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OPERATOR'S MANUAL



Intermediate Snowthrower Models

555 Models

Mfg. No.	Description
1693980	555M, 5HP Snowthrower, Manual Start
1693981	555M, 5HP Snowthrower, Manual Start (Export)

755 Models

Mfg. No.	Description
1693982	755M, 7HP OHV Snowthrower, Manual Start (Export)
1693983	755E, 7HP OHV Snowthrower, Electric Start

860 Models

Mfg. No.	Description
1694433	860EI, 8HP OHV Snowthrower, Electric Start
1694434	860MI, 8HP OHV Snowthrower, Manual Start (Export)

1722654-04

Rev 4/2003
TP 100-2490-04-IW-S



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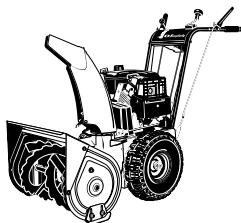


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WARNING

You must read, understand and comply with all safety and operating instructions in this manual before attempting to set-up and operate your snowthrower.


Failure to comply with all safety and operating instructions can result in loss of machine control, serious personal injury to you and /or bystanders, and risk of equipment and property damage. The triangle in the text signifies important cautions or warnings which must be followed.

WARNING

Engine exhaust from this product contains chemicals known, in certain quantities, to cause cancer, birth defects, or other reproductive harm.

Safety Rules & Information



Read these safety rules and follow them closely. Failure to obey these rules could result in loss of control of unit, severe personal injury or death to you, or bystanders, or damage to property or equipment. The triangle  in text signifies important cautions or warnings which must be followed.

GENERAL OPERATION

- Read, understand, and follow all instructions in the manual and on the unit before starting.
- Only allow responsible adults, who are familiar with the instructions, to operate the unit (local regulations can restrict operator age).
- Clear the area of objects such as rocks, toys, wire, etc., which could be picked up and thrown.
- Be sure the area is clear of other people. Stop unit if anyone enters the area.
- Always look down and behind before and while travelling in reverse.
- Be aware of the discharge direction and do not point it at anyone. Do not point the discharge at glass enclosures, automobiles, or windows.
- Disengage all clutches (release drive and auger control levers) before starting the engine.
- Never leave a running unit unattended. Always disengage the auger and traction controls, stop engine, and remove keys.
- Stop engine before unclogging chute.
- Operate only in daylight or good artificial light.
- Do not operate the unit while under the influence of alcohol or drugs.
- Watch for traffic when operating near or crossing roadways.
- Use extra care when loading or unloading the unit into a trailer or truck.
- Keep in mind the operator is responsible for accidents occurring to other people or property.
- Data indicates that operators, age 60 years and above, are involved in a large percentage of power equipment-related injuries. These operators should evaluate their ability to operate the unit safely enough to protect themselves and others from injury.
- All operators should seek and obtain professional and practical instruction.
- Always wear substantial footwear and appropriate winter clothing. Wear foot-ware that improves traction on slippery slopes. DO NOT wear long scarves or loose clothing that could become entangled in moving parts.
- Before using, always visually check that all hardware is present, in-tact, and secure. Replace worn or damaged parts.
- Never operate the machine with defective guards, or without safety protective devices in place.
- Stop engine before: refuelling, removing an attachment, making adjustments (unless the adjustment can be made from the operator's position).
- Follow the manufacturer's recommendation for wheel weights or counterweights.
- Adjust skid shoe height to clear gravel or crushed rock surfaces.
- Do not touch snowthrower parts which may be hot from operation. Allow such parts to cool before attempting to service the unit.

SLOPE OPERATION



WARNING

Never operate on slopes greater than 17.6 percent (10°) which is a rise of 3-1/2 feet (106 cm) vertically in 20 feet (607 cm) horizontally.

When operating on slopes use additional wheel weights or counterweights. See your dealer to determine which weights are available and appropriate for your unit.

Select slow ground speed before driving onto slope. Travel UP and DOWN the slope, never across the face, use caution when changing directions and DO NOT START OR STOP ON SLOPE.

Slopes are a major factor related to loss-of-control and tip-over accidents, which can result in severe injury or death. All slopes require extra caution. If you cannot back up the slope or if you feel uneasy on it, do not operate on it.

Do

- See your authorized dealer for recommendations counterweights to improve stability.
- Travel up and down slopes, not across.
- Remove obstacles such as rocks, tree limbs, etc.
- Watch for holes, ruts, or bumps. Uneven terrain could overturn the unit. Snow can hide obstacles.
- Use slow speed. Tires may lose traction on slopes. Choose a low gear so that you will not have to stop or shift while on the slope.
- Keep all movement on the slopes slow and gradual. Do not make sudden changes in speed or direction.
- Always keep unit in gear especially when traveling downhill.

Do Not

- Do not start or stop on a slope. If tires lose traction, disengage the auger and proceed slowly straight down the slope.
- Do not turn on slopes unless necessary, and then, turn slowly and gradually downhill, if possible.
- Do not operate near drop-offs, ditches, or embankments. The unit could suddenly turn over if a wheel is over the edge of a cliff or ditch, or if an edge caves in.
- Do not operate on wet surfaces. Reduced traction could cause sliding.
- Do not shift to neutral and coast down hills.

CHILDREN

Tragic accidents can occur if the operator is not alert to the presence of children. Children are often attracted to the unit and the operating activity. Never assume that children will remain where you last saw them.

- Keep children out of the area and under the watchful care of another responsible adult.
- Be alert and turn unit off if children enter the area.
- Before and during reverse operation, look behind and down for small children.
- Never allow children to operate the unit.
- Use extra care when approaching blind corners, shrubs, trees, or other objects that may obscure vision.

EMISSIONS

- Engine exhaust from this product contains chemicals known, in certain quantities, to cause cancer, birth defects, or other reproductive harm.
- Look for the relevant Emissions Durability Period and Air Index information on the engine emissions label.

SERVICE AND MAINTENANCE

- Use extra care in handling gasoline and other fuels. They are flammable and vapors are explosive.
 - a) Use only an approved container.
 - b) Never remove gas cap or add fuel with the engine running. Allow engine to cool before refueling. Do not smoke.
 - c) Never refuel the unit indoors.
- If fuel is spilled, do not attempt to start the engine but move the machine away from the area of spillage and avoid creating any source of ignition until fuel vapors have dissipated.
- Replace all fuel tank caps and fuel container caps securely.
- Never fill containers inside a vehicle or on a truck bed with a plastic bed liner. Always place containers on the ground away from your vehicle before filling.
- Remove gas-powered equipment from the truck or trailer and refuel it on the ground. If this is not possible, then refuel such equipment on a trailer with a portable container, rather than from a gasoline dispenser nozzle.
- Keep nozzle in contact with the rim of the fuel tank or container opening at all times until fueling is complete. Do not use a nozzle lock-open device.
- If fuel is spilled on clothing, change clothing immediately.
- Maintain or replace safety and instruction labels as necessary.
- Never run a unit in an enclosed area.
- Keep nuts and bolts tight and keep equipment in good condition.
- Never tamper with safety devices. Check their proper operation regularly and make necessary repairs if they are not functioning properly.
- Keep unit free of debris build-up. Clean up oil or fuel spillage.
- Stop and inspect the equipment if you strike an object. Repair, if necessary, before restarting.
- Never make adjustments or repairs with the engine running unless specified otherwise in the engine manufacturer's manual.
- Components are subject to wear, damage, and deterioration. Frequently check components and replace with manufacturer's recommended parts, when necessary.
- Check control operation frequently. Adjust and service as required.
- Use only factory authorized replacement parts when making repairs.
- Always comply with factory specifications on all settings and adjustments.
- Only authorized service locations should be utilized for major service and repair requirements.
- Never attempt to make major repairs on this unit unless you have been properly trained. Improper service procedures can result in hazardous operation, equipment damage and voiding of manufacturer's warranty.
- Do not change engine governor settings or over-speed the engine. Operating the engine at excessive speed can increase the hazard of personal injury.
- Disengage auger and traction, stop the engine, remove the key, and disconnect the spark plug wire(s) before: clearing blockages and chutes, performing service work, striking an object, or if the unit vibrates abnormally. After striking an object, inspect the machine for damage and make repairs before restarting and operating the equipment.

Safety Rules

ANSI B71.3-1995 WARNINGS

Training

1. Read the operating and service instruction manual carefully. Be thoroughly familiar with the controls and the proper use of the equipment. Know how to stop the unit and disengage the controls quickly.
2. Never allow children to operate the equipment. Never allow adults to operate the equipment without proper instruction.
3. Keep the area of operation clear of all persons, particularly small children and pets.
4. Exercise caution to avoid slipping or falling especially when operating in reverse.

Preparation

1. Thoroughly inspect the area where the equipment is to be used and remove all doormat, sleds, boards, wires, and other foreign objects.
2. Disengage all clutches and shift into neutral before starting engine (motor).
3. Do not operate the equipment without wearing adequate winter outer garments. Wear footwear that will improve footing on slippery surfaces.
4. Handle fuel with care; it is highly flammable.
 - (a) Use an approved fuel container.
 - (b) Never add fuel to a running engine or hot engine.
 - (c) Fill fuel tank outdoors with extreme care. Never fill fuel tank indoors.
 - (d) Replace fuel cap securely and wipe up spilled fuel.
5. Use extension cords and receptacles as specified by the manufacturer for all units with electric drive motors or electric starting motors.
6. Adjust the collector housing height to clear gravel or crushed rock surfaces.
7. Never attempt to make any adjustments while the engine (motor) is running (except when specifically recommended by the manufacturer).
8. Let engine (motor) and machine adjust to outdoor temperatures before starting to clear snow.
9. Always wear safety glasses or eye shields during operation or while performing an adjustment or repair to protect eye from foreign objects that may be thrown from the machine.

Operation

1. Do not put hands or feet near or under rotating parts. Keep clear of the discharge opening at all times.
2. Exercise extreme caution when operating on or crossing gravel drives, walks, or roads. Stay alert for hidden hazards or traffic.
3. After striking a foreign object, stop the engine (motor), remove the wire from the spark plug, disconnect the cord on electric motors, thoroughly inspect the snowthrower for any damage, and repair the damage before restarting and operating the snowthrower.
4. If the unit should start to vibrate abnormally, stop the engine (motor) and check immediately for the cause. Vibration is generally a warning of trouble.
5. Stop the engine (motor) whenever you leave the operating position, before unclogging the collector/impeller housing or discharge guide, and when making any repairs, adjustments, or inspections.

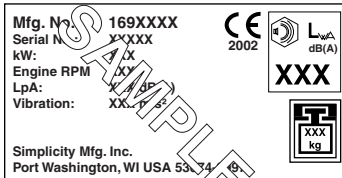
6. When cleaning, repairing, or inspecting make certain the collector/impeller and all moving parts have stopped. Disconnect the spark plug wire and keep the wire away from the plug to prevent accidental starting.
7. Do not run the engine indoors except for starting the engine or for transporting the snowthrower in or out of the building. Open the outside doors; exhaust fumes are dangerous.
8. Do not clear snow across the face of slopes. Exercise extreme caution when changing direction on slopes. Do not attempt to clear steep slopes.
9. Never operate the snowthrower without proper guards plates, or other safety protective devices in place.
10. Never operate the snowthrower near glass enclosures, automobiles, window wells, drop-offs, and the like without proper adjustment of the discharge angle. Keep children and pets away.
11. Do not overload the machine capacity by attempting to clear snow at too fast a rate.
12. Never operate the machine at high transport speeds on slippery surfaces. Look behind and use care when backing.
13. Never direct discharge at bystanders or allow anyone in front of the unit.
14. Disengage power to the collector/impeller when snowthrower is transported or not in use.
15. Use only attachments and accessories approved by the manufacturer of the snowthrower (such as wheel weights, counterweights, cabs, and the like).
16. Never operate the snowthrower without good visibility or light. Always be sure of your footing, and keep a firm hold on the handles. Walk, never run.

Maintenance and Storage

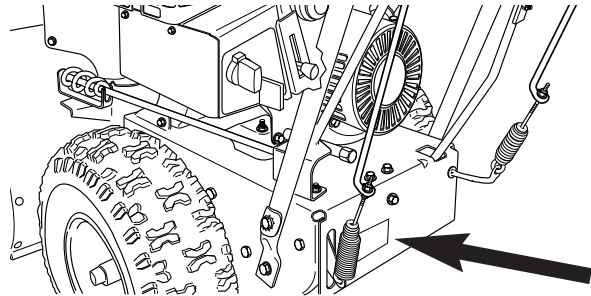
1. Check shear bolts and other bolts at frequent intervals for proper tightness to be sure the equipment is in safe working condition.
2. Never store the machine with fuel in the fuel tank inside a building where ignition sources are present such as hot water and space heaters, clothes dryers, and the like. Allow the engine to cool before storing in any enclosure.
3. Always refer to the operator's guide instructions for important details if the snowthrower is to be stored for an extended period.
4. Maintain or replace safety and instruction labels as necessary.
5. Run the machine a few minutes after throwing snow to prevent freeze-up of the collector/impeller.
 - Always observe safe refueling and fuel handling practices when refueling the unit after transportation or storage.
 - Always follow the engine manual instructions for storage preparations before storing the unit for both short and long term periods.
 - Always follow the engine manual instructions for proper start-up procedures when returning the unit to service.



North American Models



CE Models



When contacting your authorized dealer for replacement parts, service, or information you MUST have these numbers.

Record your model name/number, manufacturer's identification numbers, and engine serial numbers in the space provided for easy access. These numbers can be found in the locations shown.

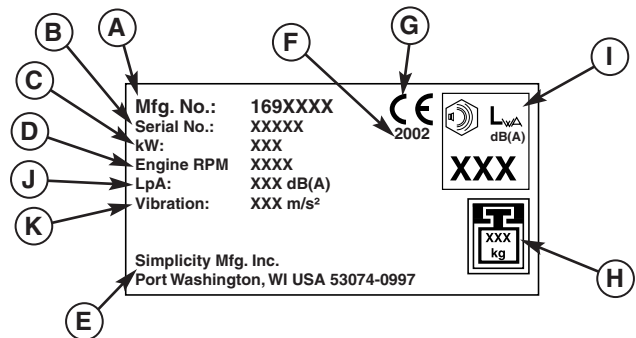
NOTE: For location of engine identification numbers, refer to the engine owner's manual.

CE Models: Place the extra copy of the identification tag in the manual

PRODUCT REFERENCE DATA	
Model Description Name/Number	
Unit MFG Number	Unit SERIAL Number
Mower Deck MFG Number	Mower Deck SERIAL Number
Dealer Name	Date Purchased
ENGINE REFERENCE DATA	
Engine Make	Engine Model
Engine Type/Spec	Engine Code/Serial Number

CE IDENTIFICATION TAG MARKINGS

- A. Manufacturer's Identification Number
- B. Manufacturer's Serial Number
- C. Power Rating in Kilowatts
- D. Maximum Engine Speed in Rotations per Minute
- E. Manufacturer's Address
- F. Year of Manufacture
- G. CE Compliance Logo
- H. Mass of Unit in Kilograms
- I. Sound Power in Decibels ***
- J. Sound Pressure at Operator's Position in Decibels **
- K. Vibration*



This unit complies with European Harmonized Lawn Mower Standard EN 836, European Machinery Directive 98/37/EC, and European EMC Directive 89/336/EC

* Tested according to EN 836:1997/A2:2001, EN 1032:1996, EN 1033:1995

** Tested according to EN836:1997/A2:2001

*** Tested according to 2000/14/EC

*CE Models:
Place copy of
Identification Tag here.*

Safety Decals

GENERAL

This unit has been designed and manufactured to provide you with the safety and reliability you would expect from an industry leader in outdoor power equipment manufacturing.

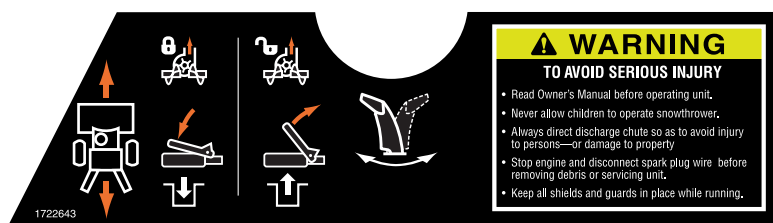
Although reading this manual and safety instructions it contains will provide you with the necessary basic knowledge to operate this equipment safely and effectively, we have placed several safety labels on the unit to remind you of this important information while you are operating your unit.

All WARNING, CAUTION, and instructional messages on your unit should be carefully read and obeyed. Personal bodily injury can result when these instructions are not followed. The information is for your safety and it is important. The safety decals below are on your unit.

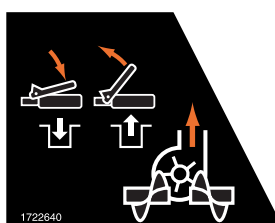
If any of these decals are lost or damaged, replace them at once. See your local dealer for replacements.

These labels are easily applied and will act as a constant visual reminder to you, and others who may use the equipment, to follow the safety instructions necessary for safe, effective, operation.

NORTH AMERICAN MODEL DECALS



Part No. 1722643
WARNING / Main Dash Decal, North American Models



Part No. 1722640
Auger Control Decal



Part No. 1722674
Discharge Chute Danger Decal



Part No. 1716532
Auger Danger Decal

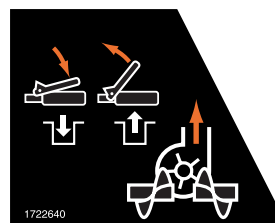


Part No. 1722867
Lubrication Decal

CE MODEL DECALS



Part No. 1722639
WARNING / Main Dash Decal, CE Models



Part No. 1722640
Auger Control Decal



Part No. 1722641
Discharge Chute Danger Decal



Part No. 1722642
Auger Danger Decal



Part No. 1722867
Lubrication Decal

Warning: Read Operator's Manual.

Read and understand the Operator's Manual before using this machine.

**Danger: Thrown Objects.**

This machine is capable of throwing objects and debris. Keep bystanders away.

**Warning: Remove Key Before Servicing.**

Remove the key, disconnect spark plug wire, and consult technical literature before performing repairs or maintenance.

**Warning: Dismemberment.**

This machine can amputate limbs. Keep bystanders and children away when engine is running.

**Danger: Dismemberment.**

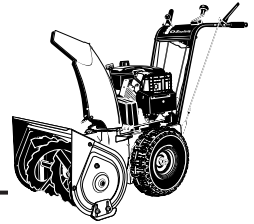
The auger can amputate limbs. Keep hands and feet away from auger and rotating parts.

**Danger: Dismemberment.**

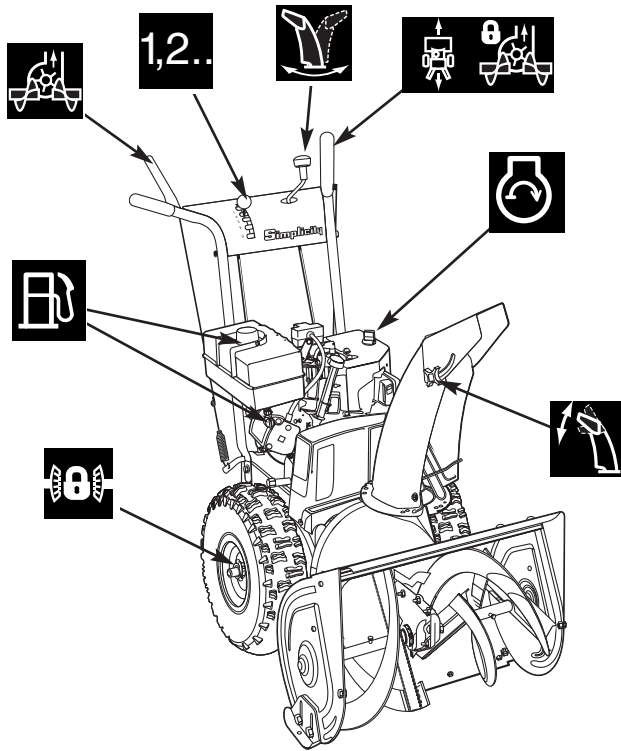
The impeller can amputate limbs. Stop the engine, remove the key, and disconnect spark plug wire before clearing the discharge chute or performing service work. Keep hands and feet away from impeller and rotating parts.



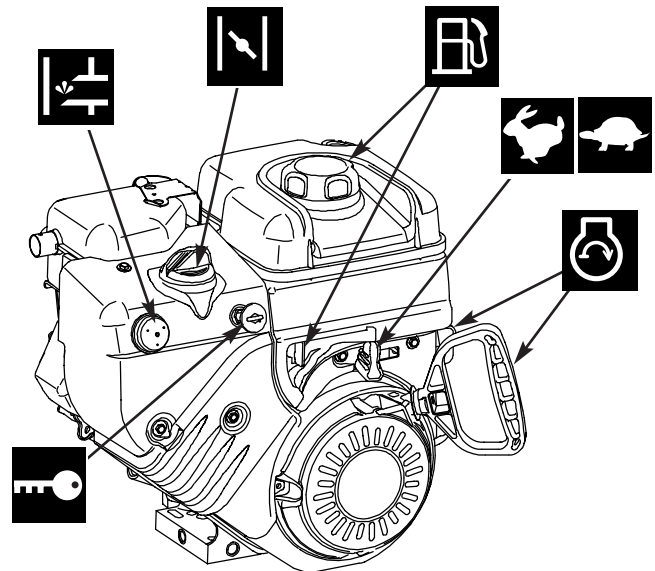
Features, Controls, & Operation



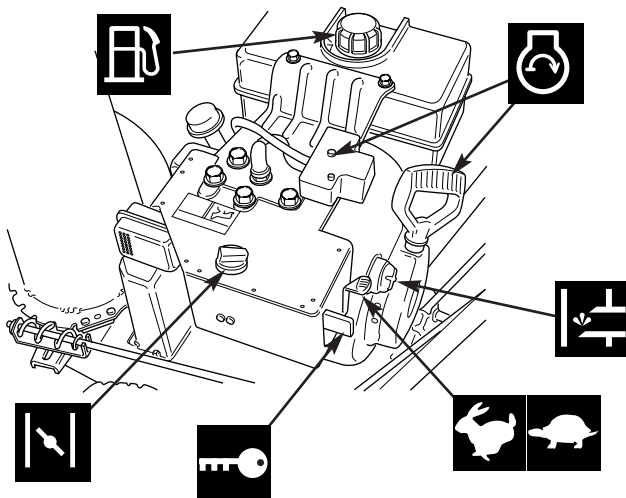
ALL MODELS



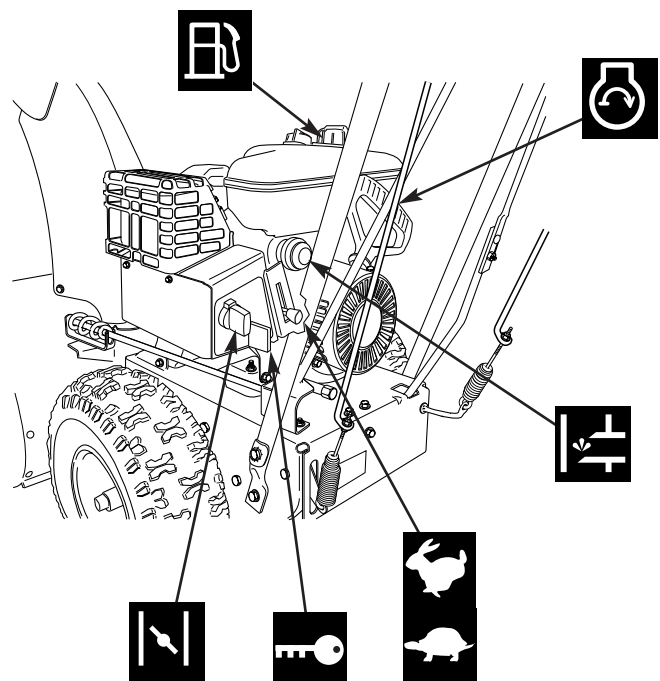
BRIGGS & STRATTON MODELS



TECUMSEH L-HEAD MODELS



TECUMSEH OHV MODELS



CONTROL LOCATIONS

Please take a moment and familiarize yourself with the name, location, and function of these controls so that you will better understand the safety and operating instructions provided in this manual.

The information below briefly describes the function of individual controls. Starting, stopping, and driving require the combined use of several controls applied in specific sequences. To learn what combination and sequence of controls to use for various tasks see the OPERATION section.

Speed Selector

Selects forward speeds 1-5 and reverse speeds 1-2.



Traction Control / Free Hand™ Lock

Engages traction drive to wheels when depressed. Also locks auger control when depressed simultaneously. Releasing the traction control lever releases the Free Hand™ auger control lock and stops the drive wheels.



Auger Control

Engages the auger/impeller when depressed. Releasing the control stops the auger/impeller.



Chute Direction Control

Rotates the discharge chute to desired position.



Chute Deflector Knob

Locks chute deflector in desired position



Traction Lock Pins

The traction drive to each wheel can be locked and unlocked with the Traction Lock Pins (H, Figure 4) to permit the unit to “free-wheel,” allowing easier manual handling and transport of the snowthrower.



Electric Start Button (Optional)

Activates electric starter.



Fuel

Fuel tank filler cap (see illustration). Note: The fuel shut off valve is located under the fuel tank. Close the valve when the snowthrower is not in use. Open the valve before starting.



Starter Handle

Used to pull-start the engine.



Primer Button

Primes carburetor for faster cold starting.



Throttle Lever

Controls engine speed. Move toward the hare icon for faster engine speed, move toward the turtle icon for slower engine speed. Move the throttle all the way to STOP to stop the engine.



Engine Key

Prevents starting of engine without key. Stops engine when removed.



Choke Knob

Adjusts air/fuel mix for easier cold weather starting.

Engine Controls

STARTING CONTROLS

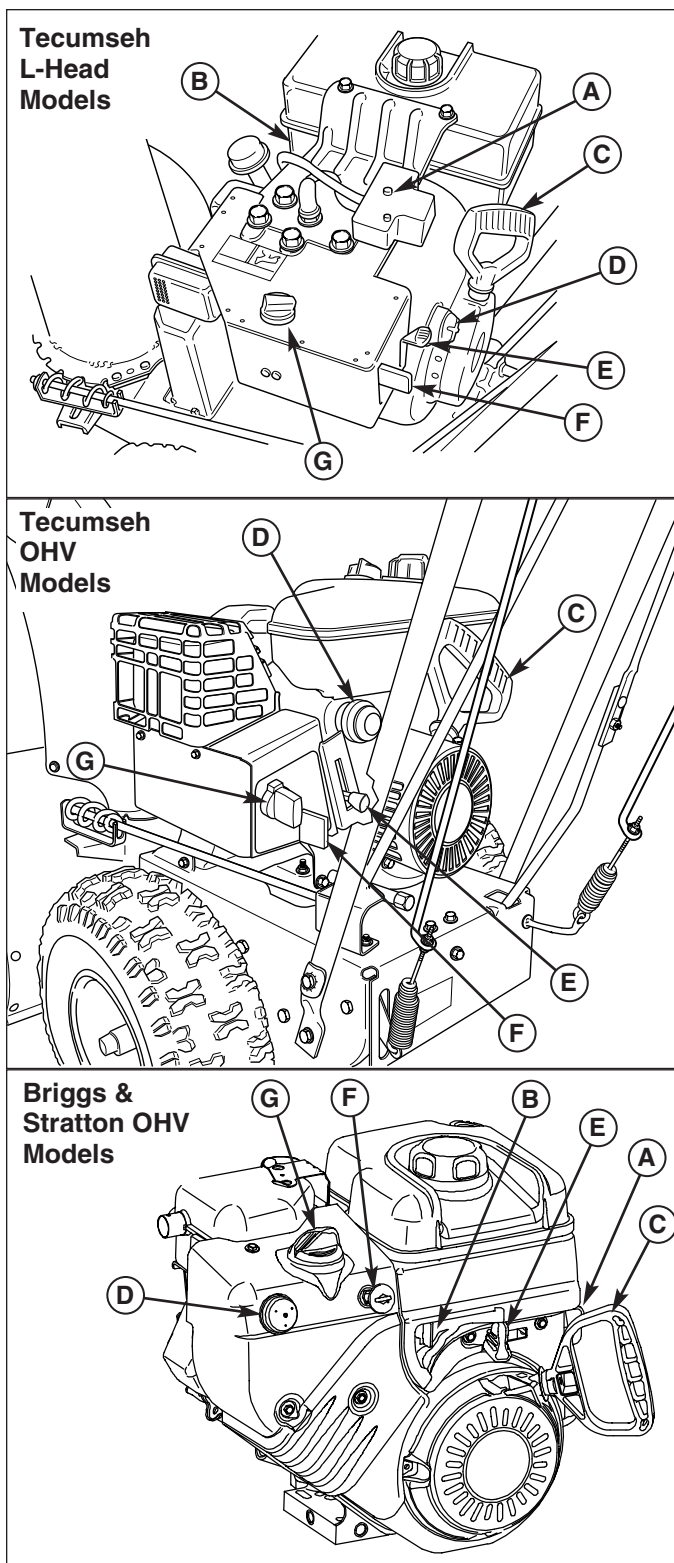
See Figures 1 and 2 for the following instructions.

Units with Optional Electric Start

- A. Electric Start Button** - The Electric Start Button (A) activates an electric starter mounted to the engine, eliminating the need to pull the starter handle. The Electric Start Button operates on 120 Volts AC, which is provided by connection to the extension cord provided with units equipped with this feature. **Connect this extension cord ONLY to a properly grounded 3 prong electrical outlet.**

Manual Start

- B. Fuel Valve** - The fuel valve (B) is located under the fuel tank. It is used to turn the fuel supply off for out-of-season storage.
- C. Starter Handle** - The starter handle (C) connects to a starter cord to manually start the engine. Pulling starter handle rapidly spins the engine crankshaft, cycles the engine, and generates the spark necessary for starting the engine.
- D. Primer Button** - When pressed, the primer button (D) provides initial fuel to help start a cold engine. Normally, pressing the primer button twice will provide enough fuel to start a cold engine.
- E. Throttle Lever** - The throttle lever (E) controls the engine speed. For best overall performance, the throttle lever should be set to the **FAST** position. Use the **SLOW** position only for warming the engine, or to help prevent snow/ice freeze-up when shutting the unit down for the day.
- F. Engine Key** - The Engine Key (F) prevents the engine from being started by unauthorized individuals. The key must be fully inserted into the key slot for the unit to start. The key is also used to stop the engine by pulling the key out of the key slot.
- G. Choke Knob** - The Choke Knob (G) adjusts the air/fuel mixture, and is used to help start a cold engine by providing a richer mixture. Once the engine is warm and running smoothly, the Choke Knob should be set to the off position to provide a normal air/fuel mix.



Figures 1-3. Engine Controls

- | | |
|---------------------------------|--------------------------|
| A. Electric Start Button | E. Throttle Lever |
| B. Fuel Valve | F. Engine Key |
| C. Starter Handle | G. Choke Knob |
| D. Primer Button | |

GROUND SPEED CONTROLS

- A. Speed Selector** - This lever (A, Figures 4 & 5) is used to set the ground speed of the snowthrower.

The snowthrower has five forward speeds, 1–5, and two reverse speeds, 1–2. No neutral position or gate is required, since the traction drive design automatically provides "neutral" (no forward or reverse movement), whenever the Drive Control is released.

- B. Traction & Free Hand™ Control** - This control engages the traction drive as the lever (B, Figures 4 & 5) is depressed, and disengages the traction drive when the lever is released. When both levers are depressed the Free Hand™ control is activated. This allows the auger control to be released yet the auger remains engaged until the traction Free Hand™ is released. **NOTE:** Changing ground speeds must only be done while the Drive Control is in the disengaged (fully released) position.

AUGER CONTROL

- C. Auger Control** - The Auger Control clutch lever (C, Figures 4 & 5), engages the auger drive when the lever is depressed and disengages the auger drive when the lever is released (unless Traction Free Hand™ control is also depressed-see above).

DEFLECTOR CONTROLS

- D. Chute Direction Control** - The Chute Direction Control (D, Figures 4 & 5), allows the discharge chute to be rotated to throw snow in the desired direction. Snow may be thrown at any angle from straight left, to straight forward, to straight right.
- E. Chute Deflector** - Controls the distance snow is thrown. Tilting the Chute Deflector (E, Figure 5) UP provides a higher stream and greater distance, while tilting the deflector DOWN provides a lower stream and less distance.
- F. Chute Deflector Knob** - This knob (F, Figures 4 & 5) allows the discharge Chute Deflector (E) to be locked in the desired tilt position.

SCRAPER HEIGHT

- G. Scraper Bar Height Control** - The Skid Shoes (G, Figure 5) control the height the scraper bar (located at the bottom of the auger housing). The scraper bar allows smooth surfaces (such as concrete or asphalt driveways) to be scraped clean of snow. On surfaces such as gravel, the scraper bar should be adjusted higher — so that it will not pick up gravel or debris.

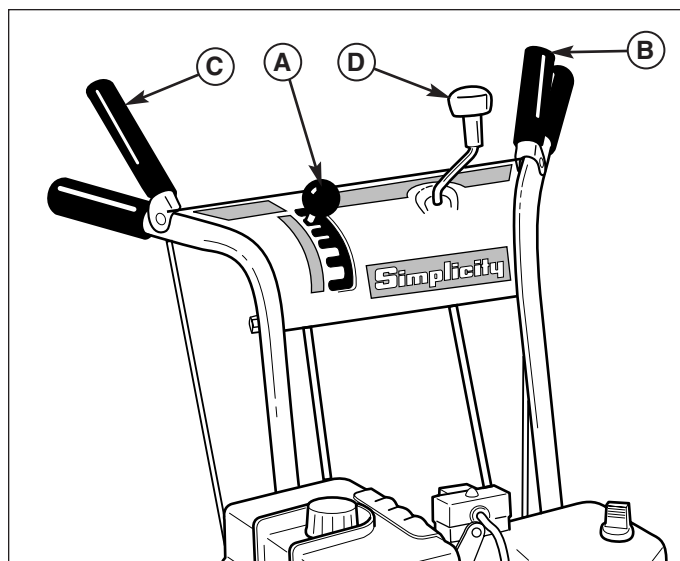


Figure 4. Operator's Control Position
A. Speed Selector **C. Auger Control**
B. Drive Control **D. Chute Direction Control**

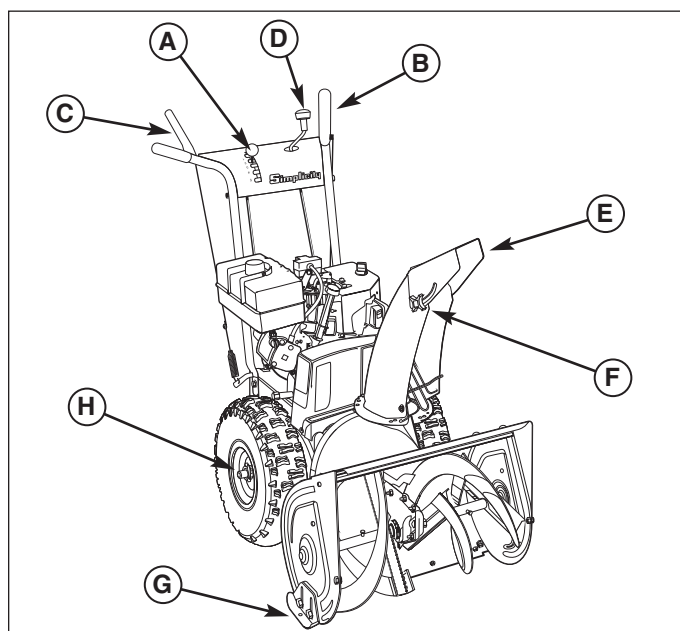


Figure 5. Snowthrower Controls
A. Speed Selector **E. Chute Deflector**
B. Drive Control **F. Chute Deflector Knob**
C. Auger Control **G. Skid Shoes**
D. Chute Control **H. Traction Lock Pins**

TRACTION LOCK CONTROL

- H. Traction Lock Pins** - The traction drive to each wheel can be locked and unlocked with the Traction Lock Pins (H, Figure 5) to permit the unit to "free-wheel," allowing easier manual handling and transport of the snowthrower.

GENERAL OPERATION

CHECKS BEFORE EACH START-UP

1. Make sure all safety guards are in place and all nuts, bolts and clips are secure.
2. Check the engine oil level. See your engine Owner's Manual for procedure and specifications.
3. Check to make sure spark plug wire is attached and spark plug is tightened securely. If necessary, torque spark plug to 15 ft. lbs.
4. Check the fuel supply. Fill the tank no closer than 1/4 to 1/2 inch of top of tank to provide space for expansion. See your engine Owner's Manual for fuel recommendations.
5. Check the Scraper Bar to make sure it is set at the desired height. Adjust the Skid Shoes if necessary. (See page 11.)
6. Check the Drive Control (B, Figure 4), and Auger Control (C) for proper operation. If adjustment is required, see the Service Section for procedures.
7. Check the Chute Direction Control (D, Figure 4) for proper operation. The discharge chute should rotate freely in both directions. See the Service Section for adjustment procedures and troubleshooting.
8. Check the Chute Deflector (E, Figure 4) for proper operation. The deflector should pivot freely up and down when the Chute Deflector Knob is loosened. If adjustment is required, see the Service Section for procedures.
9. Position the chute at the desired starting direction and set the deflector at the desired angle.
10. Check the Speed Selector (A, Figure 4) for smooth operation. The control must move freely into each speed position gate and remain in position when released. If the Speed Selector does not move freely into all forward and reverse speed positions, contact your local authorized dealer for assistance.

WARNING

This unit is a “two-stage” snowthrower.

The first stage is the auger, which feeds the snow back into the impeller housing. The second stage is the impeller, which throws the snow out the discharge chute. If bodily contact is made with the auger or impeller when they are rotating, severe personal injury will occur.

To avoid injury, keep others and yourself away from the auger and the discharge chute whenever the engine is running. Read and follow all of the safety rules and warnings in this manual.

WARNING

To avoid serious injury, do not put your hands into the auger housing or discharge chute. If auger stalls or chute becomes plugged, use the following procedure to remove objects or clear the chute:

1. Release both the Drive and Auger Control levers.
2. Shut off the engine.
3. Remove the Engine Key.
4. Wait for moving parts to stop.
5. Disconnect spark plug wire.
6. Use a narrow board to remove foreign objects and clear the chute or auger. Never put your hands into the auger or discharge chute.

WARNING

For your safety, operation on slopes should be in an up and down direction only. If it becomes necessary to move across the face of a slope, use caution and do not blow snow. Be very careful when changing direction on a slope.

Proper winter footwear is recommended for the operator to help prevent slipping. Never attempt to clean snow from excessively steep slopes. The maximum slope for any operation is 17.7% (10°).

WARNING

Gasoline is highly flammable and must be handled with care. Never fill the tank when the engine is hot or running. Always move outdoors to fill the tank. Keep snowthrower and gasoline away from open flame or spark.

STARTING THE ENGINE

1. Turn the fuel valve (B, Figure 6) to the ON position.
2. Insert the Engine Key (F) into the Engine Key slot and push fully in to the RUN position.
3. Move the Throttle Lever (E) fully up to the FAST position.
4. Fully close the Choke (G) if engine is cold. (Do not choke a warm engine.)
5. Push the Primer Button (D) two times if engine is cold. (Do not prime a warm engine.)
6. Pull Starter Handle (C) rapidly, or push Starter Button if equipped with the electric start. Do not allow the Starter Handle to snap back—let the starter rope rewind slowly—while keeping a firm grip on the Starter Handle.
7. As the engine starts and begins to operate evenly, open the Choke (G) slowly and set the Throttle Lever to SLOW. If the engine falters, turn the Choke Knob clockwise until the engine runs smoothly, and let it run briefly before returning the choke to the OPEN position.

NOTE: Allow the engine to warm up at SLOW throttle for a few minutes before operating the snowthrower at full speed. The engine will not develop full power until it reaches operating temperature.

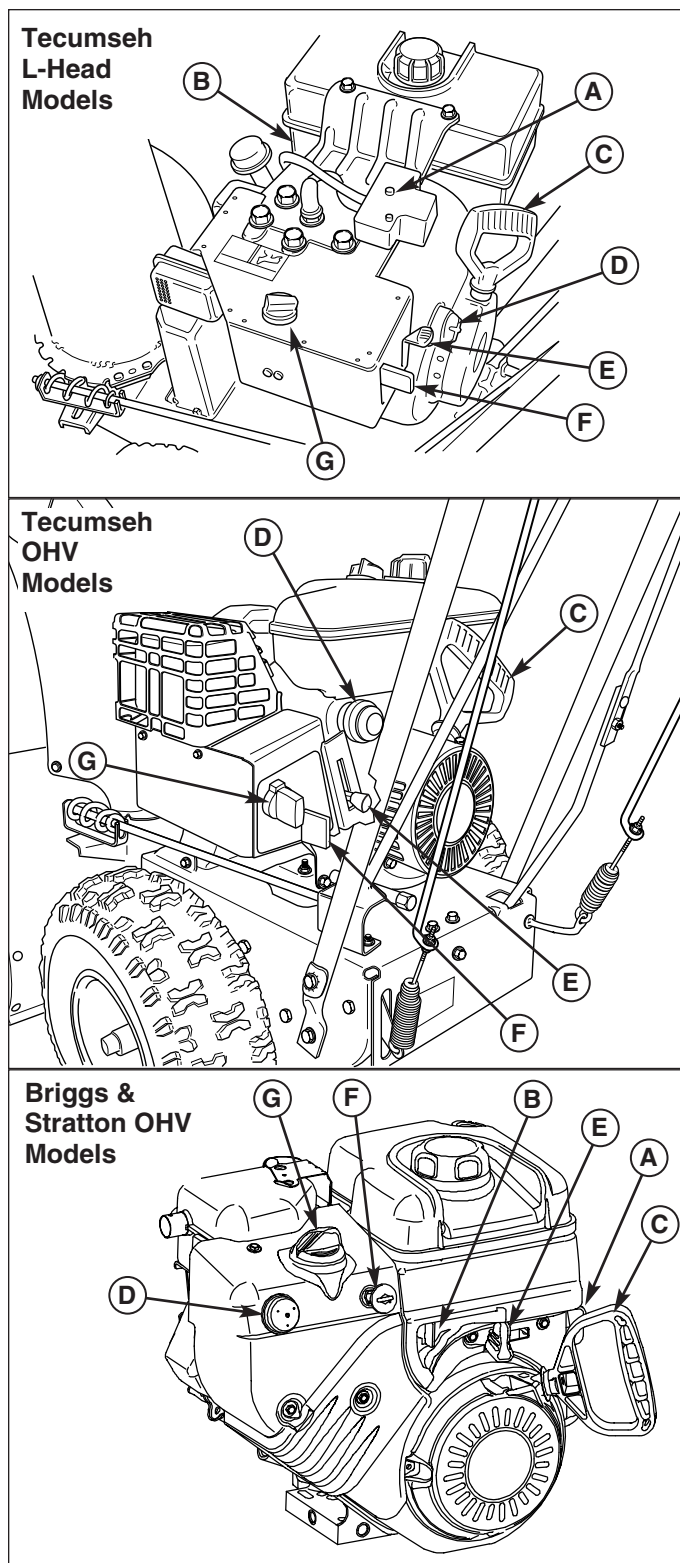


Figure 6. Engine Controls

- | | |
|--------------------------|-------------------|
| A. Electric Start Button | E. Throttle Lever |
| B. Fuel Valve | F. Engine Key |
| C. Starter Handle | G. Choke Knob |
| D. Primer Button | |

Operation

OPERATING THE SNOWTHROWER

1. Rotate the discharge chute to the desired direction.
2. Set the Speed Selector to the desired forward speed.
3. Fully press and hold the Auger Control (C, Figure 7) on the right-hand grip to begin auger rotation. To disengage the auger, completely release the lever.
4. Fully press and hold the traction Drive Control lever (B, Figure 7) on the left-hand grip to engage the traction drive and begin moving the snowthrower. To disengage the traction drive, completely release the lever. If engaged at the same time, the drive control (B) will lock the auger control (C) in the engaged position. Releasing the drive control (B) will release the auger control (C).
5. Select forward or reverse speeds as needed using the Speed Selector (A, Figure 7). Release the Drive Control lever whenever changing drive speeds.

NOTE: After 5 - 10 hours of use, it may be necessary to adjust the tension on the traction drive rod. See "Traction Drive Clutch Rod Adjustment" in the Service Section for the adjustment procedure.

GROUND SPEED SELECTOR

Use the Speed Selector (A, Figure 7) to control the drive speed of the snowthrower. There are five forward speeds and two reverse speeds.

Use the lower speeds to blow deep or wet snow. Use the higher speeds to blow light snow or to drive the snowthrower without blowing snow.

To change speeds, first release the traction Drive Control lever (B, Figure 7), then move the Speed Selector to the desired speed setting. Fully press the traction Drive Control lever to resume operation.

ENGINE SPEED

Run the engine at full throttle when operating. Use the engine Throttle Lever (See Figure 8) to set the engine speed. Slide the Throttle Lever UP to increase engine speed, and DOWN to reduce speed.

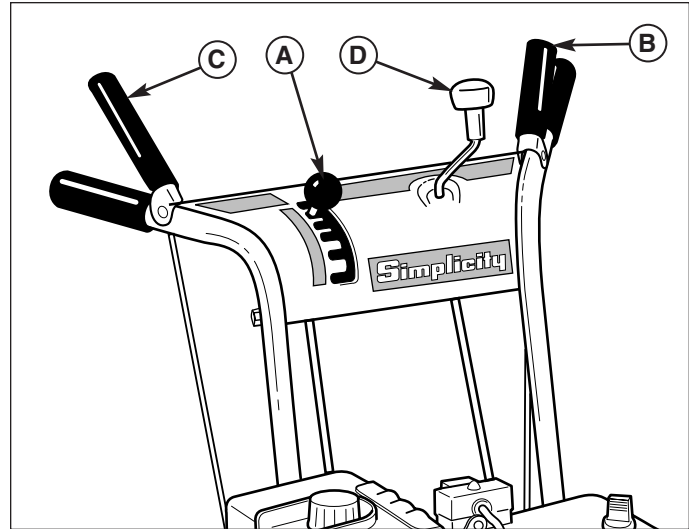


Figure 7. Operator's Control Position
A. Speed Selector **C. Auger Control**
B. Drive Control **D. Chute Direction Control**

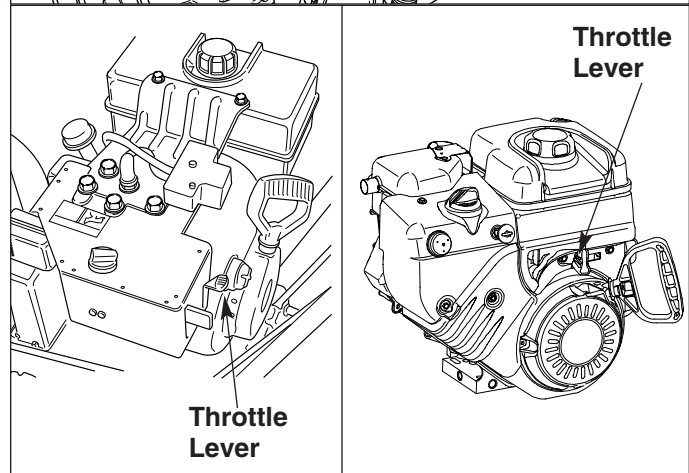
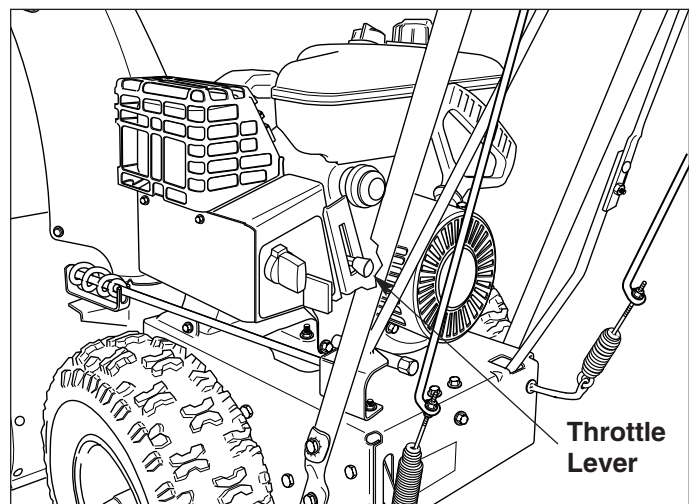


Figure 8. Engine Speed Selection

DEFLECTOR

The distance of the discharged snow is mainly controlled by the position of the deflector (Figure 9). (Engine speed also affects distance of discharge.)

The more the deflector is tilted UP, the farther snow will be thrown. Loosen the deflector knob, tilt the deflector UP or DOWN, and then retighten the knob when the desired angle has been chosen.

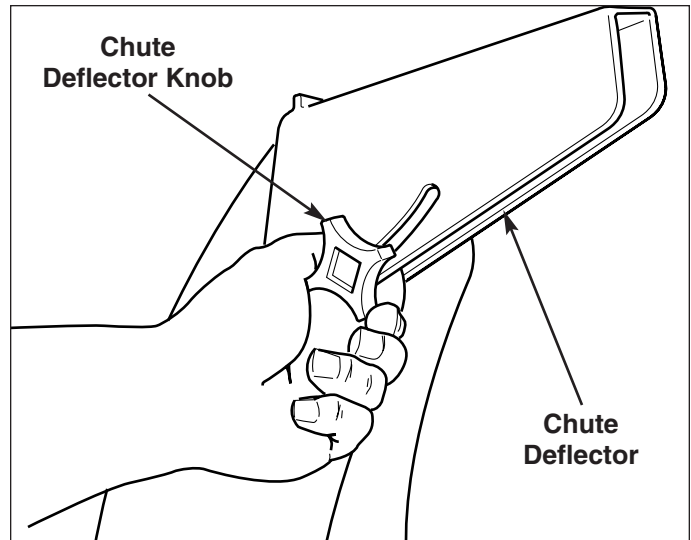


Figure 9. Chute Deflector Adjustment

SCRAPER BAR & SKID SHOES

On smooth surfaces such as concrete or asphalt, the scraper bar should scrape the surface. On surfaces such as gravel, the scraper bar should be high enough so that it will not pick up gravel or debris.

The height of the scraper bar is controlled by raising or lowering the Skid Shoes (See Figure 10).

1. To raise the scraper bar height, rest the scraper bar on a strip of wood equal in thickness to the desired height.
2. Make sure the scraper bar is parallel to the ground surface.
3. Loosen the skid shoe nuts and let the skid shoes drop to the surface.
4. Tighten the nuts, making sure the Skid Shoes are adjusted equally and are parallel to the surface.
5. To lower the height of the scraper bar, raise the Skid Shoes.
6. If the scraper bar becomes worn, it can be replaced by removing the hardware attaching it to the snowthrower.

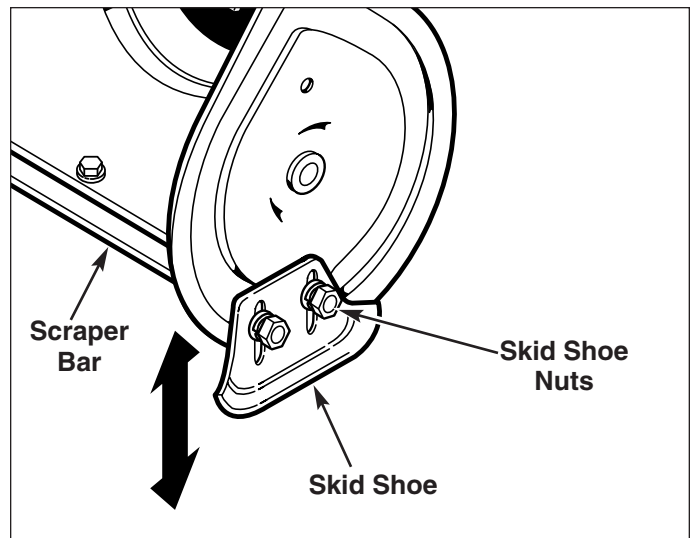


Figure 10. Skid Shoe Adjustment

FREE-WHEELING AND TRACTION DRIVE LOCK

For easy turning when pushing the snowthrower, you can disengage the traction drive at one or both wheels by using the Traction Lock Pins (See Figures 11 & 12).

1. Turn the unit off, remove the Engine Key, and disconnect the spark plug wire.
2. To **DISENGAGE** the traction drive lock, insert the Traction Lock Pin through the outer hole in the axle. (See Figure 11).
3. To **ENGAGE** the traction drive lock, insert the pin through the hub and axle (See Figure 12). If the hole in the hub is not aligned with the inner hole in the axle, push the snowthrower until the holes align and install the Traction Lock Pin.

NOTE: When snowthrowing with the full width of the auger, for best drive performance engage both wheels. For easier turning when not using the full width of the auger, engage one wheel and use the engaged side as the snow contact side for the auger.

AFTER EACH USE

Normal use of the snowthrower may result in a build-up of packed snow in and around the starter cord housing and around engine controls. Heat from the engine will usually prevent the snow from freezing solid while the unit is running, but after the engine is shut down, some snow may continue melting from engine heat, and later freeze around some moving parts as the unit cools.

After each period of use, follow these steps to *prevent freeze-up caused by ice formation* in and around the engine controls and external parts.

1. Before shutting off the engine, pull the starter rope out 2 - 3 times, and allow it to rewind slowly. This will help clear packed snow from the starter cord area. Allow the engine to run for several minutes.
2. Stop the engine by moving the Throttle Lever (See Figure 8) down, or by pulling out the Engine Key.
3. Disconnect the spark plug wire, and position it away from the spark plug.
4. Brush snow and ice from the snowthrower. Be sure to clear engine and snowthrower controls, discharge chute, worm and chute rod gears, clutch rod areas, and anywhere else snow has accumulated.
5. Always remove the Engine Key and store in a safe place to prevent unauthorized use.
6. If the snowthrower is kept in a cold shelter, fill the fuel tank to prevent condensation. Do not store near sparks or flame.

Note: The Engine Owner's Manual contains further information on preventing ice formation and freeze-up.

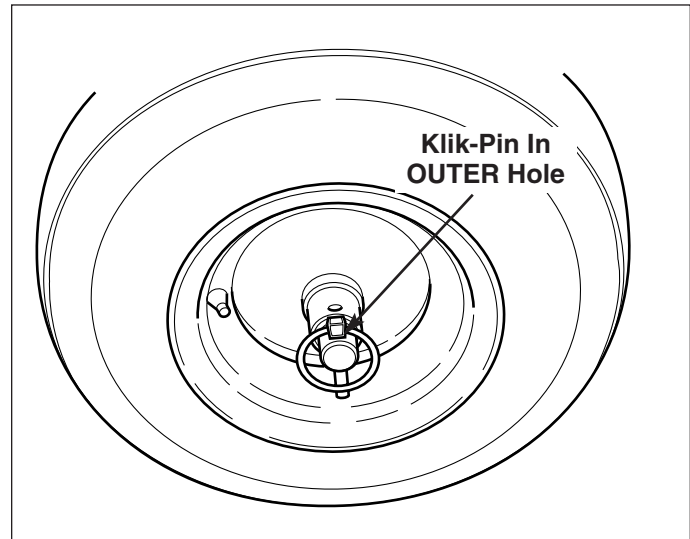


Figure 11. Traction Drive Lock - Disengaged

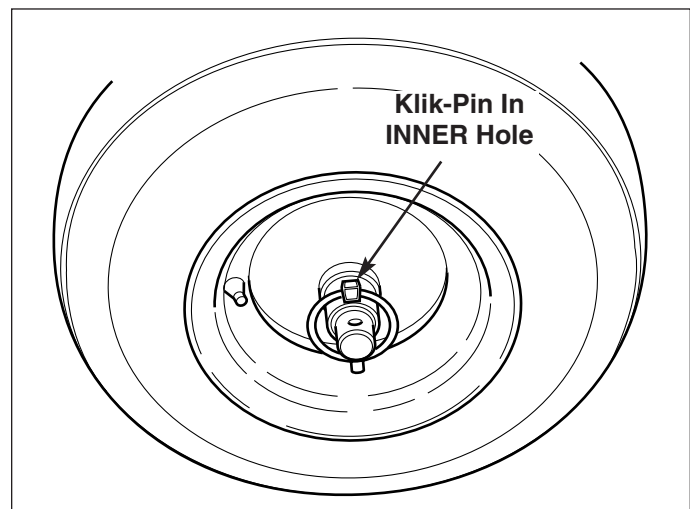


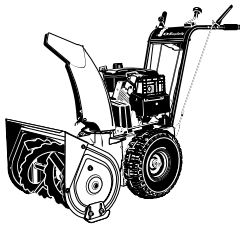
Figure 12. Traction Drive Lock - Engaged

WARNING

Never store snowthrower, with gasoline in engine or fuel tank, in a heated shelter or in enclosed, poorly ventilated enclosures. Gasoline fumes may reach an open flame, spark or pilot light (such as a furnace, water heater, clothes dryer, etc.) and cause an explosion.

Handle gasoline carefully. It is highly flammable and careless use can result in serious fire damage to people and property.

Drain fuel into an approved container outdoors away from open flame or sparks.



Regular Maintenance

SCHEDULE

CARE REQUIRED	FREQUENCY	LUBRICATION
Check auger gear case lubrication.**	25 Hours	Simplicity Winter Weight Worm Gear Oil
Lubricate snowthrower.	10 Hours	10W Oil and Grease
Check tire pressure.	Monthly	N/A
Change engine oil.*+	50 Hours+	See Engine Manual
Clean or replace spark plug.+	Yearly	See Engine Manual
Check drive linkage/belt tension	4-6 Hours	N/A
Lubricate Axle Shafts	Yearly	Lithium Grease
Check / Lubricate Free-Hand Linkage	10 Hours	10W Oil
<p>* Change original oil after two hours of operation.</p> <p>** Check oil level each fall and spring.</p> <p>+ See your engine Owner's Manual.</p>		

CHECKING TIRE PRESSURE

The air pressure in each tire (Figure 13) should be 20 psi (136 kPa) and should be equal for both tires for best performance. Be sure to keep caps on valves to prevent entry of debris into the valve stem when tires are filled.

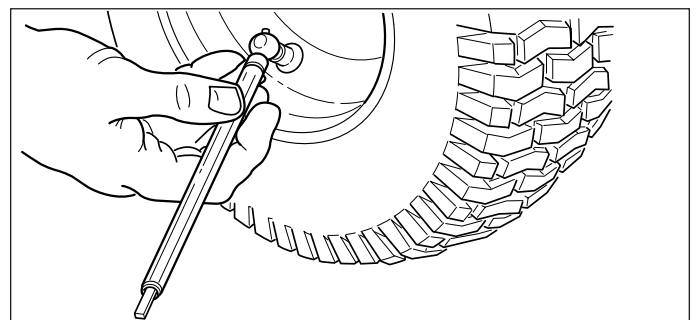


Figure 13. Checking Tire Pressure

CHECK AUGER GEAR CASE LUBRICATION

1. Place the snowthrower on a level surface.
2. Remove the Pipe Plug (Figure 14).
3. Check the lubricant level. It should be level with the lower edge of the plug opening. If not, add Simplicity Winter Weight Worm Gear Oil (available from your dealer).
4. Re-install Pipe Plug, and tighten securely.

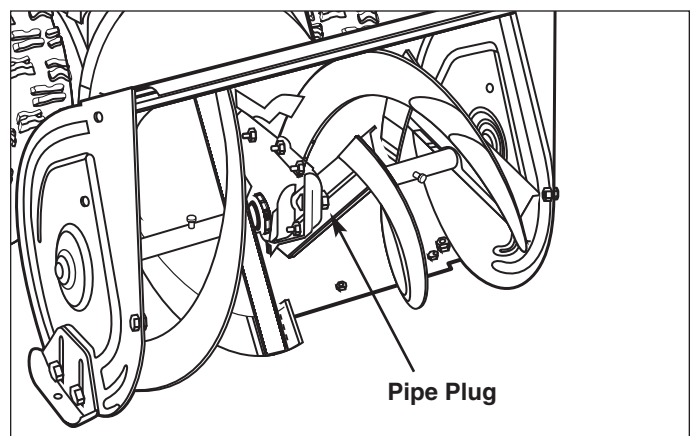
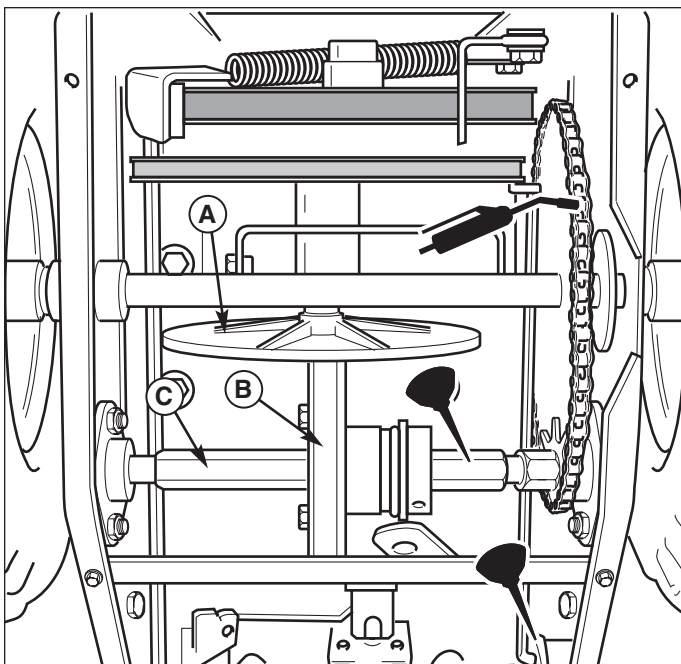


Figure 14. Checking Auger Gear Case Lubrication



**Figure 15. Drive Area Lubrication Points
(Bottom Cover Removed)**

A. Drive Disc C. Hex Shaft
B. Friction Disc

LUBRICATION

General: All moving metal parts should be oiled where contact is made with other parts. Keep oil and grease off belts, pulley grooves, drive disc, and friction disc.

Auger Shaft: There are two grease fittings on the auger shaft (Figure 16). Wipe the fittings clean and apply grease, using a grease gun. Also apply grease on other points indicated.

Apply medium weight (10W) oil to points shown in Figures 15-17.

Drive System: Keep grease and oil off the friction disk (see Figure 15) and drive disk. Clean and lubricate the hex shaft with 5W-50 synthetic motor oil.

CHECK / LUBRICATE FREE-HAND LINKAGE

Check the function of the Free-Hand controls: the controls should function as described in the CONTROLS section. **It is critical for the safe operation of the unit that the controls disengage when released.**

If the controls do not function properly, lubricate them. If lubrication does not rectify the problem, see your dealer. Under no circumstances should the unit be used if the controls are not functioning properly.

LUBRICATION NOTES:

Grease locations indicated by the grease gun symbol.

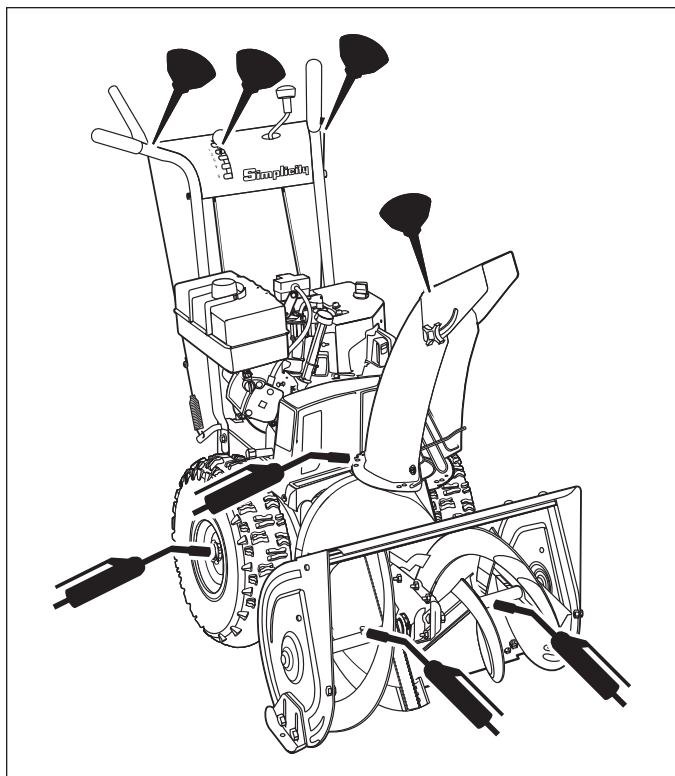


Figure 16. Snowthrower General Lubrication Points

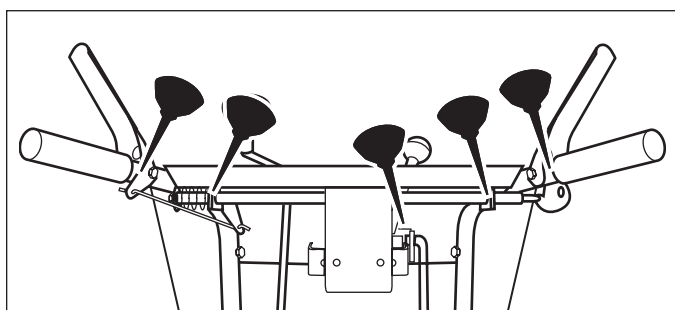


Figure 17. Lubricate Free Hand Control

! NOTICE

It is very important to lubricate the grease fittings on the auger shaft regularly. If the augers rust to the shaft, damage to the gear box may occur if the shear pins do not break.

To prevent the wheels from rusting to the axles it is necessary to remove the wheels and grease the axle shafts yearly.

Use grease fittings when present. Dissassemble parts to apply grease to moving parts when grease fittings are not installed.

Oil locations indicated by the oil can symbol. Do not allow oil to drip onto traction drive disk or rubber friction disc.

TEMPORARY STORAGE (30 DAYS OR LESS)

Remember, the fuel tank will still contain some gasoline, so never store the unit indoors or in any other area where fuel vapor could travel to any ignition source. Fuel vapor is also toxic if inhaled, so never store the unit in any structure used for human or animal habitation.

Here is a checklist of things to do when storing your unit temporarily or in between uses:

- Keep in an area away from where children may come into contact with it. If there's any chance of unauthorized use, remove the spark plug (s) and put in a safe place. Be sure the spark plug opening is protected from foreign objects with a suitable cover.
- If the unit can't be stored on a reasonable level surface, chock the wheels.
- Clean all debris from the unit.

NOTE: If storing your unit between winter snow removal jobs in a cold area, we suggest that you fill the fuel tank at the completion of each job to prevent water condensation in the fuel tank. Wait for engine to cool before filling tank.

LONG TERM STORAGE (LONGER THAN 30 DAYS)

Before you store your unit for the off-season, read the Maintenance and Storage instructions in the Safety Rules section, then perform the following steps:

1. Drain crankcase oil and refill with a grade of oil that will be required when unit is used again.
2. Coat all bare metal surfaces with paint or light coat of oil to prevent rusting.
3. Clean external surfaces and engine.
4. Prepare engine for storage. See engine owner's manual.
5. Clean any dirt from the engine housing.
6. Cover air intake and exhaust outlet tightly with plastic or other waterproof material to keep out moisture, dirt and insects.
7. Completely grease and oil as outlined in the Normal Care section.
8. If equipped, be sure the battery is filled to the proper level with water and is fully charged. Battery life will be increased if it is removed, put in a cool, dry place and fully charged about once a month. If battery is left in, disconnect the negative cable.

WARNING

Never store the unit, with gasoline in engine or fuel tank, in a heated shelter or in enclosed, poorly ventilated enclosures. Gasoline fumes may reach an open flame, spark or pilot light (such as a furnace, water heater, clothes dryer, etc.) and cause an explosion.

Handle gasoline carefully. It is highly flammable and careless use could result in serious fire damage to your person or property.

Drain fuel into an approved container outdoors away from open flame or sparks.

10. Drain fuel system completely or add a gasoline stabilizer to the fuel system. If you have chosen to use a fuel stabilizer and have not drained the fuel system, follow all safety instructions and storage precautions in this manual to prevent the possibility of fire from the ignition of gasoline fumes. Remember, gasoline fumes can travel to distant sources of ignition and ignite, causing risk of explosion and fire.

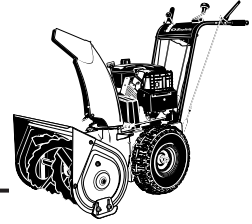
NOTE: Gasoline, if permitted to stand unused for extended periods (30 days or more), may develop gummy deposits which can adversely affect the engine carburetor and cause engine malfunction. To avoid this condition, add a gasoline stabilizer to the fuel tank or drain all fuel from the system before placing unit in storage.

STARTING AFTER LONG TERM STORAGE

Before starting the unit after it has been stored for a long period of time, perform the following steps.

1. Remove any blocks from under the unit.
2. Install the battery if it was removed.
3. Unplug the exhaust outlet and air cleaner.
4. Fill the fuel tank with fresh gasoline. See engine manual for recommendations.
5. See engine owner's manual and follow all instructions for preparing engine after storage.
6. Check crankcase oil level and add proper oil if necessary.
7. Inflate tires to proper pressure.
8. Start the engine and let it run slowly. DO NOT run at high speed immediately after starting. Be sure to run engine only outdoors or in well ventilated area.

Troubleshooting, Adjustment, & Service



TROUBLESHOOTING

This section provides troubleshooting and service instructions. Locate the problem and check the possible cause/remedy in the order listed.

Also, refer to the engine manufacturer's Owner's Manual for additional information.

For problems not covered here, contact your local dealer.



WARNING

Before performing any adjustment or service to snowthrower, stop the engine and wait for moving parts to stop. Remove the key. To prevent accidental starting, disconnect the spark plug wire and fasten away from the plug.

PROBLEM	POSSIBLE CAUSE	REMEDY
Engine fails to start.	<ol style="list-style-type: none"> 1. Key is OFF. 2. Failure to Prime cold Engine 3. Fuel valve is in CLOSED position. 4. Out of fuel. 5. Choke OFF - cold engine. 6. Engine flooded. 7. Spark plug not sparking. 8. Water in fuel, or old fuel. 	<ol style="list-style-type: none"> 1. Push key in to the ON position. 2. Press Primer Button twice and restart. 3. Turn valve to OPEN position. 4. Fill fuel tank. 5. Turn choke to ON, set throttle to FAST. 6. Turn choke to OFF; try starting. 7. Check gap. Gap plug, clean electrode, or replace plug as necessary. 8. Drain tank (Dispose of fuel at an authorized hazardous waste facility). Fill with fresh fuel.
Engine starts hard or runs poorly.	<ol style="list-style-type: none"> 1. Fuel mixture too rich. 2. Carburetor adjusted incorrectly. 3. Spark plug faulty, fouled, or gapped improperly. 	<ol style="list-style-type: none"> 1. Move choke to OFF position. 2. See your dealer for adjustments. 3. Clean and gap, or replace.
Auger does not rotate.	<ol style="list-style-type: none"> 1. Auger Control not engaged. 2. Foreign matter blocking auger. 3. Auger drive clutch rod slack. 4. Auger drive belt slipping. 5. Broken belt. 6. Shear pin broken. 	<ol style="list-style-type: none"> 1. Engage Auger Control. 2. STOP engine and REMOVE the key. DISCONNECT the spark plug wire. Clear auger using a narrow board. See warning in SAFETY RULES. 3. Tighten to remove slack. See auger clutch rod adjustment. 4. Check auger drive belt adjustment. 5. Replace belt. 6. Replace shear pin.

PROBLEM	POSSIBLE CAUSE	REMEDY
Auger rotates, but snow is not thrown far enough	<ol style="list-style-type: none"> 1. Chute deflector too low. 2. Engine speed too slow. 3. Ground speed too fast. 4. Snowthrower discharge chute clogged. 5. Auger belt loose or worn. 	<ol style="list-style-type: none"> 1. Adjust deflector as necessary. 2. Set speed to full throttle. 3. Use slower Speed Selector setting. 4. STOP engine and REMOVE the key. DISCONNECT the spark plug wire. Clear auger using a narrow board. See warning in SAFETY RULES. 5. Check Auger Drive Belt Adjustment
Scraper bar does not clean hard surface.	<ol style="list-style-type: none"> 1. Skid Shoes improperly adjusted. 	<ol style="list-style-type: none"> 1. RAISE Skid Shoes (this lowers the Scraper Bar).
Scraper bar picks up and throws stones on gravel drive.	<ol style="list-style-type: none"> 1. Skid shoes improperly adjusted. 	<ol style="list-style-type: none"> 1. LOWER Skid Shoes (this raises the scraper bar.)
Poor traction	<ol style="list-style-type: none"> 1. Tires slipping. 	<ol style="list-style-type: none"> 1. Check tire pressure and tread.
Auger does not stop when auger lever is released	<ol style="list-style-type: none"> 1. Auger clutch rod too tight or bent. 2. Auger drive belt out of adjustment. 3. Auger belt guide out of adjustment. 	<ol style="list-style-type: none"> 1. Loosen or straighten clutch rod. 2. Adjust auger belt. 3. Adjust auger belt guide.
Snowthrower does not stop when drive lever is released	<ol style="list-style-type: none"> 1. Traction drive clutch rod bent or too tight. 	<ol style="list-style-type: none"> 1. Loosen rod to remove slack or replace. See adjustment procedure.
Snowthrower does not drive when drive lever is engaged.	<ol style="list-style-type: none"> 1. Traction drive clutch rod loose. 2. Drive belt loose, broken, or stretched. 3. Drive roller chain damaged. 4. Traction Lock Pins in Free-Wheeling position (OUTER hole). 	<ol style="list-style-type: none"> 1. Tighten to remove slack. See adjustment procedure. 2. Replace drive belt. 3. Replace chain. 4. Change Traction Lock Pins to INNER hole to engage traction drive.
Discharge control is difficult to operate.	<ol style="list-style-type: none"> 1. Gearing needs lubrication 2. Worm gear not adjusted properly. 3. Control rod gears misaligned. 	<ol style="list-style-type: none"> 1. Oil or grease as required. 2. Adjust worm gear. See adjustment procedure. 3. Adjust gear bracket. See adjustment procedure.
Snowthrower veers to one side.	<ol style="list-style-type: none"> 1. Tires pressure not equal. 2. One wheel is set in Free-Wheeling mode. (Traction Lock Pin is in the OUTER hole). 	<ol style="list-style-type: none"> 1. Check tire pressure. 2. Make certain BOTH Traction Lock Pins are in the INNER holes (to engage traction drive).
Excessive vibration.	<ol style="list-style-type: none"> 1. Loose parts or damaged auger. 	<ol style="list-style-type: none"> 1. STOP engine and REMOVE the key. DISCONNECT the spark plug wire. Tighten all hardware. Replace auger if necessary. If vibration continues, see your dealer.
Drive fails to move snowthrower at slow speeds.	<ol style="list-style-type: none"> 1. Traction Drive out of adjustment. 	<ol style="list-style-type: none"> 1. Readjust drive, or shift Speed Selector setting up one speed faster.

Adjustments

SPEED SELECTOR PIVOT ADJUSTMENT

The Speed Selector is factory set for optimal performance at each forward and reverse speed setting. However, if drive system components have been replaced, adjustment may be necessary.

Adjust as follows:

1. Move the ground speed control (A, Figure 18) fully forward.
2. Loosen the hardware (B) securing the upper and lower shift rods.
3. Push the lower rod (C) down fully (into the housing).
4. Make sure the ground speed control (A) is in the full forward (5th gear) position. Pull the two rods apart and tighten the shift rod hardware (B).

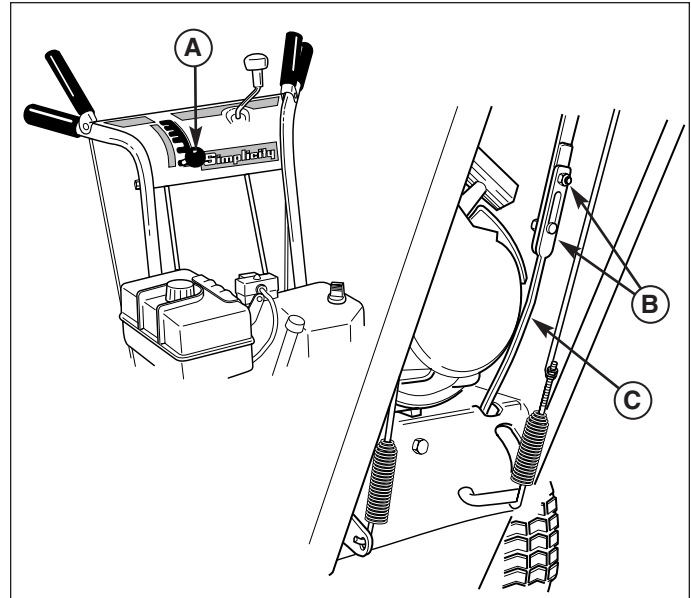


Figure 18. Speed Selector Linkage Adjustment

- A. Ground Speed Lever
B. Shift Rod Hardware
C. Lower Shift Rod

TRACTION DRIVE CLUTCH ROD ADJUSTMENT

Initial Adjustment

The traction drive clutch rod should initially be adjusted so that there is no slack in the rod when moved slightly from side to side, but bellcrank arm remains in fully down position. To adjust tension on the rod:

1. Loosen adjustment hex nuts (Figure 19).
2. Tighten top hex nut while holding rod. **Tighten just until slack in rod is removed.**
3. Tighten lower hex nut securely. The unit should be able to be pushed forward and back freely.

WARNING

Do not over-tighten, as this may cause traction drive to engage without depressing the traction Drive Control (bellcrank arm must remain in down position).

Verify that the rods are not over-tightened: With Speed Selector in position 1 and traction Drive Control fully released, push snowthrower forward. The unit should move forward freely.

If unit does not move forward freely, the rod has been over-tightened. To remedy, loosen tension on clutch rod slightly, and recheck.

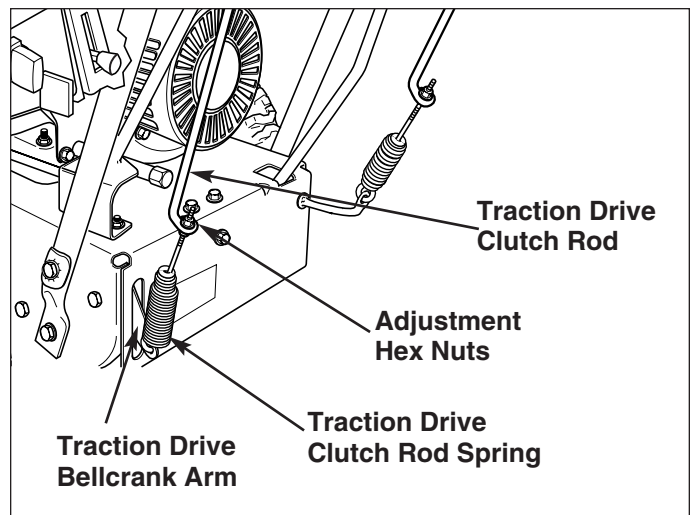


Figure 19. Traction Drive Clutch Rod Adjustment

Run-In Adjustment

1. After 5 hours of use, check for proper adjustment. Readjust clutch rod if necessary by increasing tension on rod. A small amount of bellcrank arm movement is permissible if unit passes operating checks described in the Caution at left. **Optimal adjustment provides 1/32" clearance between traction drive disc and rubber ring on friction disc when drive lever is released** (see Figure 15 for friction disk location).

DISCHARGE CHUTE WORM ASSEMBLY ADJUSTMENT

If the Discharge Chute becomes difficult to rotate or begins to operate erratically, the Worm Assembly may require adjustment:

1. Loosen the adjustment screw under the Worm Assembly mounting area (Figure 20).
2. Slide the Worm Assembly in or out to provide smooth engagement between the worm wire and the slots in the base of the Discharge Chute.
3. Tighten the adjustment screw and check for smooth operation by turning the Chute Deflector Knob.
4. Readjust if necessary to provide smooth operation throughout entire range of motion.
5. Lubricate the Chute Ring and Worm Assembly as needed

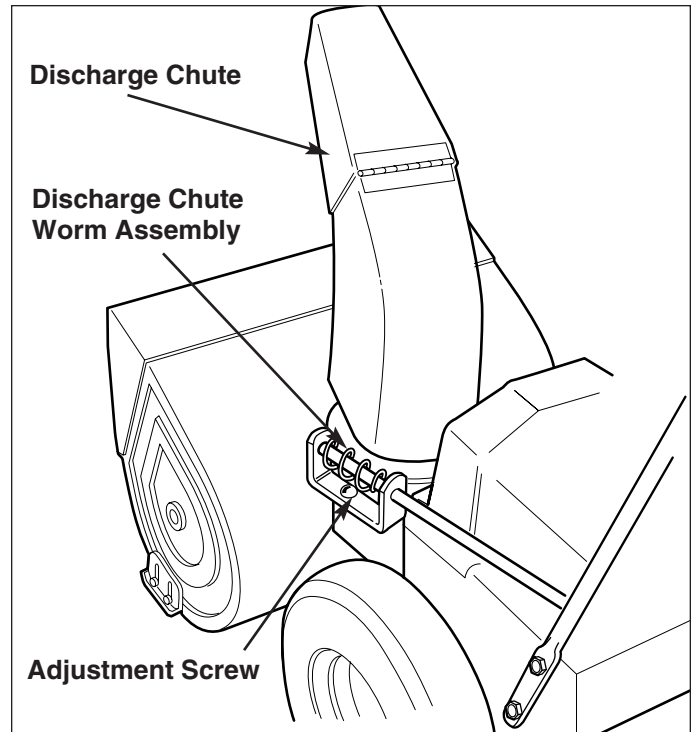


Figure 20. Discharge Chute Worm Adjustment

CHUTE DIRECTION CONTROL ROD GEAR ADJUSTMENT

If the Discharge Chute becomes difficult to rotate or begins to operate erratically, the Chute Direction Control rod gears may require adjustment:

1. Loosen the gear bracket mounting nuts (Figure 21).
2. Slide the gear bracket into the position that provides the best engagement between the gears.
3. Tighten the bracket mounting nuts, and check for smooth operation.
4. Readjust if necessary.
5. Lubricate the Chute Direction Control rod gears with a medium weight (10W) oil.

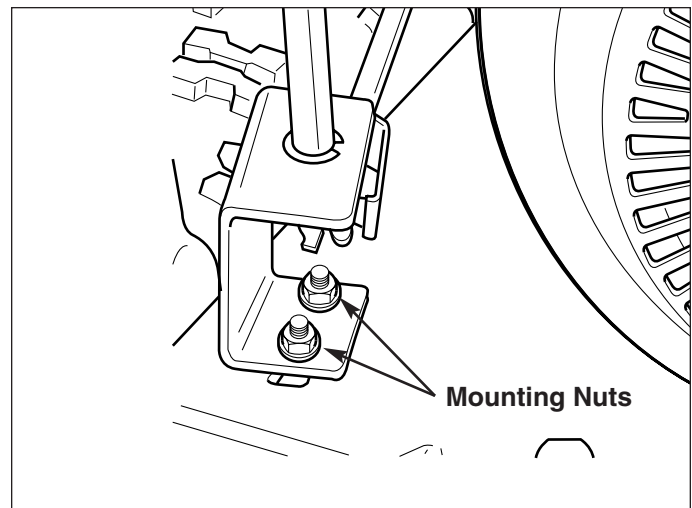


Figure 21. Chute Direction Gear Adjustments

Adjustments

AUGER DRIVE CLUTCH ROD ADJUSTMENT

The auger drive clutch rod should be adjusted so that there is no slack in the rod when moved slightly from side to side. To adjust tension on the rod:

1. Loosen adjustment hex nuts (Figure 22).
2. Tighten top hex nut while holding rod. Tighten just until slack in rod is removed. Be careful not to move idler rod lever when adjusting clutch rod tension.
3. Tighten lower hex nut securely.

WARNING

Do not over-tighten, as this may lift the idler rod lever and cause auger drive to be engaged without depressing the Auger Control.

4. Start unit and check auger. Auger must not be engaged unless Auger Control is depressed.
5. With engine running, fully depress Auger Control, the auger should engage and run normally.
6. Release Auger Control. **Auger must stop within 5 seconds.**
7. If auger does not operate properly, stop engine and recheck clutch rod adjustments.
8. If clutch rod is properly adjusted, auger drive belt tension may require adjustment. See "Adjusting Auger Drive Belt" on next page.

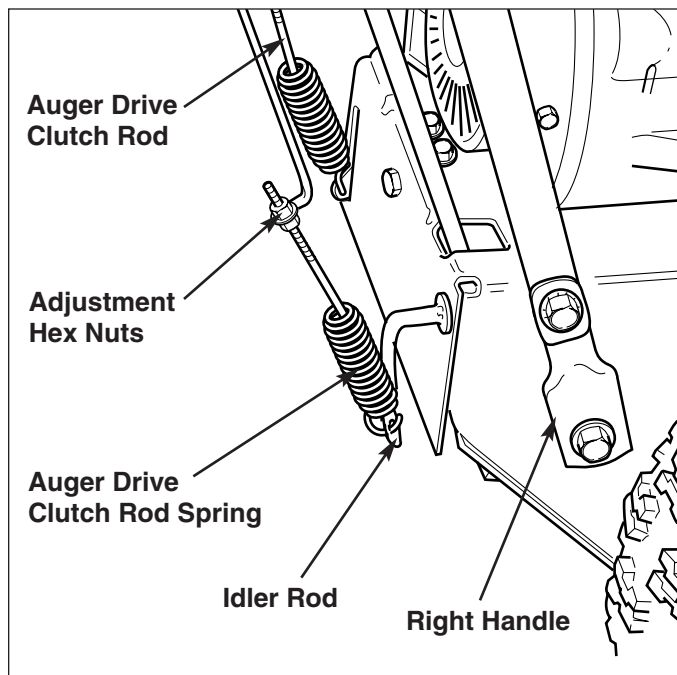


Figure 22. Auger Drive Clutch Rod Adjustment

DRIVE BELT ADJUSTMENT

The snowthrower is equipped with two drive belts located just in front of the engine under the belt cover. Figure 23 shows both belts and idler pulleys. The belt nearest the engine is the unit traction drive (wheels) belt. The belt farthest from the engine is the auger/ impeller drive belt.

The traction drive belt has constant tension provided by a spring-loaded idler pulley arm, and is non-adjustable. This belt rotates whenever the engine is running, and provides power to the traction drive disc, which also rotates constantly while the engine is running.

The auger drive belt tension may be adjusted by moving the auger drive idler pulley. See "Adjusting Auger Drive Belt" on next page.

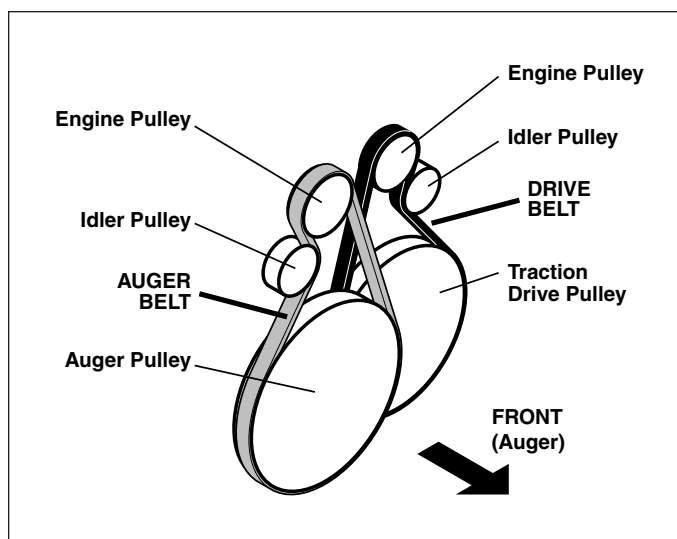


Figure 23. Drive Belt Paths

DRIVE BELT ADJUSTMENT (Continued)

If the auger drive slips (auger slows or doesn't rotate normally while blowing snow), or stays engaged when the control is disengaged — and the auger clutch rod has been properly adjusted — the auger drive belt may be out of adjustment.

WARNING

Auger must NOT rotate unless the Auger Control lever has been depressed. Proper Auger Drive Belt adjustments stop the auger within 5 seconds after the Auger Control is disengaged.

Checking Auger Belt & Belt Guide Adjustments

1. Insert the Engine Key and start the Snowthrower.
2. Engage and disengage the Auger Control a series of ten times, checking that the auger comes to a complete stop within 5 seconds after the control is disengaged each time.
3. If the auger comes to a complete stop each time within 5 seconds, the adjustment is correct. If the auger does NOT come to a complete stop within the necessary 5 seconds, the adjustment is incorrect: readjusting the Auger Belt & Belt Guide according to the procedures below.

Adjusting Auger Drive Belt

1. Make certain that the snowthrower is off, the Engine Key has been removed, and the spark plug disconnected.
2. Check that there is no slack in the auger drive clutch rod (see Figure 25). If there is, follow the Auger Drive Clutch Rod Adjustment procedure on page 24.
3. Measure the length of the auger drive clutch spring (Figure 25).
4. Fully depress the auger control and measure the expanded length of the spring.
The spring should expand $19/64''$ - $5/16''$. If the spring deflection is less than $19/64''$ - $5/16''$ the auger idler pulley must be adjusted. Proceed to step 5.
5. Using a $3/8''$ wrench, loosen the Belt Cover screws and remove the Belt Cover.
6. Loosen the adjustment bolt (see Figure 26) and move the auger idler pulley.
7. Tighten the adjustment bolt and repeat steps 3-4.
8. Test run the unit. The auger must NOT rotate unless the Auger Control lever has been depressed. Proper Auger Drive Belt adjustments stop the auger within 5 seconds after the Auger Control is disengaged. If the auger drive fails either of these tests, repeat the adjustment procedures.

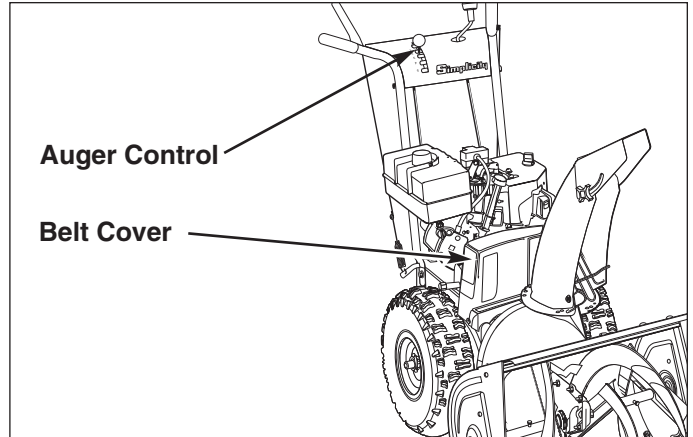


Figure 24. Auger Control and Belt Cover Location

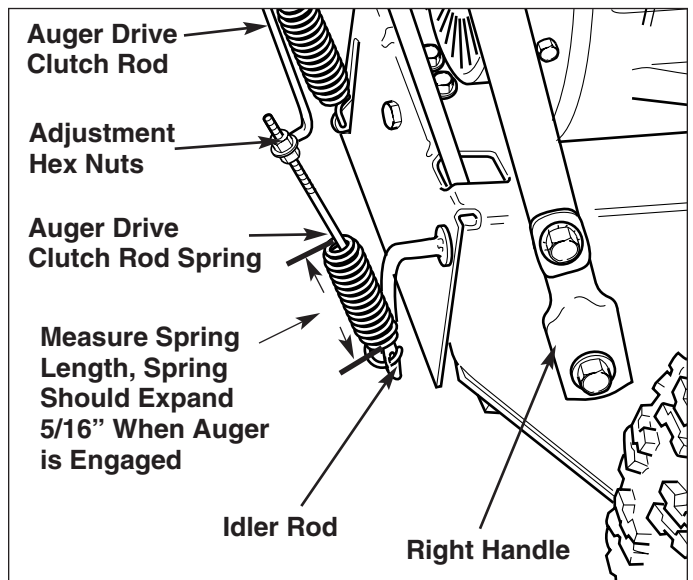


Figure 25. Auger Drive Clutch Rod

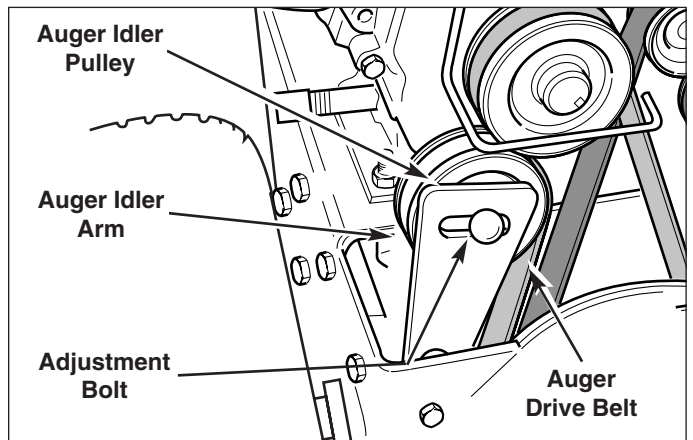


Figure 26. Auger Drive Belt, Guide and Pulley

9. After adjusting the Auger Drive Belt, the Auger Belt Guide MUST BE adjusted according to the *Adjusting Auger Belt Guide* procedure which follows.

Adjustments & Service

DRIVE BELT ADJUSTMENT (Continued)

Adjusting Auger Belt Guide

1. With the Auger Control still fully depressed, adjust the Auger Belt Guide so that there is a 1/64" gap (1/32" Maximum) between the end of the guide and the belt (Figure 27), making certain the guide is NOT putting pressure on the belt.
2. Making certain the Auger Belt Guide does NOT move while doing so, tighten the Auger Belt Guide Screw (Figure 27) to secure the guide.
3. Check the adjustment on the Auger Belt Guide (Figure 27) to make certain that the gap between the belt and the belt guide is correct.
4. Disengage the Auger Control by removing the cardboard tube (or other means used to temporarily secure the control.)
5. Test the unit by following the steps under the "Checking Auger Belt & Belt Guide Adjustments" above.

WARNING

Failure to properly adjust the Auger Belt Guide may cause auger to rotate when Auger Control has not been depressed.

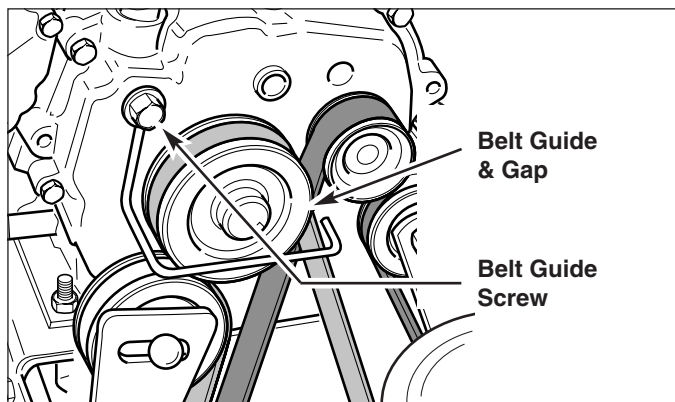


Figure 27. Auger Belt Guide Adjustment

DRIVE BELT REPLACEMENT

The snowthrower has two drive belts, one for the Traction Drive—which transmits engine power to the wheels, and a second for the Auger Drive—which transmits engine power to the auger mechanism.

Each of these drive belts are of special construction and should be replaced only with Genuine Replacement Belts which match the original equipment belts. These are available from your dealer. (See COMMON REPLACEMENT PARTS at the back of this manual for the correct part numbers for each of the belts.)

Traction Drive Belt Replacement

1. Disconnect spark plug wire and fasten it away from the spark plug.
2. Remove belt cover.
3. Pull the traction drive belt idler pulley arm (See Figure 23) away from the belt to relieve tension, and slide the belt off the engine pulley.
4. Slip the belt off from around the traction pulley (See Figure 28) and pull the belt out of the unit between the auger pulley and the traction pulley (the lower cover need not be removed for this step).
5. Reverse the procedure to install the new belt. Be sure there are no twists in the belt, and that the belt is properly seated in the pulley grooves.
6. Replace the belt cover.

WARNING

Snowthrower must move only when the traction Drive Control is depressed, and must stop when the lever is released (disengaged).

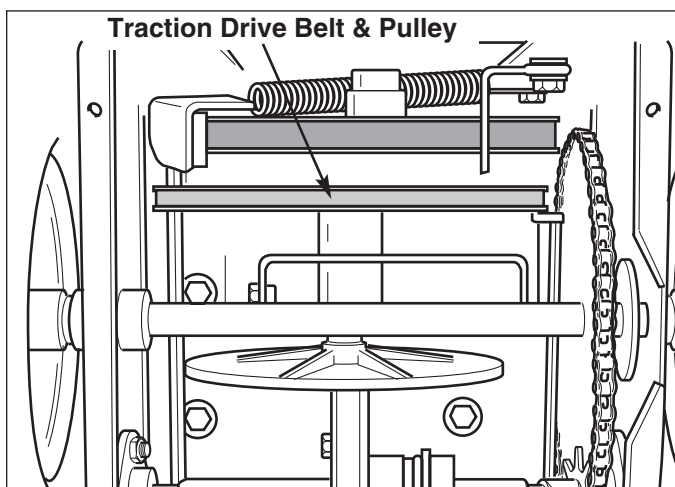


Figure 28. Traction Drive Pulley (Lower Cover Removed For Clarity)

7. Start the unit, and check the traction drive for proper operation. See "Traction Clutch Rod Adjustment" for adjustment procedures.

DRIVE BELT REPLACEMENT (Cont.)

Auger Drive Belt Replacement

1. Remove gas from fuel tank and run engine until it stops running from lack of fuel.
2. Disconnect spark plug wire and fasten it away from the spark plug.
3. Remove belt cover (See Figure 24).
4. Loosen auger belt guide and slide belt off engine pulley and away from idler pulley. (See Figure 27).
5. Clamp or tie Auger Control lever to handle in the fully depressed position to release all tension on the auger pulley brake pad, and provide clearance for belt removal.
6. Tilt unit forward and rest on auger housing.
7. Remove lower cover.
8. Loosen hex screw securing belt stop (Figure 29), and pivot the belt stop away from the pulley to permit removal of belt.
9. Pull the belt out of the unit, and install the new belt on the auger drive pulley.
10. Position belt stop to provide 1/8" clearance between stop and belt, and and tighten securely.
11. Replace lower cover.
12. Return unit to normal upright operating position.
13. Release Auger Control.
14. Install auger belt over engine pulley.
15. Adjust auger belt stop as described under ADJUSTING BELT GUIDES.
16. Install belt cover.
17. Connect spark plug wire and fill fuel tank.
18. Start Unit and check auger for proper operation. See "Auger Drive Clutch Rod Adjustment" for adjustment procedures if additional adjustment is necessary.

WARNING

Do not go near the discharge chute or auger when the engine is running. Do not run the engine with any cover or guard removed.

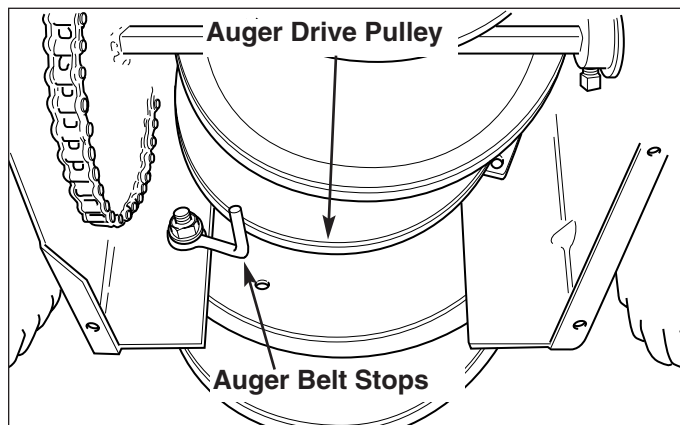


Figure 29. Auger Drive Pulley and Belt Stops

WARNING

Auger must NOT rotate unless the Auger Control lever has been depressed, and auger must stop within 5 seconds after Auger Control lever has been released.

ROLLER CHAIN REPLACEMENT

NOTE: This procedure does not apply to models that use an "endless" chain.

1. Remove gas from fuel tank and run engine until it stops running from lack of fuel.
2. Disconnect spark plug wire and fasten it away from the spark plug.
3. Tilt the snowthrower forward and carefully rest unit on the auger end.
4. Rotate the wheel to locate the roller chain master link.
5. Remove the keeper link, master link and chain.
6. Install new chain and master link as shown in Figure 30.
7. Return snowthrower to upright operating position.
8. Connect spark plug wire and fill fuel tank.

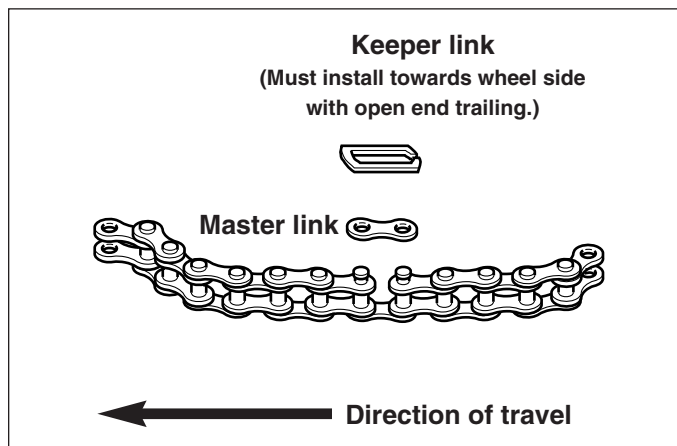


Figure 30. Roller Chain Master Link

SHEAR PIN REPLACEMENT

WARNING

Do not go near the discharge chute or auger when the engine is running. Do not run the engine with any cover or guard removed.

Under most circumstances, if the auger strikes an object which could cause damage to the unit, the shear pin will break. (This protects the gear box and other parts from damage.)

The shear pins are located on the auger shaft as shown in Figure 31. To replace the shear pins, tap out broken pin with a pin punch, and install a new shear pin and cotter pin. Spread the legs of the new cotter pin fully. **Do NOT replace shear pins with anything other than the correct grade replacement shear pin.** See the REPLACEMENT PARTS section at the back of this manual for the correct part numbers. (Use of bolts, screws or a harder shear pin will lead to damaged equipment.)

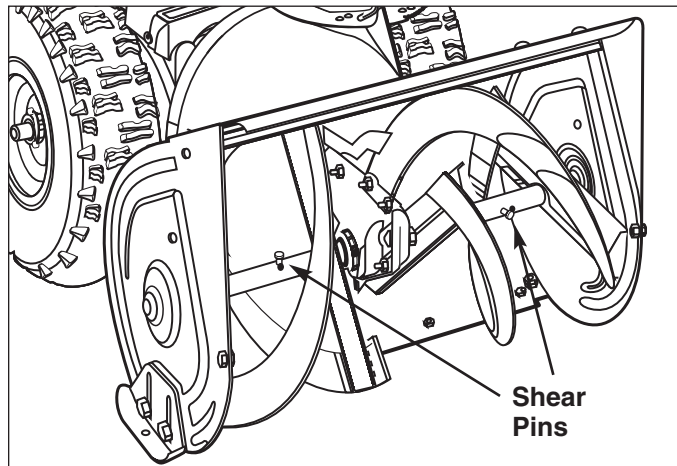
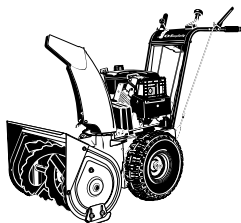


Figure 31. Shear Pin Replacement



Specifications

NOTE: Specifications are correct at time of printing and are subject to change without notice.

** Actual sustained equipment horsepower will likely be lower due to operating limitations and environmental factors.*

ENGINE:

5 HP* Tecumseh

Make	Tecumseh
Model	Snow King
Horsepower	5 @ 3600 rpm
Displacement	11.88 Cu. in (195 cc)
Oil Capacity	See Engine Owner's Manual

7 HP* Tecumseh

Make	Tecumseh
Model	Snow King
Horsepower	7 @ 3600 rpm
Displacement	11.88 Cu. in (195 cc)
Oil Capacity	See Engine Owner's Manual

8 HP* Briggs & Stratton

Make	Briggs & Stratton
Model	Intek Snow
Horsepower	8 @ 3600 rpm
Displacement	18.6 Cu. in (305 cc)
Oil Capacity	28 oz. (.84 L)

CHASSIS:

Wheels	Inflation Pressure: 20 psi (1,37 bar)
Spout Rotation	192 Depress
Impeller	10" (25.4 cm) 4 Blade Ribbon Flighted Steel
Drive System	Friction Disc, 5 Forward Speeds, 2 Reverse

DIMENSIONS

Effective Clearing Width

-555, 755	24" (61 cm)
-860	26" (65 cm)

Length

-555, 755, 860	51" (132 cm)
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Height

-555, 755, 860	43" (109cm)
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Weight

-555	158 lbs. (72 kg)
-755	178 lbs. (80 kg)
-860	178 lbs. (80 kg)

Replacement Parts & Accessories

REPLACEMENT PARTS

Replacement parts are available from your authorized dealer. Always use genuine Simplicity Service Parts.

MAINTENANCE ITEMS

Many convenient and helpful service and maintenance items are available from you authorized dealer. Some of these items include:

Engine Oil	Tire Sealant
Touch-Up Paint	Degreaser/Degreaser
Grease Gun Kit	Gas Stabilizer
8 oz. Grease Tube	

TECHNICAL MANUALS

Additional copies of this manual are available, as well as fully illustrated parts lists. These manuals show all of the product's components in exploded views (3D illustrations which show the relationship of parts and how they go together) as well as part numbers and quantities used. Important assembly notes and and torque values are also included.

For applicable manuals currently available for your model, contact our Customer Publications Department at 262-284-8519. Have the information listed in the box below available when phoning in your request. Technical manuals can be downloaded from www.simplicitymfg.com

Model: _____
Mfg. No.: _____
Your Name: _____
Address: _____
City, State, Zip: _____
Visa/Mastercard No.: _____
Card Expiration Date: _____