

عنوان مقاله:

Reverse Engineering for Designing the Coupling of a 32 MW Rotor-generator by Shrink Fitting Method

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خلاصه مقاله:

This study presents a designing process for refurbishing of a 32 MW rotor-generator damaged coupling. The reason of rotor damage was being hit by the quivers of an explosion. The original coupling was union with the rotor formed after a machining process on a mono block forged rotor. In some areas imposed damages caused the breaking off and detachment of some parts in the coupling flange. Because of this accident, the coupling region was removed by machining completely and another coupling was made and mounted on the rotor-generator shaft by shrink fitting. Reverse engineering method was used with comparing a 145 MW rotor-generator. At first, all of the mechanical loadings on the coupling were assessed. The calculations include analytical method using ANSI standard and simulation of ANSYS software. The results showed that in spite of geometrical restrictions, it is possible to install a distinct coupling by shrink fitting on the rotor generator shaft

کلمات کلیدی:

Reverse Engineering , Rotor-generator , Coupling, Shrink Fitting , , Stress Analysis , Finite Element

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