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(54) Title: HIGH PERFORMANCE COMPUTER HARD DISK DRIVE

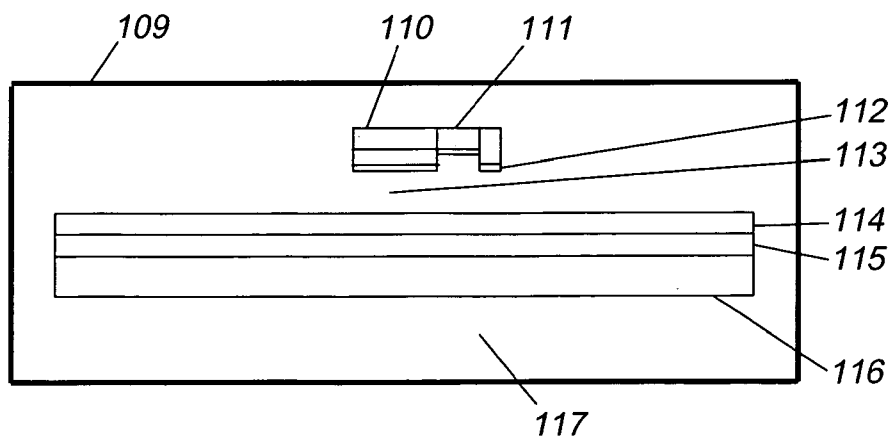


FIG. 3

(57) Abstract: A high performance hard disk drive is disclosed in which a flying read/write head runs in contact or in near contact with a rotating platter. In this design there is no wear of the hard disk platter or flying head due to both head and platter being coated with an amorphous carbon that has an exceptionally low coefficient of friction in a sealed, inert gas environment. The overcoat contains carbon in the range between about 52 and 80 atomic percent and hydrogen in the range between about 20 to 48 atomic percent. There is no lubricant required in this design, which eliminates a significant cause of hard drive failure from oxidation of the lubricant, stiction and rippling of the lubricant. This contact method achieves a high areal density with no wear, within a robust, hermetically sealed environment.