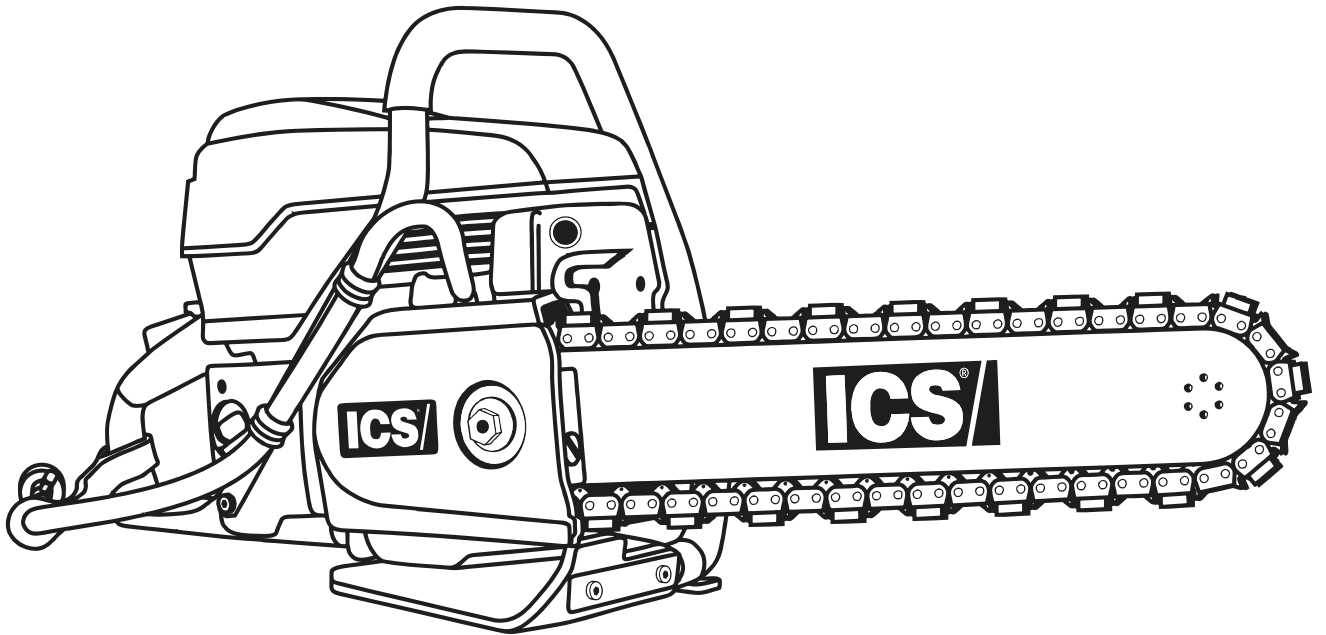




# 695GC / 695F4



## OPERATOR'S MANUAL



## INTRODUCTION

This manual outlines the maintenance and operation of ICS® manufactured products.

This is a professional tool and is solely intended for use by trained and experienced operators.

The 695GC / 695F4 chainsaw is designed to cut concrete, stone, and masonry when used with the appropriate genuine ICS Diamond Chain. Ductile iron pipe may be cut ONLY if using PowerGrit® Utility Saw Chain.

To get the maximum benefit from your saw, and ensure maximum safety, be sure to read this manual thoroughly, and periodically review safety instructions.

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THE FOLLOWING SYMBOLS & DEFINITIONS ARE FOUND THROUGHOUT THIS MANUAL AND ARE DESIGNED TO MAKE YOU AWARE OF POTENTIAL HAZARDS OR UNSAFE PRACTICES.



**WARNING**

A potentially hazardous situation exists which, if not avoided, could result in death or serious injury.



**CAUTION**

A potentially hazardous situation exists which, if not avoided, may result in minor or moderate injury or property damage.



**IMPORTANT**

A potential situation exists which, if not avoided, may result in product or property damage.

THE FOLLOWING SYMBOLS & LABELS MAY BE FOUND IN THIS MANUAL OR ON THE SAW



Read the operator's manual carefully and understand the contents before you use this equipment.



Always use:

- Protective helmet
- Ear protection
- Protective glasses or full face protection



Wear hand protection

**⚠ WARNING**

-  • Do NOT insert tool into slot narrower than chain
-  • Do NOT operate tool without solid footing and firm hand grip
-  • Use only in well ventilated area
-  • Failure to observe these precautions can result in serious injury

## THE FOLLOWING SYMBOL APPLIES TO ALL THE ITEMS LISTED ON THIS PAGE



A potentially hazardous situation exists which, if not avoided, could result in death or serious injury.

Chain breakage can result in high-speed ejection of parts, which can result in death or serious personal injury to operators or bystanders. The items listed below are critical to minimizing the risk of chain breakage and injury.

- **DO NOT** operate a concrete chain saw with a damaged, modified, broken, or missing side cover, bottom guard, or guard flap. The side cover, bottom guard, and guard flap provides protection against contact with moving parts, ejected debris, broken diamond chain, thrown water and concrete slurry.
- **DO NOT** operate saw with loose, missing, damaged or improperly repaired parts.
- **DO NOT** insert saw into a slot narrower than the chain segments. Rapid pushback might occur. Reference: Most diamond segments are .225 inches (5.72 mm) wide.
- **DO NOT** use damaged, modified or improperly repaired chain.
- **DO NOT** run saw upside-down. Concrete debris can fly back into the operator's face.
- **DO NOT** cut ductile iron pipe with the concrete chain saw (except when using PowerGrit® Utility Saw Chain). Segment loss or diamond chain breakage may occur.
- See page 16 for information about cutting ductile iron pipe with PowerGrit chain.

## THE FOLLOWING SYMBOL APPLIES TO ALL ITEMS LISTED ON THIS PAGE

 **CAUTION**

A potentially hazardous situation exists which, if not avoided, may result in minor or moderate injury or property damage.

- Always turn a concrete chain saw OFF when performing maintenance on the saw including chain tensioning.
- Never use equipment that is not functioning properly.
- Have the saw repaired only by qualified service personnel.
- Turn engine OFF before refueling. Keep away from open flame. Always provide adequate ventilation when handling fuel. Move saw at least 10 feet (3 m) away from refueling area before starting.
- SealPro® diamond chains require a minimum water pressure of 20 psi (1.5 bar). Insufficient water supply may result in excessive wear to the chain, which can lead to loss of strength and chain breakage, and/or damage to the guidebar nose sprocket.
- Never start saw unless the bar, chain and side cover are properly installed.

**GENERAL SAFETY PRECAUTIONS**

- Always wear protective clothing, including hard hat, eye protection, hearing protection, and gloves.
- Avoid loose fitting clothing.
- Perform safety checks before starting each day.
- Always operate tool with solid footing and with both hands on saw.
- Remove or control slurry to prevent slippery conditions while cutting.
- Be sure there are no obstructions (plumbing, electrical conduit, air ducts) and no unnecessary people present.
- Set up a well-marked safety zone with a roped boundary and clear signs.
- Provide adequate ventilation when working in an enclosed area. Breathing exhaust gases is dangerous.
- To avoid electrocution, check for live electrical wiring near cutting area.

THE FOLLOWING SYMBOL APPLIES TO ALL ITEMS LISTED ON THIS PAGE

**IMPORTANT**

A potential situation exists which, if not avoided, may result in product or property damage.

**Note:** The concrete chain saw is equipped with a 2-stroke engine and must always be run using a mixture of gasoline and ICS® 2-stroke engine oil, or other high quality 2-stroke oil that has been formulated for air cooled power equipment. It is important to accurately measure the amount of oil to be mixed to ensure that correct mixture is obtained. When mixing small amounts of fuel, even small inaccuracies can drastically affect the ratio of the mixture.

- This engine is designed to be operated on premium unleaded gasoline.
- Use high quality, unleaded gasoline with a minimum octane rating of 90. If lower octane gasoline is used, engine temperature will increase which can result in a piston seizure and damage to the engine.
- Fuel mixture: 25:1 (4%) gasoline/oil mixture. Incorrect fuel mixture is the number one cause of piston seizure.
- Use ICS® brand 2-stroke engine oil, or other high quality 2-stroke oil that has been formulated for air cooled power equipment.
- Never use two-stroke oil formulated for water-cooled two-cycle engines, such as outboard motor oil.
- Never use motor oil intended for four-stroke engines.

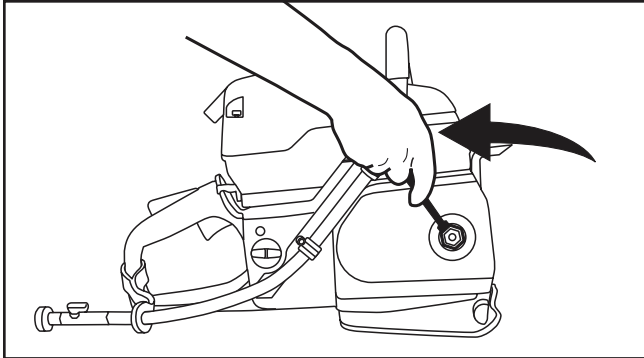
**ENGINE BREAK-IN**

- It is very important to break-in a new engine to “seat” all moving parts, especially the piston rings.
- To break-in the engine, run one full tank of 25:1 (4%) fuel at idle, cycling the throttle every 5 to 10 minutes to prevent loading.
- Failure to break-in an engine may result in piston seizure.

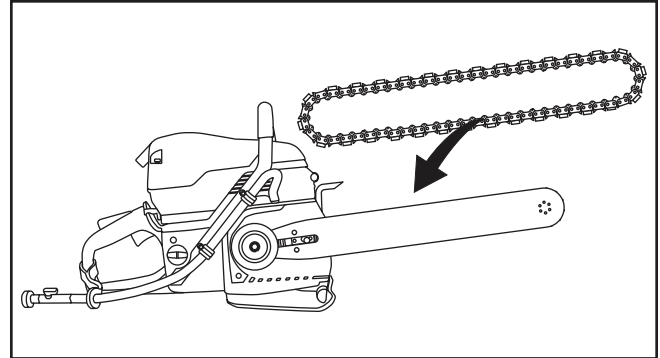
Engine Type	2-stroke, Air Cooled
Displacement	5.7 cu-in (94 cc)
Horsepower	6.4 hp (4.8 kW) @ 9000 rpm
Torque	50.4 in-lbs (5.7 Nm) @ 7,200 rpm
Engine Speed	9,300 +/- 150 rpm (max) 2,700 +/- 100 rpm (idle)
Weight	21 lbs (9.5 kg) powerhead only
Dimensions	18 in (46 cm) length 14 in (36 cm) height 12 in (30 cm) width
Air Filter	Water resistant polyester
Carburetor	Walbro RWJ-5A
Starter	Dust and water resistant
Ignition	Special water resistant electronic ignition
Clutch	Centrifugal, three shoe, three spring
Fuel ratio	25:1 (4%) gasoline-to-oil
Fuel Capacity	0.26 gallon (1 liter)
Water Supply	Minimum 20 psi (1.5 bar)
Water Flow	Minimum: 2 gpm (8 lpm)
Noise Level	112 dB(A) at 3 ft (1 m)
Vibration Level	3.9 m/s <sup>2</sup> (front handle) 4.1 m/s <sup>2</sup> (rear handle)
Engine Break-in Period	One tank, without cutting, cycling throttle
Spark Plug	NGK BPMR7A or Champion RCJ6Y Electrode gap 0.020 in (0.5 mm)



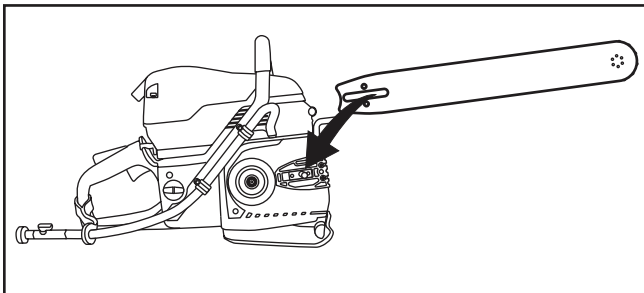
## GUIDEBAR AND DIAMOND CHAIN INSTALLATION



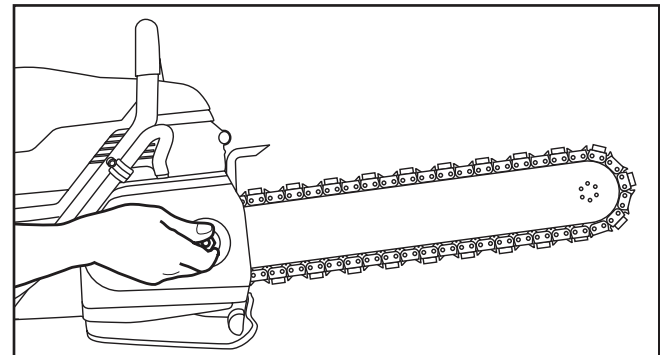
**STEP 1**  
Loosen side cover nut and remove side cover.



**STEP 3**  
Mount the diamond chain on the guidebar starting at the drive sprocket and continue over the guidebar nose.  
**NOTE:** FORCE4 requires rim to be pulled outward for chain installation.

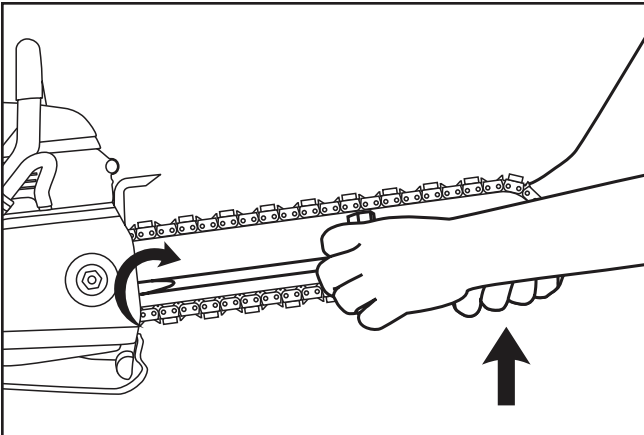


**STEP 2**  
Place bar onto stud and engage alignment block.



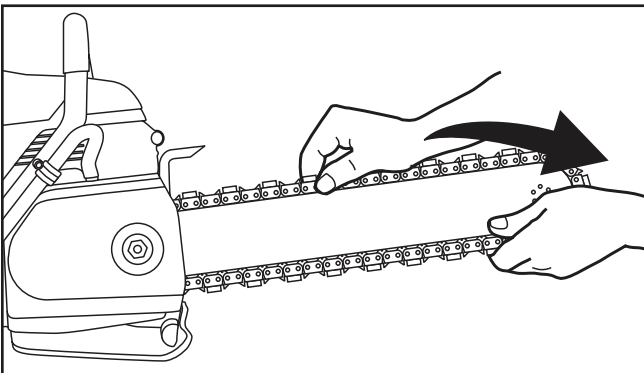
**STEP 4**  
Install the side cover and ensure chain adjustment pin engages hole in bar. Do not fully tighten side cover nut until after chain is properly tensioned.

GUIDEBAR AND DIAMOND CHAIN INSTALLATION



STEP 5

Make sure all the drive links are inside the guidebar groove then lift the bar nose and tension the chain by turning the screw clockwise.

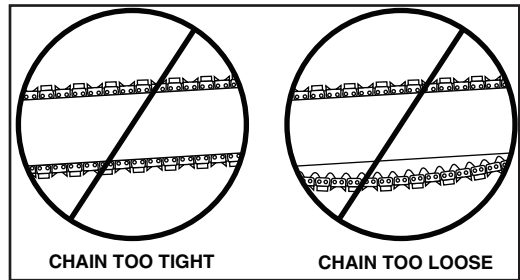
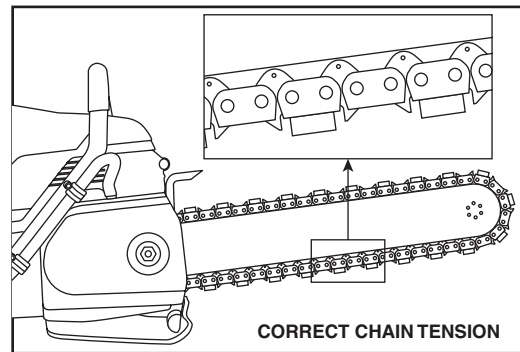


STEP 6

Before cutting, check for proper tension by pulling the chain around the bar by hand. If you cannot easily pull by hand, the chain is too tight and needs to be loosened slightly. CAUTION: Be aware that the guidebar rails may develop sharp edges over time so always pull the diamond chain by the diamond segments.

CORRECT CHAIN TENSION

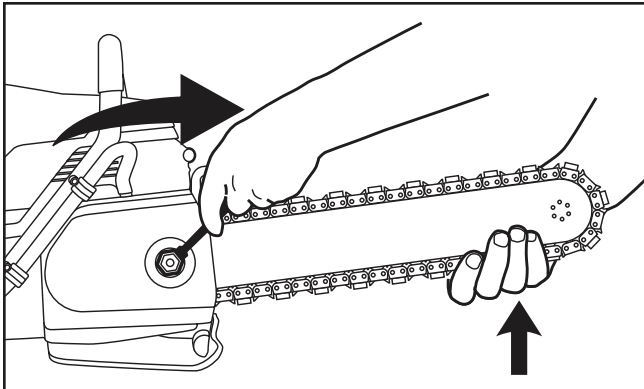
All chains have a tendency to stretch when used. Diamond chains stretch more than wood cutting chains because of the abrasive materials they are cutting. If the chain is too tight, a lot of the saw's power goes into turning the chain rather than into the cut. In extreme over-tightened cases, the saw may not be able to turn the chain at all. In addition, damage can occur to the bar nose and premature stretch may occur.



CHAIN TOO LOOSE

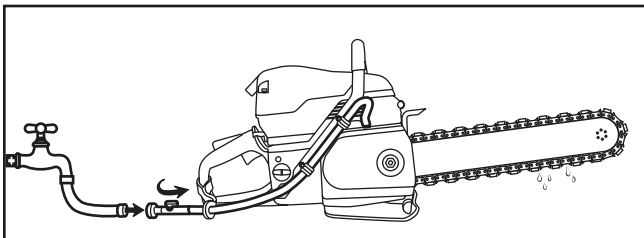
If the chain is too loose, it could come off the bar, or it will allow the drive sprocket to spin without turning the chain, which can chew up drive links. When a chain stretches to a point where the drive links are hanging approximately 1/2 in (12 mm) to 3/4 in (18 mm) below the bar, it is time to tension the chain.

## GUIDEBAR AND DIAMOND CHAIN INSTALLATION

**STEP 7**

Continue to lift up on the nose of the guidebar and firmly tighten the side cover nut.

**NOTE:** To prevent chain tensioner breakage, be sure the side cover nut is tightened to approximately 20-25 ft-lbs (27-33 Nm).

**STEP 8**

Attach to water source with pressure of not less than 20 psi (1.5 bar).

## FUEL HANDLING

**⚠ CAUTION****FUEL MIXTURE: 25:1 (4%) gasoline/oil mixture.**

GASOLINE	OIL
US Gallon	US Fl oz
1	5.2
2 1/2	12.8
5	25.6

GASOLINE	OIL
Liters	ml
1	40
5	200
10	400
20	800

- Use premium unleaded gasoline with a minimum octane rating of 90. If lower octane gasoline is used, engine temperature will increase which can result in a piston seizure and damage to the engine.
- Always provide adequate ventilation when handling fuel.
- Use caution when handling gasoline. Avoid direct contact with skin or inhaling fuel vapor.

## FUEL MIXING

- Always mix gasoline and oil in a clean container intended for use with fuel.
- Keep fuel container closed tightly to prevent moisture from getting into the fuel.
- Always begin mixing fuel by adding half the amount of gasoline to be used. Then add the correct amount of 2-stroke oil for 25:1 (4%) mixture and finish filling the container with gasoline.
- Do not mix more than one month's supply of fuel. This helps prevent the separation of the 2-stroke oil from the gasoline (varnishing).
- If the saw is not used for an extended period of time (3 months) the fuel tank should be emptied and cleaned.

## FUELING

- Always shut off the saw before fueling.
- Before fueling, clean the area around fuel cap to prevent dirt from contaminating the fuel. Contamination of the fuel tank can lead to saw malfunction.
- Thoroughly mix the fuel in it's container before fueling.
- Slowly open the fuel cap to release any pressure that may have built-up in the tank.
- After adding fuel, carefully install the fuel cap and tighten firmly by hand.

## STARTING AND STOPPING A CONCRETE CHAIN SAW

### ⚠ WARNING

Never start a concrete chain saw without the bar, chain and side cover properly assembled. Failure to do so may result in serious injury.

### ⚠ CAUTION

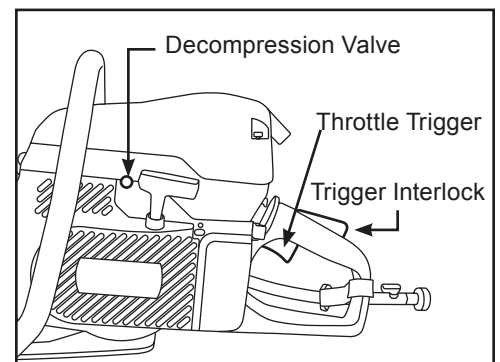
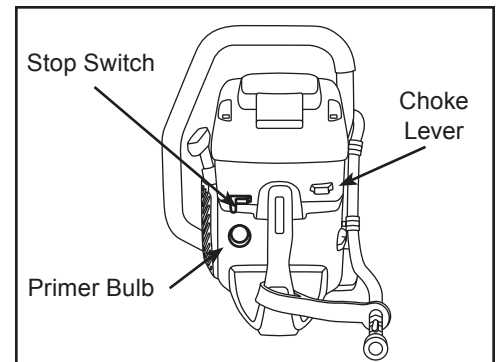
Always move a concrete chain saw at least 10 feet (3 m) away from the fueling area before starting.

### IMPORTANT

Place the saw on clear ground. Ensure that secure footing is established and chain is not contacting any objects.

### COLD ENGINE STARTING PROCEDURE

1. Pull the choke lever out, which also sets the throttle lock.
2. Depress primer bulb approximately 5-10 times.
3. Push in decompression valve.
4. Open the water valve 1/4 turn.
5. Place the saw on stable ground making sure the chain is free of any obstructions.
6. Place foot on the base of the rear handle, and place one hand on front handle.
7. With opposite hand, slowly pull starter handle until the starter pawls engage.
8. Pull the starter cord (*hard, fast, short pulls*) **until engine initially fires or "pops"**.  
Could be as many as 10-15 pulls.
9. **Push the choke lever in.**
10. Pull the starter cord until engine starts - should be 1 to 2 pulls.
11. Release the throttle lock by momentarily squeezing on the throttle trigger.
12. When the engine starts, allow the engine to idle briefly.  
Squeeze the throttle trigger several times to help warm up the engine.
13. Open the water valve completely.



### WARM ENGINE STARTING PROCEDURE

1. Use the same procedure as starting a cold engine, but pull choke lever out, and **then push back in** to set the throttle lock. If choke is used on a warm engine, the carburetor will flood with gas.
2. If the engine does not start in 3 hard, fast pulls with the throttle locked, fully squeeze and hold the trigger while pulling the starter cord 3 more times.  
Note: To hold the trigger fully open it may be necessary to insert right foot into rear handle opening and twist.

### STOPPING THE SAW

- To turn the engine off, push stop switch to the "STOP" position. Close water valve.

## PRE-CUT CHECKLIST

- Ensure proper chain tension: The chain should be easily pulled around the guidebar by hand.
- Ensure all safety devices are properly mounted and functional and that all controls are in proper working order.
- Be sure there are no obstructions (plumbing, electrical conduit, air ducts) and no unnecessary people present.
- Always wear protective clothing, including hard hat, eye protection, hearing protection, non-slip safety boots, and gloves. Avoid wearing loose fitting clothing.
- Adequate Water Supply and Pressure:  
Minimum Flow: 2 gpm (8 lpm)  
Minimum Water Pressure: 20 psi (1.5 bar)
- Diamond chains with SealPro® require a minimum water pressure of 20 psi (1.5 bar).



## IMPORTANT

**The single most important factor an operator can control to increase chain life is to use adequate water pressure. Insufficient water supply will result in excessive wear to the chain, which can lead to loss of strength and chain breakage, and/or damage to the guidebar nose sprocket.**

## PLANNING THE CUT

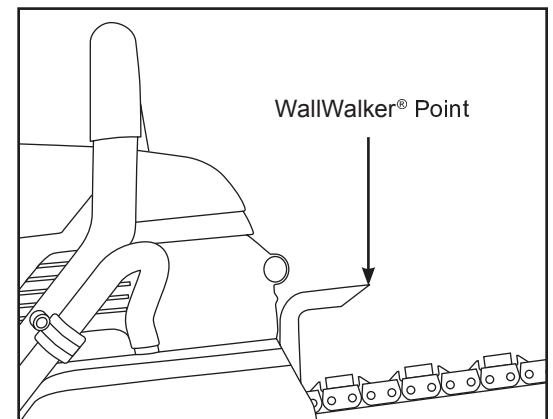
- Select the proper chain type for the material being cut.
- Outline the cut with a permanent marker for a visual cutting guide.
- Avoid pinching the guidebar and chain. Always cut the bottom of an opening first, then top, and then the sides. Save the easiest cut for last.
- For the straightest cuts use the “Step Cut” method. First score the entire cut line approximately a half-inch deep using the nose of the bar. Next, deepen the cut by about two inches. Then plunge all the way through and complete the cut using the WallWalker®.
- Be sure cut concrete cannot fall and injure operator or bystanders. Concrete is very heavy, one cubic foot = 12 in x 12 in x 12 in = 150 lbs (30 cm x 30 cm x 30 cm = 68 kg).
- Check for and remove any obstructions (plumbing, electrical conduit, air ducts, etc.) that may interfere with the cut.

## CUTTING WITH THE 695GC

To start a cut, hold trigger on full throttle and slowly plunge the nose of the bar straight into the wall. Lengthen the cut and engage the point of the WallWalker®. Use the WallWalker as a pivot point and pull up on the rear handle to rotate the bar into the cut.

## CUTTING TIPS

- Always operate the concrete chain saw at full throttle. If too much force is applied, the saw will lug or stall. The chain will not have enough speed to cut effectively. If too little feed force is applied, the diamonds will skid and glaze over.
- For straighter cuts use the “Step Cut” method. First score the entire cut line with the nose of the guidebar approximately 1/2 in (12 mm) to 1 in (25 mm) deep. Next, deepen the cut by about 2 in (50 mm). This groove will help guide the guidebar for a straight cut. Then plunge all the way through and complete the cut using the WallWalker.
- Plunge cut instead of starting at the top surface of the wall. This will reduce chatter, extend diamond life, create a straighter cut and more quickly enable the use of the WallWalker.
- Use the WallWalker to help cut more efficiently and reduce operator fatigue. The WallWalker is a fulcrum that can be used to apply additional force when cutting. To use correctly, plunge into the wall and simply engage the point of the WallWalker into the cut and pry upward with the rear handle.
- As the saw begins to rotate up, feed force is developed down the line of the intended cut. Once the saw is fully rotated upwards, pull the saw out of the cut a few inches and re-engage the pick into the cut and repeat.
- When cutting heavy rebar, slowly “rock” the saw so that you’re always cutting concrete as well as steel. This will help keep the diamonds exposed. Also, expect less chain life when cutting heavy rebar.
- Expect more chain stretch when making nose buried cuts for extended periods of time, as the chain does not have a chance to “throw” the slurry away from the nose of the bar.
- If the saw begins to cut consistently crooked, turn the bar over and use the other side. Dress worn rails with belt sander. Note: The normal life of a guidebar is two to three diamond chains. Heavy rebar can shorten guidebar life.
- When using a new chain, you can increase the initial cutting speed by “opening up the diamonds”. Make a few cuts in an abrasive material such as a cinder block.



## CUTTING DUCTILE IRON PIPE WITH THE POWERGRIT® UTILITY SAW CHAIN

**NEVER** cut ductile iron pipe with the saw unless using PowerGrit Utility Saw Chain. The following are safety precautions that should always be followed when using PowerGrit.

### **WARNING**

- **Before cutting, make sure the pipe is in a safe condition to be cut. Support the work piece in such a way that the cut remains open during the cutting operation and when the cut is finished. Pinching the chain during the cut could cause chain breakage and could result in death or serious injury to the operator.**

## SYSTEM CLEAN-UP

- After cutting, run the saw for at least 15 seconds with the water on to flush slurry and debris from chain, bar and drive sprocket.
- Wash concrete slurry from saw assembly.
- Avoid getting any water in the carburetor or exhaust system. If water enters exhaust port, point the bar tip down and pull the starter handle several times to expel water from muffler.
- Remove bar and chain. Flush out the chain tensioner and side cover with water. Lubricate tensioner with grease.
- After cleaning the saw, spray the entire saw body, chain, bar, and drive sprocket with lightweight oil. Using lightweight oil on the saw will minimize rust and help reduce slurry build up.