SHALLOW ETCH AIR BEARING SURFACE FEATURES FOR OPTIMIZED TRANSDUCER SPACING

ABSTRACT

A shallow etch at the trailing edge rail that allows the slider to fly closer to the recording medium and exhibit less sensitivity to roll. The slider includes a support structure and at least one rail having side edges and an air bearing surface raised above the support structure. At least one of the rails comprises a magnetic element disposed on the support structure. The edges of the rail adjacent to the magnetic element are etched to minimize the fly height of the magnetic element over the disk while preventing collision of the rail with the disk during roll conditions. The shallow etch in the air bearing surface minimizes the difference between the minimum mechanical slider/disk spacing and the magnetic head disk spacing which in turn allows optimization of transducer spacing.

Fig. 3a and 3b

This Sheet Has Been Replaced

