



# PL-X OPERATOR'S SAFETY MANUAL

## COMPACT

■ Platform height  
up to 12 ft (3.66 m)



## FIXED

■ Platform height  
up to 20 ft (6.10 m)



## OUTRIGGER

■ Platform height  
up to 20 ft (6.10 m)



## STRADDLE

■ Platform height  
up to 24 ft (7.32 m)



Our products are built to comply with ANSI/SAIA A92.20 and CSA B354.6

It is important that you read, understand, and obey the contents of this manual. Keep it with the machine at all times. The purpose of this manual is to provide safe and proper operating procedures for anyone utilizing this machine. Because we at ReechCraft, Inc. are always working to improve our products, processes, and procedures, we reserve the right to make changes without prior notice. Please contact ReechCraft for updated information.

## SAFETY ALERT SYMBOLS + SAFETY SIGNAL WORDS



**THIS IS THE SAFETY ALERT SYMBOL.** It is used throughout this manual and on the machine to alert you to potential personal injury hazards. Understand and obey all safety messages. Information for each individual safety symbol is available in Section 5.1 of this manual to avoid possible injury or death.



**INDICATES AN IMMINENTLY HAZARDOUS SITUATION THAT, IF NOT AVOIDED, WILL RESULT IN SERIOUS INJURY OR DEATH. THIS LABEL WILL HAVE A RED BACKGROUND.**



**INDICATES A POTENTIALLY HAZARDOUS SITUATION THAT, IF NOT AVOIDED, COULD RESULT IN SERIOUS INJURY OR DEATH. THIS LABEL WILL HAVE AN ORANGE BACKGROUND.**



**INDICATES A POTENTIALLY HAZARDOUS SITUATION THAT, IF NOT AVOIDED, MAY RESULT IN MINOR OR MODERATE INJURY. IT MAY ALSO ALERT AGAINST UNSAFE PRACTICES. THIS LABEL WILL HAVE A YELLOW BACKGROUND.**



**INDICATES A RECOMMENDED ACTION PERTAINING TO THE OWNERSHIP OF THE MACHINE, BUT NOT DIRECTLY RELATING TO THE SAFETY OF OPERATORS. THIS LABEL WILL HAVE A WHITE BACKGROUND.**



**THIS PRODUCT MUST COMPLY WITH ALL SAFETY-RELATED BULLETINS. CONTACT REECHCRAFT, INC. OR THE LOCAL AUTHORIZED REECHCRAFT REPRESENTATIVE FOR INFORMATION REGARDING SAFETY-RELATED BULLETINS THAT MAY HAVE BEEN ISSUED FOR THIS PRODUCT.**



**REEHCRAFT, INC. SENDS SAFETY-RELATED BULLETINS TO THE OWNER ON RECORD OF THIS MACHINE. CONTACT REECHCRAFT TO ENSURE THAT THE CURRENT OWNER RECORDS ARE UPDATED AND ACCURATE.**

**REEHCRAFT MUST BE NOTIFIED IMMEDIATELY IN ALL INSTANCES WHERE OUR PRODUCTS HAVE BEEN INVOLVED IN AN ACCIDENT INVOLVING BODILY INJURY OR DEATH OF PERSONNEL, OR WHERE SUBSTANTIAL PERSONAL PROPERTY DAMAGE OR DAMAGE TO THE REECHCRAFT PRODUCT HAS OCCURRED.**

### Contact Us Regarding:

- Accident Reporting
- Product Safety Publications
- Current Owner Updates
- Product Safety Questions
- Standards and Regulations Compliance Information
- Questions Regarding Special Applications
- Questions Regarding Product Modifications

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# SECTION 1

## SAFETY PRECAUTIONS

## SAFETY PRECAUTIONS

## 1 SECTION

### 1.0 Introduction

This section is the starting point for establishing habitual precautions for safe operation of the machine. This manual is your guide in developing a daily routine that focuses on safety and proper maintenance of the machine prior to each use. A maintenance program must be established and conducted by a qualified person to ensure the machine is in safe working condition before it is operated.

Before operating the machine, the operator shall:

1. Read, understand, and obey the operating instructions and safety rules in this manual.
2. Obey all labels, warnings, and instructions located on the machine.
3. Be sure that all occupants of the machine wear appropriate personal protective equipment (PPE) for the conditions.

If there are any questions regarding safety, training, maintenance, inspection, application, or operation of the machine, please contact ReechCraft.



**FAILURE TO COMPLY WITH THE SAFETY PRECAUTIONS LISTED IN THIS MANUAL COULD RESULT IN MACHINE DAMAGE, PROPERTY DAMAGE, PERSONAL INJURY, OR DEATH.**

### 1.1 Pre-operation

#### Operator Preparedness

- Do not operate this machine until the operator has read and fully comprehends the Operator's Safety Manual of the machine.
- Only competent personnel may operate the machine.
- Read, fully comprehend, and obey all dangers, warnings, cautions, and operating instructions on the machine and in this manual.
- Only use this machine in a manner which is within the scope of the intended application set by ReechCraft.

- All operating personnel must be familiar with the emergency procedures and controls specified in this manual.
- All operating personnel must read, comprehend, and obey all applicable employer, local, and governmental regulations as they pertain to the safe operation of the machine.

#### Worksite Inspection

- The operator is to take measures to identify and avoid all hazards in the work area that will affect the safe operation of the machine.
- Do not elevate unless all tools, equipment, and materials can be safely stowed within the platform.
- Machine can be operated in ambient air temperature of -20°F to 135°F (-29°C to 57°C). Consult ReechCraft for operation outside of this range. Machine performance may be affected in very hot or cold conditions.

#### Machine Inspection

- Before machine operation, perform walk-around inspections and function checks. Refer to Section 2 of this manual for further instructions.
- No one shall operate the machine until it has been inspected, serviced, and maintained according to the requirements in this manual.



**MODIFICATION OR ALTERATION OF THE MACHINE SHALL BE MADE ONLY WITH PRIOR WRITTEN PERMISSION FROM THE MANUFACTURER.**

- Do not operate any machine on which the safety labels or manufacturer plates are missing or illegible. Contact ReechCraft for replacement label options. See Section 6.4 for replacement instructions.
- Avoid any buildup of debris on platform floor. Keep mud, oil, grease, and other slippery substances from footwear and the platform floor.

## 1.2 Operation

### Machine Safety Information

- Do not use the machine for any purpose other than positioning personnel and their tools, equipment, and materials.
- Never operate a machine that is not working properly. If a malfunction occurs, stop operating the machine and contact ReechCraft.
- Unless in an emergency, do not allow personnel to tamper with or operate the machine from the ground with personnel on the platform.
- The operator will not elevate the platform unless the bearing surface is stationary and capable of supporting the intended load.
- Always ensure that power tools are properly stowed and never left suspended by their cord from the platform.
- Be sure to lower the platform completely and remove all power before leaving the machine.
- No more than one person is allowed on the machine. Only the operator is permitted in the platform during operation.
- Machine is intended for indoor use only. Do not use outside.

### Fall Hazards

- Do not enter or leave the platform while elevated.
- Before operating the machine, make sure all mast sections, outriggers, railings, and gates are in their proper positions. Be sure the platform is properly secured to the climbing unit before operating the machine.
- Keep both feet firmly positioned on the platform floor at all times. Never use ladders, boxes, steps, planks, or any other item on the platform to provide additional height for greater reach.
- Never use the mast or railings to enter or leave the platform.

Figure 1.0 - Fall Hazards



- Always use extreme caution when entering or exiting the platform. Be sure that the platform is fully lowered before exiting the platform. Step directly from the floor to the platform. Refer to Section 3.4 for applications involving the optional straddle base.
- Always maintain three points of contact with the machine. "Three point contact" means using two hands and one foot or two feet and one hand at all times while entering or exiting the platform.
- An anchor point is provided for fall restraint systems.

### Electrocution Hazards

- This machine is not insulated and will not provide protection from contact or proximity to electrical current.
- Maintain distance from electrical lines, apparatus, or any energized (exposed or insulated) parts according to the minimum approach distance (MAD) as shown in Table 1.0.
- Allow clearance for machine movement and electrical line swaying.

Figure 1.1 - Electrocution Hazards

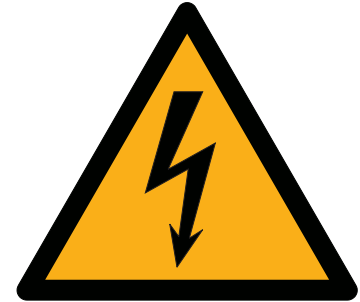


Table 1.0 - Minimum Approach Distances (MAD)

VOLTAGE RANGE (PHASE TO PHASE)	MINIMUM SAFE APPROACH DISTANCE - FEET (METERS)
0-50 KV	10 ft (3 m)
Over 50 KV to 200 KV	15 ft (5 m)
Over 200 KV to 350 KV	20 ft (6 m)
Over 350 KV to 500 KV	25 ft (8 m)
Over 500 KV to 750 KV	35 ft (11 m)
Over 750 KV to 1000 KV	45 ft (14 m)

**Note:** This requirement shall apply except where employer, local, or governmental regulations are more stringent.

## SAFETY PRECAUTIONS

- Maintain a clearance of at least ten feet (3 meters) between any part of the machine, its occupants, their tools, and their equipment from any electrical line or apparatus carrying up to 50,000 volts. Additional clearance of one foot (0.3 meters) is required for every additional 30,000 volts or more.
- The minimum safe approach distance may be reduced if insulating barriers are installed to prevent contact, and if the barriers are rated for the voltage of the line being guarded. These barriers shall not be part of (or attached to) the machine. The minimum safe approach distance shall be reduced to a distance within the designed working dimensions of the insulating barrier. This determination shall be made by a qualified person in accordance with employer, local, or governmental requirements for work practices near energized equipment.

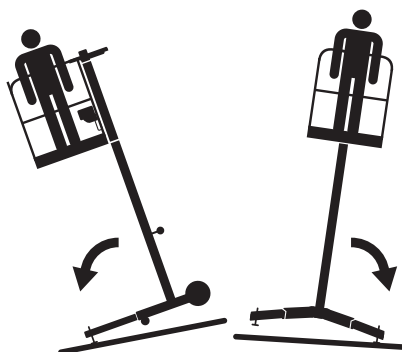


**DO NOT MANEUVER THE MACHINE OR PERSONNEL INSIDE THE PROHIBITED ZONE (MAD). ASSUME ALL ELECTRICAL PARTS AND WIRING ARE ENERGIZED UNLESS KNOWN OTHERWISE.**

### Tipping Hazards

- Be sure the bearing surface is solid, stationary, and capable of supporting the intended load.
- If you're using an outrigger or straddle base, ensure that all outriggers have been properly installed and all stabilizers are fully extended and bearing weight before entering the platform.
- If you're using an outrigger base, check to be sure the chassis is level according to the bubble level indicator on the chassis and all wheels are completely off of the ground.

**Note:** The platform will not release from its docked position unless each outrigger is in its proper position and bearing weight.

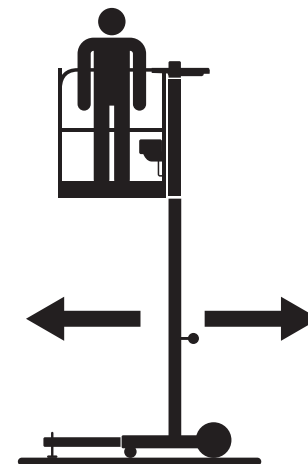


**Figure 1.2a - Tipping Hazards**

## SAFETY PRECAUTIONS

- Do not perform work that will subject the machine to excessive horizontal force or create a swaying motion of the platform.
- The user should be familiar with the operating surface. If there is a question related to the stability of the ground condition, an appropriate sill should be used to safely spread the load of the machine according to the maximum ground force shown on the base.
- Do not elevate the platform on a slope greater than what can be leveled and kept from sliding by the base.
- Do not elevate if there is a safety concern related to the stability of the bearing surface.
- Before using the machine on floors, bridges, and other surfaces, check allowable capacity of the surfaces.
- Never exceed the maximum platform capacity. Distribute loads evenly on the platform floor.
- Keep the weight-bearing feet of the machine a safe distance from holes, bumps, drop-offs, obstructions, debris, concealed holes, and other potential hazards at the ground level.
- Never attempt to use the machine as a crane. Do not tie off the machine to any adjacent structure.
- Do not increase the platform size or height with unauthorized extensions, attachments, or steps, as added height will decrease stability.
- If the mast or platform is caught so that one or more of the weight-bearing feet are off the ground, the operator must be removed before attempting to free the machine.

**Figure 1.2b - Tipping Hazards**



## Crushing + Collision Hazards

- Appropriate personal protective equipment (PPE) must be worn by all operating and ground personnel.
- Check work area clearances above, on the sides, and below the platform while moving, elevating, or lowering the platform.
- Be sure to keep all body parts inside the platform railing during operation.
- Exercise extreme caution at all times to prevent obstacles from striking or interfering with operating controls (drill) or the person in the platform.
- Ensure that operators of other overhead and floor-level equipment or machines are aware of the machine's presence. Disconnect power to overhead cranes.
- Warn personnel not to work, stand, or walk under an elevated platform. Position barricades on the floor as necessary.

## Safety Information

- Never allow personnel in the platform while moving or repositioning the machine.
- This machine shall not be towed by a vehicle.
- If using the tilt-back wheels for the outrigger base, be sure the platform is fully lowered and outriggers and mast sections are properly stowed before tilting back for rough terrain transport.
- Remove drill, tools, and equipment from the platform when transporting in a vehicle.
- Refer to Section 3.5 for additional maneuvering and transporting information.
- The platform must be fully lowered before the outriggers can be safely removed.
- Do not use the machine as a ground for welding.
- Do not attempt to transport the assembled machine by forklift.
- Be sure to lock two or more of the casters before leaving the machine unattended.
- Use caution when transporting the machine on a slope.
- Machine is intended for indoor use only. Do not use outside.

## 2.0 Introduction

This machine is intended to be used as a personnel handling device and must be operated and maintained by competent personnel only.

Anyone under the influence of drugs or alcohol, or who is subjected to bouts of dizziness, seizures, or loss of physical control must not operate this machine.

## 2.1 Operator Requirements

Before operating this machine, the operator must read and understand this manual.

The operator must be familiar with:

- Use and limitations of the components of the machine, including the specification requirements of the drill motor
- Manufacturer plates and safety labels on the machine and in this manual
- Employer and government regulations
- Sufficient mechanical aptitude and knowledge of the machine to recognize a component malfunction or a potential malfunction
- The safest means to operate the machine where overhead and ground hazards are present. These hazards include overhead obstructions, additional moving equipment, obstacles, depressions, drop-offs, etc.
- A means to avoid unprotected electrical conductors
- The specific job requirements

## Operator Responsibilities

Exercising good judgment, safety control, and caution in evaluating each situation is the responsibility of the operator. The operator must disable the machine in the event of a malfunction or other unsafe condition of the machine or jobsite.

## 2.2 Preparation, Inspection, + Maintenance

### Pre-start Inspection

The pre-start inspection should include each of the following:

- **Cleanliness** - Check all surfaces for leakage, debris, or foreign objects.
- **Labels** - Make sure none of the labels are missing. Verify all illegible labels are cleaned or replaced. Refer to Section 5.1 for label contents and locations.
- **Safety + Service** - Keep a copy of this manual in a weather-resistant container and with the machine at all times.
- **Setup** - Ensure the machine is set up in accordance with Section 3.4.
- **Walk-around Inspection** - Refer to Section 2.3.
- **Drill Selection Criteria** - Refer to Figure 3.3.
- **Function Check** - Once the walk-around inspection is complete, perform a function check of all systems in an area free of all overhead or ground-level obstructions. Refer to Section 2.4 for additional information.

Table 2.0 outlines the periodic machine inspection and maintenance recommended by ReechCraft. Consult local regulations for further requirements. The frequency of inspections and required maintenance must be increased if the machine is exposed to harsh conditions, increased use, or if the machine is used in a severe manner.

**Note:** Use this manual to perform inspections.

**Table 2.0** - Inspection + Maintenance (See page 56)

TYPE	FREQUENCY	PRIMARY RESPONSIBILITY	SERVICE QUALIFICATION	REFERENCE
Pre-start Inspection	Before starting each day or at shift change	Operator	User or Operator	Operator's Safety Manual
Pre-delivery or Frequent Inspection	In service or out of service for three months or purchased used	Owner, Dealer, or User	Qualified Mechanic*	Operator's Safety Manual
Annual Machine Inspection	Every 12 months	Owner, Dealer, or User	Qualified Mechanic*	Operator's Safety Manual
Replacement	When track is worn or damaged	Owner, Dealer, or User	Qualified Mechanic*	Operator's Safety Manual

\*A person who has acquired training, qualifications, or a combination of these, the knowledge and skill enabling the person to inspect and repair the machine to the level required by the complexity of the task.

## 2.3 Daily Walk-around Inspection

Begin the daily walk-around inspection starting at item one as noted on Figure 2.0. Continue around the machine, checking each item in sequence for the conditions listed in the following checklist on pages 18-23.



**TO AVOID POSSIBLE INJURY, MAKE SURE THERE IS NO POWER SUPPLIED TO THE MACHINE DURING THE WALK-AROUND INSPECTION. DO NOT OPERATE THE MACHINE UNTIL ALL MALFUNCTIONS HAVE BEEN CORRECTED.**

## Walk-around Inspection Components

### Legend

1. Rear Wheels (Optional)
2. Chassis
3. Mast Sections
4. Climbing Unit
5. Gearbox
6. Swivel Casters
7. Manual Descent Crank
8. Platform and Entry Gate
9. Ladder
10. Leg Adjustment Pins
11. Leg Adjustment Cams
12. Outrigger Swivel Lock Pins
13. Locking Caster Wheels
14. Access Step

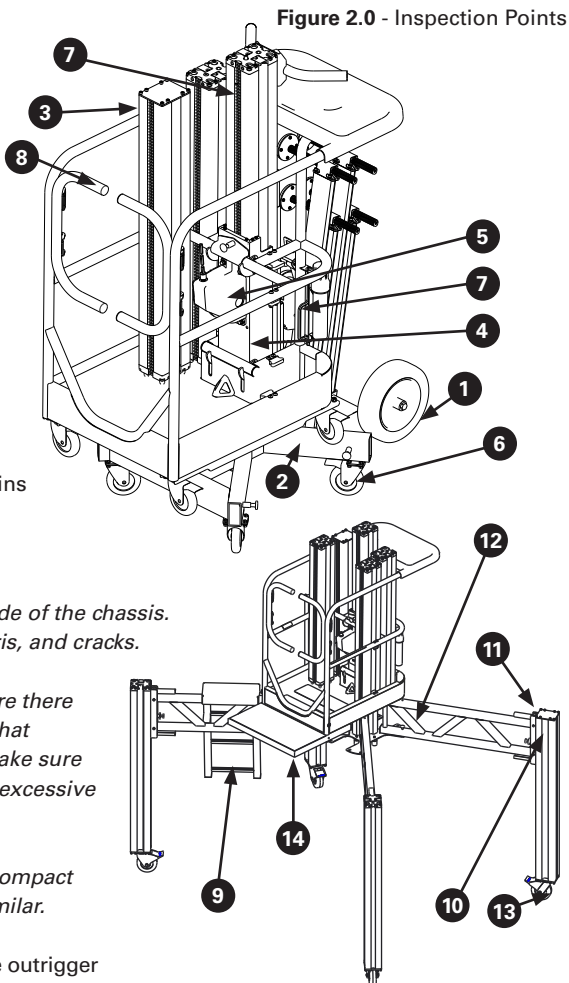


Figure 2.0 - Inspection Points

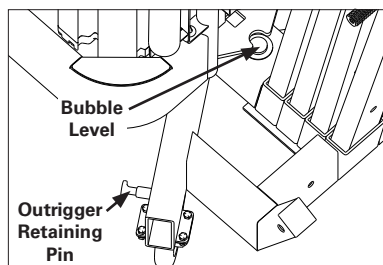
**Note:** Do not overlook the underside of the chassis. Check this area for corrosion, debris, and cracks.

**Note:** On all components, make sure there are no loose or missing parts and that everything is securely fastened. Make sure that there is no visible damage or excessive wear.

**Note:** Items to check between the compact base and the outrigger base are similar.

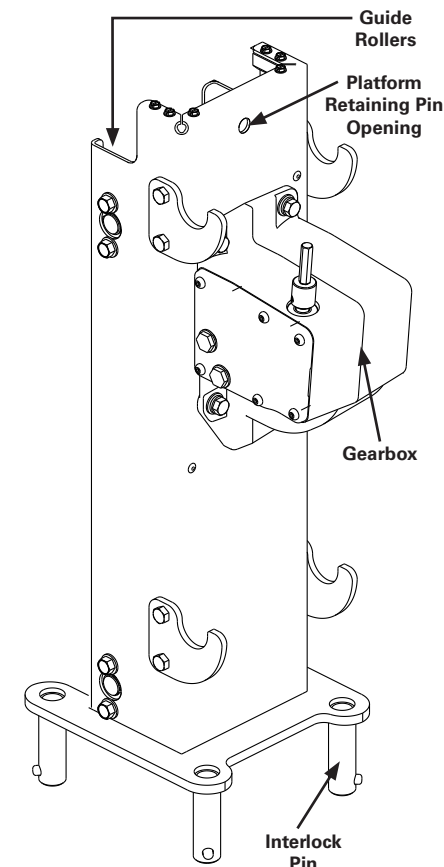
- **Rear Wheels** - If using the outrigger base, tilt back the wheels and check for any debris stuck to or around the wheel or axle. Make sure the axle bolts are tight and that the wheel spins freely.
- **Chassis** - Check for cracks or corrosion, especially at intersecting weld joints. If using an outrigger base, make sure the bubble level is clean and functioning and that all four outrigger pins are functioning properly. (See Figure 2.1)

Fig 2.1 - Bubble Level + Retaining Pin



- **Mast Sections** - Check for cracks and corrosion. Make sure the cam levers are not bent or misshapen and springs are functioning properly. Check to be sure the cam lever shaft is not showing excessive wear. Make sure the connector pins are not worn or damaged and the connector pin openings are clean and free of debris. Be sure the track teeth are not bent, misshapen, or excessively worn (0.2 inches (5 mm) of tooth remaining or less). (See Figures 2.0, 2.3, and 6.0)
- **Climbing Unit** - Check for visible cracks or corrosion. Check guide rollers for visible wear and proper alignment. Check to be sure all fasteners and interlock pins are tight and functioning properly. (See Figure 2.2)
- **Gearbox** - Check for any oil leaks.
- **Swivel Casters** - Check for any debris stuck to or around the wheels or swivel mechanism. Check to be sure the lock is in good working condition and that the wheels are functioning properly.
- **Manual Descent Crank** - Check to be sure it is present and securely attached. (See Figure 2.4 on page 20)

Figure 2.2 - Climbing Unit



**Note:** The mast and climbing unit should be clean and free of grease, oil, and dirt. Do not lubricate the mast or climbing unit components.

Figure 2.3 - Maximum Track Wear

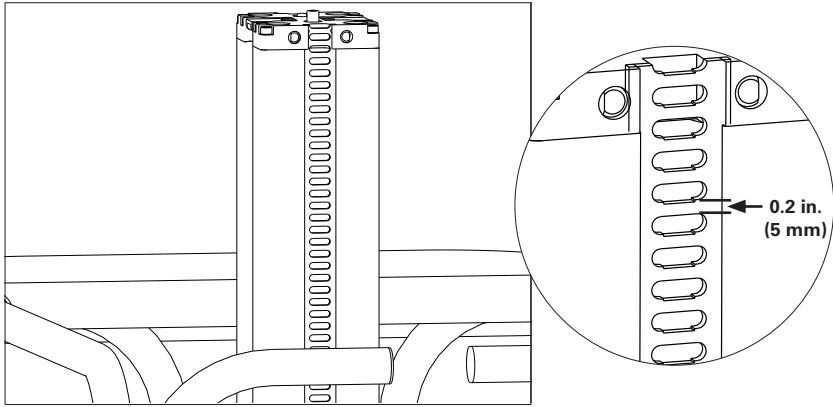
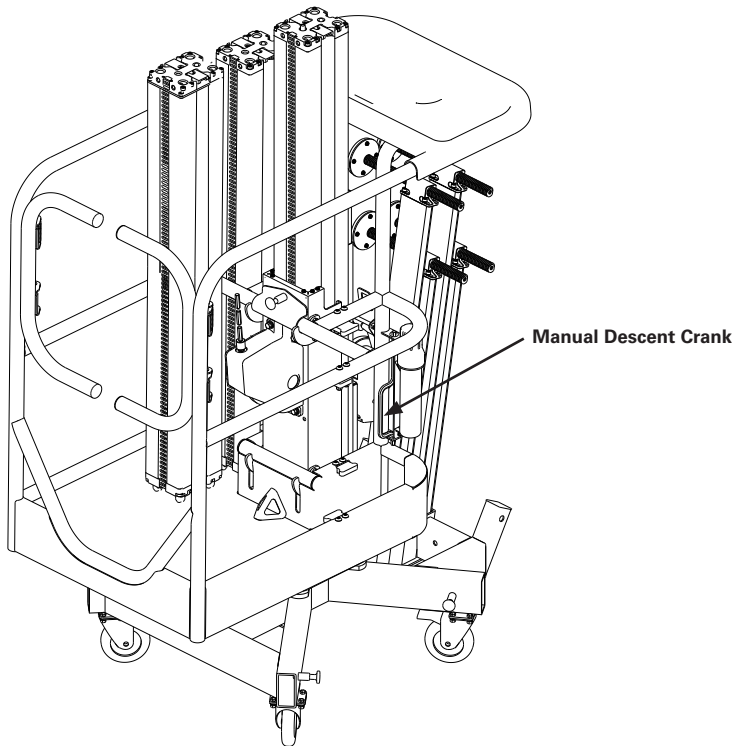
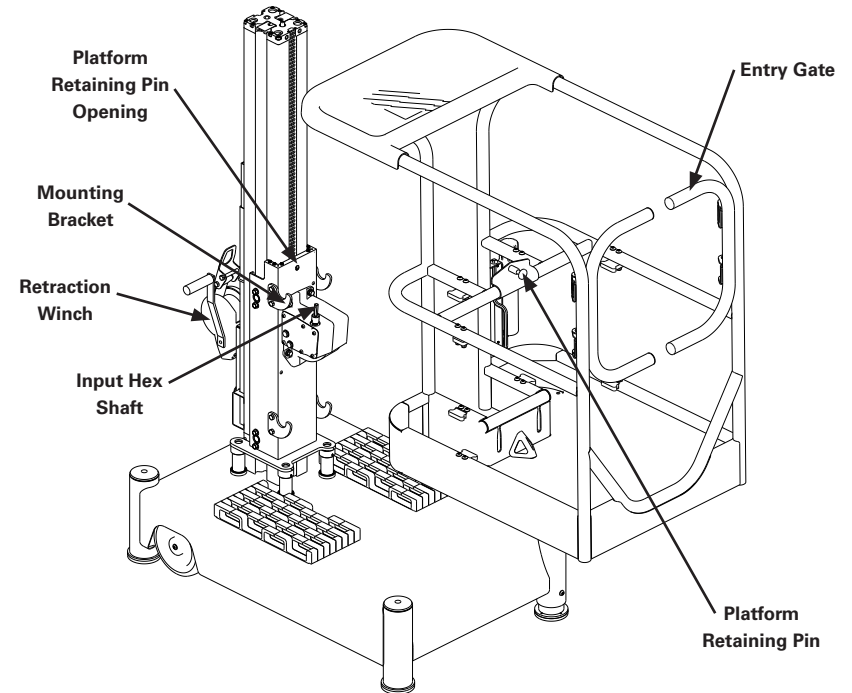


Figure 2.4 - Location of Manual Descent Crank



- **Platform + Entry Gate** - Check to be sure that the mounting brackets are not loose, platform railing is undamaged, platform retaining pin is functioning properly, self-closing gates are functioning properly, and no cracks or visible corrosion are present. (See Figure 2.5)
- **Emergency Retraction Winch** - Check that the strap appears undamaged. Make sure the handle is oriented to be out of the way of the basket.

Figure 2.5 - Platform Mounting + Retaining Pins

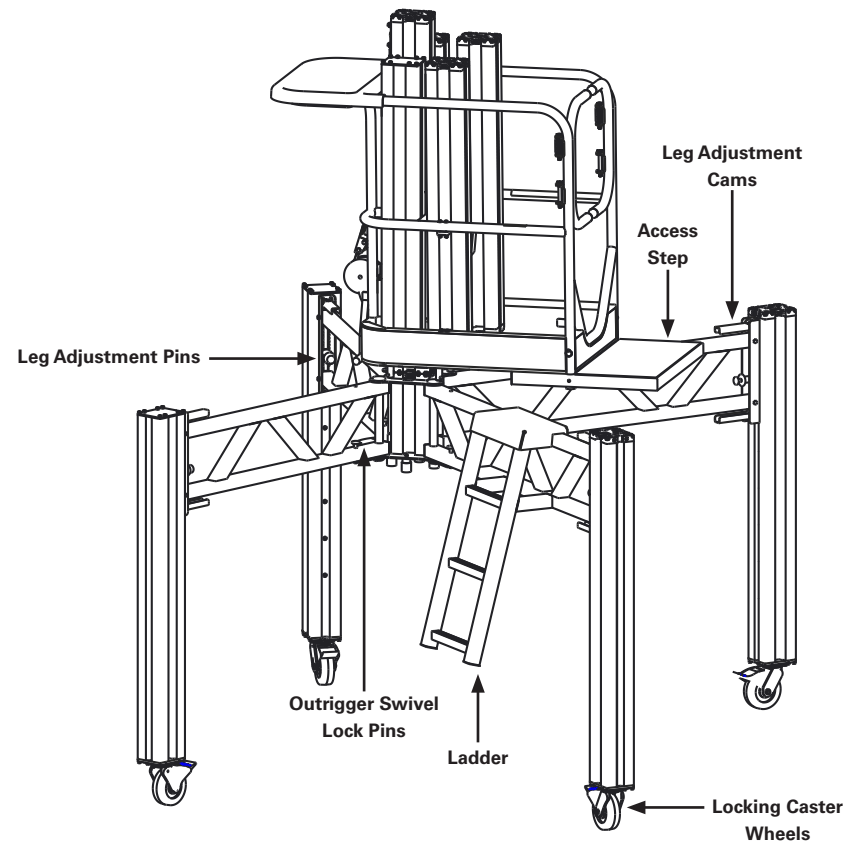




**Note:** If your configuration includes the straddle base, you will need to look over additional items prior to use. (See Figure 2.6)

- **Ladder** - Check for any cracked welds or misshapen rungs or tubes.
- **Leg Adjustment Pins** - Check for any misshapen pins or housings.
- **Leg Adjustment Cams** - Check for bent or misshapen levers or missing retaining pins.
- **Outrigger Swivel Lock Pins** - Be sure all four pins are present and not bent.
- **Locking Caster Wheels** - Be sure all wheels are bolted and have brakes.
- **Access Step** - Be sure all pins are present and connected through the basket.

**Figure 2.6** - Inspection Points for Straddle Base Option





## 2.4 Function Check

Once the walk-around inspection is complete, perform a function check of all systems in an area free of overhead and ground-level obstructions.



**IF THE MACHINE DOES NOT OPERATE PROPERLY, SHUT IT OFF AND REMOVE POWER FROM THE MACHINE IMMEDIATELY. REPORT THE PROBLEM TO THE PROPER MAINTENANCE PERSONNEL AND DO NOT OPERATE THE MACHINE UNTIL IT HAS BEEN DEEMED SAFE FOR OPERATION.**

### Function Check Items

- **Overload Clutch** - Check to be sure the overload clutch is functioning properly by briefly running the drill motor in the reverse direction (counterclockwise while in the lowest position). You should hear an audible buzzing sound.

*Note: Be sure to maintain a firm grip on the drill.*

- **Mast Connectors** - Check to be sure the components of the mast connectors are present, undamaged, clear of debris, and in good working condition. (See Figure 2.7) If using a PL-XM model, check to be sure that the locking rod and height control rods are present and move smoothly. Also, be sure the height control pin is present on each base when switching bases.

*Note: Be sure the top mast termination plate is present, undamaged, and securely attached to the mast section.*

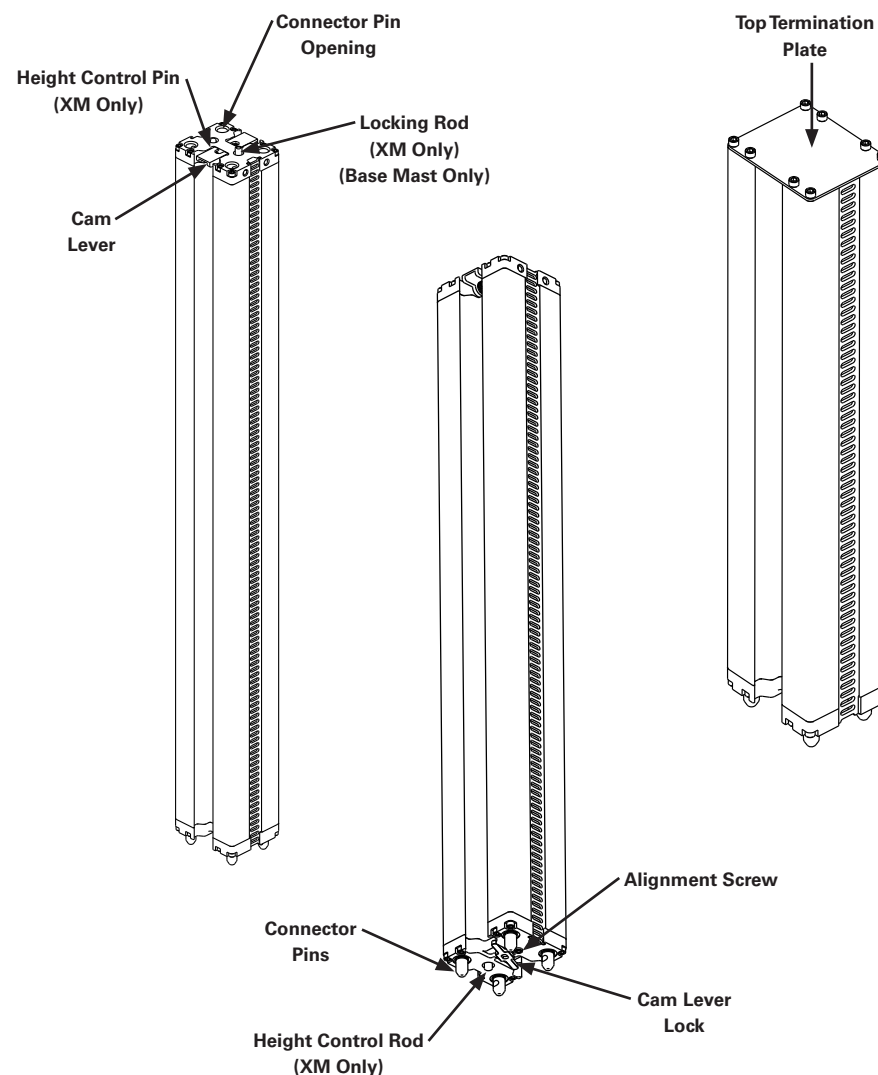
- **Outrigger Interlock** - The outrigger base includes four outrigger interlocks (one per outrigger) to help ensure each outrigger is bearing weight and stabilizing the machine. To test this, fully lower the climbing unit to rest on the base, then briefly run the drill motor in the forward (clockwise) position with the outriggers removed. The unit should not disengage from its fully lowered position and you should hear an audible buzzing sound coming from the overload clutch slipping.

*Note: Be sure to maintain a firm grip on the drill. Perform this check while in the platform at ground level.*

- **Leg Adjustment Pins** - If using the straddle base, be sure the pin springs function properly and pin housing slides up and down freely. (See Figure 2.6)
- **Leg Adjustment Cams** - If using the straddle base, be sure the cams draw the legs tight to the outrigger truss. (See Figure 2.6)

- **Outrigger Swivel Lock Pins** - If using the straddle base, be sure all four pins lock into all of the outrigger angle positions securely. (See Figure 2.6)
- **Locking Caster Wheels** - If using the straddle base, be sure that all four caster wheels do not swivel or roll when brakes are applied. (See Figure 2.6)

Figure 2.7 - Mast Connectors



# SECTION 3

## MACHINE OPERATION

### 3.0 Introduction

This section details the operation and setup of the machine, as well as methods of maneuvering, transportation, and storage.

**Note:** The manufacturer has no direct control over the machine application and operation. The operator is responsible for following sound safety practices.

### 3.1 Machine Description

The ReechCraft PowerLift is a drill-powered mobile elevating work platform (MEWP) for indoor use. The removable platform is mounted to an elevating climbing unit that adds up to four (depending on the model) modular mast sections that are stacked and fixed to a base mast that is connected to a base. The machine is stabilized in different ways, depending upon the base. The PowerLift's intended purpose is to provide personnel and their tools access to work areas above the ground. The primary control of the machine is the motorized drill with a 3/8-inch hex driver.

**Note:** Be sure to follow the recommended drill motor specifications for safe operation and best machine performance.

#### Legend (for Figures 3.0-3.2)

- |                             |   |
|-----------------------------|---|
| 1. Climbing Unit            | 14. Rear Outrigger                          |
| 2. Intermediate Mast        | 15. Retraction Winch                        |
| 3. Manual Container         | 16. Outrigger Storage Socket                |
| 4. Outrigger Socket         | 17. Bubble Level                            |
| 5. Manual Descent Crank     | 18. Chassis                                 |
| 6. Platform                 | 19. Fall Restraint Anchor Point             |
| 7. Gearbox                  | 20. Tilt-Back Handle & Wheel (Not pictured) |
| 8. Platform Entry Gate      | 21. Ladder                                  |
| 9. Platform Retaining Pin   | 22. Adjustable Leg                          |
| 10. Outrigger Retaining Pin | 23. Straddle Outrigger Truss                |
| 11. Top Mast                | 24. Locking Caster Wheels                   |
| 12. Front Outrigger         | 25. Access Step                             |
| 13. Stabilizer              | 26. Leveler                                 |

Figure 3.0 - Outrigger Base Option (2 views)

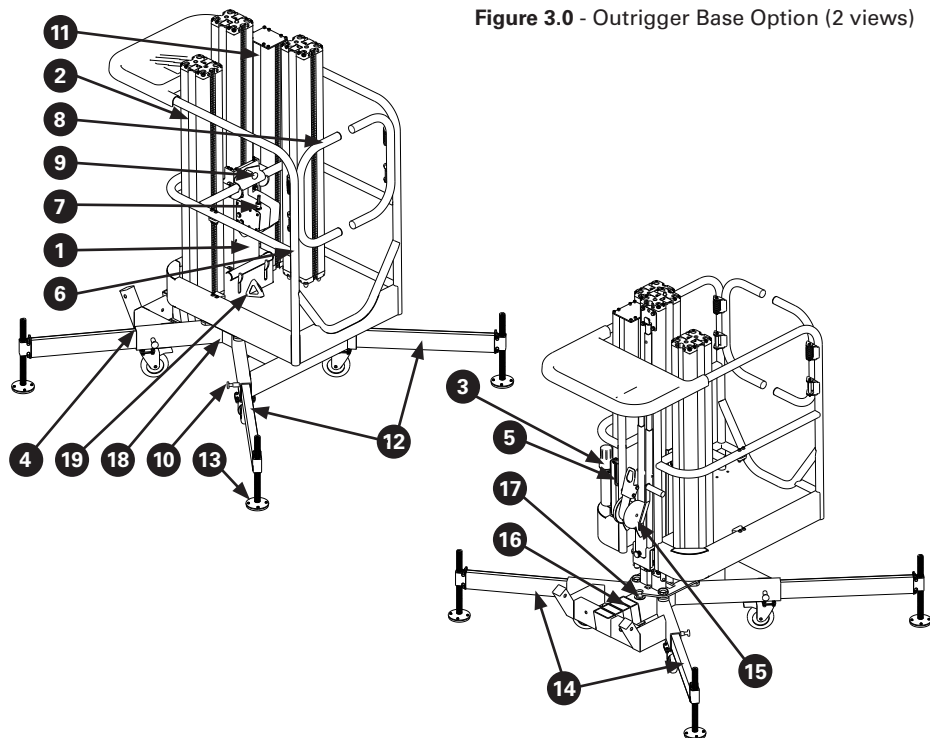


Figure 3.1 - Straddle Base Option

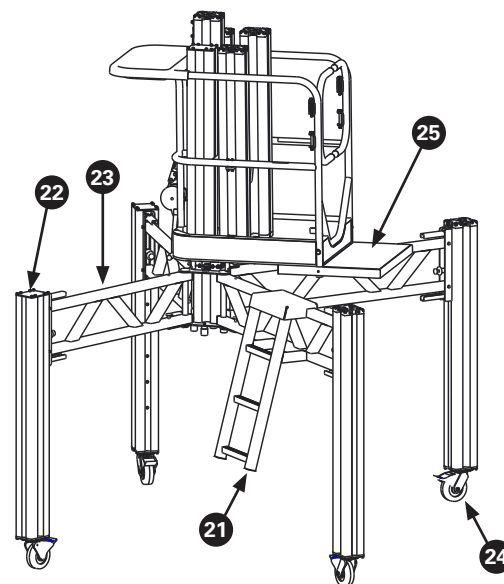
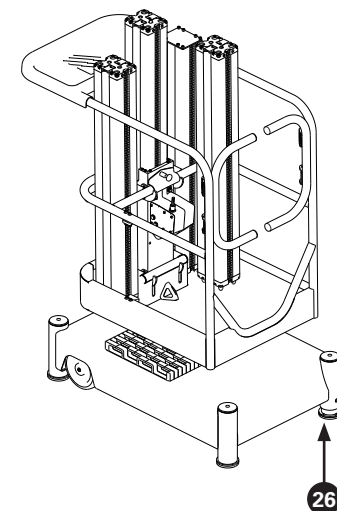


Figure 3.2 - Compact Base Option

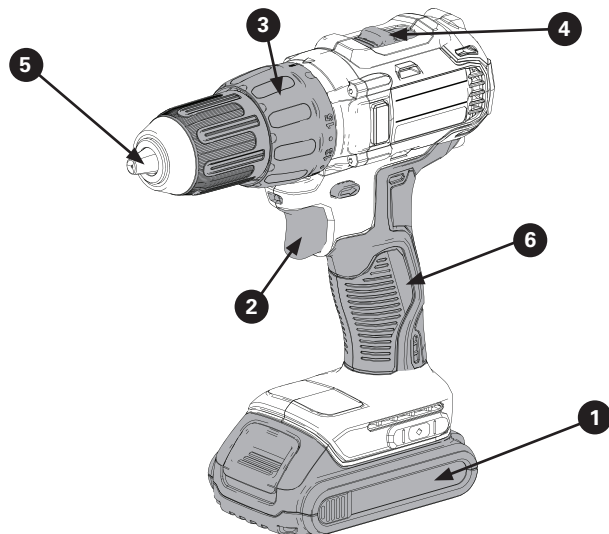


## 3.2 Drill Motor

For optimal performance, For optimal performance, ReechCraft recommends a cordless drill with a 1/2-inch (12.7 mm) chuck and at least 18-volt capacity. It must be able to accept a 3/8-inch (9.5 mm) hex driver.

Ensure the drill motor's optional "hammer" setting is disabled and the drill motor is in "drill" mode.

Figure 3.3 - Typical Drill Motor



### Legend

- |                           |                   |
|---------------------------|-------------------|
| 1. Battery Pack           | 4. Speed Selector |
| 2. Variable Speed Trigger | 5. Chuck          |
| 3. Mode Selector Collar   | 6. Main handle    |



**USE ONLY CORDLESS DRILL MOTORS. DISCONTINUE THE USE OF THE DRILL IF A FAULT IS DETECTED. ENSURE THE DRILL MOTOR IS IN "DRILL" MODE AND SET TO THE APPROPRIATE TORQUE SETTING.**

## 3.3 Machine Operation

When the platform reaches the bottom of its travel, the overload clutch creates a ratcheting or buzzing noise, indicating that the machine has reached the fully lowered position.



**BE SURE TO MAINTAIN A FIRM GRIP ON THE DRILL AT ALL TIMES DURING OPERATION.**

The machine is fitted with a drive shaft brake to prevent motion of the platform not initiated by the operator.

Before operating the machine, be sure the platform is fully lowered and the base is stable. Be sure the machine is level and on a surface capable of supporting the intended load.



**WHEN USING THE OUTRIGGER BASE, IF THE CLIMBING UNIT FAILS TO ELEVATE AFTER THE OUTRIGGERS HAVE BEEN PROPERLY INSTALLED AND STABILIZED, THE MACHINE IS NOT WORKING PROPERLY AND MUST NOT BE USED UNTIL IT IS INSPECTED AND REPAIRED BY A QUALIFIED PERSON.**

**Note:** Do not attempt to enter or exit the platform unless it is fully lowered.

## 3.4 Machine Setup

Because the ReechCraft PowerLift is a modular operator-assembled machine, the platform, outriggers, and mast sections can be removed to reduce weight for easier transport.

**Note:** For the purposes of this section, it is assumed that the machine is in its fully stowed configuration.

### Stabilizing the Base

For all base types:

- Place the machine on a firm, stationary surface capable of supporting the intended load directly under the desired work area.

For outrigger base option:

- Install front and rear outriggers in their designated positions. **Front outriggers are longer and will not fit in rear slots.** Using the drill and hex driver, level the chassis by adjusting each of the stabilizers until the bubble level is centered. **It is best to level the rear outriggers side-to-side first.** Secondly, lift the front of the machine to level front-to-back. (See Figure 3.4)

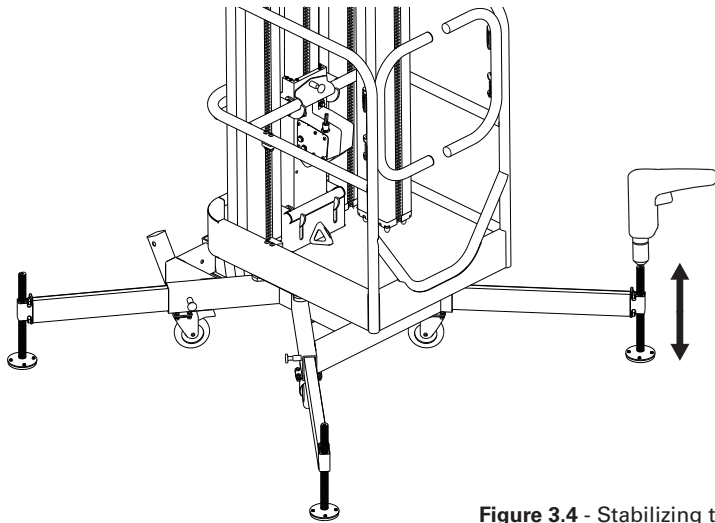
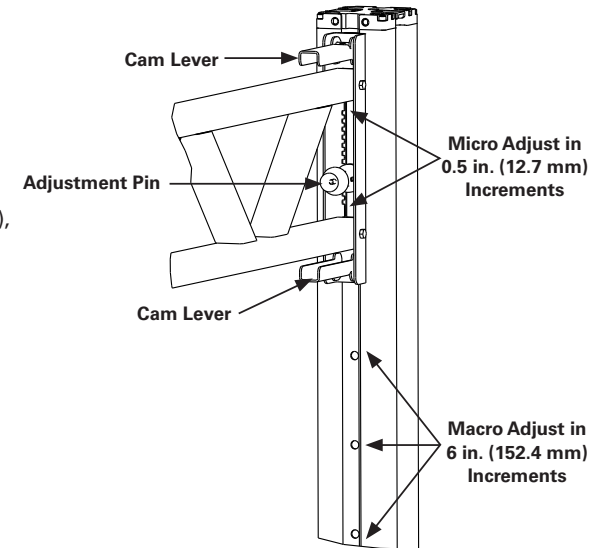


Figure 3.4 - Stabilizing the Outrigger Base

For straddle base option:

- Release the cam levers and assemble the legs vertically from top down.
- Pull the lever on the adjustment pin and lock into the appropriate mast hole (macro adjustment), then release the pin into the appropriate bracket lug (micro adjustment).
- Rotate the cam levers to horizontal position to finish securing the leg.
- Be sure to secure the caster wheel brake to keep the base from moving.

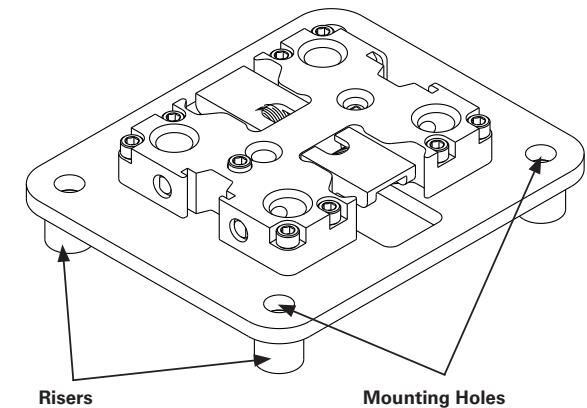
Figure 3.5 - Stabilizing the Straddle Base



For fixed base option:

- Secure the base with fasteners providing a minimum of 1,750 lbs (780 kg) each of pullout force through the provided mounting holes in each corner.
- Use the provided risers to maintain clearance off the floor and allow the cam levers to be operated.

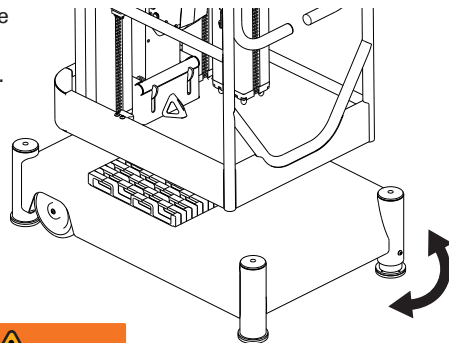
Figure 3.6 - Stabilizing the Fixed Base



For compact base option:

- The compact base is intended for use on level surfaces. Use the leveler to ensure stable contact on all four feet.

Figure 3.7 - Stabilizing the Compact Base



**DO NOT USE THE MACHINE IF CHASSIS CANNOT BE LEVELLED.**

## Elevating/Lowering

Make sure the pre-start inspection has been completed, the machine is safe to use, the chassis is level and stable, and the hex drive is secure in the drill and coupler.

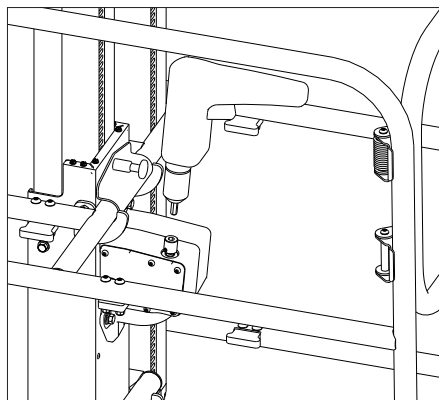
To elevate the platform, run the drill motor in the forward (clockwise) position.

**Note:** Before elevating the platform on the outrigger base, the outriggers need to be installed and leveled.

To lower the platform, run the drill motor in the reverse (counterclockwise) direction.

Stop using the drill motor if any part of it becomes excessively hot. Wait until the drill motor has cooled down before continuing operation.

Figure 3.8 - Drill Motor Operation/Elevating



## Unpowered Descent

The manual descent crank (see Figure 4.0) is provided to allow the machine operator to lower the platform in the event that the drill motor loses power or contains insufficient power to lower the platform.

**Note:** For emergency operation please see Section 4 on emergency procedures.

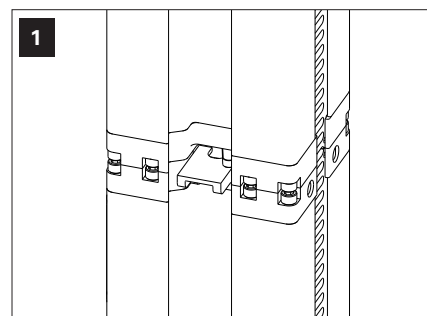
## Joining Mast Sections

Elevate the climbing unit near the top of the mast and carefully remove the mast section from its stowed position.

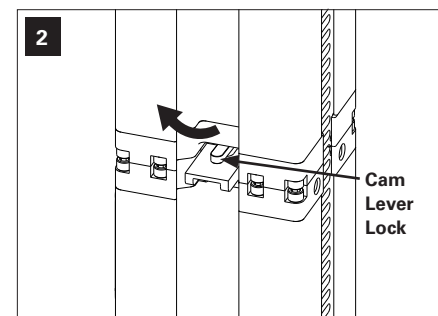


**ALWAYS MAINTAIN A FIRM GRIP WHEN HANDLING THE MAST SECTIONS.**

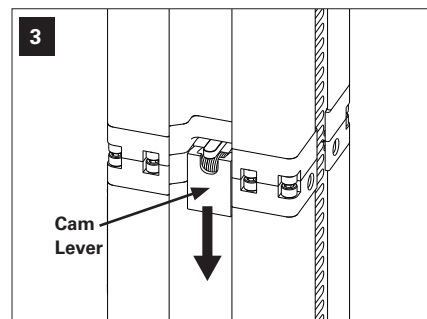
Figure 3.9 - Joining Mast Sections



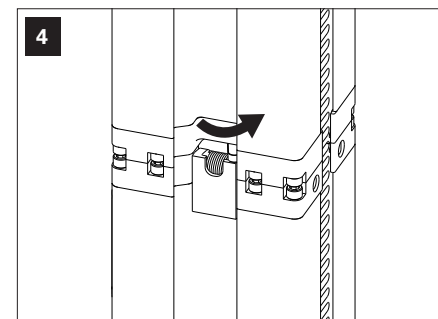
1. Stack the mast, ensuring that the track is aligned and facing toward the platform.



2. Rotate the cam lever lock until it stops in the center position.



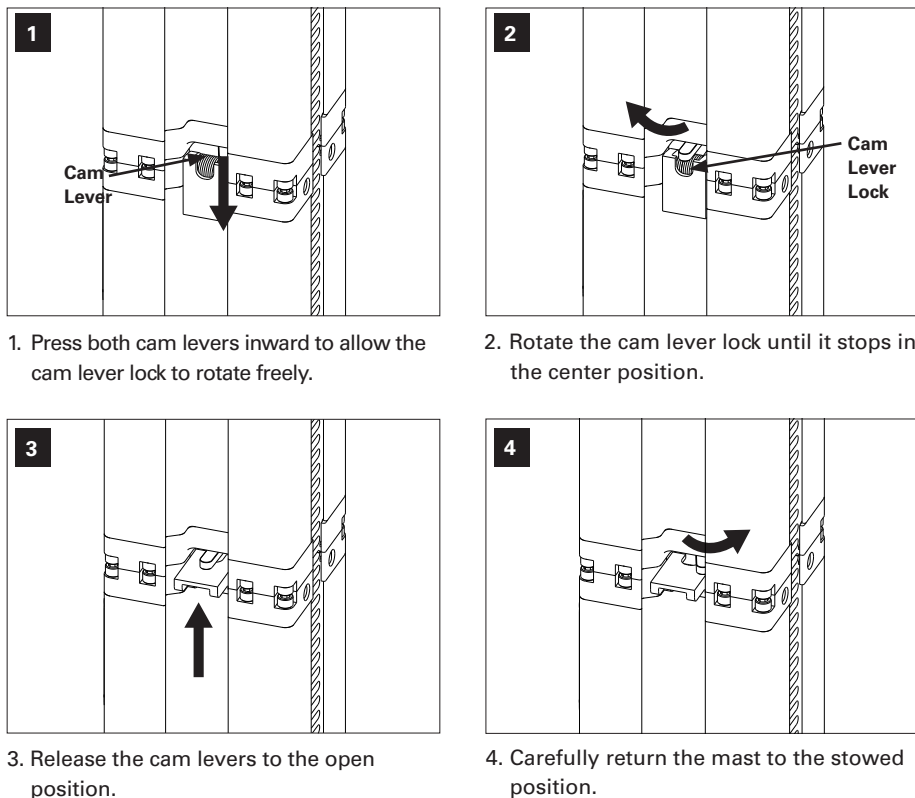
3. Press both cam levers down and in at the same time.



4. With the cam lever in the down position, be sure the cam lever lock springs automatically into the locked position.

## Separating Mast Sections

Figure 3.10 - Separating Mast Sections



## 3.5 Maneuvering + Transport

The machine may be manually maneuvered or transported in a vehicle disassembled or fully stowed.



**DO NOT ATTEMPT TO TRANSPORT OR MOVE THE MACHINE UNLESS THE PLATFORM IS FULLY LOWERED. DO NOT MOVE THE MACHINE WITH PERSONNEL IN THE PLATFORM.**

The machine may be moved around a worksite using the following methods:

- Fully assembled, pushed around the floor using the casters.
- Disassembled, with each major component carried separately.

### Upright Maneuvering for All Bases

- The platform must be fully lowered.
- The machine can be pushed or pulled around using the swivel casters.
- Be sure there are no overhead or ground obstructions or hazards.
- If using the outrigger base, the outrigger feet should be elevated temporarily only while maneuvering the machine.
- There can be no significant weight on the machine while it is being rolled around.

**Note:** Be sure the swivel casters are in their unlocked position and free of debris on the wheel or in the mechanism.

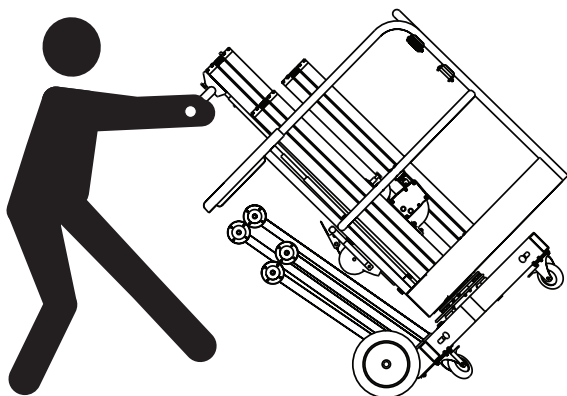
### Tilted-back Maneuvering for Outrigger Base Tilt-back Option

- All masts must be stowed before tilting back.
- For increased control, lock the rear casters before tilting back.
- Ensure that control of the machine will be maintained while being tilted back and during transport.
- Be sure to maintain a firm grasp of the handle at all times during transport.
- Familiarize yourself with the terrain and identify and avoid any overhead or ground hazards before tilting back and transporting.

With the tilt-back wheel option, the outrigger base can be tilted back and maneuvered as shown in Figure 3.10.

**Note:** Ensure the platform is empty before tilting back.

**Figure 3.11** - Maneuvering When Tilted Back with Outrigger Base Tilt-back Option Only



**ONLY ATTEMPT TO TILT THE UNIT BACK OR RETURN THE TILTED UNIT TO THE UPRIGHT POSITION ON A FLAT AND LEVEL SURFACE, CLEAR OF ANY PERSONNEL. ENSURE A FIRM GRIP WITH TWO HANDS ON THE HANDLE AND ENSURE WEIGHT IS DISTRIBUTED TO AVOID THE USER OR THE MACHINE BEING THROWN BY THE MOVING WEIGHT OF THE MACHINE.**



**TAKE PRECAUTIONS TO AVOID MANUAL HANDLING INJURIES. USE PROPER LIFTING TECHNIQUES: BEND AT THE KNEES ONLY, NEVER TWIST YOUR BACK WHEN HOLDING OR CARRYING A LOAD, AND/OR GET HELP. ONLY CARRY ONE COMPONENT AT A TIME.**

## Parking + Storage

- Move the machine to a dry, well-protected, and well-ventilated area out of direct sunlight.
- Ensure the platform is fully lowered.
- If necessary, remove the drill motor to prevent unauthorized use.
- When using the outrigger or straddle base, ensure at least two of the swivel casters are in the fully-locked position. When using the compact base, be sure to lower it fully to the ground.



**DO NOT STORE IN LOCATIONS WHERE THE MACHINE MAY ACCUMULATE ICE, GREASE, OR AIRBORNE DEBRIS.**

## Vehicle Transport

When transporting the machine by vehicle without the additional Hitch Hauler option for the outrigger base, it should be disassembled into its major components and each component secured separately. Restrain each component of the machine securely during transport.

When transported fully stowed, the machine should be completely and securely restrained to eliminate any shifting or excessive movement.



**USE OF EXCESSIVE FORCE WHEN SECURING THE MACHINE CAN CAUSE DAMAGE TO THE MACHINE.**

Secure the machine to the transport vehicle with adequately rated ropes or straps. Do not overstress such devices. Place a buffer between the device and any part of the machine.



# SECTION 4

## EMERGENCY PROCEDURES

### 4.0 Introduction

This section explains the steps to be taken in the case of an emergency situation during operation.

#### Manual Descent Crank

The platform manual descent crank is provided to allow the platform operator to lower the platform in the event the cordless drill runs out of sufficient charge to lower the platform.

**Note:** It is recommended to carry a fully charged spare drill battery on the platform at all times.

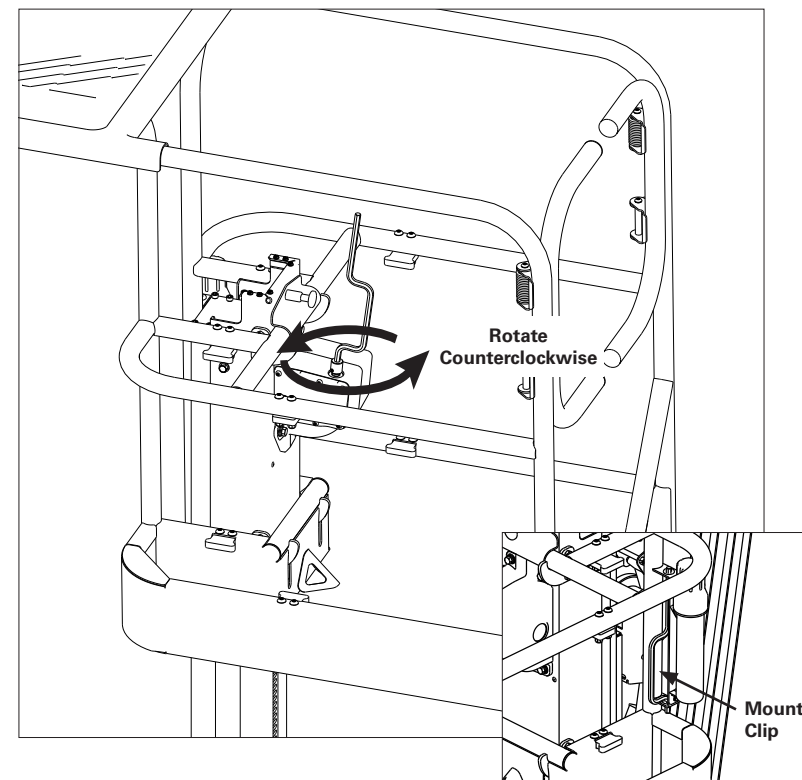


THE CRANK IS DESIGNED FOR MANUAL DESCENT IN CASE OF LOSS OF POWER ONLY. IT SHOULD NOT BE USED TO ELEVATE THE PLATFORM OR FOR GENERAL OPERATIONS.



IF THE BATTERY OF THE DRILL IS DISCHARGED WHILE THE UNIT IS ELEVATED, DO NOT CLIMB OUT OF THE PLATFORM. USE THE MANUAL DESCENT CRANK TO LOWER THE PLATFORM.

Figure 4.0 - Manual Descent Crank Operation



#### Discharged Battery or Loss of Power

If the battery of the drill should run out of charge before the platform has fully descended:

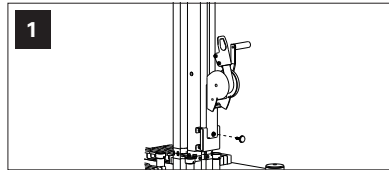
- Remove the drill and place it on the tool tray.
- Remove the manual descent crank from the mounting clip inside the platform.
- Engage the drive shaft with the manual descent crank.
- Wind counterclockwise until the platform lowers fully. (See Figure 4.0)



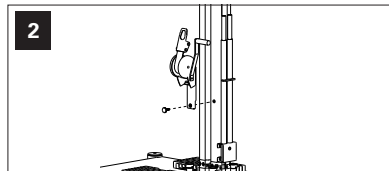
## Operator Unable to Control the Machine

If the platform operator is pinned, trapped, or unable to operate or control the machine, other personnel should deploy the emergency retraction system to lower the platform and rescue the operator. (See Figure 4.1)

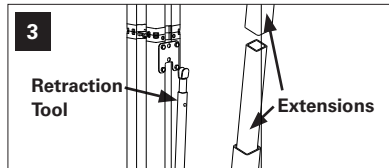
**Figure 4.1 - Emergency Retraction System**



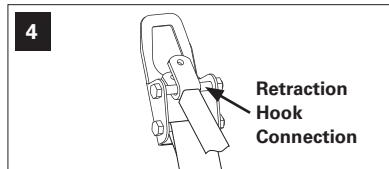
1. Remove the retraction winch from the chassis.



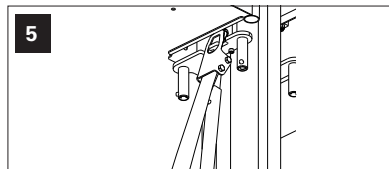
2. Attach the winch to the base mast and unwind the strap.



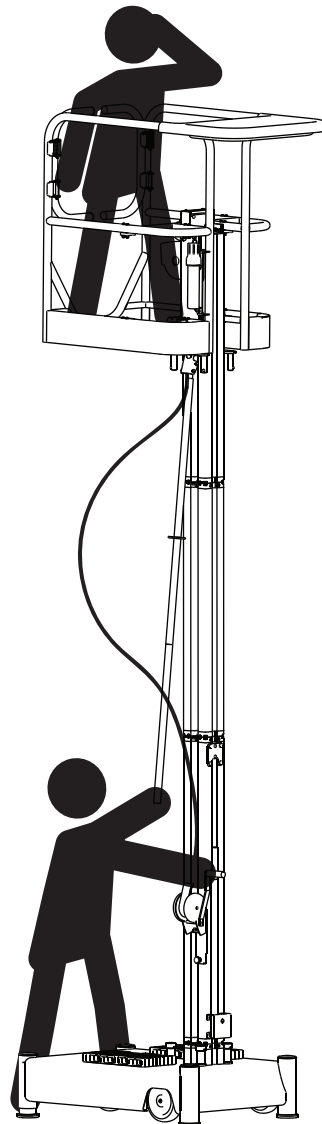
3. Remove and extend the retraction tool.



4. Use the exposed bolt to hold the hook with the retraction tool.



5. Hook the winch strap to the tab on the base of the climbing unit. Crank clockwise to lower.



Return the retraction winch to its storage spot after use. Make sure the handle is pointing directly down.

## Platform Caught Overhead

If the platform becomes jammed or snagged in overhead structures or equipment, rescue the platform occupant prior to freeing the machine.

## 4.1 Incident Notification

ReechCraft, Inc. must be notified immediately of any incident involving a ReechCraft product. Even if no injury or property damage is evident, the factory should be contacted by phone and provided with the necessary details.

### Contact Information:

#### Technical Safety and Engineering Department

845 34th St N, Fargo, ND 58102

customer.service@reechcraft.com

**In USA:** 1-888-600-6160 • **Outside USA:** 1-701-280-5900

Failure to notify the manufacturer of an incident involving a ReechCraft PowerLift product within 48 hours of such an occurrence may void any warranty consideration on that particular machine.



**FOLLOWING ANY ACCIDENT, THOROUGHLY INSPECT THE MACHINE AND TEST ALL FUNCTIONS. DO NOT ELEVATE THE PLATFORM UNTIL YOU ARE SURE THAT ALL DAMAGE HAS BEEN REPAIRED, IF REQUIRED, AND THAT ALL CONTROLS ARE OPERATING CORRECTLY.**

# SECTION 5

## GENERAL SPECIFICATIONS

### 5.0 Introduction

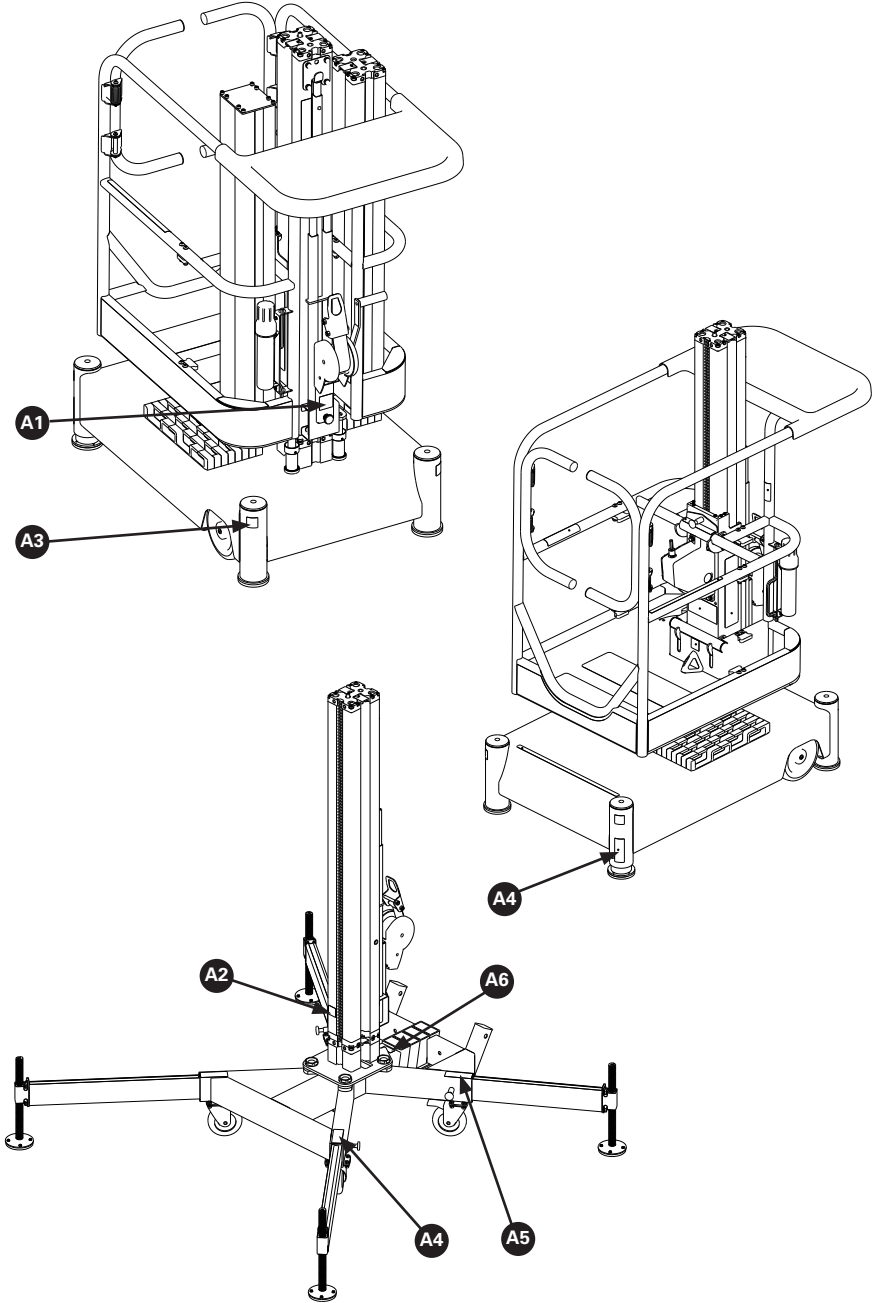
This section of the manual provides operating specifications and information necessary for the proper maintenance of this machine.

### 5.1 Label Contents + Locations

Table 5.0 - Label Contents + Locations (See Figure 5.0a-c)

CHASSIS/BASE MAST LABELS				
NO.	DESCRIPTION	APPLICABLE BASES	P/N	LABEL
A1	<b>Emergency Winch.</b> Indicates the location of the emergency winch.	All	4028306	
A2	<b>Standing Under the Machine is Prohibited.</b> Do not stand under the elevated platform. To perform maintenance, first remove the platform from the machine. Label is located behind the climbing unit while stowed.	All	4028310	
A3	<b>Compact Base Maximum Ground Force.</b> The largest force expected to be exerted by a single foot of the compact base.	Compact	4028303	
A4	<b>Front Outrigger is Required.</b> Adjust the stabilizer to bear the load and level the base.	Compact, Outrigger	4028308	
A5	<b>Rear Outrigger is Required.</b> Adjust the stabilizer to bear the load and level the base.	Outrigger	4028294	
A6	<b>Level the Base.</b> The outrigger base must be leveled according to the bubble level before raising the platform.	Outrigger	4028312	

Figure 5.0a - Label Locations









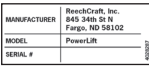
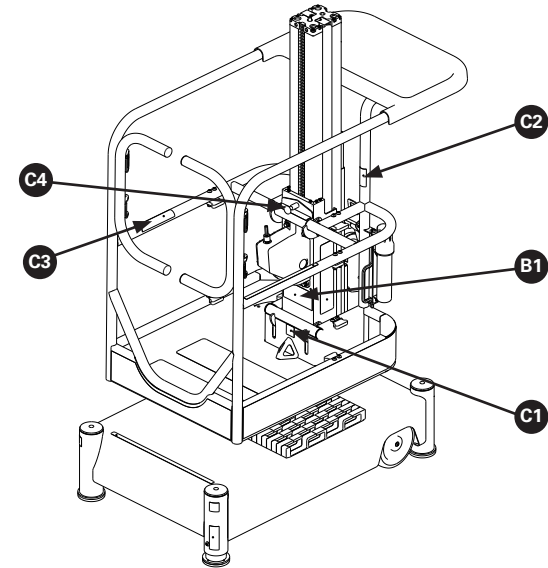
CLIMBING UNIT LABELS			
NO.	DESCRIPTION	P/N	LABEL
B1	<b>Manufacturer's Plate.</b> Details the major performance characteristics and identifying information of the machine.	Depends on model	
B2	<b>Serial Number.</b> A durable plate with a unique identifier, located on the manufacturer's plate.	4026386	
PLATFORM LABELS			
NO.	DESCRIPTION	P/N	LABEL
C1	<b>Fall Restraint.</b> Marks the location of the fall restraint anchor in the platform. This is NOT rated for a fall arrest system.	4028297	
C2	<b>Manual Descent Crank.</b> Shows the location and basic instructions for the manual descent crank.	4028298	
C3	<b>Electricity Risk.</b> Details the allowable approach distances to high voltage power sources.	4028309	
C4	<b>Platform Instructions.</b> Indicates the drill raise/lower direction and the platform removal pin.	4028300	
PART IDENTIFICATION LABEL			
NO.	DESCRIPTION	P/N	LABEL
D1	<b>Model Information.</b> Identifies the manufacturer, manufacturer's address, model, and serial number of the machine. It is located on primary detachable parts (bases, masts, platform). Labels are not shown in Fig 5.0b.	4028287	

Figure 5.0b - Label Locations
















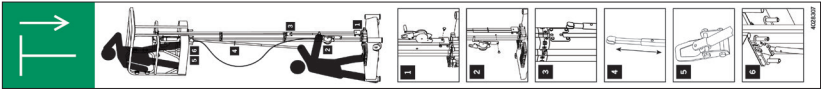





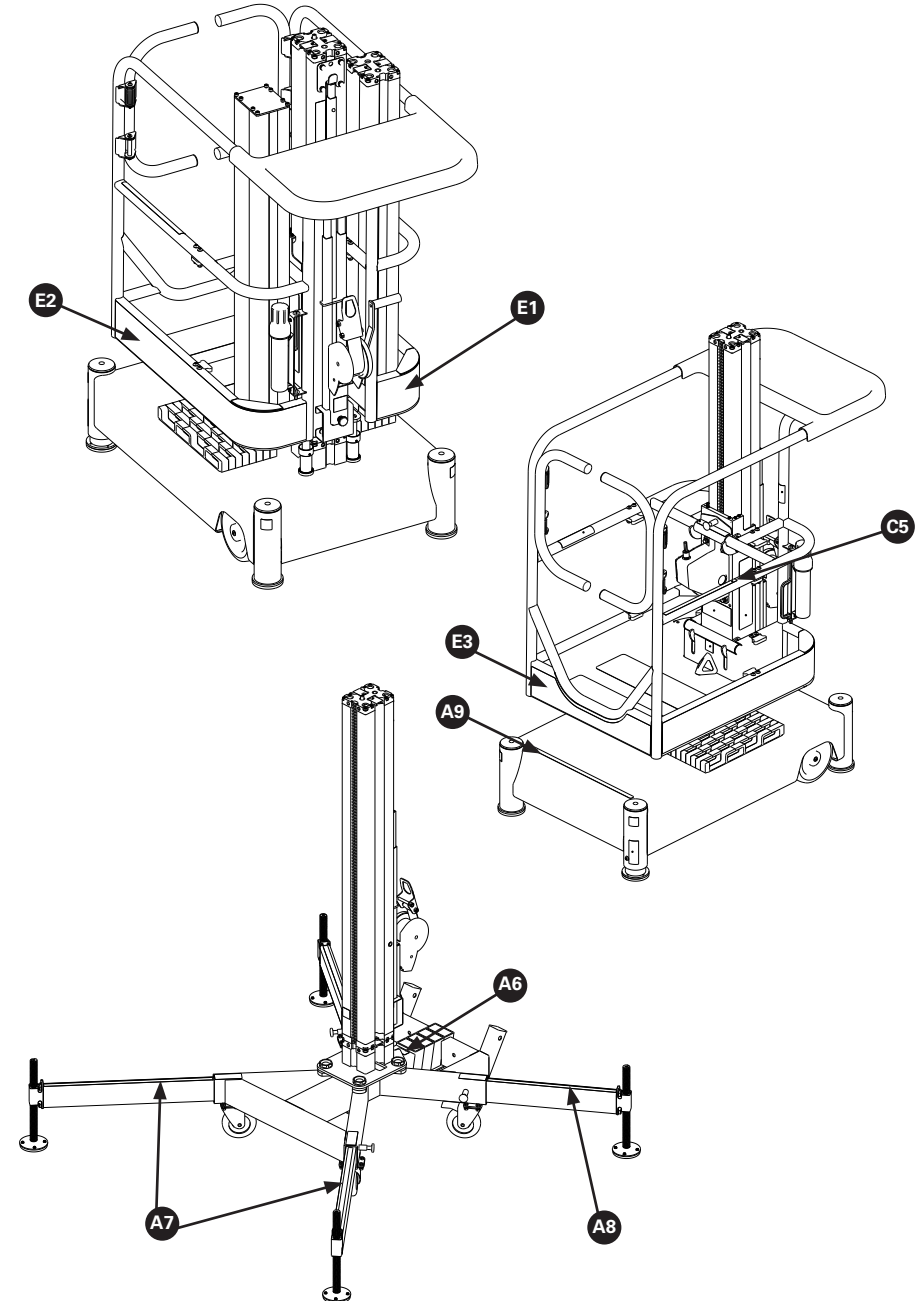
UNIT LABELS			
NO.	DESCRIPTION		P/N
	<div></div>		
C5	<p><b>Hazards</b> (from left to right):</p> <p><i>Before Use:</i></p> <p>Read the manual</p> <p>Set all outriggers</p> <p>For indoor use only</p> <p><i>Prohibited Uses:</i></p> <p>Do not use while the base is tilted</p> <p>Do not transport while elevated</p> <p>Do not suspend loads from platform</p> <p>Do not allow multiple occupants</p> <p>Do not pull from platform to move machine</p> <p>Do not lower onto pedestrians</p>		4028299
<div></div>			
A6	<p><b>Front Outrigger.</b> Contains safety colors to indicate trip hazard, maximum expected force exerted by outrigger, and lower stabilizer indicator.</p>		4028292
<div></div>			
A7	<p><b>Rear Outrigger.</b> Contains safety colors to indicate trip hazard, maximum expected force exerted by outrigger, and lower stabilizer indicator.</p>		4028293
<div></div>			
A8	<p><b>Emergency Lowering Instructions</b></p>		4028307
<div></div>			
A9	<p><b>Caution Not a Step</b></p>		4028295
BRANDING LABELS			
NO.	DESCRIPTION	P/N	LABEL
E1	Left Platform Brand	4028289	<div> <b>ReechCraft</b> <small>POWERLIFT</small></div>
E2	Right Platform Brand	4028291	<div> <b>ReechCraft</b> <small>POWERLIFT</small></div>
E3	Front Platform Brand	4028290	<div> </div>

Figure 5.0c - Label Locations



## 5.2 Machine Specifications

**Table 5.1** - Machine Specifications (See Figures 5.1a-d on the following pages)

SPECIFICATION		PL-X4 COMPACT BASE	PL-X8 COMPACT BASE	PL-X12 COMPACT BASE
	Platform Capacity (lbs (kg))	350 (159)		
	Power Source	AC or DC Drill		
	Drive	Gear Drive with Integrated Brake		
	Maximum Manual Force (lbs (N))	45 (200)		
	Maximum Wind Speed (mph (m/min))	0 (0) (For Indoor Use Only)		
	Maximum Chassis Inclination	0 Degrees		
	Platform Size (L x W) (in. (mm))	23.3 (592) x 24.8 (630)		
	Swivel/Lockable Caster Diameter (in. (mm))	8 (203.2)	8 (203.2)	8 (203.2)
	Machine Weight (lbs (kg))	415 (188)	525 (238)	824 (374)
	Flat Free Transport Wheels Diameter (in. (mm))	N/A	N/A	N/A
A	Stowed Length (in. (mm))	57 (1448)	57 (1448)	57 (1448)
B	Stowed Width (in. (mm))	30 (762)	30 (762)	30 (762)
C	Stowed Height (in. (mm))	67.5 (1715)	67.5 (1715)	67.5 (1715)
D	Minimum Platform Height (in. (mm))	16.5 (419)	16.5 (419)	16.5 (419)
E	Ground Footprint Width (in. (mm))	30 (762)	30 (762)	30 (762)
F	Ground Footprint Length (in. (mm))	47 (1194)	47 (1194)	47 (1194)
G	Distance from Wall Side (in. (mm))	1.5 (38)	1.5 (38)	1.5 (38)
H	Distance from Wall Front (in. (mm))	5.5 (140)	5.5 (140)	5.5 (140)
I	Erected Mast Height (in. (mm))	67.5 (1715)	115 (2921)	163 (4140)
J	Maximum Platform Height (in. (mm))	44.4 (1128)	92.4 (2347)	140.4 (3566)
K	Maximum Leg Offset (in. (mm))	N/A	N/A	N/A
L	Maximum Straddle Height (in. (mm))	N/A	N/A	N/A
M	Maximum Extended Height (in. (mm))	89.5 (2273)	137 (3480)	185 (4699)
N	Maximum Working Height* (in. (mm))	116.4 (2957)	164.4 (4176)	212.4 (5395)

\*Based on platform height plus 6 ft (1.8 m).

**Table 5.1** - Machine Specifications (See Figures 5.1a-d on the following pages) *(Continued)*

PL-X16 OUTRIGGER BASE	PL-X20 OUTRIGGER BASE	PL-XM COMPACT BASE	PL-XM OUTRIGGER BASE	PL-XM FIXED BASE	PL-XM STRADDLE BASE
350 (159)					
AC or DC Drill					
Gear Drive with Integrated Brake					
45 (200)					
0 (For Indoor Use Only)					
0 Degrees					
23.3 (592) x 24.8 (630)					
5 (127)	5 (127)	8 (203.2)	5 (127)	N/A	6 (152.4)
394 (179)	518 (235)	829 (376) <sup>†</sup>	525 (238) <sup>†</sup>	246 (112) <sup>†</sup>	505 (229) <sup>†</sup>
12 (304.8)	12 (304.8)	N/A	12 (304.8)	N/A	N/A
51.5 (1308)	51.5 (1308)	57 (1448)	51.5 (1308)	51.5 (1308)	36 (914)
30 (762)	30 (762)	30 (762)	30 (762)	28.5 (724)	30 (762)
69 (1753)	69 (1753)	72.5 (1842)	74 (1880)	63.5 (1613)	N/A
13.5 (343)	13.5 (343)	16.5 (419)	13.5 (343)	6 (152)	N/A
67.2 (1707)	67.2 (1707)	30 (762)	67.2 (1707)	N/A	86-106 (2184-2692)
64.7 (1643)	64.7 (1643)	47 (1194)	64.7 (1643)	N/A	81.5-104 (2070-2642)
20 (508)	20 (508)	1.5 (38)	20 (508)	0 (0)	28-38 (711-965)
10 (254)	10 (254)	5.5 (140)	10 (254)	0 (0)	20-29 (508-737)
212 (5385)	260 (6604)	168 (4267)	265 (6731)	255 (6477)	314 (7975)
189.6 (4816)	237.6 (6035)	145.2 (3688)	242.4 (6157)	232.8 (5913)	288 (7320)
N/A	N/A	N/A	N/A	N/A	25-63 (635-1600)
N/A	N/A	N/A	N/A	N/A	48 (1220)
234 (5944)	282 (7163)	190 (4826)	287 (7290)	277 (7036)	336 (8534)
261.6 (6645)	309.6 (7864)	217.2 (5517)	314.4 (7986)	304.8 (7742)	360 (9140)

<sup>†</sup>Based on maximum possible machine weight.

Figure 5.1a - Machine Specifications (Compact Base)

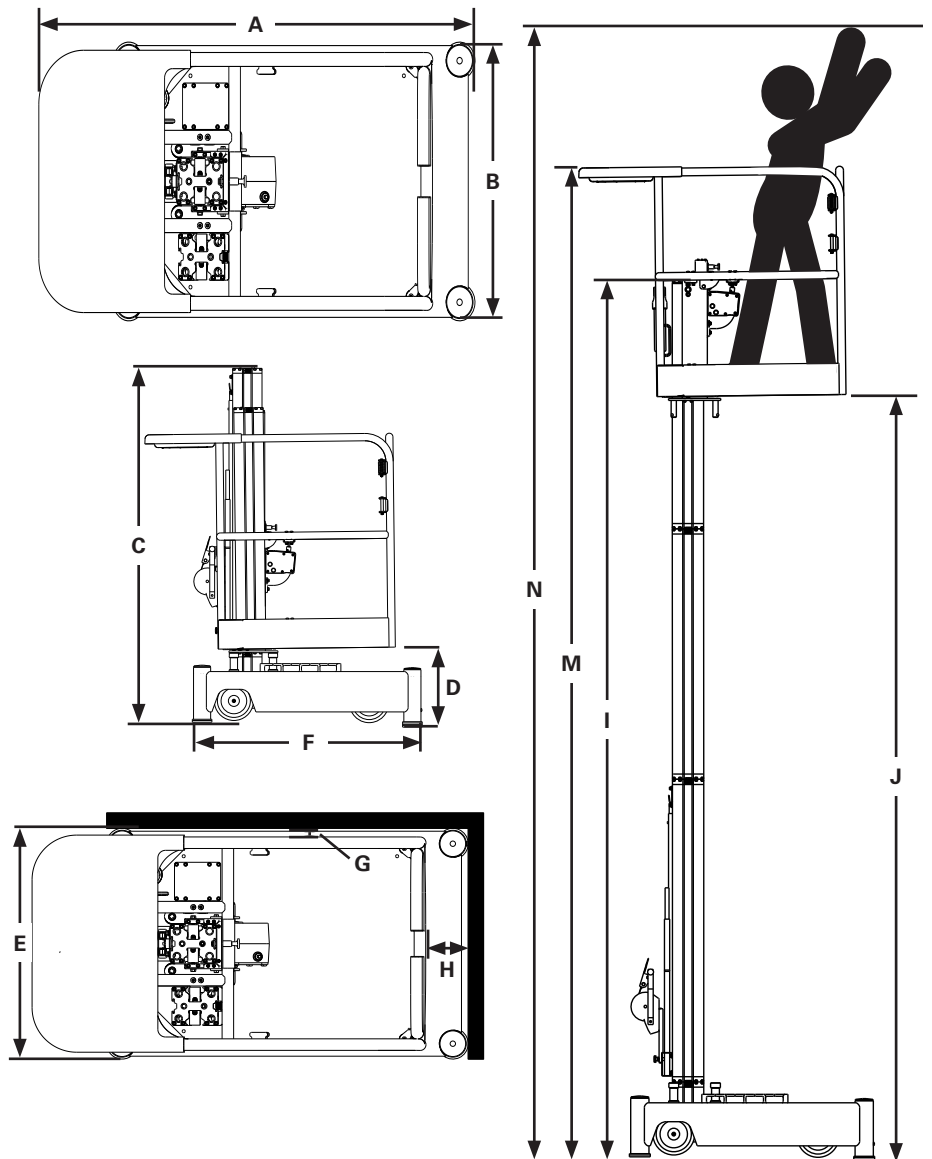


Figure 5.1b - Machine Specifications (Fixed Base)

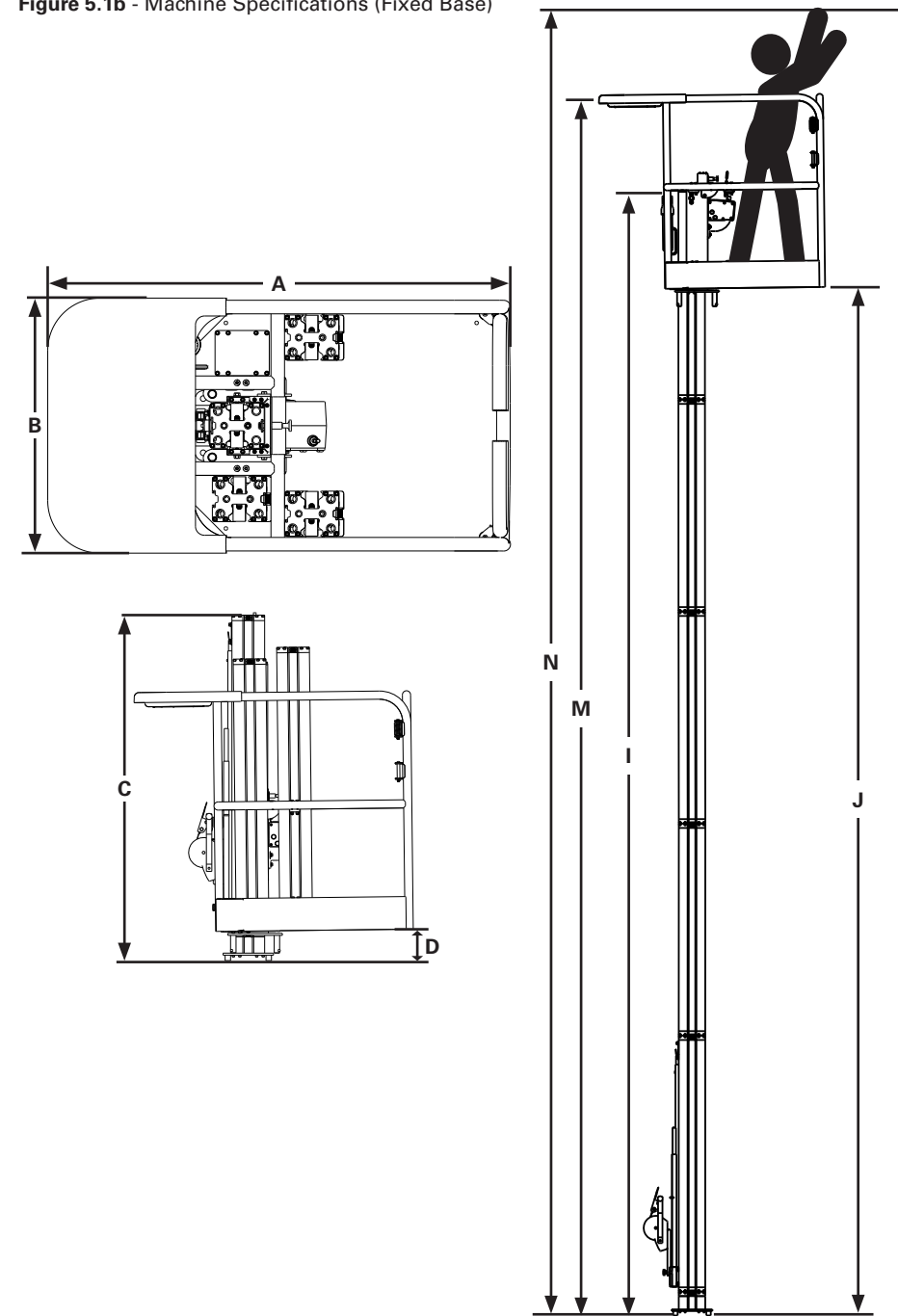


Figure 5.1c - Machine Specifications (Outrigger Base)

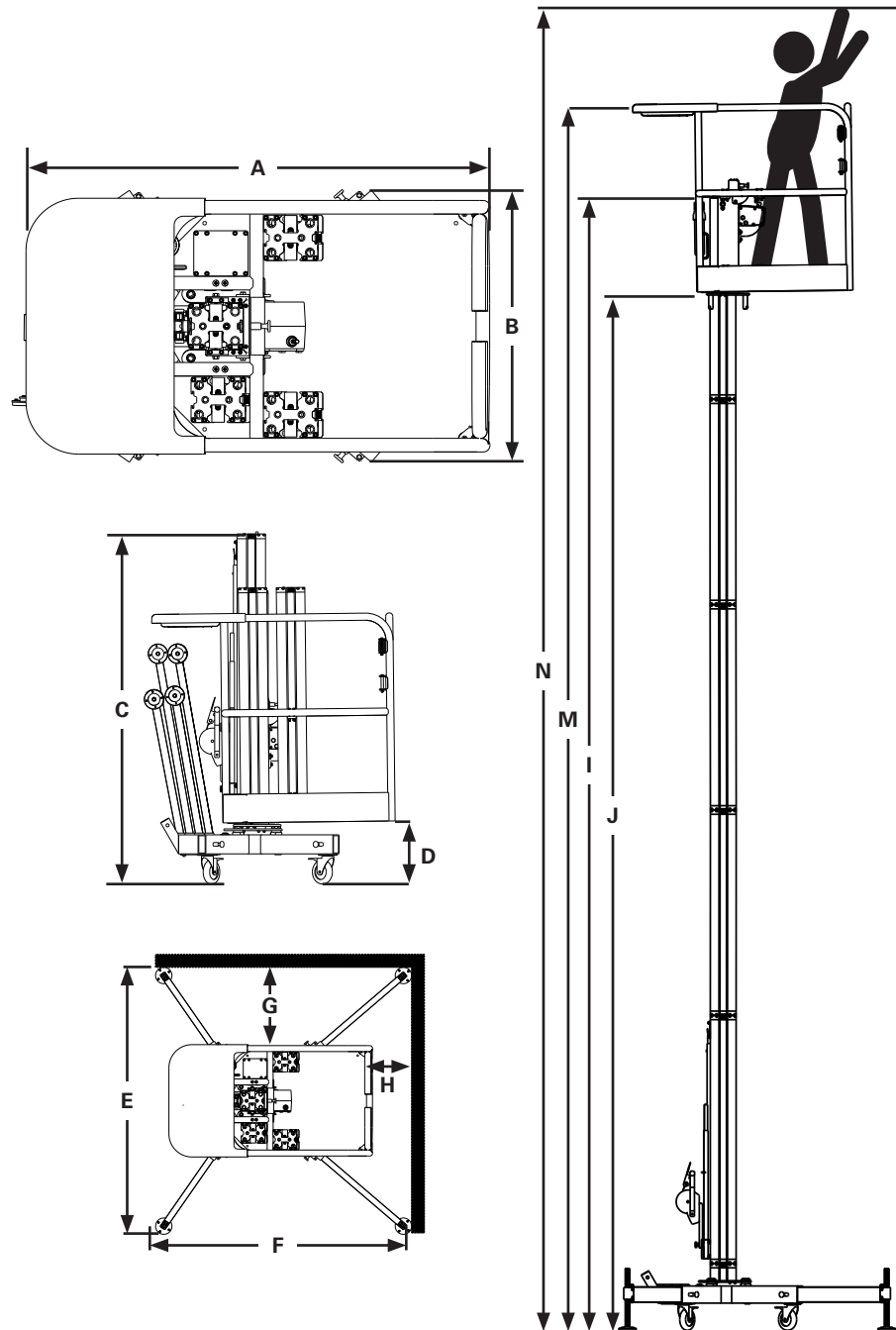
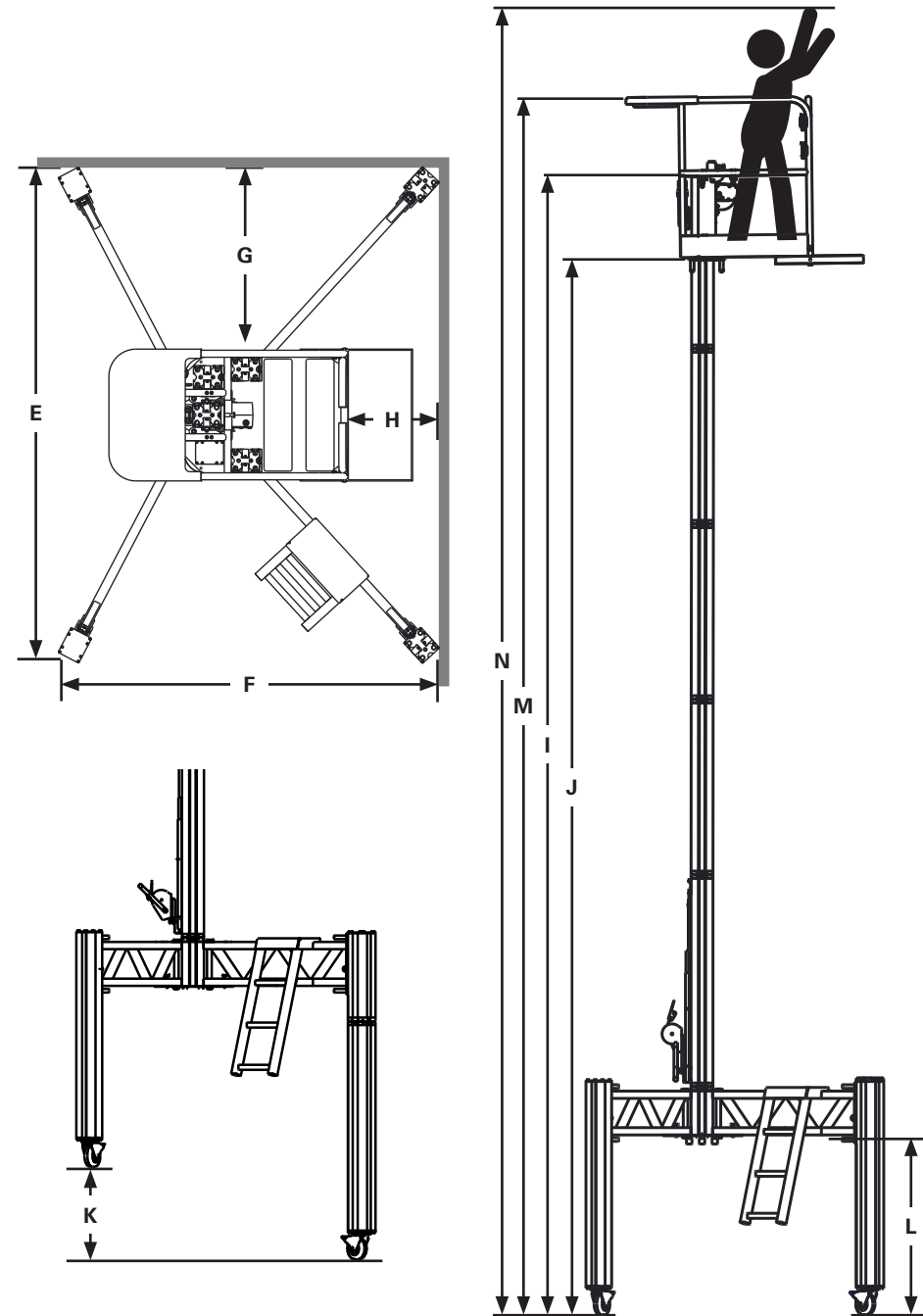


Figure 5.1d - Machine Specifications (Straddle Base)



## 6.0 Introduction

This section contains general safety precautions which must be observed during maintenance of the machine. It is important that maintenance personnel heed these warnings to avoid possible injury to themselves or others. A maintenance program must be established by a competent person and followed to ensure the machine is in safe operating condition.

Due to our commitment to continuous improvement, ReechCraft reserves the right to make specification changes without prior notification. Contact ReechCraft for updated information.



**MODIFICATION OF THE MACHINE WITHOUT THE MANUFACTURER'S APPROVAL IS A PROHIBITED PRACTICE AND A DIRECT SAFETY VIOLATION. ONLY REPLACE PARTS WITH IDENTICAL COMPONENTS OR REECHCRAFT APPROVED EQUIVALENTS.**

Your safety and the safety of others is the primary concern when performing service and maintenance on the machine. Always be conscious of moving parts and pinch points. Never leave an object in an unstable or unsupported position.



**SINCE THE MANUFACTURER HAS NO DIRECT CONTROL OVER THE FIELD SERVICE AND MAINTENANCE OF THE MACHINE, SAFETY IS THE RESPONSIBILITY OF THE OWNER/OPERATOR.**

## Maintenance Safety



**FAILURE TO COMPLY WITH THE SAFETY PRECAUTIONS LISTED IN THIS SECTION COULD RESULT IN MACHINE DAMAGE, PERSONAL INJURY, OR DEATH.**

- Remove all rings, watches, and jewelry when performing any maintenance.
- Do not wear long hair unrestrained, loose-fitting clothing, or neckties which may become caught or entangled in the machine.
- Observe, understand, and obey all danger, warning, caution, and other instructions on the machine and in Operator's Safety Manual.
- Keep standing surfaces and handholds free of grease, water, oil, etc.
- Never work under an elevated platform until the platform has been safely restrained from any movement.
- Before making any adjustments or performing any other maintenance on the machine, shut off all power.
- Keep all detachable components and attachments stowed in their proper place.
- Use only approved, nonflammable cleaning solvents.



## 6.1 Machine Preparation, Inspection, + Maintenance

This section provides the necessary information needed by those personnel that are responsible to place the machine in operational readiness and maintain its safe operating condition. To ensure maximum service life and safe operation, be sure that all inspections and maintenance have been completed before placing the machine into service.

### Preparation, Inspection, + Maintenance

It is important to establish a comprehensive inspection and preventative maintenance program. Table 2.0 outlines the periodic machine inspection and maintenance recommended by ReechCraft. Consult your local, regional, or national regulations for further requirements.

**Note:** *The frequency of inspections must increase as environment and frequency of use requires.*

### Pre-start Inspection

It is the operator's responsibility to perform a pre-start inspection of the machine prior to use. Reference Section 2 in this manual for pre-start inspection procedures.

This manual must be read and understood in its entirety prior to performing a pre-start inspection.

### Frequent + Pre-delivery Inspection

The frequent inspection and pre-delivery inspection shall be performed by a competent person or a qualified mechanic.

The frequent inspection and pre-delivery inspection procedures are performed in the same way but at different times. The pre-delivery inspection shall be performed prior to each sale, lease, or rental delivery. The frequent inspection shall be performed on each machine in service for three months; out of service for more than three months; or when purchased used. The frequency of this inspection must increase as environment and frequency of use requires.

Reference Table 6.0 for the preventative maintenance and inspection schedule.

### Annual Machine Inspection

The annual machine inspection must be performed by a competent person or a qualified mechanic on an annual basis, no later than 13 months from the date of the prior annual machine inspection.

Reference Table 6.0 for the preventative maintenance and inspection schedule.

### 5-year Machine Inspection + Track Replacement

The mast coupling pins, cam locks, track, and climbing unit must be inspected and the track replaced by an authorized ReechCraft service center when:

- The track is worn beyond specification (0.2 inches (5 mm)). (See Figure 6.0)
- The track is damaged, bent, or corroded.

In conjunction with specified inspections, maintenance shall be performed by a competent person or a qualified mechanic.

Reference Table 6.0 for the preventative maintenance and inspection schedule.

## 6.2 Preventive Maintenance + Inspection Schedule

The preventive maintenance and inspection checks are listed and defined in Table 6.0. The table is divided into two parts: "Area" and "Interval". The component or function to be inspected is listed in the "Area" column and the interval at which time they are to be inspected is listed in the "Interval" column.

**Note:** The checks and services listed in this schedule are not intended to take the place of any local or regional regulations that may pertain to this type of equipment, nor should the list be considered as all inclusive. Variances in interval times may occur due to the environment the machine is subjected to.

### Inspection + Maintenance Codes:

1. Check for proper and secure installation.
2. No gouges, excessive wear, or dents showing.
3. Visually inspect for excessive wear, damage, cracks, or distortion.
4. Check for cracked or broken welds.
5. Check area is clean and free of debris.
6. Check for proper adjustment.
7. Check for proper operation.
8. Check for proper spring back.
9. Check for signs of leakage.
10. Check for proper tolerances.
11. Check for proper specifications.
12. Verify.
13. Perform.
14. Replace.
15. Inspect per Operator's Safety Manual.
16. Apply grease to grease zerks on casters.

Table 6.0 - Preventive Maintenance + Inspection Schedule

AREA	INTERVAL			
	Pre-start Inspection	Pre-delivery or Frequent Inspection	Annual (Yearly) Inspection	5-year Inspection
	Prior to Use Each Day	Prior to Each Sale, Lease or Delivery; In or Out of Service for Three Months or More; Purchased Used	Perform No Later than 13 Months from the Date of Prior Inspection	When Track is Worn or No More than Five Years from First Use
Mast Sections	1,3,5	1,2,3,5	1,2,3,5	
Interlock	5	5,7	5,6,7	
Track	3	3	3	15
Climbing Unit	5	3,5	1,3,5,7	
Gearbox	3,7,9	3,7,9	1,3,7,9	
Manual Descent Crank	1	1,12	1,3,12	
Climbing Unit	7	1,7	1,3,5,10,7	
Platform	1,4,5	1,4,5	1,3,4,5,7	
Platform Latch	1,4,7,8	1,3,4,6,7,8	1,3,4,6,7,8	
Chassis	3,4,5	3,4,5	3,4,5	
Outriggers	1,5,8	1,3,5,7,8	1,3,5,7,8	
Bubble Level	1,5,7	1,5,7	1,5,7	
Casters	3,7	3,4,7	3,4,7,16	
Rough Terrain Wheels	3,7	3,4,7	3,4,7	
Drill	7,11	7,11	7,11	
Drive Shaft Brake	1,3,7,8	1,3,7,8	1,3,7,8	
Manual in Storage Container	12	12	12	
Labels Installed and Secure	12	12	12	
No Unauthorized Modifications	12	12	12	
Fasteners and Pins	1,3	1,3	1,3	
Function Test	13	13	13	

## 6.3 Servicing + Maintenance Guidelines

The following information is provided to assist you in the use and application of service and maintenance procedures contained in this chapter.



**WHEN AN ABNORMAL CONDITION IS NOTED AND PROCEDURES CONTAINED WITHIN THIS MANUAL DO NOT SPECIFICALLY RELATE TO THE NOTED IRREGULARITY, USE OF THE MACHINE SHOULD BE STOPPED AND A QUALIFIED MECHANIC WITH PROPER KNOWLEDGE SHOULD CORRECT THE IRREGULARITY BEFORE WORK IS RESUMED.**

### Safety + Workmanship

Your safety, and that of others, is the first consideration when engaging in the maintenance of equipment. Always be conscious of moving components and pinch points. Do not allow heavy objects to rest in an unstable position. When raising a portion of the machine, ensure that adequate support is provided.

### Cleanliness

The single most important item in preserving the long service life of a machine is to keep foreign materials out of the vital components. Reasonable precautions have been taken to safeguard against this. However, these areas must be maintained on a scheduled basis in order to preserve proper function of the machine.

### Component Disassembly + Reassembly

When disassembling or reassembling a component, complete the procedural steps in sequence. Do not partially disassemble or reassemble one part and then start another. Always recheck your work to assure that nothing has been overlooked. Do not make any adjustments, other than those recommended, without obtaining proper approval.

## 6.4 Label Replacement

All labels must be mounted to the machine as specified and clearly legible.

*Please see Figures 5.0a-c and Table 5.0 for label positions and part numbers.*

To replace a damaged label, first remove it completely without damaging the underlying surface. Remove any remaining adhesive with a suitable solvent. Test the solvent on an inconspicuous area first to ensure it does not mark or damage the surface finish. Replacement labels can be requested from **ReechCraft customer service** at **1-888-600-6160** or **customer.service@reechcraft.com**.



**SURFACE DAMAGE COULD RESULT IN CORROSION AND STRUCTURAL DAMAGE.**

- Before applying the new label, ensure the surface is clean and dry.
- Remove the backing paper, apply the label along one edge, then seal it gently and evenly.
- If there are any air bubbles, work them gently towards the edge with a clean cloth.
- Pressure sensitive adhesives reach full strength after several days.

## 6.5 Mast Track Inspection Procedure



**EACH MAST SECTION SHOULD BE INSPECTED EVERY THREE MONTHS OR MORE FREQUENTLY DEPENDING ON THE ENVIRONMENT.**

Each mast track section should be inspected more frequently if used in a harsh environment or high duty cycle applications. Inspections should be more frequent as the mast tracks approach the end of their useful lives. The periodic inspection shall cover all mast tracks on the machine. Mast tracks sections must be replaced by an authorized ReechCraft service center.

Conditions such as the following shall be a sufficient reason for questioning continued use of the machine or increasing the frequency of inspection.

## Mast Track Wear

Check that the track is not worn (0.2 inches (5 mm) tooth remaining) and that the galvanized surface is in good condition and no corrosion or excessive rust is present. (See Figure 6.0)

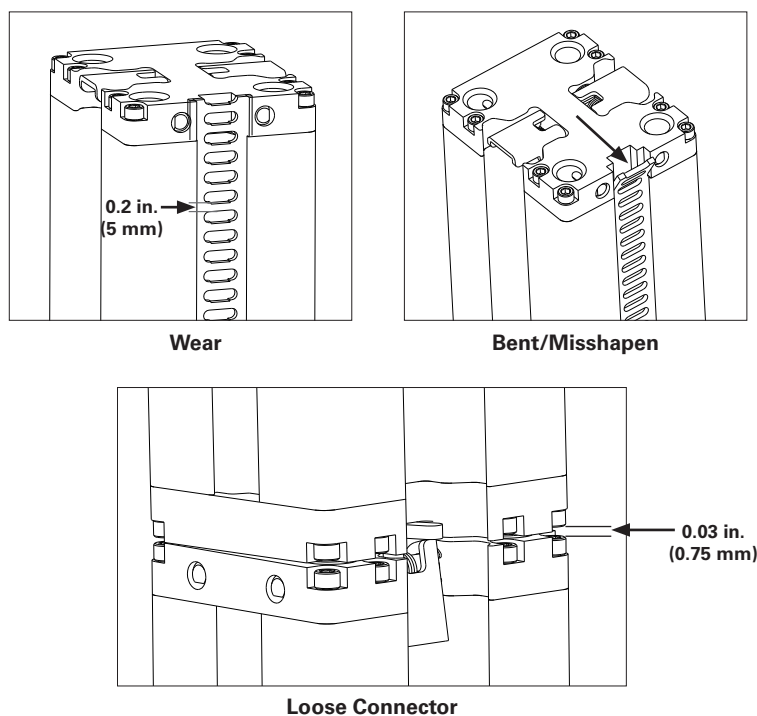
## Mast Track Misalignment

Be sure that the track is aligned properly at the joint location. If the track is bent or damaged in any way, it must be replaced by a qualified mechanic before machine use may resume. (See Figure 6.0)

## Mast Track Connector Wear

Mast track misalignment may be due to worn or damaged coupling pins located in the mast connector. If any part of the connector is excessively loose (0.03 inches (0.75 mm) or more, see Figure 6.0) when properly coupled and locked together, it must be replaced before machine use may resume. (See Figure 6.0)

**Figure 6.0** - Mast/Track Alignment



## 7.0 Introduction

This section contains troubleshooting information to be used for locating and correcting most of the operating problems which may develop in the machine. If a problem should develop which is not presented in this section, qualified guidance should be obtained before proceeding with any maintenance.

## Troubleshooting Procedures

The troubleshooting procedures applicable to the product are listed and defined in Table 7.0.

Each malfunction within an individual group or system is followed by a listing of probable causes which will enable the determination of the applicable corrective action. The probable causes and corrective action should, where possible, be checked in the order listed in Table 7.0.

It should be noted that there is no substitute for thorough knowledge of the equipment and related systems.

It should be recognized that the majority of the problems arising in the machine will be centered in the power system. For this reason, every effort has been made to ensure that all likely problems in these areas are given the fullest possible treatment. In the remaining machine groups, only those problems which are symptomatic of greater problems which have more than one probable cause and remedy are included. This means that problems for which the probable cause and remedy may be immediately obvious are not listed in this section.

## Troubleshooting Guide

**Table 7.0** - Troubleshooting Guide

PROBABLE CAUSE	REMEDY
<b>Platform does not lift up from the fully lowered position. Drill motor starts.</b>	
One or more interlocks are engaged on outrigger base.	Check to be sure all four outriggers are properly installed, extended, and stable.
Overload clutch is slipping in gearbox.	Be sure the rated load of 350 lbs (159 kg) is not exceeded and that the platform is free and clear of any obstruction or interference.
One or more interlock pins are wedged in the locked position when using the outrigger base.	Lower platform to the fully lowered position to relieve pressure. Ensure all leveling jacks are stable and bearing equal weight.
<b>Platform will not move when in elevated position. Drill motor starts.</b>	
One or more of the connector lock levers are in the open position, interfering with the rollers.	Lower the platform to expose the last section of mast that was installed and check to be sure both levers are completely engaged and locked in position.
The maximum height has been attained, causing interference with the top termination plate.	Check to be sure the top mast has not been installed prematurely. System is functioning properly.
<b>Platform moves sluggishly.</b>	
Drill battery not fully charged.	Charge the battery.
Drill has insufficient power or RPM.	Be sure to use a 1/2 in. cordless drill.
<b>Machine does not wheel properly.</b>	
One or more casters are in the locked position.	Unlock the caster.
One or more casters are damaged.	Replace the damaged caster.
<b>Climbing unit jumps or lurches while elevating.</b>	
Track is damaged and/or missing teeth.	Replace the track section.*
<b>Mast sections do not couple as expected.</b>	
Mast is backwards.	Orient mast so the track section is facing the platform.
Height control system interferes with next mast.	System is functioning properly.

\*Performed by authorized ReechCraft service center.

## ReechCraft, Inc. North American End-User Limited Warranties

Thank you for purchasing a ReechCraft product. Please read the following warranty for details about ReechCraft's limited manufacturer's warranty (the "end-user warranty").

By using the products (as defined below), you agree to the following provisions, which contain limitations on warranties and liabilities and on your remedies.

All new ReechCraft equipment with serial numbers and date-coded gearboxes (the "product") must be registered at **warranty.reechcraft.com** to activate the product's end-user warranty.

ReechCraft, Inc.'s ("ReechCraft") end-user warranty applies to new product only that is manufactured after September 1, 2018. The end-user warranty is solely for the benefit of the original end user who purchases the product from an authorized reseller of ReechCraft product (the "end user") and is a "manufacturer's" warranty provided directly by ReechCraft to the end user, effective on the end user's original date of purchase. For purposes of this end-user warranty, an authorized reseller of ReechCraft product shall be referred to herein as "reseller." In the event a reseller leases product to a customer of the reseller with or without consideration, the end-user warranty shall apply to the reseller only and NOT to a lessee of the product.

ReechCraft warrants all products for a period of 12 months and all other components and accessories for a period of 90 days from the end user's original date of purchase (the "warranty period"). The end-user warranty is non-transferable by the end user and only applies to product manufactured after September 1, 2018.

During the warranty period, ReechCraft warrants products to be free from defects in materials and workmanship. ReechCraft's obligation and liability on any products that ReechCraft has determined to have been defective in materials or workmanship shall be limited to the repair or replacement of the product, at the sole option of ReechCraft. Such replacement parts shall be provided at no cost to the end user. Replacement parts and components provided under this end-user warranty will continue to be covered until the end of the warranty period. Replacement parts and components purchased by the end user from ReechCraft or a reseller beyond the expiration of the warranty period will carry its own 90-day end-user warranty.

All products purchased by the end user must be registered at **warranty.reechcraft.com** within 60 days of the end user's purchase for the end user warranty to be activated. In the event an end user fails to register the product within the 60-day period, this end-user warranty will not apply. ReechCraft reserves the right to request maintenance records of defective parts prior to settling any warranty claim, as well as to deny such claim if maintenance records are not available or not compliant with the product's maintenance schedules. All warranty claims must be submitted in writing as outlined in the claims procedure, which can be obtained at **reechcraft.com/warrantyclaim** or by calling **1-888-600-6160**.

## What The End-User Warranty Does Not Cover:

This end-user warranty does not cover any product (a) for which you are not the original purchaser; (b) that is repaired after the warranty period has expired; (c) manufactured before September 1, 2018; (d) normal wear and tear; (e) that has been installed other than per the product's instruction guidelines; (f) that has been improperly maintained or maintained, altered, modified, or repaired by someone other than ReechCraft or a ReechCraft authorized service center; (g) on which the serial number has been altered, removed, or rendered illegible; (h) that has been physically damaged, other than by ReechCraft or a ReechCraft reseller; (i) accidents, failure to follow instructions, use outside the scope of any other provided documentation (e.g., warning or instruction labels, owner's manual, installation instructions, etc.), misuse, abuse, neglect, fire, flood, or acts of God; or (j) any warranties provided by the reseller of the product.

Misuse may include, but is not limited to, damage to product by vehicles, tools, people, or animals; the use of products beyond rated capacity; and using a product in any matter contrary to the warning or instruction labels on the product and the product's owner's manual. Manuals can be obtained by contacting ReechCraft at **1-888-600-6160** or at **reechcraft.com**.

This end-user warranty does not cover any labor (including repair labor), travel time or mileage for pickup and delivery, shipping or freight costs, or lost income for down time. Additionally, this end-user warranty does not cover any duties, taxes, or environmental fees, including but not limited to the disposal or handling of materials.

Parts purchased or sourced by suppliers other than ReechCraft or a ReechCraft reseller are not covered under this end-user warranty. Under no circumstances will ReechCraft be responsible for any expense in connection with any repairs using unauthorized parts or in connection with any repairs made by anyone other than a reseller of the product or other ReechCraft authorized service station, unless such repairs have been specified in writing from ReechCraft.

**THIS END-USER LIMITED WARRANTY IS IN LIEU OF ALL OTHER EXPRESS OR IMPLIED WARRANTIES. THIS END-USER WARRANTY IS THE SOLE AND EXCLUSIVE REMEDY OF THE END USER, WHICH IS THE REPAIR OR REPLACEMENT OF PARTS TO THE AFFECTED PRODUCT. TO THE EXTENT PERMITTED BY APPLICABLE LAW, REECHCRAFT EXPRESSLY DISCLAIMS ALL WARRANTIES, REPRESENTATIONS, OR CONDITIONS OF ANY KIND, EXCEPT AS EXPRESSLY STATED HEREIN. REECHCRAFT DISCLAIMS ALL WARRANTIES OR GUARANTEES, ORAL OR WRITTEN, EXPRESS OR IMPLIED (FROM ANY COURSE OF DEALING OR USAGE OF TRADE), INCLUDING BUT NOT LIMITED TO ANY WARRANTY OF NON-INFRINGEMENT, WARRANTY OF MERCHANTABILITY, OR FITNESS FOR A PARTICULAR PURPOSE.**

**THIS END-USER LIMITED WARRANTY MAY NOT BE MODIFIED, EXTENDED, OR ENLARGED BY ANY REPRESENTATIVE OF REECHCRAFT OR INTERMEDIATE SALES ASSOCIATE, RESELLER OF REECHCRAFT PRODUCT, OR AGENT.**

**IN NO EVENT SHALL REECHCRAFT, ITS DIRECTORS, OFFICERS, EMPLOYEES, OR AGENTS BE LIABLE FOR ANY SPECIAL, INCIDENTAL, CONSEQUENTIAL, PUNITIVE, OR EXEMPLARY DAMAGES, INCLUDING BUT NOT LIMITED TO LOST PROFITS OR REVENUE, THE COST OF RENTAL OR REPLACEMENT EQUIPMENT, DOWNTIME, DAMAGE TO PROPERTY AND THIRD-PARTY CLAIMS, OR ANY OTHER COMMERCIAL OR ECONOMIC LOSSES OF ANY KIND, WHETHER BASED ON CONTRACT, TORT (INCLUDING THEORIES OF NEGLIGENCE, RECKLESSNESS, STRICT LIABILITY, OR DEFECTIVE PRODUCT LIABILITY), OR ANY LEGAL THEORY, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGES OR THEY ARE FORESEEABLE, ARISING OUT OF THE END USER'S USE OR INABILITY TO USE THE PRODUCT.**

**ANY REPAIR OF THE PRODUCT UNDERTAKEN WITHOUT PRIOR WRITTEN AUTHORIZATION FROM REECHCRAFT WILL VOID THIS WARRANTY.**

These warranties give the end user specific legal rights. As the end user, you may also have other rights which may vary from state to state. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusions may not apply to every end user.

All claims or disputes arising under or in connection with this end-user warranty shall be governed under the laws of the State of North Dakota and the laws of the United States (without giving effect to principles of conflicts of laws). The location of any dispute shall be Fargo, North Dakota. Any provision of this end-user warranty which is, or is deemed to be, unenforceable in any jurisdiction shall be severable from this end-user warranty in that jurisdiction, without in any way invalidating the remaining provisions of this end-user warranty, and any such unenforceability in that jurisdiction shall not make that provision unenforceable in any other jurisdiction.



**ReechCraft®, Inc.**

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**[reechcraft.com/powerlift](http://reechcraft.com/powerlift)**