

Experimental Study on the Vibration Isolation Performance of Metal-Net Rubber Vibration Absorber

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Abstract : Metal-net rubber is a new dry friction damping material, compared with the traditional metal rubber, which has high mechanization degree, and the mechanical performance of metal-net rubber is more stable. Through the sine sweep experiment and random vibration experiment of metal-net rubber vibration isolator, the influence of several important factors such as the lines slope, relative density and wire diameter on the transfer rate, natural frequency and root-mean-square response acceleration of metal-net rubber vibration isolation system, were studied through the method of control variables. Also, several relevant change curves under different vibration levels were derived, and the effects of vibration level on the natural frequency and root-mean-square response acceleration were analyzed through the curves.

Keywords : metal-net rubber vibration isolator, relative density, vibration level, wire diameter

Conference Title : ICAMMSE 2016 : International Conference on Applied Mechanics, Materials Science and Engineering

Conference Location : London, United Kingdom

Conference Dates : August 25-26, 2016