

Review

General comments

In my opinion, the publication represents a significant contribution to scientific progress in the context of WES. It is of interest to the entire wind power community. It should be emphasized that the investigations were carried out on large bearings how they are used in blade bearings. The majority of previous investigations on this topic took place with significantly smaller bearings. With such laboratory tests, the question of scalability and transferability always arises.

The scientific quality of the work is good. The experiments carried out are well described and evaluated. It is clearly described why which test parameters were chosen and what assumptions were made. In addition, there is the computer simulation to check the specifications. In addition to the wear, the torque measurement over the test time also provides important information on the degree of damage.

I would like to make one small restriction regarding the references: There are many very recent literature references from the last two years. However, these are often based on findings that were published much earlier (remarks see "Specific Comments").

The structural, linguistic and graphic quality of the publication is very good. The work is clearly structured and the tables, graphs and pictures are easily recognizable and informative.

Specific comments

In line 11 it says "The size of the bearings and the test parameters differ from other published test results for oscillating bearings." In this case, it should already be added in the abstract what the concrete differences are.

In my opinion, the statement that damage always occurs must be put into perspective (line 14). Only one lubricant was examined. Work by C. Schadow, S. Tetora and M. Grebe, for example, clearly shows the influence of the lubricant on the development of damage.

x is defined as the complete travel path of the roller within the raceway (the term “half cycle” can be confusing) (line 43).

In line 71, a few more references should be added, e.g. from M. Grebe, C. Schadow or S. Tetora, who have already made these statements much earlier.

In line 95, the publication by Grebe from 2006 or 2008 should be listed, who already describes these effects in this way.

Reference:

M. Grebe and P. Feinle.: Brinelling, False-Brinelling, false False-Brinelling; Annual Meeting of the German Tribology Society (GFT);. Proceedings, pages 49/1–49/11, Aachen, 2006.

First English-language mention 2008:

Grebe, M.; Feinle, P., Hunsicker, W.: Various Influence Factors on the Development of Standstill Marks (False-Brinelling Effect); DVM Meeting, Aachen, 2008

In line 103, the work of C. Schadow and S. Tetora from Magdeburg should be mentioned.

In Table 2, the roughness of the treads would be an interesting parameter.

In line 129, the size of the contact surface should be added as another important parameter that can be calculated using Hertzian formulae.

Line 189 and 214: The fact that damage can occur after only a few cycles was first published in

Grebe, Feinle, Hunsicker: Various Influence Factors on the Development of Standstill Marks (False-Brinelling Effect), ELGI-Meeting Lisbon, 2008.

Likewise, the influence of the frequency (line 231).

In line 234, 246 and 305, the corresponding $x/2b$ ratio should be given in addition to the angle.

Technical corrections

none