عنوان مقاله:

Vibration Characteristics of Heavy Load Rack with Split-hom together Structure

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خلاصه مقاله:

Split-hom together structure is a new heavy load rack structure, and its reliability needs to be verified.Through analyzingmultimodal hom-connection principle from the perspective of bionics and contactmechanics, the article establishes the finite element and mathematical model of the rack. Modalanalysis has been done for the finite element model in the prestress state, whose results indicate thereliability of the rack. While numerical simulation is applied to the mathematical model of the rack forthe first time in the working state. The results show that the deformations in two ways are almost at thesame and meet the demand. Meanwhile, through the minimum frequency of the modal analysis isdifferent from the result of the numerical simulation, the frequency in two states is higher than theworkingfrequency. So, the results validate the reliability of the design on split-hom together rack.

کلمات کلیدی:

Fault DetectionThau ObserverNonlinear ForceMicro-Parallel Plate CapacitorNoise And Uncertainty

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