

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

GODBERSEN-SMITH CONSTRUCTION COMPANY
d/b/a GOMACO CORPORATION,
Petitioner,

v.

GUNTERT & ZIMMERMAN CONST. DIV., INC.,
Patent Owner.

Case IPR2024-00835
U.S. Patent No. 11,535,318

PATENT OWNER'S SUR-REPLY

[REDACTED VERSION]

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I. INTRODUCTION

Patent Owner respectfully requests that the Board confirm the patentability of the '318 Patent because the Challenged Claims are limited to the on-the-fly steering embodiment, and the main prior art references, CIII and Rio, are physically incapable of steering a slipform paver in a paving direction, as claimed.

The Challenged Claims of the '318 Patent are patentable because the prior art of record does not teach or suggest coupling a slew drive to a rotatably fixed jacking column. The key prior art cited for this limitation, Rio, discloses locating a rotary actuator that rotates along with other elements of the jacking column, and—as Petitioner's expert confirmed—Rio does not teach or suggest any other arrangements. Petitioner's attempt to extend the teachings of Rio to reach the claimed arrangement is the product of hindsight, and its attempt to invoke collateral estoppel based on the '749 FWD fails because the '749 Patent did not claim this arrangement either.

After Petitioner's failed attempt to design a non-infringing slipform paver, it resorted to copying G&Z's design, which, among other objective indicia of nonobviousness, including the solution to a long-felt need for on-the-fly adjustments in pavers, industry skepticism of G&Z's claimed solution, followed by praise and commercial success, confirms the patentability of the Challenged Claims.

II. CLAIM CONSTRUCTION

A. “a swing leg assembly configured to be coupled to a paving machine configured to move in a paving direction . . .”

The Board should construe Independent Claim 1 to require a swing leg assembly that is **configured to** execute the various processor limitations while the paving machine is moving under load in a paving direction. POR at 19-20. That interpretation represents a plain reading of the language of the claim and coincides with what the inventor expressly described as his invention. Thus, to satisfy all requirements of Claim 1, the prior art needs to disclose a swing leg assembly that was “designed . . . to accomplish the specified objective,” which is to couple to and move the paving machine in the paving direction. *See Aspex Eyewear, Inc. v. Marchon Eyewear, Inc.*, 672 F.3d 1335, 1349 (Fed. Cir. 2012). Petitioner does not dispute that the preamble is limiting, and its arguments that the Challenged Claims encompass both on-the-fly steering *and* “embodiments” where the paving machine is stopped so that crawler tracks and swing legs can be lifted and relocated individually fail for at least the following reasons:

1. Petitioner’s observation that Claim 1 of the ’318 Patent recites a swing leg “configured to be coupled to a paving machine, not actually coupled,” supports G&Z’s construction because the body of the claims recite limitations that can only be met when the swing leg is “actually coupled” to the paving machine. Reply at 1 (emphasis omitted). For example, Claim 1 recites a processor configured to receive

a signal from the “first sensor” that indicates the angular orientation of the swing leg relative to the paving machine. ’318 Patent at Claim 1. But no such orientation can be measured, and no such signal can be received, without the swing leg assembly being coupled to the paving machine. The claims, therefore, recite limitations defining features and functions of the invention that only exist when the swing leg assembly is actually coupled to the paving machine. To infringe, therefore, a swing leg assembly must be “configured to” carry out the claimed steps when it is configured as claimed, *i.e.*, coupled to the paving machine.

For the same reasons, the claims recite limitations that the processor must perform so that the paving machine can carry out its “specified objective” of moving in a paving direction. *Aspex Eyewear*, 672 F.3d at 1349. In fact, the very limitations recited in Claim 1 are those disclosed in the ’318 Patent for “keep[ing] the crawler tracks oriented in the paving direction”:

An onboard computer or other processor receives the outputs from the transducers and generates a signal to **pivot the crawler track relative to the associated jacking column to keep the crawler tracks oriented in the paving direction when the angular orientation of the swing leg changes**, and also keeps all the crawler tracks’ orientations synchronized. Thus, no matter what the swing leg angle is, the crawler track stays straight ahead in the paving direction and position.

’318 Patent, 6:23-31 (emphasis added). And to the extent that there is any doubt of whether this procedure occurs while the paving machine is *moving* in the paving

direction, the fact that the “crawler tracks’ orientations [are] synchronized” means that this disclosure cannot refer to procedures that occur when the paving machine is stopped and each crawler track is lifted and adjusted individually. *Id.* “Thus, by claiming a paving machine configured to move in a paving direction, and then claiming the components, orientations, and processing of signals required to steer the swing legs and crawler tracks under load, it is clear that the drafter chose to claim the on-the-fly embodiment.” POR at 23.

2. Petitioner’s failure to consider the meaning of the claim as a whole explains its mistaken contentions that “Claim 1 contains no language confining the claim to . . . coordinat[ed] movements of the swing leg and crawler track when moving and under load.” Reply at 2. Measuring deviations in the angular orientation of the swing leg relative to the machine frame and adjusting the angular orientation of the crawler track under load, which is the method ***disclosed and claimed*** for moving the paving machine in a paving direction, are plainly “coordinat[ed] movements of the swing leg and crawler track.” *Id.* Because the claims are confined to embodiments that enable these coordinated movements under load, the Challenged Claims “properly read[] out embodiments where the crawler tracks are pivoted one at a time to new positions while off the ground and under no load.” *Id.* at 3.

Petitioner’s argument that Claim 4 provides support for its position “because it recites a situation where ‘the swing leg is positioned in a transport orientation’” is

meritless because Claim 4 merely adds additional features and modes that an infringing swing arm assembly must include *and* the “specified objective” for those features. *Id.* at 2; *Aspex Eyewear*, 672 F.3d at 1349. Unlike the processor limitations of Claim 1—which, according to the preamble and the corresponding description, keep the paving machine moving in a paving direction—the additional features of Claim 4 relate to second mode of operation (*i.e.* a transport mode). That any swing leg assembly must be configured to work in two different modes to infringe Claim 4 is no reason to discount the connection between the preamble and the processor limitations of Claim 1, which all relate to the paving mode, or the connection between the claimed hydraulic cylinder and the transport mode of Claim 4.

G&Z’s construction also properly reads out the disclosed embodiments that “include components that *prevent* the swing legs from pivoting while the machine is moving.” Reply at 3. The ’318 Patent expressly discloses two different physical embodiments relevant to this issue: the ***claimed*** embodiment, where the swing leg hydraulic actuator and the rotary power drive cooperate with position transducers to keep the paving machine moving in a paving direction, and an “[a]lternative[]” embodiment where “a hydraulic system using a locking valve can be provided instead of the position transducer and feedback loop for holding the swing leg in the desired position.” ’318 Patent, 6:36-52. The fact that this alternative, unclaimed embodiment is plainly inconsistent with the Challenged claims, which recite “the

position transducer and feedback loop” missing from the alternative embodiment, is sufficient reason not to read these unclaimed embodiments into the Challenged Claims.

3. Although Petitioner argues that “collateral estoppel compels” the Board reject G&Z’s proposed construction, it would be inappropriate to apply collateral estoppel in this case at least because (1) the issues raised are not identical and (2) this issue was not actually litigated in IPR2020-01698 (the “’749 IPR”). *See In re Freeman*, 30 F.3d 1459, 1465 (Fed. Cir. 1994). The Board expressly noted that “neither party offer[ed] an express construction of any terms in the Challenged Claims that would limit the claims to an embodiment where the crawler track is rotated when the crawler track is in contact with the ground.” Ex. 1036 at 37.

4. It is also appropriate to limit the Challenged Claims to the on-the-fly steering embodiment because G&Z limited the scope of “the presently-claimed invention” to scenarios where the paving machine and its swing leg are in use, such as when operating in a paving direction or transitioning into transport mode. POR at 23-24. Petitioner’s suggestion that these arguments “did not focus on the preamble or on-the-fly steering” are inconsistent with the record. Reply at 4.

During prosecution of the 15/3148,811 Application, G&Z distinguished the Colvard reference because its conventional steering cylinder and collar configuration did not enable on-the-fly steering. POR, 23-24 (citing Ex. 2034 at 8-

9) (“Such immovable-during use bolted/pinned structures and the time-consuming efforts required to reposition jacking columns of such a paving machine is in part what the presently-claimed invention specifically overcomes.”).

A still further aspect of the present invention ***eliminates the need to reposition the steering cylinder*** on the jacking columns when the crawler track is repositioned within the range of the swing leg cylinder and ***to allow 90° steering without having to reposition the steering cylinder*** by employing a ***hydraulic motor driven rotary actuator (slew drive) with an angular position transducer*** as the power drive between the crawler track and the jacking column.

’318 Patent, 6:66-7:6 (emphasis added); *see also* IPR2021-00050, Ex. 1023 (Colvard) at 2:65-3:63 (describing the invention as a collar assembly with an actuator for use in steering slip-form pavers). Petitioner’s attempt to characterize this argument as one attacking only “the prior art’s alleged lack of a ‘rotary connection,’” selectively reads this record. Reply at 4.

For at least the foregoing reasons, G&Z respectfully request that the Board construe this limitation “consistent with the plain meaning of its words, which requires a paving machine with a swing leg assembly moving in a paving direction with its crawler tracks on the ground and under load, while laying and finishing concrete in a form.” POR at 19.

B. “a crawler track rotatably coupled to the jacking column” and “a slew drive coupled to the jacking column and the crawler track, wherein the slew drive is configured to cause rotation of the crawler track relative to the jacking column”

Petitioner does not dispute G&Z's construction that these terms should be interpreted to mean that “one side of the slew drive is coupled to the jacking column, one side of the slew drive is coupled to the crawler track, and neither cylinder of the jacking column rotates along with the crawler track.” POR at 25-27; Reply at 5-6. The Board should, therefore, adopt this construction and apply it in this case.

Petitioner's suggestion that the Board adopted *this* construction in the '749 IPR misstates the record. Reply at 5. Although G&Z *argued* that the claims did not encompass situations where the crawler track rotates relative to only a *portion* of the jacking column, the Board did not limit the claims to those situations. Ex. 1036 at 36 (“We determine that we need not expressly construe this term to resolve the parties' disputes.”). Instead, the Board adopted a much broader construction of the term, which required only that the power drive be “physically between” the jacking column and crawler track without specifying (1) which if any components were coupled to each other and (2) which components rotate with respect to which components. *Id.* at 35-57. Under the broad understanding of the phrase “physically between” applied in the '749 FWD, the rotary actuator disclosed in *Miller* was considered “physically between” the jacking column and crawler track even though it is not coupled to the jacking column in any way. Ex. 1036 at 49-51.

Accordingly, the Board should apply the plain meaning of this limitation in this proceeding and reject Petitioner's suggestion that the Board applied the same, or even a substantially similar, construction in the '749 IPR.

III. THE CHALLENGED CLAIMS ARE PATENTABLE

A. CIII in View of Rio Does Not Disclose a Slew Drive Rotationally Coupled to a Jacking Column

In all of the prior art Petitioner has surfaced since it filed its first petition challenging G&Z's patents, it has not turned up the faintest suggestion of the slew drive arrangement recited in Claim 1 of the '318 Patent. CIII does not disclose a rotary actuator at all; Rio, Littman, GT-3200, and Whitaker disclosed actuators are either part of, or turn with other components of the jacking column; and Miller's rotary actuator is coupled between the machine frame and the crawler track.

Petitioner's attempt to rely on certain findings from the '749 IPR to paper over these dispositive issues should be rejected. Reply at 6-7. Petitioner does not contend that the Board is bound to adopt these findings in this case by virtue of collateral estoppel or any other doctrine. *Id.* Indeed, collateral estoppel cannot apply to these findings because those findings were not necessary to the judgment, which adopted a far broader construction of the relevant term. *See supra* Section II.B; *In re Freeman*, 30 F.3d at 1466 ("In order to give preclusive effect to a particular finding in a prior case, that finding must have been necessary to the judgment rendered in the previous action.").

The Board should not reach the same conclusion in this case because Petitioner's arguments about how the slew drive "would couple to and function with the jacking column" finds no support in the record other than in G&Z's patents. Reply at 7-8. In the several paragraphs of Dr. Singhose's declaration dedicated to this allegedly obvious combination, he cites **no** evidence that any of the proposed modifications were known in the art or would have been reasonably expected to produce a successful paving machine, let alone one with all of the attendant benefits that caused the entire industry to change to G&Z's design. Singhose Decl., ¶¶ 68-69; *see also* Section III.B, *infra* (discussing alleged state-of-the-art evidence in support of this modification). Indeed, the **benefits** that the combination produces were not apparent from any of the art of record ***other than G&Z's patents***. Reply at 8-9.

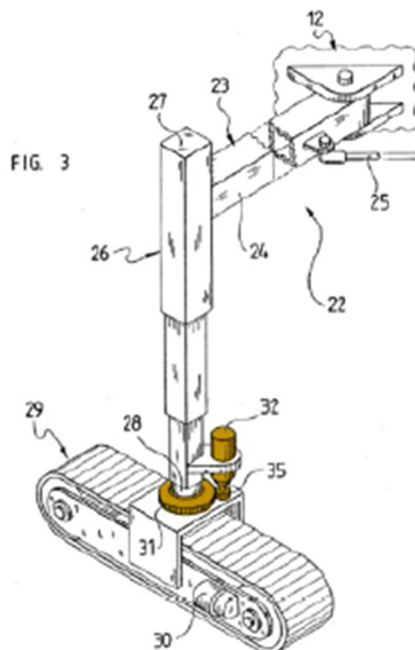
This is not, therefore, a case where known elements were put to known uses to achieve predictable benefits. It is a case where G&Z disrupted a 40-year old design with an entirely novel approach that revolutionized the industry and forced its only competitors to copy G&Z or be left behind. *See* Section V, *infra*.

B. The State-of-the-Art Evidence Confirms that the Proposed Combination of CIII and Rio is the Product of Hindsight

Critically, despite the relative simplicity of G&Z's design, it "never occurred to any one before." *C & A Potts & Co. v. Creager*, 155 U.S. 597, 608 (1895). Thus, even fully granting the argument that Rio's rotary actuator could be located near the

bottom of its jacking column (Reply at 12), **none** of the state of the art evidence suggests the arrangement claimed, where “one side of the slew drive is coupled to the jacking column, one side of the slew drive is coupled to the crawler track, and neither cylinder of the jacking column rotates along with the crawler track.” *Supra* Section II.B. Thus, to the extent that this evidence “informs how a POSITA would have understood CIII and Rio at the time of the alleged invention,” it does not lead to G&Z’s invention. Reply at 12.

Petitioner points to Whitaker as allegedly disclosing a “slew drive,” however, components 32 and 35 of Whitaker (annotated by Petitioner) point to a ring and pinion gear, not a slew drive:



Reply at 9; Ex. 1011 at 4:10-16, Fig. 3; Ex. 2015, ¶ 59. This ring gear is not coupled to a rotationally fixed jacking column, it is affixed to the crawler track and the lower

end of the jacking column, which is cylindrically shaped so that it can rotate within the rectangular telescopic shaft. Ex. 1011 at 4:1-16 (“Mounted to the tracked conveyor 29 and the lower end 28 of the shaft 26 is a means for mechanically rotating the tracked conveyor 29 about a vertical axis.”); Ex. 2015, ¶ 59; Ex. 2012 (Singhose Tr.), at 24:24-25:11. Thus, Whitaker does not disclose a slew drive rotationally coupled to the jacking column and crawler track as claimed, nor would it inform a POSITA to rotationally couple a slew drive to a rotationally fixed jacking column.

Petitioner's further reliance upon *Miller*, *Littman*, and *Johns* is unavailing because none of these references even suggest coupling a slew drive to the bottom of a jacking column. Reply at 8-9. In *Miller*, the rotary actuator is physically separated from the jacking column, in *Littman* the rotary actuator is inside the jacking column, and *Johns* does not disclose a jacking column at all. POR at 36-38. Accordingly, a POSITA reading Rio had no shortage of “state-of-the-art” suggestions for how to install a rotary actuator near the bottom of a jacking column, but none of them suggest the claimed arrangement.

The same goes for the new unsupported claim that its GT-3200 machine disclosed a slew drive (or other rotary actuator) that ensured that the crawler track rotated with respect to a rotationally fixed jacking column. Reply at 10. Although the GT-3200 is Petitioner's machine, and it could have produced documentation showing the arrangement of its rotary actuator, it relied on the admittedly

speculative guesses of G&Z's expert based on fuzzy photographs that do not show the internal structure of the jacking column. *Id.* Indeed, Dr. Bryden plainly testified that it was impossible to tell based only on these photographs whether "rotary actuator could be turning the inner column, as in some of the other designs." Ex. 1184, 132:2-24.

Further, despite relying upon decades old references and their own GT-3200 machine, neither Petitioner nor any competitor, considered rotationally fixing the jacking column and including a slew drive at its bottom until at least three years after G&Z released its S600. Reply at 8-10. Despite the claim that the GT-3200 had a fixed jacking column, Petitioner did not make the step of including a slew drive on it. Instead, Petitioner abandoned the design in favor of a conventional steering cylinder and collar design that also rotated the lower portion of the jacking column. Ex. 2037 at 7 ("Front Steering Only System" is done "with a hydraulic steering cylinder").

Petitioner touts all the benefits that come with the simplicity of G&Z's jacking column and slew drive design as providing motivation for a POSITA in 2010 to overcome the deficiencies of Rio and CIII, however, that raises the question of why Petitioner and others failed to even consider such a design prior to 2013. Reply at 7-8. In fact, Petitioner abandoned the GT-3200 design in 2009, just prior to the '318 filing, in favor of the Colvard style steering cylinder on a "piston-style front leg that

utilizes a round inner tube and keyway for steering control.” IPR2021-00050 ('020 Patent), Ex. 2056 at 1; IPR2021-00050, Paper 41 at 41-42.

C. CIII and Rio Prohibit On-the-Fly Steering

A POSITA armed with all the knowledge of the state-of-the-art, as contended by Petitioner, would also be armed with the practical knowledge of how these machines operated in real life and the limitations they possessed. Reply at 14. However, Petitioner does not respond to the evidence showing that the real-life embodiment of Rio was unable to reconfigure its swing leg angle while under load. POR at 14-17. Even if a POSITA were to make the design leaps presented in the Petition, the actual product of that design was never realized until G&Z's S600 in 2010. This is because the physical implementations of the references relied upon in the Petition were subject to the constraints and forces resulting from their large size. While Petitioner contends these scale constraints are overcome by just “math,” that math is not present in the Petition and Petitioner cannot point to any prior art overcoming that math outside of the S600. *C & A Potts*, 155 U.S. at 608-09 (finding claims valid where no prior art machine was able to achieve the results of the claimed invention).

Petitioner improperly relies upon two newly asserted prior art references for the first time in its arguments directed to G&Z's construction. *Axonics, Inc. v. Medtronic, Inc.*, 75 F.4th 1374, 1383 (Fed. Cir. 2023) (holding that “a petitioner may

not in reply rely on new prior art to teach a claim limitation” if that art was not “relied on in the petition.”). Exhibit 1016 (“Tax”) is not cited or referenced in the Petition aside from its inclusion in the Table of Exhibits. *See generally* Pet. Further, the Petition does not cite or rely on the lone paragraph of Dr. Singhose’s Declaration that discusses Tax. *See* Ex. 1002 at ¶ 80; *see also generally* Pet. Further, Ex. 1017 (“Skotnikov”) is found nowhere in the Petition nor Dr. Singhose’s declaration. *See generally* Pet.; Ex. 1002; *Axonics*, 75 F.4th at 1383.

Finally, Petitioner’s rebuttal regarding the “anti-swing device” that prevents the CIII/Rio from relocating its swing leg while under load, *i.e.* while in use or on-the-fly, neglects that Rio only discloses unlocking this anti-swing device when the crawler track is lifted off the ground. Reply at 15; POR 30. It is called an anti-swing device because it **prevents** the leg from swinging while the machine is moving under load. *Rio* at 6:27-37.

V. SECONDARY CONSIDERATIONS FURTHER CONFIRMS THE NONOBVIOUSNESS OF ON-THE-FLY STEERING FOR A PAVER MACHINE

A. Nexus

Gomaco fails to rebut G&Z’s arguments and evidence that establish a nexus between the claims of the ’318 Patent and the specific physical arrangement and coordinated steering of a swing leg and crawler track, referred to in marketing terms as G&Z’s SmartLeg / AccuSteer technology, which revolutionized the entire

industry. Reply at 17. As discussed for each category of evidence below, there is “a legally and factually sufficient connection’ between the evidence and the patented invention.” *Henny Penny Corp. v. Frymaster LLC*, 938 F.3d 1324, 1332 (Fed. Cir. 2019).

B. Gomaco Copied G&Z’s SmartLeg/AccuSteer Paver

Gomaco’s contention that copying can only be proven by direct evidence of actual copying is at odds with Federal Circuit precedent. Reply at 20. “Evidence of access and substantial similarity is evidence of copying.” *Medtronic, Inc. v. Teleflex Innovations S.a.r.l.*, 70 F.4th 1331, 1339-42 (Fed. Cir. 2023); *id.* at 1341 (rejecting the argument that direct evidence of actual copying had to be presented and instead noted that circumstantial evidence of “access to and substantial similarity with a patented product” can show copying). [REDACTED]

[REDACTED]

POR at 66 (citing Ex. 2010 at 18:17-20:24).

Gomaco also does not dispute that its GP3 is substantially similar to the S600, which was already in the market for five years when the GP3 was released. Reply 21-22; POR at 64-65. Nor does Gomaco argue that the S600’s swing leg configuration with SmartLeg / AccuSteer technology enable on-the-fly steering. Thus, Gomaco’s copying is sufficiently proven through its undisputed access to the S600 and the GP3’s substantially similar features, including its swing leg.

Medtronic, 70 F.4th at 1341-42. Petitioner's suggestion that G&Z's evidence establishing that it practices each limitation of the '318 Patent is insufficient to show copying under *Iron Grip Barbell Co. v. USA Sports, Inc.*, 392 F.3d 1317, 1325 (Fed. Cir 2004) ignores that this evidence was only a part of G&Z's analysis. Reply at 21. In **addition** to showing substantial similarity between the S600 and GP3 pavers and a nexus to the Challenged Claims by establishing that both practice the Challenged Claims, G&Z established the overall design of the pavers is nearly identical. POR at 76. To this, Petitioner only says that it did not **copy** those features because some of them already existed before 2009, which is irrelevant. Reply at 22. A party that copies an invention to A+B cannot avoid an allegation of substantial similarity by arguing that A was not new.

Gomaco also does not rebut that Wirtgen also had access to the S600 starting in 2011 or that its SP64i is substantially similar to G&Z's S600. *Id.* at 22-23. Indeed, that the evidence shows multiple competitors copied the S600 in developing their own paving machines is strong evidence of non-obviousness that Gomaco does not dispute. POR at 76-80; *Medtronic*, 70 F.4th at 1342 (finding multiple competitors that copied when developing their own product "particularly persuasive" evidence).

C. A Decade Long Need for On-the-Fly Steering in a Paver Machine

G&Z's claimed invention solved the decade long industry need for a paver machine capable of repositioning its swing leg and crawler track while in operation,

i.e. on-the fly steering. POR at 58-62. Gomaco attempts to dismiss the decade long need by alleging that the need “was not long felt” and that “the prior art already met the alleged need.” Reply at 18-19 (emphasis omitted). Neither allegation has merit.

First, *Texas Instruments, Inc. v. U.S. Int’l Trade Comm’n*, 988 F.2d 1165, 1177-78 (Fed. Cir. 1993) held that a six-year need is sufficient to establish a long-felt need. If a six-year need is long felt, then a decade long need—between when the industry identified the need and G&Z’s claimed invention—is also long felt. See POR at 59 (citing Ex. 2022 at ¶¶ 3, 5); ’749 IPR, Ex. 2031, ¶¶ 4-7 (G&Z’s “revolutionizing SmartLeg / AccuSteer technology” addressed the industry’s need for a maneuverable slipform paver, which began “in the early 2000s”).

Second, Gomaco’s contention that the need arose “as late as 2009” based upon Mr. Greenwood’s declaration, misconstrues his statement. Reply at 19. Mr. Greenwood stated that in 2009 “[he] started to look for a slipform paver that adopted the industry requested options—overcoming the drawbacks of GOMACO’s slipform pavers” indicating that the industry had already moved on from the unmaneuverable and time-consuming machines relying upon the conventional steering cylinder. Ex. 2022, ¶ 5. That statement establishes when Mr. Greenwood first began looking for a solution to this problem, not when the problem first arose. Gomaco has already conceded that the need for more maneuverable slipform pavers was known at least as far back as the early 2000s. ’749 IPR, Paper 76 (Oral Arg.) at

98:3-19; '749 IPR, Paper 57 at 20-27 (failing to rebut long-felt need); '749 IPR, Ex. 2031, ¶ 4.

D. Industry Skepticism on Whether a Slew Gear Drive is Workable Solution Given a Paver's "Unique Application" For Driving and Steering While Under Load

The record evidence shows that industry experts were worried or doubtful of whether G&Z's patented design, *i.e.* slew gear drive for driving and moving the swing leg/track while under load, would even work for driving and steering. POR at 62-63; *WBIP, LLC v. Kohler Co.*, 829 F.3d 1317, 1335 (Fed. Cir. 2016) ("If industry participants or skilled artisans are skeptical about whether or how a problem could be solved . . . it favors non-obviousness.").

Here, given the paver's unique application of driving and steering, Kinematics was **worried** whether their slew gear drive would provide the torque needed for a paver when it was [REDACTED] and offering no guarantees. Ex. 2013 at 1 (unsure whether its Kinematic slew drive components would work because a [REDACTED] [REDACTED]) (emphasis added); Ex. 2024 at 4. This unique application is unlike Rio, or any conventional crane, as these machines do not drive and steer while under load. Likewise, G&Z's VP of engineering was **doubtful** that G&Z's claimed solution was [REDACTED] given the unique application. Ex. 2024 at 4. Thus, because G&Z's use of a slew drive for relocating its crawler tracks while under load was against the

conventional wisdom, it shows that the Petition is built on hindsight. *St. Jude Med., Inc. v. Access Closure, Inc.*, 729 F.3d 1369, 1380-81 (Fed. Cir. 2013) (finding claims non-obvious where prior art did not disclose one of the claim features).

Gomaco's assertion that the cited evidence does not show skepticism fails. Reply at 20; *WBIP*, 829 F.3d at 1335 (holding that "**doubt or disbelief**" on the "workability of the claimed solution" establishes skepticism) (emphasis added); *Circuit Check Inc. v. QXQ Inc.*, 795 F.3d 1331, 1337 (Fed. Cir. 2015) (holding testimony that third parties were "**worried**" was sufficient to establish skepticism) (emphasis added). This evidence also fully undermines Petitioner's claim that the industry's need was already met because if this solution was already known, the key industry player that ultimately supplied their slew drives to Gomaco would not have registered doubt. Reply at 18-20.

E. The Industry Praised G&Z's Claimed Solution For On-the-Fly Steering of a Paver Machine

The record evidence shows that industry professionals, such as Mr. Greenwood and Mr. Holley, praised G&Z's claimed solution that now allowed paver machines to steer and drive while under load. POR at 81-82, 58-60; Ex. 2022 at ¶¶ 6-7 (expressing that G&Z's claimed solution "was a **revolutionary change** to the conventional slipform paver" and that it "**was a license to print money**") (emphases added); '749 IPR, Ex. 2031, ¶ 7 ("Purchasing G&Z's slipform pavers with SmartLeg / AccuSteer technology was a game changer, as it dramatically decreased the number

of workers required and time spent on repositioning the swing legs” and “allows for easy and quick maneuvering of the swing legs around obstacles all while still paving.”).

Gomaco does not dispute this industry praise directed to G&Z’s on-the-fly steering paver technology. *See* Reply at 18-19. And while Gomaco asserts that collateral estoppel prevents the Board from readdressing praise (*id.* at 23-24), the Board weighed this testimony in favor of G&Z. *See* Ex. 1036 at 87. Nevertheless, the Board should accord more weight to this evidence in this proceeding given the long-felt need and the skepticism because the ’318 Patent Claims require on-the-fly steering, whereas, the ’749 Patent was found to encompass embodiments where any repositioning of the pavers swing legs required roughly six workers, including an “operator and supervisor, to reposition the slipform paver’s swing legs and crawler tracks from one mode to another, and could easily take up to half a day to complete.” ’749 IPR, Ex. 2031, ¶ 5.

F. Market Share Demonstrates Market Forces That Would Have Brought On-the-Fly Steering to Market Sooner if it Was Obvious

The commercial response to G&Z’s S600 is “significant to the determinations of obviousness, and is entitled to fair weight.” *Medtronic*, 70 F.4th at 1342. After Gomaco introduced its copycat paver in 2015, G&Z [REDACTED] of its market share while Gomaco’s market share [REDACTED] (between 2014 to 2019). Ex. 2035

at 13; Ex. 2036 at 10;¹ *see also* POR at 60-61 (establishing that G&Z introduced its technology in 2010). The market share highlights the commercial success (whether G&Z's success before the release of any copycat design or Gomaco's success thereafter) and the market forces tied to on-the-fly steering.

Initially, the Board cannot merely give this evidence "very little weight" as it did in the '749 FWD. In that case, the Board was under the impression that Gomaco first released its copycat paver in "**in 2017.**" Ex. 1036 at 94 (emphasis added). That simply is not true, and Petitioner does not attempt to defend that finding in this case. Ex. 2010 at 11:10-14:2 [REDACTED]
[REDACTED]; Ex. 2045 at 3-4 (Gomaco introduced its "new GP3 slipform paver" at World of Concrete in Las Vegas). And its further attempts to discredit the commercial success evidence are meritless. Reply at 24-26.

¹ While Gomaco alleges that the exhibits are inadmissible hearsay and should be accorded no weight, these allegations are unwarranted. Reply at 24-25. The exhibits are provided as reports, not declarations. The reports also indicate that the "[r]evenue market share" was calculated based on "share of manufacture's estimated total revenues as a percentage of total estimated industry revenue." Ex. 2035 at 13; Ex. 2036 at 1 (using average values and estimates of data).

First and foremost, Petitioner does not dispute the accuracy of the market share analysis. *Id.* *Second*, Gomaco's allegation that G&Z's sales declined because of Wirtgen's entrance to the U.S. market proves the success contributed to G&Z's patented technology because, as established above, Wirtgen also released a copycat paver that reduced G&Z's market share. *Id.* at 25. *Third*, the **COVID-related delays** and quality issues all occurred **well after** Gomaco's and Wirtgen's copying decimated G&Z's market share. *Id.* at 25-26. *Fourth*, a single change order dated 2010, fails to explain why G&Z market share exploded after releasing its Smart Leg / AccuSteer pavers in 2010. *Id.* at 26. In view the totality of the on-the-fly steering evidence, this evidence is entitled to significant weight and confirms that the '318 Patent's claimed invention was nonobviousness.

VI. CONCLUSION

Petitioner has not established that Claims 1-8 of the '318 Patent are obvious. Accordingly, Patent Owner requests that the Board find the claims of the '318 Patent patentable.

Respectfully submitted,

Dated: July 2, 2025

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(Case No. IPR2024-00835)

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CERTIFICATE OF COMPLIANCE WITH 37 C.F.R. § 42.24

The undersigned hereby certifies that the portions of the above-captioned **PATENT OWNER'S SUR-REPLY** specified in 37 C.F.R. § 42.24 has 5,531 words in compliance with the word limit set forth in 37 C.F.R. § 42.24(c). This word count was prepared using the Microsoft Word word-processing system used to prepare this paper.

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CERTIFICATE OF SERVICE

The undersigned certifies, in accordance with 37 C.F.R. § 42.6(e), and pursuant to agreement by the parties that filing with the Board through the Patent Trial and Appeal Case Tracking System (P-TACTS) constitutes electronic service, that service was made on the Petitioner as detailed below.

<i>Date of service</i>	July 2, 2025
<i>Manner of service</i>	Electronic Filing with the Board
<i>Documents served</i>	PATENT OWNER'S SUR-REPLY
<i>Persons Served</i>	Finnegan, Henderson, Farabow, Garrett & Dunner, LLP: Jason E. Stach Luke J. McCammon David K. Mroz Sonja W. Sahlsten Robert K. High

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