

United States Court of Appeals for the Federal Circuit

WBIP, LLC,
Plaintiff-Cross-Appellant

v.

KOHLER CO.,
Defendant-Appellant

2015-1038, 2015-1044

Appeals from the United States District Court for the District of Massachusetts in No. 1:11-cv-10374-NMG, Judge Nathaniel M. Gorton.

Decided: July 19, 2016

DAVID ANDREW SIMONS, K&L Gates LLP, Boston, MA, argued for plaintiff-cross-appellant. Also represented by ANDREA B. REED; MICHAEL E. ZELIGER, Palo Alto, CA.

E. JOSHUA ROSENKRANZ, Orrick, Herrington & Sutcliffe LLP, New York, NY, argued for defendant-appellant. Also represented by RACHEL WAINER APTER; BRIAN PHILIP GOLDMAN, San Francisco, CA; KATHERINE M. KOPP, T. VANN PEARCE, JR., ERIC SHUMSKY, Washington, DC; STEVEN M. BAUER, WILLIAM DAVID DALSEN, SAFRAZ ISHMAEL, Proskauer Rose LLP, Boston, MA.

Before MOORE, O’MALLEY, and CHEN, *Circuit Judges*.

MOORE, *Circuit Judge*.

Kohler Co. appeals from the United States District Court for the District of Massachusetts’ denial of judgment as a matter of law that claims 1–6, 8, and 10–12 of U.S. Patent No. 7,314,044 and claims 26 and 28 of U.S. Patent No. 7,832,196 (collectively “asserted claims”) would have been obvious and lack sufficient written description and the determination that Kohler willfully infringed the asserted claims. WBIP, LLC cross-appeals the court’s denial of its post-trial motion for a permanent injunction. We affirm the court’s denial of judgment as a matter of law on all issues raised by Kohler and its willful infringement determination, vacate the court’s denial of WBIP’s motion for a permanent injunction, and remand for further consideration.

BACKGROUND

Westerbeke Corporation¹ and Kohler are competitors who manufacture and sell marine generators (“gen-sets”) that are used on houseboats to create electrical power for appliances such as refrigerators and air conditioners. Gen-sets have two main parts, an engine and a generator. The exhaust from a typical engine in a gen-set, like any gasoline-powered engine, contains carbon monoxide, which can cause asphyxiation at certain concentrations. Carbon monoxide is particularly dangerous on boats, where the living quarters are confined in close proximity to the engine. Prior to the invention of the patents in suit, the exhaust pipes of prior art marine gen-sets were

¹ John Westerbeke, the sole inventor of the patents in suit, majority-owns Westerbeke Corporation and wholly owns the assignee of the patents in suit, WBIP, which stands for “Westerbeke Intellectual Property.”

vented out of the boat into a safe location to reduce potential exposure to carbon monoxide. In the early 2000s, the National Institute for Occupational Safety and Health (“NIOSH”) investigated concerns about carbon-monoxide-related poisonings and deaths on houseboats. NIOSH found that, for houseboats with gen-sets that discharged exhaust around the swim platform, carbon monoxide levels in the swim area were at or above levels that are immediately dangerous to life and health.

The ’044 and ’196 patents, which claim priority to 2003 and have similar specifications, are directed to marine engine exhaust systems that reduce the amount of carbon monoxide released in the exhaust. *See* ’044 patent at Abstract, 1:13–14, 1:47–58, 2:12–30. The Background sections of the patents discuss the use of chemical catalysts as “[s]ome of the most effective and cost-efficient emissions controls” and discuss that it was generally known that these catalysts work better at higher temperatures. *Id.* at 1:21–27. They note that most of the development work for exhaust catalysts focused on catalytic converters in automotive applications. But they explain that marine gen-sets are subject to different regulations than automotive engines, including regulations for emissions and safety. *Id.* at 1:27–32. One such regulation requires that exposed engine and exhaust system surface temperatures be kept low to reduce fire hazard potential. *Id.* at 1:32–35. The specifications explain that typical marine engines inject seawater into exhaust flows to cool exhaust gases and frequently circulate seawater through exhaust system components to keep surface temperatures low. *Id.* at 1:35–39.

Claim 1 of the ’044 patent is representative of the asserted claims, and recites:

1. A marine engine comprising:
 - [A] an exhaust system including

- [B] *a catalyst cooled by a flow of coolant, [C] the catalyst arranged to intercept a flow of exhaust;*
- [D] *a coolant injector that injects coolant into the flow of exhaust at a point downstream of the catalyst; and*
- [E] *a sensor arranged to sense a characteristic of the flow of exhaust; and*
- [F] *an engine controller configured to control an air/fuel ratio of the engine as a function of the sensed exhaust flow characteristic;*
- [G] *wherein the engine controller is also configured to govern engine speed with respect to a constant speed while maintaining the air/fuel ratio.*

'044 patent, 7:4–17 (emphases and bracketed letters added).

Westerbeke makes a low-carbon monoxide gen-set (“Safe-CO”) that incorporates the technology of the patents in suit. It introduced the Safe-CO gen-sets at a boat show in 2004. Two Kohler employees visited Westerbeke’s trailer at that show and asked how the low carbon monoxide levels were achieved. Westerbeke explained the technology to them and in particular how the Safe-CO gen-set used a catalyst and electronic fuel injection. About one year later, Kohler launched its own low-carbon monoxide gen-sets.

The '044 and '196 patents issued in 2008 and 2010, respectively. In 2011, WBIP, the assignee of the patents in suit, sued Kohler for patent infringement, asserting that Kohler’s low-carbon monoxide gen-sets infringed the asserted claims. Following a six-day trial in May 2013, a jury ruled in favor of WBIP, finding that Kohler infringed all the asserted claims and that Kohler had failed to prove

that any of the asserted claims were invalid either for obviousness or for lack of written description. The jury also set a reasonable royalty rate, calculated a damages award of \$9,641,206, and found that WBIP had proven by clear and convincing evidence that Kohler's infringement was willful. After the jury verdict, WBIP moved for a permanent injunction. The district court denied the motion. It also denied Kohler's renewed motion for judgment as a matter of law that the asserted claims were invalid for obviousness and for lack of written description. The district court granted Kohler remittitur, reducing the damages from \$9,641,206 to \$3,775,418. It granted WBIP's motion for enhanced damages under 35 U.S.C. § 284. It applied the factors from *Read Corp. v. Portec, Inc.*, 970 F.2d 816 (Fed. Cir. 1992), and concluded it was appropriate to enhance the damages by 50%. It found the case exceptional under 35 U.S.C. § 285 on account of Kohler's willful infringement and awarded reasonable attorney fees to WBIP. It denied WBIP's motion to reconsider the denial of a permanent injunction. Kohler appeals; WBIP cross-appeals. We have jurisdiction under 28 U.S.C. § 1295(a)(1).

DISCUSSION

We review a district court's denial of judgment as a matter of law under the law of the regional circuit. *Marine Polymer Techs., Inc. v. HemCon, Inc.*, 672 F.3d 1350, 1357 (Fed. Cir. 2012). The First Circuit reviews such denials de novo, explaining "a jury's verdict must be upheld unless the facts and inferences, viewed in the light most favorable to the verdict, point so strongly and overwhelmingly in favor of the movant that a reasonable jury could not have reached the verdict." *Id.* at 1357–58 (quoting *Astro-Med, Inc. v. Nihon Kohden Am., Inc.*, 591 F.3d 1, 13 (1st Cir. 2009)).

I. Obviousness

Obviousness is a question of law based on underlying facts. *Kinetic Concepts, Inc. v. Smith & Nephew, Inc.*, 688 F.3d 1342, 1360 (Fed. Cir. 2012). When reviewing a denial of judgment as a matter of law of obviousness, where there is a black box jury verdict, as is the case here, we presume the jury resolved underlying factual disputes in favor of the verdict winner and leave those presumed findings undisturbed if supported by substantial evidence. *Spectralytics, Inc. v. Cordis Corp.*, 649 F.3d 1336, 1342 (Fed. Cir. 2011). We then examine the legal conclusion de novo in light of those facts. *Id.*

Kohler argues that the district court erred in refusing to grant it judgment as a matter of law that the asserted claims would have been obvious in light of U.S. Patent No. 5,832,896 (“Phipps”) and standard elements that would have been known to an ordinarily skilled artisan.²

² At trial, Kohler argued specific combinations of prior art would have rendered the claims obvious. See, e.g., J.A. 15,873–74 (Kohler’s expert testifying that “it would have been obvious to include” Phipps’ constant speed engine in the control system described in another reference (“Fujimoto”)). On appeal, Kohler argues that it would have been obvious to a skilled artisan to adapt Phipps with “standard coolant elements” that “also existed in the prior art,” identifying two references that purportedly describe these “standard elements.” Appellant’s Br. 27, 30–31. To facilitate appellate review, parties should make explicit their analysis as to the combination of references on which they rely, as well as the asserted reason(s) to combine them. See *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 418 (2007). This is especially true here, where Kohler bears the burden on appeal to prove the evidence points so strongly and overwhelmingly in its

It also argues that WBIP’s objective evidence of non-obviousness cannot overcome the *prima facie* case and that WBIP failed to establish a nexus between the objective evidence and the merits of the claimed invention. We disagree on both points.

A. Obviousness and Motivation to Modify

Kohler argues, and WBIP does not dispute, that Phipps teaches every element of claim 1 of the ’044 patent except elements [B] and [D] (identified above). And it is not disputed that these elements [B] and [D] existed in other prior art. Citing *KSR*, Kohler argues that because each of the elements was known in the prior art, the question is whether a skilled artisan starting with Phipps would have found it obvious to add the conventional coolant features to Phipps to produce the claimed invention. At trial, Kohler presented evidence that a skilled artisan could do so if asked. *See, e.g.*, J.A. 15,858 (“Basically, one of ordinary skill, if they had [Phipps’] system and they were asked to apply that to -- in a marine environment, they would have known that the Coast Guard requires the exhaust system surface to be cooled.”); J.A. 14,873 (“[I]f someone said, Well, now you need to put [Phipps’ engine] in a marine environment, they would expect that by -- you know, No. 1, the Coast Guard tells them what they need to do.”). Kohler’s expert testified that if an ordinarily skilled artisan was told to put Phipps’ system in a marine engine, that artisan would have been “very confident that [he] would get predictable results.” J.A. 15,873. Kohler argues that combining Phipps’ land-based engine with the known coolant related elements necessary for marine engines would yield predictable results and that there were “design incentives

favor that a reasonable jury could not have found facts in favor of WBIP.

and other market forces” prompting one of skill in the art to adapt Phipps to boats. Appellant’s Br. 33.

At trial, Kohler offered evidence that the government was encouraging marine gen-set manufacturers to look to automotive engines that successfully controlled exhaust emissions and adapt them into marine engines, J.A. 19,445, including by evaluating the efficacy of using catalytic converters, J.A. 18,897. And Kohler’s expert testified that “people would have been motivated to include technology of reducing emissions even with a ‘wet’ exhaust system” like that in marine engines. J.A. 15,881. Kohler provided evidence that skilled artisans looking to manufacture marine engines would look to land engines generally. And Kohler argued that Phipps emphasizes that its invention is “particularly useful” in “low emission” engines. J.A. 19,049 at 9:42–46.

Whether an ordinarily skilled artisan would have been motivated to modify the teachings of a reference is a question of fact. *Kinetic Concepts*, 688 F.3d at 1366–67; *Belden Inc. v. Berk-Tek LLC*, 805 F.3d 1064, 1073 (Fed. Cir. 2015); see also *Wyers v. Master Lock Co.*, 616 F.3d 1231, 1238–39 (Fed. Cir. 2010) (noting that KSR “did not change th[e] rule” that “motivation to combine prior art references [i]s a question of fact”). We presume that the jury found that an ordinarily skilled artisan would not have been motivated to modify the teachings of Phipps. If such a fact finding is supported by substantial evidence, we may not reverse it.

WBIP’s primary argument is that one of skill in the art would not have been motivated to convert Phipps into a marine engine. WBIP criticizes Kohler’s expert testimony on the ground that it focuses on whether one of skill in the art could convert Phipps to a marine engine, not whether one of skill in the art would have been motivated to do so. WBIP’s main argument is that one of skill would not have started with Phipps because of concerns over

whether Phipps would even work for its intended purpose. WBIP's expert testified that Phipps discloses an "exhaust, gas, recirculation" control system for land, not marine, generators that is not only atypical, but "totally reverse" from any control system he had ever seen or read about. J.A. 16,026–28. He explained how an ordinarily skilled artisan would have viewed Phipps' reverse control system at the time of WBIP's invention:

[I]f I can equate this one to kind of a simple analogy, if you're trying to build a piece of furniture. What's a typical thing? You put on a piece of wood. You take a nail, and you hit the nail with a hammer. In control terms, what Mr. Phipps is suggesting is that you put the hammer on the workbench, pick up the piece of furniture and bash the piece of furniture onto the hammer. *It's totally backwards from what I believe one of skill in the art would even attempt to make an engine run, much less try to gain some secondary control like carbon monoxide.*

J.A. 16,027 (emphasis added). He further explained that modifying Phipps' land engine to make a marine engine would require a number of conversions, including adding a water jacket around the exhaust, adding ignition protection for any electrical component that could accidentally cause a spark, and scaling down the engine parts in order to fit within the smaller-sized marine engine. And he explained that, given that modifying Phipps to make it a marine engine would be "a lot of work," an ordinarily skilled artisan would not have seen the point in making such a modification because he would not have expected it to result in a gen-set that produced low amounts of carbon monoxide. J.A. 16,030. The expert explained that there was a "catch up" problem with Phipps which would prove particularly problematic in marine conditions. J.A. 16,027; *see* J.A. 15,197. WBIP argued that based on this evidence, a skilled artisan would not have had a

reasonable expectation the significant changes to Phipps would be successful.

WBIP argues that it presented evidence upon which a jury could have found that Phipps is “somehow so flawed that there was no reason to upgrade it, or [devices] like it, to be compatible with modern [devices]” and that this evidence may be sufficient to show that an ordinarily skilled artisan would not have modified that reference or combined it with others. *Cf. KSR*, 550 U.S. at 418. Thus, there is evidence of record from both sides regarding the presence or absence of a motivation to convert Phipps into a marine-based environment. As the ultimate question of obviousness is one of law which must consider all four *Graham* factors including objective indicia, we turn next to those factors, which can be powerful, real-world indicators of what would have been obvious.

B. Objective Considerations

The objective indicia of non-obviousness play an important role as a guard against the statutorily proscribed hindsight reasoning in the obviousness analysis. Indeed, we have held that “evidence of secondary considerations may often be the most probative and cogent evidence in the record.” *Stratoflex, Inc. v. Aeroquip Corp.*, 713 F.2d 1530, 1538 (Fed. Cir. 1983); *see also Truswal Sys. Corp. v. Hydro-Air Eng’g, Inc.*, 813 F.2d 1207, 1212 (Fed. Cir. 1987) (“That evidence is ‘secondary’ in time does not mean that it is secondary in importance.”); *Graham v. John Deere Co. of Kan. City*, 383 U.S. 1, 36 (1966) (“[Objective indicia] may also serve to guard against slipping into use of hindsight, and to resist the temptation to read into the prior art the teachings of the invention in issue.” (internal quotation marks and citation omitted)).

Kohler asserts on appeal that objective considerations of non-obviousness can never overcome a strong *prima facie* case of obviousness. Kohler misperceives the obviousness inquiry. A determination of whether a patent

claim is invalid as obvious under § 103 requires consideration of all four *Graham* factors, and it is error to reach a conclusion of obviousness until all those factors are considered. *In re Cyclobenzaprine Hydrochloride Extended-Release Capsule Patent Litig.*, 676 F.3d 1063, 1075 (Fed. Cir. 2012) (citing *Richardson-Vicks Inc. v. Upjohn Co.*, 122 F.3d 1476, 1483 (Fed. Cir. 1997)); *see also Asyst Techs., Inc. v. Emtak, Inc.*, 544 F.3d 1310, 1313–16 (Fed. Cir. 2008) (considering, e.g., both the scope and content of the prior art and the objective considerations of non-obviousness before affirming the district court’s judgment as a matter of law). Indeed, we have repeatedly stressed that objective considerations of non-obviousness must be considered in *every* case. *Transocean Offshore Deepwater Drilling Inc. v. Maersk Drilling USA, Inc.*, 699 F.3d 1340, 1349 (Fed. Cir. 2012) (“[E]vidence rising out of the so-called ‘secondary considerations’ must always when present be considered en route to a determination of obviousness.” (quoting *Stratoflex*, 713 F.2d at 1538)). This requirement is in recognition of the fact that each of the *Graham* factors helps to inform the ultimate obviousness determination. *Kinetic Concepts*, 688 F.3d at 1360; *Nike, Inc. v. Adidas*, 812 F.3d 1326, 1340 (Fed. Cir. 2016) (holding that evidence of secondary considerations must be examined to determine its impact on the first three *Graham* factors). Thus, the strength of *each* of the *Graham* factors must be weighed in every case and must be weighted en route to the final determination of obviousness or non-obviousness.

Kohler also argues that the objective evidence of non-obviousness is so weak in this particular case that it does not support a finding of non-obviousness. As explained below, we disagree with Kohler’s argument that the objective evidence of non-obviousness is entitled to little or no weight in this case. In fact, we find substantial evidence for the jury’s fact findings as to each of the

objective considerations of non-obviousness, which we conclude collectively support the jury verdict.

1. Nexus

On appeal, Kohler argues that the objective evidence of non-obviousness WBIP presented to the jury should not be considered because WBIP failed to prove there is a nexus between the presented evidence and the merits of the claimed invention. Kohler's argument is that, in order to prove a nexus exists, WBIP must show that what is "novel in the claim," which Kohler asserts are elements [B] and [D] of the claimed invention that are not disclosed by Phipps, is tied to the asserted objective evidence.

As WBIP correctly argues, there is a presumption of nexus for objective considerations when the patentee shows that the asserted objective evidence is tied to a specific product and that product "is the invention disclosed and claimed in the patent."³ *J.T. Eaton & Co. v. Atl. Paste & Glue Co.*, 106 F.3d 1563, 1571 (Fed. Cir. 1997); *Crocs, Inc. v. Int'l Trade Comm'n*, 598 F.3d 1294,

³ A limited exception to the presumption of nexus exists where the patented invention is only a component of the product to which the asserted objective considerations are tied. *Demaco Corp. v. F. Von Langsdorff Licensing Ltd.*, 851 F.2d 1387, 1392 (Fed. Cir. 1988). Kohler does not argue that this exception applies in this case, nor could it. The asserted claims are drawn to a "marine engine" ('044 patent claims 1–6, 8, 10–11) or to a "method of controlling emissions from an internal combustion engine configured for marine application" ('044 patent claim 12 and '196 patent claims 26 and 28). The Westerbeke and Kohler low-carbon monoxide gen-sets are the identical type of device, marine engines, as that of the asserted claims and practice the claimed methods in order to control their emissions.

1310–11 (Fed. Cir. 2010); *Brown & Williamson Tobacco Corp. v. Philip Morris, Inc.*, 229 F.3d 1120, 1130 (Fed. Cir. 2000); *Demaco*, 851 F.2d at 1392–93.

The presumption of nexus is rebuttable: a patent challenger may respond by presenting evidence that shows the proffered objective evidence was “due to extraneous factors other than the patented invention.” *Demaco*, 851 F.2d at 1393. Such extraneous factors include additional unclaimed features and external factors, such as improvements in marketing. *See, e.g., Ecolochem, Inc. v. S. Cal. Edison Co.*, 227 F.3d 1361, 1378 (Fed. Cir. 2000) (applying presumption even though commercial embodiment had unclaimed mobility feature); *Ormco Corp. v. Align Tech., Inc.*, 463 F.3d 1299, 1312 (Fed. Cir. 2006) (holding that evidence that commercial success was due to unclaimed or non-novel features of device “clearly rebuts the presumption that [the commercial product’s] success was due to the claimed and novel features”). However, a patent challenger cannot successfully rebut the presumption with argument alone—it must present evidence. *Brown & Williamson*, 229 F.3d at 1130 (citing *Demaco*, 851 F.2d at 1393).

At trial, WBIP presented evidence that specific products (i.e., Westerbeke’s Safe-CO gen-sets and Kohler’s accused products) are embodiments of the invention as claimed in the asserted claims. *See* Cross-Appellant’s Br. 45–47 (citing J.A. 15,191–92, 15,195–200, 15,821–22, 17,279, 17,283, 17,287, 17,291, 17,295, 17,299, 17,303, 17,307, 17,253). And its proffered objective evidence relates to these specific products. As Kohler agrees, WBIP presented evidence on five types of objective evidence of non-obviousness, all of which are tied to the claimed gen-sets achieving safe carbon monoxide levels. This evidence was: 1) the long-felt need for reducing carbon monoxide poisonings from marine gen-sets, Cross-Appellant’s Br. 34–35 (citing J.A. 17,915, 17,742, 17,204, 15,371–72, 15,478, 15,500–01, 15,448–52, 15,996–97);

2) industry skepticism that gen-sets producing exhaust substantially free of carbon monoxide could be produced, *id.* at 39–40 (citing J.A. 17,213–15, 15,373–75, 15,489–90); 3) industry praise of Westerbeke’s Safe-CO gen-sets, including winning the National Marine Manufacturers Association Innovation Award in 2004, *id.* at 40–41 (citing J.A. 15,562–68, 17,915, 17,252, 17,254–55); 4) Kohler’s copying of Westerbeke’s Safe-CO gen-sets following a 2004 boat show, *id.* at 41–43 (citing J.A. 15,375–77, 17,784–88, 17,813); and 5) the commercial success of low-carbon monoxide gen-sets, including Kohler’s gen-sets, that incorporate the patented technology, *id.* at 43–45 (citing J.A. 17,899, 16,003, 15,592–601, 17,785, 17,915, 17,780, 17,782, 15,493–94, 15,569–70, 17,892). This showing—that the specific products are embodiments of the claimed invention and that the proffered objective evidence relates to these products—is sufficient to establish the presumption of nexus for the objective considerations at issue in this case.⁴

⁴ Kohler does not dispute the applicability of the presumption of nexus to commercial success. Kohler responds to WBIP’s argument that it is entitled to a presumption of nexus only in a footnote in its Response and Reply Brief, which asserts, without further explanation or citation, that “*Crocs*’ prima facie case of nexus applies only to evidence of commercial success, not to any other secondary-considerations evidence.” Resp. & Reply Br. 24–25 n.8. We do not read *Crocs* as so limited. *Crocs* first discusses the presumption of nexus with respect to commercial success, but continues on to discuss the concept with respect to praise and copying. 598 F.3d at 1311. In so doing, it recognizes that the prima facie case of nexus for any of the three objective considerations at issue was not rebutted, stating “[i]n the absence of any record evidence attributing *these secondary considerations*

We review Kohler's remaining arguments to ascertain whether they rebut the presumption of nexus. Kohler argues that all of WBIP's proffered objective considerations are irrelevant because they are tied to a reduction in carbon monoxide emissions and Phipps discloses an engine that controls emissions inherently, Appellant's Brief 46, or expressly, Response and Reply Brief 31–32. Thus, according to Kohler, WBIP had to show that the objective evidence was tied to the two coolant-related features ([B] and [D] in claim 1 of the '044 patent) that Phipps does not disclose.

Kohler's argument relies on an incorrect interpretation of our case law. We have held that “[w]hile objective evidence of nonobviousness lacks a nexus if it exclusively relates to a feature that was ‘known in the prior art,’ the obviousness inquiry centers on whether ‘the claimed invention as a whole’ would have been obvious.” *Rambus Inc. v. Rea*, 731 F.3d 1248, 1257 (Fed. Cir. 2013) (citation omitted). Where the allegedly obvious patent claim is a combination of prior art elements, we have explained that the patent owner can show that it is the claimed combination as a whole that serves as a nexus for the objective evidence; proof of nexus is not limited to only when objective evidence is tied to the supposedly “new” feature(s). *Id.* at 1258 (remanding to the Board to determine whether objective evidence “relate[d] only to prior art functionality” or to “Rambus’s patented design as a whole”). In such a case, the fact that an isolated feature may be present in the prior art may not render irrelevant objective evidence

to causes other than the claimed invention, Crocs may rely on this added support for non-obviousness.” *Id.* (emphasis added). Thus, WBIP was entitled to rely upon the presumption of nexus for the objective considerations at issue and the burden of production shifted to Kohler to rebut that presumption if it sought to challenge nexus.

of non-obviousness of that feature in the claimed combination.

WBIP was entitled to the presumption of nexus for its objective evidence of non-obviousness because it established that the specific products (Westerbeke's Safe-CO gen-sets and Kohler's accused products) are embodiments of the invention in the asserted claims. Attempting to rebut the presumption, Kohler argues that “[n]one of it bears any relationship to the asserted novelty of the claims.” Appellant’s Br. 37. It is certainly true that there must be “a nexus between the evidence and the merits of the claimed invention.” *In re GPAC Inc.*, 57 F.3d 1573, 1580 (Fed. Cir. 1995). Kohler argues that no such nexus exists here because the objective indicia evidence is not tied to the elements in the claims that were missing from Phipps. Kohler starts with Phipps, which is the prior art land-based design, and argues that since only elements [B] and [D] of the claims are not present in Phipps, there is no nexus unless the objective indicia is linked to these elements. Kohler has failed to rebut the presumption of nexus. WBIP argues that it is the claimed combination which results in a low-carbon monoxide emission marine gen-set which is the “merits of the claimed invention.” According to WBIP, this combination overcame a specific problem in the marine environment. We conclude that this record contains substantial evidence upon which a jury could conclude that nexus exists between the objective evidence of non-obviousness and the claimed combination.

For example, WBIP’s expert testified that each of the claimed catalyst, controller, and oxygen sensor were necessary to gain the requisite reduction in carbon monoxide emissions. J.A. 15,199 (“So you need all three of those components. You need the catalyst, a controller to control the air-to-fuel ratio, and the oxygen sensor to let the controller know how good of a job it’s been doing.”). He confirmed that those features disclosed in Phipps—

i.e., the controller and oxygen sensor—could not reduce carbon monoxide emissions *without the addition of a catalyst*:

Q. If you took away the cooled catalyst, would there be low carbon monoxide output?

A. No, there wouldn't.

Q. So you need all of this together in order to get the result of the invention?

A. Yes, you do.

J.A. 15,198–99.

Questions of nexus are highly fact-dependent and, as such are not resolvable by appellate-created categorical rules and hierarchies as to the relative weight or significance of proffered evidence. Rather, “[i]t is within the province of the fact-finder to resolve these factual disputes regarding whether a nexus exists between commercial success of the product and its patented features, and to determine the probative value of evidence of secondary considerations.” *Pro-Mold & Tool Co. v. Great Lakes Plastics, Inc.*, 75 F.3d 1568, 1574 (Fed. Cir. 1996). The jury reviewed Kohler’s and WBIP’s competing objective evidence of non-obviousness, as well as evidence for the driving forces that established that objective evidence. Its resolution of the dispute in favor of WBIP is supported by substantial evidence.

We further reject Kohler’s categorical claim that objective evidence must be tied exclusively to claim elements that are not disclosed in a particular prior art reference in order for that evidence to carry substantial weight. Requiring patentees to prove that objective evidence is tied to a specific claim element—and only that claim element—runs counter to the statutory instruction that the obviousness analysis involves determining whether “*the claimed invention as a whole* would have

been obvious.” 35 U.S.C. § 103 (emphasis added); *see Rambus*, 731 F.3d at 1257–58. This is especially true for situations like those at issue here, where the claimed invention is, admittedly, a combination of elements that were known individually in the prior art. Commercial success, for example, may be linked to an individual element or, in other circumstances, it could be linked to the inventive combination of known elements. And these are fact questions to which we must give deference on appeal. The jury’s presumed factual findings relating to nexus are supported by substantial evidence.

2. Long-Felt Need

Evidence of a long felt but unresolved need tends to show non-obviousness because it is reasonable to infer that the need would have not persisted had the solution been obvious. *See, e.g., Iron Grip Barbell Co. v. USA Sports, Inc.*, 392 F.3d 1317, 1325 (Fed. Cir. 2004) (“Absent a showing of long-felt need or the failure of others, the mere passage of time without the claimed invention is not evidence of nonobviousness.”).

Kohler argues that substantial evidence does not support the jury’s presumed factual finding that the claimed invention solved the problem of carbon monoxide poisonings from marine gen-sets, a problem that was long known in the marine gen-set field. Specifically, Kohler argues that the evidence that WBIP relied upon to show a long-felt need in the industry—third-party product liability suits against Kohler involving carbon monoxide poisonings from older generation gen-sets—is not relevant to a long-felt need for low-carbon monoxide emitting gen-sets. Kohler argues that the evidence shows that it resolved the carbon monoxide poisonings at issue in these lawsuits by changing the material it used for the exhaust pipes, from black iron (which corroded from the inside out) to stainless steel. Thus, Kohler argues that there is no nexus between the problems at issue in these product

liability suits and the problem solved by the asserted claims. Kohler argues that, when this irrelevant evidence is not considered, the evidence of record shows that the industry was not aware of the dimensions of the carbon monoxide problem on boats until 2000. Because this date is only a few years before the priority date of the patents in suit, Kohler argues that substantial evidence does not support a finding of long-felt need.

We have already rejected Kohler's argument that the objective considerations lack nexus because they are not tied specifically to the coolant elements of the asserted claims. We similarly reject Kohler's argument that the product liability suits are irrelevant to whether there was a long-felt need for a solution to carbon monoxide poisonings on boats and whether this need was met by the claimed invention. The evidence concerning the product liability suits undoubtedly establishes that there was a known problem in the industry regarding carbon monoxide poisonings. It also shows that Kohler was aware of this problem prior to 2000, as many of the lawsuits Kohler faced were the result of incidents that occurred in the 1990s. See J.A. 15,448–52, 15,996–97. And, although Kohler argues that it solved the problem underlying the product liability suits by switching the exhaust pipe material that it used, other Kohler documents suggest that Kohler itself thought the carbon monoxide poisoning problem was solved by low-carbon monoxide emitting gen-sets. For example, a 2005 Kohler slide presentation that accompanied Kohler's launch of its low-carbon monoxide emitting gen-set, titled "Create the right atmosphere: Kohler Marine Generators helping make boating safer," J.A. 17,741, states that "The need is clear!" above a bar chart of fatal and non-fatal boat-related carbon monoxide poisonings for the years 1984–2004, J.A. 17,742. The slides immediately following this bar chart describe the carbon monoxide problem and how the technology in Kohler's low-carbon monoxide gen-sets

solve this problem. J.A. 17,742–47. Kohler may be correct that switching from cast iron to stainless steel exhaust pipes helped to resolve the product liability suits, but Kohler’s own documents show that even Kohler recognized the carbon monoxide poisoning problem persisted despite switching pipe materials. And Kohler’s expert testified that low-carbon monoxide emitting gen-sets are not nearly as susceptible to the exhaust system integrity issues (i.e., corrosion and subsequent leak of carbon monoxide) that were the basis of the product liability suits. J.A. 16,012. He explained that, for the low-carbon monoxide emitting gen-sets, “if you had a leak right at the entrance to the catalyst, you know, it would be possible to have a [carbon monoxide] problem there. But that’s part of the engine, and it’s a very robust joint there.” *Id.* Presented with this conflicting evidence, the jury was entitled to find that the claimed invention, as opposed to switching the exhaust pipe material, solved the carbon monoxide poisoning problem. Given the verdict, we presume it did so in WBIP’s favor. Substantial evidence, in the form of the testimony and documents WBIP presented, supports this finding.

Kohler also challenges the evidence of product liability suits against it as “grossly prejudicial” and that the inclusion of this evidence entitles it to a new trial. Appellant’s Br. 39. Prior to trial, the district court granted-in-part and denied-in-part Kohler’s motion in limine to exclude this evidence, explaining that it “notes that such evidence will be relevant to both non-obviousness and damages but cautions plaintiff that *references to specific lawsuits will be limited so as to reduce any risk of undue prejudice to the defendant.*” J.A. 15,005 (emphasis added). The parties agreed on “a limiting instruction as to the product liability suits in general,” J.A. 15,397–98, and this instruction was read to the jurors prior to the testimony that Kohler challenges on appeal, *see, e.g.*, J.A. 15,447, 15,453. After the jury rendered its verdict,

Kohler moved for a new trial based, in part, on its contention that introduction of this evidence was unfairly prejudicial, as evidenced by the jury's damages verdict. The district court denied Kohler's motion for a new trial on this ground, explaining that it rejected Kohler's pre-trial arguments for exclusion and that "Kohler has presented no new arguments to dissuade it." *WBIP, LLC v. Kohler Co.*, No. 11-10374-NMG, 2014 WL 585854, at *3 (D. Mass. Feb. 12, 2014). But the district court determined that part of the jury's damages verdict was not supported by substantial evidence and granted Kohler's motion for remittitur, reducing the awarded damages from \$9,641,206 to \$3,775,418.⁵ *Id.* at *1–3, 9.

We review a district court's decision regarding whether to exclude evidence pursuant to Federal Rule of Evidence 403 under the law of the regional circuit. *SSL Servs., LLC v. Citrix Sys., Inc.*, 769 F.3d 1073, 1092 (Fed. Cir. 2014). The First Circuit reviews such decisions for abuse of discretion, and cautions that "[o]nly rarely—and in extraordinarily compelling circumstances—will [it], from the vista of a cold appellate record, reverse a district court's on-the-spot judgment concerning the relative weighing of probative value and unfair effect." *United States v. Whitney*, 524 F.3d 134, 143 (1st Cir. 2008) (quoting *United States v. Li*, 206 F.3d 78, 84–85 (1st Cir. 2000)).

Kohler argues that the challenged evidence was grossly prejudicial "as evidenced by the runaway damages verdict." Appellant's Br. 43–44. But Kohler never explains how the mitigating and remedial steps taken by

⁵ The district court offered WBIP a choice: either accept the remittitur or have a new trial on damages. *WBIP*, 2014 WL 585854, at *9. WBIP chose remittitur and neither party has appealed the amount of damages awarded.

the district court (i.e., its order that the parties’ agreed-upon limiting instruction be read to jurors prior to any of the challenged testimony and its grant of remittitur) failed to redress any prejudice that may have affected Kohler. The First Circuit has held that “within wide margins, the potential for prejudice . . . can be satisfactorily dispelled by appropriate curative instructions” and that “[j]urors are presumed to follow such instructions, except in extreme cases.” *United States v. Richardson*, 421 F.3d 17, 41 (1st Cir. 2005) (quoting *United States v. Freeman*, 208 F.3d 332, 345–46 (1st Cir. 2000)). Kohler does not address the limiting instructions, nor does it mention the district court’s grant of remittitur. Considered in context, we cannot say that these are extraordinarily compelling circumstances that warrant reversing the district court’s evidentiary decision and remanding for a new trial.

We also reject Kohler’s argument that substantial evidence does not support a finding of long-felt need because the record evidence establishes that “the Coast Guard and NIOSH first investigated [carbon-monoxide]-related poisonings on houseboats in 2000” and “there was no evidence of any efforts to limit [carbon monoxide] emissions from marine generators before 2000.” Resp. & Reply Br. 35. As Kohler correctly notes, whether there is a “long-felt need is analyzed as of the date of an articulated identified problem and evidence of efforts to solve that problem.” *Texas Instruments, Inc. v. U.S. Int’l Trade Comm’n*, 988 F.2d 1165, 1178 (Fed. Cir. 1993). WBIP presented evidence that the problem of carbon monoxide poisoning from houseboat gen-sets was known prior to 2000 in the form of the product liability suits against Kohler. WBIP also presented testimony from Mr. Westerbeke that carbon monoxide had been a known problem in the houseboat industry since his company first started selling gasoline marine gen-sets in 1983. J.A. 15,478, 15,500–01. And Kohler itself presented

evidence that it was making efforts to solve the carbon monoxide poisoning problem by replacing the exhaust pipes in its older generation gen-sets with stainless steel pipes. This constitutes substantial evidence to support the jury's presumed factual finding that the claimed invention solved a long-felt need in the industry.

3. Praise

Evidence that the industry praised a claimed invention or a product which embodies the patent claims weighs against an assertion that the same claim would have been obvious. Industry participants, especially competitors, are not likely to praise an obvious advance over the known art. Thus, if there is evidence of industry praise in the record, it weighs in favor of the non-obviousness of the claimed invention. *See, e.g., Institut Pasteur & Universite Pierre Et Marie Curie v. Focarino*, 738 F.3d 1337, 1347 (Fed. Cir. 2013) ("[I]ndustry praise . . . provides probative and cogent evidence that one of ordinary skill in the art would not have reasonably expected [the claimed invention].").

Kohler argues that WBIP's evidence of praise was only a "few snippets" that "fell far off target" because they relate to WBIP's Safe-CO, low-carbon monoxide gen-set products, not solely to the coolant elements [B] and [D] not disclosed in Phipps. Appellant's Br. 45–46. This argument is primarily one of nexus. As discussed above, WBIP established its entitlement to a presumption of nexus for each type of objective evidence that it presented. Moreover, the jury's presumed finding of industry praise of the claimed invention is supported by substantial evidence.

WBIP's evidence of praise includes the fact that Westerbeke received the National Marine Manufacturers Association Innovation Award in 2004 for its Safe-CO gen-sets. And the evidence includes an internal Kohler document regarding "Carbon Monoxide and Low [carbon

monoxide products]” which recognizes that Westerbeke won the Innovation Award at a 2004 trade show. J.A. 17,915. Other record evidence of praise includes an award from Houseboating Adventures Magazine, an article positively mentioning Westerbeke’s Safe-CO gen-sets in Popular Mechanics magazine, and an email from an Industrial Hygienist at the U.S. Department of the Interior, thanking Westerbeke for developing its Safe-CO gen-sets and stating that “[h]opefully this will set new industry standards for generators and we will eventually be rid of this life threatening hazard” and that the Safe-CO “generators will save lives.” J.A. 17,255. Contrary to Kohler’s argument, this constitutes substantial evidence to support the jury’s presumed factual finding. This strong evidence of industry recognition of the significance and value of the claimed invention weighs in favor of non-obviousness.

4. Skepticism

Evidence of industry skepticism weighs in favor of non-obviousness. If industry participants or skilled artisans are skeptical about whether or how a problem could be solved or the workability of the claimed solution, it favors non-obviousness. Doubt or disbelief by skilled artisans regarding the likely success of a combination or solution weighs against the notion that one would combine elements in references to achieve the claimed invention. *See, e.g., Gillette Co. v. S.C. Johnson & Son, Inc.*, 919 F.2d 720, 726 (Fed. Cir. 1990) (“[The infringer’s] skepticism is relevant and persuasive evidence of the nonobviousness of [the] invention.”); *Env'l. Designs, Inc. v. Union Oil Co.*, 713 F.2d 693, 697–98 (Fed. Cir. 1983) (“Before learning of the [claimed] process, and with knowledge of earlier failed efforts, both [parties’ experts] stated unequivocally that they believed the [claimed process] would not adequately solve the problem. Expressions of disbelief by experts constitute strong evidence of

nonobviousness.” (citing *United States v. Adams*, 383 U.S. 39, 52 (1966))).

Kohler’s arguments regarding skepticism are similar to its arguments regarding praise, and fail for similar reasons. The jury’s presumed factual finding that there was skepticism that low-carbon monoxide gen-sets could be produced is supported by substantial evidence. WBIP presented evidence that an audience of over 200 people at an industry workshop on carbon monoxide poisonings, sponsored by the U.S. Coast Guard Office of Boating Safety and NIOSH and held at a 2003 boat show, expressed shock when Mr. Westerbeke announced that Westerbeke “would have low [carbon monoxide] -- actually zero percentage PPM [carbon monoxide] generators within one to two years.” J.A. 15,374, 15,369–70, 17,202. The same witness explained that, at the time, Westerbeke had a prototype gen-set that produced between zero and nine ppm of carbon monoxide and that, at the end of this session of the workshop, two individuals from Kohler told Mr. Westerbeke that “it was impossible to produce a generator with zero PPM of [carbon monoxide].” J.A. 15,374. Supporting this testimony, WBIP admitted the minutes from this workshop into evidence, which state that “[t]here was a prediction that generators with substantially [carbon monoxide] free exhaust will become available within a couple of years.” J.A. 17,213.

Kohler argues that this evidence shows that the only thing “shocking” or “impossible” was manufacturing a gen-set that produces zero ppm of carbon monoxide in the exhaust, not exhaust substantially free of carbon monoxide, and that, even now, no gen-set exists that produces zero ppm of carbon monoxide. WBIP produced more than a mere scintilla of evidence here—it produced witness testimony that was corroborated by the official minutes of the workshop. And, drawing reasonable inferences in favor of WBIP, the verdict winner, we cannot say that a jury would be unreasonable if it found, based on this

evidence, that the boating industry expressed skepticism that low-carbon monoxide producing gen-sets could be made.

5. Copying

“Copying may indeed be another form of flattering praise for inventive features,” *Crocs*, 598 F.3d at 1311, and thus evidence of copying tends to show non-obviousness. *See also Windsurfing Int’l, Inc. v. AMF, Inc.*, 782 F.2d 995, 1000 (Fed. Cir. 1986) (“[C]opying the claimed invention, rather than one within the public domain, is indicative of non-obviousness.”). The fact that a competitor copied technology suggests it would not have been obvious.

The parties dispute whether substantial evidence supports a finding that Kohler copied Westerbeke’s Safe-CO gen-sets, which are an embodiment of the claimed invention. WBIP argues it presented evidence that it demonstrated its Safe-CO gen-sets in a trailer at a 2004 boat show and that, in response to a question from two Kohler employees who visited this trailer, a Westerbeke engineer explained that the low-carbon monoxide emissions were achieved through use of a catalyst and electronic fuel injection. WBIP also presented evidence that, shortly after this show, an internal Kohler document requesting funding for development of Kohler’s own low-carbon monoxide gen-sets explained that low-carbon monoxide exhaust would be achieved through the same two features that the Westerbeke engineer had described: “a precise electronically-controlled engine management system and exhaust after-treatment with a catalyst.” J.A. 17,785. In fact, this document specifically mentions Westerbeke’s “Safe-CO” line of gen-sets and the fact that Westerbeke had “patented their concept” (albeit citing an earlier-issued Westerbeke patent, not the patents in suit, which had yet to issue). J.A. 17,785.

Kohler counters that it produced testimony and documentary evidence contradicting WBIP's evidence of copying. Kohler argues that its engineer testified that he had already decided to use an electronic control unit in its low-carbon monoxide gen-sets a month prior to Westerbeke's demonstration at the 2004 boat show, and that this testimony is supported by documentary evidence.

Copying is a question of fact and, as with any question of fact, the fact-finder (here, the jury) was entitled to credit WBIP's evidence over Kohler's. See *Kinetic Concepts*, 688 F.3d at 1362. And we will not substitute our view of the conflicting evidence for that of the jury. *SIBIA Neurosciences, Inc. v. Cadus Pharm. Corp.*, 225 F.3d 1349, 1355 (Fed. Cir. 2000). Based on the evidence presented, i.e., that Kohler engineers were aware of and had access to Westerbeke's Safe-CO gen-set and shortly thereafter with express reference to the Westerbeke Safe-CO gen-sets adopted the same features in developing Kohler's own low-carbon monoxide gen-set, we cannot say that a jury would be unreasonable in finding that Kohler copied the claimed invention.

6. Commercial Success

When "a product attains a high degree of commercial success, there is a basis for inferring that [attempts to a solution] have been made and have failed." *Merck & Co. v. Teva Pharm. USA, Inc.*, 395 F.3d 1364, 1376 (Fed. Cir. 2005). See also *Magowan v. N.Y. Belting & Packing Co.*, 141 U.S. 332, 343, 12 S. Ct. 71, 76, 35 L. Ed. 781 (1891) ("[S]uch an extensive public use [of the patented invention] as almost to supersede all packings made under other methods . . . was pregnant evidence of its novelty, value, and usefulness."). Demonstrating that an invention has commercial value, that it is commercially successful, weighs in favor of its non-obviousness.

On appeal, Kohler's primary argument regarding commercial success of the claimed invention is that WBIP failed to establish nexus. As discussed above, WBIP was entitled to a presumption of nexus, which Kohler acknowledged in its reply brief. Kohler did not rebut that presumption. WBIP presented the jury with evidence of the immediate and high level of success of the Kohler Low-carbon monoxide generator which was found to infringe. We see no basis to disturb the jury's presumed factual findings of commercial success underlying its verdict on obviousness.

Finally, Kohler reiterates its view that, even if we assume there was evidence of multiple objective considerations of non-obviousness, that evidence is not strong enough to overcome its own evidence of obviousness based on Phipps. We do not agree. The objective considerations in this case, commercial success, long-felt need, industry praise, skepticism, and copying, each weigh in favor of a conclusion that using conventional coolant components to convert the land-based Phipps engine into a low-carbon monoxide emission marine gen-set would not have been obvious to one of skill in the art at the relevant time. Too often the obviousness analysis is framed as an inquiry into whether a person of skill, with two (and only two) references sitting on the table in front of him, would have been motivated to combine (or, in Kohler's view, could have combined) the references in a way that renders the claimed invention obvious. The real question is whether that skilled artisan would have plucked one reference out of the sea of prior art (Phipps) and combined it with conventional coolant elements to address some need present in the field (the need for low-carbon monoxide emission marine gen-sets). Whether a skilled artisan would be motivated to make a combination includes whether he would select particular references in order to combine their elements. This is part of the fact question and we must give deference to the jury's findings on this

point. Objective indicia minimize hindsight's impact. And in this case, the objective indicia point to the non-obviousness of the claimed combination. They are substantial evidence that one of skill would not have found the claimed combination obvious. We see no legal error in the ultimate conclusion that Kohler failed to prove that the asserted claims would have been obvious by clear and convincing evidence.

II. Written Description

Written description is a question of fact, which we review for substantial evidence.⁶ *Ariad Pharm., Inc. v. Eli Lilly & Co.*, 598 F.3d 1336, 1351, 1355 (Fed. Cir. 2010) (en banc). On appeal, Kohler argues it should have prevailed on written description as a matter of law and presents to this court a detailed argument regarding a lack of written description support for the claimed "compound control scheme." See Appellant's Br. 51–64. In support of its argument, it cites passages in both the '044 and '196 patents and the prosecution history. *Id.* This detailed argument was not presented to the jury. Before the jury, Kohler asked its expert three questions on written description:

Q. All right. Last couple questions. Within the patent, the patent itself, does the patent describe -- provide any description of how the engine controller works?

A. It just described what I described on that first slide. That was the extent of it, that there's oxy-

⁶ Kohler recognizes that written description is a question of fact, reviewed for substantial evidence. Appellant's Br. 52. It nonetheless argues written description should be treated as a question of law. *Id.* ("Kohler reserves the right to seek further review on this issue if necessary.").

gen sensor feedback. Air/fuel ratio is kept at a target.

Q. Was there any other technical description suggesting there was any technical innovation or improvement or anything not trivial in how the Westerbeke people were doing that?

A. There was not.

[Two questions, to which the court sustained objections, omitted.]

Q. Was there any written description in the patent on how to do this?

A. There was not sufficient written description.

J.A. 15,890–91. Following this, Kohler admitted the prosecution history of the '044 patent into evidence.⁷ J.A. 15,891–92. In its closing argument to the jury, Kohler's counsel stated:

Just a couple of other things that are going to pop up on the verdict form. You're going to see a question about written description. What that issue is -- because there hasn't been argument about it.

⁷ Kohler disputes that this is the only evidence it presented to support its written description argument, arguing “*Kohler* elicited testimony from WBIP’s *own expert* showing the lack of written description.” Resp. & Reply Br. 52 (first emphasis added) (citing J.A. 15,196–97, 15,364–65). The cited appendix pages are from WBIP’s direct (J.A. 15,196–97) and redirect (J.A. 15,364–65) examination of its expert, not Kohler’s cross-examination. While it does not matter which party elicited the relied-upon testimony, it is not clear from the cited testimony how it shows the lack of written description and Kohler offers no such explanation in its briefs.

The evidence is in. The question is does the patent adequately describe in the -- does it describe what the invention was as it relates to the control, because, since we've heard, this is where they say the invention is now. This is where it's all different. And so there's a question to you, do you believe this patent adequately describes the written -- the inventor adequately describes the written invention. You'll hear the instruction from the Judge. But you'll see that in there.

J.A. 16,093. The jury found that Kohler failed to prove by clear and convincing evidence that the asserted claims were invalid for lack of written description. J.A. 8099.

Nowhere in these quoted passages did Kohler present the jury with the detailed argument it provides to us in this appeal, despite the fact that Kohler, as the party challenging validity, had the burden to prove by clear and convincing evidence that the written description requirement was not met. *Abbott Labs. v. Syntron Bioresearch, Inc.*, 334 F.3d 1343, 1356 (Fed. Cir. 2003). On appeal, we limit ourselves to the arguments raised by the parties and review jury findings on the record presented below. Based on what was presented to the jury in this case, the jury's verdict is clearly supported by substantial evidence.

Under our precedent, “[g]eneral and conclusory testimony . . . does not suffice as substantial evidence of invalidity.” *Koito Mfg. Co. v. Turn-Key-Tech, LLC*, 381 F.3d 1142, 1152 (Fed. Cir. 2004). This is precisely the type of evidence that Kohler submitted to the jury in this case. If such evidence fails to meet even the substantial evidence standard, it does not rise to the level of clear and convincing evidence, nor does it “point so strongly and overwhelmingly in favor of [Kohler] that a reasonable jury could not have reached the verdict” in favor of WBIP, which is what Kohler has to show to be entitled to judgment as a matter of law. *Marine Polymer Techs.*, 672

F.3d at 1357–58. We see no error in the district court’s denial of judgment as a matter of law that the asserted claims lack written description.⁸

III. Willful Infringement

This case was decided by the district court under the then-applicable willful infringement standard. At the time of this decision, proof of willful infringement required “clear and convincing evidence that the infringer acted despite an objectively high likelihood that its actions constituted infringement of a valid patent” and that “this objectively-defined risk . . . was either known or so obvious that it should have been known.” *In re Seagate Tech., LLC*, 497 F.3d 1360, 1371 (Fed. Cir. 2007). The jury found that WBIP had proven by clear and convincing evidence that Kohler’s infringement was willful. J.A. 8100. And the district court concluded that Kohler’s defenses at trial were objectively unreasonable. *WBIP*, 2014 WL 585854, at *5–6.

Kohler argues that the judgment of willful infringement must be reversed for two independent reasons. First, it argues that, contrary to the district court’s determination, its obviousness and written description defenses are objectively reasonable under *Halo Electronics, Inc. v. Pulse Electronics, Inc.*, 769 F.3d 1371 (Fed. Cir. 2014), cert. granted, 136 S. Ct. 356 (Oct. 19, 2015) (No. 14-1513), and *Bard Peripheral Vascular, Inc. v. W.L. Gore & Associates, Inc.*, 682 F.3d 1003 (Fed. Cir. 2012). Second, it

⁸ It would not matter if we reviewed written description as a question of law or a question of fact in this case because Kohler introduced no detailed argument and nothing but a conclusory statement about written description. As such, under either standard, the evidence Kohler presented would be insufficient to establish a written description violation by clear and convincing evidence.

argues that WBIP did not present evidence to the jury that Kohler was aware of the patents in suit, which is an element of the subjective prong of the willfulness test, such that the jury's verdict that Kohler willfully infringed cannot stand. After this case was argued on appeal, the Supreme Court decided *Halo Electronics, Inc. v. Pulse Electronics, Inc.*, 136 S. Ct. 1923 (2016) ("Halo").

Under *Halo*, we review the district court's determination to award enhanced damages under 35 U.S.C. § 284 for abuse of discretion. *Halo*, 136 S. Ct. at 1934.⁹ As with awards of attorney's fees under 35 U.S.C. § 285, a party seeking enhanced damages under § 284 bears the burden of proof by a preponderance of the evidence.¹⁰ *Id.* (citing *Octane Fitness, LLC v. ICON Health & Fitness Inc.*, 134 S. Ct. 1749, 1758 (2014)). Although "[t]he Seagate test reflects, in many respects, a sound recognition that enhanced damages are generally appropriate under § 284 only in egregious cases," the Supreme Court rejected that test as "unduly rigid" and as "impermissibly encumber[ing] the statutory grant of discretion to district courts." *Id.* at 1932.

⁹ Even Kohler admits WBIP "preserved a challenge to the standard of review" by asserting that the district "court's willfulness determination should be reviewed only for abuse of discretion following *Highmark Inc. v. Allcare Health Management System, Inc.*, 134 S. Ct. 1744 (2014)." Resp. & Reply Br. 54 n.11 (citing Cross-Appellant's Br. 19).

¹⁰ This is a lower burden of proof than clear and convincing evidence, which the jury found that WBIP had met. This change in the law provides no basis for remand. If the jury found willfulness under the clear and convincing standard, the lower standard could not have helped Kohler.

As to Kohler’s first argument—that its defenses were objectively reasonable—the Supreme Court’s decision in *Halo* expressly rejected the notion that objective recklessness must be found in every case involving enhanced damages for willful infringement. The Court cited the objective recklessness requirement as the “principal problem with *Seagate*’s two-part test,” explaining that “[s]uch a threshold requirement excludes from discretionary punishment many of the most culpable offenders,” including those “who intentionally infringe[] another’s patent.” *Halo*, 136 S. Ct. at 1932. Applying reasoning similar to *Octane Fitness*, the Court explained that an infringer’s subjective bad faith alone may support an award of enhanced damages. *Id.* at 1933 (“The subjective willfulness of a patent infringer, intentional or knowing, may warrant enhanced damages, without regard to whether his infringement was objectively reckless.”). And it explained that the appropriate time frame for considering culpability is by assessing the infringer’s knowledge at the time of the challenged conduct. *Id.* This is a departure from our *Seagate* line of cases, which permitted infringers to escape liability for enhanced damages provided that they were able “to muster a reasonable (even though unsuccessful) defense at the infringement trial.” *Id.*

In this case, the district court determined that Kohler was objectively reckless under *Seagate*, as its litigation-developed obviousness and non-infringement defenses were unreasonable.¹¹ *WBIP*, 2014 WL 585854, at *5. On

¹¹ It does not appear that Kohler argued that its written description defense was reasonable to the district court. On appeal, Kohler’s argument on this point is a single paragraph, asserting its defense was reasonable because there was countervailing evidence to support its theory such that it could have realistically expected its

appeal, WBIP argues that the district court correctly determined that Kohler was objectively reckless, and that “Kohler’s obviousness defense was a litigation-contrived, hindsight reconstruction.” Cross-Appellant’s Br. 67. Kohler does not dispute that its obviousness defense was created during litigation, years after it began engaging in culpable conduct. Instead, Kohler argues that it “is no answer to characterize” its obviousness defense as litigation-contrived because *Seagate*’s objective recklessness prong “requires analysis of all of the infringer’s non-infringement and invalidity defenses, even if those defenses were developed for litigation.” Resp. & Reply Br. 57 (quoting *Global Traffic Techs. LLC v. Morgan*, 620 F. App’x 895, 904 (Fed. Cir. 2015) (unpublished)) (emphasis added by Kohler).¹² But as the Supreme Court explained in *Halo*, timing does matter. Kohler cannot insulate itself from liability for enhanced damages by creating an (ultimately unsuccessful) invalidity defense for trial after engaging in the culpable conduct of copying, or “plundering,” WBIP’s patented technology prior to litigation. See *Halo*, 136 S. Ct. at 1933. Proof of an objectively reasonable litigation-inspired defense to infringement is no longer a defense to willful infringement. Thus, Kohler’s arguments on appeal that the district court erred in concluding that its obviousness defense was objectively unreasonable is not a basis for concluding that the district court abused its discretion in enhancing damages.

argument to succeed. Kohler does not argue that its non-infringement defense was reasonable on appeal.

¹² Notably, *Global Traffic Technologies* cites the Federal Circuit opinion in *Halo*, now vacated by the Supreme Court, for the proposition quoted in Kohler’s brief.

Kohler also argues that the jury's verdict that Kohler willfully infringed should be overturned because the record did not contain substantial evidence that Kohler knew about the patents at the time it was infringing. Knowledge of the patent alleged to be willfully infringed continues to be a prerequisite to enhanced damages. *See Halo*, 136 S. Ct. at 1932–33 (discussing knowledge requirement for intent). We do not interpret *Halo* as changing the established law that the factual components of the willfulness question should be resolved by the jury.¹³ *See*

¹³ Judge O'Malley's concurrence raised the Seventh Amendment question and multiple briefs filed to the Supreme Court in *Halo* invited the Court to determine whether there was a Seventh Amendment right to a jury trial of the willfulness issue in *Halo*. *Halo Elecs., Inc. v. Pulse Elecs., Inc.*, 769 F.3d 1371, 1386 (Fed. Cir. 2014) (O'Malley, J., concurring); Brief of Mentor Graphics Corp. et al. as Amici Curiae in Support of Neither Party at 20–27, *Halo*, 136 S. Ct. 1923 (2016) (No. 14-1513), 2015 WL 9292300; Brief of EMC Corp. as Amicus Curiae in Support of Respondents at 28–30, *Halo*, 136 S. Ct. 1923 (2016) (No. 14-1513), 2016 WL 322586; Brief of Amicus Curiae Askeladden LLC in Support of Neither Party at 31 n.8, *Halo*, 136 S. Ct. 1923 (2016) (No. 14-1513), 2015 WL 9245656. The Court chose not to decide the Seventh Amendment question. This leaves in place our prior precedent that there is a right to a jury trial on the willfulness question. Our case law is clear that in the absence of the Court overturning our established precedent that precedent remains in effect. *See, e.g., Masias v. Sec'y of Health & Human Servs.*, 634 F.3d 1283, 1288 (Fed. Cir. 2011) (citing *Barclay v. United States*, 443 F.3d 1368, 1373 (Fed. Cir. 2006)). Of course, this is not to say that a jury verdict of willful infringement ought to result in enhanced damages. Whether the conduct is sufficiently egregious as to warrant enhancement and the amount of

Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1250 (Fed. Cir. 1989) (“Absent sufficient basis for directing the verdict, Richardson has the right of jury determination of this factual question. Willfulness of behavior is a classical jury question of intent. When trial is had to a jury, the issue should be decided by the jury.” (citations omitted)); *Halo Elecs., Inc. v. Pulse Elecs., Inc.*, 769 F.3d 1371, 1386 (Fed. Cir. 2014) (O’Malley, J., concurring) (“[W]e have long held that a willfulness determination contains issues of fact that should be submitted to a jury.”).

Kohler does not contest that it, in fact, had pre-suit knowledge of the patents in suit. And in fact, Kohler admitted in its Undisputed Statement of Facts in support of its Motion for Summary Judgment of Non-Infringement that it “first became aware of the ’044 Patent at the latest by August 20, 2010” when it received an inquiry “regarding its knowledge of any WBIP patents on low carbon emission marine generator products.” J.A. 2880. Despite this admission, Kohler argues that no evidence of its knowledge was presented to the jury and thus the jury’s finding of willfulness should be rejected because “there was no basis to find—or even infer—that Kohler knew or should have known of an objectively high risk of patent infringement.” Appellant’s Br. 70–71.

We conclude that there was substantial evidence for the jury’s finding that Kohler had knowledge of the patents in suit at the time of infringement. At trial, WBIP presented testimony from John (“Jack”) Westerbeke, the inventor and majority-owner of Westerbeke Corporation, that Westerbeke’s low-carbon monoxide gen-sets have been marked with the patents in suit since their issuance. Supporting this testimony, WBIP submitted an email Mr. Westerbeke sent the day after the ’044 patent issued

the enhancement that is appropriate are committed to the sound discretion of the district court.

in 2008, which states “I have to get a patent label on all gas EFI products immediately” and that the label would say “U.S. Pat. No. 7,314,044; Other patents pending.” J.A. 17,192. WBIP submitted representative photographs of Westerbeke’s low-carbon monoxide gen-sets that are clearly marked with both patents in suit. J.A. 17,261. It also presented testimony that Westerbeke and Kohler were the only two companies in the market that provide low-carbon monoxide gen-sets, and documentary evidence, such as Kohler’s November 2004 internal request for funding to develop low-carbon monoxide gen-sets, demonstrating that Kohler was aware of Westerbeke patents covering Westerbeke’s Safe-CO gen-sets. The district court also had before it Kohler’s admission in its Statement of Undisputed Facts in support of its Motion for Summary Judgment of Non-Infringement that Kohler “first became aware of the ’044 Patent at the latest by August 20, 2010” when it received an inquiry “regarding its knowledge of any WBIP patents on low carbon emission marine generator products.” J.A. 2880. The jury had record evidence upon which it could have inferred that Kohler had knowledge of the patents at issue, and thus its finding is supported by substantial evidence.

Consistent with *Halo*, the district court, exercising its discretion, decided not to treble damages, but rather to enhance damages by 50%. The district court has the discretion to decide whether the case is sufficiently egregious to warrant enhancing damages and to decide the amount of enhancement that is warranted (up to the statutory limit of treble damages). And the Court explained, “none of this is to say that enhanced damages must follow a finding of egregious misconduct.” *Halo*, 136 S. Ct. at 1933. We review the district court’s decision to enhance damages under an abuse of discretion standard. *Id.* at 1934.

We cannot say that the district court abused its discretion in enhancing damages for Kohler’s willful infringement.

IV. WBIP’s Cross-Appeal

WBIP cross-appeals the district court’s denial of a permanent injunction. The district court originally denied WBIP’s motion for a permanent injunction, reasoning the public interest factor weighed against an injunction because, as WBIP was a much smaller producer of low-carbon monoxide gen-sets than Kohler, it “would deprive the consuming public of access to a potentially life saving product.” J.A. 10,381–82. It determined that, based on its public interest finding, it need not address the remaining factors identified in *eBay Inc. v. MercExchange, LLC*, 547 U.S. 388, 391 (2006). WBIP moved for reconsideration, arguing that the district court misunderstood WBIP’s manufacturing capacity, which was sufficient to manufacture generators for Kohler’s customers. The district court declined to reconsider its denial of a permanent injunction, stating that “[e]ven if [WBIP] has a larger manufacturing capability than previously estimated, the Court is persuaded that it is in the public interest to have more than one company manufacture low-carbon monoxide generators” such that an ongoing royalty was a “more appropriate solution.” J.A. 10,671.

On appeal, WBIP argues that the district court erred in its consideration of the *eBay* factors. We agree that the district court’s analysis is sufficiently flawed to constitute an abuse of discretion warranting vacating the judgment. Before the district court WBIP argued, *inter alia*, that there is a “public interest to uphold patent rights.” J.A. 8127. But the district court did not explain how this public interest was outweighed by the public interest of having more than one manufacturer of gen-sets that produce low-carbon monoxide in their exhaust, especially

if WBIP does have the manufacturing capacity to meet the industry's needs. The district court's decision is based on its reasoning that having more manufacturers of a life-saving good in the market is better for the public interest. But this reasoning is true in nearly every situation involving such goods, such that, if it alone is sufficient, it would create a categorical rule denying permanent injunctions for life-saving goods, such as many patented pharmaceutical products. As the Supreme Court has warned, categorical rules regarding permanent injunctions are disfavored. *See eBay*, 547 U.S. at 394 ("Just as the District Court erred in its categorical denial of injunctive relief, the Court of Appeals erred in its categorical grant of such relief."). And Congress has expressly indicated that injunctions may be granted in cases involving life-saving goods, such as pharmaceutical drugs. *See* 35 U.S.C. § 271(e)(4)(B) ("[I]njunctive relief may be granted against an infringer to prevent the commercial manufacture, use, offer to sell, or sale within the United States or importation into the United States of an approved drug, veterinary biological product, or biological product."). In denying WBIP a permanent injunction on these grounds, the district court abused its discretion. We note that the district court limited its analysis to the public interest factor alone and that its decision to deny an injunction cannot be affirmed on this basis in light of this record. We vacate its judgment and remand for the district court to conduct a more thorough analysis of the *eBay* factors in the first instance.

CONCLUSION

For the foregoing reasons, we affirm the district court's denial of judgment as a matter of law that the asserted claims would have been obvious and lack sufficient written description and the willful infringement determination. We vacate the district court's denial of WBIP's motion for a permanent injunction, and remand for further consideration.

**AFFIRMED-IN-PART, VACATED-IN-PART, AND
REMANDED**

COSTS

Costs to WBIP.