

Repair of Small Gouges in Bearing Housing Using Belzona 1511

ID: 9806

Industry: Mining & Quarrying
Application: MPT-Mechanical Power Transmission

Customer Location: Sudbury
Application Date: April 2025

Substrate: Carbon steel
Products: Belzona 1511 (Super HT-Metal), Belzona 9111 (Cleaner Degreaser)

Problem

The customer needed to repair small gouges across the full width of a bearing housing after the removal of a nodular iron bearing. The housing operates at temperatures up to 180°C (350°F), and while abrasion resistance was not required, the repair material needed to offer strong adhesion, withstand elevated temperatures, and be suitable for filling fine voids without a coarse aggregate interfering with the surface finish.



View and dimensions of some of the damaged sections



Different area showing gouges that needed repair



Larger gouges repaired and sanded



Thinner gouges filled and sanded

Application Situation

Due to the elevated service temperature of up to 180°C (350°F), a repair material with high thermal resistance was critical. Belzona 1511 (Super HT-Metal) was selected for its ability to withstand elevated temperatures under mechanical load. The damage consisted of small gouges running the full width of the bearing location, requiring a material that could be accurately rebuilt and later machined to restore precise tolerances essential for the bearing installation.

Application Method

The bearing housing was first prepared by mechanically roughening the surface to remove any contamination and create a strong mechanical profile. The surface was then cleaned to eliminate dust, grease, and debris. Belzona 1511 was thoroughly mixed and applied to the gouged areas, ensuring complete filling of the voids. The material was built up beyond the final required dimensions to allow for machining. After full cure, the rebuilt areas were precision-machined to restore the original profile of the bearing housing.

Belzona Facts

By choosing Belzona 1511, the customer benefited from significant time and cost savings. The product was ordered and delivered via rush carrier, allowing them to receive full support — from material selection to product delivery — within one day. This rapid turnaround enabled them to complete the application the following day, minimizing downtime. Additionally, by avoiding welding, they eliminated the risks, additional costs, and extended lead times typically associated with hot work repairs, making Belzona the ideal solution for both performance and efficiency.

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

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