

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

Paper No. 9

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte OTIS L. FUNCHES, RANDALL D. HAMPSHIRE
and VLADIMIR KOVNER

Appeal No. 95-3570
Application 08/215,192¹

ON BRIEF

Before MEISTER, ABRAMS and McQUADE, Administrative Patent Judges.
McQUADE, Administrative Patent Judge.

DECISION ON APPEAL

This appeal is from the final rejection of claims 5, 6 and 9. Claims 7, 8 and 10, the only other claims pending in the application, stand allowed.

¹ Application for patent filed March 21, 1994. According to appellants, the application is a continuation of Application 07/738,793, filed July 31, 1991, now U.S. Patent No. 5,305,160, issued April 19, 1994.

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The invention relates to "a method for compensating for variations in the torque constant of a voice coil driven actuator for moving the read/write heads in a hard disc drive data storage device" (specification, page 1). Claim 5 is illustrative and reads as follows:

5. A method for compensating for variations in acceleration and deceleration capability of a voice coil actuator motor, having a nominal torque capability, in a disc drive in which discs are rotated for data transfer at track locations thereon responsive to positioning of read/write heads supported by the voice coil actuator motor, the method comprising the steps of:

dividing the discs radially into a plurality of zones;

determining the actual torque capability of the voice coil actuator motor in each zone;

determining a zone compensation factor for each zone from the actual torque capability of the voice coil actuator motor and the nominal torque capability for the voice coil actuator motor; and

thereafter, during track following operations in a selected zone, driving the voice coil actuator motor in proportion to the zone compensation factor for the selected zone.

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persons of ordinary skill. Continental Can Co. v. Monsanto Co.,
948 F.2d 1264, 1268, 20 USPQ2d 1746, 1749 (Fed. Cir. 1991).

In the present case, Albert discloses a "method for maximizing throughput of a hard disk drive by adaptively seeking to a data track at which data is to be stored and adaptively commencing the reading or writing of data in accordance with the movement of the read/write head in the proximity of the data track" (Abstract). As summarized by Albert,

[i]n one aspect of the present invention, throughput is increased by adaptively varying the delay time between passage of the "on track" threshold and commencement of reading and writing to select, for each seek, a minimum delay time, consistent with the velocity with which the head approaches the destination track, that will not result in a write fault. In a second aspect of the invention, terminal portions of the velocity demand profile are adjusted adaptively to cause the read/write heads to enter the fine control regions about the tracks with velocities that will cause rapid settlement of the heads on a selected destination track [column 3, lines 6 through 17].

A more detailed summary of Albert's invention, which is relied upon by the examiner to support the rejection on appeal, appears in the reference at column 3, line 18 through column 4, line 11 (see pages 2 and 3 in the answer).

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Each of the claims on appeal recites a method for compensating for variations in the acceleration and deceleration capability of a disc drive voice coil actuator motor having a nominal torque capability. In general, the claimed methods require the steps of determining the actual torque capability of the voice coil actuator motor, determining a compensation factor from the actual and nominal torque capabilities, and driving the motor in proportion to the compensation factor.

Although the disk drive disclosed by Albert includes a voice coil actuator motor (see column 5, line 57 through column 6, line 3), Albert makes no mention of determining the actual torque capability of this motor or of using this parameter in conjunction with the motor's nominal torque capability to determine a compensation factor for driving the motor. Nonetheless, the examiner states that "Column 3, lines 18 and 19, of Albert clearly discusses measuring the approach time for each seek. In addition, Col. 3, lines 50-53, clearly discusses measuring the velocity demand. Both of these operations would seem [sic, seem] to be determining the torque" (answer, page 4).

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The examiner's position here is not well founded. Arguably, the approach time measurements and velocity demand profiles utilized by Albert to control the voice coil actuator motor are functions of the torque capability of the motor. Be this as it may, it is not evident that persons of ordinary skill in the art would recognize Albert's use of the approach time measurements and/or velocity demand profiles as necessarily meeting the particular limitations in the appealed claims requiring the steps of determining the actual torque capability of the motor, determining a compensation factor from the actual and nominal torque capabilities and driving the motor in proportion to the compensation factor. The examiner's finding to the contrary lacks a sound factual basis, and is at best unduly speculative.

Accordingly, we shall not sustain the standing 35 U.S.C. § 102(e) rejection of claims 5, 6 and 9 as being anticipated by Albert.

As a final matter, we note the substantial similarities between the inventions defined by the claims in the instant voluntarily filed continuation application and by the claims in parent Application 07/738,793 which has matured into U.S. Patent No. 5,305,160. Presumably, both the examiner and the appellants have given due consideration to the double patenting issues

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raised by this circumstance.

The decision of the examiner is reversed.

REVERSED

JAMES M. MEISTER)	
Administrative Patent Judge)	
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NEAL E. ABRAMS)	BOARD OF PATENT
Administrative Patent Judge)	APPEALS AND
)	INTERFERENCES
)	
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JOHN P. McQUADE)	
Administrative Patent Judge)	

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