UNITED STATES DISTRICT COURT EASTERN DISTRICT OF WISCONSIN

MARINE TRAVELIFT, INC.,

Plaintiff,

V.

Case No. 14-C-443

ASCOM SpA, and INTERNATIONAL BOATLIFT EXCHANGE, INC.

Defendants.

DECISION AND ORDER

Plaintiff Marine Travelift, Inc. ("MTI") filed this action seeking a preliminary injunction against Defendants ASCOM and International Boatlift Exchange, Inc. ("IBE"). It asserts that the Defendants have sold mobile boat lifting devices infringing U.S. Patent No. 7,520,362, issued on April 21, 2009. A hearing on the motion for a preliminary injunction was held on July 31 and August 1, 2014. For the reasons given below, the motion will be denied.

I. Background

Both MTI and ASCOM (an Italian company) are in the business of manufacturing boat lifts and industrial transporters, gantry-style cranes that straddle heavy boats or other objects to lift and move them around boat storage yards or marinas. Defendant IBE is ASCOM's exclusive dealer in the United States. According to MTI, in 2004 its engineers developed an idea for a boat lift that could rotate in a circular, or carousel, fashion ("turning on a dime"), which would allow the lift to maneuver into tight corners and generally make more precise movements than a lift driven by only two wheels. Although traditional lifts might be able to move in a circular pattern, they would have to move through a much wider "donut" arc, like a car turning in a circle. According to Jerry Wierzba, a co-inventor, MTI spent \$180,000 and 1,000 man-hours developing the technology.

Carousel movement had been known in the industry already, however. It was useful because,

as engineer Bruce Farber testified, boats were getting bigger and space in boat yards was getting tighter. The ability to spin around an axis allows cranes to move more nimbly in such yards. MTI's invention does not teach carousel movement *per se*, but rather a "steering system" allowing two diagonally-opposed wheels to turn clockwise while the two other wheels turned counterclockwise. After this occurs, the wheels on one side of the crane reverse direction, which allows the crane to turn in a circular, or carousel, manner. (ECF No. 24-1 at 10:25-58; ECF No. 27-5, ¶ 65.) Distilled to its essence, the patent discloses a "shortcut" that allows two of the wheels to turn many fewer degrees while getting into proper position to turn around the machine's axis.¹ Testimony at the hearing noted that when very heavy objects are lifted by cranes with rubber tires, the wear and tear on the tires is significant. In addition, these tires, which are sometimes as large as a human being, can be expensive—\$15,000 in some cases—and there are often a lot of them. By turning the tires less under very heavy weight (up to 1,000 tons in some cases), the patented technology saves wear and tear, and thus money, for customers. Testimony also suggested that the patented technology allowed quicker turning and safer operation. Each crane MTI builds is a custom job, and customers have the option of choosing MTI's carousel system for somewhere on the order of \$100,000, but sometimes more, depending on the size of the unit. (Tr. 85:22.)

MTI alleges that in early 2014 one of its employees saw an online video showing one of ASCOM's cranes using the same technology for carousel steering. MTI has since learned that ASCOM has been selling such machines at least since 2010. For example, in bidding for a Cleveland proposal, ASCOM offered an accused machine at the price of \$3.35 million, when MTI's bid was a much-higher \$4.6 million. ASCOM's bid made note of the electronic steering system that allowed rotation around the center of the machine, and because the customer viewed that as a desirable

¹Although the patent contains 36 claims, the focus was on this single improvement to existing technology.

feature, MTI alleges it was forced to lower its own bid by a half-million dollars in order to secure the order. In 2012, MTI lost out on a bid to ASCOM after ASCOM's accused machine was accepted. This pattern continued in 2013, with MTI having to compete against what it argues is its own technology. Because the market for ship gantry cranes is so small, MTI only makes a few sales per year. Accordingly, it alleges that the loss of even a single contract can cause irreparable harm to its business's viability, and the competition with its own technology means that the prices it can demand have eroded. It also alleged that the loss of a single sale can have a rippling effect because it loses a relationship, referrals, and future business, including sales of part, repairs and replacements. Thus, it asks that this Court enter a preliminary injunction to prevent ASCOM and IBE from selling infringing machines.

II. Analysis

"A plaintiff seeking a preliminary injunction must establish that he is likely to succeed on the merits, that he is likely to suffer irreparable harm in the absence of preliminary relief, that the balance of equities tips in his favor, and that an injunction is in the public interest." *Winter v. Natural Res. Def. Council, Inc.*, 555 U.S. 7, 20 (2008) (citations omitted). Courts routinely recognize, however, that a "preliminary injunction is an extraordinary remedy never awarded as of right." *Id.* at 24.

A. Success on the Merits

1. Validity: Novelty

Defendants argue that the patent is invalid because it did not disclose anything novel. Specifically, pivoting in a circular manner was a technology that had been used in the industry for decades. In fact, in 1995 ASCOM printed and distributed a brochure showing its LBS 160 machine, which was equipped with electronic steering allowing "circle steering around the machine." IBE states that, at a 2003 trade show, MTI's owner visited IBE's trade booth and was given a copy of the brochure. The Defendants also cite a request for bids from a British firm dating back to 1996. The request sought a machine with various specifications, including "360 degree rotation around the centre of the machine." (ECF No. 39 at \P 12.) Both ASCOM and MTI bid on the project. According to the Defendants, bids complying with the request would have constituted prior art because any conforming bids would have employed the carousel turning mechanism taught by the '362 patent.

MTI protests that neither the brochure nor the British bid disclosed the mechanism by which the circular motion was accomplished. The brochure simply suggests that such a process occurs, while the request for bids from the British firm merely states that circular motion is a requirement of any bid. Neither one discloses the particulars of the carousel steering method that is claimed in the patent.

As I noted at the hearing, the mere fact that the brochure and the British Teesside project suggest carousel movement of a crane is not relevant, because it is conceded that the general concept of carousel movement was already known in the prior art. In fact, the patent itself states that it is the *means* of achieving "carousel mode" that is novel rather than just the general concept of carousel movement. As discussed above, the novelty is achieved through the invention's ability to switch two of the wheels into reverse while maintaining the other two in the forward position. According to the specification, "another problem with existing gantry cranes occurs when the crane is switched into the carousel mode. In the past, this required positional rotation of two of the wheels approximately 90 degrees or more further than the other two wheels, in order for all four wheels to be in the proper position (to get all wheels driving — i.e., rotating along the axle of the wheel — in the proper direction)." (ECF No. 24-1 at 10:25-31.) This sentence in the specification makes two points. First, it acknowledges that some existing gantry cranes used a "carousel mode" feature, which supports the argument that the ability to turn in a circle was not, in and of itself, the novelty of the invention. Second, it explains a drawback of existing technology: the requirement that two of the

wheels be rotated 90 degrees more than the other two wheels.

In prior art gantry cranes, all of the wheels only moved *forward*. To spin 360 degrees around an axis, the wheels must be in the same, proper, position, regardless of whether they are driving "forward" or "reverse." (I use quotation marks because when turned, the wheels do not actually move forward or backward but in a circular fashion. Forward or reverse merely describes the drive from the motor.) It is in how the wheels *get* to that position that the invention's novelty lies. If all the wheels can only drive forward, then two of the wheels will need to rotate almost all the way around (135 degrees) so they reach the proper angle to allow the crane to spin around an axis. "The steering system of the present invention overcomes this problem by causing the driving direction of rotation of the two problem wheels (about each wheel's axle) to be reversed." (ECF No. 24-1 at 10:45-48.) Thus, if two of the wheels have the ability to switch gears and drive *backwards*, they can effectively take a "shortcut" and need to rotate only -45 degrees to get to the very same position. Either way, the wheel is positioned at the same angle, but the patented technology reaches that position with a much smaller turn.

The patent simply recognizes that a wheel has no inherent "forward" or "reverse" position, unlike, say, a jet engine, which has a distinct design that can only thrust forward. Because a wheel can go either way, the same position can be achieved by moving it either left or right. For the proper angle required for carousel mode, it happens to be the case that the turn required in one direction is much smaller than the turn required in the other. But in order to take advantage of that fact, the wheel must have the ability to go in reverse. That is the essence of what the patent discloses.

Because the invention is not merely limited to carousel mode gantry cranes, I conclude that the fact circular movement is mentioned in trade literature or requests for bids does not mean the patented idea was not novel. As described above, the patent discloses not just carousel mode *per se*, but what MTI argues is a *better* method for implementing carousel mode. The same is true for the prior art cited.

2. Validity: Obviousness

Defendants also argue that the '362 patent was obvious in light of prior art and the knowledge that an individual with ordinary skill in the art would possess. A party seeking to invalidate a patent on obviousness grounds must demonstrate "by clear and convincing evidence that a skilled artisan would have been motivated to combine the teachings of the prior art references to achieve the claimed invention, and that the skilled artisan would have had a reasonable expectation of success in doing so." *Pfizer, Inc. v. Apotex, Inc.,* 480 F.3d 1348, 1361 (Fed. Cir. 2007).

1. The Skaalen Patent

Primary emphasis was placed on the Skaalen patent, No. 4,599,030, which describes a straddle carrier vehicle for transporting large containers over a variety of terrains that might be encountered in military operations (for example, during an amphibious landing). In short, the Skaalen machine is a heavy duty lift designed to "meet austere requirements which are beyond the capability of commercial straddle lifts that normally operate on prepared surfaces within specific boundaries of yards and docks." (1:55-59.) Among other features, the Skaalen invention describes "all wheel 360 degree independent steering suitable for close quarters operations in container marshalling yards." (1:61-64.)

Issued in 1986, the Skaalen patent clearly anticipates the general concept of carousel steering. Figure 8(J) discloses what it calls "tight radius turning within vehicle length," showing all four wheels turned so as to produce a 360-degree rotation, and the patent elsewhere describes "circular pivot steering wherein wheels on diagonals are hydraulically integrated and rotated to produce circle steering." (4:66-68.) The specification explains that this feature allows the machine to be "directionally controlled in paths not negotiable by prior art," (6:63-65) and provides "maneuverability not heretofore available in container handling vehicles." (5:42-43.) Although Skaalen clearly teaches carousel steering, MTI argues that the Skaalen patent does not specifically disclose the improvement on circular turning that the '362 patent teaches. That is, it does not explicitly disclose that having two wheels turn in reverse would allow the carousel turning position to be achieved without the need for two of the wheels to rotate almost all the way around, or roughly 135 degrees. This is true. Even so, the Skaalen patent contains some strong suggestions that it could achieve carousel turning in the same way. First, the patent states that each wheel assembly is provided with an "independent hydrostatic drive" motor (4:18-20), and the wheels on diagonals are hydraulically integrated and rotated to produce circle steering. (4:66-68.) Because each wheel assembly is given an independent drive motor, the wheels do not all need to be going in the same "forward" direction. The technology for making a wheel drive in reverse is not itself novel, and thus there is no indication that two of the wheels could not be placed in reverse so as to achieve the shorter-radius turning that is disclosed in the '362 patent.

In fact, "independent drive" is the phrase the Plaintiff sometimes used to describe its own technology. During the deposition of boat yard operator Roy Hobbs, for example, MTI's counsel repeatedly described MTI's invention as "independent-drive carousel turning." (Hobbs Dep. at 32:1, 34:2, 35:17 and 35:23.) And in questioning ASCOM's Luca Pagliarini, counsel contrasted carousel mode where all four wheels drove in forward gear with the more recent "independent drive" technology of MTI's invention. (Pagliarini Dep. at 37:21; 38:1) In other contexts, MTI described its invention as "carousel mode, all wheel steer" (Kerwin Dep. at 75:1). For example, MTI's Peter Kerwin, in explaining why he believed Burger Boat valued the technology that ASCOM allegedly infringed, stated that Burger had a "very, very small yard, very difficult to maneuver. . . They have to have all-wheel steer. They have to have the carousel mode. It's imperative." (*Id.* at 68:17-20; 70:1-2.) And in trade press releases, MTI described its invention as "Marine Travelift's patented all-wheel electronic steering." (ECF No. 25-9 at 3.) In sum, MTI frequently described its own patented

invention as independent drive or all-wheel drive carousel steering, and that is exactly what is shown and described in the Skaalen patent.

A second suggestion in the Skaalen patent is found in Figure 8(J), which depicts the "tight radius turning within vehicle length." Figure 8(J) depicts four wheels turned at 45-degree angles, and arrows drawn next to the figure demonstrate how the machine is turning in a circular fashion about its axis. At first glance, this depiction merely shows carousel mode in operation, without depicting the key patented mechanism involving *how* the wheels turn in order to achieve the proper carousel position. But upon closer inspection, it is clear that the wheels are drawn in such a way that the front and rear of each wheel is discernable. Because each wheel has a "front" and a "rear" side, it can be discerned in which direction the wheels are pointed, and it is therefore possible to determine whether the wheels are moving in a forward or reverse direction. As shown in Figure 8(J), two of the wheels are moving in the direction towards the discernable "rear" of the wheel. In contrast, the other two wheels are moving in their forward position. This shows that not only is the machine positioned to move in carousel mode in general, but it has positioned itself in carousel mode by turning two of the wheels into reverse—exactly what is disclosed in the "362 patent.²

Based on the above, I conclude that the Skaalen patent discloses carousel steering, and it at least suggests the possibility of achieving carousel position essentially through the means described in the '362 patent. Based on this, Defendants' expert Bruce Farber testified that the primary teaching of the '362 patent was obvious because the patent did not disclose anything *in addition to*

²It is true that the wheel placement in Figure (J) suggests the wheels depicted in that figure did not make the minimum turn possible. But, having established that the wheels can turn independently (i.e., some can go forward while others are in reverse), there is no reason to think that the wheels would not be amenable to turning in the exact fashion disclosed in the '362 patent in order to save tire wear or make a faster turn.

the placement of two diagonally opposed wheels in reverse to achieve a shorter turn radius.³ (ECF No. 44, \P 42.) As noted above, the Skaalen patent is somewhat suggestive of the key, allegedly novel feature of the '362 patent, even if it does not set forth the utility of that feature within the patent itself. Based on this single prior art reference, one skilled in the art might indeed find it obvious to build a machine meeting all of the terms of the claims at issue here.

2. Objective Factors

MTI also cites the so-called objective factors of non-obviousness, which are designed to prevent courts from using hindsight to claim, years later, that an invention was obvious. These factors include "unexpected results, expert skepticism, copying, commercial success, praise by others . . . , failure by others, and long-felt need." *Mintz v. Dietz & Watson, Inc.*, 679 F.3d 1372, 1379 (Fed. Cir. 2012). The Federal Circuit has cautioned that a strong *prima facie* case of obviousness cannot always be overcome by these objective factors, however. *Leapfrog Enters., Inc. v. Fisher–Price, Inc.*, 485 F.3d 1157, 1162 (Fed. Cir. 2007) (holding that the objective considerations of nonobvious-ness presented, including substantial evidence of commercial success, praise, and long-felt need, were inadequate to overcome a strong showing of primary considerations that rendered the claims at issue invalid).

MTI argues that it has achieved significant commercial success since coming out with its patented technology; it also notes that ASCOM had not sold any electronic steering machines in the United States until it implemented a carousel mode that reversed direction of two of the wheels to minimize turning. In addition, MTI has received praise in the industry for its steering system, which it says allows for more maneuverability in "tight" or "confined" yards.

³Defendants framed the issue in terms of obviousness, but there is also some overlap with an anticipation defense. For purposes of a preliminary injunction, the Skaalen patent is enough to create a substantial issue of validity regardless of whether the analysis is based on obviousness or anticipation.

The central problem with these arguments is one found throughout the briefing and in other arguments advanced in this action. As suggested in this Court's August 8 request for further briefing, MTI has repeatedly failed to differentiate its patented technology from carousel steering in general, which exists in the prior art. A trade document it cites is emblematic of this. MTI uses the document to demonstrate industry praise (one of the objective factors of non-obviousness), but the document instead merely shows that customers valued carousel steering in general:

According to Forman [an MTI dealer], another major selling point for Newport Shipyard was the Marine Travelift's patented all-wheel electronic steering. Essentially, this means that each wheel is able to steer, providing superior maneuverability — operators can maneuver in close quarters, around tight corners and on uneven grades, which means the yard can utilize every square inch of available space. "With the machine's all-wheel electronic steering, maneuvering is much easier for the shipyard," he said. "They have a tight yard, which isn't hard to imagine in downtown Newport."

(ECF No. 25-9 at 3.)⁴

Maneuverability is a key feature of carousel steering (a point the Skaalen patent touts), but not particularly of MTI's patented invention, which is merely a way of placing a lift in carouselsteering mode somewhat faster. There was no evidence that MTI's wheel-turning improvement technology actually increases maneuverability or is any more valuable in tight quarters than a carousel-turning machine whose wheels all went in forward drive: both kinds of machines spin around the same axis. Thus, any industry praise for all-wheel carousel steering in general is not suggestive of non-obviousness because MTI did not invent all-wheel carousel steering; it invented an improvement to it.

MTI also argues there is evidence of copying, as shown by the fact that ASCOM infringes its technology. But of course infringement, which is present in any successful patent case, does not mean that the defendant actually copied the invention. Otherwise, "every infringement suit would

⁴And of course MTI's own dealer cannot be deemed a compelling source of industry praise.

automatically confirm the nonobviousness of the patent." *Iron Grip Barbell Co. v. USA Sports, Inc.*, 392 F.3d 1317, 1325 (Fed. Cir. 2004). In some cases, the fact that the defendant developed the same technology independently might cut the other way and show that the invention was obvious.

Here, ASCOM's Luca Pagliarini testified that one of its engineers realized in 2007 that it would be "possible to add an hydraulic element in the software, something very easy to change the driving direction of the wheel." (Pagliarini Dep. at 56:22-24.) MTI relied in part on this testimony to establish that ASCOM's pre-2007 machines (e.g., as found in its brochures) did not use the patented technology and thus did not anticipate the '362 invention. But the same evidence also supports ASCOM's position that it did not "copy" MTI's technology and instead developed the idea on its own. Thus, the mere fact that ASCOM might infringe the patent is not enough to show copying, and in fact the evidence shows otherwise.⁵

Finally, MTI argues that the commercial success of the products establishes that the invention was meeting a long-felt need. It notes that ASCOM did not begin selling carousel-mode gantry cranes in the United States until after it adopted the infringing technology. This line of argument relies more on correlation than causation, however. ASCOM's prior art cranes, e.g., the LBS 160, used prior art technology—in other words, all four wheels turned while in a forward-drive position. Such a machine would have had carousel movement, as shown in the brochures, but not MTI's improvement to carousel movement. As set forth in much more detail below, there was no testimony from any customers that MTI's patented technology was the antidote for some sort of long-felt problem that only MTI's invention could meet. Nor was there evidence that cranes using prior art technology were wholly inferior or difficult to produce. And there was no evidence even suggesting that the '362 invention is what unlocked the usefulness of carousel steering or somehow rendered

⁵MTI suggests that Jim Alfieri saw its technology at the Miami Boat Show in 2008 and found it "impressive." (Tr. 60-61.) But by then ASCOM was already implementing the technology.

it technically feasible. In fact, the patent itself demonstrates nothing more than an improvement over prior-art carousel steering, noting that the invention improves on prior art technology by allowing the wheels to turn less (and therefore faster). The evidence suggests that crane wheels do not take more than several seconds to turn, however, and so there was presumably no significant outcry for faster-moving wheels, and neither was there any evidence to that effect.⁶

It is true that ASCOM's success in selling carousel-movement gantry cranes in the United States post-dated its adoption of MTI's technology. But presumably such a correlation will be found in *most* infringement case, because a product that doesn't sell is a product not worth suing over. Thus, when a product consists of a number of features and attributes, it is not enough to show commercial success of a product in general, because that begs the question as to whether the invention itself is what caused the success. Instead, to be material evidence of non-obviousness, the particular invention must be shown either to be demanded on its own or part of a combination of features that buyers view as particularly useful. "Our case law clearly establishes that the patentee must establish a nexus between the evidence of commercial success and the patented invention." Wyers v. Master Lock Co., 616 F.3d 1231, 1246 (Fed. Cir. 2010). As set forth more fully below, in this case a number of other factors (price being most prominent) likely explain ASCOM's commercial success, and MTI has not shown that it was its invention—and not any of the numerous other features in the machines—that led to any commercial success. In re Huang, 100 F.3d 135, 140 (Fed.Cir. 1996) (the proponent must offer proof "that the sales were a direct result of the unique characteristics of the claimed invention") (emphasis added); Sparton Corp. v. United States, 89 Fed.Cl. 196, 240 (Fed. Cl. 2009) ("the Court cannot find that any commercial success of Sparton's dual depth sonobuoys evidenced by its sales data weighs strongly in favor of non-obviousness.

⁶And a crane fitted with carousel technology will only be *using* that technology a small percentage of the time, i.e., when it needs to maneuver in a circular fashion. Much of a crane's work is simply going forward and backward, or transversely in "crab" mode.

Sparton simply has not established a nexus between its sales and the contribution of the claimed invention over the prior art."); *J.T. Eaton & Co. v. Atl. Paste & Glue Co.*, 106 F.3d 1563, 1571 (Fed. Cir. 1997) ("asserted commercial success of the product must be due to the merits of the claimed invention beyond what was readily available in the prior art").

The Federal Circuit's case in *Asyst Technologies* is analogous. There, the patentee demonstrated that there was a long-felt need for a product and showed evidence of commercial success, but it failed to demonstrate that the success was due to its own patented technology rather than a need for a larger system, of which its invention was merely one component:

While the evidence shows that the overall system drew praise as a solution to a felt need, there was no evidence that the success of the commercial embodiment of the 421 patent was attributable to the substitution of a multiplexer for a bus, which was the only material difference between Hesser and the patented invention. Rather, the evidence to which Asyst points relates only to the disadvantages of using static identification systems, such as bar codes, to identify workpieces in the process of fabrication, a problem that was overcome by Hesser's disclosure of putting a microprocessor, memory, and communication means on the transportable containers so as to be able to update information about the status of the wafers within the containers.

Asyst Technologies, Inc. v. Emtrak, Inc., 544 F.3d 1310, 1316 (Fed. Cir. 2008). In short, the court concluded, "even though commercial embodiments of the '421 invention may have enjoyed commercial success, Asyst's failure to link that commercial success to the features of its invention that were not disclosed in Hesser undermines the probative force of the evidence pertaining to the success of Asyst's and Jenoptik's products." *Id.* The same holds true here. Even if MTI were able to show commercial success and an unfelt need for embodiments that happened to use the '362 technology, it never showed that the limited teachings of the '362 patent were driving any kind of commercial demand for those machines. And, as in *Asyst Technologies,* MTI's evidence of that system enjoyed any particularized success. *Id.* In short, the objective factors do not support

a finding of non-obviousness. *See also Wyers v. Master Lock Co.*, 616 F.3d 1231, 1246 (Fed. Cir. 2010) ("Wyers relies solely on Master Lock's \$20 million in sales of the accused product, and established no direct nexus to the [patented] sleeve feature.")

In sum, given the early stage of these proceedings and the high hurdle to be overcome (clear and convincing evidence), I cannot say that the '362 patent is invalid. However, I am satisfied that the Defendants have raised a serious enough issue of invalidity such that I am unable to conclude the Plaintiff has a strong likelihood of success on the merits. The Skaalen patent appears to either anticipate and / or render obvious the key teaching of the '362 invention, and MTI has not demonstrated that anyone in the industry praised its invention or that any commercial success was due to its patented technology.

2. Infringement

Defendants also argued that the question of infringement is murky because the court has not had the opportunity to construe important and possibly dispositive claim terms. In particular, Defendants argue that the specification ascribes specialized meaning to the terms "controller configured to control movement," and "carousel steering mode." Given the limited amount of time for discovery thus far in this action, and the fact that there has not been any claim construction thus far, Defendants argue it is impossible to conclude with any certainty that their products infringe.

As noted at the hearing, however, Defendants did not meaningfully contest infringement at this stage. There was no evidence of non-infringement and no effort to differentiate their products from the inventions set forth in the '362 claims. It might be the case that claim construction could result in a finding of non-infringement, but the fact that we have not had *Markman* proceeds yet does not mean preliminary relief is unavailable, because that would be true in most preliminary injunction motions, which usually arise early in the life of an infringement action. Accordingly, I conclude that Defendants have conceded infringement, at least for purposes of this motion.

B. Irreparable Harm

In addition to showing a likelihood of success on the merits, a movant must demonstrate that it would suffer irreparable harm in the absence of an injunction. "[T]o satisfy the irreparable harm factor in a patent infringement suit, a patentee must establish both of the following requirements: 1) that absent an injunction, it will suffer irreparable harm, and 2) that a sufficiently strong causal nexus relates the alleged harm to the alleged infringement." *Apple Inc. v. Samsung Electronics Co., Ltd. (Apple II),* 695 F.3d 1370, 1374 (Fed. Cir. 2012).

1. Irreparable Harm

MTI established during the hearing that the market for boat hoists is a very small one. The same players attend the same trade shows and are all competing for the same small number of bids, with only a handful of units being sold each year. A sale made by ASCOM is almost necessarily a sale lost by MTI, and the tight competition means that ASCOM's intrusion into the market using allegedly infringing technology causes price erosion. Specifically, by continually underbidding MTI, ASCOM is adversely impacting MTI's ability to realize profits not only with respect to the bid in question, but with respect to future contracts as well. And the loss of a single contract has a ripple effect as well. Relationships and referrals are lost, as is the ability to sell parts over the lifetime of the product. Finally, the cranes at issue here tend to last a long time: ten to twenty years-and customers tend only to need one or a very small number of them. Accordingly, the opportunity to rebuild relationships and make new sales is quite small. In sum, I am satisfied that because MTI's very existence and way of doing business are being threatened, damages for lost profits would not offer an adequate means of ameliorating the harm. "The sod harvester market at issue in this case is a tiny market with only three players Trebro sells only roughly eight sod harvesters per year. The opportunities to attract customers and make sales are thus scarce in this tight market." Trebro Mfg., Inc. v. Firefly Equipment, LLC, 748 F.3d 1159, 1170 (Fed. Cir. 2014) (reversing district court's conclusion finding no irreparable harm).

2. Causation

The focus in this case was not on irreparable harm *per se*, but on causation—the second element identified by the Federal Circuit in *Apple II*. That is, even if MTI shows it would be irreparably harmed absent an injunction, MTI must also show that the harm would be caused by the Defendants' *infringement*, and not by some other reason, such as quality, performance, market forces, currency exchange rates, financing, warranty, or price. There are all kinds of scenarios in which a company may suffer irreparable harm absent an injunction—for example, if a competitor is dramatically outselling it in the marketplace—but in an infringement case the question is whether the infringement (and not something else) is what would cause the harm. Federal courts are not in the business of saving companies just because they *can*; the plaintiff must show that what justifies judicial intervention is the infringement of its legal rights.

As the *Apple* line of cases recognizes, it is not enough for the patentee to merely point to a sale lost to the alleged infringer and speculate that the loss was caused by the infringement. Consumers often buy products for a number of reasons, and the patented technology is often only a small feature contained within a larger product. "In cases such as this—where the accused product includes many features of which only one (or a small minority) infringe—a finding that the patentee will be at risk of irreparable harm does not alone justify injunctive relief. Rather, the patentee must also establish that the harm is sufficiently related to the infringement." *Apple II,* 695 F.3d at 1374. "Sales lost to an infringing product cannot irreparably harm a patentee if consumers buy that product for reasons other than the patented feature. . . . Thus, a likelihood of irreparable harm cannot be shown if sales would be lost regardless of the infringing conduct." *Id.* (quoting *Apple Inc. v. Samsung Electronics (Apple I)*, 678 F.3d 1314, 1324 (Fed. Cir. 2012)). A patentee does not of course have to prove that infringement of its invention was the *sole* reason for its lost sales, but it

needs to show that a significant nexus exists between its patented feature and consumer demand for the product.

In order to show that it was harmed *by the infringement* (rather than just by losing the sale), MTI must provide some evidence that the buyers viewed the infringing technology as material to their decision to purchase, and that other factors were not more compelling: "The patentee must rather show that the infringing feature drives consumer demand for the accused product." *Id.* at 1375. In *Apple*, Apple claimed that its patented "unified search" technology was infringed by Samsung. Although the district court granted a preliminary injunction, the Federal Circuit reversed, finding no irreparable harm because Apple had not established a causal nexus between the infringed technology and its harm. The Federal Circuit noted that surveys indicated customers did not buy the Samsung product because of its search abilities. *Id.* at 1376. In short, there were many reasons a consumer might have bought a Samsung rather than an Apple, and because there were too many variables in the consumer's decision, Apple was unable to demonstrate that only one of them (the infringing technology) was the motivating force in consumer decisions. Thus, the district court should have rejected Apple's claim that infringement of its patented search technology was a cause of its irreparable injury.

Boat hoists are typically custom orders, and the buyer is motivated by a number of different features, as well as price—the cranes are very expensive. From the testimony, it appeared that a number of factors were central to a consumer's buying decision. First, the crane must have the ability to lift the tonnage required by the buyer's needs. In some cases, the crane must also have a particular feature, such as "crab" mode or carousel mode, in order to improve maneuverability. Beyond that, the important factors in a customer's buying decision would include considerations that are common in any significant purchase: quality, warranty, service, and price.

Here, I agree with the Defendants that MTI has not shown that its patented technology is

what "drives consumer demand" for the product. *Id.* at 1375. At least three reasons underlie my conclusion. First, MTI has not shown that its invention is of such usefulness that consumers would clearly prefer it over prior art. Second, in the briefing and during the hearing, MTI did not differentiate its invention from prior art carousel steering technology, and thus there was no evidence that any consumers actually considered its invention material to their decision to purchase. Finally, the discrepancy in bid amounts between MTI and ASCOM suggest that forces other than MTI's technology were far more important to consumers' decisions.

a. The Usefulness of the '362 Invention is Unclear, and There was no Evidence that Consumers Valued MTI's Technology

It is conceded that the '362 invention is useful in some respects; even ASCOM's Pagliarini noted that. But because every patent is necessarily useful, 35 U.S.C. § 101, a patentee trying to establish a nexus must do more than simply assert that his invention was useful enough to secure a patent. Otherwise any infringement, however small, would automatically entitle the patentee to a preliminary injunction. Here, the testimony and other evidence was quite limited as to the usefulness of the patent and its desirability to customers.

I first note that the patent itself does a poor job of explaining the invention's utility. Many patents outline the problems with prior art and address how the patented invention solves those problems, but the '362 patent does not follow that course. Instead, it simply notes that its invention "overcomes" a "problem" with prior art, but does not explain why prior art was problematic or why the invention is any better. (ECF No. 24-1 at 10:45-47.) The patent does explain that prior art carousel wheels (all in forward-drive) had to turn 135 degrees to achieve the correct carousel position, but the specification does not explain why that was particularly problematic. Nor does the patent even mention tire wear as being advantages of the disclosed invention. In short, with only the patent itself to go on, one would not have a clear picture of the invention's usefulness, much less any

notion that the invention would play a material role in driving consumer demand.

Witnesses attempted to provide more explanation during the hearing. As noted at the outset, the bulk of the testimony from MTI was directed at explaining that turning the wheels less (particularly while under the heavy weight of a yacht) would save on tire wear and tear, and that consumers would therefore value that feature.⁷ There were several flaws in this line of testimony, however.

i. Tire Wear did not Appear to be a Real Problem

First, there was no credible evidence that tire wear was even a significant issue in the minds of consumers. IBE's Jim Alfieri credibly testified that in his experience a crane's tires generally last between 15 and 25 years (Tr. 251:8.) and that tire wear had never been a serious issue for ASCOM customers. Thus, because tires last so long even on prior art machines, it is difficult to conclude that excessive wear was a problem in the minds of individual crane buyers, most of whom would not even be working for their employers by the time the tire might need replacing. Erich Pfeiffer, President and Chief Operating Officer of MTI, testified that tires experienced wear while they turned, which is no doubt true. But he did not provide any evidence that customers had told him they wanted or valued longer-lasting tires or (even more generally) that they desired a better way of turning gantry crane wheels. This Court asked the following question during the hearing: "Do you have any evidence, though, of how often tires have to be changed on these?... I understand that there's more wear, they're big tires. But, I mean, to say that it's more is not helpful unless ... there's actually some evidence as to how often tires have to be changed, what kind of savings actually are achieved" (Tr. 82-83.) In response to that question, MTI's Pfeiffer simply said that although MTI did

⁷There was limited testimony that turning the tires less allowed for faster movement as well. That is no doubt true, but MTI did not even hint that prior art cranes moved too slowly or that consumers would pay substantial amounts of money for a feature that saved only a few seconds. (Again, the patent itself is silent on this supposed benefit.) All of the points raised herein regarding tire wear apply with equal force to the issue of wheel turning speed.

fill some tire orders, it did not do so exclusively. (Tr. 83:10-12.) Accordingly, MTI appeared to concede that it had no actual information—not even of a general, ballpark nature—as to how often tires need to be changed, or even whether they are *ever* changed in a typical application.

A further problem is that MTI addressed the subject of tire wear in a vacuum without providing much context for how marine gantry cranes are used in typical applications. For example, there was no evidence demonstrating how much time a typical crane actually spends in carousel mode (the only time MTI's invention might be beneficial), and thus there was no concrete information as to how effective (and therefore desirable) the invention might actually be. Suppose a truck manufacturer invents a feature that saves tire wear when the truck is in four-wheel drive. If the typical truck driver uses the four-wheel drive only five percent of the time (e.g., in bad weather or off-road), the patented improvement will have much less impact on consumer demand because it is useful only a small percentage of the time. Here, presumably the lion's share of a crane's work involves moving boats around a boatyard or marina, and in doing so the crane will be moving forwards, backwards, and (if the "crab" option is available), sideways as well. The testimony suggested that the carousel option is only needed in "tight" areas where a crane would need increased maneuverability. (And in fact many customers do not buy the carousel option at all.) Thus, one would expect that the carousel feature is only a small (if necessary) part of a typical crane's operative life. If that is true, then the tires are experiencing wear from all kinds of other uses as well, as well as from different temperatures and uneven surfaces (Tr. 151). As Pfeiffer acknowledged, "a lot of it depends on the ground conditions as well as the usage, you know, how active is the machine as well as the maneuvers that they're making." (Tr. 83:7-9.) But neither Pfeiffer nor any other witness provided any evidence as to how active and what kinds of maneuvers their cranes would typically have been making. In fact, as explained in more depth below, one of the allegedly lost sales was to a San Diego yard that did not even truly need carousel steering at all, and

thus any savings from MTI's invention would be expected to be minimal for that customer.

In sum, when viewed in combination with the fact that even the patent itself is silent on the matter of tire wear, the evidence suggested that tire wear was not a material problem in gantry cranes, prior art or otherwise.

ii. It was Unclear how MTI's Invention would Impact Tire Wear

Even if tire wear were a demonstrable problem, MTI did not adequately explain how its invention would make a material contribution to solving that problem. There was no evidence (e.g., data or studies) describing how much tire wear would be saved over the course of the product's lifetime, and thus there was no way to quantify the product's worth to consumers. We do not even know how much wear a tire experiences in a single turn of 135 degrees while under a given weight, and thus naturally there was no a way to quantify the supposed benefit over the course of a single carousel turn, much less over the course of a crane's lifetime. In order to sell a cost-saving feature to a customer, one would expect that a company would be able to at least make some sort of claim that its invention would save, say, ten percent on tire wear over its lifetime.

In addition to the absence of data, here there was not even any anecdotal evidence to back up MTI's claim. MTI's witnesses did not cite a single case in which a customer using its product extended the life of its tires or saved money due to reduced tire wear. MTI professed no knowledge as to whether customers were purchasing fewer tires than they would with prior art technology. (This is not surprising, given Alfieri's unrefuted testimony that the tires last so long.) No actual users of the products testified as to their personal experience with tire wear, either. Although MTI's rebuttal expert again cited the tire wear issue, he similarly had no data or measurements, relying instead on a general (and largely undisputed) belief that turning tires less would produce some lesser amount of wear.

An additional problem for MTI is that the invention only reduces the rotation of two of the

four sides of the crane. That is, to get to carousel mode under MTI's approach, *all* the wheels still need to rotate; the invention simply allows two of the wheels to avoid making a fuller turn of 135 degrees. Accordingly, any benefit from the invention is only half of what it might otherwise appear, which makes the alleged desirability of the invention that much more attenuated.

Finally, the desirability of a costly invention to save tire wear is highly questionable under the circumstances in this case. The carousel option costs a customer somewhere between \$100,000 to \$500,000, depending on the size of the machine.⁸ MTI's Pfeiffer used the example of a 400-ton crane, for which the carousel option would cost \$200,000. "And with each of those [eight] tires being approximately \$15,000, you would have four tires where it would wear out much quicker." (Tr. 78:1-4.) So, using Pfeiffer's own example, the customer would spend \$200,000 up front in order to possibly save tire wear on \$60,000 worth of tires (four tires multiplied by \$15,000). Such a bizarre transaction would only make sense in a world where customers were changing tires very, very frequently. Here, the unrefuted evidence from Alfieri was that tires generally lasted at least 15 years, and Pfeiffer himself had no information as to how often tires needed changing. Not surprisingly, MTI presented no evidence that any customer ever entered into such a transaction in the hopes of saving wear on his tires.

iii. No Evidence that Consumers Even Understood MTI's Invention

Finally, even if tire wear were a problem, and even if MTI's invention meaningfully addressed that problem, there was not any evidence that any consumers even *understood* (much less valued) MTI's invention or the notion that it might save them wear on their tires. That is, there was no evidence that the tire wear issue had ever been raised in any discussions between possible consumers and MTI, or that consumers had stated they appreciated the new technology for that reason. In fact,

⁸Of that amount, we do not know what fraction of the cost represents the patented technology, which is only one aspect of carousel technology more generally. But neither MTI nor Pfeiffer made such a distinction.

not only was there no evidence from customers that they valued MTI's invention because it saved on tires, there was not even any evidence *from MTI* that it had ever touted (or even mentioned) that feature to customers. If a feature is alleged to be something that "drives consumer demand," *Apple II*, 695 F.3d at 1375, one would think that the manufacturer would have sales literature, emails or other records in which its sales staff cited the feature as a reason to buy its product. Instead, from the evidence in the record, one would conclude that not only was the tire wear issue not touted by MTI, but that consumers did not even know MTI's invention saved on tire wear at all.

The deposition of Roy Hobbs is particularly telling on this point, and although MTI cited it extensively in support of its motion, it actually supports the Defendants much more than MTI. Roy Hobbs is the CEO of Shelter Island boat yard in the port of San Diego, and his company performs maintenance and repair on yachts and other vessels. (ECF No. 66-1 at 9⁹.) In recent years, his yard has operated by using two MTI crane lifts, each of which has two-wheel steering. (He testified that he was satisfied with MTI's products, and "somewhat" satisfied with its service.) (Id. at 11:7.) More recently, however, Hobbs decided to expand his business by adding piers, and he determined he needed a boat lift with a lifting capacity higher than the 75 tons his current lifts could hoist. (Id. at 12-13.) When Hobbs was describing why he ultimately chose to go with the carousel steering feature, MTI's counsel pressed him on whether Hobbs wanted "independent drive carousel steering"—in other words, MTI's patented technology. In response, Hobbs said: "I'm not – I don't know how to answer that question. I'm not familiar with the technology so that I can express it in my own terms . . ." (Id. at 35:25 to 36:2.) In other words, it appears that MTI's own would-be customer did not even *understand* the very feature that is the subject of this lawsuit, much less put any weight on it in his decision to purchase a gantry crane.

⁹Citations are to the ECF page numbers rather than the numbers used in the original document.

In sum, the evidence at the hearing and in the record strongly suggests three things. First, it is doubtful that tire wear on gantry cranes was even a significant problem crying out for a solution. This conclusion stems from the '362 patent's unusual silence on the issue, the fact that tires tend to last 15 to 25 years even on prior art cranes, as well as the absence of any evidence from consumers, or even from MTI, that tire wear was significant problem to be overcome. Second, to the extent tire wear was actually a legitimate problem, the evidence does not show that MTI's invention solved that problem in any meaningful fashion. Without any evidence that the invention reduced tire wear in a quantifiable or appreciable manner, it is difficult to conclude that a consumer would pay a significant amount of money for something that might only theoretically save it some money, and then only 15 to 25 years down the line. Finally, and perhaps most tellingly, even if there were indeed some tiresaving benefit to the MTI technology, there was no evidence that the issue of tire wear was even *discussed* between MTI and its potential consumers. It was not featured in any trade literature or brochures; no customers ever said that preventing tire wear was a relevant issue; and MTI's sales staff never even *mentioned*, much less touted, its invention's supposedly important benefits. For these reasons, it is impossible to conclude that any customer even appreciated the supposed novelty or utility of the '362 invention, much less that the invention played a meaningful role in any consumer's decision-making process. MTI has therefore not established a nexus between infringement and irreparable harm.

b. MTI Wrongly Equated its Invention with Prior Art Carousel Technology

A second, related, problem with MTI's nexus argument is that it frequently equated its own improvement to carousel steering with carousel steering itself. As suggested above in the section discussing obviousness and commercial success, MTI made little effort to explain why its particular invention was valuable to consumers. For example, Erich Pfeiffer testified that he knew the Great Lakes boat yard needed carousel steering because it was a tight facility that needed carousel maneuverability. Thus, in his view it was the valued infringing technology that caused his company's loss rather than any other factors. In a related strain, MTI also argued that the carousel steering feature is an option costing on the order of \$100,000 or \$200,000. Since it is an expensive option, it is reasonable to conclude that carousel steering was a desirable feature to those who purchased it. Finally, MTI cited the testimony of Roy Hobbs, a customer who stated that carousel technology was valuable to him. (ECF No. 66-1 at 18-21.)

The Hobbs testimony will suffice to make the point. Ultimately, in consultation with MTI, Hobbs decided to order a lift that had four-wheel carousel steering. (Eventually he bought an ASCOM lift.) Part of a proposal he submitted indicated that the new gantry cranes "will allow for more efficient boatyard operations, because the four-wheel swivel capability will allow for greater maneuverability on the land side, which will allow for more accurate and rapid positioning of the vessels." (*Id.* at 20-21.) MTI cites this as definitive evidence that an actual customer viewed its technology as the driving force in the decision-making process.

There are several problems with this argument, however. First, Hobbs was actually quite equivocal on the value of carousel technology to his business. "The non-carousel cranes could have worked, and they were less money, and we were considering making that determination." (*Id.* at 31:8-10.) "It was a question of tradeoffs and cost." (*Id.* at 19:9-10.) Although he ultimately decided on carousel lifts, he testified that he wanted carousel technology "more for the glitter factor than anything else," (*Id.* at 19:17-18) and because "they were more modern looking and it would seem to go along with better marketing capability, and it would look better to the Port that we're using newer technology." (*Id.* at 32:1-5.) Thus, at best, Hobbs was on the fence about whether carousel technology justified the cost.

But that is beside the point. The quotation MTI believes is dispositive ("the four-wheel swivel capability will allow for greater maneuverability") is simply a statement that a carousel crane

would allow greater maneuverability, which would mean more efficient operations. Of course, that is merely a recognition that four-wheel carousel lifts, which also existed in the prior art, have benefits. The statement says nothing about whether the disclosure of the '362 patent—placing two wheels in reverse mode to achieve a shorter wheel turn—is of any value whatsoever. As noted earlier, the '362 invention does not allow greater maneuverability than any other carousel-turning crane; it simply achieves the correct wheel position somewhat faster.

As noted in this Court's request for further briefing, the problem with this line of argument is that MTI's patent is not a patent on the general idea of carousel steering, which had already existed. As relevant here, the '362 invention is actually a disclosure involving the use of two wheels in reverse to achieve the proper carousel position. Thus, even if it is true that customers wanted carousel technology *in general*, that fact is irrelevant because carousel movement is not the patented technology. Instead, the salient question is whether any customers wanted *MTI's* way of achieving carousel technology. To answer this question, we would have to know if buyers demanded (or even understood) the ability of two wheels to go into reverse in order to achieve the same carousel functionality that existed in the prior art. As discussed at length earlier, there was not even a hint of testimony or evidence that any customer viewed *that* technology (rather than generic carousel technology) as even a factor in the purchasing decision, much less the factor that was "driv[ing] consumer demand" for it. *Apple II*, 695 F.3d at 1375.

MTI responds that it was the '362 patent that essentially made carousel steering possible, and thus in some sense it makes sense to equate carousel steering with the '362 teachings. It notes that prior to the invention, ASCOM never sold any carousel units in the United States, and from this it asks for an inference that it was the use of the '362 teachings that unlocked ASCOM's ability to sell carousel-steering cranes. But, as noted above in discussing obviousness, that argument is based purely on correlation rather than any discernable link between the disclosed invention and its

commercial usefulness. That is, there is no evidence that using prior art methods of producing carousel-steering machines was impractical or that the new method "unlocked" carousel technology by making it feasible from an engineering perspective. Similarly, there was no evidence that the use of the relatively modest '362 teachings somehow opened the commercial floodgates to sales that were previously unavailable to ASCOM. In fact, as discussed at length above, there was not even any evidence that customers understood that the '362 method was different from carousel technology more generally. In short, there was no evidence that the '362 invention was the kind of "game-changer" that unleashed the ability to bring carousel mode gantry cranes to a desirous public. Accordingly, because MTI wrongly equated consumer demand for carousel technology with demand for its specific method of providing carousel technology, MTI provided no evidence of any nexus between the infringed technology and any loss of sales or price reductions.

c. Large Bid Discrepancies Suggest Other Factors are at Play in Lost Sales

Finally, the evidence in the record suggests that other factors were causing MTI to lose sales—not any infringement. Suppose MTI is correct that its technology saves consumers tire wear, which translates into some amount of cost savings. Customers might reasonably be willing to pay something for that feature (assuming they knew about it). But the evidence showed that MTI was being underbid in some cases by hundreds of thousands, or even millions, of dollars. If the issue is infringement of a \$100,000 option (of which the patented feature is merely a part), and the patentee is losing out on sales by amounts much more than that, it becomes difficult to lay the blame at the feet of the infringement. This is particularly true when the only established usefulness of the technology is a very modest one: to save some undefined amount of tire wear (and thus money) over the life of the machine. Given the fact that consumers apparently did not even appreciate the usefulness of the '362 invention, it is not hard to imagine that many consumers would have chosen ASCOM's dramatically lower bid prices even if its cranes did not use the '362 technology.

Suppose, for example, that Ford and Chrysler offered similar sedans at \$30,000. Ford invented a kind of tire that held up somewhat better to wear and tear, and then Chrysler stole the technology and offered it on its own models. Soon after, Chrysler sales boomed. If Ford sued Chrysler for an injunction, it would have to show that the stolen technology was a cause of the resulting lost sales. It might have some success doing that if the cars were similarly priced and had similar other features. But if Chrysler had also recently lowered its prices to \$20,000, Ford would now be hard-pressed to say that the infringing tires were the cause of the lost sales. Obviously, a customer concerned about saving money on tires would much rather have the \$10,000 savings up-front than enjoy any unspecified and unpredictable amount of savings over the lifetime of the car. In this example, the dramatic price difference far outweighs any incalculable benefit stemming from the longer-lasting tires. (This does not mean Ford is out of luck and that Chrysler may escape scot-free; it merely means that Ford cannot show irreparable harm to obtain preliminary injunctive relief. It may receive royalties from Chrysler's sales, and might even come out ahead in the end.)

The limited evidence we do have supports the conclusion that price was the overwhelming factor in lost sales. One of MTI's key examples is the instance in which it had to lower a bid \$500,000 in order to compete effectively for a project in Cleveland. But the email chain between MTI and the Cleveland firm suggests that price, not features, was the overwhelming factor, primarily because the company was not getting the level of grant support from the state that it had hoped. (ECF No. 37-2.) In the email chain, there is no discussion of carousel mode, much less of MTI's patented technology relating to carousel mode. In short, there is no indication that ASCOM's use of the reverse-moving wheels was what made its bid competitive, forcing MTI to lower its own price.

In addition, the deposition of Roy Hobbs supports this conclusion as well. When he was asked whether buying from ASCOM allowed him to "get the carousel lift you wanted . . . at a lower price," he did not merely say "yes;" instead, he explained that it was a "very, very, very significantly

lower price." (ECF No. 66-1 at 33:2.) In fact, "[i]t wasn't even a close call." (*Id.* at 32:22-23.) "Price was an issue. Financing was an issue. They offered us a great financing alternative that we didn't get out of Marine Travelift." (*Id.* at 39:14-18).

When the prices (and financing) are so dramatically different, it will be difficult for a patentee to claim that it is the infringement of a single feature that caused the lost sales, and here MTI was unable to overcome that hurdle because it did not establish that customers placed any value on its patented technology.

III. Conclusion

For the reasons given above, I conclude that MTI does not have a strong likelihood of success on the merits due to serious issues raised about the validity of the '362 patent. In addition, I conclude that it has not established that it would be irreparably harmed by continued infringement of its patent. Accordingly, the motion for a preliminary injunction is **DENIED**.

SO ORDERED this 25th day of August, 2014.

/s William C. Griesbach William C. Griesbach, Chief Judge United States District Court