Assembly Installation Operating and Maintenance Instructions







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Importance of Safety

Accidents can be very costly to human life and property. The operator is the #1 safety device on all types of vehicles or equipment, it is important that the operator read, learn and know all safety recommendations for this product. The user is responsible to their family, friends and co-workers to operate in a safe manner. Ensure that everyone who operates or assists in the operation or maintenance of this product read and understand all the elements required to safely operate this piece of equipment. This attachment has moving parts that include additional dangers.

Operator Safety Training Tips

- It is the responsibility of the operator using this attachment to be acquainted with the safe operation. In addition to reading this manual, it is important that the operator read the skid steer's operation manual and follow its manufacturer's recommendations!
- Before lifting, lowering or tilting the attachment, make sure the area is clear of bystanders or objects.
- Machinery parts sometimes have sharp edges. Wear work gloves.
- Never use drugs or alcoholic drinks when operating or servicing this piece of equipment.
- Always wear the proper personal protection equipment when servicing or operating this piece
 of equipment. Never service or operate this attachment with bare feet, sandals, or other light
 footwear.
- Always use eye protection during operation.
- Speed Kills! Operate this attachment at a safe working speed. When transporting the attachment, keep a safe speed to avoid losing control of the attachment or prime mover.
- Keep proper clearance between the attachment and objects (utilities, tree stumps, large rocks, buildings, etc.). Contacting these objects with the attachment or prime mover could cause a loss of control or damage to the attachment or property.
- Before each operation of this attachment, check all hardware (bolts, nuts, pins, etc.) for their proper location and tightness.
- Stop the engine on the prime mover and set the brake to avoid the attachment rolling forward or backwards while you are exiting the prime mover.
- Store this attachment in an area not frequented by children.
- Allow no riders on this attachment. Keep all bystanders clear of attachment during operation.
- Always replace worn, torn or missing safety decals before operating.
- Never operate the attachment when bystanders are within 10 feet (3 m) of the work area.
- Operate only during daylight or well-lit artificial light.
- If working on public roadway, display a Slow Moving Vehicle emblem per your State & Local regulations. Turn your flashers on.



Prime Mover Requirements (Motor grader, etc..)

This attachment must be connected to a Prime Mover with adequate horsepower and weight to provide satisfactory results. The weight of the Lynx 68 magnetic sweeper in total is 349 lbs +/- alone, or 414 lbs +/- with the Optional Debris Digging Rake accessory.

Track loaders will provide superior traction and stability when operating the debris digging rake, but wheeled loaders may provide better maneuverability on harder surfaces.

There are no auxiliary hydraulics required for this attachment.

Make sure your skid steer is in good working condition. Follow the operating instructions found in the manual that accompanied your skid steer. Failure to do so could result in Minor or Serious Injury.



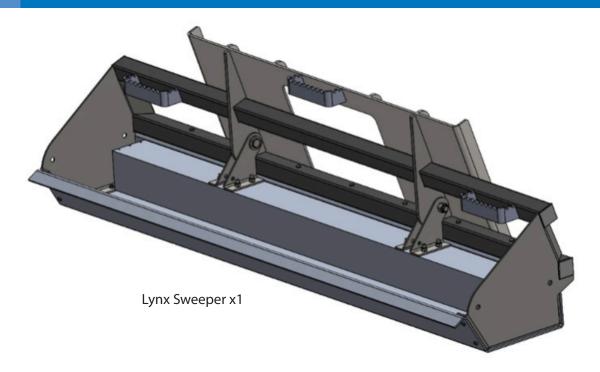
Assembly Instructions

Step 1. Unpacking Your Shipment



Lynx as Shipped on Pallet - remove the Shrink Wrap and Banding

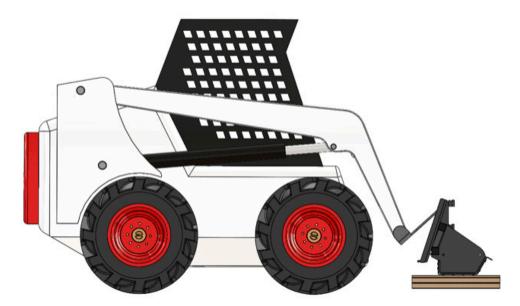
Step 2. What's on the Pallet





Installation Instructions

Step 1. Example of Connecting the Lynx to a Skid Steer

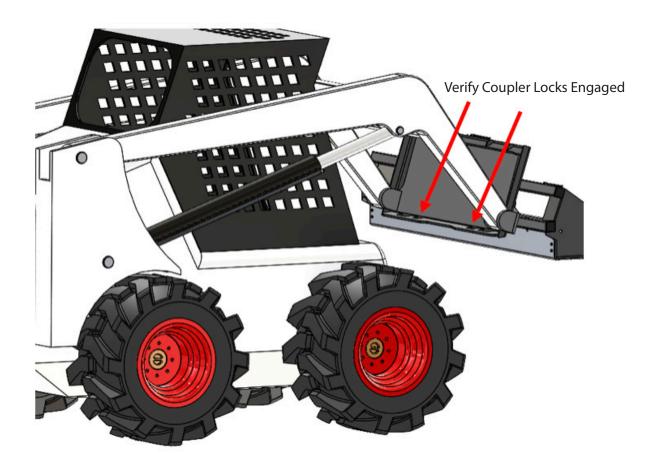


Verify that the coupler plate is free from dirt / debris and metal debris from previous uses. When clear, move the skid steer to proximity of coupler plate. Tilt skid steer coupler forward to align coupling point with the upper part on the attachment plate and raise the coupler slightly.



When the top edge of the coupler is seated in the top part of the coupler plate, roll the skid steer tilt function back until the attaching plate is flat against the skid steer coupler. Lock down the coupler levers. Note: If your skid steer is equipped with a hydraulically operated coupler, activate the coupler lock at this time.

Step 2. Verify Coupler Locks Engaged



Before operating the attachment, always visually inspect and verify that the coupler lock pins are fully engaged through the latch slots on the attachment plate.

Check the surrounding area for bystanders and clear them before starting the skid steer and lifting the attachment.



Operating Instructions

Step 1. Operational Overview of Attachment

Pre-Operation Walk-around Inspection

Before every use, it is important to perform a short inspection and certain maintenance on your Lynx Magnetic Sweeper.

- Check that stone guard is in place (if using accessory Debris Digging Rake)
- Look for loose bolts and tighten them if necessary
- Check that all decals are in place and can be read. Replace them if necessary
- Although the Lynx does not require a hydraulic connection. Take care of our planet and immediately repair any hydraulic leaks on your machine.

Height and tilt functions of the attachment are operated with the control handles or pedals in the cab. Consult your skid steers operator's manual for precise instructions regarding these functions.

Your prime mover may have a "float" function on the lowering circuit. DO NOT USE THE FLOAT FUNCTION when using the optional Debris Digging Rake accessory.

When operating this attachment, set the skid steer throttle at a speed that will produce the required machine operational performance desired to operate the machine and its hydraulic functions. The Lynx does not have or require and connection to auxiliary hydraulics. Set engine speed as you feel comfortable when operating the equipment. Generally, we have found that engine speed at 25% is more then adequate for travelling with the Lynx as well as performing lift and clean off functions.

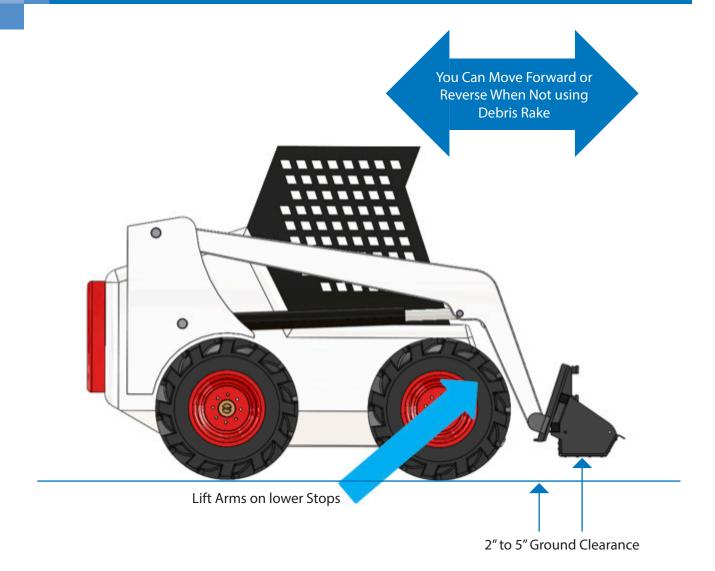
Be careful to not violently slam the magnets when debris dumping is complete. There is no need for hammering and this could cause unnecessary damage.

To begin with, learn what the attachment looks like in a level position when you are seated in the skid steer. Knowing what a level attachment looks like will help you with your attachment operation.

The correct ground speed for using this attachment will depend on the material being collected, if the Debris Digging Rake is being operated, and at what depth the Debris Digging Rake is being operated. Although the Lynx magnet is strong, slow and low will always produce the best results.

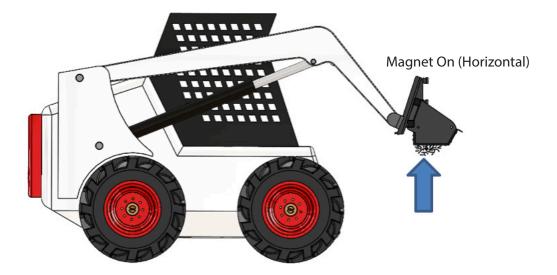


Step 2. Operating the Attachment (without Optional Debris Digging Rake Accessory)

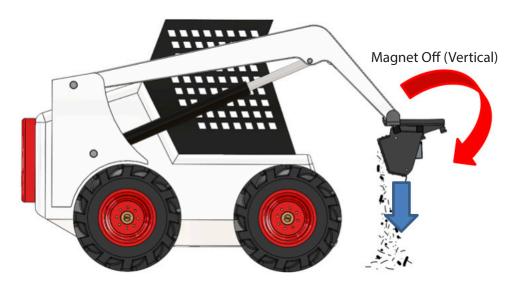


With the machines lift arms on the downward stops, the ground clearance under the sweeper should be 2" to 5" (depending on your skid steer) If it is less, then you may need to lift the sweeper slightly to achieve this. When operating, the sweeper should be as low to the ground as possible (for best performance) but not contacting it. The bottom of the sweeper should be level (or close to) when operating (Except for when using the optional debris digging rake). Keep in mind the sweeper will pick up nails from 8.5" high when stationary, so if you are at 3, 4 or even 5" sweeping height you will still have exceptional performance.

Step 3. Release Metal Debris Collected From Magnet



Lift the Lynx using the lift arms are least 48" off the ground, or alternatively you can lift the sweeper even higher if releasing debris into a bin.



Once the Lynx is elevated pivot the magnet forward into the shown vertical position and the collected debris will fall off the bottom.

Once the magnet is cleaned off, pivot the sweeper back to horizontal, lower the lift arms and continue sweeping.

Although the Lynx has a very strong magnet, cleaning it off often will provide best performance. Metal debris, as it accumulates, will consume magnet holding force available for picking up more debris.

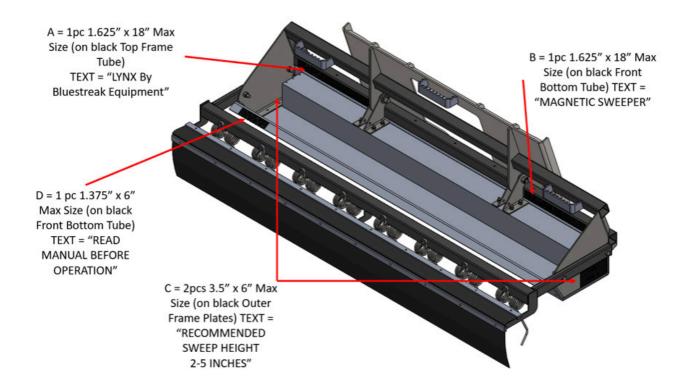
Maintenance Instructions

Before Every Use

- Check that all fasteners (nuts, bolts, pins, keepers) are in their right place and are tight.
- Inspect and replace any worn, torn or missing safety decals.

Every Month

- Inspect the attachment for any loose or worn parts that may need to be replaced prior to the next season.
- Visually inspect the hydraulic fittings and hydraulic hoses. Replace, if necessary.
- Clean, sand & repaint any area that looks worn or scratched to prevent further rusting. Use an equipment paint found at your local hardware store or building center.
- Replace any stickers that have been lost or damaged.
- Store your attachment in a shed or cover with a water-proof tarp to protect it from the weather. Store in an area not frequented by children.



Optional Accessory Debris Digging Rake Assembly Instructions

Step 1. Unpacking Your Shipment

1x Steel Frames w/Rubber Stone Guard installed (cardboard packaging has been removed for part transparency)



Hardware Box containing:

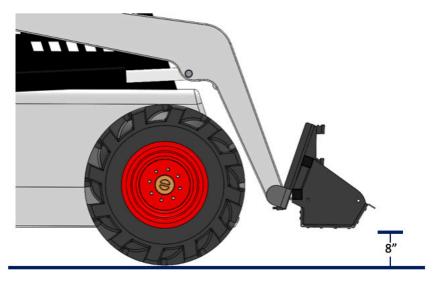
 $8x - 3/8" \times 3.5"$ bolts w/ nyloc nut, 2x 3/8" washer $1x \frac{1}{2}"$ washers

8x – 5/16" [8mm] steel debris digging rake springs

 $4x - \frac{1}{2}$ " x 1.25 bolts w/ nyloc nut

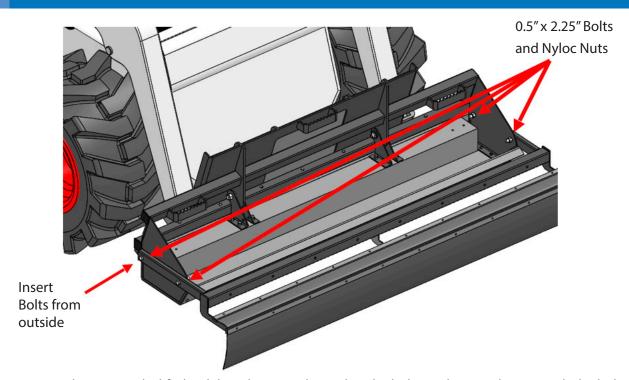


Step 2. Preparing to Install The Debris Digging Rake



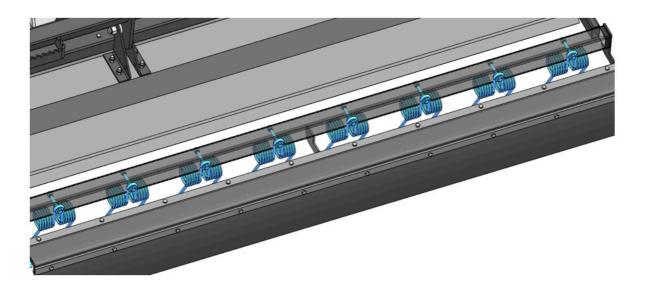
Apply the parking brake to the machine and lift the sweeper a MINIMUM of 8 inches off the ground for installation of the accessory Debris Digging Rake.

Step 3. Installing the Debris Digging Rake

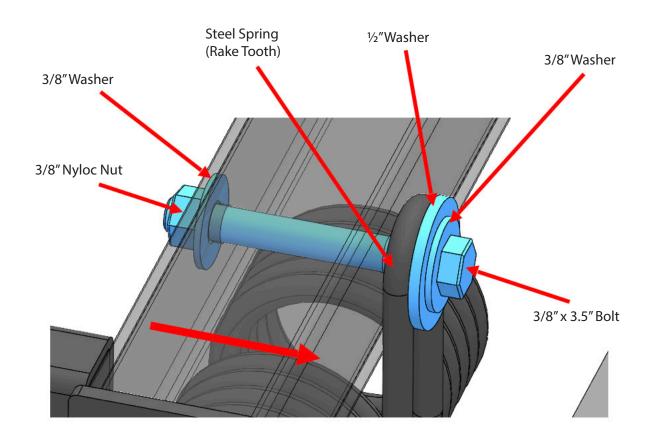


With two people, lift the debris digging rake so that the holes in the arms line up with the holes in the side plates. Insert the four included $0.5" \times 2.25"$ bolts from the outside and secure with included Nyloc Nuts.

Step 4. Install Rake Springs



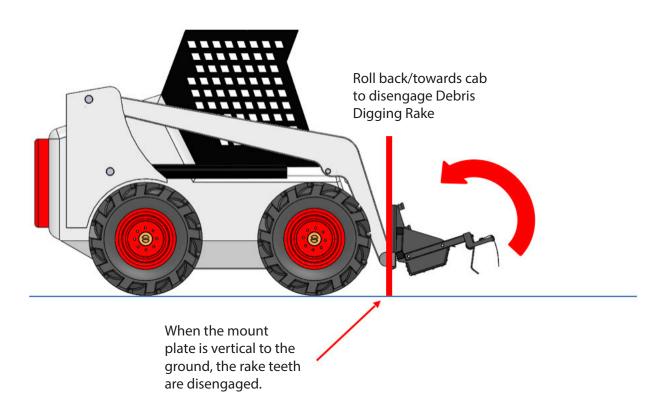
Install the eight steel springs (rake teeth), each with one $3/8" \times 3.5"$ bolt, two 3/8" washers, one 1/2" washer, and one nyloc nut in the order shown below.





Optional Accessory Debris Digging Rake Operating Instructions

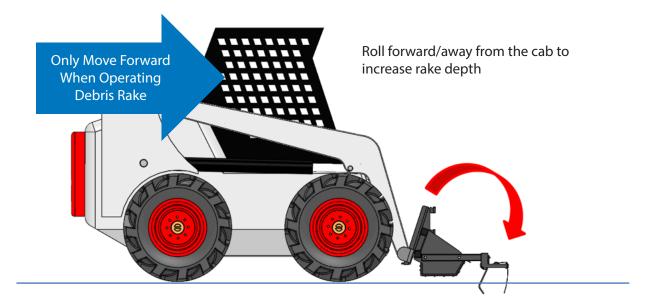
Step 1. Operation with optional Debris Digging Rake installed



To operate the Lynx without engaging the optional Debris Digging Rake, roll the attachment plate on your machine back so the mount plate of the Lynx is vertical to the ground. When the mount plate is vertical the teeth of the Debris Digging Rake will sit higher than the bottom of the Lynx debris pan. Rolling the attachment back will NOT impact the magnets strength, so a recommended sweeping height of 2"- 5" above the ground should still be maintained.

Although the bottom of the Lynx is made of thick heavy-duty aluminum it should not contact the ground and doing so could result in excessive wear or damage that could cause the attachment to become inoperable.

Step 2. Verify Coupler Locks Engaged



When using the Debris Digging Rake you can control the depth of the rake teeth by rolling the attachment plate of your machine forward or back (rolling backwards/towards the cab will decrease the rake's digging depth and rolling forward/away from the cab will increase the rake's digging depth). When rolling forward/away from the cab do not let the frame of the Debris Digging Rake contact the ground. Contact between the Debris Digging Rake frame and the ground will cause damage. The Debris Digging Rake's stone guard/ rubber curtain can contact the ground during normal operation.

It is recommended that adjustments to the digging depth are done while in motion as the rake teeth behave differently while moving. In very soft material you may find that setting the rake too low may cause the stone guard to act as a plow accumulating lots of material as the rake teeth easily go deep into the soil. In very hard packed conditions (i.e., a gravel driveway driven on by heavy machinery) you will notice it may take several passes to loosen the material and the rake teeth may not penetrate very deep at first.

Although the bottom of the Lynx is made of thick heavy-duty aluminum it should not contact the ground and doing so could result in excessive wear or damage that could cause the attachment to become inoperable.