

HEAD POSITIONING SYSTEM FOR MAGNETIC DISK DRIVES**ABSTRACT OF THE DISCLOSURE**

A head positioning system for magnetic disk drives includes an actuator arm (9) that is mounted on a pivot bearing (10) so that the axis of rotation of the arm passes through the centre of mass of the arm. A motor (11) using a
5 single elongate rectangular coil (12) co-operating with spaced-apart magnets (14, 15) applies a force couple to the arm, creating pure torque about the pivot axis, in order to substantially eliminate reaction forces at the pivot bearing. The elimination of bearing reaction forces increases the bandwidth of the actuator, improving its track following performance in high-track-density data
10 recording.

(Fig. 2)