EVALUATION OF THERMAL STRESS IN A RECTANGULAR PLATE, CIRCULAR DISK AND CYLINDER USING ANALYTICAL METHOD

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Abstract

Thermal Stresses and strains are equally important, as Mechanical stresses and strain as these stresses leads to crack formation. In this paper, the exact numerical relations to evaluate thermal stresses in the rectangular plate, circular disk and cylinder part is discussed. The Formulas presented in this section can be conveniently used for practical purposes as well as helps to design engineers for the designing purpose of steam turbine rotor subjected to variable temperature.

*Index Terms-*Thermal stresses in rectangular plate, Circular disk and circular cylinder.