

An Empirical Model of Fatigue Life Prediction under the Bending and Torsion Loading

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April 28, 2020

Abstract

Many models of multiaxial fatigue limit under the bending and torsion loading have been reported in literature. In this paper, an attempt is made to extend the multiaxial fatigue limit models to finite fatigue life. Further these empirical models together with uniaxial S-N equations, including the axial S-N equation and torsion S-N equation, are used to perform multiaxial fatigue life assessment. By using a large number of experimental data of fatigue life reported in literature, an accuracy of these empirical models has been checked.

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