

SHAFT BEARING SET CHOCKING USING BELZONA 7111

ID: 10238



PROBLEM

A new shaft bearing set required precision chocking to ensure proper alignment and load distribution across the bearing foundation. Without a reliable chocking compound, the bearing seats would be subject to uneven loading, which over time leads to accelerated bearing wear, increased vibration, and potential shaft misalignment. These conditions can cascade into costly mechanical failures, unplanned downtime, and damage to associated drivetrain components. Selecting the right chocking material at the time of installation was critical to establishing a stable, long-term foundation that would maintain alignment under continuous operational loads and resist the dynamic forces inherent in marine propulsion systems.

APPLICATION SITUATION

Belzona 7111 was selected for this new installation based on its significant cost advantage over traditional alternatives such as precision machining of steel chocks or poured metallic shims. The material's ability to be poured directly into the bearing seat gap eliminated the need for expensive machining to achieve full-contact bearing surfaces, reducing both material and labor costs. Belzona 7111 provides 100% contact between the bearing and its foundation, distributing loads evenly and eliminating the point-loading issues common with conventional steel shimming methods. The product's straightforward mixing and pouring process also simplified the installation, allowing the work to be completed efficiently within a one-hour application window per pour.

APPLICATION METHOD

The carbon steel bearing seat surfaces were prepared using hand tools to remove all surface contaminants, mill scale, and oxidation, establishing a clean substrate suitable for bonding. A 1-inch gap was maintained between the bearing and the foundation to accommodate the Belzona 7111 pour. Dams were constructed around each bearing seat to contain the liquid chocking compound during the pour. Belzona 7111 was mixed and poured in accordance with Belzona's Instructions for Use (IFUs). Four units of material were used per pour, and the installation required four separate pours to complete the full shaft bearing set. Each pour was allowed to cure for one day before proceeding. Release agent was applied to all non-bonding surfaces to ensure clean separation where required.

BELZONA FACTS

Cost savings were the primary driver for this project. Belzona 7111 delivered a precision chocking solution at a fraction of the cost of traditional machined steel chocks, while providing full-contact load distribution and reliable long-term alignment. The customer was satisfied with the result and would use Belzona again for future chocking applications.

INDUSTRY

Marine

LOCATION

Seattle Area

APPLICATION DATE

2026

PRODUCTS

Belzona 7111

SUBSTRATE

Carbon steel

PHOTOS

1. Bearing Foundation Set and Aligned
2. Belzona 7111 Being Mixed
3. Belzona 7111 Being Poured Into Foundation
4. Completed Application

For more examples of Belzona Know-How in Action, please visit khia.belzona.com

Belzona products are manufactured under an ISO 9001 Registered Quality Management System.

www.belzona.com

