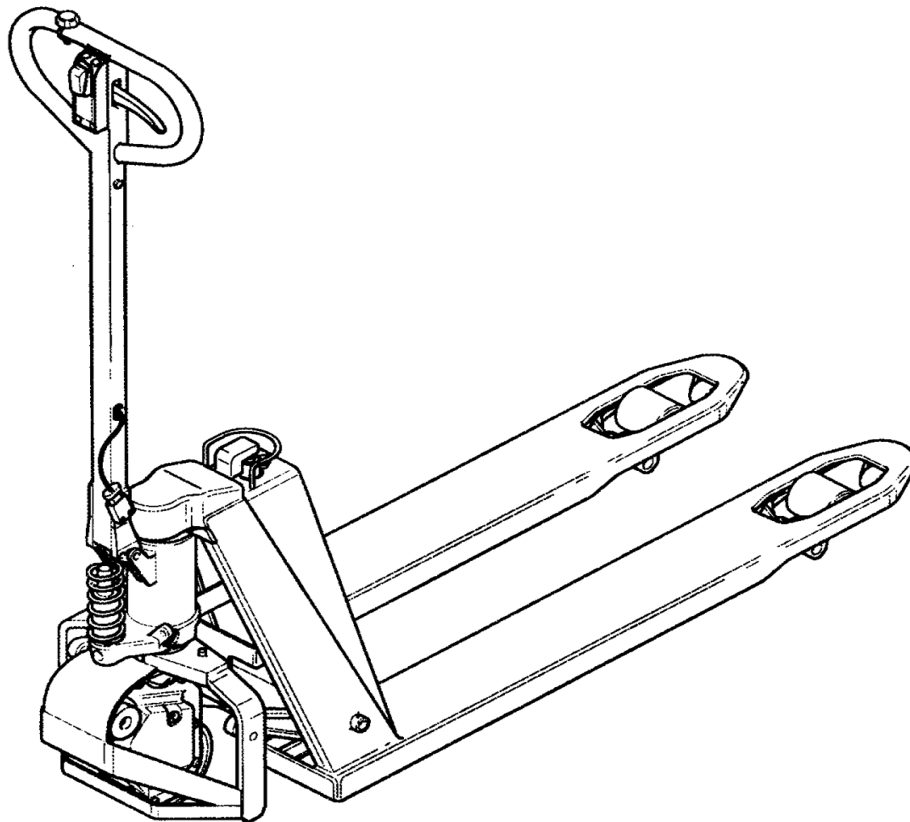


**LIFFRITE®**

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

**Lift-Rite Hand Pallet Trucks  
Model PST Plus**



This publication, 1269849/001B, applies to the Lift-Rite Hand Pallet Truck, Model PST Plus 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 1269849/001B, 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.liftrite.com](http://www.liftrite.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.

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## **DELIVERY INSPECTION**

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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.**

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**SAFETY PROCEDURES**

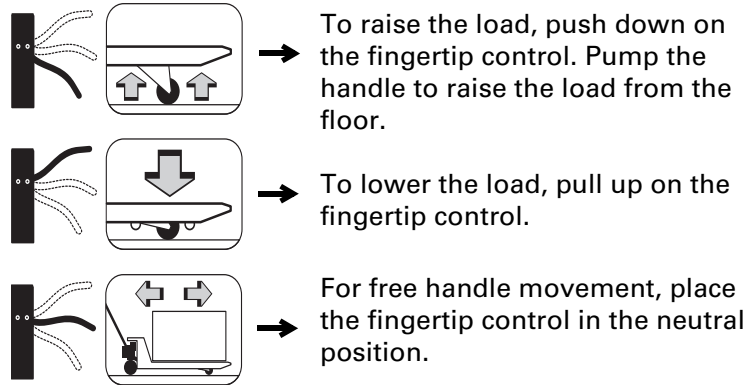
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***(Read and understand prior to using this product)***

- 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.

## OPERATING INSTRUCTIONS

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



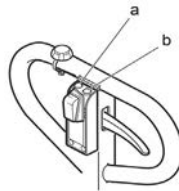
### **NOTE:**

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.

### **TO START THE HAND PALLET LIFT TRUCK**

For maximum operating efficiency, follow these instructions:

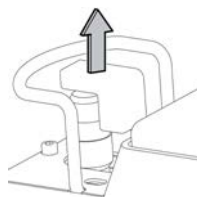
1. Push switch **(a)** for driving in the forks-first direction.
2. Push switch **(b)** for driving in the drive wheel-first direction.



Travel Direction Selector Switches

The travel direction is indicated by the position of the control switches on the handle.

3. Pull up the emergency switch key to allow drive mode.



Emergency Switch

4. Keep pressing the travel direction selector switch for driving in the forks-first or drive wheel-first direction.
5. Double-click the switch and keep pressing it to travel at maximum speed.
6. The truck is driven and controlled using the control handle.

## TO STOP THE HAND PALLET LIFT TRUCK

1. Speed reduction is done smoothly by pressing the travel direction selector switch for the opposite travel direction (plugging).
2. Emergency braking is performed by moving the control handle all the way up or down to the handle stop.
3. The truck will automatically apply the parking brake when the control handle is released.

## PARKING THE HAND PALLET LIFT TRUCK

When parking the hand pallet lift truck, follow these instructions:

- Stop the truck and release the travel direction selector switch.
- Move the control handle to the uppermost position and the parking brake is applied automatically.
- Make sure that the fork frame is fully lowered.
- Press the emergency stop key.
- Remove the emergency stop key from the truck if leaving the truck without supervision.
- *Never* park on an incline or with a raised load.
- *Never* park in areas that could obstruct other traffic or work areas.
- *Never* part in areas that could cause personal injury or damage to any equipment.

## 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	Brakes or Hand/ Parking Brake	Battery
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	Make sure that the brakes or hand/ parking brake, if equipped, function properly	Check for correct voltage and weight, no leakage, and battery disconnect function

## **MAINTENANCE**

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### **LUBRICATION**

All pivot points are equipped with permanently lubricated bushings and bearings. To increase bearing life, it is recommended that a few drops of light machine oil be applied at each pivot point every six months.

### **HYDRAULIC SYSTEM**

Your hydraulic system is maintenance free. Do *not* add hydraulic oil unless there is, or has been, a leak. Use ISO VG 15 grade hydraulic oil or equal for PST Plus model trucks. Other oils, fluids, or solvents may damage your hydraulic system. With the forks in the lowered position, fill the reservoir through the oil plug hole until the oil is even with the plug hole.

### **BATTERY**

This truck is equipped with two valve-controlled batteries of 12Volt/24 Amp Hour connected in series. Please obey manufacturer's recommendations for service of these batteries.

The batteries must be kept clean and dry and may be washed to remove any accumulated foreign matter.

### **CHARGING THE BATTERY**

The truck is equipped with a built-in automatic battery charger.

- Check if the LED on the battery cover is flashing. A flashing LED indicates that the batteries need charging immediately, and will cause the truck to stop. There is enough charge left in the batteries to enable the truck to be driven to the nearest charging point.
- When the indication for charging is shown, press down and then pull up the emergency stop key, and drive to the nearest charging point. Follow the instructions for charging the battery.

The truck's main lead can be connected to the main supply whenever the truck is not in use to make sure the batteries are always fully charged. Follow battery manufacturer's recommended use and maintenance instructions. Generally, charging for a minimum of 30 minutes is more gentle to the batteries and as a result will not shorten the battery service life. Additionally, it is necessary to charge the truck batteries overnight at least once a week or until the green LED on the charger lights.

If the batteries are fully discharged, they must have a full charge, about 12 hours, before next use.

1. Move your truck to a well ventilated area.
2. Lower the forks completely.
3. Press the emergency stop key and turn it 90 degrees clockwise.
4. Connect the charging cable to the truck.
5. Plug the charging cable into a 110 volt wall socket. Check that the yellow LED on the charger is ON.



6. When the main charging is done, the charger will switch over to a equalizing phase. This is indicated by both the yellow and the green LED on the charger being lit. After that, the charger will perform trickle charging, which is indicated by the green LED being lit. The charging is done, but there is no risk of the batteries being damaged if the truck continues to be connected to the main socket for an extended period.
7. Disconnect the charging cable from the wall socket when the charging is done and the truck is to be used.
8. Disconnect the charging cable from the truck.
9. Turn the emergency stop key 90 degrees counterclockwise and pull it up to the driving position.

## **BATTERY REPLACEMENT**

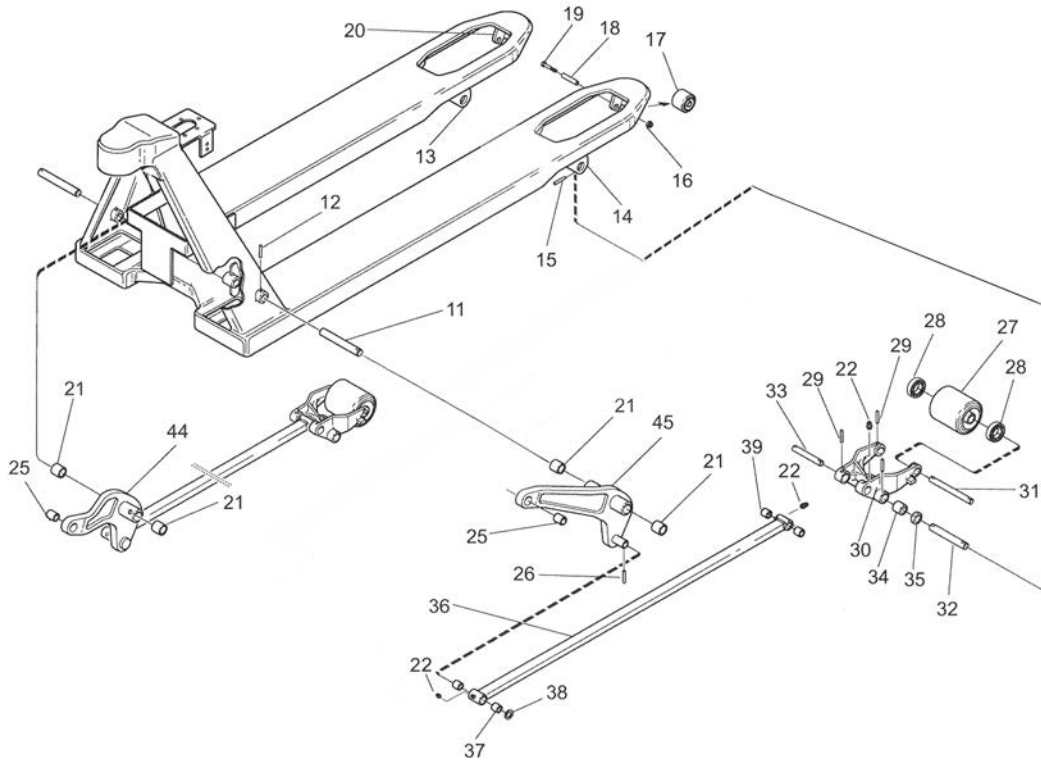
1. To replace the battery, press the emergency stop key and turn it 90 degrees clockwise.
2. Remove the battery cover and undo the battery retainer.
3. Disconnect the battery cables from the batteries and remove from the truck.
4. Replace with new batteries, checking the polarity, and connect the battery cables.
5. Secure the batteries in place using the battery retainer.
6. Replace the battery cover.
7. Turn the emergency stop key 90 degrees counterclockwise and pull it up to the driving position.

**TROUBLESHOOTING**

CONDITION	POSSIBLE CAUSE	ACTION
The pump strokes do not go all the way.	There is air in the hydraulic system.	Pump five strokes with the lowering valve open.
	The hydraulic system contains too little oil.	Contact a service technician.
The positions for lift, neutral and lowering do not function correctly.	The lowering valve is not correctly adjusted.	Adjust the tension of the valve chain using the adjusting nut.
The forks drop a bit at each pump stroke.	There is leakage past the valve disc.	Replace the valve disc and washer.
The motor does not function.	The emergency switch key is not pressed.	Pull up on the emergency switch key to access drive mode.
	The emergency switch key is not inserted.	Insert the key and turn it to drive mode.
	The batteries are discharged.	Charge the batteries.
	The brake is not released.	Check the anti-collision safety switch and the brake switch.
	There is a blown fuse.	Replace the fuses (under the battery cover; on the outside 30A, towards the center of the truck 3A).
The charger is not charging.	There is a blown fuse or break in the charger cable.	Replace the fuse (10A) or the cable.
	The battery voltage is under 21.6V.	Check the fuse and measure the battery voltage. Replace the fuse or battery/batteries.
	The charger is too warm.	Allow the charger to cool and then try again. If the problem persists, replace the charger.

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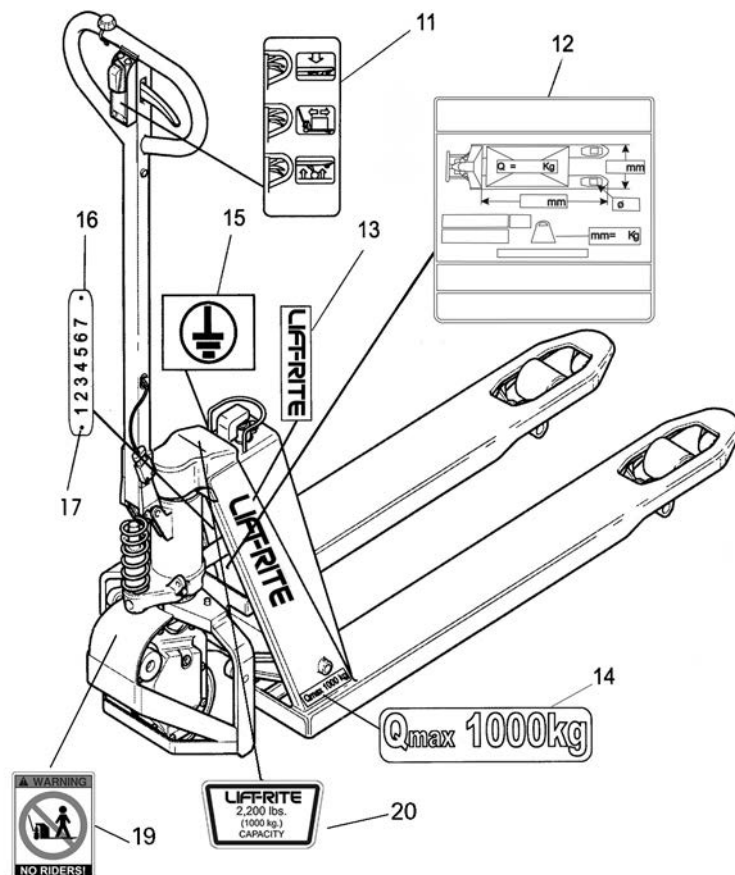
## PST Plus Frame Unit (including Wheels)



ITEM	QTY	PART NO.	DESCRIPTION
			PST Plus Frame Unit including Wheels
11	2	211619	Axle, Tube, Torsion
12	2	22128Z	Pin, Locking
13	2	47135	Ear
14	2	47135	Ear
15	4	20014Z	Pin, Locking

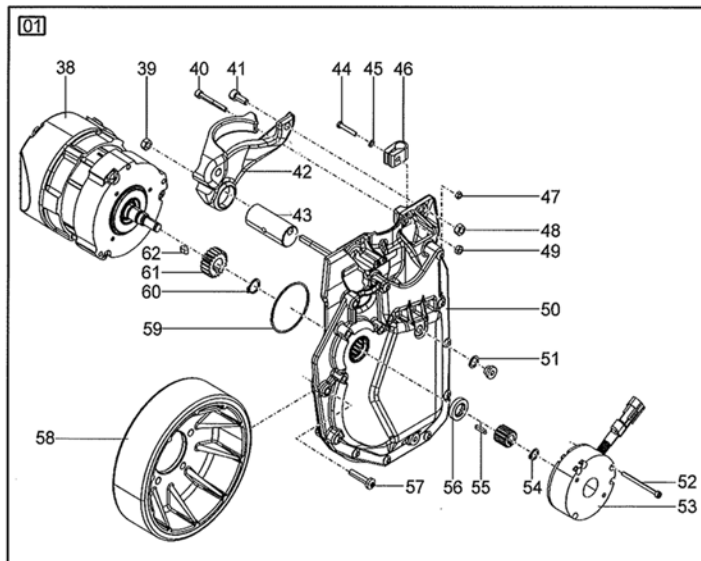
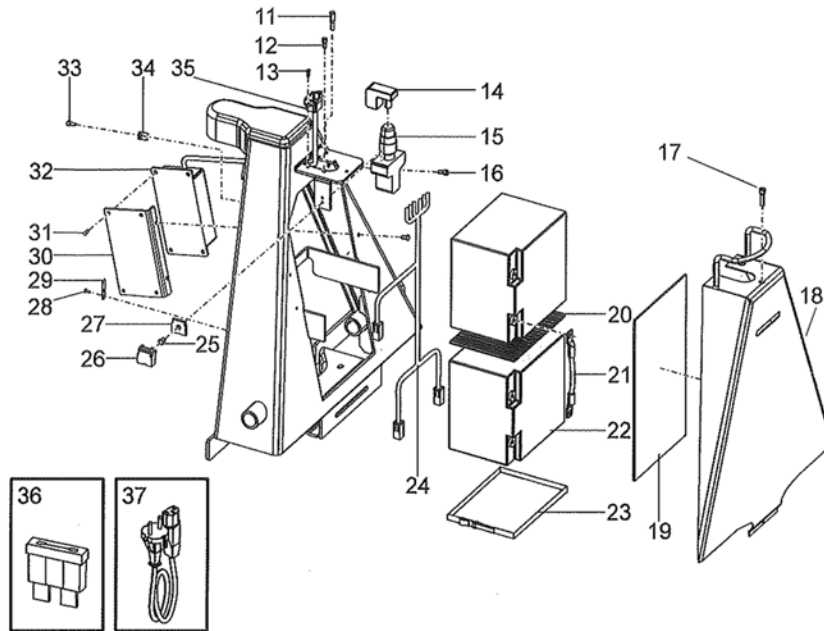
ITEM	QTY	PART NO.	DESCRIPTION
16	2	20433Z	Nut
17	2	47150	Wheel
18	2	47151	Spacer
19	2	21385Z	Screw
20	2	47110	Bracket
21	4	212787	Bushing
22	3	27662Z	Nipple, Grease
25	2	20841	Bushing
26	2	22128Z	Pin, Locking
27	2	167600	Wheel, Complete, Nylon
27	2	167609	Wheel, Complete, Polyurethane
28	4	PL-20214	Bearing
29	2	22128Z	Pin, Locking
30	2	130685	Wheel, Fork, Complete
31	2	47133	Axle
32	2	47134	Axle
33	2	126131	Axle
34	4	51805	Bushing
35	4	254165	Wheel, Complete
36	2	109566-091	Rod, Push, Complete (910 mm)
36	2	109566-100	Rod, Push, Complete (1000 mm)
36	2	109566-107	Rod, Push, Complete (1070 mm)
36	2	109566-115	Rod, Push, Complete (1150 mm)
36	2	109566-080	Rod, Push, Complete (800 mm)
36	2	157213	Rod, Push, Complete (1220 mm)
37	4	30023	Bushing
38	2	20013Z	Washer
39	4	47117	Bushing
44	1	7577505	Tube, Torsion (Left, W = 685 mm)
44	1	212796	Tube, Torsion (Left, W = 520 mm)
45	1	7577506	Tube, Torsion (Right, W = 685 mm)
45	1	212797	Tube, Torsion (Right, W = 520 mm)

## Signs, Warnings, and Decals



ITEM	QTY	PART NO.	DESCRIPTION
			Signs, Warnings, and Decals
11	1	211027	Sign, Instruction
12	1	Consult Factory	Plate, Identification
13	2	PL-20501	Sign
14	2	209333	Sign
15	1	182855	Sign
16	1	137177	Sign
17	2	21988Z	Rivet
19	1	MI-DECAL-NO-RIDERS	Decal, No Riders
20	1	MI-DECAL-39	Decal, Capacity

## PST Plus Electric Drive Power System



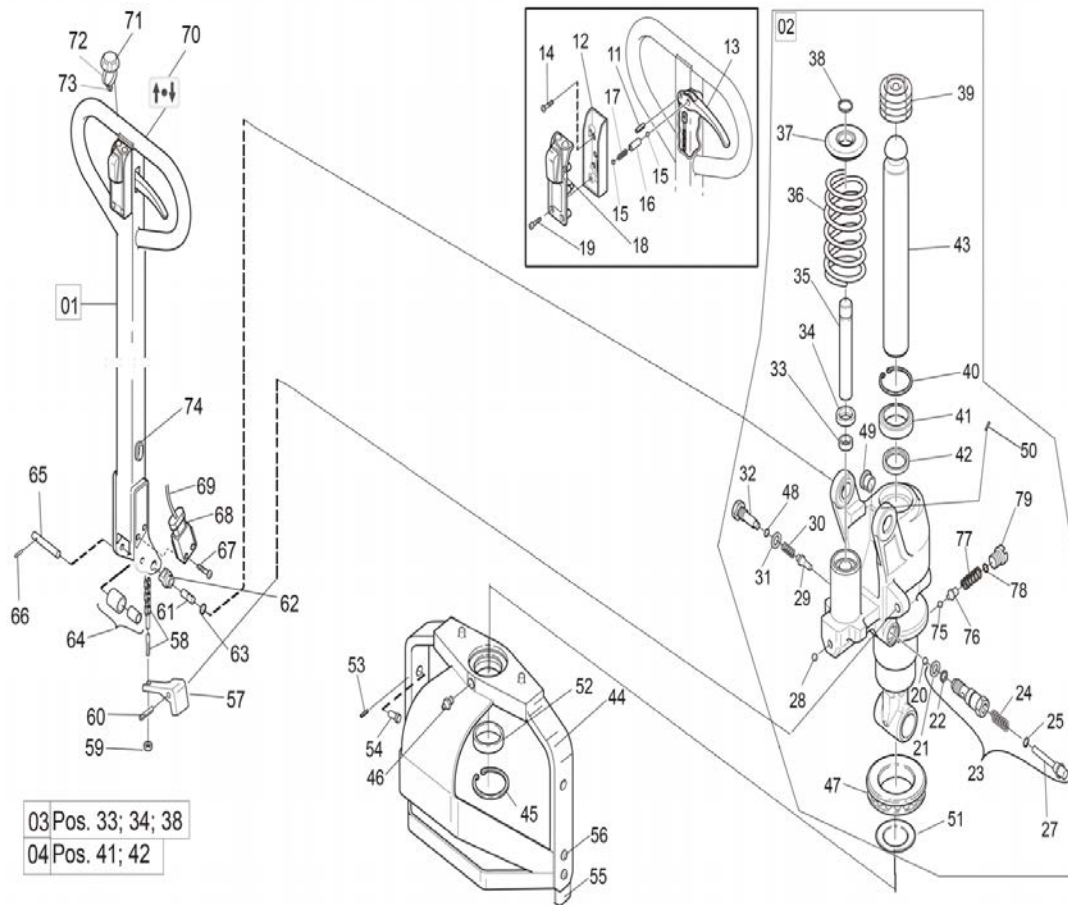


ITEM	QTY	PART NO.	DESCRIPTION
			PST Plus Electric Drive Power System
1	1	7563940	Drive Unit, Complete
11	1	219177-001	Indicator
12	2	20120Z	Screw
13	2	28959	Rivet
14	1	208519	Key
15	1	208513	Stop, Emergency
16	1	20120Z	Screw
17	1	243085	Screw
18	1	226561	Door, Battery
19	1	212150	Insulation
20	1	212148	Insert
21	AR	238010Z	Wire, Single Conductor
22	2	210483	Battery
23	1	214297	Strap, Battery
24	1	215278	Harness, Wiring
25	3	28959	Rivet
26	3	135421	Fuse Holder
27	1	135422	Bracket
28	2	21988Z	Rivet
29	1	212482Z	Bracket
30	1	209678Z	Bracket
31	6	21671Z	Rivet
32	1	7567167	Charger, Battery
33	1	22059Z	Screw
34	1	24647Z	Clamp
35	1	208517	Connector
36	1	122308-030	Fuse (3A)
	1	161640-100	Fuse (10A)
	1	122308-300	Fuse (30A)
37	1	210488	Charger, Cord
38	1	7550580Z	Motor
39	1	20081Z	Nut
40	1	22073Z	Screw
41	2	28522Z	Screw
42	1	7541244Z	Bracket

ITEM	QTY	PART NO.	DESCRIPTION
43	1	7541242Z	Axle
44	1	7558042Z	Screw
45	1	21035Z	Washer
46	1	7553305Z	Clamp
47	1	20257Z	Nut
48	2	20081Z	Nut
49	1	246960	Nut
50	1	7533706Z	Gear, Complete
51	2	7553303Z	Washer
52	3	7551917Z	Screw
53	1	225192	Brake, Complete
54	1	20173Z	Ring, Locking
55	1	7553301Z	Key
56	1	7557580Z	Sealing
57	1	7558041Z	Screw
58	1	214802	Wheel, Drive
59	1	7553304Z	O-Ring
60	1	20004	Ring, Locking
61	1	7541207Z	Wheel, Gear
62	1	7553302Z	Key

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## PST Plus Hydraulic Module (including Control Handle and Wheels)



ITEM	QTY	PART NO.	DESCRIPTION
			PST Plus Hydraulic Module (including Control Handle and Wheels)
1	1	7501913	Control Handle
2	1	226706-010	Hydraulic Unit
3	1	243926	Piston, Pump, Spare Part Kit
4	1	243927	Piston, Lifting, Spare Part Kit
11	1	20105Z	Pin, Locking
12	1	211433	Box

ITEM	QTY	PART NO.	DESCRIPTION
13	1	173765	Handle
14	4	22634	Screw
15	2	20065Z	Ball
16	1	54140	Sleeve
17	1	218182	Spring
18	1	209750	Button, Cover
19	4	177154	Screw
20	1	20065Z	Ball
21	1	215288	Washer
22	1	22032Z	O-Ring
23	1	7518604CE	Valve, Lowering, Complete
24	1	47071	Spring
25	1	7500100	Wiper
27	1	7523958	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	Sealing
34	1	7500105CE	Ring, Sealing
35	1	215286	Piston
36	1	215156	Spring
37	1	215282	Washer
38	1	20043Z	Ring, Locking
39	1	215803	Sleeve
40	1	20642	Ring, Locking
41	1	20066Z	Sealing
42	1	215867	Sealing
43	1	215030	Piston
44	1	7500098	Plate, Pressure
45	1	21737	Ring, Locking
46	1	27662Z	Nipple, Grease
47	1	213056	Bearing, Ball
48	1	24213Z	O-Ring
49	2	215913	Bushing

ITEM	QTY	PART NO.	DESCRIPTION
50	1	20014Z	Pin, Locking
51	1	230407	Shim
52	1	7507365	Bearing, Plain
53	2	1215868	Pin, Locking
54	2	209126	Bolt, Arm
55	2	218995	Floor Protection
56	4	25965Z	Screw
57	1	215128	Arm, Lowering
58	1	226326	Bar, Valve
59	1	21094Z	Nut
60	1	220312	Pin, Locking
61	1	7526111	Axle
62	1	226443	Cam
63	1	7524988	Cotter
64	1	202755	Roller, Complete
65	1	47930	Axle
66	1	20461Z	Pin, Locking
67	2	166557	Screw
68	1	7522360	Switch
69	1	208512	Harness, Wiring
70	1	211889	Sign, Drive Forward - Rearward
71	1	215022	Bell
72	1	214970	Bracket
73	1	166336	Screw
74	1	22444Z	Guide
75	1	22055Z	Ball
76	1	221231	Pin, Guide
77	1	221227	Spring
78	1	22032Z	O-Ring
79	1	7533569-003	Screw

**RECYCLING YOUR OLD LIFT-RITE PARTS**



<b>Chassis</b>	Steel
Drive Unit	Aluminum, steel, polyurethane, copper
Bushings	Brass
Grease fittings	Aluminum
Oil tank (reservoir)	Polyurethane
<b>Hydraulic body</b>	Steel
Motor	Steel, copper
Control Handle	Steel, nylon
Wheel	Nylon, polyurethane, steel
Top nut	Aluminum
Hydraulic oil	Disposal in accordance with local regulations
Assembly parts	Steel, aluminum, brass, nylon, rubber, polyurethane
Wiring	Copper cores with PVC sheaths
Electronic circuit board	Reinforced fiberglass circuit board/laminate

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## **HAND PALLET TRUCK WARRANTY**

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

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 under adverse conditions, such as fish, meat or poultry processing plants, tanneries, freezer applications, or any other 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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