

SOUTHWORTH

**Maintenance Manual
& Operator Instructions**

Pallet Lift Truck

PT-33-M & PT-33-E

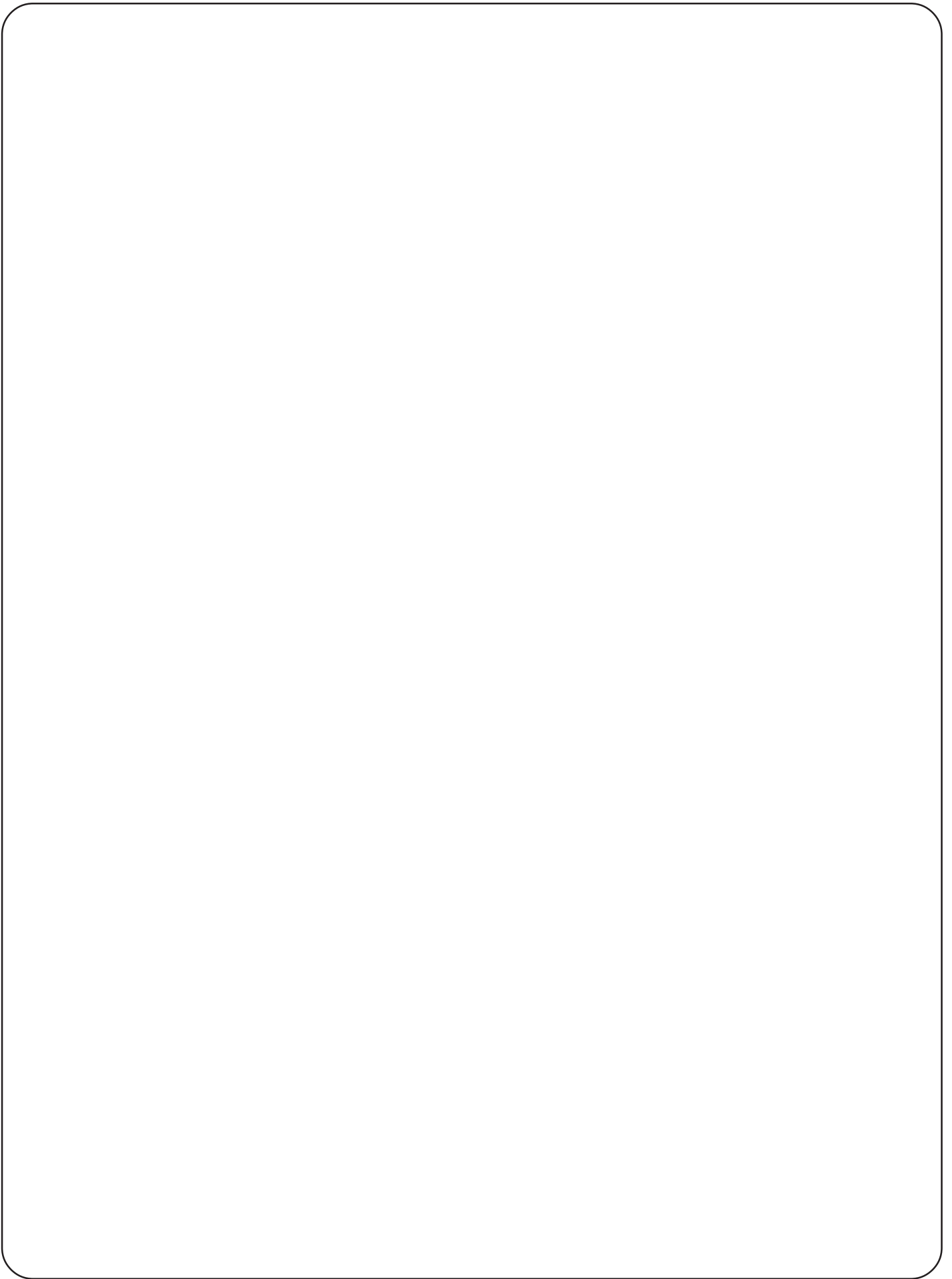


Model # _____

Serial # _____

SOUTHWORTH PRODUCTS CORP
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Telephone: (207) 878-0700 or (800) 743-1000
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January 2009



Contents

INTRODUCTION 4

SAFETY 4

 How to operate the Pallet Lift Truck 5

 Avoid overloads. Avoid offset loads 6

 Operator precautions 7

THE BATTERY 9

 Preparing to charge the battery 9

 Precautions for grounding 9

 Battery charging precautions and warnings 10

 Battery maintenance 10

ELECTRICAL 11

 Fuse replacement 11

 Wiring connections 12

LUBRICATION AND HYDRAULIC OIL 13

 Oil Change 13

CLEANING 14

TROUBLESHOOTING 14

ORDERING REPLACEMENT PARTS 15

RETURN MAT'LS AUTHORIZATION (RMA) PROCEDURE 19

2 YEAR WARRANTY 20

List of Figures

Fig. 1 Chassis components 16

Fig. 2 Cylinder & handle components 17

Fig. 3 Hydraulic pump components 18

Fig. 4 Electrical diagram 18

Introduction

This manual contains instructions on the safe and proper installation, use, and maintenance of the Southworth Pallet Lift Truck. Be sure that this manual is available to the people who install, use, or service the unit. Be sure that all personnel read this manual before they install, use, or service the unit.

Pallet Lift Truck units may be used in a wide variety of industrial settings. The instructions in this manual are not necessarily all-inclusive, as Southworth cannot anticipate all conceivable or unique situations. *In the interest of safety, please read this whole manual carefully. Please understand the material in this manual before you install, use, or service the Pallet Lift Truck. If you have any questions about any of the instructions in this manual, please contact Southworth Products Corp.*

Southworth's product warranty is shown on page 20 of this manual. This instruction manual is *not intended to be or to create any other warranty, express or implied, including any implied warranty of*

merchantability or fitness for a particular purpose, all of which are hereby expressly excluded. As set forth more specifically in the product warranty, Southworth's obligation under that warranty is limited to the repair or replacement of defective components, which shall be the buyer's sole remedy, and Southworth shall not be liable for any loss, injury, or damage to persons or property, nor for any direct, indirect, or consequential damage of any kind resulting from the Pallet Lift Truck. The Pallet Lift Truck is manufactured in accordance with ANSI Standard B56.10 and PREN 1757-1.

Among the subjects dealt with in this owner's manual are:

- *Proper application*
- *Physical limitations of the product*
- *Risks with improper use*

Please read this Owner's Manual carefully!

Safety

The safety of all persons installing, using, servicing, or working near the Pallet Lift Truck is of paramount concern to Southworth. The Pallet Lift Truck unit is a powerful machine with moving parts, and is capable of causing personal injury if proper precautions are not taken.

Therefore, throughout this manual, Southworth has identified certain hazards which may occur in the use of the Pallet Lift Truck, and provided appropriate instructions or precautions which should be taken to avoid these hazards. In some cases, Southworth has also pointed out the consequences which may occur if Southworth's instructions or precautions are not followed. Southworth uses the following system of identifying the severity of the hazards associated with its products:

DANGER – Immediate hazard which will result in severe personal injury or death.

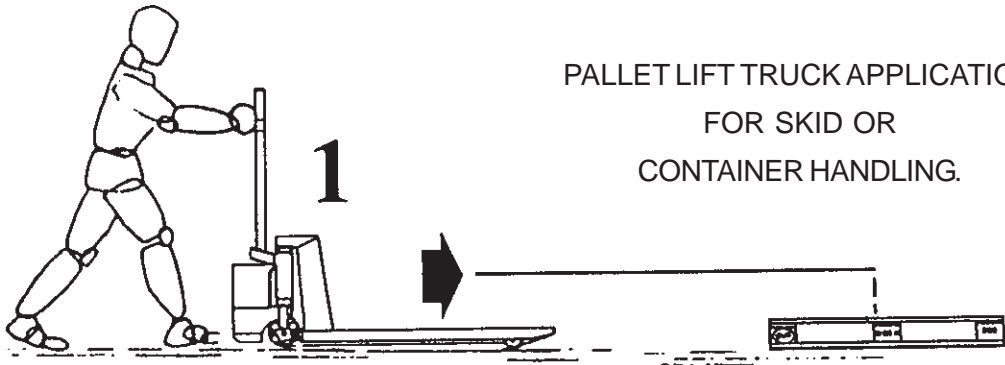
WARNING – Hazard or unsafe practice which could result in severe personal injury or death.

CAUTION – Hazard or unsafe practice which could result in minor personal injury or property damage.

Please read and follow this instruction manual, including all safety instructions and precautions, carefully and completely.

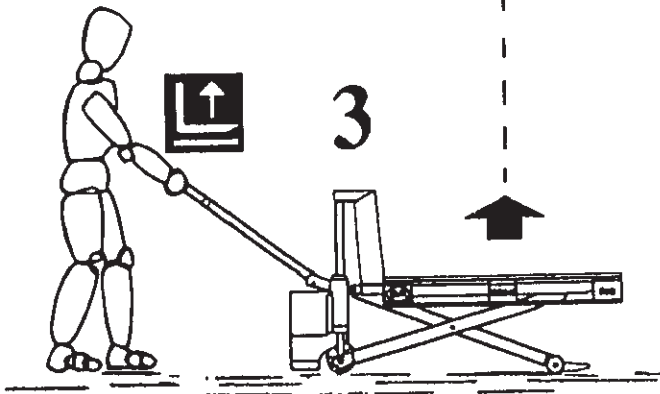
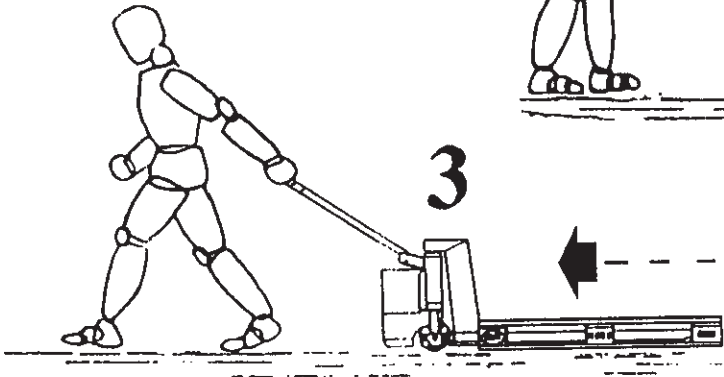
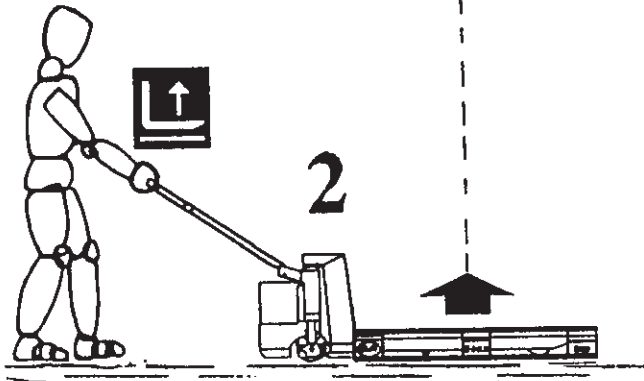
How to operate the Pallet Lift Truck

PALLET LIFT TRUCK APPLICATION
FOR SKID OR
CONTAINER HANDLING.



For proper operation,
stand behind the handle.

Push/pull - raise/lower



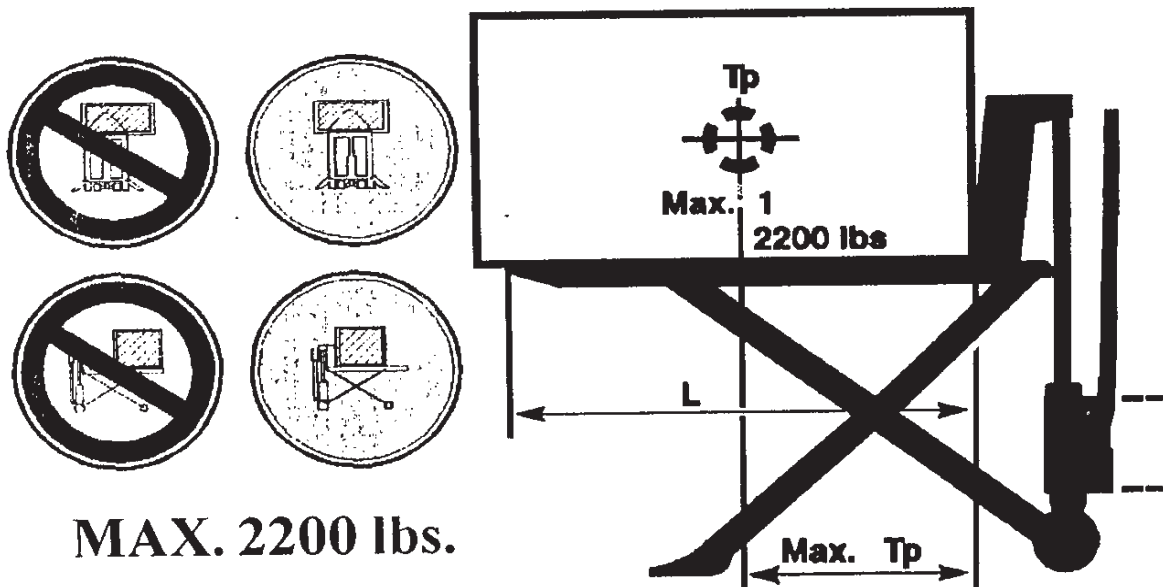
Optimum Safety

Avoid Overloads

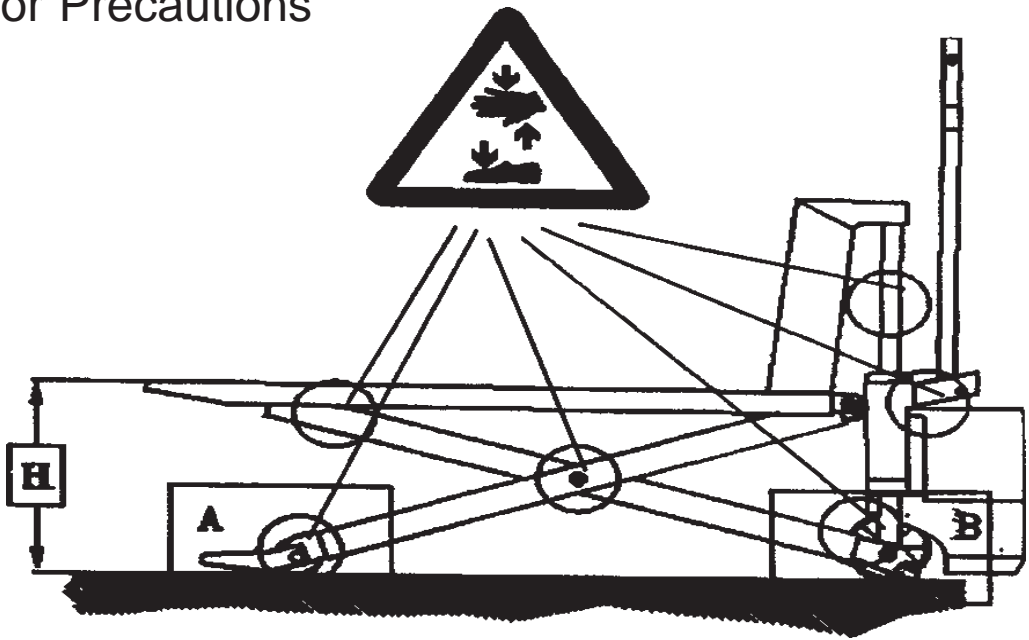
The maximum load must not be exceeded. Remember, the Pallet Lift Truck is designed for evenly distributed load - goods on pallet, etc. If the forks are point-loaded on one side, there is risk of bending.

Avoid Offset Loads

The load must be distributed evenly on pallets or similar. The maximum distance between the center of gravity of the load and the face of the mast is illustrated in Figure X. If the distance is exceeded the Pallet Lift truck might tip forward. Goods on pallets, etc. must be properly secured so that they cannot fall off during transport, when the truck is lifted, or when the truck must remain lifted for a time.

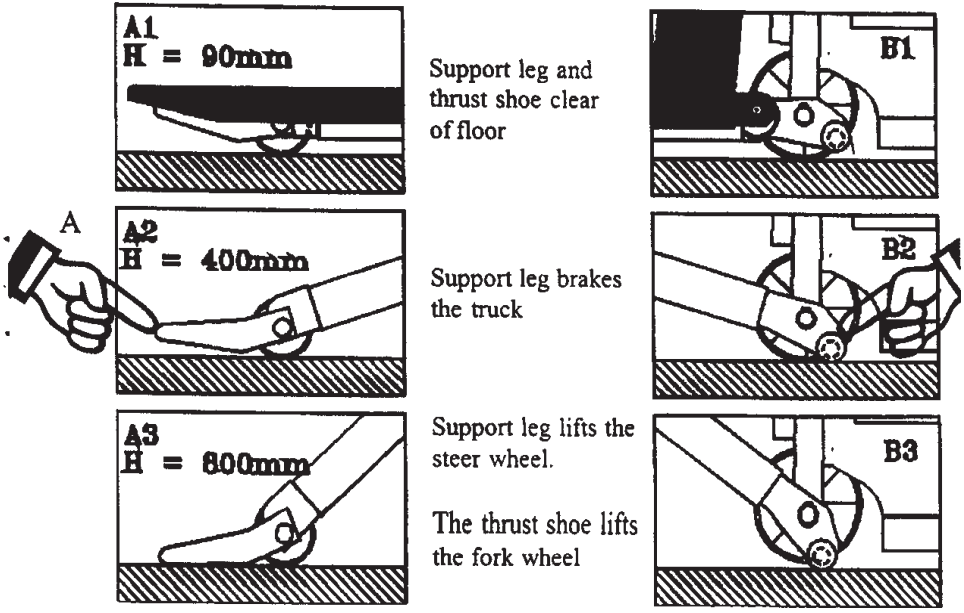


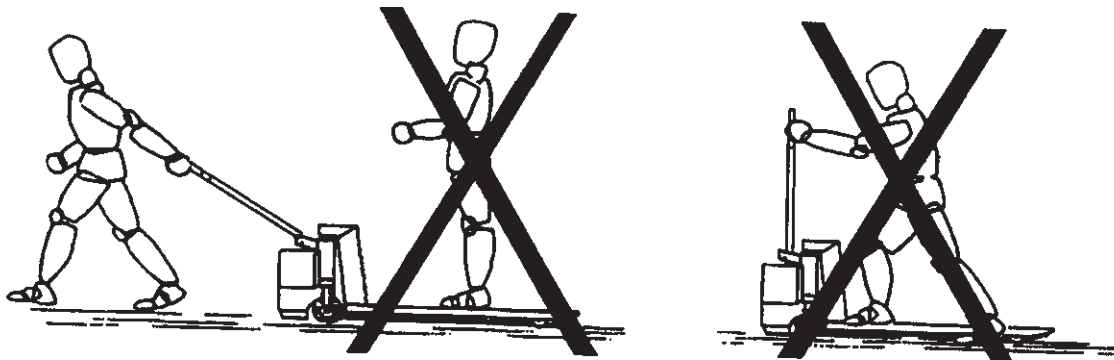
Operator Precautions



Stability Means Safety

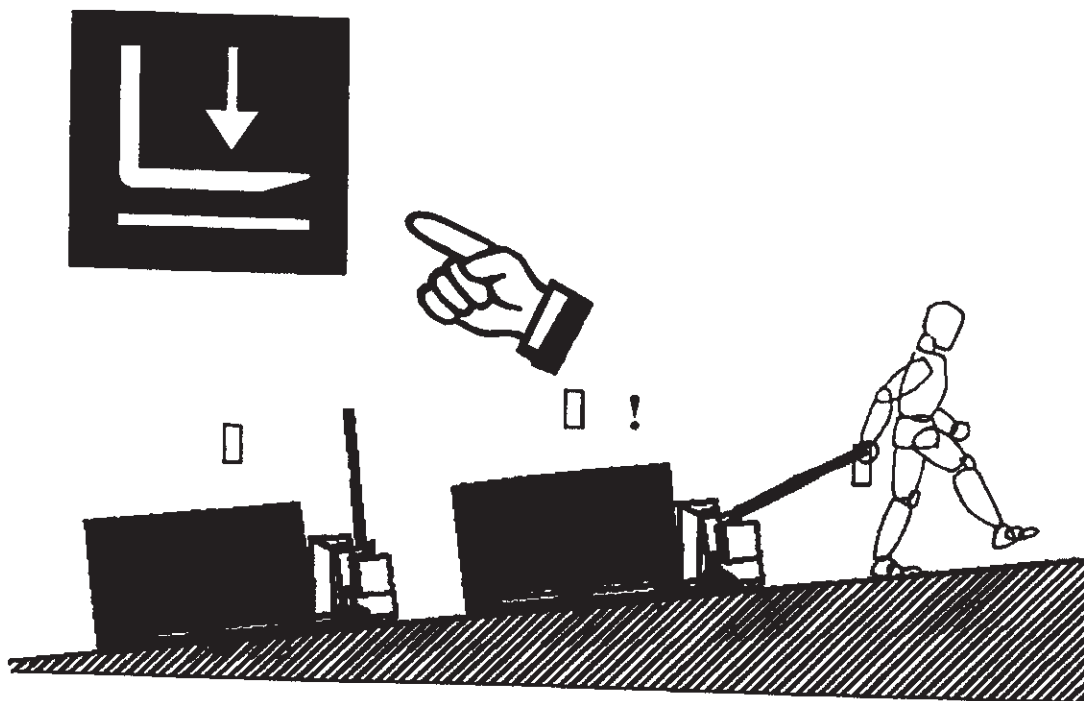
The support pins (B) and thrust shoes (A) together stabilize the truck when raised. It must not be possible to drive the truck when the fork height is more than 16 inches. The support legs are eccentric so that it is possible to adjust them as they wear.



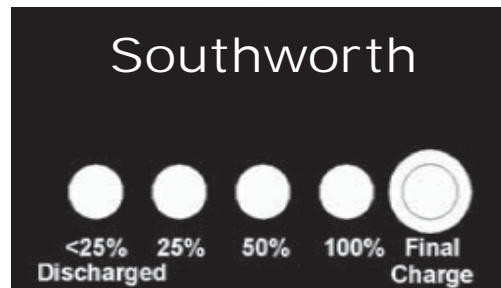


Emergency Braking

If it becomes necessary to use the load as a brake to prevent the Pallet Lift Truck from running loose, activate the DOWN button quickly until the load reaches the ground.



Preparing to charge the battery



BATTERY INDICATOR

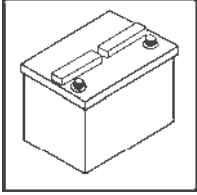
The battery indicator shows the battery charge in %. The most accurate reading can be obtained, when the battery has not been used for 5-10 minutes.

- Red:** Battery capacity: below 25% Discharged
Do not use the product, as the battery can be permanently damaged.
- Green:** Battery capacity: 25% - 100%
The product is ready for use and need not be charged.
- Yellow:** Charging lamp: Is lit during the last part of the charging.
- Final charge:** Indicates full charge

PRECAUTIONS FOR GROUNDING AND AC POWER CORD CONNECTION

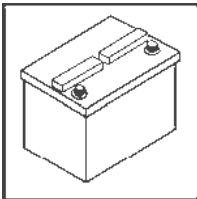
Charger should be grounded or have an insulated case to reduce risk of electric shock. If the charger is equipped with an electric cord having an equipment-grounding conductor and grounding plug (three prong plug). The plug must be plugged into an outlet that is properly installed and grounded in accordance with all local codes and ordinances.

DANGER – Never alter the AC cord or plug provided. If it will not fit the outlet, have the proper outlet installed by a qualified electrician. Improper connection can result in a risk of an electric shock.



BATTERY CHARGING

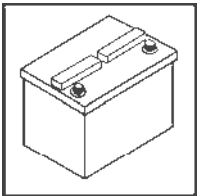
Charging must be performed with the charger that is provided and prewired into the machine. During charging, the temperature in the battery must not exceed 120° F. Charging simultaneously with truck operation is not recommended. Plug the charger into a 115V outlet. Charge until the battery gauge indicator lights show fully charged (approximately 6-8 hours).



WARNINGS AND INFORMATION ON BATTERY

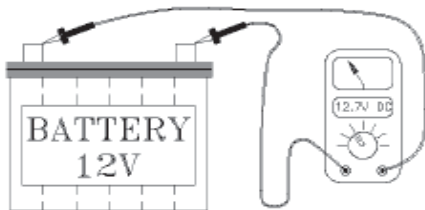
Avoid the use of open flame batteries. At temperatures around the freezing point, battery capacity is reduced by 30%. The battery terminals, connections and wiring should be clean and free of corrosion. When cleaning any of these components wear a face shield or other suitable protective eyewear.

Read, understand and follow all battery and battery charger manufacturer's specific precautions while working with and/or charging batteries. The battery used in this machine is an AGM (Absorbed Glass Mat) type and allows safe trouble-free performance. There is no need to add electrolyte. No special handling is required and it is classified as non-hazardous.



BATTERY MAINTENANCE:

To measure the voltage, use a voltmeter (DC) on the battery poles. The truck must not have been in use for the previous 30 minutes.

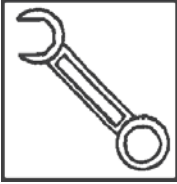


| | |
|----------------|---------------|
| Approx. 12.7 V | Fully charged |
| Approx. 12.2 V | 1/2 charged |
| Approx. 12.0 V | 1/4 charged |
| Approx. 11.6 V | Discharged |

**WARNING: IF THESE INSTRUCTIONS ARE NOT CLEAR
OR IF THERE ARE ANY QUESTIONS,
PLEASE CONTACT SOUTHWORTH PRODUCTS CORP**

Telephone 1-800-743-1000 or Fax 207-797-4734

E-mail: service@SouthworthProducts.com



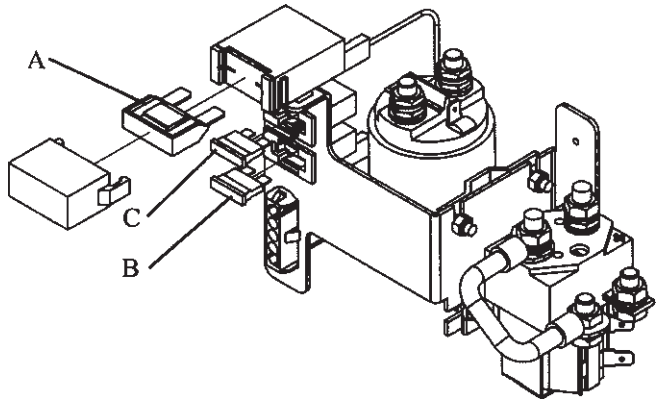
FUSE REPLACEMENT

There are three fuses in the electrical circuit.

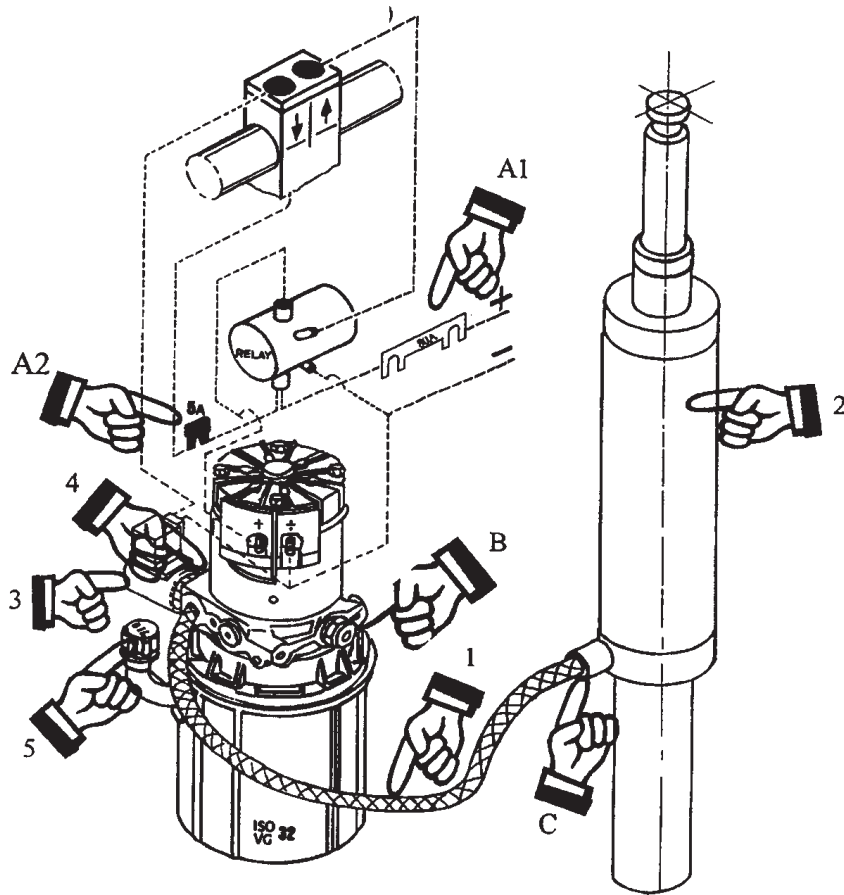
A) 80 amp fuse in main supply from battery.

B) 30 amp fuse for built-in charger.

C) 5 amp fuse in control current circuit.



Do not insert a larger fuse. The fuse acts as a protector for the pump motor.



Safety System

- A. **Fuses:** Motor protector and protection against electrical overload.
- B. **Safety/pressure relief valve:** Protection against mechanical and hydraulic overload. Factory-set for maximum design load (2200 lbs.)
- C. **Hose safety valve:** Protection against load “falling” in the event of hose fracture.



WIRING CONNECTIONS

Many operational problems are caused by poor connections in the electrical circuit. Make sure that the connections are clean and tight.

Check connections regularly for damage at insulating caps or bad connections at plugs, etc. Keep all screw/nut connections tight.

Regular inspection and the replacement of worn or defective parts in good time will prolong the life of the Pallet Lift Truck.

"Prevention is better than repair", therefore ensure:

- Correct usage
- Regular cleaning
- Periodic safety inspection
- Regular adjustment



ADJUSTING FORK HEIGHT

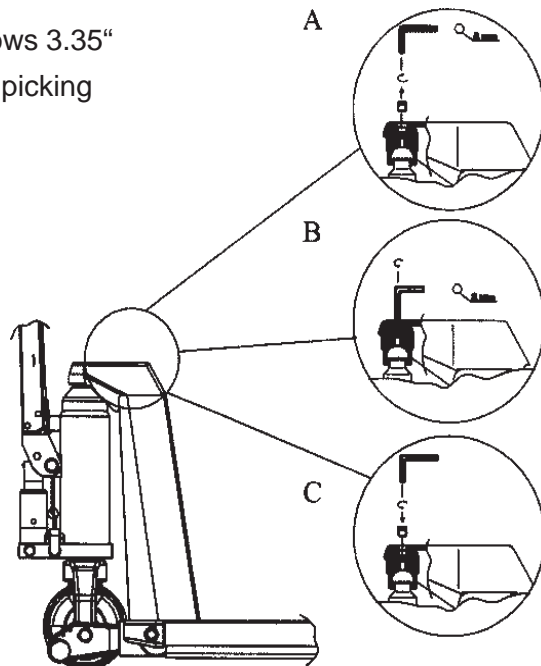
The fork height can be adjusted as follows 3.35" to 3.66". The fork height is adjusted by picking out the plug (A).

Adjustment of the fork height (B):

Turning right: The fork height is raised

Turning left: The fork height is lowered

The plug is fastened again (C).





Lubrication and hydraulic oil

Under normal operation conditions the Pallet Lift Truck requires no lubrication. All ball bearings are sealed and lubricated for life, and moving parts have self-lubricating bearings or are treated with molybdenum disulphide grease. The hydraulic system is filled with hydraulic oil of viscosity (class ISO VG 32.) non detergent 10W motor oil. An additive is added to the oil: Wynn's Hydraulic Systems Concentrate.

The concentrate reduces friction and wear and protects against corrosion. Pre-mixed hydraulic oil with additive is available from the dealer. The oil is suitable for use in the temperature range 14° to 120° F. A thinner oil is recommended for temperatures lower than 14° F (if necessary, contact your dealer).



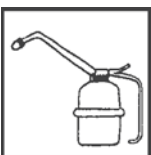
Oil change

Draining the oil:

1. Bring the unloaded forks down to the lowest position.
2. Remove the oil tank by taking off the eight (8) clips on the pump and removing the tank.
3. The oil can now be drained and the tank cleaned.

Oil filling:

4. Fill oil through the filling hole on the tank.
5. Oil quantity: 1.5 quarts. Use 10W non-detergent motor oil.
6. Fill oil to the bottom arrow (LogiLift) on the tank.
7. Refit the filling cap and bleed the system.



Bleeding the hydraulic system

With a load of 110 - 220 lbs, the forks must be raised and lowered to top and bottom position 2-3 times.

Cleaning

When cleaning the Pallet Lift Truck, do not direct the water jet onto bearings and seals, as the grease will be washed out and the life of the equipment shortened.

Cleaning of the plastic screen (polycarbonate)

The screen is to be washed with slightly warm water adding a neutral cleaning material, and afterwards washed with clean water. Use a soft sponge, and a soft cotton cloth. Do not use paper towels.

Never use sharp objects or solvent cleaners when cleaning.

Troubleshooting

When the Pallet Lift Truck is used every day, adjustments and the replacement of worn parts might be necessary.

If a fault appears during daily operation of the Pallet Lift Truck first check:

- Oil supply
- Electricity supply
- Condition of leads and fuses

If faults cannot be traced to these sources, contact Southworth Products Corp's Service Department at 800-743-1000.

Ordering Replacement Parts

Southworth 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. Southworth will not be responsible for equipment failures resulting from the use of incorrect replacement parts or from unauthorized modifications to the machine.

Southworth can supply all replacement parts for your Southworth Pallet Lift Truck. Key parts are identified in this manual.

With your order, please include the model number and the serial number of the unit. You will find these numbers on the name plate.

To order replacement parts, please call the Parts Department at (207) 878-0700. Parts are shipped subject to the following terms:

F.O.B. factory.

Returns only with the approval of our Parts Department.
Restocking charges may apply.

Payment net 30 days (except parts covered by warranty).

Freight collect (except parts covered by warranty).

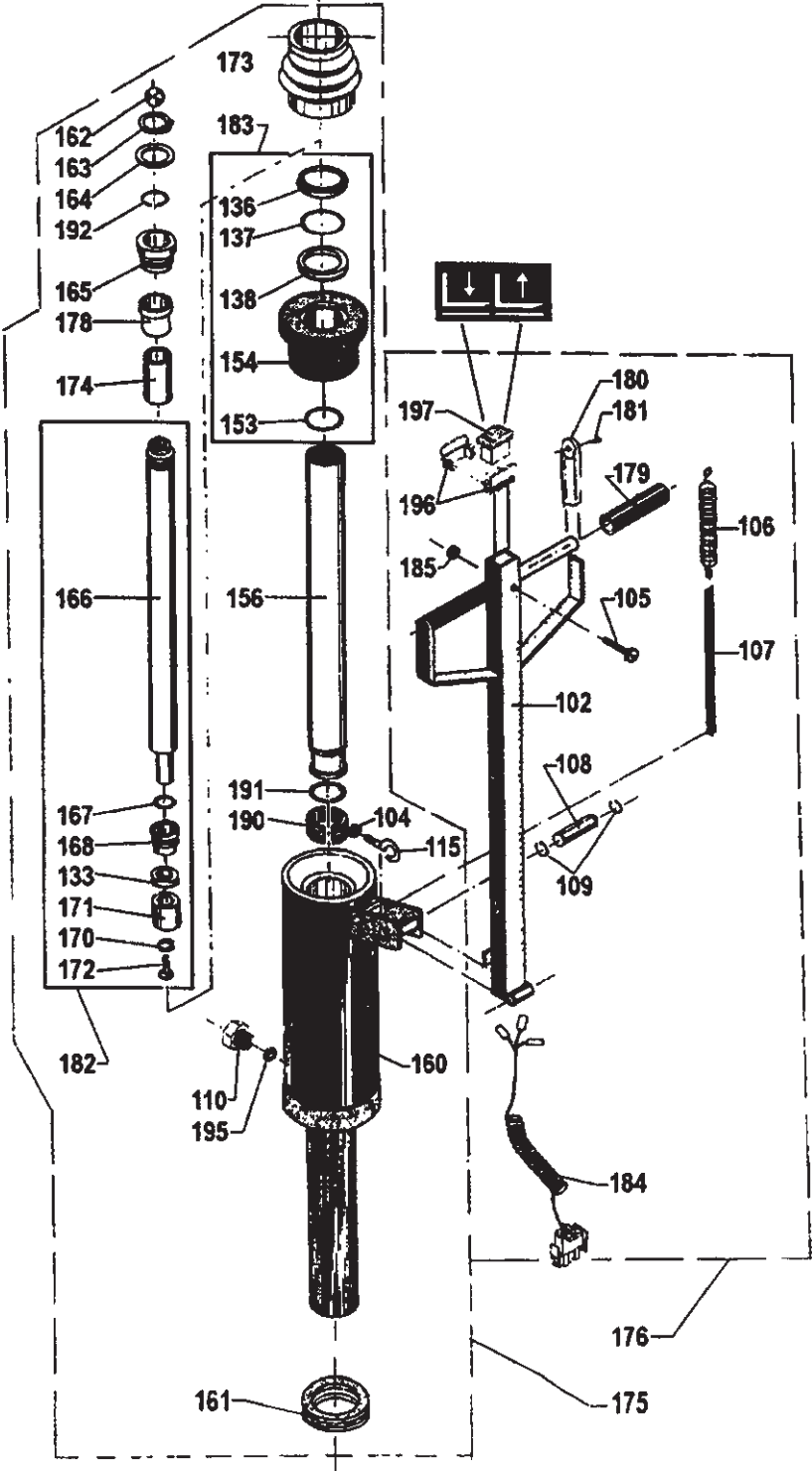
Parts replaced under warranty are on a "charge-credit" basis. We will invoice you when we ship the replacement part, then credit you when you return the assumed substandard part.

Parts Department
Southworth Products Corp
PO Box 1380
Portland, ME 04104-1380

Telephone: (207) 878-0700 or 1-800-743-1000
Fax: (207) 797-4734

repairparts@SouthworthProducts.com
www.SouthworthProducts.com

Figure 2 Cylinder & Handle Components



RETURN MATERIALS AUTHORIZATION **(RMA) PROCEDURES**

The Southworth Return Authorization (RMA) Procedure is provided as a courtesy to our customers in the event a product or a component may need to be returned.

If a customer wishes to return a Southworth product, the first step in the process is to request an RMA number from the Customer Service Department. This request must be made on or before the thirtieth (30th) calendar day following the date of Southworth'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 at Southworth manufacturing facility. Customers shipping returns back to Southworth, from the continental US, Canada or Mexico have thirty (30) days from the effective date of the RMA to have the merchandise arrive freight prepaid at Southworth. If the RMA number is missing or expired (beyond 30 days) it may be refused at Southworth. If any RMA is expired, contact the Customer Service Department before returning to Southworth.

All RMA's are subject to the appropriate restocking fees. 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 specific address to which your product should be returned. Southworth has multiple facilities and returning goods to other than the designated location will result in goods being refused.

Please contact the Customer Service Department at anytime regarding questions to this procedure.

Southworth Products Corp
P.O. Box 1380
Portland, Maine 04104
PH: 1-800-743-1000 or 1-207-878-0700 FAX: 207-797-4734
www.SouthworthProducts.com

2 YEAR WARRANTY

Southworth Products Corp warrants this product to be free from defects in material or workmanship for a period of 2 years of single shift usage from date of shipment, providing claim is made in writing within that time period. This warranty shall not cover modified designs for special applications, failure or defective operation caused by misuse, misapplication, negligence or accident, exceeding recommended capacities, failure to perform required maintenance or altering or repairing, unless alteration is authorized by Southworth Products Corp. Except as set forth herein, there are no other warranties, express or implied, including the warranties of merchantability and fitness for a particular purpose, all of which are hereby excluded.

Southworth Products Corp makes no warranty or representation with respect to the compliance of any product with state or local safety or product standard codes, and any failure to comply with such codes shall not be considered a defect of material or workmanship under this warranty. Southworth Products Corp shall not be liable for any direct or consequential damages arising out of such noncompliance.

Southworth Products Corp's obligation under this warranty is limited to the replacement or repair of defective components at its factory or another location at Southworth Products Corp's discretion. This is buyer's sole remedy. Except as stated herein, Southworth Products Corp will not be liable for any loss, injury or damage to persons or property, nor for direct, indirect, or consequential damage of any kind, resulting from failure or defective operation of said product.

This warranty may be altered only in writing by Southworth Products Corp, Portland, Maine.



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SOUTHWORTH

We'll Show You How

Southworth is *the* world class supplier of products designed to improve productivity and enhance safety. Our staff has over 400 years of engineering experience. If one of our standard products does not meet your needs, we can design custom equipment specifically suited to your material handling application.



Lift with Turntable



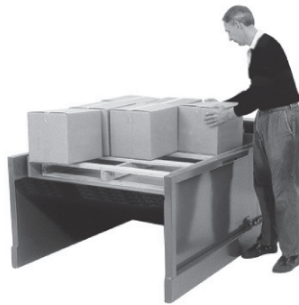
Portable Tilters



Palletizing



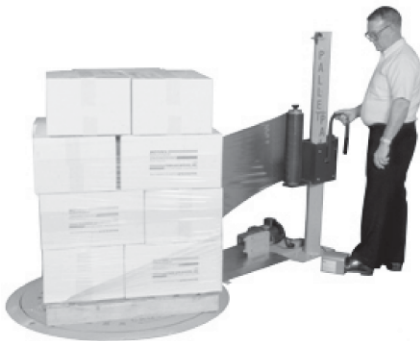
Dock Lifts



Palletizing



Portable Lifts



Stretchwrapping



Positioning



Lift & Tilts



Floor to Mezzanine Lifts

For more information, contact Southworth Products

Telephone 800-743-1000 - Fax 207-797-4734

Email: sales@SouthworthProducts.com