

BELZONA EXTENDS LIFE OF MIXER BOWLS FROM ENGINE CASTING PLANT

ID: 1421

Industry: General Industry

Application: SHM-Solids Handling Machinery

Customer Location: Engine casting plant, Windsor, Ontario

Application Date: Since November 2009

Substrate: Carbon steel

Products: * Belzona® 1812 (Ceramic Carbide FP) ,

Problem

Inside surface of bowl was being eroded by the sand mixture. The bowl measures approximately 19 inches in diameter by 27 inches in length. The inner surface was being eroded by 1/4 inch during a 6 month period. The mixers handle up to 5.5 tonnes of sand per hour.



Photograph Descriptions

- * Working mixer bowl ,
- * Inner bore of worn mixer ,
- * New mixer bowl after machining ,
- * Completed application of Belzona® 1812 ,

Application Situation

Mixing containers used to blend silica sand and phenolic resin, the result of which is then used to make V6 engine casings for international automobile manufacturers.

Application Method

Application was carried out in accordance with Belzona Know-How System Leaflet SHM-13. The inner surface was machined to remove approximately 3/16 of an inch of material to allow for build up of Belzona® 1812 which was applied by hand using top flange and lower wear plate to control thickness.

For more examples of Belzona Know - How In Action, please visit <https://khia.belzona.com>

ISO 9001:2015

FS 695214

ISO 14001:2015

EMS 695213

Belzona products are
manufactured under an ISO
9000 Registered Quality
Management System.

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Belzona Facts

Customer had previously tried welding 8 inches of bowl length with Tungsten at a cost of \$9000. With Belzona they were able to repair the full stroke length of 24 inches in the mixer for \$5400. Each bowl is estimated to cost \$13000. Bowls that were normally lasting less than 6 months have lasted 18 months with only minor repair to the Belzona lining required.

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