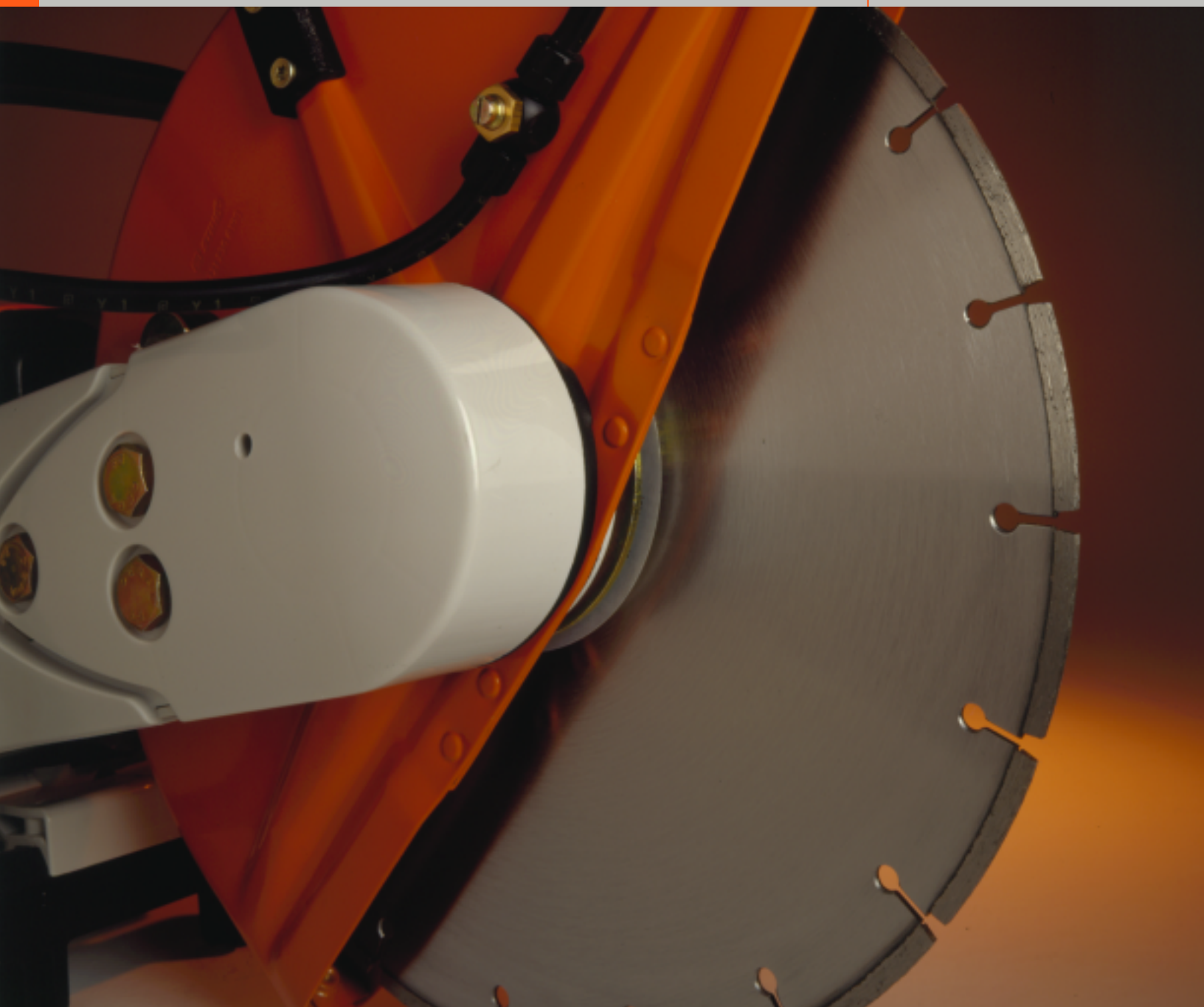


Diamond Wheel Troubleshooting Guide



Situation: Wheel will not cut (Glazing)

Reason: Diamond bond is too hard for material being cut.

- A hard diamond bond will not allow required bond wear to expose new diamond surfaces.

Solution: Change to wheel with a softer diamond bond.

- It is important to use the correct wheel for the material as indicated in the application guide.

Reason: Insufficient machine power or RPM applied

- STIHL diamond wheels have been designed to run on STIHL Cutquik® cutoff machines.

Solution: Insure adequate machine power and operation

- Check and tighten drive belt to provide appropriate torque transfer.

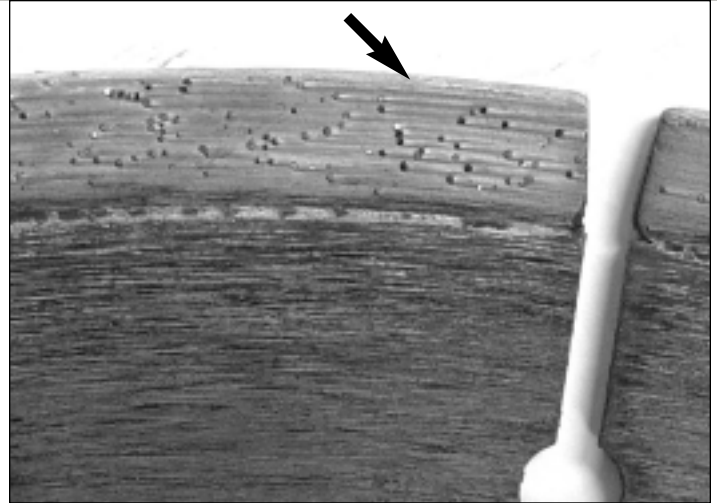
Situation: Overheating (Dark areas under segments)

Reason: Insufficient cooling at the cutting surface

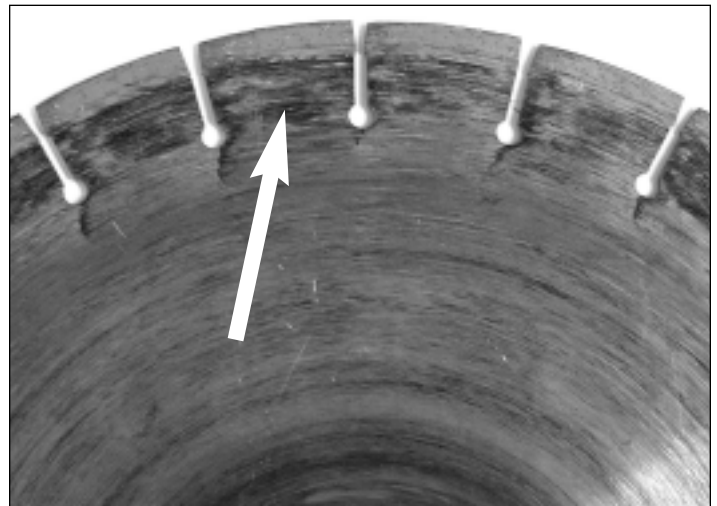
- The life of a diamond wheel is significantly reduced when exposed to extreme heat.

Solution: Frequently remove wheel from cut to cool.

- After every 30 seconds of dry cutting, allow running wheel to cool in air for 10 seconds.



Note: A "glazed" wheel can be refreshed by slowly cutting into a soft concrete block.



WARNING! Overheating a diamond wheel may cause structural damage, causing it to break apart or release segments during use that could result in serious or fatal injury. A diamond wheel must be replaced immediately if it shows signs of exposure to excessive heat. Never start or operate any machine with a damaged diamond wheel.

Situation: Loss of Tension (Wheel is not flat)

Reason: Wheel has overheated due to a lack of cooling.

- Excessive heat will cause the steel core to warp and discolor.

Solution: Frequently remove wheel from the cut to cool.

- After every 30 seconds of dry cutting, allow running wheel to cool in air for 10 seconds.

Reason: Improper wheel selection.

- An improper wheel will flex excessively creating permanent stress in the steel core.

Solution: Consult wheel application guide for correct wheel.

Reason: Cutting material has worn against side of wheel.

- Do not turn or twist the machine while wheel is cutting.

Solution: Use wheel to cut only in straight lines.

- Insure material is not able to collapse or pinch the wheel when engaged in cut.



WARNING! A distorted diamond wheel may break apart or release segments during use that could result in serious or fatal injury. Do not attempt to straighten or repair a distorted wheel. A diamond wheel must be replaced immediately if it shows signs of core tension loss. Never start or operate any machine with a damaged diamond wheel.

Situation: Undercutting

Reason: Cutting very abrasive material.

- This is a normal condition when cutting asphalt or green concrete.

Solution: If available, use water spray to flush the kerf.

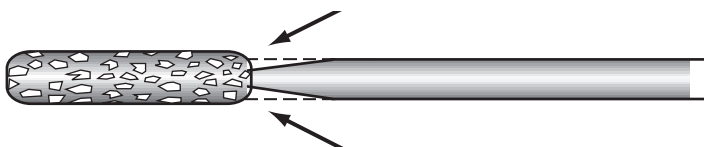
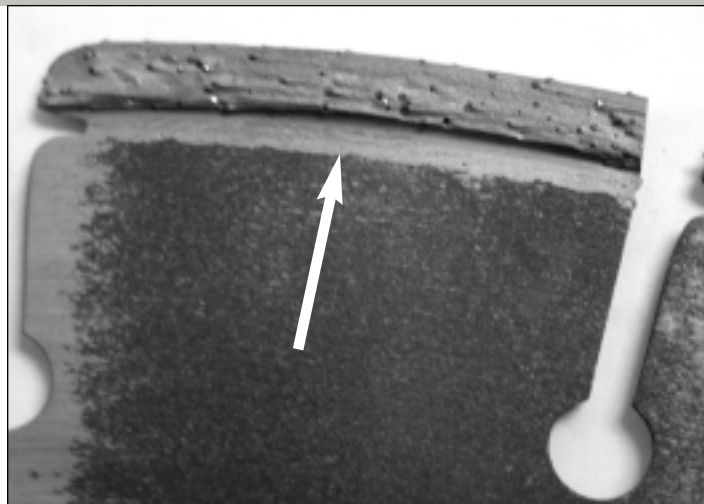
- Several Stihl wheels are available with undercut protection segments.

Reason: Cutting into the sub-base

- Cutting into sand or dirt will cause severe undercutting.

Solution: Do not cut completely through the material.

- By only cutting the intended material, the wheel life will be extended.



WARNING! A severely undercut diamond wheel may break apart or release segments during use that could result in serious or fatal injury. A diamond wheel must be replaced immediately if the core has been severely undercut. Never start or operate any machine with a damaged diamond wheel.

Situation: Diamond Segment Loss

Reason: Wheel has been twisted or jammed.

- Only use a diamond wheel to make straight cuts in recommended materials.

Solution: Hold machine straight while cutting

- Secure material being cut to prevent accidental pinching or binding.

Reason: Wheel has overheated due to a lack of cooling.

- Excessive heat will cause the steel core to fracture.

Solution: Frequently remove wheel from the cut to cool.

- After every 30 seconds of dry cutting, allow running wheel to cool in air for 10 seconds.

Reason: Severe undercutting has occurred.

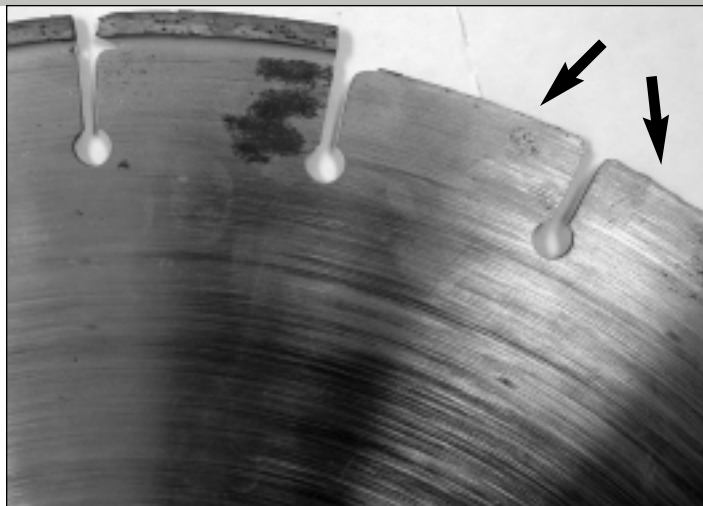
Solution: If available, use water spray to flush the kerf.

- Many Stihl wheels are available with undercut protection segments.

Reason: Improper wheel use causing excessive dullness.

- A dull wheel can have segments separate from impact, fatigue, or frictional heat.

Solution: Use proper wheel type for material being cut.



WARNING! A diamond wheel with segment loss may increase reactive forces or continue to break apart or release segments during use that could result in serious or fatal injury. A diamond wheel must be replaced immediately if there is a segment loose, cracked or missing. Never start or operate any machine with a damaged diamond wheel.

Situation: Cracks in Metal Core

Reason: Extreme pressure was applied during cutting.

Solution: Apply light pressure while cutting.

Reason: Wheel has overheated due to a lack of cooling.

- Excessive heat will cause the steel core to fracture.

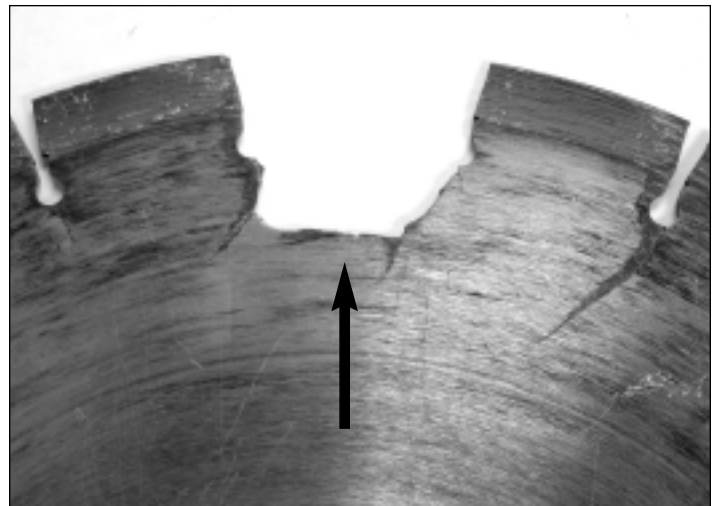
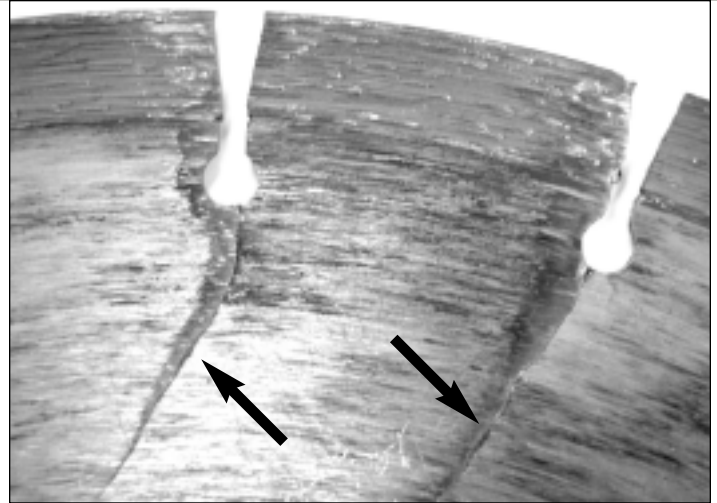
Solution: Frequently remove wheel from the cut to cool.

- After every 30 seconds of dry cutting, allow running wheel to cool in air for 10 seconds.

Reason: Improper wheel selection.

- An improper wheel will cause excessive stress in the steel core causing it to crack.

Solution: Consult wheel application guide for correct wheel.



WARNING! A cracked diamond wheel may break apart or release segments during use that could result in serious or fatal injury. A diamond wheel must be replaced immediately if the core or segment show signs of cracking. Never start or operate any machine with a damaged diamond wheel.

Situation: Out of Round (Eccentric Wear)

Reason: Arbor shaft bearings worn.

- Worn bearings allow arbor shaft to run eccentrically causing the wheel to wear out of round.

Solution: Install new shaft bearings.

- Arbor bearings and shaft should be inspected frequently and checked for signs of wear.

Reason: Wrong wheel selection for application.

- Improper selection of wheel bond causes the wheel to “pound” and not cut.

Solution: Use proper wheel type for material being cut.

- Consult the recommended application guide to determine correct wheel.

Reason: Worn arbor shaft.

- Improperly tightened wheel flanges will allow wheel to spin and groove arbor shaft.

Solution: Replace arbor shaft.

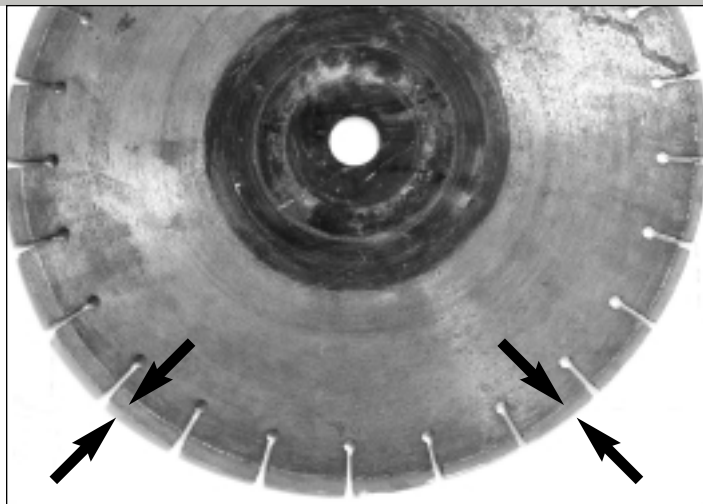
- Always correctly tighten wheel flanges to prevent damage to wheel and arbor.

Reason: Wheel arbor hole is out of round or damaged.

- Insure that the arbor shaft size exactly matches the size of the wheel arbor hole.

Solution: Replace wheel

- Never operate any machine with a damaged wheel.



WARNING! A severely out of round diamond wheel can cause excessive vibration and damage to the machine or work piece. Such vibration or damage could result in personal injury. A diamond wheel must be replaced immediately if it is severely out of round. Never start or operate any machine with a severely out of round diamond wheel.

Situation: Damaged or Distorted Arbor Hole

Reason: Wheel not properly mounted on arbor shaft.

- If such occurs, the operator will experience a pounding effect or side to side cutting stress.

Solution: Mount wheel properly onto arbor shaft

- Mount wheel securely on shaft and tighten mounting bolt to the proper torque.

Reason: Worn or loose mounting flanges.

- Worn or loose flanges can cause the wheel to “flutter” resulting in arbor hole distortion.

Solution: Inspect flanges and replace if needed.

- Both the inner and outer flanges should be replaced if required.

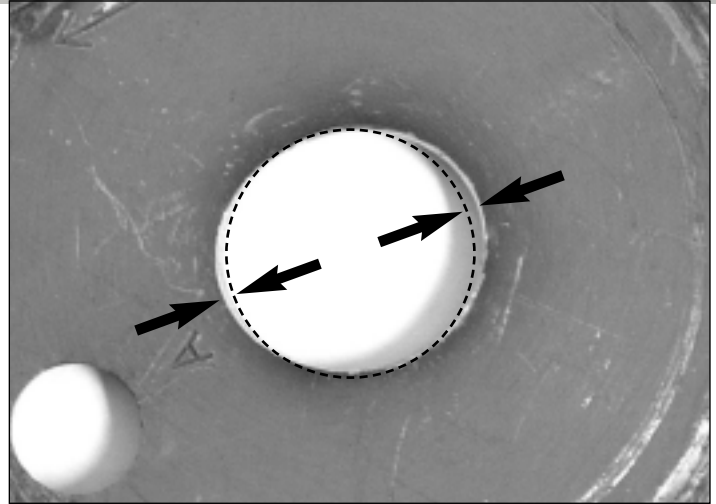
Reason: Arbor shaft worn or grooved

- The wheel will pound in the cut if excessive arbor wear has occurred.

Solution: Replace arbor shaft if signs of wear or damage.

Reason: Arbor hole size is larger than the arbor shaft.

Solution: Replace wheel with correctly sized wheel.



WARNING! A diamond wheel with a damaged or distorted arbor hole can cause excessive vibration and damage the machine or work piece. Such vibration or damage could result in personal injury. A diamond wheel must be replaced immediately if it has a damage or distorted arbor hole. Never start or operate any machine with a damaged or distorted arbor hole.