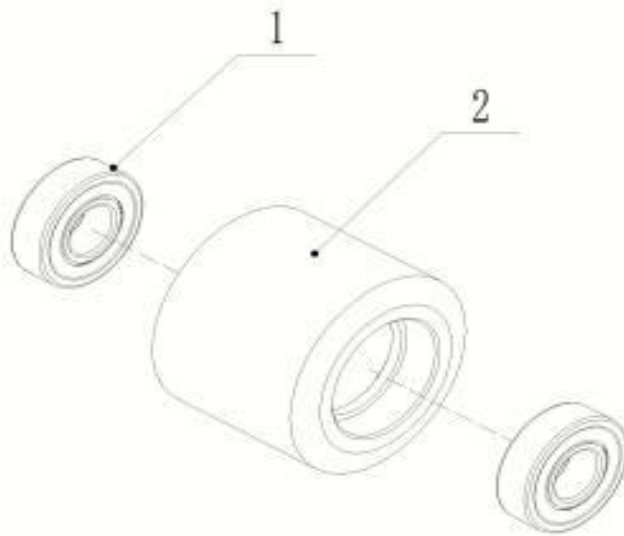
Item	ERP No.	Drawing No.	Description	QTY	Note
11	75000100024	BDA-00034B	Rubber pad	1	
12	72007000016	BDA-00003	Oil cylinder holding	1	
13	8D05100100007	QDA12E-00030	PU wheel 80×70	2	
14	72003000405	SDA-00001	Shaft	2	
15	22600900002	GB894. 1	Retainer 20	4	
16	22000400020	GB5783	Bolt M10×25	2	
17	7200200000937	QDA10EL-0400002	Instrument desk	1	
18	8D19200300012	QDA10EL-0416100	660 type 1.6M frame	1	
	8D19200300001	QDA10EL-5416100	550 type 1.6M frame	1	

Chart 6-2



## 7. Loading wheel assembly

Drawing 7

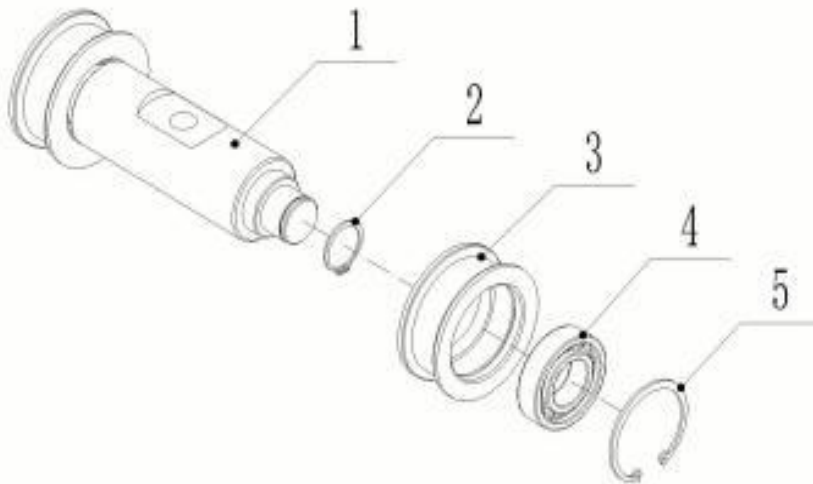


Item	ERP No.	Drawing No.	Description	QTY	Note
1	23000100001	GB276	Bearing 6204	1	
2	8D05100100008	QDA12E-00031	PU wheel $\Phi 80 \times 70$	1	

Chart 7-1

## 8. Wheel chain shaft

Drawing 8

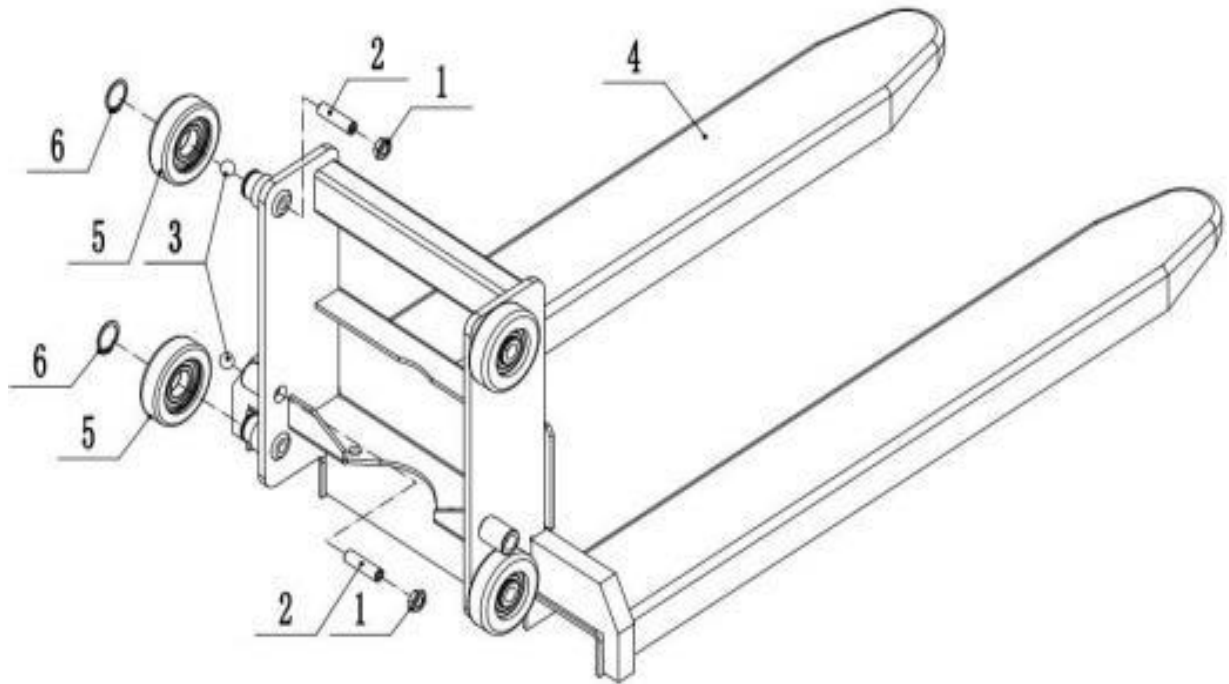


Item	ERP No.	Drawing No.	Description	QTY	Note
1	72003000108	BDA-03031	Wheel chain shaft	1	
2	71004100002	BDA-03032	Chain wheel	2	
3	22600900008	GB894.1	Retainer 30	2	
4	23000100006	GB276	Bearing 6206	2	
5	22600700019	GB894.1	Retainer 62	2	

Chart 8-1



## 9. Fixed fork

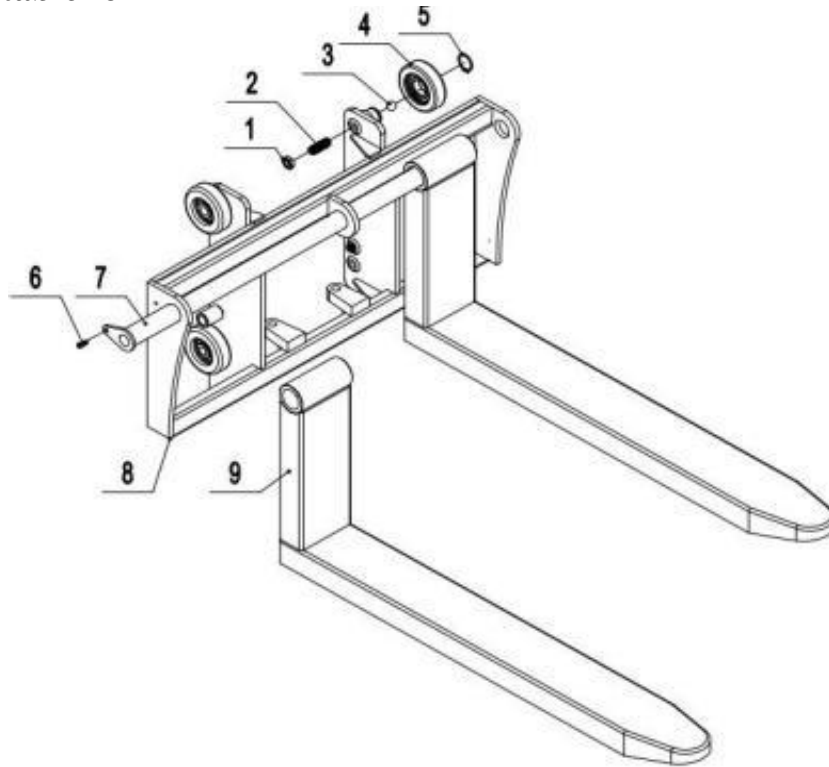


Drawing 9

Item	ERP No.	Drawing No.	Description	QTY	Note
1	22400700002	GB6172.1	Nut M10	4	
2	22102600014	GB77	Screw M16×50	4	
3	23001800010	GB308	Steel ball $\phi$ 19.05	4	
4	8D012007033	SDA-07410-1070	Single mast fixed fork 660×1070	1	
	8D012007034	SDA-07420-1070	Double mast fixed fork 660×1070	1	
	8D012007031	SDA-07430-1070	Single mast fixed fork 550×1070	1	
	8D012007032	SDA-07440-1070	Double mast fixed fork 550×1070	1	
5	8D031011001	BDA-06010	Side wheel 106	4	
6	22600900007	GB894.1	Retainer 35	4	

Chart 9-1

## 10. Adjustable fork

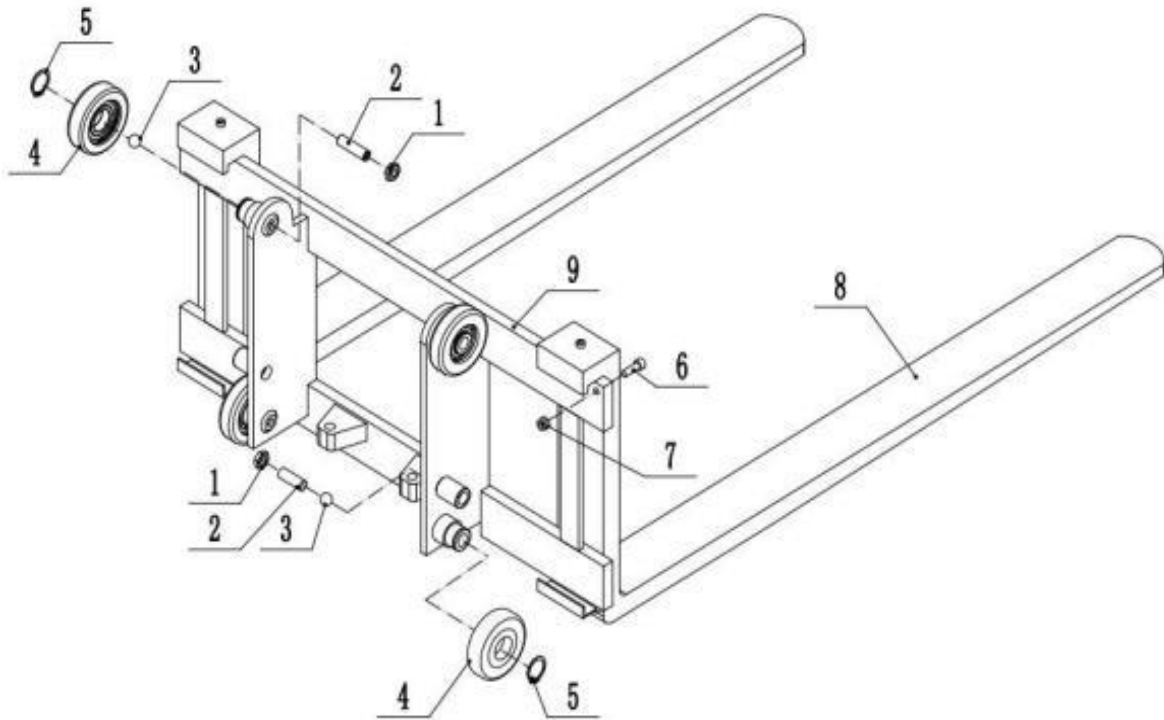


Drawing 10

Item	ERP No.	Drawing No.	Description	QTY	Note
1	22400700002	GB6172.1	Nut M10	4	
2	22102600014	GB77	Screw M16×50	4	
3	23001800010	GB308	Steel ball $\phi$ 19.05	4	
4	8D031011001	BDA-06010	Side wheel 106	4	
5	22600900007	GB894.1	Retainer 35	4	
6	22101600108	GB70.1	Screw M6×16	1	
7	8D032005007	BDA-00014-680	L long shaft	1	
	8D032005008	BDA-00014-850	L long shaft	1	
	8D032005009	BDA-00014-930	L long shaft	1	
8	8D032005001	BDA-07110-680	680 carrier (single mast)	1	
	8D032005002	BDA-07110-850	850 carriers (single mast)	1	
	8D032005003	BDA-07110-930	930 carrier (single mast)	1	
	8D032005004	BDA-07120-680	680 carrier (double mast)	1	
	8D032005005	BDA-07120-850	850 carriers (double mast)	1	
	8D032005006	BDA-07120-930	930 carrier (double mast)	1	
9	8D032006001	BDA-07210-900	Fork L=900	2	
	8D032006002	BDA-07210-1070	Fork L=1070	2	
	8D032006003	BDA-07210-1150	Fork L=1150	2	
	8D032006004	BDA-07210-1220	Fork L=1220	2	

Chart 10-1

## 11. Forged fork

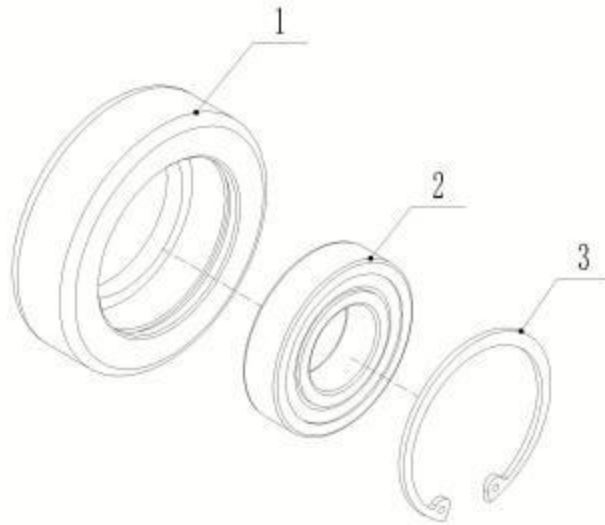


Drawing 11

Item	ERP No.	Drawing No.	Description	QTY	Note
1	22400700002	GB6172.1	Nut M10	4	
2	22102600014	GB77	Screw M16×50	4	
3	23001800010	GB308	Steel ball $\phi$ 19.05	4	
4	8D031011001	BDA-06010	Side wheel 106	4	
5	22600900007	GB894.1	Retainer 35	4	
6	22101600046	GB70.1	Screw M10×35	2	
7	22403000008	GB889.1	Nut M10	2	
8	8D012011001	SDA-07201	Forged fork 900	2	
	8D012011002	SDA-07202	Forged fork 1070	2	
	8D012011009	SDA-07203	Forged fork 1150	2	
	8D012011008	SDA-07204	Forged fork 1220	2	
9	8D012005006	SDA-07130	Carrier (single mast)	1	
	8D012005007	SDA-07140	Carrier (double mast)	1	
	8D05200000027	QDA12E-07110	Carrier (double mast)	1	
	8D05200000026	QDA12E-07120	Carrier (single mast)	1	

Chart 11-1

## 12. Side wheel



Drawing 12

Item	ERP No.	Drawing No.	Description	QTY	Note
1	71004000004	BDA-06007	Side wheel	1	
2	23000100005	GB276	Bearing 6207	1	
3	22600700004	GB893.1	Retainer 72	1	

Chart 12-1

## 13. Chain

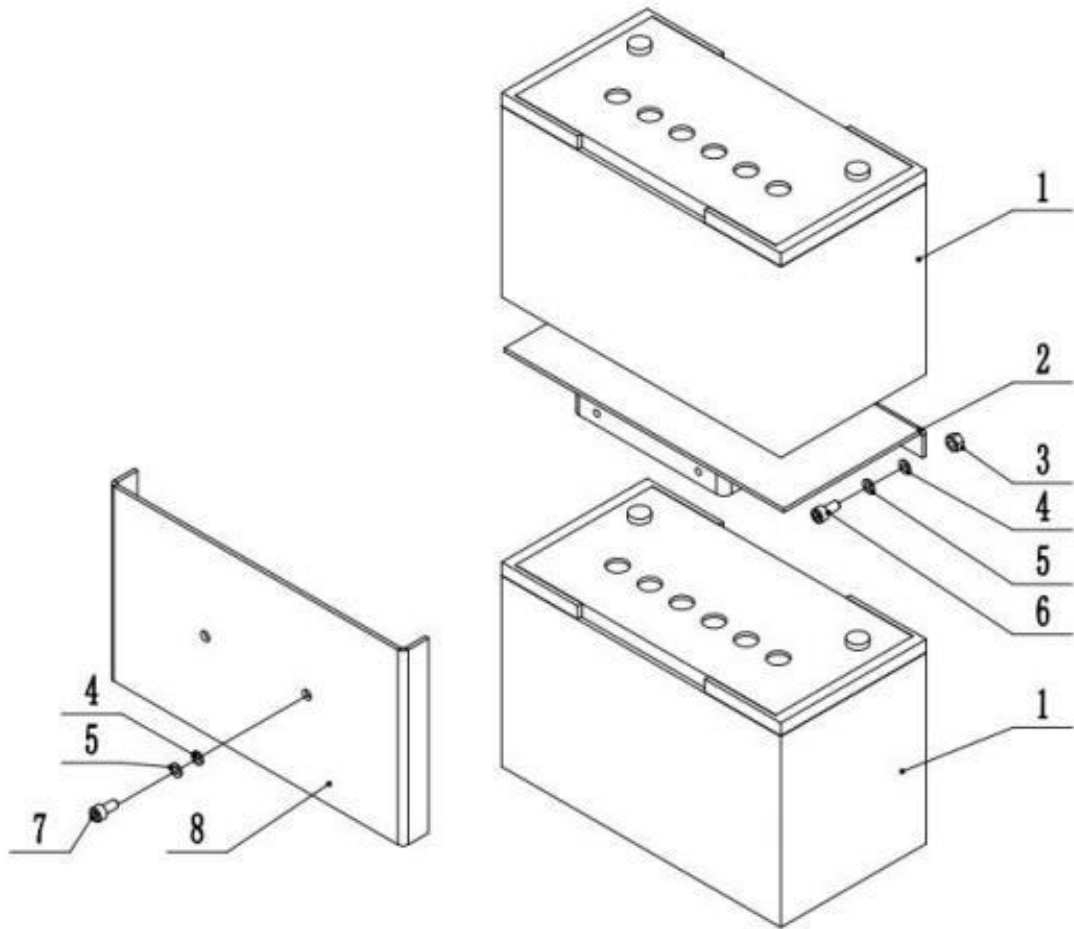


Drawing 13

Item	ERP No.	Description	QTY	Note
1	23200300022	2.5M chain LH0846 149 sections	2	Fixed fork
	7100420000040	2.5M chain LH0846 147 sections	2	Adjustable fork
	23200300023	3.0M chain LH0846 169 sections	2	Fixed fork
	23200300026	3.0M chain LH0846 167 sections	2	Adjustable fork
	23200300027	3.5M chain LH0846 189 sections	2	Fixed fork
	23200300022	2.5M chain LH0846 149 sections	2	Adjustable fork

Chart 13-1

## 14. ACID-Lead battery

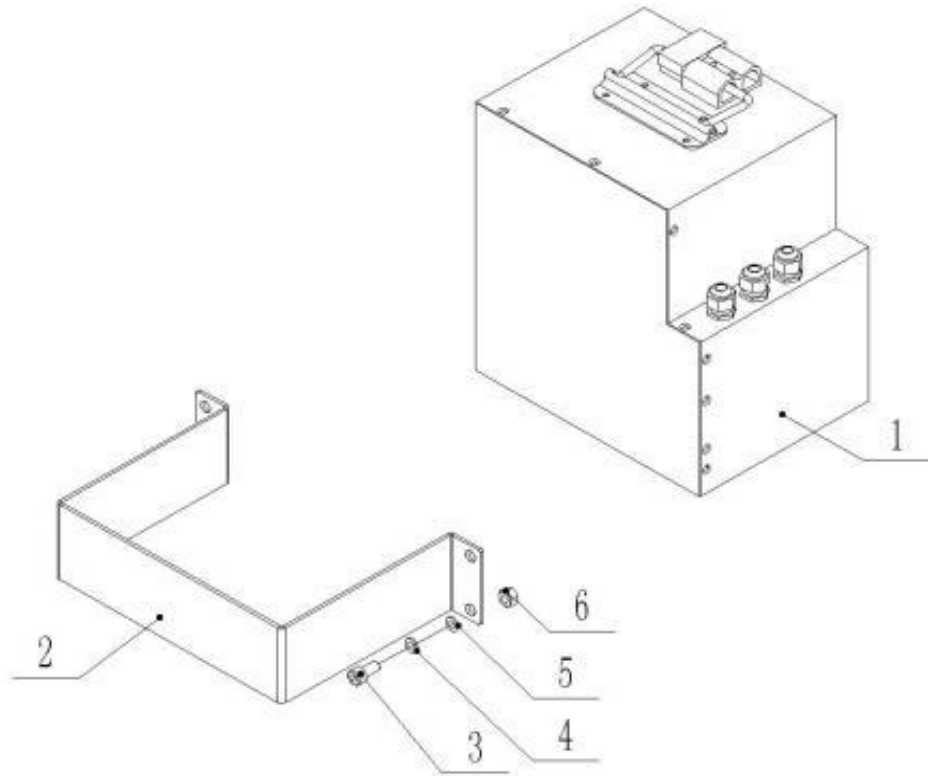


Drawing 14

Item	ERP No.	Drawing No.	Description	QTY	Note
1	11009000034	QDA15EM1380102	Battery 12V85Ah	2	
	110090000071	QDA10EL-1381000	Battery 12V65Ah	2	
2	8D057009001	QDA12E-00010A	85Ah battery seat	1	
	8D19200500001	QDA10EL-0400010	65Ah battery seat	1	
3	22400300003	GB6170	Nut M8	2	
4	22500100006	GB97.1	Washer 8	4	
5	22501200004	GB93	Spring washer 8	4	
6	22101600035	GB70.1	Screw M8×25	2	
7	22101600034	GB70.1	Screw M8×20	2	
8	8D05701000002	QDA12E-00003A	Battery cover	1	

Chart 13-1

## 15. Lithium battery

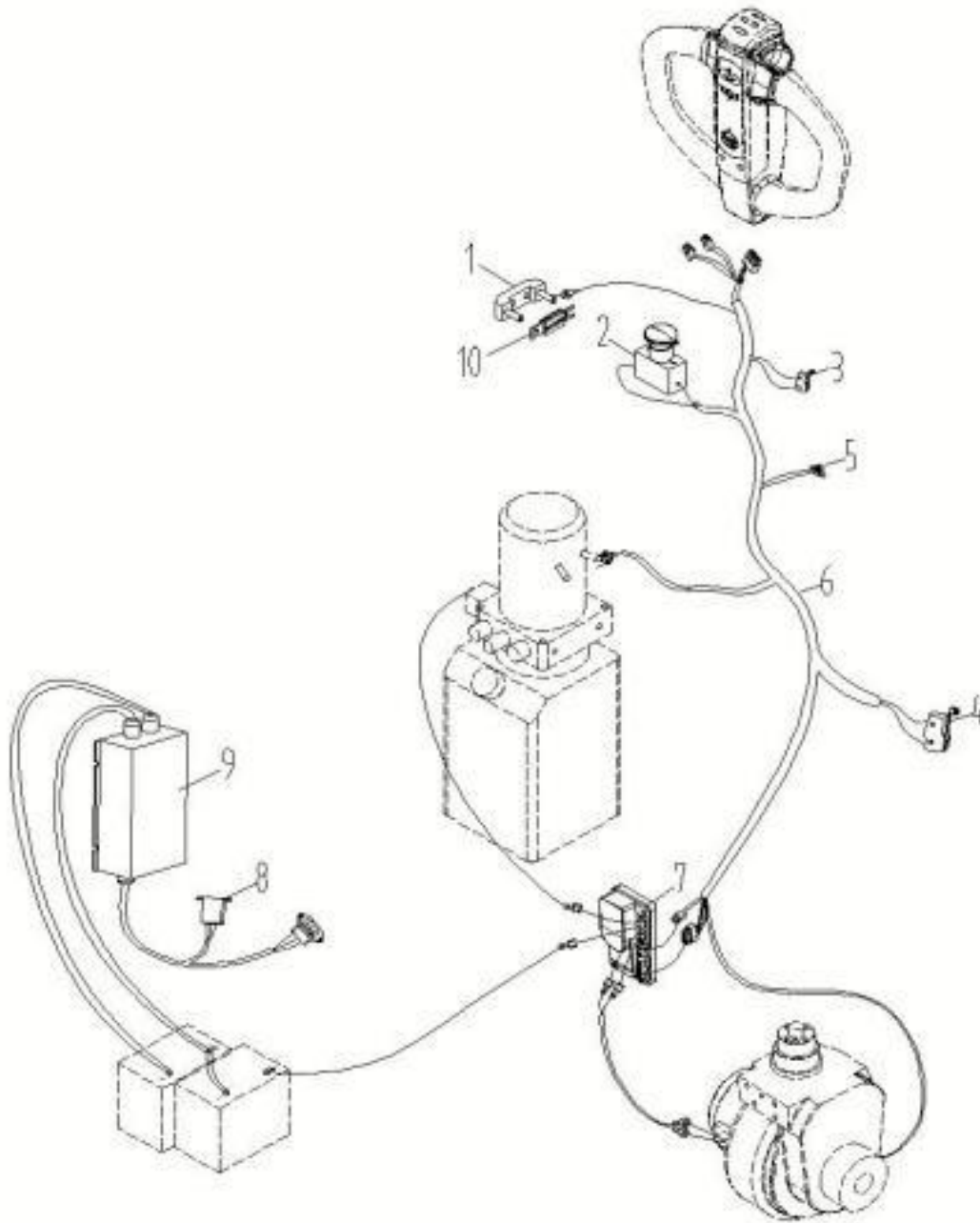


Drawing 15

Item	ERP No.	Drawing No.	Description	QTY	Note
1	8D174002003	QDA15EM1380200	Lithium battery 24V/50Ah	1	
2	7200200000976	QDA12E-00013	Battery fix plate	1	
3	22101600035	GB70.1	Screw M8×25	3	
4	22500100006	GB97.1	Washer 8	3	
5	22501200004	GB93	Spring washer 8	3	
6	22400300003	GB6170	Nut M8	3	

Chart 14-1

## 16. Electric System



Drawing 16

Item	ERP No.	Drawing No.	Description	QTY	Note
1	15000900012	QBA15-1350007	Fuse seat	1	
2	11006000038	BBM-1340003	Emergency button	1	
3	11006000022	QDA12E-1340002	Microswitch	1	
4	11006000021	QBA15-1340003	Microswitch	1	
5	15000900020		Fuse 10A	1	
6	1200000000147	QDA10EL-1321000	Wire	1	
7	11007000030	DQJ130201004	Controller	1	

8	15000600002	QBQ-08052	Relay	1	
9	1100910000049	QDA10EL-1351000	Built-in charger	1	
10	15000900011	QBA15-1350003	Fuse 100A	1	

Chart 15

Seal kit					
Item	ERP No.	Drawing No.	Description	QTY	Note
1	21000400043	AR2342E5	Dust ring 40×52×7/10	1	
2	21000400003	CF C2 40×50×6	U seal ring 40×50×6	1	
3	21000400044	C0 0640A	O seal ring d55.6×2.4	1	
4	75000300101	CG000301-004	Support ring 56×2.5×20	1	
5	75000300102	CG000301-005	Stop plate 56×45×3	1	
6	21000400001	FU2144L0	U seal ring 56×45×7	1	



Wearing parts					
Item	ERP No.	Drawing No.	Description	QTY	Note
1	11003000017	DQ131601006	Handle	1	Chart 1-1/1
2	2310050000001	SF-1-16170	Bushing	2	Chart 1-1/5
3	72009010009	QBA15-1601001	Gas spring	1	Chart 1-1/8
4	23000100002	GB276	Bearing 6010	1	Chart 2-1/3
5	2300050000011	GB297	Bearing 32012	1	Chart 2-1/5
6	23100100003	SF-1-1210	Bushing	2	Chart 3-1/7
7	7100300000103	QBA-04026	Caster	1	Chart 3-1/16
8	21001100002	JB982	Washer 14	3	Chart 4-1/2
9	73004000059	BDA-00026	High pressure oil tube	1	Chart 4-1/6
10	21001100003	JB982	Washer 16	2	Chart 4-1/8
11	8D05100100007	QDA12E-00030	PU wheel with bearing 80×70	2	Chart 5-2/16
12	8D031011001	BDA-06010	Side wheel 106	4	Chart 5-2/19
13	23000100001	GB276	Bearing 6204	1	Chart 7-1/1
14	8D05100100008	QDA12E-00031	PU wheel Φ80×70	1	Chart 7-1/2
15	23000100006	GB276	Bearing 6206	2	Chart 8-1/4
16	71004000004	BDA-06007	Side wheel	1	Chart 12-1/1
17	23000100005	GB276	Bearing 6207	1	Chart 12-1/2
18	23200300022		2.5M chain LH0846 149 sections	2	Chart 13-1/1
	7100420000040		2.5M chain LH0846 147 sections	2	Chart 13-1/1
	23200300023		3.0M chain LH0846 169 sections	2	Chart 13-1/1
	23200300026		3.0M chain LH0846 167 sections	2	Chart 13-1/1
	23200300027		3.5M chain LH0846 189 sections	2	Chart 13-1/1
	23200300022		2.5M chain LH0846 149 sections	2	Chart 13-1/1
19	11009000034	QDA15EM1380102	Battery 12V85Ah	1	Chart 14-1/1
20	1100900000071	QDA10EL-1381000	Battery 12V65Ah	1	
21	8D174002003	QDA15EM1380200	Lithium battery 24V/50Ah	1	Chart 15-1/1
22	11006000038	BBM-1340003	Emergency button	1	Chart 16-1/2
23	11006000022	QDA12E-1340002	Microswitch	1	Chart 16-1/3
24	11006000021	QBA15-1340003	Microswitch	1	Chart 16-1/4
25	15000900020		Fuse 10A	1	Chart 16-1/5
26	1100700000030	QBA15-1311000	Controller	1	Chart 16-1/7
27	15000600002	QBQ-08052	Relay	1	Chart 16-1/8
28	1100910000049	QDA10EL-1351000	Built-in charger	1	Chart 16-1/9
29	15000900011	QBA15-1350003	Fuse 100A	1	Chart 15-1/10

Chart 16-1