

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 No. IPR2024-01442

U.S. Patent No. 10,533,300

**PATENT OWNER'S SUR-REPLY
TO PETITIONER'S REPLY**

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I. INTRODUCTION

Petitioner's Reply to Patent Owner's Preliminary Response relies upon a misguided application of claim construction principles to challenge Patent Owner's proposed constructions for the disputed limitations of claim 1 of U.S. Patent No. 10,533,300 ("the '300 Patent"). The Board should not entertain same. Petitioner relies upon inapplicable claim construction principles, while ignoring the key teachings of the specification and intrinsic evidence in an attempt to challenge Patent Owner's proposed constructions. For the reasons set forth below, the Board should adopt Patent Owner's proposed constructions and deny the Petition.

II. ARGUMENT

A. Patent Owner's Construction of Automatic Grade Control System is Correct

Patent Owner's proposed construction of the term "automatic grade control system" as "GPS automatic grade control system" is the only construction that is appropriate in view of the specification. Petitioner does not challenge Patent Owner's expert, Douglas Prairie's assertion that a person of ordinary skill in the art would have understood this term in this manner in view of the '300 Patent's specification. Ex. 2001, at ¶¶ 46-51. Instead, Petitioner relies upon boilerplate language in the Summary of the '300 Patent, and alleged citations to non-GPS embodiments in the specification. Petitioner's arguments are misguided.

1. Boilerplate language in the Summary alone is insufficient to preclude the Summary from limiting a claim term

General, broadening “boilerplate” language in the specification does not contradict specific language limiting a claim term. *Silicon Graphics, Inc. v. ATI Technologies, Inc.*, 607 F.3d 784, 791-92 (Fed. Cir. 2010); *see also Les Traitments Des Eaux Poseidon, Inc. v. KWI, Inc.*, 135 F.Supp.2d 126, 135 (D. Mass. 2001) (“boilerplate language in the specification asserting that the general description is ‘non-restrictive’ ... carries little weight, however. It is not possible to have an ‘essential’ structural feature also be ‘non-restrictive.’”).

Thus, the boiler plate broadening language in the Summary of the Invention of the '300 patent is insufficient to contradict (1) the Summary's specific disclosed object of removing the “laser mast affixed to the dozer blade [and to] instead adapt[] the vehicle to be suitable for GPS automatic laser grading systems[,]” and (2) the consistent description of using the invention only on GPS grading systems because the locking of the main arm and use of pitch control is allowed only because of the ability to remove the laser mast from the main arm granted by such GPS systems. *Silicon Graphics*, 607 F.3d at 791-92; *see also*, Ex. 1001, at 2:25-29, & 6: 25-36.

2. The '300 Patent explains that GPS automatic grade systems enable the invention

Petitioner argues that the '300 Patent's invention can merely be used with GPS automatic grade control systems, but is not limited to same. This argument

ignores the specification's disclosure that it is the specific and necessary use of GPS automatic grade control systems that allows the removal of the laser mast in laser systems, which in turn makes it possible to use pitch control to perform automatic grading, which in turns allows for the locking of the main arm that is central to the invention of the '300 Patent. Ex. 1001, at 2:25-29, 4:33-38, & 6: 25-36. Accordingly, Petitioner's arguments are unavailing.

3. Petitioner's citations all refer to GPS embodiments

Petitioner cites to the following portions of the '300 Patent as lacking the term "GPS": the title (1:1), the summarized "objects of the invention" (2:22–24, 2:30–41), and cherry-picked, out of context portions of the detailed description (3:44–45, 4:28–32, 5:13–16, 6:33–42, 7:38–39). Petitioner's arguments fail because *every* embodiment presented in the '300 Patent uses GPS automatic grading systems.

While the title does not recite the term GPS, Petitioner offers no rationale as to why this omission is controlling over the fact that every inventive embodiment of the disclosure is a GPS automatic grading system. Petitioner's citations to the Summary's "objects of the invention" omit lines 2:25-29, which recite that "[a]nother object of the present invention is to provide a stable platform on a medium to small skid steer vehicle that does not need the use of a laser mast affixed to the dozer blade but instead adapts the vehicle to be suitable for ***GPS*** automatic laser grading systems." Ex. 1001, at 2:25-29 (emphasis added), *see also* 4:33-38.

The specification at 3:44-45 discusses prior art grade control systems, and not the embodiments presented in the '300 patent. *Id.*, at 3:44-60. To the contrary, the paragraph immediately following the citation, 4:28-32, recites “With the advent of highly accurate GPS and related positioning systems the laser reference is no longer needed to be affixed to the top of the blade. This now allows the pitch axis, or forward tilt of the dozer blade to be moved without adversely affecting a laser control system and thereby freeing earlier limitations.” *Id.*, at 4:33-38. Read together it is clear that the securing of the main arm, as discussed in 4:28-32, is possible only because GPS systems allow removal of the laser mast and therefore use of pitch control for automatic grading, as discussed in 4:33-38. *Id.*

Petitioner's citation to 5:13-16 is similarly flawed, as this portion of the specification is referring to the embodiments in the drawings, which, again, depict only GPS automatic grade control systems. *See Id.*, at 4:39-5:16, 5:64-6:16, & 6:25-36 (discussing the GPS automatic grade control system used in Figs. 1-2)). Likewise, Petitioner's citation to 6:33-36 is out of context from the rest of the paragraph describing how the invention's pitch control (which is allowed because of GPS systems' removal of the laser mast on the main arm (*Id.*, at 4:33-38)) is controlled by the GPS grading computer, making movement of the main arm unnecessary. *Id.*, at 6:25-36.

Similarly, Petitioner's final citation to the specification at 7:38-39 is

discussing the lock 62 in Fig. 8. *Id.*, at 7:37-40. The balance of the description of Fig. 8, again, expressly discloses that this is a GPS automatic grade control system. *Id.*, at 7:15-26 (“FIG. 8 ... demonstrate[es] an alternate but equivalent means to secure the main arm 48 in a stable position. ... The combination of bracket 56 and stop 58 define a specific position that the main arm 48 is held at during the GPS automatic grading operations.”).

4. Petitioner's reliance on Mr. Armas' other patent is unavailing

Petitioner cites to U.S. Patent No. 8,118,111 to Armas (“the ’111 Patent”) in misguided support of their construction. At the outset, Petitioner's reliance is flawed because an unrelated patent from the same inventor is extrinsic evidence that cannot be used to contradict intrinsic evidence. *Seabed Geosolutions (US) Inc. v. Magseis FF LLC*, 8 F.4th 1285, 1287 (Fed. Cir. 2021). Petitioner argues that the ’111 Patent is intrinsic because it was cited by the examiner. Reply at 4. First, the ’111 Patent was not incorporated by reference into the ’300 Patent. Most importantly, Petitioner ignores that the subject matter of the ’111 Patent is specifically directed to the type of laser mast system that the ’300 Patent is excluding by removing the laser mast and utilizing pitch control to perform automatic grading. Accordingly, even if the ’111 Patent was given the same weight to claim construction as intrinsic evidence, the specification of the ’300 Patent is still the best and preferred evidence, and the inventive embodiments of the ’300 Patent are clearly and exclusively directed to

“GPS automatic grade control systems.” Therefore the ’111 Patent cannot contradict the ’300 Patent specification. *Id.*

5. Patent Owner’s construction of “automatic grade control system” is dispositive

Finally, Petitioner argues that GPS-enabled automatic grade control systems were obvious because they were known before the ’300 Patent. Reply at 5-6. However, no GPS automatic grade systems existed that required “positioning the point of the main arm against the stop[,] preventing the ability of the main arm from providing any lifting force by restricting the ability of a hydraulic that lifts the main arm, and operably connecting the automatic grade control system to a hydraulic that controls a pitch axis of movement of the dozer blade to affect a height of the dozer blade relative to a ground surface[,]” as recited in claim 1 of the ’300 Patent. Petitioner’s claim that the mere existence of GPS systems renders claim 1 obvious is improper hindsight bias.

Importantly none of the references cited by Petitioner mention or discuss GPS automatic grade control. The sole mention of GPS is in Lumpkins, Ex. 1007, which refers to GPS once only to say that it can be used to track the position of the vehicle in the field – not to control grading based on that position. Lumpkins is further deficient because it conflates moving the main arm up and down with pitch control (teaching away from the claims of the ’300 Patent), and is bulldozer art, not skid steer art. Accordingly, if the Board adopts Patent Owner’s construction of automatic

grade control system, it should deny the Petition.

B. Petitioner's Proposed Construction of "A Hydraulic that Lifts the Main Arm" and "A Hydraulic that Controls a Pitch Axis of Movement of the Dozer Blade" is Contrary to Law and the Plain Language of Claim 1

"Where a claim lists elements separately, 'the clear implication of the claim language' is that those elements are 'distinct components' of the patented invention." *Becton, Dickinson and Co. v. Tyco Healthcare Group, LP*, 616 F.3d 1249 (Fed. Cir. 2010) (citing *Gaus v. Conair Corp.*, 363 F.3d 1284, 1288 (Fed.Cir.2004); *Engel Indus., Inc. v. Lockformer Co.*, 96 F.3d 1398, 1404–05 (Fed.Cir.1996) (concluding that where a claim provides for two separate elements, a "second portion" and a "return portion," these two elements "logically cannot be one and the same"))).

Petitioner argues that the hydraulic elements can be the same as or different from each other – that the same hydraulic in a prior art reference can be the "hydraulic that lifts the main arm" and the "hydraulic that controls a pitch axis of movement of the dozer blade." This is evidenced by Petitioner's reliance on Lumpkins, Ex. 1007, which calls "automatic pitch control" controlling the hydraulic that lifts the main arm of its bulldozer. Ex. 1007, at ¶ 17, 22-25, 42. However, not only is this contrary to law, but Claim 1 of the '300 Patent expressly claims these elements separately, and further recites "restricting the ability of a hydraulic that lifts the main arm" to "prevent[] the ability of the main arm from providing any lifting force" while "operably connecting the automatic grade control system to a hydraulic

that controls a pitch axis of movement of the dozer blade to affect a height of the dozer blade relative to a ground surface.”

Petitioner's position on the two hydraulic limitations is nonsensical given that one must be restricted while the other one must be able to affect the height of the dozer blade relative to the ground surface. It is further contrary to law because the same structure in prior art or an infringing device cannot be identified to cover two different claim elements. *Becton, Dickinson* 616 F.3d at 1254; *see also Lantech, Inc. v. Keip Machine Co.*, 32 F.3d 542 (Fed. Cir. 1994)(in infringement context, a single conveyor held to not meet claim element requiring at least two conveyors), *In re Robertson*, 169 F.3d 743 (Fed. Cir. 1999)(claim requiring three separate means not anticipated by structure containing two means where one of the two means was argued to meet two of the three claimed means). Accordingly, Petitioner's proposed constructions should be disregarded.

C. Petitioner's construction of “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” is contrary to the intrinsic evidence

Petitioner argues that Claim 1 does not require “timing” disregards common sense and the description of the preferred embodiment. Specifically, there must be a logical order to the method limitations in claim 1 or the invention would not work properly. Specifically, “preventing the ability of the main arm from providing any lifting force by restricting the ability of a hydraulic that lifts the main arm” must

happen after “positioning the point of the main arm against the stop” or else the main arm cannot be positioned against the stop because the hydraulic that lifts the main arm would be restricted. Likewise, “operably connecting the automatic grade control system to a hydraulic that controls a pitch axis of movement of the dozer blade to affect a height of the dozer blade relative to a ground surface” must happen after the hydraulic that lifts the main arm is restricted, because the whole point of the invention of the '300 Patent, as described in the Summary of the Invention and the Detailed Description, is to engage in GPS automatic grade control by controlling the pitch axis of the dozer blade while the main arm is restricted to prevent any lift force from moving the main arm off of the stop. *See e.g.* Ex. 1001, at 4:20-36 (explaining that “when the main arm is available to control the height of the bottom of the dozer blade while the pitch axis of the blade is simultaneously adjusting the height of the bottom of the blade that a consistent grade cannot be consistently achieved[,]” but that “[a] solution at the heart of the present invention is to secure the height of the main arm so that the dozer blade is at a predetermined height” and “[w]ith the advent of highly accurate GPS and related positioning systems the laser reference is no longer needed to be affixed to the top of the blade[, which] allows the pitch axis, or forward tilt of the dozer blade to be moved without adversely affecting a laser control system and thereby freeing earlier limitations.”) Accordingly, these terms must be construed to require this timing, as discussed in

the reasons for allowance, and as proposed by Patent Owner. Moreover, as discussed in Patent Owner's Preliminary Response, and in the Expert Declaration of Douglas Prairie, Ex. 2001, the particular combinations of art in Petitioner's grounds fail to teach or disclose this timing, and as such the Petition should be denied.

D. The Art Relied Upon By Petitioner is Duplicative Because it Fails to Account for the Timing Limitations in the Reasons for Allowance

Petitioner argues that “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.” Reply at 10. However, as shown in the Patent Owner's Preliminary response and like the art of record, while the references and combinations relied upon by Petitioner teach individual limitations of the claims, none of the references or combinations teach the entirety of “positioning the point of the main arm against the stop; preventing the ability of the main arm from providing any lifting force by restricting the ability of a hydraulic that lifts the main arm [while the main arm is positioned on the stop; and] operably connecting the automatic grade control system to a hydraulic that controls a pitch axis of movement of the dozer blade to affect a height of the dozer blade relative to a ground surface [while the main arm hydraulic is restricted].” Accordingly, the art is duplicative and the Petition must be denied.

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Respectfully submitted,

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CERTIFICATE OF SERVICE

I certify that on February 6, 2024 the foregoing document and all supporting materials were served on counsel for Petitioner as provided in 37 C.F.R. § 42.6(e) via electronic mail:

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