

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Kubota North America Corporation,

Petitioner

v.

Vermeer Manufacturing Company,

Patent Owner

IPR2025-00381 (U.S. Patent No. 11,465,891)

PETITIONER'S REPLY

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Vermeer (“PO”) touts that they invented and patented a vertical-lift compact utility loader (CUL) and devotes large portions of their Response (Paper 15/16) (“POR”) to discussing their commercial vertical-lift CULs success relative to conventional radial-lift CULs. However, it is undisputed that PO was not first to invent a vertical-lift CUL—KR996 is a prior art patent that clearly illustrates and describes just such a CUL. Faced with this, PO recycles its arguments that “loader support” be construed to exclude any component that is “selectively removable.” The Board properly rejected this argument in the ID, and should do so again here. The POR also now argues for patentability based on commonplace features—such as tracks instead of wheels (dependent claim 9) or a mainframe that includes welds (dependent claim 2)—that KR996 does not expressly describe. Yet, as demonstrated in the Petition (Paper 1), each of these features was well known in the art and represents an obvious design choice that would bring predictable benefits to KR996’s loader apparatus.

I. SUMMARY OF ARGUMENTS PRESENTED IN THIS REPLY

The POR repeats several arguments that are factually and legally flawed. These are addressed in summary below, and in detail in the following sections.

A. PO's bodily incorporation and teaching away arguments are neither legally correct nor factually supported.

1. PO argument is premised on bodily incorporation

Rather than consider how POSITA would approach the Petition's prior art combinations, PO and their expert, Dr. Fleming, rigidly assume every component illustrated in the prior art figures must remain exactly as depicted in that patent's not-to-scale figures. Fleming's CAD drawings based on that assumption are fundamentally flawed as they are merely overlays of KR996's figures, which are not indicated to be drawn to scale.¹ EX1043, 83-84 (Fleming describing "sketch[ing] over" patent images to create an "overlay[]" being done by "one of my engineers"). POR and Fleming compound their errors by overlaying a reproduced portion of Bares' figure onto their generated CAD drawing, without contemplating any engineering judgement or even common sense. POR, 48. Fleming admitted that in doing so he was employing bodily incorporation.² PO then uses these constructed drawings to argue the obviousness combinations do not work due to alleged

¹ Patent figures may not be used to show particular sizes if the specification is completely silent on the issue, as the references are here. *See Hockerson-Halberstadt v. Avia Group Int'l*, 222 F.3d 951, 956-957 (Fed. Cir. 2000).

² EX1043, 97-98 (discussing taking "exact figure...onto exact figure").

component interference. *E.g.*, POR, 48-49. This is not the proper context for an obviousness analysis.

2. *Allied* confirms PO's arguments are legally flawed

The facts here are very similar to those adjudicated in *Allied Erecting & Dismantling Co. v. Genesis Attachments, LLC*, 825 F.3d 1373 (Fed. Cir. 2016). *Allied* is an appeal affirming an IPR decision involving construction equipment that rejected similar arguments of bodily incorporation and teaching away by that patent owner, so is particularly on-point.

It is well established 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[.]” *Allied*, 1381 (quoting *In re Keller*, 642 F.2d 413, 425 (C.C.P.A. 1981)). Yet this is exactly what PO and Fleming did as discussed *supra*. *See, e.g.*, POR, 41.

PO also repeatedly argues that the primary reference, KR996, either teaches away from the combination (with Bares or welding), or that such combinations destroy KR996's intended purpose. In *Allied*, CAFC also addressed arguments just like these PO's arguments. There, the patent owner also argued that combining the references “would fundamentally redesign and reconstruct [the primary reference] to change its principle of operation and [thus] result in an inoperable device.” *Id.*, 1380. The CAFC disagreed. *Id.* The Court faulted the patent owner's reasoning

because the test is whether a skilled artisan would have been motivated to combine their teachings to achieve the claimed invention. *Id.* (citing *Pfizer, Inc. v. Apotex, Inc.*, 480 F.3d 1348, 1361 (Fed. Cir. 2007)). The Court stated that “[a]lthough modification of the movable blades may impede the quick change functionality disclosed by Caterpillar [the primary prior art reference], ‘[a] given course of action often has simultaneous advantages and disadvantages, and this does not necessarily obviate motivation to combine.’” *Id.* (citing *Medichem, S.A. v. Rolabo, S.L.*, 437 F.3d 1157, 1165 (Fed. Cir. 2006)).

3. Federal Circuit case law shows PO’s arguments are flawed

As discussed above, PO’s bodily incorporation arguments fail as it is not necessary that the prior art be physically combinable. *Allied* at 1382; *see also, In re Etter*, 756 F.2d 852, 859 (Fed. Cir. 1985) (*en banc*) (“Etter’s assertions that Azure cannot be incorporated in Ambrosio are basically irrelevant, the criterion being not whether the references could be physically combined but whether the claimed inventions are rendered obvious by the teachings of the prior art as a whole”); *In re Mouttet*, 686 F.3d 1322, 1332 (Fed. Cir. 2012).

The POR also makes multiple arguments about the embodiments of KR996 having certain features for its preferred operation. *See, e.g.,* POR, 21-23. This is also not the correct legal standard for teaching away. “[A] statement that a particular combination is not a preferred embodiment does not teach away absent clear

discouragement of that combination.” *Syntex (U.S.A.) LLC v. Apotex, Inc.* 407 F.3d 1371, 1380 (Fed. Cir. 2005), citing *In re Fulton*, 391 F.3d at 1199-1200. *See also, Meiresonne v. Google, Inc.*, 849 F.3d 1379, 1382 (Fed. Cir. 2017) (“A reference that ‘merely expresses a general preference for an alternative invention but does not criticize, discredit, or otherwise discourage investigation into’ the claimed invention does not teach away”), quoting *Galderma Labs., L.P. v. Tolmar, Inc.*, 737 F.3d 731, 738 (Fed. Cir. 2013). *See also, Allied* at 1381, quoting *Medichem*, 1165 discussed above.

Finally, the POR discusses KR996’s capability of being modified to operate in different modes, such as the ability to interchange between a loader and another machine, and that the proposed modifications would hinder this ability. POR, 22-23, 39. To be clear, the claims at issue do not include limitations with respect to such interchangeability. This is important because “evidence concerning whether the prior art teaches away from a given invention must relate to and be commensurate in scope with the ultimate claims at issue.” *Idemitsu Kosan v. SFC*, 870 F. 3d 1376, 1381-82 (Fed. Cir. 2017), citing *MeadWestVaco Corp. v. Rexam Beauty and Closures, Inc.*, 731 F.3d 1258, 1264-65 (Fed. Cir. 2013); *In re Kahn*, 441 F.3d 977, 990 (Fed. Cir. 2006); *In re Zhang*, 654 Fed.Appx. 488, 490 (Fed. Cir. 2016) (“While a prior art reference may indicate that a particular combination is undesirable for its

own purposes, the reference can nevertheless teach that combination if it remains suitable for the claimed invention.”)(emphasis added).

B. There is no genuine dispute that Petitioner's expert Velinsky is fully qualified.

PO spends an inordinate amount of time attacking and denigrating the technical capabilities of Petitioner's expert, Dr. Velinsky. But there should be no serious dispute that Velinsky is fully qualified for this role. In short, Velinsky has a PhD in mechanical engineering and was a professor of mechanical engineering at UC Davis, where among other things, his area of expertise was vehicle design and mechanics, along with machinery. EX1003, ¶¶8-16; EX1036. He also served as the Director of the Advanced Highway Maintenance & Construction Technology Research Center (“Research Center”) from 1991-2016. *Id.* (priority date of the '891 patent is 2015). While there, Velinsky worked on the design and fabrication of highway maintenance and construction machines (skid steers) developed to address a “wide variety of highway tasks including...collection of roadway debris, landscape maintenance, graffiti removal and plowing of snow, and involve the use of mechanisms to allow the tasks to be performed.” *Id.* In other words, at the relevant time, Velinsky was designing and fabricating skid steers.

Importantly, PO admits that skid steers with vertical-lift were well-known in the art prior to their patent but still argues that providing vertical-lift to a compact

utility loader (CUL) or *mini* skid steer was new and non-obvious. POR, 11. While Petitioner disputes that POSITA would need to have specialized first-hand expertise in compact utility loaders (CUL)—other than the analysis and design of mechanical systems, which is also an area of expertise of Velinsky—Velinsky has personally designed a *mini* skid steer before the priority date and is qualified to opine on them, even under this arbitrary standard set by PO. EX2021, 10.

Indeed, it is PO's expert, Dr. Fleming, who has never designed a mini skid steer. EX1043, 24 (Fleming indicating no “design development work specifically for mini skid steer. The ones I worked on were a full-size skid steer with a cab”). And Fleming had no experience with CULs prior to the '891 patent's priority date in 2015. EX1043, 25 (indicating first CUL experience “with the Vermeer [v.] the Toro PGR issue...sometime around 2020”).

I. CLAIM CONSTRUCTION OF LOADER SUPPORT

All of the '891 patent claims recite a ***loader support***.³ Prior to the institution decision (“ID”), PO argued that the term “loader support” should be construed just

³ See [1.3]. Claim terms are in bold, italics.

like the term “mainframe,” a term used in the specification⁴ and in claims of related patents. Paper 11 (ID), 11 (referencing PO’s Paper 6). The Board did not agree and applied the plain and ordinary meaning of loader support without any explicit construction. ID, 11-12. PO raises the same argument here, asserting the terms (loader support and mainframe) are “interchangeabl[e]” so “loader support” is a “primary supporting structure”—*i.e.*, adopting the Board’s construction of “mainframe” in related proceedings. POR, 27; *e.g.*, IPR2025-000167, Paper 16, 25 (declining to adopt PO’s construction and construing “mainframe” as a “primary supporting structure”).⁵

Also, just as in the PO’s brief submitted prior to the ID, PO argues that ***loader support*** requires its components/portions to be “always present” and not “selectively removable.” *See* Paper 15, 30. But the Board already rejected this argument, both in the context of the term ***loader support*** and in context of the term “mainframe.” ID, 22 (discussing “loader support”); IPR2025-000167, Paper 16, 34 (discussing

⁴ Note “loader support” is not used to describe any component in the ’891 specification.

⁵ Without agreeing that their scope is commensurate, Petitioner has shown KR996’s frame is a mainframe and a ***loader support***. *See infra*; Petition, 28-31.

“mainframe”). In particular, the Board determined KR996’s compact utility loader (CUL) frame, which includes both body 11 and selectively removable fixture 41, is a “mainframe.” IPR2025-000167, Paper 16, 25, 34. Similarly, the Board determined at least KR996’s selectively removal fixture 41 is part of the “loader support.”⁶

PO simply recycles these previously rejected arguments contending any frame portion that is selectively removable is a “secondary” structure, and thus not “part of the loader support (*i.e.*, primary supporting structure).” *See* POR, 39. However, and as will be further described below, the Board correctly applied the plain and ordinary meaning of ***loader support*** as including those portions that support the loader—including KR996’s fixture 41—in its institution decision and PO’s arguments should again be rejected.

A. Like “mainframe,” “loader support” can be made of separable components.

Petitioner now addresses PO’s assertions of the construction of the term mainframe, which it alleges equally applies to the claim term “loader support.” As

⁶ Certain claims require the loader support has other functions/portions (*e.g.*, claim 3, loader support includes an upper frame for supporting the control station). *See* Petition, 28-31; EX1003, ¶¶71-76.

to PO's arguments, the term mainframe/main frame is used often in the prior art. The POR identifies two prior art patents with a single, un-separable, component labeled "main frame" or "main frame assembly." *See* EX2017, EX2018. Other prior art patents use the term to describe multi-component assemblies, with many of such components being readily separable or removable.⁷ In another example, a 2005 service manual for a Bobcat skid steer identifies a "MAIN FRAME" that includes many components such as an instrument panel, a fuel tank, a hood, and a lift arm, all of which are identified as removable.

⁷ *See, e.g.*, EX1047, 5:50-55, FIG. 2; EX1048, FIG. 1, 1:23-25, 13:24-45; EX1049, 8:67-9:8; EX1050, 6:4-46; EX1006, FIG. 1 discussing various main frame components from loader arms to transmission cases that are assembled separably, including at different locations.

This example manual illustrates “main frame” to include separately removable components

	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	
Removal and Installation	50-90-1	
INSTRUMENT PANEL	50-50-1	
Removal and Installation	50-50-1	
FUEL TANK	50-40-1	
Removal And Installation	50-40-1	
GRAB BAR	50-60-1	
Removal and Installation	50-60-1	
HOOD	50-70-1	
Disassembly And Assembly	50-70-1	
Hood Latch Removal	50-70-2	
Removal and Installation	50-70-1	
LIFT ARM	50-20-1	
Removal And Installation	50-20-1	
REVERSE STOP PANEL	50-80-1	
Description	50-80-1	
Inspecting Function	50-80-1	
Removal And Installation	50-80-1	
Reverse Stop Mechanism Removal And Installation	50-80-2	
RIDE-ON PLATFORM	50-100-1	
Caster Removal and Installation	50-100-2	
Removal and Installation	50-100-1	
Tire Removal and Installation	50-100-1	
TAILGATE	50-30-1	
Rear Door Panel Removal And Installation	50-30-1	
Removal And Installation	50-30-1	
Tailgate Bumper Adjustment	50-30-3	
Tailgate Striker Adjustment	50-30-2	
Tailgate Striker Removal And Installation	50-30-2	
TIGHTEN ALL HARDWARE PER SIZE TO GRADE 5 TORQUE (See TORQUE SPECIFICATIONS FOR BOLTS on Page SPEC-30-1.) UNLESS OTHERWISE SPECIFIED.		
217 of 388	50-01	MT52 Bobcat Mini Track Loader Service Manual

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EX1051, 217. All of this is consistent with the phrase “primary supporting structure”, which does not require the absence of selectively removeable components, but rather that the structure be “of first rank, importance, or value.” EX1052, 4 (dictionary definition of “primary”).

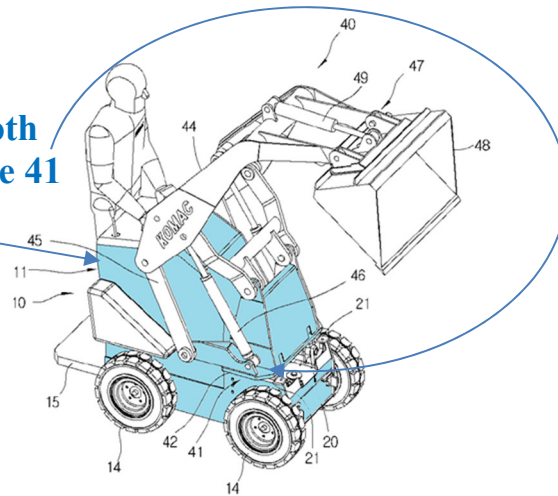
B. KR996’s loader support includes fixture 41 of its loader unit.

The machine at issue is KR996’s *loader apparatus* (e.g., compact utility loader (CUL) or mini skid steer), which includes vehicle 10 and loader unit 40. Both

vehicle 10 and loader unit 40 include frame portions—the vehicle has body 11 and the loader unit has fixture 41. Thus, the primary supporting structure of the KR996 CUL is the combination of body 11 and fixture 41. *See, e.g.*, EX1005, Fig. 9. And the ***loader support*** of this machine at least includes fixture 41, which supports the loader (*e.g.*, loader arm(s) of boom 44). Velinsky confirms that both the body 11 and the fixture 41 are critical and important to providing a primary support structure. EX1042, ¶2. Fleming also agrees that the fixture 41 is one “critical” component supporting a “load” when “operating as a loader.” EX1043, 105-106.

PO incorrectly argues that only body 11 is the primary support structure and ***the loader support***. *See* POR, 40. This is incorrect for multiple reasons. For one, body 11 would be the primary support structure for KR996's vehicle 10 operating alone, not as a loader and not having loader arm(s). In contrast, KR996's loader apparatus includes both vehicle 10 and loader unit 40, and the primary support structure for it would include body 11 and fixture 41 that are necessary to support the loader arm. *See* Petition, 29-31; EX1003, ¶¶72-76 (“KR996's *loader support* includes the bracket to which the [links/actuator] attach...also includes its other frame portions including main body 11 and side plates 12...provid[ing] structure and weight-bearing support for the loader unit 40, when in operation, in addition to support for other features” like controller and drive mechanism); EX2021, 69-70 (agreeing Board's construction does not change original opinion); EX1042, ¶¶2-4.

For the KR996 CUL, the mainframe must include both the body 11 and the fixture 41



EX1042, KR996's CUL of Fig. 9.

That the assembly of body 11 and fixture 41 can be done by an operator near a job site does not negate the fact that when assembled, the vehicle body 11 and the loader unit fixture 41 together form the primary supporting structure of the loader apparatus that includes the loader. Further, the loader unit 40 including the fixture 41 is *not* removable during loader operations. As indicated above, the claims do not preclude the presence of other modes.

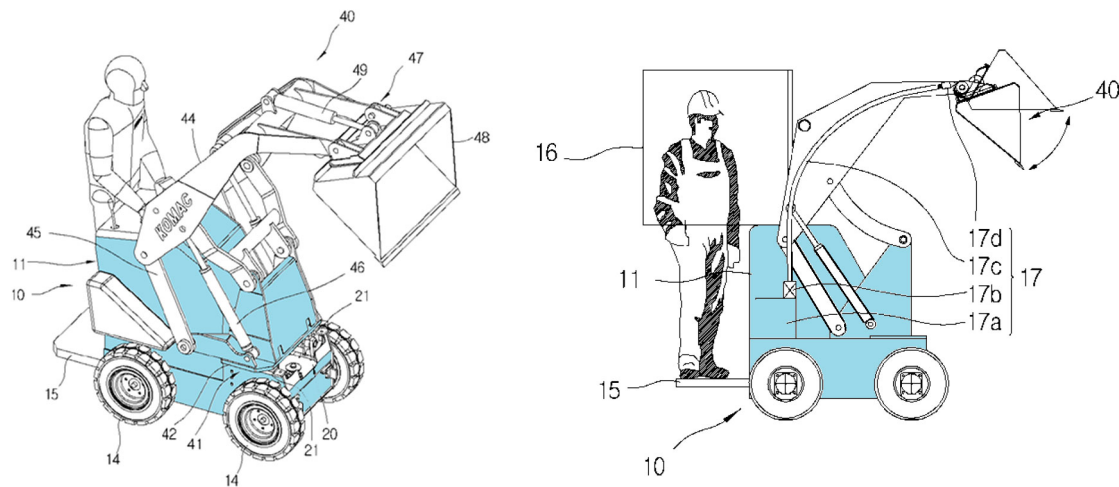
Thus, the Board is correct in finding the ***loader support*** should be construed under its plain and ordinary meaning, is a “structure that supports a loader,” and in its application includes at least KR996's fixture 41, which supports KR996's loader by attachment of its linkages/actuator. *See* ID, 22.

II. GROUND 1 AND 2—KR996

A. PO arguments on linkages/actuator connections rely on an incorrect construction of “loader support.”

The Petition established that when KR996's machine has linkage(s) and actuator pivot point connections to a *loader support* just as claimed in the '891 patent. *See, e.g.*, Petition, 35-40; EX1005, Figs. 9, 21.⁸ This is consistent with the Board's ID as discussed above. KR996's loader support—which includes fixture 41 of loader unit 40—has the linkage/actuator are pivotably attached thereto. EX1042, ¶¶2-4.

⁸ PO counsel's request for Velinsky to identify a mainframe for supporting a loader in the context of Fig. 1 where a loader unit (40) is not attached is not germane to the challenge. *Contrast*, EX1005, Fig. 9.



Id.

B. Mainframe incorporating a single weldment is obvious.

Certain claims recite that the mainframe *incorporates a single weldment*. See, e.g., claim 2. The Petition shows it was well-known to form one or more portions of the loader support as a single weldment. See, e.g., Petition, 47-48; see also, EX1043, 113-114 (Fleming recognizing likely welded components of each of the body and loader unit KR996). Thus, it is uncontested that KR996 teaches or renders obvious the relevant structure including a single weldment.

This is what the claim requires because “incorporates” is an open-ended term analogous to *includes*. EX1053, 4 (definition). This is also consistent with the use of “incorporates” in other patent claims in the art. See EX1054, 22:45-49; EX1055,

26:33-40. And this is consistent with how PO has used the term. *See* related USP 12,098,063, claim 3 which recites “wherein the mainframe **is** a single weldment.” *See PPC Broadband, Inc. v Corning Optical Communications*, 815 F.3d 747, 52-53 (Fed. Cir. 2016)(supporting different terms have different meanings).

The POR now construes the claim requiring the mainframe **consists** (in its entirety) of a single, unitary welded piece. POR, 40. Nonetheless, the Petition already addressed this as an obvious design choice. *See* Petition, 48. Certainly, trade-offs exist between fasteners and welding, including ease of separability. *Id.*, EX1003, ¶124; EX1042, ¶5 (discussing advantages of dedicated loader); EX1043, 103-104 (confirming advantageous to just have loader function). Further, KR996 does not disparage a dedicated or non-separable loader but instead recognizes being able to switch between a loader and an excavator provides “operational efficiency.” EX1005, [0007]. As discussed at length in **Section I.A.1-3**, PO’s argument is contrary to case law.

III. GROUND 3—KR996+BARES

Claim 9 recites *a drive mechanism* that has *a drive sprocket defining a rotational axis R*, which the Petition shows is obvious in view of Bares’ tracked drive mechanism provided to KR996.

A. Tracks and wheels are well-known, interchangeable alternatives.

The Petition shows that CULs having tracks or wheels were well-known alternatives. *See, e.g.*, Petition, 63-65; EX1003, ¶¶159-162. *See also*, EX1043, 12 (Fleming recognizing “skid steers could be either wheeled or tracked.”) The Petition also details the specific benefits of a track configuration for KR996, such as improved traction, better ability to cross holes, and reduced ground pressure, which are particularly advantageous in demolition and deconstruction environments. *See* Petition, 64; EX1003, ¶¶160-161. PO does not contest that these drive assemblies were known alternatives but argues for narrowing KR996 to be applicable only to certain terrain (which it is not) and relies on bodily incorporation of the proposed combination.

B. Tracks benefit KR996's CUL in its described operation conditions.

The POR argues KR996 is specifically designed for “indoor deconstruction work,” would not be operable on uneven terrain, and thus would not benefit from tracks. POR, 45-47. This is incorrect. KR996 is directed to “building deconstruction work,” which inherently involves uneven terrain and debris—conditions where tracks excel. EX1005, (54); EX1003, ¶¶160. Also, the use of mini skid steers with tracked assemblies for indoor demolition tasks is common. *See* EX1057, Toro

tracked mini skid steer operating indoors (EX1062); EX1056, 3:64-4:2, FIG. 1 (indoor use for tracked loader).

Further, this operable terrain argument is based on PO's assumption that KR996 requires a "level, clean surface" for its attachment/detachment functions. *See* POR 46. Even if true, this would only apply to the specific location where attachments/tools are changed—not to the overall operation of the KR996 CUL. In practice, attachments are typically swapped away from the work area and the CUL traverses various surfaces to both perform its work and to reach those locations. As Fleming concedes, "you'd have to take your skid steer to wherever the attachment is" and "typically you would want to have the unused attachments off to the side." EX1043, 48-49. *See also*, EX1058, illustrating cleaning and changing attachments away from worksite (*see* EX1062). Thus, the operational advantages of tracks remain regardless of any alleged attachment/detachment terrain limitations.

C. Wheels are not essential for KR996's CUL function or detachability.

PO contends wheels are critical to KR996's detachability function and must be maintained. POR, 42-45. KR996's detachability does not require wheels in its broadest embodiments. *See* EX1005, 2. Moreover, the POR narrative of the criticality of tires "flex[ing] and grip[ping]" or "bow[ing] out" to perform KR996's

attachment/detachment function overstates the role of the tires. *See* POR, 42-45.

What KR996 actually says is:

...the **bogie (30) enters between the two wheels (14), making contact with the inner side of the wheel (14) by the guide plate (38)**. As the wheel (14) continues to **rotate** in the forward direction, the guide plate (38) of the bogie (30) is pulled inward of the vehicle (10)...

EX1005, [0036]. In other words, KR996 says this technique has “contact” between the rotating drive mechanism and the guide plate.

From this mere “contact,” PO spins a tale alleging it is the extent of flexion or bowing out of a tire that is critical to its attachment/detachment functionality. *See* POR, 45-48.⁹ To be clear, KR996 never discusses that its tires “bow out under the load of the machine,” (POR, 43) nor discusses any reliance on the extent of tires’ compression. Moreover, even if there is some gap-tuning needed to address the difference between the track and wheel, KR996 also describes how to address this. KR996 explicitly describes “a liner (39)” that is precisely for the purpose of

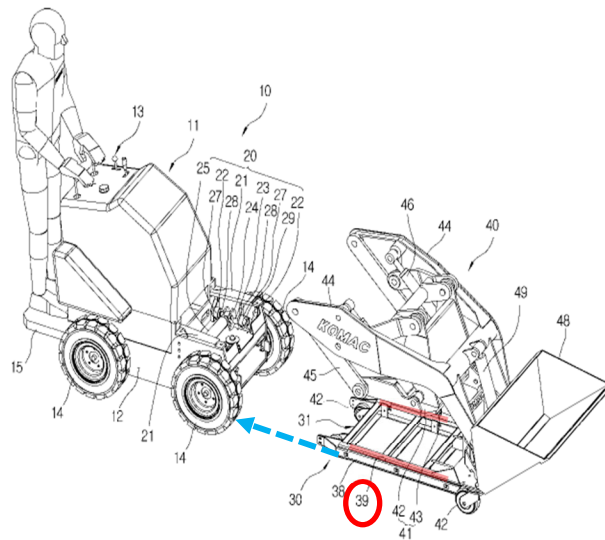
⁹ EX2021, 84:9-15 shows what Velinsky agreed to is that there is an interface between tires and bogie “helps pull in” the bogie in this KR996 discussion. Velinsky did not agree with PO’s contention that the sidewalls of tracks and tires are different. *See, e.g.*, EX2021, 136:23-25.

“adjust[ing] the gap” between the drive mechanism—wheel (14)—and the bogie—guide plate (38). EX1005, [0005], [0053]. Therefore, should the gap be different between the extent of flexion of wheels compared to the flexion (or purported lack thereof) of tracks, KR996’s liner can compensate for it. *See, id.*

Further, PO overstates the differences between tracks and wheels. Modification of the drive assembly from tire to track just means any desired contact locus is between the track and the bogie’s guide plate (as opposed to a wheel and the bogie guide plate). The track is positioned at the same location, comprises a similar material, is rotating in the same direction as the wheel would be, and has an appreciable thickness. *See* EX1051, 206 (describing rubber); EX1010, FIG. 7, arrow 160A, track thickness 148, 5:29-38.

PO’s assertion that a track would not extend a significant enough height above the ground to allow for contact with the bogie is also incorrect. *See* POR, 43-44. The guide plate 39 contacts with the drive mechanism (wheel 14/Bares’ track) at the front of the vehicle 10 where the tire/track is extending vertically from the ground to over the front wheel (idler wheel 152/wheel 14); KR996 illustrations and even Fleming’s CAD model plainly show this height greater than the bogie guide plates. *See* EX1005, Figs. 7-8. Similarly, PO’s alleged loss of “alignment feature” associated with wheels lacks any citation to KR996 and appears to be mere conjecture; PO

provides no reason that the track, which extends along the CUL, provides a different boundary than wheels.



adjustable thickness liner (39)

EX1005, Fig. 1, [0035] (“thickness of the liner (39) can be adjusted”).

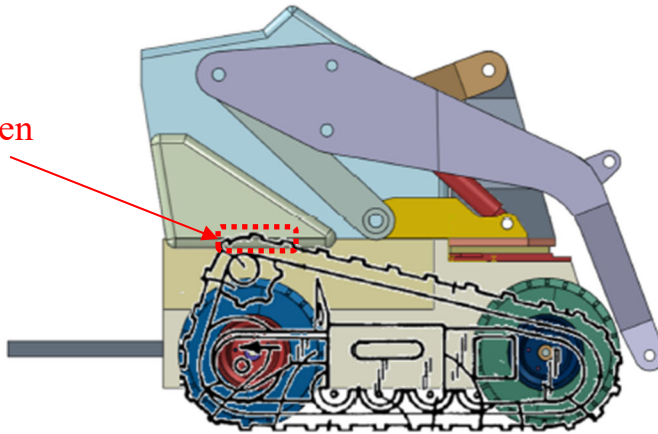
Moreover, PO’s argument is premised on POSITA being mere automatons, void of any engineering knowledge. The POR simply ignores the features of Bares’ rotating track (and plurality of rotating wheels with its assembly), which are all available to provide contact and directional force, if desired. *See* EX1010, 5:33-43, 6:59-7:11 (describing rotating wheels). As discussed above, KR996 explicitly discloses one example, a liner, readily available for modification to provide desired contact. Moreover, *Allied* shows that such design changes do not negate a motivation to combine.

D. Incorporating tracks is well within the skills of POSITA.

PO also argues that POSITA could not change the drive assembly to a track assembly because—if Bares' track is cut-and-pasted onto the flawed CAD drawing of KR996's CUL—the track and/or drive motor would interfere with components of KR996's CUL as illustrated. POR, 47-50. This argument is based on a rigid, literal overlay of patent figures ignoring that bodily incorporation is not required, that patent drawings are not scale, and that POSITA routinely make necessary modifications.

In practice it is known to make modifications in designing vehicles. *See* EX1043, 23-24 (Fleming agreed that in his experience “if there was a design issue that was found, we would get together and have a design review meeting [for] a path forward...to resolve the issue.”). Yet, when developing his figures for this proceeding, Fleming “did not try to” fix or make any design or engineering modification to address the alleged interference. EX1043, 97, 123.

Exemplary alleged
“significant interference”
that Dr. Fleming did not even
try to address is minimal



POR, 52
Dr. Fleming's KR996 CAD model
with Bares' track "superimposed"

Moreover, the interference in Fleming's figure is just the type of design issue that engineers commonly address. Fleming is quick to agree to this when discussing making changes to the embodiments of the Vermeer patent. EX1043, 59-60 ("obviously you can't have a machine you're trying to use that had interference. So there would be some design work that would be done to eliminate that interference. ...that could potentially involve structure, that could involve **moving internal components such as engine and drive line components.**") Perhaps most telling of the abilities of POSITA to arrange the components is found in the context of the '891 patent itself, which does not illustrate its suggested wheeled mechanism, does not describe its engine, and does not disclose or illustrate the position of its drive motors or fuel tanks. *See* EX1001, 3:30-41, 4:20-23, 5:63-6:4 (all discussing components

(drive mechanisms, engines, motors, etc. that are “not shown”). Fleming agrees that the selection of proper engine, hydraulics and drive system components would be an “engineering project for designing product”—one within the capability of POSITA (such as changing a track for wheels). EX1043, 35-36, 39.

Further, there are a myriad of options for machine engines, tanks and drive mechanisms that can affect and address the alleged space constraints such as moving the engine, drive motor, or tank and/or varying component shape or size. *See, e.g.*, EX1043, 38-44, 86-87 (discussing existence of different drive motor size/shape, tank size/shape).

IV. SECONDARY CONSIDERATIONS OF NON-OBVIOUSNESS

PO's arguments for non-obviousness based on secondary considerations fail for at least four reasons: A) the considerations lack any nexus to the claims; B) the overall strength of the prior art; C) the improper reliance on hearsay evidence; and D) the mischaracterization of the evidence.

A. Lack of nexus between PO's evidence and the claimed invention.

PO's secondary considerations lack nexus to the claims as their arguments and evidence are premised on the assertion that PO was the first to invent a vertical-lift CUL. Specifically:

- Fleming agrees that the evidence of secondary considerations is directed to vertical-lift. EX1043, 123 (“The evidence of secondary considerations, is that directly primarily to vertical lift? A. I would say primarily, yes.”).
- Magazine recognition directed to the introduction of “vertical lift to the compact tool carrier market.” POR, 53-55 (emphasis added)..
- Hearsay testimony from Vermeer’s Product Manager regarding the “popularity of vertical-lift machines.” *Id.*
- Inventor’s testimony that his vertical-lift machine has “greater lift capacity than its radial-lift counterpart.” *Id.*, 56-57
- Hearsay stories of Toro engineers developing vertical-lift machines cobbled from portions of depositions taken from a different litigation. *Id.*, 55-60.
- Some of Kubota’s customers prefer vertical-lift machines. *Id.*, 60-68.

It is undisputed that KR996 discloses a vertical-lift CUL, demonstrating that PO was not the first to invent this. As can be seen *supra*, our discussions are not directed to vertical lift, but whether it would be obvious to include a track or welding; PO’s evidence is not targeted to these conventional features.

Objective evidence of nonobviousness lacks a nexus if it relates solely to a feature that was already known in the prior art. *See Yita LLC v. MacNeil IP LLC*, 69 F.4th 1356, 1364 (Fed. Cir. 2023); *Ethicon Endo-Surgery, Inc. v. Covidien LP*, 812 F.3d 1023, 1034 (Fed. Cir. 2016). Thus, PO's reliance on evidence directed only to vertical-lift functionality—a feature known in the art—renders its secondary considerations legally irrelevant to the obviousness inquiry.

B. The prior art is strong.

All or nearly all elements of the challenged claims are explicitly disclosed in KR996, with a couple conventional features shown to be obvious. Secondary considerations cannot override anticipation or such a strong showing of obviousness that approaches anticipation.¹⁰ *See Leapfrog Enterprises, Inc. v. Fisher-Price, Inc.*, 485 F.3d 1157, 1162 (Fed. Cir. 2007).

¹⁰ Velinsky reviewed the secondary considerations evidence and found it related to applying a vertical-lift to a CUL. EX1003, ¶27. As KR996 teaches just that, he properly concluded that those considerations did not alter his opinion finding the claims obvious. *Id.*; EX2021, 59.

C. PO's evidentiary deficiencies: cross-examination, completeness, and authentication lacking.

The Board should accord little to no weight to PO's evidence of secondary considerations due to significant evidentiary deficiencies and a separate motion to exclude will be provided in this proceeding. In summary, POR relies on declarations, portions of deposition testimony, and portions of third-party (Toro) documents from a prior litigation as truth of the matter being asserted that it does not submit directly in this proceeding. *See* EX1059.

D. PO's arguments mischaracterize the tenor and substance of its evidence.

PO's arguments, as best ascertained from the portions of testimony provided, are directed to the challenges of development and commercialization of a vertical-lift CUL that has a certain "lift capacity" relative to then available radial-lift counterparts in the market. *See* POR 54-60. However, the mere existence of development challenges or struggle to meet a market demand for improved performance does not constitute an indicia of non-obviousness, especially where the claims themselves do not recite any "lift capacity" limitation.

PO contends that Petitioner's performance of surveys of the market and its customers demonstrate intentional copying. POR, 61. But, Petitioner's commercially available CUL is different than Vermeer's CUL and different than the

challenged claims, which Petitioner will demonstrate in the related (stayed) litigation. Further, Fleming has testified that it is common industry practice to survey the market and benchmark against competitors and this supports obviousness *See* EX1046, ¶¶110, 120.

PO also relies on a Toro patent application for supporting the difficulties of a vertical-lift CUL. POR, 56 citing EX2006, [0007]. However, the cited passage states only that it is “difficult” to use “such high lift loader arms” particular to USP 5,542,814 on a CUL. EX2006, [0007]. The Toro inventors have testified just that—a fact that PO fully knows and has previously relied upon but does not disclose here. *See* PGR2020-00081, Paper 1, 41-43 (PO relying on Toro inventors’ testimony to show this same statement is discussing specific “front mounted scissor mechanism,” not generally vertical-lift). Further, Toro inventor testimony portions submitted in that proceeding show the Toro inventors did not think it was “difficult or impossible” to provide a “vertical lift or four-bar linkage” on a CUL at least because “there are so many other loaders out there that have vertical lift on them” and the “art [high lift loader arms] is out there for skid steers. That’s easily adaptable.” *See* EX1060, 7-8; EX1061, 8 (portions of deposition produced by PO in the PGR2020-00081).

V. PO'S INFLAMMATORY RHETORIC ATTACKING VELINSKY IS CONTRARY TO THE ACTUAL RECORD

PO repeated attempts to discredit Velinsky are unfounded and distract from the actual issues before the Board. *See, e.g.*, POR, 2-3, 30-36. The record demonstrates that Velinsky is a highly qualified expert whose opinions are grounded in relevant experience and thorough understanding of the technology at issue. *See* Section I.B.¹¹

PO also mischaracterizes Velinsky's testimony. Velinsky confirmed he understood the layout of CUL, referred PO's counsel to the CUL patents of record, and explained the relative locations of CUL components are a matter of "design choice." EX2021, 25-28. Whether Velinsky chose to answer a line of questioning that did not appear focused on obtaining relevant substantive testimony—hydraulic attachments not being claimed or even described in the '891 patent—says nothing as to his qualifications. PO does not contend it invented a new attachment and the prior art of record and Velinsky's testimony is replete with discussion of various attachments.

¹¹ Velinsky is not an expert on the CUL market or commercial availability, nor did he opine on such.

PO also criticizes Velinsky for not personally generating CAD drawings, implying this undermines his credibility. This argument is meritless. It is standard practice for experts to rely on technical staff or assistants for tasks such as CAD modeling. *See* EX2021, 14. Indeed, PO's own expert, Fleming, admitted that he does not personally generate his CAD drawings but relies on his team. EX1043, 27-28, 83-84. What is relevant is whether Velinsky's analysis and conclusions in his declarations are his own; here they are. EX1003, XI. Finally, PO's accusation that Velinsky "admitted" to using "hindsight" is a distortion of the record. *See* POR, 34, *contrast* EX2021, 54-57 (Velinsky explaining the truism that he "had to look to the claims to know what the technology was.")

VI. CONCLUSION

The Board should find all challenged claims unpatentable.

Respectfully submitted,

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Dated: Dec. 8, 2025

Certificate of Word Count

Pursuant to 37 C.F.R. § 42.24, the undersigned attorney for the Petitioner declares that the argument section of this Reply has a total of 5,481 words, according to the word count tool in Microsoft Word™.

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CERTIFICATE OF SERVICE

The undersigned certifies that, in accordance with 37 C.F.R. § 42.6(e), service was made on Patent Owner as detailed below.

Date of service December 8, 2025

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