ORIGINAL

ABSTRACT

DISC DRIVE LATCH

A latch housing (50) for a carriage latch (26, 28, 30) in a disc drive (2) comprising a cantilever beam and a buckling beam. The cantilever beam (36, 52, 74, 78) and the buckling beam (38, 54, 76, 80) are so oriented in relation to each other and the path of the carriage that contact between a latching feature on the moving carriage and the carriage latch occurs with the beams at an original position and causes the cantilever beam to deflect in a cantilever mode and the buckling beam to deflect in a buckling mode until the kinetic energy of the moving carriage (18) is converted to internal stresses in the material of the beams. Reactive motion of the beams due to these internal stresses limits the return to the original position by a leashing action of the buckling beam. In a preferred embodiment, the latch housing is realised as a one-piece moulded component, and the material of the component as well as the dimensions and shapes of the cantilever beam and buckling beam are all selected to limit the motion caused by contact between the moving latch feature and the latch to a single excursion from the original position to a maximum deflected position and back to the original position.

Fig. 2

This Sheet Has Been Replaced

