

**IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF DELAWARE**

OIL LIFT TECHNOLOGY INC.,	:	
	:	
Plaintiff,	:	
	:	
v.	:	C.A. No. 17-1212-LPS
	:	
MILLENNIUM OILFLOW SYSTEMS & TECHNOLOGY INC. and MOST OIL USA INC.,	:	
	:	
Defendants.	:	
	:	

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**MEMORANDUM OPINION**

September 5, 2018  
Wilmington, Delaware



**STARR, U.S. District Judge:**

Plaintiff Oil Lift Technology Inc. (“Oil Lift” or “Plaintiff”) filed suit against Defendants Millennium Oilflow Systems & Technology Inc. and MOST Oil USA Inc. (collectively, “MOST” or “Defendants”) on August 25, 2017, alleging infringement of U.S. Patent Nos. 9,016,362 (the “’362 patent”) and 9,322,238 (the “’238 patent”). (See D.I. 1 ¶¶ 22-25, 32-35)

The patents-in-suit are generally directed to polished rod locking clamps, devices that clamp onto and hold in place the “polished rod” used in progressing cavity pump (“PCP”) systems.

Presently before the Court is the issue of claim construction. The parties completed briefing on July 26, 2018. (See D.I. 79, 80, 87, 88) The Court held a claim construction hearing on August 7, 2018. (D.I. 93 (“Tr.”))

## **I. LEGAL STANDARDS**

The ultimate question of the proper construction of a patent is a question of law. See *Teva Pharm. USA, Inc. v. Sandoz, Inc.*, 135 S. Ct. 831, 837 (2015) (citing *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 388-91 (1996)). “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) (citation and internal quotation marks omitted). “[T]here is no magic formula or catechism for conducting claim construction.” *Id.* at 1324. Instead, the court is free to attach the appropriate weight to appropriate sources “in light of the statutes and policies that inform patent law.” *Id.*

“[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 (internal citations and quotation marks omitted). “[T]he ordinary meaning of a

claim term is its meaning to the ordinary artisan after reading the entire patent.” *Id.* at 1321 (internal quotation marks omitted). The patent “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.” *Vitronics Corp. v. Conception, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996).

While “the claims themselves provide substantial guidance as to the meaning of particular claim terms,” the context of the surrounding words of the claim also must be considered.

*Phillips*, 415 F.3d at 1314. Furthermore, “[o]ther claims of the patent in question, both asserted and unasserted, can also be valuable sources of enlightenment . . . [b]ecause claim terms are normally used consistently throughout the patent.” *Id.* (internal citation omitted).

It is likewise true that “[d]ifferences among claims can also be a useful guide . . . . For example, the presence of a dependent claim that adds a particular limitation gives rise to a presumption that the limitation in question is not present in the independent claim.” *Id.* at 1314-15 (internal citation omitted). This “presumption is especially strong when the limitation in dispute is the only meaningful difference between an independent and dependent claim, and one party is urging that the limitation in the dependent claim should be read into the independent claim.” *SunRace Roots Enter. Co., Ltd. v. SRAM Corp.*, 336 F.3d 1298, 1303 (Fed. Cir. 2003).

It is also possible that “the specification may reveal a special definition given to a claim term by the patentee that differs from the meaning it would otherwise possess. In such cases, the inventor’s lexicography governs.” *Phillips*, 415 F.3d at 1316. It bears emphasis that “[e]ven when the specification describes only a single embodiment, the claims of the patent will not be read restrictively unless the patentee has demonstrated a clear intention to limit the claim scope using words or expressions of manifest exclusion or restriction.” *Hill-Rom Servs., Inc. v. Stryker*

*Corp.*, 755 F.3d 1367, 1372 (Fed. Cir. 2014) (quoting *Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 906 (Fed. Cir. 2004)) (alteration in original) (internal quotation marks omitted).

In addition to the specification, a court “should also consider the patent’s prosecution history, if it is in evidence.” *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 980 (Fed. Cir. 1995), *aff’d*, 517 U.S. 370 (1996). The prosecution history, which is “intrinsic evidence,” “consists of the complete record of the proceedings before the [Patent and Trademark Office] and includes the prior art cited during the examination of the patent.” *Phillips*, 415 F.3d at 1317. “[T]he prosecution history can often inform the meaning of the claim language by demonstrating how the inventor understood the invention and whether the inventor limited the invention in the course of prosecution, making the claim scope narrower than it would otherwise be.” *Id.*

“In some cases, . . . the district court will need to look beyond the patent’s intrinsic evidence and to consult extrinsic evidence in order to understand, for example, the background science or the meaning of a term in the relevant art during the relevant time period.” *Teva*, 135 S. Ct. at 841. “Extrinsic evidence consists of all evidence external to the patent and prosecution history, including expert and inventor testimony, dictionaries, and learned treatises.” *Markman*, 52 F.3d at 980. For instance, technical dictionaries can assist the court in determining the meaning of a term to those of skill in the relevant art because such dictionaries “endeavor to collect the accepted meanings of terms used in various fields of science and technology.” *Phillips*, 415 F.3d at 1318. In addition, expert testimony can be useful “to ensure that the court’s understanding of the technical aspects of the patent is consistent with that of a person of skill in the art, or to establish that a particular term in the patent or the prior art has a particular meaning in the pertinent field.” *Id.* Nonetheless, courts must not lose sight of the fact that “expert reports

and testimony [are] generated at the time of and for the purpose of litigation and thus can suffer from bias that is not present in intrinsic evidence.” *Id.* Overall, while extrinsic evidence “may be useful to the court,” it is “less reliable” than intrinsic evidence, and its consideration “is unlikely to result in a reliable interpretation of patent claim scope unless considered in the context of the intrinsic evidence.” *Id.* at 1318-19. Where the intrinsic record unambiguously describes the scope of the patented invention, reliance on any extrinsic evidence is improper. *See Pitney Bowes, Inc. v. Hewlett-Packard Co.*, 182 F.3d 1298, 1308 (Fed. Cir. 1999) (citing *Vitronics*, 90 F.3d at 1583).

Finally, “[t]he construction that stays true to the claim language and most naturally aligns with the patent’s description of the invention will be, in the end, the correct construction.” *Renishaw PLC v. Marposs Societa’ per Azioni*, 158 F.3d 1243, 1250 (Fed. Cir. 1998). It follows that “a claim interpretation that would exclude the inventor’s device is rarely the correct interpretation.” *Osram GmbH v. Int’l Trade Comm’n*, 505 F.3d 1351, 1358 (Fed. Cir. 2007) (quoting *Modine Mfg. Co. v. U.S. Int’l Trade Comm’n*, 75 F.3d 1545, 1550 (Fed. Cir. 1996)).

## II. CONSTRUCTION OF DISPUTED TERMS<sup>1</sup>

### A. “clamp members in said housing for grippingly and frictionally engaging said polished rod in said bore”<sup>2</sup>

<b>Plaintiff</b> Plain and ordinary meaning: clamp members in said housing for applying normal forces to said polished rod in said bore to prevent movement of said polished rod, wherein increasing the normal forces increases the resistance to movement of said polished rod
<b>Defendants</b> clamp members in said housing for preventing movement of said polished rod in said bore without biting into the polished rod thereby leaving the surface of the polished rod intact
<b>Court</b> clamp members in said housing for preventing movement of said polished rod in said bore without biting into the polished rod thereby leaving the surface of the polished rod intact

The parties’ dispute centers on the meaning of “grippingly and frictionally engaging.” Oil Lift contends this term requires “grip[ping] the polished rod using friction.” (D.I. 80 at 8) MOST argues the term requires a specific type of engagement that “excludes biting into the polished rod.” (D.I. 79 at 1)

“Grippingly and frictionally” engaging is not defined in the specification. However, the specification describes using a “special clamp” to grip a polished rod using “arcuate recesses . . . , which are preferably made undersize relative to the polished rod to enhance gripping force.” (D.I. 78 Ex. B (the “’362 patent”) col. 10:24-27) The specification defines an arcuate recess as

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<sup>1</sup>The Court will adopt the parties’ agreed-upon construction of “elastomeric seal means for providing a seal between a portion of the length of said recess in said piston and said polished rod, between said pistons, and between each piston and the associated radial bore to prevent well fluid from coming up a well bore and escaping to the exterior of the well bore when said pistons grippingly engage the polished rod,” which appears in claim 1 of the ’326 patent. (See D.I. 78 at 5)

<sup>2</sup>This term appears in claim 1 of the ’362 patent and claim 1 of the ’238 patent.

“a curved surface, with curvature corresponding substantially to that of the polished rod,” which “grippingly and frictionally” engages the polished rod to prevent its movement relative to the special clamp. (*See id.* col. 10:24-27) The Court agrees with MOST that the specification describes a specific type of engagement – using undersized recesses, “not teeth or serrations to bite into” the polished rod, to suspend the rod and hold it in place. (D.I. 79 at 4)

Oil Lift contends MOST’s construction improperly imports a preferred embodiment into the claims, but the Court disagrees. The prosecution history strongly supports MOST’s construction. During prosecution, Oil Lift proposed a limitation for “clamp members . . . with an interference fit,” explaining that in its invention “the polished rod [is] actually bit into when it is grippingly engaged by the clamp.” (D.I. 79 Ex. 3 at 6, 15) The Examiner rejected the “interference fit” limitation, finding it was not supported by the disclosure. (D.I. 79 Ex. 4 at 3) In response, Oil Lift withdrew the “interference fit” limitation and amended the claims to recite “frictionally engaging,” explaining that “the clamp of the present invention secures the polished rod with enough frictional force to actually suspend the polished rod.” (D.I. 79 Ex. 5 at 6, 14) The Examiner later cited the “grippingly and frictionally engaging” language in the reasons for allowance. (D.I. 79 Ex. 7 at page 106 of 114)

MOST does not argue this was an explicit disavowal of claim scope. But, MOST does argue, and the Court agrees, that the prosecution history indicates that Oil Lift – like a person of ordinary skill in the art – understood there to be a difference between a polished rod being “actually bit into” and being “grippingly and fictionally engag[ed]” and chose to narrow its claims to overcome the prior art. (*See Tr.* at 33)

This construction is not inconsistent with the scope of the dependent claims. While Oil

Lift contends that certain dependent claims include “bit[ing] into the polished rod” (D.I. 87 at 1), the evidence Oil Lift cites in support of that position is the Applicant’s description of the claims at a time when the application still included the “with an interference fit” limitation – which later the Examiner rejected and Oil Lift withdrew (D.I. 81 Ex. 5 at 14-15). The Court agrees with MOST that the dependent claims that issued no longer covered biting.

Oil Lift contends that all surfaces, at least on the atomic-level, have “asperities” that “interlock” or bite into one another when pressed together. MOST agrees that microscopic disruptions may occur on the surface of the polished rod. (*See* Tr. at 36-37) (agreeing frictional contact “at a microscopic level . . . could involve some form of biting”) The Court’s construction accepts this reality; that is, one may still be practicing the patent even if there are microscopic indentations (i.e., that cannot be discerned by the “naked eye”). Still, in the context of the ’362 patent, Oil Lift’s expert, Mr. Littlewood, acknowledged there is a difference between “embedded” contact, which he characterized as involving “material removal,” and frictional or “sliding” contact. (D.I. 79 Ex. 1 at 119-25)

Accordingly, the Court will adopt MOST’s proposed construction.

**B. “frictional contact”<sup>3</sup>**

<p><b>Plaintiff</b> Plain and ordinary meaning: a surface-to-surface contact that resists motion between the surfaces</p>
<p><b>Defendants</b> physical interaction experiencing a force opposing relative motion</p>
<p><b>Court</b> Plain and ordinary meaning: a surface-to-surface contact that resists relative motion between the surfaces</p>

<sup>3</sup>This term appears in claims 1 and 6 of the ’362 patent and claim 1 of the ’238 patent.



At the hearing, MOST indicated it would not oppose Oil Lift’s proposed construction if the word “relative” was added to modify “motion.” (*See* Tr. at 69-70) Oil Lift did oppose the addition. (*See id.*) Accordingly, the Court will adopt Oil Lift’s proposed construction, with the parties’ agreed-upon addition of “relative.”

- C. **“manipulating means secured to said housing and said clamp members for moving said clamp members between a polished rod gripping position in which said clamp members grippingly engage said polished rod to prevent rotation or axial movement thereof, and a retracted position in which said clamp members are removed from said polished rod to permit rotational and axial movement of said polished rod in said bore of said housing”<sup>4</sup>**

**Plaintiff**

Subject to § 112, ¶ 6

Function: moving said clamp members between a polished rod gripping position in which said clamp members grippingly engage said polished rod to prevent rotation or axial movement thereof, and a retracted position in which said clamp members are removed from said polished rod to permit rotational and axial movement of said polished rod in said bore of said housing

Structure: bolts and equivalents thereof

**Defendants**

Subject to § 112, ¶ 6

Function: moving said clamp members between full arcuate recess surface interaction in which said clamp members grippingly engage said polished rod to prevent rotation or axial movement thereof, and a retracted position in which said clamp members are removed from said polished rod to permit rotational and axial movement of said polished rod in said bore of said housing

Structure: “radial bolts 176” (’238 Pat. 10:15)

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<sup>4</sup>This term appears in claim 1 of the ’238 patent.

**Court**

Subject to § 112, ¶ 6

Function: moving said clamp members between a polished rod gripping position in which said clamp members grippingly engage said polished rod to prevent rotation or axial movement thereof, and a retracted position in which said clamp members are removed from said polished rod to permit rotational and axial movement of said polished rod in said bore of said housing

Structure: bolts and equivalents thereof

The parties agree this term should be construed as a means-plus-function limitation (*see* D.I. 80 at 18; D.I. 79 at 10-11) but disagree about the proper function and structure of the term.

For function, Oil Lift proposes the claim language without alteration. (*See* D.I. 80 at 17) MOST seeks to replace “polished rod gripping position” with “full arcuate recess surface interaction.” (*See* D.I. 79 at 12, 10) The Court agrees with Oil Lift that the function portion of the claim term does not require construction. While the specification describes the polished rod being “gripped by arcuate recesses” that are “preferably made undersize to the polished rod to enhance gripping force” (’238 patent col. 10:29-31), the claim recites that “receiving and grippingly engaging” need only occur “along at least a portion of a length of said recess” (*id.* col. 11:21-22). Thus, the Court is not persuaded that the term necessarily requires full surface contact, as MOST contends.

The Court further agrees with Oil Lift’s proposed structure. The specification discloses that the clamp members can be moved by “bolts 176” and “by manipulating means *such as* radial bolts 176.” (*Id.* col. 10:10-13, 14-17) (emphasis added) MOST offers no argument as to why the Court should limit the construction to only bolts 176.

Accordingly, the Court will adopt Oil Lift’s proposed construction.

- D. “manipulating means secured to said housing and said pistons for moving said pistons between a polished rod gripping position in which said pistons grippingly engage said polished rod to prevent rotation or axial movement thereof and retracted position in which said pistons are removed from said polished rod to permit rotational and axial movement of said polished rod in said bore of said clamp housing”<sup>5</sup>

**Plaintiff**

Subject to § 112, ¶ 6

Function: moving said pistons between a polished rod gripping position in which said pistons grippingly engage said polished rod to prevent rotation or axial movement thereof and retracted position in which said pistons are removed from said polished rod to permit rotational and axial movement of said polished rod in said bore of said clamp housing

Structure: bolts and equivalents thereof

**Defendants**

Subject to § 112, ¶ 6

Function: moving said pistons between full arcuate recess surface interaction in which said pistons grippingly engage said polished rod to prevent rotation or axial movement thereof and retracted position in which said pistons are removed from said polished rod to permit rotational and axial movement of said polished rod in said bore of said clamp housing

Structure: “radial bolts 176” (’362 Pat. 10:12)

**Court**

Subject to § 112, ¶ 6

Function: moving said pistons between a polished rod gripping position in which said pistons grippingly engage said polished rod to prevent rotation or axial movement thereof and retracted position in which said pistons are removed from said polished rod to permit rotational and axial movement of said polished rod in said bore of said clamp housing

Structure: bolts and equivalents thereof

The only difference between this term and the preceding term is that the instant term includes the limitation of “each said clamp member comprising a piston,” where the term above

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<sup>5</sup>This term appears in claim 1 of the ’362 patent.

recites only “clamp members.” (*Compare* ’362 patent col. 11:30-37 *with* ’238 patent col.

11:24:32) The parties advance the same arguments for this term as for the preceding term.

Accordingly, for the reasons discussed above, the Court will adopt Oil Lift’s proposed construction.

### **III. CONCLUSION**

The Court will construe the disputed terms as explained above. An appropriate Order follows.

**IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF DELAWARE**

OIL LIFT TECHNOLOGY INC.,	:	
	:	
Plaintiff,	:	
	:	
v.	:	C.A. No. 17-1212-LPS
	:	
MILLENNIUM OILFLOW SYSTEMS & TECHNOLOGY INC. and MOST OIL USA INC.,	:	
	:	
Defendants.	:	
	:	

**ORDER**

At Wilmington this **5th** day of **September 2018**:

For the reasons set forth in the Memorandum Opinion issued this date,

IT IS HEREBY ORDERED that the following claim terms of U.S. Patent Nos. 9,016,362 and 9,322,238 are construed as follows:

<b>Claim Term</b>	<b>Court's Construction</b>
<p><b>clamp members in said housing for grippingly and frictionally engaging said polished rod in said bore</b></p> <p>[claim 1 of the '362 patent and claim 1 of the '238 patent]</p>	<p>clamp members in said housing for preventing movement of said polished rod in said bore without biting into the polished rod thereby leaving the surface of the polished rod intact</p>
<p><b>frictional contact</b></p> <p>[claims 1 and 6 of the '362 patent and claim 1 of the '238 patent]</p>	<p>Plain and ordinary meaning: a surface-to-surface contact that resists relative motion between the surfaces</p>

<p><b>manipulating means secured to said housing and said clamp members for moving said clamp members between a polished rod gripping position in which said clamp members grippingly engage said polished rod to prevent rotation or axial movement thereof, and a retracted position in which said clamp members are removed from said polished rod to permit rotational and axial movement of said polished rod in said bore of said housing</b></p> <p>[claim 1 of the '238 patent]</p>	<p>Subject to § 112, ¶ 6</p> <p><u>Function:</u> moving said clamp members between a polished rod gripping position in which said clamp members grippingly engage said polished rod to prevent rotation or axial movement thereof, and a retracted position in which said clamp members are removed from said polished rod to permit rotational and axial movement of said polished rod in said bore of said housing</p> <p><u>Structure:</u> bolts and equivalents thereof</p>
<p><b>elastomeric seal means for providing a seal between a portion of the length of said recess in said piston and said polished rod, between said pistons, and between each piston and the associated radial bore to prevent well fluid from coming up a well bore and escaping to the exterior of the well bore when said pistons grippingly engage the polished rod</b></p> <p>[claim 1 of the '326 patent]</p>	<p>Subject to § 112, ¶ 6</p> <p><u>Function:</u> providing a seal between a portion of the length of said recess in said piston and said polished rod, between said pistons, and between each piston and the associated radial bore to prevent well fluid from coming up a well bore and escaping to the exterior of the well bore when said pistons grippingly engage the polished rod</p> <p><u>Structure:</u> “a narrow elastomeric blow out preventer seal 188 which runs across the vertical flat face of the piston, along the arcuate recess, along the mid height of the piston and then circumferentially around the piston” ('362 patent col. 10:54-57)</p>

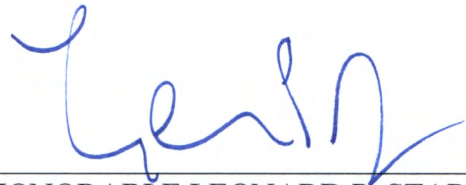
**manipulating means secured to said housing and said pistons for moving said pistons between a polished rod gripping position in which said pistons grippingly engage said polished rod to prevent rotation or axial movement thereof and retracted position in which said pistons are removed from said polished rod to permit rotational and axial movement of said polished rod in said bore of said clamp housing**

[claim 1 of the '362 patent]

Subject to § 112, ¶ 6

Function: moving said pistons between a polished rod gripping position in which said pistons grippingly engage said polished rod to prevent rotation or axial movement thereof and retracted position in which said pistons are removed from said polished rod to permit rotational and axial movement of said polished rod in said bore of said clamp housing

Structure: bolts and equivalents thereof



HONORABLE LEONARD P. STARK  
UNITED STATES DISTRICT JUDGE