

United States District Court,
W.D. Washington, At Seattle.

DIGITAL CONTROL INCORPORATED, a Washington corporation,
Plaintiff.

v.

MCLAUGHLIN MANUFACTURING CO., INC., a Delaware corporation,
Defendant.

No. C01-985P

July 22, 2002.

Owner of patents for horizontal directional drilling device sued competitor for infringement. On cross-motions for summary judgment, the District Court, Pechman, J., held that: (1) "transmitter means" called for in patent did not include drill head's orientation sensors; (2) patents which called for locating underground drill head by measuring distance from transmitter in either one or two receiver configurations were literally infringed by device which located drill head by measuring distance between transmitter and only single receiver at fixed distance; and (3) continuance of parties' cross-motions for summary judgment with regard to one patent was warranted pending further discovery as to capabilities of accused device.

Motions granted in part and denied in part.

5,767,678, 6,002,258, 6,057,687, 6,232,780. Infringed.

Paul T. Meiklejohn, Brian Chung Park, Dorsey & Whitney, LLP, Seattle, WA, Aaron Keyt, Digital Control Inc, Renton, WA, for Digital Control Inc, a Washington corporation, plaintiff.

Stuart R. Dunwoody, Bruce A. Kaser, Davis Wright Tremaine, LLP, Seattle, WA, Steven E. Farrar, Leatherwood Walker Todd & Mann, Greenville, SC, for McLaughlin Manufacturing Co Inc, a Delaware corporation, defendant.

**ORDER PARTIALLY GRANTING PLAINTIFF'S MOTION FOR PARTIAL SUMMARY
JUDGMENT AND DENYING DEFENDANT'S MOTION FOR PARTIAL SUMMARY JUDGMENT**

PECHMAN, District Judge.

Plaintiff filed suit against Defendant for infringement of 12 patents regarding trenchless digging and locating devices. Plaintiff now moves for partial summary judgment on eight claims of five patents. Defendant moves for partial summary judgment on one of the patents. Both parties have requested continuances to engage in additional discovery. Plaintiff's motion for partial summary judgment is **PARTIALLY GRANTED**, and the Court concludes that Defendant literally infringes: (1) Claim 1 of the

'678 patent; (2) Claims 1, 5, and 6 of the '687 patent; (3) Claim 2 of the '780 patent; and (4) Claims 4 and 9 of the '258 patent. Defendant's Motion for partial summary judgment on the '951 patent is DENIED, and Plaintiff's motion for partial summary judgment is PARTIALLY DENIED on the '951 patent. The parties may refile motions on the '951 patent after discovery on the matter is completed.

BACKGROUND

This matter involves patents of a device that drills holes for cable, water, and other utility lines underground, without requiring the opening of deep, above-ground trenches. This technology, which allows construction workers to avoid digging up streets and sidewalks, is known as horizontal directional drilling (HDD), or trenchless locating.

Plaintiff DCI's HDD patented technology allows an above-ground construction worker to pinpoint the location of the head of the drill as it moves through the ground. A construction worker can guide the drill head, as it pulls a line behind it, up or down, left or right, in order to avoid obstacles underground, such as other pipe lines. DCI's technology uses a particular kind of transmitter in the drill head—one that gives off a dipole field signal—that provides particular advantages for locating. The transmitter in the drill head contains orientation sensors that inform the operator if the drill is moving up or down (pitch), to the left or to the right (roll). DCI's technology also uses one or more above-ground locators or receivers. In its most simple form, a construction worker carries a portable above-ground locator that tells the operator where the drill head is located underground. In its more complex form, one or more above-ground locators are set in fixed positions and they transmit the location of the drill head to the person drilling.

DCI is not the only company with devices for trenchless digging, though it is a field leader. A number of companies have products that pre-date DCI's patents, Defendant alleges, and a number of companies compete in the business. Defendant McLaughlin sells a trenchless digging system, of which the "Spot-D-Tek IV" is the current model, that DCI claims infringes on its patents. The Spot-D-Tek IV also uses a dipole field signal and orientation sensors. Defendant's device, however, uses a different type of pitch and roll sensors.

Plaintiff DCI sues McLaughlin on 187 claims contained in 12 patents. McLaughlin requested claims charts on these 187 claims. DCI has turned over claim charts to McLaughlin on 18 of these claims. McLaughlin has not submitted claims charts of their own. DCI now moves for partial summary judgment for literal infringement on eight of the claims contained in five patents, specifically United States Patent Nos. 5,767,678; 6,002,258; 5,035,951; 6,057,687; 6,232,780. Plaintiff DCI has submitted claims charts explaining how Defendant's Spot-D-Tek IV and underground transmitters literally infringe: Claim 1 of the '678 patent (Mercer Decl.Ex. 2); Claims 1, 5, and 6 of the '687 patent (Id. Ex.5); Claim 2 of the '780 patent (Id. Ex.6); Claims 4 and 9 of the '258 patent (Id. Ex.3); and Claim 1 of the '951 patent (Id. Ex.4). Defendant makes two general responses. First, Defendant argues that the Court should postpone claims construction to allow additional discovery under Fed.R.Civ.P. 56(f). Second, Defendant raises limited defenses to literal infringement on the '678, '687, '780, and '258 patents. Both parties have moved for partial summary judgment and a 56(f) continuance on the '951 patent.

ANALYSIS

This matter is before the Court on summary judgment. The Court grants summary judgment when there is no genuine issue of material fact and the moving party is entitled to judgment as a matter of law. Fed.R.Civ.P. 56(c). The party moving for summary judgment bears the initial burden, and once it has

established a prima facie case that it is entitled to summary judgment, the burden shifts to the non-moving party to present evidence that establishes a genuine issue of material fact. *Id.* 56(e); *Celotex Corp. v. Catrett*, 477 U.S. 317, 323, 106 S.Ct. 2548, 91 L.Ed.2d 265 (1986). "[S]ummary judgment is as appropriate in a patent case as in any other." *Avia Group Int'l v. L.A. Gear California, Inc.*, 853 F.2d 1557, 1561 (Fed.Cir.1988).

[1] [2] [3] Determining patent infringement requires that the Court determine whether someone (1) without authority (2) makes, uses, offers to sell, sells, or imports (3) the patented invention (4) within the United States, its territories, or its possessions (5) during the term of the patent. *Cyrix Corp. v. Intel Corp.*, 77 F.3d 1381 (Fed.Cir.1996). Determining whether a patent claim covers the alleged infringer's product or process is a two-step process. *Desper Prods. Inc. v. QSound Labs Inc.*, 157 F.3d 1325, 1332 (Fed.Cir.1998). First, it is necessary to determine, as a matter of law, what the words in the claim mean. *Markman v. Westview Instruments Inc.*, 517 U.S. 370, 374, 116 S.Ct. 1384, 134 L.Ed.2d 577 (1996). Second, after the words of a claim are interpreted, it is necessary to determine, as a matter of fact, if the claim covers the alleged infringer's product or process. *Id.* A claim is literally infringed if each properly construed claim element reads on the accused product or process. *Jeneric/Pentron Inc. v. Dillon Co.*, 205 F.3d 1377, 1382 (Fed.Cir.2000).

[4] [5] Whether the language of a claim is to be interpreted according to 35 U.S.C. s. 112, para. 6, i.e., whether a claim limitation is in means-plus-function format, is a matter of claim construction and is thus a question of law. *Kemco Sales Inc. v. Control Papers Co.*, 208 F.3d 1352, 1360 (Fed.Cir.2000). Once a court establishes that a means-plus-function limitation is at issue, it must construe that limitation, thereby determining what the claimed function is and what structures disclosed in the written description correspond to the "means" for performing that function. *Id.* For each claim expressed in means-plus-function language, literal infringement occurs only when the accused product (1) employs means identical to the means disclosed in the patent's specification to perform the identical function of the claim element, or (2) employs means that is the structural equivalent to the means disclosed in the patent's specification to perform the identical function of the claim element. *Id.* at 1364 (Fed.Cir.2000).

Four issues are before the Court on the Parties' motions for partial summary judgment. First, Defendant responds to Plaintiff's motion for partial summary judgment by requesting a Fed.R.Civ.P. 56(f) continuance. Second, the Court examines the claims construction of "transmitter means" in the '678, '687, and '780 patents. Third, the Court construes the one distance measuring process of the '258 patent. Finally, both parties have moved for summary judgment and a 56(f) continuance on the '951 patent.

I. Fed.R.Civ.P. 56(f) Continuance

Defendant argues that it is premature to rule on the eight claims advanced by Plaintiff. First, Defendant protests that Plaintiff has not provided the Court with the prosecution histories of the patents, intrinsic evidence the Court considers in construing claims. Second, Defendant wants discovery to determine if any of the patents are invalid because of prior art, and possibly prosecution laches. Were Defendant to prevail on any of these points, the Court would not have to engage in claims construction. Third, Defendant argues that the Court must interpret *all* of the claims in approximately 10 of the patents at issue *together* to avoid inconsistencies.

[6] [7] Under 56(f), the Court may order a continuance or refuse judgment if the party opposing the motion "cannot for reasons stated present by affidavit facts essential to justify the party's opposition." Fed.R.Civ.P.

56(f). None of the reasons advanced by Defendant provide a justification under 56(f) for not ruling on the merits of the summary judgment motion at this time. Defendant protests that Plaintiff did not provide the prosecution histories to the Court. While the Defendant, in their response, simply filed the hundreds of pages of prosecution histories, they have not specifically pointed to any way in which the prosecution histories undercut Plaintiff's proposed claim construction (with the exception of the '951 patent, consideration of which the Court continues for discovery below). Defendant could have presented by affidavit facts justifying their opposition to Plaintiff's motion by referencing the prosecution histories, but have chosen not to. Similarly, Defendant has not specifically shown how the prosecution histories of other related patents not included in the summary judgment motion contradicts Plaintiff's proposed claim construction. Finally, Defendant's request for a continuance in order to engage in discovery relating to prior art impacts a separate question of the validity of the patents, not the construction of claims and consideration of literal infringement.

Plaintiff has presented to the Court a straightforward interpretation of the claims and how Defendant's device infringes a discrete number of those claims. Defendant has responded by challenging the claims construction as it applies to approximately three terms. Defendant has not shown that it needs more discovery in order to respond to the proposed claims construction and interpretation. Rather, Defendant has attempted to convince the Court that there is a significant amount of analysis regarding the claims that should have been done by Plaintiff. As is detailed below, the Court believes that Plaintiff has made a prima facie case on its claims, and consequently Defendant's burden on summary judgment is to come forward with facts or law justifying their opposition. Although Defendant has in their possession the prosecution histories necessary, as well as information regarding the related claims, they have chosen to raise only a limited defense to Plaintiff's motion. This is not sufficient grounds for a 56(f) continuance, and the Court will not continue summary judgment on the '678, '687, '780, or '258 patent. As detailed below, for other reasons the Court considers it appropriate to continue consideration of the '951 patent.

II. Transmitter Means: '678, '687, and '780 patents

[8] Plaintiff moves for partial summary judgment for literal infringement of: Claim 1 of the '678 patent; Claims 1, 5, and 6 of the '687 patent; and Claim 2 of the '780 patent. Defendant responds that its transmitter is different than Plaintiff's transmitter, so that its device does not literally infringe. The resolution of this issue requires the Court to engage in a claims construction of "transmitter means." If the Court determines that "transmitter means" includes a particular type of orientation sensor, then Defendant does not infringe because their device does not have that particular orientation sensor. On the other hand, if "transmitter means" does not include an orientation sensor, then Defendant loses the only defense to infringement they have raised on the '687, '678, and '780 patents.

Plaintiff's asserted claims under the '678 and '780 patents contain the term "transmitter means." Claim 1 of the '678 patent covers:

"1. In a technique for locating a boring tool which is disposed within the ground, a method of monitoring the orientation of the boring tool, said method comprising the steps of: (a) providing the boring tool with an *orientation sensor* which senses at least one particular component of the orientation of the boring tool and *separate transmitter means* for transmitting a corresponding orientation electromagnetic signal from the boring tool." '678 patent, claim 1, col. 25, lns. 31-40 (emphasis added).

The '780 patent also includes the term "transmitter means" in the claim. Claim 2 of the patent describes:

"2. In a technique for locating a boring tool which is disposed within the ground, a system for monitoring the orientation of the boring tool, said system comprising: (a) a sensor and transmitter arrangement carried by said boring tool and including an *orientation sensor means* for sensing at least one particular component of the orientation of the boring tool and including *transmitter means* having one and only one antenna for transmitting corresponding orientation electromagnetic signals from the boring tool. " '780 patent, claim 2, col. 26, lns. 21-31.

Plaintiff's '687 patent, while not using the exact "transmitter means" language, nonetheless references a means for producing the transmitted signal. The '687 patent claims 1, 5, and 6, in their preamble, call for "means for producing a dipole magnetic field." '687 patent, col. 25, lns. 45-45, col. 26, lns. 1-2, 24-25. Defendant claims that this is the functional equivalent as the transmitter means language included in the '678 and '780 patents. In sum, the term "transmitter means" is a claim construction issue in the three patents.

Plaintiff proposes the following claims interpretation of transmitter means: the transmitter means is (1) a solid state device connected to a power supply with (2) an antenna that emits a dipole field signal, (3) whose signal strength varies as the inverse cube root of distance, and (4) is operable in connection with, *inter alia*, a roll sensor and a pitch sensor. (*See, e.g.*, Mercer Decl.Ex. 3, 4; Reply at 7). These four elements of the term "transmitter means" are set out in the patent specifications. '678 patent, col. 20, lns. 50-59; '687 patent, col. 20, lns. 49-52, '780 patent, col. 20, lns. 50-59. Defendant's device would appear to infringe these four elements, as Plaintiff has detailed in their claims charts, and Defendant has not otherwise contested this fact as is their burden on summary judgment. (Mercer Decl.Exs. 2, 5, 6.)

[9] The parties do not dispute that this is a "means plus function" claim. Means plus function terms are construed as limited to the corresponding structure that is actually described in the specification of the patents, and any structural equivalent. *Chiuminatta Concrete Concepts, Inc. v. Cardinal Indus., Inc.*, 145 F.3d 1303, 1307-08 (Fed.Cir.1998). This is important because Plaintiff's and Defendant's devices contain different types of orientation sensors, as described in the patent specifications. The issue in this case is determining what exactly the transmitter is. "Transmitter" can be used to refer to the actual antenna and related circuitry that emits the dipole field, the device that transmits information to the aboveground receiver. "Transmitter" could also arguably mean the entire drill head assembly containing the locating component that emits the electromagnetic dipole field, which is also called the "sonde." In Plaintiff's sonde specification, there is both an actual transmitter and an orientation sensor. Confusingly, sometimes a "sonde" is called a transmitter. Sometimes only the actual device that transmits signals is called a transmitter. The distinction is critical in this case. In Plaintiff's device, the sonde specifications include a specific type of orientation sensor. Defendants argue that, since their device's orientation sensor is structurally distinct, there can be no literal infringement. If the Court construes "transmitter means" to refer to the mechanism that actually transmits information to the receiver, then the design of the orientation sensor is irrelevant and Defendant's device infringes.

The Court construes the term "transmitter means" to mean the device that generates the electromagnetic dipole field, which is the transmission picked up by the receiver to locate the drill head. The "transmitter means" is distinct from the orientation sensor, and therefore Defendant's device literally infringes. This conclusion is compelled by the fact that a transmitter means could operate separately from the orientation sensor. A transmitter means need not transmit orientation information whatsoever. It could, for example, only transmit location and temperature, not orientation information regarding pitch or roll. This claims construction is also compelled by the language of the patent, in which "transmitter means" is distinct from

"orientation sensor" or "orientation sensor means." '678 patent, claim 1, col. 25, lns. 31-40 (*orientation sensor* which senses at least one particular component of the orientation of the boring tool and *separate transmitter means*). The transmitter means is separate from the orientation sensor, and it does not matter for purposes of determining infringement what specific type of accelerometer is employed. Defendant's Spot-D-Tek IV literally infringes Claim 1 of the '678 patent; Claims 1, 5, and 6 of the '687 patent; and Claim 2 of the '780 patent.

III. One Distance Measuring: '258 patent

Plaintiff alleges that Defendant literally infringes Claims 4 and 9 of Patent '258 regarding the method of locating the boring probe, and has presented a claims chart supporting their contention. (Mercer DeclEx. 3.) Defendant has raised only two responses to Plaintiff's claim construction, putting at issue whether Plaintiff uses a single measurement of distance or has to make two distance measurements, as well as how the location of the transmitter is calculated. Claim 4 generally describes the manner of locating the boring tool, using a transmitter and receiver, which functions by:

(a) providing a specific positional relationship between said transmitter and receiver and, while maintaining that positional relationship, transmitting a CONSTANT electromagnetic signal with time from said transmitter and receiving said CONSTANT signal from said receiver;

(b) obtaining distance and electromagnetic signal field strength measurements (i) based on said positional relationship between the transmitter and receiver and (ii) based on the transmission and reception of said constant signal by said transmitter and receiver, respectively, and using those measurements, establishing a proportionality constant k of said dipole field FOR SAID GIVEN TRANSMITTER AND RECEIVER, which proportionality constant relates distance to the cube root of the magnetic field strength of said dipole field; and

(c) thereafter, using said proportionality constant and a CONSTANT electromagnetic signal with time, causing said receiver to determine the depth of said boring tool. '258 patent, col. 26, lns. 17-38.

The following dependant claims set out specific improvements on the generic Claim 4: Claim 5 describes a process using two distance measurements ('258 patent, col. 26, lns. 38-47); Claim 9 describes a process using a single distance measurement ('258 patent, col. 26-27, lns. 61-24).

Defendant's device operates by measuring the strength of the electromagnetic field when the transmitter and the receiver are exactly 10 feet away from each other. Plaintiff's device could be used this way as well, or at the very least can operate by also making a single distance measurement. However, Plaintiff's device is also designed to be used by measuring the distance between two receivers, which involves two distance measurements. Defendant raises two defenses to infringement of the '258 patent. First, Defendant claims that the '258 patent only covers the two receiver, two distance measures model, not the one receiver, one measure fixed 10 foot distance model. Second, Defendant claims that the equation used to fix the distance between the transmitter and receiver is distinct.

A. Two receiver model

[10] Defendant's argument in its Response brief is that the '258 patent only covers the two receiver model that employs a calibration method using two distance measurements. Since Defendant's device uses only one receiver, placing the receiver 10 feet from the transmitter, Defendant argues that this is only a single

distance measure and not covered by the '258 patent. This is incorrect. First, Claim 4, the general claim, does not specify if the transmitter location is determined by making one or two distance measurements. However, the limiting Claims 9 and 5 respectively cover both the one and two distance measurement techniques. As the claims read on their face, Defendant infringes.

[11] Defendant argues that the language of the patent specification section "description of preferred embodiments" which describes the two distance measurement technique should be read to limit the general and specific claims. (See '258 patent, col. 12., lns. 12-23, 45-49, 61-65). Defendant wrongly concludes that the "preferred embodiment" description limits the patent. First, a patent claim is not necessarily limited to a preferred embodiment disclosed in the patent. *Transmatic, Inc. v. Gulton Industries, Inc.*, 53 F.3d 1270, 1277 (Fed.Cir.1995). Rather, courts look to whether the claim was meant to be limited to the preferred embodiment. *Id.* The Court concludes that the claims clearly were not meant to be limited to the disclosed preferred embodiment: Claim 9 uses a one distance measurement technique, not the two distance measurement technique. Both techniques are covered by the '258 patent.

B. The Equation

Defendant additionally argues that the calculation for the location of the probe is different in their device since they used the fixed distance of 10 feet, even if both use the one distance measurement technique. As Plaintiff's expert Brune shows, however, both devices use the same mathematical formula to calculate the location of the probe; the variables simply differ depending on if one calculates with a fixed distance or not. (Brune Decl. at 1-3). Both devices use distance, magnetic field strength, and a cube root proportion to calculate the location of the probe. The fact that Defendant can present effectively the same equation in another form does not defeat Plaintiff's claim of infringement. Defendant's Spot-D-Tek IV device literally infringes Claims 4 and 9 of the '258 patent.

IV. '951 Patent

[12] The parties have filed cross-motions regarding the '951 patent. This patent describes an HDD system that replaces the construction worker with the portable device with fixed locators. One or more above-ground locators are set in fixed positions and they transmit to the person operating the drill the location of the drill head. Defendant argues that its Spot-D-Tek IV is not covered by this patent because it is a portable device. However, when it is placed in "arrow" mode, it is designed to be set on the ground and used as a homing device. The construction worker operating the drill is guided to the receiver. Plaintiff alleges that the Spot-D-Tek IV tells the operator how far the drill is from the portable device, and therefore is just like the '951 patent: it communicates the position of the drill head by used an above-ground locator set in a fixed position. Defendant also claims that an earlier Spot-D-Tek III operated similarly and existed before the '951 patent, and therefore the patent is invalid on the grounds of prior art.

Plaintiff protests that there are genuine issues of material fact regarding whether Spot-D-Tek III was prior art, since they do not believe that the device gave information on distance from the drill head that the Spot-D-Tek IV provides. Plaintiff also asks for discovery in order to determine whether the actual Spot-D-Tek IV device itself infringes on certain claims, either literally or under the doctrine of equivalents. Most importantly, Plaintiff says that it does not know if the Spot-D-Tek IV device has "two or more" detectors, as required by certain claims in the '951 patent. Additionally, both parties submitted dueling supplemental declarations well after the noting date, and Plaintiff requests discovery on a number of the assertions of these late-filed declarations. The Court considers this an appropriate, limited 56(f) request. Both Plaintiff and Defendant's motions for partial summary judgment on the '951 patent are DENIED. The parties may

refile these motions, in the required format of a joint claims construction, after discovery on the matter is completed.

CONCLUSION

Plaintiff's motion for partial summary judgment is **PARTIALLY GRANTED**, and the Court concludes that Defendant literally infringes: (1) Claim 1 of the '678 patent; (2) Claims 1, 5, and 6 of the '687 patent; (3) Claim 2 of the '780 patent; and (4) Claims 4 and 9 of the '258 patent. Defendant's Motion for partial summary judgment on the '951 patent is **DENIED**, and Plaintiff's motion for partial summary judgment is **PARTIALLY DENIED** on the '951 patent. The parties may refile motions on the '951 patent after discovery on the matter is completed.

The Clerk is directed to send copies of this order to all counsel of record.

W.D.Wash.,2002.

Digital Control Inc. v. McLaughlin Mfg. Co., Inc.

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