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# Statistical experimental design techniques to investigate the strength of adhesively bonded T-joints

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## ABSTRACT

Statistical experimental design techniques were used to study the strength of 'T'-Joints representative of various connections used to fabricate marine composite structures via a large test program. The effects of different surface preparations and cleaning methods, and adhesives were investigated. An analysis of variance was conducted, giving an extremely good fit to the experimental data. Importantly, the statistical methods identified significant interaction effects; the effect of each parameter varied considerably between the different levels of the other parameters. Interaction plots were found to be indispensable both in clearly presenting and understanding the

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