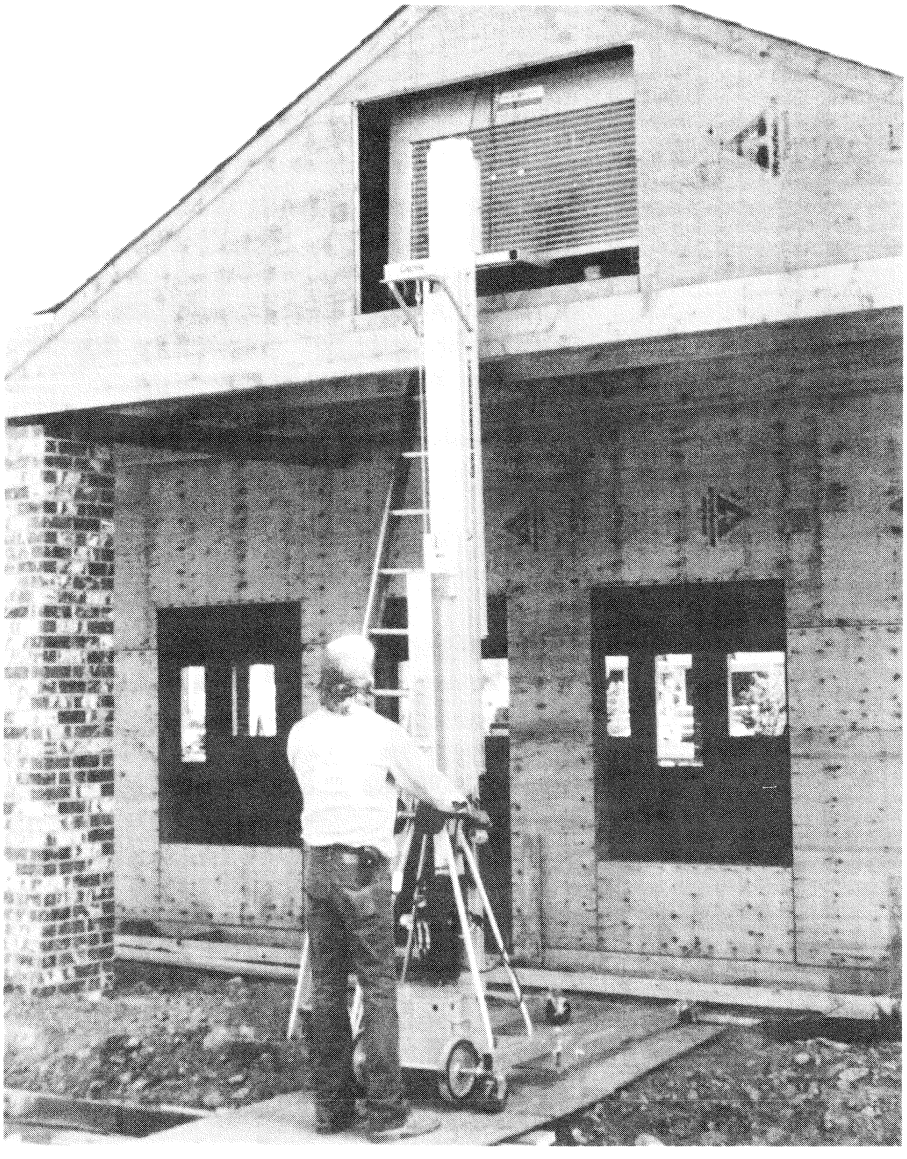
GENIE POWERED SUPERLIFT
(AC and DC Power)
OPERATING INSTRUCTIONS

CAUTION: Read and understand these operating instructions before operating the Genie Powered Superlift.



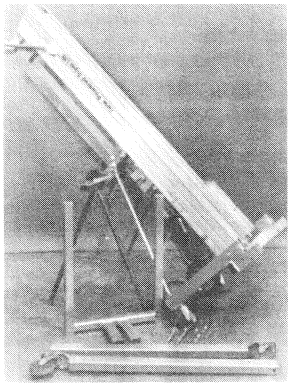
Part No. 20963

CAUTION

1. Read and understand these instructions before operating the Genie Powered Superlift. Only those persons familiar with the operation and limitations of the lift and trained in how to use it safely should be allowed to operate it. A duplicate set of instructions is located in the watertight plastic tube on the mast. These should be kept there at all times.
2. If there is anything you do not understand, or if you have questions regarding the operation of the Powered Superlift, call 800/426-8089 or 206/881-1800 or TELEX 152351 for assistance before operating.
3. Never use a Powered Superlift that is damaged or is not operating normally. Have the unit inspected by a qualified representative.
4. **SEE BACK OF THIS DOCUMENT FOR SAFETY RULES.**

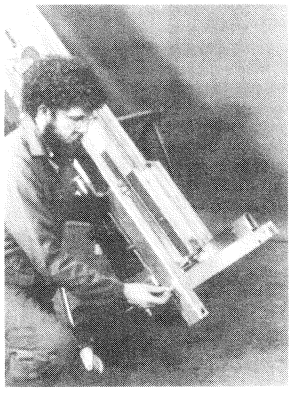
SET UP

1



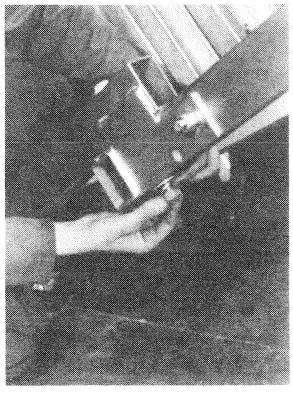
The Powered Superlift is shipped with front legs and fork assembly disassembled and packed on a base crate for compact shipment. Remove base crate and steel bands, and set the parts on the floor. For easiest assembly tilt the Powered Superlift on a saw horse or bench.

2

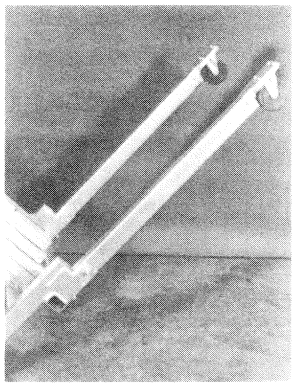


Install front legs first. Remove the two bolts in the frame joint, place the end of the leg tube between the two hinge plates and insert the 5/8 x 3½" hinge bolt first. Head of the bolt should be on the inside. Tighten the lock nut until it just contacts the hinge plate, but not so tight that the leg won't swing up for storage or transportation.

3

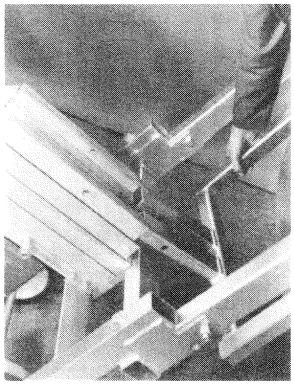


Straighten out the leg and make sure it is tight in the frame socket. Insert the 5/8 x 7" through bolt. IMPORTANT. There must be large flat washers on top under the bolt head and against the bottom of the leg tube before installing the lock washer and nut. Tighten the nut securely.



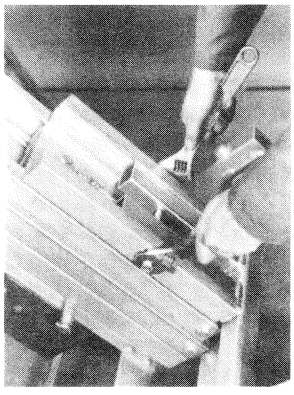
4

Install the second front leg in same manner.



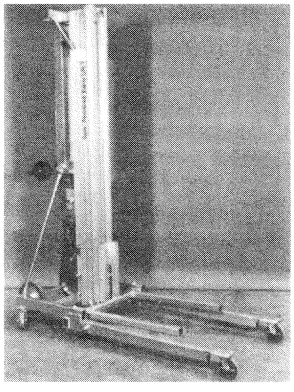
5

Remove the fork retainer bolt from the carriage. Install the fork assembly by inserting the support tubes (on the back of the fork cross bar) into the bottom of the carriage section.



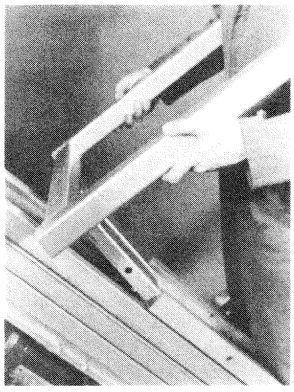
6

Reinstall the fork retainer bolt and secure with lock nut to hold the fork assembly in place.



Tilt the Powered Superlift upright so that it is resting on all 4 casters. Unit should appear as in picture.

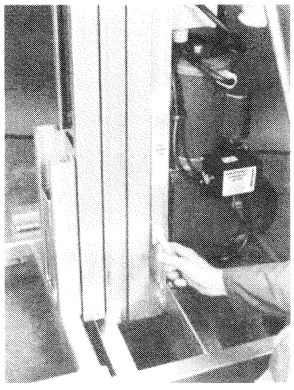
8



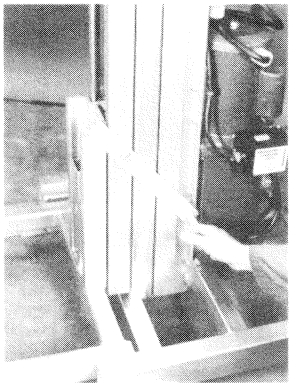
For added lifting height the fork assembly can be turned over and inserted in the top of the carriage section. This will add approximately 18" to the normal lifting height of the Powered Superlift. Be sure to secure the forks in this position with the retainer bolt.

9

HOLD DOWN IN USE



HOLD DOWN STORED



HOLD DOWN
If the Powered Superlift is laid down the telescoping mast sections will slide apart. This can kink the cable and cause other serious damage. To prevent this, a hold down bar is provided to lock the carriage section to the base frame. Always use this to lock the mast sections down before transporting the unit.

OPERATING

The AC Powered Superlift is powered by an AC electric motor which drives a hydraulic pump. This pump supplies pressurized hydraulic fluid to a cylinder in the mast assembly. The cylinder and a cable system then raise the forks.

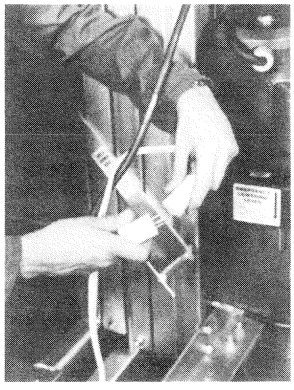
The motor is a 1/2 hp, 3450 RPM capacitor start type which requires 115 VAC, single phase power. For proper operation and long motor life, the user must have power supplied to the unit through an extension cord of suitable size from a circuit of suitable capacity. The extension cord should be 12 gauge-3 conductor type no more than 50 feet long connected to a grounded circuit of at least 20 Amp capacity. The voltage at the motor must be at least 105 V *while the motor is running.*

The DC Powered Superlift is powered by a DC motor (connected to a 109 amp-hr battery) which drives a hydraulic pump. This pump supplies pressurized hydraulic fluid to a cylinder in the mast assembly. The cylinder and a cable system then raise the forks.

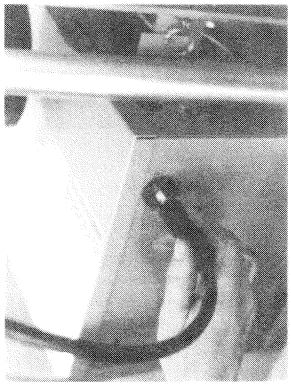
The battery is recharged using the battery charger mounted alongside it in the box at the back of the unit. The operation & care of the battery is described later in this instruction manual. Please read it carefully.

1

AC Unit



DC Unit



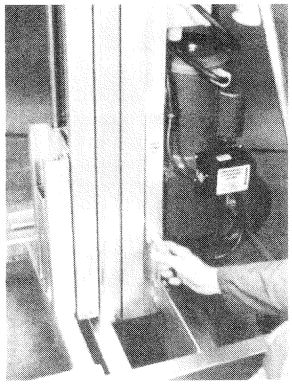
FOR DC POWERED UNITS
Fill the battery with electrolyte if necessary and fully charge it in accordance with instructions (page 6 & 7). Set the battery box in position at the back of the base & attach it to mast using the lock pin. Plug the two wires from the motor into the receptacles on the battery box. Match colors: red to red and black to black. Push the plug into the receptacle and turn clockwise to lock it in place.

FOR AC POWERED UNITS
Plug your extension cord into the pigtail coming from the junction box above the motor. To prevent inadvertant unplugging, tie the pigtail to the extension cord as shown.

2

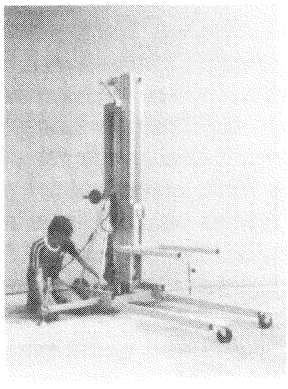
Move the unit into the desired position. *Surface must be level.*

3



Make sure *Hold Down Bar* is in the stored position before raising load.

4



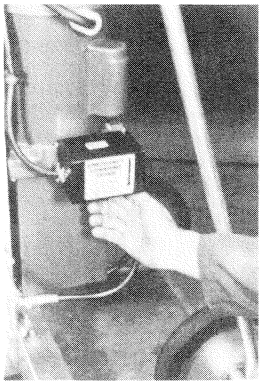
On PSL-24 the side outriggers must be extended before raising load.

5



To raise the forks, press the *UP* button on the remote control switch. To lower the forks, press the *DOWN* button on this switch. The lifting and lowering speeds are factory set and cannot be changed.

6





The load can be lowered manually (in case of a power failure or solenoid valve malfunction) by operating the emergency lowering valve. To release the valve on the AC units, push in the red knob and turn to the left as shown on decal. On DC units, pull red handle lever as shown on decal.

BATTERY CHARGING

1. LEAVE BATTERY PACK COVER OPEN DURING ALL CHARGING. Dangerous gases are present during charging—keep in a well ventilated area.

2. Connect charger extension cord to a grounded AC 3-wire electrical system that has adequate circuit breaker or fuse protection.

3. For lightly discharged battery, set timer to 7 hours. For well discharged battery, set to "on" (12 hrs.). Charger automatically turns off at end of set period.

4. Check battery condition prior to each days use. Turn on charger and see if ammeter needle jumps upward and then tapers down to finish rate area within 15 minutes. Check at least once a month if Powered Superlift is not being used.

5. The state of discharge of the batteries will be slightly different each time they are put on charge, but the charger automatically varies the initial charge rate, and taper of charge rate over the charge period. For well discharged batteries the charge rate at the start of the charge period should correspond to the "DC AMPS" rating on the charger nameplate. The rate should then taper gradually down to a lower finish rate. Normal charging at the low finish rate during the last 1-3 hours is necessary to achieve equalization of all battery cells. This equalization period allows the specific gravity of the battery electrolyte solution to rise to its full charge value. Since the taper of the charging rate (in amps, as indicated by the ammeter needle) is controlled by the rising voltage of the batteries being charged, proper performance of the charger and resulting good battery life is dependent upon the following factors:

   A. An adequate AC line to handle the power required (See Paragraph 2 above)

   B. All cells of the batteries must be good, rising to approximately 2.5 DC volts per cell while still on charge or near the end of a charging period. When in doubt, check each cell with a single cell volt-meter while still on charge. If a low reading is obtained, check the low cells with a temperature corrected hydrometer. NOTE: Hydrometer float must be thoroughly clean to obtain accurate specific gravity readings.

   C. Connections on the battery terminals and connector wiring must be clean and tight.

   The necessity of adding water more frequently than every two or three weeks, and/or hot battery cases at the end of the charging cycle, indicates the finish rate is too high, due to one or both of the following:

   A. One or more bad cells in the batteries.

   B. Batteries are starting to age to the point where hours of charge should be reduced gradually to obtain prolonged battery life.

BATTERY CARE

1. New batteries should be given a full charge before this first use because it is difficult to know how long the batteries have been in storage without a charge.
2. Limit use of new batteries between charges for the first 5 cycles. New batteries and older batteries which have been in storage are not capable of their rated output until they have been discharged and charged a number of times.
3. During the first month of use, particularly when temperatures are below 60° F, new batteries should be given an extra full charge once a week. The ampere-hours of energy that batteries can deliver and their charge acceptance varies directly with battery temperature.
4. As long as the charger tapers down to the specified finish charge rate near the end of the charge cycle, the batteries should be given a full charge. All cells in a set of batteries do not react identically to the same discharge and charge current. In a normal charge the last 1 to 3 hours at the low finish charge rate equalize the cells for better battery life.
5. When batteries age to the point where the charge rate will no longer taper into the low finish rate area, reduce the hours of charge progressively. Reducing the charge period will prevent excessive battery heating and the resultant high water use rate.
6. Add water carefully to the proper level in cells as required AFTER they have been fully charged. Do not fill them so high that they bubble over while charging. New batteries require very little addition of water, whereas very old batteries may need additional water two or three times a week. Water (electrolyte) level in the cells settles when batteries are discharged and rises during charge. The probability of overfilling can be reduced by adding water when batteries are fully charged.
7. When the temperature falls below 65° F, batteries should be placed on charge as soon after use as possible. In these low temperatures a 4 hour equalizing charge once a week will improve state of charge and battery life.
8. Keep the tops of batteries and battery hold-downs clean and dry at all times. This will reduce the amount of current leakage between batteries and the frame.

MAINTENANCE

1. Inspect cable everyday before using. Check for kinks, broken strands, fraying or other signs of wear. If any wear signs are observed replace the cable. As a general safety precaution, it is recommended that the cable be replaced every two (2) years.
2. The plug on the left of the reservoir is the hydraulic fluid level indicator. Check the fluid level on a weekly basis. Fluid should be visible in the sight glass. If more is needed, use a good quality SAE 10 grade hydraulic oil for operating in the temperature range of 0° F to 160° F.
3. The hydraulic power unit is equipped with an inlet screen filter. The screen should be periodically inspected and if necessary, removed and cleaned. For longest life make sure the oil is kept clean and the breather cap is kept on the reservoir filler fitting. To access the filter, remove the reservoir from the motor end head. The filter is at the bottom of the pipe nipple which hangs from the hydraulic pump. (CAUTION: Use care in removing the filter so as not to collapse it.) Wash in suitable solvent and blow out with air from inside out. Overtightening of the reservoir screws on reassembly can strip the threads in the Motor Adaptor. A noisy pump is generally an indicator of a clogged filter.
4. Neither the pump nor the motor require any attention under normal operating conditions. The motor bearings are life-lubricated. The pump bearings are lubricated by the fluid being pumped.
5. Protect the Powered Superlift from exposure to rain and adverse weather conditions. Do not allow water on electrical controls or connections.
6. Keep the aluminum mast sections clean and free of dirt. Lubricate the inside channels with a silicon or Teflon spray lubricant.
7. Periodically inspect pulley wheels and mast rollers for wear or damage.
8. The cable may stretch over a period of time and should be adjusted if it goes slack when load is fully lowered. Adjustment can be made by tightening the nuts at the cable termination eyebolt at the top of the mast boom when the forks are fully lowered.

SAFETY RULES

1. DO NOT OVERLOAD. Observe the maximum load capacity.
2. NO RIDERS. The Powered Superlift is a material lift only and is not to be used for lifting personnel.
3. Use on a level surface only.
4. Never permit anyone to stand under load.
5. Do not lean a ladder against the Powered Superlift.
6. Do not move the unit when elevated.
7. Stay clear of overhead wires and obstructions.
8. Center load against back of forks. Do not have the load center farther out from the back of the forks than 13″. If the load has greater than 13″ load center, call the factory or discuss the application with your sales representative.
9. Do not attempt to operate the unit on an elevated platform, scaffold, truck bed, or extended surface or support.
10. Never leave a Powered Superlift unattended with the load raised. Unauthorized personnel may attempt to operate the Powered Superlift without proper instruction creating an unsafe condition.
11. Inspect the cable before operating. Do not use a Powered Superlift with a worn, frayed, kinked, or otherwise damaged cable.

WARRANTY

GENIE INDUSTRIES, INC. warrants this product to be free from defects in material and workmanship for one year from the date of purchase, but only such defects as result from normal use.

Seller's liability shall be limited to the repair or replacement of the defective material or workmanship at its factory or authorized service center. Buyer shall be responsible for all freight charges required for the repair. Improper use of the product, lack of normal maintenance or unauthorized alteration of the product shall render this warranty void.

Seller makes no other warranty, express or implied, and specifically makes no warranty as to merchantibility and fitness for any particular purpose. Seller will not be liable for any consequential or special damages resulting from any use of its products.

Qualification for warranty coverage is conditioned upon return of the warranty card and upon prompt notice of the claimed defect. Seller must be given an opportunity to examine any defect before any alteration is made.

Seller reserves the right to make changes in design or add any improvements on its basic product or any accessories thereto at any time without incurring any obligation to install such improvements on any Genie Product or accessory previously purchased.

Effective September 1, 1985, this warranty supersedes all other warranties, stated or published.

Genie Industries

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