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# **Instruction Manual**

## **MO890**

### **Hydraulic Hand Pallet Truck**



**KLETON**

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## WARNING!

- Read and understand the entire operator's manual before using the pallet truck.
  - Don't load pallet truck beyond rated capacity of 11,000 lbs.
  - Secure load before transporting.
  - Keep the load centered on the pallet.
  - Don't operate 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.
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## PALLET TRUCK ASSEMBLY

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

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

### To attach handle assembly to the frame:



**1.**

**\*\*\* IMPORTANT - SAFETY \*\*\***

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 center hole is facing you.



**4.**

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

**\*\*\* IMPORTANT - FACT \*\*\***

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.

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**5.**

**\*\*\* IMPORTANT - CHAIN\*\*\***

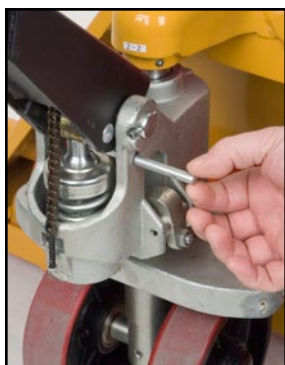
Before this step, make sure to feed the chain on the outside of the piston stem roller (see yellow arrow). If left in its proper position, it will not be possible to insert the handle pin and chain, breakage may occur.

Align handle holes with pump housing holes and push through handle pin (see red arrow)



**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 - TIP \*\*\***

Release the up/down lever to its lowest position to make the process easier.



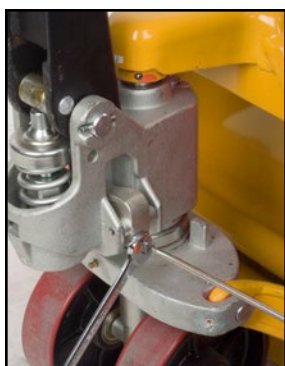
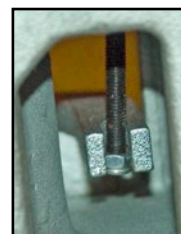
**9.**

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. (see image at right)



**11.**

Pump the lever a few times to raise the forks. Put the up/down lever to its 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.**

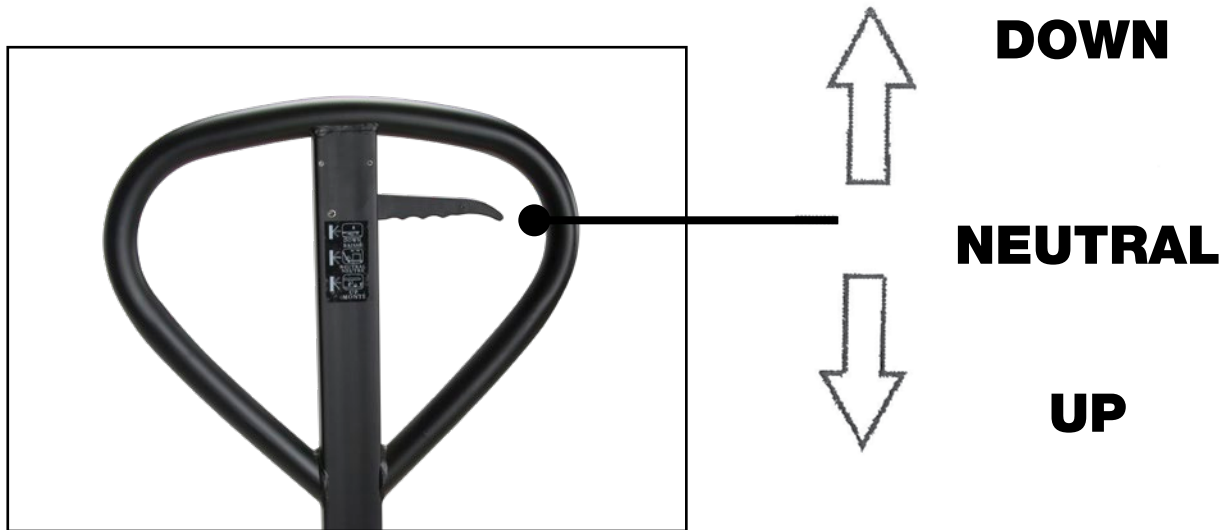
**\*\*\* IMPORTANT - FINAL CHECK \*\*\***

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.

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# OPERATING PALLET TRUCK

To raise the forks, place handle lever in UP position (bottom part of the handle slot).  
See Figure 2.



**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 (center 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 part of the slot).
4. Move handles up and down until forks reach desired height.

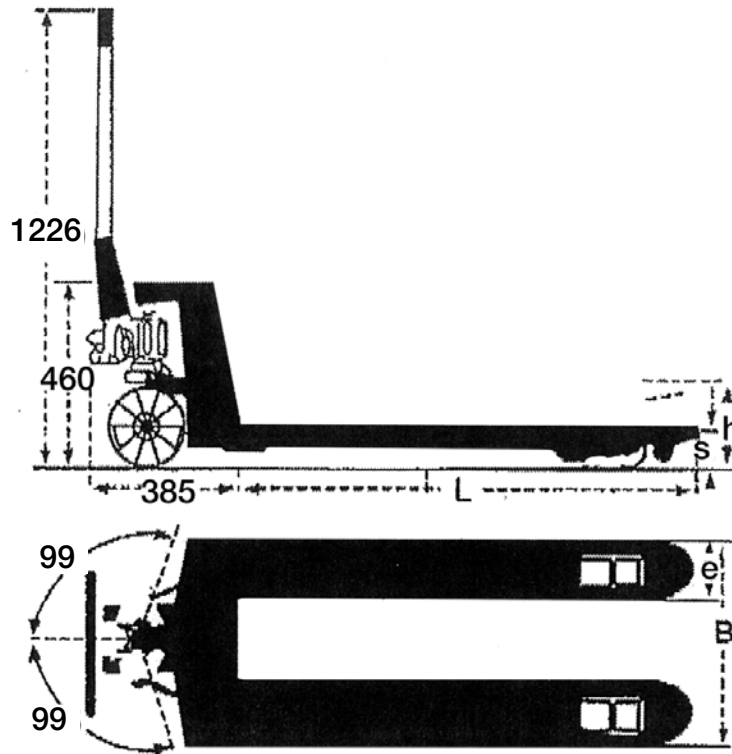
## **To move a load:**

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

## **To lower a load:**

1. Pull lever to the DOWN position (upper part of the slot).
  2. Pull forks away from load.
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# TECHNICAL PARAMETER



<b>Capacity</b>	11,000 lbs.
	5,000 kg
<b>H - Maximum Raised Height</b>	5.5"
	139.70 mm
<b>S - Lowered Height</b>	3"
	76.20 mm
<b>L - Fork Length</b>	48"
	1219.20 mm
<b>E - Fork Width</b>	6 1/4"
	158.75 mm
<b>B - Fork Outside Distance</b>	27"
	685.80 mm
<b>Dimensions of the steer wheel</b>	7" x 2"
	177.80 mm x 50.80 mm
<b>Dimensions of the load wheel</b>	3 1/8" x 3 5/8"
	79.629 mm x 92.329 mm



# TROUBLESHOOTING

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

Condition	Probable Causes	Corrective Action
<b>Hydraulic unit does not lift</b>	Oil low in tank	Make sure there is no till leakage from valve and add oil.
	Relief valve not seated properly or air in the system	See "Cleaning Relief Valve" in this manual.
	Defective pressure seal in main cylinder	Consult authorized service centre.
	Relief valve not adjusted properly	Adjust valve by pressure adjustment screw
<b>Once lifted truck lowers by itself</b>	Relief valve not seated properly	See "Cleaning Relief Valve" in this manual.
	Defective pressure seal in main cylinder	Consult authorized service centre
	Relief valve not adjusted properly	Adjust valve by pressure adjustment screw
	Oil leakage	Consult authorized service centre
<b>Fork does not lower</b>	Cam chain 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	Consult authorized service centre
	Cam chain lock-nut fallen off	Replace cam chain lock-nut
<b>Lever does not set at NEUTRAL position</b>	Relief valve not adjusted properly	Adjust valve by pressure adjustment screw

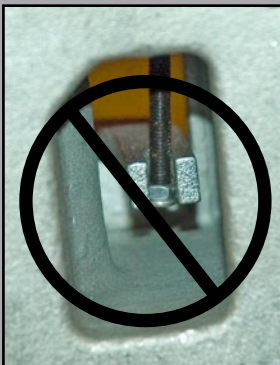
## Cleaning Relief Valve

Over time, relief valve may become clogged with debris and will not work properly.

To clean relief valve, flush the hydraulic system as follows:

Hold the UP/DOWN lever to the DOWN position and move the handles up and down several times.

## Adjusting UP-DOWN Cam



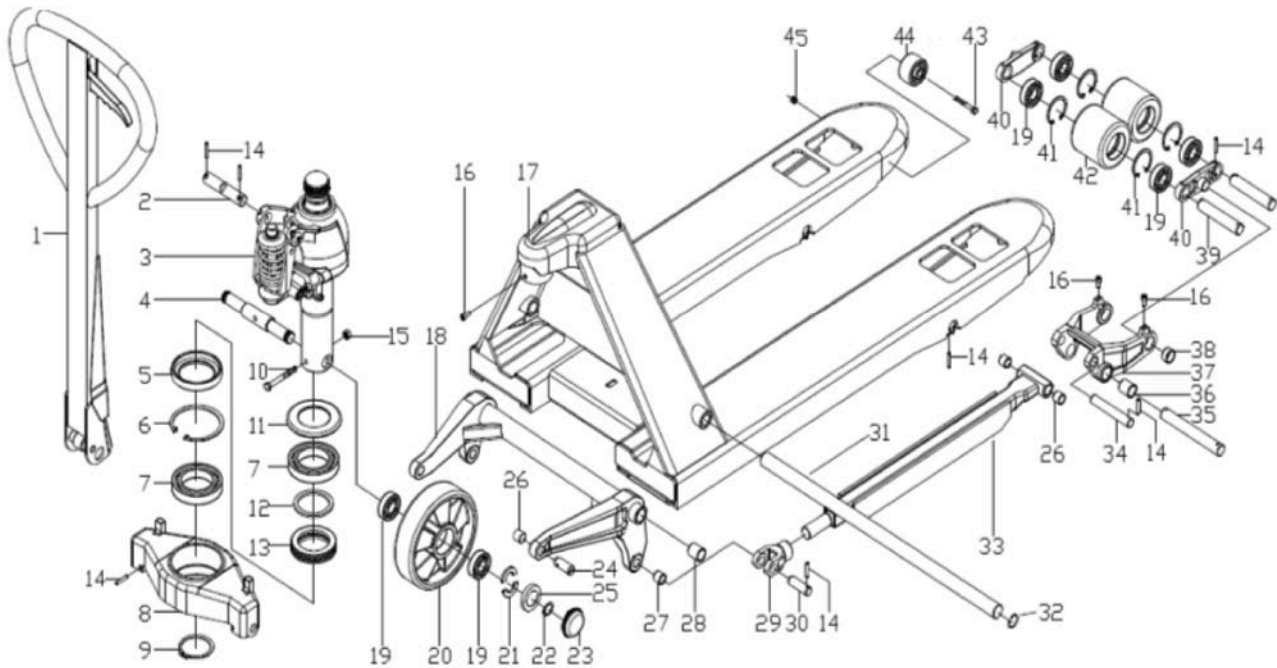
**DO NOT** adjust the up/down lever control using the lock nut at the end of the handle chain. If nylon locking threads are removed from the screw threads, rolling vibration will cause the nut to unscrew and fall off, leaving the up/down lever unusable.



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 screwdriver and a 14mm wrench.

# PUMP ASSEMBLY AND PARTS LISTS

## General Assembly:



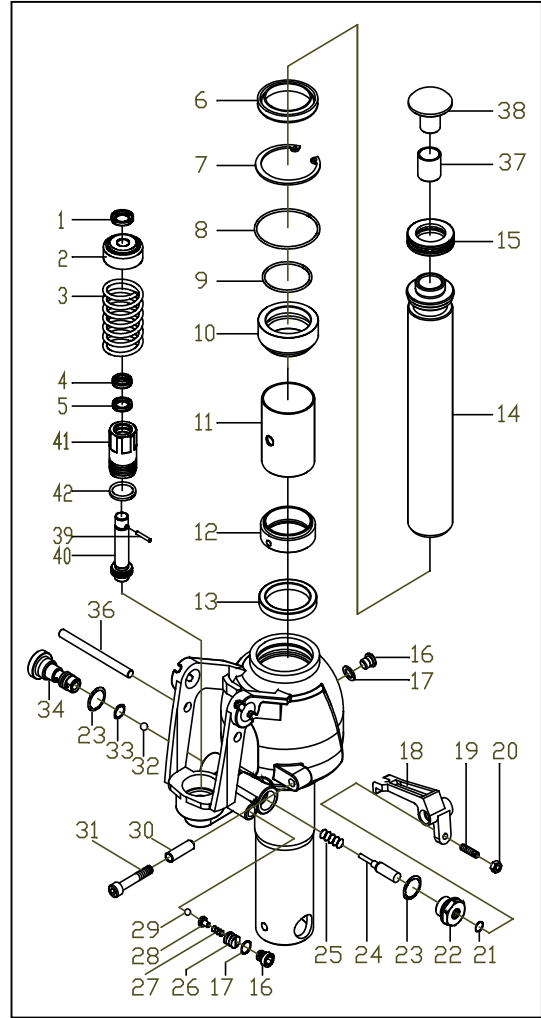
Part No.	Model No.	Description	Qty
1	MO941	Handle assembly	1
2	WA-01	Axial compression	1
3	MO940	Oil pump	1
4	WB.9-01	Axle	1
5	WB-02	Ring	1
6	GB893.1-86	Circlip	1
7	GB/T276-94	Bearing	1
8	WB-03	Support seat	1
9	GB894.1-86	Circlip	1
10	GB5782	Hexagon bolt	1
11	WB-01	Bearing cover	1
12	WB-06	Backup plate	1
13	GB301-95	Thrust ball bearing	1
14	GB879.1	Spring pin	22
15	GB889.1-86	Locknut	1
16	GB/T70.1	Inner hexagon screw	5
17	WB.4-00	Truck frame	1
18	WB.6-00	Rocker assembly	1
19	MN528	Bearing	12
20	MO943	Wheel	2
21	AF-05	Ring	4
22	GB894.1-86	Circlip	2
23	DF-10	Dustproof cover	2
24	WA-02	Pin roll	2
25	AF-06	Bowl washer	2

Part No.	Model No.	Description	Qty
26	CSB-F	Bushing	6
27	CSB-F	Bushing	2
28	CSB-F	Bushing	2
29	BF12.3-02	Coupling head	2
30	DF-01	Pin roll	2
31	AF-02	Long shaft	1
31	BF12-03	Long shaft	1
32	GB898.1-86	Circlip	2
33	WB.5.1-00	Connecting rod	2
33	WB.5.1-00	Connecting rod	2
34	DB.3.3-01	Pin roll	2
35	WB-05	Pin roll	2
36	CSB-F	Bushing	4
37	WB.5-01	Wheel carrier	2
38	CSB-F	Bushing	4
39	WB.8-02	Pin roll	4
40	AF.7-04	Bracket plate	4
41	GB893.1-86	Circlip	8
42	M0942	Fork wheel	4
43	GB5782	Hexagon bolt	2
44	AF-09	Entry wheel	2
45	GB889.1-86	Locknut	2

# HYDRAULIC HAND PALLET TRUCK ASSEMBLY AND PARTS LISTS

## Pump Assembly

Part No.	Model No.	Description	Qty
1	AM.2.3-02	Washer	1
2	KC.2-05	Spring cap	1
3	CN.2-3	Spring	1
4	DH18	Dustproof ring	1
5	UHS18	Y-type seal ring	1
6	DWIR	Dustproof ring	1
7	GB893.1-86	Circlip	1
8	GB3452.1-82	O-ring	1
9	GB3452.1-82	O-ring	1
10	WB.2-01	Guiding cover	1
11	WB.2-04	Pipe sleeve	1
12	WB.2-05	Guiding ring	1
13	USH35	Seal ring	1
14	WB.2-03	Plunger	1
15	GB301-1995	Thrust ball bearing	1
16	CN.2-17	Screw plug	2
17	JB982-77	Washer	2
18	WA.2-06	Lever plate	1
19	GB71-1985	Slotted set screws with cone point	1
20	GB/T6170-2000	Hexagon nut	1
21	GB3452.1-82	O-ring	1
22	WA.2-05	Firing pin seat	1
23	JB982-77	Washer	2
24	EF.2-03	Firing pin	1
25	SYBC.2-06	Spring	1
26	CN.2-28	Pressure adjusting screw	1
27	CN.2-27	Spring	1
28	CN.2-26	Ball seat	1
29	GB308-77	Steel ball	1
30	WA.2-07	Tube axle	1
31	GB/T70.1-2000	Inner hexagon screw	1
32	GB308-77	Steel ball	1
33	GB3452.1-82	O-ring	1
34	KO3-00	Cartidge valve	1
36	AM-19	Lock rod	1
37	SF-1	Composite bushing	1
38	WB.2-02	Ball top	1
39	GB119-86	Cylindrical pin	1
40	AM.2.3B.1-00	Double speed pump core assembly	1
41	AM.2.3-07	Double speed pump cylinder	1
42	AM.2-07	Copper washer	1



## Handle Assembly

Part No.	Model No.	Description	Qty
1	DF.1-01A	Locking plate	1
2	GB879-86	Spring pin	2
3	DF.1-02	Roller	1
4	GB879-86	Spring pin	2
5	GB879-86	Spring pin	1
6	DF.1-03	Knob	1
7	WB.3.1-00	Handle body	1
8	DF.2-04	Cylindrical pin	1
9	GB879-86	Spring pin	1
10	CN.2-13	Pressure wheel	1
11	CSB10	Bushing	1
12	DF.1.2-00	Pull rod	1
13	SF-1	Bushing	2
14	**	Chain	1
15	GB889-86	Locknut	1

