

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

KUBOTA NORTH AMERICA CORPORATION,
Petitioner,

v.

VERMEER MANUFACTURING COMPANY,
Patent Owner.

PGR2025-00016
U.S. Patent No. 12,098,063

Filed: August 10, 2026

**PATENT OWNER'S NOTICE OF APPEAL TO THE UNITED STATES
COURT OF APPEALS FOR THE FEDERAL CIRCUIT**

via P-TACTS
Patent Trial and Appeal Board

via Email
Director of the United States Patent and Trademark Office
efileSO@uspto.gov

via CM/ECF
United States Court of Appeals for the Federal Circuit

Pursuant to 28 U.S.C. § 1295(a)(4)(A), 35 U.S.C. §§ 141(c), 142, and 329, and 37 C.F.R. §§ 90.2(a), 90.3, 5 U.S.C. §§ 701–706, and Federal Circuit Rule 15(a)(1), Patent Owner Vermeer Manufacturing Company (“Patent Owner”) provides notice that it appeals to the United States Court of Appeals for the Federal Circuit from the Final Written Decision of the Patent Trial and Appeal Board (“Board”) entered June 8, 2026 (Paper 51) (public version at Paper 52), and from all underlying and related orders, decisions, rulings, and opinions regarding U.S. Patent No. 12,098,063 B2 (“the ’063 Patent”) in post-grant review proceeding PGR2025-00016.

In accordance with 37 C.F.R. § 90.2(a)(3)(ii), the expected issues on appeal include, but are not limited to: the Board’s error(s) in determining that Petitioner demonstrated that challenged claims 4–14 of the ’063 Patent are unpatentable, and any finding or determination supporting or related to those determinations—including, but not limited to the Board’s claim construction, factual findings regarding the prior art and motivation to combine the teachings of the prior art, and denial of Patent Owner’s motion to exclude the foreign-language references for failure to comply with 37 C.F.R. § 42.63(b) and Federal Rules of Evidence 602 and 604—as well as all other issues decided adversely to Patent Owner in any orders, decisions, rulings, or opinions in post-grant review proceeding PGR2025-00016.

Pursuant to 35 U.S.C. § 142 and 37 C.F.R. § 90.2(a), this Notice is being filed with the Director of the United States Patent and Trademark Office and with the Patent Trial and Appeal Board. In addition, a copy of this Notice and the required docketing fees are being filed with the Clerk's Office for the United States Court of Appeals for the Federal Circuit via CM/ECF.

Date: August 10, 2026

Respectfully submitted,

/Richard L. Brophy/
Richard L. Brophy
Reg. No. 69,736
Armstrong Teasdale LLP
7700 Forsyth Boulevard
Suite 1800
Saint Louis, Missouri 63105
Telephone: 314.621.5070
Facsimile: 314.621.5065
rbrophy@atllp.com

Lead Counsel for Patent Owner

CERTIFICATE OF SERVICE

Under 37 C.F.R. § 42.6(e), the undersigned certifies that on August 10, 2026, a copy of the foregoing was served via electronic mail on the following attorneys of record:

David M. O'Dell
HAYNES AND BOONE, LLP
2801 N. Harwood Street, Suite 2300
Dallas, TX 75201
Phone: (972) 739-8635
Fax: (214) 200-0853
david.odell.ipr@haynesboone.com
USPTO Reg. No. 42,044

Greg Michelson
HAYNES AND BOONE, LLP
2801 N. Harwood Street, Suite 2300
Dallas, TX 75201
Phone: (949) 202-3022
Fax: (214) 200-0853
greg.michelson.ipr@haynesboone.com
USPTO Reg. No. 44,940

Kelly Gehrke Lyle
HAYNES AND BOONE, LLP
2801 N. Harwood Street, Suite 2300
Dallas, TX 75201
Phone: (512) 867-8528
Fax: (214) 200-0853
kelly.lyle.ipr@haynesboone.com
USPTO Reg. No. 62,332

John Russell Emerson
HAYNES AND BOONE, LLP
2801 N. Harwood Street, Suite 2300
Dallas, TX 75201
Phone: (214) 651-5328
Fax: (214) 200-0853
Russ.Emerson.IPR@haynesboone.com
USPTO Reg. No. 44,098

Hong Shi
HAYNES AND BOONE, LLP
2801 N. Harwood Street, Suite 2300
Dallas, TX 75201
Phone: (512) 867-8440
Fax: (214) 200-0853
hong.shi.ipr@haynesboone.com
USPTO Reg. No. 69,009

By: /Richard L. Brophy/
Lead Counsel for Patent Owner
Richard L. Brophy
Reg. No. 69,736

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

KUBOTA NORTH AMERICA CORPORATION,
Petitioner,

v.

VERMEER MANUFACTURING COMPANY,
Patent Owner.

PGR2025-00016
Patent 12,098,063 B2

Before MEREDITH C. PETRAVICK, ANNETTE R. REIMERS, and
ERIC C. JESCHKE, *Administrative Patent Judges*.

JESCHKE, *Administrative Patent Judge*.

JUDGMENT
Final Written Decision
Determining All Challenged Claims Unpatentable
Granting in Part Petitioner's Motion to Exclude
Denying Patent Owner's Motion to Exclude
35 U.S.C. § 328(a)

PGR2025-00016
Patent 12,098,063 B2

I. BACKGROUND

Petitioner, Kubota North America Corporation, challenges claims 4–14 of U.S. Patent No. 12,098,063 B2 (Ex. 1001, “the challenged patent”), which is assigned to Patent Owner, Vermeer Manufacturing Company. We have jurisdiction under 35 U.S.C. § 6, and we issue this Final Written Decision under 35 U.S.C. § 318(a) and 37 C.F.R. § 42.73.

For the reasons below, we conclude that Petitioner has proven, by a preponderance of the evidence, the unpatentability of claims 4–14. We grant in part Petitioner’s Motion to Exclude and we deny Patent Owner’s Motion to Exclude.

A. Procedural History

Petitioner filed a Petition seeking *inter partes* review of the challenged claims. Paper 2 (“Pet.”). Patent Owner filed a Preliminary Response. Paper 6 (“Prelim. Resp.”). Upon review of the arguments and supporting evidence, we instituted an *inter partes* review of all claims and grounds asserted in the Petition. Paper 13 (“Decision on Institution” or “Dec. Inst.”).

After institution, Patent Owner filed a Patent Owner Response (Paper 17, “PO Resp.”)¹, Petitioner filed a Reply in support of the Petition (Paper 25, “Pet. Reply”), and Patent Owner filed a Sur-reply to Petitioner’s Reply (Paper 29, “PO Sur-reply”).

Petitioner relies on the declaration testimony of Dr. Steven Alan Velinsky, Ph.D., P.E. filed with the Petition (Ex. 1003, “Velinsky Pet. Decl.”) and on the Second Declaration of Dr. Velinsky, filed with the Reply

¹ Paper 18 is a public version of the Patent Owner’s Response.

PGR2025-00016
Patent 12,098,063 B2

(Ex. 1042, “Velinsky Reply Decl.”). Patent Owner relies on the declaration testimony of Dr. Mark Fleming, Ph.D., P.E., filed with the Patent Owner’s Response. Ex. 2013 (“Fleming Decl.”).²

An oral argument in this proceeding was held on March 19, 2026, and a copy of the transcript was entered into the record. Paper 49 (“Tr.”).³

B. Related Proceedings

The parties identify one proceeding in the U.S. District Court for the Northern District of Texas (“the Texas District Court”) involving the challenged patent: *Vermeer Manufacturing Co. v. Kubota North America Corp.*, No. 4:24-cv-00799-P (N.D. Tex.), filed August 20, 2024 (the “Texas Litigation”). Pet. 65; Paper 3 (Patent Owner Mandatory Notices) at 2. The Texas District Court stayed the Texas Litigation on March 19, 2025, pending resolution of certain proceedings before the Board. *See* Ex. 1038 (Order granting Motion to Stay).

Petitioner identifies one terminated proceeding in the U.S. District Court for the Southern District of Iowa (the “Iowa District Court”) involving the challenged patent: *Vermeer Manufacturing Co. v. The Toro Co.*, No. 4-17-cv-00076 (S.D. Iowa) (filed Feb. 28, 2017; terminated May 17, 2021) (the “Iowa Litigation”).⁴ Pet. 65.

² Exhibit 2013 is also a public version of Dr. Fleming’s Declaration.

³ Paper 50 is a public version of the transcript.

⁴ Although some filings in the Iowa Litigation include “Vermeer Corporation” in the caption, “Vermeer Manufacturing Company” (i.e., Patent Owner here) was formally substituted into the caption and pleadings. *See* ECF No. 129 (Dec. 21, 2018) (Text Order).

PGR2025-00016
 Patent 12,098,063 B2

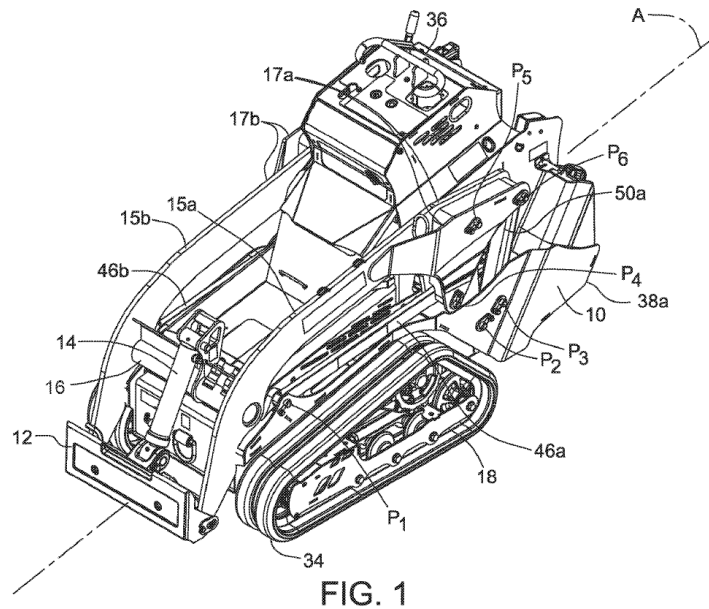
The parties identify other proceedings at the Board involving patents allegedly related to the challenged patent. This table identifies the related patents and their respective case numbers:

Case No.	U.S. Patent No.
IPR2025-00167	9,321,386 B1
IPR2025-00168	9,321,386 B1
IPR2025-00169	9,321,386 B1
IPR2025-00170	9,975,750 B2
IPR2025-00171	10,202,266 B2
IPR2025-00381	11,465,891 B2

Pet. 66; Paper 3 at 2.

C. The Challenged Patent

The challenged patent relates to “mainframes for a self-propelled machine.” Ex. 1001, 1:25–26. According to the challenged patent, “[c]ompact tool carriers are tool-mounted machines that are capable of working in tight spaces for utility or do-it-yourself home projects.” *Id.* at 1:30–32. Figure 1 is reproduced below:



PGR2025-00016
Patent 12,098,063 B2

Figure 1 is a perspective view of a compact tool carrier with the loader in the down position. Ex. 1001, 2:38–39.

Figures 2 and 3 are below:

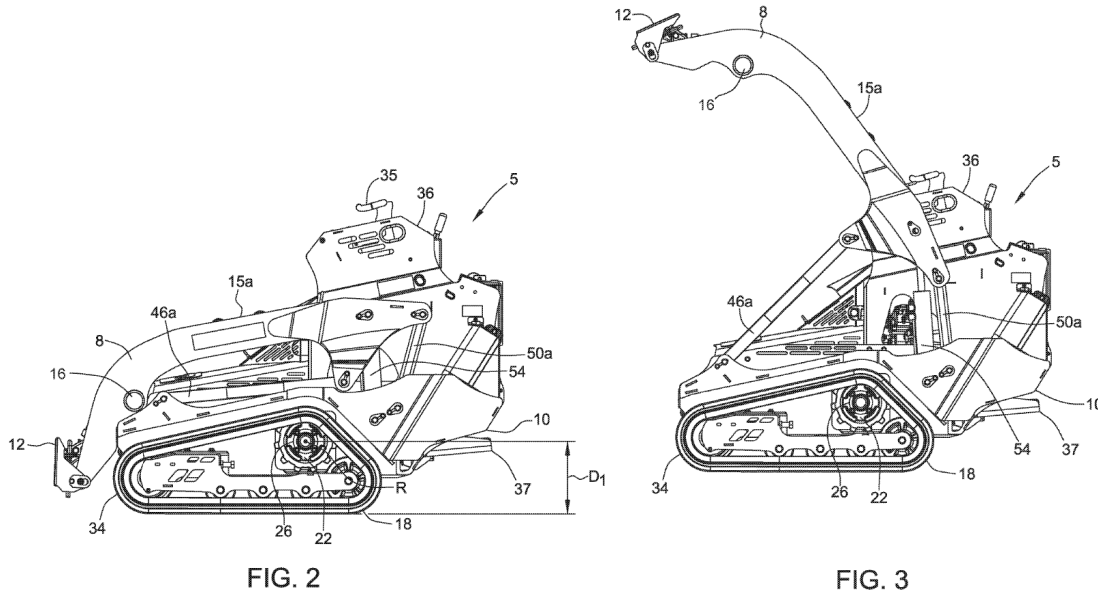


Figure 2 is a side view of a compact tool carrier with the loader in the lowered position, and Figure 3 is a side view of a compact tool carrier with the loader in the raised position. Ex. 1001, 2:40–43. The compact tool carrier 5 shown above includes “a loader 8 supported by a mainframe 10” and “an attachment plate 12 for interchangeably attaching any one of a number of tools (not shown).” *Id.* at 2:57–60.⁵ In addition, compact tool carrier 5 includes (1) loader arms 15a and 15b, (2) a drive mechanism 18 attached to mainframe 10, (3) a control station 36 with controls for moving compact tool carrier 5 and raising and lowering loader 8, (4) an operator platform 37 for standing operation, and (5) linkages 46a, 46b, 50a, and 50b

⁵ In this Decision, we omit emphasis on reference numerals in quotations from the challenged patent and prior art references.

PGR2025-00016
 Patent 12,098,063 B2

attached to mainframe 10. *Id.* at 2:64–66, 3:31–32, 3:42–45, 3:56–57, 4:34–41, 4:55–58. Actuator 54 “is powered to raise the loader 8 and, in some embodiments, is also powered to lower the loader 8 (as opposed to a one-way actuator lowered by gravity alone).” *Id.* at 4:51–54.

Figure 4 is reproduced below:

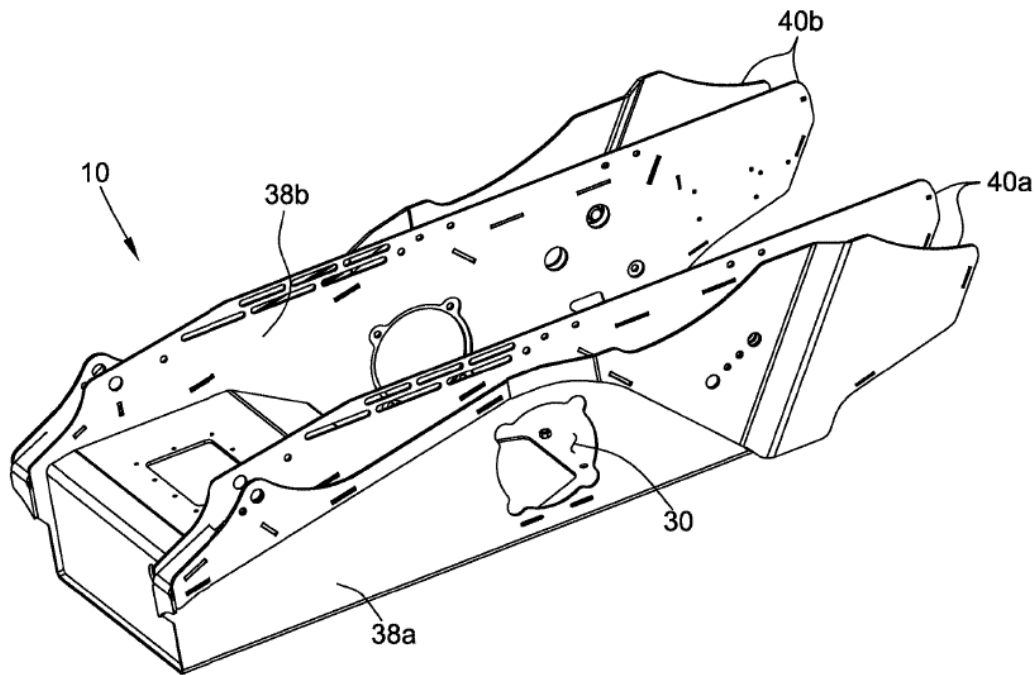


FIG. 4

Figure 4 is a perspective view of a mainframe of a compact tool carrier. Ex. 1001, 2:44–45. The challenged patent states: “As used herein, the term ‘mainframe’ generally refers to a single weldment to which the loader 8 is attached, optionally through one or more pivotal linkages.” *Id.* at 4:15–18.

D. The Challenged Claims

Petitioner challenges claims 4–14, of which claim 4 is the sole independent claim. Independent claim 4 is reproduced below, reformatted

PUBLIC VERSION

PGR2025-00016
Patent 12,098,063 B2

from the version provided in the challenged patent and with bracketed designations added to identify each clause:

4. [4.0] A compact tool carrier having a longitudinal axis and comprising:

[4.1] a loader having a loader arm, the loader being adapted to carry a tool;

[4.2] a mainframe for supporting the loader, the mainframe having a first side and a second side, and having a front end and a rear end relative to the longitudinal axis;

[4.3] a first linkage pivotally attached to the first side of the mainframe and directly pivotally attached to the loader arm;

[4.4] a second linkage pivotally attached to the first side of the mainframe and directly pivotally attached to the loader arm;

[4.5] an actuator pivotally attached to the first side of the mainframe and directly pivotally attached to the loader arm; and

[4.6] a control station having operator controls for propelling the compact tool carrier forward and for raising and lowering the loader, the control station being mounted toward the rear end of the compact tool carrier.

Ex. 1001, 7:24–8:2.⁶

⁶ We adopt and apply below Petitioner’s designations for the elements of the challenged claims. *See* Pet. 21–37 (showing designations for the language in challenged claim 4).

PUBLIC VERSION

PGR2025-00016
Patent 12,098,063 B2

E. Instituted Grounds of Unpatentability

We instituted *inter partes* review of the challenged claims based on the following grounds of unpatentability asserted by Petitioner:

Claim(s) Challenged	35 U.S.C. § ⁷	Reference(s)/Basis
4, 7–12	102(a)(1)	KR996 ⁸
4, 7–12	103	KR996
5, 6	103	KR996, JP705 ⁹
13, 14	103	KR996, Bares ¹⁰

II. DISCUSSION

A. Eligibility for Post-Grant Review

1. Legal Framework

As a threshold matter, we must determine whether the challenged patent is eligible for post-grant review. The post-grant review provisions in section 6(d) of the Leahy-Smith America Invents Act, Pub. L. No. 112-29,

⁷ The Leahy-Smith America Invents Act (“AIA”) included revisions to 35 U.S.C. §§ 102, 103 that became effective on March 16, 2013. Pub. L. No. 112-29, §§ 3(b)–3(c), 3(n)(1), 125 Stat. 284, 285–87, 293 (2011). Because there is no dispute that the challenged claims have effective filing dates after March 16, 2013, we apply the AIA versions of the statutes. We would reach the same outcome, however, under the pre-AIA versions.

⁸ Korean Intellectual Property Office Patent KR 10-1041996, published June 16, 2011 (Ex. 1005 (Korean version and certified translation), “KR996”).

⁹ Japanese Patent Office JP 2004-17705, published January 22, 2004 (Ex. 1006 (Japanese version and certified translation), “JP705”).

¹⁰ United States Patent US 6,832,659 B1, issued December 21, 2004 (Ex. 1010, “Bares”).

PUBLIC VERSION

PGR2025-00016
Patent 12,098,063 B2

125 Stat. 284 (September 16, 2011) (“AIA”), apply only to patents that “contain[] or contained at any time . . . a claim to a claimed invention that has an effective filing date . . . that is on or after [March 16, 2013].” AIA §§ 3(n)(1), 6(d), 6(f)(2)(A), 125 Stat. 284, 293, 305–312 (2011).

Each petitioner for post-grant review must certify that the challenged patent is available for post-grant review. 37 C.F.R. § 42.204(a). In addition, “[a] petition for a post-grant review may only be filed not later than the date that is 9 months after the date of the grant of the patent or of the issuance of a reissue patent (as the case may be).” 35 U.S.C. § 321(c). Petitioner has the burden of demonstrating eligibility for post-grant review. *See Mylan Pharms. Inc. v. Yeda Res. & Dev. Co.*, PGR2016-00010, Paper 9 at 10 (PTAB Aug. 15, 2016).

2. Analysis

Petitioner states that the “AIA statutory framework applies to the [challenged] patent, because at least one claim . . . has an effective filing date on or after March 16, 2013” given that “the earliest alleged priority date . . . is February 20, 2015.” Pet. 7 (citing Ex. 1001, code (60)). Petitioner adds that “[t]his Petition is being filed within 9 months of issuance of” the challenged patent. *Id.* (citing 35 U.S.C. § 321(c); 37 C.F.R. § 42.202). Patent Owner does not dispute post-grant review eligibility.

On the complete record, we determine that the challenged patent is eligible for post-grant review. Specifically, the record supports Petitioner’s assertion that the earlier *potential* priority date is February 20, 2015. Ex. 1001, codes (60), (63); Pet. 7. That date falls after March 16, 2013. Also, the Petition was filed on January 7, 2025, which is within nine months

PGR2025-00016
Patent 12,098,063 B2

of issuance of the challenged patent: September 24, 2024. Ex. 1001, code (45); Pet. 7.

B. The Level of Ordinary Skill in the Art

The level of ordinary skill in the art is “a prism or lens” through which we view the prior art and the claimed invention. *Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001). The person of ordinary skill in the art is a hypothetical person presumed to have known the relevant prior art. *In re GPAC Inc.*, 57 F.3d 1573, 1579 (Fed. Cir. 1995). In determining the level of ordinary skill in the art, we may consider certain factors, including the “type of problems encountered in the art; prior art solutions to those problems; rapidity with which innovations are made; sophistication of the technology; and educational level of active workers in the field.” *Id.* (internal quotation marks and citation omitted).

Petitioner contends, citing declaration testimony, that a person having ordinary skill in the art at the time of the alleged invention “would have had at least a Bachelor of Science degree in Mechanical or Agricultural Engineering and two years of experience in the design of vehicles, or have had equivalent knowledge and experience.” Pet. 16. Petitioner adds that “[l]ack of professional experience can be remedied by additional education, and vice versa.” *Id.* (citing Velinsky Pet. Decl. ¶¶ 17–20).

Patent Owner responds that it “does not dispute” the definition of one of ordinary skill in the art proposed by Petitioner and “notes that it substantially tracks” Patent Owner’s definition. PO Resp. 26; *see also id.* n.6 (defining one of ordinary skill in the art as having “at least a Bachelor of Science degree in Mechanical or Agricultural Engineering and two years of

PGR2025-00016
Patent 12,098,063 B2

experience in the design of machines, or have had equivalent knowledge and experience”).

As noted in the Decision on Institution, Petitioner’s proposed definition appears consistent with the record, including the prior art. *See* Dec. Inst. 10–11 (citing *In re GPAC Inc.*, 57 F.3d at 1579). Patent Owner’s proposal is the same, except Patent Owner uses the term “machines” instead of “vehicles.” With that, we agree with Patent Owner that the differences in the two proposed levels of ordinary skill in the art are minor. Further, Patent Owner has not argued at trial that Petitioner’s proposal for the level of ordinary skill leads to an improper understanding of how a skilled artisan would have understood either the challenged patent or the prior art. In the analysis below, we continue to apply the level of ordinary skill in the art adopted in the Decision on Institution, as proposed by Petitioner. The analysis would be the same under Patent Owner’s proposed level.

C. Patent Owner’s Arguments Regarding Dr. Velinsky’s Testimony

We turn now to Patent Owner’s arguments presenting several different reasons that Dr. Velinsky’s testimony should be given little to no weight. *See* PO Resp. 30–36; PO Sur-reply 6–11. We address each in turn.

First, Patent Owner contends that Dr. Velinsky’s “testimony should be disregarded” because he “lacks necessary experience.” PO Resp. 30. According to Patent Owner, Dr. Velinsky “has no experience designing machines like the compact tool carriers at issue in this proceeding,” “lacks any familiarity with how the components of these machines are typically configured or packaged within a machine,” and “knows nothing about the kinds of attachments these machines accept.” *Id.* at 31 (emphasis omitted)

PGR2025-00016

Patent 12,098,063 B2

(citing Ex. 2020 (Velinsky Depo. Tr.), 18:4–28:7)¹¹; *see also* PO Sur-reply 8 (arguing that “none of [Dr.] Velinsky’s prior work relates to compact utility loaders”). Patent Owner also contends that Dr. Velinsky

did nothing to investigate the performance characteristics that drive demand for these machines, has never operated a compact tool carrier, did not operate or even inspect any of the physical machines sold by the parties to this dispute, and did not ask to speak with a single engineer at Kubota about the challenges they face when designing these machines.

PO Resp. 31 (citing Ex. 2020, 12:6–13:1, 33:19–34:5, 35:8–36:1). Patent Owner adds that Dr. Velinsky allegedly “has no experience or capabilities with CAD or finite element analysis software—basic tools that would be known to [one of ordinary skill in the art] and used for designing machines in the industry during the critical timeframe at issue in this proceeding.” *Id.* at 32 (citing Ex. 2020, 13:2–14:11). At the oral hearing, counsel clarified that, with this argument, Patent Owner takes the position that Dr. Velinsky does not meet the level of ordinary skill in the art. *See* Tr. 36:23–38:24.

We are not persuaded by this argument because none of the knowledge that Patent Owner highlights as lacking in Dr. Velinsky is listed in the nearly identical proposals for the level of ordinary skill in the art. *See* § II.B. Patent Owner does not dispute that Dr. Velinsky has the required Bachelor of Science degree in Mechanical or Agricultural Engineering and two years of experience in the design of *vehicles*, as required. *See* Velinsky Pet. Decl. ¶¶ 7–16 (discussing qualifications and experience), *discussed at*

¹¹ For the page numbering of Exhibit 2020, like Patent Owner, we cite to the native pagination (in the *upper* right corner) rather than the page numbered added for this proceeding (in the *lower* right corner).

PUBLIC VERSION

PGR2025-00016
Patent 12,098,063 B2

Pet. Reply 7–8. After agreeing with Petitioner’s level of ordinary skill in the art (PO Resp. 25–26), Patent Owner now seeks to exclude *all* of Dr. Velinsky’s declaration testimony based on *additional* proposed requirements. *See* PO Resp. 30–32. We decline to do so. *See Sierra Wireless, ULC v. Sisvel S.p.A.*, 130 F.4th 1019, 1024 (Fed. Cir. 2025) (“To offer expert testimony from the perspective of a skilled artisan in a patent case—like for claim construction, validity, or infringement—a witness must at least have ordinary skill in the art.” (quoting *Kyocera Senco Indus. Tools Inc. v. Int’l Trade Comm’n*, 22 F.4th 1369, 1376–77 (Fed. Cir. 2022)) (applying the requirement from *Kyocera* in an appeal from a PTAB decision)).

Second, Patent Owner argues that Dr. Velinsky improperly “relied on [Petitioner’s] attorneys to create the CAD drawings that appear in his declaration,” that Dr. Velinsky “admitted that he did not determine the locations for the various pivot points that he proffers for his hypothetical modified machine, instead leaving those critical decisions to [Petitioner’s] attorney,” and that Petitioner’s attorneys “handled the work of designing the configuration (pivot points, actuator length, linkage lengths, etc.) that appears in [Dr.] Velinsky’s declaration.” PO Resp. 32 (citing Ex. 2020, 14:12–17:11). According to Patent Owner, Dr. Velinsky “failed to consider whether or where *any* of the components of the machine disclosed in KR996 would be located in the modified machine, or whether those components would be compatible with the modifications he proposes” and thus failed to perform “any engineering analysis or assessment whatsoever.” *Id.* at 33 (citing Ex. 2020, 130:14–132:6, 134:25–135:21). Patent Owner argues that, “[f]or this reason alone, his opinions are pure *ipse dixit* and should be

PUBLIC VERSION

PGR2025-00016
Patent 12,098,063 B2

disregarded.” *Id.* We will not disregard the entirety of Dr. Velinsky’s testimony based on these issues. Indeed, Patent Owner has failed to provide *any* legal basis for such a result based on these concerns. *See id.* at 32–33 (citing only Dr. Velinsky’s deposition for this argument).

Third, Patent Owner argues that we should disregard all of Dr. Velinsky’s declaration testimony because he “failed to consider any objective indicia of non-obviousness—including the evidence that was an express part of the reexamination prosecution histories.” PO Resp. 33 (citing Ex. 2020, 56:10–62:2). Again, we will not disregard the entirety of Dr. Velinsky’s testimony based on this issue at least because Patent Owner has failed to provide *any* legal basis for such a result. *See id.* (citing only Dr. Velinsky’s deposition for this argument).

Fourth, Patent Owner argues that we should disregard Dr. Velinsky’s declaration testimony because he “freely admitted to conducting his analysis using impermissible hindsight.” PO Resp. 33–34 (citing Ex. 2020, 52:21–56:9). We disagree. As argued by Petitioner, Dr. Velinsky did not “admit” to using “hindsight” in his analysis. *See* Pet. Reply 28. Rather, the cited deposition testimony walks through the process of Dr. Velinsky’s analysis, which Patent Owner *now* characterizes in its argument as “hindsight.” For example, in the Response, Patent Owner highlights and quotes a portion of testimony in which Dr. Velinsky acknowledges to have “list[ed] a limitation and then you [found] where it is in the prior art.” PO Resp. 33 (quoting Ex. 2020, 54:7–10). That is not an admission of hindsight, but merely an acknowledgement of the process that constitutes an obviousness analysis. *See In re McLaughlin*, 443 F.2d 1392, 1395 (CCPA 1971) (“Any judgment on obviousness is in a sense necessarily a reconstruction based upon

PUBLIC VERSION

PGR2025-00016
Patent 12,098,063 B2

hindsight reasoning, but so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made and does not include knowledge gleaned only from applicant's disclosure, such a reconstruction is proper."); *see also* Ex. 2020, 54:24–25 (Dr. Velinsky responding that "[w]e had to look to the claims to know what the technology was").

Fifth, Patent Owner contends that Dr. Velinsky's testimony regarding "mainframe" should be given "no weight" because Dr. Velinsky "applied a claim construction that was expressly rejected by the Board in the Institution Decision." PO Resp. 34 (citing Ex. 2020, 65:10–17; Dec. Inst. 12–19). The record does not support this argument. In the deposition testimony highlighted by Patent Owner, counsel showed Dr. Velinsky his declaration from related IPR2025-00167, which included a statement in paragraph 74 about *Patent Owner's* proposed construction of "mainframe." Ex. 2020, 65:10–17. Counsel then asked if that was the construction Dr. Velinsky applied in his analysis, to which Dr. Velinsky did not reply directly but identified aspects with which he agreed, including that the purpose of the "mainframe" is to "support the loader as described." *Id.* at 65:18–25. Counsel then asked other questions (*id.* at 66:1–13) before returning to *again* ask whether Dr. Velinsky applied Patent Owner's construction in his analysis, to which he replied "Yes, I would say so." *Id.* at 66:14–17. Despite Dr. Velinsky's answer to the question at issue, the record is clear that neither he nor Petitioner *actually* applied Patent Owner's construction; indeed, we discuss below the dispute between the parties and declarants on the construction of "mainframe" and the application of that construction.

PGR2025-00016
Patent 12,098,063 B2

See §§ II.F.3, II.G.2.a. Moreover, Patent Owner has not provided a legal basis to ignore *the entirety* of Dr. Velinsky’s testimony on this basis.

As part of this argument, Patent Owner also highlights that Dr. Velinsky identified portions of the lower frame of bogies 30 and 50 in KR996 as part of the “mainframe,” allegedly indicating his “improper and overly expansive view” of that term. PO Resp. 34–36 (citing Ex. 2020, 118:20–120:25) (reproducing Ex. 2021 (Velinsky Depo. Exhibit 2) at 15, 22 (showing pen identifying structures of the “mainframe” in KR996, Figs. 1 and 14)). Despite Dr. Velinsky’s over-identification of the structures making up the “mainframe” in KR996 *during his deposition*, again, the record is clear as to the structure in that reference that both he and Petitioner *actually* identified as the “mainframe.” Nowhere in either of his declarations did Dr. Velinsky identify the lower frame of the bogie 30 (in Figure 1) or bogie 50 (in Figure 14) of KR996 as part of the “mainframe.” *See, e.g.*, Velinsky Pet. Decl. ¶¶ 65–88 (addressing “mainframe”); Velinsky Reply Decl. ¶¶ 2–4. Although consistency would have been preferred, we do not view this over-identification during his deposition as a basis to reject the entirety of Dr. Velinsky’s testimony.

Lastly, Patent Owner argues that Dr. Velinsky’s opinions should be given “little weight” because Dr. Velinsky was unaware that Patent Owner had an expert and did not review Dr. Fleming’s declaration. *See* PO Sur-reply 9–11 (citing *Juniper Networks, Inc. v. Correct Transmission LLC*, No. 2023-1046, 2024 WL 3517862 at *5 (Fed. Cir. July 24, 2024)).

The *Juniper Networks* decision relied upon by Patent Owner does not support the request to give the entirety of Dr. Velinsky’s testimony “little weight.” That Federal Circuit proceeding involved an appeal of two *inter*

PUBLIC VERSION

PGR2025-00016
Patent 12,098,063 B2

partes review final decisions determining claims in two patents not unpatentable because petitioner had failed to show a reasonable expectation of success in the proposed combination. *Juniper Networks*, 2024 WL 3517862 at *1, *3, *5. The cited discussion addressed the reasonable expectation of success issue as to one patent, with the Federal Circuit concluding that the Board’s determination was supported by substantial evidence. *Id.* at *5. The Federal Circuit expressly found petitioner’s declarant’s testimony to be “conclusory and not credible” before summarizing patent owner’s declarant’s “contradictory testimony” and the Board’s findings in support of that testimony. *Id.* The Federal Circuit identified three issues that constituted substantial evidence supporting the Board’s conclusion on reasonable expectation of success: (1) patent owner’s declarant’s contradictory testimony, (2) petitioner’s declarant’s failure to address certain unidentified issues discussed by patent owner’s declarant, and (3) the Board crediting patent owner’s declarant over petitioner’s declarant. *Id.*

Put simply, the *Juniper Networks* decision did not involve similar facts to here, in which a petitioner’s declarant was apparently unaware of a patent owner’s declarant and did not review the declaration filed with the patent owner’s response. And the *Juniper Networks* decision does not stand for the proposition that if a petitioner’s declarant files a reply declaration that does not address all points raised in a declaration filed with a patent owner’s response, the *entirety* of the testimony by petitioner’s declarant should be given little weight or that Patent Owner *must* prevail on any given issue not addressed in the reply declaration. *See, e.g.*, PO Sur-reply 10 (arguing that Petitioner’s “odd stratagem also renders [Dr.] Fleming’s expert

PUBLIC VERSION

PGR2025-00016
Patent 12,098,063 B2

testimony unrebutted” and that Petitioner’s “bald attorney argument in its Reply provides no support for the Board to find in [Petitioner’s] favor on these issues”). Instead, we address each factual and legal issue individually below, taking into account the entire record, which includes the Petition and Dr. Velinsky’s two declarations.

D. Patent Owner’s Motion to Exclude

1. Background

Patent Owner filed a Motion to Exclude (Paper 36, “PO Mot.”) seeking to exclude Petitioner’s Exhibits 1005, 1006, and 1014, which are English language translations of exhibits in either Korean or Japanese. Patent Owner contends Exhibits 1005, 1006, and 1014 should be excluded because the corresponding certificates of translation do not comply with 37 C.F.R. § 42.63(b) and fail to comply with Federal Rules of Evidence (“FRE”) 602 and 604. *See* PO Mot. 2–6; *see also* Paper 46 (Patent Owner’s Reply in Support of its Motion to Exclude, “PO Reply”). Petitioner opposes Patent Owner’s Motion to Exclude. *See* Paper 39 (“Pet. Opp.”).

After considering all of Patent Owner’s and Petitioner’s arguments, for the reasons discussed below, we deny Patent Owner’s request to exclude Exhibits 1005, 1006, and 1014.

2. Analysis

“The moving party has the burden of proof to establish that it is entitled to the requested relief.” 37 C.F.R. § 42.20.

Exhibit 1005 is an English language translation of Korean Patent No. 10-1041996. Exhibit 1006 is an English language translation of Japanese document JP2004-17705A. Exhibit 1014 is an English language translation of Korean Patent No. 10-1023528. A Certification of Translation

PUBLIC VERSION

PGR2025-00016
Patent 12,098,063 B2

signed by Takashi Maeshiro of HC Language Solutions, Inc., accompanies each of Exhibits 1005, 1006, and 1014. Ex. 1005 at 28; Ex. 1006 at 16; Ex. 1014 at 16. Each Certification of Translation is worded substantially the same except for the references to the document at issue and the source language being either Korean or Japanese. Exhibit 1005's Certification of Translation, for example, states:

I, Takashi Maeshiro, on behalf of HC Language Solutions, Inc., do solemnly and sincerely declare, *to the best of my knowledge and belief*, that the attached text represents a translation of Korean Patent No. 10-1041996, that the translation was performed by HC Language Solutions, Inc., and that the translation represents a true, correct, and faithful translation from Korean to English in a form that reflects the intention and meaning of the original text.

I hereby declare that all statements made herein of my own knowledge are true and *that all statements made on information and belief are believed to be true*; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code.

Ex. 1005 at 28 (emphasis added).

Patent Owner argues that the Certifications of Translation do not comply with 37 C.F.R. §§ 1.68 and 42.63(b) because they “must be based on the affiant’s personal knowledge and signed under penalty of perjury.” PO Mot. 3; *see also id.* at 1–6; PO Reply 1–2. Patent Owner alleges that the Certifications of Translation are deficient because Takashi Maeshiro does not state that he “personally performed the translation, that he speaks the source language, or that he otherwise has the skills necessary to confirm each translation’s accuracy.” PO Mot. 4.

PUBLIC VERSION

PGR2025-00016
Patent 12,098,063 B2

Rule 42.63 states: “When a party relies on a document or is required to produce a document in a language other than English, a translation of the document into English and *an affidavit attesting to the accuracy of the translation must be filed with the document.*” 37 C.F.R. § 42.63 (emphasis added). Under our rules, the term “affidavit” is defined to include a declaration in lieu of an oath under rule 1.68. 37 C.F.R. § 42.2. Rule 1.68 allows for a declaration in lieu of an oath and states: “The declarant must set forth in the body of the declaration that all statements made of the declarant’s own knowledge are true and that all statements made on information and belief are believed to be true.”

Thus, our rules do not require attestation by a translator, or by a person who speaks the source language and has personally confirmed the accuracy of the translation. Further, our rules do not preclude attestation, for example, by an employee of a translation company based on information or belief. The phrase “[t]o the best of my knowledge and belief” in the Certifications of Translation indicates that Takashi Maeshiro may be attesting to the accuracy based on information and belief and not based solely on personal knowledge of the translation. *See, e.g.*, Ex. 1005.

Patent Owner submitted Takashi Maeshiro’s LinkedIn page (Ex. 2046¹²) as evidence that Takashi Maeshiro speaks Japanese but not

¹² In its Opposition, Petitioner includes a section titled “Patent Owner’s EX2046 Should be Excluded” in which Petitioner “moves to exclude Patent Owner’s EX2046.” Opp. 10. Petitioner contends that, during a February 25, 2026 conference call, the Board authorized a motion to exclude Exhibit 2046 as part of its Opposition. *Id.* We disagree. During the conference call, we explicitly denied Petitioner’s request to file a motion to exclude Exhibit

PUBLIC VERSION

PGR2025-00016
Patent 12,098,063 B2

Korean. PO Mot. 4–5. Patent Owner argues that Takashi Maeshiro’s lack of ability to speak Korean undermines the veracity of the attestation in the Certifications of Translation for Exhibits 1005 and 1014, the Korean language translations, and, by extension, the attestation in the Certification of Translation for Exhibit 1006, the Japanese language translation. *Id.*

The LinkedIn page is silent as to whether or not Takashi Maeshiro speaks Korean. Ex. 2046. That silence does not lead to the conclusion that Takashi Maeshiro’s Certifications of Translation fail to satisfy the requirement of 37 C.F.R. § 42.63(b). Nor does that silence sufficiently call into question Takashi Maeshiro’s attestation that, based on information and belief, “the translation represents a true, correct, and faithful translation from Korean to English.” *See, e.g.*, Ex. 1005 at 5.

Patent Owner cites to *Google LLC v. 138 East LCD Advancements Ltd.*, IPR2024-00958, Paper 43 at 53 (PTAB Dec. 18, 2025) (non-precedential) (“*Google*”) and argues that the Board has excluded other English language translations due to a deficient certificate of translation attestation. PO Mot. 5–6; PO Reply 4–5.

Patent Owner’s argument is unpersuasive because the circumstances here are not sufficiently similar to those in *Google*. *See* Pet. Opp. 6–7. In *Google*, a translation certification was signed by a project manager of a

2046, but we indicated that Petitioner could discuss in its Opposition to this Motion its concerns about the sufficiency of Exhibit 2046. We will not issue a decision on Petitioner’s untimely motion to exclude Exhibit 2046. Opp. 10–11. In any event, we note that any motion by Petitioner to exclude Exhibit 2046 would be moot as we have denied Patent Owner’s Motion here, finding Exhibit 2046 to be unpersuasive.

PUBLIC VERSION

PGR2025-00016
Patent 12,098,063 B2

translation company, who attested to the following: “To the best of my knowledge, the aforementioned documents are a true, full and accurate translation of the specified documents.” IPR2024-00958, Ex. 2003. The Board determined that the project manager’s attestation was based on personal knowledge of the translation, that other evidence indicated that the project manager did not speak the source language, and that, when requested, the project manager was not made available for deposition as to the translation. *Google*, Paper 43 at 53–58. On the facts there, the Board excluded the translations, determining that, because the affiant was not made available for deposition, the opposing party was “unable to question the affiant and cannot directly test the affiant’s veracity or challenge the affiant’s basis for making the statements in the affidavit,” which “contravenes 37 C.F.R. § 42.63(b) (2015) and the Board’s Trial Practice Guide.” *Google*, Paper 43 at 57–58. Thus, in *Google*, the Board did not exclude the English language translation based on the alleged deficiencies in the certificate of translation alone. Instead, the Board excluded the English language translation because the veracity of the project manager’s attestation was in question and because the project manager was not made available for a deposition when requested.

In contrast, here, Patent Owner makes no allegation that the translations, themselves, are inaccurate, nor does the Patent Owner provide an alternate translation to show that Exhibits 1005, 1006, and 1014 translations are inaccurate. *See* Pet. Opp. 2–3. Patent Owner did not seek to depose Takashi Maeshiro about the Certifications of Translation. *Id.*

PUBLIC VERSION

PGR2025-00016
Patent 12,098,063 B2

We are not persuaded by Patent Owner that the Certifications of Translation are deficient and do not comply with 37 C.F.R. §§ 1.68 and 42.63(b).

Based on its argument that a certificate of translation must be made by the translator, Patent Owner also argues that Exhibits 1005, 1006, and 1014 should be excluded under FRE 602 and 604. *See generally* PO Mot. 1–6.

Rule 42.62 states: “Except as otherwise provided in this subpart, the Federal Rules of Evidence shall apply to a proceeding.” 37 C.F.R. § 42.62. Federal Rule of Evidence 604 states: “An interpreter must be qualified and must give an oath or affirmation to make a true translation.” And FRE 602 states: “A witness may testify to a matter only if evidence is introduced sufficient to support a finding that the witness has personal knowledge of the matter. Evidence to prove personal knowledge may consist of the witness’s own testimony.”

Patent Owner does not persuade us that FRE 602 and FRE 604 apply to the circumstances here, where Rule 42.63(b) does not require an attestation by the translator (i.e., an interpreter) and does not preclude an attestation by an employee of a translation company, such as Takashi Maeshiro.

For the reasons above, we deny Patent Owner’s Motion to Exclude as to Exhibits 1005, 1006, and 1014.

E. Petitioner’s Motion to Exclude

1. Background

Petitioner filed a Motion to Exclude seeking to exclude certain aspects of Patent Owner’s exhibits. *See* Paper 35 (“Pet. Mot.”); *see also* Paper 43 (Petitioner’s Reply in Support of its Motion to Exclude, “Pet. Reply”).

PGR2025-00016
Patent 12,098,063 B2

Patent Owner opposes Petitioner's Motion. *See* Paper 40 ("PO Opp."). Below, we address the issues raised as to Petitioner's Motion to Exclude.

2. *Analysis*

a. *Embedded Documents and Deposition Testimony*

Exhibits 2002, 2014, and 2015 are portions of the prosecution histories of Reexamination Control Nos. 90/014,269; 90/013,915; and 90/014,109, respectively. Patent Owner's arguments concerning objective indicia of nonobviousness in this proceeding cite to attorney argument concerning objective indicia of nonobviousness in these prosecution histories. *See* PO Resp. 44–62. For example, Patent Owner cites to an Amendment and Response to Office Action, found on pages 161–259 of Exhibit 2002. *See, e.g.*, PO Resp. 51 (citing Ex. 2002 at 174–176). As another example, Patent Owner cites to a slide presentation concerning objective indicia. *See, e.g.*, PO Resp. 48–48 (citing Ex. 2014 at 185). Embedded in the prosecution attorney argument are citations, quotes, reproduced charts, and other references to documents and deposition testimony, including from a district court litigation between Patent Owner and third-party, The Toro Company (the Iowa Litigation referenced above (*see* § I.B)); for example, the prosecution attorney argument quotes testimony from a deposition of Neil B. Borenstein. *See, e.g.*, Ex. 2002 at 175–176.

Although portions of the embedded documents and deposition testimony are also found elsewhere in the reexamination prosecution history, much of Patent Owner's objective indicia arguments here do not independently cite to the documents and deposition testimony, nor does

PUBLIC VERSION

PGR2025-00016
Patent 12,098,063 B2

Patent Owner independently provide in this proceeding the entirety of the documents and deposition testimony.

Petitioner moves to exclude the embedded documents and deposition testimony from Exhibits 2002, 2014, and, 2015 under FRE 802 because Patent Owner relies upon them in the Patent Owner's Response for improper hearsay purposes. Pet. Mot. 1–15. Petitioner argues that the embedded documents and deposition testimony are statements made outside of this proceeding, relied upon for the truth of the matter asserted. *Id.* at 2.

Patent Owner argues that the evidence does not constitute inadmissible hearsay in that Patent Owner does not rely upon the evidence for the truth of the matter asserted. PO Opp. 1–5. According to Patent Owner, it relies upon the evidence to show that the evidence was already considered by the Office. *Id.*

Patent Owner relies upon the embedded documents and deposition testimony for two purposes: first, to show that the Office considered the evidence during reexamination (*see* PO Resp. 44–47) and second, as evidence to support the objective indicia arguments here (*see id.* at 47–56). When Patent Owner relies upon the embedded documents and deposition testimony for the *first* purpose, we are persuaded by Patent Owner that the embedded documents are not hearsay because they are not offered for the truth of the matter asserted. *See* FRE 801(c). Thus, we do not exclude the embedded documents and deposition testimony when relied upon for the first purpose.

When the embedded documents and deposition testimony are relied upon for the *second* purpose, however, the evidence is inadmissible hearsay under FRE 802. For example, Patent Owner's arguments concerning long-

PUBLIC VERSION

PGR2025-00016

Patent 12,098,063 B2

felt but unresolved need cite to Exhibit 2002, pages 174 to 176 to show that customer's desired greater lift capacity. *See* PO Resp. 51. Embedded in the attorney argument at Exhibit 2002, pages 174 to 176 are quotations from a deposition of Neil Borenstein concerning Toro's work to satisfy its customer's alleged demand for lift capacity. The quotations are statements that were made outside of trial here and are offered as evidence to prove the truth of the matter asserted—i.e., that customer's desired greater lift capacity. Quotations from a deposition of Mr. Kuemper are also embedded in the attorney argument. *See, e.g.*, Ex. 2002 at 171–172. Mr. Kuemper's testimony is likewise hearsay. We note that Patent Owner did not produce Mr. Borenstein or Mr. Kuemper for cross-examination, here, when requested by Petitioner. Pet. Mot. 10–13.

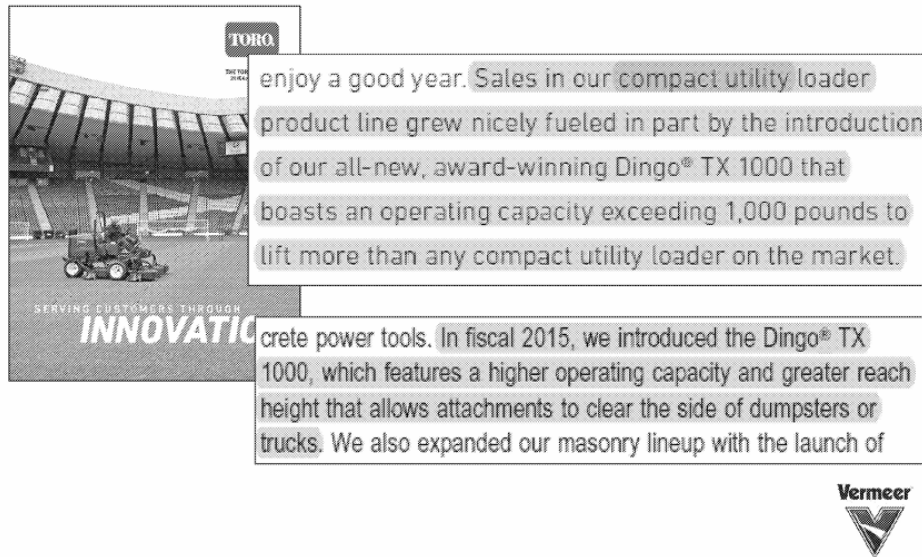
As another example, Patent Owner's arguments concerning commercial success cite to Exhibit 2014, page 185 and Exhibit 2015, pages 128–129 and 218 to show that “Toro's 2015 Annual Statement similarly boasted a significant increase in compact utility loader sales following the launch of its TX1000 machine.” PO Resp. 48–49.

PGR2025-00016
Patent 12,098,063 B2

The overlapping material from those pages is reproduced below:

Commercial Success

Toro's 2015 Annual Statement



As can be seen from the above, the overlapping material is not Toro's 2015 Annual Statement, but rather, a slide with statements that may be from Toro's 2015 Annual Statement. As such, Exhibit 2014, page 185 and Exhibit 2015, pages 128–129 and 218 at least include inadmissible hearsay.

For these reasons, we are persuaded by Petitioner to exclude, as inadmissible hearsay under FRE 802, all of the embedded documents and deposition testimony from Exhibits 2002, 2014, and 2015, when relied upon by Patent Owner in its substantive papers for the purpose of showing evidence of objective indicia.

Petitioner also moves to exclude the embedded documents and deposition testimony under FRE 403 because their probative value is substantially outweighed by the danger of unfair prejudice. *See, e.g.*, Pet. Mot. 3–4. Because we have already excluded the embedded documents and deposition testimony under FRE 802, Petitioner's additional request is moot.

PUBLIC VERSION

PGR2025-00016
Patent 12,098,063 B2

b. Fleming Declaration (Exhibit 2013) ¶¶ 125–140

Petitioner moves to exclude paragraphs 125 to 140 of the Declaration of Dr. Fleming because those paragraphs simply parrot the hearsay statements concerning Toro’s Development Story. Pet. Mot. 13–14; *see also* Pet. Reply 5. Petitioner seeks to “exclude portions of Dr. Fleming’s declaration not because the declaration itself is hearsay, but because it contains a multitude of statements that are themselves hearsay, made by persons other than Dr. Fleming, which are then parroted in [his testimony] as if to provide substantive evidence.” Pet. Mot. 13–14. According to Petitioner, FRE 703 “‘does not authorize admitting inadmissible evidence’ where the expert has ‘added nothing to the inadmissible evidence other than transmitting it to the fact-finder.’” Pet. Reply 5 (quoting *Wi-LAN Inc. v. Sharp Elecs. Corp.*, 992 F.3d 1366, 1374 (Fed. Cir. 2021)).

Patent Owner responds that we should not exclude the identified portions of the Fleming Declaration because FRE 703 “expressly allows experts to rely on information in reaching their opinions, regardless of whether the information is admissible.” PO Opp. 13; *see id.* at 12–15 (entire argument).

Neither party, however, informs us *where* Patent Owner relies upon or cites to these paragraphs in support of its objective indicia argument or elsewhere in the substantive papers. Our review of the Patent Owner’s Response and the Sur-reply reveals citations only to paragraphs 127 and 128 of the Declaration of Dr. Fleming. *See* PO Resp. 48. We deny the request to exclude paragraphs 125–140 of Dr. Fleming’s testimony.

Even if we were to consider the paragraphs at issue, we would give them little weight. These paragraphs largely relate to The Toro Company’s

PGR2025-00016
Patent 12,098,063 B2

development of a product. *See, e.g.*, Fleming Decl. ¶¶ 129–140–161. As Dr. Fleming is not associated with The Toro Company, his testimony as to events there would be of little persuasive value.

F. Claim Construction

1. The Applicable Standard

In *inter partes* reviews, the Board interprets claim language using the same claim construction standard that would be used in a civil action under 35 U.S.C. § 282(b), as described in *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005) (en banc). *See* 37 C.F.R. § 42.100(b). Under that standard, we generally give claim terms their ordinary and customary meaning, as would be understood by a person of ordinary skill in the art at the time of the invention, in light of the language of the claims, the specification, and the prosecution history. *See Phillips*, 415 F.3d at 1313–14. Although extrinsic evidence, when available, may also be useful when construing claim terms under this standard, extrinsic evidence should be considered in the context of the intrinsic evidence. *See id.* at 1317–19.

2. Procedural History

In its initial filing, Petitioner stated that “no claim term requires express construction” (Pet. 16), but Petitioner noted that the Iowa District Court discussed constructions of certain claim terms (*id.* at 16 n.3). Following a *sua sponte* request by the Board (Ex. 3001), Petitioner filed an initial claim construction brief (Paper 8 (“Pet. Init. CC Br.”)) and a reply claim construction brief (Paper 9 (“Pet. Reply CC Br.”)) addressing the term “mainframe.” Patent Owner did not file its additional claim construction briefs in this proceeding (perhaps mistakenly believing that the claims of the challenged patent do not recite the term “mainframe”). *See* IPR2025-00381,

PGR2025-00016
Patent 12,098,063 B2

Ex. 3002 (Patent Owner stating it did not submit the additional briefing in related IPR2025-00381 because the term “mainframe” is not recited in the patent challenged in that proceeding). Regardless, for consistency in how the term “mainframe” is construed across these proceedings, we will address the issues as if Patent Owner had filed as its additional briefs in this proceeding similar briefs to those filed in related proceedings IPR2025-00167 through -00171.¹³ Below, we address the parties’ proposed constructions, including arguments during trial. *See* PO Resp. 26–30; Pet. Reply 8–14; PO Sur-reply 11–16.

Based on the complete record and for purposes of this Decision, we construe the term “mainframe,” as discussed below. We need not construe explicitly any of the other claim language discussed in this section or any other claim terms because doing so would not change the outcome of the analysis below. *See 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))).

3. “mainframe” (claim 4)

Limitation 4.2 in independent claim 4 recites “a mainframe for supporting the loader” with other limitations (including limitations 4.3–4.5) referring back to the “mainframe.” *See* Ex. 1001, 7:24–8:2. In the briefing

¹³ Readers may refer to Patent Owner’s initial claim construction brief in IPR2025-00167 (Paper 12 there, which we refer to as “PO Init. CC Br.” below) and Patent Owner’s reply claim construction brief in IPR2025-00167 (Paper 13 there, which we refer to as “PO Reply CC Br.” below).

PUBLIC VERSION

PGR2025-00016
Patent 12,098,063 B2

prior to institution in this proceeding, Petitioner proposed that “mainframe” should be construed “according to its plain and ordinary meaning, and not require a ‘single weldment,’” with Petitioner adding that, “[t]o the extent the PTAB wants a specific construction, a ‘mainframe’ is a supporting structure of a vehicle.” Pet. Init. CC Br. 5. At the same time, Patent Owner proposed that “mainframe” be “given its plain and ordinary meaning: the body of the compact tool carrier that supports the loader.” PO Init. CC Br. 1; *see also* Prelim. Resp. 28 (same proposed construction). In the Decision on Institution, we preliminarily construed “mainframe” under its plain and ordinary meaning as *a primary supporting structure* and we did not adopt Patent Owner’s proposal that a “mainframe” must be “always present and not selectively removable.” *See* Dec. Inst. 12–19. For the reasons below and based on the complete record at trial, we maintain the preliminary construction and we reject a similar additional requirement proposed by Patent Owner after institution.

We begin the analysis with the language of the claims. *TQ Delta, LLC v. DISH Network LLC*, 929 F.3d 1350, 1357 (Fed. Cir. 2019). The complete record developed at trial supports understanding the term “frame” in “mainframe” as a *supporting structure*. On this issue, Patent Owner provides an excerpt of a dictionary defining “frame” as a “rigid supporting structure.” PO Resp. 27 (citing Ex. 2009 (excerpts of the Concise Oxford English Dictionary, tenth edition) at 3); *see also* Pet. Init. CC Br. 5 (stating that “a ‘mainframe’ is a supporting structure of a vehicle”). This dictionary definition does not contradict the “mainframe” described in the Specification or any other intrinsic evidence of record. *See, e.g.*, Ex. 1001, Fig. 4, 2:44–45 (“FIG. 4 is a perspective view of a mainframe of the compact tool carrier.”);

PUBLIC VERSION

PGR2025-00016
Patent 12,098,063 B2

see also Phillips, 415 F.3d at 1322–23 (stating that judges may “rely on dictionary definitions when construing claim terms, so long as the dictionary definition does not contradict any definition found in or ascertained by a reading of the patent documents”).

We now turn to the term “main” in the claim language “mainframe.” In the claim construction briefing prior to institution, Patent Owner stated that the “body is the *primary frame* of the machine (*i.e.*, the core structure of the machine that is always present and not selectively removeable) to which the other components attach.” PO Init. CC Br. 1.¹⁴ The complete record supports Patent Owner’s argument as to *primary* in that the claim language at issue recites a “mainframe” rather than merely a “frame.” *See* PO Resp. 27 (“And the addition of ‘main’ to ‘frame’ simply indicates that this frame is the primary—or most important—frame of the vehicle.” (citing Ex. 2009 at 4 (defining “main” as “chief in size or importance”))); *see also* Ex. 1006 (prior art reference JP2004017705A) ¶ 2 (“Conventionally, there have been various structures for *main frames which constitute a main part of a chassis* in various types of work vehicles for construction and civil engineering work, such as bulldozers, hydraulic excavators, and the like.” (emphasis added)), *cited at* PO Init. CC Br. 2. Thus, the claim language itself supports construing “mainframe” as a *primary supporting structure*.

Having addressed the claim language, we turn to the Specification. We first address the sentence highlighted in the Board’s request for additional briefing on claim construction: “As used herein, the term

¹⁴ We address below Patent Owner’s position that the structures of the “mainframe” must be “always present and not selectively removeable.”

PUBLIC VERSION

PGR2025-00016
Patent 12,098,063 B2

‘mainframe’ generally refers to a single weldment to which the loader 8 is attached, optionally through one or more pivotal linkages.” Ex. 1001, 4:15–18, *quoted at* IPR2025-00167, Paper 7 at 3. In the request, the Board sought briefing on whether this sentence is (1) a lexicographical definition of “mainframe” or, in the alternative, (2) merely a description of an embodiment. IPR2025-00167, Paper 7 at 3. The parties both responded that this sentence is *not* lexicographical, but rather, merely describes an embodiment. *See* PO Init. CC Br. 1–5; Pet. Init. CC Br. 1–4; PO Reply CC Br. 1 (noting agreement); Pet. Reply CC Br. 1 (same). For the reasons below, we agree with the parties.

“To act as a lexicographer, a patentee must ‘clearly set forth a definition of the disputed claim term’ and ‘clearly express an intent to redefine the term.’” *Luminara Worldwide, LLC v. Liown Elecs. Co.*, 814 F.3d 1343, 1353 (Fed. Cir. 2016) (quoting *Thorner v. Sony Comput. Entm’t Am. LLC*, 669 F.3d 1362, 1365 (Fed. Cir. 2012)). As argued by both parties, the presence of “generally” in the sentence at issue shows a lack of clear intent to redefine “mainframe.” PO Init. CC Br. 3; Pet. Init. CC Br. 2; *cf. ParkerVision, Inc. v. Vidal*, 88 F.4th 969, 976–77 (Fed. Cir. 2023) (finding definitional the sentence “[s]torage modules and storage capacitances, on the other hand, refer to systems that store non-negligible amounts of energy from an input EM signal” (emphasis added)); *Sinorgchem Co., Shandong v. Int’l Trade Comm’n*, 511 F.3d 1132, 1136 (Fed. Cir. 2007) (finding definitional the sentence “[a] ‘controlled amount’ of protic material is an amount up to that which inhibits the reaction of aniline with nitrobenzene, e.g., up to about 4% H₂O based on the volume of

PUBLIC VERSION

PGR2025-00016
Patent 12,098,063 B2

the reaction mixture when aniline is utilized as the solvent” (emphasis added)).

Because the sentence at issue from the Specification is not lexicographical, we agree with the parties that “mainframe” is not limited to a single weldment. Pet. Init. CC Br. 1; PO Init. CC Br. 1–2. Instead, a single-weldment “mainframe” is merely one disclosed embodiment. *See* Pet. Init. CC Br. 3 (stating that “by including the term ‘generally’ in a statement, the feature (*i.e.*, single weldment) is expressly identified as merely included in some, but not all embodiments”); PO Init. CC Br. 3 (“This language is merely exemplary, using reference numerals to refer to the embodiment’s features and qualifying ‘single weldment’ as referring ‘generally’ to specific embodiments.”). The Iowa District Court reached the same conclusion. *See* Ex. 1020 at 4 (holding that “‘mainframe’ will be given its plain and ordinary meaning and *does not require a single weldment*” (emphasis added)), *cited at* Pet. Init. CC Br. 2; *see also* 37 C.F.R. § 42.100(b) (“Any prior claim construction determination concerning a term of the claim in a civil action, or a proceeding before the International Trade Commission, that is timely made of record in the *inter partes* review proceeding will be considered.”).

Turning to the prosecution history, neither Petitioner nor Patent Owner has highlighted any specific statements that impact the scope of the term “mainframe.” And from our independent review, we do not discern any such statements. For these reasons, the intrinsic evidence as a whole supports construing “mainframe” as a *primary supporting structure*.

In the briefing after institution, both parties state that they agree with this construction. *See* PO Resp. 27 (“The plain and ordinary meaning of

PUBLIC VERSION

PGR2025-00016
Patent 12,098,063 B2

‘mainframe’ in the [challenged] patent is ‘primary supporting structure.’” (citing Fleming Decl. ¶¶ 87–91)); Pet. Reply 14 (“The Board’s [Institution Decision] construction of ‘primary supporting structure’ is correct . . .”). Patent Owner’s declarant, Dr. Fleming, also states to agree with this construction. Fleming Decl. ¶ 87 (“The plain and ordinary meaning of ‘mainframe,’ as that term has been preliminarily construed by the Board is ‘the primary supporting structure’ of the machine. In my view, this construction is consistent with the plain meaning of the words ‘main’ and ‘frame’ and their use within the [challenged p]atent.” (citing Ex. 2009)), *cited at* PO Resp. 27; *id.* ¶ 99 (agreeing with that construction).

But, essential to the analysis here, Patent Owner’s agreement with the construction of “mainframe” discussed above is predicated on further interpreting the term “primary” (i.e., within the construction) as *precluding* any “supporting structure that is selectively removeable during various operations of the machine.” PO Resp. 30 (citing Fleming Decl. ¶ 89); *see id.* (“The term ‘mainframe’ does not apply to attachments that are routinely disconnected and left aside while the machine continues to perform other work.” (citing Fleming Decl. ¶¶ 89–91)). Stated differently, Patent Owner proposes that the term “primary”—i.e., in the language of the agreed-upon construction of “mainframe”—*requires* that any “supporting structure” comprising the “mainframe” must be “*always present* during all aspects of its operation.” *Id.* (citing Fleming Decl. ¶ 89); *see also* Fleming Decl. ¶ 89 (“A person of ordinary skill in the art in February of 2015 would further understand that the ‘primary’ supporting structure refers to a fundamental part of the machine that is always present—not selectively removable—during all aspects of operation of the machine.”). For the reasons below, we

PUBLIC VERSION

PGR2025-00016
Patent 12,098,063 B2

do not adopt Patent Owner’s proposed “always present” requirement for the “mainframe.” On this issue, we begin with the arguments and evidence provided prior to institution, and we then move to the arguments and evidence provided during trial.

As noted by Petitioner (Pet. Reply 8–9), prior to institution, Patent Owner proposed essentially the same additional requirement—that a “mainframe” must be “always present and not selectively removeable.” *See* PO Init. CC Br. 1. In proposing that additional requirement for the “mainframe,” Patent Owner cited its own Preliminary Response (but in related IPR2025-00167, rather than this proceeding) and cited claims 1 and 5 of the challenged patent. *See id.* at 1–2. As acknowledged by Patent Owner, the Preliminary Response in IPR2025-00167 provides *argument* that certain structures in KR996 are not a “mainframe,” but the briefing does not explain *the basis* for the additional requirement of “always present and not selectively removeable” because Patent Owner did not present that position until *after* its Preliminary Response. *See id.* at 1; *compare* Prelim. Resp. 23 (“As the *primary* frame of the compact utility loader, the ‘mainframe’ is the core structure of the machine to which the other components attach.”), *with* PO Init. CC Br. 1 (“As Vermeer explained in its Patent Owner Preliminary Response (‘POPR’), this body is the *primary frame* of the machine (*i.e.*, the core structure of the machine that is always present and not selectively removeable) to which the other components attach.”). Patent Owner then summarized the added limitations of claim 5 of U.S. Patent No. 9,321,386 B1 (at issue in IPR2025-00167 through -00169), which also do not support the scope of “mainframe” in the independent claims here. *See* PO Init. CC Br. 1–2. As discussed in the Decision on Institution, in the pre-institution

PUBLIC VERSION

PGR2025-00016
Patent 12,098,063 B2

briefing, Patent Owner failed to explain how the record supported the additional requirement proposed. *See* Dec. Inst. 13–14.

In the briefing after institution, Patent Owner first cites to certain passages of the Specification as allegedly supporting that “the ‘mainframe’ represents the core structure of the machine to which the other components attach.” *See* PO Resp. 27–28 (citing Ex. 1001, 2:15–16, 3:33–34, 4:4–7, 4:20–22, 4:23–26, 4:44–45, 5:65–66; Fleming Decl. ¶ 88). That the Specification generally discloses various structures attaching to the “mainframe,” however, does not support Patent Owner’s proposed “always present” requirement. Stated differently, that other structures are attached to the “mainframe” does not address the issue at hand, which is whether the structures comprising the “mainframe” must be *always present*.

Relatedly, Patent Owner highlights two U.S. Patents—No. 5,004,398 to Wagner (Ex. 2016) and No. 5,666,794 to Vought (Ex. 2017)—as allegedly disclosing configurations “similar to that found in KR996” and that distinguish between a “mainframe” and “*selectively removable*” attachments. *See* PO Resp. 27–29. As an initial matter, Patent Owner has not alleged or shown that either reference was discussed in the prosecution history, which would elevate them to the level of intrinsic evidence. *See, e.g., Tate Access Floors, Inc. v. Interface Architectural Res., Inc.*, 279 F.3d 1357, 1371–72 n.4 (Fed. Cir. 2002) (“Prior art cited in the prosecution history falls within the category of intrinsic evidence. Prior art the examiner failed to consider is extrinsic.”).

Further, although both references disclose a “main frame” (as in Wagner, or a “main frame assembly” as in Vought) as structure *separate from* removable attachments/tools, those references do not support a *per se*

PGR2025-00016
Patent 12,098,063 B2

rule that any structure in a “mainframe” of a utility loader must be “always present”; indeed, neither reference discusses any such *temporal* requirement related to the structures in a “mainframe” (or “main frame assembly”). *See* PO Resp. 28–29 (citing Ex. 2016, Fig. 1, 3:22–62; Ex. 2017, Fig. 1, 3:45–50, 4:45–61, 5:40–55). To accept Patent Owner’s argument here, we would have to infer that the “always present” requirement applies *globally* to any “mainframe” based on the exemplary embodiments disclosed in two extrinsic prior art references, which do not address the issue. Patent Owner has not identified a legal basis for that approach.

Patent Owner also relies on the testimony of Dr. Fleming in support of the “always present” requirement. *See* PO Resp. 30 (citing Fleming Decl. ¶¶ 89–91). Specifically, Dr. Fleming testifies that “a skilled artisan would have understood that the mainframe of the machine encompasses only the *primary* supporting structure of the machine, and not any supporting structure that [is] selectively removable during various operations of the machine.” Fleming Decl. ¶ 91; *see also id.* ¶ 89 (“A person of ordinary skill in the art in February of 2015 would further understand that the ‘primary’ supporting structure refers to a fundamental part of the machine that is always present—not selectively removable—during all aspects of operation of the machine.”). In support, however, Dr. Fleming relies on Wagner and Vought, as discussed above, which we find unpersuasive. *Compare* Fleming Decl. ¶ 91 (citing passages of Wagner and Vought), *with* PO Resp. 27–29 (citing the same passages).¹⁵

¹⁵ In a different paragraph, Dr. Fleming relies on Vought and two other U.S. patents (Exs. 2018 and 2019) for the proposition that “[c]onstruction

PGR2025-00016
Patent 12,098,063 B2

In the Sur-reply, Patent Owner does not discuss additional argument or evidence supporting the “always present” requirement, but rather, attempts to refute Petitioner’s arguments from the Reply Brief. *See, e.g.*, Pet. Reply 8–14; PO Sur-reply 11–16. Because the evidence and argument provided by Patent Owner in this proceeding does not support the “always present” requirement, we do not include that additional requirement as part of the construction for “mainframe” applied below.

For the reasons above and based on the complete record at trial, we maintain the construction of “mainframe” in independent claim 4 under its plain and ordinary meaning as *a primary supporting structure*. In addition, we do not adopt Patent Owner’s additional proposed requirement—i.e., that any “supporting structure” in the “mainframe” must be always present during all aspects of operation.

*G. Asserted Anticipation and Obviousness of Claims 4 and 7–12
Based on KR996*

Petitioner asserts that claims 4 and 7–12 of the challenged patent are anticipated by and would have been obvious based on KR996. Pet. 18, 19–46; Pet. Reply 14–17. Patent Owner provides arguments specifically addressing these asserted grounds. PO Resp. 36–41; PO Sur-reply 18–20. We first summarize aspects of the relied-upon prior art.

machines with selectively removable equipment or attachments were well known in the art,” but none of the cited passages from those references mentions “mainframe” or a similar term or addresses the scope of a “mainframe.” Fleming Decl. ¶ 90.

1. Overview of KR996

KR996 “relates to construction equipment for green building deconstruction work,” and, more particularly, to equipment “that can enter narrow buildings and carry out dismantling work inside the building, and can easily attach and detach various dismantling equipment to the vehicle according to the form of the deconstruction work.” Ex. 1005 ¶ 1.

Figure 1 of KR996 is reproduced below:

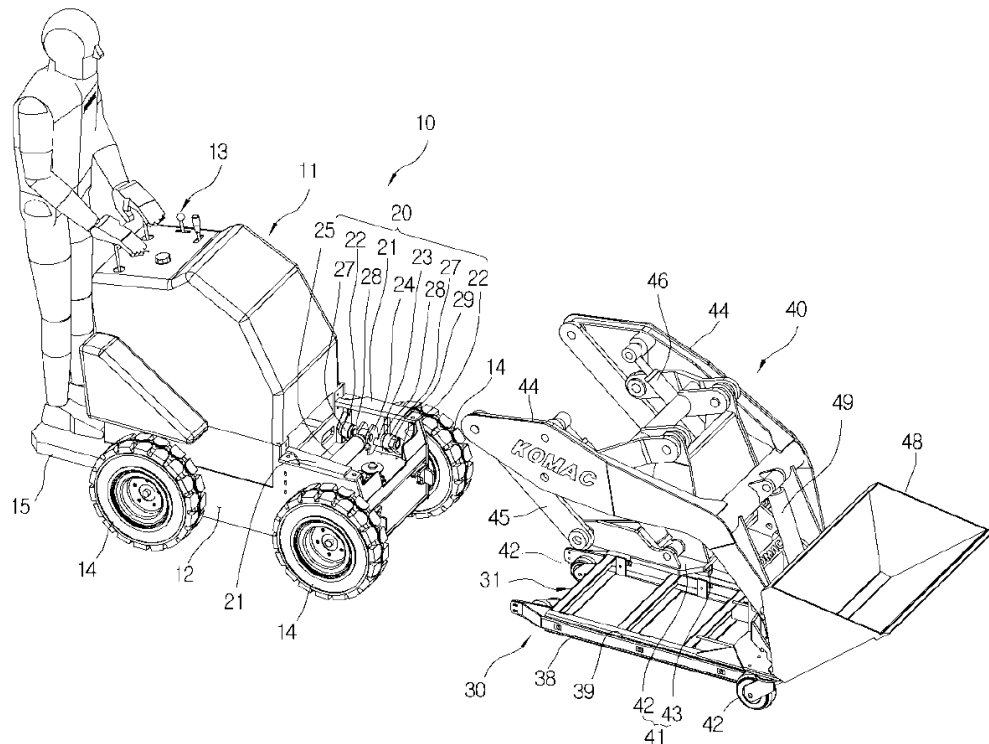


Figure 1 is a perspective view showing before loader unit 40 and bogie 30 are attached to vehicle 10. Ex. 1005 ¶¶ 40, 93. To attach bogie 30/loader unit 40 to vehicle 10, the operator shown on board at the rear uses control unit 13 to move vehicle 10 forward to engage detachable part 20 with fixture 41. *Id.* ¶¶ 42, 43, 54.

PGR2025-00016
 Patent 12,098,063 B2

Figure 7 is reproduced below:

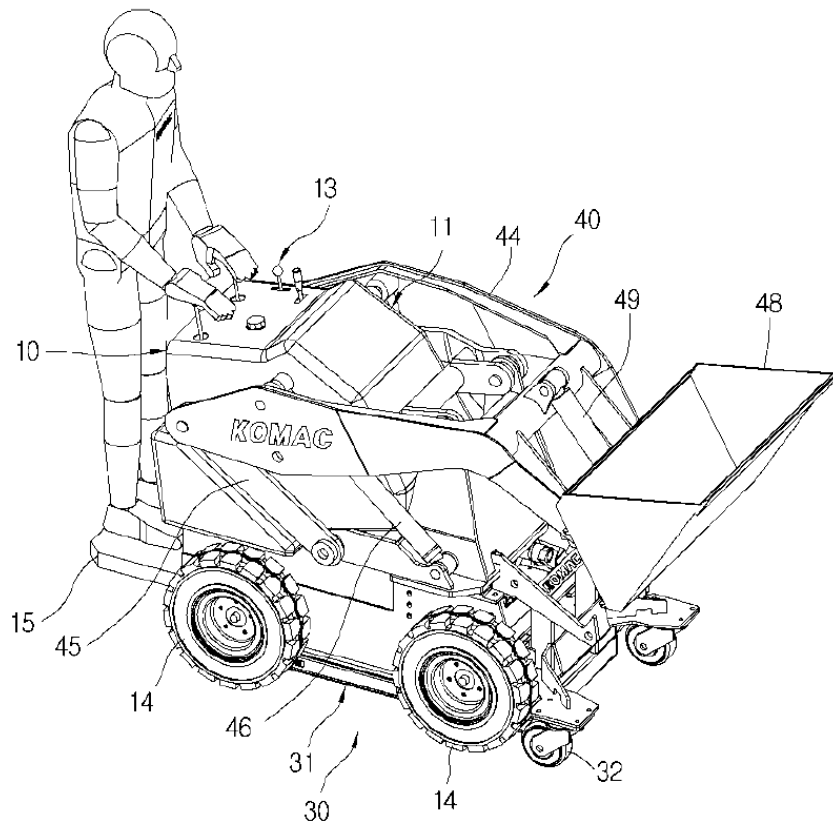


Figure 7 is a perspective view showing bogie 30 and loader unit 40 coupled to the detachable part of the vehicle. Ex. 1005 ¶¶ 40, 99. As shown in this Figure, vehicle 10 also includes (1) wheels 14 for moving vehicle 10, (2) linkage 45 to support boom 44, (3) actuator 46 to drive boom 44 upwards and downwards, and (4) bucket 48 to carry material. *Id.* ¶¶ 52, 54, 74.

2. Independent Claim 4

Petitioner contends that KR996 both anticipates and renders obvious independent claim 4. Pet. 21–37. To support its arguments, Petitioner identifies certain passages in the cited references and explains the significance of each passage with respect to the corresponding claim limitation. *Id.* Patent Owner argues that KR996 does not disclose a

PGR2025-00016
Patent 12,098,063 B2

“mainframe” and thus fails to disclose limitations requiring “linkage[s]” and an “actuator” attached to the “mainframe.” *See* PO Resp. 36–40; PO Sur-reply 18. Patent Owner also presents evidence of objective indicia of nonobviousness. *See* PO Resp. 44–62; PO Sur-reply 21–25. We address each issue in turn.

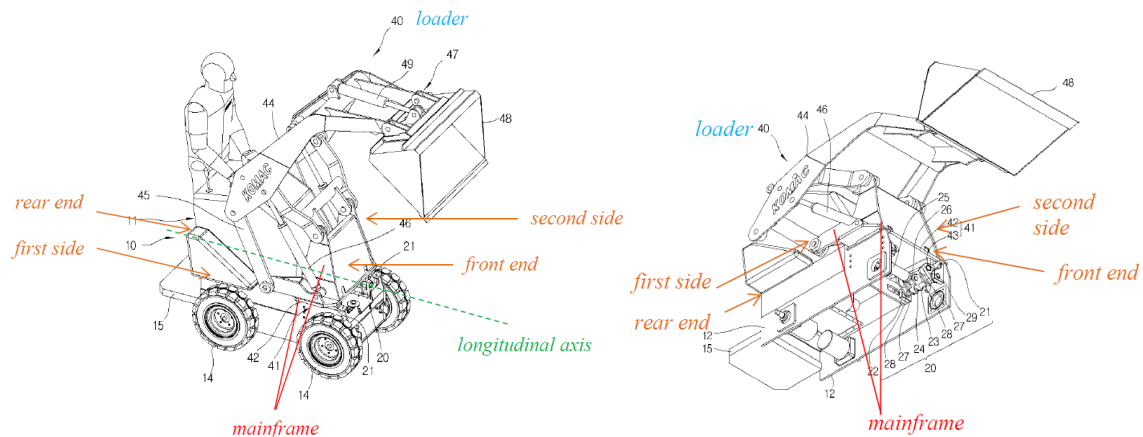
a. The Mainframe Limitations

Claim 4 recites, in relevant part, “[4.2] a mainframe for supporting the loader, the mainframe having a first side and a second side . . . ; [4.3] a first linkage pivotally attached to the first side of the mainframe . . . ; [4.4] a second linkage pivotally attached to the first side of the mainframe . . . ; [4.5] an actuator pivotally attached to the first side of the mainframe.” Ex. 1001, 6:28–39 (collectively, the “mainframe limitations”). As discussed above, we maintain the construction of “mainframe” in independent claim 4 under its plain and ordinary meaning as ***a primary supporting structure***, and we do not adopt Patent Owner’s additional proposed requirement—i.e., that any “supporting structure” in the “mainframe” must be always present during all aspects of operation. *See* § II.F.3. We first summarize Petitioner’s positions as to the mainframe limitations.

As to the recitation of “a mainframe for supporting the loader, the mainframe having a first side and a second side,” Petitioner provides the following annotated versions of Figures 9 and 10 of KR996:

PGR2025-00016

Patent 12,098,063 B2



Pet. 26. In the annotated versions of Figures 9 and 10 of KR996 above, Petitioner added (1) red text and line identifying a “mainframe,” (2) brown text and arrows identifying a “first side,” “rear end,” “second side,” and “front end,” (3) a green dotted line identifying a “longitudinal axis,” and (4) blue text identifying a “loader.” *Id.* Petitioner adds that “KR996’s *mainframe* includes the frame components of KR996 vehicle for supporting the attached loader unit 40 by providing structural or weight-bearing support when the vehicle is in operation.” Pet. 24 (citing Velinsky Pet. Decl. ¶¶ 65–67). Petitioner provides further discussion as to the components comprising the identified “mainframe”:

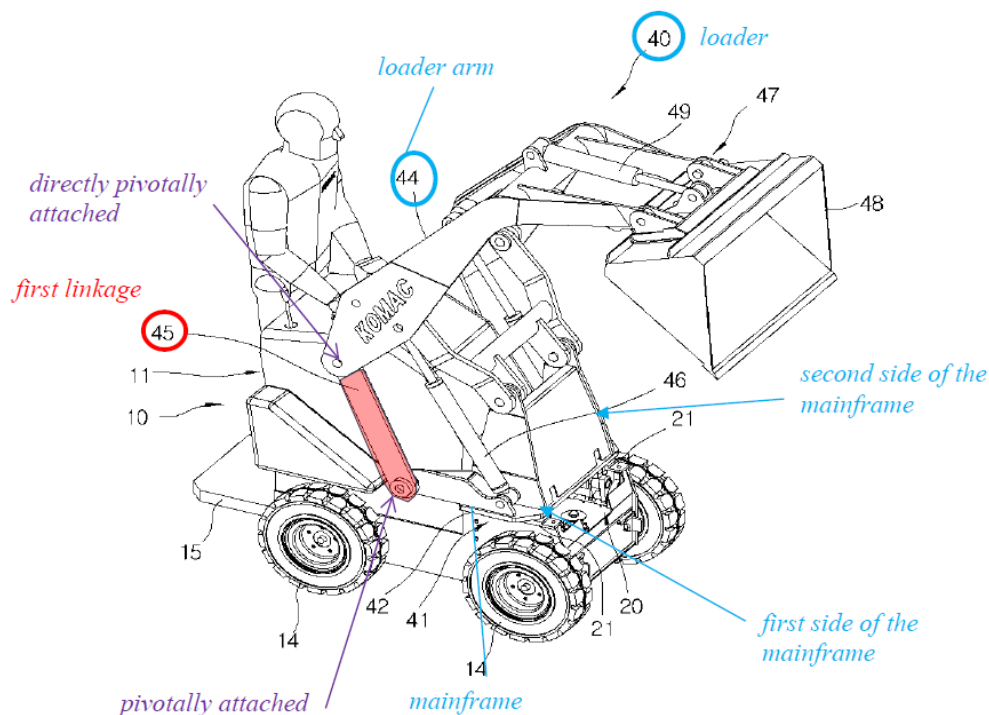
In particular, the *mainframe* of KR996 includes the frame components having pivot attachments with ends of each of the respective intermediary parts (i.e., the boom cylinder 46, link 45 and the forward link of [4.3]–[4.5] discussed below), which are connected at their opposite ends to the boom 44 of the loader unit 40. Thus, the *mainframe* includes the bracket to which the link 45 and the boom cylinder 46 attach, as well as the frame protrusion, connected to the bracket, to which the forward link attaches.

Pet. 25. Further, Petitioner states that “KR996’s *mainframe* also includes frame portions in addition to those providing direct attachment to the

PGR2025-00016
Patent 12,098,063 B2

intermediary parts including the main body 11 and side plates 12.” Pet. 26–27 (citing Ex. 1005 ¶¶ 44, 49, Figs. 1, 7–9). According to Petitioner, “[t]hese portions are part of a frame or body making up the KR996 vehicle when in operation providing structural and weight-bearing support for the loader unit 40, in addition to support for other features such as the control station and drive mechanism.” Pet. 27.

As to the recitation of “a first linkage pivotally attached to the first side of the mainframe,” Petitioner provides the following annotated version of Figure 9 of KR996:

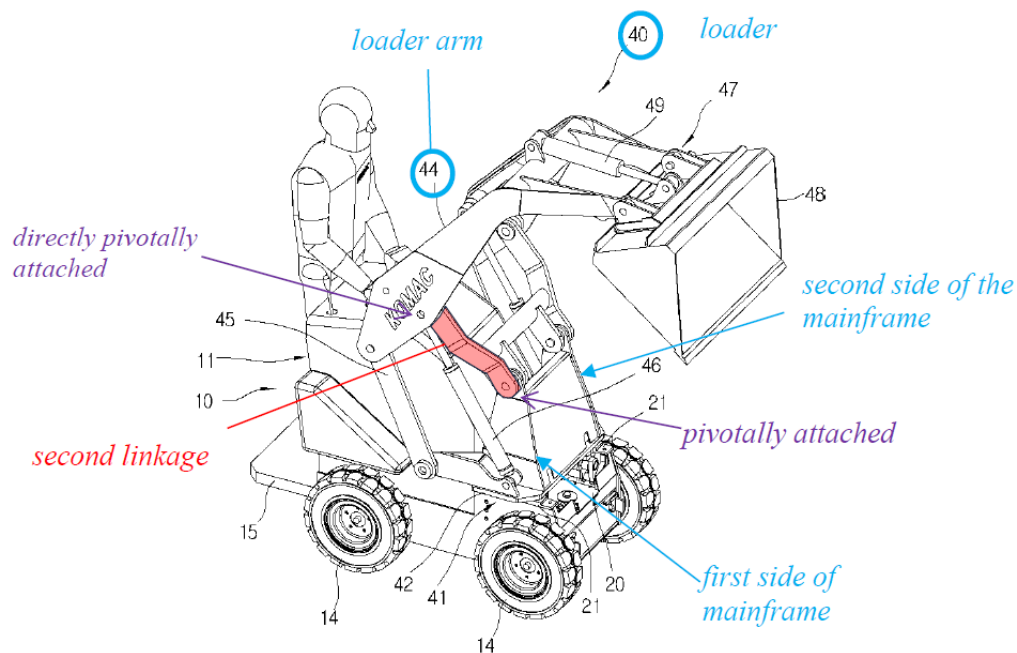


Pet. 29. In the annotated version of Figure 9 of KR996 above, Petitioner added (1) red text and a circle identifying a “first linkage,” (2) purple text and arrows explaining where the “first linkage” is “directly pivotally attached” and “pivotally attached,” (3) blue text and lines identifying a “loader arm” and a “mainframe,” (4) blue text identifying a “loader,” and (5)

PGR2025-00016
 Patent 12,098,063 B2

blue text and arrows identifying a “first side of the mainframe” and a “second side of the mainframe.” *Id.* Petitioner states that “the bracket to which the link 45 is directly attached is part of the *mainframe* that supports the loader unit 40.” Pet. 30 (discussing Velinsky Pet. Decl. ¶¶ 70–75).

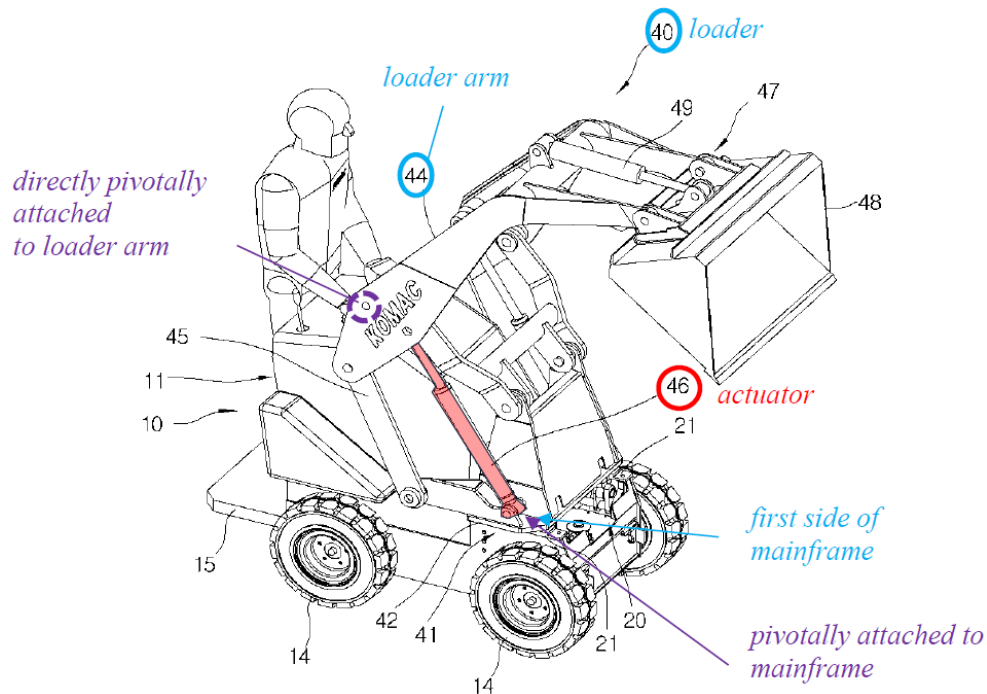
As to the recitation of “a second linkage pivotally attached to the first side of the mainframe,” Petitioner provides the following annotated version of Figure 9 of KR996:



Pet. 31 (discussing Velinsky Pet. Decl. ¶¶ 76–81). In the annotated version of Figure 9 of KR996 above, Petitioner added (1) red text and a circle identifying a “second linkage,” (2) purple text and arrows explaining where the “second linkage” is “directly pivotally attached” and “pivotally attached,” (3) blue text and a line identifying a “loader arm,” (4) blue text identifying a “loader,” and (5) blue text and arrows identifying a “first side of mainframe” and a “second side of the mainframe.” *Id.*

PGR2025-00016
Patent 12,098,063 B2

Finally, as to the recitation of “an actuator pivotally attached to the first side of the mainframe,” Petitioner provides the following annotated version of Figure 9 of KR996:

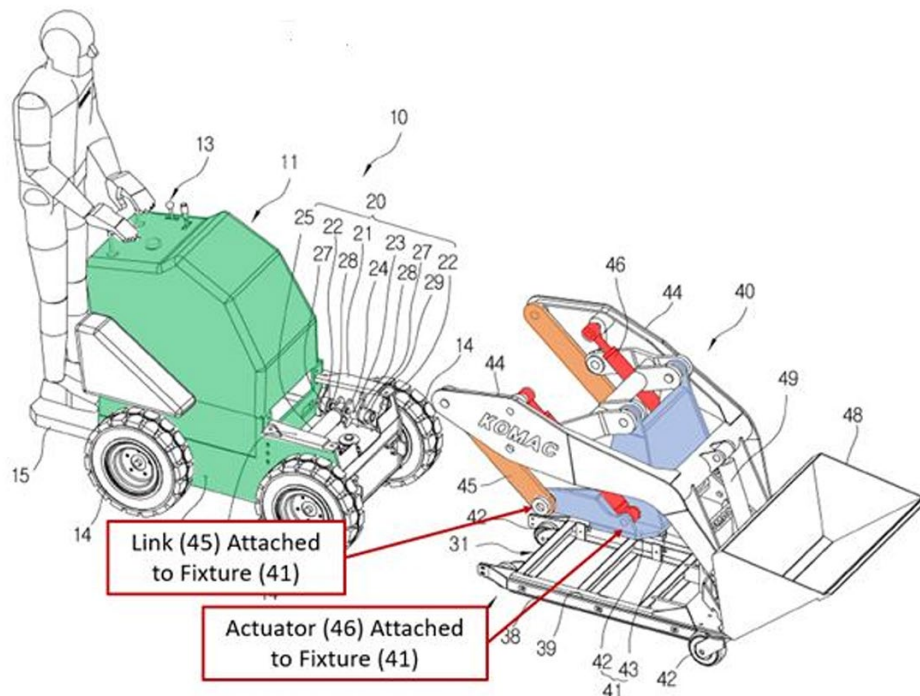


Pet. 33 (discussing Velinsky Pet. Decl. ¶¶ 82–88). In the annotated version of Figure 9 of KR996 above, Petitioner added (1) red text and a circle identifying an “actuator,” (2) purple text and arrows explaining where the “actuator” is “directly pivotally attached to loader arm” and “pivotally attached to mainframe,” (3) blue text and a line identifying a “loader arm,” (4) blue text identifying a “loader,” and (5) blue text and an arrow identifying a “first side of mainframe.” *Id.*

Patent Owner argues that KR996 fails to disclose or suggest the mainframe limitations. *See* PO Resp. 36–40; PO Sur-reply 18. Specifically, Patent Owner contends that, to satisfy the requirements that two “linkage(s)” and “an actuator” are “pivotally attached to the first side of the mainframe,”

PGR2025-00016
Patent 12,098,063 B2

Petitioner and Dr. Velinsky “are forced to assert that the removable fixture (41) of the loader arm *attachment* [in KR996] constitutes a part of the ‘mainframe’ of the machine.” PO Resp. 37–38 (citing Pet. 24–28; Velinsky Pet. Decl. ¶¶ 66, 67, 70, 73, 76, 84). In support, Patent Owner provides the annotated version of Figure 1 of KR996 reproduced below:



PO Resp. 38 (providing annotated Figure from Fleming Decl. ¶ 103). In the annotated version of Figure 1 of KR996 above, Patent Owner added (1) green shading on certain structures, (2) a text box and arrow identifying “Link (45) Attached to Fixture (41),” (3) a text box and arrow identifying “Actuator (46) Attached to Fixture (41),” (4) orange shading identifying two links 45, (5) red shading identifying two actuators (i.e., boom cylinders) 46, and (6) blue shading identifying fixture 41. *Id.*

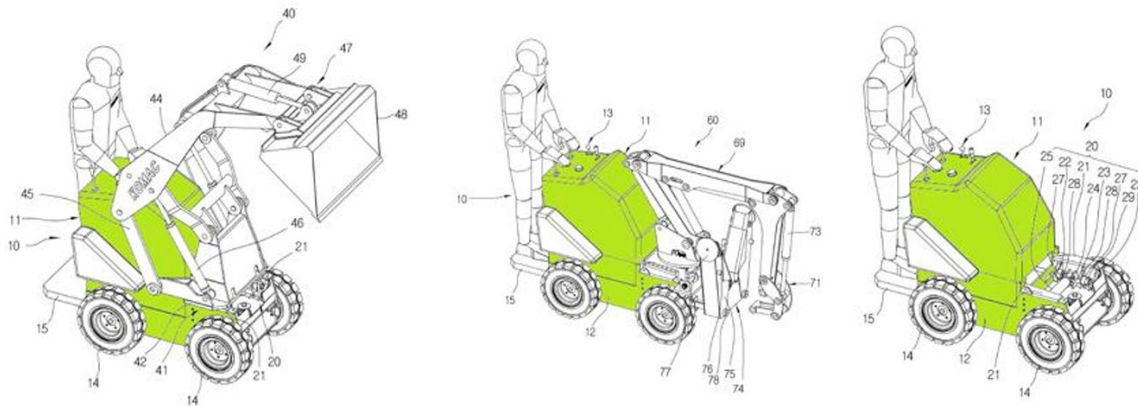
Patent Owner argues that one of ordinary skill in the art “would not consider the detachable fixture (41)” —in blue shading above— “to be a part

PUBLIC VERSION

PGR2025-00016
Patent 12,098,063 B2

of the mainframe (*i.e.*, primary supporting structure) of KR996's machine.” PO Resp. 38 (citing Fleming Decl. ¶¶ 104–105); *see also* PO Sur-reply 18 (repeating that one of ordinary skill in the art “would not consider the detachable fixture (41) of the KR996 loader unit to be part of the primary supporting structure of KR996's machine”). In support, Patent Owner contends that “KR996 expressly teaches that fixture (41) is routinely detached from the machine and left aside while the machine performs other work.” PO Resp. 39 (citing Ex. 1005, code (57), ¶¶ 1, 11, 12, 13; Fleming Decl. ¶ 108).

According to Patent Owner, one of ordinary skill in the art “would consider fixture (41) to be a *secondary* structure, in contrast to the true ‘mainframe,’ main body (11), which is present during all modes of operation (shaded in green below)”:



PO Resp. 39 (providing annotated Figure from Fleming Decl. ¶ 109). In the annotated versions of Figures 1, 9, and 19 of KR996 above, Patent Owner added green shading on certain structures. *Id.*

The dispute between the parties for this ground hinges on one factual determination: whether one of ordinary skill in the art at the time of the invention would have understood fixture 41 in KR996 (shaded in blue in the

PGR2025-00016
Patent 12,098,063 B2

annotated Figure 1 three paragraphs above) to be *part of* a “mainframe,” along with the agreed-upon “mainframe” structures (shaded in green in both sets of annotated figures above).¹⁶ For the reasons below, the complete record developed at trial more strongly supports Petitioner’s position that one of ordinary skill in the art would have understood main body 11 *and* fixture 41 as a “mainframe” under the construction above.

Limitation 4.2 makes clear that the “mainframe” supports the “loader.” When configured for loader operations (which Patent Owner acknowledges KR996 discloses¹⁷), main body 11 *and* fixture 41 in KR996 are the *primary supporting structure* for the loader (i.e., a “mainframe” as construed above) in that those structures provide the principal “structural or weight-bearing support when the vehicle is in operation” for “supporting the attached loader unit 40” in KR996. Pet. 24 (citing Velinsky Pet. Decl.

¹⁶ We use certain annotated figures from KR996 provided by Patent Owner in the discussion here to illustrate more easily the difference of positions between the parties as to the structures in KR996 that would have been considered a “mainframe.” We note, however, that the combined structures identified by Patent Owner (1) in green (agreed upon as part of the “mainframe”) and (2) in blue (identified *only by Petitioner* as part of the “mainframe”) appear to be a subset of the structures identified by Petitioner as the “mainframe.” See, e.g., Pet. Reply 14–15; Velinsky Reply Decl. ¶ 4; Pet. 24–27 (discussing the various specific structures comprising the “mainframe”). Put simply, Petitioner’s assertions as to the particular structures in KR996 comprising the “mainframe” control over Patent Owner’s *presented understanding* of Petitioner’s positions.

¹⁷ See PO Resp. 22–23 (discussing a “fifth mode” in which “the machine is operated with the loader attached to, for example, clear construction debris from the site”).

PGR2025-00016
Patent 12,098,063 B2

¶¶ 65–67; Ex. 1005, Figs. 8–10 (showing the vehicle of KR996 in operation).

The cited testimony of Dr. Velinsky supports this position. *See* Velinsky Pet. Decl. ¶ 65 (“KR996’s *mainframe* includes the frame components of the KR996 vehicle that when in operation, support the attached loader unit 40 by providing structural or weight-bearing support.”), ¶ 66 (“KR996’s weight-bearing frame is *for supporting the loader* as the loader unit 40 including its boom 44 is attached to the frame by way of the linkages and actuator connecting to the loader arm, which is discussed below. In particular, the *mainframe* of KR996 includes the frame components having pivot attachments with ends of each of the respective intermediary parts (i.e., the boom cylinder 46, link 45 and the forward link of [4.3]–[4.5] discussed below), which are connected at their opposite ends to the boom 44 of the loader unit 40.”), ¶ 67 (“KR996’s *mainframe* also includes frame portions in addition to those providing direct attachment to the intermediary parts including the main body 11 and side plates 12. EX1005, [0044], [0049], Figs. 1, 7–9. These portions are part of a frame or body making up the KR996 vehicle when in operation providing structural and weight-bearing support for the loader unit 40, in addition to support for other features such as the control station and drive mechanism.”); *see* Velinsky Reply Decl. ¶ 2 (“The primary supporting structure of the KR996 compact utility loader is thus the combination of the body 11 and the fixture 41.”).

Both fixture 41 and main body 11 are *primary supporting structure* in KR996 in that (1) fixture 41 directly supports the weight of loader arms 44 (which directly support bucket attachment 47 and bucket 48) and (2) main

PUBLIC VERSION

PGR2025-00016
Patent 12,098,063 B2

body 11 *in turn* directly supports fixture 41. Pet. Reply 12 (“Dr. Velinsky confirms that both body 11 and fixture 41 are critical and important to providing a primary support structure for the CUL” (compact utility loader) in KR996. (citing Velinsky Reply Decl. ¶ 2)); Velinsky Reply Decl. ¶ 2 (“Both the vehicle and the loader unit include frame portions, the vehicle has the body 11 and the loader unit has the fixture 41. And it is the fixture 41 that directly supports the loader arms (boom) 44, which further connects and supports the bucket attachment 47 and bucket 48.”). The cited testimony of Dr. Velinsky supports this position as well, with Dr. Velinsky noting that “[e]ither of these two frame portions, considered alone, would be incomplete for the compact utility loader” such that “both the body 11 and the fixture 41 are critical and important to providing a support structure of the compact utility loader.” Velinsky Reply Decl. ¶ 2.

Patent Owner’s and Dr. Fleming’s positions at trial have relied *directly and exclusively* on the “always present” requirement to attempt to distinguish KR996 and argue that one of ordinary skill in the art would *not* have considered fixture 41 in KR996 as part of a “mainframe” and instead would have considered fixture 41 as a “secondary” supporting structure. *See, e.g.*, PO Resp. 39 (arguing that one of ordinary skill in the art “would consider fixture (41) to be a *secondary* structure, in contrast to the true ‘mainframe,’ main body (11), which is present during all modes of operation”); Fleming Decl. ¶ 105 (arguing that one of ordinary skill in the art “would understand that the *primary* supporting structure of KR996 is the ‘main body (11)’ of the machine that is present during *all* phases of the machine’s operation”), ¶ 108 (“KR996 expressly teaches that fixture (41) is routinely detached from the machine and left aside while the machine

PGR2025-00016
Patent 12,098,063 B2

performs other work.”), ¶ 109 (arguing that one of ordinary skill in the art “would consider fixture (41) to be secondary structure, in contrast to the true ‘mainframe’—that being the ‘main body (11)’—which is present during all modes of operation”). For the reasons above (*see* § II.F.3), however, Patent Owner has not demonstrated why we should adopt the “always present” requirement into the construction of “mainframe.” Thus, Patent Owner’s arguments based on the “always present” requirement do not identify a deficiency in Petitioner’s positions as to the “mainframe” limitations.

Patent Owner seeks to focus the analysis solely on times during operations when vehicle 10 (and its main body 11) *is separated from* loader unit 40 (and its fixture 41) (PO Resp. 38–39); but, at those times, main body 11 in KR996—which even Patent Owner agrees is part of the recited “mainframe” (*id.* at 39)—is not a “primary supporting structure” of (then-absent) loader 40. Moreover, the record does not support a “secondary” status for fixture 41 as a supporting structure in the compact utility loader of KR996 in that, as discussed above, fixture 41 *directly* supports the weight of the moving loader structures, with fixture 41 *then* transferring that load to main body 11. *See* Ex. 1005 ¶ 43 (disclosing that fixture 41 is pressed against main body 11), ¶ 45 (disclosing “pressing and fixing” fixture 41 onto main body 11). On this issue, we agree with Dr. Velinsky, who states that main “body 11 does not directly support the loader arms (boom 44), that is done by the fixture 41.” Velinsky Reply Decl. ¶ 3.

For the reasons above, we find, based on the complete record, that Petitioner has shown by a preponderance of the evidence that KR996 discloses the mainframe limitations.

b. The Remaining Limitations of Claim 4

To address the remaining limitations in claim 4, Petitioner discusses why KR996, both with and without modification, discloses each limitation. *See* Pet. 21–37; Velinsky Pet. Decl. ¶¶ 56–95. Patent Owner does not present arguments for these limitations.

We find, based on the complete record, that Petitioner has demonstrated by a preponderance of the evidence that KR996, both with and without modification, discloses the remaining limitations in claim 4. We also determine that, to the extent necessary, Petitioner has adequately explained why one of ordinary skill in the art would have had reason to modify KR996 as proposed and that there would have been a reasonable expectation of success.

c. Objective Indicia of Nonobviousness

(1) Legal Standards

Objective evidence of non-obviousness “may often be the most probative and cogent evidence in the record” and “may often establish that an invention appearing to have been obvious in light of the prior art was not.” *Transocean Offshore Deepwater Drilling, Inc. v. Maersk Drilling USA, Inc.*, 699 F.3d 1340, 1349 (Fed. Cir. 2012). Thus, notwithstanding what the teachings of the prior art would have suggested to one skilled in the art, secondary considerations (objective evidence of non-obviousness) may lead to a conclusion that the challenged claims would not have been obvious. *In re Piasecki*, 745 F.2d 1468, 1471–72 (Fed. Cir. 1984). Our obviousness analysis includes consideration and weighing of Patent Owner’s objective indicia of non-obviousness.

PUBLIC VERSION

PGR2025-00016
Patent 12,098,063 B2

In order to accord substantial weight to secondary considerations in an obviousness analysis, “the evidence of secondary considerations must have a ‘nexus’ to the claims, i.e., there must be ‘a legally and factually sufficient connection’ between the evidence and the patented invention.” *Henny Penny Corp. v. Frymaster LLC*, 938 F.3d 1324, 1332 (Fed. Cir. 2019) (quoting *Demaco Corp. v. F. Von Langsdorff Licensing Ltd.*, 851 F.2d 1387, 1392 (Fed. Cir. 1988)); *Quanergy Sys., Inc. v. Velodyne Lidar USA, Inc.*, 24 F.4th 1406, 1417 (Fed. Cir. 2022).

Although the patent owner bears the initial burden of proving a nexus (*WMS Gaming Inc. v. Int’l Game Tech.*, 184 F.3d 1339, 1359 (Fed. Cir. 1999)), a presumption of nexus may be appropriate if the patent owner shows “the asserted objective evidence is tied to a specific product and that product ‘embodies the claimed features, and is coextensive with them.’” *Polaris Indus, Inc. v. Arctic Cat, Inc.*, 882 F.3d 1056, 1072 (Fed. Cir. 2018) (quoting *Brown & Williamson Tobacco Corp. v. Philip Morris Inc.*, 229 F.3d 1120, 1130 (Fed. Cir. 2000) (emphasis added)); *Quanergy*, 24 F.4th at 1417. On the other hand, “[w]hen the [product] is not coextensive with the patented invention—for example, if the patented invention is only a component of a commercially successful machine or process,” the patent owner is not entitled to a presumption of nexus. *Demaco*, 851 F.2d at 1392.

A patent owner may establish nexus, either through (1) the use of a rebuttable presumption that arises when certain conditions are met or (2) a direct showing of nexus. In the first, a patent owner may rely on a rebuttable presumption of nexus as follows:

As first recognized in *Demaco* . . . , a patentee is entitled to a rebuttable presumption of nexus between the asserted evidence

of secondary considerations and a patent claim if the patentee shows that the asserted evidence is tied to a specific product and that the product “*is the invention disclosed and claimed.*” 851 F.2d at 1392 (emphasis added). That is, presuming nexus is appropriate “when the patentee shows that the asserted objective evidence is tied to a specific product and that product ‘embodies the claimed features, and is coextensive with them.’” *Polaris Indus., Inc. v. Arctic Cat, Inc.*, 882 F.3d 1056, 1072 (Fed. Cir. 2018) (quoting *Brown & Williamson Tobacco Corp. v. Philip Morris Inc.*, 229 F.3d 1120, 1130 (Fed. Cir. 2000)) . . .

Whether a product is coextensive with the patented invention, and therefore whether a presumption of nexus is appropriate in a given case, is a question of fact.

Fox Factory, Inc. v. SRAM LLC, 944 F.3d 1366, 1373 (Fed. Cir. 2019).

The court in *Fox Factory* further explained, with respect to a presumption of nexus, that “the degree of correspondence between a product and a patent claim falls along a spectrum,” and that, “[a]lthough we do not require the patentee to prove perfect correspondence to meet the co-extensiveness requirement, what we do require is that the patentee demonstrate that the product is essentially the claimed invention.” *Id.* at 1374. The court in *Fox Factory* rejected the patent owner’s argument that the co-extensiveness requirement is simply an inquiry into “whether the patent claims broadly cover the product that is the subject of the evidence of secondary considerations.” *Id.* at 1377. Thus, simply showing that a patent claim broadly covers the commercial product being asserted as objective evidence of non-obviousness is not enough to show they are coextensive. *Id.* That is because “[a] patent claim is not coextensive with a product that includes a ‘critical’ unclaimed feature that is claimed by a different patent and that materially impacts the product's functionality.” *Id.* at 1375. In

PGR2025-00016
Patent 12,098,063 B2

contrast, “if the unclaimed features amount to nothing more than additional insignificant features, presuming nexus may nevertheless be appropriate.” *Id.* at 1374. Based on the facts of the case in *Fox Factory*, the court found that “nexus may not be presumed” because “there are one or more features not claimed by the [challenged patent] that materially impact the functionality” of the products on which patent owner’s presumption argument is based and the court rejected arguments that the patent claims broadly cover the product. *Id.* at 1376–77.

“A finding that a presumption of nexus is inappropriate does not end the inquiry into secondary considerations,” however. *Fox Factory*, 944 F.3d at 1373. “To the contrary, the patent owner is still afforded an opportunity to prove nexus by showing that the evidence of secondary considerations is the ‘direct result of the unique characteristics of the claimed invention.’” *Id.* at 1373–74 (quoting *In re Huang*, 100 F.3d 135, 140 (Fed. Cir. 1996)). “Where the offered secondary consideration actually results from something other than what is both claimed and novel in the claim, there is no nexus to the merits of the claimed invention,” meaning that “there must be a nexus to some aspect of the claim not already in the prior art.” *In re Kao*, 639 F.3d 1057, 1068–69 (Fed. Cir. 2011).

Ultimately, we must weigh Patent Owner’s objective evidence in the context of whether the claimed invention as a whole would have been obvious to a skilled artisan. *WBIP, LLC v. Kohler Co.*, 829 F.3d 1317, 1331–32 (Fed. Cir. 2016). Only if the patent owner presents a prima facie case of nexus does the burden of production shift to the patent challenger to adduce evidence showing that any commercial success or industry praise

PUBLIC VERSION

PGR2025-00016
Patent 12,098,063 B2

was due to extraneous factors other than the patented invention. *Demaco*, 851 F.2d at 1393.

(2) Patent Owner's Argument

Patent Owner contends that evidence of secondary considerations show that the claimed invention is non-obvious. PO Resp. 44–62. As we explained when granting part of Petitioner's Motion to Exclude, Patent Owner's secondary considerations arguments cite to attorney arguments concerning secondary considerations in reexamination prosecution histories (Exs. 2002, 2014, 2015). *See* § II.E.2.a. Patent Owner's citations are not pin-point citations and encompass many pages of attorney argument. *See, e.g.*, PO Resp. 51–52 (citing Ex. 2002 at 170–191 (21 pages of attorney argument)). Because the citations encompass many pages, it is difficult to ascertain what information in the cited pages Patent Owner is relying upon.

It is not the responsibility of the Board to develop undeveloped arguments hinted at in the papers. *See United States v. Dunkel*, 927 F.2d 955, 956 (7th Cir. 1991) (“Judges are not like pigs, hunting for truffles buried in briefs.”); *DeSilva v. DiLeonardi*, 181 F.3d 865, 866–67 (7th Cir. 1999) (“A brief must make all arguments accessible to the judges, rather than ask them to play archaeologist with the record.”). For this reason, our rules prohibit incorporating arguments by reference from one document into another document. 37 C.F.R. § 42.6 (“Arguments must not be incorporated by reference from one document into another document.”).

In as much as Patent Owner is attempting to incorporate attorney arguments from the prosecution history into its substantive papers, when evaluating the merits of the Patent Owner's evidence of secondary considerations, we will not consider the attorney argument from the

PGR2025-00016
Patent 12,098,063 B2

reexamination prosecution history that are not sufficiently set forth in the Patent Owner's substantive papers in this proceeding. Even if we were to consider such arguments, they would be mere attorney argument. But mere attorney argument and conclusory statements that are unsupported by factual evidence are entitled to little probative value. *In re Geisler*, 116 F.3d 1465, 1470 (Fed. Cir. 1997); *Elbit Sys. of Am., LLC v. Thales Visionix, Inc.*, 881 F.3d 1354, 1359 (Fed. Cir. 2018) (“[A]ttorney argument is not evidence’ and cannot rebut other admitted evidence.” (quoting *Icon Health & Fitness, Inc. v. Strava, Inc.*, 849 F.3d 1034, 1043 (Fed. Cir. 2017))).

To the extent that Patent Owner relies upon the evidence embedded in the attorney argument, we granted Petitioner's Motion to exclude the embedded documents and deposition testimony from Exhibits 2002, 2014, and 2015, when relied upon by Patent Owner for evidence of secondary considerations. We, thus, find Patent Owner's secondary consideration arguments based solely on the embedded documents and deposition testimony unpersuasive. Below, we address the remainder of Patent Owner's arguments and evidence.

(3) Reexamination Prosecution Histories

Patent Owner argues that Petitioner was obligated to address in the Petition evidence of secondary considerations that was presented during the reexaminations of the '386 patent. PO Resp. 46–47. Patent Owner asserts: Petitioner's “failure to address [Patent Owner's] substantial objective indicia evidence should weigh in favor of the validity of” the challenged patent. *Id.* at 47. Patent Owner also argues that “[c]urrent guidelines require a decision contradicting a previous USPTO ruling to state in detail why overturning the earlier decision is warranted.” PO Sur-reply 24 (citing Memorandum,

PGR2025-00016
Patent 12,098,063 B2

“PTAB Consideration of Prior Findings of Fact and Conclusions of Law” (Sept. 16, 2025), “Memo”).¹⁸ According to Patent Owner, because Petitioner “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.” *Id.* at 25.

We are not persuaded by Patent Owner that because the reexamination examiner found the evidence of secondary considerations overcame the rejections at issue in the reexamination that we are required to do the same here. The Memorandum states:

if the Board reaches an initial or final decision on a finding of fact or conclusion of law that is different than the prior finding or conclusion of the Office, district court, or the ITC, the Board shall explain in the institution or final written decision why a different outcome is warranted.

Memo 1. The Memorandum requires that the Board explain why a different outcome is warranted but does not mandate that the Board come to the same conclusion. *See id.*

A different outcome as to the patentability of the claims is warranted here because we are not evaluating the same ground of unpatentability that the examiner evaluated during the reexaminations. *See, e.g.,* Ex. 2015 at 10–16 (the reexamination examiner explaining why the evidence of secondary considerations overcame the prima facie showing of obviousness of a combination replacing a radial-lift arm of Dingo 322 Operator’s Manual, Dingo 322 Parts Catalog’s compact utility load with a vertical-lift

¹⁸ Available at https://www.uspto.gov/sites/default/files/documents/Memo_re_prior_findings_of_fact_and_conclusions_of_law_9_16_25.pdf.

PUBLIC VERSION

PGR2025-00016
Patent 12,098,063 B2

arm of JP11-140900 (Komatsu Ltd.) skid steer). Petitioner’s grounds of unpatentability here rely primarily upon KR966, which is a reference that was not evaluated during the reexaminations.

A further difference exists between the reexamination proceedings and this *inter partes* review in that the Federal Rules of Evidence apply to *inter parte* reviews. *See* 37 C.F.R. § 42.62. As discussed above (*see* § II.E.2.a), much of the secondary considerations evidence offered here is inadmissible hearsay under FRE 802 in this proceeding.

(4) Nexus

To establish nexus, Patent Owner argues that Vermeer’s (i.e., Patent Owner’s) CTX50 and CTX100, as well as Toro’s TX1000 are “covered by” the challenged patent. PO Resp. 48 (citing Fleming Decl. ¶¶ 127–128; Exs. 2022–2024). Petitioner responds that Patent Owner fails to establish the required nexus. Pet. Reply 20–22.

We do not need to reach a determination as whether Patent Owner has established the requisite nexus because we find that the admissible portion of Patent Owner’s evidence of secondary considerations, even if nexus were presumed to exist, does not outweigh Petitioner’s showing of obviousness.

(5) Commercial Success and Industry Praise

Patent Owner argues that evidence submitted during the reexaminations demonstrates commercial success. PO Resp. 48–49 (citing Ex. 2014 at 185; Ex. 2015 at 128–129, 218, 298–299, 301–302). To the extent that Patent Owner relies on inadmissible hearsay evidence from the reexamination prosecution histories to support its argument, we find unpersuasive Patent Owner’s arguments of commercial success and industry praise. *See id.* at 48 (citing Ex. 2014 at 125, 183 (reexamination

PGR2025-00016
Patent 12,098,063 B2

presentation slide discussing an Innovative Iron Award); Ex. 2015 at 126, 215 (same)).

Patent Owner also submits an article from Compact Equipment Magazine to show alleged industry praise for Toro's and Patent Owner's compact utility loaders with vertical lift. PO Resp. 48 (citing Ex. 2025, 1–2). We give this evidence some weight, but find that this article does not outweigh Petitioner's showing of obviousness over the prior art.

(6) Skepticism at the Time of Invention

Patent Owner argues that “evidence submitted to the Patent Office during the reexaminations further demonstrated that at the time of [Patent Owner's] invention, there was skepticism within the industry that vertical lift was a viable option for compact utility loaders due to their small size and complexity.” PO Resp. 49 (citing Ex. 2002 at 187, 736; Ex. 2014 at 34; Ex. 2015 at 16; Ex. 2006 ¶ 7, Ex. 2007, Fig. 3). To extent that Patent Owner relies on inadmissible hearsay evidence from the reexamination prosecution histories, we find this argument unpersuasive.

Patent Owner also points to a statement from U.S. Patent Publication No. 2016/0244937 A1, which reads “the use of such high lift loader arms on a compact utility loader has been considered difficult if not impossible due to size and durability constraints.” PO Resp. 49–50 (quoting Ex. 2006 ¶ 7). We give this evidence some weight, but find that it does not outweigh Petitioner's showing of obviousness over the prior art.

(7) Unexpected Results

Patent Owner argues that “[t]he prosecution histories relating to the [challenged p]atent also contained evidence showing that the claimed invention surpassed expectations.” PO Resp. 50 (citing Ex. 2014 at 34, 74,

PUBLIC VERSION

PGR2025-00016
Patent 12,098,063 B2

120–121, 124, 142, 182). Patent Owner relies upon no evidence other than inadmissible hearsay evidence from the reexamination prosecution histories to support its argument. We, thus, are not persuaded by Patent Owner’s argument of unexpected results and thus, give this argument little weight.

(8) Long-felt but Unresolved Need

Patent Owner argues that “[t]he prosecution histories also contain significant evidence of a long-felt need for a solution to the problem of low lift capacity on compact tool carriers.” PO Resp. 51; *see id.* at 51–54 (citing Ex. 2002 at 170–191, 517–518, 542, 712, 736; Ex. 2014 at 121, 173; Ex. 2015 at 16) (entire argument). Patent Owner relies upon no evidence other than inadmissible hearsay evidence from the reexamination prosecution histories to support this argument. We, thus, are not persuaded by Patent Owner’s argument of long-felt but unresolved need and thus, give this argument little weight.

(9) Copying

Patent Owner contends that when Petitioner “designed its first compact utility loader [(the SCL1000)] it intentionally copied the vertical-lift loader arm configuration claimed in” the challenged patent. PO Resp. 54; *see also id.* at 56. Patent Owner argues that, because Petitioner’s dealer surveys indicate a desire for a vertical-lift compact utility loader and Petitioner performed competitor research, including researching Patent Owner’s compact utility loader, Petitioner’s SCL1000 must be a copy of the claimed invention of the challenged patent. *Id.* at 54–62. Patent Owner’s evidence, however, does not persuasively show that Petitioner’s SCL1000 is a copy of claimed invention of challenged patent. *See id.* at 61–62 (citing Ex. 2026 at 50–52, 114). Although Patent Owner’s evidence broadly

PGR2025-00016
Patent 12,098,063 B2

outlines design requirements for a vertical-lift compact utility loader, the evidence does not depict or otherwise provide sufficient details so as to show that the SCL1000 is a copy of claimed invention of the challenged patent. *See* Ex. 2026 at 50–52, 114; *see also* *Liqwd, Inc. v. L’Oreal USA, Inc.*, 941 F.3d 1133, 1137 (Fed. Cir. 2019) (“Evidence of copying may include internal documents, direct evidence such as photos of patented features or disassembly of products, or access and similarity to a patented product.”). We, thus, give Patent Owner’s evidence of copying little weight.

(10) Conclusion as to Objective Indicia

We have considered, as a whole, all of Patent Owner’s arguments and admissible evidence concerning secondary considerations. If we were to presume nexus, we give some weight to Patent Owner’s admissible evidence of industry praise and skepticism at the time of invention.

d. Conclusion as to Claim 4

For the reasons discussed above (§§ II.G.2.a–b), the evidence presented by Petitioner strongly indicates that claim 4 is anticipated by KR996 and would have been obvious based on KR996, as modified. For the reasons also discussed above (§ II.G.2.c), if we were to presume nexus, we give some weight to Patent Owner’s admissible evidence of industry praise and skepticism at the time of invention in favor of nonobviousness. When considering all the evidence of obviousness and nonobviousness together (*see In re Cyclobenzaprine Hydrochloride Extended-Release Capsule Patent Litig.*, 676 F.3d 1063, 1079 (Fed. Cir. 2012)), we find Petitioner’s strong evidence of obviousness outweighs Patent Owner’s objective indicia of nonobviousness. Thus, we conclude Petitioner has demonstrated by a

PGR2025-00016
Patent 12,098,063 B2

preponderance of the evidence that claim 4 is anticipated by KR996 and would have been obvious based on KR996.

3. *Claim 7*

Claim 7 recites: “The compact tool carrier as set for in claim 4, wherein the mainframe incorporates a single weldment.” Ex. 1001, 8:11–12. As to the scope of this claim, Patent Owner argues that the additional limitation “requires that all of the portions of the mainframe constitute a single, unitary weldment, as shown, for example, in the embodiment shown in Figure 4” of the challenged patent. PO Resp. 40 (citing Fleming Decl. ¶ 112). Petitioner, in contrast, asserts that “incorporates” means to “include” such that claim 7 “do[es] not preclude the mainframe from having some portions formed as a single weldment, and other portions fastened in other manners.” Pet. Reply 15–16 & n.4 (citing Ex. 1053 (Oxford Dictionary of English, third edition) at 4 (defining “incorporate” as “include”)).

The complete record supports Petitioner’s position. Specifically, based on the plain meaning of “incorporates,” claim 7 requires that the mainframe *includes*—rather than *is* or *constitutes*—a single weldment. *See* Pet. Reply 15–16 (citing Ex. 1053 at 4). Patent Owner relies on paragraph 112 of Dr. Fleming’s Declaration to support its narrower proposed construction, but Dr. Fleming merely repeats Patent Owner’s claim construction position without evidence to support that position. *See* Fleming Decl. ¶ 112 (“Claim 7 depends from independent claim[] 4 and further requires that the ‘mainframe incorporates a single weldment.’ This additional claim limitation requires that all of the portions of the mainframe constitute a single, unitary weldment, as shown, for example, in the

PUBLIC VERSION

PGR2025-00016
Patent 12,098,063 B2

embodiment shown in Figure 4 of the [challenged] patent.” (with no citations)).

Although Patent Owner and Dr. Fleming state that the Figure 4 embodiment shows a “mainframe [that] constitute[s] a single, unitary weldment,” neither explains the basis for that assertion. *See* PO Resp. 40; Fleming Decl. ¶ 112. As noted above, the Specification discloses an embodiment in which the “mainframe” is a “single weldment,” but the Specification does not indicate that Figure 4 shows that embodiment. *See* Ex. 1001, 4:15–18. Moreover, even if Figure 4 *does* show a single-weldment embodiment, we will not limit the claims (including claim 7) to that embodiment solely on that basis, especially when the claim language recites a broader requirement. *See Anchor Wall Sys., Inc. v. Rockwood Retaining Walls, Inc.*, 340 F.3d 1298, 1306–07 (Fed. Cir. 2003) (stating that “the mere fact that the patent drawings depict a particular embodiment of the patent does not operate to limit the claims to that specific configuration”).

In the Sur-reply, Patent Owner asserts that we should not reach this issue because it was not raised in the Petition. *See* PO Sur-reply 16–17. According to Patent Owner, at that time, Petitioner only argued “that it would have been obvious to weld ‘portions’ of KR996’s frame together (to form a single weldment).” *Id.* at 17 (citing Pet. 37–38). We disagree.

Although Patent Owner is correct that Petitioner did not expressly present a claim construction for claim 7 in the Petition, there, Petitioner clearly provided *two alternative bases* for that claim: one applying Petitioner’s current construction and one applying Patent Owner’s. *See* Pet. 37–38 (citing Velinsky Pet. Decl. ¶¶ 96–101). Specifically, Petitioner first presented an argument under its own *broader* construction, stating that

PUBLIC VERSION

PGR2025-00016
Patent 12,098,063 B2

one of ordinary skill in the art “would have found it obvious to form one or more portions of the *mainframe* of KR996 . . . as a *single weldment* because use of welding to join components of a support frame for a loader apparatus was a well-known method of fabrication.” Pet. 37 (citing Velinsky Pet. Decl. ¶ 98). With the phrase “one or more portions,” Petitioner includes the possibility that only one *portion* of the “mainframe” is a single weldment, meaning that *the entire* “mainframe” need not be a single weldment, thereby falling within Petitioner’s proposed construction, but not Patent Owner’s. Indeed, this discussion is cited by Petitioner as including (even if implicitly) its broader claim construction argument. *See* Pet. Reply 16 n.4 (“Thus, the claims do not preclude the mainframe from having some portions formed as a single weldment, and other portions fastened in other manners.” (citing Pet. 37)).

Second, after applying the broader construction, Petitioner presents an *alternative* argument applying the same narrower claim construction for claim 7 that Patent Owner ended up presenting in the Response:

To the extent Patent Owner argues certain components of the *mainframe* are required to be coupled by a weldment, [one of ordinary skill in the art] would have been motivated to form KR996’s mainframe consisting of a *single weldment* because the fastening method was well within their skill set and provides benefits discussed above to predictably form a welded structure. [Velinsky Pet. Decl.] ¶100 citing EX1010, 4:8–10 (“The body or frame 12, as shown, is a **unitized welded body**...”), 4:31–35; EX1006, [0019].

Pet. 38. Because Petitioner presented its broader construction of claim 7 in the Petition (Pet. 37–38), we consider the issue of claim construction in this Final Decision.

PUBLIC VERSION

PGR2025-00016
Patent 12,098,063 B2

Patent Owner also contends that Petitioner’s broader construction should be rejected because “it reads the term ‘single’ out of the limitation entirely.” PO Sur-reply 17. According to Patent Owner, “[a]ny construction that would allow the mainframe to include ‘some portions formed as a single weldment’ necessarily requires the term ‘single’ to mean *at least* one, rather than *only* one.” *Id.* (quoting Pet. Reply 16 n.4). We again disagree.

One exemplary “mainframe” failing within the scope of Petitioner’s construction (with which we agree) could—contrary to Patent Owner’s argument—comprise *only one* weldment (made of more than one portion) and have other portions that are held to the “mainframe” with, for example, nuts and bolts. *See* Pet. 37 n.5 (discussing nuts and bolts as possible other fasteners in the context of this claim). For example, if the “mainframe” was made up of five separate subcomponents (“portions”) A through E, “some portions” (using Patent Owner’s language)—say A through C—could be welded together in a “single weldment,” and portions D and E could be fastened with nuts and bolts. That embodiment would fall within the scope of Petitioner’s proposed construction and, contrary to Patent Owner’s argument, still have *only one* weldment.

Patent Owner also raises an argument based on a statement by the examiner in an *ex parte* reexamination of U.S. Patent No. 9,321,386 B1 (“the ’386 patent”), an ancestor of the challenged patent.¹⁹ *See* Ex. 1001, code (63) (stating the challenged patent’s relationship to the ’386 patent). Specifically, Patent Owner argues that Petitioner’s broader construction of

¹⁹ As noted above (*see* § I.B), claims of the ’386 patent are challenged in related IPR2025-00167 through -00169.

PUBLIC VERSION

PGR2025-00016
Patent 12,098,063 B2

claim 2 “contradicts the USPTO’s prior interpretation of this term, which has consistently been construed as a mainframe that ‘**comprises a single part.**’” PO Sur-reply 18 (citing IPR2025-00167, Ex. 1031 at 402).

As background, in a prior reexamination certificate issued April 12, 2018, the ’386 patent included newly added claim 63, which had the same additional limitation as claim 7 in this proceeding: “wherein the mainframe incorporates a single weldment.” IPR2025-00167, Ex. 1031 at 551. In a Detailed Request for *Ex Parte* Patent Reexamination filed the following day, as to claim 63, the requester relied on a parts catalog showing a mainframe allegedly consisting of a “single part.” *Id.* at 512, 529 (showing filing date). In the first Office Action after granting the next reexamination, the examiner essentially agreed with the requester’s argument as to the parts catalog disclosing a mainframe “compris[ing] a single part.” *Id.* at 402. Patent Owner did not separately argue against that finding in the latter reexamination. *Id.* at 184–186.

The record here does not show that the USPTO agreed with Patent Owner’s narrower construction of the claim language here. Instead, we view the reexamination examiner as merely acknowledging that a mainframe made of a “single part” (apparently welded) *clearly* falls within the scope of the claim language at issue in that it satisfies *both* possible constructions: (1) that the mainframe *includes* a single weldment (i.e., Petitioner’s proposed construction here) and (2) that the mainframe *is* a single weldment (Patent Owner’s proposed construction). Because Patent Owner’s proposed construction is subsumed within the scope of Petitioner’s proposed construction, and the reexamination examiner found that the prior art fell

PUBLIC VERSION

PGR2025-00016
Patent 12,098,063 B2

within the *narrower* construction, the Examiner did not have to address the particular claim construction issue before us now.

Although the reasons above are sufficient to support Petitioner’s proposed construction of claim 7, an additional argument based on claim differentiation, presented by Petitioner, further supports that conclusion. Specifically, in the Reply, Petitioner notes that the challenged patent also contains dependent claim 3 (adding “wherein the mainframe is a single weldment”).²⁰ Pet. Reply 16. The presence of different language in claims 3 and 7 of the challenged patent provides at least some additional support for Petitioner’s broader proposed construction of claim 7. *See Bd. of Regents of the Univ. of Texas Sys. v. BENQ Am. Corp.*, 533 F.3d 1362, 1371 (Fed. Cir. 2008) (“Different claim terms are presumed to have different meanings.”) (citing *CAE Screenplates Inc. v. Heinrich Fiedler GmbH & Co.*, 224 F.3d 1308, 1317 (Fed. Cir. 2000) (“In the absence of any evidence to the contrary, we must presume that the use of these different terms in the claims connotes different meanings.”)). For these reasons, the record supports, and we apply below, Petitioner’s proposed construction of claim 7.

Turning now to the application, Petitioner presents two different arguments as to claim 7: one applying its own proposed construction and one applying Patent Owner’s narrower construction. *See* Pet. 37–38. First, applying its own proposed construction, Petitioner argues that one of ordinary skill in the art “would have found it obvious to form one or more portions of the *mainframe* of KR996 . . . as a *single weldment* because use of welding to join components of a support frame for a loader apparatus was a

²⁰ Claim 3 is not challenged in this proceeding.

PGR2025-00016
Patent 12,098,063 B2

well-known method of fabrication.” Pet. 37 (citing Velinsky Pet. Decl. ¶ 98). Petitioner adds that one of ordinary skill in the art “would recognize that there are known tradeoffs in the choice between a single weldment and attachment, for example, by nuts and bolts,” such as “aesthetics, manufacturability, [and] reliability.” Pet. 37–38 (citing Velinsky Pet. Decl. ¶ 98). According to Petitioner, “[o]ne benefit of connecting pieces by a weld allows for easy implementation and forming a smooth, continuous surface.” Pet. 38 (citing Velinsky Pet. Decl. ¶ 99). Petitioner notes Patent Owner did not contest during prosecution the finding that the added limitation in claim 7 would have been an obvious design choice. *Id.* (citing Ex. 1002 at 158; *In re Larson*, 340 F.2d 965, 968 (CCPA 1965)). Second, Petitioner presents an alternative argument under Patent Owner’s narrower construction. *See id.* (second full paragraph).

Patent Owner does not address Petitioner’s first argument, which applies Petitioner’s construction of claim 7 (which we adopt above). Instead, Patent Owner presents arguments as if Petitioner had *only* argued a proposed modification of welding main body 11 and fixture 41 in KR996 into a “single weldment”—i.e., under Patent Owner’s narrower proposed construction. *See, e.g.*, PO Resp. 40 (stating that Petitioner and Dr. Velinsky “argue that [one of ordinary skill in the art] would have been motivated to weld the main body (11) and fixture (41) together to create a single weldment mainframe”); PO Sur-reply 19 (arguing that Petitioner has “failed to establish that modifying KR996’s frame to have a single-weldment mainframe would have been obvious” to one of ordinary skill in the art).

On the complete record, we find that Petitioner has shown by a preponderance of the evidence that KR996 discloses or suggests the

PUBLIC VERSION

PGR2025-00016
Patent 12,098,063 B2

additional limitation of claim 7, under Petitioner’s broader construction (which we apply above). As noted by Petitioner (Pet. Reply 15–16), Dr. Fleming acknowledges that both KR996’s fixture 41 and main body 11 are most likely entirely welded. Ex. 1043 (Fleming Depo. Tr.), 113:12–114:9. We agree with that assessment and find that KR996 implicitly teaches main body 11 and fixture 41 as including at least some welded sub-structures. Because the record supports Petitioner’s position that main body 11 and fixture 41 in KR996 together constitute a “mainframe” (*see* § II.G.2.a) and that *both* fixture 41 and main body 11, individually and collectively, implicitly include at least some welded sub-structures, that logically leads to a determination that the “mainframe” *includes* a “single weldment.”

Moreover, even if KR996 would not have been understood as implicitly teaching at least some welding with in main body 11, we are also persuaded by Petitioner’s argument that one of ordinary skill in the art would have had technical reasons to weld together, for example, *at least some* of the (potential) sub-structures of main body 11. *See* Velinsky Pet. Decl. ¶¶ 98–99, *cited at* Pet. 37–38. For example, Dr. Velinsky raises potential benefits to welding, such as reliability of the attachment, aesthetics, and structural rigidity. *Id.* ¶ 99. Patent Owner does not address or show deficiencies in these arguments or testimony.

For these reasons, we determine, based on the complete record, including the objective indicia of nonobviousness, that Petitioner has demonstrated by a preponderance of the evidence that claim 7 is anticipated by KR996 and would have been obvious based on KR996.

PGR2025-00016
Patent 12,098,063 B2

4. Claims 8–12

For dependent claims 8–12 (all of which depend from claim 4), Petitioner contends that KR996, both with and without modification, satisfies each limitation. Pet. 39–46; Velinsky Pet. Decl. ¶¶ 102–123. Patent Owner does not present any arguments specifically addressing claims 8–12 but rather relies on the arguments addressing independent claim 4. *See* PO Resp. 36–41; PO Sur-reply 18–20.

We determine, based on the complete record, that KR996, both with and without modification, discloses the subject matter of claims 8–12. We also determine that, to the extent necessary, Petitioner has adequately explained why one of ordinary skill in the art would have had reason to modify KR996 as proposed and that there would have been a reasonable expectation of success. Based on the complete record, including the objective indicia of nonobviousness, we determine that Petitioner has demonstrated by a preponderance of the evidence that claims 8–12 are anticipated by KR996 and would have been obvious based on KR996.

H. Asserted Obviousness of Claims 5 and 6 Based on KR996 and JP705

Petitioner asserts that claims 5 and 6 would have been obvious based on KR996 and JP705. Pet. 18, 46–55; Pet. Reply 18–20. Patent Owner provides arguments specifically addressing this asserted ground. PO Resp. 41–44; PO Sur-reply 20–21. We first summarize aspects of the relied-upon prior art.

1. Overview of JP705

In this asserted ground, Petitioner relies on JP705, in addition to KR996 (summarized above (*see* § II.G.1)). JP705 discloses “a main frame

PGR2025-00016
 Patent 12,098,063 B2

for a work vehicle that enables easy and reliable installation of various on-board devices such as an engine, a transmission, and the like.” Ex. 1006 ¶ 1.

Figure 1 is below:

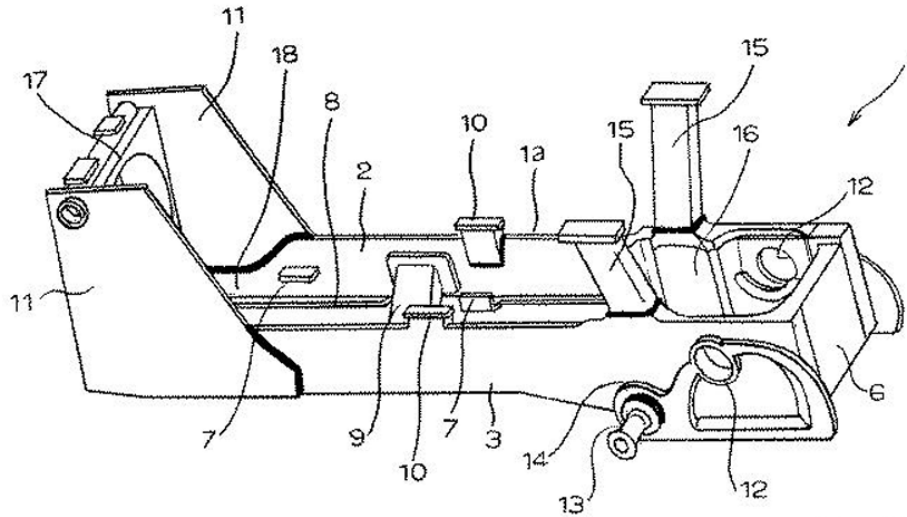


Figure 1 is a “a perspective view schematically depicting an example of a main frame of a work vehicle.” Ex. 1006 ¶ 17. Main frame 1 includes “a pair of left and right side plates 2 and 3.” *Id.* ¶ 19. JP705 discloses:

A pair of left and right mounting parts 7 and 7 for mounting an engine, a steering device, and the like (not depicted) are provided near the upper surfaces of the side plates 2 and 3 and protrude from the inner side surfaces in the width direction of the frame. A pair of similar left and right mounting parts 8 and 8 of various types are provided on the lower surfaces of the side plates 2 and 3, protruding from the inner side surfaces in the width direction of the frame.

Ex. 1006 ¶ 19.

2. The Reasons to Combine KR996 and JP705

Petitioner provides reasons to combine KR996 with JP705. *See* Pet. 47–50; Velinsky Pet. Decl. ¶¶ 126–134. Specifically, Petitioner first discusses why KR996 and JP705 are analogous art to the challenged patent. *See* Pet. 47–48. Then, Petitioner discusses why one of ordinary skill in the

PUBLIC VERSION

PGR2025-00016
Patent 12,098,063 B2

art “would have been motivated to combine the teachings of JP705, and in particular, its mounting parts as an engine bracket to KR996’s vehicle to produce predictable and beneficial results.” Pet. 48 (citing Velinsky Pet. Decl. ¶¶ 127–133). Petitioner discusses how KR996 has “an engine disposed within its frame,” but that reference “does not detail how its engine is secured to its mainframe.” *Id.* (citing Velinsky Pet. Decl. ¶ 128). According to Petitioner, JP705, however, “does detail providing a mounting surface for just such an engine in a substantially similar vehicle,” including with mounting parts 7 that “beneficially provid[e] a mounting surface for receiving an engine to effectuate the vehicle’s operation by securing the engine and allowing the engine to serve as structural support.” *Id.* (citing Velinsky Pet. Decl. ¶¶ 130–131).

Petitioner then provides some alleged benefits of the proposed combination, including (1) “avoiding use of additional parts to secure the engine in the vehicle,” (2) “reduc[ing] the number of fastening parts (such as a bolt, nut, collar, or the like” and thereby reducing “component costs and weight,” (3) by connecting JP705’s mounting parts using welding, providing a “smooth, continuous surface,” and (4) “efficient loading of an engine onto the available, prepared, designated mounting surface.” *See* Pet. 48–49 (citing Velinsky Pet. Decl. ¶ 132; Ex. 1006 ¶¶ 8, 13, 16, 18, 22). Petitioner adds that the proposed combination

is merely applying a known technique to a known device (e.g., JP705’s recognition of a well-known technique of mounting an engine in a vehicle using an engine bracket, with KR996’s vehicle having a frame and engine) ready for improvement (e.g., providing an easily accessible mounting surface extending from the frame suitable to receive the engine) to yield predictable results.

PUBLIC VERSION

PGR2025-00016
Patent 12,098,063 B2

Pet. 49 (citing Velinsky Pet. Decl. ¶ 133; *Intel Corp. v. PACT XPP Schweiz AG*, 61 F.4th 1373, 1380–81 (Fed. Cir. 2023)). Petitioner concludes by discussing why a one of ordinary skill in the art would have had a reasonable expectation of success in the proposed combination. *See* Pet. 50 (citing Velinsky Pet. Decl. ¶ 134).

Patent Owner presents two arguments directed at Petitioner’s reasons to combine KR996 and JP705. *See* PO Resp. 41–43; PO Sur-reply 20 n.8. First, Patent Owner argues that Petitioner’s “rationale for modifying KR996 to include the engine bracket in JP705 fails” because “KR996 discloses an engine and, necessarily, a mechanism for securing the engine.” PO Resp. 42. According to Patent Owner, one of ordinary skill in the art “would not be motivated to combine JP705 when the engine of KR996 is already secured to the machine.” *Id.* (citing Fleming Decl. ¶¶ 92–95).

This argument by Patent Owner does not identify a deficiency in Petitioner’s positions as to the reasons to combine. Here, Petitioner notes KR996’s disclosure of an engine but highlights how KR996 does not provide *any* details as to how the engine is secured to the mainframe. Pet. 48. Thus, Petitioner relies on JP705 to provide those details—i.e., the specific structural teachings on how to secure KR996’s engine to the mainframe—in the context of the proposed combination. *See Intel Corp.*, 61 F.4th at 1380–81 (finding it obvious to modify a first reference with an element from a second reference to address a specific issue if the element was a “suitable option,” even where the first reference already addressed the issue in a different way), *cited at* Pet. 49.

Second, Patent Owner contends that the proposed combination is deficient because KR996 and JP705 allegedly disclose “two complete

PUBLIC VERSION

PGR2025-00016
Patent 12,098,063 B2

different categories of machines, with disparate sizes and engine types/sizes.” PO Resp. 42. According to Patent Owner, “[u]nlike KR996, JP705 describes a mainframe used for large work vehicles such as bulldozers and hydraulic excavators.” *Id.* (citing Ex. 1006 ¶ 1). Patent Owner asserts that, “[g]iven this incompatibility, [one of ordinary skill in the art] would not be motivated to incorporate JP705’s mainframe or brackets into the KR996 machine.” *Id.* at 42–43 (citing Fleming Decl. ¶¶ 92–95); *see also* PO Sur-reply 20 n.8 (arguing that Petitioner “has provided the Board with no evidentiary basis on which to conclude that [one of ordinary skill in the art] would use JP705’s engine bracket in the much smaller KR996 machine”).

This argument also does not identify a deficiency in Petitioner’s positions. “The test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference.” *In re Keller*, 642 F.2d 413, 425 (CCPA 1981). “Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art.” *Id.* Here, the fact that the *specific structures* disclosed in JP705 may not necessarily function properly if bodily incorporated into the device in KR996 does not undermine the proposed combination. *See In re Mouttet*, 686 F.3d 1322, 1332 (Fed. Cir. 2012) (“It is well-established that a determination of obviousness based on teachings from multiple references does not require an actual, physical substitution of elements.”); *see also* Pet. Reply 20 (arguing that Patent Owner’s “demand for bodily incorporation is misplaced”).

Patent Owner also does not identify a deficiency with its argument that the “location of the engine bracket in JP705 is also problematic” to the proposed combination because, “[u]nlike KR996, JP705’s engine is located

PGR2025-00016
Patent 12,098,063 B2

behind the operator’s cab of the full-size machine.” PO Resp. 43 (citing Fleming Decl. ¶¶ 92–95).

As noted by Petitioner, because the proposed combination does not rely on JP705 for the location of its engine (or engine bracket) relative to the operator cab, that feature in JP705 potentially differing from KR996 does not undermine the proposed combination. *See Bradium Techs. LLC v. Iancu*, 923 F.3d 1032, 1050 (Fed. Cir. 2019) (“A finding of obviousness, however, cannot be overcome ‘by attacking references individually where the rejection is based upon the teachings of a combination of references.’” (quoting *In re Merck & Co.*, 800 F.2d 1091, 1097 (Fed. Cir. 1986))); *see also* Pet. Reply 19 (discussing how “the Petition shows incorporating JP705’s *engine bracket* (not its mainframe or engine location) in KR996’s existing mainframe and engine location”).

For the reasons above, we determine, in light of the complete record, that Petitioner has shown by a preponderance of the evidence that one of ordinary skill in the art at the time of the invention would have had reason to modify KR996 based on JP705, as proposed, that the articulated reasoning is supported by rational underpinning, and that there would have been a reasonable expectation of success.

3. *The Limitations in Claims 5 and 6*

For dependent claims 5 and 6 (which depend from claim 4), Petitioner contends that the combination of KR996 and JP705 satisfies each limitation. Pet. 50–55; Velinsky Pet. Decl. ¶¶ 135–148. Patent Owner relies on the arguments discussed above as to the “mainframe” limitations and does not address the additional limitations in claims 5 and 6. *See* PO Resp. 41, 43–44

PGR2025-00016
Patent 12,098,063 B2

(reciting the limitations for claims 5 and 6 but then relying on arguments regarding the “mainframe” limitations); PO Sur-reply 20–21 (same).

For the reasons above (*see* § II.G.2.a), we find, based on the complete record, that Petitioner has shown by a preponderance of the evidence that KR996 discloses the mainframe limitations. Moreover, we find, based on the complete record, that Petitioner has shown by a preponderance of the evidence that the combination of KR996 and JP705 discloses the subject matter of the additional limitations in claims 5 and 6.

4. Conclusion as to Claims 5 and 6

Based on the complete record, including the objective indicia of nonobviousness, we determine that Petitioner has demonstrated by a preponderance of the evidence that claims 5 and 6 would have been obvious based on KR996 and JP705.

I. Asserted Obviousness of Claims 13 and 14 Based on KR996 and Bares

Petitioner asserts that claims 13 and 14 would have been obvious based on KR996 and Bares. Pet. 18, 55–62. Patent Owner does not present any arguments specifically addressing claims 13 and 14 in the context of this asserted ground, but rather, relies on the same arguments presented as to the grounds based on KR996. *See* PO Resp. 44.

We determine, based on the complete record, that the combination of KR996 and Bares discloses the subject matter of claims 13 and 14. We also determine that Petitioner has adequately explained why one of ordinary skill in the art would have had reason to combine KR996 and Bares as proposed and that there would have been a reasonable expectation of success. Based on the complete record, including the objective indicia of nonobviousness,

PGR2025-00016
Patent 12,098,063 B2

we determine that Petitioner has demonstrated by a preponderance of the evidence that claims 13 and 14 would have been obvious based on KR996 and Bares.

III. CONCLUSION

Upon consideration of the briefing and the evidence of record, we determine that Petitioner (1) has proven, by a preponderance of the evidence, that claims 4 and 7–12 are anticipated by KR996 and would have been obvious based on KR996, (2) has proven, by a preponderance of the evidence, that claims 5 and 6 would have been obvious based on KR996 and JP705, and (4) has proven, by a preponderance of the evidence, that claims 13 and 14 would have been obvious based on KR996 and Bares.²¹

²¹ Should Patent Owner wish to pursue amendment of the challenged claims in a reissue or reexamination proceeding subsequent to the issuance of this decision, we draw Patent Owner's attention to the April 2019 Notice Regarding Options for Amendments by Patent Owner Through Reissue or Reexamination During a Pending AIA Trial Proceeding, 84 Fed. Reg. 16,654 (Apr. 22, 2019). If Patent Owner chooses to file a reissue application or a request for reexamination of the challenged patent, we remind Patent Owner of its continuing obligation to notify the Board of any such related matters in updated mandatory notices. *See* 37 C.F.R. §§ 42.8(a)(3), (b)(2).

PUBLIC VERSION

PGR2025-00016
Patent 12,098,063 B2

In summary:

Claim(s)	35 U.S.C. §	Reference(s)/ Basis	Claim(s) Shown Unpatentable	Claim(s) Not Shown Unpatentable
4, 7–12	102(a)(1)	KR996	4, 7–12	
4, 7–12	103	KR996	4, 7–12	
5, 6	103	KR996, JP705	5, 6	
13, 14	103	KR996, Bares	13, 14	
Overall Outcome			4–14	

IV. ORDER

For the reasons above, it is:

ORDERED that Petitioner has proven, by a preponderance of the evidence, that claims 4–14 are unpatentable;

FURTHER ORDERED that the parties shall file, within 10 days of entry of this Decision, a joint motion to seal this Decision, and shall provide,

PUBLIC VERSION

PGR2025-00016
Patent 12,098,063 B2

along with the joint motion, an exhibit with a proposed redacted public version of this Decision;

FURTHER ORDERED that Petitioner's Motion to Exclude is *granted in part*;

FURTHER ORDERED that Patent Owner's Motion to Exclude is *denied*; and

FURTHER ORDERED that, because this is a Final Written Decision, parties to the proceeding seeking judicial review of the decision must comply with the notice and service requirements of 37 C.F.R. § 90.2.

PUBLIC VERSION

PGR2025-00016
Patent 12,098,063 B2

FOR PETITIONER:

David O'Dell
Kelly Gehrke Lyle
Hong Shi
Greg Michelson
John Russell Emerson
HAYNES AND BOONE LLP
david.odell.ipr@haynesboone.com
kelly.lyle.ipr@haynesboone.com
hong.shi.ipr@haynesboone.com
greg.michelson.ipr@haynesboone.com
russ.emerson.ipr@haynesboone.com

FOR PATENT OWNER:

Richard L. Brophy
Marc Vander Tuig
Michael J. Vander Molen
ARMSTRONG TEASDALE LLP
rbrophy@atllp.com
mvandertuig@atllp.com
mvandermolen@atllp.com
iplitstaff@atllp.com