
A REVIEW OF HORIZONTAL AXIS WIND TURBINES

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ABSTRACT

Horizontal Axis Wind Turbines are one of the most renewable energy sources (HAWT). In this post, we design, analyze, and build the HAWT gearbox. In this article, we build the gearbox in combination with Brendan Speechley's method. Analyses are static analyses. We build a gearbox prototype instead of the original model due to the high expense of time. The machinery utilized is helical or spurry, and the gearbox is a planetary gearbox. The gross transmission ratio is one hundred to one. 1500 rpm is the gearbox speed. Horizontal wind turbines may be used for commercial or residential purposes. We'll create the ANSYS model by choosing on the gearbox's shape and all other characteristics. The model is then evaluated in ANSYS programs. The goals of this article are to reduce the size and weight of gearboxes, enhance their dependability, and remove vibration.

KEYWORDS: *Energy Sources, Gears, HAWT, Manufacturing, Planetary Gearbox.*

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