# ReechCraft, PoverPole,

# **OPERATOR'S SAFETY MANUAL**





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# **REVISION LOG**

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#### 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 www.reechcraft.com/warrantyregistration 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 Product 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 www.reechcraft. com/warrantyregistration within 60 days of 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 section, which can be obtained at www.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)

#### **GENERAL INFORMATION**



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, other than by Reechcraft or by 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, 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 www.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 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

# **GENERAL INFORMATION & SAFETY GUIDELINES**

#### 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.

#### SAFETY GUIDELINES

- Safety comes first. To help ensure safety, always have a competent person assemble, erect, operate, transport, store and maintain this product. A competent person is defined as one who has the:
  - a. Ability to identify any present or foreseeable hazards;
  - b. Authority to take immediate corrective action;
  - c. Knowledge and training to assemble, erect, operate, transport, store and maintain the system.
  - d. Operator's manual available at all times.
  - e. Field experience to correctly assemble, erect, operate,
  - transport, store and maintain the system.
- 2. Be sure to follow all guidelines set forth in the operators manual for proper assembly, erection, operation, transport, storage, and maintenance.
- 3. Workers exposed to hazards are required to wear personal protection equipment such as hard hats, eye wear, gloves, safety boots as prescribed by federal, state, and local authorities.
- 4. Make a layout plan for how your mast climbing work platform will be used for the specific task. Examine the structure and ground conditions where the system will be placed. On long walls, use multiple systems to allow for more flexibility in access. Always position masts in a position that provides a stable base and suitable connection to the structure.
- Establish the distance of the platform to the wall or structure taking into consideration wall offsets, curves, balconies, architectural features, trees, wires, etc.
- 6. Be aware and refer to federal, state, and local guidelines for proper distance away from non-system electrical lines.

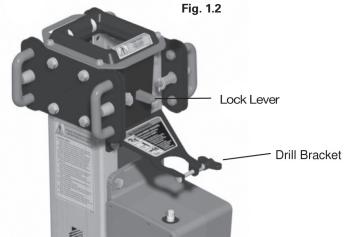
## **SAFETY GUIDELINES**

- 7. Be sure the ground will support the bearing forces of the system in accordance with this operators manual.
- 8. Always carry out maintenance and inspection as detailed in this manual to help ensure system safety and efficiency. Be sure to manage all jobsite inventory and ensure proper inspection and maintenance has been conducted on all system components prior to use.
- 9. Never make modifications to the system. Always use factory manufactured parts on the system. Modifications to the system, or configuring in a manner other than detailed in this manual and other ReechCraft publications will void the warranty and could lead to equipment damage or personal injury. If you have any questions on components or accessories and how they should be used, contact your local dealer or call ReechCraft customer service.
- 10. Be sure you have the proper guardrails, endrails, midrails, and toeboards properly installed.
- 11. Once system is installed and prior to operation, provide a barrier as necessary surrounding the work area below the work platform in accordance with federal, state, and local regulations. Prepare an emergency escape plan and keep a telephone list of emergency numbers.
- 12. Never overload the system beyond the duty rating of 650 lbs (295 kg). Refer to the loading section of the user manual for more information. Although the system is designed with large safety factors, excessively overloading the system could create system instability or structural damage which may result in personal injury or death.
- The work platform should not be raised higher than 69 ft (21 m). For system configurations not detailed in this manual, consult with ReechCraft engineering team.
- 14. Always keep hands, limbs, and clothing a safe distance away from any moving parts.
- 15. Be sure all switches are off before connecting any electrical cords.
- 16. When working from any platform above the ground, do not overreach. Keep proper footing and balance at all times.
- 17. Be sure system is lowered to the ground prior to entering or exiting the platform.
- In the event of a system abnormality that could cause a safety hazard, contact the worksite supervisor immediately.
- 19. The system should never be operated during an electrical storm.
- Wind speeds must not exceed 25 mi/h (40 km/h) during erection and dismantling. In service wind speeds must not exceed 35 mi/h (56 km/h).
- 21. For repairs of service questions, contact your local dealer or call ReechCraft customer service.

#### **GENERAL SYSTEM INFORMATION**

#### CLIMBING UNIT WITH PLATFORM SUPPORTS





## **GENERAL SYSTEM INFORMATION**

#### MAST ASSEMBLY

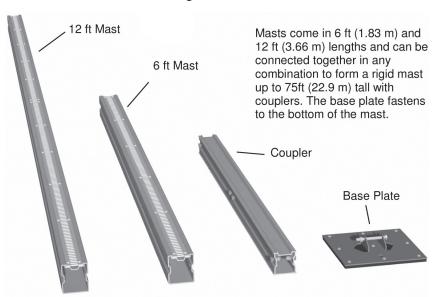


Fig. 1.3



#### SYSTEM CONFIGURATIONS





#### SPECIFICATIONS AND LOADING INFORMATION

DRILL AND ELECTRICAL CORD SPECIFICATIONS		
No Load Speed (High Speed for ½ Rated Load)	0-1200 RPM (0-3500 RPM)	
Output Power	650 W – 1000 W	
Amperage	7.5 Amp - 10 Amp	
Drill Chuck	1/2 in	
Collar Size	1.68 in1.75 in	
Drill ChuckType Normal Operation	Keyed Only (Keyless for Setup Only)	
Recommended Electrical Cord Rating	20 Amp, 10 gauge	

#### Fig. 1.6

Fig. 1.5

GENERAL SPECIFICATIONS		
Maximum Rated Load on Climbing Unit [Work Platform weight NOT included]	650 lbs	
Safety Devices	Lock Pawl	
Emergency Lowering	Manual Hand Crank (Optional)	
Maximum Climbing Speed @ ½ Rated Load (@ Rated Load)	25 ft/min (15 ft/min)	
Maximum Lowering Speed	30 ft/min	
Maximum Platform Height	69 ft	
Maximum Work Height	75 ft	
Maximum Untied Work Height	24 ft (requires outriggers)	
Maximum Work Height without Mid-span Tie	32 ft (or 40 ft with outriggers)	
Maximum Length (Based on 32ft Long Platform)	32 ft	
Maximum Platform Width (each side of mast)	28 in	
Maximum Wind Speed During Operation	35 mi/h	
Maximum Wind Speed During Erection	25 mi/h	

#### Fig. 1.7



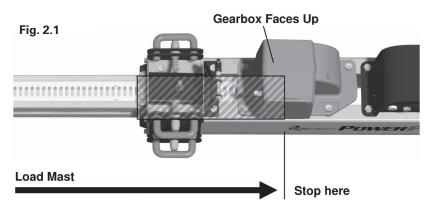
Center of rated load must be located within 24in from either side of the mast



#### LOADING THE MAST

Since the system was likely transported to the jobsite in separate components, it will be necessary to assemble those components prior to erecting the system next to the structure. The PowerPole system can be disassembled to varying degrees for easy transport. For the purpose of this manual, we will assume that the system is completely disassembled during transport to the jobsite.

 Position the traveler horizontally on the ground (gearbox up) and insert the mast by hand until the mast track engages the gearbox drive gear.



 Continue to load the mast by using the drill to move the mast through the traveler. Complete by funneling the mast through the bottom mast guide until the mast protrudes out the traveler by approximately 10 in. (25 cm). Important: Use care when funneling the mast through the mast guide assembly, keeping all hands and limbs away from the area.

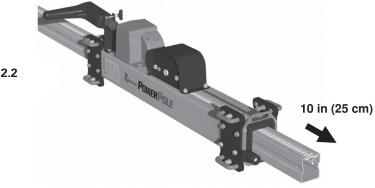
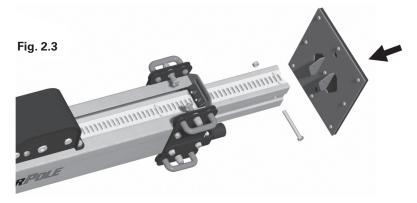


Fig. 2.2



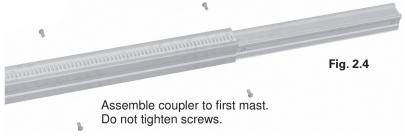
#### ASSEMBLING THE BASE PLATE

1. Secure the base to the bottom of the mast using the bolt provided.



#### CONNECTING THE MASTS

 Mast lengths are offered in 6 ft (1.83 m) and 12 ft (3.66 m) lengths. Both lengths of mast have the same hole pattern. Pre-assemble the coupler to one of the masts by assembling the 4 screws through the holes into the coupler threads. Do not tighten.



2. Slide the other mast on the coupler and line up the holes to the female threads. Be careful not to cross-thread the connections, but rather move the masts back and forth and up and down until the holes line up and the screw turn freely. Screw the other four screws in place partly before tightening all eight screws.



Move masts up and down to line up holes. Do not tighten until



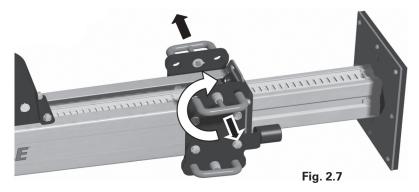
#### CONNECTING THE MASTS (cont'd)

3. Finish by securing the 8 screws on the masts and coupler with a wrench.



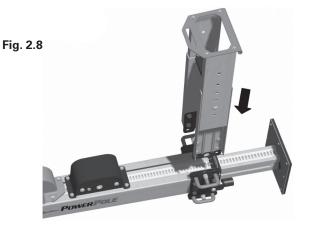
#### ASSEMBLING THE PLATFORM SUPPORTS

1. Open the platform latches by pulling both latch pins outward, rotating slightly then releasing.

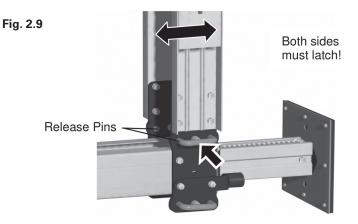


2. Place the platform connector as shown into the latch system.





3. Rotate the spring loaded latch pins back allowing them to "snap" in place. Important: Be sure pins travel completely through the assembly by moving the platform support up and down if necessary.



4. The optional bench support is assembled with the same procedure as the platform.



#### ASSEMBLING THE V-BRACE (optional)

1. Secure the v-brace assembly to the mast with the supplied hardware above the traveler assembly as shown.



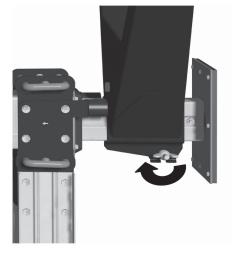
Fig. 2.10



1. With the assembly on the ground as shown, place the outrigger assembly onto the mast approximately 3 in. (8 cm) above the base plate and secure by fastening outrigger to the mast with the supplied hardware.



Fig. 2.12





 Referring to the layout plan, examine the ground conditions to ensure the surface can support the intended load of the system. Prepare the base surface for erection, removing any debris, obstacles, or any other conditions that could lead to injury during erection. Prepare the bearing areas by leveling and/or compacting the ground surface. Add cribbing or base plates to properly support the bearing force (Fig 3.1).

#### Fig. 3.1

GROUND PREPARATIONS		
Base Plate Area	94 in2 (606 cm2)	
Screw Stabilizer Area (each)	48 in2 (269 cm2)	
Force at Base Plate	1000 lbs (450 kg)	
Force at Outrigger Screw Stabilizers (each)	500 lbs (225 kg)	

#### **ERECTING THE STANDARD CONFIGURATION**

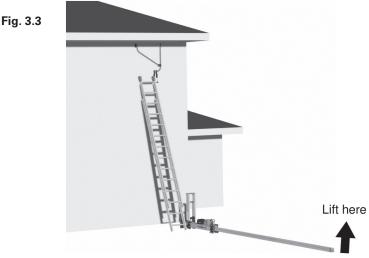
- 1. Erection should only be carried out under the direct supervision of a competent person, and in compliance with all local, state, and federal requirements.
- Refer to the layout plan to determine the complete list of equipment required for erection. Be sure all components have been inspected and maintained in accordance with product labels on the unit and information contained in this manual, or any other documents supplied by ReechCraft technical team.
- 3. Based on the layout plan, determine the location of the standoff tie to connect the top of the mast. Use a ladder to access the wall or obtain roof access to arrive at the mounting location of the standoff tie.
- 4. Attach the tie securely to the structure using 4 1/4"x3" screws or equivalent to provide pullout strength according to (Fig. 3.7). Be sure

to follow federal, state, and local guidelines for safe wall and roof access during erection process.



#### ERECTING THE STANDARD CONFIGURATION (cont'd)

5. Once the standoff tie is secured, position the climbing unit and mast assembly with the base close to its final position. Important: Before erecting mast into position, thoroughly examine area from the ground up to be sure there are no electrical lines or other obstructions that will interfere with the erection of the assembly.

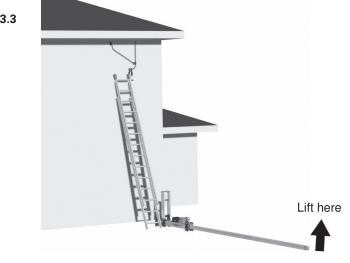


6. By starting at the top end of the assembly, lift the assembly and walk towards the structure while continuing to tilt the assembly upward into position. Complete the connection to the standoff tie by fully

securing the swivel joint to the mast. Visually and physically check to ensure the connection is secure before continuing.



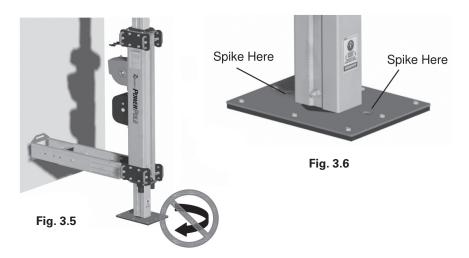






#### ERECTING THE STANDARD CONFIGURATION (cont'd)

7. At the mast base, it is necessary to ensure the bottom of the mast assembly will not rotate or slide in any direction along the base surface. This can be accomplished by driving spikes into the ground through the holes in the base plate.



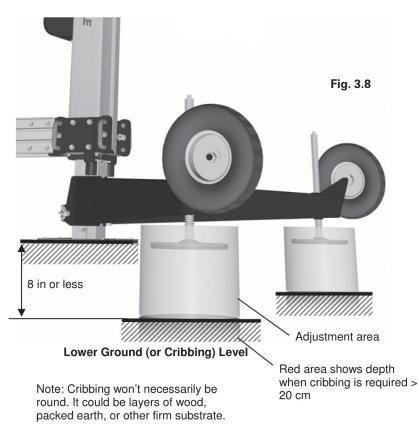
- 8. Alternatively, another standoff tie can be secured to the mast just above the base plate and fastened to the structure.
- 9. 6 ft (1.83 m) and 12 ft (3.66 m) masts can be joined together to reach the maximum work height of 75 ft (22.9 m). Heights over 24 ft (7.3 m) require mid-bracing every 16 ft (4.9 m) or less. Refer to Section 6 "Passing a MiddleTie". Be sure to secure the standoff tie to meet the pull-out force per (Fig. 3.7).
- 10. Referring to the layout plan, repeat the steps above as necessary to properly erect each mast assembly.

#### Fig. 3.7

PULL-OUT FORCE FOR STANDOFF TIE	
Pullout Force for Each Screw [4 screws total]	125 lbs (57 kg) [ 500 lbs total]

#### **ERECTING THE OUTRIGGER CONFIGURATION**

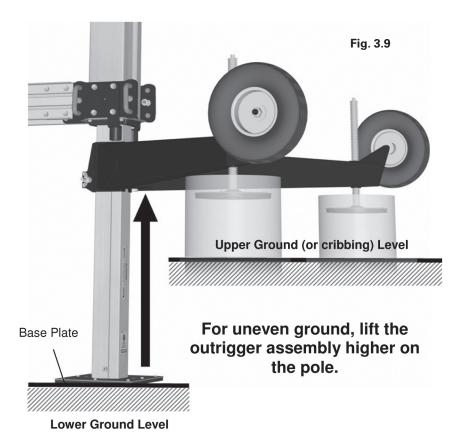
- 1. Erection should only be carried out under the direct supervision of a competent person, and in compliance with all local, state, and federal requirements.
- 2. Refer to the layout plan to determine the complete list of equipment required for erection. Be sure all components have been inspected and maintained in accordance with product labels on the unit and information contained in this manual, or any other documents supplied by ReechCraft technical team.
- 3. Based on the layout plan, determine the location of the mast assembly and where it will be placed on the ground surface. Measure the change in elevation from the base plate position to the screw stabilizer positions. If either of the screw stabilizer positions are lower than 8 in. (20 cm) below the base plate position, cribbing must be added to ensure proper loading. Alternatively, earth can be removed in the base plate position to get the elevation back in range





#### ERECTING THE OUTRIGGER CONFIGURATION (cont'd)

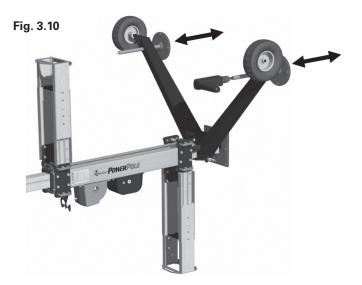
4. If the screw stabilizer positions are level or higher than the base plate location, then the outrigger assembly will need to be repositioned higher on the mast.



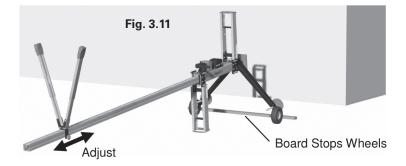
5. If the change in elevation between each screw stabilizer exceeds 8 in (20 cm) the bearing surfaces of the screw stabilizers will need to be cribbed or earth lowered accordingly. If ground conditions are extreme, the installation may require the use of the optional all-terrain outrigger conversion kit. Talk to your local dealer or call ReechCraft for more information.

#### ERECTING THE OUTRIGGER CONFIGURATION (cont'd)

6. Taking the elevation measurements of the 3 bearing positions, with the mast assembly still on the ground, adjust the outrigger assembly up or down on the mast as necessary and adjust the screw stabilizers close to their final positions using a drill and the supplied nut driver.

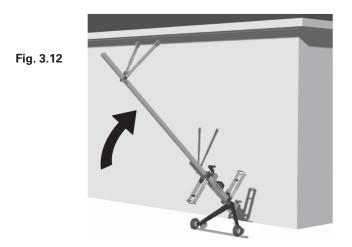


- 7. Position the climbing unit and mast assembly with the base close to its final position. Lay down a stud board flat on the ground parallel to the wall for a temporary wheel stop to aid in erection. Referring to the layout plan, measure the distance the outrigger will be away from the wall and place the board on the ground accordingly.
- 8. Based on the layout plan, determine the location of the V- brace on the structure and adjust it accordingly while the assembly is on the ground.



#### ERECTING THE OUTRIGGER CONFIGURATION (cont'd)

9. Important: Before erecting the mast assembly into position, thoroughly examine area from the ground up to be sure there are no electrical lines or other obstructions that will interfere with the erection of the assembly. By starting at the top end of the assembly, lift the assembly and walk towards the structure until the wheels contact the 2" x 4" stop board. Continue to lift and tilt the assembly upward into position while walking toward the structure.



10. Take care in the final portion of erection as the lifting force becomes a pulling force. Ease the mast assembly against the structure.

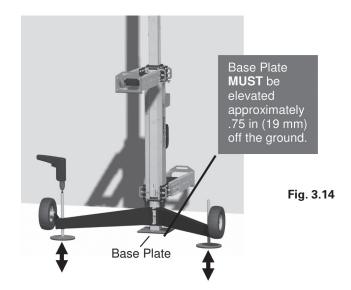


Fig. 3.13



#### ERECTING THE OUTRIGGER CONFIGURATION (cont'd)

11. Adjust the base plate and screw stabilizers so the mast assembly is vertically plumb in all directions and the base plate is located approximately .75 in. (19 mm) above the ground.



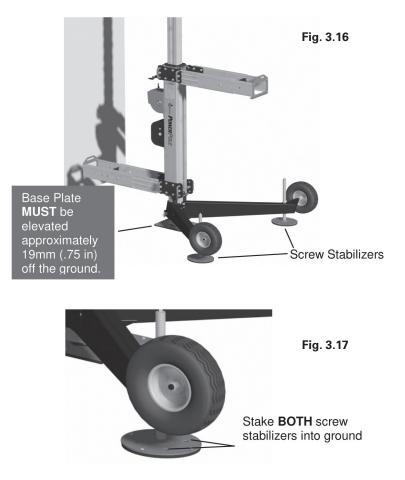
12. During this process, the top of the mast assembly will "stick" slightly to the structure. Pull the mast assembly just away from the structure to allow the mast assembly to equalize itself and then set back against structure.

Fig. 3.15



#### ERECTING THE OUTRIGGER CONFIGURATION (cont'd)

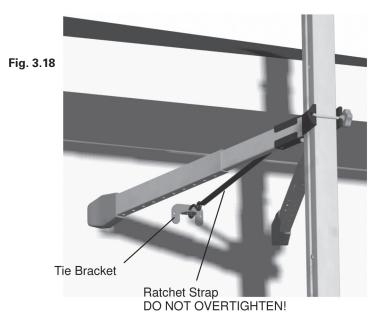
- 13. Note: Lifting the base plate off the ground .75 in. (19 mm) with the screw stabilizers (using only the weight of the mast assembly) helps ensure that the majority of the system bearing force goes into the base plate, leaving the outriggers to act as load stabilizers. Note: During operation, once work platform is installed and especially with payloads of 50% 100%, the base plate should contact the ground.
- 14. At the mast base, it is necessary to ensure the bottom of the mast assembly will not rotate or slide in any direction along the base surface. This can be accomplished by driving spikes into the ground through the holes in the screw stabilizers.



15. Alternatively, another standoff tie can be secured to the mast just above the outrigger assembly and fastened to the structure.

#### ERECTING THE OUTRIGGER CONFIGURATION (cont'd)

16. When using the outrigger configuration at work heights above 24 ft (7.3 m), the v-brace must be tied into the structure. Using ¼" x 3" screws, anchor the tie bracket to the structure in the middle of the v-brace centering it in line with the mast assembly. Connect the ratchet strap from the tie bracket to the v-brace as shown in the diagram. Complete the assembly by placing tension on the tie strap. Important: DO NOT OVERTIGHTENTHETIE STRAP. Doing so could put undue force on the anchor screws and substrate, decreasing the effective pullout strength of the connection. (Fig. 3.19)



- 17. 6 ft (1.83 m) and 12 ft (3.66 m) masts can be joined together to reach the maximum work height of 75 ft (22.9 m). Heights over 24 ft (7.3 m) require mid-bracing every 16 ft (4.9 m) or less. Repeat the necessary steps above to properly secure the mast to the structure with the v-brace at the appropriate heights.
- 18. Referring to the layout plan, repeat steps the previous steps as necessary to properly erect each mast assembly.

#### Fig. 3.19

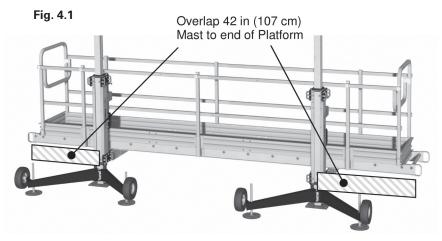
#### PULL-OUT FORCE FOR V-BRACE TIE BRACKET

Pullout Force for Each Screw [2 screws total] 250 lbs (113 kg) [500 lbs total]

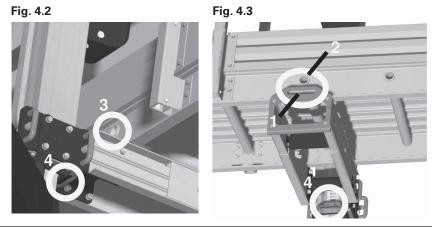
# PLATFORM AND BENCH INSTALLATION

#### PLATFORM AND BENCH INSTALLATION

- 1. With the mast assemblies in place, reference the layout plan to determine the size and placement of the work platforms and work benches.
- Place the appropriate length work platform on the platform supports. The work platform should overlap the center of the mast assembly (Fig. 4.1) by 42 in. (107 cm) and placed 5.5 in. (14 cm) from the traveler as shown in (Fig. 4.2).



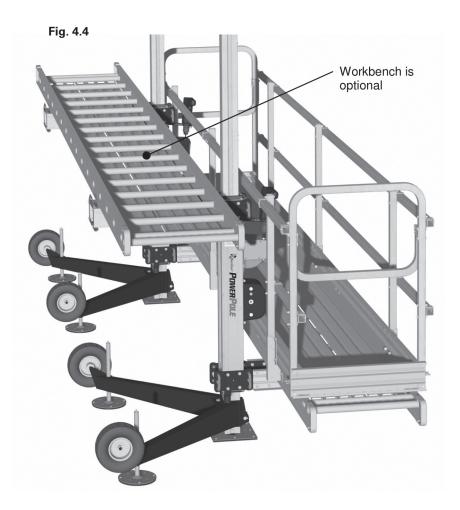
3. Thread the chains supplied with the system through the crossmember of the work platform and secure to the traveler and platform support as shown in steps 1-4 (Fig 4.2 & 4.3). Be sure all platform and rail components are securely fastened and assembled correctly to prevent overturning or excessive side to side slippage. The platform should be level from front to back.



# PLATFORM AND BENCH INSTALLATION

#### PLATFORM AND BENCH INSTALLATION (cont'd)

4. The workbench is optional. Use the workbench to haul material and tools in the air for easy access and processing. Never stand or sit on the workbench under any circumstances. To install the work bench, place a matching length platform on the bench supports. Place the bench upside down to allow a trough for material to be placed. Complete the bench installation by threading the supplied chains through the cross-member of the bench platform and secure to the traveler and bench support as previous.



#### POWER SYSTEM INSTALLATION

- Installation of the electrical system should only be carried out by a competent person. Installing electrical components on the system incorrectly could lead to personal injury or death. Examine the worksite completely, locating any hazards or conditions such as standing water, sharp objects, high traffic areas, etc.
- 2. Important: Before installing any electrical cords, be sure all equipment has been thoroughly examined for proper function and that no cuts, breaks, or damage of any kind exists with the electrical supply cords or the electrical cords on the drills. If any electrical lines are found to be damaged or have excessive wear, discard immediately and use new equipment.
- The PowerPole System should only be used with electrical power drills that have been tested and recommended for use by ReechCraft or your local dealer. Refer to (Fig. 5.1) for drill and electrical cord requirements.

#### Fig. 5.1

PULL-OUT FORCE FOR V-BRACE TIE BRACKET	
No Load Speed (High Speed for ½ Rated Load)	0-1500 RPM (0-3000 RPM)
Output Power	600 W – 700 W
Input Power	850 W – 1050 W
Maximum Operating Speed @ Rated Load (@ ½ Rated Load)	0-950 RPM (0-1270 RPM)
Maximum Drill Size	1/2 in. (13mm)
Collar Size	1.68 in1.75 in. (42.5mm -44.5 mm)
Chuck Type Normal Operation	Keyed Only (Keyless for Setup Only)
Electrical Cord Rating	15 A Lead with 10 A Socket and Plug

#### **DRIVER INSTALLATION**

4. Assemble the supplied 9.5 mm (3/8 in) driver to the drill. Important: Only use the driver supplied with the system or equivalent.

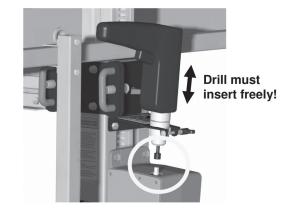
Fig. 5.2



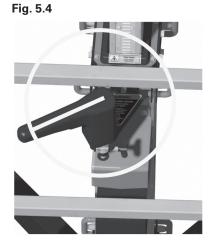
#### **DRILL INSTALLATION**

- Be sure the flats of the driver are seated properly in the chuck jaws and that there is adequate engagement of the driver to the drill. Secure the driver to the drill by tightening the chuck with the chuck key. Keyless chucks are not permitted.
- 6. Check to be sure the chuck key is removed from the drill chuck before turning on the tool.
- 7. Place the drill with driver into the drill bracket, align the driver to the gearbox input shaft and press lightly downward until driver fully seats on the input shaft. Important: The drill with driver must be able to insert freely through the drill bracket and on to the input shaft. Remove any obstructions and make necessary adjustments so the drill can be inserted freely.





 The drill bracket is designed to hold the drill on the gearbox input shaft and also keep the drill body from rotating during operation. Be sure the drill bracket is secure and functioning properly before proceeding. With the drill and driver indexed to the 8 o'clock position (Fig. 5.4), gently tighten the drill bracket wing nut. Important: Periodically check and adjust the wing nut to ensure a secure fit.



#### POWER CORD INSTALLATION

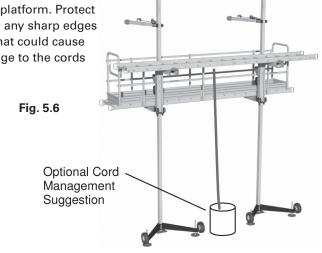
- 9. Repeat steps for each mast assembly.
- 10. Be sure that the electrical power cords are disconnected from the power source before attempting to connect the drills to the cords. Be sure the drill triggers are NOT locked in the ON position. Using appropriately sized electrical cords (Fig. 5.1) connect the drills together into 1 circuit. Be sure to properly manage the cords by securing them to the rail system (Fig. 5.5). Eliminate any conditions which would allow the electrical cords to catch on clothing, tools, materials or any other obstruction.





 Ensure that the cords are fastened together and joints won't disconnect during operation. Ensure there is sufficient cord for the full height of travel and that the electrical cords will hang vertically down to the ground, without interfering

with the PowerPole climbing units or work platform. Protect all cords from any sharp edges or locations that could cause wear or damage to the cords in any way.



#### POWER CORD INSTALLATION (cont'd)

12. In a preferred configuration, the drills can be connected into the power supply by way of an in-line power board with circuit protected switch. This configuration allows for actuation of both drills at the same time for lifting the platform. Important: Lowering the platform will require the individual control of each drill. Refer to "Operating the System" section of the manual for more information on lifting and lowering the work platform.

Fig. 5.7

**Circuit Protected** 





Large, Brightly Colored Extension Leads Only (see Fig. 5.1)

# **OPERATING THE SYSTEM**

#### **OPERATING THE WORK PLATFORM**

- Operation should only be carried out by a competent person, and in compliance with all local, state, and federal requirements. Be sure you are wearing the appropriate Person Protective Equipment while operating the system.
- 2. Load any necessary equipment, tools, and materials securely onto the system. Be sure to keep walk ways free of obstruction.

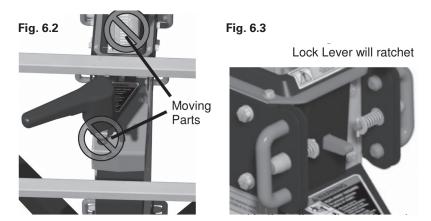


4. Re-examine the entire work environment below and above the platform to ensure there are no obstructions or personnel in the way of operation.

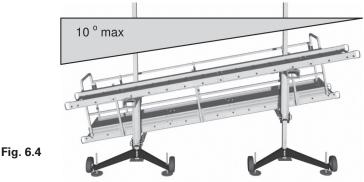
# **OPERATING THE SYSTEM**

#### **OPERATING THE WORK PLATFORM (cont'd)**

5. While lifting the platform, always keep hands free from any moving parts. Raise the platform by placing the drill in the forward (clockwise) position and pulling the trigger. Release the trigger to stop. Always allow the lock lever to ratchet while lifting the work platform.



- 6. While conducting work on the platform, it is required that the platform remain level and stationary. However, if only one person is on the platform, it is permissible to allow the platform to temporarily slope up to 10 degrees while repositioning the platform to a different work height. In this case, the work platform temporarily becomes a walkway, guiding you back and forth between the mast assemblies for adjusting the height.
- 7. Important: If you are raising the platform one side at a time, be sure all material and tools are secured on the platform to allow for a temporary 10 degree angle of the platform. Never exceed a temporary platform angle of 10 degrees off horizontal. Transfer back and forth on the walkway. Do not conduct work until the platform is level.



# **OPERATING THE SYSTEM**

#### OPERATING THE WORK PLATFORM (cont'd)

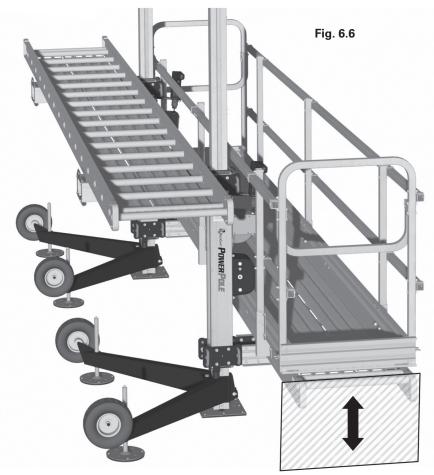
- 8. To simplify raising the platform with one person, it is suggested to use the preferred configuration of an in-line power strip with switch. With the switch in the off position, switch the drills to the forward (lifting) position and lock the triggers to the "ON" position. Energize the switch to lift both sides of the work platform at the same time. Important: Do not move your finger off of the switch and be prepared to stop at any time.
- 9. Once stopped, it may be necessary to level the platform by operating the drills independently again. In that case, turn the switch to the "OFF" position and release the trigger lock on the drills. Re-apply electricity to the drills, operating once again with the trigger as explained in step 5.
- 10. To lower the work platform, reverse the direction of the drill, lift up on the lock lever with the other hand, then pull the trigger on the drill while holding the lock lever. Note: on occasion, the lock lever may be engaged into the track and will need to be released before going down. Simply lift the system up slightly until lock lever is released, then proceed with lowering. Important: While lowering the platform, it is best to come to a complete stop by releasing the drill trigger first, coasting to a stop, and then dropping the lever. In the unlikely event that the system becomes unstable during lowering, drop the lock lever immediately.
- 11. For two person operation, each person can operate one climbing unit, simultaneously raising or lowering the platform. Keep the platform as level as possible while re-positioning and never exceed the 10 degree angle.





#### **OPERATING THE WORK PLATFORM (cont'd)**

12. Do not exit the platform until completely stopped and off the ground less than 2.5 ft (.75 m).



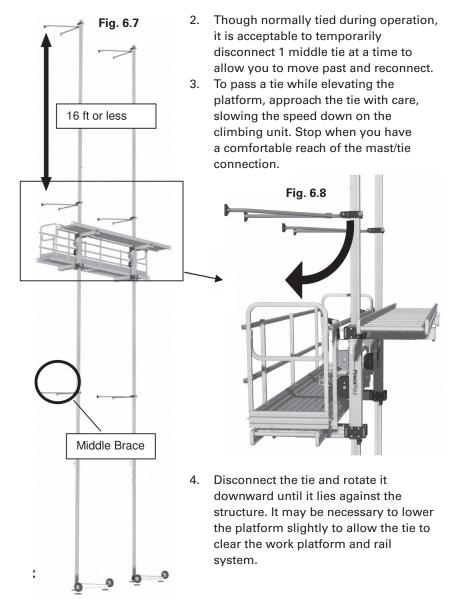
.75 m or less

13. If your setup requires transferring to another unit or platform, take every precaution necessary to prevent a fall and follow all local, state, and federal safety guidelines.



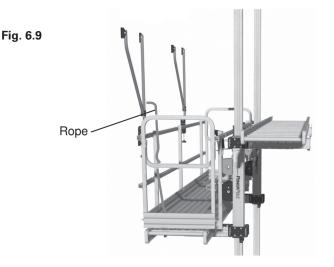
#### PASSING A MIDDLE TIE

 When using the outrigger base at heights greater than 24 ft (7.3 m) the system must be tied into the structure. If not using the outrigger configuration, the system shall be tied at all times. At heights greater than 24 ft (7.3 m), the mast assembly shall also be supported by intermediate ties every 16 ft (4.9 m) or less.

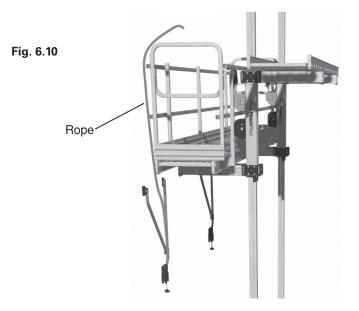


#### PASSING A MIDDLE TIE (cont'd)

5. Secure a 6.5 ft (2 m) rope to the end of the tie to help rotate the tie back into place once above it. Be sure there is adequate distance to clear the tie with the work platform before continuing.



6. Proceed by elevating the platform just past the tie.





#### PASSING A MIDDLE TIE (cont'd)

7. Stop the platform, pull the rope to rotate the tie back into position, and reconnect and secure the tie to the mast. Be sure the rope is contained properly to not interfere with operation of the platform and tie.

Fig. 6.11



- 8. To pass a tie while lowering the platform, approach the tie with care, slowing the speed down on the climbing unit. Stop just above the tie.
- Disconnect the tie and rotate it down toward the structure until it lays flat on the wall. Be sure there is adequate distance to clear the tie with the work platform before continuing.
- Continue to lower the platform below the tie and stop the platform.
  Finish by reconnecting and securing the tie to the mast.
- Alternatively, a v-brace may be used for a middle tie. To pass a v-brace, approach the brace with care and stop the platform when the connection to the mast is easy to reach. Disconnect the middle v-brace from the mast and allow the v-brace to hang down on the structure with the tie chain. Be sure there is adequate distance to clear the v-brace with the work platform before continuing.
- 12. Continue to raise the platform just past the tie point of the v-brace. Reconnect and secure the v-brace to the mast and structure.
- To pass a v-brace while lowering the platform, approach the v-brace with care, slowing the speed down on the climbing unit. Stop just above the v-brace.
- 14. Disconnect the brace from the mast and allow the v-brace to hang down the structure with the tie chain.
- Continue to lower the platform below the tie point and stop. Reconnect and secure the v-brace to the mast and structure.

#### TRANSPORT

The PowerPole System was designed to be componentized for easy transport. The level of disassembly will be determined by the method of transport and size constraints. Be sure that all system components are secured properly for transport. Note: Transporting the system can cause vibrations that are unique from normal assembly, erection, and operation. Avoid methods that place excessive forces or any undue stress on the system. It is recommended to use a full enclosure for transport if possible.

#### STORAGE

The PowerPole System was designed for rugged outdoor use and it is suited to be stored outdoors. However, storing the system indoors is advised to maximize the life span of your investment. Keep the system component inventory organized and labeled with a physical record of component inspection and maintenance. Avoid storing equipment near standing water, ice, electrical lines, furnaces, or any other potential hazards.

#### INSPECTION AND MAINTENANCE

Proper and timely maintenance will help ensure the PowerPole System performs safely, efficiently, and trouble free. Follow these guidelines for inspection and maintenance. Included on the following pages are logs for daily, weekly, and annual inspection and main.

# Inspection and Maintenance Logs

SECTION 2



DAILY INSPECTION AND MAINTENANCE LOG (1 OF 2)			
Competent Person (Print)			
Date of Inspection			
Company Name			
Jobsite			
Signature of Competent Person			
Comments			



# DAILY INSPECTION AND MAINTENANCE LOG (2 OF 2)

Component	ок	Inspection/Action
Gearbox		Inspect input shaft for wear or damage. If hex is rounded or damaged in any way replace immediately.
Lock Lever		Inspect the lock lever for any damage or excessive wear. Ensure torsion spring returns the lock lever to rest position freely and quickly. Inspect to make sure that bolts are tight and securing the lock lever assembly to the traveler. While raising the climbing unit, listen for audible ratcheting pattern. Pattern should be uniform both in volume and frequency.
Drill Bracket		Inspect the drill bracket for any damage or misshapen parts. Check that bolts are securely fastening the drill bracket to the traveler. Fasten the drill to the gearbox using the drill brack- et. Be sure the drill assembly with driver freely moves on to hex input shaft of the gearbox and engages fully. Secure the drill to the drill bracket by tightening the wing nut.
Platform Support		Inspect all platform and bench supports for any loose connections or damaged components. Ensure the supports are connected securely to the climbing unit, inspecting the bolt connections or locking pins that secure them to the traveler. Be sure all hardware used for adjustment is present and functioning properly.
Masts		Inspect mast for damage and straightness. Discard and replace as necessary.
StandoffTie		Inspect the entire standoff tie for any loose connections, misshapen, broken or damaged parts. Be sure that the mast swivel joint pin is secure and that the adjustment knob for the mast is in good working condition. Discard and replace parts as necessary.
V-Brace		Inspect the entire v-brace for any loose connections, misshapen, broken, or damaged parts. Be sure the adjustment knob and bolt are in good working order. Check to ensure the locking pins are properly engaging into the channels. Make sure the bolts are securely fastened.
Outrigger Base		Inspect the pivot joint bolt and make sure they are secure. Check the brackets that fixture to the mast. Be sure they are not damaged and that the adjustment nut, spacer, and bolt are present and functioning properly.
Work Platform		Inspect that guardrails are in place and functioning properly. Test both swinging gates to ensure the close properly.
Drills		Check cords and nut driver. Be sure that nut driver is securely fastened. Discard or repair any damaged electrical cords.
Cords, Powerboards		Check for any damage. Discard or repair immediately.



WEEKLY INSPECTION AND MAINTENANCE LOG (1 OF 2)			
Competent Person (Print)			
Date of Inspection			
Company Name			
Jobsite			
Signature of Competent Person			
Comments			



WEEKLY INSPECTION AND MAINTENANCE LOG (2 OF 2)				
Component	ОК	Inspection/Action		
Scheduled Maintenance		Be sure that all daily inspection and maintenance have been completed.		
Gearbox		Inspect how gearbox is mounted to traveler. Make sure bolts are secure. Inspect casting of gearbox for any damage or leaks. Replace gearbox or call your dealer or ReechCraft for replacement parts.		
Lock Lever		While holding the lock lever up, lower the climbing unit. Be sure that the lock lever can be held in the up position. While standing next to the erected mast assembly and climbing unit, lower the climbing unit and drop the lock lever, continuing to clutch the gearbox for 3 seconds. Ensure the lock lever fully engages the track and stops the climbing unit.		
Drill Bracket		While standing beside the climbing unit, lower the traveler, allowing the lock lever to fully engage the track and clutch out the gearbox for 3 seconds. When functioning properly, the drill bracket will place a small down pressure to the drill assembly and prevent the drill from rotating against the torque created by the gearbox clutch.		
Masts		Inspect the gear track for any broken, misshapen, missing rungs, or excessive wear. Lug width should be at 95% of new. Discard track and replace with new if necessary. Check for any missing screws on the track and replace.		
Couplers		Inspect the couplers for any bends, punctures or any other damage to the tube. Inspect the rivet nuts to ensure proper thread engagement with the bolt. The rivet nut should not rotate in the hole. Discard and replace as necessary.		
Base Plate		Inspect the base plate for damage and make sure the rubber is properly attached and in good condition. The locking pin must be present and working properly.		
V-Brace		Be sure the v-brace unfolds and spring pins "click" into place. Inspect the bumper pads for excessive wear and replace as necessary. Make sure tie bracket and strap are available and connected to the v-brace.		



# 

Component	ОК	Inspection/Action
Scheduled Maintenance		Be sure that all daily and weekly inspection and maintenance have been completed.
Gearbox		Completely remove the gearbox from traveler. Check over entire gear box for excessive wear, oil leaks, or any damage. Check to ensure input shaft and output gears are not sloppy around the bearings. Call your dealer or ReechCraft for replacement parts. Inspect drive gear for wear. If gear tooth profile is not symmetrical on 1 or more teeth, or there appears to be any damage to the gear, discard and replace immediately. Verify the clutch force of the gearbox. Be sure that all bearings, guides, and gearbox gears are functioning properly. Erect a single mast assembly with traveler next to a structure. Taking all necessary safety precautions and with the traveler less than 20 inches off the ground, load 750 lbs and secure to the unit (no work platforms etc.). Make sure you can lift approximately 750 lbs without stalling. If not, call your dealer or contact ReechCraft for recommendations or service parts.
Outrigger Base		Visually inspect all welds for any cracking or excessive rust. Check screw stabilizers for wear or damage. Service screw with lightweight spray-on lubricant and use drill to turn screw, allowing the lubrication to penetrate the female threads. Check to make sure swivel joint on screw base is not damaged and is secure and functioning properly.



#### **Industrial Products**

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