

LIFFRITE®

MODEL: **ERGO 3000**
nomic

**OPERATOR'S MANUAL/INSTRUCTIONS/PARTS & SERVICE
FOR MANUAL & ELECTRIC**



LIFFRITE®

This publication, 1130682E, applies to the Lift-Rite ERGONOMIC 3000 Series Hand Pallet Trucks 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 1130682E, 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.liftright.com

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SAFETY SHOES

Always wear safety shoes when working with the ERGONOMIC 3000.



PROTECTIVE GLASSES

When assembling or dismantling the ERGONOMIC 3000, protective glasses *must* be worn to avoid personal injury.

OPERATOR'S RESPONSIBILITY

While operating the ERGONOMIC 3000, *always* wear safety equipment and operate in a responsible manner to ensure a safe work area.

DELIVERY INSPECTION

Visually inspect ERGONOMIC 3000 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 manual pump of the ERGONOMIC 3000 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.**

CAUTION



- *Always* stay within the rated capacity to ensure safe lift.
- *Always* make sure that the load is stable before moving to eliminate opportunity for load shift.
- Keep hands on inner handle during travel to protect hands from striking other objects.
- The ERGONOMIC 3000 is designed to ergonomically lift and position loads. Horseplay is *not* recommended.
- When not in use, fully lower forks to avoid injury.
- The operator *must* be familiar with the operator's instructions and warnings in this manual prior to operating this equipment.
- The operator *must* be trained in the safe operation and function of all controls prior to operating this equipment.

SAFETY (read and understand prior to using this product)

- Do *not* operate this ERGONOMIC 3000 truck unless you are authorized and trained to do so.
- *Never* overload your ERGONOMIC 3000 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 ERGONOMIC 3000 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.
- Do *not* place the center of your load beyond the load center of the ERGONOMIC 3000.
- *Never* put your feet, hands, or any other body part under the scissors or frame assembly.
- *Always* yield the right of way to pedestrians.
- Do *not* allow the ERGONOMIC 3000 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 ERGONOMIC 3000 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 an ERGONOMIC 3000 truck to tip. If loaded, the load could shift and fall.
- When not in use, fully lower the forks.
- Electric ERGONOMIC 3000 must be charged in a well ventilated area. *Always* use the charger provided. *Never* use jumper cables as these can cause sparks that could ignite the explosive gases normally released by the battery during charging.
- Stabilizer engages to limit movement in raised position and should *not* be tampered with.

Electric ERGONOMIC 3000

Connect the lift plug into the battery connection on the side of the battery box and test the electric power pack by operating the raise button located near the top of the handle. If the pump fails to respond, see TROUBLESHOOTING on page 6.

ERGONOMIC 3000 with Remote Control

The hand or foot operated remote control must be plugged into the receptacle on the top of the battery box for it to operate. Operate both the raise and lower push buttons or foot pedals to ensure the remote control functions correctly.

Note: If you purchased an electric ERGONOMIC 3000 without the remote control option, it can be purchased separately from your Lift-Rite dealer.

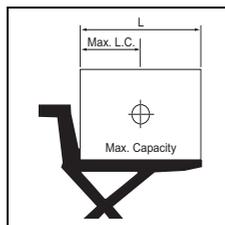
OPERATION

Your ERGONOMIC 3000 has been designed to ergonomically lift and position loads, but **not** pallets. Pallets have bottom boards nailed to the stringers. These can damage your ERGONOMIC 3000 because they restrict the lifting action of the scissor legs.

The pump piston and lifting ram have a polished hard chrome finish to provide maximum seal life and minimum leakage. Do *not* allow these surfaces to be nicked or pitted by abuse. A slight oil wetting of the external parts of the pistons is normal in order to provide lubrication for the highly polished surfaces and the seals through which they pass. Do *not* be alarmed at a trace of oil even on new units.

Load Center and Load Placement (Reference Layout): All loads *must* be placed on the back of the fork nearest the operator to avoid tipping of loads (see diagram). In any case, do *not* exceed load. Load Center is indicated on the following chart.

L	Max. Load Center (L.C.)	Max. Capacity
60 in.	30 in.	2200 lbs.
48 in.	24 in.	3000 lbs.
42 in.	21 in.	3000 lbs.
36 in.	18 in.	3000 lbs.



Neutral Position: A gentle pull on the handle engages the neutral position and the handle can be moved without lifting of the forks. This enables you to move the ERGONOMIC 3000 from one place to another without activating the pump.

Manual Lifting: To raise the ERGONOMIC 3000 manually, pump the handle. Your ERGONOMIC 3000 has an automatic neutral sensor that activates the pump cylinder when pumping action is detected.

Lowering: To lower the ERGONOMIC 3000, pull on the fingertip control lever. By varying the position of the lever, you can control the lowering speed.

Electric Lifting: Raise the ERGONOMIC 3000 by pressing and holding the raise button located on the handle. To lower the ERGONOMIC 3000, pull on the fingertip control lever. By varying the position of the lever, you can control the lowering speed. If your battery becomes discharged before you finish your work, you can operate an electric ERGONOMIC 3000 manually as described above.

Remote Control: The remote control hand or foot operator *must* be plugged into the receptacle on the top of the battery box. The raise and lower buttons or pedals will now operate the ERGONOMIC 3000 as indicated.

OPERATION (CONT.)

Charging the 12 Volt Battery: Move your ERGONOMIC 3000 to a well ventilated area. Raise the ERGONOMIC 3000 manually and unwind the AC plug from the tie-down inside the bulkhead. Lower the ERGONOMIC 3000 completely and disconnect the lift plug from the battery connector (located on the side of the battery box). Insert the charge plug into the battery connector. The lights on the battery charger will indicate the current battery condition. Plug the AC plug into a 110 volt, 60 Hz receptacle. When your battery is fully charged, unplug the AC plug from its receptacle, then disconnect the charger plug from the battery plug and reinsert the lift plug. Carefully raise the ERGONOMIC 3000 and secure the AC cord and the charger plug to the respective tie-downs inside the bulkhead.

Store the charger power cord in the bracket at all times.

Electric hazard can occur if the plug comes in contact with the battery.

DAILY CHECKLIST

CHECK POINTS	Steering	Hydraulic System	Wheels	Chassis/ Handle	Lifting/ Lowering	Labels	Batteries (if equipped)
ACTION	Check full rotation.	Check for excessive oil on exterior.	Check for wear, damage, and remove debris.	Check for damage and remove debris.	Check for manual function and electric lift (if equipped).	Check for readability.	Check for correct voltage and weight, no leakage, and battery disconnect function.

MAINTENANCE

Lubrication: All pivot points in the ERGONOMIC 3000 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 6 months. The main bearing in the thrust plate is equipped with a grease zerk. This should be greased every 6 months.

Hydraulic System: Your hydraulic system is maintenance free. Do *not* add hydraulic oil unless there is, or has been, a leak. Use Sunoco Sunvis 832 oil or equal. Other oils, fluids, or solvents may damage your hydraulic system. With the ERGONOMIC 3000 in its lowered position, fill the reservoir through the oil plug hole until the oil is even with the plug hole.

Maintenance-Free Batteries: The truck is equipped with a maintenance-free battery. Please obey manufacturer's recommendations for service of these batteries.

A maintenance-free battery still requires some care. The battery must be kept clean and dry and may be washed to remove any accumulated foreign matter.

TROUBLESHOOTING

Manual Pump Fails to Raise ERGONOMIC 3000

Please make sure to pump the handle at a speed quick enough to overcome the manual pump neutral position. There may be an air lock in the hydraulic system. Pull the control lever and operate the pump several times. Operate the pump normally to raise ERGONOMIC 3000. Check to see if the release lever on the pump base moves freely. Loosen the high pressure adjusting screw (item #21 on page 12). Operate the pump several times, then tighten the high pressure screw. A small amount may leak from the screw while it is loose.

ERGONOMIC 3000 Fails to Raise Completely

Check scissor legs and floor for obstructions. Check for proper hydraulic fluid level and look for signs of an oil leak.

Electric ERGONOMIC 3000 Does Not Respond to Raise Button

Check the battery connection to make sure that it is plugged in. If the ERGONOMIC 3000 has been idle for a long period of time, the battery may have become discharged. Connect the charger as described under OPERATION on page 4, and make sure that the battery is fully charged. Check all electrical connections.

Optional Remote Control Will Not Lower

Check to make sure that the remote control is plugged in. Check for damage to the hydraulic power pack. The solenoid may be damaged and may need to be replaced.

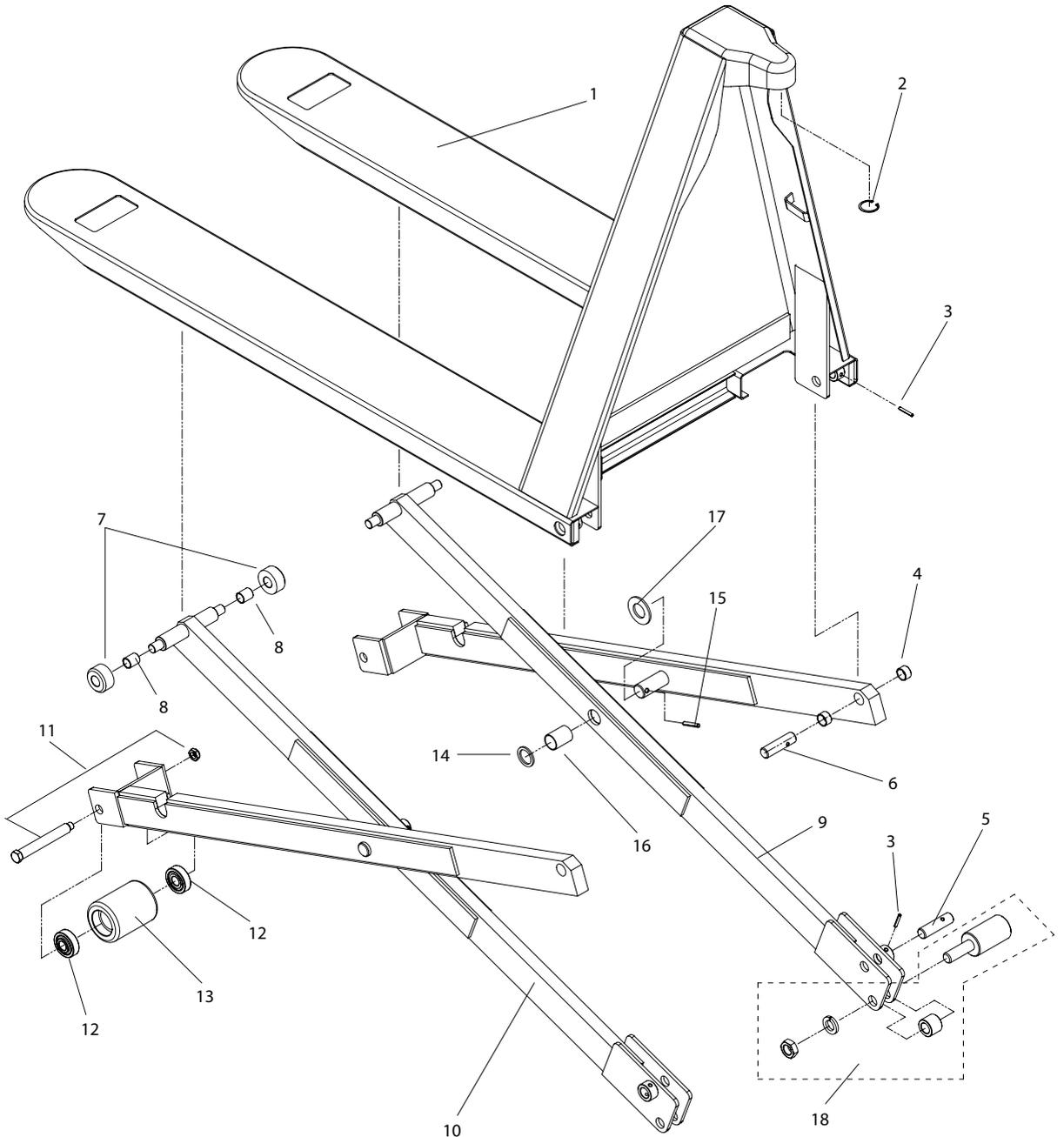
Neutral Position

If the pump has no neutral position, turn the neutral valve (item #23 on page 12 or 14) clockwise until the desired neutral action is achieved. If the pump does not engage quick enough, turn the neutral valve (item #23 on page 12 or 14) counterclockwise until the pump action is satisfactory.

FOR THESE AND ALL OTHER TROUBLESHOOTING QUESTIONS, PLEASE CONTACT YOUR LOCAL AUTHORIZED LIFT-RITE DEALER.

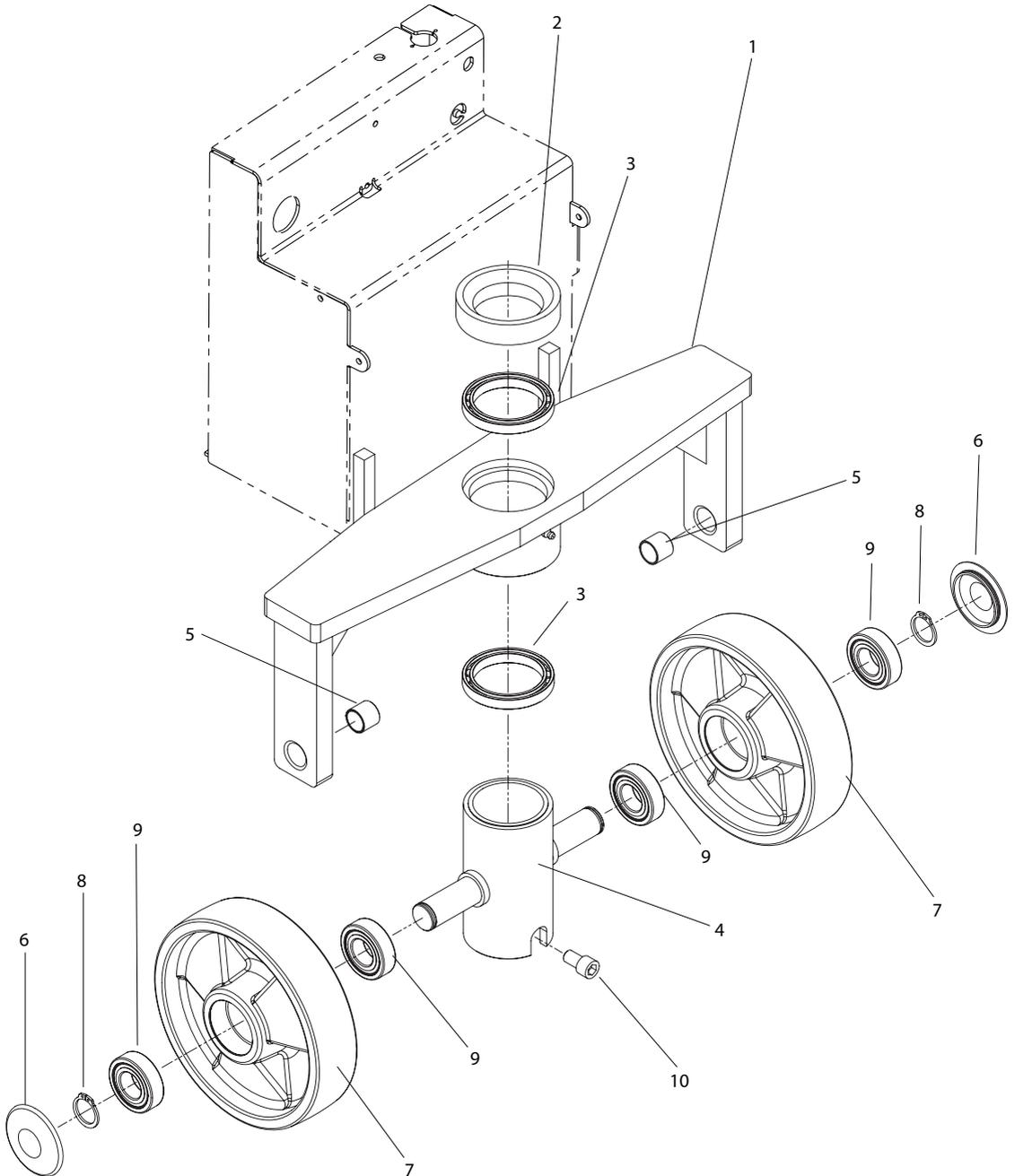
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FRAME • SCISSOR ASSEMBLY



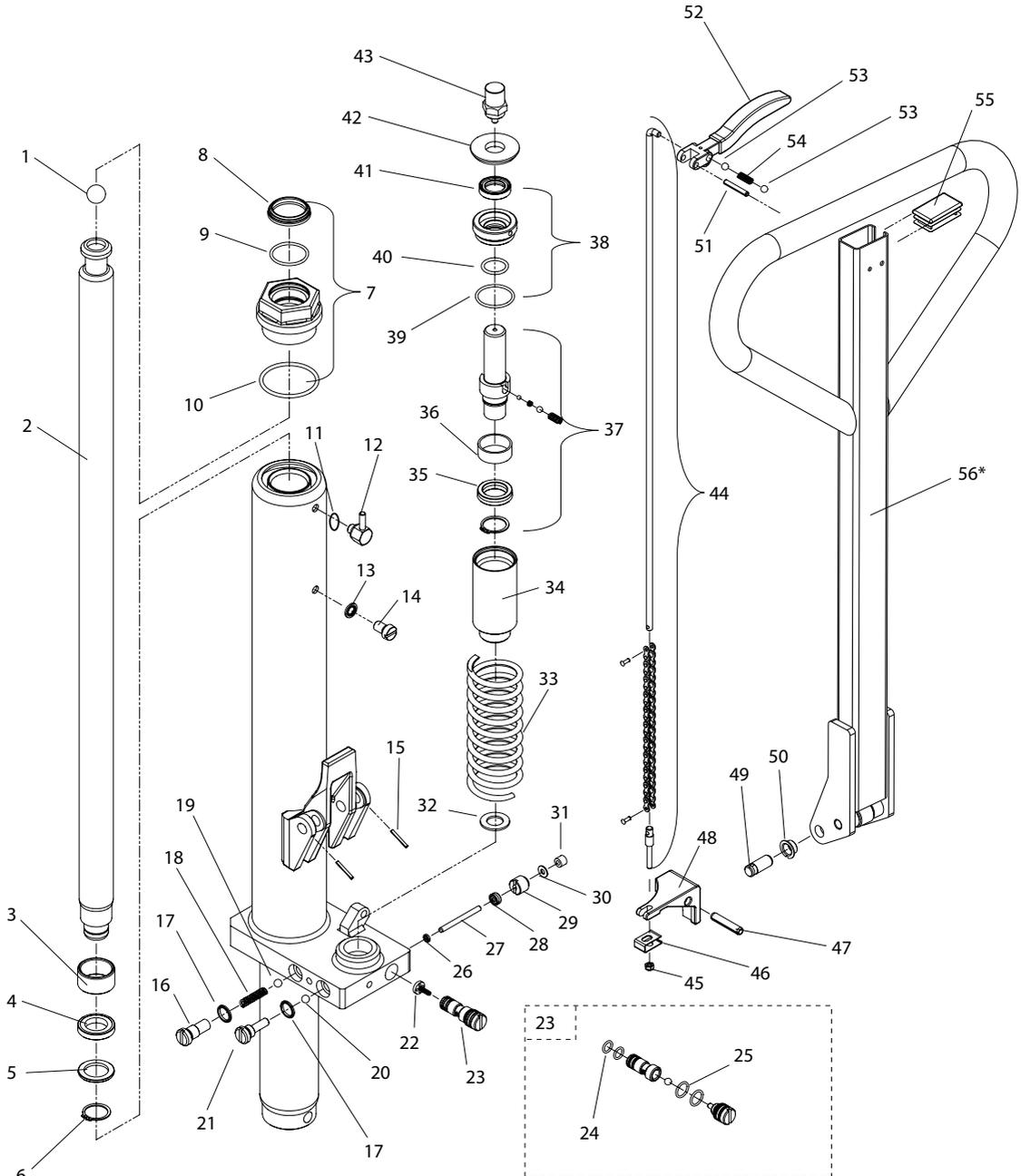
Item No.	Description	Part Number	Quantity
1	27 x 48 CHASSIS	PR-8021A48	1
	20.5 X 48 CHASSIS	PR-8021B48	1
2	SNAP RING	PL-20232	1
3	SPLIT PIN	PL-10269	4
4	BUSHING	PL-10203A	4
5	INNER LEG CLEVIS PIN	PR-8012/8013	2
6	OUTER LEG CLEVIS PIN	PR-8012/8013	2
7	FORK ROLLER W/BUSHING	PR-8007	4
8	BUSHING	PR-8007A	4
9	48 IN. LEG ASSEMBLY RIGHT	1125956/___	1
10	48 IN. LEG ASSEMBLY LEFT	1125956/___	1
11	AXLE ASSEMBLY	PL-20215-I	2
12	BEARING	PL-20214	4
13	NYLON ROLLER COMPLETE	PL-20210BN-B	2
	POLY ROLLER COMPLETE	167609	2
	STEEL ROLLER COMPLETE	PL-20210S-BRG	2
14	WASHER	PL-10239	4
15	SPLIT PIN	PL-10242	2
16	BUSHING	PR-8516	4
17	WASHER	PL-10241	2
18	STABILIZER ASSEMBLY	PR-8010	2

THRUST PLATE • WHEEL ASSEMBLY



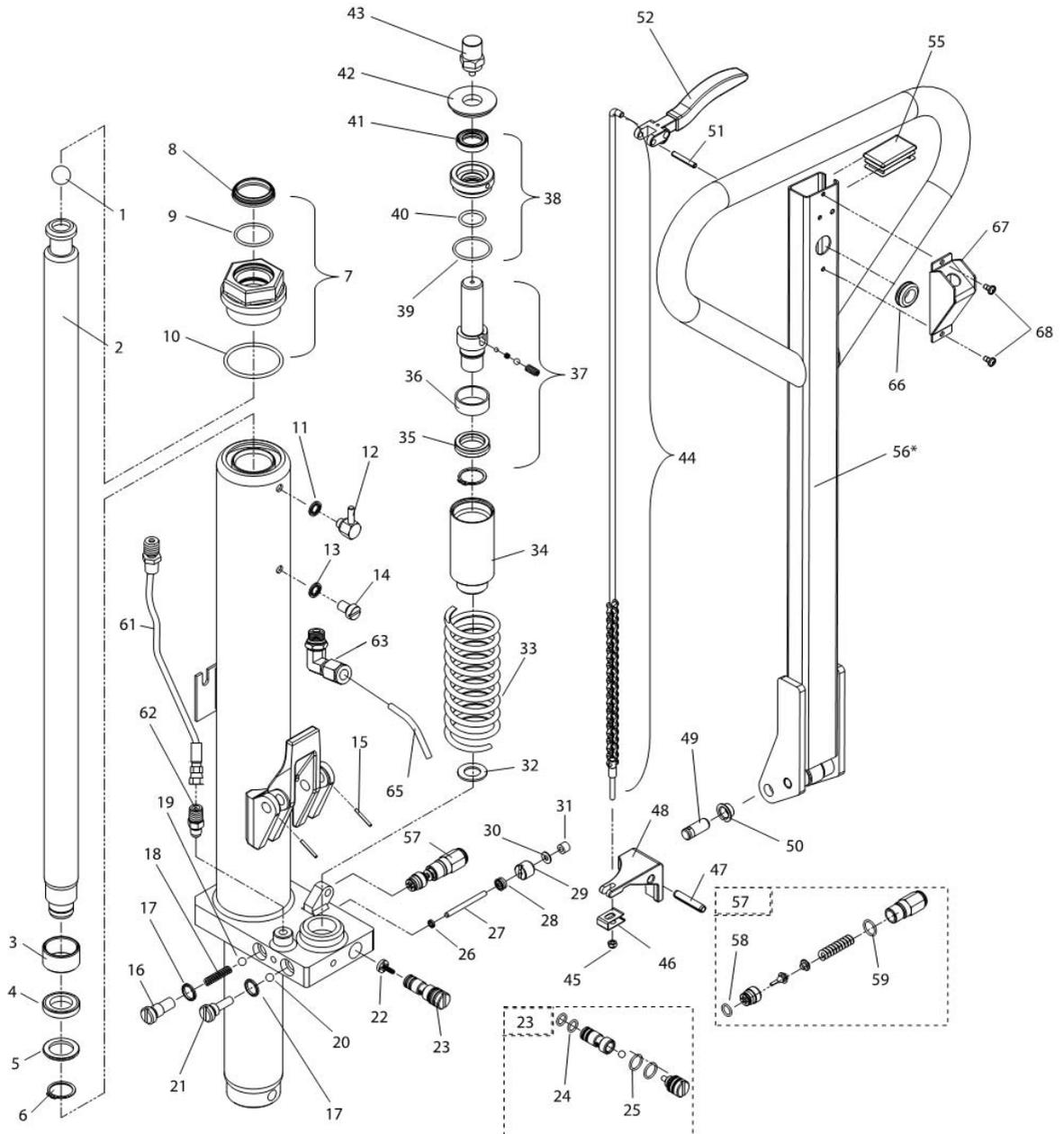
Item No.	Description	Part Number	Quantity
1	27 IN. THRUST PLATE - MANUAL MODEL	PR-8024A	1
	27 IN. THRUST PLATE - ELECTRIC MODEL	1130181/001	1
	20.5 IN. THRUST PLATE - MANUAL MODEL	PR-8024B	1
	20.5 IN. THRUST PLATE - ELECTRIC MODEL	1130181/002	1
2	PUMP COLLAR	AR-8030	1
3	THRUST PLATE BEARING	PR-8512	2
4	WHEEL MOUNT	PR-8031A	1
5	BUSHING	PL-10203	2
6	HUB CAP	PL-10236C	2
7	STEER WHEEL		
	NYLON	PL-20236BN-B	2
	POLY	PL-20236B-B	2
	STEEL	PL-10236BS-BRG	2
8	SNAP RING	PL-10237	2
9	BEARING	PL-10238D	4
10	SOCKET HEAD CAP SCREW	PR-8518	2

PUMP & HANDLE ASSEMBLY MANUAL



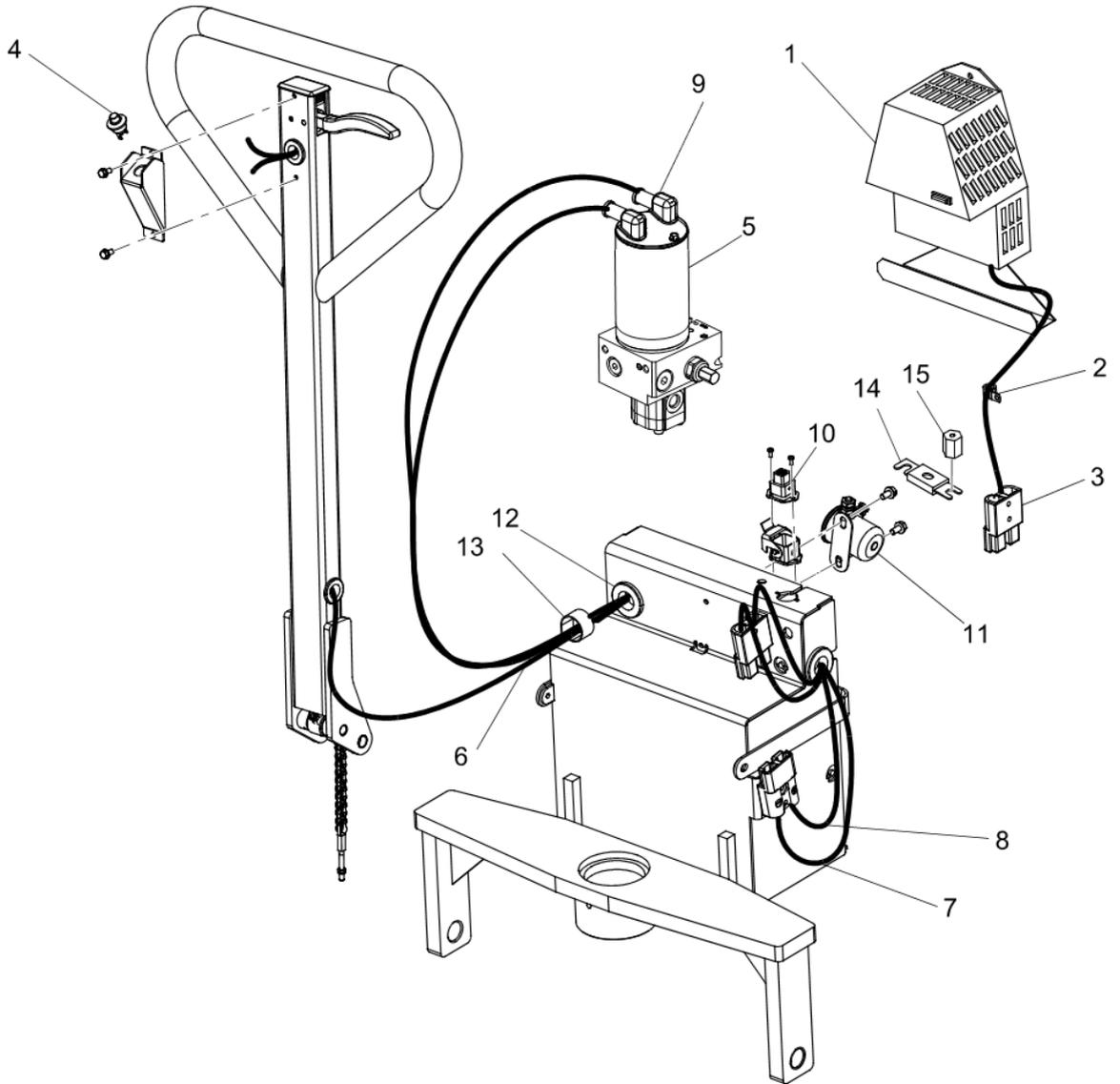
Item No.	Description	Part Number	Quantity
1	BALL	PL-10244	1
2	PISTON	PR-8530A	1
3	BUSHING	PR-8538	1
4	SEAL	PR-8539	1
5	RING	PR-8540	1
6	LOCK RING	PR-8541	1
7	TOP NUT COMPLETE	PR-8529	1
8	WIPER SEAL	PR-8529A	1
9	O-RING	PR-8529B	1
10	O-RING	PR-8529C	1
11	SEALON	PR-8582A	1
12	BREATHER	PR-8582	1
13	SEALON	PR-8528	1
14	FILLER SCREW	PR-8527	1
15	SPLIT PIN	PL-20274S	2
16	ADJUSTING SCREW	PR-8542	1
17	WASHER	PR-8543	2
18	SPRING	PR-8544	1
19	8 mm BALL	PR-8545	1
20	9 mm BALL	PR-8546	1
21	ADJUSTING SCREW	PR-8547	1
22	VALVE SEAT	PR-8549	1
23	NEUTRAL VALVE	PR-8548	1
24	O-RING	PR-8548B	2
25	O-RING	PR-8548A	2
26	O-RING	PR-8551	1
27	PIN	PR-8554	1
28	U-RING	PR-8552	1
29	VALVE SCREW	PR-8553	1
30	WASHER	PR-8555	1
31	BUSHING	PR-8556	1
32	WASHER	PR-8537	1
33	SPRING	PR-8533	1
34	PUMP CYLINDER	PR-8536	1
35	U-CUP	PR-8534B	1
36	RING	PR-8534A	1
37	COMPLETE QUICK LIFT PISTON	PR-8534	1
38	COMPLETE UNION NUT	PR-8535	1
39	UNION NUT O-RING (THREAD)	PR-8535C	1
40	UNION NUT O-RING	PR-8535B	1
41	UNION NUT SEAL	PR-8535A	1
42	WASHER	PR-8532	1
43	TOP SCREW	PR-8531A	1
44	CONTROL ROD COMPLETE	PR-20274ACM	1
45	LOCK NUT	21094	1
46	LEVER CLIP	42631	1
47	SPLIT PIN	PR-8559	1
48	LOWERING ARM	PR-8558	1
49	PIN	PL-20275	2
50	BUSHING	PL-20306	2
51	SPLIT PIN	PL-10269	1
52	CONTROL LEVER	PL-20274BD	1
53	BALL	PL-10254	2
54	SPRING	PL-20274C	1
55	CAP	PL-20274E	1
56	COMPLETE HANDLE	PR-20276TDM	1
57	ERGO-PUMP VALVE KIT	PR-8575	1
58	ERGO-PUMP SEAL KIT	PR-8577	1

PUMP & HANDLE ASSEMBLY ELECTRIC



Item No.	Description	Part No.	Qty.
1	BALL	PL-10244	1
2	PISTON	PR-8530A	1
3	BUSHING	PR-8538	1
4	SEAL	PR-8539	1
5	RING	PR-8540	1
6	LOCK RING	PR-8541	1
7	TOP NUT COMPLETE	PR-8529	1
8	WIPER SEAL	PR-8529A	1
9	O-RING	PR-8529B	1
10	O-RING	PR-8529C	1
11	SEALON	PR-8582A	1
12	BREATHER	PR-8582	1
13	SEALON	PR-8528	1
14	FILLER SCREW	PR-8527	1
15	SPLIT PIN	PL-20274S	2
16	ADJUSTING SCREW	PR-8542	1
17	WASHER	PR-8543	2
18	SPRING	PR-8544	1
19	8 mm BALL	PR-8545	1
20	9 mm BALL	PR-8546	1
21	ADJUSTING SCREW	PR-8547	1
22	VALVE SEAT	PR-8549	1
23	NEUTRAL VALVE	PR-8548	1
24	O-RING	PR-8548B	2
25	O-RING	PR-8548A	2
26	O-RING	PR-8551	1
27	PIN	PR-8554	1
28	U-RING	PR-8552	1
29	VALVE SCREW	PR-8553	1
30	WASHER	PR-8555	1
31	BUSHING	PR-8556	1
32	WASHER	PR-8537	1
33	SPRING	PR-8533	1
34	PUMP CYLINDER	PR-8536	1

Item No.	Description	Part No.	Qty.
35	U-CUP	PR-8534B	1
36	RING	PR-8534A	1
37	COMPLETE QUICK LIFT PISTON	PR-8534	1
38	COMPLETE UNION NUT	PR-8535	1
39	UNION NUT O-RING (THREAD)	PR-8535C	1
40	UNION NUT O-RING	PR-8535B	1
41	UNION NUT SEAL	PR-8535A	1
42	WASHER	PR-8532	1
43	TOP SCREW	PR-8531A	1
44	CONTROL ROD COMPLETE	PR-20274ACM	1
45	LOCK NUT	21094	1
46	LEVER CUP	42631	1
47	SPLIT PIN	PR-8559	1
48	LOWERING ARM	PR-8558	1
49	PIN	PL-20275	2
50	BUSHING	PL-20306	2
51	SPLIT PIN	PL-90569E	1
52	CONTROL LEVER	PL-20274BD	1
55	CAP	PL-20274E	1
56 *	COMPLETE HANDLE	PR-20276TDE	1
57	RELIEF VALVE	PR-8557	1
58	O-RING	PR-8557B	1
59	O-RING	PR-8557A	1
61	SUCTION LINE	1143999	1
62	FITTING	PR-8563	1
63	ELBOW FITTING	1144002/001	1
65	RETURN LINE	PR-8048	1
66	GROMMET	11813-04	1
67	BUTTON HOUSING	PR-20275	1
68	MACHINE SCREWS	5-011-003	2
69	ERGO-PUMP VALVE KIT (NOT SHOWN)	PR-8575	1
70	ERGO-PUMP SEAL KIT (NOT SHOWN)	PR-8577	1

ELECTRICAL COMPONENTS

Item No.	Description	Part Number	Quantity
1	BATTERY CHARGER	1134731	1
2	CABLE CLAMP	1-074-087/005	1
3	BATTERY CONNECTOR	49854-09	3
4	LIFT BUTTON	PC-3017	1
5	HYDRAULIC POWER PACK	1160927/001	1
6	HARNESS (MAIN)	1130733	1
7	14 IN. BATTERY CABLE	1099187/018	1
8	20.5 IN. BATTERY CABLE	1099187/019	1
9	TERMINAL COVER	301253-000	2
10	REMOTE CONNECTOR/HARNESS	1130732	1
11	SOLENOID	22226-02	1
12	GROMMET	11813-23	2
13	CABLE CLAMP	15677-11	1
14	FUSE	590-587/105	1
15	STANDOFF	307371-000	1
17	DESCENT VALVE (NOT SHOWN)	PR-8574	1
18	LUG SET, BATTERY CONNECTOR (NOT SHOWN)	49852-08	3

ERGONOMIC 3000 WARRANTY

The Lift-Rite Ergonomic 3000 is warranted against defects in materials and workmanship for a period of one (1) year from date of installation for non-wearable components and for three (3) months for wearable components from date of installation.

Wearable Components include but are not limited to:

- Wheels, Rollers, and Bearings
- Non-Stationary Hoses and Cables
- 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. Local taxes, if any, are excluded.

This warranty is void in the event of defects or damage caused by misuse, abuse, or accident.

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.

LIFT-RITE®

HAND PALLET TRUCKS • EASY LIFT • ERGONOMIC 3000

Matching of people and Machinery Requirements