

عنوان مقاله:

Design of Resin Injection Device for Repairing of Generator's Failed Anchor Bolts

محل انتشار:

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نویسندگان:

Hamid H. Alifard - *Product Tools Design & Engineering Specialist, R&D Department, MAPNA Generator Engineering
;and ManufacturingCo. (PARS), Karaj*

Eqlima Mahdavi - *Head of Product Tools Design & Engineering, R&D Department, MAPNA Generator Engineering
;and ManufacturingCo. (PARS), Karaj*

خلاصه مقاله:

The power plant generators have a foundation to sitdown and level in site. Several special bolts that are known as anchor bolts, perform connecting of thermal generator to foundation. Anchor bolts function to stable generator as well as damp and transmit the vibration to the foundation. Anchor bolt sleeves can be provided to allow pretensioning and small adjustments in the field as required. Here, investigated anchor bolt included two plates in top and bottom part that were joined with a pipe together (all parts are embedded in foundation). One bolt with about ۲ meters height was passed through the pipe, where one side of bolt was fixed in bottom plate and the top side tightened in stator frame of generator. The extreme vibration could be lead bolts to fracture occasionally. The repairing or substituting of the fractured anchor bolts necessitates replacing the stator frame, which result to spend great cost and process time. One of the low cost method and superseded procedure is applying and injecting a kind of multi-metal resin inside the pipe in that the anchor bolt is broken in order to satisfy the connecting function of it. This pasted form of resin functions as a local casting to supply all anchor bolts mechanical properties. In this article, the superseded procedure with related design of special injecting device and strength analysis of it, was described.

کلمات کلیدی:

resin injection device, power generator, fractured anchor bolt, repair

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