

Wind Energ. Sci. Discuss., author comment AC2
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Reply on RC2

Dennis Frick and Martin Achmus

Author comment on "A model test study on the parameters affecting the cyclic lateral response of monopile foundations for offshore wind turbines embedded in non-cohesive soils" by Dennis Frick and Martin Achmus, Wind Energ. Sci. Discuss., <https://doi.org/10.5194/wes-2021-129-AC2>, 2022

The authors would also like to thank the second reviewer for his time and commentary.

The authors are aware that, at least for test series 8, the legend in figure 6 partially obscures the results shown. This could be changed by altering the scaling of the y-axis of the corresponding partial figure. However, in order to ensure a better comparability of the presented test results among each other, the authors decided to choose a uniform scaling for all test series depicted in Figure 6. It should also be noted that the results of test series 8 in particular were classified as non-representative in the text, so that the overlapping of the results by the legend is not disturbing from the authors' point of view.

Due to the reasons mentioned above, no changes have been made to Figure 6 by the authors. Should the reviewer or the editor wish to change Figure 6 anyway, then the authors will of course implement and incorporate the above-mentioned adjustments.

With regard to the comment on the discussion of the influence of variable loads and how these can be taken into account, a short paragraph has now been added to chapter 2 "State of the art" (lines 128 to 136). However, a detailed presentation of this problem was intentionally omitted in the context of this manuscript, since it would be another very broad topic, which has already been discussed in many other publications (two of them have been added as a reference, see new paragraph). Due to this reason, the focus of the present paper should be only on constant amplitude cyclic loads and the load as well as system parameters influencing the cyclic load-displacement behaviour of piles.