

ABSTRACT

A reaction force compensation apparatus is disclosed which includes a supporting frame (7), a linear guide rail (101), a velocity measuring unit (105), an active damping member (102), an elastic member (103) and a decoupling mechanism (104). The reaction force compensation apparatus is mounted between a ground base (1) and a motion stage. The motion stage includes a stator (9a). The reaction force compensation apparatus counteracts reaction forces acting on the motion stage by maintaining the stator (9a) substantially at a starting point of a stroke of the stator. A reaction force compensation apparatus for a motion stage is also disclosed.