

Installation, Operation and Service Manual
IMPORTANT: READ CAREFULLY BEFORE INSTALLING OR OPERATING LIFT



Toll Free 877-515-8297

PT Series

Standard Hand Pallet Trucks

Model Number _____

Serial # _____

Date placed in service _____

Part orders are subject to a \$50 minimum charge.

Manual updated June 2010

This manual was current at the time of printing. To obtain the latest, most updated version, please contact LiftCOA Service Department or go to our website: www.LiftCOA.com -- you will find a complete list of current owner's manuals to print.

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Table 1. Lift Items

No.	Description	Qty			
1.1	Handle assy	1			
1.2	Pump assy.	1	20	Shaft	2
2	Spring pin	2	21	Load wheel frame	2
3	Bearing	1	22	Spring pin	2
4	Spring pin	2	25	Shaft	2
5	Pressure plate	1	26	Shaft	2
6	Circlip	1	28	Single load wheel assy.	
7	Wheel shaft	1	37-8E	Bearing	6
9	Washer	2	27	Washer	2
10	Steering wheel assy.	2	37-5	Dust ring	6
10.1	Nylon wheel	2	37-7	Circlip	6
10.2	PU cover cast iron	2	37	Load sheel	2
10.3	Rubber cover aluminum	2	27-1	Washer	4
10.4	PU cover aluminum	2	27-A	Bush	4
11	Circlip	2	37-3B	Wheel plate	2
12	Arm pin	2	37-2B	Nut	2
13	Left arm	1	37-2A	Shaft	2
14	Copper bush	2	29	Tandem load wheel assy.	
14.1	Copper bush	2	30	Circlip	2
14.2	Copper bush	2	31	Long shaft	1
14.3	Copper bush	4	32	Fork body	1
14.4	Copper bush	2	33	Circlip	4
15	Spring pin	2	34	Entry roller	2
16	Push pod	2	35	Shaft	2
17	Spring pin	4	36	Cap of bearing	1
18	Exit roller	4			
19	Spring pin	2			

Figure 1. Lift Exploded View

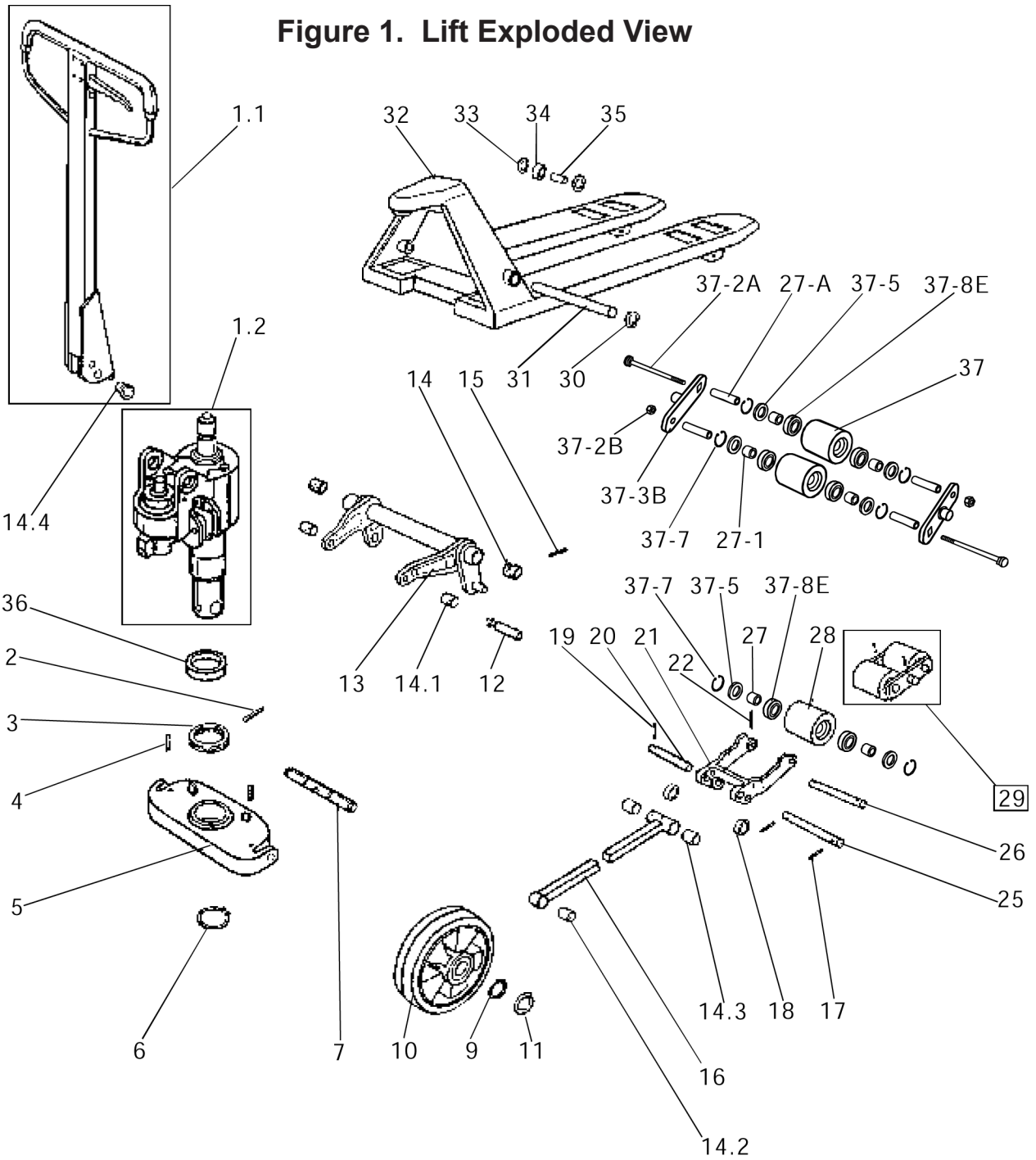


Figure 2. Pump and Handle Exploded View

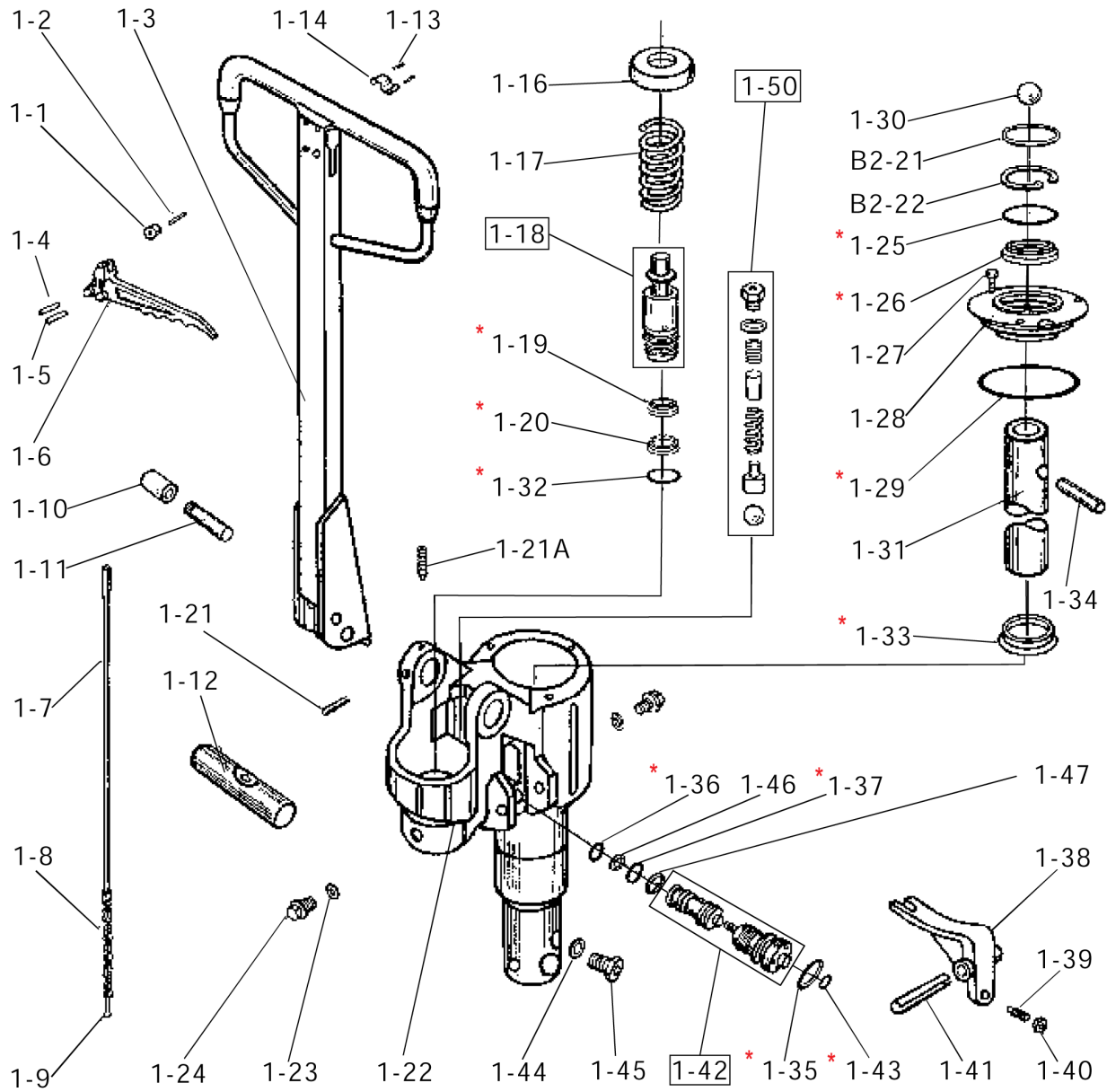


Table 2. Pump and Handle Items

No.	Description	Qty			
1-1	Stop rubber	1	1-26	Seal UN32	1
1-2	Spring pin	1	1-27	Screw	1
1-3	Handle	1	1-28	Pump cap	1
1-4	Spring pin	1	1-29	O-ring P62	1
1-5	Spring pin	1	1-30	Ball	1
1-6	Lowering level (inger tip)	1	B2-21	Washer	1
1-7	Linkage	1	B2-22	Circlip	1
1-8	Chain	1	1-31	Cylinder	1
1-9	Chain rod	1	1-32	O-ring P31	1
1-10	Pressure roller	1	1-33	Seal UN32	1
1-11	Shaft	1	1-34	Pin	1
1-12	Shaft	1	1-35	O-ring	1
1-13	Spring pin	1	1-36	O-ring	1
1-14	Spring plate	1	1-37	O-ring	1
1-16	Spring cap	1	1-38	Activator	1
1-17	Spring	1	1-39	Bolt	1
1-18	Plunger assy.	1	1-40	Nut	1
1-19	Seal DH18	1	1-41	Spring pin	1
1-20	Seal DH18	1	1-42	Valve assy.	1
1-21	Screw	1	1-43	O-ring	1
1-21A	Spring pin	1	1-44	Washer	1
1-22	Pump body	1	1-45	Bolt	1
1-23	Washer	2	1-46	PU washer	1
1-24	Screw plug	2	1-47	PU washer	1
1-25	O-ring	1	1-50	Overload valve assy	1

Instruction

Raised Position

Depress the lever and pump handle until pallet has reached the desired height. A clearance of 1" between the floor and pallet is usually sufficient to move the load. Do not lift load with one fork or extremity of forks.

Neutral Position

The neutral position is found between the raise and lower position. This neutral (drive) position disengages the lifting mechanism making the handle free from hydraulic resistance and becomes almost weightless, yet the forks retain their raised position. Always use the neutral position when moving a load.

Lowered Position

Pull the lever up to lower the forks. The lever is spring loaded for lowering only, therefore when you release the lever it will automatically return to the neutral position.

WARNING

For safe operation of Hand Pallet Truck, please read the following instructions:

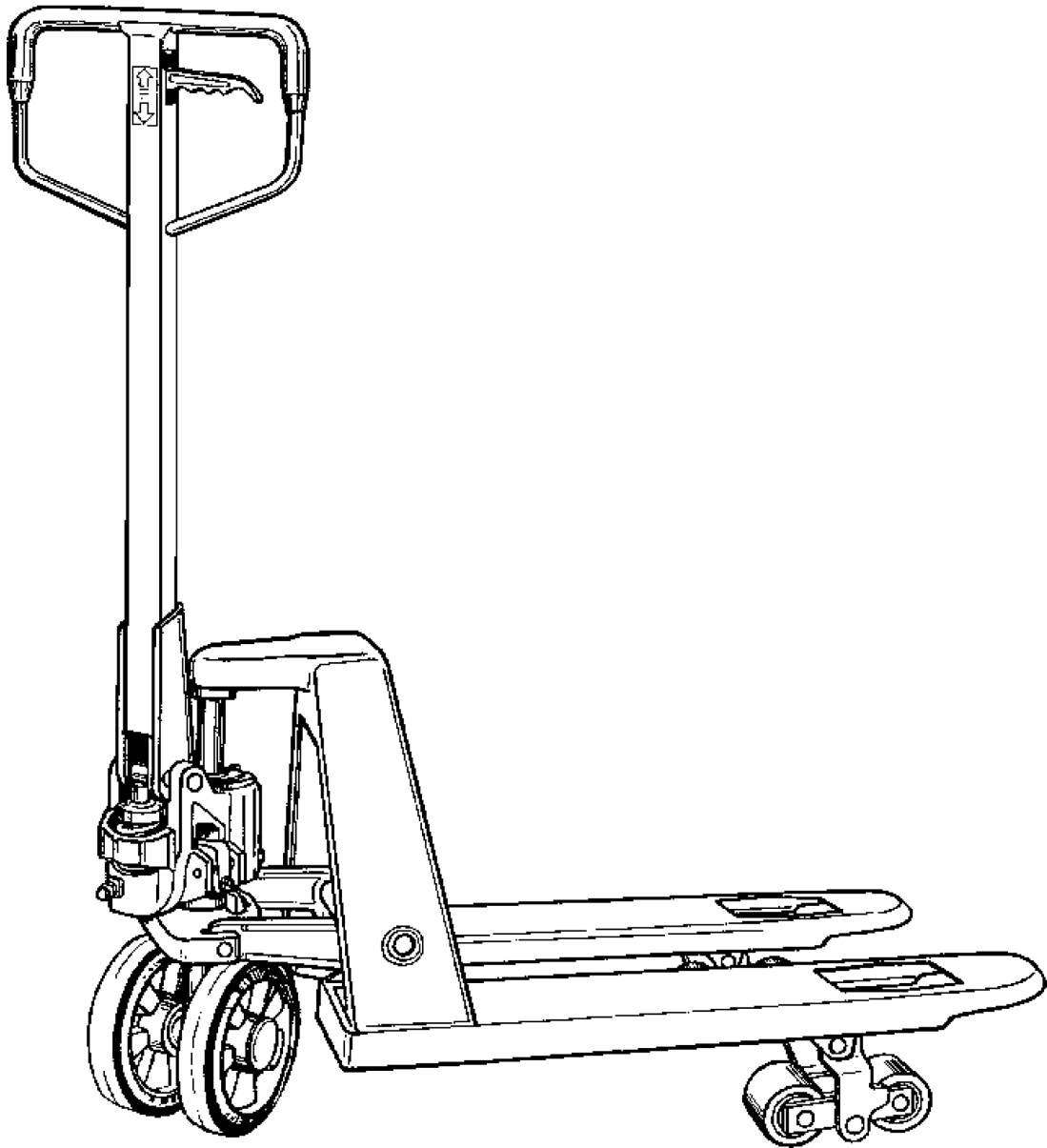
1. Do not operate the Hand Pallet Truck unless you are familiar with it and have been trained and authorized to do so. Read all warnings and instructions in this manual and on the machine.
2. Do not operate the Hand Pallet Truck until you have checked its condition. Give special attention to the wheels, handle, forks, lift, and lower control. Do not operate damaged or faulty trucks. Do not attempt repairs unless you are trained and authorized to do so.
3. Operate Hand Pallet Trucks only from the designated operating position. Never place any part of your body in the lifting mechanism or under the

forks or load. Do not carry passengers.

4. Do not handle unstable or loosely stacked loads. Use special care when handling long, high, or wide loads to avoid losing the load, striking bystanders, or tipping the trucks.
5. Do not overload the truck. Check capacity plate for carrying capacity information. Overloading may cause truck to perform incorrectly.
6. The capacity of the Hand Pallet Truck assumes an evenly distributed load with the center of the load being at the halfway point of the length of the forks.
7. Make sure the length of the forks match the length of the pallet. Using a pallet truck where the forks are longer than the pallet will damage the truck if the pallet truck is pushed through the pallet and the forks are under a second pallet behind the one being lifted. When lowering the load, make sure the area beneath the pallet is clear.
8. Observe traffic regulations. Yield right of way to pedestrians. Stop at cross aisles.
9. Hand Pallet Trucks are for general operation on level, flat hard surfaces.
10. It is recommended that the operator wear security shoes when using the Hand Pallet Truck.

Failure to follow these instructions may cause serious injury to the operator or others

Service Manual



The principle of hydraulic pump

(See figure 1-1)

Lifting

1. Put finger tip (1-6) on Lifting Position; Lift handle, hydraulic oil flow from oil tank through channel A; Ball A open; Oil flow to piston through channel B.

2. Press handle; Ball A closed, Ball B open; Oil flow to cylinder from piston through channel B and channel C; Cylinder lifted; Truck lifted.

Lower

1. Put finger tip (1-6) to Lowered Position

2. Part 1-39 move at D1 direction; Ball A and ball B open; Oil flow to oil tank from cylinder through channel C, ball B, and channel A.

Transport

1. Put finger tip (1-6) to Neutral Position; Part 1-39 move at D1 direction; Ball A open.

2. Lift handle; Oil flow to piston from oil tank through channel A.

3. Press handle; Oil flow to oil tank from piston through channel B, ball A and channel A.

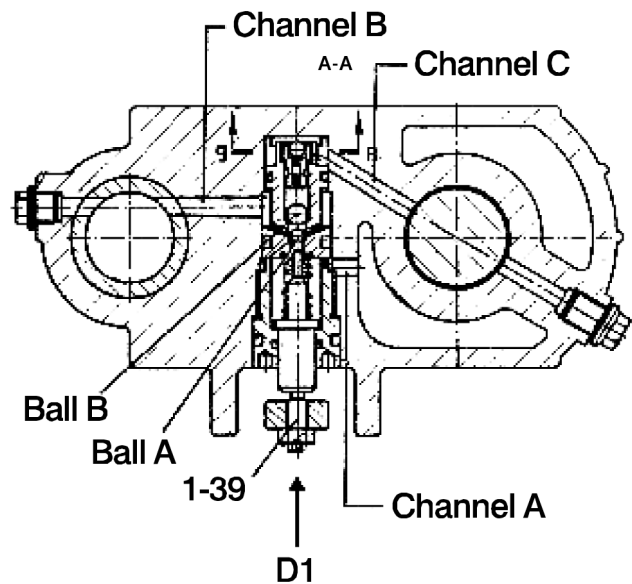
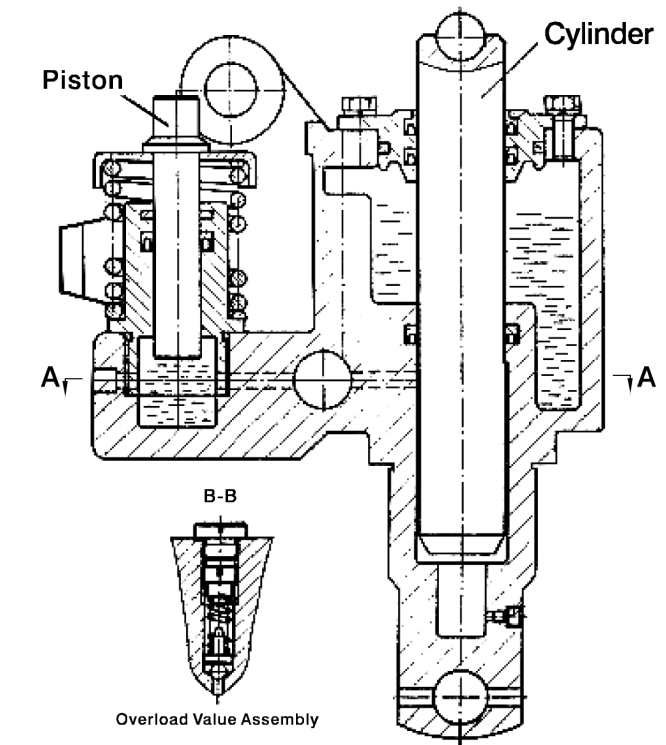


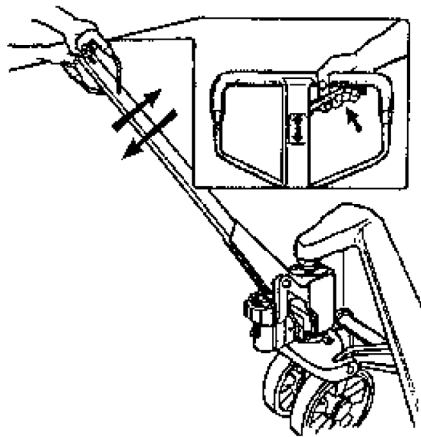
Figure 1-1. Cut-away pump diagram

Troubleshooting

1. Truck will not lift

1.1: Release the air in pump

Put the finger tip to lower position. Pump handle about 10 times.

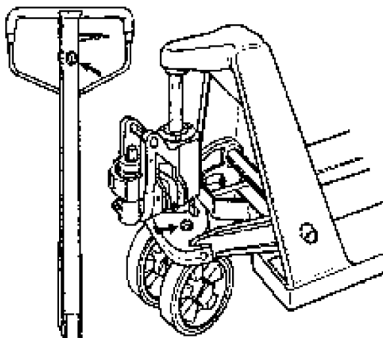


1.2: Check the chain (1-8)

Check chain (1-8), if it doesn't cross the shaft 1-12, please refit it.

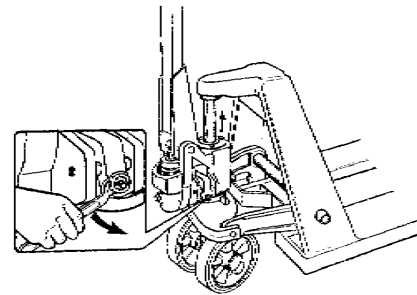
1.3: Check symbol

Symbol on handle (1-3) and pump (1-5) must be the same.



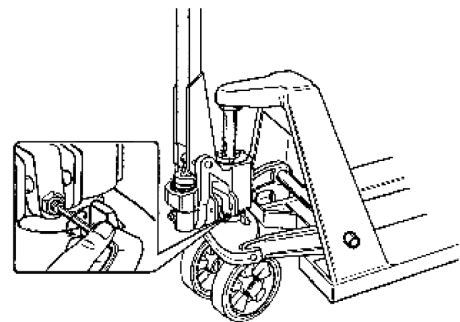
1.4a-c: Adjust the valve

1.4a: Release screw (1-40)



1.4b: Screw nut

(1-39) in a circle circle along counterclockwise direction

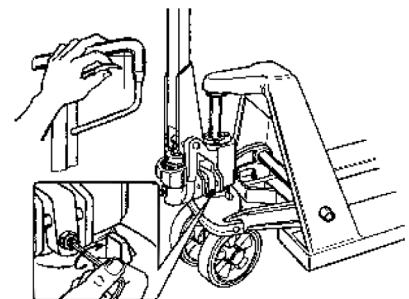


1.4c: Check if it can be lifted

If it still does not lift, move to step 1.5.

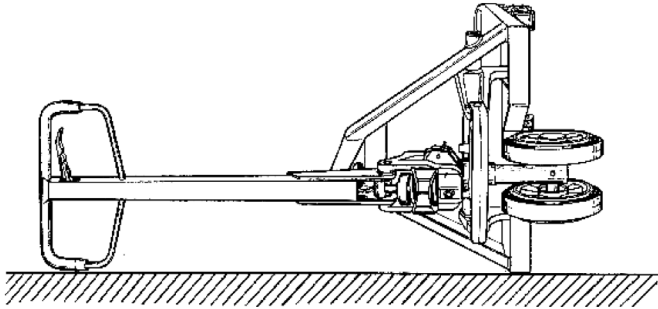
If the truck lifts:

1. Lift the truck to the top position
2. Put the fingertip to 1.4c position; screw nut (1-39) counterclockwise until the Hand Pallet Truck starts to lower.
3. Screw 1-40

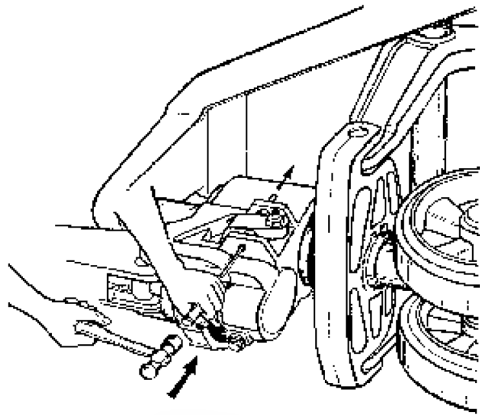


1.5a-e: Replace Valve Assembly (1-42)

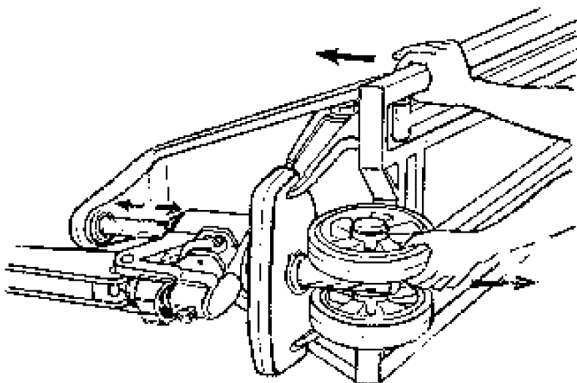
1.5a: Place the truck on its side



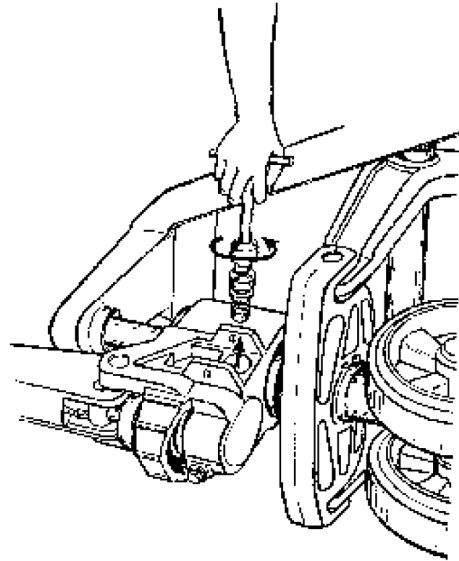
1.5b: Hit out spring pin (1-14) and take off lowering level (1-38)



1.5c: Take the cylinder to the top position

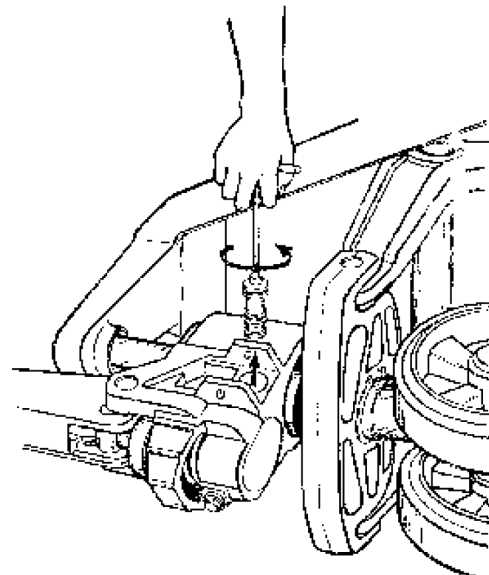


1.5d: Screw out copper brush of valve assembly (1-42)



1.5e: Take out valve core of valve assembly (1-42)

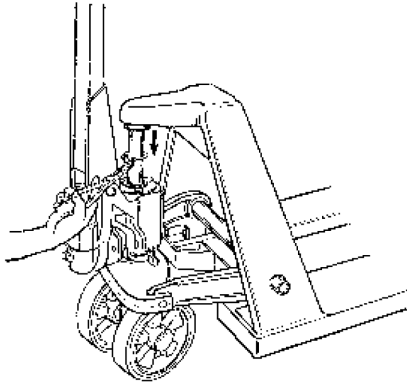
1. Install new valve assembly (1-42) including copper brush, valve.
2. Fit spring pin (1-38)
3. Repeat step 1.4



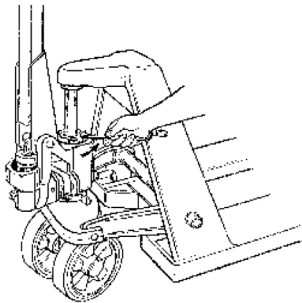
2. Lift drops automatically

2.1a-h: Renew Seal (1-33)

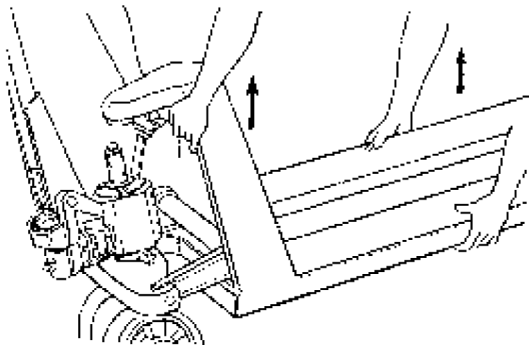
2.1a: Take out circlip B2-22



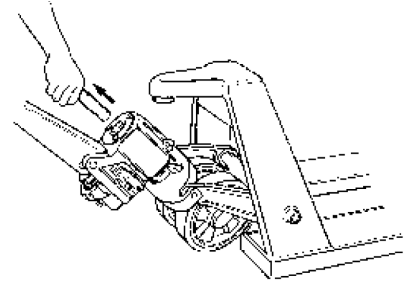
2.1b: Screw off 1-27



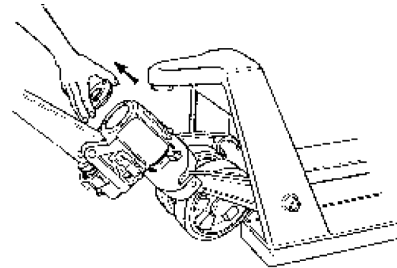
2.1c: Take pump off from truck body



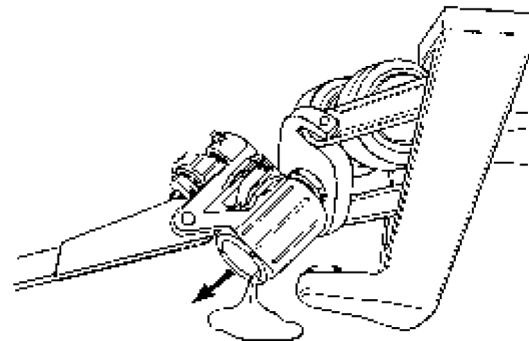
2.1d: Take out piston cylinder (1-31)



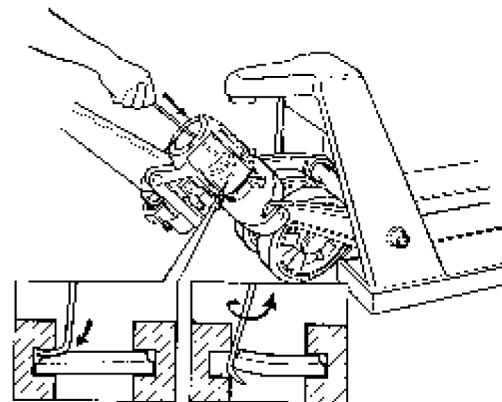
2.1e: Take cap off pump



2.1f: Pour out oil



2.1g: Renew Seal (1-33)



2.1h: Pour in new oil

3. Lift will not drop

3.1 Check the chain (1-8)

1. Replace a broken chain
2. Check the shaft (1-12) and screw (1-21). Be sure the shaft (1-12) is fixed on pump body by screw (1-21). If shaft (1-12) is not fixed, the chain will be damaged by handle operation. If the chain and shaft have no problem, continue to step 3.2.

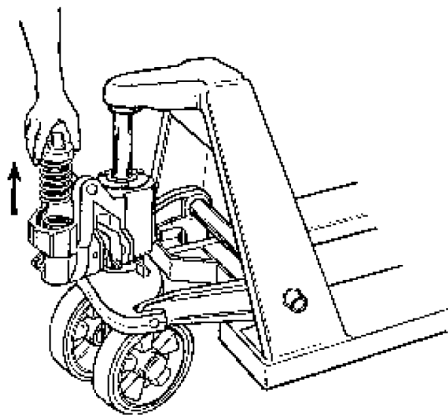
3.2: Replace valve assembly (1-42)

Refer to step 1.5

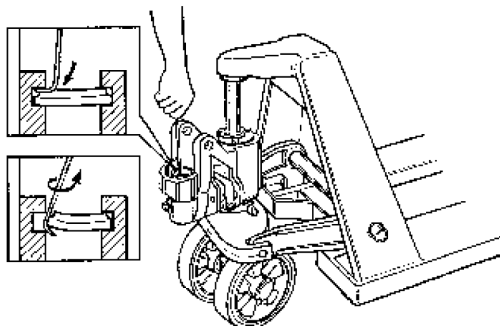
4. Pallet Truck is leaking

4.1a-b: Leak from piston

4.1a: Take out 1-17

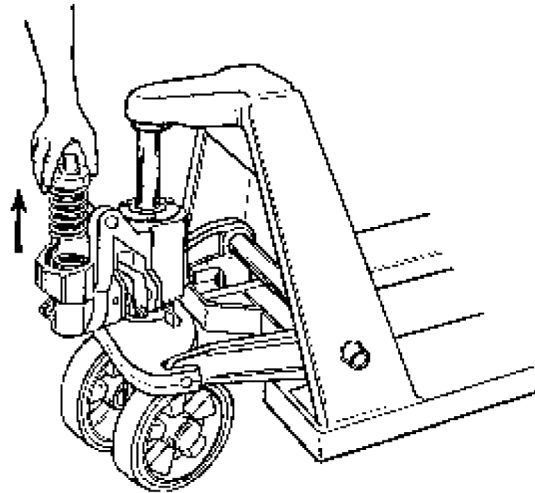


4.1b: Renew seal 1-19 & 1-20

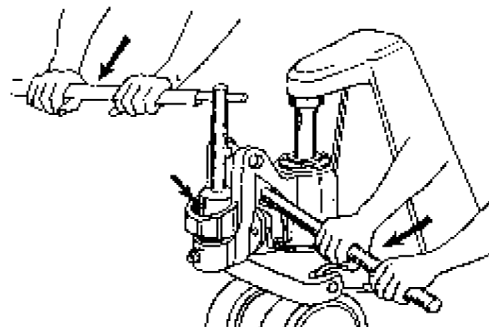


4.2a-c: Leak from piston carriage

4.2a: Take out 1-17



4.2b: Take out 1-18

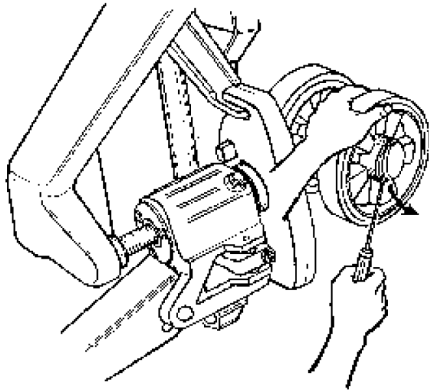


4.2c: Renew seal 1-32

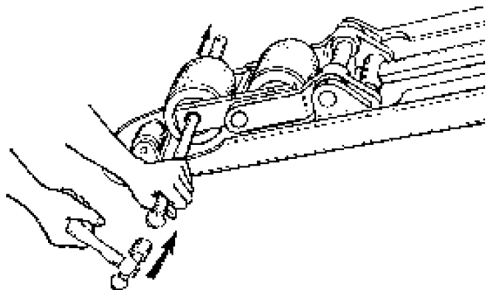
5. Wheel problem

5.1a-c: Problem of steering wheel

5.1a: Take off the wheel cap



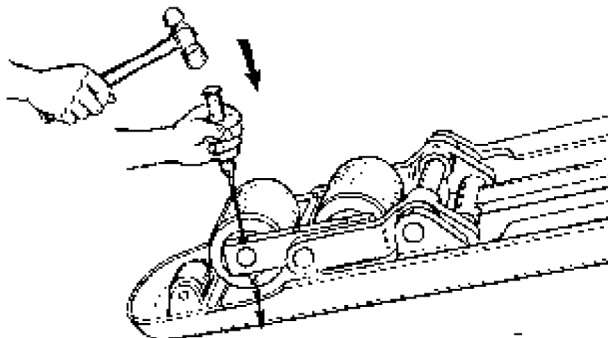
5.1b: Take out circlip 11



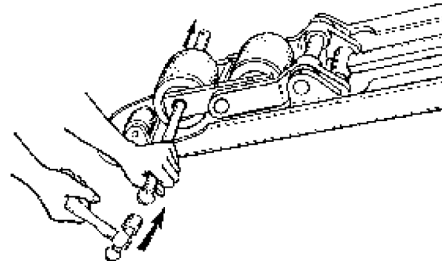
5.1c: Change steering wheel

5.2a-c: Change load wheel

5.2a: Take out spring pin 22 & 23 & 24



5.2b: Hit out shaft

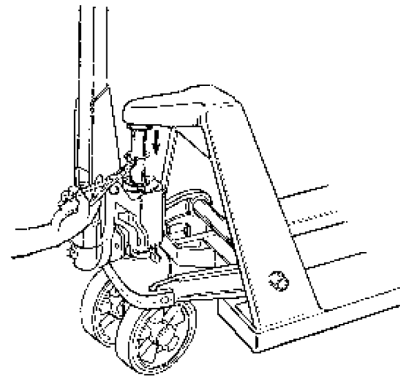


5.2c: Change load wheel

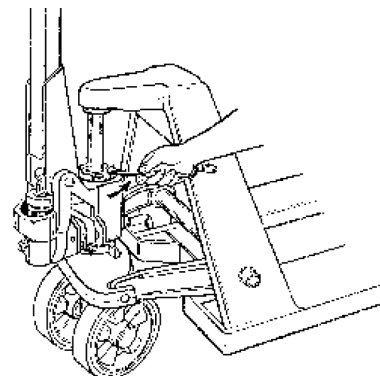
6. Change or add oil

6.1a-g: Change oil

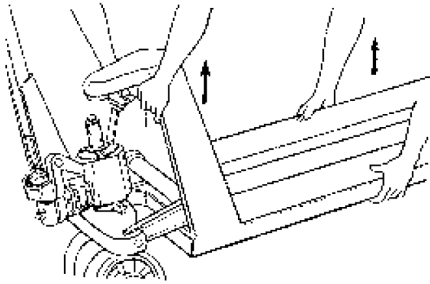
6.1a: Take out circlip B22-2



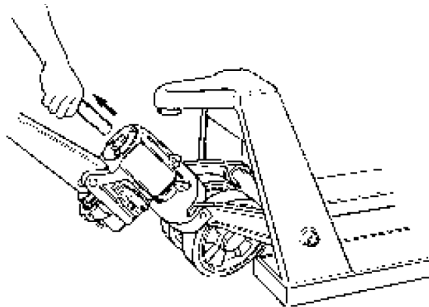
6.1b Screw off 1-27



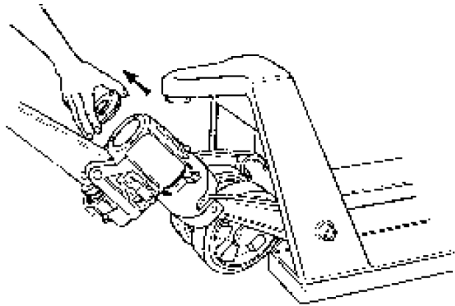
6.1c: Take pump off of truck body



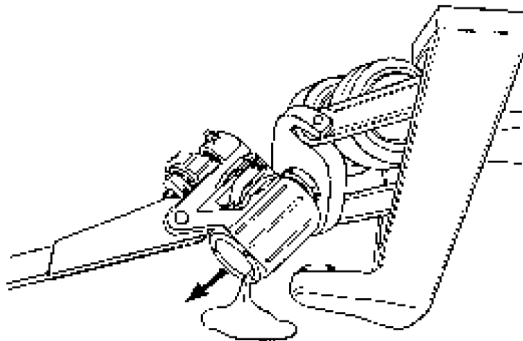
6.1d: Take out piston cylinder



6.1e: Take cap off of pump



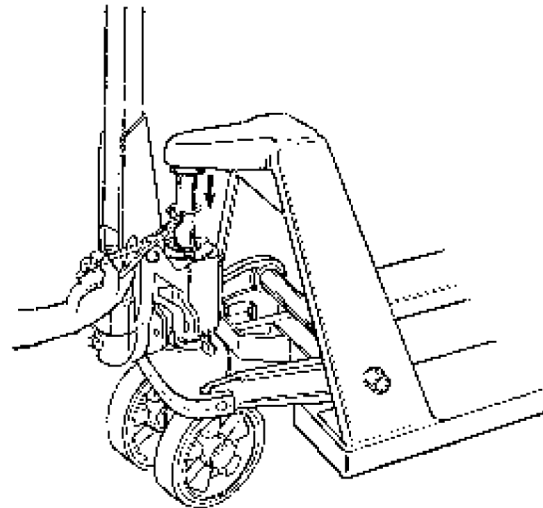
6.1f: Pour out oil



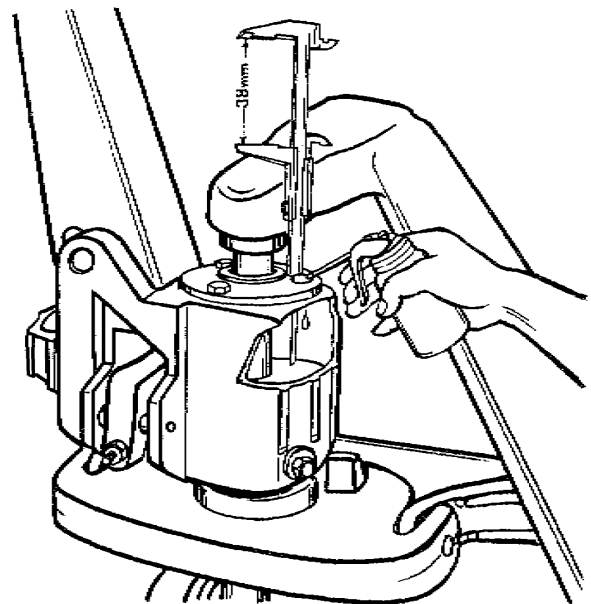
6.1g: Pour in new oil

6.2a-b: Add oil

6.2a: Unscrew 1-27



6.2b: Add oil



Three month maintenance schedule

1. Check oil level
2. Lubricate joints, pins, axles, pushrods, steering wheel bearings with good molybdenum type grease.

Ordering Replacement Parts

LiftCOA has carefully chosen the components in your unit to be the best available for the purpose. Replacement parts should be identical to the original equipment. LiftCOA will not be responsible for equipment failures resulting from the use of incorrect replacement parts or from unauthorized modifications to the unit.

LiftCOA can supply all replacement parts for your lift. With your order, please include the model number and the serial number of the unit. You can find these numbers on the name plate. This plate is located within the scissors mechanism.

To order replacement parts, please call the LiftCOA Parts Department. Parts are shipped subject to the following terms:

- FOB factory
- Returns only with the approval of our parts department.
- Credit cards preferred (except parts covered by warranty).
- Freight collect for truck (except parts covered by warranty).
- Freight – prepaid and invoice for small parcel shipments (except parts covered by warranty).

Parts replaced under warranty are on a “charge-credit” basis. We will invoice you when we ship the replacement part, then credit you when you return the worn or damaged part.

LiftCOA Parts Department

PO Box 124
Greensburg, IN 47240

Telephone: 812-222-2005

FAX: 812-222-2013

www.LiftCOA.com

RESTOCKING POLICY

LiftCOA's goal is for you to be satisfied with your order. Merchandise may be returned, but returns will be subject to a restocking fee to cover the costs LiftCOA incurs which include but are not limited to handling, storage of the units, etc. LiftCOA will issue refurbishing costs where end-user wear is apparent. We would prefer to not charge for these costs but find it necessary any apologize for any inconvenience. Please review the RETURN MATERIALS AUTHORIZATION (RMA) PROCEDURES.

PARTS

Standard parts may be returned with a 20% restocking fee. Modified or custom-engineered parts are not returnable. Unfortunately, due to potentially concealed damage, all sales of electrical assemblies are final.

QUALITY ISSUES

Should you feel there is a quality problem, please contact the seller to ask questions and gather information on how to rectify the issue. LiftCOA reserves the right to determine potential credits, as a result of factory defects, based on its inspection of the merchandise.

GENERAL

All products shipped from our factory have passed Quality Assurance inspection and testing. The carrier of choice has signed for, and accepted the product in new working condition. The customer should inspect to ensure it is not received damaged, has no concealed damage or is not incomplete. Parts orders are determined to be complete based upon LiftCOA inspection sheets and carrier shipping weights.

RETURN MATERIALS AUTHORIZATION (RMA) PROCEDURES

Although LiftCOA is not legally obligated to issue a credit for any merchandise, the RETURN MATERIALS AUTHORIZATION (RMA) PROCEDURE is provided as a courtesy to our customers in the event they do not receive what they wanted.

If a customer wishes to return a LiftCOA product, the first step in the process is to request an RMA number from LiftCOA's Customer Service Department. This request must be made on or before the thirtieth (30th) calendar day following the date of LiftCOA's invoice for the merchandise being returned.

The RMA number must appear on the outside of any packaging material for a return to be accepted and processed by LiftCOA. Customers shipping returns back to LiftCOA from the Continental US, Canada and Mexico have fourteen (14) days from the effective date of the RMA to have the merchandise arrive freight prepaid at LiftCOA. Returns from locations other than the Continental US, Canada and Mexico must be shipped within the fourteen (14) day period to arrive Free On Board (FOB) at LiftCOA as soon as practical. If a customer believes LiftCOA's merchandise is defective, freight will be reimbursed to the original "Bill To" on the invoice if LiftCOA finds that the merchandise is defective.

Please remember that merchandise with RMA's coming back to LiftCOA from the Continental US, Canada and Mexico will not be accepted by LiftCOA if the returned goods do not arrive freight prepaid at LiftCOA within the fourteen (14) day effective period.

All credits issued are less restocking fees as applicable, plus any assessed outbound/inbound in-transit damages.

Return addresses: please refer to your RMA for the address to which your product should be returned.

LiftCOA
PO Box 124
Greensburg, IN 47240

Telephone: 812-222-2005

FAX: 812-222-2013

www.LiftCOA.com

LiftCOA Limited Warranty Policy

LiftCOA warrants all of its products against defects in the welded structural frame and, if applicable, scissor legs from faulty material and workmanship for a period of five (5) years from the date of invoice.

A lifetime limited warranty is provided for the Airstroke Actuator™ in all pneumatic lifts against any defect due to faulty material or workmanship.

All batteries are covered under a separate limited warranty from the battery manufacturer for a period of one year from the date of invoice.

All other components have a limited warranty against defects in faulty material and workmanship for a one (1) year period from the date of invoice and 30 day limited warranty on labor. Please note that prior authorization from LiftCOA is required on all warranty work.

There are no implied warranties of any kind, more specifically, there are no warranties of merchantability or fitness for any particular purpose. LiftCOA's sole warranty shall be as set forth in this limited warranty.

LiftCOA will elect to repair or replace a defective component without charge, if any components should become defective within the limited warranty period. Proof of purchase is required for warranty. The charge for shipping the defective component is the responsibility of the buyer and must be accompanied with an RGA number. The shipping charge to return the component to the buyer is the responsibility of LiftCOA.

This limited warranty does not cover labor expense for removal or reinstallation of components after thirty days. This limited warranty shall not cover, among other things: damages resulting from foreign matter or water, failure to provide reasonable and necessary maintenance, and if applicable, use of product while charger is plugged into an AC outlet, or failure to follow operating instructions. The limited warranty is not valid for damage resulting from negligence, accident, unreasonable use, abuse or misuse, exceeding data plate capacities or altering the product without LiftCOA authorization.

LiftCOA expressly disclaims and excludes any liability for consequential, incidental, indirect or punitive damages or financial loss to people or property resulting from any breach of warranty or the operation or failure of this product.

LiftCOA makes no representation that this product complies with local, state, or federal safety/product standards codes. Should this product fail to comply in any way with those codes, it shall not be considered a defect of materials or workmanship. LiftCOA shall not be held liable for any damages resulting from noncompliance. It is the dealer's responsibility to exercise this limited warranty. This limited warranty is provided to the original purchaser (defined as the original end user) and is nontransferable. This constitutes the complete and final agreement involving LiftCOA and limited warranty obligations for products.