



Machine Alignment in Wind Energy Converters

A misalignment of the generator or gearbox is often the source of bearing damage and follow-on damage to the components of the drivetrain.

On commission from investors and planning groups, SV-**Veltrup** carries out inspections of the drivetrain alignment in wind energy converters. This is done with the use of a state-of-the-art, laser-aided alignment system with measurement, alignment and documentation controls.

Goal

Early detection of an extreme displacement and the removal of any misalignment caused by maintenance prevents bearing damage to the generator and/or gearbox due to resetting forces.

Scope

In the overall majority of cases, the inspection of the gearbox/generator alignment is done with the aid of a measurement laser, which documents any eventual divergence.

Alignment

The following example shows the inspection of the alignment of gearbox and generator in a wind energy converter. The result is the deviation of the generator's position in horizontal and vertical directions specified in mm. In this illustrated case the generator's alignment needs to be corrected.



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