

Bazooka-Farmstar, LLC v. Nuhn Industries Ltd.

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



PETITIONER'S DEMONSTRATIVES
OPPOSITION TO PATENT OWNER'S MOTION TO AMEND ORAL ARGUMENT
October 11, 2024

DEMONSTRATIVE EXHIBIT - NOT EVIDENCE



Nuhn's Motion to Amend

- Nuhn argues that placement of the pump overcomes prior art. Paper 40 at 11-12.
- Prior art taught pumps located along the underside of the vehicle. EX1109, ¶¶58-69, 93-97, 108-117, 139-144.

Amended Claim 22



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;

Amended Claim 27

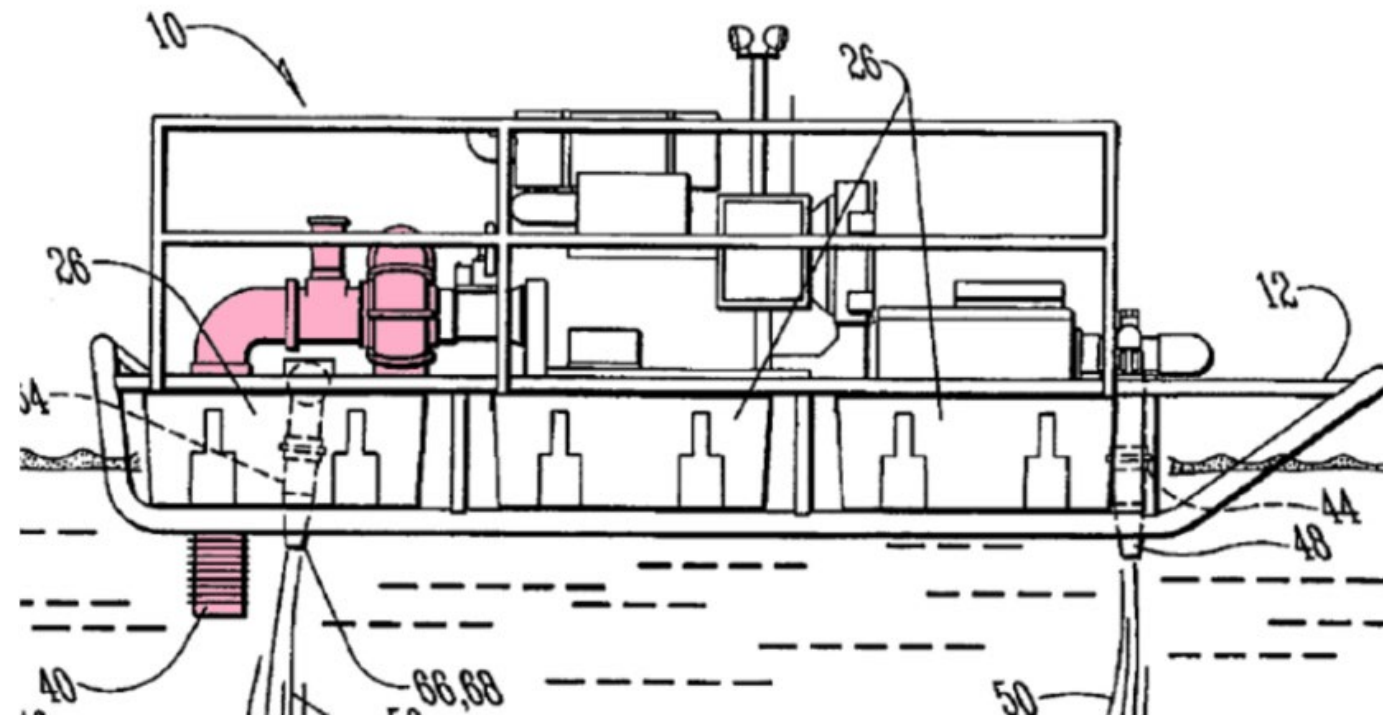


27. (substitute for claim 6, if found unpatentable) The vehicle of claim 23, wherein the vehicle further comprises a nozzle at the end of the conduit, wherein the ground engaging propulsion structure comprises a front set of ground engaging wheels that are rotatably attached to a front set of spindles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

Puck, Bryham, and Manure Manager Render Obvious Claims 22-42



- Puck teaches a bottom fluid inlet along the underside of the vehicle. EX1014, ¶¶ [0026], [0028], FIG. 4 (annotated); EX1109, ¶143.

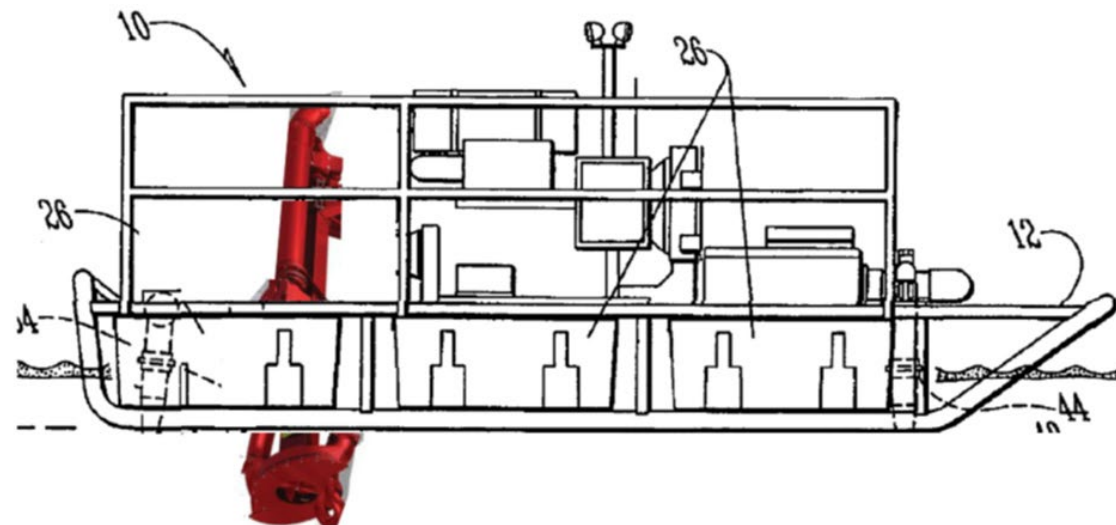


EX1014, FIG. 4 (annotated)

Puck, Bryham, and Manure Manager Render Obvious Claims 22-42



- Nuhn advertised the efficiency benefits of the Nuhn Pump. EX1109, ¶¶128-137.
- A POSA would understand that the Nuhn Pump would be placed through the Puck deck in the same location as the Puck pump. Paper 36 at 21; EX1109, ¶143 (Claim 22).
- Adding wheels to the corners of Puck would cause the pump to be located between the front and rear spindles. Paper 36 at 21-22; EX1109, ¶144 (Claim 27).

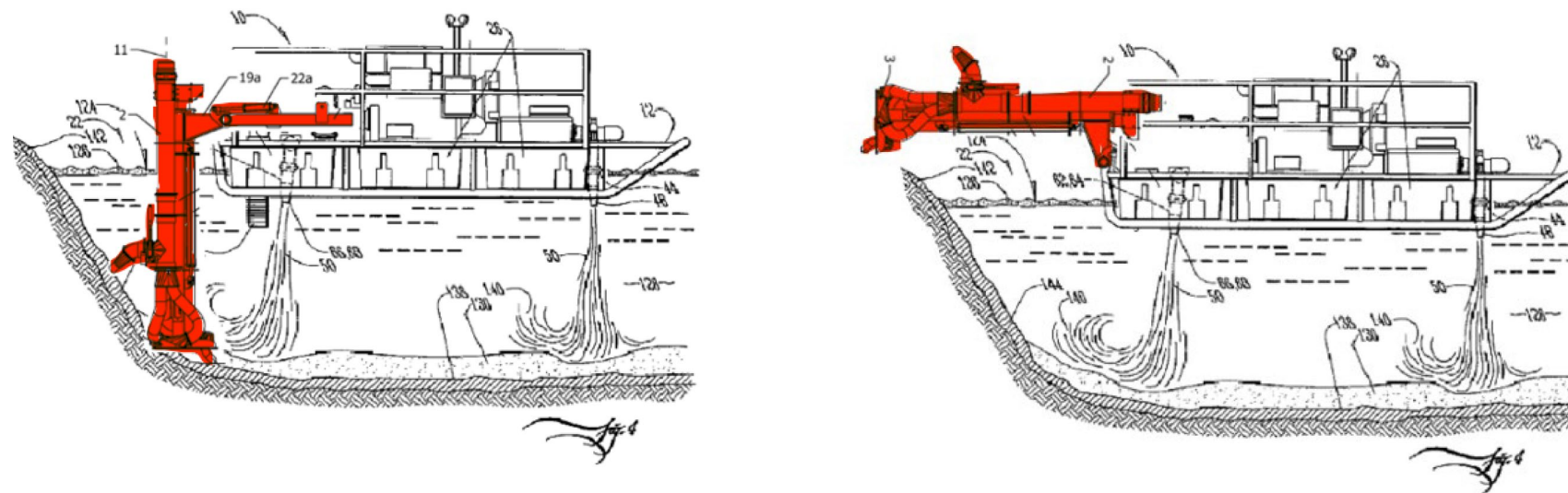


EX1014, FIG. 4 (annotated)

Nuhn's Proposed Arrangement Is Wrong



- Nuhn concedes the motivation to combine Puck/Bryham with Manure Manager. Paper 40 at 9-12.
- Focuses on the location where one would add the Nuhn Pump to Puck. Paper 40 at 11-12.
- Ignores teachings of Puck. Paper 51 at 2.
- Ignores the associated stability issues with this arrangement. Paper 51 at 3-4; EX1109, ¶¶102-104.



EX1014, FIG. 4 (annotated)



Nuhn's Proposed Arrangement Is Wrong

- Pivotability of the Nuhn Pump is not required. Not in the proposed claims, and merely adds complexity. Paper 51 at 2-4.
- Arguments based on scale are irrelevant.
 - Puck and/or Bryham could be scaled to address any issue and provide desired ground clearance. Paper 51 at 5-7.
- Perfect alignment of drive shafts not required. Paper 51 at 5-6.
 - Power transmissions were known. Paper 51 at 7; EX1116, 6.
 - (belts, gears, or hydraulic transmissions).

Amended Claim 22



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;



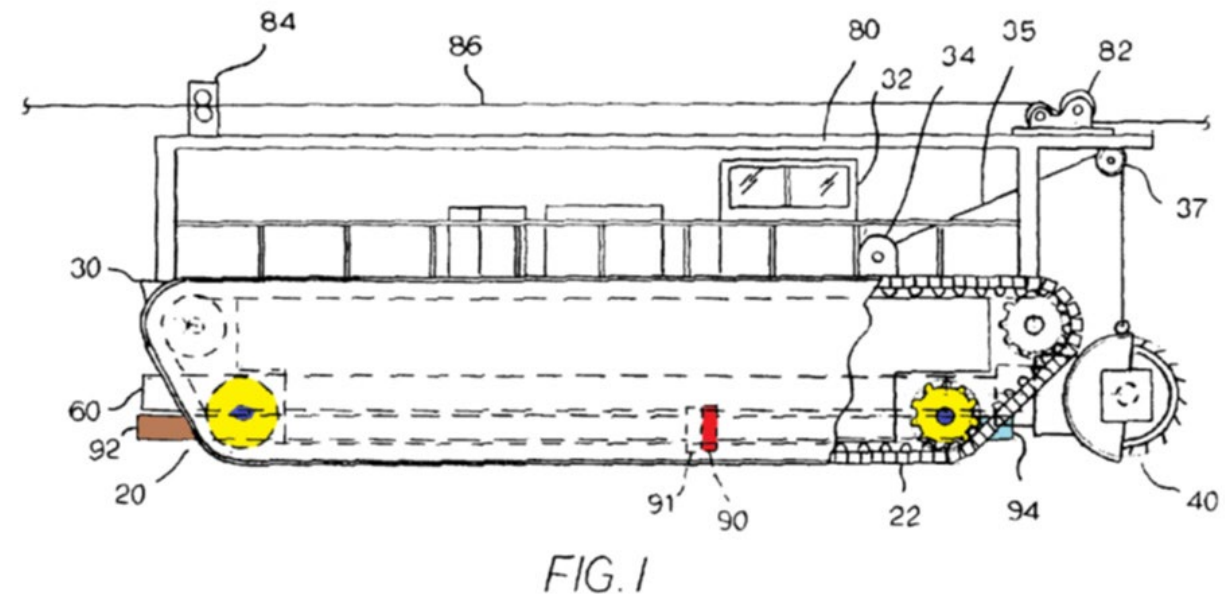
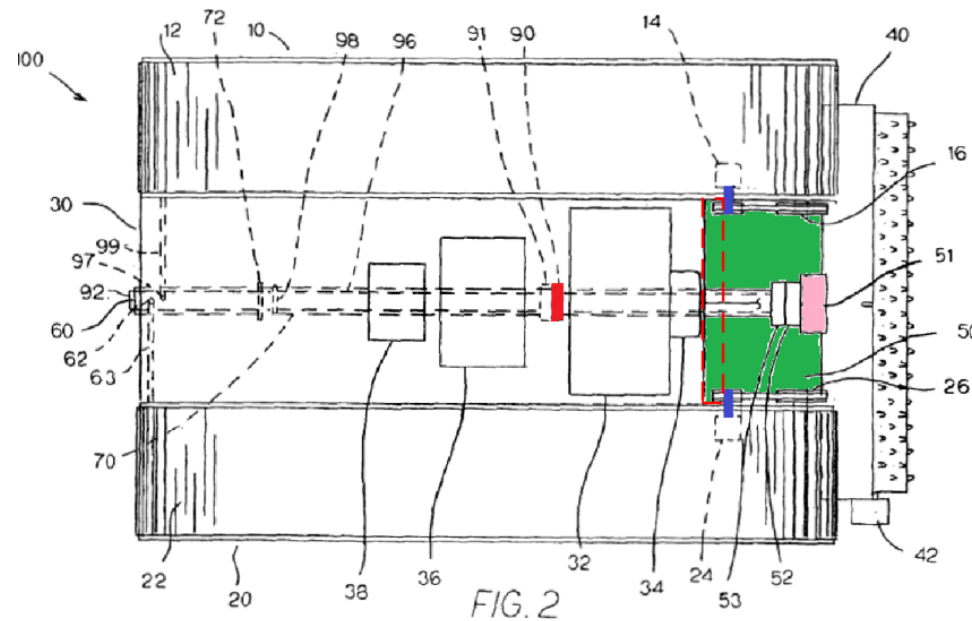
Amended Claim 27

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.

Cheramie



- Cheramie teaches a dredging pump (green) and a propulsion pump 90 (red). Paper 36 at 3, 8; EX1109, ¶¶59, 62.



EX1087, FIGS. 1, 2 (annotated)



Cheramie and Yoon or Carrier Render Obvious Claims 22-25, 27-28, and 33-40

- Nuhn's sole argument against Cheramie relates to the placement of the pumps and their ability to pump liquid manure. Paper 40 at 4-8.
- The claims do not foreclose "boom mounted pumps." Paper 18 at 18-28.

Cheramie's Propulsion Pump Meets the Claimed Limitations



- Cheramie teaches propulsion pump 90 along the underside of the vehicle (claim 22) between the spindles (claim 27). EX1087; EX1109, ¶¶62-63, 75-80.
- The logical choice for a propulsion pump is a pump with a housing and impeller. EX1109, ¶¶62-63.
- Propulsion pump would be capable of pumping dilute liquid manure. EX1109, ¶¶64-69.

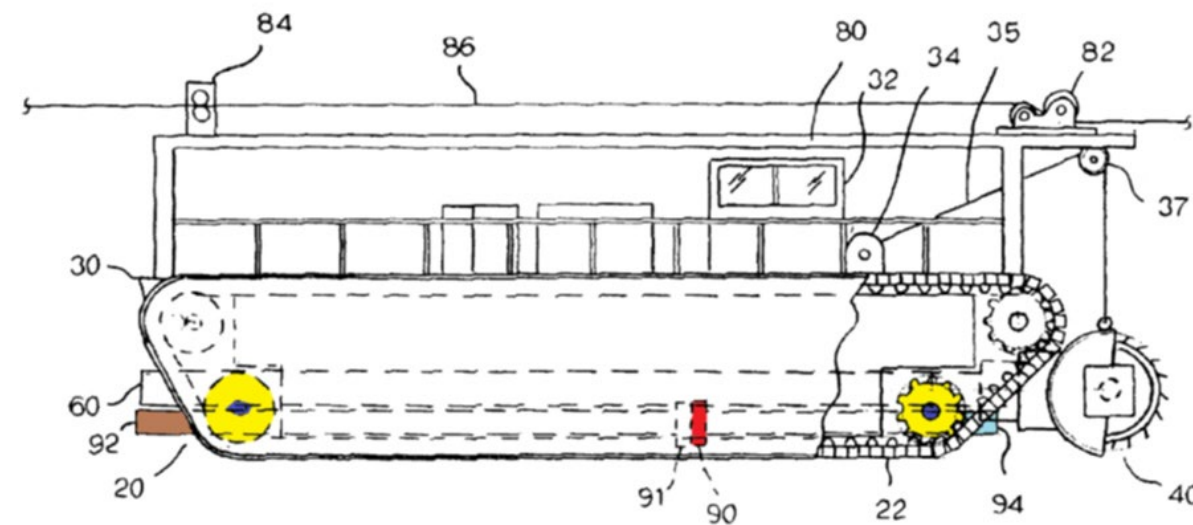
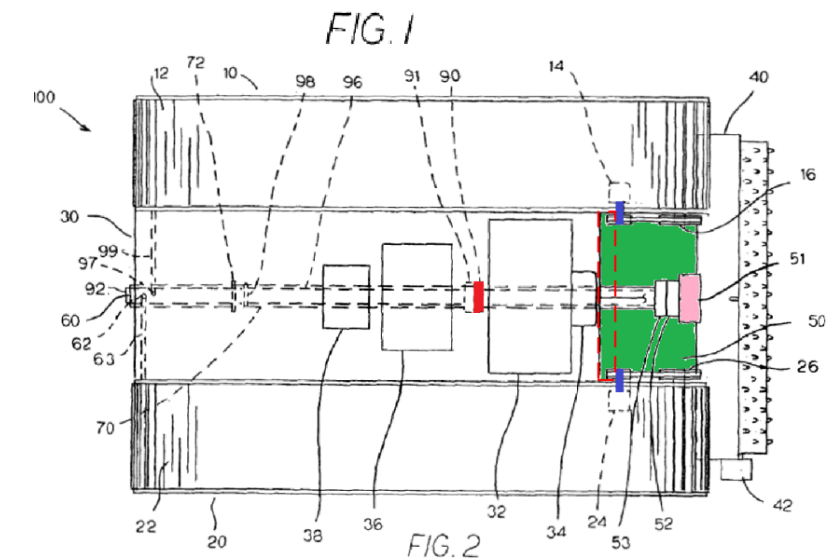
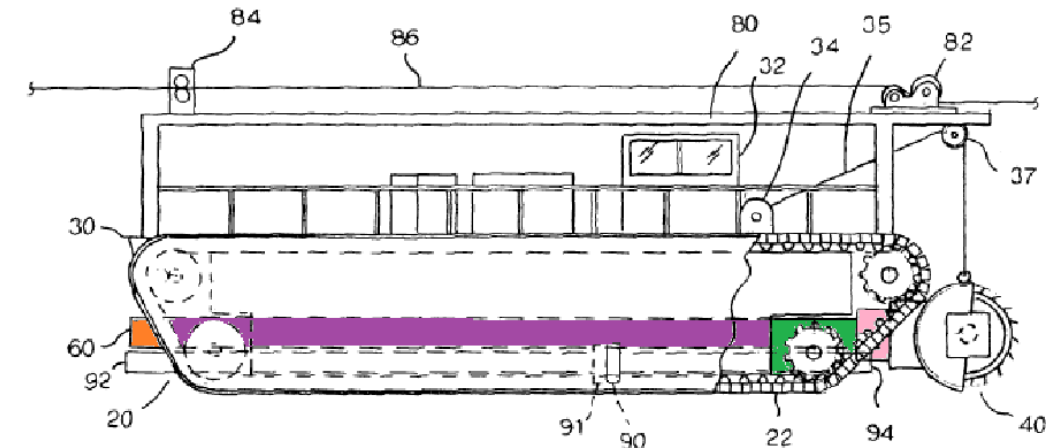


FIG. 1

Cheramie's Dredging Pump Meets the Claimed Limitations



- Cheramie identifies the green region as the dredging pump 50. EX1109, ¶59; EX1087, 4:24-27.
- Located along the underside of the vehicle (claim 22) between the spindles (claim 27). Paper 51 at 10; EX1109, ¶¶59-61, 77-80.

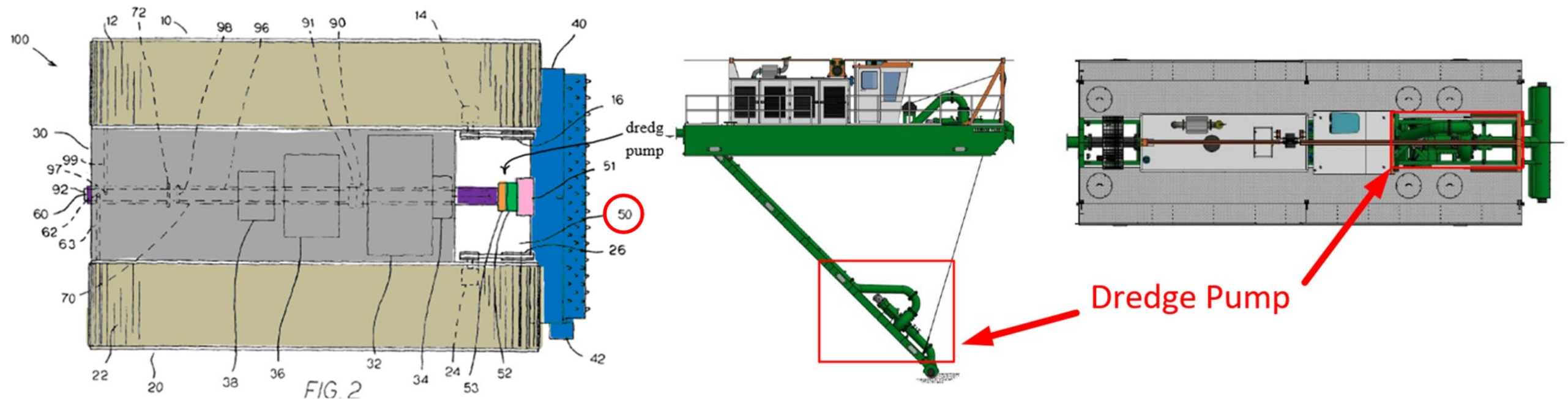


EX1087, FIGS. 1, 2 (annotated)

Nuhn Cannot Re-label Cheramie's Figures



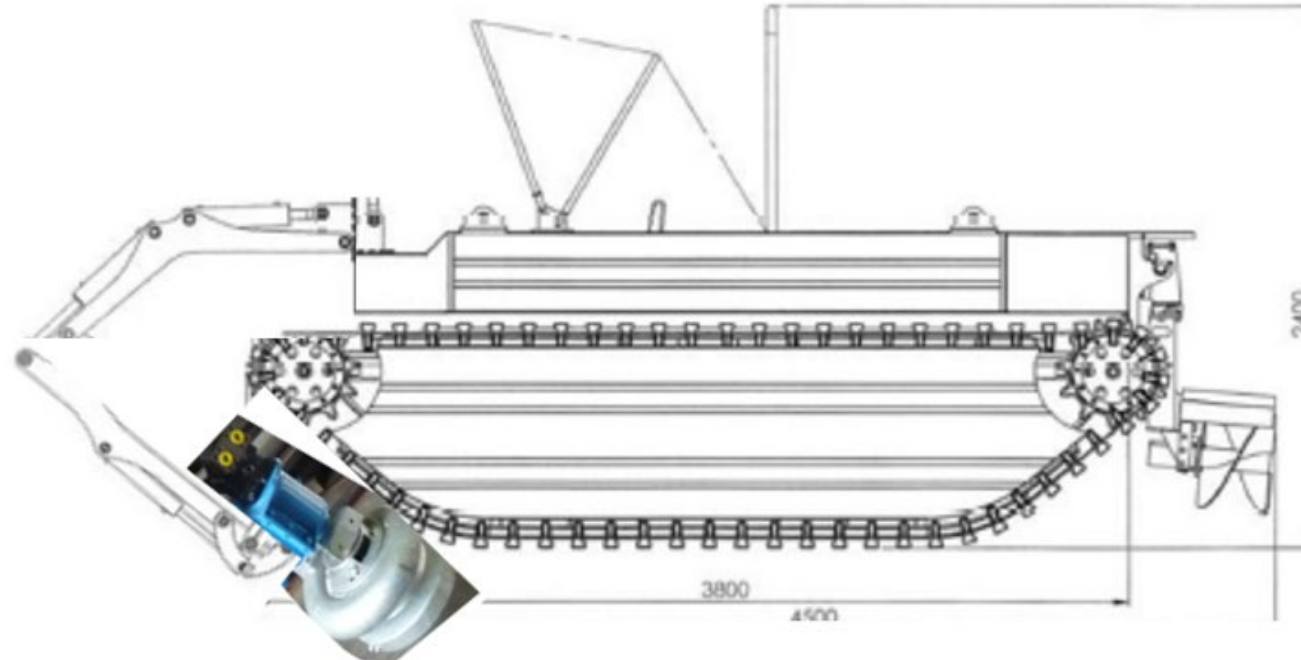
- Cheramie uses reference number 50 to identify the dredge pump. Nuhn cannot re-label the figures.
- Nuhn's analogous art confirms that the dredging pump would be located in this region.



SenwaTec and Yoon or Carrier Render Obvious Claims 22-25, 27-28, and 33-40



- Claimed position: along the underside, rearward of the front of the vehicle.
- A POSA would have recognized that the SenwaTec Pump could be moved on the outrigger into this position. EX1109, ¶¶95-97.



The SenwaTec Pump Was Moved Along the Underside



- Mr. Funck testified that he moved the SenwaTec pump to this location.
- Mr. Lonnemann confirmed the pump on the end of the outrigger could be moved under the boat.

33. Prior to August 2013, the slurry pumping services I publicly provided to customers on behalf of UD Umwelt-Dienste with the Amphi-King (including the customers for whom I provided services as listed on Exhibit G) included:

1. Moving the crane on which the pump was mounted so that the pump was placed in a position along the bottom of the Amphi-King body and was pumping sewage slurry. In this position, the pump impeller was immersed in the sewage slurry.

22 Q Could an implement on the end of the outrigger be placed
23 right under the feet of the operator?

1 A Yes, you can do that. Yes, you can do that outside from
2 the boat, not inside. So outside from the boat --

3 THE INTERPRETER: Outside I can go on the
4 bottom, was it, and I can pump the sediment under
5 the boat. Inside I never tried it, because it
6 wouldn't make any sense.

EX1094, 133
EX2103, 198:17-199:6

Centrally Locating the SenwaTec or Truxor Pump Would Be Beneficial



- A POSA would have been motivated to move the pump to a central location on the vehicle. Paper 51 at 10-12.
 - between the spindles (claim 27).
- Increases stability by centrally locating the center of gravity and minimizing the influence of reaction forces generated by the pump. EX1109, ¶¶102-105, 114-117.