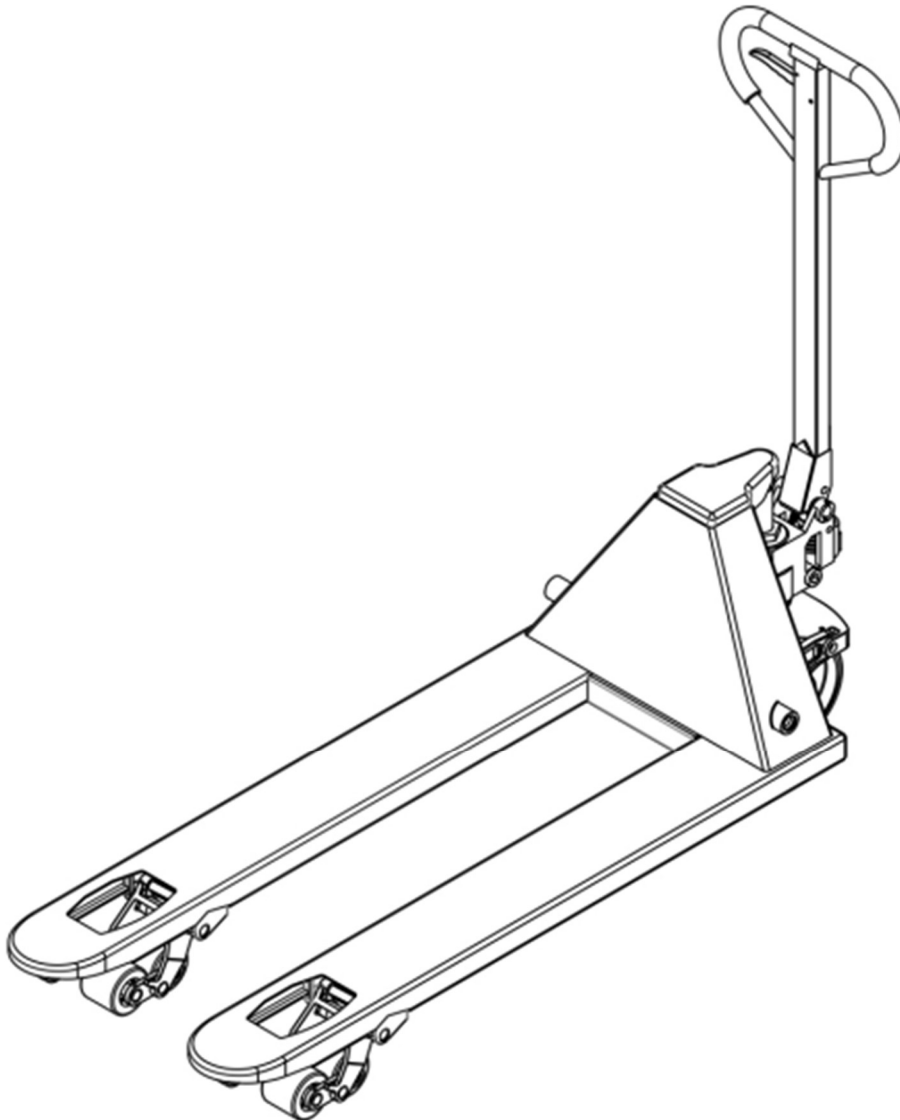




#MPJ2748

27" X 48" Pallet Jack

5500 LB. WEIGHT CAPACITY



PLEASE READ ENTIRE MANUAL BEFORE USE

08/2024



Table of Contents

Product Specifications	3
Delivery Inspection	3
Operating Instructions	3
Assembly Instructions	4
Safety Procedures	5
Daily Inspections	5
Maintenance	6
Warranty	6
Troubleshooting	7
Parts Diagrams	8-15



Product Specifications

Weight Capacity (lb.)	5500 lbs.	
Main Specifications	Fork Width (in.)	27"
	Fork Length (in.)	48"
	Fork Lowered Height (in.)	3"
Steer Wheel Diameter (in.)	7"	
Load Wheel Diameter (in.)	3"	
Item Weight (lb.)	155 lb.	

Delivery Inspection

Each Harper Industrial Pallet is checked before shipment. In order to ensure that your Pallet Jack has not been damaged in transit, check that your unit is free of any major damage or dents and is in working condition before use. If damage is evident or your unit is not in working condition, contact your distributor immediately. Never use a damaged Pallet Jack.

Operating Instructions

Read and understand prior to using the pallet jack.

To lift a load:

1. Lower forks to lowest position.
2. Insert forks under load or into pallet.
3. Place lever in UP position (bottom part of the handle slot).
4. Mover handles up and down until forks reach desired height.

To move a load:

1. Place lever in NEUTRAL position (center part of the handle slot).
2. Pull or push to desired location.

To lower a load:

1. Pull lever to DOWN position (upper part of the handle slot).
2. Full forks away from load.

NOTE: The neutral position disengages the pump from the lifting mechanism. This frees the handle, which makes pulling loads easier. This preserves the hydraulic seals and the valve components for a longer service life.



Assembly Instructions

If you have purchased a single, assembled unit, you may disregard the section below. Pallet Jacks purchased in crate quantities (6 units to a crate) require some assembly. Please refer to the steps below to assemble your Pallet Jack.

Tools needed for assembly: hammer, flat screwdriver, 14mm wrench

1. Verify that the spring safety pin is in place. The pin should be well rested in the holes situated on each side of the pump housing. If the safety pin is not rested properly in one of the holes, put pressure on the spring using a "C" clamp pushing down on the pump stem. Once pressure is relieved on the pin, reinsert properly and remove clamp slowly.
2. Insert handle pin into corresponding holes and using a hammer, drive in one spring pin on one side only.
3. Insert handle pin without the handle and verify that the center hole is facing you.
4. If handle pin's center hole is facing away from you, insert pin from the other side. **IMPORTANT NOTE:** The up/down lever's chain passes through this center hole. If left this way, the chain will have an "S" form and be under too much tension, making the up/down lever difficult to use accurately.
5. **IMPORTANT NOTE:** Before this step, make sure to feed the chain on the outside of the piston stem roller. If left in its proper position, it will not be possible to insert the handle pin and chain, breakage may occur. Align handle holes with pump housing holes and push through handle pin.
6. Make sure that handle pin is completely through the handle and resting on the other side.
7. Pull down on the handle to release the tension on the safety pin. *Carefully remove the safety pin.*
8. Feed the chain and nut first back inside the handle THROUGH the handle pin's center hole. **IMPORTANT NOTE:** Release the up/down lever to its lowest position to make the process easier.
9. Once the chain is in the proper position, check to see that it moves freely and that it is not obstructed.
10. Using both hands, push on the valve cam to raise the hook inside the housing and feed the end of the chain in the cam.
11. Pump the lever a few times to raise the forks. Put the up/down lever in *NEUTRAL* position. Using a 14mm wrench and a flat screwdriver, adjust the valve cam so that the forks don't lower or rise (if handle is pumped) at this position.
12. **IMPORTANT NOTE:** Test all the features of the pallet jack before this step. The handle should be pumped with full strokes to prime and eliminate air in the system. The up/down lever should be checked at the handle's lowest position for this puts the most tension on the chain. Once the pallet jack is adjusted properly and is performing well, drive in the second spring pin using a hammer.



Safety Procedures

- Read and understand the entire operator's manual before using the pallet jack.
- Do not operate this pallet jack unless you are authorized and trained to do so.
- Don't load pallet jack beyond rated capacity of 5500 lbs. for the standard models and 6600 lbs. for heavy-duty models.
- Do not operate this pallet jack if damaged or not in proper working condition.
- Secure load before transporting to eliminate the opportunity for load shift.
- Keep the load centered on the pallet.
- Use extreme care when rounding corners. Moving too fast could cause the pallet jack to tip. If loaded, the load could shift and fall.
- Move loads only with pallet jack in its lowest position.
- Always look where you are operating. Keep a clear view.
- Always yield right of way to pedestrians.
- Never carry passengers.
- Never put your feet, hands or any other body parts under the chassis assembly.
- Always wear appropriate safety shoes.
- Never leave a loaded pallet jack unattended in the raised position, always lower load to the floor.

Daily Inspections

At the start of your working, check the items listed below. Report any malfunctions or unsafe conditions to your supervisor. **Do not use this product until it is repaired.**

Checking Points	Steering	Hydraulic System	Wheels	Chassi/Handle	Lifting/Lowering	Labels
Actions	Check full rotation	Check for excessive oil on exterior and check for function	Check for wear and damage and remove debris	Check for damage and remove debris	Check for function	Check for readability



Maintenance

Cleaning Relief Valve

Over time, relief valve may become clogged with debris and will not work properly. To clean relief valve, flush the hydraulic system as follows:

Pump handle quickly, raising pallet jack to full extent.

Then, quickly release pumping action.

1. In order to ensure best performance, maintain your pallet jack regularly.
2. Check your pallet jack daily for any damages or abnormalities. Never use a pallet jack with visible damage or noticeable issues.
3. Add 1-2 drops of oil in the rotary joints at the socket of shaft and hole every three months.
4. Replace the wheel bearing every 6-12 months.
5. Maintain an adjustment of the connecting rod under the fork every 6-12 months, or according to jack performance.
6. Replace the hydraulic oil in the pump every 12 months. The amount of hydraulic oil should not be too much or too little (250-300mL), and its oil level should not exceed a maximum height of the filling hole next to the pump.
7. Make an adjustment of the screw on the lever plate every 6-12 months or depending on pallet jack performance.
8. The life span of the unit's wheels depends on multiple conditions. Make sure that your wheels are being replaced when wear is noticeable or when they are losing their shape.
9. Pay special attention to the space between wheel and axis and remove any debris that can affect wheel performance.

Adjusting UP/DOWN Cam

DO NOT adjust the up/down lever control using the lock nut at the end of the handle chain. If nylon locking threads are removed from the screw threads, rolling vibration will cause the nut to unscrew and fall off, leaving the up/down lever unusable.

Use proper set screw and lock nut adjustment located on the side of the pump. This feature was designed to ease the pallet jack adjustment. Tools required are a flat screwdriver and a 14mm wrench.

Warranty

This pallet jack has a 1-year warranty.

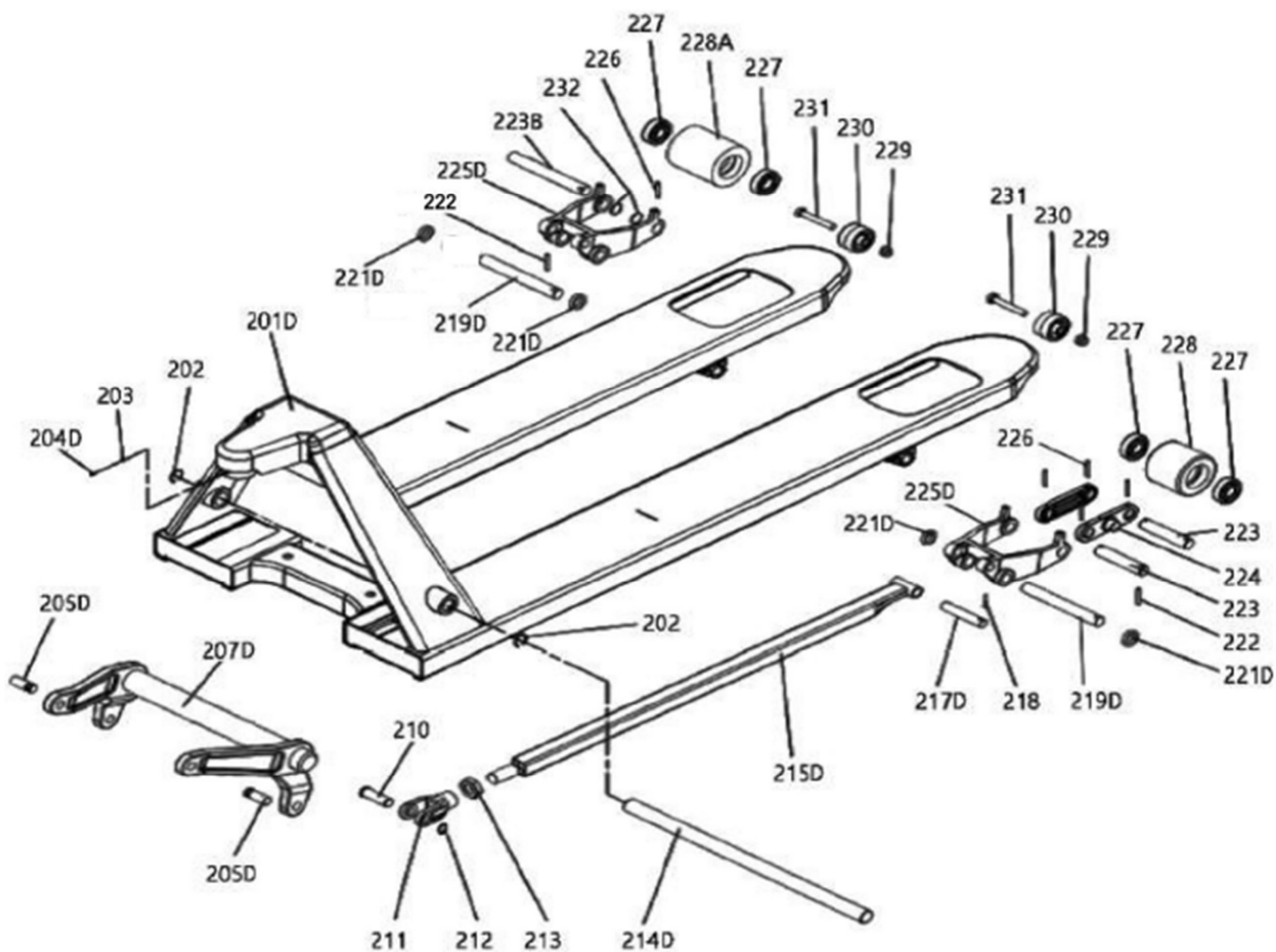
Troubleshooting

Possible problems could arise in the operation of your hydraulic pallet jack. Their probable cause(s) and corrective action(s) follow:

Condition	Probable Causes	Corrective Action
Hydraulic unit does not lift	Oil low in tank	Make sure this is no till leakage from valve and add appropriate filtered working oil.
	Steel ball not seated in hydraulic unit	See "Cleaning Relief Valve" in this manual
	Worn O-ring in ram cylinder	Consult authorized service center.
	Air lock in the hydraulic system	Pull up on control lever and hold while pumping the handle 8-10 times to bleed air from the system
	Viscosity of hydraulic oil is too high or hydraulic oil is too low	Replace the hydraulic oil
	Hydraulic oil is dirty	Replace the hydraulic oil
	The lowering device is abnormal	Re-adjust the lowering device
Once lifted truck lowers by itself	Steel ball not seated in hydraulic unit	See "Cleaning Relief Valve" in this manual
	Worn O-ring in ram cylinder	Consult authorized service center.
	Relief valve not seated properly	See "Cleaning Relief Valve" in this manual
	Relief valve not adjusted properly	Reload truck within load capacity and adjust valve by pressure adjustment screw.
	Oil leakage from each valve	Tighten plug of each valve.
	The valve is stuck	Open the valve, take it out, then clean the valve and parts; re-install valve and parts to their original position.
Fork does no lower	Cam broken	Replace cam chain
	UP/DOWN cam nut out of adjustment	Refer to "Adjusting UP/DOWN Cam "in this manual.
	Broken fork rods and linkage	Replace broken parts.
	Too much hydraulic oil has been added	Pump off appropriate amount of hydraulic oil
	Rotating part is distorted and gets stuck	Replace parts
Lever does not set at NEUTRAL position	UP/DOWN cam nut out of adjustment	Refer to "Adjusting UP/DOWN Cam "in this manual.
The forks cannot drop after lifted	The control valve is abnormal	Re-adjust the unloading device
	The parts are deformed or damaged	Replace the damaged and deformed parts
Hydraulic oil leaks	The seal is damaged	Replace the seal
	There is a slight leakage or abrasion on the surface of individual parts	Replace the damaged parts
	Loose joint	Tighten loose joint

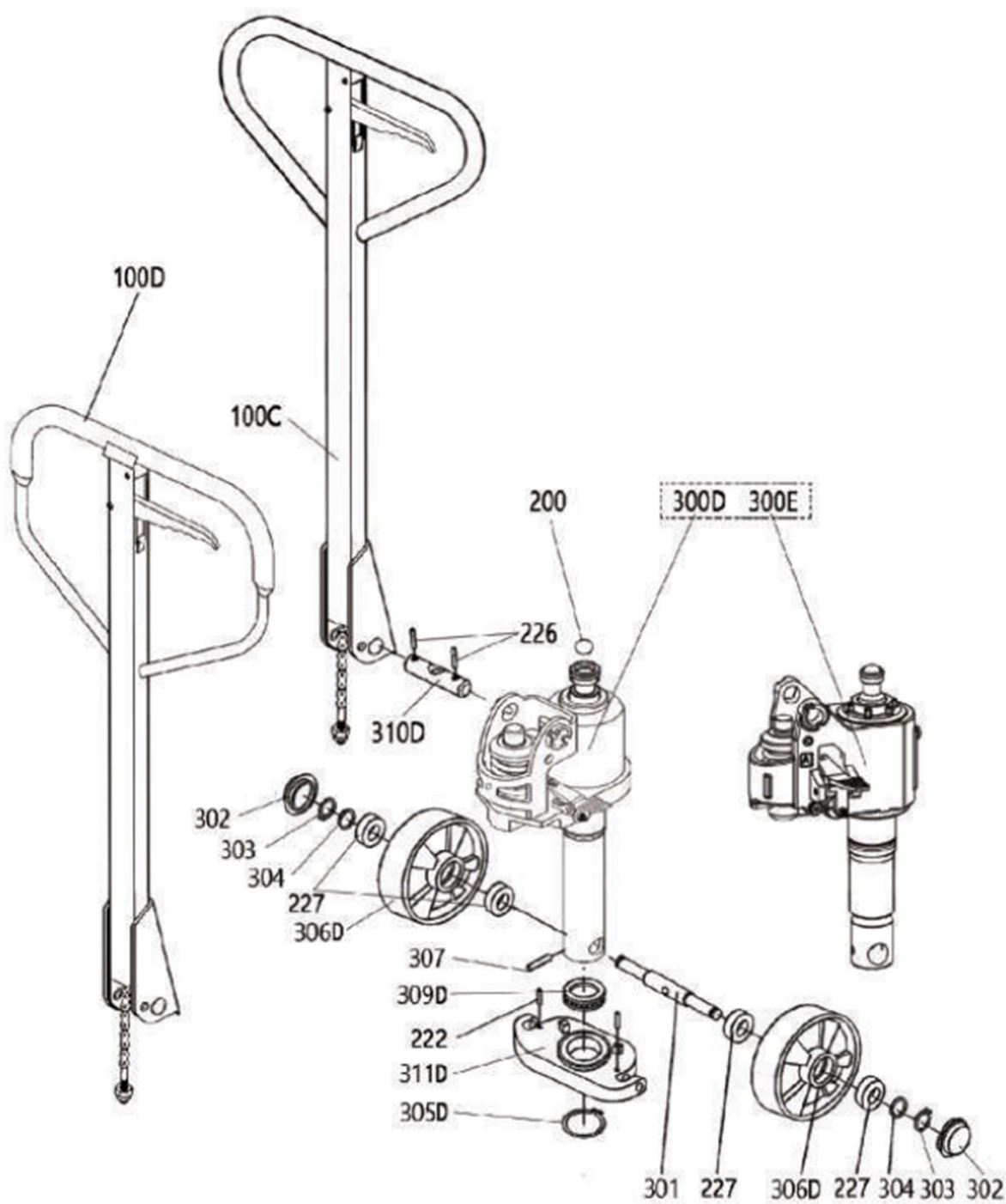
Parts Diagram

Chassis



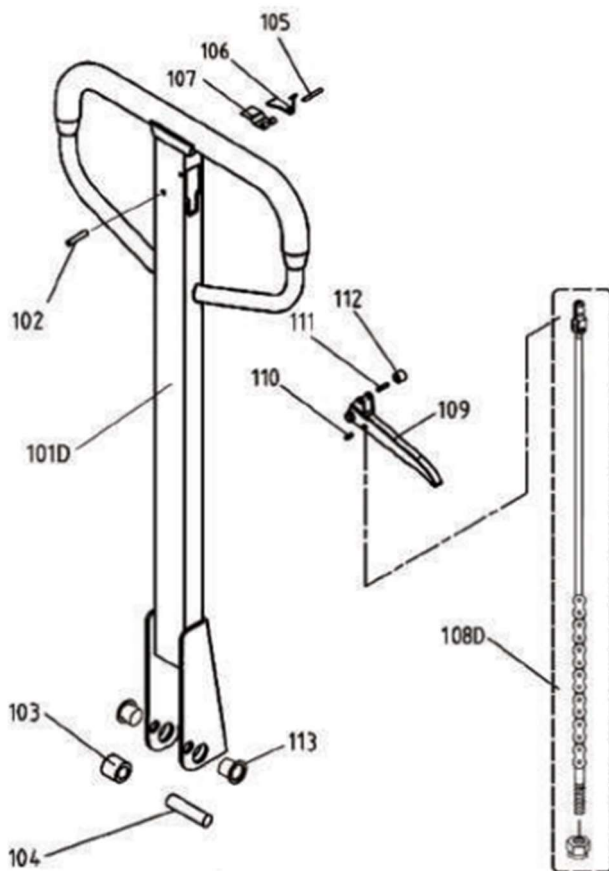
Item #	Part #	Part Detail	Quantity
201D	20201	Chassis	1
202	10202	Circlip for hole $\Phi 26$	2
203	10203	Spring gasket $\Phi 6$	1
204D	20204	Bolt M6x12	1
205D	20205-1	Connecting pin $\Phi 15.8 \times 48.5$ (DFH pump)	2
	20205-2	Connecting pin $\Phi 15.8 \times 41$ (BF pump)	(2)
207D	20207-1	Swing arm for 550mm	1
	20207-2	Swing arm for 685mm	(1)
210	10210	Axle $\Phi 15.8 \times 52$	2
211	10211	Push rod fork	2
212	10212	Circlip for shaft $\Phi 15.8$	2
213	10213	Nut M22	2
214D	20214-1	Long axle $\Phi 24.5 \times 496$ for 550mm	1
	20214-2	Long axle $\Phi 24.5 \times 608$ for 685mm	1
215D	20215	Push rod (only 1150mm)	2
217D	20217	Axle $\Phi 15.8 \times 82$	2
218	10218	Spring pin $\Phi 5 \times 26$	2
219D	20219	Level block axle $\Phi 19.8 \times 152$	2
221D	20221	Axle sleeve	4
222	10222	Spring pin $\Phi 5 \times 30$	2
223	10223-1	Roller axle $\Phi 19.8 \times 94.5$	4
223B	20223-2	Roller axle $\Phi 19.8 \times 120$	2
224	10224	Tri-connect plate	4
225D	20225	Level block (For double loading wheel)	2
226	10226	Spring pin $\Phi 5 \times 35$	4
227	10227	Bearing 6204-2RS	8
228	10228-1	PU double loading wheel $\Phi 80 \times 70$	4
	10228-2	PA double loading wheel $\Phi 80 \times 70$	4
228A	10228-3	PU single loading wheel $\Phi 80 \times 93$	2
	10228-4	PA single loading wheel $\Phi 80 \times 93$	2
229	10229	Nut M10	2
230	10230	Enter roller	2
231	10231	Bolt M10x65	2
232	10232	Axle adjusting gasket	4

Handle & Pump



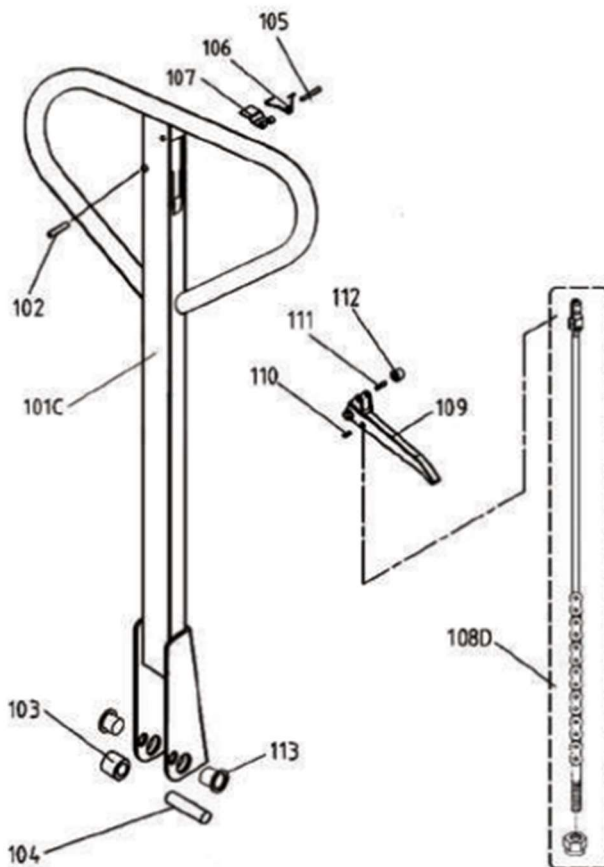
Item #	Part #	Part Detail	Quantity
100C	10100C	Handle assembly (Triangle without rubber)	(1)
100D	10100D	Handle assembly (Square with rubber special for DFH pump)	1
200	10200	Steel ball $\Phi 19$	1
222	10222	Spring pin $\Phi 5 \times 30$	2
226	10226	Spring pin $\Phi 5 \times 35$	2
227	10227	Bearing 6204-2RS	4
300D	20300A	DFH pump assembly	1
300E	20300B	BF pump assembly	(1)
301	10301	Wheel axle	1
302	10302	Dust ring	1
303	10303	Circlip for shaft $\Phi 20$	1
304	10304	Axle adjusting gasket	1
305D	20305	Circlip for shaft $\Phi 50$ (DFH pump)	1
	20305-2	Circlip for shaft $\Phi 55$ (BF pump)	1
306D	20306-1	PU steering wheel $\Phi 180 \times 50$	2
	20306-2	PA steering wheel $\Phi 180 \times 50$	2
	20306-3	Rubber steering wheel $\Phi 180 \times 50$	2
307	10307	Spring pin $\Phi 8 \times 45$	1
309D	20309	Pushing ball bearing 51110 (DFH pump)	1
	10309	Pushing ball bearing 51111 (BF pump)	(1)
310D	20310	Handle axle $\Phi 19.8 \times 85.5$ (For DFH pump)	1
	10310-1	Handle axle $\Phi 19.8 \times 98$ (For BF pump)	1
311D	20311	Thrust strip (For DFH pump)	1
	20311-2	Thrust strip (For BF pump)	1

Handle D (Square with rubber special for DFH pump)



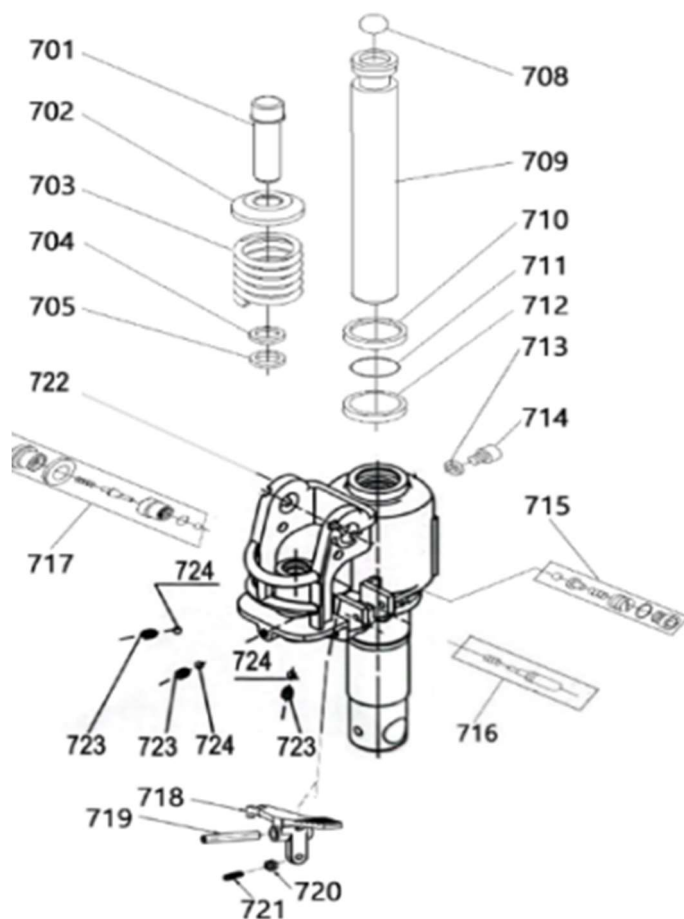
Item #	Part #	Part Detail	Quantity
101D	10101D	Handle body	1
102	10102	Spring pin 6x30	1
103	10103	Pinch roller	1
104	10104	Pinch roller pin	1
105	10105	Spring pin 4x30	1
106	10106	Torsional spring	1
107	10107	Hinge	1
108D	10108D	Connecting Rod	1
		Chain	1
		Swing bolt M5	1
		Nut M5	1
		Connecting plate	1
		Rivet $\Phi 3 \times 6$	1
109	10109	Finger lever	1
110	10110	Spring pin 4x13	1
111	10111	Spring pin 4x17	1
112	10112	Roller	1
113	10113	Axle sleeve	2

Handle C (Triangle without Rubber)



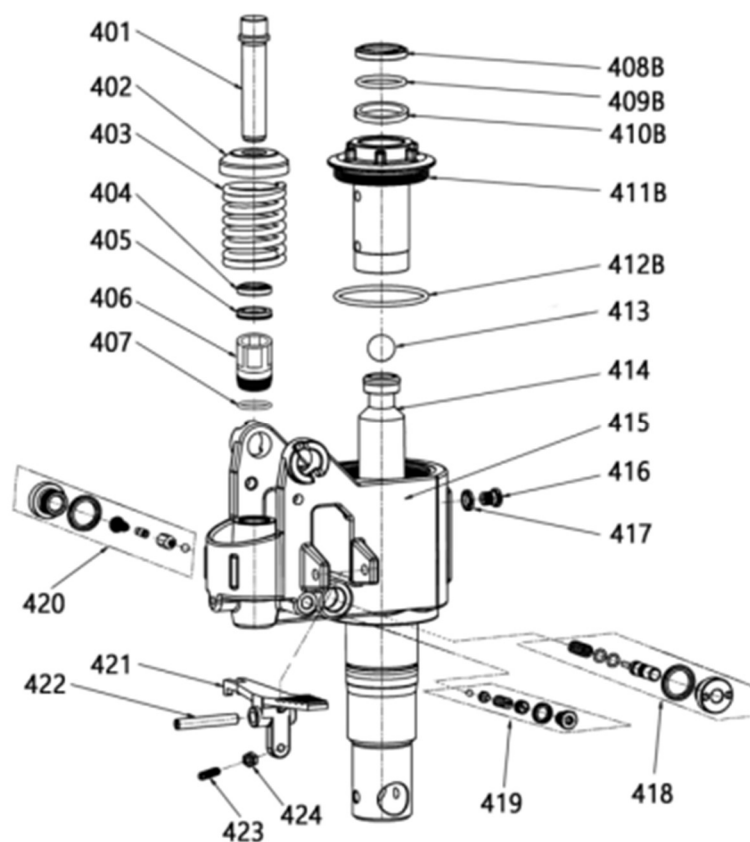
Item #	Part #	Part Detail		Quantity
101C	10101C	Handle body		1
102	10102	Spring pin 6x30		1
103	10103	Pinch roller		1
104	10104	Pinch roller pin		1
105	10105	Spring pin 4x30		1
106	10106	Torsional spring		1
107	10107	Hinge		1
108D	10108D	Rod & Chain assembly	Connecting Rod	1
			Chain	1
			Swing bolt M5	1
			Nut M5	1
			Connecting plate	1
			Rivet Φ3x6	1
109	10109	Finger lever		1
110	10110	Spring pin 4x13		1
111	10111	Spring pin 4x17		1
112	10112	Roller		1
113	10113	Axle sleeve		2

DFH Pump



Item #	Part #	Part Detail	Quantity
701	30701	Small pump core	1
702	30702	Cover of spring	1
703	30703	Big spring cap	1
704	30704	Dust ring $\Phi 18 \times 26 \times 4.5/6$	1
705	30705	Seal washer $\Phi 18 \times 26 \times 5$	1
706	30706	Small cylinder	1
707	30707	Copper gasket	1
708	30708	Steel ball $\Phi 19$	1
709	30709	Piston rod	1
710	30710	Dust ring $\Phi 31.5$	1
711	30711	O-ring $\Phi 31.5$	1
712	30712	Seal washer $\Phi 31.5$	1
713	30713	Bolt	1
714	30714	Seal	1
715	30715	Relief valve	1
716	30716	Safety valve	1
717	30717	Check valve	1
718	30718	Lever plate	1
719	30719	Spring pin	1
720	30720	Nut	1
721	30721	Bolt	1
722	30722	Pump body	1

BF Pump



Item #	Part #	Part Detail	Quantity
401	30401	Small pump core	1
402	30402	Cover of spring	1
403	30403	Big spring cap	1
404	30404	Dust ring $\Phi 18 \times 26 \times 4.5/6$	1
405	30405	Seal washer $\Phi 18 \times 26 \times 5$	1
406	30406	Small cylinder	1
407	30407	Copper gasket	1
408B	30408B	Dust ring $\Phi 31.5$	1
409B	30409B	O-ring $\Phi 31.5$	1
410B	30410B	Seal washer $\Phi 31.5$	1
411B	30411B	Slide bushing	1
412B	30412B	O-ring	1
413	30413	Steel ball $\Phi 19$	1
414	30414	Piston rod	1
415	30415	Pump body	1
416	30416	Bolt	1
417	30417	Seal	1
418	30418	Relief valve	1
419	30419	Safety valve	1
420	30420	Check valve	1
421	30421	Lever plate	1
422	30422	Spring pin	1
423	30423	Bolt	1
424	30424	Nut	1



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