

HY-BRID LIFTS™

BY CUSTOM EQUIPMENT INC

OPERATIONS & SAFETY MANUAL
SELF-PROPELLED AERIAL WORK PLATFORM

SUPO-610E
REV N



HB-1030CE **HB-1430CE**

SERIES II

NOTES

www.hybridlifts.com

FOREWORD

Original instructions written in English

The purpose of this Maintenance Manual is to provide qualified service personnel with information for servicing and maintaining Hy-Brid Lifts. All information in this manual must be read and understood before any attempt is made to service this machine.

The operation and safety manual is considered a part of the work platform and contains instructions and operating procedures essential to properly and safely operate the Custom Equipment Hy-Brid Lift. Users must read and understand all information in the Safety and Operations Manual before operation.



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.

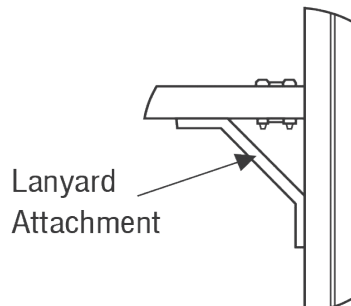


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SECTION 1 | SAFETY

1.1 | SAFETY SYMBOLS



**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.



**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



**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

1.2 | GENERAL RULES AND PRECAUTIONS

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 specified ANSI & OSHA, 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 and 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.



**STEERING BRACKETS EXTENDING BEYOND THE SIDES OF THE BASE
MAY OCCUR IN TIGHT TURNING SITUATIONS.**

Potential damage to walls, etc., may occur in tight turning situations due to the steering brackets extending beyond the sides of the base.

1.3 | SAFETY FEATURES

- Puncture-proof Wheels.
- Guardrails—42 in (1.07 m) height with 4 in (10.16 cm) kick plates.
- Non-slip Deck.
- Entrance Gate.
- Automatic Parking Brake.
- 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 is hydraulically locked until hose has been replaced.
- Decals: Danger, Caution, and Warning decals are displayed at various locations on this unit.
- Key Switch Security. A key switch is required to prevent unauthorized use.

1.4 | SAFETY INDICATORS & INTERLOCKS

Tilt Alarm

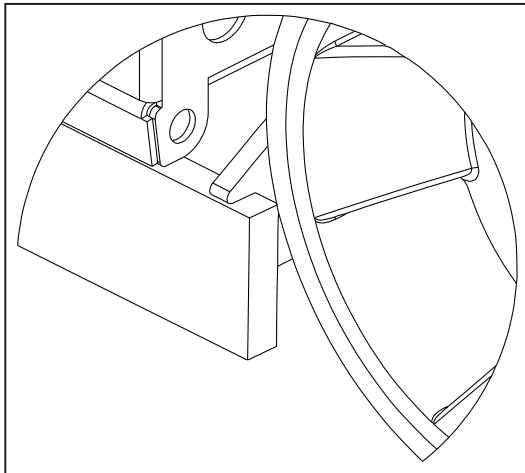
An audible alarm sounds when the machine is tilted more than 2°. Lower the platform and move to a level surface.

Descent/Motion Alarm

An audible alarm sounds when the machine is lowering. Some models also sound an alarm when the machine is elevating or driving.

Pothole Protection

Pothole guards are required to be in place when the lift is in the elevated position. If the guards are blocked or not functioning properly, elevating functions will be inhibited. Lower the machine and do not operate until the problem is repaired or the obstruction is removed.



Pothole Guard

1.5 | SAFETY CONTROLS

Descent - Manual Override

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

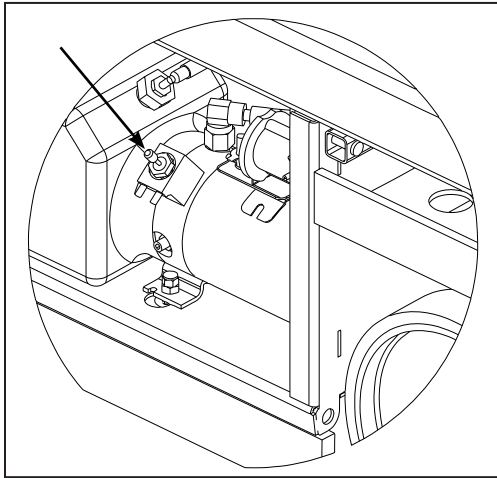


Figure 2: Emergency Lowering Valve

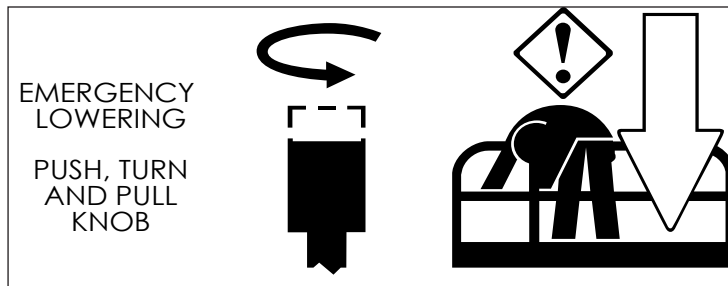


Figure 3: Down Instruction Decal No. DE600-29



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.



BEFORE LOWERING PLATFORM, RETRACT THE DECK EXTENSION.

Emergency Stop

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



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.

1.6 | 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.

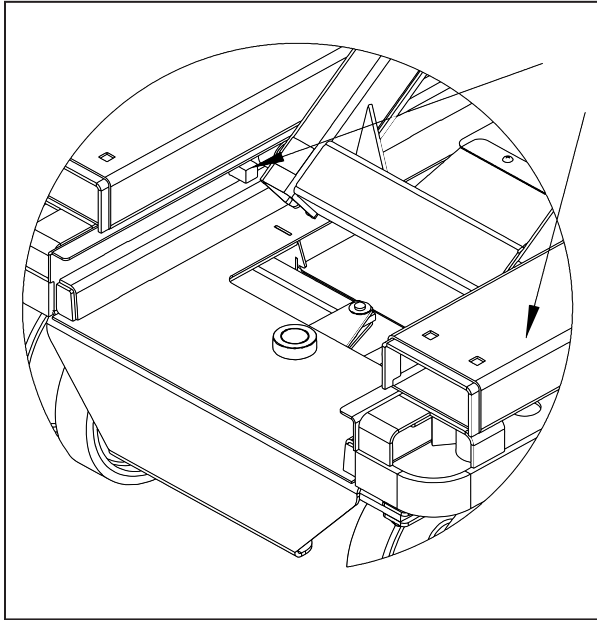


Figure 4: Maintenance Lock Pin use

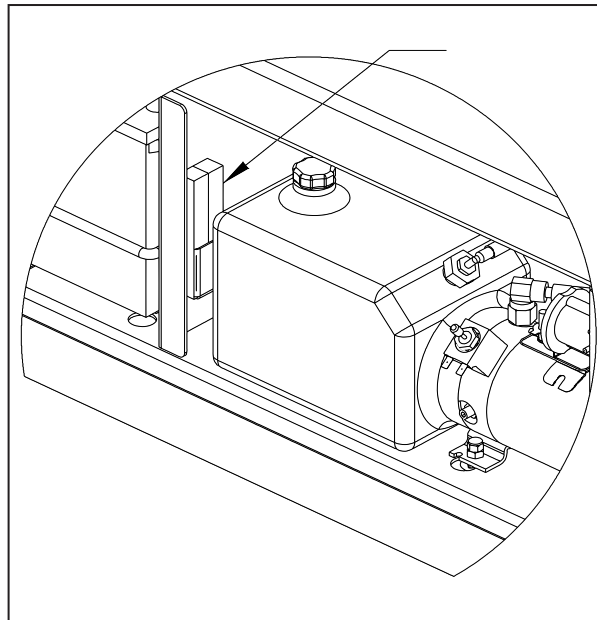


Figure 5: Maintenance Lock Pin storage

1.7 | SAFETY GUIDELINES

Only qualified operators may operate this unit.

- All operators must read and understand the Operation and Safety Manual. They must understand all decals and warning labels on unit.
- 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 approved personal protective equipment (PPE), i.e. head gear.

Use machine only for purposes for which it was intended.

- Lift should never be used as a crane.
- Do not exceed the load capabilities of the platform.
- Distribute load evenly over platform floor area.
- Never use unit as electrical grounds for arc welding.
- Do not override any hydraulic, mechanical, or electrical safety devices.

Check job site for unsafe working conditions.

- 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.
- Avoid contact with fixed objects (walls, buildings, or other machinery, etc) or moving vehicles

SECTION 1 | SAFETY

- (automobiles, cranes, etc).
- Follow any applicable national traffic regulations.
- Use indoors only. Lift is not designed for windy conditions or electrical storms.
- Unit must be on hard level surface before elevating. Do not operate on incline or uneven surface.
- 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.



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

Equipment is only as safe as the operator.

- Do not use ladders or scaffolding on the platform to obtain greater height.
- Do not enter or exit platform while machine is in motion.
- Never mount or dismount a raised platform.
- Make sure entry gate is secured before operating machine from the platform.
- Never belt or tie off to an adjacent structure.
- Secure tools and materials.
- Personnel must maintain a firm footing on the platform floor and work only within the platform area.
- It is recommended to avoid sudden braking or steering. Go slowly and leave more maneuvering room during cold weather operation

Before operation, ensure that the machine is properly serviced.

- Do not use machine if it is not working properly.
- Make sure platform rails and pins are secured.
- Operator shall use the maintenance lock when performing all types of maintenance procedures.
- Do not smoke while charging the battery.

SECTION 2 | PRODUCT DESCRIPTION

2.1 | General

Custom Equipment's Hy-Brid Scissors Lift is an aerial work platform designed to be safe and reliable. The purpose of the machine is to elevate personnel, along with their necessary tools and materials to overhead work locations. Manufacturer approval is required for any use other than the intended use. Vibration does not create significant hazards on this machine.

	HB-1030		HB-1430	
Working Height (maximum)	16 ft	4.87 m	20 ft	6.1 m
Platform Height (maximum)	10 ft	3 m	14 ft	4.26 m
Stowed Height	65.63 in	1.67 m	70 in	1.78m
Ground Clearance (Pothole Guard Stowed)	2 in	5.1 cm	3 in	7.6 cm
Ground Clearance (Pothole Guard Engaged)	0.375 in	0.95 cm	0.375 in	0.95 cm
Overall Width	30 in	0.76 m	30 in	0.76 m
Overall Length	63.5 in	1.61 m	69.5 in with step	1.77 m with step
Platform (Retracted, Inside)	25 in x 60 in	0.64 m x 1.52 m	25 in x 60 in	0.64 m x 1.52 m
Slide-Out Deck Length	30 in	0.76 m	30 in	0.76 m
Guard Rail Height	42 in	1 m	42 in	1 m
Platform Entrance	21.0 in	0.53 m	25.34 in	0.64 m
Step Height	N/A	N/A	12.42 in	0.32 m
Wheel Base	51 in	1.3 m	51 in	1.3 m
Wheel Track	23.63 in	0.6 m	23.63 in	0.6 m
Turning Radius (Inside)	21 in	0.53 m	21 in	0.53 m
Tire Size (Solid, Non-Marking) - Front / Rear	8 in / 10 in	20.3 cm / 25.4 cm	10 in / 10 in	25.4 cm / 25.4 cm

RATED LOAD

Lift Capacity (Evenly Distributed):	750 lb / 2 Persons	340.2 kg / 2 Persons	670 lb. / 2 Persons	304 kg. /2 Persons
Slide-Out Deck Capacity	250 lb / 1 Person	113.4 kg / 1 Person	250 lbs / 1 Person	113.4 kg / 1 Person
Horizontal/Manual Force	112.5 lb	500 N	100.5 lb	447 N

FLOOR LOADING

Machine Weight (Unloaded) (Approx.)	1286 lb	583.3 kg	1658 lb	752 kg
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SECTION 2 | PRODUCT DESCRIPTION

	HB-1030		HB-1430	
Minimum Wheel Load-Contact Pressure	62.7 psi	432.5 kPa	80.9 psi	557.6 kPa
Maximum Wheel Load-Contact Pressure	99.3 psi	684.8 kPa	113.6 psi	783.0 kPa
Minimum Machine Loading-Floor Pressure	97.2 psf	4.54 kPa	125.3 psf	6.00 kPa
Maximum Machine Loading-Floor Pressure	153.9 psf	7.37 kPa	180.0 psf	8.43 kPa

ENVIRONMENTAL LIMITATIONS

Wind	No Windy Conditions/Indoor Use Only (C)		No Windy Conditions/Indoor Use Only (C)	
Rated Slope	Level Surface		Level Surface	
Tilt Sensor Activated	2°		2°	
Gradeability (Stowed Position)	25% (14° Unloaded); 20% (11° Loaded)		25% (14° Unloaded); 20% (11° Loaded)	
Temperature	-4°F to 104°F	-20°C to 40°C	-4°F to 104°F	-20°C to 40°C
Vibration	8.2 ft/s ² max	2.5 m/s ² max	8.2 ft/s ² max	2.5 m/s ² max
Sound - Normal Use, Alarms	86 dB, 100 dB	86 dB, 100 dB	86 dB, 100 dB	86 dB, 100 dB

POWER SYSTEMS - Drive System (Proportional Electric):

Drive Speed (Platform Elevated)	0-0.7 mph	0-.31 m/s	0-0.7 mph	0-.31 m/s
Drive Speed (Platform Lowered)	0-2.5mph	0-1.18 m/s	0-2.5mph	0-1.18m/s
Lift/Lower Speed	15/22 sec	15/22 sec	21/31 sec	21/31 sec
Hydraulic Pressure (max)	1300 psi	8963 kPa	1300 psi	8963 kPa
Hydraulic Fluid Capacity	1.325 gal	5.38 L	1.325 gal	5.38 L
Power System-Voltage	24V DC	24V DC	24V DC	24V DC
Batteries-Deep Cycle Marine	(2) 12V, Group 27	(2) 12V, Group 27	(2) 12V, Group 27	(2) 12V, Group 27

SECTION 3 | DECALS

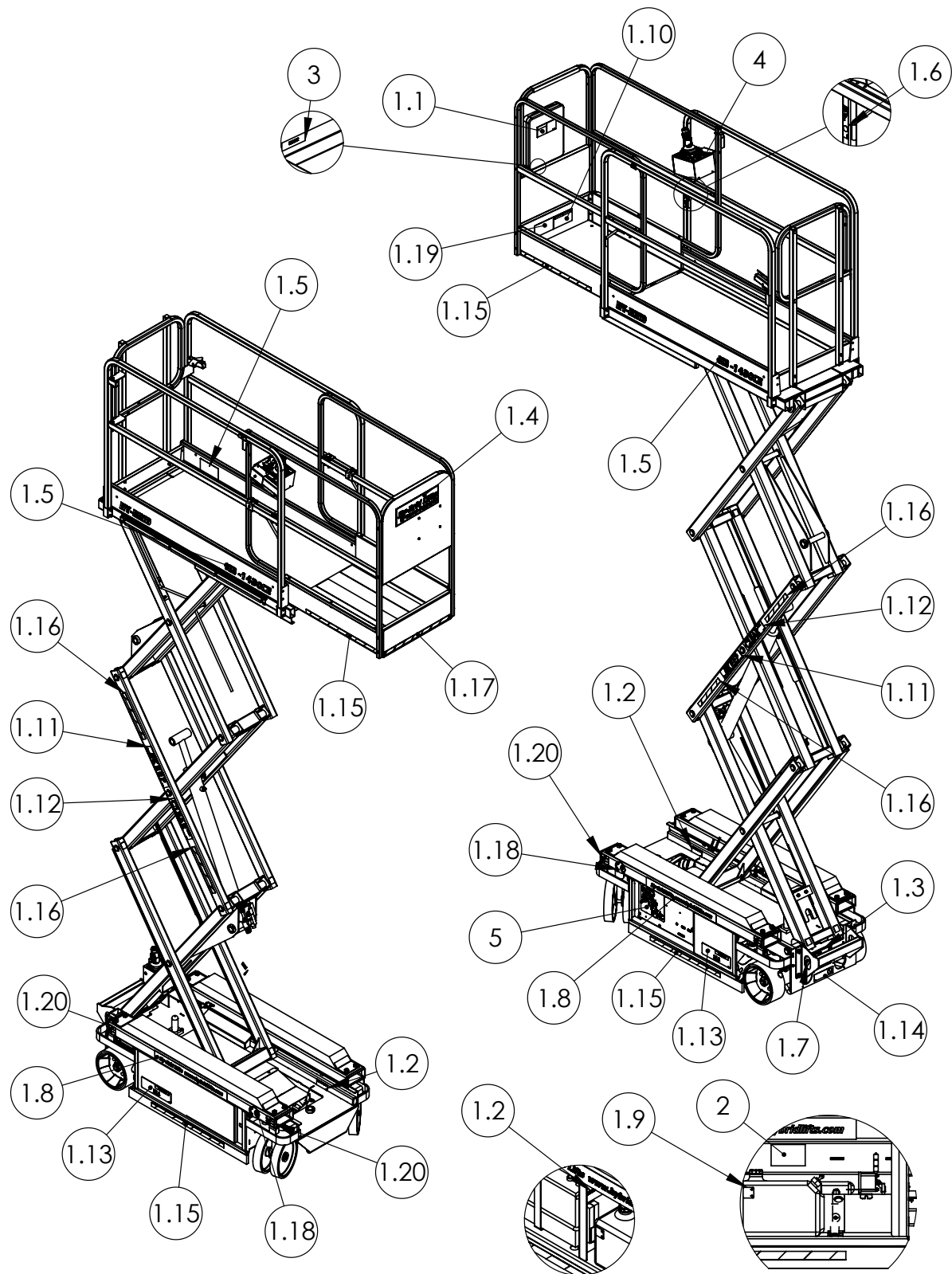


Figure 6: DECAL LOCATIONS

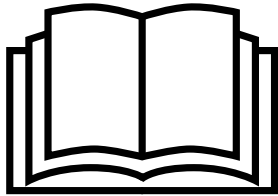
3.1 | Decal Description

ITEM #	PART #	DECAL MEANING OR DESIGNATION	QTY
1	112-21-008-54 OR 112-21-008-59	DECAL,HB-1030CE DECALS,HB-1430CE	1
1.1	DE600E-10	DECAL,MANUAL BOX	1
1.2	DE600E-14	DECAL,MAINT LOCK(SYMBOLS)	3
1.3	DE751	E-DOWN DECAL (SYMBOLS)	1
1.4	DE601	DECAL,LOGO HY-BRID	1
1.5	DE603-10 OR DE603-11	DECAL,MODEL HB-1030CE OR DECAL,MODEL HB-1430CE	2
1.6	DE746	LANYARD ATTACHMENT DECAL	1
1.7	DE752	CHARGER CORD DECAL (EU)	1
1.8	DE652	DECAL,WEBSITE	2
1.9	DE679	DECAL,HYDR FLUID	1
1.1	DE706	DECAL,UPR HB,ZTR,MID	1
1.11	DE707	DECAL,KEEP	2
1.12	DE708	DECAL,CLEAR	2
1.13	DE709	DECAL, LWR	2
1.14	DE747	DECAL,BRAKE RELEASE/NO TOW	1
1.15	DE717-61	DECAL,SAFETY STRIPE (24.00")	4
1.16	DE717-62	DECAL,SAFETY STRIPE (12.00")	4
1.17	DE717-63	DECAL,SAFETY STRIPE (22.25")	1
1.18	DE718	CE DECAL	2
1.19	DE732 OR DE733	DECAL,CAPACITY,750#,2P,I,W/SO OR DECAL,CAPACITY,670#,2P,I,W/SO	2
1.2	DE735 OR DE736	DECAL,WHEEL LOAD HB-1430CE S2 OR DECAL,WHEEL LOAD HB-1430CE S2	4
1.21	DE737	QR CODES,HB-1030/HB-1430CE	1
2	NA	SERIAL NUMBER PLATE	1
3	NA	SERIAL NUMBER REFERENCE	1
4	DE625	DECAL,CTL,UPR	1
5	DE623C	DECAL,CTL LWR	1



No Authorized Use

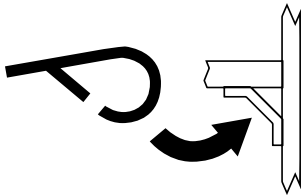
Do not operate this machine unless you have been trained in safe operation. Training includes complete knowledge of the safety and operating instructions contained in the manufacturer's manual, your employer's work rules, and applicable government regulations. An untrained operator subjects himself and others to death or serious injury.



Read and understand all dangers and warning in the operator's manual before operating this machine.

Improper use of this machine could cause death or serious injury.

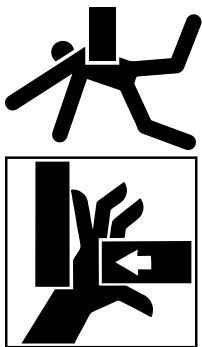
Inspect machine and make sure that it is operating properly, that all name plate and hazard signs are in place and legible, and that the machine is in accordance with the manufacturer's maintenance requirements contained in the operating and maintenance requirements contained in the operation and maintenance manual and the daily safety checklist.



Lanyard anchorage point location.

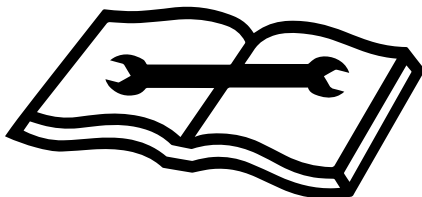
Lanyard anchorage points are for work positioning restraints only.

Use of fall arrest systems attached to anchorage points on mobile equipment may cause machine to tip, resulting in serious injury or death.



Crushing Hazard

Do not enter the space beneath the work platform or scissor structure unless the maintenance lock is in place.



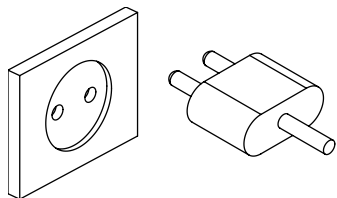
Refer to Maintenance Manual

Only qualified service personnel may service the machine. Failure to comply with listed safety precautions may result in machine damage, personnel injury, or death.

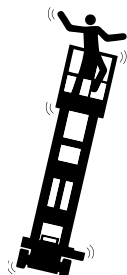
Replace designated items with manufacturer's specified equipment only. Failure to use these items may cause instability of platform.



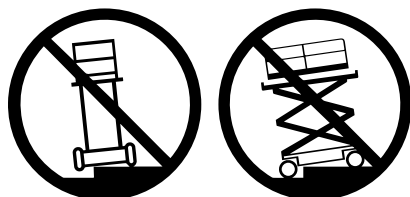
Batteries produce explosive gas. Only charge batteries in a well-ventilated area. Do not expose sparks or flames. Do not smoke while charging battery.



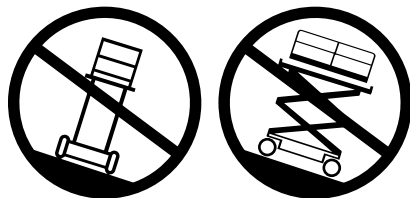
Battery Charger Cord



Tip Hazard



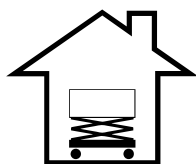
Tip Hazard
Do not elevate platform on an incline or step.



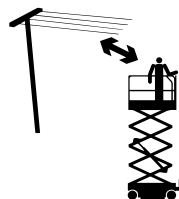
Tip Hazard
Do not elevate platform on a slope.



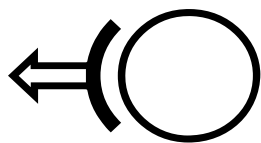
Tip Hazard
Do not elevate platform on uneven or soft surfaces.



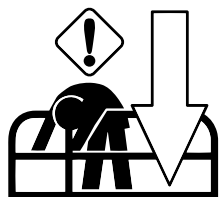
Indoor Use Only: No Wind Load



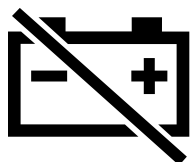
Electrocution Hazard
This machine is not insulated.
Maintain safe clearance from electrical lines and apparatus. You must allow for machine sway, rock or sag and electrical lines swaying.
This machine does not provide protection from contact with or proximity to an electrically charged conductor.
You must maintain a clearance between any part of this machine or its load and any electrical apparatus. Follow local power line regulations.
Death or serious injury will result from contact or inadequate clearance.



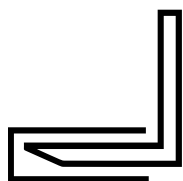
Brake Release



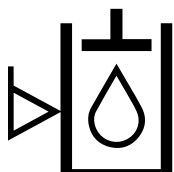
Emergency Lowering



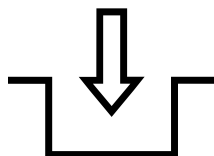
Battery disconnect



Fork pocket



Hydraulic oil level



Engaging mechanical Action: Enable Switch

SECTION 4 | TRANSPORT, HANDLING & STORAGE

4.1 | Preliminary Unpacking Instructions and Dealer Inspection

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

4.2 | Storage

After periods of storage or exposure to extremes of ambient conditions (heat, cold, moisture, dust etc.) inspect the machine. Refer to the Pre-Delivery/Frequent Inspection Checklist of the Maintenance Manual.

4.3 | Preparation for Transport

Lower the work platform to the down position. Bring the platform slide-out extension into the retracted position and lock in place. Turn the key switch to off position. Check the entire machine for loose or unsecured items. Remove any loose items from machine.

The machine can be pushed by releasing the parking brake at the rear of the machine. Push both levers toward the floor. To resume normal operation, make sure both levers are up.

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 down release position.

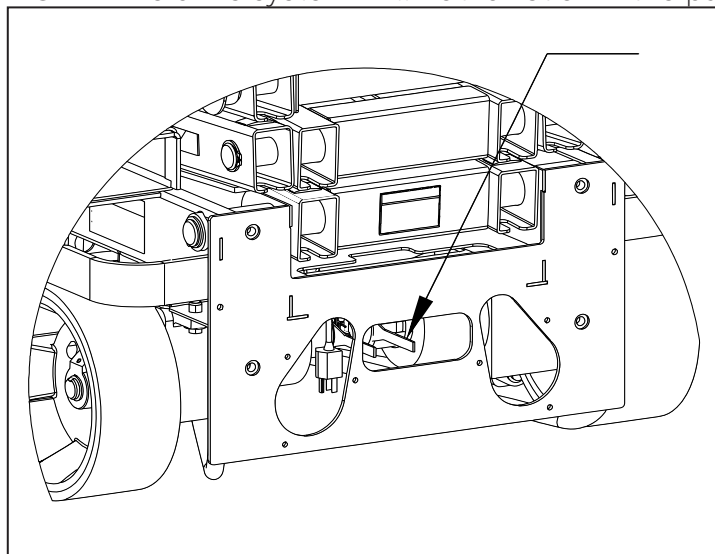


Figure 7: Brake Release



DO NOT OVERLOAD BINDERS WHEN SECURING LOAD FOR TRANSPORT

4.4 | LIFTING AND TIE-DOWN POINTS

Tie-down points are provided for securing the machine on a trailer or truck bed for transport between places of use. They may also be used as lift points.

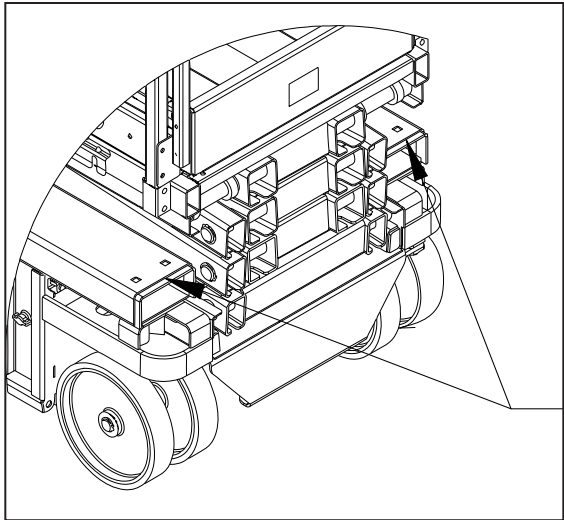


Figure 8: Fork Pockets

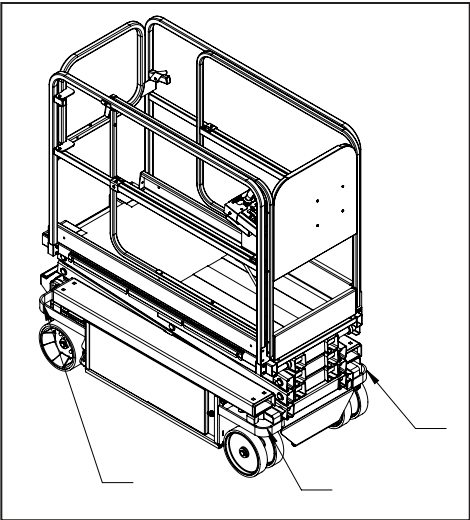


Figure 9: Tie-Down Points

4.5 | FORK LIFT POCKETS

Fork lift pockets are provided from the front and back of the unit for loading and unloading. A forklift from the side of the machine is not recommended. Do not use a forklift underneath the machine from the back. When moving machine with a forklift, do not let machine slide along floor. Bring forklift to a stop and then gently lower the machine.

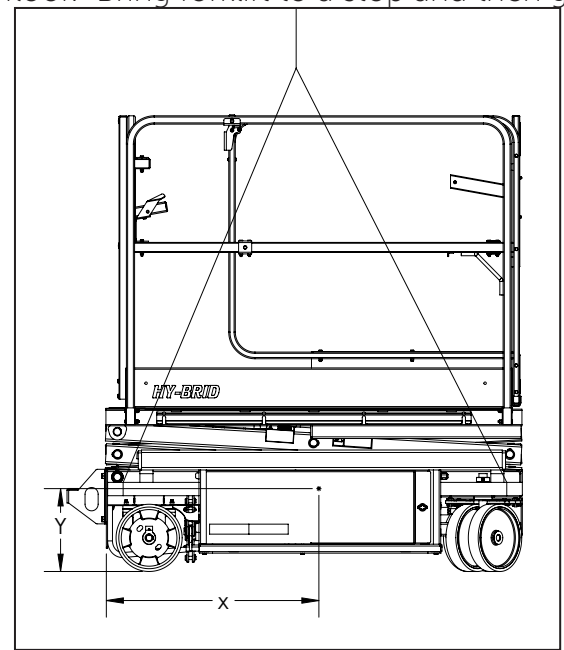


Figure 10: Center of Gravity

	X Axis	Y Axis
HB-1030	32.3 in (82 cm)	15.8 in (40.1 cm)
HB-1430	31.7 in (80.5 cm)	16.5 in (41.9 cm)

SECTION 5 | OPERATION

5.1 | Before You Operate

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. A checklist for pre-start inspection can be found on page 17 of this manual.

Base Controls

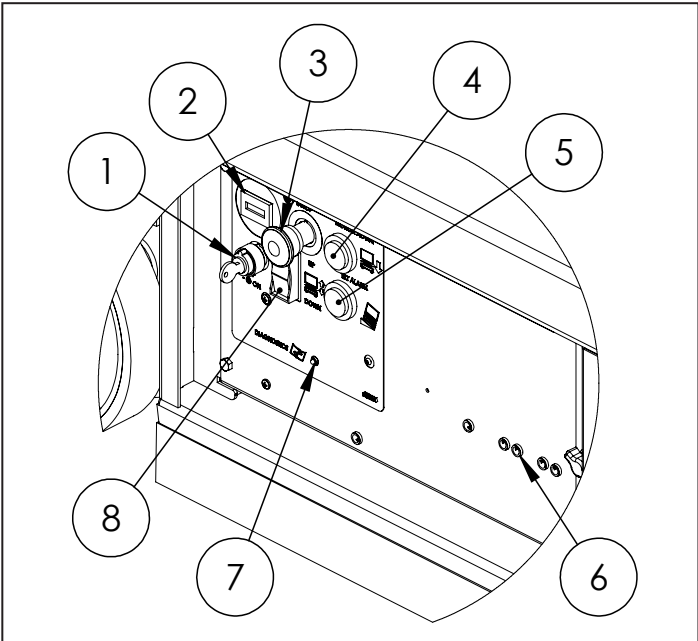


Figure 11: Base Controls

Item	Control/Indicator
1	Key Switch Operation described as follows
2	Hour Meter Displays operation hours
3	Emergency Stop Operation described in Safety Controls (page <?>)
4	Beeper (Descent Alarm) See Safety Indicators (page 4) for more information
5	Beeper (Tilt Alarm) See Safety Indicators (page 4)
6	Battery Charger Status See Battery Displays (page 16)
7	Diagnostic LED Used for drive board diagnostics. See Maintenance Manual
8	Up/Down Rocker Switch Operation described as follows

Platform Control

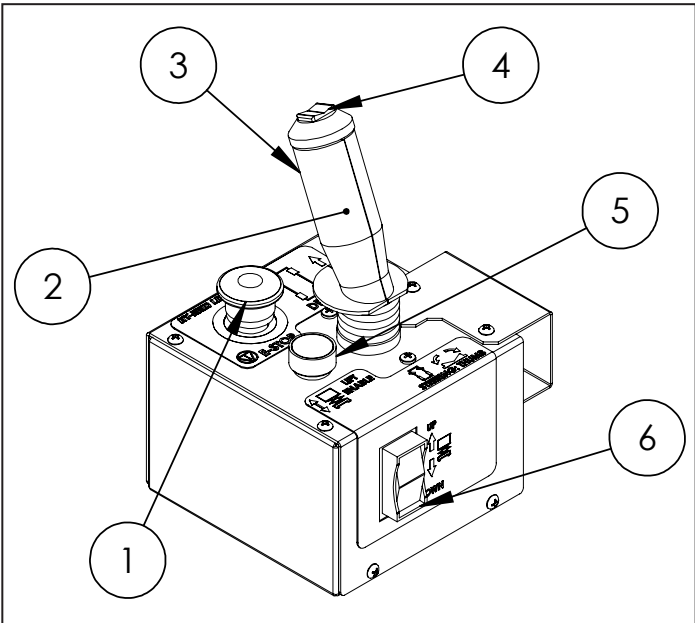


Figure 12: Platform Controls

Item	Control/Indicator
1	Emergency Stop Operation described in Safety Controls (page <?>)
2	Joystick Operation described as follows
3	Drive Enable Trigger Operation described as follows
4	Steering Thumb Rocker Switch Operation described as follows
5	Lift Enable Switch Operation described as follows
6	Up/Down Rocker Switch Operation described as follows



The Operator must be aware of the environment. Do not raise the platform if the machine is not on a firm, level surface.

Operation Startup & Shutdown Practices

- Check that the work area is safe.
- Ensure that the key in the lower control panel is in the "ON" position.
- Machine must be on a hard, level, surface before operation.
- Enter the work platform in the stowed position using the constant three point contact method.
- Follow all general rules and precautions stated in this manual
- When finished with the machine, place the platform in the stowed position.
- Park the machine on a level surface.
- Carefully exit the platform using the constant three point contact method.
NEVER JUMP OFF PLATFORM.
- Remove key from lower control panel to prevent unauthorized use.

5.2 | Driving and Steering



Check that the route of travel to be taken is clear of people, obstructions, debris, holes, and drop-offs; and is capable of supporting the machine.

Always check front steer wheel direction before driving.

To activate drive function, depress the Drive Enable Bar on the Joystick. Moving the joystick handle away from the operator will cause FORWARD travel and pulling the joystick toward the operator will cause REVERSE travel. Travel speed is proportional and is controlled by the joystick. The farther it is moved, the faster the speed will be. The joystick returns to the neutral position when released.

Use the Thumb Steering Switch on the top of the Joystick to steer left and right. Pressing the switch to the left causes the wheels to turn left, to the right, wheels turn right. The steer switch returns to neutral position when released. Steer wheels do not center themselves after a turn; they must be returned to the straight-ahead position with the steer switch.

Braking: For parking, the brake is automatically applied when the joystick is positioned in the center (neutral) position. In the event of a machine failure, the machine can be pushed by releasing the parking brake at the rear of the machine. See Section 4.3 on page 10 for brake release information.

5.3 | ELEVATING AND LOWERING

Using Upper Platform Controls

To raise or lower the platform, press the Lift/Lower Enable Button in front of the joystick. While holding down the Enable Button, hold down the Up or Down Button until the platform is in the desired position. The drive function is disabled when the Lift/Lower Enable Button is depressed.

Using Lower Base Controls

Pressing the top of the switch raises the platform, pressing the bottom lowers the platform.

5.4 | Extending the platform

1. Stand on the platform deck.
2. Grip the Slide Lock Handle (Figure 13) to allow the deck to slide.
3. Slide the deck out to one of two locking points, one at approximately 15 in (38 cm) extension, the other at approximately 30 in (76.2 cm) extension.
4. Release the handle to keep deck in place. Be sure lock is engaged before entering.

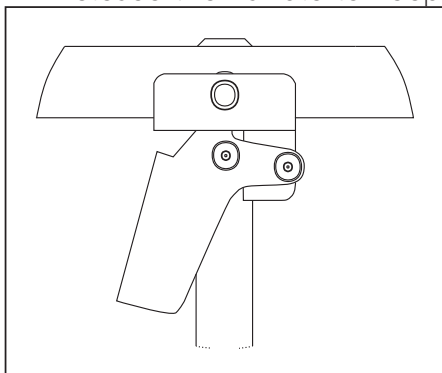


Figure 13: Slide Lock



WARNING

Check that the route of travel to be taken is clear of people, obstructions, debris, holes, drop-offs; and is capable of supporting the machine.



WARNING

If the slide-out deck is extended, check for clearance under area before lowering platform.



WARNING

Do not drive unit when standing on extension. Stand on platform behind joystick.

5.5 | Daily Maintenance

Regular inspection and conscientious maintenance is important to efficient economical operation of this machine. It will help to assure that equipment will perform satisfactorily with a minimum of service and repair. Make checks at the stated intervals or more frequently if required by local operating conditions. A Pre-Start Inspection Checklist is included in this manual on page 17.

Additional maintenance for use by trained personnel is included in a separate Maintenance Manual. Refer to the Maintenance Manual for Pre-Delivery/Frequent and Monthly Checklists and replacement part information.



Failure to perform inspections and preventative maintenance at recommended intervals may result in the unit being operated with defects that may result in injury or death of the operator.

5.6 | Charging the Battery

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. When the cells are too full, fluid will seep out when charging.

Note: The surrounding temperature greatly affects the power reserve within a battery.

Example: A battery that is 100% charged at 80° F (27°C) drops to 65% at 32°F (0°C). At 0°F (-18°C), this battery will drop to 40% efficiency.



Lead-acid batteries generate explosive gases. Keep sparks and flame away from batteries. Do not smoke while charging.

The charger is equipped with an interlock circuit. The unit will not operate while charging. To charge:

- Park the machine on a level surface.
- Plug charger into AC outlet until charged.
- Unplug charger.

The charger will not begin the charging cycle on severely discharged batteries. This will be evident by the three indicators blinking simultaneously.

5.7 | Battery Displays

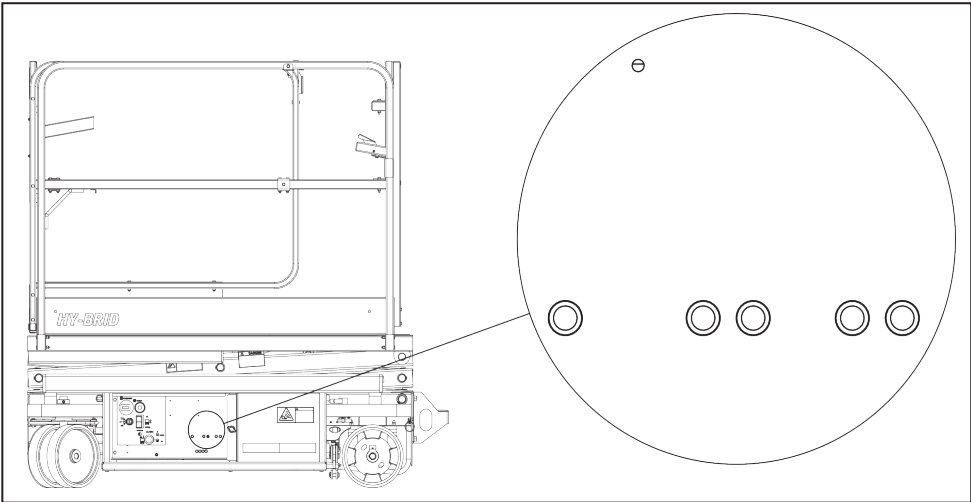


Figure 14: Battery Charger LED Display

How to read the battery displays

POWER	BATTERY 1 STATUS CHARGING READY		Battery 2 Status Charging Ready	
				
Green LED (ON)	Red LED (OFF)	Green LED (OFF)	Red LED (OFF)	Green LED (OFF)
Power	Battery 1 Status Charging Ready		Battery 2 Status Charging Ready	
				
Green LED (ON)	Red LED (ON)	Green LED (OFF)	Red LED (ON)	Green LED (OFF)
Power	Battery 1 Status Charging Ready		Battery 2 Status Charging Ready	
				
Green LED (ON)	Red LED (OFF)	Green LED (ON)	Red LED (OFF)	Green LED (ON)


WARNING

Do not operate unit while charging.


CAUTION

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.

SECTION 6 | INSPECTION CHECKLIST

6.1 | Pre-Start Inspection Checklist



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 _____

Keep inspection records up-to-date.

Record and report all discrepancies to your supervisor.

A dirty machine cannot be properly inspected.

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

Description	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 damaged, dented, or bent structural members. Replace components as necessary.	☐	☐	☐
Check the hydraulic fluid level with the platform fully lowered.	☐	☐	☐
Check the tires for damage. Check that wheel axle retaining rings and set screw in rear wheel are tight.	☐	☐	☐
Check the hoses and the cables for worn areas or chafing. Replace if necessary.	☐	☐	☐
Check the platform rails and safety gate for damage. Look at the gate and make sure it closes properly.	☐	☐	☐
Check that all snap rings are secure in grooves on pivot pins.	☐	☐	☐
Check that warning and instructional labels are legible and secure.	☐	☐	☐
Inspect the platform control. Ensure that load capacity is clearly marked.	☐	☐	☐
Check the base controls for proper operation. Check all switches and push buttons for proper operation.	☐	☐	☐
Check the platform controls for proper operation. Check all switches and push buttons, as well as ensuring that the drive controller returns to neutral.	☐	☐	☐
Brakes: Machine stops when joystick released.	☐	☐	☐
Check that pothole guards deploy and lock when platform is raised.	☐	☐	☐

Date _____ inspected by _____

HY-BRID LIFTS™

BY CUSTOM EQUIPMENT INC

SELF-PROPELLED AERIAL WORK PLATFORM

Operation & Safety Manual

HB-1030CE

HB-1430CE



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