

Inspect the diamond blade, off the saw, thoroughly and determine if any of the following apply.

All of the conditions shown are the result of incorrect cutting techniques

1. SEGMENT LOSS

CAUSE: Blade burned due to insufficient water, usually evident by dark blue steaks on the core beneath the segment, or heat (burn) marks on the segments, also by extreme side pressure, i.e., machine arbor bent or operator neglect.

SOLUTION: Segments may be able to be replaced. Normally blade does not need to be re-blanked. However from a safety point of view repairs are not recommended for power cut off saw blades used by hand.

2. BLADE STOPPED CUTTING (LIFE STILL REMAINS)

CAUSE: Blade too hard for application.

SOLUTION: Can be dressed on softer material, such as haydite block or silica brick. Residential concrete cobbles

CAUTION: Glazing will usually continue, unless softer material is intermittently cut or softer bonded blade is used.

3. VERTICAL HAIRLINE CRACKS APPEAR IN SEGMENTS

CAUSE: Normally, blade too hard for application, R.P.M. too high.

SOLUTION: Softer bond must be used if determined this is the problem. Occurs most often in concrete cutting where much harder & more abrasive-resistant metal bonds are used.

4. VERTICAL HAIRLINE CRACKS APPEAR IN CORE

CAUSE: Possibly bond too hard for application, or due to unforeseen circumstances blade does not have proper tension for r.p.m. required.

SOLUTION: Softer bond, if it's determined the bond is too hard. Otherwise customer must review all circumstances, i.e., r.p.m., machine, and material to be cut. Check holes can be drilled at base of cracks, depending on life remaining, blade size, and steel core fatigue factors. Safety of operators is an issue however.

5. HORIZONTAL HAIRLINE CRACKS APPEAR IN CORE

CAUSE: Blade does not have proper tension for machine r.p.m. and is wobbling, bond could be too hard, machine problems, i.e., bent arbor, machine not tracking parallel to blade, etc. Hazardous to continue use.

SOLUTION: Blade must be reblanked.

7. UNDERCUTTING OF CORE BENEATH SEGMENT

CAUSE: Material excessively abrasive.

SOLUTION: Blade should be removed before segment loss and reblanked. If cutting is to be extensive in the same material and under the

same conditions, then a special wear guard core is recommended.

8. CORE DISHED - BLADE LOST TENSIONING

CAUSE: Possibly bond too hard, r.p.m. not proper for blade diameter, blade flanges not parallel or other machine problems. Blade has been subject to high temperatures

SOLUTION: Blade can be retensioned depending upon the extent of damage.

9. MORE SEGMENT REMAINS ON ONE SIDE OF THE BLADE THAN ON THE OTHER

CAUSE: Insufficient water on worn side.

SOLUTION: Check water ports to ascertain if water is flowing freely on both sides of blade. Remember, water around the blade does not mean it is being properly utilized.

10. BLADE OUT OF ROUND

CAUSE- Shaft bearings are worn (masonry and concrete).

SOLUTION - Install new blade shaft bearings or blade shaft, as required.

CAUSE - Engine is not properly tuned on concrete saws, causing surges in blade rotation.

SOLUTION - Engine is not properly tuned on petrol masonry saws, causing surges in blade rotation. Tune engine according to manufacturers' manual.

CAUSE– Blade arbor hole is damaged from previous mis mounting

SOLUTION- Replace worn shaft or mounting arbor bushing.

Make certain that drive pin (on concrete saws) is functioning.

CAUSE - Bond is too hard for material, causing a “rounding” and wearing one half of the blade more than the other.

SOLUTION - Use specification of blade which self sharpens correctly in your type of operation. Ensure the blade is kept sharp, If necessary by cutting abrasive materials to expose fresh new diamonds. Step cutting maintains sharpness better than plunge cutting. Use saw treadle and step cutting to increase efficiency and blade life.

Diamond blademan

Div. High Performance Diamond Technology Limited

9a Saltburn Road

Milford 0620 NSC

North Shore

Auckland

PO Box 31428 Milford 0741

Tel 09 4867080

09 4866116

Fax 09 4867081

Email a.bignall@xtra.co.nz

Web main site:

<http://www.diamondblademan.com>

Web Customer resource site:

<http://www.diamondblademan.co.nz>