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Buckling strength of rectangular plates with elastically ...

Dynamic buckling of stiffened plates with elastically ...

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Buckling of thin plates and stiffened plate with v-grooves under axial impact load by moving mass was studied by Chen and So . The nonlinear dynamic buckling of rectangular plates considering initial imperfections subjected to various pulse functions with six different boundary conditions is investigated by Ramezannezhad et al. . However, the material non-linearities were not considered in these papers.

Nonlinear vibration and dynamic buckling of eccentrically ...

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A simple solution of the dynamic buckling of stiffened plates under fluid-solid impact loading is presented. Based on large deflection theory, a discretely stiffened plate model has been used. The tangential stresses of stiffeners and in-plane displacement are neglected. Applying the Hamilton's principle, the motion equations of stiffened plates are obtained.

Experimental and numerical investigation on static and ...

Dynamic buckling of stiffened plates under fluid-solid ...

Dynamic buckling analysis of a composite stiffened ...

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The impact load amplitude is the primary influencing factor in the dynamic buckling of stiffened plates subjected to underwater explosive impact loads. The stiffened plate aspect ratio has a substantial influence on the dynamic load factor. The analytical method and results are presented, which can be used to design stiffened optimum hull structures to enhance the dynamic load carrying capacity to withstand underwater shock damage.

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