

Review

General comments

In my opinion, the publication represents a very useful contribution to scientific progress in the context of WES. It is of high interest to the entire wind power community.

The aim of the study is to develop a realistic wear test program for the rolling bearings of wind turbine blades. The program combines conditions that prevail when the blade bearings are at a standstill due to the vibration load with conditions during the adjustment movement. The angles and time components are determined from real wind measurements and application-oriented load simulations on the reference turbine IWT7.5-164. The developed simulation program is to be used to run original bearings on the original BEAT6.1 blade bearing test rig.

The author explains in great detail how the individual load sequences are derived and evaluated from the real application and how the complete test program is put together from this. The complex CPC and IPC control algorithms are also taken into account. The test program is interrupted by protection runs, which are intended to avoid damage caused by standstill marks.

The procedure is explained very well. All stress components are well justified.

Accordingly, I consider the scientific relevance, the scientific quality and the quality of presentation to be very good.

Specific comments

Line 77: The number of rolling elements that can support the axial load depends on the elasticity, stiffness, and fit dimensions. I do not believe that only one rolling element carries the complete load. However, the load on the rolling elements in the load zone will be very different.

Among the references, some from Mannheim should be mentioned in addition to the numerous publications from Hanover. This research group has also contributed much to the understanding of false brinelling or standstill conditions in recent decades.

Technical corrections

None.