

Experimental Analysis of Tuned Liquid Damper (TLD) with Embossments Subject to Random Excitation

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Abstract : Tuned liquid damper is one the passive structural control ways which has been used since mid-1980 decade for seismic control in civil engineering. This system is made of one or many tanks filled with fluid, mostly water that installed on top of the high raised structure and used to prevent structure vibration. In this article we will show how to make seismic table contain TLD system and analysis the result of using this system in our structure. Results imply that when frequency ratio approaches 1 this system can perform its best in both dissipate energy and increasing structural damping. And also results of these serial experiments are proved compatible with Hunzer linear theory behaviour.

Keywords : TLD, seismic table, structural system, Hunzer linear behaviour

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