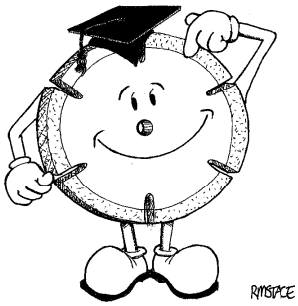
DIAMOND BLADEMAN

DIAMOND SAWING TIPS



shorter blade life than usual

Diamond saw blades rely upon many interactions for effective self sharpening action.

Some basics for successful diamond blade use are having a mechanically sound saw of adequate power and appropriate blade shaft speed, diamond blades with adequate clearances between the side of the diamond section and the steel blade core, correct coolant flow, correctly chosen diamond blade specification for the material and cutting objectives. Unexpected reduction in blade life could be caused by:

Blade

When a blade has been specified for and found efficient in maximum depth sawing, the bond may act too soft for the same application when sawing at shallower depths. For example sawing asphalt at maximum depth of 125mm (350mm blade) will probably affect specification choice compared with sawing at 25mm. In effect the more rapid progress of the blade will result in more cuttings abrading the bond resulting in early release of sound diamond, hence shorter life. Keep an eye on changing conditions.

Coolant

Water volume can affect blade life, it can either lengthen life or shorten it. High volumes of water efficiently flush abrasive cuttings away and reduce the wear rate of the bond. Low volumes of water allow greater abrasion and wear of the bond to take place. Rapid bond wear exposes diamond more quickly than slow bond wear. If the diamond is is good condition slower bond wear will increase blade life. Damage to blade coolant pipes, plumbing or water supply inadequacies can shorten blade life through increased abrasion and premature loss of good condition diamond.

Saw mechanical condition

The most likely cause of unexpected short blade life due to mechanical problems is collapse of the diamond blade shaft bearings causing the blade to hammer and vibrate out of round. This hammering smashes diamond crystals and causes loss of diamond teeth. Fifty % of blade life can be lost in this way.

Change in concrete or asphalt being cut

Change in sand or aggregate type and size can alter bond and diamond wear, a lot.

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