United States District Court,
N.D. Ohio.

KNAPP ENGINEERING, INC,
Plaintiff.
v.
CANNONDALE BICYCLE CORPORATION,
Defendant.

March 7, 2005.

Bruce H. Wilson, Akron, OH, for Plaintiff.

Richard J. Basile, Steven B. Simonis, Wesley W. Whitmyer, Jr., St. Onge Steward Johnston & Reens, Stamford, CT, David P. Dureska, II, Buckingham, Doolittle & Burroughs, Canton, OH, Mark J. Skakun, Philip R. Wiese, Buckingham, Doolittle & Burroughs, Akron, OH, for Defendant.

OPINION AND ORDER

JAMES S. GWIN**, District Judge:**

In this case, Plaintiff Knapp Engineering, Inc. ("Knapp") sues Defendant Cannondale Bicycle Corporation ("Cannondale") and alleges that Cannondale products infringe claims 19, 20, 21, 31, 32, 33, 34, 35 and 37 of Patent No. 5,301,974 ("974 patent") issued to Knapp on April 12, 1994. The '974 patent teaches a bicycle suspension system to provide shock isolation at the seat or handlebars through the use of a hydraulically actuated system and dampening assembly. Plaintiff Knapp says that Cannondale, a manufacturer and seller of bicycles, used Knapp's invention without license. With this opinion, the Court construes certain terms relevant to the '974 patent.

I. Background

The '974 patent relates to a bicycle suspension system intended to improve riding comfort by improving upon available shock absorbing systems. The system disclosed by the '974 patent can be used at the seat, front forks, frame or other location on a bicycle. The invention specially aims at all terrain bicycles used in off-road environments.

Although bicycle suspension systems had been available for some time, the ' 974 patent sought to improve upon these systems by protecting the dampening mechanism from degradation and by providing greater ability to vary the amount of dampening provided by the system. Additionally, the '974 patent sought to provide a shock absorbing mechanism that was compact, light, enclosed and sealed, yet allowed external adjustment to the dampening functions while operating the bicycle. The '974 patent further sought to avoid rotation of the bicycle seat and provides lubrication for the mechanism.

The '974 patent makes thirty seven claims. In this action, Knapp claims Cannondale infringed claims 19, 20, 21, 31, 32, 33, 34, 35 and 37. Of these claims, claims 19 and 31 are independent claims while claims 20, 21, 32, 33, 34, 35 and 37 are dependent claims. As dependent claims, these have the limitations described in the independent claim together with additional limitations contained in each dependent claim.

The construction of a patent, including terms of art within its claim, is a question of law. *See* Markman v. Westview Instruments, Inc., 517 U.S. 370, 383-91 (1996). In resolving a claim of patent infringement, a court first determines the meaning and scope of the patent, which determination is a matter of law. Id. at 390.

The parties have agreed that the Court need determine sixteen terms found with the '974 patent. Of these sixteen terms, the parties have agreed upon the interpretation to be given four of the terms, leaving twelve of the sixteen terms to be construed. The parties agree to the undermentioned construction of the following terms:

"Bearing Means": roller, needle, ball bearings or the like, which allow for linear movement but limit rotational movement between the outer housing and the piston assembly.

"Bias Pressure Means": a spring, compressed air, inert gas charge or the like for acting upon the outer housing and piston assembly to bias the piston to extended position relative to the outer housing.

"Means To Bias Said Piston Assembly": a spring, compressed air, inert gas charge or the like for acting upon the outer housing and piston assembly to bias the piston to extended position relative to the outer housing.

"Guide Sleeve": a tube having a cylindrical outer surface positioned between the outer housing member and the piston.

II. Standard

When interpreting an asserted claim, the Court first looks to the intrinsic evidence of record, i.e., the patent itself, including the claims, the specification and, if in evidence, the prosecution history. *See* Markman v. Westview Instruments, Inc., 52 F.3d 967, 979 (Fed.Cir.1995), *aff'd,* 517 U.S. 370 (1996). The intrinsic evidence gives the most significant guidance regarding the interpretation of disputed claim language. Vitronics Corp. v. Conceptronic, Inc. 90 F.3d 1576, 1582 (Fed.Cir.1996).

Not all intrinsic evidence is created equal. As between the various sources of intrinsic evidence, the Court first considers the words of the claims themselves. Then the Court looks to the rest of the intrinsic evidence, beginning with the specification and concluding with the prosecution history, if in evidence. If the claim language is clear on its face, then a court's consideration of the rest of the intrinsic evidence decides if the patent holder has used a word construction different from the typical use of the language. A patentee can act as his own lexicographer and use terms in a manner other than their ordinary meaning. A deviation may also be necessary if a patentee has relinquished a potential claim construction in an amendment to the claim or in an argument to overcome or distinguish a reference. If, however, the claim language is not clear on its face, then a court's consideration of the rest of the intrinsic evidence is directed to resolving, if possible, the lack of clarity.

If the use of the ordinary or accustomed meaning does not cause the claim to become meaningless, the Court will typically find the ordinary or accustomed meaning is the meaning that should be used. Moore U.S.A. v. Standard Register Co., 229 F.3d 1091, 1109-11 (Fed.Cir.2000); W.E. Hall Co., Inc. v. Atlanta Corrugating, LL C, 370 F.3d 1343, 1350 (Fed Cir.2004) ("We indulge a 'heavy presumption' that the claim terms carry their ordinary and customary meaning."); SuperGuide Corp. v. DirecTV Enterprises, Inc., 358 F.3d 870, 874 (Fed.Cir.2004) ("There is a 'heavy presumption' that the terms used in claims mean what they say and have the ordinary meaning that would be attributed to those words by persons skilled in the relevant art.") (internal quotation marks omitted).

III. Analysis

The parties dispute certain terms. The Court construes those terms as follows.

Outer housing member

Knapp and Cannondale dispute the interpretation that should be given "outer housing member." Plaintiff Knapp argues that "an outer housing is a tubular member secured to the main frame of the bicycle which receives a piston assembly partially within the outer housing in slidable relation thereto." In contrast, Defendant Cannondale suggests that "outer housing member" should be construed as "a tube having a cylindrical inner surface for receiving a piston therein." Thus, the parties principally dispute whether the outer housing member must be cylindrical.

The relevant '974 patent claims never use the phrase "inner cylindrical surface." Only once does the patent's specifications use the phrase "internal cylindrical surface," and only in regard to an embodiment that is not at issue in this case. *See* Col. 22, lines 2-3. This embodiment is also described in Figures 25-26. Defendant Cannondale also cites to Figure 10 of the '974 patent. Again, Figure 10 depicts an alternative embodiment.

Generally, "the same terms appearing in different portions of the claims should be given the same meaning unless it is clear from the specification and prosecution history that the terms have different meanings at different portions of the claims." Fin Control Sys. Pty, Ltd. v. OAM, Inc., 265 F.3d 1311, 1318 (Fed.Cir.2001). Claim terms should be construed, when possible, "in a manner that renders the patent internally consistent." Budde v. Harley-Davidson, Inc., 250 F.3d 1369, 1379-80 (Fed.Cir .2001).

The embodiment described in Figures 25 and 26 includes limitations not found in other descriptions. Principally, this embodiment achieves friction dampening through a multi-piece expanding friction piston that is often cut longitudinally that allow for expansion of the piston halves relatively to one another. Col. 21, lines 57-69. To make this work, this embodiment calls for using a cone shaped internal wedge 304 to interact with the piston friction halves 301. Because this embodiment relies upon this cone shaped internal wedge 304, this embodiment necessarily needs a cylindrical outer housing member. Because this need for a cylindrical outer housing member is not present in other embodiments, it is nowhere clear that the description found in this embodiment applies to other embodiments.

In making its argument that the outer housing member requires a cylindrical inner surface, Cannondale largely relies upon the '974 patent's disclosure that there is a close tolerance between the outer housing member and the "guide cylinder 54." From this, Cannondale then argues that a close tolerance requires the outer housing member have a cylindrical inner surface. The Court agrees that a close tolerance is required, but does not agree that this necessarily requires a cylinder, if one understands a cylinder to be circular in shape. FN1

FN1. "Cylindrical" means "Of the form of a cylinder" or "Of, pertaining, or relating to a cylinder." The Oxford English Dictionary, available at http://www.oed.com, visited March 2, 2005.

It is not clear that a "cylinder" is circular in shape. The Oxford English Dictionary provides alternative definitions of cylindrical: "a. Geom. A solid figure of which the two ends are equal and parallel circles, and the intervening curved surface is such as would be traced out by a straight line moving parallel to itself with its ends in the circumferences of these circles. b. In mod. Geom., the solid generated by a straight line moving always parallel to itself and describing any fixed curve (not necessarily a circle)." Id.

The U.S. District Court for the Northern District of Illinois recently interpreted "cylinder" to include both circular and oval shapes. *See Mahurkar v. C.R. Bard, Inc.,* No. 01-C-8452, 2003 U.S. Dist. LEXIS 25924, at (N.D.Ill. May 13, 2004).
Among other concerns, the '974 patent was concerned with avoiding rotation of the assembly attached to the

shock absorbing structure: "It is a further object of the invention to provide a suspension system which is designed to be a non-rotating system, thereby affording a range of movement in one directional plane only." Col. 3, lines 24-28. It is nowhere clear how limiting the inner surface to a circular surface would contribute to avoiding rotation of the system. For example, an oval-shaped outer housing member and guide cylinder would reduce rotation. *See* Purdue Pharma L.P. v. Boehringer Ingelheim GmbH, 237 F.3d 1359, 1364 (Fed .Cir.2001) (Construction should be "consistent with and furthers the purpose of the invention.").

While the specifications suggest a close tolerance between the outer housing member and the guide cylinder, they do not require a cylinder limited to a circle. The written description uses the term cylindrical only regarding the alternative embodiment shown in Figures 25 and 26. Figure 3 gives a cross-sectional view of a first preferred embodiment of the invention. Col. 5, lines 1-3. That view does not indicate whether a cross-section of the outer housing member would yield a circular or an oval cross-section.

It is generally wrong to import a limitation from the specification's general discussion, embodiments and examples into the interpretation of a claim. Texas Digital Systems, Inc. v. Telegenix, Inc., 308 F.3d 1193, 1204-05 (Fed.Cir.2002) ("But if the meaning of the words themselves would not have been understood to persons of skill in the art to be limited only to the examples or embodiments described in the specification, reading the words in such a confined way would mandate the wrong result and would violate our proscription of not reading limitations from the specification into the claims."); Beckson Marine, Inc. v. NFM, Inc., 292 F.3d 718, 723 (Fed.Cir.2002) ("A full review of the patent shows that the district court improperly narrowed the scope of [independent] claim 1 by importing limitations from the specification and from dependent claims 5 and 6."); Leggett & Platt, Inc. v. Hickory Springs Manufacturing Co., 285 F.3d 1353, 1357 (Fed.Cir.2002) ("In consulting the specification ... the interpretative process may not import limitations from the specification into the defining language of the claims."); Comark Communs. v. Harris Corp., 156 F.3d 1182, 1186 (Fed.Cir., 1998) ("We have previously stated that 'while ... claims are to be interpreted in light of the specification and with a view to ascertaining the invention, it does not follow that limitations from the specification may be read into the claims.' ") (quoting Sjolund v. Musland, 847 F.2d 1573, 1581(Fed.Cir.1988)). Further, "[g]eneral descriptive terms will ordinarily be given their full meaning; modifiers will not be added to broad terms standing alone." Johnson Worldwide Associates, Inc. v. Zebco Corp., 175 F.3d 985, 989-90 (Fed.Cir.1999).

Having found that the term "outer housing member" is not limited to tubes with a circular cylindrical inner surface, the Court interprets "outer housing member" consistent with the description given in independent claims 19 and 31 as "an outer housing is a tubular member secured to the main frame of the bicycle which receives a piston assembly partially within the outer housing in slidable relation thereto."

Piston assembly

The parties dispute the interpretation that should be given "piston assembly." Claim 19, an independent claim, describes this structure as "a piston assembly slidably disposed within said outer housing member with at least a portion of said piston assembly extending outwardly from said outer housing member." Similarly, independent claim 31 describes the structure as "a piston assembly slidably disposed within said outer housing member with at least a part of said piston assembly extending outwardly from said outer housing member...."

Plaintiff Knapp suggests the phrase "piston assembly" should be construed as "the piston assembly is allowed at least relative linear motion with respect to the outer housing to provide shock isolation for the bicycle." In contrast, Defendant Cannondale suggests the following construction for the phrase "piston assembly": "a rod positioned within the outer housing member having an end extending outwardly from the outer housing member that moves relative to the outer housing member during operation." Principally, the parties dispute whether the piston assembly need be a rod.

In support of its contention that the piston assembly need be a rod, Cannondale refers to the following specifications: (1) "The *piston assembly or rod* 46 comprises a piston body 47 which extends outwardly from an outer tubular housing member 50 having an upper open end 52" (Col. 6, lines 43-45); and (2) "The shock absorbing device 24 includes an outer tubing housing member 30 and *a piston assembly or rod* 32 disposed on the interior of the outer housing member 30 and extending outwardly therefrom to mount a seat or the like at its upper end 34." Col. 6, lines 22-24 (emphasis added). Cannondale also points to a different specification that describes the invention, in part, as: "The shock isolating mounting apparatus 80 comprises a seat adapter 42 positioned on the outer end 44 of a *piston assembly or rod* 82 by means of a lock pin 48." Col. 10, lines 16-19 (emphasis added).

In contrast, Knapp identifies specifications in certain embodiments that identify the structure as other than a rod. Knapp shows that dependent claim 31 does not describe the piston assembly as a rod: "33. A shock isolation system as in claim 31, further comprising, dampening means acting on said piston assembly, wherein, *said piston assembly is tubular in configuration* ...." (emphasis added). Claims 33, 34, and 35 of the '974 patent do not define the piston assembly as being a piston rod. Instead, each includes a description of the piston assembly as being tubular in configuration.

In certain parts, the '974 patent specifications use the phrase "piston assembly or rod." Cannondale suggests that the word "or" is not meant to indicate an alternative structure but to offer an alternative nomenclature for the identical structure calling it either a "piston assembly" or a "piston rod." Knapp, however, identifies specifications that refer to the piston assembly as a "piston body" and declines to use the description "piston rod." *See* Col. 9, lines 17-18, 26, and 34.

The '974 patent specifications use the expression "piston assembly or rod." By its nature, the word "assembly" would not typically be interpreted as equivalent to "rod." A piston assembly would normally involve a multi-part structure. *See, e.g.,* Kegel Company, Inc. v. AMF Bowling, Inc., 127 F.3d 1420, 1427 (Fed.Cir.1997) ("[A]ssembly ordinarily means collection of parts so assembled as to form a complete machine, structure, or unit of a machine.") (citing Webster's Third New Int'l Dictionary (1986)); Ethicon Endo-Surgery, Inc. v. United States Surgical Corp., 93 F .3d 1572, 1578, 1580 n. 4 (Fed.Cir.1996) ("[W]e note in passing that the word 'assembly' itself implies a multi-component apparatus.").

The inclusion of the term "or rod" next to "piston assembly" in the specification is an indication that the referenced structure could be an assembly or a rod. Briefly then, the use of the word "or" introduces an alternative.

On a number of occasions, the Federal Circuit has interpreted "or" as referring to alternatives. In rejecting an interpretation of "or" that is not disjunctive, the Federal Circuit emphasized that "or" is typically understood to refer to alternative embodiments. In Schumer v. Laboratory Computer Systems, Inc., 308 F.3d 1304, 1311 (Fed.Cir.2002), the Federal Circuit found that the word "or" had no technical definition and should be interpreted consistent with Webster's Third International Dictionary, which defined "or" as follows: "used as a function word to indicate (1) an alternative between different or unlike things, states, or actions ... (2) choice between alternative things, states, or courses." The *Schumer* interpretation of "or" is consistent with the same definition of "or" given by the Federal Circuit numerous times. *See, e.g.,* Kustom Signals, Inc. v. Applied Concepts, Inc., 264 F.3d 1326, 1331 (Fed.Cir.2001) ("The district court construed 'or' and 'either' in their common *usage* as designating alternatives. We agree with this construction, for there is no indication that Kustom used these words with a different meaning."); Brown v. 3M, 265 F.3d 1349 (Fed.Cir.2001).

The use of "or" in the '974 patent specifications suggest alternatives. *See* Middleton, Inc. v. Minnesota Mining & Mfg. Co., 311 F.3d 1384, 1387 (Fed.Cir.2002) ("[T]here is a heavy presumption that claim terms mean what they say and have the ordinary meaning."). The '974 patent uses the phrase "piston assembly" in association with the phrase "piston rod" but also in association with an assembly that is tubular. Although

the use of a piston rod is one alternative structure that can make up a piston assembly, it is not the only structure. *See* CAE Screenplates Inc. v. Heinrich Fiedler GmbH & Co. KG, 224 F.3d 1308, 1317 (Fed Cir.2000); Phonometrics, Inc. v. Northern Telecom, Inc., 133 F.3d 1459, 1465, 45 USPQ2d 1421, 1426 (Fed.Cir.1998) ("A word or phrase used consistently throughout a patent claim should be interpreted consistently."). "Piston assembly" should be interpreted consistently and sufficiently broad to include the various embodiments coming under its description.

For these reasons, the Court interprets "piston assembly" as a structure positioned within the outer housing member having an end extending outwardly from the outer housing member that moves in a relatively linear motion relative to the outer housing member during operation."

Insert

Claims 19, 20 and 21 of the '974 patent teach the use of inserts. Independent claim 31 and dependent claims 32, 33, 34, 35 and 37 do not describe an insert structure. Regarding an interpretation of the structure of an insert in the '974 patent, Plaintiff Knapp argues for an interpretation of "insert" as "a bearing surface which may be grooved, curved, or flat." In contrast, Cannondale argues that "insert" should be interpreted as "a removable bearing surface with grooves or curves." Regarding the interpretation of "insert," the parties disagree whether the bearing surface need be grooved or curved, or in contrast whether it can be flat. The parties also seemingly disagree whether the insert need be removable. The parties thus dispute whether a needle bearing would constitute an insert or whether, the insert need be ball bearings held in place by curves or grooves.

Plaintiff generally alleges that the "inserts" can be flat or curved and that the insert can utilize either ball bearings or needle bearings. In contrast, Defendant Cannondale argues that the insert need be a removable structure and need use ball bearings.

In arguing that an insert is a bearing surface that can be flat, the plaintiff primarily relies upon the alternative embodiment using needle bearings depicted in Figures 6 and 8. In this embodiment, the guide grooves for the needle bearings is the piston assembly or the guide cylinder and without a need for an insert with grooves to hold roller bearings. The '974 patent specifications describe this embodiment:

Turning now to FIG. 8, another embodiment of the invention utilizes needle bearings as opposed to roller bearings to reduce machining and cost of the apparatus. The shock isolation mounting system 120 in this embodiment utilizes many of the same components which operate in a manner previously described and will not be reiterated for convenience. The system varies in that a bearing means associated with this embodiment comprises needle bearings 122 which are merely slid into guide grooves or channels formed in the piston rod 124 and guide cylinder 126 or alternatively simply in the piston rod 124 alone. *The guide grooves in this or the other embodiments of the invention, do not have to be formed by inserts and may be machined in the rod 124 and guide cylinder 126 themselves* .

Col. 11, line 66-Col. 12, line 13 (emphasis added). Plaintiff Knapp argues that this description of the embodiment reflected in Figure 8 uses the phrase "[t]he guide grooves in this or the other embodiments of the invention, do not have to be formed by inserts." While Knapp is correct in arguing that the ' 974 patent does not require inserts for each embodiment, it is wrong to suggest that "insert" requires no structure when "inserts" are included in claims 19, 20, and 21.

The embodiment reflected in Figures 6 and 8 do not include an insert. Instead, they suggest an alternative to an insert. With this alternative to the use of an insert, the needle bearings substitute for the insert to maintain alignment between the piston assembly and the outer housing member and to alleviate friction. In contrast, the '974 patent depicts inserts as using an inner grooved surface, 97, to form a bearing race surface over which the bearings will roll or slide.

The Court finds that claims 19, 20, and 21 of the '974 patent describe inserts as "a removable bearing surface with grooves or curves."

First guide means

The parties disagree regarding the interpretation of the phrase "first guide means." Plaintiff Knapp suggests an interpretation as "a bearing surface associated with the piston assembly" while Defendant Cannondale asks for an interpretation as "a groove or curved surface for acting as a bearing race surface."

Regarding the interpretation of "first guide means," the parties dispute whether it is an expression in means-plus-function format under 35 U.S.C. s. 112 para. 6 (" s. 112 para. 6"). That provision provides for an alternative method of describing the structure taught with a patent:

An element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.

s. 112 para. 6.

Claim 19 reflects the use of "first guide means":

19. A shock isolation system for a bicycle ... having ... an insert having first guide means formed therein which is positioned within said piston assembly, and a second guide means associated with said outer housing member which coacts with said first guide means....

Claim 19 thus describes the structure associated with the means: an insert with a guide means formed within it and positioned in the piston assembly.

Whether s. 112 para. 6 applies depends upon whether the applicant intended to invoke it. Greenberg v. Ethicon Endo-Surgery, Inc., 91 F.3d 1580, 1584 (Fed.Cir.1996) ("The question then is whether, in the selection of claim language, the patentee must be taken to have exercised that option."). The use of the of the word "means" creates a rebuttable presumption that s. 112 para. 6 applies. Personalized Media Communications, LLC v. International Trade Com'n, 161 F.3d 696, 703 (Fed.Cir.1998). In deciding whether a patentee intended to exercise the option of declaring her invention in means-plus-function format, the more typical expression is to use the phrase "means for." Greenberg, 91 F.3d at 1583.

The means-plus-function analysis does not apply when a patentee has described the structure within the claim. *See* TI Group Automotive Systems (North America), Inc. v. VDO North America, L.L. C., 375 F.3d 1126, 1135 (Fed.Cir.2004); Cole v. Kimberly-Clark Corp., 102 F.3d 524, 530-31 (Fed.Cir.1996) (In order to invoke s. 112 para. 6, "the alleged means-plus-function claim element must not recite a definite structure which performs the described function.... Merely because a named element of a patent claim is followed by the word 'means,' however, does not automatically make that element a 'means-plus-function' element under s. 112 para. 6."). The focus remains on whether the claim as properly construed recites sufficiently definite structure to avoid the ambit of s. 112 para. 6. Personalized Media Communications, LLC v. International Trade Com'n, 161 F.3d 696, 702 (Fed.Cir.1998); Sage Prods. v. Devon Indus., Inc., 126 F.3d 1420, 1427-28 (Fed.Cir.1997) ("[W]here a claim recites a function, but then goes on to elaborate sufficient structure, material, or acts within the claim itself to perform entirely the recited function, the claim is not in means-plus-function format even if the claim uses the term 'means.' ").

Claim 19 of the '974 patent uses the term "first guide means" as follows: "an insert having *first guide means*

formed therein which is positioned within said piston assembly." Col. 28, lines 1-2 (emphasis added). As indicated above, Defendant Cannondale has successfully argued that the insert must be "a removable bearing surface with grooves or curves." Having defined the insert, we know that the first guide means must be a bearing race surface to allow the movement of the insert and maintain the rotational integrity of the piston assembly. We also know that the first guide means must be located within the piston assembly. With these interpretations, and as described below, the Court finds that the structure of "first guide means" is sufficiently described to make the means-plus-function format inapplicable.

In addition, the term "first guide means" is not subject to interpretation under s. 112 para. 6 because the patentee did not recite a corresponding function. Rodime PLC v. Seagate Technology, Inc., 174 F.3d 1294, 1302 (Fed.Cir.1999) ("[A] claim element that uses the word 'means' but recites no function corresponding to the means does not invoke s. 112 para. 6."). In examining whether the patentee sufficiently set out the function, the Court looks to claim, not the specification. R2 Med. Sys., Inc. v. Katecho, Inc., 931 F.Supp. 1397, 1435 (N.D.Ill.1996) ("The function which defines the [means-plus-function] limitation is determined by the terms of the claim, not the specification.").

As described above, claim 19 describes a first guide means formed therein which is positioned within said piston assembly, and a second guide means associated with said outer housing member which coacts with said first guide means. Importantly, the relevant language is "having first guide means formed therein." The language does not include the more typical "means for" phrasing used to set out a means-plus-function format.

Claim 19 gives almost no description of the associated function. Cannondale's reply brief reflects this. While giving extensive discussion to the considerations relevant to whether the means-plus-function applies, Cannondale never describes what function the first guide means serves. In its opening *Markman* brief, Cannondale describes the function as follows: "The function of the 'first guide means' is to act as a bearing race surface for ball bearings, while the only corresponding structure disclosed in the specification for accomplishing such function is a grooved or curved surface in which the ball bearings are situated and maintained."

The Court finds that Cannondale has it directly backwards. The bearing race surface is a description of a structure as is the description of a grooved surface in which the ball bearings are situated. The description of a bearing race surface describes the structure, not the function.

The Federal Circuit has held that structures can be identified by reference to the structures function, when such reference to function can be understood to designate a structure. In Lighting World, Inc. v. Birchwood Lighting, Inc., 382 F.3d 1354 (Fed.Cir.2004), the use of the expression "connector assembly" in a patent claim was not a means-plus-function limitation. Although the expression referred to a function, the term had a reasonably well-understood meaning in the art as a name for structure. In the Federal Circuit's words:

[W]e have not required the claim term to denote a specific structure. Instead, we have held that it is sufficient if the claim term is used in common parlance or by persons of skill in the pertinent art to designate structure, even if the term covers a broad class of structures and even if the term identifies the structures by their function.

Id. at 1359.

The cases cited by Defendant Cannondale are inapposite. For example, Cannondale cites Odetics, Inc. v. Storage Technology Corp ., 185 F.3d 1259 (Fed.Cir.1999), and includes a suggestion that the claim language in *Odetics* was found to utilize the means-plus-function format despite extensive reference to structures.

However, *Odetics* had already been to the Federal Circuit once and the Federal Circuit had already found

that the claim language "a rotary means rotatably mounted within the library adjacent the access opening for providing access to the storage library" did not refer to all the structures cited by Cannondale:

In Odetics II, this court held that the structure corresponding to the "rotary means" element was "the components that receive the force and rotate as a result of that force (i.e., the rod, gear, and rotary loading and loading mechanisms)."

Id. at 1264. *Odetics* does not support Defendant Cannondale's argument that the Federal Circuit found a means-plus-function format despite extensive reference to structures.

Cannondale's citation to Unidynamics Corp. v. Automatic Products Intern., Ltd., 157 F.3d 1311 (Fed.Cir.1998), lends little support. There, the Federal Circuit found the limitation "spring means tending to keep the door closed" was expressed in a means-plus-function format. In contrast to the expression used with the '974 patent, the patent in *Unidynamics* clearly expressed a function: keeping the door closed. The Federal Circuit found that the reference to some structure did not preclude the applicability of s. 112 para. 6 when there was a clear expression of function. *Id*. at 1319.

The term "first guide means" is not expressed in means-plus-function format. First, it does not give a function associated with the element. Second, there is too much description of structure associated with the element. The Court interprets the term "first guide means" as "a bearing race surface positioned within the piston assembly."

Second guide means

The parties dispute the interpretation to be afforded "second guide means." They make the same arguments regarding this interpretation as they give regarding the earlier construed term "first guide means." FN2 For like reasons, the Court finds that second guide means is not declared in a means-plus-function format and is not subject to interpretation under s. 112 para. 6. The Court interprets "second guide means" as "a bearing race surface associated with the outer housing member."

FN2. In its reply brief, Cannondale says: "As stated at the hearing Cannondale believes the arguments with respect to first guide means apply to the second guide means as well." To the same effect, Plaintiff Knapp says "The argument for construction of this term is the same as that for "first guide means."

Lubricant means

The '974 patent uses the term "lubricant means" in claims 31, 32, and 37. Again, the parties dispute the interpretation of this term. The plaintiff offers the construction: "a lubricant placed within the outer housing and thus retained in association with the first and second guide means and the bearing means." The defendant suggests the construction: "a valve with a passage to allow hydraulic fluid to move upward for self lubricating the bearing surface that may further include a grease packed around the bearing means."

Claim 31 of the '974 patent, an independent claim, describes the lubricant means: "lubricant means disposed and retained within said outer housing to provide lubrication to said bearing means within said first and second guides means acting between said piston assembly and said outer housing member...." Claim 32, a dependent claim, describes the lubricant means: "said lubricant means is provided as a lubricant packed around said bearing means and retained in association with said bearing means by said sealing means." Claim 37, another dependent claim, describes the lubricant means: "wherein, said lubricant means is a grease retained at the location of said bearing means by a sealing means...."

Defendant Cannondale argues that "lubricant means" describes a structure stated in means-plus-function

format under s. 112 para. 6. Claim 31 speaks to "lubricant means disposed and retained within said outer housing to provide lubrication." Once again, the claim does not use "means for," the more typical indication that a patentee intends to state his claim in a means-plus-function format. As with Greenberg v. Ethicon Endo-Surgery, Inc., 91 F.3d 1580, 1583 (Fed.Cir.1996), the functional language (here "lubricant means" and "lubrication") both take their names from the functions they perform.

More important, the claim descriptions give fairly complete descriptions of the structures involved. Recall, we are talking about lubricant, a structure inherently having less structure. Nevertheless, the claim language itself describes its placement. For example, claim 31 talks about the lubricant being placed between the inner and outer housing member. Claim 32 provides more description regarding the structure associated with the lubricant: "said lubricant means is provided as a lubricant packed around said bearing means and retained in association with said bearing means by said sealing means." And claim 37 describes even more structure: "said lubricant means is a grease retained at the location of said bearing means by a sealing means." *See* York Prods., Inc. v. Central Tractor Farm & Family Cent., 99 F.3d 1568, 1574 (Fed.Cir.1996) (When the phrase "means" is followed by a detailed recitation of structure, the claim is not stated in means-plus-function format.).

Defendant Cannondale says that "lubricant means" is stated in means-plus-function format under s. 112 para. 6. To support this, Cannondale argues that insufficient structure is described because the "claim fails to identify any structure that may dispense, meter, or distribute the lubrication, which might also fall within the meaning of 'lubricant means.' " [Doc. 52 at 12]. It is unclear why a structure to implement "lubrication means" would need to meter or dispense the lubricant to carry out a purpose of lubrication.

The specifications generally associated with the preferred embodiments of the '974 patent provide little description of the lubricating means. *See* In re Donaldson Co., Inc., 16 F.3d 1189, 1195 (Fed.Cir.1994) ("[I]f one employs means-plus-function language in a claim, one must set forth in the specification an adequate disclosure showing what is meant by the claim language."); B. Braun Med., Inc. v. Abbott Lab., 124 F.3d 1419, 1424, (Fed.Cir.1997) (holding that the "structure disclosed in the specification is 'corresponding' structure only if the specification or prosecution history links or associates that structure to the function recited in the claim"); Atmel Corp. v. Information Storage Devices, Inc., 198 F.3d 1374, 1380 (Fed.Cir.1999); In re Dossel, 115 F.3d 942, 946 (Fed.Cir.1997) ("Failure to describe adequately the necessary structure, material, or acts [corresponding to a means-plus-function limitation] in the written description means that the drafter has failed to comply with s. 112, para. 2.").

Perhaps recognizing that the specifications associated with the principle embodiment of the '974 patent give little additional description of the structure to be utilized, Cannondale requests a construction of "lubrication means" that seems to be found in only one embodiment. *See* Col. 11, lines 3 -11. The Court does not believe that Plaintiff Knapp has claimed this embodiment to be infringed. *See* Ishida Co. v. Alfred A. Taylor, 221 F.3d 1310 (Fed.Cir.2000) (Where a patent contains two or more distinct embodiments, the court should construe the means-plus-function term consistent with the relevant claim even if the interpretation is not accurate for other embodiments.). If, however, the embodiment in a means-plus-function patent has no specifications that specifically describe it, it would be invalid for failure to satisfy the definiteness requirement of s. 112 para. 2. Budde, 250 F.3d at 1376 (citing Dossel, 115 F.3d at 945). The specifications associated with the '974 patent specifically mention lubricant only regarding embodiment that seems involved only with claim 37 in this litigation. *See* Col. 17, lines 60-65.

The Court therefore finds that lubricant means is not subject to interpretation under s. 112 para. 6 and is not therefore limited to narrow embodiments described in the specifications. First, the claim language describes sufficient structure to make s. 112 para. 6 inapplicable. Second, the specifications provide little additional description of the structure to be used for the lubrication. If, as Cannondale argues, the claims do not provide sufficient structure, then the specifications add little and would likely be indefinite. The Court interprets "lubricant means" to be a lubricant placed within the outer housing and thus retained in

association with the first and second guide means and the bearing means.

Sealing means

The parties dispute the interpretation to be given "sealing means." The term "sealing means" appears in only two claims involved with this litigation: claim 32, a dependent claim, and claim 37, another dependent claim. Claim 32 describes the claimed invention as:

32. A shock isolation system as in claim 31, wherein, *sealing means are provided to seal said bearing means,* and said lubricant means is provided as a lubricant packed around said bearing means and retained in association with said bearing means by said sealing means.

(Emphasis added).

Claim 37 also uses the expression "sealing means":

37. A shock isolation system as in claim 31, wherein, said lubricant means is a grease retained at the location of said bearing means *by a sealing means,* and said means to bias said piston assembly is an inert gas charge formed within said outer housing member adjacent said piston assembly, wherein said gas charge will provide a biasing force acting upon said piston assembly.

(Emphasis added).

Regarding this term, Plaintiff proposes the following construction: "a sealing means which can be bellows, o-rings, or the like which retain the lubricant in association with the first and second guide means and the bearing means." For the construction of the phrase "sealing means," Cannondale proposes: "a protrusion extending outwardly and around a ball to provide a scraping action within a guide means for retention of lubricant within the bearing system."

With regard to claims 32 and 37, the Court finds the element "sealing means" is stated in means-plus-function format and should be interpreted under s. 112 para. 6. *See* Cole, 102 F.3d at 531 ("We decide on an element-by-element basis, based upon the patent and its prosecution history, whether s. 112, para. 6 applies."); s. 112 para. 6 (an "element in a claim for a combination may be expressed as a means or step for performing a specified function").

Like other terms described above, the "sealing means" element is not described in the more typical expression use for means-plus-function: "means for." Nevertheless, both claims describe a function. Claim 32 describes a function of "to seal said bearing means, and said lubricant means is provided as a lubricant packed around said bearing means and retained in association with said bearing means by said sealing means." Claim 37 also defines a function: "said lubricant means is a grease retained at the location of said bearing means by a sealing means."

Having found that claims 32 and 37 describe "sealing means" in a means-plus-function format, the Court next turns to interpreting the specifications. Claim 37 of the '974 patent describes "[a] shock isolation system as in claim 31, wherein, said lubricant means is a *grease retained at the location of said bearing means by a sealing means*." (Emphasis added). Claim 37 appears to differentiate itself from independent claim 31, by including this different bearing isolation structure, and sealing means that retains the lubricant near the bearings. "Structure disclosed in the specification is 'corresponding' structure only if the specification or prosecution history clearly links or associates that structure to the function recited in the claim." B. Braun Med., 124 F.3d at 1424; Altiris, Inc. v. Symantec Corp., 318 F .3d 1363 (Fed.Cir., 2003); Micro Chemical, Inc. v. Great Plains Chemical Co., 194 F.3d 1250, 1258 (Fed.Cir.1999) ("the statute [does not] permit incorporation of structure from the written description beyond that necessary to perform the

claimed function.").

Regarding claim 37, Cannondale offers evidence that the specifications described the sealing mechanism as having a structure that included scraping elements: "[T]he sealing means 147 corresponds to the shape of the guide channels in which the roller bearings are to be housed, so as to provide scraping action within the guide channels for retention of lubricant within the bearing system." Col 18, lines 8-12.

Dependent claim 32, and its specifications, suggest a similar structure. Claim 37 requires the lubricating grease be "retained at the location of said bearing means" by the sealing means. In contrast, claim 32 describes the sealing means as retaining the lubricant "in association with said bearing means." Although claim 37 differs from claim 32 in other regards, claim 37 retains the same sealing means as found in claim 32.

The Court finds that claim 32's and 37's use of "sealing means" should be interpreted to be "a protrusion extending outwardly and around a ball bearing to provide a scraping action to retain lubricant within the bearing system."

Dampening means

The parties dispute the interpretation that should be given "dampening means." This element is used with dependent claim 33. Plaintiff Knapp suggest that "dampening means" should be interpreted as "a dampening means which controls movement of the piston assembly relative to the outer housing on compression and/or rebound strokes." Defendant Cannondale agues that "dampening means" should be interpreted as:

a system for variably minimizing the oscillation between the outer housing member and the piston having one of the following four structures I) a disk and a head attached to the shaft having ports located therein to allow a fluid to pass through the disk and the head, the cross-sectional areas of the ports being selectable by rotation of the disk relative to the head; or 2) a split sleeve bearing that is adjustable to selectively increase or decrease friction between a piston and the sleeve bearing; or 3) a split piston that is adjustable to selectively increase or decrease friction between a piston halves and a come shaped internal wedge; or 4) combinations of 1), 2) and 3).

Dependent claim 33 describes "dampening means" as follows:

33. A shock isolation system as in claim 31, further comprising, *dampening means* acting on said piston assembly, wherein, said piston assembly is tubular in configuration, and a sub-piston is disposed within said piston assembly having at least one port extending there through and including a bias pressure disk and a biasing means acting on said bias pressure disk which acts to selectively restrict said at least one port, wherein a hydraulic fluid is disposed within said piston assembly and flow of said hydraulic fluid through said at least one port is selectively restricted by said bias pressure disk in association with said biasing means to control movement, distance, and the speed of compression in rebound strokes of said piston assembly.

Col. 30, lines 13-28 (emphasis added).

Knapp and Cannondale dispute whether claim 33 describes the element "dampening means" in a means-plus-function format. Knapp correctly relates that the whole '974 patent is a "dampening means." Knapp questions whether claim 33 describes a function against which means provided by the specifications can be measured. Equally important, the Court need consider whether claim 33 provides a description of the taught structure that takes "dampening means" outside the means-plus-function format.

As described above, "even if the claim element specifies a function, if it also recites sufficient structure or

material for performing that function, s. 112, para. 6 does not apply." Rodime, 174 F.3d at 1302; *see* Cole, 102 F.3d at 531 ("To invoke [s. 112 para. 6], the alleged means-plus-function claim element must not recite a definite structure which performs the described function."). "A claim term recites sufficient structure if 'the term, as the name for structure, has a reasonably well understood meaning in the art.' " Allen Eng'g Corp. v. Bartell Indus., 299 F.3d 1336, 1347 (Fed.Cir., 2002) (quoting Rodime, 174 F.3d at 1302).

The Court finds that claim 33 recites sufficient structure that it should not be interpreted as stating a claim in means-plus-function format. The claim describes a tubular piston assembly, an assembly that is differently configured than other configurations. The claim also describes a structure to effectuate the dampening function through a sub-piston disposed within the piston assembly that selectively restricts the flow of hydraulic to dampen rebound movement, distance, and speed.

Finding that "dampening means" is a generalized description of the structure described in claim 33, the Court interprets "dampening means" to be a sub-piston disposed within a piston assembly which uses a bias pressure disk to selectively restrict the movement of hydraulic fluid through at least one port to control movement, distance, and the speed of compression in rebound strokes of said piston assembly.

Sub-piston

Regarding this term, Plaintiff Knapp seeks a construction of "sub-piston" as "a piston associated with the piston assembly which biases the piston assembly relative to the outer housing." Defendant Cannondale asks for a construction finding that "sub-piston" is "a piston head located inside a movable tube, the piston head displaceable relative to the tube and extending beyond an outer housing for rebound damping."

The term sub-piston appears in dependent claims 33 and 34. Those claims provide:

33. A shock isolation system as in claim 31, further comprising, dampening means acting on said piston assembly, wherein, said piston assembly is tubular in configuration, and a sub-piston is disposed within said piston assembly having at least one port extending there through and including a bias pressure disk and a biasing means acting on said bias pressure disk which acts to selectively restrict said at least one port, wherein a hydraulic fluid is disposed within said piston assembly and flow of said hydraulic fluid through said at least one port is selectively restricted by said bias pressure disk in association with said biasing means to control movement, distance, and the speed of compression in rebound strokes of said piston assembly.

34. A shock isolation system as in claim 33, wherein said sub-piston is coupled to a connector tube which is in turn coupled to an external adjustment means which will allow said connector tube to be rotated relative to sub-piston, said connector tube acting on said biasing means associated with said bias pressure disk to selectively restrict flow of said hydraulic fluid through said at least one port.

Reference to sub-piston within the specifications is limited. *See* Col. 20, lines 5 -21. The references describe the sub-piston element:

Disposed within piston body 132 is a hydraulic fluid such as oil which is adapted to actuate the variable rate dampening system so as to control movement, distance and the speed of compression and rebound strokes of piston body 132. Flow of hydraulic fluid within the hollow tubular piston body 132 is selectively restricted by means of hydraulic ports 224 which are provided as *orifices formed through a sub-piston* 226 disposed within piston body 132. The sub-piston 226 is coupled with linkage or connector tube 228 which is coupled to the second adjustment member 184 such that connector tube 228 will be rotated therewith. The sub-piston 226 is coupled to the connector tube 228 by means of a connector fastener 232. Disposed between the *sub-piston* 226 and connector fastener 232 is a bias pressure disk 234 and a belleville spring 236 or similar biasing means. With this construction, variation in the dampening characteristics is achieved

by increasing or decreasing the resistance or pressure through the ports 224 relative to the effective hydraulic force acting on the bias pressure disk 234.

Col. 20, lines 5-20 (emphasis added).

Defendant suggests a construction of "sub-piston" as "a piston head located inside a movable tube, the piston head displaceable relative to the tube and extending beyond an outer housing for rebound damping." Defendant's proposed construction is not persuasive.

The '974 patent specifications describe the sub-piston as "disposed within piston body 132." Attached to the connector tube 228 by a connector fastener 232, the sub-piston's dampening characteristics are affected by tightening or loosening an adjacent bias pressure disk 234 and a belleville spring 236 through the connector fastener 232. "With this construction, variation in the dampening characteristics is achieved by increasing or decreasing the resistance or pressure through the ports 224 relative to the effective hydraulic force acting on the bias pressure disk 234."

Defendant Cannondale seeks an interpretation of the sub-piston as "a piston head." "Piston head" is used numerous times in the '974 patent specifications to describe a structure different than the structure associated with sub-pistons. The sub-piston, moreover, is only one part of the assemblage of structures positioned at the head of the connector tube.

Cannondale also asks that the sub-piston be described as "extending beyond an outer housing for rebound damping." Claim 31 speaks to "at least a part of said piston assembly extending outwardly from said outer housing member." Col. 29, lines 48-56. Claim 31 describes a part of the piston assembly extending beyond the outer housing member. It does not say the sub-piston, admittedly a part of the piston assembly, need extend beyond the outer housing.

The Court therefore finds that "sub-piston" should be interpreted as "a part of the piston assembly located inside the outer housing member and including hydraulic ports which bias the piston assembly relative to the outer housing."

Bias pressure disk

The parties make similar suggestions relative to the interpretation of the term "bias pressure disk." The plaintiff suggests the following interpretation: "a disk which changes shape to regulate the flow of hydraulic fluid and thus control the movement of the piston and piston assembly relative to the outer housing on compression and /or rebound." Defendant Cannondale offers the following interpretation of "bias pressure disk": "a disk positioned between a movable head and a fastener, the disk overlaying a hydraulic port to provide variable rebound damping by selective rotation of the connector tube fastener."

The "bias pressure disk" operates "by increasing or decreasing the resistance or pressure through the ports 224 relative to the effective hydraulic force acting on the bias pressure disk 234." Col 20, lines 19-23. It is positioned between the sub-piston and the belleville spring and below the connector fastener.

The parties offer similar descriptions. The Court finds "bias pressure disk" should be interpreted to be "a disk positioned over a sub-piston or other structure having at least one hydraulic port to provide variable rebound damping by selective rotation of the connector tube fastener."

Biasing means acting on said bias pressure disk

This term appears in claim 33. Regarding this term, Plaintiff Knapp proposes: "an optional means to control the pressure on the bias pressure disk." Defendant Cannondale proposes: "a disk positioned between a

movable head and a fastener, the disk overlaying a hydraulic port to provide variable rebound damping by selective rotation of the connector tube fastener."

In part, claim 33 describes this element: "A shock isolation system as in claim 31 ... and a sub-piston is disposed within said piston assembly having at least one port extending therethrough and including a bias pressure disk *and a biasing means acting on said bias pressure disk which acts to selectively restrict said at least one port,* wherein a hydraulic fluid is disposed within said piston assembly and flow of said hydraulic fluid through said at least one port is selectively restricted by said bias pressure disk in association with said biasing means to control movement, distance, and the speed of compression in rebound strokes of said piston assembly." (Emphasis added).

Defendant Cannondale argues that this element is written in means-plus-function format. The Court agrees. Claim 33 describes "a biasing means acting on said bias pressure disk which acts to selectively restrict said at least one port." The use of the word "means" in describing a limitation causes a presumption that the inventor used the term to invoke the statutory mandates for means-plus-function clauses. Altiris, 318 F.3d at 1375; Sage Prods., 126 F.3d at 1427. Absent a showing that the inventor failed to describe a function or recited structure sufficient to perform the claimed function in its entirety, the means-plus-function format applies.

Having concluded the claim limitation is a means-plus-function limitation, the Court identifies the function of the limitation. Micro Chem., 194 F.3d at 1258. After having identified the function, the Court determines the corresponding structure within the written description that is necessary to perform the function.

Claim 33 identifies the function of the biasing means acting on the bias pressure disk: to selectively restrict the flow of said hydraulic fluid through said at least one port to control movement, distance, and the speed of compression in rebound strokes of said piston assembly. The '974 patent specifications provide a description of the structure used to accomplish this purpose:

Disposed between the sub-piston 226 and connector fastener 232 is a bias pressure disk 234 and a belleville spring 236 or similar biasing means. With this construction, variation in the dampening characteristics is achieved by increasing or decreasing the resistance or pressure through the ports 224 relative to the effective hydraulic force acting on the bias pressure disk 234. For example, on a rebound stroke, the ports 224 may be selectively restricted by rotation of the connector tube fastener 232 on its threads in conjunction with connector tube 228. Upon rotation of the connector tube fastener 232, the belleville washer 236 will be compressed or relaxed so as to lessen or broaden the force applied over the bias pressure disk 234. In this way, increased or decreased pressure will be needed to overcome the biasing force on pressure disk 234, which will in turn control the speed of the piston body 132 relative to the outer housing 134 on rebound stroke. It should be understood that the size and temper of the bias pressure disk 234 and spring means 236 are directly related to the resistance applied for dampening, and variations in dampening characteristics may be achieved in selection of these components.

Col. 20, lines 15-37.

In an amended requested claim construction, Defendant Cannondale seeks an interpretation of the term "bias pressure disk" as "a disk positioned between a movable head and a fastener, the disk overlaying a hydraulic port to provide variable rebound damping by selective rotation of the connector tube fastener." Plaintiff Knapp seeks a broader interpretation: "an optional means to control the pressure on the bias pressure disk."

Contrary to Knapp's position, the Court finds that this element is not optional to claim 33. The '974 patent specifications say: "With this construction, variation in the dampening characteristics *is achieved* by increasing or decreasing the resistance or pressure through the ports 224 relative to the effective hydraulic

force acting on the bias pressure disk...." The specifications do not say that dampening by use of the interaction of the bias pressure disk and the bias means *may* occur.

However, Cannondale incorrectly suggests that the interpretation of this claim need include the requirement that the variable rebound damping need be accomplished only through "selective rotation of the connector tube fastener." In part, the '974 patent specification says:

With this construction, variation in the dampening characteristics is achieved by increasing or decreasing the resistance or pressure through the ports 224 relative to the effective hydraulic force acting on the bias pressure disk 234. *For example,* on a rebound stroke, the ports 224 *may* be selectively restricted by rotation of the connector tube fastener 232 on its threads in conjunction with connector tube 228.

Col. 20, lines 17-25 (emphasis added).

As the specifications indicate, rotation of the connector tube fastener *may* be used to tighten, or loosen, the pressure disk. But this is not the only mechanism for accomplishing the bias. *See* B. Braun Med., 124 F.3d at 1424 ("[S]tructure disclosed in the specification is 'corresponding' structure only if the specification or prosecution history clearly links or associates that structure to the function recited in the claim."); Serrano v.. Telular Corp., 111 F.3d 1578, 1582 (Fed.Cir.1997) ("Disclosed structure includes that which is described in a patent specification, including any alternative structures identified."); Data General Corp. v. International Business Machines Corp., 93 F.Supp.2d 89, 94 (D.Mass.2000) ("[W]here the specification elaborates on the details of the preferred embodiment, more particularly defining the structure in ways unrelated to the recited function ... [those] additional structural aspects are not what the statute contemplates as structure corresponding to the recited function.") (internal quotation marks omitted).

The Court therefore interprets "biasing means acting on said bias pressure disk" to be a belleville spring or similar biasing structure as to a disk overlaying a hydraulic port to provide variable rebound damping.

Offset port

Regarding this term, the plaintiff proposes this interpretation: "an aperture in the sub-piston or connector tube which controls the flow between the upper and lower chamber of he dampening means." Defendant Cannondale asks for an interpretation as follows: "an aperture formed in the side of a tube extending through a piston body for allowing hydraulic fluid to flow therethrough." The term appears in claim 35 of the '974 patent, a dependent claim.FN3 The specifications discussing this term are sparse. The specifications dealing with this element describe:

FN3. Claim 35 of the '974 patent, claims:
Claim 35. A shock isolation system as in claim 33, wherein, said connector tube has disposed therein an adjuster rod extending therethrough to a position adjacent at least one offset port formed in said connector tube, wherein said adjuster rod is coupled to an external control means to enable repositioning of said adjuster rod within said connector tube to selectively open, partially close or completely close said at least one offset port, wherein upon the occurrence of a compression stroke of said piston assembly relative to said outer housing member, said hydraulic fluid will be made to selectively flow through said connector tube and said at least one offset port to control movement, distance, and the speed of a compression stroke of said piston assembly.

As seen more clearly in FIG. 22, the connector tube 228 has disposed therein an adjuster rod 231 extending through channel 230 to a position *adjacent offset ports 229 formed in the connector tube* 228.
Col. 20, lines 48-52 (emphasis added).

Regarding this term, Plaintiff argues: "Plaintiff still disputes the use of the words, 'formed in the side.' " Contrary to Plaintiff Knapp's argument, the specifications suggest that claim 35 included offset ports "formed in" the connector tube or side. Resolving this dispute in Defendant Cannondale's favor, the Court finds "offset ports" should be interpreted as "an aperture in the sub-piston or connector tube which controls the flow of fluid between the upper and lower chamber."

IV. Conclusion

The Court orders the disputed terms of the '974 patent be construed as described above.

IT IS SO ORDERED.

N.D.Ohio,2005.
Knapp Engineering, Inc. v. Cannondale Bicycle Corp.