

**LIFFRITE®**

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# **Owner's Manual, Operating Instructions Manual, and Replacement Parts Manual**

**Lift-Rite Hand Pallet Trucks  
Model PST23**



This publication, 1233611C, applies to the Lift-Rite Hand Pallet Truck, Model PST23 and to all subsequent releases of this product until otherwise indicated in new editions. Changes occur periodically to the information in this publication.

To order additional copies of this manual, part number 1233611C, contact your local authorized Lift-Rite Sales and Service Center.

If you need assistance with your lift truck, contact your local authorized Lift-Rite Sales and Service Center.

For more information please visit [www.lifrite.com](http://www.lifrite.com).

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### SAFETY SHOES

Always wear safety shoes when working with hand pallet trucks.



### PROTECTIVE GLASSES

When assembling or dismantling a hand pallet truck, protective glasses *must* be worn to avoid personal injury.

### OPERATOR'S RESPONSIBILITY

While operating a hand pallet truck, *always* wear safety equipment and operate in a responsible manner to ensure a safe work area.

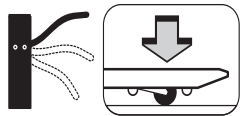
## DELIVERY INSPECTION

Visually inspect hand pallet truck frame components and hydraulic unit for damage during shipment by carrier. If damage is evident, notify delivering carrier immediately and file necessary claims. Test the hand pallet truck pump for proper operation. **If the hydraulic pump does not respond to movement of the handle, an air lock may have developed during shipping. To remedy this, go to the user friendly TROUBLESHOOTING guide in this manual.**

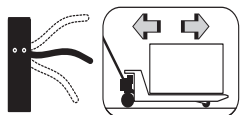
## OPERATING INSTRUCTIONS

**(Read and understand prior to using this product)**

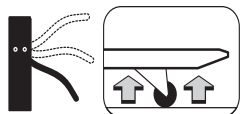
Do not use the PST23 in wet environments or in places with extreme temperature variations.



→ To lower the load, pull up on the fingertip control.



→ For free handle movement, place the fingertip control in the neutral position.

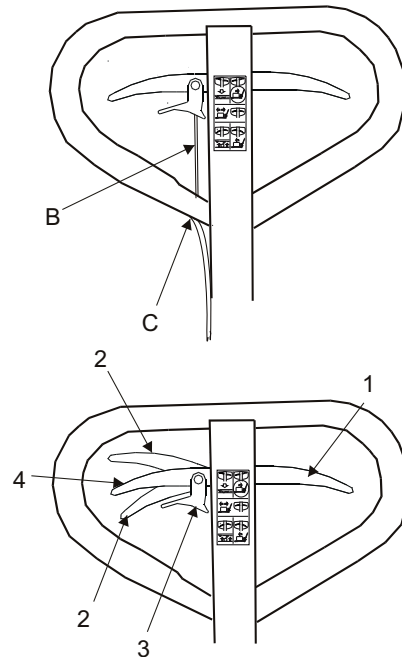


→ To raise the load, push down on the fingertip control. Pump the handle to raise the load from the floor.

### NOTE:

The neutral position disengages the pump from the lifting mechanism. This frees the handle, which makes pulling loads easier. In addition, the pump is not subject to shock pressures while the truck is in motion.

1. Before using the truck, make sure that the assist wire (B) is free from damage.
2. When required, inspect the condition of the start assist wire and adjust wire tension (C).
3. Prior to using the start assistance feature, set the hydraulic lowering handle (1) to the neutral position.
4. Move the start assistance lever up or down (2) depending on the travel direction. When moving the lever down, be sure to first release the catch (3).
5. When not using this feature, set the start assistance lever to the neutral position (4).



**WARNING! - Energy released in control handle.**

**Incorrect use may result in injuries and damage to the truck. Never use the start assistance feature to brake the truck. When the truck is moving, never set the start assistance lever to the opposite position of the travel direction.**



**CAUTION! - Risk of pinching. Never put your finger under the locking catch. Additionally, never hold the hands around the start assistance link arm.**

6. Clean and lubricate the start assistance assembly inside in case of malfunction (blocking/seizure of wheels and/or handle).

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## **SAFETY PROCEDURES**

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### ***(Read and understand prior to using this product)***

- Read and obey all labels on this product. If you have any questions about these, ask your supervisor.
- Do *not* operate this hand pallet truck unless you are authorized and trained to do so.
- *Never* overload your hand pallet truck. Stay within its rated capacity.
- Do *not* operate this truck if damaged or not in proper working order.
- Distribute the load evenly on the forks. Do *not* concentrate loads at one point or load one fork more than the other.
- When the load impairs visibility, the hand pallet lift truck should be pulled and not pushed.
- *Always* look where you are operating. Keep a clear view.
- Only handle loads on flat level surfaces. Do *not* use a loaded truck on inclines or declines.
- *Never* carry passengers.
- *Never* put your feet, hands, or any other body part under the frame assembly.
- *Always* yield right of way to pedestrians.
- Do *not* allow your hand pallet truck to drop from one level to another. Even a drop of 1 in. (25 mm) more than doubles the effective load momentarily and results in a loading that can bend or break components.
- Move loads only with the hand pallet truck in its lowest position.
- *Always* make sure that the load is stable before moving to eliminate the opportunity for load shift.
- Use extreme care when rounding corners. Too fast a speed could cause a hand pallet lift truck to tip. If loaded, the load could shift and fall.
- When not in use, fully lower the forks.

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## **DAILY INSPECTION**

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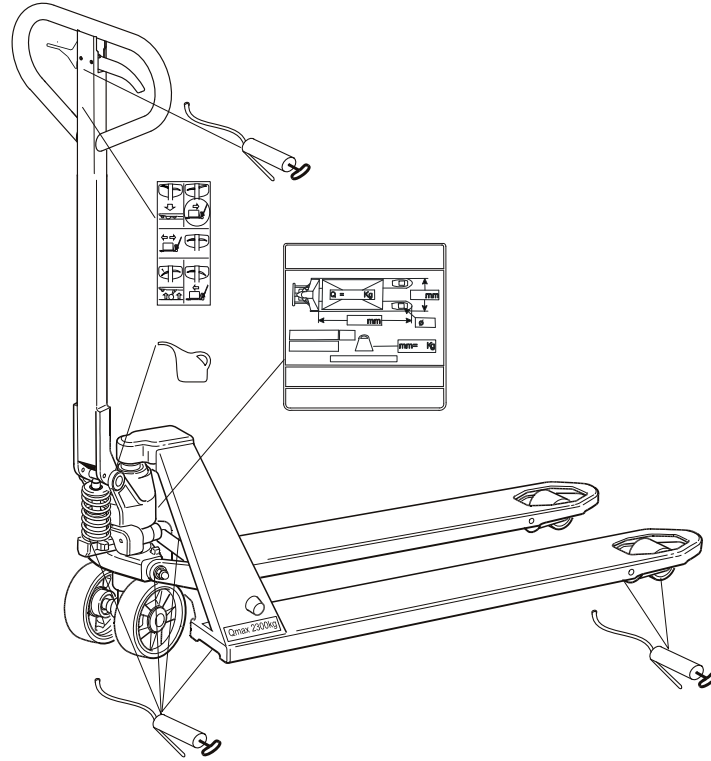
At the start of your shift, check the items listed below. Report any malfunction or unsafe conditions to your supervisor. Do not use this product until it is repaired.

<b>CHECK POINTS</b>	<b>Steering</b>	<b>Hydraulic System</b>	<b>Wheels</b>	<b>Chassis/ Handle</b>	<b>Lifting/ Lowering</b>	<b>Labels</b>
ACTION	Check full rotation	Check for excessive oil on exterior and check for function	Check for wear, damage, and remove debris	Check for damage and remove debris	Check for function	Check for readability

## MAINTENANCE

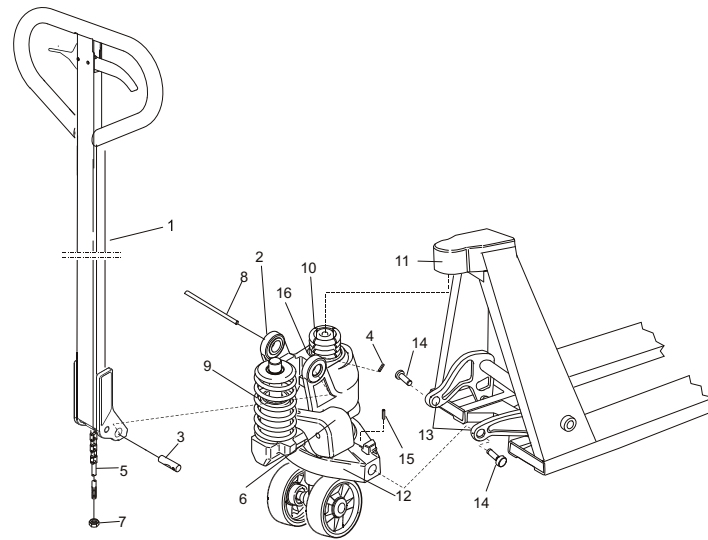
### LUBRICATION

Always lubricate the truck after washing according to the lubrication diagram and table.



OIL AND GREASE SPECIFICATION		
Lubricant	Specification	Product Name
Grease		OKQ8 Rubens WB
Hydraulic Oil (>5°F or >-15°C)	ISO-VG32	Hydraulic Oil 32
Hydraulic Oil (<5°F or <-15°C)	ISO-VG27, 5	Statoil 131

## ASSEMBLY INSTRUCTIONS



### 1. Assemble the control handle:

Secure the control handle (1) in the control handle bracket (2). Fit the axle (3) in the bracket (2). Make sure the tapered hole of the axle (3) faces downwards. Lock the axle (3) using the locking pin (4). Slip the valve rod (5) through the hole onto the shaft (3). Engage the valve rod (5) in the groove of the lowering pedal (6). Adjust the lifting/lowering function and neutral position using the nut (7). Push down the control handle and remove the transport pin (8) that has been fitted prior to delivery.



**WARNING! - Released energy. The spring (9) may come loose and cause injuries if the transport pin (8) is removed prior to assembling the control handle (1). Always assemble the control handle (1) before removing the transport pin (8).**

### 2. Assemble the hydraulic unit in the frame:

Place the upper part of the hydraulic assembly (10) in the top cap (11). Insert the hydraulic assembly pressure plate (12) between the turning tube links (13). Fit the arm bolts (14) and lock them with locking pins (15). Lubricate the arm bolts (14). Install the circlip (16) in the groove of the top cap (11).



**WARNING! - Released energy. When fitting the circlip (16), there is a risk that the circlip can slip off the circlip bar and cause injury. Be careful when fitting the circlip.**



**WARNING! - Released energy. When inserting the locking pins (4, 15) using a hammer, it can bounce and cause injury.**

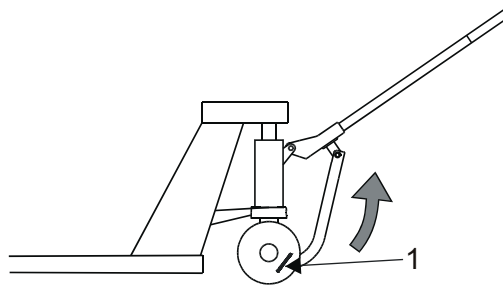


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**TROUBLESHOOTING**

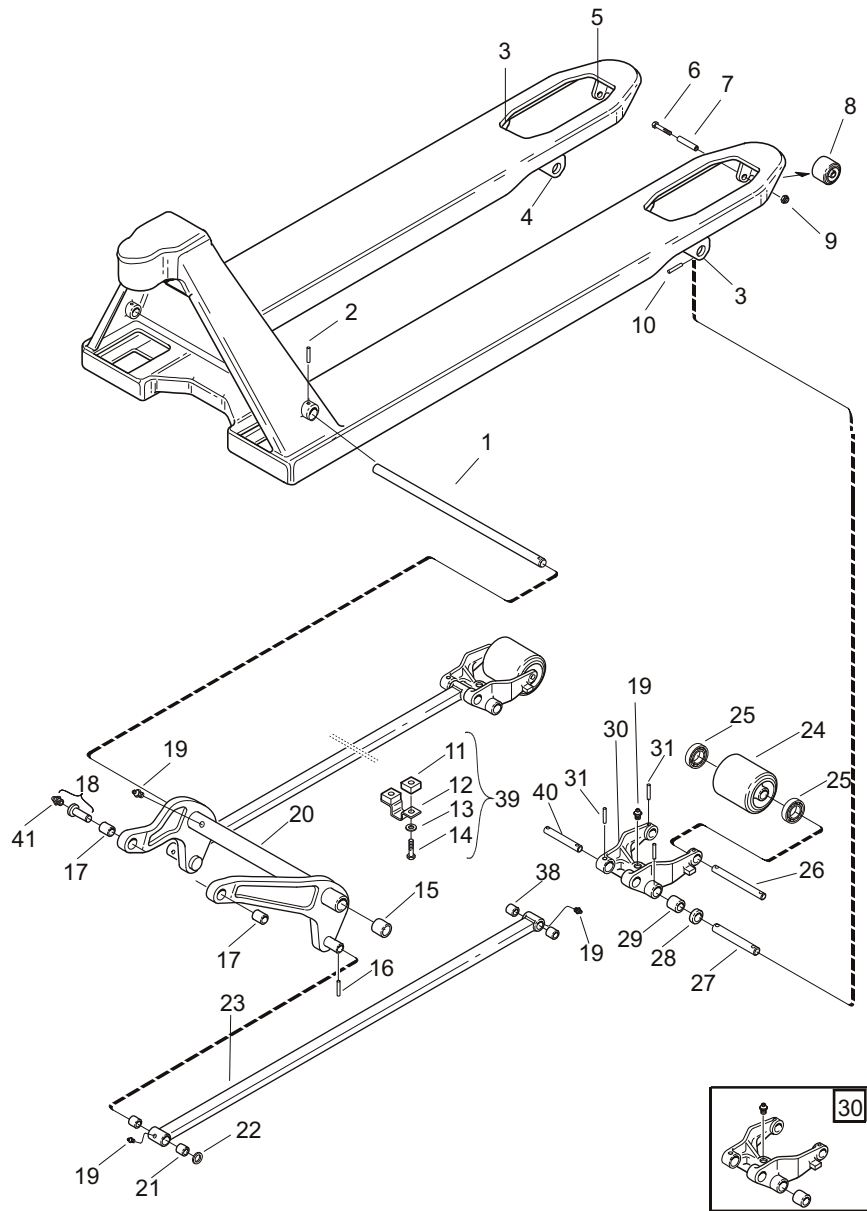
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CONDITION	POSSIBLE CAUSE	ACTION
Lifting or the start assistance feature does not work satisfactorily	Lifting and start assistance have both been selected	Reset the unneeded function (lifting or start assistance) to the neutral position
Start assistance does not engage when required	The wire has too much tension	Adjust wire tensioning using the adjustment screw
The start assistance wire is broken	Overloading	Return the clamp loop (1) to the neutral position for emergency travel and replace the wire



# Chassis

Figure 1: Chassis



List 1: Chassis (Sheet 1 of 2)

FIGURE 1 ITEM NO.	QTY	PART NUMBER	DESCRIPTION	USED ON
1	1	47156	Axle, Torsion Tube (480 mm, 520 mm)	
	1	47157	Axle, Torsion Tube (685 mm)	
	1	48053	Axle, Torsion Tube (370 mm, 410 mm, 450 mm)	
2	1	22128Z	Pin, Locking	R
3	2	134753	Ear	
	2	47135	Ear	
4	2	134752	Ear	
5	2	47110	Bracket	
6	2	21385Z	Screw	
7	2	47151	Spacer	
8	2	47150	Wheel	
9	2	20433Z	Nut	
10	4	20014Z	Pin, Locking	R
11	2	159208	Lamina	
12	1	159209	Clamp	
13	2	20404	Washer	
14	2	20184Z	Screw	
15	2	47167	Bushing	R
16	2	20001	Pin, Locking	R
17	2	30018	Bushing	R
18	2	166701	Bolt, Arm, Complete	
19	7	27662Z	Nipple, Grease	R
20	1	64183	Tube, Torsion, Complete (685 mm)	
	1	64956	Tube, Torsion, Complete (410 mm)	
	1	64987	Tube, Torsion, Complete (450 mm)	
21	4	30023	Bushing	R
22	2	20013Z	Washer	
23	2	109566-080	Rod, Push, Complete (800 mm)	
	2	109566-091	Rod, Push, Complete (910 mm)	
	2	109566-100	Rod, Push, Complete (1000 mm)	
	2	109566-107	Rod, Push, Complete (1070 mm)	
	2	109566-115	Rod, Push, Complete (1150 mm)	
	2	113990-152	Rod, Push, Complete (1520 mm)	
24	2	157213	Rod, Push, Complete (1220 mm)	
	2	167600	Wheel, Complete, Nylon	
	2	167601	Wheel, Complete, Steel	

R= Recommended Spare

*List 1: Chassis (Sheet 2 of 2)*

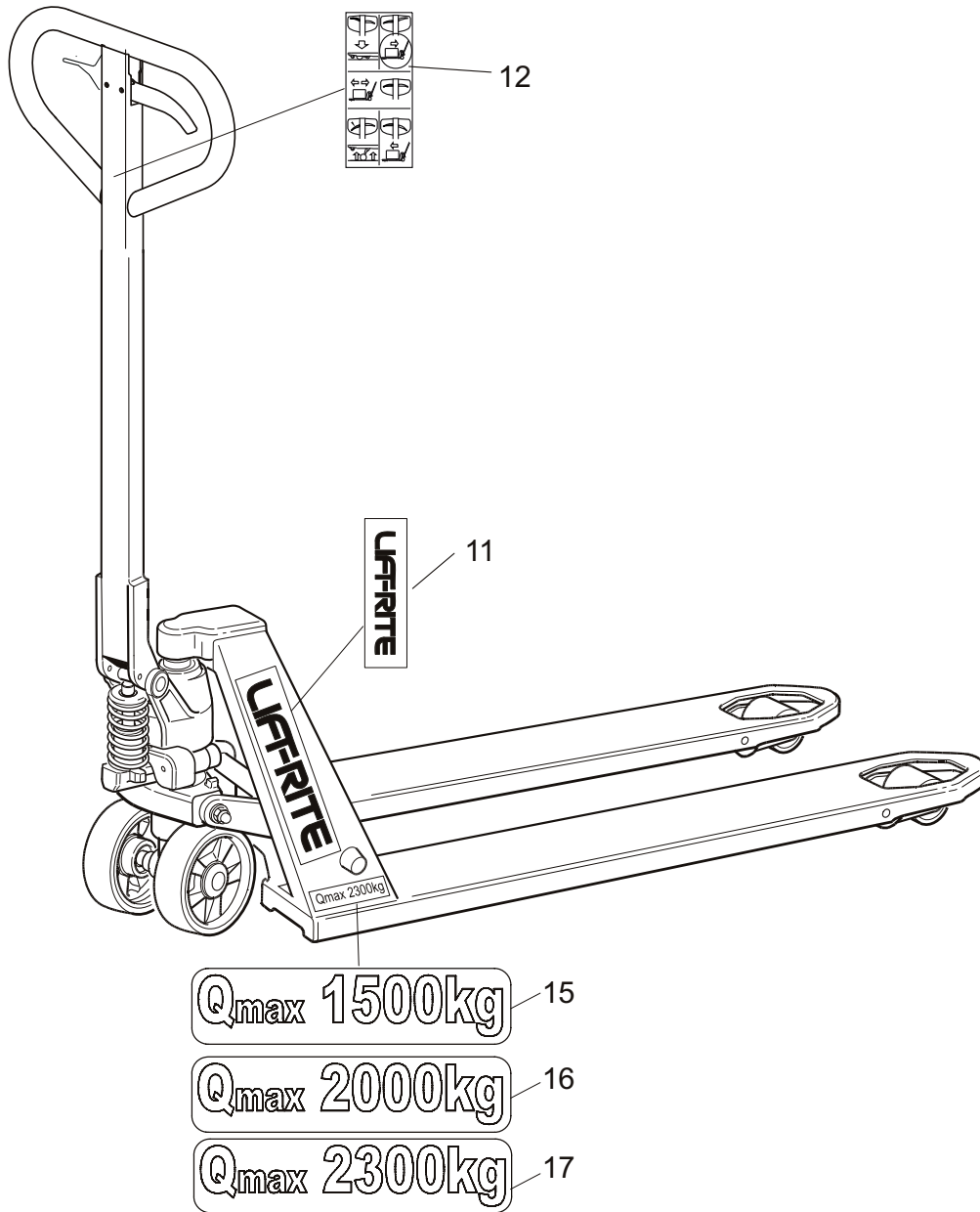
FIGURE 1 ITEM NO.	QTY	PART NUMBER	DESCRIPTION	USED ON
	2	167602	Wheel, Complete, Nylon	
	2	167605	Wheel, Complete, Polyurethane	
	2	167609	Wheel, Complete, Polyurethane	
25	4	PL-20214	Bearing	
26	2	47133	Axle	
27	2	47134	Axle	
28	4	254165Z	Wheel, Complete	
29	4	51805	Bushing	
30	2	130685	Wheel, Fork, Complete	
	2	149466	Wheel, Fork, Complete	
31	4	20001	Pin, Locking	
32	4	20001	Pin, Locking	
38	4	47117	Bushing	
40	2	126131	Axle	
41	2	27662	Nipple, Grease	

R= Recommended Spare

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## Signs, Warnings, Decals

Figure 2: Signs, Warnings, Decals

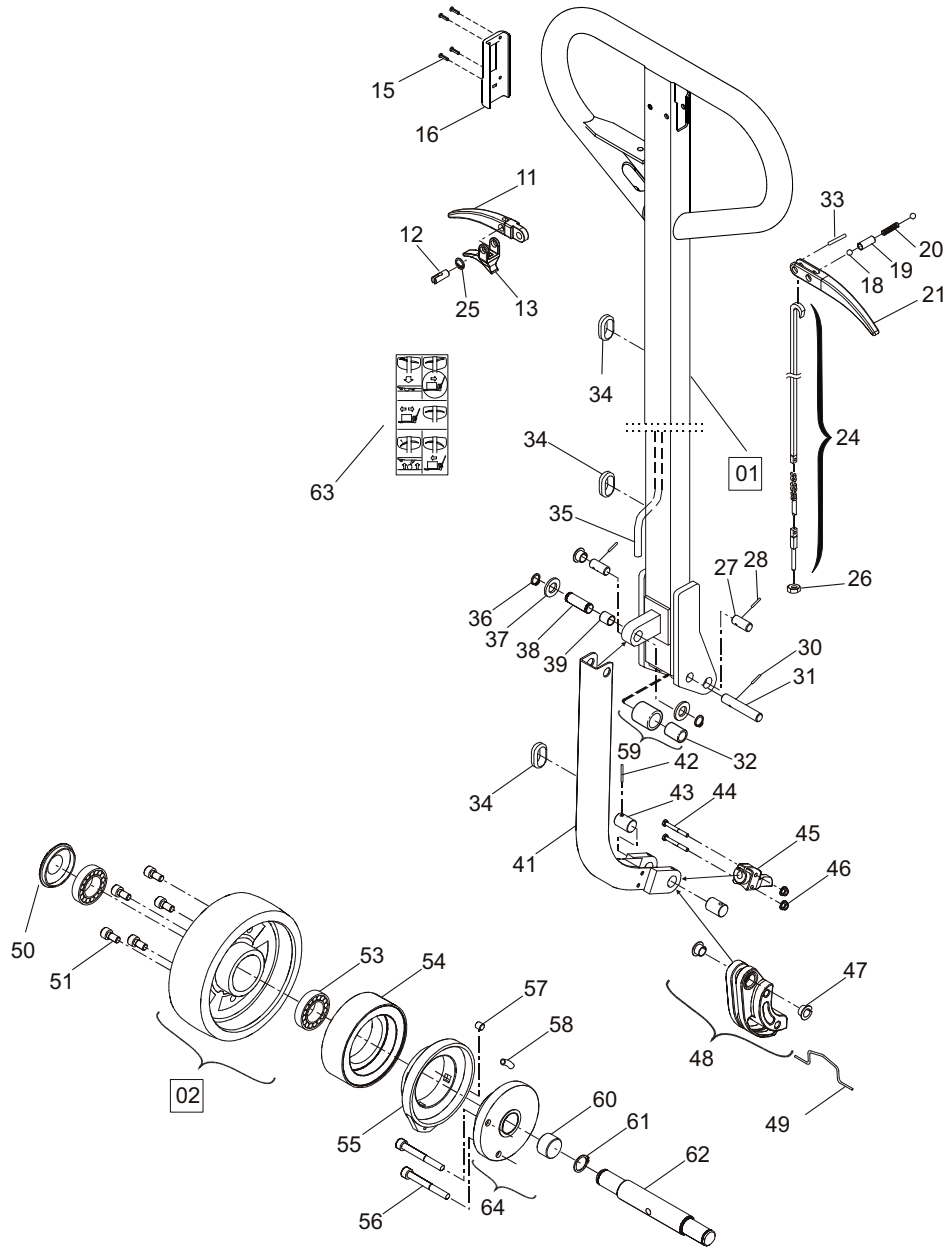


*List 2: Signs, Warnings, Decals*

FIGURE 2 ITEM NO.	QTY	PART NUMBER	DESCRIPTION	USED ON
			PST23 Signs, Warnings, Decals	
11	2	PL-20503	Sign	
12	1	212436	Sign	
15	2	177219	Sign	
16	2	177215	Sign	
17	2	177097	Sign	

## Hydraulic Module

Figure 3: Hydraulic Module





List 3: Hydraulic Module (Sheet 1 of 2)

FIGURE 3 ITEM NO.	QTY	PART NUMBER	DESCRIPTION	USED ON
			PST23 Hydraulic Module (including Control Handle and Wheels)	
1	1	7501909	Control Handle	
2	2	208455	Wheel, Complete, Powerthane	
11	1	214770	Handle	
12	1	211059	Axle	
13	1	211057	Catch	
15	4	23112Z	Rivet	
16	1	216338	Lock	
18	2	20065Z	Ball	R
19	1	54140	Sleeve	R
20	1	218182	Spring	R
21	1	173765	Handle	
24	1	215775	Bar, Valve	
25	1	20173Z	Ring, Locking	
26	1	21094Z	Nut	
27	1	7500086	Axle	
28	2	20014Z	Pin, Locking	R
30	2	20461Z	Pin, Locking	R
31	1	47930	Axle	
32	1	22108Z	Bushing	R
33	1	20105Z	Pin, Locking	R
34	3	22444Z	Guide	
35	1	211402	Wire, Complete	
36	2	20207Z	Ring, Locking	
37	2	22547Z	Washer	
38	1	212907	Axle	
39	1	21706	Bushing	R
41	1	211396	Arm, Lever, Complete	
42	2	20524	Pin, Locking	R
43	2	208454	Axle	
44	2	28341Z	Screw	
45	1	212208	Bracket	
46	2	25699Z	Nut	
47	2	211008	Bushing	R
48	1	212584	Driver, Complete	

R= Recommended Spare

*List 3: Hydraulic Module (Sheet 2 of 2)*

FIGURE 3 ITEM NO.	QTY	PART NUMBER	DESCRIPTION	USED ON
49	2	211061	Clamp	
50	2	156623	Cover	
51	10	20184Z	Screw	
53	4	22226Z	Bearing	
54	2	214750	Ring, Wheel	
55	2	227128	Lever, Direction	
56	2	212777	Screw	
57	8	211083	Screw	
58	2	212256	Spring	R
59	1	202755	Roller, Complete	
60	2	20896	Bushing	R
61	2	20019Z	Ring, Locking	
62	1	220310	Axle	
63	1	212436	Sign	
64	1	227129	Hub, Complete, Right	
	1	227130	Hub, Complete, Left	

R= Recommended Spare

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*List 4: Brake Kit*

FIGURE 4 ITEM NO.	QTY	PART NUMBER	DESCRIPTION	USED ON
			PST23 Brake Kit	
1	1	156523	Brake, Shield, Left Complete	
	1	156524	Brake, Shield, Right Complete	
2	2	200965	Wheel, Complete, Powerthane	
11	1	156200	Brake, Shield, Left	
	1	156201	Brake, Shield, Right	
12	1	144436	Link	
13	1	49631	Spring	R
14	1	144260	Pin	R
15	1	20787	Bushing	R
16	1	20016Z	Nut	
17	1	158776	Axle	
18	1	22353Z	Brake, Link	
19	1	177882	Axle	
20	1	144441	Axle	
21	2	29995	Nut, Clip	
22	1	20461Z	Pin, Locking	R
23	1	49621	Handle	
26	1	20105Z	Pin, Locking	R
27	1	49624	Bracket	
28	1	20461Z	Pin, Locking	R
29	1	47930	Axle	
30	1	202755	Roller, Complete	
31	1	227151	Axle	
32	1	7500086	Axle	
34	1	150785	Wire, Brake	
38	1	7501918	Control Handle, Complete	
41	1	20235Z	Nut	
42	1	237875	Screw, Stop	
43	1	173754	Handle, Lowering	
44	1	22444Z	Guide	
45	1	28572	Pin, Locking	R

R= Recommended Spare

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**RECYCLING YOUR OLD LIFT-RITE PARTS**

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<b>Chassis</b>	Steel
Wheel suspension	Steel and cast iron
Bushings	Brass
Grease fittings	Steel
Wheel	Nylon, polyurethane, steel
Enamel	Epoxy-polyester
<b>Hydraulic body</b>	Cast iron
Pressure plate	Cast iron
Control Handle	Steel, nylon
Wheel	Nylon, polyurethane, steel
Enamel	Epoxy-polyester
Bushings	Brass
Hydraulic oil	Disposal in accordance with local regulations
Assembly parts	Steel, brass, nylon

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## **HAND PALLET TRUCK WARRANTY**

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The Lift-Rite Hand Pallet Truck, Model PST23 is warranted against defects in materials and workmanship for a period of two (2) years for the hydraulic pump and truck chassis, and one (1) year for the power start technology, and six (6) months for wearable components from date of installation.

Wearable Components include but are not limited to:

- Wheels, Rollers, Bearings and Brake Cable
- Oilite Bearings and Bushings

Components found to be defective by an authorized Lift-Rite Sales and Service Center during the warranty period will be replaced or repaired as indicated above. Replacement components installed during the defined period set forth above, are warranted for the balance of the applicable truck warranty period, or 90 days, whichever is longer. Additionally, freight charges for parts involved in the replacement or repair of a defective component will be paid by Lift-Rite, provided that the replacement or repair is made by an authorized Lift-Rite Sales and Service Center. Labor or miscellaneous costs involved in the replacement of any components determined to be defective are not covered. Local taxes, if any, are excluded.

This warranty is void in the event of defects or damage caused by misuse, abuse, or accident. Any truck used in an application where the unit is operating in water or subjected to fluid or chemicals is NOT covered under any warranty.

This warranty does not cover oil leaks, adjustments, or loose hardware.

Lift-Rite reserves the right to make changes and improvements in design without making changes to previously manufactured vehicles.

Notwithstanding any other language contained herein, this warranty is expressly voided without any further notice if any modification is made to the Lift-Rite equipment, or if additional components or devices are added to the Lift-Rite equipment, without prior approval having been granted in writing by Lift-Rite.

**THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED, IMPLIED, OR STATUTORY. THERE ARE NO WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. In no event shall Lift-Rite be liable for incidental, special, or consequential damages.**











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