

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
Patent No. 11,535,318

AUTHORIZED RESPONSE TO DIRECTOR REVIEW REQUEST

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I. Introduction

Over five years ago, Gomaco argued in two separate IPR petitions that it would have been obvious to modify the slipform paver design disclosed in CIII with the slew drive design described in Rio, such that the top face of the slew drive was coupled to the bottom surface of the CIII's jacking column, and the bottom face of the slew drive was coupled to the top of CIII's crawler track apparatus. In both IPRs, the Board found that a person of ordinary skill would have made this proposed modification, and that all claims in the two patents at issue were unpatentable as obvious. The Federal Circuit affirmed both decisions.

As those proceedings unfolded, G&Z asserted another patent against Gomaco, U.S. Patent No. 11,535,318, which had claims similar to those that the Board found unpatentable in the first two IPRs. Gomaco filed this IPR petition against the '318 patent asserting the same CIII/Rio combination and modification that previously prevailed. The Board found all claims in the '318 patent obvious.

The Board has been clear *three times* and so has the Federal Circuit. The alleged slew drive invention that G&Z has been serially asserting against Gomaco is obvious. Rather than move on, G&Z wastes the Board's resources by submitting a Director Review request riddled with inaccuracies, misrepresentations, and baseless arguments. For example, G&Z contends that the Board erred by failing to construe certain claim terms. But the Board expressly found that the reason it did not

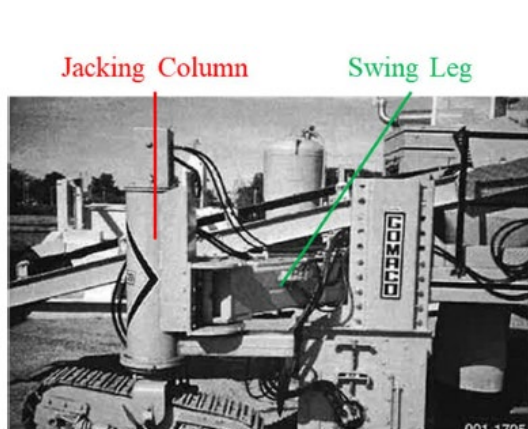
construe these terms was because Gomaco's obviousness combination rendered the claims obvious *even under G&Z's construction*. The Federal Circuit does not require construction in these circumstances. G&Z also misrepresents testimony from Gomaco's expert on Rio that actually shows obviousness when read correctly. G&Z further argues that the Board failed to provide sufficient reasoning in its obviousness analysis. But as described below, the Board presented an extensive obviousness analysis, which included a thorough analysis of the prior art and secondary considerations. There is no basis for disturbing the Board's obviousness findings, and G&Z's Request for Director Review should be denied.

II. All Claims in the '318 Patent Are Obvious

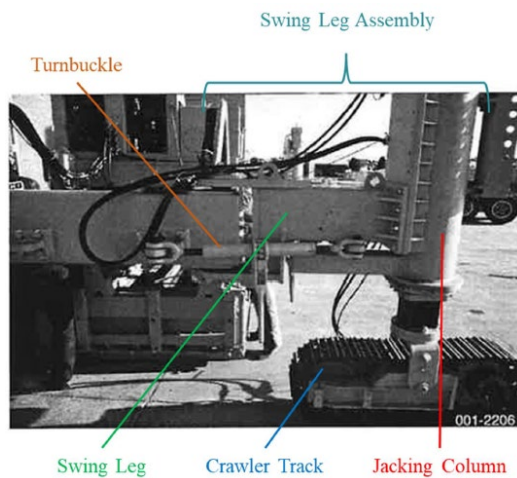
A. The CIII and Rio Prior-Art References

CIII is a product manual that describes a Gomaco slipform paver, which is a paving machine that spreads and finishes concrete (e.g., to make roads). Ex. 1005. The CIII machine can be set up with either three or four legs depending on the task at hand. *See, e.g.*, Ex. 1005, 15, 19. In the three-leg design, one of the legs is a pivoting "swing leg." Paper 1 (Pet.) at 10-12; Ex. 1005 at 201. In the four-leg design, all four legs are pivoting swing legs. Paper 1 at 16-17; Ex. 1005 at 204.

Each swing-leg assembly has a jacking column and crawler track, as shown below.

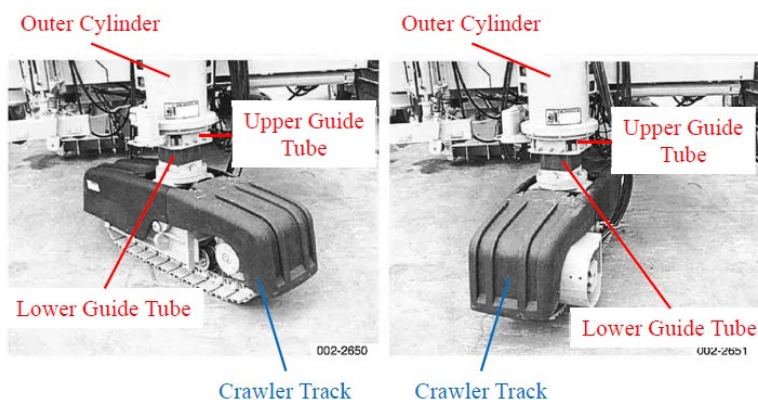


Ex. 1005, 80 (annotated).

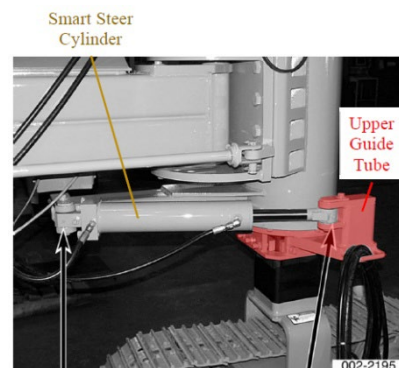


Ex. 1005, 209 (annotated).

The jacking column includes an outer cylinder and rectangular-shaped upper and lower guide tubes that run vertically inside the outer cylinder, shown below. Paper 1 at 12-14. The jacking column also includes an internal hydraulic “lift cylinder” that extends and retracts to control the jacking column’s vertical position (and thus the elevation of the machine). *Id.* at 12-13.



Ex. 1005, 193, 195 (annotated)

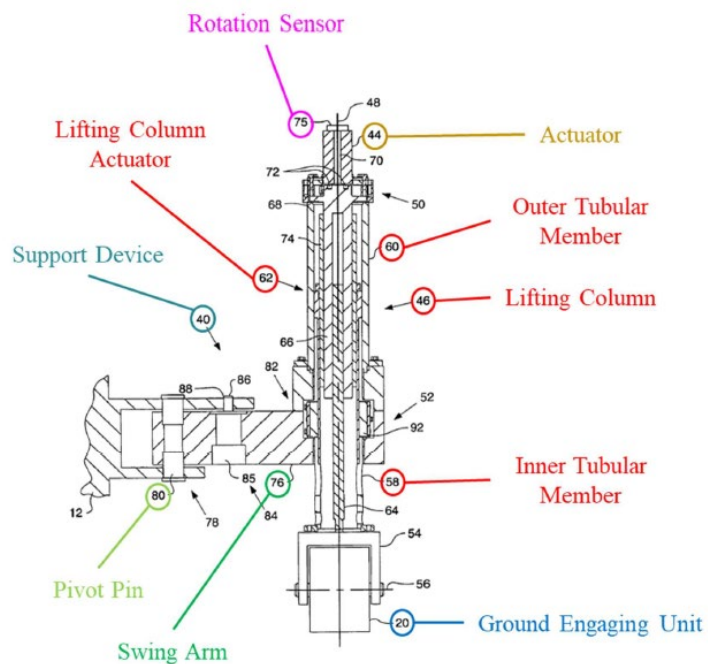


Ex. 1005, 165 (annotated).

The CIII machine steers the crawler tracks with a hydraulic “smart steer cylinder” attached to the upper guide tube as shown above to the right. Paper 1 at

13. Because of the guide tubes' rectangular cross-sections, and because the crawler track is connected to the lower guide tube, the steering cylinder, when actuated, rotates the guide tubes and crawler track together relative to the outer cylinder. Paper 1 at 13-14. G&Z did not dispute any of these characterizations about CIII.

Gomaco combined CIII with Rio in all grounds in its Petition. Paper 1 at 6-7. Rio discloses a road-construction machine with a swing leg apparatus that includes a jacking column and crawler track. Ex. 1006. Rio calls its



jacking column a “lifting column,” and it has two hollow tubes (“inner tubular member 58” and “outer tubular member 60”) that telescope in response to an internal hydraulic “lifting column actuator 62” that extends and retracts. *Id.* at 5:32-53. The extension and retraction of “lifting column actuator 62” raises and lowers the machine. *Id.* Rio’s lifting column and the components described in this paragraph are shown above in annotated Figure 2. Ex. 1006 at Fig. 2 (annotated); Paper 1 at 23. As Figure 2 also shows, Rio has an actuator that pivots swing arm 76 about pivot pin 80, which, in turn, moves ground engaging unit 20 (i.e., the crawler track) to

different positions. Ex. 1006 at 6:19-22. A second actuator 44 (shown in yellow in annotated Figure 2) rotates ground engaging unit 20 about a vertical lifting column axis 48. *Id.* at 4:56-60, 6:4-6. Actuator 44 may be a linear actuator or a rotary actuator, including a rotary actuator that uses a “worm” drive to operate (i.e., a slew drive design). *Id.* at 4:61-5:3; Paper 1 at 46-47.

B. Gomaco’s Obviousness Modification

Rio discloses that the second actuator 44 (e.g., the rotary slew drive shown in yellow above in annotated Figure 2) can be “positioned on the lifting column 46” anywhere “along the lifting column axis 48.” Ex. 1006 at 5:8-11. Gomaco argued that one of ordinary skill would have known that one of the positions along the lifting column axis was the bottom of the lifting column. Paper 1 at 24, 29-30, 43-47. Applying Rio’s teachings to CIII, Gomaco argued it would have been obvious for a POSITA to couple the top of Rio’s slew drive to the bottom of CIII’s jacking column, and to couple the bottom of the slew drive to the top of CIII’s crawler track apparatus. *Id.*; Paper 24 (Gomaco’s Reply) at 6-8. Gomaco explained that a skilled artisan would have known that under this design, given the way slew drives work, the CIII jacking column components above the slew drive (including the rectangular guide tubes) would remain rotationally fixed as the slew drive rotated the crawler track relative to the rotationally fixed jacking column componentry. *See, e.g.*, Paper 1 at 31; Paper 24 at 6-8. Gomaco provided several reasons why a person of ordinary

skill in the art would have made its proposed combination, including increasing the range of motion for the crawler track (Paper 1 at 27-28), providing higher torque and fine rotary steering control for the crawler track (*id.* at 28), “reduc[ing] the power” needed to rotate the crawler track (*id.* at 31), and simplifying the manufacturing and maintenance of the jacking column (*id.*).

Notably, G&Z contends in its Request for Director Review that Gomaco’s expert, Dr. William Singhose, contradicted Gomaco’s proposed obviousness combination by “admit[ting]” that Rio operates in a way that would not be consistent with positioning a rotary drive at the bottom of the jacking column. Paper 48 at 5 (citing Ex. 2012, 18:3-18, 30:12-25). G&Z blatantly mispresents this cited testimony, which, on its face, shows the opposite—i.e., that a skilled artisan viewing Rio’s disclosures would have known to position the rotary drive at the bottom of the jacking column. Ex. 2012, 18:3-18, 30:12-25.

Gomaco buttressed its obviousness arguments (and rebutted G&Z’s hindsight allegations) by relying on state-of-the-art evidence showing it was known in the heavy machinery field to position a rotary drive between the bottom of the jacking column and the top of the crawler track. Paper 1 at 29-31; Paper 24 (Reply) at 8-10. Most notably, Gomaco relied on a brochure for its GT-3200 slipform paving machine, which had a front jacking column with



upper and lower guide tubes that were rotationally fixed, and a rotary actuator coupled between the jacking column and crawler track that rotated the crawler track up to 180° relative to the entire jacking column, shown right. Ex. 1010, 3 (annotated); Paper 1 at 29; Paper 24 (Reply) at 10; Ex. 1184, 121:14-135:7. G&Z’s expert confirmed the GT-3200’s rotary actuator “rotates the front crawler track relative to the jacking column components above it” and that “nothing above the rotary drive is rotating.” Ex. 1184, 128:24-129:23; *see also id.*, 134:17-135:7.

C. The Board Previously Relied on Gomaco’s CIII/Rio Combination to Find G&Z’s Patent Claims Obvious

Gomaco asserted the same obviousness modification described above—i.e., positioning a slew drive below the bottom of CIII’s jacking column and above the top of CIII’s crawler track apparatus—against two other G&Z patents in prior IPR proceedings. In IPR2020-01698, Gomaco asserted this modification against every claim in U.S. Patent No. 10,029,749, and in IPR2021-00136, Gomaco asserted this modification against every claim in U.S. Patent No. 9,908,571. *See, e.g.*, IPR2020-01698 Paper 1 (Petition); IPR2021-00136 Paper 1 (Petition). The Board found all challenged claims unpatentable in both IPRs, and it relied extensively on the Rio rotary actuator modification to CIII’s jacking column in doing so. *See* IPR2020-01698, Paper 80 (FWD); IPR2021-00136, Paper 61 (FWD).

G&Z appealed from these final written decisions. In its appellate briefing,

G&Z focused virtually its entire argument on the position that it would not have been obvious to position Rio’s slew drive “physically between the jacking columns and crawler tracks of a slipform paver.” *Guntert & Zimmerman Const. Div., Inc., v. Godbersen-Smith Const. Co. dba Gomaco Corp.*, Nos. 2022-1831, 1835, Dkt. No. 16 at 21 (Fed. Cir. Oct. 6, 2022). G&Z’s argument failed, however—the Federal Circuit summarily affirmed the Board’s unpatentability findings. *Guntert & Zimmerman Const. Div., Inc., v. Godbersen-Smith Const. Co. dba Gomaco Corp.*, Nos. 2022-1831, 1835, 2024 WL 193079 (Jan. 18, 2024). The Federal Circuit’s rulings are now final.

Notably, the IPR on the ’749 patent involved patent claims very similar to those at issue here. Gomaco’s expert included a detailed comparison table in his declaration showing the similarities between the claims in the ’749 and ’318 patents. Ex. 1002 at ¶ 53. In finding the ’749 patent’s similar claims obvious, the Board characterized Rio’s disclosure that its rotary actuator 44 can be positioned on the lifting column 46 “along the lifting column axis 48” as an “express disclosure” that “would include positioning actuator 44 on lifting column 46 at the bottom of the column.” Ex. 1036, 74 (citing Ex. 1006, 5:8-11); *see also id.* at 76-78.

D. The Board Did Not Commit a Claim Construction Error Because No Construction Was Ultimately Needed Under the Board's Analysis

G&Z argues that the Board erred by not resolving whether the challenged claims require “one side of the slew drive” to be “coupled to the jacking column” and the other side to be “coupled to the crawler track” such that no jacking column componentry “rotates along with the crawler track.” Paper 48 at 1. The problem with G&Z’s argument is that the design required by its proposed construction *is the same as the design in Gomaco’s obviousness combination*. Under Gomaco’s obviousness modification, the top of Rio’s slew drive is coupled to the bottom of CIII’s jacking column, and the bottom of Rio’s slew drive is coupled to the top of the crawler track apparatus. Paper 1 at 24, 29-30, 43-47; Paper 24 at 6-8. During operation, the slew drive rotates the crawler track relative to all jacking column components, which remain rotationally fixed. *See, e.g.*, Paper 1 at 31; Paper 24 at 6-8. Again, this is the same modification that Gomaco asserted and prevailed on in IPR2020-01698 and IPR2021-00136, and that the Federal Circuit affirmed.

The Board correctly found that Gomaco’s obvious modification renders all claims in the ’318 patent unpatentable *even under G&Z’s proposed construction*. Paper 45 (FWD) at 18 (explaining that “even if we adopted Patent Owner’s proposed interpretation, Petitioner shows that the asserted references teach or suggest the limitation”). Because of this, and as the Board explained, it did not need to resolve

the claim construction dispute G&Z raises here. *Id.*; see also *Realtime Data, LLC v. Iancu*, 912 F.3d 1368, 1375 (Fed. Cir. 2019) (“The Board is required to construe ‘only those terms that . . . are in controversy, and only to the extent necessary to resolve the controversy.’” (quoting *Vivid Techs., Inc. v. Am. Sci. & Eng’g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999))). Had Gomaco’s obviousness arguments only been operable under a construction Gomaco proposed, then the Board would have been required by law to resolve the claim construction dispute before finding obviousness. But this was not the case.

E. The Board Conducted an Extensive and Well-Reasoned Obviousness Analysis

G&Z also argues in its Request that the Board failed to provide reasoning for its obviousness findings. Paper 48 at 6-10. G&Z is wrong. There are two limitations relevant to G&Z’s argument, both of which are in claim 1 of the ’318 patent:

- **The Rotatably Coupled Limitation** - “a crawler track rotatably coupled to the jacking column, wherein the crawler track is configured to rotate about a second axis to a second angular orientation relative to the jacking column.”
- **The Slew Drive Limitation** - “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.”

The Board found that Gomaco proved that the CIII/Rio combination rendered

both limitations obvious. Paper 45 (FWD) at 25-30, 41-46, 49-52. The Board first addressed each of the limitations individually, summarizing the arguments and evidence that the parties presented. *Id.* at 25-30. In these individual analyses, the Board identified specific evidence it credited for showing obviousness. *Id.* at 27, 30. The Board’s selection of this evidence alone provides reasoning for why it reached the conclusions it did. But the Board did not stop there. At the very end of the analysis for the “rotatably coupled” and “slew drive” limitations, the Board explained that it provided additional analysis on these limitations later in the Final Written Decision. *Id.* at 27, 30. That subsequent analysis is extensive (*see id.* at 41-46, 49-52), and G&Z largely overlooks it in its Request for Director Review.

In its subsequent analysis, the Board explained that “one of ordinary skill” would have known to make Gomaco’s proposed modification—i.e., “mount[ing] Rio’s rotary actuator 44 on the bottom of CIII’s jacking column between the jacking column and crawler track”—because there were only a “finite number of places to mount a rotary actuator with a worm-gear design,” and because this modification “would have simplified CIII’s jacking column design,” “been routine and obvious,” “simplified manufacturing and maintenance,” and “reduced required rotating power.” *Id.* at 45. The Board also concluded that Gomaco’s modification would have provided “greater rotational range of motion,” “greater maneuverability,” and “faster adjustments in crawler-track position,” and that the modification would have

eliminated CIII's manual swing-leg adjustments and reduced the risk associated with those adjustments. *Id.* at 44. Even more, the Board found that Gomaco's proposed modification would have provided a "compact apparatus" with "high torque," "fine rotary steering control," and "rotary motion without the need for complicated and bulky linkages." *Id.* at 45. The Board relied extensively on evidence in the record when reaching these conclusions. *See id.* at 25-30, 41-46, 49-52.

Next, the Board rejected Patent Owner's hindsight arguments because Gomaco's proposed combination was "derived from an express disclosure in Rio"—i.e., the disclosure that "the *second actuator 44 is positioned* on the lifting column 46 at a location spaced apart from the first actuator 42 *along the lifting column axis 48.*" *Id.* at 45-46 (citing Ex. 1006 at 5:8-11). The Board also relied on state-of-the-art evidence throughout its analysis, including the GT-3200 evidence described above (Ex. 1010, 3), to conclude that a skilled artisan reading Rio would have known to make the modification that Gomaco proposed because the proposed design was a "known design that provides maneuverability." Paper 45 (FWD) at 45-46. The Board even further supported its obviousness findings by relying on its prior Final Written Decision on the '749 patent *that was affirmed by the Federal Circuit*, which likewise found it would have been obvious in view of Rio and CIII to place Rio's rotary actuator 44 "at the bottom of the lifting column atop a crawler track." Paper 45 (FWD) at 46 (citing IPR2020-01698 Paper 83 at 73-79).

The Board also explained why a skilled artisan would have had a reasonable expectation of success in the proposed modification. Paper 45 (FWD) at 49-52. In particular, the Board reasoned that it was known that worm-gear drives (i.e., slew drives) could bear large loads and provide significant torque and that “sizing such rotary actuators was a matter of ordinary skill in the art,” as even G&Z’s expert admitted. *Id.* at 51; *see also id.* at 50 (referencing evidence where “Patent Owner’s declarant previously admitted that one of ordinary skill in the art would have known to scale components and forces to make the proposed combination”); *id.* at 52 (rejecting G&Z’s argument that Rio’s rotary actuator design would be difficult to incorporate into CIII because evidence showed that “resizing the design was a matter of ordinary skill in the art”).

In sum, there is overwhelming evidence of obviousness in this case. To suggest that the Board provided no reasoning for its obviousness findings on the rotatably coupled and slew drive limitations, as G&Z does here, grossly mischaracterizes the Final Written Decision. The Director should not disturb the Final Written Decision in any way.

F. The Board Correctly Rejected G&Z’s Copying Arguments with the Same Language It Used in Prior Decisions that Were Affirmed by the Federal Circuit

In prior cases, the Board evaluated G&Z’s copying evidence alongside testimony from Gomaco’s Vice President of Engineering and Research &

Development, as well as Gomaco's internal development documents for the machine that G&Z contends Gomaco copied from G&Z. IPR2020-01698, Paper 80 at 88-91. It concluded that Gomaco's "selection of a slew drive was the product of routine engineering processes," not copying. *Id.* at 90. It then stated that, although using a slew drive "may support an inference of copying, the totality of the evidence does not support copying." *Id.* at 91. The Board repeated this identical statement in the Final Written Decision in this IPR. Paper 45 (FWD) at 61. In this context, it is no mystery why the Board found G&Z's evidence lacking and correctly found that G&Z's "evidence of copying is entitled to little weight." *Id.* The Federal Circuit summarily affirmed the Board's prior decisions containing this same conclusion.

In addition, the Board correctly found that G&Z had not demonstrated a nexus between the claims and its alleged secondary considerations. G&Z's nexus arguments were premised on the claims being limited to "on-the-fly steering" where the crawler tracks are rotated when in contact with the ground while moving forward under load, but the Board correctly explained that "the scope of the claims encompasses both an embodiment where the crawler track is rotated when in contact with the ground and an embodiment where the crawler track is rotated when lifted off the ground." Paper 45 (FWD) at 57; *see also id.* at 10-17. The Board accordingly found a lack of nexus with the asserted long-felt need because "there is no evidence

of a long-felt unsolved need for an embodiment where the crawler track is rotated when lifted off the ground.” *Id.*

While this finding pertained to long-felt need, the same rationale refutes G&Z’s copying argument. G&Z has not shown that the allegedly copied features are sufficiently tied to benefits provided by the claims as opposed to benefits that were already provided by the prior art. Indeed, the Board correctly found that Gomaco’s own prior-art CIII machine possessed nearly every feature G&Z contends that Gomaco copied. *See id.* at 61 (“[M]ost of the similarities identified represent features found on CIII.”). And it also correctly found that the prior art provided the alleged “on-the-fly steering” benefits, even if the claims were limited to requiring the crawler track to be rotated when in contact with the ground. Paper 45 (FWD) at 39 (finding the prior art discloses the claimed features “even if the claims were limited to an on-the-fly steering embodiment”).

III. Conclusion

For these reasons, the Director should deny G&Z’s request for Director Review. If the Director believes that any of Board’s rationales are unclear, the appropriate remedy is to remand with instructions to provide further explanation, not to reverse.

Respectfully submitted,

Dated: December 23, 2025

By: /Jason Stach/
Jason Stach, Reg. No. 54,464

*Counsel for Petitioner Godbersen-
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GOMACO Corporation*

CERTIFICATE OF SERVICE

The undersigned hereby certifies that a copy of the foregoing **AUTHORIZED RESPONSE TO DIRECTOR REVIEW REQUEST** was served on December 23, 2025. The parties have agreed that filing through the PTAB's P-TACTS system constitutes electronic service on Patent Owner, and Petitioner filed the document via the PTAB's P-TACTS system. Accordingly, Petitioner electronically served Patent Owner's counsel of record, including James Hannah, Jeffrey H. Price, and Jenna Fuller.

Dated: December 23, 2025

By: /Daniel E. Doku/
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