

NOTE: This disposition is nonprecedential.

**United States Court of Appeals
for the Federal Circuit**

SNAP-ON INCORPORATED,
Appellant

v.

**MILWAUKEE ELECTRIC TOOL CORPORATION,
METCO BATTERY TECHNOLOGIES, LLC, TTI
(MACAO COMMERCIAL OFFSHORE) LTD., FKA
AC (MACAO COMMERCIAL OFFSHORE) LTD.,
TECHTRONIC INDUSTRIES CO. LTD.,**
Appellees

2017-1305, 2017-1306, 2017-1307, 2017-1330, 2017-1331,
2017-1332

Appeals from the United States Patent and Trade-
mark Office, Patent Trial and Appeal Board in Nos.
IPR2015-01164, IPR2015-01165, IPR2015-01166,
IPR2015-01242, IPR2015-01243, IPR2015-01244,
IPR2016-00343, IPR2016-00344, IPR2016-00345.

Decided: February 16, 2018

AMOL A. PARIKH, McDermott Will & Emery LLP,
Chicago, IL, argued for appellant. Also represented by
JOSEPH H. PAQUIN, JR.; PAUL DEVINSKY, Washington, DC.

JASON C. WHITE, Morgan, Lewis & Bockius LLP, Chicago, IL, argued for appellees. Also represented by SCOTT D. SHERWIN; DION MICHAEL BREGMAN, Palo Alto, CA; JULIE S. GOLDEMBERG, Philadelphia, PA; WILLIAM R. PETERSON, Houston, TX.

Before REYNA, TARANTO, and CHEN, *Circuit Judges*.

CHEN, *Circuit Judge*.

Snap-on Incorporated (Snap-on) appeals from the final written decisions of the Patent Trial and Appeal Board (Board) in the above-captioned *inter partes* review proceedings (IPRs) that found certain claims of three of Appellees' patents to be nonobvious over prior art combinations argued by Snap-on.¹ Appellees' patents claim battery packs comprising a plurality of battery cells. The parties dispute, *inter alia*, the proper construction of a claim term that appears in substantially identical form in each of the challenged claims: "the battery cells being capable of producing an average discharge current greater than or equal to approximately 20 amps" (20-Amp Limitation). *See, e.g.*, J.A. 268, '290 patent col. 12 ll. 18–22.²

¹ In particular, the Board found the following claims to be nonobvious over Snap-on's prior art combinations: claims 1–11 of U.S. Patent No. 7,554,290; claims 1–13 of U.S. Patent No. 7,994,173; and claims 1–19 of U.S. Patent No. 7,999,510 (collectively, "challenged claims").

² All citations to the joint appendix and briefs are to filings submitted in case no. 16-2658, which previously served as the lead case in this consolidated appeal until the appellants in that case settled with Appellees and the case was dismissed shortly before oral argument.

The Board construed the 20-Amp Limitation to mean “the battery cells, when configured together in a battery pack, are capable of producing reasonably close to 20 amps of discharge current or greater over the course of delivering their entire rated capacity.” *See, e.g.*, J.A. 410.³ This was the construction adopted by the United States District Court for the Eastern District of Wisconsin in prior litigation involving Appellees’ patents. *See Milwaukee Elec. Tool Corp. v. Hitachi Koki Co.*, 2012 WL 10161527, No. 09-C-948, at *3–4 (E.D. Wis. Dec. 11, 2012). The Board endorsed the district court’s analysis in adopting the claim construction. *See, e.g.*, J.A. 441.

Snap-on argues that the Board erred by including “over the course of delivering their entire rated capacity” in the construction because, according to Snap-on, this language includes “concepts found nowhere in the [c]hallenged [p]atents.” Snap-on Reply Br. 3. However, the Board adopted the district court’s conclusion that “the capacity of a battery is normally measured by discharging at a constant current until the battery has reached its terminal voltage.” *Milwaukee Elec. Tool*, 2012 WL 10161527, at *4. This conclusion is supported by a dictionary definition of “rated capacity,” which is defined as “[t]he manufacturer’s statement of the number of ampere-hours or watt-hours that can be delivered by a fully charged battery at a specific discharge rate and electrolyte temperature, to a given end-of-discharge voltage.” *Id.* (quoting *IEEE 100: The Authoritative Dictionary of IEEE Standard Terms* 920 (7th ed. 2000)). Nothing in the specifications or prosecution histories of the challenged patents displaces or undermines the idea that a battery pack’s capability is measured over its entire rated capaci-

³ Regarding the issue of claim construction, the Board’s analyses and the parties’ arguments are substantially the same for each of the IPRs.

ty. Because the record supports this notion, we reject Snap-on's argument on this issue.

Snap-on also argues that the Board erred in "entirely read[ing] out" the term "average" in its construction. Snap-on Open. Br. 33. We agree. As a general matter, we construe a claim term to take on its plain and ordinary meaning to one of skill in the art when read in the context of the specification and prosecution history. *Wasica Fin. GmbH v. Cont'l Auto. Sys., Inc.*, 853 F.3d 1272, 1282 (Fed. Cir. 2017). Appellees' own cited expert testimony states:

One of ordinary skill in the art in relation to the patents in suit would have understood that the term "average discharge current greater than or equal to approximately 20 amps" as used in the patents in suit referred primarily to the capability of providing an *average* discharge current of approximately 20 amps, and that it included the operational range of currents for battery packs for hand held power tools.

J.A. 12336–37 (emphasis added). Thus, Appellees' own expert included the word "average" in his stated interpretation of the 20-Amp Limitation.

Appellees nevertheless argue that omission of the word "average" from the Board's construction is supported by evidence in the record showing that batteries were commonly tested using "[c]onstant current discharge tests" that held current constant while measuring voltage. Resp. Br. 42 (citing J.A. 3898–99). While this may be true, there is no indication in the specification⁴ that this sort of testing should limit the plain and ordinary meaning of "average," which would include situations when current rises above and dips below the 20-amp target so

⁴ All of the patents at issue have substantially identical specifications.

long as the *average* discharge current over the entire rated capacity is 20 amps or greater.

The specification references the 20-Amp Limitation in only one place:

In some constructions, the battery pack 30 can power various power tools (including a driver drill 300 and circular saw 305) having high discharge current rates. For example, the battery pack 30 can supply an average discharge current that is equal to or greater than approximately 20 A, and can have an ampere-hour capacity of approximately 3.0 A-h.

J.A. 267, '290 patent col. 10 ll. 20–26. Snap-on argues, and Appellees do not dispute, that a battery pack discharges current in bursts when used with a circular saw, such that the current would swing above and below 20 amps. The fact that the phrase “average discharge current” is *only* used in the portion of the specification describing an “example” of embodiments that undisputedly discharge current at levels that swing above and below 20 amps shows that the word “average” should take on its ordinary meaning, especially given the Board’s obligation to use the *broadest* reasonable construction in IPRs. *Cuozzo Speed Techs., LLC v. Lee*, 136 S. Ct. 2131, 2142 (2016).

For the foregoing reasons, we hold that the correct claim construction of the 20-Amp Limitation is: “the battery cells, when configured together in a battery pack, are capable of producing, *on average*, reasonably close to 20 amps of discharge current or greater over the course of delivering their entire rated capacity.” Although the Board erred in omitting the word “average” from its construction, the Board’s fact findings regarding obviousness are still supported by substantial evidence and the

Board's legal determinations of obviousness are correct under the proper claim construction.⁵ The harmless error rule applies to appeals from the Board. *See, e.g., In re Watts*, 354 F.3d 1362, 1369 (Fed. Cir. 2004). Regarding Hilti's proposed combination of the Takano and Yanai prior art references, substantial evidence supports the Board's conclusion that the Yanai cells referred to in Hilti's petition would *never* reach the 20-amp threshold, let alone that the cells could sustain operation, *on average*, at 20 amps. *See generally, e.g., J.A. 415–25*. With respect to Snap-on's proposed combination of Fohr, Sato, and Hallaj, substantial evidence supports the Board's conclusion that a person of ordinary skill in the art would have no motivation to combine these references and no reasonable expectation of success in achieving the 20-Amp Limitation, even under the proper construction. *See generally, e.g., J.A. 796–804*.

We have considered all of Snap-on's remaining arguments and find them to be unpersuasive in overcoming the foregoing conclusions.

AFFIRMED

⁵ We have considered all of the arguments in the briefs submitted by Snap-on and Hilti, Inc. (co-petitioner for three of the above-captioned IPRs) and find them to be unpersuasive, even under the correct claim construction.