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(54) Title: DISK DRIVE STICTION RELEASE SYSTEM

(57) Abstract

A disk drive including firmware for overcoming stiction and breaking free the heads of a disk drive which may adhere to the disk surface when the disk is at rest. Upon start-up of the disk drive, if stiction at the head/disk interface occurs, the voltage to the spindle motor and/or actuator motor may be rapidly fluctuated so as to cause a pulsing of the spindle motor and/or actuator motor. Pulsing both the spindle motor and actuator motor creates forces in a plurality of radial directions to allow the head(s) to break free from the disk(s) in the direction of least resistance. Moreover, as the resonant frequency of the spindle motor varies depending on the number of heads that are stuck, the firmware pulses over a range of frequencies including the various resonant frequencies of the spindle motor corresponding to various numbers of heads stuck.

