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### Abstract

This study was conducted to analyse the dynamic behaviors of a walking tractor. The tests have been done on D.N.M. K99 Chang Lhek Model made by Inter Agricultural Company Ltd.. An ordinary hammer was used as a tool for deliver the impact force to the walking tractor structure. Experimental steps were as follows ; mark 54 nodes, coordinate and link nodes on the walking tractor, then hang the walking tractor over the floor in a balance state, applied the impact force, measured the transfer function and analyse the function by mean of Modal Analysis Program named "BOPIT". The results show that the period of resonance frequency of the body and wheel of the walking tractor is much higher than that of normal working frequency which is about 142 times (Working frequency 40 Hz, Diesel engine at 2400 rpm). This study shows that the body and wheel of the walking tractor are very high over designed, therefore it may be develop by redesign to reduce connection costs with a reasonable durability.