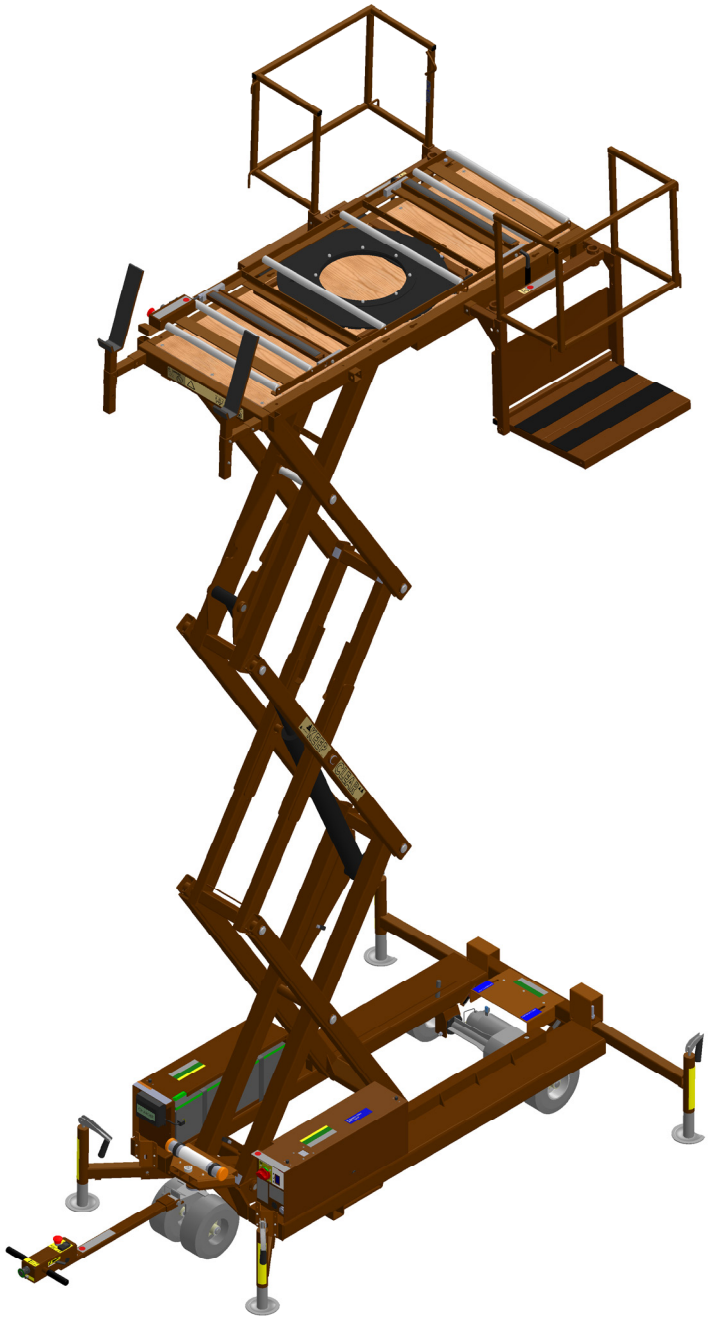
CUSTOM EQUIPMENT, LLC

OPERATIONS & SAFETY MANUAL

LOW BOY 2-IN-1 MAUSOLEUM LIFT

SUPO-009
REV B



DC10LB
DC10LB-SP
DC14LB
DC14LB-SP
DC18LB
DC18LB-SP

SERIES 2

NOTE: Owner responsibilities per ANSI A92.3 are stated in the responsibilities section of this manual. As part of these responsibilities, Owners and managers are required to:

Provide safety training for all users of this equipment. Inspect and maintain the lift in safe working condition. Maintain records on lift inspections and corrective action. Maintain records on all operators who have had safety training. Keep a copy of this manual on the machine.

WARNING

SERIOUS INJURY OR DEATH CAN TAKE PLACE WHEN OPERATORS DO NOT USE THE STOP PROCEDURE, ARE POORLY TRAINED, AND/OR ARE OPERATING UNSAFE EQUIPMENT

TRAINING INFORMATION

How to Train and Qualify an Operator

Initial Operator Training sessions:

1. Allow the operator time to read the following sections of the Safety, Operation, and Maintenance manual. (The trainer may explain this material to operators who have limited reading skills)
   - -Page 8-11
   - -Page 12-18
   - -Page 23-24 & 30-31
2. After reading those sections of the manual that apply to the operator, view the video "Basic Safe Operation" of 2-n-1 Mausoleum Lifts.
3. Check that the trainee has learned the information by using the training checklist included in this manual.

Annual Re-qualification Training Session:

1. Allow the operator to review the manual pages above if they feel they need to.
2. View the video "Basic Safe Operation" of 2-n-1 Mausoleum Lifts
3. Check that the trainee has learned the information by using the training checklist below.

How to assure your training session has been effective

The purpose of the Operator Training checklist:

1. Allow the operator to demonstrate learning by:
   - Orally answer the questions given by the trainer
   - Use the checklist as a Quiz using an open book approach
   - Use the lift to show the trainer the answers
2. Allow the trainer to use a fixed learning reference for all operators
3. Allow the trainer to add questions specific to their site.

The purpose of this Operations and Safety manual is to provide users with the instructions and operating procedures essential to properly and safely operate the Custom Equipment Mausoleum Lift for its intended purpose, and to position personnel and their necessary tools and materials.

Do not operate this equipment without proper safety training.

THE OPERATION AND SAFETY MANUAL MUST BE READ AND UNDERSTOOD PRIOR TO OPERATING THE MACHINE.

The user/operator should not accept operating responsibility until the manual has been read and understood as well as having operated the lift under supervision of an experienced and qualified operator.

Because the manufacturer has no direct control over machine application and operation, proper safety practices are the responsibility of the user and all operating personnel.

ANY MODIFICATION ON THIS MACHINE WITHOUT THE EXPRESS WRITTEN CONSENT OF THE MANUFACTURER IS PROHIBITED.

If there is a question on application and/or operation, contact:

Custom Equipment, Inc.
2647 Hwy 175
Richfield, WI 53076 USA
Phone: 262-644-1300
Fax: 262-644-1320

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Revision B: Reference 3206 ..... Aug 2018

SECTION 1 | PRODUCT DESCRIPTION

The mausoleum lift is a hydraulically operated, electrically actuated scissors lift. The DC models use a self contained, battery operated lift mechanism. The AC models require an external power source.

MODEL NUMBER			
DC	**XX**	**LB**	**-XX**
Power Source	Height	Low Boy Unit	-SP: Electric Drive (Self-Propelled)
DC: DC Power	10: 10 ft. platform		or Push-Around (Manual-Propelled)
	14: 14 ft. platform		
	18: 18 ft. platform		

Specifications

	DC10LB (-SP)				**DC14LB (-SP)**				**DC18LB (-SP)**			
Dimensions												
Working Height (Work Center Rails)	15.8	ft.	4.8	m	20.0	ft.	6.1	m	24.0	ft.	7.3	m
Platform Height (maximum)	9.8	ft.	3.0	m	14.0	ft.	4.3	m	18.0	ft.	5.5	m
Platform Height (minimum)	24.7	in.	62.7	cm	24.7	in.	62.7	cm	24.7	in.	62.7	cm
Overall Length (With Outriggers)	85.8 in./217.8 cm											
Overall Width (w/o accessories)	34.5 in./87.6 cm											
Work Center Length	70.0 in./177.8 cm											
Work Center Width	28.0 in./71.1 cm											
Wheel Base (Front)	7.0 in./17.8 cm											
Wheel Base (Rear)	28.0 in./71.1 cm											
Wheel Track	67.0 in./170.2 cm											
Tire Size -Front	10.0 in./25.4 cm											
Tire Size -Rear	10.0 in./25.4 cm											
Guard Rail Height (Work Center Rails)	43.0 in./109.2cm											
Ground Clearance												
Behind Front Wheel	5.0	in.	12.7	cm	5.0	in.	12.7	cm	5.0	in.	12.7	cm
Center of Machine	7.5	in.	19.1	cm	7.5	in.	19.1	cm	7.5	in.	19.1	cm
Capacity												
Platform Capacity	1000.0 lb. / 453.6 kg											
Rated Occupancy	2 Persons											
Step Capacity (Each)	250.0 lb./1 person /113.4 kg/1 person											

	DC10LB (-SP)				DC14LB (-SP)				DC18LB (-SP)			
Stone Holder Capacity (Per Set)	250.0 lb./113.4 kg											
Swing-Away Stone Holder Capacity	75.0	lb.	34.0	kg	75.0	lb.	34.0	kg	75.0	lb.	34.0	kg
Horizontal/Manual Force	150.0	lb.	667.2	N	150.0	lb.	667.2	N	150.0	lb.	667.2	N
Floor Loading												
Machine Weight (Unloaded) (Approx.) Varies, depending on Accessories												
Min	1110	lb.	503.5	kg	1385	lb.	628.2	kg	1624	lb.	736.6	kg
Max	1660	lb.	753.0	kg	1935	lb.	877.7	kg	2174	lb.	986.1	kg
Average	1425	lb.	646.4	kg	1700	lb.	771.1	kg	1939	lb.	879.5	kg
Minimum Outrigger Pressure	110.0	psi	758.4	kPa	138.5	psi	954.9	kPa	162.4	psi	1120	kPa
Maximum Outrigger Pressure	265.0	psi	1827	kPa	293.5	psi	2024	kPa	317.4	psi	2188	kPa
Minimum Machine Floor Pressure	50.5	psf	2.4	kPa	63.5	psf	3.0	kPa	74.5	psf	3.6	kPa
Maximum Machine Floor Pressure	121.5	psf	5.8	kPa	134.6	psf	6.4	kPa	145.6	psf	7.0	kPa
Power Sources												
Power System Voltage	24V DC											
Batteries	(2) 12V, Group 27 Deep Cycle Marine (AGM Battery Option Available)											
Lift/Lower Speed	28/50 sec				32/60 sec				32/60 sec			
Hydraulic Pressure (max)	2000.0 psi / 13789.5 kPa											
Hydraulic Fluid Capacity	1.3 gal/5.0 L											
Drive Speed Max (Fwd)	2.0 mph/0.9 m/s (Models with Powered Drive)											
Drive Speed Max (Rev)	1.0 mph/0.4 m/s (Models with Powered Drive)											
Environmental Limitations												
Wind	Do not use in windy conditions											
Rated Slope	0°(Level Surface)											
Temperature	-4° F-104° F/-20° C-40° C											
Vibration	8.2 ft/s2 max /2.5 m/s2 max											
Sound	86 dB Normal Use/100 dB Alarms											

Warnings and instructions that have a direct impact on safety are identified with the following signals:

DANGER

FAILURE TO FOLLOW THIS WARNING WILL CAUSE DEATH OR PERSONAL INJURY.

"DANGER" indicates an imminently hazardous situation, which, if not avoided, will result in death or serious injury.

WARNING

FAILURE TO FOLLOW THIS WARNING MAY CAUSE DEATH OR PERSONAL INJURY.

"WARNING" indicates a potentially hazardous situation, which, if not avoided, could result in death or serious injury

CAUTION

FAILURE TO FOLLOW THIS WARNING MAY CAUSE INJURY OR DAMAGE TO EQUIPMENT.

"CAUTION" indicates a potentially hazardous situation which, if not avoided, could result in minor or moderate injury or damage to equipment

STOP **STOP**

"STOP" Procedure indicates that the action is safety related and part of the STOP procedure used in safety training

2.1 | SAFETY FEATURES

Descent--Manual Override

For manually lowering the scissors, a manual down valve on the pump is provided. To lower the scissors, remove the cover and locate the valve on the hydraulic pump. Push and turn the knob located on the down valve counterclockwise to open. Knob will pop up. To reset, push and turn in the clockwise direction.

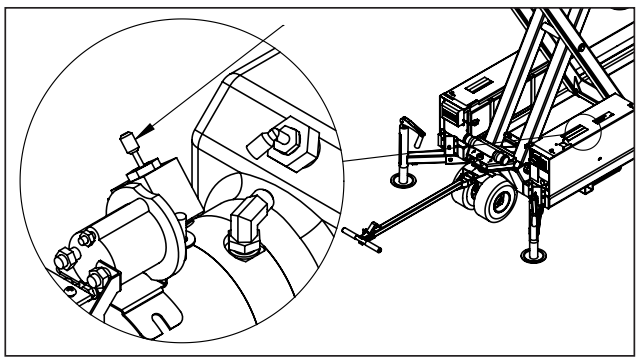


FIGURE 1: Emergency Lowering

Emergency Stop
This lift is equipped with two emergency stop switches, one at the platform control and one at the base control or tiller handle, that when activated, will render the unit inoperable until reset. To reset, pull the button out.

WARNING

IF PLATFORM SHOULD FAIL TO LOWER, DO NOT ATTEMPT TO CLIMB DOWN THE BEAM ASSEMBLY. SERIOUS INJURY MAY RESULT. HAVE AN EXPERIENCED OPERATOR USE THE EMERGENCY LOWERING PROCEDURE TO SAFELY LOWER THE PLATFORM. PUSHING THE EMERGENCY STOP BUTTON WILL APPLY BRAKES IMMEDIATELY. THIS MAY CAUSE UNEXPECTED PLATFORM MOVEMENT AS THE MACHINE COMES TO A SUDDEN STOP. BRACE YOURSELF AND SECURE OBJECTS ON THE PLATFORM DURING OPERATION OF THE MACHINE.

Maintenance Lock
The maintenance lock pins must be placed into position whenever the machine is being serviced in the raised or partially raised position. Serious injury and/or death could result if maintenance lock is not used properly. See the Maintenance section of this manual for more information.

Free Descent Protection
A velocity fuse is installed in the hydraulic circuit to prevent the platform from descending in case of a ruptured hydraulic hose. The platform will be hydraulically locked whenever this velocity fuse activates.

Outriggers for Stability
Fully extend the outriggers and deploy before lifting. Crank the jacks down until the foot reaches the ground, supporting the weight of the machine. Make sure the machine is level. The outriggers are interlocked to prevent elevation if not deployed.
Procedure: Fully extend and deploy outriggers before elevating.

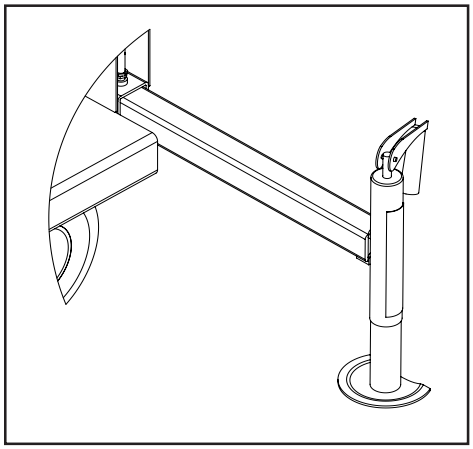


FIGURE 2: Outrigger Fully Extended

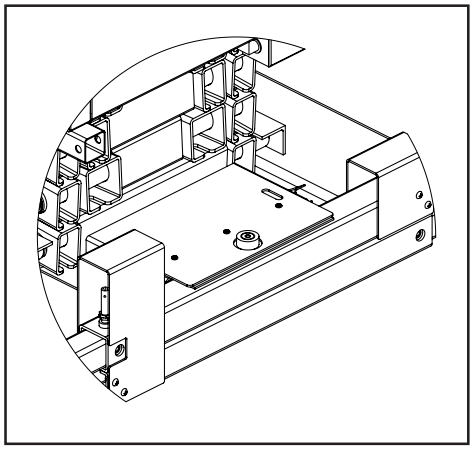


FIGURE 3: Bubble Level Location

SECTION 3 | GENERAL RULES AND PRECAUTIONS

3.1 | GENERAL RULES AND PRECAUTIONS

Custom Equipment, Inc. designed the mausoleum lift to be safe and reliable. It is intended for elevating personnel, along with their necessary tools and materials to overhead work locations.

An operator of any type of work platform is subject to certain hazards that cannot be protected by mechanical means. It is therefore essential that operators be competent, careful, physically and mentally fit and thoroughly trained in safe operation of this machine.

Although Custom Equipment, Inc. conforms to the specified ANSI & OSHA requirements, it is the responsibility of the owner to instruct operators with the safety requirements made not only by Custom Equipment, Inc., but by the various safety boards in your area, as well as additional requirements set forth by ANSI & OSHA. If you come across a situation that you think might be unsafe, stop the platform and request further information from qualified sources before proceeding.

NEVER REACH BETWEEN SCISSORS LINKS OR PROP UP PLATFORM.

Only qualified operators may operate this unit.

- Only operators trained by a qualified person can operate this unit.
- All operators must read and understand the Operation and Safety Manual. They must understand all decals and warning labels on unit.
- ANSI A92.6 and other applicable standards identify requirements of all parties who may be involved with self-propelling elevating work platforms. Owner/user/operator must be familiar with Sections 6, 7, 8, 9, and 10, which contain responsibilities of the owner, users, operators, lessors, and lessees including safety, training, inspection, maintenance and operation. A copy of the ANSI Standard is considered part of this machine.
- Do not work on platform if your physical condition is such that you feel dizzy or unsteady in any way.
- Do not neglect/misuse machine. Report any misuse of equipment to proper personnel.
- Prevent unauthorized use; when unit is not in use, remove key.
- It is recommended all personnel on unit wear protective headgear (hard hats).

Preliminary Unpacking Instructions and Dealer Inspection

Maintenance locks must be engaged prior to inspecting or servicing the unit when the platform is extended. Inspect machine for any possible damage during shipment; perform a pre-delivery inspection. Reset emergency stop switches, if necessary.

Storage
After periods of storage, exposure to extremes of ambient conditions-heat, cold, moisture, dust etc. inspect the machine. Refer to the Annual Checklist.

Preparation for Transport
Lower the work platform to the down position. Turn master power switch to off position. Check entire machine for loose or unsecured items. Remove any loose items from machine.

Manual Parking Brake Release (Self-Propelled Models)
Release brake for winching or pushing. This release is located to the left of the drive motor, opposite of the steering end of the lift. Pushing arm forward disengages brake so that lift can be moved manually. Please note: A disengaged brake will disable the drive. Elevating platform will also disable the drive system. Do not push at speeds more than 2 mph (0.9 m/s).

Do not attempt to push or tow unit with the brakes applied. Severe gear damage will occur. Towing is not recommended. NOTE: The drive system will not function if the parking brake is in the released position.

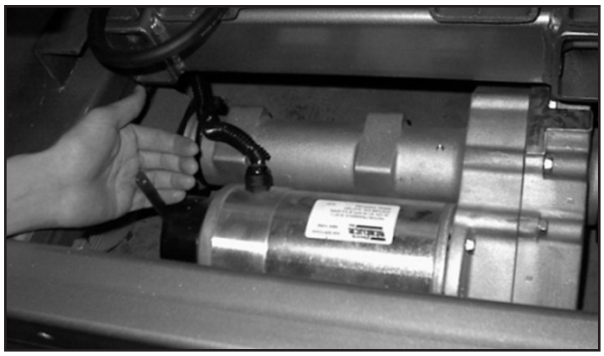


FIGURE 4: Manual Brake Release Location

To release brake for winching or pushing, rotate brake handles. Do not push at speeds more than 2 mph (0.9 m/s).

CAUTION

DO NOT TOW UNIT. THIS WILL DAMAGE DRIVE MOTOR.

STOP Procedure
The acronym STOP can be used to remember actions that are needed before each use.

Secure Stabilizers
Test Controls
Observe Obstacles
Pin and lock all attachments

Secure Stabilizers
- Pull out as far as possible--before elevating, ensure that all outriggers are fully extended.
- Stabilizers must be firmly against ground, preventing lift movement—ensure that all outriggers are cranked down so the level indicator bubble is in the center of the ring.
- Outriggers are required for stability and brakes.

If this unit is in use next to a wall and it is not possible to fully extend the rear outrigger, no steps may be used on the side facing the wall. Outriggers must be extended as far as possible and deployed.

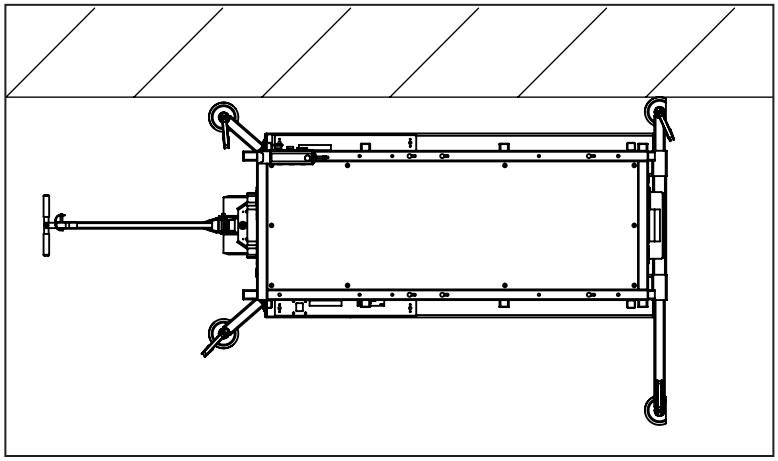


FIGURE 5: Operation Next to a Wall

Outrigger Errors Display

The control module displays the following errors. If more than one error condition exists, each screen displays for four seconds, and then the rest display. As soon as safe conditions are met, the displays will stop.

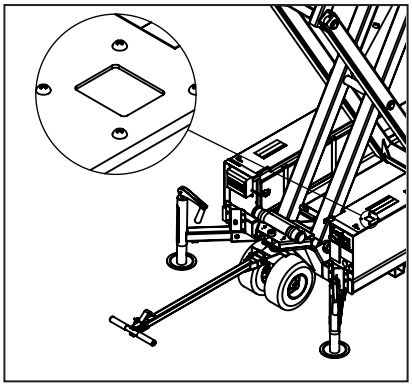


FIGURE 6: Outrigger Error Display Window

Error Display	Meaning
WARNING!!! OUTRIGGERS NOT DOWN	One or more of the outriggers is not down securely and the operator is attempting to elevate the platform.
WARNING!!! BATTERY SIDE OUTRIGGERS NOT OUT	One or both of the battery side outriggers is not fully out, and there is a step installed on the battery side of the platform and the operator is attempting to elevate the platform.
WARNING!!! PUMP SIDE OUTRIGGERS NOT OUT	One or both of the pump side outriggers is not fully out, and there is a step installed on the pump side of the platform and the operator is attempting to elevate the platform.

Test Controls (Pre-start Inspection)

- Before operation, ensure that the machine is properly serviced. Lift must be taken out of service if any control is not functioning correctly until repaired.
- Inspect for damage and check all controls before each use as described in the Pre-start Inspection checklist in this manual.

Observe obstacles (Job Site Inspection)

THE OPERATOR MUST BE AWARE OF THE ENVIRONMENT. DO NOT RAISE THE PLATFORM IF THE MACHINE IS NOT ON A FIRM, LEVEL SURFACE.

- Unit must be on hard level surface before elevating. Do not operate on incline or uneven surface.
- It is recommended to use temporary barriers around the machine to avoid tripping hazards at outriggers.
- Watch out for others. Keep others clear of operating platform. Never allow others to pass under a raised platform or position the platform over someone.
- Follow any applicable national traffic regulations.

Use in Indoor-Like Conditions:

- Do not use outdoors in electrical storms.
- Do not use in windy conditions. (Do not use if wind or gusts are up to 20 mph.) The Beaufort Scale may be used to estimate wind speed by observation. Beaufort number of 4 or less is acceptable conditions for using the mausoleum lifts.

Beaufort Number	Wind Speed (mph)	Wind Speed (m/s)	Description	Land Conditions
0	0	0	Calm	Calm. Smoke rises vertically.
1	1-3	0.4-1.3	Light Air	Wind motion visible in smoke.
2	4-7	1.7-3.1	Light Breeze	Wind felt on exposed skin. Leaves rustle.
3	8-12	3.5-5.3	Gentle Breeze	Leaves and small twigs in constant motion.
4	13-18	5.8-8.0	Moderate Breeze	Dust and loose paper is raised. Small branches begin to move.
5	19-24	8.5-10.7	Fresh Breeze	Small trees sway.

You must maintain a clearance between any part of the machine, or its load, and any electrical line or apparatus. Follow local power line clearance regulations:

Voltage Range	Minimum Safe Approach Distance	
	Feet	Meters
0 to 300 Volts	Avoid Contact	
Over 300 V to 50 KV	10	3.05
Over 50 KV to 200 KV	15	4.60
Over 200 KV to 350 KV	20	6.10
Over 350 KV to 500 KV	25	7.62
Over 500 KV to 750 KV	35	10.67
Over 750 KV to 1000 KV	45	13.62

DO NOT OPERATE MACHINE NEAR POWER LINES. THE PLATFORM AND ENCLOSURES ARE NOT INSULATED.

Inspect for the following hazards:

• Overhead hazards i.e.: light fixtures, vase holders, headers and low ceilings.	• Inadequate floor support
• Poorly lit areas	• Overhead bridge cranes
• Drop-offs, holes, bumps	• Explosive conditions
• Slippery surfaces and spills	• Inadequate ventilation

Pin and lock all attachments.
- All lock pins must be chained to attachments.
- Repair or replace chains and lock pins immediately.
- Operator must ensure all locking pins or snap buttons are secured that steps and attachments are in place.
- Operator must ensure that all railings are securely in place when using side steps or maintenance platform.

Operators must work safely.
- Do not enter or exit platform while machine is in motion.
- Never mount or dismount a raised platform.
- Never belt or tie off to an adjacent structure.
- Distribute load evenly over platform floor area.
- Secure tools and materials.
- Do not use ladders or scaffolding on the platform to obtain greater height.
- Personnel must maintain a firm footing on the platform floor and work only within the platform area.
- Do not smoke while charging the battery.
- Wear PPE (ex. gloves) when setting up the machine to avoid pinching hazards.
- Use only electrical tools which have been tested and tagged as per Australian requirements.
- Connect electrical tools via a safety switch or RCD.

Use machine only for purposes for which it was intended.
- Lift should never be used as a crane.
- Never use unit as electrical grounds for arc welding.
- Do not override any hydraulic, mechanical, or electrical safety devices.
- Only use replacement parts manufactured by Custom Equipment, Inc. Consult this manual for correct part numbers.
- Operator shall use the maintenance lock when performing all types of maintenance procedures.
- Do not exceed the maximum lifting capacity.
- Self-Propelled Drive Models:

NEVER ATTEMPT TO DRIVE THE MACHINE IN THE RAISED POSITION!

DO NOT STAND ON ROLLERS

STOP Procedure & Pre-start Inspection

The STOP procedure, as described in the Safety section of this manual, should take place before each use. Before use each day or at the beginning of each shift, the machine shall be given a visual inspection and functional test. Repairs (if any) must be made prior to operating the machine, as it is critical to ensure safe operation of the machine.

Controls

TEST CONTROLS BEFORE USE

FULLY EXTEND AND DEPLOY OUTRIGGERS BEFORE ELEVATING.

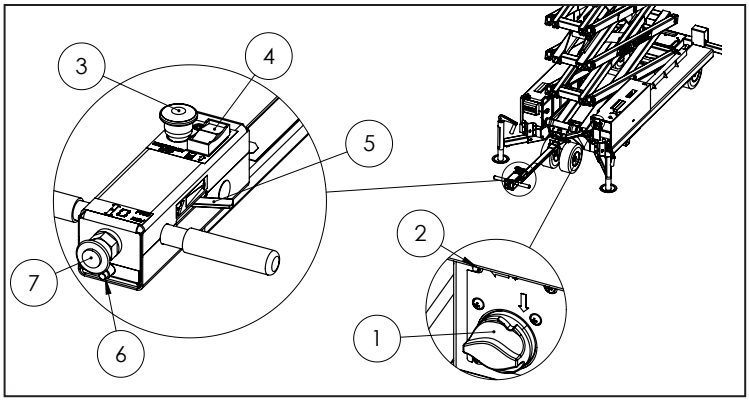


FIGURE 7: Ground Controls (Self-Propelled Models)

Ground Controls (Self-Propelled Models)	
Item	**Control/Indicator**
1	Master Power Switch: This is the Key Switch, Emergency Stop, and Battery Disconnect Switch. Operation described in "Startup Procedure" Section
2	LED Diagnostic: Drive Troubleshooting
3	Emergency Stop: When activated, will render the unit inoperable until reset. To reset, pull the button out.
4	Up/Down Rocker Switch
5	Throttle: Controls drive speed.
6	Brake Release: Must be pushed to push machine manually or position without driving. DO NOT TOW SELF PROPELLED UNITS!
7	Forward/reverse:Pull knob out to drive in the reverse direction.

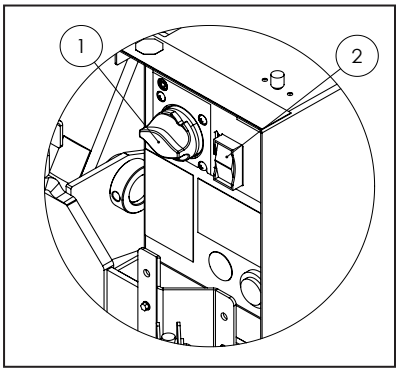


FIGURE 8: Ground Controls (Push-Around Models)

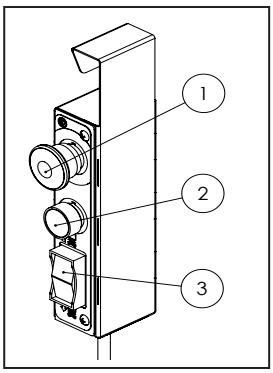


FIGURE 9: Upper Controls

Ground Controls (Push-Around Models)		Platform Controls (All Models)	
Item	**Control/Indicator**	**Item**	**Control/indicator**
1	Emergency Stop/Master Power Switch : This is the Key Switch, Emergency Stop, and Battery Disconnect Switch. Operation described in "Startup Procedure" Section	1	Energency Stop: When activated, will render the unit inoperable until reset. To reset, pull the button out.
2	Up/Down Rocker Switch	2	Elevate Enable
		3	Up/Down Rocker Switch

DANGER

THE OPERATOR MUST BE AWARE OF THE ENVIRONMENT. DO NOT RAISE THE PLATFORM IF THE MACHINE IS NOT ON A FIRM, LEVEL SURFACE.

Startup Procedure

- Check that the work area is safe.
- Check that the master power switch is in the "ON" position.
- Machine must be on a hard, level, surface before operation.
- Extend and deploy outriggers. Wait for a moment to be able to verify that PLC lights are on.
- Check the bubble level to ensure that machine is level. Adjust outriggers as needed.

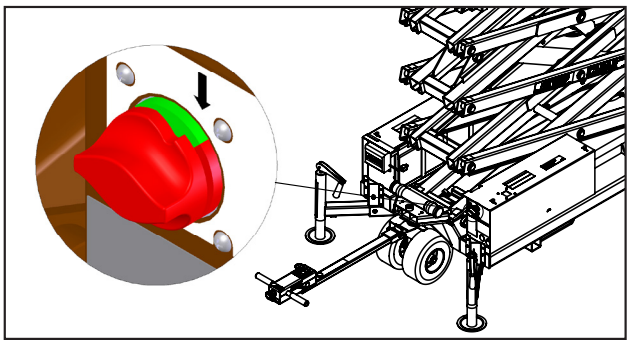


FIGURE 10: Master Power Switch "ON"

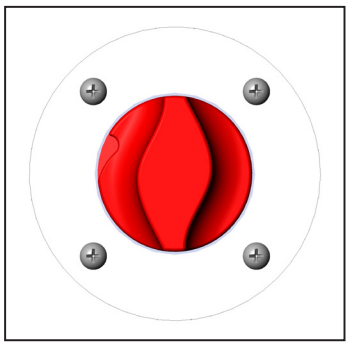


FIGURE 11: Master Power Switch "OFF"

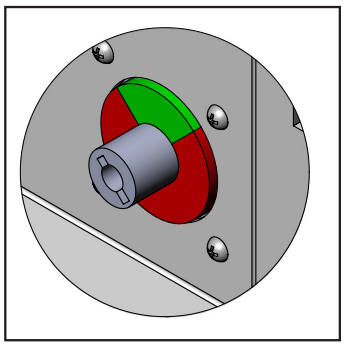
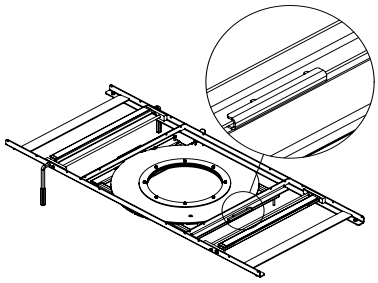


FIGURE 12: Master Power Switch Knob Removed

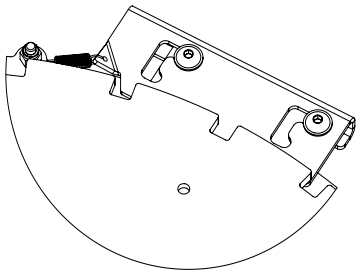
Shut Down Procedure

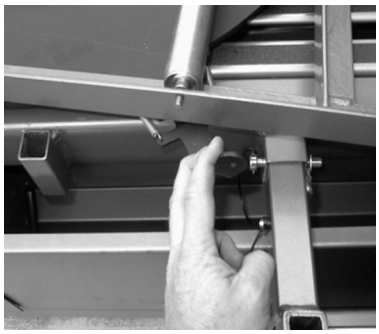
- Completely lower platform.
- Turn off and remove master power knob to prevent unauthorized access.
  Note: Batteries will discharge if this procedure is not followed.
- Plug in battery charger; check indicator light. Check battery water level monthly.
  More details on battery charging are in the Maintenance section of this manual.

Accessories



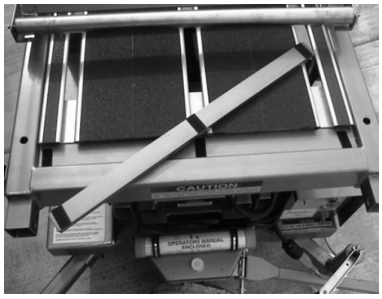
Casket lock
There are 2 casket locks with 2 removable handles. Lock is on when casket remains elevated above rollers. Use one lock when doing an entombment and two locks when transporting a casket.





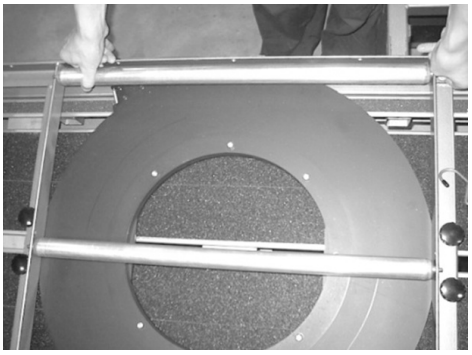
Rotator
This option permits the roller platform to rotate and to receive a casket at an angle to the lift. The lock mechanism must be pulled at an angle in line with the center of the rotator to rotate. The roller platform is attached to the rotator with the latches shown. To unlatch the rotator from the platform, slide the latches out as shown (view from underneath).

The regular rotator is attached to the platform in one of several positions with carriage bolts.

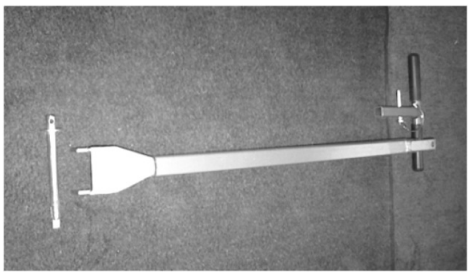


Sliding Platform
This stainless steel deck is set up to allow the rotator to move along the length of the deck. A physical stop at the end of the platform (over steering) can be removed to allow the rotator to slide off completely.

Rotator Platform Extension
This attachment converts a 6 high into a 7 high lift. It is also used to do entombments with low ceiling conditions. To install, remove roller platform and place extension over each tab of the rotator. Replace the roller platform and the 4 thumbscrews.



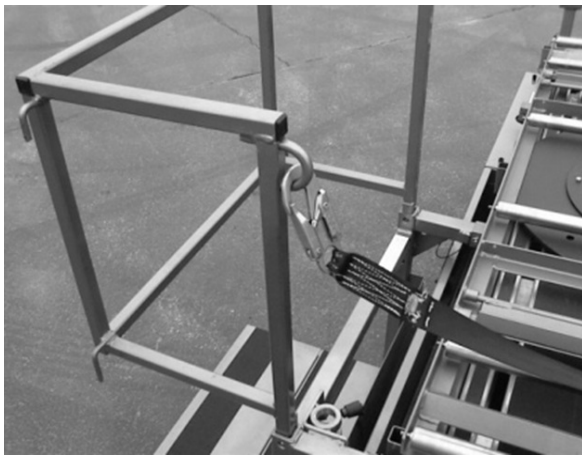
Couch Roller Position
Rollers in the center of the lift can be placed either parallel or perpendicular to the chassis. When placed the same as the other rollers, they are in position to do entombments off the narrow end of the lift. When 2 rollers in the center are placed parallel with the chassis, they are in proper position for a couch entombment.



Tow Bar/Tiller
Manually propelled lifts have a removable tow bar with removable handgrips. The pin used to hold in handgrips (when removed) can be used to pin tow bar to tractor or truck (5 mph max.).

Canvas cover
This cover is a fitted cover that fits over the lift mechanism. Narrow end of the cover fits over steering end of the lift. Place step rails on top of cover.

Work Center Rails
The 2 in 1 casket lift becomes a maintenance lift by removing rotator and roller platforms. Railings are placed on each side of the lift with the step rails placed on each end. Pin in step rails.



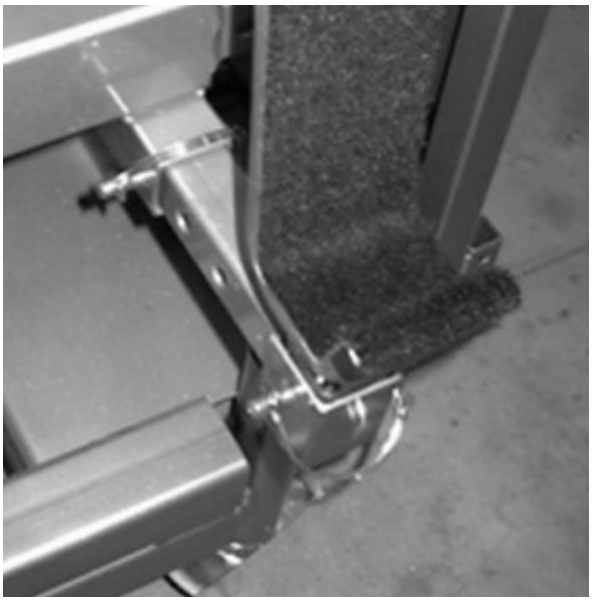
D-Rings
D-Rings are on the railings for use with a harness. Operators should always use as many railings as possible when using a lanyard attachment. Be careful; a lanyard is not a guaranty to avoid injury.

STOP **STOP**

PIN & LOCK RAILS IN PLACE

STOP **STOP**

FULLY EXTEND AND DEPLOY OUTRIGGERS BEFORE ELEVATING. SEE STOP PROCEDURE SECTION OF MANUAL FOR INFORMATION ON OPERATION NEXT TO A WALL.



3-position/6-Position, Padded Crypt-Front Holder
This attachment consists of carpeted channels and 2 vertical socket attachments – each with 2 lock pins, most commonly used at the narrow end of lift by the remote control. Pin-in each of the vertical socket attachments into one of the 3 horizontal positions. The padded-channel attachment may now be placed down through the vertical socket attachment. The 6-position padded holder has 3 vertical positions. The 2 highest positions must be pinned in. Remove padded channels for entombment procedure. Use the holders as physical stops when transporting caskets on the lift. Swing-Away Attachment

STOP

VERIFY ALL ATTACHMENTS ARE SECURED.

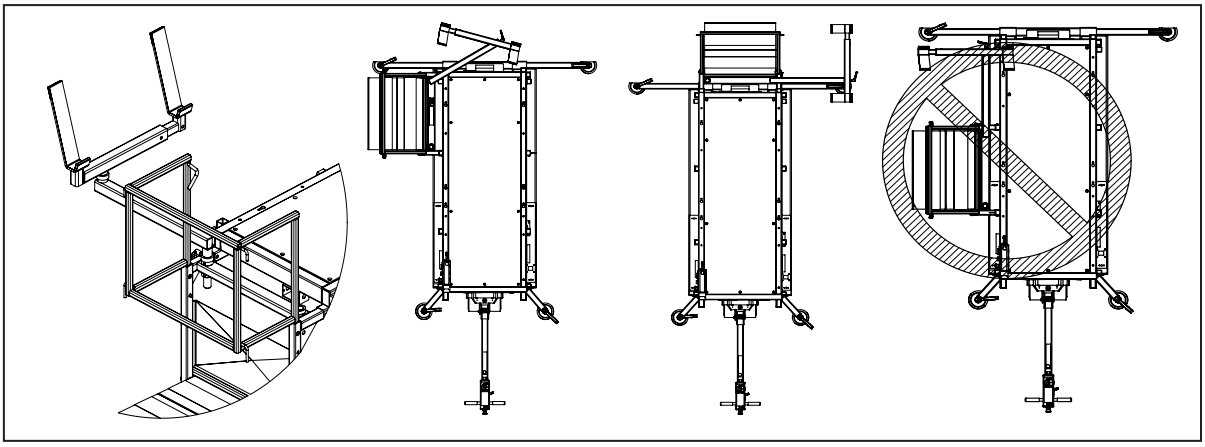


FIGURE 13: Swing away attachment mounting and step information

- Fully extend and deploy outriggers before elevating.
- The swing-away attachment is useful in removing crypt fronts. This attachment should only be used with the step on the back end or on the side in the position toward the back.

DANGER

DO NOT USE SWING-AWAY ATTACHMENT WITH A STEP IN THE CENTER POSITION ON THE LONG SIDE OF UNIT.

FAILURE TO COMPLY WITH THE LISTED SAFETY PRECAUTIONS MAY RESULT IN MACHINE DAMAGE, PERSONNEL INJURY OR DEATH.

- Never work under an elevated platform until maintenance locks have been engaged.
- Remove all rings, watches, and jewelry when performing any maintenance.
- Do not wear long hair unrestrained or loose fitting clothing and neckties which may become caught on or entangled in equipment.
- Observe and obey all warnings and cautions on machine and in manual.
- Keep oil, grease, water, etc. wiped from standing surfaces and handholds.
- Before making any adjustments, lubricating or performing any other maintenance, shut off all power controls.
- Battery should always be disconnected during replacement of electrical components.
- Keep all support equipment and attachments stowed in their proper place.
- Use only approved nonflammable cleaning solvents.

Maintenance Lock Use

DO NOT SERVICE EXTENDED OR PARTIALLY EXTENDED UNIT WITHOUT ENGAGING THE MAINTENANCE LOCK. MAINTENANCE ON THIS UNIT IS RELATIVELY SIMPLE WITH A MINIMUM AMOUNT OF SERVICING REQUIRED. HOWEVER, WITH ANY SCISSORS TYPE LIFTING DEVICE, A HAZARD TO PERSONNEL EXISTS WHEN MAINTENANCE IS PERFORMED BY WORKING THROUGH THE LIFTING BEAMS WITH THE UNIT RAISED. A MAINTENANCE LOCK IS INCLUDED WITH THE UNIT TO MECHANICALLY LOCK THE MECHANISM INTO THE RAISED POSITION.

BEFORE ANY ATTEMPT IS MADE TO SERVICE THIS UNIT, WHEN EXTENDED OR PARTIALLY EXTENDED, IT IS ABSOLUTELY NECESSARY TO ENGAGE THE MAINTENANCE LOCK.

To engage the maintenance lock:

1. Remove any load from the platform.
2. Raise the platform as high as necessary to engage the maintenance lock.
3. Place each of the two pins into position.
4. Lower the platform until scissors rests on maintenance lock pins.

Do not service extended or partially extended units until the above procedure is followed. Maintenance lock must be engaged.

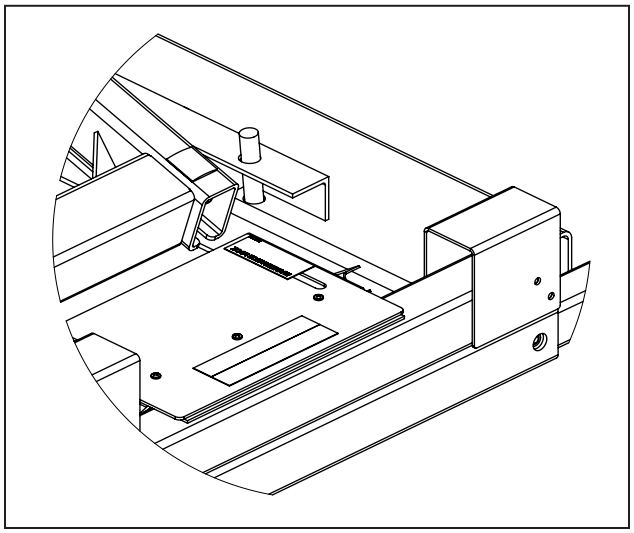


FIGURE 14: ML Engaged

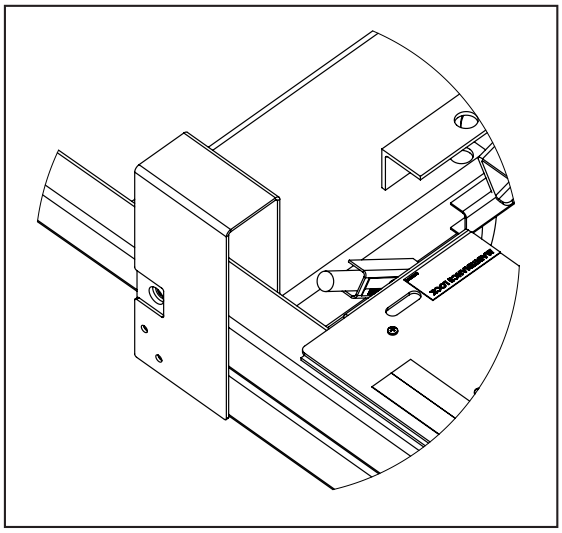


FIGURE 15: ML Storage

Battery Service

This unit is equipped with deep cycle 12-volt batteries. The care and maintenance of your battery has much to do with how well this unit functions. Battery wiring and water level should be checked monthly. Do not overfill. The battery fluid will expand as it becomes warm from charging. When the cells are too full, fluid will seep out when charging.

WARNING

LEAD-ACID BATTERIES GENERATE EXPLOSIVE GASES. KEEP SPARKS AND FLAME AWAY FROM BATTERIES. DO NOT SMOKE WHILE CHARGING.

WARNING

NEVER SMOKE OR USE OTHER COMBUSTIBLES NEAR BATTERY WHILE SERVICING BATTERY OR OTHER COMPONENTS. PROVIDE PLENTY OF VENTILATION. PRESENCE OF HYDROGEN FUMES COULD LEAD TO EXPLOSION!

NEVER ADD ACID TO BATTERY!

The solution is at its proper strength when the battery is manufactured. Use distilled water and keep fluid up to proper level. When required, water should be added to battery after charging, unless water level is below the plates.
Note: The surrounding temperature greatly affects the power reserve within a battery.
Example: A battery that is 100% charged at 80 degrees Fahrenheit drops to 65% at 32 degrees Fahrenheit. At 0 degrees, this battery will drop to 40%.

Battery care: To be done monthly (If AGM battery option is installed on this unit, this maintenance is not necessary)

1. Remove battery box/cabinet cover.
2. Remove battery caps and check fluid level.
3. Fill each cell (if needed) to split ring with distilled water. DO NOT OVERFILL.
4. Reinstall caps.
5. Wash all dirt, debris, acid, etc., off battery whenever corrosion is detected. Use a solution of 5-tsp. baking soda per quart of warm water.
6. Coat terminals with a commercially available coating.

Battery Charging: w/ automatic charger (optional)
1. Plug charger into a 110V AC source.
2. Check that red power light on charger goes on. A green light will indicate when battery is fully charged.

Hydraulic Cylinder Service
Hydraulic Cylinder: Removal and replacement
WARNING: This procedure requires the platform to be raised to gain access to the unit through the open lifting beams. Serious injury or death could result if the maintenance lock is not properly engaged before performing this procedure. Never work through the beams or place yourself under the raised platform during maintenance without the maintenance lock properly engaged.

1. Raise platform and engage maintenance lock.
2. Lower platform until lower beams make contact with the maintenance lock.
3. Remove the negative (-) battery cable from the battery.
4. Disconnect high-pressure hose from cylinder.
5. Support hydraulic cylinder; remove snap rings from hydraulic cylinder pins.
   Remove cylinder pins from both the upper and lower mounting points; remove the cylinder from the lift.
6. Install new or repaired hydraulic cylinder in the reverse order.
7. Raise platform and disengage the maintenance lock. Lower the lift.
8. Fully raise and lower the lift two (2) times to bleed the air from the system.
9. With lift fully lowered, check hydraulic fluid level and fill if needed

Troubleshooting

Problem	Possible Cause	Solution
No powered operation at all (No Lift, No Drive)		
	Master power switch in OFF position.	Turn knob to ON position.
	Emergency stop activated.	Pull out emergency stop button.
	Battery not sufficiently charged.	Fully charge battery.
Will not drive.	Manual parking brake released	Engage brake handle.
	Other	Check Drive Control Board Flash Codes.
	An outrigger is not fully in.	Stow outriggers. See PLC Input / Output Indications.
Starts elevating, then stops.	Overload	Remove excess load before continuing use.
Will not elevate.	Outriggers not extended or deployed.	Deploy outriggers. See PLC Input / Output Indications.
	Battery not sufficiently charged.	Fully charge battery.
	Electrical circuitry defective.	Repair or replace wiring as needed.
	Defective pump motor.	Remove pump assembly and obtain replacement pump from factory.
Pump operates; platform will not elevate.	Hydraulic fluid level low.	With platform lowered, fill pump reservoir to 1" below top of reservoir.
	Dump valve on pump stuck open.	Flush valve by simultaneously pressing the up switch at base and the down switch on platform control for 30 sec.
	Emergency down valve open.	Close emergency down valve.
Elevate speed slow or erratic.	Battery not sufficiently charged.	Fully charge battery.
	Emergency down valve open.	Close emergency down valve.
	Loose electrical connection.	Inspect & ensure all connections are secure.
	Momentary short in wiring.	Repair or replace wiring as needed.
	Foreign matter lodged in dump valve.	Flush valve by simultaneously pressing the up switch at base and the down switch on platform control for 30 sec. If problem continues, replace dump valve.
	Bent structural member(s).	Make arrangements w/ factory to have member(s) replaced.
	Restriction in hydraulic hose.	Replace defective hydraulic hose.
	Gears in pump worn or defective.	Remove pump assembly and obtain replacement pump from factory.
Descent speed slow.	Obstruction in hydraulic hose.	Replace defective hydraulic hose.
	Obstruction in dump valve.	Flush valve by simultaneously pressing the up switch at base and the down switch on platform control for 30 sec. If problem continues, replace dump valve.

Problem	Possible Cause	Solution
Unit will not descend.	Master Power switch on OFF position.	Turn knob to ON position.
	Emergency stop activated.	Pull out emergency stop button.
	Battery not sufficiently charged.	Fully charge battery.
	Loose electrical connection.	Inspect & ensure all connections are secure.
	Faulty dump valve coil.	Replace dump valve coil.
	Actuated velocity fuse.	Check for hydraulic leak and repair as needed. Reset velocity fuse by elevating platform w/ hydraulic pump. Check that the unit has proper hydraulic fluid. Replace if needed.
Unit creeps down.	Emergency down valve open.	Close emergency down valve.
	Foreign matter lodged in dump valve.	Flush valve by simultaneously pressing the up switch at base and the down switch on platform control for 30 sec.
	Defective down valve.	Replace down valve.
	Damaged seal in hydraulic cylinder.	Replace hydraulic seals in cylinder w/seal kit available from factory. Note: If walls inside cylinder are scratched or pitted, cylinder must be replaced.

Drive Control Board Flash Codes

Programmer Display	LED Code	Explanation	Possible Cause
THERMAL CUTBACK	¤ ¤	Over-/under-temp. cutback	Temperature >92º C or <-25ºC.
			Excessive load on vehicle.
			Electromagnetic brake not releasing properly.
THROTTLE FAULT 1	¤ ¤¤	Pot high or pot low signal out of range	Throttle input wire open or shorted.
			Throttle pot device.
			Wrong type selected
SPD LIMIT POT FAULT	¤ ¤¤¤	Speed limit pot fault	Speed limit pot wire(s) broken or shorted.
			Broken speed limit pot.
LOW BATTERY VOLTAGE	¤ ¤¤¤¤	Battery voltage too low	Battery voltage <17 volts.
			Bad connection at battery or controller.
OVERVOLTAGE	¤ ¤¤¤¤¤	Battery voltage too high	Battery voltage >36 volts.
			Vehicle operating with charger attached.
			Intermittent battery connection.
MAIN OFF FAULT	¤¤ ¤	Main cont. Off fault	Main contactor drive failed open.
MAIN CONT WELDED	¤¤ ¤¤	Main contactor did not open	Main contactor welded.
			Main contactor driver fault.
			Brake coil resistance too high.
MAIN CONT DNC	¤¤ ¤¤¤	Main contactor did not close	Main contactor stuck open.
			Main contactor driver fault.
			Brake coil resistance too high.
MAIN ON FAULT	¤¤ ¤¤¤¤	Main cont. driver On fault	Main contactor driver failed closed.
PROC/WIRING FAULT	¤¤¤ ¤	HPD fault present > 100 sec.	Misadjusted throttle.
			Broken throttle pot or throttle mechanism.
BRAKE ON FAULT	¤¤¤ ¤¤	Brake on fault	Electromagnetic brake driver shorted.
			Electromagnetic brake coil open.
PRECHARGE FAULT	¤¤¤ ¤¤¤	Brake off fault	Controller failure.
			Low battery voltage.
BRAKE OFF FAULT	¤¤¤ ¤¤¤¤	Precharge fault	Electromagnetic brake driver open.
			Electromagnetic brake coil shorted.
HPD	¤¤¤ ¤¤¤¤¤	HPD fault	Improper sequence of throttle and KSI, push, or inhibit inputs.
			Misadjusted throttle pot.

Programmer Display	LED Code	Explanation	Possible Cause
CURRENT SENSE FAULT	¤¤¤¤ ¤	Current sense voltage fault	Short in motor or in motor wiring.
			Controller failure.
HW FAILSAFE	¤¤¤¤ ¤¤	Motor voltage fault	Motor voltage does not correspond to throttle request.
			Short in motor or in motor wiring.
			Controller failure.
EEPROM FAULT	¤¤¤¤ ¤¤¤	EEPROM fault	EEPROM failure or fault.
POWER SECTION FAULT	¤¤¤¤ ¤¤¤¤	Output section fault	EEPROM failure or fault.
			Short in motor or motor wiring.
			Controller failure.

SECTION 7 | INSPECTION CHECKLISTS

Pre-start Lift Inspection Checklist

WARNING

THIS CHECKLIST MUST BE USED AT THE BEGINNING OF EACH SHIFT OR AFTER EVERY SIX TO EIGHT HOURS OF USE. FAILURE TO DO SO COULD AFFECT THE SAFETY OF THE OPERATOR.

MODEL NUMBER: _____ SERIAL NUMBER: _____

1. Keep inspection records up-to-date.
2. Record and report all discrepancies to your supervisor.
3. A dirty machine cannot be properly inspected.

Y-Yes/Acceptable N-No/Unacceptable R-Repaired

	Y	N	R
Visually inspect all machine components for missing parts and obvious damage including torn or loose hoses, hydraulic fluid leaks, torn, frayed, or disconnected wires, and bent structural members. Replace components as necessary.			
Check the hydraulic fluid level with the platform fully lowered.			
Check the tires for damage. Check wheel axle bolts for tightness.			
Check the hoses and the cables for worn areas or chafing. Replace if necessary.			
Check that all snap rings are secure in grooves on pivot pins.			
Check that warning and instructional labels are legible and secure.			
Check that manual is on unit.			
Check the platform control.			
Emergency Stop (must stop all function)			
Enable (must be pressed for function)			
Up/Down Control (must spring back to center off position)			
Check the base controls for proper operation.			
Key Switch (lift operates only from ON position)			
Emergency Stop (must stop all function)			
Enable (must be pressed for function)			
Up/Down Control (must spring back to center off position)			
Unit does not elevate if outriggers not extended and deployed.			
(For Self-Propelled Models): Drive forward, reverse, brakes engaged when not driving.			

DATE: _____ INSPECTED BY: _____

Annual Lift Inspection Checklist

CAUTION

FAILURE TO PERFORM INSPECTIONS AND PREVENTIVE MAINTENANCE AT RECOMMENDED INTERVALS MAY RESULT IN THE UNIT BEING OPERATED WITH A DEFECT THAT MAY RESULT IN INJURY OR DEATH OF THE OPERATOR.

An annual inspection of the 2-n-1 Low Boy Mausoleum Lift shall be performed by a qualified person, no later than 13 months from the date of prior inspection. The inspection shall include, but not be limited to the following:

MODEL NUMBER: _____ SERIAL NUMBER: _____

1. Keep inspection records up-to-date.
2. Record and report all discrepancies to your supervisor.
3. A dirty machine cannot be properly inspected.

Y-Yes/Acceptable N-No/Unacceptable R-Repaired

	Y	N	R
Pull out and engage outriggers. Be sure that the outrigger stops are working properly. If not, adjust button stops so that the outriggers lock into the appropriate position.			
Verify that platform will not elevate if overloaded 120%.			
For the following, the lift must be raised and have the maintenance lock engaged.			
Inspect scissors sections. Check for bent members and cracked welds.			
Check all pivot bars for wear.			
Check that all snap rings are locked into place and are not missing.			
Fully extend lift. Check cylinder, pump, and hose for hydraulic leaks.			
Disengage the maintenance lock and completely lower the lift.			
Use outrigger jacks to lift wheels off the ground. Check all wheels and bearings.			
Check caster bearings. Grease all zerks.			
Check hydraulic fluid level. It should be 1" from top of tank. Fill as needed.			
Clean battery terminals and check water level in battery.			
Check all wires for damage or wear.			
Check that all snap clips and lanyards / or snap buttons are on all attachments. (Step rails, work center rails, steps, stone holders, etc.)			
Check the step hinges. Step should be level or slightly elevated.			
Replace non-skid tape if needed.			
Check that all switches are operating correctly.			
Check that all decals are in place and are legible.			
Make any necessary repairs and replace any worn parts.			

DATE: _____ INSPECTED BY: _____

SECTION 8 | PARTS INFORMATION

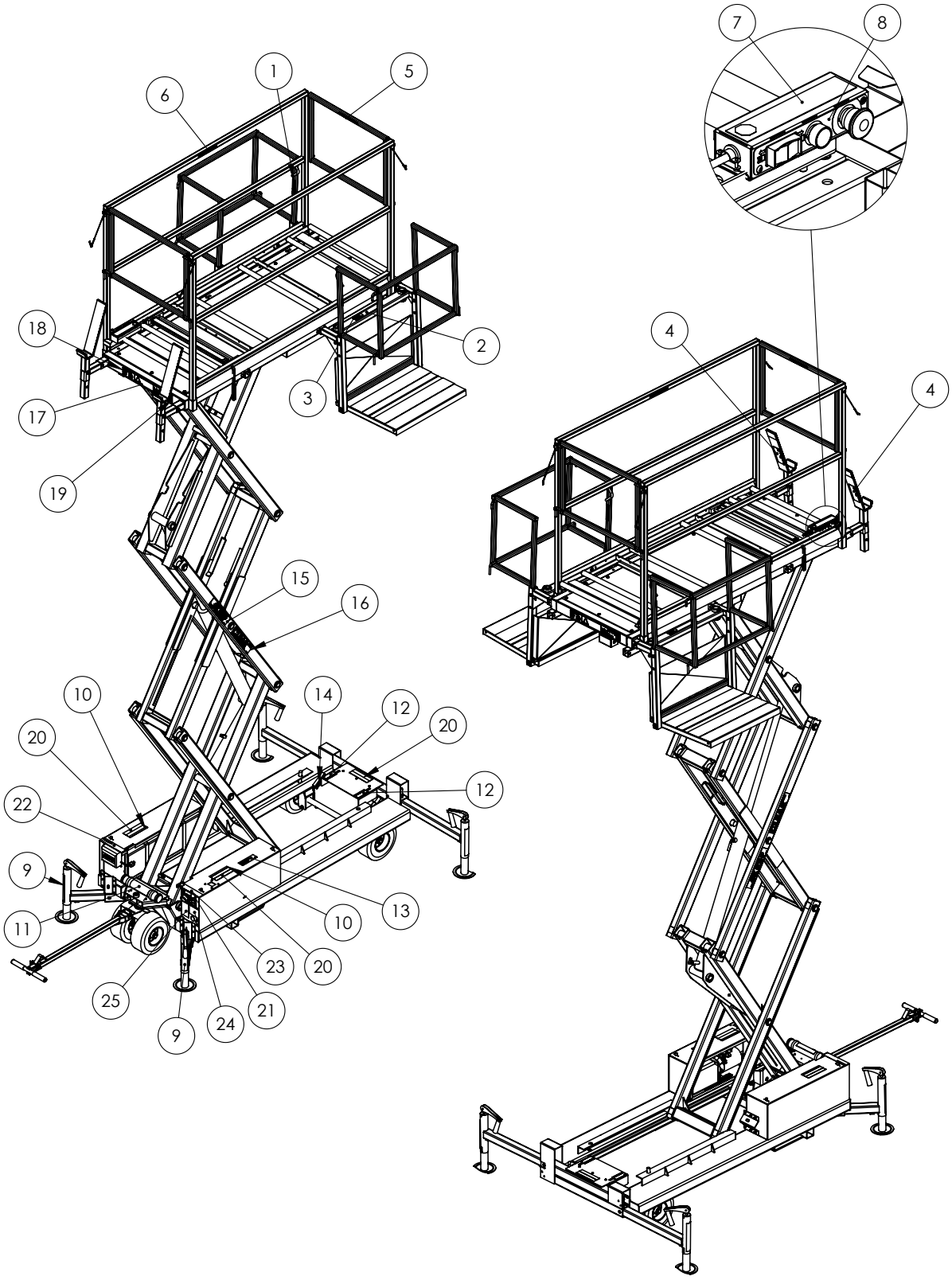
Replacement Parts
All parts should be ordered from:

Custom Equipment, Inc.
2647 Hwy 175
Richfield, WI 53076
Phone (262) 644-1300
USA

Always refer to our part number(s) as listed in this manual and give a complete description of the part(s) desired. Also, please provide the model number and the serial number of the unit when ordering. These can normally be found on the front of the unit on or near the main set of controls.
All parts will be shipped F.O.B. from Richfield, WI.

Safety Decal Locations
Decals: Push-Around Models

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	DE746	DECAL,LANYARD ATTACHMENT	2
2	DE052	DECAL,STOP	2
3	DE061	DECAL,CAPACITY STEP LB	2
4	DE062	DECAL,CAPACITY STONE HOLDER	2
5	DE017	DECAL,GUARDRAIL	2
6	DE017	DECAL,GUARDRAIL	2
7	DE052	DECAL,STOP	1
8	DE064	DECAL,CTL UPR LB	1
9	DE004	DECAL,EXTEND OUTRIGGERS	4
10	DE032	DECAL,PINCH POINT	2
11	DE600E-10	DECAL,MANUAL BOX	1
12	DE600E-14	DECAL,MAINT LOCK(SYMBOLS)	2
13	DE600-28	DECAL,E-DOWN LOCATION	1
14	DE008	DECAL,MAINT LOCK	2
15	DE038	DECAL,KEEP	2
16	DE039	DECAL,CLEAR	2
17	DE059	DECAL,ELECTROCUTION HAZARD	2
18	DE665	DECAL,ROLLER	2
19	DE041	DECAL,CAPACITY 1000 LB.	2
20	DE001	DECAL,WARNING NO STEP	3
21	DE063	DECAL,CTL LWR LB MP	1
22	DE060	DECAL,WARNINGS LB	1
23	DE052	DECAL,STOP	1
24	DECA-001	SERIAL NUMBERS	1
25	DE705X	DECAL,MODEL INFO DCXXLB S2	1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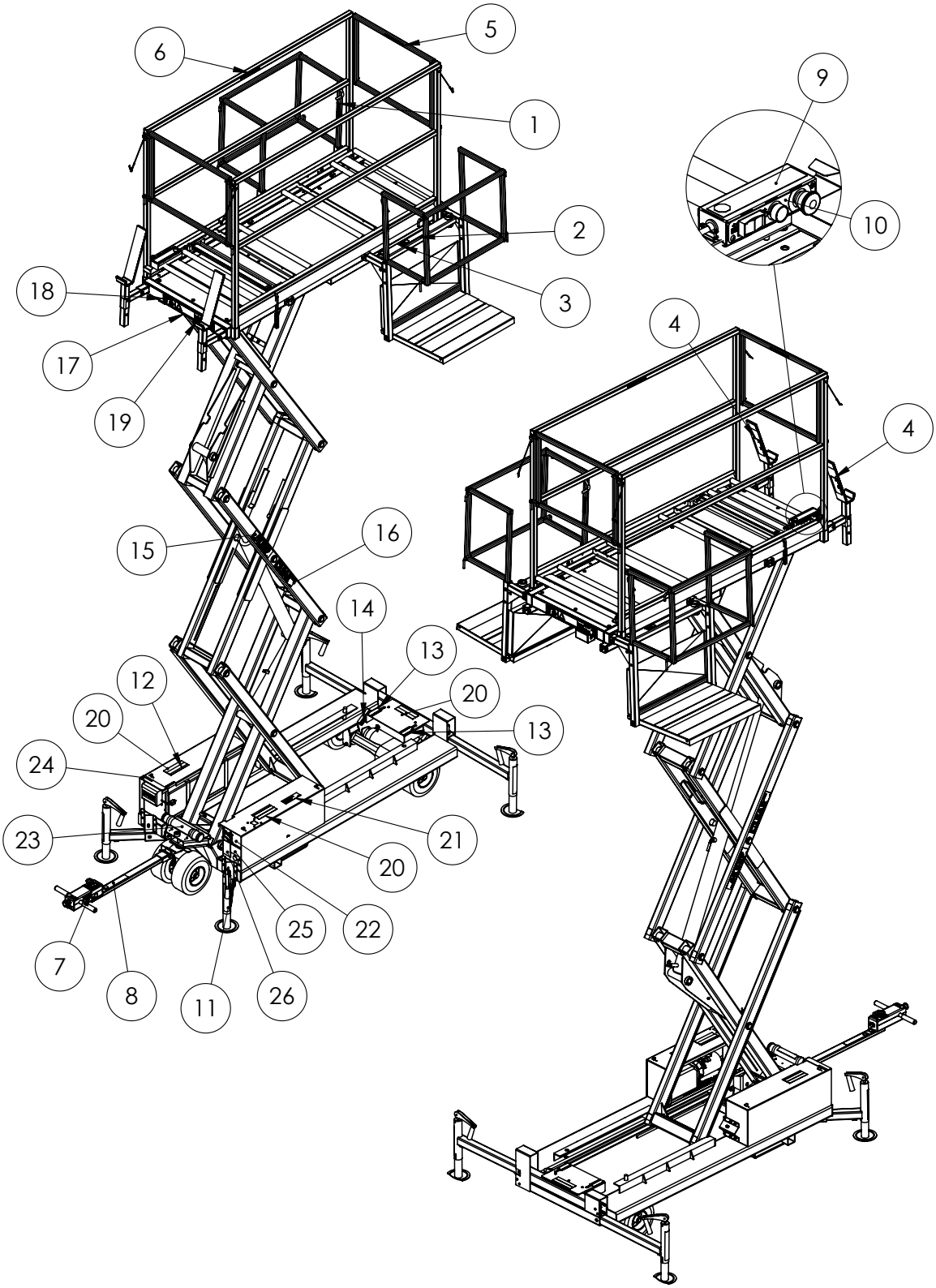
Decals: Self-Propelled Models

ITEM NO.	PART NUMBER	DESCRIPTION	QTY
1	DE746	DECAL,LANYARD ATTACHMENT	2
2	DE052	DECAL,STOP	2
3	DE061	DECAL,CAPACITY STEP LB	2
4	DE062	DECAL,CAPACITY STONE HOLDER	2
5	DE017	DECAL,GUARDRAIL	2
6	DE017	DECAL,GUARDRAIL	2
7	DE050	DECAL,CTL TILLER	1
8	DE052	DECAL,STOP	1
9	DE052	DECAL,STOP	1
10	DE064	DECAL,CTL UPR LB	1
11	DE004	DECAL,EXTEND OUTRIGGERS	4
12	DE032	DECAL,PINCH POINT	2
13	DE600E-14	DECAL,MAINT LOCK(SYMBOLS)	2
14	DE008	DECAL,MAINT LOCK	2
15	DE038	DECAL,KEEP	2
16	DE039	DECAL,CLEAR	2
17	DE059	DECAL,ELECTROCUTION HAZARD	2
18	DE665	DECAL,ROLLER	2
19	DE041	DECAL,CAPACITY 1000 LB.	2
20	DE001	DECAL,WARNING NO STEP	3
21	DE600-28	DECAL,E-DOWN LOCATION	1
22	DE058	DECAL,CTL LWR LB SP	1
23	DE600E-10	DECAL,MANUAL BOX	1
24	DE060	DECAL,WARNINGS LB	1
25	DECA-001	SERIAL NUMBERS	1
26	DE70XX	DECAL,MODEL INFO DC14LB-SP S2	1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(from ANSI A92.3 Manual of Responsibilities)

5. Responsibilities of Dealers

5.1 Basic Principles. Sound principles of safety, training, inspection, maintenance, applications, and operation consistent with all data available regarding the parameters of intended use and expected environment shall be applied in the training of operators, in maintenance, application, and operation of the aerial platform with due consideration of the knowledge that the unit will be carrying personnel.

5.2.1 Manuals. Dealers shall keep and maintain a copy of the operating, maintenance, parts, and service manuals. The operating manual shall be provided upon each rental lease or sale delivery and shall be stored in the weather-resistant storage location on the aerial platform. Manual(s) are considered an integral part of the aerial platform and are vital to communicate necessary safety information to users and operators. In addition, repair and parts manuals should be provided with each sale delivery.

5.2.2 Manual of Responsibilities. The current Manual of Responsibilities for Dealers, Owners, Operators, Lessors, Lessees, and Brokers of manually propelled elevating work platforms shall be provided and stored in the weather-resistant storage compartment.

5.3 Predelivery Preparation. Aerial platforms shall be inspected, serviced, and adjusted to manufacturer requirements prior to each delivery by sale, lease, or rental.

5.4 Maintenance, Inspection and Repair.

5.4.1 Maintenance. When a dealer accomplishes preventative maintenance on the aerial platform, it shall be in accordance with the manufacturer's recommendations and on the environment and severity of use.

5.4.2 Inspection. When the dealer accomplishes frequent and annual inspections, they shall be in accordance with the manufacturer's manuals and instructions.

5.4.3 Repairs. Repairs shall be accomplished to correct malfunctions and problems shall be in accordance with the manufacturer's manuals and instructions.

5.5 Safety Precautions. Before adjustments and repairs are started on an aerial platform, the following precautions shall be taken as applicable:

(1) All controls in the "off" position and all operating features secured from inadvertent motion by brakes, blocks, or other means.
(2) Power plant stopped and starting means rendered inoperative. Platform lowered to the full down position, if possible, or otherwise secured the maintenance lock to prevent dropping.
(3) Hydraulic oil pressure relieved from all hydraulic circuits before loosening or removing hydraulic components.
(4) Safety props or latches installed where applicable as described by the manufacturer.
(5) Precautions specified by the manufacturer.

5.6 Replacement Parts. When parts of components are replaced, they shall be identical or equivalent to original aerial platform parts or components.

5.7 Training. The dealer shall offer appropriate training to facilitate owners, users and operators to comply with requirements set forth in this standard regarding the inspection, maintenance, use, application and operation of the aerial platform.

5.8 Familiarization upon Delivery. Upon delivery by sale, lease, rental or any form of use, the dealer shall have the responsibility with the person designated by the receiving entity for accepting the aerial platform to:

(1) Identify the weather-resistant compartment for manual(s) storage
(2) Confirm that the manual(s), as specified by the manufacturer, are on the aerial platform.
(3) Review control functions.
(4) Review safety devices specific to the model aerial platform being delivered.
(5) Review loading and unloading procedures and the use of tilt-back feature(s) when applicable.

5.9 Dealer as user. Whenever a dealer directs personnel to operate an aerial platform (loading, unloading, inspecting, sales demonstrations, or any form of use), the dealer shall assume the responsibilities as specified in section 7 of this standard. All personnel authorized to operate the aerial platform shall have been:

(1) Trained.
(2) Familiarized with the aerial platform to be operated.
(3) Made aware of the responsibilities of the operators as outlined in section 8 of this standard.

5.10 Assistance to Owners and Users. If a dealer is unable to answer an owner's or user's question relating to rated capacity, intended use, maintenance, repair, inspection, or operation of the aerial platform, the dealer shall obtain the proper information from the manufacturer and provide that information to the owner or user.

5.11 Record Retention and Dissemination.

5.11.1 Record Retention. The dealer shall retain the following records for at least 4 years:

(1) Name and address of the purchaser of each aerial platform by serial number and the date of delivery.
(2) Records of the pre-delivery preparation performed prior to each delivery.
(3) Name of the person(s) trained.
(4) Name of the person(s) providing the training.
(5) Name of the person(s) receiving familiarization with the aerial platform upon each delivery unless the individual has been provided with familiarization on the same model, or having characteristics consistent with the one being delivered, within the prior 90 days.
(6) Name of the person(s) providing the familiarization with the aerial platform upon each delivery.

(7) Records of frequent and annual machine inspections accomplished.
(8) Records of repairs accomplished to correct malfunctions and problems.

5.11.2 Proof of Training. The dealer should provide trainees who successfully complete training a means to evidence that they are trained if such proof is requested by the trainee. The document evidencing training shall include the following information:

(1) Name of trainee
(2) Name of entity providing training or retraining
(3) Name of trainer(s)
(4) Clear identification that training covered Manually Propelled Elevating Work Plat-forms.
(5) Date of the training.

5.11.3 Record Dissemination. Upon request, the dealer should provide the following information:

(1) To the owner of the aerial platform, a copy of frequent or annual inspections performed.
(2) To the owner of the aerial platform, a copy of repairs accomplished.
(3) To a user, proof of training for an operator, including name of the trainer and the date of training.
(4) To a user, the name of the person(s) receiving familiarization upon delivery of the aerial platform.

5.12 Modifications. Modification, alteration or remanufacture of the aerial platforms shall be made only with prior written permission of the manufacturer.

5.13 Manufacturer's Safety Bulletins. The dealer shall comply with safety-related bulletins as received from the manufacturer.

5.14 Responsibilities upon Sale. When the aerial platform is sold, the dealer:

(1) Shall, upon delivery, ensure the operating and maintenance manuals are conveyed to the owner.
(2) Shall, upon delivery, provide a copy of the current manual of responsibilities.
(3) Should, within 60 days of sale, provide repair and parts manuals.
(4) Shall, within 60 days of sale, notify the manufacturer or its successor (if existing) of the sale, providing the full name and address of the purchaser.
(5) Should, if the aerial platform is used, accomplish an annual machine inspection prior to delivery and provide a copy to the purchaser within 60 days of sale.
(6) Shall, upon delivery, familiarize the person designated by the receiving entity with the aerial platform being acquired.

6. Responsibilities of Owners

6.1 Basic Principles. Sound principles of safety, training, inspection, maintenance, application and operation consistent with all data available regarding the parameters of intended use and expected environment shall be applied in the performance of the responsibilities of owners with due consideration of knowledge that the unit will be carrying personnel.

6.2 Responsibilities upon Purchase. Upon purchase of the aerial platform, the buyer:

(1) Shall ensure the operating and maintenance manuals have been received.
(2) Should acquire repair and parts manuals within sixty (60) days of acquisition
(3) Shall within (60) days of acquisition of the aerial platform provide the manufacturer with the full name and address of the buyer along with the model and serial number of the aerial platform acquired.
(4) Shall, if the aerial platform is used, ensure that frequent and annual inspections are current.
(5) Shall become familiar with and conform to the responsibilities of owners set forth in the current Manual of Responsibilities for Manually Propelled Elevating Aerial Platforms.

6.3 Manuals.

6.3.1 Machine Manuals. Owners shall keep a copy of the operating and maintenance manual with each rental, lease, or sales delivery by ensuring they are properly stored in the weather-resistant compartment that is a part of the aerial platform. The manual is considered an integral part of the aerial platform and is vital to communicate necessary safety information to users and operators.

6.3.2 Manual of Responsibilities. The current Manual of Responsibilities for Dealers, Owners, Users, Operators, Lessors, Lessees, and Brokers of manually propelled elevating work platforms shall be provided and stored in the weather-resistant storage compartment.

6.4 Maintenance, Inspection and Repair.

6.4.1 Maintenance. The owner of an aerial platform shall arrange that the maintenance specified in this standard is properly performed on a timely basis. The owner shall establish a preventative maintenance program in accordance with the manufacturer's recommendations and based on the environment and severity of use of the aerial platform.

6.4.2 Inspection. The owner of an aerial platform shall arrange for frequent and annual inspections to be performed in accordance with the manufacturer. All malfunctions and problems identified shall be corrected before the aerial platform is returned to service.

6.4.3 Repairs. When the aerial platform is damaged or in need of repair, all malfunctions and problems identified shall be corrected before the platform is returned to service.

6.5 Pre-delivery Preparation. Aerial platforms shall be inspected, serviced, and adjusted in accordance with the manufacturer's requirements prior to each delivery by sale, lease, or rental.

6.6 Frequent Inspection. The owner of an aerial platform shall ensure that a frequent inspection is performed in accordance with the manufacturer's instructions, on an aerial platform:

(1) That was purchased used. This inspection shall be accomplished unless it is determined that the frequent and annual inspections are current.
(2) That has been in service for 3 months or 150 hours, whichever comes first.
(3) That has been out of service for a period of longer than 3 months.

The inspection shall be made by a person qualified as a mechanic on the specific type of aerial platform or one having similar design characteristic. The inspection shall be in accordance with items specified by the manufacturer for frequent inspection and shall include, but not be limited to, the following:

(1) All functions and their controls for speed(s) smoothness and limits of motion.
(2) Emergency lowering means.
(3) All chain and cable mechanisms for adjustment and worn or damaged parts.
(4) All emergency and safety devices.
(5) Lubrication of all moving parts, inspection of filter element(s), hydraulic oil, engine oil, and coolant, as specified by the manufacturer.
(6) Visual inspection of structural components and other critical components, such as fasteners, pins, shafts, and locking devices.
(7) Placards, warnings and control markings.
(8) Items specified by the manufacturer.
(9) Correction of all malfunctions and problems identified and further inspection, if necessary.

6.7 Annual Inspection. The owner of an aerial platform shall ensure that an annual inspection is performed on the aerial platform no later than 13 months from the date of prior annual inspection. The inspection shall be made by a person qualified as a mechanic on the specific type of aerial platform or one having similar design characteristics. The inspection shall be in accordance with items specified by the manufacturer for an annual inspection. The owner shall not place the aerial platform into service until all malfunctions and problems have been corrected.

6.8 Maintenance Safety Precautions. Before adjustments and repairs are started on an aerial platform, the following precautions shall be taken as applicable.

(1) All controls in the "off" position and all operating features secured from inadvertent motion by brakes, blocks, or other means.
(2) Power plant stopped and starting means rendered inoperative.
(3) Platform lowered to full down position, if possible, or otherwise secured by the maintenance lock to prevent dropping.
(4) Hydraulic oil pressure relieved from all hydraulic circuits before loosening or removing hydraulic components.
(5) Safety props or latches installed where applicable as described by the manufacturer.
(6) Precautions specified by the manufacturer.

6.9 Replacement Parts. When parts or components are replaced, they shall be identical or equivalent to original aerial platform parts or components.

6.10 Maintenance Training. The owner shall train their maintenance personnel in inspection and maintenance of the aerial platform in accordance with 6.2 through 6.11 of this standard, and with the manufacturer's recommendations.

6.11 Training.

6.11.1 Operator Training. Whenever an owner directs or authorizes an employee to operate an aerial platform (loading, unloading, inspecting or any form of use) the owner shall assume the responsibilities of the user as specified in section 7 of this standard and ensure that the individual has been:

(1) Trained.
(2) Familiarized with the aerial platform to be operated.
(3) Made aware of the responsibilities of operators as outlined in Section 8 of this standard.

6.11.2 Assistance to Users. Upon request of the user, when an owner sells, leases, rents or provides an aerial platform for any form of beneficial use, the owner at that time shall offer to do training or advise the user where training may be reasonably secured.

6.12 Familiarization upon Delivery. Upon delivery by sale, lease, rental or any form of use, the dealer shall have the responsibility with the person designated by the receiving entity for accepting the aerial platform to:

(1) Identify the weather-resistant compartment for manual(s) storage
(2) Confirm that the manual(s), as specified by the manufacturer, are on the aerial platform.
(3) Review control functions.
(4) Review safety devices specific to the model aerial platform being delivered.
(5) Review loading and unloading procedures and the use of tilt-back feature(s) when applicable.

6.13 Operation. When an owner operates an aerial platform, the owner shall have the responsibilities of users as specified in Section 7 of this standard, and the operating personnel shall have the responsibilities of operators as specified in Section 8 of this standard.

6.14 Assistance to Owners and Users. If an owner is unable to answer an owner's or user's question relating to rated capacity, intended use, maintenance, repair, inspection, or operation of the aerial platform, the dealer shall obtain the proper information from the manufacturer and provide that information to the owner or user.

6.15 Record Retention and Dissemination.

6.15.1 Records Retention. The owner shall retain the following records for at least four (4) years:

(1) Name and address of the purchaser of each aerial platform by serial number and

date of delivery.
(2) Written records of the frequent and annual inspections performed. The record shall include deficiencies found, corrective action accomplished and identification of the person(s) performing the inspection and repairs.
(3) Written records of repairs accomplished on the aerial platform. The records shall include corrective action accomplished and identification of the person(s) performing the repairs
(4) Pre-delivery preparation performed prior to each delivery.
(5) Name of the person(s) trained.
(6) Name of the person(s) providing training.
(7) Name of the person(s) receiving familiarization with the aerial platform upon each delivery unless the individual has been provided with familiarization on the same model, or one having characteristics consistent with the one being delivered, within the prior 90 days.
(8) Name of the person(s) providing familiarization.

6.15.2 Proof of Training. Owners providing training should provide successful trainees a means to evidence their training if such proof is requested by the trainee, The document evidencing training shall include the following information:

(1) Name of trainee
(2) Name of entity providing training or retraining
(3) Name of trainer(s)
(4) Clear identification that training covered Manually Propelled Elevating Work Platforms.
(5) Date of the training.

6.15.3 Record Dissemination. Upon request, an owner accomplishing training and/or familiarization should provide the following:

(1) To a user, proof of training for an operator, including name of the trainer and the date of training.
(2) To a user, the name of the person(s) receiving familiarization upon delivery of the aerial platform.

6.16 Modifications. The owner shall not modify or concur in modifications or alteration to the aerial platform without the modifications being approved and certified in writing by the manufacturer.

6.17 Manufacturer's Safety Bulletins. The owner shall comply with safety-related bulletins as received from the manufacturer or dealer.

6.18 Responsibilities upon Sale. Upon sale of the aerial platform, the seller:

(1) Shall, upon delivery, ensure the operating and maintenance manuals are conveyed to the owner.
(2) Shall, upon delivery, provide a copy of the current Manual of Responsibilities for Manually Propelled Elevating Aerial Platforms to the new owner.
(3) Should provide repair and parts manuals to the new owner.

(4) Shall, upon the request of the new owner, offer training or advice where training may reasonably be obtained.

7. Responsibilities of Users.

7.1 Basic Principles. The information in this standard must be supplemented by good job management, safety control, and the application of sound principles of safety, training, inspection, maintenance, application, and operation consistent with all data available regarding the parameters of intended use and expected environment. Since the user has direct control over the application and operation of aerial platforms, conformance with good safety practices in this area is the responsibility of the user and the operating personnel, including the operator. Decisions on the use and operation of the aerial platform must always be made with due consideration for the fact that the machine will be carrying personnel whose safety is dependent on those decisions.

7.2 Manuals.

7.2.1 Machine Manuals. Users shall keep and maintain copy(ies) of the operating and maintenance manual(s) in the weather-resistant storage compartment provided by the manufacturer. The manual(s) is considered an integral part of the aerial platform and are vital to communication of necessary safety information to users and operators.

7.2.2 Manual of Responsibilities. The current Manual of Responsibilities for Dealers, Owners, Users, Operators, Lessors, Lessees, and Brokers of manually propelled elevating work platforms shall be provided and stored in the weather-resistant storage compartment.

7.3 Inspection and Maintenance. Users shall inspect and maintain the aerial platform as required to ensure proper operation. The frequency of inspection and maintenance shall be determined by the manufacturer's recommendation and be compatible with operating conditions and the severity of the operating environment. Aerial platforms that are not in proper operating condition shall be immediately removed from service until repaired. Repairs shall be made by a qualified person and the repairs shall be in conformance with the manufacturer's recommendations.

7.3.1 Frequent Inspection. Users of an aerial platform shall ensure that frequent inspections are conducted as outlined in 6.6 of this standard.

7.3.2 Annual Inspection. Users of an aerial platform shall ensure that frequent inspections are conducted as outlined in 6.7 of this standard.

7.3.3 Prestart Inspection. Before use each day or at the beginning of each shift, the aerial platform shall be given a visual inspection and functional test including but not limited to the following:

(1) Operating and emergency controls.
(2) Safety devices.
(3) Air, hydraulic and fuel system leaks

(4) Cables and wiring harness.
(5) Loose or missing parts.
(6) Tires and wheels.
(7) Placards, warnings, and control markings.
(8) Outriggers, Stabilizers, and other structures
(9) Guardrail systems
(10) Items specified by the manufacturer.

7.3.4 Maintenance Safety Precautions. Before adjustments and repairs are started on an aerial platform, the following precautions shall be taken as applicable:

(1) All controls in the "off" position and all operating features secured from inadvertent motion by brakes, blocks, or other means.
(2) Power plant stopped and starting means rendered inoperative.
(3) Platform lowered to the full down position, if possible, or otherwise secured by maintenance lock to prevent dropping.
(4) Hydraulic oil pressure relieved from all hydraulic circuits before loosening or removing hydraulic components.
(5) Safety props or latches installed where applicable as described by the manufacturer.
(6) Precautions specified by the manufacturer.

7.4 Replacement Parts. When parts or components are replaced, they shall be identical or equivalent to original aerial platform parts or components.

7.5 Maintenance Training. The user shall train the maintenance personnel in inspection and maintenance of the aerial platform in accordance with 7.3, 7.4, and 7.6 of this standard and with the manufacturer's recommendations.

7.6 Operator Training and Retraining. Whenever a user directs or authorizes an individual to operate an aerial platform, the user shall ensure that the individual has been:

(1) Trained before being assigned to operate the aerial platform.
(2) Familiarized with the aerial platform to be operated.
(3) Made aware of the responsibilities of operators as outlined in Section 8 of this standard.
(4) Retrained, if necessary, based on the user's observation and evaluation of the operator.

7.6.1 Trainee Records. A record of the trainee's aerial platform instruction shall be maintained by the user for at least four (4) years.

7.7 Familiarization before use. The user shall permit only properly trained personnel to operate an aerial platform. The user shall ensure that before use the operator is familiar with the model of the aerial platform to be operated, and specifically:

(1) Knows where the weather-resistant compartment for manual storage is located.
(2) Knows the operating and maintenance manuals supplied by the manufacturer are stored in the weather-resistant compartment and is familiar with the operating and safety manuals.

(3) Understands all control functions, placards and warnings.
(4) Is aware of and understands all safety devices specific to the model aerial platform being used.
(5) Understands loading and unloading procedures and the use of tilt-back feature(s) when applicable.

7.8 Work Place Inspection. Before the aerial platform is used and during use, the user shall check the area in which the aerial platform is to be used for possible hazards such as, but not limited to:

(1) Drop-offs or holes.
(2) Slopes.
(3) Bumps and floor obstructions.
(4) Debris.
(5) Overhead obstructions and high voltage conductors.
(6) Hazardous locations. (Reference ANSI/NFPA 505-1996)
(7) Inadequate surface and support to withstand all load forces imposed by the aerial platform in all operating configurations.
(8) Wind and weather conditions.
(9) Presence of unauthorized persons.
(10) Other possible unsafe conditions.

7.9 Determination of Hazardous Locations. It shall be the responsibility of the user to determine the hazard classification of the intended location of operation. Aerial platforms operated in hazardous location shall be approved in accordance with, and of the type required, by ANSI/NFPA 505-1996.

7.10 Operator Warnings and Instruction. The user shall direct personnel operating the aerial platform to be in compliance with the provisions set forth in this standard. The user shall monitor their performance and supervise their work to ensure the use, application and operation of the aerial platform is in conformance with the provisions set forth in section 8 of this standard, warn personnel of potential hazards, provide means to protect against identified hazards, and explain the potential; consequences of not following proper operating guidelines. Instructions and guidelines regarding proper operation shall include, but not necessarily be limited to the following issues and subjects:

(1) Fall Protection. The guardrail system of the aerial platform provides fall protection. If occupant(s) of the platform are required to wear personal fall protection equipment, occupants shall comply with instructions provided by the aerial platform manufacturer regarding anchorage(s).
(2) Slope. The aerial platform shall not be operated in any manner on slopes exceeding those for which the aerial platform is rated by the manufacturer.
(3) Deployment of stability enhancing means. Outriggers, Stabilizers, extendible axles, axle locks, or other stability enhancing means shall be deployed and locked into place as required by the manufacturer.
(4) Guardrail system. Guardrails shall be installed and positioned, and access gates or openings shall be closed per the manufacturer's instructions.
(5) Distribution of load. The load and its distribution on the platform extension(s) shall be in accordance with the manufacturer's rated capacity for that specific configuration.

(6) Maintaining overhead clearance. The operator shall be instructed to ensure that adequate clearance is maintained from overhead obstructions and energized electrical conductors and parts.
(7) Electrocution hazard. All applicable safety related work practices intended to prevent electric shock covered by the Code of Federal Regulations (CFR) 1910.333 shall be defined and explained to the operator by a qualified person. In particular, such person shall direct the operator, commensurate with the operator's qualifications to maintain the appropriate minimum approach distance (MAD) from energized power lines and parts covered by CFR 1910.33 (c).
(8) Personal protective equipment. The user shall direct the operator to ensure all personnel on the platform wear personal protective equipment as required.
(9) Personnel footing. The user shall direct the operator to ensure all personnel on the platform while working thereon. Climbing by occupants on the midrail or top rail of the aerial platform is prohibited. The use of planks, ladders, or any other devices on the platform for achieving additional height or reach is prohibited.
(10) Precaution for moving equipment. When moving equipment or vehicles are present, special precautions shall be taken to comply with local ordinances or safety standards established for the workplace. Warnings such as, but not limited to, flags, roped off areas, flashing lights, and barricades shall be used as appropriate.
(11) Reporting problems or malfunctions. The user shall direct the operator to immediately report to a supervisor any problem(s) or malfunction(s) that become evident during operation. The user shall ensure all problems and malfunctions that affect the safeties of operations are prior to continued use.
(12) Reporting potentially hazardous locations. The user shall direct the operator to immediately report to a supervisor any potentially hazardous location(s) that become evident during operation.
(13) Hazardous location operation. Operation of aerial platforms not approved and marked for operation in a hazardous location shall be permitted.
(14) Entanglement. Care shall be taken to prevent rope, electric cords, hoses, etc., from becoming entangled in the aerial platform.
(15) Capacity Limitation. Rated capacity shall not be exceeded when loads are transferred to the platform at any level.
(16) Work Area. The user shall direct the operator to ensure that the area surrounding the aerial platform is clear of personnel and equipment before lowering the platform.
(17) Fueling. The engine (if applicable) shall be shut down while fuel tanks are being filled Fueling shall be done in a well-ventilated area free of flames, sparks, or other hazards that may cause fire or explosion.
(18) Battery charging. Batteries shall only be charged in well-ventilated area free of flames, sparks, or other hazards that may cause fire or explosion.
(19) Improper platform stabilization. The aerial platform shall not be positioned against another object to steady the platform or improve stability.
(20) Misuse as a crane. The aerial platform shall not be used as a crane.
(21) Unusual operating support conditions. The aerial platform shall not be operated from a position on trucks, trailers, railway cars, floating vessels, scaffolds, or similar equipment unless the application is approved in writing by the manufacturer or a qualified person.
(22) Propelling. The user shall ensure that the operator follows the transport instructions of the manufacturer and limit speed according to conditions, including

the condition of the support surface, congestion, visibility, slope, location of personnel, and other factors leading to hazards which may cause collision(s) or result in the potential injury (ies) to personnel.
(23) Securing the aerial platform. The user shall direct the operator to implement means provided to protect against use by an unauthorized person(s).
(24) Altering safety devices. Interlocks or other safety devices shall not be altered or disabled.
(25) Snagged platform. If the platform or elevating assembly becomes caught, snagged, or otherwise prevented from normal motion by adjacent structures or other obstacles such that control reversal does not free the platform, all personnel shall be removed from the platform before attempts are made to free the platform using lower controls.
(26) Exiting or entering an elevated aerial platform. If permitted by the manufacturer, personnel shall exit or enter a raised aerial platform by following the guidelines and instructions provided by the manufacturer.
(27) Modifications. Modifications or alterations of an aerial platform or the fabrication and attaching of frameworks, or the mounting of attachments for holding tools or materials onto the platform or the guardrail system shall only be accomplished with prior permission of the manufacturer.
(28) Assistance to the operator. If an operator encounters any suspected malfunction of the aerial platform, or any hazard or potentially unsafe condition relating to capacity, intended use or safe operation of the aerial platform, the operator shall cease operation of the aerial platform and request further information from the user.
(29) Problems or Malfunctions. Any problem(s) or malfunction(s) that affect the safety of operations shall be repaired prior to the use of the aerial platform.
(30) Carrying materials (larger than the platform). The user shall ensure that only properly secured tools and materials which are evenly distributed and can be safely handled by a person(s) working from the platform, are moved.
(31) Rated horizontal force. The user shall direct the operator not to exceed the manufacturer's rated horizontal force.
(32) Bridge cranes. When an aerial platform is to operate within the area of travel of a bridge crane or similar equipment, steps shall be taken to prevent a collision with the aerial platform.
(33) Adequate support requirements. The user shall ensure the support surface is adequate for the aerial platform and the load carried.
(34) Leveling the aerial platform. Outriggers and leveling devices supplied by the manufacturer shall be utilized to level the aerial platform when provided.
(35) Protection against unauthorized use. The user shall direct the operator not to use, rent, lease, or provide the aerial platform for any form of beneficial use unless so authorized.
(36) Loading and tilt-back feature(s). The user shall direct the operator to follow the instructions of the manufacturer regarding loading, unloading and the use of tilt-back feature(s) when applicable.

7.11 User as operator. If a user is also the operator of an aerial platform, the user shall have the responsibilities of operators specified in Section 8 of this standard as well as responsibilities of users as specified in Section 7 of this standard.

7.12 Assistance to Operator. If a user is unable to answer any operator's questions

relating to rated capacity, intended use, maintenance, condition, or safety of operation of the aerial platform, the user shall obtain the proper information from the dealer, owner, or manufacturer and provide the information to the operator before use of the aerial platform in the application of concern.

7.13 Shutdown of Aerial Platform. The user shall authorize and direct the operating personnel to cease operation of the aerial platform in case of any suspected malfunctions of the aerial platform, or any hazard or potentially unsafe condition that may be encountered, and to request further information as to safe operation from the owner, dealer, or manufacturer before operation of the aerial platform.

7.14 Record Retention and Dissemination.

7.14.1 Record Retention. The user shall retain the following records for at least 4 years:

(1) Names of the operator(s) trained and retrained.
(2) Names of the operator(s) provided familiarization.
(3) The owner (or the entity designated by the owner) is responsible to ensure frequent and annual inspections are conducted and written records are maintained. The records shall include the date of inspection, any deficiencies found, the corrective action recommended and identification of the person(s) performing the inspection.
(4) When employees of the user accomplished repairs on the aerial platform, the user shall include the date of repair, a description of the work accomplished, and the identification of the person(s) performing the repair.

7.14.2 Record Dissemination.

(1) When the user directs personnel to accomplish frequent or annual inspections, not later than 60 days after the inspections, the appropriate records shall be provided to the owner of the aerial platform.
(2) When the user directs personnel to accomplish repairs on the aerial platform, not later than 60 days after the repairs are accomplished, the appropriate records shall be provided to the owner.

7.14.3 Proof of training. Users providing training should provide successful trainees a means to evidence their training if such proof is requested by the trainee. The document evidencing training shall include the following information:

(1) Name of trainee
(2) Name of entity providing training or retraining
(3) Name of trainer(s)
(4) Clear identification that training covered Manually Propelled Elevating Work Platforms.
(5) Date of the training.

7.15 Modifications. Modification, alteration or re-manufacture of the aerial platform shall be made only with prior written permission of the manufacturer.

7.16 Manufacturer's Safety Bulletins. The user shall comply with safety-related bulletins as received from the manufacturer, dealer, or owner.

8. Responsibilities of Operators.

8.1 Basic Principles. The information in this standard shall be supplemented by good judgment, safety control, and caution in evaluating each situation. Since the operator is in direct control of the aerial platform, conformance with good safety practices in this area is the responsibility of the operator. The operator shall make decisions on the use and operation of the aerial platform with due consideration for the fact that his or her own safety as well as the safety of others on the platform is dependent on those decisions.

8.2 Manuals.

8.2.1 Machine Manuals. The operator shall ensure operating and maintenance manual(s) are stored in the weather-resistant storage compartment on the aerial platform. The manual(s) is considered an integral part of the aerial platform and are vital to communication of necessary safety information to operator. The operator shall be familiar with the manuals and reference them as required.

8.2.2 Manual of Responsibilities. The operator shall be familiar with the requirements for operators as set forth in Section 8 of the Manual of Responsibilities for Dealers, Owners, Users, Operators, Lessors, Lessees, and Brokers of manually propelled elevating work platforms. The current Manual of Responsibilities shall be stored in the weather-resistant storage compartment when not in use.

8.3 Prestart Inspection. Before use each day or at the beginning of each shift, the aerial platform shall be given a visual inspection and functional test including but not limited to the following:

(1) Operating and emergency controls.
(2) Safety devices.
(3) Air, hydraulic and fuel system leaks
(4) Cables and wiring harness.
(5) Loose or missing parts.
(6) Tires and wheels.
(7) Placards, warnings, and control markings.
(8) Outriggers, Stabilizers, and other structures
(9) Guardrail systems
(10) Items specified by the manufacturer.

8.4 Problems or Malfunctions. Any problems or malfunctions that affect the safety of operations shall be repaired prior to use of the aerial platform.

8.5 Training, Retraining, and Familiarization.

8.5.1 General Training. Only personnel, who have received general instructions regarding the inspection, application and operation of aerial platforms, including recognition and avoidance of hazards associated with their operation, shall operate an aerial platform.

Such items covered shall include, but not necessarily limited to the following issues and requirements:

(1) The purpose and use of manuals.
(2) The manual(s) is considered an integral part of the aerial platform and must be stored properly in the weather-resistant compartment when not in use.
(3) A pre-start inspection.
(4) Responsibilities associated with problems or malfunctions affecting the operation of the aerial platform.
(5) Factors affecting stability.
(6) The purpose of placards and decals.
(7) Workplace inspection.
(8) Safety rules and regulations.
(9) Authorization to operate.
(10) Operator warnings and instructions.
(11) Actual operation of the aerial platform. Under the direction of a qualified person, the trainee shall operate the aerial platform for a sufficient period of time to demonstrate proficiency in actual operation of the aerial platform.

8.5.2 Retraining. The operator shall be retrained, when so directed by the user, based on the user's observation and evaluation of the operator.

8.5.3 Familiarization. When the operator is directed to operate an aerial platform he/she is not familiar with, the operator shall receive instructions regarding the following:

(1) The location of the weather-resistant compartment (for manual storage).
(2) The purpose and function of all controls.
(3) Safety devices and operating characteristic specific to the aerial platform.
(4) Loading, unloading, and the use of tilt-back feature(s) when applicable.

8.6 Before Operation. Before operation, the operator shall:

(1) Read and understand the manufacturer's operating instruction(s) and user's safety rules, or have them explained.
(2) Understand all labels, warnings, and instructions displayed on the aerial platform or have them explained.
(3) Ensure all occupants of the aerial platform wear appropriate personal protective equipment for conditions, including the environment in which the aerial platform will be operated.

8.7 Workplace Inspection. Before the aerial platform is used and during use, the operator shall check the area in which the aerial platform is to be used for possible hazards such as, but not limited to:

(1) Drop-offs or holes.
(2) Slopes
(3) Bumps and floor obstructions.
(4) Debris.
(5) Overhead obstructions and electrical hazards.

(6) Hazardous locations (reference NFPA 505-1996).
(7) Inadequate surface and support to withstand all load forces imposed by the aerial platform in all operating configurations.
(8) Wind and weather.
(9) Presence of unauthorized persons.
(10) Other possible unsafe conditions.

8.8 Prior to Each Elevation. Before each elevation of the platform, the operator shall ensure:

(1) Outriggers, stabilizers, extendable axles, or other stability enhancing means are used as required by the manufacturer.
(2) Guardrails are installed and access gates or openings are closed per manufacturer's instructions.
(3) The load and its distribution on the platform and any platform extensions are in accordance with the manufacturer's rated capacity for that specific configuration.
(4) All personnel on the aerial platform have appropriate personal protective equipment for the work and environment envisioned.

8.9 Understanding of Hazardous Locations. It shall be the responsibility of the operator to determine the hazard classification of the intended location of operation according to ANSI/NFPA 505-1996.

8.10 Operator Warnings and Instruction. The operator shall ensure the operation of the aerial platform is in compliance with the following:

(1) Fall Protection. The guardrail system of the aerial platform provides fall protection. If occupant(s) of the platform are required to wear personal fall protection equipment, occupants shall comply with instructions provided by the aerial platform manufacturer regarding anchorage(s).
(2) Slope. The aerial platform shall not be operated in any manner on slopes exceeding those for which the aerial platform is rated by the manufacturer.
(3) Deployment of stability enhancing means. Outriggers, Stabilizers, extendible axles, axle locks, or other stability enhancing means shall be deployed and locked into place as required by the manufacturer.
(4) Guardrail system. Guardrails shall be installed and positioned, and access gates or openings shall be closed per the manufacturer's instructions.
(5) Distribution of load. The load and its distribution on the platform extension(s) shall be in accordance with the manufacturer's rated capacity for that specific configuration.
(6) Maintaining overhead clearance. The operator shall be instructed to ensure that adequate clearance is maintained from overhead obstructions and energized electrical conductors and parts.
(7) Electrocution hazard. All applicable safety related work practices intended to prevent electric shock covered by the Code of Federal Regulations (CFR) 1910.333 shall be defined and explained to the operator by a qualified person. In particular, such person shall direct the operator, commensurate with the operator's qualifications to maintain the appropriate minimum approach distance (MAD) from energized power lines and parts covered by CFR 1910.33 (c).

(8) Personal protective equipment. The user shall direct the operator to ensure all personnel on the platform wear personal protective equipment as required.
(9) Personnel footing. The user shall direct the operator to ensure all personnel on the platform while working thereon. Climbing by occupants on the midrail or top rail of the aerial platform is prohibited. The use of planks, ladders, or any other devices on the platform for achieving additional height or reach is prohibited.
(10) Precaution for moving equipment. When moving equipment or vehicles are present, special precautions shall be taken to comply with local ordinances or safety standards established for the workplace. Warnings such as, but not limited to, flags, roped off areas, flashing lights, and barricades shall be used as appropriate.
(11) Reporting problems or malfunctions. The user shall direct the operator to immediately report to a supervisor any problem(s) or malfunction(s) that become evident during operation. The user shall ensure all problems and malfunctions that affect the safeties of operations are prior to continued use.
(12) Reporting potentially hazardous locations. The user shall direct the operator to immediately report to a supervisor any potentially hazardous location(s) that become evident during operation.
(13) Hazardous location operation. Operation of aerial platforms not approved and marked for operation in a hazardous location shall be permitted.
(14) Entanglement. Care shall be taken to prevent rope, electric cords, hoses, etc., from becoming entangled in the aerial platform.
(15) Capacity Limitation. Rated capacity shall not be exceeded when loads are transferred to the platform at any level.
(16) Work Area. The user shall direct the operator to ensure that the area surrounding the aerial platform is clear of personnel and equipment before lowering the platform.
(17) Fueling. The engine (if applicable) shall be shut down while fuel tanks are being filled. Fueling shall be done in a well-ventilated area free of flames, sparks, or other hazards that may cause fire or explosion.
(18) Battery charging. Batteries shall only be charged in well-ventilated area free of flames, sparks, or other hazards that may cause fire or explosion.
(19) Improper platform stabilization. The aerial platform shall not be positioned against another object to steady the platform or improve stability.
(20) Misuse as a crane. The aerial platform shall not be used as a crane.
(21) Unusual operating support conditions. The aerial platform shall not be operated from a position on trucks, trailers, railway cars, floating vessels, scaffolds, or similar equipment unless the application is approved in writing by the manufacturer or a qualified person.
(22) Propelling. The user shall ensure that the operator follows the transport instructions of the manufacturer and limit speed according to conditions, including the condition of the support surface, congestion, visibility, slope, location of personnel, and other factors leading to hazards which may cause collision(s) or result in the potential injury (ies) to personnel.
(23) Securing the aerial platform. The user shall direct the operator to implement means provided to protect against use by an unauthorized person(s).
(24) Altering safety devices. Interlocks or other safety devices shall not be altered or disabled.
(25) Snagged platform. If the platform or elevating assembly becomes caught, snagged, or otherwise prevented from normal motion by adjacent structures or other obstacles such that control reversal does not free the platform, all personnel shall

be removed from the platform before attempts are made to free the platform using lower controls.
(26) Exiting or entering an elevated aerial platform. If permitted by the manufacturer, personnel shall exit or enter a raised aerial platform by following the guidelines and instructions provided by the manufacturer.
(27) Modifications. Modifications or alterations of an aerial platform or the fabrication and attaching of frameworks, or the mounting of attachments for holding tools or materials onto the platform or the guardrail system shall only be accomplished with prior permission of the manufacturer.
(28) Assistance to the operator. If an operator encounters any suspected malfunction of the aerial platform, or any hazard or potentially unsafe condition relating to capacity, intended use or safe operation of the aerial platform, the operator shall cease operation of the aerial platform and request further information from the user.
(29) Problems or Malfunctions. Any problem(s) or malfunction(s) that affect the safety of operations shall be repaired prior to the use of the aerial platform.
(30) Carrying materials (larger than the platform). The user shall ensure that only properly secured tools and materials which are evenly distributed and can be safely handled by a person(s) working from the platform, are moved.
(31) Rated horizontal force. The user shall direct the operator not to exceed the manufacturer's rated horizontal force.
(32) Bridge cranes. When an aerial platform is to operate within the area of travel of a bridge crane or similar equipment, steps shall be taken to prevent a collision with the aerial platform.
(33) Adequate support requirements. The user shall ensure the support surface is adequate for the aerial platform and the load carried.
(34) Leveling the aerial platform. Outriggers and leveling devices supplied by the manufacturer shall be utilized to level the aerial platform when provided.
(35) Protection against unauthorized use. The user shall direct the operator not to use, rent, lease, or provide the aerial platform for any form of beneficial use unless so authorized.
(36) Loading and tilt-back feature(s). The user shall direct the operator to follow the instructions of the manufacturer regarding loading, unloading and the use of tilt-back feature(s) when applicable.

8.11 Record of Training. When provided or when obtained upon the operator's request, proof of training provided by the training entity should be retained by the operator. Records shall contain the following:

(1) Name of trainee
(2) Name of entity providing training or retraining
(3) Name of trainer(s)
(4) Clear identification that training covered Manually Propelled Elevating Work Platforms.
(5) Date of the training.

9. Responsibilities of Lessors.

9.1 Basic Principles. Sound principles of safety, training, inspection, maintenance, application, and operation consistent with all data available regarding the parameters of intended use, and expected environment, shall be applied in the performance of responsibilities of lessors with due consideration of the knowledge that the unit shall be carrying personnel.

9.2 Lessor as a Dealer. When a lessor uses the aerial platform as a dealer, the lessor shall have the responsibilities of dealers as specified in Section 5 of this standard.

9.3 Lessor as an Owner. When a lessor uses the aerial platform as an owner, the lessor shall have the responsibilities of owners as specified in Section 6 of this standard.

9.4 Lessor as a User. When a lessor uses the aerial platform as a user, the lessor shall have the responsibilities of users as specified in Section 7 of this standard.

9.5 Lessor as an Operator. When a lessor uses the aerial platform as an operator, the lessor shall have the responsibilities of operators as specified in Section 8 of this standard.

10. Responsibilities of Lessees.

10.1 Basic Principles. Sound principles of safety, training, inspection, maintenance, application, and operation consistent with all data available regarding the parameters of intended use, and the expected environment, shall be applied in the performance of responsibilities of lessees with due consideration of the knowledge that the aerial platform carries personnel.

10.2 Lessee as a Dealer. When a lessee uses the aerial platform as a dealer, the lessee shall have the responsibilities of dealers as specified in Section 5 of this standard.

10.3 Lessee as an Owner. When a lessee uses the aerial platform as an owner, the lessee shall have the responsibilities of owners as specified in Section 6 of this standard.

10.4 Lessee as a User. When a lessee uses the aerial platform as a user, the lessee shall have the responsibilities of users as specified in Section 7 of this standard.

10.5 Lessee as an Operator. When a lessee uses the aerial platform as an operator, the lessee shall have the responsibilities of operators as specified in Section 8 of this standard.

Operator Training Checklist

Trainee Name:

Date:

Trainer Name:

Question	For Answer
1.) What are the four steps in the STOP program?	(See Manual p. 12)
2.) If you find that the controls are not functioning properly what are you as the operator required to do?	(See Manual p. 53; Sec 8.10.28)
3.) Where are the danger decals?	(See Manual p. 32-35)
4.) Point out each decal and the purpose they serve.	(Use Machine as visual aid)
5.) Point out all spring lock buttons on steps, rails and outriggers and explain their function.	(Use Machine as visual aid)
6.) Demonstrate proper operation of controls	(Use Machine as visual aid)
7.) What is the first thing you do before elevating the scissors?	(See Manual p. 12)
8.) When observing obstacles at the Job Site where should you look?	(video)
9.) When should you perform the pre-start inspection?	(See Manual p. 43, Sec 8.3)
10.) Do you need to put the outriggers out and down before the pre-start inspection?	(See Manual p.12)
11.) Who is responsible for training the operator?	(See Manual p. 41, Sec 6.11.1)
12.) Explain Section 8.10 of the Operators Responsibilities	(See Manual pp. 51-53)

CUSTOM EQUIPMENT, LLC

Low Boy Mausoleum Lift
Operations & Safety Manual
DC10LB/DC10LB-SP/DC14LB/DC14LB-SP/DC18LB/DC18LB-SP

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