

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

TESLA, INC.,
Petitioner,

v.

iQAR, INC. F/K/A INVENTLY AUTOMOTIVE, INC.,
Patent Owner

Case No. IPR2024-00630
Patent No. 10,850,616

PATENT OWNER'S SUR-REPLY

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Patent Owner submits this sur-reply in further opposition to Petitioner's reply (Paper 14) regarding the '616 patent.

I. INTRODUCTION

This is a highly unusual case. The patentability of Patent Owner's '616 patent is at issue. But rather than relying on third-party prior art, Petitioner points only to one of the published applications—Koebler 650—in the priority chain leading to the '616 patent itself as prior art. Koebler 650's specification is identical to that of the '616 patent. Despite this, Petitioner argues that Koebler 650 somehow does not provide written description support for the '616 patent's claims.

Patent Owner explained in detail in its Response why this is not the case: Koebler 650 comprehensively discloses a system that considers a variety of different “conditions” using a panoply of different “sensor” data to optimize vehicle operation just as the '616 patent's claims require. Moreover, the very limitations Petitioner now points to as lacking support are not only discussed throughout the specification (albeit in words different from those used by the claims), but were added to the claims **by the Office** during prosecution via an examiner's amendment.

Despite the comprehensiveness of Koebler 650, and the fact that the Office itself proposed the limitations at issue here, Petitioner continues to argue that Koebler 650 is prior art because—in Petitioner's view—the '616 patent's claims lack written description support. But in so doing, it fails to meaningfully grapple

with what Koebler 650 actually discloses to a POSITA. Instead, Petitioner limits itself to addressing single, isolated passages one at a time and in isolation. According to Petitioner, each of these passages—when read alone—are not the “same” as the claims. For instance, the discussion of “rolling resistance” is not the “same” as “traction.” The discussion of “tire resistance” is not the “same” as “traction.” Wheel speed sensors are not “necessarily” used to determine “traction.” “Rain” is not the “same” as “moisture.” Petitioner goes on and on in this same way when discussing the other conditions at issue, including the claimed “vibration” and “weather” and “stoplight” conditions. This is not how written description is to be analyzed. One does not look at individual isolated passages, and then baldly state that that passage—standing alone—is not the “same” as or do not “necessarily” lead to the claims. Instead, the **totality** of the specification must be considered **as a whole** to determine whether it reasonably conveys to a POSITA that the inventors were in possession of the claimed subject matter. Petitioner has not even attempted to perform this type of analysis. As a result, it has not met its burden to show unpatentability.

II. ARGUMENT

Again, and as explained in greater detail below, Petitioner has not met its burden to show lack of written description.

A. The Office Added the Limitations-at-Issue to the Claims

To begin, Petitioner once again fails to meaningfully address—just as it did in its Petition—that the limitations it now argues lack written description support were added to the claims **by the Office itself** as part of an examiner’s amendment. *See* Ex. 1002, pp. 28-29. So, Petitioner is effectively asking the Board to find that the Office not only erred when proposing this amendment, but did so in a way that was so egregious that it now renders the claims unpatentable. This, of course, makes little sense. As discussed below, the claims are meant to broadly embrace determination of a variety of “current conditions” using a variety of different “sensor data samples.” The Examiner’s amendment during prosecution was simply meant to reflect this breadth of disclosure. *See, e.g., Apple, Inc. v. Seven Networks, LLC*, No. IPR2020-00425, Paper 10 at 10-16 (P.T.A.B. Sept. 1, 2020) (explaining that the Board should defer to prior Examiner determinations regarding written description support, particularly when limitations are added via examiner’s amendment).

Finding the claims unpatentable would also be highly inequitable. Koebler 650’s and the ’616 patent’s specifications are identical. Indeed, Petitioner is now attempting to use Koebler 650 as **prior art** to the ’616 patent creating a quixotic situation in which the very specification that purportedly invalidates due to its breadth of disclosure somehow allegedly does not provide written description support for the admittedly broad claims. Moreover, as reflected by the ’616 patent’s prosecution

history, this is not a case where Patent Owner purposefully sought to obtain narrowly tailored claim coverage referencing concepts that it was not entitled to protect. Instead, it simply worked with the Office in good faith to resolve any concerns the Office had regarding the wording and scope of the claims. *See generally* Ex. 1002. Any ruling in Petitioner’s favor will effectively punish Patent Owner for those good faith efforts and serve as a strong disincentive to future applicants to similarly engage with examiners to resolve differences.

B. Petitioner Misrepresents Patent Owner’s Claim Construction Arguments

Next, in addition to entirely ignoring the circumstances that gave rise to the ’616 patent’s claims, Petitioner grossly misrepresents Patent Owner’s positions in this proceeding. The most egregious example of this is Petitioner’s discussion of claim construction. Here, Petitioner accuses Patent Owner of proposing a construction which would allow “only sensor data samples from unenumerated sensors” to be “analyzed to determine the Enumerated Current Conditions.” Reply, 7. This is not Patent Owner’s position. The Response—just like the ’616 patent’s claims themselves—makes clear that while at least one “sensor data sample[]” considered by a system needs to be of the type claimed, other input can also be employed along with that “sensor data sample” when determining a “current condition.” *See* Response, 6–7. In other words, it is not necessary to use only the claimed “sensor data samples”: other input can also play a role in “current condition”

determination so long as at least “sensor data sample” is also used. *See id.* So, for instance, a “moisture” condition can be determined in part by the claimed “position sensor” along with other input (like data received from a weather service). It is not necessary to determine a “moisture” condition (or any other claimed condition) using only the listed “sensor data samples” alone. This is what Petitioner misses. Instead, it replies to an argument that Patent Owner never made.

C. Koebler 650 Provides Adequate Written Description Support for the '616 Patent's Claims

Next, like it did in its very brief discussion of written description in the Petition, Petitioner once again takes an overly pedantic—and legally erroneous—approach to assessing written description in its Reply. To satisfy the written description requirement, the specification is not required to include a verbatim recitation of the claim language. *See Pozen Inc. v. Par Phams., Inc.*, 696 F.3d 1151 (Fed. Cir. 2012) (“[T]he disclosure as originally filed does not have to provide *in haec verba* support for the claimed subject matter at issue.”) Instead, the specification must only “convey with reasonable clarity to those skilled in the art that ... [the inventor] was in possession of the invention.” *Id.* (quoting *Purdue Pharma L.P. v. Faulding Inc.*, 230 F.3d 1320, 1323 (Fed. Cir. 2000).) Moreover, assessment of compliance with the written description requirement necessitates “an objective inquiry into the four corners of the specification from the perspective of a person of ordinary skill in the art....” *Hologic, Inc. v. Smith & Nephew, Inc.*, 884 F.

3d 1357, 1361 (Fed. Cir. 2018) (*quoting Ariad Pharm., Inc. v. Eli Lilly & Co.*, 598 F.3d 1336, 1351 (Fed. Cir. 2010) (*en banc*)).

Given this, much of Petitioner’s reply is entirely irrelevant. It does not matter if individual portions of the specification—when read in isolation and standing alone without the context the rest of the specification provides—are not “necessarily” “the same thing” as the claims. *E.g.*, Reply, 4, 11, 14, 18. Instead, all that matters is that the specification—when *read as a whole*—reasonably conveys possession of the claimed subject matter. It does so here.

1. Koebler 650 Discloses the Determination of a “Traction” Condition

Petitioner begins its discussion of the claimed “traction” condition by proposing a narrow, hyper-technical definition of the term. According to Petitioner, “traction” refers to “tangential force ... transmitted across the interface between two bodies through dry friction or an intervening fluid film, resulting in motion, stoppage, or the transmission of power.” Reply, 10-11. Petitioner then goes on to argue that Koebler 650 is deficient because it does not determine this very specific type of “traction information.” *Id.*

This is not what the claims require. The ’616 patent relates to “methods and systems for controlling power applied to a vehicle engine.” Ex. 1001, 1:15-16. In this particular field, the term “traction” has a well-understood meaning: it simply refers to whether or not the vehicle’s tires are gripping the road. *See, e.g.*, Ex. 2001,

¶¶ 129-131. This requires nothing more than determining whether the vehicle has traction (*i.e.*, whether its tires are gripping the road or not). *See id.* There is no requirement that any sort of force calculations occur. Indeed, imposing such a requirement would be directly contrary to the claim language itself: the claims require only determination of a “traction” condition, not the actual amount of tangential force being exerted on the roadway.

Next, Petitioner does little more than analyze different parts of Koebler 650 in isolation. It never addresses the conclusions a POSITA would have reached when reading Koebler 650 as a whole. Again, this is how written description is to be analyzed: an “inquiry” into everything within the “four corners” of the specification is required. *Hologic*, 884 F. 3d at 1361. Here, Koebler 650’s system determines vehicle efficiency, information about the vehicle tires, rolling resistance, and tire resistance. *See* Koebler 650, 7:1-4, 7:36-38, 8:32-40, 15:51-55. As explained by Patent Owner’s expert, traction is a key part of any such efficiency determination. *See* Ex. 2001, ¶¶ 129-131. Moreover, Patent Owner’s expert Dr. Bevly also explained that when tire and rolling resistance are zero, the vehicle has lost traction. *See id.*, ¶ 130. When they are not zero, the vehicle has traction. *See id.* Koebler 650 also employs sensors—engine and wheel speed sensors—that are routinely used in the art to determine vehicle traction. *See* Koebler 650, 4:1-18, 8:41-51, 21:29:62.

It is all this together—and not any particular portion of Koebler 650 in isolation—that provides written description support.

Patent Owner’s expert Dr. Bevly explained this at length in his declaration. *See, e.g.*, Ex. 2001, ¶¶ 129-134. While Petitioner argues that Dr. Bevly “confirmed” that Koebler 650’s various disclosures are not the “same” as “traction” (*e.g.*, Reply, 11-12), it arrives at this conclusion only by ignoring the bulk of Dr. Bevly’s testimony. In particular, Dr. Bevly explained that a POSITA would understand both “tire resistance” and “rolling resistance” to “include ... information about traction.” *Id.*, 45:3-7, 48:11-19. He also explained—consistent with his declaration—that wheel speed and RPM sensors together are “essentially a measure of traction.” Ex. 1055, 50:10-13; *see also id.*, 46:4-25 (similarly explaining how a POSITA would understand Koebler 650’s teachings of “efficiency, “engine rpm,” and “wheel speed rpm” to embrace traction determinations). So Petitioner treats Dr. Bevly’s testimony in the same way as Koebler 650: it considers only isolated passages without giving any consideration to the totality of what Dr. Bevly said.

Petitioner also points to the testimony of its own expert regarding the meaning of “traction” and the import of the various portions of Koebler 650 to the claims. But similar testimony is nowhere to be found in Petition. Instead, it was improperly presented for the first time in reply. Petitioner could have—but did not—address the relevant portions of Koebler 650’s disclosure when it originally filed. *See, e.g.*,

Henny Penny Corp. v. Frymaster LLC, 938 F.3d 1324, 1330-31 (Fed. Cir. 2018) (refusing to consider “entirely new rationale” for unpatentability raised for the first time in reply). Further, this expert testimony does not meet Petitioner’s burden. According to Petitioner, the mere fact that it has created a “dispute” regarding how a POSITA would have understood Koebler 650 is somehow sufficient to show lack of written description. *See, e.g.*, Reply, 27. This falls well short. Petitioner bears the burden of proof here. Thus, it must do more than simply create a “dispute”: it must **prove** with a preponderance of evidence that its interpretation of the record is the right one. Because it failed to address Koebler 650’s disclosures together and instead only discussed the different passages cited by Patent Owner and Dr. Bevly in isolation, it has not done so.

2. Koebler 650 Discloses the Determination of a “Vibration” Condition

Petitioner takes the same approach when addressing Koebler 650’s disclosure of a “vibration” condition. Once again, rather than addressing Koebler 650 in its entirety, it focuses only on isolated passages alone and without context.

As explained previously, Koebler 650 broadly references the use of a variety of sensors to determine many different vehicle operation conditions. *See* Koebler 650, 4:1-8, 8:12-19, 19:62-65, 21:29-62. Moreover, more specifically, Koebler 650 references the determination of conditions that result in (or at least would be understood to include) vehicle vibration. This includes determination of the

“terrain” over which the vehicle is traveling and the “condition of a road.” *Id.*, 3:41-67, 7:45-62, 13:57. Moreover, Koebler 650 references the use of sensors that a POSITA would have understood collect vibration information, including gyroscopes, tire pressure sensors, and position sensors. *See id.*, 21:42, 4:3-11, 8:48-49, 21:49-51. It is all this disclosure together that provides the required claim support. *See* Response, 30-35; *see also* Ex. 2001, ¶¶ 102-121.

Again, Petitioner makes no effort to collectively consider Koebler 650’s disclosure. Instead, it limits itself to nit-picking individual passages. For example, it argues that “terrain” determinations may be made “without determining vibration information.” Reply, 14-15. It is not the reference to terrain alone that provides written description support: it is everything Koebler 650 discloses that does so, including operation determination, terrain assessment, road condition assessment, and the use of sensors that detect vibration. Similarly, the mere fact that a “condition of the road”—by itself—could entail simply determining “a state of being ... an open way” says nothing about the totality of Koebler’s disclosure. *Id.*, 15. Koebler 650 also explains that its system considers “forces and conditions that act on the vehicle.” Koebler 650, 1:54-56. This of course informs how a POSITA would have interpreted Koebler 650’s reference to road “condition.” Koebler 650 plainly is referring not just to the fact that a road is a road, but the road’s “condition” and how that condition bears on the vehicle’s operation. And the mere fact that a gyroscope,

tire pressure sensor, and position sensor by themselves do not “necessarily” measure vibration is of no moment. *See* Reply, 16-18. Again, it is the fact that these sensors are all identified together in a specification that also discusses road condition/terrain determinations that would lead a POSITA to conclude that the inventors considered their invention to embrace the determination of an “amount of vibration” condition. In sum, the type of piece-meal analysis Petitioner performs here fails to meaningfully address written description.

3. Koebler 650 Discloses the Determination of a “Moisture” Condition

Petitioner’s discussion of the claimed “moisture” condition is no better. Here, Petitioner appears to argue that Koebler 650 falls short because it discusses only some—but not all possible—types of “moisture” that may be encountered by a vehicle. *E.g.*, Reply, 18-21. There is no such requirement. Instead, any disclosure of any moisture condition is sufficient.

Koebler 650 discloses determination that it is raining at the vehicle’s location. *See, e.g.*, Koebler 650, 21:29-63 (“appropriate sensors” can determine conditions such as “rain”); Fig. 9 (showing receipt of rain/precipitation information for the vehicle’s location). Rain is undeniably a type of moisture. *See, e.g.*, Ex. 2031, 27:19-21 (Petitioner’s expert agreeing that the roadway will be “wet” when it is “raining”). Nor does the claimed a “moisture” condition need to be completely distinct from “weather.” Many of the claimed “conditions” are overlapping. *See,*

e.g., Ex. 1001, claim 1 (referencing not only “weather” but also “wind direction,” “wind velocity,” “temperature,” “air pressure,” “visibility,” and “moisture”).

Patent Owner’s expert Dr. Bevly also did not “confirm” that there is some difference between rain and a “moisture” condition. *E.g.*, Reply, 18-19. Instead, he repeatedly explained to Petitioner’s counsel that rain is an example of a moisture condition that may be encountered by a vehicle. Ex. 1055, 19:3-21. Just as it does throughout its reply, Petitioner fails to address that testimony instead once again focusing only on the testimony it likes without considering the entirety of what Dr. Bevly said.

4. All of the Other Conditions Referenced by Petitioner Are Also Supported by Koebler 650

Petitioner next continues to challenge Koebler 650’s description of the determination of weather, temperature, wind velocity, wind direction, air pressure, timing of stoplights, and location of stoplight conditions. *See* Reply, 21. These conditions—and their use when optimizing vehicle operation—are all mentioned **explicitly** in Koebler 650. *See, e.g.*, Koebler 650, 3:41-67. Despite this, Petitioner argues that there is no “teaching within Koebler650’s description that a current vehicle position is used” to determine any of the conditions. Reply, 22. Petitioner relatedly accuses Patent Owner of engaging in “speculation” when it argues that a position sensor would be employed to determine Koebler 650’s weather/stoplight information. *Id.*

This is unmitigated nonsense. Koebler 650 repeatedly explains that this weather/stoplight information is collected for the location “around the vehicle.” *Id.*, 3:41-67; 7:45-62. Moreover, Koebler 650 indisputably employs a position sensor to locate the vehicle. *E.g., id.*, 21:29-37. Again, to satisfy the written description requirement, a specification is only required to reasonably convey that the inventors possessed the claimed subject matter. By discussing both (1) determination of weather/stoplight information “around the vehicle” location and (2) determination of the vehicle’s location via a position sensor, Koebler 650 does here.

Undeterred, Petitioner continues by itself speculating that there are “various methods”—besides the use of a position sensor—that could potentially be employed to determine weather/stoplight information around a vehicle. *E.g.*, Reply, 23. This does not negate the fact, however, that one of the ways Koebler 650 determines the position of the vehicle (and thus the weather, traffic, wind, and stop light location/timing around the vehicle) is via a position sensor. All that Petitioner has done is shown that ’616 patent could have claimed more than it did. It has done nothing, however, to show that there is a lack of written description.

D. Petitioner’s Other Arguments Lack Merit

Petitioner concludes by asserting that Patent Owner’s “position is ... legally untenable because it is contrary to Federal Circuit and PTAB panel decisions....”

Reply, 24. In fact, the opposite it is the case: the various decisions cited by Petitioner are inapposite and only serve to highlight how Petitioner goes awry.

For instance, one of the cases Petitioner cites appeared to improperly impose the burden of proof on the patent owner. *See, e.g., BJ's Wholesale Club Holdings, Inc. v. Walmart Apollo, LLC*, IPR2022-01564, Paper 31 at 47 (P.T.A.B. Apr. 10, 2024) (noting that “Patent Owner has not shown by a preponderance of the evidence” that a provisional application provides written description support). Here, the burden to show unpatentability rests solely on Petitioner. *See, e.g., Dynamic Drinkware, LLC v. Nat’l Graphics, Inc.*, 800 F.3d 1375, 1378 (Fed. Cir. 2015) (explaining that the burden of persuasion regarding patentability never shifts to the patent owner).

The other cited cases involved claims very different from those here. For example, in some cases, a patent owner attempted to narrowly claim a specific species while the patent-in-question’s specification only included a generic, non-specific disclosure. *Knowles Electronics* is one example. The specification in that case just referenced soldering in general, while the claims were limited to just one very specific type of soldering that was not mentioned in the specification. *See Knowles Electronics LLC v. Cirrus Logic, Inc.*, 883 F.3d 1358, 1365-66 (Fed. Cir. 2018). In other cases, the specification was contrary to the claim limitation at issue. *See, e.g., Home Depot U.S.A., Inc. v. Lynk Labs, Inc.*, PGR2023-00016, Paper 32 at

23 (P.T.A.B. July 31, 2024) (noting that the two electrical elements cannot be connected in the way the claim requires if they are to operate in the way described in the specification).

Here, both the Koebler 650 specification and the claims of the '616 patent are broad. Koebler 650 explains that its optimization system considers a variety of “external factors (e.g., forces and conditions that act on the vehicle).” Koebler 650, 1:53-56. And the system can use “any appropriate sensors, detectors or data inputs” when doing so. *Id.*, 21:29-31. Moreover, as explained throughout Patent Owner’s Response, Koebler 650 is replete with example determined conditions and sensors employed by the disclosed system. This is not a case—like Petitioner’s cases—where a patent includes a generic description but attempts to claim one specific species. Instead, **both** the specification and the claims of the '616 are broad and comprehensive. Nor is this a case where the specification contradicts later filed claims. Instead, the '616 patent’s claims simply provide a list of example conditions and sensors that are both reflective of—and entirely consistent with—Koebler 650’s and the '616 patent’s own specification.

III. CONCLUSION

For the reasons outlined above, and in Patent Owner’s Response, the patentability of the '616 patent’s claims must be confirmed.

Respectfully submitted,

ORRICK, HERRINGTON & SUTCLIFFE LLP

Dated: April 24, 2025

/K. Patrick Herman/

K. Patrick Herman, Reg. No. 75,018
Orrick, Herrington & Sutcliffe LLP
51 West 52nd Street
New York, NY 10019
Telephone: (212) 506-3596
Email: P52PTABDocket@orrick.com

Counsel for Patent Owner iQar, Inc.

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The undersigned certifies that the foregoing paper complies with the type-volume limitation in 37 C.F.R. § 42.24. According to the utilized word-processing system's word count, the paper—excluding any portions mentioned in § 42.24(a)(1)—contains 3,550 words.

Dated: April 24, 2025

By: /K. Patrick Herman/

K. Patrick Herman, Reg. No. 75,018
Orrick, Herrington & Sutcliffe LLP
51 West 52nd Street
New York, NY 10019
Telephone: (212) 506-3596
Email: P52PTABDocket@orrick.com

Attorney for Patent Owner

CERTIFICATE OF SERVICE

The undersigned hereby confirms that the foregoing paper was caused to be served on April 24, 2025 via email upon the following counsel of record for Petitioner:

W. Karl Renner, Robert Devoto, Ryan Chowdhury,
Patrick Darno: IPR49649-0021IP1@fr.com
Ashraf A. Fawzy: afawzy@tesla.com

/K. Patrick Herman/

K. Patrick Herman, Reg. No. 75,018
Orrick, Herrington & Sutcliffe LLP
51 West 52nd Street
New York, NY 10019
Telephone: (212) 506-3596
Email: P52PTABDocket@orrick.com