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(71) Applicant: QUANTUM CORPORATION [US/US]; 500 McCarthy Boulevard, Milpitas, CA 95035 (US).

(72) Inventor: MICHAEL, A., David; 125 Chapin Road #2D, Hudson, MA 01749 (US).

(74) Agents: HARRISON, David, B. et al.; Quantum Corporation, 500 McCarthy Boulevard, Milpitas, CA 95035 (US).

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(54) Title: PRESSURE DIFFERENTIAL LATCH FOR A DISK DRIVE

(57) Abstract

A pressure differential actuator latching apparatus for a disk drive (10) includes a rotatable body portion (52), a rigid air vane portion (60), and a latching trap (62). When a data storage disk (20) does not rotate, the latching apparatus maintains a transducer actuator assembly (32, 34) of the disk drive in a locked position by engaging the actuator assembly in the latching trap (62). When the disk rotates, the transducer actuator assembly (32, 34) blocks the airflow generated on the surface of the disk creating an area of low pressure downstream. The latching apparatus is positioned so that the air vane portion (60) is between areas of low and ambient pressure. The pressure difference over the air vane portion (60) rotates the latching apparatus releasing the actuator assembly (32, 34) from the latching trap (62). When the disk stops, the air vane portion returns to its original position and the latching trap (62) locks the actuator assembly (32, 34).

