

Customer:

Date: 10. Aug. 2011

Ident-Nr.:

Person: Moßner

Projekt:

Fixing bolts:

Outer ring: 18 x M16 - 10.9 / Bolt tightening torque: 246 Nm

Inner ring: 24 x M16 - 10.9 / Bolt tightening torque: 246 Nm

Load type:

Suspended axial load

The static limiting load diagramm is based upon the application factor $f_a = 1$, upon the tightening factor $\alpha_A = 1,6$, upon the clamping length ratio $l_k/d \geq 5$ and upon the bolt preload of 90% of tension at the yield point of bolt material $R_{p0,2}$.

Factors, which increase the load on the slew drive, or e.g. test loads have to be considered.

The operation point ($F_{axD}; M_{kD}$) has to be under the limiting load curves for the race way and fixing bolts.

Please pay strict attention to the technical background section of IMO's Slew Drive Product Catalog !

The static limiting curve can be used, if this demand is met:

$$F_{rad} \leq 220 \times \frac{M_k}{1000} + 0.5 \times F_{ax}$$

$$F_{axD} = F_{ax} \times f_a$$

$$M_{kD} = \left(M_k + 1.73 \times F_{rad} \times \frac{DL}{1000} \right) \times f_a$$

F_{axD} = equivalent axial load incl. f_a [kN]

M_{kD} = equivalent tilting moment incl. f_a und F_{rad} [kNm]

F_{ax} = axial load [kN]

F_{rad} = radial load [kN]

M_k = tilting moment [kNm]

f_a = application factor [-]

DL = raceway diameter [mm]

