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NORTON ROSE FULBRIGHT US LLP 1301 Avenue of the Americas NEW YORK, NY 10019-6022			SOOD, ANSHUL	
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BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte MICHAEL BUTZ, MANFRED GERDES and
PATRICK CHRISTAIN SCHAEFER¹

Appeal 2018-002564
Application 14/336,792
Technology Center 3600

Before CARL W. WHITEHEAD JR., JEFFREY S. SMITH and
JEREMY J. CURCURI, *Administrative Patent Judges*.

WHITEHEAD JR., *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellant is appealing the final rejection of claims 1–20 under
35 U.S.C. § 134(a). Appeal Brief 1. We have jurisdiction under 35 U.S.C.
§ 6(b).

We REVERSE.

¹ We use the word Appellant to refer to “applicant” as defined in 37 C.F.R.
§ 1.42(a). Appellant identifies Robert Bosch GmbH as the real party in
interest. Appeal Brief 1.

Introduction

According to Appellant, the invention is directed to “a control device for a controllable brake booster of a braking system.” Specification 1.

Representative Claim

1. A control device for a controllable brake booster of a braking system, comprising: an activating device configured to:

(i) establish a setpoint variable for a setpoint operation to be carried out with the aid of the controllable brake booster, under consideration of at least one provided specified variable regarding at least one setpoint pressure to be set in at least one partial volume of the braking system;

(ii) establish a setpoint difference of the setpoint variable by applying the at least one provided specified variable and at least one provided actual variable regarding at least one actual pressure which is present in at least one subarea of the braking system to, and executing, a proportional-integral-derivative (PID) control that produces a result based on historical differences between the specified and actual variables;

(iii) establish a corrected setpoint variable taking the established setpoint difference into consideration; and

(iv) output at least one control signal, which corresponds to the established corrected setpoint variable, to control at least one of the controllable brake booster and a power supply component of the controllable brake booster, to thereby operate the controllable brake booster in accordance with the established corrected setpoint variable.

Rejection on Appeal

Claims 1–20 stand rejected under 35 U.S.C. § 112(a) as failing to comply with the written description requirement. The claims contain subject matter which was not described in the Specification in such a way as to

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reasonably convey to one skilled in the relevant art that the inventor or a joint inventor, at the time the application was filed, had possession of the claimed invention. Final Action 2–3.

ANALYSIS

Rather than reiterate the arguments of Appellant and the Examiner, we refer to the Appeal Brief (filed October 24, 2017), the Reply Brief (filed January 8, 2018), the Final Action (mailed April 19, 2017), and the Answer (mailed December 26, 2017), for the respective details.

The Examiner finds in regard to independent claims 1, 6, 11, and 15:

There is no support in the original disclosure of the invention to support that the PID control produces the result ***based on historical differences between the specified and actual variables***. Examiner finds no recitation in the originally-filed specification stating that the PID controller result is based on historical differences between the specified and actual variables.

Final Action 3.

Appellant contends:

A ***PID*** control is a control understood in the art ***to include a continuous calculation based on differences*** between setpoint and actual values to produce a correction, ***including a feedback loop and accounting for past values of the error***, specifically where the integration portion of the PID accounts for the past errors. *See, e.g.,* https://en.wikipedia.org/wiki/PID_controller. ***Since the application describes using a PID controller for correcting fluctuations, it therefore describes implementing a control that produces a result (ΔM) based on historical differences (PID accounting for fluctuations) between the specified variable (p_0) and actual variable (v).***

Appeal Brief 5.

We do not agree with the Examiner's findings and find Appellant's arguments persuasive because Appellant merely uses a PID controller that is

well known in the technology and, therefore, the characteristics of the PID controller are also well known in the art. It is well known that a PID controller's three coefficients: proportional (present), integral (past), and derivative (future) are varied to achieve optimal responses. *See* U.S. Application Publication 2013/0231834 A1 at ¶ 18 (“As is understood in the art, PID refers to a control loop feedback mechanism and associated logic which uses three terms, i.e., the proportion (P), integral (I), and derivative (D) terms, with each representing the respective present, past, and future error values.”); U.S. Patent 4,991,770 at column 3, lines 48–57 (“The PID controller is a well known device” where the integral is “the sum of past errors.”); U.S. Application Publication 2014/0152339 A1 at ¶ 23 (“As is known in the art, the PID analog controller is a feedback controller” where the “integral value, ‘I,’ depends on the accumulation of past errors.”); U.S. Patent 8,249,917 B1 at column 10, lines 37–38 (“The integral term acts on the past error *e*, as represented by the shaded portion in FIG. 3.”).

Appellant's recitation of the historical differences limitation in claim 1, as well as the recited variations in claims 6, 11 and 15 are within the known characteristics of a PID controller. Subsequently, we reverse the Examiner's written description rejection of claims 1–20.

CONCLUSION

Claims Rejected	35 U.S.C. §	Reference(s)/Basis	Affirmed	Reversed
1–20	112(a)	Written Description		1–20

REVERSED