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Paper 10
Date: October 24, 2022

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

KERR MACHINE CO.,
Petitioner,

v.

SPM OIL & GAS INC.,
Patent Owner.

IPR2022-00881
Patent 10,520,037 B2

Before MITCHELL G. WEATHERLY, KEVIN W. CHERRY, and AMANDA F. WIEKER, *Administrative Patent Judges.*

WEATHERLY, *Administrative Patent Judge*.

DECISION
Granting Institution of *Inter Partes* Review
35 U.S.C. § 314

I. INTRODUCTION

A. BACKGROUND

Kerr Machine Co. ("Petitioner") filed a petition (Paper 2, "Pet.") to institute an *inter partes* review of claims 1–3, 7–12, 14, and 16–20 (the "challenged claims") of U.S. Patent No. 10,520,037 B2 (Ex. 1001, "the '037 patent"). 35 U.S.C. § 311. SPM Oil & Gas Inc. ("Patent Owner")

timely filed a Preliminary Response. Paper 6 ("Prelim. Resp."). With our prior authorization, Ex. 3001, Petitioner filed a Reply responding to the Preliminary Response. Paper 7 ("Reply"). Institution of an *inter partes* review is authorized by statute when "the information presented in the petition filed under section 311 and any response filed under section 313 shows that there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition." 35 U.S.C. § 314(a). Based on our review of the record, we conclude that Petitioner is reasonably likely to prevail with respect to at least one of the challenged claims.

Petitioner challenges the patentability of claims as follows:

Claim(s) challenged	35 U.S.C. §[1]	Reference(s)
1–3, 7–12, 14, 17	103	Maverick,[2] Rambin,[3] Marran,[4] Ojalvo[5]
16, 18–20	103	Maverick, Rambin, Marran

[1] The Leahy-Smith America Invents Act ("AIA") included revisions to 35 U.S.C. §§ 102 and 103 that became effective March 16, 2013. The application for the '037 patent was filed on January 29, 2018, and the earliest application to which the '037 patent claims priority was filed July 25, 2014. Ex. 1001, codes (21, 60). Therefore, we apply the post-AIA versions of 35 U.S.C. §§ 102 and 103.

[2] Gardner Denver Drilling Pump Model Maverick Parts List 400TLS997 Rev F June 2013 © 2012 (Ex. 1003, "Maverick").

[3] U.S. Patent No. 4,341,508 (Ex. 1004, "Rambin").

[4] U.S. Patent No. 3,493,201 (Ex. 1005, "Marran").

[5] U.S. Patent No. 4,129,974 (Ex. 1006, "Ojalvo").

Generally, Patent Owner contends that the Petition should be denied in its entirety. On April 24, 2018, the Supreme Court held that, under 35 U.S.C. § 314, the Office may not institute review of fewer than all claims challenged in the petition. *SAS Inst., Inc. v. Iancu*, 138 S. Ct. 1348, 1359–60 (2018). For the reasons expressed below, we determine that Petitioner has demonstrated a reasonable likelihood of establishing that at least claim 1 is unpatentable. In accordance with the *SAS* decision and 37 C.F.R. § 42.108(a), we institute an *inter partes* review of all challenged claims of the '037 patent on all grounds alleged by Petitioner.

B. REAL PARTIES-IN-INTEREST

Petitioner identifies itself as real party-in-interest. Pet. vii. Patent Owner identifies SPM Oil & Gas Inc.[6] and Caterpillar, Inc. as real parties-in-interest. Paper 8, 1.

C. RELATED PROCEEDINGS

The parties identified as a related proceeding the co-pending district court proceeding of *Kerr Machine Co. v. SPM Oil & Gas Inc., et al.*, C.A. No. 4:21-cv-1191 (N.D. Tex.). Pet. vii; Paper 8, 1. Patent Owner also identifies the following PTAB proceedings as being related:

- PGR2022-00033 seeking review of U.S. Patent No. 11,204,030.
- IPR2022-00882 seeking review of U.S. Patent No. 9,879,659.
- IPR2022-00365 seeking review of U.S. Patent No. 10,663,071.

[6] Patent Owner informs us that it used the name S.P.M. Flow Control, Inc. from December 16, 1997, to February 11, 2021. Paper 8, 1 n.1. "S.P.M. Flow Control, Inc. and SPM Oil & Gas Inc. are the same entity, with SPM Oil & Gas Inc. being the current name of the entity." *Id.*

Paper 8, 1. The parties further identify as a related matter U.S. Patent Application 17/321,483, filed on May 16, 2021, which claims the benefit of U.S. Patent Application 14/882,496 (the application from which the '037 patent issued). Pet. vii; Paper 8, 2.

D. THE '037 PATENT

The '037 patent is directed to "a reciprocating pump assembly, and in particular, a power end housing for a reciprocating pump assembly." Ex. 1001, 1:15–17. As background, the Specification explains:

> A typical reciprocating pump includes a fluid end and a power end, the power end configured to reciprocatingly move one or more plungers toward and away from a corresponding fluid end pump chamber. Each chamber includes an intake port for receiving fluid, a discharge port for discharging the pressurized fluid, and a one-way flow valve in each port for preventing reverse fluid flow.
>
> Manufacturing and assembling conventional power end housings is oftentimes difficult and cumbersome due to, for example, the sheer weight of the housing, the need for precise alignment certain components, and the difficulty in accessing certain areas of the housing, such as, for example, accessing and installing the crankshaft bearings within the housing.

Id. at 1:33–47. Figure 1 is reproduced below.

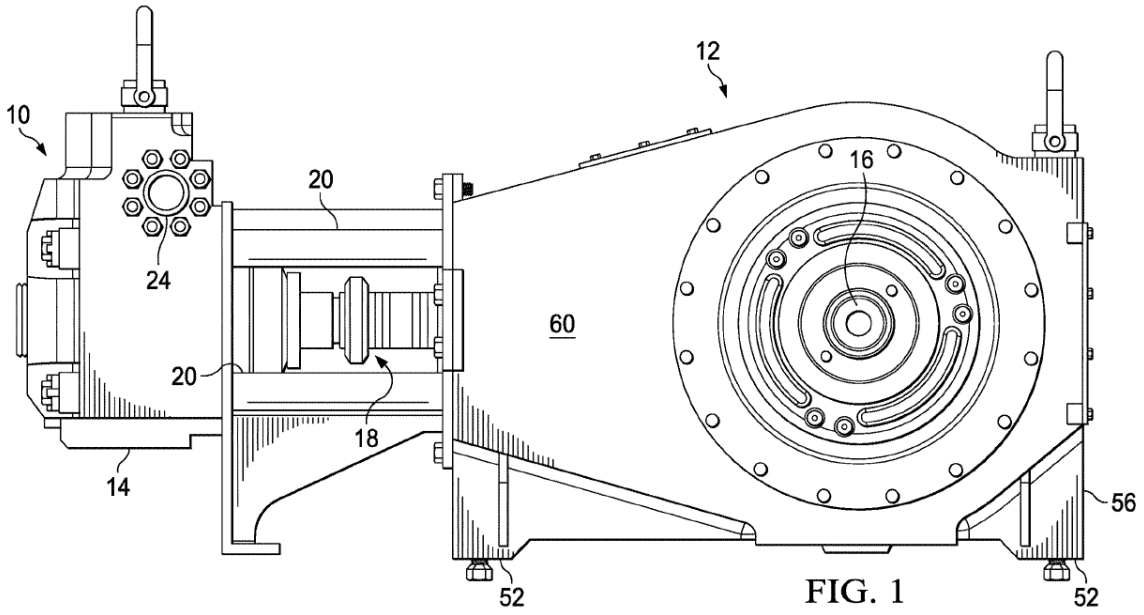


FIG. 1

Figure 1 is a side elevation view of a reciprocating pump assembly 10 having fluid end 14 and power end 12 that is driven by a crankshaft 16. *Id.* at 3:11–12, 4:61–67. Power end 12 can be mounted to skid 500 as shown in Figure 56, reproduced below.

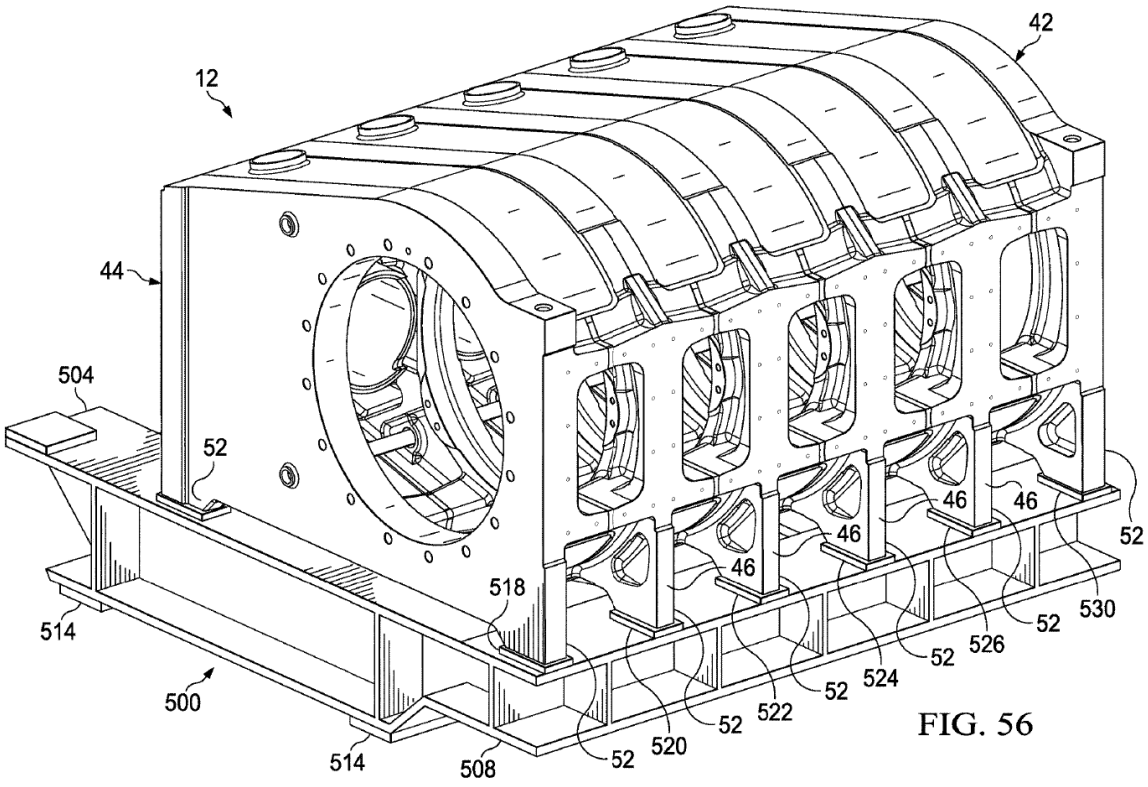


FIG. 56

Figure 56 is a perspective view of power end 12 mounted to skid 500. *Id*. at 18:5–6. Power end 12 has end plates 42, 44 and middle plates 46, each having feet 52 that rest upon pads 518–530. *Id*. at 18:7–14.

Independent claims 1, 10, and 16 among the challenged claims are directed to "a skid for supporting a reciprocating pump assembly" (claim 1), a "method of mounting a reciprocating pump assembly to a support skid" (claim 10), and a "reciprocating pump assembly." Claim 1, which is representative, recites:

> 1.[1] A skid for supporting a reciprocating pump assembly, the reciprocating pump assembly comprising a power end frame assembly having a pair of end plates and a plurality of middle plates disposed between the end plates, the end plates each having at least a pair of feet and the middle plates each having at least one foot, the skid comprising:
>
> [1.2] a base having a pair of side segments including a top wall, a bottom wall, and a sidewall extending between the top and bottom walls forming a c-shaped channel;
>
> [1.3] at least one transverse segment coupled to and extending between the pair of side segments;
>
> [1.4] a plurality of spaced apart gussets disposed within the channels, the gussets extending between and connecting to the bottom wall and the top wall of the c-shaped channel; and
>
> [1.5] a plurality of spaced apart pads extending from the base, the plurality of pads corresponding to the end plate feet and at least another portion of the plurality of pads corresponding to the at least one foot of each middle plate.

Id. at 22:2–21 (with enumeration added in brackets to ease discussion).

II. DISCRETIONARY DENIAL

Patent Owner requests that we discretionarily deny institution under 35 U.S.C. § 314(a) in light of the parallel district court litigation underway

in *Kerr Machine Co. v. SPM Oil & Gas Inc., et al.*, C.A. No. 4:21-cv-1191 (N.D. Tex). Prelim. Resp. 10–12; *see generally* Reply.

We will not discretionarily deny institution in view of parallel district court litigation when a petitioner stipulates not to pursue, in that parallel litigation, the same grounds as in the petition or any grounds that could have reasonably been raised in the petition. *See* Interim Procedure for Discretionary Denials in AIA Post-Grant Proceedings with Parallel District Court Litigation, 3, 7–8.[7] Here, Petitioner offers such a stipulation. Reply 1 (citing Ex. 1031). Petitioner states:

> with respect to U.S. Patent No. 10,520,037, Kerr Machine Co. stipulates that if the Patent Trial and Appeal Board institutes a trial in IPR2022-00881, Kerr will not pursue in the N.D. Texas district court litigation (C.A. No. 4:21-cv-01191-O) any of the grounds raised in its IPR Petition (i.e., Grounds 1-2 as summarized on pages 23–24 of the Petition) against any of the challenged claims as originally issued, or on any other ground that Kerr reasonably could have raised during the IPR under 35 U.S.C. § 311(b) (i.e., a ground raised under §§ 102 or 103 only on the basis of prior art consisting of patents or printed publications).

Ex. 1031, 1. We, thus, decline to exercise discretion to deny institution under 35 U.S.C. § 314(a).

III. ANALYSIS

A. CLAIM INTERPRETATION

We interpret claims in the same manner used in a civil action under 35 U.S.C. § 282(b) "including construing the claim in accordance with the

[7] Available at https://www.uspto.gov/sites/default/files/documents/interim_proc_discretionary_denials_aia_parallel_district_court_litigation_memo_20220621_.pdf.

ordinary and customary meaning of such claim as understood by one of ordinary skill in the art and the prosecution history pertaining to the patent." 37 C.F.R. § 42.100(b). When applying that standard, we interpret the claim language as it would have been understood by one of ordinary skill in the art in light of the specification. *Wasica Fin. GmbH v. Cont'l Auto. Sys., Inc.*, 853 F.3d 1272, 1279–80 (Fed. Cir. 2017). Thus, we give claim terms their ordinary and customary meaning as understood by an ordinarily skilled artisan. *See Phillips v. AWH Corp.*, 415 F.3d 1303, 1312–13 (Fed. Cir. 2005) (en banc). Only terms that are in controversy need to be construed, and then only to the extent necessary to resolve the controversy. *Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017).

Neither party expressly interprets any language of any claim and both parties contend that claim terms should simply be interpreted according to their ordinary and customary meaning as set forth in 37 C.F.R. § 42.100(b). Pet. 23; Prelim. Resp. 12–13. At this stage of the proceeding, we agree. To the extent necessary as we compare the claims to the scope and content of the prior art, we comment as needed to determine whether to institute *inter partes* review and to identify potential claim interpretation issues to address at trial.

B. LEGAL STANDARDS

Petitioner challenges the patentability of the challenged claims as obvious. The Supreme Court in *KSR International Co. v. Teleflex Inc.*, 550 U.S. 398 (2007), reaffirmed the framework for determining obviousness as set forth in *Graham v. John Deere Co.*, 383 U.S. 1 (1966). The *KSR* Court summarized the four factual inquiries set forth in *Graham* that we apply in

determining whether a claim is reasonably likely to be unpatentable as obvious under 35 U.S.C. § 103(a) as follows: (1) determining the scope and content of the prior art, (2) ascertaining the differences between the prior art and the claims at issue, (3) resolving the level of ordinary skill in the pertinent art, and (4) considering objective evidence indicating obviousness or nonobviousness. *KSR*, 550 U.S. at 406. With these standards in mind, we address each challenge below.

C. LEVEL OF ORDINARY SKILL

Petitioner contends that a person of ordinary skill in the pertinent art "would have had a bachelor's degree in mechanical engineering, and approximately 3–5 years of work experience in the design or manufacture of reciprocating pumps, or their components, including support elements such as skids." Pet. 31 (citing Ex. 1002 ¶ 80). Petitioner further contends that additional education or additional experience would reduce the level of experience or education needed to attain such ordinary skill. *Id.* Patent Owner does not address the level of ordinary skill in its Preliminary Response. *See generally* Prelim. Resp. For the purpose of deciding whether to institute *inter partes* review, we adopt the standard of ordinary skill set forth by Petitioner, which we find to be consistent with information presented in the prior art.

D. PRIOR ART

We briefly describe the prior art below and address Patent Owner's argument that Petitioner has failed to establish that Maverick is a prior art printed publication. Further discussion of the scope of the prior art appears as necessary in our analysis of Petitioner's challenges to address the parties' arguments in the context of the claimed subject matter.

1. Maverick

Maverick refers to a parts list for a Gardner Denver "Maverick" model drilling pump that describes a reciprocating pump assembly including a power end and a fluid end. Ex. 1003. Petitioner contends that Gardner Denver published Maverick before July 2014,[8] and relies upon testimony by Ryan Volkerink to establish the public availability of Maverick. Pet. 25–26 (citing Ex. 1008 ¶ 15). Maverick itself is marked "400TLS997 Rev F, June 2013." Ex. 1003, 1–2. Mr. Volkerink started working for Goldmark Diesel in 2009 and continued to do so up to the time at which he signed his declaration. Ex. 1008 ¶ 3. He testifies that Goldmark Diesel purchased three examples of the Gardner Denver pump described in Maverick in 2013, no duty to maintain the confidentiality of Maverick existed, and Goldmark distributed copies of Maverick to purchasers of the Gardner Denver pump. *Id*. ¶¶ 6, 15. Based on Mr. Volkerink's testimony, Petitioner contends that Maverick is prior art under post-AIA 35 U.S.C. § 102(a)(1).

Patent Owner argues that, because "Petitioner has failed to show that Maverick was publicly accessible" before July 2014, Petitioner fails to establish that Maverick is a prior art printed publication. Prelim. Resp. 20. More specifically, Patent Owner argues that Petitioner fails to prove that Gardner Denver distributed Maverick to more than one customer, Goldmark Diesel, the company for which Mr. Volkerink worked during the relevant timeframe. *Id*. at 21–22.

[8] The earliest filed application to which the '659 patent claims priority is Provisional Application No. 62/029,271, filed July 25, 2014. Ex. 1001, code (60), 1:6–11. We have not examined whether this application provides support for the claims in the '037 patent.

Patent Owner does not provide evidence to rebut Mr. Volkerink's testimony that Maverick was distributed to Goldmark Diesel and its customers without restriction before July 2014. Rather, Patent Owner simply asserts that Petitioner must prove that more than one copy of Maverick was available to the public who would have been interested in the information for Maverick to constitute a "printed publication." *Id.* at 21 (citing *Cisco Systems, Inc. v. Centripetal Networks, Inc.*, IPR2018-01436, Paper 40, at 30 (PTAB Jan. 23, 2020) ("*Cisco*") ("although the distribution of a reference to three people can mitigate against a finding of public accessibility . . .")). The quoted portion of *Cisco* relates to that panel's discussion of another case involving a student thesis that was accessible to three members of the student's faculty review committee and provides no support for Patent Owner's position that Petitioner must prove that more than one copy of Maverick was available to the interested public. *Cisco* at 30.

At this stage of the proceeding, we consider Petitioner's showing that Maverick was a prior art printed publication to be sufficient for the purposes of analyzing whether to institute review. The *Cisco* panel neither analyzed whether public dissemination to one person among the interested public was sufficient to establish "publication" nor concluded that such dissemination was not sufficient. *Cisco*, 26–31. In the absence of countervailing evidence, we find Mr. Volkerink's undisputed testimony establishes a reasonable likelihood that Maverick is a prior art printed publication, which meets the standard set forth in *Hulu, LLC v. Sound View Innovations, LLC*, IPR2018-01039, Paper 29 at 13 (PTAB December 20, 2019) (precedential) ("*Hulu*").

The parties are free to further develop the record on the issue of whether Maverick is a printed publication during the trial. *See Hulu* at 14–16.

2. Rambin

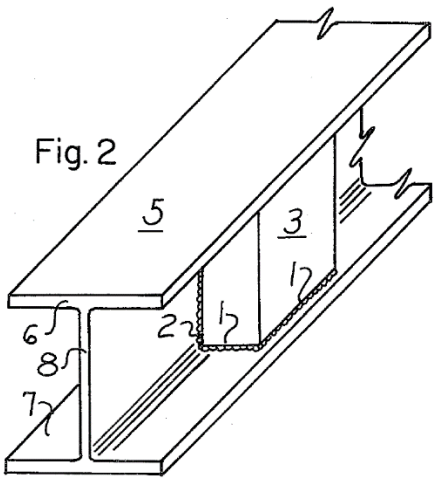
Rambin relates to "engine driven pump assemblies and, in particular, piston type pump assemblies incorporating crank shafts, bull gears and pistons." Ex. 1004, 1:5–9. Rambin describes "a skid mounted engine and pump assembly that may be transported in modular components to a desirable location . . . after which the modules of the system may be simply interconnected, thereby placing the engine and pump assembly in operation without undue delay." *Id*. at 2:33–39.

3. Marran

Marran relates to "a support base that is universally adaptable to a wide range of equipment such as compressors, pumps, or the like." Ex. 1005, 1:54–57. Marran describes pads and shims used on its support base to provide "critical height control." *Id*. at 3:26–34.

4. Ojalvo

Ojalvo relates to "a method of improving torsional rigidity and strength of straight or curved beams and girders, columns, struts, arch ribs and other like structural members." Ex. 1006, 2:6–10. More specifically, Ojalvo describes stiffeners of various shapes and sizes used to improved the torsional stiffness of another structure like an I-beam. *Id*. at 1:5–17, 2:34–3:9. The stiffener 3 is welded to web 8 and opposing flanges 6, 7 of a structure like I-beam 5. An exemplary installation is shown in Ojalvo's Figure 2, reproduced at right.



E. CLAIM 1: OBVIOUSNESS IN VIEW OF MAVERICK, RAMBIN, AND MARRAN

Petitioner argues that claims 16 and 18–20 are obvious in view of Maverick, Rambin, and Marran. Pet. 77–79. Because Patent Owner's arguments expressly focus on independent claims 1 and 10 and Patent Owner does not identify material differences between these two claims, we analyze claim 1 below. *See* Prelim. Resp. 17–39 (addressing claims 1 and 10 together without identifying differences in the scope of the two claims).[9] We determine that Petitioner has demonstrated a reasonable likelihood of establishing that at least claim 1 is unpatentable, which justifies institution of *inter partes* review.

1. Limitation 1.1

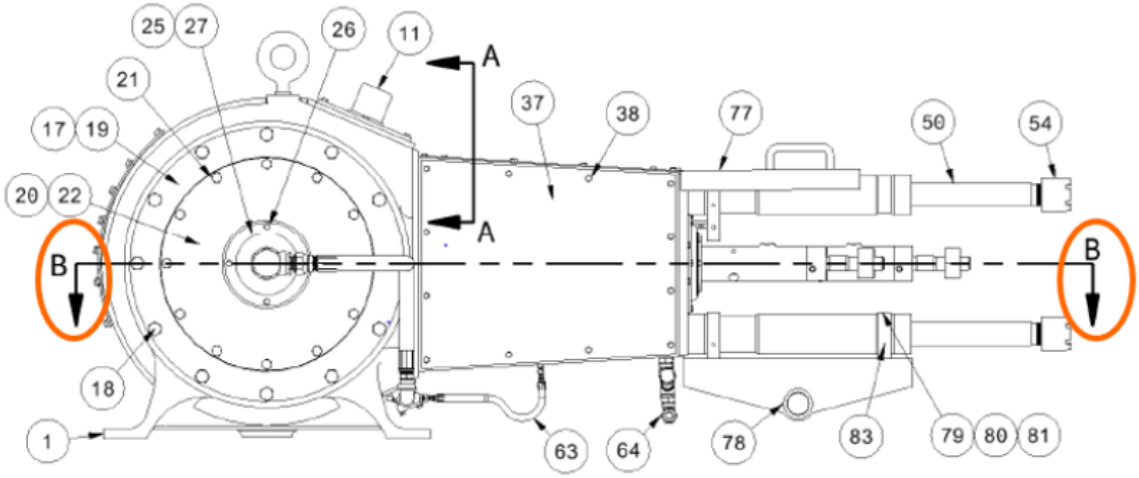
Limitation 1.1 refers to the following text from claim 1:

> A skid for supporting a reciprocating pump assembly, the reciprocating pump assembly comprising a power end frame assembly having a pair of end plates and a plurality of middle plates disposed between the end plates, the end plates each

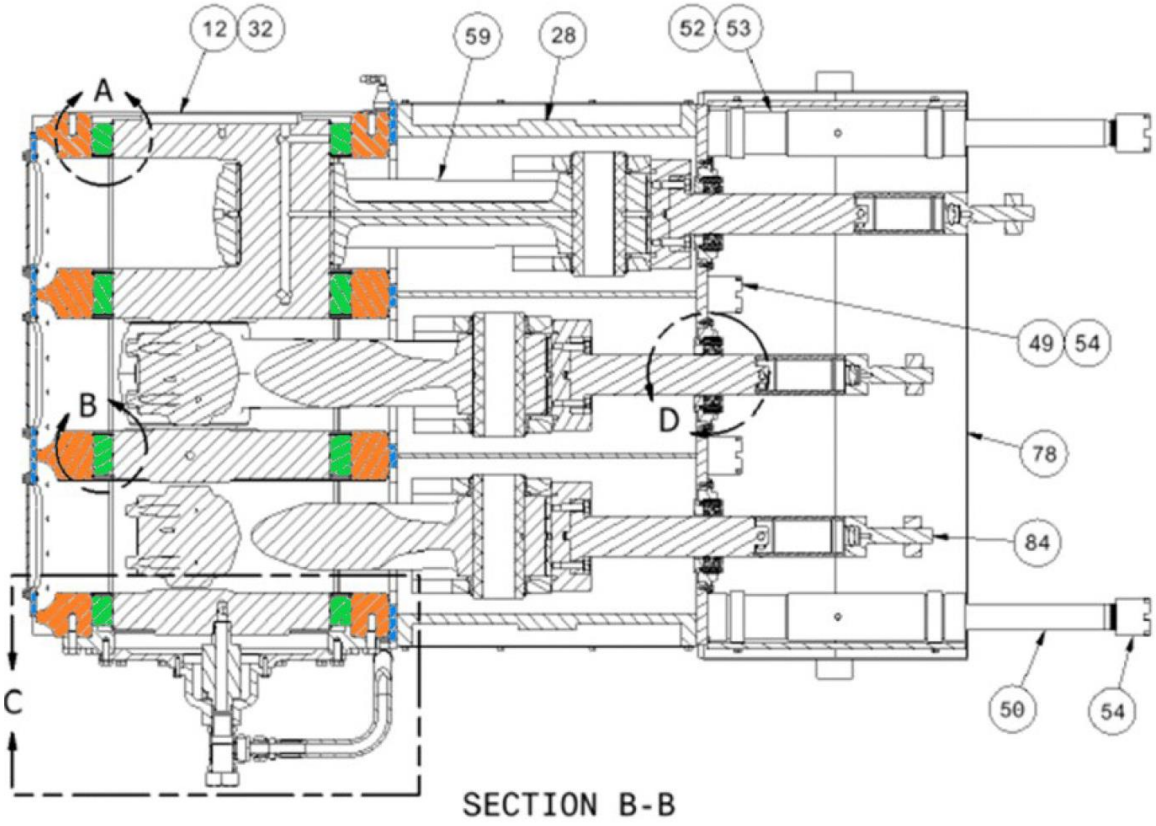
[9] Petitioner separately addresses independent claims 1, 10, and 16 in its Petition and cross-references much of its argument for claim 1 when addressing claims 10 and 16. *See* Pet. 32–60 (addressing claim 1), 72–74 (addressing claim 10 and cross-referencing showing for claim 1), 77–79 (addressing claim 16 and cross-referencing showing for claim 1). Patent Owner presents arguments primarily directed to independent claims 1 and 12 and implies that limitations 1.1 and 1.4 collectively are substantially similar to limitations 10.1, 10.2, 10.3, and 10.4 without expressly addressing any differences in the scope of the two independent claims. Prelim. Resp. 17–39. Patent Owner also argues that claim 16 remains patentable for the same reasons advanced in connection with claims 1 and 10 without providing any detailed differentiation based on the different language in claim 16. *Id.* at 40–41. During the trial, Patent Owner should separately address independent claims 1, 10, and 16.

having at least a pair of feet and the middle plates each having at least one foot, the skid comprising.

Ex. 1001, 22:2–7. Although the preamble begins by stating that the claim is directed to a "skid," much of the text in the preamble recites elements of the "reciprocating pump assembly" that the skid is configured to support. *Id.* Petitioner relies upon Maverick as describing every element of the "reciprocating pump assembly" and Rambin as describing a skid adapted for mounting on a pump assembly. Pet. 32–40. Maverick describes the power end and fluid end assemblies. *Id.* at 32 (citing Ex. 1003, 7–12). Petitioner relies upon the annotated Figure from Maverick reproduced below as illustrating the power end on the left.

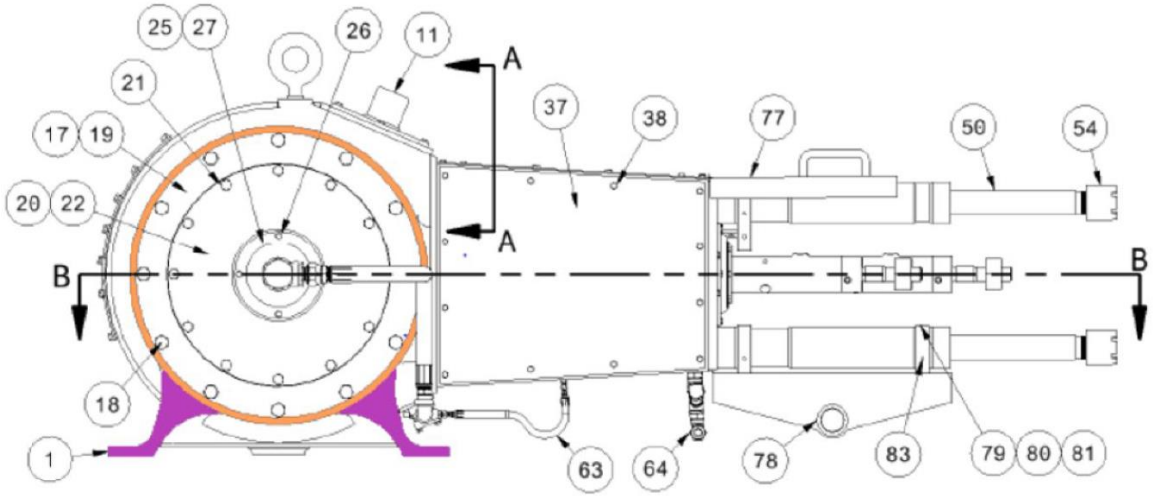


The top figure is a side elevation illustration of the power end on the left and the fluid end on the right. Two feet supporting the power end are shown on the left in the Figure. The figure also includes line B-B, which defines the plane at which section B-B is taken as shown in the annotated Figure from the Petition, reproduced below.



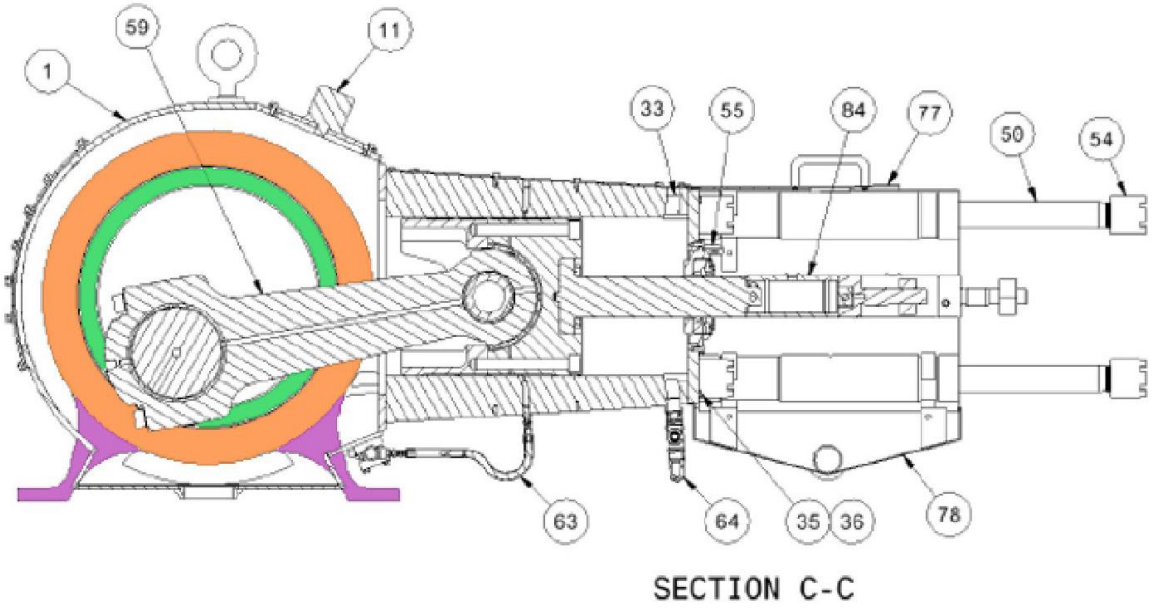
The Figure above is a cross-sectional plan view identified as Section B-B that illustrates the pump assembly with a power end on the left having four plates (orange) and four corresponding roller bearings (green). Each plate has ends (blue) connected to the power end frame. Petitioner identifies the two plates (orange) located on the lateral ends of the power assembly as the claimed "end plates" and the two plates (orange) located within the interior as the claimed "middle plates." Pet. 32 (citing Ex. 1003, 7, 9; Ex. 1002 ¶ 98).

Petitioner relies upon the annotated Figure reproduced below as identifying an end plate (orange) having two feet (purple). *Id*. at 35.



The Figure above is a side elevation illustrating the pump assembly with the power end on the left with end plate (orange) having two feet (purple) connected to the lower portion of the end plate. *Id*. (citing Ex. 1003, 9, 11; Ex. 1002 ¶ 101).

Petitioner relies upon the annotated Figure reproduced below as identifying a middle plate (orange) having two feet (purple). *Id*. at 38.



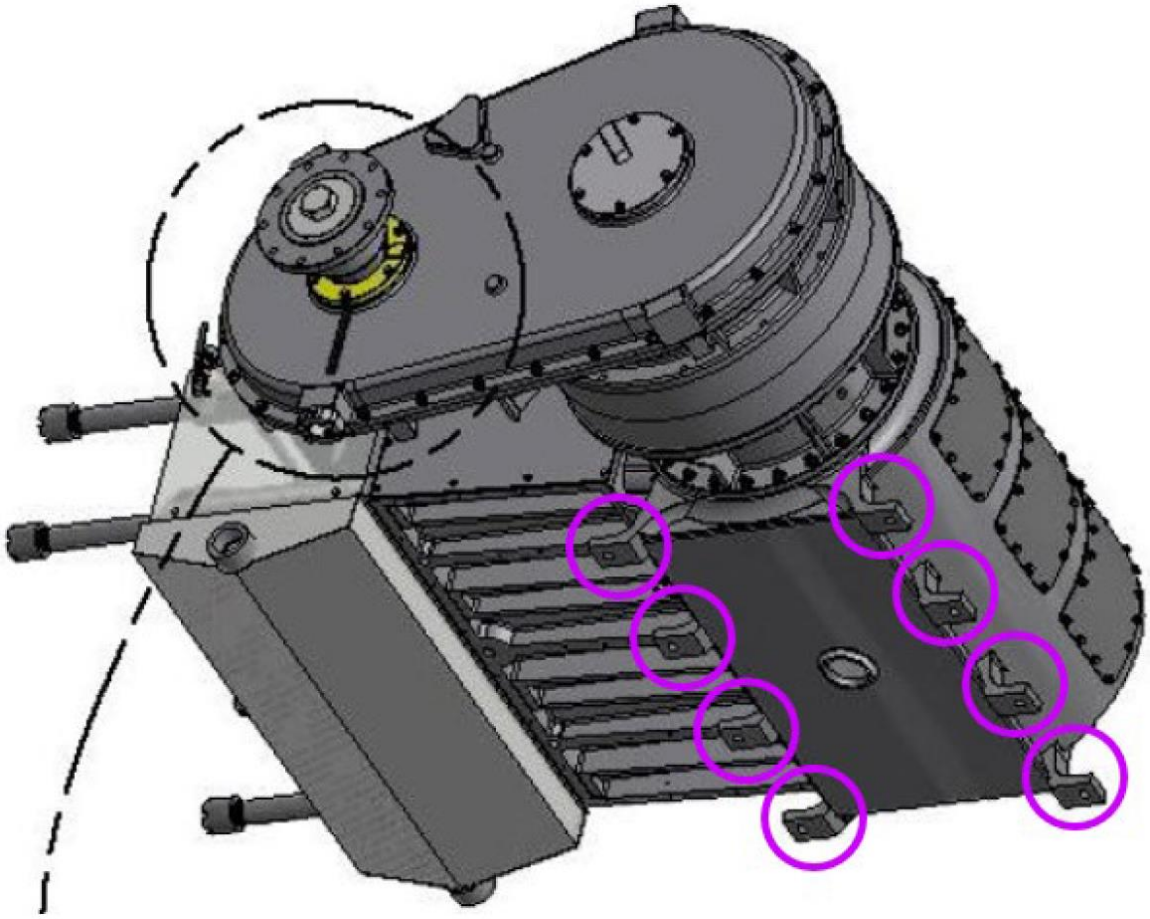
The Figure above is a cross-sectional elevation view illustrating the pump assembly with the power end on the left with middle plate (orange) having

two feet (purple) connected to the lower portion of the middle plate. *Id.* (citing Ex. 1003, 10; Ex. 1002 ¶ 104).

Patent Owner contends that Petitioner's reliance on the Figure reproduced above fails to establish that Maverick describes "middle plates having at least one foot." Prelim. Resp. 21–27. Patent Owner contends that Section C-C fails to provide enough information to "determine how the feet are attached and if they are attached or integrally connected to plates." *Id.* at 24. We identify two problems with Patent Owner's contention.

First, the claims do not recite a particular type or degree of attachment between each middle plate and its feet. Rather, the claim recites "the middle plates each having at least one foot." Ex. 1001, 21:41–42. At this stage, we understand this phrase broadly to encompass a mechanical connection between the middle plate and the foot. The Specification is consistent with our understanding when it explains: "In the embodiment illustrated in FIG. 2B, the feet 52 are integrally formed on segments 42, 44 and 46; however, it should be understood that in other embodiments, the feet 52 are separately attachable to the segments 42, 44 and/or 46." *Id.* at 5:63–67. The parties are encouraged to explicitly address at trial the meaning of "the middle plates each having at least one foot" and "the end plates each having at least a pair of feet."

Second, Petitioner relies upon more than Section C-C to establish the mechanical relationship between the middle plates and their respective feet; Petitioner also relies on the annotated Figure reproduced below.



The figure above is a perspective view from below of the pump assembly described in Maverick with Petitioner circling four pairs of feet in purple with one pair for each of two end plates and one pair for each of two middle plates. Pet. 38–39 (citing Ex. 1003, 24, 26; Ex. 1002 ¶¶ 104–105). The symmetry of the spacing between the end plates and the middle plates that is evident in Section B-B along with the same spacing shown in the figure above persuade us that Petitioner has demonstrated a reasonable likelihood of establishing the Maverick describes "middle plates having at least one foot."

2. Limitation 1.2

Limitation 1.2 refers to "a base having a pair of side segments including a top wall, a bottom wall, and a sidewall extending between the

top and bottom walls forming a c-shaped channel" as recited in claim 1. Ex. 1001, 22:8–10. Petitioner identifies the claimed "base" as Rambin's modular skid structure for supporting pumps that are constructed of I-beam type structural elements 120, 122, 124 and shown in its Figures 9 and 10. Pet. 46–48 (citing Ex. 1004, Abstract, 8:68–9:13, 9:27–41, Figs. 9, 10; Ex. 1002 ¶ 110). The laterally outward facing portions of Rambin's I-beams define a "C-shaped channel." *Id*. at 48 (citing Ex. 1004, 9:27–33, Figs. 9, 10; Ex. 1026, 8, 15–16, 19–20; Ex. 1002 ¶ 117).

Patent Owner does not currently contest Petitioner's showing that Rambin describes a base, but rather argues that an ordinarily skilled artisan would not have been motivated to combine teachings from Maverick and Rambin to arrive at the claimed skid. Prelim. Resp. 32–35. Patent Owner advances two reasons supporting its argument, neither of which is persuasive at this stage of the proceeding.

First, Patent Owner argues that an ordinarily skilled artisan would not look to Rambin to design a skid for Maverick's standalone pump because Rambin describes a modular base for "an assembly of multiple pumps." *Id*. at 32. Patent Owner further contends that, because the claims are "not directed to a modular system design like Rambin" but rather are directed to a "unified pump (focusing on the power end) and its supporting skid," Petitioner's proposed combination of Maverick and Rambin "would not have achieved the claimed invention." *Id*. at 32–33. We discern no such limitation in the claim language and Patent Owner identifies no specific language in the claim justifying such an interpretation that the claim precludes a base with "modular" characteristics.

Second, Patent Owner argues that an ordinarily skilled artisan would not have been motivated to mount Maverick's pump on Rambin's base because Maverick's "pump would need to be rotated 90 degrees from the orientation of the pump intended to be used with Rambin." *Id*. at 33. Patent Owner also contends that Rambin's base would require modification that "contradicts" Rambin's suggestion that it was "especially desirable to mount two engines and two pumps on a skid" to provide redundancy on a drill site. *Id*. at 33–34 (citing Ex. 1004, 1:34–41). We find Patent Owner's argument unpersuasive at this stage. "The test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference . . . . Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art." *In re Keller*, 642 F.2d 413, 425 (CCPA 1981) (citations omitted). Petitioner persuasively demonstrates that an ordinarily skilled artisan would have been motivated to mount Maverick's pump on Rambin's modular base with a reasonable expectation of success to ease transport and placement on a job site and that adjusting details of the base structure to provide the required support would have been well within the level of skill. Pet. 8–13, 46–48 (citing Ex. 1004, 1:23–26, 1:42–54, 3:8–14, 6:53–60, 7:41–55, 9:27–33, 9:48–65, Figs. 1, 4, 9, 10, 11; Ex. 1017, 1:26–29, 4:67–5:6, Ex. 1022, 4:56–62, 5:24–34, 6:45–57, Fig. 2; Ex. 1028, 2, 4; Ex. 1030, 21; Ex. 1002 ¶¶ 57–65, 115–117).

Based on our review of the current record, we find that Petitioner has demonstrated a reasonable likelihood of proving that an ordinarily skilled artisan would have been motivated to mount Maverick's pump to Rambin's base and would have had a reasonable expectation of succeeding in doing so.

3. Limitation 1.3

Limitation 1.3 refers to the following text from claim 1: "at least one transverse segment coupled to and extending between the pair of side segments." Ex. 1001, 22:11–12. Petitioner identifies Rambin's skid base as describing the transverse segments of limitation 1.3. Pet. 48 (citing Ex. 1002 ¶ 118 and cross-referencing Pet. 8–17 and supporting evidence). Patent Owner does not contest Petitioner's showing that Rambin describes limitation 1.3. *See* Prelim. Resp. 22–32 (addressing only limitations 1.1 and 1.5 as not being described by the asserted prior art). Based on our review of Petitioner's argument and the cited evidence, we find that Petitioner has demonstrated a reasonable likelihood of proving that an ordinarily skilled artisan would have been motivated to mount Maverick's pump to Rambin's base, which describes limitation 1.3, and would have had a reasonable expectation of succeeding in doing so.

4. Limitation 1.4

Limitation 1.4 refers to the following text from claim 1: "a plurality of spaced apart gussets disposed within the channels, the gussets extending between and connecting to the bottom wall and the top wall of the c-shaped channel." Ex. 1001, 22:13–16. Petitioner identifies Ojalvo as describing the gussets disposed within the channels as set forth in limitation 1.4. Pet. 49–51 (citing Ex. 1006, Abstract, 1:5–13, 2:19–21, 2:51–54, 3:2–20, Figs. 1, 2; Ex. 1002 ¶¶ 119–120). Petitioner also argues that it would have been obvious to use stiffeners as taught by Ojalvo in a skid structure like Rambin as modified by Marran to support Maverick's pump based on the requirements of the load imposed by the pump and would have reasonably expected success in doing so. *Id*. at 51–54 (citing Ex. 1009, 1:31–36, 1:54–

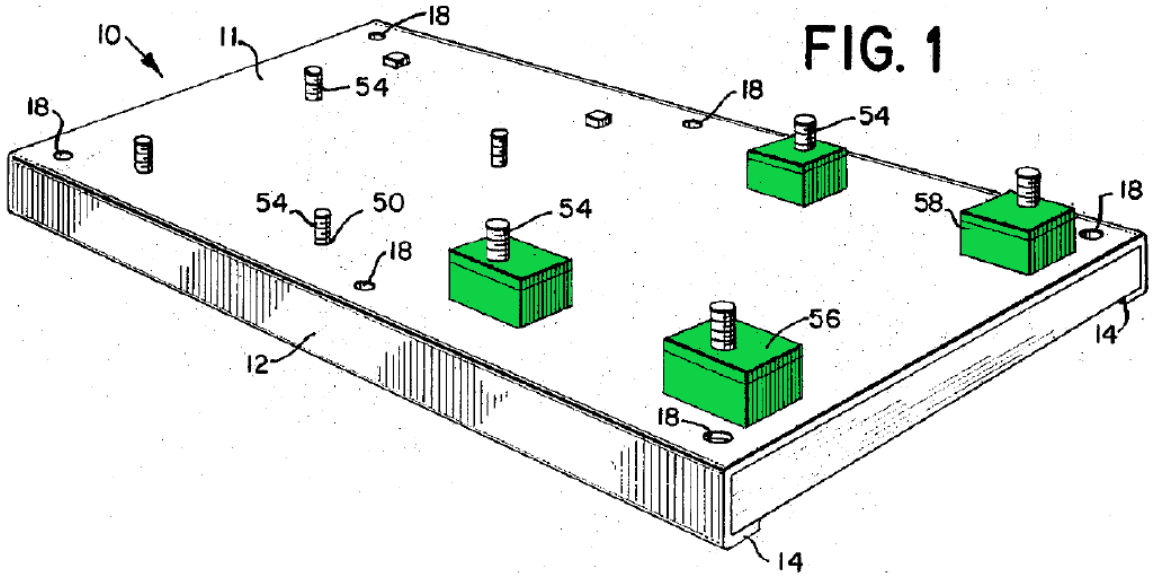
59, 2:6–19; Ex. 1026, 27; Ex. 1027, 6–8; Ex. 1028, 6, 8, Figs. 4, 8; Ex. 1029, 12, Fig. 23; Ex. 1030, 21; Ex. 1002 ¶¶ 120–125).

Patent Owner does not contest Petitioner's showing that Ojalvo describes limitation 1.4 or that an ordinarily skilled artisan would have been motivated to incorporate gussets described by Ojalvo into Rambin's base with Marran's pad for supporting Maverick's pump. *See* Prelim. Resp. 22–39 (addressing only limitations 1.1 and 1.5 as not being described by the asserted prior art and motivations to combine Maverick with Rambin and Marran). Based on our review of Petitioner's argument and the cited evidence, we find that Petitioner has demonstrated a reasonable likelihood of proving that an ordinarily skilled artisan would have been motivated to mount Maverick's pump to Rambin's base as modified to include Ojalvo's gussets and would have had a reasonable expectation of succeeding in doing so.

5. Limitation 1.5

Limitation 1.5 refers to the following text from claim 1: "a plurality of spaced apart pads extending from the base, the plurality of pads corresponding to the end plate feet and at least another portion of the plurality of pads corresponding to the at least one foot of each middle plate." Ex. 1001, 22:17–21. Petitioner contends that Maverick includes holes in each of the feet of its power end housing that an ordinarily skilled artisan would have understood to be used to attach Maverick's power end to a base or skid using fasteners like bolts. Pet. 54–55 (citing Ex. 1003, 26; Ex. 1002 ¶ 126). Petitioner recognizes, however, that Maverick does not expressly describe the base or the specific structures for mounting the power end to a base. *Id*. Petitioner identifies Marran as describing a "universal support

base for pumps" that includes shims 56 and pads 58 "when the load to be supported on the base requires a critical height control." *Id*. at 55–56 (citing Ex. 1005, 1:29–30, 3:26–34; Ex. 1002 ¶¶ 127–130). Marran's pads 58 and shims 56 on its support base 10 are colorized in green in the annotated version of Marran's Figure 1 from the Petition (reproduced below).



Marran's Figure 1 is a perspective view of an assembled support base configured to receive equipment such as pumps. Ex. 1005, 1:54–57, 2:22–23. Marran describes the purpose of shims 56 and pads 58 as follows:

> The set of retaining bolts on the right-hand side of the plate have shim members 56 and pads 58 positioned thereon. This construction is used when the load to be supported on the base requires a critical height control. It is to be noted that the shims can be dimensioned to very close tolerances so that the precise height of the equipment can accurately be determined.

Ex. 1005, 3:28–34. Petitioner argues that an ordinarily skilled artisan would have been motivated to incorporate Marran's pads as the mounting mechanism for Maverick's pump on Rambin's base to ensure precise vertical alignment between Maverick's drive shaft of its power end and the output shaft of the engine acting as the prime mover of the power end to

increase the life span of the components and assure smooth operation. Pet. 57–59 (citing Ex. 1004, 6:53–60, 8:62–9:13, Figs. 1, 2; Ex. 1012, 5; Ex. 1017, 1:26–29; Ex. 1030, 21; Ex. 1002 ¶¶ 131–133); *see also* Pet. 17–23 (addressing known principles of pump mounting and shaft alignment).

Patent Owner contends that Marran fails to describe the claimed pads because "at most, Marran discloses that pads or shims can be used to mount the four corners of a pump or other machine to a base." Prelim. Resp. 28. Patent Owner unpersuasively implies that Petitioner must establish that Marran's precise structure be bodily incorporated with Maverick's pump assembly to prove obviousness. It is apparent from our review, that Marran describes a base that is universally adaptable to accommodate as many mounting locations as needed positioned anywhere on its top surface 11, Ex. 1005, 2:1–16, and describes using at least one pad per mounting location along with an optional shim to precisely control the height of the device mounted to its base, *id*. at 3:28–34. We find at this stage that Petitioner has sufficiently demonstrated that Marran suggests using a combination of a pad and optionally a shim under every mounting point (i.e., foot) of a pump to be mounted on Marran's top surface 11 of base 10.

Patent Owner also argues that Petitioner's argument fails because Maverick's operating manual teaches away from the "claimed limitation" by suggesting that shims need not be used for all feet. Prelim. Resp. 29. Patent Owner's argument is unpersuasive for a few reasons. First, Petitioner relies upon Marran, not Maverick (or the operating manual for the Gardner Denver pump) as suggesting limitation 1.5. Pet. 55–56. Second, claim 1 does not recite or require shims, so the absence of a suggestion or any "teaching away" of using a shim on every foot is not relevant to limitation 1.5.

Patent Owner also argues that Marran's pads serve a different purpose from those recited in limitation 1.5. Prelim. Resp. 30–31. More specifically, Patent Owner contends that Marran describes using pads to "bring the object surfaces into physical contact if there is a gap and/or adjust the height of one object relative to the other," but the '037 patent describes using pads to "support an object and reduce vibrations transferred from one object to another at the mounting location." *Id*. at 31 (citing Ex. 2001 ¶¶ 65, 67). Patent Owner cites testimony from Dr. Morse in support of its argument, which we find to be insufficiently supported by objective evidence. Dr. Morse cites no portion of Marran and only one portion of the '037 patent that describes using feet to "reduce 'rocking', vibration, deformation, and other unwanted movement" to opine that the pads in the '037 patent "are not for height control in the way that is taught in Marran." Ex. 2001 ¶ 67 (citing IPR2022-00882, Ex. 1001, 18:37–41). However, Dr. Morse ignores that the Specification describes an arrangement in which "feet 52 on segments 42, 44 and 46 are machined so as to lie on the same plane" and "each pad 516-528 is the same thickness and shims are used to fill any gap between the foot 52 and the pads 516-528." Ex. 1001, 19:5–26. We discern no material difference between this arrangement of pads and shims described in the '037 patent and Marran. Moreover, we discern no requirement recited in the claims and Patent Owner has identified no requirement that limits the use of pads to "vibration control."

Based on our review of the record at this stage of the proceeding, we find that Petitioner has demonstrated a reasonable likelihood of proving that an ordinarily skilled artisan would have been motivated to mount

Maverick's pump to Rambin's base using Marran's pads and would have had a reasonable expectation of succeeding in doing so.

6. Summary

For all the reasons expressed above, we conclude that Petitioner has demonstrated a reasonable likelihood of proving that the combined teachings of Maverick, Rambin, Marran, and Ojalvo render claim 1 unpatentable as obvious.

IV. CONCLUSION

For the reasons expressed above, we determine that Petitioner has demonstrated a reasonable likelihood of showing that claim 1 of the '037 patent is unpatentable as obvious. In accordance with the Court's decision in *SAS Institute, Inc. v. Iancu*, 138 S. Ct. 1348, 1359–60 (2018) and 37 C.F.R. § 42.108(a), we institute an *inter partes* review of all challenged claims of the '037 patent on all grounds alleged by Petitioner.

Patent Owner also proffers arguments that dependent claims 2, 11, and 12 remain patentable. Prelim. Resp. 39–40. We currently express no opinion regarding the merits of Petitioner's challenge to claims 2, 11, and 12. Petitioner's showing for claim 1 warrants institution of *inter partes* review. Nevertheless, this Decision does not reflect a final determination on the patentability of any claim. We further note that the burden remains on Petitioner to prove unpatentability of each challenged claim. *Dynamic Drinkware, LLC v. Nat'l Graphics, Inc.*, 800 F.3d 1375, 1378 (Fed. Cir. 2015).

V. ORDER

For the reasons given, it is:

ORDERED that *inter partes* review is instituted of claims 1–3, 7–12, 14, and 16–20 of U.S. Patent No. 10,520,037 B2 with respect to all grounds set forth in the Petition; and

FURTHER ORDERED that pursuant to 35 U.S.C. § 314(a), *inter partes* review of U.S. Patent No. 10,520,037 B2 is instituted commencing on the entry date of this Order, and pursuant to 35 U.S.C. § 314(c) and 37 C.F.R. § 42.4, notice is given of the institution of a trial.

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