

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

BAZOOKA-FARMSTAR, LLC,
Petitioner,
v.
NUHN INDUSTRIES LTD.,
Patent Owner.

Case IPR2024-00098
Patent 11,541,708

Record of Oral Hearing
Oral Hearing Held: March 11, 2025

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

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P-R-O-C-E-E-D-I-N-G-S

12:00 p.m.

JUDGE DOUGAL: Good morning.

MR. LUCHSINGER: Good morning.

JUDGE DOUGAL: This is the oral hearing for IPR2024-00098 between the Bazooka-Farmstar, LLC and Nuhn Industries Ltd. and concerning US Patent 11,541,708. I'm Judge Dougal. With me today are Judges Meyers and Petravick. Let's start with appearances. Who do we have on behalf of petitioner?

MR. STEMLER: Good morning, Your Honors. I'm Taylor Stemler. I'm from the law firm Merchant & Gould, P.C. I will be arguing today on behalf of petitioner Bazooka-Farmstar, LLC. Also with me on the call today is my colleague, Tom Leach.

JUDGE DOUGAL: Excellent. Thank you. And for the patent owner?

MR. LUCHSINGER: Good morning, Your Honors. My name is James Bradley Luchsinger. I'm an attorney with the Harness IP law firm. I'll be arguing today on behalf of the patent owner Nuhn Industries Ltd. Also on the call with me is Matt Cutler and Scott Yackey who are attorneys at my firm.

JUDGE DOUGAL: Excellent. Thank you. Before we begin with arguments, I'll go over a few administrative matters. We understand that in every case that comes before us both parties have a lot at stake. As such, we take our role as judges very seriously. Our primary concern is your right to be heard. If at any time during the proceeding you encounter technical or other difficulties and you feel it fundamentally undermines your ability to

1 adequately represent your client, please let us know immediately; for
2 example, by contacting the team members who have provided you with the
3 connection information.

4 Please identify yourself each time you speak. While not speaking,
5 please mute yourself. We have reviewed and have the entire record before
6 us. When referring to demonstratives, papers, or exhibits please do so
7 clearly and explicitly by slide or page number.

8 Please also pause a few seconds after identifying it to provide us time
9 to find it. This helps the preparation of an accurate transcript of the hearing.

10 Please be aware that the members of the public may be listening to this oral
11 hearing. In our hearing order we authorized 40 minutes of argument for
12 each side. We encourage the parties be aware of the time and to use their
13 time wisely.

14 So before we begin the next part, I have two reminders, questions, or
15 issues. So first, I remind the parties to carefully read each order and paper
16 that we issue. It's not a big issue, but our hearing order requested that the
17 exhibit -- that the slides to be filed as exhibits. They are both -- both parties
18 filed them as papers here so please just make sure you read all of our orders.

19 Secondly, we have a number of documents here that had been filed as
20 sealed or sealed and redacted documents for which there were not motions to
21 seal some those documents. We know that in related cases some of those or
22 some documents have been decided to not -- it's not been necessary to seal
23 those documents.

24 And so we would request that in this case as well as the related
25 IPR2024-00004 case that within ten business days, if the parties would
26 please file either a motion to seal or a document that says that -- explicitly

1 says those documents no longer need to be sealed, that would be
2 appreciated. Are there any questions on those items?

3 MR. LUCHSINGER: Yes, Your Honor. This is Brad Luchsinger for
4 the petitioner. Would you like the demonstrative exhibits refiled as exhibits
5 to the IPR as well as, you know, how they're currently filed or should we
6 just leave them as papers?

7 JUDGE DOUGAL: Thanks for the question. Yeah, you can leave
8 them as papers.

9 MR. LUCHSINGER: Okay. And --

10 JUDGE DOUGAL: Oh.

11 MR. LUCHSINGER: -- we're happy to confer after oral argument
12 today and within 10 business days file a motion to seal. Given the related
13 proceedings, different court litigation and sort of history of the case, my
14 expectation is that there will still be some material that has to be sealed, but
15 it may not be as extensive as what was done previously.

16 JUDGE DOUGAL: Okay. Thank you.

17 MR. STEMLER: Your Honors, I have another point on this topic, if I
18 may?

19 JUDGE DOUGAL: Yes, go ahead.

20 MR. STEMLER: Prior to the hearing petitioner reached out to the
21 Board and requested guidance on how to present certain material during this
22 hearing. That was currently under seal. After further review and, you know,
23 rehearsal of the argument, we've decided that we no longer need to have that
24 sealed portion of the argument and can discuss the information in such a way
25 that we do not need the hearing sealed.

1 JUDGE DOUGAL: Okay. Thank you. Okay, so before we begin
2 with oral arguments any other separate questions or questions on the hearing
3 today? Petitioner?

4 MR. STEMLER: No, Your Honor.

5 JUDGE DOUGAL: Okay. Patent owner?

6 MR. LUCHSINGER: No, Your Honor.

7 JUDGE DOUGAL: All right, thank you. So Mr. Stemler, would you
8 like to reserve any time for rebuttal?

9 MR. STEMLER: Yes, Your Honor, I'd like to reserve five minutes of
10 rebuttal time.

11 JUDGE DOUGAL: And Mr. Luchsinger, would you like to reserve
12 some time for rebuttal?

13 MR. LUCHSINGER: Yes, Your Honor, five minutes as well. Thank
14 you.

15 JUDGE DOUGAL: Okay. Thank you. So as we begin, as you are
16 both aware, we have already issued a final decision in IPR 2023-01161. In
17 that case we focused on the Puck, Bryham and then with the addition of
18 Manure-Manager.

19 So, you know, if we were to take the same approach here to focus on
20 those grounds, we are obviously very interested to know, you know, what's
21 different in this case, what are the relevant issues that we should focus on.
22 From my reading of the file and your arguments, the Puck, Bryham and
23 Manure-Manager ground may be the most relevant. And I just identify that
24 as -- focus the arguments in the limited time we have today. So with that,
25 Mr. Stemler, begin whenever you're ready.

26 ORAL ARGUMENT - PETITIONER

1 MR. STEMLER: Thank you, Your Honor. This is the third in a
2 series of IPRs related to Nuhn's '425, '835 and '708 patents. Many of the
3 issues in these IPRs overlap, and with this presentation we've focused the
4 arguments on what we think are the important new issues for resolution in
5 this IPR.

6 However, to the extent the Board has any questions about or would
7 like any elaboration on any of the issues discussed in the prior hearings or
8 the final written decision, we are happy to answer those questions as well.

9 Now, the first key issue here relates to the proper construction of the
10 term "between". While the institution decision preliminarily construed
11 "between" as, in the space that separates, the intrinsic evidence demonstrates
12 that the broader definition, in intermediate relation to, is more proper here.

13 Thus, each of Puck, Truxor, and SenwaTec combinations render
14 obvious buoyant elements in intermediate relation to the wheels.
15 Regardless, even if the restrictive definition is applied, the Puck, Truxor and
16 SenwaTec combinations still render obvious buoyant elements in the space
17 that separates the wheels.

18 Moving to Slide 3, the third and fourth new issues for resolution are
19 that the Truxor and SenwaTec combinations each teach a liquid manure
20 pump and that it would've been obvious to have combined the Nuhn pump
21 with Truxor and SenwaTec.

22 Slide 4. The institution decision cited to the Merriam-Webster
23 dictionary as support for its preliminary construction of the term "between"
24 as meaning in the space that separates. However, that dictionary also
25 provides another broader definition of "between" as in intermediate
26 relationship to.

1 Here the intrinsic evidence is inconsistent with the narrow "in the
2 space that separates" definition and rather the intrinsic evidence requires a
3 broader definition, "in intermediate relation to" be applied here.

4 Slide 5. Now post-Phillips, reliance on dictionaries is proper during
5 claim construction only if the definition from that dictionary does not
6 contradict any definition ascertained by a reading of the intrinsic evidence.

7 As clarified in Phillips, the intrinsic evidence includes the prosecution
8 history with representations made by the patent owner and the prior art cited
9 on the face of the patents. Now, the first piece of intrinsic evidence related
10 to the proper construction of "between" is a Nuhn's motion to amend the
11 '835 patent and the '835 patent IPR.

12 There, Nuhn uses the term "between" in its substitute Claims 43 and
13 59 to describe how the hydraulic pump is positioned with respect to the
14 power source and the immersible liquid manure pump. And that can be
15 found at Paper 21 at Pages 7 through 9 of the '835 patent IPR.

16 Now, the only support that Nuhn identifies for this claimed
17 arrangement is in its figures which illustrate the hydraulic pump, the liquid
18 manure pump, and the power source. These figures are provided here on the
19 right-hand side of the screen. But these figures show that hydraulic pump,
20 which is labeled 10 and shown in blue, is located above and beside, not in
21 the space that separates the yellow fluid pump 9 and the power source which
22 is red and labeled 7.

23 Even though the hydraulic pump is not located in the space that
24 separates, Nuhn's experts still considers that hydraulic
25 pump to be "between" the fluid pump 9 and the power source 7 in the
26 figures. Specifically, when asked in his deposition, is the hydraulic pump 10

1 between the pump and the engine, Nuhn's expert, Mr. Prairie, stated, "Item
2 10 is part of the driveline sub-system and it is in between item 7 and the
3 pump."

4 And that's from Exhibit 1094, Page 194, Line 22 through Page 195,
5 Line 2. Now, instead of trying to argue this point on the merits, Nuhn
6 attempts to retract its statements from its original motion to amend saying
7 that its original motion to amend doesn't count because it was replaced by its
8 revised motion to amend in the '835 patent IPR.

9 However, Nuhn is dead wrong on this point. This situation is
10 analogous to the *Aylus Networks, Inc. v. Apple Inc.* case, Citation 856 F.3d.
11 1353 at 1361, which is a Federal Circuit case from 2017. There, the patent
12 owner argued that statements that it made in its patent owner preliminary
13 response were irrelevant to claim construction because of patent owner
14 preliminary response was later replaced in the IPR proceeding by its patent
15 owner response.

16 The Federal Circuit rejected that argument and it found that both the
17 patent owner preliminary response and the patent owner response were each
18 official papers in which the patent owner could define claim terms and make
19 representations about its claim scope which the public is entitled to rely on.

20 This same argument is now advanced by Nuhn and should be
21 similarly rejected by the Board here. Nuhn cannot file official papers using
22 the same terminology at issue here and later run away from those
23 representations it made to the public about this terminology in those papers.

24 Another example supporting the broader definition of "between" is
25 found in Figure 1 of the '708 patent, and I'm referring now to Slide 7.
26 Figure 1 discloses a mode of operation where the wheels on the vehicle are

1 located below the bottom edge of the buoyant -- of the vehicle body. In this
2 embodiment, the buoyant elements are not located in the space that separates
3 the wheels, yet, Nuhn's experts still considers these buoyant elements to be
4 between the wheels.

5 Claim 15 of the '708 patent requires the buoyant elements to be
6 between a front wheel and the rear wheel on both the left and right sides of
7 the vehicle. When asked about Claim 15 with respect to the position of the
8 buoyant elements shown in Figure 1, Nuhn's experts stated, "And to me that
9 buoyant Element 2 as depicted here, fulfills that criteria that's described in
10 Claim 15." And that's Exhibit 1094, Page 198, Line 11 through 14.

11 Thus, according to Nuhn's expert a buoyant element position wholly
12 above the space that separates the wheels of the vehicle is still between the
13 wheels. Nuhn's only argument on this point is that a portion of the buoyant
14 elements on its commercial embodiment are between the wheels when a
15 commercial embodiments wheels are lowered.

16 But this argument is irrelevant. The lever structure connecting the
17 wheels to the vehicle on Nuhn's commercial embodiment is a completely
18 differently configuration than the lever structure shown in Figure 1 of the
19 '708 patent. The commercial embodiment wheel levers appear to swing out
20 from the sides of the vehicle.

21 In contrast, the '708 patent wheel levers swing parallel to the sides of
22 the vehicle and position the wheels wholly below the buoyant elements on
23 the wheels -- on the vehicle. What matters here is what POSITA would've
24 understood from reviewing the '708 patent. Figure 1 shows the wheels
25 below the bottom side of the buoyant elements and Nuhn's expert considers
26 those buoyant elements to be between the wheels of the vehicle.

1 Moving to Slide 9, the next piece of intrinsic evidence supporting a
2 broader construction of the term "between" is the *Bailey* reference, Exhibit
3 2084, which is cited on the face of the '708 patent. Now, the institution
4 decision overlooked the text of *Bailey* when considering this argument
5 before. *Bailey* states in reference to Figure 6, which is shown here, quote,
6 two pairs of intermediate axles supporting wheels 128 are located between
7 the front and rear wheels 124, 126.

8 Now, the institution decision interpreted this statement to be referring
9 to the position of the wheels 128 in connection with the intermediate axles.
10 However, the intermediate axles are the subject of a sentence. The
11 supporting wheels 128 phrase is merely an adjectival phrase that describes
12 the function of the intermediate axles.

13 One illustrative example here is if I were to say, my hand supporting
14 the bottle is a part of my body. Nobody would think that I am saying that
15 my hand and the bottle are a part of my body. Instead, it is grammatically
16 clear that this phrase refers only to my hand which is the subject of this
17 sentence.

18 Regardless, even if one ignores the text of *Bailey*, Mr. Prairie, Nuhn's
19 expert, stated in his deposition that in Figure 6 of *Bailey* the two lower
20 center circles, which are shown here in red, are between the two upper outer
21 circles, which are shown here in yellow, and that's at Exhibit 1094, Page 99
22 line 7 through line 23.

23 The *Knowles* reference, which is discussed on Page 10 of the
24 demonstratives and is Exhibit 1086, is another piece of intrinsic evidence
25 listed on the 708 patent which uses the term "between" to refer to the
26 position of components on a manure hose distributor.

1 *Knowles* describes how a pair of braces, 36a and 36b shown here in
2 red, extend between the upright structural number 34, which is shown here
3 in blue, and the center beam 24, which is shown here in yellow. While
4 portions of the red braces do extend in intermediate relation to the blue
5 upright structural member and the yellow center beam, the red braces do not
6 extend in the space that separates the blue upright structural member and the
7 yellow center beam.

8 Moving to Slide 11. Similarly, *Tschuess*, which is Exhibit 1093, is
9 also cited on the face of the '708 patent. *Tschuess* describes that the nozzle
10 11, which is circled in red, is between the corners at the front of the vehicle,
11 circled in blue. Again, while the nozzle is in intermediate relation to the
12 front corners, the nozzle is not in the space that separates the front corners.

13 Nuhn does not even address *Knowles* or *Tschuess* as intrinsic
14 references in its Patent Owner Response or its sur-reply, nor has Nuhn's
15 expert considered any of this intrinsic evidence when reaching his
16 conclusions on the meaning of the term "between".

17 In the institution decision the Board stated that it thought that
18 Bazooka was simply reading "between" as next two and in its sur-reply
19 Nuhn alleged that Bazooka is improperly using broad interpretation to read
20 limitations out of the claims. However, this is not so. The "between"
21 elements still provide a limitation here, and that is forward of the rear wheel
22 and rearward of the forward wheel which are on each sides of the vehicle.
23 The prior art combination on here render obvious this limitation.

24 And, my apologies, I was referring to Slide 12 and I'm now referring
25 to Slide 13. Moving onto the grounds, I plan to address these grounds in

1 generally reverse order starting with the Puck, Bryham and Manure-
2 Manager combination.

3 Now, Nuhn focuses its arguments in its slides and in its briefing on
4 the motivation to combine Puck and Bryham. These arguments are
5 substantially similar to the arguments made and rejected in the '425 patent
6 IPR final written decision and are discussed at length in the parties' briefs.
7 Unless the Board would like us to, we do not plan to argue this point here.

8 Nuhn also provides extensive arguments on whether Puck discloses a
9 pump with a bottom fluid intake. However, that issue does not matter
10 anymore. Nuhn conceded in its patent owner response that would be
11 obvious to combine the Puck-Bryham combination with the Nuhn pump.
12 Thus, the relevant combination to consider here is the Puck, Bryham and
13 Manure-Manager combination.

14 The Nuhn pump shown in Manure-Manager renders the obvious all of
15 the pump-specific elements of the claims of the '708 patent. For the first
16 time in its sur-reply, Nuhn argues that one would not have fitted the Nuhn
17 pump onto Puck and would've instead opted for a pump with a rearwardly
18 orientated fluid in one. However, these late arguments are not supported by
19 any record evidence and they do not make any sense.

20 Now, as discussed by Dr. Winkel, a POSA would've considered it to
21 be obvious to a place one of Bryham's wheels at each corner of the Puck
22 vehicle with the front wheels at the front of the vehicle and the rear wheels
23 at the rear of the vehicle.

24 Furthermore, Bryham discloses that the wheels are retractable to,
25 quote, cause minimal hydrodynamic or aerodynamic drag, end quote. And
26 that's at Exhibit 1015, Column 3, Line 22 through 24. As discussed by Dr.

1 Winkel, a POSA would've considered it obvious to have retained the
2 retractable functionality of Bryham's wheels to reduce hyperdynamic drag
3 on the vehicle while floating. A POSA would've also considered it
4 beneficial to retain this structure to allow an operator greater versatility to
5 move around and work in shallower areas of the lagoon.

6 And moving to Slide 16, Nuhn fails to provide any argument
7 regarding the ability to implement Bryham's retractable wheels on Puck.
8 Dr. Winkel has provided extensive testimony regarding how one would've
9 been motivated to make this modification and would have had a reasonable
10 expectation of success in doing so, and that's at Exhibit 1079, Paragraph 166
11 through 171.

12 Nuhn's sole arguments on this point relate to Bazooka's citation of
13 Sundstrom as providing background on what POSA would've understood at
14 the time of the invention, of the alleged invention, of the '708 patent.
15 However, Nuhn do not even need Sundstrom to get here.

16 Bryham discloses floatable elements in the space that separates the
17 front and rear wheels on that vehicle. The arrangement of floatable elements
18 between the front and rear wheels in the Puck-Bryham combination
19 naturally results from the common sense implementation of Bryham's
20 retractable wheels on the Puck vehicle. When raised, the floatable elements,
21 shown here as 26 or 28 and circled in red, are between the front and rear
22 wheels just as they are in the Bryham reference.

23 Moving to Slide 17. A POSA would've understood that this
24 arrangement of floatable elements and the wheels would be beneficial. Puck
25 emphasizes the importance of stability for the vehicle and also discusses the

1 importance of maintaining an overall width of the vehicle suitable to permit
2 highway travel.

3 The arrangement of wheels and buoyant elements shown here allows
4 for the wheels and buoyant elements to each be placed at a maximum
5 distance from the center line of the vehicle, thereby, enhancing the stability
6 of the vehicle while floating and on land. The arrangement also allows for
7 the overall width of the vehicle to remain suitable for highway travel, and
8 that's supported by Dr. Winkel at Exhibit 1079, Paragraph 171.

9 Moving to Slide 18, Nuhn's only substantive counter argument to this
10 modification in its sur-reply is that Bazooka's citation of Sundstrom is
11 improper. But Nuhn is the one who first introduced Sundstrom in Exhibit
12 2008, Page 8 through 9, with its patent owner preliminary response.

13 This was the first time Nuhn ever disclosed Sundstrom to Bazooka or
14 to the patent office in connection with its '708 patent. After Nuhn disclosed
15 this reference, Bazooka obtained a declaration from Mr. Sundstrom, which is
16 Exhibit 1100, which provided more information about the Sundstrom
17 vehicle that was publicly used before the '708 patent effective filing date.

18 Sundstrom is proper evidence here because it is merely used as
19 supporting evidence in considering the knowledge, motivations, and
20 expectations of a POSITA regarding a prior art, and that's from the Yeda
21 Research & Dev. Co. case, 906 F.3d. at Page 1031 -- at Page 1041. That's a
22 Federal Circuit case from 2018. [*Yeda Research & Dev. Co. v. Mylan*
23 *Pharms. Inc.*, 906 F.3d. 1031 (Fed. Cir. 2018)].

24 Now, Sundstrom is evidence that supports that a POSA would've had
25 a reasonable expectation of success in combining the prior art teachings of
26 Puck and Bryham. Moving to Slide 19, in support of its arguments, Nuhn

1 proposes these alternative ways to attach Bryham's wheels to Puck,
2 however, in doing so, Nuhn cannot even consistently illustrate how its
3 proposed arrangement would work.

4 In the middle figure the lever structure of the wheels is attached to the
5 top of the buoyant elements, and in the right figures the lever structure is
6 attached to the bottom frame. Nuhn also contradicts itself as it's argued
7 throughout these IPR proceedings that one would've not thought it obvious
8 to have added a fourth wheel of Bryam to Puck's rectangular vehicle which
9 is commonly done with automative vehicles. Why, then, would one add a
10 5th, 6th, 7th and 8th wheel which is a far less common arrangement?

11 Regardless, while it may be possible to attach Bryham's wheels to
12 Puck's vehicle in this way, this does not to disprove anything. It does not
13 negate that Bazooka's proposed combination is one of a finite number of
14 ways that one could have attached Bryham's wheels to the vehicle with a
15 reasonable expectation of success.

16 The fact that there may be another way to accomplish this
17 combination does not change this. Finally, even under Nuhn's combination,
18 the intermediate wheels shown here would also be properly considered
19 buoyant elements in the space that separates the front and rear wheels on
20 each side of the vehicle. Bryham discloses, quote, all-terrain balloon type
21 tires, end quote.

22 As exclaimed by Dr. Winkel, a POSA would have understood this
23 type of tire on Nuhn's proposed intermediate wheels to be a buoyant
24 element, and that's supported by Exhibit 1079, Page -- or Paragraph 173.

25 Moving to Page 20, Nuhn also argues that the Puck combination does
26 not teach a power source that powers both the fluid pump and the ground

1 engaging propulsion structure. However, as we exclaimed in the '835 patent
2 oral hearing and in our briefing in this IPR, these arguments are based on an
3 incorrect understanding of petitioner's arguments.

4 Bazooka has always argued that a POSA would consider it obvious to
5 power the fluid pump as well as Bryham's hydraulic transmission and
6 wheels with Puck's engine. That's supported by Dr. Winkel at Exhibit 1079,
7 Paragraphs 178 through 183.

8 Moving to Slide 22, it also argues that Bryham does not disclose
9 individual hydraulic wheel motors, but this contradicts Bryham's text, which
10 describes hydraulic motors, plural, and notes that each of the hydraulic
11 motors can be mounted within the ground engagement means 16. Each of
12 the front and rear wheels of Bryham are identified as a ground engagement
13 means, 16, as shown here in the figures. Thus, the text of Bryham read in
14 connection with the figures clearly indicates that each of the wheels of
15 Bryham can be powered.

16 Moving to Slide 23, before addressing the SenwaTec construction
17 grounds, I'd like to briefly touch on the construction of the term "liquid
18 manure pump". Liquid manure pump, as used in the 708 patent, should be
19 construed consistently with a fluid pump for pumping liquid manure, which
20 was determined in the '425 patent final written decision to be a pump with a
21 structure that is capable of pumping liquid with suspended solids.

22 JUDGE DOUGAL: Counsel?

23 MR. STEMLER: Yes, Your Honor?

24 JUDGE DOUGAL: This is Judge Dougal. Real quick before you
25 leave the Puck grounds, could you address some of the dependent claims,

1 like Claim 3 or Claim 16? Patent owner has arguments about, you know,
2 that you didn't do enough, that, for example, we'll start with Claim 3, which
3 requires two tangential fluid outlets equipped with a flexible connection to a
4 single fluid conduit.

5 I believe patent owner makes an argument that your expert doesn't cite
6 the reference for the flexible connection and is, in essence, you know, there's
7 not enough there to support that ground. So if you would you like respond
8 to that, I'd like to get your input.

9 And then, similarly, Claim 16, which I think talks about it toward the
10 middle, the center of gravity. Patent owner makes some arguments that, I
11 guess, could be maybe a claim construction argument or a requirement of
12 what the claim requires for Claim 16. And if you could respond to that, I
13 would appreciate that as well.

14 MR. STEMLER: Sure, Your Honor. First, regarding the flexible
15 outlet claim, Claim 3, 19, and 30, in petitioner's reply brief, petitioner cited
16 to Dr. Winkel's declaration on this point, Exhibit 1079, specifically to the
17 paragraph range starting at Paragraph 266. And, you know, our
18 expert, Dr. Winkel, who is -- has extensive experience in designing and
19 working with fluid pumps, has discussed how, you know, vibrations from
20 the pump such as vibrations caused by rotations of the impeller, various
21 rotational imbalances in the pump can -- and different hydrodynamic effects
22 -- can produce vibrations in the pump.

23 And while the Manure-Manager reference is not clear on what type of
24 connections the two fluid outlets are made up of, a person of skill in the art
25 would've considered it obvious to have made those connections with
26 flexible material such that those negative effects of vibrations can be

1 mitigated. And so that's outlined in great detail in the passages in Paragraph
2 266, through, I believe it is, 267 of Dr. Winkel's declaration.

3 As for the center of gravity point there, again, Dr. Winkel has
4 provided extensive testimony on this point as well. Specifically, Dr. Winkel
5 cites to the -- apologies, Your Honor, I'm referring now to Exhibit 1079, at
6 Paragraph 283, where Dr. Winkel talks about the center of gravity and the
7 desire to make that substantially in the middle of the vehicle.

8 You know, Puck describes in its disclosure the importance of stability
9 of the vehicle while it's floating. And, therefore, one would've considered it
10 obvious when, you know, adding the Nuhn pump to Puck and, you know,
11 adding the wheels of Bryham to Puck, to have arranged the components on
12 Puck such that the center of gravity is in the middle of the vehicle to provide
13 enhanced stability.

14 With the Board's permission, I'll now move onto the additional
15 grounds here, unless there are any other questions about the Puck Bryham
16 grounds.

17 Turning now to Slide 26, looking at the SenwaTec reference, Nuhn
18 argues that SenwaTec lacks a buoyant element between the wheels.
19 However, under the proper construction of "between" SenwaTec does
20 disclose buoyant elements, at least a portion of which are positioned in
21 intermediate relation to the front and the rear wheels on each side of the
22 vehicle.

23 Patent owners conceded that only a portion of the buoyant elements
24 need to be arranged in the space between the wheels, and that's at Paper 21
25 at Page 12. Here, a portion of the SenwaTec buoyant elements are arranged
26 in intermediate relation to the front and the rear wheels of the vehicle.

1 However, even under the restrictive definition of "between" -- and I'm just
2 turning now to Slide 28 -- SenwaTec still teaches a buoyant element in the
3 space that separates the front and rear wheels on each side of the vehicle.

4 As exclaimed in detail by Dr. Winkel, a POSA, would've understood
5 that the center wheel on each side of the six-wheeled vehicle is a buoyant
6 element, and that's described at Exhibit 1079, Paragraph 123, to paragraph
7 129. While the Board refused to consider this argument in the institution
8 decision, this argument is properly raised by Bazooka in response to the
9 Board's claim construction in the institution decision.

10 The Federal Circuit has held that, quote, under the APA when the
11 Board adopts a new claim construction following institution an IPR
12 petitioner must have adequate notice and opportunity to respond under the
13 new construction. In particular, the petitioner must be afforded a reasonable
14 opportunity in reply to present arguments and evidence under that new
15 construction. And that's the *Axonics, Inc. v. Medtronic, Inc.*, 75 F.4th 1374
16 (Fed. Cir. 2023).

17 Turning to Slide 29, SenwaTec discloses immersible liquid manure
18 pump. This point is discussed at length in the parties' briefs, and there is
19 ample evidence to support this fact. Likewise, there is significant evidence
20 demonstrating why a person of ordinary skill in the art would've considered
21 it obvious to have added remote control to the SenwaTec vehicle.

22 Furthermore, Ground 7 is offered which combines the Nuhn pump
23 with the SenwaTec pump -- and I'm referring now to Slide 33 -- to show that
24 the additional claims that to certain features of the Nuhn pump are obvious.
25 Nuhn provides a --

1 JUDGE DOUGAL: Sorry, to interrupt, but I just want to give you a
2 heads-up that you have about five minutes left of your argument time.

3 MR. STEMLER: Thank you, Your Honor. Would the Board be
4 willing to allow an additional five minutes to cover the remaining grounds
5 and provide rebuttal?

6 JUDGE DOUGAL: I don't really think we need to.

7 MR. STEMLER: Okay, understood. The first argument Nuhn
8 provides is saying that the Nuhn pump could not provide the dredging
9 functionality of the SenwaTec pump. However, prior art pumps were used
10 interchangeably for these purposes. Additionally, Nuhn's arguments are
11 inconsistent. It argued that a dredging pump could not pump liquid manure,
12 and now flips course and argues that a liquid manure pump would not be
13 capable of dredging.

14 These arguments are baseless. As outlined by Dr. Winkel, both the
15 Nuhn pump and SenwaTec are structurally very similar and a POSA would
16 expect each of these pumps to be substitutable for these functions, and that's
17 described at Exhibit 1079, Paragraph 249 through 253.

18 Nuhn also alleges that the Nuhn pump is too big for SenwaTec, and
19 SenwaTec could not provide the minimum horsepower for the Nuhn pump.
20 However, Nuhn's own product literature contradicts this point. Nuhn's
21 literature showing the Nuhn pump on its website back in 2011 provides a
22 web page for the Nuhn pump and a performance curve for the Nuhn pump
23 flow versus horsepower. At SenwaTec 67 horsepower, Nuhn's own
24 marketing materials demonstrate that the pump could pump 5,500 gallons
25 per minute.

1 Furthermore, the Nuhn pump size could be modified to be
2 accommodated on the SenwaTec vehicle. Physical combinability between
3 these two products is simply not required. One could understand the
4 teachings of these two prior art references.

5 The next grounds of a Truxor and SenwaTec obviousness grounds,
6 I'm moving to Slide 35. Now, Nuhn is not disputed in any of its briefing on
7 the '708 patents that it would've been obvious to have substituted the tracks
8 for the wheels on Truxor. The sole dispute here is related to how the wheels
9 are positioned on the vehicle in relation to the buoyant elements.

10 And where there is a finite number of identified, predictable solutions,
11 and each of those has a reasonable expectation of success, it's likely that that
12 is not obvious. That's demanded by the Supreme Court case, the *KSR* case.
13 There are a couple of ways that the buoyant elements could not -- could be
14 arranged on the vehicle, and there are pros and cons of each.

15 One option is to place the buoyant elements outboard at the wheels,
16 which may provide greater floating stability, but would lead to a wider
17 vehicle making it harder for road transport. In contrast, placing the wheel,
18 the buoyant elements, in the space that separates the wheels strikes a balance
19 of stability for the vehicle and ability to transport the vehicles over surface
20 roads.

21 As shown in the Truxor reference Exhibit 1006 at Page 15, this is
22 exactly how the vehicle was commonly transported. As explained above, a
23 POSA would've understood that there's a reasonable expectation of success
24 in arranging the wheels on the buoyant -- on the Truxor vehicle this way.

25 I am moving onto Slide 40. This ground was provided again to
26 discuss how none of these other pump-specific claims are patentable. All of

1 Nuhn's arguments on the Manure-Manager-Truxor combination are wrong
2 for the same reason discussed with respect to SenwaTec.

3 Finally, turning to Nuhn's arguments for secondary considerations at
4 Page 42 of the demonstratives, Nuhn's commercial success arguments are
5 undercut by the fact that Ian Nuhn admitted during his deposition that Nuhn
6 spent significant amounts of money on advertising the lagoon crawler.

7 And that's supported by *McNeil* Case 337 F.3d. Page 1362 at 1370.
8 That's a Federal Circuit case from 2003. And I'll direct the Board to Paper
9 29 at Page 34 where the unsealed version of this argument is provided.

10 Finally, the very last point at Page 45 of the demonstratives, turning to
11 Bennet-II, Ground 1, this reference anticipates Claim 23, which does not
12 even require a pump. Bennett-II talks about how volume voids in the hull,
13 which are shown here in green and blue, can be filled with foam inserts.

14 While Nuhn provides late arguments about what a buoyant chamber is
15 and what it requires, those arguments are moot given the fact that Bennett's
16 volume voids would be closed when the vehicle is in an assembled state, as
17 shown here in Figure 6. And with that, I'll save the rest of my time for
18 rebuttal. Thank you, Your Honors.

19 JUDGE DOUGAL: Thank you, Counsel. I believe you have about
20 four minutes left of rebuttal time.

21 Patent Owner, whenever you're ready.

22 ORAL ARGUMENT - PATENT OWNER

23 MR. LUCHSINGER: Thank you, Your Honors. This is Brad
24 Luchsinger presenting for the patent owner. Can everyone see my screen
25 okay?

26 JUDGE DOUGAL: Yes.

1 MR. LUCHSINGER: Great. Okay, so turning to Slides 2 through 4
2 of the patent owner's slide presentation for the hearing, there's a chart that
3 compares Claim 1 of the '425 patent to the four independent claims. That's
4 Claims 117, 21, and 23 of the '708 patent.

5 And the takeaway here is that the four independent claims of the '708
6 patent use different combinations of claim limitations with different
7 phraseology such that each independent claim needs to be analyzed and
8 evaluated individually, and we can't just take one claim as exemplary and
9 apply the prior art to it.

10 But for discussion purposes, I've included color coding in this chart to
11 line up some of the common themes between the independent claims, and
12 that's what I want to focus on in talking about the prior art, and specifically,
13 the Puck, Bryham and the Manure-Manager combination.

14 What I want to start off with is Claim 17, 21, and 23 of the '708 patent
15 claim a particular position of the buoyant elements relative to the wheels.
16 And one thing that I wanted to point out on this slide is, on my Slide 2, is
17 that there's language in Claim 17 that specifically states that the first front
18 wheel and the first rear wheel are on a first side of the vehicle. And that's a
19 limitation that I wanted to highlight because I think it may have been
20 overlooked the institution decision.

21 So when we line all of these up, Claim 17 requires the first buoyant
22 element to be situated between the first front wheel and the first rear wheel,
23 and the same thing with the second buoyant element. And because Claim
24 17, as I showed you on the previous slide, requires the first and second -- or
25 the first front wheel and the first rear wheel to be on the first side of the
26 vehicle, necessarily at least some portion of the first buoyant element needs

1 to be arranged in the space between those wheels on the first side of the
2 vehicle.

3 So this position of the buoyant elements being along the sides of the
4 vehicle is present in both independent Claims 17 and 21. Claim 21
5 specifically states that the first and second buoyant elements are situated on
6 the first and second sides of the vehicle. And then Claim 23 uses a little bit
7 different language.

8 It doesn't explicitly require the buoyant elements to be along the sides
9 of the vehicle, but it does require the buoyant elements to be foam filled
10 buoyant chambers. And that's important when we look at some of the prior
11 art as well, and we'll get to that in a second.

12 So ultimately, on Slide 6, this is Figure 3 of the '708 patent. This
13 shows the arrangement of the buoyant elements and the wheels as claimed in
14 the '708 patent. Another key limitation that's filed in Claims 12, and to some
15 extent, Claim 17, is a recitation of a liquid manure pump.

16 This is important because in this language of a liquid manure pump is
17 not explicitly set forth in the '425 patent or the '835 patent. In the '425 patent
18 we had a fluid pump for pumping liquid manure, which Petitioner argued
19 was intended use. And then in the '835 patent, we had a liquid manure
20 mover.

21 Patent owner argued that that included a liquid manure pump, but
22 petitioner's argument was that the liquid manure mover was just a generic
23 pump. So in the '708 patent, the Board can't overlook the fact that the claims
24 explicitly require a liquid manure pump, as well as reciting particular
25 structure of what that liquid manure pump is.

1 In Claim 1 of the '708 patent indicates that the liquid manure pump
2 has to have a bottom fluid inlet in the housing, and that that bottom fluid
3 inlet is configured to be immersed in a liquid manure when the vehicle is
4 floating in a liquid manure lagoon. That's in purple on Slide 7.

5 And then for Claim 21 of the '708 patent, it explicitly requires an
6 impeller in the pump housing and that the impeller is immersed in the liquid
7 manure lagoon. These limitations are important because they distinguish
8 over the non-submersible pump of Puck. So the only way you even reach
9 these claim limitations is by adding the Manure-Manager, Nuhn G-4's
10 vertical pit pump into the equation, and I'll explain later why that's improper.

11 Just again to put a picture with the words, on Slide 8 of the slide
12 presentation, Figure 3 of the '708 patent, Figure 8 of '708 patent, shows the
13 vehicle from the underside, and you can see the housing, which is generally
14 shown at 18, and then the bottom fluid inlet, which is 38, which is
15 highlighted on the -- on Slide 8, and you can see the impeller inside the
16 pump housing through the bottom fluid inlet. In the interest of time, I'll
17 jump ahead to the claim construction issues.

18 So there's been a number of terms that have been identified as in
19 dispute in this matter -- liquid manure, liquid manure pump, and "between".
20 In the interest of time, I'll focus on the "between" term.

21 Okay, so now I'm on Slide 26 of patent owner's presentation. So the
22 patent owner and the Board are aligned as far as the proper construction of
23 the term "between" and that is, "in the space that separates". That's
24 consistent with the intrinsic evidence of the '708 patent.

25 Petitioner is taking an unreasonably broad view of the term
26 "between". And when we look at the arguments that petitioner has made

1 with respect to this term, it becomes clear why it's unreasonable. So with
2 respect to Bennett-II, the petitioner has argued that -- I'm on Slide 28 of
3 patent owner's presentation -- that the blue and green areas inside Benett-II's
4 hull are between its track driving pulleys.

5 With respect to SenwaTec, petitioner argues that the pontoons that are
6 outside or outboard of the wheels are in the space between the wheels. So,
7 essentially, if we follow petitioner's reasoning, any element that isn't
8 hanging off the front or rear of the vehicle would be "in intermediate relation
9 to" as petitioner argues. And that's not supported by the prosecution history.
10 That's not supported by the language of the '708 patent itself.

11 JUDGE MEYERS: Mr. Luchsinger?

12 MR. LUCHSINGER: Yes.

13 JUDGE MEYERS: Excuse me for a minute. This is Judge Meyers.
14 So are you saying that the space between would be confined to the plain that
15 extends between the wheels?

16 MR. LUCHSINGER: So the space between the wheels is a three-
17 dimensional box like space that extends between the wheels and then to be
18 positioned between the wheels, so in the space that separates. It means that
19 at least part of the buoyant element needs to occupy that space.

20 So I'm not saying that the buoyant element has to fill that space, I'm
21 not saying that the buoyant element needs to or can't extend outside of that
22 space, but at least part of the buoyant element needs to occupy that space in
23 order to be in the space that separates the wheels. Now, the reasons
24 Petitioner argues for taking a more expansive view of the term "between"
25 here is based on the motion to amend that was filed in the '835 patent.

1 And, ultimately, as Petitioner recognized, those claims that use that
2 word were replaced and revised in the motion to amend. But that's irrelevant
3 because the context within which "between" was used to describe the
4 hydraulic pump in those claims is different than the context that "between"
5 is used here, and the Board recognizes that in its institution decision.

6 In its institution decision, the Board says that the use of the word
7 "between" in the text of the '708 patent is in a different context than the use
8 it the word "between" in the claims with respect to the buoyant elements and
9 the wheels.

10 So, you know, a hydraulic pump that is arranged along a driveline
11 that's connected between two different components is a different context
12 than the claim language of "between" with respect to the buoyant elements,
13 which is a geometric relationship, as opposed to describing the arrangement
14 of a driveline.

15 So it would be improper to utilize that prosecution history with
16 respect to a different claim element altogether to change the proper
17 definition of the word "between" here which is, as the Board already found
18 in the space that separates. What petitioner is arguing is a broadest possible
19 interpretation of the word "between" as opposed to the Phillips standard.

20 The other basis the petitioner argues that "between" should be
21 construed more broadly is based on the figures of the '708 patent. But even -
22 - so I'm on Slide 21 now of patent owner's presentation -- the Figure 1 of the
23 '708 patent is isometric view and it does not show what the petitioner is
24 arguing. It does not show that the bottom of the buoyant elements is above
25 the top of the wheels, even when the wheels are lowered.

1 And the reason that patent owner has pointed to the drawings of the
2 commercial embodiment -- so this is Exhibit 2036, at Page 5, which is
3 shown on the left-hand side of Figure or Slide 29 -- is because it illustrates a
4 side perspective view of the vehicle. And you can see that even when the
5 wheels are completely lowered, the bottom of the buoyant elements is in that
6 space, that three-dimensional space that's between the wheels.

7 And this figure that we're looking at of the commercial embodiment
8 is consistent with what's shown in Figure 1 of the '708 patent. The
9 petitioner is simply arguing for an incorrect meeting of Figure 1 and it's
10 inconsistent with how a person of ordinary skill in the art would see that
11 term.

12 All right. So briefly to touch on Ground 1, which is against Claim 23
13 as being anticipated by Bennett-III -- or sorry, Bennett-II, this ground fails
14 because the blue and green areas inside Bennet-II's hull are not positioned in
15 the space between the track driving pulleys.

16 So first off, Bennett-II does not disclose wheels. It discloses track
17 driving pulleys, and patent owners argue that those wouldn't be considered
18 the wheels here that are part of the grounding engaging propulsion structure.

19 But even if it is, these blue, the blue and green space, is not between -- is
20 not in the space that separates the track driving pulleys, which are shown in
21 Figure 4 of Bennett at Element 75.

22 Furthermore, Petitioner overstates what Bennett-II actually discloses.
23 Bennett-II discloses that foam material inserts fill volume voids and resist
24 water ingested in the hull. Nothing in Bennett-II actually states that you put
25 foam in the areas that are shown in blue and green. And even if you did, the
26 position requirement's not there.

1 But also, as we discussed earlier, Claim 23 describes foam-filled
2 buoyant chambers. And there's nothing to suggest that these openings
3 between the ladder frame and Bennett-II are foam-filled buoyant chambers
4 because they're not enclosed.

5 All right, to briefly address Grounds 2, 3, 6, and 7, which involve
6 Truxor and the SenwaTec vehicle, here, there's the same deficiency. These
7 prior art references do not disclose the particular arrangement of the buoyant
8 elements as recited in Claims 17, 21, and 23 of the '708 patent.

9 So Truxor, we have the same problem as Bennett. Truxor only
10 discloses tracks, not grounding engaging wheels. SenwaTec describes two
11 different configurations. One is a track configuration, the other is a six-
12 wheel, six by six-wheel configuration. And significantly, Truxor, or, sorry,
13 SenwaTec discloses how a person of ordinary skill in the art would convert
14 Truxor two wheels if it was motivated to do so, and that would be to replace
15 the tracks with wheels and then provide stabilizer pontoons outboard of
16 those wheels.

17 The position of these outboard stabilizer pontoons is not in a space
18 that separates the wheels because it's outboard of them. Furthermore, for the
19 reasons stated in the '425 IPR and the '835 IPR, neither Truxor or SenwaTec
20 discloses a liquid manure pump. And so as a result, these grounds fail for
21 the same reasons that they would fail in the '425 IPR and '835 IPR.

22 So now I want to turn to the ground that I know the Board is most
23 interested to, and that is Grounds 4, 5, and 8, which is the grounds, again,
24 relying on Puck, Bryham, and Bennett in further review of Manure-
25 Manager.

1 So first, focusing -- so I'm on Slide 51 of patent owner's presentation
2 -- a key limitation that's not satisfied by this combination that is not
3 reasonably suggested, is the position of the point elements relative to wheels,
4 which is found in Claim 17, 21, and 23.

5 Moving to Slide 52 of patent owner's presentation, this has been a
6 moving target throughout this IPR. On the right-hand side, you can see that
7 in the petition, the petitioner argues that they're adding four independently
8 powered wheels as a matter of design choice.

9 The reason that it makes this design choice argument is this is not a
10 pure substitution of Bryham's ground engaging compulsion structure with
11 Puck because Bryham indisputably discloses three ground engaging wheels.
12 Only the rear wheels are powered and the front wheel is a unpowered
13 swiveling wheel.

14 Then in its reply, we can see on the right-hand side of Slide 52, it
15 changes its argument somewhat. So in its reply, the petitioner now argues
16 that you would add the two rear powered wheels at the rear corners of Puck,
17 and that you would add the unpowered swiveling wheel at the two front
18 corners of Puck. And it's not even simply adding these elements at the
19 corners of Puck, but it's also adding them inboard of the corners.

20 Because if we look at the next slide, Slide 53, we can see that Puck's
21 rear wheels have a supporting leg, and then the wheel is actually positioned
22 outboard of that supporting leg. So if you simply attach the supporting leg at
23 the corners of Puck's vehicle, the wheels would still be outboard of the
24 buoyant elements. So in order to arrive at a combination that would read on
25 the language of the claims, the position of the wheels, the rear wheels, would
26 actually need to be in board of the corners.

1 And that's not -- what we're supposed to do is look at the prior art
2 without thinking of the '708 patent in mind in order to avoid impermissible
3 hindsight bias. Here, that hasn't been done. If you just take a look at the
4 prior art, generally, and what the prior art teaches, it teaches amphibious
5 vehicles that either are powered by tracks or more than four wheels for
6 traction purposes, because you're going to replace tracks, you're going to --
7 you would -- the prior art tells you to replace it with multiple wheels.

8 And that's what exactly what patent owner's expert has indicated here.
9 We certainly do not concede that you would make this combination in the
10 first place. Patent owner does not concede that Bryham's wheels would be
11 added to Puck in the first place because a person of ordinary skill in the art
12 would immediately discard the Bryham reference recognizing that it would
13 not have sufficient stability or traction.

14 But if a person of ordinary skill in the art were so motivated, what
15 they would do is follow the teachings of Carrier, Carrier-II and SenwaTec,
16 which are shown, which is shown on Slide, 54. Carrier, the Carrier I
17 discloses even this -- so that's on the right-hand side; it's Exhibit 1020 --
18 discloses a vehicle that has 12 wheels along the sides of the vehicle, and
19 those wheels retract. Carrier II, which is Exhibit 1005, bottom left-hand
20 corner, discloses eight wheels along the sides of the vehicle.

21 And then, as I previously discussed in SenwaTec, it discloses that
22 when you replace the tracks with wheels, you have six wheels that are
23 outside or outboard of the vehicle body and then you have stabilizer
24 pontoons outboard of that. Following these teachings, what a person of
25 ordinary skill in the art would come up with, absent impermissible hindsight
26 bias, absent going through all of these gymnastics to try and reach the claim

1 limitation, would look like what's on Slide 53, and that's where you have
2 more than four wheels along the sides of the vehicle.

3 The next key limitation is the liquid manure pump, and specifically, in
4 Claim 1 of the '708 patent and Claim 21 of the '708 patent. So Claim 1, as I
5 previously stated, requires a bottom fluid inlet that's configured to be
6 immersed in liquid manure when the vehicle is floating. And it specifically
7 says that that bottom fluid inlet is in the housing.

8 Claim 21 recites an impeller that is immersed in the liquid manure
9 lagoon when the vehicle is floating, so not just that the impeller is in
10 manure, but it's immersed in the manure lagoon. So that would not include
11 pumps that are mounted above the surface of the manure lagoon, where the
12 impeller would be above the surface in the manure lagoon.

13 The petitioner makes a strained -- so I'm Slide 57 of the presentation -
14 - petitioner makes a strained argument that the rear intake tube in Puck is
15 part of the housing of the liquid manure pump, and, therefore, that the
16 bottom of that intake tube, which is Element -- well, I don't think it's shown
17 here, but it's shown at the rear of the boat, but it comes down vertically.

18 The bottom intake tube is a separate component from the pump, and
19 it's therefore not part of the pump housing. Puck discloses -- so I'm on Slide
20 58 of patent owner's presentation -- Puck discloses, non-submersible fluid
21 transfer pump with a rear inlet, not a bottom inlet, and not a bottom inlet
22 that's immersed in the liquid manure lagoon.

23 On Slide 60 in the right-hand side -- this is Exhibit 1134 -- there's a
24 cross-sectional view of the liquid manure pump from Cornell, which is the
25 same pump that's disposed in Puck. And we can see that there's an
26 intermediate component, and that's the float assembly. This is the

1 component that allows the pump to be primed, and that's between the
2 downwardly directed intake tube, which is 40, and the slurry pump 38,
3 which is a Cornell ready prime pump.

4 Because there's this intermediate component between pump 38 and
5 the intake tube 40, person of ordinary skill in the art would not consider the
6 intake tube 40 to be the housing of the pump which is required to satisfy the
7 language of Claim 1 in the '708 patent.

8 So as I previously said, Claims 1, and 21 of the '708 patent require
9 what's shown in Figures 3 and 8 on Slide 61, which is bottom fluid inlet
10 that's immersed or impeller that's immersed. This is not reasonably
11 suggested by Puck.

12 Furthermore, Claim 17 of the '708 patent has an additional claim
13 limitation, which is four variable speed hydraulic motors, one per wheel for
14 independently driving wheels at variable speed. Petitioner again overlooks
15 this claim limitation, and it's even inconsistent with their latest version of the
16 Puck-Bryham combination where they're suggesting that you take this front
17 unpowered wheel and add it to the front corners of Puck's vehicle. If that
18 was done, you wouldn't satisfy the further limitation of Claim 17, which
19 requires four independently power wheels.

20 Motivation to combine. So patent owner disputes both the motivation
21 of combined Puck with Bryham and then also the motivation to combine
22 with a reasonable expectation of success of adding the Nuhn G-force vertical
23 pit pump from Manure-Manager. So when we look at -- so I'm on Slide 67
24 of patent owner's presentation -- petitioner's expert says that the motivation
25 to combine is Bryham's wheels with Puck, is so that you do not have to put
26 Puck's trailer or one's feet in the manure lagoon.

1 That motivation to combine for that problem just simply didn't exist in
2 Puck. The record is full of evidence, including the Puck patent itself, the
3 Puck patent application itself, which is Exhibit 1014. And the video Exhibit
4 2008 of the Puck vehicle being launched, Puck did not have to or it was
5 designed so they could be launched without putting the trailer or -- into the
6 manure lagoon or having to step into the manure lagoon in order to launch
7 the vehicle.

8 Furthermore, the patent owner's expert has explained that if a person
9 of ordinary skill in the art were in fact concerned with this problem of
10 placing a trailer in the manure lagoon, the last thing that they would want to
11 do is add a power grounding engaging propulsion structure from Bryham to
12 the Puck boat where it would be submerged for hours on end during manure
13 agitation sessions. This would discourage the combination.

14 So if we, in other words, if we accept the petitioner's problem that
15 provides the motivation to add Bryham's wheels, then that necessarily
16 follows that that same problem would have discouraged a reasonable
17 expectation of success. It's not enough for Petitioner just to argue that there
18 was a motivation to combine. Petitioner also has to establish that there -- or
19 make a showing that there would have been a reasonable expectation of
20 success. These are two inconsistent, internally inconsistent, positions.

21 Furthermore, it's not just attorney argument here or experts opining on
22 this. There is -- there was evidence that was put in on Slide 7 of patent
23 owner's presentation, by Ian Nuhn's declaration that there was skepticism
24 when the lagoon crawler was first launched. That skepticism included
25 statements that the people that attended trade shows and that saw the lagoon
26 crawler for the first time were skeptical that powered ground engaging

1 propulsion structure of the lagoon crawler, would be able to survive in a
2 highly corrosive environment of a manure lagoon. So that included the
3 hydraulic motors, the hydraulic fittings, the support structure, the bearings,
4 all of those things.

5 So the record here actually provides evidence that a person of --that
6 there was this, there's a reason why that discouraged the inclusion of power
7 grounding engaging propulsion structure on manure boats, and that Nuhn
8 went against that trend. The evidence of skepticism also included statements
9 that a wirelessly controlled liquid manure agitation vehicle would not be
10 controllable without being tethered. And so --

11 JUDGE DOUGAL: Mr. Luchsinger?

12 MR. LUCHSINGER: Yes.

13 JUDGE DOUGAL: Just really quick, you've got about five minutes
14 left of your argument time.

15 MR. LUCHSINGER: Yeah. And this is a reason why that would've
16 discouraged a person of ordinary skill in the art from combining the Nuhn
17 G-force vertical pit pump with Puck. And so that is that if we're -- we have
18 to remain faithful to the record.

19 And even if we look at the Sundstrom reference, where there was a
20 lagoon pump mounted to a barge, the Sundstrom reference required guide
21 wires to navigate the vehicle across the lagoon. When we had, you know,
22 sort of the SenwaTec and Truxor vehicles where there's submersible pumps
23 that are mounted on the end of boom arms, there was an onboard operator.

24 None of the prior art suggests that a submersible pump on the end of
25 an articulating arm could be controllable by wireless remote control. It's
26 either onboard operator or tethered by guide wires. Furthermore, there's no

1 evidence in the record that there was a problem, a person of ordinary skill in
2 the art would've seen Puck's pump as a problem that needed to -- and it's a
3 component that needed to be replaced.

4 There were some arguments made during petitioner's presentation that
5 intermediate wheels could be considered buoyant elements. So this arises in
6 the context of the SenwaTec vehicle, where, in its reply, Petitioner argued
7 that the middle wheel of the 6 x 6 vehicle would be considered a buoyant
8 element. That's between the first front wheel and the first rear wheel, and
9 same thing on the other side of the vehicle.

10 And then, I think for the first time today, I don't think it's in the
11 briefing, Petitioner argued that if you added multiple wheels along the sides
12 of Puck, multiple Bryham's wheels along the sides of Puck, that those
13 intermediate wheels would be considered buoyant elements between the
14 wheels at the corners.

15 This argument is wrong for a variety of reasons, but the main one is
16 that the patent claims themselves recite wheels as buoyant elements as
17 separate components. So it would be incorrect to read wheels as satisfying
18 two different, separately claimed elements. And there's no support in the
19 '708 specification or intrinsic evidence to suggest that a wheel would be
20 considered a buoyant element.

21 And then finally, even if that argument did fly, it wouldn't work for
22 Claim 23 which specifically requires foam-filled buoyant chambers. There's
23 absolutely zero evidence that air filled, the air filled wheels, of Bryham or
24 SenwaTec are actually filled with foam. So that argument is just not a
25 winner.

1 And then finally, I think, Judge Dougal, you're correct and wise to
2 point out that some of the dependent claims here haven't been sufficiently
3 addressed. And specifically dependent Claim 3, which requires flexible
4 connections between the -- at least two tangential outlets of the pump and
5 the fluid conduit.

6 Nuhn's G-force vertical pit pump includes or does not include flexible
7 connections. Those are rigid connections, and petitioner hasn't -- here it is.
8 So I'm on Slide 46 patent owner's presentation. They're solid metal tubes,
9 so there's nothing in the record to suggest that this claim limitation requiring
10 a flexible connection between at least two tangential outlets in the fluid
11 conduit is satisfied. And the only reference here that discloses at least two
12 tangential outlets is in the Manure-Manager Nuhn G-force pit pump
13 reference.

14 So I guess the last thing I want to point out is the Nuhn performance
15 curve that was shown from the website relating to the G-force vertical pit
16 pump. There's nothing -- that's a theoretical pump curve, but there's nothing
17 in there that suggests that lower horsepower number, so numbers at the
18 beginning of that curve, that the pump would not clog at those lower
19 horsepower ratings.

20 So Nuhn's testified that the minimum horsepower rating for its G-
21 force vertical pit pump is 95 horsepower, and the record is undisputed that
22 the SenwaTec and Truxor vehicles are two to three times below that, and,
23 therefore, wouldn't provide sufficient power to power Puck's pump.

24 And this would be another reason that would have discouraged the
25 combination of adding Puck's G-force vertical pit pump on the front cranes
26 of the SenwaTec or Truxor vehicles. With that, I will reserve the rest of my

1 time for rebuttal, unless you have any questions that you'd like me to address
2 at this time.

3 JUDGE DOUGAL: All right. Thank you, Counsel. We have about
4 four minutes as well.

5 So Petitioner? You're muted, Counsel.

6 REBUTTAL - PETITIONER

7 MR. STEMLER: Sorry about that. I'd like to start out by addressing
8 the point that patent owner's counsel made regarding the term "between".
9 We're not arguing under the broadest reasonable interpretation here. We're
10 under arguing under the broadest reasonable interpretation here. We're
11 arguing under the Phillips standard, which requires consideration of intrinsic
12 evidence.

13 Nuhn points to its commercial embodiment about the construct as
14 leading to the proper construction of the term "between" but that commercial
15 embodiment is extrinsic evidence, it's not intrinsic evidence. This random
16 picture of Nuhn's commercial embodiment is of irrelevance here. The
17 intrinsic evidence, which Nuhn ignores, is dispositive.

18 Additionally, Nuhn alleges that the arrangement of the tough Puck
19 wheels on the Puck vehicle is a moving target here. That's not the case.
20 We've simply developed this argument in direct response to Nuhn and the
21 Board's findings on the claim construction of the term "between" and
22 identified the logical points at which the wheel levers would be attached to
23 Puck.

24 Additionally, Nuhn argues that the points of the wheels would need --
25 that the position of the wheels would need to be in board of the wheel lever
26 arms in order to meet the "between" limitations. But this is direct, indirect,

1 contradiction to Puck's disclosure, which discloses additional dock sections
2 32, which are identified here with the red box, as being, you know, able to
3 be added to the Puck vehicle.

4 Adding these additional dock sections would certainly result in a
5 buoyant element being positioned between the front and rear wheels on each
6 side of the vehicle. As the Nuhn's point about individually powered wheels
7 and variable speed hydraulic motors on each wheel, these are schematics
8 that we provided.

9 We haven't drawn variable speed hydraulic motors on each of the
10 wheels nor did Bryham consider it necessary to do so. Bryham's text
11 describes how there would be individual hydraulic individual wheel motors
12 attached to the wheels.

13 Moving onto the point about the inflatable wheels being buoyant
14 elements, Nuhn alleges that we brought up this point for the first time in
15 regards to the Puck combination. That's wrong. We explained this point in
16 Paper 29 at Page, 26 through 27.

17 And turning to Slide 28 where we identify that middle wheel as being
18 a potential buoyant element, you know, Nuhn says that the center wheel is
19 part of the ground engaging propulsion structure and not part of the floatable
20 vehicle body, but nothing says that components of the ground engaging
21 propulsion structure cannot also be part of the floatable vehicle body.

22 For example, Claim 23, which separately recites wheels and the
23 ground engaging propulsion structure, in that claim, nobody disputes that the
24 wheels in Claim 23 can be a part of the ground engaging propulsion
25 structure. Similarly here, there's no reason why these intermediate wheels
26 cannot be considered part of the floatable vehicle body.

1 Finally, Nuhn alleges that, you know, that prior art amphibious
2 vehicles that were used for pumping liquid manure were not remote
3 controlled. Sunstrom was remote controlled. That's at Exhibit 1100. Puck
4 was remote controlled. This is not new. Thank you, Your Honor.

5 JUDGE DOUGAL: Thank you, counsel. And Patent Owner?

6 REBUTTAL - PATENT OWNER

7 MR. LUCHSINGER: Okay. Thank you, Your Honor. So the remote
8 control argument that was just raised, I want to focus on first. Sunstrom was
9 not -- it could not be navigated by remote control around a manure lagoon.
10 It required guide wire, it required guide wires, and that's established in the
11 record.

12 Furthermore, Petitioner just referenced Puck and Truxor, or sorry,
13 SenwaTec and Truxor as being remote controlled, but the deposition
14 testimony with respect to the remote control of those vehicles was after
15 priority date of the '708 patent. But more importantly, those remote control
16 prototypes that were made of those vehicles did not include a pump on the
17 end of a boom arm.

18 If you recall, the SenwaTec and Truxor vehicles had multiple tool
19 attachments and the pump on the end of the articulating arm required
20 additional controls, and the references specifically showed, like SenwaTec,
21 for example, people peering over, standing up and peering over the edge of
22 the vehicle to observe the pump in operation.

23 There was never -- the record does not establish that there was
24 wireless remote control of the Truxor or SenwaTec vehicles when equipped
25 with a pump on the end of a boom arm. So, ultimately, what this comes
26 down to is Nuhn -- one of the aspects of Nuhn's invention was to figure out

1 how to create an amphibious manure lagoon agitation vehicle that would
2 work to pump liquid manure and agitate the lagoon, but at the same time,
3 was a configuration that could be effectively controlled by wireless remote
4 control without having these issues with having too many different degrees
5 of freedom that had to be controlled by remote control, too many different
6 operations that had to be controlled by remote control, and being able to
7 effectively navigate under control without the use of guide wires or an
8 onboard operator.

9 Any other questions before I make a final point about the liquid
10 manure pump, which I think is, you know, relevant to all the claims, but
11 particularly Claim 1? So I'll share my screen briefly. So this is Slide 25 of
12 patent owner's presentation, and we saw this in the '835 patent IPR.

13 But the Cornell ready prime brochure shows -- this is an Exhibit 1134,
14 Page 8 -- shows that manure pumps is just one type or class of pump that
15 Cornell sells. If we follow petitioner's reasoning, every single one of these
16 different market or product lines that Cornell has would be considered a
17 liquid manure pump because these pumps are capable of pumping water or
18 fluids with less than 10 percent total solids.

19 But it overlooks the argument that -- both experts agree liquid manure
20 is highly corrosive. Both experts agree that liquid manure, at least over 5
21 percent total solids, acts as a non-Newtonian fluid so the pump, the bearing
22 structure that seals need to be able to withstand this environment.

23 Petitioner's argument is simply inconsistent with what the evidence
24 shows as what a person of ordinary skill in the art would consider as a liquid
25 manure pump. It's a particular type or category of pump similarly to like a
26 fuel pump, is a particular type of pump. And just stating that if it's capable

1 of pumping water or capable of pumping less than 5 percent of solids then
2 it's a liquid manure pump that general rule, that broad sweeping statement,
3 isn't supported by the evidence.

4 JUDGE DOUGAL: But then, Counselor, under the same thought
5 pattern here, then the liquid manure pump does not necessarily have to be
6 immersible. Correct?

7 MR. LUCHSINGER: Correct. A liquid manure pump, that term, on
8 its own, does not have to be immersible, but the language of Claim 1 and the
9 language of Claim 21 both require the pump to be immersible. So I'm on
10 Slide 7. So the language of Claim 1 specifically requires that the at least the
11 bottom fluid inlet up in the pump housing is immersed in the liquid manure
12 when the vehicle is floating in the manure lagoon.

13 And then Claim 21 requires an impeller inside a pump housing where
14 the impeller is immersed in liquid manure when a vehicle is floating. So
15 those two independent claims require that position

16 JUDGE DOUGAL: Thank you, counselor. And I think that is your
17 time as well.

18 MR. LUCHSINGER: Great. Thank you.

19 JUDGE DOUGAL: Thank you all for your arguments today. We'll
20 take the case under advisement and issue our decision in due course. And
21 with that, our hearing is adjourned.

22 (Whereupon, the above-entitled matter went off the record at 1:321 p.m.)

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