عنوان مقاله:

Study of Fatigue Behavior and Microstructure of ۱.۶۵۸۲ Steel Joint by Resistance Butt Welding

محل انتشار:

مجله مواد دوستدار محیط, دوره 7, شماره 1 (سال: 1402)

تعداد صفحات اصل مقاله: 6

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خلاصه مقاله:

Various fusion welding methods can be used to create a successful jont. However, with the increase in the thickness, fusion welding processes have limitations. Therefore, solid-state welding methods have been developed and in the meantime Resistance Butt Welding method has been chosen as a suitable method. In this study, joining of ۱.۶۵۸۲ alloy steel has been investigated and analyzed, and the effect of the electric current parameter has been investigated in this welding method especially on Fatigue parameter. The results have shown this method is suitable for connecting (Joining) parts with symmetrical geometry. Also results shown that increasing the current to an optimum current leads to increasing the strength, As a result, the fatigue properties increase similarly to the strength. The noteworthy point here is that at stresses less than ۲۲۰ MPa, the mentioned sample has a fatigue limit after welding, and this joint can be useful in various industries, including tool making.

کلمات کلیدی:

Resistance Butt Welding (RBW), ۱.۶۵۸۲ Steel, Fatigue behavior, Solid state