

White Paper-4

April, 2015

Fast Emergency Service

Situation:

A tool distributor was dealing with recall situation on Masonry saw power tool. The product was launched and more than 200 tools were returned by customers in 2 months. The brushes were arcing and sparking within minutes of operation. The source of motors and brushes was from China. Helwig Carbon was called upon to resolve the problem.

Application:

Masonry Saw Motor, Motor Specs: 115v, Motor Speed 21,750 rpm with gearbox 3700 rpm, Current 13-15 amp, Current density very high at 84-98 Amps/in²

Analysis:

Helwig engineers analyzed the type of the carbon in the failed or used brushes. Based on application information, using previous experience on similar applications along with using the properties of the sample grade H76C was recommended.

Tests and Validation:

Motors were tested by the customer at 15 Amps rated and was even pushed at higher current levels.

Results:

- Per customer the Helwig brush grade performed exceptionally well to resolve the issue
- The difference in arcing with new grade was “Day and night”.
- The customer ordered 2000 brushes.

Additional benefits: All of the above including quotes; shipment of sample and production brushes was done **in than less than a week** to help the customer in critical situation.

Note: Helwig Carbon has a comprehensive motor test lab including a Dynamometer, R&D Dept, Application and Design engineering group.

For more information contact us directly at 800-962-4851 or visit our website at: www.helwigcarbon.com.



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