

**CBY.AC &BF Hand Pallet Truck**

**Operation Manual and Spares**



**Foshan Panda hardware Co.,Ltd**

Thanks for choosing and using forklift. The product is of excellent workmanship with reasonable design and simple operation. For the purpose of safety and right use of the product, please read this instruction manual carefully.

Note: All the information is based on the data obtained when this instruction manual is issued. The company will have right to improve the product at any time without any prior notice. Therefore, we would like to advise you to obtain our latest information try all means.

## 1. Standard of Specification

Load: 2000-3000Kg

Length of Fork: 1100-1220mm

Width of Fork: 550-685mm

Height of Fork:65-190-200mm

Net Weight: 74-90Kg

## 2. Mounting handle welding prat to Pump Body

Some tools are necessary after purchasing forklift such as an iron hammer and a pinchers. In addition to these tools, some other parts are necessary such as a positioning bearing(106) and two elastic pins (107). Note: One of pins is in the positioning bearin(106) and all the other parts are contained in a plastic bag and bound to the handle welding prat with adhesive plaster.

**Note: handle welding prat must match the pump body**

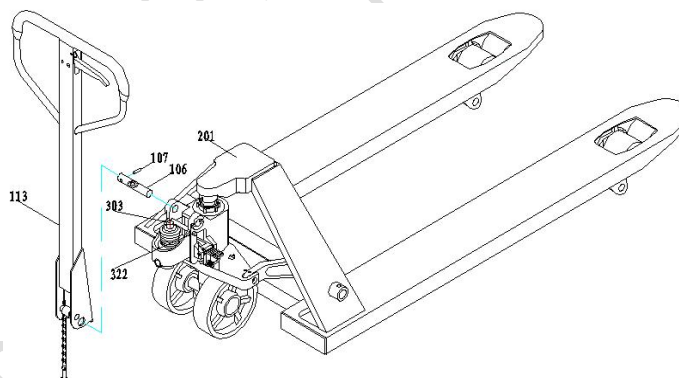
106、 Positioning bearing

107、 Elastic pin

113、 Handle welding prat

201、 Body frame

322、 Limit level



2.1 Put the handle welding prat(113) onto pump core and use hammer hitting positioning bearing(106) to make it enter hydraulic pump and handle welding prat(113) (note: Make center hole of positioning bearing(106) in "V" shape and the elastic pin facing yourself). Use pinchers and hammer to hit elastic pin (106) into the positioning bearing (106).

2.2 Remove nut with wrench and set the handle welding prat(113), remove limit level(322) (see figure 1).

2.3 Make hexagonal nut (104), drop bolt (103) and chain (102) through the center 'hole of positioning bearing (106), and adjust pedal control(327) and put drop bolt(103) the trough at front end and make hexagonal nut (104) stick to bottom of pedal control(327).

After done the process, the handle welding prat has been mounted to pump.

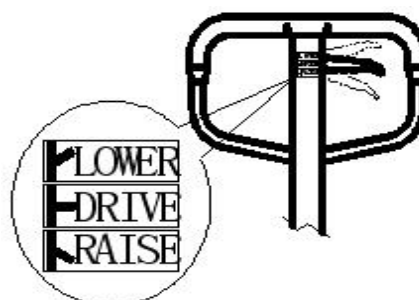
## 3. Adjusting of Buffer Device

On the handle welding prat of forklift, you can view control handle(119). It can be adjusted to three positions which are:

Raise

Drive Position

Lower



After finish operation, the control handle shall be pull back to middle position.

The three positions have been set prior to shipment. For any reason the positions have been changed, following steps shall be followed for operation:

3.1 At middle position if control handle(119) pressurized and force forklift up, so hexagonal nut (103) and the metalloid nut(105) on drop bolt(103) shall be adjusted clockwise until no more raising even forklift pressurized and everything become normal.

3.2 At middle position if control handle pressurized and force forklift down,so hexagonal nut (104) and metalloid nut(105) shall be adjusted counterclockwise until forklift no more going down.

3.3 If control handle (119) is at Lower Position but forklift doesn't go down, hexagonal nut (104) shall be adjusted clockwise until forklift does down when finger-shaped control arm at Lower Position. And check operation of handle welding prat at middle position (operation position) following step 3.1 and 3.2 to ensure hexagonal nut(104) is at right position.

3.4 At Raise Position if control handle pressurized but forklift no raising,hexagonal nut (104) shall be adjusted counterclockwise until forklift goes up. And check operation of forklift at Lower and middle position following step 3.1, 3.2 and 3.3 to ensure hexagonal nut(104) is at right position.

#### **4.Warning**

Frequent maintenance is requested for forklift.

##### 4.1 Oiling

Check oil level every 3 months and oil can be hydraulic oil: ISOUG32, and its viscosity shall be 30cSt with total volume 0.41t.

##### 4.2 Exhausting

For transport or upside down of pump, air maybe enters hydraulic oil and it will cause no going up of forklift when control handle at Raise Position pressurized.

Below action may be followed to exhaust air: Pull the control handle (119) to Lower Position and pull handle welding prat (113) to move it back and forth several times.

##### 4.3 Daily Inspection & Maintenance

Daily inspection may reduce wear of forklift. Pay special attention to wheels and wheel shaft to find whether thread or line wrapped. After transport, all cargo must be unloaded and make forklift to the lowest position.

##### 4.4 Lubricating .

Prior to shipment, all bearings and shafts have been applied with sustaining oil. Add oil to these places on monthly basis or at through cleaning.

#### **5.Guide to Safe Operation**

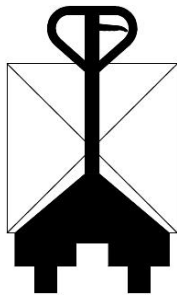
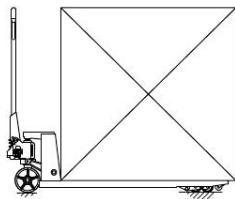
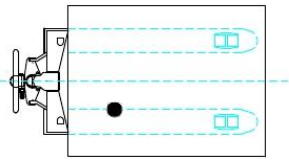
5.1 Prior to operation of the forklift, operator shall thoroughly read the instruction manual and cautions notes on forklift.

5.2 Normally pull control handle to middle position when dragging forklift. Not only is it easy for moving handle welding prat but also it can reduce rebounding force the small pump core applied to handle welding prat. Meanwhile, it can protect hydraulic sealing kits and piston assembly to prolong life of forklift.

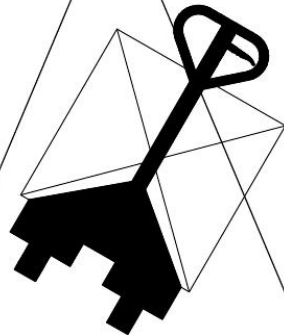
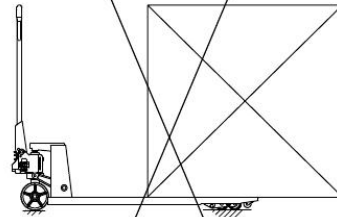
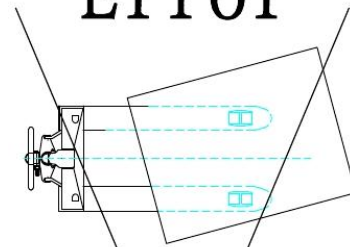
5.3 Personnel not familiar with the equipment or without training don't operate the forklift.

- 5.4 Check forklift prior to operation and pay special attention to wheels (222, 225, 228,315), handle welding prat assembly, carrier and pedal control arm (327)
- 5.5 Don't use forklift on slope.
- 5.6 Don't use forklift to carry personnel.
- 5.7 Operator shall wear gloves for the purpose of protection.
- 5.8 During transporting, personnel shall be 600mm away from carrier.
- 5.9 Pay attention to center of gravity to avoid offset or inclination (Refer Figure 28)
- 5.10 Don't overload.
- 5.11 Operator shall cautiously operate under special circumstances or at special places.

## Right



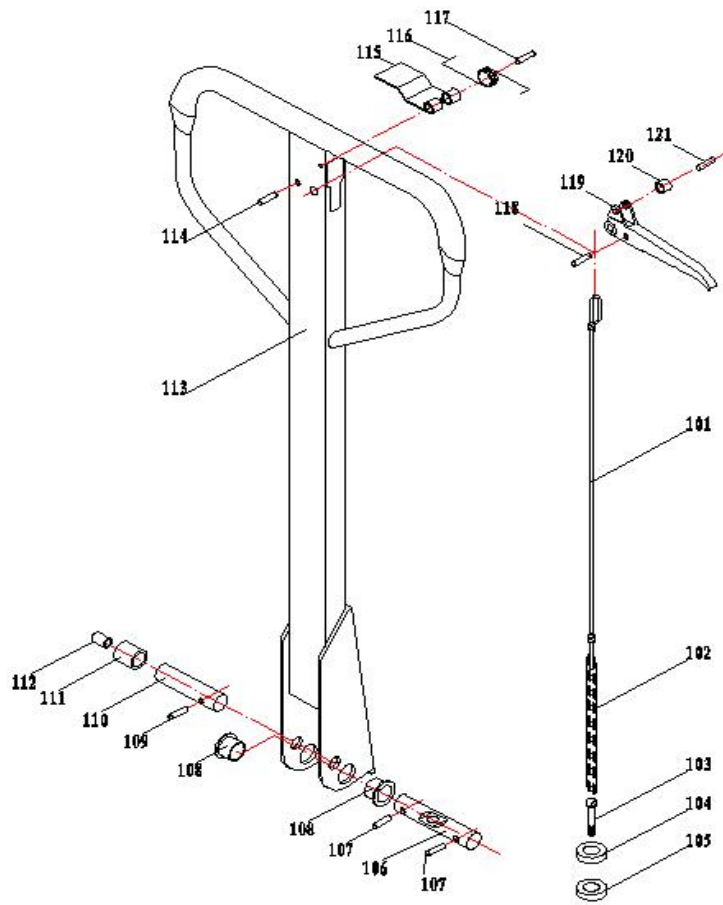
## Error



## 6. Troubleshooting

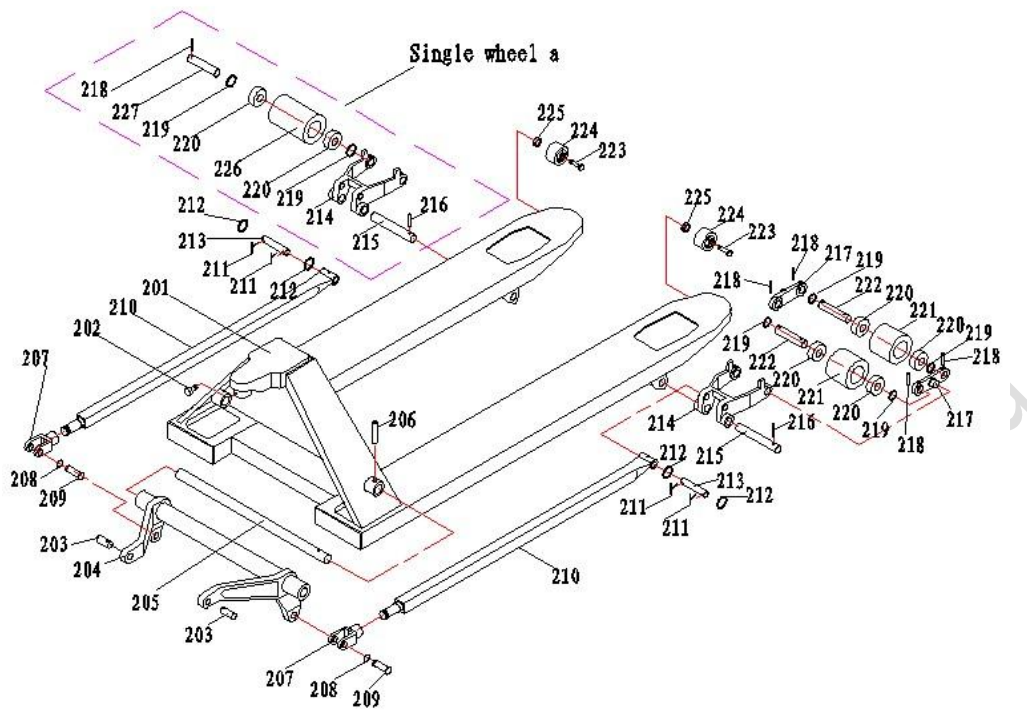
Odr	Trouble	Reason	Troubleshooting
	Fork cannot be raised to max. height	--Not enough hydraulic oil.	--Add oil.
2	Fork cannot be raised.	--No hydraulic oil; --Not pure oil; --Position of hexagonal nut(104) is too high and make relief valve open. --Air in hydraulic oil.	--Add oil; --Change oil; --Adjust nut(104) (Refer to Item 3 and 4); --Exhaust air.
3	Fork cannot be lowered.	--Cargo offsets or overload and damaged piston nut (325) or pump(318) --Carrier stays at Raise Position for quite a long time and piston rod gets exposed and rusted. --Adjusting nut (104) is not at right position.	--Replace piston rod(325) or pump (318). --Please lower the carrier to lowest position when it's not under operation, frequently lubricate piston. --Adjust nut (104) (Refer item 3.3).
4	Oil leakage	--Sealing aged or damaged. --Some parts broken.	--Replace; --Replace.
5	No performance of relief valve when fork is being lowered.	--Impure oil caused looseness of relief valve. --Some parts in hydraulic system broken or damaged. --Air in oil. --Sealing aged or damaged. --Adjusting nut (104) is not at right	--Replace oil. --Check and replace damaged parts. --Exhaust air (See 4.2). --Adjust nut (104) (See 3.2)

Personnel without special training please don't attempt to repair forklift by its own.



**Parts of Handle welding prat**

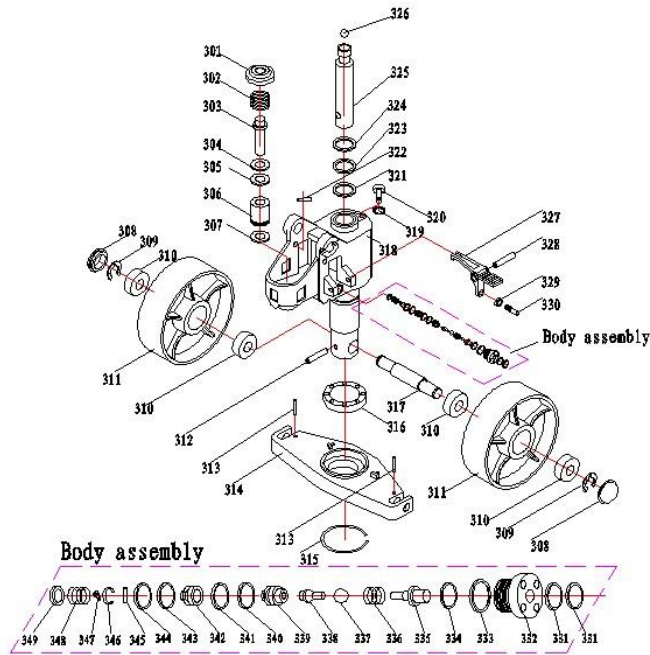
NO.	Description	Qty	NO.	Description	Qty
101	Pulling rod	1	112	Roller cover	1
102	Chain	1	113	Handle welding	1
103	Drop bolt	1	114	Elastic pin	1
104	Hexagonal nut	1	115	Return shrapnel	1
105	Metalloid nut	1	116	Return spring	1
106	Positioning bearing	1	117	Elastic pin	1
107	Elastic pin	2	118	Elastic pin	1
108	Cover	2	119	Control handle	1
109	Elastic pin	1	120	Handle wheel	1
110	Roller bearing	1	121	Elastic pin	1
111	Roller	1			



### Parts of Body Frame

NO.	Description	Qty.	NO.	Description	Qty.
201	Body frame	1	219	Gasket	8
202	Inner hexagonal screw	1	220	Bearing	8
203	Connecting bearing	2	221	Front wheel	4
204	Lever frame	1	222	Front wheel bearing	4
205	Lever bearing	1	223	Hexagonal screw	2
206	Elastic pin	1	224	Climbing wheel	2
207	Fork ear	2	225	Metalloid nut	2
208	Washer for bearing	2	Single wheel part		
209	Fork ear connector	2	214	Front wheel frame	2
210	Pushing rod welding	2	215	Positioning bearing	2
211	Open pin	4	218	Elastic pin	2
212	Gasket	4	219	Gasket	4
213	Pushing road connector	2	220	Bearing	4
214	Front wheel frame	2	226	Single wheel	2
215	Positioning bearing	2	227	Single wheel bearing	2
216	Elastic pin	2	218	Elastic Pin	4
217	Double-wheel side board	4			
218	Elastic pin	8			



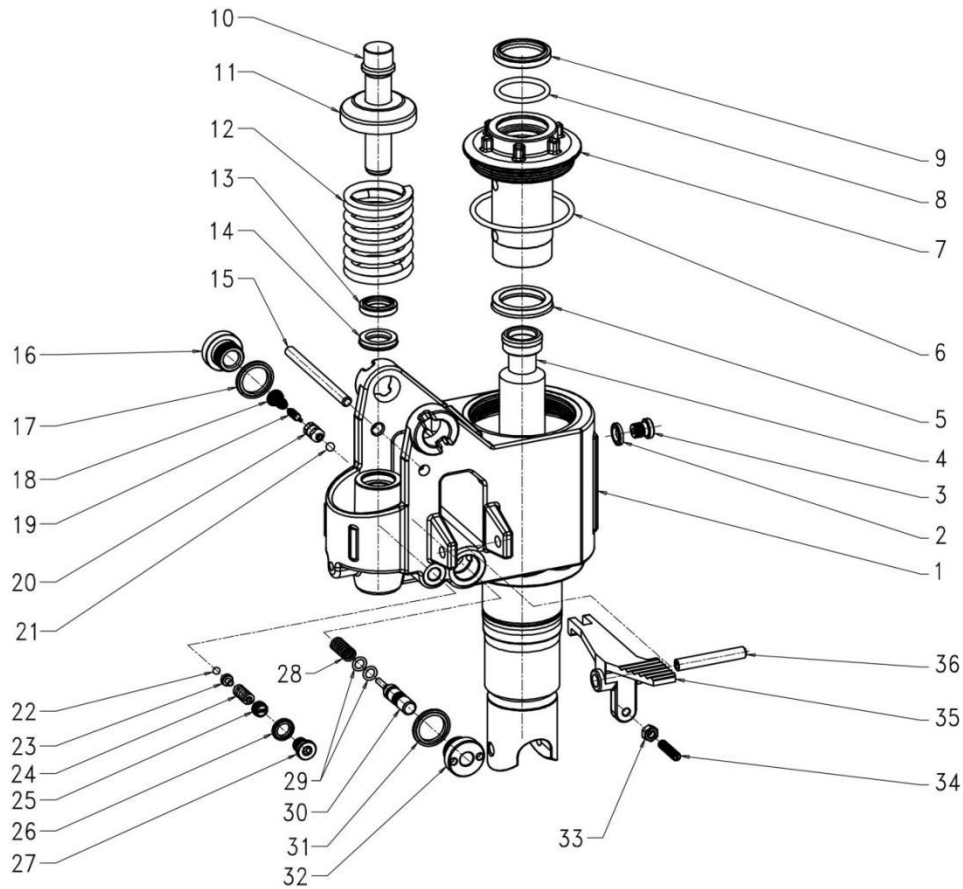


## Parts of oil Pump

NO.	Description	Qty.	NO.	Description	Qty.
301	Spring gland	1	326	Steel ball	1
302	Pump core spring	1	327	Pedal control	1
303	Pump core	1	328	Elastic pin	1
304	Anti-dust ring	1	329	Nut	1
305	Sealing ring	1	330	Fasten screw	1
306	Small pump	1	Value body assembly		
307	Copper sheet	1	331	"O"sealing ring	2
308	Anti-dust cover	2	332	Copper nut	1
309	Rand	2	333	"O"sealing ring	1
310	Bearing	4	334	"O"sealing ring	1
311	Rear wheel	2	335	Top rod	1
312	Elastic pin	1	336	Top rod spring	1
313	Elastic pin	2	337	Steel ball	1
314	Bearing board	1	338	High pressure	1
315	Check ring for bearing	1	339	Valve body connector	1
316	Pulling ball bearing	1	340	Cutting edge beaming	1
317	Rear wheel bearing	1	341	"O"sealing ring	1
318	Pump	1	342	High pressure valve body	1
319	Grouped gasket	1	343	Cutting edge beaming	1
320	Inner hexagonal screw	1	344	"O"sealing ring	1
321	Sealing ring	1	345	Elastic pin	2
322	Limit lever	1	346	Spring sheet	1
323	"O"sealing ring	1	347	Screw	1
324	Anti-dust	1	348	Valve core spring	1
325	Piston rod	1	349	Gland	1



## BF Pump Explosive View



No.	Item Name	Spec	Qty	No.	Item Name	Spec	Qty	No.	Item Name	Spec	Qty
1	Pump Out body 外体	Iron Caste	1	13	Anti-dust ring Φ18 泵芯防尘圈	Φ18*26*4.5 /6	1	25	Pressure Adjusting Screw 调压螺钉	M10*1*8,5	1
2	Bonded washer 组合垫片	Φ10*1*9.5	1	14	Sealing ring 泵芯密封圈	Φ18*26*5	1	26	Bonded washer 组合垫	Φ10*2	1
3	Inner hexagonal screw 内六角螺塞	M10*1	1	15	Limit Lever 限位杆	Φ7*95	1	27	Inner hexagonal screw 内六角螺塞	M10*1*9.5	1
4	Piston rod 活塞杆	Φ31.5*263	1	16	Valve end Plug Screw 组尼阀端螺塞	M20*1.5	1	28	Spring for Ejector pin 撞针弹簧	1.3*9.5*22	1
5	Sealing ring 活塞杆密封件	Φ31.5*41.5*6	1	17	Bonded washer 组合垫	Φ20	1	29	“O” Ring O形密封圈	Φ6.9*1.8	2
6	“O” Ring O形密封圈	Φ65*2.65	1	18	Pagoda Spring 宝塔弹簧	Φ0.7*20	1	30	Ejector pin 撞针	Φ10*52	1
7	Top Cover 顶盖	Φ31.5	1	19	Spool of orifice Valve 组尼阀芯	Φ4.80*19	1	31	Bonded washer 组合垫	Φ20*2	1
8	“O” Ring O形密封圈	Φ31.5*3.55	1	20	Valve Body 组尼阀阀体	Φ4.9*11	1	32	Pedestal for Ejector Pin 撞针座	M20*1.5* 18	1
9	Anti-dust Ring 活塞杆防尘圈	Φ31.5*39.5*5 *6.5	1	21	Steel Ball 钢球	SΦ5	1	33	Hexagon Nut 六角螺母	M6	1
10	Pump Plunger 泵芯 (BF)	Φ18*97	1	22	Steel ball 钢球	SΦ6.35	1	34	Socket head cap screw 开槽平端螺钉	M6*25	1
11	Spring Cover 弹簧压盖	Φ49*2*15	1	23	Cushion for Steel ball 钢球垫	Φ8*8	1	35	Pedal Control 脚踏控制板		1
12	Plunger spring 泵芯弹簧	Φ5.5*外 48*115	1	24	Spring of Safety Valve 安全阀弹簧	Φ2*8*16.5	1	36	Elastic Pin 弹性销	Φ8*52	1