

## 60-J Electric Boom Lift

Serial # 14400001 - Up

93852  
November 2015



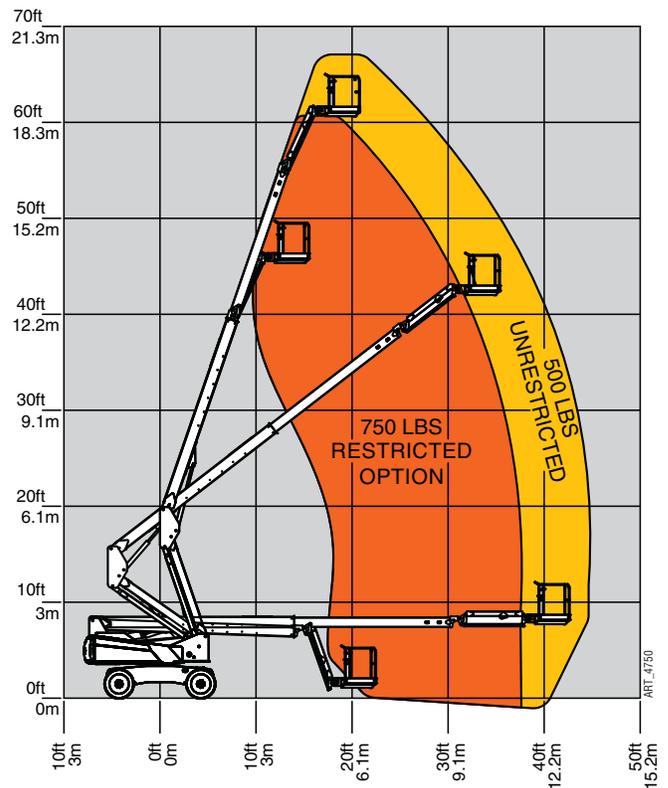
# Operator's Manual

<b>Specifications</b> .....	<b>inside cover</b>
<b>Introduction</b> .....	<b>1</b>
<b>Safety</b> .....	<b>2</b>
Safety Alert Symbols & Safety Signal Words .....	3
Electrocution Hazard .....	4
Tip-over Hazards .....	5
Fall Hazards .....	6
Collision Hazards .....	6
Additional Safety Hazards .....	7
Battery Safety .....	8
<b>Controls &amp; Components</b> .....	<b>9</b>
Component Locations .....	9
Platform Controls .....	10
Base Controls .....	12
<b>Workplace Inspection</b> .....	<b>14</b>
<b>Operating Instructions &amp; Pre-Operation Function Tests</b> .....	<b>15</b>
Prestart .....	15
Base Controls Operation & Pre-Operation Functions Test .....	16
Platform Control Operation & Pre-Operation Functions Test .....	20
High Capacity Switch (Optional) .....	27
Shutdown Procedure .....	27
Auxiliary Power System & Test .....	28
<b>Machine Inspections and Maintenance</b> .....	<b>29</b>
Supporting The Boom Assembly .....	30
Pre-Start Inspection Checklist .....	31
Frequent Inspection Checklist .....	32
Annual Inspection Report .....	33
Routine Maintenance .....	33
Frequent and Annual Maintenance .....	34
Lubrication .....	35
<b>Battery Chargers</b> .....	<b>36</b>
<b>Optional Generator Operation</b> .....	<b>39</b>
<b>Troubleshooting</b> .....	<b>40</b>
<b>Warning and Instructional Decals</b> .....	<b>41</b>
<b>Transport and Lifting Instructions</b> .....	<b>45</b>
Loading .....	45
Driving or Winching onto or off of a Transport Vehicle .....	46
Securing to Truck or Trailer for Transport .....	47

# —Specifications—

## 60-J Electric

Working Height*	66 ft	20.1 m
Platform Height	60 ft	18.3 m
Maximum Drive Height	60 ft	18.3 m
Maximum Outreach	42 ft 8 in	13 m
Turntable Swing	Continuous	
Jib Range Of Motion	135°	
Platform Rotation	180° (90° each side)	
Machine Weight** (Unloaded)	18,500 lb	8,390 kg
Lift Capacity		
Unrestricted Standard	500 lb	227 kg
Restricted Option	750 lb	340 kg
Maximum Occupants	2	
Stowed Height	100 in	2.54 m
Overall Length	30 ft 6 in	9.3 m
Overall Width	96 in	2.44 m
Tailswing	47 in	1.19 m
Wheel Base	101 in	2.56 m
Wheel Track	96 in	2.44 m
Platform Details	Width	96 in 2.44 m
	Depth	40 in 1 m
	Entry	1 End Swing Gate, 2 Slide Bar Entries
Turning Radius, Inside	6 ft 6 in	2 m
Ground Clearance	13.5 in	34 cm
Lift Speed	55 sec	
Extend Speed	25 sec	
Jib Lift Speed	20 sec	
Drive Speed (Proportional)	Stowed	0-3.1 mph 0-5 km/h
	Raised or extended	0-.5 mph 0-.8 km/h
Gradeability	Stowed, downhill	45%/24.2°
	Stowed, uphill	45%/24.2°
Breakover Angle	40%/22°	
Axle Oscillation	10° (5° each side)	
Maximum Operating Wind Speed	28 mph	12.5 m/sec (45 km/h)
Power Source	72v DC Battery Pack; 420 A/H	
Hydraulic Fluid Capacity	40 gal	150 liter
Meets applicable requirements of ANSI A92.5-2006 Section 4 and CSA B354.4-2002.		
*Working Height adds 6 feet (2 m) to platform height.		
**Weight may increase with certain options.		



# Introduction

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This Operator's Manual has been designed to provide you, the owner, user or operator, with the instructions and operating procedures essential to properly and safely operate your MEC Aerial Work Platform for positioning personnel, along with their necessary tools and materials, to overhead work locations.



***This Operator's Manual and other manuals provided by MEC on the machine must be read and understood prior to operating your MEC Aerial Work Platform. The operator should not accept operating responsibility until he/she has read and understands the operator's manual as well as having operated the MEC Aerial Work Platform under supervision of an authorized, trained and qualified operator.***

***It is essential that the operator of the aerial work platform is not alone at the workplace during operation.***

***Modifications of this machine from the original design and specifications without written permission from MEC are strictly forbidden. A modification may compromise the safety of the machine, subjecting the platform occupants and personal around the machine to serious injury or death.***

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Your MEC Aerial Work Platform has been designed, built, and tested to provide safe, dependable service. Only authorized, trained and qualified personnel shall be allowed to operate or service the machine.

MEC, as manufacturer, has no direct control over machine application and operation. Proper safety practices are the responsibility of the owner, user and operator.

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



## **MEC Aerial Platform Sales Corp.**

1401 South Madera Ave • Kerman, CA 93630 USA

Ph: 1-877-635-5438 • 559-842-1500 • Fax: 559-842-1522

[www.mecawp.com](http://www.mecawp.com)

# Safety

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**DO NOT operate this machine until you have read and understood this manual, have performed the Workplace Inspection, Pre-Start Inspection and Routine Maintenance, and have completed all the test operations detailed in the Operating Instructions section.**

Failure to read, understand and follow all safety rules, warnings, and instructions could result in serious injury or death. For your safety and the safety of those around you, you must operate your machine as instructed in this manual.

MEC designs aerial work platforms to safely and reliably position personnel, along with their necessary tools and materials, at overhead work locations. The owner/user/operator of the machine should not accept responsibility for the operation of the machine unless properly trained.

ANSI and other applicable standards identify requirements of all parties who may be involved with boom-supported elevating work platforms. The ANSI/SIA A92.5-2006 Manual of Responsibilities is considered a part of this machine and can be found in the manual compartment, located at the platform control station. To ensure safe use of machine, inspections and training specified in ANSI/SIA A92.5-2006 must be performed at designated intervals as prescribed.

## California Proposition 65 Warning

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This product contains chemicals known to the State of California to cause cancer and/or birth defects or other reproductive harm.

## Safety Alert Symbols & Safety Signal Words

MEC manuals and decals use symbols, colors and signal words to help you recognize important safety, operation and maintenance information.



This is the Safety Alert Symbol. It is intended to alert operators, users and owners to potential personal injury hazards. Always obey all messages that follow this symbol.



**RED and the word DANGER**– Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.



**ORANGE and the word WARNING**– Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.



**YELLOW with alert symbol and the word CAUTION**– Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

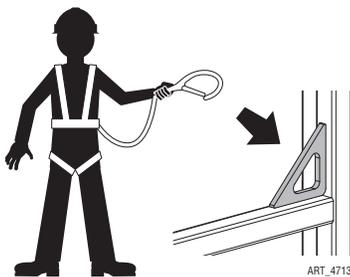


**YELLOW without alert symbol and the word CAUTION**– Indicates a potentially hazardous situation which, if not avoided, may result in property damage.



**GREEN and the word NOTICE**– Indicates operation or maintenance information.

## Fall Protection



Personal fall protection equipment (PFPE) is required when operating this machine.

All PFPE must comply with employer and job site rules and applicable governmental regulations, and must be inspected and used in accordance with the PFPE manufacturer's instructions.

**ALWAYS** wear approved fall protection, properly attached to a designated anchor point, when operating the machine.

**DO NOT** attach more than one lanyard per anchor point.

## Electrocution Hazard



**ELECTROCUTION HAZARD! THIS MACHINE IS NOT INSULATED!**

**DEATH OR SERIOUS INJURY will result from contact with or inadequate clearance from any electrically charged conductor.**

**You must maintain a CLEARANCE OF AT LEAST 10 FEET (3.05 m) between any part of the machine, or its load, and any energized electrical line or apparatus carrying over 300 Volts up to 50,000 Volts. One foot (30.5 cm) additional clearance is required for every additional 30,000 Volts.**

**Observe Minimum Safe Approach Distance.**



This machine **is not** electrically insulated and **will not** provide protection from contact with or proximity to electrical current.

Maintain safe distances from energized electrical lines and apparatus in accordance with applicable government regulations and the following chart:

### Minimum Safe Approach Distance

Voltage Phase to Phase	Minimum Safe Approach Distance	
	Feet	Meters
0 to 300 Volts	Avoid Contact	
Over 300V to 50kv	10	3.1
Over 50KV to 200KV	15	4.6
Over 200KV to 350KV	20	6.1
Over 350KV to 500KV	25	7.6
Over 500KV to 750KV	35	10.7
Over 750KV to 1000KV	45	13.7

Allow for platform movement, electrical line sway or sag and beware of strong or gusty winds.

Keep away from the machine if it contacts energized electrical lines. Personnel on the ground or in the platform must not touch or operate the machine until energized power lines are shut off.

## Tip-over Hazards



**DO NOT OVERLOAD**

DO NOT exceed the maximum platform capacity. The weight of options and accessories will reduce the rated platform capacity and must be factored into the total platform load. Refer to the decals on the options or contact MEC.

ON MACHINES EQUIPPED WITH THE HIGH CAPACITY OPTION, DO NOT exceed the 500 lb (227 kg) unrestricted capacity unless the green High Capacity Indicator Light is illuminated. See page 27 for instructions.



**DO NOT DRIVE ON UNEVEN OR UNSTABLE SURFACE WHEN THE PLATFORM IS ELEVATED OR EXTENDED**

**Driving:** DO NOT drive the machine on a slope that exceeds the maximum uphill or downhill slope rating. Slope rating applies to machines in the stowed position.

**Driving in stowed position:** Use extreme care and reduce speed when driving across uneven terrain, debris, unstable or slippery surfaces, and near holes or drop-offs.

**Driving with the platform elevated:** DO NOT drive on or near uneven terrain, unstable surfaces, curbs, drop-offs or other hazardous conditions.

DO NOT elevate the platform when the machine is on a surface that is soft and / or on a slope.

STOP ALL MOVEMENT if the alarm sounds and the red Tilt Indicator Light illuminates when the platform is raised – see *Tilt Indicator Light* on page 19 for instructions.

Ensure that all tires are in good condition and lug nuts are properly torqued.



**DO NOT PUSH OR PULL OBJECTS OUTSIDE PLATFORM**

DO NOT push off or pull toward any object outside the platform.

**Maximum Allowable Side Force:** 100 lbs (445 N).

NEVER transport tools and materials unless they are firmly secured. Secure all tools and loose materials. DO NOT carry materials or tools on the guardrails. DO NOT allow tools, supplies or any items to extend outside the platform.



**DO NOT ELEVATE IN GUSTY CONDITIONS OR WHEN WIND EXCEEDS 28 MPH (12.5 M/S)**

DO NOT elevate the platform when wind speeds are in excess of 28 m.p.h. (12.5 m/s). If wind speeds exceed 28 m.p.h. (12.5 m/s) when the platform is elevated, carefully lower the platform and discontinue operation.

DO NOT increase the surface area of the platform (i.e. cover the rails with tarp or plywood). Increased surface area exposed to the wind will decrease machine stability.

NEVER modify or alter the work platform without written permission from MEC.



**DO NOT USE AS CRANE**

DO NOT attach overhanging loads or use the machine as a crane. Do not allow anything (hoses, cords, wires, ropes, etc.) to hang from the platform.

NEVER alter or disable any machine components.

DO NOT replace any part of the machine with anything except MEC-supplied or MEC-approved parts.

NEVER use ladders or scaffolds in the platform or allow them to touch any part of the machine.

NEVER use the machine on a moving or mobile surface or vehicle.

## Fall Hazards



DO NOT CLIMB ON RAILS

DO NOT sit, stand or climb on the platform guard rails. Maintain a firm footing on the platform floor at all times.

Keep the platform floor clear of debris.

DO NOT fasten a fall restraint lanyard to an adjacent structure.

Ensure that all gates are properly closed and secured before operating the machine.

Operators must comply with employer and job site rules and governmental regulations regarding the use of Personal Fall Protective Equipment.



DO NOT ENTER OR EXIT PLATFORM  
WHEN ELEVATED

DO NOT exit the platform when elevated

## Collision Hazards



ALWAYS check over, under and around the machine for personnel, structures and obstructions before activating any control function and continue to watch for hazards while operating the machine.

Check path before moving for equipment, materials or other obstructions.

Check for overhead obstructions before moving.

DO NOT place the boom or platform against another structure.



Check path before moving for crushing hazards when holding the platform rail.

Reduce travel speed when moving the machine on slopes, when near personnel and obstacles, or when surface conditions are wet, slippery or otherwise limiting.

DO NOT operate in the path of any crane unless the controls of the crane have been locked out and/or precautions have been taken to prevent any possible collision.

Stunt driving and horseplay are PROHIBITED.



Check for personnel and obstructions below the platform when lowering the platform.

## Additional Safety Hazards

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### Explosion and Fire Hazards

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DO NOT operate the machine in hazardous locations or locations where potentially flammable or explosive gasses or particles may be present.

### Damaged Machine Hazards

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Conduct a thorough pre-start inspection of the machine and test all functions before each work shift to check for damage, malfunction and unauthorized modification. Tag and remove a damaged, malfunctioning or modified machine from service. DO NOT use a damaged, malfunctioning or modified machine.

Routine maintenance must be performed by the operator before each work shift. Scheduled maintenance must be performed by a qualified service technician at scheduled intervals. Tag and remove from service any machine that has not had scheduled preventative maintenance performed.

Check that all safety and instructional decals are in place and undamaged.

Check that the operator's, safety and responsibilities manuals are present in the storage container located in the platform. All manuals must be complete, undamaged and readable.

### Bodily Injury Hazards

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DO NOT operate the machine when there is a hydraulic fluid or air leak. Hydraulic fluid or air under pressure can penetrate and burn skin, damage eyes, and may cause serious injury, blindness, and death. Repair leaks immediately. Fluid leaks under pressure may not always be visible. Check for pin hole leaks with a piece of cardboard, not your hand.

All compartments must remain closed and secure during machine operation. Improper contact with components under any cover will cause serious injury. Only trained maintenance personnel should access compartments. The operator should only access a compartment when performing pre-operation inspection.

### Weld Line to Platform Safety (if equipped)

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Read, understand and follow all warnings and instructions provided with the welding power unit.

DO NOT connect weld leads or cables unless the welding power unit is turned off at the platform controls.

DO NOT operate unless the weld cables are properly connected.

DO NOT connect the ground lead to the platform. Do not use any part of the machine as a ground for welding.

DO NOT hang wires or cables over guardrails or suspend from the platform.

## Battery Safety

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### Burn Hazards

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Batteries contain acid. Always wear protective clothing and eye wear when working with batteries.

Avoid spilling or contacting battery acid. Neutralize battery acid spills with baking soda and water.

### Explosion Hazard

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Keep sparks, flame and lighted tobacco away from batteries. Batteries emit explosive gas.

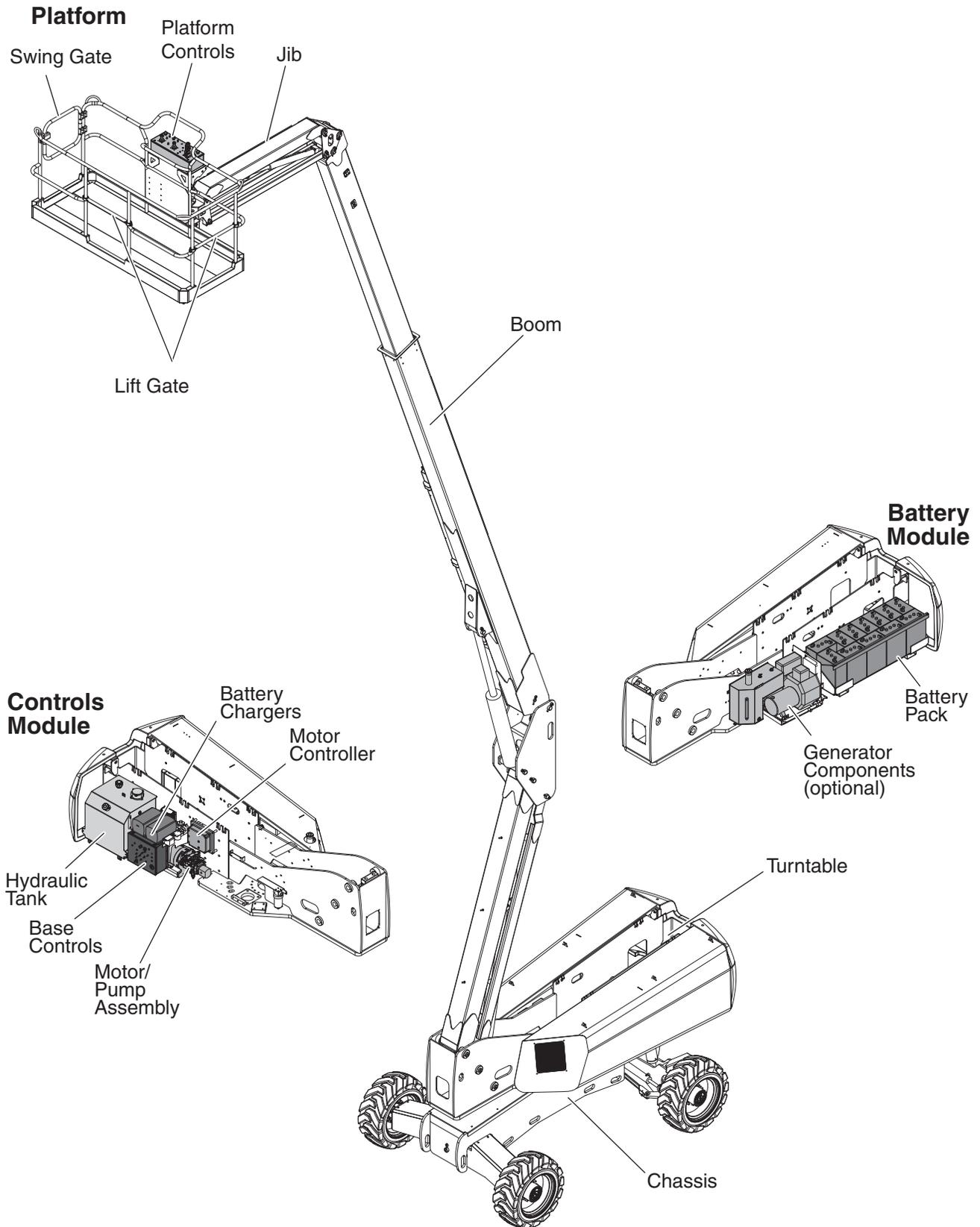
### Electrocution Hazard

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72V DC BATTERY VOLTAGE -- Avoid contact with electrical terminals.

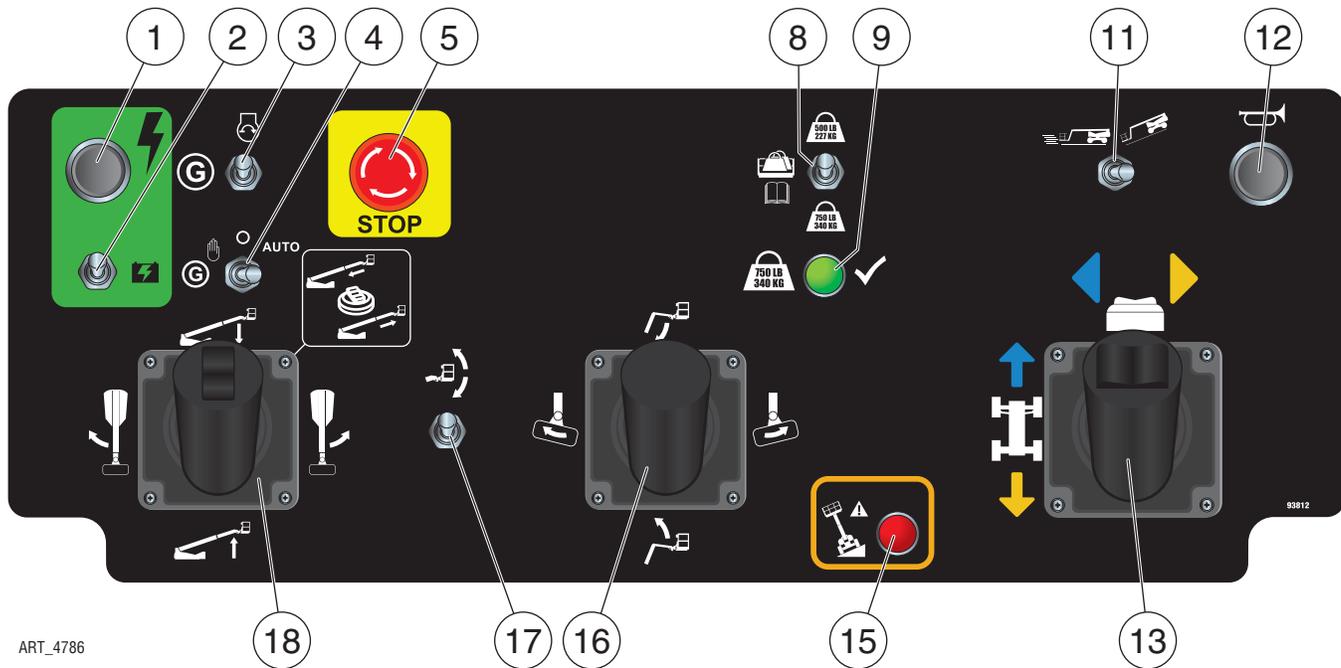
# Controls & Components

## Component Locations



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## Platform Controls



ART\_4786

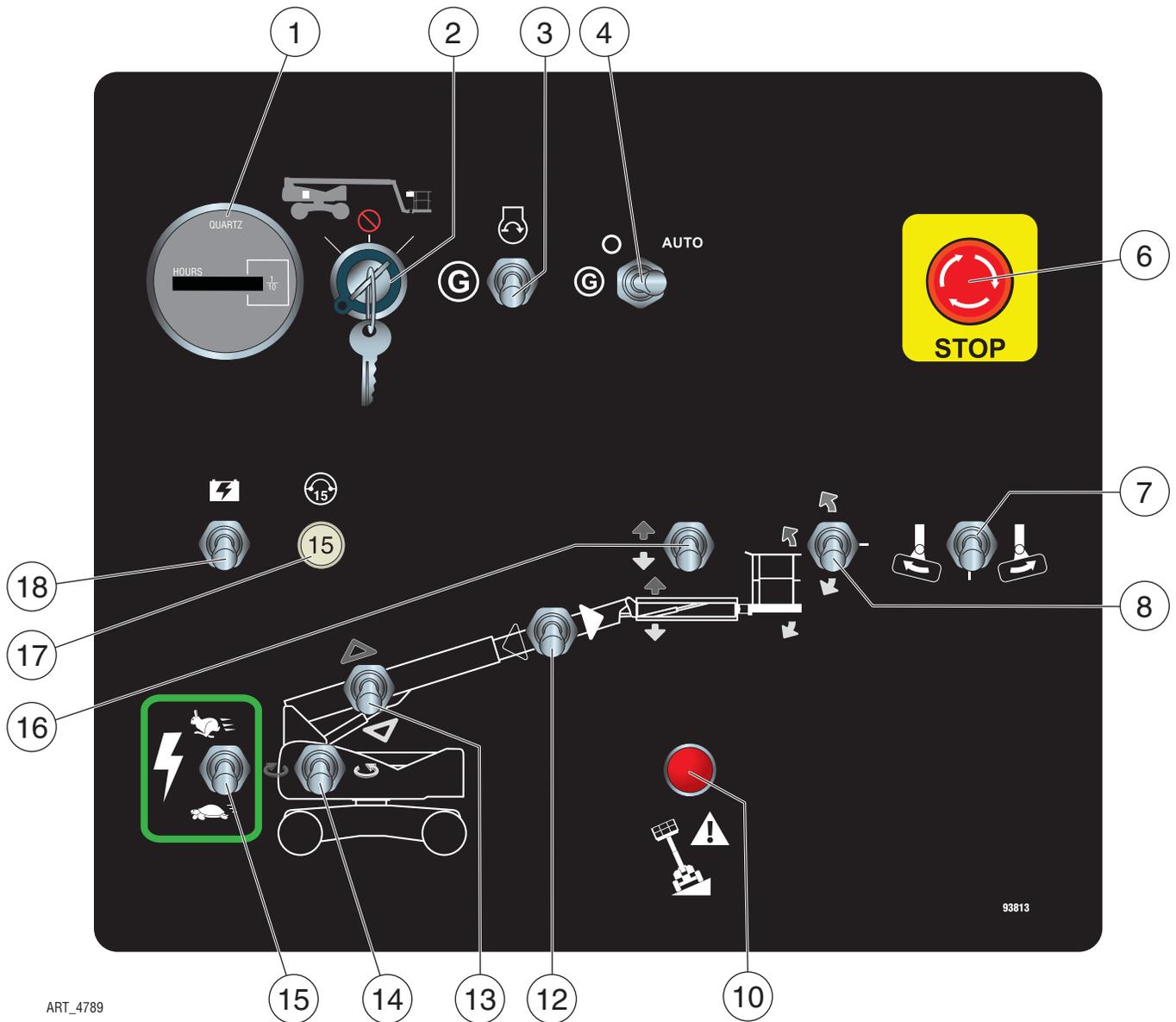
**WARNING**

**ALWAYS check over, under and around the machine for personnel, structures and obstructions before activating any control function and continue to watch for hazards while operating the machine**

CONTROL		DESCRIPTION
1	Function Enable Button	Press and hold this button to enable boom and platform operations.
2	Auxiliary Power	If normal power fails, press and hold while using Boom Retract and Boom Lower functions.
3	Generator Manual Start Switch (Optional)	Push the Generator Manual Start switch UP to start the generator.
4	Generator Operation Switch (Optional)	Push this switch left to start and stop the generator manually. Push this switch right to enable automatic operation of the generator. Position this switch in the center to turn the generator system OFF.
5	Emergency Stop Switch	Press the EMERGENCY STOP switch at any time to stop all machine functions. Turn switch <i>clockwise</i> to reset
6	--	--
7	--	--
8	High Capacity Switch (Optional)	On machines equipped with the High Capacity option, use this switch to choose high or standard capacities. To set the machine to High Capacity (750 lb (340 kg)), retract the boom, then move the switch to the down position. The green High Capacity Indicator Light (#9) will illuminate when this option is properly engaged. This will restrict the Boom Extend function reach and will allow the machine to operate with more weight in the platform. Move this switch up for 500 lb (227 kg) capacity and full boom range. <b>DO NOT</b> exceed the 500 lb (227 kg) unrestricted capacity unless the green High Capacity Indicator Light (#9) is illuminated.

CONTROL		DESCRIPTION	
9	High Capacity Indicator Light (Optional)	Green light illuminates when the High Capacity setting is properly engaged. To engage the High Capacity setting, retract the boom, then move the switch to the down position. If the green light does not illuminate, move the switch up, retract the boom completely, then move the switch down. <b>DO NOT</b> exceed the 500 lb (227 kg) unrestricted capacity unless the green High Capacity Indicator Light (#9) is illuminated.	
10	--	--	
11	Speed/Torque Switch	Move this switch to the left for high speed drive. Push this switch to the right for high torque drive.	
12	Horn Button	Press to sound warning horn.	
13	Drive/Steer Control Lever	Depending on the position of the turntable, the machine may move in unexpected directions when the Drive and Steer functions are activated. The color- and shape-coded arrows on the joystick decal correspond to similar arrow decals on the machine chassis. Be sure to check the arrows on the chassis before using the Drive or Steer functions.	
		Drive Function	Depress the enable bar on front of the control lever, then push the control lever forward or backward to drive the machine.
		Steer Function	Depress the enable bar on front of the control lever, then press the thumb switch on top of the control lever to steer left or right.
14	--	--	
15	Tilt Indicator Light	This light illuminates and an alarm sounds when the machine is not level. Follow the instructions on page 23 to safely lower the platform.	
16	Jib/Platform Control Lever	Jib Lift/Lower Function	Depress the enable bar on front of the control lever, then pull the control lever backward to lift the jib. Depress the enable bar on front of the control lever, then push the control lever forward to lower the jib.
		Platform Rotate Function	Depress the enable bar on front of the control lever, then push the control lever right to rotate the platform counterclockwise. Depress the enable bar on front of the control lever, then push the control lever left to rotate the platform clockwise.
17	Platform Level Switch	Press the Function Enable Button (#1) to enable this function, then press this switch up to manually level the platform upward or down to manually level the platform downward.	
18	Boom/Turntable Control Lever	Turntable Rotate Function	Depress the enable bar on front of the control lever, then push the control lever to the left to rotate the turntable clockwise or right to rotate the turntable counterclockwise.
		Boom Lift/Lower Function	Depress the enable bar on front of the control lever, then pull the control lever back to elevate the boom. Depress the enable bar on front of the control lever, then push the control lever forward to lower the boom.
		Boom Extend/Retract Function	Depress the enable bar on front of the control lever, then push the thumb switch on top of control lever back to extend the boom. Depress the enable bar on front of the control lever, then push the thumb switch forward to retract the boom.

# Base Controls



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**! WARNING**

***ALWAYS check over, under and around the machine for personnel, structures and obstructions before activating any control function and continue to watch for hazards while operating the machine***

CONTROL		DESCRIPTION
1	Hour Meter	Indicates total elapsed time of machine operation.
2	Selector Switch	PLATFORM   Select to operate from the platform control panel.
		BASE   Select to operate from the base control panel.
		OFF   Select to stop operation from either control panel.
3	Generator Manual Start Switch (Optional)	Push the Generator Manual Start switch UP to start the generator.
4	Generator Operation Switch (Optional)	Push this switch right to enable automatic operation of the generator. Push this switch left to turn the generator system OFF.
5	--	--
6	Emergency Stop Switch	Press the EMERGENCY STOP switch at any time to stop all machine functions. Turn switch <i>clockwise</i> to reset
7	Platform Rotate Switch	Press and hold the Function Enable Switch (#15), then move this switch left to rotate the platform clockwise. Press and hold the Function Enable Switch (#15), then move this switch right to rotate the platform counterclockwise.
8	Platform Level Switch	Press and hold the Function Enable Switch (#15), then move this switch up to manually level the rear of the platform upward. Press and hold the Function Enable Switch (#15), then move this switch down to manually level the rear of the platform downward.
9	--	--
10	Tilt Indicator Light	This light illuminates and an alarm sounds when the machine is not level. Follow the instructions on page 23 to safely lower the platform.
11	--	--
12	Boom Extend/Retract	Press and hold the Function Enable Switch (#15), then move this switch right to extend the boom. Press and hold the Function Enable Switch (#15), then move this switch left to retract the boom.
13	Boom Lift/Lower	Press and hold the Function Enable Switch (#15), then move this switch up to lift the boom. Press and hold the Function Enable Switch (#15), then move this switch down to lower the boom.
14	Turntable Rotate	Press and hold the Function Enable Switch (#15), then move this switch left to rotate the turntable clockwise. Press and hold the Function Enable Switch (#15), then move this switch right to rotate the turntable counterclockwise.
15	Function Enable Switch	Press and hold this switch to enable boom, turntable and platform operations. Press down to operate the controls at slow speed. Press up to operate the controls at higher speed.
16	Jib Lift/Lower	Press and hold the Function Enable Switch (#15), then move this switch up to lift the jib. Press and hold the Function Enable Switch (#15), then move this switch down to lower the jib.
17	Circuit Breaker	Trips when there is excessive electrical load. Push to reset.
18	Auxiliary Power Switch	If normal power fails, press and hold while using boom retract and boom lower functions.

## Workplace Inspection

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**DO NOT** operate this machine until you have read and understood this manual, have performed the Workplace Inspection, Pre-Start Inspection and Routine Maintenance, and have completed all the test operations detailed in the Operating Instructions section.

Inspect the workplace and determine whether the workplace is suitable for safe machine operation. Do this before moving the machine to the workplace.

Be sure the lift is the correct machine for the job.

Be aware of workplace conditions, and continue to watch for hazards while operating the machine.



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***ELECTROCUTION HAZARD! THIS MACHINE IS NOT INSULATED!***

***DEATH OR SERIOUS INJURY will result from contact with or inadequate clearance from any electrically charged conductor.***

***You must maintain a CLEARANCE OF AT LEAST 10 FEET (3.05 m) between any part of the machine, or its load, and any energized electrical line or apparatus carrying over 300 Volts up to 50,000 Volts. One foot (30.5 cm) additional clearance is required for every additional 30,000 Volts.***

***Observe Minimum Safe Approach Distance.***

***See page 4 for more information.***

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## Workplace Inspection

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Before operating the machine, check the workplace for all possible hazards, including but not limited to:

- drop-offs or holes, including those concealed by water, ice, mud, etc.
- sloped, unstable or slippery surfaces
- bumps, surface obstructions and debris
- overhead obstructions and electrical conductors
- other objects or equipment
- hazardous locations and atmospheres
- inadequate surface and support to withstand all load forces imposed by the machine
- wind and weather conditions
- the presence of unauthorized personnel
- other possible unsafe conditions

# Operating Instructions & Pre-Operation Function Tests

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**DO NOT operate this machine until you have read and understood this manual, have performed the Workplace Inspection, Pre-Start Inspection and Routine Maintenance, and have completed all the test operations detailed in the Operating Instructions section.**

This section provides instructions and tests for each function of machine operation. Follow all safety rules and instructions. The operator must conduct inspections and a Functions Test of the machine before each work shift to check that all machine systems are working properly.

Test the machine on a firm level surface with no debris, drop-offs, potholes or overhead obstructions. Perform each step outlined in this section.

This machine shall only be operated by trained and authorized personnel. If multiple operators use this machine, all must be trained, qualified and authorized to use it. New operators must perform a Pre-Start Inspection and Functions Test prior to operating the machine.

Operators must comply with all employer and job site rules and governmental regulations regarding the use of personal protective equipment – see *Fall Protection* on page 3.

DO NOT use a machine that is malfunctioning. If any function does not perform as described, tag the machine and remove for repair by a qualified service technician. After repairs are completed, a Pre-Start Inspection and Functions Test must be performed before using the machine.



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***ALWAYS check over, under and around the machine for personnel, structures and obstructions before activating any control function and continue to watch for hazards while operating the machine***

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## Prestart

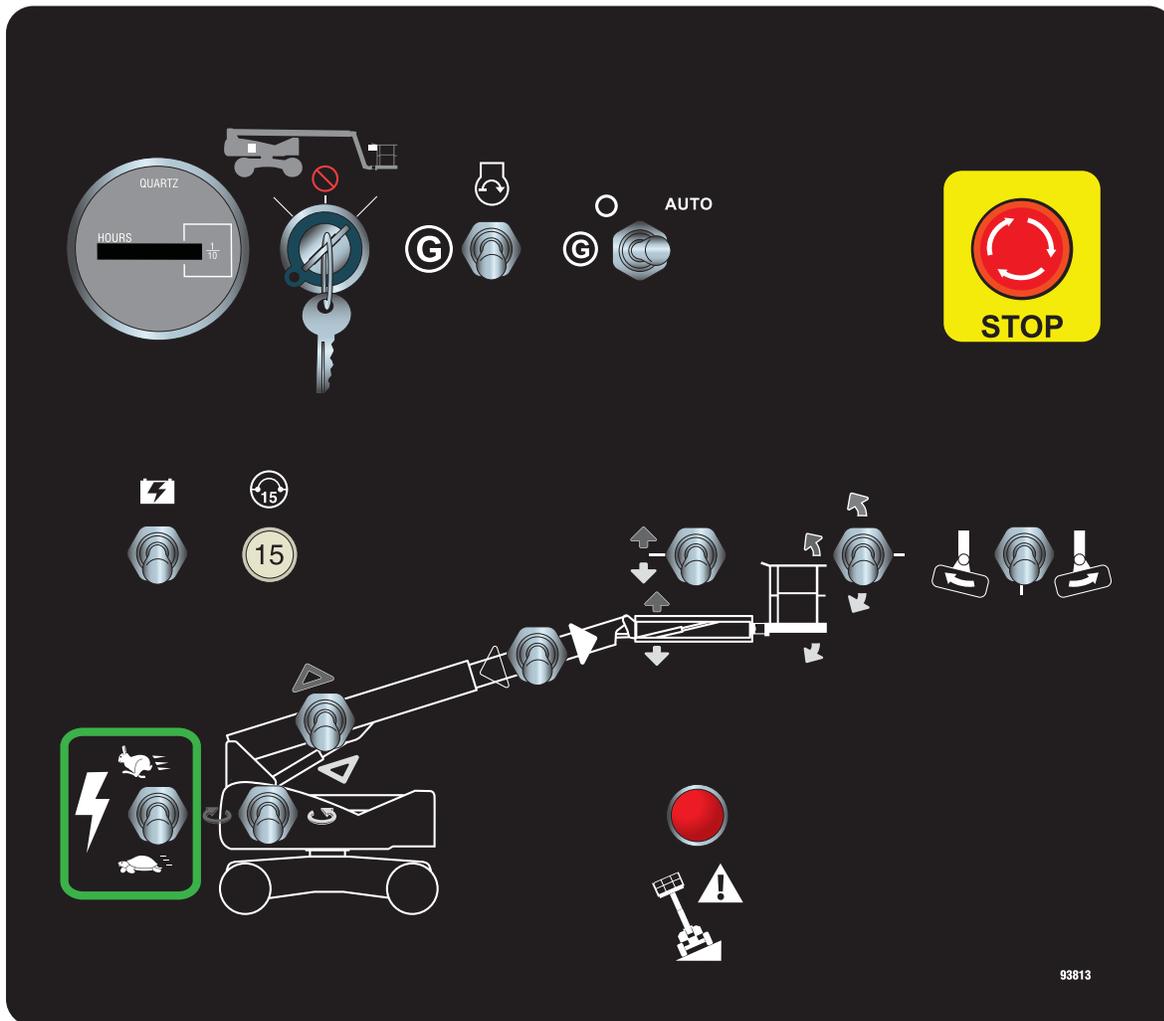
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- Perform *Prestart Inspection* (see page 31).
- Check Emergency Stop Switches at both the base and platform controls – turn clockwise to reset.



ART\_3353

**Base Controls Operation & Pre-Operation Functions Test**



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***ALWAYS check over, under and around the machine for personnel, structures and obstructions before activating any control function and continue to watch for hazards while operating the machine***

**Emergency Stop**



ART\_3353

- Press the Emergency Stop Switch at any time to stop all machine functions.
- Turn switch *clockwise* to reset.
- Depress the EMERGENCY STOP switch whenever the machine is not in operation. Turn switch *clockwise* to reset.



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## Select BASE Operation

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- Turn the Selector Key Switch to BASE.



ART\_4715

## Function Enable

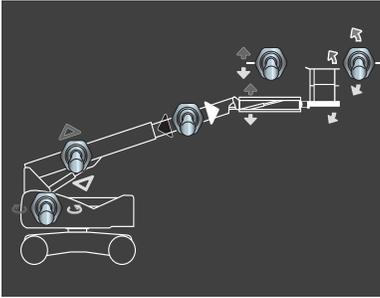
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- Press and hold this switch to enable and operate machine functions from the base controls.
- Press down to operate the controls at slow speed.
- Press up to operate the controls at higher speed.
- Releasing this switch will disable machine functions.

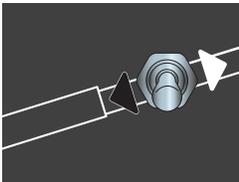


*Do not elevate the platform if the machine is not on a firm level surface.*

## Base Control Boom/Platform Functions



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ART\_4717

### Boom Extend/Retract

- Move and hold the Extend/Retract switch on the base control panel to extend or retract the boom.

#### Test Operation

- Press and hold the Function Enable switch.
- Extend boom until it stops. Boom should extend to maximum length.
- Retract the boom until it stops. Boom should retract to minimum length.
- Releasing the switch will stop boom extension or retraction.
- Pressing the Emergency Stop Switch will stop boom extension or retraction.

### Boom Lift/Lower

- Press and hold the Boom Lift/Lower switch on the base control panel to lift or lower the boom.

#### Test Operation

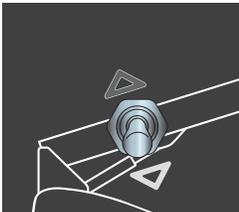
- Press and hold the Function Enable switch.
- Raise the boom until it stops.
- Lower the boom until it stops. Boom should rest on the turntable pads.
- Releasing the switch will stop Boom Lift/Lower function.
- Pressing the Emergency Stop Switch will stop boom lift/lower function.

### Jib Lift/Lower

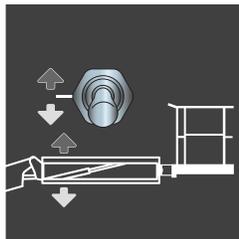
- Press and hold the Jib Lift/Lower switch on the base control panel to lift or lower the jib.

#### Test Operation

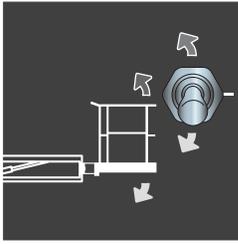
- Press and hold the Function Enable switch.
- Raise the jib until it stops.
- Lower the jib until it stops.
- Releasing the switch will stop Jib Lift/Lower function.
- Pressing the Emergency Stop Switch will stop jib lift/lower function.



ART\_4718



ART\_4720



ART\_4719

## Platform Level

The platform will automatically level as the boom is lifted or lowered. The Platform Level function allows manual level adjustment of the platform. Manual leveling may be used to adjust the platform within 5° of level.

- Press and hold the Platform Level switch on the base control panel to manually adjust the level of the platform.

### Test Operation

- Press and hold the Function Enable switch.
- Push the switch up and down. The platform level should change accordingly.
- Releasing the switch will stop platform level function.
- Pressing the Emergency Stop Switch will stop platform level function.

## Platform Rotate

- Press and hold the Platform Rotate switch on the base control panel to rotate the platform.

### Test Operation

- Press and hold the Function Enable switch.
- Push the switch left and right. The platform should rotate accordingly.
- Releasing the switch will stop platform rotate function.
- Pressing the Emergency Stop Switch will stop platform rotate function.

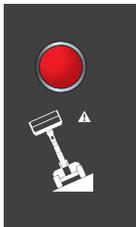


ART\_4720

## Tilt Indicator Light



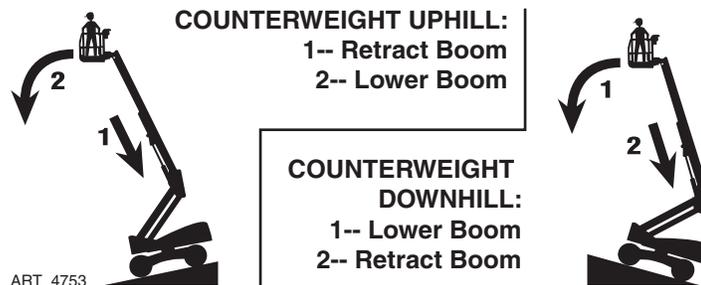
**STOP ALL MOVEMENT if Tilt Alarm sounds.**



ART\_3337b

Light ON and alarm sounding indicates an unsafe condition.

- STOP ALL MOVEMENT. The machine is not level.
- Look at the diagram to determine the condition of the counterweight as it relates to the slope, then use extreme caution while following the instructions. DO NOT rotate the turntable while lowering.



ART\_4753

- If the Tilt Alarm sounds while the counterweight is uphill, first retract the boom, then lower the boom.
- If the Tilt Alarm sounds while the counterweight is downhill, first lower the boom, then retract the boom.
- Move the machine to a firm, level surface before continuing operation.

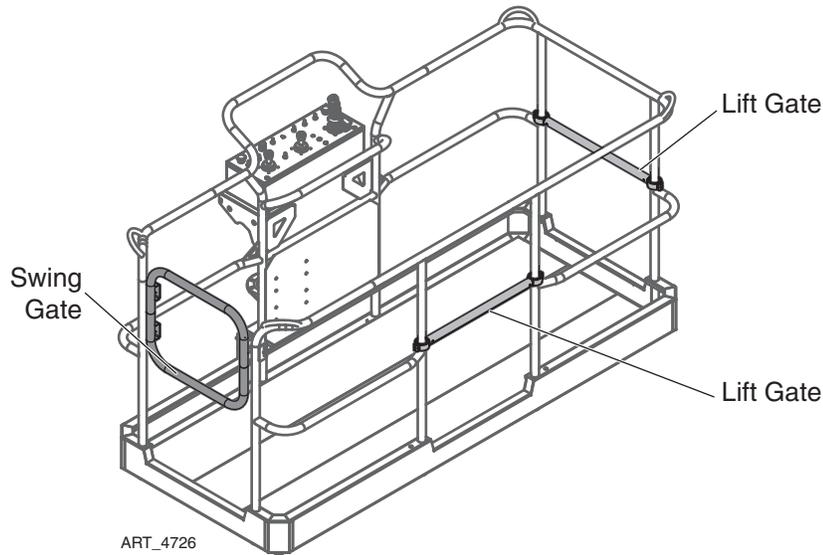
## Platform Control Operation & Pre-Operation Functions Test

### Entering The Platform

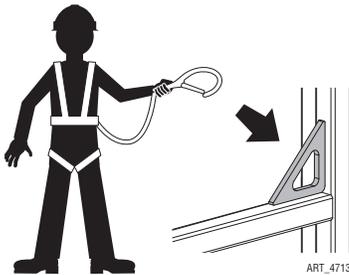
Personnel shall enter and exit the platform only at the Personnel Entry Gates, and only when the boom is fully retracted and lowered.

Ensure that all Personnel Entry Gates are properly closed and that the Swing Gate is latched in the closed position before operating the machine.

### Personnel Entry Gates



### Fall Protection



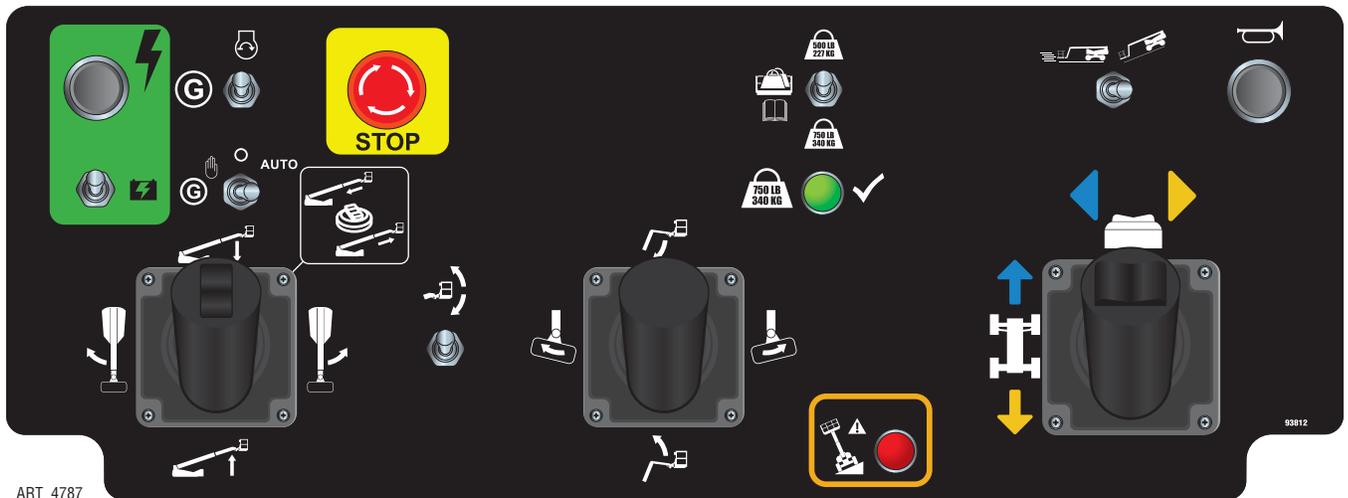
Personal fall protection equipment (PFPE) is required when operating this machine.

All PFPE must comply with employer and job site rules and applicable governmental regulations, and must be inspected and used in accordance with the PFPE manufacturer's instructions.

**ALWAYS** wear approved fall protection, properly attached to a designated anchor point, when operating the machine.

**DO NOT** attach more than one lanyard per anchor point.

## Platform Control Panel



ART\_4787

**WARNING**

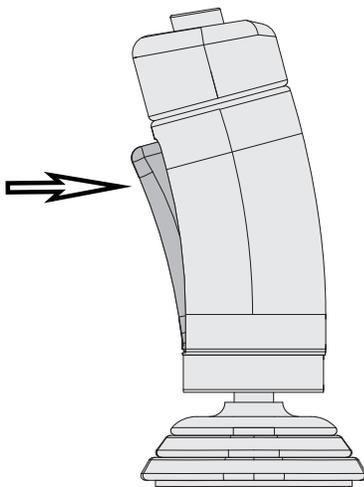
**ALWAYS** check over, under and around the machine for personnel, structures and obstructions before activating any control function and continue to watch for hazards while operating the machine.

**DO NOT** hang anything over any control handle at any time.

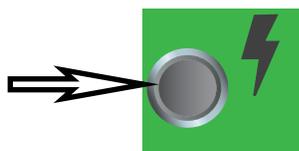
## Function Enable At Platform Controls

**Note:** If any Function Enable trigger or button is depressed for seven (7) seconds without any function being activated, the Enable System times out and deactivates. Release the trigger or button and reengage to activate the Function Enable System.

The Drive function and most boom functions are enabled by squeezing the trigger at the front of the appropriate control handle.



ART\_4729



ART\_4728

## Platform Level Function Enable

The Platform Level Function is enabled by pressing and holding the green Enable button at the top left of the Platform Control Station.

## Platform Operations Test

---



ART\_3353

### Emergency Stop

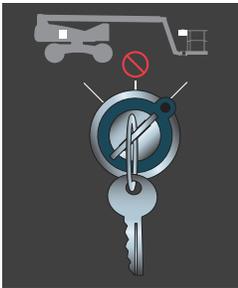
---

- Press the EMERGENCY STOP switch at any time to stop all machine functions.
- Turn switch *clockwise* to reset.
- Depress the EMERGENCY STOP switch whenever the machine is not in operation. Turn switch *clockwise* to reset.



**Activation of the EMERGENCY STOP switch will apply brakes immediately. This will cause sudden platform movement as the machine comes to an abrupt stop. Brace yourself and secure objects on the platform during operation of machine.**

---



ART\_4721

### Select PLATFORM Operation

---

- **Base Controls:** Turn the selector switch to PLATFORM.

### Operate from Platform

---

- Enter the platform through one of the personnel entry gates. Close and secure the entry.
- Press the Horn Button to verify proper operation.

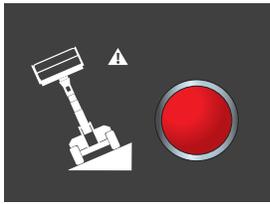


ART\_3359

## Tilt Indicator Light



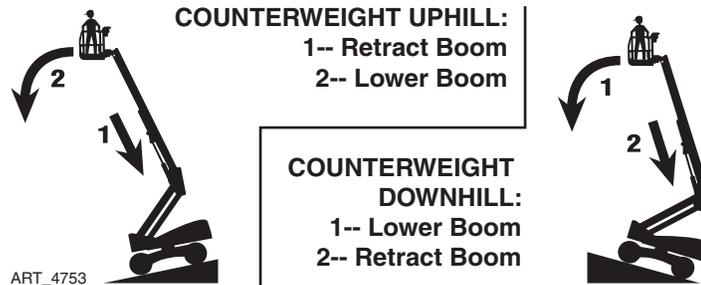
**STOP ALL MOVEMENT if Tilt Alarm sounds.**



ART\_3363b

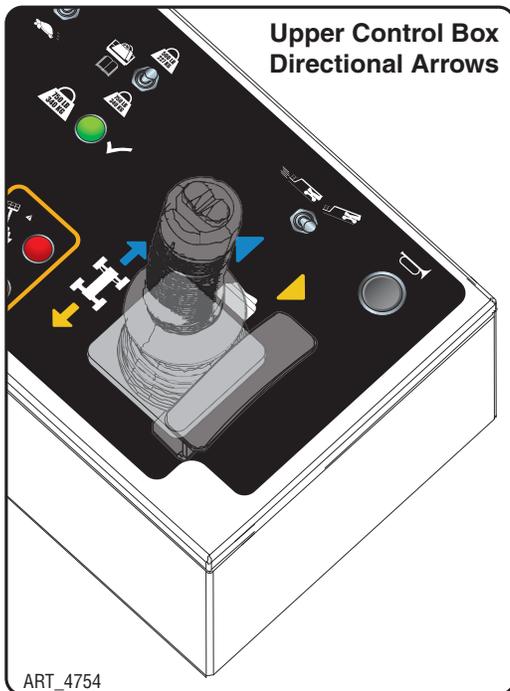
Light ON and alarm sounding indicates an unsafe condition.

- STOP ALL MOVEMENT. The machine is not level.
- Look at the diagram to determine the condition of the counterweight as it relates to the slope, then use extreme caution while following the instructions. DO NOT rotate the turntable while lowering.



- If the Tilt Alarm sounds while the counterweight is uphill, first retract the boom, then lower the boom.
- If the Tilt Alarm sounds while the counterweight is downhill, first lower the boom, then retract the boom.
- Move the machine to a firm, level surface before continuing operation.

## Drive Control Lever Operation



Depending on the orientation of the boom and chassis, the Drive and Steer functions may move the machine in directions opposite of the motion of the control lever. The color- and shape-coded arrows on the control lever decal correspond to similar arrow decals on the machine chassis (see illustrations). Be sure to check the arrows on the chassis before activating and using the Drive or Steer functions.

- Drive Function speed is proportional and is controlled by the positional of the control lever. The further it is moved from the neutral (center) position, the faster the speed will be.
- When the boom is elevated out of the stowed position, the maximum drive speed is reduced to 0.5 mph (0.8 km/h). Drive function speed is still fully proportional to the position of the drive control handle.
- The control lever returns to the neutral (center) position when released.
- Steering Function is not proportional.

**Note:** The Steering Function **does not** automatically return the steering wheels to the centered position. Always check the position of the steering wheels before and during machine operation.

### Test Operation

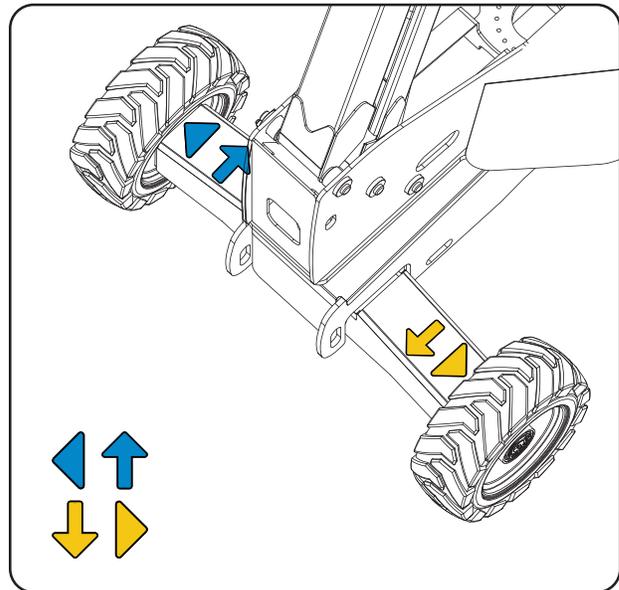
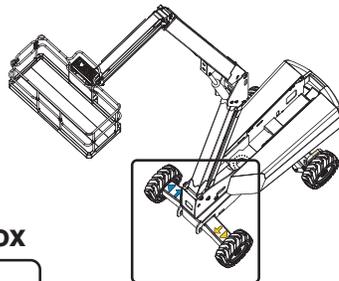
- Drive: Squeeze the enable trigger, then move the control lever in the desired direction of movement. The further it is moved from the neutral (center) position, the faster the speed will be.
- Stop: Return the control lever to the neutral (center) position. Releasing the control lever will also stop the machine. Releasing the trigger will result in a rapid stop.
- Extend the boom approximately 3 feet (1 m), then drive the machine. Speed should be reduced significantly from the fully-retracted, fully-lowered speed. Retract the boom.
- Elevate the boom approximately 10°, then drive the machine. Speed should be reduced significantly from the fully-retracted, fully-lowered speed. Lower the boom.
- Steering: Squeeze the enable trigger, then press the thumb switch on top of the control lever to steer in the desired direction.

**Note:** The Steering Function **does not** automatically return the steering wheels to the centered position. Stay alert to the position of the steering wheels before and during machine operation.

### Drive & Steer Directional Arrows

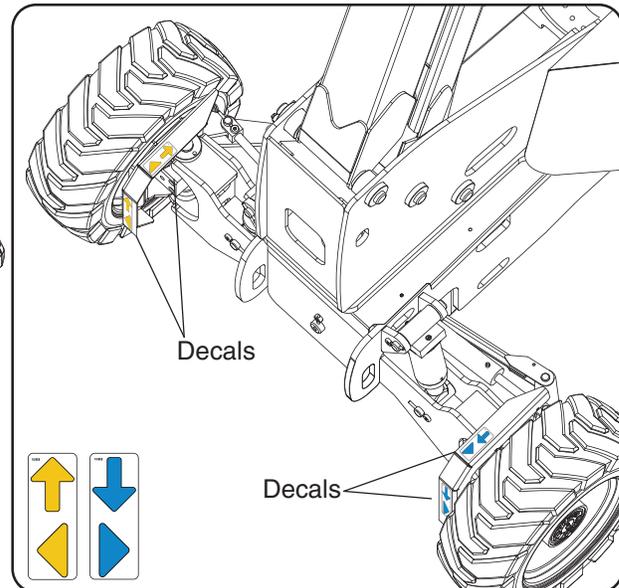
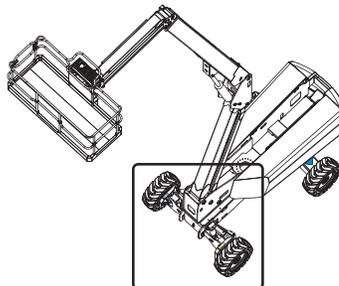
Pay careful attention to the Chassis Drive & Steer arrows for machine direction.

#### Upper Control Box



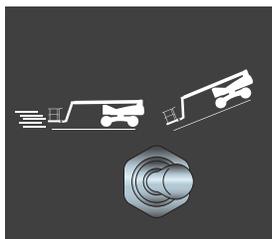
Platform over non-steering wheels

Platform over steering wheels



When the platform is over the steering wheels, the machine moves in the opposite direction of the Control Lever.

ART\_4747



ART\_4757

### Speed/Torque Switch

Move this switch to the left for high speed drive. Push this switch to the right for high torque drive.

## Boom Functions Control Lever



ART\_4731

This control lever controls the Boom Extend/Retract, Boom Lift/Lower and Turntable Rotate functions. The control lever is fully proportional for the Boom Lift/Lower and Turntable Rotate functions.

These functions are enabled by pressing the trigger on the front of the control lever.

### Test Operation

To test the Boom Extend/Retract function:

- Squeeze the enable trigger, then press and hold the thumb switch on top of the control lever rearward until the boom reaches full extension.
- Squeeze the enable trigger, then press and hold the thumb switch forward to retract the boom.

To test the Boom Lift/Lower function:

- Squeeze the enable trigger, then pull the control handle back to lift the boom. Lift the boom completely.
- Squeeze the enable trigger, then push the control handle forward to lower the boom. Lower the boom to its stowed position.

To test the Turntable Rotate function:

- Squeeze the enable trigger, then push the control handle to the left to rotate the turntable clockwise.
- Squeeze the enable trigger, then push the control handle to the right to rotate the turntable counterclockwise.

## Platform Level Switch

The platform will automatically level as the boom is lifted or lowered. The Platform Level function allows manual level adjustment of the platform. Manual leveling may be used to adjust the platform within 5° of level.

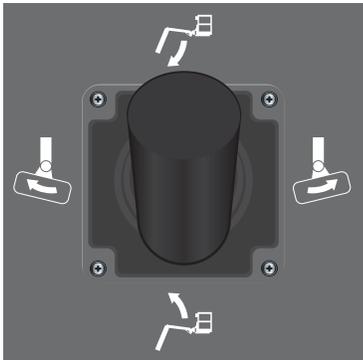


ART\_4732

### Test Operation

- Press and hold the Function Enable button.
- Push the Platform Level switch up or down to adjust the position of the platform.
- Platform Level power is disabled upon exceeding 5° out of level when out of the stowed position. Power is allowed only to the direction that returns the platform toward level.

## Platform/Jib Functions Control Lever



ART\_4733

The Platform/Jib Functions control lever controls the Platform Rotate and Jib Lift/Lower functions. The control lever is fully proportional for both functions.

These functions are enabled by pressing the trigger on the front of the control lever.

### Test Operation

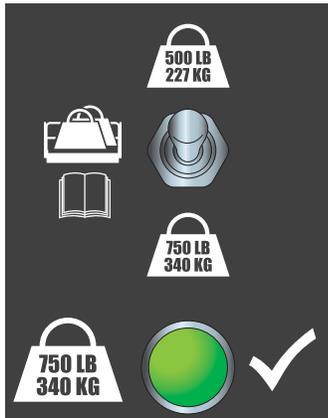
To test the Jib Lift/Lower function:

- Squeeze the enable trigger, then pull the control lever back to raise the jib.
- Squeeze the enable trigger, then push the control lever forward to lower the jib.

To test the Platform Rotate function:

- Squeeze the enable trigger, then push the control lever left to turn the platform clockwise.
- Squeeze the enable trigger, then push the control lever right to turn the platform counter clockwise.

## High Capacity Switch (Optional)



ART\_4756

**ON MACHINES EQUIPPED WITH THE HIGH CAPACITY OPTION,** use the High Capacity Switch to choose high or standard capacities.

**To set the machine to Standard Capacity (500 lb (227 kg))**

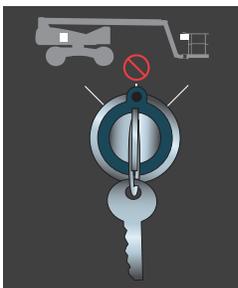
Move this switch to the up position.

**To set the machine to High Capacity 750 lb (340 kg)**

Retract the boom, then move the switch to the down position. This will restrict the Boom Extend function reach and will allow the machine to operate with more weight in the platform. The green High Capacity Indicator Light will illuminate when this option is properly engaged.

**DO NOT** exceed the 500 lb (227 kg) unrestricted capacity unless the green High Capacity Indicator Light is illuminated.

## Shutdown Procedure



ART\_4734

- When finished with the machine, place the platform in the stowed position.
- Park the machine on a level surface.
- Carefully exit the platform using a constant three (3) point dismount/grip.
- Turn the Selector Key Switch to the OFF position and remove the key to prevent unauthorized use. Always put the switch in OFF position when leaving the machine at the end of the work day.

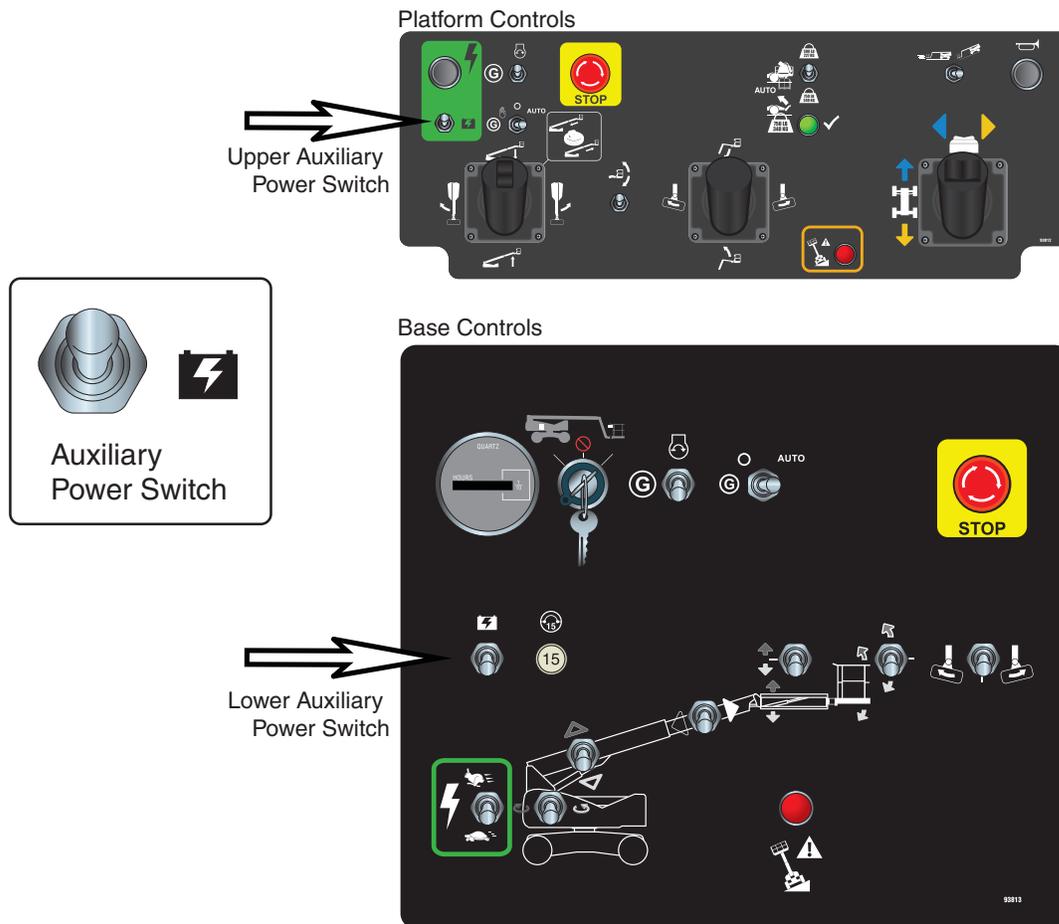
## Auxiliary Power System & Test

### WARNING

**If primary power fails while the platform is elevated, use the Auxiliary Power System to safely lower the platform.**

**Do not climb down the boom assembly or exit the platform while elevated.**

**ALWAYS check over, under and around the machine for personnel, structures and obstructions before activating any control function and continue to watch for hazards while operating the machine**



ART\_4791

The Auxiliary Power System is used to lower the platform in case of primary power failure. To lower the platform, activate the Auxiliary Power Switch to run the auxiliary hydraulic pump.

This function uses battery power from the auxiliary battery to lower the platform.

- Push and hold the Auxiliary Power Switch, then use the Boom Extend/Retract function to retract the boom.
- Continue to hold the Auxiliary Power Switch, then use the Boom Lift/Lower function to lower the boom.

**Note:** The Auxiliary Power Switch serves as an enable switch. It is not necessary to use the primary function enable switch.

### Test Operation

Test the Auxiliary Power System from both control stations.

Test any lift function for 5-10 seconds to verify proper operation.

# Machine Inspections and Maintenance

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DO NOT operate this machine until you have read and understood this manual, have performed the Workplace Inspection, Pre-Start Inspection and Routine Maintenance, and have completed all the test operations detailed in the Operating Instructions section.

Tag and remove a damaged, malfunctioning or modified machine from service. DO NOT use a damaged, malfunctioning or modified machine.

Use the Pre-Start Inspection to determine what Routine Maintenance is required. The operator may perform only the routine maintenance items specified in this manual.

**IMPORTANT**—Scheduled maintenance inspection checklists are included in this manual for use only by qualified service technicians. Only qualified service technicians may perform repairs to the machine. After repairs are completed, the operator must perform a Pre-Start Inspection before proceeding to the Functions Test.



---

**Hydraulic fluid under pressure can penetrate and burn skin, damage eyes, and may cause serious injury, blindness, and death. Repair leaks immediately. Fluid leaks under pressure may not always be visible. Check for pin hole leaks with a piece of cardboard, not your hand.**

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**NEVER perform work under the boom assembly with the platform elevated without first supporting the boom assembly.**

**Failure to perform scheduled maintenance at recommended intervals may result in injury or death. Keep maintenance records current and accurate.**

**Immediately report any damage, defect, unauthorized modification or malfunction to your supervisor. Any defect must be repaired prior to continued use. DO NOT use a damaged, modified or malfunctioning machine.**

**DO NOT hang anything over any control handle at any time.**

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**Never leave hydraulic components or hoses open. Plug all hoses and fitting immediately after disassembly to protect the system from outside contamination (including rain).**

**Never open a hydraulic system when there are contaminants in the air.**

**Always clean the surrounding area before opening hydraulic systems.**

**Use only recommended lubricants. Improper lubricants or incompatible lubricants may cause as much damage as no lubrication.**

**Watch for makeshift "fixes" which can jeopardize safety as well as lead to more costly repair.**

**Inspection and maintenance should be performed by qualified personnel familiar with the equipment.**

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## Supporting The Boom Assembly

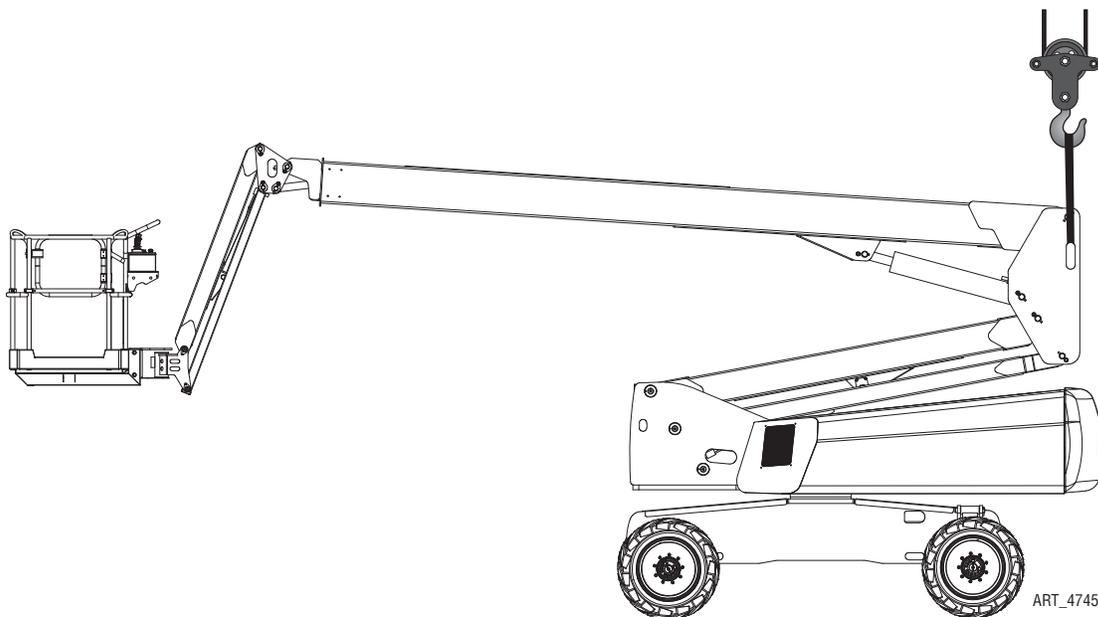
**WARNING**

**NEVER perform work under the boom assembly with the platform elevated without first supporting the boom assembly.**

DO NOT work beneath the boom assembly with the platform elevated unless the boom assembly is properly supported.

Use a sling and overhead hoist rated for 3 tons (2700 kg) or more.

Thread the sling through the opening in the boom post as shown below. Connect it to the overhead hoist, then lift enough that the weight of the boom assembly is being supported by the hoist.



## Pre-Start Inspection Checklist

---

The operator must conduct a Pre-Start Inspection of the machine before each work shift.

DO NOT use a damaged or malfunctioning machine.

Initial	Description
_____	Check that the operator's manual and manual of responsibilities are in the storage container located on the platform and are in readable condition.
_____	Perform a visual inspection of all machine components. Look for missing parts; torn or loose hoses; hydraulic fluid leaks; loose, torn or disconnected wires; damaged tires; etc.
_____	Check all structural components of the machine for cracked welds, corrosion and collision damage.
_____	Check the security and condition of the lanyard attachment points.
_____	Check all controls for any damage and proper function.
_____	Check all hoses and the cables for worn or chafed areas.
_____	Check the platform rails and sliding mid-rail entries for damage or modification. Check the swing gate for proper operation, self-closing and latching.
_____	Check that all warning and instructional decals are legible and secure.
_____	Check the tires for damage.
_____	Check the tire pressure (not required for foam filled tires).
_____	All structural components, pins and fasteners are present and properly tightened.
_____	Check for fluid leaks.
_____	Check hydraulic fluid level (check with platform fully lowered).
_____	Secure all covers, panels and hoods.
_____	Ensure that all gates are properly closed and secured before operating the machine.

## Frequent Inspection Checklist



***This checklist must be used at 3-month intervals or every 150 hours of machine use, whichever occurs first. Failure to do so could result in death or serious injury.***

Frequent Maintenance Inspections should be conducted by qualified service technicians only. Photocopy this page for reuse. Keep inspections records up to date. Record and report all discrepancies to your supervisor.

**Model Number** \_\_\_\_\_ **Serial Number** \_\_\_\_\_ **Hour Meter Reading** \_\_\_\_\_

Initial	Description
---------	-------------

- |       |   |
|-------|---|
| _____ | Perform all checks listed on Pre-Start Inspection.  |
| _____ | Inspect the condition of hydraulic fluid in the reservoir. Oil should be a clear amber color.                                 |
| _____ | Check battery electrolyte level and connections.  |
| _____ | Check wheel lug nuts for proper torque (see "Machine Specifications").  |
| _____ | Check if tires are leaning in or out.   |
| _____ | Inspect all structure and pivot points for signs of wear and/or damage.   |
| _____ | Check the pin joints and retaining rings for security.  |
| _____ | Inspect the entire machine for signs of damage, broken welds, loose bolts, improper or makeshift repairs.                     |
| _____ | Check that the platform does not drift down with a full load.   |
| _____ | Check all wire connections for tightness and corrosion.   |
| _____ | Check the operation speeds to ensure they are within specified limits (see <i>Specifications</i> ).                           |
| _____ | Check the Auxiliary Power System.   |
| _____ | Clean and lubricate all push button switches with dry lubricant and ensure that the switches operate freely in all positions. |
| _____ | Check the tightness of the platform frame and the linkage pins.   |
| _____ | Check the overall platform and guardrail component security.  |
| _____ | Check the electrical mounting and hardware connections for security.  |
| _____ | Check the steering kingpins for excessive play.   |

### Additional maintenance requirements for severe conditions

- \_\_\_\_\_ If the machine is used in very dusty, exceptionally hot or exceptionally cold conditions, replace hydraulic filter element (under normal conditions replace every 6 months or 300 hours, whichever comes first).

**DATE** \_\_\_\_\_ **INSPECTED BY** \_\_\_\_\_

# Annual Inspection Report



## Annual Inspection Report

**MEC Aerial Platform Sales Corp.**  
 1401 S. Madera Avenue • Kerman, CA 93630 USA  
 800-387-4575 • 559-842-1500 • Fax: 559-842-1522

Date \_\_\_\_\_  
 Serial Number \_\_\_\_\_  
 Model Number \_\_\_\_\_  
 Date Of Last Inspection \_\_\_\_\_  
 Date Placed In Service \_\_\_\_\_

Customer \_\_\_\_\_  
 Street \_\_\_\_\_  
 City/State/Zip \_\_\_\_\_  
 Phone Number \_\_\_\_\_  
 Contact \_\_\_\_\_

Dealer \_\_\_\_\_  
 Street \_\_\_\_\_  
 City/State/Zip \_\_\_\_\_  
 Phone Number \_\_\_\_\_  
 Contact \_\_\_\_\_

- Check each item listed below.
- Use proper Operator's, Service and Parts manual for specific information and settings.
- If an item is found to be "Unacceptable" make the necessary repairs and check the "Repaired" box.
- When all items are "Acceptable", the unit is ready for service.

**Key:** "Y" Yes/Acceptable  
 "N" No/Unacceptable  
 "R" Repaired  
 "U" Unnecessary/Not Applicable

	Y	N	R	U		Y	N	R	U		Y	N	R	U
<b>Decals:</b>					<b>Base:</b>					<b>Operation:</b>				
Proper Placement/Quantity					Cover Panels Secure					Wires Tight				
Legibility					Base Fasteners Tight					Switches Secure				
Correct Capacity Noted					Bolts Tight					All Functions Operational				
<b>Rails:</b>					Front Axle Mounting (4WD)					Auxiliary Power Operational				
All Rail Fasteners Secure					Rear Axle Mounting (4WD)									
Entry Gate Closes Properly					Front Axle/Front Wheel Assemblies:					Slow Speed Proximity Switch:				
Manual/Safety Data In Box					Wheel Motors-Mounting Secure					Set Properly				
<b>Platform:</b>					Wheel Motors-Leaks					Proximity Switches Adjusted				
Platform Bolts Tight					Lug Nuts Torqued Properly					Pressures & Hydraulics:				
Platform Structure					Steering Cylinder Pins Secure					Oil Filter Secure/Chg				
All Decals Present And Legible					Swing Bearing Lubed					Oil Level Correct/Chg				
					<b>Wheel Assemblies:</b>					Steering Pressure Set				
					Brakes Operational					Drive Pressure Set				
					Wheel Motors-Mounting Secure					Lift Pressure Set				
<b>Wire Harnesses:</b>					Wheel Motors-Leaks									
Mounted Correctly					Lug Nuts Torqued Properly									
Physical Appearance					Axle Lock Operational					Operator's Manual Present:				
110/220V Outlet Safe/Working										Manual Of Responsibilities Present:				
<b>Elevating Assembly:</b>					<b>Component Area:</b>									
Boom Structures					Valve Manifold(s) Secure									
Welds					Hoses Tight/No Leaks									
Retaining Banjo Bolts					A/C Motor Secure/Operational									
Cylinder Pins Secure					Contactors Secure									
Boom Shimming					Pump Secure									
Torque on Slew Ring Bolts					Motor Controller Connections Secure									
<b>Transport Locks:</b>					<b>Batteries:</b>									
Secure					Secure									
Operational					Fully Charged									
					<b>Emergency Stop:</b>									
					Breaks All Circuits									

Comments: \_\_\_\_\_

Signature/Mechanic: \_\_\_\_\_ Date: \_\_\_\_\_  
 Signature/Owner-User: \_\_\_\_\_ Date: \_\_\_\_\_

P/N 90728 60-JE



## Routine Maintenance

---

**IMPORTANT**— The operator may perform only maintenance items on the Pre-Start Inspection Checklist. Frequent and Annual maintenance must be performed by qualified service technicians.

**Pre-Start Inspection** Perform routine maintenance as identified in the *Pre-Start Inspection Checklist* on page 31.

## Frequent and Annual Maintenance

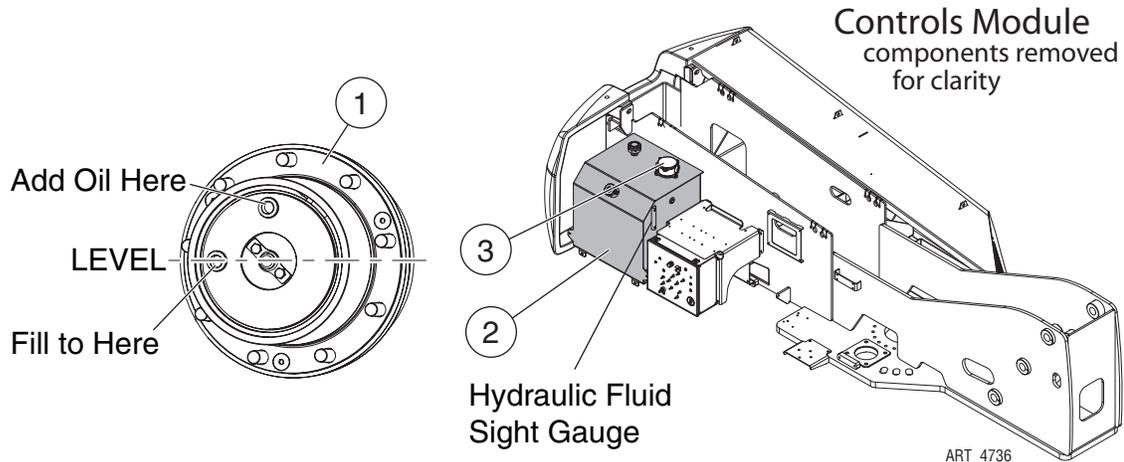
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Frequent Inspection Checklists and Annual Inspection Reports must be completed by qualified service technicians trained and authorized to perform maintenance on this machine, and must be done in accordance with the procedures outlined in the service manual. Scheduled maintenance inspection checklists are included in this manual for use by qualified service technicians.

Machines that have been out of service for more than three months must have the Frequent Inspection Checklists completed before returning to service.

## Lubrication

Operator may perform routine maintenance only. Lubrication listed as Scheduled Maintenance must be performed by a qualified service technician.



### Lubrication

No.	ITEM	SPECIFICATION	FREQUENCY
1	Hubs	SAE 90 Multipurpose Hypoid Gear Oil API Service Classification GL5	<b>Scheduled Maintenance</b> Check every three months or 150 hours, whichever occurs first Change yearly or every 600 hours, whichever occurs first
2	Hydraulic Reservoir	Fluid Type Chevron 1000THF Chevron Rando Premium MV  <b>Do not substitute other fluids as pump damage may result.</b> Fill to the middle of the sight gauge with platform in the stowed position.	Temperature Range > 30° F (0° C) < 30° F (0° C)  <b>Routine Maintenance</b> Check level daily <b>Scheduled Maintenance</b> Change yearly or every 600 hours, whichever occurs first
3	Hydraulic Filter	Filter Element (located on top of Hydraulic Reservoir)	<b>Scheduled Maintenance</b> <b>Normal Conditions</b> Change every six months or 300 hours, whichever occurs first <b>Severe Conditions--very dusty, exceptionally hot or exceptionally cold conditions</b> Change every three months or 150 hours, whichever occurs first

# Battery Chargers

**WARNING**

**Lead-acid batteries generate explosive gases. Keep sparks and flame away from batteries.**

**No Smoking!**

**The charger surface can get hot while operating. Contact with the skin or surrounding materials should be avoided.**

**To reduce the risk of an electric shock, connect only to a properly grounded single-phase (3 wire) outlet.**

This machine is equipped with either Signet or El-Con battery chargers. See the following pages for more information.

The battery chargers are advanced, microprocessor controlled, high frequency switching type chargers.

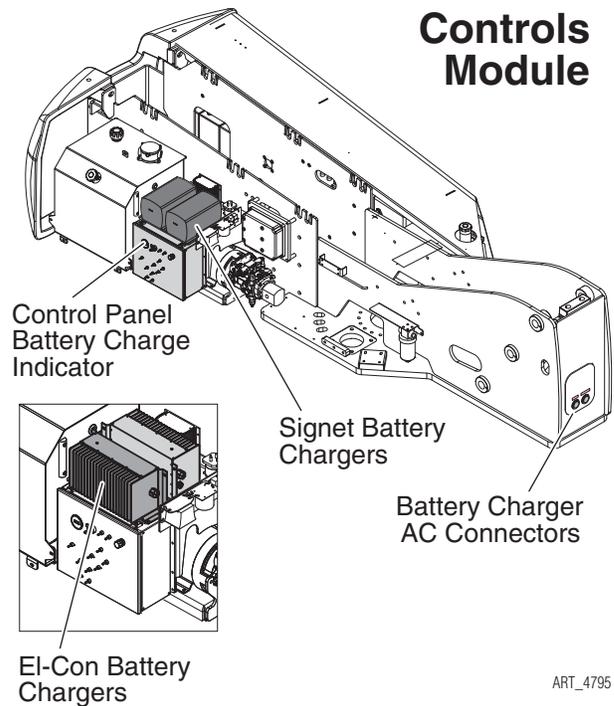
The chargers will work even with batteries in a severe discharge state with battery terminal voltages as low as 4V. This reduces the need to “boost charge” weak batteries before charging.

The chargers sense and flash error codes for problems – refer to the *SERVICE MANUAL*.

The battery chargers are located in the Control Module. Plugs for the battery chargers are located at the platform end of the turntable. As each charger draws 1500 watts, each plug should be connected to a separate electrical supply circuit.

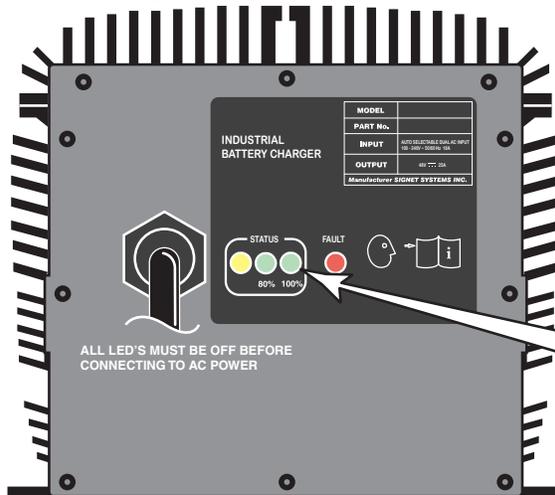
**When only one electrical supply circuit is available, connect only the charger plug labeled “MASTER BATTERY CHARGER”.**

Battery charger LEDs can be viewed on the battery chargers inside the Controls Module. On machines equipped with El-Con chargers, additional remote indicators are located near the charger plugs at the platform end of the turntable.



ART\_4795

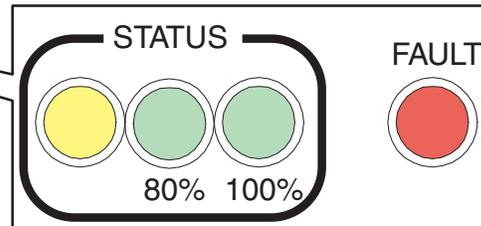
## Signet Battery Charger



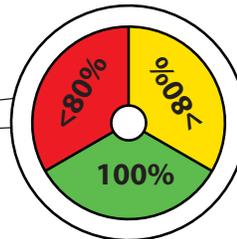
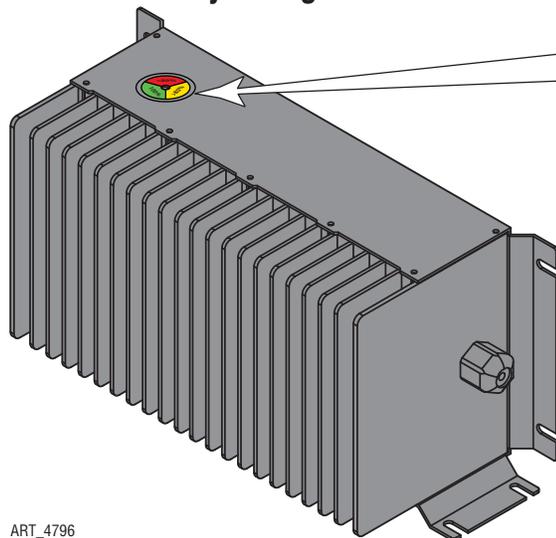
### BATTERY CHARGER INDICATOR

	YELLOW	80%	100%	FAULT
No AC power to charger	OFF	OFF	OFF	OFF
Normal operation, charger is charging	ON	OFF	OFF	OFF
Normal, battery is over 80% charged	ON	ON	OFF	OFF
Normal, battery is 100% charged	OFF	OFF	ON	OFF

Please see service manual for additional information.



## EI-Con Battery Charger



The charge indicator is located on the top of each battery charger. Additional remote indicators are located near the charger plugs at the rear end of the turntable.

### BATTERY CHARGER INDICATOR

SOLID RED	Battery State Of Charge Less Than 80%
SLOW BLINKING RED	Battery State Of Charge Greater Than 90%
YELLOW	Constant Current Equalizing State
GREEN BLINKING	Finished And Floating

Please see service manual for additional information.

ART\_4796

## Signet Chargers

- 1 Plug the charger into a single phase AC socket with a nominal voltage rating of 100V, 110V, 115V, 120V, 220V, 230V, or 240V and a frequency rating of 50 or 60Hz.
  - The charger automatically senses and adjusts to the AC voltage and frequency.
  - At 110/120V the wall socket circuit breaker should be a 20A breaker with no other loads on the circuit.
- 2 The charger will start automatically within a few seconds and begin charging the batteries.
- 3 The LEDs indicate charging progress.
  - The yellow LED will turn ON and remain ON throughout the charging cycle.
  - When the battery is 80% charged the green 80% LED will turn ON.

- When the battery is fully charged the green 100% LED will turn *ON* and the green 80% LED will turn *OFF*.
- When the battery is fully charged the yellow LED will turn *OFF* indicating that the charger is no longer charging.
- Charging time is dependent on depth of battery discharge, battery condition, and temperature.
- If the charger is left plugged in after charging is complete (100% LED *ON*) the charger goes into maintenance mode to keep batteries charged while in storage.
- The charger continuously measures battery voltage and restarts the charging cycle if the battery voltage drops below about 50V. This keeps batteries charged while in storage but does not boil-out the electrolyte over time.

#### 4 Red FAULT LED

- **ON:** Battery pack probably bad, weak, or a bad cell.
- **1 FLASH:** Open or short circuit. Remove from service until problem is identified and corrected.
- **2 FLASH:** Charger timed out. Battery pack probably bad, weak, or a bad cell. Unplug for 30 seconds, then plug in to start a new charge cycle.

**Note:** New batteries sometimes need 20 to 30 charge/discharge cycles before they charge normally. The charger LEDs may only show yellow or 80% LED *ON* after overnight charging. Within a few weeks the 100% LED will turn *ON* at the end of the charge cycle.

#### 5 Turn *OFF* charger by unplugging (disconnect from AC voltage).

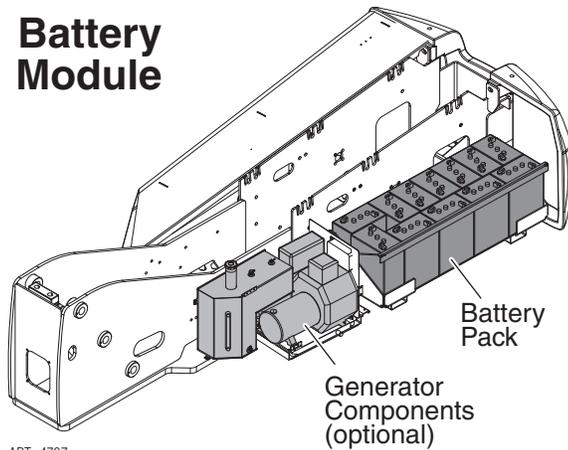
## El-Con Charger Operation

- 1 Plug the charger into a single phase AC socket with a nominal voltage rating of 100V, 110V, 115V, 120V, 220V, 230V, or 240V and a frequency rating of 50 or 60Hz.
  - The charger automatically senses and adjusts to the AC voltage and frequency.
  - At 110/120V the wall socket circuit breaker should be a 20A breaker with no other loads on the circuit.
- 2 The charger will flash red several times, then flash green once before beginning to charge the batteries.
- 3 The LED's indicate the charging progress.
  - Solid Red -- Battery state of charge less than 80%.
  - Slow Blinking Red -- Battery state of charge greater than 90%.
  - Yellow -- Constant current equalizing state.
  - Green Blinking -- Finished and floating.
- 4 Turn *OFF* charger by unplugging (disconnect from AC voltage).

See the Service & Parts manual for information regarding fault codes and troubleshooting.

# Optional Generator Operation

## Battery Module

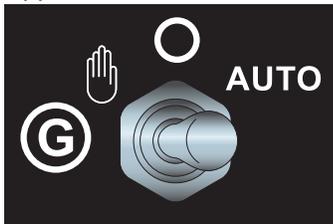


These instructions are for use with the optional Generator System. These components are located on the left side of the Batteries Module.

The machine must be turned on to allow the control system to operate the generator. The generator may be manually turned off by switching the Generator Operation Switch to the OFF position at the control station currently controlling the machine.

The generator can also be turned on at the generator itself by using the generator's key switch. From the key switch, the generator will only run manually and must be turned off at the same key switch.

### Generator Operation Switch Upper Controls



The generator may be automatically operated from either control station by setting the Generator Operation Switch to AUTO. In this mode, the control system constantly checks the battery level of the machine and turns on the generator to charge the batteries when that level reaches a preset low battery condition.

The generator may be manually operated from the Upper Controls by switching the Generator Operation Switch to the manual (far left) position, then pushing the Generator Manual Start switch up to start the generator. Return the switch to the OFF or AUTO position when the generator is not in use to prevent its hour meter from running continuously.

The generator may be manually started from either control station by pushing the Generator Manual Start switch UP and holding it for 1 second. This will start the generator, which will then follow typical automatic function.

### Generator Operation Switch Base Controls



### Manual Start Switch



ART\_4798

# Troubleshooting



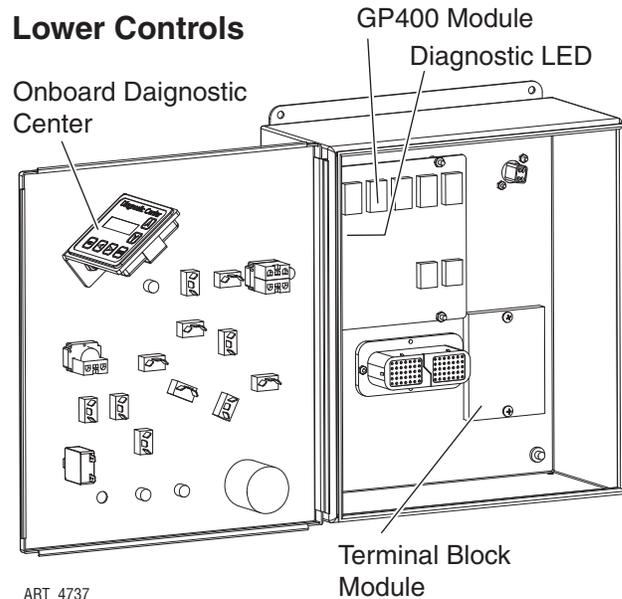
**WARNING**

*Should you experience erratic operation or notice any malfunction while operating this machine, discontinue use immediately.*

*Call for assistance and report the incident to your supervisor, and do not use the machine until it has been checked by a trained, qualified mechanic.*

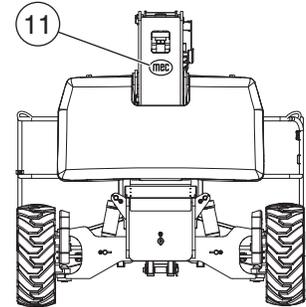
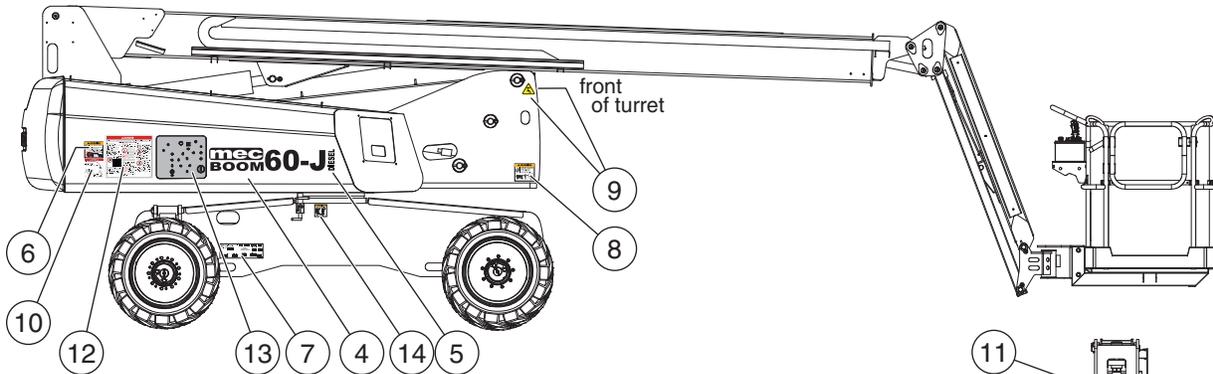
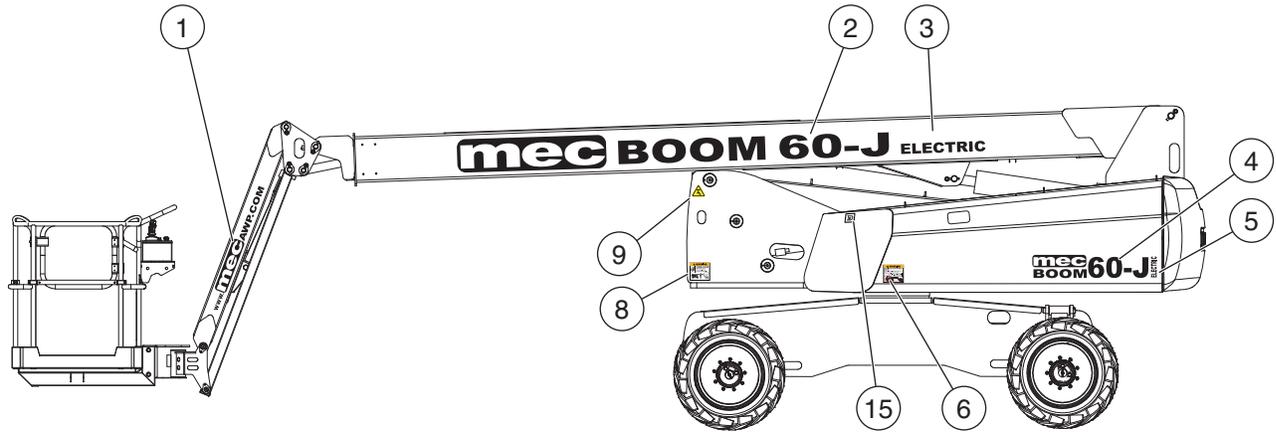
## Machine functions will not operate

- Battery properly connected?
- Battery fully charged?
- Circuit Breaker tripped?
- Function toggle switch or the Enable Switch not activated?
- Selector Key Switch in proper position?
- Both Emergency Stop Switches reset?
- Hydraulic fluid level low?
- Obvious fluid leak or damaged component?
- Wires disconnected, broken, or loose?
- GP400 Diagnostic LED OFF?  
LED should be ON. If not ON or FLASHING, refer to Service Manual or contact MEC Technical Support.
- Error code at Onboard Diagnostic Center?  
See Section 4 of Service Manual or contact MEC Customer Service.



# Warning and Instructional Decals

All warning and instructional decals must be present, legible and secure.



1 92416  
www.mecAWP.COM

2 93741  
MEC BOOM 60-J

3 93743  
ELECTRIC

4 93745 2 places  
MEC BOOM 60-J

5 93747 2 places

ELECTRIC  
6 93801 2 places  
**WARNING**  
RESTRICTED COMPARTMENT ACCESS  
ONLY TRAINED MAINTENANCE PERSONNEL SHOULD ACCESS COMPARTMENTS  
Operators should access compartments only during Pre-Operation Inspections. All compartments must be securely closed during operation. See Operator's Manual.

7 93851

8 93804 2 places  
**WAR**  
CRUSH HAZARD  
Keep away from moving platform, boom and turret.

9 91850 3 places



10 93807  
**DANGER**  
TIP OVER HAZARD  
STOP ALL MOVEMENT  
If TTB Alarm sounds, Death or Serious Injury may occur.  
COUNTERWEIGHT UPWELL: 1- Retract Boom 2- Lower Boom  
COUNTERWEIGHT DOWNWELL: 1- Lower Boom 2- Retract Boom

11 90719

12 93755  
**DANGER**  
Failure to read, understand and obey the operator's manual and the following safety rules:

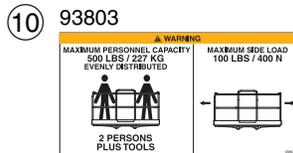
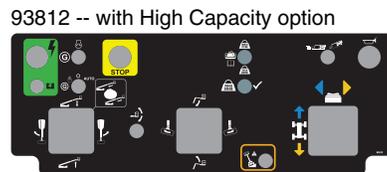
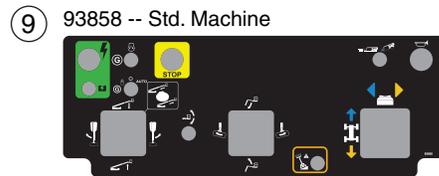
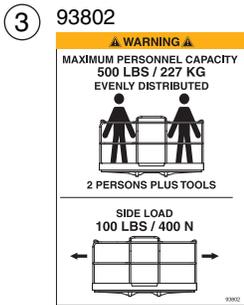
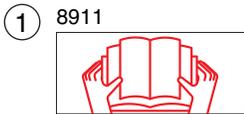
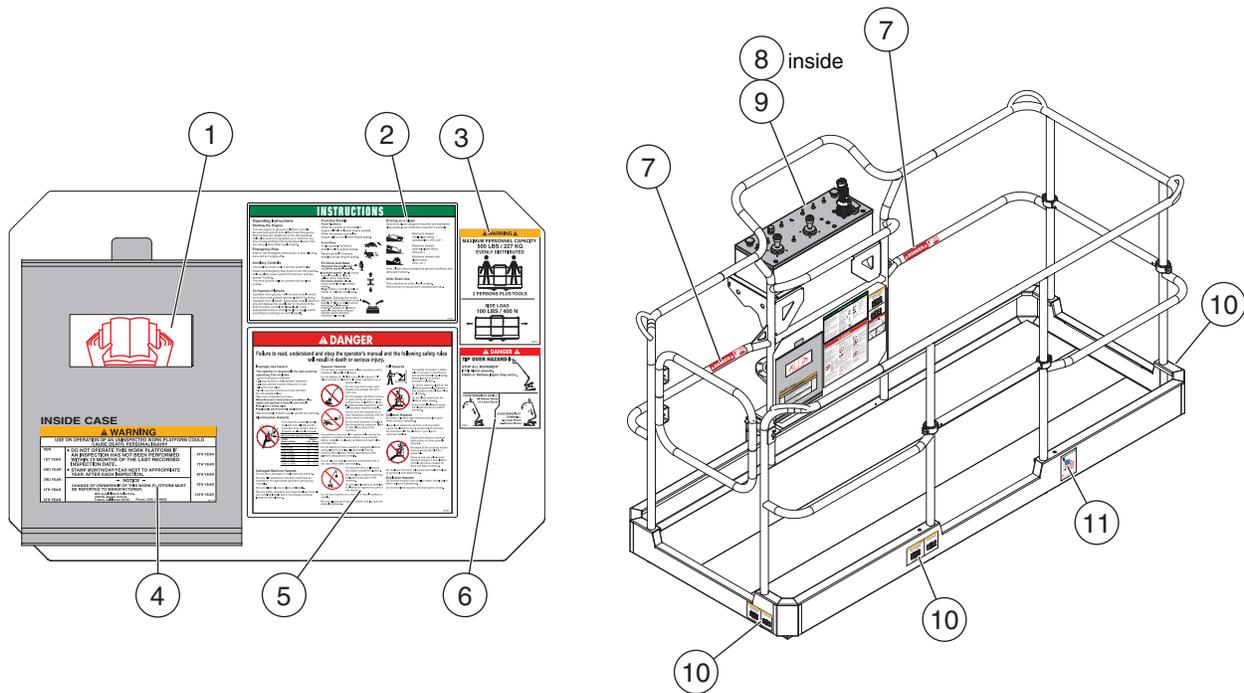
13 93813

14 93855  
**WARNING**  
ENGAGE THE ROTATION LOCK BEFORE TRANSPORT  
DEENGAGE THE ROTATION LOCK BEFORE OPERATION.

15 91975 Generator option

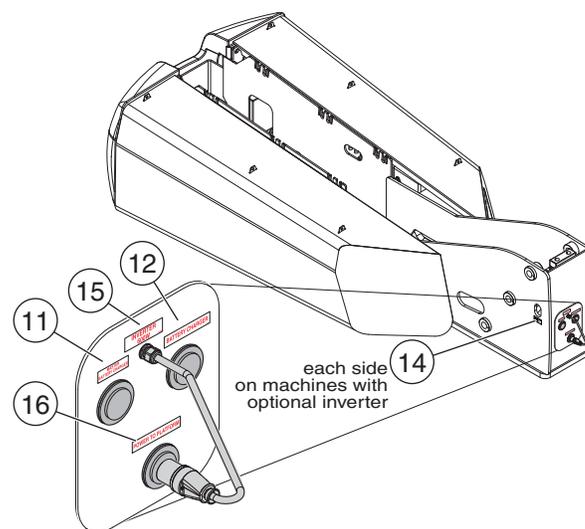
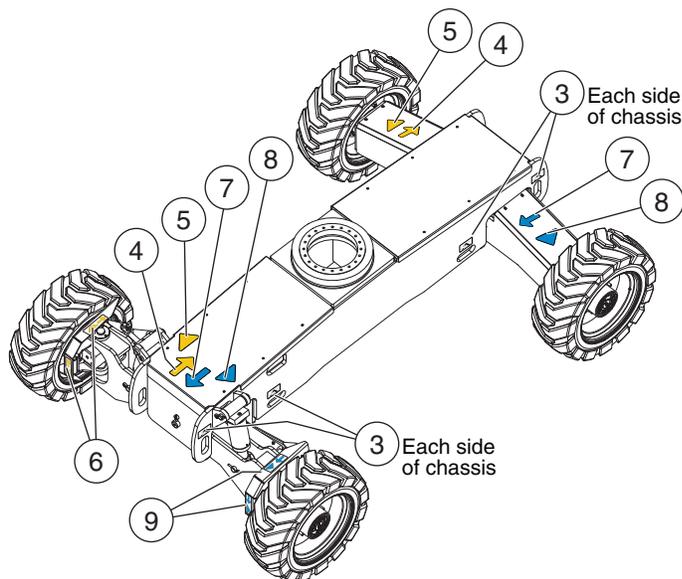
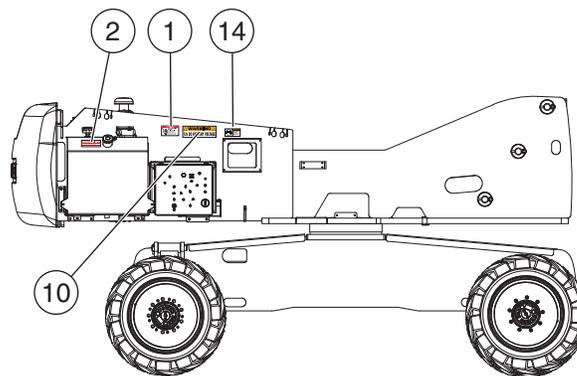
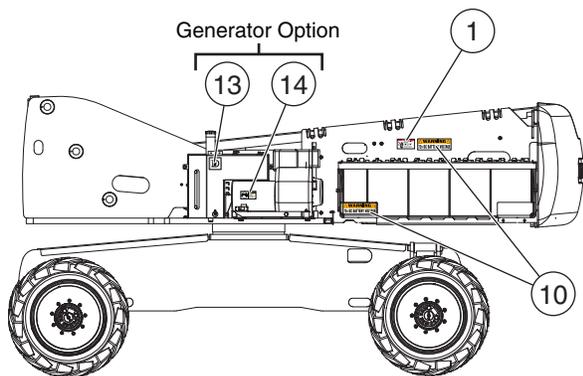
ART\_4792

Decals (continued)



ART\_4793

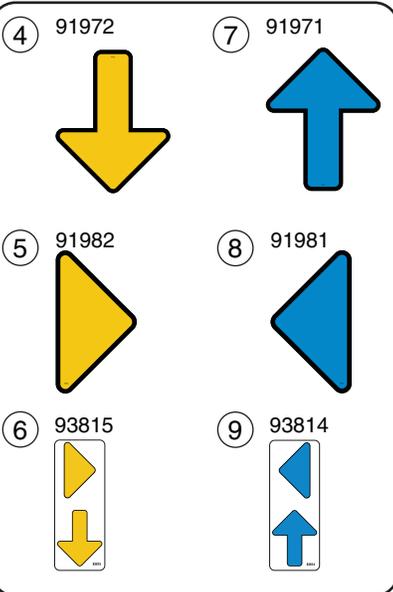
Decals (continued)



1 93805 2 places



2 places each



10 93918 3 places



2 92117



11 93921



15 93922



3 91973 8 places



12 90750



16 90751



13 91975 Generator option



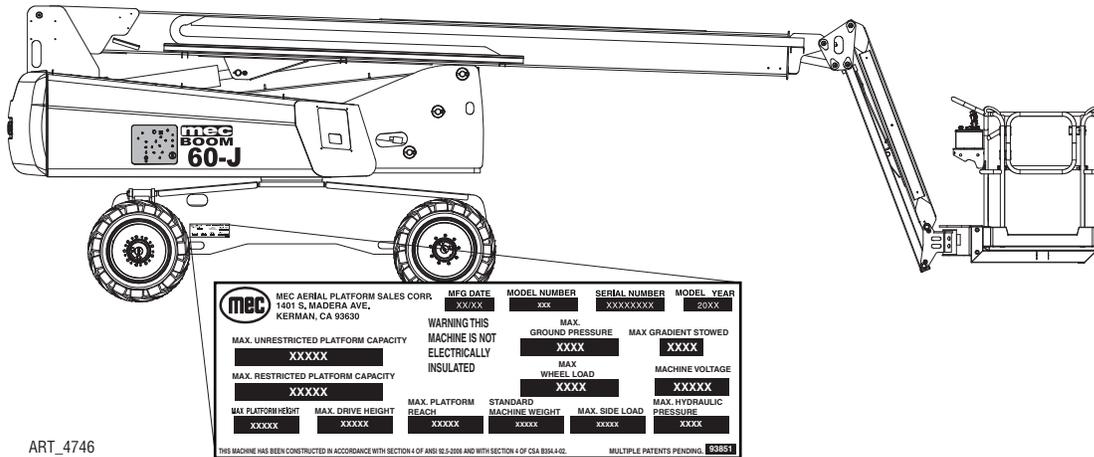
14 90732



ART\_4794

## Serial Plate Location

The serial plate is attached to the machine at the time of manufacture. Important information about the machine is recorded on the serial plate. The Serial Plate is located on the side of the chassis below the Base Controls.



ART\_4746

## Serial Plate Description

**MFG DATE.** Month / Year of manufacture

**MODEL NUMBER.** Identifies the machine.

**SERIAL NUMBER.** Identifies a machine with reference to its original owner. Refer to the number when requesting information or ordering parts.

**MODEL YEAR.** Identifies the model year of the machine.

**MAX. PLATFORM UNRESTRICTED CAPACITY.** The maximum safe load (material, persons + equipment) which can be correctly placed on the platform within any range of motion.

**MAX. PLATFORM RESTRICTED CAPACITY.** On optionally equipped machines, the maximum safe load (material, persons + equipment) which can be correctly placed on the platform when used within a restricted range of motion.

**MAX. HYDRAULIC SYSTEM PRESSURE.** The maximum pressure generated by the machine's hydraulic system.

**MAX. WHEEL LOAD.** The maximum safe weight applied to each wheel. Calculated with all available options installed.

$$Fw = 30\% (Wm + Wc + Wopt)$$

**MACHINE VOLTAGE.** The electrical voltage at which the machine operates.

**MAX. PLATFORM HEIGHT.** The maximum attainable height measured from level ground surface to platform floor.

**MAX. DRIVE HEIGHT.** The maximum safe platform height at which the machine can be driven.

**MAX. PLATFORM REACH.** The maximum horizontal outreach of the extended boom.

**STANDARD MACHINE WEIGHT.** The weight of the machine with no options.

**MAX. GROUND PRESSURE.** The amount of pressure exerted on the surface at each wheel. Calculated with all available options installed.

$$Pmax = 30\% (Wm + Wc + Wopt) / \text{Contact Area}$$

**MAX. SIDE LOAD.** The maximum safe force that the occupant can exert laterally on an object outside the platform.

# Transport and Lifting Instructions

## Safety Information



*This section is provided for reference and does not supersede any government or company policy regarding the loading, transport or lifting of MEC machinery.*

*Truck drivers are responsible for loading and securing machines, and should be properly trained and authorized to operate MEC machinery. Drivers are also responsible for selecting the correct and appropriate trailer according to government regulations and company policy. Drivers must ensure that the vehicle and chains are strong enough to hold the weight of the machine (see the serial number plate for machine weight).*

*ONLY properly trained and qualified operators shall load and unload this machine.*

## Loading

### Free-wheel configuration for Winching or Towing.



#### **RUNAWAY HAZARD!**

*After releasing the brakes there is nothing to stop machine travel. Machine will roll freely on slopes. ALWAYS chock the wheels before manually releasing the brakes.*

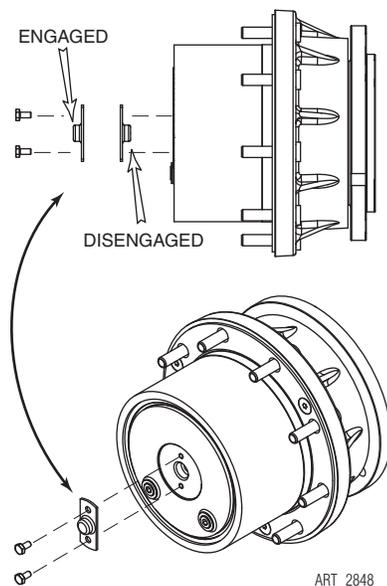
The machine can be winched or towed short distances at speeds not to exceed 5 MPH (8 km/h). Before towing or winching the machine, it is necessary to release the brakes. Reset the brakes after towing or winching.

### Disengage Brakes before Towing or Winching

- Chock the wheels.
- Remove the Torque Engage Cap and reinstall with the bump facing inward on all four (4) hubs.

### Engage Brakes before Driving

- Remove the Torque Engage Cap and reinstall with the bump facing outward on all four (4) hubs.



## Driving or Winching onto or off of a Transport Vehicle

Before loading the machine, orient the turntable so that the platform is over the non-steering wheels so that the Rotation Lock may be engaged later in the loading process.

### WARNING

**ONLY properly trained and qualified operators shall load and unload this machine. Read and understand all safety, control, and operating information found on the machine and in this manual before operating the machine. Whether winching or driving the machine on to a truck or trailer, always check the area for dangerous situations before moving the machine. If driving the machine, always use a second person acting as a spotter to make sure the person loading the machine avoids dangerous situations.**

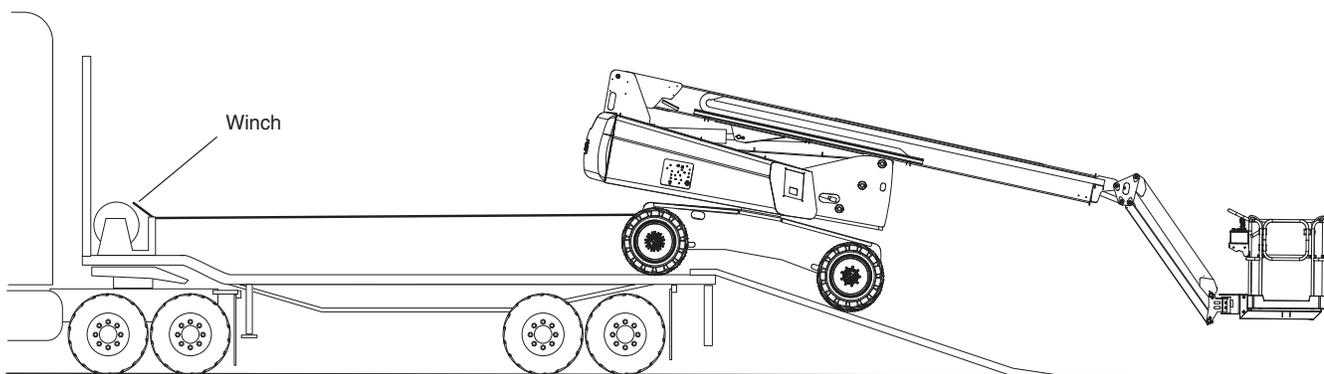
### Driving

- Turn the Base Key Switch to PLATFORM. Check that the Emergency Stop Switch is reset by turning it clockwise.
- Enter the platform and reset the Platform Emergency Stop Switch.
- Test platform control functions.
- Raise the jib slightly for platform ground clearance.
- Carefully drive the machine off or on to the transport vehicle.
- Make sure you can see the second person giving guidance.

**Note:** The brakes are automatically released for driving and will automatically apply when the control lever is returned to neutral which causes the machine to stop.

### Winching

- Chock the wheels, then disengage brakes (see *Disengage Brakes before Towing or Winching* on page 45).
- Carefully operate the winch to lower the machine down the ramp or pull the machine up the ramp.
- Chock the wheels and engage the brakes before disengaging the winch.

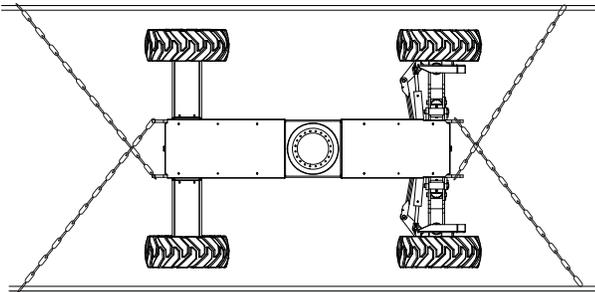


ART\_4741

## Securing to Truck or Trailer for Transport

- Turn the key Selector Key Switch to OFF and remove the key before transport.
- Turn the Battery Disconnect Switch to OFF before transport.
- Inspect the entire machine for loose or unsecured items.
- Secure the chassis.
- Engage the Rotation Lock.
- Secure the platform.

### Securing the Chassis



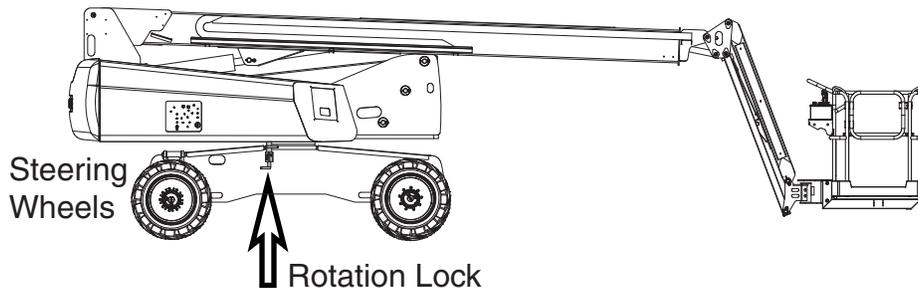
Make sure each of your chains is rated to hold the machine's weight (see serial number plate or Specifications). Use at least 4 chains.

Do not attach chain hooks directly to the machine. Loop the chain through the tie-down point and connect the chain hook to the chain.

Be sure chains are arranged so that they do not damage the machine.

ART\_4742

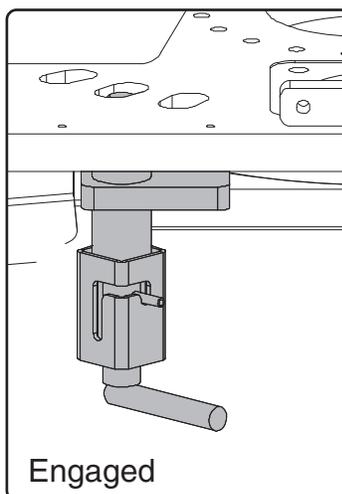
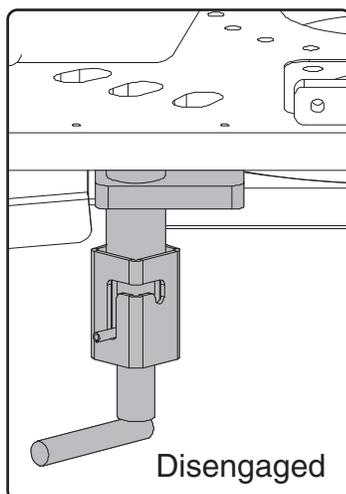
### Engaging The Rotation Lock



Before transport, rotate the turntable so that one of the three locking holes aligns with the Rotation Lock located on the chassis. The lock holes are located on the bottom of the Controls Module. The Rotation Lock is located on the chassis behind the left front wheel.

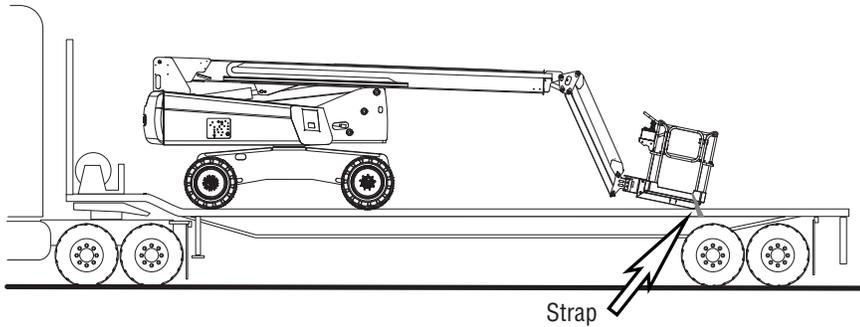
Lift the Rotation Lock using the attached pin, then rotate to the right and lower it into the shallow depression to engage. See illustration.

Disengage the Rotation Lock before operation.



ART\_4743

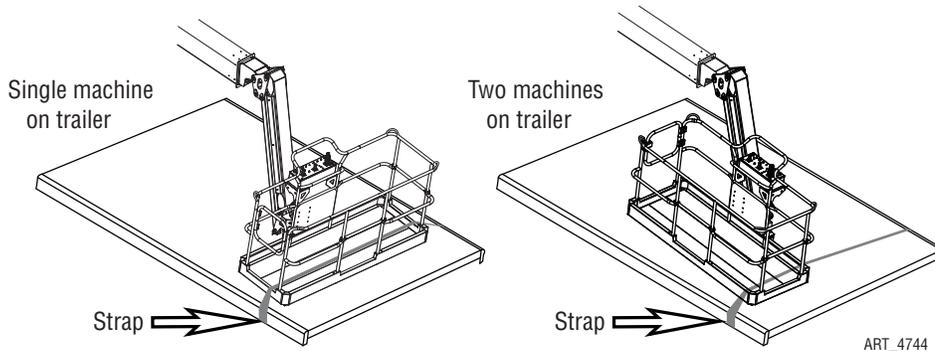
## Securing the Platform



With the boom completely stowed, raise the jib slightly, then use the Platform Level function to lower the platform until the front of the platform touches the trailer surface.

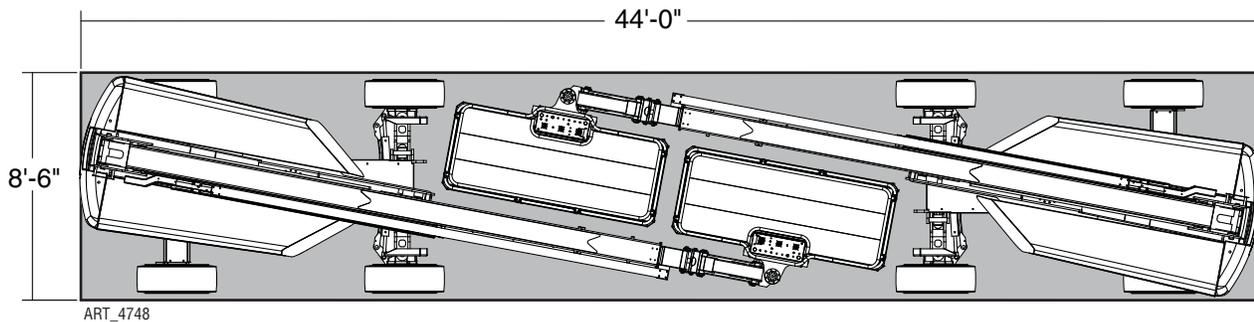
Route the tie-down strap as shown through the width of the platform, over the toe boards of both side entry points. Tighten securely but do not over-tighten.

It may be necessary to turn the platform 90 degrees when loading two machines on the same trailer. In this case, route the strap over the toeboard and through the end of the platform as shown.



## Loading Two Machines

Two machines may be loaded onto a single trailer by rotating the turntable of each machine and rotating the platforms as shown below.



- Extend the boom of each machine approximately 15 inches (38 cm).
- Arrange the machines as shown. The distance between the ends of the counterweights should be 44ft-45ft (13.4m-13.7m).
- Secure the chassis of each machine as previously instructed on page 43.
- Engage the Rotation Lock of each machine as previously instructed on page 43, using one of the side turntable locking holes.
- Secure the platform of each machine as previously instructed above.



## **Limited Owner Warranty**

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MEC Aerial Platform Sales Corp. warrants its equipment to the original purchaser against defects in material and/or workmanship under normal use and service for one (1) year from date of registered sale or date the unit left the factory if not registered. MEC Aerial Platform Sales Corp. further warrants the structural weldments of the main frame and scissor arms to be free from defects in material or workmanship for five (5) years from date of registered sale or date unit left the factory if not registered. Excluded from such warranty is the battery(s) which carries a ninety (90) day warranty from described purchase date. Warranty claims within such warranty period shall be limited to repair or replacement, MEC Aerial Platform Sales Corp's option, of the defective part in question and labor to perform the necessary repair or replacement based on MEC Aerial Platform Sales Corp's then current flat rate, provided the defective part in question is shipped prepaid to MEC Aerial Platform Sales Corp. and is found upon inspection by MEC Aerial Platform Sales Corp. to be defective in material and/or workmanship. MEC Aerial Platform Sales Corp. shall not be liable for any consequential, incidental or contingent damages whatsoever. Use of other than factory authorized parts; misuse, improper maintenance, or modification of the equipment voids this warranty. The foregoing warranty is exclusive and in lieu of all other warranties, express or implied. All such other warranties, including implied warranties of merchantability and of fitness for a particular purpose, are hereby excluded. No Dealer, Sales Representative, or other person purporting to act on behalf of MEC Aerial Platform Sales Corp. is authorized to alter the terms of this warranty, or in any manner assume on behalf of MEC Aerial Platform Sales Corp. any liability or obligation which exceeds MEC Aerial Platform Sales Corp's obligations under this warranty.



**MEC Aerial Platform Sales Corp.**

1401 South Madera Ave • Kerman, CA 93630 USA  
Ph: 1-877-632-5438 • 559-842-1500 • Fax: 559-842-1522  
[www.mecawp.com](http://www.mecawp.com)