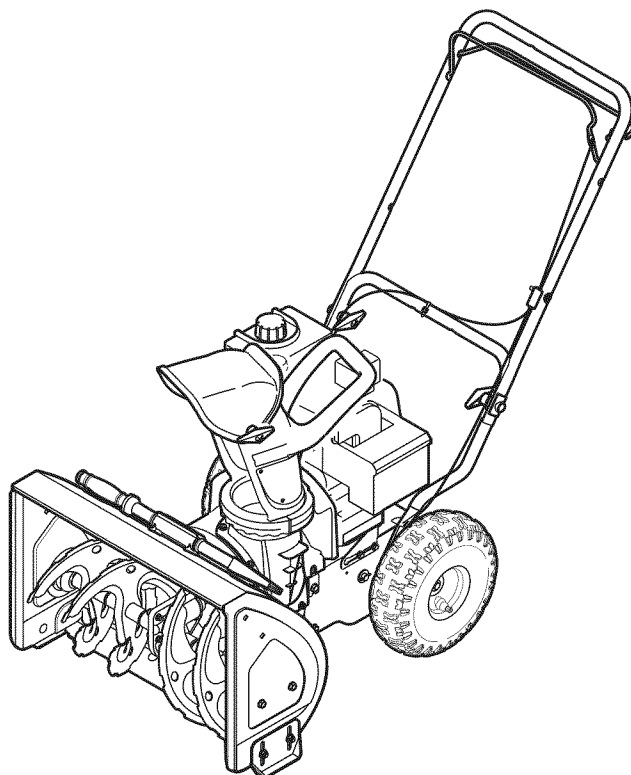


OPERATOR'S MANUAL



Two-Stage Snow Thrower — 300 Series

WARNING

**READ AND FOLLOW ALL SAFETY RULES AND INSTRUCTIONS IN THIS MANUAL
BEFORE ATTEMPTING TO OPERATE THIS MACHINE.
FAILURE TO COMPLY WITH THESE INSTRUCTIONS MAY RESULT IN PERSONAL INJURY.**

MTD LLC, P.O. BOX 361131 CLEVELAND, OHIO 44136-0019

Thank You

Thank you for purchasing a Snow Thrower manufactured by MTD LLC. It was carefully engineered to provide excellent performance when properly operated and maintained.

Please read this entire manual prior to operating the equipment. It instructs you how to safely and easily set up, operate and maintain your machine. Please be sure that you, and any other persons who will operate the machine, carefully follow the recommended safety practices at all times. Failure to do so could result in personal injury or property damage.

All information in this manual is relative to the most recent product information available at the time of printing. Review this manual frequently to familiarize yourself with the unit, its features and operation. Please be aware that this Operator's Manual may cover a range of product specifications for various models. Characteristics and features discussed and/or illustrated in this manual may not be applicable to all models. MTD LLC reserves the right to change product specifications, designs and equipment without notice and without incurring obligation.

This product has met the rigid safety standards of the Outdoor Power Equipment Institute and an independent testing laboratory. If you have any problems or questions concerning the unit, phone your local authorized MTD service dealer or contact us directly. MTD's Customer Support telephone numbers, website address and mailing address can be found on this page. We want to ensure your complete satisfaction at all times.

Throughout this manual, all references to *right* and *left* side of the machine are observed from the operating position

The engine manufacturer is responsible for all engine-related issues with regards to performance, power-rating, specifications, warranty and service. Please refer to the engine manufacturer's Owner's/Operator's Manual, packed separately with your unit, for more information.

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Record Product Information

Before setting up and operating your new equipment, please locate the model plate on the equipment and record the information in the provided area to the right. You can locate the model plate by standing at the operator's position and looking down at the rear of the frame. This information will be necessary, should you seek technical support via our web site, Customer Support Department, or with a local authorized service dealer.

MODEL NUMBER

--	--	--	--	--	--	--	--	--	--	--

SERIAL NUMBER

--	--	--	--	--	--	--	--	--	--	--

Customer Support

Please do NOT return the unit to the retailer or dealer without first contacting our Customer Support Department.

If you have difficulty assembling this product or have any questions regarding the controls, operation, or maintenance of this unit, you can seek help from the experts. Choose from the options below:

- ◇ Visit us on the web at www.mtdproducts.com
- ◇ Call a Customer Support Representative at (800) 800-7310 or (330) 220-4683
- ◇ Write us at MTD LLC • P.O. Box 361131 • Cleveland, OH • 44136-0019



WARNING! This symbol points out important safety instructions which, if not followed, could endanger the personal safety and/or property of yourself and others. Read and follow all instructions in this manual before attempting to operate this machine. Failure to comply with these instructions may result in personal injury. When you see this symbol. **HEED ITS WARNING!**

CALIFORNIA PROPOSITION 65



WARNING! Engine Exhaust, some of its constituents, and certain vehicle components contain or emit chemicals known to State of California to cause cancer and birth defects or other reproductive harm.



DANGER: This machine was built to be operated according to the safe operation practices in this manual. As with any type of power equipment, carelessness or error on the part of the operator can result in serious injury. This machine is capable of amputating fingers, hands, toes and feet and throwing foreign objects. Failure to observe the following safety instructions could result in serious injury or death.

Training

1. Read, understand, and follow all instructions on the machine and in the manual(s) before attempting to assemble and operate. Keep this manual in a safe place for future and regular reference and for ordering replacement parts.
2. Be familiar with all controls and their proper operation. Know how to stop the machine and disengage them quickly.
3. Never allow children under 14 years of age to operate this machine. Children 14 and over should read and understand the instructions and safe operation practices in this manual and on the machine and be trained and supervised by an adult.
4. Never allow adults to operate this machine without proper instruction.
5. Thrown objects can cause serious personal injury. Plan your snow-throwing pattern to avoid discharge of material toward roads, bystanders and the like.
6. Keep bystanders, helpers, pets and children at least 75 feet from the machine while it is in operation. Stop machine if anyone enters the area.
7. Exercise caution to avoid slipping or falling, especially when operating in reverse.

Preparation

Thoroughly inspect the area where the equipment is to be used. Remove all doormats, newspapers, sleds, boards, wires and other foreign objects, which could be tripped over or thrown by the auger/impeller.

1. Always wear safety glasses or eye shields during operation and while performing an adjustment or repair to protect your eyes. Thrown objects which ricochet can cause serious injury to the eyes.
2. Do not operate without wearing adequate winter outer garments. Do not wear jewelry, long scarves or other loose clothing, which could become entangled in moving parts. Wear footwear which will improve footing on slippery surfaces.
3. Use a grounded three-wire extension cord and receptacle for all machines with electric start engines.
4. Adjust collector housing height to clear gravel or crushed rock surfaces.
5. Disengage all control levers before starting the engine.
6. Never attempt to make any adjustments while engine is running, except where specifically recommended in the operator's manual.
7. Let engine and machine adjust to outdoor temperature before starting to clear snow.

Safe Handling of Gasoline

To avoid personal injury or property damage use extreme care in handling gasoline. Gasoline is extremely flammable and the vapors are explosive. Serious personal injury can occur when gasoline is spilled on yourself or your clothes which can ignite. Wash your skin and change clothes immediately.

- a. Use only an approved gasoline container.
- b. Extinguish all cigarettes, cigars, pipes and other sources of ignition.
- c. Never fuel machine indoors.
- d. Never remove gas cap or add fuel while the engine is hot or running.
- e. Allow engine to cool at least two minutes before refueling.
- f. Never over fill fuel tank. Fill tank to no more than ½ inch below bottom of filler neck to provide space for fuel expansion.
- g. Replace gasoline cap and tighten securely.
- h. If gasoline is spilled, wipe it off the engine and equipment. Move machine to another area. Wait 5 minutes before starting the engine.
- i. Never store the machine or fuel container inside where there is an open flame, spark or pilot light (e.g. furnace, water heater, space heater, clothes dryer etc.).
- j. Allow machine to cool at least 5 minutes before storing.
- k. Never fill containers inside a vehicle or on a truck or trailer bed with a plastic liner. Always place containers on the ground away from your vehicle before filling.
- l. If possible, 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.
- m. Keep the 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.

Operation

1. Do not put hands or feet near rotating parts, in the auger/impeller housing or chute assembly. Contact with the rotating parts can amputate hands and feet.
2. The auger/impeller control lever is a safety device. Never bypass its operation. Doing so makes the machine unsafe and may cause personal injury.
3. The control levers must operate easily in both directions and automatically return to the disengaged position when released.
4. Never operate with a missing or damaged chute assembly. Keep all safety devices in place and working.
5. Never run an engine indoors or in a poorly ventilated area. Engine exhaust contains carbon monoxide, an odorless and deadly gas.
6. Do not operate machine while under the influence of alcohol or drugs.
7. Muffler and engine become hot and can cause a burn. Do not touch. Keep children away.
8. Exercise extreme caution when operating on or crossing gravel surfaces. Stay alert for hidden hazards or traffic.
9. Exercise caution when changing direction and while operating on slopes.
10. Plan your snow-throwing pattern to avoid discharge towards windows, walls, cars etc. Thus, avoiding possible property damage or personal injury caused by a ricochet.
11. Never direct discharge at children, bystanders and pets or allow anyone in front of the machine.
12. Do not overload machine capacity by attempting to clear snow at too fast of a rate.
13. Never operate this machine without good visibility or light. Always be sure of your footing and keep a firm hold on the handles. Walk, never run.
14. Disengage power to the auger/impeller when transporting or not in use.
15. Never operate machine at high transport speeds on slippery surfaces. Look down and behind and use care when backing up.
16. If the machine should start to vibrate abnormally, stop the engine, disconnect the spark plug wire and ground it against the engine. Inspect thoroughly for damage. Repair any damage before starting and operating.
17. Disengage all control levers and stop engine before you leave the operating position (behind the handles). Wait until the auger/impeller comes to a complete stop before unclogging the chute assembly, making any adjustments, or inspections.
18. Never put your hand in the discharge or collector openings. Always use the clean-out tool provided to unclog the discharge opening. Do not unclog chute assembly while engine is running. Shut off engine and remain behind handles until all moving parts have stopped before unclogging.
19. Use only attachments and accessories approved by the manufacturer (e.g. wheel weights, tire chains, cabs etc.).
20. When starting engine, pull cord slowly until resistance is felt, then pull rapidly. Rapid retraction of starter cord (kickback) will pull hand and arm toward engine faster than you can let go. Broken bones, fractures, bruises or sprains could result.
21. If situations occur which are not covered in this manual, use care and good judgment. Contact Customer Support for assistance and the name of your nearest servicing dealer.

Maintenance & Storage

1. Never tamper with safety devices. Check their proper operation regularly. Refer to the maintenance and adjustment sections of this manual.
2. Before cleaning, repairing, or inspecting machine disengage all control levers and stop the engine. Wait until the auger/impeller come to a complete stop. Disconnect the spark plug wire and ground against the engine to prevent unintended starting.
3. Check bolts and screws for proper tightness at frequent intervals to keep the machine in safe working condition. Also, visually inspect machine for any damage.
4. Do not change the engine governor setting or over-speed the engine. The governor controls the maximum safe operating speed of the engine.
5. Snow thrower shave plates and skid shoes are subject to wear and damage. For your safety protection, frequently check all components and replace with original equipment manufacturer's (OEM) parts only. "Use of parts which do not meet the original equipment specifications may lead to improper performance and compromise safety!"
6. Check control levers periodically to verify they engage and disengage properly and adjust, if necessary. Refer to the adjustment section in this operator's manual for instructions.
7. Maintain or replace safety and instruction labels, as necessary.
8. Observe proper disposal laws and regulations for gas, oil, etc. to protect the environment.
9. Prior to storing, run machine a few minutes to clear snow from machine and prevent freeze up of auger/impeller.
10. Never store the machine or fuel container inside where there is an open flame, spark or pilot light such as a water heater, furnace, clothes dryer etc.
11. Always refer to the operator's manual for proper instructions on off-season storage.
12. Check fuel line, tank, cap, and fittings frequently for cracks or leaks. Replace if necessary.
13. Do not crank engine with spark plug removed.

Do not modify engine

To avoid serious injury or death, do not modify engine in any way. Tampering with the governor setting can lead to a runaway engine and cause it to operate at unsafe speeds. Never tamper with factory setting of engine governor.

Notice Regarding Emissions

Engines which are certified to comply with California and federal EPA emission regulations for SORE (Small Off Road Equipment) are certified to operate on regular unleaded gasoline, and may include the following emission control systems: Engine Modification (EM) and Three Way Catalyst (TWC) if so equipped.

Spark Arrestor



WARNING! This machine is equipped with an internal combustion engine and should not be used on or near any unimproved forest-covered, brush covered or grass-covered land unless the engine's exhaust system is equipped with a spark arrester meeting applicable local or state laws (if any).

If a spark arrester is used, it should be maintained in effective working order by the operator. In the State of California the above is required by law (Section 4442 of the California Public Resources Code). Other states may have similar laws. Federal laws apply on federal lands.

A spark arrester for the muffler is available through your nearest engine authorized service dealer or contact the service department, P.O. Box 361131 Cleveland, Ohio 44136-0019.

Average Useful Life

According to the Consumer Products Safety Commission (CPSC) and the U.S. Environmental Protection Agency (EPA), this product has an *Average Useful Life* of seven (7) years, or 60 hours of operation. At the end of the *Average Useful Life*, buy a new machine or have the machine inspected annually by an authorized service dealer to ensure that all mechanical and safety systems are working properly and not worn excessively. Failure to do so can result in accidents, injuries or death.



WARNING! Your Responsibility—Restrict the use of this power machine to persons who read, understand and follow the warnings and instructions in this manual and on the machine.

SAVE THESE INSTRUCTIONS!

Contents of Carton

- One Snow thrower
- One Snow Thrower Operator's Manual
- Two Replacement Auger Shear Pins
- One Tecumseh Engine Operator's Manual
- One Chute Assembly
- One product Registration Card

Assembly

Positioning the upper handle

1. Cut the cable tie that secures the upper handle to the chute assembly for shipping purposes.
2. Loosen the wing knob on the upper chute and pivot the upper chute upwards as far as it will go. Then tighten the wing knob on the upper chute making sure the carriage bolt is correctly positioned. Refer to Fig. 3-1.
3. Loosen the wing knob and tab on each side of the handle. See Fig. 3-2.
4. Being careful not to bend or kink the cables, hold both controls against upper handle and pull up as shown in Step 1 of Fig. 3-2. Make sure that the upper handle locks over the lower handle and handle tabs align with the handle. You may have to carefully maneuver the upper handle to clear chute assembly.
5. Tighten the wing knobs on each side of the handle. Refer to Step 2 in Fig. 3-2.

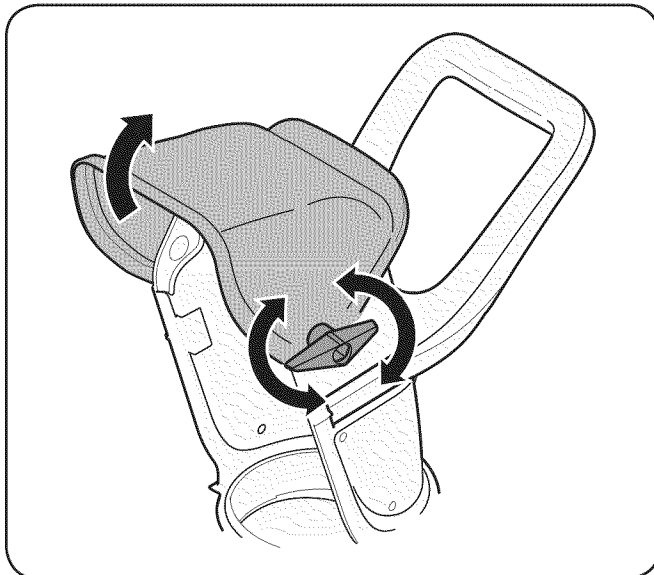


Figure 3-1

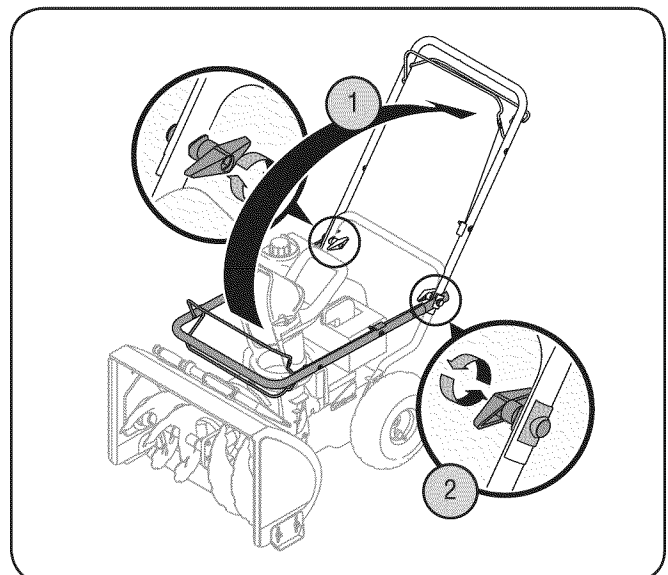


Figure 3-2



WARNING! Do not lift the snow thrower by the chute handle.

Routing The Drive Cable

1. Make sure that the drive cable is routed parallel to the left upper handle, then across the top of the lower handle and finally parallel to the right lower handle. See Fig. 3-3.
2. Three cable ties have been used to loosely tie the two control cables to the lower handle. Two of these cable ties are on each arm, and the third on the top cross bar of the lower handle. Tighten these cable ties to secure the cable to the lower handle. See Fig. 3-3.

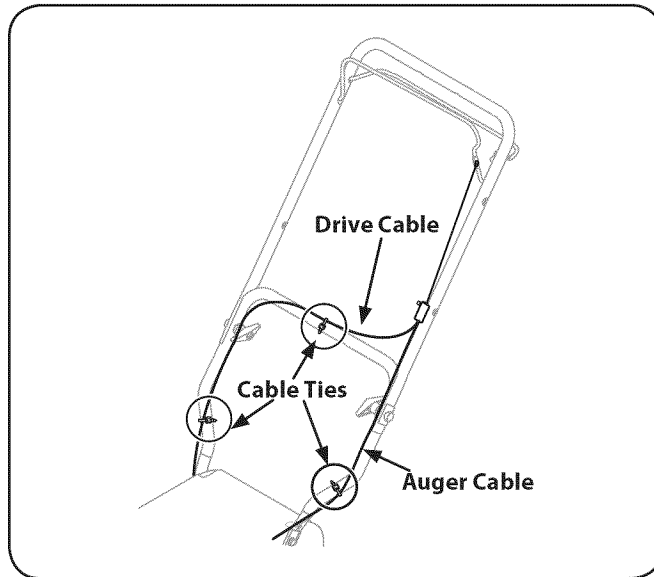


Figure 3-3

Set-Up

Shear Pins

A pair of replacement auger shear pins and bow tie cotter pins are included with your snow thrower. See Fig. 3-4. Store them in a safe place until needed.

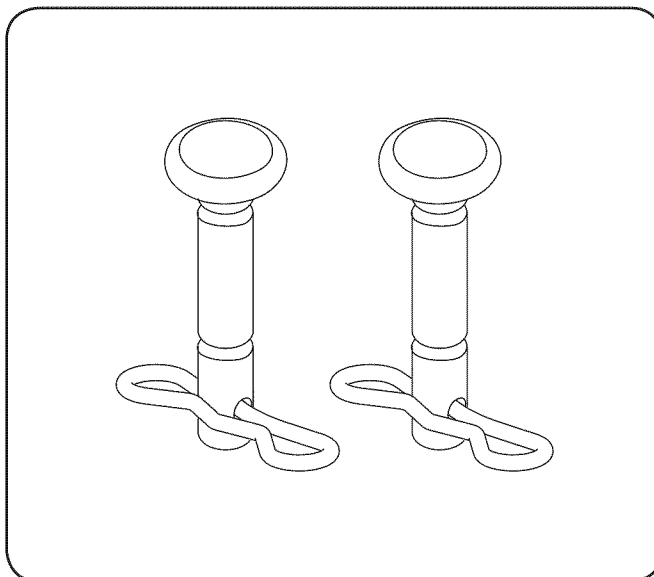


Figure 3-4

Chute Clean-Out Tool

The chute clean-out tool is fastened to the top of the auger housing with a mounting clip and a cable tie at the factory. Cut the cable tie before operating the snow thrower. See Fig. 3-5.

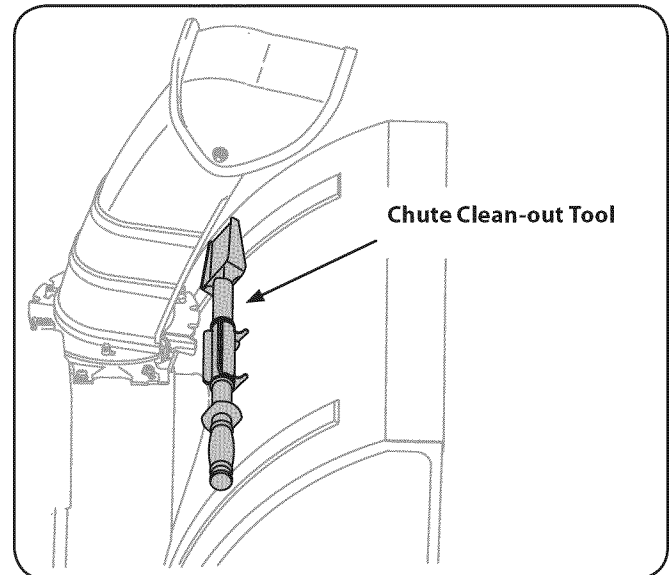


Figure 3-5

Tire Pressure

The proper inflation pressure is 20 psi. Check the tire pressure periodically and maintain equal pressure in both tires at all times. Excessive pressure (well above 20 psi) may cause the wheel (tire/rim) assembly to burst with sufficient force to cause serious injury. Do not over-inflate the tire. Use a manual pump or portable electric tire inflator to prevent over-inflation.

NEVER USE AN AIR COMPRESSOR.

Gas & Oil Fill-Up



WARNING! Use extreme care when handling gasoline. Gasoline is extremely flammable and the vapors are explosive. Never fuel the machine indoors or while the engine is hot or running. Extinguish cigarettes, cigars, pipes and other sources of ignition.

Service the engine with gasoline and oil as instructed in the Tecumseh Engine Operator's Manual packed separately with your snow thrower. Read instructions carefully.

NOTE: Your snow thrower is shipped with oil in the engine. However, you **MUST** check the oil level before operating. Refer to Tecumseh Engine Operator's Manual for detailed instructions.

Adjustments

Skid Shoe

The snow thrower skid shoes are adjusted upward at the factory for shipping purposes. Adjust them downward, if desired, prior to operating the snow thrower.



CAUTION: It is not recommended that you operate this snow thrower on gravel as it can easily pick up and throw loose gravel, causing personal injury or damage to the snow thrower and surrounding property.

- For close snow removal on a smooth surface, raise skid shoes higher on the auger housing.
- Use a middle or lower position when the area to be cleared is uneven, such as a gravel driveway

NOTE: If you choose to operate the snow thrower on a gravel surface, keep the skid shoes in position for maximum clearance between the ground and the shave plate.

To adjust the skid shoes:

1. Loosen the four hex nuts (two on each side) and carriage bolts. Move skid shoes to desired position. See Fig. 3-6.

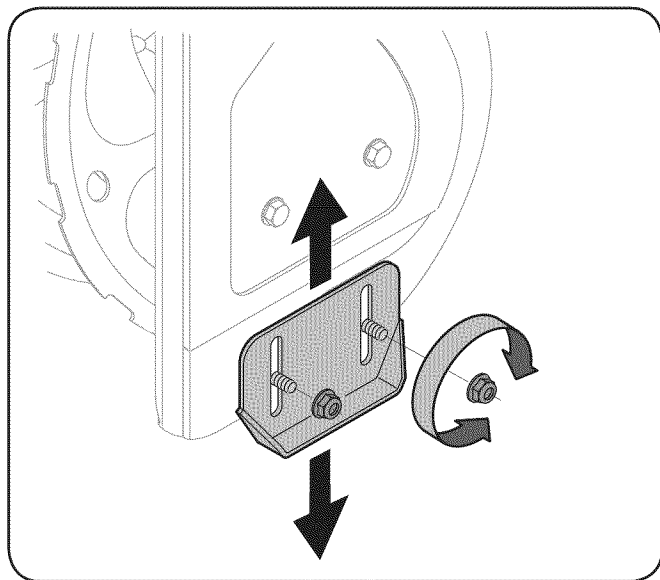


Figure 3-6

2. Make certain the entire bottom surface of skid shoe is against the ground to avoid uneven wear on the skid shoes.
3. Retighten nuts and bolts securely.

Discharge Chute

1. Loosen the wing knob on the upper chute, adjust chute and chute control to desired operating position.
2. Tighten the wing knob on the upper chute making sure the carriage bolt is correctly positioned. Refer to Fig. 3-7.

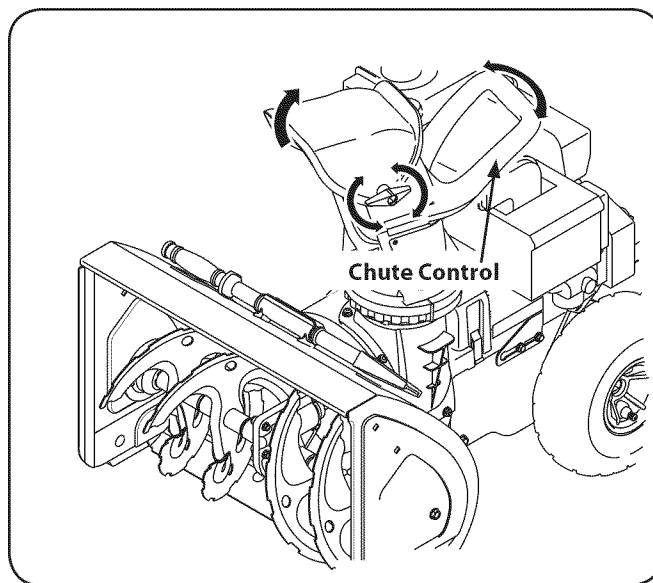


Figure 3-7

Auger Control

Periodic adjustment to the auger control cable may be required due to normal stretch and wear on the belt. Adjustment is needed immediately if the augers:

- a. Continue to turn with the auger control disengaged, or
- b. During operation, augers seem to hesitate turning while the engine maintains speed.

NOTE: Perform the following test before operating the snow thrower for the first time and at the start of each winter season.

Check the adjustment of the auger control as follows:

1. When the auger control is released and in the disengaged "up" position, the cable should have very little slack, but should NOT be tight.
2. In a well-ventilated area, start the snow thrower engine. Refer to Starting The Engine on page 12 in the Operation section on this manual. Make sure the throttle is set in the FAST position.
3. While standing in the operator's position (behind the snow thrower) engage the auger.
4. Allow the auger to remain engaged for approximately 10 seconds before releasing the auger control. Repeat this several times.
5. With the engine running in the FAST position and the auger control in the disengaged "up" position, walk to the front of the machine.
6. Confirm that the auger has completely stopped rotating and shows NO signs of motion.

NOTE: If the auger shows ANY signs of rotating, immediately return to the operator's position and shut off the engine. Wait for all moving parts to stop before adjusting the auger control cable as follows:

7. Loosen the rear hex bolt on the cable adjustment bracket. See Fig. 3-8.

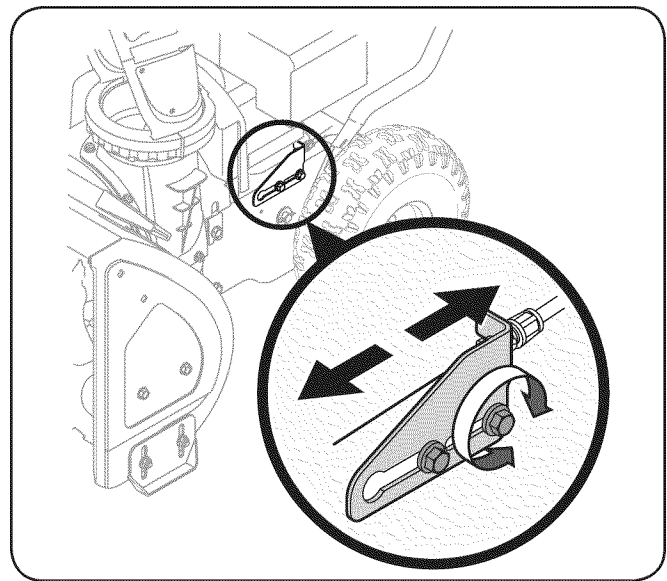


Figure 3-8

8. Slide the cable adjustment bracket forward adding a slight amount of slack in the auger cable.
9. Retighten the rear hex bolt.
10. Start engine and verify auger control engages and disengages properly.

NOTE: If auger continues to rotate with the control disengaged, shut off engine and readjust.

11. If during operation, augers seem to hesitate turning while the engine maintains speed, then the cable is too loose and the bracket needs to be adjusted rearward, decreasing the amount of slack to the auger cable. Follow the above steps to adjust the cable adjustment bracket.



WARNING! Do not over-tighten the cable. Over-tightening may prevent the auger from disengaging and compromise the safety of the snow thrower.

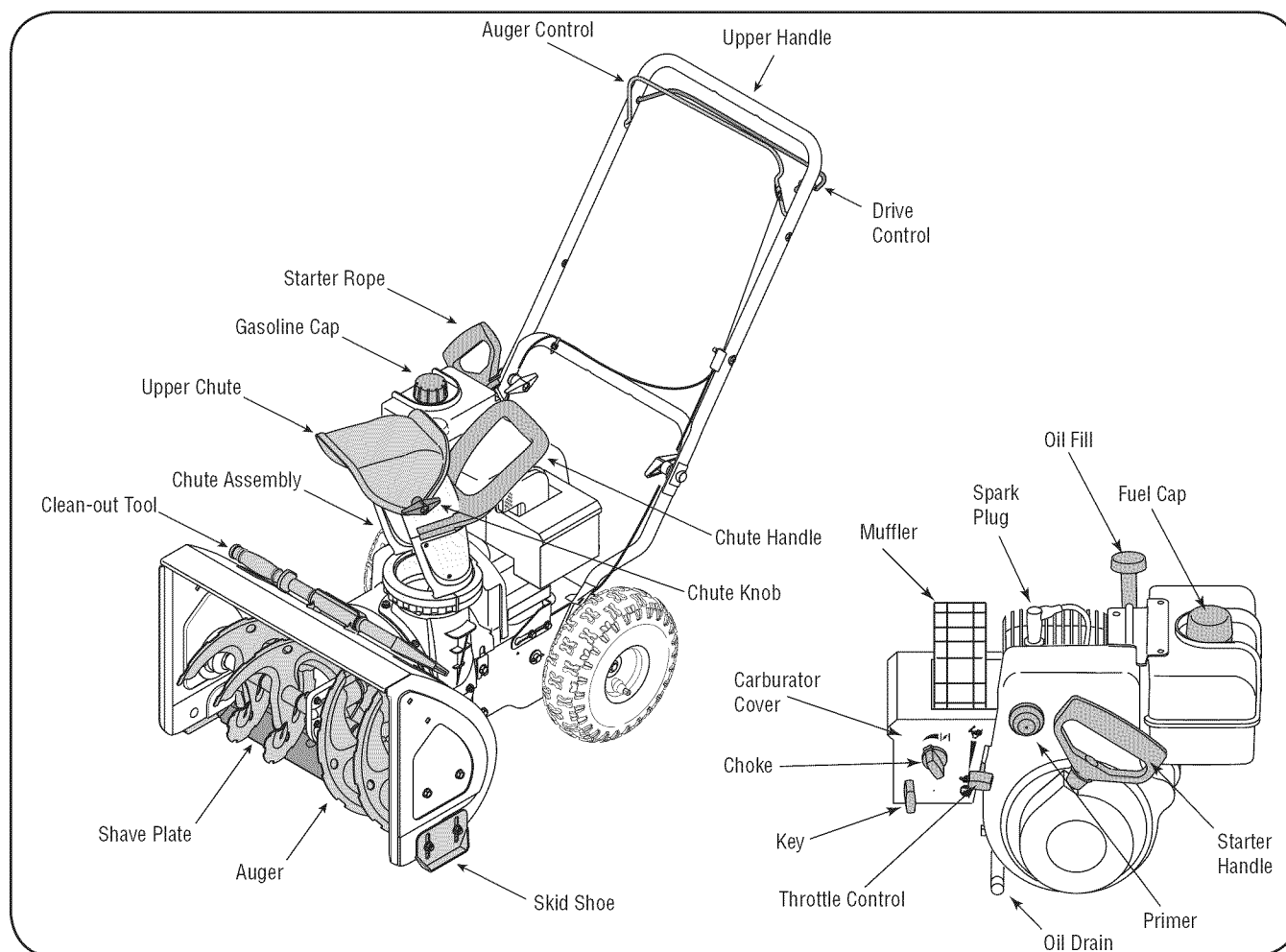


Figure 4-1

Drive Control

Located on the underside of the upper handle, the drive control is used to engage/disengage wheels. Squeeze the drive control against the upper handle to engage the wheels; release to disengage.

Ignition Key

The ignition key is a safety device. It must be fully inserted in order for the engine to start. Remove the ignition key when the snow thrower is not in use.

NOTE: Do not turn the ignition key in an attempt to start the engine. Doing so may cause it to break.

Starter Rope

The starter rope is part of the recoil starter and is used to start the engine.

Augers

When engaged, the auger's rotation draw snow into the auger housing and throws it out the discharge chute.

Chute Assembly

Snow drawn into the auger housing is discharged out of the chute assembly

Auger Control

The auger control is adjacent to the upper handle. Squeeze the auger control against the upper handle to engage the augers; release to disengage the augers.



WARNING! Never make adjustments to the chute assembly unless both auger and drive controls are disengaged and the operator is standing beside the unit.

IMPORTANT: Refer to the Auger Control information in the Assembly & Set-Up section prior to operating your snow thrower. Read and follow all instructions carefully and perform all adjustments to verify your snow thrower is operating safely and properly.

Chute Handle

The direction of snow throwing corresponds to the direction of the chute opening. Use the chute handle to turn the chute assembly in the direction you wish to throw the snow.

Chute Knob

The distance snow is thrown can be adjusted by either raising or lowering the upper chute. Loosen the chute knob on the side of the upper chute to adjust. Pivot the upper chute to desired position, and retighten the chute knob.

Shave Plate

The shave plate maintains contact with pavement as the snow thrower is propelled, allowing snow close to pavement's surface to be discharged.

Skid Shoes

Position the skid shoes based on surface conditions. Adjust upward for hard-packed snow. Adjust downward when operating on gravel or crushed rock surfaces.

Gas Cap

Remove gas cap to add fuel. This unit runs on regular gas.

Oil Fill

Engine oil level can be checked and oil added through the oil fill.

NOTE: The engine is shipped with oil in it. Check the oil level before the first use and add if necessary, as specified in the separate engine manual packed with your snow thrower. Always check the oil level prior to each use.

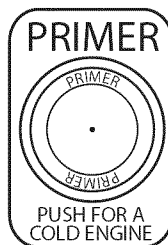
Choke



The choke control is found on the rear of the engine and is activated by rotating the knob clockwise. Activating the choke control closes the choke plate on the carburetor and aids in starting the engine.

Primer

Pressing the primer forces fuel directly into the engine's carburetor to aid in cold-weather starting.

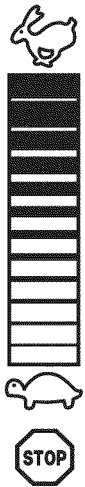


Throttle Control

The throttle control is located on the rear of the engine. It regulates the speed of the engine and will shut off the engine when moved into the STOP position.

Chute Clean-Out Tool

The clean-out tool is conveniently fastened to the rear of the auger housing with a mounting clip. When snow and ice collect in the chute assembly during operation, use this tool to safely clean the chute and the chute opening.



Starting the Engine

NOTE: For complete and detailed engine starting, stopping and storing instructions, it is recommended that you read the engine manual also included with this machine.

NOTE: To avoid carbon monoxide poisoning, make sure the engine is outdoors in a well-ventilated area.

1. Attach spark plug wire to spark plug. Make certain the metal loop on the end of the spark plug wire (inside the rubber boot) is fastened securely over the metal tip on the spark plug.
2. Make certain both the auger control and drive control are in the disengaged (released) position.
3. Move throttle control up to FAST position. Insert ignition key into slot. Make sure it snaps into place. Do not attempt to turn the key.

NOTE: The engine cannot start unless the key is inserted into the ignition switch.

4. Rotate choke control to FULL choke position (cold engine start).

NOTE: If the engine is already warm, place choke control in the OFF position instead of FULL.

5. Push the primer two or three times for cold engine start, making sure to cover vent hole in the center of the primer when pushing.

NOTE: DO NOT use primer to restart a warm engine after a short shutdown.

NOTE: Additional priming may be necessary if the temperature is below 15° Fahrenheit.

6. Grasp the recoil starter handle and slowly pull the rope out. At the point where it becomes slightly harder to pull the rope, slowly allow the rope to recoil.
7. Pull the starter handle with a firm, rapid stroke. Do not release the handle and allow it to snap back. Keep a firm hold on the starter handle and allow it to slowly recoil.
8. As the engine warms, slowly rotate the choke control to the OFF position. If the engine falters, quickly rotate the choke control back to the FULL position and then slowly into the OFF position again.

NOTE: Allow the engine to warm up for a few minutes after starting. The engine will not develop full power until it reaches operating temperatures.

9. Operate the engine at full throttle (FAST) when throwing snow.

Stopping the Engine

Run engine for a few minutes to help dry off any moisture on engine.

1. To stop the engine, move the throttle control lever to the OFF position or pull out the key (either method works). Do not attempt to turn key as this could cause it to break.
2. Remove the ignition key and store in a safe place.
3. Wipe all snow and moisture from the area around the engine as well as the area in and around the drive control and auger control. Also, engage and release both controls several times.

To Engage the Drive

1. Move the throttle control into the Fast (rabbit) position.
2. To engage the drive, squeeze the drive control completely against the upper handle to engage the wheels. To stop the forward motion, release the drive control.

Engaging the Augers

1. To engage the augers, squeeze the auger control handle completely against the upper handle. To stop the augers, release handle.

Replacing Shear Pins

The augers are secured to the spiral shaft with two shear pins and cotter pins. If the auger should strike a foreign object or ice jam, the snow thrower is designed so that the pins may shear. If the augers will not turn, check to see if the pins have sheared. See Fig. 5-1.

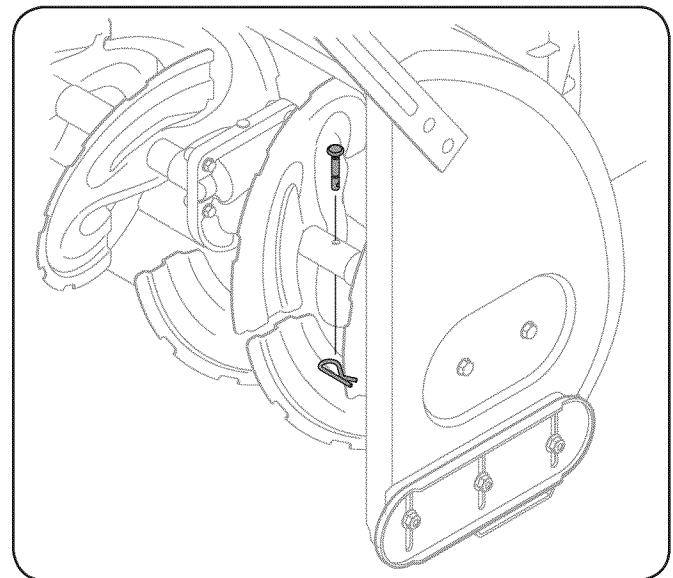


Figure 5-1



CAUTION: NEVER replace the auger shear pins with anything other than OEM Part No.738-04124A replacement shear pins. Any damage to the auger gearbox or other components as a result of failing to do so will NOT be covered by your snow thrower's warranty.



WARNING! Always turn off the snow thrower's engine and remove the key prior to replacing shear pins.

Cleaning The Chute Assembly

The clean-out tool is conveniently fastened to the rear of the auger housing with a mounting clip. When snow and ice collect in the chute assembly during operation, use this tool to safely clean the chute and chute opening.



WARNING! Stop engine by moving throttle lever to stop position and wait for all moving parts to stop before using the clean-out tool.

1. Release both auger and drive controls.
2. Stop the engine.
3. Remove the clean-out tool from the clip which secures it to the rear of the auger housing.
4. Use the shovel-shaped end of the clean-out tool to dislodge and scoop any snow and ice which has formed in and near the chute assembly.



WARNING! Never use your hands to clean snow and ice from the chute assembly or auger housing.

5. Refasten the clean-out tool to the mounting clip on the rear of the auger housing.

Auger Control Test

Refer to "Auger Control" on page 9 in the Set-Up & Assembly section of this manual for instructions on testing and performing adjustments to the snow thrower's Auger Control mechanism.

Clearing The Snow

CAUTION: Check the area to be cleared for foreign objects. Remove, if any.

1. Start the engine following starting instructions.
2. Allow the engine to warm up for a few minutes as the engine will not develop full power until it reaches operating temperature.
3. Rotate the chute assembly to the desired direction, away from bystanders and/or buildings.
4. Making certain no bystanders or obstacles are in front of the unit, squeeze the auger control completely against the upper handle to fully engage the augers.
5. While the auger control is engaged, squeeze the drive control completely against the upper handle to engage the wheels. Do not "feather" the drive control.
6. As the snow thrower begins to move, maintain a firm hold on the handle, and guide the snow thrower along the path to be cleared.
7. Release the auger and drive controls to stop the snow throwing action and forward motion.

NOTE: Your unit is equipped with a clutch in the transmission. If the wheels stop turning while trying to discharge large volumes of snow, immediately disengage the drive control and allow the rotating augers to discharge snow from the housing. Reduce the clearing width and continue operation.

8. On each succeeding pass, readjust the chute assembly to the desired position and slightly overlap the previously cleared path.

Operating Tips

- For most efficient snow removal, remove snow immediately after it falls.
- Discharge snow downwind whenever possible. Slightly overlap each previous path.
- Set the skid shoes 1/4-inch below the shave plate for normal usage. The skid shoes may be adjusted upward for hard-packed snow.

NOTE: It is not recommended that you operate this snow thrower on gravel as loose gravel can be easily picked up and thrown by the auger causing personal injury and/or damage to the snow thrower.

- If for some reason, you have to operate the snow thrower on gravel, keep the skid shoe in the highest position for maximum clearance between the ground and the shave plate.
- Clean the snow thrower thoroughly after each use.

Maintenance

General Recommendations

- Always observe safety rules when performing any type of maintenance.
- The warranty on this snow thrower does not cover items that have been subjected to operator abuse or negligence. To receive full value from the warranty, operator must maintain the snow thrower as instructed in this manual.
- Periodically check all fasteners and hardware to make sure these are tight.



WARNING! Before servicing, repairing, lubricating, or inspecting, disengage all controls and stop engine. Wait until all moving parts have come to a complete stop. Disconnect spark plug wire and ground it against the engine to prevent unintended starting. Always wear safety glasses during operation or while performing any adjustments or repairs.

Engine

Listed below are general recommendations about maintaining your snow thrower engine. For further details, refer to the accompanying engine manual.

1. Before operating snow thrower, check the oil level.
2. Change engine oil after first two hours of operation and every 25 hours thereafter.
3. Clean spark plug and reset the electrode gap to 0.030" at least once a season or every 100 hours of operation; replace every 200 hours of operation.

Tire Pressure

Refer to the Assembly & Set-up section for instructions on checking and adjusting the tire pressure.

Check V-Belts

Follow instructions below to check condition of drive belts every 50 hours of operation.

1. Remove the plastic belt cover on the front of the engine by removing the self-tapping screw and pressing the plastic tabs to release the belt cover. See Fig. 7-1 in the next section of this manual.
2. Visually inspect for frayed, cracked, or excessively worn out belts. Replace, if necessary, following instructions in the Service section of this manual.

Shave Plate and Skid Shoes

The shave plate and skid shoes on the bottom of the snow thrower are subject to wear. These should be checked periodically and replaced when necessary

1. To replace skid shoes, remove two carriage bolts and nuts securing each skid shoe to the auger housing, See Fig. 6-1.

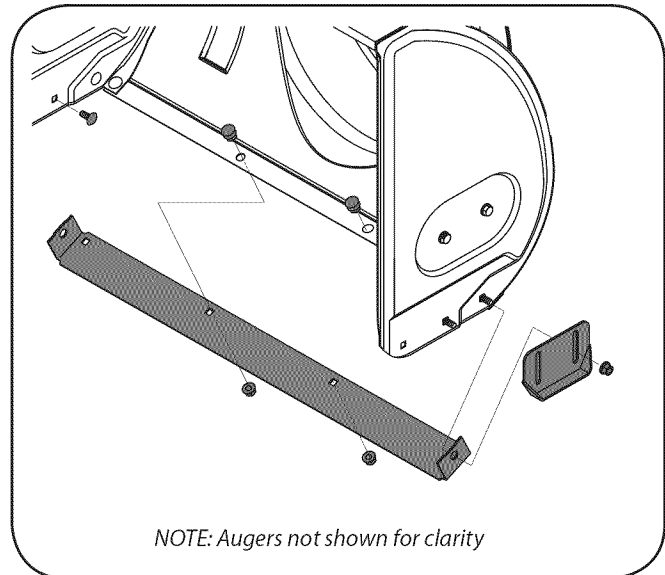


Figure 6-1

2. Reassemble new skid shoes with hardware just removed. Make sure the skid shoes are adjusted to be level.
3. To remove shave plate: Remove both skid shoes and hardware including carriage bolts and nuts which attach shave plate to the snow thrower housing. For location of shave plate, see Fig. 6-1.
4. Reassemble new shave plate, making sure heads of the carriage bolts are to the inside of the housing.
5. Reinstall skid shoes. Tighten securely.

Off-Season Storage

If the snow thrower will not be used for 30 days or longer, or if it is the end of the snow season when the last possibility of snow is gone, the equipment needs to be stored properly. Follow storage instructions below to ensure top performance from the snow thrower for many more years.

1. Store the equipment in a clean, dry area.
2. If storing the snow thrower in an unventilated area, rustproof the machine using a light oil or silicone to coat the snow thrower.
3. Clean the exterior of the engine and the snow thrower.

Preparing The Engine



WARNING! Never store the snow thrower with fuel in the tank indoors or in poorly ventilated areas, where fuel fumes may reach an open flame, spark or pilot light as on a furnace, water heater, clothes dryer or gas appliance.

NOTE: It is important to prevent gum deposits from forming in essential fuel system parts of the engine such as the carburetor, fuel filter, fuel hose or tank during storage.

CAUTION: Alcohol blended fuels (called gasohol or using ethanol or methanol) can attract moisture which leads to separation and formation of acids during storage. Acidic gas can damage the fuel system of an engine while in storage.

To avoid engine problems, the fuel system should be emptied before storage for 30 days or longer. Follow these instructions to prepare your snow thrower for storage:



WARNING! Drain fuel into an approved container outdoors, away from any open flame. Be certain engine is cool. Do not smoke. Fuel left in engine during warm weather deteriorates and will cause serious starting problems.

1. Run the engine until the fuel tank is empty and it stops due to lack of fuel.



WARNING! Do not drain carburetor if using fuel stabilizer. Never use engine or carburetor cleaning products in the fuel tank or permanent damage may occur.

NOTE: Fuel stabilizer (such as STA-BIL™ or ULTRA-FRESH™) is an acceptable alternative in minimizing the formation of fuel gum deposits during storage. Add stabilizer to gasoline in fuel tank or storage container. Always follow mix ratio found on stabilizer container. Run engine at least 10 minutes after adding stabilizer to allow it to reach the carburetor. Do not drain carburetor if using fuel stabilizer.

2. Remove the spark plug and pour one (1) ounce of engine oil through the spark plug hole into the cylinder. Cover spark plug hole with a rag and crank the engine several times to distribute the oil. Replace spark plug.

Preparing The Snow Thrower

1. When storing the snow thrower in an unventilated or metal storage shed, care should be taken to rustproof the equipment. Using a light oil or silicone, coat the equipment, especially any chains, springs, bearings and cables.
2. Remove all dirt from exterior of engine and equipment.
3. Follow lubrication recommendations in the Maintenance section of this manual.
4. Store equipment in a clean, dry area.

Lubrication

1. Lubricate pivot points on the auger control and drive control with a light engine oil once a season, see Fig. 6-2.

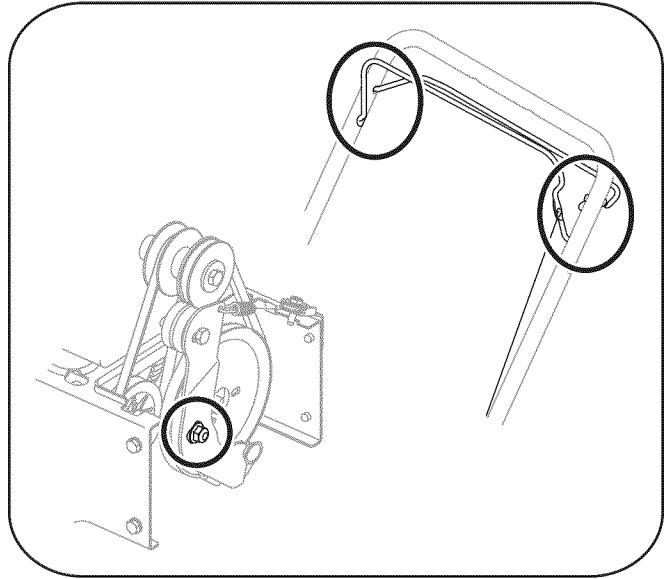


Figure 6-2

2. Lubricate the auger idler bracket with a light engine oil once a season. See Fig. 6-2.

Auger Shaft

At least once a season, remove the shear pins from the auger shaft. Spray lubricant inside the shaft and around the spacers and the flange bearings found at either end of the shaft. See Fig. 6-3.

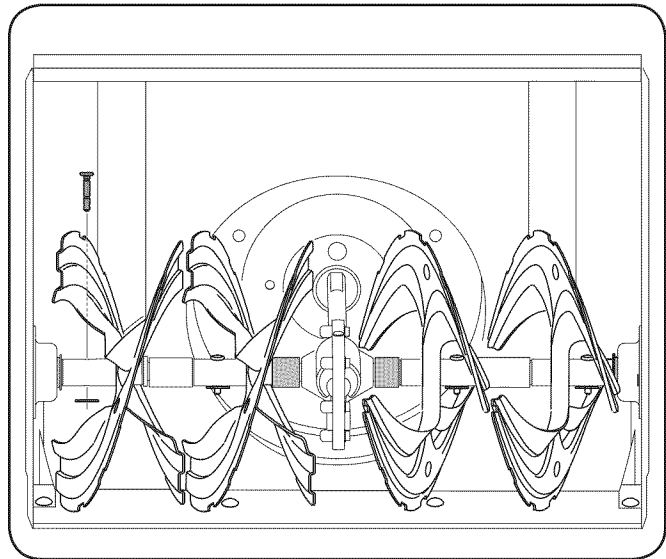


Figure 6-3

Wheels

At least once a season, remove both wheels. Clean and coat the axles with a multipurpose automotive grease before reinstalling wheels.

Servicing Augers

The augers are secured to the spiral shaft with four shear pins and cotter pins. If you hit a foreign object or ice jam, the snow thrower is designed so that the pins may shear. Refer to Fig. 6-1.

If the augers do not turn, check if the pins have sheared. Replace, if needed, with proper shear pins. Refer to Parts List for correct part number.

IMPORTANT: NEVER replace the auger shear pins with standard pins or fasteners. Any damage to the auger gearbox or other components, as a result of doing so, will NOT be covered by your snow thrower's warranty.

Replacing Belts

NOTE: There are two belts on this snow thrower: an auger belt and drive belt. It is recommended that both belts be replaced at the same time.

1. Remove the spark plug wire from spark plug and ground it against the engine to prevent accidental starting.
2. Drain gasoline from the gas tank or place a piece of plastic sheet underneath the gas cap to prevent gasoline leakage.



WARNING! Perform belt maintenance outdoors as some gas may possibly leak from the carburetor even though you placed a sheet of plastic underneath the gas cap to prevent the gas cap from leaking.

3. Remove the self-tapping screw shown in Fig. 7-1, and press the plastic tabs to release the belt cover. Pull the belt cover up and out from around the engine and chute assembly. Set it aside and save.

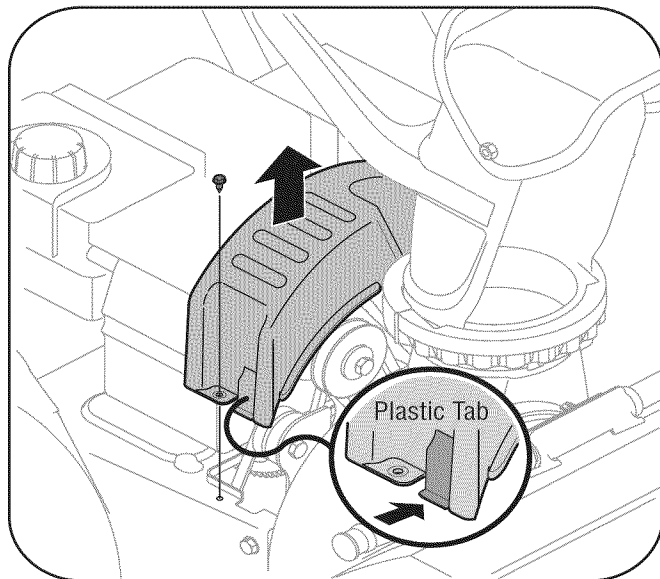


Figure 7-1

Auger Belt

IMPORTANT: Gas could leak from the carburetor at this point, the gas cap should have been covered with plastic as previously instructed.

1. Tip the snow thrower up and forward so that it rests on the auger housing. Remove the belt keeper as called out in Figure 7-3. Return the snow thrower to its upright position to complete the following steps.
2. Slip the front auger belt off of the engine pulley pushing it forward and rolling in off of the pulley. See Fig. 7-2.

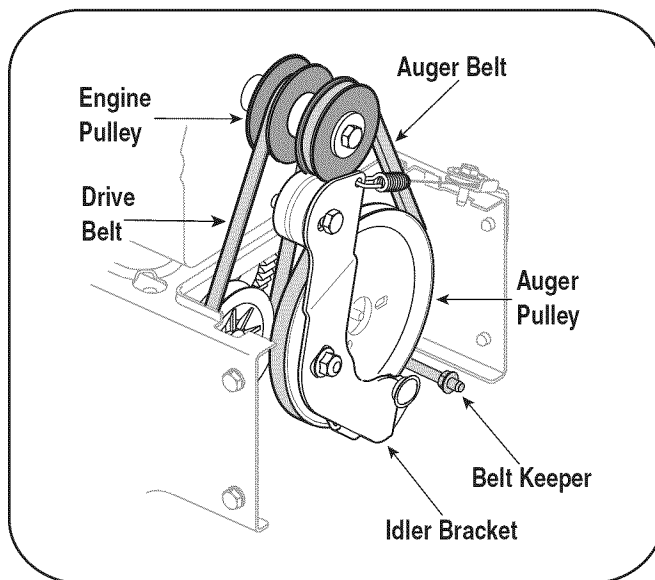


Figure 7-2

3. Squeeze the auger control handle to release the auger brake, which is the tab that holds the belt onto the auger pulley. Remove the belt.
4. Replace with new belt after replacing the drive belt.

Drive Belt

NOTE: Replace the drive belt before reassembling the new auger belt.

1. Tip the snow thrower up and forward so that it rests on the auger housing.

IMPORTANT: Remember, gas could leak from the carburetor at this point, the gas cap should have been covered with plastic as previously instructed.

2. Remove the spring that connects the transmission to a bolt on the engine frame. See Fig. 7-3.

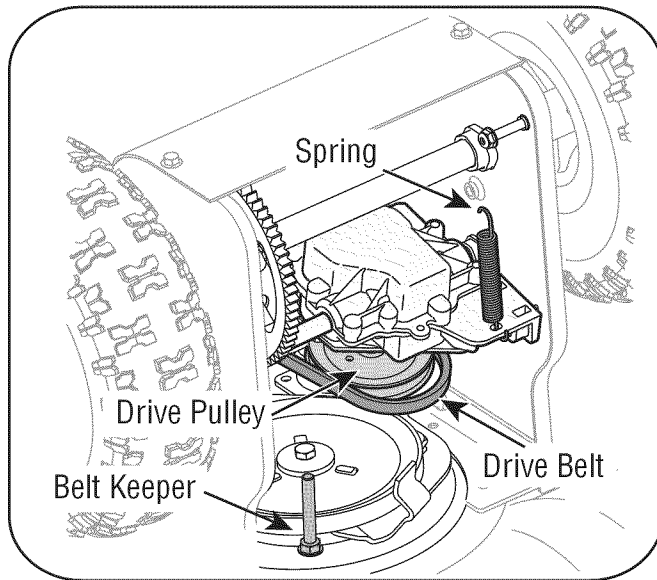
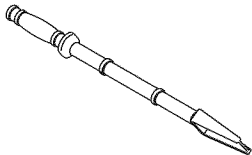

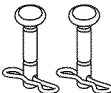
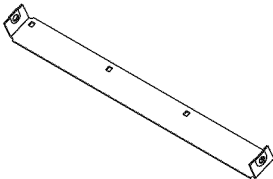
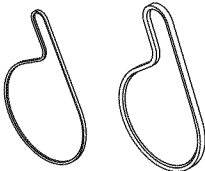
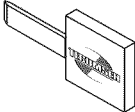
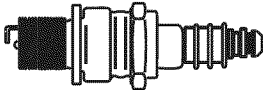


Figure 7-3

NOTE: It may be easier to first remove the flange lock nut, then use needle-nosed pliers to firmly grip spring and remove from bolt.

3. Pivot the transmission forward to release pressure on the drive belt. Remove belt from transmission pulley.
4. Remove the drive belt from around the engine pulley, and away from the unit.
5. Place the new drive belt into the groove on the engine pulley. See Fig. 7-2.
6. Tilt the transmission forward and position the drive belt onto the transmission pulley.
7. Reconnect the spring to the bolt on the engine frame and secure the transmission. Reinstall the flange lock nut.
8. Install new auger belt.
9. Reassemble the belt cover on the snow thrower
10. Reassemble the belt keeper to the housing.

Problem	Cause	Remedy
Engine fails to start	<ol style="list-style-type: none"> 1. Fuel tank empty, or stale fuel. 2. Blocked fuel line. 3. Key not snapped in place. 4. Spark plug wire disconnected. 5. Faulty spark plug. 6. Engine not primed. 7. Engine flooded from excessive priming. 	<ol style="list-style-type: none"> 1. Fill tank with clean fresh gasoline. 2. Clean fuel line. 3. Insert key. See "Ignition Key" section. 4. Connect wire to spark plug. 5. Clean spark plug, re-adjust gap, or replace. 6. Prime engine four times. 7. Wait at least ten minutes before starting.
Engine runs erratic	<ol style="list-style-type: none"> 1. Unit running on choke. 2. Fuel line blocked, or stale fuel. 3. Water or dirt in fuel system. 4. Carburetor out of adjustment. 	<ol style="list-style-type: none"> 1. Move choke lever to OFF position. 2. Clean fuel line and fill tank with fresh, clean gasoline. 3. Refer to engine manual. 4. Refer to engine manual.
Engine overheats	<ol style="list-style-type: none"> 1. Carburetor out of adjustment. 	<ol style="list-style-type: none"> 1. Refer to engine manual.
Loss of power	<ol style="list-style-type: none"> 1. Spark plug wire loose. 2. Vent in gas cap plugged. 	<ol style="list-style-type: none"> 1. Firmly connect spark plug wire. 2. Clear vent.
Excessive vibration	<ol style="list-style-type: none"> 1. Loose parts or damaged auger. 	<ol style="list-style-type: none"> 1. Stop engine immediately and disconnect spark plug wire. Check for possible damage. Tighten all bolts and nuts. Repair as needed. If the problem persists, take unit to an authorized service dealer.
Unit fails to self-propel	<ol style="list-style-type: none"> 1. Drive belt loose or damaged. 	<ol style="list-style-type: none"> 1. Replace drive belt.
Augers continue to rotate	<ol style="list-style-type: none"> 1. Cable out of adjustment. 	<ol style="list-style-type: none"> 1. Adjust auger control cable as shown in "Adjusting Auger Cable" section.
Unit fails to discharge snow	<ol style="list-style-type: none"> 1. Chute assembly clogged. 2. Shear pin(s) sheared. 3. Foreign object lodged in auger. 4. Auger control cable out of adjustment. 5. Auger belt loose or damaged. 	<ol style="list-style-type: none"> 1. Stop engine and disconnect spark plug wire. Clean chute and inside of auger housing with clean-out tool or stick. 2. Replace shear pin(s). 3. Stop engine immediately and disconnect the spark plug wire. Remove object from auger. 4. Adjust auger control cable. 5. Replace auger belt.

Component	Part Number and Description
	731-2643 Chute Clean-out tool
	784-5580 Skid Shoe, Standard
	738-04124A Shear Pin 714-04040 Bow-tie Cotter Pin
	790-00117 Shave Plate
	954-04014 Auger Drive Belt 954-04013 Wheel Drive Belt
	TC-35062 Key
	759-3338 <i>Champion</i> RJ19LM Resistor Spark Plug

Phone (800) 800-7310 to order replacement parts or a complete Parts Manual (have your full model number and serial number ready).
Parts Manual downloads are also available free of charge at www.mtdproducts.com.

MANUFACTURER'S LIMITED WARRANTY FOR



The limited warranty set forth below is given by MTD LLC with respect to new merchandise purchased and used in the United States and/or its territories and possessions, and by MTD Products Limited with respect to new merchandise purchased and used in Canada and/or its territories and possessions (either entity respectively, "MTD").

"MTD" warrants this product (excluding its *Normal Wear Parts and Attachments* as described below) against defects in material and workmanship for a period of two (2) years commencing on the date of original purchase and will, at its option, repair or replace, free of charge, any part found to be defective in materials or workmanship. This limited warranty shall only apply if this product has been operated and maintained in accordance with the Operator's Manual furnished with the product, and has not been subject to misuse, abuse, commercial use, neglect, accident, improper maintenance, alteration, vandalism, theft, fire, water, or damage because of other peril or natural disaster. Damage resulting from the installation or use of any part, accessory or attachment not approved by MTD for use with the product(s) covered by this manual will void your warranty as to any resulting damage.

Normal Wear Parts are warranted to be free from defects in material and workmanship for a period of thirty (30) days from the date of purchase. Normal wear parts include, but are not limited to items such as: batteries, belts, blades, blade adapters, tines, grass bags, wheels, rider deck wheels, seats, snow thrower skid shoes, friction wheels, shave plates, auger spiral rubber, engine oil, air filters, spark plugs and tires.

Attachments — MTD warrants attachments for this product against defects in material and workmanship for a period of one (1) year, commencing on the date of the attachment's original purchase or lease. Attachments include, but are not limited to items such as: grass collectors and mulch kits.

HOW TO OBTAIN SERVICE: Warranty service is available, WITH PROOF OF PURCHASE, through your local authorized service dealer. To locate the dealer in your area:

In the U.S.A.

Check your Yellow Pages, or contact MTD LLC at P.O. Box 361131, Cleveland, Ohio 44136-0019, or call 1-800-800-7310, 1-330-220-4683 or log on to our Web site at www.mtdproducts.com.

In Canada

Contact MTD Products Limited, Kitchener, ON N2G 4J1, or call 1-800-668-1238 or log on to our Web site at www.mtdcanada.com.

This limited warranty does **not** provide coverage in the following cases:

- Log splitter pumps, valves, and cylinders have a separate one-year warranty.
- Routine maintenance items such as lubricants, filters, blade sharpening, tune-ups, brake adjustments, clutch adjustments, deck adjustments, and normal deterioration of the exterior finish due to use or exposure.

- Service completed by someone other than an authorized service dealer.
- MTD does not extend any warranty for products sold or exported outside of the United States and/or Canada, and their respective possessions and territories, except those sold through MTD's authorized channels of export distribution.
- Replacement parts that are not genuine MTD parts.
- Transportation charges and service calls.
- MTD does not warrant this product for commercial use.

No implied warranty, including any implied warranty of merchantability of fitness for a particular purpose, applies after the applicable period of express written warranty above as to the parts as identified. No other express warranty, whether written or oral, except as mentioned above, given by any person or entity, including a dealer or retailer, with respect to any product, shall bind MTD. During the period of the warranty, the exclusive remedy is repair or replacement of the product as set forth above.

The provisions as set forth in this warranty provide the sole and exclusive remedy arising from the sale. MTD shall not be liable for incidental or consequential loss or damage including, without limitation, expenses incurred for substitute or replacement lawn care services or for rental expenses to temporarily replace a warranted product.

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

In no event shall recovery of any kind be greater than the amount of the purchase price of the product sold. **Alteration of safety features of the product shall void this warranty.** You assume the risk and liability for loss, damage, or injury to you and your property and/or to others and their property arising out of the misuse or inability to use the product.

This limited warranty shall not extend to anyone other than the original purchaser or to the person for whom it was purchased as a gift.

HOW STATE LAW RELATES TO THIS WARRANTY: This limited warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

IMPORTANT: Owner must present Original Proof of Purchase to obtain warranty coverage.

MTD LLC, P.O. BOX 361131 CLEVELAND, OHIO 44136-0019; Phone: 1-800-800-7310, 1-330-220-4683
MTD Canada Limited - KITCHENER, ON N2G 4J1; Phone 1-800-668-1238