

Experimental and FEA Study for Reduction of Damage in Sheet Metal Forming

Authors : Amitkumar R. Shelar, B. P. Ronge, Sridevi Seshabhatar, R. M. Wabale

Abstract : This paper gives knowledge about the behavior of cold rolled steel IS 513_2008 CR2_D having grade D for the reduction of ductile damage. CR specifies Cold Rolled and D for Drawing grade. Problems encountered during sheet metal forming operations are dent, wrinkles, thinning, spring back, insufficient stretching etc. In this paper, wrinkle defect was studied experimentally and by using FE software on one of the auto components due to which its functionality was decreased. Experimental result and simulation result were found to be in agreement.

Keywords : deep drawing, FE software-LS DYNA, friction, wrinkling

Conference Title : ICSRD 2020 : International Conference on Scientific Research and Development

Conference Location : Chicago, United States

Conference Dates : December 12-13, 2020