# **Meerkat Assembly, 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 (skid steer, track loader, etc..)

This attachment must be connected to a Prime Mover with adequate horsepower and weight to provide satisfactory results. The weight of the Meerkat 67 magnetic sweeper in total is 737 lbs +/- alone, or 807lbs +/- 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



Meerkat as shipped on pallet - remove the shrink wrap and banding.

#### **Assembly Instructions**

Step #2: What's on the pallet



#### Step #3: Install document holder



Attach the document holder with the provide 2pcs. 1/4" flange bolts and washers.

Place this manual inside it when you're not using it.

#### **Installation Instructions**

Step #1: Example of connecting the Meerkat to a skid steer when using skid steer bracket B.



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.

#### **Installation Instructions**

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 attachement

#### Pre-Operation Walk-around Inspection

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

Check that stone guards are 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 Meerkat 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 Meerkat 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 Meerkat as well as performing lift and clean off functions.

Be carefully to not violently slam the magnets when dumping debris is completed. Rubber damper mats are in place to lessen the hammering effect of the magnets when they swing back into sweeping position. There is no need for hammering 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 Meerkat magnet is very strong, slow and low will always produce the best results.

#### **Operating Instructions**

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 3" to 4" (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. Keep in mind the sweeper will pick up nails from 10" high when stationary, so if you are at 3, 4 or even 5" sweeping height you will still have exceptional performance.

#### **Operating Instructions**

Step #3: Release metal debris collected from magnet



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

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

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

## **Maintenance Instructions**

#### Step #1

#### **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 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**



## **Optional Accessory Debris Digging Rake Assembly Instructions**

#### Step #1: Unpacking your shipment



2x Hardware boxes each containing:  $4x - \frac{1}{2}$ " x 3.5" bolts with nyloc nut and 2 washers 4x - 0.375" steel debris digging rake springs  $1x - \frac{1}{2}$ " bent pin with clip

## **Optional Accessory Debris Digging Rake Assembly Instructions**

Step #2: Prepare to install steel frames



Apply the parking brake to the machine and lift the sweeper approx. 16" off the ground for installation of the accessory debris digging rake.



Step #3: Install steel frames

Insert the 2x Steel Frames as Shown and secure with a  $\frac{1}{2}$ " Bent Pin and Clip. Both are identical and can be installed on either side.

## **Optional Accessory Debris Digging Rake Assembly Instructions**

Step #4: Install rake springs



Step #5: Progress so far . . .



## **Optional Accessory Debris Digging Rake Operating Instructions**

Step #1: Operating the attachement



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.

## **Optional Accessory Debris Digging Rake Operating Instructions**

Step #2: Operating the attachement



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 Meerkat 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.

Having the adjustment Pin in the top (upper most) hole usually provides the best results when operating with the rake. This position makes the rakes as low as possible into the ground.