# Operator's Manual

# KM500

## Loader

VENTRAC.COM

Original Operator's Manual

CE UKCA

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500 Venture Drive
Orrville, OH 44667
www.ventrac.com

## To the Owner
## Contact Information and Product Identification

If you need to contact an authorized Ventrac dealer for information on servicing your product, always provide the product model and serial numbers.

Please fill in the following information for future reference. See the picture(s) below to find the location of the identification numbers. Record them in the spaces provided.

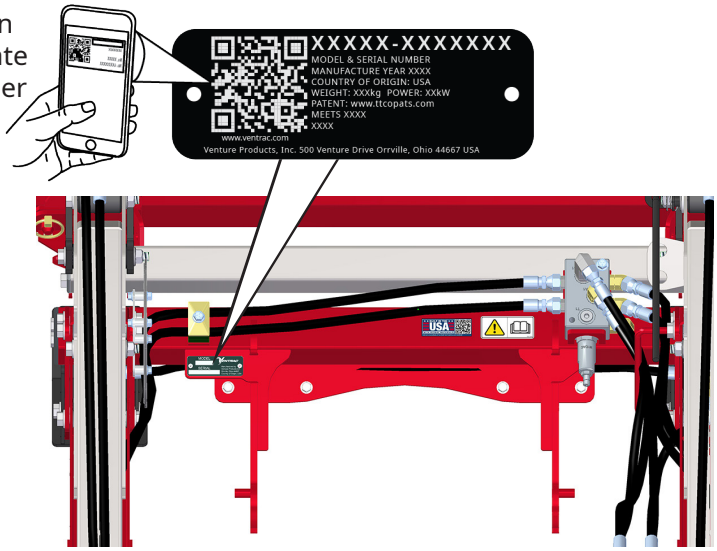
**Dealer**_____ **Date of Purchase:** _____

**Dealer Address:** _____

_____

**Dealer Phone Number:** _____ **Dealer Fax Number:** _____

With your mobile device, you can scan the QR code on the serial number plate to access manuals, warranty, and other product information.




**Model #** _____

**Serial #** _____

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# INTRODUCTION

Venture Products Inc. is pleased to provide you with your new Ventrac loader! We hope that Ventrac equipment will provide you with a ONE Tractor Solution.

Please visit our website, or contact your authorized Ventrac dealer for a complete list of items available for your new loader.

| | Item Description | Part Number |
|---|---|---|
| **Required Accessories** | Dual Front Hydraulic Auxiliary Kit (4500/4520) | 70.4164 |
| | Rear Weight Bar Kit* | 70.4144 |
| | 3-N-1 Adapter (3-point Hitch)* | 39.56114 |
| | Ventrac Weights (requires 6)* | 47.0115 |

*The loader requires either a rear weight bar with six Ventrac weights or a minimum of 113.5 kg (250 pounds) of rear counterweight.

| | Item Description | Part Number |
|---|---|---|
| **Optional Accessories** | KM100 Rock Bucket with Grapple | 70.8241 |
| | KM300 Log Grapple | 70.8243 |
| | KM660 Light Material Bucket | 70.8244 |
| | 3rd Auxiliary Function Kit (4520 power units only) | 70.8252 |
| | Relief Valve Kit (for additional power units) | 70.8253 |

## Product Description

The Ventrac KM500 loader is designed for use with a variety of buckets and tools, making it a versatile attachment capable of performing several different tasks. The loader comes with a standard .127 cubic meter (1/6 cubic yard) bucket capable of lifting loads up to 132 cm (52 inches) high.

The optional light material bucket can be used for mulch and other light materials. The light material bucket has a .382 cubic meter (1/2 cubic yard) capacity.

When using the loader, the power unit must be equipped with a relief valve kit to protect the loader's hydraulic cylinders. The loader comes standard with one relief valve kit, but additional kits may be purchased if the loader will be used with multiple power units.

A 3rd auxiliary function kit can be added to 4520 power units to divert the lift cylinder hydraulics for use with loader functions. This allows the primary SDLA lever to control the raising and lowering of the loader arms and, in turn, allows the secondary SDLA lever to control both the tilt of the bucket or tool and the control of a third function, such as a bucket grapple.

## Why Do I Need an Operator's Manual?

This manual has been created to help you gain the important knowledge of what is needed to safely operate and maintain your machine, and to avoid injury and product damage. It is divided into chapters for convenient reference of the appropriate information.

You must read and understand the operator's manual for each piece of Ventrac equipment you own. Reading the operator's manual will help you become familiar with each specific piece of equipment. If this manual becomes damaged or unreadable, it should be replaced immediately. Contact your local Ventrac dealer for a replacement.

When using a Ventrac attachment, be sure to read and follow the safety and operating instructions of both the power unit and the attachment being used to ensure the safest operation possible.

The information in this manual provides the operator with the safest procedures to operate the machine while getting the maximum use out of the unit. Failure to follow the safety precautions listed in this manual may result in personal injury and/or damage to the equipment.

## Using Your Manual

This manual identifies potential hazards and safety concerns to help you, as well as others, avoid personal injury and/or damage to the equipment.

Safety should always be the first priority when working on or operating equipment. Accidents are more likely to occur when proper operating procedures are not followed or inexperienced operators are involved.

## SYMBOL DEFINITIONS

This symbol identifies potential health and safety hazards. It marks safety precautions. Your safety and the safety of others is involved.

There are three signal words that describe the level of safety concern: Danger, Warning, and Caution.

## SIGNAL WORD DEFINITIONS

**⚠ DANGER**

Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury. This signal word is limited to the most extreme cases.

**⚠ WARNING**

Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

**⚠ CAUTION**

Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury and/or property damage. It may also be used to alert against unsafe practices.

This manual also uses two words to highlight information. **ATTENTION** calls attention to special mechanical information to prevent equipment damage and/or best practices for equipment service and care.
**NOTE** emphasizes general information that is worthy of special attention.

NOTE: Right-Hand and Left-Hand orientations may be referred to at different places throughout this manual. Right-Hand and Left-Hand is determined as if facing forward from the operator station.

## Manual Glossary

| | |
|---|---|
| **Power Unit** | A Ventrac tractor or other Ventrac engine powered device that may be operated by itself or with an attachment or accessory. |
| **Attachment** | A piece of Ventrac equipment that requires a Power Unit for operation. |
| **Accessory** | A device that attaches to a Power Unit or Attachment to extend its capabilities. |
| **Machine** | Describes any “Attachment” or “Accessory” that is used in conjunction with a power unit. |

## General Safety Procedures for Ventrac Power Units, Attachments, & Accessories

### Training Required

- The owner of this machine is solely responsible for properly training the operators.
- The owner/operator is solely responsible for the operation of this machine and for the prevention of accidents or injuries occurring to him/herself, other people, or property.
- Do not allow operation or service by children or untrained personnel. Local regulations may restrict the age of the operator.
- Before operating this machine, read the operator's manual and understand its contents.
- If the operator of the machine cannot understand this manual, then it is the responsibility of this machine's owner to fully explain the material within this manual to the operator.
- Learn and understand the use of all the controls.
- Know how to stop the power unit and the attachments quickly in the event of an emergency.

### Requirements for Personal Protective Equipment (PPE)

- The owner is responsible for ensuring that all the operators use the proper PPE while operating the machine. Whenever you use the machine, use the following PPE:
- Certified eye protection and hearing protection.
- Closed toe, slip resistant footwear.
- Long pants or trousers.
- A dust mask for dusty conditions.
- Additional PPE may be required. Refer to the product safety procedures for any additional requirements.

### Operation Safety

- Secure long hair and loose clothing. Do not wear jewelry.
- Inspect the machine before operation. Repair or replace any damaged, worn, or missing parts. Be sure the guards and shields are in proper working condition and are secured in place. Make any necessary adjustments before operating the machine.
- Some pictures in this manual may show shields or covers opened or removed in order to clearly illustrate the instructions. Under no circumstance should the machine be operated without these devices in place.
- Alterations or modifications to this machine can reduce safety and could cause damage to the machine. Do not alter the safety devices or operate with the shields or covers removed.
- Before each use, verify that all the controls function properly and inspect all the safety devices. Do not operate if the controls or safety devices are not in proper working condition.
- Check the parking brake function before operating. Repair or adjust the parking brake if necessary.
- Observe and follow all of the safety decals.
- All the controls are to be operated from the operator's station only.

## General Safety Procedures for Ventrac Power Units, Attachments, & Accessories

- Always wear a seat belt if the machine has a roll cage/bar installed and in the upright position.
- Ensure the attachment or accessory is locked or fastened securely to the power unit before operating.
- Ensure that all bystanders are clear of the power unit and the attachment before operating. Stop the machine if someone enters your work area.
- Always be alert to what is happening around you, but do not lose focus on the task you are performing. Always look in the direction the machine is moving.
- Look behind and down before backing up to be sure of a clear path.
- If you hit an object, stop and inspect the machine. Make any necessary repairs before operating the machine again.
- Stop operation immediately at any sign of equipment failure. An unusual noise can be a warning of equipment failure or a sign that maintenance is required. Make any necessary repairs before operating the machine again.
- If equipped with a high/low range feature, never shift between high and low range while on a slope. Always move the machine to level ground and engage the parking brake before shifting range.
- Do not leave the machine unattended while it is running.
- Always park the machine on level ground.
- Always shut off the engine when connecting the attachment drive belt to the power unit.
- Never leave the operator's station without lowering the attachment to the ground, engaging the parking brake, shutting off the engine, and removing the ignition key. Make sure all moving parts have come to a complete stop before dismounting.
- Never leave the machine unattended without lowering the attachment to the ground, engaging the parking brake, shutting off the engine, and removing the ignition key.
- Only operate in well-lit conditions.
- Do not operate when there is a risk of lightning.
- Never direct the discharge of any attachment in the direction of people, buildings, animals, vehicles, or other objects of value.
- Never discharge material against a wall or obstruction. The material may ricochet back toward the operator.
- Use extra caution when approaching blind corners, shrubs, trees, or other objects that may obscure your vision.
- Do not run the engine in a building without adequate ventilation.
- Do not touch the engine or the muffler while the engine is running or immediately after stopping the engine. These areas may be hot enough to cause a burn.
- Do not change the engine governor settings or over-speed the engine. Operating the engine at excessive speeds may increase the hazard of personal injury.
- To reduce the hazard of fire, keep the battery compartment, engine, and muffler areas free of grass, leaves, excessive grease, and other flammable materials.

## General Safety Procedures for Ventrac Power Units, Attachments, & Accessories

- Clear the working area of objects that might be hit or thrown from the machine.
- Keep people and pets out of the working area.
- Know the work area well before operation. Do not operate where traction or stability is questionable.
- Reduce speed when you are operating over rough ground.
- Equipment can cause serious injury and/or death when improperly used. Before operating, know and understand the operation and safety of the power unit and the attachment being used.
- Do not operate the machine if you are not in good physical and mental health, if you will be distracted by personal devices, or if you are under the influence of any substance which might impair your decisions, dexterity, or judgment.
- Children are attracted to machine activity. Be aware of children and do not allow them in the work area. Turn off the machine if a child enters the work area.
- Power units, attachments, and accessories are not designed or intended for travel on public roadways. Never operate or travel on public roads or highways.
- Operate with safety lights when operating near roadways.
- Slow down and be careful of traffic when operating near or crossing roadways. Stop before crossing roads or sidewalks. Use care when approaching areas or objects that may obscure vision.

### Keep Riders Off

- Only allow the operator on the power unit. Keep riders off.
- Never allow riders on any attachment or accessory.

### Operating On Slopes

- Slopes can cause loss-of-control and tip-over accidents, which can result in severe injury or death. Be familiar with the emergency parking brake, along with the power unit controls and their functions.
- If the power unit is equipped with a fold down roll bar, it must be locked in the upright position when operating on any slope.
- Use low range (if equipped) when operating on slopes greater than 15 degrees.
- Do not stop or start suddenly when operating on slopes.
- Never shift between high and low range while on a slope. Always move the power unit to level ground and engage the parking brake before shifting range or placing the power unit in neutral.
- Variables such as wet surfaces and loose ground will reduce the degree of safety. Do not drive where the machine could lose traction or tip over.
- Keep alert for hidden hazards in the terrain.
- Stay away from drop-offs, ditches, and embankments.
- Sharp turns should be avoided when operating on slopes.
- Pulling loads on hills decreases safety. It is the responsibility of the owner/operator to determine loads that

## General Safety Procedures for Ventrac Power Units, Attachments, & Accessories

can safely be controlled on slopes.
- Transport the machine with the attachment lowered or close to the ground to improve stability.
- While operating on slopes, drive in an up and down direction whenever possible. If turning is necessary while driving across slopes, reduce your speed and turn slowly in the downhill direction.
- Ensure a sufficient supply of fuel for continuous operation. A minimum of one-half tank of fuel is recommended.

### Truck Or Trailer Transport

- Use care when loading or unloading the machine into a truck or trailer.
- Use full width ramps for loading the machine into a truck or trailer.
- The parking brake is not sufficient to lock the machine during transport. Always secure the power unit and/or attachment to the transporting vehicle securely using straps, chains, cables, or ropes. Both the front and rear straps should be directed down and outward from the machine.
- Shut off the fuel supply to the power unit during transport on a truck or trailer.
- If equipped, turn the battery disconnect switch to the Off position to shut off electrical power.

### Maintenance

- Keep the safety decals legible. Remove all grease, dirt, and debris from the safety decals and instructional labels.
- If any decals are faded, illegible, or missing, contact your dealer promptly for replacements.
- When new components are installed, be sure that the current safety decals are affixed to the replacement components.
- If any component requires replacement, use only original Ventrac replacement parts.
- Always turn the battery disconnect to the Off position or disconnect the battery before performing any repairs. Disconnect the negative terminal first and the positive terminal last. Reconnect the positive terminal first and the negative terminal last.
- Keep all bolts, nuts, screws, and other fasteners properly tightened.
- Always lower the attachment to the ground, engage the parking brake, shut off the engine, and remove the ignition key. Make sure all moving parts have come to a complete stop before cleaning, inspecting, adjusting, or repairing.
- If the power unit, attachment, or accessory requires repairs or adjustments not instructed in the operator's manual, the power unit, attachment, or accessory must be taken to an authorized Ventrac dealer for service.
- Never perform maintenance on the power unit and/or attachment if someone is in the operator's station.
- Always use protective glasses when handling the battery.
- Check the fuel lines for tightness and wear on a regular basis. Tighten or repair them as needed.
- To reduce the hazard of fire, keep the battery compartment, engine, and muffler areas free of grass, leaves, and excess grease.

## General Safety Procedures for Ventrac Power Units, Attachments, & Accessories

- Do not touch the engine, the muffler, or other exhaust components while the engine is running or immediately after stopping the engine. These areas may be hot enough to cause a burn.
- Allow the engine to cool before storing and do not store near an open flame.
- Do not change the engine governor settings or over-speed the engine. Operating engine at excessive speeds may increase the hazard of personal injury.
- Springs may contain stored energy. Use caution when disengaging or removing springs and/or spring loaded components.
- An obstruction or blockage in a drive system or moving/rotating parts may cause a buildup of stored energy. When the obstruction or blockage is removed, the drive system or moving/rotating parts may move suddenly. Do not attempt to remove an obstruction or blockage with your hands. Keep your hands, feet, and clothing away from all power-driven parts.

### Fuel Safety

- To avoid personal injury or property damage, use extreme care in handling gasoline. Gasoline is extremely flammable and the vapors are explosive.
- Do not refuel the machine while smoking or at a location near flames or sparks.
- Always refuel the machine outdoors.
- Do not store the machine or fuel container indoors where the fumes or fuel can reach an open flame, spark, or pilot light.
- Only store fuel in an approved container. Keep out of the reach of children.
- Never fill containers inside a vehicle or on a truck or trailer bed with a plastic liner. Always place the containers on the ground away from your vehicle before filling.
- Remove the machine from the truck or trailer and refuel it on the ground. If this is not possible, refuel the machine using a portable container, rather than from a fuel dispenser nozzle.
- Never remove the fuel cap or add fuel with the engine running. Allow the engine to cool before refueling.
- Never remove the fuel cap while on a slope. Only remove the fuel cap when parked on a level surface.
- Replace the fuel tank cap and the container cap securely.
- Do not overfill the fuel tank. Only fill to the bottom of the fuel neck, do not fill the fuel neck full. Overfilling of the fuel tank could result in engine flooding, fuel leakage from the tank, and/or damage to the emissions control system.
- If fuel is spilled, do not attempt to start the engine. Move the power unit away from the fuel spill and avoid creating any source of ignition until the fuel vapors have dissipated.
- If the fuel tank must be drained, it should be drained outdoors into an approved container.
- Check the fuel lines for tightness and wear on a regular basis. Tighten or repair them as needed.
- The fuel system is equipped with a shut-off valve. Shut off the fuel when transporting the machine to and from the job, when parking the machine indoors, or when servicing the fuel system.

## General Safety Procedures for Ventrac Power Units, Attachments, & Accessories

### Hydraulic Safety

- Make sure the hydraulic connections are tight and all hydraulic hoses and tubes are in good condition. Repair any leaks and replace any damaged or deteriorated hoses or tubes before starting the machine.
- Hydraulic leaks can occur under high pressure. Hydraulic leaks require special care and attention.
- Use a piece of cardboard and a magnifying glass to locate suspected hydraulic leaks.
- Keep your body and hands away from pinhole leaks or nozzles that eject high pressure hydraulic fluid. Hydraulic fluid escaping under high pressure can penetrate the skin causing serious injury, leading to severe complications and/or secondary infections if left untreated. If hydraulic fluid is injected into the skin, seek immediate medical attention no matter how minor the injury appears.
- The hydraulic system may contain stored energy. Before performing maintenance or repairs on the hydraulic system, remove any attachments, engage the parking brake, disengage the weight transfer system (if equipped), shut off the engine, and remove the ignition key. To relieve pressure on the auxiliary hydraulic system, shut off the power unit engine and move the hydraulic control lever left and right before disconnecting the auxiliary hydraulic quick couplers.

## KM500 Safety Procedures

- The power unit must be set in low range for loader operation.
- The loader must be securely fastened to the power unit (both the front hitch and the rear anchor mount shaft) and the bucket or tool must be secured to the loader's tool mount frame prior to operation.
- The maximum angle of slope operation is 10 degrees (with or without dual wheels).
- Turning reduces power unit stability.
- Due to added length and weight, allow extra distance for turning and stopping.
- The maximum load must not exceed 317.5 kg (700 pounds), including the bucket or other tool.
- When the loader is raised, extra caution must be used to keep the load level to prevent dumping or throwing material back onto the power unit and/or the operator.
- Do not contact overhead structures while raising the loader.
- Always carry the load low to the ground. Use extreme caution when loading, transporting, or dumping a load that impairs the operator's line of sight.
- Lower the loader arms completely before leaving the operator's seat.
- Additional rear counterweight must be used when operating the loader. Use a Ventrac accessory weight bar equipped with six Ventrac weights. Accessory weight bars are listed in the introduction section of this manual. A minimum of 113.5 kg (250 pounds) of rear counterweight is required when operating the loader.
- Remove the rear counterweight prior to detaching the loader from the power unit.
- When using the loader on a power unit equipped with dual wheels, care must be taken to avoid contacting the outer dual wheels with obstacles. Reduce speed and minimize the impact resulting from abrupt changes in terrain.
- Dual wheels should not be used when excavating hard or heavy material.
- When operating the loader, inflate the tires to the upper range of the recommended tire pressure for your specific tire. Refer to the power unit operator's manual for the maximum tire pressure for each tire type.
- Check and adjust (if necessary) the tire pressure after detaching the loader. Refer to power unit operator's manual for tire pressure specifications.
- Do not place any part of your body or limbs under the raised loader arms, bucket, or accessory tool at any time. Do not allow any person to be underneath the raised loader and tool.
- Lower the loader arms completely before opening the power unit hood. Do not operate loader while the power unit hood is open or the hood may be damaged.
- Do not use the loader as a jack to raise the power unit's front tires off the ground.
- An accessory tool must be attached to the loader before detaching from power unit.
- The loader hydraulic system may contain stored energy. Before performing maintenance or repairs on the hydraulic system, the attachment's auxiliary hydraulic hoses must be disconnected from the power unit. Lower the attachment to the ground and shut off power unit engine. Turn the ignition key to the Run position and move the secondary SDLA lever left and right to relieve auxiliary hydraulic pressure in the primary circuit. Press and hold the handle switch while moving the secondary SDLA lever left and right to relieve auxiliary hydraulic pressure in the secondary circuit and disconnect the auxiliary hydraulic quick couplers. If the loader is equipped with a third auxiliary function kit, turn the third auxiliary switch on and move the primary SDLA lever left and right to relieve auxiliary hydraulic pressure.
- The power unit's steering cylinder must be mounted in the outer holes in the rear frame when operating the loader.

## Safety Decals

The following safety decals must be maintained on your attachment.

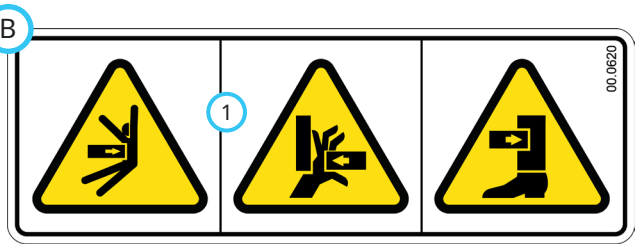
Keep all safety decals legible. Remove all grease, dirt, and debris from safety decals and instructional labels. If any decals are faded, illegible, or missing, contact your dealer promptly for replacements.

When new components are installed, be sure that current safety decals are affixed to the replacement components.


A

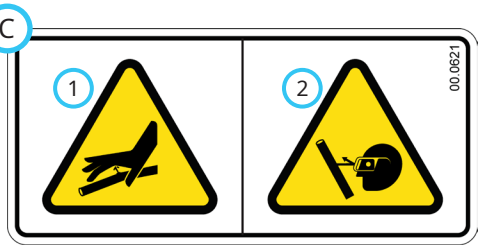

1. Warning - Read the operator's manual.

B



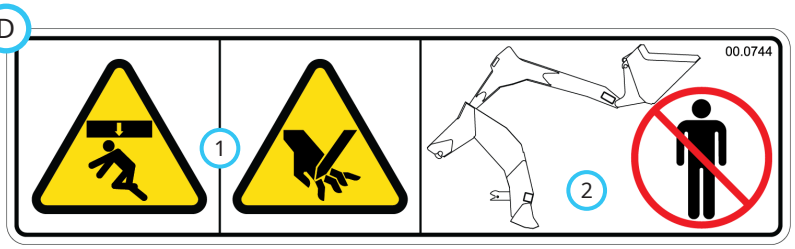

1. Pinching or crushing hazard.

C



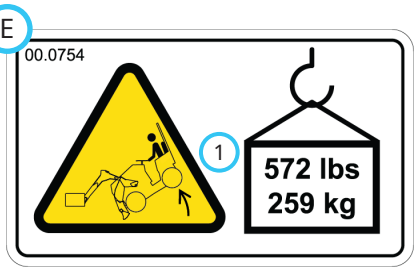

1. High pressure fluid hazard - keep your body and hands away from suspected hydraulic leaks.
2. Wear eye protection when inspecting the hydraulic system for leaks.

D




1. Crushing hazard; cutting hazard.
2. Keep away from the bucket and the lift arms.

E

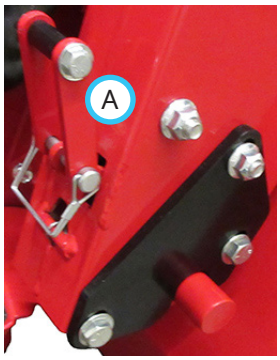


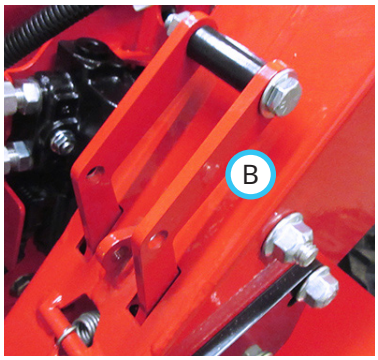

1. Tipping hazard - Do not exceed the maximum working capacity of 259 kg (572 pounds) in the KM500 standard bucket.

| Decal | Description | Part Number | Quantity |
|---|---|---|---|
| A | Read Operator's Manual | 00.0619 | 1 |
| B | Pinching or Crushing Hazard | 00.0620 | 2 |
| C | High Pressure Fluid Hazard | 00.0621 | 2 |
| D | Crushing Hazard - Loader | 00.0744 | 2 |
| E | Tipping Hazard - KM500 Bucket | 00.0754 | 1 |

## Loader Latch Handles

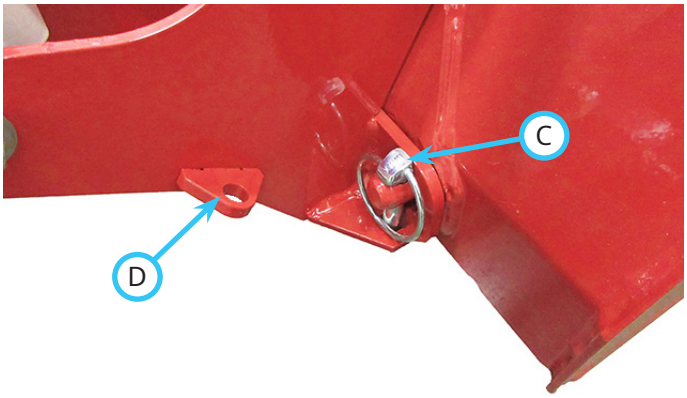
The loader latch handles engage (A) or disengage (B) the loader latches from the rear anchor mount shaft.



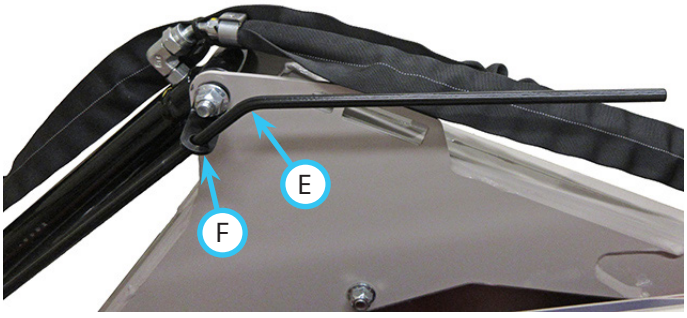

## Tool Mount Locking Pins

The tool mount locking pins (C) secure the bucket or tool to the loader mount. When the bucket or tool is removed, the pins can be placed in the storage tabs (D) on the tool mount frame.




## Bucket Indicator Rod

The bucket indicator rod indicates the position where the bucket is level when lowered to the ground. When the bucket is lowered to the ground, the bucket will be level when the bend (E) in the indicator rod is even with the upper bracket (F).




## Controls for the Standard Loader

The loader functions are controlled by the power unit's secondary SDLA lever*. Pull the secondary SDLA lever to the left to raise the loader arms. Push the secondary SDLA lever to the right to lower the loader arms.

Press and hold the button on the secondary SDLA lever to control the tilt function of the tool mount frame. Press the button and pull the secondary SDLA lever to the left to tilt the bucket or tool back toward the power unit. Press the button and push the secondary SDLA lever to the right, to dump the bucket or tilt the bucket or tool forward away from the power unit.

## Controls for the Loader with 3rd Auxiliary Function Kit

A third auxiliary function kit is available (4520 only) to provide the ability to control the loader arms with the primary SDLA lever and also to control a third auxiliary function on a tool (e.g., controlling grapple jaws).

A switch (G), mounted to the right of the parking brake, controls the valves that direct the primary SDLA hydraulics to either the front hitch lift cylinder or to the set of quick couplers included in the 3rd auxiliary function kit.


When the switch is on, the loader arms are controlled by the primary SDLA lever. Pull the primary SDLA lever to the left to raise the loader arms. Push the primary SDLA lever to the right to lower the loader arms.

Pull the secondary SDLA lever to the left to tilt the bucket or tool back toward the power unit. Push the secondary SDLA lever to the right, to dump the bucket or tilt the bucket or tool forward away from the power unit.

Press and hold the button on the secondary SDLA lever and move the secondary SDLA lever to the left or right to control the auxiliary functions of the tool (e.g., opening or closing the grapple jaws).

NOTE: if the power unit is shut off, the switch (G) will need to be turned off and back on when the power unit is restarted in order to control the loader arms.

*Refer to power unit operator's manual for operation of power unit controls.

## Daily Inspection

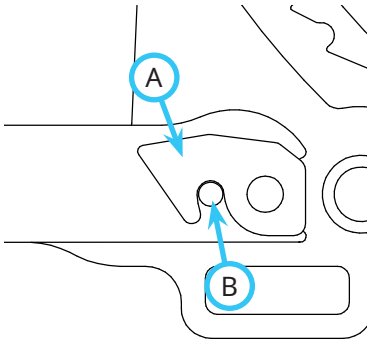
**⚠ WARNING**

Always engage the parking brake, shut off the power unit engine, remove the ignition key, and ensure that all moving parts have come to a complete stop before inspecting the components, or attempting any repair or adjustment.

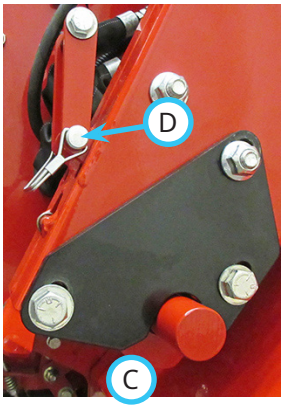
1. Park the machine on a level surface, with the engine shut off and all fluids cold.
2. Perform a visual inspection of both the power unit and the attachment. Look for loose or missing hardware, damaged components, or signs of wear.
3. Inspect the hydraulic hoses and the hydraulic fittings to ensure tight, leak free connections.
4. Inspect the bucket or tool to ensure it is properly attached and locked onto the loaders tool attachment frame.
5. Inspect the loader to ensure the loader frame is securely latched to the rear anchor mount shaft.
6. Check the power unit's tire pressure. The tires should be inflated to the upper range of the recommended pressure for the tire type. Refer to the power unit operator's manual for tire pressure specifications.
7. Ensure the required amount of rear counterbalance weight is installed on the power unit.

## Attaching the Loader to the Power Unit

1. Drive the power unit slowly forward into the hitch arms of the attachment. Align the lift arms of the power unit with the attachment hitch arms by raising or lowering the front hitch and complete the engagement.
2. Once completely engaged, move the front hitch latch lever* to the locked position. The latch (A) must lock over the attachment's hitch arm pin (B).
3. Engage the parking brake* and shut off the engine.




4. Wipe the hose ends clean and connect to the power unit's hydraulic quick couplers. Connect the hoses and the quick couplers so the colored indicators are paired together (red to red, etc.). Connect the pressure relief hose to the pressure relief (flat face) coupler on the power unit.
5. Ensure that the rear loader latches are in the unlocked position.
6. Restart the power unit engine and raise the front hitch until the rear loader mount brackets engage the rear anchor mount shaft.
7. Shut off the power unit engine.
8. Pull out on the rear loader latch handles to engage the latch (C) on the rear anchor mount shaft and secure with the safety snap pins (D).




9. Lower the loader bucket to the ground.
10. Install counterweight onto the rear of the power unit. A minimum of 113.5 kg (250 pounds) of rear counterweight is required. The recommended method for adding counter weight is to install either a rear weight bar kit (for either standard or 3-point hitches) or a 3-N-1 adapter (for a 3-point hitch). Install six Ventrac weights onto the weight bar or 3-N-1 adapter.
11. Move the power unit's steering cylinder to the outer hole position in the rear lower frame.
12. Adjust the tire pressure to the upper range of the recommended tire pressure for your tire type. Do not over-inflate. Refer to the power unit operator's manual for maximum tire pressure.

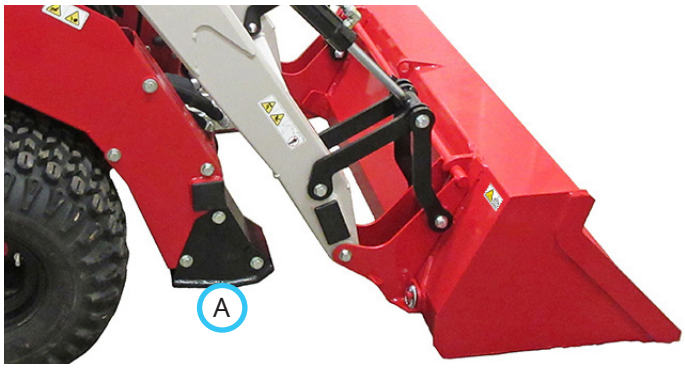
*Refer to power unit operator's manual for operation of power unit controls.

## Detaching the Loader from the Power Unit

**ATTENTION**

Do not remove the loader from the power unit without an accessory bucket or tool attached to support the loader during storage.

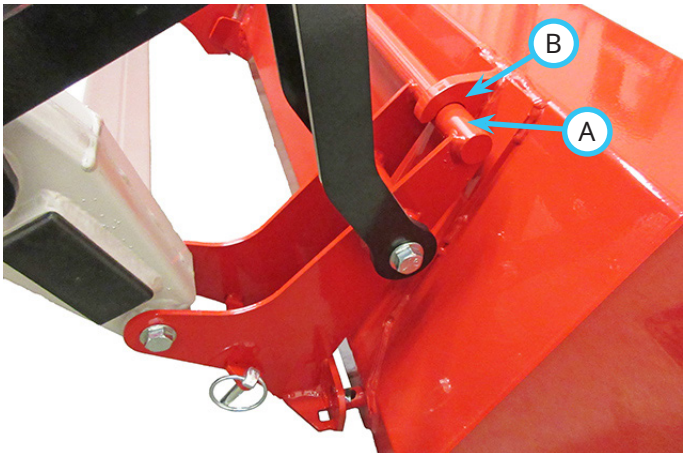
1. Park the power unit on a level surface and engage the parking brake.
2. Remove the counterweights from the rear of the power unit.
3. Raise the loader arms until the bucket or tool is approximately 61 cm (2 feet) off the ground.
4. Remove the safety snap pins from the rear loader latches.
5. Lower the front hitch until the loader frame skids (A) are resting on the ground.



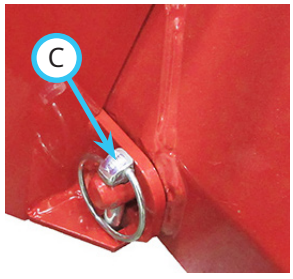

6. Lower the loader arms until the bucket or tool is resting on the ground.
7. Shut off the power unit engine.
8. Disconnect the hydraulic quick couplers from the power unit and store the hose ends in holes in the frame plate on the loader arm.
9. Disengage the front hitch locking lever.
10. Restart the power unit and slowly back away from the attachment. A side to side movement of the steering wheel may aid in disengagement.
11. Adjust the tire pressure to the normal operating pressure.
12. Move the power unit's steering cylinder to the inner hole position in the rear lower frame, unless the power unit will be equipped with dual wheels or a weather cab.

## Attaching a Tool to the Loader

1. Tilt the tool mount frame forward.
2. Align the loader with the center of the tool and drive forward slowly while guiding the tool mount frame into the tool mount.
3. Raise the loader arms slightly to engage the top mount shaft (A) of the tool mount frame into the upper latch hook (B) on the tool.




4. Tilt the tool mount frame back until the latch pins protrude through the lower latch plate on the tool mount frame.
5. Insert the linch pins (C) through the latch pins to lock the tool to the tool mount frame.




## Detaching a Tool from the Loader

1. Tilt the tool mount frame back and remove the linch pins from the tool latch pins.
2. Tilt the tool mount frame forward until the bottom latch pins on the tool clear the plate on the tool mount frame.
3. Lower the tool to the ground.
4. Lower the loader arms until the top mount shaft of the tool mount frame disengages from the upper latch hooks on the tool.
5. Back the machine away from the tool.

## Operating Procedure

Before operation, perform the daily inspection and shift the power unit into low range.

The added length and weight of the loader affects the turning ability and increases the stopping distance. Start off driving slowly until you become familiar with the handling of the power unit and loader.

When filling the bucket, level the bucket to prevent surface gouging and drive forward slowly into the material. Do not use high speed to ram a pile of material. Continue to fill the bucket by driving forward slowly while beginning to raise the loader arms. To complete the fill, roll the bucket back and raise the loader arms.

If your forward motion stalls while attempting to take a large scoop of material, stop or slightly reverse the power unit to reduce the penetration force on the bucket, then take a smaller scoop of material.

While hauling the loaded material to another location, use speeds that are safe for the terrain and surface conditions. Carry the load as low as possible to keep the center of gravity low for maximum stability. Carrying the load low also allows the operator to have a clear forward view.

When lifting a load, keep the bucket positioned properly to avoid spilling material over the back of the bucket onto the power unit or the operator. Tilt the bucket forward while raising the loader arms to maintain the bucket angle.

When using tools other than a bucket, refer to that tool's operators manual for complete operation instructions.

**⚠ WARNING**

Always engage the parking brake, shut off the power unit engine, remove the ignition key, and ensure that all moving parts have come to a complete stop before inspecting the components, or attempting any repair or adjustment.

**ATTENTION**

If any component requires replacement, use only original Ventrac replacement parts.

## Cleaning and General Maintenance

For best results, and to maintain the finish of the loader, clean or wash the loader after each use to remove dirt, mud, stones, mulch, or other debris.

## Storage

### Preparing the Attachment for Storage

1. Clean the attachment to remove accumulated dirt, mud, stones, mulch, or other debris.
2. Inspect for loose or missing hardware, damaged components, or signs of wear. Repair or replace any damaged or worn components.
3. Inspect the hydraulic hoses and the hydraulic fittings to ensure tight, leak free connections.
4. Inspect the safety decals. Replace any decals that are faded, illegible, or missing.
5. Inspect the painted components for chips, scratches, or rust. Clean and touch up the surfaces as needed.

### Removing the Attachment from Storage

1. Clean the attachment to remove any accumulated dust or debris.
2. Inspect the attachment as instructed in the Daily Inspection section of this manual.
3. Test the attachment to ensure that all the components are working properly.

## Maintenance Schedule

| | # of locations | # of pumps | As Needed | Daily | At 50 hours | At 100 hours | At 150 hours | At 200 hours | At 250 hours | At 300 hours | At 350 hours | At 400 hours | At 450 hours | At 500 hours | At 550 hours | At 600 hours | At 650 hours | At 700 hours | At 750 hours | At 800 hours | At 850 hours | At 900 hours | At 950 hours | At 1,000 hours | Yearly |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Inspection | | | | | | | | | | | | | | | | | | | | | | | | | |
| Inspect for Loose, Missing, or Worn Components | | | | ✓ | | | | | | | | | | | | | | | | | | | | | |
| Inspect the Hydraulic Hoses and Fittings | | | | ✓ | | | | | | | | | | | | | | | | | | | | | |
| Inspect the Safety Decals | | | | ✓ | | | | | | | | | | | | | | | | | | | | | |

## Maintenance Checklist

| | # of locations | # of pumps | As Needed | Daily | At 50 hours | At 100 hours | At 150 hours | At 200 hours | At 250 hours | At 300 hours | At 350 hours | At 400 hours | At 450 hours | At 500 hours | At 550 hours | At 600 hours | At 650 hours | At 700 hours | At 750 hours | At 800 hours | At 850 hours | At 900 hours | At 950 hours | At 1,000 hours | Yearly |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Inspection | | | | | | | | | | | | | | | | | | | | | | | | | |
| Inspect for Loose, Missing, or Worn Components | | | | | | | | | | | | | | | | | | | | | | | | | |
| Inspect the Hydraulic Hoses and Fittings | | | | | | | | | | | | | | | | | | | | | | | | | |
| Inspect the Safety Decals | | | | | | | | | | | | | | | | | | | | | | | | | |

# SPECIFICATIONS

## Dimensions

| | |
|---|---|
| Overall Height | 107 cm (42 inches) |
| Overall Length (with standard bucket) | 173 cm (68 inches) |
| Overall Width | 107 cm (42 inches) |
| Weight (without tools) | 159 kg (350 pounds) |
| Weight of Standard Bucket | 56.7 kg (125 pounds) |
| Weight of Light Material Bucket | 83 kg (183 pounds) |
| Lift Capacity (including tools) | 318 kg (700 pounds) |
| Lift Height | 132 cm (52 inches) |
| Standard Bucket Width | 124.5 cm (49 inches) |
| Standard Bucket Capacity | .127 $m^3$ (.167 $yd^3$) |
| Light Material Bucket Width | 170 cm (67 inches) |
| Light Material Bucket Capacity | .382 $m^3$ (.5 $yd^3$) |

## Features

Ventrac mount system

Tool mount system