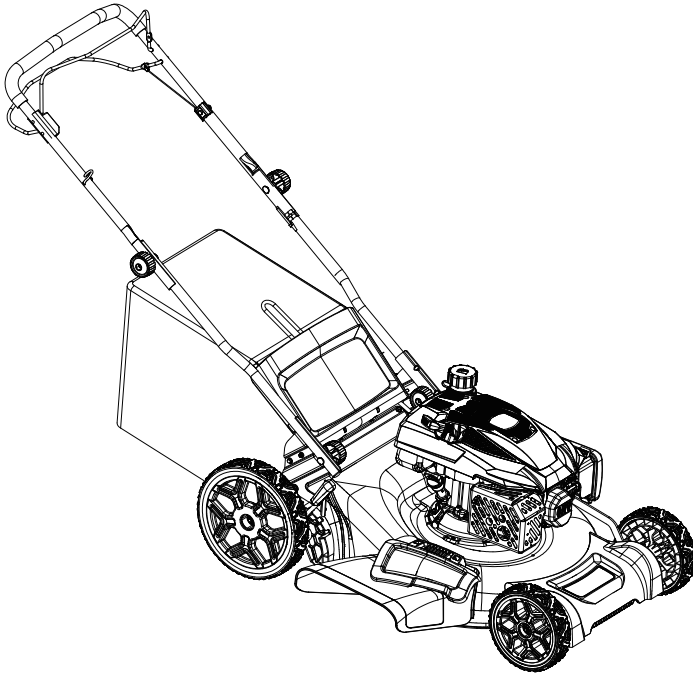




# 22" SELF-PROPELLED GAS LAWN MOWER



**CAUTION:** Before using this tool, please read this manual completely, and follow all operating safety measures.

- SAFETY
- ASSEMBLY
- OPERATION
- MAINTENANCE
- WARRANTY

**YAT USA INC.** 10506 Bryton Corporate Center Dr, #500 Huntersville, NC 28078  
For customer support, please call 1-800-261-3981 or email us at [senix.support@yatusa.com](mailto:senix.support@yatusa.com)

# TABLE OF CONTENTS

SAFETY & INTERNATIONAL SYMBOLS.....	2
SAFETY INSTRUCTIONS.....	3
SLOPE GAUGE.....	7
KNOW YOUR UNIT.....	8
SPECIFICATIONS.....	9
ASSEMBLY.....	9
OPERATION.....	11
MAINTENANCE.....	14
TROUBLESHOOTING.....	17
WARRANTY.....	18

# SAFETY & INTERNATIONAL SYMBOLS

The following table depicts and describes safety and international symbols and pictographs that may appear on this product. Read, understand, and follow all instructions on the machine and in the instruction manual for complete safety, assembly, operating, maintenance, and repair information before attempting to assemble and operate.



Caution / Warning.



**WARNING** - To reduce the risk of injury, user must read instruction manual.



Wear eye protection.



Wear a dust mask.



Wear safety footwear.



Wear protective gloves.



Do not expose the product to rain or wet conditions.



Keep bystanders and children a safe distance away.



**DANGER!** Rotating blades. Keep hands and feet away.



Slip on slope hazard – Use extra caution when mowing on slopes to prevent slip and fall accidents.



Thrown objects and rotating blade can cause severe injury.



Look behind when backing up with the lawn mower.



Blades continue to rotate after machine is switched off.



**GASOLINE IS FLAMMABLE.** Allow the engine to cool at least two minutes before refueling.



**CARBON MONOXIDE.** Never run an engine indoors or in a poorly ventilated area. Engine exhaust contains carbon monoxide, an odorless and deadly gas.



**HOT SURFACE.** Engine parts, especially the muffler, become extremely hot during operation. Allow engine and muffler to cool before touching.



**WARNING** - Do not open or remove safety shields while engine is running

# SAFETY INSTRUCTIONS

## SAFETY WARNINGS



### 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.



### DANGER!

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



### WARNING!

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

## SAVE THESE INSTRUCTIONS!

## GENERAL OPERATION

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 manuals before operation. Keep this manual in a safe place for reference and ordering replacement parts

- Be completely familiar with the controls and the proper use of this machine before operating it.
- This machine is a precision piece of power equipment, not a plaything. Therefore, exercise extreme caution at all times. This machine has been designed to perform

one job: to mow grass. Do not use it for any other purpose.

- Never allow children to operate this machine.
- Only responsible individuals who are familiar with these rules of safe operation should be allowed to use this machine.
- 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.
- To help avoid blade contact or a thrown object injury, stay in operator zone behind handles and keep children, bystanders, helpers and pets at least 75 feet from mower while it is in operation. Stop machine if anyone enters area.
- 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.
- Wear sturdy, rough-soled work shoes, loose-fitting slacks, shirts and hearing protection. 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.
- Do not put hands or feet near rotating parts or under the cutting deck. Contact with blade can amputate fingers, hands, toes and feet. Keep clear of the discharge opening at all times.
- A missing or damaged discharge cover can cause blade contact or thrown object injuries.
- 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.
- 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 mower to fully extend your arms forward.**
  - 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.**
- Do not operate the mower while under the influence of alcohol or drugs.
  - Do not engage the self-propelled mechanism on machines so equipped while starting engine.
  - 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.
  - 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.
  - Mow only in daylight or good artificial light. Walk, never run.
  - Stop the blade when crossing gravel drives, walks or roads.
  - If the equipment should start to vibrate abnormally, stop the engine and check immediately for the cause. Vibration is generally a warning of trouble.
  - 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 blade control is released.
  - Never place any part of the body in the blade area until you are sure the blade has stopped rotating.
  - 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. Check frequently for signs of wear or deterioration and replace as needed.

- Muffler and engine become hot and can cause a burn. Do not touch.
- Never attempt to make a wheel or cutting height adjustment while the engine is running.
- Only use parts and accessories made for this machine by the manufacturer as listed in the parts pages of this Operator's Manual. Failure to do so can result in personal injury.
- When starting engine, pull cord slowly until resistance is felt, then pull rapidly. Rapid retraction of starter cord (kickback) will pull hand and arm toward engine faster than you can let go. Broken bones, fractures, bruises or sprains could result.
- If situations occur which are not covered in this manual, use care and good judgement.

## 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. For your safety, use the Slope Guide included as part of this manual to measure slopes before operating this machine on a sloped or hilly area. If the slope is greater than 15 degrees, do not mow it.

Do:

- Mow across the face of slopes; never up and down. Exercise extreme caution when changing direction on slopes.
- Watch for holes, ruts, rocks, hidden objects, or bumps which can cause you to slip or trip. Tall grass can hide obstacles. Uneven terrain could overturn the machine, or cause operator to lose their balance or footing.
- 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 three (3) seconds.
- Use extra care while operating machine with a grass catcher or other attachment(s). They can affect the stability of the machine.

Do Not:

- Do not start and stop on slopes. Avoid making sudden changes in speed or direction. Make turns slowly and gradually.
- Do not mow near drop-offs, ditches or embankments, because you could lose

- your footing or balance.
- Do not mow slopes greater than 15 degrees as shown on the slope guide.
- Do not mow on wet grass. Unstable footing could cause slipping.

## HAULING

Use full width ramps for loading and unloading a machine for transport.

## BEWARE OF 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.

- Keep children out of the mowing area and under watchful care of a responsible adult other than the operator.
- Be alert and turn mower off if a child enters the area.
- Before and while moving backwards, look behind and down for small children.
- 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.
- Keep children away from hot or running engines. They can suffer burns from a hot muffler.
- Never allow children under 14 years of age to operate this machine. Children 14 and over should read and understand the instructions and safe operation practices in this manual and on the machine and be trained and supervised by an adult.

## SERVICE

### SAFE HANDLING OF GASOLINE

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

- Use only an approved gasoline container.
- 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.

- Remove gas-powered equipment from the truck or trailer and refuel it on the ground. If this is not possible, then refuel such equipment on a trailer with a portable container, rather than from a gasoline dispenser nozzle.
- Keep 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.
- Extinguish all cigarettes, cigars, pipes and other sources of ignition.
- Never fuel machine indoors because flammable vapors will accumulate in the area.
- Never remove gas cap or add fuel while engine is hot or running. Allow engine to cool at least two minutes before refueling.
- Never over-fill fuel tank. To allow for expansion of the fuel, do not fill above the bottom of the fuel tank neck.
- Replace gasoline cap and tighten securely.
- If gasoline is spilled, wipe it off the engine and equipment. Move machine to another area. Wait 5 minutes before starting engine.
- Never store the machine or fuel container near an open flame, spark or pilot light as on a water heater, space heater, furnace, clothes dryer or other gas appliances.
- To reduce fire hazard, keep machine free of grass, leaves, or other debris build-up. Clean up oil or fuel spillage and remove any fuel-soaked debris.
- Allow machine to cool at least 5 minutes before storing.

## GENERAL SERVICE

Never run an engine indoors or in a poorly ventilated area. Engine exhaust contains carbon monoxide, an odorless and deadly gas.

- 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.
- 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 manufacturer's (O.E.M.) blade only, listed in the Parts pages of this manual. Use of parts which do not meet the original equipment specifications may lead to

improper performance and compromise safety!

- Mower blades are sharp and can cut. Wrap the blade or wear gloves, and use extra caution when servicing them.
- Keep all nuts, bolts, and screws tight to be sure the equipment is in safe working condition.
- Never tamper with safety devices. Check their proper operation regularly.
- 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.
- Never attempt to make a wheel or cutting height adjustment while the engine is running.
- 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. Use of parts which do not meet the original equipment specifications may lead to improper performance and compromise safety!
- Do not change the engine's governor setting or over-speed the engine. The governor controls the maximum safe operating speed of the engine.
- Check fuel line, tank, cap, and fittings frequently for cracks or leaks. Replace if necessary.
- Do not crank engine with spark plug removed.
- Maintain or replace safety and instruction labels, as necessary.
- Observe proper disposal laws and regulations. Improper disposal of fluids and materials can harm the environment.
- According to the Consumer Products Safety Commission (CPSC) and the U.S. Environmental Protection Agency (EPA), this product has an Average Useful Life of seven (7) years, or 140 hours of operation. At the end of the Average Useful Life have the machine inspected annually to ensure that all mechanical and safety systems are working properly and not worn excessively. Failure to do so can result in accidents, injuries or death.

## **DO NOT MODIFY ENGINE**

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

# SLOPE GAUGE

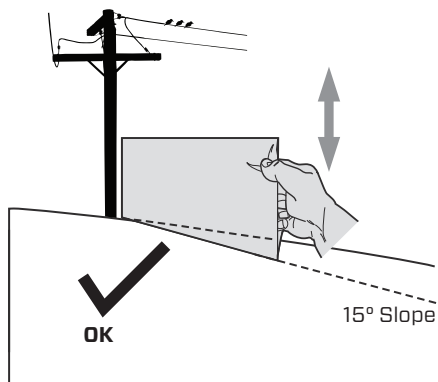


Figure 1

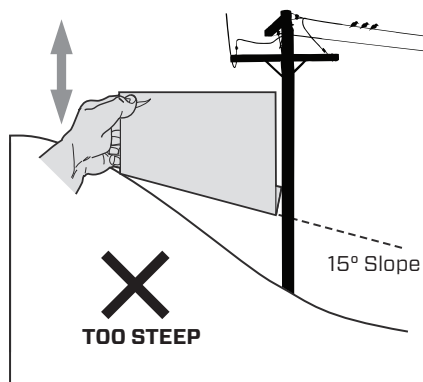
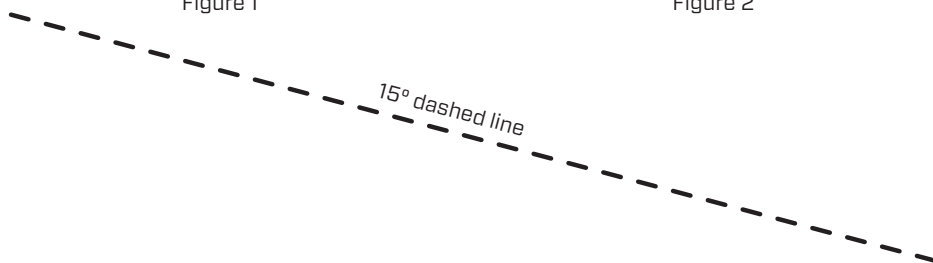


Figure 2



## USE THIS SLOPE GAUGE TO DETERMINE IF A SLOPE IS TOO STEEP FOR SAFE OPERATION!

To check the slope, proceed as follows:

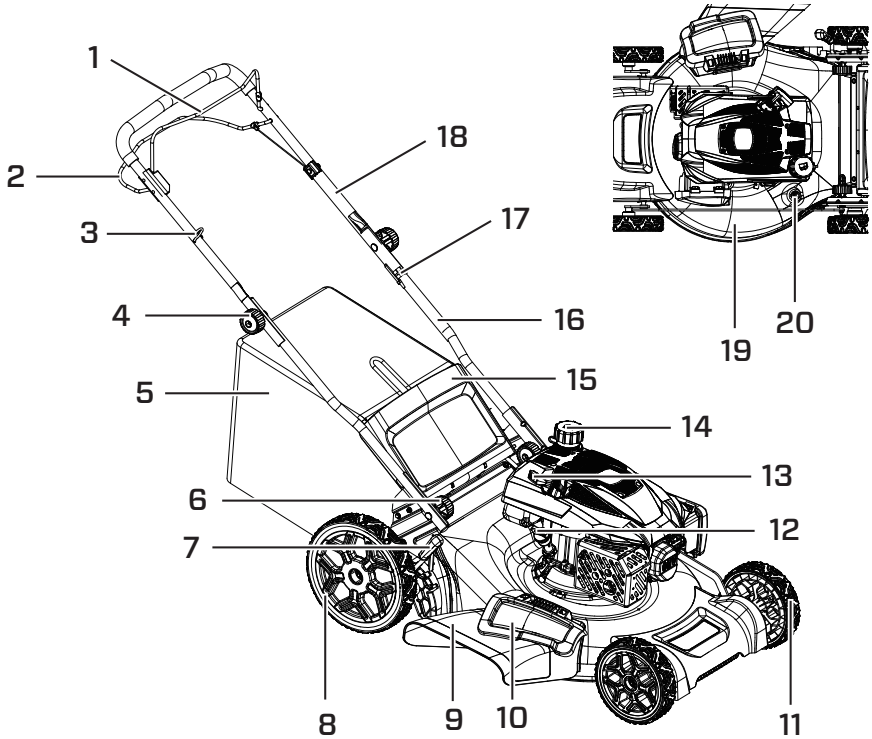
1. Remove this page and fold along the dashed line.
2. Locate a vertical object on or behind the slope (e.g. a pole, building, fence, tree, etc.)
3. Align either side of the slope gauge with the object (See Figure 1 and Figure 2).
4. Adjust gauge up or down until the left corner touches the slope (See Figure 1 and Figure 2).
5. If there is a gap below the gauge, the slope is too steep for safe operation (See Figure 2 above).



## WARNING!

Slopes are a major factor related to tip-over and roll-over accidents which can result in severe injury or death. Do not operate machine on slopes in excess of 15 degrees. All slopes require extra caution. Always mow across the face of slopes, never mow up and down slopes.

# KNOW YOUR UNIT



## APPLICATIONS

Model: LSSG-H5

As a Gas Lawn Mower:

Cutting grass in domestic area.

1	Blade Control
2	Drive Control
3	Rope Guide
4	Handle Connecting Knob
5	Grass Catcher
6	Handle Fixing Knob
7	Cutting Height Adjustment Lever
8	Rear Wheel
9	Side Discharge Cover
10	Mulching Cover

11	Front Wheel
12	Oil Tank Cap
13	Recoil Starter
14	Fuel Tank Cap
15	Rear Discharge Door
16	Lower Handle
17	Cable Clamp
18	Upper Handle
19	Deck
20	Deck Washer

## SPECIFICATIONS

Model	LSSG-H5
Engine Oil	SAE 30
Fuel	Unleaded Gasoline
Engine	RV200-2
Engine Displacement	201 cc
No-load Speed	3 100 RPM
Drive Type	Self-propelled
Mowing Function	3-in-1 ( Mulching, Bagging and Side Discharge)
Cutting Capacity	22" (55.8 cm)
Grass Bag Capacity	19 gal (70 L)
Cutting Height Options	1.25" - 4" (6 positions)
Wheel Size(F/R)	8" / 11"
Machine Weight (Tool Only)	79.4 lbs (36 kg)

## ASSEMBLY

### **WARNING!**

This unit is shipped without gasoline or oil in the engine. Make sure to service engine with gasoline and oil as instructed in the Engine Manual before starting or running the machine.

### **NOTE:**

Reference to right and left hand side of the Lawn Mower is observed from the operating position.

## OPENING CARTON

1. Cut each corner of the carton vertically from top to bottom.
2. Remove all loose parts.
3. Remove loose packing material.

## REMOVING UNIT FROM CARTON

1. Lift unit from the rear to detach it from underlying carton material and slide unit out of carton.
2. Check carton thoroughly for any other loose parts.

## ASSEMBLY PARTS IN CARTON

- Handle Fixing Knob/Bolt x2
- Washer x2
- Grass Catcher x1
- Side Discharge Cover x1
- Bottle of oil x1
- Instruction Manual x1

## ATTACH HANDLE

### **WARNING!**

Do not crimp the cables when assembling the handle.

1. Pull the folded handle assembly up to the working position at first.

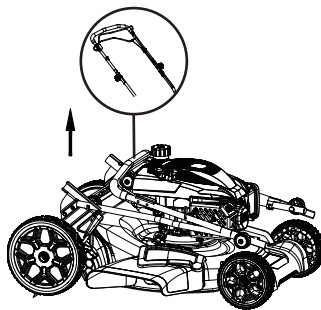


Fig. 1

2. Screw handle fixing knobs, washer and bolts for mounting the lower handle on the handle holder.
3. Reinforce the connection between upper handle with lower handle by two handle

connecting knobs.

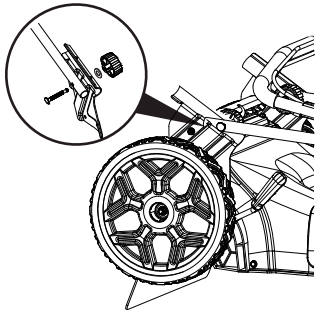


Fig. 2

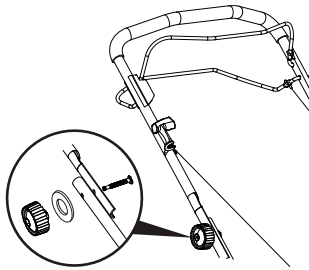


Fig. 3

## POSITION STARTER ROPE AND CABLE

1. Hold the blade control handle against the upper handle. Slowly pull starter rope handle from engine and slip starter rope into the rope guide.
2. Use the cable clamp to secure the control cable to the handle.

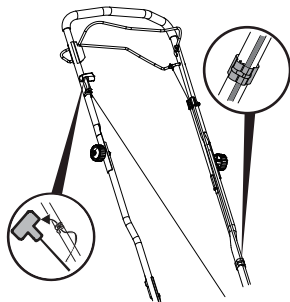


Fig. 4

 **WARNING!**

To reduce wear and allow for proper operation, make sure to leave some slack in the upper portion of the cable.

## ATTACHING/REMOVING GRASS CATCHER

**To attach the grass catcher:**

1. Lift rear discharge door.
2. Have the mounting bracket on grass catcher stuck into the mounting groove.
3. Let go of discharge door so that it rests on the grass catcher.

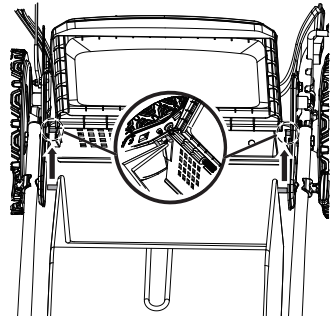


Fig. 5

**To remove grass catcher:**

1. Lift rear discharge door on the mower.
2. Lift grass catcher up and off the groove.
3. Release rear discharge door to allow it to close rear opening of mower.



### NOTE:

Make sure to clean any excess grass from around the rear opening of the mower, especially between the transmission cover and sidewall on the left hand side and along the bottom, to ensure tight fit of bag onto mower.

## ATTACHING SIDE DISCHARGE COVER

Your mower is shipped as a mulcher. To convert to side discharge, make sure the grass catcher is removed from the unit and the rear discharge door is closed.

**To attach the side discharge cover:**

1. Lift the mulching cover on the side of the mower.
2. Slide two hooks of side discharge cover under hinge pin on mulching cover

assembly.

3. Lower mulching cover. Do not remove side mulching cover at any time, even when you are not mulching.

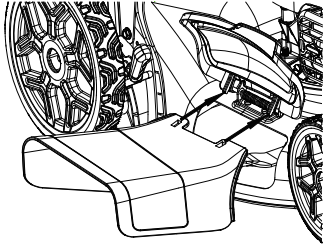


Fig. 6

#### To remove the side discharge cover:

1. Lift the mulching cover.
2. Slide two hooks of side discharge cover out.
3. Let go of the mulching cover.

## CUTTING HEIGHT ADJUSTMENT

Central height adjustment for this product is controlled by a lever located on right rear wheel. 6 cutting heights (from 1.25 inch to 4.0 inch) are available.

1. Pull the height adjustment lever outward towards wheel.
2. Move lever to a position of desired cutting height.
3. Release lever towards deck.

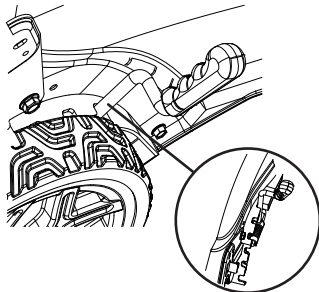


Fig. 7

## OPERATION

### BLADE CONTROL

The blade control is attached to the upper

handle of the mower. Depress and hold it against the upper handle to start the mower. Release to stop the engine and blade.

### **WARNING!**

This blade control is a safety device. Never attempt to bypass its operation.

## CUTTING HEIGHT ADJUSTMENT LEVER

This product is designed with a central cutting height adjustment lever which locates on the right rear wheel. To adjust cutting height, refer to the assembly section.

## MULCHING COVER

The mulching cover is used for mulching purposes. In addition to collecting the grass clipping into grass catcher or using the side discharge chute, some mower models have the option of recirculating the clippings back to the lawn. This is called mulching. Close the mulching cover when mulching so that the grass can't be discharged from side.

## DECK WASH

Your mower's deck is equipped with a water port on its surface as part of its deck wash system. Use the deck wash to rinse grass clippings from the deck's underside.

## GRASS CATCHER

You can use the grass catcher to collect grass while you are operating the mower. Attach the grass catcher following the instructions in assembly section. When using the grass catcher, make sure the side discharge cover is removed and the mulching cover is closed. This will contribute to grass collection.

## SIDE DISCHARGE COVER

The side discharge cover needs to be attached when side discharging. Follow instructions in the assembly section to use the side discharge cover.

### **WARNING!**

Keep hands and feet away from the chute area on cutting deck. Refer to warning label on the

unit.

## RECOIL STARTER

Clip the recoil starter into the rope guide on right upper handle to facilitate the start operation. Depress and hold the blade control handle, then pull the recoil starter to start the unit.

## DRIVE CONTROL

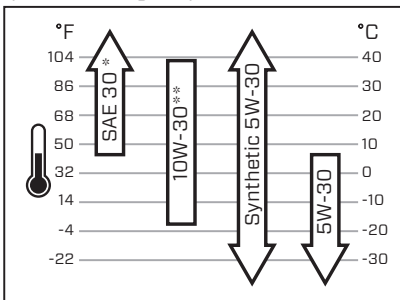
The drive control bail on the upper handle is used to engage the self propelled drive. Pull the bail to engage self propelled mode. When the bail is released, the self propelled function will stop and the bail will return to neutral position.

### **WARNING!**

Make sure no one other than the operator is standing near the lawn mower while starting engine or operating mower. Never run engine indoors or in enclosed, poorly ventilated areas. Engine exhaust contains carbon monoxide, an odorless and deadly gas. Keep hands, feet, hair and loose clothing away from any moving parts on engine and lawn mower.

## FUEL AND OIL

We recommend the use of Rato Warranty Certified oils for best performance. Other high-quality detergent oils are acceptable if classified for service SF, SG, SH, SJ or higher. Do not use special additives. Outdoor temperatures determine the proper oil viscosity for the engine. Use the chart to select the best viscosity for the outdoor temperature range expected.



\* Below 40°F (4°C) the use of SAE 30 will result in hard starting.

\*\* Above 80°F (27°C) the use of 10W-30 may

cause increased oil consumption. Check oil level more frequently.

## TO START ENGINE

1. Standing behind the mower, pull the blade control handle back against the upper handle.
2. While holding the blade control against the upper handle, grasp the recoil starter handle and pull rope out with a rapid, continuous, full arm stroke. Keeping a firm grip on the starter handle, let the rope rewind slowly. Repeat until engine starts. Let the rope rewind each time slowly.
3. Pull the drive control up against the upper handle and hold it to engage the self propel function.

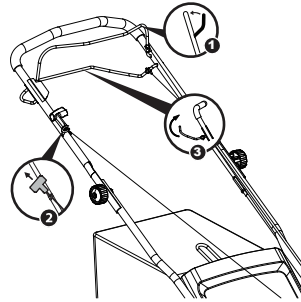


Fig. 8

### **WARNING!**

Keep a firm grip on the starter cord handle to prevent rapid retraction of starter cord (kickback). Rapid retraction can pull hand and arm toward engine faster than you can let go, and result in broken bones, fractures, bruises or sprains.

## TO STOP ENGINE

1. Release the drive control and blade control to stop the engine and blade.

### **WARNING!**

Wait for the blade to stop completely before performing any work on the mower.

## USING YOUR LAWN MOWER

- Be sure 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 a healthy lawn, always cut off one-third or less of the total length of the grass.
- When cutting heavy grass, reduce walking speed to allow for more effective cutting and a proper discharge of the clippings.
- Do not cut wet grass. It will stick to underside of the deck and prevent proper mulching of grass clippings.
- New or thick grass may require a narrower cut or a higher cutting height.

## **WARNING!**

The operation of any lawn mower can result in foreign objects being thrown into the eyes, which can damage your eyes severely. Always wear safety glasses while operating the mower, or while performing any adjustments or repairs on it.

## **WARNING!**

If you strike a foreign object, stop the engine. Disconnect the spark plug wire, thoroughly inspect mower for any damage, and repair damage before restarting and operating. Extensive vibration of mower during operation is an indication of damage. The unit should be promptly inspected and repaired. Refer to the Engine Manual.

## **MULCHING**

Before mulching, remove the grass catcher and side discharge cover from the mower. For effective mulching, do not cut wet grass. If the grass has been allowed to grow in excess of four inches, mulching is not recommended. Use the grass catcher to bag clippings instead.

## **SIDE DISCHARGING**

Install the side discharge cover and remove the grass catcher as the instructions in assembly section. Keep the rear discharge door closing so that the grass clippings can be discharged from side.

## **GRASS COLLECTION**

1. Grass clippings will be automatically collected in bag as you run mower. Operate mower until grass catcher is full.
2. Stop engine completely by releasing the

blade control. Make sure that the unit has come to a complete stop.

3. Clean up the grass catcher when it is full. Lift discharge door and pull the grass catcher up and away from the mower. Dispose of the grass clippings and reinstall the catcher when complete.

# MAINTENANCE



## WARNING!

Before performing any type of maintenance/service, disengage all controls and stop the engine. Wait until all moving parts have come to a complete stop. Disconnect spark plug wire and ground it against the engine to prevent unintended starting.

Follow the maintenance schedule given below. This chart describes service guidelines only. Use the Service Log column to keep track of completed maintenance tasks. See the Engine Operator's Manual for fuel, oil, air filter and spark plug instructions.

Interval	Item	Service	Service Log
Each use	<ol style="list-style-type: none"> <li>1. Engine oil level</li> <li>2. Loose or missing hardware</li> <li>3. Unit and engine</li> </ol>	<ol style="list-style-type: none"> <li>1. Check</li> <li>2. Tighten or replace</li> <li>3. Clean</li> </ol>	
1st 5 hours	<ol style="list-style-type: none"> <li>1. Engine oil</li> </ol>	<ol style="list-style-type: none"> <li>1. Change</li> </ol>	
Annually or 25 hours	<ol style="list-style-type: none"> <li>1. Engine oil</li> <li>2. Air filter</li> <li>3. Underside of mower deck<sup>2</sup></li> </ol>	<ol style="list-style-type: none"> <li>1. Check</li> <li>2. Lube with light oil</li> <li>3. Clean</li> </ol>	
Annually or 50 hours	<ol style="list-style-type: none"> <li>1. Air filter &amp; Pre-Cleaner (If Equipped)<sup>1</sup></li> <li>2. Engine Oil</li> </ol>	<ol style="list-style-type: none"> <li>1. Clean</li> <li>2. Change</li> </ol>	
Annually or 200 hours	<ol style="list-style-type: none"> <li>1. Air filter &amp; Pre-Cleaner<sup>1</sup></li> </ol>	<ol style="list-style-type: none"> <li>1. Change</li> </ol>	
Annually	<ol style="list-style-type: none"> <li>1. Spark Plug</li> </ol>	<ol style="list-style-type: none"> <li>1. Replace</li> </ol>	
Before Storage	<ol style="list-style-type: none"> <li>1. Fuel system</li> </ol>	<ol style="list-style-type: none"> <li>1. Run engine until it stops from lack of fuel, or add stabilizer to a full tank of fresh fuel prior to storage.</li> </ol>	

<sup>1</sup> Clean more often under dusty conditions or when airborne debris is present.

<sup>2</sup> Check and clean more often if mower is typically used in the mulching configuration.



## WARNING!

Always stop engine, disconnect spark plug wire, and ground against engine before performing any type of maintenance on your machine.

## GENERAL RECOMMENDATIONS

- Always observe safety rules when performing any maintenance.
- The warranty on this lawn mower does not cover items that have been subjected to operator abuse or negligence. To receive full value from warranty, operator must maintain the equipment as instructed here.
- Changing of engine-governed speed will void engine warranty.
- All adjustments should be checked at least once each season.
- Periodically check all fasteners and make sure these are tight.

## DECK WASH

Your mower's deck is equipped with a water port on its surface as part of its deck wash system.

Use the deck wash to rinse grass clippings from the deck's underside and prevent the buildup of corrosive chemicals. Complete the following steps AFTER EACH MOWING:

1. Push the mower to a level, clear spot on your lawn, near enough for your garden hose to reach. Remove the grass bag if attached.
2. Thread the hose coupler (user-supplied) onto the end of your garden hose.
3. Attach the hose coupler to the water port on your deck's surface.
4. Turn the water on.
5. Start the engine as described in the operation section.
6. Run the engine for a minimum of two minutes, allowing the underside of the cutting deck to thoroughly rinse.
7. Release blade control to stop the engine and blade.
8. Turn the water off and detach the hose coupler from the water port on your deck's surface.

After cleaning your deck, restart the mower. Keep the engine and blade running for a minimum of two minutes, allowing the underside of the cutting deck to thoroughly dry.

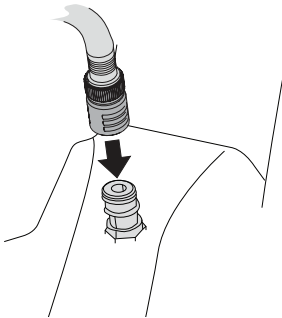


Fig. 9

## BLADE CARE



### WARNING!

When removing the cutting blade for sharpening or replacement, protect your hands with a pair of heavy gloves or use a

heavy rag to hold the blade. Periodically inspect the blade adapter for cracks, especially if you strike a foreign object. Replace when necessary. Follow the steps below for blade service.

1. Disconnect spark plug boot from spark plug. Turn mower on its side making sure that the air filter and the carburetor are facing up.
2. Remove the bolt and the blade bell support which hold the blade and the blade adapter to the engine crankshaft.
3. Remove blade and adapter together with shaft sleeve and key from the crankshaft.
4. Remove blade from the adapter for testing balance. Balance the blade on a round shaft screwdriver to check. Remove metal from the heavy side until it balances evenly. When sharpening the blade, follow the original angle of grind. Grind each cutting edge equally to keep the blade balanced.
5. Lubricate the engine crankshaft and the inner surface of the blade adapter with light oil. Replace the key and shaft sleeve then slide the blade adapter onto the engine crankshaft. Place the blade on the adapter such that the side of the blade marked "Bottom" (or with part number) faces the ground when the mower is in the operating position. Make sure that the blade is aligned and seated on the blade adapter flanges.
6. Place blade bell support on the blade. Align notches on the blade bell support with small holes in blade.
7. Replace hex bolt and tighten hex bolt to torque: 29.5-33.2 ft-lb (40-45 Nm) max.

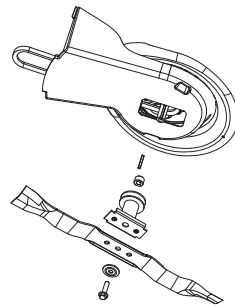


Fig. 10



### WARNING!

An unbalanced blade will cause excessive vibration when rotating at high speeds. It may

cause damage to mower and could break causing personal injury.

## CLEAN

- Clean grass, chaff or accumulated debris from engine. Keep linkage, spring, and controls clean.
- Keep area around and behind muffler free of any combustible debris.
- Make sure the output shaft never be blocked by grass clippings.
- Keeping air vents unobstructed.
- Engine parts should be kept clean to reduce the risk of overheating and ignition of accumulated debris.



### **WARNING!**

Do not use water to clean engine parts. Water could contaminate fuel system. Do not use a pressure washer or garden hose as well. Brush or dry cloth is recommended for cleaning.

## TRANSPORTATION

- Empty residual fuel into an approved container beforehand.
- Secure the tool and protect from any heavy impact or strong vibrations which may occur during transportation in vehicles.
- Enclosed vehicle is not recommended for transportation.



### **WARNING!**

Do not incline the engine so as to avoid fuel's spill in transporting. Spilled fuel or fuel vapor may ignite to cause fire.

## STORAGE



### **WARNING!**

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

## PREPARING THE ENGINE

For engines stored over 30 days:

- To prevent gum from forming in fuel system or on carburetor parts, run engine

until it stops from lack of fuel or use gasoline mixed with gas additive. If you use a gas additive, run the engine for several minutes to circulate the additive through the carburetor—after which the engine and fuel can be stored longer than 30 days.

- While engine is still warm, change the oil.
- Clean engine of surface debris.

## PREPARING THE LAWN MOWER

- Clean and lubricate mower thoroughly as described in the lubrication instructions.
- Do not use a pressure washer or garden hose to clean your unit.
- Coat mower's cutting blade with chassis grease to prevent rusting.
- Refer to Preparing the Engine for correct engine storage instructions.
- Store mower in a dry, clean area. Do not store next to corrosive materials, such as fertilizer.
- When storing any type of power equipment in a poorly ventilated 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 of your lawn mower before storage.

## DISPOSAL

Waste product should not be disposed of with household waste. Please recycle where facilities exist. Check with your local authority or retailer for recycling advice.

# TROUBLESHOOTING

Suspected malfunctions are often due to causes that the users can fix themselves. Therefore, check the product using this section. In most cases the problem can be solved quickly.

This section addresses minor service issues. Refer to your RATO engine manual for details.

PROBLEM	POSSIBLE CAUSE	SOLUTION
Engine fails to start.	Blade control disengaged.	Ensure bail is depressed when starting mower.
	Spark plug boot disconnected.	Connect wire to spark boot.
	Fuel tank empty or stale fuel.	Fill tank with clean, fresh gasoline
	Faulty spark plug.	Clean, adjust gap, or replace.
	Engine flooded	Wait a few minutes to restart.
	Blocked fuel line.	Contact your service dealer to clean the fuel line.
Engine runs roughly	Spark plug boot loose.	Connect and tighten spark plug boot.
	Stale fuel.	Fill tank with clean, fresh gasoline.
	Vent in gas cap plugged.	Clear vent.
	Water or dirt in fuel system.	Run engine until it stops from lack of fuel. Refill with fresh fuel. Carb / Fuel cleaner additives can also help clear out engine.
	Dirty air cleaner.	Refer to Clean section.
	Blocked fuel line.	Contact your service dealer to clean the fuel line cleaned.
Engine overheats.	Engine oil level low.	Fill crankcase with proper oil.
	Air flow restricted.	Clean area around and on top of engine.
Occasional skips (hesitates)	Spark plug gap too close.	Adjust gap by a qualified specialist.
Idles poorly.	Spark plug fouled, faulty, or gap too wide.	Reset gap or replace spark plug.
	Dirty air cleaner.	Refer to Air Cleaner in Engine Maintenance section.
Excessive vibration.	Cutting blade loose or unbalanced.	Tighten blade and adapter. Balance blade.
	Bent cutting blade.	Replace blade.

# WARRANTY

## SENIX TOOLS LIMITED WARRANTY

**FOR TWO YEARS** from the date of original purchase this lawnmower product, except for the RATO engine (see below), is warranted against defects in material or construction.

WITH PROOF OF ORIGINAL PURCHASE a defective product will receive free repair. If the product cannot be repaired it will be replaced free of charge.

For details to obtain warranty coverage, visit [senixtools.com](http://senixtools.com), email [senix.support@yatusa.com](mailto:senix.support@yatusa.com) or call **1-800-261-3981**.

- This warranty does not cover repairs necessary due to product accident or abuse, or failure to operate or maintain the product according to all supplied instructions.
- This warranty does not cover expendable items that can wear out from normal use within the warranty period, including but not limited to blades, grass collection bags, spark plugs and filters.
- This warranty does not apply to damage resulting from repairs to the product made or attempted by other than SENIX authorized agents.
- This warranty does not apply to repairs necessary due to improper fuel mixture, contaminated or stale fuel.
- This warranty does not cover the cost of mailing or transporting the product to receive warranty coverage.
- The warranty is void if the product has been used for commercial, professional, or rental service purposes.
- The warranty applies to the original retail purchaser and is not transferable.
- Proof of purchase is required to obtain warranty coverage.

THIS WARRANTY IS GIVEN IN LIEU OF ALL OTHERS, INCLUDING THE IMPLIED WARRANTY OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, AND EXCLUDES ALL INCIDENTAL OR CONSEQUENTIAL DAMAGE. Some states do not allow limitations on how long an implied warranty lasts or the exclusion or limitation of incidental or consequential damages, so these limitations may not apply to you. This warranty gives you specific legal rights and you may have other rights which vary in certain states or provinces.

**RATO ENGINE LIMITED WARRANTY.** Refer to the RATO Engine Manual for engine warranty and engine parts related issues.

**Latin America:** This warranty does not apply to products sold in Latin America. For products sold in Latin America, see the country-specific warranty information contained in the packaging, call the retailer from which it was purchased, or visit the website for warranty information.

Free warning label replacement: If your warning labels become illegible or are missing, call **1-800-261-3981** for a free replacement.

**REGISTER ONLINE** - [senixtools.com/pages/product-registration](http://senixtools.com/pages/product-registration)

Thank you for your purchase! Register your product now for:

**Warranty Service:** Registering your product will help you obtain more efficient warranty service in case of a problem with your product.

**Confirmation of Ownership:** In case of an insurance loss, such as fire, flood, or theft, your ownership registration will serve as proof of purchase.

**For your safety:** Registering your product will allow us to contact you in the unlikely event a safety notification is required under the Federal Consumer Safety Act.



YAT USA INC. 10506 Bryton Corporate Center Dr, #500 Huntersville, NC 28078  
For customer support, please call 1-800-261-3981 or email us at [senix.support@yatusa.com](mailto:senix.support@yatusa.com)