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(74) Agents: **BRUSH, David, D. et al.**; Westman, Champlin & Kelly, P.A., International Centre, Suite 1600, 900 Second Avenue South, Minneapolis, MN 55402-3319 (US).

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(71) Applicant: **SEAGATE TECHNOLOGY LLC [US/US];**
920 Disc Drive, Scotts Valley, CA 95066 (US).

(72) Inventors: **SANNINO, Anthony, P.**; 1100 Legion Street, Shakopee, MN 55379 (US). **BOUTAGHOU, Zine-Ed-dine**; 307 Lily Pond Lane, Vadnais Heights, MN 55127 (US).

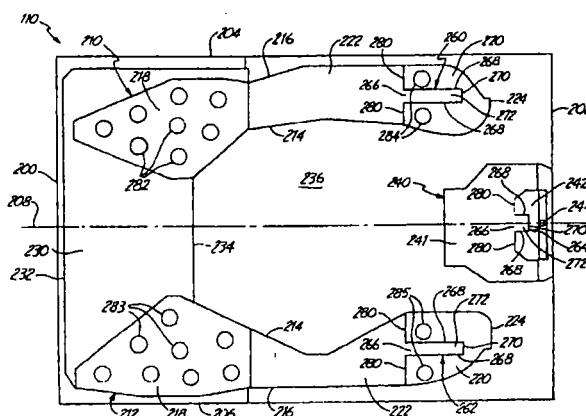


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ACTION

(54) Title: **DISC HEAD SLIDER HAVING RECESSED, TRENCHED RAILS FOR REDUCED STICTION**



(57) Abstract: A disc head slider (110, 500) includes a cavity dam (230, 506), a subambient pressure cavity (236, 510) and first and second elongated rails (210, 212, 502, 510). The first and second rails (210, 212, 502, 504) are disposed about the subambient pressure cavity (236, 510). Each of the rails (210, 212, 502, 504) has a rail width measured from an inner rail edge (214) to an outer rail edge (216), a leading bearing surface (218), a trailing bearing surface (220), and a recessed area (222, 512) extending between the leading and trailing bearing surfaces (218, 220). The recessed area (222, 512) is recessed from the bearing surfaces and raised from the cavity floor, across the rail width. First and second convergent channels (260, 262, 514) are recessed within the trailing bearing surfaces (220) of the first and second rails (210, 212, 502, 504), respectively. Each channel (260, 262, 514) has a leading channel end open to fluid flow from the respective recessed area (222, 512), non-divergent channel side walls (268) and a trailing channel end (270) closed to the fluid flow and forward of a localized region of the respective trailing bearing surface (220).

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