

Operator's Manual ST 151

Gasoline containing up to 10% ethanol (E10) is acceptable for use in this machine. The use of any gasoline exceeding 10% ethanol (E10) will void the product warranty.

Please read the owner's manual carefully and make sure you understand the instructions before using the machine.





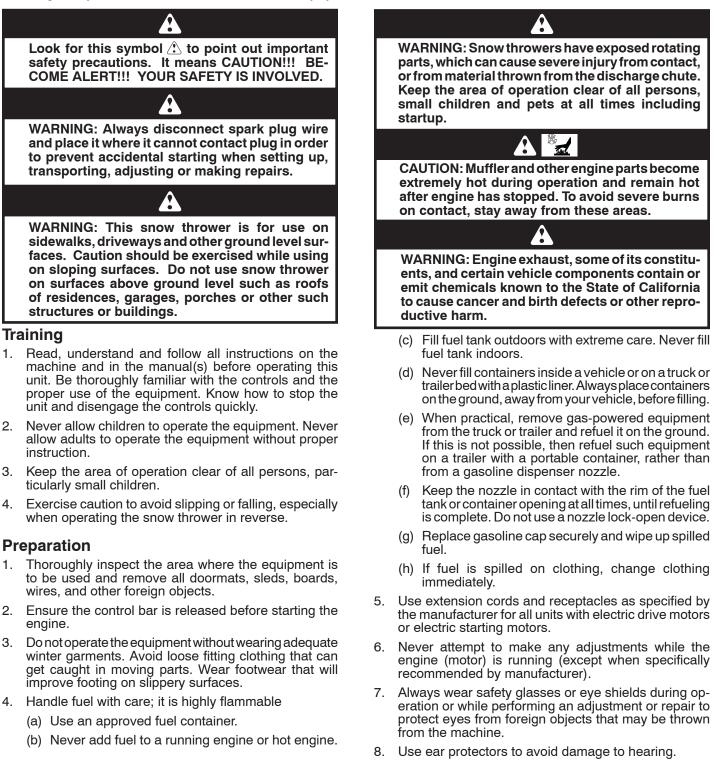
CONGRATULATIONS on your purchase of a new snow thrower. It has been designed, engineered and manufactured to give best possible dependability and performance.

Should you experience any problem you cannot easily remedy, please contact your nearest authorized service center. We have competent, well-trained technicians and the proper tools to service or repair this unit.

Please read and retain this manual. The instructions will enable you to assemble and maintain your snow thrower properly. Always observe the "SAFETY RULES".

Safe Operation Practices for Walk-Behind Snow Throwers

IMPORTANT: This snow thrower is capable of amputating hands and feet and throwing objects. Failure to observe the following safety instructions could result in serious injury.



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.
- After striking a foreign object, stop the engine (motor), disconnect the cord on electric motors, thoroughly inspect the snow thrower for any damage, and repair the damage before restarting and operating the snow thrower. Remove key.
- 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 auger housing or discharge chute, and when making any repairs, adjustments or inspections.
- 6. When cleaning, repairing or inspecting the snow thrower, stop the engine and make certain the auger blades and all moving parts have stopped. Remove key.
- 7. Do not run the engine indoors, except when starting the engine and for transporting the snow thrower in or out of the building. Open the outside doors; exhaust fumes are dangerous.
- 8. Exercise extreme caution when operating on slopes.
- 9. Never operate the snow thrower without proper guards, and other safety protective devices in place and working.
- 10. Never direct the discharge toward people or areas where property damage can occur. Keep children and others 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 operating in reverse.
- 13. Disengage power to the auger blades when snow thrower is transported or not in use.
- 14. Use only attachments and accessories approved by the manufacturer of the snow thrower.
- 15. Never operate the snow thrower without good visibility or light. Always be sure of your footing, and keep a firm hold on the handles. Walk; never run.
- 16. Never touch a hot engine or muffler.

Clearing a Clogged Discharge Chute

Hand contact with the rotating auger blades inside the discharge chute is the most common cause of injury associated with snow throwers. Never use your hand to clean out the discharge chute.

To clear the chute:

- 1. SHUT THE ENGINE OFF!
- 2. Wait 10 seconds to be sure the auger blades have stopped rotating.
- 3. Always use a clearing tool at least 15 inches long.

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 heaters, space heaters, or clothes dryers. Allow the engine to cool before storing in any enclosure.
- 3. Always refer to operator's manual for important details if the snow thrower 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.

SERIAL NUMBER:

DATE OF PURCHASE:

THE MODEL AND SERIAL NUMBERS WILL BE FOUND ON A DECAL ATTACHED TO THE REAR OF THE SNOW THROWER HOUSING (Figure 1).

YOU SHOULD RECORD BOTH SERIAL NUMBER AND DATE OF PURCHASE AND KEEP IN A SAFE PLACE FOR FUTURE REFERENCE.



Figure 1

CUSTOMER RESPONSIBILITIES

- · Read and observe the safety rules.
- Follow a regular schedule in maintaining, caring for and using your snow thrower.
- Follow the instructions under "Maintenance" and "Storage" sections of this manual.

PRODUCT SPECIFICATIONS

Gasoline Capacity and Type:	1.6 Quarts (1,5 Liters) Unleaded Regular only
Oil Type (API SG–SL):	SAE 30 (above 50°F) SAE 5W-30 or 10W-30 (32° to 50°F) SAE 5W-30 (below 32°F)
Oil Capacity:	16 Ounces (0,47 Liters)
Spark Plug: Gap:	F6RTP 0.030" (0,762 mm)

TABLE OF CONTENTS

SAFETY RULES	2-3
PRODUCT SPECIFICATIONS	
CUSTOMER RESPONSIBILITIES	3
SAFETY AND INSTRUCTIONAL DECALS	4
ASSEMBLY	5-6
PRODUCT OVERVIEW	7

OPERATION	8-11
MAINTENANCE	
STORAGE	17
TROUBLESHOOTING	
WARRANTY	20-23

KNOW YOUR SNOW THROWER

READ THIS OWNER'S MANUAL AND ALL SAFETY RULES BEFORE OPERATING YOUR SNOW THROWER.

Compare the illustrations with your snow thrower to familiarize yourself with the location of various controls and adjustments. Save this manual for future reference.

These symbols may appear on your snow thrower or in literature supplied with the product. Learn and understand their meaning.

IMPORTANT: Safety and instruction decals are located near areas of potential danger. Replace damaged decals.



ASSEMBLY

Setup

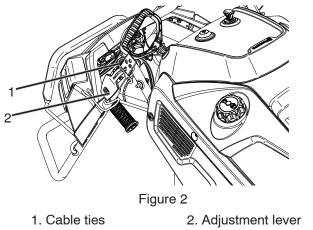
Loose Parts

Use the chart below to verify that all parts have been shipped.

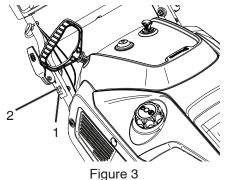
Description	Qty.
Carriage bolts	4
Shoulder Bolt	1
Flange nuts	4
Washer	1
Knob	1
Cap Plunger	1
Chute	1
Deflector	1

Installing the Handle

- 1. Remove temporary cable ties holding cables at handle adjustment holes (Figure 2).
- 2. Release handle adjustment levers on both sides.



3. Lift operator handle up to the desired height, and close adjustment lever ensuring the positioning pin on the lower handle engages one of the three holes on the upper handle (Figure 3).



- 1. Positioning pin
- 2. Upper handle adjustment hole

4. Pull up and push down slightly on the handle to verify handle is locked into place (Figure 4).

NOTE: If handle feels unsecure with the adjustment levers closed, tighten adjustment handle nuts until the handle feels secure.

5. Remove the cardboard from recoil start handle and feed the recoil rope through the rope guide.

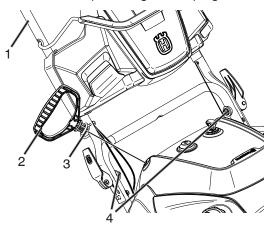
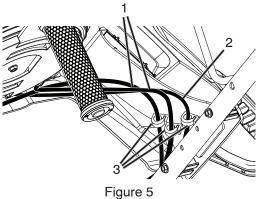


Figure 4

- 1. Handle
- 2. Recoil handle
- 3. Rope guide
- 4. Adjustment lever nut
- 6. Snap two rotator cables and one wiring harness into the three cable clips (Figure 5).



- 1. Rotator cable
- 2. Wiring harness
- 3. Cable clip

Installing the Discharge Chute

Procedure

- 1. Install the chute deflector to the discharge chute using bolts and, washer, nut, deflector knob and cap plunger (Figure 6).
- 2. Install the discharge chute to the chute base using three screws and nuts.

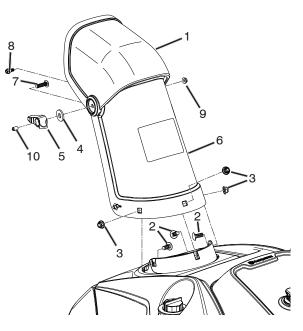


Figure 6

- 1. Deflector6. Discharge chute2. Carriage bolts7. Carriage Bolt3. Flange nuts 5/16-188. Shoulder Bolt4. Washer9. Flange nuts 1/4-205. Knob10. Cap Plunger
- **IMPORTANT:** Do not overtighten the flange nuts; otherwise you may damage the discharge chute.

Filling the Engine with Oil

ENGINE

See engine manual.

LUBRICATION

NOTE: SAE 10W30 or SAE 5W30 oil is acceptable for use in cold temperatures if engine is difficult to start.

NOTE: Although multi-viscosity oils (5W30, 10W30 etc.) improve starting in cold weather, these multi-viscosity oils will result in increased oil consumption when used above 32°F. Check your engine oil level more frequently to avoid possible engine damage from running low on oil.

Change the oil after every 25 hours of operation or at least once a year if the snow thrower is not used for 25 hours in one year.

Check the crankcase oil level before starting the engine and after each five (5) hours of continuous use. Tighten oil fill cap / dipstick securely each time you check the oil level.

- 1. Move the snowthrower to a level surface.
- 2. Clean around the dipstick (Figure 7).

NOTE: Dipstick location may vary depending on engine type.

3. Remove either side mounted filler cap dipstick or high oil fill dipstick and wipe it clean.

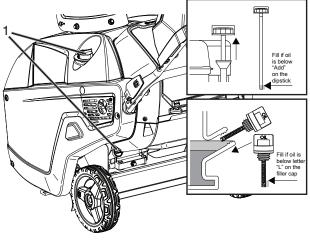
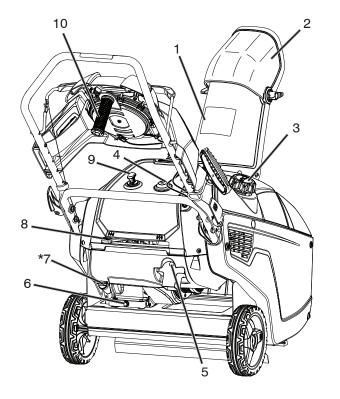


Figure 7

- 1. Oil filler cap/dipstick
- 4. Insert the dipstick into the filler neck and turn clockwise until fully seated. Then remove the dipstick by turning it counter-clockwise.
- 5. Fill oil to "FULL" on dipstick with the recommended oil.
- 6. Securely screw in the oil filler cap/dipstick.

PRODUCT OVERVIEW

Product Overview



- Figure 8
- 1. Discharge chute
- 2. Chute deflector
- 3. Fuel tank cap
- 4. Primer
- 5. Electric-start button (if equipped)
- 6. Oil drain plug
- 7. Oil fill cap/dipstick
- 8. Choke lever

- 9. Ignition key
- 10. Chute rotator handle
- 11. Recoil start handle
- 12. Control bar
- 13. Lights
- 14. Drive side cover
- 15. Auger blade
- 16. Deflector knob
- 17. Owner's Manual

* Dipstick location may vary depending on engine type.

OPERATION

Operation

NOTE: Determine the left and right sides of the machine from the normal operating position.



- To prevent a static charge from igniting the gasoline, place the container and/or snowthrower on the ground before filling, not in a vehicle or on an object.
- Fill the tank outdoors when the engine is cold. Wipe up spills.
- Do not handle gasoline when smoking or around an open flame or sparks.
- Store gasoline in an approved fuel container, out of the reach of children.
- Do not tip the snowthrower with fuel in the fuel tank.



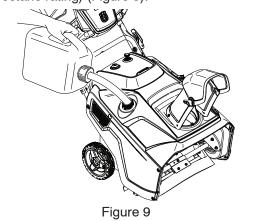
The operation of any snow thrower can result in foreign objects thrown into the eyes, which can result in severe eye damage. Always wear safety glasses or eye shields while operating your snow thrower or performing any adjust-

ments or repairs. We recommend standard safety glasses or a wide vision safety mask worn over spectacles.

IMPORTANT: Know how to operate all controls before adding fuel or attempting to start the engine.

Filling the Fuel Tank

Fill the fuel tank with fresh, unleaded gasoline (minimum 87 AKI octane rating) (Figure 9).



IMPORTANT: Do not add oil to the gasoline.

IMPORTANT: Do not use E85 blended fuels. This engine is not E20/E30/E85 compatible. Alternative fuels with high alcohol content can cause hard starting, poor engine performance, and may cause internal engine damage.

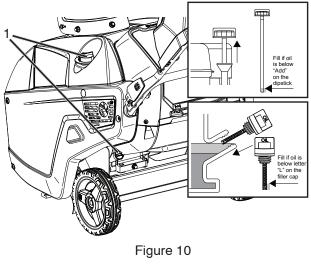
NOTE: For best results, purchase only the quantity of gasoline that you expect to use in 30 days. Otherwise, you may add fuel stabilizer to newly purchased gasoline to keep it fresh for up to 6 months.

Checking the Engine Oil Level

- 1. Move the snowthrower to a level surface.
- 2. Clean around the dipstick (Figure 10).

NOTE: Dipstick location may vary depending on engine type.

3. Remove either side mounted filler cap dipstick or high oil fill dipstick and wipe it clean.



1. Oil filler cap/dipstick

- 4. Insert the dipstick into the filler neck and turn clockwise until fully seated. Then remove the dipstick by turning it counter-clockwise.
- 5. Fill oil to "FULL" on dipstick with the recommended oil.
- 6. Securely screw in the oil filler cap/dipstick.

NOTE: Running the engine with a low oil level can cause engine damage. Always check the engine oil before start up.

NOTE: Running the engine with too much oil may cause engine damage and excess smoke in the exhaust. Always check the engine oil level before start up.

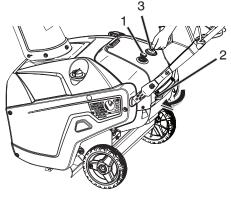
OPERATION

Starting the Engine

- 1. Push key in (Figure 11).
- 2. Move choke lever to left position.
- 3. Firmly push in the primer 2 times with your thumb, holding the primer in a for a second before releasing it each time.

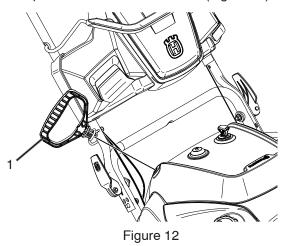
NOTE: Remove your glove when you push in the primer so that air cannot escape from the primer hole.

IMPORTANT: It may not be necessary to use the primer or the choke if the engine has been running and is hot. Excessive priming may flood the engine and prevent it from starting.

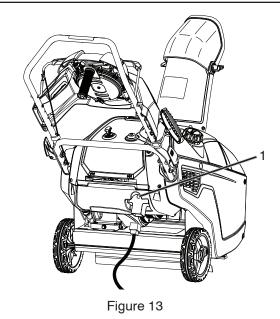




- 1. Key
- 2. Choke lever
- 3. Primer
- 4. Pull the recoil starter (Figure 12) or if your snow thrower is equipped with an electric starter, connect an extension cord to the snow thrower and plug the other end into a three-hole grounded 110 volt A.C. receptacle and push the electric-start button (Figure 13).

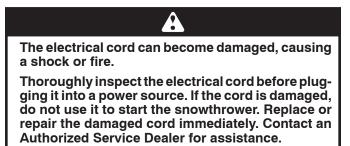


1. Recoil start handle



1. Electric start button

NOTE: Use an extension cord recommended for outdoor use that is not longer than 50 feet (15 m).



IMPORTANT: Run the electric starter no more than 10 times at intervals of 5 seconds on, then 5 seconds off. Running the electric starter extensively can overheat and damage it. If the engine does not start after this series of attempts, wait at least 40 minutes to allow the starter to cool before attempting to start it again. If the engine does not start after the second series of attempts, take the snowthrower to an Authorized Service Dealer for service.

NOTE: If you pull the recoil handle and feel no resistance, the starter may be frozen. Thaw out the starter before attempting to start the snowthrower.

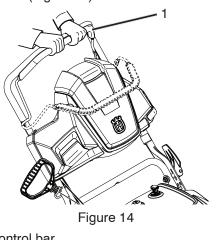
- 5. While the engine is running, move the choke lever slowly to the right position.
- 6. Unplug the extension cord from the power source and the snowthrower (Figure 13).



OPERATION

Engaging the Auger Blades

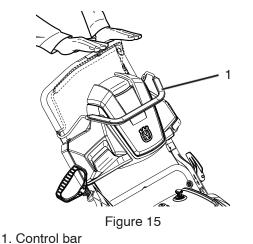
1. To engage the auger blades, hold the control bar against the handle (Figure 14).



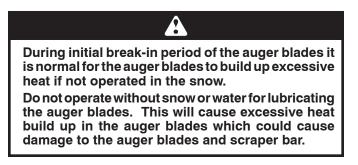
1. Control bar

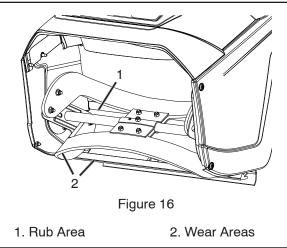
Disengaging the Auger Blades

1. To disengage the auger blades, release the control bar (Figure 15).



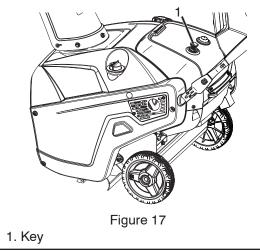
IMPORTANT: During initial operation there may be wear between the auger blades and the scraper bar. Maximum performance, both snow throwing and driving, occurs when there is zero clearance between these two parts (Figure 16).





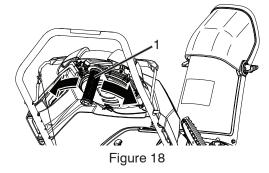
Stopping the Engine

1. To stop the engine, pull key out (Figure 17).



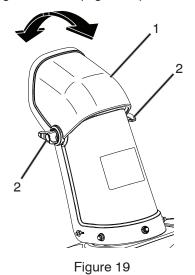
Adjusting the Discharge Chute and Chute Deflector

1. To adjust the discharge chute, rotate chute handle left or right to desired position (Figure 18).



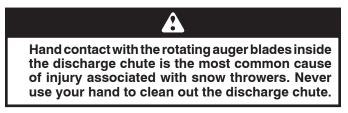
1. Chute rotator handle

To raise or lower the angle of the chute deflector, loosen both chute deflector knobs on the chute deflector and move the chute deflector up or down to desired position and retighten knobs (Figure 19).



- 1. Chute deflector
- 2. Chute deflector knobs

Clearing a Clogged Discharge Chute



To clear the chute:

- 1. SHUT THE ENGINE OFF!
- 2. Wait 10 seconds to be sure the auger blades have stopped rotating.
- 3. Always use a clearing tool at least 15 inches long, not your hands (Figure 20).



Preventing Freeze-up After Use

- Let the engine run for a few minutes to prevent moving parts from freezing. Stop the engine, wait for all moving parts to stop, and remove ice and snow from the snowthrower.
- Clean off any snow and ice from the base of the chute.
- Rotate the discharge chute left and right to free it from any ice buildup.
- With the ignition key in the Off position, pull the recoil starter handle several times or connect the electrical cord to a power source and the snowthrower and push the electric start button once to prevent the recoil starter and/or the electric starter from freezing up.
- In snowy and cold conditions, some controls and moving parts may freeze. Do not use excessive force when trying to operate frozen controls. If you have difficulty operating any control or part, start the engine and let it run for a few minutes.

Operating Tips

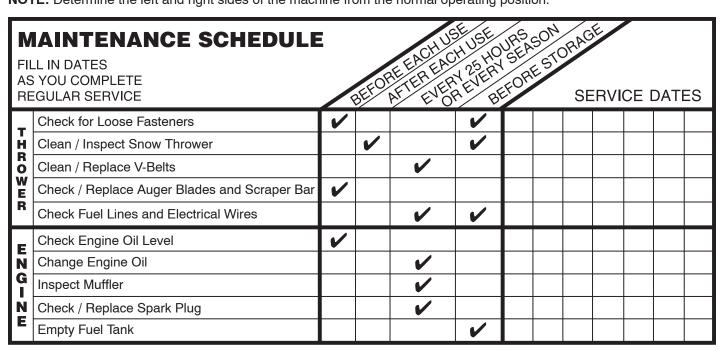
The auger blades can throw stones, toys, and other foreign objects and cause serious personal injury to the operator or to bystanders.

- Keep the area to be cleared free of all objects that the auger blades could pick up and throw.
- Keep all children and pets away from the area of operation.
- Do not operate snow thrower if weather conditions impair visibility. Throwing snow during a heavy, windy snowstorm can blind you and be hazardous to the safe operation of the snow thrower.
- The best time to remove snow is the early morning. At this time the snow is usually dry and has not been exposed to the direct sun and warming temperatures.
- Slightly overlap each successive path to ensure all snow will be removed.
- Throw snow downwind whenever possible.
- For extremely heavy snow, reduce the width of snow removal by overlapping previous path and moving slowly.
- Keep engine clean and clear of snow during use. This will help air flow and extend engine life.
- After snow-throwing is completed, allow engine to run for a few minutes to melt snow and ice off the engine.
- Clean the entire snow thrower thoroughly after each use and wipe dry so it is ready for next use.
- Spraying off unit with a hose is NOT recommended.

Figure 20

Maintenance

NOTE: Determine the left and right sides of the machine from the normal operating position.



Adjusting the Control Cable

Checking the Control Cable

1. Release the control bar to remove the slack in the control cable (Figure 21).





1. Control bar

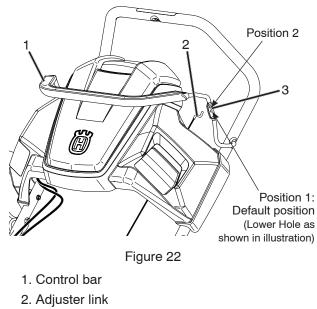
IMPORTANT: The control cable must contain some slack when you disengage the control bar for the auger blades to stop properly.

NOTE: You may need to adjust the control cable from position 1 (default) to position 2 if you notice belt slip when the control bar is engaged.

NOTE: If the control cable is adjusted to position 2, ensure that the auger stops properly when the control bar is released

Adjusting the Control Cable

1. With the control bar disengaged, unhook and move the control cable to the highest position. (Figure 22).

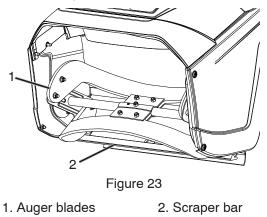


3. Cable positions

Inspecting the Auger Blades/ Scraper Bar

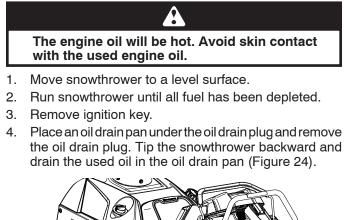
Before each session, inspect the auger blades for wear. When an auger blade edge or the scraper bar has worn down have an Authorized Service Dealer replace the auger blades and the scraper bar (Figure 23).

NOTE: Auger blades and scraper bar are wear items and may have to be replaced after extended use.



Changing the Engine Oil

Run the engine a few minutes before changing the oil to warm it. Warm oil flows better and carries more contaminants.



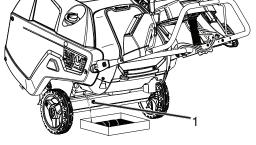
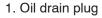


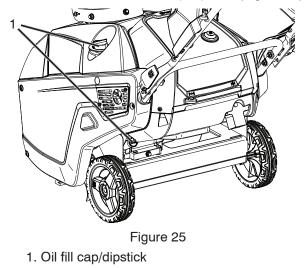
Figure 24



- 5. After draining the used oil, return the snowthrower to the operating position.
- 6. Install the oil drain plug and torque to 145-150 in-lbs (17 N-m).

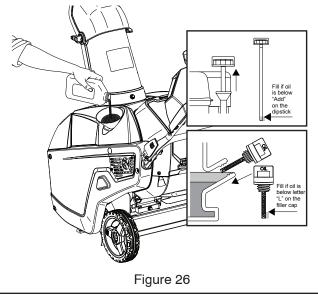
NOTE: Dipstick location may vary depending on engine type.

7. Clean around the oil filler cap/dipstick (Figure 25).



- 8. Unscrew and remove the oil fill cap/dipstick (Figure 26).
- 9. With the snowthrower in the operating position, carefully pour oil into the oil fill hole until "Full" on the fill cap/dipstick line (Figure 26).

Max fill: 18 oz. (0.5 l), type: automotive detergent oil with an API service classification of SJ, SL, or higher.

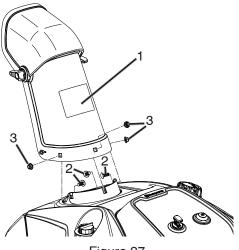


- 10. Screw in the oil fill cap/dipstick and hand tighten it securely.
- 11. Wipe up any spilled oil.
- 12. Dispose of the used oil properly at a local recycling center.

Servicing the Spark Plug

Use a NGK BPR6ES, Champion RN9YC, or BOSCH WR6DC spark plug or equivalent.

- 1. Move snow thrower to a level surface.
- 2. Run snow thrower until all fuel has been depleted.
- 3. Wait until engine is cool.
- 4. Rotate the discharge chute so that it faces forward.
- 5. Remove the discharge chute by removing the three carriage bolts and three flange nuts (Figure 27).

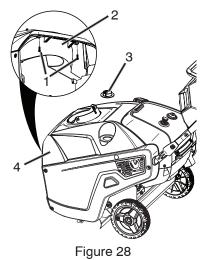




1. Discharge chute 3. Flange nuts

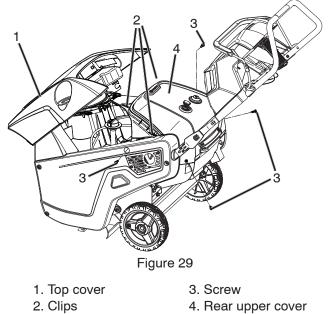
2. Carriage bolts

- 6. Remove two screws in plenum that hold top cover (Figure 28).
- 7. Remove the oil fill cap.

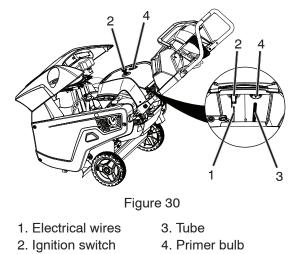


1. Screw	3. Oil fill cap
2. Plenum	4. Top cover

- 8. Unsnap top cover by firmly pulling upwards at the rear section of the cover disengaging the three clips (Figure 29).
- 9. Shift top cover until fuel tank is clear of the rear upper cover and set top cover to the side of the unit.
- 10. Temporarily reinstall oil fill cap to prevent foreign object from entering the engine.
- 11. Remove 2 screws in the side cover and rear covers on both sides.

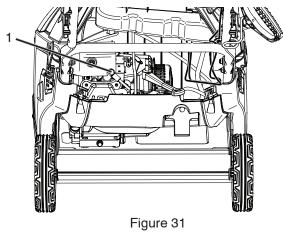


- 12. Unplug electrical wires on back of ignition switch (Figure 30).
- 13. Pull tube off the back of the primer bulb.



14. Lift rear upper cover and lay it to the side of the unit. **IMPORTANT:** The recoil rope will still be attached to the upper cover.

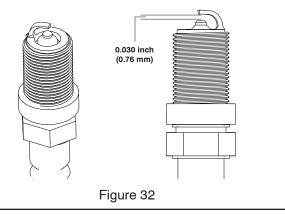
- 15. Disconnect the spark plug wire from the spark plug (Figure 31).
- 16. Clean around the spark plug.
- 17. Remove the spark plug from the cylinder head.



1. Spark plug wire

IMPORTANT: Replace a cracked, fouled, or dirty spark plug. Do not clean the electrodes because grit entering the cylinder can damage the engine.

18. Set the gap on the plug to 0.030 inch (0.76 mm) (Figure 32).



- 19. Install the spark plug and torque it to 20–22 ft-lb (27–30 N-m).
- 20. Connect the spark plug wire to the spark plug (Figure 31).
- 21. Reattach primer bulb tube to primer bulb and electrical wires on back ignition switch of rear upper cover (Figure 30).
- 22. Set rear upper cover in place so the two screw holes line up with the rear lower cover and side covers (Figure 33).

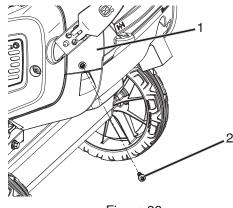


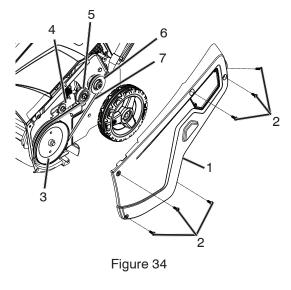
Figure 33

- 1. Rear upper cover
- 2. Screw
- 23. Reattach two screws through the rear covers and into the clip on the side cover (Figure 28).
- 24. Remove top oil fill cap.
- 25. Set top cover in place and snap three top cover clips into the rear upper cover (Figure 29).
- 26. Reinstall top oil fill cap.
- 27. Reinstall two screws in the side covers that attach to the clips on the top cover.
- 28. Reinstall two screws in the plenum that attach to the top cover (Figure 28).
- 29. Reinstall discharge chute with the hardware removed in step 5.

Replacing the Drive Belt

If auger v-belt becomes worn, oil-soaked, excessively cracked, frayed, or otherwise damaged, replace the belt.

1. Remove the drive side cover by removing the six screws as shown in (Figure 34).



1. Drive side cover	5. Idler pulley
2. Screw	6. Engine pulley
3. Drive pulley	7. Auger V-Belt
4. Idler arm	

2. Remove drive pulley from the auger shaft.

NOTE: Nut is welded to drive pulley and has left handed threads.

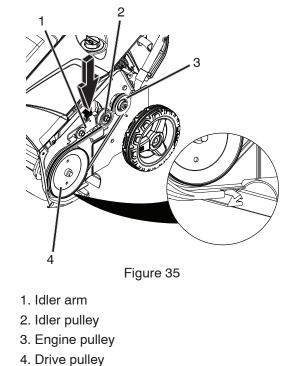
3. Remove the auger v-belt from the drive pulley.

4. Install the new auger v-belt and drive pulley, routing it as shown in Figure 35.

NOTE: Route the new auger v-belt first around the engine pulley, then the idler pulley, and finally around the drive pulley while pressing down on the front of the idler arm. (Figure 35).

5. Install the drive side cover with the screws removed in step 1.

NOTE: Ensure belt keeper on the plastic side panel engages between belt and frame before bolting down.



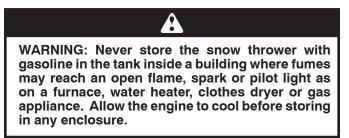
NOTE: Ensure that the auger v-belt is properly adjusted and operating; refer to Checking the Control Cable and Adjusting the Control Cable in the Maintenance section of this manual.

STORAGE

Storage

STORING THE SNOWTHROWER

Immediately prepare your snow thrower for storage at the end of the season or if the unit will not be used for 30 days or more.



SNOW THROWER

When snow thrower is to be stored for a period of time, clean it thoroughly, remove all dirt, grease, leaves, etc. Store in a clean, dry area.

- 1. Clean entire snow thrower after each use.
- 2. Inspect and replace belts, if necessary (See "Replaceing the Drive Belt" section of this manual).
- 3. Be sure that all nuts, bolts, screws, and pins are securely fastened. Inspect moving parts for damage, breakage and wear. Replace if necessary.

FUEL SYSTEM

IMPORTANT: It is important to prevent gum deposits from forming in essential fuel system parts such as carburetor, fuel hose, or tank during storage. Also, alcohol blended fuels 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.

- Empty the fuel tank by starting the engine and letting it run until the fuel lines and carburetor are empty.
- Never use engine or carburetor cleaner products in the fuel tank or permanent damage may occur.
- Use fresh fuel next season.

NOTE: Fuel stabilizer 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 the mix ratio found on stabilizer container. Run engine at least 10 minutes after adding stabilizer to allow the stabilizer to reach the carburetor. Do not empty the gas tank and carburetor if using fuel stabilizer.

ENGINE OIL

Drain oil (with engine warm) and replace with clean engine oil. (See "Changing the Engine Oil" section of this manual).

CYLINDER

- 1. Remove spark plug.
- 2. Pour one ounce (29 ml) of oil through spark plug hole into cylinder.
- 3. Pull recoil starter handle slowly a few times to distribute oil.

OTHER

- Remove safety ignition key; store it in a safe place.
- Do not store gasoline from one season to another.
- Replace your gasoline can if your can starts to rust. Rust and/or dirt in your gasoline will cause problems.
- If possible, store your snow thrower indoors and cover it to protect it from dust and dirt.
- Cover your snow thrower with a suitable protective cover that does not retain moisture. Do not use plastic. Plastic cannot breathe, which allows condensation to form and will cause your snow thrower to rust.

IMPORTANT: Never cover snow thrower while engine/ exhaust area is still warm.

TROUBLESHOOTING

Troubleshooting

See appropriate section in manual unless directed to a service center/department.

PROBLEM	CAUSE	CORRECTION
Does not start	1. Safety ignition key is not inserted.	1. Insert safety ignition key.
	2. Out of fuel.	2. Fill fuel tank with fresh, clean gasoline.
	3. ON/OFF switch is OFF.	3. Move ON/OFF switch to ON position.
	4. Choke in OFF position.	4. Move to FULL position.
	5. Primer not depressed.	5. Prime as instructed in the Operation section of this manual.
	6. Engine is flooded.	6. Wait a few minutes before restarting, DO NOT prime.
	7. Spark plug wire is disconnected.	7. Connect wire to spark plug.
	8. Bad spark plug.	8. Replace spark plug.
	9. Stale fuel.	9. Empty fuel tank & carburetor, refill with fresh, clean gasoline.
	10. Water in fuel.	10. Empty fuel tank & carburetor, refill with fresh, clean gasoline.
	11. Vapor locked fuel line.	11. Ensure all the fuel line is below the outlet of the fuel tank. Fuel line should run continuously down from fuel tank to carburetor.
Loss of power	1. Spark plug wire loose.	1. Reconnect spark plug wire.
	2. Throwing too much snow.	2. Reduce speed and width of swath.
	 Fuel tank cap is covered with ice or snow. 	3. Remove ice and snow on and around fuel tank cap.
	4. Dirty or clogged muffler.	4. Clean or replace muffler.
	5. Improper cable length.	5. Adjust cable.
	6. Blocked muffler.	6. Clear blockage (ensure engine is cool).
	7. Blocked carburetor air intake.	7. Clear blockage (ensure engine is cool).
Engine idles or	1. Choke is in FULL position.	1. Move choke to OFF position.
runs roughly	2. Blockage in fuel line.	2. Clean fuel line.
	3. Stale fuel.	3. Empty fuel tank & carburetor, refill with fresh, clean gasoline.
	4. Water in fuel.	4. Empty fuel tank & carburetor, refill with fresh, clean gasoline.
	5. Carburetor is in need of replacing	5. Contact an authorized service center/department.
	6. Belt stretch.	6. Replace auger v-belt.
Excessive vibration / Handle	1. Loose parts or damaged augers or impeller.	1. Tighten all fasteners. Replace damaged parts. If vibration remains, contact an authorized service center/department.
movement	2. Handles not positioned correctly.	2. Ensure handles are locked into positioning.
	3. Adjustment lever nuts are loose.	3. Tighten nuts until handle feels secure.
Recoil starter is hard to pull	1. Frozen recoil starter.	1. See "IF RECOIL STARTER HAS FROZEN" in the Operation section of this manual.
	2. Rope is interfering with components.	2. Recoil rope should not be touching any wires or hoses.
Loss of snow	1. Worn belt.	1. Adjust drive cable per maintenance procedures.
discharge or slowing of snow	2. Auger v-belt is off of pulley.	2. Check / reinstall auger v-belt.
discharge	3. Auger v-belt is worn.	3. Check / replace auger v-belt.
	4. Clogged discharge chute.	4. Clean snow chute.
	5. Augers / impeller jammed.	5. Remove debris or foreign object from augers / impeller.
Lights not On	1. Motor not running.	1. Start engine.
(If Equipped)	2. Loose wire connection.	2. Check wire connections at engine and both lights.
	3. LED burnt out.	3. Replace LED light module. (Individual LEDs are not replaceable)
Rotator hard to	1. Debris in chute rotator mechanism.	1. Clean internal parts of chute rotator mechanism.
move	2. Cable are kinked or damaged.	2. Ensure cables are not kinked. Replace damaged cables.

SERVICE NOTES

Husqvarna

Consumer Wheeled Products - Limited Warranty

Husqvarna warrants to the original retail purchaser that this Husqvarna® product is <u>free from defects in material or workmanship</u> under normal use and maintenance from the date of retail purchase for the applicable Warranty Period shown on <u>Exhibit A</u>. This Limited Warranty may not be transferred to any subsequent purchaser of this Husqvarna® product. Certain components (e.g., engines and transmissions) are excluded from coverage, and other limitations apply, as described in this document. Husqvarna will repair or replace at its discretion, any defective product or part covered by the Limited Warranty, free of charge at any authorized Husqvarna Servicing Dealer/Center using original OEM Husqvarna replacement parts, subject to the limitations and exclusions described below. Husqvarna does not offer an over-the-counter exchange program.

DISCLAIMERS, LIMITATIONS AND EXCLUSIONS

1. **WARRANTY DISCLAIMER.** THIS LIMITED WARRANTY IS THE SOLE EXPRESS WARRANTY PROVIDED BY HUSQVARNA AND THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF, EXCEPT AS MAY BE PROVIDED BY LAW. THIS WARRANTY IS GIVEN <u>ONLY</u> BY HUSQVARNA, AND MAY BE MODIFIED ONLY BY HUSQVARNA. THIS LIMITED WARRANTY IS THE FINAL EXPRESSION OF OUR AGREEMENT, AND IS A COMPLETE AND EXCLUSIVE STATEMENT OF THE TERMS OF THAT AGREEMENT. THIS LIMITED WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY BASED ON LOCALITY

2. **LIMITED DURATION.** ANY WARRANTY THAT MAY BE IMPLIED BY LAW (INCLUDING ANY IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE OR USE AND IMPLIED WARRANTY OF MERCHANTABILITY) IS LIMITED TO THE DURATION OF THE APPLICABLE WARRANTY PERIOD UNDER THIS LIMITED WARRANTY. SOME LOCALITIES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATIONS MAY NOT APPLY TO YOU.

3. EXCLUSIVE REMEDIES. SOME LOCALITIES, INCLUDING THE PROVINCE OF QUEBEC, DO NOT ALLOW THE EXCLUSION OR LIMITATION OF LIABILITY FOR INJURY TO PERSON OR FOR DAMAGES RESULTING FROM THE FAULT OF THE MANUFACTURER AND/OR THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES. AS SUCH, SOME OF THE FOLLOWING LIMITATIONS MAY NOT APPLY TO YOU. THE ABOVE REMEDIES ARE THE EXCLUSIVE REMEDIES FOR ANY BREACH OF THIS LIMITED WARRANTY. NO OTHER REMEDY, INCLUDING, BUT NOT LIMITED TO ANY SPECIAL, INCIDENTAL, INDIRECT OR CONSEQUENTIAL DAMAGES, FOR LOST PROFITS, LOST SALES, INJURY TO PERSON OR PROPERTY, OR ANY OTHER INCIDENTAL OR CONSEQUENTIAL LOSS SHALL BE AVAILABLE, AND ALL SUCH DAMAGES ARE HEREBY DISCLAIMED.

4. Engines, Transmissions and certain other components are NOT covered. This Limited Warranty does not cover any of the following:

(a) Engines and Attachments. Except where otherwise indicated on Exhibit A, all Engines and Attachments are not covered by this Limited Warranty. In most cases, these items are NOT manufactured by Husqvarna in which case they may be covered separately by their respective manufacturer's warranties if one is provided and included with the product at the time of purchase. All such claims must be submitted and sent to the appropriate manufacturer or as otherwise directed in those separate warranties. Husqvarna is not authorized to handle warranty adjustments or repairs on engines manufactured by Briggs & Stratton, Honda, Kawasaki, or Kohler (Husqvarna does handle warranty issues on engines manufactured by Liquid Combustion Technologies (LCT). Husqvarna does not assume any warranty obligation of the other manufacturers' engines under this Limited Warranty.

(b) *Transmissions*. Except where otherwise indicated on ExhibitA, Transmission / Transaxle (including Drive Systems) are not covered by this Limited Warranty. In most cases, these items are NOT manufactured by Husqvarna in which case they may be covered separately by their respective manufacturer's warranties if one is provided and included with the product at the time of purchase. The following transmission / transaxle manufacturers, Dana, Hydro-Gear, Tuff-Torq provide a warranty for the transmission / transaxle to the ultimate purchaser or to Husqvarna. Husqvarna will assign the transmission / transaxle manufacturer's warranty or any rights thereof to the original purchaser of the unit. To obtain transmission / transaxle warranty service, first contact the retailer who you purchased the unit from. Should you require assistance or have any questions concerning transmission / transaxle warranty coverage, contact Husqvarna directly at our website www.husqvarna.com or call 800-487-5951 (US) or 800-805-5523 (Canada) for an authorized Husqvarna service provider. All such claims must be submitted and sent to the appropriate manufacturer or as otherwise directed in those separate warranties. Husqvarna is not authorized to handle warranty adjustments or repairs on transaxles. Husqvarna does not assume any obligations under this Limited Warranty for the above listed manufacturers (for exceptions - see Exhibit A).

(c) *Expendable Parts*. This Limited Warranty does not cover general maintenance parts and items ("<u>Expendable Parts</u>"), including without limitation spark plugs, bulbs, filters, lubricants, starter cords, belts, blades, and blade adapters.

(d) *Emissions Control Components*. This Limited Warranty does not cover <u>Emissions control</u> equipment and components to the extent regulated by the U.S. Environmental Protection Agency or similar state, provincial or federal agencies. Such equipment and components are covered by a separate emission control warranty statement supplied with your new product. Please consult this separate warranty statement for details.

5. Any COMMERCIAL, INSTITUTIONAL, AGRICULTURAL, INDUSTRIAL, INCOME PRODUCING, or RENTAL use will result in either No Warranty or a Shortened Warranty Period. Depending on the product, there is either NO WARRANTY (whether statutory, contractual or otherwise) or a reduced warranty if the product is used for commercial, institutional, agricultural, industrial, income producing, or rental purposes and, in such circumstances, this Limited Warranty is offered instead of and replaces any warranty regime provided for by law. Please refer to Exhibit A.

6. Reconditioned or Refurbished Products have a 30 Day Limited Warranty. Under this Limited Warranty, Certified Factory Reconditioned or Refurbished products have a 30 Day Limited Warranty for parts and labor for Non-Commercial Use. Products are only reconditioned at the Husquarna Factory.

7. **Owner's (Your) Responsibilities.** To preserve your rights under this Limited Warranty, you must exercise reasonable care and use of the product, including, following the preventative maintenance, storage, fuel and oil usages as prescribed in the enclosed operator's manual. For example, the following items are the Owner's responsibility and are <u>not</u> covered by this Limited Warranty:

- a. Set-up and pre-delivery service, and engine tune-ups;
- b. Adjustments after the first (30) thirty days of purchase and beyond, such as throttle cable, belt guides adjustments; and
- c. Preventative maintenance as outlined in the operator's manual.

In addition, you must cease using the product immediately upon any failure or damage. The product should be taken to an authorized Husqvarna servicing dealer prior to any further use.

8. **Damages resulting from normal aging, wear and tear or neglect are NOT covered.** The Limited Warranty does not cover damage other than that resulting from defects in material or workmanship. The following are NOT considered defects in material or workmanship, and therefore are NOT covered.

- (a) Abrasion to mower decks;
- (b) Tires damaged by external punctures;
- (c) Natural discoloration of materials due to ultraviolet light;
- (d) Damage to cutting equipment by way of contact with, rocks, or other non-approved materials and/or structures;

In addition, this Limited Warranty does not cover damages, malfunctions or failures resulting from abuse or neglect of the product related to or including any of the following:

- (e) Failure to provide or perform required maintenance services as prescribed in the operator's manual;
- (f) Abuse, misuse, neglect, modifications, alterations, normal wear, improper servicing, use of unauthorized attachments, Lack of lubrication or engine failure, due to the use of oils that do not meet Engine manufacturer's specifications;
- (g) Use of gasohol (fuel containing ethanol), containing methanol (fuel containing wood alcohol). Ethanol fuel E15 or E85 <u>is NOT</u> approved for use in Husqvarna products. Using E15 or E85 fuel will cause major engine damage which <u>is NOT</u> covered by this Husqvarna warranty. NOTE: Gasohol (fuel containing ethanol), which contains a maximum 10% ethanol (grain alcohol) is approved. The prescribed mixing ratio of gasoline to oil is 50:1 and is listed in the Husqvarna oil label and covered in your operator's manual.
- (h) Use of ether or any starting fluids;
- (i) Pressure cleaning or steam cleaning the product;
- (j) Use of spark plugs other than those meeting emission performance requirements listed in the operator's manual;
- (k) Tampering with engine speed governor or emission components, or running engines above specified and recommended engine speeds as listed in your operator's manual;
- (1) Operation of the unit with improperly installed/removed or modified cutting shields, guards, or safety devices;
- (m) Any removed/damaged air filter, excessive dirt, abrasives, salt water, moisture, corrosion, rust, varnish, stale fuel, or any adverse reaction due to incorrect storage procedures;
- (n) Failures due to improper set up, pre-delivery service or repair service by anyone other than an authorized Husqvarna servicing dealer during the warranty period;
- Dirt contaminated grease or oil, use of incorrect type of greases or oils, failure to comply with recommended greasing intervals, water or moisture damage, and/or improper storage;
- (p) Sprayers pumping or spraying caustic or flammable materials, lack of or broken strainers; or
- (q) Continued use of product, after initial operational problem or failure occurs.

9. Reinforced Stamped (Armor Protected) 10 Year Limited & Fabricated Limited Lifetime, Deck Warranties. These Limited Warranties are for the deck shell only – mechanical components/parts such as belts, pulleys, spindle housings, bearings, blades, rods, height adjusters, caster/anti scalp wheels etc... are NOT covered. The Limited Lifetime Warranty does not cover damage other than that resulting from defects in material or workmanship. The following are NOT considered defects in material or workmanship, and therefore are NOT covered:

- (a) Abrasion to mower decks, including sand wear;
- (b) Damage to cutting equipment by way of contact with, rocks, or other non-approved materials and/or structures;
- (c) Rust and corrosion; and
- (d) Natural discoloration of paint or other materials due to ultraviolet light.

HOW TO OBTAIN SERVICE

10. Authorized Husqvarna Servicing Dealer/Center. In order to obtain warranty coverage it is your responsibility (at your expense) to deliver or ship your Husqvarna unit to an authorized Husqvarna Servicing Dealer/Center and arrange for pick-up or return of your unit after the repairs have been made. If you do not know the location of your nearest authorized Husqvarna Servicing Dealer, call Husqvarna, at 1-800-487-5951 during the hours of 8:00 AM to 8:00 PM Eastern Standard Time, or visit <u>www.husqvarna.com</u>. Should you require assistance or have questions concerning this Limited Warranty, you may contact us at 800-487-5951 (US) or 800-805-5523 (Canada) during the hours of 8:00 AM to 8:00 PM Eastern Standard Time or contact us through the web at www.husqvarna.com_

11. **Documentation Required.** You must maintain and present Proof of purchase (including date, product model and, if applicable, engine serial number) to an authorized Husqvarna Servicing Dealer for warranty service under this Limited Warranty. Proof of purchase rests solely with you. Husqvarna encourages you to register your product online at <u>www.usa.husqvarna.com</u> (US & Canada) to help ensure, among other things, that you can be notified of important product information. However, registering your product is not a condition of warranty service.

Husqvarna Professional Products, NA, Inc. 9335 Harris Corners Parkway, Suite 500, Charlotte, NC28269

Consumer Wheeled Limited Warranty Chart 2013			Exhibit A
Product/Component	Consumer (personal, household use only)	Commercial (any commercial, professional, institutional, agricultural, or income producing use, other than Rental Use)	Rental (any rental usage)
Riding Lawn Tractors:			
Frame, Chassis, Front Axle	5 Years	No Warranty	No Warranty
Engine*	2 \/ 4 4 4 4	No Memory	
Transmission (if made by Husqvarna/Peerless) Transmission (if third party)**	3 Years	No Warranty	No Warranty
XLS Models only - stamped deck shell. Armor			
Protected Limited Warranty	10 Years	No Warranty	No Warranty
Fabricated Deck shell. Limited Lifetime Warranty	***	No Warranty	No Warranty
Battery	1 Year Pro-rated	No Warranty	No Warranty
Other Non-Expendable Components	3 Years	No Warranty	No Warranty
Residential Zero Turn Mowers (RZ Only)			
Engine*	*	*	*
Transmission **	**	No Warranty	No Warranty
RZ4623 (967009801 & 967009802)			
RZ5426 (967003601 & 967003602) - stamped			
deck shell. Armor Protected Limited Warranty	10 Years	No Warranty	No Warranty
Fabricated Deck shell. Limited Lifetime Warranty	***	No Warranty	No Warranty
Battery	1 Year Pro-rated	No Warranty	No Warranty
Other Non-Expendable Components	3 Years	No Warranty	No Warranty
Residential Zero Turn Mowers (EZ, MZ, M-ZT)			*
Engine*	*	*	*
Transmission** (EZ & MZ Zero Turn) Transmission** (M-ZT Zero Turn)	2 Years ** 2 Years **	1 Year ** 2 Years **	90 days 90 days
MZ5424S, MZ5425S, MZ5424SR, stamped deck	2 16013	2 16813	90 uays
shell. Armor Protected Limited Warranty. Product			
# 967003902, 967003903, & 25021.	10 Years	No Warranty	No Warranty
Fabricated Deck shell. Limited Lifetime Warranty	***	No Warranty	No Warranty
Battery	1 Year Pro-rated	1 Year Pro-rated	No Warranty
Other Non-Expendable Components	3 Years	1 Year	No Warranty
Snow Throwers, Tillers, LE475 Edger	0 Touro		ito traitanty
Engine*	*	*	*
Auger Gearbox	5 Years	90 days	90 days
Other Non-Expendable Components	3 Years	90 days	90 days
Tiller Tines	***	No Warranty	No Warranty
Walk Behind Mowers, High Wheel Trimmer			
Engine*	*	*	*
Battery	1 Year Pro-rated	No Warranty	No Warranty
Other Non-Expendable Components Hovering Trimmers	3 Years	No Warranty	No Warranty
Engine*	*	*	*
Other Non-Expendable Components	2 Years	1 Year	90 days
Front Mounted Deck Riders (120S, 220T, 322T)	2 10013	11001	50 ddy3
Frame, Chassis, Front Axle	3 Years	No Warranty	No Warranty
Engine*	*	*	*
Transmission	**	No Warranty	No Warranty
Battery	1 Year Pro-rated	No Warranty	No Warranty
Other Non-Expendable Components	3 Years	No Warranty	No Warranty
Cultivators			
Battery	1 Year Pro-rated	No Warranty	No Warranty
			No Warranty
Other Non-Expendable Components	2 Years	No Warranty	No Warranty
Other Non-Expendable Components Spreaders			
Other Non-Expendable Components Spreaders Spreader	2 Years 1 Year	No Warranty 1 Year	1 Year
Other Non-Expendable Components Spreaders Spreader Robotic Mowers	1 Year	1 Year	1 Year
Other Non-Expendable Components Spreaders Spreader			

Consumer Wheeled Limited Warranty Chart 2013 Exhibit A Consumer (personal, Commercial (any commercial, (any commercia

	Consumer (personal, household use only)	Commercial (any commercial, professional, institutional, agricultural, or income producing use,	Rental (any rental usage)
Product/Component		other than Rental Use)	
Parts & Accessories (if purchased)			
Accessories (e.g., grass catcher, bumper guard			
accessories, etc.	1 Year	No Warranty	No Warranty
Parts (e.g., belts, blades, etc.)	90 days	No Warranty	No Warranty
Parts & Accessories (if replaced in Warranty Service)			
Replacement parts and/or accessories provided under this Limited Warranty are warranted only for the BALANCE of the warranty period applicable to the part or accessory that was			
replaced.	See to left	See to left	See to left
	Consumer	Commercial	Rental

* See Separate Engine Manufacturer's or Manufacturer's warranty. LCT Engines on specific Snow Throwers & Tillers, warranty through Husqvarna.

** See reference 4 (b) of the warranty statement.

RZ - Two (2) Year Consumer warranty, parts & labor, with Hydro-Gear Distributor network.

EZ - One (1) Year Commercial warranty, parts & labor, with Husqvarna.

Two (2) Year Consumer warranty, parts & labor, with Hydro-Gear Distributor network.

MZ - (ZT3100 Transmission) One (1) Year Commercial warranty, parts & labor, with Hydro-Gear Distributor network.

(ZT3100 Transmission) Two (2) Years Consumer warranty, parts & labor, with Hydro-Gear Distributor network.

M-ZT - (ZT3400 transmission) Two (2) Year warranty, parts & labor, with Hydro-Gear Distributor network.

*** "Limited Lifetime Warranty" on Tiller tines and Fabricated Deck shell is for the life of the product or 7 (seven) years after the last date of the complete unit's final production, whichever comes first. Deck Shell replacement will be limited to a maximum of two (2) decks within the Limited Lifetime Warranty.

Armor Protected Stamped Deck Shell Example Below



Fabricated Deck Shell Example Below



Armor Protected Stamped Deck Shell Reinforced area

Stamped Deck Shell below, NOT reinforced



No reinforced area

07/09/2014 TH/AP