

عنوان مقاله:

Elimination Back Gouging Operation in Submerged Arc Welding Butt without Chamfers ASTM A516

محل انتشار:

ماهنامه بین المللی مهندسی، دوره 27، شماره 11 (سال: 1393)

تعداد صفحات اصل مقاله: 8

نویسندگان:

a Jaberi - *Department of Mechanical Engineering, College of Technical and Engineering, Najafabad Branch, Islamic Azad University, Najafabad, Iran*

e HeshmatDehkordi - *Iranian Corrosion Association, Tehran, Iran*

r Khamedi - *Mechanical Engineering Department, Engineering Faculty, University of Zanjan, Zanjan, Iran*

m SalehFard - *Machine Sazi Arak Co., Arak, Iran*

خلاصه مقاله:

One of the processes of submerged arc welding is back gouging operations. This work, in addition to implementing high cost, requires to consuming much time in production line as well as environmental and acoustic pollutions which has with itself. This paper presents a way to remove the back gouging operation from the submerged arc welding process. For this purpose, effects of submerged arc welding parameters on A516-70 steel sample were investigated. 16 and 18mm thickness sheets without chamfering were prepared and by choosing the best parameters, they were welded from face and back. Also, the effects of stress-relief heat treatment and preheat were investigated. Microstructure and mechanical properties were in standard situation and shows the performance of this project. Removing the back gouging operation significantly reduced the cost, time and also reduced noise and environment pollution in submerged arc welding process. By implementation of this design, we will observe 80% reduction in costs welding and also elimination of the environmental and acoustic pollutions which are resulted from back gouging

کلمات کلیدی:

Keywords: ASTM A516-70 Steel Submerged Arc Welding Back Gouging, Preheat Heat Treatment

لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/308899>

