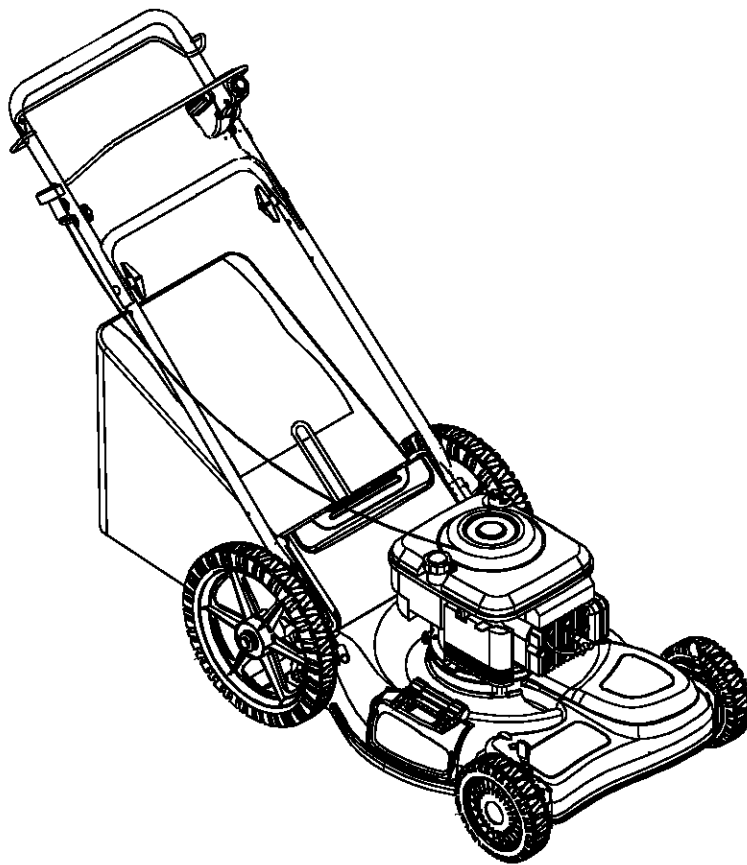




Operator's Manual



21" Three-in-One
Self Starter
Self-Propelled
Mower

Model
560 Series

IMPORTANT: READ SAFETY RULES AND INSTRUCTIONS CAREFULLY

Warning: This unit 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.

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

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TABLE OF CONTENTS

Content	Page
Important Safe Operation Practices.....	3
Slope Gauge.....	6
Assembling Your Lawn Mower.....	7
Know Your Lawn Mower	9
Operating Your Lawn Mower	10
Making Adjustments	12
Maintaining Your Lawn Mower.....	13
Off-Season Storage	16
Troubleshooting.....	17
Parts List.....	18

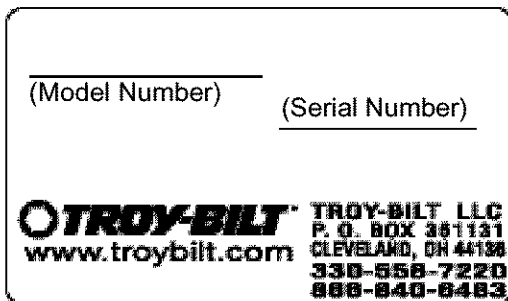
FINDING MODEL NUMBER

This Operator's Manual is an important part of your new lawn mower. It will help you assemble, prepare and maintain the unit for best performance. Please read and understand what it says.



Before you start assembling your new equipment, please locate the model plate on the equipment and copy the information from it in the space provided below. The information on the model plate is very important if you need help from our Customer Support Department or an authorized Service dealer.

- You can locate the model number by standing at the operating position and looking down at the rear of the mower. A sample model plate is explained below. For future reference, please copy the model number and the serial number of the equipment in the space below.



Copy the model number here: _____

Copy the serial number here: _____

ENGINE INFORMATION

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.

CALLING CUSTOMER SUPPORT

If you have difficulty assembling this product or have any questions regarding the controls, operation or maintenance of this unit, please call the Customer Support Department.



Call **1- (330) 558-7220** or **1-(866)-840-6843** to reach a Customer Support representative. Please have your unit's model number and serial number ready when you call. See previous section to locate this information. You will be asked to enter the serial number in order to process your call.

For more details about your unit, visit our website at www.troybilt.com

SECTION 1: IMPORTANT SAFE OPERATION PRACTICES



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.



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 rules for safe operation 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 hands and feet and throwing objects. Failure to observe the following safety instructions could result in serious injury or death.

General Operation

1. Read this operator's manual carefully in its entirety before attempting to assemble this machine. Read, understand, and follow all instructions on the machine and in the manual(s) before operation. Be completely familiar with the controls and the proper use of this machine before operating it. Keep this manual in a safe place for future and regular reference and for ordering replacement parts.
2. This machine is a precision piece of power equipment, not a plaything. Therefore, exercise extreme caution at all times. Your unit has been designed to perform one job: to mow grass. Do not use it for any other purpose.
3. Never allow children under 14 years old to operate this machine. Children 14 years old and over should read and understand the operation instructions and safety rules in this manual and should be trained and supervised by a parent. Only responsible individuals who are familiar with these safe operation rules should use this machine.
4. Thoroughly inspect the area where the equipment is to be used. Remove all stones, sticks, wire, bones, toys and other foreign objects which could be tripped over or picked up and thrown by the blade. Thrown objects can cause serious personal injury. Plan your mowing pattern to avoid discharge of material toward roads, sidewalks, bystanders and the like. Also, avoid discharging material against a wall or obstruction which may cause discharged material to ricochet back toward the operator.
5. To help avoid blade contact or a thrown object injury, stay in the operator zone behind the handles and keep bystanders, helpers, children and pets at least 75 feet from the machine while it is in operation. Stop machine if anyone enters the area.
6. Always wear safety glasses or safety goggles during operation and while performing an adjustment or repair to protect your eyes. Thrown objects which ricochet can cause serious injury to the eyes.
7. Wear sturdy, rough-soled work shoes and close-fitting slacks and shirts. Shirts and pants that cover the arms and legs and steel-toed shoes are recommended. Never operate this machine in bare feet, sandals, slippery or light weight (e.g. canvas) shoes.
8. Do not put hands or feet near rotating parts or under the cutting deck. Contact with the blade can amputate hands and feet.
9. A missing or damaged discharge cover can cause blade contact or thrown object injuries.
10. Many injuries occur as a result of the mower being pulled over the foot during a fall caused by slipping or tripping. Do not hold on to the mower if you are falling; release the handle immediately.
11. Never pull the mower back toward you while you are walking. If you must back the mower away from a wall or obstruction first look down and behind to avoid tripping and then follow these steps:
 - a. Step back from the mower to fully extend your arms.
 - b. Be sure you are well balanced with sure footing.
 - c. Pull the mower back slowly, no more than half way toward you.
 - d. Repeat these steps as needed.
12. Do not operate the mower while under the influence of alcohol or drugs.
13. Do not engage the self-propelled mechanism on units so equipped while starting engine.
14. The blade control handle is a safety device. Never attempt to bypass its operation. Doing so makes the safety device inoperative and may result in personal injury through contact with the rotating blade. The blade control handle must operate easily in both directions and automatically return to the disengaged position when released.
15. Never operate the mower in wet grass. Always be sure of your footing. A slip and fall can cause serious personal injury. If you feel you are losing your footing, release the blade control handle immediately and the blade will stop rotating within three seconds.
16. Mow in daylight or good artificial light. Walk, never run.
17. Stop the blade when crossing gravel drives, walkways or roads.
18. If the equipment should start to vibrate abnormally, stop the engine and check immediately for the cause. Vibration is generally a warning of trouble.
19. Shut the engine off and wait until the blade comes to a complete stop before removing the grass catcher or unclogging the chute. The cutting blade continues to rotate for a few seconds after the engine is shut off. Never place any part of the body in the blade area until you are sure the blade has stopped rotating.
20. Never operate mower without proper trail shield, discharge cover, grass catcher, blade control handle or

other safety protective devices in place and working. Never operate mower with damaged safety devices. Failure to do so, can result in personal injury.

21. Muffler and engine become hot and can cause a burn. Do not touch.
22. Only use parts and accessories made for this machine by the original equipment manufacturer (O.E.M). Failure to do so can result in personal injury.
23. If situations occur which are not covered in this manual, use care and good judgment. Contact your dealer for assistance. Telephone 1-866-840-6483 for the name of your nearest dealer.

Slope Operation

Slopes are a major factor related to slip and fall accidents which can result in severe injury. Operation on slopes requires extra caution. If you feel uneasy on a slope, do not mow it. Before operating this unit on a slope or hilly area, use the slope gauge on page 6 to measure slopes. If the slope is greater than 15 degrees, do not mow it.

Do:

1. Mow across the face of slopes; never up and down. Exercise extreme caution when changing direction on slopes.
2. Watch for holes, ruts, rocks, hidden objects, or bumps which can cause you to slip or trip. Tall grass can hide obstacles.
3. Always be sure of your footing. A slip and fall can cause serious personal injury. If you feel you are losing your balance, release the blade control handle immediately, and the blade will stop rotating within 3 seconds.

Do Not:

1. Do not mow near drop-offs, ditches or embankments, you could lose your footing or balance.
2. Do not mow slopes greater than 15 degrees as shown on the slope gauge.
3. Do not mow on wet grass. Unstable footing could cause slipping.

Children

Tragic accidents can occur if the operator is not alert to the presence of children. Children are often attracted to the mower and the mowing activity. They do not understand the dangers. Never assume that children will remain where you last saw them.

1. Keep children out of the mowing area and under the watchful care of a responsible adult other than the operator.
2. Be alert and turn mower off if a child enters the area.
3. Before and while moving backwards, look behind and down for small children.
4. Use extreme care when approaching blind corners, doorways, shrubs, trees, or other objects that may obscure your vision of a child who may run into the mower.
5. Keep children away from hot or running engines. They can suffer burns from a hot muffler.
6. Never allow children under 14 years old to operate a

power mower. Children 14 years old and over should read and understand the operation instructions and safety rules in this manual and should be trained and supervised by a parent.

Service

Safe Handling Of Gasoline:

1. 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.
2. Wash your skin and change clothes immediately.
3. Use only an approved gasoline container.
4. 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.
5. 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.
6. 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.
7. Extinguish all cigarettes, cigars, pipes and other sources of ignition.
8. Never fuel machine indoors because flammable vapors will accumulate in the area.
9. Never remove gas cap or add fuel while the engine is hot or running. Allow engine to cool at least two minutes before refueling.
10. Never over fill fuel tank. Fill tank to no more than ½ inch below bottom of filler neck to provide space for fuel expansion.
11. Replace gasoline cap and tighten securely.
12. If gasoline is spilled, wipe it off the engine and equipment. Move unit to another area. Wait 5 minutes before starting the engine.
13. Never store the machine or fuel container inside where there is an open flame, spark or pilot light as on a water heater, space heater, furnace, clothes dryer or other gas appliances.
14. To reduce fire hazard, keep mower free of grass, leaves, or other debris build-up. Clean up oil or fuel spillage and remove any fuel soaked debris.
15. Allow a mower to cool at least 5 minutes before storing.

General Service:

1. Never run an engine indoors or in a poorly ventilated area. Engine exhaust contains carbon monoxide, an odorless and deadly gas.
2. Before cleaning, repairing, or inspecting, make certain the blade and all moving parts have stopped. Disconnect the spark plug wire and ground against the engine to prevent unintended starting.
3. Check the blade and engine mounting bolts at frequent intervals for proper tightness. Also, visually inspect blade for damage (e.g., bent, cracked, worn) Replace blade with the original equipment manufacture's (O.E.M.) blade only, listed in this manual. "Use of parts which do not

meet the original equipment specifications may lead to improper performance and compromise safety!"

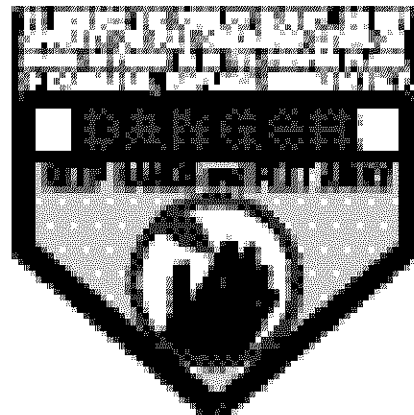
4. Mower blades are sharp and can cut. Wrap the blade or wear gloves, and use extra caution when servicing them.
5. Keep all nuts, bolts, and screws tight to be sure the equipment is in safe working condition.
6. Never tamper with safety devices. Check their proper operation regularly.
7. After striking a foreign object, stop the engine, disconnect the spark plug wire and ground against the engine. Thoroughly inspect the mower for any damage. Repair the damage before starting and operating the mower.
8. Never attempt to make a wheel or cutting height adjustment while the engine is running.
9. Grass catcher components, discharge cover, and trail shield are subject to wear and damage which could expose moving parts or allow objects to be thrown. For safety protection, frequently check components and

replace immediately with original equipment manufacturer's (O.E.M.) parts only, listed in this manual. "Use of parts which do not meet the original equipment specifications may lead to improper performance and compromise safety!"

10. Do not change the engine governor setting or overspeed the engine. The governor controls the maximum safe operating speed of the engine.
11. Maintain or replace safety and instruction labels, as necessary.
12. Observe proper disposal laws and regulations. Improper disposal of fluids and materials can harm the environment.
13. ALWAYS de-energize self starter prior to performing any maintenance or service to the engine and or mower. Follow instructions both in manual and on the engine and or machine to de-energize starter.

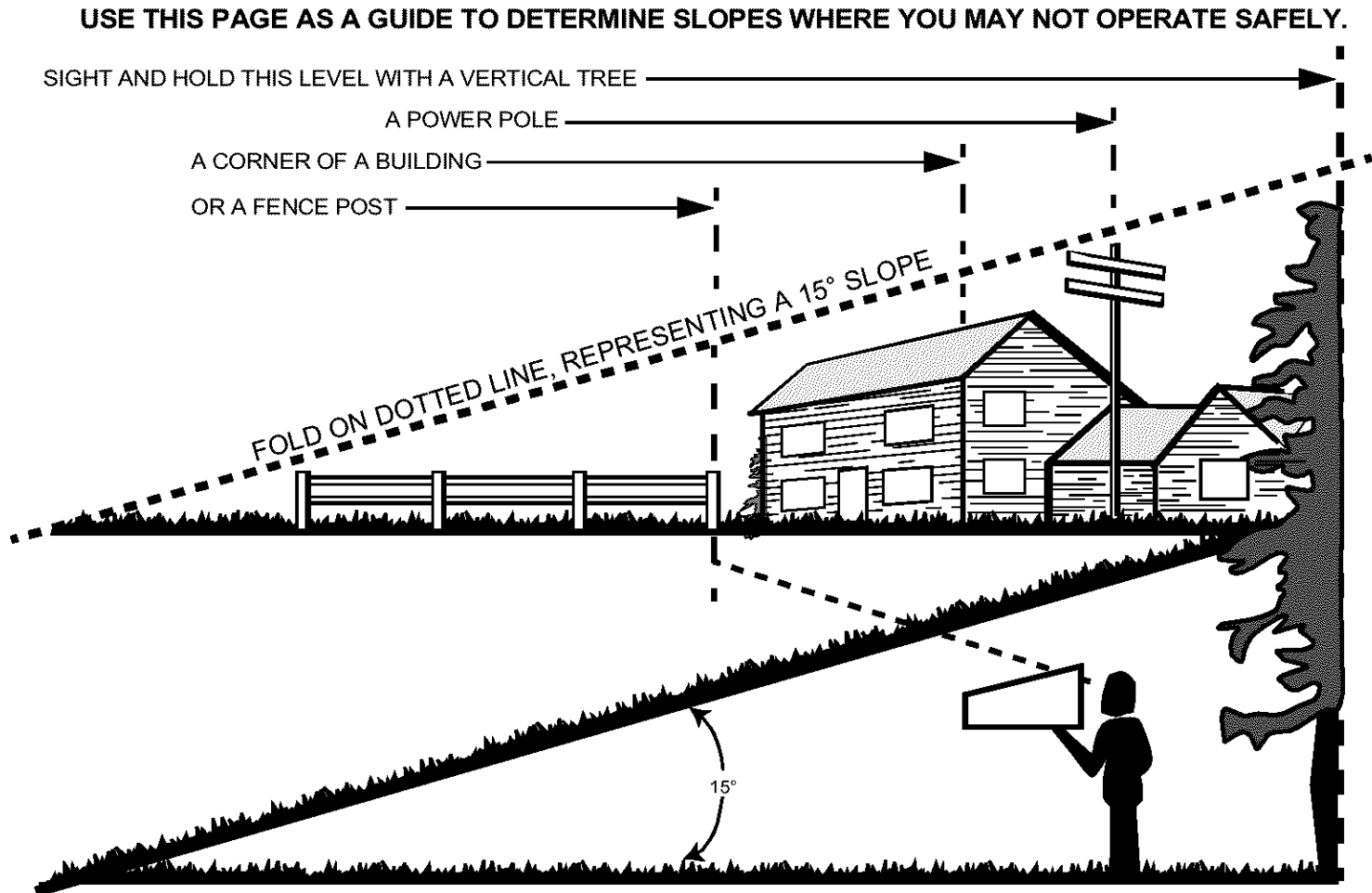
Your Responsibility

- 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.



SECTION 2: SLOPE GAUGE

Use this page as a guide to determine slopes where you may not operate the lawn mower safely.



WARNING



Do not mow on inclines with a slope in excess of 15 degrees (a rise of approximately 2-1/2 feet every 10 feet). A riding mower could overturn and cause serious injury. If operating a walk-behind mower on such a slope, it is extremely difficult to maintain your footing and you could slip, resulting in serious injury. Operate RIDING mowers up and down slopes, never across the face of slopes. Operate WALK-BEHIND mowers across the face of slopes, never up and down slopes.

SECTION 3: ASSEMBLING YOUR LAWN MOWER

To Remove Unit From Carton

- Remove staples, break glue on top flaps, or cut tape at carton end and peel along top flap to open carton.
- Remove loose parts included with your unit (i.e., operator's manual, etc.).
- Cut along corners and lay carton down flat. Remove packing material.
- Roll or slide unit out of carton.

Hardware Pack

1. Carriage Bolt 1/4-20 x .75" (2)
2. Wing Nut with Bell Washer (2)

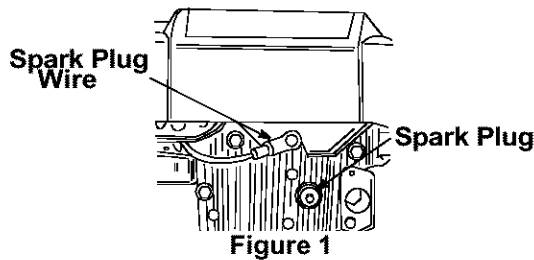
Tools Required

1. Pair of Pliers
2. Funnel

NOTE: Reference to right or left hand side of the mower is observed from the operating position.

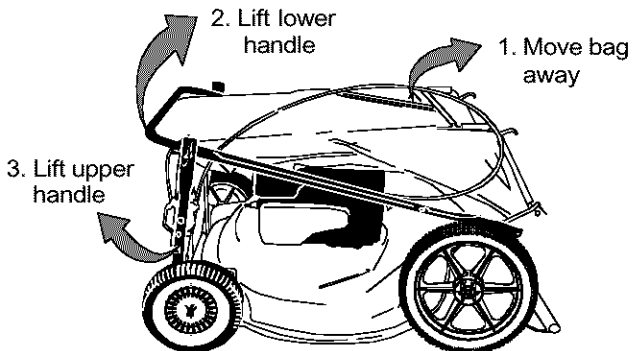
Disconnecting Spark Plug

- Before setting up your lawn mower, disconnect the spark plug wire from the spark plug, and ground it against the engine. See Figure 1.



Assembling Handle

- For shipping purposes, the grass bag was placed on top of the unit. Remove it from the unit and set it out of the way. See Figure 2.



- Raise the lower handle, as shown in Figure 2, till it snaps into place.
- Raise the upper handle as shown in Figure 2.
- Tighten the two wing nuts which are already on the handle. See Figure 3.

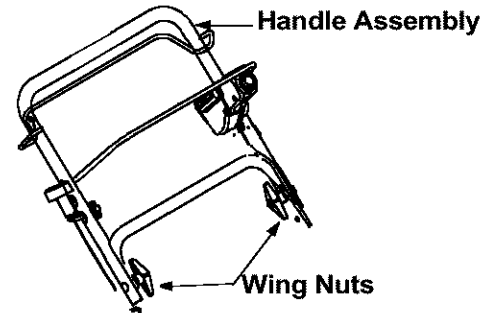


Figure 3

NOTE: Make sure to route the cables outside the lower handle. Also do not crimp the cables while lifting the handle up.

- Place rear wheels in the highest height position using the rear height adjustment lever.
- Remove the hairpin clips from the outer hole in the weld pins on the handle mounting brackets. Using a pair of pliers, squeeze one leg of the lower handle against the handle mounting bracket. Insert the hairpin clip into the inner hole on the weld pin. Repeat on the other side. See Figure 4.

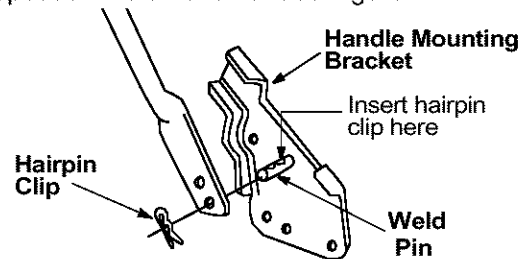


Figure 4

- Insert post of cable ties that are on lower handle into the holes provided on the lower handle. The holes may be on the inside or outside. Pull cable ties tight and cut off the extra. See Figure 5.

NOTE: Holes can be on the inside or outside of the handle.

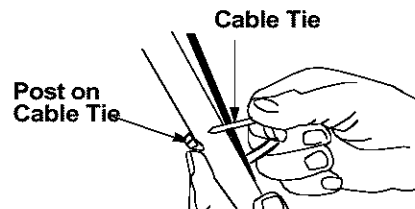


Figure 5

Attaching Starter Rope

The rope guide is already attached to the right side of the lower handle of your mower.

- The rope guide is attached to the right side of upper handle. Loosen the wing nut which secures the rope guide. See Figure 6.
- With spark plug wire disconnected and grounded, hold the blade control handle against the upper handle, and pull the starter rope out of the engine. Release blade control handle. Slip the rope into the rope guide. Tighten the wing nut. See Figure 6.

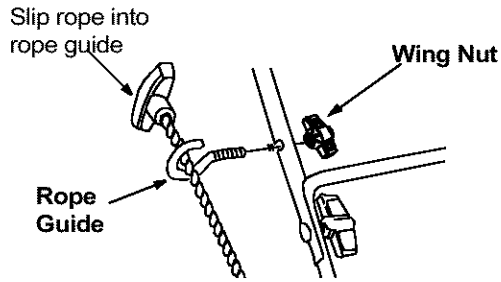


Figure 6

- Tighten all nuts and bolts securely.
- After you have moved the hairpin clips as shown in Figure 4, place one carriage bolt (found in the hardware pack included with your unit) in the upper hole of the right handle mounting bracket from the inside outward. See Figure 7. Secure with one plastic wing nut. Repeat process on the left side

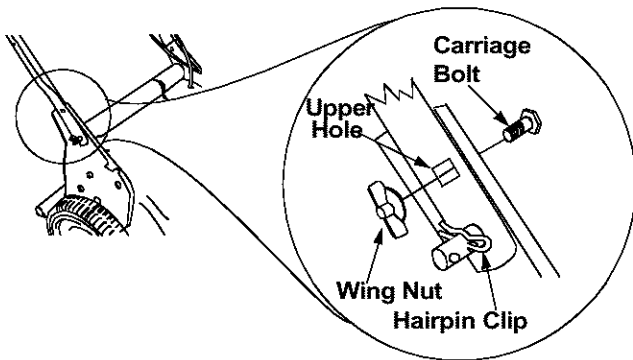


Figure 7

Attaching Grass Catcher To Mower

NOTE: The mulching baffle is already in place on the mower for shipping purposes. Your lawn mower is equipped with both a mulching baffle and a mulching plug. While the mulching baffle is located at the rear of the mower, the mulching plug is located on the right side of the cutting deck. Do not remove the mulching plug from the mower even when you are not mulching the grass.

- To remove the mulching baffle, lift the rear discharge door on the mower. Remove the mulching baffle. See Figure 8.

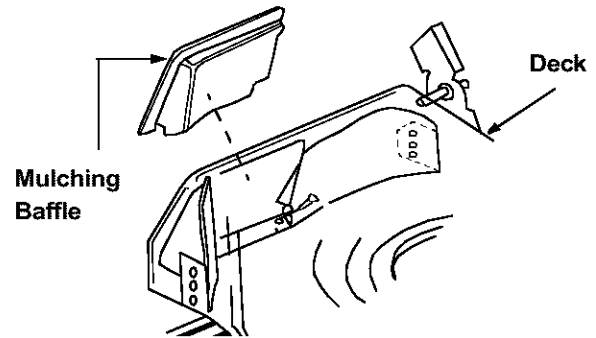


Figure 8

IMPORTANT: Make sure cables are routed to the outside of the handle so they are not in the way when attaching the grass catcher.

- Lift the rear discharge door on the mower.
- Place the hooks, found on both sides of the grass catcher frame, over the chute door pivot rod at the rear of the mower. See Figure 9. Release the rear discharge door.
- **To remove the grass catcher**, lift the rear discharge door on the mower. Lift the grass catcher up and off the pivot rod. Reinstall the mulching baffle and release the rear discharge door. See Figure 9.



WARNING: Never operate the mower unless the hooks on the grass catcher are firmly seated on the chute pivot rod, and the rear discharge door rests firmly against the top of the grass catcher.

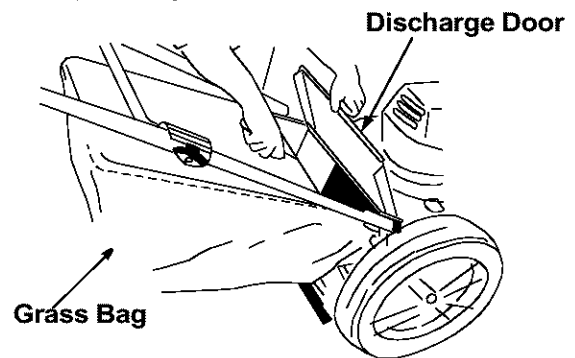


Figure 9

Converting To Side Discharge

- Lift the rear discharge door and install the mulching baffle. See Figure 8.
- On the side of the mower, lift the mulching plug. See Figure 10.
- Slide the two hooks of the side discharge chute under the hinge pin on the mulching plug assembly as shown in Figure 10. Lower the side mulching plug.

- Do not remove the side mulching plug at any time, even when you are not mulching.

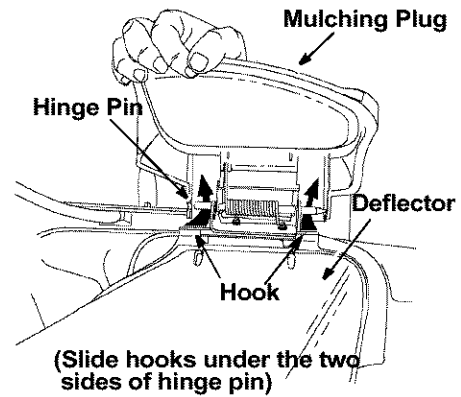


Figure 10

SECTION 4: KNOW YOUR LAWN MOWER

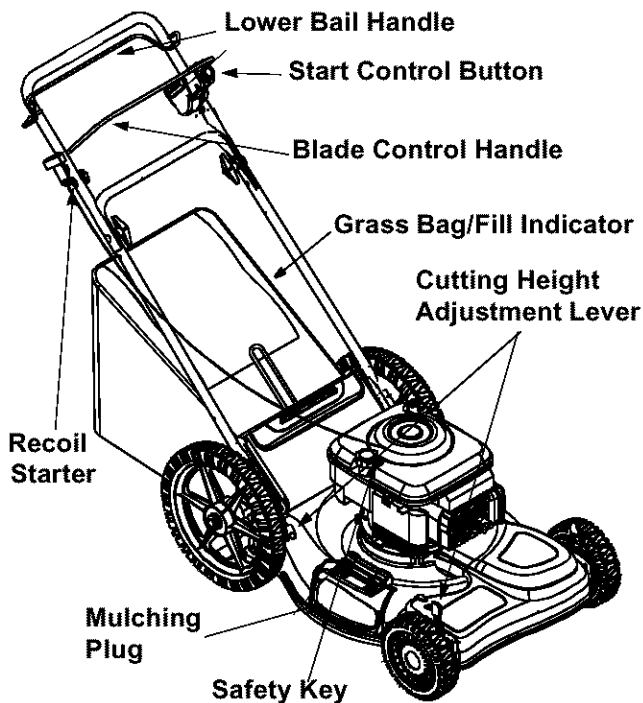


Figure 11



WARNING: Be familiar with all controls and their proper operation. Know how to stop the machine and disengage them quickly.

Blade Control Handle

The blade control handle is located on the upper handle of the mower. The blade control handle and starter control button must be depressed in order to operate the unit. Release blade control handle to stop engine and blade and to energize the self starter. See Figure 11.



WARNING: The blade control handle is a safety device. Never attempt to bypass its operations. Doing so, may result personal injury through contact with the rotating blade. The blade will rotate whenever the engine is running and when the self starter is de-energized.

Lower Bail Handle

The lower bail handle is located on the upper handle and is used to engage the drive. Squeeze the bail handle against the upper handle to engage the drive; release it to slow down or stop the mower from propelling. See Figure 11.

Recoil Starter

The recoil starter is attached to the right lower handle. The recoil starter is used to start the engine when the self starter is in the de-energized mode. See .

Cutting Height Adjustment Lever

This lever, located at each wheel, lets you adjust cutting height of the grass. Remember to put all four levers at the same height to avoid uneven cut. See Figure 11.

Mulching Plug

Both the mulching baffle and the mulching plug are used only for mulching purposes. Instead of collecting the grass clippings in a grass catcher, your mower has the option of recirculating the clippings back to the lawn. This is called mulching.

Throttle Speed

Your lawn mower engine is equipped with a constant speed throttle, which is set at full throttle for best performance.

Safety Key

The safety key is located on the engine. See Figure 11. The safety key is a safety device used to activate and deactivate the self starter system. The self starter system will not work without the key in its proper position. See your engine manual for more information on the safety key. See Figure 11.

NOTE: *The safety key must be in the run position to start the mower for both systems, either the self starter or recoil starter.*

Start Control Button

The start control button is located on the upper left side of the upper handle. See Figure 11. The start control button must be depressed fully while pulling the blade control handle toward upper handle for the engine to

start. The starter control button will automatically return to the off/up position once the blade control handle is released. See Figure 11.

The starter control button must be depressed to start the engine either with the self starter or recoil starter system.

Grass Bag Fill Indicator

The grass bag is equipped with a bag-fill indicator to add convenience to your work. While the mower is running, air will flow through the bag and into the "sail." If the grass catcher is **empty**, air flows through easily pushing the sail up. If the grass catcher is **full**, air does not flow through it allowing the sail to fall. So the position of the sail acts as a bag-fill indicator signifying when to empty the grass bag. See Figure 11.

SECTION 5: OPERATING YOUR LAWN MOWER



WARNING: Be sure no one other than the operator is standing near the lawn mower while starting engine or operating mower.

WARNING: Never run engine indoors or in enclosed, poorly ventilated areas. Engine exhaust contains carbon monoxide, an odorless and deadly gas.

WARNING: Keep hands, feet, hair and loose clothing away from any moving parts on engine and lawn mower.

Gas and Oil Fill-Up

- Service the mower engine with gasoline and oil following instructions in the engine manual. If your mower was shipped with oil in the engine, fill up the required amount of gasoline only. Always make sure there is adequate oil in the engine before starting the engine.



WARNING: Never fill fuel tank indoors, with engine running or until the engine has been allowed to cool for at least two minutes after running.

Adjusting Cutting Height

- Your mower was shipped at the highest cutting height. For best results in mowing, keep the cutting height position high until it is determined which height is best for your lawn.
- Refer to height adjustments section of this manual on page 12 for instruction on how to adjust the cutting height and the handle height.

Before Starting Mower

- Attach spark plug wire to spark plug. Make certain the metal cap on the end of the spark plug wire (inside the rubber boot) is fastened securely over the metal tip on the spark plug.

First Time Starting Engine

NOTE: *Use recoil starter rope to start engine for the very first time. The mower is shipped with the safety key in the locked position and the self starter in the de-energized mode, follow instructions as follows:*

1. Place lawn mower on a level surface outdoors.
2. Remove plastic wrap under fuel cap.
3. Check oil level.
4. Add fuel.
5. Open shut off valve (if equipped) 1/4 turn.
6. Push spark plug wire firmly on spark plug.
7. Turn self starter safety key 1/4 turn clockwise to RUN position.
8. Firmly push primer bulb 3 times.
9. While standing at upper handle, depress the starter control button fully with the thumb of your right hand.
10. Using your left hand, pull the blade control handle all the way toward the upper handle.
11. Release the button.
12. Grasp the recoil rope starter handle with your right hand and slowly pull towards you until you feel a slight resistance, then pull firmly until your arm is fully extended.
13. If engine does not start by second pull, repeat steps 8, 9 10, 11 and 12.

Second Time Starting Engine

NOTE: Follow these instructions if the self starter is already in the energized mode.



WARNING: NEVER assume starter is in the de-energized mode, even if the key is in the locked position and or removed from the engine. ALWAYS de-energize starter prior to performing any maintenance or service to the engine and or mower. Follow instructions on the engine and or machine to de-energize starter.

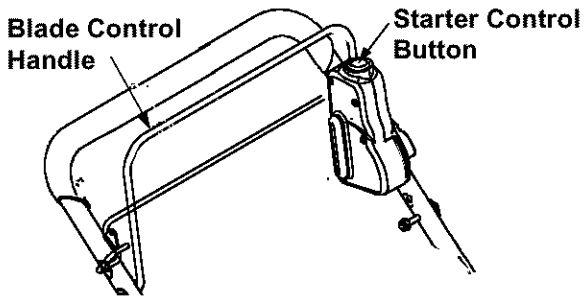


Figure 12

1. Check oil level and add fuel, if necessary.
2. Open shut off valve (if equipped) 1/4 turn.
3. Turn safety key 1/4 turn clockwise to RUN position.
4. Firmly push primer bulb 3 times (For a cold engine only!).
5. While standing at upper handle, depress the starter control button with the thumb of your right hand.
6. Using your left hand, pull the blade control handle all the way toward the upper handle. See Figure 12. Starter will de-energize and engine will start. (NOTE: If engine does not start, release blade control handle and follow steps 8, 9, 10, 11 and 12 in the "First Time Starting Engine" instructions.)

NOTE: If any problems are encountered, refer to the *Trouble Shooting Guide* for helpful information.

To Stop Engine and Blade



WARNING: The blade will continue to rotate for three seconds after the blade control lever is released.

1. Release safety blade control handle (the start control button will automatically return to the off/up position), engine and blade will stop within a few seconds.

NOTE: Engine may stop with a ratcheting sound. This sound is the self starter being reactivated/energized for the next start.

2. Turn safety key 1/4 turn counterclockwise to LOCK position. Remove key and store in a safe place.

To De-Energize Self Starter

- Remove spark plug wire from spark plug.
- Turn safety key to RUN position (1/4 turn clockwise).
- While standing in the operating position, depress the starter control button fully with the thumb of your right hand.
- Using your left hand, pull the control handle all the way toward the upper handle. (Release button and wait until blade and starter stop rotating).
- Release safety blade control handle (the start control button will automatically return to the off/up position).
- Remove safety key.

NOTE: Engine will crank over upon actuating equipment starting controls, but will not spark if spark plug wire was removed from spark plug as described above. Once engine has stopped cranking, self starter is de-energized.



WARNING: Self Starting System: If these instructions are not followed, amputation or severe laceration can result.

- ALWAYS disconnect spark plug, de-energize starter, lock and remove safety key BEFORE performing ANY service to the engine or mower.
- DO NOT attempt any maintenance or repairs to the self starter.
- NEVER assume starter is de-energize, even if key is in LOCK AND REMOVE position and/or removed from engine.
- BEFORE removing grass or other debris from under mower deck; BEFORE changing oil, air filter or spark plug; BEFORE removing blade for servicing; BEFORE performing any other service to engine or mower; BEFORE transporting mower- ALWAYS DE-ENERGIZE SELF STARTER.

Using Your Rotary Mower



WARNING: Never operate your unit without either the rear deflector or entire grass catcher assembly in place.

- Be sure that lawn is clear of stones, sticks, wire, or other objects which could damage lawn mower or engine. Such objects could be accidentally thrown by the mower in any direction and cause serious personal injury to the operator and others.
- For best results, do not cut wet grass because it tends to stick to the underside of the mower, preventing proper discharge of grass clippings, and could cause you to slip and fall. New grass, thick grass or wet grass may require a narrower cut.
- Blade speed should be adjusted to the condition of the lawn.

- For a healthy lawn, never cut more than one-third of the length of the grass at any one cutting. Lawn should be cut in the fall as long as there is growth.



WARNING: If you strike a foreign object, stop the engine. Remove wire from spark plug and de-energize starter, turn key off and remove. Thoroughly inspect the mower for any damage, and repair the damage before restarting and operating the mower. Excessive vibration of the mower during operation is an indication of damage. The unit should be promptly inspected and repaired.

Using the Mulcher

- For effective mulching, do not cut wet grass because it tends to stick to the underside of the deck, preventing proper mulching of grass clippings. New or thick grass may require a narrower cut. The ground speed should be adjusted to the condition of the lawn. If mowing has been delayed and the grass has been allowed to grow in excess of 4", mulching is not recommended. Mow using the grass bag to reduce the grass height to 3-1/4" maximum before mulching.

SECTION 6: MAKING ADJUSTMENTS



WARNING: Be sure to disconnect the spark plug wire and De-energize starter before performing any adjustments or repairs. DO NOT attempt any maintenance or service to the engine and or mower equipped with the safety key in the unlocked and or energized mode.



WARNING: NEVER assume starter is de-energized, even if the key is in the locked position and or removed from the engine. ALWAYS de-energize starter prior to performing any maintenance or service to the engine and or mower. Follow instructions on the engine and or machine to de-energize starter.

Adjusting Handle Height

Your mower is shipped with the handle in the higher height position. To lower the handle height for your convenience, proceed as follows:

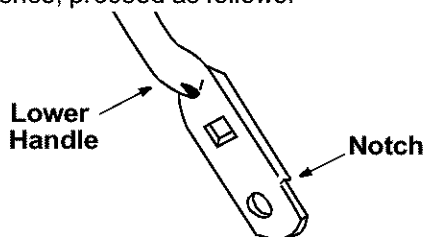


Figure 13

- Remove the starter rope from the rope guide.
- Remove the upper handle by removing the hand knobs and carriage bolts. Lay the upper handle out of the way, being careful not to bend or kink cables.
- Remove the hairpin clips from the weld pins on the handle brackets. Press outward on the legs of the lower handle, and remove it from the mower.

- Remove carriage bolts and wing nuts from the two handle brackets on both sides.
- Turn the lower handle around so the notches on the bottom of the lower handle are facing forward as shown in Figure 13. Reassemble, placing the bottom holes in the handle over the weld pins in the handle mounting bracket.
- Reassemble the upper handle.
- Place the hairpin clips in the inner holes in the weld pins. Secure carriage bolts and wing nuts on the handle brackets. Reattach the starter rope.

Carburetor



WARNING: If any adjustments are made to the engine while the engine is running (e.g. carburetor), keep clear of all moving parts and heated surfaces (e.g. muffler).

Minor carburetor adjustments may be required to compensate for differences in fuel, temperature, altitude and load. To adjust carburetor, refer to the engine manual.

NOTE: A dirty air cleaner will cause an engine to run rough. Be certain air cleaner is clean and attached to the carburetor before adjusting carburetor.

Cutting Height

An adjusting plate and thumb lever at each wheel position provides cutting height adjustment. Each adjusting plate has nine height positions. Height of cut will be changed when the thumb lever is moved from one hole to another.

- Simply depress the lever towards wheel and move wheel and lever assembly to desired position. All wheels must be placed in the same relative position. See Figure 14.

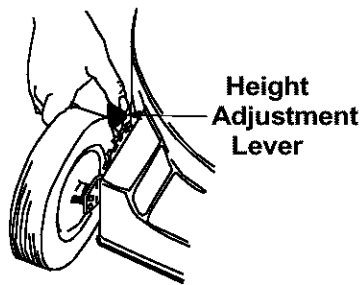


Figure 14

SECTION 7: MAINTAINING YOUR LAWN MOWER



WARNING: Be sure to disconnect the spark plug wire and De-energize starter before performing any repairs or maintenance. DO NOT attempt any maintenance or service to the engine and or mower equipped with the safety key in the unlocked and or energized mode.



WARNING: NEVER assume starter is de-energized, even if the key is in the locked position and/or removed from the engine. ALWAYS de-energize starter prior to performing any maintenance or service to the engine and or mower. Follow instructions on the engine and or machine to de-energize starter. Always observe safety rules when performing any maintenance.

Replacing Rear Flap

- To remove rear flap, cut off the flat end of the wire rod which secures it to the deck. See Figure 15.
- Attach the new flap and new rod to deck, bending the ends of the new rod over to secure to deck.

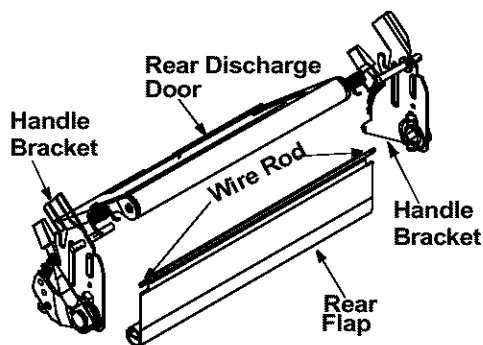


Figure 15

Deck Care

NOTE: We do not recommend the use of pressure washers or garden hose to clean your unit. These may cause damage to electric components, spindles,

pulleys, bearings or the engine. The use of water will shorten life of the mower and reduce its serviceability.

- The underside of the mower deck should be cleaned after each use to prevent a build-up of grass clippings, leaves, dirt or other matter. If this debris is allowed to accumulate, it will invite rust and corrosion, and may cause an uneven discharge of grass clippings at the next cutting.
- The deck may be cleaned by tilting the mower and scraping clean with a suitable tool (make certain the spark plug wire is disconnected).

Engine

A list of key maintenance jobs required for good performance by the mower is given below. Follow the accompanying engine manual for detailed list and instructions.

- Change engine oil after the first two operating hours and every 25 operating hours thereafter. Always check oil level before starting engine.
- Clean the engine periodically. Remove dirt and debris with a cloth or brush. We do not recommend the use of pressure washers or garden hose to clean your unit. These may cause damage to electric components, spindles, pulleys, bearings or the engine. The use of water will shorten life of the mower and reduce its serviceability.
- Clean the spark plug and reset the gap to .030" at least once a season or every 50 hours of operation. Spark plug replacement is recommended at the start of each season. Refer to the engine manual for correct spark plug type.
- Inspect muffler periodically, and replace if necessary. Damaged mufflers or spark arresters can create a fire hazard.



WARNING: Make sure to avoid muffler and surrounding areas while the mower engine is hot because temperature of these areas of the engine may exceed 150° F.

Lubrication

(Refer to Lubrication Chart in Figure 16.)



WARNING: Be sure to disconnect the spark plug wire and De-energize starter before performing any repairs or maintenance. DO NOT attempt any maintenance or service to the engine and or mower equipped with the safety key in the unlocked and or energized mode.



WARNING: NEVER assume starter is de-energized, even if the key is in the locked position and/or removed from the engine. ALWAYS de-energize starter prior to performing any maintenance or service to the engine and or mower. Follow instructions on the engine and or machine to de-energize starter. Always observe safety rules when performing any maintenance.

Blade Control

- Lubricate the pivot points on the blade control handle and the brake cable at least once a season with light oil. The blade control must operate freely in both directions.

Rear & Side Discharge Doors

- The torsion springs and pivot points should be lubricated periodically with light oil to prevent any rust or binding. Door must work freely.

NOTE: When tipping the unit, empty the fuel tank and keep engine spark plug side up.

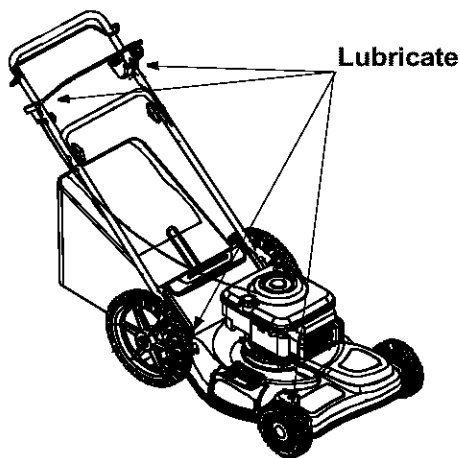


Figure 16: Lubrication Chart

Wheels

- The wheels require no lubrication. However, if the wheels are removed for any reason, lubricate the surface of the axle bolt and the inner surface of the wheel with light oil. Engine oil may also be used.

Transmission

- The transmission is pre-lubricated and sealed at the factory and does not require lubrication on a regular basis as part of maintenance. However, if you disassemble the transmission for any reason, refill with two ounces of Alvania grease (part # 737-0168) as part of reassembly.

Engine

- Follow engine manual for instruction and schedule of lubrication.

Blade Care

- Periodically inspect the blade adapter and pulley for cracks, especially if you strike a foreign object. Replace when necessary.



WARNING: When removing the cutting blade for sharpening or replacement, protect hands by using heavy gloves or a thick rag to grasp the cutting blade.

- Disconnect spark plug wire from spark plug.

To Remove Blade

- Remove the bolt and bell washer which hold the blade-pulley assembly to the engine crankshaft. See Figure 17. Remove assembly from crankshaft.
- Remove the two bolts and lock nuts from the blade assembly.
- Remove the blade from the blade adapter and pulley.

To Replace Blade:

- Before reinstalling the blade-pulley assembly to the unit, lubricate engine crankshaft and inner surface of the blade adapter with light oil or engine oil.
- Turn mower on its side making sure that the air filter and the carburetor are up.

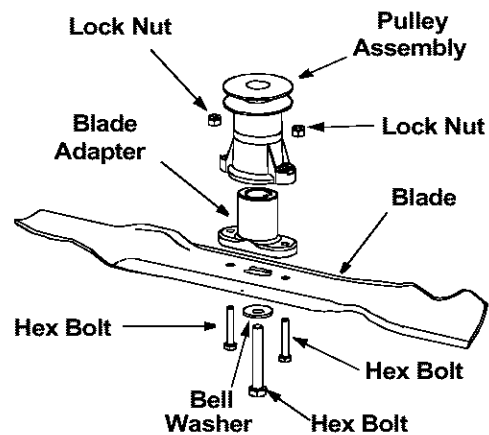


Figure 17

- Also lubricate the bolt holes, bolt and the inner surface of the nuts.
- Install the blade adapter on the pulley with the “star” away from the pulley. See Figure 17.

- Place the new blade on the blade adapter with the side marked bottom (or with part number) facing away from the adapter.
- Secure the blade to the assembly with two hex bolts and lock nuts. Tighten the hex bolts to the recommended torque. Refer to 'Blade Mounting Torque' section on this page.
- Install the blade assembly on the crankshaft. See Figure 17. Secure with the hex bolt and bell washer (cupped side of washer to blade) and tighten to the recommended torque. Refer to 'Blade Mounting Torque' section on this page.

IMPORTANT: The bolt, used to secure the blade to the engine, is specially heat-treated. **Do not substitute.** To order replacement bolt, refer to the parts list in the back of this manual.



WARNING: To ensure safe operation of your lawn mower, check all nuts and bolts periodically and tighten if necessary.

To Sharpen Blade:

- The blade can be sharpened with a file or on a grinding wheel. Do not attempt to sharpen the blade while it is still on the mower.
- Follow the original angle of grind as a guide. Make sure that each cutting edge receives an equal amount of grinding to prevent an unbalanced blade.

NOTE: An unbalanced blade will cause excessive vibration when rotating at high speeds, may cause damage to the mower and could break, causing personal injury.

- The blade can be tested by balancing it on a round shaft screwdriver. See Figure 18. Remove metal from the heavy side until it balances evenly. It is recommended that the blade always be removed from the adapter for the best test of balance.

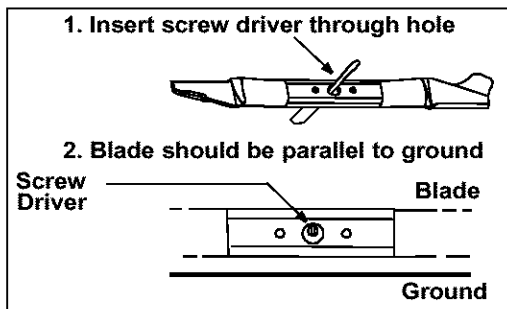


Figure 18

Blade Mounting Torque:

Blade adapter bolts: 120 in.lbs. minimum, 150 in.lbs. maximum.

Center bolt: 450 in.lbs. minimum, 600 in.lbs. maximum.

Replacing Drive Belt

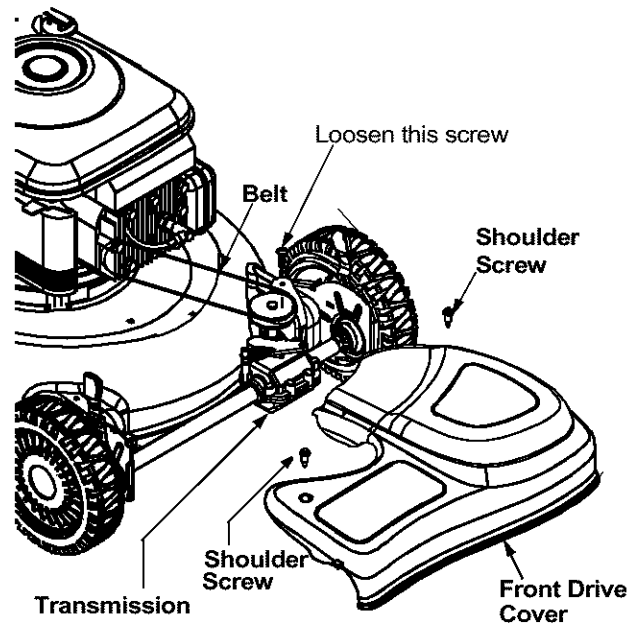


Figure 19

- Remove two shoulder screws securing the front drive cover to the mower deck. See Figure 19.
- Press inward on the sides of the front drive cover and release the tabs that secure the front drive cover to the height adjuster brackets. Remove drive cover from the mower.
- Using a torx wrench, loosen the screw holding the belt tension spring to the transmission. See Figure 19. Do not remove the screw completely. As you loosen the screw, the tension on the belt will be released.
- Push the transmission up a little and slide the belt off the transmission pulley.
- Lift the mower to access the belt from the underside of the mower.
- Slide the belt off the engine pulley and around the blade. See Figure 20.



WARNING: As always, use a thick piece of rag to handle the blade while sliding the belt around it. Make sure the engine does not start at all while doing this job.

- Replace with the new belt, working around the blade. Make sure the belt is firmly seated on the engine pulley while pulling from the other side and sliding it around the transmission pulley.
- Put the mower down with all four wheels firmly placed on one level.

- Tighten the screw, loosened earlier, to secure the belt tension spring to the transmission, and reassemble the front drive cover.

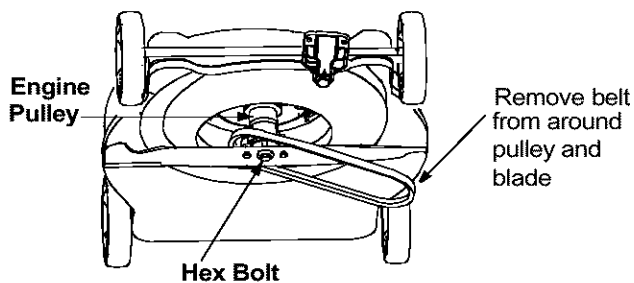


Figure 20

SECTION 8: OFF-SEASON STORAGE

If you are not going to use the mower for more than 30 days or more, prepare the equipment for storage.



WARNING: Be sure to disconnect the spark plug wire and De-energize starter before performing any repairs or maintenance. DO NOT attempt any maintenance or service to the engine and or mower equipped with the safety key in the unlocked and or energized mode.



WARNING: NEVER assume starter is de-energized, even if the key is in the locked position and or removed from the engine. ALWAYS de-energize starter prior to performing any maintenance or service to the engine and or mower. Follow instructions on the engine and or machine to de-energize starter.

- Clean and lubricate mower thoroughly as described in the lubrication instructions.
- Refer to accompanying engine manual for engine storage instructions.
- Coat mower's cutting blade with chassis grease to prevent rusting.
- Store mower in a dry, clean area. Do not store next to corrosive materials, such as fertilizer.

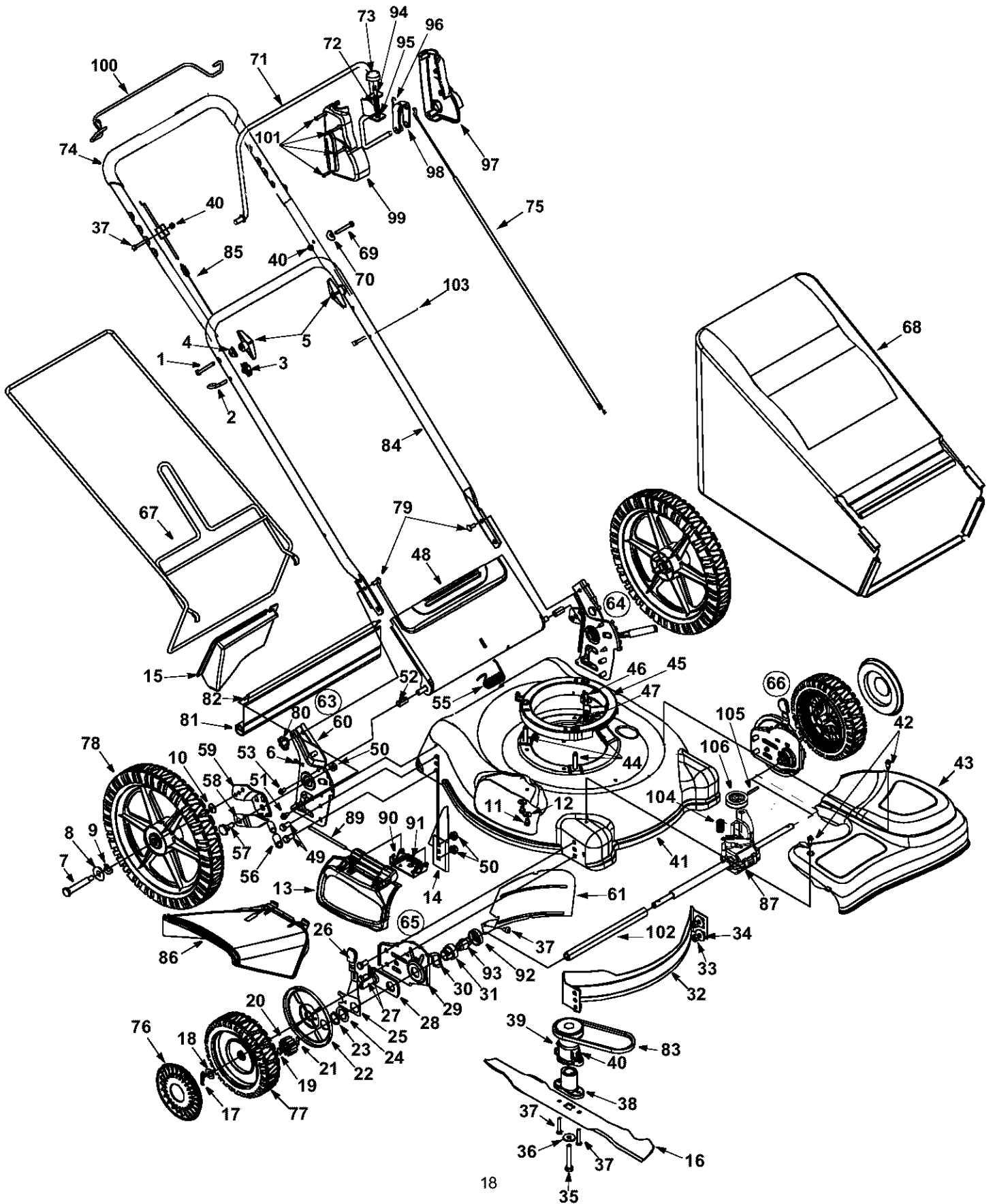
NOTE: When storing any type of power equipment in an unventilated or metal storage shed, care should be taken to rust-proof the equipment. Using a light oil or silicone, coat the equipment, especially cables and all moving parts.

SECTION 9: TROUBLE SHOOTING GUIDE

Trouble	Possible Cause(s)	Corrective Actions
Engine fails to start	<ol style="list-style-type: none"> 1. Blade control handle disengaged. 2. Start control button not depressed. 3. Spark plug wire disconnected. 4. Safety key not in run position. 5. Dirty air cleaner. 6. Primer button not depressed. 7. Fuel tank empty or stale fuel. 8. Blocked fuel line. 9. Faulty spark plug. 10. Engine flooded. 11. Self starter already de-energized. 	<ol style="list-style-type: none"> 1. Engage blade control handle. 2. Depress starter control button. 3. Connect wire to spark plug. 4. Safety key not in run position. 5. Refer to the engine manual. 6. Refer to the engine manual. 7. Clean fuel line. 8. Clean, adjust gap or replace. 9. Refer to the engine manual. 10. Wait for a while and crank the engine. 11. Use recoil starter to start engine..
Engine runs erratic	<ol style="list-style-type: none"> 1. Spark plug wire loose. 2. Blocked fuel line or stale fuel. 3. Carburetor out of adjustment. 	<ol style="list-style-type: none"> 1. Connect and tighten spark plug wire. Check for fouling. 2. Clean fuel line; fill tank with clean, fresh gasoline. 3. Refer to the engine manual.
Engine overheats	<ol style="list-style-type: none"> 1. Engine oil level low. 2. Dirty aircleaner. 3. Air flow restricted. 4. Carburetor not adjusted properly 	<ol style="list-style-type: none"> 1. Fill crankcase with proper oil. 2. Refer to the engine manual. 3. Stop engine and disconnect spark plug wire. Remove blower housing and clean. 4. Refer to the engine manual.
Occasional skip at high speed	<ol style="list-style-type: none"> 1. Spark plug gap too close. 2. Carburetor adjustment improperly set. 	<ol style="list-style-type: none"> 1. Adjust gap to .030". 2. Refer to the engine manual.
Idles poorly	<ol style="list-style-type: none"> 1. Spark plug fouled, faulty or gap too wide. 2. Carburetor not adjusted. 	<ol style="list-style-type: none"> 1. Reset gap to .030" or replace spark plug. 2. Refer to the engine manual.
Excessive vibration	<ol style="list-style-type: none"> 1. Cutting blade loose or unbalanced. 2. Bent cutting blade. 	<ol style="list-style-type: none"> 1. Tighten blade and adapter. Balance blade. 2. See an authorized service dealer.
Mower will not mulch grass	<ol style="list-style-type: none"> 1. Wet grass. 2. Excessively high grass. 	<ol style="list-style-type: none"> 1. Wait until later to cut. 2. Mow once at a high cutting height, then mow again at desired height.
Uneven cut	<ol style="list-style-type: none"> 1. Wheels positioned incorrectly. 2. Dull blade. 	<ol style="list-style-type: none"> 1. Place all four wheels in same height position. 2. Sharpen or replace blade.

NOTE: For repairs beyond the minor adjustments above, contact your local Service dealer.

SECTION 10: ILLUSTRATED PARTS LIST FOR MODEL 560 SERIES



Model Series 560

Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
1.	710-1174	Carriage Bolt	37.	710-0606	Hex Screw 1/4-20 x 1.5"
2.	710-1205	Rope Guide	38.	748-0411	Blade Adapter
3.	720-0279	Wing Nut	39.	756-1146A	Drive Pulley
4.	736-0451	Saddle Washer	40.	712-0324	Hex Lock Nut
5.	720-0284	Handle Knob	41.	782-0082A	Rear Discharge Deck 21"
6.	714-0104	Hairpin Clip	42.	710-1650	Shld. Screw
7.	738-0481A	Shoulder Screw	43.	731-1936A	Transmission Cover
8.	736-0456	Flat Washer .510 I.D. x 1.373 O.D.	44.	710-1008	TT Screw
9.	736-0182	Spring Wash. .500 I.D. x 1.00 O.D.	45.	631-0075B	Engine Spacer Assembly
10.	736-0105	Bell Washer .375 I.D. x .870 O.D.	46.	711-1293	Belt Keeper Pin
11.	710-0599	Tapp Screw 1/4-20 x .500	47.	712-0271	Hex Nut 1/4-20
12.	736-0270	Bell Wash. .265 I.D. x .75 O.D.	48.	782-7599A	Grassbag Door
13.	682-7000	Mulching Plug (Hinged)	49.	710-0216	Hex Hd. Cap Scr. 3/8-16
14.	782-5004	Rear Baffle RH	50.	712-0431	Flange L-Nut 3/8-16
15.	782-5007A	Mulching Plug	51.	710-0896	AB Tap Screw 1/4-14 x .625"
16.	742-0741	Mulching Blade w/Star	52.	750-0434	Spacer
	742-0641	Standard Blade	53.	710-0286	Pan Hd. Screw 1/4-20 x .5"
17.	714-0101	Hairpin Clip	54.	747-0996	Pivot Rod
18.	736-3013	Flat Washer	55.	732-0809	Torsion Spring
19.	736-0865	Snap Ring	56.	720-0312	Foam Grip
20.	717-1762	Gear 14T RH	57.	738-0507B	Shoulder Screw
	717-1761	Gear 14T LH†	58.	732-0866	Spring Lever
21.	715-0221	Dowel Pin	59.	17489A	Pivot Bar LH†
22.	782-7551	Wheel Dust Cap		17488A	Pivot Bar RH
23.	716-0102	Snap Ring	60.	682-3058	Handle Bracket Assembly RH
24.	736-0474	Washer DD 1.5" O.D.		682-3059	Handle Bracket Assembly LH†
25.	732-0706	Front Lever RH	61.	782-5003	Rear Baffle LH†
	732-0707	Front Lever LH†	62.	710-1017	Scr. AB 1/4-14 x 0.625"
26.	720-0426	Knob	63.	682-3056A	Handle Brkt. Ass'y Comp. RH
27.	710-0216	Hex Screw	64.	682-3057A	Handlr Brkt. Ass'y Comp. LH
28.	682-0509	Pivot Plate Assembly	65.	682-0512A	Height Adjuster Ass'y Comp. RH
29.	782-0511A	Height Adj. Plate LH†	66.	682-0511A	Height Adjuster Ass'y Comp. LH
	782-0512B	Height Adj. Plate RH	67.	747-0995A	Grassbag Frame
30.	736-0447	Wave Washer	68.	664-0123	Grass Bag w/Half Sail
31.	748-0355	Bearing Support	69.	710-0501	Hex Hd. Cap Screw
32.	782-5002	Front Baffle	70.	710-0431	Saddle Washer
33.	712-0798	Hex Nut	71.	647-0070	Control Handle
34.	736-0331	Bell Washer		731-2623	Bail Cover †
35.	710-1257	Hex Bolt	72.	732-1171	Compression Spring
36.	736-0452	Bell Washer	73.	720-0428	Button

† Not shown

Model Series 560

Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
74.	749-1405A	Upper Handle	92.	732-0708	Bearing Retainer
75.	746-1141	Control Cable	93.	741-0604A	Bearing Sleeve .50 I.D.
76.	731-0981A	Hub Cap	94.	715-0168	Pin
77.	734-2042	Wheel 8 x 2	95.	716-0209	Retention Spring
78.	734-2050	Wheel 14 x 2	96.	732-1172	Torsion Spring
79.	710-0703	Carriage Bolt	97.	731-2532	Control Cover LH
80.	712-0397	Wing Nut	98.	782-0156	Lever
81.	731-1236	Trail Shield	99.	731-2533	Control Cover RH
82.	732-0700	Wire	100.	747-2136	Lower Bail Handle
83.	754-0465	V-Belt	101.	710-1256	Hi-Low Screw
84.	749-0907B	Lower Handle	102.	750-1166	Sleeve Spacer LH
85.	746-0960	Drive Cable		750-1166	Sleeve Spacer RH
86.	731-1409	Chute Deflector	103.	726-0240	Cable Tie
87.	618-0657	Transmission Assembly Comp.	104.	732-1043	Belt Tension Spring
89.	747-0710	Hinge Pin	105.	715-0169	Roll Pin
90.	782-7006	Hinge Mtg. Brkt.	106.	756-1231	Input Pulley
91.	732-0731	Torsion Spring	-	737-0476	Bottle of Oil

MANUFACTURER'S LIMITED WARRANTY FOR:



The limited warranty set forth below is given by Troy-Bilt LLC with respect to new merchandise purchased and used in the United States, its possessions and territories.

Troy-Bilt LLC warrants this product against defects 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 accessory or attachment not approved by Troy-Bilt LLC for use with the product(s) covered by this manual will void your warranty as to any resulting damage.

Normal wear parts or components thereof are subject to separate terms as follows: All normal wear parts or component failures will be covered on the product for a period of 90 days regardless of cause. After 90 days, but within the two year period, normal wear part failures will be covered ONLY IF caused by defects in materials or workmanship of OTHER component parts. Normal wear parts and components include, but are not limited to: batteries, belts, blades, blade adapters, grass bags, rider deck wheels, seats, snow thrower skid shoes, shave plates, auger spiral rubber, and tires.

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, check your Yellow Pages, or contact Troy-Bilt LLC at P.O. Box 361131, Cleveland, Ohio 44136-0019, or call 1-866-840-6483 or 1-330-558-7220, or log on to our Web site at www.troybilt.com.

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

- a. The engine or component parts thereof. These items carry a separate manufacturer's warranty. Refer to applicable manufacturer's warranty for terms and conditions.
- b. Log splitter pumps, valves, and cylinders have a separate one year warranty.
- c. 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.
- d. Troy-Bilt LLC does not extend any warranty for products sold or exported outside of the United States, its possessions and territories, except those sold through Troy-Bilt LLC's authorized channels of export distribution.
- e. Parts that are not genuine Troy-Bilt parts are not covered by this warranty.
- f. Service completed by someone other than an authorized service dealer is not covered by this warranty.
- g. Transportation charges and service calls are not covered.

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 Troy-Bilt LLC. 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. Troy-Bilt LLC 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.