

United States Court of Appeals
for the Federal Circuit

TRANSOCEAN OFFSHORE DEEPWATER
DRILLING, INC.,
Plaintiff-Appellant,

v.

MAERSK CONTRACTORS USA, INC.,
Defendant-Appellee.

2009-1556

Appeal from the United States District Court for the Southern District of Texas in case No. 07-CV-2392, Judge Kenneth M. Hoyt.

Decided: August 18, 2010

GREGORY A. CASTANIAS, Jones Day, of Washington, DC, argued for plaintiff-appellant. With him on the brief was THOMAS J. DAVIS. Of counsel was KARLA R. GOLDMAN. Of counsel on the brief were CHARLES B. WALKER, JR., MICHAEL S. MCCOY and WARREN S. HUANG, Fulbright & Jaworski L.L.P., of Houston, Texas.

WILLIAM H. FRANKEL, Brinks Hofer Gilson & Lione, of Chicago, Illinois, argued for defendant-appellee. With him on the brief were GLEN P. BELVIS, MARK H. REMUS

and DAVID P. LINDNER. Of counsel on the brief was LEE L. KAPLAN, Smyser Kaplan & Veselka, L.L.P., of Houston, Texas.

Before, GAJARSA, MAYER, and MOORE, *Circuit Judges*.

MOORE, *Circuit Judge*.

Transocean Offshore Deepwater Drilling, Inc. (Transocean) appeals from a final judgment of the U.S. District Court for the Southern District of Texas. The district court, on summary judgment, held that the asserted claims of the patents-in-suit are invalid, not infringed, and that defendant Maersk Contractors USA, Inc. (Maersk USA) did not act willfully. For the reasons set forth below, we reverse-in-part, vacate-in-part, affirm-in-part, and remand.

BACKGROUND

Transocean asserted claims 10-13 and 30 of U.S. Patent No. 6,047,781 ('781 patent), claim 17 of U.S. Patent No. 6,068,069 ('069 patent), and claim 10 of U.S. Patent No. 6,085,851 ('851 patent) against Maersk USA. The patents-in-suit share a common specification. The patents relate to an improved apparatus for conducting offshore drilling. In order to exploit oil and other resources below the sea floor, the disclosed rig must lower several components to the seabed including the drill bit, casings (metal tubes that create the wall of the borehole), and a blow-out preventer (BOP) that sits atop the well to prevent rupture during extended drilling. *Id.* col.8 l.40-col.9 l.30. The structure for lowering these elements and rotating the drill is called the derrick. *Id.* col.4 l.66-col.5 l.3. The derrick includes a top drive to rotate the drill and drawworks to move components (such as the drill, casing, and

BOP) to and from the sea floor. *Id.* col.6 ll.52-61; col.7 ll.65-67.

The derrick lowers and raises the drill bit and other components on the drill string. The drill string is a series of pipe sections, or “joints,” that the rig assembles on the surface. To begin the drilling process, the rig lowers the drill bit into the water toward the sea floor, adding more and more pipe sections or “joints” to the top of the drill string. For example, if the joints are each 30’ long, the drawworks would lower the drill 30’ and then pause to attach a new 30’ joint of pipe before proceeding. Once the drill reaches the seabed, the top drive turns the drill string to create the borehole. Again, when the drill bit moves 30’ into the seabed, the rig must add a new joint of pipe at the surface in order to continue drilling. Once the drill bit creates a portion of the borehole, the derrick retracts it to the surface. This means that the rig must remove each joint of pipe it added during the drill’s descent. This is a time-consuming process.

Once the drill bit is back on the surface, the derrick lowers a casing on another drill string, adding joints of pipe in the same manner. The casing is a metal tube that creates the wall of the borehole. Once the casing is in place, cement is pumped down through the drill string through and around the casing to hold it in place; the rig then retracts the drill string. This casing forms the first section of the borehole; the rig must drill through this casing to greater depth to reach the oil reservoir. Before the next round of drilling, the rig lowers a BOP on a large diameter drill string called a riser. The BOP prevents oil and gas from escaping from the borehole. The rig then drills through the riser, BOP, and first casing to create a new portion of the borehole that is smaller in diameter than the first portion. The casing process occurs for this new section and this entire process continues until the

borehole resembles a telescope of several sections of decreasing diameter.

A conventional rig utilized a derrick with a single top drive and drawworks. Because it could only lower one element at a time, the rig performed the many steps involved in drilling a well in series. Transocean attempted to improve the efficiency of this time-consuming process with the system described in the patents-in-suit. The patents describe a derrick that includes two stations—a main advancing station and an auxiliary advancing station—that can each assemble drill strings and lower components to the seabed. '781 patent fig.2; col.3 ll.58-66. Each advancing station includes a top drive for rotating the drill string and drawworks for raising and lowering the drill string. The auxiliary advancing station performs the initial drilling and casing. *Id.* col.9 l.66-col.10 l.2. While the auxiliary advancing station cases the first portion of the borehole, the main advancing station lowers the BOP. *Id.* col.9 ll.21-23. Once the casing is complete, the auxiliary advancing station retracts the drill string and begins supporting the main advancing station by preparing lengths of the drill string in advance. See *id.* col.9 ll.25-30. For example, the auxiliary advancing station may take three or four joints of pipe, assemble them, and set them aside so that while the main advancing station is lowering a drill bit or casing, it does not have to connect every joint. *Id.* While the auxiliary advancing station is performing this function, the main advancing station is drilling and casing additional portions of the well. *Id.* col.9 ll.35-40. This “dual-activity” rig can significantly decrease the time required to complete a borehole. *Id.* col.11 ll.56-67.

Transocean appeals the district court’s grant of summary judgment of (1) invalidity of all asserted claims based on obviousness and lack of enablement, (2) nonin-

fringement, and (3) no willfulness. We have jurisdiction under 28 U.S.C. § 1295(a)(1).

DISCUSSION

We review a district court's grant of summary judgment *de novo*. *ICU Med., Inc. v. Alaris Med. Sys. Inc.*, 558 F.3d 1368, 1374 (Fed. Cir. 2009). Summary judgment is appropriate when, drawing all justifiable inferences in the nonmovant's favor, there exists no genuine issue of material fact and the movant is entitled to judgment as a matter of law. Fed. R. Civ. P. 56(c); *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 255 (1986).

I. Invalidity

The district court held that all asserted claims are invalid. Claim 17 of the '069 patent is an example of the independent claims at issue:

A multi-activity drilling assembly operable to be supported from a position above the surface of a body of water for conducting drilling operations to the seabed and into the bed of the body of water, said multi-activity drilling assembly including:

a drilling superstructure operable to be mounted upon a drilling deck for simultaneously supporting drilling operations for a well and operations auxiliary to drilling operations for the well;

a first tubular advancing station connected to said drilling superstructure for advancing tubular members to the seabed and into the bed of body of water;

a second tubular advancing station connected to said drilling superstructure for

advancing tubular members simultaneously with said first tubular advancing station to the seabed and into the body of water to the seabed; and

an assembly positioned adjacent to said first and second tubular advancing stations operable to transfer tubular assemblies between said first tubular advancing station and said second tubular advancing station to facilitate simultaneous drilling operations auxiliary to said drilling operations, wherein drilling activity can be conducted for the well from said drilling superstructure by said first or second tubular advancing stations and auxiliary drilling activity can be simultaneously conducted for the well from said drilling superstructure by the other of said first or second tubular advancing stations.

The district court found the claims obvious under 35 U.S.C. § 103(a) and not enabled under 35 U.S.C. § 112 ¶ 1.

A. Obviousness

A patent shall not issue “if the differences between the subject matter sought to be patented and the prior art are such that the subject matter would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.” 35 U.S.C. § 103(a); *see KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 406-07 (2007). Obviousness is a question of law with underlying fact issues. *Id.* at 427; *Dennison Mfg. Co. v. Panduit Corp.*, 475 U.S. 809, 811 (1986). What a particular reference discloses is a question of fact,

see Para-Ordnance Manufacturing, Inc. v. SGS Imports International, Inc., 73 F.3d 1085, 1088 (Fed. Cir. 1995), as is the question of whether there was a reason to combine certain references, *see McGinley v. Franklin Sports, Inc.*, 262 F.3d 1339, 1352 (Fed. Cir. 2001). Under the four part test for obviousness detailed in *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1, 17-18 (1966), the court must consider (1) the scope and content of the prior art; (2) the difference between the prior art and the claimed invention; (3) the level of ordinary skill in the art; and (4) any objective evidence of nonobviousness. The objective evidence relevant to this appeal includes industry skepticism, long-felt industry need, commercial success, and copying. *See Agrizap, Inc. v. Woodstream Corp.*, 520 F.3d 1337, 1344 (Fed. Cir. 2008); *Iron Grip Barbell Co. v. USA Sports, Inc.*, 392 F.3d 1317, 1324 (Fed. Cir. 2005).

Relevant to this appeal, the asserted claims generally require (1) a first advancing station capable of advancing tubular members to the seabed, (2) a second advancing station also capable of advancing tubular members to the seabed, and (3) a transfer assembly to move tubular members between the first advancing station and the second advancing station.

The district court held that the claims would have been obvious over two references: U.K. patent application GB 2 041 836 to Horn (Horn) and U.S. Patent No. 4,850,439 to Lund (Lund). The parties did not dispute the teachings of the references below. The district court noted that Horn discloses a single derrick that supports two advancing stations that each advance tubular members to the seabed, but fails to disclose a transfer assembly that will move tubular members between them. The district court then noted that Lund discloses this missing element. The court pointed to the transfer mechanism of Lund that transfers pre-assembled pipe sections from a

preparation station to an advancing station. The court held that based on the undisputed teachings of these references, the asserted claims would have been obvious to one of ordinary skill in the art.

Transocean argues on appeal that the combination of Horn and Lund would not result in the claimed invention, but in a rig with two advancing stations, two preparation stations, and two transfer assemblies. Transocean also argues that the claims would not have been obvious over any combination with Horn because the claimed invention must operate on a single well and Horn only discloses two advancing stations operating on two wells.

We agree that Horn and Lund establish a *prima facie* case that the claims would have been obvious. In combination, Horn and Lund teach all of the limitations of the claims, two advancing stations that can advance tubular members to the seabed as well as a transfer assembly to move tubular members between the stations. But it is not enough to simply show that the references disclose the claim limitations; in addition, “it can be important to identify a reason that would have prompted a person of ordinary skill in the art to combine the elements as the new invention does.” *KSR*, 550 U.S. at 401. In this case, the reason to combine comes directly from the Horn reference. Discussing the benefits of combining two advancing stations in a single derrick, Horn states “[o]f other obvious advantages, there is the possibility of concentrating common auxiliary equipment” Horn p.1 ll.119-21. The transfer assembly of Lund is just the type of “auxiliary” equipment that one could concentrate for two advancing stations under a single derrick.¹ We

¹ Though it is not clear what the district court intended when it stated: “[t]o be an invention, the combining of the timesavings element [sic] would need to be

hold that the teachings of the references as well as this reason to combine support a *prima facie* case that the claims would have been obvious to one of ordinary skill in the art.

Transocean's first argument that the combination would result in two advancing stations, two preparation stations, and two transfer assemblies asks us to improperly turn the person of ordinary skill in the art into an "automaton" that can only add pieces of prior art. *See KSR*, 550 U.S. at 421. Transocean's second argument that Horn cannot render these claims obvious in any combination is similarly unavailing. Horn and Lund in combination, not individually, support the *prima facie* case. It would have been obvious to one of ordinary skill in the art that the dual well system of Horn could be combined with the single well system of Lund to result in two advancing stations operating on a single well with a transfer assembly moving tubular members between them.

Although we hold that Horn in view of Lund present a *prima facie* case of obviousness, this is not the end of the analysis. At the district court, Transocean presented significant objective evidence of nonobviousness. First, Transocean presented evidence of industry skepticism. A Transocean competitor, in an article discussing simultaneous drilling operations, stated that dual drill strings would be a "radical departure" from conventional systems

expressed in a manner that distinguishes, mathematically or scientifically, the time saved by comparing a Transocean rig from the time saved using other rigs that also claim timesaving features," we note that the focus must be on whether the claimed invention would have been obvious to one of skill in the art, not whether it is an improvement over the prior art. *Ryco, Inc. v. Ag-Bag Corp.*, 857 F.2d 1418, 1424 (Fed. Cir. 1988).

and that there was a high potential for underwater collision. Others in the field described dual activity as “not being realistic” for the same reasons. Second, Transocean presented evidence of industry praise for its dual activity rig. An industry publication called the invention one of the top 50 innovations in offshore drilling history. Transocean also cites other examples of praise from clients and competitors, including Maersk USA. Third, Transocean presented evidence that its implementation of the dual activity invention has been a commercial success. It showed that its dual activity rigs command a higher licensing premium than standard rigs. Finally, Transocean presented evidence that the success of its invention caused others to copy it, including Maersk USA.

Maersk USA disputes each of these pieces of evidence arguing that they do not have a nexus to the claimed invention. Regarding industry skepticism, Maersk USA points to several prior art references that described dual side-by-side drill strings with no concern for collision. On industry praise, Maersk USA argues that the relevant articles and statements refer to the entire rig, not to the dual activity of the invention specifically. On commercial success, Maersk USA argues that Transocean negotiated its licenses under threat of litigation and the terms are not relevant. Finally, Maersk USA argues that there is no evidence that any party copied the claimed invention, only that others intended to implement some sort of dual drilling system.

In its opinion, the district court ignored this objective evidence of nonobviousness. Though the court cites *Graham*, it indicates that the court is required to consider only the first three factors. *Transocean Offshore Deepwater Drilling, Inc. v. Maersk Contractors USA*, No. 07-2392, D.I. 148, *16 (S.D. Tex. July 28, 2009) (Noninfringement/Invalidity Order). Transocean argues that this is

reversible error asserting that a district court must consider objective evidence of nonobviousness when a party presents it. Maersk USA responds that we have considered this type of evidence for the first time on appeal in prior cases and should do so here.

We hold that the district court erred by failing to consider Transocean's objective evidence of nonobviousness. Our case law is clear that this type of evidence "must be considered in evaluating the obviousness of a claimed invention." *Iron Grip*, 392 F.3d at 1323; *Ruiz v. A.B. Chance Co.*, 234 F.3d 654, 667 (Fed. Cir. 2000); *Richardson-Vicks, Inc. v. Upjohn Co.*, 122 F.3d 1476, 1483 (Fed. Cir. 1997). While it is true that we have held in individual cases that objective evidence of nonobviousness did not overcome the strong *prima facie* case – this is a case-by-case determination. See *Leapfrog Enters., Inc. v. Fisher-Price, Inc.*, 485 F.3d 1157, 1162 (Fed. Cir. 2007); *Agrizap*, 520 F.3d at 1344. To be clear, a district court must *always* consider any objective evidence of nonobviousness presented in a case. *Iron Grip*, 392 F.3d at 1323; *Ruiz*, 234 F.3d at 667; *Richardson-Vicks*, 122 F.3d at 1483.

Maersk USA is correct that in at least one instance, we considered this type of objective evidence for the first time on appeal and held that the failure to consider it below was not reversible error. See *Iron Grip*, 392 F.3d at 1324. But in the context of summary judgment, this is only proper if, drawing all justifiable inferences in favor of the patent owner, the objective evidence cannot rebut the *prima facie* case. We decline to make that holding in this case. If all of the factual disputes regarding the objective evidence resolve in favor of Transocean, it has presented a strong basis for rebutting the *prima facie* case. Viewing the objective evidence of nonobviousness in a light most

favorable to Transocean, we cannot hold that the claims would have been obvious as a matter of law.

Because of the failure to consider the objective evidence of nonobviousness and because there are genuine issues of material fact remaining, we reverse the grant of summary judgment of invalidity based on obviousness.

B. Enablement

Whether a claim satisfies the enablement requirement is a question of law that we review *de novo*. *Sitrick v. Dreamworks, LLC*, 516 F.3d 993, 999 (Fed. Cir. 2008). A patent specification must “contain a written description of the invention . . . to enable any person skilled in the art . . . to make and use the same.” 35 U.S.C. § 112, ¶1. The specification must “enable one of ordinary skill in the art to practice the claimed invention without undue experimentation.” *Nat'l Recovery Techs., Inc. v. Magnetic Separation Sys., Inc.*, 166 F.3d 1190, 1196 (Fed. Cir. 1999). Enablement under § 112 is a question of law with underlying questions of fact regarding undue experimentation. *Liebel-Flarsheim Co. v. Medrad, Inc.*, 481 F.3d 1371, 1377 (Fed. Cir. 2007); *CFMT, Inc. v. Yieldup Int'l Corp.*, 349 F.3d 1333, 1338 (Fed Cir. 2003).

On summary judgment, the district court held that the asserted claims did not satisfy the enablement requirement because the specification does not include sufficient description of the “assembly . . . operable to transfer tubular assemblies” or “means . . . for transferring tubular assemblies.” It determined that one of ordinary skill in the art could not practice the invention without undue experimentation. Noninfringement/Invalidity Order at *9. It relied on evidence regarding Transocean’s difficulty in building its first commercial embodiment of the claimed invention holding that “the

specifications fail to inform as to how this new arrangement works such that a person skilled in the art may take advantage of the objective of the invention – timesaving.” *Id.* The district court specifically faulted Transocean’s failure to include the “programming” of the transport mechanism and any required modifications to prior art transfer mechanisms in the specification. Noninfringement/Invalidity Order at *10.

Transocean argues that the court erred because there is a genuine issue of material fact regarding undue experimentation. Transocean first argues that the state of the prior art is relevant to enablement and affects the level of experimentation that we will consider undue. *See In re Wands*, 858 F.2d 731, 736-37 (Fed. Cir. 1988). It argues that pipe transferring equipment was well-known prior to filing the patent application as evidenced by Maersk USA’s own expert, George Boyadjieff.² Mr. Boyadjieff admitted that it would not be “complex,” nor would it “take a lot of time” or “engineering effort” to alter a prior art transfer assembly to transfer between two advancing stations, as claimed, rather than an advancing station and a storage area. J.A. 4897. Mr. Boyadjieff agreed that it would be “trivial.” *Id.* Transocean argues that this shows that rail-mounted transport was well-known in the art and this should have precluded summary judgment of nonenablement.

Transocean also argues that the district court erred by requiring it to enable a commercial embodiment rather than the claimed invention. *CFMT, Inc.*, 349 F.3d at

² Mr. Boyadjieff testified in reference to his own patent that disclosed a rail-mounted transfer assembly between an advancing station and a storage area. Mr. Boyadjieff is the former CEO of Varco International, Inc., the company that designed the pipe handling system for Transocean’s own implementation of the patented system.

1338. It claims that 35 U.S.C. § 112 only requires that it enable “any mode of making and using the claimed invention.” *Engel Indus., Inc. v. Lockformer Co.*, 946 F.2d 1528, 1533 (Fed. Cir. 1991).

Maersk USA argues that the district court is correct and that the invention is not enabled because it would require one of ordinary skill in the art to engage in undue experimentation to practice the invention as a matter of law. *Nat'l Recovery Techs.*, 166 F.3d at 1196. Maersk USA relies heavily on Transocean’s attempts to build the first commercial embodiment of the claimed invention. Maersk USA argues that Transocean contracted with Varco International, Inc. (Varco) to build this embodiment because the inventors did not know how to construct the transferring equipment. Maersk USA points to inventor testimony that the embodiment included “software they had never done before,” and open issues such as “the weight it could handle,” “the speed it could travel,” “the hoisting range we needed,” “the size of the tubular it could handle,” and “the capability to rotate without friction.” J.A. 3999.

We agree with Transocean that factual issues regarding undue experimentation remain in this case that preclude summary judgment of no enablement. As an initial matter, the district court erred in requiring Transocean to enable the invention to allow a person of ordinary skill in the art to take advantage of the “timesaving” aspect of the invention. A patent specification only must enable one of ordinary skill in the art “to practice the claimed invention without undue experimentation.” *Nat'l Recovery Techs.*, 166 F.3d at 1196. It is not required to enable the most optimized configuration, unless this is an explicit part of the claims. In the present case, transferring tubular members from one location to another may be enabled by simply disclosing the use of a crane or a

rail-mounted system. It is irrelevant whether the enabling disclosure would provide the most efficient transfer. In requiring disclosure of “programming” and relying on the difficulty of constructing Transocean’s first dual activity rig, the district court erroneously required Transocean to enable the most efficient commercial embodiment, rather than the claims. *CFMT, Inc.*, 349 F.3d at 1338.

The court also erred in its determination that there is no genuine issue of material fact regarding undue experimentation. The parties do not dispute that the specification discloses two different types of transfer mechanism: a rail-mounted system and a crane. ’781 patent, col.7 ll.21-26, 53-55; fig.7. But the parties heavily dispute whether the development of the transfer equipment would be “trivial,” or a much more complex task based on the evidence presented below. Drawing all justifiable inferences in favor of Transocean, we cannot agree with the district court that these claims are not enabled as a matter of law. Therefore, we reverse the grant of summary judgment.

II. Infringement

The infringement issues in this case are unusual and require a discussion of the factual background. Transocean accused Maersk USA’s DSS-21 rig of infringement. Maersk USA’s Danish parent company, Maersk A/S, contracted with Keppel FELS Ltd. in 2005 to build the accused rig in Singapore. Later, Maersk A/S negotiated with Statoil ASA (a Norwegian company) for Statoil’s use of the accused rig. The companies came to an agreement for use of the rig and Maersk USA and Statoil Gulf of Mexico LLC (Statoil), a Texas Corporation, signed a contract in Norway. The contract specified that the “Operating Area” for the rig was the U.S. Gulf of Mexico

but that Statoil had the right to use the rig outside the Operating Area with certain limitations. J.A. 7167; 7211.

The contract also included mention of Transocean's U.S. patents. Maersk USA specifically retained the right to make "alterations" to the accused rig "in view of court or administrative determinations throughout the world." J.A. 7190. One of these "determinations" came when Transocean asserted the same patent claims in this case against another competitor, GlobalSantaFe Corp. (GSF). Transocean prevailed in that case and the court issued an injunction requiring GSF to install a "casing sleeve" on one of its two advancing stations. *Transocean Offshore Deepwater Drilling, Inc. v. GlobalSantaFe Corp.*, No. H-03-2910, 2006 U.S. Dist. LEXIS 93408 (S.D. Tex. Dec. 27, 2006). This casing sleeve prevents the auxiliary advancing station from lowering a drill string into the water. *Id.* at *32-34. The district court in GSF held that this avoids infringement because the cased advancing station can no longer advance tubes to the seabed as the independent claims require. Before delivering the rig to the U.S., Maersk USA learned of the injunction against GSF and modified the accused rig with the same casing sleeve to prevent one of the stations from advancing pipes to the seabed.

The district court granted summary judgment of non-infringement after determining that there was no sale or offer to sell under 35 U.S.C. § 271(a).³ *Transocean Offshore Deepwater Drilling, Inc. v. Maersk Contractors USA*,

³ The district court addressed infringement in two orders. First, it determined that the contract between Maersk USA and Statoil was not a sale or offer to sell under § 271(a) in its order granting summary judgment of no willfulness entered May 15, 2009. It resolved all remaining infringement issues in an order entered July 28, 2009.

No. 07-2392, D.I. 148, *8-9 (S.D. Tex. May 15, 2009) (Willfulness Order). The court relied on the undisputed facts that the negotiation and signing of the contract took place outside the U.S. and that the contract gave Maersk the option to alter the rig to avoid infringement. *Id.* The district court also held that Transocean was collaterally estopped from arguing that the modified rig that Maersk USA delivered to Statoil (that included the casing sleeve to prevent advancing tubular members to the seabed) infringed the patent claims because this design was adjudicated as noninfringing in the GSF litigation. Noninfringement/Invalidity Order at *12.

A. Offer to Sell

Section 271(a) defines infringing conduct: “whoever without authority makes, uses, offers to sell, or sells any patented invention, within the United States. . . infringes the patent.” 35 U.S.C. § 271(a). An offer to sell is a distinct act of infringement separate from an actual sale. An offer to sell differs from a sale in that an offer to sell need not be accepted to constitute an act of infringement. See *MEMC Elec. Materials, Inc. v. Mitsubishi Materials Silicon Corp.*, 420 F.3d 1369, 1376 (Fed. Cir. 2005). Moreover, the damages that would flow from an unaccepted offer to sell and an actual sale would likely be quite different. See Timothy R. Holbrook, *Liability for the “Threat of Sale”: Assessing Patent Infringement for Offering to Sell an Invention and Implications for the On-Sale Patentability Bar and other Forms of Infringement*, 43 Santa Clara L. Rev. 751, 791-92 (2003). We analyze an offer to sell under § 271(a) using traditional contract principles. *Rotec Indus., Inc. v. Mitsubishi Corp.*, 215 F.3d 1246 (Fed. Cir. 2000). There is no dispute that there was an offer to sell in this case, but Maersk USA argues

that the offer was made in Norway, not the United States, thereby absolving it of § 271(a) liability.

Maersk A/S (a Danish company) and Statoil ASA (a Norwegian company) negotiated the contract that is the subject of this alleged offer to sell. Their U.S. affiliates, Maersk USA and Statoil executed the contract in Norway. The contract included an “Operating Area” of the U.S. Gulf of Mexico. The district court held that because the negotiations and execution took place outside the U.S., this could not be an offer to sell within the United States under § 271(a).

Transocean argues that to hold that this contract between two U.S. companies for performance in the U.S. is not an offer to sell within the U.S. simply because the contract was negotiated and executed abroad would be inconsistent with *Lightcubes, LLC v. Northern Light Products, Inc.*, 523 F.3d 1353 (Fed. Cir. 2008) (holding that a foreign company cannot avoid liability for a sale by delivering the product outside the U.S. to a U.S. customer for importation). Transocean argues that a contract between two U.S. companies for delivery or performance in the U.S. must be an offer to sell within the United States under § 271(a).

Maersk USA argues that *Rotec*, 215 F.3d 1246 and *MEMC*, 420 F.3d 1369 require that, for there to be an offer to sell within the U.S., the offer activities must occur within the U.S. It argues that the negotiations and execution outside the U.S. preclude offer to sell liability in this case.

This case presents the question whether an offer which is made in Norway by a U.S. company to a U.S. company to sell a product within the U.S., for delivery and use within the U.S. constitutes an offer to sell within the U.S. under § 271(a). We conclude that it does. Sec-

tion 271(a) states that “whoever . . . offers to sell . . . within the United States any patented invention . . . infringes.” In order for an offer to sell to constitute infringement, the offer must be to sell a patented invention within the United States. The focus should not be on the location of the offer, but rather the location of the future sale that would occur pursuant to the offer.

The offer to sell liability was added to the patent statute to conform to the April 1994 Uruguay Round’s Trade-Related Aspects of Intellectual Property Agreement (TRIPS). The underlying purpose of holding someone who offers to sell liable for infringement is to prevent “generating interest in a potential infringing product to the commercial detriment of the rightful patentee.” *3D Sys., Inc. v. Aarotech Labs., Inc.*, 160 F.3d 1373, 1379 (Fed. Cir. 1998). The offer must be for a potentially infringing article. *Id.* We are mindful of the presumption against extraterritoriality. *Microsoft Corp. v. AT&T Corp.*, 550 U.S. 437, 441 (2007). “It is the general rule under United States patent law that no infringement occurs when a patented product is made and sold in another country.” *Id.* This presumption has guided other courts to conclude that the contemplated sale would occur within the United States in order for an offer to sell to constitute infringement. See, e.g., *Semiconductor Energy Lab. Co. v. Chi Mei Optoelectronics Corp.*, 531 F. Supp. 2d 1084, 1110-11 (N.D. Cal. 2007). We agree that the location of the contemplated sale controls whether there is an offer to sell within the United States.

The statute precludes “offers to sell . . . within the United States.” To adopt Maersk USA’s position would have us read the statute as “offers made within the United States to sell” or “offers made within the United States to sell within the United States.” First, this is not the statutory language. Second, this interpretation would

exalt form over substance by allowing a U.S. company to travel abroad to make offers to sell back into the U.S. without any liability for infringement. See *3D Sys.*, 160 F.3d at 1379. This company would generate interest in its product in the U.S. to the detriment of the U.S. patent owner, the type of harm that offer to sell within the U.S. liability is meant to remedy. *Id.* These acts create a real harm in the U.S. to a U.S. patentee.

Neither *Rotec* nor *MEMC* preclude our determination that an offer by a U.S. company to sell a patented invention to another U.S. company for delivery and use in the U.S. constitutes an offer to sell within the U.S. First, *SEB S.A. v. Montgomery Ward & Co.*, 594 F.3d 1360, 1375 (Fed. Cir. 2010) contemplated whether the territorial reach of the offer to sell language had been decided by *Rotec* and concluded that it had not. The defendants in *Rotec* did argue that because the offer was made in China, not the U.S., they did not infringe. *Rotec*, 215 F.3d at 1251. And the *Rotec* court discussed the evidence regarding meetings and communications made in the United States. *Id.* at 1255. The *Rotec* court held that there was no offer to sell, not because of the location of the offer or of the ultimate sale, but rather because there was no evidence that an offer was communicated or conveyed by the defendants. *Id.* at 1255 (“None of this evidence, however, establishes any communication by Defendants with any third party.”). In concurrence, Judge Newman indicates that she would have instead decided the case on the ground that there was no offer which contemplated a sale within the U.S. *Id.* at 1259 (Newman, J., concurring). The *MEMC* case is even further attenuated as it did not even consider location of the offer or the contemplated sale, but instead held there was no offer to sell because the emails at issue, which contained only technical data and no price terms, cannot constitute an offer that could

be made into a binding contract by acceptance. 420 F.3d at 1376.

We conclude that neither *Rotec* nor *MEMC* control this case. We hold that the district court erred because a contract between two U.S. companies for performance in the U.S. may constitute an offer to sell within the U.S. under § 271(a). The fact that the offer was negotiated or a contract signed while the two U.S. companies were abroad does not remove this case from statutory liability. We therefore vacate the district court's summary judgment of noninfringement.⁴

B. Sale

The parties begin with the same territoriality argument presented in the context of an offer to sell. Transocean argues that a contract between two U.S. companies for performance in the U.S. constitutes a sale under § 271(a). Maersk USA responds that this cannot be a sale within the U.S. because all negotiations and execution of the contract took place in Norway and the contract did not provide for performance only in the U.S.

⁴ We note that because the district court held that the location of the offer in this case removed it from the statute as a matter of law, it never reached the factual issue of whether the subject of the offer to sell was of a “patented invention” by analyzing the design of the rig. Of course, in this analysis, the district court must determine what was offered for sale, not what was ultimately delivered. *See Holbrook, supra*, at 753. In other words, it does not affect this analysis that Maersk USA eventually altered the design prior to delivery; the subject of the offer to sell was the unmodified rig. The district court must determine whether this unmodified rig was “the patented invention.” We decline to perform this analysis in the first instance on appeal.

The parties further dispute whether the device that was sold was “the patented invention.” Transocean argues that we should analyze infringement based on the schematics that accompanied the contract. Maersk USA argues that this was not an infringing sale because it reserved the right to alter the rig to avoid infringement. Finally, Maersk USA argues this cannot be a sale under § 271(a) because the rig was not complete at the time of contracting. It argues that “in order for there to have been a sale within the meaning of 35 U.S.C. § 271(a), the entire apparatus must have been constructed and ready for use,” citing *Ecodyne Corp. v. Croll-Reynolds Engineering*, 491 F. Supp. 194, 197 (D. Conn. 1979).

As with the offer to sell, we hold that a contract between two U.S. companies for the sale of the patented invention with delivery and performance in the U.S. constitutes a sale under § 271(a) as a matter of law. Maersk USA’s first argument, that the location of negotiation and contracting should control is contrary to our precedent in *Lightcubes*. There, we held that a sale does not only occur at a “single point where some legally operative act took place.” *Lightcubes*, 523 F.3d at 1369-70. We may also consider other factors such as the place of performance. *Id.* at 1371. Maersk USA’s argument that Statoil could use the rig outside the U.S. ignores the plain language of the contract, which includes an “Operating Area” of the U.S. Gulf of Mexico. J.A. 7167. It also ignores the fact that Maersk did in fact deliver the rig to U.S. waters. Maersk USA’s remaining arguments regarding the right to alter the final design and the fact that the rig was not complete at the time of contracting do not change the result. Maersk USA and Statoil signed a contract and the schematics that accompanied that contract could support a finding that the sale was of an infringing article under § 271(a). The fact that Maersk

USA, after the execution of the contract, altered the rig in response to the GSF injunction is irrelevant to this infringement analysis. The potentially infringing article is the rig sold in the contract, not the altered rig that Maersk USA delivered to the U.S.

Finally, we reject Maersk USA's claim that the entire apparatus must have been constructed and ready for use in order to have been sold. Our precedent establishes that a contract can constitute a sale to trigger infringement liability. *See NTP, Inc. v. Research in Motion, Ltd.*, 418 F.3d 1282, 1319 (Fed. Cir. 2005). A "sale" is not limited to the transfer of tangible property; a sale may also be the agreement by which such a transfer takes place. *Id.* In this case, there was a contract to sell a rig that included schematics. On summary judgment, we must draw all justifiable inferences in favor of the non-movant, Transocean. Transocean argues that these schematics show sale of the patented invention. This is a genuine issue of material fact sufficient to withstand summary judgment.

We conclude that the district court erred in granting summary judgment that there was no sale within the U.S. in this case. As with the offer to sell, there remains a dispute over whether the unmodified rig that was sold was the patented invention, a question not reached by the district court thus far.

C. Collateral Estoppel

We analyze collateral estoppel under the law of the regional circuit. *Applied Med. Res., Corp. v. U.S. Surgical Corp.*, 435 F.3d 1356, 1359-60 (Fed. Cir. 2006). To apply collateral estoppel to an issue, it must 1) be identical in the two actions, 2) have been actually litigated in the prior action, and 3) have been necessary to the judgment

in the prior action. *Next Level Commc'n LP v. DSC Commc'n Corp.*, 179 F.3d 244, 250 (5th Cir. 1999). The parties only dispute the first element, that the two issues are identical in the two actions.

Transocean argues that the issues are not identical in this case and the GSF litigation because there are differences in the facts and the legal standards. It argues that there is a factual distinction between the cases because Maersk USA is not implementing all parts of the injunction. Specifically, while Maersk USA installed the casing sleeve that the GSF court found to avoid infringement, it refuses to abide by other requirements of the injunction such as the limited circumstances in which GSF could remove the casing sleeve and periodic reporting to Transocean regarding the use of the rig. Transocean also argues that the legal standards are different in an injunction determination and a determination of infringement.

Maersk USA responds that these differences are irrelevant because they do not relate to the holding by the GSF court that the modified rig does not infringe. It argues that the only facts relevant to collateral estoppel in this case relate to the GSF court's holding on infringement. Specifically, the court in the GSF litigation held that this modification avoids infringement. *Transocean Offshore Deepwater Drilling, Inc.*, 2006 U.S. Dist. LEXIS 93408, at *34. Maersk USA argues that this is the identical issue in this case and that Transocean cannot now argue that this modified design infringes.

We agree with Maersk USA that the infringement issue in this case is identical to the one in GSF. Although Transocean is correct that Maersk USA does not conform to all aspects of the injunction, it does conform to the only relevant condition, the noninfringing design. The other portions of the injunction do not relate to infringement

and do not change the fact that the modified rig does not infringe. For example, the GSF injunction requires GSF to report periodically on its use of the rig. Whether GSF provides these reports only goes to its compliance with the injunction, not whether the rig is infringing. In other words, if GSF keeps the casing sleeve in place, but fails to report, it will not change the noninfringing design to an infringing one. By implementing this design, Maersk USA is not infringing with the delivered rig. Transocean's argument regarding the legal standards is similarly unavailing. Although it is true that the GSF court performed its analysis in the context of an injunction, it determined that the modified rig did not infringe.

We hold that the district court did not err in holding that Transocean is collaterally estopped from arguing that the rig modified in accordance with the GSF injunction infringes any of the asserted claims. On remand, Transocean may argue that the unmodified design (without the casing sleeve) was the subject of the Maersk USA/Statoil contract and that therefore there is infringement of the asserted claims based on both a sale and offer to sell. Transocean, however, is estopped from arguing infringement by the modified rig that Maersk USA actually delivered to the U.S.

D. Willfulness

“Proof of willful infringement . . . requires at least a showing of objective recklessness.” *In re Seagate Tech., LLC*, 497 F.3d 1360, 1371 (Fed. Cir. 2007) (en banc). The patent owner “must show by clear and convincing evidence that the infringer acted despite an objectively high likelihood that its actions constituted infringement of a valid patent.” *Id.* (citing *Safeco Ins. Co. of Am. v. Burr*, 551 U.S. 47 (2007)). This objective standard is a threshold. Once met, the patentee must show that the infringer

knew or should have known of the objectively high risk. *Seagate*, 497 F.3d at 1371.

The district court granted summary judgment of no willfulness. The court held that because Maersk USA modified its design to conform to the GSF injunction, it could not be “objectively reckless,” and thus could not be willful as a matter of law. Willfulness Order at *9.

Transocean argues that the district court erred by looking only to Maersk USA’s conduct after the modification to conform to the GSF injunction. It asserts that at the time of the contract between Statoil and Maersk USA, Maersk USA knew of the patents-in-suit and acted objectively recklessly by proceeding with the contract. It points to the contract that allowed Maersk USA to make changes to the rig pending the outcome of any “court or administrative determinations that favour the validity or infringement arguments of Transocean” related to Transocean’s patents, including the patents-in-suit. J.A. 7190-91. Transocean argues that this shows that Maersk USA knew of the patents-in-suit and ignored an objectively high likelihood that it infringed. Transocean also argues that an internal Maersk memorandum that discusses the Transocean dual activity rig is evidence of copying that supports its case for willful infringement.

Maersk USA argues that its decision to modify the rig according to the GSF injunction shows that Maersk USA purposely avoided any potential infringement and this should preclude a finding of willfulness as a matter of law. Regarding copying, Maersk USA argues that there is no evidence that it copied a design that it knew was patented and that, regardless, it took steps to avoid infringement with the modified rig once the GSF court entered its injunction.

We agree with the district court that, as a matter of law, there is no willfulness. Although the contract does show that Maersk USA knew of Transocean's patents, it also shows intent to avoid infringement. Maersk USA reserved the right to modify the rig in response to any court proceeding that favored "the validity or infringement arguments of Transocean." J.A. 7190. In fact, Maersk USA did modify its rig once the court in the GSF litigation issued an injunction defining a noninfringing alternative. We hold, as a matter of law, that Maersk's actions were not objectively reckless and thus affirm the district court's holding of no willfulness.

CONCLUSION

Because there remain genuine issues of material fact regarding objective evidence of nonobviousness and undue experimentation, the grant of summary judgment relating to obviousness and enablement is reversed. Because the contract between Statoil and Maersk USA is both an offer to sell and a sale, we vacate the district court's summary judgment of noninfringement and remand for further findings on infringement based on the rig that was the subject of this contract. We affirm the district court's holding of summary judgment of no willfulness.

**REVERSED-IN-PART, VACATED-IN-PART,
AFFIRMED-IN-PART, and REMANDED**