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# Federal Circuit Untangles Means-Plus-Function Interpretation

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In MTD Products Inc. v. Iancu,¹ the U.S. Court of Appeals for the Federal Circuit described how to identify a means-plus-function limitation under 35 U.S.C. § 112, ¶ 6.² In particular, the court clarified that the question of whether § 112, ¶ 6 applies is distinct from the determination of what structure corresponds to the means-plus-function limitation,³ and held that the description in the specification of corresponding structure does not determine if § 112, ¶ 6 applies.⁴

# **Background**

MTD is a decision on appeal from an inter partes review (IPR) of U.S. Patent No. 8,011,458 (the '458 patent),<sup>5</sup> owned by MTD Products.<sup>6</sup> The '458 patent describes zero turn radius (ZTR) vehicles such as riding lawnmowers,<sup>7</sup> and explains how for prior art ZTR steering systems, when a vehicle was moving forward, it turned in the direction the steering wheel was rotated, but when the vehicle was moving in reverse, it turned in the opposite direction from steering wheel rotation.<sup>8</sup> For example, if the steering wheel was turned to the right, the vehicle made a right turn while moving forward, but a rearward left

turn while moving in reverse. The '458 patent provides for more automobile-like steering that enables the ZTR vehicle to turn the same direction as the steering wheel regardless of whether the vehicle is in forward or reverse. 10

Independent claim 1 of '458 patent is set forth below. Emphasis is added to the "mechanical control assembly" limitations, which were the sole focus of the Federal Circuit's decision.

A vehicle capable of making a small radius turn, comprising:

a frame;

a left drive wheel and a right drive wheel, both coupled to the frame;

two independent left and right drive units, the left drive unit coupled to the left drive wheel via an axle and the right drive unit coupled to the right drive wheel via another axle;

a steering device coupled to the frame;

a speed control member coupled to the frame; and

a mechanical control assembly coupled to the left and right drive units that is configured to actuate the left and right

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drive units based on a steering input received from the steering device and a speed input received from the speed control member;

the mechanical control assembly being configured such that if the speed control member is shifted from (a) a forward position in which the left drive wheel is rotating in a forward direction at a first forward speed and the right drive wheel is rotating in a forward direction at a second forward speed that is less than the first forward speed as a result of the steering device being in a first right turn position to (b) a reverse position while the first right turn position of the steering device is maintained, then the left drive wheel will rotate in a reverse direction at a first reverse speed and the right drive wheel will rotate in a reverse direction at a second reverse speed that is less than the first reverse speed.

The term "mechanical control assembly" is used only in the claims, <sup>11</sup> while the specification of the '458 patent refers to a "ZTR control assembly" that is illustrated as interconnected mechanical components and described as linkages, inputs, and outputs between parts of the vehicle. <sup>12</sup> The specific issue of § 112, ¶ 6 being considered on appeal did not come up during prosecution of the '458 patent. <sup>13</sup> However, the patent owner did make statements during prosecution that the configuration of the "mechanical control assembly" was structural when arguing that the claims were distinguishable over a prior art reference. <sup>14</sup>

The petitioner in the IPR, The Toro Company, alleged that the claims of the '458 patent were invalid as anticipated or obvious,15 and the patent owner responded that "mechanical control assembly" should be interpreted under § 112, ¶ 6 as a means-plus-function limitation. 16 Under that interpretation, the patent owner argued that the asserted prior art did not disclose or suggest the structure that was described in the specification and that corresponded to the claimed function.<sup>17</sup> The Patent Trial and Appeal Broad (the PTAB or the Board) ultimately agreed with the petitioner that the claims were unpatentable, 18 and in reaching that conclusion, the Board did not interpret "mechanical control assembly" as a means-plus-function limitation. 19 Rather, the Board determined that a person of ordinary skill in the art would have understood that "mechanical control assembly" conveys the structure that makes up the "ZTR control assembly"

described in the specification, particularly in light of the patent owner's statements during prosecution.<sup>20</sup>

### The Federal Circuit Decision

The Federal Circuit reversed and held that "mechanical control assembly" should be interpreted under § 112, ¶ 6.21 The Federal Circuit explained that interpreting a means-plus-function limitation requires two steps—(1) determining if the limitation is drafted in means-plus-function format; and (2) if so, identifying the structure that performs the claimed function in the specification<sup>22</sup>—and clarified that these two inquiries are distinct.<sup>23</sup> In particular, the specification's description of structure that performs the claimed function (step 2) does not answer whether a limitation is drafted in meansplus-function format (step 1),<sup>24</sup> and the court held that the PTAB had reached the wrong conclusion because it conflated the two inquiries.<sup>25</sup>

The court summarized the proper analysis based on *Williamson v. Citrix Online, LLC*<sup>26</sup> to determine that "mechanical control assembly" was drafted in means-plus-function format. As discussed by the court, when the claim limitation does not use the word "means," there is a rebuttable presumption that the limitation conveys sufficiently definite structure and is not subject to § 112,¶ 6.<sup>27</sup> However, the presumption can be rebutted when the claim limitation uses a nonce term that is a substitute for "means," and "a critical question is whether 'the claim term is used in common parlance or by persons of skill in the pertinent art to designate structure,' including either a particular structure or a class of structures."

Furthermore, the court explained how the specification can influence whether § 112,¶ 6 applies:³0 "[A] patentee may avoid application of § 112,¶ 6 by acting as a lexicographer and providing its own structural definition of a nonce term in the specification by 'clearly set[ting] forth a definition of the disputed claim term' other than its plain and ordinary meaning."³¹ In such cases, "the patentee must clearly express an intent to redefine the term."³² The Federal Circuit made clear: "a preferred embodiment disclosed in the specification cannot impart structure to a term that otherwise has none."³³

With respect to claims of the '458 patent, the court determined that "mechanical control assembly" was a nonce term that "does not have an

established meaning in the art and instead merely operates as a generic label for a collection of parts."34 The Federal Circuit corrected the Board's erroneous conclusion that "mechanical control assembly" has an established structural meaning based on the description of "ZTR control assembly" in the specification, 35 arguing: "That the specification discloses a structure corresponding to an asserted means-plus-function claim term does not necessarily mean that the claim term is understood by persons of ordinary skill in the art to connote a specific structure or a class of structures." The court held that there was no clear indication that the patent owner intended to act as its own lexicographer and define "mechanical control assembly" as "ZTR control assembly."37 Furthermore, the court also found that the Board erred in giving improper weight to the patent owner's statements during prosecution,<sup>38</sup> as those statements "did not clearly disclaim" a means-plus-function interpretation because the statements were not made within the context of  $\S$  112,  $\P$  6, and indicated only that the claim limitation should be given patentable weight because they were structural and not an intended use.<sup>39</sup>

# Conclusion

MTD provides timely clarification of how mean-plus-function limitations are interpreted. The courts, the Patent Office, and Congress have paid close attention to § 112(f) recently, with § 112(f) having played a larger role in patent litigation in the three years after the Federal Circuit's 2015 Williamson decision that eliminated the heightened presumption against applicability of § 112(f) when the claim limitation lacks the word "means." The § 112 guidance in January 2019, which strengthened enforcement of §§ 112(a), (b), and (f), is part of the Patent Office's efforts to address broad functional claiming.41 Furthermore, in June 2019, the Senate Judiciary Committee's Subcommittee on Intellectual Property received testimony regarding a draft bill that would, among other things, expand the applicability of § 112(f) by eliminating the current "means" language, 42 which proponents have argued will rein in overbroad claims. 43 Accordingly, § 112(f) will continue to impact applicants in prosecution, as well as patent owners and challengers in post-grant proceedings and litigation.

### **Notes**

- 1. No. 2017-2292 (Fed. Cir. Aug. 12, 2019).
- 2. The patent at issue was reviewed under pre-America Invents Act (AIA) law. However, the court's analysis is applicable to AIA § 112(f).
- 3. *MTD*, slip op. at 13.
- 4. See id. at 13-14.
- 5. Id. at 2.
- 6. *Id*.
- 8. *Id.*, at pp. 2-3; '458 patent, 1:28-30.
- 9. '458 patent, 1:30-35.
- 10. *MTD*, slip op. at 3.
- 11. Id. at 4.
- 12. Id.; see '458 patent, 3:41-4:57, Figs. 2, 3.
- 13. See MTD, slip op. at 14.
- 14. Id. at 6, 14.
- 15. Id. at 4.
- 16. Id.
- 17. Id.
- 18. Id. at 2.
- 19. Id. at 2, 7.
- 20. Id. at 6.
- 21. Id. at 2, 15.
- 22. Id. at 13.
- 23. Id.
- 24. See id.
- 25. Id.
- 26. 792 F.3d 1339 (Fed. Cir. 2015) (en banc).
- 27. *MTD*, slip op. at 7.
- 28. Id. at 8.
- 29. Id. (quoting Skky, Inc. v. MindGeek, s.a.r.l., 859 F.3d 1014, 1019 (Fed. Cir. 2017)).
- 30. Id. at 10.
- 31. Id. (quoting Thorner v. Sony Comput. Entm't Am. LLC, 669 F.3d 1362, 1365 (Fed. Cir. 2012)).
- 32. Id.
- 33. Id.
- 34. Id. at 11-12.
- 35. Id. at 13.
- 36. Id.
- 37. Id. at 14.
- 38. Id.
- 39. Id. at 14-15.
- 40. See Joe Edell, With Alice Possibly Fading, Williamson Commands Attention, ABA Practice Points (June 25, 2019), available at https://www.americanbar.org/groups/ litigation/committees/intellectual-property/practice/2019/ alice-williamson-patent-act/.
- 41. See Examining Computer-Implemented Functional Claim Limitations for Compliance with 35 U.S.C. 112, 84 Fed. Reg. 57 (Jan. 7, 2019).

- 42. Thom Tillis, et al., Draft Bill Text to Reform Section 101 of the Patent Act (May 22, 2019), available at https://www.tillis.senate.gov/services/files/E8ED2188-DC15-4876-8F51-A03CF4A63E26.
- 43. See, e.g., Testimony of David J. Kappos, pp. 4-5, The State of Patent Eligibility in America: Part I (June
- 4, 2019), available at https://www.judiciary.senate.gov/imo/media/doc/Kappos%20Testimony.pdf; Testimony of Mark A. Lemley, p. 4, The State of Patent Eligibility in America: Part I (June 4, 2019), available at https://www.judiciary.senate.gov/imo/media/doc/Lemley%20Testimony.pdf.

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