

# **DEMOLITION CONCRETE CUTTER**

## **OPERATION MANUAL**

**PLEASE READ THIS MANUAL CAREFULLY BEFORE OPERATING OR MAINTAINING THE TOOL.**

**Caution – Set the unit up in an open area. Avoid close proximity to structures or other equipment. Failure to do so may cause inadvertent injury to operator or other persons in the area.**

### **BEFORE STARTING:**

1. Use correct blade for cutting conditions
2. Ensure arbors and flanges are clean and undamaged.
3. Mount blade and tighten securely using wrench.
4. When wet cutting, check water jets for adequate flow.

### **INSTRUCTIONS:**

1. Set the Choke lever to Position “1” if the engine is cold.
2. Set the Choke lever to Position “RUN” once the engine is warm.
3. Concrete Cutter require a mixture of unleaded petrol and quality 2-stroke oil to run. Petrol to oil ratio is 50:1 Add 2-stroke oil first, then add Petrol. Petrol needs to be 95 Unleaded.
4. When starting from cold, Set the Choke lever to Position “1”.
5. Press down on the Throttle and lock it in full throttle.
6. Press the button for the Decompression Valve using a screwdriver in the tool kit.
7. Using your left hand to hold the handle and your right foot to support the concrete cutter, Pull the starter rope quickly and cutter will start up.

### **MAINTENANCE:**

1. Ensure the cutter is not powered up or in starting position.
2. Inspect the spark plug by sliding the cover upwards and removing the boot.
3. Replace the spark plug if the electrodes are badly eroded.
4. NEVER lubricate components or attempt service on a running machine.
5. ALWAYS allow the machine a proper amount of time to cool before servicing.
6. Keep the machinery in running condition.
7. Fix damage to the machine immediately and always replace broken parts.
8. Dispose of hazardous waste properly. Examples of potentially hazardous waste are used motor oil, fuel and fuel filter.
9. DO NOT use food or plastic containers to dispose of hazardous waste.

## TROUBLESHOOTING:

PROBLEM	CAUSE	SOLUTION
<b>Uneven segment wear</b>	<ol style="list-style-type: none"> <li>(In wet cutting) Insufficient water (usually on one side of the blade)</li> <li>Equipment defects also can cause the segments to wear unevenly.</li> <li>Saw head is misaligned</li> </ol>	<ol style="list-style-type: none"> <li>Flush water system. Check flow to both sides of the blade.</li> <li>Replace bad bearings, worn Arbor shaft or misalignment to spindle.</li> <li>Check alignment for squareness both vertically and horizontally, of the saw blade.</li> </ol>
<b>Segment cracks</b>	<ol style="list-style-type: none"> <li>Blade is too hard for the material being cut</li> </ol>	<ol style="list-style-type: none"> <li>Use a blade with a softer bond/matrix</li> </ol>
<b>Segment loss</b>	<ol style="list-style-type: none"> <li>Blade overheats because of lack of coolant (water or air).</li> <li>Core is worn from undercutting.</li> <li>Defective collars/flanges set blade out of alignment.</li> <li>Blade is too hard for material being cut.</li> <li>Blade is cutting out of round, causing a pounding motion.</li> <li>Improper blade tension.</li> </ol>	<ol style="list-style-type: none"> <li>(Wet cutting) Check water lines. Make sure flow is adequate on both sides of the blade and there are no blockages. Use sufficient water to flush out the cut. (Dry Cutting) Run blade free of cut periodically to air cool.</li> <li>Clean collars/flanges or replace if they are under recommended diameter.</li> <li>Use proper blade specifications for material being cut.</li> <li>Replace worn bearing; realign blade shaft or replace worn blade mounting Arbor.</li> <li>When ordering blades match shaft speed of saw. Check spindle speed to ensure blade is running at correct RPM.</li> <li>Avoid twisting or turning blade in the cut.</li> </ol>
<b>Cracks in core</b>	<ol style="list-style-type: none"> <li>Blade flutters in cut as a result of losing blade tension.</li> <li>Blade specification is too hard for the material being cut.</li> </ol>	<ol style="list-style-type: none"> <li>Tighten the blade shaft nut.</li> <li>Make sure the blade is running at proper at proper speed and that drive pin is functioning properly. Use a softer bond/matrix to eliminate stress.</li> </ol>
<b>Loss of tension</b>	<ol style="list-style-type: none"> <li>Core overheating.</li> <li>Core overheating as a result of blade spinning on Arbor.</li> <li>Core overheating from rubbing the material being cut.</li> <li>Unequal pressure at blade clamping collars/flanges.</li> <li>Blade is too hard for the material being cut.</li> </ol>	<ol style="list-style-type: none"> <li>Make sure the blade RPM is correct. Check water flow, distribution and lines.</li> <li>Tighten the blade shaft nut. Make sure the drive pin is functioning.</li> <li>Properly align the saw to square cut.</li> <li>Collars/flanges must be identical in diameter and the recommended size.</li> <li>Use a softer bond/matrix to reduce stress.</li> </ol>
<b>Blade wobbles</b>	<ol style="list-style-type: none"> <li>Blade is on a damaged or worn saw.</li> <li>Worn collar.</li> <li>Blade runs at an incorrect speed.</li> <li>Collar/flange diameters are not identical.</li> <li>Blade is bent as a result of dropping or twisting.</li> </ol>	<ol style="list-style-type: none"> <li>Check for bad bearings, bent shaft, or worn mounting Arbor.</li> <li>Check collars/flanges to make sure they are clean, flat and of correct diameter.</li> <li>Set engine at proper RPM</li> <li>Use proper size blade collars/flanges.</li> <li>DO NOT use bent blade. Contact blade manufacturer.</li> </ol>
<b>Blade will not cut</b>	<ol style="list-style-type: none"> <li>Blade is too hard for material being cut.</li> <li>Blade has become dull.</li> <li>Blade does not cut material it was specified for.</li> </ol>	<ol style="list-style-type: none"> <li>Select proper blade for material being cut.</li> <li>Sharpen by cutting on softer abrasive material to expose diamonds. If continually sharpening, the blade is too hard for the material being cut.</li> <li>Break-in on the material to be cut. If it does not dress itself, sharpen as you would a dull blade.</li> </ol>
<b>Undercutting the core</b>	<ol style="list-style-type: none"> <li>Abrasive wearing of the core faster than the segments.</li> </ol>	<ol style="list-style-type: none"> <li>Use water to flush out fines generated during cutting. Use wear-resistant cores.</li> </ol>
<b>Arbor hole out-of-round</b>	<ol style="list-style-type: none"> <li>Collars/flanges are not properly tightened, permitting blade to rotate or vibrate on the shaft.</li> <li>Collars/flanges are worn or dirty. Blade is not properly mounted.</li> </ol>	<ol style="list-style-type: none"> <li>Make sure the blade is mounted on the proper shaft diameter. Tighten the shaft nut with a wrench to make certain that the blade is secure.</li> <li>Clean collars/flanges, make sure they are not worn. Tighten Arbor nut. Make sure the pin hole slides over the drive pin.</li> </ol>

<b>Blade worn out of round</b>	<ol style="list-style-type: none"> <li>1. Shaft bearings are worn.</li> <li>2. Surges occur because engine is not properly tuned.</li> <li>3. Blade Arbor hole is damaged from incorrectly mounting the blade.</li> <li>4. Bond/matrix is too hard for material.</li> <li>5. Blade is slipping, wearing on one half of the blade than the other.</li> </ol>	<ol style="list-style-type: none"> <li>1. Install new blade shaft bearings or blade shaft, as required.</li> <li>2. Tune engine according to manufacturer's manual.</li> <li>3. If core is worn or Arbor hole damaged, DO NOT USE. Contact blade manufacturer.</li> <li>4. Replace the worn shaft or mounting Arbor bushing</li> <li>5. Make sure the drive pin is functioning. Tighten spindle nut.</li> </ol>
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## SAFETY GUIDELINES

**WARNING: FAILURE TO FOLLOW INSTRUCTIONS IN THIS MANUAL  
MAY LEAD TO SERIOUS INJURY**

### GENERAL SAFETY

- Do NOT operate or service this equipment before reading the entire manual.
- NEVER operate this equipment without proper protective clothing, shatterproof glasses, steel-toed boots and other protective devices required by the job.
- NEVER operate this equipment when unfit from fatigue, illness or under medications.
- NEVER operate this equipment when under the influence of drugs or alcohol.
- NEVER use accessories or attachments, which is not recommended by SAMT for this equipment. May cause damage to the equipment and/or injury to the operator.
- The manufacture does not assume responsibility for any accidents due to equipment modifications.
- Whenever necessary, replace the nameplate, operation and safety decals if they become difficult to read.
- ALWAYS check the machine for loosened threads or bolts before starting.
- High Temperatures – Allow the equipment to cool before adding fuel or performing service and maintenance. Contact with hot components can cause serious burns.
- ALWAYS refuel in a well-ventilated area, away from sparks and open flames.
- ALWAYS use extreme caution when working with flammable liquids. When refuelling, stop the engine and allow the engine to cool. DO NOT SMOKE around or near the machine. A fire or explosion can happen from fuel vapours
- NEVER operate the cutter in an explosive atmosphere or near combustible materials. An explosion or fire could happen, resulting in severe bodily or lethal injuries.
- ALWAYS read, understand, and follow procedures in operator's Manual before attempting to operate the equipment.
- ALWAYS check that the operator is familiar with proper safety precautions and operating techniques before using the cutter.
- Stop the engine when leaving the cutter unattended.
- Maintain this equipment in a safe operating condition at all times.
- ALWAYS stop the engine before servicing, adding fuel and oil.
- NEVER run engine without air filter. Severe engine damage may occur.

- ALWAYS service spark plugs if they start eroding.
- ALWAYS store equipment properly when it is not being used. Equipment should be stored in a clean, dry location out of reach from children.
- DO NOT operate this equipment unless guard is attached and in place.
- Unauthorized equipment modifications will void all warranties.

## DIAMOND BLADE SAFETY

- Use steel centred diamond blades manufactured for use on concrete cutters.
- ALWAYS inspect diamond blades before each use. The blade should exhibit no cracks, dings, or flaws in the steel centred core and/or rim. Centre (Arbor) hole must be undamaged and true.
- Examine blade flanges for damage, excessive wear and cleanliness before mounting blade. Blade should fit on the shaft and against the inside/outside blade flanges.
- Ensure that the blade is marked with an operating speed greater than the blade shaft speed of the cutter.
- Only cut the material that is specified by the diamond blade. Read the specifications of diamond blade to ensure proper blade has been matched to the material being cut.
- ALWAYS keep the blade guards in place. Exposure of the diamond blade must not exceed 180 degrees.
- Ensure that the diamond blade does not come into contact with the ground or surface during transportation. DO NOT drop the diamond blade on the ground or surface.
- The engine governor is designed to permit maximum engine speed in a no-load condition. Speeds that exceed this limit may cause the diamond blade to exceed the maximum safe allowable speed.
- Ensure that the blade is mounted for proper operating direction.

## EMERGENCIES

- ALWAYS know the location of the nearest fire extinguisher and first aid kit. Know the location of the nearest telephone and the phone numbers of the nearest emergency services. This information will be invaluable in the case of an emergency.

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