



**CE807R-B¹ SERIES ROTARY RESCUE SAW
Owner's Manual**



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INTRODUCTION

BEFORE YOU BEGIN: To correctly use the CE807R-B¹ Series CUTTERS EDGE FIRE RESCUE ROTARY SAW do not start working without first carefully reading this manual. You will find explanations concerning the operation of the various parts plus instructions for necessary checks and relative maintenance.

WARNINGS AND CAUTIONS IN THIS MANUAL MUST BE UNDERSTOOD AND FOLLOWED! FAILURE TO OBEY WARNINGS MAY RESULT IN SERIOUS INJURY OR DEATH. IT IS YOUR RESPONSIBILITY to make sure persons who use this cut-off style rescue saw, have read and understand this manual.

NOTE: Illustrations and specifications in this manual may vary according to Country requirements and are subject to change without notice by the manufacturer.

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Symbol Definitions

CE This symbol indicates that the machine is in conformance with the applicable European directive.



Please read instructions for use prior to operating the machine for the first time.



Mandatory



Warning Triangle



Wear Eye Protection



Wear Breathing Protection



Ear protection is mandatory.



Wear a Hard Hat



Wear Safety shoes



Wear Appropriate Clothing



Motor off



Use in Well Ventilated area



Do not use in Flammable Area



No Non-working Personnel In Area



No Smoking



Always keep the Blade Guards in Place



Dangerously High Noise Level

WARNING

Hearing Hazard

During normal use of this machine, Operator may be exposed to a noise level equal to, or above 85 dB (A)

<u>MODEL</u>	<u>PRESSURE LEVEL</u>	<u>POWER LEVEL</u>	<u>VIBRATION LEVEL</u>
CE807R14A (14") M/s ² Idling 11.0 (SX)-11.7 (DX) m/s ² Rated Spindle Speed)	102 dB (A)	111 dB (A)	10.1 (SX)-12.0 (DX)

Warning: Verify that all safety warning and operation labels are properly affixed to the unit and are clearly legible. Replace any labels that have become damaged or removed.



WARNINGS



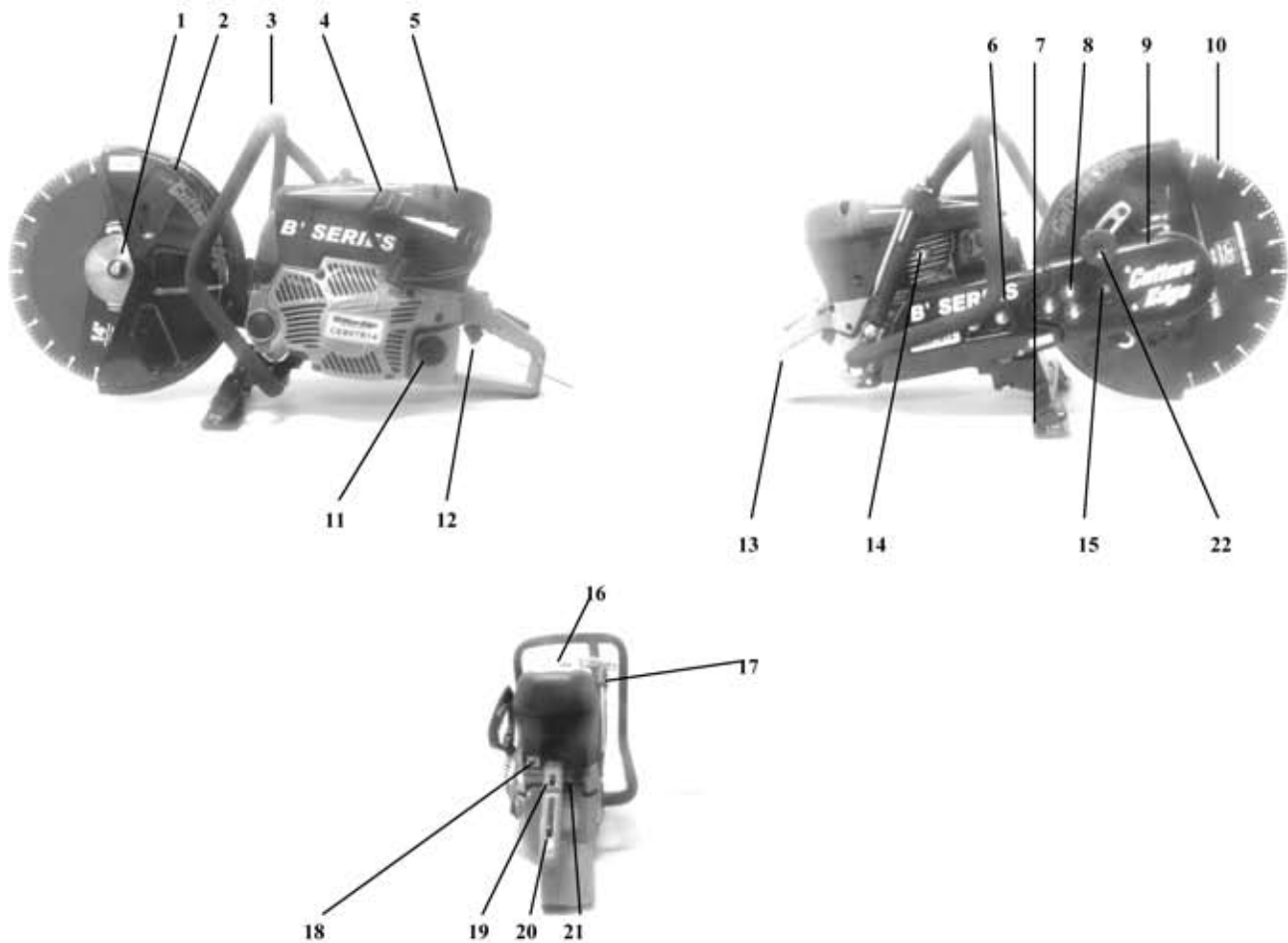
WARNING: FAILURE TO COMPLY WITH THESE WARNINGS AND OPERATING INSTRUCTIONS COULD RESULT IN DEATH OR SERIOUS BODILY INJURY.

- | | |
|--|--|
| <p>DO read this entire operator’s manual before operating this machine and understand all warnings, instructions, and controls.</p> <p>DO keep all guards in place and in good condition.</p> <p>DO wear safety approved hearing, eye, head and respiratory protection.</p> <p>DO read and understand the symbol definitions contained in this manual.</p> <p>DO keep all parts of your body away from the blade and all other moving parts.</p> <p>DO know how to stop the machine quickly in case of emergency.</p> <p>DO shut off the engine and allow it to cool before refueling.</p> <p>DO inspect the blade, flanges and shafts for damage before installing the blade.</p> <p>DO use CUTTERS EDGE Diamond Blades, BLACK STAR DIAMOND BLADE or BLACK LIGHTNING DIAMOND BLADE. Specifically rated with a maximum operating speed of 5400 RPM on 14” (350mm) or 6200 RPM on 12” (300mm).</p> <p>DO use CUTTERS EDGE Diamond blades marked with a 1” (25.4mm) hole for a 1” (25.4mm) flange, or a 20mm hole for a 20mm flange.</p> <p>DO use Cutters Edge diamond blades marked for use with gasoline-powered, hand-held, portable, abrasive cut-off machines.</p> <p>DO read all safety materials and instructions that accompany any blade used with this saw.</p> <p>DO inspect each blade carefully before using it. If there are any signs of damage or unusual wear, DO NOT USE THE BLADE.</p> <p>DO verify the blade arbor hole matches the machine spindle before mounting the blade.</p> <p>DO make sure the blade and flanges are clean and free of dirt and debris before mounting the blade on the saw.</p> <p>DO use the correct blade for the type of work being done. Check with blade manufacturer if you do not know if blade is correct.</p> <p>DO always hold the machine with both hands when the engine is running. Use a firm grip with thumbs and fingers encircling the handles.</p> <p>DO keep all parts of the body away from the cut-off blades when the engine is running.</p> <p>DO keep the handles dry, clean, and free of oil or fuel.</p> <p>DO always carry the machine with the engine stopped and the muffler away from the body.</p> <p>DO use caution and follow the instructions when loading the saw.</p> <p>DO operate this machine only in well ventilated areas.</p> <p>DO instruct bystanders on where to stand while the saw is in operation.</p> <p>DO establish a training program for all operators of this machine.</p> <p>DO clear the work area of unnecessary people. Never allow anyone to stand in front of or behind the blade while the engine is running.</p> <p>Do use caution when handling fuel!</p> <p>DO move the machine at least 10 feet away from the fueling point before starting the engine and make sure the gas cap and the fuel cap on the saw are properly tightened.</p> <p>DO use caution when lifting and transporting the machine.</p> <p>DO always check for buried electrical cables before sawing. If unsure, contact the local utilities.</p> <p>DO have all service, other than items in this manual, performed by competent service personnel.</p> <p>DO always tie down the Rotary Saw when transporting.</p> <p>DO use caution and follow instructions when setting up or transporting the machine.</p> <p>DO clean the saw after every use.</p> <p>DO always give a copy of this manual to the equipment user.</p> | <p>DO NOT Operate this saw unless you have read and understand this operators manual.</p> <p>DO NOT Operate this saw without the blade guard, or other protective guards in place</p> <p>DO NOT stand behind or in front of the blade path while the engine is running.</p> <p>DO NOT leave this saw unattended while the engine is running.</p> <p>DO NOT operate this machine when you are tired or fatigued.</p> <p>DO NOT use abrasive blades that are less the 1/8” (3.17mm) thick.</p> <p>DO NOT exceed maximum blade speed shown for each blade size.</p> <p>DO NOT use damaged equipment or blades.</p> <p>DO NOT try to stop a moving blade with your hand.</p> <p>DO NOT use an abrasive blade that has been dropped.</p> <p>DO NOT not use Carbide tipped or toothed type blade of any kind.</p> <p>DO NOT use segmented diamond blades unless they are specifically designed for high speed, hand-held saws.</p> <p>DO NOT place 1 inch (25.4mm) arbor hole blades on 20mm flanges.</p> <p>DO NOT grind on the side of a cut-off blade.</p> <p>DO NOT cock, jam, or wedge the blade in the cut.</p> <p>DO NOT operate a cutting machine if the blade does not stop rotating when the throttle trigger is released.</p> <p>DO NOT start cutting until you have a clear work area and secure footing.</p> <p>DO NOT allow other people to be near the machine when starting, refueling, or when the saw is operating.</p> <p>DO NOT operate the machine in the vicinity of anything that is flammable. Sparks could cause a fire or an explosion.</p> <p>DO NOT allow bystanders or animals in the work area while using a cut-off saw.</p> <p>DO NOT touch a dry cutting diamond blade immediately after use. These blades require several minutes to cool after each cut.</p> <p>DO NOT use damaged or worn blade flanges.</p> <p>DO NOT operate this machine in an enclosed area unless it is properly ventilated.</p> <p>DO NOT allow blade exposure for the guard to be more than 180 degrees.</p> <p>DO NOT operate this saw without both hands on the handles.</p> |
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This saw has been designed specifically for Fire Rescue cutting applications. Do not modify or use this saw for any purpose other than Fire Rescue cutting. If you have any questions relative to its intended application, do not use the saw until you have been advised regarding an application in question.

BASIC ILLUSTRATION
CUTTERS EDGE CE807R-B¹ SERIES ROTARY RESCUE SAW



-
- | | |
|-----------------------------|--|
| 1. Arbor Bolt | 12. Throttle Trigger |
| 2. Blade Guard | 13. Rear Handle |
| 3. Full Wrap Handle | 14. Decompression Valve |
| 4. Starter Handle | 15. Belt Adjustment Cam |
| 5. Air Filter Cover | 16. Warning Decal |
| 6. Belt Cover Nuts | 17. Scrench Tool & Allen Wrench |
| 7. Base Feet | 18. On/Off Switch |
| 8. Arm Mounting Nuts | 19. Half Throttle Lock |
| 9. Pulley Cover | 20. Throttle Trigger Lockout |
| 10. Diamond Blade | 21. Choke Lever |
| 11. Fuel Tank Cap | 22. Guard Locking Knob |

SAFETY INSTRUCTIONS

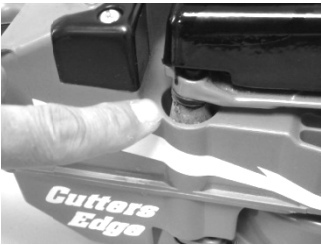
Machine's safety equipment

This section describes the machine's safety equipment, its purpose and how checks and maintenance should be carried out to ensure that it operates correctly. See "Basic Illustration" on the Cutters Edge CE807R-B¹ Series section to locate where this equipment is positioned on your machine.

Before leaving our factory, every machine is thoroughly tested. Follow these instructions strictly and your machine will give you long service in all operating conditions.

⚠ WARNING! Never use a CE807R-B¹ Rotary saw that has faulty safety equipment! Carry out the inspection, maintenance and service routines listed in this section.

Vibration damping system



Regularly check the vibration damping units for cracks or deformation.



Make sure the vibration damping units are securely attached to the engine unit and handle unit.

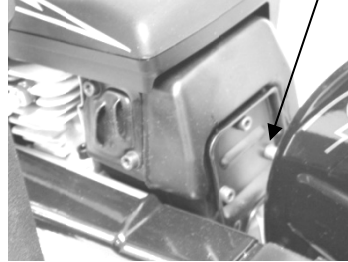
On/ Off -Stop Switch

Start the engine and make sure the engine stops when you move the stop switch to the stop setting. Switch will automatically return to the ON position when released.



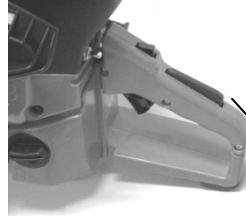
Muffler

Never use a machine with a faulty muffler. Regularly check that the muffler is securely attached to the machine. Check muffler screws.



Throttle trigger lockout

The throttle trigger lockout must be depressed before the throttle trigger can be activated.



Throttle trigger lockout

Checking the Blade Guard

⚠ WARNING! Always check that the blade guard is fitted correctly before starting the machine. Check that the cutting blade is fitted correctly and does not show signs of damage. A damaged cutting blade can cause personal injury. See instructions under the heading "Assembly"

The guard is fitted above the cutting blade and is designed to prevent parts of the blade or cutting fragments from being thrown toward the user.

Check that the guard is complete and without any cracks or deformities.

Checking, maintaining and servicing the machine's safety equipment

GENERAL SAFETY PRECAUTIONS

Transport and storage

Store the CE807R-B¹ Rotary saw in a lockable area so that it is out of reach of children and unauthorized persons.

Fuel Safety (Refueling/Fuel mixture/Storage)

WARNING! This section describes basic safety directions for using a CE807 Rotary Rescue Saw. This information is never a substitute for professional skills and experience. If you get into a situation where you feel unsafe, stop and seek expert advice. *Contact your dealer, service agent or an experienced rescue saw user. DO NOT attempt any task that you feel unsure of!*

Never refuel the CE807R-B¹ Rotary saw while the engine is running.

Make sure there is plenty of ventilation when refueling or mixing fuel (gasoline and 2-cycle oil)

Move the CE807R-B¹ Rotary saw at least 10 ft (3m) from the refueling point before starting it.

Never start the CE807R-B¹ ROTARY Saw.....

-If you have spilled fuel on it. Wipe off the spillage and allow remaining fuel to evaporate

-If you have spilled fuel on yourself or your clothes, change your clothes. Wash any part of your body that has come in contact with fuel. Use soap and water.

-If the machine is leaking fuel. Check regularly for leaks from the fuel cap and fuel lines.

Store and transport the CE807R-B¹ Rotary saw and fuel so that there is no risk of leakage or fumes coming in contact with spark or open flames, for example, from electrical machinery, electric motors, electrical relays/switches or boilers.

Always store fuel in an approved container designed for that purpose.

When storing the CE807R-B¹ Rotary saw for long periods the fuel tank should be emptied. Contact your local gas station to find out where to dispose of excess fuel.



WARNING! Take care when handling fuel. Keep in mind, the risk of fire, explosion and inhaling fumes.

BASIC SAFETY RULES

Look around you:

To ensure that people, animals or objects cannot affect your control of the CE807R-B¹ Rotary saw.

To make sure that none of the above come into contact with the cutting blade.

Use extreme caution when using the CE807R-B¹ Rotary saw in bad weather, such as dense fog rain, strong wind, intense cold, etc. Working in bad weather is tiring and can lead to dangerous conditions, i.e., slippery surfaces.

Never start to work with the CE807R-B¹ Rotary saw before the working area is clear and you have a firm foothold. Look out for any obstacles with unexpected movement. Ensure when cutting that no material can become loose and fall, causing operator injury. Use caution when working on sloping ground.

Make sure that clothing and parts of the body stay clear of the cutting equipment when it is rotating.

Maintain a safe distance from the cutting equipment when it is rotating.

The guard for the cutting equipment must always be on when the machine is running.

Ensure that the working area is sufficiently illuminated to create a safe working environment.

Do not move the CE807R-B¹ Rotary saw when the cutting equipment is rotating.

Always ensure you have a safe and stable working position.

Make sure that no pipes or electrical cables are routed in the area to be cut.

Ask yourself...”IS WHAT I'M ABOUT TO DO SAFE?”

Starting and Stopping



WARNING! Note the following before starting:
DO NOT start the CE807R-B¹ Rotary saw without the belt guard in place. The clutch could come loose and cause personal injury. Always move the machine away from the refueling area before starting. Ensure that you and the machine have a good working stance and that the cutting blade can rotate freely. Keep people and animals well away from the working area. The cutting blade rotates when the engine is started. Make sure it can rotate freely.

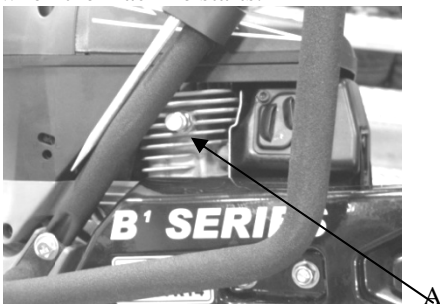
Starting a COLD engine

*Note: The ON/OFF switch is always in the ON or START position.

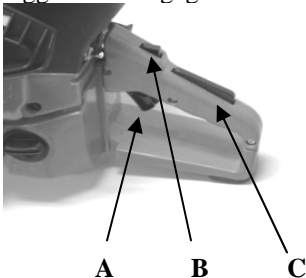
Choke: Pull choke lever out until it stops.



Decompression valve: Push in the decompression valve (A) to reduce the pressure in the cylinder and assist with starting the saw. The decompression valve should always be used when starting. The valve automatically returns to its initial position when the machine starts.



Start throttle lock: Wrap your hand around the rear handle, this engages the throttle trigger safety lockout (C), allowing the throttle trigger (A) to be depressed. Once the throttle trigger (A) is depressed, push the throttle lock (B) to lock the throttle trigger in half throttle position. Release the throttle trigger (A) and then the throttle lock (B). The trigger is now locked in the half throttle position. Once the saw starts, press the throttle trigger to disengage the lock.



Starting

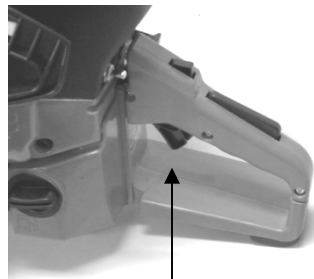
Grip the front handle with your right hand. Put your right foot on the lower section of the rear handle pressing the machine against the ground. **Never wrap the starter cord around your hand.**

Using the D handle, slowly pull out the cord with your left hand until you feel some resistance, then quickly and powerfully pull the cord until the engine attempts to start (pops). Push in the choke lever and pull the D handle again until the engine starts.



CAUTION! Do not pull the starter cord all the way out and do not let go of the starter handle when the cord is fully extended. This can damage the machine.

When the engine starts, quickly apply full throttle to automatically disengage fast idle. Allow the saw to idle for a minute or two to achieve operating temperature. The saw can then be used at full RPM.



Throttle trigger

Starting a WARM engine

Use the same starting procedure as for a cold engine but without pulling the choke lever out.

Stopping

The engine is stopped by switching the ignition off using the stop switch.





WARNING! Kickback can happen very suddenly and violently...kicking the saw and cutting blade back at the user. If this happens when the cutting blade is moving it can cause very serious, even fatal injuries. It is vital you understand what causes kickback and that you can avoid it by taking care and using the right working technique.

Kickback General Rules...

What is kickback?

The word kickback is used to describe the sudden reaction that causes the saw and cutting blade to be thrown back toward the operator when the upper quadrant of the blade, known as the kickback zone, touches an object.

How to Avoid Kickback

Never start to cut with the upper quadrant of the blade, also known as the kickback zone.

Always hold the machine in a firm grip with both hands. Hold it so that the thumbs and fingers grip around the handles. Maintain good balance and a firm hold.

Always cut at maximum rpm.

Stand at a comfortable distance from the work piece.

Take care when inserting the blade into an existing cut.

Be alert to movement of the work piece or anything that could cause the cut to close and pinch/bind the blade.



WARNING! NEVER use the side of the blade to make a cut: it will almost certainly be damaged, break and can cause severe injury. Always use the cutting section. Do not pull the CE807R-B¹ Rotary saw to one side, this can cause the blade to jam or break and could cause serious injury.

Pull in

Pull in occurs when the disc's lower section suddenly stops or when the cut closes. (To avoid, see the heading "Pinching/Blade rotation", below.)

Pinching/Blade rotation

Pinching/binding occurs when the cut in the material closes, causing a sudden decrease in blade rotation. This can lead to the saw being pulled down suddenly and very powerfully, possibly causing injury.

How to avoid binding

Support the work piece in such a way that the cut remains open during the cutting operation and when the cut is finished.



Cutting Blades



WARNING! A cutting blade may break and cause injury to the operator. Never use a cutting blade for any other purpose than that which it was intended for.



WARNING! Cutting plastics with a diamond blade can cause kickback when the material being cut melts and then sticks to the blade.

General

Cutting blades are available in various designs and material composition. The CE807R-B¹ Series saw is designed to specifically run vacuum brazed diamond blades.

Water Cooling



WARNING! Water cooling, which is used when cutting concrete, cools the blade and increases its service life while also reducing the formation of dust. Disadvantages include difficulties at very low temperatures, the risk of damaging floors and other structural elements, and the risk of ice and slipping.

Hand-held, high speed machines

Our cutting blades are manufactured for high speed, portable power cutters. If blades from other manufacturers are used, ensure that the blades conform to all regulations and demands that apply to this type of rotary saw.

CUTTING

General

Start cutting with the CE807R-B¹ Rotary saw running at maximum speed i.e., full RPM.

Always hold the machine firmly with both hands. Hold it so that the thumbs and fingers grip around the handles.

BASIC SAFETY RULES

Cutting Technique

The technique described below is of a general character. Check information for each blade regarding individual cutting characteristics (for example, *diamond blades require less feeding pressure than abrasive discs.*)

Support the work piece in such a way that it is possible to predict what will happen, and so that the cut remains open while cutting.



Check that the blade is not in contact with anything when the machine is started.

Always cut at maximum speed. (i.e.: Full RPM)

Start cutting smoothly, allowing the CE807R-B¹ Rotary saw to work without forcing down on the blade.

Move the blade slowly forwards and backwards to achieve a small contact area between the blade and the material to be cut. This reduces the temperature of the blade and ensures effective cutting.

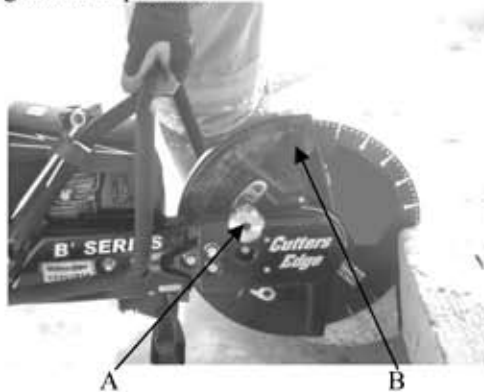
Feed down the CE807R-B¹ Rotary saw *in line* with the blade. Pressure from the side can damage the blade and is very dangerous.



The guard for the CE807R-B¹ Rotary saw should be adjusted so that the rear section is flush with the work piece. Spatter and sparks from the material being cut are then collected up by the guard and led away from the user.



The self adjusting blade guard (B) can be locked into position by loosening the knob (A) and then retighten once the blade guard is in position.



Leaving the knob loose allows the blade guard to move freely while cutting.



WARNING! The safety distance for the CE807R-B¹ Rotary saw is 50 FEET or 15 meters. You are responsible for ensuring that animals and onlookers are ***NOT*** within the working area. Do not start cutting until the working area is clear and you are standing firmly!

Blade Vibration

The blade can become out-of-round and vibrate if an excessive feed pressure is used.

A lower feed pressure can stop the vibration. Otherwise, replace the blade. The blade must be of the *recommended type for the material to be cut.*

Diamond Blade Glazing

Diamond Blades can become glazed when the wrong feeding pressure is used or when cutting certain materials such as heavily reinforced concrete and ferrous/non-ferrous metals. Working with a glazed diamond blade causes overheating, which can result in diamond segment damage. *DE-GLAZE* the blade by cutting in a soft material such as sandstone, brick or concrete block.

RECOMMENDED BLADES FOR CE807R-B1 SERIES ROTARY RESCUE SAWS

BLACK STAR DIAMOND BLADE

- ✓ **OUTSTANDING BLADE LIFE and excellent cutting speed**
- ✓ The highest concentration of diamonds and hardest matrix
- ✓ To cut a wide variety of materials without changing blades
- ✓ The versatility to cut any material
- ✓ The ability to cut wet or dry without changing blades
- ✓ A blade that cannot be installed backwards because it cuts in either rotational direction.
- ✓ A blade that doesn't get smaller in diameter as it cuts, like composite blades do
- ✓ A blade that is not affected by gasoline or gasoline fumes-like composite blades are
- ✓ A single blade that will last longer than up to 150 composite blades
- ✓ A blade that delivers *outstanding* value



SIZES: 12" (304.8 mm)
 14" (355.6 mm)

Recommended Blade Speed:
12" (304.8 mm) 3500 RPM
14" (355.6 mm) 3200 RPM

Maximum Blade Speed:
12" (304.8 mm) 6200 RPM
14" (355.6 mm) 5350 RPM

Depth of Cut:
12" - 4" (101.6mm)
14" - 5" (127 mm)

Arbor Size: 1" (25.4mm) with .787 (20mm) and .866 (22mm) Arbor adapters to fit all Cut-off Saw Brands.

BLACK DIAMOND BLADE

- ✓ **The Fastest Cutting Speed**
- ✓ To cut a wide variety of materials without changing blades
- ✓ The versatility to cut any material
- ✓ The ability to cut wet or dry without changing blades
- ✓ A blade that can't be installed backwards because it cuts in either rotational direction
- ✓ A blade that doesn't get smaller in diameter as it cuts like composite blades do.
- ✓ A blade that is not affected by gasoline fumes-like composites are
- ✓ A single blade that will last longer than up to 100 composite blades
- ✓ A blade with *excellent* value



SIZES: 12" (304.8 mm)
 14" (355.6 mm)

Recommended Blade Speed:
12" (304.8 mm) 3740 RPM
14" (355.6 mm) 3250 RPM

Maximum Blade Speed:
12" (304.8 mm) 6300 RPM
14" (355.6 mm) 5460 RPM

Depth of Cut:
12" - 4" (101.6mm)
14" - 5" (127 mm)

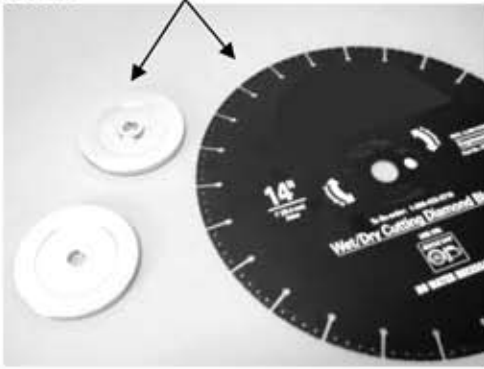
Arbor Size: 1" (25.4mm) with .787 (20mm) and .866 (22mm) Arbor adapters to fit all Cut-off Saw Brands.

ASSEMBLY

Blade Installation

Checking the arbor bolt and arbor flange washers

Check that the threads on the drive shaft are undamaged. Check that the contact surfaces of the cutting blade and flanges are flat, run correctly on the spindle and are free from foreign debris.



Do not use warped, notched, indented or dirty flange washers. Do not use different dimensions of flange washers.

Installing the cutting blade

The cutting blades are manufactured and approved for free hand cutting.

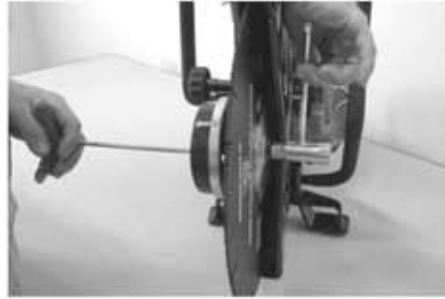
The blade is placed on the bushing between the inner flange washer (A) and the flange washer (B). The flange washer is turned so that it fits on the axle.



Prior to tightening the blade, the shaft is locked using a screwdriver, steel pin or similar tool. Insert the tool in the shaft locking hole in the guard.



The blade is tightened by turning the arbor bolt clockwise. The recommended torque for the arbor bolt is: 15-25 Nm (130-215in. lb)



Self-adjusting blade guard

The guard must always be installed on the CE807R-B¹ Rotary saw before use. The guard for the CE807R-B¹ Rotary saw should be adjusted so that the rear section is flush with the work piece. Spatter and sparks from the material being cut are then collected up by the guard and led away from the user.



WARNING! A 16 inch blade guard should only be used on power cutters initially equipped with a 16 inch blade guard. If a guard obtained as a spare part is fitted on a power cutter which is equipped with a 12 or 14 inch guard, a 16 inch blade will run too fast. A cutting blade running at too high a speed can break and cause serious damage and/or injury.

FUEL HANDLING

CAUTION!! The machine is equipped with a two-cycle engine. It is important to accurately measure the amount of oil to be mixed with gasoline. When mixing small amounts of fuel, even small inaccuracies can drastically affect the ratio of the mixture.



WARNING! Always ensure there is adequate ventilation when handling fuel.

Gasoline

The lowest recommended octane grade is 87 (RON+MON/2). If you run the engine on a lower octane grade than 87, so-called “knocking” can occur. This can give rise to a high engine temperature and increase bearing load, which can result in serious engine damage.

Two-cycle oil

For best results and performance use Cutters Edge two-cycle engine oil which is specially formulated for our air-cooled two-cycle engines and the fire rescue environment.

Never use two-cycle oil intended for outboard engines, sometimes referred to as outboard oil (rated TCW).

Never use oil intended for four-stroke engines.

Fuel/Oil Mix ratio

The engine is designed to operate on a 100:1 mixture of Cutters Edge synthetic two-cycle oil or a 50:1 mixture of high quality petroleum two-cycle oil.

Mixing

Always mix the gasoline and oil in a clean container intended for fuel.

Always start by filling the container with half the amount of the gasoline to be used. Then add the entire amount of two-cycle oil to be used. Mix the fuel by gently shaking the container. Add the remaining amount of gasoline and again gently shake the container.

Gently shake the container before filling the machine’s fuel tank.

Do not mix more than one month’s supply of fuel at a time.

If the machine is not used for some time the fuel tank should be emptied and cleaned.

Fueling



WARNING!

Taking the following precautions, will lessen the risk of fire:

Do not smoke or place hot objects near fuel.

Always shut off the engine before refueling.

When refueling, open the fuel cap slowly so that any excess pressure is gently released.

Tighten the fuel cap carefully after refueling.

Always move the machine at least 10' (3m) from the refueling area before starting.

Keep the handles dry and free from oil and fuel.

Ensure that the fuel is well mixed by gently shaking the container before filling the tank.

Always exercise care when refueling. Move the machine at least three meters from the fueling area before it is started. Check that the fuel cap is properly tightened.



Fuel cap

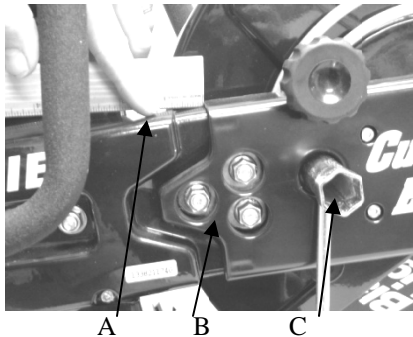
Clean around the fuel cap. Clean the fuel tank regularly. The fuel filter should be changed at least once a year. Contamination in the tank may cause the saw to run poorly.

MAINTENANCE

Tensioning the drive belt



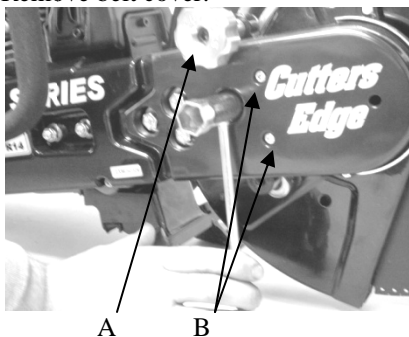
WARNING! Never use the CE807R-B¹ Rotary Saw without a blade guard over the cutting blade.



The drive belt is fully enclosed and well protected from dust and dirt. When tensioning the drive belt, slightly loosen the three arm nuts (B) holding the cutting head and belt guard. Place screwdriver on tensioner nut (C). For cold belt tensioning, make an approximate $\frac{3}{4}$ " gap between the belt guard and the arm (A). For warm belt tensioning, make an approximate 1" gap between the belt guard and the arm (A). Then tighten the arm nuts (B) while holding the cutting head.

Replacing the drive belt

Loosen guard adjustment knob (A).
Remove 2 Allen screws from the belt cover (B).
Remove belt cover.



Loosen the three arm nuts.



Release tension on belt by turning the tensioner nut counterclockwise.



Remove 3 arm nuts.
Remove belt from front of pulley.
Remove wheel guard assembly.
Remove the lower arm support screw.

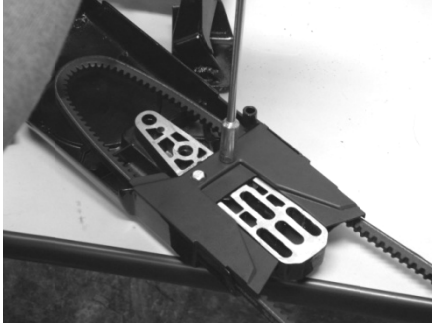


Remove 2 lock nuts on arm.



Remove arm.

Using an 8mm socket wrench or nut driver, remove belt guard.



Replace the drive belt.

Assemble in the reverse order as set out for dismantling.

Check that the blade guard over the cutting blade is not cracked or damaged. Replace when damaged.

Drive belt, pulley and clutch

Never start the engine when the drive belt, pulley and clutch are removed for maintenance.



WARNING! Do not start the CE807R-B¹ without the cutting arm or cutting head fitted; the clutch could come loose and cause personal injury.

Carburetor

The carburetor governs the engine speed via the throttle. Air and fuel are mixed in the carburetor.

The CE807R-B¹ Rotary Rescue Saw has been designed and manufactured to specifications that reduce harmful emissions. After the engine has used 8-10 tanks of fuel, the engine will be considered run-in. To ensure that it continues to run at peak performance, and to minimize harmful exhaust emissions after the run-in period, ask your dealer/service workshop to adjust your carburetor.

Carburetor Valve Needles

The carburetor is equipped with fixed needles to ensure the machine always receives the correct mixture of fuel and air. When the engine lacks power or accelerates poorly, do the following:

Check the air filter and clean or replace if necessary. If this does not help, contact an authorized service center.

Idle Speed Adjustment

Fine adjustment of the idle speed T

Adjust the idle speed using the T screw. When an adjustment is necessary, first turn the screw clockwise until the blade starts to rotate. Then turn the screw counter-clockwise until the blade stops rotating. A correctly adjusted idle speed is set when the engine accelerates without hesitation.

Recommended idle speed: 2700rpm

Fuel Filter

The fuel filter is located inside the fuel tank.

The fuel tank must be protected from contamination when filling. This reduces the risk of operating disturbances caused by blockage of the fuel filter.

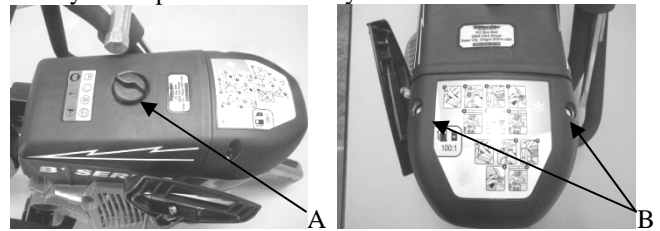
The filter cannot be cleaned and must be replaced with a new filter if it becomes clogged. **The filter should be changed at least once per year.**

Air Filters - Cleaning

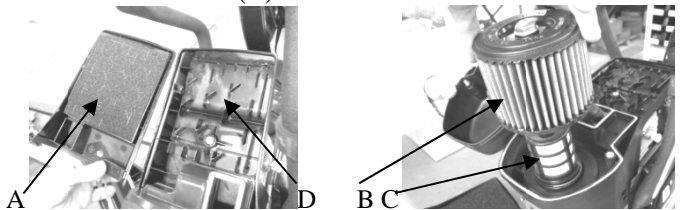
The air filters must be regularly cleaned to remove dust and dirt in order to avoid:

- Carburetor malfunctions
- Starting problems
- Loss of engine power
- Unnecessary wear to engine parts
- Excessive fuel consumption
- Harmful exhaust emissions

To remove the filter cover, loosen the nut (A), and then the two screws on the air filter cover (B). This filter should be checked weekly and replaced if necessary.



The air filter system consists of an oil tack foam filter (A), a K&N gauze filter (B), nylon mesh filter (C), and air entrainment baffles (D). The foam filter is easily accessible under the filter cover (A).



In order to obtain a good filtering effect, the filter must be replaced regularly or cleaned and oiled. Use the K&N filter charger kit included with each saw, part #CE5050.

Remove the foam filter (A). Wash the filter well in tepid soapy water. After cleaning, rinse the filter well in clean water. Squeeze out any excess water and allow the filter to air dry. Clean air entrainment baffles (D).

NOTE!! Do not use compressed air to dry the filters; damage to the filters can occur.

Place the foam filter in a plastic bag and coat with filter oil. Knead the plastic bag to distribute the oil. Squeeze the excess oil out of the filter inside the plastic bag before fitting the filter to the machine. Never use common engine oil; this oil will drain through the filter quickly and collect in the bottom of the housing.

The nylon mesh air filter is accessible under the K&N filter. This filter must be replaced/cleaned when the engine's power drops. The filter is cleaned by tapping it to dislodge loose dirt. Note that the filter must not be washed.

NOTE!! Do not use compressed air to dry the filter; damage to the filter can occur.

An Air filter that has been in use for a long time cannot be cleaned completely. The filter must therefore be replaced with a new one at regular intervals. A damaged air filter must always be replaced.

K&N gauze air filter maintenance

Pre-cleaning: Tap the filter element to dislodge any loose dirt, and then gently brush with a soft bristle brush.

Spray on cleaner: Spray K&N filter cleaner liberally onto the filter media and let soak for 10 minutes.

Rinse off: Rinse the filter media with low pressure tap water, rinsing from the clean side to the dirty side.

Drying Hints: After rinsing, shake off excess water and dry naturally. The use of cleaning or drying methods will damage the filter and void the K&N air filter warranty.

Oiling: Re-oil by spraying K&N filter oil along each pleat holding nozzle about 3" away. DO NOT spray in a circular motion. Let air filter stand for 20 minutes and re-spray any visible missed areas.

Reinstall the K&N air filter.

IMPORTANT INFORMATION—Poor maintenance of the air filters will cause carbon build-up on the spark plug and abnormal wear to engine parts.

Starter



WARNING! When the recoil spring is wound up in the starter housing it is under tension and can cause injury if not properly handled. Always be careful when changing the recoil spring or the starter cord. Always wear protective goggles.

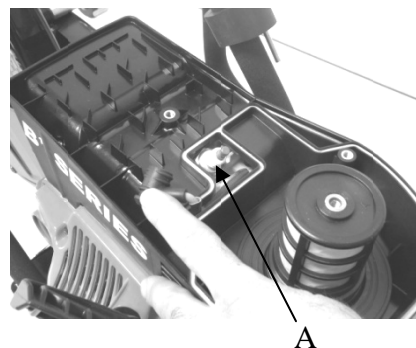
Cleaning

Remove starter cover with an 8mm socket wrench or nut driver. Loosen the screws that hold the starter against the crankcase and remove the starter.



NOTE!! It is recommended that any repairs to the starter assembly be performed by an authorized Cutters Edge service center.

Spark Plug



The spark plug (A) condition is influenced by:

- Incorrect carburetor adjustment
- Incorrect fuel mixture (too much oil)
- A dirty air filter

These factors cause deposits on the spark plug electrodes, which may result in operating problems and starting difficulties.

If the machine is low on power, difficult to start or runs poorly at idle speed: always check the spark plug first before taking any further action. If the spark plug is dirty, clean it and check that the electrode gap is .020 inch (0.5mm). The spark plug should be replaced after about a month in operation or earlier if necessary.

CAUTION! Always use the recommended spark plug type! Use of the wrong spark plug can damage the piston/cylinder.

Cooling System



To keep the working temperature as low as possible the machine is equipped with a cooling system.

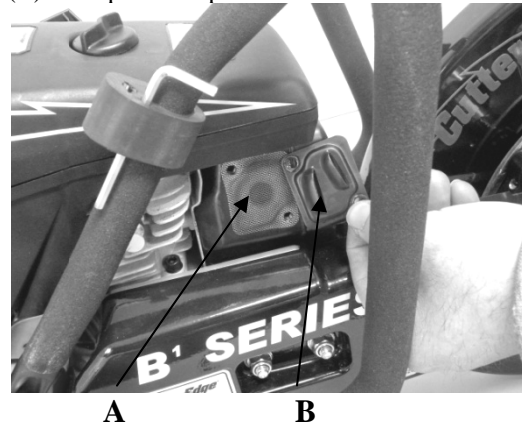
The cooling system consists of:

1. Air intake on the starter
2. Air guide plate
3. Fins on the flywheel
4. Cooling fins on the cylinder
5. Cylinder cover

Clean the cooling system with a brush once a week, more often in demanding conditions. A dirty or blocked cooling system results in the machine overheating which causes damage to the piston and cylinder.

Muffler Spark Arrestor Screen

It is important to keep the spark arrestor screen (A) free from debris. Remove the two screws holding the exhaust port cover (B) to inspect the spark arrestor screen.



The muffler is designed to reduce the noise level and to direct the exhaust gases away from the operator. The exhaust gases are hot and can contain sparks, which may cause fire if directed against dry, combustible material. Inspect the spark arrestor screen periodically and remove any debris build-up.

Never use a machine with a defective muffler.

General Maintenance Instructions

Below you will find some general maintenance instructions. These are general guidelines. Maintenance of the saw is encouraged after each use. If you have more questions, contact your local authorized service center.

DAILY MAINTENANCE

- 1 Check that the components of the throttle control work smoothly (throttle control and throttle trigger lock)
- 2 Check the tension and condition of the drive belt.
- 3 Check the condition of the blade and the drive gear.
- 4 Check the condition of the blade guard.
- 5 Check the starter and clean the outside of the starter unit's air intake.
- 6 Check the starter cord and D handle for wear or damage.
- 7 Check that all nuts and screws are tight.
- 8 Check that the stop switch functions correctly.

WEEKLY MAINTENANCE

- 9 Check, clean or replace the main foam filter.
- 10 Check that the handles and vibration damping elements are not damaged.
- 11 Clean the spark plug. Check that the electrode gap is 0.020 inch (0.5 mm)
- 12 Clean the fins on the flywheels. Check the starter and the recoil spring.
- 13 Clean the cooling fins on the cylinder.
- 14 Check that the muffler is securely attached and not damaged.
- 15 Check that the spark arrestor is free from debris build-up.
- 16 Check the operation of the carburetor.

MONTHLY MAINTENANCE

- 17 Check the K&N gauze filter.
- 18 Check the clutch center, drive gear, and clutch spring for wear.
- 19 Clean the outside of the carburetor.
- 20 Check fuel hose for cracks or other damage, change if necessary.
- 21 Clean the inside of the fuel tank.
- 22 Check all wires and connections.

DETAILED SAW CLEANING

1. Wipe down the saw after every use.
2. Clean out any build up inside of the blade guard by removing the blade guard. (Refer to blade removal section).
3. To thoroughly clean the inside of the saw you will need to:
(**NOTE: As the saw is being disassembled, check for broken or worn parts**)
 - a) Remove the front cover, air filter cover, and air filters. (Refer to air filter removal section).
 - b) Remove the three 4mm Allen screws that hold the cylinder cover in place. Remove the cylinder cover, taking care not to lose the O-Ring located under the cover.
 - c) Remove the retaining nut that holds the stop switch in place and push the stop switch back into the case.
 - d) Remove the cylinder cover, making sure you work the stop switch out of the cove before completely removing the cylinder cover.
 - e) Remove the starter by loosening the 4 screws that hold the starter cover in place.
 - f) Remove the plastic air deflector, use care when handling the wires that are attached to it. (Check wires for damage or wear)
 - g) Remove the cutter arm. (Refer to Removing and Inspecting the belt section)
4. Clean the powerhead and cooling fins with solvent. A putty knife or similar tool may be used to remove stubborn debris.
NOTE: Do not allow solvent to enter the carburetor or muffler when cleaning.
5. Compressed air may be used to dry the saw or you may allow it to air dry naturally.
6. Once the saw is dry, it can be reassembled in reverse order.
7. Test-run the saw after reassembly.

TECHNICAL DATA

Engine Type	2-cycle Vertical Cylinder, Air cooled
Displacement	80.7 cc
Bore x Stroke	2.05 in. x 1.50 in.
Maximum Engine Speed	10,000 rpm \pm200 rpm
Max Idling Speed	2,500 rpm–3,000 rpm
Power	5.1 HP (3.7 kW) (9,500 rpm)
Max Torque	6,000 rpm
Fuel Consumption	11.993 oz.
Type of Ignition	CDI Digital
Spark Plug	Champion CJ8Y
Momentary Contact On/Off Switch	Always “ON” position
Large Grip Starter Rope Handle	“D” shape opening for Fire Gloves
Carburetor	Walbro WJ 104
Fuel Mix Ratio	100:1 Cutters Edge or 50:1 Petroleum base
Fuel Tank Capacity	27.05 fl. Oz
Decompression valve	Yes
Air Filtration System	1st Stage Air Entrainment Configuration
4 Stages....	2nd Stage Foam element (w/oil tack barrier)
	3rd Stage High Performance K & N Filter (w/oil tack barrier)
	4th Stage Dense Porosity Nylon
Full Wrap Handle	Rubber Coated for all Position Cutting
Anti-Vibration Mounts	6-Rubber
Dimensions	31.5 in x 8.66 in. x 15.75
Dry Weight Without Blade	12” Saw—26.80 lbs (12.15 kg); 14” Saw—27.20 lbs (12.33 kg)
Weight With Blade and Fuel	12” Saw - 30.45 lbs (13.81 kg); 14” Saw – 31.75 lbs (14.40 kg)
Arbor Size	1 in. and .79 in.
Power-to-Weight Ratio	0.203
Max Spindle Speed	5,100 rpm
Cutting Arm	Reversible
Max Cutting Depth w/ 12” Blade	4 in. (101.6mm)
Max Cutting Depth w/ 14” Blade	5 in. (127mm)