

Abstract

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Numerical Approach In Predicting The Penetration Of Limestone Target By An Ogive-Nosed Projectile Using Autodyn 3-D

ABSTRACT This paper demonstrates the application of numerical simulation in predicting the penetration of limestone target by an ogive-nosed projectile. The results from the experiment performed by D. J. Frew, M. J. Forrestal & S. J. Hanchack are used as a benchmark for comparison. Hydrocode simulation on the penetration of rock target has been performed using the commercial package AUTODYN 3-D [1] to examine the performance of four different material models that used to characterize the non-linear behavior of the rock during penetration, their ability in predicting the maximum depth of penetration & damage response of the rock target. Results from the simulations show a good agreement between the numerical analysis using RHT model for simulating the limestone & the experiments for the final position of the projectile.