ABSTRACT

DISC STORAGE SYSTEM WITH
HYDRODYNAMIC BEARING

A magnetic disc storage system includes a base (60) and a rotating magnetic disc having an axis of rotation (57). A transducing head which reads and writes information is positioned proximate the disc. The disc rotates on a rotating member (14) relative to a fixed member (52, 56, 58) which is attached to the base (60). The interface between the rotating member and the fixed member is a hydrodynamic bearing. The interface of the hydrodynamic bearing is at an acute angle relative to the axis of rotation. The interface has a width in a direction perpendicular to the axis of rotation proximate a center portion of the hydrodynamic bearing which is less than a width proximate a distal portion of the bearing. In one embodiment, the hydrodynamic bearing has a shape which forms a portion of a sphere.

[Fig 3]