

# Lawn Edger & Crack Cleaner



RA-EDG-0006

Lawn Edger 6.5 HP 196 CC Engine with Crack Cleaning Kit





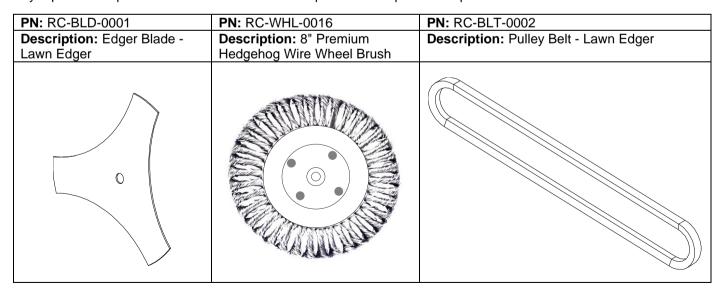
## **IMPORTANT**:

This manual provides complete instructions for safely operating and maintaining your Edger. Read and save these instructions. Refer to this manual each time before using your Edger.

#### **A** WARNING

To reduce the risk of injury, the user must read and understand the operator's manual before using this product. It is critical to select the correct blade/ brush for your application (edger blade for lawn edging and wire wheel brush for crack cleaning. Using the wrong blade or brush risks causing damage or injury.

Key replacement parts listed below. There is a complete list of replacement parts at the end of this manual.



## KEEP THIS MANUAL FOR FUTURE REFERENCE

# **Safety Definitions**• Save these instructions

## Safety Alert Symbols

The following symbols are used on the product and in this manual to alert the operator of potential safety hazards. Read them carefully, and understand their meaning.

A DANGER	Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.
<b>▲</b> WARNING	Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.
A CAUTION	Indicates a potentially hazardous situation which, if not avoided, may result in minor/moderate injury or equipment/property damage.

The following symbols can be found on your edger. Carefully read and understand their meaning.

Safety Warnii	iy syiiibuis		
<u></u>	Indicates WARNING, DANGER, or CAUTION.	$\Theta$	Wear eye protection complying with ANSI Z87.1 and hearing protection.
	Read operator's manual before operating this machine. Failure to follow directions could result in serious injury.		Disconnect spark plug wire when not in use or before servicing, cleaning, or performing maintenance on the unit.
	Thrown objects. Remove all rocks, stones, and foreign objects which could be thrown by machine	2	Engine exhaust contains carbon monoxide, an odorless and deadly gas. NEVER run unit indoors or in a poorly ventilated area.
Ť 🏵 📈 Å	Do not use if children or bystanders are present.		Do NOT touch hot muffler or cylinder. These parts are extremely hot from operation and may remain hot for a short time after operation.
	Rotating parts can cause serious injury. Keep hands and feet away.	Jan 19	To reduce risk of fire, clean spilled gas and oil and keep unit free from debris. Gasoline is extremely flammable. Allow machine to cool before refueling.

## Control and Operating Symbols

	Oil Fill Location  Do Not Overfill		Gasoline Fill Location
INCREASE CUTTING DEPTH	Depth Control Lever Move lever forward to increase cutting depth  Start Position	START / RUN	Start Lever Release lever to stop engine Engage lever to start/run engine
△ DANGER CONNECTED	Always check that the ground wires are connected before running the unit	3x PUSH TO PRIME	Push primer 3 times before starting a cold engine. Important: Do not prime to restart a warm engine.

## Important Safety Information

Save all instructions

#### RESPONSIBILITY OF OPERATOR

- 1. Carefully read and follow these safety instructions. Failure to do so can result in serious injury.
- 2. Know your product. Read and understand this manual before use. Compare the illustrations to unit. Learn location and function of all controls. Thoroughly understanding the unit before use will result in the best performance and safety.
- 3. Follow all instructions when assembling the unit. If the unit was purchased in assembled condition, the operator must check the unit carefully to make sure it was assembled according the instructions in the manual before use.
- 4. Regularly inspect the edger. Make sure parts are not bent, damaged, or loose.
- 5. Use this equipment for its intended purpose only.
- 6. Operate the unit only with guards, shields, and other safety items in place and working correctly.
- 7. Service the unit only with authorized or approved replacement parts.
- 8. Complete all unit maintenance and adjustments according to the instruction in this manual.

## **A** WARNING

Look for this symbol to point out important safety precautions. It means: "Attention! Become Alert! Your Safety Is Involved."

## **A** WARNING

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

## **A** WARNING

To prevent accidental starting when setting up, transporting, adjusting or making repairs, always disconnect spark plug wire and put wire where it cannot contact the spark plug.

#### PREPARATION SAFETY

## **A** WARNING

- Read, understand, and follow all instructions on the machine and in this manual. Be thoroughly familiar with the controls and the proper use of the edger before starting. Know how to stop the engine quickly.
- Familiarize yourself with all the safety and operating decals on this equipment.

## **A** WARNING

- Thoroughly inspect the area where the edger is to be used and remove all foreign objects. Your equipment can propel
  small objects at high speed causing personal injury or property damage. Stay away from breakable objects, such as
  house windows, auto glass, greenhouses, etc.
- Check that all nuts and bolts are tight and equipment is in good condition.

## **A** WARNING

Always check that the flameout wire is connected before starting engine.

#### **OPERATION SAFETY**

Never allow children or young teenagers to operate the edger.

## **WARNING**

- · Keep area of operation clear of all bystanders, particularly small children and pets.
- · Only allow responsible individuals, who are familiar with the instructions, to operate the edger.

## **WARNING**

- Do not operate the edger while under the influence of alcohol, drugs, or other medication which can cause drowsiness
  or affect your ability to operate this machine safely.
- Do not use this machine if you are mentally or physically unable to operate the machine safely.
- Always wear ANSI compliant safety goggles or safety glasses with side shields when operating edger to protect your eyes from foreign objects, which can be thrown from the unit.

## Important Safety Information (Continued)

Save all instructions

#### **OPERATION SAFETY (Continued)**

- Wear appropriate clothing such as a long sleeved shirt or jacket. Also wear long trousers or slacks. Do NOT wear shorts. Do NOT wear loose clothing, which could get caught in this equipment.
- Always wear work gloves and sturdy footwear such as leather work shoes or short boots. These will protect ankles and shins from small sticks, splinters, and other flying debris, and improve traction.
- It is advisable to wear protective headgear to protect against being struck by small flying particles, or being struck by low hanging branches, twigs, or other objects, which may be unnoticed by the operator.

## **A** WARNING

- Do not put hands or feet near or under rotating parts.
- Exercise extreme caution when operating on or crossing gravel drives, walks, or roads. Stay alert for hidden hazards or traffic.

## **₩** WARNING

- Exercise caution to avoid slipping or falling. Always be sure of your footing; keep a firm hold on the handle and walk;
   never run. Never operate the edger at high transport speeds on slippery surfaces.
- · Look behind and use care when backing.
- Never operate the edger without good visibility or light.

#### A DANGER

- Do not run the engine indoors or inside a closed area. The exhaust fumes are dangerous, containing CARBON MONOXIDE, an ODORLESS AND DEADLY GAS.
- Never leave the edger unattended when the engine is running. Stop the engine and make sure all moving parts have stopped. Remove the wire from the spark plug.
- Do not overload the edger capacity by attempting to till too deep at too fast a rate.
- If the edger should start to vibrate abnormally, stop the engine, disconnect the spark plug wire and prevent it from touching the spark plug. Check immediately for the cause. Vibration is generally a warning of trouble.
- Watch for holes, ruts, bumps, or other rough ground. Tall grass can hide obstacles.

#### **FUEL SAFETY**

## **A** WARNING

- Gasoline is extremely flammable, and gasoline vapors can explode if ignited. Handle with care.
- Use an approved container.
- Check fuel supply before each use, allowing space for expansion as the heat of the engine and/or sun can cause fuel to expand.
- Fill fuel tank outdoors with extreme care. Never fill fuel tank indoors.
- · Never remove gas cap or add fuel with the engine running. Allow engine to cool before refueling.

## **A** WARNING

- · Do not smoke while refueling.
- After refueling, replace fuel tank cap securely and wipe up spilled fuel.
- Never store fuel or edger with fuel in the tank inside a building where fumes may reach an open flame.

#### STORAGE SAFETY

- · Always refer to the operator's manual instructions for important details if the edger is to be stored for an extended period.
- Never store the edger with fuel in the fuel tank inside a building where ignition sources are present such as water heaters, space heaters, clothes dryers, etc.
- To reduce fire hazard, keep edger free of grass, leaves, or other debris build-up.
- Allow the engine to cool before storing in any enclosure.

## Important Safety Information (Continued)

Save all instructions

#### REPAIR, MAINTENANCE, AND ADJUSTMENT SAFETY

• After striking a foreign object, stop the engine. Remove the wire from the spark plug and keep the wire away from the plug to prevent accidental starting. Thoroughly inspect the edger for any damage. If damaged, have the equipment repaired by a trained technician before restarting and operating.

## **A** WARNING

- Stop the engine before cleaning, repairing, or inspecting the unit. Make sure all moving parts have stopped. Let the engine cool, disconnect the spark plug wire and move it away from the spark plug.
- Never attempt to make any adjustments while the engine is running except when specifically recommended by the manufacturer.
- Keep the edger in safe working condition. Check all fasteners at frequent intervals for proper tightness.
- When servicing or repairing the edger, do not tip the machine over or up unless specifically instructed to do so in this Manual. Service and repair procedures can be done with the edger in an upright position. Some procedures will be easier if the machine is lifted on a raised platform or working surface.
- Use only original equipment or authorized replacement parts.

## **A** WARNING

- Never tamper with safety devices. Check their proper operation regularly.
- Do not change the engine governor setting or over-speed engine.
- Clean and replace safety and instruction decals as necessary.
- · To guard against engine over-heating, always have engine debris filter mounted and clean.

#### CHILDREN SAFETY

## A WARNING

- Tragic accidents can occur if the operator is not alert to the presence of children. Children are often attracted to the edger and the edging activity.
- · Keep children out of the edging area and under the watchful care of a responsible adult.
- · Never assume that children will remain where you last saw them.
- · Be alert and turn edger off if children enter the area.
- Before and while moving backwards, look behind and down for small children.
- Never allow children to operate the edger.
- Use extra care when operating near blind corners, shrubs, trees, or other objects that may obstruct vision.

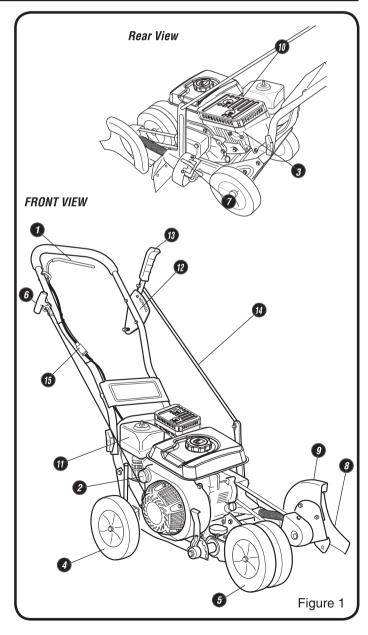
# Edger Specifications • Save all instructions

Unit Weight	71 lb. (32kg)
Cutting Depths	0-3.0 in. (0-76 mm)
Blade Diameter	. 9 in. (228 mm), 3 point
Gasoline Type Regular Unle	eaded / 88 Octane (min.)
Gasoline Capacity	3.1L
Oil Type (API SG-SL) 10W-30 is	recommended for all ser-
vice temperatures. See page 7 f	or additional information.
Oil Capacity	
Spark Plug Model	Torch F7RTC

Spark Plug Gap 0.020-0.028 in. (0.5-0.7 mm)
Engine Type 4 Stroke, single cylinder, OHV
Displacement
RPM
Torque Rating8.8 ft-lbs gross torque per SAE J1940
Bore Diam. x Stroke 2.7X2.1 in. (68X54 mm)
Intake Valve Clearance . 0.0032-0.0047 in.(0.08-0.12 mm)
Exhaust Valve Clearance . 0.0059-0.0079 in.(0.15-0.20mm)
Angle of Ignition

## Parts & Features

- 1. Start Lever Lever on handle which allows the engine to run. When lever is released, engine will stop.
- 2. Primer Bulb Injects fuel mixture into the carburetor for cold starting the engine.
- 3. Muffler Location of engine exhaust.
- 4. Adjustable Rear Wheel Right rear wheel is adjustable to level the edger when edging along a curb (curb-hopping).
- 5. Adjustable Front Wheels Front wheels are adjustable from side to side for balance. The front wheels can also adjust down for curb-hopping.
- 6. Recoil Starter Handle The engine is equipped with an easy pull recoil starter.
- 7. Index Lever Permits adjusting the cutting angle to 15 degrees, 0 degrees (vertical), or -15 degrees. To change the angle, pull the index lever and rotate the guill assembly to the desired angle.
- 8. Blade Rotating cutting element.
- 9. Blade Guard Prevents stones and debris from being thrown at the operator.
- 10. Spark Plug/Spark Plug Wire Provides spark to ignite air/ fuel mixture. The Spark Plug Wire must be disconnected and moved away from the Spark Plug when servicing the unit.
- 11. Air Filter Removes debris and contaminates from intake air, allowing engine to run smoothly with low exhaust.
- 12. Depth Selector Plate, 13. Depth Control Lever,
- 14. Control Rod Used to control the edging depth of cut.
- 15. Flameout Wire Terminals Must be connected for the Start Lever to function.





Read and follow the assembly instructions. Do not discard any parts or materials until the unit is assembled. References to the right or left side of the edger are from the viewpoint of the operator's position behind the edger.

## A WARNING

Do not operate edger if it is damaged or not completely and correctly assembled.

## **A** WARNING

Before doing any assembly or maintenance to the unit, remove the wire from the spark plug.

#### **A** WARNING

Always wear ANSI compliant safety glasses with side shields while assembling the edger.

The following components will be found in the carton. Quantities shown in ( ).

- 1. (1) Edger
- 2. (1) Edger Operator's Manual
- 3. (1) Upper Handle
- 4. (1) Control Rod
- 5. (1) Bottle of 10W-30 Engine Oil
- 6. (1) Parts bag containing the following:
  - (2) Hair Pins
  - (2) Plastic Wing Nuts (M8)
  - (2) M8x35mm Pipe Bolts
  - (1) Wire Tie
  - (1) Spark plug socket wrench w/ rod

#### How to Remove Edger from Carton

- 1. Remove all parts and packaging components.
- 2. Use a utility knife to cut all 4 vertical edges and lay the side panels flat around the edger.
- 3. Remove any remaining packaging.
- Roll the unit out from the carton, and place on a hard level surface.

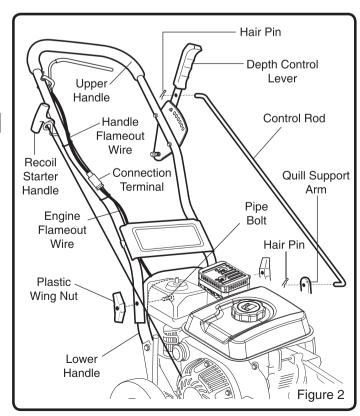
#### How to Assemble the Handle

NOTE: Refer to Figure 2 when following steps below:

- Assemble the upper handle to the lower handle with the (2) pipe bolts and the (2) plastic wing nuts. Firmly handtighten the wing nuts.
- 2. Slide one end of the control rod into the hole of the Depth Control Lever. Secure with hairpin.
- 3. Slide the other end of the control rod through the hole of the quill arm. Secure with second hairpin.
- 4. Attach the recoil starter handle through the rope guide, by twisting it into position.
- 5. Remove the temporary insert from the engine flameout wire terminal.
- 6. Connect the flameout wires from the engine and handle. Use cable tie to secure loose wire to handle.

## **A** WARNING

Flameout wires MUST be connected for correct engine operation. Failure to connect can result in serious injury.



# Engine Preparation • Save all instructions

**Engine Oil** 

## CAUTION

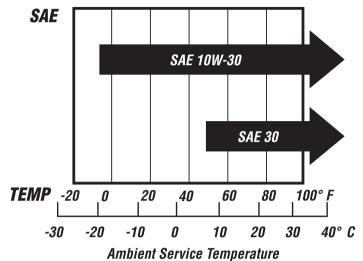
Engine shipped without oil. Failure to add oil will result in serious engine damage.

A bottle of SAE 10W-30 engine oil is included with your edger. Refer to the chart on the right for alternative oil types to use at different temperatures. Always use a high quality detergent oil classified "For Service, SG, SH, SJ" or higher. Do not use special additives.

## A CAUTION

Always use recommended oil type. Using dirty oil or TEMP incorrect oil type such as 2-stroke engine oil will shorten engine life.

NOTE: Engine Oil Capacity is 500 ml. For first time fill, simply add the entire contents of the provided oil bottle to the crankcase.



#### HOW TO CHECK OIL LEVEL AND FILL TO PROPER LEVEL

#### WARNING

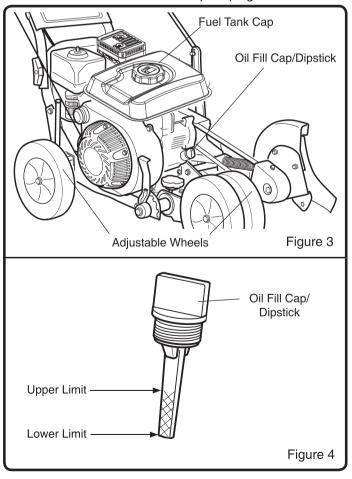
Before checking oil, make sure engine is off, and spark plug wire has been disconnected from spark plug.

- 1. Place the edger on a level surface and make sure the adjustable wheel heights are set so the main frame of the edger is level. (See Figure 3)
- 2. Remove the oil fill cap/dipstick and wipe clean with cloth. (See Figure 3)
- 3. Insert dipstick into fill spout but do NOT screw in. Remove dipstick and check oil level.
- 4. When oil level is full, the oil will be at upper limit on dip stick. If oil level is near or below the lower limit, oil must be added. (See Figure 4)
- 5. Add oil slowly until the oil level reaches the upper limit of the dipstick. Use a funnel or nozzle to reduce spillage.

## A CAUTION

Frequently check oil level while filling. DO NOT OVERFILL. DO NOT UNDERFILL. Running engine at improper oil level will seriously damage engine.

- 6. Replace and tighten dipstick.
- 7. Clean up any spilled oil.



## Engine Preparation (Continued)

Save all instructions



Fuel

## **A** WARNING

• Gasoline is extremely flammable and vapors can explode if ignited. Handle with care.

Use fresh, clean, regular-unleaded gasoline with a minimum of 88 Octane.

Do NOT use leaded gasoline, gasohol, methanol, or diesel fuel. Do NOT mix oil with gasoline. Do NOT allow gasoline to become contaminated with dust, water, or debris.

## A CAUTION

Using incorrect fuel type or contaminated fuel will cause serious engine damage.

NOTE: Fuel tank capacity is approximately 3.1L

#### HOW TO FILL ENGINE WITH FUEL

## **A** WARNING

- Turn engine off and let engine cool for several minutes before removing the fuel cap or adding fuel.
- Never fill fuel tank indoors.
- Do not smoke while adding fuel.
- 1. Clean surface around fuel tank cap to prevent contamination. (See Figure 3)
- 2. Loosen fuel cap slowly. After removing cap, place on a clean surface.
- 3. Pour fuel into the tank. Use care to avoid spillage.

## **A** WARNING

Do NOT OVERFILL fuel. Allow space for the fuel to expand due to heat from engine and/or sun.

- 4. Before replacing the fuel cap, inspect and clean the fuel cap seal.
- 5. Replace the fuel cap and securely hand-tighten.
- 6. Clean up any spilled fuel.

## Operation

• Save all instructions



Before Starting the Engine

## **WARNING**

Before starting engine, read operator's manual. Become familiar with location and function of all controls. Know how to stop the engine quickly.

## **A** WARNING

Before starting the engine, check that the flameout wire terminals have been connected.

Before attempting to start the engine, review the following steps:

- Unit has been assembled according to all assembly instructions.
- 2. Flameout wire terminals are connected.
- 3. Unit has been inspected for any damaged or missing components.
- 4. No parts are remaining in the carton.

## **Operation**

Save all instructions

## A

#### Before Starting the Engine (Continued)

- 5. Engine oil is at proper level.
- 6. Fresh, clean, regular-unleaded gasoline has been added to fuel tank.
- 7. Spark plug wire is connected to spark plug.
- 8. Edger has been moved to desired location.
- 9. Edger is on level surface.

## **WARNING**

Keep all bystanders, especially CHILDREN, away during operation.

**IMPORTANT:** This unit's engine exhaust system is equipped with a spark-arresting muffler. Tampering with or removing the spark-arrestor violates section 4442 of the California Public Resources Code as well as other applicable state and federal law.



#### How to Start Engine

## A DANGER

Never Run engine indoors or in a poorly ventilated area. Engine exhaust contains Carbon Monoxide, an ODORLESS and DEADLY gas.

## A WARNING

Debris thrown from edger can cause severe eye damage. Always wear ANSI compliant safety glasses or eye shields when operating edger. If you wear eyeglasses, put an OSHA certified Wide Vision Safety Mask over your eyeglasses.

- 1. Review ALL steps in the "BEFORE STARTING THE ENGINE" section.
- 2. Move the Depth Control Lever to the Start Position. (See Figure 6)
- 3. Push the primer bulb 3 times waiting 2 seconds between each push. (See Figure 5)

**NOTE:** Not required when re-starting a warm engine.

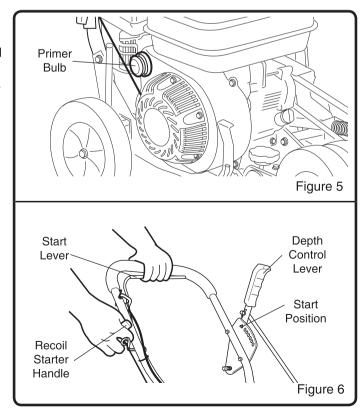
4. Firmly grip the edger handle with your left hand, pulling the Start Lever against the handle. (See Figure 6)

**NOTE:** Engine will not start if the Start Lever is not pulled against the handle

- 5. Firmly grip the Recoil Starter Handle with your right hand. (See Figure 6)
- Pull the recoil slowly, until you feel tension in the starter rope. Then quickly pull the recoil starter handle to completely unwind the starter rope. DO NOT allow the starter rope to snap back. Let the starter rope slowly rewind.
- 7. If engine fails to start after 5 or 6 more attempts, see instructions in the "Troubleshooting Chart"

## **A** WARNING

Keep hands, feet, hair, and loose clothing away from any moving parts. Avoid touching muffler and surrounding areas – temperatures can exceed 150 degrees. Keep all safety devices and shields in place.



## **Operation** (Continued)

#### How to Stop the Edger

Release the start lever (See Figure 6). This will ground out the engine through the flameout wire, causing the engine to stop.

#### A WARNING

The flameout wire terminals must be securely connected for the Start Lever to function. Refer to the "How to assemble the handle" section.

## D

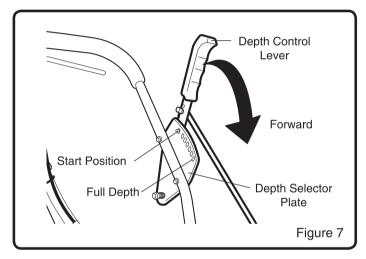
#### How to Change the Edger Cutting Depth

Move the Depth Control Lever forward to increase the depth. (See Figure 7)

**NOTE:** There are 6 cutting depth settings from approximately ground level to 3" (76 mm) deep.

## **A** CAUTION

Do not overload the edger capacity by attempting to edge too deep at too fast a rate. To edge at deeper settings, make multiple passes, first cutting at shallow depths.



## F

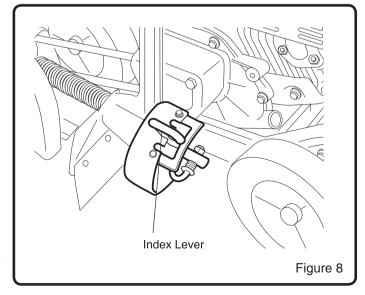
#### How to Change the Blade Angle for a Beveled Edge

The blade can be adjusted 15 degrees from vertical (both directions) to provide a beveled cut, which will cut the grass further away from the sidewalk or driveway, reducing the need to edge as often. Using the beveled edge at a deep depth will cut a trench into the ground.

- 1. Stop the engine.
- 2. Disconnect the spark plug wire from the spark plug.
- 3. Disengage the index lever (See Figure 8). Move the index lever to the desired notch (15, 0 or -15 degrees).
- 4. Before you start the engine, line up the edger as if you were going to bevel cut.

## A CAUTION

Do not overload the edger capacity by attempting to edge too deep at too fast a rate. To edge at deeper settings, make multiple passes, first cutting at shallow depths.





## $(\mathbf{F})$

#### How to Edge Along a Curb

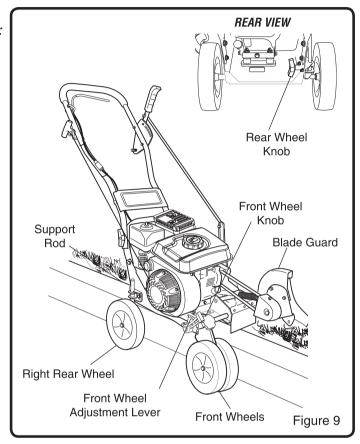
The height of the front wheels and right rear wheel are adjustable to allow for edging along a curb.

NOTE: Figure 9 shows the unit correctly configured for edging along a curb. Refer to Figure 9 when following the steps below:

- 1. Stop the engine.
- 2. Disconnect the spark plug wire from the spark plug.
- 3. Loosen the front wheel knob.
- 4. Slide the wheels to the right, enough to clear the curb and balance the unit.
- 5. Securely tighten the front wheel knob.
- 6. Use the front wheels adjustment lever to lower the front wheels enough so the unit will be level.
- 7. Loosen the rear wheel knob.
- 8. Lower the right rear wheel enough so the unit will be level.
- 9. Securely tighten the rear wheel knob.

## **A** WARNING

Use extreme caution when edging along a curb. Make sure the unit is balanced. Make sure of your footing. Stay alert for traffic or other hazards.



#### **EDGING TIPS**

## **A** WARNING

Read the Operator's manual. Know location and functions of all controls. Keep all safety devices and shields in place. Never allow children or uninstructed adults to operate the edger. Keep bystanders away from machine. Keep away from the blade and all rotating parts, which cause injury.

- Edging is best performed when conditions are dry. If the soil is too wet, dirt becomes packed around the blade causing premature belt wear and decreased performance.
- If dirt does become packed around the blade, stop the engine and remove the wire from the spark plug. Remove the packed dirt and debris from the blade.
- For deep edging, first cut at shallow depths. Then, cut at greater depths until the desired depth is obtained.
- Edging can be customized by varying the number of passes and the distance between the blade and the edge of sidewalk, driveway, or curb.

## Maintenance

Save all instructions



Maintenance Schedule

## WARNING

Before performing any maintenance, turn engine off and remove the wire from the spark plug to prevent accidental starting and serious injury.

IMPORTANT: The warranty on this edger does not cover items that have been subjected to operator abuse or negligence. To receive full value from the warranty, the operator must maintain the edger as instructed in this manual, and only use genuine replacement parts. The following table lists required periodic maintenance.

#### PERIODIC MAINTENANCE SCHEDULE TABLE

Service Records- Fill in dates as you complete regular service	Before Each Use	After Every 10 Hours of Use	After Every 25 Hours of Use	After Every 50 Hours of Use	After Every 100 Hour of Use	Before Each Season	Before Storage	See Note Below
Check Engine Oil Level, Fill to Proper Level	<b>√</b>					<b>√</b>		
Check Connection of BOTH Flameout Wire Connectors	<b>√</b>					√		
Clean Debris From Unit	√					√	√	
Lubricate All Pivot Points		√				√	√	
Check Fasteners for Tightness		√				$\checkmark$		1
Check Drive Belt Replace if Necessary		√				√		
Check Blade for Wear or Damage Replace if Necessary		√				√		
Check Fuel Line Replace if Necessary			√			√		
Lubricate Wheel Axles			<b>√</b>			$\checkmark$	√	
Check Spark Plug Replace if Necessary			✓			√		
Change Engine Oil				✓		$\checkmark$	√	2,3
Clean Air Filter Replace if Necessary			✓			√		4
Replace Spark Plug					✓			
Clean Combustion Deposits from Cylinder, Piston, and Valves					√			

## ▲ CAUTION IMPORTANT NOTES about Maintenance schedule

- 1. Re-check tightness of all fasteners after first 2 hours of initial use
- 2. Change engine oil after first 5-8 hours of initial use
- 3. Change oil every 25 hours if operating under heavy load or in high temperatures
- 4. Clean air filter every 10 hours if operating under dusty conditions.

## A WARNING

Use only GENUINE replacement parts. Other parts may damage the unit or result in injury.

## Maintenance (Continued)

Save all instructions

## **B** Lubrication

Add a small amount of engine oil to lubricate parts and pivot points.

Refer to "Periodic Maintenance Schedule Table" for time intervals to lubricate parts.

## **G** How to Change the Engine Oil

NOTE: Refer to Figure 10 when following the steps below:

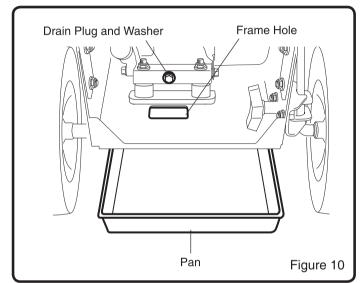
- 1. Stop the engine and let it cool.
- 2. Disconnect spark plug wire from the spark plug.
- Raise the front of the unit, by lowering the height of the front wheels. Refer to "How to Edge Along a Curb".
- 4. Insert a flat pan under the edger, underneath the oil drain plug and frame hole.
- 5. Remove oil dipstick. (See Figure 3)
- 6. Remove the oil drain bolt and washer.
- 7. Allow all oil to drain through the frame hole into the pan.

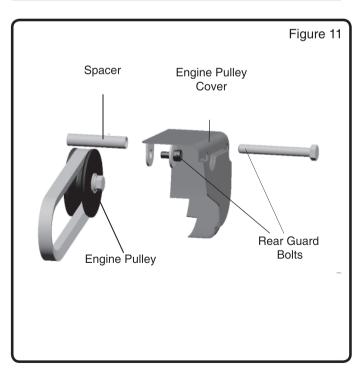
**IMPORTANT:** Used oil is a hazardous waste. Place oil in a sealed container and take to your local recycling center. Do NOT discard with household waste.

- 8. Replace and tighten the oil drain plug and washer.
- 9. To re-fill engine with oil, see engine preparation section "How to Check Oil and Fill to Proper Level."

## D How to Replace the Belt

- 1. Disconnect the spark plug wire from the spark plug.
- 2. To ease the replacement of a belt, remove the control rod (See Figure 2). This will allow the blade arm to rotate back creating slack in the belt.
- 3. Remove the two rear guard bolts to remove the engine pulley cover. (See Figure 11)



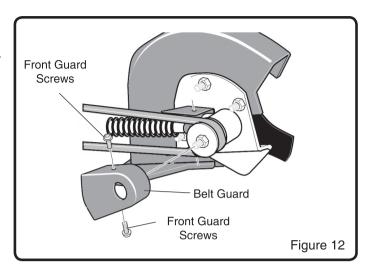


## Maintenance (Continued)

Save all instructions

## **D** How to Replace the Belt (Continued)

- 4. Remove the two Front Guard Screws and the Belt Guard. (See Figure 12)
- 5. Remove the old belt from the engine and quill assembly pulleys.
- 6. To install a replacement belt from the manufacturer, reverse the steps above.
- The rear guard bolts should be tightened to 13-16 foot-pounds [18-22 Nm].
- The front guard screws should be tightened to 4-6 foot-pounds [6-8 Nm].





#### How to Change the Blade

## **A** WARNING

Do not sharpen the blade. Sharpening can damage the blade and cause it to break, which can cause injury to you or to others.

The blade is subject to nicks, scratches, and dents, which will generally not affect function. The blade us also subject to wear – reducing the cutting depth. Replace a worn blade by following the steps below:

**NOTE:** Replacing the blade requires two (2) 12" adjustable wrenches, or two (2) 3/4 in. [19mm] wrenches.

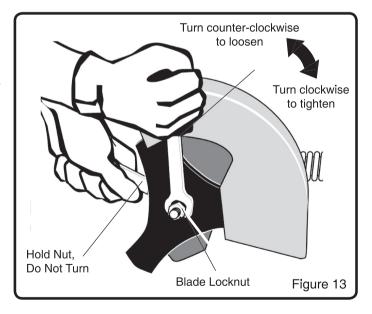
- 1. Shut off engine.
- 2. Disconnect the spark plug wire from the spark plug.
- 3. Remove the blade locknut that holds the blade to the drive shaft. (See Figure 13)

## **▲** WARNING

To remove or tighten the blade locknut, always use the method shown in Figure 13. Always position the holding wrench on the nut behind the blade.

- 4. Remove the blade.
- 5. Replace with a new blade from the manufacturer by reversing the above steps.

**Note:** Tighten the blade locknut to 35-45 foot-pounds (47-61 N-m).



## Maintenance (Continued)

• Save all instructions

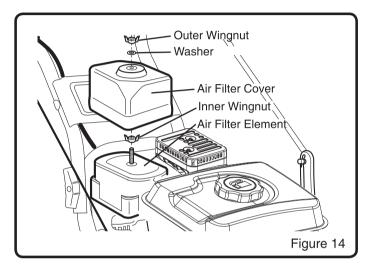
## F How to Clean the Air Filter

A dirty air filter will restrict air intake. Regular maintenance of air cleaner will help improve engine performance and reduce emissions.

#### **A** WARNING

Never clean air filter with gasoline or an easy ignited solvent because it may cause explosion.

**IMPORTANT:** Only use replacement air filter from the manufacturer.



NOTE: Refer to Figure 14 when following steps below:

- 1. Remove the outer wing nut, washer, and air filter cover.
- 2. Remove the inner wing nut, and the air filter.

**IMPORTANT:** Use care when removing the air filter so dirt and debris does not fall into the carburetor.

**NOTE:** Air filter is made up of an outer foam element and an inner paper element.

- Separate the outer foam element from the inner paper element.
- 4. Check the inside of the paper element for dirt or debris.
- 5. Check both elements for tears.

**NOTE:** If the inner paper element is dirty or if either element is torn, replace with a new air filter from the manufacturer.

- 6. Clean the outer foam element by washing it thoroughly in a solution of household detergent and water, or in a nonflammable or high flash point solvent. Allow to dry thoroughly. Then soak the foam element in clean engine oil, and squeeze out all excess oil.
- Clean the inner paper element by lightly tapping it against a hard surface to remove excess dirt or by blowing compressed air through the filter from the inside out.

**IMPORTANT:** Do not attempt to brush dirt off the paper element, as this will only embed dirt into the fibers.

- 8. Reinstall the cleaned out foam element onto the inner paper element.
- 9. Reinstall the clean air filter and cover onto the unit by reversing steps 1 and 2 above.

## **G** How to Check the Spark Plug

Spark Plug Model: Torch F7RTC

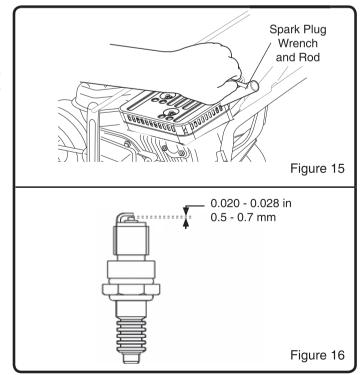
## A CAUTION

Only use the recommended spark plug or a spark plug with the same temperature range. Using an improper spark plug, an incorrect spark plug gap, or a dirty/fouled spark plug can reduce engine performance and cause damage.

- 1. Stop engine and allow it to cool.
- 2. Remove spark plug wire from spark plug.
- 3. Use the spark plug wrench and rod (included with edger) to remove the spark plug. (See Figure 15)
- 4. Visually inspect the spark plug for cracks or damage. If cracked, replace spark plug.
- 5. Clean carbon deposits. If excessive carbon build up, replace spark plug.
- 6. Check that the gap of the spark plug is 0.028-0.031 in. (0.7-0.8 mm). (See Figure 16)
- 7. Re-insert the spark plug and tighten using the spark plug wrench and rod. (See Figure 15)

NOTE: Torque of spark plug is 18-22 foot-pounds (25-30 Nm)

8. Reattach spark plug wire to spark plug.





Save all instructions

(H)

How to Prepare for Storage

## **A** WARNING

Never store the edger indoors with fuel in the fuel tank. Never store in an enclosed, poorly ventilated area where fumes could reach an open flame, a spark or a pilot light as on a furnace, water heater or clothes dryer. Allow engine to cool before storing unit.

## **A** WARNING

Do not remove gasoline while inside a building, near a fire, or while you smoke. Gasoline fumes can cause an explosion or a fire.

**NOTE:** A yearly checkup or tune-up at an authorized service center will make sure that the edger will provide maximum performance for the next season.

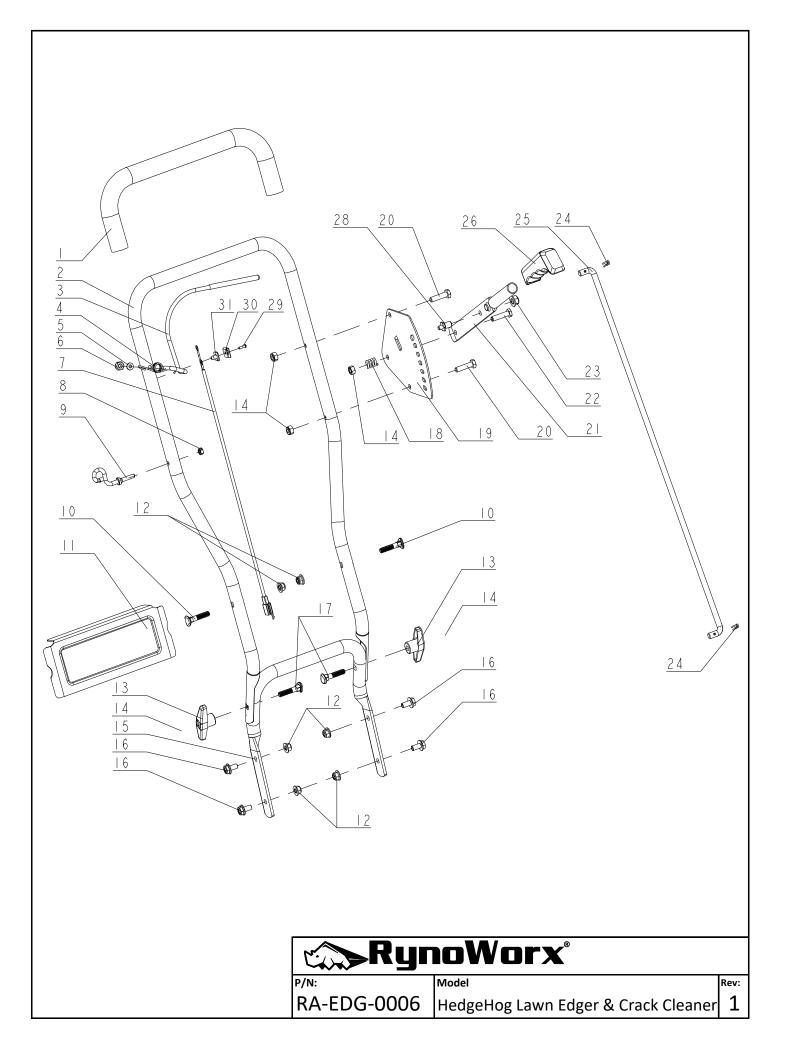
When the edger is put in storage for thirty days or more, the following steps should be followed to make sure the edger is in good condition the next season.

- 1. Let the engine run until it is out of gasoline.
- 2. Change the oil by following instructions under "How to Change the Oil."
- 3. Remove the spark plug from the cylinder. Pour one ounce of oil into the cylinder. Slowly pull the recoil-start grip so that the oil will protect the cylinder. Install a new spark plug in the cylinder. Pull starter handle slowly a few times to distribute oil. Pull recoil slowly until resistance is felt. This will close the cylinder valves.

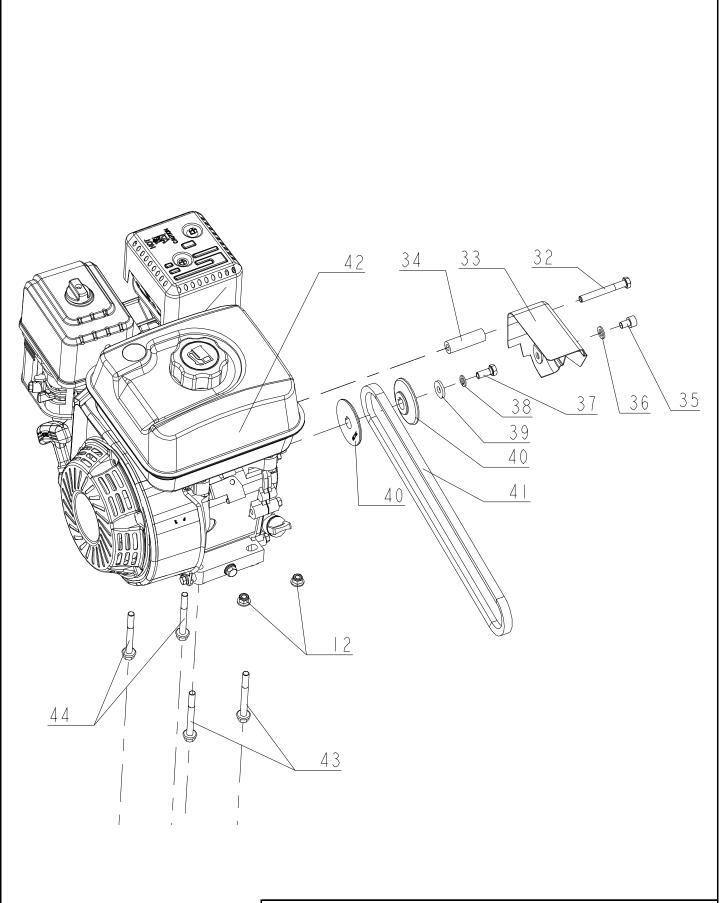
## **A** WARNING

DO NOT attach spark plug wire to spark plug when storing unit.

- 4. Clean edger. Remove all dirt, leaves, debris, grease, etc. from the edger including cylinder cooling fans, recoil starter cover holes, under fuel tank, and under muffler.
- 5. Check the edger for worn or damaged parts. Have damaged parts replaced if necessary.
- 6. Tighten any loose hardware.
- 7. Apply lubrication as directed in Maintenance section.
- 8. Put the unit in a building that has good ventilation.
- 9. Cover the edger with a breathing material.



No	P/N	Qty	Description
1	RC-GRP-0003	1	Handlebar Grip - Lawn Edger
2	RC-FAB-0239	1	Upper Handlebar - Lawn Edger
3	RC-HDL-0003	1	Handlebar Kill Switch - Lawn Edger
4	RC-SPG-0003	1	Kill Switch Torsion Spring - Lawn Edger
5	RC-WSH-0038	1	Flat Washer - Lawn Edger
6	RC-NUT-0047	1	M5 Nut - Lawn Edger
7	RC-CBL-0002	1	Kill Switch Connection Cable - Lawn Edger
8	RC-NUT-0039	1	Nut - Lawn Edger
9	RC-FAB-0233	1	Recoil Start Rope Guide - Lawn Edger
10	RC-HDW-0069	2	Handlebar Crossmember Bolt - Lawn Edger
11	RC-FAB-0234	1	Handlebar Crossmember - Lawn Edger
12	RC-NUT-0041	6	Handlebar Crossmember Nut - Lawn Edger
13	RC-HDL-0001	2	T-Nut Handle - Lawn Edger
14	RC-NUT-0042	5	Handlebar Nylon Lock Nut - Lawn Edger
15	RC-FAB-0235	1	Lower Handlebar - Lawn Edger
16	RC-HDW-0070	4	Handlebar Flange Bolt - Lawn Edger
17	RC-HDW-0071	2	Handlebar Carriage Bolt - Lawn Edger
18	RC-SPG-0002	1	Blade Height Adjustment Compression Spring - Lawn Edger
19	RC-FAB-0236	1	Blade Height Adjustment Plate - Lawn Edger
20	RC-HDW-0072	2	Blade Height Adjustment Bolt - Lawn Edger
21	RC-HDL-0002	1	Blade Height Adjustment Handle - Lawn Edger
22	RC-HDW-0073	1	Blade Height Adjustment Bolt - Lawn Edger
23	RC-NUT-0043	1	Blade Height Adjustment Nut - Lawn Edger
24	RC-PIN-0016	2	Blade Height Adjustment Hairpin Cotter - Lawn Edger
25	RC-FAB-0237	1	Blade Height Adjustment Connecting Rod - Lawn Edger
26	RC-GRP-0002	1	Blade Height Adjustment Grip - Lawn Edger
28	RC-HDW-0074	1	Blade Height Adjustment Stud - Lawn Edger
29	RC-HDW-0075	1	Kill Switch Handle Bolt - Lawn Edger
30	RC-CLP-0001	1	Kill Switch Handle Clip - Lawn Edger
31	RC-CLP-0002	1	Kill Switch Handle Clip - Lawn Edger



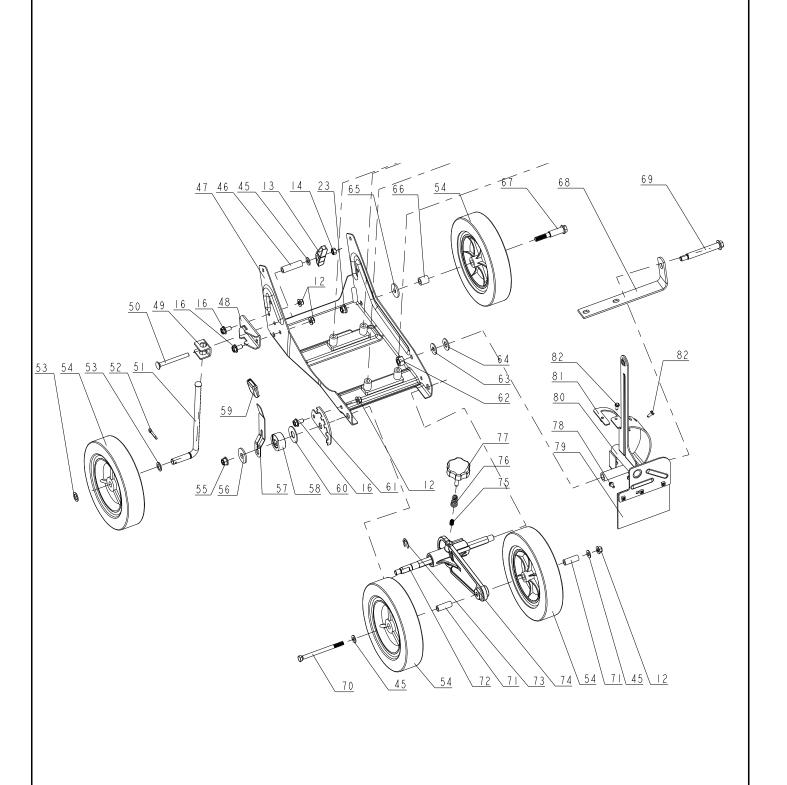
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<sub>P/N:</sub> RA-EDG-0006 Model

HedgeHog Lawn Edger & Crack Cleaner 1

Rev:

No	P/N	Qty	Description
12	RC-NUT-0041	2	Handlebar Crossmember Nut - Lawn Edger
32	RC-HDW-0076	1	Engine Pulley Cover Bolt - Lawn Edger
33	RC-FAB-0238	1	Engine Pulley Cover - Lawn Edger
34	RC-SLV-0011	1	Engine Pulley Cover Spacer - Lawn Edger
35	RC-HDW-0077	1	Engine Pulley Cover Bolt - Lawn Edger
36	RC-WSH-0029	1	Engine Pulley Cover Washer - Lawn Edger
37	RC-HDW-0078	1	Engine Pulley Bolt - Lawn Edger
38	RC-WSH-0030	1	Engine Pulley Lock Washer - Lawn Edger
39	RC-WSH-0031	1	Engine Pulley Flat Washer - Lawn Edger
40	RC-PUL-0003	2	Engine Pulley - Lawn Edger
41	RC-BLT-0002	1	Pulley Belt - Lawn Edger
42	RA-ENG-0007	1	196 CC Lawn Edger Engine
43	RC-HDW-0079	2	Engine Bolt - Lawn Edger
44	RC-HDW-0080	2	Engine Bolt - Lawn Edger



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P/N: RA-EDG-0006 Model

Rev:

HedgeHog Lawn Edger & Crack Cleaner

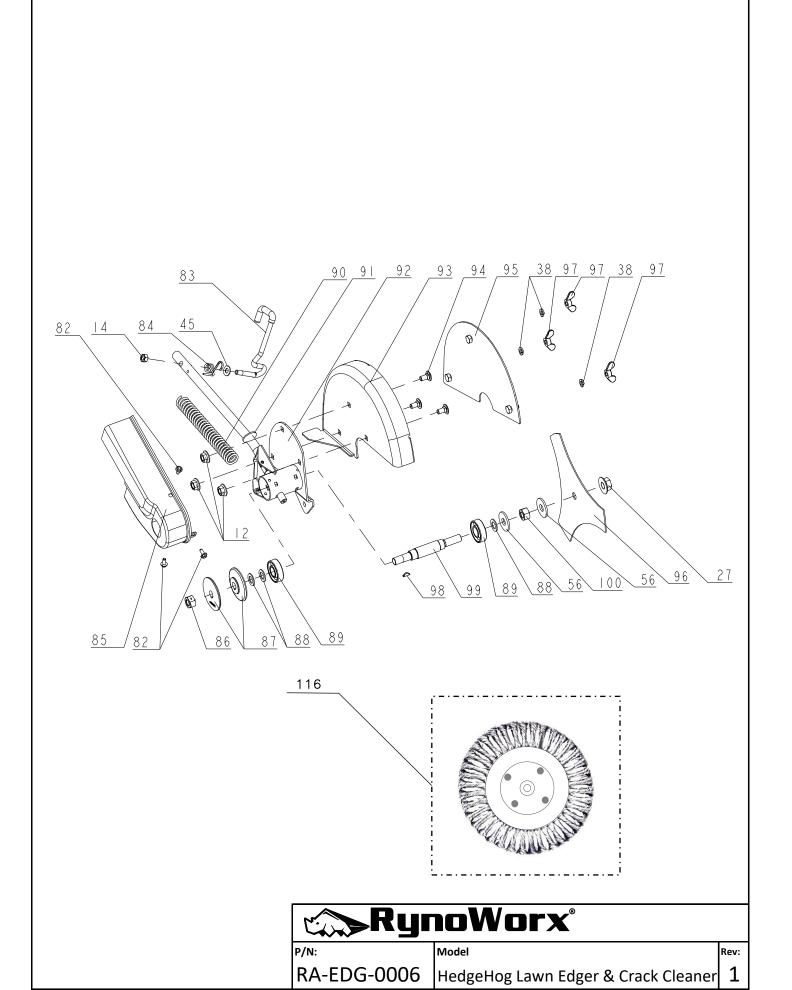
No	P/N	Qty	Description
12	RC-NUT-0041	4	Handlebar Crossmember Nut - Lawn Edger
13	RC-HDL-0001	1	T-Nut Handle - Lawn Edger
14	RC-NUT-0042	1	Handlebar Nylon Lock Nut - Lawn Edger
16	RC-HDW-0070	3	Handlebar Flange Bolt - Lawn Edger
23	RC-NUT-0043	1	Blade Height Adjustment Nut - Lawn Edger
45	RC-HDW-0081	3	Wheel Washer - Lawn Edger
46	RC-SLV-0012	1	Wheel Sleeve - Lawn Edger
47	RC-FAB-0240	1	Engine Chassis - Lawn Edger
48	RC-FAB-0241	1	Curb Height Adjustment Bracket - Lawn Edger
49	RC-FAB-0242	1	Curb Height Adjustment Bracket - Lawn Edger
50	RC-HDW-0082	1	Curb Height Adjustment Bolt - Lawn Edger
51	RC-AXL-0001	1	Curb Height Adjustment Rod - Lawn Edger
52	RC-PIN-0017	1	Curb Height Adjustment Cotter Pin - Lawn Edger
53	RC-WSH-0032	2	Curb Height Adjustment Washer - Lawn Edger
54	RC-WHL-0031	4	Wheel - Lawn Edger
55	RC-NUT-0045	1	Wheel Adjustment Nut - Lawn Edger
56	RC-WSH-0033	1	Wheel Adjustment Washer - Lawn Edger
57	RC-FAB-0243	1	Wheel Adjustment Lever - Lawn Edger
58	RC-FAB-0244	1	Wheel Adjustment Spacer - Lawn Edger
59	RC-GRP-0004	1	Wheel Adjustment Lever Grip - Lawn Edger
60	RC-WSH-0034	1	Wheel Adjustment Washer - Lawn Edger
61	RC-FAB-0245	1	Wheel Adjustment Plate - Lawn Edger
62	RC-NUT-0046	1	Blade Pivot Nut - Lawn Edger
63	RC-WSH-0035	1	Blade Pivot Washer - Lawn Edger
64	RC-WSH-0036	1	Blade Pivot Washer - Lawn Edger
65	RC-WSH-0037	1	Wheel Washer - Lawn Edger
66	RC-SLV-0013	1	Wheel Spacer - Lawn Edger
67	RC-AXL-0002	1	Wheel Rear Axle - Lawn Edger
68	RC-FAB-0246	1	Blade Pivot Bracket - Lawn Edger
69	RC-HDW-0083		Blade Pivot Bolt - Lawn Edger
70	RC-AXL-0003		Wheel Front Axle - Lawn Edger
71	RC-SLV-0014	2	Wheel Spacer - Lawn Edger
72	RC-FAB-0247	1	Front Curb Hopper - Lawn Edger
73	RC-CLP-0003	1	Front Curb Hopper - Lawn Edger
74	RC-FAB-0248	1	Front Wheel Arm - Lawn Edger
75	RC-INS-0001	1	Threaded Insert - Lawn Edger
76	RC-SPG-0004	1	Curb Hopper Spring - Lawn Edger
77	RC-HDL-0004	1	Curb Hopper Knob - Lawn Edger
78	RC-HDW-0084	1	Rubber Deflector Bolt - Lawn Edger
79	RC-GSK-0046	1	Rubber Deflector - Lawn Edger
80	RC-FAB-0249	1	Blade Pivot Bracket - Lawn Edger
81	RC-FAB-0250	1	Blade Pivot Bracket - Lawn Edger
82	RC-HDW-0085	2	Blade Pivot Bolt - Lawn Edger



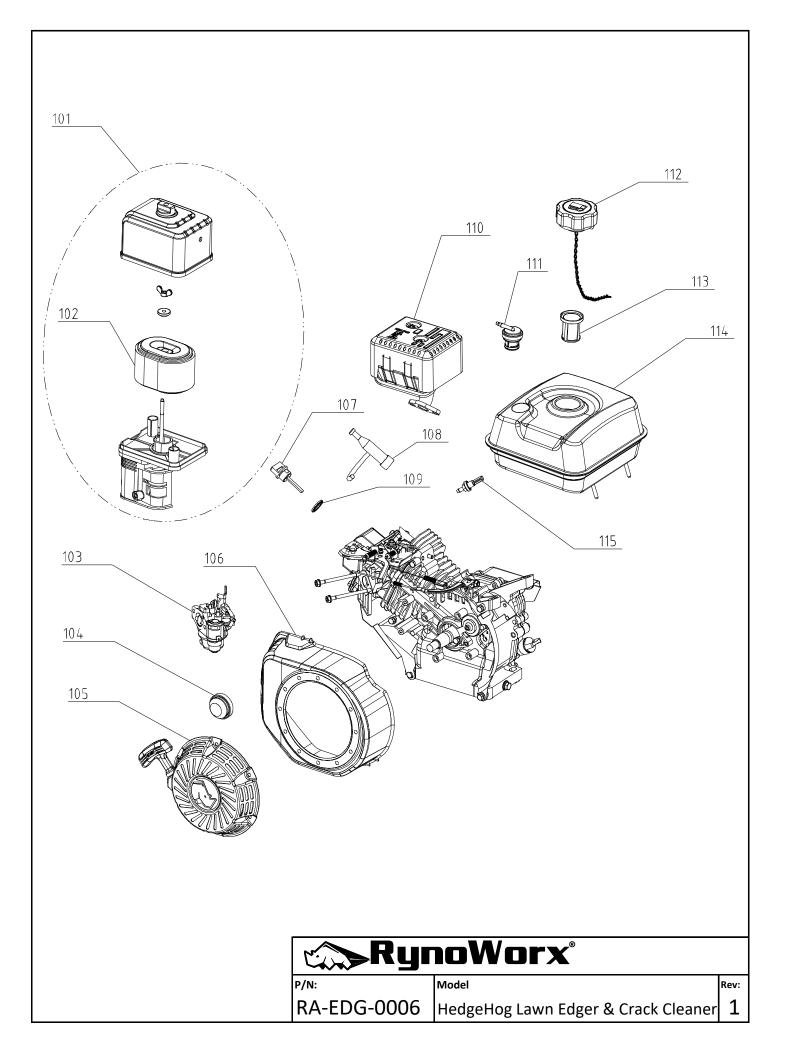
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Model

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No	P/N	Qty	Description		
12	RC-NUT-0041	3	landlebar Crossmember Nut - Lawn Edger		
14	RC-NUT-0042	1	Handlebar Nylon Lock Nut - Lawn Edger		
27	RC-NUT-0044	1	Blade Nut - Lawn Edger		
38	RC-WSH-0030	ო	Engine Pulley Lock Washer - Lawn Edger		
45	RC-HDW-0081	1	Wheel Washer - Lawn Edger		
56	RC-WSH-0033	2	Wheel Adjustment Washer - Lawn Edger		
82	RC-HDW-0085	3	Blade Pivot Bolt - Lawn Edger		
83	RC-FAB-0251	1	Blade Pivot Lever - Lawn Edger		
84	RC-SPG-0005	1	Blade Pivot Tension Spring - Lawn Edger		
85	RC-FAB-0252	1	Pulley Cover - Lawn Edger		
86	RC-NUT-0048	1	Pulley Lock Nut - Lawn Edger		
87	RC-PUL-0004	2	Blade Pulley - Lawn Edger		
88	RC-WSH-0039	ო	Blade Pulley Washer - Lawn Edger		
89	RC-BRG-0005	2	Blade Pulley Bearing - Lawn Edger		
90	RC-SPG-0006	1	Blade Tension Spring - Lawn Edger		
91	RC-WSH-0040	1	Blade Pivot Spring Washer - Lawn Edger		
92	RC-FAB-0253	1	Blade Pivot Arm - Lawn Edger		
93	RC-FAB-0254	1	Blade Guard - Lawn Edger		
94	RC-HDW-0086	თ	Blade Guard Carriage Bolt - Lawn Edger		
95	RC-FAB-0255	1	Blade Guard Cover - Lawn Edger		
96	RC-BLD-0001	1	Edger Blade - Lawn Edger		
97	RC-NUT-0049	თ	Blade Guard Wing Nut - Lawn Edger		
98	RC-KEY-0003	1	Blade Axle Key - Lawn Edger		
99	RC-AXL-0004	1	Blade Axle - Lawn Edger		
100	RC-NUT-0040	1	Blade Axle Nut - Lawn Edger		
116	RC-WHL-0016	1	8" Premium Hedgehog Wire Wheel Brush		



No	P/N	Qty	Description			
101	RC-EGP-0019	1	Air Filter Assembly - 196 CC Lawn Edger Engine			
102	RC-EGP-0020	1	Air Filter Element - 196 CC Lawn Edger Engine			
103	RC-EGP-0024	1	Carburetor - 196 CC Lawn Edger Engine			
104	RC-EGP-0025	1	Primer Bulb - 196 CC Lawn Edger Engine			
105	RC-EGP-0017	1	Recoil Starter Assembly - 196 CC Lawn Edger Engine			
106	RC-EGP-0018	1	Engine Side Cover - 196 CC Lawn Edger Engine			
107	RC-EGP-0031	1	Dipstick - 196 CC Lawn Edger Engine			
108	RC-EGP-0022	1	Ignition Coil - 196 CC Lawn Edger Engine			
109	RC-EGP-0030	1	Dipstick O-Ring - 196 CC Lawn Edger Engine			
110	RC-EGP-0021	1	Muffler Assembly - 196 CC Lawn Edger Engine			
111	RC-EGP-0029	1	Dump Valve Assembly - 196 CC Lawn Edger Engine			
112	RC-EGP-0026	1	Fuel Tank Cap - 196 CC Lawn Edger Engine			
113	RC-EGP-0027	1	Fuel Filter - 196 CC Lawn Edger Engine			
114	RC-EGP-0028	1	Fuel Tank - 196 CC Lawn Edger Engine			
115	RC-EGP-0032	1	Fuel Tank Joint Filter - 196 CC Lawn Edger Engine			