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

FORI AUTOMATION, INC,
Plaintiff / Counter-Defendant.
v.
DURR SYSTEMS, INC,
Defendant / Counter-Plaintiff.

July 24, 2008.

Andrew M. Grove, Richard W. Hoffmann, Reising, Ethington, Troy, MI, for Plaintiff / Counter-Defendant.

Gregory D. Degrazia, Melanie T. Frazier, Thomas H. Walters Howard & Howard Attorneys, P.C., Bloomfield Hills, MI, for Defendant / Counter-Plaintiff.

MARKMAN ORDER

AVERN COHN**, District Judge.**

I. Introduction

This is the Markman FN1 part of a patent case involving U.S. Patent No. 5,040,303 ("the '303 patent") issued to Arthur Koerner on March 8, 1990, and assigned to plaintiff Fori Automation, Inc. ("Fori"). The subject matter of the patent is a machine for adjusting the front-end alignment of vehicles on an automotive assembly line. More specifically, the ' 303 patent describes a method for adjusting a vehicle's "toe angle." FN2 Toe angle refers to the distance between the leading edges of the two front tires as compared with the distance between the trailing edges of the two front tires. Ordinarily the toe angle is close to zero, meaning that the vehicle's front tires are nearly parallel to each other.FN3

FN1. *See* Markman v. Westview Instruments, 517 U.S. 370, 116 S.Ct. 1384, 134 L.Ed.2d 577 (1996). *See also The Sedona Conference Report on the Markman Process,* June 2006 Public Comment Version, *available at* http:// www.thesedonaconference.org.

FN2. An apparatus claim describes a physical instrumentality comprising parts that work together to produce a predetermined result. A method claim, by contrast, describes a series of steps for producing a given result. *See* 35 U.S.C. s. 101. As discussed below, the '303 patent contains both apparatus claims and method claims. Claim 13 of the ' 303 patent, the paradigm claim in this case, is a method claim.

FN3. For a primer on front-end alignment, including toe angle, see Charles Ofria, *A Short Course on Wheel Alignment,* THE FAMILY CAR WEB MAGAZINE, *available at* http://www.familycar.com/alignment.htm.

Fori accuses defendant Durr Systems, Inc. ("Durr") of infringing the '303 patent. Like Fori, Durr manufactures a machine that automatically adjusts the front-end alignment of vehicles as part of an automotive assembly line.

The *Markman* issues have been fully briefed. The Court heard oral argument on June 26, 2008.

As the Court has repeatedly observed, claim construction in a *Markman* proceeding is always tentative and its conclusions are open to change as the case unfolds in the validity and infringement phases; so too here.

II. The '303 Patent

A. The '303 Patent **Generally**

The abstract of the '303 patent reads:

Toe adjustment apparatus for an alignment machine includes wheel position and body height sensors for providing input to a controller, and a power wrench carried by an adjustment mechanism for engaging and adjusting the vehicle tie rod under control of the controller. Power operated multi-axis actuators approximately align and couple the wrench head with the tie rod and multi-axis passive adjustments perfect registration of the head on the tie rod. The wrench head includes an open end socket configured to mate with a jam nut at one end and a tie rod hex portion at the other end so that both elements are selectively engaged by lateral shifting along the rod from one to the other for turning the jam nut and the rod as required for proper toe set. An encoder on the wrench produces pulses representing rotation increments and thus wheel adjustment increments. A method of correcting toe angle comprises measuring the toe angle and determining the error, calculating the rotation target value require to correct the error, adjusting the tie rod with the wrench and counting the encoder pulses, and comparing the counted pulses with the target value to determine when to stop adjustment.

The Field of the Invention as described in the '303 patent reads:

This invention relates to automatic toe adjustment method and apparatus for a wheel alignment machine and particularly to such toe adjustment method and apparatus utilizing a power wrench for tie rod nut adjustment.

The Background of the Invention as described in the '303 patent reads:

In the manufacture of automotive vehicles automatic equipment plays an important role in accurate and inexpensive assembly and adjustment of the vehicle components. One of the operations where such automatic equipment has been employed is in the toe adjustment of wheels during wheel alignment. As a matter of design, each vehicle type has an assigned toe angle which is parallel to the longitudinal axis or at a small angle to the axis. To provide an adjustment capability, the tie rod has a threaded adjustment allowing relative rotation of male and female shaft members to cause lengthening or shortening of the tie rod, and a jam nut on the threaded part to lock the assembly against relative rotation. An adjustment machine then must be capable of measuring the toe angle and alternately rotating the jam nut and one of the shaft members for making any needed correction to a high degree of accuracy. The machine then is required to make the measurement and then, without exact information on the location of the tie rod, quickly make

the adjustment by finding the tie rod, securely attaching a wrench to the jam nut and the shaft, and rapidly making the proper rotation of each part.

U.S. Pat. No. 4,679,327 to Fouchey et al discloses a toe set alignment system having a track for positioning a vehicle over a pit, adjustment apparatus in the pit, an apparatus for measuring the toe set, a sensor for detecting the vehicle height, and a programmable controller for reading the measurements and controlling the adjustment apparatus. The adjustment apparatus has a mechanism carried on a guideway for positioning relative to the tie rod and an adjustment head having drive rollers for contacting and adjusting the tie rod. A separate nut runner head is used to operate the jam nut. To use the nut runner the adjustment head must first be removed from the tie rod and then, as a separate operation, the nut runner is applied, thereby adding extra time to the adjustment.

The Summary of the Invention as described in the '303 patent reads:

It is therefore an object of the invention to provide a toe adjustment method and apparatus for an alignment machine that can rapidly make a tie rod adjustment and tighten the jam nut. It is another object to provide an apparatus to perform those functions without removing the adjusting mechanism from the tie rod.

The invention is carried out in a wheel alignment machine having measurement means for determining wheel attitude and a programmable controller for machine control, automatic toe adjustment means for engaging a tie rod and controllably turning a threaded tie rod part and an associated jam nut comprising; a power wrench having an open end head for fitting on the tie rod, the head having a first side conforming to the jam nut and a second side configured to drive the tie rod part, and multi-axis support means under control of the controller for holding the power wrench and for moving it into engagement with the tie rod, the support means including means for laterally shifting the power wrench head in one direction along the tie rod axis for selectively engaging and turning one of the nut and the tie rod part, and for laterally shifting the wrench head in the opposite axial direction for engaging and turning the other nut or part. The invention further comprehends an encoder coupled to the wrench to measure the amount of corrective rotation for use in determining the completion of the adjustment.

The invention is further carried out in a wheel alignment machine having a tie rod rotating apparatus for adjusting toe angle by the method comprising the steps of; measuring the toe angle, determining the required correction, calculating a target rotation amount, adjusting the angle by rotating the tie rod, measuring the actual rotation amount during the adjusting step, comparing the measured rotation amount with the target rotation amount, and stopping the adjusting when the measured rotation amount equals the target rotation amount, whereby the adjustment is made rapidly and accurately.

B. The Paradigm Claim

Claim 13 of the '303 patent has been designated as the paradigm claim. With the disputed language underlined, claim 13 reads:

1. The method of adjusting toe angle using a wheel alignment machine having a power wrench for adjusting toe angle by rotating a tie rod having a rotatable wrench engageable adjustment portion and a jam nut axially spaced from the adjustment portion to lock the rod against rotation, said method comprising the steps of,

2. applying the power wrench to the tie rod between the jam nut and the adjustment portion,

3. measuring the toe angle,

4. *producing a wrench control signal in response to the measured angle,*

5. shifting the wrench axially along the rod to engage the adjustment portion,

6. *rotating the wrench under control of the wrench control signal* to adjust the tie rod until a correct toe angle is obtained,

7. shifting the wrench axially along the rod without removal of the wrench from the rod to engage the jam nut, and

8. rotating the wrench to tighten the jam nut, thereby locking the adjustment portion against further adjustment.

III. Parties' Proposed Constructions

A. Fori

Fori argues that the disputed claim language is not ambiguous and that the Court should construe the disputed language by using its actual words or some close variation. Accordingly, phrase 4 should be construed to mean "producing a wrench control signal in response to the measured angle" or alternatively "creating or generating a signal to control the wrench based on the measured angle." Similarly, phrase 6 should be construed to mean "rotating the wrench under the control of the wrench signal" or alternatively "using the signal to rotate the wrench and, therefore, the adjustment portion on the tie rod." In Fori's view, the alternative constructions it proposes for the respective limitations have the same meaning.

B. Durr

Durr argues that, in view of the prosecution history and the written description of the '303 patent, claim 13 requires the wrench control signal to operate under the direction of a rotary encoder FN4 to control the rotation of the power wrench. Durr suggests that phrase 4 should be interpreted to mean "producing a wrench control signal calculating a rotation amount in response to the measured angle." Likewise, phrase 6 should be interpreted to mean "rotating the wrench under the control of the wrench control signal to adjust the tie rod the calculated rotation amount until the correct toe angle is obtained.

FN4. A rotary encoder is a device used to convert the angular position of a shaft or axle into an analog or digital code. In the context of the '303 patent, the rotary encoder is used to measure the number of rotations of the power wrench and to transmit an electrical signal to the controller describing the resulting toe angle correction. The use of the rotary encoder thus eliminates the need to take continuous measurements of the toe angle during the adjustment process.

IV. Claim Construction Law

The law regarding claim construction is well known and needs little comment. Claim construction is an

issue of law to be decided by the Court. Markman v. Westview Instruments, Inc., 517 U.S. 370, 116 S.Ct. 1384, 134 L.Ed.2d 577 (1996). Claim construction begins with the claim itself, moves to the written description and prosecution history and then, if necessary, extrinsic evidence. Phillips v. AWH Corp., 415 F.3d 1303 (Fed.Cir.2005) (*en banc*). A claim is to be construed and understood by a person of ordinary skill in the art. Id. at 1314. There is generally a " 'heavy presumption' that a claim term carries its ordinary and customary meaning." CCS Fitness, Inc. v. Brunswick Corp., 288 F.3d 1359, 1366 (Fed.Cir.2002).

A court may constrict the ordinary meaning of a claim term under one of four scenarios: (1) if the patentee clearly set forth a definition of the disputed claim term in the specification or prosecution history; (2) if the intrinsic evidence shows that the patentee distinguished the disputed term from prior art on the basis of a particular embodiment or described a particular embodiment as important to the invention; (3) if the ordinary meaning of the disputed term deprives the claim of clarity so as to require resort to the other intrinsic evidence to determine the meaning; (4) if the patentee phrased the claim in step- or means-plus-function format and the disputed term should therefore be construed to cover only the corresponding step or structure in the specification. Id. at 1366-67.

The parties do not discuss who is a person of ordinary skill in the art and confine themselves to the claim language, written description, and file history.

V. Court's Construction

A. The Prosecution History

1. Patent Office Actions

In arguing for its proposed construction, Durr relies heavily on the prosecution history of the '303 patent. Fori originally applied for the patent with 14 claims, including independent claims 1, 10, 12, and 13. Claims 1 and 10 recite different configurations of a wheel alignment machine; claims 12 and 13 recite different methods of using a wheel alignment machine to adjust the toe angle of the front wheels of a vehicle.

In its first office action, the United States Patent and Trademark Office ("USPTO") rejected all claims under 35 U.S.C. s. 112 as being indefinite for failure to point out and distinctly claim the subject matter of the invention. The rejection noted that "claim 13 recites a wheel alignment machine having a 'tie rod rotating apparatus,' but the method steps recite causing adjustment with a 'power wrench.' Therefore, the connection between the machine and the method is not clear." The rejection went on to say that claims 1 through 9, 13, and 14 "would be allowable if rewritten or amended to overcome the rejection under 35 U.S.C. [s.] 112."

Claims 10 through 12 were rejected for the additional reason that under 35 U.S.C. s. 103 they were unpatentable over U.S. Patent No. 4,679,327 ("the ' 327 patent") issued to Fouchey *et al*. The Examiner stated that "Fouchey et al does not describe a specific means, such as a rotary encoder, for determining the degree of rotation but inherently requires such means." The Examiner noted that additional prior art "teaches a power wrench having a rotary encoder for the purpose of monitoring the rotation of a driven element to cause a desired degree of rotation."

The Applicant then submitted an amendment to the application. The amendment made only superficial changes to claim 13. The amendment also argued for the patentability of amended claims 10 through 12 over

the '327 patent as follows:

Fouchey et al does not describe anything corresponding to Applicant's rotary encoder for determining the amount of rotation of the toe adjustment means for the tie rod. This is because Fouchey et al relies upon the reading of the toe angles from the transducers which are stored in memory ... The adjustment is made by rotating the tie rods to bring the setting to the desired values ... In the apparatus and method of Fouchey et al, the measurement of the toe angle is brought to a desired value by comparing the actual measurement with the desired angle and stopping the adjustment when the desired angle is achieved. Fouchey et al does not suggest or disclose the use of a rotary encoder for measurement of the increments of rotation of the adjustment means and hence the tie rod. Fouchey et al relies only upon the transducers and the read out or stored values of the transducers for toe measurement.

In response to the Amendments, the USPTO took a second office action, accepting claims 1 through 9 and rejecting claims 10 through 14. Claim 13 was again rejected as "indefinite because it recites a method using a machine having a 'tie rod rotating apparatus,' but also recites applying a 'power wrench.' It is not clear if these two elements are intended to be the same element." The rejection again noted that claim 13 "would be allowable if rewritten or amended to overcome the rejection under 35 U.S.C. [s.] 112." Claims 10, 11, and 12 were again rejected as being unpatentable over the ' 327 patent.

The applicant submitted further amendments that continued to emphasize the importance of the rotary encoder in distinguishing claims 10, 11, and 12 from the '327 patent. In one filing, for example, the Applicant stated

Claim 10 and dependent Claim 11 are resubmitted without amendment. The difference between Applicant's invention as defined by Claim 10 and the teaching of Fouchey et al is as follows. Applicant's system determines, in advance of adjustment, the amount of adjustment required in terms of the number of *rotations of the adjustable member* required for the proper setting. Then, the controller causes the adjustment means to rotate the adjustment member the requisite number of revolutions. This enables fast adjustment, especially in dynamic measurement because the adjustment is complete when the target number of revolutions have been made. This is all accomplished by the rotary encoder and the programmable controller. The transducers, i.e. the "measurement means" are not required to be read during or after the adjustment is made. On the other hand, in the Fouchey et al equipment, continuing measurement by the transducers, responsive to wheel attitude, during continuing rotation is required after the end of adjustment to determine that the desired adjustment is made.

December 13, 1989 Amendment Under 37 CFR s. 1.116 (emphasis in original).

Following a series of amendments and advisory office actions, the USPTO's third office action accepted claims 1 through 9, 13, and 14. The amendment to claim 13 clarified that the "tie rod rotating apparatus" recited in the initial application was the same element as the "power wrench." Claims 10, 11, and 12 were again rejected as being unpatentable over the '327 patent.

The applicant submitted an additional amendment pertaining only to claims 10 through 12. That amendment again emphasized the rotary encoder as a key feature that distinguished these claims from the '327 patent:

Applicant's invention, as defined by amended Claim 10, is entirely different from the apparatus and method of Fouchey et al. Examiner's characterization of the teaching of Fouchey et al is, at best, somewhat

incomplete in pertinent respects and gives an incorrect understanding of Fouchey et al, as will be explained. Before discussing Fouchey et al further, a brief comment on Applicant's invention, as in Claim 10, is in order.

Applicant's system, as defined by claim 10, determines in advance of adjustment the total amount of adjustment required for the proper toe setting. This amount required is translated, in advance of adjustment, to a number of rotations of the adjustable member required to achieve the proper setting. An encoder is provided to measure the rotations of the adjustment means. A programmable controller is provided to determine from the input of the measurement means the desired corrections of the wheel attitude and also for translating the desired correction to a number of rotations of the adjusting means. The controller also includes means for comparing the amount of desired rotations with the actual amount of rotations as indicated by the rotary encoder. The power wrench is controlled after the wheel attitude attitude measurement is taken to rotate the adjustment means until the number of rotations thereof is equal to the desired number. This enables fast adjustment, especially in dynamic measurement, because the adjustment is complete when the desired number of revolutions have been made. The transducers, i.e. the measurement means, are not required to be read during or after the adjustment. When the controller determines that the number of rotations of the adjustment means as indicated by the rotary encoder is equal to the number of desired rotations, the adjustment is complete.

...

There is no disclosure in Fouchey et al of encoder means for counting the revolutions of the tie rod adjustment device.

From a careful study of Fouchey et al it is clear that Fouchey et al continuously measures the toe position and continuously compares it with a desired toe set value and continuously makes adjustment until the actual toe set position equals the desired position.

Following the submission of this amendment, the USPTO issued a notice of allowability as to all 14 claims.

2. Durr's Argument

Durr argues that the prosecution history demonstrates that Fori has defined the step of "producing a wrench control signal" in claim 13 specifically to exclude continuously measuring the toe position, comparing it with a desired value, and making adjustments until the actual toe position equals the desired position. According to Durr, if "producing a wrench control signal" is defined to include this continuous process of measurement, comparison, and adjustment (as opposed to using a rotary encoder to specify the desired number of rotations at the outset), the invention as described in claim 13 would not have been patentable over the '327 patent. Durr says that Fori cannot now recapture what it surrendered during the prosecution of the '303 patent. Durr applies the same argument to the phrase "rotating the wrench under the control of the wrench signal" in claim 13.

3. Discussion

a. Claim 13 Was Always Patentable Over the '327 Patent

Durr's argument has no merit. Reviewing the prosecution history of the '303 patent makes clear that the Examiner determined from the outset that claim 13, an independent claim, was patentable except for a few

minor ambiguities in the language of the preamble. The Examiner never suggested that claim 13 was not patentable over the '327 patent; the debate concerning the '327 patent during prosecution was directed solely at claims 10, 11, and 12.

Claim 13 defined over the prior art, including the '327 patent, from the outset of the prosecution. One salient difference between the claim 13 and the method described in the '327 patent, unrelated to the issue of the rotary encoder, is that the claim 13 method rotates the jam nut and the tie rod with a single wrench; the method recited in the '327 patent uses two separate elements for the same task, an "adjustment head" for the tie rod and a "nut runner" for the jam nut. The '303 patent explicitly notes this distinction in the specification: "It will thus be seen that the apparatus of the invention is an improvement over prior proposals particularly in its ability to use the same wrench part to turn the jam nut and the rod without removal of the wrench from the rod." Col. 7, lines 9-13. Because the use of a single wrench is a significant innovation, claim 13 is patentable over the ' 327 patent irrespective of the rotary encoder.FN5

FN5. Claims 10, 11, and 12 do not recite the use of a single wrench to adjust both the tie rod and the jam nut.

Given that the Examiner found that a rotary encoder is necessary for patentability only in claims 10, 11, and 12, the definition of "wrench control signal" in those claims does not control the definition of "wrench control signal" in claims that make no reference to a rotary encoder. *See* Johnson Worldwide Associates, Inc. v. Zebco Corp., 175 F.3d 985, 991-92 (Fed.Cir.1999); *see also* McCarty v. Lehigh Val. R.R., 160 U.S. 110, 116, 16 S.Ct. 240, 40 L.Ed. 358 (1895) ("[I]f we once begin to include elements not mentioned in the claim in order to limit such claim ... we should never know where to stop ."); Fiskars, Inc. v. Hunt Mfg. Co., 221 F.3d 1318, 1323 (Fed.Cir.2000) ("Claims whose allowance was not due to a particular argument are not subject to estoppel deriving from that argument.").

Johnson provides a fairly close analogy to this case. The patent in *Johnson* was directed generally toward a steering control apparatus used for small outboard motors. The appellant, relying on the prosecution history, argued that the term "heading" referred only to the direction of the motor rather than the direction of the boat. The appellant's proposed construction was thus narrower than the ordinary meaning of the term "heading," which ordinarily connotes only direction, not the direction of a motor. The court rejected the appellant's argument:

In particular, Zebco argues that the applicant's statement, in a June 17, 1992 amendment to the '586 application, that "the heading signal ... is dependent solely on the heading of the motor, and totally independent of the orientation of the vessel" is a clear definition of "heading signal" as being limited to the direction of the thrust motor. However, Zebco overlooks the fact that the claims referred to in that passage, claims 4 and 14 of the '586 application, expressly included an additional limitation: that the compass be "in a substantially fixed relationship to said propulsion device," (claim 4) or likewise "in a predetermined relationship with said propulsion device" (claim 14). The argument referenced by Zebco was unquestionably focused on the requirement, *in those claims,* that the compass be attached to the trolling motor. The patentee's suggestion that, where the "substantially fixed relationship" or "in a predetermined relationship" claim limitation was present, the feedback signal (i.e., the heading signal) was dependent on the heading of the motor sheds no light on the meaning of "heading signal" in claims where that very limitation is not present. Rather, this exchange is an example of how carefully-crafted arguments in support of patentability can avoid creating ambiguous or adverse prosecution history. By stating clearly and particularly that the

context of his remarks was in regards to claims 4 and 14, the applicant ensured that those of ordinary skill in the art-as well as courts, if need be-could evaluate the import and scope of his statements. Thus, because this argument was plainly limited to claims including a "fixed" or "predetermined" relationship between the compass and the trolling motor, it cannot be said to be a clear statement limiting the scope of "heading signal" in general. Zebco thus has not shown that sufficient reasons exist to import a limited definition of this term into the clear language of the claim.

175 F.3d at 991-92 (emphasis in original).

In this case, as in *Johnson,* one party seeks, based on the prosecution history, to impose a construction on a term that is narrower than the ordinary meaning of the term. As in *Johnson,* the prosecution history to which that party points is specifically directed to claims other than the claim that is directly at issue. And as in *Johnson,* those other claims include a limitation (here, the use of a rotary encoder) that is not present in the claim at issue. Thus, the prosecution history of claims 10 through 12 cannot be held to limit the meaning of the term "wrench control signal" in claim 13.

b. The Specification Recites a Method of Continuous Measurement, Comparison, and Adjustment

In addition to all this, the specification makes clear that at least some embodiments of the '303 patent contemplate a method of continuous measurement, comparison, and adjustment rather than the use of a rotary encoder. The specification refers to this as the "static" mode of operation:

The apparatus will operate in two modes: static and dynamic. In each mode toe angle is measured by rotating the wheel and averaging hundreds of angle measurements and the error is calculated by comparison with the angle specification. Thus the true toe angle is not available instantaneously. The static mode is a closed loop system wherein the wheel is stopped after the measurement is made and the static wheel attitude is constantly measured during tie rod adjustment and the adjustment continues until the wheel is moved an amount equal to the error.

Col. 6, lines 48-58. That is, the actual angle is compared with the "angle specification," i.e. the desired toe value. The tie rod is then adjusted, and the process continues until the measured toe angle matches the desired angle. A rotary encoder is not used. *See* Johnson, 175 F.3d at 991 ("[T]he written description does not describe with reasonable clarity, deliberateness, and precision the definition of "heading" proposed by [the appellant]. Indeed, the many uses of the term throughout the [the patent at issue] are consistent with a broader definition, one encompassing the directions of both the boat and the trolling motor unit.").

B. The Written Description

Durr also argues that the written description, specifically the Summary of the Invention, implicitly requires a rotary encoder. Durr points to a particular sentence in the Summary: "The invention further comprehends an encoder coupled to the wrench to measure the amount of corrective rotation for use in determining the completion of the adjustment." As discussed above, however, while the "dynamic" mode of operating the invention uses a rotary encoder, the specification also includes a "static" mode of operation that does not use an encoder. The second paragraph of the Summary, from which the above sentence is taken, is directed to the dynamic mode of operation; the third paragraph is directed to the static mode and does not mention a rotary encoder. The language cited by Durr thus refers only to a particular embodiment of the invention and does not limit the invention as a whole.

C. "Step-Plus-Function"

In its supplemental brief, Durr argues for the first time that phrases 4 and 6 are "step-plus-function" limitations that fall within the purview of 35 U.S.C. s. 112 para. 6. That paragraph provides:

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.

While s. 112 para. 6 is more often applied to apparatus claims, it can apply to method claims as well. O.I. Corp. v. Tekmar Co., 115 F.3d 1576, 1582 (Fed.Cir.1997). The purpose of the provision is to allow inventors to claim steps in a method functionally, without reciting an act in the claim for performing the claimed step.

In the context of method claims, the use of the term "steps for" signals the drafter's intent to invoke s. 112 para. 6. Greenberg v. Ethicon Endo-Surgery, Inc., 91 F.3d 1580, 1583 (Fed.Cir.1996). However, even where the drafter employs the "steps for" language, s. 112 para. 6 "is implicated ... only when steps *plus function* without acts are present." O.I. Corp., 115 F.3d at 1583 (emphasis in original). The absence of "steps for" language creates a presumption that s. 112 para. 6 does not apply. Cardiac Pacemakers, Inc. v. St. Jude Medical, Inc., 381 F.3d 1371, 1382 (Fed.Cir.2004). Indeed, the Federal Circuit has held that "[w]here the claim drafter has not signaled his intent to invoke s. 112, paragraph 6, by using the 'step[s] for' language, we are unwilling to resort to that provision to constrain the scope of coverage of a claim limitation without a showing that the limitation contains nothing that can be construed as an act." Masco Corp. v. United States, 303 F.3d 1316, 1327 (Fed.Cir.2002).

Phrase 6 clearly falls outside of s. 112 para. 6. It does not use the "steps for" language. Rather, as is typical of method claims, it uses the term "steps of." The absence of the steps for language raises a presumption that s. 112 para. 6 does not apply. Moreover, the limitation recites an act in sufficient detail to avoid s. 112 para. 6 even absent the presumption. The act is rotating the power wrench; the function is adjusting the tie rod.

Phrase 4 is perhaps a closer case. This limitation also does not use the "steps for" language and is thus subject to the presumption that s. 112 para. 6 does not apply. Durr nevertheless argues that "producing a wrench control signal" is a function rather than an act, since the word "producing" without more does not explain how the signal is produced. In order to overcome the presumption against applying s. 112 para. 6, however, Durr must show not only that phrase 4 does not explicitly describe an act, but that it "contains nothing that can be construed as an act." Masco, 303 F.3d at 1327.

In *Masco,* which involved a patent directed to electronic dial combination locks, the following claim language was at issue:

[T]he method comprising the steps of ...

transmitting a force applied to the dial to the lever after the lever and the dial have been operably connected to drive the lever to a position where the protrusion can contact the surface of the cam wheel in such a manner that the lever will be pulled by the cam wheel during rotation of the cam wheel.

The district court held that this was a step-plus-function limitation because the limitation did not specifically describe how the force was transmitted. The Federal Circuit reversed, holding that s. 112 para. 6 did not apply. The Federal Circuit first noted the absence of the critical "steps for" language. It went on to reason that the act of the "transmitting a force" limitation was to cause a force to be conveyed through a medium by mechanical parts, while the function of the limitation was to drive the lever into the cam.

Similar reasoning may be applied here to show that phrase 4 does contain something that can be construed as an act. Specifically, the act in the limitation is producing an electronic signal that is transmitted to the power wrench. The function of the limitation is to control the wrench. Given that the Federal Circuit has been reluctant to invoke s. 112 para. 6 in the absence of the critical "steps for" language FN6 and the fact that Phrase 4 does contain words that may be construed as an act, s. 112 para. 6 does not apply here.

FN6. *Cardiac Pacemakers* is another example of reluctance to apply s. 112 para. 6. This case involved a patent directed to an implantable cardiac defibrillator. The following claim language was at issue: "A method of heart stimulation ... comprising the steps of: (a) determining a condition of the heart from among a plurality of conditions of the heart." 381 F.3d at 1375. Reversing the district court, the Federal Circuit held that s. 112 para. 6 did not apply. The holding was based largely on the presumption that s. 112 para. 6 does not apply where the "steps for" language is not used. Id. at 1382. The presumption was not rebutted even though the claim language at issue was somewhat more vague in describing the act for performing the claimed step than is the language at issue here.

VI. Conclusion

For all the reasons stated above, Durr has not demonstrated a sufficient basis to prefer a limited definition of "wrench control signal" over the ordinary and accustomed meaning of the term. Because the claim language is straightforward and relatively simple to understand, there is no need to impose a construction beyond the actual language used in the claim. Accordingly, phrase 4 will be construed to mean "producing a wrench control signal in response to the measured angle," and phrase 6 will be construed to mean "rotating the wrench under the control of the wrench control signal ."

In so concluding, it is not unfair for the Court to observe that had Durr focused solely on claim construction rather than anticipating the infringement phase of the case this *Markman* proceeding would have been unnecessary since there is no ambiguity in the phrases that Durr stated are ambiguous.

SO ORDERED.

E.D.Mich.,2008.
Fori Automation, Inc. v. Durr Systems, Inc.

Produced by Sans Paper, LLC.