

Operator's Manual

NX340

Snow Blower





500 Venture Drive
Orrville Oh 44667
www.ventrac.com

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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): _____

Affix Part/Serial Number label here.



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WARRANTY

PAGE 26

INTRODUCTION



Venture Products Inc. is pleased to provide you with your new Ventrac snowblower! 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 snowblower. Please visit our website, or contact your authorized Ventrac dealer for a complete list of items available for your new NX340 snowblower.

Accessories	Item Description	Part Number
	12 Volt Actuator Kit*	70.8192
	Deep Snow Top Auger Kit	70.8188

*Power unit must be equipped with a 12 volt front kit (switch and 4-pin plug).

Product Description

The Ventrac NX340 snow blower is designed for clearing snow from sidewalks. It is a powerful two stage snow blower that moves large amounts of snow quickly.

The snow blower's auger funnels the snow into the high speed fan which throws the snow up to 30 feet (9 meters) away from the operation area.

The discharge chute is hydraulically controlled, allowing the operator to control the direction of the discharge from the operator platform.

An optional 12 volt actuator kit can be installed to allow the operator to control the throw distance of the snow blower from the operator platform.

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. Right-Hand and Left-Hand is determined as if facing forward from the operator station.

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.

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.

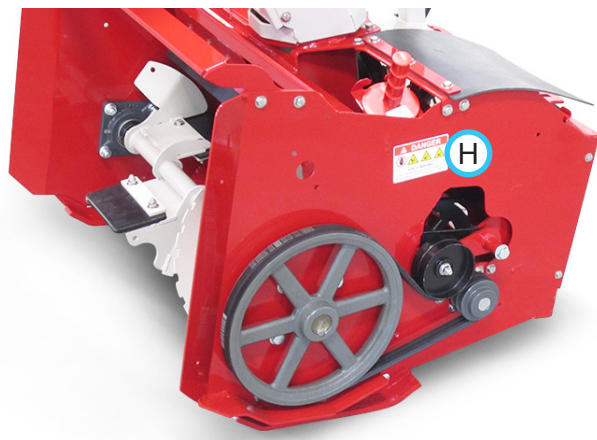
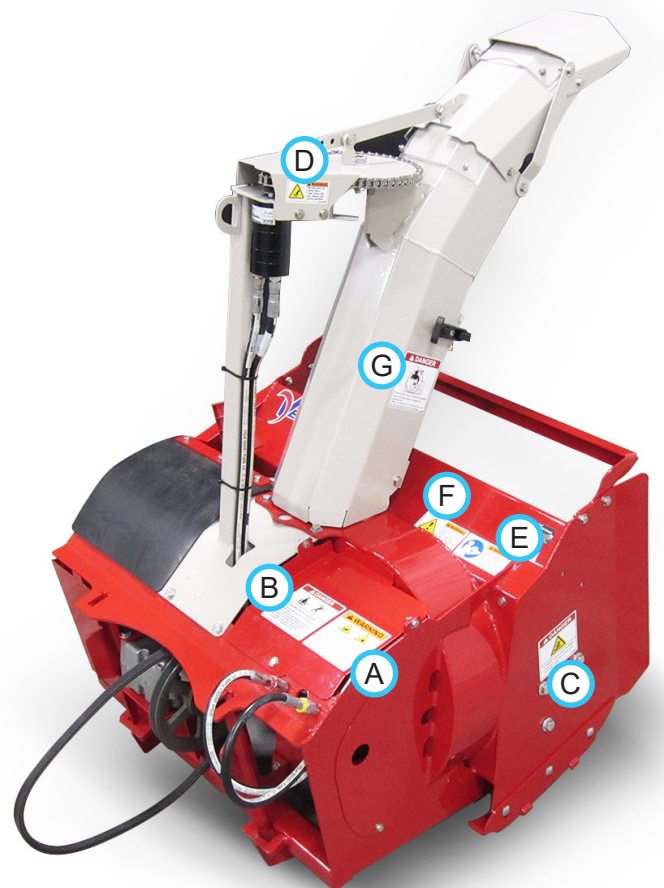
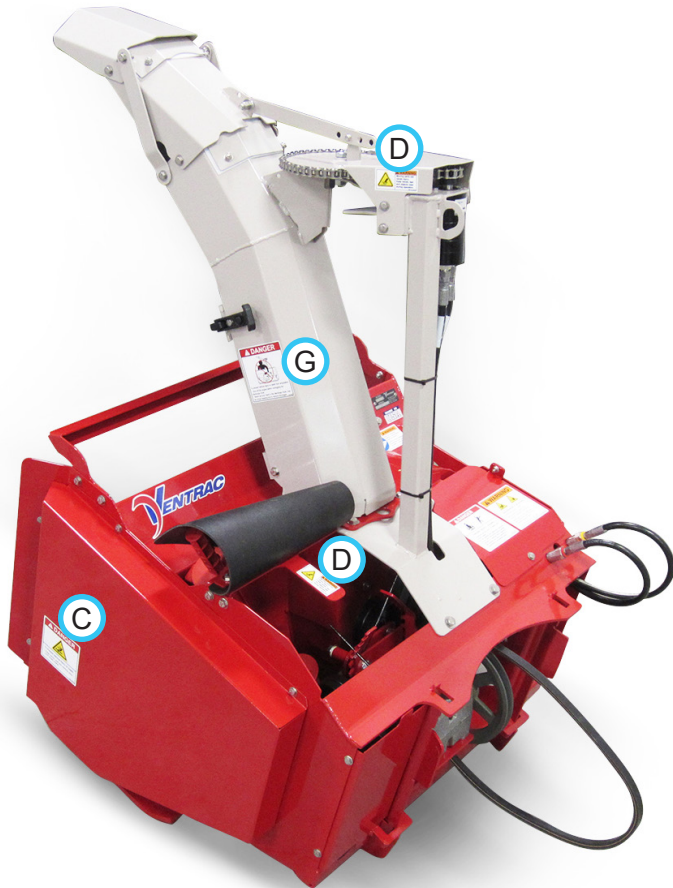
SAFETY

Safety Decals

The following safety decals must be maintained on your NX340 snowblower.

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

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



A

WARNING

HIGH-PRESSURE FLUID HAZARD

To prevent serious injury or death:

- Relieve pressure on system before repairing or adjusting or disconnecting.
- Wear proper hand and eye protection when searching for leaks. Use wood or cardboard instead of hands.
- Keep all components in good repair

00.0103

B

DANGER

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.

SW802

C

DANGER

To Prevent Serious Injury Or Death:

- Keep hands, feet and clothing away from auger intake.

00.0208

D

WARNING

Moving parts can cause injury. Keep hands, feet and objects clear during operation.

E

WARNING

Read and understand operator's manual before using this machine.

Failure to follow operating instructions could result in death or serious injury.

PART NO. 00.0217

F

WARNING

For the safety of all personnel, DO NOT modify or remove any of this equipment's guards, safety devices or warning labels.

PART NO. 00.0220

G

DANGER

To prevent serious injury or death from amputation:

- Shut off the engine before unlogging the discharge chute.
- Never put your hand in the discharge chute. Use the chute cleaning tool to remove blockages.

00.0409

H

DANGER

SHIELD MISSING!

Do NOT operate without all shields in place. Moving parts can cause serious injury or death.

00.0492

Decal	Description	Part Number	Quantity
A	Warning, High Pressure Fluid Hazard	00.0103	1
B	Danger, Thrown Object Hazard	00.0122	1
C	Danger, Auger Hazard	00.0208	2
D	Warning, Moving Parts	00.0216	3
E	Warning, Read Owner's Manual	00.0217	1
F	Warning, General Safety	00.0220	1
G	Danger, Discharge Chute Safety	00.0409	2
H	Danger, Shield Missing	00.0492	2

SAFETY



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.
- 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.

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



- 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.
- 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

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



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.

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 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.

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 any doubt of safety conditions, discontinue the machine operation until a time when the operation can be performed safely.
- When operating near or on roadways, have a Slow Moving Vehicle Emblem clearly displayed.

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



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.
- 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.

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



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.

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.

SAFETY



NX340 Snow Blower Safety Procedures

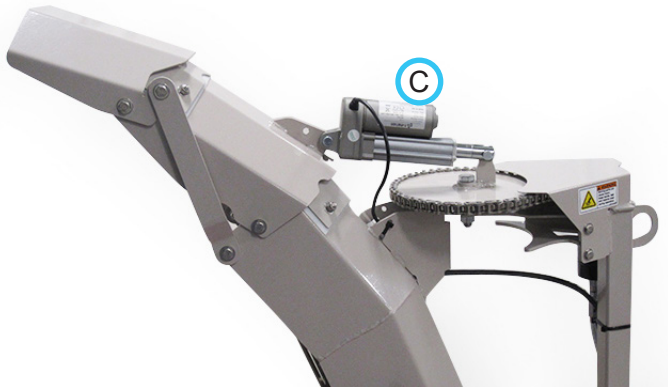
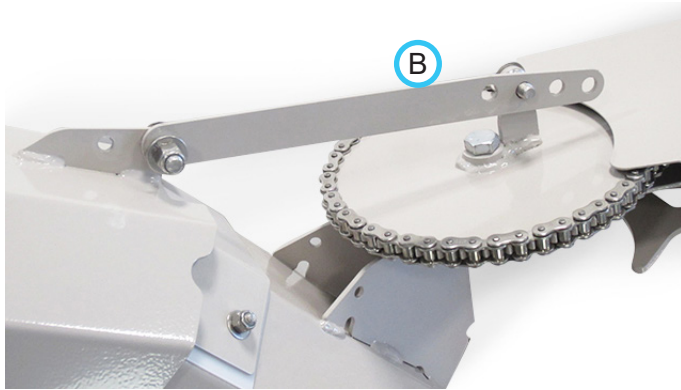


- This snow blower is capable of amputating hands and feet and throwing objects. Failure to observe the following safety instructions could result in serious injury.
- Before making repairs or adjustments to the snow blower, engage the power unit's parking brake, lower the snow blower to the ground, shut off the power unit's engine, and remove the ignition key.
- Always block up the snow blower securely when adjusting the skid shoes.
- The snow blower housing is open in the front due to its functionality, thus exposing the auger. When operating, EXTREME care should be used when approaching a stationary object such as a tree or a pole.
- Do not put hands or feet near or under rotating parts. Keep clear of the discharge opening at all times.
- Never direct the snow blower discharge chute in the direction of people, buildings, animals, vehicles, or other objects of value. Debris can be thrown from the chute causing damage, serious injury, or death.
- Never operate the snow blower when people are in the area. Frozen snow, ice, gravel, and other objects can be thrown at lethal velocity.
- Operators should be familiar with the area they are clearing and make preparations ahead of time. Place guide stakes appropriately and remove stones, markers, or other debris that may be hidden after a snowfall. Curbs, offsets, steps, man hole covers, broken or raised pavement, etc. should be noted. Operators should map areas to be cleared before the winter season so they can review potential hazards prior to clearing snow in the area.
- If an area is to be cleared that is unfamiliar to the operator, travel slowly and use EXTREME CAUTION. Inquire of anyone who might know of potential hazards.
- Discharge snow with the wind direction as much as possible. Discharging into the wind reduces blowing distance and visibility.
- The operator should never proceed if visibility is poor. If the power unit is equipped with a windscreen, it must be kept clean.
- Use caution when operating around objects that can obstruct your vision.
- Never travel at speeds that would cause injury to the operator or damage to the machine if the machine were to be stopped suddenly by an unseen, immovable object.
- Never operate at high transport speeds on slippery surfaces.
- No one other than the operator should ever attempt to clear the discharge opening in the event of a blockage. Lower the snow blower to the ground, set the power unit's parking brake, shut off the power unit's engine, and remove the ignition key before any attempt is made to clear the blockage.
- Hand contact with the rotating fan inside the discharge chute is the most common cause of injury associated with snow blowers. Never use your hand to clean out the discharge chute. Use the provided chute cleaning tool to clear blockages.
- If the chute guard has been opened to clear a blockage, it must be closed and fastened before resuming operation.
- Do not operate the equipment without wearing adequate winter garments. Avoid loose fitting clothing that can get caught in moving parts. Wear footwear that will improve footing on slippery surfaces.
- Shut off the power unit's PTO when not blowing snow.
- Always shut off the power unit's PTO and engage the parking brake before dismounting to change the angle of the discharge chute deflector.
- Attachment 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, shut off power unit engine, move the hydraulic control lever left and right to relieve auxiliary hydraulic pressure, and disconnect the auxiliary hydraulic quick couplers.

OPERATIONAL CONTROLS

Operational Control Locations

Use the following images to help identify the locations of operational controls. The letter next to each control can be referenced to the list that follows these images.



- A. Discharge Chute Rotation (Hydraulic Control Lever)
- B. Discharge Chute Deflector Adjustment Link
- C. Optional Discharge Chute Deflector Adjustment Actuator

Discharge Chute Rotation (A)

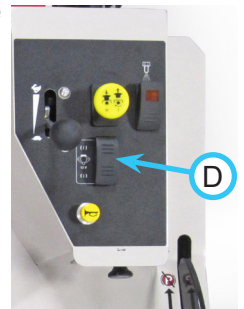
The hydraulic control lever* on the power unit controls the hydraulic rotation of the discharge chute. The discharge chute can be angled 114 degrees to the left or right to discharge snow in the desired direction.

Discharge Chute Deflector Adjustment Link (B)

The discharge chute deflector adjustment link controls the angle of the discharge chute deflector. The angle of the deflector determines the distance that snow is thrown.

Optional Discharge Chute Deflector Adjustment Actuator (C)

The optional actuator replaces the chute deflector adjustment link on the snow blower. It couples with a switch on the power unit, allowing the operator to control the angle of the discharge chute deflector from the operator platform. The actuator is controlled by a momentary on (12 V) switch (D) located on the right dash panel.



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

GENERAL OPERATION

Daily Inspection

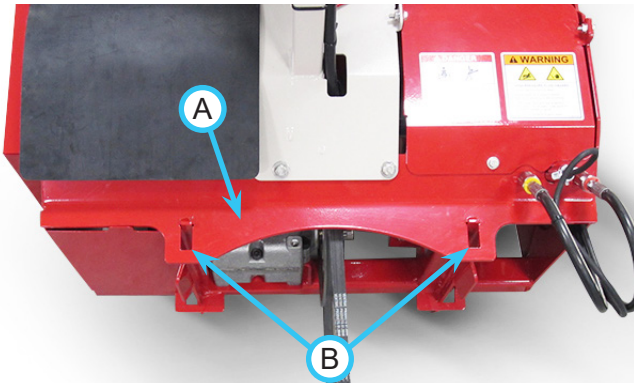
⚠ WARNING

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.

1. Park 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 snow blower. Look for loose or missing hardware, damaged components, or signs of wear.
3. Inspect hydraulic hoses, hydraulic fittings, and fuel lines to ensure tight, leak free connections.
4. Inspect the drive belts. Belts should be in good condition. Service as required.
5. Inspect the cutting edge and skid shoes for wear and service as required.
6. Refer to the power unit operator's manual. Check the power unit's engine oil, hydraulic oil, tire pressure, and fuel level. Add fluid or service as required.
7. Test the power unit's operator safety interlock system*.

Attaching

1. Align the power unit squarely with the snow blower. Lower the power unit hitch until the hitch tabs are below the top cross plate (A) on the snow blower frame.

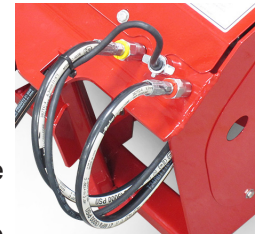


2. Drive forward slowly until the power unit hitch tabs are aligned with the hitch point slots (B) in the snow blower frame. Raise the power unit hitch to engage the tabs in the frame. Continue to raise the hitch until the snow blower is lifted off the ground.

3. Engage the parking brake* and shut off the engine.
4. Rotate the attachment latch handle* forward to the latched position. Make sure the latch tabs are engaged in the lower latch plates, and the latch handle lock is engaged to prevent accidental disengagement of the latch handle.
5. Place the attachment belt onto the PTO drive pulley on the power unit. Ensure the belt is properly seated in each pulley.
6. Engage the drive belt tension spring on the power unit to apply tension to the attachment belt.
7. Wipe hose ends clean, and connect to the power unit's hydraulic quick couplers. Connect the hoses and quick couplers so the red indicators are paired together and the yellow indicators are paired together.
8. If the snow blower is equipped with an optional chute deflector adjustment actuator, connect the plug to the electric 4-pin socket on the power unit.

Detaching

1. Park the power unit on a level surface and set the parking brake.*
2. Lower the snow blower to the ground.
3. Shut off power unit engine.
4. If the snow blower is equipped with an optional chute deflector adjustment actuator, disconnect from the electric 4-pin socket on the power unit.
5. Move the hydraulic control lever left and right to release pressure from the auxiliary hydraulic circuit, disconnect the hydraulic quick couplers from the power unit, and store the hose ends and electric plug (if equipped) in the frame holes on the snow blower.
6. Disengage the drive belt tension spring on the power unit and hook into the spring catch plate.
7. Remove the attachment belt from the PTO drive pulley of the power unit.
8. Disengage the latch handle lock* and rotate the attachment latch handle* back to unlatch from the lower hitch point on the snow blower.
9. Restart power unit lower the power unit hitch to clear the top cross plate on the snow blower frame while slowly backing away from the snow blower.



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

GENERAL OPERATION

Snow Blower Operating Procedure

Before operation, perform daily inspection, verify skid shoes are set at the desired height, and engage the power unit's weight transfer (if equipped) to the maximum setting. NOTE: operating with weight transfer at the maximum setting will increase traction and reduce skid shoe wear.

Move the machine into position and lower the snow blower to the ground. Place the power unit's hydraulic control lever in the float position by pushing forward until the detent engages. Move the hydraulic control lever to the left or right to rotate the discharge chute to the desired direction and adjust the discharge chute deflector to the desired angle. Always direct the discharged snow into open areas. Whenever possible, blow snow with the wind direction.

Adjust the throttle lever on the power unit to approximately 1/2 throttle and engage the PTO switch.

Adjust the throttle to the desired position.

Drive forward slowly while keeping a close watch for potential hazards. Adjust the discharge chute rotation and chute deflector angle as necessary to keep the discharged snow directed to open areas.

Transport of Snow Blower

Transport the snow blower in the raised position to reduce wear of the machine. Travel slowly over rough or slippery surfaces in order to maintain control of the power unit. Always disengage the PTO before transporting the snow blower.

Discharge Chute Rotation

Move the hydraulic control lever to the left or right and hold in position to rotate the discharge chute. When the discharge chute is pointed in the desired direction, release the hydraulic control lever to stop chute rotation.

Discharge Chute Deflector Adjustment (Manual)

Pull the discharge chute deflector adjustment link to the side and adjust the discharge chute deflector to the desired angle. Align the hole in the adjustment link with the latch bolt and release to lock the discharge chute deflector in place.

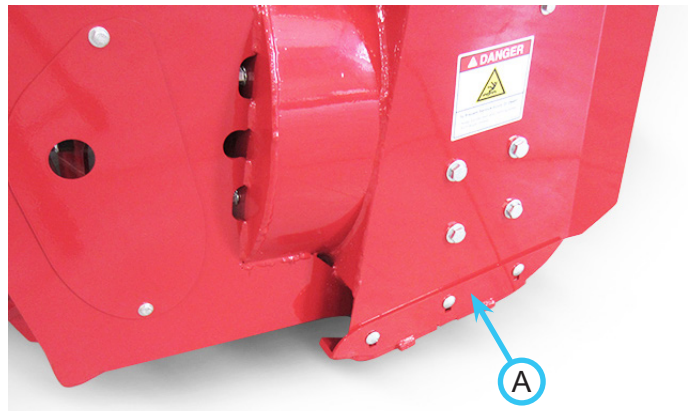
Discharge Chute Deflector Adjustment (Optional 12V Actuator)

Use the power unit's momentary 12V switch to adjust the angle of the discharge chute deflector. Press and hold the switch until the discharge chute deflector reaches the desired angle, then release the switch.

Skid Shoe Adjustment

Skid shoes are provided to keep the cutting edge off the surface to be cleaned, especially when clearing snow from gravel areas. To adjust the skid shoes:

1. Park the power unit and snow blower on a level surface.
2. Raise the snow blower and place a spacer of the desired thickness under the cutting edge.
3. Lower the snow blower until the cutting edge is resting on the spacer.
4. Loosen the mounting nuts for the skid shoes and adjust the skid shoes (A) until they are resting on the ground.



5. Retighten the skid shoe mounting nuts. Torque to 18 ft-lbs (24 Nm).

GENERAL OPERATION

Clearing a Blockage

⚠ WARNING

Always engage the parking brake, shut off the power unit engine, remove the key from the ignition, and ensure all moving parts have come to a complete stop before attempting to clear a blockage.

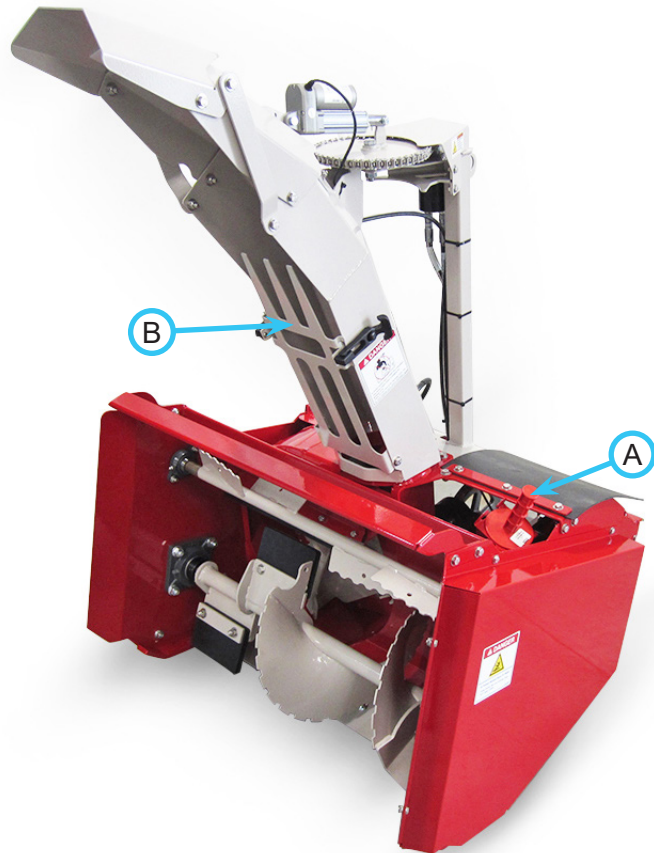
Never attempt to clear a blockage with your hands. Use the provided chute cleaning tool to remove blockages.

Keep hands, feet, and clothing away from all power driven parts when loosening and removing a blockage.

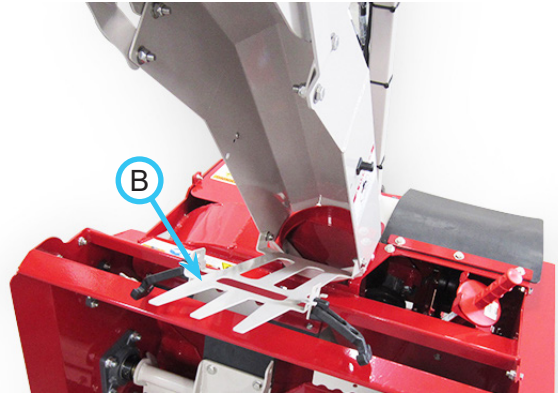
If a blockage occurs in the snow blower, immediately shut off the PTO and stop the power unit.

Engage the parking brake, shut off the engine, and remove the key from the ignition.

Use the chute cleaning tool (A) to remove blockages in the discharge chute and fan throat area.



The discharge chute guard (B) can be unfastened at the top and rotated out of the way to allow access to the blockage.



Use the chute cleaning tool to break up and pry apart the blockage. When the blockage has been completely cleared, fasten the discharge chute guard back in place.

⚠ WARNING

Never operate the snow blower without the discharge chute guard in place and securely fastened.

SERVICE

⚠ 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.



Attention

To prevent thread galling, hand tools and a thread lubricant are recommended when tightening stainless steel fasteners. Do not use air or electric power tools as this increases the risk of thread galling.

Cleaning and General Maintenance

For best results, and to maintain the finish of the snow blower, clean or wash the snow blower to remove dirt, gravel, and salt deposits. Remove any ice or snow accumulations from the auger, fan housing, fan, and discharge chute.



Attention

To maintain the finish of the power unit and attachment, thoroughly wash the equipment after each use to remove any corrosive agents (e.g., salt). Failure to clean the equipment may result in corrosion of (including but not limited to) steel, aluminum, and electrical components. Equipment that will experience repeated exposure to corrosive agents should be pretreated with a corrosion preventative.

Cutting Edge Reversal/Replacement

If the cutting edge wears down near the snow blower frame structure, remove the cutting edge and flip over so the unworn top edge is now on the bottom. Reinstall the cutting edge onto the snow blower. When both sides of the cutting edge have been worn down, the cutting edge will need to be replaced.

Skid Shoe Replacement

Skid shoes should be replaced when the wear surface is less than 1/8" (3.2 mm) thick.

Belt Inspection

Inspecting the drive belts of the snow blower 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.



Glazing



Streaked Sidewalls



Cracks



Tensile Break

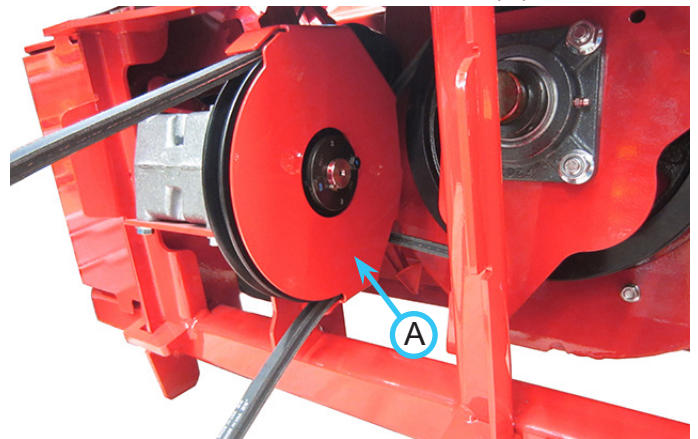


Separation

Location	Belt Size	Part #
Attachment Drive Belt	B48	81.B048
Fan Drive Belt	B45	81.B045
Auger Jack Shaft Drive Belt	A33	81.A033
Auger Drive Belts (Standard)	A50	81.A050
Auger Drive Belts (w/Top Auger)	A58	81.A058

Gearbox Drive Belt Replacement

1. Detach the snow blower from the power unit.
2. Remove the belt retainer bracket (A).

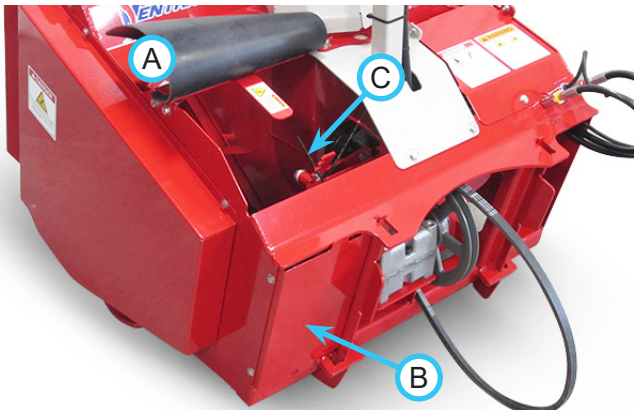


3. Remove the old gearbox drive belt and install the new belt onto the pulley.
4. Reinstall the belt retainer bracket to hold the drive belt in place.

SERVICE

Auger Jack Shaft Drive Belt Replacement

1. Detach the snow blower from the power unit.
2. Flip open the belt adjustment cover belting (A).



3. Remove the jack shaft drive shield (B).

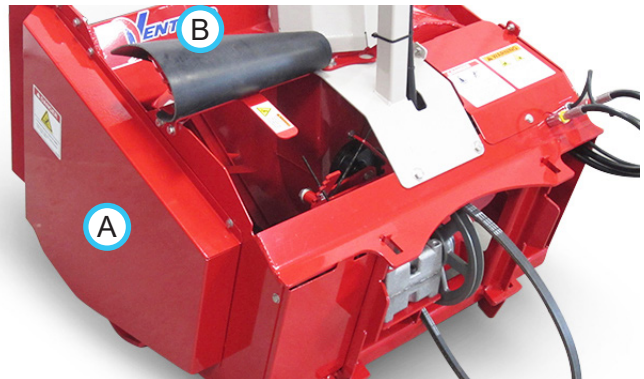
⚠ CAUTION

Spring is under tension. To avoid pinching, use caution when releasing the spring and be prepared to hold the full tension of the spring.

4. Release the jack shaft belt tensioning spring (C).
5. Remove the old jack shaft drive belt and install the new belt onto the pulleys.
6. Engage the jack shaft belt tensioning spring.
7. Reinstall the jack shaft drive shield.
8. Fold the belt adjustment cover belting back down over the belt access opening.

Auger Drive Belt Replacement

1. Detach the snow blower from the power unit.
2. Remove the auger drive belt shield (A).

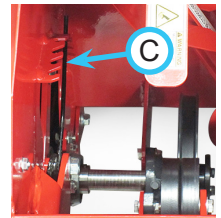


3. Flip open the belt adjustment cover belting (B).

⚠ CAUTION

Spring is under tension. To avoid pinching, use caution when releasing the spring and be prepared to hold the full tension of the spring.

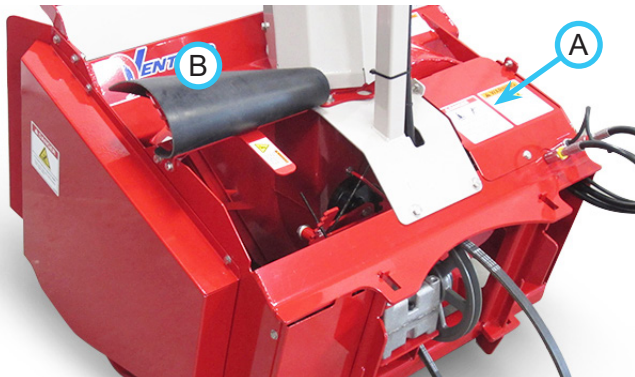
4. Release the auger drive belt tensioning spring (C).
5. Remove the old auger drive belts and install new belts onto the pulleys. Replace both auger drive belts at the same time.
NOTE: due to manufacturing tolerances on the belt length, if possible, choose two belts that are closest in length to each other.
6. Engage the auger drive belt tensioning spring.
7. Reinstall the auger drive belt shield.
8. Fold the belt adjustment cover belting back down over the belt access opening.



SERVICE

Fan Drive Belt Replacement

1. Detach the snow blower from the power unit.
2. Remove the fan drive pulley upper shield (A).

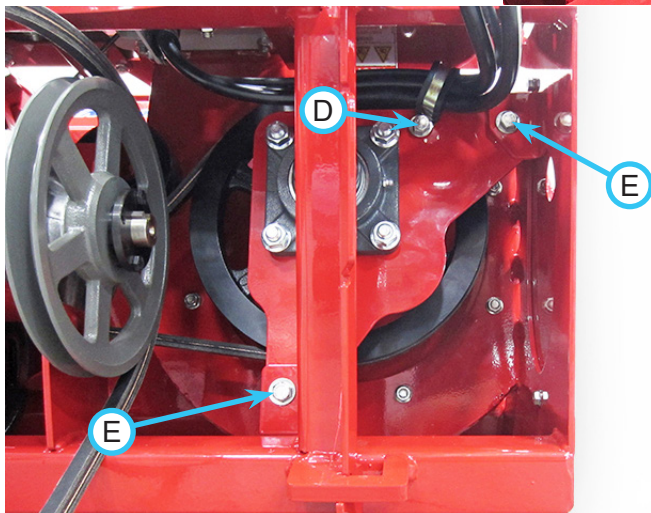
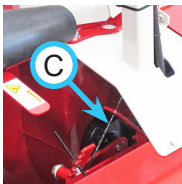


3. Flip open the belt adjustment cover belting (B).

CAUTION

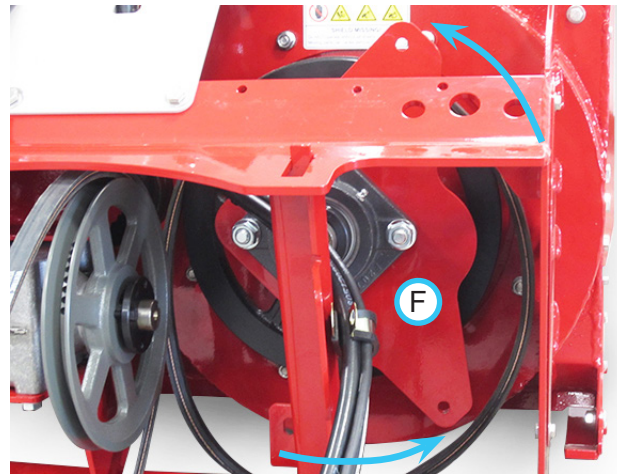
Spring is under tension. To avoid pinching, use caution when releasing the spring and be prepared to hold the full tension of the spring.

4. Release the fan drive belt tensioning spring (C).
5. Remove the bolt (D) that fastens the hydraulic hose clamp to the fan bearing mount plate.



6. Remove the two bolts (E) that fasten the fan bearing mount plate to the snow blower frame.

7. Rotate the fan bearing mount plate (F) counter-clockwise to allow the fan drive belt to be removed.



8. Remove the old fan drive belt and install the new belt over the fan bearing mount plate and onto the pulleys.
9. Rotate the fan bearing mount plate back into place and reinstall the mounting hardware. For serial numbers 01001-01186, torque (3/8") bolts to 18 ft-lbs (24 Nm). For serial numbers 01187 and higher, torque (1/2") bolts to 75 ft-lbs (102 Nm).
10. Reinstall the hydraulic hose clamp onto the fan bearing mount plate. Torque to 18 ft-lbs (24 Nm).
11. Engage the fan drive belt tensioning spring.
12. Reinstall the fan drive pulley upper shield.
13. Fold the belt adjustment cover belting back down over the belt access opening.

Belt Tension Adjustment

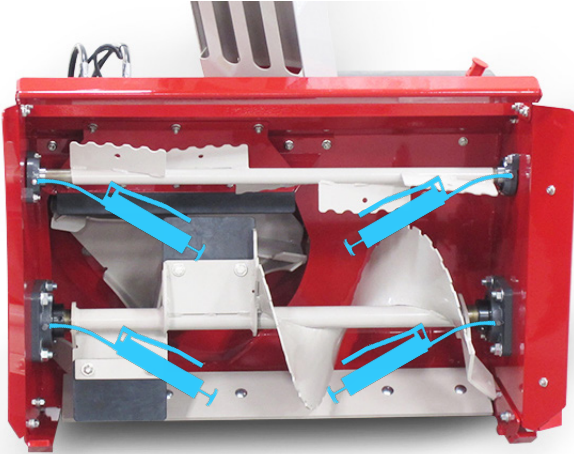
The belt spring tension can be adjusted by moving the spring arm to a different notch in the tensioner bracket. The spring tension should be set at the least amount of tension required for normal operation. This allows some belt slippage to protect the gearbox and drive components in the event an immovable object stops the auger or fan. If excessive belt slippage occurs in normal operating conditions, increase the belt tension in small increments until belt slippage is eliminated.

SERVICE

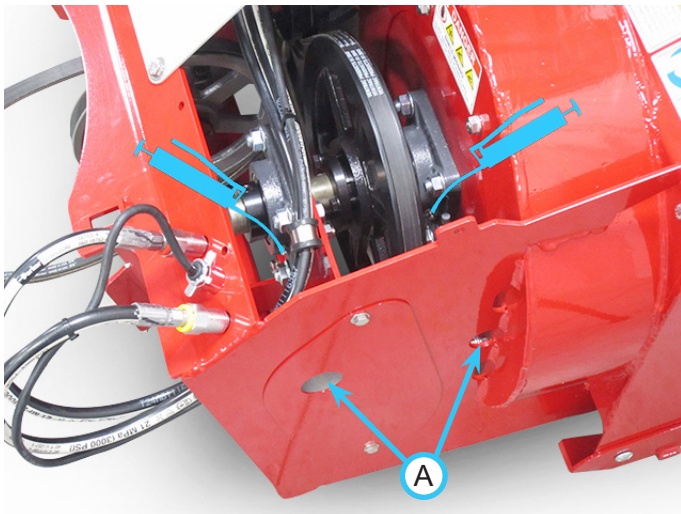
Lubrication Locations

The following images identify the lubrication locations on the snow blower. Use a lithium complex NLGI #2 grease for all grease fitting locations. Refer to the maintenance schedule for service intervals and amount of grease.

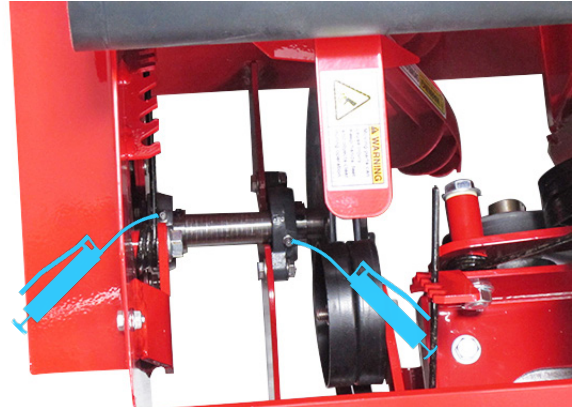
1. Detach the snow blower from the power unit.
2. Apply grease to the auger shaft bearings and the top auger shaft bearings (if equipped).



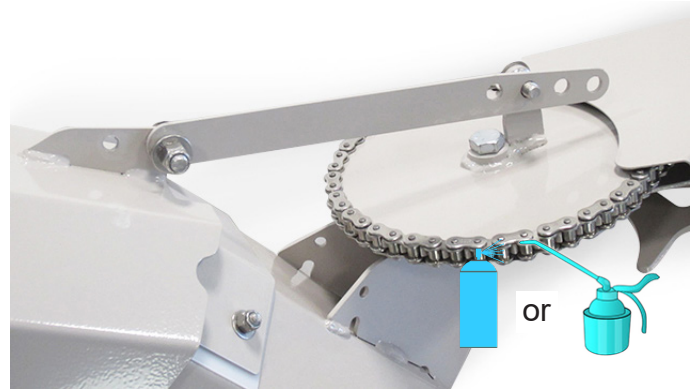
3. Apply grease to the fan shaft bearings. The grease fittings can be accessed through cutouts (A) in the right side panel and shield. The fan drive pulley upper shield can also be removed to provide access to the grease fittings.



4. Lift up the belt adjustment cover belting and apply grease to the auger jack shaft bearings.



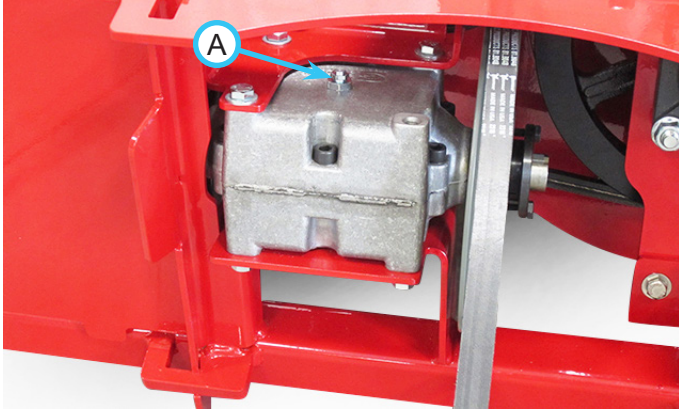
5. Apply chain oil or roller chain spray lube to the discharge chute rotation chain (B) and wipe up all drips and spills.



SERVICE

Checking Gearbox Oil Level

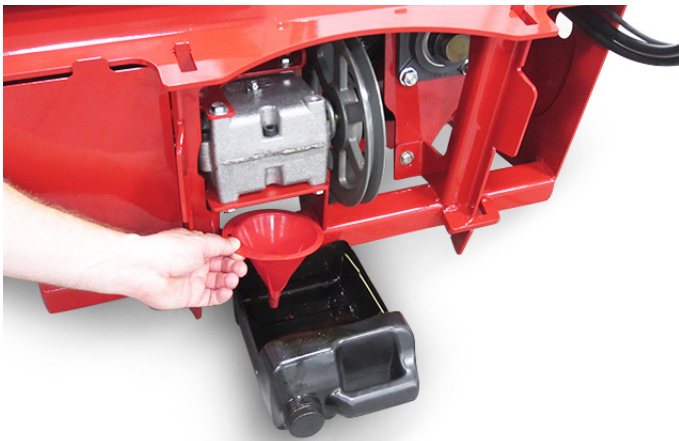
1. Detach the snow blower from the power unit.
2. Flip open the belt adjustment cover belting.
3. Clean the top of the gearbox and remove the breather plug (A) from the top port.



4. Check the oil level in the gearbox. The oil level should be maintained at approximately half full. If oil level is low, add 75W-90 synthetic gear oil until the proper level is reached.
5. Reinstall the breather plug into the top port of the gearbox.
6. Fold the belt adjustment cover belting back down over the belt access opening.

Changing Gearbox Oil

1. Detach the snow blower from the power unit.
2. Flip open the belt adjustment cover belting.
3. Clean the top and bottom of the gearbox.
4. Remove the breather plug from the top port of the gearbox.
5. Place a drain pan beneath the gearbox and hold a funnel below the drain port on the gearbox.



6. Remove the pipe plug from the bottom port of the gearbox and use the funnel to direct the gear oil into the drain pan.

7. Reinstall the pipe plug into the bottom port of the gearbox.
8. Add 75W-90 synthetic gear oil until the proper level is reached.
9. Reinstall the breather plug into the top port of the gearbox.
10. Fold the belt adjustment cover belting back down over the belt access opening.

Storage

Preparing the Snow Blower for Storage

1. Clean the snow blower.
2. Inspect for loose or missing hardware, damaged components, or signs of wear. Repair or replace as necessary.
3. Inspect safety decals. Replace any safety decals that are faded, illegible, or missing.
4. Inspect hydraulic hoses and fittings to ensure tight, leak free connections.
5. Inspect drive belts for damage or wear and replace if necessary.
6. Service all lubrication points and check the gearbox oil level.
7. Wipe off all excess grease or oil.
8. Inspect painted surfaces for chips, scratches, or rust. Clean and touch up surfaces as needed.

Removing the Snow Blower from Storage

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

SERVICE

Maintenance Schedule

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 1000 Hours	Yearly
Grease & Lubrication: See Lubrication Section																									
Auger Shaft Bearing	2	1	*		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Auger Jack Shaft Bearing	2	1	*		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Fan Shaft Bearing	2	1	*		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Optional Top Auger Shaft Bearing	2	1	*		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Chute Rotation Roller Chain	1		✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Check Gearbox Oil Level					✓		✓		✓		✓		✓		✓		✓		✓		✓		✓		✓
Change Gearbox Oil. Replace with 75W-90 synthetic gear oil.				✓										✓											✓
Inspection																									
Inspect for Loose, Missing, or Worn Components.			✓																						
Inspect Drive Belts, Hydraulic Hoses, & Fittings			✓																						
Inspect Cutting Edge & Skid Shoes			✓																						
Inspect Safety Decals			✓																						

*Operation in severe conditions may require more frequent service intervals.

Maintenance Checklist

Maintenance Checklist	# of Locations	# of Pumps	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 1000 Hours	Yearly		
Grease & Lubrication: See Lubrication Section																									
Auger Shaft Bearing	2	1																							
Auger Jack Shaft Bearing	2	1																							
Fan Shaft Bearing	2	1																							
Optional Top Auger Shaft Bearing	2	1																							
Chute Rotation Roller Chain	1																								
Check Gearbox Oil Level																									
Change Gearbox Oil. Replace with 75W-90 synthetic gear oil.																									
Inspection																									
Inspect for Loose, Missing, or Worn Components.																									
Inspect Drive Belts, Hydraulic Hoses, & Fittings																									
Inspect Cutting Edge & Skid Shoes																									
Inspect Safety Decals																									

*Operation in severe conditions may require more frequent service intervals.

SPECIFICATIONS

Dimensions

Overall Height	51-1/2 inches (130.8 cm)
Overall Length	47 inches (119.4 cm)
Overall Width	34-1/4 inches (87 cm)
Clearing Width	33-3/8 inches (84.8 cm)
Weight	350 pounds (159 kg)
Main Auger Diameter	12-3/16 inches (31 cm)
Main Auger Speed	180 RPM*
Optional Top Auger Diameter	2-3/4 inches (7 cm)
Optional Top Auger Speed	415 RPM*
Fan Diameter	18 inches (45.7 cm)
Fan Shaft Speed	750 RPM*
Chute Rotation	228 degrees
Blowing Distance**	30 feet (9 meters)

*Based on engine speed of 3,600 RPM.

**Blowing distance is dependent upon conditions.

Features

- 2 Stage Snow Blower
- 4 Position Discharge Chute Vertical Adjustment (Manual)
- Hydraulically Controlled Discharge Chute Rotation
- Heavy Duty Shaft and Bearings
- Adjustable Skid Shoes
- Chute Clearing Tool
- Optional Remote Discharge Chute Vertical Adjustment (Electric)
- Optional Top Auger For Deep Snow

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 the 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, the 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 the equipment, the service call drive time or any transportation expense incurred for the 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 the 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 the Ventrac equipment by a person or persons other than an authorized Ventrac service dealer or the installation of parts other than genuine Ventrac parts or Ventrac recommended parts.

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, or lubricants; (ii) loss, cost or expense relating to transportation or delivery of turf equipment from the location of the owner or the location where used by the 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

WARRANTY



LIMITED WARRANTY - VENTRAC COMMERCIAL EQUIPMENT

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 the 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 a 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.