CTY.E Hand Stacker INSTRUCTION



Foshan Panda Hardware Co.,Ltd

Introduction

Thank you very much for your trust and support of our Panda Hardware Co.,Ltd. We also sincerely hope that you will read and understand this instruction carefully before using the stacker, so as to be able to use it correctly and safely, and extend its service life, making it becomes your right-hand man.

Our company's production of CTY.E series manual hydraulic hand stacker is a kind of high lift handling, stacking tools that can be used for short distance transportation and lifting goods. This stacker has many good features, such as compact design, flexible transportation and stable lifting, and it's safe and reliable, durable, easy to operate, widely used in factory, workshop, warehouse, logistics and freight yard and other cargo for handling and stacking, effectively reduce the workload of material handling and improve handling efficiency. The stacker should be used in the hard flat ground, using the ambient temperature of $-20 \sim 40$. we can produce special specifications of the hydraulic stacker according to user's needs.

This manual will focus on introducing the main components, working principle, operation methods, safety precautions, maintenance, failure analysis and the solution of the hydraulic handle stacker.

If some failures rise in the process of using your hand stacker, and the stacker can not be used normally, please determine the cause and location of the fault first according to the relevant contents of the manual, and then find the way to solve the problems.

Content

1. Main parts

CTY.E hand pallet stacker is mainly made up of body,lifting frame,forks, Oil pump assembly,chain,safe net,foot brake,wheels and so on.

1.1 Structural representation



Form 1.1	Technical	parameter	list
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Modle	unit	CTY.E10	CTY.E20	CTY.E10S	CTY.E20S
Rated lifting capacity(kg)	kg	1000	2000	1000	2000
Low height of fork	mm	90	90	90	90
Fork lift height	mm	1600	1600	2000/2500/3000	2000/2500/3000
Fork Length(L)(MM)	mm	900	900	900	900
Adjustable width of the fork(E)(mm)	mm	320 ~ 750	340 ~ 750	320 ~ 750	340 ~ 750
Material of frame		Bending C payments	Bending C payments	Bending C payments	Bending C payments
Material of fork		Bending C payments	Bending C payments	Bending C payments	Bending C payments
Lifting speed	mm/stroke	20	14	20	14
Lowering speed	mm/s	controllable	controllable	controllable	controllable

Outer width of front leg(mm)	mm	690	690	690	690	
Operations power of	kg	24	32	24	32	
the hand crank(kg0	C					
Minimum refuel						
volume for fuel	L	1.6	2	2/2.6/3.1	2.5/3.2/3.9	
tank(L)						
Front wheel size	mm	φ74×52	φ74×70	φ74×52	φ74×70	
Real wheel size	mm	φ180×50	φ180×50	φ180×50	φ180×50	
				1410×780×1540	1410×780×1540	
External dimensions	mm	1390×780×2040	1390×780×2040	1410×780×1790	1410×780×1790	
				1410×780×2040	1410×780×2040	

Attention : Special color and special specification can be made according to the customer's demands.

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2. Working principle

2.1Hydraulic schematic diagram



Map 2.1

The stacker uses hydraulic pressure as power, through the work of manual hydraulic pump, pouring the hydraulic oil into the cylinder, and finally reach the goods with the help of driving force of pulley and chain.

3. Method of operation

3.1 Put the handle shank on the lifting lever (see the map 3.1), and repeatedly shake the hand lever, and the goods will rise to the height according to your need.



Map 3.1

①.Dialing the unloading handle stank which is on the lifting rod into the empty position, and pull up the unloading handle stank ,then the goods would decline. The larger the magnitude of the pull, the faster goods would fall. In the process of decline, it is also available on the need to release the handle stank of the lifting rod at any time.

(2). When you use the hand to press the lever, the goods do not move.

Attention: The fall speed is controllable, you can adjust the falling speed according to the weight of the object: The larger the magnitude of the pull, the faster of the lower speed; conversely, the decrease rate is slow.

3.2 Safety precautions

- 1. The operations and maintenance should be designated by the technical specialists.
- 2. You should operate according to the he load characteristic curve diagram(see the body side). It's forbidden to overload or unbalanced load.

3. It should be used on a hard flat surface, and prevent to collide with the steel plate, angle of material, iron and other objects which would damage the wheels not use the fork to

impact the cargo.

4. In the process of lifting goods, you had better not stand near the stacker. You should put down the goods when the stacker is being restored and adjusted. It is strictly prohibited to stand under the fork, when moving cargo handling time, keeping the fork from the ground should not higher than 300mm, the goods shall be placed between the two forks, don't let one side fork be used , strictly control the position of the center of gravity of goods. The goods fork is about to be symmetrical, the goods are placed at the center of the symmetry of the fork, and close to the side of the door frame.

5. When going downhill, you should let the front wheel be in the front, to prevent dumping.

6. If there appears abnormal work, such as door frame, fork deformation, shaft, pin loose, etc., you must first remove the fault, and then use.

7. when work is completed, the goods should be unloaded,to prevent elevated vehicle deformation caused by a long time loading, and the goods fork can not hang in the air or to the highest position,.It must be declined to the lowest level,to ensure safety.

8. In other special occasions or conditions, the operator should be careful to operate.

5. Restore and maintenance

1. The rotating pin shaft, guide wheel, door frame should be kept lubricating, and check whether the screw is loose and tighting it, check whether the chain is normal.

2. When the new product work for a month, it should be replaced the hydraulic oil, then it could be replaced once every six months. General I designated the company's hydraulic oil for the the Great Wall brand 46# wear and circulation of hydraulic oil. Users can replace the same kind of hydraulic oil.

3.Please check, between each door frame and the guide wheel, each connecting pin shaft and the sleeve, whether due to long-term use made the wear and tear too large, if so,please adjust or replaced before use.

The fault phenomenon	Cause analysis,	The solution
	1、Unloading valve is not adjusted	1、Adjust
Hand does not rise or rising slowly	2 Wydraulic oil pump mixed with impurities, so that the one-way valve does not close	2、\Replace pure hydraulic oil
	3、Oil pump leakage	3、Restore or replace
	4、Seal damage	4、Replace
	5、Valve body damage	5、Restore or replace

6. Failure analysis and solution

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Pull off handle, but	1 Unloading valve is not adjusted well	1、Adjusted
	2. Mechanical part of the active joint card can't work	2、Restore
the forks did not drop	3、Body part jammed	3、Restore or replace
	4、Piston rod deformed	4、Replace
the forks still rise when the handle rod in the middle of a stop	1 Unloading valve is not adjusted well	1、Adjusted
There is a decline of	1 Unloading valve is not adjusted well	1、Adjusted
forks when the handle rod in the middle of a	2、Oil pump leakage	2、Replace or restore
stop	3、High pressure end seal damage	3、Replace
	1, Serious leakage of hydraulic system	1. Restore
Lifting speed slow or crawling	2、Seal aging or damage	2、Replace seal
	3. There is air in the hydraulic system	3、Exclude air
	1、Portal frame deformed	1、Correcting door frame
Crawl at no load	2、The anti roll gap is too small	2. Adjusting the adjustable screw in the roller shaft

Attention: We follow the strategy of sustainable development, to retain the contents of this brochure is improved without notice and power.

Focus

7. Parts list directory



7.1 CTY.E Car body explosion diagram and parts catalog

Map7.1 CTY.E Car body explosion diagram-Single Mast

No.	Part name	QTY	No.	Part name	QTY
101	Hexagon head bolts	4	121	The left rear wheel fork weldment	1
102	Flat washer	6	122	The brake pressure cap	1
103	Flat washer	4	123	Hexagon thin nuts	1
104	Hexagonal nut	4	124	The brake lever	1
105	Car body welding	1	125	The right rear wheel fork weldment	1
106	Pacific washer	6	126	Locking plate	1
107	Hexagon head bolts	6	127	Shaft with elastic ring	8
108	Safety net	1	128	The rear casing	4
109	Hexagonal nut	4	129	After the shaft	2
110	chain screw	2	130	Deep groove ball bearing	8
111	chain	2	131	The rear wheel	2
112	U card	10-	132	Elastic cylindrical pin	1
113	Cap nut	2	133	The brake pedal	1
114	Hexagon head bolts	1	134	The brake shaft	1
115	magnet	1	135	Slot length cylindrical side set screws	1
116	Hexagon head bolts	1	136	Shaft with elastic ring	1
117	The rear cover dust cover	1	137	eccentric	1
118	Shaft with elastic ring	1	138	Hex cylinder head screw	1
119	Deep groove ball bearing	2	139	The front wheel	2
120	Single row taper roller bearings	2	140	Front axle	2

Form 7.1 CTY.E Single-Mast body parts catalog

7.2 CTY.E Double Mast explosion diagram and parts catalog



Map7.2 CTY.E Double-Mast bodywork explosion figure

Form 7.2 CTY.E Double-Mast body parts catalog

No.	Part name	QTY	No.	Part name	QTY
101	Hexagonal nut	2	128	The brake lever	1
102	The upper adjusting screw	2	129	The right rear wheel fork weldment	1
103	Cylindrical roller bearing	2	130	Locking plate	1
104	Shaft with elastic ring	3	131	Shaft with elastic ring	8
105	All electric clearance adjustment	4	132	The rear casing	4
106	Car body welding	1	133	After the shaft	2
107	Big flat washer	4	134	Deep groove ball bearing	8
108	Hexagon head bolts	4	135	The rear wheel	2
109	Safety net	1	136	Elastic cylindrical pin	1
110	Hexagonal nut	4	137	The brake pedal	1
111	chain screw	2	138	The brake shaft	1
112	chain	2	139	Slot length cylindrical side set screws	1
113	U card	1	140	Shaft with elastic ring	1
114	Hexagonal nut	4	141	eccentric	1
115	Flat washer	6	142	Hex cylinder head screw	1
116	Cap nut	2	143	The front wheel	2
117	Hexagon head bolts	C l	144	Front axle	2
118	The magnet	1	145	Shaft with elastic ring	2
119	Hexagon head bolts	1	146	Idler pulley	2
120	The rear cover dust cover	1	147	Deep groove ball bearing	2
121	Deep groove ball bearing	2	148	Hole with elastic ring	2
122	Single row taper roller bearings	2	149	Allen flat end set screws	4
123	The left rear wheel fork	1	150	Under the post within the connection	1
124	Hexagon head bolts	4	151	Flat washer	1
125	Standard spring washer	4	152	Standard spring washer	1
126	The brake pressure cap	1	153	Hex cylinder head screw	1
127	Hexagon thin nuts	1			
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7.3 CTY.E Hoisting frame explosion diagram and parts catalog



Map7.3 Hoisting frame explosion diagram

No.	Part name	QTY
201	Check ring	6
202	Fork plate shaft	1
203	Fork welding pieces	2
204	All electric clearance adjustment	4
205	Idler pulley	4
206	Deep groove ball bearing	4
207	Hole with elastic ring	4
208	Hexagonal nut	4
209	Hexagon head bolts	4
210	Lifting frame welding seam	1



7.4 CTY.E Oil pump explosion diagram and parts catalog

Map 7.4 CTY.E Oil pump explosion diagram

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Form 7.4 CTY.E	Oil	pump	explosion	figure

No.	Part name	QTY	No.	Part name	QTY
301	Piston rod	1	335	O sealing ring	2
302	Shaft with elastic ring	2	336	rod	1
303	Deep groove ball bearing	2	337	sheath	1
304	Chain wheel	2	338	O sealing ring	1
305	Hole with elastic ring	2	339	The relief valve adjusting screw	1
306	Sprocket shaft weldment	1	340	The relief valve spring	1
307	Cylinder head	1	341	The relief valve spring	1
308	The piston rod shield	1	342	Steel ball	1
309	O dust ring	1	343	handle	1
310	O sealing ring	1	344	Inner hexagonal screw	1
311	The piston rod sealing ring	1	345	Hand connecting shaft	1
312	Oil plug	1	346	Roller shaft	1
313	Oil pump weldment	1	347	Standard spring washer	1
314	Clamping ring	1	348	Inner hexagonal screw	1
315	Spring cover	1	349	Roller wheel	1
316	Pump core	1	350	Roller cover	1
317	Spring	1	351	Foot pedal set	1
318	Dust ring	1	352	Foot pedal connecting shaft	1
319	Sealing ring	4	353	Elastic pin	1
320	Valve plug	1	354	Foot pedal	1
321	Copper sheet	1	355	Foot rack	1
322	High pressure spring	1	356	Metalloid nut	1
323	Valve core	1	357	Hexagonal nut	1
324	Valve body	1	358	Drop bolt	1
325	O Sealing ring	1	359	chain	1
326	Steel ball	1	360	Pulling rod	1
327	Switch plate	1	361	Elastic pin	1
328	B cotter pin	1	362	Roller handle	1
329	Cotter pin	1	363	Elastic pin	1
330	Hex nut	1	364	Small hand bag glue	1
331	Slotted flat end set screws	1	365	Elastic pin	1
332	Pushing spring	1	366	Return spring	1
333	O sealing ring	1	367	Locate the shell	1
334	Top rod cover	1	368	Elastic pin	1





Map7-5 CTY.E Double oil pump explosion figure

No.	Part name	QTY	No.	Part name	QTY
301	The piston rod	1	337	O ring	1
302	Shaft with elastic ring	2	338	Plunger sleeve	1
303	Deep groove ball bearing	2	339	O ring	2
304	sprocket	2	340	The top bar	1
305	Hole with elastic ring	2	341	sheath	1
306	Hexagon head bolts	1	342	O ring	1
307	Sprocket shaft weldment	1	343	The relief valve adjusting screw	1
308	Flat washer	1	344	The relief valve spring	1
309	Standard spring washer	1	345	Safety seat	1
310	Hexagonal nut	1	346	Steel ball	1
311	Cylinder head	1	347	Grip weldment	1
312	The piston rod shield	1	348	Allen flat end set screws	1
313	O ring	1	349	Hand connecting shaft	1
314	O ring	1	350	Roller shaft	1
315	The piston rod sealing ring	1	351	Standard spring washer	1
316	Oil plug	1	352	Hex cylinder head screw	1
317	Oil pump weldment	1	353	roller	1
318	Compression ring	1	354	Roller set	1
319	Spring gland	1	355	Foot pedal set	1
320	The pump core	-1	356	Foot pedal connecting shaft	1
321	The pump core spring	1	357	Elastic cylindrical pin	1
322	Shield pump core	1	358	The pedals	1
323	The pump core sealing ring	1	359	The pedals	1
324	High voltage plug	1	360	Insert nut, not of metal	1
325	Copper gaskets	1	361	Hexagonal nut	1
326	High pressure valve disc spring	1	362	Eyelet bolt	1
327	High pressure valve core	1	363	The chain	1
328	High pressure valve body	1	364	Tie rod	1
329	O ring	1	365	Elastic cylindrical pin	1
330	Steel ball	1	366	Hand wheel	1
331	Switch board	1	367	Elastic cylindrical pin	1
332	Type B pin	1	368	Small hand bag glue	1
333	Cotter pin	1	369	Elastic cylindrical pin	1
334	Hexagonal nut	1	370	Return spring	1
335	Slotted flat end set screws	1	371	Locate the shell	1
336	Plunger spring	1	372	Elastic cylindrical pin	1

Form 7.5 CTY.E Double Mast oil	pump	parts	catalog
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