

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

KUBOTA NORTH AMERICA CORPORATION,
Petitioner,

v.

VERMEER MANUFACTURING COMPANY,
Patent Owner.

IPR2025-00167
U.S. Patent No. 9,321,386

Filed: January 14, 2026

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

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EXHIBITS

Exhibit	Description
2001	February 28, 2025 Patent Office Announcement
2002	U.S. Patent No. 7,695,236 (“Green”)
2003	U.S. Patent No. 8,821,104 (“Yasuda”)
2004	U.S. Patent Pub. 2016/0244937A1
2005	U.S. Patent No. 5,542,814
2006	Summary: Problems with the Disclosure in KR996
2007	Excerpts from Oxford Dictionary
2008	Dingo Operators Manual
2009	Dingo Parts Catalog
2010	Scheduling Order from Parallel Litigation (ECF No. 34)
2011	Kubota’s Amended Answer and Counterclaims from Parallel Litigation (ECF No. 39)
2012	Amended Scheduling Order from Parallel Litigation (ECF No. 41)
2013	Judge Pittman’s Specific Requirements from Parallel Litigation
2014	Excerpt of Kubota’s Invalidity Contentions from Parallel Litigation
2015	<i>RESERVED</i>
2016	Declaration of Mark Fleming
2017	U.S. Patent No. 5,004,398
2018	U.S. Patent No. 5,666,794
2019	U.S. Patent No. 8,160,785
2020	U.S. Patent No. 9,039,344
2021	August 19, 2025 Deposition Transcript of Steven Alan Velinsky
2022	Exhibit 2 to August 19, 2025 Deposition Transcript of Steven Alan Velinsky
2023	TX1000 Infringement Contentions
2024	CTX50 Claim Charts
2025	CTX100 Claim Charts
2026	“Innovative Iron Awards: Toro and Vermeer Compact Tool Carriers”, Compact Equipment Magazine, December 22, 2015.
2027	Petitioner’s Confidential Document Production
2028	“Kubota enters stand-on track-loader segment with new SCL1000”, SAE, March 12, 2020.
2029	Transcript for “Kubota’s New SCL 1000 Stand-on Skid Steer” Video, ForConstructionPros, March 11, 2020

2030	Transcript for “Kubota Gets into the Stand-on Track Loader Market” Podcast, ForConstructionPros, March 11, 2020
2031	Transcript for “Kubota Expert Breaks Down the SCL1000” Video, EquipmentWorld, September 30, 2020
2032	“Kubota unveils its first mini skid steer, the SCL1000”, Equipment World, March 12, 2020 (updated March 14, 2020)
2033	<i>RESERVED</i>
2034	<i>RESERVED</i>
2035	<i>RESERVED</i>
2036	<i>RESERVED</i>
2037	Declaration of Richard L. Brophy
2038	Stipulated Protective Order
2039	January 6, 2026 Deposition Transcript of Steven Alan Velinsky
2040	Exhibit A to January 6, 2026 Deposition Transcript of Steven Alan Velinsky
2041	Exhibit B to January 6, 2026 Deposition Transcript of Steven Alan Velinsky
2042	Exhibit C to January 6, 2026 Deposition Transcript of Steven Alan Velinsky
2043	Exhibit E to January 6, 2026 Deposition Transcript of Steven Alan Velinsky
2044	Exhibit F to January 6, 2026 Deposition Transcript of Steven Alan Velinsky
2045	Exhibit G to January 6, 2026 Deposition Transcript of Steven Alan Velinsky

I. INTRODUCTION

Over the past decade, Vermeer's '386 Patent¹ has been thoroughly vetted by the Patent Office. Vermeer is a global manufacturer of cutting-edge industrial and agricultural machines based in Iowa. When Vermeer's significant R&D investments yield new and valuable inventions, it diligently protects them with patents. In 2016, in exchange for disclosing its novel vertical-lift compact utility loaders (CULs), the Patent Office awarded Vermeer the '386 Patent after a thorough examination. The Patent Office has since issued four additional patents in this family, with over 100 issued claims. The '386 Patent has survived multiple, serial reexaminations.

Over half of the '386 Patent's term has already expired. Soon, the inventions described in Vermeer's patents will be dedicated to the public as part of the *quid pro quo* underlying U.S. patent law. Despite this long history and Vermeer's long-settled expectations associated with the rights granted to Vermeer, Kubota requested yet another proceeding challenging Vermeer's patents. The

¹ As used herein, "the '386 Patent" means U.S. Patent No. 9,321,386 and "Challenged Claims" means the claims 1–13, 15, 17, 19–30, and 64–67 of the '386 Patent.

cloud of uncertainty from these serial proceedings denies Vermeer the benefit of the intended bargain.

Trial proceedings in this matter have revealed that Kubota's challenge lacks merit and—like the similar challenges that proceeded it—should be rejected.

II. ARGUMENT

A. Kubota's Straw-Man Argument based on *Allied* Fails.

Kubota and its expert, Dr. Velinsky, lack any legitimate evidentiary basis for asserting that a POSITA would have made the significant modifications to the KR996 machine on which Kubota's petition depends. Further, the changes proposed by Kubota would destroy the critical detachability feature KR996 touts as its key inventive concept.

Kubota attempts to distract the Board from these infirmities with a straw-man argument citing *Allied Erecting & Dismantling Co. v. Genesis Attachments, LLC*, 825 F.3d 1373 (Fed. Cir. 2016). Kubota relies heavily on *Allied*'s unremarkable observation that “[t]he test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference.” *Id.* at 1381. Kubota accuses Vermeer's expert, Dr. Fleming, of failing to heed this legal principle, citing pages 97–98 of his deposition. Reply 3–4.

Even a cursory review of this testimony, however, demonstrates that Fleming was not relying on a “bodily incorporation” argument to rebut obviousness. Instead, Fleming was simply evaluating Velinsky’s hypothetically modified KR996 machine incorporating the tracks of Bares. Reply 4; EX1043 at 71:1–15, 82:18–98:22; IPR2025-00169, EX2016.

Importantly, this testimony related only to claims requiring the machine to have tracks instead of wheels—none of which are at issue in this proceeding. For these claims, Velinsky proposed a modified version of KR996 that *bodily incorporated* the tracks of Bares:

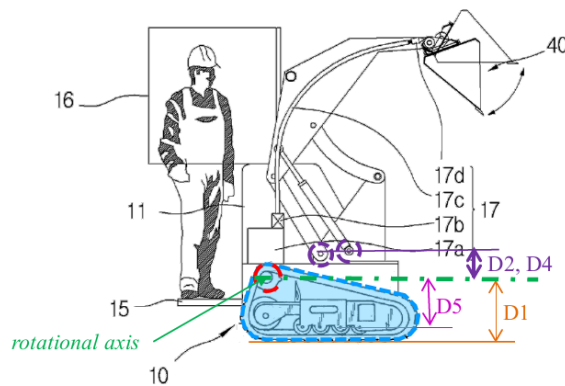


FIGURE A
KR996's Fig. 21 (annotated)
and modified with Bares' FIG. 8 track assembly

IPR2025-00169, EX1003, ¶168. Relying on this hypothetical tracked machine—and measurements he took from it—Velinsky opined that the claim limitations relating to D1, D2, D4, and D5 were obvious. *Id.* ¶¶168–169.

As Fleming explained, Velinsky's superficial justification (*id.* ¶¶141–146) for asserting that a POSITA would have modified KR996 in this way suffered from numerous shortcomings. IPR2025-00169, EX2016, ¶¶99–119. First, a POSITA would not have made this modification because of the critical role of the tires in achieving the quick-and-easy detachability of KR996's loader unit and arm unit. *Id.* ¶¶101–108. This alone demonstrates that “a POSITA would not be motivated to replace the tires of the [KR996 machine] with tracks and would not have a reasonable expectation of succeeding with such a modification.” *Id.* ¶108. Notably, in his second declaration, Velinsky does not offer any response to this fatal shortcoming. EX1042. In fact, Kubota chose not to inform Velinsky of any of the criticisms of his initial analysis before having him sign a second declaration. EX2039 at 34:5, 34:12–13.

Second, Fleming also refuted Velinsky's assertion that a POSITA would be motivated to replace the tires of KR996's machine to accommodate uneven, rocky terrain and lower ground pressure to avoid sinking or slipping on soft/muddy surfaces, because this machine was specifically designed for *indoor use*. IPR2025-00169, EX2016, ¶¶111–116. Again, Kubota tellingly withheld this information from Velinsky.

Finally, Fleming assessed the feasibility of Velinsky's proposed track-modified KR996. *Id.* ¶¶117–118. Unlike Velinsky's superficial analysis, which

relied on Figure 21 of KR996 and Figure 8 of Bares, Fleming's team of engineers created a 3D CAD model of the KR996 machine and the tracks from Bares. This in-depth analysis revealed several flaws in Velinsky's proposed modified machine. Fleming noted that the "substantial re-design work" that would be required to accommodate tracks "further confirms that a POSITA would not have had a motivation to modify [the KR996 machine] as Dr. Velinsky asserts." *Id.* ¶119.

Kubota's attempt to shield Velinsky's hypothetical machine from scrutiny based on *Allied* should be rejected. *Allied* involved patent claims directed to an attachment system for a tool with hydraulically powered opposing blades, such as metal cutting shears used with heavy machinery for demolition. *Allied*, 825 F.3d at 1374–76. At a high level, the claimed tool required (1) a quick-release functionality (because the blades were removable without disengaging the blades' main pivot pin) and (2) blades that could *both* pivot relative to the housing that encases the main pivot pin. *Id.* at 1376. The asserted prior art references (Caterpillar and Ogawa) each taught one of these features. The Caterpillar reference taught a demolition tool with quick-release blades, but only *one* of the blades pivoted relative to the housing. *Id.* at 1377. The Ogawa reference taught an excavation tool with opposing members (buckets) that *both* pivoted relative to the housing—augmenting the tool's grasping capabilities. *Id.* at 1378–79, 1381.

The Federal Circuit affirmed the Board's finding that a POSITA would have modified Caterpillar to allow both blades to pivot relative to the housing in light of Ogawa, rejecting the patent owner's argument that such a modification would have changed Caterpillar's principle of operation and result in an inoperable device. *Id.* at 1381–82. Notably, the court found that the proposed combination did not involve bodily incorporation of Ogawa's mechanism and, importantly, would not impact the quick-change functionality of Caterpillar. *Id.* at 1381 (“Such a design allows for a greater degree of movement between the jaws, *without impacting the quick change functionality....*”), 1382 (“the combination *does not utilize the pivot pin attachment mechanism of Ogawa.*”) (emphasis added).

Allied bears no resemblance to this case. Here, Velinsky and Kubota relied on a modified version of KR996 that bodily incorporated the tracks shown in Figure 8 of Bares. This wasn't simply a high-level schematic to illustrate the concept of modifying KR996 to include tracks. Indeed, Velinsky relied on the dimensions of the hypothetical machine created by the combined KR996/Bares figures to opine that certain limitations of the claims were satisfied. IPR2025-00169, EX1003, ¶¶168–169. Kubota incorrectly suggests that Fleming proposed the configurations he modeled. *See* Reply 25. But Fleming merely modeled the hypothetical machines proffered by Velinsky. Kubota cannot avoid expert scrutiny that merely points out the flaws in Velinsky's hypothetical machine.

Putting aside the complications revealed by Fleming's unrebutted modeling work, Kubota and Velinsky still fail to provide a legitimate basis for modifying KR996 in the manner proposed. As discussed below, Velinsky's proposed modifications would render the vehicle unsatisfactory for its intended purpose by destroying the removability feature. *See, e.g., Plas-Pak Indus., Inc. v. Sulzer Mixpac AG*, 600 F. App'x 755, 759–60 (Fed. Cir. 2015) (rejecting an obviousness argument based on a modification that would change the primary reference's "principle of operation," rendering it inoperable for its intended purpose). Kubota's *Allied* argument should therefore be disregarded.

B. Velinsky's Testimony Should Be Given Little or No Weight.

As Vermeer previously explained, Velinsky's qualifications and analysis are significantly flawed, and his opinions should be given little weight. *See* POR at 31–37. In its Reply, Kubota represents that "Velinsky is the only true expert of CULs" because Vermeer's expert has experience designing full-sized loaders while Velinsky has purportedly "personally designed CULs." Reply 7.

This representation is false. Kubota relies on Velinsky's experience directing the Advanced Highway Maintenance & Construction Technology Research Center at UC Davis ("AHMCT"), where he designed a tethered robot to rout and seal cracks in highway pavement. Reply 6 (citing EX1003, ¶¶9–14;

EX1036); EX1003, ¶15; EX2039 at 12:16–28:12. This is Velinsky's tethered robot:

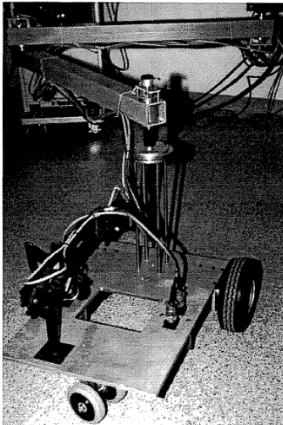


Figure 3-4. TMR Photograph

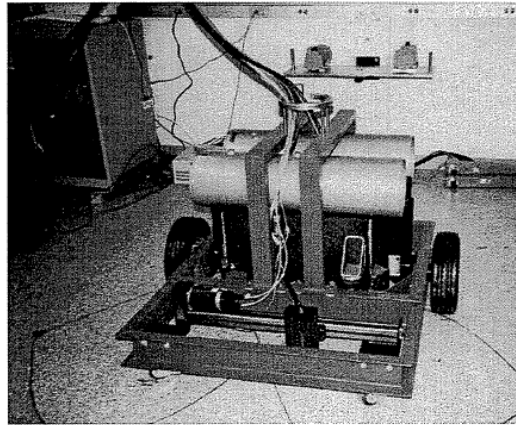


Figure 2-2. Front view of Tethered Mobile Routing Robot

EX2040 at 19 (native p. 11) (prototype without tooling); EX2041 at 11 (native p. 5) (robot with tooling, which Velinsky and Kubota claim is a “compact utility loader”).

This tethered mobile routing robot was connected to a support vehicle like a truck, as shown in this schematic:

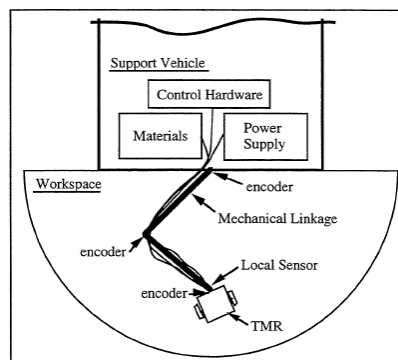


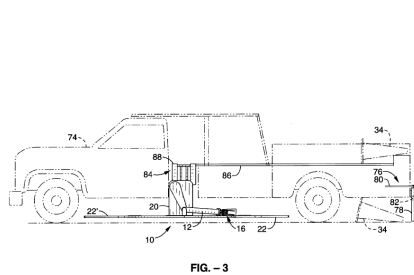
Figure 3-1. Conceptual TMR System Configuration

EX2040 at 17 (native p. 9); EX2039 at 21:6–22:1.

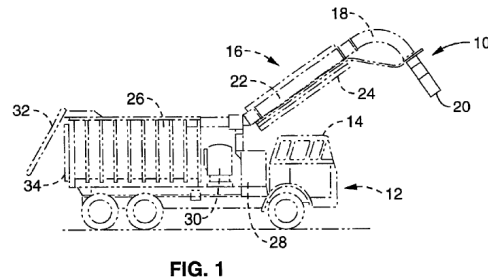
Contrary to Kubota's representations, none of Velinsky's prior work relates to compact utility loaders. The '386 Patent defines CULs² as "having either a pedestrian operating position or a standing operator platform at the rear of the machine and either front-mounted interchangeable equipment or lift arms with an attachment bracket capable of coupling to interchangeable, front-mounted attachments.'" EX1001 at 1:21–28. Even when he was provided this definition during cross-examination, Velinsky insisted that his robots were CULs. EX2039 at 28:13–33:8.

Kubota also touts Velinsky's AHMCT work that involved "the design and fabrication of highway maintenance and construction machines developed to address a 'wide variety of tasks'" including "collection of roadway debris, landscape maintenance, graffiti removal and plowing of snow...." Reply 6. During cross-examination, Velinsky identified the following as those AHMCT machines:

² Both experts agree that "compact tool carrier," "compact utility loader," and "mini skid steer" are interchangeable for purposes of this proceeding. *See* EX1003, ¶28; EX2016, ¶33.



Highway cone removal



Collection of roadway debris



Figure 2-2: Conceptual sketch of sign cleaning tool

Graffiti removal

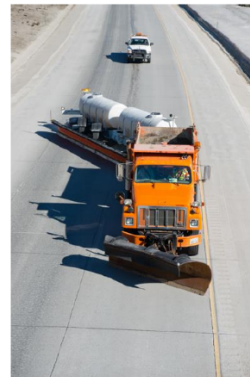


Figure 1. A TowPlow system in its deployed configuration

Snow removal

EX2039 at 35:8–37:15, 41:6–49:3; EX2042 at Fig. 3; EX2043 at Fig. 1; EX2044 at Fig. 2-2; EX2045 at Fig. 1. Velinsky admitted that he never actually developed the graffiti-removal machine or the TowPlow snow-removal system, and conceded that none of these machines were CULs. *Id.*

Finally, Velinsky admitted during cross-examination that he never reviewed Fleming's declaration before Kubota submitted its Reply—in fact, Velinsky “didn’t even know [Vermeer] had an expert.” EX2039 at 34:5, 34:12–13. Tellingly, Kubota did not provide its expert any of the detailed analysis or evidence identified in Fleming's declaration. Because Kubota purposefully

withheld key evidence from Velinsky relating to the core issues in this case (including claim construction, motivation to modify/combine, teachings in the prior art, and reasonable expectation of success), Velinsky's opinions should be given little weight.³ *See Juniper Networks Inc. v. Correct Transmission LLC*, N. 2023-1046, 2024 WL 3517862, *5 (Fed. Cir. 2024) (affirming Board's non-obviousness determination where petitioner's expert's failure to "address the issues" raised by patent owner's expert constituted "substantial evidence" against petitioner). The Board is "entitled to weigh the credibility of the witnesses." *Id.*

Kubota's odd stratagem also renders Fleming's expert testimony unrebutted. Kubota's bald attorney argument in its Reply provides no support for the Board to find in Kubota's favor on these issues. *Zero Gravity Inside Inc. v. Footbalance Sys. OY*, IPR2015-01769, Paper 49 at 20 (PTAB Feb. 3, 2017) ("Mere attorney arguments and conclusory statements that are unsupported by factual evidence have little probative value."); *Elbit Sys. of Am., LLC v. Thales Visionix, Inc.*, 881 F.3d 1354, 1359 (Fed. Cir. 2018) ("'Attorney argument is not evidence' and cannot rebut other admitted evidence.").

³ This stands in stark contrast to Fleming's detailed analysis, which involved closely reviewing and rebutting Velinsky's opinions and evidence. *See, e.g.*, EX2016, ¶12, Appendix B; EX1043 at 10:21–11:4.

The Board should give little weight to Velinsky's opinions.

C. Claim Construction

1. "Mainframe"

The "mainframe" claim terms are of paramount importance. Kubota's Petition relied on Velinsky's expansive view of "mainframe." EX1003, ¶49 (giving all claim terms an unspecified "plain and ordinary meaning"); EX2021 at 65:10–73:13; EX2022 at 15, 22 (shading nearly all structural components of KR996's machine, its removable fixture 41, and bogie frames);⁴ see POR at 34–37. In its Institution Decision, the Board construed "mainframe" more narrowly, noting that to be part of the mainframe, a component must constitute part of the "primary supporting structure" of the machine. Institution Decision at 25.

Kubota and Velinsky continue to improperly apply an overly expansive view of "mainframe"—one that would include various removeable tools or attachments that can be selectively used with the machine. Indeed, Velinsky confirmed that he

⁴ Velinsky does not even attempt to reconcile the broad view of what constitutes a "mainframe" (revealed by this shading) with his current view of "mainframe." EX1042. And Kubota shrugs it off as "irrelevant." Reply 15 n.10. Kubota's and Velinsky's cavalier and result-oriented approach to the construction of "mainframe" should be rejected.

applied the same broad definition of “mainframe” in his first and second declarations. EX2039 at 8:7–9:3. But as explained in Vermeer’s POR—supported by Fleming’s testimony and evidence—a POSITA would not consider such a secondary structure to be part of the *primary* supporting structure of the machine. POR 26–31; EX2016 at ¶¶89–93.

In response, Kubota mischaracterizes Vermeer’s claim construction argument as requiring a “single, un-separable, component.” Reply 8. Kubota then attacks this strawman with multiple patents that refer to a machine’s “main frame” as including separable or removeable components. *Id.* (citing EX1047–1050). None of this evidence supports Kubota’s expansive view of “mainframe.” The fact that these patents—cited by Kubota for the first time in its Reply—allow components of the mainframe to be connected by bolts or separable from other components of the machine’s core structure is completely consistent with Vermeer’s explanation as to what a POSITA would understand to be part of the mainframe (i.e., the *primary* supporting structure).

Vermeer has consistently explained that the ‘386 Patent’s mainframe can be connected by various fastening mechanisms like welds, bolts, screws, etc. (except for when the mainframe must be a “single weldment,” as discussed below). *See, e.g.*, Vermeer’s Responsive Claim Construction Brief at 3 (“Vermeer’s proposed definition does not require a unitary construction (single weldment) or lack of

separability...Vermeer's definition does not foreclose the mainframe from being dismantled during maintenance or repair, for example."); EX2016 at 36 n.2 ("A skilled artisan would understand that the mainframe could be disassembled for maintenance or repair."). The portions of the mainframe shown in the patents cited by Kubota are clearly part of the primary supporting structure of the machine—the core structure to which other components attach. With one possible exception,⁵ none of the cited patents identify a structure comprising selectively removeable equipment or attachments as part of the "mainframe."

Kubota primarily relies on a 2006 Service Manual for Bobcat's MT52 Mini Track Loader. Reply 8–9; EX1051. In this manual, Bobcat grouped the components of the machine into different groups for purposes of organizing the manual, as shown in the table of contents:

⁵ EX1047 appears to use "main frame" broadly to include a wide variety of structural components that are not part of the machine's primary supporting structure, including for example the "boom assembly 32" (loader arms). This is a patent that was owned by Clark Equipment Company (Bobcat). As discussed below, Bobcat's broad use of "main frame" is inconsistent with how the terms are used in the Vermeer patents (and all other evidence of record).

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EX1051 at 7. Kubota argues that all components addressed in the “Main Frame” chapter (50-01) would be understood to be part of the machine’s mainframe.

Reply 8–9. Specifically, Kubota asserts that the following page in the manual demonstrates that “an instrument panel, a fuel tank, a hood, and a lift arm” would all be considered by a POSITA to be part of the primary supporting structure of the machine. *Id.* at 9.

MAIN FRAME

BOB-TACH	50-10-1
Installation	50-10-2
Lever And Wedge Removal	50-10-3
Removal	50-10-1
Seal Removal And Installation	50-10-3
BOTTOM ACCESS PANEL	50-90-1
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EX1051 at 217. Notably, this service manual identifies the *loader arm* (“lift arm”) as part of the “main frame.” A critical dispute in this proceeding is whether the loader arms are pivotally connected to the “mainframe.” Yet Kubota now cites this manual to assert that the loader arms are *part of* the “mainframe.”

This strained definition cannot be reconciled with the text of the ‘386 Patent. The ‘386 Patent clearly identifies the mainframe as separate from the components

that Kubota asks the Board to sweep in as part of the “mainframe” based on this manual. EX1001 at 4:13–16. Further, even the manual demonstrates that its author viewed the actual mainframe to be separate from the various components addressed within the “Main Frame” chapter of the manual. *See, e.g.*, EX1051 at 227 (tailgate attached to rear door panel, which is attached to “frame”), 240 (reverse stop mechanism attached to “main frame”), 241 (bottom access panel attached to “frame”), 243 (ride-on platform attached to the “frame”).⁶

Under the proper construction of mainframe, a POSITA would not consider the detachable fixture (41) of the KR996 loader unit to be part of the primary supporting structure of KR996's machine.

2. “Incorporates a Single Weldment”

Through its Reply, Kubota asks the Board for the first time to construe the phrase “the mainframe incorporates a single weldment” as meaning that *any* portion of the frame supporting the loader “includes” *at least one* weldment. The Board need not reach this issue because Kubota failed to raise it in the Petition.

⁶ It is also notable that Kubota opted to offer the Board only attorney argument about this new claim-construction evidence. Kubota did not give Velinsky an opportunity to offer his opinion on any of this new evidence. EX2039 at 7:19–11:6, 33:18–34:13.

Neither the Petition nor Kubota's claim construction briefing on the term "mainframe" addressed the proper construction for the phrase "incorporates a single weldment." Instead, Kubota's Petition argued that (1) it would have been obvious to weld "portions" of KR996's frame together (to form a single weldment), and (2) if not, JP705's mainframe "**consists of** one single weldment" that could be applied to the KR996 machine. Pet. 42–43 (emphasis added).

The Petition acknowledged that "the '386 Patent "does not define a 'single weldment,'" but nevertheless maintained that "no claim term requires express construction." Pet. 17–18, 42 n.7. It is therefore too late for Kubota to request construction of this limitation. *Haag-Streit AG v. Eidolon Optical, LLC*, IPR2018-01311, Paper 31 at 3 (PTAB Sep. 5, 2019) ("The petitioner's reply is not an opportunity to raise new theories or arguments or to submit new evidence that reasonably could have been presented in the initial petition."); *GCE Gas Ctrl. Equip. Inc. v. VBOX, Inc.*, IPR2023-00326, Paper 27 at 32 (PTAB June 18, 2024) (rejecting "newly introduced claim construction" submitted in reply).

Regardless, Kubota's argument should be rejected because it reads the term "single" out of the limitation entirely. Any construction that would allow the mainframe to include "some portions g formed as a single weldment" necessarily requires the term "single" to mean *at least* one, rather than *only* one. Reply 16 n.12 (emphasis added). This construction is improper regardless of the

introductory language (“is” or “incorporate”) and regardless of whether “incorporates” means “including” or “consisting of.” *See, e.g., Victaulic Co. v. The Viking Corp.*, IPR2015-00423, Paper 9 at 8–9 (PTAB June 26, 2015) (Noting that Federal Circuit precedent “confirms that ‘a,’ when used with ‘comprising,’ may not mean ‘at least one’ if there is ‘more’ to the limitation, as is the case here where ‘a’ is followed by ‘single.’”). Kubota’s new construction also contradicts the USPTO’s prior interpretation of this term, which has consistently been construed as a mainframe that “**comprises a single part.**” *E.g.*, EX1031 at 402. Kubota’s new claim-construction argument should be rejected.

D. Kubota’s Ground I Arguments Fail.

1. Kubota’s proposed combination fails to satisfy all the limitations of the Challenged Claims.

Kubota has provided the Board with no evidentiary basis on which to conclude that a POSITA would use JP705’s engine bracket in the much smaller KR996 machine. Regardless, the proposed combination fails to disclose a machine with linkages and an actuator pivotally attached to the side *of the mainframe*. As discussed above, a POSITA would not consider the detachable fixture (41) of the KR996 loader unit to be part of the primary supporting structure of KR996’s machine. Therefore, under the proper construction of “mainframe,” KR996 does not satisfy all the limitations of any Challenged Claim.

2. *The combination of KR996 and JP705 fails to disclose the linkages and an actuator attached to a single-weldment mainframe, as required by claim 2.*

Claim 2 requires that the “mainframe incorporates a single weldment.”

Kubota now argues that a multi-part mainframe that is not a single weldment still satisfies claim 2. This new argument relies on a strained definition of this claim language that would eliminate the word “single” and render the limitation effectively meaningless.

Moreover, Kubota has failed to establish that modifying KR996's frame to have a single-weldment mainframe would have been obvious to a POSITA. According to Kubota, “being able to switch between a loader and excavator” merely provides “operational efficiency,” the loss of which would simply be a “trade-off” that would not discourage a POSITA. Reply 18. But KR996 does not merely describe its interchangeable frame as being *better* than a unitary frame—interchangeability is the ***purpose*** of the invention. EX1005 [0012]. Loss of core functionality is not a mere trade-off. *Plas-Pak Indus., Inc.*, 600 F. App'x at 759–60.

Therefore, Kubota's cited cases are irrelevant. In *PAR Pharm., Inc. v. TWI Pharms., Inc.*, 773 F.3d 1186, 1197–98 (Fed. Cir. 2014), the patent owner argued that no POSITA would use the petitioner's proposed combination of prior-art methods because there were “better methods available” to solve the problem—not

that the combination would destroy the stated purpose of that method. Similarly, in *Medichem, S.A. v. Rolabo, S.L.*, 437 F.3d 1157, 1166–67 (Fed. Cir. 2006), the patent owner argued that a POSITA would not have added a certain compound when synthesizing a particular medication because, while there was some indication in the prior art that the compound could improve the reaction's yield in “low concentrations,” other research indicated that at its “highest concentrations,” the compound could “stop the reaction completely.” *Id.* There was no art teaching that the compound would be ineffective in low concentrations. *Id.* In other words, unlike here, a POSITA would have no reason to believe that combining the cited references would prevent the reaction from fulfilling its stated purpose.

Kubota has failed to establish that combining the teachings of KR996 and JP705 would have rendered a single-weldment mainframe obvious or that a POSITA would have been motivated to make that change.

E. Kubota's Ground II Arguments Fail.

For the same reasons addressed above for Ground I, Kubota's Ground II arguments fail.

F. Kubota's Ground III Arguments Fail.

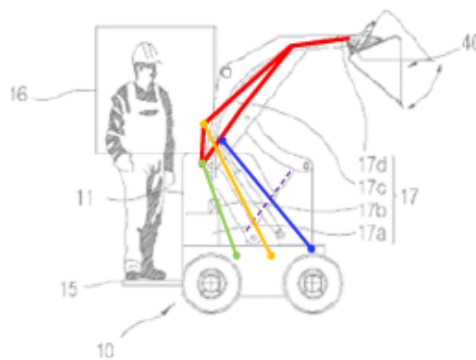
1. *Kubota's purported rationale for combining the teachings of KR996, JP705, and Beltrami to dramatically redesign the construction vehicle of KR996 lacks merit.*

Kubota does not dispute that Beltrami describes the advantages of its vertical-lift loader arm configuration over the old radial-lift design. Kubota argues that Beltrami should not be limited to the “specific problem it addresses” and “its teachings are available *for all they fairly disclose* to [a] POSITA.” Reply 20 (emphasis added). But Kubota provides no basis for the Board to conclude that Beltrami “fairly discloses” moving the pivot points connecting the linkages and actuator *as low as possible* on the mainframe or to positions different than Beltrami discloses. It merely touts the advantages of moving from a radial-lift configuration to its vertical-lift configuration. See EX2016 at ¶¶98–106. Beltrami simply does not contain the teachings that Kubota asks the Board to attribute to it. The portion of Beltrami relied on by Kubota (3:35–38) is plainly describing “the various advantages” over the prior art radial-lift machine depicted in Figure 1. EX1008 at 2:40–3:45.

Regardless, lowering the pivot points of the KR996 machine would destroy the critical removability feature touted as the key inventive concept in KR996, rendering it unsatisfactory for its intended purpose. *In re Gordon*, 733 F.2d 900, 902 (Fed. Cir. 1984); *Chemours Co. FC, LLC v. Daikin Indus., Ltd.*, 4 F.4th 1370,

1376 (Fed. Cir. 2021). Therefore, even if a POSITA had extracted some potential reason to lower the pivot points, the devastating loss of the removability feature would far outweigh any incremental benefit gained from that modification. *Henny Penny Corp. v. Frymaster LLC*, 938 F.3d 1324, 1332 (Fed. Cir. 2019) (“the benefits, both lost and gained, should be weighed against one another”).

Kubota refuses to grapple with the serious flaws in the hypothetically modified machines on which its Petition is based, shown below:



EX1005, FIG. 21
(annotated)

EX1003, ¶192.

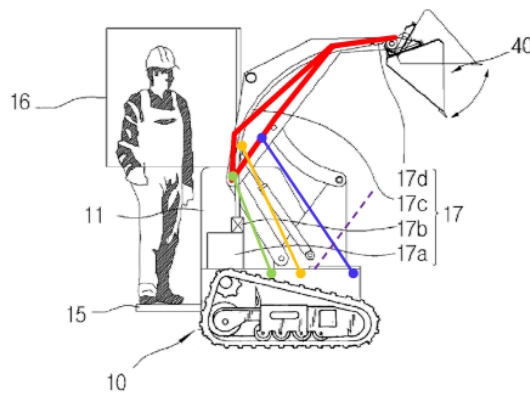


Figure A
(annotated)
with lowered pivot points

IPR2025-00169, EX1003, ¶188.

Fleming pointed out significant problems with Kubota's proposed modified machines. EX2016, ¶¶118–134; IPR2025-00169, EX2016, ¶¶140–156. Instead of addressing the problems that Fleming identified, Kubota accuses him of improperly demanding “bodily incorporation” of the two prior art references. Reply 22–23. As explained above, however, Fleming has simply pointed out the inherent flaws with Kubota's hypothetical modified machine—including the fact that they wouldn't work and would no longer possess the key removability feature. Velinsky was not allowed to review this evidence and Kubota's attorney argument is incapable of rebutting it. *Elbit Sys. of Am.*, 881 F.3d at 1357–59.

Kubota relies on a declaration that Fleming submitted in PGR2020-00081. Reply 23. This separate proceeding provides no support for Kubota's obviousness

arguments—in fact, *it directly undermines them*. The prior art addressed by Fleming in PGR2020-00081 was Vermeer's commercialized CTX50 mini skid steer. Fleming explained how the claimed machine's features would have been obvious based on a modified version of the CTX50 with minor design adjustments implemented to achieve a higher lift height. As Fleming explained in that proceeding, one of the demands in the industry was for loaders to have a lift height high enough to clear the side of construction dumpsters. EX1046, ¶113. Fleming opined that one would have therefore been motivated to modify the CTX50 to increase its lift height from 72 inches to 80 inches. *Id.* ¶97. This increased lift height—common in competitive CULs—allowed machines to clear the side of standard 30 cubic-yard dumpsters. Fleming explained why a POSITA would make this modification to the CTX50 and provided specific CAD designs showing the minor changes. *Id.* ¶¶105–117, 100–103. Fleming also walked through the specific minor adjustments to the CTX50 that were needed to achieve this lift height. *Id.* ¶99.

The obviousness case presented by Kubota here pales in comparison to the rationale and supporting evidence Fleming set forth in PGR2020-00081. ***Yet in that proceeding the Board denied institution.*** The Board concluded that the proposed modifications to the CTX50 were “infected with impermissible hindsight” that “cannot form the basis of an obviousness conclusion.” PGR2020-

00081, Paper 11 at 32 (“[I]t appears that...Dr. Fleming improperly use the challenged claims and the ’843 patent as a guide to modifying the CTX50 into a machine that resembles the claimed invention.”) (citing *Plantronics, Inc. v. Aliph, Inc.*, 724 F.3d 1343, 1354 (Fed. Cir. 2013) (“[W]e cannot simply assume that ‘an ordinary artisan would be awakened to modify prior art in such a way as to lead to an obviousness rejection.’ It is in such circumstances, moreover, that is especially important to guard against the dangers of hindsight bias....”))).

Here, Velinsky’s proposed rationale for modifying the KR996 machine based on Beltrami is far more tenuous and much more infected with hindsight bias than Fleming’s proposed modifications in PGR2020-00081. Further, unlike Velinsky’s superficial analysis in this case, Fleming demonstrated (through detailed modeling and testing) that the proposed modifications to the CTX50 were minor and would actually work. Kubota’s conclusory obviousness arguments should be rejected.

2. *Kubota’s proposed combination fails to satisfy all the limitations of the Challenged Claims.*

Even if a POSITA would have modified KR996 with JP705 and Beltrami, this modified machine would still fail to satisfy the claim limitations requiring the linkages and actuator to be pivotally connected to the “mainframe,” as explained above.

3. *The combination of KR996, JP705, and Beltrami fails to disclose the relative pivot point locations required by claims 15, 17, 19–20, 23–30, 66–67.*

Even if a POSITA was motivated by Beltrami to reconfigure the loader arm mechanism of KR996, Kubota has not demonstrated that this would have yielded a machine having the precise vertical distances required by the claims—especially in light of Kubota's insistence that none of the prior-art figures are drawn to scale, undermining Velinsky's analysis. Reply at 3, 23; *see also*, e.g. Ex. 1003 at ¶¶175–176 (relying on a “plain inspection” of KR996's figures for dimensional limitations).

G. SECONDARY INDICIA OF NON-OBVIOUSNESS

1. *Kubota's Petition failed to address secondary indicia.*

A petitioner is required to address secondary considerations of non-obviousness when those considerations have been addressed in the patent's prosecution history. POR at 63–64. Here, the secondary considerations supporting non-obviousness were thoroughly addressed in the patent's prior reexamination. The parties agree that the Patent Office previously made “[f]indings of fact and conclusions of law regarding...secondary indicia of non-obviousness.” Ex. 3003. Yet Kubota and Velinsky omitted any substantive discussion of the secondary indicia evidence from its Petition. Even after Vermeer addressed this shortcoming in its Response, Kubota made no attempt to justify its failure or explain why its

counterargument should be heard now. Kubota's Reply arguments regarding secondary indicia should therefore be disregarded.

2. *The “nexus” of objective indicia must be to the claimed invention—the combination of features.*

Kubota contends that Vermeer's proffered evidence of non-obviousness is irrelevant because it purportedly lacks a nexus to the claimed invention. Reply 26, 28. As Kubota's cited cases acknowledge, however, secondary-consideration evidence must relate to the patent's *inventive feature or combination of features*, regardless of whether that combination of features is the focus of the petitioner's patent challenge. *Yita LLC v. MacNeil IP LLC*, 69 F.4th 1356, 1364 (Fed. Cir. 2023) (“[S]econdary-consideration evidence ‘may be linked to an individual element’ of the claimed invention or ‘to the *inventive combination of known elements*’ in the prior art.”); *Ethicon Endo-Surgery, Inc. v. Covidien LP*, 812 F.3d 1023, 1034–35 (Fed. Cir. 2016) (noting that secondary-consideration evidence is irrelevant if it exclusively relates to an “*unclaimed* feature of the device” or to features known in the art) (all emphasis added). Kubota incorrectly argues that because it has alleged that the prior art teaches a vertical-lift compact utility loader having the claimed combination of features, that Vermeer's evidence of secondary indicia of non-obviousness lacks the requisite nexus. Such a rule would render the secondary-considerations analysis moot, as a successful *prima facie* argument would establish

that those features were “known in the art” such that they could never support an objective finding of non-obviousness.

The objective evidence that Vermeer has submitted undoubtedly relates to the patented machine's combination of claimed features. The CULs associated with the Vermeer's secondary indicia of non-obviousness⁷ are covered by the Challenged Claims—a fact that Kubota does not dispute.

Kubota's meager counterargument seems to allege that the industry praise, commercial success, and unexpected results of Vermeer's vertical-lift CUL is irrelevant because “lift capacity” is not expressly claimed in the patent.⁸ Reply 28. This is a red herring. The machine's disproportionately increased lift capacity relative to its weight and size is not a claimed feature of the machine but rather is the *result* of combining the machine's claimed features.

Kubota further argues that contrasting the “struggle for performance metric” of vertical-lift CULs with that of radial-lift CULs “is not indicative of non-

⁷ Notably, the KR996 machine, which lacks the combination of claimed features did not garner the commercial success and praise of these CULs.

⁸ Kubota's Reply also argues that Vermeer's evidence should be disregarded because of purported “evidentiary deficiencies.” Reply 27. Vermeer will respond to this argument if Kubota files an evidentiary motion explaining its objections.

obviousness,” though it does not explain why. *Id.* In any event, the Federal Circuit disagrees. In *Transocean*, for example, the Court specifically considered evidence that “dual-activity drilling rigs [*i.e.*, the patented invention] commanded a market premium over single-activity rigs” and that dual-activity drilling rigs had become the “industry standard”—even though customers and POSITA alike had believed at the time of invention that dual-activity rigs would never be able to achieve the same performance as single-activity rigs without major drawbacks. *Transocean Offshore Deepwater Drilling, Inc. v. Maersk Drilling USA, Inc.*, 699 F.3d 1340, 1350, 1352–53 (Fed. Cir. 2012). Kubota’s untimely counterarguments therefore do not overcome the overwhelming objective evidence confirming the non-obviousness of Vermeer’s patented invention.

3. *Kubota asks the Board to contradict prior USPTO findings of fact and conclusions of law.*

Kubota invites the Board to revisit the USPTO’s prior findings of fact and conclusions of law regarding secondary indicia of non-obviousness,⁹ yet failed to timely or fully engage with this evidence. Current guidelines require a decision

⁹ Ex. 3003. The Office confirmed the patentability of Vermeer’s claims over many of the same objective-indicia arguments that Kubota vaguely raises here. *See, e.g.*, Ex. 1031 at 9–16, 518–20, 526–28 (*Leapfrog* argument).

contradicting a previous USPTO ruling to state in detail why overturning the earlier decision is warranted. See Sept. 16, 2025 USPTO Memorandum. This common-sense approach cultivates uniformity in Office proceedings and helps protect stakeholders' settled expectations. Because Kubota has provided no compelling basis to contradict the Office's prior findings, the Board should find that the secondary-indicia evidence supports a finding of non-obviousness here.

III. CONCLUSION

For these reasons and the reasons set forth in the Patent Owner Response, Vermeer respectfully requests the Board to enter a Final Written Decision finding that Kubota has failed to demonstrate that any of the Challenged Claims of the '386 Patent are obvious.

Date: January 14, 2026

Respectfully submitted,

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CERTIFICATE OF SERVICE

Under 37 C.F.R. § 42.6(e), the undersigned certified that on January 14, 2026, a copy of Patent Owner's Sur-Reply was served via electronic mail on the following attorneys of record:

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**CERTIFICATE OF COMPLIANCE WITH TYPE-VOLUME
REQUIREMENTS UNDER 37 C.F.R. § 42.24**

Under 37 C.F.R. § 42.24(d), the undersigned certifies that the Patent Sur-Reply complies with the type-volume requirements of 37 C.F.R. § 42.24(c)(4) because it contains 5,596 words, excluding the parts exempted by 37 C.F.R. § 42.24(c).

This Sur-Reply also complies with the typeface requirements of 37 C.F.R. § 42.6(a)(2)(ii) and the type style requirements of 37 C.F.R. § 42.6(a)(2)(iii) and (iv).

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