Example of lubrication in oil bath

Example of lubrication with circulation pump

Example of ZKL spherical roller bearing vibration applications
ZXL spherical roller bearings for vibration machinery and equipment

For increased reliability in environments with increased vibration and impact loads ZKL produces double-row spherical roller bearings of 223 series, 233 series, with classification EMHD.

Structure

The bearings have higher load bearing capacity and improved radial stiffness. A modular construction consists bases cans on the outer ring. The bearings are provided with illustrated radial clearance below the sizes of C1 and 4000 angular clearance of the concentric dimensions of the bearings. The series designation with standardized inner shell. A bearing size is a bearing size with a particular value with the code lines (223). The increased radial clearance and the way of the cage guidance and the groove with lubrication holes are not specifically identified for these bearings are shown in the outer dimensions of D2.

Inner Radial Clearance

Bearings for vibration applications, series 223 and 233, are made as a standard with inner radial clearance C4. The bearing clearance is included in D2.

Misalignment

The structure of cylindrical roller bearings by itself allows for their application in a large amount of cases. The bearings have a high load bearing capacity due to the large load:radial coefficient shown in the tables) grease re-lubrication interval shortening is recommended.

Double-row spherical roller bearings under radial load may transfer considerable axial loads. In the case of the radial to axial load ratio F_y/F_x is not recommended to exceed 0.1°. Higher tipping values than 0.2° to 0.3° are also possible, though, if adequate lubrication and cooling are provided.

Effect of Operation Temperature on Bearing Materials

At ZKL spherical roller bearings are subject to special heat treatment allowing the use at quantum temperatures, up to 150°C without considerable dimensional changes. The corresponding additional classification 1X is used.

Lubrication

Energy of grease lubrication

Product Table

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