

# Gluing of inserts in engine cylinders.

ID: 8334

Industry: *Transport*  
Application: *ENC-Engines and Casings*  
Substrate: *Carbon steel*  
Products: *Belzona 1591 (Ceramic XHT)*

Customer Location: *Construction company, Slovakia*  
Application Date: *June 2020*

## Problem

*It is required to glue inserts into engine cylinders. This glue has to bridge high temperature (over 110°C) and various engine chemicals.*



1. Komatsu bulldozer ready for repair



6 engine cylinders with red arrow indication of gluing



Inserts and engine cylinders were chemical wash up



Engine ready for operation.

## Application Situation

This company uses the Komatsu bulldozer for road reconstruction. After some time the needed to change inserts in engine cylinders.

## Application Method

Inserts and engine cylinders were chemical wash up. Then Belzona 1591 in thin layer was applied on to inserts (on bearing surface in upper part). Inserts were put in cylinders and cylinder head was assembled. Engine was completed after Belzona 1591 curing time.

## Belzona Facts

The repair using traditional glue was out of order. Belzona 1591 was perfect, quick and available solution.

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FS 695214  
ISO 14001:2015  
EMS 695213

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