



Gorilla Lift - XL360 Series II

User Manual

[Revision 2.0 September 2016]

RETAIN THIS MANUAL FOR FUTURE REFERENCE

PLEASE READ THIS MANUAL CAREFULLY BEFORE USE

Safety



If used correctly, the XL360 is a powerful, high performance machine. If used improperly or without due precaution, it may represent a hazard. For safe operation, always comply strictly with the safety rules that follow, as well as those found throughout this manual.



- Study, understand, and follow all instructions before installing or operating this equipment.
- Attach the machine to a stable surface able to withstand the stresses that can be generated, according to manual instructions only. Verify that installation surface has no hidden components or brake lines before drilling or driving screws.
- For vehicle mounted cranes, engage the parking brake and/or use wheel chocks before use. Do not move vehicle with load attached to crane.
- Never exceed the equipment maximum load capacity of 800kg.
- Do not allow load to swing or drop violently while lowering or moving.
- Keep clear from underneath suspended load. Do not lift people or lift load over people.
- Capacity decreases as boom lengthens. Follow capacities marked on the boom.
- Wear safety goggles, work gloves and work boots during installation and use.
- Do not use for aviation purposes.
- Inspect the machine before every use. Do not use damaged equipment. If abnormal noise or vibration occurs, have the problem corrected before further use.
- For vehicle mounted cranes, before driving, retract winch cable completely, lower and secure the boom using the large locking pin to prevent it from swivelling.
- Stay alert. Watch what you are doing, and use common sense when operating the crane.
- Do not use the crane while tired or under the influence of drugs, alcohol, or medication.
- Keep bystanders clear while operating the crane and minimize distractions.
- Have the crane serviced by a qualified repair person using only identical replacement parts. This will ensure that the safety of the crane is maintained.
- Maintain labels and nameplates. These carry important information.
- The warnings, precautions, and instructions described in this manual cannot cover all possible conditions and situations that may occur. The operator must understand that common sense and caution are factors which cannot be built into this product, but must be applied by the operator.
- Extend or retract the winch cable while unloaded only.
- Keep clear of the boom and winch mechanism when operating.
- Keep at least 4 full turns of cable on the winch reel.
- Attach loads securely with chains, shackles, hooks, lifting slings etc with a rated capacity greater than the load being lifted.

- Properly seat sling, chain, shackle etc in hook and fully close the hook safety clasp. Do not allow the hook hitch to support any part of the load. Do not apply loads over the point of the hook.
- Do not operate the crane with twisted, kinked or damaged winch cable. Inspect the winch cable carefully before every use.

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Components

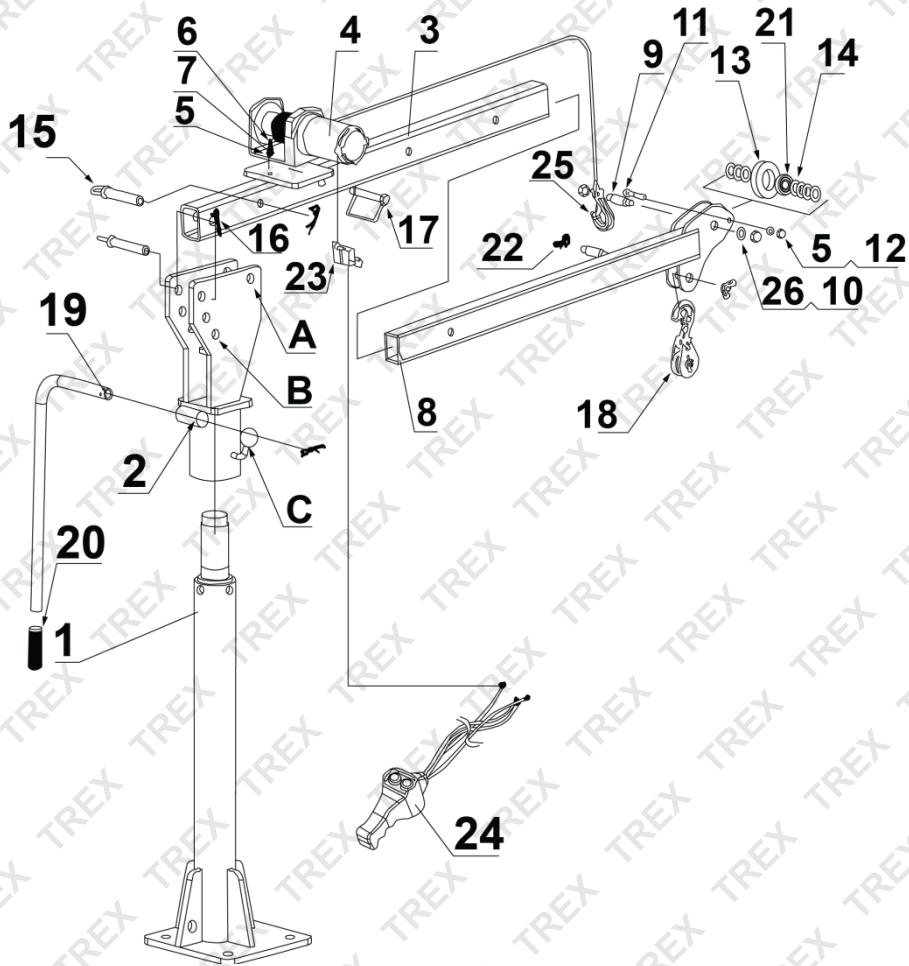


Figure 1

No.	Description	Qty.	No.	Description	Qty.
1	Base Post	1	14	M18 Flat Washer	7
2	Boom Tube	1	15	Boom Pin	2
3	Boom	1	16	R-Pin	3
4	Electric Winch	1	17	Boom Extension Pin	1
5	M8 Flat Washer	3	18	Secondary Pulley/Hook	1
6	M8x20 Socket Button Head Screw	2	19	Boom Rotation Handle	1
7	M8 Lock Washer	2	20	Handle Cover	1
8	Boom Extension	1	21	Ball Bearing	1
9	Hinge Pin	2	22	M12 Wing Nut	2
10	M12 Nylon Lock Nut	2	23	Overload Protector	1
11	M8x45 Socket Head Cap Screw	1	24	Control Box	1
12	M8 Nylon Lock Nut	1	25	Main Hook	1
13	Main Pulley ($\varnothing 74$)	1	26	M12 Flat Washer	2

Mounting and Assembly

- The crane must be mounted to a suitable plate, frame or solid concrete floor before use. Verify that the mounting surface has no hidden components or brake lines before drilling or fastening.
- The crane mounting surface must be able to withstand the stresses that can be generated and support a minimum of 1000kg.
- Attach the crane base post to the mounting surface using suitable fasteners.

Base post mounting details are shown below.

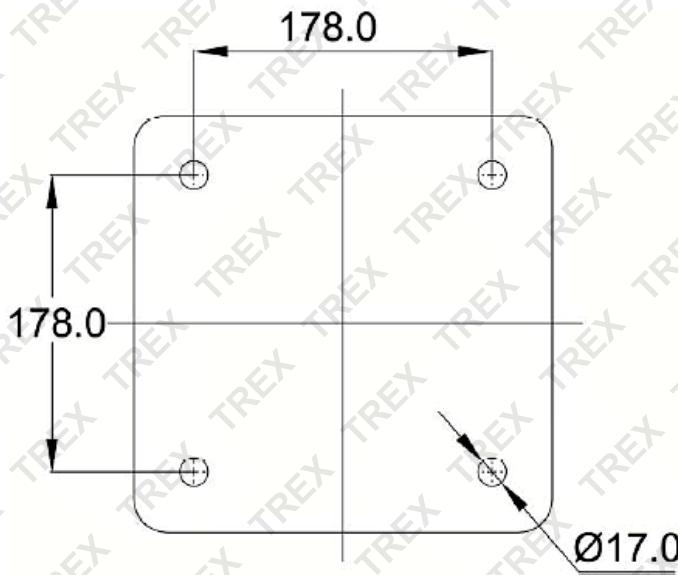


Figure 2

Refer to Figures 1 and 3.

- Attach the boom (3) to the boom tube (2) using 2 clevis pins (15). Place 1 pin in hole **A** and the second pin in the applicable hole **B** for the required boom angle. Secure the pins with 2 R-pins (16).
- Insert the boom extension (8) into the boom (3) and secure it at the required length using the lock pin (17). Ensure that the lock pin is secured using its hinged clip fastener.
- Attach the winch (4) to the plate on the top of the boom and secure it with 2 M8 button head socket screws (6), lock washers (7) and flat washers (5). Tighten securely with the supplied Allen key.
- Place the pulley (13) in the end of the boom extension (8) and take up the space either side of the pulley bearing (21) with 7 M18 flat washers (14). Insert a hinge pin (9) through the boom extension and pulley. Secure the pin using 2 M12 flat washers (26) and nylock nuts (10). Tighten the nuts with an appropriate spanner.
- Unlock the winch by pulling out and twisting winch rewinder release knob. Once unlocked, you should be able to pull the winch cable out. Pull the winch cable out and pass it over the pulley (13).
- Insert the M8 socket head cap screw (11) through the hole at the end of the boom extension (8). Secure the screw using the M8 flat washer (5) and M8 nylock nut (12). Tighten with the supplied Allen key and an appropriate spanner. Once the screw is in place, the end of the winch cable should not be able to return to the winch.
- The secondary pulley (18), when not in use, can be placed in the boom extension (8). Insert a hinge pin (9) through the boom extension and secondary pulley hook (the quick-release mechanism cannot be used for this hook). Secure the pin using 2 M12 wing nuts (22).
- Insert the handle (19) into the boom tube (2) and secure with an R-pin (16).

Wiring

1. Connect the overload protector (23) onto the positive + (RED) winch motor terminal and secure using the supplied washers and nut on the winch motor terminal.
9. Connect the winch motor harness negative - BLACK wire to the negative - winch motor terminal and secure using the supplied washers and nut on the winch motor terminal.
10. Connect the winch motor harness positive RED wire to the overload protector terminal and secure using the supplied screw and nut on the overload protector.
11. Connect the winch controller harness positive + RED wire to the positive + terminal of an appropriate 12VDC power source (power supply, vehicle battery etc).
12. Connect the winch controller harness negative - BLACK wire to the negative - terminal of an appropriate 12VDC power source (power supply, vehicle battery etc).
13. Plug the winch motor harness connector into the winch controller harness connector.

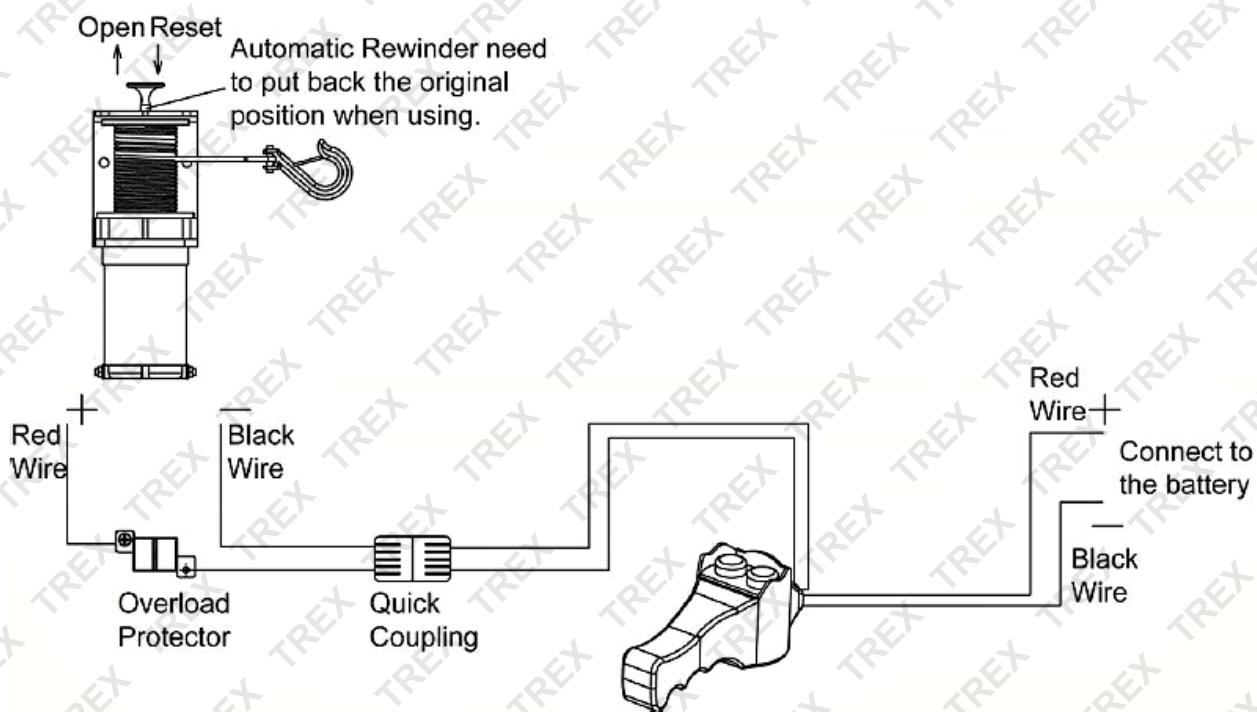


Figure 3

Operation



WARNING! Never lift loads that exceed 500kg in single pulley configuration or 800kg in double pulley configuration.

- Always keep pulleys well-greased.
- Lubricate the cable if the crane is being used for the first time.

NOTE: The cable should not be extended beyond the red warning line.

- The overload protector is used to protect the crane and winch. It will short-circuit if the crane is over-loaded or becomes too hot for safe use. Generally, the overload protector will restart after 30 seconds.
- Do not rotate the boom during lifting; it can result in serious injury to the operator or bystanders.
- Position the boom extension and secondary pulley (where required) according to the weight of the lifting items.
- Double pulley configuration allows greater weights to be lifted by effectively gearing down the winch. In other words the lift distance per rotation of the winch motor is reduced.
- Attach loads securely with chains, shackles, hooks, lifting slings etc with a rated capacity greater than the load being lifted.

Using the Crane

Refer to *Figure 1*.

1. Set the boom extension to the required position – remove the lock pin and extend/retract the boom extension to the required position. Reinsert the locking pin and secure it with its hinged clip fastener.
2. Set the angle of the boom, if required. To change the angle, hold the boom and remove the clevis pin from boom tube hole **B**, set the boom angle and then reinsert the clevis pin and secure it with its R-pin.
3. Loosen the boom tube locking clamp **C** and rotate the boom so that it is centered over the load, then tighten the clamp.
4. Unlock the winch by pulling out and twisting winch rewinder release knob and manually extend the cable so it reaches the load. Push the winch rewinder knob in to engage the winch mechanism.
5. Secure the load to the hook.
6. Use the control box to activate the winch and raise the load as required. Do not lift it more than necessary. If required, loosen the tube locking clamp and rotate the boom using the boom rotation handle, then tighten the clamp.
7. Use the control box to activate the winch and lower the load. Once the load is lowered and is no longer being held by the crane, unshackle the crane from the load.
8. When finished using the crane, place it in the stowed position:
 - a. Retract the boom extension to the maximum weight position and secure it with its locking pin.
 - b. Remove the clevis pin from boom tube hole **B** and gently lower the boom so it is “hanging”. Place the clevis pin in hole **B** and secure it with its R-pin to prevent losing it.
 - c. Attach the winch cable hook to the hole at the bottom of the base post, then retract the winch just enough hold the boom in position – do not place undue stress on the crane or winch.

Pulley Configuration

WARNING! Never lift loads that exceed 500kg in single pulley configuration or 800kg in double pulley configuration.

The crane provides two pulley configurations as shown in *Figure 4*. The double pulley configuration allows greater weights to be lifted by effectively gearing down the winch. In other words the lift distance per rotation of the winch motor is reduced.

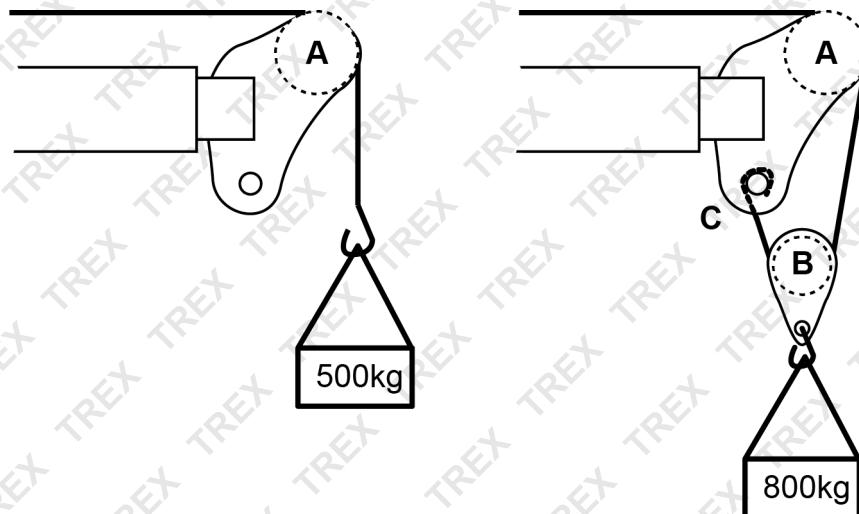


Figure 4

Refer to *Figure 4*. To set-up the double pulley:

1. Extend the winch cable approximately 500mm, then attach the main hook to the pin at the bottom of the boom extension to form a loop.
2. Disassemble the hook from the secondary pulley by removing the R-pin, then pulling out the clevis pin from the outer plates. The clevis pin has an outer tube that will also come loose with the hook.
3. Place the secondary pulley over the bottom of the loop in the winch cable, so the outer plates of the secondary pulley are hanging down.
4. Reattach the hook to the secondary pulley by placing the outer tube into the end of the hook and placing it between the secondary pulley outer plates. Pass the clevis pin from the outer plate through the tube and hook and other outer plate. Secure the clevis pin with its R-pin.



Maintenance



WARNING! Procedures not specifically explained in this manual must be performed by qualified technicians only.

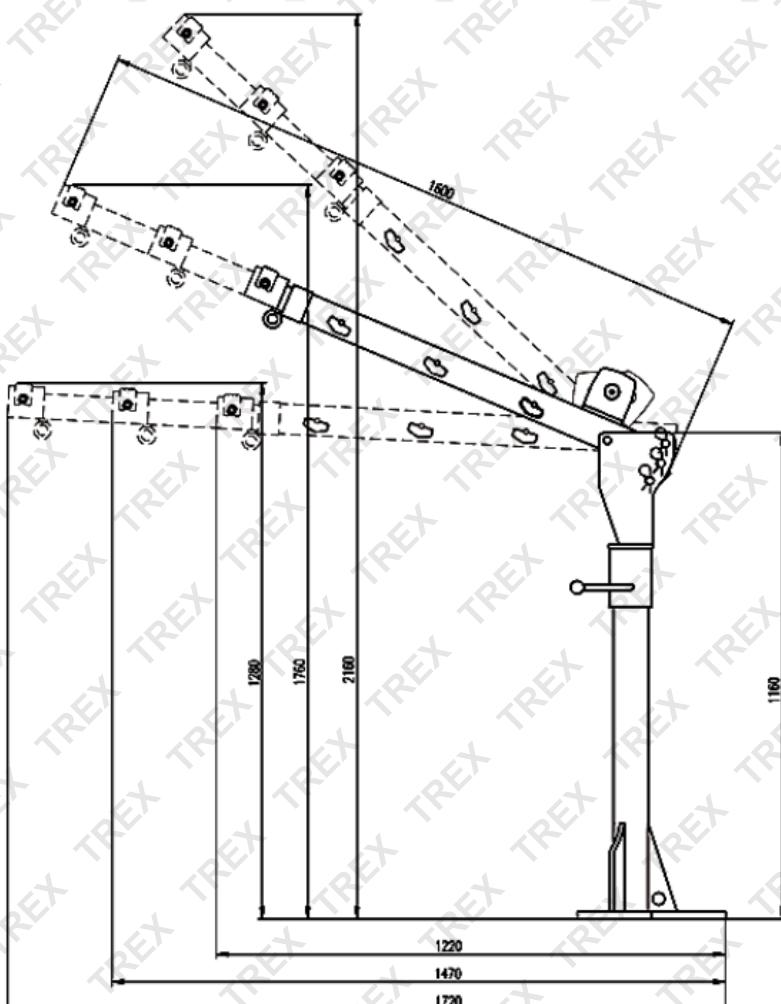
Inspection, Lubrication and Cleaning

NOTE: If the crane will be exposed to wet conditions or corrosive environments, more frequent maintenance may be necessary to prevent corrosion.

- Before each use, inspect the general condition of the machine. Check for:
 - Loose hardware.
 - Misalignment or binding of moving parts.
 - Cracked or broken parts.
 - Proper winch operation.
 - Frayed, kinked or damaged winch cable, and any other condition that may affect safe operation.
- Lubricate the boom tube monthly or when the boom becomes difficult to swivel on the base post. Lubricate by injecting grease into the boom tube grease nipple.
- Clean and lubricate all moving parts of winch, including gears, ratchets, shafts and winch cable to ensure smooth and safe operation.
- The boom assembly (boom tube, boom, boom extension and winch) may be removed and stored indoors in a dry place, out of the reach of children.

Specifications

Winch Motor Type	12VDC 90A.
Maximum Load	500kg single pulley / 800kg double pulley
Maximum Lift Height (base to hook)	1940mm
Maximum Reach (from center of rotation)	1490mm
Rotation	360° manual operation
Weight	60kg approximately.
Winch Cable	4.8 to 5.4mm diameter. 4.5m maximum length.





Some experts believe the incorrect or prolonged use of almost any product could cause serious injury or death. For information that may reduce your risk of serious injury or death, consult the points below and additionally, the information available at www.datastreamserver.com/safety

<ul style="list-style-type: none">• Consult all documentation, packaging and product labelling before use. Note that some products feature online documentation which should be printed and kept with the product.• Check product for loose / broken / damaged / missing parts, wear or leaks (if applicable) before each use. Never use a product with loose / broken / damaged / missing parts, wear or leaks (if applicable).• Products must be inspected and serviced (if applicable) by a qualified specialist every 6 months assuming average residential use by a person of average weight and strength, above average technical aptitude, on a property matching average metropolitan specification. Intended use outside these guidelines could indicate the product is not suitable for intended use or may require more regular inspection or servicing.• Ensure all possible users of the product have completed an industry recognized training course before being given access to the product.	<ul style="list-style-type: none">• The product has been supplied by a general merchandise retailer that may not be familiar with your specific application or your description of the application. Be sure to attain third-party approval for your application from a qualified specialist before use regardless of prior assurances by the retailer or its representatives.• This product is not intended for use where fail-safe operation is required. As with any product (take an automobile, aircraft, computer or ball point pen for example), there is always a small chance of technical issues that needs to be repaired or may require replacement of the product or a part. If the possibility of such failure and the associated time it takes to rectify could in any situation inconvenience the user, business or employee then the product is not suitable for your requirements. This product is not for use where incorrect operation or a failure of any kind, including but not limited to a condition requiring product return, replacement, service by a technician or replacement of parts could cause a financial loss, loss of employee time or an inconvenience requiring compensation.• If this item has been purchased in error after considering the points above, simply contact the retailer directly for details of their returns policy, if required.
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