

Expanite teams up with global players from the wind power industry to find new solutions to prevent cracks in gears and bearings

Small cracks (referred to as white etching cracks) in the bearings for the gearbox the wind turbines are considered one of the most expensive solitary problems to effect wind turbine components. A newly funded collaborative project “WhiteWind” between leading industrial players Vestas Wind Systems and SKF, the Technical University of Denmark (DTU) and Expanite will now change this. The budget for the project is 25 million DKK, whereof Innovation Fund Denmark is investing 18 million DKK. WhiteWind commenced in December 2017 and will run through to 2021.

Although improvements have been implemented to reduce the risk of white etching cracks, there has not yet been any commercially attractive methods to completely guard oneself from these failure modes. WhiteWind is set to change this. The specific goal of the project is to identify a new type of WEC-resistant bearing based on surface hardened stainless steel, which technically and commercially shall be competitive compared to existing bearing options.

Thomas Abel Sandholdt CEO at Expanite is excited about the project:

“For Expanite, WhiteWind is a unique opportunity to bring our surface hardening technology on stainless steel into play as a potential way to eradicate a number of challenges facing some of the world’s leading companies of the wind power industry. At the same time, it is naturally a benefit that the project is built on several years of close cooperation with DTU and the commercial aspects of a successful project is definitely interesting”, says Thomas Abel Sandholdt.

About Expanite A/S

Expanite offers the state of the art solutions for surface hardening heat treatment of stainless steel and titanium. With Expanite's processes, it is possible to increase the material’s surface hardness tenfold while at the same time maintaining and even increasing its corrosion resistance. Expanite has a combined development and production facility near Copenhagen, Denmark, and hardening capacity in the US, Germany and China. Expanite's solutions are flexible and can be tailored to be introduced into a customer’s own production line as part of a licensing arrangement. Learn more on www.expanite.com.

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