United States District Court,
E.D. Michigan, Southern Division.

MACHINE SYSTEMS LIMITED, INC,
Plaintiff.
v.
IGUS, INC,
Defendant.

Sept. 3, 2003.

Raymond M. Galasso, Simon, Galasso, Troy, MI, Christopher S. Walton, Simon, Galasso, Austin, TX, for Plaintiff.

Maurice U. Cahn, Cahn & Samuels, Washington, DC, Patrick M. McCarthy, Howard & Howard, Ann Arbor, MI, for Defendant.

ORDER OF CLAIM CONSTRUCTION

NANCY G. EDMUNDS**, District Judge.**

This matter came before the Court on a patent claim construction hearing. Plaintiff, Machine Systems Limited, Inc., filed a patent infringement suit alleging that Defendant, Igus, Inc., is infringing Plaintiff's patent for a "linear guide," patent number 5,735,610 ("the '610 patent"). The Court construes the patent claims as described below.

I. Background

The '610 patent is a "linear guide." One use of linear guides is in assembly line-type operations to move parts down the line, from one work station to the next. Very basically, the invention consists of a guide rail, a "slide box" which fits on top of the rail, bearings, which allow the slide box to slide along the guide rail, and end caps, which fit onto the sides of the slide box and trap the bearings in the box during the linear guide's use. The slide box is equipped with cylindrical cutouts on its top, called borings, so that an object (such as an unfinished product or a tray to carry products) can be fastened to the slide box with bolts or screws. A channel travels through the slide box's bottom. The channel's shape corresponds to the shape of the guide rail, allowing the slide box to fit onto the guide rail and travel longitudinally but not vertically or laterally. The bearings, regardless of shape, are mounted to the slide box by "mounting means." The patent includes descriptions of four embodiments of the invention, the primary difference among them being the shape and design of the bearings. The preferred embodiment includes six thin cylinders that fit into grooves in the slide box. The grooves are placed along the edges of the cut-out channel, so that the bearings are held by the slide box and form the contact point between the slide box and the guide rail. The second embodiment includes a bearing that is one single piece-a thin insert with a shape closely conforming to the shape of the channel. The third embodiment is similar to the preferred embodiment, except the six bearings

are trapezoids instead of cylinders. The fourth embodiment is also similar to the preferred, except the cylinders have two flat surfaces opposite each other. The patent also provides for other alternative embodiments that have different shaped bearings. The patent's listed objectives are summarized as follows:

(1) to provide a linear guide with a replaceable bearing element (prior art included bearings that were not replaceable independent of the slide box, so that when the bearing element needed replacement, the slide box also needed to be replaced);

(2) to provide a linear guide which eliminates roller elements as the bearing mechanism, (prior art had used roller elements);

(3) to provide a linear guide in which a series of replaceable parts from the bearing interface between the slide box and guide rail.

Inventors Damon Mark, Chris Seltz, and Gene Sloan ("Applicants") obtained the '610 patent on April 7, 1998, and assigned the patent to Plaintiff. On April 29, 2002, Plaintiff filed a Complaint against Defendant accusing Defendant of infringing the patent and asserting claims 1 and 19. Currently before the Court is the matter of construing disputed terms of claims 1 and 19.

II. General Principals of Claim Construction

The Supreme Court has clarified that "[t]he construction of a patent, including terms of art within its claims is exclusively within the province of the court." Markman v. Westview Instruments, Inc., 517 U.S. 370, 372 (1996). When construing disputed claim language, the court must first consider three sources of intrinsic evidence: the patent's claims, the specification, and, if in evidence, the prosecution history. Vitronics Corp. v. Conceptronic, Inc., 90 F.3d 1576, 1582 (Fed.Cir.1996).

First, the court considers the language in the challenged claim. The words "are generally given their ordinary and customary meaning," however, "a patentee may choose to be his own lexicographer and use terms in a manner other than their ordinary meaning, as long as the special definition of the term is clearly stated in the patent specification or file history." Vitronics Corp., 90 F.3d at 1582. The court may also look to other claims in the patent for guidance, but is not permitted to read narrow claim limitations into broad claims. SRI Int'l v. Matsushita Elec. Corp. of Am., 775 F.2d 1107, 1122 (Fed.Cir.1985) (en banc).

Next, the court examines the patent's specification. This contains a written description of the invention which must be clear and complete enough to enable those of ordinary skill in the art to make and use it. The specification is always highly relevant to the claim construction analysis, and "[c]laims must be read in view of the specification, of which they are a part." *Id*. Usually, the patent's specification is the single best guide to the meaning of a disputed term. Vitronics, 90 F.3d at 1582. The Federal Circuit has observed that although the examples set forth in the specification do not necessarily limit the scope of a claim, Transmatic, Inc. v. Gulton Indus., Inc., 53 F.3d 1270, 1277 (Fed .Cir.1995), a claim construction that excludes the preferred embodiment set out in the specification is not likely to be correct, Hoechst Celanese Corp. v. BP Chemicals Ltd., 78 F.3d 1575, 1581 (Fed.Cir.1996).

Finally, the court considers the patent's prosecution history, if it is placed in evidence, and looks for representations by the patentee as to the meaning of words used in the patent claim. *Markman,* 52 F.3d at 980. "The prosecution history limits the interpretation of claim terms so as to exclude any interpretation that

was disclaimed during prosecution." Southwall Technologies, Inc. v. Cardinal IG Co., 54 F.3d 1570, 1576 (Fed.Cir.1995) (citations omitted). The court may also consider the prior art cited in the history for clues as to what the disputed claim does not cover. Vitronics, 90 F.3d at 1583 (citations omitted). The prosecution history, however, cannot be used to "enlarge, diminish, or vary the limitations in the claim." *Markman,* 52 F.3d at 980 (internal quotes and citations omitted).

If the meaning of a claim is clear after considering these three sources of intrinsic evidence, the court does not consider any extrinsic evidence. Vitronics, 90 F.3d at 1583. The patent's claims, specification and prosecution history are given priority because they "constitute the public record of the patentee's claim, a record on which the public is entitled to rely." *Id*. As the *Vitronics* court explained:

In most situations, an analysis of the intrinsic evidence alone will resolve any ambiguity in a disputed claim term. In such circumstances, it is improper to rely on extrinsic evidence. In those cases where the public record unambiguously describes the scope of the patented invention, reliance on any extrinsic evidence is improper. The claims, specification, and file history, rather than extrinsic evidence, constitute the public record of the patentee's claim, a record on which the public is entitled to rely. In other words, competitors are entitled to review the public record, apply the established rules of claim construction, ascertain the scope of the patentee's claimed invention and, thus, design around the claimed invention. Allowing the public record to be altered or changed by extrinsic evidence introduced at trial, such as expert testimony, would make this right meaningless. The same holds true whether it is the patentee or the alleged infringer who seeks to alter the scope of the claims.

Id. (internal citations and quotes omitted).

Nonetheless, the court may consider extrinsic evidence if it determines this evidence would assist it in ascertaining the meaning and scope of a disputed claim. *Id*. Here, the Court finds it unnecessary to consult extrinsic evidence to accomplish its task of claim construction. Consideration of the ' 610 patent's claims, specification and the portion of its prosecution history in evidence suffices to allow the Court to properly construe the disputed claim language.

III. Analysis

The parties dispute various terms in claims 1 and 19 of the '610 patent.

A. Claim 1

Claim 1 reads as follows:

1. A linear guide assembly comprising:

a slide body having a top, a bottom, opposing sides and opposing ends, portions of said body defining a channel extending longitudinally through said body and between said ends;

a guide rail having opposing ends and a cross-sectional shape corresponding to a cross-sectional shape of said channel to permit said rail to be received in said channel;

said body being on said rail and said body longitudinally moveable along said rail while being restricted from laterally and vertically moving relative to said rail;

non-rolling bearing means for facilitating longitudinal movement of said body along said rail, said bearing means mounted to said body; and

mounting means located within said channel for removably mounting said bearing means to said body, said mounting means cooperating with said bearing means for vertically and laterally retaining said bearing means relative to said body and permitting removal and replacement of said bearing means independent of replacement of said body.

1. "a channel ..."

In the first substantive paragraph, Plaintiff contends that "channel" should be construed to include any shape channel that extends longitudinally through the slide body between its opposing ends. Defendant argues that the claim only includes a channel through the slide body that is a "necked down" configuration formed by "opposed protrusions." Defendant urges the Court to look to the description of the preferred embodiment, which states, in part:

To achieve this conformity, the channel is slightly greater than but conforms to the cross-sectional shape of the guide rail. To achieve this conformity, the channel is also defined with a pair of generally opposed protrusions therefore define a necked-down entrance area into the channel and this cooperated with the channel to inhibit vertical and lateral movement of the body relative to the rail. Proceeding into the channel, beyond the protrusions and the necked-down entrance, the channel increases in width. This also corresponds to the rail.

Col. 4, II. 7-16.

Defendant's proposed limitation as to the shape of the channel should not be read into the claim because the claim language is clear and unambiguous on its face and is not contradicted by the specification or prosecution history. Claim construction begins with the claim language. Bell Communications Research, Inc. v. Vitalink Communications Corp., 55 F.3d 615, 620 (Fed.Cir.1995). The general rule is that terms in the claim are to be given their ordinary and accustomed meaning. Johnson Worldwide Associates, Inc. v. Zebco Corp., 175 F.3d 985, 989 (Fed.Cir.1999). The ordinary meaning is that which would be understood by one of skill in the art. Multiform Desiccants, Inc. v. Medzam, Ltd., 133 F.3d 1473, 1477 (Fed.Cir.1998). The plain and ordinary meaning of claim language controls unless that meaning ... is overcome by a special definition that appears in the intrinsic record with reasonable clarity and precision. Northern Telecom Ltd. v. Samsung Electronics Co., 215 F.3d 1281, 1295 (Fed.Cir.2000). "If the clam language is clear on its face, then our consideration of the rest of the intrinsic evidence is restricted to determining if a deviation from the clear language of the claims is specified." Interactive Gift Express v. Compuserve, 231 F.3d 859 (Fed.Cir.2000).

Moreover, "limitations from the specification may not be read into the claims." Bell Atlantic Network Serv. Inc. v. Covad Communications Group, Inc., 262 F.3d 1258, 1270 (Fed.Cir.2001). Although the written description may aid in the proper construction of a claim term, limitations, examples, or embodiments appearing only there may not be read into the claim. Kraft Foods Inc. v. Int'l Trading Co., 203 F.3d 1362, 1366 (Fed.Cir.2000). If the structural claims were to be limited to devices operated precisely as a specification-described embodiment is operated, there would be no need for the claims. SRI Int'l v. Matsushita Elec. Corp. of America, 775 F.2d 1107, 1121 (Fed.Cir.1985) (en banc).

The description of the preferred embodiment does not contradict the claim; rather, it merely provides a narrower description of the channel than claimed in claim 1. Pursuant to the principals explained above, and because the claim does not limit the shape of the channel, the Court will not read Defendant's limitation into the claim.

2. "a guide rail ..."

As to the second paragraph of Claim 1, Defendant argues that the guide rail must have a cross-sectional shape with inclusions configured to inhibit vertical and lateral movement of the guide body, while Plaintiff contends that the guide rail can have any cross-section shape that corresponds to the shape of the channel. Again, Defendant urges the Court to consider the description of the embodiments and limit the claim accordingly. Since the language in the claim is clear and unambiguous and does not limit the shape of the guide rail, the analysis applied immediately above applies equally well here, and Defendant's proposed construction is rejected.

3. "said body being on said rail and said body longitudinally movable along said rail while being restricted from laterally and vertically moving relative to said rail"

Defendant's proposed construction of this language limits the design of the cross-sectional shape of the slide box's channel so that it is slightly greater than but conforms to the cross-sectional shape of the guide rail, which cooperate to inhibit vertical and lateral movement of the body relative to the rail. Plaintiff contends that the claim includes exactly what it says, that is any design whereby the slide body is longitudinally moveable along the rail while being restricted laterally and vertically. Defendant argues that the meaning of the claim should be limited by the specification, but for the same reasons Defendant's constructions above are rejected, the Court also rejects this construction and adopts Plaintiffs.

4. "mounted"

The parties dispute the construction of the word "mounted" in the fourth paragraph. Defendant argues that "mounted" requires the bearing to be physically attached to or retained by the guide body even when the guide body is not on the guide rail. The fifth paragraph of claim 1, however, is devoted to defining "mounting means" for mounting the bearings, and the term "mounted" in the fourth paragraph should be construed in accordance with the immediately subsequent paragraph. "[T]he most important indicator of the meaning of [a claim term] is its usage and context within the claim itself." Middleton, Inc. v. Minn. Mining and Mfg. Co., 311 F.3d 1384, 1387 (Fed.Cir.2002). Terms in a claim are to be given their ordinary and accustomed meaning, within the context of the claim. *See* Johnson Worldwide Assoc. v. Zebco Corp., 175 F.3d 985, 989-90 (Fed.Cir.1999). While the terms "mounted" and "mounted means" are not the same, when read in context, they both refer to how the bearings are mounted to the slide body, and they should have the same meaning in both paragraphs.

5. "mounting means"

The parties dispute the construction of the term "mounting means" in paragraph five. The term "means" raises a presumption that the claim is in means-plus-function form. Cortland Line Co. v. Orvis Co., 203 F.3d 1351, 1357 (Fed.Cir.2000). Therefore, the Court looks to 35 U.S.C. s. 112, Para. 6 of the Patent Act for explicit guidance in interpretation. *See* Valmont Industries, Inc. v. Reinke Mfg. Co., Inc., 983 F.2d 1039, 1041 (Fed.Cir.1993).

Section 112, Para. 6 provides that:

[a]n 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.

Congress, in response to a Supreme Court decision, "decided to permit broad means-plus-function language, but provided a standard to make the broad claim language more definite." *Valmont Industries,* 982 F.2d at 1042. The statute operates to "narrow [ ] the application of broad literal claim elements." Warner-Jenkinson Co., Inc., 520 U.S. 17, 28 (1997).

"Section 112 thus permits means-plus-function language in a combination claim, but with a 'string attached.' The 'attached string' limits the applicant to the structure, material, or acts in the specification and their equivalents." *Valmont,* 982 F.2d at 1042. As the *Valmont* court observed, section 112 "operates more like the reverse doctrine of equivalents than the doctrine of equivalents because it restricts the coverage of literal claim language." *Id*. (citing Johnston v. IVAC Corp., 885 F.2d 1574, 1580 (Fed.Cir.1989)).

To construe a claim in means-plus-function form, the Court must engage a two-step process. *See* Budde v. Harley-Davidson, Inc., 250 F.3d 1369, 1376 (Fed.Cir.2001). First, the Court must identify the function recited in the claim. *See* Epcon Gas Sys., Inc. v. Bauer Compressors, Inc., 279 F.3d 1022, 1032 (Fed.Cir.2002). Second, the Court must determine what structures the specification discloses for performing that function. *Id*.

Here, based on the clear and unambiguous language in the claim, the Court should construe the claimed function as: mounting the bearings to the slide body in such a way that the bearings are vertically and laterally retained to the slide body while permitting the bearings to be removed and replaced.

Claims expressed in means-plus-function form only include the structures described in the patent's specification that perform the claimed function and that structures equivalents. Ishida Co. v. Taylor, 221 F.3d 1310, 1316 (Fed.Cir.2000). Whether or not something is an equivalent is a question of fact for the jury. Odetics Inc. v. Storage Tech. Corp., 185 F.3d 1259, 1268-69 (Fed.Cir.1999).

Identifying the corresponding structures which perform the function is not a simple task. The specification must clearly link the corresponding structure with the claimed function. *See* Budde v. Harley-Davidson, Inc., 250 F.3d 1369, 1377 (Fed.Cir.2001) ("As a quid pro quo for the convenience of employing s. 112, paragraph 6, Budde has a duty to clearly link or associate structure to the claimed function."). The issue of whether a structure that is merely capable of performing the defined function is "clearly linked" as a corresponding structure is murky. In *Budde,* the court stated: "The specification must be read as a whole to determine the structure capable of performing the claimed function." Budde, 250 F.3d at 1379. Conversely, in Medtronic, Inc. v. Advanced Cardiovascular Sys., Inc., 248 F.3d 1303 (Fed.Cir.2001), the court held that whether a structure is capable of performing a recited function and whether there is a link or association between the function and structure "are different inquiries with different consequences." *See also* 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."); B. Braun Medical, Inc. v. Abbot Labs, 124 F.3d 1419, 1424 (Fed.Cir.1997) (stating that

structural features that do not actually perform the recited function do not constitute corresponding structure and thus do not serve as claim limitations); Asyst Technologies, Inc. v. Empak, Inc., 268 F.3d 1364, 1370 (Fed.Cir.2001) ("[t]he corresponding structure to a function set forth in a means-plus-function limitation must actually perform the recited function, not merely enable the pertinent structure to operate as intended ...").

The '610 patent's specification identifies corresponding structures that perform the claimed function in the following three instances:

(1) To mount the bearing inserts in the channel of the slide body, cylindrical grooves are further formed so that their cross-sectional shape defines an incomplete circle in the slide body. As the term is used herein, an incomplete circle is meant to define a portion of a circle being greater than a semi-circle but less than a complete circle. Formed in this manner, the cylindrical grooves allow for the bearing inserts to longitudinally press-fit or inserted into the grooves with a portion of the inserts extending beyond those surfaces of the body which actually define the channel." (Col.4, II.33-43);

(2) As with the prior embodiment, the bearing insert is inserted longitudinally in to the channel. Since the bearing insert also conforms to the protrusions of the slide body, the bearing insert can only be longitudinally inserted and removed from the channel." (Col.5.II.32-37);

(3) These bearing inserts, however, are generally trapezoidal in cross-sectional shape and are longitudinally press-fit or inserted into trapezoidal grooves defined in the channel. The grooves are formed such that the base of the trapezoid is defined in the interior of the body away from the channel, preventing removal of the bearing inserts other than by longitudinal withdrawal from the grooves. (Col.5, II.40-47).

Therefore, the corresponding structures are grooves or apertures of various cross-sectional shapes that restrict insertion or removal of the bearings to longitudinal movement, and their equivalents. Accordingly, Defendant's contention that "mounting means" should be limited to "longitudinal" insertion and removal of the bearing elements is correct.

B. Claim 19

Claim 19 reads as follows:

19. A linear guide assembly comprising:

a slide body having a top, a bottom, opposing sides and opposing ends, portions of said body defining a channel extending longitudinally through said body between said ends;

a guide rail having a cross-sectional shape corresponding to a cross-sectional shape of said channel, said rail being received within said channel and said body being restricted to longitudinal movement along said rail;

sliding bearing means for facilitating longitudinal sliding movement of said body, said bearing means being removably and insert mounted to said body, said bearing means includes a plurality of elongated members having a cross-section with flats formed thereon and engaging said rail; and

retainer means for retaining said bearing means to said body, said retainer means permitting longitudinal

removal and replacement of said bearing means independent of replacement of said body.

1. "channel" and "guide rail"

Just as in claim 1, the parties dispute whether the slide body's channel and the guide rail can have any cross-sectional shape or whether the channel and guide rail are limited to certain shapes. The language in the two claims is identical in this regard, the Court's analysis applied to those terms in claim 1 applies equally here, and therefore the Court rejects Defendant's proposed limitations.

2. "removably and insert mounted"

The parties dispute the meaning of two phrases in the third paragraph. First, they contest the meaning of the phrase "removably and insert mounted." Defendant argues that "removably and insert mounted" should be construed to require that the bearing means be inserted into apertures or grooves defined the slide body such that the bearing means cannot move vertically or laterally (only longitudinal movement is permitted) even when the slide body is not on the rail. Plaintiff contends that "removably and insert mounted" should be construed to include any removably and insert mounting scheme and should not be limited so as to require that the bearing means be inserted into apertures or grooves defined in the slide body; be frictionally retained to the slide body; or be restricted to longitudinal movement along the slide body.

The Court must make a preliminary determination as to whether the phrase "removably and insert mounted" is sufficiently definite for a person skilled in the arts to determine a structure to perform the function described. If the Court determines that the words "removably and insert mounted" is not sufficiently definite for a person skilled in the arts to determine a structure to perform the function described, the Court may employ a means-plus-function analysis and construe it in accordance with 35 U.S.C. s. 112, paragraph six. "Use of the terms 'means' in a claim limitation creates a presumption that section 112, paragraph 6 has been invoked, but that presumption may be rebutted if the properly construed claim limitation itself recites sufficiently definite structure to perform the claimed function. Conversely, absence of the word 'means' creates a presumption that section 112, paragraph 6 has not been invoked, and that presumption may likewise be rebutted if the claim limitation is determined not to recite sufficiently definite structure to perform the claimed function." Kemco Sales v. Controls Papers Co., 208 F.3d 1352, 1360 (Fed.Cir.2000). "In deciding whether the presumption has been rebutted, the focus remains on whether the claim as properly construed connoted 'sufficiently defined structure' in the minds of those skilled in the art. If the claim does connote sufficiently definite structure, s. 12, s. 6 does not apply." Harmonic Design, Inc. v. Hunter Douglas, Inc., 88 F.Supp.2d 1102, 1104 (C.D.Cal.2000) (internal citations omitted).

In this case, "removably and insert mounted" is insufficient to connote a sufficiently definite structure in the minds of those skilled in the art. Accordingly, the Court applies s. 112, Para. 6, and construes "removably and insert mounted" in claim 19 to cover the corresponding structure, material, or acts described in the patent specification and the equivalents thereof. *King Instruments,* 65 F.3d at 945. In the specification, the preferred embodiment states: "Formed in this manner, the cylindrical grooves allow for the bearing inserts to be longitudinally press-fit or inserted into the grooves with a portion of the inserts extending beyond those surfaces of the body which actually define the channel." Col. 4, lines 38-42. In the second embodiment, the patent states: "As with the prior embodiment, the bearing insert is inserted longitudinally into the channel." Col. 5, lines 31-33. The third embodiment provides that the bearing inserts are "longitudinally press-fit or inserted into trapezoidal grooves defined in the channel." Col. 5, lines 41-42. Therefore, "removably and insert mounted" is construed to mean longitudinally inserted into grooves or apertures in the channel, or longitudinally press-fit or inserted into grooves in the channel, and the equivalents.

As to whether the bearing means must be retained to the slide body when the slide body is removed from the guide rail, several parts of the prosecution history are instructive. The following paragraphs included as "remarks" following amended claim 19 in Plaintiff's Amendment, dated August 27, 1997, at 4-5:

The present invention is a linear guide with non-roller bearing members removably **retained within** grooves defined withing the channel of the body. The bearing members are elongated elements that are longitudinally received within the grooves so as to be **frictionally retained therein** yet removable therefrom.

The bearing members are inserted into the grooves within the channel and **retained in such a way that they are retained with the body prior to installation of the body on the rail.** While retained to the body, the bearing members are removable therefrom for replacement, independent of replacement of the entire body assembly. This does not limit the shape of the bearing means, but merely requires the channel of the body to correspond with and engage the bearing members and that the bearing members not be bonded to the body. Clearly, the present invention further includes any replaceable bearing means having one or more inserts of any cross-sectional shape, as long as the channel along the body is correspondingly shaped to engage the bearing means, **thereby preventing lateral or vertical movement of the bearing means while the body is separate from the rail.**

(Emphasis added.)

In addition, Applicants distinguished the invention from prior art by emphasizing that its linear guide included bearing means which are retained to the slide body when the slide body is not on the guide rail:

In particular, none of the cited prior art discloses a linear guide body that is shaped to correspond with and engage the bearing means within the channel, thereby preventing movement of the bearing means while the guide body is not yet installed on a guide rail, while also providing for removal and replacement of the bearing means independent of replacement of the body.

August 28, 1997 Amendment, at 6.

Applicants also emphasized the differences between the invention and two other patented inventions, the Onishi patent and the Toru patent.

The linear guide device of Onishi discloses a sliding body element with bearing members whose length is not disclosed. Two bearing members are biased laterally inward, toward the rail, by a spring in order to keep them in contact with the rail when installed thereon. Prior to the installation of the body element of Onishi onto its rail, there is no disclosure that the bearing members would be retained with the body, especially in view of the spring acting to push the bearing members inward from the body ... As seen above, there is no disclosure in Onishi of a mounting means on the body that engages and retains the bearing members prior to the body being installed on the rail.

August 28, 1997 Amendment, at 8.

Toru discloses a slide bearing for linear movement that has cylindrical slider elements that rest in half-circle recesses along the body and have protuberances extending from each end. These slide elements are not held within the body by the recesses, but instead are only held in place by the protuberances being inserted into

corresponding holes on end plates that are subsequently attached to each end of the body. There is no frictional or press fit engagement between the slide elements and the body element. Therefore, assembly of the slide bearing of Toru requires holding the cylindrical slide elements along the partial recesses to prevent them from moving vertically or laterally, while simultaneously aligning both ends of the elements with the holes in the end plates. **This is not what is claimed in the present invention.**

August 28, 1997 Amendment, at 6-7 (emphasis added).

"An inventor may use the specification and prosecution history to define what his invention is and what it is not-particularly when distinguishing the invention over prior art. '[J]ust as prosecution history estoppel may act to estop an equivalence argument under the doctrine of equivalents, positions taken before the PTO may bar an inconsistent position on claim construction under s. 112, para. 6.' " Ballard Medical Products v. Allegiance Healthcare Corp., 268 F.3d 1352, 1359 (Fed.Cir.2001). In this case, Applicants helped define their invention by distinguishing prior art which did not include bearings being frictionally retained to the slide body.

Plaintiff responds that these comments do not correspond to claim 19, and instead only relate to claims 13 and 15-18, none of which Plaintiff asserted in this infringement action. Immediately before the explanations quoted above, however, Applicants stated: "upon thorough review of Toru, Onish and Stotzel, no disclosure is made that anticipates the linear guide of the present invention, as defined in either claim 1, 15, or 19." This introduction clearly indicates that Applicants' discussion of the distinguishing features of their invention relate to all three independent claims, including claim 19.

Plaintiff also contends that the Examiner did not rely on the statements to allow claim 19 because the Examiner already indicated that claim 19 was allowable if rewritten to not depend from a rejected base claim. *See* First Official Action, May 27, 1997.

"As a general proposition, prosecution history estoppel is based upon a showing that an applicant amended a claim to avoid a cited prior art reference ... Amendment of a claim in light of a prior art reference, however, is not the *sine qua non* to establish prosecution history estoppel. Unmistakable assertions made by the applicant to the Patent and Trademark Office (PTO) in support of patentability, whether or not required to secure allowance of the claim, also may operate to preclude the patentee from asserting equivalence between a limitation of the claim and a substituted structure or process step." Texas Instruments Inc. v. United States Trade Comm., 988 F.2d 1165, 1174 (Fed.Cir.1993.) While Texas Instruments addresses prosecution history estoppel in the context of the doctrine of equivalency, its message is instructive in this case. Even though the remarks quoted above may not have been necessary to secure patentability, Applicants' assertions are instructive as to the meaning of the '610 patent's claims. Therefore, Plaintiff's argument that the remarks were not necessary to secure the patentability of claim 19 is unavailing.

3. "flats ..."

The parties also dispute the second part of claim 19's third paragraph, which states: "said bearing means includes a plurality of elongated members having a cross-section with flats formed thereon and engaging said rail" Defendant argues that the Court should construe "flats" to require that the bearing means comprise two or more elongated members that have at least two flats, although the cross-section is not limited to a particular geometric configuration. Defendant points to patent '610's fourth embodiment, which includes bearing elements that are cylinders except for two flat surfaces which oppose each other. Plaintiff contends

that "flats" means flat surfaces and includes no limitation as to the number of flats. The word "flats" is clear on its face, and its accustomed meaning is a flat surface. As stated above, while the written descriptions may assist the Court's construction of a term, limitations contained only in an embodiment may not be read into the claim. Kraft Foods, 203 F.3d at 1366. Here, the description and drawing of the fourth embodiment's "pair of opposing flats" as being flat surfaces confirms the ordinary meaning of the word "flats." The Court rejects the limitation that the bearing must have two flat surfaces.

4. "retainer means"

The parties' final dispute concerns the fourth and last paragraph of claim 19, which reads: "retainer means for retaining said bearing means to said body, said retainer means permitting longitudinal removal and replacement of said bearing means independent of replacement of said body." Defendant argues that the Court should construe "retainer means" to include end caps and equivalent structures which are disposed on one or both ends of the guide body for preventing longitudinal movement of the bearing elements and which must be removed to access and longitudinally remove the bearing elements. Plaintiff disagrees only as to Defendant's "access" requirement.

The fourth paragraph is in means-plus-function form, and therefore the Court construes "retainer means" in accordance with 35 U.S.C. s. 112, para. 6. The function of the retainer means is to retain the bearings to the slide body, while allowing for the bearings to be longitudinally removed and replaced. The parts of the specification that identifies the corresponding structures are:

To prevent longitudinal disengagement of the inserts of the bearing element from the slide body, the ends of the slide body are adapted to receive end caps. The end caps are shaped to correspond to the shape of the slide body protrusions and channel, but without the formation of the grooves therein. The dimensions of protrusions and the recess in the end caps therefore more closely approximates the shape of the guide rail. In this manner, end caps overlap the ends of the bearing inserts of the bearing element, trapping the bearing element there between. To secure the end caps to the slide body, fasteners are inserted through bores defined through the end caps and into receiving bores in the slide body. The end caps are also utilized to retain the alternate embodiments of the bearing element which are further described below.

Col. 5, II. 11-26; and

As an alternative mechanism for retaining the various embodiments of the bearing element within the channel, either as an alternative to the end caps or as an addition thereto, the bearing element may be secured to the slide body by removable fasteners such as screws (not shown) extending through the bearing element and into the slide body. Such fasteners would be recessed into the bearing element a sufficient amount so as to prevent contact between the fastener and the guide rail even when the bearing element is severely worn. Col. 6, II. 9-18.

Thus, "retainer means" is construed as end caps which overlap the ends of the bearing and trap the bearings within the slide body, and recessed removable fasteners extending though the bearing element and into the slide body, and their equivalents. The Court agrees with both parties that "retainer means" prevents longitudinal removal of the bearings, but disagrees with Defendant's contention that "retainer means" must also prevent access to the bearings. For example, if an alternative to an end cap, such as screw, were used, the bearings could still be accessed, even though their longitudinal replacement would be prevented. Therefore, Defendant's construction of "retainer means" is denied.

SO ORDERED.

E.D.Mich.,2003.
Machine Systems Ltd., Inc. v. Igus, Inc.

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