

United States District Court,  
W.D. Pennsylvania.

**JOY MM DELAWARE, INC. and Joy Technologies Inc,**  
Plaintiffs.

v.  
**SANDVIK MINING AND CONSTRUCTION USA LLC,**  
Defendant.

**June 5, 2007.**

J. Donald Best, Jacob E. Miota, Jonathan H. Margolies, Michael Best & Friedrich, LLP, Milwaukee, WI, James Earl Lowe, Jr., Law Offices of James Earl Lowe, Jr., New Berlin, WI, Joseph J. Bosick, Pietragallo, Bosick & Gordon, Pittsburgh, PA, for Plaintiffs.

David J. Kessler, Drinker Biddle & Reath, Philadelphia, PA, Jeffrey G. Killian, Drinker Biddle & Reath, Washington, DC, for Defendants.

### ***MEMORANDUM ORDER***

**GARY L. LANCASTER, District Judge.**

This is an action in patent infringement. Plaintiffs, Joy MM Delaware, Inc. and Joy Technologies Inc., allege that defendant Sandvik Mining and Construction USA, LLC, has infringed two of its patents by manufacturing, offering for sale, and selling an apparatus for holding a cutting bit. Plaintiffs' patents disclose an improved way of holding cutting bits into the rotatable drum of a mining machine using a removable sleeve. Defendant contends that its products do not infringe plaintiffs' patents, and/or that the patents are invalid and unenforceable. Below we set forth our claim construction rulings pursuant to *Markman v. Westview Instruments, Inc.*, 52 F.3d 967 (Fed.Cir.1995) (*en banc*), *aff'd*, 517 U.S. 370 (1996).

#### ***I. FACTUAL BACKGROUND***

Joy claims that Sandvik has infringed two of its patents: United States Patent No. 5,302,005 (the '005 Patent), entitled Apparatus for Holding a Cutting Bit, and United States Patent No. 5,088,797 (the '797 Patent), entitled Method and Apparatus for Holding a Cutting Bit. The '005 Patent is a continuation of the '797 Patent and the specifications of the two patents are identical. The technology in this case relates to complex underground mining machines that are used in removing minerals from the earth.

The Patents-in-Suit disclose an improved way of securing a sleeve within a bit holder, by using bands of interference fit, rather than an interference fit along the entire length of the sleeve. This improvement allowed the sleeves to be removed inside the mine by a hand powered device. Previously, mining equipment had to be taken out of the mine in order to replace the cutting bits because the forces required to remove prior art sleeves could not be generated inside the mine. This improvement saved both time and money. Joy

accuses Sandvik of manufacturing and selling a bit holder system that infringes its patents.

The court held a claim construction hearing on April 13, 2007. Counsel for both parties appeared, presented argument and evidence, and answered questions from the court. Following the hearing, the parties filed supplemental briefing on two issues identified by the court as needing further exploration. All submissions have been made, and considered, and the court is prepared to issue its claim construction.

## **II. LEGAL BACKGROUND**

Patent claim construction is a matter of law for the court. *Markman*, 52 F.3d at 979. According to the Court of Appeals for the Federal Circuit, "[i]t 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* ) (quoting *Innova/Pure Water, Inc. v. Safari Water Filtration Sys., Inc.*, 381 F.3d 1111, 1115 (Fed.Cir.2004)). Therefore, we must begin our claim construction analysis with the words of the claim. *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed.Cir.1996).

Where an inventor has assigned special meaning to the words of a claim for purposes of his patent, the inventor's lexicography governs. *Schoenhaus v. Genesco, Inc.*, 440 F.3d 1354, 1358 (Fed.Cir.2006) (citing *Irdeto Access, Inc. v. Echostar Satellite Corp.*, 383 F.3d 1295, 1300 (Fed.Cir.2004)); *Phillips*, 415 F.3d at 1316; *In re Paulsen*, 30 F.3d 1475, 1480 (Fed.Cir.1994). Otherwise, the words of the claim are generally given their ordinary and customary meaning. *Vitronics*, 90 F.3d at 1582. The ordinary and customary meaning of a claim term "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." *Merck & Co., Inc. v. Teva Pharm. USA, Inc.*, 395 F.3d 1364, 1370 (Fed.Cir.2005); *Phillips*, 415 F.3d at 1313. The person of ordinary skill in the art views the claim term in light of the entire intrinsic record. *Id.* Thus, the claims "must be read in view of the specification", which is the single best guide to determining the meaning of a claim term, and the prosecution history. *Markman*, 52 F.3d at 979; *Phillips*, 415 F.3d at 1315; *Vitronics*, 90 F.3d at 1582.

Claims should be interpreted consistently with the specification, of which that are a part, because the specification provides context for the proper construction of the claims and explains the nature of the patentee's invention. *See Renishaw PLC v. Marposs Societa' per Azioni*, 158 F.3d 1243, 1250 (Fed.Cir.1998). "The 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." *Young Dental Mfg. Co., Inc. v. O3 Special Products, Inc.*, 112 F.3d 1137, 1142 (Fed.Cir.1997).

However, the Federal Circuit has cautioned against limiting the scope of a claim to a preferred embodiment or specific example disclosed in the specification. *See e.g.*, *Ekchian v. Home Depot, Inc.*, 104 F.3d 1299, 1303 (Fed.Cir.1997); *Intervet Am., Inc. v. Kee-Vet Laboratories, Inc.*, 887 F.2d 1050, 1053 (Fed.Cir.1989) ("[L]imitations appearing in the specification will not be read into claims, and ... interpreting what is meant by a word in a claim 'is not to be confused with adding an extraneous limitation appearing in the specification, which is improper.' ") (citation omitted). Therefore, while the specification, of which the figures are a part, may describe specific embodiments of the invention, we cannot confine the claims to those embodiments. *MBO Labs, Inc. v. Becton, Dickinson & Co.*, 474 F.3d 1323, 1333 (Fed.Cir.2007); *Gart v. Logitech, Inc.*, 254 F.3d 1334, 1342 (Fed.Cir.2001) ( "These drawings are not meant to represent 'the' invention or to limit the scope of coverage defined by the words used in the claims themselves."); *Phillips*, 415 F.3d at 1323.

In addition to the specification, "the 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.* at 1317. The public has a right to rely on statements made by the patent applicant or his attorney during prosecution that define the scope of the claims. *See* Ekchian, 104 F.3d at 1304.

Claim construction is an essential first step to conducting an infringement analysis; however it is not an infringement analysis. The fact that an accused device may contain a claim element that has been construed by the court does not mean an accused device infringes. The accused device must contain every element of a claim, or the substantial equivalent of each element, in order to infringe the patent. If just one claim element or its substantial equivalent is not present in the accused device, then that claim is not infringed. *Carroll Touch, Inc. v. Electro Mech. Sys., Inc.*, 15 F.3d 1573, 1576 (Fed.Cir.1993). Therefore, even if the accused device contains the element of a claim that is being construed by the court, if it does not contain all other elements of the claim, it does not infringe.

### **III. DISCUSSION**

We have been asked to construe five disputed claim terms:

(1) means for retaining said [cylindrical] FN1 sleeve member relative to said body portion

FN1. Words appearing in brackets indicate slight differences between how different claims are worded. The differences have no effect on proper construction of the terms unless specifically noted.

(2) area of interference fit

(3) band[s] of interference fit

(4) without the application of independent means for urging said sleeve member toward said trailing end of said bit holder

(5) to allow the [axial] removal of said [cylindrical] sleeve from said aperture of said body portion by the manual application of force

We discuss terms two and three (the area of interference fit and the band[s] of interference fit), together. Therefore, we issue the following four claim constructions.

#### **A. Means for Retaining....**

*Phrase:* means for retaining said [cylindrical] sleeve member relative to said body portion

*Construction:* an area of interference fit between the bit holder and the sleeve

*Reasoning:* The central dispute regarding this claim term is whether means-plus-function analysis applies. Defendant asserts that it does, while plaintiffs contend that it does not. Regardless, both parties agree that the "means for retaining" is "an area of interference fit." Because this agreed upon structure appears in the claims themselves, it would be improper to apply means plus function analysis to this claim. *Phillips*, 415 F.3d at 1311 ("Means-plus-function claiming applies only to purely functional limitations that do not provide the structure that performs the recited function").

While the dependent claims reflect the inventor's preferred embodiment that the area of interference fit be in the form of band, or bands, of interference fit, the independent claim is not so limited. Claim 1 speaks broadly to a "means for retaining .... comprising an area of interference fit." In the dependent claims, this "area" is more narrowly defined to include "one band of interference fit", "at least two discrete bands of interference fit", and one or more bands found on cylindrical or conical sleeves. These dependent claims reflect the inventor's stated preferred embodiment that the areas of interference be created by "one or more bands of interference." Col. 2, lns. 57-60. However, the disputed claim term need not be so limited.

### ***B. Area and Band[s] of Interference Fit***

*Phrase:* area of interference fit and band[s] of interference fit

*Construction:* An area of interference fit is the place where the outer surface of the sleeve and the inner surface of the bit holder meet. A band of interference fit is a specific type of structure used to create an area of interference fit. A band of interference fit must be shorter than the entire length of the sleeve. One band creates one area of interference fit. Two discrete bands create two different areas of interference fit.

*Reasoning:* The real dispute between the parties regarding these claim terms is whether, when more than one band of interference fit is being used, there is a limit on the sum total length of the bands in relation to the sleeve. According to plaintiffs, the patents require only that the area of interference fit created by any particular band be less than the entire length of the sleeve. Plaintiffs argue that numerous bands of interference fit could be used, and they could, combined, be essentially equal to the total length of the sleeve provided no one band itself equaled the entire length of the sleeve. In contrast, defendant contends that where multiple bands of interference fit are used, the sum total of all areas of interference fit created by the bands must be 'substantially less than' the entire length of the sleeve.

Defendant's position has some support in the specification and prosecution history, both of which speak to "limiting the length over which interference exists." In addition, the figures illustrate only structures that have both areas of interference fit and areas of non-interference fit, which results in the sum total of all areas of interference fit being noticeably less than the entire length of the sleeve. However the specification can also be read in a way that supports plaintiffs' position. When the patentee speaks to limiting the length of interference, he could be referring to limiting the length of a single area of interference fit ("By providing [multiple] bands of interference instead of an [one] interference fit along the entire length of the sleeve." Col. 3, lns. 6-7, emphasis added).

Regardless, the claims appear to resolve this dispute, and in plaintiffs' favor. Phillips, 415 F.3d at 1312 (specifically endorsing referring to the claims in determining claim construction); Fisher-Price, Inc. v. Graco Children's Products, Inc., 2005 WL 2899289, (Fed.Cir.2005) ("Even if it could be said that a conflict exists within the specification, it is resolved by the unambiguous claim language").

Claim 1 does not address the length of the interference fit, at all. Instead, it defines the interference fit by what it will do, and how. According to Claim 1, the interference fit must, alone, prevent movement of the sleeve, while at the same time, allow for manual removal. Claims 2 and 3 both depend from Claim 1. Claim 2, which calls for "at least one band of interference fit," explicitly requires that the band be "shorter than [the sleeve]." When claim 3 introduces the concept of using "at least two discrete bands of interference fit" no limitation is placed on the total length of the bands or areas of interference fit in relation to the sleeve. *See also* Claims 8, 9 and 10.

This claim drafting structure indicates several things. First, that the independent and dependent claims follow the doctrine of claim differentiation. Dependent Claim 2 adds a length limit to independent Claim 1. *Nazomi Communications, Inc. v. Arm Holdings, PLC*, 403 F.3d 1364, 1370 (Fed.Cir.2005) ( "claim differentiation 'normally means that limitations stated in dependent claims are not to be read into the independent claim from which they depend.' "). Second, that the inventor was aware that the length of interference fit was a relevant consideration to his invention. Third, that when the inventor wanted to place limits on the length of the area of interference fit created by the bands in relation to the sleeve, he knew how to, and did. To illustrate, when a single band was claimed, its length was limited; when multiple bands were claimed, no limit on the total length of the bands was imposed. Therefore, we cannot import a so-called "sum of the bands" limitation from defendant's reading of the specification, and the preferred embodiments therein, including the figures, into the claims. *MBO Labs*, 474 F.3d at 1333; *Logitech*, 254 F.3d at 1342; *Phillips*, 415 F.3d at 1323.

### ***C. Without the Application of Independent Means ...***

*Phrase:* without the application of independent means for urging said sleeve member toward said trailing end of said bit holder

*Construction:* the interference fit between the sleeve and the bit holder is itself sufficient, without the use of any additional device or structure, to prevent rotation or axial movement of the sleeve

*Reasoning:* Again, defendant contends that this claim element invokes means plus function analysis because it includes the word "means". According to defendant, because the specification does not list the independent means that are excluded from the claim, there is no valid construction to this claim. We disagree. Use of the word means in this instance does not invoke means plus function. Rather, these "independent means" are being excluded, not claimed. Taken to its logical conclusion, under defendant's theory, even though "independent means" are not being claimed, and in fact, are specifically excluded, the inventor would have had to list every possible device or structure that could be used under any circumstances to hold a sleeve in place. This is not required. The claim element is clear, and easily understood-if anything other than interference fit is required in order to hold the sleeve in the bit holder, then the accused device falls outside the claims.

Our construction is consistent with the language and meaning of the patents, and the prosecution history. The novelty disclosed in the patents was that the interference fit itself was enough to keep the sleeve secure in the bit holder. In the prior art, some other device or structure had to be used to hold the sleeve in place. In these patents, no other device or structure was needed to hold the sleeve in place. This exact point of novelty was discussed in the prosecution history sections to which both parties cite. Our construction recognizes this point of novelty. Whether a retaining clip, or some other item, is necessary to hold the sleeve in place in an accused device, or is superfluous, is a question of fact, and of infringement.

### ***D. ... Manual Application of Force***

*Phrase:* to allow the [axial] removal of said [cylindrical] sleeve from said aperture of said body portion by the manual application of force

*Construction:* to allow the removal of the sleeve from the bit holder using a tool which may be hand-powered by a worker in field conditions to generate forces of approximately 5,000-20,000 pounds.

*Reasoning:* The parties disagree as to whether the removal forces are limited to those that are exactly between 5,000 and 20,000 pounds, or can include those that are "in the order of" 5,000 to 20,000 pounds. In

this instance, the patentee has acted as his own lexicographer and has explicitly defined the term "Manual" to refer to "the use of a tool which may be hand-powered by a worker in field conditions to generate the forces in the order of 5,000 to 20,000 lbs. to remove the sleeve." Col. 3, lns. 19-23. We must use this definition. This definition contradicts defendant's argument that the patents require removal forces to be exactly 5,000 and 20,000 pounds. Therefore, we reject defendant's proposed construction.

However, in order to inject further meaning into the disputed claim term, we must examine the phrase "in the order of." Although this phrase appears within the specific definition that the inventor gave to the term "Manual," the phrase is not itself redefined. Therefore, we will assign the ordinary and customary meaning to that phrase. *Phillips*, 415 F.3d at 1313; *Merck & Co.*, 395 F.3d at 1370; *Vitronics*, 90 f.3d at 1582. As such, we find that "in the order of" shall mean approximately.

We cannot further assign exact values to what forces qualify as "approximately 5,000 and 20,000 pounds" because the factual record is insufficient on this issue. We will make that determination at a later time, on a fully developed factual record. *Ortho-McNeil Pharm., Inc. v. Caraco Pharm. Laboratories, Ltd.*, 476 F.3d 1321, 1324 (Fed.Cir.2007). At that time, the court will give appropriate consideration to the principles discussed in *Amhil Enterprises Ltd. v. Wawa, Inc.*, 81 F.3d 1554, 1562 (Fed.Cir.1996).

#### ***IV. CONCLUSION***

For the foregoing reasons, we have adopted the preceding as our claim construction in this matter.

W.D.Pa.,2007.

Joy MM Delaware, Inc. v. Sandvik Mining and Const. USA LLC

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