

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

DEERE & COMPANY,
Petitioner,

v.

DAVID'S DOZER V-LOC SYSTEM INC,
Patent Owner.

Case IPR2024-01442
Patent 10,533,300

**PETITIONER'S REPLY TO
PATENT OWNER'S PRELIMINARY RESPONSE**

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Patent Owner's Preliminary Response argues for denial of institution based on explicit and implicit claim constructions that seek to narrow the Challenged Claims beyond their unambiguous ordinary meaning. Section I of this Reply demonstrates that Patent Owner's narrowing constructions are both legally erroneous and ineffective at averting the Petition's obviousness grounds. Section II confronts Patent Owner's misplaced request for discretionary denial under §325(d).

I. PATENT OWNER'S NARROWING CLAIM CONSTRUCTIONS ARE LEGALLY FLAWED AND DO NOT PRECLUDE OBVIOUSNESS

A. "Automatic Grade Control System" (Elems. [1.pre] and [1.5])

1. Patent Owner cannot justify importing a "GPS" limitation

Composed of "commonly understood words," *Phillips v. AWH Corp.*, 415 F.3d 1303, 1314 (Fed. Cir. 2005), the ordinary meaning of "automatic grade control system" is clear: an automatic control system used for grading. Pet., 5, 11–13, 20–24, 48–51, 56–61. Patent Owner does not allege any ambiguity in the words "automatic grade control system," nor does Patent Owner suggest that the '300 Patent's specification uses these four words in an uncommon way. POPR, 13–16. In fact, Patent Owner adopts all four words in its construction. *Id.*, 12. The only question is whether the unambiguous ordinary meaning of "automatic grade control system" should be narrowed by importing a new term—"GPS." The answer is no.

"Absent clear lexicography or disclaimer..., [the Board] cannot import [a] limitation into the claims." *Retractable Techs. v. Becton, Dickinson & Co.*, 659 F.3d

1369, 1372–73 (Fed. Cir. 2011). “Both exceptions require a clear and explicit statement by the patentee.” *Thorner v. Sony Comput. Entm’t Am. LLC*, 669 F.3d 1362, 1367–68 (Fed. Cir. 2012). Disregarding this “exacting” legal standard, *id.* at 1366, Patent Owner nevertheless insists that the ’300 Patent’s specification “specifically limits the scope of the invention to ‘GPS automatic grade control equipment.’” POPR, 14. But it does not.

First, the ’300 Patent itself preempts Patent Owner’s position by expressly stating six different times that every aspect of the supporting disclosure—the Abstract, Summary, Description, and Drawings—is non-limiting. *See* EX1001, 2:9–12 (the “abstract” and “title” are “not intended to be used for interpreting or limiting the scope of the claims”), 2:13–15 (the “brief summary” is made “[w]ithout limiting the scope of the invention”), 2:42–45 (the “detailed description...disclos[es] the invention without placing limitations thereon”), 3:13–19 (the “description” is “exemplary” and “is not intended to limit the invention”), 7:58–63 (“The drawings are not intended to be specifically limiting[.]”), 8:42–45 (“[A]ll matter disclosed herein is to be interpreted merely as illustrative, and not in a limiting sense.”). Even if “every single embodiment...is directed to a GPS automatic grade control system,” as Patent Owner erroneously contends (POPR, 14), the specification lacks the requisite “clear intention to limit the claim scope” to those embodiments, *Trading*

Techs. Int'l, Inc. v. eSpeed, Inc., 595 F.3d 1340, 1352 (Fed. Cir. 2010) (cleaned up).

For this reason alone, Patent Owner's narrowing construction must be rejected.

Second, even setting aside the '300 Patent's superseding instructions against limiting the claims to disclosed embodiments, the statements that Patent Owner cherry-picked for the Preliminary Response are not definitional or exclusive. POPR, 13–15 (citing EX1001, Abstract, 2:25–29, 3:23–25). Rather than limiting the invention to GPS-enabled systems, these statements merely say that disclosed embodiments can be used "in conjunction with GPS" (Abstract), are "suitable for GPS" (2:25–29), or are "sometimes referred to" using the term "GPS" (3:23–25).

The *C.R. Bard* case Patent Owner cites is a useful comparison; one that discourages adding the term "GPS." POPR, 13–14. In *Bard*, "the patent describe[d] in general terms what it deem[ed] to be the invention," and that description included the language in the proposed construction. 388 F.3d at 863–66. Here, though, the '300 Patent does not describe its invention as including GPS and instead merely says that "the advent of highly accurate GPS and related positioning systems" by others is what prompted the named inventor to pursue the (obvious) claimed solution of "secur[ing] the height of the main arm" during grading. EX1001, 4:28–38.

Third, while Patent Owner focuses on recitations including "GPS," it ignores the many other specification statements lacking that term, including in the title (1:1), the summarized "objects of the invention" (2:22–24, 2:30–41), and the detailed

description (3:44–45, 4:28–32, 5:13–16, 6:33–42, 7:38–39). Even assuming it could carry the day if upheld (though it cannot), Patent Owner’s “every single embodiment” theory finds no support in the ’300 Patent. POPR, 14.

Like the ’300 Patent’s specification, its prosecution history shows no sign of an intent to limit the claimed invention to only GPS-enabled automatic grade control systems. For one, the Examiner’s Notice of Allowance—the only substantive discussion of the Challenged Claims during prosecution—makes no mention of GPS. *See* EX1002, 23. Moreover, Patent Owner’s prior art “Armas” patent, which the Examiner considered and is therefore intrinsic evidence, uses the term “automatic grade control system” in a manner that broadly includes laser, GPS, and other systems. EX1010 (Armas), 2:59–63; *see also* EX1001, Cover (listing Armas), 1:19–54 (discussing Armas); EX1002, 25 (acknowledging Armas); *Kumar v. Ovonic Battery Co.*, 351 F.3d 1364, 1368 (Fed. Cir. 2003) (“[P]rior art cited in a patent or cited in the prosecution history of the patent constitutes intrinsic evidence.”).

Simply put, Patent Owner provides no legally sustainable basis to narrow the term “automatic grade control system” by importing the additional term “GPS.” Patent Owner had multiple opportunities to craft or amend its claims with a scope limited to GPS-enabled systems but chose not to do so. Patent Owner chose to claim more broadly, and Patent Owner should be held to its choice in this IPR.

2. GPS-enabled automatic grade control systems were obvious

Patent Owner does not allege any distinction from the prior art under the undisputed ordinary meaning. POPR, 20–21, 38–43. And the Challenged Claims are still obvious under Patent Owner’s erroneous narrowing construction because skid steers with GPS-enabled automatic grade control systems were obvious.

The Petition establishes that both the Funk-Lewis combination (Ground 1A) and the Eckrote-Lumpkins combination (Ground 2A) include a skid-steer vehicle with an automatic grade control system. Pet., 11–13, 48–51. Each of these grounds invokes supporting testimony from Dr. Glancey regarding a POSITA’s knowledge and understanding of automatic grading. Pet. 12 (citing EX1003, ¶¶45–50), 51 (same); *see also id.*, 4–5, 7–8, 45–46. As Dr. Glancey explains, GPS-enabled automatic grade control systems (i) were implemented in conjunction with earthmoving equipment like skid steers long before the ’300 Patent in 2018; and (ii) had known advantages, such as facilitating “real-time adjustments” and “enabl[ing] more accurate grading.” *See* EX1003, ¶¶48–49 (citing EX1019, an issued patent that describes, at 2:18–49 & 3:24–52, GPS-enabled automatic grade control systems for “a construction machine or vehicle”; and EX1040, an issued patent with similar disclosures at 1:18–23, 6:2–4); *see also* EX1029, [0033] (GPS data with automatic grade control system). The ’300 Patent and Patent Owner’s Armas patent concede these points. EX1001, 1:55–58, 3:44–60, 6:33–38; EX1010, 2:34–36, 2:59–63.

Patent Owner again concedes these dispositive facts here in this proceeding, acknowledging that Lumpkins’ “controller 136” receives “location information” from “a GPS.” POPR, 40–41 (quoting EX1007, ¶82). Though Patent Owner claims this disclosure has nothing to do with “using GPS for grading control,” Lumpkins says otherwise. *Id.* Lumpkins is about controlling a dozer blade automatically during grading. EX1007, Title, ¶¶1–10. “Controller 136 executes a feedback control loop” for this purpose, and Lumpkins describes embodiments at Paragraphs ¶¶81–82 where vehicle speed and GPS location are part of that control loop.

Patent Owner cannot reasonably dispute that the Petition’s prior art combinations include automatic grade control systems and that such systems were described throughout the prior art as employing GPS. *KSR*, 550 U.S. at 421 (a POSITA is “not an automaton” but a person with “background knowledge,” “common sense,” and “ordinary creativity”). These technologies had already been integrated to achieve predictable benefits before the ’300 Patent, making GPS-enabled automatic grade control systems a predictable—and obvious—result of the Funk-Lewis and Eckrote-Lumpkins combinations.

B. “A Hydraulic” (Elems. [1.4]–[1.5])

1. Patent Owner’s “first” and “second” modifiers impermissibly narrow the claims to a preferred embodiment

The ordinary meaning of Elements [1.4] and [1.5] is unambiguous. Each element is composed of broad, sparse language that calls for “a hydraulic” having a

recited functional characteristic—i.e., “that lifts the main arm” (Element [1.4]) and “that controls a pitch axis of...the dozer blade” (Element [1.5]). Because the claim language does not dictate otherwise, the hydraulic of Element [1.4] can be the same as or different from the hydraulic of Element [1.5].

Here, as elsewhere in Claim 1, Patent Owner made the deliberate choice to claim broadly. For one, Patent Owner chose to avoid structural limitations that would have expressly or implicitly required the hydraulic of Element [1.4] to differ from the hydraulic of Element [1.5]. Moreover, Patent Owner chose to generically recite “a hydraulic” in each of Elements [1.4] and [1.5] without distinguishing labels, identifiers, or qualifiers. Indeed, everyone agrees that the only precursor to the noun “hydraulic” in these elements is the indefinite article “a.” POPR, 16. But Patent Owner misunderstands the role of indefinite articles. Indefinite articles do not specify or distinguish nouns; they instead introduce nouns in an unspecific way. *In re Hyatt*, 708 F.2d 712, 714 (Fed. Cir. 1983) (“A claim must be read in accordance with the precepts of English grammar.”). This is why the indefinite article “a” has been “uniformly” interpreted in patent law as being unspecific as to the number of claimed objects; it broadly embraces “one or more” objects. *KCJ Corp. v. Kinetic Concepts, Inc.*, 223 F.3d 1351, 1355–56 (Fed. Cir. 2000).

Patent Owner fares no better in its appeal to the '300 Patent's specification as authority to inject the unclaimed modifiers “first” and “second.” POPR, 16–17. “It

is not enough for a patentee to simply disclose a single embodiment or use a word in the same manner in all embodiments,” *Thorner*, 669 F.3d at 1365, especially here, where the specification states six times that its disclosure does not limit the claims. *See* EX1001, 2:9–12, 2:13–1, 2:42–45, 3:13–19, 7:58–63, 8:42–45.

2. The Petition’s prior art combinations include distinct “first” and “second” hydraulics

Even if Elements [1.4] and [1.5] are construed to require distinct “first” and “second” hydraulics, the Challenged Claims are still obvious. Only Mapping #2 of Ground 2A “point[s] to the same ‘hydraulic’ for both” elements. Pet., 61. Mapping #1 of Ground 2A points to distinct hydraulics; the same is true for Ground 1A.

C. “Positioning the...Main Arm Against the Stop,” “Preventing the...Main Arm From Providing Any Lifting Force,” & “Operably Connecting the Automatic Grade Control System to a Hydraulic” (Elems. [1.3]–[1.5])

1. The claims do not require Patent Owner’s alleged “timing”

Beyond express constructions, Patent Owner’s substantive arguments also rely on even further narrowing implicit constructions. The Board should reject these arguments, both because Patent Owner makes no attempt to justify its assumed premise and because the record does not support importing extraneous limitations.

For example, the record lends no support to Patent Owner’s assertion that “[p]erforming the entirety of the method of claim 1 is a matter of timing” and that the references fail to disclose “that the arm is positioned against a stop *while* restricting the ability of a hydraulic that lifts the arm *and* still being able to control

a pitch axis of movement of the dozer blade.” POPR, 25-26 (original emphasis); *see also id.* 19, 22, 34, 35, 36, 37, 45, 58, 63. Although Patent Owner insists Elements [1.3]–[1.5] must adhere to a specific “timing,” Claim 1 is bereft of any temporal or logical limitations that could reasonably be said to require as much.

The “general rule” is well established that, “unless the steps of a method [claim] actually recite an order, the steps are not ordinarily construed to require one.” *Mformation Techs., Inc. v. Research in Motion Ltd.*, 764 F.3d 1392, 1398 (Fed. Cir. 2014). The record gives no reason to diverge from this sound legal presumption.

2. The Petition accounts for Patent Owner’s alleged “timing”

The Petition accounts for Patent Owner’s implicit “timing” limitations. For example, the Petition’s Funk-Lewis combination provides “a skid-steer vehicle where the main arm is immobilized and rests on a stop while an automatic grade control system adjusts the height of a dozer blade via pitch axis movements.” Pet., 7–8, 10–11, 23; EX1003, ¶¶51–70, 78–84, 108–112, 118–119; *compare with* POPR, 19 (“the arm is resting on the stop and restricted from movement and the automatic grade control system is still operable to control a pitch axis of the dozer blade”). Mapping #1 in the Petition’s Eckrote-Lumpkins combination provides a similar arrangement. *See* Pet. 53–59; EX1003, ¶¶177–179, 190.

Patent Owner’s critique that Petitioner failed to “detail[] how the claimed method is practiced in its entirety” is unfounded. POPR, 26. Rather than addressing

“the particular combination[s] argued by the Petitioner,” *Palo Alto Networks, Inc. v. Centripetal Networks, LLC*, 122 F.4th 1378 (Fed. Cir. 2024), Patent Owner opts for “attacking [the] references individually,” *Bradium Techs. LLC v. Iancu*, 923 F.3d 1032, 1050 (Fed. Cir. 2019). The Board should decline Patent Owner’s invitation to deconstruct the prior art combinations and otherwise misinterpret the Petition.

II. PATENT OWNER’S “CUMULATIVE” ASSERTIONS ARE WRONG: A HOLISTIC §325(d) ANALYSIS SUPPORTS INSTITUTION

It is undisputed that the Examiner issued a first-action allowance without considering any of the Petition’s asserted prior art, much less the Petition’s specific combinations of prior art teachings. EX1001, Cover (56); EX1002, 25. With no binding precedent supporting a §325(d) denial in these circumstances, Patent Owner resorts to inaccurate statements that the Petition only “identifies isolated prior art references which allegedly disclose the same functional components identified by the examiner during prosecution.” POPR, 60. This inaccuracy is easily corrected.

The Examiner said, “the prior art lacks teaching[s] for having provided the stop with the steps of positioning and preventing in the manner claimed.” EX1002, 23. The Petition, by contrast, asserts entirely different art that provides not only the “stop” of Element [1.2], but also the claimed “positioning” and “preventing” steps of Elements [1.4]–[1.5] that the Examiner erroneously identified as the basis for allowance. These incontrovertible facts support institution, not denial.

Respectfully submitted,

Dated: January 23, 2025

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CERTIFICATE OF SERVICE

Pursuant to 37 CFR §§ 42.6(e)(1) and 42.6(e)(4)(iii), the undersigned certifies that on January 23, 2025, a complete and entire copy of this Petitioner's Reply to Patent Owner's Preliminary Response was provided via email to the Patent Owner by serving the email correspondence addresses of record as follows:

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