

Operating Instructions & Safety Manual



Hand Pallet Truck Manual

**DFH
BF**

Note: Operator must read and fully understand the operating instructions before using this product.

Safety Information

OPERATING PALLET TRUCK

To raise the forks, place handle lever in UP position (bottom part of the handle slot).

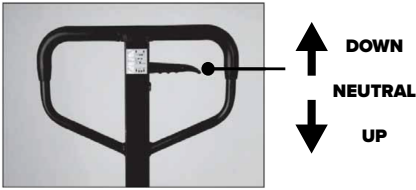


Figure 2

To lower forks, pull lever to DOWN position (upper part of the slot).

To freely move the handle, set the lever in NEUTRAL (centre notch of the slot).

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 notch of the slot).
4. Move handles up and down until the forks reach desired height.

TO MOVE A LOAD

1. Place lever in NEUTRAL position (centre notch of the slot).
2. Pull or push to desired location.

TO LOWER A LOAD

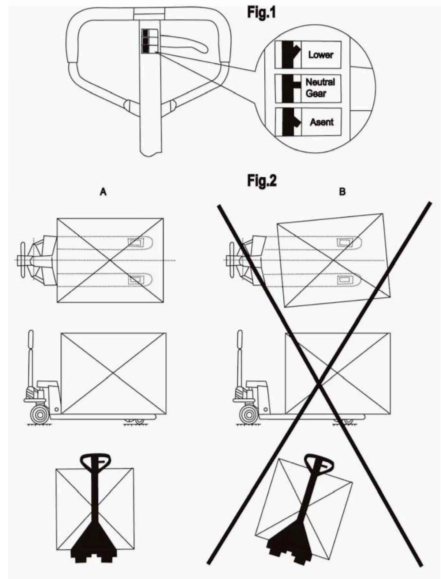
1. Place lever in DOWN position (upper notch of the slot).
2. Pull forks away from load.

CLEANING RELIEF VALVE

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

Pump handle quickly, raising pallet truck to full extend. Then, quickly release pumping action

- Read and understand the entire operator's manual before using the pallet truck.
- Don't load pallet truck beyond rated capacity.
- Secure load before transporting.
- Keep the load centred on the pallet.
- Don't operated loaded pallet truck on ramps or inclines.
- Always wear appropriate safety shoes.
- Never leave a loaded pallet truck unattended in the raised position; always lower load to the floor.



Troubleshooting

Condition	Probable Causes	Corrective Action
Hydraulic unit does not lift	Oil low in tank	ensure there is no leakage from valve, and add oil
	Steel ball not seated in hydraulic unit	See "CLEANING RELIEF VALVE" in this manual
	Worn O ring in ram cylinder	Consult authorised service centre
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	
	Relief valve not seated properly	
	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
Fork does not 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
Lever does not set at NEUTRAL position	UP-DOWN cam nut out of adjustment	Refer to "Adjusting UP-DOWN Cam" in this manual

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 truck adjustment. Tools required are:

- Flat head screwdriver.
- 14mm wrench.

Safety Information

PALLET TRUCK ASSEMBLY

Individual trucks are assembled and ready to use. Pallets trucks purchased in crate quantities (6 units to a crate) require some assembly.

Tools needed for assembly: Hammer, Flat Head Screwdriver, 14mm Wrench.

TO ATTACH HANDLE ASSEMBLY TO THE FRAME:

1.

IMPORTANT

Verify that 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 centre hole is facing you.



4.

If handle pin's centre hole is facing away from you, insert pin from other side

IMPORTANT

The up/down lever's chain passes through this centre 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

Before this step, make sure to feed the chain on the outside of the piston stem roller (see arrow). 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 (see arrow).



6.

Make sure that the handle pin is completely through the handle and resting on the other side.



Safety Information

7.

Pull down on the handle to release the tension on the safety pin. **CAREFULLY** remove the safety pin.



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 (see under).



8.

Feed the chain and nut first back inside the handle **THROUGH** the handle pin's centre hole.

IMPORTANT

Release the up/down lever to it's lowest position to make the process easier.



11.

Pump the lever a few times to raise the forks. Put the up/down lever to it's **NEUTRAL** position. Using a 14mm wrench and a flat head screwdriver, adjust the valve cam so that the forks don't lower or rise (if handle is pumped) at this position.



9.

Once the chain is in the proper position, check to see that it moves freely and that it is not obstructed.

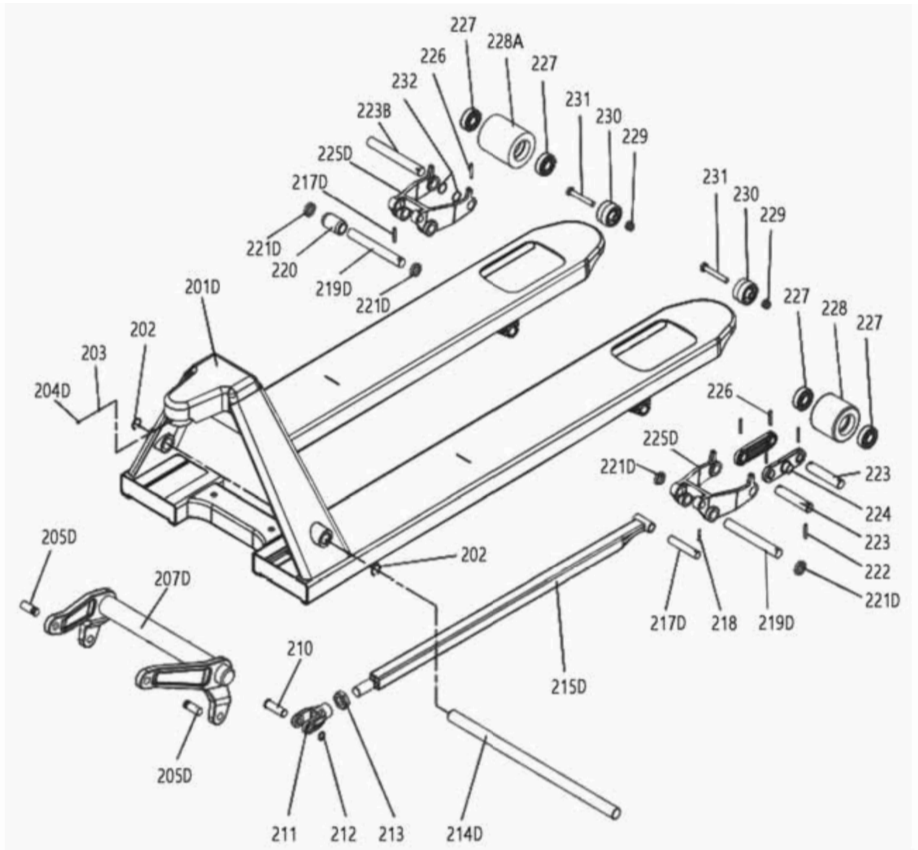


12.

Test all the features of the pallet truck 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 truck is adjusted properly and is performing well, drive in the second spring pin using a hammer.



Spare Parts Diagram Chassis

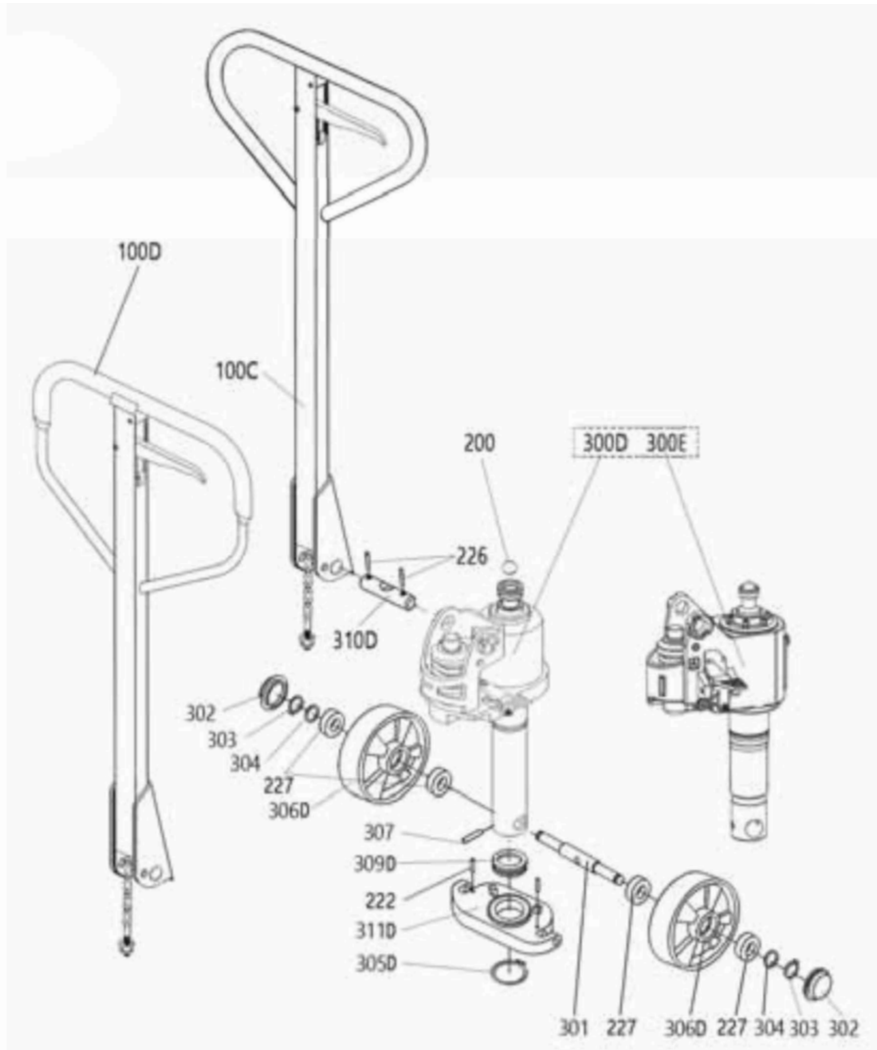


Spare Parts List

Chassis

No.	Part	Description	Qty
201D	20201	Chassis	1
202	10202	Circlip for hole ø26	2
203	10203	Spring gasket ø6	1
204D	20204	Bolt M6x12	1
205D	20205-1	Connecting pin ø15.8*48.5 (DFH Pump)	2
	20205-2	Connecting pin ø15.8*41 (BF Pump)	2
207D	20207-1	Swing arm for 550mm	1
	20207-2	Swing arm for 685mm	1
210	10210	Axle 15.8*52	2
211	10211	Push rod fork	2
212	10212	Circlip for shaft ø15.8	2
213	10213	Nut M22	2
214D	20214-1	Long axle ø24.5*496 for 550mm	1
	20214-2	Long axle ø24.5*608 for 685mm	1
215D	20215	Push rod (only 1150mm)	2
217D	20217	Axle ø15.8*82	2
218	10218	Spring pin ø5x26	2
219D	20219	Lever block axle ø19.8*152	2
221D	20221	Axle sleeve	4
222	10222	Spring pin ø5x30	2
223	10223-1	Roller axle ø19.8*94.5	4
223B	20223-2	Roller axle ø19.8*120	2
224	10224	Tri-connect plate	4
225B	20225	Level block (For double loading wheel)	2
226	10226	Spring pin ø5x35	4
227	10227	Bearing 6204-2RS	8
228	10228-1	PU double loading wheel ø80*70	4
	10228-2	PU double loading wheel ø80*70	4
228A	10228-3	PU single loading wheel ø80*93	2
	10228-4	PA single loading wheel ø80*93	2
229	10229	Nut M10	2
230	10230	Enter roller	2
231	10231	Bolt M10x65	2
232	10232	Axle adjusting gasket	4

Spare Parts Diagram Handle & Pump



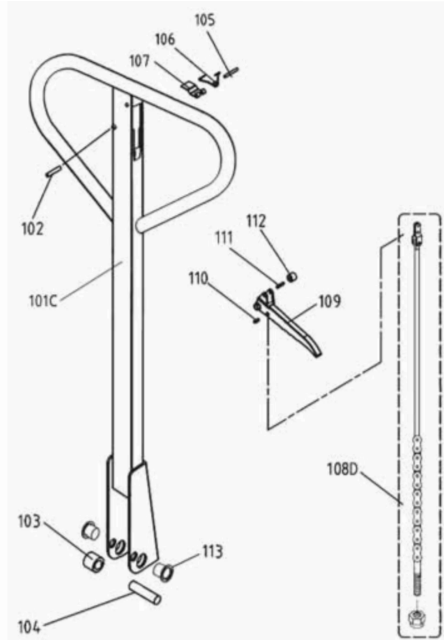
Spare Parts List

Handle & Pump

No.	Part	Description	Qty
100C	10100C	Handle Assembly (Triangle without rubber)	1
100D	10100D	Handle Assy (Square with rubber special for DFH Pump)	1
200	10200	Steel ball ø19	1
222	10222	Spring pin ø5x30	2
226	10226	Spring pin ø5x35	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 ø20	1
304	10304	Axle adjusting gasket	1
305D	20305	Circlip for shaft ø50 (DFH Pump)	1
	10305	Circlip for shaft ø55 (BF Pump)	1
306D	20306-1	PU steering wheel ø180*50	2
	20306-2	PA steering wheel ø180*50	2
	20306-3	Rubber steering wheel ø180*50	2
307	10307	Spring pin ø8x45	1
309D	20309	Pushing ball bearing 51110 (DFH Pump)	1
	10309	Pushing ball bearing 51111 (BF Pump)	1
310D	20310	Handle axle ø19.8*85.5 (For DFH Pump)	1
	10310-1	Handle axle ø19.8*98 (For BF Pump)	1
311D	20311	Thrust strip (For DFH Pump)	1
	10311	Thrust strip (For BF Pump)	1

Spare Parts Diagram & List

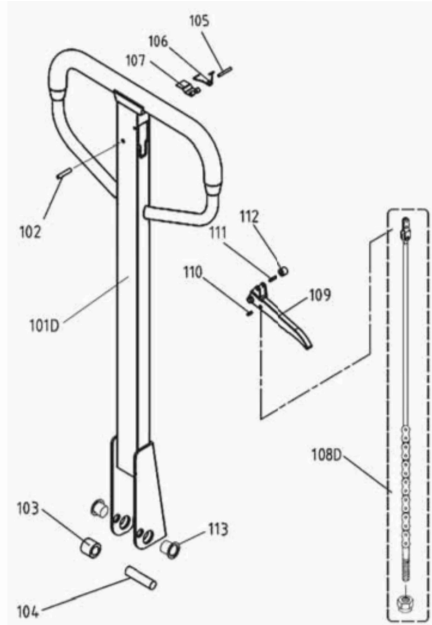
Handle-C (Triangle without rubber)



No.	Part	Description	Qty
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 assy.	Connecting rod	1
		Chain	1
		Swing bolt M5	1
		Nut M5	1
		Connecting plate	1
		Rivet ø3x6	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

Spare Parts Diagram & List

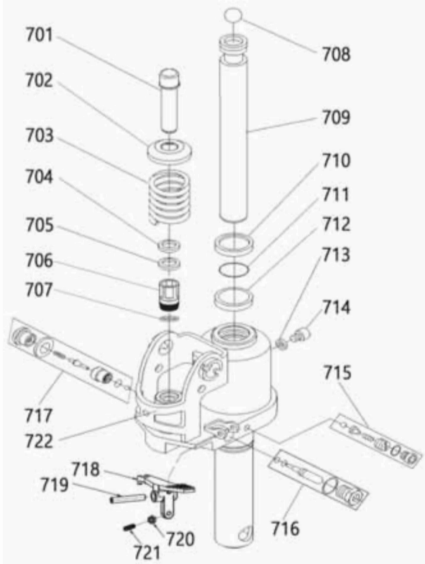
Handle-D (Square with rubber special for DFH Pump)



No.	Part	Description	Qty
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 Rod & chain assy.	Connecting rod	1
		Chain	1
		Swing bolt M5	1
		Nut M5	1
		Connecting plate	1
		Rivet ø3x6	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

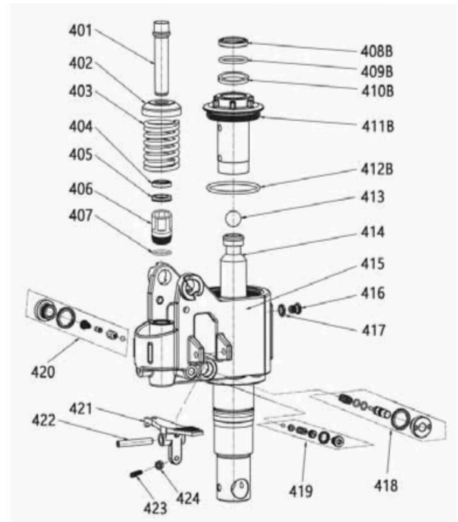
Spare Parts List & Drawing

DFH Pump



No.	Part	Description	Qty
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



No.	Part	Description	Qty
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