

TITLE OF INVENTION: TUNING OF A KINEMATIC RELATIONSHIP BETWEEN MEMBERS

ABSTRACT

Described herein is a device comprising members in a kinematic relationship. The kinematic relationship is at least partially governed by at least one magnetic flux interaction that, in effect, may provide a tuneable resistance to movement, changing the rate of relative movement between the members. In one embodiment, the device comprises a first member in a kinematic relationship with at least one further member to form a system. The system moves within a limited range of motion and the system interacts when an external energising force is imposed on the system causing the members to respond due to their kinematic and dynamic characteristics and thereby creating relative motion between the members. The trigger member is coupled to the at least the first member and moves in response to a pre-determined system movement. When the trigger member moves, the trigger member imposes a braking action on the system or a member or members thereof. The speed and/or intensity of the braking action imposed by the trigger member on the system or a member or members thereof is controlled by the trigger member rate of movement. This rate of movement is in turn governed by a magnetic flux interaction between the trigger member and the at least one first member causing formation of a magnetically induced eddy current force between the parts.

FIGURE 1