

Study of Drawing Characteristics due to Friction between the Materials by FEM

Authors : Won Jin Ryu, Mok Tan Ahn, Hyeok Choi, Joon Hong Park, Sung Min Kim, Jong Bae Park

Abstract : Pipes for offshore plants require specifications that satisfy both high strength and high corrosion resistance. Therefore, currently, clad pipes are used in offshore plants. Clad pipes can be made using either overlay welding or clad plates. The present study was intended to figure out the effects of friction between two materials, which is a factor that affects two materials, were figured out using FEM to make clad pipes through heterogenous material drawing instead of the two methods mentioned above. Therefore, FEM has conducted while all other variables that the variable friction was fixed. The experimental results showed increases in pullout force along with increases in the friction in the boundary layer.

Keywords : clad pipe, FEM, friction, pullout force

Conference Title : ICAMAME 2016 : International Conference on Aerospace, Mechanical, Automotive and Materials Engineering

Conference Location : Kyoto, Japan

Conference Dates : November 10-11, 2016