
ANALYSIS OF THREADED JOINTS FOR SLEWING BEARINGS

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Abstract

This paper focuses on a method for calculating threaded joints of slewing bearings and verifies its suitability by comparing the calculation results with the data from THK and PSL catalogs for slewing bearings of different sizes with cross rollers arrangement. Slewing bearings are the bearings that can carry a combined load, i.e. axial and radial loads and overturning moment. A pivoting device becomes necessary when in the equipment and in the installation, one of the structural parts must rotate in relation to another, according to the unique axis, providing a link between the parts. Moreover, they are used in machines in which it is important to reduce the axial overall size of the machine.

Keywords

Slewing bearing, screws, threaded joint, roughness parameter, compliance of the contact layer

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