عنوان مقاله:

Prediction of Instability in Planar Anisotropic Sheet Metal Forming Processes

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خلاصه مقاله:

In this paper instability of planar anisotropic sheet metal during a few forming processes is investigated for the first time. For this reason components of the constitutive tangent tensor for planar anisotropic sheets are developed. By using the above tensor location of necking is predicted. Direction of the shear band is also predicted using the acoustic tensor. A finite element program is prepared based on large deformations of planar anisotropic sheet metals. In this program rotations of principal directions of anisotropy are also taken in to account. Results obtained from the presented model are in good agreement with experimental observations.

کلمات کلیدی:

Sheet Metal Forming, Instability, bifurcation, Planar Anisotropy, Large Deformation, Necking

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