

United States Court of Appeals for the Federal Circuit

ARCTIC CAT INC.,
Plaintiff-Appellee

v.

**BOMBARDIER RECREATIONAL PRODUCTS INC.,
BRP U.S. INC.,**
Defendants-Appellants

2017-1475

Appeal from the United States District Court for the
Southern District of Florida in No. 0:14-cv-62369-BB,
Judge Beth Bloom.

Decided: December 7, 2017

JOHN A. DRAGSETH, Fish & Richardson P.C., Minneapolis, MN, argued for plaintiff-appellee. Also represented by NICHOLAS STEPHAN BOEBEL, Populus Law LLC, Minneapolis, MN; NIALl ANDREW MACLEOD, AARON MYERS, DIANE PETERSON, Kutak Rock LLP, Minneapolis, MN.

WILLIAM F. LEE, Wilmer Cutler Pickering Hale and Dorr LLP, Boston, MA, argued for defendants-appellants. Also represented by JENNIFER JASMINE JOHN, MICHELLE LISZT SANDALS, LOUIS W. TOMPROS.

Before MOORE, PLAGER, and STOLL, *Circuit Judges*.

MOORE, *Circuit Judge*.

Bombardier Recreational Products Inc. and BRP U.S. Inc. (collectively, “BRP”) appeal from the United States District Court for the Southern District of Florida’s denial of judgment as a matter of law that the asserted claims of U.S. Patent Nos. 6,568,969 (“’969 patent”) and 6,793,545 (“’545 patent”) would have been obvious, that Arctic Cat Inc. (“Arctic Cat”) failed to mark patented products, that the jury’s royalty award was based on improper expert testimony, and that BRP did not willfully infringe the asserted claims. BRP also appeals the district court’s decision to treble damages and its award of an ongoing royalty to Arctic Cat. We affirm the district court’s denial of judgment as a matter of law as to obviousness, the jury’s royalty rate, and willfulness. We affirm the district court’s decision to treble damages and award an ongoing royalty to Arctic Cat. We vacate the court’s denial of judgment as a matter of law as to marking and remand for further consideration limited to that issue.

BACKGROUND

The ’969 and ’545 patents disclose a thrust steering system for personal watercraft (“PWC”) propelled by jet stream. This type of watercraft is propelled by discharging water out of a discharge nozzle at the rear of the watercraft. *E.g.*, ’545 patent at 1:22–24. The rider controls the thrust of water out of the discharge nozzle by pressing a lever mounted on the steering handle. *Id.* at 1:38–40. A sufficient amount of thrust out of the steering nozzle is required for these watercraft to steer properly because decreasing the thrust of the water out of the discharge nozzle decreases the steering capability of the watercraft. *Id.* at 1:34–36, 1:51–55.

Because steering capabilities are affected by the amount of thrust applied, the patents explain that, to avoid obstacles at high speed, riders should apply constant pressure on the throttle lever while simultaneously turning the steering handle away from the obstacle. *Id.* at 1:59–61. This is counter-intuitive to inexperienced riders who often slow down to turn out of the way. *Id.* at 1:55–65. In these situations a rider may not be able to avoid the obstacle because steering capability has been decreased. *Id.* at 1:65–67. The patents seek to overcome this issue by automatically providing thrust when riders turn the steering system. *Id.* at 2:11–27. Claim 15 of the '545 patent is representative:

A watercraft including:

a steering mechanism;

a steering nozzle;

a thrust mechanism;

a lever adapted to allow an operator to manually control thrust of said thrust mechanism, said lever mounted on said steering mechanism and biased toward an idle position; and

a controlled thrust steering system for controlling thrust of said thrust mechanism independently of the operator;

wherein said controlled thrust steering system activates said thrust mechanism **to provide a steerable thrust** after said lever is positioned other than to provide a steerable thrust and after the steering mechanism is positioned for turning said watercraft.

Arctic Cat sued BRP for infringement of claims 13, 15, 17, 19, 25, and 30 of the '545 patent and claims 15–17,

and 19 of the '969 patent, accusing the off-throttle thrust reapplication system in several of BRP's Sea-Doo PWC. BRP refers to its proprietary off-throttle thrust reapplication system as Off-Throttle Assisted Steering ("OTAS"). Before trial, BRP unsuccessfully moved for summary judgment on several issues, including that Arctic Cat's sole licensee Honda failed to mark its products with the licensed patent numbers.

At trial, the jury found both patents not invalid, awarded a royalty consistent with Arctic Cat's model (\$102.54 per unit) to begin on October 16, 2008, and found by clear and convincing evidence that BRP willfully infringed the asserted claims. Based on the willfulness verdict, the district court trebled damages, a decision it further explained in a subsequent order.

After post-trial briefing, the district court denied BRP's renewed motion for judgment as a matter of law on all issues. It granted Arctic Cat's motion for an ongoing royalty, awarding \$205.08 per unit. BRP appeals the district court's denial of judgment as a matter of law on validity, marking, damages, and willfulness, as well as its grant of an ongoing royalty and decision to treble damages. We have jurisdiction under 28 U.S.C. § 1295(a)(1).

DISCUSSION

In appeals of patent cases, we apply the law of the regional circuit "to which district court appeals normally lie, unless the issue pertains to or is unique to patent law." *AbbVie Deutschland GmbH & Co., KG v. Janssen Biotech, Inc.*, 759 F.3d 1285, 1295 (Fed. Cir. 2014) (internal quotation marks omitted). We review rulings on motions for judgment as a matter of law under the law of the regional circuit. *Id.* The Eleventh Circuit reviews the denial of judgment as a matter of law de novo, viewing the evidence in the light most favorable to the non-moving party. *Howard v. Walgreen Co.*, 605 F.3d 1239, 1242 (11th Cir. 2010). "The motion should be granted only when the

plaintiff presents no legally sufficient evidentiary basis for a reasonable jury to find for him on a material element of his cause of action.” *Id.* (internal quotation marks omitted).

I. Obviousness

Obviousness is a question of law based on underlying facts. *WBIP, LLC v. Kohler Co.*, 829 F.3d 1317, 1326 (Fed. Cir. 2016). In *KSR International Co. v. Teleflex Inc.*, 550 U.S. 398, 419 (2007), the Supreme Court cautioned that the obviousness analysis should not be reduced to “rigid and mandatory formulas.” In *Graham v. John Deere Co.*, the Supreme Court set the framework for the obviousness inquiry under 35 U.S.C. § 103:

Under § 103, the scope and content of the prior art are to be determined; differences between the prior art and the claims at issue are to be ascertained; and the level of ordinary skill in the pertinent art resolved. Against this background, the obviousness or nonobviousness of the subject matter is determined. Such secondary considerations as commercial success, long felt but unsolved needs, failure of others, etc., might be utilized to give light to the circumstances surrounding the origin of the subject matter sought to be patented.

383 U.S. 1, 17–18 (1966). The *Graham* factors—(1) the scope and content of the prior art; (2) the differences between the claims and the prior art; (3) the level of ordinary skill in the art; and (4) objective considerations of nonobviousness—are questions of fact reviewed for substantial evidence. See *Apple Inc. v. Samsung Elecs. Co.*, 839 F.3d 1034, 1047–48 (Fed. Cir. 2016) (en banc); *In re Cyclobenzaprine Hydrochloride Extended-Release Capsule Patent Litig.*, 676 F.3d 1063, 1068 (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.” *WBIP*, 829 F.3d at 1326. We examine the legal conclusion de novo in light of those facts. *Id.*

“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 of those factors are considered.” *Apple*, 839 F.3d at 1048. This includes objective indicia of nonobviousness, which must be considered in every case where present. *See, e.g., id.* at 1048 & n.13; *Millennium Pharm., Inc. v. Sandoz Inc.*, 862 F.3d 1356, 1368–69 (Fed. Cir. 2017); *Merck & Cie v. Gnosis S.p.A.*, 808 F.3d 829, 837 (Fed. Cir. 2015); *Bristol-Myers Squibb Co. v. Teva Pharm. USA, Inc.*, 752 F.3d 967, 977 (Fed. Cir. 2014); *Transocean Offshore Deepwater Drilling, Inc. v. Maersk Drilling USA, Inc.*, 699 F.3d 1340, 1349 (Fed. Cir. 2012). “This requirement is in recognition of the fact that each of the *Graham* factors helps inform the ultimate obviousness determination.” *Apple*, 839 F.3d at 1048. Objective indicia of nonobviousness are considered collectively with the other *Graham* factors because they “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.” *Graham*, 383 U.S. at 36 (citation omitted); *see also KSR*, 550 U.S. at 415 (inviting court “to look at any secondary considerations that would prove instructive”); *Stratoflex, Inc. v. Aeroquip Corp.*, 713 F.2d 1530, 1538–39 (Fed. Cir. 1983) (noting that evidence of these factors must be considered with all the evidence and “not just when the decisionmaker remains in doubt after reviewing the art”).

Also a fact question is whether one of ordinary skill in the art had a motivation to combine the prior art to achieve the claimed combination. *Apple*, 839 F.3d at 1047–48, 1051; *Wyers v. Master Lock Co.*, 616 F.3d 1231,

1237–39 (Fed. Cir. 2010). “In *KSR*, the Supreme Court criticized a rigid approach to determining obviousness based on the disclosures of individual prior-art references, with little recourse to the knowledge, creativity, and common sense that an ordinarily skilled artisan would have brought to bear when considering combinations or modifications.” *Randall Mfg. v. Rea*, 733 F.3d 1355, 1362 (Fed. Cir. 2013). Therefore, a motivation to combine can be found explicitly or implicitly in the prior art references themselves, in market forces, in design incentives, or in “any need or problem known in the field of endeavor at the time of invention and addressed by the patent.” *KSR*, 550 U.S. at 420–21; *accord Plantronics, Inc. v. Aliph, Inc.*, 724 F.3d 1343, 1354 (Fed. Cir. 2013) (“[M]otivation to combine may be found explicitly or implicitly in market forces; design incentives; the ‘interrelated teachings of multiple patents’; ‘any need or problem known in the field of endeavor at the time of invention and addressed by the patent’; and the background knowledge, creativity, and common sense of the person of ordinary skill.” (quoting *Perfect Web Techs., Inc. v. InfoUSA, Inc.*, 587 F.3d 1324, 1328–29 (Fed. Cir. 2009))). “The court should consider a range of real-world facts to determine ‘whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue.’” *Intercontinental Great Brands LLC v. Kellogg N. Am. Co.*, 869 F.3d 1336, 1344 (Fed. Cir. 2017) (quoting *KSR*, 550 U.S. at 418). Motivation to combine is a factual determination as to whether there is a known reason a skilled artisan would have been motivated to combine elements to arrive at a claimed combination. This is not the ultimate legal determination of whether the claimed combination would have been obvious to the ordinary artisan—meaning that it is possible that a reason or motivation may exist, but nonetheless the ordinary artisan would not have found the combination obvious.

When a challenger shows that a “motivation” existed for a relevant skilled artisan to combine prior art in the way claimed in the patent at issue, such a showing commonly supports and leads readily to the further, ultimate determination that such an artisan, using ordinary creativity, would actually have found the claimed invention obvious. But the latter conclusion does not follow automatically from the former finding, and additional evidence may prevent drawing it. . . . Even with a motivation proved, the record may reveal reasons that, after all, the court should not conclude that the combination would have been obvious

Intercontinental Great Brands, 869 F.3d at 1346–47.

Determining whether a claimed combination would have been obvious to a skilled artisan requires consideration of all the facts, no one of which is dispositive. The prior art, skill, and knowledge of the ordinarily skilled artisan may present a motivation or reason to combine. The prior art, skill, and knowledge of an ordinary artisan may also provide reasons not to combine which would likewise be a question of fact. For example, a reference may be found to teach away from a claimed combination, also a question of fact. *Allergan, Inc. v. Sandoz Inc.*, 796 F.3d 1293, 1305 (Fed. Cir. 2015). Prior art teaches away when “a person of ordinary skill, upon reading the reference, would be discouraged from following the path set out in the reference, or would be led in a direction divergent from the path that was taken by the applicant.” *Id.* (citing *In re Gurley*, 27 F.3d 551, 553 (Fed. Cir. 1994)). In fact, the prior art could contain one reference suggesting a combination and others critiquing or otherwise discouraging the same. Even a single reference can include both types of statements, and we have held that it is error to fail to consider the entirety of the art. *See, e.g., W.L. Gore & Assocs., Inc. v. Garlock, Inc.*, 721 F.2d 1540, 1550 (Fed.

Cir. 1983) (holding the district court erred by “considering the references in less than their entirety, i.e., in disregarding disclosures in the references that diverge from and teach away from the invention at hand”).

“The degree of teaching away will of course depend on the particular facts; in general, a reference will teach away if it suggests that the line of development flowing from the reference’s disclosure is unlikely to be productive of the result sought by the applicant.” *Gurley*, 27 F.3d at 553. As our precedent reflects, prior art need not explicitly “teach away” to be relevant to the obviousness determination. Implicit in our discussion of the “degree” of teaching away is an understanding that some references may discourage more than others. *Id.*; see also *Meiresonne v. Google, Inc.*, 849 F.3d 1379, 1382 (Fed. Cir. 2017) (“A reference that ‘merely expresses a general preference for an alternative invention but does not criticize, discredit, or otherwise discourage investigation into’ the claimed invention does not teach away.” (quoting *Galderma Labs., L.P. v. Tolmar, Inc.*, 737 F.3d 731, 738 (Fed. Cir. 2013))); *DePuy Spine, Inc. v. Medtronic Sofamor Danek, Inc.*, 567 F.3d 1314, 1327 (Fed. Cir. 2009) (affirming district court’s finding of teaching away where the reference “expresse[d] concern for failure”); *ATD Corp. v. Lydall, Inc.*, 159 F.3d 534, 546 (Fed. Cir. 1998) (reversing a judgment of invalidity in part because references “cautioned against compressing the layers in a multilayer insulator”). Indeed, the Supreme Court has long held that “known disadvantages in old devices which would naturally *discourage* the search for new inventions may be taken into account in determining obviousness.” *United States v. Adams*, 383 U.S. 39, 52 (1966) (emphasis added).

Such understandings about reasons to combine or countervailing reasons not to combine could come from the knowledge, skill, and creativity of the ordinarily skilled artisan. *KSR*, 550 U.S. at 418. We have held that

where a party argues a skilled artisan would have been motivated to combine references, it must show the artisan “would have had a reasonable expectation of success from doing so.” *Cyclobenzaprine*, 676 F.3d at 1068–69. Thus, if an ordinarily skilled artisan would not believe that a particular combination would have a reasonable expectation of “anticipated success,” the combination may not be obvious. *See KSR*, 550 U.S. at 421. Whether a reasonable expectation of success exists is yet another fact question. *PAR Pharm., Inc. v. TWI Pharm., Inc.*, 773 F.3d 1186, 1196 (Fed. Cir. 2014). Thus, whether there exist reasons a skilled artisan would combine or reasons a skilled artisan would not combine are entirely factual determinations to which deference must be given. Once all relevant facts are found, the ultimate legal determination involves the weighing of the fact findings to conclude whether the claimed combination would have been obvious to an ordinary artisan.

The jury, in this case, determined that BRP failed to prove by clear and convincing evidence that the claims at issue would have been obvious to a skilled artisan. BRP moved for judgment as a matter of law on obviousness, which the district court denied. On appeal, BRP 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 the off-throttle thrust reapplication system in its 1997 Sea-Doo Challenger 1800 Jet Boat (“Challenger”) and an existing PWC such as the 1998 Sea-Doo GTX RFI (“GTX”). There is no serious dispute that the Challenger system and a PWC like the GTX disclose all elements of most of the asserted claims.¹

¹ BRP argues the only claims not disclosed in the Challenger-PWC combination are dependent claims 25 of the ’545 patent and 17 of the ’969 patent, but notes those

BRP argues a reasonable jury could only have concluded an ordinarily skilled artisan would have been motivated to combine Challenger and a PWC, and that objective indicia of nonobviousness confirm the asserted claims would have been obvious. BRP disputes whether substantial evidence exists for particular jury fact findings and the ultimate legal determination of obviousness.

BRP argues that “*KSR* compels a finding of obviousness.” Appellant’s Br. 21. It argues that a conclusion of obviousness must be reached because there was “a design need or market pressure to solve a problem” and the combination is one of “a finite number of identified, predictable solutions.” *Id.* at 24 (quoting *KSR*, 550 U.S. at 421).

In order to show a skilled artisan would have been motivated to modify a PWC with Challenger’s off-throttle thrust reapplication system, BRP principally relies on two prior art reports written by the Society of Automotive Engineers (“SAE”) that studied “personal watercraft as test vehicles in order to evaluate and test emerging off throttle steering concepts and devices.” J.A. 7530. Specifically, the SAE Interim and Draft Final Reports suggested using the Challenger system in a PWC to address the off-throttle steering problem. The Draft Final Report concluded if the Challenger system were applied to PWCs, “performance characteristics would remain unchanged when operated properly, but when off-throttle steering and panic was sensed, then some additional steering torque would automatically be restored.” J.A. 7577. BRP also cites additional references that it argues provided PWC manufacturers with overwhelming pressure to implement solutions to off-throttle steering so that riders could safely avoid obstacles. For example, the National

claims are disclosed by adding another patent to the Challenger-PWC combination. Appellant’s Br. 23–24.

Transportation Safety Board recommended PWC manufacturers “consider . . . off-throttle steering” “to improve operator control and to help prevent personal injuries.” J.A. 7944. The National Association of State Boating Law Administrators similarly pressured the PWC industry to address the “disproportionate number of accidents” attributed to “‘off-throttle’ steering loss” in PWCs. J.A. 9536. BRP also argues its own patent application, Canadian Patent Appl. 2,207,938 (“Rheault ’938”), and patent, U.S. Patent No. 6,336,833 (“Rheault ’833”), disclose a throttle reapplication system and suggest its use in a PWC.

BRP argues a skilled artisan would have selected the Challenger system because it was one of a finite number of identified, predictable solutions to the problem of off-throttle steering in PWCs. *See KSR*, 550 U.S. at 421. The SAE Interim and Draft Final Reports identified the Challenger’s throttle reapplication as one of four solutions to the problem of off-throttle steering, along with rudders, flaps, and scoops. The National Association of State Boating Law Administrators also explained that jet boats and PWCs are similar and off-throttle directional control is a problem for both. Rheault ’833 disclosed that its steer-responsive throttle “is applicable to single-engine personal watercraft,” and Rheault ’938 states the Challenger jet boat’s thrust steering “is applicable to all types of watercraft vehicles, including personal watercraft vehicles.” J.A. 8942 at Abstract; J.A. 8920 at 8:15–17. For these reasons, BRP argues a reasonable jury could only have found a skilled artisan would have been motivated to modify a PWC with Challenger’s off-throttle thrust reapplication system, which would have combined known elements to improve the system in the same way and yield expected results.

We presume the jury found that an ordinarily skilled artisan would not have been motivated to combine the Challenger system with a PWC given its determination

that the asserted claims are not invalid as obvious. If such a fact finding is supported by substantial evidence, we may not reverse it. In briefing and oral argument, BRP devoted much of its argument to re-litigating its case and its evidence rather than addressing the evidence that could have supported the jury's finding of no motivation to combine. We do not reweigh the evidence and reach our own factual determination regarding motivation. The question for us on appeal is only whether substantial evidence supports the jury's presumed finding. *See, e.g., Apple*, 839 F.3d at 1052 ("Our job is not to review whether Samsung's losing position was also supported by substantial evidence or to weigh the relative strength of Samsung's evidence against Apple's evidence. We are limited to determining whether there was substantial evidence for the jury's findings, on the entirety of the record."). We conclude that it does.

A reasonable jury could have found that a skilled artisan would not have been motivated to combine Challenger and a PWC. The SAE reports identified the combination of the Challenger system with a PWC to address the off-throttle steering problem, tested the Challenger for that purpose, and noted potential benefits of the combination. *E.g.*, J.A. 7577. But the reports did not stop there. The Draft Final Report also stated that "additional new hazards can be envisioned with such a steering system," including collisions "when inadvertent activation of restored thrust might occur close to other boats, swimmers or fixed objects." *Id.* It explained that because these hazards do not currently exist, "it is difficult to predict the frequency with which such events may occur." *Id.* Kevin Breen, an author of the SAE reports and BRP's expert at trial, testified that automatic throttle reapplication without "smart" engine controls could be dangerous. J.A. 2361–62. The Draft Final Report likewise identified potential problems with proposed "smart" engine controls, which "would only become activated when needed and

would not otherwise effect [sic] handling.” J.A. 7577. The report noted some “obvious” problems with this technology, such as the system performing in a manner contrary to the operator’s intentions and the need for the system to account for several variables “to be beneficial.” *Id.* As to the thought process behind “smart” engine controls, Mr. Breen testified that throttle reapplication “would be useful only if they were smart or on demand, as opposed to they just happened.” J.A. 2231–32. The claimed invention, in contrast, “just happen[s]” when the rider turns the steering mechanism. *Id.*; *see, e.g.*, ’545 patent at claim 1.

This evidence may not rise to the level of teaching away. Nonetheless, in light of this record, the jury’s determination that there was no motivation to make this particular combination is supported by substantial evidence. Evidence suggesting reasons to combine cannot be viewed in a vacuum apart from evidence suggesting reasons not to combine. In this case, the same reference suggests a reason to combine, but also suggests reasons that a skilled artisan would be discouraged from pursuing such a combination. Under such circumstances, the jury’s fact finding regarding motivation is supported by substantial evidence. Coupled with testimony confirming the potential problems of automatic throttle reapplication and suggesting an alternative approach might reduce those same problems, J.A. 2230–32, a jury could find a skilled artisan would not have been motivated to combine the Challenger system with a PWC to arrive at the claimed combination.

BRP argues that the SAE reports demonstrate market pressure to solve a problem and a finite number of predictable solutions; in fact, BRP argues there were only four articulated solutions. Appellant’s Br. 9. In *KSR*, the Supreme Court explained when there is “market pressure to solve a problem and there are a finite number of identified, predictable solutions, a person of ordinary skill has

good reason to pursue the known options within his or her technical grasp.” 550 U.S. at 421. While the SAE reports identified the Challenger system, rudders, flaps, and scoops as potential solutions to the problem of off-throttle steering in PWCs, a reasonable jury could have determined that more than four solutions existed. At trial, Arctic Cat’s expert and named inventor Fred Bernier testified there were “various fins” and “a variety of things tried over a course of a number of years,” including modifying where the appendages attached to the PWC. J.A. 1219–21. BRP’s expert Richard Simard also testified BRP built seventeen prototypes incorporating various approaches over the course of five years. J.A. 1951–57. An internal BRP “brainstorming” session identified thirty-two possible designs directed to off-throttle steering. J.A. 9454. And there is evidence that other potential solutions to the off-throttle steering problem existed but were not fully disclosed for confidentiality and other concerns. *See, e.g.*, J.A. 7532 (noting that some ideas offered in response to SAE’s inquiry “have typically either not conveyed sufficient information or have patent, propriety, or litigation concerns”).

A reasonable jury also could have found that modifying a PWC with the Challenger system would not have been a predictable solution yielding expected results. Mr. Bernier testified “[i]t was quite a—quite a surprise, actually” when his team realized the technology worked on a prototype PWC. J.A. 1232. So did Mr. Simard, who testified “[w]e were surprised” that Proto-14, BRP’s prototype incorporating the Challenger system with a PWC, was “pretty good in forward speed.” J.A. 1960. He also admitted “what works on a jet boat may not work on a personal watercraft.” *Id.* And although Arctic Cat’s expert Dr. Bernard Cuzzillo testified the Challenger system reapplies some throttle when steering, he also testified he did not know whether the Challenger system was “adequate to qualify as a steerable thrust” and that it

would “not necessarily” comprise a “controlled-thrust steering system.” J.A. 2876–78. This testimony along with the SAE reports’ own cautions about potential hazards of the combination provide substantial evidence upon which a jury could conclude that a skilled artisan would not have “anticipated success” with the claimed combination.

A. Objective Considerations

At trial, Arctic Cat argued the claimed invention received industry praise and satisfied a long-felt need. We presume the jury found in favor of Arctic Cat as to each of these objective considerations. We will not reverse these presumed findings if supported by substantial evidence.

1. Industry Praise

“Evidence that the industry praised a claimed invention or a product that embodies the patent claims weighs against an assertion that the same claimed invention would have been obvious.” *Apple*, 839 F.3d at 1053; accord *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].”).

At trial, Arctic Cat introduced a press release it issued after Captain Michael Holmes, chief of the U.S. Coast Guard Office of Boating Safety, rode and evaluated an Arctic Cat prototype incorporating the claimed invention. J.A. 9537. After his test ride, Captain Holmes stated: “I like it. It’s one of the most impressive innovations I’ve seen all year.” J.A. 9537. He continued, “What I saw today will help us move forward in developing a realistic, achievable standard for a control and safety issue that we need to address. I’m particularly encouraged that this amount of quick-turn control can be achieved without some of the negative handling or safety

ramifications that seem to accompany fins or rudders.” J.A. 9537. And Mr. Bernier testified others at the prototype demonstration “were very impressed with the system and how it worked” and said “it was the first time they had seen something that had a viable chance of resolving the off-throttle steering issues.” J.A. 1237.

BRP argues that substantial evidence does not support the jury’s presumed factual finding that the claimed invention received industry praise because “praise from a Coast Guard official in Arctic Cat’s own press release” is a “hearsay statement [that] cannot overcome persuasive evidence that the claimed technology described the same approach as BRP’s system.” Appellant’s Br. 35–36 (citing J.A. 7828; J.A. 7871; *In re Cree, Inc.*, 818 F.3d 694, 702 (Fed. Cir. 2016)). We disagree for at least two reasons. First, Arctic Cat contends—and BRP does not contest—that BRP failed to object to this evidence as hearsay at trial, so the jury was entitled to credit the statement. Appellee’s Br. 12. Second, that Captain Holmes’ statements appear in Arctic Cat’s press release goes to evidentiary weight. Captain Holmes’ statements and Mr. Bernier’s testimony constitute substantial evidence to support the jury’s presumed factual finding that the claimed invention received praise from the industry. This evidence of industry recognition of the significance and value of the claimed invention weighs in favor of nonobviousness.

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.” *WBIP*, 829 F.3d at 1332; *see also 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.”).

BRP does not dispute there was a long-felt need in the area of off-throttle steering and PWC rider safety. Rather, it argues Arctic Cat's invention did not satisfy this long-felt need because the Challenger system already solved off-throttle steering. Substantial evidence supports the jury's presumed finding that the claimed invention solved the problem of off-throttle steering. The SAE Draft Final Report noted "an effort has been ongoing to develop this [off-throttle steering] technology for more than three decades with little commercially viable success." J.A. 7575. The report summarized test results of the *Challenger* system for its off-throttle steering capabilities and offered potential pros and cons of its use in a PWC; it did not summarize test results of a Challenger-PWC combination. And Mr. Breen conceded at trial that despite a number of people working to address the off-throttle steering problem, there "was not a publicly available personal watercraft with throttle reapplication" before Arctic Cat's invention. Appellee's Br. 41 (citing J.A. 2337). This is substantial evidence to support the jury's fact finding about long-felt need. This long-felt need weighs in favor of the nonobviousness of the claimed invention.

B. Legal Conclusion

We consider whether the claimed invention would have been obvious *de novo*, in light of the jury's underlying factual findings. *WBIP*, 829 F.3d at 1326. The evidence suggesting a motivation to combine is tempered by the evidence suggesting the Challenger-PWC combination could have serious problems, that "smart" engine controls might better address those problems, that the combination was not one of only four possible solutions, and that the combination did not yield expected results. We cannot under these circumstances reverse any of the jury's presumed fact findings regarding motivation to combine or expectations of success. In light of these fact findings along with the objective indicia of nonobviousness, which

also weigh in favor of nonobviousness, we see no error in the conclusion that BRP failed to prove that the asserted claims would have been obvious by clear and convincing evidence.

II. Marking

Pursuant to 35 U.S.C. § 287(a), a patentee who makes or sells a patented article must mark his articles or notify infringers of his patent in order to recover damages. *See Dunlap v. Schofield*, 152 U.S. 244, 248 (1894). Section 287(a) provides:

Patentees, and persons making, offering for sale, or selling within the United States any patented article for or under them, or importing any patented article into the United States, may give notice to the public that the same is patented, either by fixing thereon the word “patent” or the abbreviation “pat.”, together with the number of the patent In the event of failure so to mark, no damages shall be recovered by the patentee in any action for infringement, except on proof that the infringer was notified of the infringement and continued to infringe thereafter, in which event damages may be recovered only for infringement occurring after such notice.

The patentee bears the burden of pleading and proving he complied with § 287(a)’s marking requirement. *Maxwell v. J. Baker, Inc.*, 86 F.3d 1098, 1111 (Fed. Cir. 1996); *see also Dunlap*, 152 U.S. at 248 (“[T]he duty of alleging and the burden of proving either [actual or constructive notice] is upon the [patentee].”). Whether a patentee’s articles have been marked “is a matter peculiarly within his own knowledge” *Dunlap*, 152 U.S. at 248. If a patentee who makes, sells, offers for sale, or imports his patented articles has not “given notice of his right” by marking his articles pursuant to the marking statute, he is not entitled to damages before the date of

actual notice. *Id.*; see also 35 U.S.C. § 287 (noting the patentee’s “failure so to mark” limits his damages to those incurred after actual notice). Section 287 is thus a limitation on damages, and not an affirmative defense. *Motorola, Inc. v. United States*, 729 F.2d 765, 770 (Fed. Cir. 1984). Compliance with § 287 is a question of fact. *Maxwell*, 86 F.3d at 1111.

A patentee’s licensees must also comply with § 287, because the statute extends to “persons making or selling any patented article for or under [the patentee].” *Id.* (quoting § 287(a)). Recognizing that it may be difficult for a patentee to ensure his licensees’ compliance with the marking provisions, we have held that where third parties are involved, courts may consider “whether the patentee made reasonable efforts to ensure compliance with the marking requirements.” *Id.* at 1111–12. This “rule of reason” inquiry is “consistent with the purpose of the constructive notice provision—to encourage patentees to mark their products in order to provide notice to the public of the existence of the patent and to prevent innocent infringement.” *Id.* at 1112.

We have explained that the marking statute serves three related purposes: (1) helping to avoid innocent infringement; (2) encouraging patentees to give public notice that the article is patented; and (3) aiding the public to identify whether an article is patented. *Nike, Inc. v. Wal-Mart Stores, Inc.*, 138 F.3d 1437, 1443 (Fed. Cir. 1998) (collecting authorities). Although patent infringement is a strict liability tort, a patentee who sells or permits the sale of unmarked, patented articles misleads others into believing they are free to make and sell an article actually covered by patent. Marking helps reduce innocent infringement by notifying the public that the article is patented. See *Motorola*, 729 F.2d at 772.

The parties dispute whether Arctic Cat’s licensee’s failure to mark certain products limits Arctic Cat’s dam-

ages. In February 2002, Arctic Cat entered into a fully paid-up license agreement with Honda in which Honda paid \$315,000 for licenses to two earlier-issued Arctic Cat patents and any later patents “that patentably cover Arctic Cat’s Controlled Thrust Steering methods, systems and developments.” J.A. 3540 ¶ EE; J.A. 7830–31 §§ 1.01, 3.01. The agreement includes the patents-in-suit. J.A. 3540 ¶ EE. The agreement specifically states Honda “shall have no obligation or requirement to mark” its licensed products. J.A. 7833 § 6.01. Honda sold PWCs in the United States through 2009 and Arctic Cat made no effort to ensure Honda marked those PWCs. J.A. 3540–41 ¶¶ II, JJ. At trial, the jury found damages began on October 16, 2008, before BRP received actual notice of infringement. J.A. 94.

There is no dispute that the patentee bears the burden of pleading and proving he complied with § 287(a). *Maxwell*, 86 F.3d at 1111. There is no dispute that Arctic Cat did not require Honda to mark; in fact, it expressly authorized Honda to sell licensed products without marking. And it is likewise undisputed that Honda did not mark any of its PWCs with the patent numbers at issue. Thus, if Honda sold PWC products covered by the patents at issue, Arctic Cat has failed to satisfy the marking requirements. The only dispute between the parties is whether any of the Honda PWCs was covered by the patent claims at issue. BRP explains the issue on appeal: “The only area of dispute between the parties was whether the PWCs that Honda sold were patented articles that were required to be marked. Which party bears the burden on this issue is a question of first impression for this Court and has split district courts.” Appellant’s Br. 37.

On summary judgment, the district court in this case held that the burden of proving compliance with marking is placed on the defendant and that “the burden of production does not shift to the plaintiff to show compliance

with a marking statute.” J.A. 58–59. And again in the denial of judgment as a matter of law, the district court repeated its belief that “BRP bears the burden of proving the defen[se] of marking.” J.A. 75. This was a legal error. The burden of proving compliance with marking is and at all times remains on the patentee. As in this case where BRP identified fourteen unmarked Honda PWCs, which it argued fell within the patent claims, it was the patentee’s burden to establish compliance with the marking statute—that these products did not fall within the patent claims.

There is a split among the district courts regarding which party must initially identify the products which it believes the patentee failed to mark. Some courts require the alleged infringer to initially identify products it believes practice the asserted patents. *See, e.g., Fortinet, Inc. v. Sophos, Inc.*, No. 13-CV-05831-EMC, 2015 WL 5971585, at *4–5 (N.D. Cal. Oct. 14, 2015). These courts reason that “[a]bsent guidance from the other side as to which specific products are alleged to have been sold in contravention of the marking requirement, a patentee . . . is left to guess exactly what it must prove up to establish compliance with the marking statute.” *Sealant Sys. Int’l, Inc. v. TEK Glob. S.R.L.*, No. 5:11-CV-00774-PSG, 2014 WL 1008183, at *31 (N.D. Cal. Mar. 7, 2014), *rev’d in part on other grounds*, 616 F. App’x 987 (Fed. Cir. 2015) (placing the initial burden on the alleged infringer to put the patentee “on notice” of unmarked products and finding it failed to meet its burden because of conflicting expert testimony and failure to produce admissible evidence showing a patented product was sold); *Fortinet*, 2015 WL 5971585, at *5 (adopting a “burden of production on [the alleged infringer] to identify the [unmarked products] it believes practice the inventions claimed” and granting partial summary judgment in favor of the alleged infringer where its expert report was “not too conclusory”); *Unwired Planet, LLC v. Apple Inc.*, No. 13-CV-

04134-VC, 2017 WL 1175379, at *5 (N.D. Cal. Feb. 14, 2017) (holding “[a]t most, the infringer bears some initial burden of plausibly identifying products subject to the marking requirement” and granting summary judgment in favor of the alleged infringer where it submitted a declaration and attached exhibits identifying particular products). This district court agreed with that approach, concluding that if the defendant did not at least have the burden of identifying unmarked products it believed fell within the claims, “a defendant’s general allegations could easily instigate a fishing expedition for the patentee.” J.A. 59.

Other courts have required the patentee prove that none of its unmarked goods practice the asserted claims. *See, e.g., Adrea, LLC v. Barnes & Noble, Inc.*, No. 13-CV-4137 JSR, 2015 WL 4610465, at *1–2 (S.D.N.Y. July 24, 2015). Courts adopting this approach reason the patentee is in a better position to know whether his goods practice the patents-in-suit. *Id.* at *2 (citing *Dunlap*, 152 U.S. at 248); *see also, e.g., DR Sys., Inc. v. Eastman Kodak Co.*, No. 08-CV-0669H(BLM), 2009 WL 2632685, at *4 (S.D. Cal. Aug. 24, 2009) (“Just as a patentee’s compliance with the marking statute is a matter particularly within its knowledge, so are the details of its own product line.”); *Kimberly-Clark Worldwide, Inc. v. First Quality Baby Prods., LLC*, No. 1:09-CV-1685, 2013 WL 1821593, at *3 (M.D. Pa. Apr. 30, 2013).

We hold an alleged infringer who challenges the patentee’s compliance with § 287 bears an initial burden of production to articulate the products it believes are unmarked “patented articles” subject to § 287. To be clear, this is a low bar. The alleged infringer need only put the patentee on notice that he or his authorized licensees sold specific unmarked products which the alleged infringer believes practice the patent. ■ The alleged infringer’s burden is a burden of production, not one of persuasion or proof. Without some notice of what market products BRP

believes required marking, Arctic Cat's universe of products for which it would have to establish compliance would be unbounded. See *Fortinet*, 2015 WL 5971585, at *5 ("Without some notice of what marketed products may practice the invention, AMI's universe of products for which it would have to establish compliance with, or inapplicability of, the marking statute would be unbounded." (quoting *Sealant*, 2014 WL 1008183, at *31)). Permitting infringers to allege failure to mark without identifying any products could lead to a large scale fishing expedition and gamesmanship. Once the alleged infringer meets its burden of production, however, the patentee bears the burden to prove the products identified do not practice the patented invention.

We do not here determine the minimum showing needed to meet the initial burden of production, but we hold in this case it was satisfied by BRP. At trial BRP introduced the licensing agreement between Honda and Arctic Cat showing Honda's license to practice "Arctic Cat patents that patently cover Arctic Cat's Controlled Thrust Steering methods, systems and developments." J.A. 7830 § 1.01. BRP identified fourteen Honda PWCs from three versions of its Aquatrax series sold between 2002 and 2009. J.A. 3540–41 ¶ II. BRP's expert testified that he "review[ed] information regarding those models" and believed if BRP's OTAS system practiced the patents, so did Honda's throttle reapplication system in the Aquatrax PWCs. J.A. 2447–49; J.A. 2482. This was sufficient to satisfy BRP's initial burden of production.

At summary judgment, the district court found BRP identified Honda PWCs and "presented an array of evidence" alleging they practice the asserted patents, but concluded BRP failed to meet its burden because it did not conduct a claim analysis of the products. J.A. 59–61. It later denied BRP's motion for judgment as a matter of law because BRP "failed as a matter of law to meet its burden in *proving* that Honda sold patented articles." J.A. 75

(emphasis added). The district court erred when it placed this burden on the alleged infringer. BRP shouldered only a burden of production to identify unmarked products that it alleges should have been marked. It was Arctic Cat's burden to prove those products—once identified—do not practice the patent-at-issue. The alleged infringer need not produce claim charts to meet its initial burden of identifying products. It is the patentee who bears the burden of proving that it satisfied the marking requirements and thus the patentee who would have to prove that the unmarked products identified by the infringer do not fall within the patent claims. The district court erred in placing this burden upon BRP and thus we vacate and remand on marking.

Because the district court adopted this legal approach at the summary judgment stage, it made clear to the parties that it would be BRP's burden to prove that the unmarked products fell within the patent claims. Arctic Cat, therefore, did not have a fair opportunity to develop its case regarding the Honda PWCs at trial. Because Arctic Cat was not on notice regarding its burden, and in fact labored under the assumption that BRP had the burden of proof, reversal would be improper. We thus vacate the district court's judgment as to marking and remand so that Arctic Cat has an opportunity to proffer evidence related to the identified Honda PWCs.² Because we conclude BRP has met its initial burden of production, Arctic Cat must now establish the Honda PWCs do not practice the asserted patents to recover damages under the constructive notice provisions of § 287.

² We leave it to the district court to determine if additional discovery on this issue is appropriate in light of our ruling.

III. Damages

BRP appeals the district court's denial of judgment as a matter of law that the jury's royalty award of \$102.54 per infringing unit should be vacated based on inadmissible expert testimony. Prior to trial, the district court denied BRP's *Daubert* motion to exclude this testimony of Arctic Cat's expert, Walter Bratic, regarding the calculation of a reasonable royalty rate. J.A. 24–28. BRP also appeals the district court's grant of an ongoing royalty of \$205.08 per infringing unit. J.A. 137–44.

A. Reasonable Royalty Rate

The Eleventh Circuit reviews *Daubert* decisions for abuse of discretion. *Quiet Tech. DC-8, Inc. v. Hurel-Dubois UK Ltd.*, 326 F.3d 1333, 1339–40 (11th Cir. 2003). “We review the jury’s determination of the amount of damages, an issue of fact, for substantial evidence.” *Lucent Techs., Inc. v. Gateway, Inc.*, 580 F.3d 1301, 1310 (Fed. Cir. 2009).

BRP raises the same arguments to exclude the testimony of Mr. Bratic rejected by the district court. BRP argues Mr. Bratic erroneously used BRP's later-developed “Intelligent Brake and Reverse” (“iBR”) system as a value benchmark for BRP's allegedly infringing and earlier-developed OTAS system. It argues that Mr. Bratic failed to establish that iBR is sufficiently comparable to the technology and value of OTAS, and thus his benchmark cannot serve as the basis for the jury's royalty award. The district court found that Mr. Bratic properly relied on the opinion of another Arctic Cat expert, Dr. Cuzzillo, who opined that OTAS and iBR are of comparable technological and safety value. J.A. 24–26. The district court noted that Dr. Cuzzillo's opinion was not vague or conclusory but based on “his own investigation of the OTAS and iBR brake technologies, how they work, and the benefits provided as well as discussions with [another expert and review of his report].” J.A. 25–26. To the extent BRP

found the comparison problematic, the district court suggested “that is a line of attack more appropriately addressed through cross-examination.” J.A. 26. BRP was given this chance at trial. *E.g.*, J.A. 1738–43.

We agree with the district court’s analysis and conclude it did not abuse its discretion in admitting Mr. Bratic’s damages testimony. *Cf. Apple Inc. v. Motorola, Inc.*, 757 F.3d 1286, 1316–20 (Fed. Cir. 2014) (factually attacking the accuracy of a benchmark goes to evidentiary weight, not admissibility), *overruled on other grounds by Williamson v. Citrix Online, LLC*, 792 F.3d 1339 (Fed. Cir. 2015) (en banc). Because BRP does not argue the royalty rate is not otherwise supported by substantial evidence,³ we affirm the district court’s denial of judgment as a matter of law as to the jury’s reasonable royalty rate.

B. Ongoing Royalty Rate

We review for abuse of discretion a district court’s grant of an ongoing royalty. *Whitserve, LLC v. Computer Packages, Inc.*, 694 F.3d 10, 35 (Fed. Cir. 2012). Ongoing royalties may be based on a post-judgment hypothetical negotiation using the *Georgia-Pacific* factors. *Fresenius USA, Inc. v. Baxter Int’l, Inc.*, 582 F.3d 1288, 1303 (Fed. Cir. 2009) (citing *Georgia-Pac. Corp. v. U.S. Plywood Corp.*, 318 F. Supp. 1116, 1120 (S.D.N.Y. 1970)).

³ BRP states in a footnote that even if this testimony were admissible, it is irrelevant and thus Arctic Cat failed to provide sufficient evidence to support the jury’s award. Appellant’s Br. 46 n.3. This single sentence, devoid of any analysis, is insufficient for BRP to meet its burden on appeal, and we nevertheless conclude Mr. Bratic’s testimony constitutes substantial evidence supporting the jury’s reasonable royalty award.

The district court did not abuse its discretion in awarding an ongoing royalty rate. The district court weighed the relevant *Georgia-Pacific* factors and determined that Arctic Cat is entitled to an ongoing royalty amount higher than the jury rate. J.A. 137–42. While BRP argues the rate impermissibly covers its profits, we have affirmed rates at or near the infringer’s alleged profit margin. *See, e.g., Golight, Inc. v. Wal-Mart Stores, Inc.*, 355 F.3d 1327, 1338–39 (Fed. Cir. 2004) (affirming district court’s grant of a reasonable royalty the defendant argued covered its profits); *Bos. Sci. Corp. v. Cordis Corp.*, 497 F. App’x 69 (Fed. Cir. 2013) (same for ongoing royalties); *cf. Douglas Dynamics, LLC v. Buyers Prods. Co.*, 717 F.3d 1336, 1346 (Fed. Cir. 2013) (vacating and remanding a royalty award where the district court “clearly erred by limiting the ongoing royalty rate based on [the defendant’s] profit margins”). And we have explained that “[o]nce a judgment of validity and infringement has been entered . . . the calculus is markedly different because different economic factors are involved.” *Amado v. Microsoft Corp.*, 517 F.3d 1353, 1362 (Fed. Cir. 2008); *see also Paice LLC v. Toyota Motor Corp.*, 504 F.3d 1293, 1317 (Fed. Cir. 2007) (Rader, J., concurring) (“[P]re-suit and post-judgment acts of infringement are distinct, and may warrant different royalty rates given the change in the parties’ legal relationship and other factors.”). We see no abuse of discretion in the district court’s analysis and affirm its order awarding an ongoing royalty.

IV. Willfulness & Enhanced Damages

We review enhanced damages under 35 U.S.C. § 284 for abuse of discretion. *Halo Elecs., Inc. v. Pulse Elecs., Inc.*, 136 S. Ct. 1923, 1934 (2016). A party seeking enhanced damages under § 284 bears the burden of proof by a preponderance of the evidence. *Id.* (citing *Octane Fitness, LLC v. ICON Health & Fitness Inc.*, 134 S. Ct. 1749, 1758 (2014)). The Eleventh Circuit reviews de novo previously raised objections to jury instructions and gives

district courts wide discretion in wording so long as the instructions accurately state the law. *SEC v. Big Apple Consulting USA, Inc.*, 783 F.3d 786, 802 (11th Cir. 2015).

BRP appeals the district court’s denial of judgment as a matter of law that it did not willfully infringe the asserted patents because the jury’s willfulness finding is not supported by substantial evidence and the district court erred in instructing the jury. It also argues the district court abused its discretion by trebling damages.

The jury’s willfulness finding is supported by substantial evidence. In denying BRP’s motion for judgment as a matter of law on willfulness, the district court found substantial evidence demonstrated that BRP knew about the patents before they issued, conducted only a cursory analysis of the patents, waited years before seeking advice of qualified and competent counsel, and unsuccessfully tried to buy the asserted patents through a third party. J.A. 70–72. The district court denied BRP’s renewed motion for judgment as a matter of law on willfulness, stating it “will not second-guess the jury or substitute [the court’s] judgment for its judgment” where the verdict is supported by substantial evidence. J.A. 124. Neither will we.

We reject BRP’s argument that the district court’s jury instruction was erroneous. The district court instructed the jury that as to willful infringement, “Arctic Cat must prove by clear and convincing evidence that BRP actually knew *or should have known* that its actions constituted an unjustifiably high risk of infringement of a valid and enforceable patent.” J.A. 3037 (emphasis added). BRP argues this “should have known” standard contradicts *Halo*. Appellant’s Br. 61 (citing *Halo*, 136 S. Ct. at 1933). But this Court addressed this issue and concluded:

Halo did not disturb the substantive standard for the second prong of *Seagate*, subjective willful-

ness. Rather, *Halo* emphasized that subjective willfulness alone—i.e., proof that the defendant acted despite a risk of infringement that was “either known or so obvious that it should have been known to the accused infringer,” *Halo*, 136 S. Ct. at 1930 (quoting *Seagate*, 497 F.3d at 1371)—can support an award of enhanced damages.

WesternGeco L.L.C. v. ION Geophysical Corp., 837 F.3d 1358, 1362 (Fed. Cir. 2016). Thus, the court did not err in instructing the jury as BRP argues.

Finally, the district court did not abuse its discretion by trebling damages. While the district court initially trebled damages without much explanation, J.A. 97–98, it explained its decision in a subsequent thorough and well-reasoned opinion. See J.A. 99–116 (applying the factors outlined in *Read Corp. v. Portec, Inc.*, 970 F.2d 816 (Fed. Cir. 1992)). Although the district court did not allow the parties to brief the issue, we will not adopt a blanket rule that a district court abuses its discretion by deciding an issue without receiving briefing from the parties. That is especially true where, as here, BRP attacks the district court’s procedure but does not explain how additional briefing would have changed the outcome. In short, BRP has not shown that the district court’s failure to allow briefing amounts to an abuse of discretion. We affirm the district court’s denial of judgment as a matter of law on willfulness and its order trebling damages.

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, that the jury-awarded royalty rate should be vacated, and that BRP did not willfully infringe the asserted claims. We also affirm the district court’s orders granting an ongoing royalty and trebling damages. We vacate the district court’s denial of

judgment as a matter of law as to marking and remand for a new trial on this issue.

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

COSTS

No costs.