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KEY WORD : VIBRATION ISOLATION / ISOLATOR / VIBRATION ABSORBER / TRANSMISSIBILITY /
TRANSMITTED FORCE / SPRING

EKAPONG TANGPATTANASAEREE : A CONTROL OF THE TRANSMITTED
FORCE TO GROUND BY USING A VIBRATION ABSORBER FOR A VARIABLE
SPEED MACHINE. THESIS ADVISOR : ASSOC.PROF. WITHAYA
YONGCHAROEN, Ph.D. 182 pp. ISBN 974-03-1043-5.

The purpose of this research is to install the vibration absorber to use with a rotary machine that varies working speed and to control transmitted force to be minimized. The absorber consists of mass and beam that can varies the spring stiffness according to the machine speed

From analyzing the vibration of system in 6 degrees of freedom, the vertical vibration does not couple with the other coordinate and the effect of damping is very low. Inertia block installed in the system reduce the vibration amplitude of the machine. By installing the vibration absorber and adjusting the beam supporting position to suit the speed machine, the transmissibility and transmitted force decrease significantly. High mass ratio decreases the vibration effected from inaccuracy absorber spring stiffness but the higher absorber mass must be considered.