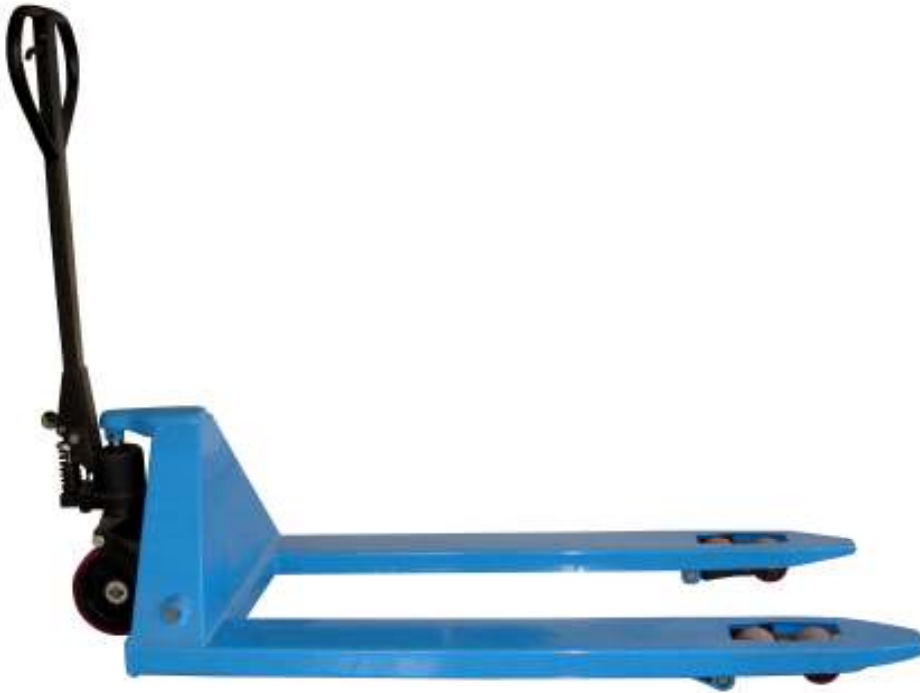




**LoadSurfer**

Material Handling Equipment



## For your safety

Please read this instruction manual before you use the Hand Pallet Truck!

Contents: Part List and Instruction

Model .:                   **XTN 540-1150**                  

Please keep these instructions for future reference.

### **Safety-Lifting Group**

Unit 23 Atlantic Road, Avonbridge Trading Estate,  
Avonmouth, Bristol, BS16 1XB

Tel: + 44 (0)1179 381600 Fax: + 44 (0)1179 381602

**[www.safety-lifting.com](http://www.safety-lifting.com)**

# Hand Pallet Truck 2.5 tons

## Instructions

## Table of Contents

Safety rules and Instruction .....	2
Handle assembling .....	2 – 4
Setting of Realse Valve .....	4 – 5
How to work with Hand Pallet Truck .....	6 – 7
Service and Guarantee .....	7 – 8
Fault diagnosis, Examination, Disposal .....	10
Assembling Break .....	11
Part list .....	12
Part list drawing .....	13

## Introduction & Precautions

### Safety warning and Instruction

#### 1.1 Introduction

Thank you for using this pallet truck. This pallet truck is made of high quality steel and is designed to give you a durable, reliable and easy to use product. For your safety and correct operation, please carefully read this instruction manual before using this pallet truck.



#### 1.2 Introduction and precautions

All of the information reported herein is based on data available at the moment of printing. We reserve the right to modify our own products at any moment without notice and incurring in any sanction. So, it is suggested to always verify possible updates.



#### 1.3 Technical Specification

Model:	XTN540-1150
Rated Capacity:	2500 kg
Fork length and width:	1150 mm x 540 mm
Minimum height	80 mm
Maximum lifting height	190 mm
Fork wheel	Nylon
Steering wheel	Nylon
Dead weight without load	70 kg

## Assembling the Handle

### 1.4 Tools you need

Hammer 180g , medium size screw driver. 3 mm Punch

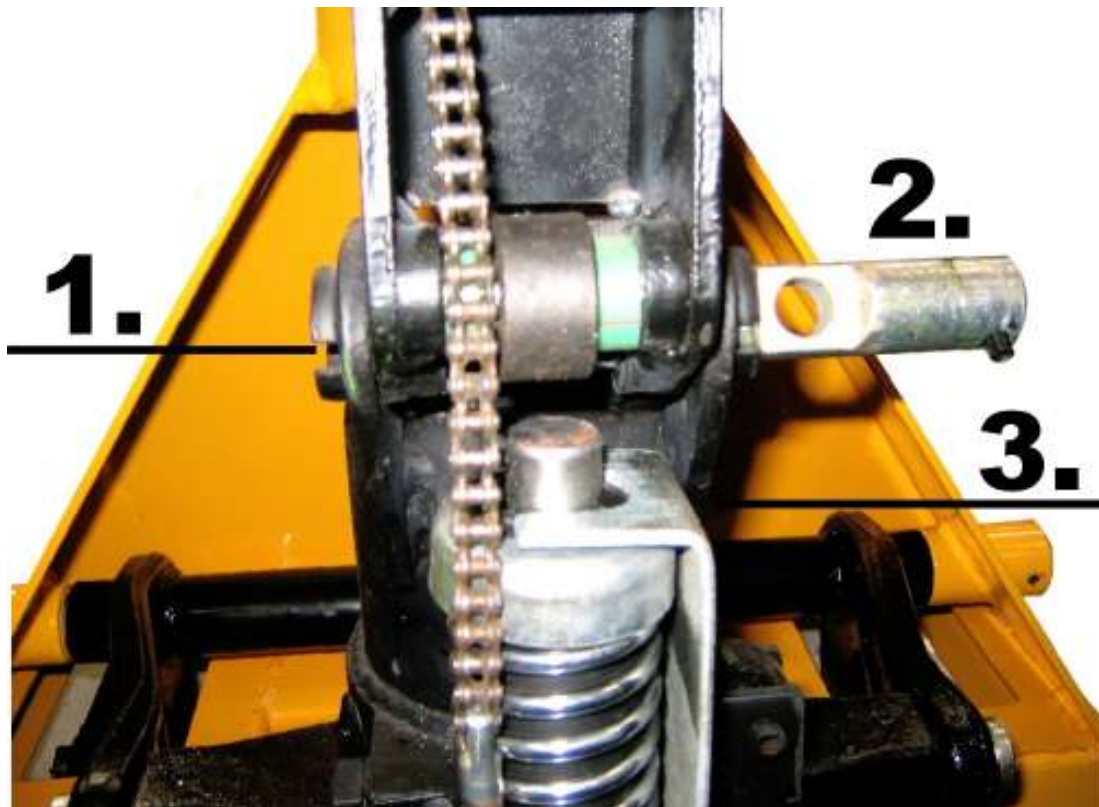
### 1.5 Parts

Handle(45), Handle axis (46), 2x spring pin (23).

These parts are supplied in a plastic bag, which is attached to the handle

**Note:** The number of the handle and pump should be the same

## 2 Assembling the Handle



Pict 1.

**2.1** Pull down the lever to the Lifting position. (lifting )

**2.2** Pass the adjusting nut (Part No. 59), adjusting bolt (Part No.58) and chain (Part No. 60) assembly through the hole of axle (Part No. 46) with your hand

Insert the handle onto the pump piston (Part No. 1), then use a hammer to insert the axle with hole ( Part No. 46) into the hydraulic pump and handle from the right to the left. (See Pict 1).

**2.3** Use the hammer to tap another spring pin (Part No. 23) into the axle with the hole (Part No. 46). Using a 3mm Punch to finish

**2.4** Using screw driver to lift up the Cam (17) and put the adjusting nut into the Cam slot, check the correct position of the chain. (see Pict 2, 1).

**2.5** Remove the Pump locker (Pict 1,Nr.3)

**2.6** Now the Handle is already assembled to the Hand Pallet Truck.



Pict 2

### 3 To adjust the release device

On the handle of this hand pallet truck, you can find the lever, which operates in three positions:

Lower ..... = Lowering the fork ..... LOWER-Position

Drive ..... = Drive the truck ..... Drive-Position

Raise ..... = Lift the fork ..... Raise-Position

If however they have been changed, you can adjust according to the following steps

**3.1** If the forks elevate while pumping in the DRIVE position, turn the adjusting nut (Part No. 59) on the adjusting bolt (Part No. 58) clockwise until pumping action does not raise the forks and the DRIVE position properly.



**3.2** If the forks descend while pumping in the DRIVE position, turn the nut (Part No. 59) counter-clockwise until the forks do not lower.

**3.3** If the forks do not descend when the Lever is in the LOWER position, turn the nut (Part No. 59) clockwise until raising the Lever (Part No. 51) lowers the forks. Then check the DRIVE position according to item 3.1 and 3.2 to be sure that the nut (Part No. 59) is in the proper position.

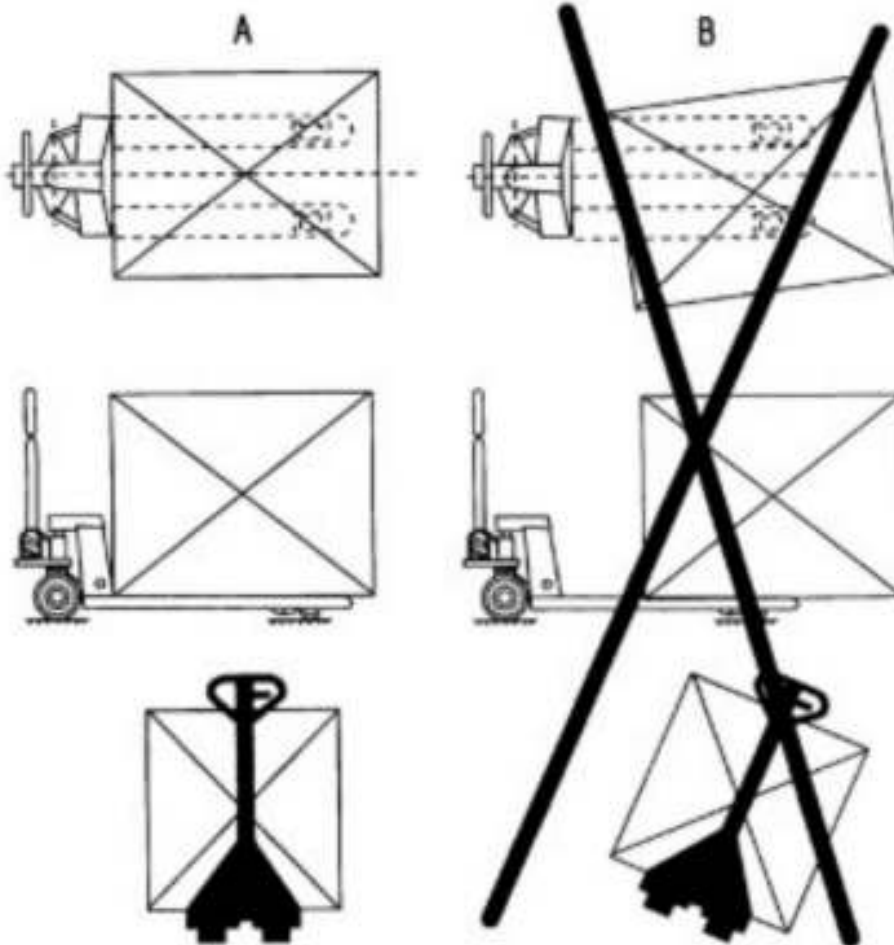
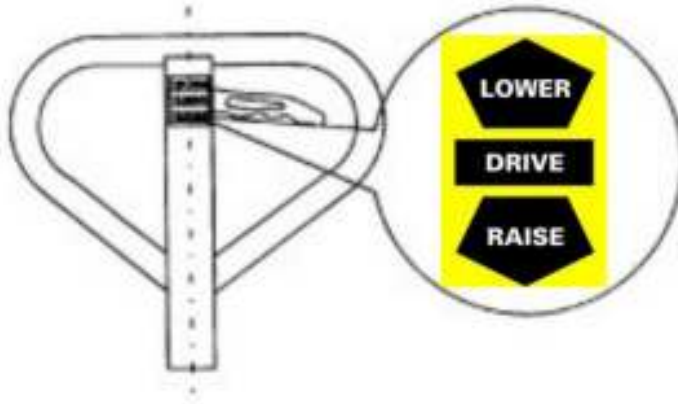
**3.4** If the forks do not elevate while pumping in RAISE position, turn the nut (Part No. 59) counter-clockwise until the forks elevate while pumping in the RAISE position. Then check the LOWER and DRIVE positions according to item 3.1, 3.2 and 3.3 .

## 4.0 Handling



### 4.1 Driving and Steering the truck with Handle

The handle is adjusted directly to the steering wheels. The steering wheels will follow the position of the handle.



Pict 3

#### **4.2 How to take the load**

Drive the truck slowly in front of the pallet. Then, drive the fork of the truck under the pallet up to end of the fork length. (Pict 3.A).

Lift the load by pumping the handle at Raise position. The load must be on the center of the hand pallet truck. Otherwise, the hand pallet truck can be overturned



#### **4.3 Drive with load**

It is not necessary to pump the pallet truck to the highest position to drive. You must pay attention to the space between the bottom of the pallet and always keep the pallet clear of the floor. You should carefully drive the hand pallet truck at a stable speed paying due care and attention to the environment around you.

#### **4.4 Lowering the Load**

Lift the Lever to the Lower position, ensuring a free space behind. Then the truck can be pulled out of the pallet.

#### **4.5 How to use the hand pallet truck on the truck**

Only move the pallet truck slowly, at all times be careful that the hand pallet truck can not fall down from the truck or the user will not be in the middle between the hand pallet truck and other loads. If the pallet truck is not used, it must be firmly fixed on the truck when the truck is moving.

### **5.0 Service and warranty**

#### **5.1 Oil**

The Hydraulic oil in the pallet truck is used for work condition of 6°C to 45°C only. If the pallet truck is used in a temperature under 6°C, it must be used with other Hydraulic oil with viscosity under 10.

Please check the oil level every six months. The hydraulic oil volume in the pump is 300 ml.

Used oil must be disposed off according to the latest regulations.



#### **5.2 To remove the air**

The air may come into the hydraulic oil because of transportation or pump in upset position. It can cause that the forks do not elevate while pumping the RAISE position. The air can be removed in the following way: Let the Lever (Part No. 51) on the LOWER position, then move the Handle up and down several times.

#### **5.3 Daily check and Maintenance**

Daily check of the pallet truck can limit wear as much as possible. Special attention should be paid to the wheels, the axles, as thread, rags, etc. It may block the wheels. The forks should be unloaded and lowered in the lowest position when the job is over.

## 5.4 Lubrication

All bearings and shafts are provided with long-life grease at the factory. You only need provide long-life grease at monthly intervals or after each time the truck is cleaned thoroughly to the lubrication points.

## 6.0 Guide to safety operation

- 6.1 Operator should read all warning signs and instruction here and on the pallet truck before using this truck
- 6.2 Do not operate a hand pallet truck unless you are familiar with it and have been trained or authorized to do so.
- 6.3 Do not operate a hand pallet truck unless you have checked its condition. Give special attention to the wheels (part No. 26, Part No. 71), the Handle unit, the fork unit, the cam (Part No. 17), etc.
- 6.4 Do not use the pallet truck on a uneven or slopping ground. Do not use the pallet truck on gradients.
- 6.5 The pallet truck is not allowed to be used in insufficiently illuminated areas. Minimum illumination must be at least 50 lux.
- 6.6 If the pallet truck is moving, it is not allowed to turn the handle into the right angle to stop the pallet truck.
- 6.7 It is forbidden to use hand pallet truck for people transportation.
- 6.8 It is not allowed to use the pallet truck as a jack.
- 6.9 It is not allowed to use the fork of the pallet truck as a lever to lift loads.
- 6.10 Do not load like the picture 3.B.
- 6.11 Do not load over maximum capacity.
- 6.12 It is not allowed to use the pallet truck in risky conditions.
- 6.13 It is not allowed to use the pallet truck in direct contact with food.
- 6.14 It is not allowed to use the pallet truck in explosive atmosphere.
- 6.15 Operator must wear safety boots and gloves.





**6.16** Whilst the goods are being transported all none operational staff should be at a minimum distance of 600mm.

**6.17** At service work, it is not allowed to scatter parts.

**6.18** Under any special conditions or environments, the operator should carry out all relevant risk assessments and method statements before commencing work with the pallet truck.

**6.19** It is forbidden to use the pallet truck if there is a risk that the pallet truck and load may fall down, for example, from unsecured ramps.

## **7.0 Guarantee**

This hand pallet truck is guaranteed within 12 months from the date of purchase. The guarantee is only given if the hand pallet truck is used and serviced as instructed in this Manual. There is no guarantee for consumable parts or damage caused by misuse.

## 8.0 TROUBLE SHOOTING

No.	Trouble	Clause	Fixing Methods
1	The forks cannot be up at the max height	The hydraulic oil is not enough	Pour in the oil
2	The fork cannot be lifted up	<ul style="list-style-type: none"> <li>- Without hydraulic oil</li> <li>- The oil has impurities</li> <li>- The nut (Part No. 59) is too high, keep the pumping valve open.</li> <li>- The air comes into the hydraulic oil.</li> </ul>	<ul style="list-style-type: none"> <li>- Fill in the oil</li> <li>- Change the oil</li> <li>- Adjust the nut (Part No.59) (see item 3.4)</li> <li>- Bannish the air (see item 5.2)</li> </ul>
3	The forks cannot be descended	<ul style="list-style-type: none"> <li>-The piston rod (Part No. 9) or pump body (Part No. 15) is deformed resulting from partial loading slanting to one side or over loading.</li> <li>- The fork was kept in the high position for long time with piston rod bared to arise in rusting and jamming of the rod.</li> <li>- Adjusting the nut (Part No. 59) is not the correct position.</li> </ul>	<ul style="list-style-type: none"> <li>- Replace the piston rod (Part No. 9) or the pump body (Part No. 15)</li> <li>- Keep the fork in the lowest position if not using, and pay more attention to lubricate the rod.</li> <li>- Adjust the nut (Part No.59) (see the item 3.3)</li> </ul>
4	Leaks	<ul style="list-style-type: none"> <li>- Sealing parts worn or damaged.</li> <li>- Some parts creaks or worn into small</li> </ul>	<ul style="list-style-type: none"> <li>- Replace with the new one.</li> <li>- Replace with the new one.</li> </ul>
5	The fork descends without the release valve worked.	<ul style="list-style-type: none"> <li>- The impurities in the oil cause the release valve to be unable to close tight.</li> <li>- Some parts of the hydraulic system is cracked or bored.</li> <li>- The air comes into the hydraulic oil.</li> <li>- Sealing parts worn or damaged.</li> <li>- The adjusting nut (Part No.59) is not the the correct position.</li> </ul>	<ul style="list-style-type: none"> <li>- Replace with the new oil.</li> <li>- Inspect and replace the waste parts.</li> <li>- Bannish the air (See item 5.2)</li> <li>- Replace with the new one.</li> <li>- Adjust the nut (Part No.59) (see the item 3.3)</li> </ul>

Note: Do not attempt to repair the pallet truck unless you are trained or authorized to do so.

### 8.1 Inspection

The hand pallet truck must be inspected by authorized person minimum one time per year. The result of checking must be filled in the report.

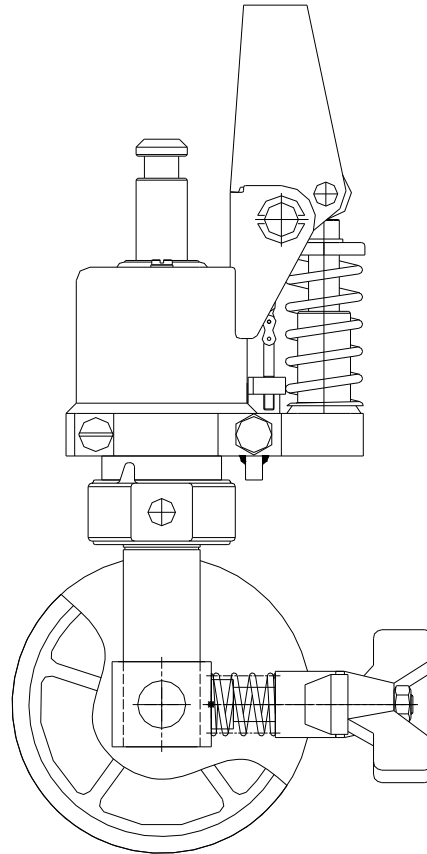
VBG 36, § 37

### 8.2 Disposal

After using, the pallet truck should be disposed corresponding to the law regulations. All parts should be brought for recycling.

## Assembling break into Hand Pallet truck

1. Unscrew the screw pin of the break
2. Use a hammer and pin driver to remove spring pin at the steering wheel (part No. 23)
3. Remove the wheels (Part No. 26) and the steering wheel axis (Part No. 21) out of the hand pallet truck
4. Lift the whole hand pallet truck up and assemble the break into the pump body (Part No. 15)
5. Let the steering wheel axis (Part No.21) go through the hole of the pump body (Part No. 15) and the hole of the break
6. Screw in the screw pin of the break to make sure that the beak and the steering wheel axis (Part No. 21) are totally connected to the pump axis.
7. Assemble the two steering wheels (Part No. 26) back into the wheel shaft
8. Use hammer to place the spring pin (Part No. 23) into the holes.
9. Screw in or out the screw pin to have a good distance between the wheels and the break.
10. Press "LOCK" to break a hand pallet truck. Press "MOVE" before using or moving hand pallet truck



**Part List**  
**XTN 540 - 1150**

Part No	Description	Quant.	Part No	Description	Quant.
1	Plunger Piston	1	43	Ball housing	1
2	Dust Seal Ø18 - Ø26 - 4/6	1	44	Steel Ball Ø5	1
3	O-ring Ø17.8 x 2.4	1	45	Handle BTN - 2500	1
4	Back-up ring Ø18 x Ø22 x 1.25	1	46	Hanle Axis	1
5	E-ring Ø20	1	47	Spring Pin Ø3 x 25	1
6	Spring Cap	1	48	Roller Pin	1
7	Spring	1	49	Roller	1
8	Steel Ball Ø14	1	50	Bushing	2
9	Ram Piston	1	51	Lever	1
10	Dust Seal Ø32 - Ø40 - 5/6.5	1	52	Plastic Roller	1
11	O-ring Ø30.8 x 3.6	2	53	Spring Plate	1
12	Back-up ring Ø32 x Ø38 x 1.5	1	54	Spring Pin Ø4 x 16	1
13	Oil Plug	1	55	Spring Pin Ø4 x 16	1
14	O-ring Ø6 x 1.8	1	56	Spring Pin Ø4 x 30	2
15	Pump Body BM - N32	1	57	Spring Pin Ø6 x 30	1
16	Spring Pin Ø8 x 25	1	58	Anchor Bolt	1
17	Cam	1	59	Nut M6	1
18	Bearing Base	1	60	Chain	1
19	Bearing 51109	1	61	Release Rod	1
20	Table	1	62	Fork	1
21	Steering Wheel Axis	1	63	Lifting Yoke	1
22	Spring Pin Ø6 x 35	2	64	Plastic Bushing 36 x 25 x 30	2
23	Spring Pin Ø5 x 30	10	65	Table Pin	2
24	Spring Pin Ø6 x 45	1	66	E-ring Ø20	2
25	Snap Ring Ø45	1	67	Lifting Yoke Axis 540	1
26	Steering Wheel Ø180 x 50	2	68	Rod 1150	2
27	Bearing 6204	12	69	Arm	2
28	Washer Ø20 x Ø40 x 3	2	70	Steel Plate	4
29	Release Nozzle	1	71	Load Wheel	4
30	O-ring Ø4 x 2	2	72	Load Wheel Axis	4
31	Spring	1	73	Arm Pin	2
32	Release Plug	1	74	Rod Pin	2
33	Copper Washer Ø14.5 x Ø22 x 1.5	1	75	Washer	4
34	Spring	1	76	Spring Pin Ø5 x 40	2
35	Spring	1	77	Grease Nipple	1
36	Steel Ball Ø6	2	78	Rubber	1
37	Valve Housing	1	79	Screw M6 x 10	1
38	Steel Ball Ø9	1	80	Bushing 22 x 20 x 14 x 1	2
39	Relief Screw	1	81	Bushing 18 x 16 x 16	2
40	O-ring Ø11.2 x 2.65	1	82	Bushing 22 x 20 x 20	10
41	Relief Screw	1	83	inner Circlip Ø25	2
42	Spring	1			



**LoadSurfer**  
Material Handling Equipment

## HAND PALLET TRUCK

XTN 540 + 680

