Assembly Installation Operating and Maintenance Instructions



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Table of Contents

Importance of Safety	2
Operator Safety Training Tips	2
Prime Mover Requirements	2
Assembly Instructions	3
Installation Instructions	3
Operating Instructions	9
Important Knowledge	12
Maintenance Instructions	13

Sunda MANUAL

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 when moving parts. Always use caution around attachment parts as they often are very sharp.

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 (Skid Steer, Track Loader etc..)

Your hydraulic attachment must be connected to a Prime Mover with adequate horsepower and weight to provide satisfactory results. The weight of the Sunda 49 magnetic sweeper in total is 1922 lbs +/-.

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

The hydraulic couplers on this magnetic sweeper will connect to the couplers on most major brand skid steer and compact track loader loaders. You can replace the couplers on this attachment to fit older styles of attachment couplers on older machines if required. Contact your skid steer loader dealer to supply an updated coupler on an older skid steer to fit this attachment.

Your skid steer must also be equipped with an auxiliary hydraulic circuit that is available on the loader arms and is controlled by a switch, pedal or handle inside the skid steer loader cab.

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.

Step #1 Unpacking Your Shipment



Sunda as Shipped on Pallet

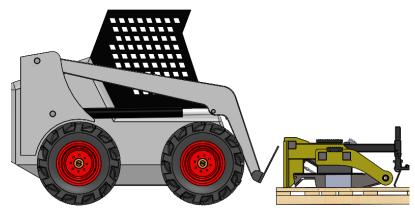
- Remove Shrink Wrap and Banding

Assembly Instructions

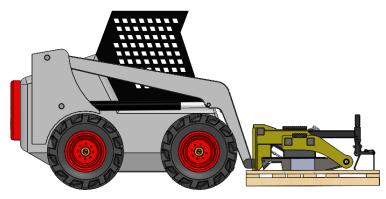
- The Sunda Magnetic Sweeper comes 100% assembled from the factory.



Step #2 – Connect Skid Steer to magnet



Verify that the hydraulic hoses are clear from the coupler plate and 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 #3 – Connect Hydraulic Hoses

Image of Typical Hydraulic Connections on Skid Steer lift arm



Case Drain – Not Used

Electric

Connect the attachment hydraulic hoses to the Male and Female Auxiliary Couplers located on your skid steer loader lift arm. Wipe off any dirt or dust from the male or female hydraulic flat-face couplers with a clean rag before attaching hoses, to keep contaminants from entering the hydraulic system.

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

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

Pre-Operation Walk-around Inspection

Before every use, it is important to perform a short inspection and certain maintenance on your hydraulic attachment.

- Check that stone guards are in place
- Look for loose bolts and tighten them if necessary
- Check that all decals are in place and can be read. Replace them if necessary
- Take care of our planet and immediately repair any hydraulic leaks

Hydraulic Attachment Controls

Your hydraulic attachment is designed to run off the skid steer loader auxiliary hydraulic system by a control switch, pedal or handle in the operator's cab. Consult your skid steer operator's manual for precise instructions on how to activate, reverse and neutralize the auxiliary circuit.

Step #3 – Connect Hydraulic Hoses

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 skid steer may have a "float" function on the lowering circuit. <u>DO NOT USE THE FLOAT FUNCTION.</u>

Standard Flow hydraulics are all that is required, DO NOT USE HIGH FLOW SETTINGS.

The Sunda Sweeper is to be used above the ground, not in contact with it.

If during your initial startup you realize the hydraulic function operates in the opposite direction that you prefer, you can change positions of the quick disconnect couplers on the attachment hoses to remedy your problem.



Connect the hydraulic hoses on your Sunda to the auxiliary supply couplers located on your skid steer loader lift arm.

Before starting the engine with this attachment connected to the skid steer, make sure you are knowledgeable and comfortable with the operation of the auxiliary hydraulic control as outlined in the previous sections of this manual and that in the skid steer loader Owner's Manual.

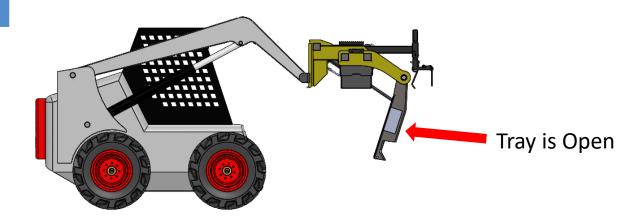
When operating this attachment, set the skid steer throttle at a speed that will produce the required flow, to the attachment and the other loader functions. The Sunda Requires no flow when operating, hydraulics are only operating when pressing the debris pan away from the magnet to discharge debris. Set engine speed as you feel comfortable when operating the equipment. Generally, we have found that engine speed at 25% or less is more then adequate for travelling with the Sunda as well as performing lift and clean off functions.

Be careful to not violently slam the debris tray open and closed. There is no need for this and 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 as well as the if the Debris Rake is being operated and at what depth and material types. Although the Sunda magnet is very strong, slow and low will always produce the best results.

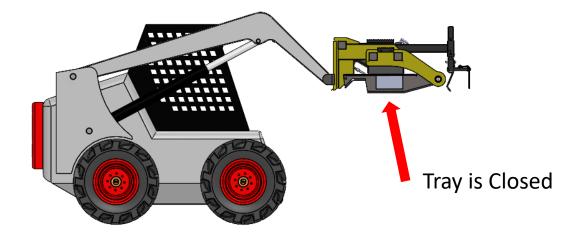


Step #4 – Lift Sweeper off Pallet and Close Tray



Lift the Sunda up. The Stainless Debris Tray will open as the Sunda from the factory has no hydraulic fluid in its cylinder or lines.

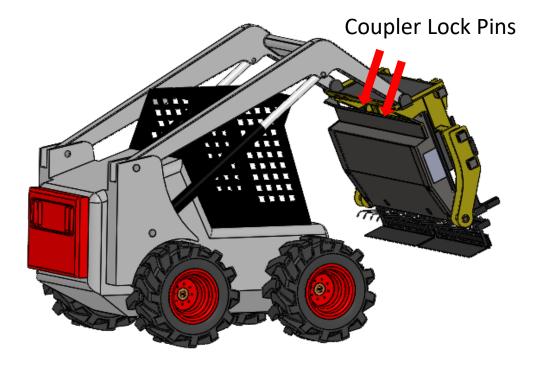
Check the surrounding area for bystanders and clear them before starting the skid steer and lifting the attachment.



Using the remote hydraulics (connected in previous steps), Close the Debris Tray on the Sunda.

Cycle the tray open and closed several times to purge any air that may be present out of the hydraulic circuit.

Step #5 – Verify Coupler Locks Engaged

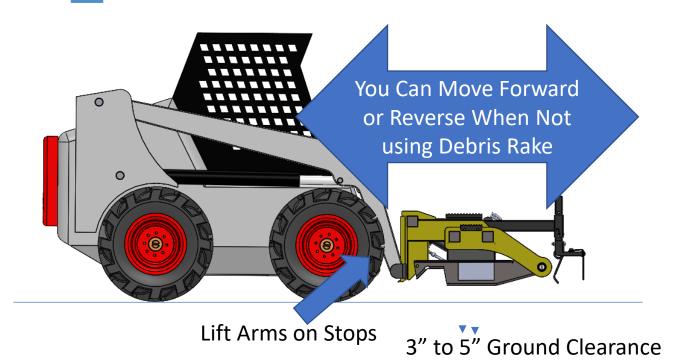


Before operating the attachment, always visually inspect and verify that the coupler lock pins are fully engaged through the latch slots on the attachment plate.

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



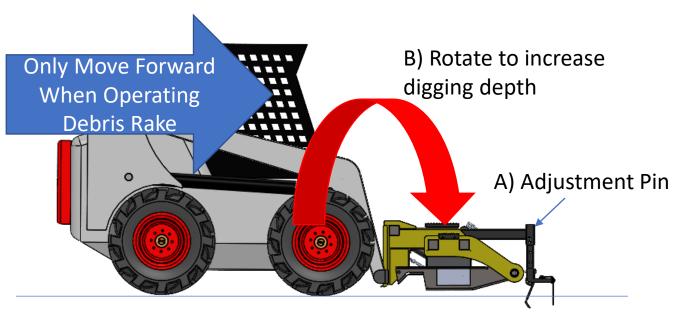
Step #6 – Operating the Attachment (with the standard debris rake up)



With the machine lift arms on the downward stops, the ground clearance under the sweeper should be 3" 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.



Step #7 – Operating the Attachment (with debris rake down)

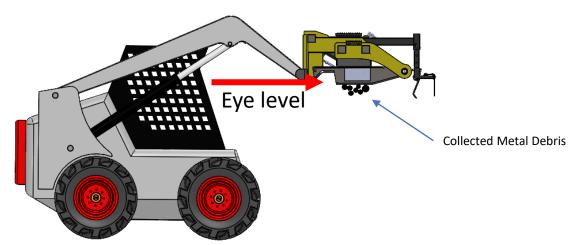


When using the Debris Digging Rake you can control the depth of the rake two ways (A) changing the position of the adjustment pin and (B) rotating the sweeper downward with the Machine. When rotating downwards be careful to not have the magnet dragging on the ground continually. Although the bottom of the Sunda is stainless steel construction it is not meant for constant ground contact.

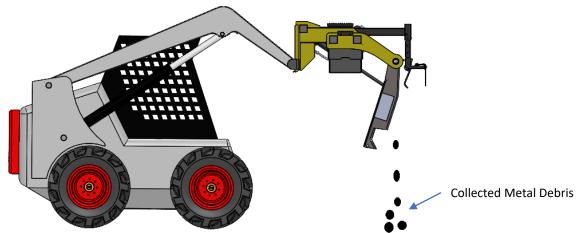
When you are operating you can visually see the rake operating and adjust as needed. In very soft material if you may find that setting the rake too low may cause the stone guards to act as a plow accumulating lots of material as the rake teeth easily go deep into the soil. In very hard packed conditions (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 will not penetrate very deep at first.



Step #8 – Release Metal Debris Collected From Magnet



Lift the Sunda using the lift arms are least 36" off the ground, ideally so the bottom of the sweeper is eye level with the operator.



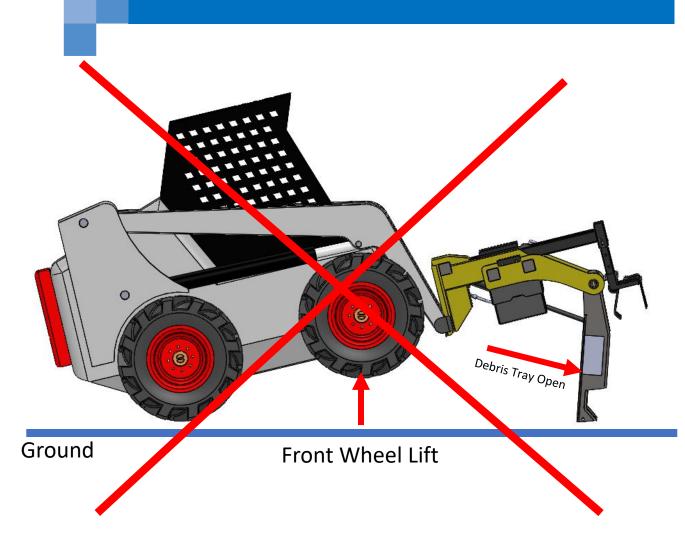
Once the Sunda is elevated use the Auxiliary hydraulics to open the Debris Tray on the bottom of the sweeper and the collected debris will release from the bottom.

Once magnet is cleaned off you can close the Debris Tray, lower the magnet and continue sweeping.

Although the Sunda has a very strong magnet, cleaning it off often will provide best performance. Metal Debris attached to the magnet will take magnet power available from picking up more debris.



Important Knowledge



Do Not Open the Debris Tray while the Sunda Magnetic Sweeper is not at least 36" off the ground or the above situation could occur. It is not likely (but can't be ruled out) that the skid steer would tip over backwards, but damage to the magnetic sweeper could occur.



Maintaining your Attachment

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. Investigate the location of any oil leaks and repair.

Every Month

Lubricate the pivot joint with #2 lithium grease.

Every Year

Inspect the attachment for any loose or worn parts that may need to be replaced prior to the next season.

Visually inspect the rake teeth and rubber stone guard. 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.

Sticker Diagram

1x "SUNDA By Bluestreak Equipment" Sticker

