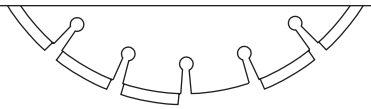
Diamond Blade Troubleshooting

SEGMENT LOSS

(Overheating)



PROBLEM On stone and masonry saws, the material was not held firmly, which caused the blade to twist or jam in the cut, and loosen the segment.
REMEDY Material must be held firmly.

PROBLEM Overheating due to inadequate supply of water or complete loss of water.This is usually accompanied by discolorations which appear on the steel center in the area of the segment loss.
REMEDY Provide adequate water flow to both sides of the blade. Look for line blockages. On concrete saws, temporary complete loss of water can result from equipment running over water feed hoses.

PROBLEM On concrete saws steel center worn this as a result of undercutting by abrasive fines generated during cutting. (Blank wears to a knife edge, which weakens the blank, and causes a section to be separated.)
REMEDY Use sufficient water to flush fines out of cut. If generated fines are highly abrasive, wear-retardant cores should be used.

PROBLEM Defective blade collars which cause the blade to flutter in the cut or fail to adequately support the blade in perfect alignment.
REMEDY Clean foreign material from blade collar surfaces, or replace collars if they are under manufacturer's recommended diameter.

PROBLEM Blade is too hard for material being cut causing excessive dullness and the segment separates due to impact or fatigue. (This can also be the cause of frictional heat, which can melt the brazing solder.)
REMEDY Use the proper blade specification for the material being cut.

PROBLEM Blade is cutting out of round resulting in a pounding impact.
REMEDY Replace worn bearings, re-align blade shaft, or replace worn blade mounting arbor.

PROBLEM Improper blade tension which produces high pressure on the segments and subsequent failure of the brazed joint.
REMEDY Make sure running speed of the equipment is specified when ordering blades. On concrete and stone saws, the spindle speed should be checked with a tachometer to ensure that each diameter blade is running at the manufacturer's recommended cutting speed and blade-tensioned speed.

BLADE WILL NOT CUT

PROBLEM Blade is too hard for material being cut. (Improper blade specification.)
REMEDY Consult blade recommendation chart or manufacturer for the proper blade specification for the material being cut.

PROBLEM Blade has become dull, probably as a result of being used on too hard a material.
REMEDY Dress or sharpen with soft concrete block, piece of sandstone, or in asphalt to expose diamonds. If continual dressing is required, this would indicate that the blade specification is too hard for the material being cut.

PROBLEM Failure to initially break in new blade on specific material being cut.
REMEDY Allow blade to sharpen itself on the material to be cut when first placing it on the saw. This is the proper way to break in a blade.

PROBLEM Insufficient power to permit blade to cut properly.
REMEDY Tighten belts in accordance with machine maintenance instruction. Use correct voltage at motor and use adequate horsepower for cutting application.

SHORT LIFE

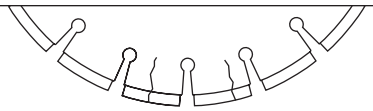
PROBLEM Use of a tile blade for cutting block, or a cured concrete blade for cutting green concrete or asphalt. There are specific blades designed for each particular material to give the most economical cutting Also, avoid the use of general-purpose specifications for cutting a single specific material. General-purpose diamond blades are designed to cut a range of materials and, since it is unlikely the operator will be cutting proportionately the proper amount of both hard and soft materials at all times, this is not the most economical method of cutting.
REMEDY Use the proper blade specification, as recommended in this catalog.

PROBLEM Inadequate water to the blade.
REMEDY Make sure water hoses are clean and free from any blockages, Approximately two gallons of water per minute are required to properly cool a masonry saw blade. On concrete saws, 2-5 gallons per minute are required, and on stone saws, up to 30 gallons plus per minute are required.

PROBLEM Bad spindle bearings, worn mounting arbor, or misaligned shaft.
REMEDY Replace defective parts.

PROBLEM Loss of power, resulting from loose drive belts or improper voltage.
REMEDY See instruction manual for proper belt tightening, replace worn belts, make sure proper line voltage is being supplied to the motor.

CRACKS IN SEGMENT



PROBLEM Blade is too hard for material being cut.
REMEDY Use blade with softer bond.

BLADE WORN OUT OF ROUND

PROBLEM Worn shaft bearings on masonry, concrete, or stone saws. (Causes blade to run eccentric and wear out-of-round.)
REMEDY Install new blade shaft bearings or blade shaft, as required.

PROBLEM Engine not properly tuned on concrete saws, causing "hunting."
REMEDY Tune engine.

PROBLEM Blade arbor hole damaged from previous mismounting.
REMEDY If all other blade parameters are in good condition, the arbor hole can be re-bored, and properly bushed to its original size.

PROBLEM Blade mounting arbor worn. A groove may have been scored on mounting arbor as a result of previous blade spinning on mounting arbor. When new blade is placed on such a worn arbor, it seats improperly, and therefore runs eccentrically.
REMEDY Replace worn shaft or mounting arbor bushing.

PROBLEM Blade slipping on arbor shaft.
REMEDY Tighten blade collar on masonry or stone saw. Make certain drive pin is functioning on concrete saw.

PROBLEM Bond too hard for material, causing machine to "pound" at regular intervals, thereby wearing one half of the blade more than the other half.
REMEDY Use proper blade specification as recommended in this catalog.

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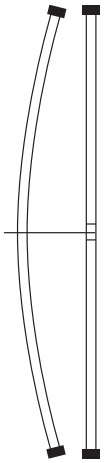
LOSS OF TENSION



PROBLEM Blade blank has been overheated.
REMEDY Provide proper amount of water to both sides of blade. Check to make sure water pump is producing sufficient water and that no blockages occur in water lines.

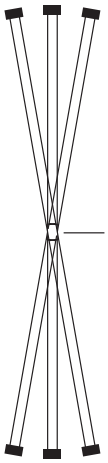
PROBLEM Blade blank has been overheated as a result of blade spinning on arbor.
REMEDY Tighten blade clamping disc nut and make certain that the drive pin is functioning on concrete saws.

PROBLEM Blade blank has been overheated because of blade blank rubbing side of material being cut.
REMEDY Properly align saw to permit square cutting. Avoid twisting the blade in cut. Maintain a firm grip on material being cut.

Make certain that shaft r.p.m. is correct, so that blade operated at its tensioned speed, and consequently runs perfectly straight.

PROBLEM Unequal pressure at blade clamping collars.
REMEDY Blade clamping collars should be identical in diameter and of the recommended size.

BLADE WOBBLES



PROBLEM Blade mounted on defective saw.
REMEDY Check for bad bearings, bent shaft, or worn mounting arbor. Also check collars to make sure they are clean, flat, and of the manufacturer's recommended diameter.

PROBLEM Blade being run at improper operating speed.
REMEDY Make certain that blade shaft is turning at the recommended r.p.m. to match the tensioned speed of the blade. Use a tachometer on concrete and stone saws to make certain blade shaft is turning and set at proper speed.

PROBLEM Blade collar diameters are not identical. (Uneven pressure is created on the blade blank at the center.)
REMEDY Use proper size blade collars.

PROBLEM Blade bent as a result of dropping or twisting.
REMEDY Have manufacturer remove segments and rebraze onto a new blank, if practical.

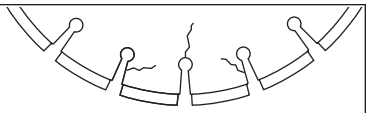
UNEVEN SEGMENT WEAR

PROBLEM Insufficient water, generally on one side of the blade, which reduces side clearance.
REMEDY Flush water system. Make certain that water is being adequately and equally distributed to both sides of the blade.

PROBLEM Equipment defect, which causes the blade to wear out of round.
REMEDY Replace bad bearings, worn arbor shaft, or misaligned spindle. On concrete saws, make certain the engine runs smoothly, to prevent harmonic vibrations, which in turn cause the blade to pound on a regular cycle basis.

PROBLEM Saw head misaligned.
REMEDY Check saw head alignment for squareness both vertically and horizontally.

CRACKS IN STEEL CENTER



PROBLEM Blade flutters in cut as a result of loss of blank tension.
REMEDY See "Loss of Tension" section.

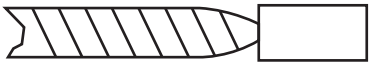
PROBLEM Blade specification is too hard for material being cut.
REMEDY Use softer blade bond to eliminate stresses which create cracks.

DISTORTED STEEL CENTER

PROBLEM Inadequate or improper tightening of blade on saw mounting shaft, thereby causing arbor to force its way through blade blank.
REMEDY Tighten clamping nut securely.

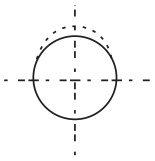
PROBLEM Dropping saw head with mounted blade particularly on concrete saws. Also dropping objects on unmounted blade distorting blade blanks.
REMEDY Avoid. Protect blade from abuse.

UNDERCUTTING



PROBLEM Abrading or wearing away of the steel center faster than the diamond segment. (Highly abrasive fines are being generated during cutting.)
REMEDY Use as much water as possible to flush out fines generated during cutting or use wear-retardant cores. NOTE OF CAUTION: Wear-retardant cores are not always the final answer to eliminating undercutting. Care must still be taken to provide sufficient water to the blank area immediately adjacent to the segment. This is especially important when making deep cuts.

ARBOR HOLE OUT OF ROUND



PROBLEM Blade collar is not properly tightened, permitting blade to either rotate or vibrate on shaft.
REMEDY Wrench-tighten arbor nut to make certain blade is adequately secured to prevent rotation on arbor shaft.

PROBLEM Worn or dirty blade collars, which do not allow proper blade clamping.
REMEDY Clean blade collars, make sure they are not worn, and tighten arbor nut properly.

PROBLEM Blade not properly mounted.
REMEDY Make certain blade is mounted on the proper diameter of the shaft before tightening arbor nut. On concrete saws, make certain that pin hole slides over arbor drive pin. Never depend on drive pin to actually drive the blade. A drive pin is simply a safety measure to prevent the blade from spinning on its mounting arbor, should the nut become loose. NOTE: Distorted blade arbor holes can be re-bored provided they are within tolerance and provided the blank has not been abused.