

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

BAZOOKA-FARMSTAR, LLC,
Petitioner,

v.

NUHN INDUSTRIES LTD.,
Patent Owner.

IPR2023-01161
Patent 11,358,425 C1

Before MEREDITH C. PETRAVICK, MATTHEW S. MEYERS, and
BRENT M. DOUGAL, *Administrative Patent Judges*.

DOUGAL, *Administrative Patent Judge*.

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

I. INTRODUCTION

A. *Background and Summary*

Petitioner, Bazooka-Farmstar, LLC, requests that we institute an *inter partes* review challenging the patentability of claims 1–21 (the “challenged claims”) of U.S. Patent 11,358,425 C1 (Ex. 1001, “the ’425 patent”). Paper 1 (“Pet.”). Patent Owner, Nuhn Industries LTD., argues that Petitioner’s request is deficient and should not be granted. Paper 6 (“Preliminary Response” or “Prelim. Resp.”). Petitioner also filed a Preliminary Reply (Paper 7, “Prelim. Reply”) and Patent Owner filed a Preliminary Sur-reply (Paper 9, “Prelim. Sur-reply”).

Applying the standard set forth in 35 U.S.C. § 314(a), which requires demonstration of a reasonable likelihood that Petitioner would prevail with respect to at least one challenged claim, we grant the Petition and institute an *inter partes* review.¹

B. *Related Matters*

The parties identify the following pending district court litigations as involving the ’425 patent: *Nuhn Industries Ltd. v. Bazooka Farmstar, LLC*, No. 3:22-cv-00015-SMR (S.D. IA); and *Nuhn Industries Ltd. v. Atlas Ag Services, LLC*, No. 1:23-cv-368-JLS (W.D. NY). Pet. 1; Paper 10, 2.

C. *The ’425 Patent*

The ’425 patent is entitled, “Amphibious Pumping Vehicle,” and is directed to “to manure pumps and amphibious vehicles equipped for pumping liquid manure, such as animal manure contained in a farm lagoon.”

¹ Our findings and conclusions at this stage are preliminary, and thus, no final determinations are made.

Ex. 1001, code (54), 1: 26–30². Figure 1, reproduced below, shows an embodiment of one such vehicle.

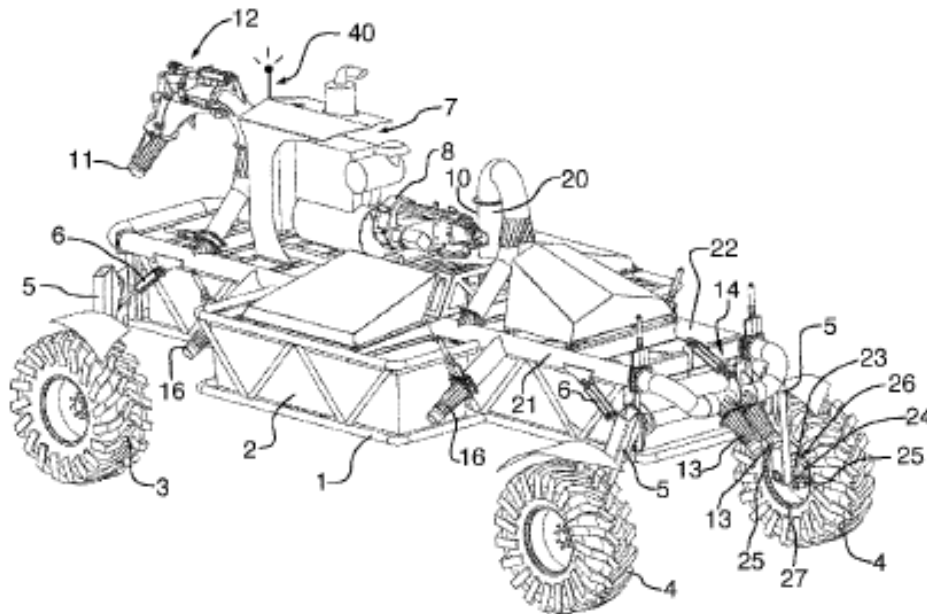


Figure 1 illustrates an amphibious vehicle with the following main components: a buoyant vehicle body (1, 2), a ground engaging propulsion structure of two sets of wheels (3, 4), a power source (7) such as an engine, a plurality of nozzles (11, 13, 16), and a remote control structure (40). *Id.* at 5:26–27, 5:36–38, 5:49, 5:53–54, 5:59–60, 7:55–57. The vehicle also includes a fluid pump which is fluidly connected to the nozzles, and a valve used to control flow of fluid from the pump to the nozzles. *Id.* at 5:42–48, 5:63–67.

The '425 patent discusses using the vehicle in a large manure pit or lagoon to break up the crust that develops on top of the pit or lagoon, “prior to removal [of the manure] for land application or further processing.” *Id.* at 1:33–38, 1:45–49, 8:18–20. This is done by remotely driving the vehicle into

² In the *Ex Parte* Reexamination Certificate there is a second column one and two. We refer herein to the first column one and two, i.e., page 10 of Ex. 1001.

and through the lagoon over remote control; first using the wheels, and then when floating, using fluid flow through the various nozzles. *Id.* at 8:5–14.

“Once the vehicle is in the desired position, the valves associated with the first fluid nozzle are opened and” this nozzle can be controlled “so that the fluid is sprayed widely to break crusts of material floating on the surface of the lagoon. In this manner, fluid is recirculated and directed to desired locations in the lagoon.” *Id.* at 8:14–21. The manure can then be removed from the lagoon. *Id.* at 21–23.

D. Illustrative Claim

Of the challenged claims, claim 1 is the sole independent:

1. An amphibious vehicle comprising:

a floatable vehicle body;

ground engaging propulsion structure comprising a plurality of ground engaging elements powered by a hydraulic motor;

a fluid pump for pumping liquid manure;

a power source connected to a hydraulic pump, the power source configured to provide power to both the ground engaging propulsion structure and the fluid pump; and,

a wireless remote control configured to enable an operator who is remote from the vehicle to: (1) control the ground engaging propulsion structure; (2) control a flow of liquid manure from the fluid pump; (3) control at least one of the speed and direction of the vehicle when the vehicle is ground engaging; and, (4) control at least one of the speed and direction of the vehicle when the vehicle is floating.

Ex. 1001, 8:36–52.

E. Evidence

Petitioner’s grounds of unpatentability rely on the following evidence:

Name	Patent Document	Exhibit
Carrier	US 2012/0185129 A1 (July 19, 2012)	1005
Yoon	KR 10-2013-0016490 (Feb. 18, 2013)	1010/1011 ³
Puck	US 2014/0112093 A1 (Apr. 24, 2014)	1014
Bryham	US 7,314,395 B1 (Jan. 1, 2008)	1015
Bennett-II	US 2021/0331752 A1 (Oct. 28, 2021)	1017

Name	Non-Patent Document	Exhibit
Truxor	Dorotea Mekaniska AB, Truxor Amphibian Tool Carrier	1006
SenwaTec	SenwaTec, Schröder Environment and Water Technology, Light Amphibious Boat/Vehicle “Amphi-King®” SWT-AB380	1012
Lyseng	Ron Lyseng, <i>Float your boat in a slurry moat</i> , THE WESTERN PRODUCER (Aug. 29, 2013)	1019 ⁴

F. Asserted Grounds

Petitioner asserts the following grounds of unpatentability (Pet. 36–38), supported by the declaration of Eric Winkel, Ph.D., P.E. (Ex. 1004):

Claim(s) Challenged	35 U.S.C. §⁵	Reference(s)/Basis
1–7, 12–19	103(a)	Truxor, Yoon
1–7, 12–19	103(a)	Truxor, Carrier
1–7, 12–19	103(a)	SenwaTec, Yoon
1–7, 12–19	103(a)	SenwaTec, Carrier
1–21	102	Carrier
1–21	103(a)	Puck, Bryham
1–21	103(a)	Puck, Bryham, Bennett II

³ English language translation.

⁴ The Petition incorrectly lists Lyseng as Exhibit 1017. Pet. 38.

⁵ The Leahy-Smith America Invents Act (“AIA”), Pub. L. No. 112-29, 125 Stat. 284, 285–88 (2011), revised 35 U.S.C. §§ 102, 103 effective March 16, 2013. We refer to the pre-AIA versions of §§ 102, 103.

Claim(s) Challenged	35 U.S.C. § ⁵	Reference(s)/Basis
1–21	103(a)	Lyseng

II. ANALYSIS

A. Summary

We first address the grounds of unpatentability. We then then address the parties’ arguments concerning our discretion to deny institution.

B. Legal Standards

Petitioner bears the burden to demonstrate unpatentability. *Dynamic Drinkware, LLC v. Nat’l Graphics, Inc.*, 800 F.3d 1375, 1378 (Fed. Cir. 2015). At this preliminary stage, we determine whether the information presented in the Petition shows a reasonable likelihood that Petitioner would prevail in establishing that at least one of the challenged claims would have been anticipated or obvious over the prior art. *See* 35 U.S.C. § 314(a).

“A claim is anticipated [under 35 U.S.C. § 102] only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *Verdegaal Bros. Inc. v. Union Oil Co.*, 814 F.2d 628, 631 (Fed. Cir. 1987). Moreover, “[b]ecause the hallmark of anticipation is prior invention, the prior art reference—in order to anticipate under 35 U.S.C. § 102—must not only disclose all elements of the claim within the four corners of the document, but must also disclose those elements ‘arranged as in the claim.’” *Net MoneyIN, Inc. v. VeriSign, Inc.*, 545 F.3d 1359, 1369 (Fed. Cir. 2008). Whether a reference anticipates is assessed from the perspective of an ordinarily skilled artisan. *See Dayco Prods., Inc. v. Total Containment, Inc.*, 329 F.3d 1358, 1368 (Fed. Cir. 2003) (“[T]he dispositive question regarding anticipation [i]s whether one skilled in the art would reasonably understand or infer from the [prior art

reference’s] teaching’ that every claim element was disclosed in that single reference.”).

A claim is unpatentable as obvious under 35 U.S.C. 103(a) if “the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.” *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007) (quoting 35 U.S.C. § 103(a)). We resolve the question of obviousness based on underlying factual determinations, including: (1) the scope and content of the prior art; (2) any differences between the prior art and the claims; (3) the level of skill in the art; and (4) when in evidence, objective indicia of obviousness or nonobviousness. *See Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966).

We apply these principles to the Petition’s challenges.

C. Level of Ordinary Skill in the Art

We review the grounds of unpatentability in view of the understanding of a person of ordinary skill in the art at the time of the invention (POSA). *Id.* at 13, 17. In assessing the level of ordinary skill in the art, various factors may be considered, 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.” *In re GPAC, Inc.*, 57 F.3d 1573, 1579 (Fed. Cir. 1995) (citing *Custom Accessories, Inc. v. Jeffrey-Allan Indus., Inc.*, 807 F.2d 955, 962–63 (Fed. Cir. 1986)). “In a given case, every factor may not be present, and one or more factors may predominate.” *Id.*

Petitioner asserts that a person of ordinary skill in the art had a bachelor's degree in mechanical engineering or similar field, and two years of professional experience in marine and off-road vehicles. A POSA would have had a working knowledge of fluid pumps and livestock manure. Lack of work experience can be remedied by additional education, and vice versa.

Pet. 31 (citing Ex. 1004 ¶ 82).

Patent Owner disagrees, arguing that a POSA is a livestock farmer or commercial manure applicator familiar with manure agitation equipment or an engineer with at least 2 years of experience designing agricultural equipment and knowledge of manure agitation equipment.

Prelim. Resp. 21 (quoting Ex. 2004 ¶ 63) (emphasis omitted). Patent Owner further argues that “the ‘425 Patent does not suggest that the claimed vehicle finds utility outside of operating in manure lagoons and [Petitioner’s] definition inexplicably excludes those most familiar with manure agitation equipment – livestock farmers and the manure application business.” *Id.* (citing Ex. 2004 ¶ 62).

Petitioner responds, arguing among other things, the Specification is not limited to manure lagoons, and that Patent Owner’s definition is too broad as it includes “any type of engineer designing any type of agricultural equipment.” Prelim. Reply 3–4.

At this stage of the proceeding, we do not discern a material difference between the parties’ respective definitions of the level of ordinary skill in the art. For example, neither party provides argument that any position in their papers depends on any distinction between their definitions.

However, for the purposes of this Decision, we adopt Petitioner’s level of skill as most closely aligning with the problems and solutions in the ‘425 patent and prior art of record. For example, contrary to Patent Owner’s

argument, the claims are not limited to manure lagoons. Further, and also contrary to Patent Owner’s argument, Petitioner’s definition allows for “those most familiar with manure agitation equipment – livestock farmers and the manure application business” through the definition’s statement that “[a] POSA would have had a working knowledge of fluid pumps and livestock manure” and that “[l]ack of work experience can be remedied by additional education, and vice versa.”

D. Claim Construction

In *inter partes* review, we construe claims using the same claim construction standard that would be used to construe the claim in a civil action under 35 U.S.C. § 282(b), including construing the claim in accordance with the 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) (2022).

1. Liquid Manure – Means-Plus-Function

Patent Owner argues that “a fluid pump for pumping liquid manure” should be construed as a means-plus-function limitation under 35 U.S.C. § 112 ¶ 6.⁶ Prelim. Resp. 28–30. This statute states:

An element in a claim . . . may be expressed as a means or step for performing a specified function without the recital of structure . . . , and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.

The Federal Circuit defined the standard to be applied when determining whether this statute applies as follows:

⁶ Patent Owner cites to 35 U.S.C. § 112(f), however the ’425 patent is subject to the pre-AIA version of the statute, i.e., 35 U.S.C. § 112 ¶ 6.

The standard is whether the words of the claim are understood by persons of ordinary skill in the art to have a sufficiently definite meaning as the name for structure. When a claim term lacks the word “means,” the presumption can be overcome and § 112, para. 6 will apply if the challenger demonstrates that the claim term fails to “recite sufficiently definite structure” or else recites “function without reciting sufficient structure for performing that function.”

Williamson v Citrix Online, LLC, 792 F.3d 1339, 1349 (Fed. Cir 2015) (internal citations omitted).

Patent Owner argues that a “fluid pump” is “any component capable of performing a pumping function.” Prelim. Resp. 29. Patent Owner further argues that “things for pumping liquid or gas . . . are commonly represented as generic black box symbols in engineering schematics.” *Id.* Patent Owner’s declarant makes similar statements. Ex. 2004 ¶¶ 72–73. Thus, Patent Owner concludes that “a fluid pump for pumping liquid manure” should be construed to mean “means for pumping liquid manure.” Prelim. Resp. 29.

Patent Owner’s position would essentially read “fluid pump” out of the claim. In other words, Patent Owner is attempting to remove the structure denoted by a fluid pump from the claim. Patent Owners’ own argument implicitly acknowledges that these pumping “components” or “things” are known devices with a particular structure and that a fluid pump is the name for a structure consistent with *Williamson*. Further, Patent Owner’s argument confuses identifying a particular type of pump, with merely reciting a function as required by the statute. The fact that a device, such as a pump, performs a function, such as pumping, (as all devices do) is insufficient to show that one of skill in the art would understand a fluid pump to not denote structure.

For these reasons, Patent Owner has not shown that “fluid pump” does not connote any structure and has not shown that “fluid pump” should be converted to a “means-plus-function” limitation.

2. *“For Pumping Liquid Manure” and “To Control a Flow of Liquid Manure”*

Claim 1 recites “an amphibious vehicle” having “a fluid pump for pumping liquid manure” and “a wireless remote control configured to enable an operator . . . to: . . . (2) control a flow of liquid manure from the fluid pump.” Ex. 1001, 8:39, 8:45–48.

The Petition argues that “for pumping liquid manure” and “to control a flow of liquid manure” in claim 1 should be construed as statements of intended use. Pet. 31. In contrast, Patent Owner argues that they should be construed as functional limitations. Prelim. Resp. 21.

Petitioner argues that the ’425 patent does not describe any characteristics required of a pump for pumping liquid manure. Pet. 33. Further, Petitioner argues that though the ’425 patent incorporates by reference a patent that describes characteristics that are desirable for pumping liquid manure, such as “large fluid openings and generous tolerances,” such structure is not required. *Id.* (quoting Ex. 1029, 1:29–31); *see also id.* (acknowledging that “[f]or manure pumping applications . . . it is known that fluid conduits and pump outlets having diameters of less than about 5” are prone to plugging with debris.”) (quoting Ex. 1029, 6:50–53.).

Concerning “liquid manure,” the ’425 patent states that “the invention relates to manure pumps and amphibious vehicles equipped for pumping liquid manure, such as animal manure contained in a farm lagoon.” Ex. 1001, 1:26–30. It goes on to describe the liquid manure that will be pumped as coming from a manure lagoon that has developed a “crust . . . on the

surface . . . that must be disrupted” so that the manure can be removed and used for other purposes. *Id.* at 1:33–38. Pumps are used to “return a percentage of the manure back to the pit or lagoon in the form of a high volume spray to disrupt the crust and recirculate the manure.” *Id.* at 1:38–41.

Though, Petitioner argues that no specific structure is needed to pump liquid manure, it also acknowledges that liquid manure will contain some solid content. Pet. 34–35 (citing Ex. 1004 ¶¶ 90–92; Ex. 1066, 89). Patent Owner argues that “[t]he intrinsic evidence [(summarized above)] makes clear that the claim term ‘liquid manure’ means “animal manure contained in a farm lagoon, which includes suspended solids.” Prelim. Resp. 28 (citing Ex. 2004 ¶ 82). Thus, the parties agree that liquid manure includes solids.

Patent Owner does not provide argument at this stage as to what specific structure is required to pump a liquid which includes suspended solids.

At this stage, and given that both parties agree that liquid manure includes suspended solids, we construe these terms only to the extent that pumping liquid manure requires a pump with a structure that is capable of pumping liquid with suspended solids. We encourage the parties to further develop this argument (such as to the extent it would differentiate the prior art) and their positions at trial.

No other terms require express construction at this stage. *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))).

E. 35 U.S.C. 103(a) – Truxor, Yoon

Petitioner argues that the combination of Truxor⁷ and Yoon renders obvious claims 1–7 and 12–19. Pet. 47–61. Patent Owner disagrees. Prelim. Resp. 45–61. In our analysis below, we determine that Petitioner has established a reasonable likelihood of succeeding in showing that claim 1 is unpatentable over the combination of Truxor and Yoon.

1. Truxor

Truxor is a brochure that describes two models of amphibious vehicles, DM 4700 B and DM 5000, that can carry any of various tools. Ex. 1006, 2. One of those tools, of particular relevance here, is a dredge pump illustrated below with one of the amphibious vehicles. *Id.* at 5.

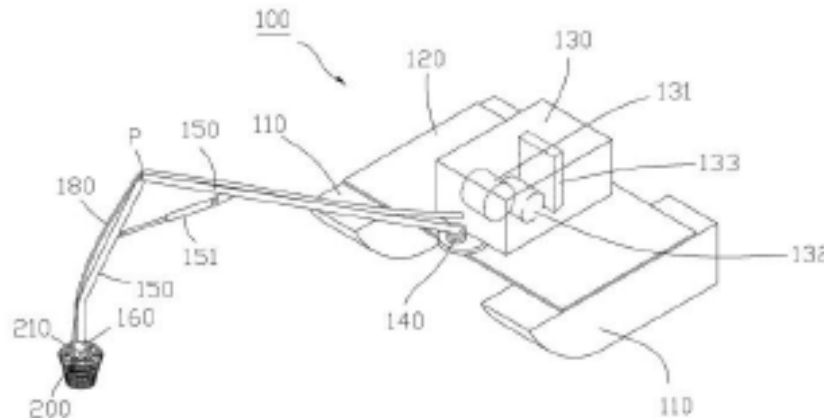


⁷ In listing the grounds, Petitioner states that “[t]hree additional publications equivalently describe the DM5000. EX1021-EX1023.” Pet. 36. Petitioner further states that “[w]hile EX1006 is cited as ‘Truxor,’ any of EX1021-EX1023 could be substituted for Truxor to render obvious Claims 1-7 and 12-19.” *Id.* Independent of this statement, the Petition only includes an analysis of the claims with respect to Truxor and does not individually consider any of these other references. We consider Truxor to be Ex. 1006 only.

In the above illustration, an amphibious vehicle is shown in a source of water with what appears to be a dredging tool actively dredging material from the bottom of the water source. Truxor describes the Doro pump as a dredging pump operated with a hydraulic motor, and with two types of inlets, wheel feeding or screw feeding. *Id.* at 10. Truxor describes the “wheel feeder” as having “a rotating wheel with horizontal cutters and vertical teeth which aerate the sediment and cut off roots to facilitate the feeding into the inlet of the pump.” *Id.* Truxor further describes the screw feeder for use with “harder sediments” such as “sediment containing solid objects, e.g. stones, bits of wood, etc.” *Id.* The screw feeder may further include “knives mounted on the suction intake of the pump” to help “give the pump an even flow of sediment.” *Id.*

2. *Yoon*

Yoon (Ex. 1010) is a Korean patent publication entitled “An Amphibious Water Treatment Device” which is designed “to provide a pumping system to be used with water treatment devices that are placed in streams, storage tanks, reservoirs, and so on where industrial waste materials are contained, and to provide an amphibious water treatment device to treat wastewater and sludge discharged by sludge filtering systems.” Ex. 1011, code (54), ¶ 18 (English language translation). Yoon Figure 2, reproduced below, shows an example of the amphibious water treatment device. *Id.* ¶ 42.



Yoon Figure 2, shows the amphibious water treatment device (100) with a pair of floaters (110, 110), a main body (130) with a water pump (131) and controller (133), a rotating link component (150) at the front with a water motor (160) and sludge filtering device (200) on the end. *Id.* ¶ 47. The sludge filter device surrounds the water motor (160) and allows “only light floating materials [to] pass.” *Id.*

Yoon also teaches that “a remote receptor (not illustrated) is installed on the controller (133) . . . in order for the operator to control work using a remote controller from the land.” *Id.* ¶ 48.

3. Claim 1

Petitioner argues that the combination of Truxor and Yoon renders obvious claim 1. Pet. 47–55. Petitioner lays out its position generally as, “[a] POSA would have been motivated to add [Yoon’s] remote-control functionality to Truxor[‘s amphibious pumping/dredging vehicle] . . . to provide a safer way of controlling the Truxor vehicle during dangerous dredging, excavation, and decontamination.” *Id.* at 48.

Patent Owner provides a number of different arguments over the combination. Prelim. Resp. 45–61.

a) Claim 1 – Truxor

Claim 1 includes:

1. An amphibious vehicle comprising:

a floatable vehicle body;

ground engaging propulsion structure comprising a plurality of ground engaging elements powered by a hydraulic motor;

a fluid pump for pumping liquid manure;

a power source connected to a hydraulic pump, the power source configured to provide power to both the ground engaging propulsion structure and the fluid pump.

Ex. 1001, 8:36–44.

Petitioner argues that Truxor teaches the basic structure of claim 1 above, including an amphibious vehicle with floating pontoons, hydraulic controlled tracks that engage the ground for propulsion, a dredging pump, and a diesel engine connected to a hydraulic pump. Pet. 52–55 (citing e.g., Ex. 1006, 2–4, 10, 15; Ex. 1004 ¶¶ 266–269).

Patent Owner only contests Petitioner’s position that Truxor’s dredging pump reads on the claimed fluid pump. Prelim. Resp. 45–51. Patent Owner provides three main arguments in this regard. We deal with the last argument first and the other two together.

Patent Owner argues that fluid pump should be construed to be a means-plus-function limitation and that Truxor does not disclose the same structure as the ’425 patent as it only has one outlet instead of two. *Id.* at 50–51. As previously discussed, we do not construe “fluid pump” to be a means-plus-function limitation. Thus, Patent Owner’s argument is inapplicable.

Patent Owner also argues that Truxor does not discuss manure, and thus doesn't disclose a fluid pump for pumping liquid manure. *Id.* at 45–47. Patent Owner argues that Petitioner's declarant testimony that Truxor is capable of pumping manure is conclusory. *Id.* at 48. Patent Owner asserts that the testimony is conclusory because 1) it doesn't include any comparative analysis and 2) prosecution history requires that the fluid pump actually pump manure. *Id.* at 48–49. We disagree.

First, Patent Owner itself shows why Petitioner's argument is not conclusory. Patent Owner quotes Petitioner's declarant as testifying that “dredging pumps have long been used” for the purpose of “removing solids and sludge that settle to the bottom of manure lagoons.” *Id.* at 48 (quoting Ex. 1004 ¶ 268). Patent Owner's quote includes a citation to Exhibit 1058, 2, which shows a dredging pump used for the purpose of pumping manure from a manure lagoon. This same citation is relied on for support by Petitioner's declarant. *See* Ex. 1004 ¶ 268. Thus, the testimony of Petitioner's declarant is not conclusory. Further, at this stage, we credit the testimony of Petitioner's declarant that a dredge pump, like that in Truxor, is capable of pumping liquid with suspended solids. Based on the current record, we don't see a need for any additional comparative analysis as asserted by Patent Owner.

Concerning the prosecution history, it is unclear why Patent Owner argues that the claim requires that the pump must actually pump manure. *Id.* at 49; *see also id.* at 31–32, 49–50 (Patent Owner similarly argues that the Specification discusses pumping manure). Claim 1 is a system claim, not a method claim, and thus is not directed to a method of pumping manure. The fact that an examiner mentioned (or the Specification discusses) “a fluid pump ‘that pumps manure’” during prosecution does not change the claim in

the manner suggested so that a pump that is capable of pumping manure would not satisfy the claim. *Id.*; see *In re Swinehart*, 439 F.2d 210, 213 (CCPA 1971) (“‘Functional’ terminology may render a claim quite broad. By its own literal terms a claim employing such language covers any and all embodiments which perform the recited function.”); see also Prelim. Resp 21–24 (Patent Owner arguing that “a fluid pump that pumps manure” is a functional limitation).

After review of the arguments and evidence, we determine that Petitioner has established a reasonable likelihood of succeeding in showing that Truxor teaches the noted limitations of claim 1, including a fluid pump for pumping liquid manure.

b) Wireless Remote Control

Claim 1 also requires:

a wireless remote control configured to enable an operator who is remote from the vehicle to: (1) control the ground engaging propulsion structure; (2) control a flow of liquid manure from the fluid pump; (3) control at least one of the speed and direction of the vehicle when the vehicle is ground engaging; and, (4) control at least one of the speed and direction of the vehicle when the vehicle is floating.

Ex. 1001, 8:45–52.

Petitioner argues that “Truxor teaches an amphibious vehicle with paddle tracks that vary the speed and direction of the vehicle on land and water, and a fluid pump that can be used to pump liquid manure.” Pet. 55 (citing Ex. 1006, 2–5, 10). Petitioner then argues that Yoon teaches “amphibious pumping vehicles enabling operators to control the vehicle and its attachments using remote control.” *Id.* (citing Ex. 1011 ¶ 48). Petitioner argues that “a POSA would have been motivated to implement the remote-control systems taught by Yoon . . . to control the vehicle and attachments of

Truxor from a safe location.” *Id.*; *see also id.* at 48–52 (discussing the reasons to combine in more detail).

Patent Owner does not contest the teachings of Truxor or Yoon. Rather, Patent Owner asserts that the Petition does not provide sufficient reason to show why one of skill in the art “would have had a reasonable expectation of success” in combining Truxor and Yoon. Prelim. Resp. 52–53. Patent Owner identifies a number of reasons why it argues a reasonable expectation of success has not been shown. *Id.* at 53–61.

First, Patent Owner addresses some of Petitioner’s supporting evidence concerning the increased safety of using a remote control instead of having a person in the vehicle. *Id.* at 53. Petitioner cited Exhibit 1025⁸ (“Melnikov”) as teaching that using a human operator in a Truxor vehicle was a drawback. Pet. 51 (citing Ex. 1025, 4). Petitioner then argues that “Melnikov describes adding remote control to Truxor-like amphibious machines with a pump for spraying liquid biopreparations.” *Id.* (citing Ex. 1025, 4–5).

Patent Owner admits that Melnikov teaches using a remote control and that using a human operator in a Truxor vehicle is a drawback. Prelim. Resp. 54. However, Patent Owner argues that Melnikov doesn’t teach adding a remote to a Truxor-like vehicle. Prelim. Resp. 54. Rather, Melnikov designed a new and different propulsion system and pump that are remote controlled. *Id.* at 54–55. Patent Owner argues that if it would have been obvious to add a remote control to Truxor, this is what Melnikov would have done, rather than come up with new designs. *Id.* at 55–56.

⁸ English language translation of Ex. 1024.

Patent Owner's argument does not discredit Petitioner's position or reasoning. Patent Owner admits that Melnikov teaches exactly what Petitioner relies on it as teaching. Patent Owner does not contest that Truxor would be safer without a human operator and thus does not contest the reason to combine. Rather Patent Owner identifies that Melnikov teaches a propulsion system and pump with a design different from Truxor. Though, Melnikov may also suggest to one of skill in the art to make additional changes, this does not diminish the ability of Melnikov to suggest any number of changes individually, or collectively.

Further, Patent Owner does not argue, and we see no reason to believe, that adding remote control to Truxor is not within the ability of one of skill in the art. *See KSR Int'l Co.*, 550 at 421 ("A person of ordinary skill is also a person of ordinary creativity, not an automaton.").

Patent Owner then identifies a number of drawbacks with using a remote control with Truxor's vehicle. Prelim. Resp. 56–61. Patent Owner argues that "remotely controlling the positioning and operation of a submerged pump on the end of a boom arm would be problematic given the difficulty of observing its operation from a remote location." *Id.* at 56 (citing Ex. 2004 ¶ 135). Patent Owner argues that "[t]he difficulties with converting . . . hydraulic controls to wireless remote control is well documented and would be known to a POSITA." *Id.* at 57 (citing Ex. 2004 ¶ 131). And Patent Owner argues that adding remote controls to Truxor would increase the known titling, or rollover, risk. *Id.* at 60–61 (citing Ex.1007, 128; 2004 ¶ 257).

Though Patent Owner identifies these potential drawbacks, there are almost always tradeoffs to different designs. On the record before us, this does not discredit Petitioner's reasoning that adding remote control to

Truxor would increase the safety of the operator. *See Medichem, S.A. v. Rolabo, S.L.*, 437 F.3d 1157, 1165 (Fed. Cir. 2006) (“[A] given course of action often has simultaneous advantages and disadvantages, and this does not necessarily obviate motivation to combine”).

c) Claim 1 – Conclusion

After our review of Petitioner’s assertions with respect to claim 1 and the supporting evidence (as summarized above), we determine that Petitioner has established a reasonable likelihood of prevailing.

4. Claims 2–7, 12–19

Petitioner argues that the combination of Truxor and Yoon renders obvious claims 2–7 and 12–19. Pet. 55–61. Patent Owner does not address the dependent claims. Having determined that Petitioner has met its burden for institution with respect to claim 1, we decline to address the remaining claims.

F. 35 U.S.C. 103(a) – Truxor, Carrier

Petitioner argues that the combination of Truxor and Carrier renders obvious claims 1–7 and 12–19. Pet. 47–61. Petitioner combines its analysis of Truxor and Carrier with its analysis of Truxor and Yoon, discussed above. *Id.* Petitioner relies on Carrier for the same teachings as Yoon, namely remote control of an amphibious pumping vehicle. *Id.* at 49–50. Petitioner further relies on the same reason to combine. *Id.* at 48–52, 55. Patent Owner also combines its analysis of Truxor and Carrier with its analysis of Truxor and Yoon. Prelim. Resp. 45–61. Patent Owner does not offer any arguments specific to Truxor and Carrier.

After our review of Petitioner’s assertions with respect to claim 1 and the supporting evidence, we determine that Petitioner has established a reasonable likelihood of prevailing.

G. 35 U.S.C. 103(a) – SenwaTec, Yoon

Petitioner argues that the combination of SenwaTec and Yoon renders obvious claims 1–7 and 12–19. Pet. 61–72. Patent Owner disagrees. Prelim. Resp. 45–61. In our analysis below, we determine that Petitioner has established a reasonable likelihood of succeeding in showing that claim 1 is unpatentable over the combination of SenwaTec and Yoon.

1. SenwaTec

SenwaTec is a brochure describing the “Light Amphibious Boat/Vehicle ‘Amphi-King®’ SWT-AB380.” Ex. 1012, 1. A version of the vehicle is shown in the Figure reproduced below. *Id.*



The above figure from SenwaTec, shows an amphibious vehicle in a water source with a forward crane with an attached tool that appears to include a nozzle. SenwaTec teaches that the vehicle includes a diesel engine and a hydraulics system. *Id.* at 3.

SenwaTec teaches that the vehicle can attach any of a number of different tools to the forward crane, including a centrifugal pump. *Id.* at 1, 2.

2. *Claim 1*

Petitioner argues that the combination of SenwaTec and Yoon renders obvious claim 1. Pet. 61–67. Petitioner relies on SenwaTec for essentially the same teachings as Truxor discussed above, and relies on the same reason to combine discussed above. *Id.*

Patent Owner provides the same arguments about claim scope and reasonable success in the making the combination discussed and rejected above with respect to Truxor. Prelim. Resp. 76–87. We address below Patent Owner’s arguments specific to SenwaTec and a fluid pump for pumping liquid manure.

Petitioner argues that “SenwaTec discloses a dredging pump in the form of ‘a powerful centrifugal pump and 8” suction[] and 6” discharge ports, hydraulically driven, delivering 40 kW of pumping power.’” Pet 64 (citing Ex. 1012, 1). Petitioner argues that SenwaTec’s pump is capable of pumping liquid manure: “A POSA would have understood that dredge systems were known in the art for pumping higher solid concentration manure, and therefore, the SenwaTec dredging pump could readily be used to pump liquid manure.” *Id.* at 64–65 (citing Ex. 1004 ¶¶ 302–303; Pet. 53–54 (Truxor)).

Similar to the prior discussion with regard to Truxor, Patent Owner argues that SenwaTec does not discuss manure or a fluid pump for pumping liquid manure. Prelim. Resp. 76–78.

However, as previously discussed, Exhibit 1058 at 2 shows a dredging pump used for the purpose of pumping manure from a manure lagoon, which is relied on for support by Petitioner’s declarant and previously identified by Patent Owner. Prelim. Resp. 48; see *also* Ex. 1004 ¶¶ 268, 303. Thus, at this

stage, we credit the testimony of Petitioner’s declarant that a dredge pump, like that in Truxor or SenwaTec, is capable of pumping liquid manure.

Petitioner also argues that there is evidence that SenwaTec’s pump was actually used for pumping manure as shown “in various pre-2013 publications and advertisements.” Pet. 65 (citing Ex. 1027⁹, 2; Ex. 1028); *see also id.* at 62 (citing Ex. 1013 ¶¶ 6–7, Exs. 1026–1028) (similar discussion).

Patent Owner contests the applicability of Petitioner’s supporting evidence. Prelim. Resp. 65–79.

Patent Owner argues that SenwaTec is limited to Exhibit 1012 and that Exhibit 1013 (“Lonnemann Declaration”) does not amount to additional disclosure (prior art under 35 U.S.C § 311(b)) that is part of SenwaTec. Prelim. Resp. 65–66, 71, 74. We agree that SenwaTec is limited to Exhibit 1012, but do not agree that Petitioner is attempting to combine the Lonnemann Declaration with Exhibit 1012 to make SenwaTec a collective of multiple references. We also agree with Petitioner, that the Lonnemann Declaration, as well as Exhibits 1026–1028 are used “as supporting ‘evidence ... in considering the knowledge, motivations, and expectations of a POSITA regarding the prior art.’” Prelim. Reply 1 (quoting *Yeda Research & Dev. Co. v. Mylan Pharm., Inc.*, 906 F.3d 1031, 1041 (Fed. Cir. 2018)). Thus, they are not relied on as prior art under 35 U.S.C § 311(b) as asserted by Patent Owner. Prelim. Resp. 65–66, 71, 74.

In the Lonnemann Declaration, Lonnemann testifies that one of SenwaTec’s customers (UD Umweltdienste) used the SenwaTec vehicle “for

⁹ English language translation of Exhibit 1026.

pumping manure and agitating manure lagoons.” Ex. 1013 ¶ 5; *see also id.* ¶¶ 6–7 (citing Exs. A (Exs.1026/1027) & B (Ex. 1028)).

Patent Owner argues that “[t]he Lonnemann Declaration does not provide any foundation for why Lonnemann has personal knowledge to testify about how UD Umweltdienste, a different company altogether, used the SenwaTec vehicle.” Prelim. Resp. 66. Patent Owner further argues that “those Exhibits do not, on their face, demonstrate that UD Umweltdienste used the SenwaTec vehicle for pumping manure.” *Id.*

First, we disagree that “[t]he Lonnemann Declaration does not provide any foundation for why Lonnemann has personal knowledge to testify about how UD Umweltdienste.” Reviewing paragraphs 5–7 of the Lonnemann Declaration, it is clear that he is testifying based on his understanding of what is shown in Exhibits 1026–1028.

Second, we agree that Exhibits 1026–1028 “do not, on their face, demonstrate that UD Umweltdienste used the SenwaTec vehicle for pumping manure.” Prelim. Resp. 66. Patent Owner correctly notes that Exhibit 1027, the English language translation of Exhibit 1026, discusses a “sewage pond” which it infers is processed from “toilet waste,” but does not talk about manure. *Id.* at 67–68 (citing Ex. 1027, 3). Patent Owner argues that “sewage ponds and manure lagoons are very different.” *Id.* at 68. This argument is supported by the Patent Owner’s declarant. Ex. 2004 ¶ 34 (citing and discussing Exs. 2019, 2022, 2023). Patent Owner also correctly notes that Exhibit 1027 does not even discuss pumping or show which tool is attached to the SenwaTec vehicle. *Id.* at 68–69. We agree with Patent Owner that Exhibits 1026 and 1027 do not clearly show that the SenwaTec vehicle was used for pumping manure.

Concerning Exhibit 1028, Patent Owner argues that “there is simply no verifiable information in the record proving that the video informs a POSITA that the SenwaTec vehicle was used to pump manure as opposed to mud, human sewage, or something else.” *Id.* at 74. We agree. Exhibit 1028 simply shows the SenwaTec vehicle in a pond of some sort, and then spraying some unidentified fluid.¹⁰ Ex. 1028.

Though we agree with Patent Owner that Petitioner over states what is shown in Exhibits 1026–1028, we also agree with Petitioner that this additional evidence is not necessary at this stage. Prelim. Reply 2. As discussed above initially, Petitioner identifies that SenwaTec teaches a dredge pump and we determine that the dredge pump appears capable of pumping liquid with suspended solids.

After our review of Petitioner’s assertions with respect to claim 1 and the supporting evidence, we determine that Petitioner has established a reasonable likelihood of prevailing.

H. 35 U.S.C. 103(a) – SenwaTec, Carrier

Petitioner argues that the combination of SenwaTec and Carrier renders obvious claims 1–7 and 12–19. Pet. 61–72. Petitioner combines its analysis of SenwaTec and Carrier with its analysis of SenwaTec and Yoon, discussed above. *Id.* Petitioner relies on Carrier for the same teachings as Yoon, namely remote control of an amphibious pumping vehicle. *Id.* at 62–63. Petitioner further relies on the same reason to combine. *Id.* Patent Owner also combines its analysis of SenwaTec and Carrier with its analysis of

¹⁰ One of the screenshots includes the following in German “Verflüssigung auch von dicken Schlamm” which Google translates as “liquefaction even of thick mud.” Ex. 1028, 3.

SenwaTec and Yoon. Prelim. Resp. 65–87. Patent Owner does not offer any arguments specific to SenwaTec and Carrier.

After our review of Petitioner’s assertions with respect to claim 1 and the supporting evidence, we determine that Petitioner has established a reasonable likelihood of prevailing.

I. 35 U.S.C. 102 – Carrier

Petitioner argues that Carrier anticipates claims 1–21. Pet. 39–47. Patent Owner argues that Carrier does not teach a fluid pump for pumping liquid manure and thus does not teach all of the limitations of claim 1. Prelim. Resp. 35–41. In contrast, Petitioner argues that the Carrier water pump can pump liquid manure based on the low amount of solid content. Pet. 41. This question is best left for trial after further development of the record as to what structure is required of a pump that is capable of pumping liquid with suspended solids. Thus, at this stage we make no determination of whether Carrier teaches a fluid pump for pumping liquid manure.

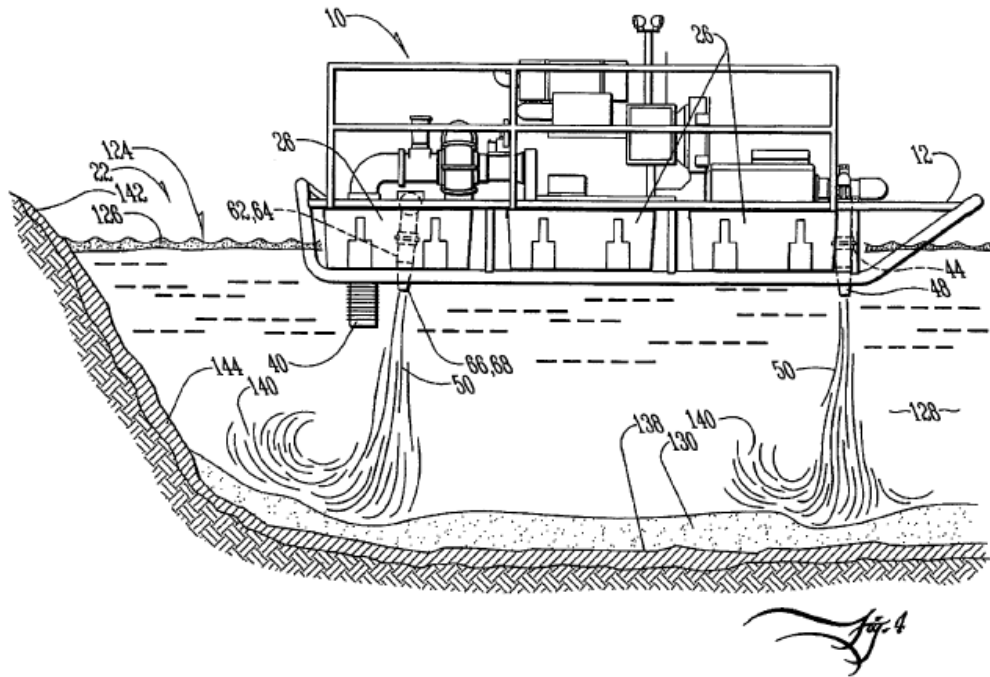
J. 35 U.S.C. 103(a) – Puck, Bryham

Petitioner argues that the combination of Puck and Bryham renders obvious claims 1–21. Pet. 72–88. Patent Owner disagrees. Prelim. Resp. 90–100. In our analysis below, we determine that Petitioner has established a reasonable likelihood of succeeding in showing that claim 1 is unpatentable over the combination of Puck and Bryham.

1. Puck

Puck is entitled “Floating Manure Agitator” and is directed to a vehicle that floats in a manure lagoon “that may be remotely controlled to agitate manure supernatant into a slurry.” Ex. 1014, codes (54), (57). The floating manure agitator has a power source coupled to “a liquid manure pump such as a slurry pump” that is “capable of handling both solid and

liquid material.” *Id.* ¶ 25. The floating manure agitator (10) is shown on a manure lagoon (22) in Figure 4, reproduced below.

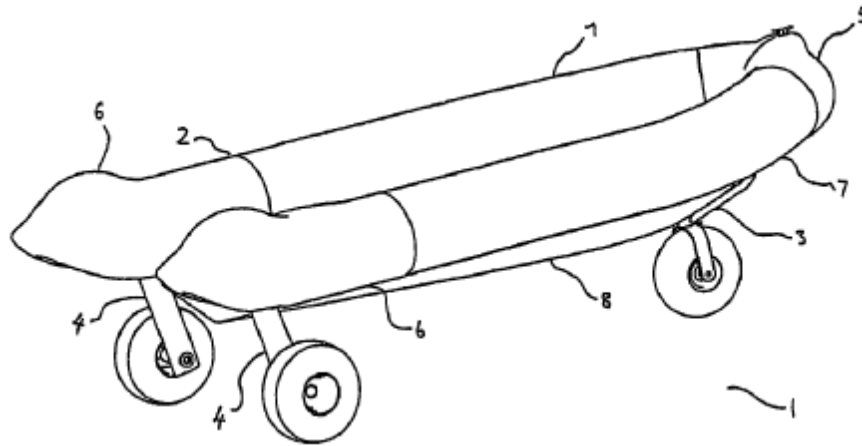


The illustrated floating manure agitator (10) in Figure 4 has an intake pipe (40) connected to the slurry pump, which pump directs the liquid manure through downward facing nozzles (48, 66, 68) into the manure lagoon. *Id.* ¶¶ 26–27, 29. In this way, the floating manure agitator can be used “to agitate manure (124), that has separated into crust (126), supernatant (128) and sludge (130), into a slurry (50).” *Id.* ¶ 34.

Puck also teaches the system can be controlled by remote control. *Id.* ¶ 32.

2. Bryham

Bryham is entitled “Amphibious Vehicle” and is directed to “an inflatable boat . . . [that] has a self propelled and steerable retractable undercarriage system, enabling the vehicle to enter and exit the water under its own power.” Ex. 1015, codes (54), (57). Bryham Figure 1 is reproduced below showing the amphibious vehicle.



As can be seen in Bryham Figure 1, the amphibious vehicle includes an inflatable craft (2) with three undercarriage assemblies (3, 4) including wheels.

3. *Claim 1*

Petitioner argues that the combination of Puck and Bryham renders obvious claim 1. Pet. 72–79. Petitioner lays out its position generally as, “[i]t would have been obvious to a POSA to add the steerable, hydraulically powered, all-terrain wheels of Bryham to the Puck manure boat, and extend the remote-control functions of Puck to the wheels of Bryham.” *Id.* at 76.

Patent Owner provides a number of different arguments over the combination. Prelim. Resp. 87–100.

a) *Claim 1 – Puck*

Claim 1 includes:

a floatable vehicle body;

...

a fluid pump for pumping liquid manure;

a power source . . . , the power source configured to provide power to . . . the fluid pump; and,

a wireless remote control configured to enable an operator who is remote from the vehicle to: . . . (2) control a flow of liquid

manure from the fluid pump; . . . and, (4) control at least one of the speed and direction of the vehicle when the vehicle is floating.

Ex. 1001, 8:36–52.

Petitioner argues that Puck teaches the basic structure of claim 1, including a “floating manure agitator,” a “liquid manure pump,” a “diesel engine” that powers the pump, and a remote control to control flow of the pump and speed and direction of the vehicle. Pet. 76–79 (citing e.g., Ex. 1014 ¶¶ 9, 11, 24, 25, 27, 35, 37).

Patent Owner only contests that Puck’s liquid manure pump reads on the claimed fluid pump. Prelim. Resp. 92–94. Patent Owner argues that the claimed “fluid pump” should be construed to be a means-plus-function limitation and that Puck does not disclose the same structure as the ’425 patent as it only has one outlet instead of two. *Id.* As previously discussed, we do not construe “fluid pump” to be a means-plus-function limitation. Thus, Patent Owner’s argument is inapplicable.

After review of the arguments and evidence, we determine that Petitioner has established a reasonable likelihood of succeeding in showing that Puck teaches the noted limitations of claim 1.

b) Ground Engaging Propulsion Structure

Claim 1 includes the following:

1. An amphibious vehicle comprising:

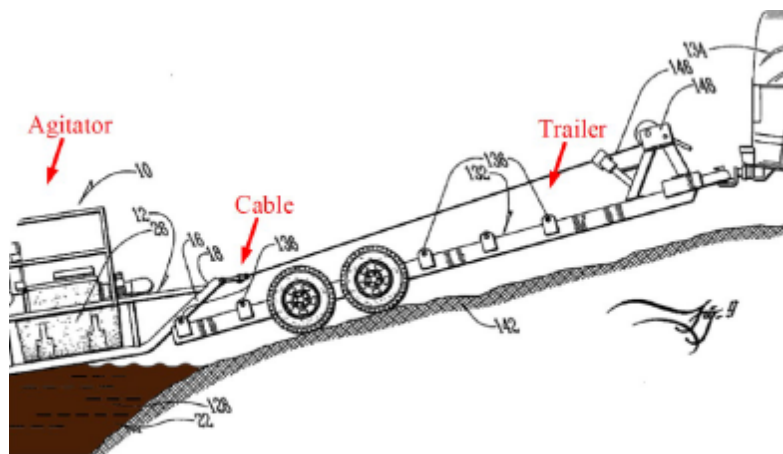
. . .

ground engaging propulsion structure comprising a plurality of ground engaging elements powered by a hydraulic motor.

Ex. 1001, 8:36–40.

Petitioner argues that “Bryham teaches creating an amphibious vehicle by adding steerable, hydraulically powered wheels to jet boats.” Pet. 76 (citing Ex. 1015, 2:19–45); *see also id.* at 77 (citing Ex. 1015, 2:66–67, 16:4–6). Petitioner further argues that “[a] POSA would have been motivated to add Bryham’s ground engaging propulsion structure to Puck’s jet boat creating an amphibious vehicle facilitating safer, easier, and better-for-equipment ingress and egress from a manure lagoon.” *Id.* at 76 (citing Ex. 1004 ¶¶ 331–340); *see also id.* at 73–76 (discussing the motivation to combine in more detail, related in particular to the drawbacks of using trailers to launch and load vessels).

Patent Owner argues that there is insufficient evidence that a POSA would combine Puck and Bryham. Prelim. Resp. 94. Patent Owner argues that Puck Figure 9 (annotated version reproduced below) does not show any issues with loading the Puck boat onto a trailer. *Id.* at 95.



Id., FIG. 9 (annotated.)

Puck Figure 9 has been annotated by Patent Owner to label the agitator boat, cable, and trailer. Figure 9 further shows the agitator boat in the manure lagoon being loaded onto the trailer by a cable connecting the two. Ex. 1014 ¶ 21, Fig. 9. Patent Owner argues that this figure doesn’t support Petitioner’s argument because it does not show the trailer in the

manure lagoon, or a person having to step into the lagoon to connect the cable to load the agitator boat. Pet. 95.

Though Patent Owner correctly describes what is shown in Puck Figure 9, this does not overcome Petitioner's evidence that there are known issues with using trailers to launch and load vessels that would be overcome by adding wheels to the vehicle of Puck.

Patent Owner also argues that Petitioner's discussion of the corrosive effect of the manure environment on a trailer is also a reason why one of skill in the art would not add wheels to the Puck vehicle. Prelim. Resp. 96. Adding wheels would increase the amount of machinery that is in contact with the manure environment. We agree that this argument cuts both ways and may be a reason why not to make the combination, rather than why one of skill would make such a combination. However, the other prior art references, such as Truxor, SenwaTec, and Yoon all show that those skilled in the art are not greatly concerned about the corrosive effect of the environment on wheels and related structures, whether on a vehicle or trailer.

c) Power Source

Claim 1 includes the following:

a power source connected to a hydraulic pump, the power source configured to provide power to both the ground engaging propulsion structure and the fluid pump.

Ex. 1001, 8:42–44.

Petitioner argues that the Puck vehicle uses a diesel engine to power the slurry pump and that Bryham teaches a “hydraulic drivetrain” where a combustion engine drives the wheels through a hydraulic motor. Pet. 77 (citing Ex. 1014 ¶¶ 11, 24; Ex. 1015, 16:1–6). Petitioner further argues that

one of skill in the art would have used Puck’s “internal combustion engine to power the hydraulic pump, ground engagement means, and the fluid pump of Bryham” because “the high-powered engine of Puck would easily power each of these components, and . . . doing so would be cheaper, lighter, and more efficient than providing separate engines for each component.” *Id.* (citing Ex. 1004 ¶ 348).

Patent Owner argues that the testimony of Petitioner’s declarant is conclusory and that it does not explain why the combination would be cheaper, lighter and more efficient. Prelim. Resp. 90–91.

However, Petitioner explains that it “would be cheaper, lighter, and more efficient than providing *separate engines* for each component.” Pet. 77. This is a reasonable statement that is sufficiently supported at this stage.

d) Remote Control

Claim 1 includes the following:

a wireless remote control configured to enable an operator who is remote from the vehicle to: (1) control the ground engaging propulsion structure; . . . (3) control at least one of the speed and direction of the vehicle when the vehicle is ground engaging

Ex. 1001, 8:45–52.

Petitioner argues that “Puck teaches a vessel with a wireless remote-control that controls the flow of fluid from the fluid pump and the speed and direction of the vehicle while it is floating.” Pet. 77–78 (citing Ex. 1014 ¶¶ 9, 11, 27, 35, 37). Petitioner argues that Bryham discloses a vehicle with wheels that are steerable by a steering wheel. *Id.* at 78 (citing Ex. 1015, 5:32–37, 60–62).

Petitioner further argues that “[r]emote-control technology is well known and readily adaptable to power wheeled vehicles” and that one of

skill in the art “would have recognized that the remote-control steering system would control the speed and direction of the vehicle of Puck with Bryham’s powered, steerable wheels while the vehicle is ground engaging.” *Id.* at 78–79 (citing Ex. 1004 ¶¶ 349–350).

Patent Owner argues that the testimony of Petitioner’s declarant is conclusory and that the combination is complicated and not a simple plug and play situation. Prelim. Resp. 91–92.

Patent Owner does not argue that the combination is beyond the ability of one of skill of the art and we see no reason to determine that it would be. *See KSR Int’l Co.*, 550 at 421 (“A person of ordinary skill is also a person of ordinary creativity, not an automaton.”). Further, Puck already teaches steering and driving by remote control when floating in a manner that is more complicated than steering and driving a set of wheels.

e) Conclusion

After our review of Petitioner’s assertions with respect to claim 1 and the supporting evidence (as summarized above), we determine that Petitioner has established a reasonable likelihood of prevailing.

4. Claims 2–21

Petitioner argues that the combination of Puck and Bryham renders obvious claims 2–21. Pet. 79–88. Patent Owner does not address the dependent claims. Having determined that Petitioner has met its burden for institution with respect to claim 1, we decline to address the remaining claims.

K. 35 U.S.C. 103(a) – Puck, Bryham, Bennett II

Petitioner argues that the combination of Puck, Bryham and Bennett II renders obvious claims 1–21. Pet. 88–91. Specifically, Petitioner argues that “[s]hould the Board find that the remote-control steering system of Puck

would not have been obviously modified to control the Bryham wheels . . . Bennett-II teaches remote control of the ground engaging propulsion structure.” *Id.* at 89. Petitioner further argues that “it would have been obvious . . . to provide . . . remote control and a valve for improved steering and propulsion as taught by Puck and to use the remote control on land and water as taught by Bennett for ease of use.... The combination combines known features to achieve predictable results.” *Id.* (quoting Ex. 1036, 13) (a prior determination by an Examiner).

Patent Owner argues that Bennett II’s drivetrain is different from Bryham’s, and thus Bennett II doesn’t teach a person of skill in the art how to control Bryham’s drivetrain. Prelim. Resp. 102.

Patent Owner does not argue, and we see no reason to believe, that such a modification is not within the ability of one of skill in the art. *See KSR Int’l Co.*, 550 at 421 (“A person of ordinary skill is also a person of ordinary creativity, not an automaton.”).

Having reviewed the parties’ arguments and evidence, we determine that Petitioner has established a reasonable likelihood of showing that claim 1 is unpatentable over the combination of Puck, Bryham and Bennett II.

L. 35 U.S.C. 103(a) – Lyseng

Petitioner argues that Lyseng renders obvious claims 1–21. Pet. 91–95. At the same time, Petitioner acknowledges that “Lyseng is only prior art [if] . . . the ’425 Patent is afforded an effective filing date of February 16, 2016.” *Id.* at 30. Petitioner further acknowledges that the ’425 patent claims a priority date prior to February 16, 2016, but argues that there is a typographical error in the listing of two dates in an Application Data Sheet (“ADS”) that renders the priority claim defective. *Id.* at 29.

Patent Owner provides evidence that these typographical errors have been corrected, and that the “Patent Office has granted the Patent Owner’s petition to accept an unintentionally delayed priority claim . . . , which corrects the inadvertent error[s] contained in the ADS.” Prelim. Resp. 104 (citing Ex. 2002). As such, Lyseng is not prior art to the ’425 patent based on the these now corrected typographical errors.

M. Discretion Under 35 U.S.C. § 325(d)

The Director has discretion to institute an *inter partes* review, and has delegated that discretion to the Board. *See* 35 U.S.C. § 314(a); *see also* 37 C.F.R. § 42.4(a). Under 35 U.S.C. § 325(d), in determining whether to institute an *inter partes* review, we “may take into account whether, and reject the petition . . . because, the same or substantially the same . . . arguments previously were presented to the Office.”

In evaluating arguments under § 325(d), we use a two-part framework,

(1) whether the same or substantially the same art previously was presented to the Office or whether the same or substantially the same arguments previously were presented to the Office; and (2) if either condition . . . is satisfied, whether the petitioner has demonstrated that the Office erred in a manner material to the patentability of challenged claims.

Advanced Bionics, LLC v. MED-EL Elektromedizinische Geräte GmbH, IPR2019-01469, Paper 6 at 8 (PTAB Feb. 13, 2020) (precedential) (“*Advanced Bionics*”); *see also Becton, Dickinson & Co. v. B. Braun Melsungen AG*, IPR2017-01586, Paper 8 (Dec. 15, 2017) (precedential as to § III.C.5, first paragraph) (discussing non-exclusive factors to consider when

applying the framework under 35 U.S.C. § 325(d)) (“*Becton, Dickinson*”).

The nonexclusive *Becton, Dickinson* factors are:

- (a) the similarities and material differences between the asserted art and the prior art involved during examination;
- (b) the cumulative nature of the asserted art and the prior art evaluated during examination;
- (c) the extent to which the asserted art was evaluated during examination, including whether the prior art was the basis for rejection;
- (d) the extent of the overlap between the arguments made during examination and the manner in which Petitioner relies on the prior art or Patent Owner distinguishes the prior art;
- (e) whether Petitioner has pointed out sufficiently how the Examiner erred in its evaluation of the asserted prior art; and
- (f) the extent to which additional evidence and facts presented in the Petition warrant reconsideration of the prior art or arguments.

Becton, Dickinson, IPR2017-01586, Paper 8, 17–18. *Becton, Dickinson* factors (a), (b), and (d) relate to the first part of the *Advanced Bionics* framework (whether the same or substantially the same art or arguments previously were presented to the Office), and *Becton, Dickinson* factors (c), (e), and (f) relate to the second part of that framework (previous Office error). *Advanced Bionics*, IPR2019-01469, Paper 6 at 9–11.

Petitioner previously filed a request for reexamination of the ’425 patent including grounds based on Carrier, Puck, and Bennett¹¹. Ex. 2001, i. The reexamination request argued that claims 1–7 and 12–19 were anticipated by Carrier for the same reasons presented in the Petition. *Compare id.* at 37–44 with Pet. 39–47. The reexamination request argued

¹¹ Bennett shares a common specification with Bennett II. *Compare* Ex. 1016 with Ex. 1017.

that claims 1–21 were obvious over Puck and Bennett for the same reasons presented in the Petition concerning Puck and Bryham with or without Bennett II. *Compare* Ex. 2001, 68–77 with Pet. 72–92. Further, the Petition relies on Bryham and Bennett II for essentially the same teachings and for the same reasons to combine with Puck. Pet. 72–92. The reexamination request also acknowledges that the combination of Puck and Bennett was addressed by an Examiner in a parent patent application to the '425 patent. Ex. 2001, 69.

Thus, under *Advanced Bionics Carrier*, Puck, and Bennett are all art that is the same or substantially the same art previously presented to the Office. Further the arguments surrounding Carrier, Puck, and Bennett are the same or substantially the same arguments previously were presented to the Office.

1. Puck and Bryham with or without Bennett II

As discussed above, Puck and Bryham with or without Bennett II is the same or substantially the same as art previously presented to the Office and the Petition presents arguments regarding these references that were previously presented to the Office. *Compare* Ex. 2001, 68–77 with Pet. 72–92; *see also* Prelim. Resp. 87 (citing Ex. 1036, 31, Ex. 2001, 2); *id.* at 15–16.

However, we agree with Petitioner that the Office erred in a manner material to the patentability of challenged claims. Pet. 97. We agree with Petitioner's position that:

The Examiner . . . erred in accepting Respondent's argument during the prosecution of the parent '557 Patent and '422 [(sic)] Patent that Puck does not suggest remotely operating a vehicle on the ground when combined with an amphibious vehicle. EX1035, 7, 16, 20; EX1036, 13-16, 27. Puck's invention generally discloses a "manure agitation *vehicle* that may be remotely controlled" which implies that other components of a

vehicle (e.g., wheels) would be controlled by Puck's remote control. Adding wheels to Puck while remotely controlling the steering wheel would provide remote control of the ground engaging propulsion structure.

Pet. 97–98. We further agree that the Office continued to error “by allowing the ’557 Patent claims (and later allowing the ’425 Patent claims) after finding Bennett does teach remote control of the ground engaging propulsion structure when combined with Puck.” *Id.* at 98.

It is for this reason that we decline to exercise our discretion to deny institution.

2. *Carrier*

As discussed above, Carrier is the same art previously presented to the Office and the Petition presents arguments regarding Carrier that were previously presented to the Office. *Compare* Ex. 2001, 37–44 *with* Pet. 39–47; *see also* Prelim. Resp. 15.

As discussed in our analysis of the ground based on Carrier, we do not determine whether Petitioner has established a reasonable likelihood in that Carrier anticipates claim 1. Rather, we determined that this question is best left for trial after further development of the record as to what structure is required of a pump that is capable of pumping liquid with suspended solids. We, thus, determine that Petitioner has not sufficiently demonstrated that the Office erred in a manner material to the patentability of challenged claims when it previously evaluated Carrier.

However, this determination does not warrant denial of institution as the Petition contains a number of other grounds based upon other prior art and arguments. We decline to exercise discretion to deny institution based upon those other grounds.

3. *Truxor with Yoon or Carrier, and SenwaTec with Yoon or Carrier*

Petitioner argues that “Truxor, SenwaTec, and Yoon are new references and are materially different from the art in the prosecution history, which did not include amphibious sludge pumping vehicles.” Pet. 96. Petitioner further argues that “the USPTO has not considered adding remote control to such hazardous material processing vehicles.” *Id.* at 96–97.

Patent Owner argues that Truxor, SenwaTec, and Yoon are all cumulative of Carrier and Carrier’s water pump for firefighting. Prelim. Resp. 16, 18. However, Patent Owner does not address the difference in the water pump identified by Petitioner and that Truxor, SenwaTec, and Yoon all teach vehicles for pumping sludge. As discussed herein, the differences in the references often hinge on the type of pump disclosed and the pumps in Truxor, SenwaTec, and Yoon do not appear to be cumulative of the pump in Carrier. As the same or substantially the same art and arguments have not previously been presented to the Office with respect to these references, we decline to exercise our discretion to deny institution.

III. ORDER

In consideration of the foregoing, it is hereby:

ORDERED that, *inter partes* review of claims 1–21 of U.S. Patent 11,358,425 C1 is instituted on all grounds in the Petition; and

FURTHER ORDERED that pursuant to 35 U.S.C. § 314(c) and 37 C.F.R. § 42.4, notice is hereby given of the institution of a trial; the trial will commence on the entry date of this decision.

IPR2023-01161
Patent 11,358,425 C1

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