

AIR BEARING DESIGNS TO REDUCE EXTERNAL VAN DER WAALS AND ELECTROSTATIC FORCES

ABSTRACT

A slider (20) for a disk drive (10) has an air bearing surface (44) that opposes a rotatable disk (12) of recordable media. The air bearing surface (44) includes one or more interior cavities (64) to reduce van der Waals and electrostatic forces that attract the slider (20) to the disk (12).

As examples, the cavities (64) can form a pattern of diamond shaped columns, or chevron shaped columns, in a trailing edge pad (42). The effects of van der Waals and electrostatic forces may be reduced without altering the profile of the air bearing surface (44), irrespective of the design used for the cavities (64).

Fig. 2.



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