

## **A Study of Residual Stresses in X52 Steel Butt Welds**

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### **ABSTRACT**

*This paper presents a finite element analysis of residual stresses in a butt weld. The finite element (FE) analysis was carried out in two steps. A non-linear transient thermal analysis was conducted first to obtain the global temperature history generated during the welding process. A stress analysis was then developed with the temperatures obtained from the thermal analysis used as loading to the stress model.*

### **References**

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