20 JUN 2003

PCT WORLD INTELLECTUAL PROPERTY ORGANIZATION
International Bureau

INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification 6 : G11B 21/08, 5/596	A1	(11) International Publication Number: WO 00/41177
		(43) International Publication Date: 13 July 2000 (13.07.00)

(21) International Application Number: PCT/US99/17582

(22) International Filing Date: 3 August 1999 (03.08.99)

(30) Priority Data:
60/114,272 30 December 1998 (30.12.98) US

(71) Applicant: SEAGATE TECHNOLOGY, INC. [US/US]; 920 Disc Drive, B15-7, Scotts Valley, CA 95066 (US).

(72) Inventors: WEICHELT, Brent, M.; 15720 Scenic Lane, Burnsville, MN 55306 (US). TOFFLE, Mark, A.; 7001 24th Street West, Saint Louis Park, MN 55426 (US). ZIMMERMAN, Jason; 7400 Oak Park Village Drive, #4, Saint Louis Park, MN 55426 (US).

(74) Agents: VIKSNINS, Ann, S.; Schwegman, Lundberg, Woessner & Kluth, P.O. Box 2938, Minneapolis, MN 55402 (US) et al.

(81) Designated States: CN, DE, GB, JP, KR, SG.

Published
With international search report.

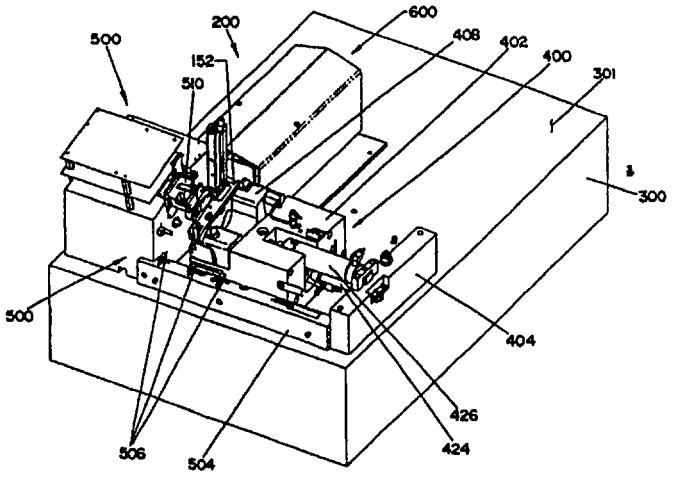


G00002



162162

(54) Title: HORIZONTAL LOADER FOR HIGH DENSITY SERVO TRACK WRITING



(57) Abstract

One aspect of the invention relates to an apparatus and method for retaining a disc drive head disc assembly (HDA) (152) during a servo track writing procedure. The HDA (152) includes a base, a disc stack coupled to a spindle (133) rotatably attached to the base by a spindle shaft (138), and an actuator assembly (120) pivotally attached to the base at a pivot shaft (118). Attached to one end of the actuator assembly (120) proximal the disc stack is one or more transducers for reading/writing information from/to the discs. The method includes restraining the ends of the spindle shaft (138) and pivot shaft (118) during servo track writing so that relative deflection therebetween is minimized. That is, all but rotational motion of the components is substantially eliminated. An apparatus for restraining the ends of the spindle shaft (138) and the pivot shaft (118) is also provided. By so restraining the shaft and spindle, the servo information written by the transducers is concentric to the rotation of the disc, thus reducing track misregistration and improving maximum track density.

20 JUN 2003

FOR THE PURPOSES OF INFORMATION ONLY

Codes used to identify States party to the PCT on the front pages of pamphlets publishing international applications under the PCT.

AL	Albania	ES	Spain	LS	Lesotho	SI	Slovenia
AM	Armenia	FI	Finland	LT	Lithuania	SK	Slovakia
AT	Austria	FR	France	LU	Luxembourg	SN	Senegal
AU	Australia	GA	Gabon	LV	Latvia	SZ	Swaziland
AZ	Azerbaijan	GB	United Kingdom	MC	Monaco	TD	Chad
BA	Bosnia and Herzegovina	GE	Georgia	MD	Republic of Moldova	TG	Togo
BB	Barbados	GH	Ghana	MG	Madagascar	TJ	Tajikistan
BE	Belgium	GN	Guinea	MK	The former Yugoslav Republic of Macedonia	TM	Turkmenistan
BF	Burkina Faso	GR	Greece			TR	Turkey
BG	Bulgaria	HU	Hungary	ML	Mali	TT	Trinidad and Tobago
BJ	Benin	IE	Ireland	MN	Mongolia	UA	Ukraine
BR	Brazil	IL	Israel	MR	Mauritania	UG	Uganda
BY	Belarus	IS	Iceland	MW	Malawi	US	United States of America
CA	Canada	IT	Italy	MX	Mexico	UZ	Uzbekistan
CF	Central African Republic	JP	Japan	NE	Niger	VN	Viet Nam
CG	Congo	KE	Kenya	NL	Netherlands	YU	Yugoslavia
CH	Switzerland	KG	Kyrgyzstan	NO	Norway	ZW	Zimbabwe
CI	Côte d'Ivoire	KP	Democratic People's Republic of Korea	NZ	New Zealand		
CM	Cameroon			PL	Poland		
CN	China	KR	Republic of Korea	PT	Portugal		
CU	Cuba	KZ	Kazakstan	RO	Romania		
CZ	Czech Republic	LC	Saint Lucia	RU	Russian Federation		
DE	Germany	LI	Liechtenstein	SD	Sudan		
DK	Denmark	LK	Sri Lanka	SE	Sweden		
EE	Estonia	LR	Liberia	SG	Singapore		