



# SnowWolf

## Operation & Maintenance Manual



# AlphaBlower

Models 33-100-P & 33-100-H



**REMEMBER:** Register your product! No claims for warranty shall be considered unless your product registration card is completed online within 30 days of purchase. Go to: [snowwolfplows.com/registration](http://snowwolfplows.com/registration).

# MANUFACTURER'S WARRANTY

## One-Year Limited Warranty

SNOWWOLF International, hereinafter referred to as SNOWWOLF, warrants new SNOWWOLF SNOW BLOWERS at the time of delivery to the original purchaser, to be free from defects in material and workmanship when properly set up and operated in accordance with the recommendations set forth by SNOWWOLF.

SNOWWOLF'S liability for any defect with respect to accepted goods shall be limited to repairing the goods at a SNOWWOLF designated location or at an authorized dealer location, or replacing them as SNOWWOLF shall elect. The above shall be in accordance with SNOWWOLF warranty adjustment policies. SNOWWOLF'S obligation shall terminate twelve (12) months after the delivery of the goods to original purchaser including cutting edge breakage or wear. This warranty shall not apply to any machine or attachment which shall have been repaired or altered outside the SNOWWOLF factory or authorized SNOWWOLF dealership or in any way so as in SNOWWOLF'S judgment, to affect its stability or reliability, nor which has been subject to misuse, negligence or accident beyond the Company recommended machine rated capacity.

## Warranty Claim

To submit a warranty claim, a return authorization from SNOWWOLF must be obtained. The failed part may then be returned. Tampering with the failed part may void the warranty. This warranty does not include freight or delivery charges incurred when returning machinery for servicing. Dealer mileage, service calls, and pickup/delivery charges are the customers' responsibility.

## Exclusions of Warranty

Except as otherwise expressly stated herein, SNOWWOLF makes no representation or warranty of any kind, expressed or implied, AND MAKES NO WARRANTY OF MERCHANTABILITY IN RESPECT TO ITS MACHINERY AND/OR ATTACHMENTS ARE FIT FOR ANY PARTICULAR PURPOSE. SNOWWOLF shall not be liable for incidental or consequential damages for any breach of warranty, including but not limited to inconvenience, rental of replacement equipment, loss of profits or other commercial loss. Upon purchase, the buyer assumes all liability for all personal injury and property resulting from the handling, possession, or use of the goods by the buyer.

No agent, employee, or representative of SNOWWOLF has any authority to bind SNOWWOLF to any affirmation, representation or warranty concerning its machinery and/or attachments except as specifically set forth herein.

This warranty policy supersedes any previous documents.

**No claims for warranty shall be considered unless warranty registration is sent to SNOWWOLF within 30 days of purchase!**

Manufactured By:



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## Owner Information

Thank you for your decision to purchase a SnowWolf AlphaBlower. To ensure maximum performance of your equipment, it is mandatory that you thoroughly study the Operator's Manual and follow the recommendations. Proper operation and maintenance are essential to maximize equipment life and prevent personal injury.

Operate and maintain this equipment in a safe manner and in accordance with all applicable local, state, and federal codes, regulations and / or laws. Follow all on-product labeling and instructions.

Make sure that all personnel have read this Operator's Manual and thoroughly understand safe and correct operating, installation, and maintenance procedures.

SnowWolf is continually working to improve its products. SnowWolf reserves the right to make any improvements or changes as deemed practical and possible without incurring any responsibility or obligation to make any changes or additions to equipment sold previously.

Although great care has been taken to ensure the accuracy of this publication, SnowWolf makes no warranty or guarantee of any kind, written or expressed, implied or otherwise with regard to the information contained within this manual. SnowWolf assumes no responsibility for any errors that may appear in this manual and shall not be liable under any circumstances for incidental, consequential, or punitive damages in connection with, or arising from the use of this manual.

Keep this manual available for frequent reference. All new operators or owners must review the manual before using the equipment and annually thereafter. Contact your SnowWolf Attachments Dealer for assistance, information, or additional copies of the manual. Contact [www.snowwolfplows.com](http://www.snowwolfplows.com) or call 1-800-905-2265 for a complete list of dealers in your area.

## Serial Number Location

Please record snow blower information in the space provided for future reference.

**Model Number:** \_\_\_\_\_

**Serial Number:** \_\_\_\_\_

**Dealer Name:** \_\_\_\_\_

**Dealer Number:** \_\_\_\_\_

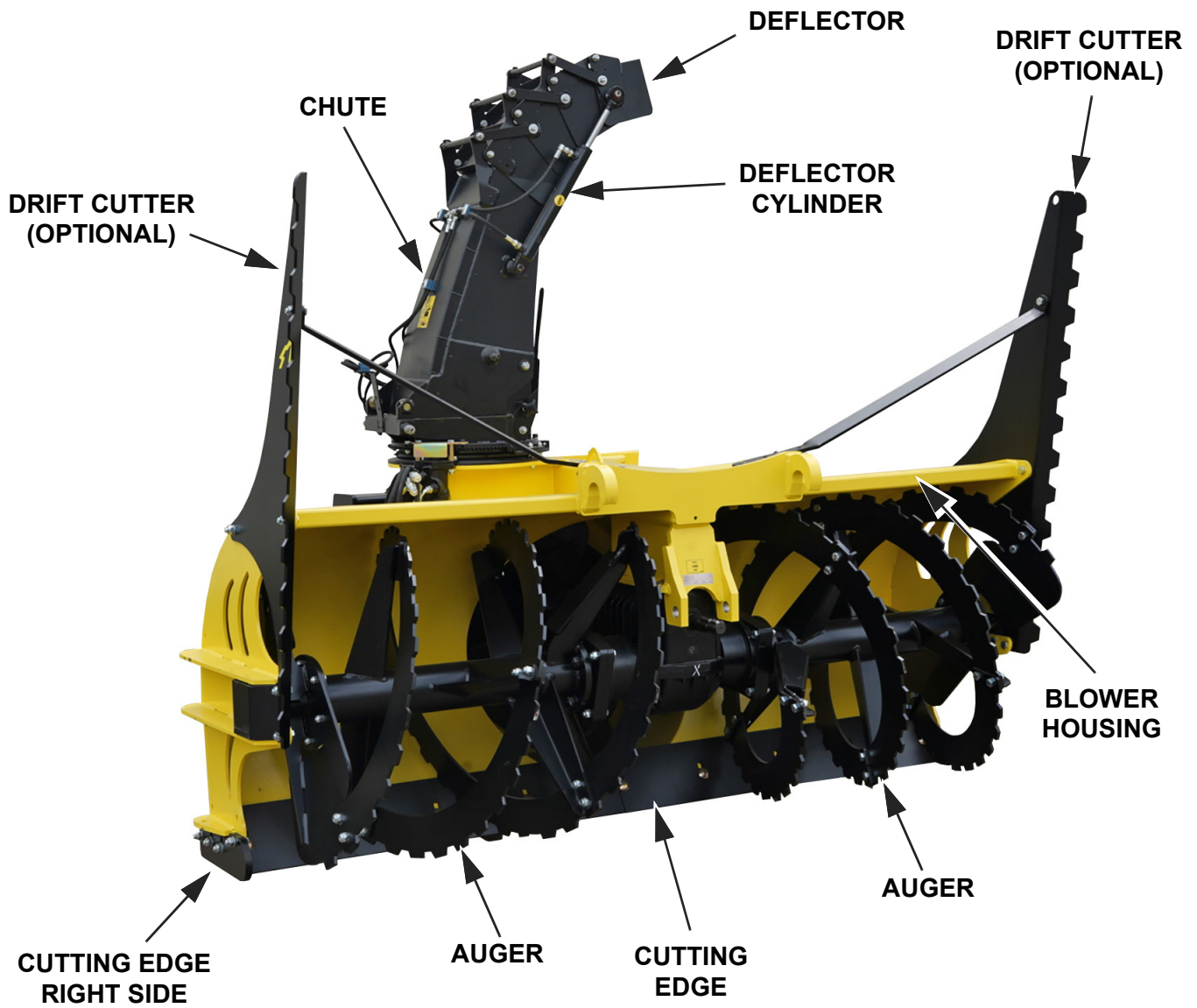
**Date of Purchase:** \_\_\_\_\_

Always use the serial number of the snow blower when requesting service information or when ordering parts. Early or later models (identification made by serial number) may use different parts, or may require a different procedure in doing a specific service operation.

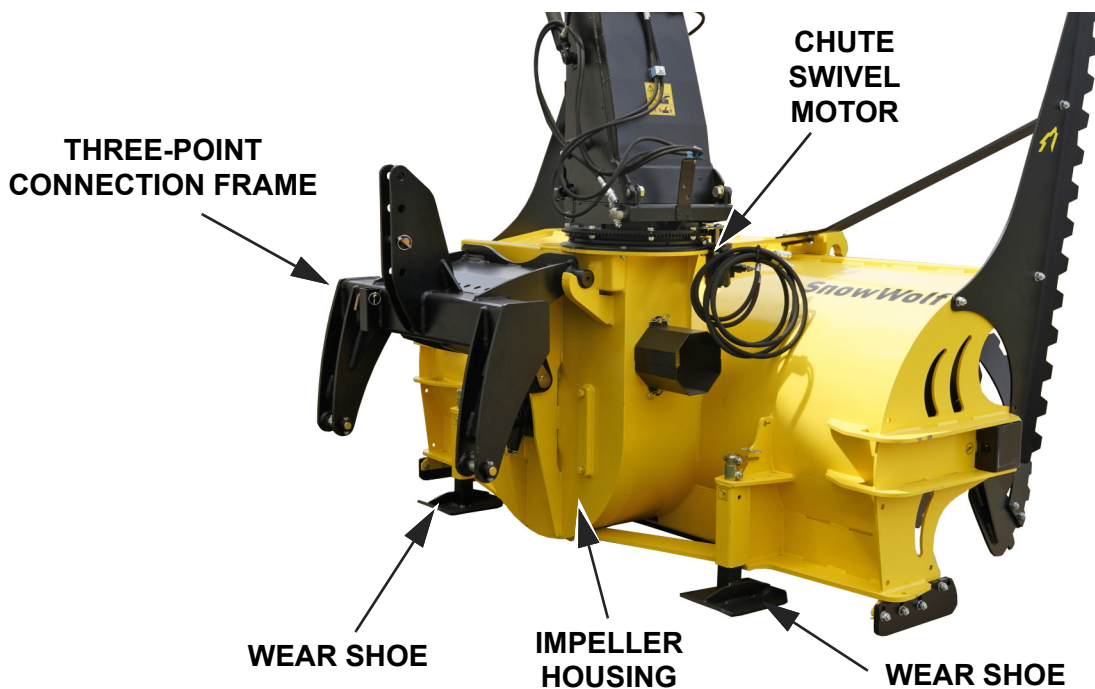
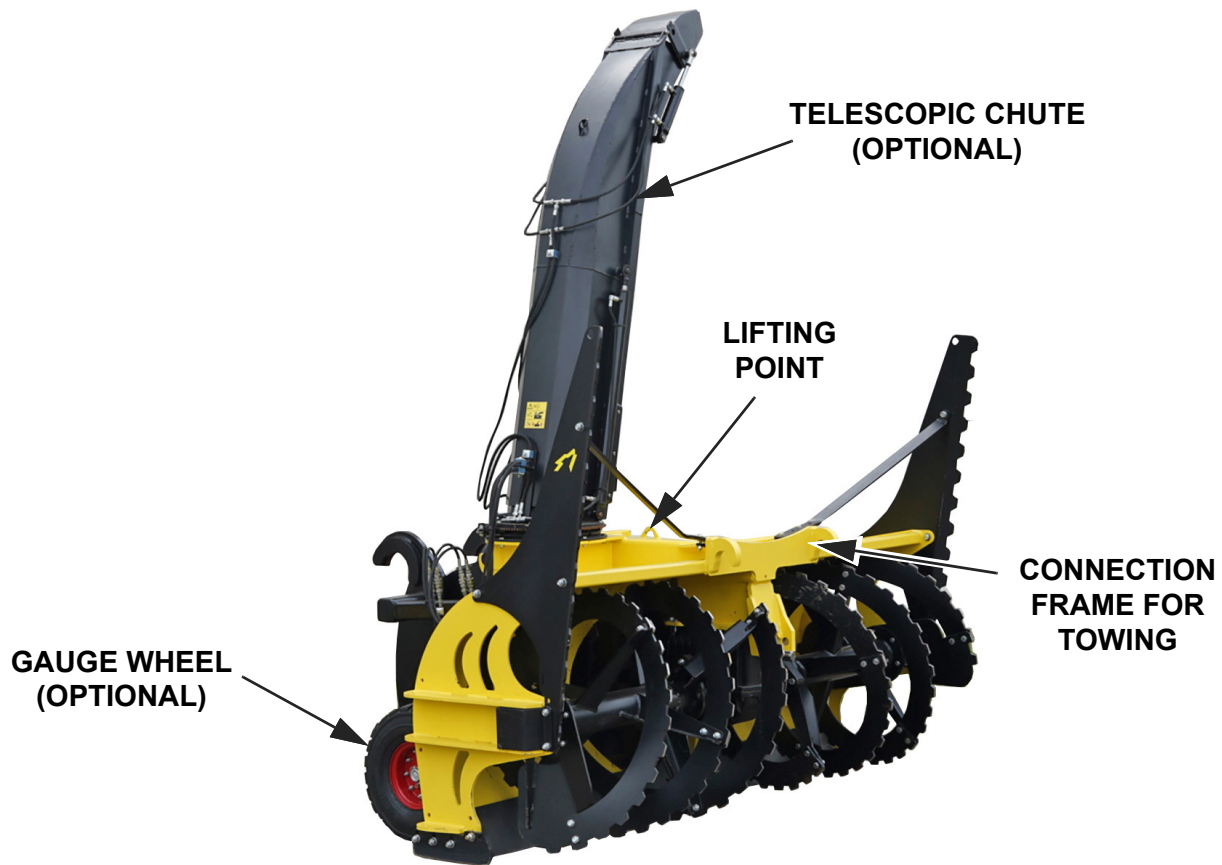
**NOTE: This document and the information provided are the property of SnowWolf and may only be used as authorized by SnowWolf.**

The snow blower serial number plate is located on the left side of the frame, below the discharge chute.

# AlphaBlower Identification (Model 33-100-P Shown)



# AlphaBlower Identification (Model 33-100-P Shown) (Cont'd)





## Safety Information



### Safety Alert Symbol

This SAFETY ALERT SYMBOL identifies important safety messages on the equipment and in the owner's manual. When you see this symbol, be alert to the possibility of personal injury and carefully read the message that follows.



### DANGER

The signal word DANGER on the machine and in the manuals indicates a hazardous situation which, if not avoided, will result in death or serious injury.



### WARNING

The signal word WARNING on the machine and in the manuals indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.



### CAUTION

The signal word CAUTION on the machine and in the manuals indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.



### IMPORTANT

The signal word IMPORTANT identifies procedures which must be followed to avoid damage to the machine.

## Safe Operation Needs A Qualified Operator



### WARNING

#### AVOID SERIOUS INJURY OR DEATH

Operators must receive instructions before operating the machine. Untrained operators can cause serious injury or death.

For an operator to be qualified, he or she must not use drugs or alcoholic drinks which impair alertness or coordination while working. An operator who is taking prescription drugs must get medical advice to determine if he or she can safely operate a machine and the equipment.

### Owner's Responsibility

Operate and maintain this machine in a safe manner and in accordance with all applicable local, state, and federal codes, regulations and/or laws; and in compliance with on-product labeling and this owner's manual instructions.

Make sure that all personnel have read this owner's manual, and thoroughly understand safe and correct installation, operation, and maintenance procedures.

Give operating instructions to the operators before allowing them to operate the equipment, and at least annually thereafter.

## Importance of Safety

### Operating Safety

- Read and follow instructions in this manual and the machine's Operator's Manual before operating.
- Operator must have instructions before operating the equipment. Untrained operators can cause injury or death.
- Be certain all equipment operators are aware of the dangers indicated by safety decals applied to the snow blower, and be certain they follow all safety decal instructions. Contact your authorized Distributor, Dealer Parts Department, or SnowWolf for safety decal replacement.
- Operate the snow blower according to the Operator's Manual.
- The snow blower is intended for use in snow removal. Use in any other manner is considered to be contrary to the intended use of the snow blower.
- In addition to the design and configuration of equipment, hazard control and accident prevention are dependent upon the awareness, concern, prudence, and proper training of personnel involved in the operation, transport, maintenance, and storage of the equipment.
- Under no circumstances should young children be allowed to work with this equipment.
- The snow blower is dangerous to persons unfamiliar with its operation.
- Check for overhead power lines before operating the snow blower (if applicable).
- Check that the snow blower is securely fastened to the machine.
- Make sure all the machine controls are in NEUTRAL before starting the snow blower.
- When learning to operate the equipment, do it at a slow rate in an area clear of bystanders.
- DO NOT permit personnel to be in the work area when operating the snow blower. Snow, ice, rocks, or debris can be thrown from the blower, causing injury to persons, cars, buildings, or other objects.
- Rotating PTO shaft, augers, and the impeller can cause serious personal injury or death, make sure no-one is in the work area when operating the blower.
- The snow blower must be used ONLY on approved machines.
- Always stop the snow blower if any persons enter the work area.
- DO NOT modify the snow blower in any way. Unauthorized modification may impair the function and / or safety and could affect the life of the snow blower.
- DO NOT make any adjustments or repairs on the snow blower while the machine is running.
- Keep shields and guards in place. Replace if damaged.
- Prior to maintenance, repairs, or clearing a plugged blower, the machine must be turned off or the snow blower must be disconnected from the machine.
- DO NOT operate the snow blower in poor visibility conditions such as fog, darkness, or any conditions that limit clear visibility.
- DO NOT operate in a work area that has not been inspected for foreign debris and obstacles.
- Remove any foreign objects and clearly mark any objects that cannot be removed.
- Wear safety glasses, gloves, hard hat, hearing protection, and other protective clothing when operating or maintaining this equipment.
- Have a first-aid kit available for use should the need arise and train personnel on proper use of the kit.
- SnowWolf cannot anticipate every possible circumstance that may involve a potential hazard. The warnings in this owner's manual are not all inclusive.

## Importance of Safety Cont'd

### Fire Prevention Safety

- All fuels, most lubricants, and some coolant mixtures are flammable. Flammable fluids that are leaking or spilled onto hot surfaces or onto electrical components can cause a fire.
- Know where fire extinguishers are located and how to use them.

### Transporting Safety

- Comply with state and local laws governing highway safety and movement of machinery on public roads.
- Check local laws for all highway lighting and marking requirements.
- Always yield to oncoming traffic and move to the side of the road so any following traffic may pass.
- Never allow riders on the machine or snow blower.
- If transporting the snow blower on a truck or trailer, make sure it is properly secured to the transport vehicle.

### Hydraulic Safety

- Always disconnect hydraulic connections between the machine and the snow blower before performing maintenance to the snow blower.
- Always clean fluid spills. Do not use gasoline or diesel fuel for cleaning parts. Use commercial nonflammable solvents.
- Check hydraulic tubes, hoses, and fittings for damage and leakage. Never use open flame or bare skin to check for leaks. Hydraulic tubes and hoses must be properly routed and have adequate support and secure clamps. Tighten or replace any parts that show leakage.

## **WARNING**



**Leaking fluids under pressure can enter the skin and cause serious injury or death. Immediate medical attention is required. Wear goggles. Use cardboard to check for leaks.**

### First Aid Safety

Know where first aid kits are located and how to use them.



## General Information

### Pre-Operation Inspection

Before operating the snow blower for the first time and each time thereafter, use the following list as a guideline during equipment inspection.

1. Use only a machine of adequate power to operate the snow blower. (See Tractor or Loader Requirements on page 16).
2. Check the snow blower and machine mounts for damage, loose, or missing parts. Repair as needed before operation.
3. Lubricate the snow blower, see Lubrication on page 33.
4. Check that the PTO shaft telescopes easily and turns freely.
5. Check that the snow blower is properly attached to the machine. Be sure retainers are used on the mounting pins.
6. Check that wear shoes / gauge wheels (if equipped) are set at the same working depth.
7. Make sure that all guards and shields are in place, secured, and functioning as designed.
8. Check oil level in machine hydraulic reservoir.
9. Check that the hydraulic hoses and couplers are securely attached to the machine. Make sure hoses are routed and secured to avoid pinch points or strain during movement of the machine / snow blower.
10. Check cutting blade for wear or damage.
11. Check hydraulic lines, connections, and fittings for hydraulic oil leaks.
12. Check all electrical connections.

### Snow Blower Operating Tips

- Make sure the snow blower is adjusted properly. (See “AlphaBlower Adjustment” on page 21.)

**NOTE: Improper snow blower adjustment will cause increased wear to the cutting edge or wear shoes.**

- Driving speed and gear selection are dependent on the snow conditions and the machine type. Do not choose too high a gear but make a selection so speed can be kept steady.
- Before disengaging the PTO it is important to wait until the blower has emptied out the snow. If the PTO is disengaged while the blower is full of snow, the chute will likely clog up when the PTO is re-engaged.
- If the blower is frequently used on gravel roads or asphalt, in conditions with little snow, it is recommended to use gauge wheels instead of wear shoes.
- Adjust throwing distance and the direction of the snow being removed, away from buildings, cars, or other objects to avoid causing damage.
- Always stop the snow blower before exiting the machine.

**NOTE: Operating blower without hydraulic fluid at proper operating temperature will negatively affect performance.**

# Wireless Controls

## 33-100-H

**NOTE: Wireless controls operate the 33-100-H only.**

### Operation

- To turn on the transmitter, press and hold the POWER button for at least 2 seconds and release.
- To turn off the transmitter, press and hold the POWER button until the LEDs turn off.
- The transmitter is designed with a power saving feature which turns the transmitter off after 15 minutes if no buttons are pressed.
- There are red and green LEDs both on the keypad of the transmitter and inside the receiver case. The green LED will blink rapidly when the transmitter and receiver are communicating. It will blink slowly if there is no communication (i.e. - no power to the receiver).
- The red LED on the receiver will blink if there is a shorted or open output. Refer to the ERROR CODE CHART tables and count the number of blinks to determine the output with the fault (NOTE: the receivers with CAN do not have output error codes).
- The transmitter's red LED blinks one time per second if the battery is low and needs to be charged.
- The red LED will stay on while charging and when the charge is completed the green LED will stay on.
- It will take longer to charge if the transmitter is on during charging.

### Synchronizing Transmitter and Receiver

Each transmitter and receiver pair is synchronized together at the factory. If a new transmitter is needed, synchronizing is required. Use the following procedure:

1. Make sure both the transmitter and receiver are off.
2. Press and hold the POWER button on the transmitter for more than 10 seconds. The red and green LED will start to blink.
3. Apply power to the receiver.
4. Wait for a few seconds until only the green LED begins to blink on the transmitter.
5. Synchronizing complete.

### Programming

The user can determine output functionality (momentary or maintained action) and program the system to respond as desired. This is determined by the following procedure:

1. Turn the receiver off. Turn the transmitter on (press and hold POWER until both LEDs turn on, then release).
2. Press and hold 1, 4, and 8 and release. Red LED should be blinking on the transmitter.
3. Turn the receiver on, make sure the green LED is blinking before proceeding to the next step. Be sure all outputs are connected to a load and that there are no error codes present (NOTE: outputs may cycle on and off while programming).
4. Are any outputs to be latched (push on / push off)? If yes, continue. If no, skip to step 9 for outputs to be momentary.
5. Press buttons 1-8 corresponding to output 1-8 that is to be latched, until the green LED goes on, then off.

6. Press the button that corresponds to OFF until the green LED goes on, then off. This can be the same button that turns the output on. In this case, pressing the button alternates the output between ON and OFF.
7. If the latched output should turn OFF for the transmitter out of range condition, press the button defined in step 6. If the latched output should stay ON for the transmitter out of range condition, press any button other than the button defined in step 6.
8. Repeat steps 5, 6, and 7 for any more outputs that are to be latched.
9. Press POWER briefly. The receiver's red LED should blink, indicating that this step is accepted and complete. The red LED on the transmitter should also start to blink at a different rate.
10. Are any outputs to be disabled (no output and no error)? If yes, continue. If no, skip to step 12.
11. One at a time, press and hold each button 1-8 corresponding to output 1-8 that is to be disabled, until the green LED goes on, then off.
12. Press POWER briefly. The receiver's red LED should blink, indicating that this step is accepted and complete. The red LED on the transmitter should also start to blink at a different rate.
13. Is it desired to use the pump functionality (see description below)? If yes, continue, if no, skip to step 15.
14. One at a time, press and hold each button 1-8 corresponding to output 1-8 that is to be associated with the pump output, until the green LED goes on, then off.
15. Press POWER briefly. The receiver's red LED should blink, indicating that this step is accepted and complete. The red LED on the transmitter should also start to blink at a different rate.
16. Is it desired to use the e-stop functionality (see description listed after this procedure)? If yes, continue. If no, skip to step 18.
17. To engage the e-stop functionality, press button 2 until the green LED goes on, then off.
18. If no error code is desired for the e-stop output, press button 3 to disable, otherwise go to step 19 to keep error code enabled.
19. If the e-stop output should turn OFF for the transmitter out of range condition, press button 4, otherwise go to step 20 to keep the output ON for the transmitter out of range condition.
20. If no error code is desired for the PUMP output press button 1 to disable, otherwise go to step 21 to keep error code enabled.
21. Press POWER briefly. The receiver's red LED should blink, indicating that this step is accepted and complete.
22. One at a time, press and hold each button 1-8 that the corresponding output error code needs to be disabled, until the green LED goes on, then off.
23. Press POWER briefly. The receiver's red LED should blink, indicating that this step is accepted and complete.
24. Programming complete.

**NOTES:**

- Pump functionality: output 9 will turn on with any outputs that have been associated with it.
- E-stop functionality: output 10 will be on as long as the transmitter is on. If the transmitter is turned off or POWER is pressed, output 10 will go off along with all latched outputs. To reset, turn the transmitter back on or re-cycle power to the receiver and re-engage the outputs as before.
- If the receiver does not blink the red LED after each sequence or the transmitter's red LED does not blink at a different rate as described above, the programming was not accepted for that section. Start from the beginning and go slowly. Keep a distance of 2-3 feet from the receiver when programming.
- The factory settings are: 8 momentary outputs, no pump output, and no e-stop output.

## Sleep Time

All transmitters have the ability to change the sleep time from the default to user's preference. The transmitter is factory set to turn off (sleep) after 15 minutes. To change the time the transmitter waits before going to sleep, use the following procedure:

1. With the transmitter off, press and hold buttons 3, 4, 8, and POWER.
2. Keep holding the buttons for a few seconds then release the buttons. At this point, both lights will blink once per second.
3. On the transmitter, press one of the following buttons to adjust the sleep time:
  - a. 1=15 minutes
  - b. 2=30 minutes
  - c. 3=1 hour
  - d. 4=2 hours
  - e. 8=sleep disabled
4. Sleep time programming complete.

# AlphaBlower Inspection

## Daily Inspection

**NOTE: Inspect the snow blower by performing a walk around daily before and after use. Use the following inspection checklist as a guideline.**

- Verify that the snow blower is properly connected to the machine.
- Check that all shields and guards are in place.
- Check for damaged or leaking hydraulic hoses or fittings. Replace if necessary.
- Check the cutting edge for wear or damage. Replace if necessary.
- Check that all cotter pins that retain pivot / anchor pins are in place and not damaged or missing.
- Check the snow blower to ensure that all components are secure and that all bolts and nuts are thoroughly tightened.
- Check the snow blower's mounting hardware for wear or damage. Inspect the pins and mounts for wear or damage. Repair or replace damaged parts if necessary.
- Check that all bearings turns freely. Replace any that are rough or seized.
- Check that the PTO shaft is securely fastened to the snow blower and to the tractor.
- Check the oil level in the gearbox.

## Weekly Inspection

Check the following items every 50 hours of operation:

- Inspect the snow blower, frame, and all welds for cracks, bends, or excessive wear.
- Check wear shoes and gauge wheels (if equipped) for wear.
- Check that all bolts are tight.
- Check the cutting edge and mounting plate for cracks or damage. Replace if necessary.
- Check the wing cutting edges (if equipped) for cracks or damage. Replace if necessary.
- Check hydraulic lines, connections, and fittings for hydraulic oil leaks. Repair or replace damaged parts if necessary.
- Check for damaged or missing decals. Replace if necessary.
- Lubricate as required.



## WARNING

### AVOID SERIOUS INJURY OR DEATH

**Before servicing the snow blower:**

- **Always park on a flat level surface.**
- **Lower the tractor's three-point hitch or loader arms and place snow blower flat on the ground.**
- **Place all controls in NEUTRAL.**
- **Engage the park brake.**
- **Stop the engine and remove the key.**
- **Wait for all moving parts to stop.**
- **Exit the machine.**

**SEE MACHINE'S OPERATOR'S MANUAL FOR ADDITIONAL INFORMATION.**

## Tractor Requirements

REQUIREMENTS	
Power Input (min/max)	130 - 250 HP
Hitch Type	Cat 2, 3, or 4

## PTO Revolutions

**NOTE:** It is important to use the correct type of PTO shaft! The PTO shaft for towing and reversing is adapted for 540 rpm and must NOT be used for front mounting as this could result in the gearbox becoming overloaded. For front loading a PTO shaft with a shear pin adapted for 1000 rpm must be used.

MODEL	TOWING	REVERSING	FRONT MOUNT
33-100-P	540 RPM	540 RPM	1000 RPM

## Loader Requirements

LOADER REQUIREMENTS	
Hydraulic Flow	40 - 50 GPM

## Entering and Exiting the Machine

### Entering The Operator's Position

Use the machine's safety treads, handles, and steps to enter the operator's position.

When in the operator's position, fasten the seat belt, start the engine, and release the parking brake.

### Exiting The Operator's Position



#### AVOID SERIOUS INJURY OR DEATH

Before servicing the snow blower:

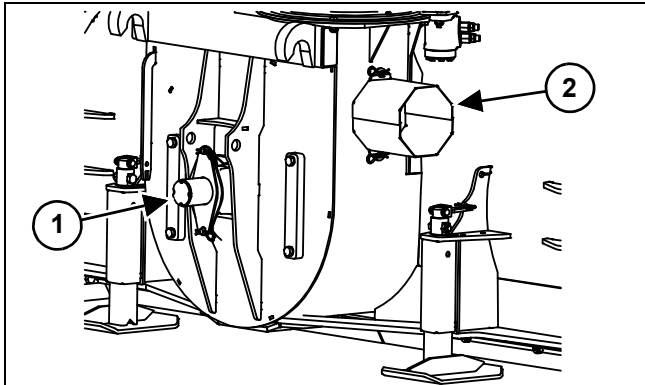
- Always park on a flat level surface.
- Lower the tractor's three-point hitch or loader arms and place snow blower flat on the ground.
- Place all controls in NEUTRAL.
- Engage the park brake.
- Stop the engine and remove the key.
- Wait for all moving parts to stop.
- Exit the machine.

**SEE MACHINE'S OPERATOR'S MANUAL FOR ADDITIONAL INFORMATION.**

## AlphaBlower Installation

**NOTE:** Ensure that the PTO shaft guard is always in place, that it is in proper condition, and secured using the supplied chain to prevent rotation during use.

Figure 1



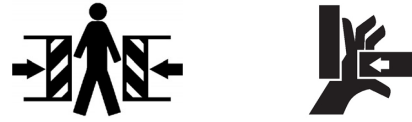
**Towing Installation** - Ensure that the guard (Item 1) [Figure 1] has been installed over the PTO stub shaft protruding from the blower housing.

**Reversing Installation** - Replace the PTO stub shaft guard (Item 1) with the axle guard (Item 2) [Figure 1]. Pull the axle guard onto the PTO shaft before connecting it.

**Front Installation** - Remove the PTO stub shaft guard (Item 1) before installing the gearbox. Pull the axle guard (Item 2) [Figure 1] onto the PTO shaft before connecting it and secure the axle guard to the gearbox.

## Connecting The Snow Blower To The Tractor's Three-Point Hitch

 **WARNING**



**CRUSH HAZARD**

- Before moving the machine, look in all directions and make sure no bystanders, especially small children, are in the work area. Do not allow anyone between the machine and snow blower when approaching the snow blower for connecting.
- Keep fingers and hands out of pinch points when connecting and disconnecting snow blower.

Before connecting to the snow blower, inspect the tractor's three-point mounting frame. (See the tractor's operation manual for inspecting the mounting frame.)

Enter the operator's position, start the engine, and release the parking brake. (See "Entering The Operator's Position" on page 16.)

Open the tractor's three-point hitch locking levers (if equipped). (See the tractor's operation manual for the correct procedure.)

Move the tractor into position in front of the snow blower.

Move the tractor backwards, aligning the tractor's three-point hitch and snow blower's three-point mounts.

When the tractor's three-point hitch is aligned with the snow blower's three-point mounts, raise the tractor's three-point hitch until the snow blower's three-point mount pins are fully seated into the tractor's three-point hitch.

## Connecting The Snow Blower To The Tractor's Three-Point Hitch (Cont'd)

**NOTE:** Tractor hitch type may require a different procedure for pin installation. (See the tractor's operation manual for the correct procedure.)

Exit the operator's position. (See "Exiting The Operator's Position" on page 16.)

Close the tractor's three-point hitch locking levers (if equipped). (See the tractor's operation manual for the correct procedure.)

**NOTE:** Always use implement mounting pins of adequate size and strength and a retaining pin with a locking device.

Adjust the top link until it aligns with the snow blower's upper mount pin or mounting hole. (See the tractor's operation manual for the correct procedure.)

## PTO Installation

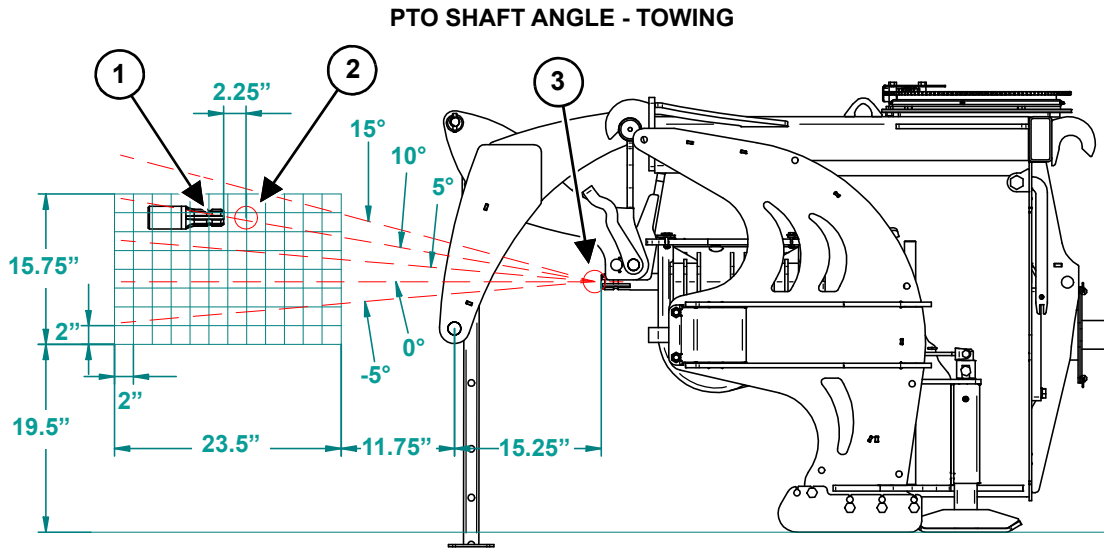
Install the PTO shaft from the blower to the tractor.

**NOTE:** [Figure 3] shows the relation between the height (H) of the tractor's PTO and the angle of the PTO shaft.

# IMPORTANT

The angle of the PTO should not exceed 20 degrees. Angles greater than 20 degrees result in excessive wear and reduce service life of PTO shafts.

Figure 2



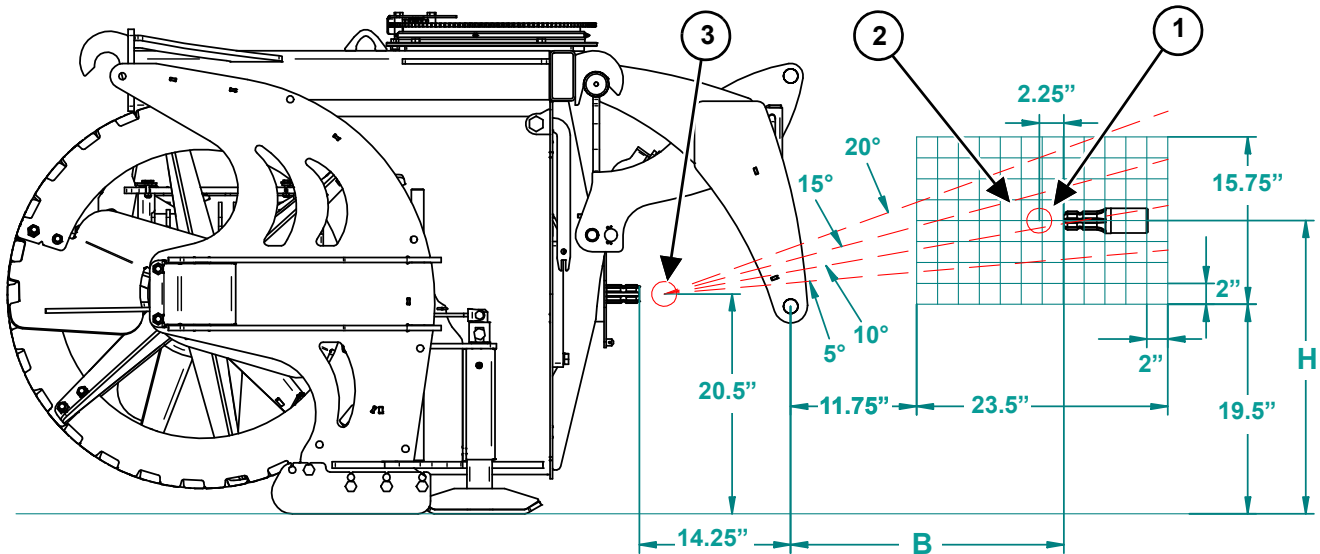
For reversing and towing: See 1-7.

For front mounting: mount the snow blower without the PTO, and see 2- 7.

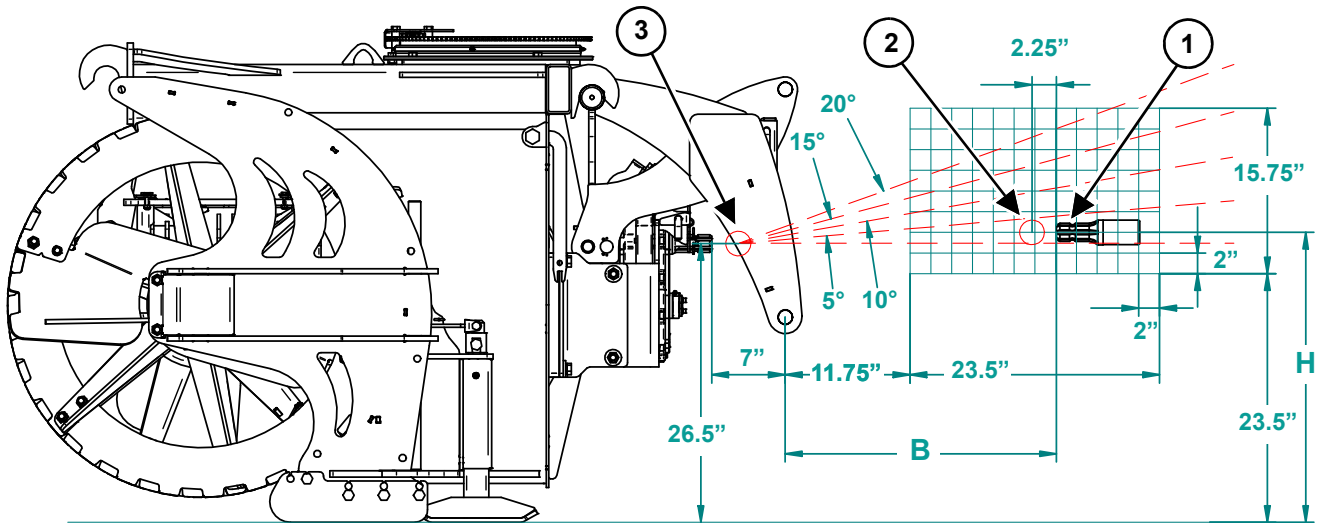
1. Install the blower on the tractor for reversing **[Figure 3]**. The PTO stub shaft on the snow blower is situated slightly closer to the tractor's drawbar for reversing or towing. When the PTO shaft has been adjusted for reversing it can then also be used for towing. Do not install the PTO shaft immediately. First ensure that there is sufficient clearance between the tractor's wheel and the wing cutting edges of the blower at all lifting heights, including during active use of top links.
2. Locate the setting at which the PTO stub shafts have the shortest spacing. Pull the PTO shaft apart and insert the prongs on each PTO stub shaft so that the pipes are situated next to each other.
3. Mark the pipe for cutting, calculate at least 0.394" in for end clearance.
4. Verify the longest distance between the PTO stub shafts. If this is in a working position, the telescoping tubes must continue to overlap with half the pipe length.
5. When all of the above has been verified, the axle can be cut. All pipes must be cut in the same way.
6. File all cut edges that could inhibit sliding, clean and lubricate the telescoping tubes using grease.
7. Install the axle and check the adaptation carefully and at all heights and movements.

Figure 3

## PTO SHAFT ANGLE - REVERSING



## PTO SHAFT ANGLE - FRONT MOUNTING



**[Figure 3]** shows the relation between the height (H) of the tractor's PTO and the angle of the PTO shaft during towing / reversing and front mounting respectively.

Use the diagram as follows:

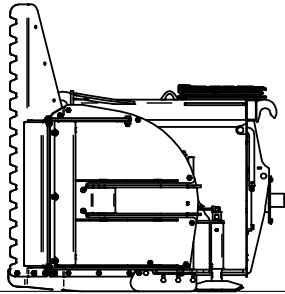
1. Measure the height H from ground level up to the center of the tractor's PTO stub shaft (Item 1).
2. Measure the horizontal distance B from the end of the tractor's PTO stub shaft to the tractor drawbar ball.
3. Mark the position of the PTO stub shaft end (Item 1) in the diagram for the figures. Grid pattern is 2" x 2".
4. Mark the link (Item 2) at a distance of 2.3" from the end of the PTO stub shaft.
5. Read the angle using the dashed angle lines. Angles greater than 20° result in abnormally high wear and reduced service life of PTO shafts.

## AlphaBlower Adjustment

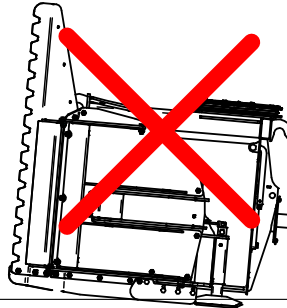


### IMPORTANT

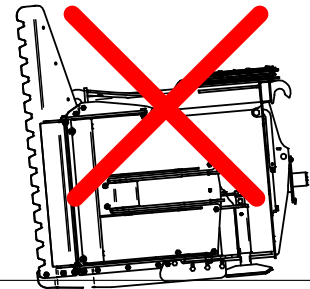
The snow blower must be adjusted so that it is level.



CORRECT



INCORRECT



INCORRECT

For the blower to penetrate all the way down to the asphalt it is very important that the blower is correctly adjusted prior to operation. The blower must be adjusted so that it is level.

**NOTE: The blower is adjusted using the length of the top link and the stepless height adjustment for wear shoes / gauge wheels.**

Incorrect adjustment of top link or wear shoes / gauge wheels will result in high wear to replaceable edges.

If the top link is shortened, the blower will tilt forward. This will result in increased wear to the cutting edge at the front of the blower housing.

If the top link is lengthened, the blower will be lifted at the front. A larger part of the blower weight will be transferred to the wear shoes / gauge wheels, provided these have been adjusted correctly. This results in less wear to the cutting edge.

1. Locate a level surface to adjust the blower.
2. Lift the blower using the machine's hydraulics. Adjust the underside of the wear shoes / gauge wheels or loader arms to approximately 2" higher than the underside of the cutting edge.
3. Lower the blower onto the surface. Unload the top link so that the top link bolt is completely loose. The blower is now level on the surface and resting on the cutting edge.
4. Adjust wear shoes / gauge wheels so that these are flush with the surface. Then tighten the adjustment screw slightly more so that the wear shoes / gauge wheels are pushed down against the surface.
5. Now adjust the top link outwards a little. The blower will now lift a little at the front. The weight of the blower will now be distributed across cutting edge and wear shoes / gauge wheels.

**NOTE: The blower should now be resting on the cutting edge.**

## AlphaBlower Adjustment (Cont'd)

6. Adjust wear shoes / gauge wheels so that these are flush with the surface. Then tighten the adjustment screw slightly more so that the wear shoes / gauge wheels are pushed down against the surface.
7. Adjust the top link outward slightly. The blower will now lift a little at the front. The weight of the blower will now be distributed across the cutting edge and wear shoes / gauge wheels.

**NOTE: Lock / pin the tractor's lower three-point lift arms to keep the snow blower from moving side to side during operation. (See the tractor's operation manual for the correct procedure.)**

## Hydraulic Couplers



### IMPORTANT

Thoroughly clean the quick couplers before making connections. Dirt can quickly damage the hydraulic system.



### WARNING

#### AVOID BURNS

Hydraulic fluid, fluid tubes, fittings, and quick couplers can get hot when running the machine and snow blower. Be careful when connecting and disconnecting quick couplers.

#### *Connecting Hydraulic Couplers:*

Remove any dirt or debris from the surface of both the male and female couplers, and from the outside diameter of the male coupler. Visually check the couplers for corroding, cracking, damage, or excessive wear. If any of these conditions exist, replace the coupler(s).

**NOTE: Do NOT hammer on or heat up couplers to connect or disconnect. Doing so will damage couplers resulting in leaks.**

Install the snow blower male coupler into the female coupler. Pull on the coupler connection to verify that the male and female couplers are securely fastened.

Install the snow blower female coupler onto the male coupler. Pull on the coupler connection to verify that the male and female couplers are securely fastened.

Install the case drain coupler and pull the coupler connection to verify that the male and female couplers are securely fastened.

## Checking AlphaBlower Operation

**NOTE:** After installing the snow blower, test all functions before operating the snow blower in the work area.



### WARNING

#### AVOID INJURY OR DEATH

- Never start the machine from outside the cab.
- Never operate the snow blower if any safety device is damaged, disconnected, or missing.
- Never exit the machine with the engine running.



### IMPORTANT

**It is the operator's responsibility to know which machine control operates each function of the snow blower prior to operating the snow blower in the work area.**

## Checking AlphaBlower Operation (Cont'd)

Engage the machine's auxiliary hydraulics. (See the machine's operation manual for correct procedure.)

### Auger Rotation

Start auger rotation.

Raise the engine RPM.

Allow the snow blower auger to rotate for a short time (approximately one minute).

Stop auger rotation.

### Chute Rotation

Rotate the discharge chute in both directions. The discharge chute should rotate freely.

### Deflector Operation

Raise and lower the deflector multiple times. The deflector should move up and down freely.

### Wing Operation (if equipped)

Operate the hydraulic wing in and out multiple times. Hydraulic wing should move freely.

Lower the engine RPM.

Disengage the machine's auxiliary hydraulics.

Lower the snow blower to the ground.

Exit the machine. (See "Exiting The Operator's Position" on page 16.)

Place all controls in neutral, engage the park brake, and exit the machine. (See "Exiting The Operator's Position" on page 16.)

**NOTE: Adjust the snow blower so that it is level. (See "AlphaBlower Adjustment" on page 21.)**

Move the machine and snow blower to the work area.

# Operating The AlphaBlower

## Operation

 **WARNING**

**AVOID INJURY OR DEATH**

While operating the machine:

- Always keep seat belt fastened.
- Safety seat bar lowered (if equipped).

Always keep your feet on the pedals or footrests and hands on the controls.

 **WARNING**

**AVOID SERIOUS INJURY OR DEATH**

Always be aware of overhead obstacles or power lines when operating the snow blower.

 **WARNING**

**AVOID SERIOUS INJURY OR DEATH**

Never direct discharge toward bystanders, buildings, or other property. Debris can be thrown great distances.

 **WARNING**

**AVOID SERIOUS INJURY OR DEATH**

If the auger / chute becomes clogged with snow, turn the machine’s engine off. Use a clearing rod, never insert hands or feet into the chute or auger opening.

Enter the machine. (See “Entering The Operator’s Position” on page 16.)

Start the engine and release the parking brake.

Raise the snow blower slightly off the ground.

Move to the work area.

Engage the machine’s auxiliary hydraulics. (See the machine’s operation manual for correct procedure.)

Set the snow blower at the recommended working position.

Raise the engine RPM to attain proper rated PTO speed.

Rotate the snow blower discharge chute to the desired position. The discharge chute can be rotated at any time by using the auxiliary circuit.

Adjust the deflector to control the distance the snow is thrown.

**NOTE:** Always be sure the snow blower is level (parallel) with the ground when operating, to ensure proper cutting edge and wear shoe / gauge wheel wear.

**NOTE:** The machine speed is determined by the depth and density of the snow being moved. Adjust speed as required.

## Clearing a Plugged AlphaBlower

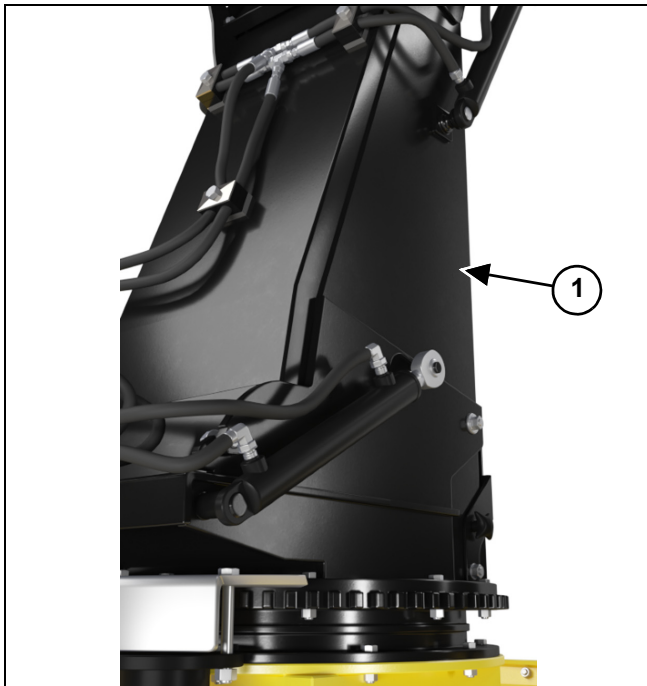
### **WARNING**

#### **AVOID SERIOUS INJURY OR DEATH**

If the auger / chute becomes clogged with snow, turn the machine's engine off. Use a clearing rod, never insert hands or feet into the chute or auger opening.

**NOTE:** If the AlphaBlower is equipped with the hydraulic tip down option the chute can be tilted down to remove snow from the impeller housing.

Figure 4



Remove as much snow as possible before the chute (Item 1) [Figure 4] is rotated down.

**NOTE:** Be aware of the risk of crushing between the chute and the fixing bracket when the chute is tilted down or raised up again.

## AlphaBlower Removal

**NOTE:** When the connection frame has been installed for towing, the support jack must always be installed before the snow blower is disconnected from the machine. Otherwise there is a risk of the snow blower tilting, resulting in serious risk of crushing to persons. The risk of tilting is increased if the snow blower is parked on an uneven or non-permanent surface.

**NOTE:** Put the snow blower on planks or blocks before removing it from the machine to prevent it from settling or sinking in soft / wet ground.

Park the machine and snow blower on a flat level surface.

Lower the snow blower and put the snow blower flat on the ground.

Stop the engine and engage the parking brake.

Relieve auxiliary hydraulic pressure. (See the machine's operation manual for correct procedure.)

Exit the operator's position. (See "Exiting The Operator's Position" on page 16.)

**NOTE:** Be aware of all pinch points when disconnecting the snow blower from the machine.

Disconnect the PTO shaft.

Disconnect the auxiliary hydraulic hoses. (See "Hydraulic Couplers" on page 23.)

Disconnect the electrical connector (if applicable).

Disengage the tractor's locking levers (if equipped). Remove three-point mounting pins. (See the tractor's operation manual for correct procedure.)

## WARNING

### AVOID BURNS

Hydraulic fluid, tubes, fittings, and quick couplers can get hot during operation. Be careful when connecting and disconnecting hydraulic hoses.

Enter the machine. (See "Entering The Operator's Position" on page 16.)

Start the engine and release the parking brake.

Drive the machine slowly away from the snow blower.

**NOTE:** Make sure the snow blower is free from the machine.



## Maintenance Safety

### **WARNING**

#### **AVOID SERIOUS INJURY OR DEATH**

**Never operate the machine in a closed building. Proper ventilation is required when operating the machine under all circumstances.**

### **WARNING**

#### **AVOID SERIOUS INJURY OR DEATH**

**Stop the engine, release auxiliary hydraulic pressure, disconnect the auxiliary hydraulic hose quick couplers, and disconnect the PTO shaft from the tractor before performing maintenance on the snow blower.**

- Always keep the work area clean and dry.
- Always use personal protection devices such as eye, hand, and hearing protection when performing any service or maintenance.
- A fire extinguisher and first aid kit should be readily accessible while performing maintenance on the snow blower.
- Always relieve hydraulic system pressure before disconnecting the snow blower.
- Always disconnect hydraulic connections between the machine and the snow blower before performing maintenance.
- Before working or doing maintenance on the snow blower, disconnect the PTO shaft from the tractor. Make sure the tractor's wheels are blocked.
- Never work under the snow blower unless the snow blower is blocked or supported securely.

- Disconnect the battery (both terminals) before welding on any part of the snow blower or machine. Failure to do so may cause damage to electrical components.
- When working around batteries, remember that all of the exposed metal parts are "live". Never lay a metal object across the terminals because a spark, short circuit, explosion, or personal injury may result.
- Battery posts, terminals, and related accessories contain lead and lead compounds. **Wash hands after handling.**
- Never search for leaks with your hands. (See "Hydraulic Safety" on page 9.)
- When replacement parts are necessary, genuine factory replacement parts must be used to restore your snow blower to original specifications. SnowWolf will not be responsible for injuries or damage caused by use of unapproved parts and / or accessories.
- When completing service or maintenance on the snow blower, make sure all shields and guards are installed before placing the snow blower into service.

## General Maintenance

 **WARNING**

### AVOID SERIOUS INJURY OR DEATH

**Before operating or servicing system: Read and understand the machine's owner's manual. Follow the warnings and instructions in the manual when making repairs, adjustments, or servicing. Check for correct function after adjustments, repairs, or service. Untrained operators and failure to follow instructions can cause injury or death.**

---

To ensure efficient operation, you should inspect, lubricate, and make necessary adjustments and repairs at regular intervals. Keep good maintenance records and adequately clean the snow blower after each use.

Proper lubrication is important. Follow all lubrication instructions and schedules included in this section.

#### **Daily Inspection:**

- All components and hardware to ensure equipment is secure and thoroughly tightened.
- Frame and all welds for cracks or damage.
- Wear shoes / gauge wheels (if equipped) for wear or damage.
- Mounting frame for proper operation and signs of damage or unusual wear.
- Safety signs and reflectors for damage. Replace any missing or damaged decals.
- Cutting edge for wear or damage.
- Hydraulic hoses and fittings for wear, damage, or leaks.

**NOTE: Repair or replace any damaged parts.**

**NOTE: After initial use, or repair / replacement of damaged parts, it is important to check the repaired or replaced parts for proper bolt torque, operation, and leaks.**

## AlphaBlower Maintenance

### **WARNING**

#### **AVOID SERIOUS INJURY OR DEATH**

Always turn off and lockout power on the machine before servicing the snow blower.

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### **WARNING**

#### **AVOID SERIOUS INJURY OR DEATH**

Always disconnect hydraulic connections between the snow blower and the machine before performing any type of maintenance to the snow blower.

---

### **WARNING**

#### **AVOID SERIOUS INJURY OR DEATH**

Securely block up the snow blower before working underneath.

---

### **WARNING**



Leaking fluids under pressure can enter the skin and cause serious injury or death. Immediate medical attention is required. Wear goggles. Use cardboard to check for leaks.

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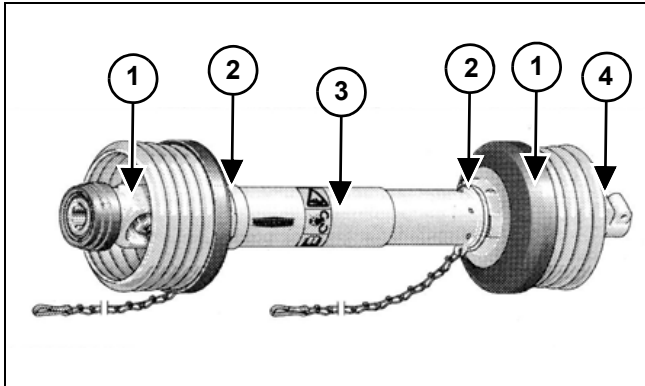
## Maintenance Schedule

DESCRIPTION	SERVICE PROCEDURES			
	Check	Grease	Oil Lube	Change
<b>Daily Maintenance (or every 10 hrs)</b>				
Claw Coupling		X		
Wear Shoe	X			
Gauge Wheel	X			
<b>Weekly Maintenance (or every 50 hrs)</b>				
PTO Shaft		X		
Axle Ball Bearings		X		
Chute Fixing Screws	X			
Check Hydraulic Hoses	X			
Snow Blower Frame	X			
Hardware	X			
<b>Monthly Maintenance (or every 170 hrs)</b>				
Auger Bearings		X		
Impeller Bearings		X		
Impeller Axle		X		
Slew Ring		X		
Chute Movable Joints			X	
Wear Shoe Height Adjustment			X	
Gauge Wheel Height Adjustment			X	
Gauge Wheel Bearings		X		
PTO Shaft (located by shear bolt)		X		
Cutting Edge	X			
Auger Fixing Screws	X			
Gearbox Fixing Screws	X			
Gearbox Oil Level	X			
Gearbox Oil Level - Front-Mounted	X			
<b>Yearly Maintenance (or every 500 hrs)</b>				
Gearbox. First change after 50 hours. (See “Gearbox Oil Change” on page 33.)				X
Gearbox - front-mounted. First change after 50 hours. (See “Gearbox Oil Change for Front Mounted Units” on page 33.)				X
Gearbox Front Mount - Spline Pins		X		
Connection Frame the Locking Bolt				X

## Lubrication

### PTO Shaft

Figure 5



Grease the PTO shaft fittings (Item 1), bearing for the guard (Item 2) and telescoping tubes (Item 3) **[Figure 5] every 40 hours** of operation.

**NOTE: For lubrication of the telescoping tubes (Item 3) [Figure 5] the PTO shaft must be pulled apart.**

Grease the bearings (Item 4) **[Figure 5]** by the shear bolt **every 250 hours** of operation.

### PTO Stub Splines

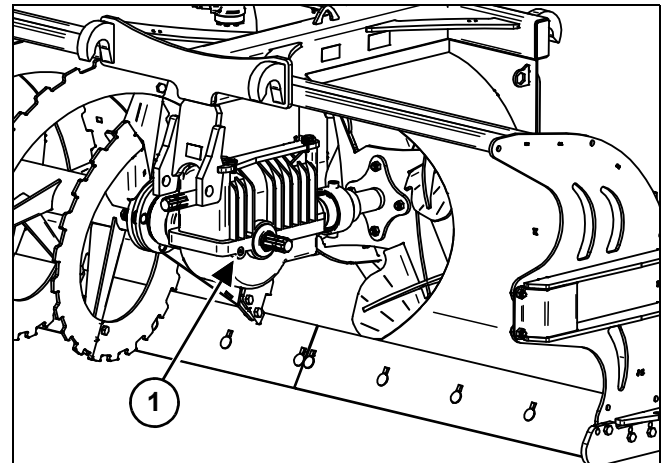
Lubricate the splines on the PTO stub using grease before the snow blower is placed in storage after the end of the season. Lubricate the locking bolt on the connection frame using oil.

### Spline Pins Front Mount Gearbox

Grease the zerk on the lower axle of the gearbox.

## Gearbox Oil Change

Figure 6



**NOTE: Make sure the snowblower is level.**

Remove the drain plug located on the bottom of the gearbox and the fill / level plug (1) **[Figure 6]**. Drain oil into a container and dispose of properly.

Install the drain plug and add gear oil (ISO VG 320) until the oil is level with the bottom of the fill / level plug hole. Install the plug.



## IMPORTANT

**Fluid such as engine oil, hydraulic fluid, coolants, grease, etc. must be disposed of in an environmentally safe manner. Some regulations require that certain spills and leaks on the ground must be cleaned in a specific manner. See local, state, and federal regulations for the correct disposal.**

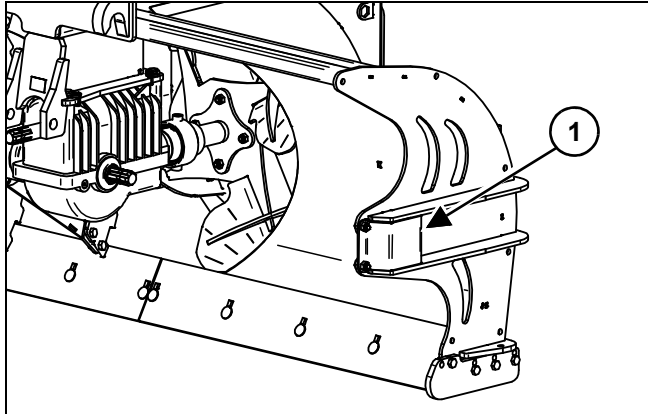
### Gearbox Oil Change for Front Mounted Units

Follow the same procedure above for the front mounted gearbox.

## Lubrication (Cont'd)

### Ball Bearings

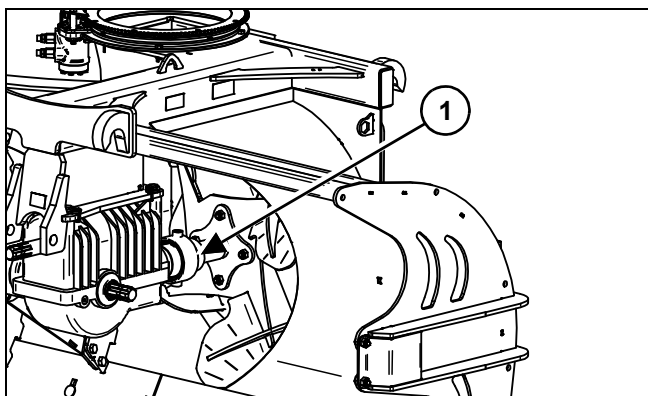
Figure 7



The snow blower is equipped with three ball bearings (Item 1) [Figure 7] for the axle suspension. The bearings are equipped with grease zerks and filled with grease and have integrated seals. Push the grease in carefully to avoid damage to the seals.

### Claw Couplings

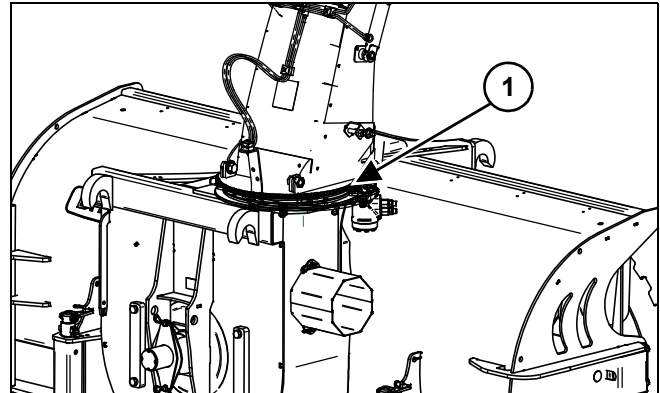
Figure 8



Grease the claw couplings (Item 1) [Figure 8] on the impeller axle between the gearbox and the impeller. There are two grease zerks on the outside of the couplings. Push the grease in until it comes out of the end of the couplings. Ensure that the couplings are fastened to the impeller axle. Grub screws with an interior hexagon M8 x 16 must be used. These must be secured using Loctite® thread locker.

### Slew Ring

Figure 9



The slew ring (Item 1) [Figure 9] is equipped with four grease zerks. Use grease of the type Mobil Mobilith SHC 220 or equivalent. Rotate the chute around and grease repeatedly to distribute the grease around the entire slew ring.

If the clearance between the chute and the fixing bracket for the chute is too large (or if the contact face facing the slew ring is uneven) this could result in an uneven load on the slew ring, resulting in slow operation or inability to rotate. If this happens, loosen all the bolts on the slew ring. Fill any clearances using shims or washers before tightening the bolts again.

## Auger Axle Couplings

Check the couplings between the gearbox and the auger axle for wear. If there is significant wear, the bushings in the coupling must be replaced. Check that the cup springs are not damaged. Replace if necessary. Cup springs must be installed in pairs with the curved side facing outwards. Please be aware that the two nuts must not be screwed all the way in. This will cause the cup springs to be pushed all the way together preventing movement in the coupling.

## Cutout Clutches

The augers are secured using one cutout clutch on each axle. The PTO shaft is secured by shear bolts.



## IMPORTANT

The cutout clutches on the left and right auger have opposite direction of rotation. They are marked with “R” and “L”. When disassembling the augers, it is important to ensure that the inscriptions are readable, so that the correct re-assembly can be done. If necessary, relabel.

**NOTE:** For tractors with more than 200 HP a heavy duty PTO shaft with cutout clutch is supplied.

## Gearbox Adjusting Screws

The adjusting screws for the gearbox must be tightened with a torque of 184 ft lbs and secured using locking washers. Ensure that the locking washer is in place and in good condition. Beneath the head of each fixing screw there is a friction washer to maintain the initial load on the bolt. The friction washer must be installed with the curved side facing upwards.

## Hydraulic Hoses

Check that there is no damage to hydraulic hoses. Replace any damaged hoses. Also check for any leakages in hose connections and couplings.



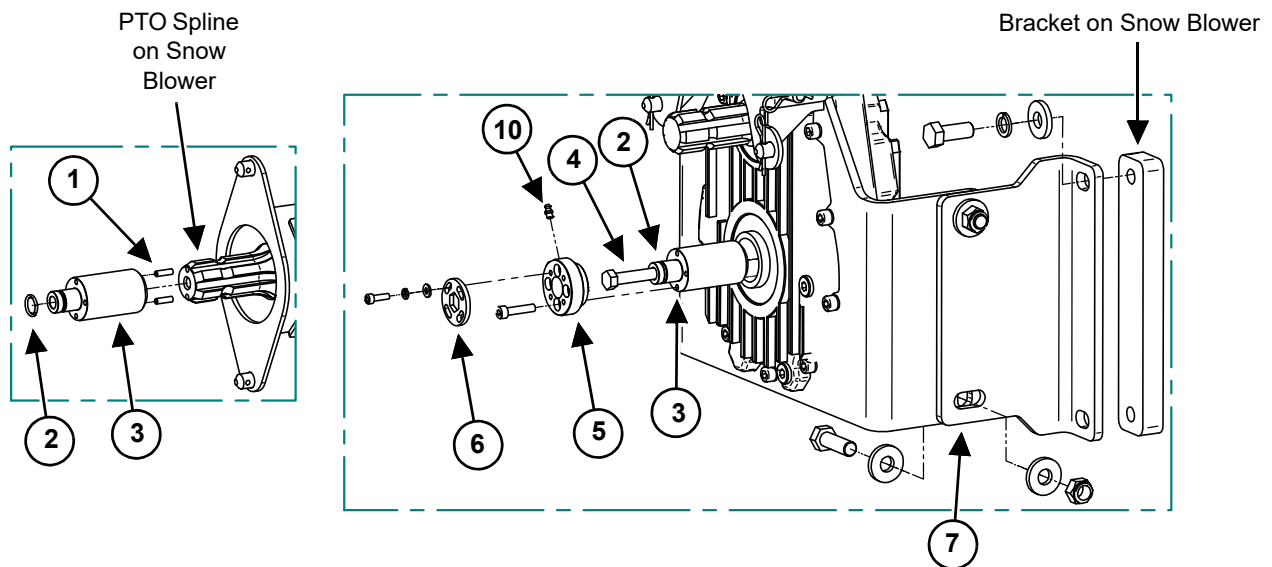
## WARNING



Leaking fluids under pressure can enter the skin and cause serious injury or death. Immediate medical attention is required. Wear goggles. Use cardboard to check for leaks.

## Front Mount Gearbox (33-100-P)

Figure 10



1. Install the grub screws (Item 1) and the O-ring (Item 2) on the locking sleeve (Item 3) [Figure 10]. Check that the locking sleeve and the grub screws fit the holes on the splines pin.
2. Pull the gearbox onto the spline pin, push the locking sleeve (Item 3) in and turn until the grub screws slide into the holes on the spline pin. Secure using the bolt (Item 4) [Figure 10], tightening to torque of 59-66 ft lbs.
3. Install the locking flange (Item 5) and the locking washer (Item 6) to secure the bolt (Item 4) [Figure 10].
4. Mount the support plates (Item 7) [Figure 10] to the gearbox. Replace the original bolts with the supplied bolts.

**NOTE: For more part details, See Gearbox, Front Mounting on page 74.**

**NOTE: Remove any dirt from the threads, then grease.**

5. Tighten all bolts by hand first (this is important for centering the gearbox).
6. Lubricate the zerk (Item 10) [Figure 10] using grease. This has to be done weekly, and before and after season.

## Cutting Edge Replacement

**NOTE: Replace or flip the bolt-on cutting edge when it wears within 1/2" - 3/4". Replace only with genuine SnowWolf cutting edge and hardware.**

1. Park the machine on a level surface with the snow blower properly attached.
2. Lower the snow blower approximately three to four inches off the ground.
3. Engage the parking brake.
4. Shut off the machine's engine, remove the ignition key (if equipped), wait for all moving parts to come to a stop, and relieve all pressure in the hydraulic lines.
5. Block and / or support the snow blower with a proper lifting device capable of sufficiently supporting the unit's weight.
6. Disconnect PTO and hydraulic connections between the snow blower and the tractor.
7. Block the cutting edge, remove the fasteners, and remove the cutting edge.

**NOTE: Be cautious as the cutting edge and hardware may be sharp.**

8. Properly dispose of the old cutting edge(s) and install the new cutting edge(s) by reversing the steps listed here.

**NOTE: Replace worn or damaged fasteners as needed.**

# AlphaBlower Disassembly

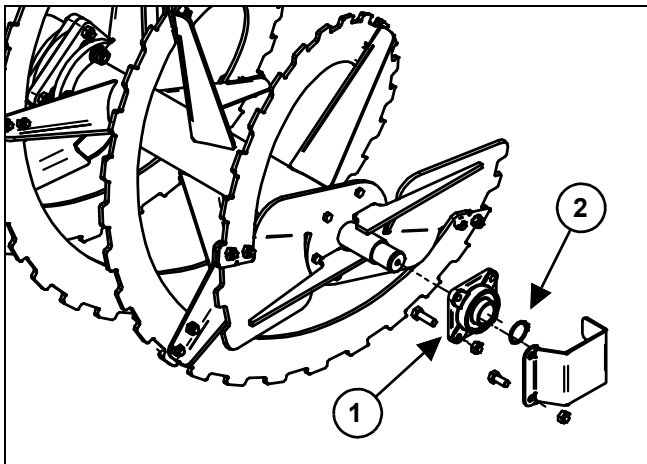
## WARNING

### AVOID SERIOUS INJURY OR DEATH

Securely block up the snow blower before working underneath.

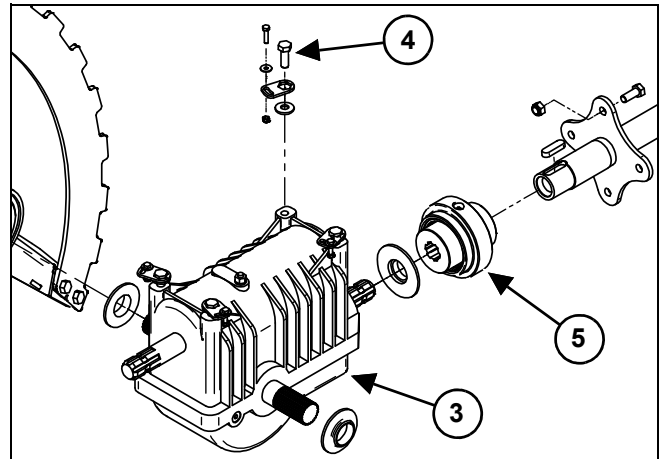
1. Provide support beneath the augers and using wooden blocks.

Figure 11



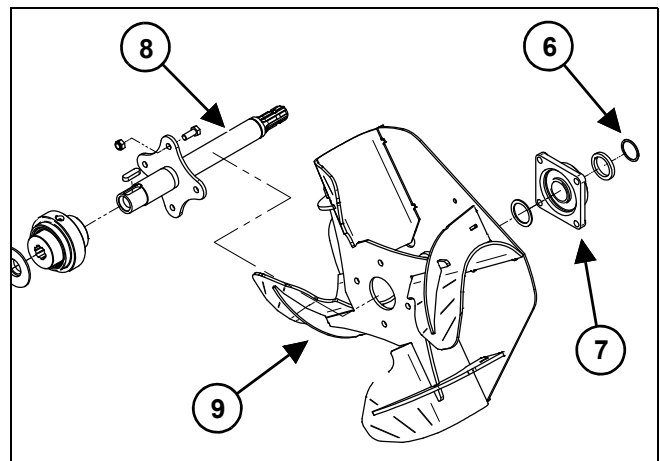
2. Remove flanged bearings (Item 1) and retaining rings (Item 2) [Figure 11] from both sides of the blower housing.
3. Loosen the screws on the flange on the outer part of the augers and pull off.
4. Then push the rest of the augers out to the side so that they come loose from the spline pins on the gearbox and lift them out.
5. Ensure that the inscriptions on the cut out clutches are readable. If necessary, relabel.

Figure 12



6. Support the gearbox (Item 3) [Figure 12] using a jack or similar.
7. Ensure that the gearbox is properly secured; it weighs approximately 220 lbs without oil.
8. Loosen the fixing screws (Item 4) [Figure 12] for the gearbox and lower it slightly
9. Turn the gearbox 180 degrees and pull it loose from the spline pin on the claw coupling (Item 5) [Figure 12].

Figure 13



10. Disassemble the locking ring (Item 6) by the bearing (Item 7) on the impeller axle and pull the impeller axle (Item 8) with the claw coupling and impeller (Item 9) [Figure 13] out.

## AlphaBlower Assembly

1. Apply grease to all spline pins before installation to prevent the pins from corroding.
2. Return the impeller axle with the impeller and install the flanged bearing, pressure ring, and locking ring.
3. Position the gearbox upside down on a jack or similar (make sure it is well supported).
4. Push the gearbox onto the spline pin on the claw coupling.
5. Turn the gearbox 180 degrees and install the fixing screws and the friction washers.

**NOTE: The friction washers must be placed under the fixing screws with the curved side facing upward.**

6. The torque must be 147-184 ft lbs for the fixing screws for the gearbox.
7. Then lock the screws using locking washers.
8. Ensure that there is no sloping angle between the gearbox axle and the impeller axle and between the auger and the spigot on the gearbox.

**NOTE: Any variations will result in heavy wear to the claw coupling on the impeller axle and the couplings on the augers.**

## Auger Axle Installation

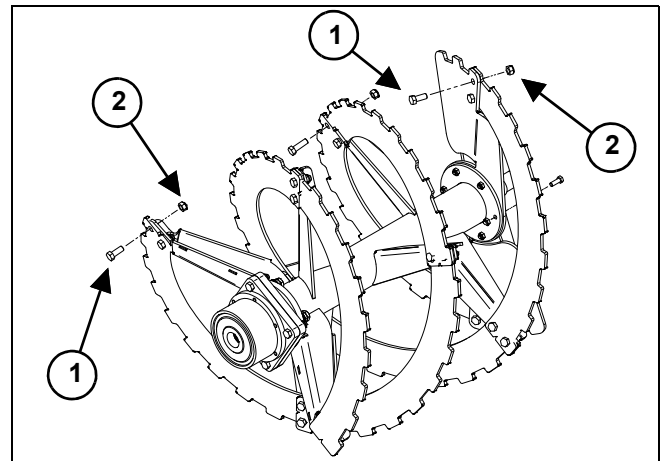
When the augers are turned by 1/2 a turn there should be no more than 0.04" variation measured between the flanges. If the variation is greater than this, shims must be placed between the gearbox and the fixing plate for the gearbox. The bolts on the coupling for the augers must NOT be fully tightened! This could damage the coupling and the gearbox.

**NOTE: When the augers are pulled in on the spline pin on the gearbox these must be positioned at 90 degrees in relation to each other. This is to ensure that snow is fed into the impeller evenly.**

Incorrect installation can cause serious damage to the blower, especially to the augers and gearbox.

Cup springs will absorb movements between the auger axle and the axle on the gearbox. It is **IMPORTANT** that the innermost nut is not fully tightened so that the cup springs are fully compressed. If this happens, the cutout clutch and gearbox may be damaged.

**Figure 14**



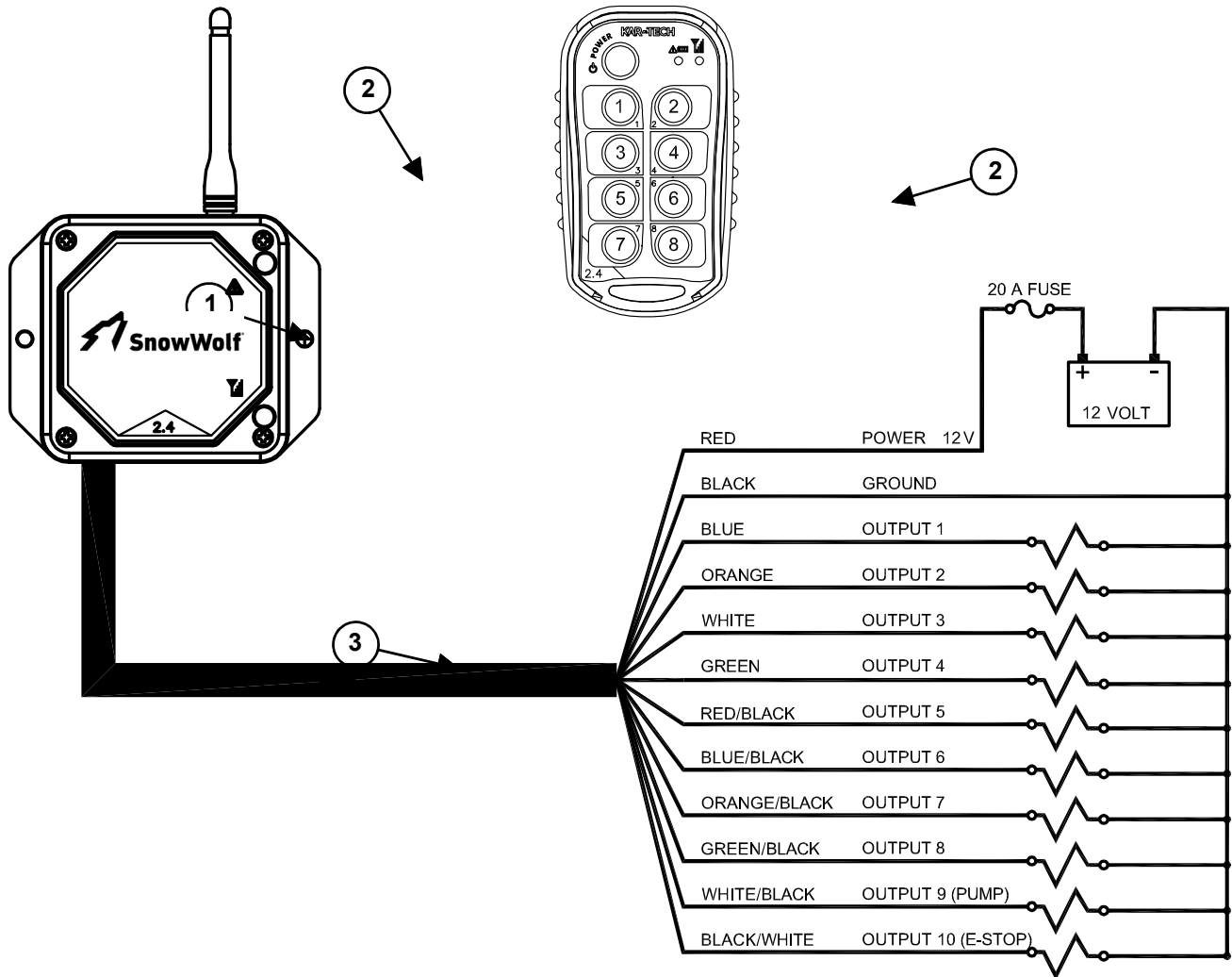
Tighten the inner most nut (Item 1) until the cup springs (Item 2) [Figure 14] are situated next to each other in pairs as shown in the figure. When the outermost nut is tightened, the screw should protrude 0.04 to 0.118" outside of the nut.

## Troubleshooting

PROBLEM	CAUSE	SOLUTION
Snow blower leaving snow behind.	Snow blower not adjusted properly.	Adjust the snow blower.
	Cutting edge worn or damaged.	Replace cutting edge / wing cutting edges.
Auger will not turn.	Gearbox faulty.	Repair or replace.
	Plugged or kinked hose.	Replace hose.
	Hydraulic fluid low.	Check machine hydraulic oil level.
Chute or deflector not functioning.	Solenoid or spool failure.	Repair or replace.
	Electrical system failure.	Check connections and that signal is being received. Repair or replace.
	Damaged hydraulic motor or cylinder.	Repair or replace.
	Damaged hydraulic hose.	Repair or replace.
Deflector does not adjust.	Damaged hydraulic cylinder.	Repair or replace.
	Damaged hydraulic hose.	Repair or replace.
	Electrical system failure.	Repair or replace failed electrical component(s).

# Troubleshooting (Cont'd)

## Wireless Controls 33-100-H



PROBLEM	CAUSE	SOLUTION
Receiver not operating.	Blown fuse.	Replace 20 amp fuse.
	Bad wire connection.	Check wire connections.
Receiver not working properly.	Receiver faulty.	Replace receiver. See Wireless Controls 33-100-H on page 12.
Transmitter not working properly.	Battery not properly charged. Transmitter faulty.	Charge battery. Replace transmitter. See Wireless Controls 33-100-H on page 12.

## Storage And Return To Service

### Storage

After the season's use or when the snow blower will not be in use for a period of time, perform the following steps.

- Thoroughly wash the snow blower.
- Make sure all covers, guards, and shields are installed.
- Inspect all components and hardware to ensure everything is secure and thoroughly tightened.
- Inspect the frame and all welds for cracks or damage.
- Apply a light coat of grease to the cylinder rods and pivot pins to prevent rust.
- Inspect the snow blower mounting frame for wear or damage.
- Check that all decals and / or reflectors are in good condition and legible. Replace any damaged or missing decals.
- Cap all loose hose ends.
- Place the snow blower in a dry protected shelter.

**NOTE: Replace or repair any damaged parts.**

### Return to Service

After the snow blower has been in storage, it is necessary to follow a list of items to return the snow blower to service.

- Make sure all covers, guards, and shields are installed.
- Inspect all components and hardware to ensure everything is secure and thoroughly tightened.
- Inspect the decals and reflectors for missing or damage.
- Install and operate the snow blower and check for correct function.
- Check for leaks. Clean and repair as needed.

# AlphaBlower Specifications

DESCRIPTION	33-100-H	33-100-P
Overall Width at Drift Breakers (cm)	106.5" (270)	106.5" (270)
Center Cutting Height (cm)	44.0" (112)	44.0" (112)
Side Cutting Height (cm)	76.4" (194)	76.4" (194)
Impeller Diameter (cm)	32.7" (83)	32.7" (83)
Impeller Depth (cm)	11" (28)	11" (28)
Auger Diameter (cm)	35.8" (91)	35.8" (91)
Weight (kg)	4,304 lbs (1,956)*	3,650 lbs (1,659)
Hardox 500 Reversible Cutting Edges (cm)	1/2" x 8" (1.2 x 12)	1/2" x 8" (1.2 x 12)
Hardox 500 Side Skids	Standard	Standard
Hardox Impeller Housing	Standard	Standard
Auto Reset Hydraulic Cut-out Clutch(es)	Standard (2)	Standard (2)
HD Upper Wing Edges (Drift Breakers)	Standard	Standard
Screw Adjustable Gauge Wheels (Foam Filled)	Optional	Optional
Hydraulic Chute Rotation	Standard	Standard
Deluxe HD 4-flap Chute	Standard	Standard
Hydraulically Collapsible Chute	Optional	Optional
HD Truck Loading Chute	Optional	Optional
PTO Stub Shaft Diameter	N/A	1-3/4"
PTO (RPM)	N/A	540 or (1,000 RPM Front Mount Only)
PTO Shaft Included	N/A	Standard
Recommended GPM (LPM)	40-50 (150-190)	N/A
Recommended PTO HP	N/A	130 - 250
To Fit Rear Mount PTO	N/A	Standard
To Fit Rear Mount PTO (towing position)	N/A	Standard
Gearbox - Front-Mounted, Oil change: 0.25 gal gear oil (ISO VG 320)		

\* With Cat Fusion mount

# Torque Specifications

## Standard Hardware And Lock Nuts

BOLT TYPE	SAE GRADE 5		SAE GRADE 8		LOCK NUTS			
	Plated or Unplated	Plated W / ZnCr	Plated or Unplated	Plated W / ZnCr	Plated or Unplated	Plated W / ZnCr	W / Grade 5 Bolt	W / Grade 8 Bolt
	Silver	Gold	Silver	Gold	Silver	Gold		
1/4	55 in / lb (6.2 N•m)	72 in / lb (8.1 N•m)	86 in / lb (9.7 N•m)	112 in / lb (12.6 N•m)	121 in / lb (13.6 N•m)	157 in / lb (17.7 N•m)	61 in / lb (6.9 N•m)	86 in / lb (9.8 N•m)
5/16	115 in / lb (13 N•m)	149 in / lb (17 N•m)	178 in / lb (20 N•m)	229 in / lb (26 N•m)	250 in / lb (28 N•m)	325 in / lb (37 N•m)	125 in / lb (14 N•m)	176 in / lb (20 N•m)
3/8	17 ft / lb (23 N•m)	22 ft / lb (30 N•m)	26 ft / lb (35 N•m)	34 ft / lb (46 N•m)	37 ft / lb (50 N•m)	48 ft / lb (65 N•m)	19 ft / lb (26 N•m)	26 ft / lb (35 N•m)
7/16	27 ft / lb (37 N•m)	35 ft / lb (47 N•m)	42 ft / lb (57 N•m)	54 ft / lb (73 N•m)	59 ft / lb (80 N•m)	77 ft / lb (104 N•m)	30 ft / lb (41 N•m)	42 ft / lb (57 N•m)
1/2	42 ft / lb (57 N•m)	54 ft / lb (73 N•m)	64 ft / lb (87 N•m)	83 ft / lb (113 N•m)	91 ft / lb (123 N•m)	117 ft / lb (159 N•m)	45 ft / lb (61 N•m)	64 ft / lb (88 N•m)
9/16	60 ft / lb (81 N•m)	77 ft / lb (104 N•m)	92 ft / lb (125 N•m)	120 ft / lb (163 N•m)	130 ft / lb (176 N•m)	169 ft / lb (229 N•m)	65 ft / lb (88 N•m)	92 ft / lb (125 N•m)
5/8	83 ft / lb (112 N•m)	107 ft / lb (145 N•m)	128 ft / lb (174 N•m)	165 ft / lb (224 N•m)	180 ft / lb (244 N•m)	233 ft / lb (316 N•m)	90 ft / lb (122 N•m)	127 ft / lb (172 N•m)
3/4	146 ft / lb (198 N•m)	189 ft / lb (256 N•m)	226 ft / lb (306 N•m)	293 ft / lb (397 N•m)	319 ft / lb (432 N•m)	413 ft / lb (560 N•m)	160 ft / lb (217 N•m)	226 ft / lb (306 N•m)
7/8	142 ft / lb (193 N•m)	183 ft / lb (248 N•m)	365 ft / lb (495 N•m)	473 ft / lb (641 N•m)	515 ft / lb (698 N•m)	667 ft / lb (904 N•m)	258 ft / lb (350 N•m)	364 ft / lb (494 N•m)
1	213 ft / lb (289 N•m)	275 ft / lb (373 N•m)	547 ft / lb (742 N•m)	708 ft / lb (960 N•m)	773 ft / lb (1048 N•m)	1000 ft / lb (1356 N•m)	386 ft / lb (523 N•m)	545 ft / lb (739 N•m)





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