



FULL ELECTRIC PALLET STACKER OPERATION INSTRUCTIONS



Carefully read the instructions and obey all kinds of warning labels before operation.
Please confirm that the vehicle is safe without damage.

STATEMENT

Our company's model CDDYG series of vehicles, is only in "Special Equipment Safety" Specific areas such as factories, tourist attractions an playgrounds as stipulated in the Regulations on Supervision Special motor vehicles used in the field (factory).

WARNING:

Our warranty will turn invalid automatically if this operating manual is violated. And this is also applied to the illegally export products without the manufacturer's authorization. If the client or any other operates this stacker illegally without the permission of our Customer Service Department, our company will not take the responsibility for any loss.

NOTICE: For the need of further improvement to the product, the manufacture reserves the right of making changes to the design or specifications without notice.

CDDYG Full-electric pallet stacker Operational Instructions Catalog

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1.Safety Guidelines

You are welcome to use this series pallet stacker. For your safety and correct operation, please read this manual carefully until fully understanding how to operate this vehicle safely, and strictly follow the safety guidelines.

- 1.1 This stacker is mainly made of recyclable steels to ensure its environmental friendliness. Any waste produced during the process of operating, maintaining, cleaning or disassembling shall be recycled or treated according to local regularities and by professionals in the designated area. Any improper treatment to the waste of those such as cylinder, battery or electronics could pose a hazard to the environment or personnel.
- 1.2 This stacker is a ground mobile logistics equipment with vertical loading and stacking. Only the trained personnel are allowed to operate this stacker, who could demonstrate how to move and handle the goods and guide other users how to operate this stacker. Please read carefully this manual and pay attention to all the warning signs on the vehicle.
- 1.3 The drivers shall be aware of his rights and obligations, receive requisite trainings, and know well the contents of this manual. If using a walking-controlled pallet stacker, the driver shall wear the safety shoes.
- 1.4 Operate and maintain this stacker strictly according to this manual.
- 1.5 Only the trained personnel are allowed to operate this stacker, who know this manual well and observe the safety precautions.
- 1.6 The users shall ensure that this stacker is only used for the specified purposes and avoid any hazard to the safety of the user or any other person.
- 1.7 Working conditions: It is advisable to use this stacker on the flat, dry and clean cement or other hard ground. The operating temperature is from 5℃ to 40℃. Special protecting devices are needed if used below 5℃. Do not use in rainy outdoors.
- 1.8 The drive shall be in charge of this stacker while operating, and prevent any other unauthorized persons to drive or operate it.
- 1.9 If any damage or defect is found on the stacker, stop using it immediately and report to the supervisor in time. The stacker with faulty functions, such as worn wheels or brake dysfunction, is not allowed to use before a proper treatment.
- 1.10 Check and maintain the stacker according to the manual. Any unauthorized change to the spare parts, esp. the safety devices, is forbidden. Do not drive the stacker over the speed limit. For the sake of safety and reliability, use only the spare parts provided by the manufacturers and the replaced parts involving oil or fuel shall be treated according to the relevant environmental laws.
- 1.11 Hazardous area: The hazardous area refers to the area where the hazard may cause to the person while the stacker or its load lifting devices (e.g. fork or accessories) are operating or moving. Usually this area may extend to the one where the load or other vehicle parts descend. No person is allowed to stand on or under the fork. Other persons shall keep at least 1.0m away from the stacker while operating. Keep a safe distance from the vehicles ahead in case of a sudden stop.
- 1.12 High-risk area: Operate and maintain this stacker according to this manual. Any other unspecified usages may pose a hazard to the person, vehicle or other property. Avoid overloading or imbalanced loading. Most importantly, do not exceed the max load capacity. Pay attention to the load curve and maxim load capacity indicated on the nameplate.

- 1.13 Do not use this stacker in the area where the fire accident and explosion may happen or in the corrosive, rusty and dusty areas.
- 1.14 Do not drive it in public area. Use it only in safe areas in the factory.
- 1.15 Head room: Do not use the stacker when the head room is lower than the load or the frame.
- 1.16 Drive this stacker on the designated roadway. Other irrelevant persons shall leave the working area and the load stack on the designated area.
- 1.17 Operation management: adapt the speed to the road conditions. Slow down when passing the narrow passages, swing doors, or other blocked areas. The driver shall be able to figure out the enough braking distance between the stacker and the vehicle ahead, and meanwhile control his own vehicle. Sudden stop (except for emergency), sudden back turn, chasing ,or leaning out are all not allowed.
- 1.18 Stacking operation: When the stacker gets close to the rack, adjust the vehicle angle slowly to make the fork aim at the proper position. Keep the parallel distance between the front end of the fork and the rack within 200-300mm and then lift the goods to a proper height. Push in slowly until the pallet reach the right place and lower the fork slowly until the pallet rests steadily on the rack. Release the fork from the pallet and withdraw the fork slowly until the front end of the fork is 200-300mm away from the rack again. Lower the fork below the height of 300mm and then go on other operation.
- 1.19 Unstacking operation: Lower the fork below the height of 300mm and drive the stacker close to the rack. Adjust the vehicle angle slowly to make the fork aim at the proper position. Keep the parallel distance between the front end of the fork and the rack within 200-300mm and then adjust the fork to a proper height. Push the fork slowly and steadily into the pallet bottom without contact and the pallet's center of gravity locates within the load center. Lift the fork to detach the pallet from the rack. Watch the pallet and the surroundings. Keep the goods at least 100mm off from the rack and then withdraw the vehicle straight and slowly until the parallel distance between the front end of the fork and the rack is within 200-300mm. Lower the fork slowly below the height of 300mm and then drive the vehicle.
- 1.20 Visibility: the driver shall watch ahead and make sure the road condition is visible. If the goods block the view when the stacker is backing, there should be a second person walking in front of the stacker to give directions or warnings.
- 1.21 Pass the slope: Only pass the known slope which is clean and non-slip under the permission of the technical specifications. And the goods loaded on the fork should face downhill. It is not allowed to turn around in situ, drive obliquely or stop on the slope. Slow down while passing the slope in preparation of a sudden brake.
- 1.22 Ground load: Please check whether the pressure brought about by the weight of the vehicle and its load excess the capacity of the ground.
- 1.23 Transport: Except for moving the goods, always keep the fork below 300mm. It is better to drive in the reverse direction of the fork for a good view and flexibility. Driving with the fork forward may cause some unpredictable problems in flexibility.
- 1.24 Speed: Select the appropriate speed according to the road condition, visibility and the operating rules. Do not speed up, stop or turn in a sudden since it may cause an overturn of the goods or the vehicle.

- 1.25 Parking tips: Do not park on a slope. Turn off the power and take off the key when parking.
- 1.26 Disconnect the battery plug for a long time parking.
- 1.27 Charge the battery in ventilating area and keep off fire or other inflammable and explosive stuff.
- 1.28 Protective shoes: according to the Standard EN-345:1-S1, wear the protective shoes when operating on the stacker.
- 1.29 Load requirements: Only use this stacker with the pallet. Load the goods steady, neat and balanced on the pallet but not beyond it. Do not barely use the fork to move goods.
- 1.30 The equipment user mentioned in this manual refers to any natural or legal person who uses this stacker himself or appoints others to use it. Under some special circumstances such as for a lease, the equipment user shall sign a contract with other users as the owner party and bear the obligations to regulate the operation.
- 1.31 The equipment user shall guarantee that it is only used for specified purposes and avoid any potential hazard to the operator and other persons. Besides, the user shall strictly observe the accident prevention procedures, safety rules and operating and maintaining rules. Make sure that all operators read this manual carefully and understand fully.
- 1.32 Use this stacker according to the Specified Usages and Operating Norms for Ground Conveying Equipment (VDMA) in addition to the relevant laws of the user's host country. Using this stacker for any unspecified purpose is illegal and may cause loss to the person, the equipment or other properties.

2. Technical Manual

Our all-electric pallet stacker includes the following four models:

CDDYG-E series:

Handy-size, electric-lifting, electric moving, walking;

CDDYG-K series:

Handy-size, electric-lifting, electric moving, walking;

CDDYG-I series:

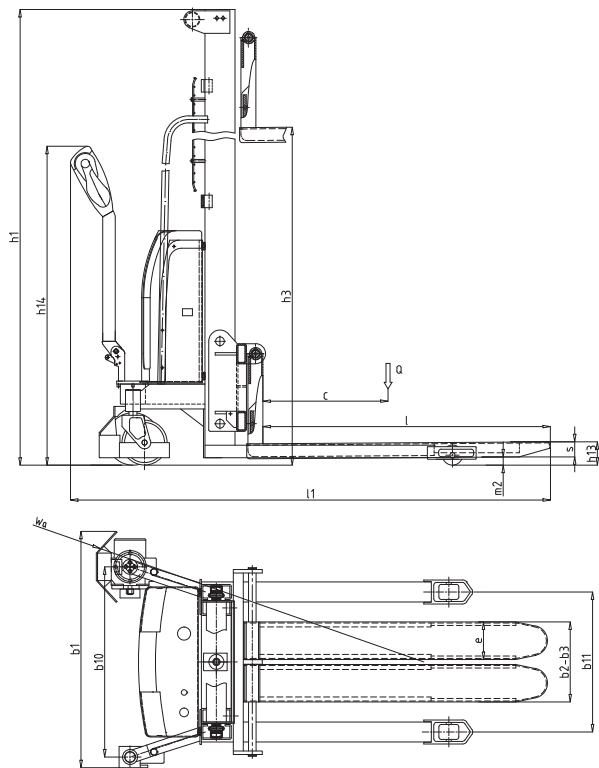
Standard-size, electric-lifting, electric moving, standing-drive;

CDDYG-II series:

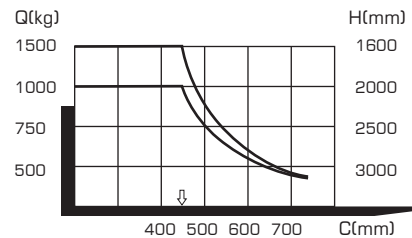
High-end, electric-lifting (multiple-valve lifting speed adjusting), electric moving, standing-drive, electronic turning, with pressure compensation and buffer devices.

2.1、CDDYG-E

2.1.1 Technical parameter chart



2.1.2 Load Curve



2.1.3 Technical parameter table

Base	Model		CDDYG-E 1016/1020/1025/1030	CDDYG-E 1516/1520/1525
	Capacity	Q(Kg)	1000	1500
	Load center	C(mm)	450	450
	Type of lifting		Electric	Electric
	Operating type		Walkie	Walkie
Wheel	Material		PU	PU
	Quantity of Wheel (Driving/Steering/Bearing)		1×+1/2	1×+1/4
	Bearing wheel size	mm	Φ80×60	Φ80×60
	Driving wheel size	mm	Φ210×70	Φ210×70
	Steering wheel size	mm	Φ180×50	Φ180×50
	Front wheel tread	b ₁₁ (mm)	560	560
	The rear wheel tread	b ₁₀ (mm)	760	760
Dimensions	Min.fork height	h ₁₃ (mm)	90	90
	Max.fork height	h ₃ (mm)	1600/2000/2500/3000	1600/2000/2500
	Fork outside width	b ₃ (mm)	710	710
	Fork inside width	b ₂ (mm)	320	320
	Single fork size	l/e/s(mm)	1150×150×60	1150×150×60
	Overall length	l ₁ (mm)	1920	1920
	Overall width	b ₁ (mm)	945	945
	Overall height	h ₁ (mm)	2140/1580/1830/2080	2180/1630/1880
	Min.turning radius	Wa(mm)	1475/1530	1520
Performance	Travel speed(laden/unladen)	km/h	3.5/4	3.5/4
	Lifting speed(laden/unladen)	mm/s	105/170	105/170
	Lowering speed(laden/unladen)	mm/s	180/170	180/170
	Gradeability(laden/unladen)	%	4/6	4/6
Electrol	Drive motor	Kw	24V0.65	24V0.65
	Lift motor	Kw	24V2.2	24V2.2
	Battery capacity	V/Ah	2×12/80	2×12/80
	Charger	V/Ah	24/12	24/12
Weight	Battery weight	Kg	2×18.2±0.5	2×18.2±0.5
	Net weight	Kg	360/420/425/455	390/425/460

* The company reserves the right to change product design and specifications without prior notice.

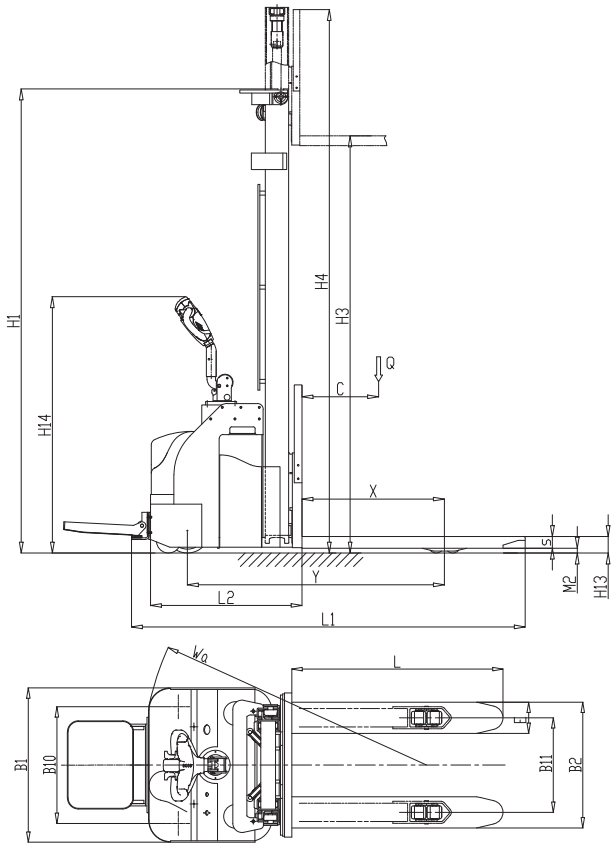
2.2.1 Technical parameter chart



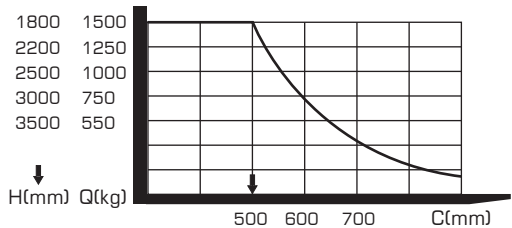
* The company reserves the right to change product design and specifications without prior notice.

2.3、CDDYG-I

2.3.1 Technical parameter chart



2.3.2 Load Curve



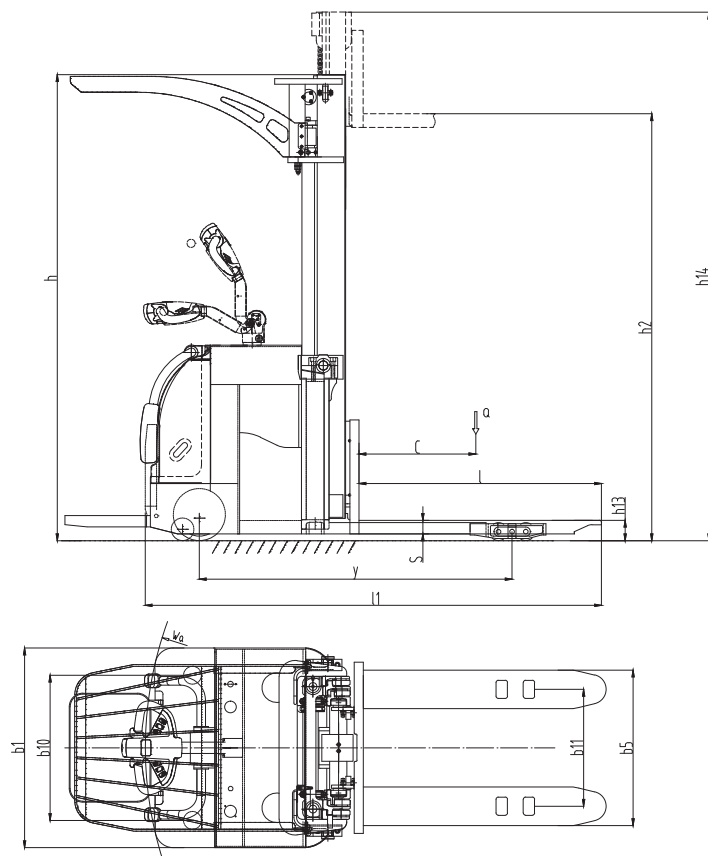
1. When $C \leq 500$ mm, the lifting height H corresponds to the load Q .
2. When $C \leq 500$ mm, the corresponding load Q decreases by 40% with each increase of 100 mm.

2.3.3 Technical parameter table

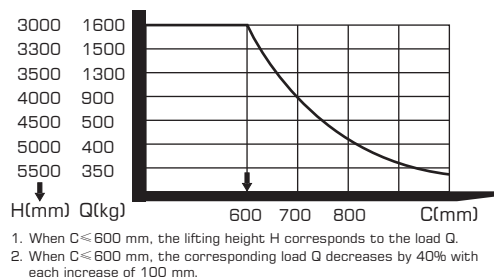
Base	Model		CDDYG-I 1525	CDDYG-I 1530	CDDYG-I 1535
	Capacity	Q(Kg)	1500	1500	1500
	Load center	C(mm)	500	500	500
	Type of lifting		Electric	Electric	Electric
	Operating type		Walkie/Stand	Walkie/Stand	Walkie/Stand
Wheel	Material		PU	PU	PU
	Wheel base	Y(mm)	1320	1320	1320
	Quantity of Driving/Balance/Bearing Wheel	mm	1×+2/4	1×+2/4	1×+2/4
	Bearing wheel size	mm	Φ80×70	Φ80×70	Φ80×70
	Driving wheel size	mm	Φ230×75	Φ230×75	Φ230×75
	Balance wheel size	mm	Φ125×60	Φ125×60	Φ125×60
Dimensions	Min.fork height	H ₁₃ (mm)	90	90	90
	Max.fork height	mm	2500	3000	3500
	Max.lifting height	mm	2480	2980	3480
	Fork outside width	B ₂ (mm)	685	685	685
	Fork inside width	B ₁₁ (mm)	345	345	345
	Fork length	L(mm)	1150	1150	1150
	Single fork size	E/S(mm)	170/60	170/60	170/60
	Overall length	L ₁ (mm)	2030	2030	2030
	Overall width	B ₁ (mm)	840	840	840
	Overall height	H ₁ (mm)	1890	2140	2390
	Handle vertical height (Min/Max)	H ₁₄ (mm)	885/1350	885/1350	885/1350
	Min.turning radius	Wa(mm)	1545	1545	1545
	Travel speed(laden/unladen)	km/h	4/6	4/6	4/6
Performance	Lifting speed(laden/unladen)	mm/s	(90-110)/(150-170)	(90-110)/(150-170)	(90-110)/(150-170)
	Lowering speed(laden/unladen)	mm/s	(100-200)/(85-95)	(100-200)/(85-95)	(100-200)/(85-95)
	Fast/slow adjustment function		Yes	Yes	Yes
	Electronic steering system		Selection	Selection	Selection
	Gradeability(laden/unladen)	%	4/6	4/6	4/6
Electrol	Driving mode		AC	AC	AC
	Drive motor	V/Kw	24/1.2	24/1.2	24/1.2
	Lift motor	V/Kw	24/2.2	24/2.2	24/2.2
	Battery capacity	V/Ah	24/170	24/170	24/170
	Charger		24V30A	24V30A	24V30A
Weight	Battery weight	Kg	155	155	155
	Net weight	Kg	840	840/880/900	840/880/900

* The company reserves the right to change product design and specifications without prior notice.

2.4.1 Technical parameter chart



2.4.2 Load Curve



2.4.3 Technical parameter table

Base	Model		CDDYG-II 1530	CDDYG-II 1535	CDDYG-II 1545
	Capacity	Q(Kg)	1500	1500	1500
	Load center	C(mm)	600	600	600
	Type of lifting		Electric	Electric	Electric
	Operating type		Stand	Stand	Stand
Wheel	Material		PU	PU	PU
	Wheel base	mm	1380	1380	1380
	Quantity of Driving/Balance/Bearing Wheel		1×+2/4	1×+2/4	1×+2/4
	Bearing wheel size	mm	Φ80×70	Φ80×70	Φ80×70
	Driving wheel size	mm	Φ230×75	Φ230×75	Φ230×75
	Balance wheel size	mm	Φ125×60	Φ125×60	Φ125×60
Dimensions	Front overhang	mm	670	670	670
	Wheel track	Y(mm)	1380	1380	1380
	Front wheel track	b ₁₁ (mm)	515	515	515
	Rear wheel track	b ₁₀ (mm)	645	645	645
	Free lifting height	mm	-	-	1600
	Min.fork height	h ₁₃ (mm)	90	90	90
	Max.fork height	h ₂ (mm)	3000	3500	4500
	Fork outside width	mm	685	685	685
	Fork inside width	mm	345	345	345
	Single fork size	l/e/s(mm)	1070×170×60	1070×170×60	1070×170×60
	Top shelf height	h(mm)	-	-	2050
	Overall length	L ₁ (mm)	2030	2030	2030
	Overall width	b ₁ (mm)	880	880	880
	Overall height	h(mm)	2050	2300	2050
	Lifting height of the whole	h ₁₄ (mm)	3500	4000	5050
Min.turning radius	Wa(mm)	1635	1635	1635	
Performance	Front and rear axle load(laden/unladen)	Kg	420/900,1020/1800	420/900,1020/1800	420/900,1020/1800
	Travel speed(laden/unladen)	km/h	5/6	5/6	5/6
	Lifting speed(laden/unladen)	mm/s	90-110/135-165	90-110/135-165	90-110/135-165
	Lowering speed(laden/unladen)	mm/s	300/130	300/130	300/130
	Electronic steering system		Selection	Selection	Selection
	Gradeability(laden/unladen)	%	6/8	6/8	6/8
Electrol	Driving mode		AC	AC	AC
	Steering motor	Kw	0.165	0.165	0.165
	Driving motor	Kw	1.5	1.5	1.5
	Lifting motor	Kw	3	3	3
	Battery capacity	V/Ah	24/280	24/280	24/280
	Charger		24V30A	24V30A	24V30A
Weight	Battery weight	Kg	250	250	250
	Net weight	Kg	1120/1250	1120/1250	1360

* The company reserves the right to change product design and specifications without prior notice.

3. Operation

3.1、 Working conditions

The best working environment temperature for the stacker is between 5℃~40℃. Drive it on the flat, dry, clean and hard ground. It is fit for the short-distance transporting and stacking.

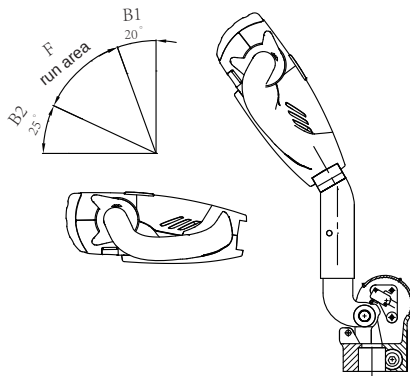
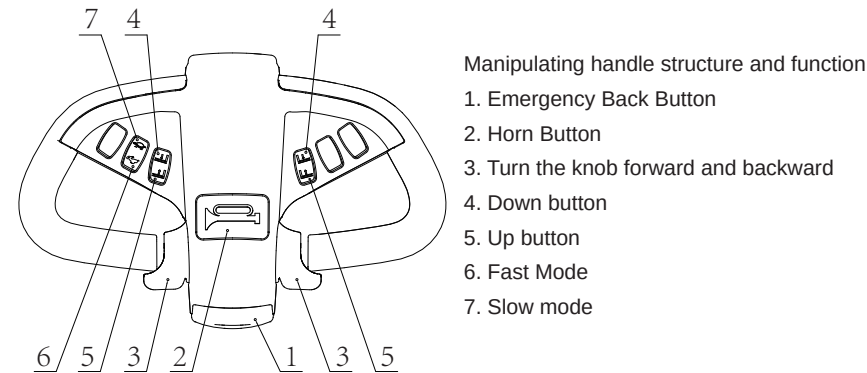
3.2、 Movement

3.2.1、 Make sure that the crane's bearing capacity can afford the weight of this pallet stacker before hoisting and moving it. Connect the acting point to the lifting position yet without contacting the vehicle to make sure no slip happens.

3.2.2、 When the driving function breaks down, release the electromagnetic brake before dragging the stacker. (Steps: 1)press the emergency switch; 2)open the electric case cover; 3)unscrew the three screws on the drive wheel motor counterclockwise until the brake does not obstruct; 4) Move the vehicle; 5) Readjust the electromagnetic brake to the initial state after arriving at the destination. Notice: Do not operate on the slope.)

3.3、 Vehicle Operation

3.3.1、 Function of Operating Buttons and Icons



3.3.2、 Check before operation

- check all wheels and ensure they are in good condition;
- Check the fork and ensure there is no curve, deform, crack or severe abrasion;
- Check the lifting chains to ensure there is no damage;
- Check the hydraulic oil pipe to ensure there is no damage or aging;
- Check the vehicle bottom to ensure there is no hydraulic leakage;
- Check the battery switch to ensure it is working.

3.3.3、 Starting

The driver shall make sure that there is no other person in the hazardous area before starting or driving the vehicle or lifting the load.

Steps:

- Turn on the emergency stop switch: Pull up the red mushroom switch to the top gear;
- Turn on the key switch: Insert the key in and rotate left to the " - " position;
- Check the quantity of electricity: The electricity meter indicates the current quantity. A 10-scale is used on the meters of CDDYG-K15, CDDYG-I, CDDYG-II series when each scale indicates 10%. CDDYG-II A meter directly displays a number with %. Charge the battery when it drops to 30%.
- Check the horn;
- Check the brake;
- Check all the control buttons.

3.3.4、 Driving

3.3.4.1、 Drive the vehicle: Use the handle to control the speed and direction. Press the control handle to the "F" range, and adjust the handle to the moving direction and rotate the speed knob (the bigger of the angle, the faster of the vehicle). Rotate the speed knob forward to move forward whereas move backward on contrary. Swing the handle to left or right to make the left or right turn.

3.3.4.2、 Keep the goods face uphill when conveying on the slope.

3.3.4.3、 Lifting and descending the goods

Before lifting, make sure that the goods are placed within the pallet and its weight does not exceed the load capacity. Avoid long-time full loading. The fork reaches under into the goods as possible and the center of gravity is within the load center range.

3.3.5、 Braking: The driver should be aware that the braking performance is dependent on the road condition. The braking system has three ways:

--Electromagnetic brake: Turn the handle upward or downward to the Brake within B1 or B2 range. The traction motor will be subject to the mechanical motor brake. Once the hand leaves the control handle, it will rebound to the B1 range and the vehicle is also subject to the mechanical brake.

--Inverse current brake: press the reverse switch or rotate the speed switch in reverse direction while driving. The inverse current brake works until the vehicle moves in the reverse direction.

--Inertia brake: release the speed switch or press the emergency switch (the red mushroom switch) to brake with the motor's inertia.

3.3.6、 Parking

Be careful while parking. Do not park the vehicle on the slope. Descend the fork to the lowest position, rotate the key switch form "-" to "I" position, press the emergency switch (turn off the red mushroom switch) and take away the key.

4.Maintenance

4.1、 Battery Charging and Maintenance

4.1.1、 Only the qualified personnel are allowed to charge, maintain and replace the battery. Read the manual carefully before operation, including the operation rules, recharging preparation and requirements.

4.1.2、 Smoking and open fire are forbidden while operating the battery. The storage and charging of the battery should keep off the inflammable stuff, 2 meters away at least. The storage place should be well-ventilated and equipped with fire equipment.

4.1.3、 Keep the battery surface clean and dry. The terminals are connected tight to the nuts. Use some clean grease for anti-corrosion. Conductive objects should not be put on the battery.

4.1.4、 Charge the battery promptly when it runs out. Any delay may cause damage to the battery. No more than 24 hours. Charge the battery fully once a month even when it is not used for a long time. While operating or charging, the electrolyte level will drop because of evaporation. Refill with distilled water only.

4.1.5、 Avoid heavy current discharging. And driving and lifting should not be done simultaneously.

4.1.6、 Electricity Meter: the discharge of the battery is displayed on the meter with 10-scale, each of which indicates 10%. When the battery runs lower than 30%, it requires charging (flash signs). If the battery runs low soon after it starts lifting, charge it to at least 70% to restore lifting function.

4.2、 Maintenance

The maintenance of the stacker should be conducted by professionals according to the intervals in the table.

4.2.1、 Put up the “DANGER” sign and take the key away while maintaining or repairing.

4.2.2、 Do not modify any spare parts without authorization, especially the safety devices and speed. Replace with the spare parts provided by our company.

4.2.3、 Traction motor and lifting motor are all short rated. Avoid any improper operation.

4.2.4、 The high-pressure pipe of the hydraulic system: the service life is 6 years at most. Replace it in due time. If any hydraulic component is replaced, replace the high-pressure pipe too.

4.2.5、 The safety explosion relief valve is used (in the oil pipe joint) to prevent the sudden fall within 100mm if the hydraulic hose fails. Replace the hydraulic hose if any damage or aging is found.

4.2.6、 Cleaning: Unplug the battery cell before cleaning. Clean mechanical components with a wet cloth. Do not spray directly water, steam or inflammable liquid. Clean the electrical components with low-intensity suction or compressed gas and non-metallic brush. The waste oil should be disposed as the local regularities require.

4.2.7、 Lubrication List

LUBRICATING PARTS	LUBRICANT TYPE	Intervals	
		3 months	6 months
Wheels & Rollers	3# Lithium grease	▲	
Lifting Chain	Chain spray	▲	
Rail	3 # Lithium grease		▲
Hydraulic Device	L-HM/HV 32# hydraulic oil		▲

4.2.8、 Regular Maintenance List

PARTS	CHECKLIST	Intervals		
		3 months	6 months	12 months
Lifting Gantry	Check the function and abrasion of rollers	▲		
	Check the gantry's fixation	▲		
	Check the chain's and its guide part's abrasion	▲		
	Check the safeguard's solidness and vulnerability	▲		
	Check the gate post's gap and deformation		▲	
Frame and Fork	Check the bearing parts	▲		
	Check the tightness of bolts and nuts	▲		
	Check the condition of supporting parts and the machine	▲		
Pedals	Check the pedal's performance	▲		
Wheels	Check the abrasion degree	▲		
	Check the bearing's performance		▲	
	Check the connecting and fixing parts	▲		
Handle	Check the flexibility		▲	
	Check the sidewise movement (turning)	▲		
	Check whether it can rebound to the vertical position		▲	
	Turning gap	▲		
	Braking mechanism	▲		
	Gas spring's backing function, airtightness and damage	▲		
Electric System	Check the fixation and function of micro-switch	▲		
	Check the connectors and cable		▲	
	Check the master switch	▲		
	Check the horn	▲		
	Check the emergency braking button	▲		
	Check the safety device			▲

Hydraulic System	Check the function	▲		
	Check the oil quantity			
	Check the leakage and abrasion of joints	▲	▲	
	Change oil/filter			▲
	Check the condition of pressure-limiting valve			▲
	Check the condition of explosion relief valve			▲
Cylinder	Check the leakage	▲		
	Check the abrasion of sealing parts			
	Check the fixation	▲	▲	
Motor	Check the abrasion of carbon brush	▲		
	Check the starting motor relay			
	Check the fixation		▲	
Battery	Check the density and level of electrolyte	▲	▲	
	Check the voltage of components	▲		
	Check the tightness of battery pack and terminals	▲		
	Check the fixation of terminals abrasion of cables			
	Lubricate the electrodes with Vaseline		▲	
Regular Check	Check the lifting speed of the fork		▲	▲
	Check the driving speed and braking distance			▲
	Check safety device and circuit breaker	▲		
	Lifting test with rated load	▲		

4.3、Trouble Shooting

TROUBLE	POSSIBLE CAUSE	SOLUTION
Fail to move	1.Battery connector unconnected 2.E-lock switch stays "OFF" 3.Emergency switch not open 4.Battery runs out 5.Handle out of drive range of F 6. Fuse burn	1. Check battery connector, if wiring components connected 2. Turn e-lock switch to "ON" 3. Pull up emergency switch 4. Check the battery charge condition. Recharge if necessary 5. Rotate the handle to the drive range of F 6. Check 200A , 125A and 10A fuses
Fail to lift goods	1. Air in the hydraulic system 2. inadequate hydraulic oil 3. Fuse burn 4. battery quantity less than 30% 5. Contact switch of the center sill ill-connected or damaged 6. Overload	1. Idling several times to eliminate air 2. Check hydraulic oil 3.Check the fuse 4. Charge the battery 5. Check lifting contact switch or replace 6. Observe the load curve
Fail to descend	1.Dirty oil block the control valve 2.Descending magnet valve not open or damaged	1. Check hydraulic oil and clean control valve. Replace the hydraulic oil if necessary. 2. Check descending magnet valve or replace
Fail to stop while lifting	Lifting contact switch damaged	Cut of power and replace the lifting contact switch
One-direction move	Adjust switch or connecting cable ill-connected	Check the adjust switch and connecting cable
Move Slowly	Low battery, e-brake too tight or relevant cable ill-connected	Check the battery display, e-brake and cables
Sudden move	1. Controller damaged 2. Forward/backward button not reset	1. Change controller 2. Fix or replace

Remarks:

1.Warranty period: within 1 year after the purchase or 1000 hours of service time.

2.Accessories: 1 automatic charger

3.Wearing parts and sealing parts are separately provided to clients' request.

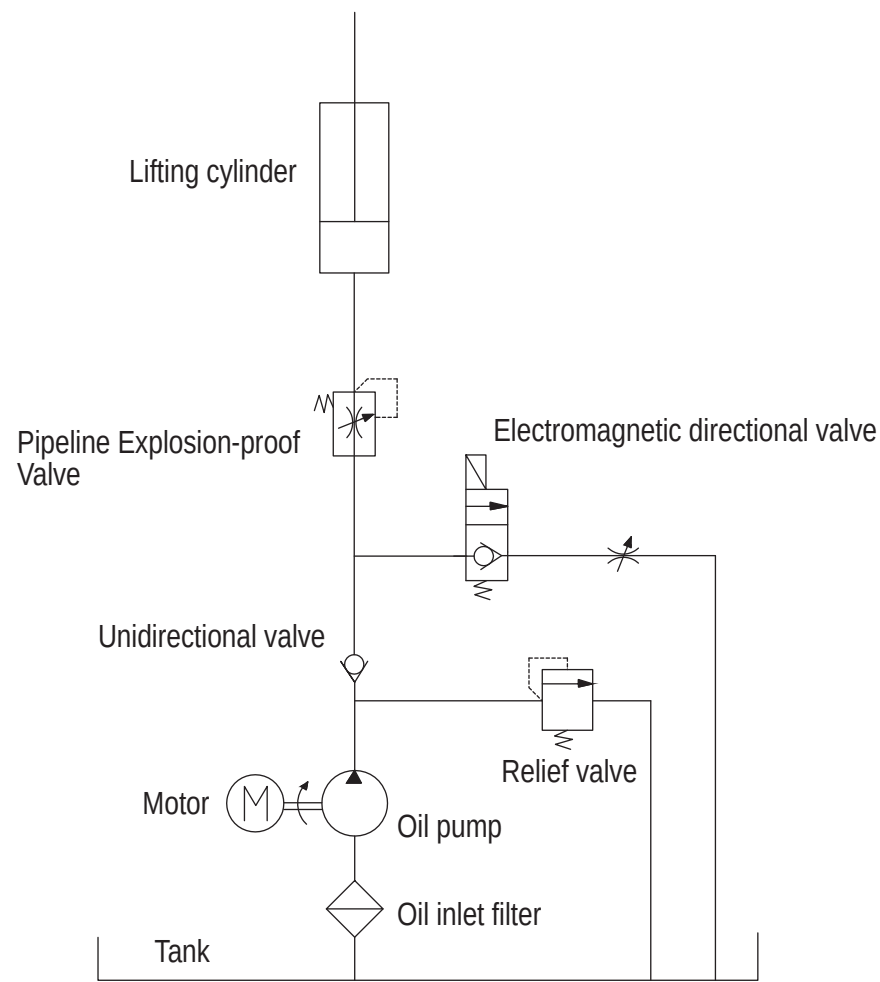
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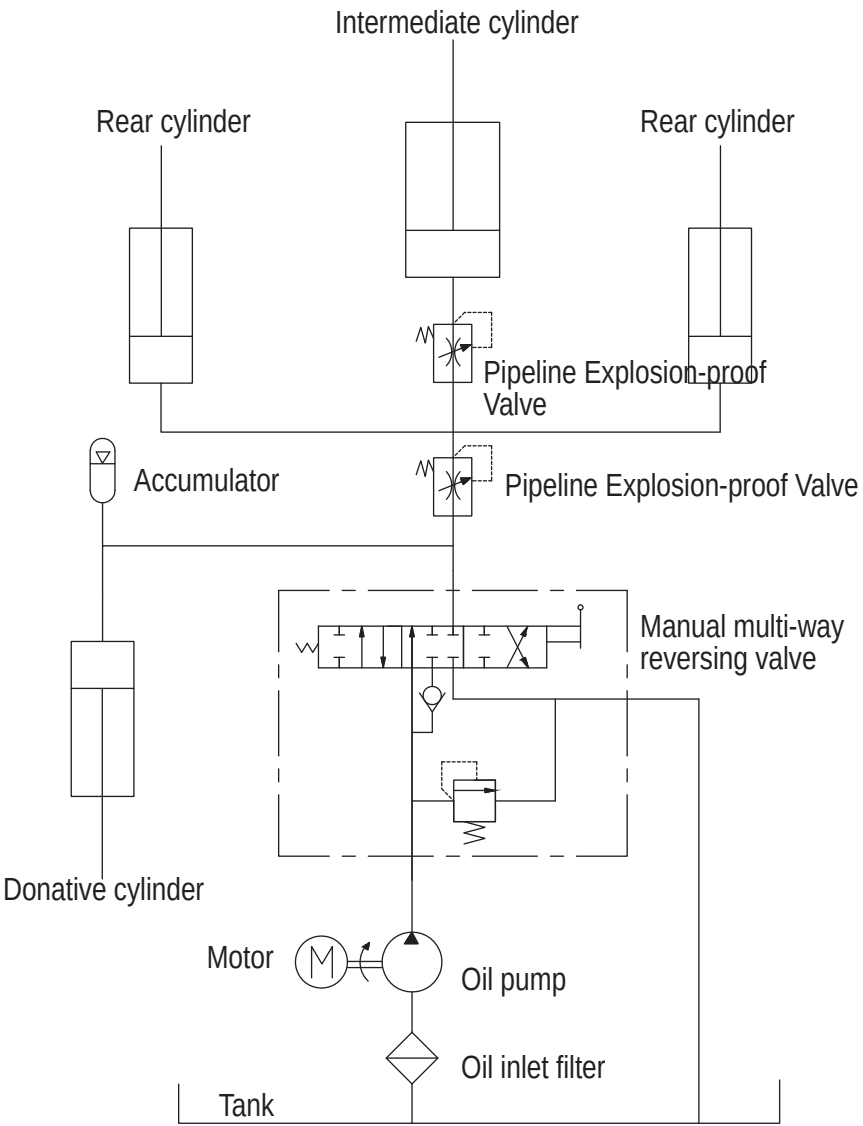
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6.Hydraulic Diagram

CDDYG-E/K/I



CDDYG-II



7.Standard Parts and Wearing Parts List

CDDYG-E

Name	Specification type	quantity	Note appended
Roller chain	12A-1	2	Four locks
Bearing	61910 (50×72×12)	2	Drive shaft end
Bearing	61912 (60×85×13)	1	Lower end of drive shaft
Air spring	φ8×290/550N	1	Handle Matching
Explosion-proof valve	Built-in M16×1.5	1	Cylinder
O-ring	d43.7×3.55	1	Piston 1T
O-ring	d48.7×3.55	1	Piston 1.5T
O-ring	d26.5×2.65	2	piston
Wear-resistant belt	D50×d45×10	1	Piston 1T
Wear-resistant belt	D55×d50×10	1	Piston 1.5T
YX Seal Ring (for Holes)	D50×40×9	1	Piston 1T
YX Seal Ring (for Holes)	D55×47×10	1	Piston 1.5T
DH03 dustproof ring	d38×D46×5	1	Cylinder Nut 1016
DH03 dustproof ring	D45×53×6.5	1	Cylinder nut
Wear-resistant belt	D43×d38×10	1	Cylinder Nut 1016
front wheel	φ80×60	2	PU polyurethane
Bearing	6204 (20×47×14)	4	front wheel
Bearing	6205 (25×52×15)	2	Sprocket wheel
Bearing	6204 (20×47×14)	2	rear wheel
Bearing	6307 (35×80×21)	4	Lifting frame
Bearing	6307 (35×80×21)	4	Inner door frame
rear wheel	φ180×50	1	PU polyurethane

CDDYG-K

Name	Specification type	quantity	Note appended
Roller chain	12A-1	2	Four locks
Bearing	6307 (35×80×21)	4	Lifting frame
Bearing	6307 (35×80×21)	4	Inner door frame
Bearing	61910 (50×72×12)	2	Drive shaft end
Bearing	61912 (60×85×13)	1	Lower end of drive shaft
Bearing	51206 (30×52×16)	1	Balancing wheel sleeve
Bearing	6006 (30×55×13)	1	Balancing wheel sleeve
Air spring	φ8×290/550N	1	Handle Matching
Explosion-proof valve	Built-in M16×1.5	1	Cylinder
O-ring	d48.7×3.55	1	piston
O-ring	d26.5×2.65	2	piston
Wear-resistant belt	D55×d50×10	1	piston
YX Seal Ring (for Holes)	D55×47×10	1	piston
DH03 dustproof ring	D45×53×6.5	1	Cylinder nut
front wheel	φ80×60	4	PU polyurethane
Bearing	6204 (20×47×14)	8	front wheel
Bearing	6205 (25×52×15)	2	Sprocket wheel
Bearing	6202 (15×35×11)	4	Balancing wheel
Balancing wheel	φ125×30	2	PU polyurethane

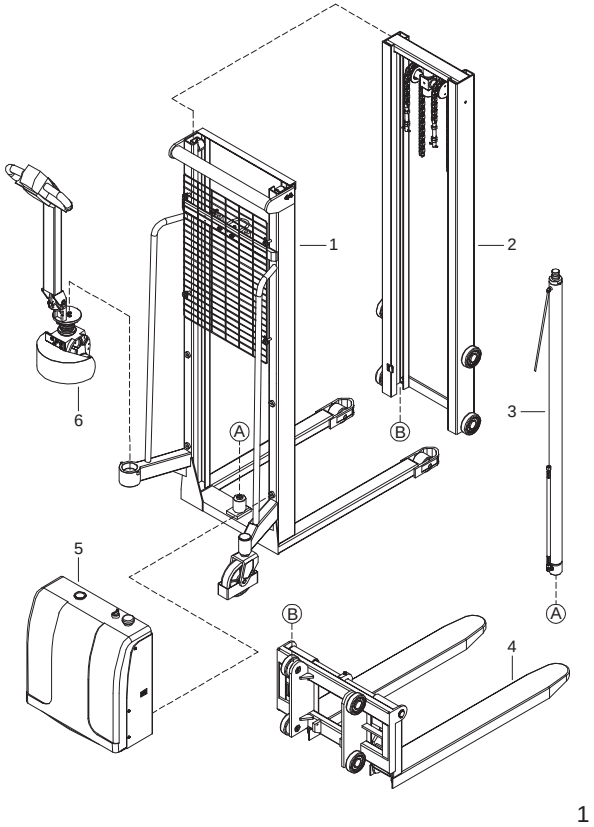
CDDYG-I

Name	Specification type	quantity	Note appended
Leaf Chain	LH1223, 106/114/122节	2	Four locks
Bearing	61820 (100×125×13)	1	Handle Rotary Shaft End
Bearing	6007 (35×62×14)	2	End of Balancing Wheel Rotary Shaft
Bearing	33007 (35×62×21)	2	Lower end of balancing wheel shaft
Composite roller	CRA78.3-15S	4	Driving Wheel Roller Track
Air spring	φ8×152/400N	1	Handle Matching
Air spring	φ10×215/500N	1	Pedal matching
Explosion-proof valve	Built-in M16×1.5	1	Cylinder
O-ring	d48.7×3.55	1	piston
O-ring	d26.5×2.65	2	piston
YX Seal Ring (for Holes)	D55×47×10	1	piston
DH03 dustproof ring	D45×53×6.5	1	Cylinder nut
front wheel	φ80×70	4	PU polyurethane
Bearing	6204 (20×47×14)	8	front wheel
Bearing	6205 (25×52×15)	2	Sprocket wheel
Bearing	6204 (20×47×14)	4	Balancing wheel
Bearing	6307 (35×80×21)	4	Lifting frame
Bearing	6307 (35×80×21)	4	Inner door frame
Balancing wheel	φ125×60	2	PU polyurethane

CDDYG-II

Name	Specification type	quantity	Note appended
Leaf Chain	LH1223, 64/105节	2	Four locks
Bearing	61820 (100×125×13)	1	Handle Rotary Shaft End
Bearing	6007 (35×62×14)	2	End of Balancing Wheel Rotary Shaft
Bearing	33007 (35×62×21)	2	Lower end of balancing wheel shaft
Composite roller	CRA78.3-15S	6	Door Frame/Lift Bearing
Composite roller	CRA70.4-6S	6	Elevator bearing
Lateral roller	SR48D58-1T	6	Outer Door Frame/Lift Bearing
Bearing	6004 (20×42×12)	2	Side Bearing of Inner Portal Frame
Air spring	φ8×152/400N	1	Handle Matching
Air spring	φ10×290/550N	1	Pedal matching
Explosion-proof valve	Built-in M16×1.5	2	Cylinder
O-ring	d53×3.55	1	Intermediate cylinder piston
O-ring	d26.5×2.65	2	Intermediate cylinder piston
YX Seal Ring (Shaft)	d50×60×10	1	Intermediate cylinder piston
DHS45 dustproof ring	d45×53×6.5	1	Intermediate cylinder nut
Wear-resistant belt	D50×d45×5.6	1	Intermediate cylinder nut
O-ring	d50×3.55	2	Rear cylinder nut
O-ring	d38×3.55	4	Rear cylinder nut
YX Seal Ring (Shaft)	d38×48×6	2	Rear cylinder nut
DHS38 dustproof ring	d38×46×6.5	2	Rear cylinder nut
YX Seal Ring (for Holes)	d45×38×5	2	Semi-ring of rear cylinder
Wear-resistant belt	D45×d40×10	2	Semi-ring of rear cylinder
front wheel	φ80×70	4	PU polyurethane
Bearing	6204 (20×47×14)	8	front wheel
Bearing	NUP205 (25×52×15)	2	Sprocket wheel
Bearing	NUP206 (30×62×16)	2	Sprocket wheel
Bearing	6204 (20×47×14)	4	Balancing wheel
Balancing wheel	φ125×60	2	PU polyurethane

CDDYG-E



NO	Part Name	Qty	Remarks
1	Rack assembly	1	See Figure 2 for details.
2	Inner Portal Frame Assembly	1	See Figure 3 for details.
3	Cylinder assembly	1	See Figure 4 for details.
3	Cylinder assembly 1016	1	See Figure 5 for details.
4	Lifting frame assembly	1	See Figure 6 for details.
5	Power box assembly	1	See Figure 7 for details.
6	Handle assembly	1	See Figure 8 for details.

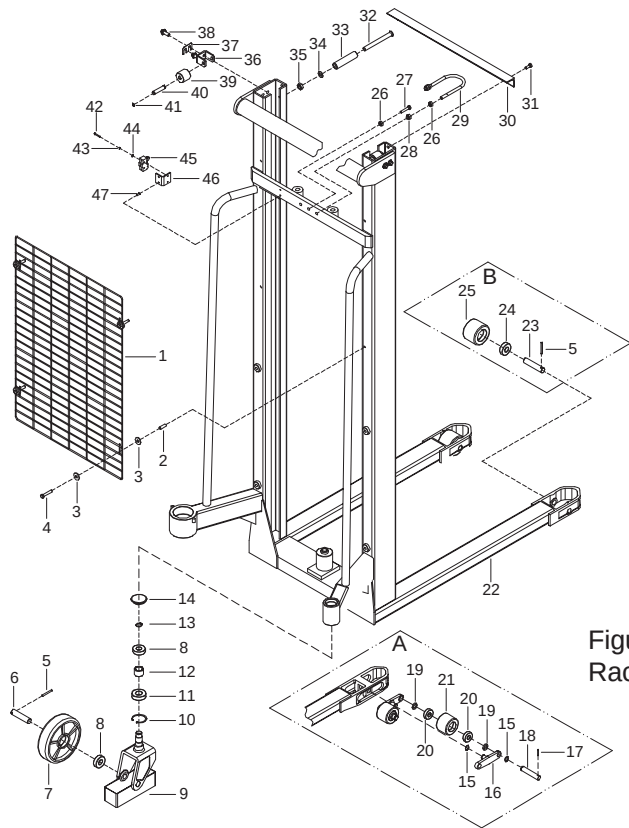


Figure 2
Rack assembly

NO	Part Name	QTY	Remarks	NO	Part Name	QTY	Remarks
1	Safety mesh	1	Single Door Frame	12	Steering axle bushing	1	
1	Safety mesh	1	Double portal frame 2m	13	Axis retaining ring 20	1	
1	Safety mesh	1	Double gantry 2.5m	14	Shaft sleeve plastic cover	1	
1	Safety mesh	1	Double portal frame 3m	15	Axis retaining ring 20	8	Double front wheel set
2	Aluminum tube	4		16	Balancing arm	4	
3	Increase flat cushion 8	8		17	Elastic cylindrical pin 4*30	4	
4	External Hexagonal Bolt M8*45	4		18	Front axle	4	
5	Elastic cylindrical pin 5*50	3		19	Elastic cushion 20*30*4	8	
6	Rear axle	1		20	Bearing 6204	8	
7	Rear Wheel 180*50	1	Yellow PU wheel	21	Front wheel 80*60	4	
8	Bearing 6204	3		22	Frame portal assembly	1	Single front wheel set
9	Rear fork	1	Covered	23	Front axle	2	
10	Hole retaining ring 52	1		24	Bearing 6204	4	
11	Bearing 6205	1		25	Front wheel 80*60	2	

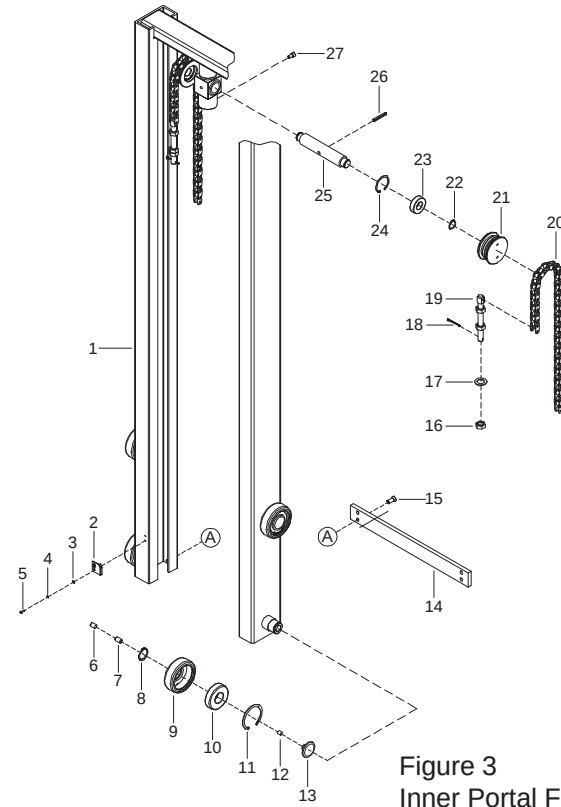


Figure 3
Inner Portal Frame Assembly

NO	Part Name	QTY	NO	Part Name	QTY
1	Inner gantry assembly	1	15	Inner Hexagonal Countersunk Head Screw M10*20	4
2	Travel Switch Limiting Block	1	16	Hexagon nut M16x1.5	6
3	Flat cushion 4	2	17	Flat cushion 16	4
4	Bullet cushion 4	2	18	Open pin 3 *35	2
5	Semi-circular head cross screw M4x10	2	19	Connecting bolt	2
6	Inner Hexagonal Cone End Fixing Screw M12*20	4	20	Load-bearing chain 12A-1	2
7	Inner Hexagonal Flat End Fixing Screw M12*20	4	21	Sprocket wheel	2
8	Axis retaining ring 35	4	22	Axis retaining ring 25	2
9	Inner door frame roller	4	23	Bearing 6205	2
10	Bearing 6307	4	24	Hole retaining ring 52	2
11	Hole retaining ring 80	4	25	Sprocket shaft	1
12	Adjusting mandrel 10 *12	4	26	Elastic cylindrical pin 8*50	1
13	Nylon adjusting pad	4	27	Internal hexagonal cylindrical head screw M8*16	1
14	Lower connecting plate of inner gantry	1			

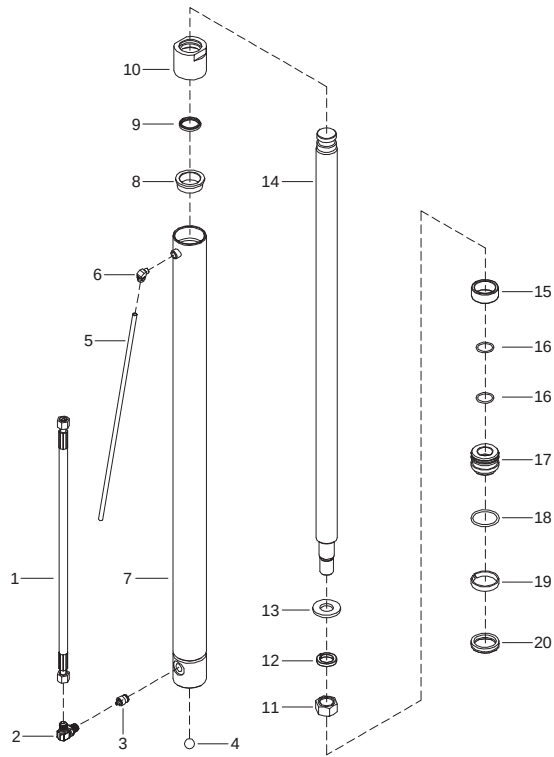


Figure 4
Cylinder assembly

NO	Part Name	QTY	Remarks	NO	Part Name	QTY	Remarks
1	Tubing	1		7	Lift cylinder assembly	1	1520
2	Tubing right angle joint	1	M16X1.5/M16X1.5	7	Lift cylinder assembly	1	1525
3	Explosion-proof valve	1		8	Cylinder copper sleeve	1	1 T
4	Steel ball S18	1		8	Cylinder copper sleeve	1	1.5 T
5	Return tubing	1		9	Dust-proof ring D53*d45*5/6.5	1	
6	90 degree bend joint of trachea	1	G1/4	10	Cylinder nut	1	1 T
7	Lift cylinder assembly	1	1020	10	Cylinder nut	1	1.5 T
7	Lift cylinder assembly	1	1025	11	Hexagon nut M24*1.5	1	
7	Lift cylinder assembly	1	1030	12	Bullet cushion 24	1	
7	Lift cylinder assembly	1	1516				

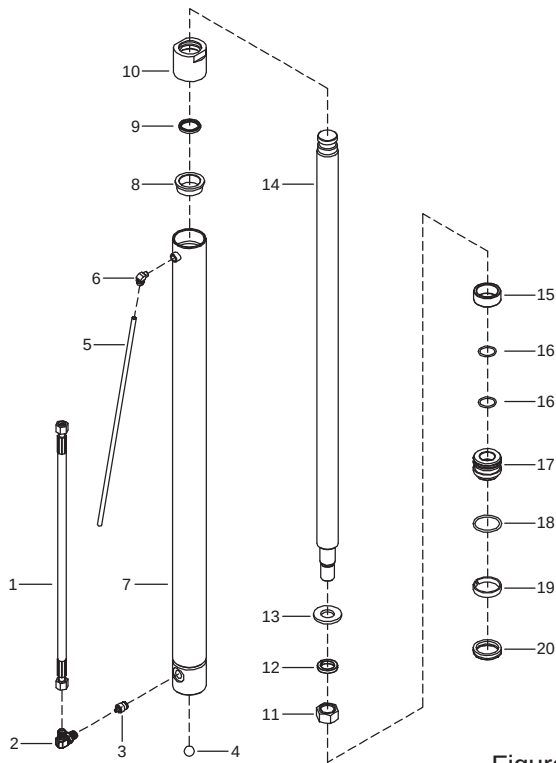


Figure 4
Cylinder assembly

NO	Part Name	QTY	Remarks	NO	Part Name	QTY	Remarks
13	Piston sleeve gasket	1	1 T	16	Lift O-ring d26x2.65	2	
13	Piston sleeve gasket	1	1.5 T	17	Piston sleeve	1	1 T
14	Lifting piston rod	1	1020	17	Piston sleeve	1	1.5 T
14	Lifting piston rod	1	1025	18	O-ring d43.7x3.55	1	1 T
14	Lifting piston rod	1	1030	18	O-ring d48.7x3.55	1	1.5 T
14	Lifting piston rod	1	1516	19	Wear-resistant belt D50*d45*10	1	1 T
14	Lifting piston rod	1	1520	19	Wear-resistant belt D55*d50*10	1	1.5 T
14	Lifting piston rod	1	1525	20	Y-ring for hole D50*d40*9	1	1 T
15	Cylinder jacket	1	1 T	20	Y-ring for hole D55*d47*10	1	1.5 T
15	Cylinder jacket	1	1.5 T				

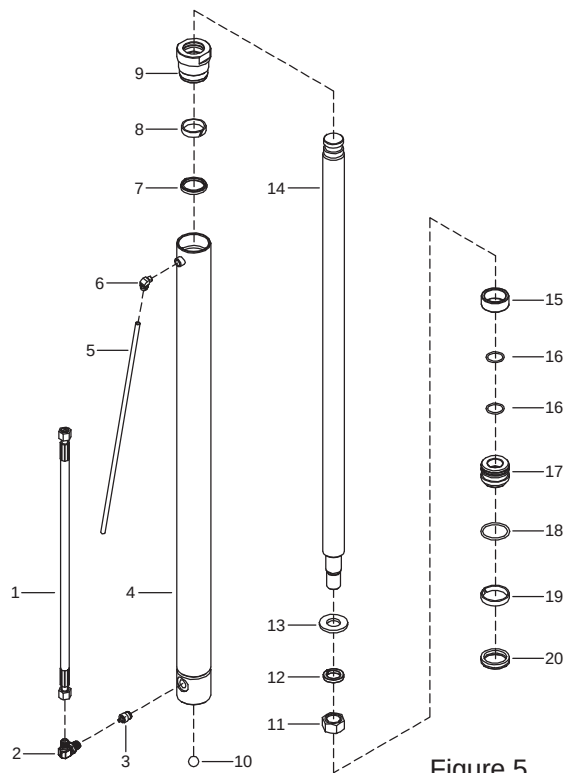


Figure 5
Cylinder assembly 1016

NO	Part Name	QTY	Remarks	NO	Part Name	QTY
1	Tubing	1		11	Hexagon nut M24*1.5	1
2	Tubing right angle joint	1	M16X1.5/M16X1.5	12	Bullet cushion 24	1
3	Explosion-proof valve	1		13	Piston sleeve gasket	1
4	Lift cylinder assembly	1		14	Lifting piston rod	1
5	Return tubing	1		15	Cylinder jacket	1
6	90 degree bend joint of trachea	1	G1/4	16	O-ring d26x2.65	2
7	Dust-proof ring D46*d38*5/6.5	1		17	Piston sleeve	1
8	Wear-resistant belt D43*d38*10	1		18	O-ring d43.7x3.55	1
9	Cylinder nut	1		19	Wear-resistant belt D50*d45*10	1
10	Steel ball S18	1		20	Y-ring for hole D50*d40*9	1

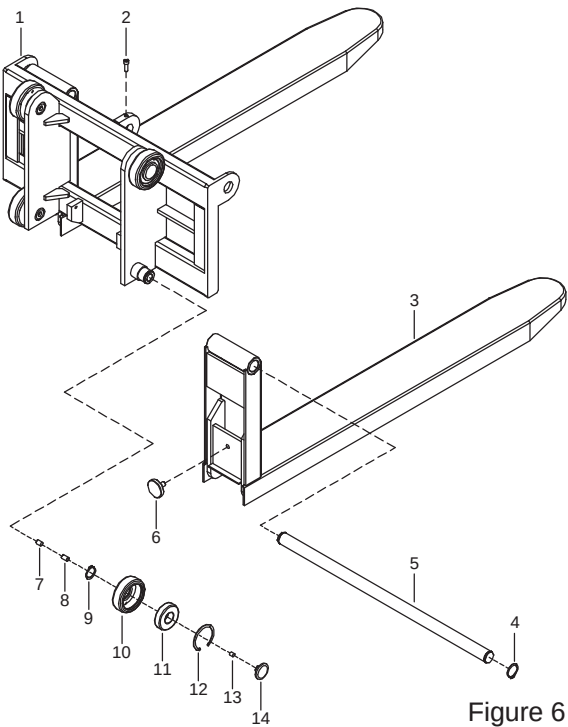


Figure 6
Lifting frame assembly

NO	Part Name	QTY	Remarks	NO	Part Name	QTY
1	Elevator assembly	1	Single gantry 1T	6	Fork adjusting screw	2
1	Elevator assembly	1	Single gantry 1.5T	7	Inner Hexagonal Cone End Fixing Screw M12*20	4
1	Elevator assembly	1	Double gantry 1T			
1	Elevator assembly Internal hexagonal cylindrical	1	Double portal frame 1.5T	8	Inner Hexagonal Flat End Fixing Screw M12*20	4
2	head screw M8*25	1		9	Axis retaining ring Ø35	4
3	Fork assembly	1	1T	10	Elevator roller	4
3	Fork assembly	1	1.5T	11	Bearing 6307	4
4	Axis retaining ring Ø32	2		12	Hole retaining ring Ø80	4
5	Long axle of lifting frame	1		13	Adjusting mandrel 10 *12	4
				14	Nylon adjusting pad	4

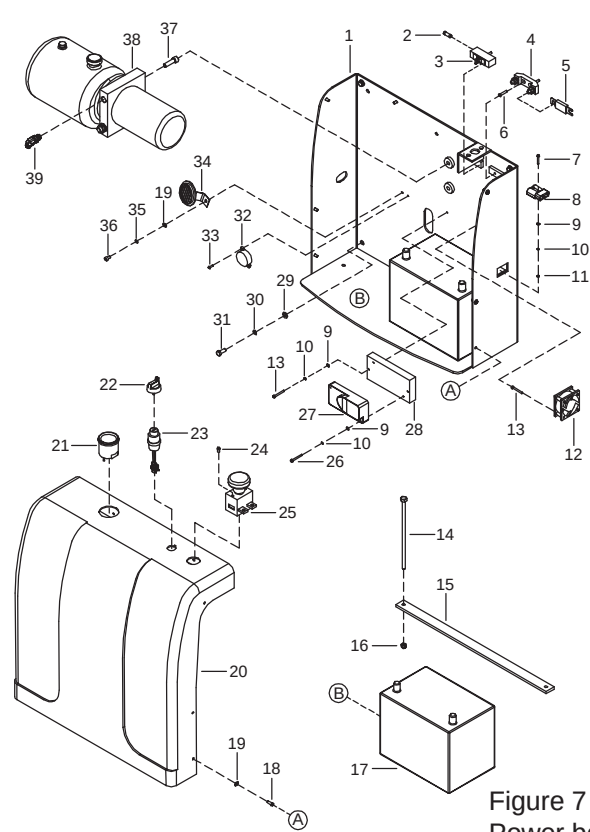


Figure 7
Power box assembly

NO	Part Name	QTY	NO	Part Name	QTY	Remarks
1	Power box assembly	1	11	Hexagon nut M4	2	
2	Fuse 4A	1	12	Cooling fan	1	DC24V / 0.2A
3	Fuse holder	1	13	Internal hexagonal cylindrical head screw M4*30	6	
4	Ceramic fuse holder RQD-1	1	14	Battery Fixed Screw	2	
5	DC fused sheet CNL-100A	1	15	Battery Fixed Flat Iron	1	
6	Semi-circular head cross screw M5*10	3	16	Self-locking nut M8	2	
7	Semi-circular head cross screw M4*30	2	17	Battery 80Ah/12v	2	
8	Cable connector 50A	1	18	Semi-circular head cross screw M6*15	8	
9	Flat cushion 4	6	19	Flat cushion Ø6	9	
10	Bullet cushion 4	6	20	Plastic case cover	1	

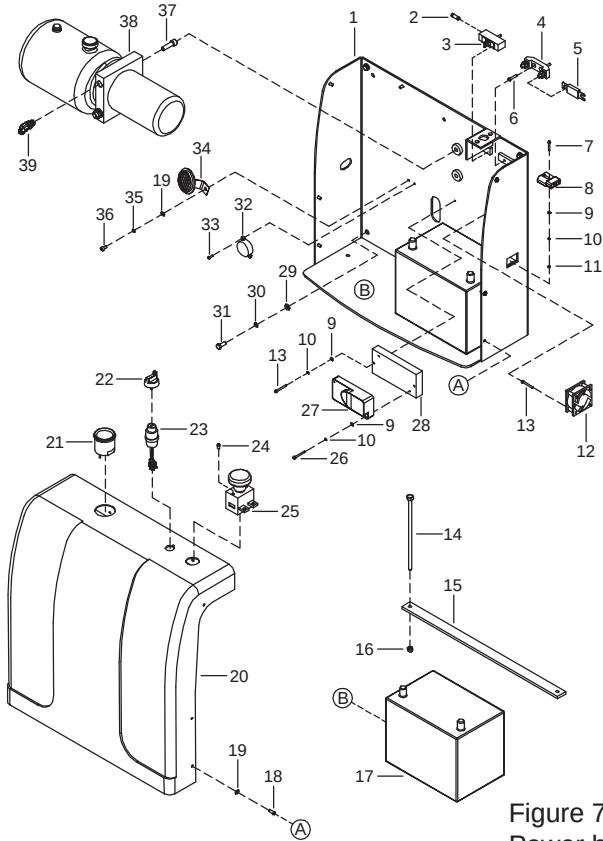


Figure 7
Power box assembly

NO	Part Name	QTY	NO	Part Name	QTY	Remarks
21	Round Gauge 24V	1	31	External Hexagonal Bolt M10*15	4	
22	Key	1	32	Buzzer	1	
23	Key switch seat	1	33	Semi-circular head cross screw M4*10	1	
24	Semi-circular head cross screw M5*10	2	34	Electric horn	1	DC24V /1.5A
25	Mushroom Switch 250A	1	35	Bullet cushion Ø6	1	
26	Semi-circular head cross screw M4*25	2	36	Internal hexagonal cylindrical head screw M6*10	1	
27	CURTIS controller 1122P	1	37	Inner Hexagonal Cylindrical Head Screw M10*25	2	
28	Heat dissipating aluminium sheet	1	38	Power Unit Assembly	1	see figure 9
29	Flat cushion Ø10	4	39	Tubing right angle joint	1	M16X1.5 - G3/8
30	Bullet cushion Ø10	4				

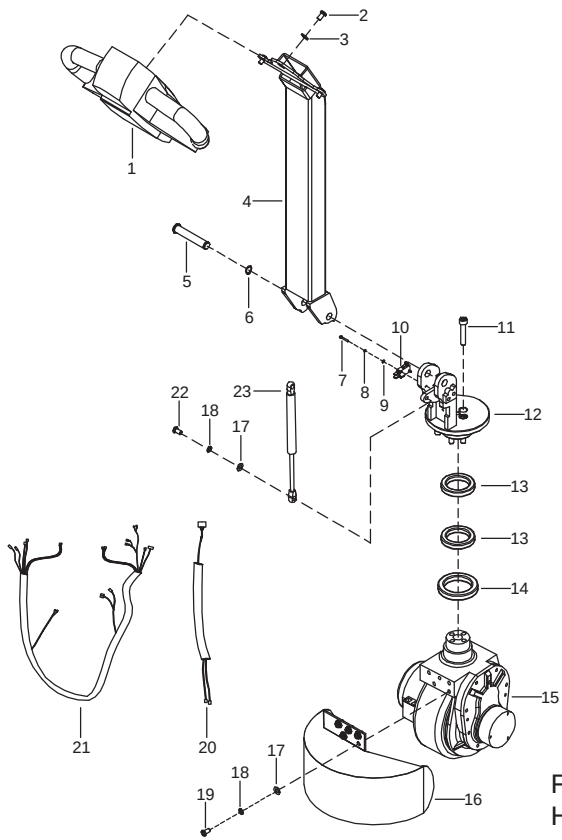


Figure 8
Handle assembly

NO	Part Name	QTY	Remarks	NO	Part Name	QTY	Remarks
1	Control Handle Assembly	1	see figure10	13	Bearing 61910	2	
2	Semi-circular head hexagonal screw M8*15	3		14	Bearing 61912	1	
3	Large washer Ø8	1		15	Drive Wheel Assembly	1	see figure 11
4	Handle square tube assembly	1		16	Drive wheel shield assembly	1	
5	Handle pin	1		17	Flat cushion Ø8	6	
6	Axis retaining ring Ø16	1		18	Bullet cushion Ø8	6	
7	Internal hexagonal cylindrical head screw M3*20	2		19	Semi-circular head hexagonal screw M8*25	5	
8	Bullet cushion Ø3	2		20	Handle control wiring harness	1	
9	Flat cushion Ø3	2		21	Wire Harness Assembly	1	
10	Micro-switch V15T16	1		22	Semi-circular head inner hexagonal screw M8*20	1	
11	Inner Hexagonal Cylindrical Head Screw M10*50	4		23	Air spring Ø8*290	1	650N
12	Handle steering seat assembly	1					

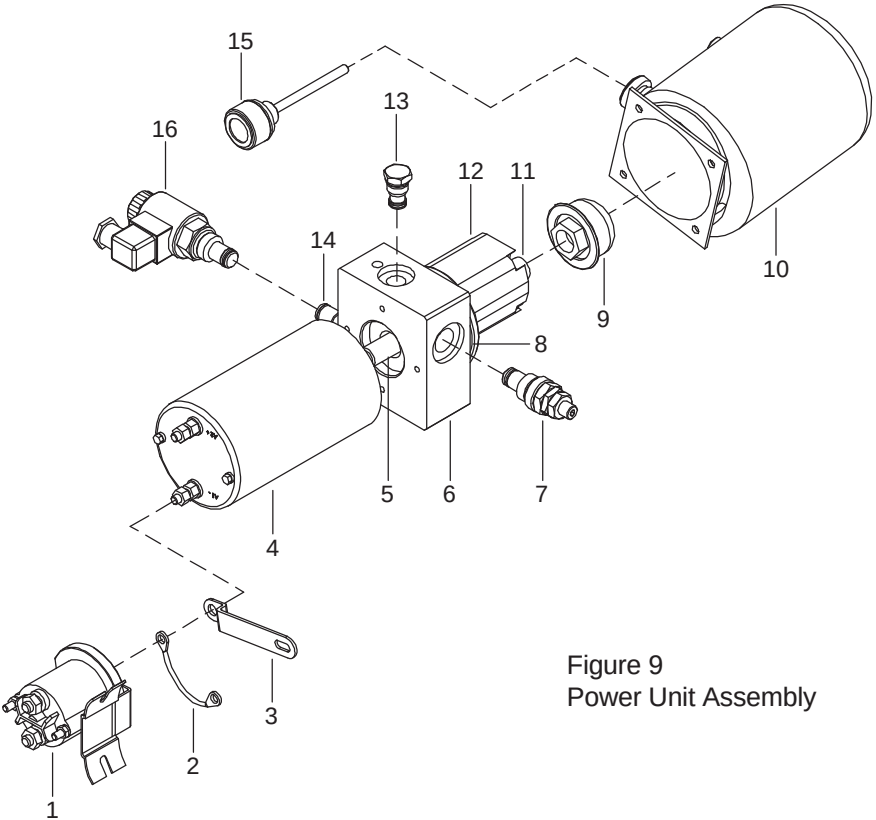


Figure 9
Power Unit Assembly

NO	Part Name	QTY	NO	Part Name	QTY
1	Start switch	1	9	Filter screen	1
2	Connecting line	1	10	tank	1
3	Copper connector	1	11	Joint	1
4	Electric machinery	1	12	gear pump	1
5	coupling	1	13	Unidirectional valve	1
6	Valve block	1	14	Flow control valve	1
7	Relief valve	1	15	Oil dipstick	1
8	Seal ring	1	16	Solenoid valve	1

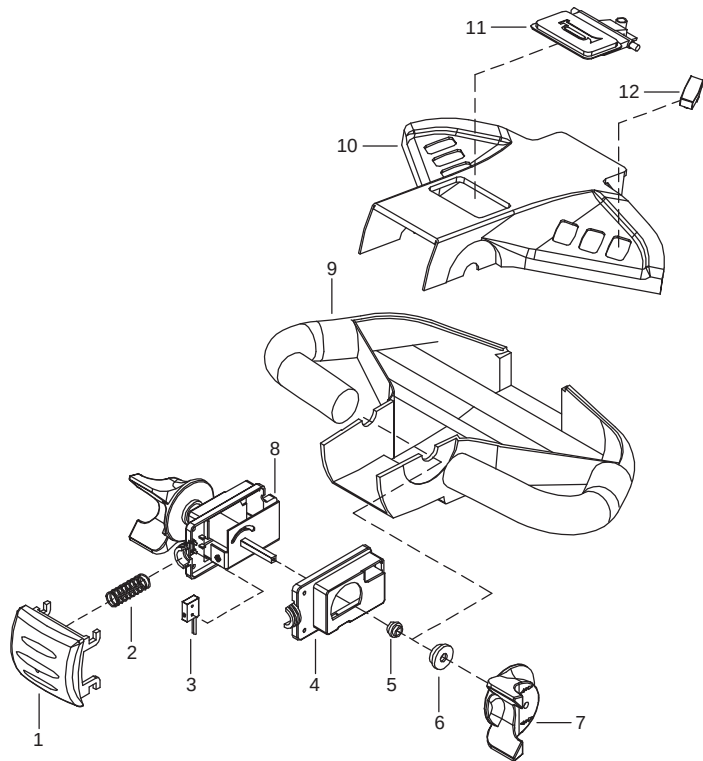


Figure 10
Control Handle Assembly

NO	Part Name	QTY	Remarks
1	Emergency reverse switch	1	
2	Reverse switch spring	1	
3	The micro switch	6	
4	Bracket housing	1	
5	Axle sleeve	2	
6	Axle jacket	2	
7	Accelerator knob	2	
8	accelerator	1	ET-126MCU
9	Handle base	1	
10	Handle cap	1	
11	Horn switch	1	
12	Control switch	3	

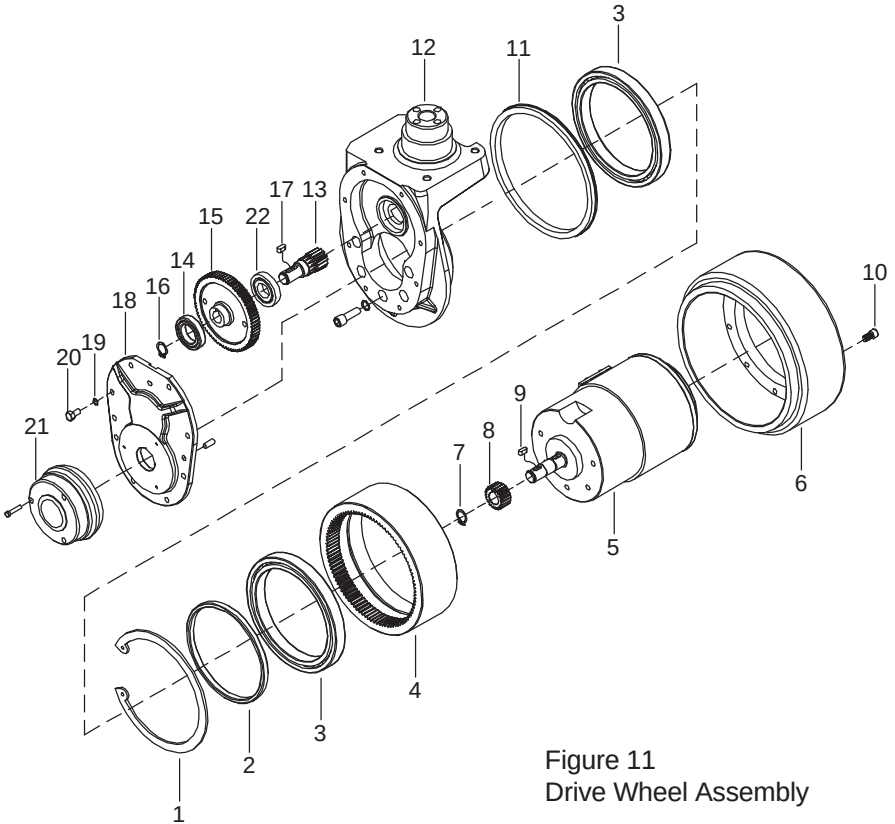


Figure 11
Drive Wheel Assembly

NO	Part Name	QTY	NO	Part Name	QTY
1	Hole retaining ring Ø150	1	12	Box body	1
2	Spacer	1	13	Small straight teeth	1
3	Bearing 61824-2RS	2	14	Bearing 61905-2Z	1
4	Spur ring	1	15	Great helical teeth	1
5	Electric machinery	1	16	Axis retaining ring Ø16	1
6	Driving wheel	1	17	Flat bond 5 x 5 x 18	1
7	Axis retaining ring Ø15	2	18	Case cover	1
8	Small helical teeth	1	19	Bullet cushion Ø6	8
9	Flat bond 5 x 5 x 12	2	20	Cylindrical head hexagonal screw M6*16	8
10	Cylindrical head inner hexagonal screw M6*25	8	21	Brake assembly	1
11	Skeleton Oil Seal 16 x 30 x 8	1	22	Bearing 16004-2Z	1

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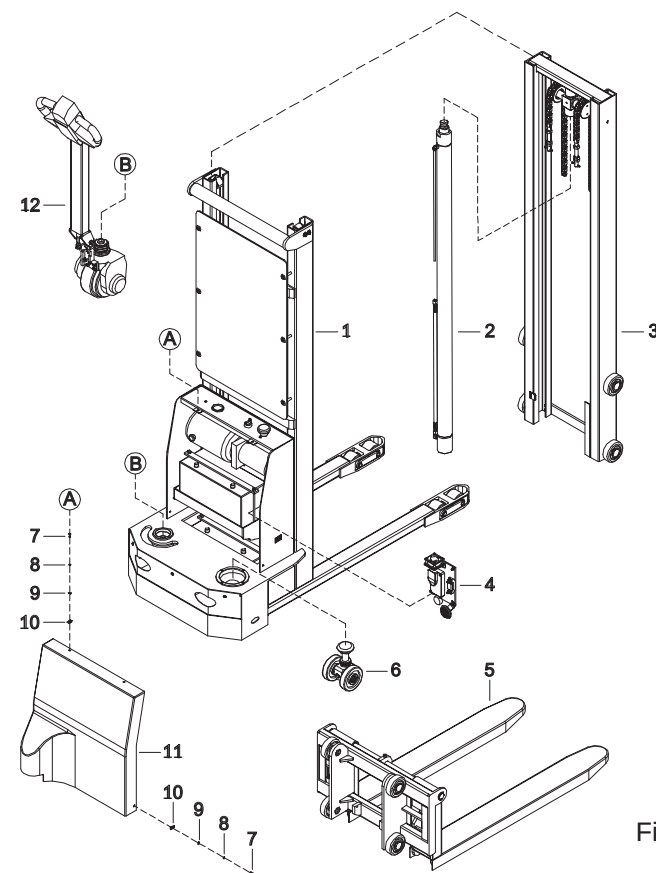


Figure 1

NO	Part Name	QTY	Remarks
1	Rack assembly	1	See Figure 2 for details.
2	Cylinder assembly	1	See Figure 3 for details.
3	Inner Portal Frame Assembly	1	See Figure 4 for details.
4	Controller assembly	1	See Figure 5 for details.
5	Lifting frame assembly	1	See Figure 6 for details.
6	Balancing Wheel Assembly	1	See Figure 7 for details.
7	Semi-circular head inner hexagonal screw M6*15	4	
8	Bullet cushion Ø6	4	
9	Flat cushion Ø6	4	
10	Plug nut M6	4	
11	Case cover	1	
12	Handle Drive Assembly	1	See Figure 8 for details.

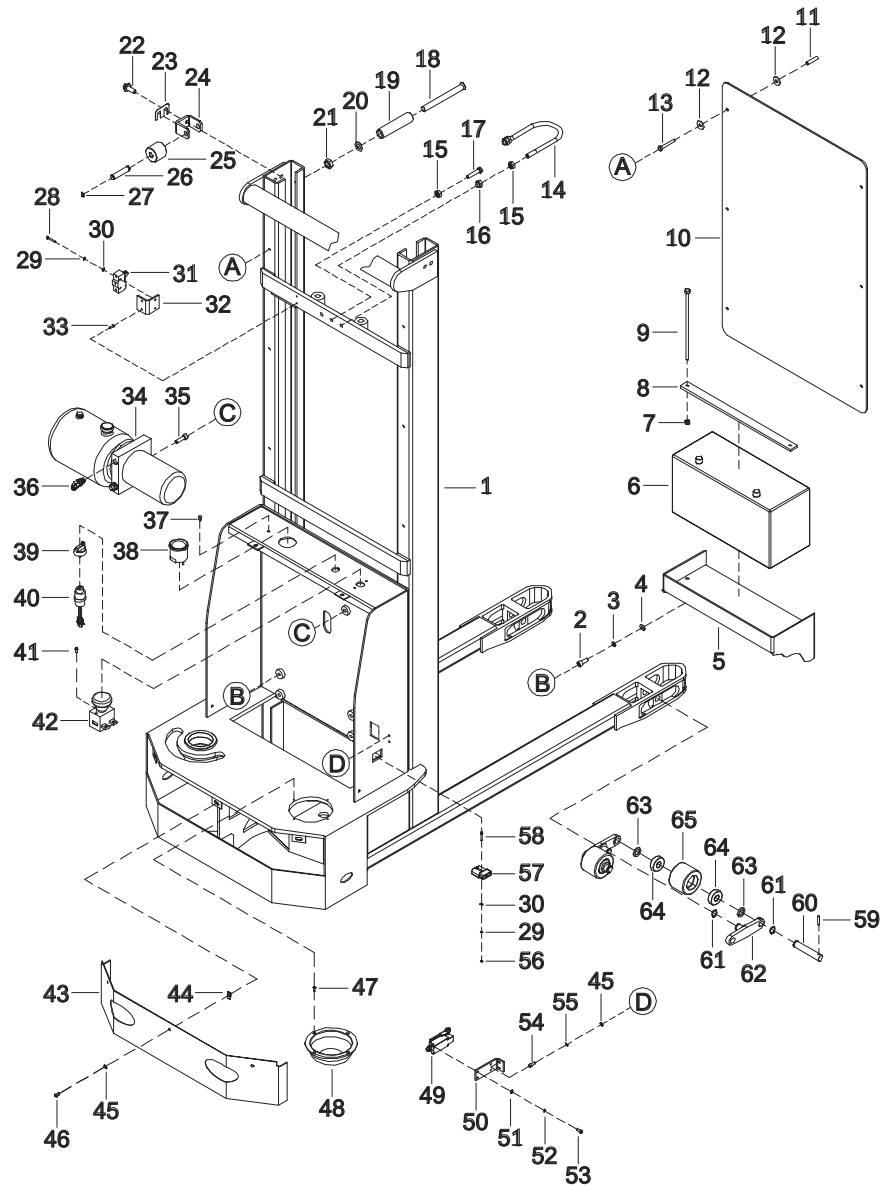


Figure 2
Rack assembly

NO	Part Name	QTY	Remarks	NO	Part Name	QTY	Remarks
1	Frame	1	Increase by 2.5m	34	Power Unit Assembly	1	see figure 9
1	Frame	1	Increase by 3m	35	Inner Hexagonal Cylindrical	2	
1	Frame	1	Increase by 3.5m		Head Screw M10*25		
2	Inner Hexagonal Cylindrical	4		36	Tubing right angle joint	1	M16X1.5 - G3/8
	Head Screw M10*15			37	Failure indicator	1	
3	Bullet cushion Ø10	4		38	Round Gauge 24V	1	
4	Flat cushion Ø10	4		39	Key	1	
5	Battery Bracket Assembly	1		40	Key switch seat	1	
6	Battery 120Ah/12v	2		41	Semi-circular head	2	
7	Self-locking nut M8	2			cross screw M5*10		
8	Battery Fixed Plate	2		42	Mushroom Switch 250A	1	
9	Battery Fixed Screw	2		43	Bench baffle	1	
10	Protective film	1	Increase by 2.5m	44	Plug nut M6	3	
10	Protective film	1	Increase by 3m	45	Flat cushion Ø6	5	
10	Protective film	1	Increase by 3.5m	46	Semi-circular head inner	3	
11	Aluminium tube 8.1 x 10 x 42	6			hexagonal screw M6*15		
12	Flat cushion Ø8	12		47	Countersunk cross screw M4*10	4	
13	Hexagonal bolt M8*45	6		48	Tool tray	1	
14	U-shaped hoop	1		49	Travel Switch D4V-8108SZ-N	1	
15	Hexagon nut M10	3		50	Mode switch mounting seat	1	
16	Cap nut M10	2		51	Flat cushion Ø5	4	
17	Hexagonal bolt M10*45	1		52	Bullet cushion Ø5	4	
18	Safety Screw for Outer Door Frame	2		53	Internal hexagonal cylindrical	4	
19	Safety screw sleeve (metal)	2			head screw M5*15		
20	Flat cushion Ø14	2		54	Internal hexagonal cylindrical	2	
21	Hexagon nut M14	2			head screw M6*15		
22	Hexagonal flange bolt M10x30	4		55	Bullet cushion Ø6	2	
23	Guide wheel insert	4		56	Hexagon nut M4	2	
24	Guide wheel frame	2		57	Cable connector 50A	1	
25	Guide wheel	2		58	Semi-circular head	2	
26	Guide axle	2			cross screw M4*30		
27	Axis retaining ring Ø12	4		59	Elastic cylindrical pin Ø4*30	4	
28	Semi-circular head	2		60	Front axle	4	
	cross screw M4*25			61	Axis retaining ring Ø20	8	
29	Bullet cushion Ø4	6		62	Balancing arm	4	
30	Flat cushion Ø4	6		63	Elastic cushion Ø20*Ø30*4	8	
31	Travel Switch LXW5-11G2	1		64	Bearing 6204	8	
32	Switch mounting seat	1		65	Front wheel Ø80*60	4	
33	Semi-circular head	2					
	cross screw M4*15						

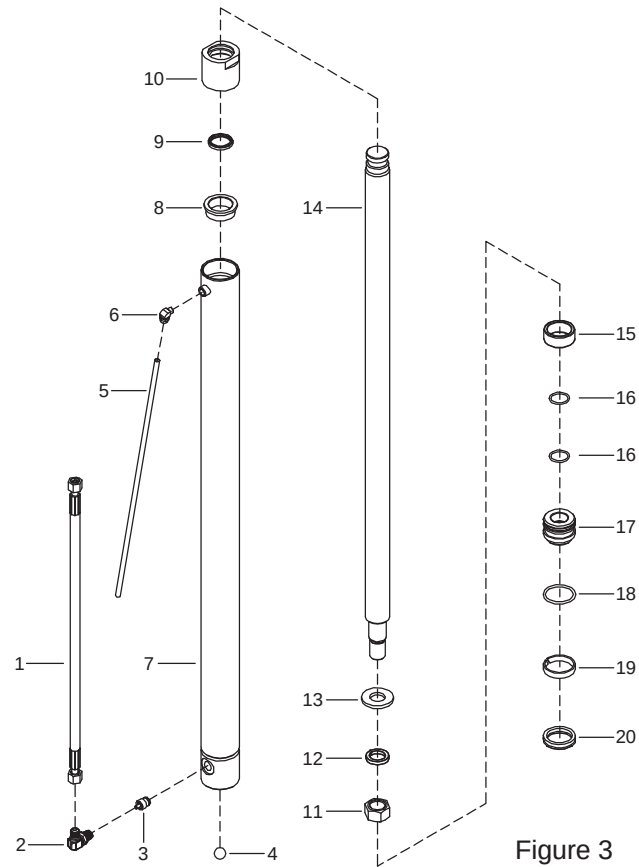


Figure 3
Cylinder assembly

NO	Part Name	QTY	Remarks	NO	Part Name	QTY	Remarks
1	Tubing	1		11	Hexagon nut M24*1.5	1	
2	Tubing right angle joint	1	M16X1.5/M16X1.5	12	Bullet cushion Ø24	1	
3	Explosion-proof valve	1		13	Piston sleeve gasket	1	
4	Steel ball SØ18	1		14	Lifting piston rod	1	1525
5	Return tubing	1		14	Lifting piston rod	1	1530
6	90°Tracheal connector	1	G1/4	14	Lifting piston rod	1	1535
7	Lift cylinder assembly	1	1525	15	Cylinder jacket	1	
7	Lift cylinder assembly	1	1530	16	O-ring d26.5x2.65	1	
7	Lift cylinder assembly	1	1535	17	Piston sleeve	1	
8	Cylinder copper sleeve	1		18	O-ring d48.7x3.55	1	
9	Dust-proof ring D53*d45*5/6.5	1		19	Wear-resistant belt D55*d50*10	1	
10	Cylinder nut	1		20	Y-ring for hole D55*d47*10	1	

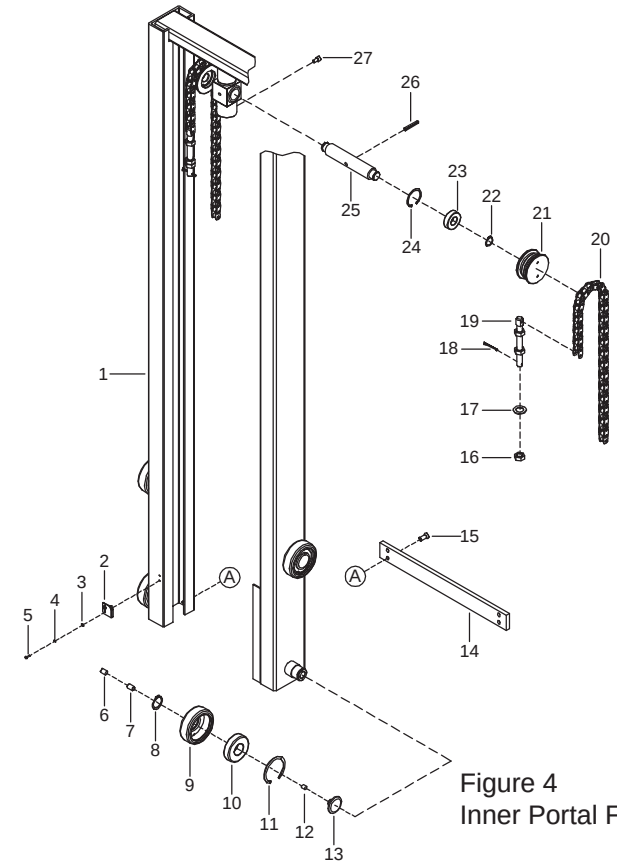


Figure 4
Inner Portal Frame Assembly

NO	Part Name	QTY	NO	Part Name	QTY
1	Inner gantry assembly	1	15	Inner Hexagonal Countersunk Head Screw M10*20	4
2	Travel Switch Limiting Block	1	16	Hexagon nut M16x1.5	6
3	Flat cushion Ø4	2	17	Flat cushion Ø16	4
4	Bullet cushion Ø4	2	18	Open pin Ø3 *35	2
5	Semi-circular head cross screw M4x10	2	19	Connecting bolt	2
6	Inner Hexagonal Cone	4	20	Load-bearing chain 12A-1	2
7	Inner Hexagonal Flat	4	21	Sprocket wheel	2
8	Axis retaining ring Ø35	4	22	Axle retaining ring Ø25	2
9	Inner door frame roller	4	23	Bearing 6205	2
10	Bearing 6307	4	24	Hole retaining ring Ø52	2
11	Hole retaining ring Ø80	4	25	Sprocket shaft	1
12	Adjusting mandrel Ø10 *12	4	26	Elastic cylindrical pin Ø8*50	1
13	Nylon adjusting pad	4	27	Internal hexagonal cylindrical head screw M8*16	1
14	Lower connecting plate of inner gantry	1			

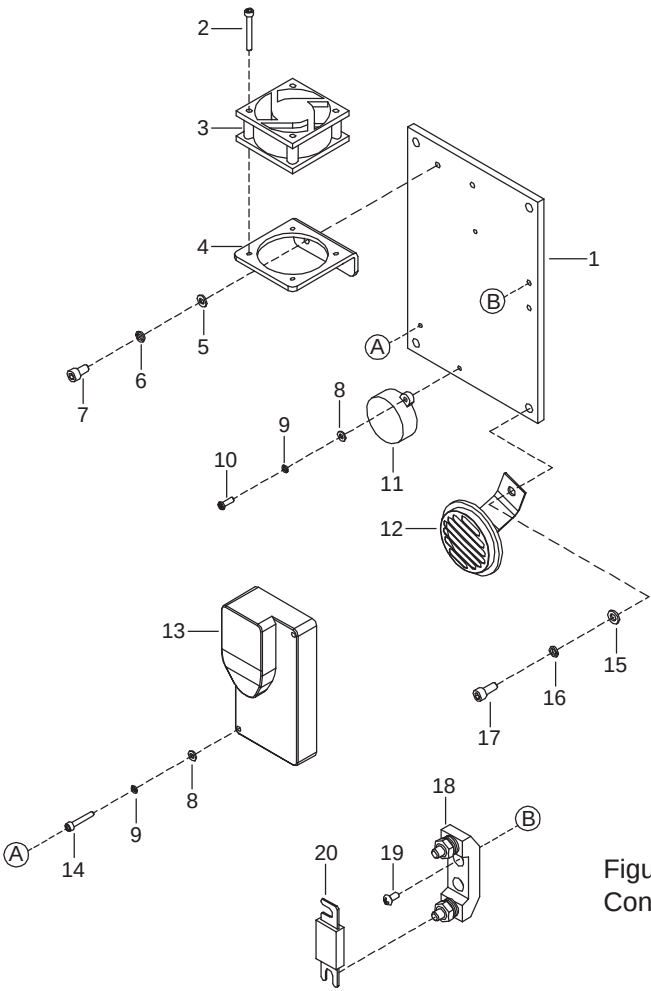


Figure 5
Controller assembly

NO	Part Name	QTY	Remarks	NO	Part Name	QTY	Remarks
1	Controller mounting board	1		11	Buzzer	1	
2	Internal hexagonal cylindrical head screw M4*30	4		12	Electric horn	1	DC24V /1.5A
3	Cooling fan	1	DC24V / 0.2A	13	CURTIS controller 1122S	1	
4	Fan mounting plate	1		14	Internal hexagonal cylindrical head screw M4*25	2	
5	Flat cushion Ø5	2		15	Flat cushion Ø6	4	
6	Bullet cushion Ø5	2		16	Bullet cushion Ø6	4	
7	Internal hexagonal cylindrical head screw M5*15	2		17	Internal hexagonal cylindrical head screw M6*15	4	
8	Flat cushion Ø4	3		18	DC Fuse Seat	1	
9	Bullet cushion Ø4	3		19	Semi-circular head cross screw M5*15	2	
10	Semi-circular head cross screw M4*15	1		20	DC fused sheet 200A	1	

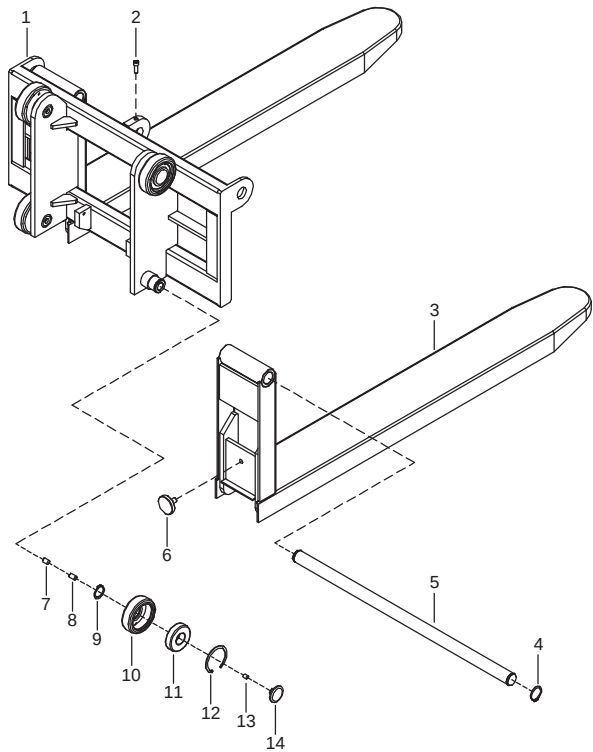


Figure 6
Lifting frame assembly

NO	Part Name	QTY	NO	Part Name	QTY
1	Elevator assembly	1	8	Inner Hexagonal Flat End Fixing Screw M12*20	4
2	Internal hexagonal cylindrical head screw M8*25	1	9	Axis retaining ring Ø35	4
3	Fork assembly	2	10	Elevator roller	4
4	Axis retaining ring Ø32	2	11	Bearing 6307	4
5	Long axle of lifting frame	1	12	Hole retaining ring Ø80	4
6	Fork adjusting screw	2	13	Adjusting mandrel Ø10 *12	4
7	Inner Hexagonal Cone End Fixing Screw M12*20	4	14	Nylon adjusting pad	4

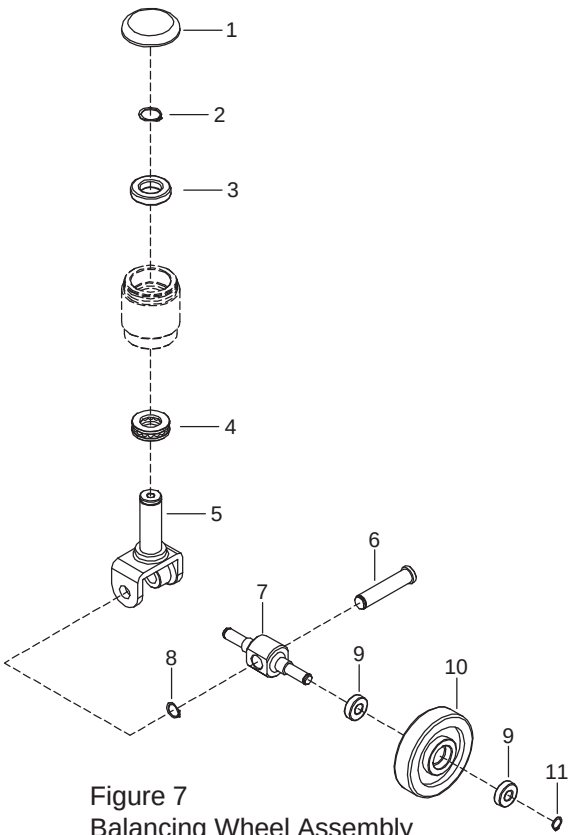


Figure 7
Balancing Wheel Assembly

NO	Part Name	QTY
1	Dust cover 2	1
2	Axis retaining ring Ø30	1
3	Bearing 6006	1
4	Bearing 51206	1
5	Universal Fork Assembly	1
6	Universal fork axle	1
7	Balancing Wheel Shaft	1
8	Axis retaining ring Ø20	1
9	Bearing 6202	2
10	Balancing wheel Ø125*30	1
11	Axis retaining ring Ø15	2

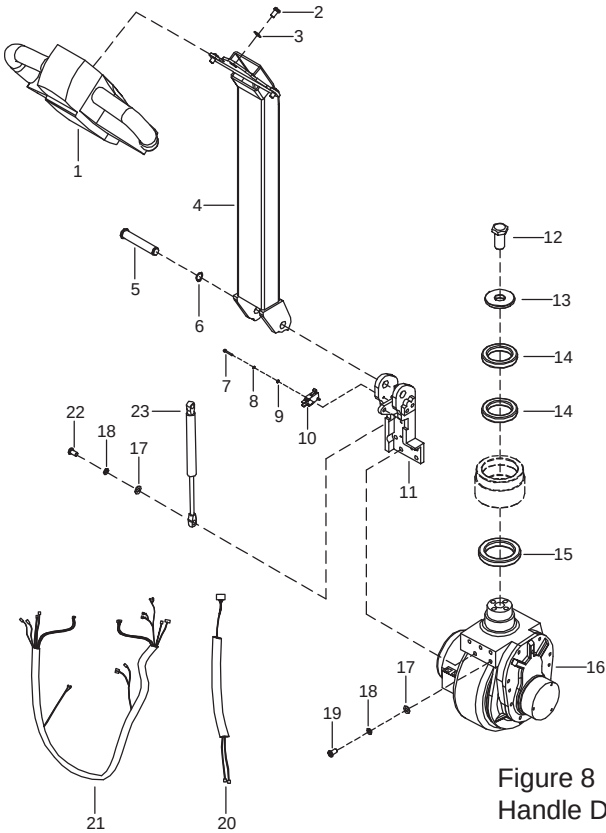


Figure 8
Handle Drive Assembly

NO	Part Name	QTY	Remarks	NO	Part Name	QTY	Remarks
1	Control Handle Assembly	1	see figure10	13	Bolt pad	1	
2	Semi-circular head	3		14	Bearing 61910	2	
	hexagonal screw M8*15			15	Bearing 61912	1	
3	Large washer Ø8	1		16	Drive Wheel Assembly	1	see figure11
4	Handle square tube assembly	1		17	Flat cushion Ø8	6	
5	Handle pin	1		18	Bullet cushion Ø8	6	
6	Axis retaining ring Ø16	1		19	Semi-circular head	5	
7	Internal hexagonal cylindrical	2			hexagonal screw M8*25		
	head screw M3*20			20	Handle control wiring harness	1	
8	Bullet cushion Ø3	2		21	Wire Harness Assembly	1	
9	Flat cushion Ø3	2		22	Semi-circular head inner	1	
10	Micro-switch V15T16	1			hexagonal screw M8*20		
11	Handle steering seat	1		23	Air spring Ø8*290	1	650N
12	Driving wheel coupling bolt	1					

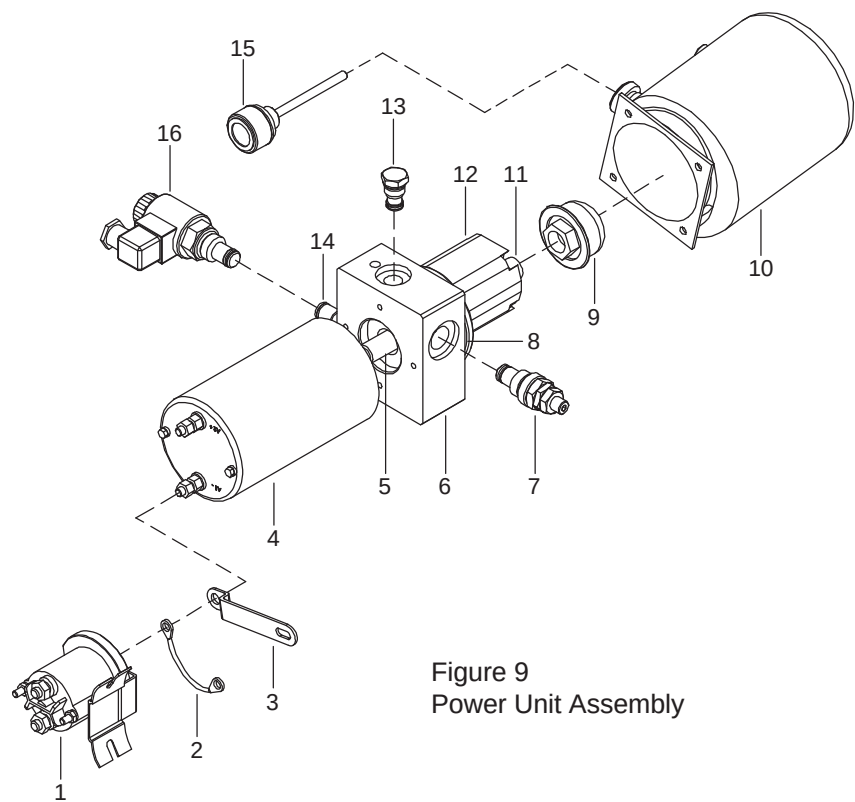


Figure 9
Power Unit Assembly

NO	Part Name	QTY	NO	Part Name	QTY
1	Start switch	1	9	Filter screen	1
2	Connecting line	1	10	tank	1
3	Copper connector	1	11	Joint	1
4	Electric machinery	1	12	gear pump	1
5	coupling	1	13	Unidirectional valve	1
6	Valve block	1	14	Flow control valve	1
7	Relief valve	1	15	Oil dipstick	1
8	Seal ring	1	16	Solenoid valve	1

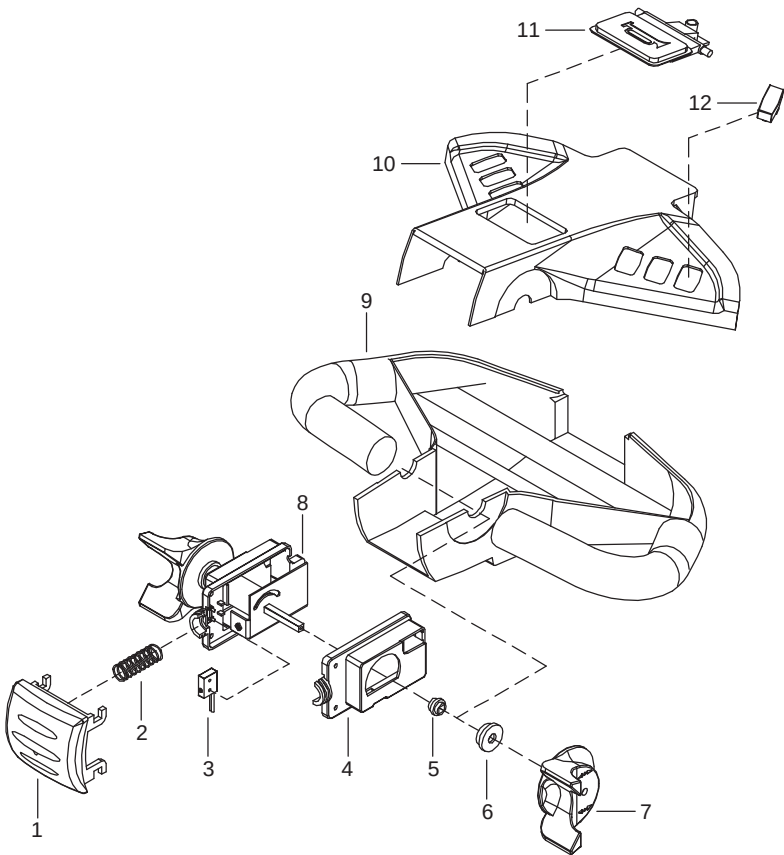
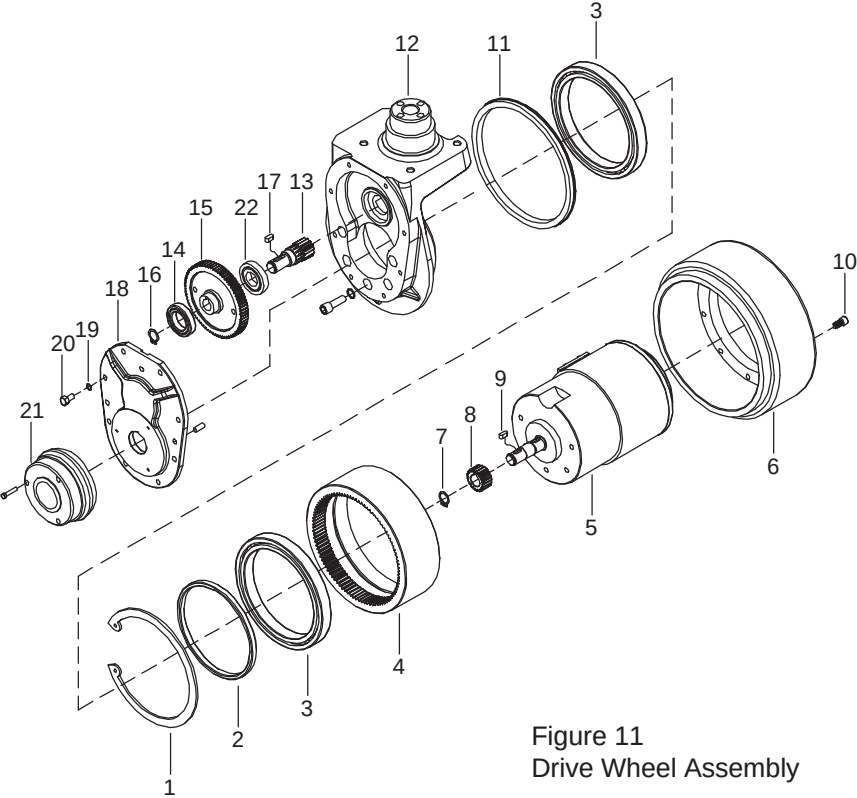


Figure 10
Control Handle Assembly

NO	Part Name	QTY	Remarks
1	Emergency reverse switch	1	
2	Reverse switch spring	1	
3	The micro switch	6	
4	Bracket housing	1	
5	Axle sleeve	2	
6	Axle jacket	2	
7	Accelerator knob	2	
8	accelerator	1	ET-126MCU
9	Handle base	1	
10	Handle cap	1	
11	Horn switch	1	
12	Control switch	3	



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NO	Part Name	QTY	NO	Part Name	QTY
1	Hole retaining ring Ø150	1	12	Box body	1
2	Spacer	1	13	Small straight teeth	1
3	Bearing 61824-2RS	2	14	Bearing 61905-2Z	1
4	Spur ring	1	15	Great helical teeth	1
5	Motor	1	16	Axis retaining ring Ø16	1
6	Driving wheel	1	17	Flat bond 5 x 5 x 18	1
7	Axis retaining ring Ø15	2	18	Case cover	1
8	Small helical teeth	1	19	Bullet cushion Ø6	8
9	Flat bond 5 x 5 x 12	2	20	Cylindrical head hexagonal screw M6*16	8
10	Cylindrical head inner hexagonal screw M6*25	8	21	Brake assembly	1
11	Skeleton Oil Seal 16 x 30 x 8	1	22	Bearing 16004-2Z	1

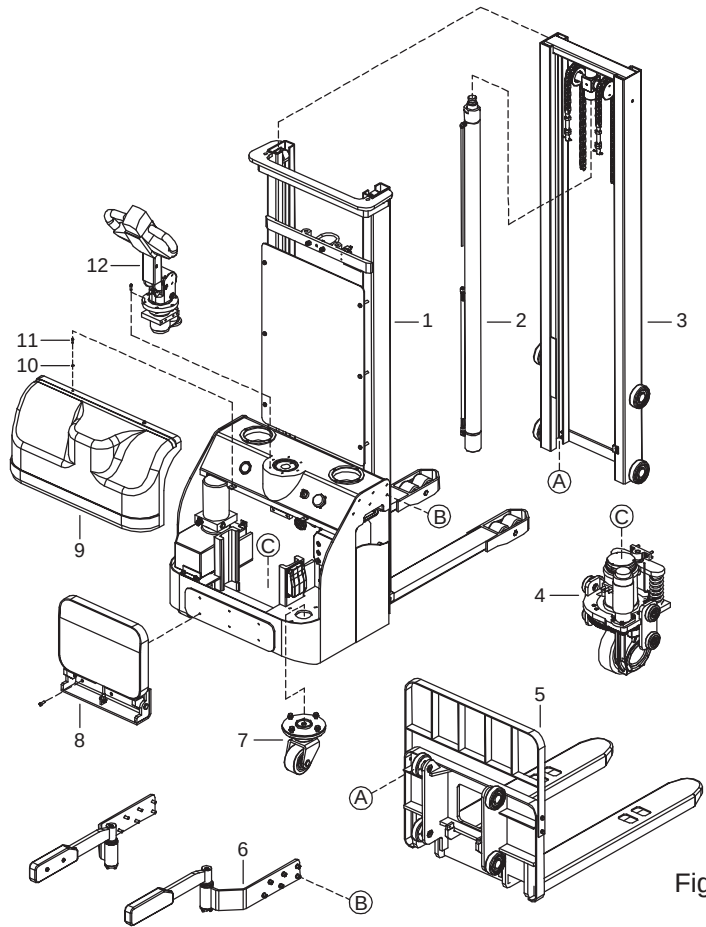
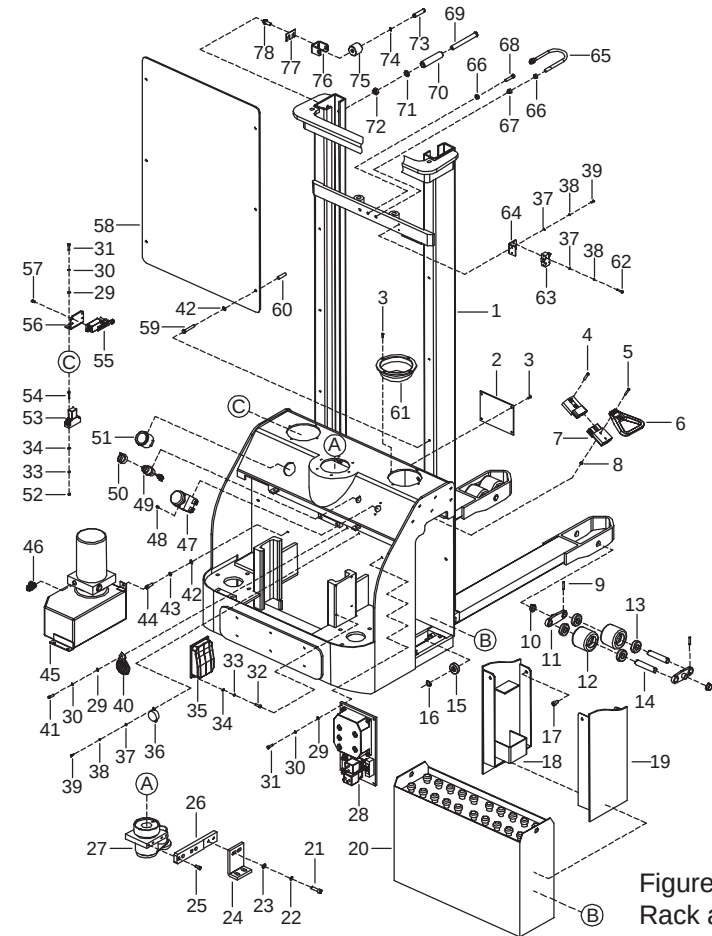


Figure 1

NO	Part Name	QTY	Remarks
1	Rack assembly	1	See Figure 2 for details.
2	Cylinder assembly	1	See Figure 3 for details.
3	Inner Portal Frame Assembly	1	See Figure 4 for details.
4	Drive assembly	1	See Figure 5 for details.
5	Lifting frame assembly	1	See Figure 6 for details.
6	Arm protector assembly	1	See Figure 7 for details.
7	Balancing Wheel Assembly	2	See Figure 8 for details.
8	Pedal assembly	1	See Figure 9 for details.
9	Case cover	1	
10	Flat cushion Ø6	2	
11	Semi-circular head inner hexagonal screw M6*15	2	
12	Handle assembly	1	See Figure 10 for details.

Figure 2
Rack assembly

NO	Part Name	QTY	Remarks	NO	Part Name	QTY
1	Frame	1	Increase by 2.5m	13	Bearing 6204-2Z	1
1	Frame	1	Increase by 3m	14	Front axle	1
1	Frame	1	Increase by 3.5m	15	Battery roller	1
2	Damper mounting seal plate	1		16	Axis retaining ring Ø20	8
3	Countersunk cross screw M4*10	12		17	Inner Hexagonal Cylindrical Head Screw M10*15	4
4	Semi-circular head cross screw M6*30	2		18	Left door	4
5	Semi-circular head cross screw M6*40	2		19	Right door	4
6	Plug handle	1		20	Battery 170Ah/24v	8
7	Cable connector 175A	2		21	Inner Hexagonal Cylindrical Head Screw M10*20	8
8	Hexagon nut M6	2		22	Bullet cushion Ø10	4
9	Elastic cylindrical pin Ø5*30	8		23	Flat cushion Ø10	1
10	Flanging bushing Ø20*Ø23*11.5	4		24	Damper mounting seat	2
11	Balancing arm	4		25	Internal hexagonal cylindrical head screw M8*20	4
12	Front wheel Ø80*70	4	Yellow PU wheel	26	Damper mounting plate	2

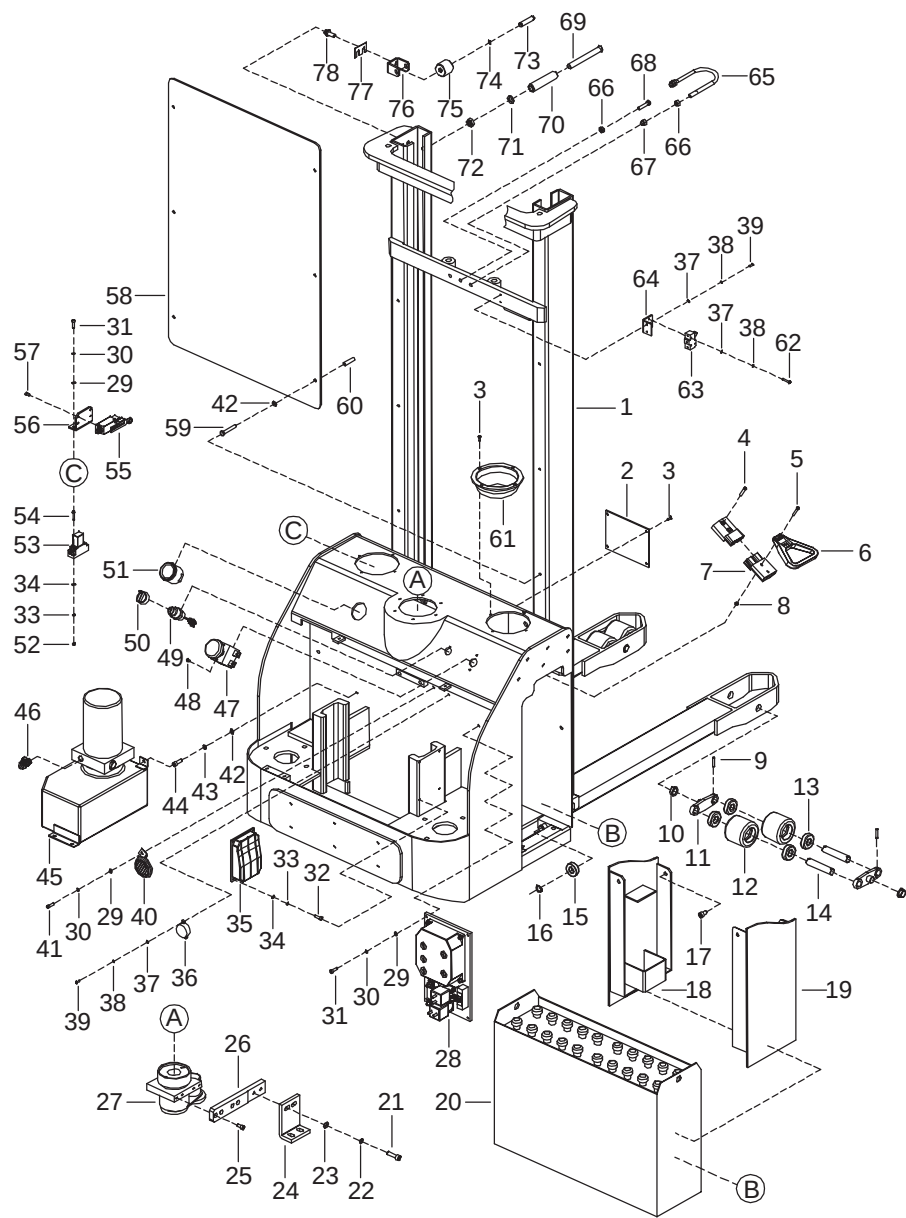


Figure 2
Rack assembly

NO	Part Name	QTY	Remarks
27	damper	1	
28	Controller assembly	1	See Figure 11 for details.
29	Flat cushion Ø6	7	
30	Bullet cushion Ø6	7	
31	Internal hexagonal cylindrical head screw M6*20	6	
32	Internal hexagonal cylindrical head screw M5*20	4	
33	Bullet cushion Ø5	6	
34	Flat cushion Ø5	6	
35	Steering motor controller	1	
36	Buzzer	1	
37	Flat cushion Ø4	5	
38	Bullet cushion Ø4	5	
39	Semi-circular head cross screw M4*15	3	
40	Electric Horn DL-125G	1	
41	Internal hexagonal cylindrical head screw M6*15	1	
42	Flat cushion Ø8	9	
43	Bullet cushion Ø8	3	
44	Internal hexagonal cylindrical head screw M8*15	3	
45	Power Unit Assembly	1	See Figure 12 for details.
46	Tubing right angle joint	1	M16×1.5 / G 3/8
47	Mushroom Switch 250A	1	
48	Semi-circular head cross screw M5*15	2	
49	Key switch seat	1	
50	Key	1	
51	Round Gauge 24V	1	
52	Hexagon nut M5	2	
53	Relay JQX-13F-LY2C-L	1	
54	Semi-circular head cross screw M5*25	2	
55	Travel Switch D4V-8108SZ-N	1	
56	Mode switch mounting seat	1	
57	Internal hexagonal cylindrical head screw M5*15	4	
58	Protective film	1	Increase by 2.5m
58	Protective film	1	Increase by 3m
58	Protective film	1	Increase by 3.5m
59	Hexagonal bolt M8*45	6	
60	Aluminum tube	6	
61	Tool tray	2	
62	Semi-circular head cross screw M4*25	2	
63	Travel Switch LXW5-11G2	1	
64	Switch mounting seat	1	
65	U-shaped hoop	1	
66	Hexagon nut M10	3	
67	Cap nut M10	2	
68	Hexagonal bolt M10*45	1	
69	Safety Screw for Outer Door Frame	2	
70	Safety screw sleeve (metal)	2	
71	Flat cushion Ø14	2	
72	Hexagon nut M14	2	
73	Guide axle	2	
74	Axis retaining ring Ø12	4	
75	Guide wheel	2	
76	Guide wheel frame	2	
77	Guide wheel insert	4	
78	Hexagonal flange bolt M10x30	4	

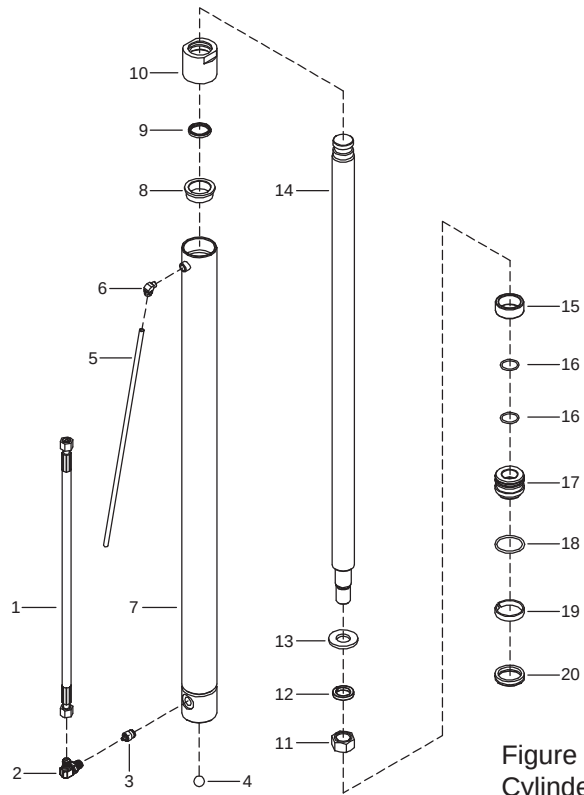


Figure 3
Cylinder assembly

NO	Part Name	QTY	Remarks	NO	Part Name	QTY	Remarks
1	Tubing	1		11	Hexagon nut M24*1.5	1	
2	Tubing right angle joint	1	M16X1.5/M16X1.5	12	Bullet cushion Ø24	1	
3	Explosion-proof valve	1		13	Piston sleeve gasket	1	
4	Steel ball SØ18	1		14	Lifting piston rod	1	1525
5	Return tubing	1		14	Lifting piston rod	1	1530
6	90 degree bend joint of trachea	1	G1/4	14	Lifting piston rod	1	1535
7	Lift cylinder assembly	1	1525	15	Cylinder jacket	1	
7	Lift cylinder assembly	1	1530	16	O-ring d26x2.65	2	
7	Lift cylinder assembly	1	1535	17	Piston sleeve	1	
8	Cylinder copper sleeve	1		18	O-ring d48.7x3.55	1	
9	Dust-proof ring D53*d45*5/6.5	1		19	Wear-resistant belt D55*d50*10	1	
10	Cylinder nut	1		20	Y-ring for hole D55*d47*10	1	

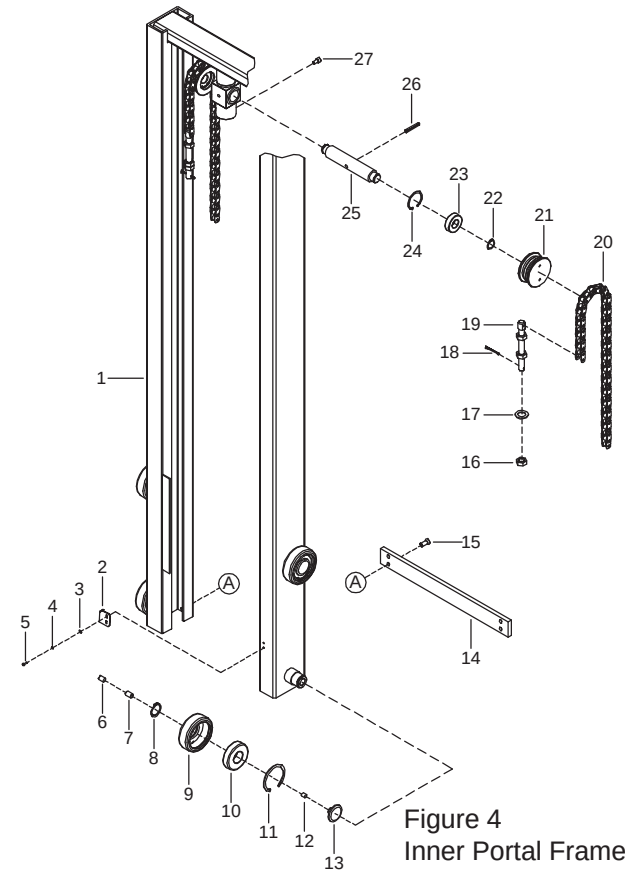


Figure 4
Inner Portal Frame Assembly

NO	Part Name	QTY	NO	Part Name	QTY
1	Inner gantry assembly	1	15	Inner Hexagonal Countersunk Head Screw M10*20	4
2	Travel Switch Limiting Block	1	16	Hexagon nut M16x1.5	6
3	Flat cushion Ø4	2	17	Flat cushion Ø16	4
4	Bullet cushion Ø4	2	18	Open pin Ø3 *35	2
5	Semi-circular head cross screw M4x10	2	19	Connecting bolt	2
6	Inner Hexagonal Cone End Fixing Screw M12*20	4	20	Load-bearing chain 12A-1	2
7	Inner Hexagonal Flat End Fixing Screw M12*20	4	21	Sprocket wheel	2
8	Axis retaining ring Ø35	4	22	Axle retaining ring Ø25	2
9	Inner door frame roller	4	23	Bearing 6205	2
10	Bearing 6307	4	24	Hole retaining ring Ø52	2
11	Hole retaining ring Ø80	4	25	Sprocket shaft	1
12	Adjusting mandrel Ø10 *12	4	26	Elastic cylindrical pin Ø8*50	1
13	Nylon adjusting pad	4	27	Internal hexagonal cylindrical head screw M8*16	1
14	Lower connecting plate of inner gantry	1			

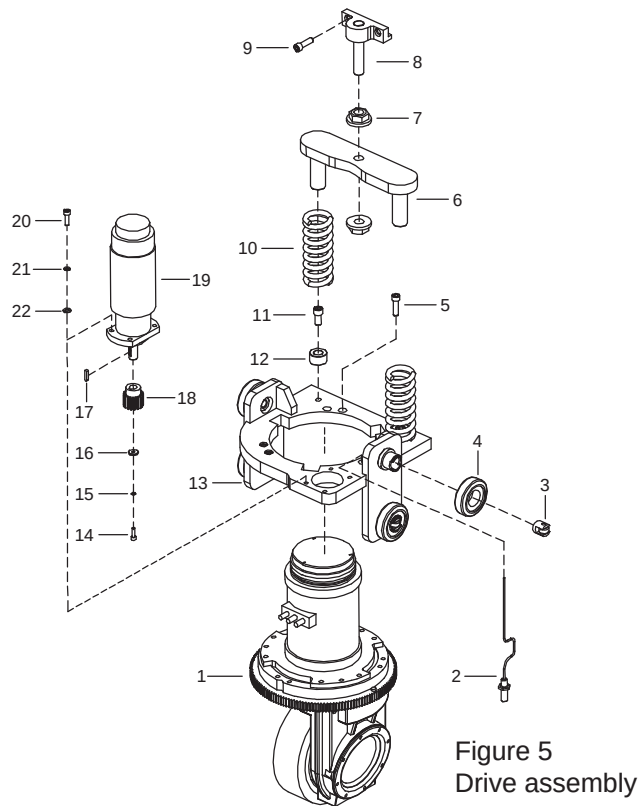


Figure 5
Drive assembly

NO	Part Name	QTY	Remarks	NO	Part Name	QTY
1	Drive Wheel Assembly	1	See Figure 13	12	Spring positioning block	2
2	Proximity switch	1		13	Drive Wheel Plate Assembly	1
3	Side wheel	4		14	Internal hexagonal cylindrical head screw M6*25	1
4	Composite roller Ø78.3	4		15	Bullet cushion Ø6	1
5	Inner Hexagonal Cylindrical Head Screw M10*35	6		16	Shim	1
6	Pressure spring fixing plate assembly	1		17	Flat bond 5 x 5 x 20	1
7	Plate locking nut	2		18	Pinion	1
8	Fixed Seat Welding	1		19	Steering motor 200W	1
9	Inner Hexagonal Cylindrical Head Screw M10*30	2		20	Internal hexagonal cylindrical head screw M8*25	4
10	Pressure spring	2		21	Bullet cushion Ø8	4
11	Inner Hexagonal Cylindrical Head Screw M12*25	2		22	Flat cushion Ø8	4

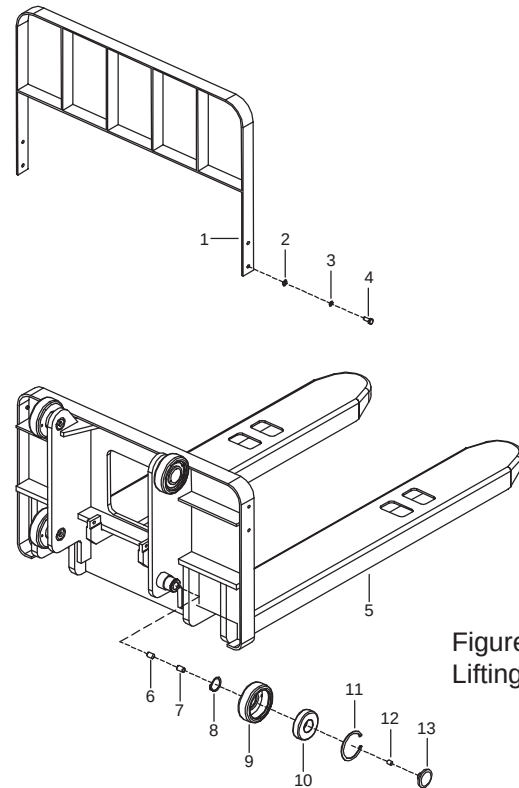


Figure 6
Lifting frame assembly

NO	Part Name	QTY
1	Shield rack assembly	1
2	Flat cushion Ø8	4
3	Bullet cushion Ø8	4
4	Hexagonal bolt M8*20	4
5	Elevator assembly	1
6	Inner Hexagonal Cone End Fixing Screw M12*20	4
7	Inner Hexagonal Flat End Fixing Screw M12*20	4
8	Axis retaining ring Ø35	4
9	Elevator roller	4
10	Bearing 6307	4
11	Hole retaining ring Ø80	4
12	Adjusting mandrel Ø10 *12	4
13	Nylon adjusting pad	4

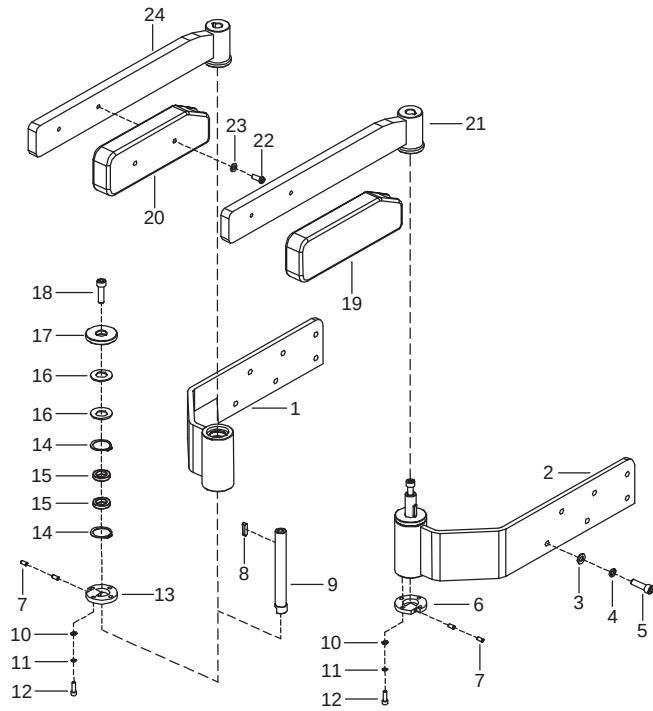


Figure 7
Arm protector assembly

NO	Part Name	QTY	NO	Part Name	QTY
1	Arm support plate assembly (left)	1	13	Arm Limiting Plate (left)	1
2	Arm support plate assembly (right)	1	14	Hole retaining ring Ø32	4
3	Flat cushion Ø10	12	15	Bearing 61804	4
4	Bullet cushion Ø10	12	16	Butterfly washer 20 *40 *2.5	4
5	Semi-circular head inner hexagonal screw M10*20	12	17	Axle sleeve cover plate	2
6	Arm Limiting Plate (Right)	1	18	Inner Hexagonal Cylindrical Head Screw M10*30	2
7	Internal Hexagonal Flat End Fixing Screw M6*8	4	19	PU foam sheath (right)	1
8	Flat bond 6*6*20	2	20	PU foam sheath (left)	1
9	Arm shaft	2	21	Arm plate assembly (right)	1
10	Flat cushion Ø6	8	22	Semi-circular head hexagonal screw M8*25	4
11	Bullet cushion Ø6	8	23	Flat cushion Ø8	4
12	Internal hexagonal cylindrical head screw M6*20	8	24	Arm plate assembly (left)	1

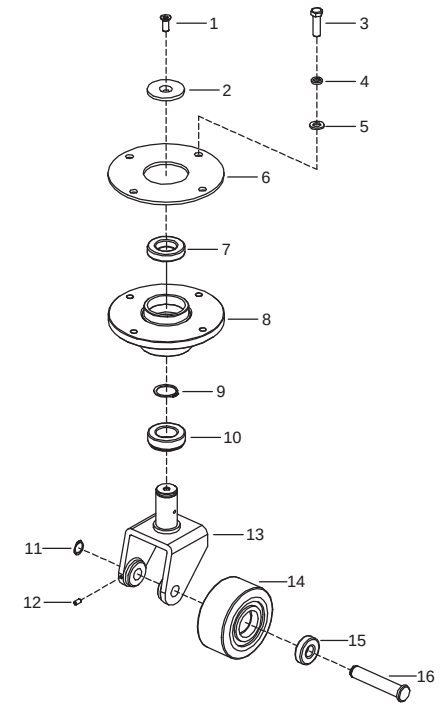


Figure 8
Balancing Wheel Assembly

NO	Part Name	QTY	NO	Part Name	QTY
1	Inner Hexagonal Countersunk Head Screw M10*20	1	9	Axis retaining ring Ø35	1
2	Dust cover	1	10	Bearing 33007	1
3	Hexagonal bolt M12*40	4	11	Axis retaining ring Ø20	1
4	Bullet cushion Ø12	4	12	Internal Hexagonal Cone End Fixing Screw M6*10	1
5	Flat cushion Ø12	4	13	Balancing fork assembly	1
6	PU pad	1	14	Balancing Wheel Ø125*60	1
7	Bearing 6007	1	15	Bearing 6204	2
8	Steering disc assembly	1	16	Balanced fork axle	1

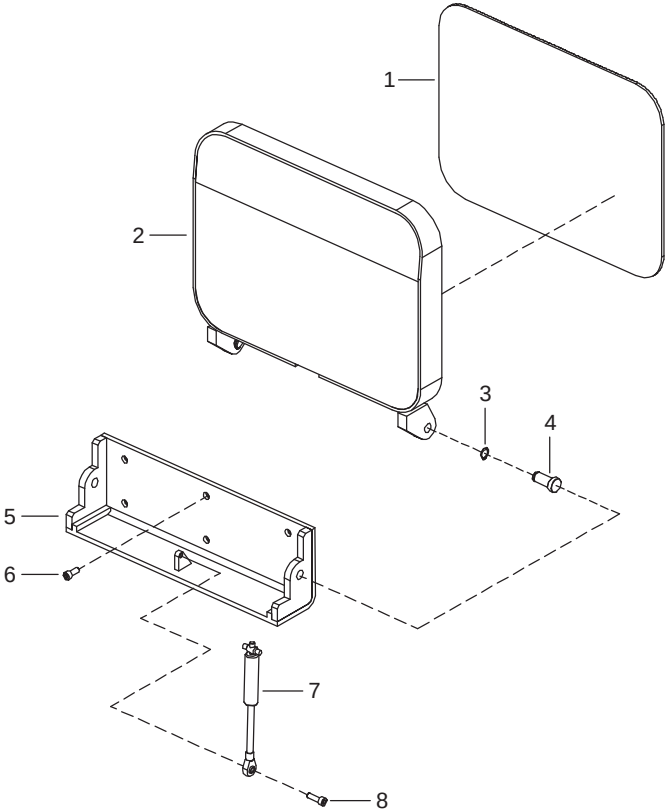


Figure 9
Pedal assembly

NO	Part Name	QTY	Remarks
1	Non-slip mat	1	
2	Pedal assembly	1	
3	Axis retaining ring Ø16	2	
4	Pedal coupling shaft	2	
5	Pedal support assembly	1	
6	Internal hexagonal cylindrical head screw M8*15	6	
7	Air spring Ø8*290	1	500N
8	Internal hexagonal cylindrical head screw M8*25	1	

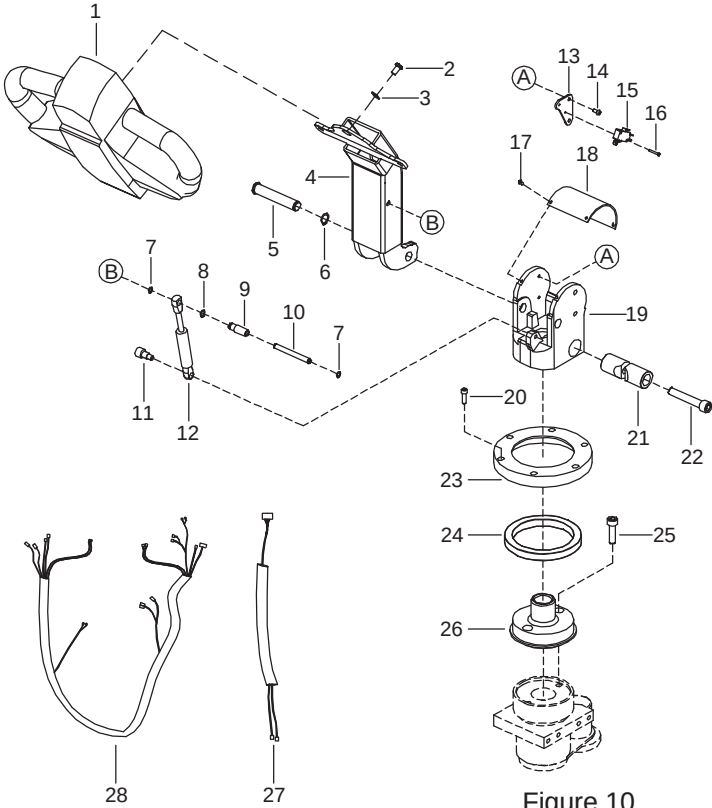


Figure 10
Handle assembly

NO	Part Name	QTY	Remarks	NO	Part Name	QTY
1	Control Handle Assembly	1	See Figure 14	15	Micro-switch V15T16	1
2	Semi-circular head hexagonal screw M8*15	3		16	Semi-circular head cross screw M3*15	2
3	Large washer Ø8	1		17	Semi-circular head cross screw M4*8	4
4	Handle square tube assembly	1		18	Handle seat cover	1
5	Handle pin	1		19	Handle seat	1
6	Axis retaining ring Ø16	1		20	Internal hexagonal cylindrical head screw M6*20	6
7	Axis retaining ring 8	2		21	Handle base locking block	1
8	Axis retaining ring Ø10	1		22	Inner Hexagonal Cylindrical Head Screw M12*70	1
9	Gas Spring Sleeve	1		23	Upper support	1
10	Pneumatic spring upper pin shaft	1		24	Bearing 61820	1
11	Air spring lower pin shaft	1		25	Inner Hexagonal Cylindrical Head Screw M10*35	2
12	Gas spring Ø10*152	1	400N	26	Lower support	1
13	Handle pedestal ear plate	1		27	Handle control wiring harness	1
14	Semi-circular head cross screw M5*10	2		28	Wire Harness Assembly	1

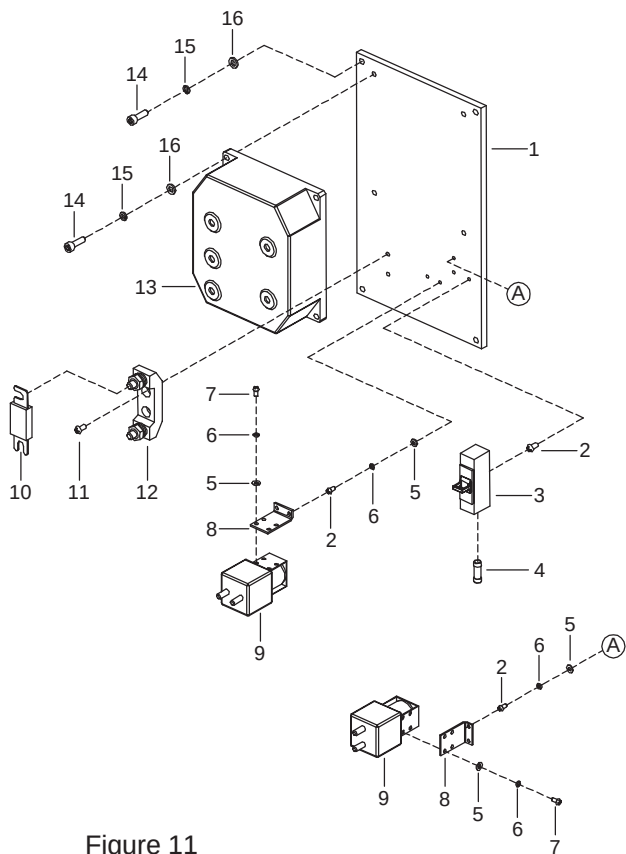


Figure 11
Controller assembly

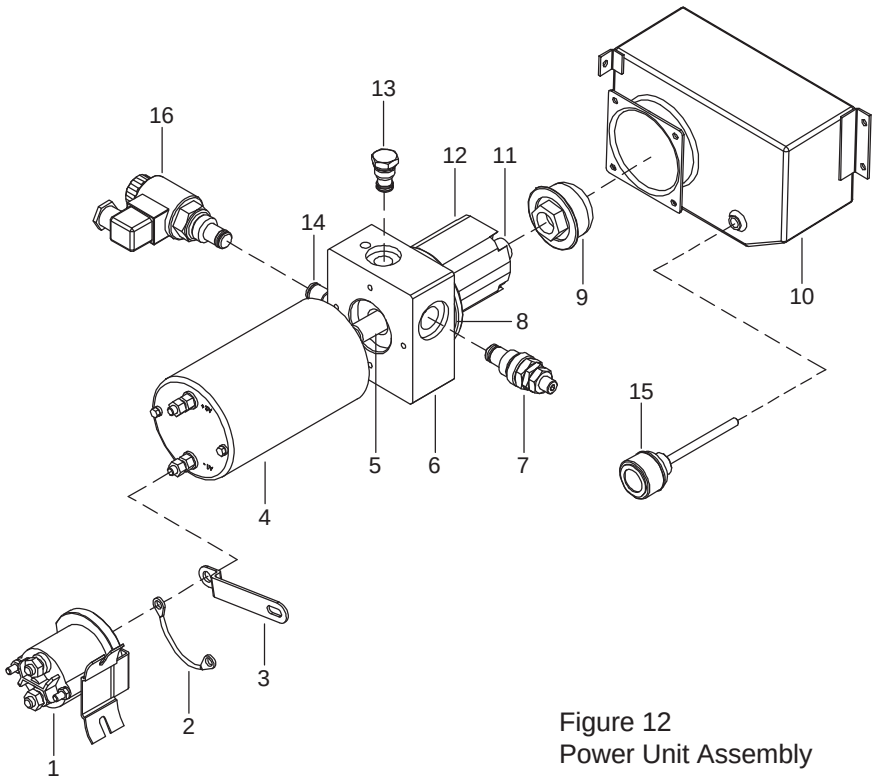


Figure 12
Power Unit Assembly

NO	Part Name	QTY	NO	Part Name	QTY	Remarks
1	Controller mounting board	1	9	DC contactor ZJWP100L	2	24v/200A
2	Semi-circular head cross screw M4*10	5	10	DC fused sheet 200A	1	
3	Fuse base	1	11	Semi-circular head cross screw M5*15	2	
4	Fuse 4A	1	12	DC Fuse Seat	1	
5	Flat cushion Ø4	12	13	CURTIS controller 1230	1	
6	Bullet cushion Ø4	12	14	Internal hexagonal cylindrical head screw M6*20	8	
7	Semi-circular head cross screw M4*6	8	15	Bullet cushion Ø6	8	
8	Contactor mount	2	16	Flat cushion Ø6	8	

NO	Part Name	QTY	NO	Part Name	QTY
1	Start switch	1	9	Filter screen	1
2	Connecting line	1	10	tank	1
3	Copper connector	1	11	Joint	1
4	Electric machinery	1	12	gear pump	1
5	coupling	1	13	Unidirectional valve	1
6	Valve block	1	14	Flow control valve	1
7	Relief valve	1	15	Oil dipstick	1
8	Seal ring	1	16	Solenoid valve	1

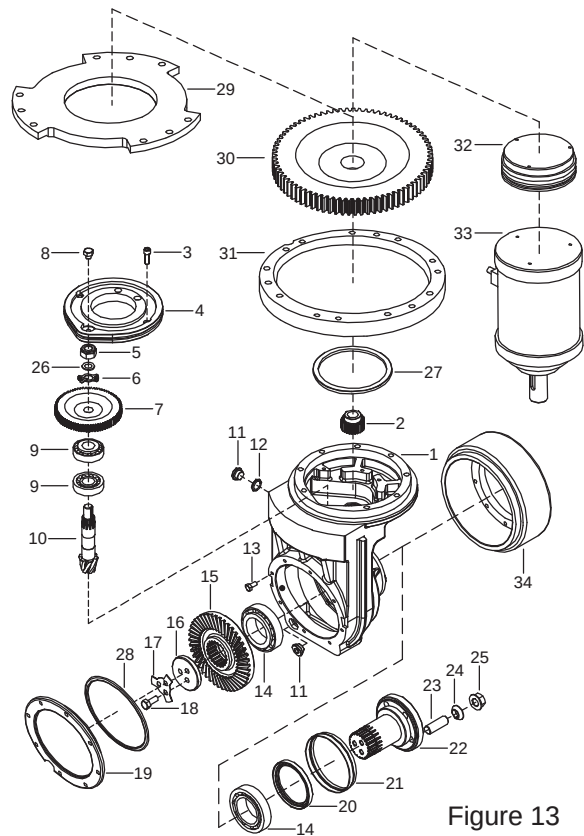


Figure 13
Drive Wheel Assembly

NO	Part Name	QTY	NO	Part Name	QTY
1	Box body	1	18	Hexagonal bolt M8*25	3
2	Pinion	1	19	Side cover plate	1
3	Internal hexagonal cylindrical head screw M6*16	4	20	Skeleton oil seal TC80*65*8	1
4	Upper cover plate	1	21	Dustproof ring	1
5	Self-locking nut M14*1.5	1	22	output shaft	1
6	Stop washer M14	1	23	Rim bolt M12*42	5
7	Great helical teeth	1	24	Rim bolt washer	5
8	T Ventilation Cap	1	25	Flange nut M12	5
9	Bearing 30204	2	26	Flat cushion 14	1
10	Small umbrella gear shaft	1	27	O-ring D125 *3.55	1
11	Screw plug	2	28	O-ring d135*4	1
12	Gasket Ø14x2	2	29	Transition connection disc	1
13	Hexagonal bolt M6*16	8	30	Big gear wheel	1
14	Bearing 32009	2	31	Rotary bearing	1
15	Big umbrella teeth	1	32	Brake assembly	1
16	Large gasket	1	33	Electric machinery	1
17	Special washers	1	34	Driving wheel	1

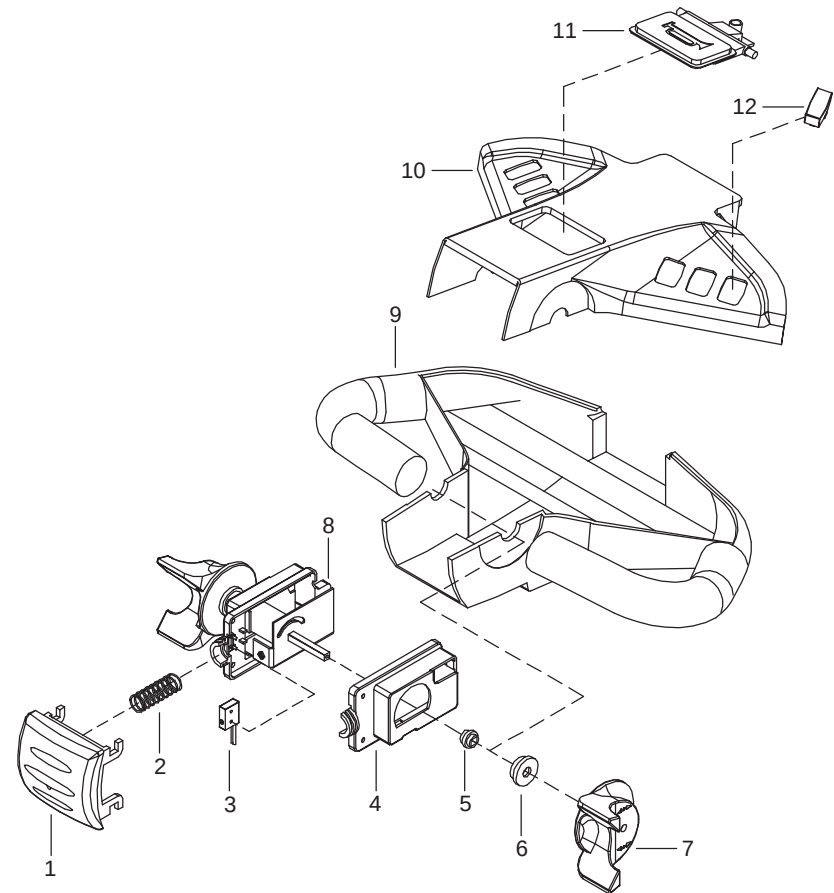


Figure 14
Control Handle Assembly

NO	Part Name	QTY	Remarks
1	Emergency reverse switch	1	
2	Reverse switch spring	1	
3	The micro switch	6	
4	Bracket housing	1	
5	Axle sleeve	2	
6	Axle jacket	2	
7	Accelerator knob	2	
8	accelerator	1	ET-126MCU
9	Handle base	1	
10	Handle cap	1	
11	Horn switch	1	
12	Control switch	3	

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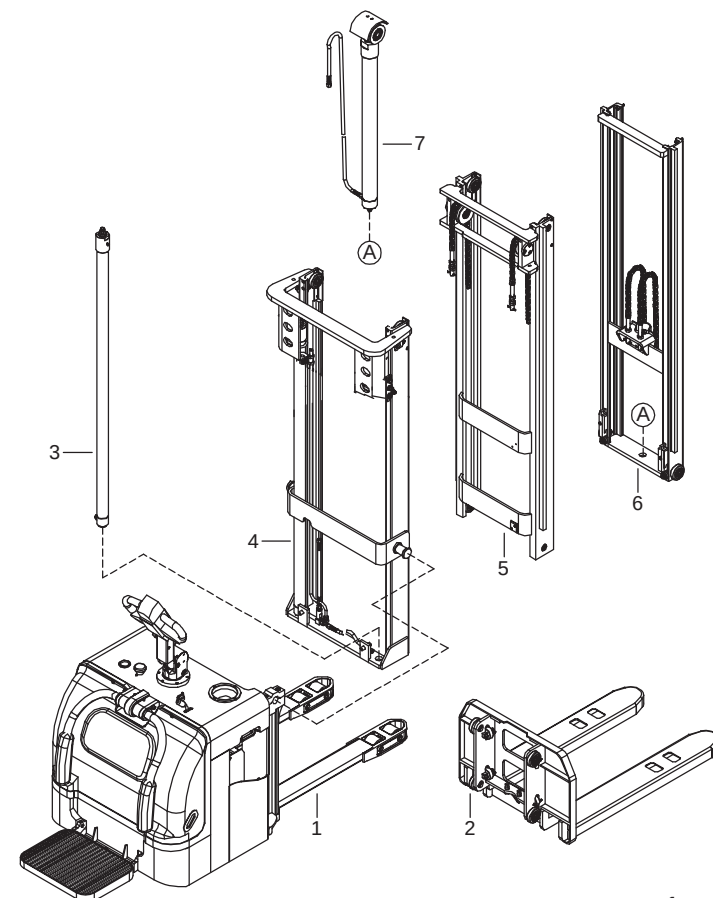


Figure 1

NO	Part Name	QTY	Remarks
1	Rack assembly	1	See Figure 2 for details.
2	Lifting frame assembly	1	See Figure 3 for details.
3	Rear Cylinder Assembly	2	See Figure 4 for details.
4	Outer Portal Frame Assembly	1	See Figure 5 for details.
5	Medium Portal Frame Assembly	1	See Figure 6 for details.
6	Inner Portal Frame Assembly	1	See Figure 7 for details.
7	Intermediate Cylinder Assembly	1	See Figure 8 for details.

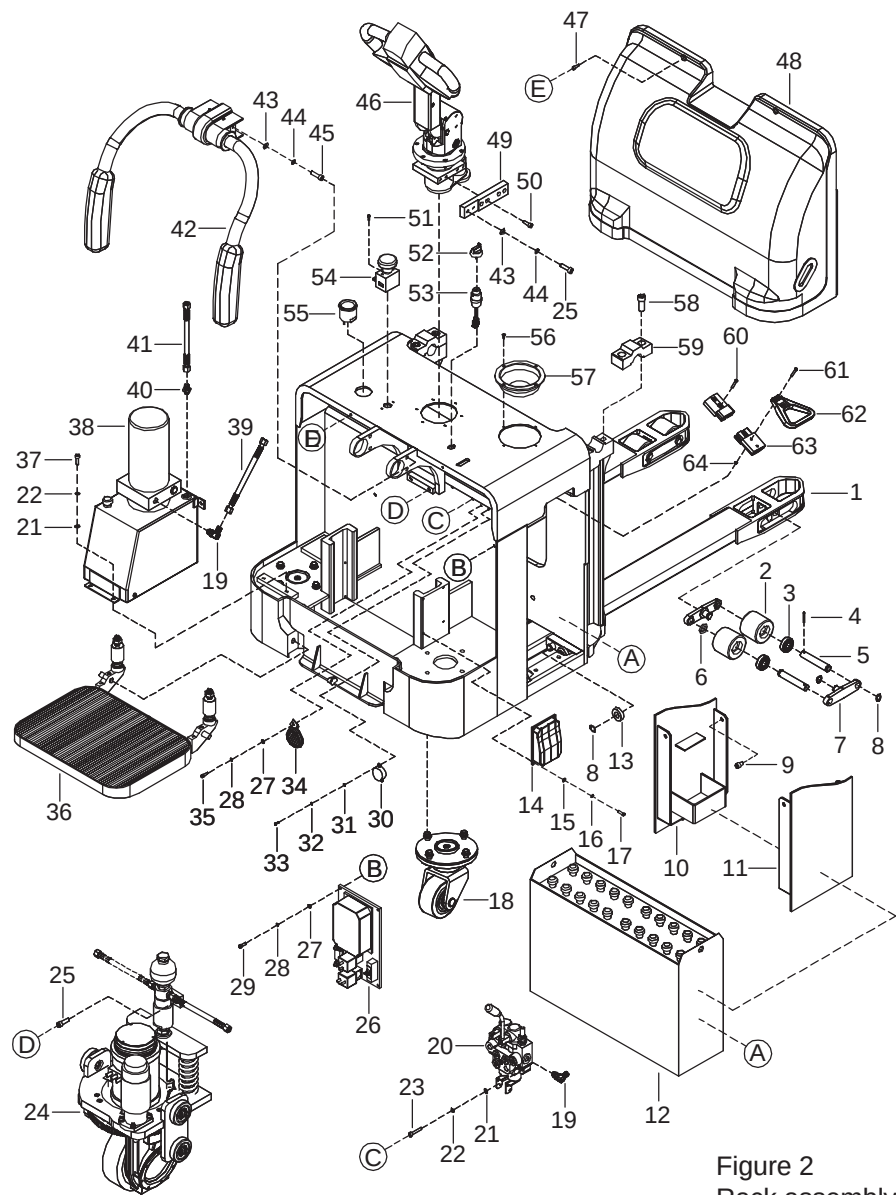


Figure 2
Rack assembly

NO	Part Name	QTY	Remarks	NO	Part Name	QTY	Remarks
1	Frame	1		35	Hexagon socket head cap screw M6 × 15	1	
2	Front wheel Ø80*70	4	Yellow PU wheel	36	Pedal assembly	1	see figure 12
3	Bearing 6204-2Z	8		37	Hexagon socket head cap screw M8 × 15	3	
4	Elastic cylindrical pin Ø4*35	4		38	Power unit assembly	1	see figure 13
5	Front axle	4		39	Tubing	1	M16×1.5-1100mm
6	Elastic cushion Ø20*Ø30*4	8		40	Straight joint of oil pipe	1	M16×1.5
7	Balancing arm	4		41	Tubing	1	M16×1.5-1000mm
8	Axis retaining ring Ø20	22		42	Arm assembly	1	see figure 14
9	Inner Hexagonal Cylindrical Head Screw M10*15	4		43	Flat pad 10	6	
10	Left door assembly	1		44	Missile pad 10	6	
11	Right door assembly	1		45	Hexagon socket head cap screw M10 × 20	4	
12	Battery 280 Ah/24v	1		46	Handle assembly	1	see figure 15
13	Battery roller	14		47	Hexagon socket head screw M6 × 20	2	
14	Steering motor controller	1		48	Case cover	1	
15	Flat pad 5	4		49	Fixed plate of damping seat	1	
16	Missile pad 5	4		50	Hexagon socket head cap screw M8 × 25	4	
17	Hexagon socket head cap screw M5 × 20	4		51	Half round head cross screw M5 × 15	2	
18	Balance wheel assembly	2	see figure 9	52	Key	1	
19	Oil pipe right angle joint	4	M16×1.5 / G 3/8	53	Key switch base	1	
20	Multi way valve 7060-dl1 / two way	1		54	Mushroom switch 250A	1	
21	Flat pad 8	5		55	Round meter 24V	1	
22	Missile pad 8	5		56	Countersunk head cross screw M4 × 10	4	
23	Hexagon socket head cap screw M8 × 35	2		57	Tool plate	1	
24	Drive assembly	1	see figure 10	58	Hexagon socket head cap screw M16 × 40	4	
25	Hexagon socket head cap screw M10 × 35	4		59	Gate pillar buttress shaft seat (upper)	2	
26	Controller assembly	1	see figure 11	60	Half round head cross screw M6 × 30	2	
27	Flat pad 6	5		61	Half round head cross screw M6 × 40	2	
28	Missile pad 6	5		62	Plug handle	1	
29	Hexagon socket head cap screw M6 × 20	4		63	Cable connector 175A	2	
30	Buzzer	1		64	HEXAGON NUT M6	2	
31	Flat pad 4	1					
32	Missile pad 4	1					
33	Half round head cross screw M4 × 15	1					
34	Electric horn dl-125g	1	see figure 12				

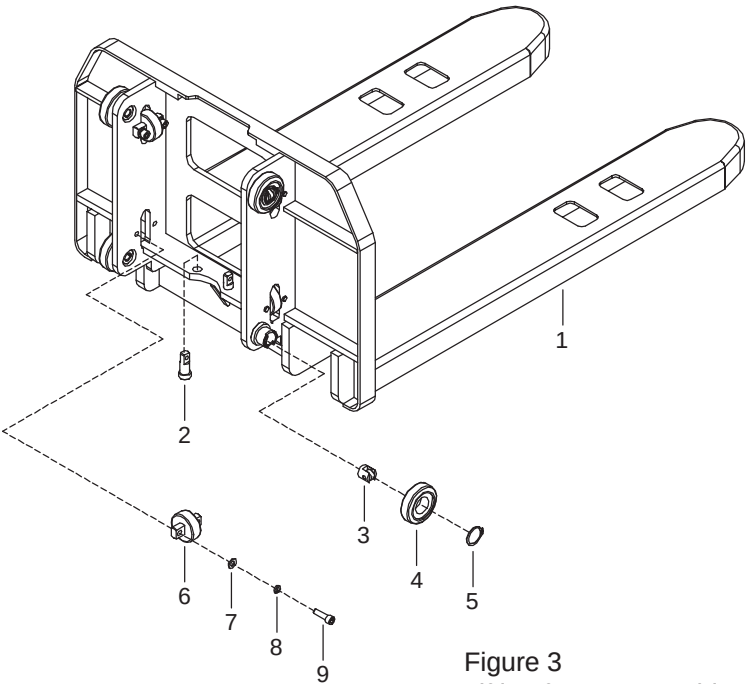


Figure 3
Lifting frame assembly

NO	Part Name	QTY
1	Elevator assembly	1
2	Chain joint	2
3	Side wheel	4
4	Composite roller Ø70.4	4
5	Axis retaining ring Ø35	4
6	Lateral roller SR48D58	4
7	Flat cushion Ø10	16
8	Bullet cushion Ø10	8
9	Inner Hexagonal Cylindrical Head Screw M10*35	8

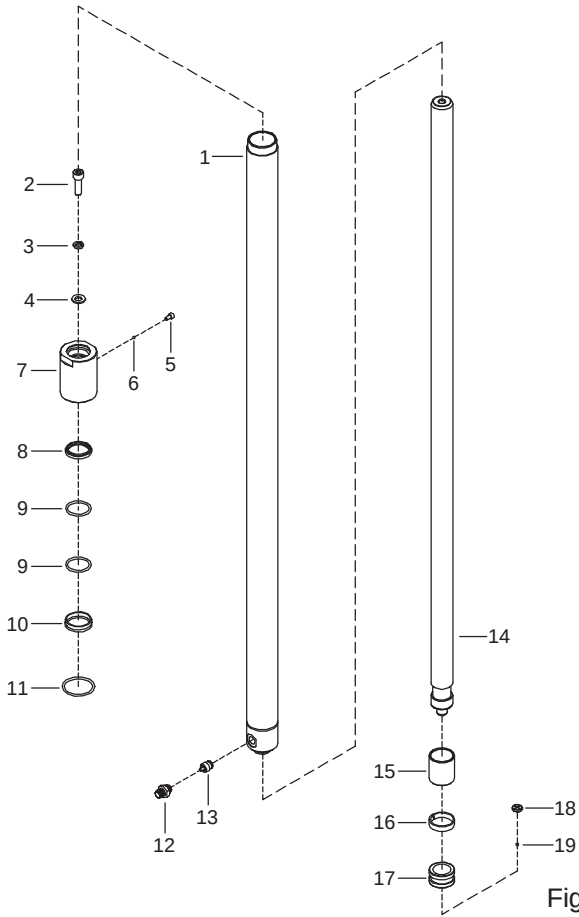


Figure 4
Rear Cylinder Assembly

NO	Part Name	QTY	NO	Part Name	QTY	Remarks
1	Lift cylinder assembly	1	11	O-ring d50x3.55	1	
2	Inner Hexagonal Cylindrical Head Screw M12*35	1	12	Tubing through joint	1	M16X1.5
3	Bullet cushion Ø12	1	13	Explosion-proof valve	1	
4	Flat cushion Ø12	1	14	Lifting rod	1	
5	Internal hexagonal cylindrical head screw M6*12	1	15	Cylinder jacket	1	
6	Steel ball SØ4	1	16	Wear-resistant belt D45*d40*10	1	
7	Cylinder nut	1	17	Semicircle	1	
8	Dust-proof ring D46*d38*6.5	1	18	Limit cap	1	
9	O-ring d38x3.55	2	19	Steel ball SØ5	1	
10	UHS38 lip seal ring D48*d38*6	1				

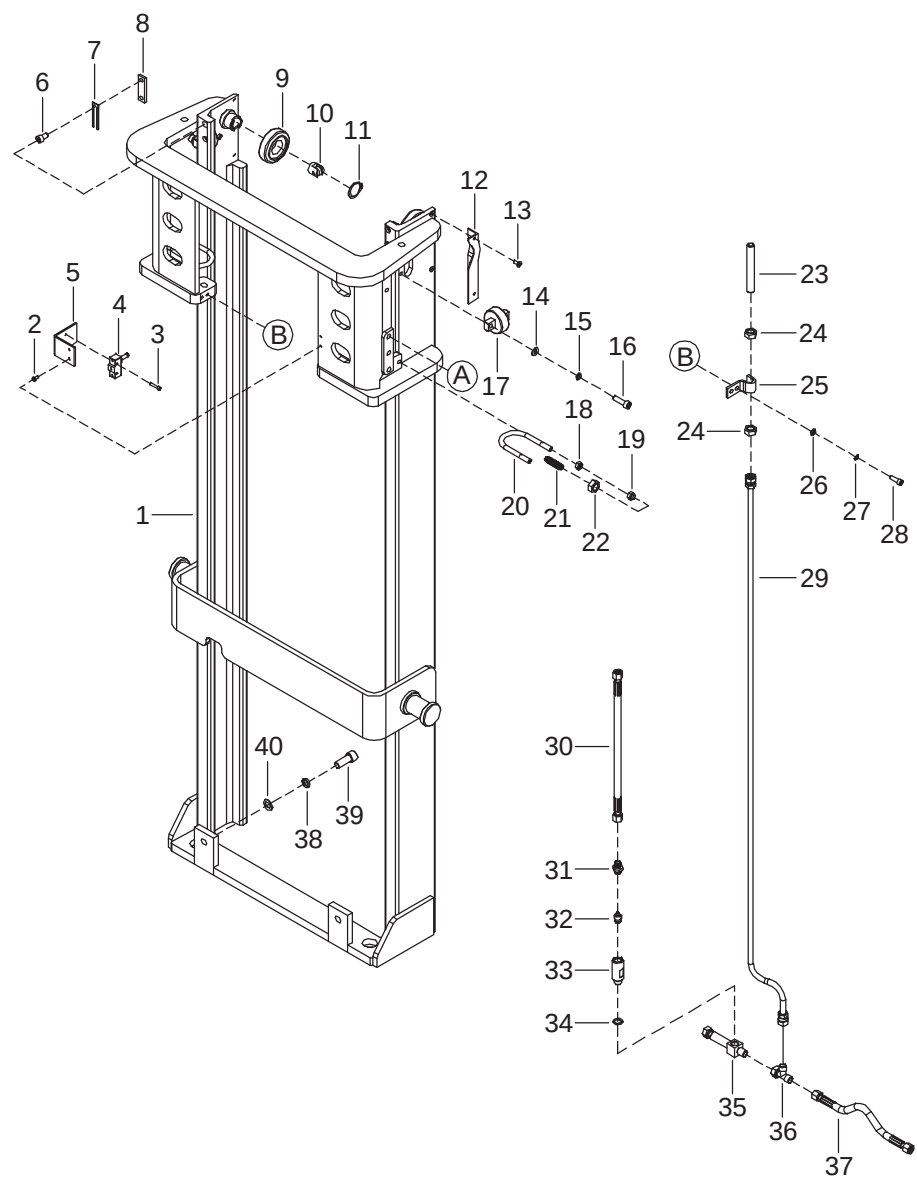


Figure 5
Outer Portal Frame Assembly

NO	Part Name	QTY	Remarks
1	Outer Portal Frame Component	1	
2	Hexagonal flange bolt M5*10	2	
3	Semi-circular head cross screw M4*25	2	
4	Travel switch	1	
5	Micro Switch Support Plate	1	
6	Internal hexagonal cylindrical head screw M8*15	4	
7	Adjusting gasket	4	
8	Locking gasket	2	
9	Composite roller Ø78.3	2	
10	Side wheel	2	
11	Axis retaining ring Ø35	2	
12	Roller cover plate	2	
13	Countersunk cross screw M6*12	4	
14	Flat cushion Ø10	8	
15	Bullet cushion Ø10	4	
16	Inner Hexagonal Cylindrical Head Screw M10*30	4	
17	Lateral roller SR48D58	2	
18	Hexagon nut M8	4	
19	Cap nut M8	4	
20	Cylinder clamp	2	
21	Inner Hexagonal Flat End Fixing Screw M12*50	2	
22	Hexagon nut M12	2	
23	Adjustment bolt	1	
24	Hexagon nut M16	2	
25	Tubing positioning clamp	1	
26	Flat cushion Ø8	2	
27	Bullet cushion Ø8	2	
28	Internal hexagonal cylindrical head screw M8*16	2	
29	Hard Pipe of Outer Portal Frame	1	
30	Tubing	1	M16×1.5-1100mm
31	Tubing through joint	1	M16×1.5
32	Explosion-proof valve	1	
33	Explosion-proof valve sleeve	1	
34	Composite gasket 16	1	
35	Three-way tubing joint	1	
36	Internal threaded main branch tee joint	1	M16×1.5
37	Tubing	1	M16×1.5-320mm
38	Hexagonal bolt M12*45	6	
39	Bullet cushion Ø12	6	
40	Flat cushion Ø12	6	

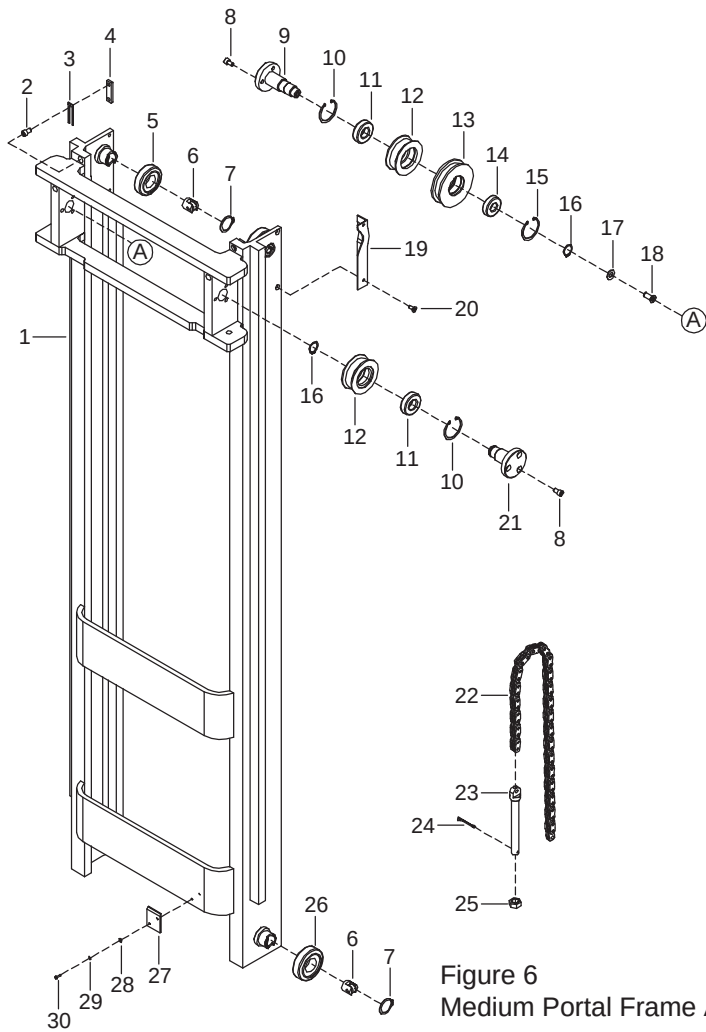


Figure 6
Medium Portal Frame Assembly

NO	Part Name	QTY	NO	Part Name	QTY
1	Medium gantry assemblies	1	16	Axle retaining ring Ø25	2
2	Internal hexagonal cylindrical head screw M8*20	4	17	Flat cushion Ø12	1
3	Adjusting gasket	4	18	Inner hexagonal countersunk head screw M10*16	1
4	Locking gasket	2	19	Roller cover plate	2
5	Composite roller Ø70.4	2	20	Countersunk cross screw M6*12	4
6	Side wheel	4	21	Sprocket Shaft (II)	1
7	Axis retaining ring 35	4	22	Load-bearing chain LH1223	2
8	Internal hexagonal cylindrical head screw M8*15	6	23	Chain bolt	2
9	Sprocket Shaft (I)	1	24	Open pin Ø3 *35	2
10	Hole retaining ring Ø52	2	25	Hexagon nut M16 *1.5	6
11	Bearing 6205	2	26	Composite roller Ø78.3	2
12	Middle gantry sprocket	2	27	Limit switch block	1
13	Tubing guide wheel	1	28	Flat cushion Ø4	2
14	Bearing 6204	1	29	Bullet cushion Ø4	2
15	Hole retaining ring Ø47	1	30	Semi-circular head cross screw M4*15	2

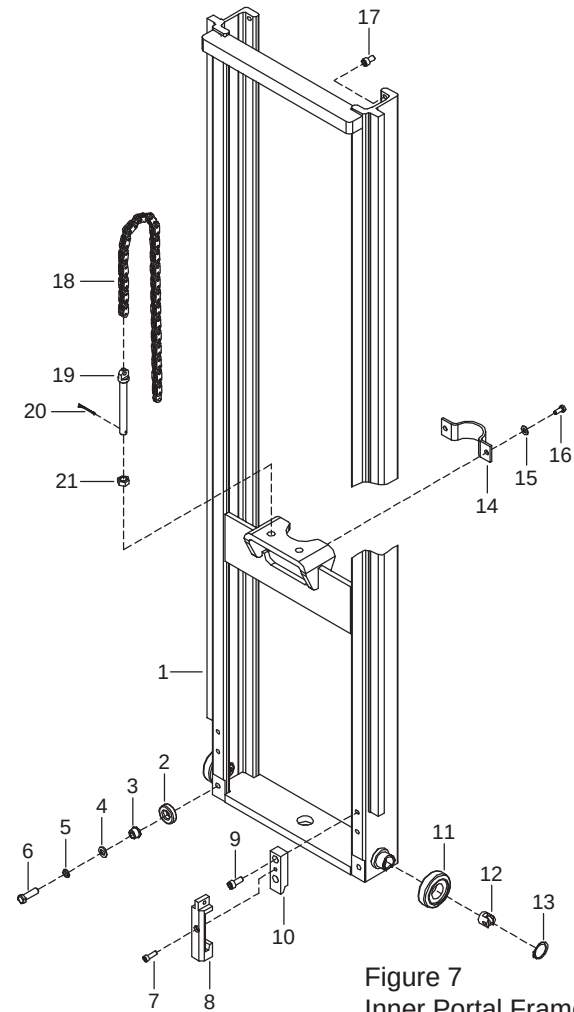


Figure 7
Inner Portal Frame Assembly

NO	Part Name	QTY	NO	Part Name	QTY
1	Inner gantry assembly	1	12	Side wheel	2
2	Bearing 6004	2	13	Axis retaining ring Ø35	2
3	Eccentric sleeve	2	14	Pipe clamp	1
4	Flat cushion Ø12	2	15	Flat cushion Ø10	2
5	Bullet cushion Ø12	2	16	Hexagonal bolt M10*20	2
6	Hexagonal bolt M12*35	2	17	Inner Hexagonal Cylindrical Head Screw M10*16	4
7	Internal hexagonal cylindrical head screw M8*25	2	18	Load-bearing chain LH1223	2
8	Chain hook	2	19	Chain bolt	2
9	Inner Hexagonal Cylindrical Head Screw M10*25	4	20	Open pin Ø3 *35	2
10	Limiting block	2	21	Hexagon nut M16 *1.5	6
11	Composite roller Ø78.3	2			

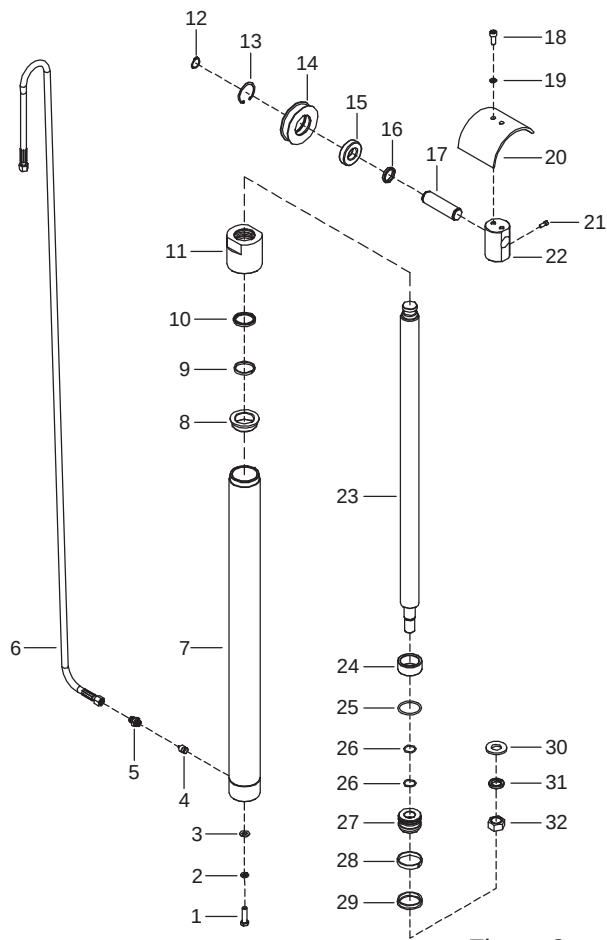


Figure 8
Intermediate Cylinder Assembly

NO	Part Name	QTY	Remarks	NO	Part Name	QTY
1	Hexagonal bolt M12*25	1		17	Sprocket shaft	1
2	Bullet cushion Ø12	1		18	Inner Hexagonal Cylindrical Head Screw M10*20	2
3	Flat cushion Ø12	1		19	Bullet cushion Ø10	2
4	Explosion-proof valve	1		20	Sprocket baffle assembly	1
5	Tubing through joint	1	M16X1.5	21	Internal hexagonal cylindrical head screw M8*20	1
6	Tubing	1	M16×1.5-2270mm	22	Lift rod joint	1
7	Lift cylinder assembly	1		23	Lifting rod	1
8	Cylinder copper sleeve	1		24	Cylinder jacket	1
9	Wear-resistant belt D50*d45*5.6	1		25	O-ring d53x3.55	1
10	Dust-proof ring D53*d45*6.5	1		26	O-ring d26.5x2.65	2
11	Cylinder nut	1		27	Piston sleeve	1
12	Axis retaining ring Ø30	2		28	Wear-resistant belt D60*d55*9.7	1
13	Hole retaining ring Ø62	2		29	Y-ring D60*d50*10	1
14	Sprocket wheel	2		30	Piston sleeve gasket	1
15	Bearing 6206	2		31	Bullet cushion Ø24	1
16	Cushion ring	2		32	Hexagon nut M24*1.5	1

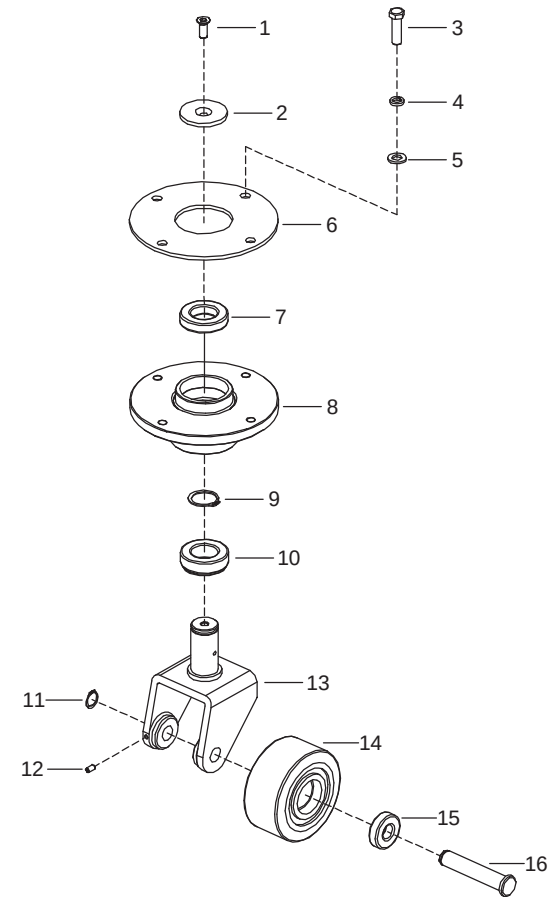


Figure 9
Balancing Wheel Assembly

NO	Part Name	QTY	NO	Part Name	QTY
1	Inner Hexagonal Countersunk Head Screw M10*20	1	9	Axis retaining ring Ø35	1
2	Dust cover	1	10	Bearing 33007	1
3	Hexagonal bolt M12*40	4	11	Axis retaining ring Ø20	1
4	Bullet cushion Ø12	4	12	Internal Hexagonal Cone End Fixing Screw M6*10	1
5	Flat cushion Ø12	4	13	Balancing fork assembly	1
6	PU pad	1	14	Balancing Wheel Ø125*60	1
7	Bearing 6007	1	15	Bearing 6204	2
8	Steering disc assembly	1	16	Balanced fork axle	1

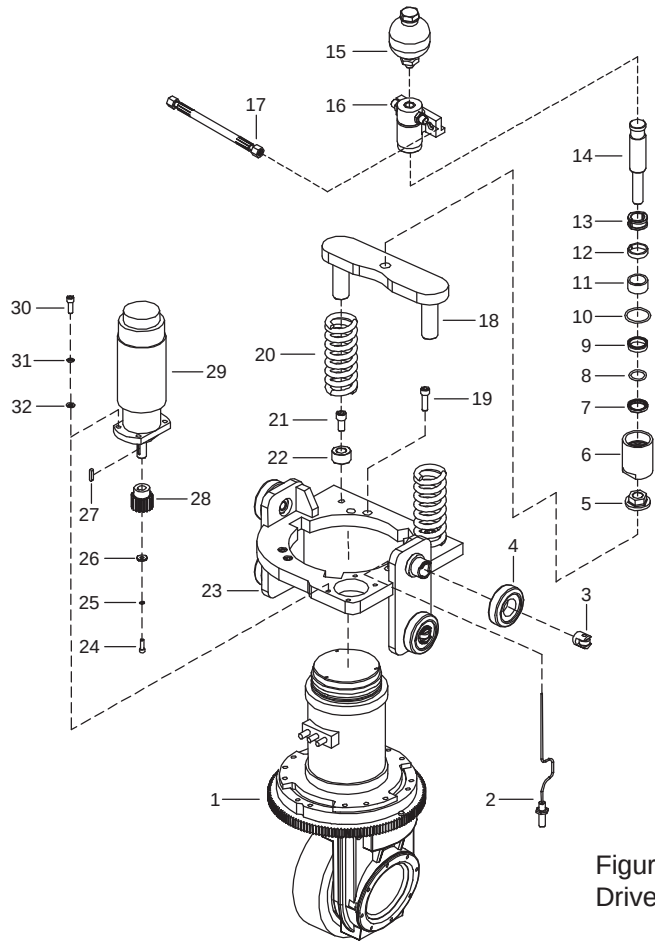


Figure 10
Drive assembly

NO	Part Name	QTY	Remarks	NO	Part Name	QTY	Remarks
1	Drive Wheel Assembly	1	see figure 16	17	Tubing	1	M16×1.5-250mm
2	Proximity switch	1		18	Pressure spring fixing plate assembly	1	
3	Side wheel	4		19	Inner Hexagonal Cylindrical Head Screw M10*35	6	
4	Composite roller Ø78.3	4		20	Pressure spring	2	
5	Plate locking nut	2		21	Inner Hexagonal Cylindrical Head Screw M12*25	2	
6	Cylinder nut	1		22	Spring positioning block	2	
7	Dust-proof ring D40*d32*5	1		23	Drive Wheel Plate Assembly	1	
8	O-ring d31.5x3.55	1		24	Internal hexagonal cylindrical head screw M6*25	1	
9	YXd Seal Ring D40*d32*10	1		25	Bullet cushion Ø6	1	
10	O-ring d47.5x3.55	1		26	Shim	1	
11	Cylinder jacket	1		27	Flat bond 5 x 5 x 20	1	
12	Wear-resistant belt D40*d35*10	1		28	Pinion	1	
13	Semicircle	1		29	Steering motor 200W	1	
14	Piston rod	1		30	Internal hexagonal cylindrical head screw M8*25	4	
15	Accumulator	1		31	Bullet cushion Ø8	4	
16	Cylinder assembly	1		32	Flat cushion Ø8	4	

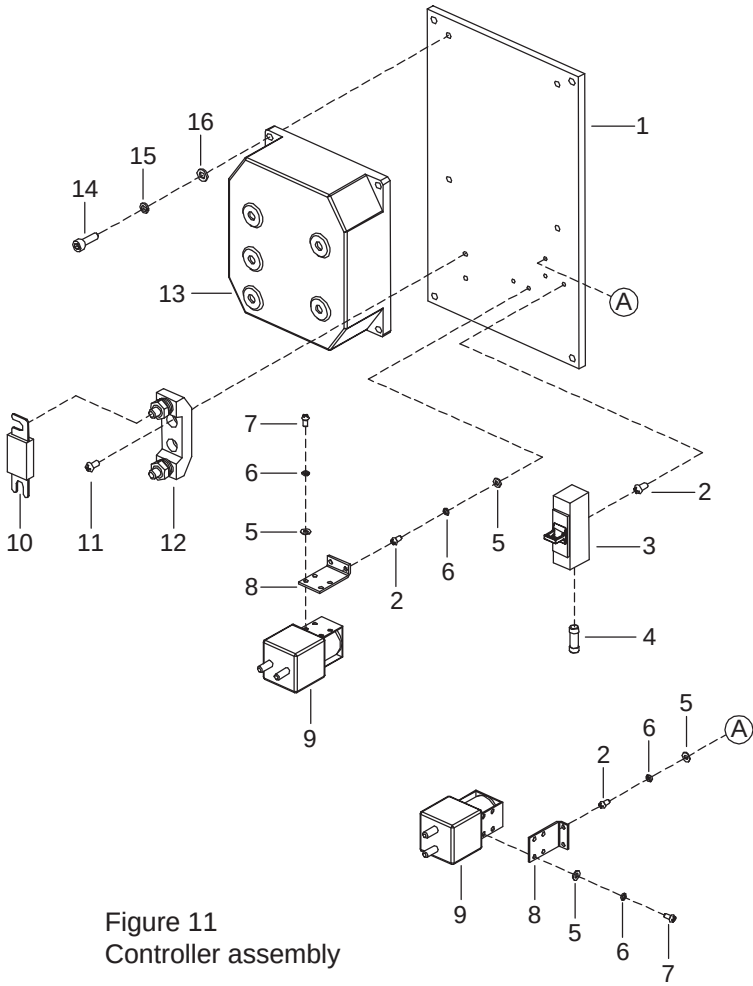


Figure 11
Controller assembly

NO	Part Name	QTY	NO	Part Name	QTY	Remarks
1	Controller mounting board	1	9	DC contactor ZJWP100L	2	24v/200A
2	Semi-circular head cross screw M4*10	5	10	DC fused sheet 200A	1	
3	Fuse seat RT14-20	1	11	Semi-circular head cross screw M5*15	2	
4	Core 4A	1	12	Ceramic Fuse Seat RQD-1	1	
5	Flat cushion Ø4	12	13	CURTIS controller 1230	1	
6	Bullet cushion Ø4	12	14	Internal hexagonal cylindrical head screw M6*20	4	
7	Semi-circular head cross screw M4*6	8	15	Bullet cushion Ø6	4	
8	Contactor mount	2	16	Flat cushion Ø6	4	

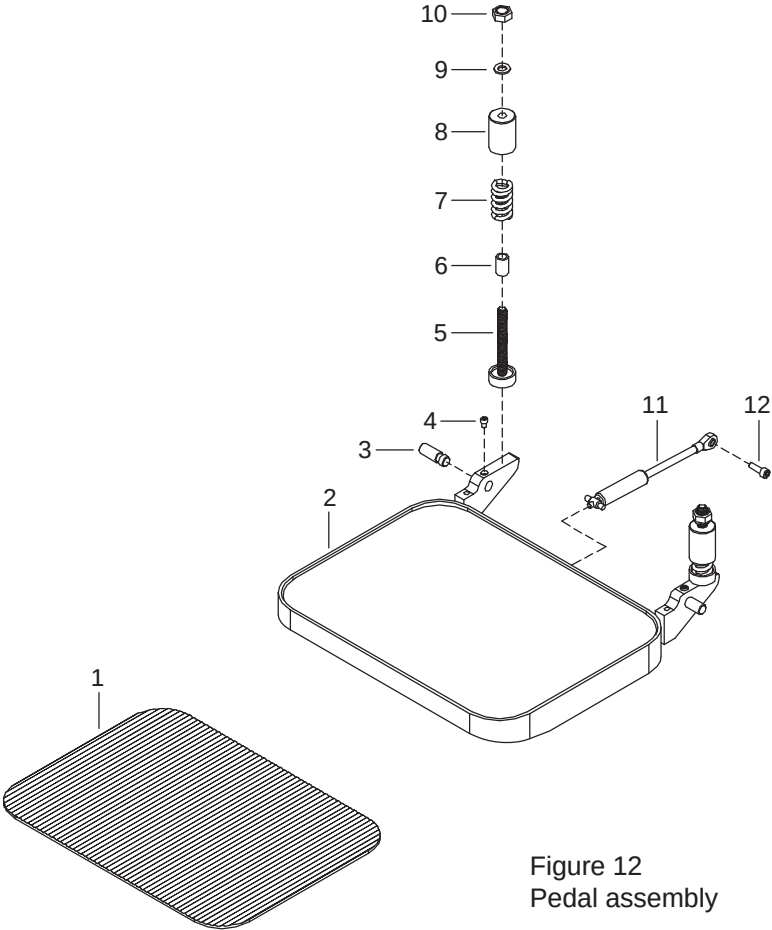


Figure 12
Pedal assembly

NO	Part Name	QTY	Remarks
1	Non-slip mat	1	
2	Pedal assembly	1	
3	Pedal shaft	2	
4	Internal hexagonal cylindrical head screw M6*8	2	
5	Underlying block assembly	2	
6	Limiting column	2	
7	Compression spring Ø30*Ø5.7*50	2	
8	Upper cushion block	2	
9	Flat cushion Ø12	2	
10	Self-locking nut M12	2	
11	Air spring Ø8*290	1	550N
12	Internal hexagonal cylindrical head screw M8*25	1	

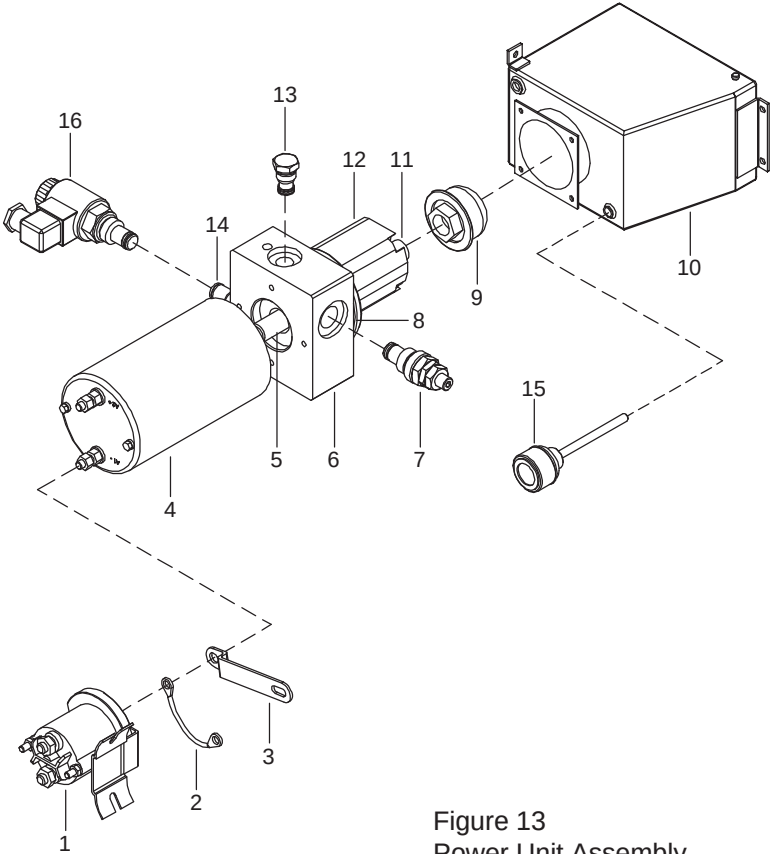


Figure 13
Power Unit Assembly

NO	Part Name	QTY	NO	Part Name	QTY
1	Start switch	1	9	Filter screen	1
2	Connecting line	1	10	tank	1
3	Copper connector	1	11	Joint	1
4	Electric machinery	1	12	gear pump	1
5	coupling	1	13	Unidirectional valve	1
6	Valve block	1	14	Flow control valve	1
7	Relief valve	1	15	Oil dipstick	1
8	Seal ring	1	16	Solenoid valve	1

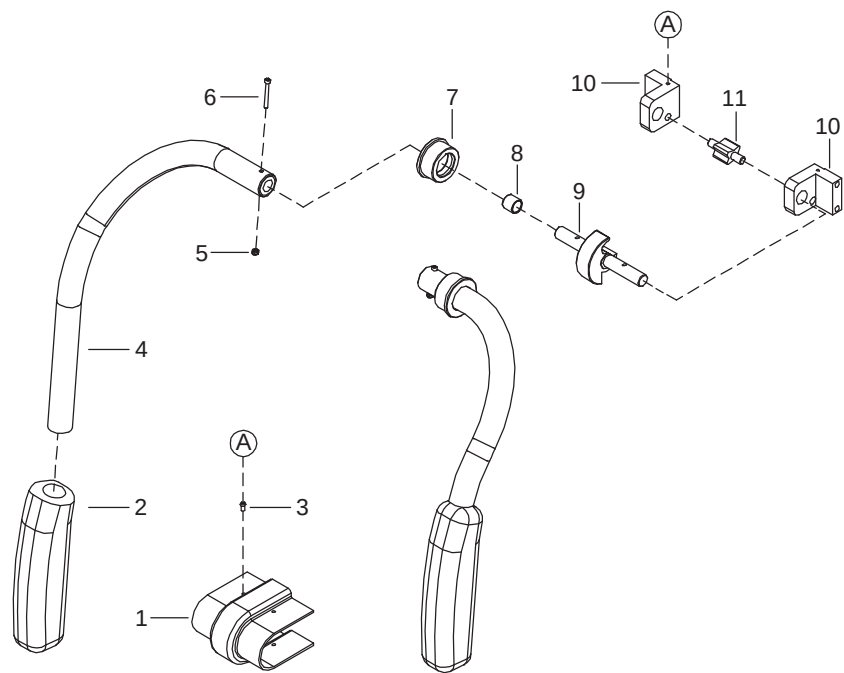


Figure 14
Arm protector assembly

NO	Part Name	QTY
1	Arm shield	1
2	Arm rubber sleeve	2
3	Semi-circular head cross screw M5*15	4
4	Arm elbow	2
5	Self-locking nut M5	2
6	Internal hexagonal cylindrical head screw M5*45	2
7	Arm sleeve	2
8	Composite bushing Ø20*Ø23*20	2
9	Positioning turnplate	1
10	Arm bracket assembly	2
11	Limiting block	1

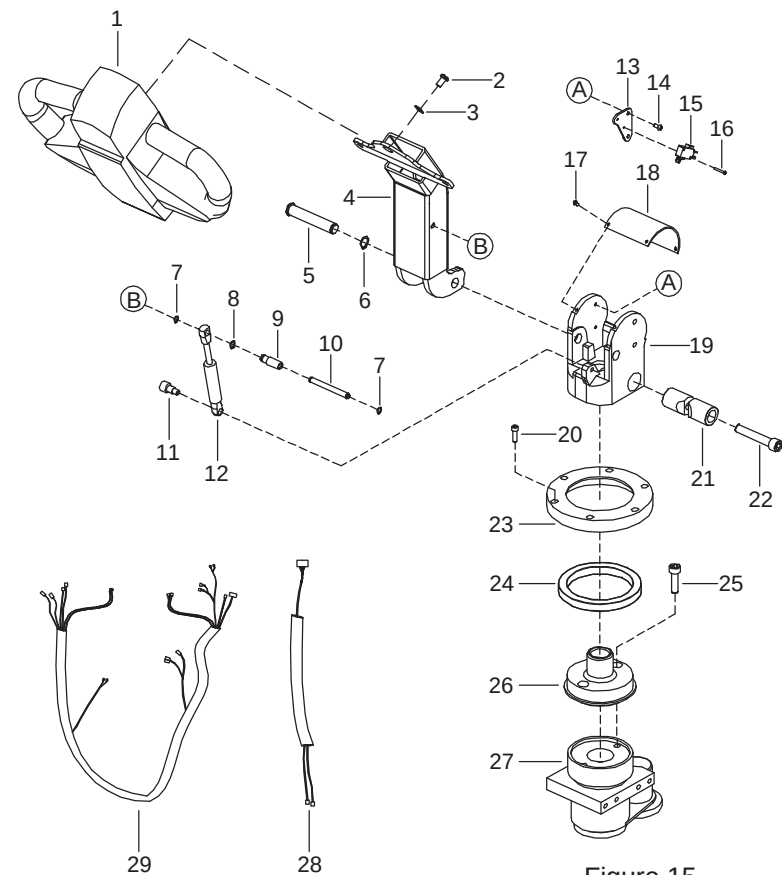


Figure 15
Handle assembly

NO	Part Name	QTY	Remarks	NO	Part Name	QTY
1	Control Handle Assembly	1	see figure 17	16	Semi-circular head cross screw M3*15	2
2	Semi-circular head hexagonal screw M8*15	3		17	Semi-circular head cross screw M4*8	4
3	Large washer Ø8	1		18	Handle seat cover	1
4	Handle square tube assembly	1		19	Handle seat	1
5	Handle pin	1		20	Internal hexagonal cylindrical head screw M6*20	6
6	Axis retaining ring Ø16	1		21	Handle base locking block	1
7	Open retaining ring Ø6	2		22	Inner Hexagonal Cylindrical Head Screw M12*70	1
8	Axis retaining ring Ø10	1		23	Upper support	1
9	Gas Spring Sleeve	1		24	Bearing 61820	1
10	Pneumatic spring upper pin shaft	1		25	Inner Hexagonal Cylindrical Head Screw M10*35	2
11	Air spring lower pin shaft	1		26	Lower support	1
12	Gas spring Ø10*152	1	400N	27	damper	1
13	Handle pedestal ear plate	1		28	Handle control wiring harness	1
14	Semi-circular head cross screw M5*10	2		29	Wire Harness Assembly	1
15	Micro-switch V15T16	1				

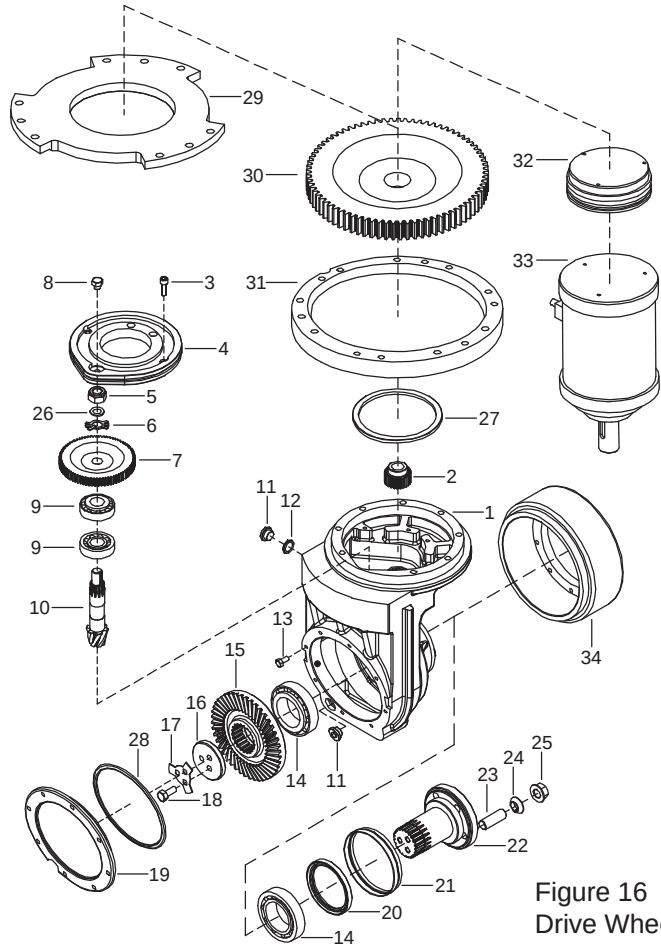


Figure 16
Drive Wheel Assembly

NO	Part Name	QTY	NO	Part Name	QTY
1	Box body	1	11	Screw plug	2
2	Pinion	1	12	Gasket Ø14x2	2
3	Internal hexagonal cylindrical head screw M6*16	4	13	Hexagonal bolt M6*16	8
4	Upper cover plate	1	14	Bearing 32009	2
5	Self-locking nut M14*1.5	1	15	Big umbrella teeth	1
6	Stop washer M14	1	16	Large gasket	1
7	Great helical teeth	1	17	Special washers	1
8	T Ventilation Cap	1	18	Hexagonal bolt M8*25	3
9	Bearing 30204	2	19	Side cover plate	1
10	Small umbrella gear shaft	1	20	Skeleton oil seal TC80*65*8	1

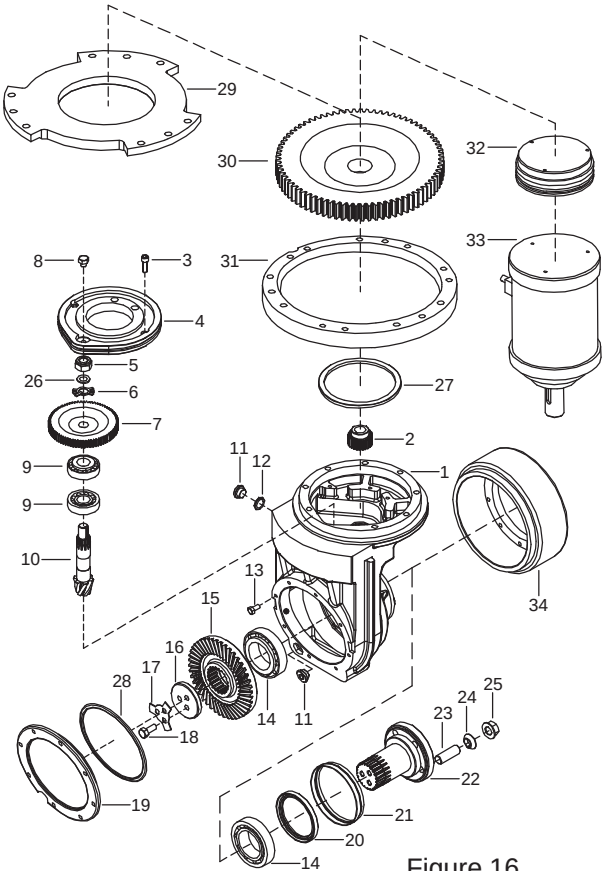


Figure 16
Drive Wheel Assembly

NO	Part Name	QTY
21	Dustproof ring	1
22	output shaft	1
23	Rim bolt M12*42	5
24	Rim bolt washer	5
25	Flange nut M12	5
26	Flat cushion Ø14	1
27	O-ring D125 *3.55	1
28	O-ring d135*4	1
29	Transition connection disc	1
30	Big gear wheel	1
31	Rotary bearing	1
32	Brake assembly	1
33	Electric machinery	1
34	Driving wheel	1

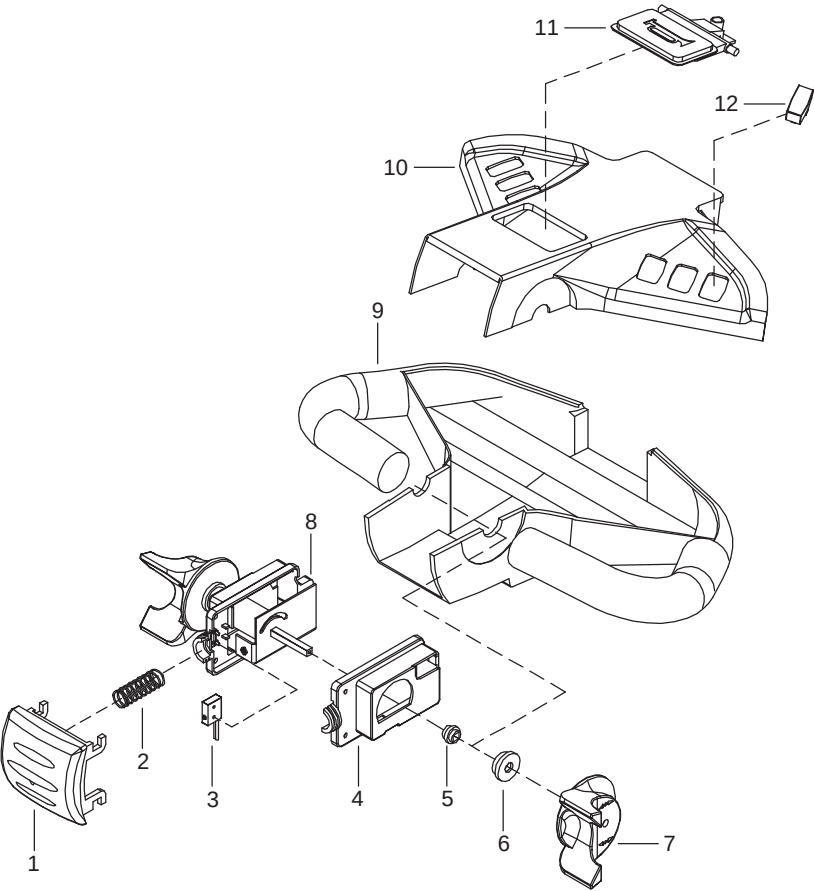


Figure 17
Control Handle Assembly

NO	Part Name	QTY	Remarks
1	Emergency reverse switch	1	
2	Reverse switch spring	1	
3	The micro switch	6	
4	Bracket housing	1	
5	Axle sleeve	2	
6	Axle jacket	2	
7	Accelerator knob	2	
8	accelerator	1	ET-126MCU
9	Handle base	1	
10	Handle cap	1	
11	Horn switch	1	
12	Control switch	3	

Periodic Maintenance Record

Please maintain it regularly according to the time stipulated in the Routine Maintenance Form and record it in the table below.
Note: the fault caused by the failure of maintenance within the specified time is not covered by the product warranty.

3 months after purchase Signature : Date : (Seal)	6 months after purchase Signature : Date : (Seal)
9 months after purchase Signature : Date : (Seal)	1year after purchase Signature : Date : (Seal)
1 year and 3 months after purchase Signature : Date : (Seal)	1 year and 6 months after purchase Signature : Date : (Seal)
1 year and 9 months after purchase Signature : Date : (Seal)	2 year after purchase Signature : Date : (Seal)
2 year and 3 months after purchase Signature : Date : (Seal)	2 year and 6 months after purchase Signature : Date : (Seal)
2 year and 9 months after purchase Signature : Date : (Seal)	3 year after purchase Signature : Date : (Seal)