IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION

NATIONAL OILWELL DHT, L.P., Plaintiff,	§	
	§	
v.	§	CIVIL ACTION NO. 2-14-1020
	§	
AMEGA WEST SERVICES, LLC, Defendant.	§	

MEMORANDUM AND ORDER

This patent case is before the Court on the Motion for Reconsideration or Clarification of Partial Summary Judgment of Non-Infringement ("Motion for Reconsideration") [Doc. # 99] filed by Plaintiff National Oilwell DHT, L.P. ("NOV") seeking reconsideration of the Court's Memorandum and Order [Doc. # 96] entered April 16, 2020. Specifically, NOV seeks reconsideration of the Court's entry of summary judgment on non-infringement as to Claims 11 and 13 of U.S. Patent No. 6,279,670 ("the '670 Patent") and Claims 2 and 5 of U.S. Patent No. 6,508,317 ("the '317 Patent"). Defendant Amega West Services, LLC ("Amega") filed an Opposition [Doc. # 101], NOV filed a Reply [Doc. # 102], and Amega filed a Sur-Reply [Doc. # 103]. At the Court's request, NOV filed a Supplemental Brief [Doc. # 105], Amega filed a Response [Doc. # 106], NOV filed a Reply [Doc. # 107], and Amega filed a Sur-Reply [Doc. # 108].

The Court has carefully reviewed the full record, including the parties' briefing on Amega's prior Motion for Partial Summary Judgment [Doc. # 79]. Based on that review, and the application of relevant legal authorities, the Court **denies** the Motion for Reconsideration as to literal infringement, but explains the basis for its summary judgment ruling more fully herein. The Court **grants** the Motion for Reconsideration as to the doctrine of equivalents only to the extent explained below.

I. BACKGROUND

NOV is the owner of the '670 Patent and the '317 Patent ("the Patents-in-Suit"), which cover a vibration tool referred to as a "downhole flow pulsing apparatus." *See* '670 Patent, Abstract; '317 Patent, Abstract. Vibration tools are used in drilling operations to create vibratory forces to reduce friction as a drill string is moved within a bore and/or to vary the downward force exerted on a drill bit.

The '670 Patent and the '317 Patent disclose vibration tools that use "a drive system that includes a positive displacement motor (sometimes referred to as a 'PDM') to drive a specially constructed valve assembly that is tailored for use with a PDM." Plaintiff's Written Tutorial [Doc. # 41], p. 4. "[B]ecause the speed of a PDM is proportional to the rate of flow of fluid through the PDM, the frequency of the vibrations produced by the tool of the [Patents-in-Suit] can be controlled by varying the rate of fluid flow through the tool." *Id.* at 5.

The two Patents-in-Suit describe a PDM rotor coupled to a rotating valve plate, which interacts with a stationary plate. *Id.* at 6. Each plate contains an opening through which fluid can pass. *See id.* As the rotating plate moves relative to the stationary plate, the overlap between the openings of the two plates will vary the flow of fluid through the valve. *See id.* The variations in fluid flow through the overlapping openings of the valve produce varying drilling fluid pressures that can be used to create the desired vibrations. *See id.*

NOV filed this lawsuit, alleging that Amega is infringing the Patents-in-Suit through its AmegaVIBE friction reduction drilling tools (collectively referred to herein as "AmegaVIBE"). In its summary judgment briefing, NOV distinguished the AmegaVIBE devices "produced in 2017 and beyond" from "pre-2017" devices. In its Supplemental Brief, NOV describes four different versions of the AmegaVIBE, although Amega argues that the "Original Design" and the "First Modified Pre-2017 Design" have the same valve members. The "Second Modified Pre-2017 Design" described in NOV's Supplemental Brief is the same as the First Modified Pre-2017 Design, but with larger openings in the stationary valve member. The "Post-2017 Design" was similar to the Second Modified Pre-2017 Design, with the addition of an extending ridge at the top of the stationary valve member.

Following a hearing pursuant to *Markman v. Westview Instruments, Inc.*, 517 U.S. 370 (1996) ("*Markman* hearing"), the Court issued its Memorandum and Order on Claim Construction ("*Markman* Ruling") [Doc. # 66]. The Court construed the claim term "open axial drilling fluid flow port," found in Claims 11 and 13 of the '670 Patent and Claims 1 and 5 of the '317 Patent, to mean "a bore extending along a longitudinal axis of the valve through which drilling fluid can pass and that is always at least partially open." *See Markman* Ruling, p. 13.

Following discovery, Amega filed its Motion for Partial Summary Judgment of Non-Infringement as to the '670 Patent and the '317 Patent. The Court held that Amega's accused devices do not literally infringe the '317 Patent or Claims 11 or 13 of the '670 Patent because the Amega devices do not include an "open axial drilling fluid flow port." *See* Memorandum and Order [Doc. # 96], pp. 11-12. The Court held also that NOV was estopped to argue, under the doctrine of equivalents, that a port that alternatively opens and closes is the equivalent of an "open axial drilling fluid flow port." *See id.* at 15-16.

NOV filed a Motion for Reconsideration challenging the Court's summary judgment ruling of no literal infringement and that NOV is estopped to assert infringement under the doctrine of equivalents. NOV does not seek reconsideration of the Court's summary judgment ruling that there is no literal infringement by the

Original Design of the AmegaVIBE, or that NOV is estopped to argue that the Original Design AmegaVIBE infringes under the doctrine of equivalents. *See* Supplemental Brief [Doc. # 105], p. 4. n. 3. The Motion for Reconsideration has been fully briefed and is now ripe for decision.

II. STANDARD FOR MOTION FOR RECONSIDERATION

NOV seeks reconsideration of an interlocutory summary judgment ruling on some, but not all, claims asserted in this case. Rule 54(b) of the Federal Rules of Civil Procedure allows a party to seek reconsideration of interlocutory orders and authorizes the district court to revise at any time an order or other decision that does not end the case. *See Austin v. Kroger Texas, L.P.*, 864 F.3d 326, 336 (5th Cir. 2017) (citing FED. R. CIV. P. 54(b)). "Under Rule 54(b), the trial court is free to reconsider and reverse its decision for any reason it deems sufficient, even in the absence of new evidence or an intervening change in or clarification of the substantive law." *Id*. (internal quotation marks and citations omitted).

III. NO LITERAL INFRINGEMENT

The '317 Patent is a divisional of, and shares a common specification with, the '670 Patent. Both patents relate to downhole drilling tools. Claim 11 of the '670 Patent covers a valve that:

> includes first and second valve members each defining a respective axial flow opening and which openings are aligned to collectively define an open axial drilling fluid flow port through the valve.

Similarly, Claim 13 of the '670 Patent and Claim 1 and 5 of the '317 Patent each cover a valve containing the following limitation:

> a valve located in the bore and including first and second valve members each defining a respective axial flow opening and which openings are aligned to collectively define an open axial drilling fluid flow port through the valve.

The Claims require (1) that the first and second valve members each define "a respective axial flow opening," and (2) that those respective openings are aligned "to collectively define an open axial drilling flow port." The Court construed the claim term "open axial drilling fluid flow port" to mean "a bore extending along a longitudinal axis of the valve through which drilling fluid can pass and that is always at least partially open." *See Markman* Ruling, p. 13. The Court did not construe the term "respective" in the Claim Construction ruling, but the parties have now briefed the issue. The Court construes the claim term "respective" to mean "belonging or relating to each of two or more things individually" and synonymous with "specific," "particular," and "corresponding."

Amega argued in its motion for summary judgment that the AmegaVIBE does not include the limitation of "a bore" that is "always at least partially open." The Court agreed because the opening created by the alignment of "respective axial flow

openings" closed as the specific opening in the rotating valve member moved out of alignment with the respective opening in the stationary valve member. When the respective axial flow openings were no longer aligned, that "axial drilling flow port" closed.

For clarification, the Court's ruling on literal infringement was based on the limitation that there must be alignment between a single, specific opening in the rotating valve member and a single, specific opening in the stationary valve member that "collectively define an open axial drilling fluid flow port through the valve." This open axial drilling fluid flow port through the valve, created by the alignment of the specific opening in the rotating valve member and the specific opening in the stationary valve member, must be always at least partially open. This limitation is illustrated by Figures 4 and 5 of the '670 Patent, which show a single opening in the rotating valve member that aligns with a single, respective opening the stationary valve member to create a fluid flow port that is always at least partially open. *See* '670 Patent, FIG 4 and FIG 5.

There is always at least one open flow port through the valves in the AmegaVIBE devices, but those open flow ports are created by the alignment of different combinations of openings in the rotating valve member and the stationary valve member. Consequently, as stated in the original summary judgment ruling and

as clarified herein, there is no literal infringement. The Motion for Reconsideration on this issue is denied.

IV. ESTOPPEL AS TO DOCTRINE OF EQUIVALENTS ARGUMENT

Amega argued that NOV is barred by the prosecution history from asserting its doctrine of equivalents position. When the patentee "originally claimed the subject matter alleged to infringe but then narrowed the claim in response to a rejection, he may not argue that the surrendered territory comprised unforeseen subject matter that should be deemed equivalent to the literal claims of the issued patent." *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 535 U.S. 722, 733-34 (2002); *see also Conoco, Inc. v. Energy & Envtl. Int'l, L.C.*, 460 F.3d 1349, 1363 (Fed. Cir. 2006). For arguments made during patent prosecution to create an estoppel, "the prosecution history must evince a clear and unmistakable surrender of subject matter" and a patentee's arguments and explanations to the patent examiner are not presumed to surrender an entire field of equivalents. *See Conoco*, 460 F.3d at 1364.

Alan Martyn Eddison and Ronnie Hardle (collectively, "patentee") are the named inventors and applicants for the '670 Patent and the '317 Patent. During the prosecution of the '670 Patent, the patentee distinguished the pending claims from prior art U.S. Patent No. 2,780,438 ("*Bielstein*"). Specifically, in response to the Patent Examiner's rejection of then-pending claim 14 of the '670 Patent, the patentee

distinguished *Bielstein* as having an axial drilling fluid flow port that "is alternatively closed and opened." Specifically, the patentee argued that the

> Examiner has not identified any feature of Bielstein which corresponds to the axial flow opening of the recited second valve member. In any event, claim 14 recites that the alignment of the Openings of the first and second valve members is varied to vary the open area of the flow port defined by the openings between a minimum open area and a maximum Open area. In contrast, the passageways 20 of the plate 19 of *Bielstein* are closed when rotated out of alignment with the ports 21 in the valve housing 18. Thus any axial drilling fluid flow port defined by the passageways 20 ***is alternatively closed and opened***, and does not vary between a minimum open area and a maximum open area, as recited in claim 14.

September 21, 2000 Response to Patent Examiner [Doc. # 44-1], p. 218 (emphasis added). The patentee later, in its application for the '317 Patent, again argued that the flow ports in *Bielstein* "do not define an open axial drilling fluid port."

Based on this prosecution history, the Court held in its prior Memorandum and Order that NOV cannot now argue that a flow port which alternatively opens and closes is the equivalent of "an open axial drilling fluid flow port." NOV has not presented any argument that persuades the Court to alter this ruling.

The Court's ruling on the doctrine of equivalents was limited, however, to the holding stated above. The Court did not, based on prosecution estoppel, intend to preclude NOV from asserting a different argument under the doctrine of equivalents if one is supported by the evidence and existing legal authorities. In its Reply, NOV

requested clarification of the Court's literal infringement ruling because "understanding the specific grounds underlying the summary judgment of no literal infringement is critical in assessing whether prosecution history estoppel precludes resort to the doctrine of equivalents." *See* Reply [Doc. # 102], p. 3. NOV noted that if the Court's ruling of no literal infringement was based on the AmegaVIBE devices lacking an open axial drilling fluid flow port defined by the alignment of a single opening in the rotating valve member and a single respective opening in the stationary valve member, prosecutorial estoppel should not prevent NOV's doctrine of equivalents argument. The Court agrees.

The arguments made during the prosecution history to distinguish *Bielstein* did not clearly and unmistakably surrender NOV's current argument that an open axial drilling fluid flow port created by the alignment of a specific opening in the stationary valve member with, at different times, one or more different openings in the rotating valve member is the equivalent of the patent limitation of an open axial drilling fluid flow port created by the alignment of a specific opening in the stationary valve member with a single, respective opening in the rotating valve member.[1] NOV is not

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[1] Amega appears to argue in the Sur-Reply that NOV's description of *Bielstein* as having a fluid flow port that alternatively closes and opens was incorrect and that, instead, there is always fluid flowing through the *Bielstein* valve. *See* Sur-Reply [Doc. # 108], pp. 3-5. Whether or not NOV's description of *Bielstein* was correct, there is nothing in the prosecution history by which the patentee clearly surrendered the doctrine equivalents argument now asserted by NOV.

estopped to present this argument and, therefore, Amega is not entitled to summary judgment on NOV's claim that the AmegaVIBE devices, other than the Original Design, infringe through the doctrine of equivalents. The Motion for Reconsideration is granted only to the extent that NOV is entitled to assert this now-refined doctrine of equivalents argument.

V. CONCLUSION AND ORDER

As set forth in the Court's Memorandum and Order [Doc. # 96], and as explained more fully herein, NOV has failed to present evidence that raises a genuine fact dispute regarding its argument that the AmegaVIBE contains an "open axial drilling fluid flow port" as that term has been construed by the Court.

NOV is barred by the prosecution history from asserting that a port that alternatively opens and closes is the equivalent of "an open axial drilling fluid flow port" for purposes of patent infringement. NOV may, however, assert its current argument that the later version of the AmegaVIBE infringes under the doctrine of equivalents because the open axial drilling fluid flow port established by the alignment of a specific opening in the stationary valve member with, at different times, one or more different openings in the rotating valve member (NOV's description of the later version of the AmegaVIBE) is the equivalent of an open axial drilling fluid flow port established by the alignment of a single specific opening in the

stationary valve member with a single specific opening the rotating valve member (the patented device).

Based on the foregoing, it is hereby

ORDERED that NOV's Motion for Reconsideration [Doc. # 99] is **DENIED** as to NOV's claims of literal infringement, and is **GRANTED** as to NOV's claim that the later version of the AmegaVIBE device infringes under the doctrine of equivalents as explained above.

SIGNED at Houston, Texas, this 26th day of **October, 2020**.

NANCY F. ATLAS
SENIOR UNITED STATES DISTRICT JUDGE