WRITE HEAD WITH MULTI-STITCHED SECOND POLE PIECE

ABSTRACT

In the present invention a second pole yoke component (214) of a second pole piece is connected (stitched) to a small top surface (216) of a second pole tip component (212) of the second pole piece as well as to a back edge (210) and first and second side edges (218, 220) of the second pole tip component (212). The extra stitching at the back and side edges provides the required magnetic coupling between the components for transferring flux to and from a second pole tip (212) at an air bearing surface. This arrangement shortens the length of the top stitched area so that one or more coil layers (224) in an insulation stack can be located closer to the ABS for increasing the data rate of the head (200). Further, this arrangement reduces the amount of material of the second pole piece layer in close proximity to the first pole piece layer (226) so as to minimize flux leakage therebetween.

FIG 12