

LIFT-RITE®

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

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



This publication, 1233611/001E, 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 1233611/001E, 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.

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BEFORE YOU BEGIN

Always follow your facility's rules regarding wearing Personal Protective Equipment such as safety shoes and protective glasses whenever operating, working with, or assembling or dismantling hand pallet trucks.

DELIVERY INSPECTION

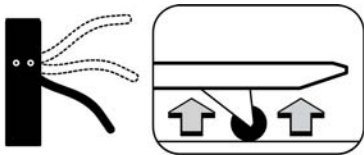
Visually inspect hand pallet truck frame components and hydraulic unit for damage during shipment by carrier. If damage is evident, notify delivering carrier immediately and file necessary claims. Test the hand pallet truck pump for proper operation.

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.

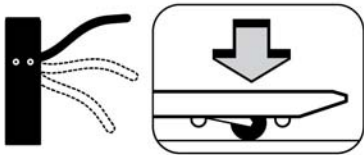
OPERATING INSTRUCTIONS

(Read and understand prior to using this product)

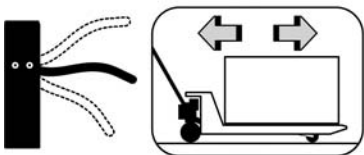
Do not use the PST23 in wet environments or in places with extreme temperature variations.



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



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

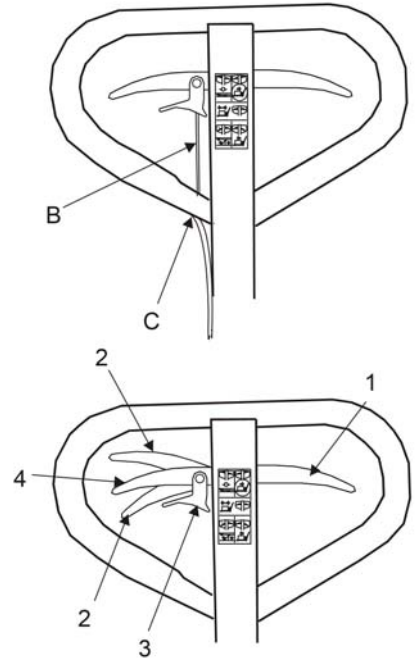


For free handle movement, place the fingertip control in the neutral position.

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.



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).

SAFETY PROCEDURES

(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.

DAILY INSPECTION

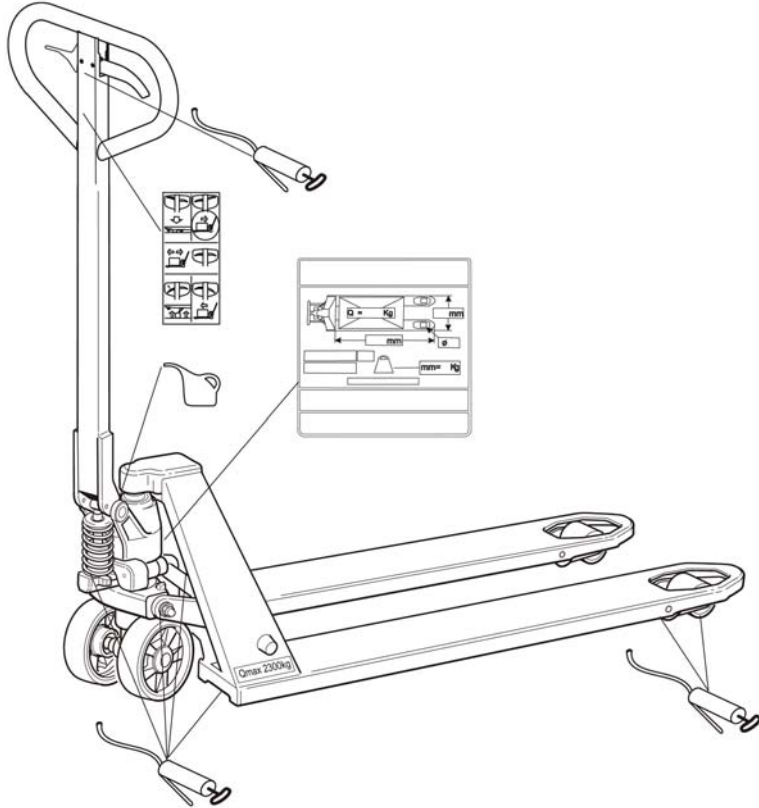
At the start of your shift, check the items listed below. Report any malfunction or unsafe conditions to your supervisor. Do not use this product until it is repaired.

CHECK POINTS	Steering	Hydraulic System	Wheels	Chassis/ Handle	Lifting/ Lowering	Labels
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

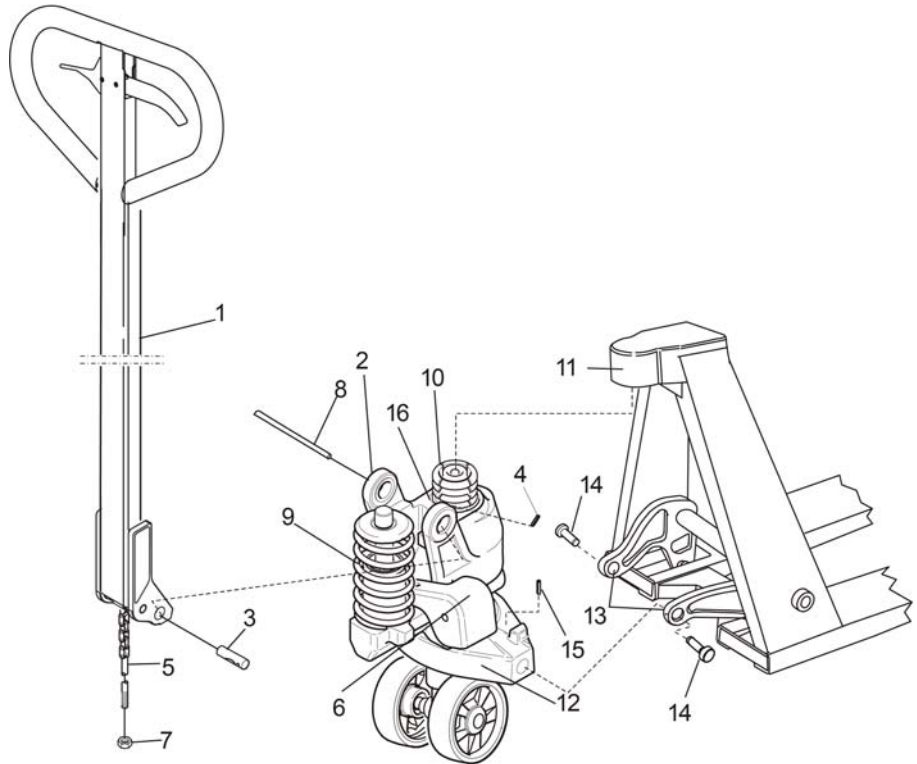
LUBRICATION

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).



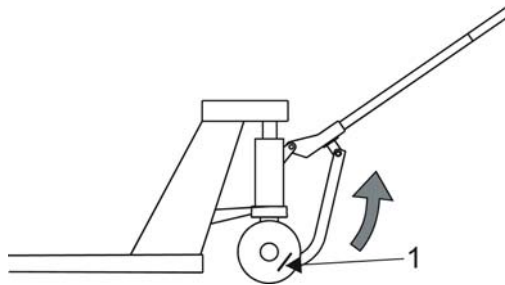
WARNING! - Released energy. When fitting the circlip (16), there is a risk that the circlip can slip off the circlip bar and cause injury. Be careful when fitting the circlip.



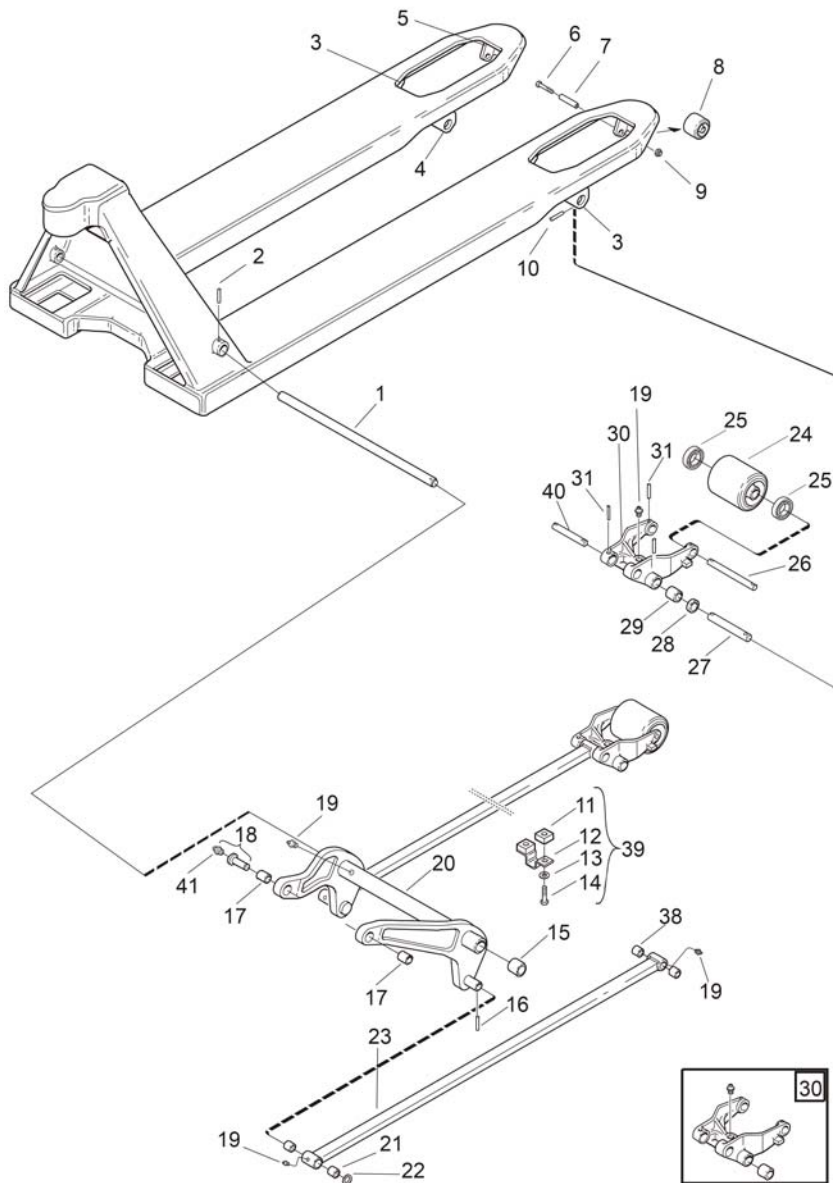
WARNING! - Released energy. When inserting the locking pins (4, 15) using a hammer, it can bounce and cause injury.

TROUBLESHOOTING

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



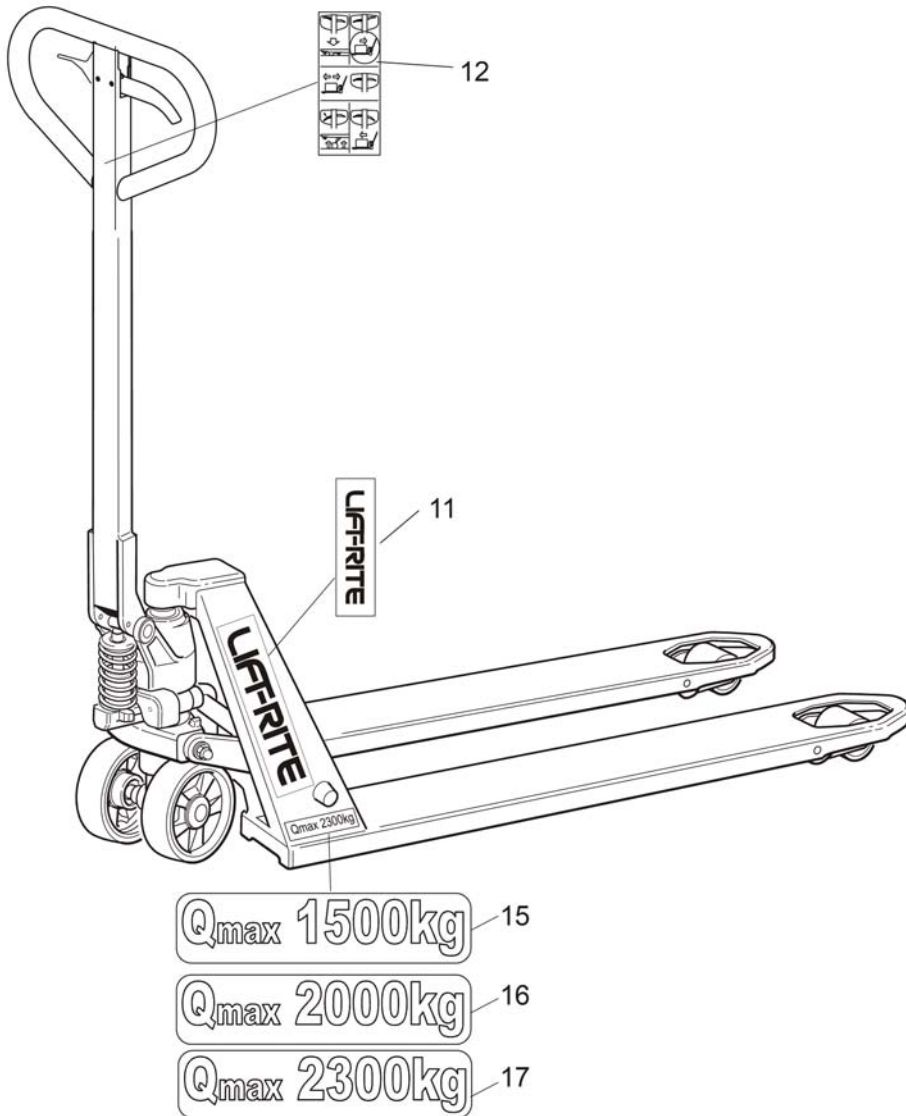
Chassis (Cont'd.)

ITEM NO.	QTY	PART NUMBER	DESCRIPTION
1	1	47156	Axle, Torsion Tube, (19 in./480 mm), (20.5 in./520 mm)
	1	47157	Axle, Torsion Tube, (27 in./685 mm)
	1	48053	Axle, Torsion Tube, (15 in./370 mm), (16 in./410 mm), (18 in./450 mm)
2	1	22128Z	Pin, Locking
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
11	2	159208	Plate
12	1	159209	Clamp
13	2	20404	Washer
14	2	20184Z	Screw
15	2	47167	Bushing
16	2	20001	Pin, Locking
17	2	30018	Bushing
18	2	166701	Bolt, Arm, Complete
19	7	27662Z	Nipple, Grease
20	1	64180	Tube, Torsion, Complete, (20.5 in./520 mm) Wide Truck
	1	64183	Tube, Torsion, Complete, (27 in./685 mm) Wide Truck
21	4	30023	Bushing
22	2	20013Z	Washer
23	2	109566-091	Rod, Push, Complete, (36 in./910 mm) Frame
	2	109566-107	Rod, Push, Complete, (42 in./1070 mm) Frame
	2	157213	Rod, Push, Complete, (48 in./1220 mm) Frame
24	2	167600	Wheel, Complete, Nylon
	2	167609	Wheel, Complete, Polyurethane
25	4	PL-20214	Bearing
26	2	47133	Axle
27	2	47134	Axle
28	4	254165Z	Wheel, Complete

ITEM NO.	QTY	PART NUMBER	DESCRIPTION
29	4	51805	Bushing
30	2	149466	Wheel, Fork, Complete
31	4	20001	Pin, Locking
38	4	47117	Bushing
39	1	159845	Clamp, Complete
40	2	126131	Axle
41	2	27662Z	Nipple, Grease

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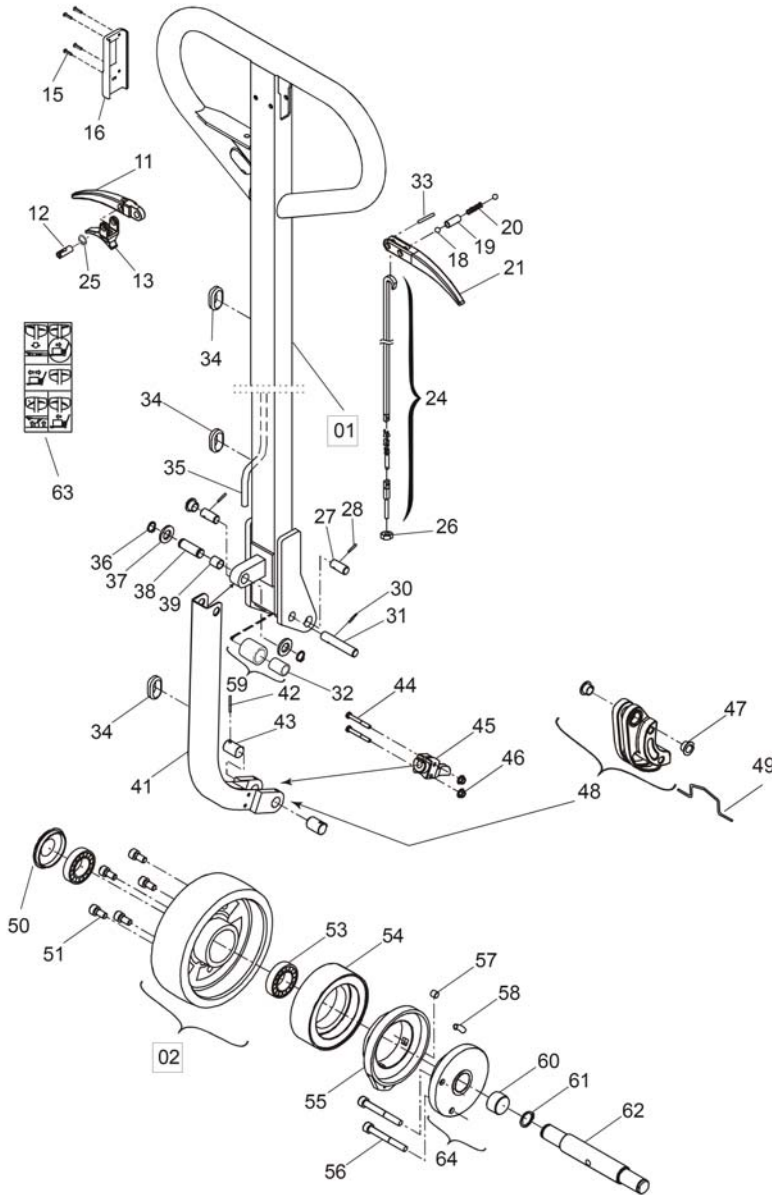
Signs, Warnings, Decals



Signs, Warnings, Decals (Cont'd.)

ITEM NO.	QTY	PART NUMBER	DESCRIPTION
11	2	PL-20501	Sign
12	1	212436	Sign
15	2	177219	Sign
16	2	177215	Sign
17	2	177097	Sign

Hydraulic Module



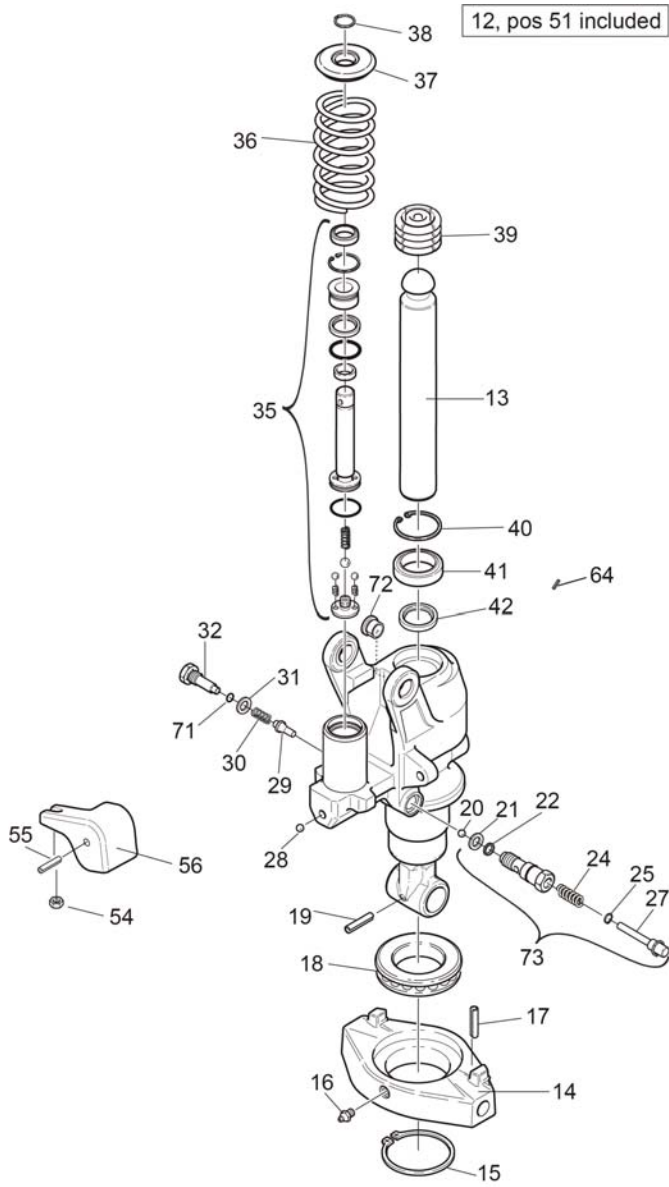
Hydraulic Module (Cont'd.)

ITEM NO.	QTY	PART NUMBER	DESCRIPTION
			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
19	1	54140	Sleeve
20	1	218182	Spring
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
30	2	20461Z	Pin, Locking
31	1	47930	Axle
32	1	22108Z	Bushing
33	1	20105Z	Pin, Locking
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
41	1	211396	Arm, Lever, Complete
42	2	20524	Pin, Locking
43	2	208454	Axle
44	2	28341Z	Screw
45	1	212208	Bracket
46	2	25699Z	Nut
47	2	211008	Bushing
48	1	212584	Driver, Complete
49	2	211061	Clamp

ITEM NO.	QTY	PART NUMBER	DESCRIPTION
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
59	1	202755	Roller, Complete
60	2	20896	Bushing
61	2	20019Z	Ring, Locking
62	1	220310	Axle
63	1	212436	Sign
64	1	227129	Hub, Complete, Right
	1	227130	Hub, Complete, Left

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Hydraulic Pump Module



Hydraulic Pump Module (Cont'd.)

ITEM NO.	QTY	PART NUMBER	DESCRIPTION
			Hydraulic Pump Module
12	1	220069	Hydraulic Unit
	1	227083	Hydraulic Unit
13	1	215030	Piston
14	1	215092	Plate, Pressure
15	1	21737	Ring, Locking
16	1	27662Z	Nipple, Grease
17	2	20001	Pin, Locking
18	1	213056	Ball, Bearing
19	1	220312	Pin, Locking
20	1	20065Z	Ball
21	1	215288	Washer
22	1	22032Z	O-Ring
24	1	47071	Spring
25	1	7500100	Wiper
27	1	7500116	Piston
28	1	20065Z	Ball
29	1	223935	Valve, Cone
30	1	39106	Spring
31	1	235545	Washer
32	1	221586	Screw
33	1	215866	Seal
34	1	21060Z	Ring, Sealing
35	1	215286	Piston
36	1	215156	Spring
	1	227090	Spring
37	1	215282	Washer
38	1	20043Z	Ring, Locking
39	1	215803	Sleeve
40	1	20642	Ring, Locking
41	1	20066Z	Seal
42	1	215867	Seal
43	1	22055Z	Ball
44	1	221231	Pin, Guide
45	1	221227	Spring
46	1	22032Z	O-Ring

ITEM NO.	QTY	PART NUMBER	DESCRIPTION
47	1	221232	Screw
	1	7533569-003	Screw
51	1	220310	Axle (Not Shown)
54	1	21094Z	Nut
55	1	220312	Pin, Locking
56	1	215128	Arm, Lowering
64	1	20014Z	Pin, Locking
71	1	24213Z	O-Ring
72	2	215913	Bushing
73	1	7518604	Valve, Lowering, Complete

RECYCLE YOUR OLD LIFT-RITE PARTS



Chassis	Steel
Wheel suspension	Steel and cast iron
Bushings	Brass
Grease fittings	Steel
Wheel	Nylon, polyurethane, steel
Enamel	Epoxy-polyester
Hydraulic body	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

HAND PALLET TRUCK WARRANTY

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.

SELECTED OSHA REGULATIONS FOR LIFT TRUCKS

Note: Some or all of the following may not be applicable to your hand pallet lift truck.

The use of forklift trucks in the workplace is governed by various regulations. In the United States, the Federal Occupational Safety and Health Administration (OSHA) has issued regulations which cover the majority of workplaces.

In addition, several states have implemented regulations which apply instead of the Federal regulations.

Check with your local OSHA office or provincial Labor Bureau to confirm which regulations govern your workplace.

Because of their wide applicability, this section of your manual lists several parts of the Federal OSHA regulations that might be of particular importance to your workplace.

The full text of the Federal regulations can be found in the Code of Federal Regulations at 29 CFR Section 1910.178.

The following citations are followed by a reference to the appropriate subparagraph of the regulations.

- Modifications and additions which affect capacity and safe operation shall not be performed by the customer or user without manufacturers prior written approval. Capacity, operation and maintenance instruction plates, tags or decals shall be changed accordingly. (a) (3)
- The user shall see that all nameplates and markings are in place and are maintained in a legible condition. (a) (6)
- The employer shall ensure that each powered industrial truck operator is competent to operate a powered industrial truck safely, as demonstrated by the successful completion of the training and evaluation specified in this paragraph. (l) (1) (i)
- Prior to permitting an employee to operate a powered industrial truck (except for training purposes), the employer shall ensure that each operator has successfully completed the training required by this paragraph. (l) (1) (ii)
- Trainees may operate a powered industrial truck only under the direct supervision of persons who have the knowledge, training, and experience to train operators and evaluate their competence and where such operation does not endanger the trainee or other employees. (l) (2) (i) (A) (B)
- Training shall consist of a combination of formal instruction (e.g. lecture, discussion, interactive computer learning, videotape, written material), practical training (demonstrations performed by the trainer and practical exercises performed by the trainee), and evaluation of the operator's performance in the workplace. (l) (2) (B) (ii) [Editorial Note: For required training program content, refer to (l) (3) (i) (A-M) and (l) (3) (ii) (A-I).]
- Refresher training, including an evaluation of the effectiveness of that training, shall be conducted as required by paragraph (l) (4) (ii) to ensure that the operator has the knowledge and skills needed to operate the powered industrial truck safely. (l) (4) (i)
- An evaluation of each powered industrial truck operator's performance shall be conducted at least once every three years. (l) (4) (iii)
- The employer shall certify that each operator has been trained and evaluated as required by this paragraph (l). The certification shall include the name of the operator, the date of the training, the date of the evaluation, and the identity of the person(s) performing the training or evaluation. (l) (6)
- The employer shall prohibit arms or legs from being placed between the uprights of the mast or outside the running lines of the truck. (m) (4)
- Brakes shall be set and wheel blocks shall be in place to prevent movement of trucks, trailers or railroad cars while loading or unloading. Fixed jacks may be necessary to support a semitrailer when the trailer is not coupled to a tractor. The flooring of trucks, trailers, and railroad cars shall be checked for breaks and weakness before they are driven onto. (m) (7)

- Only approved industrial trucks shall be used in hazardous locations. (m) (11)
- All traffic regulations shall be observed, including authorized plant speed limits. A safe distance shall be maintained approximately three truck lengths from the truck ahead, and the truck shall be kept under control at all times. (n) (1)
- The driver shall be required to slow down and sound the horn at cross aisles and other locations where vision is obstructed. If the load being carried obstructs forward view, the driver shall be required to travel with the load trailing. (n) (4)
- Under all travel conditions the truck shall be operated at a speed that permits it to be brought to a stop in a safe manner. (n) (8)
- Stunt driving and horseplay shall not be permitted. (n) (9)
- If at any time a powered industrial truck is found to be in need of repair, defective, or in any way unsafe, the truck shall be taken out of service until it has been restored to safe operating condition. (p) (1)
- Any power-operated industrial truck not in safe operating condition shall be removed from service. All repairs shall be made by authorized personnel. (q) (1)
- All parts of any such industrial truck requiring replacement shall be replaced only by parts equivalent as to safety with those used in the original design. (q) (5)
- Industrial trucks shall be examined before being placed in service, and shall not be placed in service if the examination shows any condition adversely affecting the safety of the truck. Such examination shall be made at least daily. Where powered industrial trucks are used on a round-the-clock basis, they shall be examined after each shift. Defects when found shall be immediately reported and corrected. (q) (7)

Part Kit Number

1316591/001

LIFRITE®