

BELZONA REPAIRS A WIND TURBINE SHAFT

CUSTOMER

Wind Farm, Spain

APPLICATION DATE

May 2017

APPLICATION SITUATION

The wind turbine manufacturer required a suitable in-situ repair for various diameter shafts operating in the nacelle.

PROBLEM

The shafts had become worn, causing metal loss and inefficient operation of components in the nacelle, especially in the seating area of the bearings.

PRODUCTS

Belzona 1321 (Ceramic S-Metal)

SUBSTRATE

Steel

APPLICATION METHOD

The applications were carried out in accordance with Belzona Know-How System Leaflet MPT-2. The surfaces were prepared using mechanical hand tools. The pre-designed moulds were coated in release agent in order to allow clean removal of the formers post cure. Belzona 1321 was used to wet out the surfaces of each shaft, prior to the installation of the formers and the injection of the paste-grade into the moulds. After 24 hours, the moulds were removed and the repairs were sanded to exact dimensions required.

BELZONA FACTS

The wind turbine manufacturer was very happy with the result. The in-situ nature of this repair allowed for minimal downtime of the turbines. The Belzona alternative allowed for multiple sized shaft to be repaired efficiently and quickly, whilst increasing the longevity of the components.

PICTURES

1. Shaft following surface preparation
2. Formers coated with release agent
3. Injection of Belzona 1321 into the mould
4. Shaft rebuilt to exact dimensions



1.



2.



3.



4.

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



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