

35-47 On Eccentric Spherical Forming of Metal Plate Using Underwater Shock Wave

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Explosive forming is one of the effective metal forming methods using underwater shock wave generated by the detonation of an explosive. We have done the experiment of eccentric spherical free metal forming by this method. This free metal forming process does not use require expensive metal die. We used simple metal die with only circular edges and considered the metal plate formed to required shape using this method. It was possible to change the pressure distribution applied on the metal plate by changing the set-up position of explosive and the shape of the device. We have considered this method to cause lessen cost in the small production by various types of metal forming process. In this pater, we introduce the method of eccentric spherical free metal forming using underwater shock wave and present the experimental results.

(Engineering Plasticity from Macroscale to Nanoscale,
Trans Tech Publications, Part 1, pp. 389-394, 2002)