



Fig. 2: Comparison of measurement and simulation

level at the housing and by agreement in resonance frequencies. This comparison is necessary in order to draw conclusions as to the plausibility of the model. A resonant frequency examination of the gear system was also performed. However, its validity is limited, as the stiffnesses in the highly non-

“Good agreement between the simulation model and actual measurements at the gearbox housing was noted.”

linear gear model change constantly. Good agreement between the simulation model and actual measurements at the gearbox housing was noted, permitting the conclusion that high model quality is possible with a comparatively simple model without dynamic roller bearing models.

Based on this, the following steps are recommended for the future:

- Creation of SIMPACK models of parameterizable standard final drive units
- Improvement in roller bearing and gear wheel models
- Full integration in development process

LITERATURE

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