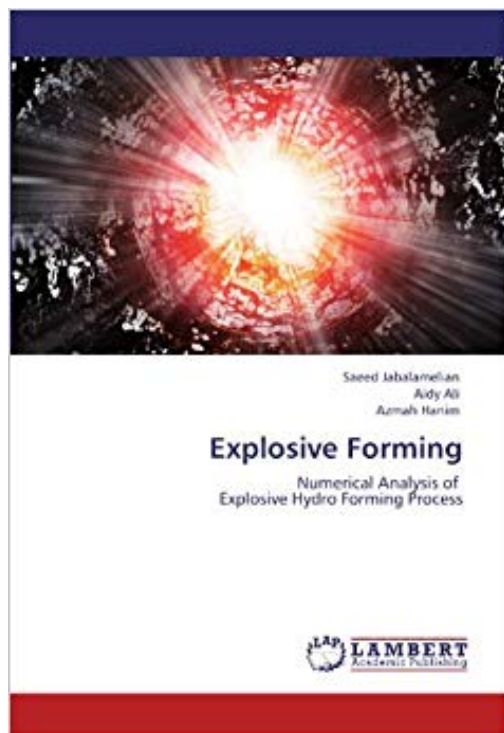


Explosive Forming: Numerical Analysis of Explosive Hydro Forming Process by Saeed Jabalamelian, Aidy Ali, Azmah Hanim



DOWNLOAD LINKS (Clickable)



ISBN: 3848490080

ISBN13: 978-3848490080

Author: Saeed Jabalamelian, Aidy Ali, Azmah Hanim

Book title: Explosive Forming: Numerical Analysis of Explosive Hydro Forming Process

Pages: 128

Publisher: LAP LAMBERT Academic Publishing (April 23, 2012)

Language: English

Category: Engineering

Size PDF version: 1224 kb

Size ePUB version: 1338 kb

Size FB2 version: 1359 kb

Other formats: txt mobi doc rtf

This study presents a numerical investigation on the deformation of the circular blanket against a male die under impulsive loading to form a torispherical heads shape. A finite element model was developed and verified with experimental tests for the explosive forming of the torispherical heads made of AA5083 aluminum alloy in the framework of LS-DYNA crash simulator software. The nature of the deformation was turned from the stretching to the buckling and compression across the specimen by using a male die, which is a novel concept in the high speed forming processes. Johnson-Cook (JC) and Modified Zerilli-Armstrong (MZA) constitutive equations were used to describe the behavior of the specimen in a high strain rate forming process with different stress status. Most of the experimentally observed material behaviors simulated well in pure tension or compression tests, while the transient zone was not adequately described. The blast loading process including the underwater detonation and the interaction with the specimen simulated using Arbitrary Lagrangian-Eulerian formulation as well as cavitations and reloading effect.



Related PDF to Explosive Forming: Numerical Analysis of Explosive Hydro Forming Process by Saeed Jabalamelian,Aidy Ali,Azmah Hanim

1. [Ranking Business Schools: Forming Fields, Identities And Boundaries in International Management Education by Linda Wedlin](#)
2. [ASM Metals Handbook, Vol. 14: Forming and Forging \(#06360G\) by Joseph R. Davis,S. L. Semiatin,American Society for Metals](#)
3. [Forming Corporations and Partnerships by John Cotton Howell](#)
4. [The Lichen-forming Fungi \(Tertiary Level Biology\) by D.J. Hill,D.L. Hawksworth](#)
5. [Magnesium Casting and Forming Technology by Randy S. Beals](#)
6. [Re-Forming a New You: A Guide for Re-Forming Your Heart, Home and Hope by Robert Stearns,Wayman Ming Jr.](#)
7. [Forming Australia's Education Policy \(Problems in Australian politics\) by I.K.F. Birch](#)
8. [Sheet Metal Forming \(New Manufacturing Processes & Materials\) by John Wood,Roger Pearce](#)
9. [Finite-Element Plasticity and Metalforming Analysis by G. W. Rowe,C. E. N. Sturgess,P. Hartley,I. Pillinger](#)
10. [Creu Brawddegau / Forming Sentences \(Helpwch Eich Plentyn/Help Your Child\) by Graham Howells,Elin Meek](#)