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耐久性分析的特征应力法

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CHARACTERISTIC STRESS APPROACH FOR DURABILITY ANALYSIS

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摘要 给出了以特征应力为参量表示的结构细节的a－s－N曲线。利用此曲线、等寿命曲线和线性累积损伤理论将恒幅载荷下的（a K，N K）数据转换为谱载下的（a K，t K）数据，再由（a K，t K）数据确定当量初始缺陷（E I F S）分布。进而分析裂纹超越数概率和结构损伤度，完成结构耐久性分析。

关键词： 耐久性 分布参数系统 裂纹

Abstract： The a-s-N curve expressed by characteristic stress of structural details is presented. Then the (a K ,N K) data under constant loading are transformed into the (a K ,t K) data under spectrum loading by using Goodman diagram and Miner's rule,and equivalent initial flaw size (EIFS) distribution parameters are obtained by the (a K ,t K) data.Finally,the probability of crack exceedance and structural damage degree are calculated and the durability analysis is completed.

Keywords： durability distribution parameters systems crack

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