Repair of Zgoda Sulzer diesel unit cylinder block and casing

Dielectric generator cylinder block and casing during the performed inspection and before commencement of repair works. (fig. 1)

The broken part of the cylinder block. For cylinder block restoration, first it was necessary to restore its construction. (fig. 2)

Prepared surface of the cylinder block missing part. (fig. 3)

The missing part is built in and tightened to the cylinder block. This is a crucial requirement for the successful restoration of casing through the METALOCK method. (fig. 4)

Completed repair of the cylinder block, using the METALOCK method. The surface on which the casing is laid is treated to roughness and flatness, similar to that of the rest part of the surface. (fig. 5)

The damaged part to which new material was added as to enable restoration of casing wall. The new detail was fabricated of cast iron and was embedded in the broken part of the casing, using the METALOCK method. (fig. 6)

Prepared adjoining surfaces of casing wall. (fig. 7)

The missing part of the cylinder block wall, prepared for embedment. (fig. 8)

Embedded and tightened missing part to the casing wall. (fig. 9)

He missing part of casing wall, prepared for embedment. (fig. 10)

Casing surfaces that is in contact with the surface of the cylinder block is grinded to roughness and flatness, similar to that of the other part. (fig. 11)

Localization and limited cracks on the cylinder liner. (fig. 12)

Moment from the METALOCK repair (fig. 13)

Repair of exhaust collector of engine 6NVD48

Removed collector with localized crack before the beginning of repair (fig. 1)

Preparation of the collector for repair, all the parameters are determined and project for restoration of the casing is worked out (fig. 2)

Locking of collector’s crack (fig. 3)

The crack is locked, then final packing of material is performed, cutting out and grinding of the redundant metal. (fig. 4)

Surface of the collector’s casing after final completion of repair (fig. 5)

Repair of coupling mirror disk of engine type 3?12

The mirror disk before machining

Cracks localized through colour deflection

Completed disk repair with roughness of the repaired surface analogous to that of the operational part. Further mechanical treatment – precision grinding

Moment from the METALOCK repair