

## عنوان مقاله:

Investigation of the retaining ring parameters in design

## محل انتشار:

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## خلاصه مقاله:

Retaining ring is one of the critical parts of large turbo-generators which undergoes high-stress conditions due to rotational body force and thermal effect. The aim of retaining ring in a generator is to sustain the force applied by the rotor end winding in all rotational conditions including nominal speed and high-speed test. The main purpose of this study is to investigate the effect of each parameter of retaining ring in its design. To this end, first, a list of retaining ring parameters is presented and then the effect of each item on the stress state and separation speed of this ring is investigated. The results show that increasing the shrinkage value in the area of the insert ring has a positive effect on the stress and separation speed. Also, as the outer radius of the retaining ring increases, the separation speed first increases and then decreases. Efforts should always be made to design parameters of the retaining ring so that the separation speed increases and the stress remains in the allowable region. The present study is an important step towards the optimal design of the retaining ring.

## کلمات کلیدی:

Retaining ring, von Mises stress, separation speed, shrink fit

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/1238302>

