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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
14/309,252	06/19/2014	Santiago Alvarado JR.	13-1958-US-CIP	9794

101302 7590 06/22/2020

Hanley, Flight & Zimmerman (Boeing)
150 S. Wacker Drive
Suite 2200
Chicago, IL 60606

EXAMINER	
KLEINMAN, LAIL A	

ART UNIT	PAPER NUMBER
3668	

NOTIFICATION DATE	DELIVERY MODE
06/22/2020	ELECTRONIC

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte SANTIAGO ALVARADO and JOSEPH M. WAPENSKI

Appeal 2019-005634
Application 14/309,252
Technology Center 3600

Before CHARLES N. GREENHUT, MICHAEL L. HOELTER, and ANNETTE R. REIMERS, *Administrative Patent Judges.*

GREENHUT, *Administrative Patent Judge.*

DECISION ON APPEAL

STATEMENT OF THE CASE

Pursuant to 35 U.S.C. § 134(a), Appellant[1] appeals from the Examiner's decision to reject claims 1, 3–5, 7–9, 11–14, 16, 18, 19, 21, 22, 24–28, and 30–32. *See* Final Act. 1. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

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[1] We use the term "Appellant" to refer to "applicant" as defined in 37 C.F.R. § 1.42. Appellant identifies the real party in interest as the Boeing Company. Appeal Br. 2.

CLAIMED SUBJECT MATTER

The claims are directed to methods and an apparatus to predict landing system operating parameters. Claim 1, reproduced below, is illustrative of the claimed subject matter:

> 1. A method comprising:
>
> measuring a value of an operating parameter of a landing system of an aircraft;
>
> determining a deceleration setting of the aircraft;
>
> determining a ground travel path;
>
> determining a range of brake temperature data associated with a previous brake deployment of a brake of the aircraft;
>
> determining a peak temperature associated with the previous brake deployment;
>
> measuring depleted brake material of the brake;
>
> calculating, using a processor, a margin between the peak temperature and a pre-determined maximum temperature; and
>
> calculating, using the processor, a predicted value of the operating parameter corresponding to the ground travel path, wherein the predicted value is calculated based on the measured value of the operating parameter, the deceleration setting, the ground travel path, the range of brake temperature data, the measured depleted brake material and the margin.

REJECTION

Claims 1, 3–5, 7–9, 11–14, 16, 18, 19, 21, 22, 24–28, and 30–32 are rejected under 35 U.S.C. § 112(a) as failing to comply with the written description requirement. Final Act. 3.

OPINION

The claims are argued as a group for which claim 1 is representative under 37 C.F.R. § 41.37(c)(1)(iv).

New or amended claims which introduce elements or limitations which are not supported by the as-filed disclosure violate the written

description requirement. *See, e.g.*, *In re Lukach*, 442 F.2d 967 (CCPA 1971). "The purpose of the written description requirement is to prevent an applicant from later asserting that he invented that which he did not; the applicant for a patent is therefore required 'to recount his invention in such detail that his future claims can be determined to be encompassed within his original creation.'" *Amgen Inc. v. Hoechst Marion Roussel Inc*., 314 F.3d 1313, 1330 (Fed. Cir. 2003) (citing *Vas Cath Inc. v. Mahurkar*, 935 F.2d 1555, 1561 (Fed. Cir. 1991)). While there is no *in haec verba* requirement, newly added claim limitations must be supported in the specification through express, implicit, or inherent disclosure. The fundamental factual inquiry is whether the specification conveys with reasonable clarity to those skilled in the art that, as of the filing date sought, applicant was in possession of the invention as now claimed. *See, e.g.*, *Vas-Cath, Inc*., 935 F.2d at 1563–64. When an explicit limitation in a claim is not present in the written description it must be shown that a person of ordinary skill would have understood that the description requires that limitation. *Hyatt v. Boone*, 146 F.3d 1348, 1353, (Fed. Cir. 1998). If the originally filed disclosure does not provide support for each claim limitation, a new or amended claim must be rejected under 35 U.S.C. § 112, paragraph 1, as lacking adequate written description.

Whether a specification complies with the written description requirement of 35 U.S.C. § 112, first paragraph, is a question of fact. *Regents of Univ. of Cal. v. Eli Lilly and Co*., 119 F.3d 1559, 1566 (Fed. Cir. 1997) citing *Vas-Cath Inc. v. Mahurkar*, 935 F.2d 1555, 1563 (Fed. Cir. 1991)). The Examiner has the initial burden of presenting evidence or reasoning to explain why persons skilled in the art would not recognize in

the original disclosure a description of the invention defined by the claims. *In re Wertheim*, 541 F.2d 257, 263 (CCPA 1976). The PTO has the initial burden of presenting evidence or reasons why persons skilled in the art would not recognize in the disclosure a description of the invention defined by the claims. By pointing to the fact that the claim at issue reads on embodiments outside the scope of the description, the PTO has satisfied its burden. *In re Wertheim*, 541 F.2d 257, 263–4 (CCPA 1976).

The Examiner succinctly stated the basis for the § 112(a) rejection:

> Applicant's original disclosure does not appear to draw a connection between the margin and the calculation of the predicted value of the operating parameter. Rather, the calculation of the predicted value of the operating parameter appears to be based on various sensor inputs but appears to fail to include the above determined margin as an input (See at least ¶34 of Applicant's Specification).

Final Act. 3.

Appellant repeatedly asserts, in one form or another:

> [O]ne of ordinary skill in the art when reading the originally filed specification would clearly understand that a margin (e.g., a brake temperature margin) could be used in calculating a predicted value of an operating parameter value, as set forth by claim.

See, e.g., Appeal Br. 11, 12–13; Reply. Br. 4.

Appellant essentially asserts that one skilled in the art would understand that a temperature margin (illustrated as 420 in Fig. 4) could, somehow or other, be used to calculate a predicted operating parameter, the only examples of which we are aware of being "brake temperature" or "dispatch turn time" (*see, e.g.*, claim 3; Spec. para. 22). However, notably

absent from Appellant's argument is any indication whatsoever as to specifically *how* temperature margin *is* used in the presently claimed invention to calculate a predicted operating temperature or other parameter. We think the latter is a fair requirement for demonstrating Appellant was, at the time of filing, in possession of the subject matter for which Appellant now seeks the exclusive right.

It is true that patent specifications are written for those skilled in the art and, as such, preferably omit that which is well-known and already available to the public. *See* MPEP § 2164.05(a). Because we find no mention in the portions of the Specification cited by Appellant of the subject matter in question, presumably the Specification here omits such information. If that is the case, and Appellant is indeed relying on the knowledge available to the public, it is fair to require Appellant to produce either some evidence or technical explanation describing the actual subject matter omitted from the Specification that Appellant asserts would be understood by the skilled artisan. Here, we have no such information presently before us and none is apparent.

According to Appellant's Specification, several parameters that would clearly and undoubtedly influence at least brake temperature predictions are discussed, including, but not limited to, the other factors present in claim 1: current measured temperature (p. 5, para. 22), anticipated deceleration (p. 5, para. 22), anticipated ground travel pathways (p. 4–5, para. 22), temperature history (para. 31), brake material depletion (para. 35). *See also* Claim 4 (listing other factors clearly related to brake temperature predictions). It is not apparent to us how or why the "margin," represented by arrow 420 in Figure 4, and described as the difference "between the peak temperature 416

of the brake temperature history 406 and the horizontal line 408 (i.e., the threshold temperature at which a fuse plug may begin to melt)," would have any influence over predicted values of brake temperature or any other relevant "operating parameter." Appellant does not adequately explain how or why the measured difference between a historic peak brake temperature measurement and some arbitrary threshold would influence predictions of brake temperature values. Nor does Appellant adequately demonstrate why this subject matter is so well-known that it could be omitted from the Specification without violating the requirements of 35 U.S.C. § 112(a).

Accordingly, for the foregoing reasons, we sustain the Examiner's rejection of claim 1 as lacking an adequate written description in support thereof.

CONCLUSION

The Examiner's rejection is AFFIRMED.

DECISION SUMMARY

Claim(s)	35 U.S.C. §	Basis/Reference(s)	Affirmed	Reversed
1, 3–5, 7–9, 11–14, 16, 18, 19, 21, 22, 24–28, 30–32	112(a)	Written Description	1, 3–5, 7–9, 11–14, 16, 18, 19, 21, 22, 24–28, 30–32	

TIME PERIOD FOR RESPONSE

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a). *See* 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED