

# Operator Manual

## RL15, RL19 & RL24

SERIAL NUMBERS 1001 TO CURRENT

All personnel shall carefully read, understand and follow all safety rules, operating instructions and the Scaffold Industry Association's MANUAL OF RESPONSIBILITIES of ANSI A92.3-1990 before performing maintenance on or operating any UpRight aerial work platform.

### SAFETY RULES

NEVER elevate platform unless all four (4) outriggers have been properly positioned. All outrigger screwjack pads must be in solid contact with a firm surface before the platform is elevated.



NEVER attempt to move the Lift with people or materials on the platform or with the platform elevated.



NEVER operate the machine within ten feet of power lines. THIS MACHINE IS NOT INSULATED.



NEVER sit, climb, or stand on the platform guardrails or midrail.



NEVER elevate platform without first leveling the base.

NEVER use ladders, planks or other devices to increase the height of the platform.

NEVER attach overhanging loads to the platform or increase the platform size.

NEVER elevate the platform if it contains more than one person or more than the rated load of 300 pounds.

LOOK up, down and around for overhead obstructions and electrical conductors.

NEVER change operating or safety systems.

LOWER bar across opening after entering platform.

INSPECT the machine thoroughly for cracked welds, loose or missing hardware, hydraulic leaks, damaged control or power cables and loose wire connections.

NEVER push or pull the machine up or down a ramp; always use a winch attached to the tow point.

NEVER use the Rhino Lift as a freight or personnel elevator.

NEVER recharge batteries near sparks or open flame; batteries that are being charged emit highly explosive hydrogen gas.

AFTER USE, secure work platform against unauthorized use by turning key switch off and removing key.

NEVER replace any component or part with anything other than original UpRight replacement parts without the manufacturer's consent.

## Pre-Operation Inspection

NOTE: Carefully read, understand and follow all safety rules and operating instructions. Perform the following steps each day before use.

### ⚠ WARNING ⚠

DO NOT perform service on or in the elevating assembly area with the platform elevated.

1. Inspect all four outriggers for bends, cracks, condition of the screwjacks and screwjack pads.
2. Check the level of the hydraulic oil with the platform fully lowered. Unscrew the reservoir cap/dipstick; oil should register on the dipstick 1-1.25 in. (25.4-31.8 mm) below the threads. Add ISO #46 hydraulic oil if necessary.
3. Check that fluid level in the battery is correct (see *Battery Charging*).
4. Verify that battery is charged.
5. Check that AC extension cord has been disconnected from charger (DC units only).
6. Check that all guardrails are in place and all fasteners are properly tightened.
7. Carefully inspect the entire lift for damage such as cracked welds or structural members, loose or missing parts, oil leaks, damaged cables or hoses, loose connections and wheel damage.
8. Check the accuracy of the orbit levels.
9. Perform the Safety/Interlock Test (Section 3.5).

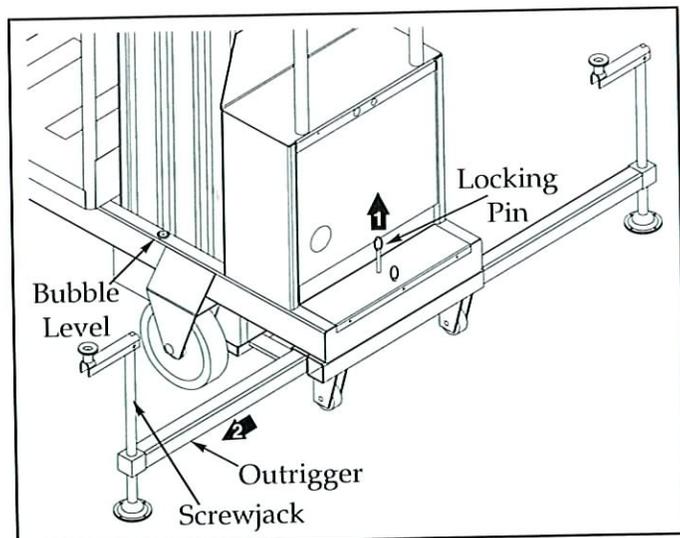


Figure 1: Preparing machine for elevation.

## Outrigger Deployment

1. Lift locking pin and extend outrigger until locking pin reengages outrigger (Figure 1).
2. Repeat step one for all four (4) outriggers. Make sure all four (4) locking pins are engaged.
3. Lower each screwjack pad by turning screwjack clockwise (Figure 1). Repeat this process for all four (4) outriggers to center bubbles in bubble levels located on each side of chassis. DO NOT release the tension on an outrigger, by turning counter-clockwise, to level base.

### ⚠ DANGER ⚠

Screwjacks are for leveling **only** and must not be used to gain extra height.

4. All four (4) screwjack pads must be in solid contact with a firm level surface and the machine leveled before the platform is elevated.

## Alternate Outrigger Deployment

### ⚠ WARNING ⚠

This alternate outrigger deployment should be used **only** when it is necessary to operate the unit next to a wall and there is insufficient space between the unit and the wall to allow full outrigger extension.

The platform **must not** be elevated higher than the wall.

All four (4) outriggers must be deployed. When it is necessary to operate the Rhino Lift next to a wall or in a corner, the following alternate outrigger deployment may be used.

1. Position the unit next to the wall or corner and extend the outrigger(s) adjacent to the wall(s) as far as possible.
2. Deploy the remaining outriggers.
3. Level the base, centering the bubbles in the bubble levels on either side of the chassis by adjusting screwjacks at the end of each outrigger (Figure 1).
4. All four (4) screwjack pads must be in solid contact with a firm level surface and the machine leveled before the platform is elevated.

## Outrigger Interlock Test



**WARNING**



**NEVER** perform this test from the platform.

1. Properly deploy all four (4) outriggers and level base.
2. Raise one (1) screwjack pad by turning screwjack counterclockwise until pad is clear of supporting surface.
3. While standing on the ground with no one in the platform, push the power on button in and turn the up/down selector switch to **UP** at the same time (Figure 3). **Machine should not elevate.**
4. Re-level the base with all four (4) outriggers, then repeat step 2 with another outrigger.
5. Repeat steps 2, 3 & 4 until all four (4) outriggers have been tested.

**DO NOT** use a machine that elevates during step 3 in the outrigger interlock test. **Machine must be repaired before using.**

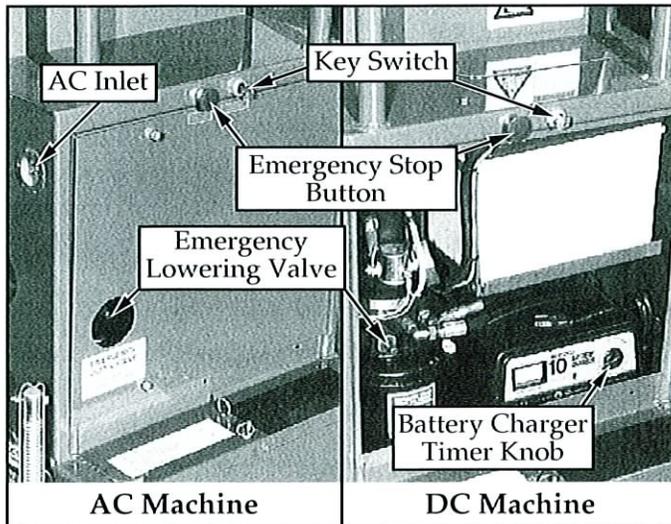


Figure 2: Base Controls

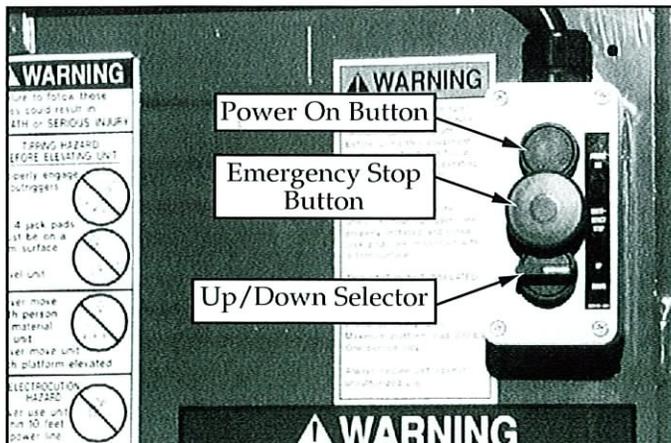


Figure 3: Platform Controls

## Operation

All personnel shall carefully read, understand and follow all safety rules, operating instructions and the Scaffold Industry Association's MANUAL OF RESPONSIBILITIES of ANSI A92.3-1990 before performing maintenance on or operating any UpRight aerial work platform.

1. Before operating work platform perform the Pre-operation Inspection and be sure any deficiencies have been corrected.
2. Be sure the unit has been properly set up with all four (4) outriggers properly deployed and the base leveled.

**Note: Platform will not elevate unless all four outriggers are properly deployed and screwjack pads are firmly in contact with a surface that will support the machine's weight.**

3. Check for external damage to the elevating assembly.
4. For AC units, connect extension cord (12 gauge (1.5 mm<sup>2</sup>) conductor minimum and 50 ft. (15 m) in length maximum) to properly grounded outlet of proper voltage and frequency. Connect other end of extension cord to the AC inlet.
5. Pull out on the lower emergency stop switch button to turn ON. The lower emergency stop switch is located at the rear of the machine (Figure 2). In the event of an emergency, push the button.
6. Turn key switch to ON.
7. Raise either midrail to enter platform.
8. Lower midrail across entrance after mounting platform.
9. Check for overhead obstructions.
10. Pull out on the platform emergency stop switch button to turn ON (Figure 3). In the event of an emergency, push the button.
11. To elevate platform, push the power on button in and turn the up/down selector switch to **UP** at the same time (Figure 3). Release the controls to stop.
12. Check that the area below the platform is clear before lowering the platform.
13. To lower platform, push the power on button in and turn the up/down selector switch to **DOWN** at the same time (Figure 3). Release the controls to stop.
14. After use, secure unit from unauthorized use by turning the key switch to OFF and removing key.

## EMERGENCY LOWERING



### WARNING



If the platform should fail to lower, **NEVER** climb down the elevating assembly.

Ask a person on the ground to open the emergency lowering valve to lower the platform. This valve is accessed through the opening found in the rear cover at the back of the machine (Figure 2).

1. Open the emergency lowering valve by pulling out on the knob and holding it until the platform is fully lowered.
2. To close the emergency lowering valve release the knob. If necessary, rotate the knob until it returns to the normal operating position.

Once the platform is fully lowered, be certain that the emergency lowering valve is closed again. The platform will not elevate if the emergency lowering valve is not closed.

## AFTER USE EACH DAY

1. Ensure that the platform is fully lowered.
2. Park the machine on level ground, preferably under cover.
3. Secure against vandals, children or unauthorized operation by turning the key switch to **OFF** and removing the key.

## Battery Charging

Charge battery at end of each work shift or sooner if battery has been discharged.

**Note:** For complete information on battery maintenance, refer to the Service and Parts Manual.



### WARNING



Charge battery in a well-ventilated area.

Do not charge battery near sparks or flames.

Permanent damage to battery will result if battery is not immediately recharged after discharging.

Never leave charger operating unattended for more than two days.

Never disconnect cables from battery when charger is operating.

Keep charger dry.

1. Check battery fluid level. If electrolyte level is less than  $\frac{3}{8}$  in. (10 mm) above plates, add distilled water only.
2. The battery charger is located inside the rear compartment (Figure 2). Connect extension cord (12 gauge (1.5 mm<sup>2</sup>) conductor minimum and 50 ft. (15 m) in length maximum) to the charger plug. Connect other end of extension cord to properly grounded outlet of proper voltage and frequency.
3. Turn the timer knob fully clockwise to "12"; the ammeter will indicate DC charging current. Charger turns off when the timer returns to "0".

**DO NOT** turn the knob to **HOLD** or select **6-Volt** with the voltage selector switch.

To determine if the battery is fully charged, turn the timer knob clockwise until the charger comes on. The ammeter should indicate a charging rate of one (1) amp or less for a fully charged battery.

# Transporting Work Platform

## FORKLIFT

NOTE: Forklifting is for transporting only.

### ⚠ WARNING ⚠

See specifications for weight of work platform and be certain that forklift is of adequate capacity to lift platform.

Forklift from the side by lifting under the base (Figure 4).

## LIFTING

Secure straps to lift points only (Figure 4).

## WINCHING

Secure winch cable to tow point at front of machine only. **DO NOT** attempt to push or pull the machine up or down a ramp, always use a winch.

## TRANSPORT

1. Using a crane or forklift place the work platform in the transport position and chock wheels.
2. Secure the work platform to the transport vehicle with chains or straps of adequate load capacity attached to the base tie down points only (Figure 4).

### ⚠ CAUTION ⚠

Overtightening of chains or straps attached to tie down lugs may result in damage to work platform.

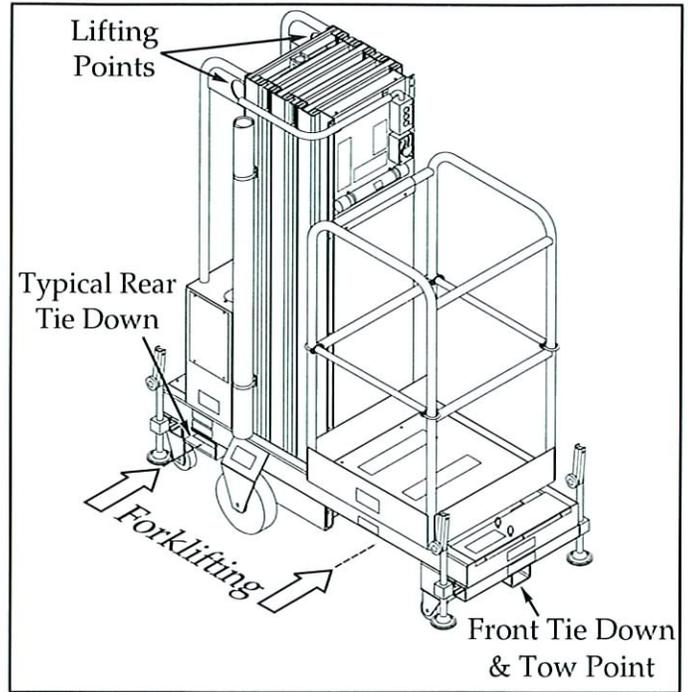


Figure 4: Transporting work platform

# Routine Service

Use the following table for guide for routine maintenance. Inspection and maintenance shall be performed by personnel who are trained and familiar with mechanical and electrical procedures. Refer to the Service Manual for complete service instructions.

**⚠ WARNING ⚠**

Before performing preventative maintenance, familiarize yourself with the operation of the machine.

Never enter the area below the platform when the platform is elevated.

Please copy the following page and use the Routine Service Table as a checklist when inspecting a machine for service.

## Routine Service Table Key

### Interval

- Daily=each shift or every day
- 30d=every month or 30 days
- 3m=every 3 months
- 1y=every year

- Y=Yes/Acceptable
- N=No/Not Acceptable
- R=Repaired/Acceptable

## Service Report

Date: \_\_\_\_\_

Owner: \_\_\_\_\_

Model No: \_\_\_\_\_ Serial No: \_\_\_\_\_

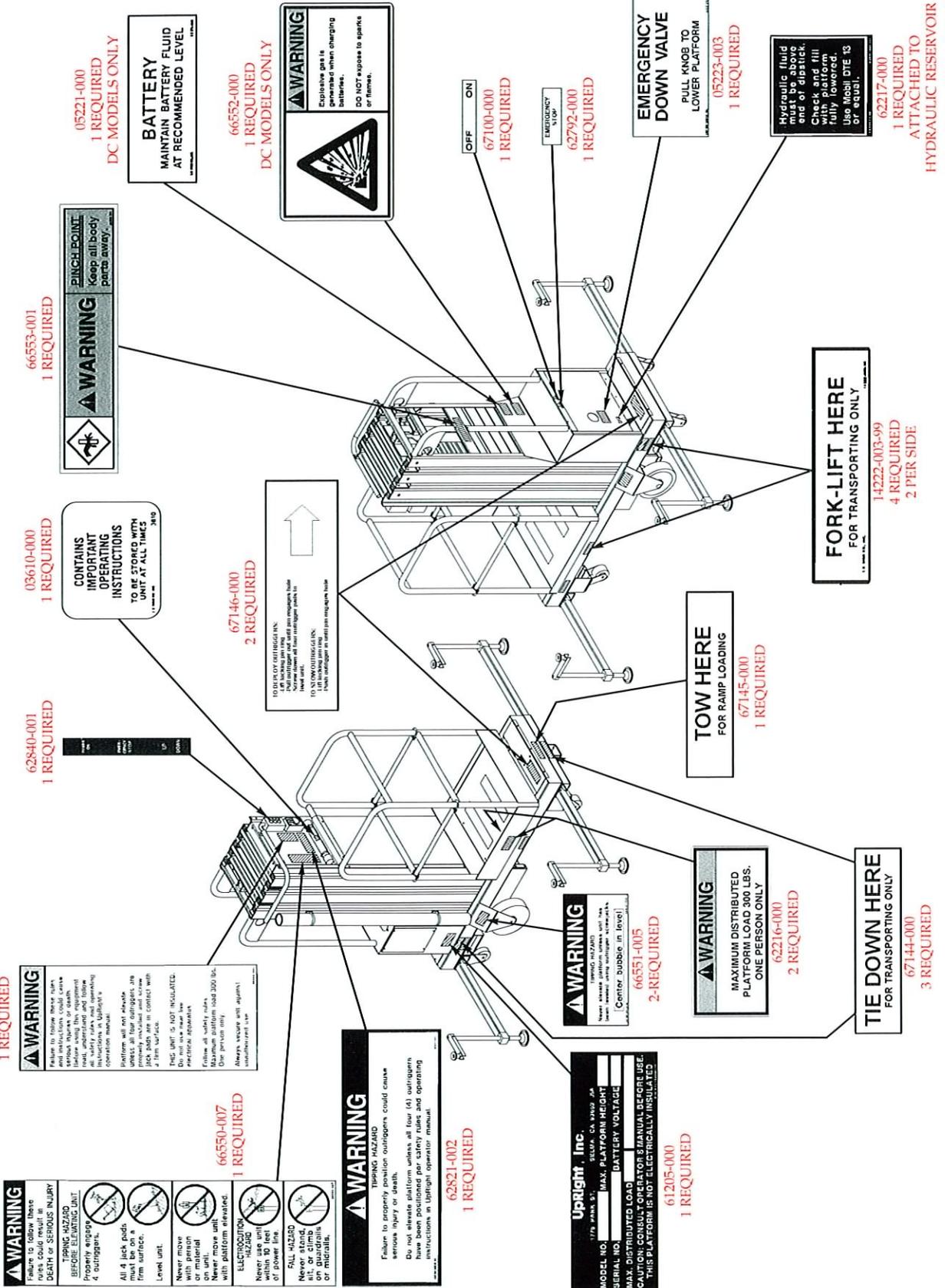
Serviced By: \_\_\_\_\_

Service Interval: \_\_\_\_\_

## Routine Service Table

COMPONENT	INSPECTION OR SERVICES	INTERVAL	Y	N	R
Battery System (DC Units only)	Check electrolyte level	Daily			
	Check battery cable condition	Daily			
	Charge batteries	Daily			
	Check charger condition & operation	Daily			
	Check specific gravity	30d			
	Clean exterior	3m			
Hydraulic Oil	Clean terminals	3m			
	Check oil level	Daily			
Hydraulic System	Drain and replace oil (ISO #46)	1y			
	Check for leaks	Daily			
Emergency Hydraulic System	Check hose connections	30d			
	Check for exterior wear	30d			
Hydraulic Pump	Open the emergency lowering valve and check for serviceability	Daily			
	Check for hose fitting leaks	Daily			
	Wipe clean	30d			
	Check for leaks at mating surfaces	30d			
Controls	Check mounting bolts for proper torque	30d			
	Check condition & operation	Daily			
Control Cable	Check the exterior of the cable for pinching, binding or wear	Daily			
Platform Deck and Rails	Check fasteners for proper torque	Daily			
	Check welds for cracks	Daily			
	Check condition of deck	Daily			
Elevating Assembly	Check entry way closure	Daily			
	Inspect for external damage, dents, loose rivets or cracks	Daily			
	Check chains and sheaves for wear	3m			
Base	Inspect and adjust sequence cables	30d			
	Check hoses for pinch or rubbing points	Daily			
	Check welds for cracks	Daily			
	Check casters for damage	Daily			
Lift Cylinder	Check component mounting for proper torque	3m			
	Check for leaks	Daily			
Entire Unit	Check fittings for proper torque	30d			
	Perform pre-operation inspection	Daily			
	Check for and repair collision damage	Daily			
	Lubricate	3m			
	Check fasteners for proper torque	3m			
Labels	Check for corrosion; remove and repaint	3m			
	Check for peeling, missing, or unreadable labels & replace	Daily			

**NOTE: Labels can be ordered by using Part Number located by each label. For machines equipped with options consult service manual.**



**RL Label Installation: These labels shall be present and in good condition before operating the work platform. Be sure to read, understand and follow these labels when operating the work platform.**

ITEM	RL15	RL19	RL24
<b>Platform Height</b> Maximum	14 ft. 8 in. (4.47 m)	19 ft. (5.79 m)	23 ft. 6 in. (7.16 m)
<b>Platform Capacity</b> Number of People on Platform	300 lbs. (136 kg) 1 person	300 lbs. (136 kg) 1 person	300 lbs. (136 kg) 1 person
<b>Stored Dimensions</b> Vertical Height	77 in. (1.96 m)	77 in. (1.96 m)	77 in. (1.96 m)
Width	29.75 in. (.76 m)	29.75 in. (.76 m)	29.75 in. (.76 m)
Depth	64.25 in. (1.63 m)	64.25 in. (1.63 m)	64.25 in. (1.63 m)
<b>Footprint with Outriggers extended</b> Side to Side	58.5 in. (1.48 m)	58.5 in. (1.48 m)	58.5 in. (1.48 m)
Front to Back	56 in. (1.52 m)	56 in. (1.52 m)	56 in. (1.52 m)
<b>Weight</b> AC Machines	820 lbs. (372 kg)	890 lbs. (404 kg)	960 lbs. (435 kg)
DC Machines	840 lbs. (381 kg)	910 lbs. (412 kg)	980 lbs. (445 kg)
Guardrail Height	43.5 in. (1.10 m)	43.5 in. (1.10 m)	43.5 in. (1.10 m)
Toe Board Height	6 in. (152 mm)	6 in. (152 mm)	6 in. (152 mm)
<b>Maximum System Voltage</b> AC Electric Motor	120 VAC 60 HZ or 220 VAC 50/60 HZ		
DC Electric Power Source	1-12 Volt Battery, Grp. 27 105 Amp/Hrs., Min. Wt. 52 lbs.		
Battery Charger	Automatic, 120 VAC 60 Hz or 220 VAC 50HZ Output: 10 Amps, 12 Volts DC		
<b>Maximum Hydraulic System Pressure</b>	2800 PSI		

\* Specifications subject to change without notice.

Meets or exceeds all applicable requirements of OSHA and ANSI A92.3-1990

## FOR MORE INFORMATION

**UpRight**

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