

IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF DELAWARE

MHL CUSTOM, INC.,

Plaintiff;

v.

WAYDOO USA, INC, and SHENZHEN  
WAYDOO INTELLIGENCE TECHNOLOGY  
CO., LTD,

Defendants.

Civil Action No. 21-91-RGA

MEMORANDUM OPINION

Blake A. Bennett, COOCH AND TAYLOR, P.A., Wilmington, DE; Dennis D. Murrell, Robert J. Theuerkauf (argued), Daniel W. Redding, MIDDLETON REUTLINGER; Louisville, Kentucky;

Attorneys for Plaintiff.

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Attorneys for Defendants.

June 24, 2022

  
ANDREWS, UNITED STATES DISTRICT JUDGE:

Before me is the issue of claim construction of multiple terms in U.S. Patent Nos. 9,359,044 (“the ’044 Patent”) and 9,586,659 (“the ’659 Patent”). I held a claim construction hearing on May 3, 2022 and requested supplemental briefing on several questions. I have considered the parties’ joint and supplemental briefing. (D.I. 46, 59, 60, 62).

## I. LEGAL STANDARD

“It is a bedrock principle of patent law that the claims of a patent define the invention to which the patentee is entitled the right to exclude.” *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (en banc) (cleaned up). “[T]here is no magic formula or catechism for conducting claim construction.’ Instead, the court is free to attach the appropriate weight to appropriate sources ‘in light of the statutes and policies that inform patent law.’” *SoftView LLC v. Apple Inc.*, 2013 WL 4758195, at \*1 (D. Del. Sept. 4, 2013) (quoting *Phillips*, 415 F.3d at 1324) (alteration in original). When construing patent claims, a court considers the literal language of the claim, the patent specification, and the prosecution history. *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 977–80 (Fed. Cir. 1995) (en banc), *aff’d*, 517 U.S. 370 (1996). Of these sources, “the specification is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term.” *Phillips*, 415 F.3d at 1315 (cleaned up).

“[T]he words of a claim are generally given their ordinary and customary meaning. . . . [Which is] the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention, i.e., as of the effective filing date of the patent application.” *Id.* at 1312–13 (citations and internal quotation marks omitted). “[T]he ordinary meaning of a claim term is its meaning to [an] ordinary artisan after reading the entire patent.” *Id.* at 1321

(internal quotation marks omitted). “In some cases, the ordinary meaning of claim language as understood by a person of skill in the art may be readily apparent even to lay judges, and claim construction in such cases involves little more than the application of the widely accepted meaning of commonly understood words.” *Id.* at 1314.

When a court relies solely upon the intrinsic evidence—the patent claims, the specification, and the prosecution history—the court’s construction is a determination of law. *See Teva Pharm. USA, Inc. v. Sandoz, Inc.*, 574 U.S. 318, 331 (2015). The court may also make factual findings based upon consideration of extrinsic evidence, which “consists of all evidence external to the patent and prosecution history, including expert and inventor testimony, dictionaries, and learned treatises.” *Phillips*, 415 F.3d at 1317–19 (cleaned up). Extrinsic evidence may assist the court in understanding the underlying technology, the meaning of terms to one skilled in the art, and how the invention works. *Id.* Extrinsic evidence, however, is less reliable and less useful in claim construction than the patent and its prosecution history. *Id.*

## II. BACKGROUND

The patents claim a “personal hydrofoil”—a surfboard-like device that achieves a hovering effect by using a fin that glides under the surface of the water. This fin—the hydrofoil—“enable[s] higher speeds and to lift the surfboard above the choppy, turbulent surface of the water, thus enabling surfing on larger waves.” ’044 Patent, 1:26-28.

The ’044 patent application was filed October 8, 2014. The ’659 patent application was filed March 8, 2016 and is a continuation of the ’044 patent. The ’044 and ’659 patents share a specification. The parties agree that the following claims are representative for their respective patents. The disputed claim language is italicized.

’044 Patent, Claim 1:

A passively stable, weight-shift controlled personal hydrofoil watercraft, comprising:

a flotation device that has a fore-aft length greater than a lateral width, the flotation device having a top surface and a bottom surface, *wherein a user can be disposed on the top surface of the flotation device in a prone, kneeling, or standing position*, the flotation device having a forward section, a middle section, and a rear section, and the flotation device being controlled via weight shift of the user;

a strut having an upper end and a lower end, the upper end fixedly interconnected with the flotation device between the middle section and the rear section of the flotation device;

a hydrofoil fixedly interconnected with the lower end of the strut, the hydrofoil having no movable surface and *designed to provide passive static stability* controlled solely by weight shift of the user;

a propulsion system for propelling the watercraft in a body of water, wherein the propulsion system is connected to the hydrofoil; and

the watercraft having no movable steering system.

'044 Patent, Claim 5:

A watercraft in accordance with claim 1, wherein *the design for providing the passive static stability is achieved through a combination of airfoil design, planform design and tailoring of span-wise twist distribution*.

'659 Patent, Claim 1:

*A passively stable, weight-shift controlled personal hydrofoil watercraft, comprising:*

a flotation device that has a fore-aft length greater than a lateral width, the flotation device having a top surface and a bottom surface, *wherein a user can be disposed on the top surface of the flotation device in a prone, kneeling, or standing position*, the flotation device having a forward section, a middle section, and a rear section;

a strut having a upper end and a lower end, the upper end fixedly interconnected with the flotation device between the middle section and the rear section of the flotation device;

a hydrofoil fixedly interconnected with the lower end of the strut, the hydrofoil having no movable surface;

a propulsion system for propelling the watercraft in a body of water, wherein the propulsion system is connected to the hydrofoil; and

the watercraft having no movable steering system.

'659 Patent, Claim 16:

A personal hydrofoil watercraft, comprising:

a surfboard-shaped flotation device that has a fore-aft length greater than a lateral width, the flotation device having a top surface and a bottom surface, *wherein the top surface has a substantially horizontal supporting surface configured to support a user in a prone, kneeling, or standing position*, the flotation device having a forward section, a middle section, and a rear section;

a hydrofoil interconnected with the surfboard-shaped flotation device, the hydrofoil having a strut and a first hydrofoil wing, an upper end of the strut being fixedly interconnected with the surfboard-shaped flotation device;

a propulsion system attached to the surfboard-shaped flotation device for propelling the watercraft in a body of water, the propulsion system comprising a battery, an electric motor, a motor speed controller, and a propulsor, wherein the propulsor is selected from a propeller, a ducted propeller, or a pump-jet, and the battery and motor speed controller are contained in a watertight compartment integrated into the flotation device;

the watercraft having no movable steering system;

a handheld controller having a throttle; and

a throttle interface, wherein the throttle is adapted to send electronic signals to the throttle interface that cause an output of the propulsion system to change.

### III. CONSTRUCTION OF DISPUTED TERMS

#### A. Term 1: “wherein a user can be disposed on the top surface of the flotation device in a prone, kneeling, or standing position” ('044 Patent, Cl. 1; '659 Patent, Cl. 1)

1. *Plaintiff's proposed construction*: “Wherein a user can be disposed on the top surface of the flotation device in each of the following positions: lying chest down; kneeling; or standing.”
2. *Defendants' proposed construction*: Plain and ordinary meaning.
3. *Court's construction*: “‘Prone, kneeling, or standing’ are alternatives. Only one of them is required.”

Plaintiff argues that the top surface of the board must allow the user to use the device in each listed position (prone, kneeling, and standing). Defendants disagree, arguing that the use of the word “or” in the claim limitation means that the board must allow a user to “be in any (or all) of the three positions.” (D.I. 62 at 4).

“Or” usually designates alternatives. *See Kustom Signals, Inc. v. Applied Concepts, Inc.*, 264 F.3d 1326, 1331 (Fed. Cir. 2001). To deviate from the usual interpretation, a party must show that the deviation is “clearly explained in the patent documents.” *Id.* Here, I do not think that the patent documents show that “or” has anything other than its common usage.

The claim describes “a flotation device ... wherein a user can be disposed on the top surface of the flotation device in a prone, kneeling, or standing position ....” ’044 Patent, Cl. 1. Plaintiff argues, “The conjunction ‘or’ is necessary because a user cannot be in all three positions at once . . . .” (D.I. 46 at 14). I do not think that “or” was “necessary”—the patentee could have drafted the claim with more clarity to claim a board that must support all three positions. The claim language, as drafted, claims a top surface that supports a user in a prone position, a kneeling position, or a standing position.

The specification does not clearly explain that “or” ought to be given anything other than its usual meaning. Plaintiff cites an embodiment in support of its proposed construction. (D.I. 46 at 12–14). The embodiment describes a “flotation board . . . similar to those used in surfing or sailboarding.” ’044 Patent, 3:7–8. Figure 1 shows the flotation board to be “substantially flat.” (D.I. 46 at 12). The specification further describes, “To operate the watercraft 100, a user initially lies prone on the flotation board 101. The throttle is engaged, causing the craft to accelerate. As the craft gains speed the user may move to a kneeling or standing position.” ’044 Patent, 4:33-36.

Defendants argue that Plaintiff seeks to import limitations from embodiments into the claims. (D.I. 46 at 18). I agree. As Defendants argue, “claim 1 (of both patents) and claim 16 (of the ’659 patent) are each directed to a ‘personal hydrofoil watercraft,’ of which a surfboard is just one example.” (D.I. 46 at 19). The Figure 1 embodiment, far from clearly explaining that the top surface of the claimed device must support a user in all three positions, suggests that a “flat upper surface to allow an adult human to lie prone, sit, kneel or stand” is merely “preferential[.]” (’044 patent, 3:13–17).

Thus, I reject Plaintiff’s proposed construction. I will give “or” its customary meaning of designating alternatives. The claimed top surface must support a user in at least one of the three listed positions, but it need not support a user in more than one of the three.

**B. Term 2: “wherein the top surface has a substantially horizontal supporting surface configured to support a user in a prone, kneeling, or standing position” (’659 Patent, Cl. 16)**

1. *Plaintiff’s proposed construction*: “Wherein the top surface has a substantially horizontal supporting surface configured to support a user in each of the following positions: lying chest down; kneeling; or standing.”
2. *Defendants’ proposed construction*: Plain and ordinary meaning.
3. *Court’s construction*: “‘Prone, kneeling, or standing’ are alternatives. Only one of them is required.”

For the reasons stated in Section III.A, I reject Plaintiff’s proposed construction.

**C. Term 3: “designed to provide passive static stability” (’044 Patent, Cl. 1)**

1. *Plaintiff’s proposed construction*: “Designed such that the hydrofoil has an initial tendency to return to its original condition when disturbed without the hydrofoil having any moveable components.”

2. *Defendants' proposed construction*: Indefinite or, in the alternative, “designed to provide stability without mechanisms or active control systems.”
3. *Court's construction*: “Designed such that the hydrofoil has an initial tendency to return to its original condition when disturbed without the hydrofoil having any moveable components.”

Defendants argue this term is indefinite. (D.I. 46 at 38). This is because, according to Defendants, the specification treats stability as simply a “personal preference” and a person of skill in the art (“POSA”) would be unable to determine whether “any particular personal hydrofoil watercraft falls inside or outside the scope of the claims.” (*Id.* at 39.). Plaintiff responds that there are criteria listed in the specification for determining stability and point to the expert opinion of Mr. Barry. (*Id.* at 46–50). I agree with Plaintiff. The concept of stability appears to be well-known in the art. (*See* D.I. 59, 60). Plaintiff's expert, who considers himself a POSA, has explained how the patents use the term. (D.I. 39-1, Ex. A ¶¶ 71, 77–79). Thus, I reject Defendants' argument that the term is indefinite.

Defendants also dispute Plaintiff's proposed construction. The dispute is over the role of “static” in the term “passive static stability.” Defendants argue for the construction, “designed to provide stability without mechanisms or active control systems” while Plaintiff has proposed the construction “Designed such that the hydrofoil has an initial tendency to return to its original condition when disturbed without the hydrofoil having any moveable components.” I requested supplemental letters providing definitions of “stability” from sources such as textbooks. The letters were helpful. Stability in the field of aerodynamics has two categories: static and dynamic. Static stability “deals with the *initial* tendency of a vehicle to return to equilibrium . . .



after being disturbed. It says nothing about whether it ever reaches its equilibrium position or how it gets there. Such matters are the realm of dynamic stability.” (D.I. 60–2, Ex. B at 602).

Defendants’ proposed construction does not account for the fact that static stability is a sub-category of stability. Plaintiff’s proposed construction, on the other hand, captures the concept of static stability. Thus, I will adopt Plaintiff’s proposed construction.

**D. Term 4: “A passively stable, weight-shift controlled personal hydrofoil watercraft” (’659 Patent, Cl. 1)**

1. *Plaintiff’s proposed construction*: “A watercraft having a hydrofoil, the hydrofoil having an initial tendency to return to its original condition when disturbed without the hydrofoil having any moveable components and that is controlled by weight-shift of the user.”
2. *Defendants’ proposed construction*: Indefinite or, in the alternative, “A weight-shift controlled personal hydrofoil watercraft that is stable without mechanisms or active control systems.”
3. *Court’s construction*: Plain and ordinary meaning.

Unlike the last claim term, this term does not specify “static” stability. As discussed *supra*, stability incorporates both static and dynamic stability. Plaintiff asserts that a person of skill in the art would find “passively stable” and “passive static stability” to be interchangeable. (D.I. 46 at 36). I doubt that. Thus, I reject Plaintiff’s proposition that the term here ought to have substantially the same construction as the last term. Defendants’ proposed construction, however, does not construe “stable” at all. For now, I will construe the term to have its plain and ordinary meaning. The parties may readdress this issue, if it is important, in case dispositive motions.

**E. Term 5: “wherein the design for providing the passive static stability is achieved through a combination of airfoil design, planform design and tailoring of span-wise twist distribution” (’044 Patent, Cl. 5)**

1. *Plaintiff’s proposed construction*: “The design for providing the passive static stability is achieved through a combination of:

- a geometry of a cross-section of the hydrofoil;
- a shape of the hydrofoil as viewed from above; and
- a measure of rotation of a hydrofoil section along the span of the hydrofoil.”

2. *Defendants’ proposed construction*: “This claim term is not limiting or, in the alternative, no construction is needed at this time.”

3. *Court’s construction*: Plain and ordinary meaning.

Plaintiff’s position is that airfoil design, planform design, and tailoring of span-wise twist distribution are “structural characteristics.” (D.I. 46 at 53). Defendants argue that they are methods of design, not structure. (*Id.* at 58). The parties dispute, for instance, whether “tailoring” describes an act or a structure.

“Tailoring” and “design” could be a structure, as Plaintiff argues. At this point, however, I am not convinced that the term means anything other than its plain and ordinary meaning. In support of their proposed construction, Plaintiff largely cites to its expert’s declaration, but I give that no weight. (D.I. 46 at 53–57). Neither party has made a strong claim construction argument based on the intrinsic record. The parties are free to address the construction of this term again, if it is important, in case dispositive motions.

#### **IV. CONCLUSION**

Within five days the parties shall submit a proposed order consistent with this Memorandum Opinion suitable for submission to the jury.