

CREATING AN INITIAL SET OF TRACKS IN A SELF-SERVOWRITING SYSTEM USING A COMPLIANT CRASHTOP TO CONTROL HEAD MOVEMENT

ABSTRACT

A technique for self-servowriting a servopattern on a data storage medium (20) involves writing an initial set of servopattern tracks by moving an actuator (16, 18) against a compliant structure (eg, crashtop) with a first force applied thereto to hold the actuator in a first position to write a first track (0) of the servopattern. The force is changed, thereby reaching a second position of the actuator (16, 18) against the compliant structure, at which a second track (1) of the servopattern is written. The process is iterated for additional tracks (N). The distances (ie overlap) between pairs of written tracks are measured using a read element (200) of the actuator (16, 18), and this measured distance is compared to predetermined, desired distance. If the measured distance is within a specified tolerance, the process is complete; and if not, the tracks (0..N-1) are erased and the process is repeated with changed forces applied to the actuator against the crashtop resulting in modified distances between tracks (0..N-1). The present invention overcomes the problem of self-servowriting an initial set of tracks of a servopattern, especially when the read element is separated from the write element in a direction along which the servowriting steps.

Fig. 3