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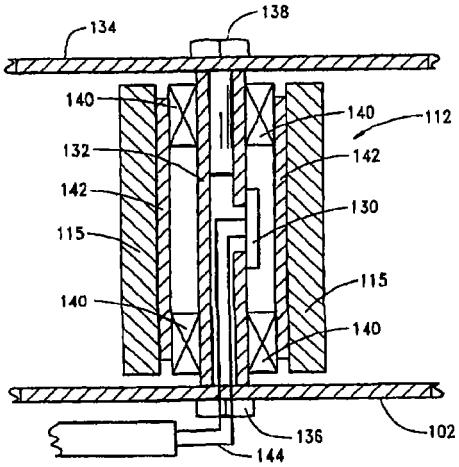
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(54) Title: ACTIVE DAMPING OF ACTUATOR BEARING TRANSLATIONAL MODE



(57) Abstract: Apparatus and method for improving operational performance of a disc drive (100) by detecting and compensating for translational vibration modes in a disc drive actuator (110). The actuator (110) is configured to support a head (120) adjacent a recording disc (106) and pivots about a stationary shaft (132) by way of a cartridge bearing assembly (112) having a pair of ball bearing assemblies (140). A proximity probe (130) detects translational movement of the actuator assembly (110) relative to the shaft (132) due to, for example, abrupt acceleration and deceleration of the head (120) during a seek operation, or externally applied mechanical shocks. The output of the proximity probe is used to generate a bearing translation signal which is fed into an actuator control servo circuit (176) to modify the amount of current applied to an actuator motor (114) to compensate for the translational vibrations during track following and seek operations.

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