

Interactive comment on “A review of wind turbine main-bearings: design, operation, modelling, damage mechanisms and fault detection” by Edward Hart et al.

Edward Hart et al.

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Dear Sir/Madam,

First, we would like to thank you for taking the time to review our paper and providing valuable feedback and comments which will help to improve this work.

Response to specific comments:

1. This is a good point and we agree that additional information and a figure depicting growth in turbine power and rotor weight would be a valuable addition.
2. In the revised manuscript we will add additional steps to ensure the logic pertaining

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to Equations 5 & 6 and the subsequent cancelling of the mean term is clear.

3. As above, we will add additional information here to ensure clarity.

4. We agree that the use of 'rotor end' and 'gearbox end' would make this part clearer and so will make this change in the revised manuscript.

5. We agree with this suggested grammatical change.

6. You are correct that 'diameter' here does mean 'clearance' inside of the generator. We had followed the wording of previous authors in describing this configuration but for the sake of clarity we will review the description and update it.

7. We will add additional information here to clarify this difference. Electrical erosion here refers to stray currents present in a bearing using rollers to go to earth, this can initiate or exacerbate pitting and spalling on the bearing itself. Hence, rather than being the erosion of electrical components, we are instead referring to electrical currents causing erosion of mechanical components.

Thank you again for your input, we will endeavour to improve this work by updating the paper according to the excellent points you have made.

Best,

Edward Hart (Corresponding author)

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