

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

BAZOOKA-FARMSTAR, LLC,

Petitioner,

v.

NUHN INDUSTRIES LTD.,

Patent Owner.

Case No. IPR2023-01161
U.S. Patent No. 11,358,425

PATENT OWNER'S CONDITIONAL MOTION TO AMEND

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<i>Exhibit #</i>	<i>Description</i>
2001	Petitioner's <i>Ex Parte</i> Reexamination Requests for U.S. Patent No. 11,358,425 and U.S. Patent No. 10,974,557
2002	Decision Granting Patent Owner's Petition for an Unintentionally Delayed Priority Claim in U.S. Patent. No. 10,124,638
2003	U.S. Patent No. 4,594,006 to Depeault ("Depeault")
2004	Expert Declaration of Douglas S. Prairie
2005	Curriculum Vitae of Douglas S. Prairie and Case List
2006	Screenshots from Patent Owner's YouTube Channel of Patented Product, retrieved on 10-2-23 from https://www.youtube.com/watch?v=fEgvvq9HZkk
2007	Screenshots from Petitioner's YouTube Channel of Accused Product, retrieved on 10-2-23 from https://www.youtube.com/watch?v=3y3bSJJUOps
2008	Screenshots from Progressive Dairyman YouTube Channel of 2014 Manure Lagoon Agitation Boat Demonstration, published on 7-9-14 by Progressive Dairy, retrieved on 10-2-23 from https://www.youtube.com/watch?v=FXRS-9Ip1pE
2009	Patent Classification List for U.S. Patent No. 11,358,425, retrieved on 10-4-23 from https://patents.google.com/patent/US11358425B1/en?q=US11358425
2010	U.S. Patent No. 4,406,413 to Houle ("Houle")
2011	U.S. Patent No. 7,833,071 to Gaither ("Gaither")
2012	U.S. Patent No. 5,176,098 to Royle ("Royle")
2013	U.S. Patent No. 9,462,741 to Puck ("Puck-II")
2014	U.S. Patent No. 9,572,297 to Puck ("Puck-III")
2015	DE2364962 to Kronseder ("Kronseder")
2016	DE3431345 to Lüllmann ("Lüllmann")
2017	CA2002619 to Depeault ("Depeault-II")
2018	U.S. Patent No. 10,118,138 to Tews ("Tews")
2019	Daniel L. Pfoest et al., Univ. of Mo. Extension, Anaerobic Lagoons for Storage/Treatment of Livestock Manure (Oct. 2000)
2020	Screenshots from 2023 North American Manure Expo Website, retrieved on 10-2-23 from https://www.manureexpo.ca/

2021	Dictionary Definitions of “Dredging” and “Agitation”, retrieved on 9-30-23 from https://en.wikipedia.org/wiki/Dredging , https://www.merriam-webster.com/dictionary/dredging#dictionary-entry-1 , https://www.merriam-webster.com/dictionary/agitation , and https://www.lagoonpumping.com/articles-resources/agriculture-articles/manure-articles/
2022	Envtl. Prot. Agency, Primer for Municipal Wastewater Treatment Systems (Sept. 2004)
2023	U.S. Dep’t Agric., <i>Agricultural Waste Management Systems</i> , in <i>Agricultural Waste Management Field Handbook</i> ch. 9 (Dec. 2011)
2024	Screenshot of 2023 Commercial Manure Applicator Certification, retrieved on 10-3-23 from https://elearning-dnr.iowa.gov/course/index.php?categoryid=2
2025	Joseph Akyeampong et al., <i>Evaluation of hydraulic excavator Human-Machine Interface concepts using NASA TLX</i> , 44 Int’l J. of Indus. Ergonomics 374, 374–82 (2014)
2026	Screenshots of 2023 Truxor Website, retrieved on 10-1-23 from https://truxor.com/en/catalog/node/products and https://truxor.com/en/catalog/node/products-truxor-machines
2027	Screenshots of 2023 Berky (formerly SenwaTec) Website, retrieved on 10-4-23 from https://www.berky.de/en/berky-nereus-240-amphi/
2028	Christian Haas et al., <i>Practical Evaluation of a Control Concept for a Remote Controlled 1.8T Excavator Using a 3D Input Device</i> , BATH/ASME 2022 Symposium on Fluid Power and Motion Control, ISBN: 978-0-7918-8633-5, FPMC2022-88959, V001T01A012-1 thru V001T01A012-7 (2022)
2029	Declaration of Douglas Prairie
2030	K. Smith et al., <i>Natural Crusting Of Slurry Storage As An Abatement Measure For Ammonia Emissions On Dairy Farms</i> , 97 Biosystems Engineering 464 (2007)
2031	Printout of Bazooka’s webpage for its Wolverine Agitation Boat at: https://www.bazookafarmstar.com/equipment/wolverine-agitation-boat/
2032	Bazooka’s brochure for the Bazooka Wolverine Agitation Boat from: https://www.bazookafarmstar.com/wp-content/uploads/2023/01/Cutsheet-Wolverine-1.pdf .

2033	H. Landry et al., <i>Physical and Rheological Properties of Manure Products</i> , Applied Engineering in Agriculture, at 278 (2004)
2034	<i>Hydrostatic Pto's Run in Reverse</i> , Farm Show, Vol. 1 No. 5, 1977
2035	Brochure for MY2017 of Nuhn's Gen 1 Lagoon Crawler
2036	Operator's/Safety Manual for the MY2017 of the Gen 1 Lagoon Crawler
2037	Parts Catalog for Gen 1 Lagoon Crawler
2038	Brochure for Nuhn's Gen 1 Lagoon Crawler
2039	Brochure for MY2018 of Nuhn's Gen 2 Lagoon Crawler
2040	Operator's/Safety Manual for the MY2019 Gen 2 Lagoon Crawler
2041	Parts Book for the MY2018 Gen 2 Lagoon Crawler
2042	Brochure for Gen 2 Lagoon Crawler
2043	Operator's/Safety Manual for the MY2020 of the Gen 3 Lagoon Crawler
2044	Operator's/Safety Manual for the MY2020 of the Gen 3 Lagoon Crawler
2045	Parts catalog for the MY2021 of the Gen 3 Lagoon Crawler
2046	Brochure for Crawler X
2047	Parts Catalog for MY2022 Lagoon Crawler X
2048	U.S. Provisional Patent Application No. 63/040,562 filed June 18, 2020
2049	U.S. Provisional Patent Application No. 63/104,887 filed October 23, 2020
2050	U.S. Patent Application Publication US 2021/0394571 published December 23, 2021
2051	Notice of Allowance in U.S. Application No. 17,590,125, Mailed April 22, 2022.
2052	Notice of Intent to Issue Ex Parte Reexamination Certificate, Control No. 90/019,107, Mailed November 2, 2022.
2053	Print No. 1 of Nuhn YouTube Video - "Nuhn Lagoon Crawler Unrivaled Lagoon Agitation!", accessed at https://www.youtube.com/watch?v=fEgvvq9HZk
2054	Lagoon Crawler Prototype Brochure, Aggressive Agitation
2055 (Under Seal)	Lagoon Crawler Sales Report - Consolidated Totals
2056 (Under Seal)	Lagoon Crawler Sales Report - 2014-2017.5

2057 (Under Seal)	Lagoon Crawler Sales Report - 2018-2019
2058 (Under Seal)	Lagoon Crawler Sales Report - 2020-2023
2059 (Under Seal)	Lagoon Crawler Sales Report - X Models
2060	Print No. 2 of Nuhn YouTube Video - "Nuhn Lagoon Crawler Unrivaled Lagoon Agitation!", accessed at https://www.youtube.com/watch?v=fEgvvq9HZk
2061	<i>New Lagoon Crawler Demos Will Satisfy Curiosity</i> , Canada's Outdoor Farm Show Official Show Guide for September 9-11, 2014 in Woodstock, Ontario
2062	H. Rivers, <i>Farm show opens with a splash</i> , The Beacon Herald (Sept. 10, 2014)
2063	B. Shypula, <i>Transforming farming</i> , The London Free Press (Sept. 9, 2013))
2064	B. Shypula, <i>Crawler makes manure almost sexy</i> , The Beacon Herald (Sept. 6, 2013)
2065	30th Annual AMC Engineering Conference Brochure for May 5-7, 2015 in Waterloo, Iowa
2066	Certificate of Services Awarded to Ian Nuhn
2067	M. Beitz, <i>Crawler is turning heads</i> , The Beacon Herald at A2 (Jan. 30, 2014)
2068	C. Elmore, <i>Innovative Uses of Horsepower – A real crapshoot</i> , Diesel Progress North American Edition (Dec. 2014)
2069	D. Rankin, <i>Nuhn Industries celebrates employees at expansion grand opening</i> , 100th lagoon crawler unveiling, St. Marys Independent (Aug. 7, 2015)
2070	B. Reid, <i>Agitator has reclaimed manure lagoons around the world</i> , Ontario Farmer (Aug. 18, 2015)
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2072	L. Cudworth, <i>Marking a major milestone</i> , The Stratford Beacon Herald (Aug. 7, 2015)
2073	J. Algie, <i>Made-in-Sebringville lagoon crawler to be featured on Discovery Channel</i> , Betterfarming.com (Sept. 2, 2015)
2074	B. Reid, <i>Self-propelled</i> , Western Dairy Farmer (Oct. 2015)

2075 (Under Seal)	March 21, 2022 Email to Nuhn re: Licensing Lagoon Crawler Technology
2076 (Under Seal)	Nuhn Invoice to Eldon C. Stutsman, Inc. (Sept. 9, 2015)
2077 (Under Seal)	Nuhn Invoice to Eldon C. Stutsman, Inc. (June 20, 2020)
2078 (Under Seal)	Nuhn Invoice to Eldon C. Stutsman, Inc. (Sept. 28, 2020)
2079	Print of Bazooka's YouTube Video - "Meet the Wolverine Agitation Boat," accessed at https://www.youtube.com/watch?v=ehAHKL442as
2080	Discovery Channel's Lagoon Crawler Feature (Sept. 3, 2015)
2081	U.S. Provisional Application No. 61/867,598 (filed August 19, 2013).
2082	US3384047 to Royle
2083 (Under Seal)	Declaration of Ian Nuhn in Support of Patent Owner Response
2084	US20100144220A1 to Bailey
2085	Proposed Protective Order
2086	Markup Protective Order
2087	Curriculum Vitae of Douglas S. Prairie and Case List – updated April 2, 2024

I. INTRODUCTION

Patent Owner Nuhn Industries Ltd. (“Nuhn” or “Patent Owner”) moves under 35 U.S.C. § 316(d) and 37 C.F.R. § 42.121 to amend U.S. Patent No. 11,358,425 (“the ‘425 patent”), contingent on the outcome of this trial. In the event the Board finds any of original claims 1-21 unpatentable, Patent Owner respectfully requests that the Board grant this Motion to Amend and issue the substitute claims presented herein. In addition, Nuhn elects to seek non-binding preliminary guidance from the Board on this Motion to Amend.

As the motion and the accompanying declaration of Douglas Prairie demonstrate, this motion and the substitute claims meet all of the requirements of 37 C.F.R § 42.121. Namely, each contingent amendment is responsive to a ground of unpatentability involved in this proceeding, none of the amendments seeks to enlarge the scope of the claims or introduce new subject matter, each amendment proposes only one substitute claim for each conditionally canceled claim, and the motion clearly shows the changes sought and the support in the original disclosure of the patent for each claim that is added or amended.

Moreover, although Patent Owner should not bear the burden of either persuasion or production regarding the patentability of the amended claims as a condition of allowance, and the Board may not *sua sponte* question the patentability of the proposed amended claims, *see In re Aqua Products, Inc.*, 872

F.3d 1290, 1296 (Fed. Cir. 2017), the instant motion and supporting Declaration demonstrate that the proposed amended claims are patentable over the references at issue in this proceeding and the prior art at issue during prosecution.

II. STATEMENT OF RELIEF REQUESTED

To the extent the Board finds any original claim unpatentable in this proceeding, Nuhn respectfully requests that the Board grant this motion to amend with respect to each corresponding substitute claim presented herein. The Board should not consider this motion for each original claim it finds patentable. Nuhn also elects to seek non-binding preliminary guidance from the Board on this Motion to Amend.

III. THE SUBSTITUTE CLAIMS MEET ALL THE REQUIREMENTS OF 37 C.F.R. § 42.121

As shown in the attached claims appendix, the proposed claims add only narrowing limitations. For example, the following limitations of Proposed Substitute Claim 22 were added to Claim 1: 1) defining that the vehicle body has a front, a rear, and an underside; 2) specifying that the pump is a liquid manure pump; and 3) specifying location of the housing and impeller. For the same reasons, the proposed substitute dependent claims 23-42 likewise do not enlarge the scope of any original claim. *See* 37 C.F.R. § 42.121(a)(2)(ii).

As set forth in greater detail below in Section VII, the proposed substitute claims are responsive to one or more grounds of unpatentability in this

proceeding. *See* 37 C.F.R. §42.121(a)(2)(i). Specifically, Petitioner has argued that the asserted prior art references disclose all aspects of the original claims, which this motion conditionally seeks to amend. *Compare* Petition, IPR2023-01161, Paper 1, at 36-100 with Claims Appendix, *infra*. The additional limitations added in this Motion to Amend are made to overcome the prior art and grounds cited in the Petition.

The substitute dependent claims include narrowing limitations and/or reflect new dependencies from the amended substitute dependent claims. The further narrowing limitations added, in combination with the narrowing limitations in Proposed Claim 22, are in response to a ground asserted in this IPR. *See Western Digital Corp. v. SPEX Technologies Inc.*, IPR2018- 00082, Paper 13, Decision at 8 (PTAB April 25, 2018).

For each original claim, Nuhn proposes only one substitute claim. The amended claims therefore fit the “presumption . . . that only one substitute claim would be needed to replace each challenged claim,” and, therefore, they present a reasonable number of substitute claims. 37 C.F.R. § 42.121(a)(3).

And, as demonstrated in the next section, the proposed claims are supported by the original non-provisional application to which the ‘425 patent claims priority, so they do not introduce any new subject matter. *See* 37 C.F.R. § 42.121(a)(2)(ii).

IV. THE ORIGINAL NON-PROVISIONAL APPLICATIONS SUPPORT EACH LIMITATION OF THE PROPOSED SUBSTITUTE CLAIMS

The ‘425 Patent issued on June 14, 2022 from Application Ser. No. 17/590,125, and is one of several continuations filed off international patent application number PCT/CA2014/050789 (filed August 18, 2014) and U.S. Provisional Application No. 61/867,598 (filed August 19, 2013).

For purposes of this Motion to Amend, Nuhn identifies the following portions of the ‘598 Application (EX2081) that provides § 112 support for the substitute claims. As demonstrated below and in the accompanying Declaration of Douglas Prairie (EX2029), one of ordinary skill in the art would have understood, based on the disclosure of the ‘598 Application that the inventors possessed the substitute claims on the filing date of the ‘598 Application, and that a POSA would have understood the ‘598 Application as informing a POSA how to make and use the claimed invention. (EX2029, ¶557).

Claim Limitation	Support in U.S. Provisional Application No. 61/867,598 (filed August 19, 2013) [EX2081]
22. An amphibious vehicle, comprising:	“The invention relates to pumps and vehicles equipped for pumping. In particular, the invention relates to manure pumps and amphibious vehicles equipped for pumping liquid manure, such as animal manure contained in a farm lagoon.” EX2081, [0001].
a floatable vehicle body with a front, a rear, and an underside;	“The floatable vehicle body may be in the shape of a mono-hull, a catamaran or a barge. Floatation of the vehicle body may be provided by a displacement hull, pontoon elements, or buoyant elements, for example foam filled buoyant chambers, such as are used for supporting floating docks. The vehicle body may be

	made using a variety of suitable materials, for example, fiberglass, aluminum, plastics, steel, etc.” EX2081, [0005]. “Fig. 3 shows a perspective view of the underside of the vehicle; and,” EX2081, [0019]. “Fig. 4 shows a perspective view of a set of wheels of the vehicle from the underside of the vehicle;” EX2081, [0020].
ground engaging propulsion structure comprising a plurality of ground engaging elements powered by a hydraulic motor;	“The ground engaging propulsion structure may comprise ground engaging elements of the type suitable for powering a vehicle across wet or muddy terrain. For example, the ground engaging propulsion structure may comprise an endless track or a set of wheels. The set of wheels may comprise two or more wheels, for example four wheels, six wheels or eight wheels. May be provided in pairs with one wheel of each pair disposed on opposite sides of the vehicle. When the vehicle comprises a set of wheels, any number of the wheels may be driven in order to provide propulsion for the vehicle. Although at least two wheels may be driven, it is preferred that at least four wheels are driven... A variety of drive mechanisms may be used to operate the wheels independently at variable speed; for example, at least one motor may be connected to each wheel that is hydraulically or electrically operable at variable speed. A transmission may alternatively be provided with structure configured to allow each wheel to be operated at variable speeds.” EX2081, [0006].
a liquid manure pump for pumping liquid manure, the liquid manure pump including a housing and an impeller that are positioned along the underside of the floatable vehicle body between at least two of	“The invention relates to pumps and vehicles equipped for pumping. In particular, the invention relates to manure pumps and amphibious vehicles equipped for pumping liquid manure, such as animal manure contained in a farm lagoon.” EX2081, [0001]. “Fig.. 8 shows a perspective view of the fluid pump from the underside of the vehicle.” EX2081, [0024].

the ground engaging elements such that the housing and the impeller are rearward of the front of the vehicle body and forward of the rear of the floatable vehicle body and such that the impeller is immersed in and configured to pump the liquid manure when the vehicle is floating;

“The fluid pump may comprise a pump housing configured for immersion within the fluid. The pump housing may comprise a bottom fluid inlet and at least two tangential fluid outlets. A greater number of tangential fluid outlets may be provided, for example three fluid outlets. The tangential fluid outlets may be combined into a single fluid conduit for directing the combined output of the fluid pump to a desired location. The vehicle may comprise structure configured to cause raising and lowering of the fluid pump, especially the fluid pump housing, relative to the vehicle body. For example, a hydraulically or electrically driven linear actuator may be provided on the vehicle and configured to raise and lower the fluid pump. This may be accomplished via a telescoping structure or a lever structure of the vehicle. The tangential fluid outlets may be equipped with flexible or telescoping connections to the single fluid conduit. Lowering the fluid pump for immersion into the fluid obviates the need for priming the fluid pump, which can be problematic when the fluid is manure comprising solid materials that can plug the pump or priming structure. Immersion of the pump also simplifies intermittent operation of the pump, due to eliminating potential loss of prime, and reduces the need for pump maintenance.” EX2081, [0009].

“The location of at least the ground engaging propulsion structure, the power source and the fluid pump may be selected to provide a desired location for a center of gravity of the vehicle. The desired location for the center of gravity of the vehicle may be selected to improve handling characteristics of the vehicle while floating. The center of gravity may be located along the longitudinal centerline of the vehicle. The center of gravity may be located substantially in the middle of the vehicle, for example at an intersection of longitudinal centerline of the vehicle and the transverse centerline of the vehicle. The center of gravity may be located rearward of the transverse centerline of the vehicle. The center of gravity may be located forward of the

	transverse centerline of the vehicle. Thus the ground engaging propulsion structure, power source, and fluid pump cooperate together to improve handling characteristics of the vehicle.” EX2081, [0013].
a power source connected to a hydraulic pump, the power source configured to provide power to both the ground engaging propulsion structure and the liquid manure pump; and	“The vehicle further comprises a power source configured to provide power to both the ground engaging propulsion structure and the fluid pump. The power source may be self-contained on the vehicle or may be linked to shore. For example, the power source may comprise an internal combustion engine, a fuel-cell, electric batteries, etc. The power source may comprise an electric motor that may be driven from shore via an electrical cable. The power source may be connected to a generator for supplying electrical power to electrical systems on board the vehicle. The power source may be connected to a hydraulic pump for supplying hydraulic fluid pressure to hydraulic systems on board the vehicle. The power source may be connected to the fluid pump hydraulically, electrically, or via a mechanical drive. A single power source may be used to provide power to all vehicle systems, including the fluid pump. In one embodiment, the power source is an internal combustion engine that is connected to the fluid pump and a hydraulic pump via a mechanical drive. The mechanical drive may comprise a gearbox to provide an appropriate rotational speed for the fluid pump. The mechanical drive may comprise a gearbox to provide an appropriate rotational speed for the hydraulic pump. The fluid pump and hydraulic pump may be operated at the same or different rotational speeds.” EX2081, [0008].
a wireless remote control configured to enable an operator who is remote from the vehicle to: (1) control the ground engaging propulsion structure; (2) control a flow of liquid manure from the liquid manure pump; (3)	“A remote control structure 40 comprises an antenna configured to cause the vehicle to be remotely controllable by an operator remote from the vehicle. The remote control structure comprises a wireless transmitter used by the operator and a wireless receiver on the vehicle. The wireless receiver interfaces with a hydraulic control center on the vehicle to permit control of hydraulically operated components, such as hydraulic cylinders, valves, motors, etc. This allows the operator to control vehicle speed and direction on land or when

control at least one of the speed and direction of the vehicle when the vehicle is ground engaging; and (4) control at least one of the speed and direction of the vehicle when the vehicle is floating.	floating, to raise the wheels and to change the angular orientation of the first and second fluid nozzles. A wireless engine starter is provided to control operation of the internal combustion engine used as a power source. A set of hydraulic controls is optionally provided to modulate engine speed and/or fluid pump rotational speed. Thus, a variety of functions may be controlled remotely that allow the vehicle to operate on land or when floating.” EX2081, [0037].
23. The vehicle of claim 22, wherein the vehicle further comprises a conduit fluidly connected to the liquid manure pump.	“Referring to Fig. 8, the fluid pump 9 comprises a pump housing 18 comprising three tangential fluid outlets 19 that are connected via flexible pump outlet conduits 33 to a combiner 34 that is used to combine the fluid output of the tangential fluid outlets 19 into the single conduit 20. A pump actuation cylinder 35 is provided to cause raising and lowering of the pump 9 and especially the pump housing 18 relative to the vehicle body 1. A telescoping pump support structure 36 is provided for use in combination with the pump actuation cylinder 35. A mechanical drive shaft (not shown) runs through the telescoping pump support structure 36 to provide power to the pump impeller 37. When powered, the impeller 37 draws the fluid to be pumped through an enlarged bottom fluid opening 38 of the pump housing 18. By immersing the pump housing 18 in the fluid, fluid is allowed to enter the pump housing, thereby obviating the need for priming the pump. Raising the pump 9 via the pump actuation cylinder 35 and telescoping pump support structure 36 allows the vehicle to exit the lagoon (or similar fluid reservoir) without damaging the pump. Thus, these structures cooperate with the ground engaging propulsion structure to allow the vehicle to operate on land.” EX2081, [0034].
Claim 24	Only amended to reflect new dependency
Claim 25	Only amended to reflect new dependency
26. The vehicle of claim 25, wherein the vehicle further comprises a first fluid nozzle at the end of the	“The fluid pump 9 comprises a pump housing 18 with three tangential fluid outlets 19 that are combined into a single fluid conduit 20. The single fluid conduit 20 is then split into left side 21 and right side 22 fluid conduits which connect at the front and rear of the

conduit that is positioned at the front of the floatable vehicle body, a pair of second fluid nozzles at the rear of the floatable vehicle body, and side fluid nozzles on opposite sides of the floatable vehicle body.	vehicle to form a complete circuit. The fluid pump 9 is thus fluidically connected to all fluid nozzles of the vehicle via the fluid conduits 20-22.” EX2081, [0027]. “A first fluid nozzle 11 is provided at a front of the vehicle. The first fluid nozzle 11 comprises first 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. A pair of second fluid nozzles 13 is provided at a rear of the vehicle. The second fluid nozzles 13 comprise a second articulation means 14 that is hydraulically powered to cause the nozzles to change angular orientation relative to the vehicle body 1 in a vertical plane. The first and second fluid nozzles are part of a plurality of fluid nozzles of the vehicle. The plurality of fluid nozzles further comprises side fluid nozzles 16, 17 on opposite sides of the vehicle. A pair of left side fluid nozzles 16 and a pair of right side fluid nozzles 17 are provided.” EX2081, [0028].
27. The vehicle of claim 23, wherein the vehicle further comprises a nozzle at the end of the conduit, wherein the ground engaging propulsion structure comprises a front set of ground engaging wheels that are rotatably attached to a front set of spindles and a rear set of ground engaging wheels that are rotatably attached to a rear set of spindles, and wherein the liquid manure pump is positioned rearward of the front set of spindles	“The fluid pump 9 comprises a pump housing 18 with three tangential fluid outlets 19 that are combined into a single fluid conduit 20. The single fluid conduit 20 is then split into left side 21 and right side 22 fluid conduits which connect at the front and rear of the vehicle to form a complete circuit. The fluid pump 9 is thus fluidically connected to all fluid nozzles of the vehicle via the fluid conduits 20-22.” EX2081, [0027]. “A first fluid nozzle 11 is provided at a front of the vehicle. The first fluid nozzle 11 comprises first 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. A pair of second fluid nozzles 13 is provided at a rear of the vehicle. The second fluid nozzles 13 comprise a second articulation means 14 that is hydraulically powered to cause the nozzles to change angular orientation relative to the vehicle body 1 in a vertical plane. The first and second fluid nozzles are part of a plurality of fluid nozzles of

and forward of the rear set of spindles.	the vehicle. The plurality of fluid nozzles further comprises side fluid nozzles 16, 17 on opposite sides of the vehicle. A pair of left side fluid nozzles 16 and a pair of right side fluid nozzles 17 are provided.” EX2081, [0028]. “Referring to Figs. 1-3, an amphibious vehicle comprises a vehicle body 1 incorporating buoyant elements 2. The buoyant elements comprise flotation tanks of the type that may be foam filled and used, for example, in the construction of floating docks. The vehicle comprises a ground engaging propulsion structure comprising two sets of wheels 3, 4. Each wheel is rotatably mounted to lever structure 5 that is pivotally attached to the vehicle body. Each lever structure 5 is driven by a hydraulic actuator 6 that is operable to cause raising and lowering of the wheels 3, 4 by pivoting of the lever structure 5. A power source 7 comprising an internal combustion engine, for example a diesel engine, is mounted to the vehicle body. A mechanical drive 8 connects the power source 7 to the fluid pump 9 and a hydraulic pump 10 that is used to provide hydraulic system fluid pressure for the vehicle.” EX2081, [0026]. “Referring additionally to Fig. 4, each wheel of the front set of wheels 3 is rotatably attached to its corresponding lever 5 by a spindle 23. Fixedly mounted to lever 5 is a bracket 24 supporting a pair of hydraulic motors 25. Each hydraulic motor 25 has an output gear (not shown) that is engaged with a drive gear 26. The drive gear 26 is fixedly attached to a rim 27 of each wheel 3 concentric with the spindle 23. Referring to the right side wheel of the set of wheels 3 (showing an interior of the rim 27), operation of the hydraulic motors 25 in a clockwise direction causes the drive gear 26 to rotate in a counterclockwise direction, moving the vehicle forward. Reversing the direction of operation of the hydraulic motors 25 causes the vehicle to move rearward. By increasing the rotational speed of the hydraulic motors 25 on the right side relative to the motors 25 on the left
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	side, the vehicle is caused to turn to the left. The motors 25 connected to the rear set of wheels 4 work in a similar manner to those described for the front set of wheels 3. Thus, directional and motive control of the vehicle (forward/reverse) while on land is controlled by varying the relative speed and rotational direction of the hydraulic motors 25.” EX2081, [0030].
28. The vehicle of claim 22, wherein at least one of the speed and direction of the vehicle is controlled by a fluid mover when the vehicle is floating.	EX2081, [0037].
29. The vehicle of claim 22, further comprising a plurality of fluid nozzles fluidly connected to the liquid manure pump, the plurality of fluid nozzles including side fluid nozzles on opposite sides of the floatable vehicle body.	“The fluid pump 9 comprises a pump housing 18 with three tangential fluid outlets 19 that are combined into a single fluid conduit 20. The single fluid conduit 20 is then split into left side 21 and right side 22 fluid conduits which connect at the front and rear of the vehicle to form a complete circuit. The fluid pump 9 is thus fluidically connected to all fluid nozzles of the vehicle via the fluid conduits 20-22.” EX2081, [0027]. “A first fluid nozzle 11 is provided at a front of the vehicle. The first fluid nozzle 11 comprises first 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. A pair of second fluid nozzles 13 is provided at a rear of the vehicle. The second fluid nozzles 13 comprise a second articulation means 14 that is hydraulically powered to cause the nozzles to change angular orientation relative to the vehicle body 1 in a vertical plane. The first and second fluid nozzles are part of a plurality of fluid nozzles of the vehicle. The plurality of fluid nozzles further comprises side fluid nozzles 16, 17 on opposite sides of the vehicle. A pair of left side fluid nozzles 16 and a pair of right side fluid nozzles 17 are provided.” EX2081, [0028].

30. The vehicle of claim 29, wherein the wireless remote control is configured to control the plurality of fluid nozzles to control at least one of the speed and direction of the vehicle when the vehicle is floating.	EX2081, [0037].
31. The vehicle of claim 25, further comprising a plurality of fluid nozzles fluidly connected to the liquid manure pump, the plurality of fluid nozzles including a pair of left side fluid nozzles provided on a left side of the floatable vehicle body and a pair of right side fluid nozzles provided on a right side of the floatable vehicle body.	“The fluid pump 9 comprises a pump housing 18 with three tangential fluid outlets 19 that are combined into a single fluid conduit 20. The single fluid conduit 20 is then split into left side 21 and right side 22 fluid conduits which connect at the front and rear of the vehicle to form a complete circuit. The fluid pump 9 is thus fluidically connected to all fluid nozzles of the vehicle via the fluid conduits 20-22.” EX2081, [0027]. “A first fluid nozzle 11 is provided at a front of the vehicle. The first fluid nozzle 11 comprises first 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. A pair of second fluid nozzles 13 is provided at a rear of the vehicle. The second fluid nozzles 13 comprise a second articulation means 14 that is hydraulically powered to cause the nozzles to change angular orientation relative to the vehicle body 1 in a vertical plane. The first and second fluid nozzles are part of a plurality of fluid nozzles of the vehicle. The plurality of fluid nozzles further comprises side fluid nozzles 16, 17 on opposite sides of the vehicle. A pair of left side fluid nozzles 16 and a pair of right side fluid nozzles 17 are provided.” EX2081, [0028].
32. The vehicle of claim 31, wherein the wireless remote control is configured to control opening and closing of a	EX2081, [0037].

valve structure to proportion flow between the plurality of fluid nozzles to control at least one of the speed and direction of the vehicle when the vehicle is floating.	
33. The vehicle of claim 25, wherein the power source is connected to the hydraulic pump by a mechanical drive and is connected to the liquid manure pump by the mechanical drive.	“Referring to Fig. 7, the power source 7 comprises an internal combustion engine connected to a mechanical drive 8 that delivers power to the pump 9 (not shown in Fig. 7) and also to the hydraulic pump 10 that is used to provide hydraulic fluid pressure to the vehicle’s hydraulic systems. A transmission is provided within the mechanical drive 8 that allows the rotational speed of the fluid pump 9 to be adjusted independently of the rotational speed of the hydraulic pump 10. The power source 7 is thus mechanically connected to both the fluid pump 9 and the hydraulic pump 10.” EX2081, [0033].
Claim 34	Only amended to reflect new dependency
35. The vehicle of claim 34, wherein the ground engaging elements consist of a set of ground engaging wheels.	“The ground engaging propulsion structure may comprise ground engaging elements of the type suitable for powering a vehicle across wet or muddy terrain. For example, the ground engaging propulsion structure may comprise an endless track or a set of wheels. The set of wheels may comprise two or more wheels, for example four wheels, six wheels or eight wheels. May be provided in pairs with one wheel of each pair disposed on opposite sides of the vehicle. When the vehicle comprises a set of wheels, any number of the wheels may be driven in order to provide propulsion for the vehicle. Although at least two wheels may be driven, it is preferred that at least four wheels are driven. Although the vehicle may be provided with steering structure configured to change direction of one or more pairs of wheels, it is preferred that the wheels are independently driven at variable speeds, allowing them to be fixed in direction relative to the vehicle body. This provides directional control of the vehicle, even in wet or muddy conditions where conventional steering is

	likely to be ineffective due to sliding of the steerable set of wheels. A variety of drive mechanisms may be used to operate the wheels independently at variable speed; for example, at least one motor may be connected to each wheel that is hydraulically or electrically operable at variable speed. A transmission may alternatively be provided with structure configured to allow each wheel to be operated at variable speeds.” EX2081, [0006].
36. The vehicle of claim 35, wherein the set of ground engaging wheels consists of two powered ground engaging wheels at the front of the floatable vehicle body and two powered ground engaging wheels at the rear of the floatable vehicle body.	“The ground engaging propulsion structure may comprise ground engaging elements of the type suitable for powering a vehicle across wet or muddy terrain. For example, the ground engaging propulsion structure may comprise an endless track or a set of wheels. The set of wheels may comprise two or more wheels, for example four wheels, six wheels or eight wheels. May be provided in pairs with one wheel of each pair disposed on opposite sides of the vehicle. When the vehicle comprises a set of wheels, any number of the wheels may be driven in order to provide propulsion for the vehicle. Although at least two wheels may be driven, it is preferred that at least four wheels are driven. Although the vehicle may be provided with steering structure configured to change direction of one or more pairs of wheels, it is preferred that the wheels are independently driven at variable speeds, allowing them to be fixed in direction relative to the vehicle body. This provides directional control of the vehicle, even in wet or muddy conditions where conventional steering is likely to be ineffective due to sliding of the steerable set of wheels. A variety of drive mechanisms may be used to operate the wheels independently at variable speed; for example, at least one motor may be connected to each wheel that is hydraulically or electrically operable at variable speed. A transmission may alternatively be provided with structure configured to allow each wheel to be operated at variable speeds.” EX2081, [0006]. “Referring to Figs. 1-3, an amphibious vehicle comprises a vehicle body 1 incorporating buoyant elements 2. The buoyant elements comprise flotation

	tanks of the type that may be foam filled and used, for example, in the construction of floating docks. The vehicle comprises a ground engaging propulsion structure comprising two sets of wheels 3, 4. Each wheel is rotatably mounted to lever structure 5 that is pivotally attached to the vehicle body. Each lever structure 5 is driven by a hydraulic actuator 6 that is operable to cause raising and lowering of the wheels 3, 4 by pivoting of the lever structure 5. A power source 7 comprising an internal combustion engine, for example a diesel engine, is mounted to the vehicle body. A mechanical drive 8 connects the power source 7 to the fluid pump 9 and a hydraulic pump 10 that is used to provide hydraulic system fluid pressure for the vehicle.” EX2081, [0026].
37. The vehicle of claim 35, wherein the set of ground engaging wheels consists of four powered ground engaging wheels and wherein each powered ground engaging wheel is independently powered and is operable at variable speed.	“The ground engaging propulsion structure may comprise ground engaging elements of the type suitable for powering a vehicle across wet or muddy terrain. For example, the ground engaging propulsion structure may comprise an endless track or a set of wheels. The set of wheels may comprise two or more wheels, for example four wheels, six wheels or eight wheels. May be provided in pairs with one wheel of each pair disposed on opposite sides of the vehicle. When the vehicle comprises a set of wheels, any number of the wheels may be driven in order to provide propulsion for the vehicle. Although at least two wheels may be driven, it is preferred that at least four wheels are driven. Although the vehicle may be provided with steering structure configured to change direction of one or more pairs of wheels, it is preferred that the wheels are independently driven at variable speeds, allowing them to be fixed in direction relative to the vehicle body. This provides directional control of the vehicle, even in wet or muddy conditions where conventional steering is likely to be ineffective due to sliding of the steerable set of wheels. A variety of drive mechanisms may be used to operate the wheels independently at variable speed; for example, at least one motor may be connected to each wheel that is hydraulically or electrically operable at variable speed. A transmission may alternatively be

	provided with structure configured to allow each wheel to be operated at variable speeds.” EX2081, [0006]. “Referring to Figs. 1-3, an amphibious vehicle comprises a vehicle body 1 incorporating buoyant elements 2. The buoyant elements comprise flotation tanks of the type that may be foam filled and used, for example, in the construction of floating docks. The vehicle comprises a ground engaging propulsion structure comprising two sets of wheels 3, 4. Each wheel is rotatably mounted to lever structure 5 that is pivotally attached to the vehicle body. Each lever structure 5 is driven by a hydraulic actuator 6 that is operable to cause raising and lowering of the wheels 3, 4 by pivoting of the lever structure 5. A power source 7 comprising an internal combustion engine, for example a diesel engine, is mounted to the vehicle body. A mechanical drive 8 connects the power source 7 to the fluid pump 9 and a hydraulic pump 10 that is used to provide hydraulic system fluid pressure for the vehicle.” EX2081, [0026].
38. The vehicle of claim 37, wherein the four powered ground engaging wheels are operable at variable speed by the hydraulic motor.	“The ground engaging propulsion structure may comprise ground engaging elements of the type suitable for powering a vehicle across wet or muddy terrain. For example, the ground engaging propulsion structure may comprise an endless track or a set of wheels. The set of wheels may comprise two or more wheels, for example four wheels, six wheels or eight wheels. May be provided in pairs with one wheel of each pair disposed on opposite sides of the vehicle. When the vehicle comprises a set of wheels, any number of the wheels may be driven in order to provide propulsion for the vehicle. Although at least two wheels may be driven, it is preferred that at least four wheels are driven. Although the vehicle may be provided with steering structure configured to change direction of one or more pairs of wheels, it is preferred that the wheels are independently driven at variable speeds, allowing them to be fixed in direction relative to the vehicle body. This provides directional control of the vehicle, even in wet or muddy conditions where conventional steering is

	likely to be ineffective due to sliding of the steerable set of wheels. A variety of drive mechanisms may be used to operate the wheels independently at variable speed; for example, at least one motor may be connected to each wheel that is hydraulically or electrically operable at variable speed. A transmission may alternatively be provided with structure configured to allow each wheel to be operated at variable speeds.” EX2081, [0006]. “Referring to Figs. 1-3, an amphibious vehicle comprises a vehicle body 1 incorporating buoyant elements 2. The buoyant elements comprise flotation tanks of the type that may be foam filled and used, for example, in the construction of floating docks. The vehicle comprises a ground engaging propulsion structure comprising two sets of wheels 3, 4. Each wheel is rotatably mounted to lever structure 5 that is pivotally attached to the vehicle body. Each lever structure 5 is driven by a hydraulic actuator 6 that is operable to cause raising and lowering of the wheels 3, 4 by pivoting of the lever structure 5. A power source 7 comprising an internal combustion engine, for example a diesel engine, is mounted to the vehicle body. A mechanical drive 8 connects the power source 7 to the fluid pump 9 and a hydraulic pump 10 that is used to provide hydraulic system fluid pressure for the vehicle.” EX2081, [0026].
Claim 39	Only amended to reflect new dependency
40. The vehicle of claim 38, wherein at least one of the speed and direction of the vehicle is controlled by a fluid mover when the vehicle is floating.	EX2081, [0037].
41. The vehicle of claim 38, further comprising a plurality of fluid nozzles fluidly connected to the fluid pump, the plurality of	“The fluid pump 9 comprises a pump housing 18 with three tangential fluid outlets 19 that are combined into a single fluid conduit 20. The single fluid conduit 20 is then split into left side 21 and right side 22 fluid conduits which connect at the front and rear of the vehicle to form a complete circuit. The fluid pump 9 is

fluid nozzles including a first fluid nozzle at the front of the floatable vehicle body, a pair of second fluid nozzles at the rear of the floatable vehicle body, a pair of left side fluid nozzles provided on a left side of the floatable vehicle body, and a pair of right side fluid nozzles provided on a right side of the floatable vehicle body.	thus fluidically connected to all fluid nozzles of the vehicle via the fluid conduits 20-22.” EX2081, [0027]. “A first fluid nozzle 11 is provided at a front of the vehicle. The first fluid nozzle 11 comprises first 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. A pair of second fluid nozzles 13 is provided at a rear of the vehicle. The second fluid nozzles 13 comprise a second articulation means 14 that is hydraulically powered to cause the nozzles to change angular orientation relative to the vehicle body 1 in a vertical plane. The first and second fluid nozzles are part of a plurality of fluid nozzles of the vehicle. The plurality of fluid nozzles further comprises side fluid nozzles 16, 17 on opposite sides of the vehicle. A pair of left side fluid nozzles 16 and a pair of right side fluid nozzles 17 are provided.” EX2081, [0028].
42. The vehicle of claim 41, wherein the wireless remote control is configured to control the plurality of fluid nozzles to control at least one of the speed and direction of the vehicle when the vehicle is floating.	“The fluid pump 9 comprises a pump housing 18 with three tangential fluid outlets 19 that are combined into a single fluid conduit 20. The single fluid conduit 20 is then split into left side 21 and right side 22 fluid conduits which connect at the front and rear of the vehicle to form a complete circuit. The fluid pump 9 is thus fluidically connected to all fluid nozzles of the vehicle via the fluid conduits 20-22.” EX2081, [0027]. “A first fluid nozzle 11 is provided at a front of the vehicle. The first fluid nozzle 11 comprises first 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. A pair of second fluid nozzles 13 is provided at a rear of the vehicle. The second fluid nozzles 13 comprise a second articulation means 14 that is hydraulically powered to cause the nozzles to change angular orientation relative to the vehicle body 1 in a vertical plane. The first and second fluid nozzles are part of a plurality of fluid nozzles of the vehicle. The plurality of fluid nozzles further

	comprises side fluid nozzles 16, 17 on opposite sides of the vehicle. A pair of left side fluid nozzles 16 and a pair of right side fluid nozzles 17 are provided.” EX2081, [0028].
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V. LEVEL OF ORDINARY SKILL IN THE ART

Based on the totality of the ‘425 Patent disclosure, a POSITA is “a livestock farmer or commercial manure applicator familiar with manure agitation equipment or an engineer with at least 2 years of experience designing agricultural equipment and knowledge of manure agitation equipment.” EX2004, ¶63. *See, e.g.*, EX1001, 1:24-29, 1:33-52, 3:14-21, 8:5-27.

VI. CLAIM CONSTRUCTION

The terms contained in the amendments that are the subject of this Motion to Amend should be given their plain and ordinary meaning. Nuhn reserves the right to rebut any claim construction arguments from Petitioner in response to this motion.

VII. THE SUBSTITUTE CLAIMS ARE PATENTABLE OVER THE PRIOR ART

Patent Owner respectfully asserts that it should not bear the burden of either persuasion or production regarding the patentability of the amended claims as a condition of allowing them, and further believes that the Board may not *sua sponte* question the patentability of the proposed amended claims. *See In re Aqua Products, Inc.*, 872 F.3d 1290, 1296 (Fed. Cir. 2017).

Patent Owner nonetheless confirms that no combination of the prior art record or known to it teaches or suggests the subject matter of the Substitute Claims. This Motion and the supporting declaration of Douglas S. Prairie discusses the known art closest to the features highlighted above based on a review of the prior art in the prosecution history of the '425 patent, the prosecution history of the applications to which it claims priority, and the asserted prior art in this proceeding. *See MasterImage 3D, Inc. v. RealD Inc.*, IPR2015-00040, Paper 42 at 2 (PTAB July 15, 2015); *Nike, Inc. v. Adidas AG*, 812 F. 3d 1326, 1350-51 (Fed. Cir. Feb. 11, 2016). Patent Owner is not aware of any other prior art material to the claimed elements or the system. Consistent with its duty under 37 C.F.R. § 42.11, Patent Owner discloses and distinguishes below not just the closest primary reference(s), but also the closest secondary references that might be deemed material to the claimed features. *See VMWare, Inc. v. Clouding Corp.*, IPR2014-01292, Paper 23 at 2 (PTAB April 7, 2015).

A. The Proposed Claims Have Limitations Not Found in the Prior Art

No prior art, considered and cited during prosecution, during Reexamination No. 90/091,107, and IPR2023-01161 discloses the specifically claimed arrangement of elements set forth in substitute Claim 22. (EX2029, ¶) Specifically, and as set forth in further detail below, Patent Owner is unaware of any prior art that discloses at least the following limitation:

a liquid manure pump for pumping liquid manure, the liquid manure pump including a housing and an impeller that are positioned along the underside of the floatable vehicle body between at least two of the ground engaging elements such that the housing and the impeller are rearward of the front of the vehicle body and forward of the rear of the floatable vehicle body and such that the impeller is immersed in and configured to pump the liquid manure when the vehicle is floating;

(hereafter, the “Pump Limitation”).

B. The Proposed Claims are Patentable Over the Art-At-issue in this IPR

i. The Proposed Claims Are Patentable Over Carrier

Carrier is a general-purpose amphibious emergency or combat vehicle configured with quick-connect attachments. (EX1005 at ¶[0060], *see also* EX2029 ¶120). One of the *quick-connect* attachments is disclosed as being a water pump and the water pump is designed to be a quick-connect pump for pumping water from a lake or stream onto a fire, not liquid manure (or animal manure contained in a farm lagoon, which includes suspended solids) within and out of an agricultural manure lagoon. (EX1020 at Col. 10, ll. 51-56; *see also* EX2029 ¶120, ¶536). The water pump of Carrier is illustrated as being located at the top of the vehicle as opposed to in the location recited in the substitute claims. (EX1005, 2; EX2029 ¶536).

ii. The Proposed Claims Are Patentable Over Truxor In View Of Yoon Or Carrier

Truxor is a general purpose amphibious vehicle configured with quick-connect attachments. (EX1006; EX2029 ¶¶121-122, ¶539). One of the quick-connect attachments is disclosed as being a pump and the pump is designed to be a quick-connect pump for dredging a lake or stream, not for pumping liquid manure (or animal manure contained in a farm lagoon, which includes suspended solids) within and out of an agricultural manure lagoon. (EX1006; EX2029, ¶¶121-122). The pump of Truxor is forward of the front of vehicle at the end of a boom arm that is configured to accommodate quick-connect aquatic weed cutters [EX1006, 6-7], rakes [EX1006, 8-9], buckets and log grabbers [EX1006, 9], dredge pumps [EX1006, 10-11], excavators [EX1006, 12], cultivators [EX1006, 13], and oil decontamination tools [EX1006, 14-15].

Yoon discloses a vehicle for use in waste-water treatment. (EX1011; EX2029, ¶¶125-126, ¶540). The water pump is not designed to pump liquid manure out of a farm lagoon, which includes suspended solids. (EX1011 at p.8, ¶¶[0026] and [0150].) The water pump 131 of Yoon is located inside the main body 130 of the vehicle and is positioned high above the waterline (EX1011, 2; EX2029, ¶126).

iii. The Substitute Claims Are Patentable Over SenwaTec In View Of Yoon Or Carrier

SenwaTec is a general purpose amphibious vehicle configured with *quick-connect* attachments. (EX1012; EX2029 ¶¶123-124; ¶542). One of the quick-connect attachments is disclosed as being a pump and the pump is designed to be a quick-connect pump for dredging a lake or stream, not for pumping liquid manure (or animal manure contained in a farm lagoon, which includes suspended solids) within and out of an agricultural manure lagoon. (EX1006; EX2029 ¶¶123-124, ¶542) The pump of Truxor is forward of the front of the vehicle at the end of a boom arm that is configured to accommodate *quick-connect* aquatic weed cutters, rakes, buckets tree cutter and dredge pumps. (EX1012, 2; EX2029, ¶542).

iv. The Proposed Claims Are Patentable Over Puck In View Of Bryham

Puck discloses an agitation boat including a slurry pump (38) that is illustrated inside the boat hull at a location that is high above the “waterline.” (EX1014; EX2029, ¶544). A liquid manure intake pipe (40) is positioned at the rear of the boat, with a ninety-degree bend so that the intake pipe extends down into the manure lagoon. (EX1014, FIGS. 1 and 8; EX2029, ¶545). The pump (36) is not located on the underside of the boat and is not immersed in the manure lagoon when the boat is floating. (EX1014, FIGS. 1 and 8; EX2029, ¶545).

Bryham discloses a boat with amphibious capabilities, but does not

disclose a pump. (EX1015, Bryham, 2).

v. The Proposed Claims Are Patentable Over Puck In View Of Bryham And In View Of Bennett-II

Bennett-II discloses a general-purpose amphibious vehicle configured for travel over various terrains, but does not disclose a pump. (EX1017; EX2029 ¶¶131-133; EX2029, ¶547).

vi. None of the Grounds of the Petition Disclose all of the Limitations of the Proposed Claims

In view of the discussion above regarding each of the prior art references cited in the Petition, a POSA would not understand Carrier, Truxor, SenwaTec, Yoon, Puck, Bennett-II and/or Bryham to teach all the limitations of the proposed claims, and specifically, the Pump Limitation. (EX2029 ¶¶183-189, 241-246, 533-557). This is because several references do not even disclose a pump and none of the pumps that are disclosed: 1) are positioned along an underside of the vehicle at a location rearward of the front of the vehicle and forward of the rear of the vehicle; (2) are positioned between at least two ground engaging elements; and (3) are disclosed with an impeller that is submersible in and configured to pump liquid manure. (EX2029 ¶556). Thus, no combination of the art-of-record in this IPR teaches the limitations of the proposed claims. (EX2029 ¶¶183-189, 241-246, 533-557).

C. The Substitute Claims Are Also Patentable Over the Prior Art-At-Issue During Prosecution of the ‘425 Patent and Related USPTO and District Court Proceedings

The references, not discussed *supra* in VII.B., at issue during prosecution of the ‘425 patent, the applications to which it claims priority and related patents, related USPTO and District Court proceedings do not disclose the limitations of the proposed claims for the same reasons set forth above relative to the art-of-record in this IPR. The proposed claims are therefore allowable over the above referenced prior art.

VIII. CONCLUSION

For the foregoing reasons, each of the Challenged Claims is unpatentable.

Dated: April 2, 2024

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Claims Appendix

22. (substitute for claim 1, if found unpatentable) An amphibious vehicle, comprising:
- a floatable vehicle body with a front, a rear, and an underside;
 - ground engaging propulsion structure comprising a plurality of ground engaging elements powered by a hydraulic motor;
 - a ~~fluid~~ liquid manure pump for pumping liquid manure, the liquid manure pump including a housing and an impeller that are positioned along the underside of the floatable vehicle body between at least two of the ground engaging elements such that the housing and the impeller are rearward of the front of the vehicle body and forward of the rear of the floatable vehicle body and such that the impeller is immersed in and configured to pump the liquid manure when the vehicle is floating;
 - a power source connected to a hydraulic pump, the power source configured to provide power to both the ground engaging propulsion structure and the ~~fluid~~ liquid manure pump; and,
 - a wireless remote control configured to enable an operator who is remote from the vehicle to: (1) control the ground engaging propulsion structure; (2) control a flow of liquid manure from the ~~fluid~~ liquid manure pump; (3) control at least one of the speed and direction of the vehicle when the vehicle is ground

engaging; and, (4) control at least one of the speed and direction of the vehicle when the vehicle is floating.

23. (substitute for claim 2, if found unpatentable) The vehicle of claim 22, wherein the vehicle further comprises a conduit fluidly connected to the ~~fluid~~ liquid manure pump.

24. (substitute for claim 3, if found unpatentable) The vehicle of claim 23, wherein the conduit comprises an opening at an end thereof.

25. (substitute for claim 4, if found unpatentable) The vehicle of claim 324, wherein the wireless remote control is configured to control an orientation of the opening.

26. (substitute for claim 5, if found unpatentable) The vehicle of claim 425, wherein the vehicle further comprises a first fluid nozzle at the end of the conduit that is positioned at the front of the floatable vehicle body, a pair of second fluid nozzles at the rear of the floatable vehicle body, and side fluid nozzles on opposite sides of the floatable vehicle body.

27. (substitute for claim 6, if found unpatentable) The vehicle of claim 23, wherein the vehicle further comprises a nozzle at the end of the conduit, wherein the ground engaging propulsion structure comprises a front set of ground engaging wheels that are rotatably attached to a front set of spindles and a rear set of ground engaging wheels that are rotatably attached to a rear set of spindles, and wherein the liquid manure pump is positioned rearward of the front set of spindles and forward of the rear set of spindles.

28. (substitute for claim 7, if found unpatentable) The vehicle of claim 122, wherein ~~the~~ at least one of the speed and direction of the vehicle ~~when the vehicle is floating~~ is controlled by a fluid mover when the vehicle is floating.

29. (substitute for claim 8, if found unpatentable) The vehicle of claim 122, further comprising a plurality of fluid nozzles fluidly connected to the ~~fluid~~ liquid manure pump, the plurality of fluid nozzles including side fluid nozzles on opposite sides of the floatable vehicle body.

30. (substitute for claim 9, if found unpatentable) The vehicle of claim 829, wherein the wireless remote control is configured to control the plurality of fluid nozzles to control ~~the~~ at least one of the speed and direction of the vehicle

when the vehicle is floating.

31. (substitute for claim 10, if found unpatentable) The vehicle of claim 425, further comprising a plurality of fluid nozzles fluidly connected to the ~~fluid~~liquid manure pump, the plurality of fluid nozzles including a pair of left side fluid nozzles provided on a left side of the floatable vehicle body and a pair of right side fluid nozzles provided on a right side of the floatable vehicle body.

32. (substitute for claim 11, if found unpatentable) The vehicle of claim 4031, wherein the wireless remote control is configured to control opening and closing of a valve structure to proportion flow between the plurality of fluid nozzles to control ~~the~~at least one of the speed and direction of the vehicle when the vehicle is floating.

33. (substitute for claim 12, if found unpatentable) The vehicle of claim 425, wherein the power source is connected to the hydraulic pump by a mechanical drive and is connected to the ~~fluid~~liquid manure pump by the mechanical drive.

34. (substitute for claim 13, if found unpatentable) The vehicle of claim 4233, wherein the wireless remote control is configured to operate the hydraulic

motor to operate the ground engaging propulsion structure at variable speed.

35. (substitute for claim 14, if found unpatentable) The vehicle of claim ~~1234~~, wherein the ground engaging ~~propulsion structure comprises~~elements consist
of a set of ground engaging wheels.

36. (substitute for claim 15, if found unpatentable) The vehicle of claim ~~1435~~, wherein the set of ground engaging wheels comprises at leastconsists of two
powered ground engaging wheels at the front of the floatable vehicle body and two
powered ground engaging wheels at the rear of the floatable vehicle body.

37. (substitute for claim 16, if found unpatentable) The vehicle of claim ~~1435~~, wherein the set of ground engaging wheels comprisesconsists of four
powered ground engaging wheels; and wherein each powered ground engaging
wheel of the set of wheels is independently powered and is operable at variable
speed.

38. (substitute for claim 17, if found unpatentable) The vehicle of claim ~~1437~~, wherein the four powered ground engaging wheels are operable at variable
speed by the hydraulic motor.

39. (substitute for claim 18, if found unpatentable) The vehicle of claim ~~1738~~, wherein the vehicle further comprises a nozzle at the end of the conduit.

40. (substitute for claim 19, if found unpatentable) The vehicle of claim ~~1738~~, wherein ~~that~~ at least one of the speed and direction of the vehicle ~~when the vehicle is floating~~ is controlled by a fluid mover when the vehicle is floating.

41. (substitute for claim 20, if found unpatentable) The vehicle of claim ~~1738~~, further comprising a plurality of fluid nozzles fluidly connected to the ~~fluid~~ liquid manure pump, the plurality of fluid nozzles including a first fluid nozzle at the front of the floatable vehicle body, a pair of second fluid nozzles at the rear of the floatable vehicle body, a pair of left side fluid nozzles provided on a left side of the floatable vehicle body, and a pair of right side fluid nozzles provided on a right side of the floatable vehicle body.

42. (substitute for claim 21, if found unpatentable) The vehicle of claim ~~2041~~, wherein the wireless remote control is configured to control the plurality of fluid nozzles to control ~~that~~ at least one of the speed and direction of the vehicle when the vehicle is floating.

CERTIFICATE OF COMPLIANCE

The undersigned hereby certifies that this brief complies with the type volume limitations of 37 C.F.R. § 42.24(a)(1)(vi), and that Motion to Amend is 25 pages or less.

The undersigned further certifies this brief complies with the typeface requirements of 37 C.F.R. § 42.6(a)(2)(ii) and typestyle requirements of 37 C.F.R. § 42.6(a)(2)(iii). This brief has been prepared in a proportionally spaced typeface using Microsoft Word for Microsoft 365 MSO in Times New Roman 14-point font.

Dated: April 2, 2024

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CERTIFICATE OF SERVICE

Pursuant to 37 C.F.R. 42.6(e), I certify that on this 2nd day of April, 2024, a true and correct copy of the foregoing **Patent Owner's Conditional Motion to Amend** was served by electronic mail on Petitioner's lead and backup counsel at the following addresses:

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