Characteristics	1.1	Manufacturer(abbreviated)		Ningbo Ruyi
	1.2	Model		CBD20R-Ⅱ
	1.3	Driving model		motor-driven
	1.4	Driving model（Manual, Walking, Stand driving, Seat driving ,Order picking）		Stand driving
	1.5	Rated load	Q(kg)	2000
	1.6	Load center distance	c(mm)	600
	1.8	Front overhang	x(mm)	815/865/935
	1.9	Tread	Y(mm)	1211/1261/1331
Weight	2.1	Service weight(with battery)	kg	710
	2.2	Axle load, front/rear, laden	kg	1300/1410
	2.3	Axle load, front/rear, unladen	kg	600/110
Wheel chassis	3.1	Wheels (rubber, high elasticity, pneumatic tyre, polyurethane wheel)		polyamine
	3.2	Wheel dimension, front		Φ250×70
	3.3	Wheel dimension, rear		Φ82×126
	3.4	Additional wheel(dimension)		Φ127×57
	3.5	Wheel number, front/rear （x = driving wheel）		1X+2/2
	3.6	Tread, front	b_{10}(mm)	490
	3.7	Tread, rear	b_{11}(mm)	340/370/470/505
Dimension	4.4	Lift height	h_3(mm)	120
	4.9	Min. /Max. height of operation handle, in driving position.	h_{14}(mm)	1070/1450
	4.15	Height, lowered	h_{13}(mm)	82
	4.19	Overall length	l_1(mm)	1710/1760/1830
	4.20	Length to fork face	l_2(mm)	610
	4.21	Overall width of truck body	b_1(mm)	775
	4.22	Fork dimension	S/e/l(mm)	54×180×1100(1150/1220)
	4.25	Overall width of fork	b_5(mm)	520/550/650/685
	4.32	Wheelbase ground distance	m_2(mm)	28
	4.33	Aisle width, with pallet 1000x1200 crosswise	A_{st}(mm)	1910/1960/2030
	4.34	Aisle width, with pallet 800x1200 lengthwise	A_{st}(mm)	2010/2010/2030
	4.35	Turning radius	W_a(mm)	1550/1600/1670
Performance Data	5.1	Traveling speed, laden/unladen	Km/h	6.7/7.1
	5.2	Lifting speed, laden/unladen	m/s	0.039/0.056
	5.3	Descending speed, laden/ unladen	m/s	0.064/0.050
	5.7	Gradeability, laden/unladen	%	6/12
	5.8	Max. gradeability, laden/unladen	%	8/20
	5.10	Traveling brake		Electromagnetic brake
Motor	6.1	Driving motor power	kW	1.2（1.5）
	6.2	Lifting motor power	kW	0.8（1.2）
	6.4	Battery voltage/rated capacity	V/Ah	24/210
	6.5	Battery weight	Kg	170
		Battery dimension（LXWXH）	mm	750×170×534
	8.4	Noise level at operator's ear, according to DIN12053	dB(A)	70

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

2. Operation



Warning

2.1. Safety Norms

Please pay attention to the following items first before operation of the truck:

1. This electric truck is only limited to utilization indoor with a hard flat floor. Operation in inflammable, explosive environment or corrosive environment such as acid or alkaline condition shall be strictly forbidden.
2. Only drivers who have received formal training or are authorized can be allowed to drive the truck.
3. Read this instruction carefully before operation so as to master the performance of the truck; check the truck whether it is in its normal condition before each operation. It is forbidden to use faulty truck; repair by untrained persons is forbidden as well.
4. Overloading operation is forbidden.
5. As for goods carrying and operation, center of gravity of the goods must be within range of the two forks. It is forbidden to transport loose goods.
6. The truck shall travels slowly when forks pass in or out of pallet.
7. It is strictly forbidden to press the lifting or lowering button during the traveling of the truck. Meanwhile, don't switch lifting and lowering buttons rapidly or frequently, because rapid and frequent lifting or lowering will cause damage to the truck and goods
8. Don't load heavy goods on the forks rapidly!
9. Don't lay the goods on the truck for a long time!
10. It is strictly forbidden to make sharp turn on narrow aisle. When it is turning, slow down the truck so as to ensure the safety of personnel and goods.
11. Descend the forks to the lowest position when the truck is not used.
12. It is strictly forbidden to put any part of the body under heavy goods and forks!
13. This truck is suitable to be used on flat ground or flat platform. Don't put the truck on the slope for a long time.
14. Overloading operation is forbidden. Otherwise the wheel will skid, resulting in the damage of wheel and motor as well as danger of the human body and goods.
15. It is strictly to use the truck under stipulated voltage of 20.4V.
16. It is strictly forbidden to conduct charge by connecting the plug to AC power directly.

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

4.7 Inspection and maintenance after 200 hours（Monthly）

Besides the weekly maintenance, the following maintenance should be carried out, and when the parts must be adjusted and replaced, please contact with maintenance personnel of our company. (keep monthly maintenance record)

	No.	Check point	Check content
Whole truck	1	Whole status	Abnormal or not.
	2	Horn	Sound
Steering system, braking system, hydraulic system and lifting system	3	Operation handle	When the operation handle is turned, with the handle switching between area A and B, there is a noise from the brake.
	4	Brake clearance	The clearance between brakes should be kept between 0.2mm and 0.8mm.
	5	Operation handle	Degree of tightness and rotary flexibility.
	6	Truck frame and fastener	Function，and check cracks, lubrication and tightness of fasteners.
	7	Connecting rod and wheel carrier	Function and check the cracks, bending, deformation and lubrication condition.
	8	Oil pipe	Whether oil pipes leak or not.
	9	Hydraulic oil	Proper quantity of oil.
	10	Lifting oil cylinder	Whether there is any oil leakage or not.
Storage battery, charger and electric system	11	Electrolyte	Liquid level，specific gravity and cleanness
	12	Plug	Function, whether it is damaged or not
	13	Key switch	Function
	14	Contactor	Contact performance and function
	15	Inching switch	Function
	16	Controller	Function
	17	Driving motor	Wearing status of carbon brush and selenium rectifier.
	18	Lifting motor	Wearing status of carbon brush and selenium rectifier.
	19	Steering motor	Wearing status of carbon brush and selenium rectifier.
	20	Fuse	Whether it is perfect or not
	21	Wiring harness and connection terminals	Whether flexible and whether damaged or not.

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

4.11 Common faults and troubleshooting:

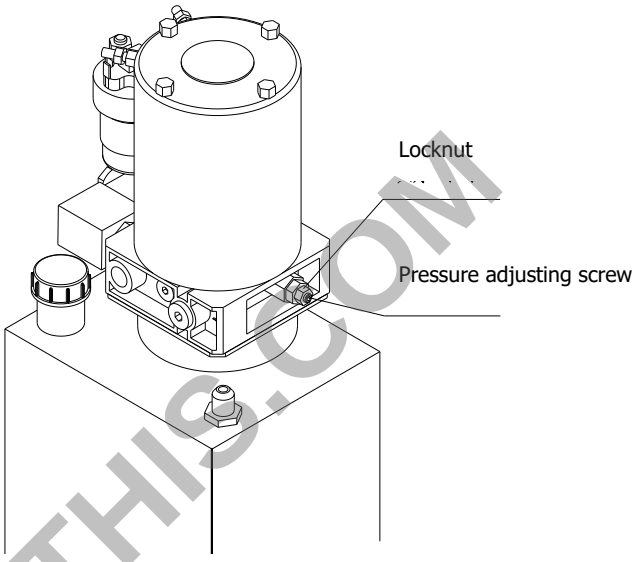
Faults	Possible cause	Trouble shooting
Abnormal noise during lifting	The oil-absorptive filter is blocked	Clean or replace the oil-absorptive filter
	The oil-absorptive tube leaks and the oil are foaming.	Fasten the tie-in, check the oil level, or add some oil.
	Hydraulic pump or motor is damaged.	Contact maintenance personnel of our company
	Seal malfunction, and make the air enter oil pump.	Contact maintenance personnel of our company
	The viscidity of oil is not correct, oil level is too low.	Replace the oil or add some oil
Hydraulic system has no pressure or the pressure is too low	Malfunction in pump oil-absorptive, and noise exists.	Replace the oil or add some oil
	Oil pump is damaged	Contact maintenance personnel of our company
	There is malfunction in valve block.	Contact maintenance personnel of our company
	The pipeline is broken or leaking.	Replace the pipeline or screw down the tie-in.
	The viscidity of oil is not suitable; the leakage loss is too great.	Change the oil.
The oil pressure is not stable	The cause is the same as that of abnormal noise.	Refer to the treatment methods for abnormal noise.
	The lifting cylinder or seal ring is worn.	Replace the cylinder sleeve or seal ring
	The quantity of oil is not enough	Add oil
The truck cannot start	Storage battery is used up.	Inspect, charge, or replace the storage battery
	The wire terminal is loosened.	Screw down the terminal screw
	he fuse is burn out.	Replace the fuse
	The accelerator is damaged.	Replace accelerator
The direction is ineffective and heavy.	The steering device is blocked by the abnormal matter.	Clean up the foreign matter.
	The bearings of steering device are worn.	Replace the bearings
Brake cannot work	The friction plates of the electromagnetic brake are damaged	Replace
Not release after braked	The electromagnetic brake is out of electricity.	Check the circuit.
	The clearance of the electromagnetic brake is too large.	Adjust the brake clearance to 0.2mm.

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

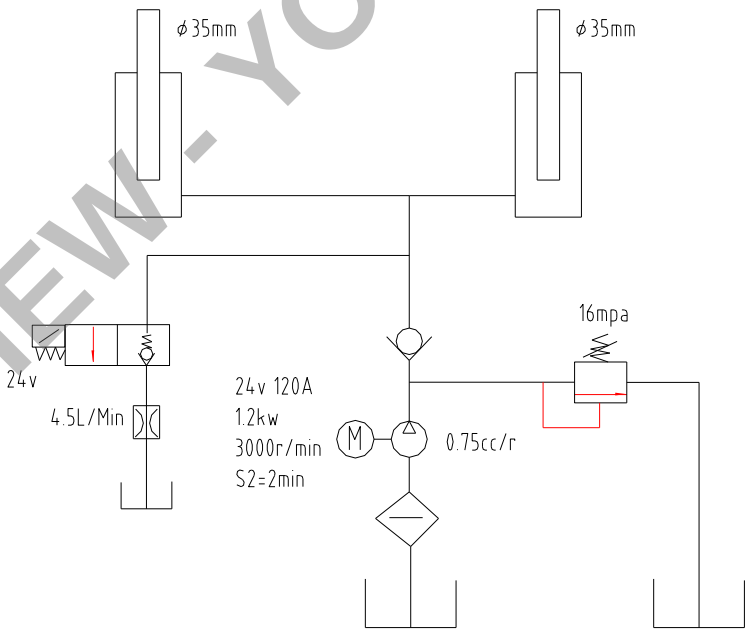
4.12 Adjustment methods of safety valve pressure

The pressure of safety valves has already been adjusted when the truck is ex-factory. Users shall not adjust the pressure at will. Otherwise it will bring danger to the truck's hydraulic system and safety. If the oil pressure is not in accordance with specified value, please ask the professional personnel to adjust according to the test methods stipulated in the JB/T3300 standards as well as the following methods:



1. Screw out high pressure oil tube and install pressure meter with capacity over 20Mpa at the high pressure oil outlet.
2. Press lifting operation button to measure the system pressure. The stipulated system pressure is 11.5Mpa for truck with rated load of 2000kg and 13.5 Mpa for truck with rated load of 2500kg.
3. If oil pressure is not in accordance with the specified value, please loosen locknuts of the overflow valves. Turn pressure screw left and right until the pressure reaches the clockwise, the system pressure increases. While the screw is turned counter clockwise, the system pressure decreases.
4. After the adjustment, please screw down the locknuts.

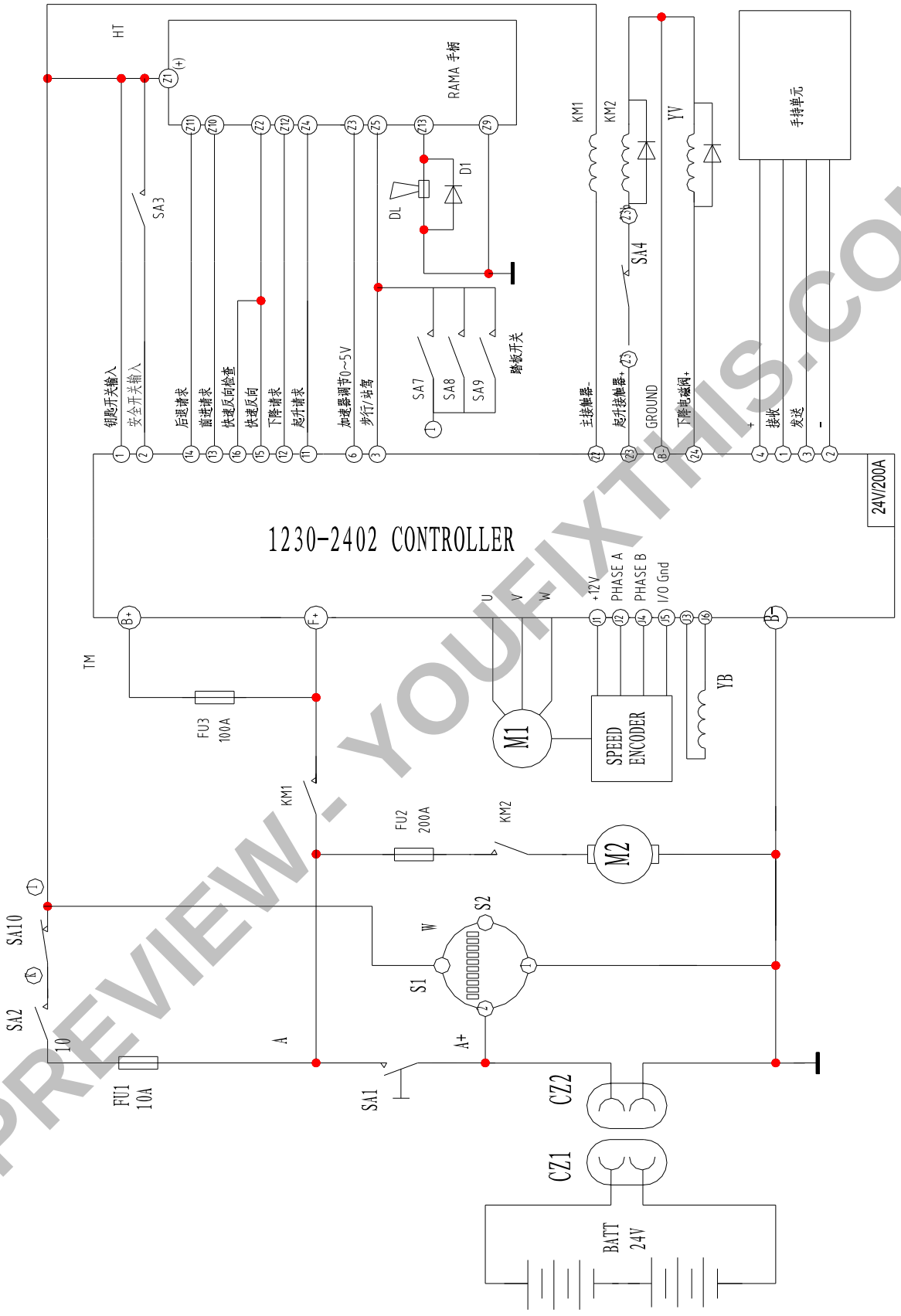
4.13 Hydraulic principle diagram



PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

4.14 Electrical equipment troubleshooting



PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

LED CODE	1311 DISPLAY	EXPLANATION	POSSIBLE CAUSE
1,2	motor speed encoder	The speed sensor signal can't be detected.	Incorrect or ineffective speed sensor wiring.
			Controller defective.
	Motor Failsafe	The motor speed is not in the normal scope.	Speed sensor malfunction.
			The electromagnetic brake of motor is not loosened completely.
			Insufficient braking torque.
			P,I setting improper
			Failsafe delay too short
1,3	Motor Overcurrent	Motor overcurrent	Incorrect motor wiring
			Controller defective.
	Motor Output Fault	Controller output abnormal	Incorrect motor wiring
			Controller defective.
1，4	Static Return To Off	SRO sequencing error	Improper sequence of KSI,INTERLOCK,F/R
			Wrong SRO type selected.
			Direction switch malfunction.
			Sequencing delay too short.
2，1	Throttle Wiper High	Accelerator voltage is too high.	Accelerator is damaged.
			Wrong accelerator type selected.
2，2	EMR Wiring Open	EMR wiring fault	EMR wire or check wire broken.
2，3	High Pedal Disable	HPD	Incorrect sequence of accelerator and KSI,INTERLOCK.
			Wrong HPD type selected.
			Accelerator malfunction
			Key switch and INTERLOCK power-off.
			Sequencing delay too short.
			Wrong accelerator type selected.
2，4	Throttle Wiper Low	Accelerator voltage is too low.	Accelerator is damaged.
			Wrong accelerator type selected.
3，1	Multiplexer Fault	Multiplexer malfunction	Multiplexer malfunction
3，2	Main Contactor	Missing or welded main contactor.	Main contactor coil open.
			Main contactor stuck closed
			Welded main contactor
			Main contactor driver shorted.
	Precharge	Precharge fault	Controller defective.
			Low battery voltage.

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

Appendix I

I.1 P2.0UTS Electric Pallet Truck packing list

Consignee: Manufacturing number:

Contract number: Date of production:

Serial number	Cargo name	Number of units	Net (kg)	Contour Dimension （L×W×H）	Remark
1	P2.0UTS Electric Pallet Truck	1			Complete machine
2	Accessory bag	1			Technical documents, accessories and spare parts

Note：The following documents are in the file bag

- 1 – P2.0UTS Electric Pallet Truck operating instruction
- 1 – Packing list
- 1 – Certificate of quality

I.2 Accessory and spare parts

Design ation	Use part	Specification	Quantity	Remark	Designation
1	Electriclock key	Open electric lock		2	
2	Charging plug、socket	Matched with charger		1set	For external
3	Fuse	Electrical equipment	10A	1	
4	Fuse	Electrical equipment	100A	1	
5	Fuse	Electrical equipment	180A	1	
6	seal ring UHS35	hydro-cylinder	35X45X6	2	
7	O-seal ring	hydro-cylinder	35.5×2.65	2	
8	O-seal ring	hydro-cylinder	45×2.65	2	
9	Dust ring DH35	hydro-cylinder	DH35	2	
10	Charging cable	Charger		1	For built in

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

PREVIEW ONLY

You're viewing 8 of 45 pages

The full manual includes:

- All 45 pages, complete
- Searchable PDF (find any keyword)
- No watermarks
- Instant download
- Print-ready quality

GET FULL MANUAL NOW

Hyster P2.0UTS Operator Manual

Scan or click anywhere
youfixthis.com

Click anywhere on this page to get the full manual