عنوان مقاله:

Dynamic to Static Collapse Pressure Ratio of Circular Plates Under Blast Loading

محل انتشار:

دومین کنفرانس بین المللی و هشتمین کنفرانس ملی مهندسی ساخت و تولید (سال: 1386)

تعداد صفحات اصل مقاله: 6

نویسندگان:

A. K. Ghamsari - *M. S., Mechanical engineering department*

J Zamani - *A. P., Mechanical engineering department*

.A Mozaffari - *M. S., Aerospace engineering department*

.A Zamiri - *M. S., Aerospace engineering department*

خلاصه مقاله:

In this paper, the effect of strain rate sensitivity of material in the case of a fully clamped circular plate has been discussed. In order to do so, a simple mass and wire model is assumed. Then using Cowper-Symonds constitutive relation and Perrone-Bhadra Simplifications, the mean strain rate of such a plate has been calculated. Experiments have been conducted on 5010 Aluminium and St37 Plates which were subjected to underwater explosion. According to the experimental results, the dynamic collapse pressure of the plate is figured. Finally, the dynamic to static collapse pressure, which is a way to observe the strain rate sensitivity of a material, is determined

کلمات کلیدی:
High Strain Rate, Dynamic response, Strain rate sensitivity

لینک ثابت مقاله در پایگاه سیویلیکا:

https://civilica.com/doc/81487