Operator's Manual & Parts Drawings

LQ450 Field Mower

Serial Number LQ450-AD1307 --





500 Venture Drive Orrville Oh 44667 www.ventrac.com



Visit ventrac.com/manuals for the latest version of this operator's manual.

A downloadable parts manual is also available.

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.

Date of Purchase: Dealer: Dealer Address:	
Dealer Phone Number: Dealer Fax Number:	
Model # (A): Serial # (B):	A MODEL B SERIAL May Men
Affix Part/Serial Number label here.	

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INTRODUCTION



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

Listed below are just some of the items that can provide you *versatility* as you use your LQ450. Please visit our web site, or contact your authorized Ventrac dealer for a complete list of items available for your new mower.

	Item Description	Part Number				
Accessories	LT Shield Kit For LQ450 (LT3000)	70.0108				
Accessories	LE Shield Kit For LQ450 (LE3100 & LE3200)	70.3021				
	LH Shield Kit For LQ450 (LH3400)	70.3047				

Product Description

The Ventrac LQ450 field mower is designed for the sole purpose of mowing heavy grass and small brush. Two counter-rotating blades discharge the cut grass to the center rear. Suspended front chains allow tall grass to be cut more effectively and reduce the potential for front discharge. Three pins provide three cutting height options: 2 1/4, 3 1/2, and 4 3/4 inches (5.7, 8.9, and 12.1 cm).

A single swivel tire is located on the front center frame of the mower. This position greatly reduces tree branch interference. Skid shoes on both sides provide anti-scalping and blade protection.

The tree shield kit can be installed for use on tree farms, vineyards, nurseries, etc. This shielding protects both the trees and the operator. Branch lifters and power unit tire covers are standard equipment with the tree shield kit.

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, maintain, and service your machine. It is divided into sections for convenient reference of the appropriate section.

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. Understanding the operator's manual will help you, as well as others, avoid personal injury and/or damage to the equipment. Keep this manual with the machine at all times. The manual should remain with the machine even if it is sold. 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.

INTRODUCTION

Using Your Manual

Throughout this manual, you will encounter special messages and symbols that identify potential safety concerns to help you as well as others avoid personal injury or damage to the equipment.

SYMBOL DEFINITIONS



ATTENTION

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. Safety should always be the #1 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. Note: Right-Hand and Left-Hand orientations may be referred to at different places throughout this manual.

SIGNAL WORD DEFINITIONS

Right-Hand and Left-Hand is determined as if sitting on the power unit seat facing forward.

A 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.

A WARNING

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

A 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.

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.

SAFETY

Safety Decals

The following safety decals must be maintained on your LQ450 field mower.

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.



SAFETY



DO NOT OPERATE THIS UNLESS ALL MACHINE SHIELDS ARE IN PLACE. MOVING PARTS CAN CAUSE SERIOUS INJURY OR DEATH.



MOVING PART HAZARD

To prevent serious injury or death from moving parts:

- · Close and secure guards and shields before starting.
- Keep hand, feet, hair and clothing away from moving parts.
- · Disconnect and lockout power source before adjusting or servicing.
- · Do not stand or climb on machine when operating.



THROWN OBJECT HAZARD

- · To prevent serious injury or death from thrown object:
- · Do not operate with deflectors removed.
- · Do not point discharge toward people, animals or buildings when operating.
- Use special care when operating in populated or congested areas.





Decal	Description	Part Number	Quantity
Α	Danger, Shield Missing	00.0062	1
В	Warning - Moving Part Hazard	00.0101	1
С	Danger, Thrown Object Hazard	00.0122	1
D	Danger, Keep Hands and Feet Clear	00.0123	3
Е	Warning, Read Owner's Manual	00.0217	1





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 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 controls.
- Know how to stop the power unit and all attachments quickly in the event of an emergency.

Personal Protective Equipment Requirements

It is the responsibility of the owner to be sure that the operators use the proper personal protective equipment while operating the machine. Required personal protective equipment includes, but is not limited to, the following list.



- Wear a certified ear protection device to prevent loss of hearing.
- Prevent eye injury by wearing safety glasses while operating the machine.
- Closed toe shoes must be worn at all times.
- Long pants must be worn at all times.
- When operating in dusty conditions, it is recommended that a dust mask be worn.

Operation Safety

- Inspect machine before operation. Repair or replace any damaged, worn, or missing parts. Be sure guards and shields are in proper working condition and are secured in place. Make all necessary adjustments before operating machine.
- Some pictures in this manual may show shields or covers opened or removed in order to clearly illustrate any 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 safety devices or operate with shields or covers removed.
- Before each use, verify that all controls function properly and inspect all safety devices. Do not operate if controls or safety devices are not in proper working condition.
- Check parking brake function before operating. Repair or adjust parking brake if necessary.
- Observe and follow all safety decals.
- All controls are to be operated from the operator's station only.
- Always wear a seat belt if the machine has a roll cage/bar installed and in 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 attachment before operating. Stop 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 all necessary repairs before operating 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 all necessary repairs before operating machine again.





Operation Safety (continued)

- 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 machine unattended while it is running.
- · Always park the machine on level ground.
- Always shut off engine when connecting attachment drive belt to the power unit.
- Never leave the operator's station without lowering the attachment to the ground, setting 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 equipment unattended without lowering the attachment to the ground, setting 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. Material may ricochet back towards the operator.
- Use extra caution when approaching blind corners, shrubs, trees, or other objects that may obscure 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 engine at excessive speed 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.

Preventing Accidents



- Clear working area of objects that might be hit or thrown from machine.
- Keep people and pets out of 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 machine if you are not in good physical and mental health, if you will be distracted by personal devices, or are under the influence of any substance which might impair decision, dexterity, or judgment.
- Children are attracted to machine activity. Be aware of children and do not allow them in the working area. Turn off the machine if a child enters the work area.

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 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.



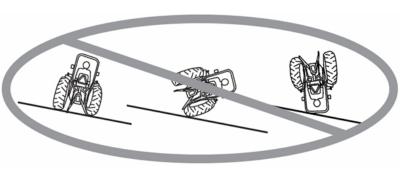
- Never shift between high and low range while on a slope. Always move the power unit to level ground and engage the parking brake before shifting range or placing the power unit in neutral.
- Variables such as wet surface and loose ground will reduce the degree of safety. Do not drive where
 machine 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 can safely be controlled on slopes.
- Transport machine with attachment lowered or close to the ground to improve stability.
- While operating on slopes, drive in an up and down direction when possible. If turning is necessary while driving across slopes, reduce speed and turn slowly in the downhill direction.
- Assure a sufficient supply of fuel for continuous operation. A minimum of one-half tank of fuel is recommended.

Roadway Safety

- Operate with safety lights when operating on or near roadways.
- Obey all state and local laws concerning operation on 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.
- If there is doubt of safety conditions, discontinue machine operation until a time when operation can be performed safely.
- When operating near or on roadways, have a Slow Moving Vehicle Emblem clearly displayed.

Truck Or Trailer Transport

- Use care when loading or unloading machine into a truck or trailer.
- Use full width ramps for loading 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, cable, or ropes. Both front and rear straps should be directed down and outward from the machine.
- Shut off fuel supply to power unit during transport on truck or trailer.
- If equipped, turn the battery disconnect switch to the Off position to shut off electrical power.



SAFETY



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



Maintenance

- 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.
- 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 parking brake, shut off engine, and remove the ignition key. Make sure all moving parts have come to a complete stop before cleaning, inspection, 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 all 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 excessive grease.
- 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 speed 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 hands, feet, and clothing away from all power-driven parts.
- Dispose of all fluids in accordance with local laws.

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 machine while smoking or at a location near flames or sparks.
- Always refuel the machine outdoors.
- Do not store machine or fuel container indoors where fumes or fuel can reach an open flame, spark, or pilot light.
- Only store fuel in an approved container. Keep out of reach of children.
- Never fill containers inside a vehicle or on a truck or trailer bed with a plastic liner. Always place containers on the ground away from your vehicle before filling.
- Remove 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 fuel cap or add fuel with the engine running. Allow engine to cool before refueling.
- Never remove fuel cap while on a slope. Only remove when parked on a level surface.
- Replace all fuel tank and container caps securely.





Fuel Safety (continued)

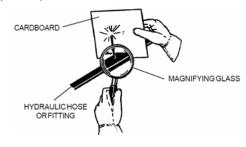
- Do not overfill fuel tank. Only fill to bottom of fuel neck, do not fill fuel neck full. Overfilling of fuel tank could result in engine flooding, fuel leakage from the tank, and/or damage to the emissions control system.
- If fuel is spilled, do not attempt to start the engine. Move the power unit away from the fuel spill and avoid creating any source of ignition until fuel vapors have dissipated.
- If the fuel tank must be drained, it should be drained outdoors into an approved container.
- Dispose of all fluids in accordance with local laws.
- Check all 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.

Hydraulic Safety

- Make sure all 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 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.



- Hydraulic system may contain stored energy. Before performing maintenance or repairs on the hydraulic system, remove attachments, engage parking brake, disengage weight transfer system (if equipped), shut off engine, and remove 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.
- Dispose of all fluids in accordance with local laws.

SAFETY



LQ450 Safety Procedures



Cutting Unit Safety

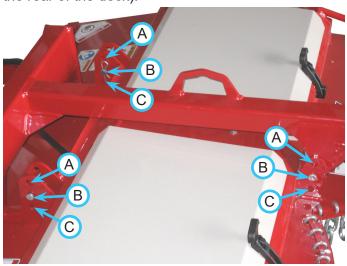
- Rotating Blades: Contact with the rotating mower blades or other moving parts may cause personal injury. Keep hands and feet away.
- Rotation of one blade may cause another blade to rotate.
- Thrown Object Hazard: Do not point discharge toward people, animals, or buildings when operating. Never operate with the deflectors removed.
- When not mowing, always shut off the PTO to stop the mower blades.
- Never raise the mower deck with the blades running.



OPERATIONAL CONTROLS

Cutting Height Selection

The cutting height of the LQ450 is controlled by three pins (one at the front of the deck and two at the rear of the deck).

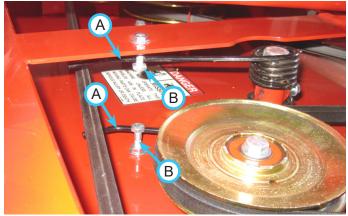


Placing the pins in position A will result in a cutting height of 2-1/4" (5.7 cm).

Placing the pins in position B will result in a cutting height of 3-1/2" (8.9 cm).

Placing the pins in position C will result in a cutting height of 4-3/4" (12.1 cm).

Drive Belt Tension Spring



The drive belt tension spring places tension on the LQ450 drive belt. Hook both arms (A) of the tension spring over the tension spring bolts (B).

Primary S.D.L.A. Control Lever*

Pull the lever to the left to raise the power unit front hitch and LQ450 field mower. Push the lever to the right to lower the power unit front hitch and LQ450 field mower. The control lever must be in the float (detent) position during operation of the mower.

Weight Transfer*

Terrain and ground conditions may affect the appropriate setting for the power unit's weight transfer system (if equipped). In most cases, the weight transfer system should be set from 1/2 to 3/4 of maximum capacity.

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

GENERAL OPERATION

Daily Inspection

AWARNING

Always set the parking brake, shut off the power unit engine, remove the ignition key, and ensure all moving parts have stopped before checking mower deck or blade condition, or attempting any repair or adjustment.

- Park the power unit and mower deck on a level surface, with the engine shut off and all fluids cold.
- Perform a visual inspection of the power unit and mower deck. Look for loose or missing hardware, damaged components, or signs of wear. Inspect hydraulic hoses, hydraulic fittings, and fuel lines to ensure tight, leak free connections.
- Refer to the power unit operator's manual.
 Check the power unit's engine oil, hydraulic oil, cooling system, tire pressure, and fuel level. Add fluid or service system as required.
- 4. Inspect the drive belts and mower blades. Belts should be in good condition. Blades should be sharp and securely fastened. Service as required.
- 5. Refer to the power unit operator's manual. Test the power unit's operator safety interlock system.

Attaching

- Drive the power unit slowly forward into the hitch arms of the field mower. Align the lift arms of the power unit with the field mower hitch arms by raising or lowering the front hitch and complete the engagement.
- 2. Once completely engaged, <u>close the front hitch locking lever</u>.*
- 3. Engage the parking brake* and shut off the engine.
- 4. Place the attachment belt onto the PTO drive pulley on the power unit. Ensure the belt is properly seated in each pulley.
- 5. Remove the top deck covers and engage the drive belt tension spring.
- 6. Reinstall the top deck covers.
- 7. If the power unit is equipped with a shield kit, install the limb pickup rods to the rod mounts on the power unit.

Detaching

- Park the power unit on a level surface and set the parking brake.*
- Lower the field mower to the ground. NOTE: setting the back of the field mower on blocks will raise the hitch arms and allow for easier reattachment.

- 3. Shut off power unit engine.
- 4. Remove the limb pickup rods from the rod mounts on the power unit (if equipped).
- 5. Remove the top deck covers and disengage the PTO tension spring.
- 6. Remove the attachment belt from the PTO drive pulley of the power unit.
- 7. Reinstall the top deck covers.
- 8. Disengage the front hitch locking lever.*
- 9. Restart the power unit and slowly back away from the mower. A side to side movement of the steering wheel may aid disengagement.

If the power unit is equipped with a shield kit, the shields can remain on the power unit, although some attachments may require the removal of the front tire shields.

Mowing and Operating Procedure

Before operation, perform daily inspection and confirm that the cutting height is set properly. Set the power unit's weight transfer system* (if equipped) to the desired setting.

With the power unit engine running between 2,000 and 2,500 RPM, engage the PTO switch. Adjust the throttle to the desired engine RPM.

Lower the mower deck to the ground and place the power unit's primary S.D.L.A. control lever in the float position by pushing it to the right until the detent engages. The lever will stay in this position until intentionally removed.

Begin forward motion in the desired path of mowing. Avoid obstacles, removing debris as necessary.

Lift the mower deck when the edge of the mowing area is reached. Turn the power unit and mower around and align for the next pass.

A WARNING

Always shut off the engine, remove the ignition key, and set the parking brake before checking mower deck or blade condition, or attempting any repair or adjustment.

Blades should be kept in good condition. Sharp blades will increase efficiency and improve the quality of cut.

Mowing in wet conditions may result in a build up of clippings under the deck. Periodic checking should be done by the operator to determine if the deck should be cleaned. The deck should also be checked anytime mowing performance seems to be reduced.

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

GENERAL OPERATION

Transport of Mower

Transport the mower deck with the power unit front hitch and mower fully raised to reduce wear of the equipment. Travel slowly when transporting over undulating and rough surfaces to maintain control of power unit and to reduce the shock to the power unit and mower deck. Always disengage the power unit PTO before transporting the mower.

Cutting Height Adjustment

A WARNING

Always shut off the engine, remove the ignition key, and set the parking brake before checking mower deck or blade condition, or attempting any repair or adjustment.

- 1. Park the power unit and field mower on a smooth, level surface and lower the mower deck to the ground.
- 2. Set the parking brake, shut off the engine, and remove the ignition key.
- 3. Remove the top deck covers and release the drive belt tension spring.
- 4. Pull the pin from the front of the deck and manually lift or lower the front of the deck to the preferred cutting height.
- 5. Place the two pins in the rear of the deck into the corresponding holes of the height selection plates. (If the front pin is in position A, the rear pins must also be in position A.)
- 6. Ensure the hairpins are securely installed on the height selection pins.
- 7. Engage the drive belt tension spring and reinstall the top deck covers.

A WARNING

Always set the parking brake, shut off power unit engine, remove the ignition key, and ensure all moving parts have come to a complete stop before inspecting 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 mower, clean or wash the mower to remove accumulated clippings, leaves, and dirt when the job is finished.

If washing the deck, do not spray directly into bearings or seals. After washing, it is important to run the mower so that water does not reside on seals of bearings for the drive system. When washing is complete, activate the PTO for 30 seconds to remove any standing water.

Mower Blade Removal & Installation

A CAUTION

Mower blades may be sharp. Always wear safety glasses, leather gloves, and a long sleeve shirt when working with mower blades.

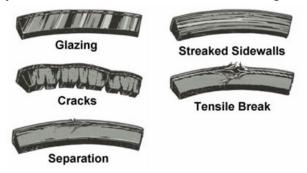
- Use a hoist to lift the deck up and secure in a position that provides easy access to the underside of the deck.
- 2. Place a short piece of 2 x 4 wood between the end of the blade and an appropriate structural part of the underside of the deck to prevent the blade from rotating.
- 3. Loosen the left blade bolt counterclockwise and remove the blade for sharpening or replacement. Loosen the right blade bolt clockwise and remove the blade for sharpening or replacement. NOTE: the mower blades are bidirectional. Switching the blades from one spindle to the other will use the opposite edge of the blade. When the edges are worn, remove the blades and sharpen both sides of the blade.
- 4. When installing a blade, the wood block must be placed on the opposite side to prevent rotation for tightening the blade bolt.
- 5. Tighten the blade bolt to 75-80 ft. lbs.

Sharpening Blades

Blades should be sharpened and balanced by a professional. Maintain balance, same bevel, and length of sharpened surface.

Deck Belt Inspection

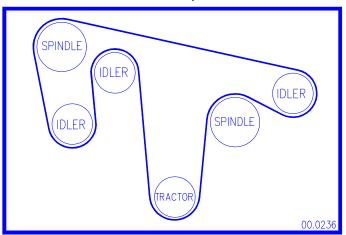
Inspecting the drive belt of the mower can prevent sudden belt failure by finding problems before they cause a belt to break. Typical wear on a drive belt may result in the conditions shown in the diagram.



If any of these conditions occur, the drive belt will require replacement.

Deck Belt Replacement

- 1. Detach the mower deck from the power unit.
- 2. Remove the top deck covers.
- 3. Remove the old deck belt.
- Install the new deck belt. Place belt into the pulley system according to the belt diagram located on the underside of the top deck cover.



5. Ensure the belt is engaged in the groove of each spindle pulley and around each of the idler pulleys.

Tire Pressure

The tire pressure should be maintained at 18-20 psi.

SERVICE

Lubrication

Lubrication is required at the following locations using a lithium complex NLGI #2 grease. Refer to the maintenance schedule for service intervals.



Storage

Preparing the Mower for Storage

- 1. Clean the mower deck and frame.
- Inspect for loose or missing hardware, damaged components, or signs of wear. Repair or replace any damaged or worn components
- 3. Inspect belts, spindles, and blades. Repair or replace any damaged or worn components
- 4. Apply grease to all grease points.
- 5. Wipe off all excess grease or oil.

Removing the Mower from Storage

- 1. Clean the mower to remove any accumulated dust or debris.
- 2. Inspect the mower as instructed in the daily inspection section of this manual.
- 3. Test the mower to ensure all components are working properly.

SERVICE

Maintenance Schedule

									LQ4	50																
Maintenance Schedule	/*		A. C. LIME	Dei (EDES)		4 / SO HOW!	4 100 Hour	4 /30 Hours	4,200 to	A 3 15 16 11 15 1	4,300,48	4 550 Ho., 14	4,400 Hours	150 Holling	4 C 10 10 11 11 11 11 11 11 11 11 11 11 11	4 6 16 W	A1.000 Hours	1.050 Ho A	4 100 to 110 11 1	100 F	\$ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\	\$\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\		\$ 950 HO.	\$ 000 to 100 to	
	Grease & Lubrication: See Lubrication Section																									
Caster Wheel Pivot	1	1			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
Wheel Axle Bearing	1	٨	**		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
Spindle	2	3			\	\	✓	✓	\	✓	\	✓	\	\	\	✓	>	✓	✓	✓	✓	✓	✓	✓		
								lr	spe	ction																
Inspect for Loose, Missing, or Word Components.	n			1																						
Inspect Belts, Pulleys, Blades, and Retaining Bolts	Blad	de		√																					П	
Check Tire Pressure				✓																						
Check Safety Decals				1																						
** Operation in severe conditions may require	more	frequ	ent se	rvice ir	nterval	s.															-				_	
^ Grease Until Fresh Grease is visible																										

Maintenance Checklist

									LQ4	50																
Maintenance Checklist	/*		A C'FUMP SA	NECTO S		\$ 50 Hours	4 /00 /4°	150 Hours	4, 2, 40, 1, 8	4 3 Hours	4, 300 Ho	1,550 HOLL	4 40 40,15	4 5 HOLL	200 Hours	150 How	A 600 Ho	4 2 Hours	2/00/V	150 Ho	\$\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	\$\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	27 00 HO. 12	150 HOW 1	7,000 to 100	
					Grea	se &	Lubi	ricatio	n: S	ee Lı	ubric	ation	Sec	tion												
Wheel Swivel Bearing	1	1																								
Wheel Axle Bearing	1	٨	**																							1
Spindle	2	3																								1
								lr	spe	ction																
Inspect for Loose, Missing, or World Components.	n																									
Inspect Belts, Pulleys, Blades, and Retaining Bolts	Blad	de																								
Check Tire Pressure																										
Check Safety Decals																										
** Operation in severe conditions may require	more	frequ	ent se	rvice	interva	ls.																				
^ Grease Until Fresh Grease is visible																										İ

SPECIFICATIONS

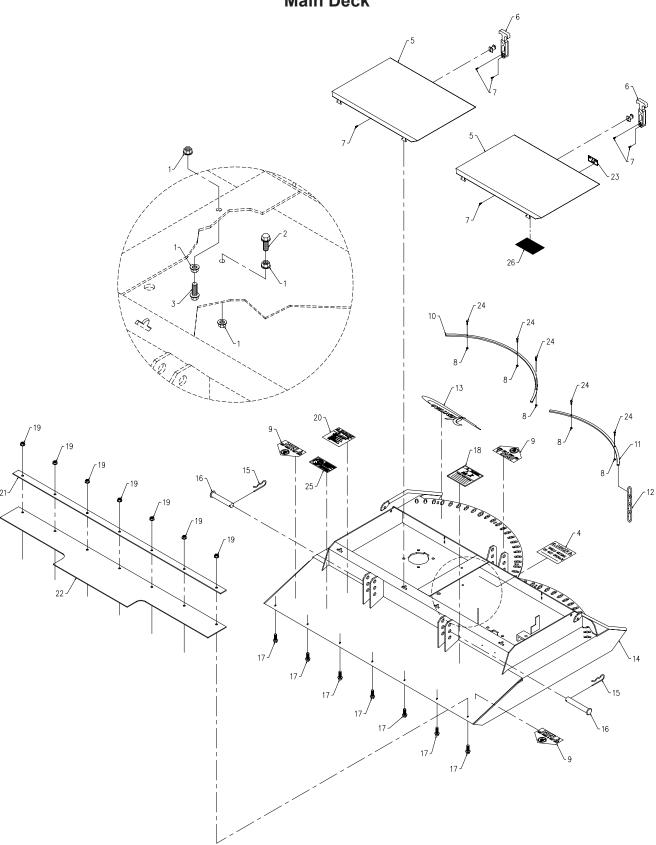
Dimensions

Overall Height	 		18 inches (45.7 cm)
Overall Length	 		. 55 inches (139.7 cm)
Overall Width	 	4	6-1/2 inches (118.1 cm)
Weight	 		. 243 pounds (110.2 kg)
Cutting Width	 		44-1/2 inches (113 cm)
Cutting Height Position # 1	 		. 2-1/4 inches (5.7 cm)
Cutting Height Position # 2	 		. 3-1/2 inches (8.9 cm)
Cutting Height Position #3	 		. 4-3/4 inches (12.1 cm)

Features

Rear discharge deck design Single front tire in center of deck Heavy duty deck construction Field serviceable spindles

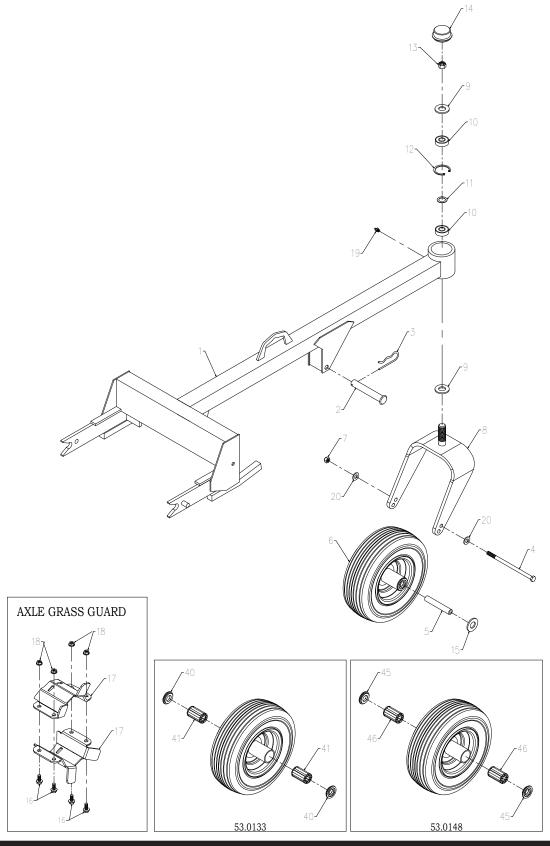
ILLUSTRATED DRAWING Main Deck



Main Deck

REF.	PART NO.	DESCRIPTION	QTY.
2 3 4 5	90.0410 90.0408 00.0062 60.0761	NUT, SRF 1/4-20 USS. BOLT, 1/4-20 USS X 1 1/4 BOLT, 1/4-20 USS X 1 DECAL, DANGER SHIELD MISSING. COVER, TOP DECK LATCH, RUBBER DRAW T-HANDLE	1 1 1
8	. 99.A1032N	. MACHINE SCREW, 10-24 X 1/2 ZP LOCKNUT, NYLON 10-32 STAINLESS DECAL, KEEP HANDS & FEET CLEAR . RETAINER, CHAIN LH LQ . RETAINER, CHAIN RH LQ . CHAIN, 1/4 PLATED X 4 LINKS LG	5 3 1
14	. 62.0864	. DECAL, VENTRAC ORBITAL . DECK, MAIN . HAIRPIN, 1/8 X 2 . CLEVIS PIN, 1/2 X 2 . BOLT, SRF 5/16-18 USS X 3/4 . DECAL, THROWN OBJECT HAZARD	1 2 2 7
20	. 00.0101	NUT, SRF 5/16-18 USS. DECAL, HAZARD-MOVING PART CLAMP, REAR BELTING FLAP, 1/8 REAR BELTING DECAL, MADE IN USA. MACHINE SCREW, #10-32 X 3/4.	1 1 1 1
		. DECAL, WARNING READ OWNERS MAN	

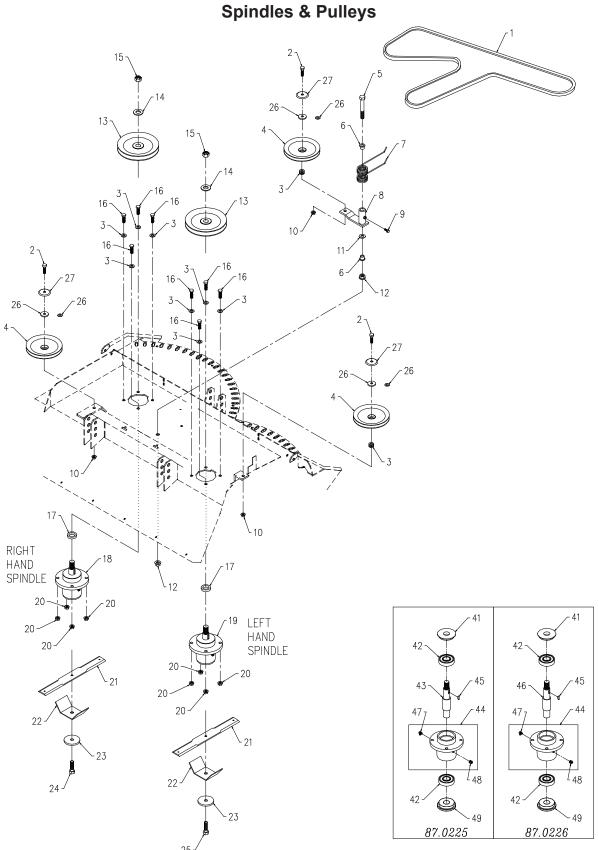
ILLUSTRATED DRAWING Hitch Frame, Wheel, & Axle Grass Guards



Hitch Frame, Wheel, & Axle Grass Guards

REF.	PART NO.	DESCRIPTION	QTY.
2	03.0824 02.HP0416 90.0660 50.0050 53.0133	. FRAME, HITCH/CARRIER CLEVIS PIN, 1/2 X 3 OAL ZP HAIRPIN, 1/8 X 2 BOLT, 3/8-16 USS X 7-1/2 TUBE, RD 7/16 X 3/4 X 6-1/8L A WHEEL, ASM 13 X 5 X 6 CASTER (Serial # 1307-1426) WHEEL, ASM 13X5X6 RIB FLATFREE (Serial # 1427-) .	1 1 1 1
8	50.0183	LOCKNUT, CENTER 3/8-16 YOKE, CASTER 13", HIGH/LOW WASHER, MACH3/4 X1-1/4 10GA ZP BEARING, BALL .75 ID X 1.78 OD SHIM, STEEL 3/4 X 1 X .062 SNAP RING, INT .062 X 1.75	1 2 2
14 15 16 17	53.0080	. LOCKNUT, STOVER 3/4-16 SAE. . DUST CAP, BEARING MOWER CASTER . WASHER, FLAT 3/4 SAE . BOLT, SRF 5/16-18 USS X 3/4 . BRACKET, TRACTOR AXLE GUARD . NUT, SRF 5/16-18 USS	1 A/R 1 A/R 16
20	95.06	. GREASE FTG, 1/4 SAE ST . WASHER, FLAT 3/8 SAE . BEARING, RETAINER 3/4" . BEARING, 3/4 ROLLER 2-1/4" LG . BEARING, RETAINER 3/4" . BEARING, ROLLER REPLACEMENT	2 2 2

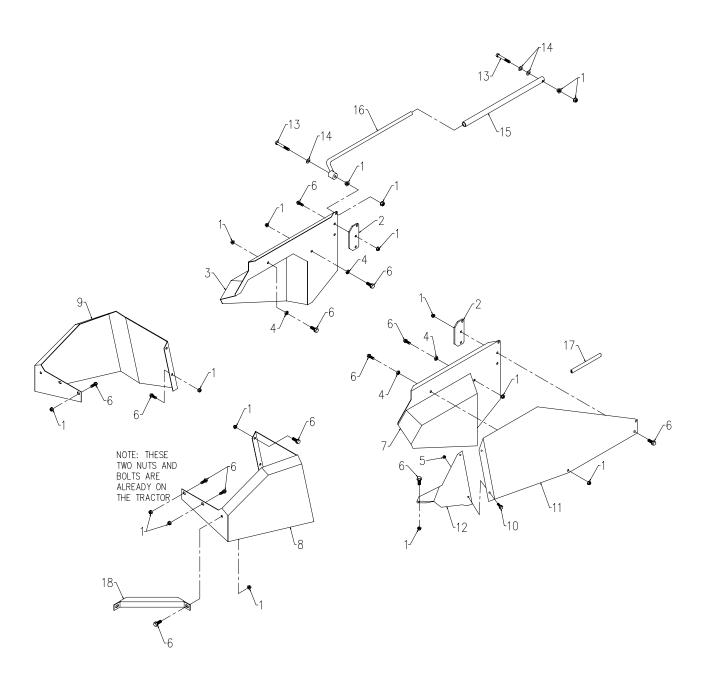
ILLUSTRATED DRAWING



Spindles & Pulleys

REF.	PART NO.	DESCRIPTION	QTY.
2	90.0614 95.06 83.0031 90.0832	.BELT, AA128 .BOLT, 3/8-16 USS X 1 3/4 .WASHER, FLAT 3/8 SAE .PULLEY, V-IDLER 5 1/4 X 3/8 ID .BOLT, 1/2-13 USS X 4 .BUSHING, 1/2 ID X 5/8 OD X 5/8	3 14 3 1
8	. 40.0281	SPRING, DOUBLE TORSION BLACKARM, BELT IDLERBOLT, SRF 1/4-20 X 1/2NUT, SRF 3/8-16 USSWASHER, FLAT 1/2 SAENUT, SRF 1/2-13 USS.	1 3 1
14 15 16 17	99.B0057-2 99.A12NF 90.0612 85.B0080	. PULLEY, 6-1/2, 25 MM STR. BORE. . WASHER, MACH3/4 X1-1/4 10GA ZP . LOCKNUT, STOVER 3/4-16 SAE. . BOLT, 3/8-16 USS X 1 1/2. . BUSHING, 1-1/2 OD, 1 ID. . SPINDLE, ASM RH KEY 25MM CAST	2 2 8
20	99.E0082	SPINDLE, ASM LH KEY 25MM CASTNUT, LOCKING FLANGE 3/8 - 16 .BLADE, 23.00X1/2 BD S FLATGUARD, SPINDLE/ANTI-STRING .WASHER, .510 ID X 2-1/2 OD 1/4 .BOLT, 1/2-20 X 1 3/4 GR8	8 2 2
26	95.06	BOLT, 1/2-20 X 1 3/4 LH GR8WASHER, FLAT 3/8 SAE (Serial # 1307-1396)WASHER, 3/8 USS FW .165 THK (Serial # 1397-1550)COVER, PULLEY (Serial # 1397-)SHIELD, SPINDLE TOPBEARING, 30MM X 62MM X 16MM.	3 3 1
44 45 46 47	87.0225-1 85.W0406 87.0226-2 29.GF0005	SHAFT, SPINDLE RH THREAD 25MM HOUSING, SPINDLE CAST IRON KEY, WOODRUFF 1/4 X 3/4. SHAFT, SPINDLE LH THREAD 25MM GREASE FTG, 1/8 NPT 90. .RELIEF FITTING	1 1 1
49	. 87.0224-3	SHIELD, BOTTOM	1

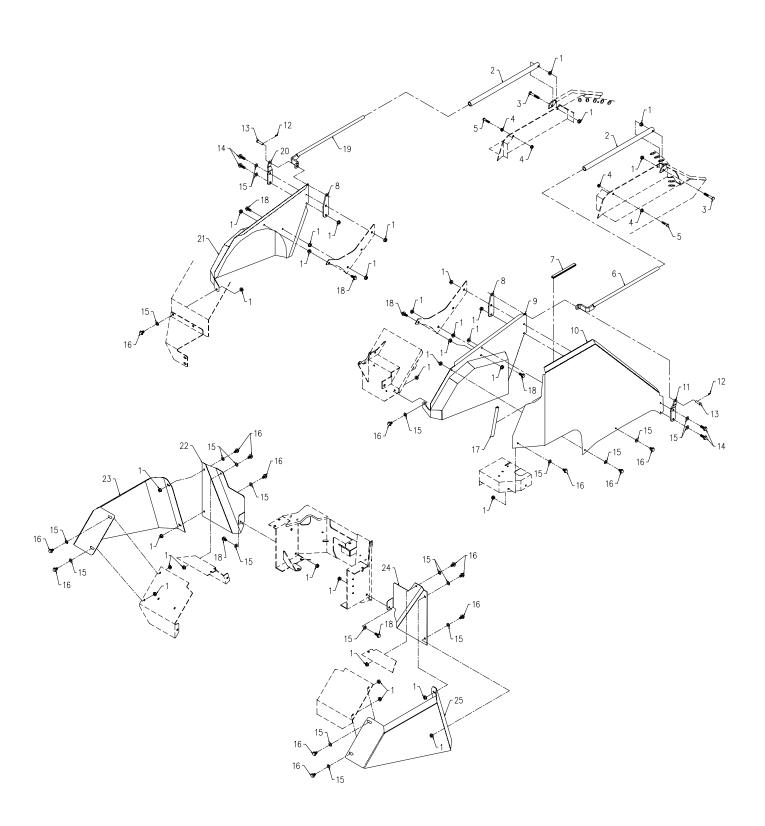
ILLUSTRATED DRAWING 70.0108 LT Shield Kit for LQ450 (LT3000)



70.0108 LT Shield Kit for LQ450 (LT3000)

REF.	PART NO.	DESCRIPTION	QTY.
2	. 64.0912	NUT, SRF 5/16-18 USS. STIFFENER, ANCHR OF SLIDER ROD. COVER, FENDER FRONT LFT LQ450. .NUT, JAM 5/16-18 USS. .NUT, SRF 1/4-20 USS. .BOLT, SRF 5/16-18 USS X 3/4	2 1 4 2
8	. 60.0764	. COVER, FENDER FRONT RT LQ450. . COVER, FENDER REAR RT LQ450. . COVER, FENDER REAR LFT LQ450 . BOLT, SRF 1/4-20 X 1/2 . PROTECTOR, HAND CONTROL LQ . BRACE, HAND CONTROL PROTECTOR	1 2 1
14	. 95.05	BOLT, 5/16-18 USS X 2WASHER, FLAT 5/16 SAETUBE, RD .635 X 7/8 X 16-3/4LLIMB RAISER, UPPER LQ450TRIM, TRIM LOC 1/2 X 1/16 X 35"BRACE, REAR TIRE SHIELD	6 2 1

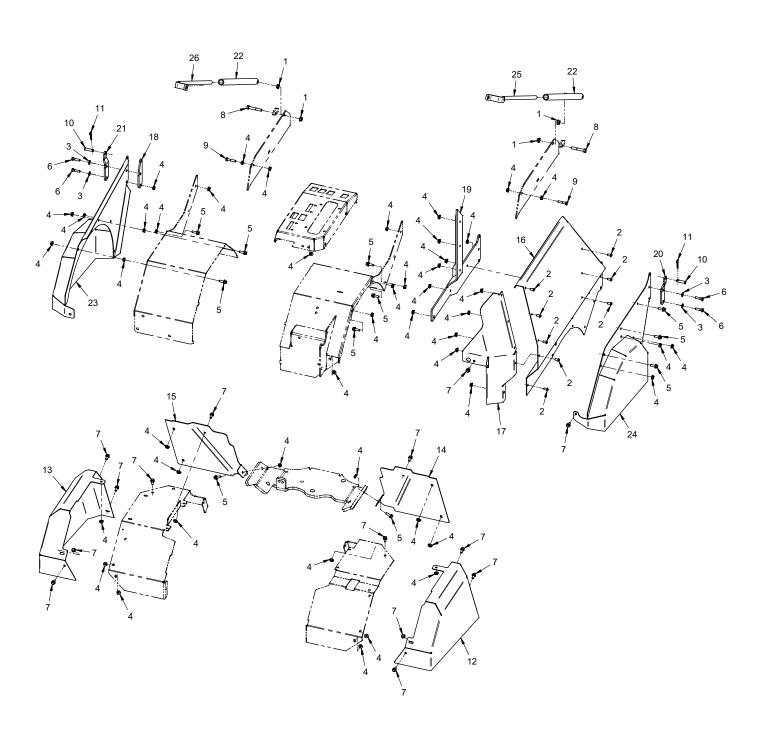
ILLUSTRATED DRAWING 70.3021 LE Shield Kit for LQ450 (LE3100 & LE3200)



70.3021 LE Shield Kit for LQ450 (LE3100 & LE3200)

REF.	PART NO.	DESCRIPTION	QTY.
2	. 64.0870	. NUT, SRF 5/16-18 USS . TUBE, RD .635 X 7/8 X 16-3/4L . BOLT, 5/16-18 USS X 2 . NUT, SRF 1/4-20 USS . BOLT, 1/4-20 USS X 1 1/4 . ROD, RIGHT LIMB PICKUP.	2 2 4 2
8	64.1334	. TRIM, TRIM LOC 1/2 X 1/16 X 11-3/4" PLATE, INSIDE LIMB ROD MT . COVER, TIRE FRONT RIGHT SHIELD, RIGHT HAND PROTECTOR . PLATE, OUTSIDE LIMB ROD MT RH . HAIRPIN, 3/32 X 1-5/8	2 1 1
14 15 16 17	. 99.SF0508	. CLEVIS PIN, 5/16 X 1-1/4. . BOLT, SRF 5/16-18 USS X 1 . WASHER, FLAT 5/16 SAE . BOLT, SRF 5/16-18USS X 1/2 . TRIM, TRIM LOC 1/2 X 1/16 X 8" . BOLT, SRF 5/16-18 USS X 3/4	4 21 15 1
20	. 64.1336	ROD, LEFT LIMB PICKUP. PLATE, OUTSIDE LIMB ROD MT LH COVER, TIRE FRONT LEFT COVER, FRONT LH REAR TIRE COVER, TIRE REAR LEFT COVER, FRONT RH REAR TIRE	1 1 1
25	. 60.1001	COVER, TIRE REAR RIGHT	1

ILLUSTRATED DRAWING 70.3047 LH Shield Kit for LQ450 (LH3400)



70.3047 LH Shield Kit for LQ450 (LH3400)

REF.	PART NO.	DESCRIPTION	QTY.
2 3 4 5	99.0404 95.04 99.SF04 99.SF0406-1	NUT, SRF 5/16-18 USS. BOLT, 1/4-20 X 1/2 BSCS WASHER, FLAT 1/4 SAE NUT, SRF 1/4-20 USS. BOLT, SMF 1/4-20 X 3/4 BOLT, 1/4-20 USS X 1"	8 4 47 11
8	. 90.0516	BOLT, SMF 1/4-20 X 1/2 BOLT, 5/16-18 USS X 2" BOLT, HEX 1/4-20 UNC X 1/1-4" CLEVIS PIN, 5/16 X 1-1/4 HAIRPIN, 3/32 X 1-5/8 COVER, TIRE REAR RIGHT	2 2 2
14	. 60.1226	COVER, TIRE REAR LEFT COVER, FRONT RH TIRE COVER, FRONT LH REAR TIRE SHIELD, RIGHT HAND PROTECTOR SHIELD, REAR SLDA PLATE, INSIDE LIMB ROD MT	1 1 1
20	. 64.1816	PLATE, REINFORCEMENT - SDLA COVER PLATE, OUTSIDE LIMB ROD MT RH PLATE, OUTSIDE LIMB ROD MT LH TUBE, RD .635 X 7/8 X 16-3/4L COVER, TIRE FRONT LEFT COVER, TIRE FRONT RIGHT	1 1 2 1
25 26	. 64.1337	ROD, RIGHT LIMB PICKUPROD, LEFT LIMB PICKUP	1

WARRANTY



LIMITED WARRANTY - VENTRAC COMMERCIAL EQUIPMENT

Venture Products, Inc., (henceforth referred to as V.P.I.) warrants on the terms and conditions herein, that it will repair, replace, or adjust any part manufactured by Venture Products Inc., and found by Venture Products, Inc., to be defective in material and/or workmanship during the applicable warranty term.

All Ventrac commercial equipment purchased and registered on or after January 1, 2019 will carry a 2-year commercial warranty. The warranty period begins on the date of original customer purchase:

Ventrac Commercial Equipment	Warranty Term
2100 SSV & Attachments	2-year
3000 Series Tractors & Attachments	2-year
4000 Series Tractors & Attachments	2-year

All Ventrac add-on kits and accessories such as: 3-point hitch, 12V front & rear power outlets, foot pedal, dual wheel kit, etc., will be covered under the above warranty periods provided they are installed by an Authorized Ventrac Dealer. This warranty may be transferred and will carry the remainder of the warranty starting from the original purchase/registration date with the dealership and/or V.P.I.

The engine warranty is covered by its respective engine manufacturer. Please refer to the engine manufacturer's warranty statement that is included in the owner's manual.

For warranty consideration on Ventrac commercial equipment, including any defective part, must be returned to an Authorized Ventrac Dealer within the warranty period. The warranty shall extend to the cost to repair or replace (as determined by V.P.I.) the defective part. The expense of pickup and delivery of equipment, service call drive time or any transportation expense incurred for warranty repair is the sole responsibility of the owner and is not covered under warranty by Ventrac and/or V.P.I. Ventrac and V.P.I.'s responsibility in respect to claims is limited to making the required repairs or replacements, and no claim of breach of warranty shall be cause for cancellation or rescission of the contract of sale of any Ventrac equipment. Proof of purchase may be required by the dealer to substantiate any warranty claim. Only warranty work performed and submitted by an Authorized Ventrac Dealer may be eligible for warranty credit.

This warranty extends only to Ventrac commercial equipment operated under normal conditions and properly serviced and maintained. The warranty expressly does NOT cover: (a) any defects, damage or deterioration due to normal use, wear and tear, or exposure; (b) normal maintenance services, such as cleaning, lubrication, oil change; (c) replacement of service items, such as oil, lubricants, spark plugs, belts, rubber hoses, bearings or other items subject to normal service replacement; (d) damage or defects arising out of, or relating to abuse, misuse, neglect, alteration, negligence or accident; (e) repair or replacement arising from operation of, or use of the equipment which is not in accordance with operating instructions as specified in the operator's manual or other operational instructions provided by V.P.I.; (f) repair or replacement arising as a result of any operation from Ventrac equipment that has been altered or modified so as to, in the determination of V.P.I., adversely affect the operation, performance or durability of the equipment or that has altered, modified or affected the equipment so as to change the intended use of the product; (g) repair or replacement necessitated by the use of parts, accessories or supplies, including gasoline, oil or lubricants, incompatible with the equipment or other than as recommended in the operator's manual or other operational instructions provided by V.P.I.; (h) repairs or replacements resulting from parts or accessories which have adversely affected the operation, performance or durability of the equipment; or (i) damage or defects due to or arising out of repair of Ventrac equipment by person or persons other than an authorized Ventrac service dealer or the installation of parts other than genuine Ventrac parts or Ventrac recommended parts.

WARRANTY



LIMITED WARRANTY - VENTRAC COMMERCIAL EQUIPMENT

The sole liability of V.P.I. with respect to this warranty shall be the repair and replacement as set forth herein. V.P.I. shall have no liability for any other cost, loss, or damage. In particular V.P.I shall have no liability or responsibility for: (i) expenses relating to gasoline, oil, lubricants; (ii) loss, cost or expense relating to transportation or delivery of turf equipment from the location of owner or location where used by owner to or from any Authorized Ventrac Dealer; (iii) travel time, overtime, after hours' time or other extraordinary repair charges or charge relating to repairs or replacements outside of normal business hours at the place of business of an Authorized Ventrac Dealer; (iv) rental of like or similar replacement equipment during the period of any warranty repair or replacement work; (v) any telephone or telegram charges; (vi) loss or damage to person or property other than that covered by the terms of this warranty; (vii) any claims for lost revenue, lost profit or additional cost or expense incurred as a result of a claim of breach of warranty; or (viii) attorney's fees.

The remedies of buyer set forth herein are exclusive and are in lieu of all other remedies. The liability of V.P.I., whether in contract, tort, under any warranty, or otherwise, shall not extend beyond its obligation as set forth herein. V.P.I. shall not be liable for cost of removal or installation nor shall V.P.I. be responsible for any direct, indirect, special or consequential damages of any nature. In no event shall V.P.I. be liable for any sum in excess of the price received for the goods for which liability is claimed.

There are no representations or warranties which have been authorized to the buyer of the Ventrac commercial equipment other than set forth in this warranty. Any and all statements or representations made by any seller of this equipment, including those set forth in any sales literature or made orally by any sales representative, are superseded by the terms of this warranty. Any affirmation of fact or promise made by V.P.I. or any of its representatives to the buyer which relates to the goods that are the subject to this warranty shall not be regarded as part of the basis of the bargain and shall not be deemed to create any express warranty that such goods shall conform to the affirmation or promise.

No employee, distributor, or representative is authorized to change the foregoing warranties in any way or grant any other warranty on behalf of V.P.I.

Some states do not allow limitations on how long an implied warranty lasts or allow the exclusion on limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

This warranty applies to all Ventrac commercial equipment sold by Venture Products Inc.