

Interactive comment on “Investigations of aerodynamic drag forces during structural blade testing using high fidelity fluid-structure interaction” by Christian Grinderslev et al.

Peter Greaves (Referee)

peter.greaves@ore.catapult.org.uk

Received and published: 3 January 2020

I think this is a really great piece of work, and seems to settle a question which we've had here at ORE Catapult for a while, about whether the blockage effects the drag. It also confirms for me that the effective drag is much higher than steady state conditions (which was known already but it is good to see some work from real CFD experts that confirms this).

I am a complete CFD novice (taught entirely by YouTube) but I have attached a pdf on some more recent work I've done with CFD to try to bottom out the influence of aerodynamic drag. The results will not be particularly reliable (because of my lack

C1

of expertise!) but I think the trends are worth further investigation. We have never published this work, but if you want to use it then please feel free. Hopefully we will get it into a paper at some point in the future so it can be properly cited.

Once again, well done on a very good piece of work. I am very confident is a significant contribution to our very niche field!

Please also note the supplement to this comment:

<https://www.wind-energ-sci-discuss.net/wes-2019-64/wes-2019-64-RC1-supplement.pdf>

Interactive comment on Wind Energ. Sci. Discuss., <https://doi.org/10.5194/wes-2019-64>, 2019.