

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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HARBOR FREIGHT TOOLS USA, INC.,  
GENERAC POWER SYSTEMS, INC., and  
MWE INVESTMENTS, LLC,  
Petitioner,

v.

CHAMPION POWER EQUIPMENT, INC.,  
Patent Owner.

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IPR2025-00805  
Patent 10,393,034 B2

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Before JON M. JURGOVAN, SCOTT C. MOORE, and  
ERIC C. JESCHKE, *Administrative Patent Judges*.

JESCHKE, *Administrative Patent Judge*.

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

## I. BACKGROUND

Harbor Freight Tools USA, Inc., Generac Power Systems, Inc., and MWE Investments, LLC (collectively, “Petitioner”) filed a Petition to institute *inter partes* review of claims 1–24 of U.S. Patent No. 10,393,034 B2 (Ex. 1001, “the challenged patent”). Paper 4 (“Pet.”). Champion Power Equipment, Inc. (“Patent Owner”) timely filed a Preliminary Response. Paper 12 (“Prelim. Resp.”). With our authorization (Ex. 3002), Petitioner filed a Preliminary Reply (Paper 15, “Prelim. Reply”) and Patent Owner filed a Preliminary Sur-reply (Paper 21, “Prelim. Sur-reply”).

Under the process applied at the time of filing of the Petition, decisions on whether to institute post-grant review were bifurcated between (1) discretionary considerations and (2) merits and other non-discretionary considerations. *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”) at 1. Patent Owner argued for discretionary denial (Paper 8), and Petitioner opposed (Paper 14). After reviewing the briefing, the Acting Director declined to deny *inter partes* review based on discretionary considerations and referred the proceeding to this panel. Paper 20.

The Board has authority to determine whether to institute *inter partes* review. *See* 35 U.S.C. § 314; 37 C.F.R. § 42.4(a) (2024) (“The Board institutes the trial on behalf of the Director.”). *Inter partes* review may not be instituted “unless . . . the information presented in the petition . . . 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. Upon consideration of the evidence and arguments in the record, for the reasons below, we determine that the information presented shows a reasonable likelihood that Petitioner would prevail with respect to at least one of the challenged claims. We thus institute *inter partes* 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. § 42.108(a) (“When instituting *inter partes* 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 numerous district court litigations and Board proceedings involving the challenged patent and/or several allegedly related patents. *See* Pet. 110–111; Paper 5 (Patent Owner’s Mandatory Notices) at 2; Paper 19 (Patent Owner’s Updated Mandatory Notices) at 2–3; Paper 23 (Patent Owner’s Updated Mandatory Notices) at 2–3. The table below summarizes the related proceedings (and includes this proceeding).

	Challenged Patent	US 10,221,780	US 10,598,101	US 10,697,398	US 11,143,120	US 11,143,145	US 11,306,667	US 11,492,985	US 11,530,654	US 11,761,390	US 11,840,970	US 11,905,895	US 11,905,896
<i>Champion Power Equip. Inc. v. Firman Power Equip. Inc.</i> , No. 23-cv-02371-DWL (D. Ariz.), filed Nov. 10, 2023	X	X	X	X	X	X	X	X	X	X	X	X	X
<i>Champion Power Equip. Inc. v. Generac Power Sys. Inc.</i> , No. 24-cv-01281-LA (E.D. Wis.), filed Oct. 9, 2024		X	X	X	X	X	X	X	X		X	X	X

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<i>Harbor Freight Tools USA, Inc. v. Champion Power Equip., Inc.</i> , No. 24-cv-08722-SVW (C.D. Cal.), filed Oct. 9, 2024 <sup>1</sup>	X	X	X	X	X	X	X	X	X	X	X	X	X	X
<i>Champion Power Equip. Inc. v. Harbor Freight Tools USA Inc.</i> , No. 24-cv-01302-PP (E.D. Wis.), dismissed April 29, 2025	X	X	X	X	X	X	X	X	X	X	X	X	X	X
<i>Champion Power Equip., Inc. v. Westinghouse Elec. Corp.</i> , No. 25-cv-00239-ART-CLB (D. Nev.), filed May 14, 2025	X	X	X	X	X	X	X	X					X	X
IPR2025-00805 (PTAB)	X													
IPR2025-00951 (PTAB)			X											
IPR2025-01099 (PTAB)							X							
IPR2025-01121 (PTAB)					X									
IPR2025-01185 (PTAB)		X												
IPR2025-01228 (PTAB)														X
IPR2025-01271 (PTAB)				X										
IPR2025-01272 (PTAB)								X						
IPR2025-01384 (PTAB)													X	
IPR2025-01423 (PTAB)									X					
IPR2025-01438 (PTAB)										X				
IPR2025-01457 (PTAB)						X								
IPR2025-01463 (PTAB)											X			

*B. The Challenged Patent*

The challenged patent relates “to an apparatus and method for delivering liquid fuel and gaseous fuel to a generator driven by a multi-fuel internal combustion engine.” Ex. 1001, 1:16–20. According to the challenged patent, “a common problem with . . . configurations that couple two fuel sources to a single fuel inlet, such as a carburetor, of an engine is

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<sup>1</sup> We will refer to this as the “California Litigation.”

that during cross-over switching between the fuel sources the engine can experience overly rich air-fuel ratio.” *Id.* at 1:60–64.

Figure 1 is reproduced below:

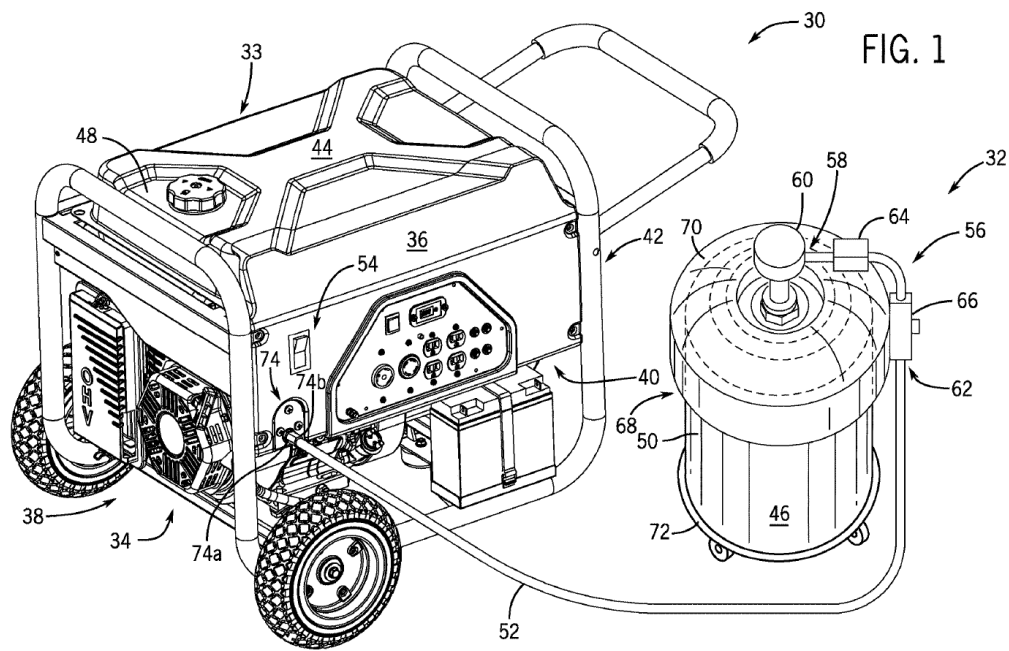


Figure 1 depicts “a perspective view of a multi-fuel generator coupled to a fuel delivery system.” Ex. 1001, 3:2–4. In this embodiment, dual-fuel generator 30 (which includes dual-fuel internal combustion engine 34 within housing 36) is coupled to two fuel delivery systems, 32 and 33. *See id.* at 3:35–41. As shown, “first fuel source 44 is a liquid fuel and second fuel source 46 is a gaseous fuel.”<sup>2</sup> *Id.* at 3:43–45. The challenged patent discloses that, “[i]n one preferred embodiment, the liquid fuel is gasoline and the gaseous fuel is liquid petroleum gas (LPG)” and “[a]n operator can selectively operate the generator on either fuel as desired.” *Id.* at 3:45–48. Gasoline tank 48 provides gasoline to a first fuel line and pressurized fuel

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<sup>2</sup> In this Decision, we omit emphasis on reference numerals and claim numbers in quotations from the challenged patent and prior art references.

container 50 provides LPG (via LPG supply hose 52) to a second fuel line. *See id.* at 3:63–4:5. With electrical fuel switch 54, a user can select the desired fuel for the engine. *See id.* at 4:5–6.

Figure 2 is reproduced below:

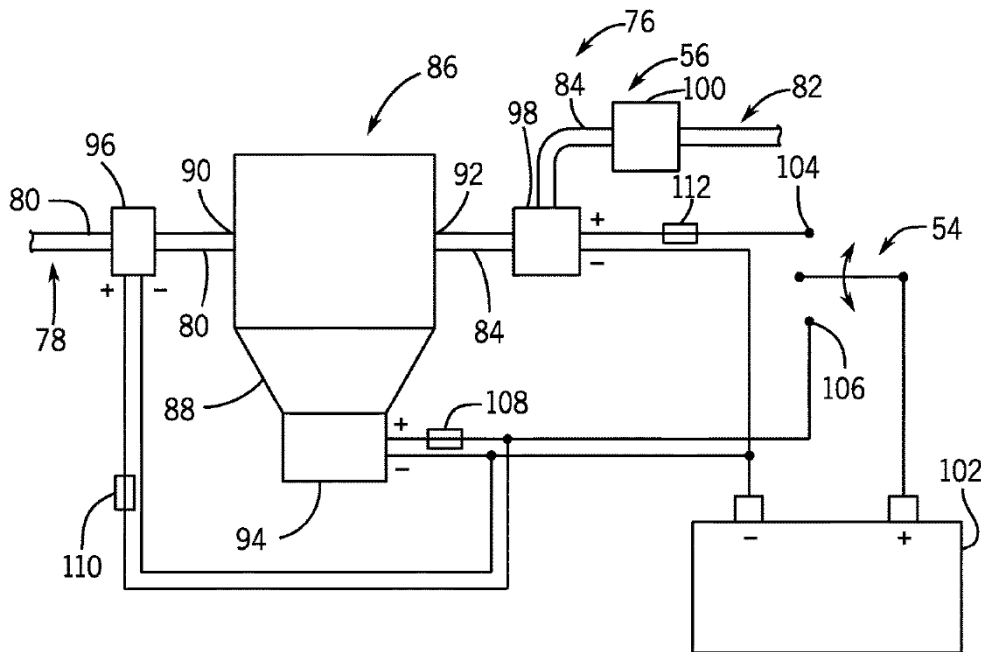


FIG. 2

Figure 2 depicts a schematic diagram of the fuel system for the multi-fuel generator in Figure 1, configured in a bi-fuel arrangement. Ex. 1001, 3:5–7. The depicted embodiment includes carburetor 86, which is “coupled to an intake of the engine to mix air and fuel and connect to liquid fuel line 80 and gaseous fuel line 84.” *Id.* at 5:47–50. Carburetor 86 includes (1) “a mixing passage or throat with an inlet for air and an outlet for the air-fuel mixture,” (2) “a liquid fuel inlet 90 coupled to liquid fuel line 80,” and (3) a gaseous fuel inlet 92. *Id.* at 5:50–55. The depicted fuel system also includes “an electro-mechanical valve system 76 that includes a carburetor cutoff solenoid 94, gasoline cutoff solenoid 96, and a[n] LPG cutoff solenoid 98.” *Id.* at 5:32–35. Valve system 76 is “coupled to a multi-fuel internal

combustion engine configured to operate on a liquid fuel supplied from a liquid fuel source 78 through a liquid fuel line 80, and a gaseous fuel supplied from a gaseous fuel source 82, or a pressurized fuel source, through a gaseous fuel line 84.” *Id.* at 5:35–41. According to the challenged patent, “[i]n an exemplary embodiment of the invention, the dual fuel engine operates on gasoline from liquid fuel source 78 and LPG from gaseous fuel source 82.” *Id.* at 5:44–46. Electrical switch 54 “provide[s] a one-touch fuel selector to switch engine operation between fuels.” *Id.* at 6:37–42.

### *C. The Challenged Claims*

Petitioner challenges claims 1–24, of which claims 1, 11, and 18 are independent. Claims 2–10 depend from claim 1; claims 12–17 depend from claim 11; and claims 19–24 depend from claim 18. Independent claim 1 is reproduced below, reformatted from the version provided in the challenged patent and with bracketed labels added to identify each clause:

1. [1.0] A multi-fuel engine comprising:
  - [1.1] an engine operable on a liquid fuel and a gaseous fuel;
  - [1.2] a carburetor attached to an intake of the engine to mix air and fuel and connect a liquid fuel source to the intake, the carburetor comprising a float bowl;
  - [1.3] a liquid cutoff solenoid coupled to the carburetor to open and close a liquid fuel path to the engine downstream from the float bowl;
  - [1.4] a gaseous cutoff coupled to open and close a gaseous fuel source to the engine; and
  - [1.5] a switch selectively coupling a power source to the liquid cutoff solenoid to open and close the liquid fuel path.

Ex. 1001, 13:35–46.<sup>3</sup>

*D. Asserted Grounds of Unpatentability*

Petitioner challenges claims 1–24 on the following grounds:

<b>Claim(s) Challenged</b>	<b>35 U.S.C. §<sup>4</sup></b>	<b>Reference(s)/Basis</b>
1–3, 5–9, 18	103	Nakafushi, <sup>5</sup> Olmr <sup>6</sup>
4, 10	103	Nakafushi, Olmr, Duffy <sup>7</sup>
19–23	103	Nakafushi, Olmr, Bernhardsson, <sup>8</sup> Duffy <sup>9</sup>

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<sup>3</sup> We adopt and apply below Petitioner’s labels for the elements of the challenged claims. *See* Pet. viii–xii (showing labels for the language in the challenged claims).

<sup>4</sup> 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.

<sup>5</sup> Japan Patent Office Publication S61-283734, published December 13, 1986 (Ex. 1004 (Japanese version) and Ex. 1005 (translation with certification), “Nakafushi”).

<sup>6</sup> United States Patent US 5,301,644, issued April 12, 1994 (Ex. 1007, “Olmr”).

<sup>7</sup> James E. Duffy & Howard Bud Smith, *Auto Fuel Systems* (1987) (Ex. 1016, “Duffy”).

<sup>8</sup> United States Patent US 4,372,276, issued February 8, 1983 (Ex. 1008, “Bernhardsson”).

<sup>9</sup> Petitioner characterizes this ground as “Nakafushi in view of Olmr and Bernhardsson and/or Duffy.” Pet. 1.

Claim(s) Challenged	35 U.S.C. § <sup>4</sup>	Reference(s)/Basis
11–13, 16, 17	103	Nakafushi, Jungmann, <sup>10</sup> Parlatore <sup>11</sup>
14, 15, 24	103	Nakafushi, Jungmann, Parlatore, Olmr, Bernhardsson <sup>12</sup>
1–3, 5–9, 11–14, 17–20, 22, 23	102	Workshop Manual <sup>13</sup>
4	103	Workshop Manual, Duffy
16, 24	103	Workshop Manual, Parlatore, the Tri-Fuel Video <sup>14,15</sup>

Petitioner supports its challenges with a declaration from Dr. Timothy Morse. Ex. 1003 (“Morse Decl.”). Patent Owner provides the Declaration of Dr. William Singhose. Ex. 2078 (“Singhose Decl.”).

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<sup>10</sup> United States Published Patent Application US 2014/0239645 A1, published August 28, 2014 (Ex. 1011, “Jungmann”).

<sup>11</sup> United States Published Patent Application US 2011/0100335 A1, published May 5, 2011 (Ex. 1010, “Parlatore”).

<sup>12</sup> Petitioner characterizes this ground as “Nakafushi in view of Jungmann and Parlatore, with Olmr and/or Bernhardsson.” Pet. 1.

<sup>13</sup> Kubota Corporation, *Workshop Manual – Gasoline, LPG, Natural Gas Engine, WG972-E2, DF972-E2, DG972-E2* (February 2009) (Ex. 1012, the “Workshop Manual”).

<sup>14</sup> Video titled “Honda Generator Tri-Fuel, EU2000i Triple Fuel,” available at <https://www.youtube.com/watch?v=DpknaAPTQ9U> (Ex. 1021, “the Tri-Fuel Video”).

<sup>15</sup> Petitioner characterizes this ground as “Kubota DF972 Workshop Manual in view of Parlatore and/or the Tri-Fuel Video.” Pet. 2.

## II. DISCUSSION

### *A. 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, with accompanying declaration testimony, that a person of ordinary skill in the art at the time of the invention would have had “a college degree in mechanical engineering, physics, or related fields, and three years of work experience in combustion engines operating on various fuel sources.” Pet. 11 (citing Morse Decl. ¶¶ 31, 49, 50). According to Petitioner, “[a]dditional higher graduate education could substitute for work experience, and additional work experience/training could substitute for formal education.” *Id.* “For example, a person having significant experience servicing or operating dual-fuel combustion engines, or incorporating such engines into their finished products, would qualify” as a person of ordinary skill in the art, according to Petitioner. Pet. 11–12.

Patent Owner responds, also with accompanying declaration testimony, that one of ordinary skill in the art would have had “a four-year degree in mechanical engineering or a closely related field and at least one

year of experience designing, developing, servicing, or operating fuel-powered machinery” and that “[a]dditional education could substitute for professional experience and significant work experience—such as working with, servicing, or operating such machinery in the field—could substitute for formal education.” Prelim. Resp. 11 (citing Singhose Decl. ¶¶ 23–28). According to Patent Owner, Petitioner’s definition is “deficient” in that “Petitioner has failed to support its contention that an undergraduate physics degree is pertinent to the Challenged Claims, or that three years of work experience in combustion engines operating on various fuel sources is necessary.” *Id.* at 11–12.

For purposes of this Decision, we adopt the definition of the level of ordinary skill in the art proposed by Petitioner. As to the inclusion of physics in Petitioner’s definition, Dr. Singhose (a professor of mechanical engineering) testifies as to why undergraduate mechanical engineering degree holders *would* have the requisite knowledge here, but does not testify that undergraduate physics degree holders *would not*. *See* Singhose Decl. ¶¶ 2, 27, 28. In addition, Patent Owner and Dr. Singhose require “a four-year degree in mechanical engineering *or a closely related field*,” but fail to identify what fields are “closely related.” *See* Prelim. Resp. 11; Singhose Decl. ¶ 27. Based on the Morse Declaration, we are persuaded at this stage that a hypothetical undergraduate physics degree holder would have adequate knowledge for one of ordinary skill in the art of the invention here. *See* Morse Decl. ¶ 31.

As to the requisite years of experience proposed in the definitions—three for Petitioner versus “at least one” for Patent Owner—we note that

Patent Owner’s definition is broader than, but includes, Petitioner’s definition.

Moreover, for both the inclusion of physics and the years of experience issues, Patent Owner acknowledges that the arguments in the Preliminary Response “are not impacted based on which definition is applied.” Prelim. Resp. 12 (citing Singhose Decl. ¶¶ 30–34). Further, Patent Owner does not argue at this stage 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.

*B. Claim Construction*

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.

Petitioner does not propose express constructions for any claim terms. Pet. 12. Patent Owner also does not propose any express constructions. See Prelim. Resp. 12. On the current record, we need not construe explicitly any claim terms. 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)). As discussed below, however, the parties dispute the meaning of “gaseous fuel.” We address this issue below in the analysis of the challenge to claims 1–3, 5–9, and 18 based on Nakafushi and Olmr.

Although neither party proposes any express constructions, Patent Owner argues that the Petition should be denied because Petitioner allegedly identified two claim terms—“gaseous cutoff” and “coupled to”—as indefinite under 35 U.S.C. § 112(b) in the California Litigation, but Petitioner has not taken that position here. *See* Prelim. Resp. 12–14. According to Patent Owner, the Board’s informative decision in *Cambridge Mobile Telematics, Inc. v. Sfara, Inc.*, IPR2024-00952, Paper 12 (PTAB Dec. 13, 2024) (informative), supports denial. *See* Prelim. Resp. 12–14.

We disagree with Patent Owner’s argument. First, Patent Owner fails to provide any specific citations to Petitioner’s alleged indefiniteness arguments in the California Litigation. *See* Prelim. Resp. 12–13 & n.2 (citing Exs. 2017–2019). We have reviewed the cited filings in that Litigation and do not see any specific assertion of indefiniteness of “gaseous cutoff” and “coupled to.” *Cf.* Ex. 2019 at 19–21 (generally discussing an affirmative defense of invalidity, including under 35 U.S.C. § 112).

Moreover, the decision in *Cambridge Mobile* does not support denial even assuming the facts alleged by Patent Owner. As an initial matter, an informative decision (such as *Cambridge Mobile*) is not binding authority. *See* Standard Operating Procedure 2 (Revision 11) (Designation or De-

Designation of Decisions as Precedential or Informative)<sup>16</sup> at 7 (“Informative decisions set forth Board norms that should be followed in most cases, absent justification, although *an informative decision is not binding authority on the Board.*”). Further, the facts in *Cambridge Mobile* differ from even those alleged here. There, the panel determined that the petitioner did not satisfy 37 C.F.R. § 42.104(b)(3) when the petitioner failed to provide a construction at the Board for claim phrases argued in district court litigation to be (1) means-plus-function limitations under 35 U.S.C. § 112(f) and (2) indefinite for failure to identify corresponding structure to perform the recited functions. *See Cambridge Mobile*, Paper 12 at 6–9. In the analysis, the panel noted the *express* requirement in Rule 104(b)(3) to construe means-plus-function limitations and highlighted how the petitioner characterized the construction of those limitations as a “dispositive issue” in the district court but failed to even address the issue at the Board. *See id.* at 5–8 (quoting 37 C.F.R. § 42.104(b)(3)); 37 C.F.R. § 42.104(b)(3) (“How the challenged claim is to be construed. Where the claim to be construed contains a means-plus-function or step-plus-function limitation as permitted under 35 U.S.C. [§] 112(f), the construction of the claim must identify the specific portions of the specification that describe the structure, material, or acts corresponding to each claimed function”).

In contrast, here, neither party has raised the issue of means-plus-function limitations, and Patent Owner has not identified applicable authority supporting denial merely because Petitioner (allegedly) argues indefiniteness of certain claim terms in district court and does not raise

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<sup>16</sup> Available at [https://www.uspto.gov/sites/default/files/documents/20230724\\_ptab\\_sop2\\_rev11\\_.pdf](https://www.uspto.gov/sites/default/files/documents/20230724_ptab_sop2_rev11_.pdf).

similar arguments in this proceeding—especially when such arguments are not even available in *inter partes* reviews. *See* 35 U.S.C. § 311(b) (providing that a petitioner in an *inter partes* review may challenge the claims of a patent “*only* on the basis of prior art consisting of patents or printed publications” (emphasis added)). For these reasons, we do not deny institution based on this argument.

*C. Patent Owner’s Arguments Under 35 U.S.C. § 325(d)*

In the Preliminary Response, Patent Owner contends that Petitioner’s unpatentability arguments presented in this proceeding were previously considered by the USPTO. *See* Prelim. Resp. 31–33. In her decision referring this matter to the Board, then-Acting Director Stewart rejected that argument. *See* Paper 20 at 2–3 (discussing why “Petitioner provides persuasive reasoning, supported by evidence, that discretionary denial under 35 U.S.C. § 325(d) is not appropriate”); *see also* Prelim. Resp. 31–33 (referring to and citing Patent Owner’s Discretionary Denial Brief (Paper 8)). We need not and do not address this issue further.

*D. Asserted Obviousness of Claims 1–3, 5–9, and 18 Based on Nakafushi and Olmr*

Petitioner asserts that claims 1–3, 5–9, and 18 would have been obvious based on Nakafushi and Olmr. Pet. 1, 27–46. Patent Owner provides arguments addressing this asserted ground. Prelim. Resp. 29–31. We first summarize aspects of the relied-upon prior art.

*1. Overview of Nakafushi*

Nakafushi discloses “a gasoline-LPG combined engine configured to selectively use gasoline or LPG as a fuel.” Ex. 1005 ¶ 1.

Figure 1 of Nakafushi is reproduced below:

**FIG. 1**

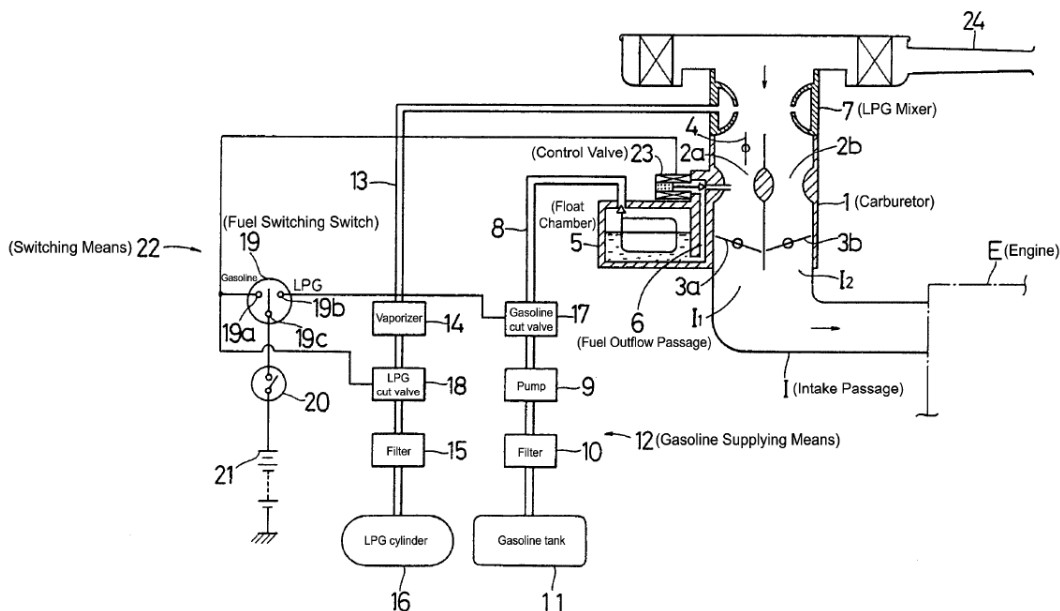


Figure 1 depicts a schematic diagram of an embodiment of a gasoline-LPG combined engine. *See* Ex. 1005 ¶ 20. The depicted embodiment includes carburetor 1 (with venturi portions 2a/2b) and intake passage I. *Id.* ¶ 10. Liquid gasoline in tank 11 is pumped (using pump 9) through gasoline supply passage 8, which is opened and closed by gasoline cut valve 17. *Id.* ¶¶ 12–13. Gasoline in float chamber 5 enters venturi portions 2a/2b through fuel outflow passage 6. *Id.* ¶ 10. Control valve 23 opens and closes fuel outflow passage 6 and thereby controls gasoline flow from float chamber 5 to intake I prior to entering engine E. *Id.* ¶ 14.

Turning to the LPG side of the system, LPG is stored in cylinder 16 in a liquid state and is sent via LPG supplying line 13 through filter 15 to vaporizer 14. Ex. 1005 ¶ 12. LPG cut valve 18 is “configured to close the LPG supplying passage 13 in response to a cut signal . . . provided in the LPG supplying passage 13 so as to intervene between the vaporizer 14 and

the filter 15.” *Id.* ¶ 13. Both gasoline cut valve 17 and LPG cut valve 18 are connected to two-pole switch 19 and switching means 22, provided to allow toggling the engine between use of LPG or gasoline. *Id.*

## 2. Overview of Olmr

Olmr discloses mechanisms for stopping the flow of fuel to an internal combustion engine. Ex. 1007, 1:7–9.

Figure 2 of Olmr is reproduced below:

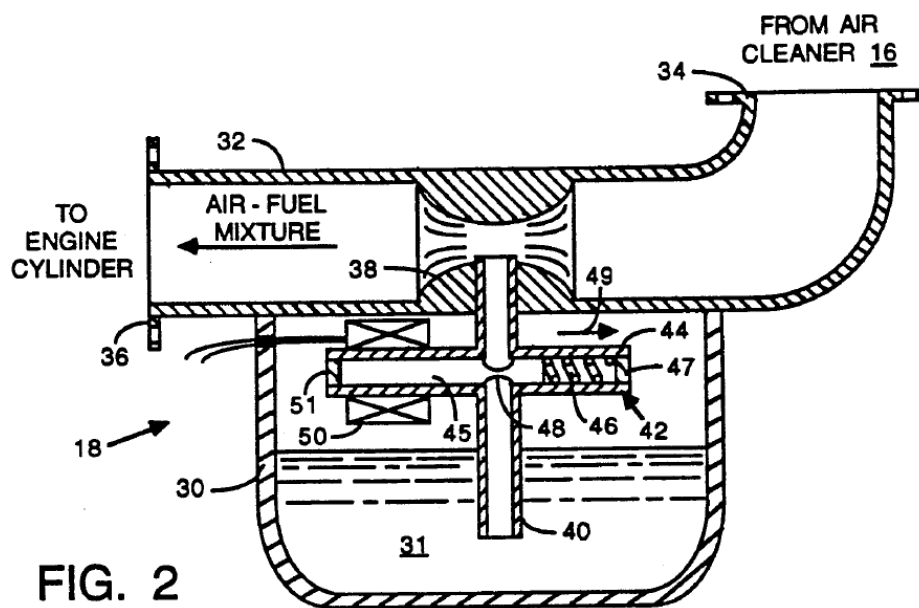


FIG. 2

Figure 2 depicts a cross-sectional view of a carburetor in an engine. Ex. 1007, 2:11–12. Depicted carburetor 18 includes float bowl 30 with gasoline 31. *Id.* at 2:30–32. Carburetor tube 32 includes conventional venturi 38. *Id.* at 2:35–37. Gasoline feed tube 40 “extends vertically from the venturi 38 downward into the gasoline 31 within bowl 30” and also “has a solenoid valve 42 located above the level of the gasoline 31 in the bowl 30 and so that fuel residue will not build up on the valve.” *Id.* at 2:37–42.

### 3. *Independent Claims 1 and 18*

For independent claims 1 and 18, Petitioner contends that the proposed combination of Nakafushi and Olmr discloses each limitation. Pet. 27–37, 44–46. 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.* Petitioner also articulates reasons to combine the relied-upon aspects of Nakafushi and Olmr. Pet. 31–34. Patent Owner argues that Nakafushi lacks the “gaseous fuel source” recited in claim 1 and the “gaseous fuel supplied through a gaseous fuel line from a pressurized fuel source” recited in claim 18. *See* Prelim. Resp. 29–31.<sup>17</sup>

We have reviewed Petitioner’s contentions with respect to claims 1 and 18, and for the reasons below, we determine that the Petition shows a reasonable likelihood that Petitioner would prevail in demonstrating that claims 1 and 18 would have been obvious based on Nakafushi and Olmr.

#### *a. The “Gaseous Fuel” Limitations*

For the “gaseous fuel source” in element 1.4 of claim 1, Petitioner identifies LPG supplying passage 13 in the Figure 1 embodiment of Nakafushi (shown above). *See* Pet. 34–35 (citing Morse Decl. ¶¶ 133–135). Specifically, Petitioner highlights Nakafushi’s disclosure that “LPG cut valve 18 [is] configured to *close the LPG supplying passage 13* in response to a cut signal (described later) provided in the LPG supplying passage 13 so

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<sup>17</sup> Independent claim 11 recites a “gaseous fuel supplied from a pressurized fuel source.” We will collectively refer to this limitation, along with the two limitations discussed above from claims 1 and 18, as the “gaseous fuel” limitations.

as to intervene between the vaporizer 14 and the filter 15” and then states “[c]ut valve 18’s function [as] opening and *closing the gaseous fuel source* to the engine.” Pet. 34 (emphasis added) (quoting Ex. 1005 ¶ 13).

As to the “gaseous fuel supplied through a gaseous fuel line from a pressurized fuel source” in element 18.1 of claim 18, Petitioner identifies (1) LPG as the “gaseous fuel,” (2) LPG supplying passage 13 as the “gaseous fuel line,” and (3) LPG cylinder 16 as the “pressurized fuel source.” Pet. 45 (citing Morse Decl. ¶¶ 177–178).

Patent Owner argues that Nakafushi does not disclose the “gaseous fuel” limitations in claims 1 and 18 because the LPG exits LPG cylinder 16 in a *liquid* state rather than a *gaseous* state. *See* Prelim. Resp. 29–31; Prelim. Sur-reply 1–5. Here, both Petitioner and Patent Owner agree that Nakafushi discloses LPG *in a liquid state* exiting cylinder 16, with vaporizer 14 converting the liquid LPG to gaseous LPG such that gaseous LPG is supplied to carburetor 1. *See* Prelim. Resp. 30; Prelim. Reply 3; Prelim. Sur-reply 2–3; Singhose Decl. ¶ 110. We agree with the parties. Thus, the analysis here turns on claim construction—whether the facts here fall inside or outside the scope of the limitations at issue. For the reasons below and on the current record, Patent Owner’s argument does not identify a deficiency in Petitioner’s positions as to the “gaseous fuel” limitations.

Starting with claim 1, Patent Owner states that Petitioner identifies Nakafushi’s LPG cylinder 16 as the recited “gaseous fuel source” and Patent Owner argues that “LPG cylinder 16 is a *liquid fuel source*, not a *gaseous fuel source*” because LPG exits cylinder 16 in a liquid state. Prelim. Resp. 29–30 (citing Singhose Decl. ¶¶ 108–111).

As an initial matter, contrary to Patent Owner’s assertion, Petitioner does not identify LPG cylinder 16 as the “gaseous fuel source.” Instead, as discussed above, Petitioner identifies LPG supplying passage 13 as the “gaseous fuel source.” *See* Pet. 34–35 (citing Morse Decl. ¶¶ 133–135). Thus, this argument does not address Petitioner’s position as to claim 1.

Turning to the merits, we first address one of Petitioner’s two claim construction arguments, in which Petitioner argues the claim phrase “gaseous fuel” *always* includes LPG, regardless of the state of the LPG at the time. As phrased by Petitioner, “the term ‘gaseous fuel’ refers to a fuel that is in gaseous form at normal temperature and pressure, such as LPG” and “[j]ust because LPG is pressurized and stored as a liquid for convenience does not convert it to a ‘liquid fuel.’” Prelim. Reply 5. In support, Petitioner highlights disclosures of the challenged patent allegedly identifying LPG as a “gaseous fuel” regardless of the LPG’s state. *See id.* at 1 (citing Ex. 1001, 1:43–49, 5:39–61, 6:27–36).

Patent Owner disagrees with this argument and contends it was waived because Petitioner did not raise it in the Petition. *See* Prelim. Sur-reply 5 (stating that “Petitioner wrongly infers all LPG tanks are gaseous fuel sources”); *id.* at 5 n.2 (asserting waiver).

We need not address this alternative claim construction argument (or whether it was waived) to reach a decision on institution because we are persuaded by Petitioner’s alternative claim construction argument (as discussed below) as to the scope of the “gaseous fuel” limitations. *See Realtime Data*, 912 F.3d at 1375.

Under Petitioner’s alternative claim construction position, the phrase “gaseous fuel source” does not require fuel in a gaseous state upon exiting a

storage container (as argued by Patent Owner); rather, that phrase merely requires fuel (such as LPG) in a gaseous state when entering the recited “engine” prior to combustion. *See* Pet. 34; Prelim. Reply 1, 3. Specifically, Petitioner contends that, in Nakafushi, the LPG is “stored under pressure as a liquid and is vaporized into gaseous form **before** being delivered to the engine’s carburetor” and thus, Nakafushi “disclose[s a] ‘source[.]’ for the[.] LPG gaseous fuel as required for claim 1.” Prelim. Reply 3.

The current record supports Petitioner’s alternative claim construction position, starting with the claim language. *See Phillips*, 415 F.3d at 1314 (“[T]he context in which a term is used in the asserted claim can be highly instructive.”). As noted by Petitioner, element 1.1 recites “an engine operable on a liquid fuel and gaseous fuel” and claim 1 does not preclude the “gaseous fuel” from being stored in a liquid state (or exiting storage in a liquid state) as long as gaseous fuel is provided “to the engine,” as recited in element 1.4. Prelim. Reply 1 (discussing how the challenged patent “is directed to engines operable on a liquid fuel and a gaseous fuel” (mentioning element 1.1) and stating that LPG is a “gaseous fuel,” in part, because it “is delivered to the engine carburetor as a gas”).

Turning to the Specification, Petitioner identifying a supply line containing LPG in a gaseous state (as LPG supplying passage 13 in Nakafushi does downstream of vaporizer 14) as the “gaseous fuel source” aligns with the discussion of Figure 2 (*see supra* § I.B), which describes such a supply line as “gaseous fuel source 82.” *See* Ex. 1001, 5:35–41; *see also* Prelim. Resp. 30 (acknowledging that Nakafushi discloses gaseous LPG downstream of vaporizer 14). Notably, the Figure 2 embodiment is merely a portion of the overall apparatus (specifically, the “fuel system” (*see*

Ex. 1001, 3:5–7)), with Figure 2 does depicting a storage container upstream of gaseous fuel source 82. In addition, the description of the Figure 2 embodiment makes clear that “gaseous fuel source 82” (i.e., the supply line with LPG in a gaseous state) is *in the alternative* to a “pressurized fuel source.” *See id.* at 5:39–41 (disclosing “gaseous fuel supplied from a gaseous fuel source 82, *or* a pressurized fuel source, through a gaseous fuel line 84” (emphasis added)). Given such disclosures, and at this stage of the proceeding, we will not exclude supply lines containing LPG in a gaseous state from the scope of the phrase “gaseous fuel source.” *See Oatey Co. v. IPS Corp.*, 514 F.3d 1271, 1277 (Fed. Cir. 2008) (“[W]here claims can reasonably [be] interpreted to include a specific embodiment, it is incorrect to construe the claims to exclude that embodiment, absent probative evidence on the contrary.”).

In response, Patent Owner highlights Figure 1, which (according to Patent Owner) “depicts a fuel source (46) which draws *gaseous* LPG from the *top* of the tank.” Prelim. Sur-reply 3 (citing Ex. 1001, Fig. 1; Prelim. Resp. 2–11, 14–20). Although correct as to the disclosure in Figure 1, Patent Owner improperly seeks to narrow the “gaseous fuel” limitations to require that the “gaseous fuel” exits a storage container in a gaseous state (as in the Figure 1 embodiment). *See Cadence Pharms. Inc. v. Exela PharmSci Inc.*, 780 F.3d 1364, 1369 (Fed. Cir. 2015) (“[E]ven if all of the embodiments discussed in the patent included a specific limitation, it would not be proper to import from the patent’s written description limitations that are not found in the claims themselves.” (internal quotations omitted)).

As argued by Petitioner, with this added requirement, Patent Owner “attempts to create a distinction regarding where the LPG gaseous fuel is

vaporized, i.e. in the LPG tank or in a vaporizer just outside the tank” when no such limitation is recited in the independent claims. Prelim. Reply 3. Moreover, Patent Owner responds to this position by Petitioner by highlighting the challenged patent’s description of Figure 2 as showing that “gaseous fuel” is “supplied from a gaseous fuel source 82, or pressurized fuel source,” but Patent Owner does not acknowledge or address that gaseous fuel source 82 in Figure 2 is a supply line (not a storage container). *See* Prelim. Sur-reply 3 (quoting Ex. 1001, 5:35–41). For these reasons, on the current record, we determine that Petitioner has made a sufficient showing that Nakafushi discloses the “gaseous fuel source” in claim 1.

We turn now to claim 18. Patent Owner proposes to construe the “gaseous fuel” limitation in that claim—“gaseous fuel supplied through a gaseous fuel line from a pressurized fuel source”—to require that the fuel exiting the “pressurized fuel source” be in a gaseous (rather than liquid) state (similar to the argument addressing claim 1). *See* Prelim. Resp. 31 (arguing that “Nakafushi does not disclose a gaseous fuel *supplied from* a pressurized fuel source because LPG cylinder 16 supplies liquid fuel, *not* gaseous fuel” (citing Singhose Decl. ¶ 114)). The record does not support Patent Owner’s proposed construction for claim 18.

For the same reasons discussed above as to claim 1, here, Patent Owner again “attempts to create a distinction regarding **where** the LPG gaseous fuel is vaporized, i.e. in the LPG tank or in a vaporizer just outside the tank” when no such limitation is recited in the independent claims. Prelim. Reply 3. If anything, claim 18 is clearer than claim 1 that the “gaseous fuel” exiting any potential storage container need not be in gaseous form given that claim 18 recites a “pressurized fuel source” rather than (for

example) a “gaseous fuel source” (like claim 1). For these reasons, and on the current record, Petitioner has made a sufficient showing that Nakafushi discloses the “gaseous fuel” limitations in independent claims 1 and 18.

*b. The Remaining Limitations*

Patent Owner does not offer any arguments specifically addressing the remaining limitations of claims 1 or 18. *See* Prelim. Resp. 29–31. 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 the combination of Nakafushi and Olmr satisfies each limitation and that one of ordinary skill in the art would have had reason to combine the prior art as proposed.

For the reasons above, we determine, based on the current record, that the Petition shows a reasonable likelihood that Petitioner would prevail in demonstrating that claims 1 and 18 would have been obvious based on Nakafushi and Olmr.

*4. Claims 2, 3, and 5–9*

For dependent claims 2, 3, and 5–9 (all of which depend from claim 1), Petitioner contends that the proposed combination of Nakafushi and Olmr satisfies each limitation. Pet. 37–44. Patent Owner does not present any arguments specifically addressing claims 2, 3, and 5–9. *See* Prelim. Resp. 29–31. We include claims 2, 3, and 5–9 in the context of this asserted ground in the instituted *inter partes* review. *See SAS*, 584 U.S. at 362–63, 369–70; 37 C.F.R. § 42.108(a).

*E. Asserted Obviousness of Claims 4 and 10 Based on Nakafushi, Olmr, and Duffy & Asserted Obviousness of Claims 19–23 Based on Nakafushi, Olmr, Bernhardsson, “and/or” Duffy*

Petitioner asserts that (1) claims 4 and 10 would have been obvious based on Nakafushi, Olmr, and Duffy and (2) claims 19–23 would have been obvious based on Nakafushi, Olmr, Bernhardsson, “and/or” Duffy. Pet. 46–53. Patent Owner does not present any arguments specifically addressing these grounds, but rather, relies on the same arguments presented as to the ground based on Nakafushi and Olmr. *See* Prelim. Resp. 29–31. We include these grounds in the instituted *inter partes* review. *See SAS*, 584 U.S. at 362–63, 369–70; 37 C.F.R. § 42.108(a).

*F. Asserted Obviousness of Claims 11–13, 16, and 17 Based on Nakafushi, Jungmann, and Parlatore*

Petitioner asserts that claims 11–13, 16, and 17 would have been obvious based on Nakafushi, Jungmann, and Parlatore. Pet. 1, 53–65. Patent Owner provides arguments addressing this asserted ground. Prelim. Resp. 29–31. In this asserted ground, Petitioner relies on Nakafushi (summarized above (*see* § II.D.1)) as well as Jungmann and Parlatore (the details of which are not relevant to the discussion here).

*1. Independent Claim 11*

For independent claim 11, Petitioner contends that the proposed combination of Nakafushi, Olmr, Bernhardsson “and/or” Duffy discloses each limitation. Pet. 53–63. 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.* Petitioner also articulates reasons to combine the relied-upon aspects of the prior art. *Id.* Patent Owner argues that Nakafushi lacks the “gaseous fuel” limitation

in claim 11—“gaseous fuel supplied from a pressurized fuel source.” *See* Prelim. Resp. 29–31; *see also supra* note 17 (referring to this as one of the “gaseous fuel” limitations in the independent claims at issue).

We have reviewed Petitioner’s contentions as to claim 11, and for the reasons below, we determine that the Petition shows a reasonable likelihood that Petitioner would prevail in demonstrating that claim 11 would have been obvious based on Nakafushi, Olmr, Bernhardsson “and/or” Duffy.

*a. The “Gaseous Fuel” Limitation*

In element 11.1, claim 11 recites “gaseous fuel supplied from a pressurized fuel source.” Ex. 1001, 14:23–25. For this, Petitioner refers to the discussion of element 18.1 in claim 18. *See* Pet. 55. Patent Owner responds with the arguments addressing claim 18, discussed above (*see* § II.D.3.a). *See* Prelim. Resp. 31; Prelim. Sur-reply 1–5.

For the same reasons discussed as to claim 18, on the current record, we determine that Petitioner has made a sufficient showing that Nakafushi discloses the “gaseous fuel” limitation in claim 11.

*b. The Remaining Limitations*

Patent Owner does not offer any arguments specifically addressing the remaining limitations of claim 11. *See* Prelim. Resp. 29–31. 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 the combination of Nakafushi, Olmr, Bernhardsson “and/or” Duffy satisfies each limitation and that one of ordinary skill in the art would have had reason to combine the prior art.

For the reasons above, we determine, based on the current record, that the Petition shows a reasonable likelihood that Petitioner would prevail in

demonstrating that claim 11 would have been obvious based on Nakafushi, Olmr, Bernhardsson “and/or” Duffy.

*2. Claims 12, 13, 16, and 17*

For dependent claims 12, 13, 16, and 17 (all of which depend from claim 11), Petitioner contends that the proposed combination of Nakafushi, Olmr, Bernhardsson “and/or” Duffy satisfies each limitation. Pet. 63–65. Patent Owner does not present any arguments specifically addressing claims 12, 13, 16, and 17. *See* Prelim. Resp. 29–31. We include claims 12, 13, 16, and 17 in the context of this asserted ground in the instituted *inter partes* review. *See SAS*, 584 U.S. at 362–63, 369–70; 37 C.F.R. § 42.108(a).

*G. Asserted Obviousness of Claims 14, 15, and 24 Based on Nakafushi, Jungmann, Parlatore, Olmr “and/or” Bernhardsson*

Petitioner asserts that claims 14, 15, and 24 would have been obvious based on Nakafushi, Jungmann, Parlatore, Olmr “and/or” Bernhardsson. Pet. 66–69. Patent Owner does not present any arguments specifically addressing this ground, but rather, relies on the same arguments presented as to the ground based on Nakafushi and Olmr. *See* Prelim. Resp. 29–31. We include this ground in the instituted *inter partes* review. *See SAS*, 584 U.S. at 362–63, 369–70; 37 C.F.R. § 42.108(a).

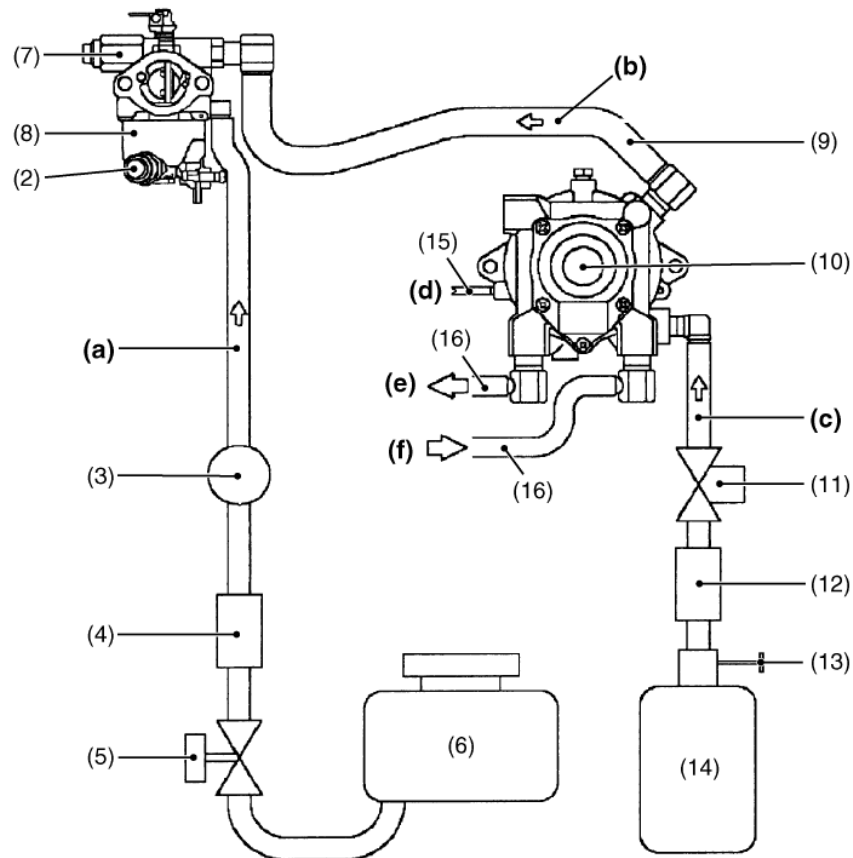
*H. Asserted Anticipation of Claims 1–3, 5–9, 11–14, 17–20, 22, and 23 by the Workshop Manual*

Petitioner asserts that claims 1–3, 5–9, 11–14, 17–20, 22, and 23 are anticipated by the Workshop Manual. Pet. 2, 69–105. Patent Owner provides arguments addressing this ground. Prelim. Resp. 26–28. We first summarize aspects of the relied-upon prior art.

1. Overview of the Workshop Manual

The Workshop Manual discloses a dual-fuel engine with an alternator acting as a generator, with the engine running on gasoline or LPG. See Ex. 1012 at 65.

A figure from the Workshop Manual is reproduced below:



Ex. 1012 at 65 (right portion). The figure shows the fuel system of a dual-fuel engine. See *id.* The depicted fuel system includes DF (dual-fuel) carburetor 8 with a gasoline side of the fuel system (generally on the left) and an LPG side of the fuel system (generally on the right). See *id.* at 8, 65. The gasoline side includes gasoline tank 6, fuel pump 3, fuel filter 4, and gasoline line a. See *id.* at 65. The LPG side includes LPG tank 14, vaporizer 10, liquid line c, and vapor line b. See *id.* Near carburetor 8, the

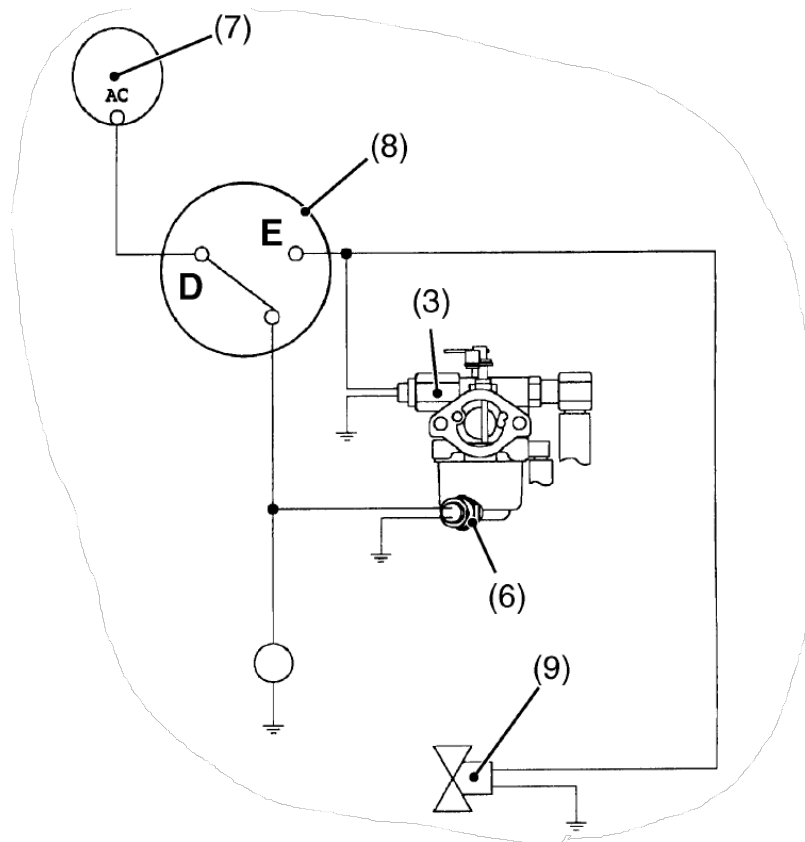
system includes gasoline cut off solenoid 2 and LPG cut off solenoid 7. *See id.* The Workshop Manual describes operation of the LPG side:

For LPG fuel, the liquid fuel stored in the LPG tank (14) is sent to vaporizer (10) by pressure in the gaseous phase in the tank through the LPG filter (12) and LPG shut off solenoid valve (11).

The liquid fuel is evaporated in vaporizer and is sent to the DF carburetor (8) as a gaseous fuel of gas pressure near the atmospheric pressure. The DF carburetor (8) mixes the gas and air is supplied in the cylinder.

Ex. 1012 at 65.

Another figure from the Workshop Manual is reproduced below:



Ex. 1012 at 68 (bottom left figure). The figure above shows a schematic of a portion of a dual-fuel carburetor. *See id.* Specifically, this figure shows a fuel select switch 8, which allows a user to select between gasoline mode

(“D”) and LPG mode (“E”). *See id.* When in gasoline mode, “the battery current flows to the gasoline cut off solenoid” 6 such that “gasoline fuel in the float chamber flows to the mixing chamber.” *Id.* When switched to LPG mode, the battery current “flows to the LPG cut off solenoid (3) and LPG shut off solenoid valve (9)” such that “the gasoline fuel flow is shut and LPG fuel flows to the mixing chamber.” *Id.*

## 2. *Independent Claims 1, 11, and 18*

For independent claims 1, 11, and 18, Petitioner contends that the Workshop Manual discloses each limitation. Pet. 69–81, 93–100, 103–104. To support its arguments, Petitioner identifies certain passages in the Workshop Manual and explains the significance of each passage with respect to the corresponding claim limitation. *Id.* Patent Owner argues that the Workshop Manual fails to disclose the “gaseous fuel” limitations in the independent claims. *See* Prelim. Resp. 26–28.

We have reviewed Petitioner’s contentions with respect to claims 1, 11, and 18, and for the reasons below, we determine that the Petition shows a reasonable likelihood that Petitioner would prevail in demonstrating that these claims are anticipated by the Workshop Manual.

### *a. The “Gaseous Fuel” Limitations*

As to the “gaseous fuel source” in claim 1, Petitioner identifies LPG tank 14 in the Workshop Manual. *See* Pet. 78–80 (citing Morse Decl. ¶ 320; Ex. 1012 at 65, 68). As to the “gaseous fuel supplied from a pressurized fuel source” in claim 11 and the “gaseous fuel supplied through a gaseous fuel line from a pressurized fuel source” in claim 18, Petitioner implicitly identifies (1) LPG as the “gaseous fuel,” (2) vapor line b and liquid line c as

the “gaseous fuel line,” and (3) LPG tank 14 as the “pressurized fuel source.” Pet. 93–94 (citing Morse Decl. ¶¶ 366–368); Pet. 103 (claim 18).

Patent Owner argues that the Workshop Manual does not disclose the “gaseous fuel” limitations in any of the independent claims because the LPG exits LPG tank 14 in a *liquid* state, rather than a *gaseous* state. *See* Prelim. Resp. 26–28; Prelim. Sur-reply 1–5. Here, both Petitioner and Patent Owner agree that the Workshop Manual discloses LPG exiting tank 14 *in a liquid state*, with vaporizer 10 converting the LPG to a gaseous state, which is then supplied to carburetor 8. *See* Prelim. Resp. 27–28; Prelim. Reply 3; Prelim. Sur-reply 2–3; Singhose Decl. ¶¶ 102, 105. Supporting that understanding, the Workshop Manual expressly states that “the liquid fuel stored in the LPG tank (14) is sent to vaporizer (10)” and that “[t]he liquid fuel is evaporated in vaporizer and is sent to the DF carburetor (8) as a gaseous fuel.” Ex. 1012 at 65. This characteristic of the system in the Workshop Manual is thus similar to Nakafushi as to the “gaseous fuel” limitations, such that the analysis as to this ground also turns on claim construction.

For the same reasons discussed above as to the Nakafushi-based grounds, and on the current record, Patent Owner’s argument does not identify a deficiency in Petitioner’s positions as to the “gaseous fuel” limitations in the independent claims for this ground based on the Workshop Manual. *See supra* § II.D.3.a (addressing claims 1 and 18); § II.F.1.a (addressing claim 11).<sup>18</sup> On the current record, Petitioner has made a

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<sup>18</sup> Supporting that the claim construction issues and relevant disclosures align between the Nakafushi-based grounds and the Workshop Manual-based ground, the parties’ additional briefing essentially addresses both sets of grounds together. *See* Prelim. Reply 1–5; Prelim. Sur-reply 1–5.

sufficient showing that the Workshop Manual discloses the “gaseous fuel” limitations in claims 1, 11, and 18.

*b. The Remaining Limitations*

Patent Owner does not offer any arguments specifically addressing the remaining limitations of claims 1, 11, or 18. *See* Prelim. Resp. 26–28. 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 the Workshop Manual discloses each limitation. For the reasons above, we determine, based on the current record, that the Petition shows a reasonable likelihood that Petitioner would prevail in demonstrating that claims 1, 11, and 18 are anticipated by the Workshop Manual.

*3. Claims 2, 3, 5–9, 12–14, 17, 19, 20, 22, and 23*

For dependent claims 2, 3, 5–9, 12–14, 17, 19, 20, 22, and 23, Petitioner contends that the Workshop Manual discloses each limitation. Pet. 81–92, 100–103, 104–105. Patent Owner does not present any arguments specifically addressing these dependent claims. *See* Prelim. Resp. 26–28. We include claims 2, 3, 5–9, 12–14, 17, 19, 20, 22, and 23 in the context of this asserted ground in the instituted *inter partes* review. *See SAS*, 584 U.S. at 362–63, 369–70; 37 C.F.R. § 42.108(a).

*I. Asserted Obviousness of Claim 4 Based on the Workshop Manual and Duffy & Asserted Obviousness of Claims 16 and 24 Based on the Workshop Manual, Parlatore, “and/or” the Tri-Fuel Video*

Petitioner asserts that (1) claim 4 would have been obvious based on the Workshop Manual and Duffy and (2) claims 16 and 24 would have been obvious based on the Workshop Manual, Parlatore, “and/or” the Tri-Fuel Video. Pet. 105–110. Patent Owner does not present any arguments

specifically addressing these grounds, but rather, relies on the same arguments presented as to the prior ground based on the Workshop Manual alone. *See* Prelim. Resp. 26–28 (discussing the “Workshop Manual-based grounds” (emphasis omitted)). We include these asserted grounds in the instituted *inter partes* review. *See SAS*, 584 U.S. at 362–63, 369–70; 37 C.F.R. § 42.108(a).

### III. CONCLUSION

For the reasons above, we determine that the Petition shows a reasonable likelihood that Petitioner would prevail with respect to at least one of challenged claims 1–24. 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 *inter partes* review.

### IV. ORDER

Accordingly, it is hereby:

ORDERED that, pursuant to 35 U.S.C. § 314(a), *inter partes* review is hereby instituted as to claims 1–24 of the challenged patent on all asserted grounds; and

FURTHER ORDERED that pursuant to 35 U.S.C. § 314(c) and 37 C.F.R. § 42.4, *inter partes* review shall commence on the entry date of this Decision, with notice hereby given of the institution of a trial.

IPR2025-00805  
Patent 10,393,034 B2

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