

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

BAZOOKA-FARMSTAR, LLC

Petitioner,

- vs. -

NUHN INDUSTRIES LTD.,

Patent Owner.

Case No: IPR2024-00004

U.S. Patent No. 11,491,835

PETITIONER'S OPPOSITION TO THE MOTION TO AMEND
INTER PARTES REVIEW OF U.S. PATENT NO. 11,491,835

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¹ The video size exceeds 25MB, the maximum size permitted for uploading by the P-TACTS system. A full copy of the video was later updated to Youtube.com and is available at the following link:

<https://www.youtube.com/watch?v=ecnlfMf7CH4&t=1s>.

The original copy of the video was served on Respondent on October 13, 2023.

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I. INTRODUCTION

Nuhn attempts to create a thicket of 40 amended claims, but merely combining known prior art elements, such as immersible pumps, vertical drive shafts, and bottom oriented pump inlets, using known methods, does not confer patentability. Nuhn's Motion to Amend completely disregards the Puck, Bryham, Manure-Manager combination raised by Bazooka in its opposition to Nuhn's earlier motion to amend the '425 Patent, which discloses all of these features. This combination, along with a YouTube video showcasing the prior art Puck vehicle's elevated front nozzle, teaches every single claim element recited in Nuhn's Motion to Amend. The combination of Sundstrom's Stir Dredge, a remote-control amphibious agitation vehicle having four wheels, a centrifugal pump, conduit, and nozzle, and Bryham further renders obvious at least claim 57. [REDACTED]

[REDACTED]

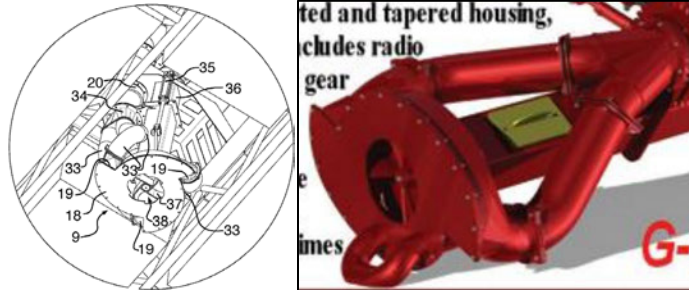
[REDACTED]

[REDACTED]

[REDACTED] The proposed claims are unpatentable, and Nuhn's Motion to Amend should be denied.

A. Manure-Manager

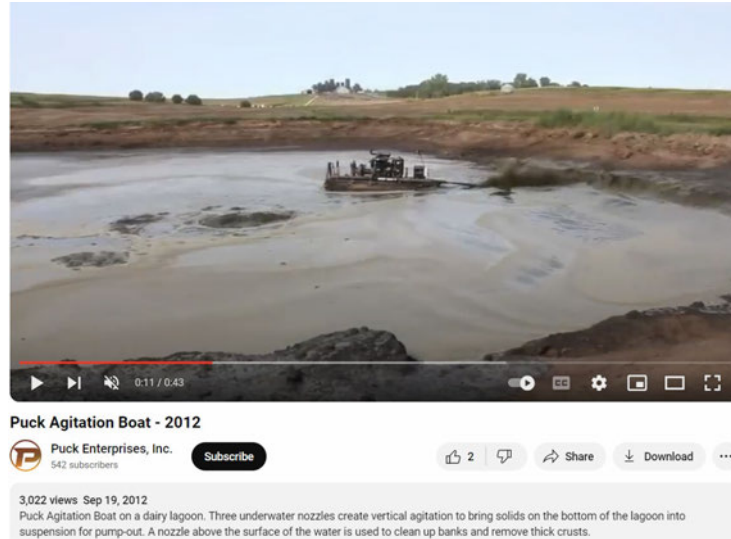
Manure-Manager describes Nuhn's commercial embodiment (the "Nuhn Pump") of the '758 Patent (EX1028) (incorporated-by-reference into the '835 Patent). Nuhn withheld this prior art during prosecution of the '835 Patent.



EX1001, FIG. 5; EX1112, 27.

B. The Puck Video

The Puck Video (EX1122) is a YouTube video that depicts and describes the commercial embodiment of the vehicle described in Puck (EX1014). EX1121, ¶¶4-7. The Puck Video was publicly disclosed and published on YouTube before the effective filing date of the '835 Patent. *Id.*, ¶7. The Puck Video (EX1122) discloses the vehicle having a front nozzle positioned above the floatable vehicle body:



EX1121, ¶7. Puck also advertised its Lagoon Agitation Boat in the 2012 North American Manure Expo Show Guide, where it also demonstrated it. EX1087, 12.

C. Sundstrom’s Stir Dredge

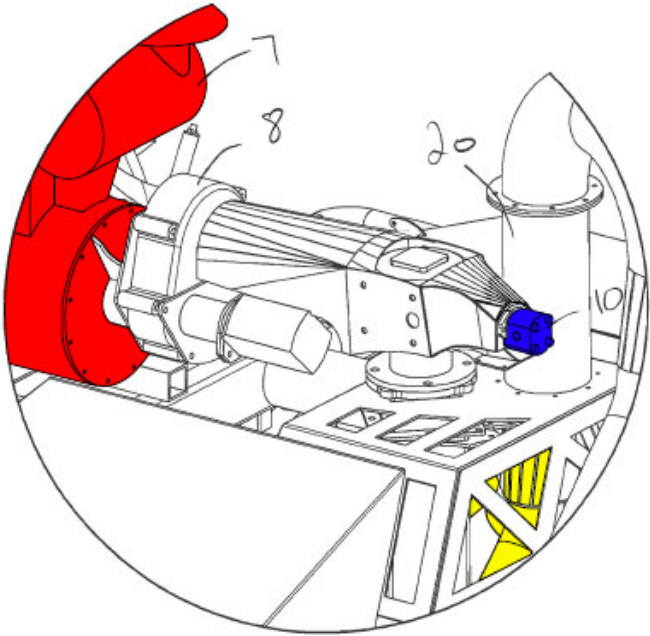
The Sundstrom Stir Dredge (“Sundstrom”) is a prior art manure agitation vehicle. The Sundstrom vehicle is described by EX1120, and shown in EX1153, EX1154, and EX1128, 10:09-12:03 (Exhibits A, B, and C to EX1120, respectively).

II. CLAIM CONSTRUCTION

A. “Between”

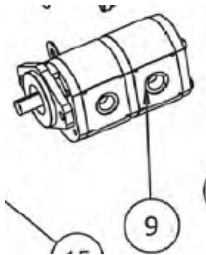
Proposed claims 43 and 59 each state that “hydraulic pump is positioned between the power source and the immersible liquid manure pump.” As support for this claim element, Nuhn cites to paragraphs [0008], [0023], and [0033] of its provisional patent application (EX2081). Paragraphs [0008] and [0033] describe various power sources that may be used on the vehicle, and various components that

the power source may be connected to. Paragraph [0023] refers to Fig. 7 as disclosing a perspective view of a “mechanical drive [8] connecting the power source [7 (red)] of the vehicle to the fluid pump [9 (yellow)] and a hydraulic pump [10 (blue)] of the vehicle.” EX2081, ¶[0023].



EX2081, FIG. 7 (annotated).

The hydraulic pump is similarly shown in the Lagoon Crawler parts manual:

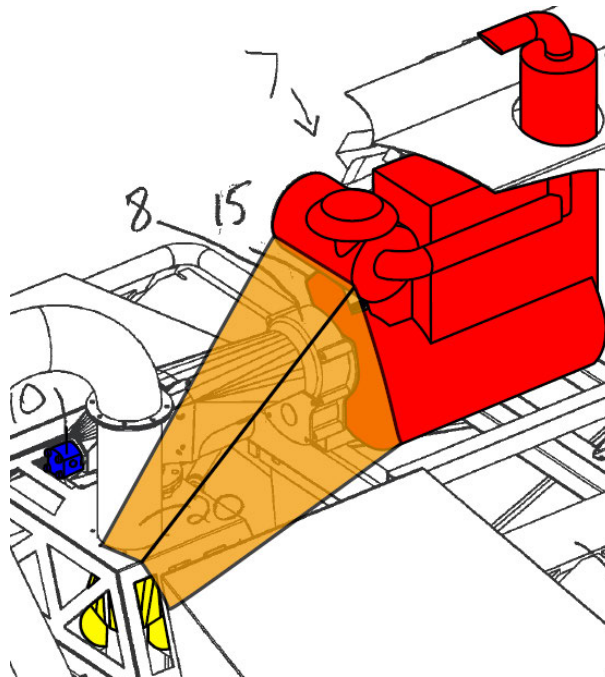


9	1	104-032	Crawler - Hydraulic Multi Pump PLP30.2750
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EX2037, 46.

In the '708 Patent IPR, the PTAB preliminarily construed the term “between” as meaning “in the space that separates.” IPR2024-00098, Paper 10 at 15. However, this definition is inconsistent with how Nuhn uses the term to describe the position of the hydraulic pump in substitute claims 43 and 59.

Because the specification is silent on the position of the hydraulic pump with respect to the fluid pump and the power source, the patent drawings are useful. *See Advanced Steel Recovery, LLC v. X-Body Equip., Inc.*, 808 F.3d 1313, 1317 (Fed. Cir. 2015) (“[P]atent drawings are highly relevant in construing ... limitations of the claims.”). When viewing the patent drawings, it is clear the hydraulic pump 10 (blue) is not located “in the space that separates [(orange)]” the fluid pump 9 (yellow) and the power source 7 (red).



EX2081, FIG. 2 (annotated).

The correct construction of “between” would be the more general definition “in intermediate relation to” as used by Merriam-Webster. EX1127, 1. While the hydraulic pump does not fall within the space separating the fluid pump and power source, it is broadly located “in intermediate relation to” the fluid pump and the power source. Thus, the term “between” should be construed as “in intermediate relation to.”

B. “Liquid Manure Pump”

As found in the institution decision (Paper 12 at 18) and outlined in Bazooka’s reply brief (Paper 34, Section IV.B), a “liquid manure pump” is properly interpreted as “a pump with a structure capable of pumping liquid with suspended solids.”

III. AMENDED CLAIMS 41-80 ARE UNPATENTABLE AS OBVIOUS OVER PUCK IN VIEW OF THE PUCK VIDEO, BRYHAM, AND MANURE-MANAGER

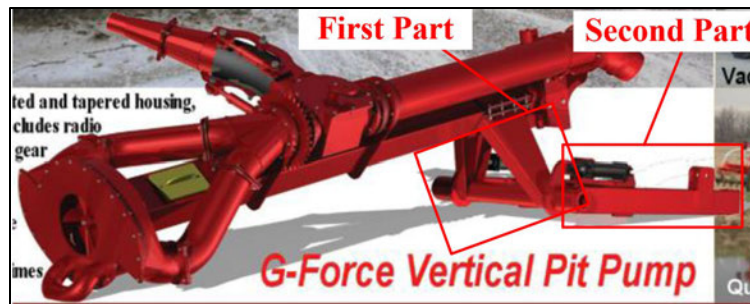
A. Motivation to Combine Puck, the Puck Video, Bryham, and Manure-Manager

Puck in view of the Puck Video, Bryham, and Manure-Manager would have rendered claims 41-80 obvious. As detailed in Bazooka’s petition in the ’708 Patent IPR, a POSA would have been motivated to combine Puck, Bryham, and Manure-Manager. *See* IPR2024-00098, Paper 1 at 108-109; *see also* EX1111, ¶¶48-57.

In its Reply to Bazooka’s Opposition to the Motion to Amend in the ’425 Patent IPR, Nuhn argues against the Puck, Bryham, and Manure-Manager combination focusing on where a POSA would have been motivated to attach the

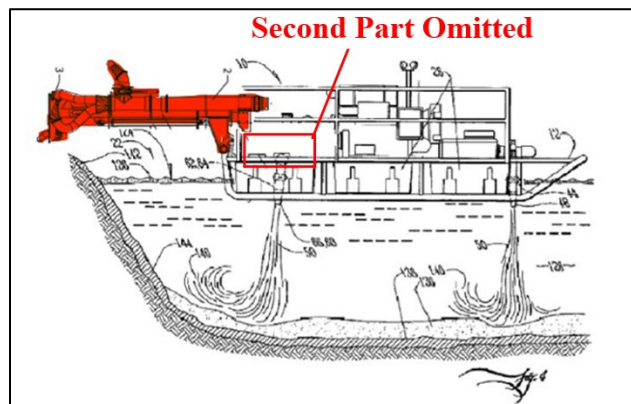
Nuhn Pump to the vehicle. Those arguments incorrectly advocate positioning the pump in a highly unstable arrangement on the vehicle, ignore Puck's pump positioning teachings, and rely on Nuhn's improper assumptions of the size of the Puck vehicle. IPR2023-01161, Paper 40 at 9-12.

Nuhn asserted that since the Nuhn Pump includes a two-part pivotable frame, the only way to mount it on Puck would be to hang it off the rear of the vehicle. *Id.*



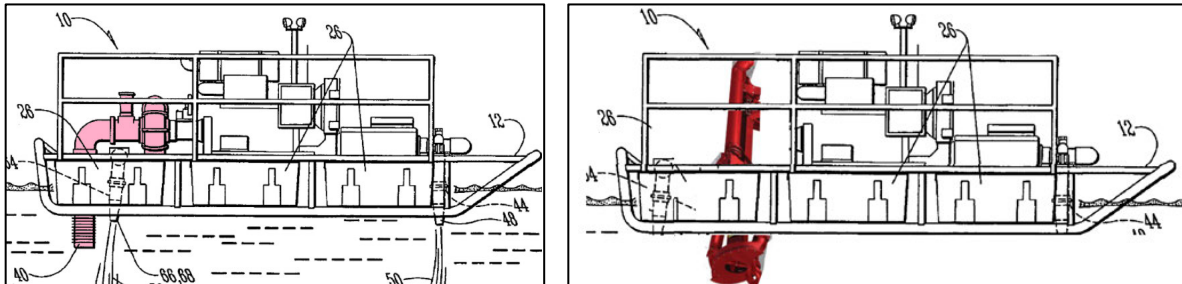
EX1112, 27 (annotated).

However, Manure-Manager does not describe the second part of the frame as mandatory. Nor is pivotability required. Nuhn even omitted this second part of the frame in its own figure, shown below. As shown in Nuhn's figure, a POSA could have easily removed this part of the frame when attaching the Nuhn Pump to Puck.



IPR2023-01161, Paper 40 at 11 (annotated).

When connected to Puck, the pump would be rigidly connected vertically on the vehicle, similar to how Puck describes its pump intake (EX1111, ¶¶60-61):



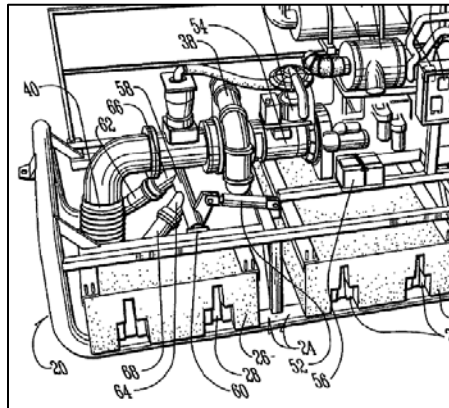
EX1014, FIG. 4; EX1112, 27 (modified and annotated).

In this same vein, Nuhn’s expert suggested attaching the pump’s boom arm to the rear of the Puck vehicle to allow the pump to pivot off the rear of the vehicle. But Nuhn’s expert—who lacks experience in marine vehicle design—overlooks the fact that such an arrangement significantly shifts the center of gravity of the vehicle to the rear, compromising the vehicle’s stability while afloat. EX1111, ¶62. Indeed, the video Nuhn’s expert cites shows that positioning the pump off the end of the vehicle causes it to be weighed down so that manure flows over the vehicle deck.



EX1128, 10:45; *see also* IPR2023-01161, EX2099, ¶176.

POSAs would have understood that the more logical location for the Nuhn pump would be to extend through the already defined space for the pump intake, shown below. EX1111, ¶¶63-64. Puck even describes the importance of “increase[ing] the stability of the agitator (10)[,]” noting how “the liquid manure intake is positioned between the first liquid manure nozzle and the second liquid manure nozzle.” EX1014, ¶[0041], Claim 19. Similarly, Ben Puck, the Puck inventor, confirmed this arrangement allows for the weight of the components to be more evenly distributed, along the vehicle, improving its stability. EX1121, ¶¶12-13



EX1014, FIG. 1.

Centrally locating the pump minimizes negative effects of reaction forces and allows the weighty pump to be more stably located over the vehicle hull (EX1111, ¶¶65-68), rather than off the rear of the vehicle, which could cause liquid manure to flow over the deck of the vehicle, possibly causing the vehicle to capsize.

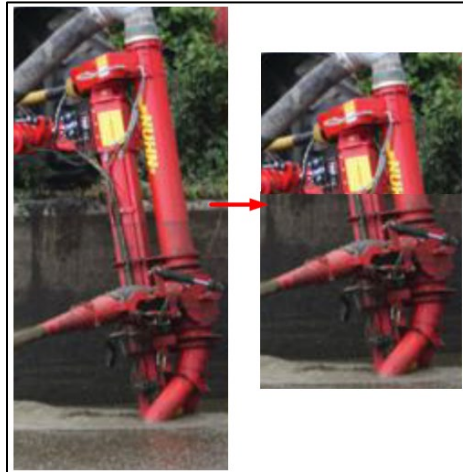
Nuhn’s expert argued against using the Nuhn Pump on Puck in this position because “[t]he scale in [the] combination” is off. IPR2023-01161, EX2099, ¶361.

This argument is belied by Nuhn's own use of the Nuhn Pump on its Lagoon Crawler. Even still, Puck does not say that its drawings are to scale. "Patent figures are not drawn to scale unless otherwise stated." *Intuitive Surgical, Inc. v. P Tech, LLC*, No. IPR2020-00649, Paper 31 at 41 (PTAB Sept. 3, 2021) (rejecting patent owner's arguments on motivation to combine based on relative scale of the figures).

Relying on its expert's assumptions of the Puck vehicle scale and its '758 Patent, Nuhn further asserted that if the Nuhn Pump was placed on Puck, the Nuhn Pump would extend too far below the Puck vehicle. IPR2023-01161, Paper 40 at 12. But merely scaling the Puck vehicle and Bryham wheels to accommodate the Nuhn Pump would alleviate any such issue. Furthermore, considering the figure cited by Nuhn's expert (IPR2023-01161, EX2099, ¶363) and Manure-Manager (EX1112, 27), it is apparent that the purpose of the elongated pump body and driveshaft 28 is to permit the pump to extend from an elevated shore surface down to a variable depth within a reservoir. The '758 Patent recognizes this, noting that the length of the pump body and driveshaft 28 is adjustable. EX1028, 6:14-16. The extended driveshaft of the Nuhn Pump would be unnecessary when connecting the Nuhn Pump to Puck.

Puck shows the pump intake arranged immediately below the vehicle body, rather than extending to the bottom of the lagoon. *See* EX1014, FIG. 4. As Ben Puck confirmed, POSAs would have understood that it would be beneficial to draw from this location, as opposed to pumping the thicker sludge layer from the bottom of the

lagoon. EX1121, ¶14; EX1111, ¶74; EX1014, ¶¶[0035]-[0036]. Thus, POSAs would have understood that the Nuhn Pump elongated body could be shortened, and that it would be beneficial to do so, when implementing the pump on Puck.



EX1112, 27 (modified).

Finally, Nuhn’s expert alleged that the Nuhn Pump PTO input would be misaligned with the Puck engine drive shaft when placed on the vehicle. IPR2023-01161, EX2099, ¶361. But Bryham teaches a hydraulic transmission for powering the vehicle wheels and its components. As Nuhn’s expert acknowledges, POSAs used hydraulic transmissions to power PTO driven components (like the Nuhn Pump) since the 1970s. EX1111, ¶¶75-76. POSAs would have recognized that when using this hydraulic transmission, the position of the hydraulic motor could be easily adjusted to accommodate the position of the Nuhn Pump PTO input. *Id.*

Thus, rather than hanging the Nuhn Pump “several feet behind the rear of the floatable vehicle body[,]” as Nuhn incorrectly asserts (EX2099, ¶368), POSAs

would have understood that the more natural, protected, and stable location for the Nuhn Pump would be to extend through the already-present pump intake opening on the Puck vehicle. EX1111, ¶77. Any pivoting action of the pump would be wholly unnecessary, merely adding cost and complexity. The Puck vehicle could be scaled, or the Nuhn Pump transmission could be adjusted to accommodate this positioning.

Furthermore, given that the Puck Video discloses the commercial embodiment of Puck, a POSA would have understood it to have been trivial to implement the teachings of the Puck Video into the Puck, Bryham, Manure-Manager combination. The Puck Video discloses a front nozzle placed “above the surface” to “clean up banks” of the lagoon and break up any crusts that are present. EX1121, ¶7. POSAs would have recognized these advantages and would have been motivated to include the front nozzle into the Puck, Bryham, Manure-Manager combination to provide this same functionality. EX1111, ¶78.

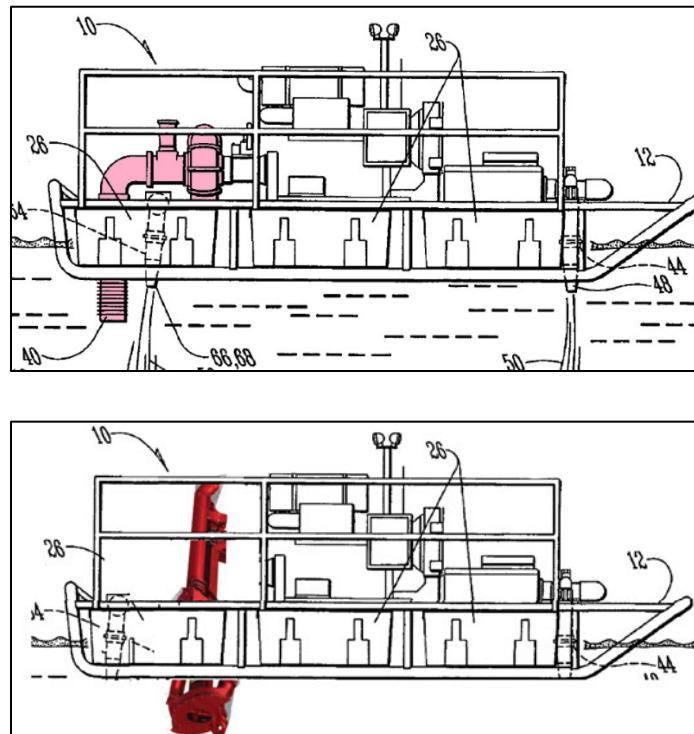
B. Claim 41

Elements [41.0]-[41.2], and [41.5]: Puck, the Puck Video, Bryham, and Manure-Manager would have rendered obvious Elements [41.0]-[41.2] and [41.5]. Paper 2 at 83-89.

Element [41.3]: Puck teaches a vehicle with a pump. POSAs would have been motivated to substitute Puck’s pump with the Nuhn Pump to take advantage of Nuhn’s self-described improved efficiency and manure pumping capabilities of the

Nuhn Pump, which is an immersible pump that includes substantially vertical drive shaft powering an impeller. EX1112, 27; EX1111, ¶81.

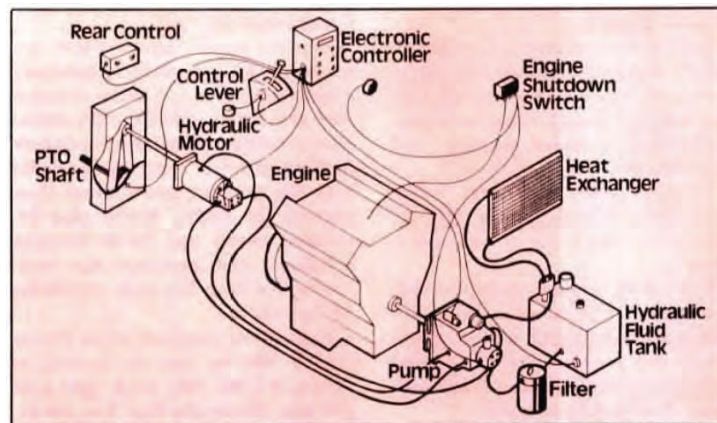
As illustrated below and detailed above, when substituting the Puck pump for the Nuhn Pump, a POSA would have located the Nuhn Pump in the same location as the location in which Puck's pump intake pipe was arranged, as the vehicle already includes an access point through which the pump could extend into the liquid of the manure lagoon. EX1111, ¶82. This arrangement would place the pump in the liquid manure when the vehicle is floating.



EX1014, FIG. 4; EX1112, 27 (modified and annotated).

As described in the petition and recognized in the institution decision, POSAs would have been motivated to utilize the hydraulic drivetrain of Bryham to power

the slurry pump of Puck, as a hydraulic transmission is one of a finite number of options for transmitting power on a moving vehicle and has a high likelihood of success. Paper 2 at 87; Paper 12 at 51, 56; EX1111, ¶83. For the same reasons, a POSA would have been motivated to use Bryham's hydraulic transmission to power the Nuhn Pump. Indeed, Nuhn's expert identified the following analogous prior art hydraulic transmission system for driving a PTO. IPR2023-01161, EX2029, ¶172. A POSA would have understood that such a hydraulic transmission could readily be implemented to drive the PTO input of the Nuhn Pump. EX1111, ¶83.



EX1129, 18.

It would have been obvious to POSAs to connect the Nuhn Pump fluid output to the transport pipe 42 on the Puck vehicle such that liquid manure could be pumped through Puck's nozzles to propel the vehicle while floating. EX1111, ¶84.

Element [41.4]: As described in the petition and recognized in the institution decision, rather than using multiple engines, a POSA would have been motivated to

use the high-powered internal combustion engine of Puck to power Bryham's wheels and the Nuhn Pump using Bryham's hydraulic transmission. Paper 2 at 84-87; Paper 12 at 54-56; EX1111, ¶85. Puck's high-powered engine would easily power each of these components, and doing so would be cheaper, lighter, and more efficient than providing separate engines for each component. EX1111, ¶¶85-87.

The Puck Video teaches a front fluid nozzle positioned above the vehicle body and forward of the power source. EX1126. As shown above, the Nuhn Pump, when substituted for the Puck pump, would be positioned rearward of the power source.



EX1122, 0:25 (annotated); EX1121, ¶¶4-7, 12-14.

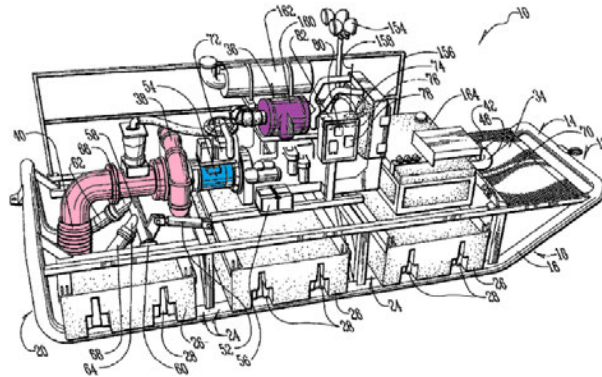
C. Claims 42, 44-46, 48

Puck, the Puck Video, Bryham, and Manure-Manager would have rendered obvious Claims 42, 44-46, 48. Paper 2 at 89-95.

D. Claim 43

Bryham discloses a hydraulic pump and power transmission for driving the wheels. EX1015, 16:1-6, 2:66-67, 16:4-6. As noted above, a POSA would have been motivated to utilize this hydraulic pump and transmission for driving the Nuhn Pump

on the Puck vehicle due to efficiency benefits associated with using a single power source to power multiple components. Paper 2 at 86-87; Paper 12 at 51, 54, 56; EX1111, ¶91. Puck teaches the claimed position of the hydraulic pump (54, blue) between the power source (36, purple) and the liquid manure pump (38).



EX1014, FIG. 1 (annotated).

A POSA would have been motivated to keep the hydraulic pump of Bryham in this same position when implementing Bryham's hydraulic drivetrain to keep the center of gravity of the vehicle located in a central location on the vehicle, maximizing vehicle stability. EX1111, ¶¶91-92.

E. Claims 47, 49-56

The Puck Video discloses the fluid flow through the front nozzle is remotely controlled. *See* EX1122, 0:25. The Puck Video also shows that the direction of the vehicle (and its front nozzle) may be remotely controlled. *Id.*

While the front nozzle in the Puck Video is shown fixed to the vehicle, Manure-Manager discloses an articulation cylinder for vertically moving the Nuhn

Pump nozzle. EX1112, 27. POSAs would have understood that the cylinder is a hydraulic cylinder. EX111, ¶95. POSAs would have understood it to be obvious to use this same structure on the front nozzle of Puck to better control the direction of the fluid output of the front nozzle in a vertical or horizontal plane. *Id.*

Manure-Manager discloses that the articulation cylinder is coupled to a linkage. EX1112, 27. A POSA would have understood it to be obvious to couple the cylinder to a four-bar linkage, as such linkages were well known in the art for extending the stroke length of a cylinder. EX1111, 96.

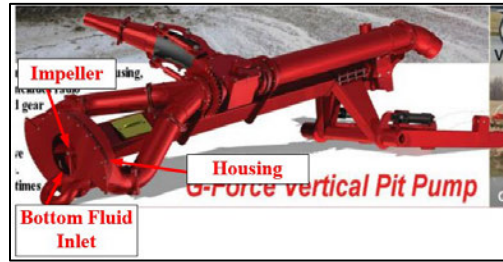
F. Claim 57

Element [57.0]-[57.2] and [57.4]-[57.5]: Puck, the Puck Video, Bryham, and Manure-Manager would have rendered obvious Elements [57.0]-[57.2] and [57.4]-[57.5]. *Supra* Section III.B, Elements [41.0]-[41.2] and [41.4]-[41.5].

Element [57.3]: Puck, the Puck Video, Bryham, and Manure-Manager would have rendered obvious the black, yellow, and blue limitations of Element [57.3]. *Supra* Section III.B, Element [41.3].²

The Nuhn Pump includes a housing and an impeller. EX1112 at 27.

² For conciseness, the color coding provided in Nuhn's table of independent claims is used to address the limitations provided therein. *See* EX1111, Section V.



Id.

A POSA would have understood that when substituting the Nuhn Pump on the Puck vehicle, it would have been obvious to have arranged the Nuhn Pump on the Puck vehicle through the same opening that the Puck intake pipe extends. *Supra* Section III.A and III.B, Element [41.3]. This would have resulted in the housing and impeller being positioned along the underside of the floating vehicle body.

The Puck Video teaches that the vehicle includes a front fluid nozzle positioned above the floatable vehicle body that directs liquid manure through the air into the liquid manure lagoon to disrupt the surface of the liquid manure lagoon. *See supra* Section III.B, Element [41.4].

G. Claims 58-72

Puck, the Puck Video, Bryham, and Manure-Manager would have rendered obvious Claims 58, 60-62, and 64 (*supra* Section III.C); Claim 59 (*supra* Section III.D); and Claims 63, 65-72 (*supra* Section III.E).

H. Claims 73-78

Puck, the Puck Video, Bryham, and Manure-Manager would have rendered obvious Claims 73-78. Paper 2 at 100.

I. Claim 79

Element [79.0]-[79.1] and [79.4]-[79.5]: Puck, the Puck Video, Bryham, and Manure-Manager would have rendered obvious Elements [79.0]-[79.1] and [79.4]-[79.5]. *Supra* Section III.B, Elements [41.0]-[41.2] and [41.4]-[41.5].

Element [79.2]: Puck, the Puck Video, Bryham, and Manure-Manager would have rendered obvious Element [79.2]. *Supra* Section III.B, Element [41.2].

Bryham describes a “ground engagement means” comprising a set of wheels and a “hydraulic motor 108 ... which can [] drive the ground engagement means.” EX1015, 2:66-67, 16:4-6. Bryham further describes that “one *or more* of the ground engaging means supported thereon is provided with motive power.... [T]he motive power is provided by ... hydraulic motors.” EX1015, 6:47-53 (emphasis added). Thus, Bryham discloses a plurality of ground engaging elements (i.e. wheels) that are powered by separate hydraulic motors. A POSA would have understood that each of the wheels could be independently powered for better traction using the separate, hydraulic motors taught by Bryham. *See id.*, FIG. 23 (showing a hydraulic motor 108 (orange) powering a single wheel 16 (green)); EX1111, ¶¶105-107.

A POSA would have also understood that the most logical location for attaching the wheels of Bryham would have been to place one wheel at each corner of the steel frame (EX1014, ¶[0022]) of the Puck vehicle. EX1111, ¶107. It would have been a matter of design choice for a POSA to use four independently-powered

wheels, especially given Puck’s rectangular shape, and Bryham teaches *at least* three independently powered wheels, including four powered wheels. *Id.* Such modification would not have provided unexpected results and would have amounted to an “obvious variation[] consistent with the principles known in th[e] art.” *Id.*; *Ex Parte Ostendorff*, No. 2016-004235, at 9 (PTAB Mar. 26, 2018).

Element [79.3]: Puck, the Puck Video, Bryham, and Manure-Manager would have rendered obvious the yellow, green, red, and blue limitations of Element 79.3. *Supra* Section III.B, Element [41.3] (yellow, green, and blue) and Section III.F, Element [57.3] (red); *see also supra* note 2.

As noted above, when substituting the Nuhn Pump for Puck’s pump, a POSA would have located the Nuhn Pump intake in the same location as the Puck pump intake, as the vehicle already includes an access point through which the pump could extend into the liquid of the manure lagoon. *Supra* Section III.A and III.B, Element [41.3]. When positioned in this arrangement, the Nuhn Pump would be located rearward of the front of the vehicle body and forward of the rear of the vehicle body.

A POSA would have also understood that the most logical location for attaching the wheels of Bryham would have been to place one wheel at each corner of the steel frame (EX1014, ¶[0022]) of the Puck vehicle. EX1111, ¶111.

To the extent that the Nuhn Pump would not already be positioned between the four wheels when arranged on the Puck vehicle, a POSA would have understood

that positioning the pump in such a central location on the vehicle allows for a more centrally located center of gravity, a primary consideration when designing a floating vehicle. *Id.*, ¶112. Furthermore, a POSA would have understood that positioning the pump in this centralized location would mitigate negative effects on the stability of the vehicle caused by reaction forces generated by the pump. *Id.*

J. Claim 80

Element [80.0]-[80.1] and [80.4]-[80.5]: Puck, the Puck Video, Bryham, and Manure-Manager would have rendered obvious Elements [80.0]-[80.1] and [80.4]-[80.5]. *Supra* Section III.B, Elements [41.0]-[41.1] and [41.4]-[41.5].

Element [80.2]: Puck, the Puck Video, Bryham, and Manure-Manager would have rendered obvious Element [80.2]. *See supra* Section III.I, Element [79.2]. A POSA would have understood that arranging one wheel at each corner of the vehicle frame of Puck would result in a front set of wheels at the front of the floatable vehicle body and a rear set of wheels at the rear of the floatable vehicle body. EX1111, ¶114.

Element [80.3]: Puck, the Puck Video, Bryham, and Manure-Manager would have rendered obvious the yellow, green, and blue limitations of Element [80.3]. *Supra* Section III.B, Element [41.3] (yellow, green, blue); *see also supra* note 2.

**IV. AMENDED CLAIM 57 IS UNPATENTABLE AS OBVIOUS
OVER SUNDSTROM IN VIEW OF BRYHAM**

Sundstrom in view of Bryham would have rendered claim 57 obvious. A POSA would have been motivated to combine Sundstrom and Bryham for the same

reasons identified with respect to Puck and Bryham. Paper 2 at 80-83; EX1120, ¶26. Sundstrom discloses a floatable vehicle body with four wheels, a power source, pump, conduit, and nozzle, which are remote controlled to provide steering while floating. EX1120, ¶¶9, 12. A POSA would have been motivated to power the wheels using the hydraulic power transmission of Bryham. Paper 2 at 86-87. A POSA would have been motivated to use this same transmission to power the Sundstrom pump (EX1120, ¶19), which features an immersible impeller positioned along the underside of the vehicle body (*id.*, ¶17). Paper 2, 87. A POSA would have been motivated to extend the remote-control capabilities (*id.* ¶21) of Sundstrom to control the powered wheels. Paper 2 at 88-89; EX1120, ¶¶116-137.

V. THE AMENDED CLAIMS ARE INVALID UNDER §112(a)-(b)

A. “Angle Adjustment Structure”

Claims 55-56, 71-72 each recite:

wherein the angle adjustment structure adjusts the angular orientation of the at least one fluid nozzle of the liquid manure mover in a horizontal plane

Paper 21 at 31, 35-36.

This term should be construed under §112(f) because the claim language fails to provide any structure for performing the claimed functions. A POSA would have understood that the generic phrase “angle adjustment structure” does not connote any particular structure. EX1111, ¶¶139-142. The functional prefix “angle adjustment” does not “impart structure because [it] merely describes the function of

the [non-structural term]”—that is, adjusting the angle. *Rain Comput., Inc. v. Samsung Elecs. Am., Inc.*, 989 F.3d 1002, 1006 (Fed. Cir. 2021).

Where a means-plus-function term includes multiple claimed functions, the patentee must disclose adequate corresponding structure to perform all the claimed functions. If the patentee fails to disclose adequate corresponding structure, the claim is indefinite. *Williamson v. Citrix Online, LLC*, 792 F.3d 1339, 1352 (Fed. Cir. 2015); *see also Team Worldwide Corp. v. Intex Rec. Corp.*, No. 2020-1975, 2021 U.S. App. LEXIS 27284, at *19 (Fed. Cir. Sept. 9, 2021).

Here, the specification fails to disclose any structure associated with the function of “adjust[ing] the angular orientation of the at least one fluid nozzle of the liquid manure mover *in a horizontal plane*.” Nuhn only cites to paragraphs [0012] and [0028] of its provisional application (EX2081) as support for these claims. Paper 21 at 8, 10-11. But paragraph [0012] merely states that the “adjustment structure [may be] configured to adjust an angular orientation of its respective fluid nozzle(s) in a vertical and/or horizontal plane.” EX2081, ¶[0012]. And paragraph [0028] only describes a “articulation means 12 that is hydraulically powered to cause the nozzle to change angular orientation relative to the vehicle body 1 in a vertical plane.” EX2081, ¶[0028]. Because the specification fails to describe any structure for performing the *horizontal* angle adjustment function, claims 55-56 and 71-72 are invalid as indefinite under 35 U.S.C. §112(b).

B. “Liquid Manure Pump”

Nuhn’s amended claims recite “liquid manure pump.” To the extent that the term is construed differently than “a fluid pump for pumping liquid manure,” this term lacks written description support.

“What is claimed by the patent application must be the same as what is disclosed in the specification.” *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 535 U.S. 722, 736 (2002). Thus, according to 35 U.S.C. §112(a), “[t]he specification shall contain a written description of the invention ... in such full, clear, concise, and exact terms as to enable any [POSA] ... to which it pertains to make and use the same.” *Knowles Elecs. LLC v. Cirrus Logic, Inc.*, 883 F.3d 1358, 1365 (Fed. Cir. 2018).

Here, like in *Knowles*, aside from its litigation driven continuation claims, the ’835 Patent never describes what a “liquid manure pump” is. *Id.* Nuhn argues, without support, that a “fluid pump” is different from a “liquid manure pump” attempting to claim only “*“a pump that pumps liquid manure”*’ rather than simply a pump that might be able to pump liquid manure[.]” Paper 9 at 34. But the disclosed pump is only described as a “fluid pump.” The specification does not structurally differentiate a “liquid manure pump” from a generic “fluid pump.” [REDACTED]

[REDACTED]

██████████ Thus, if “liquid manure pump” is construed differently than “a fluid pump” the claims are invalid under §112(a).

C. “The Hydraulic Pump Is Positioned Between the Power Source and the Immersible Liquid Manure Pump”

To the extent that the word “between” is construed inconsistently with the figures of the ’835 Patent, this term lacks written description support. As noted above, Nuhn only cites to paragraphs [0008], [0023], and [0033] of its provisional patent application (EX2081) as written description support for this claim element. *Supra* Section II.B. None of those paragraphs describe the position of the hydraulic pump with respect to the power source and the fluid pump. The only place in the specification describing the relative positioning of these components is the figures of the ’835 Patent. The word “between” should be construed consistently with those figures, and if it is not, claims 43 and 59 should be found invalid for failing to comply with the written description requirement of §112(a).

VI. CONCLUSION

Petitioner asks that the PTAB deny Nuhn’s motion to amend.

Respectfully submitted,

MERCHANT & GOULD P.C.

Date: October 1, 2024

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CERTIFICATION OF SERVICE

The undersigned certifies, in accordance with 37 C.F.R. § 42.6(e), that service was made on Counsel for Patent Owner as detailed below.

Date of service: October 1, 2024

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Documents served: Petitioner's Opposition to the Motion to Amend
Inter Partes Review of U.S. Patent No. 11,491,835

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