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A Critical Investigation of Force Transmissibility Characteristics in various Isolator materials using Force Transmissibility Apparatus

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Abstract: *In this paper, an apparatus/experimental facility developed to study the force transmissibility characteristics of various isolator materials, has been described. It is demonstrated that this set up can serve as a useful and handy equipment for the industry to test the suitability of possible isolator materials in regard to their force transmissibility. Experimental and theoretical results of force transmissibility, in case of some metal springs, have been compared. Also, for transmissibility characteristics of other isolator materials such as coir, rubber, belt etc. (and also their combinations) are compared, based on the experimental results obtained on this experimental facility. The results of this reported study will help facilitate the parameter design and performance analysis of a vibration isolation system.*

Keywords: Vibrations, Force Transmissibility, Exciter, load cell, Isolator, Frequency coefficient

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