



Operator's Manual

KX523

Snow Blower





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

To the Owner Contact Information and Product Identification

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

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

Dealer _____ Date of Purchase: _____

Dealer Address: _____

Dealer Phone Number: _____ Dealer Fax Number: _____

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



Model # _____

Serial # _____



Ventrac Products Inc. reserves the right to make changes in design or specifications without obligation to make like changes on previously manufactured products.

TABLE OF CONTENTS

INTRODUCTION	PAGE 5
Product Description	5
Why Do I Need an Operator’s Manual?	5
Using Your Manual	6
Manual Glossary	6
SAFETY	PAGE 7
General Safety Procedures	7
Training Required	7
Requirements for Personal Protective Equipment (PPE)	7
Operation Safety.	7
Keep Riders Off	9
Operating On Slopes	9
Truck Or Trailer Transport	10
Maintenance	10
Fuel Safety	11
Hydraulic Safety	12
KX523 Safety Procedures	13
Safety Decals	14
OPERATIONAL CONTROLS	PAGE 17
Discharge Chute Rotation	17
Discharge Chute Deflector Adjustment Link	17
Optional Discharge Chute Deflector Actuator Control	17
GENERAL OPERATION	PAGE 18
Daily Inspection	18
Attaching	18
Detaching.	18
Operating Procedure	18
Transport of the Attachment.	19
Discharge Chute Rotation	19
Discharge Chute Deflector Adjustment (Manual)	19
Discharge Chute Deflector Adjustment (Optional Actuator Control)	19
Rear Skid Shoe Adjustment.	19
Front Skid Shoe Adjustment	20
Vertical Cutting Edge Adjustment	20
Clearing a Blockage	21

TABLE OF CONTENTS

SERVICE	PAGE 22
Cleaning and General Maintenance	22
Cutting Edge Reversal/Replacement	22
Skid Shoe Replacement	22
Belt Inspection	22
Attachment Drive Belt Replacement	22
Gearbox Drive Belt Replacement	23
Auger Drive Belt Replacement	23
Fan Drive Belt Replacement	24
Deep Snow Auger Drive Belt Replacement	25
Belt Tension Adjustment	25
Lubrication Locations	25
Checking the Gearbox Oil Level	26
Changing the Gearbox Oil	26
Storage	26
Maintenance Schedule	27
Maintenance Checklist	27
SPECIFICATIONS	PAGE 28
Dimensions	28
Features	28

INTRODUCTION



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

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

	Item Description	Part Number
Accessories	12 Volt Actuator Kit* (discharge extension control)	70.8025
	Deep Snow Top Auger Kit	70.8072

*The power unit must be equipped with a 12 volt front switch and plug kit. Refer to the Ventrac website or contact your authorized Ventrac dealer for the correct kit for your power unit.

Product Description

The Ventrac KX523 snow blower is designed for commercial snow clearing of sidewalks, driveways, and other areas. It is a powerful two stage snow blower that moves large amounts of snow quickly.

The snow blower's large 40.6 cm (16 inch) auger funnels the snow into the high speed fan which throws the snow up to 12.2 meters (40 feet) away from the operation area.

The discharge chute is hydraulically controlled, allowing the operator to control the direction of the discharge from the power unit's seat.

An optional 12 volt actuator can be installed, allowing the operator to control the throw distance of the snow blower from the power unit's seat.

For areas with heavy snowfall, an optional deep snow (top auger) kit is available. The deep snow kit mounts a small auger above the main auger for effective removal of deeper snow.

Why Do I Need an Operator's Manual?

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

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

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

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

INTRODUCTION

Using Your Manual

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

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

SYMBOL DEFINITIONS



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

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

SIGNAL WORD DEFINITIONS

DANGER

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

WARNING

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

CAUTION

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

This manual also uses two words to highlight information. **ATTENTION** calls attention to special mechanical information to prevent equipment damage and/or best practices for equipment service and care.

NOTE emphasizes general information that is worthy of special attention.

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

Manual Glossary

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

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.

SAFETY



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



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

SAFETY



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



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

Keep Riders Off

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

Operating On Slopes

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

SAFETY



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



- 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.

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.

SAFETY



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



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

Fuel Safety

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

SAFETY



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



Hydraulic Safety

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

SAFETY



KX523 Safety Procedures



- This snow blower is capable of amputating hands and feet and also of throwing objects. Failure to observe the following safety instructions could result in serious injury.
- 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.
- Keep your hands and feet away from 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 snow-fall. 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 tractor is equipped with a cab, the windshield 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.
- The 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 secondary SDLA lever left and right to relieve auxiliary hydraulic pressure, and disconnect the auxiliary hydraulic quick couplers.

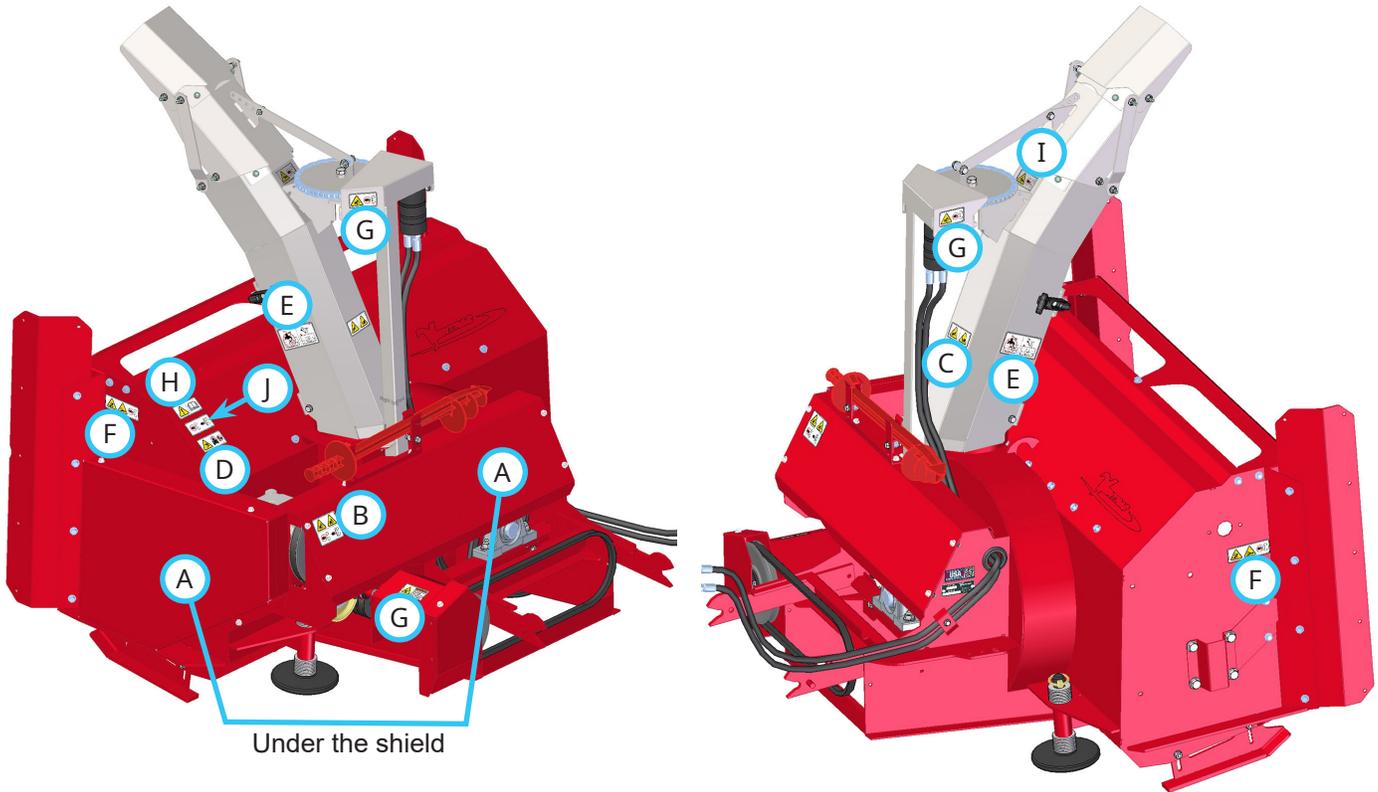
SAFETY

Safety Decals

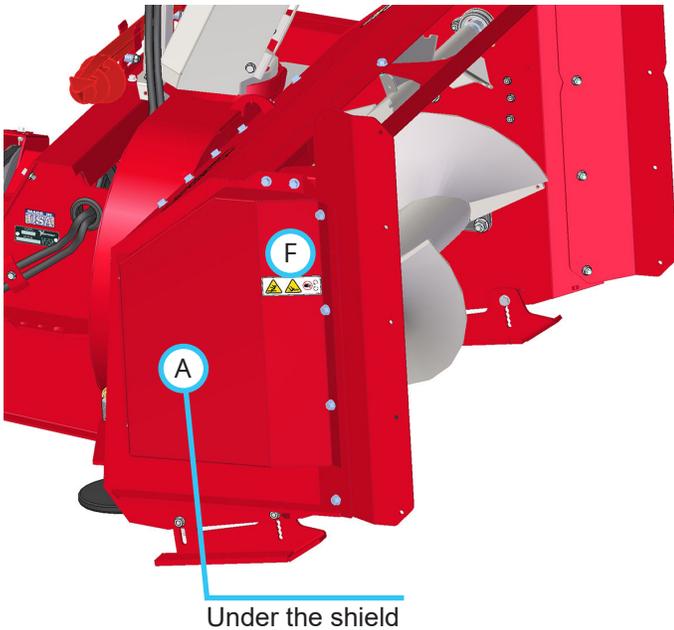
The following safety decals must be maintained on your attachment.

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

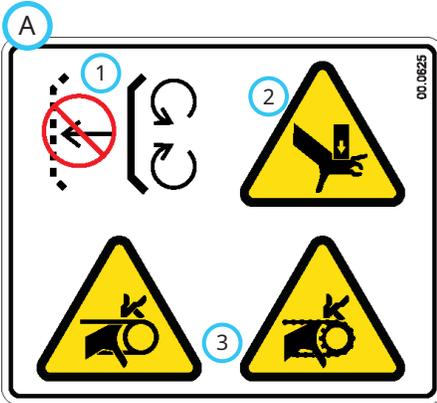
When new components are installed, be sure that current safety decals are affixed to the replacement components.



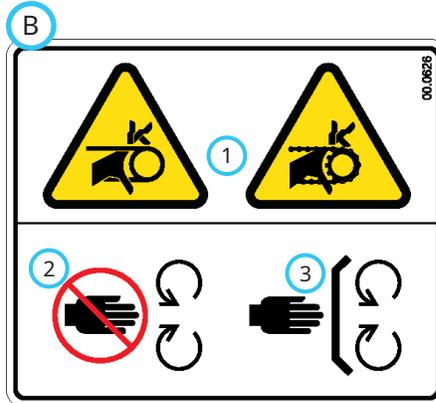
Optional Deep Snow Auger Kit



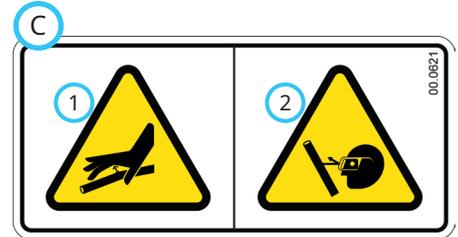
SAFETY



1. Shield missing - do not operate.
2. Pinching or crushing hazard.
3. Finger or hand entanglement.



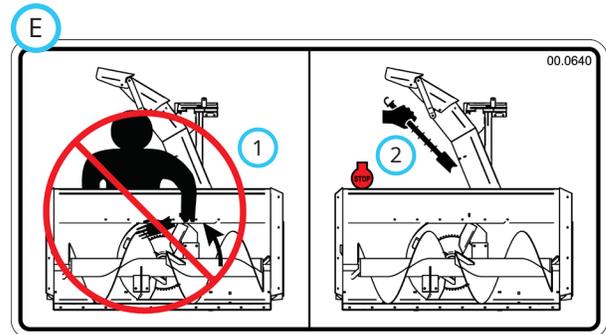
1. Fingers or hand entanglement.
2. Stay away from moving parts.
3. Keep all guards and shields in place.



1. Keep your body and hands away from suspected hydraulic leaks.
2. Wear eye protection when inspecting the hydraulic system for leaks.



1. Thrown object hazard.
2. Keep bystanders away from the machine.



1. Never put your hand in the discharge chute.
2. Shut off the machine and use the chute cleaning tool to remove blockages.

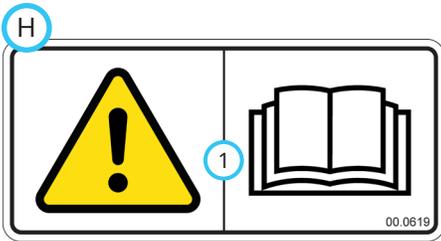


1. Entanglement of foot/leg - rotating auger.
2. Entanglement of arm/upper body - rotating auger.
3. Stay away from moving parts.



1. Finger or hand entanglement hazard.
2. Stay away from moving parts.

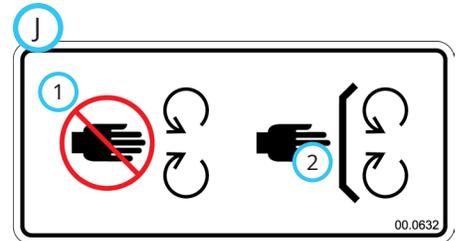
SAFETY



1. Read the operator's manual.



1. Caution - pinch point. Stay away from moving parts.



1. Stay away from moving parts.
2. Keep all guards and shields in place.

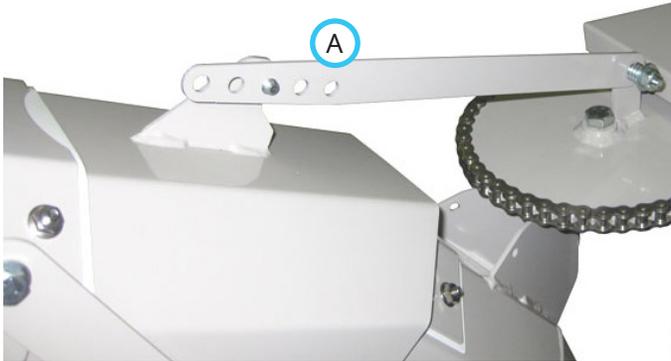
Decal	Description	Part Number	Quantity
A	Shield Missing	00.0625	2 (3)
B	Entanglement Hazard	00.0626	1
C	High Pressure Fluid Hazard	00.0621	1
D	Thrown Object Hazard	00.0674	1
E	Discharge Chute Safety	00.0640	2
F	Entanglement Hazard - Auger	00.0630	2 (3)
G	Finger/Hand Entanglement	00.0631	3
H	Read Operator's Manual	00.0619	1
I	Pinch Point Warning	00.0364	1
J	Moving Parts Hazard	00.0632	1

OPERATIONAL CONTROLS

Discharge Chute Rotation

The secondary SDLA control lever* on the power unit controls the hydraulic rotation of the discharge chute. The discharge chute can be angled to the left or right (180 degrees of rotation) to discharge snow in the desired direction.

Discharge Chute Deflector Adjustment Link



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

Optional Discharge Chute Deflector Actuator Control



The optional actuator control (B) replaces the discharge chute deflector adjustment link on the snow blower. It couples with the 12 volt front switches* on the power unit to control the angle of the discharge chute deflector from the operator's seat.

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

GENERAL OPERATION

Daily Inspection

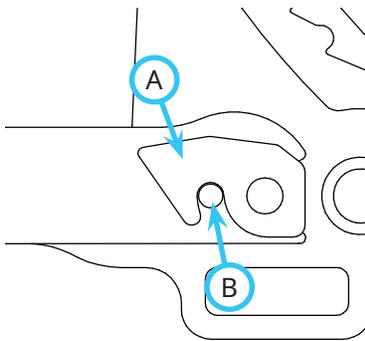
⚠ WARNING

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

1. Park the machine on a level surface, with the engine shut off and all fluids cold.
2. Perform a visual inspection of both the power unit and the attachment. Look for loose or missing hardware, damaged components, or signs of wear.
3. Inspect the hydraulic hoses and the hydraulic fittings to ensure tight, leak free connections.
4. Inspect the belts for damage or excessive wear. Refer to the Belt Inspection section of this manual.
5. Inspect the cutting edge and the skid shoes for wear and service as required.

Attaching

1. Drive the power unit slowly forward into the hitch arms of the attachment. Align the lift arms of the power unit with the attachment hitch arms by raising or lowering the front hitch and complete the engagement.
2. Once completely engaged, move the front hitch latch lever* to the locked position. The latch (A) must lock over the attachment's hitch arm pin (B).
3. Engage the parking brake* and shut off the engine.
4. Place the attachment belt onto the PTO drive pulley on the power unit. Ensure the belt is properly seated in each pulley.
5. Engage the PTO belt tensioner rod.
6. Wipe the hose ends clean and connect to the power unit's hydraulic quick couplers. If equipped, connect the hoses and the quick couplers so the colored indicators are paired together (red to red, etc.).
7. Connect the electric plug (if equipped) to the power unit.



Detaching

1. Park the power unit on a level surface and engage the parking brake.*
2. Disengage the weight transfer system* and lower the attachment to the ground.
3. Shut off the power unit engine.
4. Disengage the PTO belt tensioner rod.
5. Remove the attachment belt from the PTO drive pulley of the power unit.
6. Disconnect the hydraulic quick couplers from the power unit and store the hose ends in the top frame holes on the attachment.
7. Disconnect the electric plug (if equipped) from the power unit.
8. Disengage the front hitch locking lever.*
9. Restart the power unit and slowly back away from the attachment. A side to side movement of the steering wheel may aid in disengagement.

Operating Procedure

Before operation, perform the daily inspection, verify the skid shoes are set at the desired height, and set the power unit's weight transfer system to the maximum setting.

Move the machine into position, lower the snow blower to the ground, and place the primary SDLA lever into the float position. 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.

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

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.

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

GENERAL OPERATION

Transport of the Attachment

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

Discharge Chute Rotation

Move the secondary SDLA lever to the left or right to rotate the discharge chute. When the discharge chute reaches the desired direction, release the secondary SDLA lever to stop the 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 Actuator Control)

Use the power unit's momentary 12 volt switches to adjust the angle of the discharge chute deflector. Hold the switch until the discharge chute reaches the desired angle, then release the switch.

Rear 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.

The rear skid shoe height is determined by the placement of spacer washers between the skid shoe and the skid shoe mount. Extra spacer washers are stored on top of the skid shoe mount.

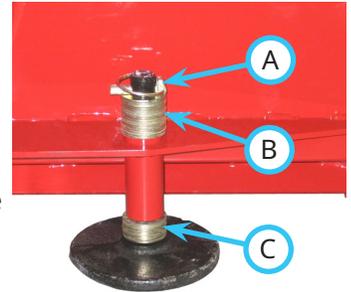
1. Determine the number of spacer washers that need to be moved to reach the desired skid shoe height.

⚠ WARNING

Hydraulic drift or accidental release of hydraulic pressure could allow the attachment to lower and trap a person or appendage.

When making adjustments with the attachment in the raised position, support the attachment securely with blocks or jack stands.

2. Raise the snow blower to the highest position and support securely with blocks or jack stands.
3. Remove the linch pin (A) and the spacer washers (B) from the top of the skid shoe mount.
4. Remove the skid shoe from the bottom of the skid shoe mount.
5. Add or remove spacer washers (C) on the skid shoe shaft to reach the desired skid shoe height and insert the skid shoe into the skid shoe mount.
6. Place extra spacer washers on top of the skid shoe mount and install the linch pin to secure the skid shoe in place.
7. Make sure both the left and right skid shoes are set at the same height.
8. Remove the jack stands and lower the snow blower to the ground.



GENERAL OPERATION

Front Skid Shoe Adjustment

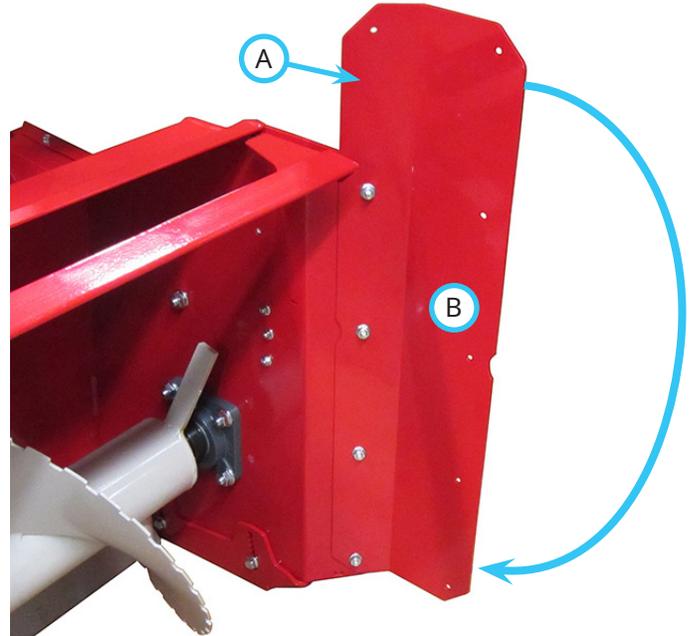
1. With the rear skid shoes set at the correct height, park the power unit and snow blower on a level surface.
2. Lower the snow blower until the rear skid shoes are resting on the ground. If the front skid shoes contact the ground before the rear skid shoes, raise the front skid shoes until the rear skid shoes rest on the ground.
3. Loosen the front (A) and rear (B) mounting bolts on the front skid shoe.



4. If the front of the skid shoe needs to be lowered, remove the front mounting bolt (A), lower the front of the skid shoe, and reinstall the bolt. The rear of the skid shoe is slotted so the skid shoe can be rotated down without removing the bolt.
5. After the front skid shoes adjustments have been completed, torque the mounting bolts to 42 Nm (31 ft-lb).

Vertical Cutting Edge Adjustment

The vertical cutting edges can be adjusted to provide either a 132 cm (52 inch) or 137 cm (54 inch) cutting width. If the short flanges (A) are mounted to the snow blower frame, the cutting width is 132 cm (52 inches). If the long flanges (B) are mounted to the snow blower frame, the cutting width is 137 cm (54 inches).



To switch from one cutting width to the other, rotate the vertical cutting edges 180 degrees. Do not switch the cutting edges to the opposite sides of the snow blower.

GENERAL OPERATION

Clearing a Blockage

⚠ WARNING

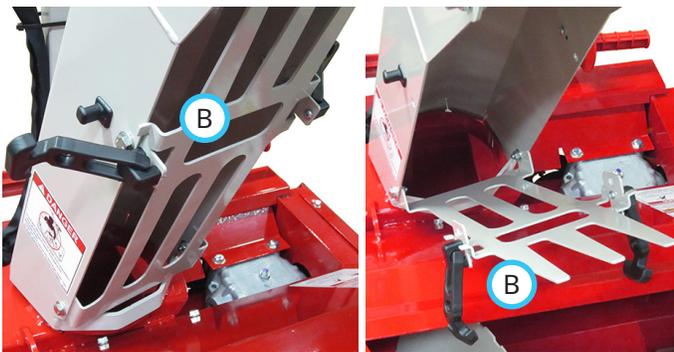
Never clear a blockage with your hands. Use the provided chute cleaning tool to remove blockages. Keep your hands, feet, and clothing away from all power driven parts when loosening and removing a blockage.

Always fasten the discharge chute guard back in place after the blockage has been cleared.

1. If a blockage occurs in the snow blower, immediately shut off the PTO and bring the power unit to a complete stop.
2. Engage the parking brake, shut off the engine, and remove the ignition key.
3. 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 away from the discharge chute to allow access to the blockage.



4. Using the chute cleaning tool, break up and pry apart the blockage until the discharge chute and fan throat area have been cleared.
5. Rotate the discharge chute guard back into place and fasten securely.

SERVICE

⚠ WARNING

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

ATTENTION

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

Cleaning and General Maintenance

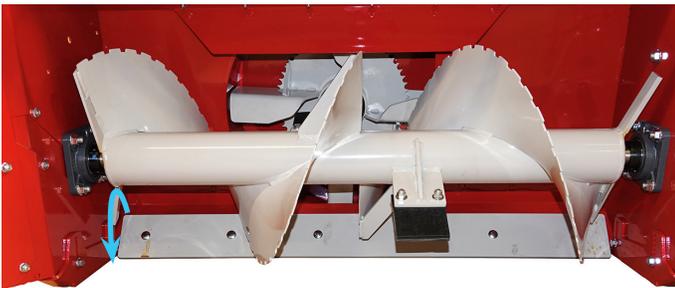
For best results and to maintain the finish of the snow blower, clean or wash the snow blower to remove dirt, gravel, and salt deposits. Remove any ice or snow accumulations from the auger, fan housing, fan and discharge chute.

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

When 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 must be replaced.

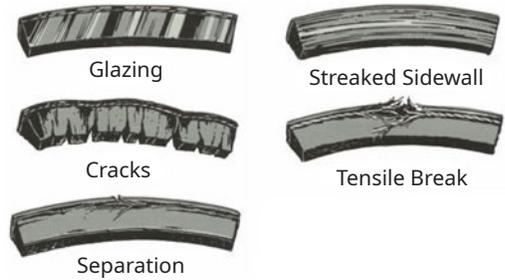
Skid Shoe Replacement

Replace the front and rear skid shoes when the wear surface is less than 3 mm (1/8 inch) thick.

Belt Inspection

Inspecting the drive belts of the attachment can prevent sudden belt failure by finding problems before they cause a belt to break.

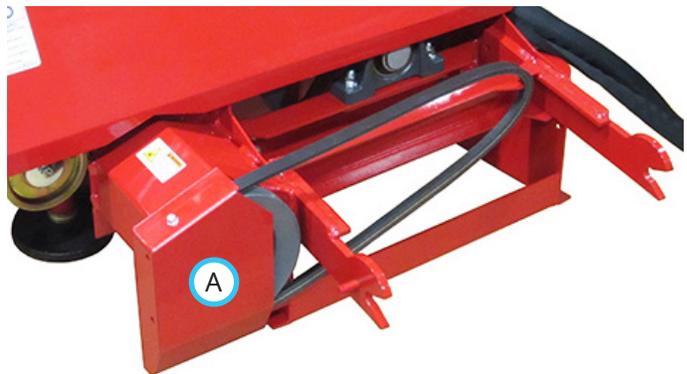
Typical wear on a drive belt may result in the conditions shown in the diagram. If any of these conditions occur, the drive belt will require replacement.



Location	Belt Size	Part #
Attachment Drive Belt	B50	81.B050
Gearbox Drive Belt	B35	81.B035
Auger Drive Belts (2)	B50	81.B050
Fan Drive Belt	BX55	81.0157
Top Auger Drive Belt (Optional Deep Snow Kit)	B40	81.B040

Attachment Drive Belt Replacement

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

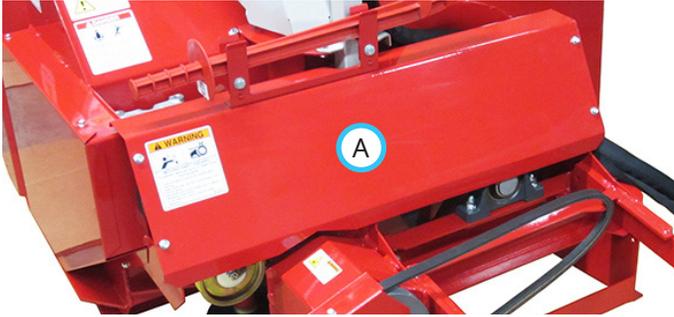


3. Remove the old drive belt and install the new drive belt onto the pulley.
4. Reinstall the drive pulley shield. Torque the bolt to 11 Nm (100 in-lb).

SERVICE

Gearbox Drive Belt Replacement

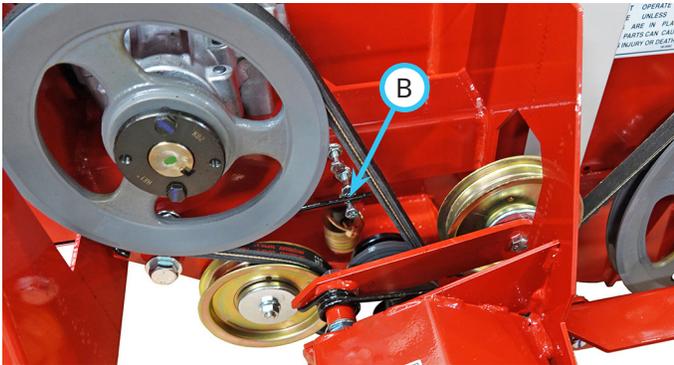
1. Remove the main drive cover (A) from the snow blower.



ATTENTION

The belt tension spring contains stored energy. To avoid pinching when releasing the spring, be prepared to hold the full tension of the spring.

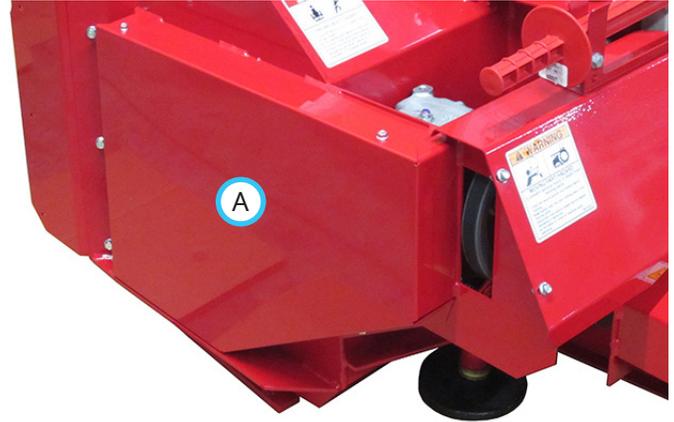
2. Release the gearbox drive belt tensioning spring (B).



3. Remove the old gearbox drive belt and install a new drive belt onto the pulleys.
4. Engage the gearbox drive belt tensioning spring.
5. Reinstall the main drive cover. Torque the bolts to 11 Nm (100 in-lb).

Auger Drive Belt Replacement

1. Remove the auger drive belt cover (A) from the snow blower.



ATTENTION

The belt tension spring contains stored energy. To avoid pinching when releasing the spring, be prepared to hold the full tension of the spring.

2. Release the auger belt tensioning spring (B).

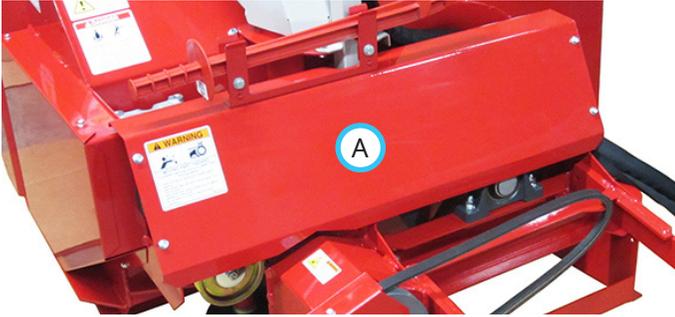


3. Remove the old auger drive belts and install the new drive belts onto the pulleys.
4. Engage the auger belt tensioning spring.
5. Reinstall the auger drive belt cover. Torque the bolts to 11 Nm (100 in-lb).

SERVICE

Fan Drive Belt Replacement

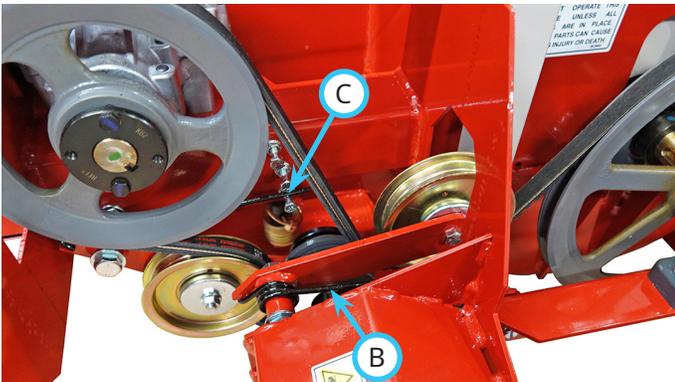
1. Remove the main drive cover (A) from the snow blower.



ATTENTION

The belt tension spring contains stored energy. To avoid pinching when releasing the spring, be prepared to hold the full tension of the spring.

2. Release the fan drive belt tensioning spring (B) and the gearbox drive belt tensioning spring (C).



3. Remove the gearbox drive belt.
4. Remove the four bolts (D) from the rear fan shaft bearing mount.



5. Rotate the bearing mount (E) as shown to allow the fan belt to be removed.

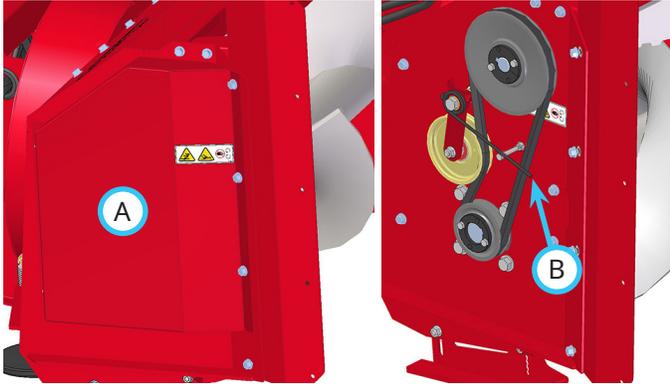


6. Remove the old fan drive belt from the pulleys and remove through the opening between the fan shaft bearing mount and the snow blower frame.
7. Insert the new drive belt through the opening and install onto the pulleys.
8. Rotate the fan shaft bearing mount back into place and reinstall the four bolts. Torque to 42 Nm (31 ft-lb).
9. Reinstall the gearbox drive belt.
10. Engage the tensioning springs for both the fan drive belt and the gearbox drive belt.
11. Reinstall the main drive cover. Torque the bolts to 11 Nm (100 in-lb).

SERVICE

Deep Snow Auger Drive Belt Replacement

1. Remove the deep snow top auger drive belt cover (A) from the right side of the snow blower.



ATTENTION

The belt tension spring contains stored energy. To avoid pinching when releasing the spring, be prepared to hold the full tension of the spring.

2. Release the deep snow auger belt tensioning spring (B).
3. Remove the old deep snow auger drive belt and install a new drive belt onto the pulleys.
4. Engage the deep snow auger belt tensioning spring.
5. Reinstall the deep snow auger drive belt cover. Torque the bolts to 24 Nm (210 in-lb).

Belt Tension Adjustment

The belt spring tension can be adjusted by moving the spring arm to a different belt tension notch or bolt. The spring tension should be set at the least amount of tension required for normal operation. This allows for 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 during normal operating conditions, increase the belt tension in small increments until the belt slippage is eliminated.

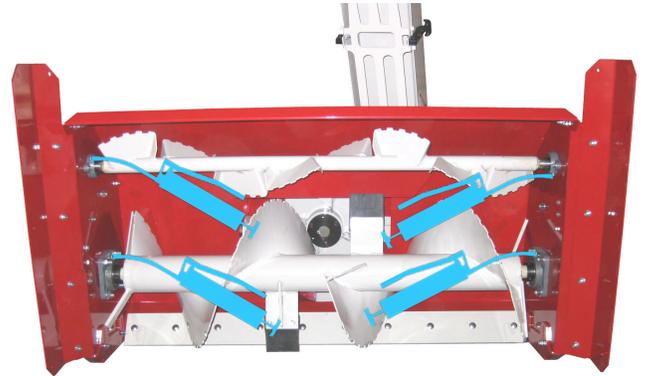
Lubrication Locations

Lubrication is required at the following locations using a lithium complex NLGI #2 grease.

Wipe the grease fittings clean before applying grease to the grease fittings.

Refer to the maintenance schedule for service intervals and the amount of grease.

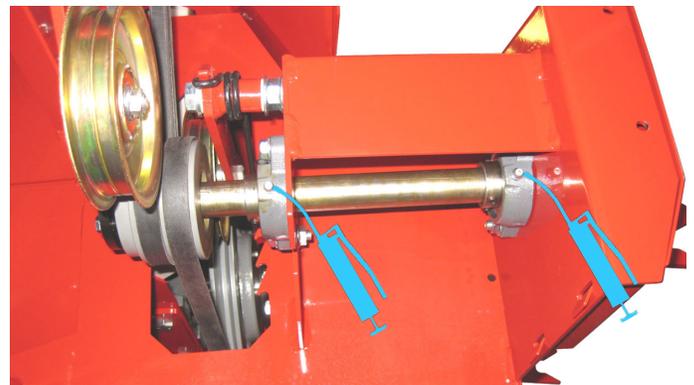
1. Grease the main auger bearings and the deep snow top auger bearings (if equipped).



2. Grease the fan shaft bearings.



3. Grease the drive shaft bearings.



SERVICE

4. Lubricate the chute rotation chain.



Checking the Gearbox Oil Level

1. Detach the snow blower from the power unit.
2. Clean the top of the gearbox and remove the breather plug (A) from the top port.
3. Check the oil level in the gearbox. The oil level should be maintained at approximately half full. If the oil level is low, add 80-90 synthetic gear oil until the proper level is reached.
4. Reinstall the breather plug into the top port of the gearbox.



Changing the Gearbox Oil

1. Detach the snow blower from the power unit.
2. Clean the top and bottom of the gearbox.
3. Remove the breather plug from the top port of the gearbox.
4. Place a drain pan beneath the gearbox.
5. Remove the pipe plug from the bottom port of the gearbox (directly below the breather plug) and allow the gear oil to drain.
6. Reinstall the pipe plug into the bottom port of the gearbox.
7. Add 80-90 synthetic gear oil until the proper level (approximately half full) is reached.
8. Reinstall the breather plug into the top port of the gearbox.

Storage

Preparing the Attachment for Storage

1. Clean the attachment to remove accumulated dirt, gravel, and salt deposits.
2. Inspect for loose or missing hardware, damaged components, or signs of wear. Repair or replace any damaged or worn components.
3. Inspect the hydraulic hoses and fittings to ensure tight, leak free connections.
4. Inspect the drive belts for signs of damage or wear and replace if necessary.
5. Inspect the cutting edge and skid shoes for wear and replace if necessary.
6. Inspect the safety decals. Replace any decals that are faded, illegible, or missing.
7. Apply grease to all grease points and wipe off any excess grease. Lubricate the chute rotation chain.
8. Check the gearbox oil level.
9. Inspect the painted components for chips, scratches, or rust. Clean and touch up the surfaces as needed.

Removing the Attachment from Storage

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

SERVICE

Maintenance Schedule

	# of locations	# of pumps	As Needed	Daily	At 50 hours	At 100 hours	At 150 hours	At 200 hours	At 250 hours	At 300 hours	At 350 hours	At 400 hours	At 450 hours	At 500 hours	At 550 hours	At 600 hours	At 650 hours	At 700 hours	At 750 hours	At 800 hours	At 850 hours	At 900 hours	At 950 hours	At 1,000 hours	Yearly
Grease and Lubrication: See Lubrication Section																									
Auger Shaft Bearing	2	1	**		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Drive Shaft Bearing	2	1	**		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Fan Shaft Bearing	2	1	**		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Optional Top Auger Shaft Bearing	2	1	**		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Chute Rotation Roller Chain	1		✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Check the Gearbox Oil Level						✓		✓		✓		✓		✓		✓		✓		✓		✓		✓	
Change the Gearbox Oil					✓									✓											✓
Inspection																									
Inspect for Loose, Missing, or Worn Components				✓																					
Inspect the Belts and Pulleys				✓																					
Inspect the Cutting Edges and Skid Shoes				✓																					
Inspect the Hydraulic Hoses and Fittings				✓																					
Inspect the Safety Decals				✓																					

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

Maintenance Checklist

	# of locations	# of pumps	As Needed	Daily	At 50 hours	At 100 hours	At 150 hours	At 200 hours	At 250 hours	At 300 hours	At 350 hours	At 400 hours	At 450 hours	At 500 hours	At 550 hours	At 600 hours	At 650 hours	At 700 hours	At 750 hours	At 800 hours	At 850 hours	At 900 hours	At 950 hours	At 1,000 hours	Yearly
Grease and Lubrication: See Lubrication Section																									
Auger Shaft Bearing	2	1	**																						
Drive Shaft Bearing	2	1	**																						
Fan Shaft Bearing	2	1	**																						
Optional Top Auger Shaft Bearing	2	1	**																						
Chute Rotation Roller Chain	1		✓																						
Check the Gearbox Oil Level																									
Change the Gearbox Oil																									
Inspection																									
Inspect for Loose, Missing, or Worn Components																									
Inspect the Belts and Pulleys																									
Inspect the Cutting Edges and Skid Shoes																									
Inspect the Hydraulic Hoses and Fittings																									
Inspect the Safety Decals																									

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

SPECIFICATIONS

Dimensions

Overall Height	143.5 cm (56-1/2 inches)
Overall Length	124.5 cm (49 inches)
Overall Width	132 cm (52 inches)
Weight	233.6 kg (515 pounds)
Auger Opening Width	122 cm (48 inches)
Main Auger Diameter	40.6 cm (16 inches)
Main Auger Speed	197 RPM*
Optional Top Auger Diameter.	20.3 cm (8 inches)
Optional Top Auger Speed	105 RPM*
Fan Diameter	49.5 cm (19-1/2 inches)
Fan Shaft Speed	790 RPM*
Chute Rotation	180 degrees
Blowing Distance	Approximately 10.7 - 12.2 m (35 - 40 feet)
Snow Capacity**	2,041 kg/minute (4,500 lbs/minute)

*Based on an engine speed of 3,200 RPM.

**Capacity is dependent upon the conditions.

Features

- 2 stage snow blower
- Vertical discharge chute adjustment (manual)
- Hydraulically controlled discharge chute rotation
- Extra heavy duty shaft and bearings
- Adjustable skid shoes (front and rear)
- Chute cleaning tool
- Optional remote vertical discharge chute adjustment (electric)
- Optional top auger for deep snow