

Abstract Submitted  
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**Increased Strength and Longevity of Cryogenically Treated 52100 Gauge Steel Components**<sup>1</sup> JAMES SEYFERT, KYLE LEADLOVE, CASEY WATSON, Millikin University, PETER PAULIN, Author — We review the cryogenic treatment procedures utilized by 300 Below Inc. to strengthen a variety of metal components. We place particular emphasis on the properties of treated 52100 gauge steel samples, with an eye toward the gearbox components of failing wind turbines, which are primarily composed of this type of steel. Based on our testing of 52100 gauge steel samples, we project 300% - 400% extended lifetimes for cryogenically treated gearbox components.

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