

CONSIDERAȚII PRIVIND DETERMINAREA FIABILITĂȚII PRODUSELOR SOLICITATE LA OBOSEALĂ

CONSIDERATIONS REGARDING RELIABILITY ESTIMATE OF FATIGUE-SUBJECTED PRODUCTS

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Abstract: The paper asserts the issue of calculating the provisional reliability for products with fatigue-exposed components, during the exploitation under normal working conditions. The difficulty of these calculi is caused by the intricate assessment of reliability indexes specific to variable charges. Following a brief introduction in this field, we present the particularities of the reliability calculi for fatigue-influenced elements. We then present some elements characteristic to fatigue, outlining the Wöhler (durability) curve used in calculating the resistance to fatigue (the durability curve) and the exponential model of the reliability function. The proposed method of calculus is original, easily applicable and it allows the assessment of reliability for several types of complex products with fatigue-exposed components.

Keywords: products' reliability, calculating reliability indexes, fatigue, variable loads