

HARD DISK DRIVE ACTUATOR PIVOT WITH INBOARD PADS AND  
ENHANCED PIVOT SLEEVE THICKNESS FOR IMPROVED SERVO  
STABILITY

ABSTRACT

A hard disk drive actuator pivot cartridge (51) has a sleeve (53), a coaxial pivot (55), and a pair of bearing therebetween (57). The bearings (57) are located near the axial ends (60) of the shaft (55). The sleeve (53) has a wall thickness (62) that is substantially greater than those of the prior art sleeves. The sleeve (53) also has a pair of annular pads (61) that are located axially inward of the bearings (57). The cartridge (51) mounts inside an actuator comb (27) such that only the pads (61) contact the bore (25) of the comb (27). The axial location of the pads (61) and the greater wall thickness (62) of the sleeve (53) significantly decrease the bending experienced by the cartridge (51) when it is installed in the comb (27), and thereby increase the servo stability and performance of the disk drive.

Fig. 7