

Friction and damping exist in every dynamic system. Unfortunately, many aspects of these phenomena are not fully understood. In order to develop accurate models it is important to understand the behavior of bodies in contact and in motion relative to each other. This project arrives from the need to provide supportive information to the science community on the effects of sliding friction. A study on friction damping and vibrations on bolted lap joints of two specimens with different characteristics was performed. The experimental setup consists of a bolted lap joint beam system to approximate a free-free boundary condition. A solid beam machined to the same geometry as the jointed beam was also analyzed for comparison. The specimens are subjected to various impact loadings to examine their behavior.