

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*.

DECISION
Granting Institution of Post-Grant Review
35 U.S.C. § 324

I. BACKGROUND

Petitioner, Kubota North America Corporation, filed a Petition to institute post-grant review of claims 4–14 of U.S. Patent No. 12,098,063 B2 (Ex. 1001, “the challenged patent”). Paper 2 (“Pet.”). Patent Owner, Vermeer Manufacturing Company, timely filed a Preliminary Response. Paper 6 (“Prelim. Resp.”).

Prior to the due date for filing the Preliminary Response in this proceeding, the Acting Director of the U.S. Patent and Trademark Office issued a memorandum titled “Interim Processes for PTAB Workload Management.” *See* Memorandum from Coke Morgan Stewart to All PTAB Judges (Mar. 26, 2025), *available at* <https://www.uspto.gov/sites/default/files/documents/InterimProcesses-PTABWorkloadMgmt-20250326.pdf> (“Interim Process Memo”). Under the Interim Process, decisions on whether to institute post-grant review are bifurcated between (1) discretionary considerations and merits and other non-discretionary considerations. Interim Process Memo 1. Patent Owner had the opportunity to file a brief arguing for discretionary denial (Paper 5), but Patent Owner declined to file such a brief by the due date. Afterwards, the proceeding was referred to this panel. Paper 7.

The Board has authority to determine whether to institute a post-grant review. *See* 35 U.S.C. § 324 (2024); 37 C.F.R. § 42.4(a) (2024) (“The Board institutes the trial on behalf of the Director.”). Post-grant review may not be instituted “unless . . . the information presented in the petition . . . , if such information is not rebutted, would demonstrate that it is more likely than not that at least 1 of the claims challenged in the petition is unpatentable.” 35 U.S.C. § 324. Upon consideration of the evidence and

arguments in the record, for the reasons below, we determine that the information presented shows that it is more likely than not that Petitioner would prevail with respect to at least one of the challenged claims. We thus institute a post-grant review on all challenged claims on all asserted grounds. *See SAS Inst. Inc. v. Iancu*, 584 U.S. 357, 362–63, 369–70 (2018); 37 C.F.R. § 42.208(a) (“When instituting post-grant review, the Board will authorize the review to proceed on all of the challenged claims and on all grounds of unpatentability asserted for each claim.”).

A. 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.

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”).¹ Pet. 65.

¹ 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).

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.

B. 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:

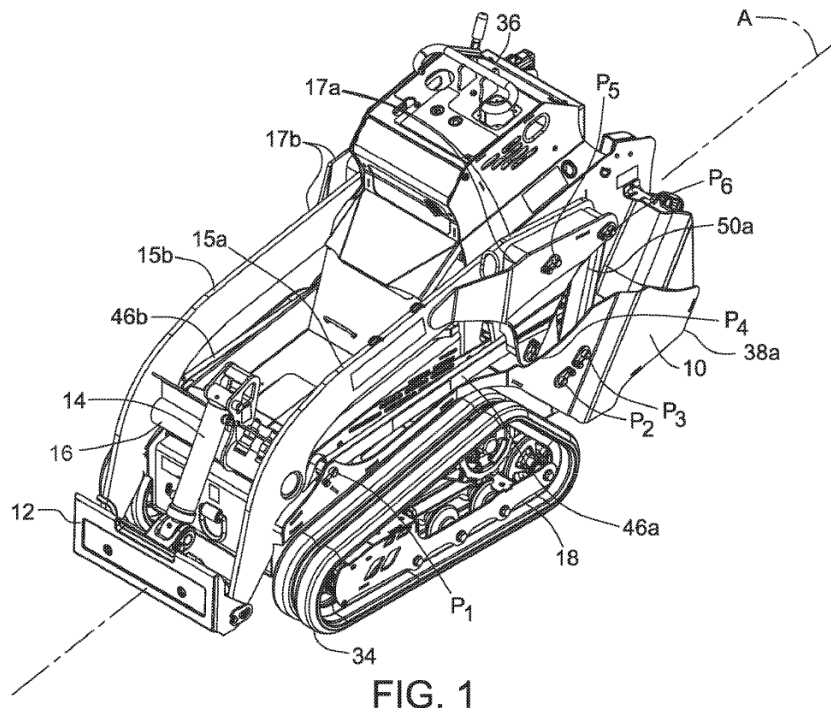


Figure 1 is a perspective view of a compact tool carrier with the loader in the down position. Ex. 1001, 2:38–39. Figures 2 and 3 are below:

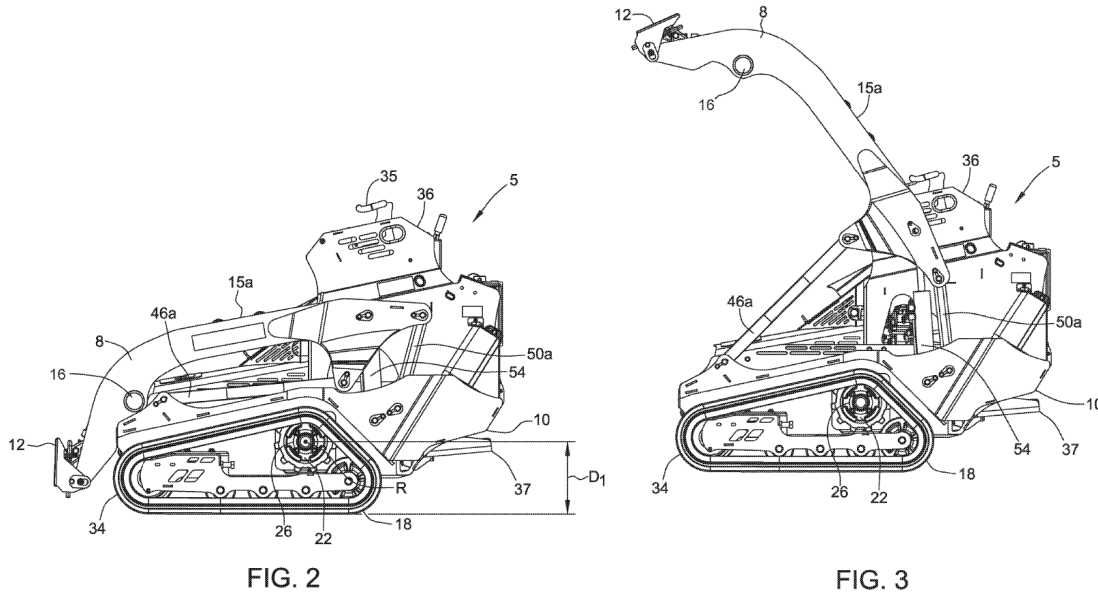


Figure 2 is a side view of a compact tool carrier with the loader in the lowered position, and Figure 3 is a side view of a compact tool carrier with the loader in the raised position. Ex. 1001, 2:40–43. The compact tool carrier 5 shown above includes “a loader 8 supported by a mainframe 10” and “an attachment plate 12 for interchangeably attaching any one of a number of tools (not shown).” *Id.* at 2:57–60.² 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 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

² In this Decision, we omit emphasis on reference numerals in quotations from the challenged patent and prior art references.

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:

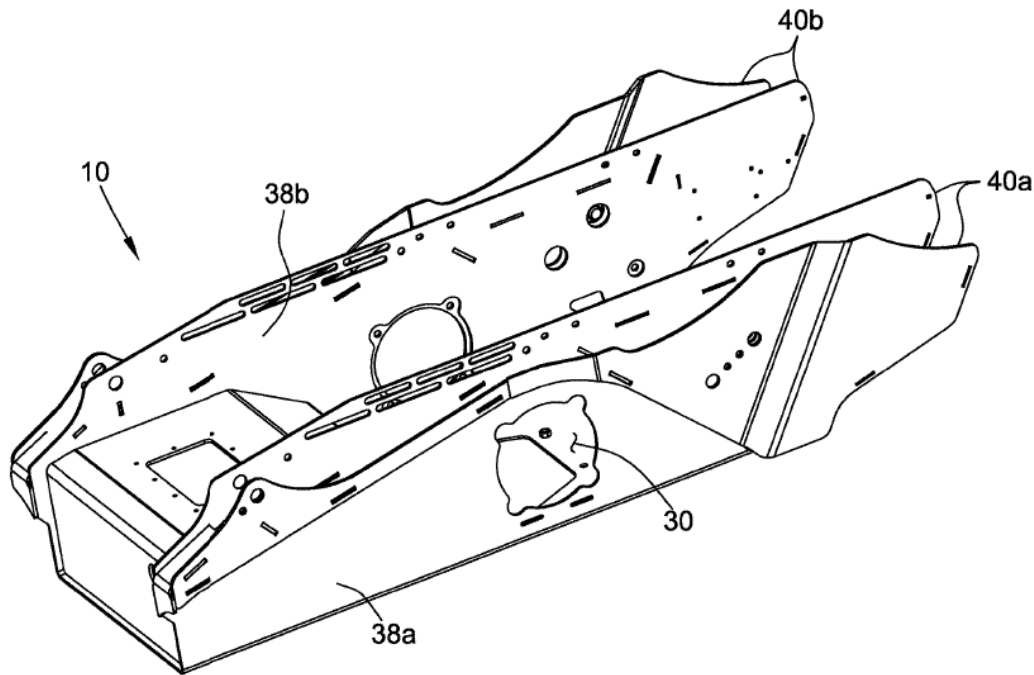


FIG. 4

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.

C. The Challenged Claims

Petitioner challenges claims 4–14, of which claim 4 is the sole independent claim. Independent claim 4 is reproduced below, reformatted from the version provided in the challenged patent and with bracketed alphanumeric 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, 7:24–8:2.³

³ We adopt and apply below Petitioner’s designations for the elements of the challenged claims. *See* Pet. 21–37 (showing alphanumeric designations for the language in challenged claim 4).

D. Asserted Grounds of Unpatentability

Petitioner challenges claims 4–14 on the following grounds:

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

Petitioner supports its challenges with a declaration from Dr. Steven Alan Velinsky, Ph.D., P.E. Ex. 1003 (“Velinsky Decl.”).

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,

⁴ 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.

⁵ Korean Intellectual Property Office Patent KR 10-1041996, published June 16, 2011 (Ex. 1005 (Korean version and certified translation), “KR996”).

⁶ Japanese Patent Office JP 2004-17705, published January 22, 2004 (Ex. 1006 (Japanese version and certified translation), “JP705”).

⁷ United States Patent US 6,832,659 B1, issued December 21, 2004 (Ex. 1010, “Bares”).

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 this 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 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 Decl. ¶¶ 17–20).

Patent Owner states 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. Prelim. Resp. 19–20; *see also id.* at 20 n.7 (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 experience in the design of machines, or have had equivalent knowledge and experience”).

Petitioner’s proposed definition of the level of ordinary skill in the art appears consistent with the record at this stage of the proceeding, including the prior art. *See GPAC Inc.*, 57 F.3d at 1579. Patent Owner’s proposal is the same, except for use of the term “machines” instead of “vehicles.” Furthermore, Patent Owner does not argue at this stage of the proceeding that Petitioner’s proposal for the level of ordinary skill leads to an improper understanding of how a skilled artisan would understand either the challenged patent or the prior art. For purposes of this Decision, we adopt the definition of the level of ordinary skill in the art proposed by Petitioner.

C. Claim Construction

1. The Applicable Standard

In post-grant 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. § 42.200(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). In the

Preliminary Response, Patent Owner proposed a construction for the term “mainframe” in claims 1 and 19. *See* Prelim. Resp. 21–28.

With authorization from 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,” and Patent Owner did the same (Paper 11 (“PO Init. CC Br.”); Paper 12 (“PO Reply CC Br.”)). Below, we discuss the parties’ proposed constructions.

3. “*mainframe*” (*independent claim 4*)

Limitation 4.2 in sole 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 (claim 4).

Petitioner proposes 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. Patent Owner proposes 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). For the reasons below, we preliminarily construe “mainframe” under its plain and ordinary meaning as *a primary supporting structure*. *See Exxon Chem. Patents, Inc. v. Lubrizol Corp.*, 64 F.3d 1553, 1556 (Fed. Cir. 1995) (“[T]he judge’s task is not to decide which of the adversaries[’ constructions] is correct. Instead the judge must independently assess the claims, the specification, . . . and declare the meaning of the claims.”).

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). After presenting its proposed construction of “mainframe”—“the body of the compact tool carrier that supports the loader”—Patent Owner adds that “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.” PO Init. CC. Br. 1. The current record supports Patent Owner’s argument for “primary” in that the claim language at issue recites a “*mainframe*” rather than merely a “frame.” *See* Prelim. Resp. 23 (“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 *mainframes 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.

But Patent Owner has not adequately explained why the “mainframe” must be “always present and not selectively removeable,” as asserted. *See* PO Init. CC. Br. 1. In proposing this *additional* requirement for the “mainframe,” Patent Owner cites (1) the claim construction section of the Preliminary Response discussing “mainframe,” (2) the arguments as to the asserted grounds involving KR996, and (3) claims 4, 6, and 10 of the challenged patent. *See id.* at 1–2. As acknowledged by Patent Owner, the cited portions of the Preliminary Response provide argument attempting to distinguish structures in KR996 from a “mainframe,” but they do 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 summarizes the added limitations of claims 6 and 10, but Patent Owner fails to explain how they support this additional requirement. *See* PO Init. CC. Br. 1–2. Thus, we do not adopt Patent Owner’s proposal that the “mainframe” must be “always present and not selectively removeable.”

We turn now to the three phrases making up Patent Owner’s proposed construction—(1) “the body” (2) “of the compact tool carrier” (3) “that supports the loader.” Because several issues relating to these phrases turn on the claim language itself, we discuss them here. Patent Owner first includes “the body,” allegedly because the Specification uses the terms “mainframe” and “body” “interchangeably.” Prelim. Resp. 22 (citing Ex. 1001, 4:9–10). We disagree. The relied-upon sentence from the Specification provides: “In other embodiments, rather than being integrated as one unit in the compact tool carrier 5, the control station 36 is separate from the body (e.g., mainframe) of the carrier and is operated remotely.” Ex. 1001, 4:7–10. The term “body” is nowhere else in the Specification. We do not view this sentence as supporting the interchangeability of “body” and “mainframe” for at least two reasons. First, the sentence expressly describes “other

embodiments,” which Patent Owner has not shown are claimed. *See* Pet. Reply CC Br. 2 (discussing this issue). Second, the sentence uses “e.g.”—indicating that a mainframe is merely *an example* of a body—rather than “i.e.,” which would potentially *define* body as mainframe. *See Edwards Lifesciences LLC v. Cook Inc.*, 582 F.3d 1322, 1334 (Fed. Cir. 2009) (“[U]se of ‘i.e.’ signals an intent to define the word to which it refers.”); Pet. Reply CC Br. 2 (“And in its use, ‘body’ includes, but does not define, ‘mainframe.’”). Thus, we do not adopt Patent Owner’s proposal to use “body” in the construction of “mainframe.”

In contrast, we view the record at this stage as supporting an understanding of the “frame” in “mainframe” as a supporting structure. Patent Owner provides a dictionary defining “frame” as a “rigid supporting structure” (Prelim. Resp. 22 (citing Ex. 2009 at 3)), and Petitioner proposes “a supporting structure” based on that definition (*see* Pet. Reply CC Br. 3 (mistakenly citing Ex. 2007 rather than Ex. 2009)). Further, this dictionary definition does not contradict the “mainframe” described in the Specification or any other intrinsic evidence. *See, e.g.*, Ex. 1001, Fig. 4, 2:44–45 (“FIG. 4 is a perspective view of a mainframe of a compact tool carrier.”); *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”).

Turning to the second phrase in Patent Owner’s proposed construction—“of the compact tool carrier”—we do not see its presence as aiding in understanding the scope of the term “mainframe.” That the

“mainframe” is a component “of the compact tool carrier” is clear from the preamble to claim 4 (i.e., limitation 4.0). *See* Ex. 1001, 7:24–25.

We turn now to the third phrase in Patent Owner’s proposed construction—“that supports the loader.” As noted above, limitation 4.2 (in claim 4) recites “a mainframe for supporting the loader.” Ex. 1001, 7:28. Because the claim language immediately following “mainframe” in claim 4 would be rendered superfluous by the third phrase in Patent Owner’s proposed construction, we do not adopt it. *See* Pet. Init. CC Br. 4–5 (citing *Digital-Vending Servs. Int’l, LLC v. Univ. of Phoenix, Inc.*, 672 F.3d 1270, 1275 (Fed. Cir. 2012) (“If ‘registration server’ were construed to inherently contain the ‘free of content managed by the architecture’ characteristic, the additional ‘each registration server being further characterized in that it is free of content managed by the architecture’ language in many of the asserted claims would be superfluous.”)). Specifically, if the mainframe were inherently construed to support the loader, the additional “for supporting the loader” language in limitation 4.2 would be rendered superfluous.

Having addressed the claim language at issue, we turn now to the Specification. We first address one of the disclosures discussed in the additional briefing on claim construction: “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.” Ex. 1001, 4:15–18. In the additional briefing, the parties addressed whether this sentence is (1) a lexicographical definition of “mainframe” or, in the alternative, (2) merely a description of an embodiment. 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 the reaction mixture when aniline is utilized as the solvent” (emphasis added)).

Because the sentence at issue is not lexicographical, we also 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. § 42.200(b) (“Any prior claim construction determination concerning a term of the claim in a civil action . . . , that is timely made of record in the post-grant review proceeding will be considered.”).

As asserted by the parties, claim differentiation further supports the determination that “mainframe” is not limited to a single weldment. *See* Pet. Init. CC Br. 3–4; PO Init. CC Br. 4–5. “Claim differentiation . . . is clearly applicable when there is a dispute over whether a limitation found in a dependent claim should be read into an independent claim, and that limitation is the only meaningful difference between the two claims.” *Wenger Mfg., Inc. v. Coating Mach. Sys., Inc.*, 239 F.3d 1225, 1233 (Fed. Cir. 2001); *Phillips*, 415 F.3d at 1315 (“[T]he presence of a dependent claim that adds a particular limitation gives rise to a presumption that the limitation in question is not present in the independent claim.”). Here, independent claim 4 recites a “mainframe,” and dependent claim 7—which depends directly from claim 4—recites *only one* additional limitation: “wherein the mainframe incorporates a single weldment.” Ex. 1001, 8:12–13. This dependent claim supports that “mainframe” in claim 4 is not limited to a single weldment.

Patent Owner argues that the prosecution history supports its position because Patent Owner’s proposed construction of “mainframe” was allegedly “uniformly applied by the Patent Office during prosecution and all prior reexaminations of Vermeer’s patents.” Prelim. Resp. 23; *see also id.* at 23–26. We disagree. In its analysis, Patent Owner does not highlight, for example, any specific statements by the applicant or Office as to the scope of the term “mainframe” to show or suggest that Patent Owner’s proposed construction was applied. *See id.* at 23–26; *see also Phillips*, 415 F.3d at 1317 (generally discussing the use of prosecution histories in claim construction). Instead, Patent Owner merely summarizes certain prior art structures identified by the examiner as a “mainframe” during prosecution, implying that those structures fall within the scope of Patent Owner’s proposed construction. *See* Prelim. Resp. 23–26.

For the reasons above and for purposes of this Decision only, we preliminarily construe “mainframe” in independent claim 4 under its plain and ordinary meaning as *a primary supporting structure*.

*D. 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 and would have been obvious based on KR996. Pet. 18, 19–46. Patent Owner provides arguments specifically addressing these asserted grounds. Prelim. Resp. 28–36. We first summarize aspects of the relied-upon prior art.

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:

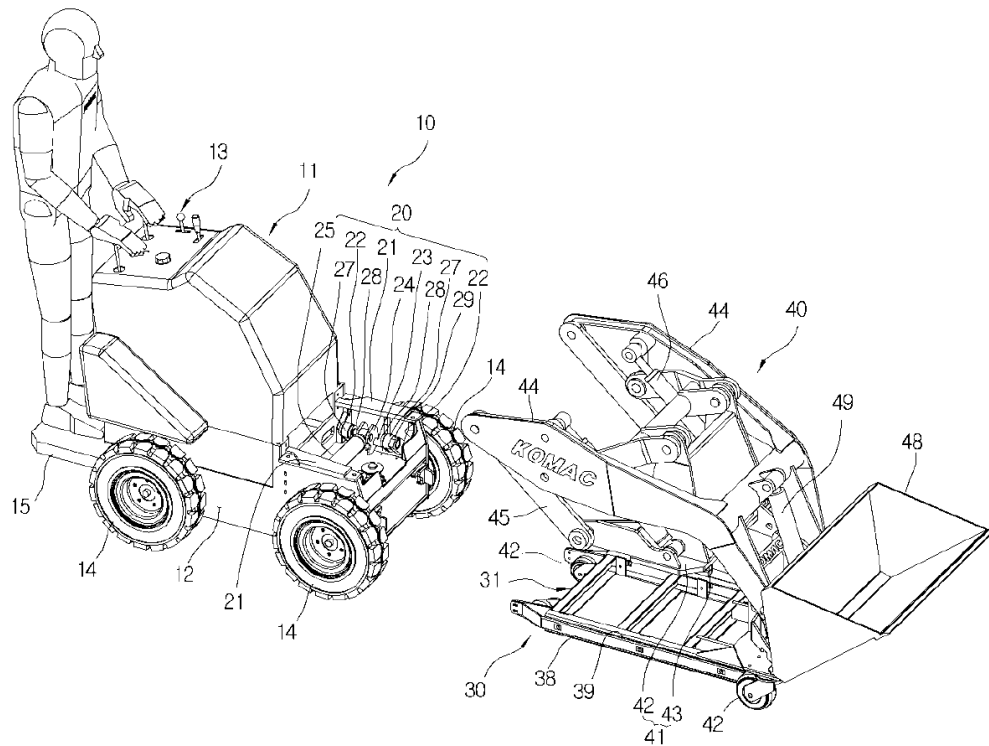


Figure 1 is a perspective view showing before loader unit 40 and bogie 30 are attached to vehicle 10. Ex. 1005 ¶¶ 40, 93. To attach bogie 30/loader unit 40 to vehicle 10, the operator shown on board at the rear uses control unit 13 to move vehicle 10 forward to engage detachable part 20 with fixture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

Figure 7 is reproduced below:

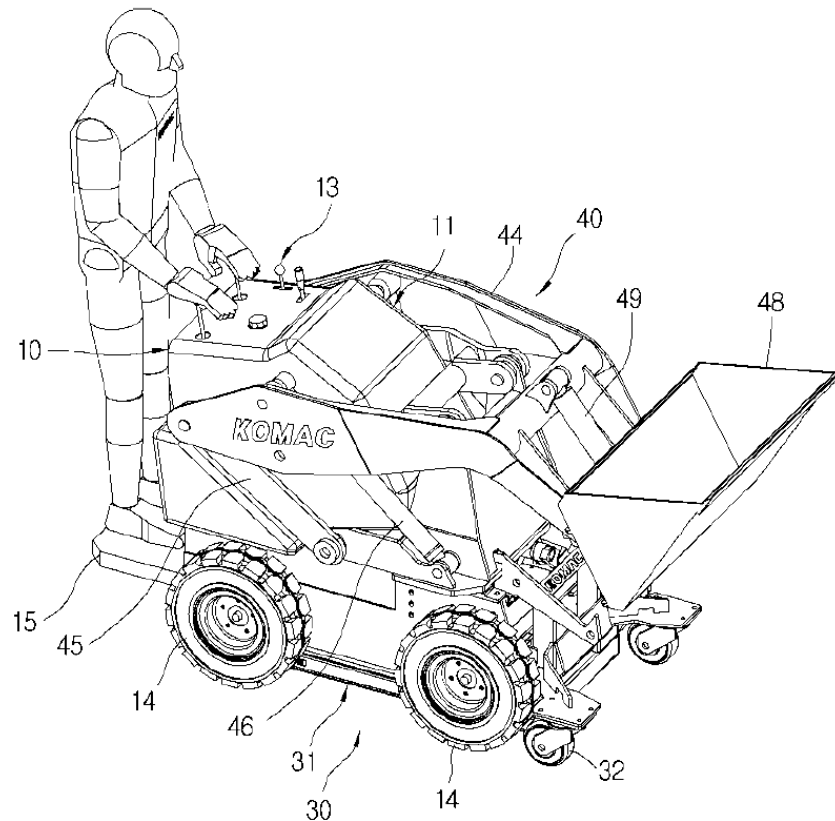


Figure 7 is a perspective view showing bogie 30 and loader unit 40 coupled to the detachable part of the vehicle. Ex. 1005 ¶¶ 40, 99. As shown in this Figure, vehicle 10 also includes (1) wheels 14 for moving vehicle 10, (2) linkage 45 to support boom 44, (3) actuator 46 to drive boom 44 upwards and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

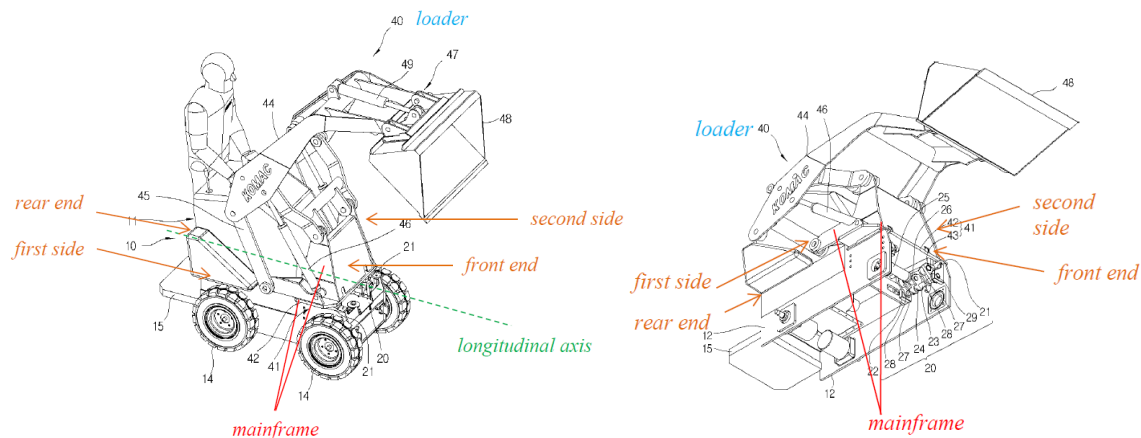
“mainframe” and thus fails to disclose limitations requiring “linkage[s]” and an “actuator” attached to the “mainframe.” *See* Prelim. Resp. 28–36.

We have reviewed Petitioner’s contentions with respect to claim 4, and for the reasons below, we determine that the Petition shows that it is more likely than not that Petitioner would prevail in demonstrating that claim 4 is both anticipated and would have been obvious based on KR996.

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 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:



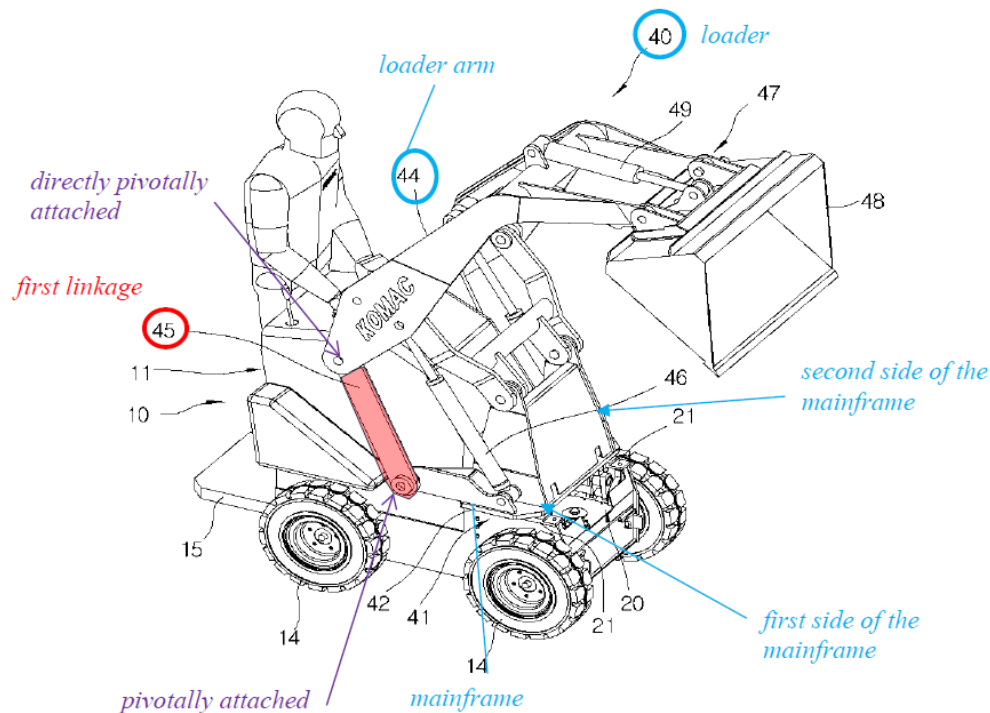
Pet. 26. In the annotated versions of Figures 9 and 10 of KR996 above, Petitioner added (1) red text and line identifying a “mainframe,” (2) brown text and arrows identifying a “first side,” “rear end,” “second side,” and

“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 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.

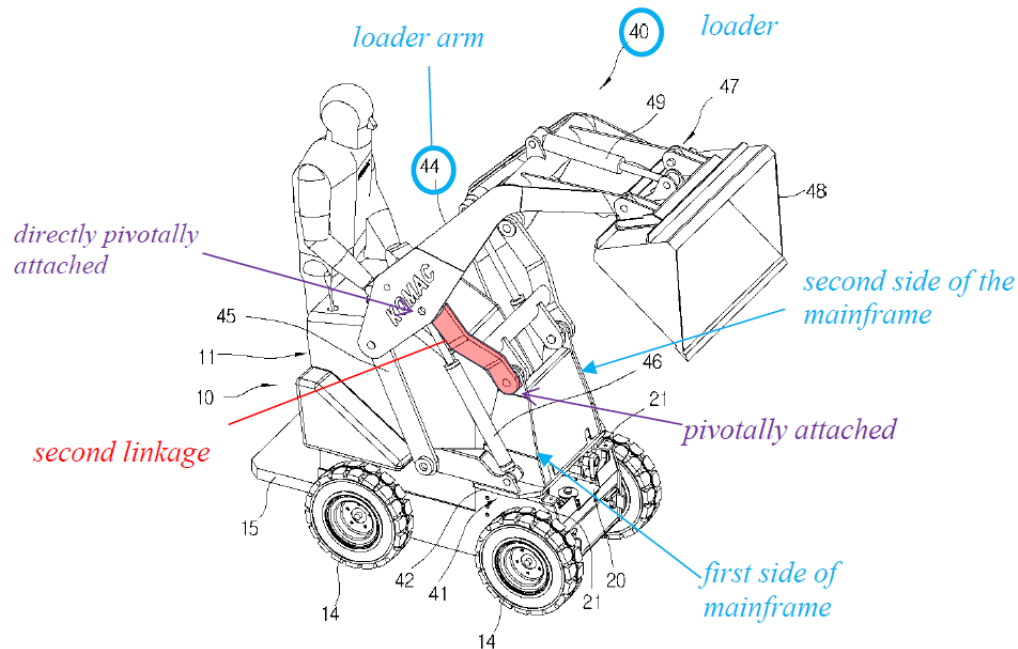
Pet. 25. Further, Petitioner states that “KR996’s *mainframe* also includes frame portions in addition to those providing direct attachment to the intermediary parts including the main body 11 and side plates 12.” Pet. 26–27 (citing Ex. 1005 ¶¶ 44, 49, Figs. 1, 7–9). According to Petitioner, “[t]hese 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:



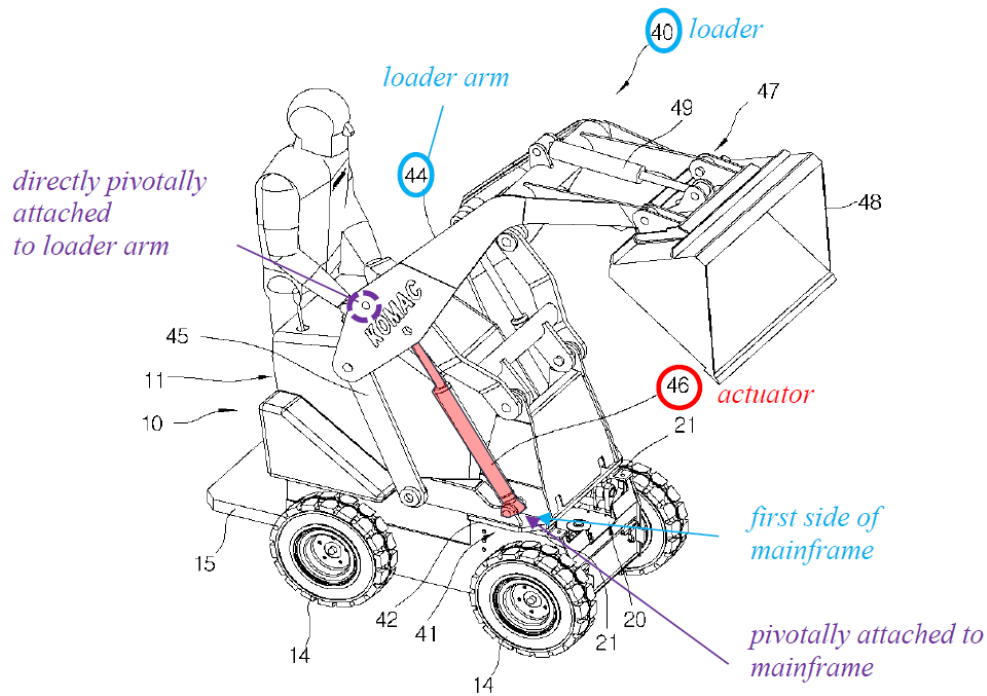
Pet. 29. In the annotated version of Figure 9 of KR996 above, Petitioner added (1) red text and a circle identifying a “first linkage,” (2) purple text and arrows explaining where the “first linkage” is “directly pivotally attached” and “pivotally attached,” (3) blue text and lines identifying a “loader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



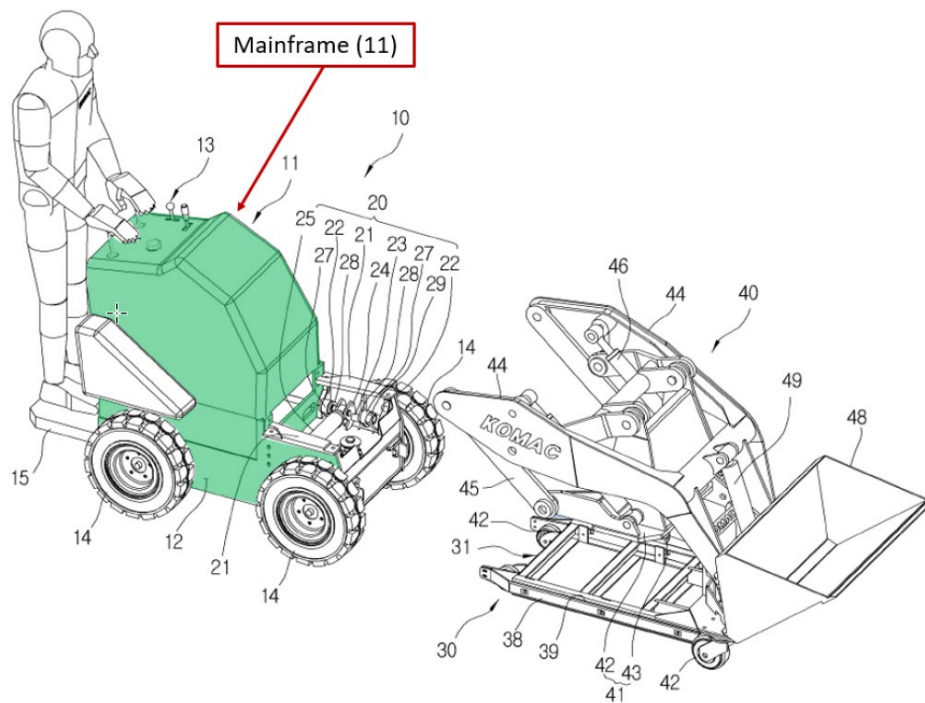
Pet. 31 (discussing Velinsky Decl. ¶¶ 76–81). In the annotated version of Figure 9 of KR996 above, Petitioner added (1) red text and a circle identifying a “second linkage,” (2) purple text and arrows explaining where the “second linkage” is “directly pivotally attached” and “pivotally attached,” (3)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

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:



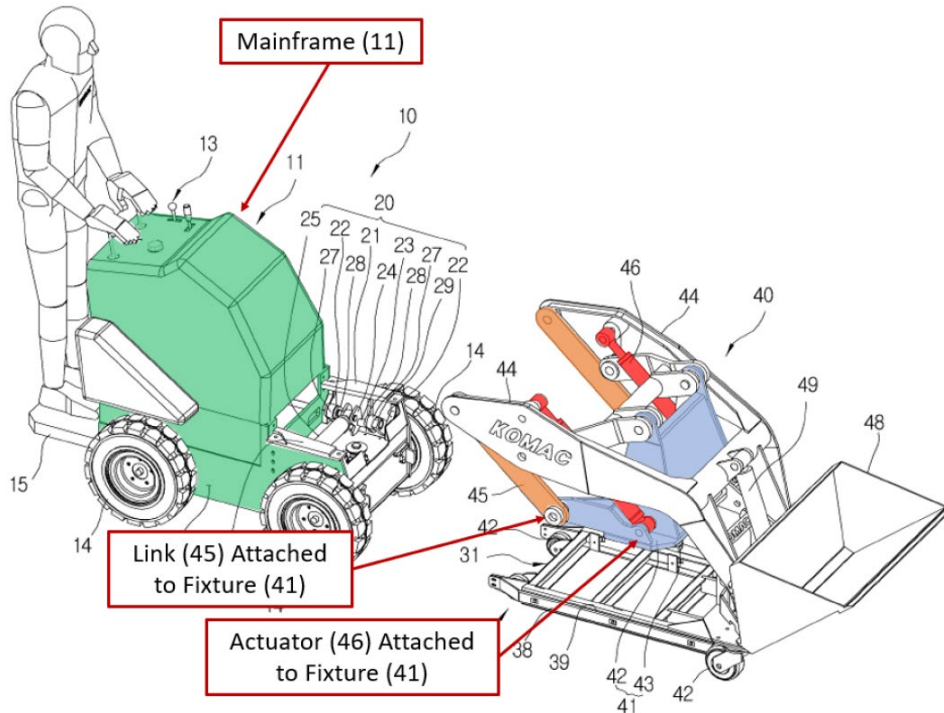
Pet. 33 (discussing Velinsky Decl. ¶¶ 82–88). In the annotated version of Figure 9 of KR996 above, Petitioner added (1) red text and a circle identifying an “actuator,” (2) purple text and arrows explaining where the “actuator” is “directly pivotally attached to loader arm” and “pivotally attached to 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* Prelim. Resp. 28–36. Specifically, Patent Owner contends that, in KR996, “the linkages and actuators of th[e] machine are pivotally attached to a ‘fixture’ that is part of a removable loader attachment—not to the mainframe/body of the machine.” *Id.* at 29. In support, Patent Owner provides this annotated version of Figure 1 of KR996:



Prelim. Resp. 30. In the annotated version of Figure 1 of KR996 here, Patent Owner added (1) green shading on certain structures and (2) a text box and arrow identifying “Mainframe (11).” *Id.* Applying its proposed construction of “mainframe,” Patent Owner adds, “[b]ecause it is the ‘**body** of the compact tool carrier,’ the mainframe is properly understood to be an inherent part of the core machine’s structure. It is the core component to which the other components of the machine (*e.g.*, the drive mechanism, control station, operator platform, engine, *etc.*) are connected.” *Id.* at 29 (citing Ex. 1001, 2:12–15, 4:18–22, Fig. 3). Patent Owner contends that Petitioner’s identified “first linkage,” “second linkage,” and “actuator” in KR996 are *not* “attached to the first side of the mainframe” as required; instead, they are attached to *another structure* on the *right side* of the annotated version of Figure 1 of KR996 above (and shown shaded in blue in the annotated version of Figure 1 of KR996 below), which, according to Patent Owner, is *not* part of the “mainframe.” *Id.* at 30–33. In support,

Patent Owner provides the annotated version of Figure 1 of KR996 reproduced below:



Prelim. Resp. 39. In the annotated version of Figure 1 of KR996 here, Patent Owner added (1) green shading on certain structures, (2) a text box and arrow identifying “Mainframe (11),” (3) a text box and arrow identifying “Link (45) Attached to Fixture (41),” (4) a text box and arrow identifying “Actuator (46) Attached to Fixture (41),” (5) orange shading identifying two links 45, (6) red shading identifying two actuators (i.e., boom cylinders) 46, and (7) blue shading identifying lower plate 42 of fixture 41. *Id.*

The current dispute between the parties as to this asserted 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 annotated Figure 1 immediately above) to be *part of* a “mainframe,” along with certain agreed-upon “mainframe” structures

(shaded in green above). The record at this stage of the proceeding supports Petitioner’s position that one of ordinary skill in the art would have understood fixture 41 as part of a “mainframe.”

In its argument seeking to identify fixture 41 in KR996 as something other than a “mainframe,” Patent Owner highlights the term “body” in its proposed construction of “mainframe,” asserting that “the mainframe is properly understood to be an inherent part of the core machine’s structure.” Prelim. Resp. 29. Under that reasoning, the structures on the right side of the annotated version of Figure 1 of KR996 above—including fixture 41—are not part of the “core machine’s structure,” and thus, not part of a “mainframe.” *Id.* at 29–35.

Patent Owner’s argument does not identify a deficiency in the Petition, however, because we did not adopt *any part* of Patent Owner’s proposed construction of “mainframe,” including the phrase “the body,” which serves as the starting point of Patent Owner’s argument here. *See* § II.C.3. Instead, we preliminarily construe “mainframe” under its plain and ordinary meaning as *a primary supporting structure*. *Id.* Limitation 4.2 makes clear that the “mainframe” supports the “loader.” The current record supports that at least the structures shaded in green *and* blue in the annotated version of Figure 1 of KR996 immediately above are the *primary supporting structure* for the loader (i.e., a “mainframe”)—i.e., when in operation, those structures provide the primary “weight-bearing frame supporting the loader unit 40” in KR996. Pet. 24 (“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.” (citing Velinsky Decl. ¶¶ 65–67)); Pet. 26–27 (stating that the

“mainframe” are the “portions [that] 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” (citing Velinsky Decl. ¶ 67)); *see, e.g.*, Ex. 1005, Figs. 7–9 (showing the vehicle of KR996 in operation).

The testimony of Dr. Velinsky supports these positions, explaining that one of ordinary skill in the art would have understood the green *and* blue structures above as part of a “mainframe.” *See* Velinsky Decl. ¶¶ 66–67, *cited at* Pet. 24–27. At this stage of the proceeding, Patent Owner has not presented declaration testimony—but rather only attorney argument—supporting that one of ordinary skill in the art would have identified fixture 41 in KR996 as something other than a “mainframe.” *See 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))). On the current record, we determine that Petitioner has made a sufficient showing that KR996 discloses or suggests the mainframe limitations.

b. Conclusion as to Independent Claim 4

Patent Owner does not offer any arguments specifically addressing the remaining limitations of claim 4. *See* Prelim. Resp. 28–36. We have reviewed Petitioner’s contentions with respect to the remaining limitations, and we determine that the Petition provides a sufficient showing, at this stage of the proceeding, that KR996 teaches or suggests each limitation and

that one of ordinary skill in the art would have had reason to modify KR996 as proposed.

For the reasons above, we determine, based on the current record, that the Petition shows that it is more likely than not that Petitioner would prevail in demonstrating that KR996 anticipates and renders obvious claim 4.

3. Claims 7–12

Petitioner contends that KR996 anticipates and renders obvious dependent claims 7–12 (all of which depend from claim 4). Pet. 37–46. Patent Owner does not present any arguments specifically addressing claims 7–12. *See* Prelim. Resp. 28–36. We include claims 7–12 in the context of this asserted ground in the instituted post-grant review. *See SAS*, 584 U.S. at 362–63, 369–70; 37 C.F.R. § 42.208(a).

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

Petitioner asserts that claims 5 and 6 of the challenged patent would have been obvious based on KR996 and JP705. Pet. 18, 46–55. Patent Owner does not present any arguments specifically addressing claims 5 and 6 in the context of this asserted ground, but rather, relies on the same arguments presented as to the grounds involving solely KR996. *See* Prelim. Resp. 36. We include claims 5 and 6 in the context of this asserted ground in the instituted post-grant review. *See SAS*, 584 U.S. at 362–63, 369–70; 37 C.F.R. § 42.208(a).

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

Petitioner asserts that claims 13 and 14 of the challenged patent 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 involving solely KR996. *See* Prelim. Resp. 37. We include claims 13 and 14 in the context of this asserted ground in the instituted post-grant review. *See SAS*, 584 U.S. at 362–63, 369–70; 37 C.F.R. § 42.208(a).

III. CONCLUSION

For the reasons above, we determine that the Petition shows that it is more likely than not that at least one of the claims challenged is unpatentable. At this stage of the proceeding, no final determination has yet been made with regard to the patentability of any of the challenged claims or any underlying factual or legal issues, including the construction of claim terms. The final determination will be based on the record as developed during the post-grant review.

IV. ORDER

Accordingly, it is hereby:

ORDERED that, pursuant to 35 U.S.C. § 324(a), a post-grant review is hereby instituted as to claims 4–14 of the challenged patent on all asserted grounds and

FURTHER ORDERED that pursuant to 35 U.S.C. § 324(c) and 37 C.F.R. § 42.4, post-grant review shall commence on the entry date of this Decision, with notice hereby given of the institution of a trial.

PGR2025-00016
Patent 12,098,063 B2

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