No.
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# In the Supreme Court of the United States

MAERSK DRILLING USA, INC.,

Petitioner,

v.

TRANSOCEAN OFFSHORE DEEPWATER DRILLING, INC.,

Respondent.

On Petition for Writ of Certiorari to the U.S. Court of Appeals for the Federal Circuit

#### PETITION FOR WRIT OF CERTIORARI

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#### **QUESTION PRESENTED**

Direct infringement of a U.S. patent occurs when a person "makes, uses, offers to sell, or sells any patented invention, within the United States," or "imports into the United States any patented invention." 35 U.S.C. § 271(a). Petitioner offered, negotiated, and agreed in Scandinavia to provide a Norwegian oil company with drilling services using Petitioner's oil rig. Consistent with the contract's express terms, before bringing the rig into or using it in U.S. waters, Petitioner modified it so that it did not infringe any U.S. patent.

The Federal Circuit nonetheless held that Petitioner offered to sell and sold an infringing rig "within the United States." Although all of the relevant negotiations occurred overseas and Petitioner modified the rig to avoid any infringement in U.S. waters, the Federal Circuit held that entry into a service contract in Scandinavia violated U.S. patent law because the parties were U.S. companies and the contract contemplated performance in the United States. The Federal Circuit also extended U.S. patent law by deeming an offer to provide services using a rig to be an "offer to sell" or "sale" of the rig itself.

The question presented is:

Whether offering, negotiating, and entering into a contract in Scandinavia to provide services using a potentially patented device constitutes an "offer to sell" or "sale" of an actually patented device "within the United States," under 35 U.S.C. § 271(a).

## PARTIES TO THE PROCEEDING

Maersk Drilling USA, Inc., formerly known as Maersk Contractors USA Inc., is Petitioner here and was defendant-appellee below. Transocean Offshore Deepwater Drilling, Inc. is Respondent here and was plaintiff-appellant below.

## CORPORATE DISCLOSURE STATEMENT

A.P. Moller-Maersk A/S, Maersk A/S, and Maersk Drilling Americas A/S are the only parent corporations or publicly held companies that own 10 percent or more of Petitioner's stock.

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#### PETITION FOR WRIT OF CERTIORARI

This Court has repeatedly and recently emphasized that, absent clear indication from Congress, United States law does not govern conduct within another country's territory. E.g., Kiobel v. Royal Dutch Petroleum Co., 133 S. Ct. 1659, 1664 (2013); Morrison v. Nat'l Australia Bank Ltd., 130 S. Ct. 2869, 2878 (2010). The presumption against extraterritoriality applies with "particular force in patent law." Microsoft Corp. v. AT&T Corp., 550 U.S. 437, 454–55 (2007). And the presumption is reinforced by this Court's rule that "dynamic judicial interpretation" of 35 U.S.C. § 271—the statute at issue here—is improper. *Microsoft*, 550 U.S. at 457. "[T]he sign of how far Congress has chosen to go can come only from Congress." Deepsouth Packing Co. v. Laitram Corp., 406 U.S. 518, 530 (1972).

On its face, § 271(a) makes clear that Congress has chosen not to reach conduct overseas: Direct infringement occurs when a person "makes, uses, offers to sell, or sells any patented invention, within the United States," or "imports" that invention "into the United States." 35 U.S.C. § 271(a) (emphases added). Similarly, Congress has not prohibited every transaction with a potential economic impact on the United States. Rather, Congress has chosen to impose liability for the sale, offer to sell, or use of a patented device—but not for entering into a contract to provide services using a device, and especially not when the contract protects against actual infringement and no actual infringement ever occurs. Under the patent law, as written, actually providing

services using an infringing device in the United States is prohibited. Merely offering or agreeing to provide services that might infringe is not.

Here, Petitioner Maersk Drilling USA, Inc. ("Maersk") offered, negotiated, and entered into a contract in Scandinavia to provide drilling services using its rig in U.S. waters, and the contract expressly contemplated modifying the rig to prevent infringement in the United States. As contemplated, before Maersk provided any services, modified its rig to prevent infringement. Maersk "never actually us[ed] an infringing ... drill." App. 64. The Federal Circuit nonetheless interpreted § 271(a) to find infringement based solely on Maersk's conduct in Scandinavia. And it found liability for "selling" a patented device when what was offered and sold was services using a device that was only potentially patented. Indeed, the device was modified before any services were actually provided within the United States.

The Federal Circuit's twin expansion of § 271(a) flouts *Morrison*, *Microsoft*, and *Deepsouth*. Congress—not the Federal Circuit—must decide whether to extend § 271 into these uncharted waters. The Federal Circuit's holdings also cannot be squared with the statutory text. Conduct *in Scandinavia* does not occur "within the United States." And one does not "sell" a device by offering to sell services using it. When you hire a taxi for a ride, the driver does not sell you the car.

The Federal Circuit's decisions are "important" and "troubling," as they "greatly expan[d]" the scope

of U.S. patent law and "eviscerat[e]" protections it was long understood to provide. Timothy Territoriality and Holbrook, *Tangibility* Transocean, 61 Emory L.J. 1087, 1121 (2012); Melissa Y. Lerner, You Can Run, But You Can't Hide: The Expansion of Direct Infringement and Evisceration of Preventative Contracting in Maersk, 93 J. Pat. & Trademark Off. Soc'y 207, 233–35 (2011). By extending U.S. law over purely foreign conduct, the decision below invites the international friction the presumption against extraterritoriality is designed to avoid. And the decision below will be particularly damaging to global services industries.

Finally, this is an excellent vehicle to reaffirm that the presumption against extraterritoriality is fully applicable to the patent laws. First, 100 percent of the conduct that was found to be infringing occurred overseas, and thus it starkly presents the extraterritoriality issue. Second, the facts vividly illustrate the breadth of the Federal Circuit's rule. By twice ignoring the statutory text and expanding U.S. patent laws, the Federal Circuit held Maersk liable for merely entering into a contract abroad to perform services. To add insult to injury, the Federal Circuit imposed the full upfront license fee Maersk would have paid to actually use an infringing drill— \$15 million—even though, consistent with the contract's express terms, infringing use was only ever hypothetical and never actually occurred.

This Court should grant certiorari and reverse.

#### **OPINIONS BELOW**

The Federal Circuit issued two opinions below. The first (App. 1) is reported at 617 F.3d 1296. The second (App. 34) is reported at 699 F.3d 1340. After Maersk sought rehearing, the court of appeals issued an erratum (App. 70) to its second opinion.

The district court issued three relevant opinions. They are unreported. First (App. 73), the district court granted partial summary judgment to Maersk. Second (App. 85), the district court granted summary judgment to Maersk. Third (App. 111), the district court granted judgment as a matter of law to Maersk.

#### JURISDICTION

The Court has jurisdiction under 28 U.S.C. § 1254(1). The court of appeals entered judgment on November 15, 2012. Maersk petitioned for rehearing and rehearing en banc, which was denied on February 21, 2013. The Chief Justice extended the deadline for filing this petition to July 8, 2013.

#### STATUTORY PROVISION INVOLVED

35 U.S.C. § 271(a) provides:

Except as otherwise provided in this title, whoever without authority makes, uses, offers to sell, or sells any patented invention, within the United States or imports into the United States any patented invention during the term of the patent therefor, infringes the patent.

#### STATEMENT OF THE CASE

#### A. The Drilling Services Contract

The parties and their affiliates are global competitors in the offshore drilling services industry. They own and operate drilling rigs, which they use to drill undersea wells for oil companies worldwide. Maersk is a U.S. affiliate of Maersk A/S and Maersk Drilling, both Danish corporations. Respondent Transocean Offshore Deepwater Drilling, Inc. ("Transocean") is a U.S. affiliate of Transocean Ltd., a Swiss corporation.

In Norway in 2006, Maersk A/S (a Danish company) entered into negotiations to provide Statoil ASA (a Norwegian company) with drilling services using a rig now called the Maersk Developer. At the time, the rig was under construction in Singapore. App. 17–18. Maersk Drilling (a Danish affiliate) submitted an offering bid to Statoil's office in Stavanger, Norway. App 83. After negotiations in Norway and Denmark, Maersk Drilling and Statoil agreed to a deal, signing and executing a contract in Norway between two U.S. affiliates, Petitioner and Statoil Gulf of Mexico LLC. App. 19; Maersk Mem. in Support of Mot. for Summ. J. at 16 (Doc. 115); see App. 126–39, Relevant Excerpts from Drilling Services Contract Between Statoil Gulf of Mexico LLC and Maersk Contractors USA ("Contract"). The contract is for Maersk to perform marine drilling services in the U.S. Gulf of Mexico. Contract art. 4.

Specifically, Maersk agreed to drill an offshore oil well, using its rig and crew, in exchange for a "Daily Rate." *Id.* art. 4.1, 4.3, Ex. B art. 2. This is

known as a "daywork contract," industry lingo for when "the drilling company provides its own rig and crew and receives a stated rate for each day of the contract." Booz Allen Hamilton, Report for the Nat'l Comm'n on the BP Deepwater Horizon Oil Spill and Offshore Drilling, Offshore Oil & Gas Industry in the Gulf of Mexico: Key Economic Characteristics of the Supply Chain 10 (Oct. 5, 2010) ("Supply Chain Report"). This is "the most common type" of drilling contract. Id.

Maersk planned for initially the MaerskDeveloper to allow "dual-activity" drilling. Transocean had brandished U.S. patents over this kind of apparatus, including against another drilling services company, GlobalSanteFe Corp. But offshore rigs can be used worldwide, including in places where Transocean has no patents. And Transocean's U.S. patents were dubious because, among other things, they merely combined prior art elements and thus appeared obvious. See KSR Int'l Co. v. Teleflex, Inc., 550 U.S. 398 (2007). At the time, U.S. courts had not yet ruled on the patents' validity. Facing uncertainty, Maersk "specifically retained the right" to make "such alterations" to the rig as necessary "in view of court or administrative determinations throughout

 $<sup>^1</sup>$  Other countries, applying their own patent laws, have invalidated them on analogous grounds. Norwegian courts have concluded that Transocean's Norwegian patents are obvious. Maersk Statement of Undisputed Facts ¶¶ 23–24 (Doc. 89); id. Ex. 5 (translated opinion). The European Patent Office revoked Transocean's European patents on the grounds that they lacked an "inventive step." Maersk Resp. Br. at 22 (Jan. 19, 2010). And Transocean's Korean patents have been invalidated. Id.

the World that favour the validity" of Transocean's patents. App. 18; Contract art. 15.12. Maersk would earn the same daily rate with or without such modification. Contract art. 15.12.

After Maersk and Statoil closed the deal, a U.S. district court found Transocean's U.S. patents were not invalid. *Transocean Offshore Deepwater Drilling, Inc. v. GlobalSantaFe Corp.*, No. H-03-2910, 2006 WL 3813778 (S.D. Tex. Dec. 27, 2006) ("GSF"). Consistent with the contract's modification clause, and before the rig was completed or ever used within the United States, Maersk modified the rig to prevent infringement. App. 18. It is undisputed that the modified rig does not infringe. App. 64.

Maersk thus offered, negotiated, and agreed with Statoil in Scandinavia to provide drilling services using a rig that was under construction in Singapore. And as contemplated in the contract, Maersk modified the rig to avoid infringing in the United States. Maersk thus never sold (or offered to sell) a rig, much less an infringing one. Maersk still owns, possesses, and operates the *Maersk Developer*.

#### B. Procedural History

1. In 2007, while *Maersk Developer* was still being built in Singapore, Transocean sued Maersk in the U.S. District Court for the Southern District of Texas. Transocean claimed that Maersk had infringed by offering to sell and selling an infringing rig within the United States.

The district court granted summary judgment to Maersk. First, it held that there had been no offer or sale "within the United States" because the offer was made in Norway and the contract was executed in Norway. App. 83, 97. Second, the district court held that Transocean's patents were obvious and thus invalid. App. 110.

The Federal Circuit vacated in part, reversed in part, and remanded for a trial. First, the panel held that § 271(a) does reach offers made, negotiated, accepted, and executed overseas, provided that (1) the parties are U.S. companies; and (2) the offer and contract contemplate "delivery and use within the U.S." App. 21–24. "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." App. 21. The panel also found summary judgment inappropriate on obviousness and remanded for trial. App. 13.

Maersk sought rehearing and rehearing en banc. That petition was denied. App. 32–33.

2. On remand, a jury found that Maersk had infringed and that the patents were not obvious. App. 37–38. The jury assessed as damages the upfront license fee Transocean would have charged to allow use of an infringing rig in U.S. waters: \$15 million.

The district court granted judgment as a matter of law to Maersk. The court found no evidence "that a sale or offer for sale of the [rig] was ever made." App. 121. The contract "called for 'drilling services' by Maersk on Statoil's site" using Maersk's rig. *Id.* Furthermore, "[a]n offer to enter into a contract that includes language that avoids infringement cannot constitute an infringing act." App. 123. The contract

thus "did not constitute a sale or offer for sale of a rig that infringed...." App.122. The district court also held that Transocean's patents were obvious as a matter of law. App. 116.

Federal Circuit reversed. The admitted that Maersk's position was "sympathetic." App. 64. Maersk "offered drilling services which would use an infringing drill, but expressly reserved the right to modify the drill to avoid infringement. It did then modify the drill prior to delivery to avoid infringement—hence never actually infringing dual-activity drill. And the jury awarded the full upfront licensing fee that a competitor who would be using the drill would pay." Id. The panel nonetheless reinstated the \$15 million jury award.

The panel held that "what was offered for sale and sold by Maersk to Statoil was the use of an infringing rig." App. 62 (emphasis added). It did not matter that Maersk still owned and operated the rig, had reserved the right to modify it to avoid infringement, and had indeed modified it. It was enough that "Statoil was entitled to access the schematics for the rig," and "the rig depicted in the schematics" would have infringed if Maersk had not, in fact, altered it pursuant to the contract to avoid infringement. *Id.* The panel also held that there was sufficient evidence to support the verdict on obviousness. App. 57.

Maersk sought rehearing and rehearing en banc, arguing, among other things, that § 271(a) did not include "sale of a use" liability. On February 5, 2013, the panel issued an erratum, deleting the words "the

use of from the sentence, "what was offered for sale and sold by Maersk to Statoil was the use of an infringing rig." App. 70. As revised, the opinion states that Maersk offered to sell and sold "an infringing rig." On February 21, 2013, Maersk's petition was denied. App. 71–72.

#### REASONS FOR GRANTING CERTIORARI

This Court should grant certiorari for four basic reasons. First, the Federal Circuit's "dynamic judicial interpretation" of § 271(a) to find infringement based on purely extraterritorial conduct culminating in entry into a service contract in Scandinavia conflicts with this Court's decisions in *Morrison*, *Microsoft*, Second, the Federal Circuit's and Deepsouth. interpretations of § 271(a) cannot be squared with the statutory text. Conduct in Scandinavia does not occur "within the United States," and one does not "sell" a patented device by contracting to provide service using it—especially when the contract contemplates modifying the device before infringement within the United States occurs. Third, the proper interpretation of § 271(a) is an important question of federal law. This provision is central to the Patent Act, and vindicating the presumption against extraterritoriality in this context is vital to reducing international friction and facilitating global trade, particularly in services industries. Fourth, this is an ideal vehicle to address an important and recurring issue.

- I. The Federal Circuit's Two-Fold Expansion Of § 271(a) Is Contrary To Morrison, Microsoft, And Deepsouth.
  - A. The Federal Circuit's Extraterritoriality Holding Conflicts with *Morrison* and More than 150 Years of This Court's Patent Jurisprudence.
- 1. Section 271(a) is the relatively unusual federal statute that expressly addresses its extraterritorial reach and, consistent with background presumptions, expressly limits its reach to infringing conduct "within the United States." In recognition of the varying patent systems of foreign nations, § 271(a) generally reflects the principle that there will be time enough to apply U.S. patent law when someone tries to import an infringing product into the United States or practice a patent within the United States.

To the extent § 271(a) is even ambiguous as to whether infringing acts must actually occur "within the United States," the Federal Circuit violated the presumption against extraterritoriality by construing ambiguity in favor of extraterritoriality. "It is a longstanding principle of American law that legislation of Congress, unless a contrary intent appears, is meant to apply only within the territorial jurisdiction of the United States." *Morrison*, 130 S. Ct. at 2877 (quotation marks omitted). "When a statute gives no clear indication of an extraterritorial application, it has none." *Id.* at 2878. This presumption applies "in all cases." *Id.* at 2881; *see*, *e.g.*, *Kiobel*, 133 S. Ct. at 1664.

The presumption "applies with particular force in patent law." *Microsoft*, 550 U.S. at 454–55. Specifically, the "traditional understanding" is that U.S. patent law "operates only domestically and *does not extend to foreign activities." Id.* at 455 (emphasis added; quotation marks omitted); *id.* ("Foreign conduct is generally the domain of foreign law....").

The rule that an infringing act must occur within the United States is rooted in more than 150 years of this Court's decisions. See id.; Deepsouth Packing Co. v. Laitram Corp., 406 U.S. 518, 527 (1972) (infringing acts must be "within the bounds of this country"); Dowagiac Mfg. Co. v. Minn. Moline Plow Co., 235 U.S. 641, 650 (1915) (infringement "cannot be predicated o[n] acts wholly done in a foreign country"); Brown v. Duchesne, 60 U.S. 183, 195 (1856) (U.S. patent laws "do not, and were not intended to, operate beyond the limits of the United States"); see also, e.g., 5 Donald S. Chisum, Chisum on Patents § 16.05 (1997) (U.S. patents "confe[r] no protection as to acts taking place in foreign countries"); 3 R. Carl Moy, Moy's Walker on Patents § 12:15 (4th ed. 2012) ("If the activity occurred outside [the United States], it cannot be an infringement..."); 3 William C. Robinson, Law of Patents for Useful Inventions § 909 (1890) ("acts of infringement must occur" within the United States).

The decision below conflicts with *Morrison* and this Court's "traditional understanding" of the patent laws by holding that direct infringement can be based exclusively on activities overseas. Maersk was held liable for entering into a contract in

Scandinavia. And even though the contract contemplated modifying the rig to avoid infringement before any service was provided in U.S. waters, the Federal Circuit projected U.S. patent laws abroad to impose full liability at the time of the contract.

Remarkably, the panel construed a perceived ambiguity in favor of extraterritoriality. The panel explained that, if Congress had intended for § 271(a) to apply only to offers or sales that were actually made within the United States, it could have been clearer: Maersk "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." App. 22.

But the whole point of the presumption against extraterritoriality is that Congress does not need to be crystal clear to preclude its laws from applying overseas. Quite the opposite. "When a statute gives no clear indication of an extraterritorial application, it has none." *Morrison*, 130 S. Ct. at 2878. If anything, Congress clearly indicated that § 271(a) does *not* apply to activities overseas: It only applies when a person "makes, uses, offers to sell, or sells" a patented invention "within the United States," or imports it "into the United States." *See also* 35 U.S.C. § 154(a)(1) (U.S. patents only apply "throughout the United States").

2. Although the Federal Circuit claimed to be "mindful" of *Morrison*'s presumption against extraterritoriality, App. 22, its reasoning is essentially indistinguishable from that employed by lower courts in securities cases—before Morrison.

Until *Morrison*, many lower courts extended § 10(b) of the Securities Exchange Act to foreign transactions so long as the fraud had a "substantial effect in the United States or upon United States citizens." *Morrison*, 130 S. Ct. at 2881 (quotation marks omitted). This rule lacked textual support, but lower courts nonetheless claimed to be applying the presumption against extraterritoriality. In their view, the domestic effects were enough to overcome the presumption, and they adjudged that preventing these effects was "necessary to protect American investors." *Id.* at 2878.

Morrison rejected this effects-oriented approach as a step towards "excis[ing] the presumption against extraterritoriality from the jurisprudence." *Id.* at 2878–79. Courts cannot make their own policy judgments to decide what kind of domestic connection is sufficient; rather, courts must look to the "focus of congressional concern." *Id.* at 2884. In § 10(b), Congress' "focus" was the purchase and sale of securities. Accordingly, that transaction must occur in the United States. *Id.* 

Nonetheless, contrary to *Morrison*, the panel below sidestepped the presumption against extraterritoriality by making a policy judgment that the potential domestic effects of foreign conduct warranted regulation by U.S. law. Looking at the place where acts of offering and contracting actually occurred, the panel reasoned, "would exalt form over substance," "allowing a U.S. company to travel abroad to make offers to sell back into the U.S. without any liability for infringement." App. 22.

Those foreign activities "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.* The panel also made a judgment that "[t]he 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." *Id.* (emphasis added).

But under *Morrison*, it is not for courts to decide where they think the focus should or should not be. The only question is where Congress put it. In § 271(a), Congress plainly put the focus on the acts that constitute direct infringement: Infringement requires a person who "makes, uses, offers to sell, or sells any patented invention, within the United States," or "imports" such an invention "into the United States." Congress thus made abundantly clear that sales (and offers to sell) that occur outside the United States are not covered, even if there is a possibility of future importation. Under the plain terms of the statute, the time to deal with importation is if and when the importation of an infringing product actually occurs. Before that, when the acts of offering and agreeing to sell occur solely abroad, they do not constitute infringement.

Worse still, the panel gave U.S. law extraterritorial reach in order to close a perceived "loophole" that does not exist. The panel was concerned about a U.S. company "travel[ing] abroad to make offers to sell back into the U.S. without any liability for infringement." App. 22. But the statute already addresses this concern in at least three ways.

Any company—U.S. or foreign—that travels abroad to sell patented devices for delivery back into the United States will face liability for (1) direct infringement if it "imports" the device into the United States; (2) direct infringement if it "uses" the device within the United States; or (3) contributory infringement under § 271(b) if it actively induces a purchaser to use the device within the United States. See Global-Tech Appliances, Inc. v. SEB S.A., 131 S. Ct. 2060, 2068 (2011).

Not only is the Federal Circuit's distortion of § 271(a) unnecessary to close any actual loophole, its application to this case also demonstrates the wisdom of Congress' decision to wait until actual importation or infringing use in the United States. Maersk did not travel abroad to avoid the U.S. patent laws. The Danish parent negotiated with a Norwegian company in Denmark and Norway and entered into a contract in Norway that specifically allowed for modification to avoid any infringing use in the United States. Maersk modified the rig as contemplated and no infringing act ever occurred in the United States. Yet the Federal Circuit imposed liability at the time of the contract for the full license fee for actually infringing use (which never occurred).

# B. The Federal Circuit's "Dynamic Judicial Interpretation" of § 271 Conflicts with *Deepsouth* and *Microsoft*.

The Federal Circuit's twin expansions of § 271 are also contrary to this Court's decisions in *Deepsouth* and *Microsoft*, which direct courts to

refrain from "dynamic judicial interpretation" of § 271. *Microsoft*, 550 U.S. at 457.

In Deepsouth, a company had a patent on an apparatus for deveining shrimp that was built by assembling several component parts. A domestic competitor shipped the unassembled components abroad, enabling its foreign customers to assemble and use the completed machine. 406 U.S. at 519–22. On the face of § 271(a), there was no direct infringement because the invention was not made, sold, or used within the United States; only its components were. Id. at 526–27.2 The patent holder Court thus urged the to depart "hypertechnical" reading of "makes" and "sells" in order to reach the domestic sale of the invention's components for assembly abroad. Otherwise, it would "deprive the patent holder of "its right of the fruits of the inventive genius of its assignors." Id. at 524.

This Court rejected the invitation. "[T]he prerequisites to obtaining a patent are strictly observed, and when the patent has issued the limitations on its exercise are equally strictly enforced." *Id.* at 531 (quotation marks omitted). The need to interpret § 271 as written is grounded in "this Nation's historical antipathy to monopoly." *Id.* at 530. Patents are not a common-law creation to be expanded (or contracted) by judges based on their

<sup>&</sup>lt;sup>2</sup> "Offer to sell" liability was not part of U.S. patent law at the time of *Deepsouth*. Congress added such liability in 1994. Uruguay Round Agreements Act, Pub. L. No. 103-465, § 533(a)(1), 108 Stat. 4809, 4988.

policy preferences. "[T]he sign of how far Congress has chosen to go can come only from Congress." *Id*.

Microsoft reinforced  $_{
m the}$ point. Following Deepsouth, Congress added a new subsection (f), making it infringement to "suppl[y] ... from the States" for combination United abroad "components" of an invention. 35 U.S.C. § 271(f). In *Microsoft*, the patent holder argued that the words "supply" and "component" should be read flexibly to close a perceived "loophole" involving software patents. 550 U.S. at 456. If the statute were read as written, the patent holder warned, a domestic competitor could evade liability by sending a software master disk abroad, and then copying and installing that software onto computers made overseas. *Id.* This Court found the policy concern "understandable" but it again refused to expand § 271. Id. at 457. The Court was "not persuaded that dynamic judicial interpretation of § 271(f) is in order." Id. "The 'loophole' ... is properly left for Congress to consider, and to close if it finds such action warranted." Id.

Contrary to *Deepsouth* and *Microsoft*, the Federal Circuit interpreted § 271 "dynamically" not just once but twice to reach its counterintuitive result here. First, it stretched § 271 to reach contracting activities that occurred overseas because of their potential domestic effects, notwithstanding Congress' clear mandate and this Court's longstanding rule that infringing acts must occur "within the United States." Second, the panel stretched § 271's prohibition against actually "sell[ing]" a patented device to encompass a contract for future services

using a device with a potentially infringing—but unused—configuration.

Deepsouth and Microsoft foreclose this free-wheeling approach to interpreting § 271. "[T]he sign of how far Congress has chosen to go can come only from Congress." Deepsouth, 406 U.S. at 530. There must be "a clear and certain signal from Congress before approving the position of a litigant who ... argues that the beachhead of privilege is wider, and the area of public use narrower, than courts had previously thought." Id. at 531. To the extent there is a loophole, it would be "properly left for Congress to consider, and to close if it finds such action warranted." Microsoft, 550 U.S. at 457.

The Federal Circuit's violation of this rule is particularly egregious because its policy concerns are unfounded. It gave "offers" and "sells" extraterritorial reach to prevent a company from "travel[ing] abroad to make offers to sell back into the U.S. without any liability for infringement." App. 22. But as set forth above, Congress already ensured that this loophole did not exist. Similarly, there is no warrant for stretching the "sale" of a device to encompass the sale of services using a device. A service provider will face direct liability if and when (1) it imports the device into the infringing United States: (2) actually uses an infringing device within the United States. But in all events, under *Microsoft* and Deepsouth it is for Congress—not the courts—to decide whether to create new "sale of a use" liability.

# II. The Federal Circuit's Interpretation Of § 271(a) Is Clearly Wrong.

# A. Conduct in Scandinavia Does Not Occur "Within the United States."

Questions of statutory construction must of course start with the text. *E.g., Microsoft*, 550 U.S. at 449; *BP Am. Prod. Co. v. Burton*, 549 U.S. 84, 91 (2006). But in assessing the statute's extraterritorial reach, the Federal Circuit started by getting the text wrong. The panel misquoted § 271(a) as stating that whoever "offers to sell ... within the United States any patented invention" infringes. App. 21 (ellipsis in original). This reverses Congress' actual word order. "[W]ithin the United States" comes after "any patented invention," not before. The panel's ellipses also isolate "offer to sell," obscuring that it is in the middle of a list of other actions: "makes, uses, offers to sell, or sells."

Misquoted and truncated, the language may be susceptible to a reading that "within the United States" modifies the object (what is being sold or offered) rather than the verb (the act of making, using, offering, or selling). But the actual language leaves no room for this reading. It provides:

[W]hoever without authority makes, uses, offers to sell, or sells any patented invention, within the United States or imports into the United States any patented invention during the term of the patent therefor, infringes the patent.

§ 271(a). At the outset, the prohibition on "import[ing] into the United States" suggests that "offer[ing] to sell" and "selling" abroad in preparation for importing do not themselves constitute an independent offense. Infringement occurs when a patented invention is imported into U.S. territory—not when a company is preparing abroad to do so in the future.

Basic English grammar further confirms that the listed acts—makes, uses, offers, or sells—must occur "within the United States." The use of "within the United States" to modify a list of verbs means that it must modify each member of the list the same way. See Edwin D. Garlepp, An Analysis of the Patentee's New Exclusive Right to "Offer to Sell," 81 J. Pat. & Trademark Off. Soc'y 315, 325–26 (1999). This rule works perfectly when requiring the acts of making, using, offering, or selling actually to occur "within the United States."

But the Federal Circuit's approach violates this rule. The panel held that an offer to sell or sale occurs within the United States if (1) the parties to a contract are U.S. citizens and (2) they contemplate delivery or performance in the United States. App. 21–24. This rationale cannot be applied to "makes," as a U.S. company that manufactures a device abroad intending to sell it in the United States in the future would be deemed to have already "made" it "within the United States." In addition to being nonsensical, this would render superfluous the separate liability for "import[ing]" inventions "into the United States." § 271(a). And the Federal

Circuit's approach would be stranger still if applied to "uses." A U.S. company that uses an invention overseas would be deemed to "use" it "within the United States" as long as it intended to use the product in the United States in the future. That cannot be right.<sup>3</sup>

Offers and contracts to sell have also long been understood to occur where those acts actually occur, not where delivery is contemplated in the future. For example, in *Hobbie v. Jennison*, 149 U.S. 355 (1893), a seller in Bay City, Michigan agreed to sell patented pipes for delivery to Connecticut. *Id.* at 363. A vendor with an exclusive right to sell in Connecticut sued, arguing that the sale occurred in Connecticut because that was the intended place of delivery and use. *Id.* The Supreme Court disagreed. "[T]he sale was a complete one at Bay City"; "neither the actual use of the pipes in Connecticut, nor a knowledge on the part of the defendant that they were intended to be used there, can make him liable." *Id.* 

<sup>&</sup>lt;sup>3</sup> There is also no textual basis for holding that U.S. citizenship makes a difference. If anything, § 271(a) plainly applies to citizens and non-citizens equally: It applies to "whoever" infringes. Cf. Yick Wo v. Hopkins, 118 U.S. 356, 369 (1886) ("any person" includes non-citizens). And while the contemplated performance of services in the United States at least identifies an intended effect "within the United States" that might have been relevant pre-Morrison, the limitation to U.S. citizens smacks of unadorned policymaking. Congress could have focused on citizenship in addressing the patent law's reach, but it did not do so. Instead, it focused on conduct and geography. The conduct here would be no more or less "within the United States" if it involved two foreign parent companies rather their respective U.S. proxies.

When Congress wants to reach foreign sales destined for U.S. markets, Congress is clear about it. First, it can wait until products are imported into the United States and regulate them as imports—as it did in § 271(a). Alternatively, it can expressly address the foreign sale itself. For example, to prohibit foreign sellers from distributing illegal drugs to customers in the United States, Congress did not rely on the courts to put an extravagant gloss on the general prohibition against selling illegal drugs. 21 U.S.C. § 841(a). Instead, Congress enacted a separate ban on distribution knowing that the drug "will be unlawfully imported into the United States," and Congress expressly declared that this "reach[es] acts ... committed outside the territorial jurisdiction of the United States." 21 U.S.C. § 959(a), (c). But particularly where Congress separately addresses imports, there is no reason to stretch "offers to sell, or sells ... within the United States" to reach preliminary steps that occur abroad that could lead to possible importation.

# B. One Does Not "Sell" a Device by Agreeing to Provide Services with It.

The Federal Circuit is also clearly wrong to hold that a company "sells" an infringing device by entering into a contract for services that will use a device that could be configured to infringe. "Sell" ordinarily means "[t]o transfer property for a consideration; to transfer the absolute or general title ... to another for a price, or sum of money." Webster's New Int'l Dictionary 2272 (2d ed. 1954); see Webster's Third New Int'l Dictionary 2003 (1993) (a "sale" is "a

contract transferring ... ownership of property ... for a price" or "a present transfer of such ownership of and title to" property for a price). Ordinary legal usage is the same: A sale is "[t]he transfer of property or title for a price" or "[t]he agreement by which such a transfer takes place." Black's Law Dictionary (9th ed. 2009). And the Uniform Commercial Code defines a "sale" as "consist[ing] in the passing of title from the seller to the buyer for a price." U.C.C. § 2-106. A sale of services using a device thus does not "sell" the device itself because there is no transfer of ownership. When you hire a taxi for a ride, the driver does not sell you the car.

This Court's patent exhaustion jurisprudence also recognizes that contracts for the use of a device do not "sell" the device itself. "[T]he right to vend is exhausted by a single, unconditional sale, the article sold being thereby carried outside the monopoly of the patent law and rendered free of every restriction which the vendor may attempt to put upon it." *Quanta Computer, Inc. v. LG Electronics, Inc.*, 553 U.S. 617, 626 (2008). But "[1]eases are not of this character; they do not convey the title." *United States v. United Shoe Mach. Co.*, 247 U.S. 32, 58 (1918).4

<sup>&</sup>lt;sup>4</sup> To be sure, whether a "sale" occurs depends not the labels parties use but on economic reality. "[G]ranting a license ... is usually not a 'sale' of the invention," but a "transaction arranged as a 'license' or 'lease' ... may be tantamount to a sale" if a product is "just as immediately transferred to the 'buyer' as if it were sold." *Minton v. Nat'l Ass'n of Sec. Dealers, Inc.*, 336 F.3d 1373, 1378 (Fed. Cir. 2003) (quotation marks omitted). The contract here was not "tantamount to a sale" of the rig; Maersk simply agreed to provide services using it.

And the contract here was not even to lease the rig; it was to provide services using the rig.

When Congress has sought to regulate sales as well as modes of exchange that do not involve a change in ownership, it has done so expressly. For example, the Copyright Act imposes limits on the broader term "distribut[ion]," which it in turn defines to include "to sell, lease, or assign a product to consumers ... or for ultimate transfer to consumers." 17 U.S.C. §§ 1001, 1002; see also 25 U.S.C. § 1702(j) (similar for "transfer"). Elsewhere, Congress has used the word "sale" but expressly defined it to include a lease. E.g., 26 U.S.C. § 4217 ("For purposes of this chapter, the lease of an article ... shall be considered a sale of such article."). Congress did no such thing here, indicating that one "sells" a device under § 271(a) only by actually selling it—not by selling services using it.

This commonsense interpretation of "sale" creates no loophole. Section 271(a) also prohibits making or using an infringing product. Accordingly, in a contract to provide services in the United States using a potentially infringing product, any use of an actually infringing article is prohibited. Here, however, the rig was only potentially infringing. Maersk agreed to provide services using the *Maersk Developer*. Although it could have infringed, Maersk "reserved the right to modify the drill to avoid infringement" if Transocean's patents were upheld. App. 64. And when the district court in *GSF* upheld Transocean's patents, Maersk modified the rig pursuant to the contract so that no infringing act

ever occurred. Maersk thus sold services using a rig, and it ensured that no infringing use within the United States would ever occur.

The Federal Circuit's erratum changing "sale of a use" to "sale" highlights, rather than solves, the Federal Circuit's error. A contract for services using a rig might be described as a "sale of a use," a phrase that—as Maersk emphasized in its rehearing petition—appears nowhere in § 271(a). But it cannot remotely be described as an actual sale of the rig. There is no doubt that Maersk always retained full ownership of the rig. The Federal Circuit's opinions still state that Maersk sold services using a rig—not the rig itself. Maersk "offered drilling services which would use an infringing drill." App. 64 (emphasis added); App. 17 (Maersk negotiated "for Statoil's use of the accused rig"); App 17–18 (Statoil "had the right to use the rig"). The Contract confirms the point. Maersk agreed to "perform ... Drilling Services" in exchange for a daily rate. Contract art. 4.1. Maersk was responsible for the "overall performance of the Work," and management and direction of the rig remained Maersk's "sole responsibility." Contract art. 4.3. Maersk still owns the *Maersk Developer*.

Changing three words in an opinion also does not change the business model in the drilling *services* industry. A daywork contract is "the most common type" of drilling contract. Supply Chain Report at 10. And Transocean is intimately familiar with this business model. Transocean agreed to provide drilling services to BP using the *Deepwater Horizon*—and Transocean still owned that rig when

the tragic Macondo blowout occurred. Nat'l Comm'n on the BP *Deepwater Horizon* Oil Spill and Offshore Drilling, *Report to the President: Deep Water*, at 2 (Jan. 2011); *id.* at 92 ("BP neither owned the rigs, nor operated them in the normal sense of the word.").

### III. The Question Presented Is Important.

This petition raises a pure question of statutory interpretation involving a statute that is a keystone of U.S. patent law. Section 271(a) defines what constitutes infringement and when and where infringement occurs. It is at issue in virtually every patent case. The Federal Circuit's erroneous expansion of § 271(a) controls nationwide—and apparently worldwide—and there is no prospect of a circuit split. See 28 U.S.C. § 1295(a)(1).

As commentators have recognized, "[t]he Federal Transocean is important." Circuit's decision in Holbrook, at 1121. First, the decision supra, below invites international tension. As this Court reaffirmed. recently the presumption against extraterritoriality "protect[s] against unintended clashes between our laws and those of other nations which could result in international discord." Kiobel, 133 S. Ct. at 1664 (quotation marks omitted); see also Curtis A. Bradley, Territorial Intellectual Property Rights in an Age of Globalism, 37 Va. J. Int'l L. 505 (1997). Congress "alone has the facilities necessary to make fairly" the "important policy decision" of whether to "adopt an interpretation of U.S. law that carries foreign policy consequences." Kiobel, 133 S. Ct. at 1664 (quotation marks omitted). The potential for friction is particularly pronounced in the

patent context, where other nations have well-established systems with well-establish differences in the scope of protection. *E.g.*, *Microsoft*, 550 U.S. at 455 ("[F]oreign law may embody different policy judgments about the relative rights of inventors, competitors, and the public in patented inventions." (quotation marks omitted)). By breaking from more than a century of legal tradition confining U.S. patent laws to U.S. territory, the decision below invites exactly the foreign policy consequences this Court has sought to avoid.

This case well illustrates the point. The panel projected U.S. patent law worldwide to govern Maersk's conduct in Norway—but Norwegian courts have found Transocean's patents invalid. Supra n.1. In conflict with those determinations, the Federal Circuit upheld Transocean's patents. The panel thus effectively overrode Norway's sovereign judgment that conduct occurring within Norway should not give rise to liability.

The "sale of a use" interpretation further magnifies the problem. "The one-two punch of these holdings works a considerable expansion of the territorial scope of a U.S. patent and of these infringement provisions generally." Holbrook, *supra*, at 1087. The panel "greatly expanded the extraterritorial reach of infringing offers to sell and the scope of infringement by offering to sell or selling inventions that are not yet built but instead simply designed on paper." *Id.* at 1121. As another commentator put it, "the *Maersk* decision is troubling." Lerner, *supra*, at 235. "While extending

the boundaries of a patent holder's limited territorial monopoly, the stringent infringement analysis constricts business operations in any field with active patent protections." *Id*.

In light of the decision below, service companies must carefully recalibrate their foreign conduct to ensure it is always consistent with U.S. patent laws. Moreover, even within the United States, the "sale of a use" infringement doctrine makes compliance with U.S. law uniquely difficult and undercuts two major benefits of contracting and the patent system: allow Contracts parties to contract around uncertainty, and the patent system creates a "socalled 'negative incentive' to 'design around' a competitor's products, even when they are patented, thus bringing a steady flow of innovations to the marketplace." State Indus., Inc. v. A.O. Smith Corp., 751 F.2d 1226, 1236 (Fed. Cir. 1985). But the Federal Circuit's ruling denies these benefits. carefully drafted a contract protecting against a risk from Transocean's then-untested patents, and in accordance with that contract it altered the rig, designing around infringement and thereby ensuring that no infringing use ever occurred. The Federal Circuit nonetheless imposed the full damages on Maersk—the \$15 million upfront license fee—as if Maersk had not been careful at all.

The decision below also creates perverse incentives for companies to rush to the courthouse. When facing doubtful patents, companies have an incentive to seek declaratory relief immediately. They should be able to insulate themselves from

liability through careful contracting and behavior, but the decisions below provide no safe harbor for the cautious. And patent holders have an incentive to sue the moment an offer to provide services is made, allowing damages long before any infringing services are actually provided. In a service industry involving bidding, for example, infringement could occur at the time of the bid. Indeed, Transocean sued Maersk long before the rig was used within the United States the rig had not even been completed. Such premature litigation will likely be speculative, inefficient, and expensive. The decisions below thus will impose an drag unwarranted on transnational business. particularly in service industries.

### IV. This Petition Is An Ideal Vehicle.

First, the legal question is squarely presented. If this Court reverses, final judgment will be entered in Maersk's favor. If this Court affirms, final judgment will be entered for Transocean.

Second, the facts of this case are unusually clean and illustrate the extraordinary breadth of the Federal Circuit's rulings. For example, this is not a case with some foreign conduct and some domestic conduct, raising fact-specific questions about whether the domestic conduct is sufficient "to displace the presumption against extraterritorial application." *Kiobel*, 133 S. Ct. at 1669. Here, 100 percent of the relevant acts occurred in Scandinavia. No infringing conduct whatsoever occurred in the United States.

Third, the Federal Circuit did not merely create a potential for conflict with foreign law; it created an actual conflict. Maersk's conduct in Scandinavia was completely lawful in Scandinavia where it occurred—but the panel below still found that it violated U.S. law. This Court has repeatedly emphasized that U.S. courts should not foray on their own into the "delicate field of international relations." *E.g.*, *id.* at 1664 (quotation marks omitted); *Morrison*, 130 S. Ct. 2869; *Microsoft*, 550 U.S. at 454–55. The panel below apparently did not get the message.

#### CONCLUSION

The Court should grant the petition for certiorari.

Respectfully submitted,

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July 8, 2013



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# Appendix I

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# Appendix A

# UNITED STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT

No. 2009-1556

Transocean Offshore Deepwater Drilling, Inc., Plaintiff-Appellant,

v.

MAERSK CONTRACTORS USA, INC.,

Defendant-Appellee.

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

Decided: Aug. 18, 2010

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 1.40-col.9 1.30. 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 drawworks rotate the drill and to 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) noninfringement, 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 second tubular and advancing stations operable 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.

### App-7

#### 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. 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 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 appeal that the on 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 with Horn combination because the 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 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. We hold that the teachings of the references as well as this reason to combine support a prima facie case that the

<sup>&</sup>lt;sup>1</sup> 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 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).

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, preparation stations. and two 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 First, Transocean presented of nonobviousness. 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 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. presented evidence Transocean 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 specifically. On commercial 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 Transocean's objective evidence consider 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); Richard-son-Vicks, Inc. v. Upiohn 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 caseby-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

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 operable to transfer "assembly . . . 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 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.<sup>2</sup> 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 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

<sup>&</sup>lt;sup>2</sup> 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.

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" 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 Maersk USA's infringement. 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 Norway. The contract specified "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. "determinations" One these 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 noninfringement after determining that there was no sale or offer to sell under 35 U.S.C. § 271(a).<sup>3</sup>

<sup>&</sup>lt;sup>3</sup> 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

Transocean Off-shore Deepwater Drilling, Inc. v. Maersk Contractors USA, 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 the GSF in 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

granting summary judgment of no willfulness entered May 15, 2009. It resolved all remaining infringement issues in an order entered July 28, 2009.

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. Section 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 The Property Agreement (TRIPS). 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. υ. ChiOptoelectronics 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 no evidence that an offer there 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.<sup>4</sup>

#### 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.

The parties further dispute whether the device that was sold was "the patented invention." Transocean argues that we should analyze

<sup>&</sup>lt;sup>4</sup> 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.

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 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 nonmovant, 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'ns LP v. DSC Commc'ns 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 that the GSF court found sleeve to avoid infringement, itrefuses 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 with Maersk USA that agree 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 that the determinations favour validity 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

## Appendix B

## UNITED STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT

No. 2009-1556

Transocean Offshore Deepwater Drilling, Inc., Plaintiff-Appellant,

v.

MAERSK CONTRACTORS USA, INC.,

Defendant-Appellee.

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

Filed: Nov. 30, 2010 Note: This order is nonprecedential.

### **ORDER**

A combined petition for panel rehearing and for rehearing en banc having been filed by the Appellee,\* and a response thereto having been invited by the court and filed by the Appellant, and the petition for rehearing and response, having been referred to the panel that heard the appeal, and thereafter the

<sup>\*</sup> The court granted leave to Stena Drilling Limited to file a brief amicus curiae in support of Defendant-Appellee's combined petition for rehearing.

petition for rehearing en banc and response having been referred to the circuit judges who are in regular active service,

## UPON CONSIDERATION THEREOF, it is

ORDERED that the petition for panel rehearing be, and the same hereby is, DENIED and it is further

ORDERED that the petition for rehearing en banc be; and the same hereby is, DENIED.

The mandate of the court will issue on December 7, 2010.

FOR THE COURT, Jan Horbaly Clerk

Dated: 11/30/2010

cc: Charles Bruce Walker, Jr. William H. Frankel Richard L. Stanley

## Appendix C

# UNITED STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT

No. 2011-1555

Transocean Offshore Deepwater Drilling, Inc., Plaintiff-Appellant,

v.

MAERSK DRILLING USA, INC.,

Defendant-Appellee.

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

Decided: Nov. 15, 2012

Before PROST, MOORE, and WALLACH, Circuit Judges.

MOORE, Circuit Judge.

Transocean Offshore Deepwater Drilling, Inc. (Transocean) appeals from the decision of the U.S. District Court for the Southern District of Texas granting judgment as a matter of law (JMOL) that (1) the asserted claims of U.S. Patent Nos. 6,047,781 ('781 patent), 6,085,851 ('851 patent), and 6,068,069 ('069 patent) are invalid for obviousness and lack of enablement; (2) Maersk Drilling USA, Inc. (Maersk)

did not infringe the asserted claims; and (3) Transocean was not entitled to damages. Transocean also appeals from the district court's conditional grant of a new trial. For the reasons set forth below, we *reverse*.

#### BACKGROUND

The patents-in-suit, which share a common specification, are directed to an improved apparatus for conducting offshore drilling. We described the process of offshore drilling in detail in our opinion resolving the first appeal in this case, and repeat this description only to the extent necessary for this appeal. See Transocean Offshore Deepwater Drilling, Inc. v. Maersk Contractors USA, Inc., 617 F.3d 1296, 1301 (Fed. Cir. 2010) (Transocean I).

The process of creating a borehole in the seafloor requires lowering several components to the seabed from a derrick on the ocean surface. *Id.* These include the drill bit, the casings that form the wall of the borehole, and a device called a blowout preventer. *Id.* The components are lowered on a "drill string," which is made up of a series of pipe sections ("tubular members"). *Id.* The drill string is assembled on the derrick, with pipe sections being added to the top of the string one by one to extend it to the seafloor. *Id.* 

The drill bit is the first component to be lowered. *Id*. Once enough pipe sections have been added to the drill string to lower the drill bit to the seabed, a "top drive" on the derrick rotates the drill string to create a borehole. *Id*. Additional pipe sections are added to the drill string as the bit drills deeper into the

seabed. *Id.* Once the drill creates a portion of the borehole, the derrick retracts the drill bit to the surface, removing each section of the drill string piece by piece. *Id.* A section of casing is then lowered into the borehole, with the drill string again being constructed on the derrick, one pipe section at a time. *Id.* The next step is lowering the blowout preventer to the seabed, again with the drill string being assembled piece by piece. The process of drilling and lowering casing into the borehole then repeats until the hole is the desired depth. *Id.* Each time a component is lowered to the seafloor, a drill string must be assembled and disassembled.

Conventional drilling rigs use a derrick with a single drawworks and thus can only raise or lower one component at a time. Id. Transocean sought to improve the efficiency of this time-consuming process using the "dual-activity" drilling apparatus disclosed in the patents-in-suit. The patents recite a derrick with both a main and an auxiliary advancing station, each of which can separately assemble drill strings and lower components to the seafloor. See, e.g., '781 patent col.3 ll.27-32, 58-67, col.7 ll.22-64. Each advancing station has a drawworks for raising and lowering the drill string and a top drive for rotating the drill string. Id. col.8 ll.16-24. While the auxiliary advancing station drills and cases the first portion of the borehole, the main advancing station lowers the blowout preventer. *Id.* col.8 ll.66-col.9 l.2, col.9 ll.21-23. The auxiliary advancing station then retracts the drill string and supports the main advancing station by preparing lengths of drill string in advance. Id.

col.9 ll.25-30. Transocean's patents disclose a pipe handling system, also called a transfer assembly, which allows the transfer of casing, drill string, and other components between the two advancing stations and from the advancing stations to storage areas. *Id.* col.7 ll.22-64.

Transocean asserted claims 10-13 and 30 of the '781 patent, claim 10 of the '851 patent, and claim 17 of the '069 patent against Maersk. Transocean alleged that Maersk infringed the claims by entering into a contract with Statoil Gulf of Mexico LLC (Statoil), which granted Statoil the right to use an allegedly infringing drilling rig. Transocean I, 617 F3d at 1307. In Transocean I, the district court granted Maersk's motion for summary judgment of obviousness, concluding that the asserted claims would have been obvious over the combination of two prior art references: U.K. patent application GB 2 041 836 (Horn) and U.S. Patent No. 4,850,439 (Lund). Id. at 1303. The district court also granted Maersk's motion for summary judgment that the asserted claims were not enabled because the specification does not adequately describe the claim limitations relating to the pipe transfer assembly. *Id.* at 1305-06. Finally, the court granted summary judgment of noninfringement in favor of Maersk. *Id.* at 1307-08.

On appeal, we vacated the district court's grant of summary judgment of noninfringement and reversed its grant of summary judgment of invalidity for obviousness and lack of enablement. *Transocean I*, 617 F.3d 1296. On remand, a jury found that

Maersk failed to prove that the asserted claims would have been obvious or that they were not enabled. The jury made specific findings that the prior art failed to disclose every element of the asserted claims and that each of seven objective factors indicated nonobviousness. The jury also found that Maersk infringed and awarded \$15 million in compensatory damages. The district court, however, granted Maersk's motions for judgment as a matter of law (JMOL) that the asserted claims are invalid as obvious and not enabled, that Maersk did not infringe, and that Transocean is not entitled to damages. The court also conditionally granted Maersk's motion for a new trial under Federal Rule of Civil Procedure 59. Transocean now appeals from these rulings. We have jurisdiction under 28 U.S.C. § 1295(a)(1).

#### DISCUSSION

We review a district court's grant or denial of JMOL under the law of the regional circuit. *ACCO Brands, Inc. v. ABA Locks Mfr. Co.*, 501 F.3d 1307, 1311 (Fed. Cir. 2007) (citation omitted). The Fifth Circuit reviews the grant or denial of JMOL *de novo. Med. Care Am., Inc. v. Nat'l Union Fire Ins. Co.*, 341 F.3d 415, 420 (5th Cir. 2003). JMOL is appropriate only if "the facts and inferences point so strongly and overwhelmingly in favor of one party that the Court believes that reasonable men could not arrive at a contrary verdict." *Id.* (quotation omitted). We have

<sup>&</sup>lt;sup>1</sup> Claim 17 of the '069 patent and claim 13 of the '781 patent were submitted to the jury.

interpreted the Fifth Circuit's JMOL standard to mean that the jury's determination must be supported by substantial evidence. *ACCO Brands*, 501 F.3d at 1312. Substantial evidence is "such evidence as a reasonable mind might accept as adequate to support a conclusion." *Consol. Edison Co. v. NLRB*, 305 U.S. 197, 229 (1938). In determining whether a jury's finding is supported by substantial evidence, "we must presume that the jury resolved all factual disputes in favor of the prevailing party." *Cordis Corp. v. Boston Scientific Corp.*, 658 F.3d 1347, 1357 (Fed. Cir. 2011) (quoting *Akamai Techs., Inc. v. Cable & Wireless Internet Servs., Inc.*, 344 F.3d 1186, 1192 (Fed. Cir. 2003)).

#### I. Obviousness

A patent is invalid as obvious "if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole 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). Obviousness is a question of law with several underlying factual inquiries: (1) the scope and content of the prior art; (2) the differences between the prior art and the claims at issue; (3) the level of ordinary skill in the field of the invention; and (4) objective considerations such as commercial success, long felt but unsolved need, and the failure of others. Graham v. John Deere Co. of Kan. City, 383 U.S. 1, 17-18 (1966); see also KSR Int'l Co., v. Teleflex, *Inc.*, 550 U.S. 398, 406 (2007). Patent invalidity must be established by clear and convincing evidence. Microsoft Corp. v. i4i Ltd., 131 S. Ct. 2238, 2242 (2011).

#### A. Prima Facie Case

As an initial matter, Maersk argues that our opinion in *Transocean I* establishes that, as law of the case, the Horn and Lund references make out a prima facie case of obviousness. Maersk thus contends that the district court erred on remand by allowing the jury to consider whether Horn and Lund teach every limitation of the asserted claims. Transocean counters that, because it presented objective evidence of nonobviousness, the district court was required to let the jury decide all the factual questions underlying the obviousness inquiry, including whether the prior art discloses every limitation of the asserted claims.

Under the law of the case doctrine, a court adheres to its decision in a prior appeal absent exceptional circumstances. See, e.g., Ormco Corp. v. Align Tech., Inc., 498 F.3d 1307, 1319 (Fed. Cir. 2007). This doctrine "is limited to issues that were actually decided, either explicitly or by necessary implication." Toro Co. v. White Consol. Indus., Inc., 383 F.3d 1326, 1335 (Fed. Cir. 2004). The scope of the mandate includes those issues within the scope of the judgment appealed, minus those explicitly reserved or remanded. Engel Indus., Inc. v. Lockformer Co., 166 F.3d 1379, 1383 (Fed. Cir. 1999). We review a district court's interpretation of our mandate de novo. Tronzo v. Biomet, Inc., 236 F.3d 1342, 1346 (Fed. Cir. 2001).

In *Transocean I*, we expressly held that the Horn and Lund references teach every limitation of the asserted claims. 617 F.3d at 1303. Claim 17 of the '069 patent, which is exemplary of the claims at issue on appeal, recites:

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 totransfer 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 or second said first tubular advancing stations and auxiliary drilling activity can simultaneously conducted for the well said from drilling superstructure by the other of said first or second tubular advancing stations.

'069 patent claim 17 (emphases added).

As we explained in *Transocean I*, Horn discloses a drilling rig with a single derrick that supports two advancing stations, each of which can advance tubular members to the seabed. Id. Although Horn fails to disclose a pipe transfer assembly that can move tubular members between the two advancing stations, Lund teaches this limitation. Id. We also explained that Horn provides a motivation to combine the teachings of these two references to arrive at the claimed invention, stating that "[o]f other obvious advantages, there is the possibility of concentrating common auxiliary equipment ...." Horn p. 1 ll.119-21. We concluded that these references "present a prima facie case

obviousness." *Transocean I*, 617 F.3d at 1304. *Transocean I* thus establishes as law of the case that Horn and Lund teach every limitation of the asserted claims and provide a motivation to combine their respective teachings. It was thus erroneous for the district court to permit the jury to engage in fact finding regarding whether Lund and Horn disclose all of the claim elements.

The establishment of a prima facie case, however, is not a conclusion on the ultimate issue of obviousness. By definition, the existence of a prima facie case simply means that the party challenging a patent has presented evidence "sufficient to establish a fact or raise a presumption [of obviousness] unless disproved or rebutted." Black's Law Dictionary (9th ed. 2009). The prima facie inquiry is based on the first three Graham factors—the scope and content of the prior art, the differences between the prior art and the claims, and the level of ordinary skill in the art—which the Supreme Court described as the background against which the obviousness nonobviousness of the subject matter is determined. 383 U.S. at 17. A party is also free to introduce evidence relevant to the fourth Graham factor, objective evidence of nonobviousness, which may be sufficient to disprove or rebut a prima facie case of obviousness. See Mintz v. Dietz & Watson, Inc., 679 F.3d 1372, 1378-79 (Fed. Cir. 2012).

As we have repeatedly held, "evidence rising out of the so-called 'secondary considerations' must always when present be considered en route to a determination of obviousness." *Stratoflex, Inc. v.* 

Aeroquip Corp., 713 F.2d 1530, 1538 (Fed. Cir. 1983). Objective evidence of nonobviousness is an important component of the obviousness inquiry because "evidence of secondary considerations may often be the most probative and cogent evidence in the record. It may often establish that an invention appearing to have been obvious in light of the prior art was not." Id. This objective evidence must be "considered as part of all the evidence, not just when the decisionmaker remains in doubt after reviewing the art." Id. at 1538-39. Thus, in order to determine obviousness, the decisionmaker must be able to consider all four Graham factors. Although we held in Transocean I that Maersk presented a prima facie case of obviousness, it was not error to allow the jury to consider the strength of that prima facie case in making the ultimate determination of obviousness. When the ultimate question of obviousness is put to the jury, the jury must be able to review all of the evidence of obviousness. Id. Hence it was not error for the court to allow the jury to weigh the strength of the prima facie case together with the objective evidence in order to reach a conclusion on the ultimate question of obviousness.

#### B. Objective Evidence

Although we held in *Transocean I* that Horn and Lund establish a prima facie case that the asserted claims would have been obvious, we reversed the district court's grant of summary judgment because the court failed to consider Transocean's objective evidence of nonobviousness. 617 F.3d at 1304. On the summary judgment record, Transocean presented

evidence of industry praise, commercial success, industry skepticism, and copying. *Id.* at 1305. We stated that, "[i]f 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" of obviousness. *Id.* 

On remand, the jury made express findings on seven types of objective evidence of nonobviousness: commercial success, industry praise, unexpected results, copying, industry skepticism, licensing, and long-felt but unsolved need. J.A. 8062. The jury found that each of these considerations supported the nonobviousness of Transocean's claims. *Id.* In granting Maersk's motion for JMOL of obviousness, however, the district court concluded that the record evidence fails to support these findings. J.A. 5-7. We disagree. As detailed below, Transocean presented substantial evidence from which a reasonable jury could find that each of the seven objective factors supports the nonobviousness of Transocean's claims.

#### 1. Commercial Success

The district court rejected the jury's finding that commercial success supports nonobviousness. The court found that sales of Transocean's dual-activity rigs are "due primarily to various litigation[s]," and thus they "are not a result of a free market." J.A. 5-6. The court also found that, at the time Transocean's patents issued, the drilling industry was "fully aware of the possibilities of a dual string rig as prior art" and that Transocean's patent application on this technology had been rejected in Europe as lacking inventiveness. J.A. 5. Maersk contends that

Transocean failed to tie its commercial success evidence to the claimed combination of two advancing stations with a pipe transfer assembly. Maersk also argues that unclaimed features of Transocean's rigs, such as increased size and capacity, are responsible for any commercial success.

As an initial matter, the district court erred by considering proceedings before the European Patent Office in its commercial success analysis. Transocean needed to show both commercial success and that a nexus exists between that success and the merits of the claimed invention. See Iron Grip Barbell Co. v. USA Sports, Inc., 392 F.3d 1317, 1324 (Fed. Cir. 2004). It is irrelevant to the commercial success analysis, however, that a foreign patent office rejected Transocean's patent application on the dualactivity technology. The district court's analysis seems to have been clouded by its view that the asserted claims would have been obvious over the prior art. This is precisely the sort of hindsight bias that evaluation of objective evidence is intended to avoid. See, e.g., Graham, 383 U.S. at 36.

Transocean presented sufficient evidence of both commercial success and nexus to the features of the claimed invention. It showed, for example, that its dual-activity drilling rigs commanded a market premium over single-activity rigs. Transocean points to two contracts it signed on the same day with Anadarko Petroleum Corporation, one for a dual-activity drilling rig and one for a single-activity rig. J.A. 6632-35; J.A. 11862-64; J.A. 11929-31. Transocean charged a roughly 12% premium for the

dual-activity rig. Transocean introduced other contracts that provided for reduced daily rates if the dual-activity feature on the rig was not available. See, e.g., J.A. 12087-88; J.A. 12284-85; J.A. 12458. Transocean's damages expert, Mr. Bratic, testified that the average reduction in this circumstance is 10%. J.A. 6639.

Transocean also presented evidence that some customers expressly require dual-activity rigs. For example, a Maersk employee testified at trial that Maersk added dual-activity to its new drilling rig design based on market surveys showing customer demand for this feature. J.A. 6329-30. Testimony by Maersk's own employee shows that customers request the dual-activity feature specifically based on the efficiency gains it provides by "involving two well centers in drilling the wells." J.A. 6330-31. The Maersk employee stated that "[m]any operators do require dual activity ... for flexibility and for efficiency." Maersk improved Id.sought "incorporate the efficiency same improvement features as used by our competition" by incorporating "dual-activity" Transocean's technology. which Maersk distinguished from the "dual drilling" disclosed in the prior art. J.A. 10016-17. Transocean also offered testimony that dual-activity rigs account for an increasing percentage of the rigs sold and that they have become the industry standard. J.A. 6202.

From this evidence, a reasonable jury could conclude that Transocean's dual-activity rigs have been a commercial success and that this success has a nexus to the features claimed in the patents. We thus conclude that substantial evidence supports the jury's finding that commercial success weighs in favor of nonobviousness.

### 2. Industry Praise and Unexpected Results

The jury found that Transocean's dual-activity rigs received industry praise and achieved unexpectedly superior results, and that these factors supported nonobviousness. The district court rejected the jury's findings, reasoning that Transocean presented no statistical data to support these conclusions.

Maersk contends that any praise or unexpected and superior results are due to unclaimed features of Transocean's rig or elements from the prior art. Maersk argues that Transocean's evidence of praise for dual-activity rigs is no different from praise for the dual-drilling technology taught in the prior art. With dual-activity rigs, only one of two advancing whereas stations actually drills. dual-drilling involves using both advancing stations simultaneously drill two wells.

We conclude that substantial evidence supports the jury's findings on industry praise and unexpected results. Transocean presented numerous documents showing industry praise for the unexpected increase in drilling efficiency made possible using Transocean's patented dual-activity technology. For example, Transocean cited a position paper written by a competitor stating that its own deepwater rig:

must, at the least, include the most effective drilling cost reductions achieved by the new deepwater units.... Drilling cost reduction through technology advances pushed forward by the deepwater demands are typified by innovations such as Transoceans [sic] dual-derrick concept, designed to enable continuous drilling, potentially improving productive time by 25% to 40%.

### J.A. 11505 (emphasis added).

Transocean also relied on an article in Offshore Magazine stating that multi-functionality (i.e., dualactivity) is "critical to [the] future." J.A. 13370. This specifically describes the features article Transocean's dual-activity rigs: "a modified derrick and drill floor will allow for the makeup of drillstring and bottom hole assemblies separate from the drilling line where other functions such as casing installation may be underway." Id. The article states that the dual-activity operation will "allow for 20-40% faster tripping of drillstrings." Id. Transocean cites a second Offshore Magazine article, which praises the development of Transocean's dual-activity drillship as one of the fifty key events or technologies in history that shaped the offshore drilling industry. J.A. 11595-97. The article notes the ability of the rig to reduce drilling time and costs by "conduct[ing] drilling operations simultaneously rather than sequentially via two full capability drilling rigs." Id. This is quite an impressive accolade, and the jury was free to credit it as such.

Additionally, one of the named inventors of the patents-in-suit, Mr. Scott, testified that industry members doubted whether the claimed dual-activity

feature would increase drilling efficiency. J.A. 6047-49. BP, for example, doubted whether dual-activity would cut costs so it had its own efficiency engineers analyze one of Transocean's dual-activity drilling rigs. *Id.* BP concluded that the rig could lead to even greater efficiency and cost savings than Transocean suggested. *Id.* 

This is substantial evidence from which the jury could reasonably conclude that Transocean's claimed dual-activity apparatus produced unexpected efficiency gains and that this benefit garnered praise in the drilling industry. Transocean's evidence also links both the industry praise and the unexpected efficiency gains directly to the claimed dual-activity feature. The first Offshore Magazine article, for example, expressly attributes improved efficiency to a derrick that can prepare drill string separate from the drilling line, as described in Transocean's patents. See J.A. 13370. This description clearly distinguishes Transocean's dual-activity technology from the dual-drilling technology described in the prior art. Id. We conclude that the district court erred by determining that the jury lacked substantial evidence to find that industry praise and unexpected results support nonobviousness.

## 3. Copying

The district court failed to address the jury's finding that copying of the claimed invention supported nonobviousness. Maersk argues that Transocean's copying evidence is not tied to the novel features of its invention. We disagree. Transocean points to an internal Maersk document stating "we

have to incorporate the same efficiency improvement features as used by our competition," and that "[t]his feature is generally described as 'dual-activity." J.A. 10016. The Maersk document describes the features of dual-activity drilling, which it distinguishes from the "dual drilling" disclosed by Horn. J.A. 10016-17. The document states that Transocean's drillships are probably the "best known examples of dual activity vessels." *Id.* 

Transocean also presented evidence that Maersk was aware of Transocean's patents during the time Maersk was designing its accused rig. For example, a Maersk employee testified that he became aware of Transocean's patents "early on in the design development phase" of building the accused rig. J.A. 6331. Another Maersk employee stated that he became aware of the patents-in-suit during the design of the accused rig, but concluded that the patents were "not necessarily something that could be seen as protected" based on the prior art. J.A. 6825-26; see also J.A. 6872-76. A third Maersk employee stated that Maersk discussed Transocean's patents with customers in the United States and told them that Maersk did not infringe because the patents are invalid in view of the prior art. J.A. 6346-47.

This evidence shows that Maersk was aware of Transocean's patents and its drillships embodying the patents while Maersk designed its accused rig. The evidence also shows that Maersk decided to incorporate the claimed dual-activity feature anyway because it believed Transocean's patents were invalid over the prior art. Moreover, Maersk's internal document expressly ties its copying to the novel "dual-activity" features of Transocean's invention, which it distinguishes from the "dual drilling" taught in the prior art. This is substantial evidence that supports the jury's finding of copying.

## 4. Industry Skepticism

The jury found that industry skepticism supports nonobviousness. Although the district court admitted that "[i]t may be argued that a few in the market were skeptical," the court nonetheless concluded that Transocean presented insufficient evidence industry skepticism to support the jury's finding. The court did not credit Transocean's evidence that people in the industry were skeptical of dual-activity rigs due to fears of "clashing," which occurs when the two drill strings collide with one another. The court reasoned that literature predating the filing of the patents-in-suit stated that concerns over clashing were unfounded. Maersk echoes this argument, pointing to a brochure by Horn dismissing concerns about clashing.

We conclude that the jury's fact finding was supported by substantial evidence. Transocean proffered testimony regarding skepticism by two named inventors of the patents-in-suit, Mr. Scott and Mr. Herrmann. They testified that even though they personally did not believe clashing was a concern, industry experts and Transocean's customers were skeptical of the claimed dual-activity feature due to fears of clashing. Mr. Herrmann recounted several occasions when industry experts stated that clashing

would prevent dual-activity drilling from working, J.A. 6203-04, and he stated that some people are still concerned with clashing even today, J.A. 6206. Mr. Scott recounted similar experiences. *See, e.g.*, J.A. 6044-45.

This evidence is sufficient for a reasonable jury to conclude that members of the drilling industry were skeptical of Transocean's dual-activity rigs. Although Maersk presented evidence that it contends dispels concerns over clashing, Transocean's evidence indicates that skepticism persists nonetheless. A reasonable jury could accept Transocean's evidence of skepticism even if the evidence could also support a contrary conclusion. We thus conclude that the district court erred by rejecting the jury's finding that skepticism supports nonobviousness.

# 5. Licensing

The jury found that Transocean established that its licenses to customers and competitors were due to the merits of the claimed invention and thus support nonobviousness. The district court did not directly address licensing, but found that Transocean's sales of its dual-activity technology were due primarily to litigation or threat of litigation, and thus seems not to have credited Transocean's licensing evidence. Maersk similarly contends that Transocean's licenses do not support nonobviousness because they are attributable to the threat of litigation. Maersk also argues that Transocean's licenses are not tied to the asserted claims because they convey rights not only but to the patents-in-suit, also to foreign counterparts and other patents that are not part of this case.

Transocean counters that the royalties paid under the licenses exceed any litigation costs, and thus are an accurate reflection of the value of the invention. For example, claimed Transocean introduced evidence at trial of a royalty payment by Noble Drilling (U.S.) Inc. totaling nearly \$500,000 for one month of operations for one dual-activity rig. contends that large, Transocean sophisticated companies would not pay royalties exceeding the cost of litigation if the royalty did not reflect the value of the licensed technology. Transocean also offered testimony that at least three companies licensed its dual-activity drilling patents despite being under no threat of litigation. For example, Transocean's inhouse counsel testified that both Shell and Pride Global, Limited, approached Transocean seeking to license its dual-activity technology. J.A. 6442-45.

We conclude that Transocean presented sufficient evidence for the jury to find that Transocean's licensing supports nonobviousness. From Transocean's testimony regarding the value of the licenses relative to litigation costs and regarding licenses with companies under no apparent threat of litigation, a reasonable jury could have found that the licenses reflect the value of the claimed invention and are not solely attributable to litigation. As a result, the district court erred by holding that the jury lacked substantial evidence to support its finding regarding licensing.

## 6. Long-Felt but Unsolved Need

The jury found that Transocean's invention provided a solution to a long-felt but unsolved need, and that this supports nonobviousness. The district court disagreed, finding that there was no long-felt but unresolved need because the prior art already disclosed dual string drilling technology. According to the court, no substantial demand existed for dual string drilling technology until deepwater drilling became more prevalent around the year 2000. On appeal, Maersk similarly argues that Transocean failed to present evidence linking any unmet need to the claimed features of the asserted claims.

We disagree. Transocean presented evidence at trial that its dual-activity technology satisfied a long-felt need for greater drilling efficiency. Transocean proffered testimony by two of the named inventors that the drilling industry had been operating in deepwater since the 1970s. One of Transocean's expert witnesses similarly testified that companies began to move towards deepwater drilling in the 1970s and that the drilling industry is always seeking greater efficiency from its rigs. The expert concluded that Transocean's dual-activity technology thus fulfilled a long-felt but unsolved need for a drilling rig that could operate efficiently in deep water.

Two of the named inventors testified that, prior to the claimed invention, the industry had been searching for ways to increase efficiency by building sections of drill string "offline," out of the path of the well conducting the drilling. These efforts were unsuccessful, however, and left an unsolved need for an efficient method of building the long drill strings needed for deepwater drilling without interrupting operations on the drilling well.

We conclude that substantial evidence supports the jury's finding that long-felt but unsolved need supports nonobviousness. From this testimony, a reasonable jury could conclude that Transocean's patents fulfilled a need in the drilling industry for a more efficient way to drill in deep water by allowing offline building of drill string and also including an auxiliary advancing station capable of lowering drilling components to the seabed. The district court erred by concluding that the jury lacked substantial evidence to support its finding on long-felt need.

#### C. Conclusion

We held in *Transocean I* that Horn and Lund teach each limitation of the asserted claims, provide a motivation to combine their teachings, and thus make out a prima facie case of obviousness. 617 F.3d at 1303-04. In granting Maersk's motion for JMOL of obviousness, the district court concluded that the objective evidence of nonobviousness was "insufficient, as a matter of law, to overcome Maersk['s] *prima facie* case of obviousness." J.A. 5. We disagree.

On remand, Transocean presented compelling objective evidence of nonobviousness. We stated in *Transocean I* that, "[i]f 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." 617 F.3d at 1305. Not only did the jury find for Transocean on the objective factors we noted in *Transocean I*, but it also found that three additional objective factors weighed in favor of nonobviousness.

Few cases present such extensive objective evidence of nonobviousness, and thus we have rarely held that objective evidence is sufficient to overcome a prima facie case of obviousness. But see Tec Air, Inc. v. Denso Mfg. Mich. Inc., 192 F.3d 1353, 1361 (Fed. Cir. 1999) ("Alternatively, even assuming that [the accused infringer] established a prima facie case of obviousness, [the patentee] presented sufficient objective evidence of nonobviousness to rebut it.").

This, however, is precisely the sort of case where objective evidence "establish[es] the invention appearing to have been obvious in light of the prior art was not." Stratoflex, 713 F.2d at 1538. The jury found that seven distinct objective factors support nonobviousness and, as discussed above, these findings are all supported by substantial evidence. Weighing this objective evidence along with all the other evidence relevant to obviousness, we conclude that Maersk failed to prove by clear and convincing evidence that the asserted claims would have been obvious. We therefore reverse the district court's grant of JMOL of obviousness.

#### II. Enablement

A patent specification must "contain a written description of the invention . . . in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains . . . to make and use the same." 35 U.S.C. 112, ¶ 1. Under the enablement requirement of § 112, "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 1999). "Although (Fed. Cir. the ultimate determination of whether one skilled in the art could make and use the claimed invention without undue experimentation is a legal one, it is based on underlying findings of fact." Warner-Lambert Co. v. Teva Pharm. USA, Inc., 418 F.3d 1326, 1337 (Fed. 2005). We review the legal question of enablement without deference and the factual underpinnings for substantial evidence. Biosciences Corp. v. Nutrinova, Inc., 579 F.3d 1363, 1378 (Fed. Cir. 2009).

In *Transocean I*, we reversed the district court's grant of summary judgment of no enablement. 617 F.3d at 1305-07. We rejected its conclusion that the patents are not enabled because they do not allow a skilled artisan to practice the most optimized configuration of the claimed pipe transfer assembly. *Id.* at 1307. We explained that the pipe transfer limitations "may be enabled by simply disclosing the use of a crane or a rail-mounted system." *Id.* We remanded for resolution of the issue of whether a person of ordinary skill in the art could practice the claims without undue experimentation. *Id.* On remand, the jury found that the claims are enabled.

The district court held to the contrary, granting JMOL of no enablement because it concluded that Transocean's evidence failed to support the jury's determination. The court held that a skilled artisan would not be able to make and use the invention without undue experimentation. The court stated that, alternatively, "the enablement protocol was so obvious that it failed to invent or enable the claimed invention." J.A. 8. The court seems to have reasoned that the asserted claims are not enabled because they would have been obvious.

Maersk contends that the district court correctly granted JMOL of no enablement because a skilled artisan would not be able to practice the claimed pipe transfer assembly without undue experimentation. Maersk argues that no off-the-shelf pipe transfer equipment was available that could meet the claim limitations and that it took three years for a third-party engineering company to develop the equipment that Transocean put on its drillship.

Transocean counters that it presented sufficient evidence for a reasonable jury to conclude that the claims not invalid asserted are for lack enablement. We agree. The '781 patent specification states that the claimed pipe transfer could be accomplished using "rail supported pipe handling systems" or "a rugged overhead crane." '781 patent fig.7, col.7 ll.22-64. Transocean presented evidence at trial that the required modifications to existing pipe handling equipment, such as the systems disclosed in the specification, would not have required undue experimentation. For example, Mr. Scott testified

that he did not believe such modifications would be overly complicated. J.A. 6117. He also testified that it took the third-party engineering company three years to design Transocean's pipe handling system not because the design was difficult, but because an assembly for use in offshore drilling must be modeled on computer such that it is ready to use upon delivery without any field testing. J.A. 6149. Mr. Scott stated that the basic design of the system was quick and that it was the computerized optimization took most of the time. Id. Moreover, Maersk's own invalidity expert testified that modifying an existing, rail-mounted pipe handler to use between two advancing stations, as in the claimed invention, would be a trivial modification that would not take a lot of time or engineering effort.

This is substantial evidence supporting the jury's verdict that Maersk failed to prove that undue experimentation would be required in order to operate the claimed invention. Transocean's patent specification discloses two systems that could be used to perform the pipe transfer function and testimony at trial confirmed that modifying these systems for use in the claimed invention would be trivial. As a result, we hold that the district court erred by granting Maersk's motion for JMOL that the asserted claims are not enabled. Because we reverse the district court's grant of JMOL of no enablement, we need not reach Transocean's argument that Maersk waived its enablement challenge.

## III. Infringement

"To literal infringement, establish limitation set forth in a claim must be found in an accused product, exactly." Southwall Techs., Inc. v. Cardinal IG Co., 54 F.3d 1570, 1575 (Fed. Cir. 1995). Infringement is a question of fact. Id. The district court had granted summary iudgment noninfringement and, in Transocean I, we vacated that holding, 617 F.3d at 1307-11. The jury found literal infringement by Maersk, and the district court granted JMOL of noninfringement. The district court held that there was no infringement because the contract between Statoil and Maersk expressly indicated that the final drill design could be modified based on the outcome of a pending district court 8-9. Hence, the litigation. J.A. district court concluded that Maersk did not offer for sale or sell the use of a dual-activity drill which would infringe the patent claims at issue. Id. This argument, however, had been raised and rejected by this court in *Transocean I*:

USA's Maersk 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 and the schematics contract 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.

617 F.3d at 1310-11. The jury concluded that what was offered for sale and sold by Maersk to Statoil was the use of an infringing rig and that fact finding is supported by substantial evidence. The Statoil contract identifies the drilling unit as the "unit currently under construction at Keppel FELS Limited in Singapore." J.A. 10818. The Statoil contract further states that Statoil was entitled to access the schematics for the rig. J.A. 10867. Both the Statoil contract and the Keppel contract containing the schematics for the accused rig were introduced into evidence at trial. Maersk does not argue on appeal that the rig depicted in the schematics in the Keppel contract is missing any of the limitations of the asserted claims. Moreover, additional evidence at trial showed that Maersk did not instruct Keppel to install a casing around the auxiliary advancing station until several months after Maersk signed the Statoil contract. J.A. 12826.

Based on this evidence, a reasonable jury could conclude that the drilling rig offered for sale or sold in the Statoil contract, as depicted in the schematics in the Keppel contract, possessed every limitation of the asserted claims. We thus conclude that substantial evidence supports the jury's finding that Maersk literally infringed the asserted claims and reverse the district court's grant of JMOL of noninfringement.

## IV. Damages

Upon a finding of infringement, the patentee is entitled to "damages adequate to compensate for the infringement, but in no event less than a reasonable royalty for the use made of the invention by the infringer." 35 U.S.C. § 284. The patentee bears the burden of proving damages. Lucent Techs., Inc. v. Gateway, Inc., 580 F.3d 1301, 1324 (Fed. Cir. 2009). alternative categories of Two infringement compensation are the patentee's lost profits and the reasonable royalty the patentee would have received "The through arms-length negotiation. Id.royalty may be based [reasonable] upon established royalty, if there is one, or if not, upon the supposed result of hypothetical negotiations between the plaintiff and defendant." Rite-Hite Corp. v. Kelley Co., 56 F.3d 1538, 1554 (Fed. Cir. 1995) (en banc). The hypothetical negotiation seeks to determine the terms of the license agreement the parties would have reached had they negotiated at arms length when infringement began. Id.

On remand from our decision in *Transocean I*, Transocean presented evidence of the value of its past licenses for its dual-activity technology. The jury awarded \$15 million in compensatory damages. The district court granted JMOL that Transocean is not entitled to damages. The court reasoned that Transocean has no basis to claim damages because the asserted claims are invalid as obvious and not enabled and because Maersk did not infringe because there was no sale or offer for sale of the accused rig. Given that we have reversed on all three points,

JMOL on damages on these grounds is unwarranted. The court also erroneously stated that a reasonable royalty is an improper measure of damages because Transocean presented no evidence of actual harm or that it lost an opportunity to sell or use its patented invention due to losing the Statoil contract to Maersk.

On appeal, Maersk argues that the jury's damages award is not supported by substantial evidence. Maersk also contends that a reasonable royalty for its sale or offer for sale must necessarily be lower than if it had also made or used an infringing rig. In essence, Maersk argues that it never delivered an infringing rig to Statoil and would not have paid \$15 million solely for the right to offer for sale or sell a dual-activity rig when Transocean's past licenses also granted the right to make and use its patented invention. We are sympathetic to Maersk's arguments. It offered drilling services which would use an infringing drill, but expressly reserved the right to modify the drill to avoid infringement. It did then modify the drill prior to delivery to avoid infringement—hence never actually using an infringing dual-activity drill. And the jury awarded the full upfront licensing fee that a competitor who would be using the drill would pay. We may well not have awarded such a high royalty, but that decision is not ours to make. We review a damage award, which is a question of fact, for substantial evidence. Lucent Techs., 580 F.3d at 1310. And, given the evidence presented, we cannot conclude that the jury lacked substantial evidence for the award.

At trial, Transocean's in-house counsel testified regarding Transocean's process for deciding the value of licenses for its dual-activity drilling patents. He stated that Transocean considered the value of the patents to the licensee and also the fact that a license to a competitor would allow that company to compete with Transocean's own dual-activity rigs. J.A. 6436. Based on these considerations, Transocean's model license agreement includes an upfront fee of \$15 million and a five percent running royalty when the dual-activity rig operates the jurisdiction where Transocean has patents on its technology, J.A. 6436-37. Transocean's licenses show that several companies, including its competitors, agreed to license the dual-activity patents on these terms. See, e.g., J.A. 9912; J.A. 9924-25.

Transocean's in-house counsel also testified that Transocean tends to offer its customers more favorable license terms than it offers to its competitors. J.A. 6437-39. He further stated that Maersk is a direct competitor and that, in a hypothetical negotiation at the time of infringement, Transocean would have required Maersk to pay an upfront fee to license its dual-activity patents. J.A. 6447. Transocean's damages expert, Mr. Bratic, testified that Transocean would be entitled to an upfront payment of at least \$10 million from Maersk. According to Mr. Bratic, Transocean's upfront fee for competitors is always \$15 million, but Transocean sometimes discounts that fee if it receives something

in return from the licensee. J.A. 6608-12. Mr. Bratic stated that, because Transocean would not receive anything from Maersk in return under the hypothetical negotiation other than royalty payments, Maersk would not be eligible for any discount. J.A. 6609-12.

This is substantial evidence supporting the jury's damage award. A reasonable royalty may be based on an existing royalty, and a jury could conclude from Transocean's past licenses for its dual-activity technology that a hypothetical negotiation between the parties would result in a \$15 million upfront payment. Although Transocean's damages expert testified that the royalty would be at least \$10 million, he also stated that Maersk would not be entitled to any discount from the standard \$15 million figure. Indeed, several similarly situated competitors agreed to pay a \$15 million upfront fee. We thus conclude that the jury had substantial evidence upon which to conclude that a reasonable royalty under the circumstances would be million.

We reject Maersk's argument that the damages award was not supported by substantial evidence solely because Maersk only needed a license allowing it to sell or offer to sell a dual-activity rig. Although Maersk did not, in the end, deliver an infringing rig to Statoil, the hypothetical negotiation used to calculate a reasonable royalty seeks to determine the terms of the agreement the parties would have reached at the time infringement began. In this case, a reasonable jury could conclude that at the time

Maersk first infringed by offering a dual-activity rig for sale, the parties would have negotiated a license granting Maersk the right not only to offer the rig for sale, but also to deliver a rig that uses Transocean's technology. Indeed, dual-activity Transocean's proposed royalty of a \$10-15 million upfront payment and a five percent running royalty assumes that the license grants Maersk "unfettered" future use of the licensed patents. J.A. 6653-55. Because the jury's damages award is supported by substantial evidence, we reverse the district court's grant of JMOL that Transocean is not entitled to reasonable royalty damages.

# V. Conditional Grant of Maersk's Motion for New Trial

The Fifth Circuit reviews the grant of a motion for new trial for abuse of discretion, and generally scrutinizes a grant of a new trial more closely than a denial. *Cates v. Creamer*, 431 F.3d 456, 460 (5th Cir. 2005). A district court can grant a motion for new trial if the jury verdict was against the great weight of the evidence. *Id*.

The district court in this case conditionally granted Maersk's motion for new trial. Among the several grounds the court gave for granting this motion, it concluded that the jury's verdict is against the great weight of the evidence on the issue of obviousness. We disagree. With regard to the objective evidence of nonobviousness, the court erred by concluding that the jury's verdict was not supported by substantial evidence. To the extent that the jury deviated from our *Transocean I* holding by

finding that the prior art did not disclose each limitation of the asserted claims, this issue is law of the case and thus conducting a new trial would serve no purpose. Given that this is a question of law, which we review *de novo*, we accept the prior determinations of *Transocean I* that Lund and Horn disclose all of the claimed elements and that there exists a motivation to combine, and also consider the jury's fact findings on the objective considerations which are all supported by substantial evidence. Looking at all of this evidence, we conclude that Maersk has failed to prove the claims would have been obvious by clear and convincing evidence. There is no reason to conduct a new trial because the ultimate issue of obviousness is one of law.

We find no merit to the court's contention that a new trial is needed because the jury's findings on secondary considerations might somehow have been tainted by the court's failure to instruct the jury that the first three *Graham* factors were already resolved in *Transocean I*. These were discrete and separate fact questions on the special verdict. There is no reason to think that because the jury erred on one such fact finding, the other, unrelated fact findings are somehow tainted.

None of the alleged errors the district court highlights warrants a new trial. We have considered all of Maersk's arguments on appeal and find them to be without merit. We thus reverse the district court's grant of Maersk's motion for a new trial.

# CONCLUSION

In view of the foregoing, we reverse the district court's grant of JMOL of invalidity and noninfringement, and its grant of JMOL that Transocean is not entitled to damages. We also reverse its conditional grant of a new trial.

# REVERSED

# Appendix D

# UNITED STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT

No. 2011-1555

Transocean Offshore Deepwater Drilling, Inc., Plaintiff-Appellant,

v.

MAERSK DRILLING USA, INC.,

Defendant-Appellee.

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

Precedential Opinion Decided: Nov. 15, 2012 Errata Filed: Feb. 5, 2013

### **ERRATA**

Please make the following edit: Page 25, lines 19-20, delete "the use of."

## Appendix E

# UNITED STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT

No. 2011-1555

Transocean Offshore Deepwater Drilling, Inc., Plaintiff-Appellant,

v.

MAERSK DRILLING USA, INC.,

Defendant-Appellee.

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

Filed: Feb. 21, 2013 Note: This order is nonprecedential.

#### **ORDER**

A combined petition for panel rehearing and for rehearing en banc having been filed by the Appellee, and the petition for rehearing, having been referred to the panel that heard the appeal, and thereafter the petition for rehearing en banc having been referred to the circuit judges who are in regular active service,

UPON CONSIDERATION THEREOF, it is

ORDERED that the petition for panel rehearing be, and the same hereby is, DENIED and it is further

ORDERED that the petition for rehearing en banc be; and the same hereby is, DENIED.

The mandate of the court will issue on February 28, 2013.

FOR THE COURT, Jan Horbaly Clerk

Dated: 02/21/2013

cc: Charles B.Walker, Jr. William H. Frankel

## Appendix F

# UNITED STATES DISTRICT COURT SOUTHERN DISTRICT OF TEXAS HOUSTON DIVISION

Civil Action No. H-07-2392

Transocean Offshore Deepwater Drilling, Inc., Plaintiff,

v.

 $\begin{array}{c} \text{Maersk Contractors USA Inc., } \textit{Et al.,} \\ \textit{Defendants.} \end{array}$ 

Filed: May 14, 2009

#### MEMORANDUM AND ORDER

## I. INTRODUCTION

Before the Court are the motion for summary judgment of no willfulness brought by Maersk Contractors USA, Inc., (Maersk USA) (#81), and Transocean Deepwater Drilling, Inc. ("Transocean") (#91) response to Maersk USA's motion. Also, before the Court are Maersk USA's reply and Transocean's sur-reply and supporting case law. The Court has reviewed the motion, response and replies and determines that Maersk USA's motion should be granted.

#### II. FACTUAL SUMMARY

The underlying factual history shows that the United States Patent Trademark Office ("PTO") issued United States Patent Nos. 6,047,781 ("the '781 Patent"); 6,056,071 ("the '071 Patent"); 6,068,069 ("the '069 Patent"); and 6,085,851 ("the '851 Patent") to Transocean on or about July 11, 2000. The invention is described as Multi-Activity Offshore Exploration and/or Development Drilling Method and Apparatus. Transocean's Patents generally presents an offshore drilling assembly that includes superstructure or derrick, a first and second tubular advancing station, and an assembly adjacent to the stations capable of transferring tubular assemblies between the stations allowing simultaneous drilling and auxiliary activities for a single well. As a drilling contractor, Transocean provides drilling rigs to oil companies with the pledge that its invention saves drilling time through the cooperation of the two drilling stations under a single derrick.

On May 27, 2005, A.P. Moller-Maersk A/S negotiated and contracted with Koppel FELS Limited to build a DSS-21, an Ultra Deepwater Development Semisubmersible drilling rig. Maersk A/S corporation and the parent defendant Maersk USA in this case. Maersk USA entered into a contract on November 22, 2006, to utilize the DSS-21 to fulfill its drilling obligations to Statoil Gulf of Mexico, LLC. And, although the contract between Maersk A/S and Keppel FELS was foreign corporations, between two Transocean contends that Maersk USA's parent corporation,

Maersk A/S acted in behalf of Maersk USA, permitting Maersk USA to contract with Statoil to supply a dual activity rig to Statoil that infringes Claim 17 of its '069 Patent.

At the time that Maersk USA contracted with Statoil, Transocean was involved in a suit with GlobalSantaFe Drilling Co. (GSF), that involved similar allegations of apparatus infringement of the same or similar claims as those asserted in the patents-in-suit. A permanent injunction was granted in behalf of Transocean against GSF in January 2007, enjoining GSF's use of its Development Drillers I and II auxiliary well centers to reach seabed and for drilling or auxiliary drilling operations.

In the case at bar, the parties acknowledge that the Contract between Maersk USA and Statoil was executed before the rig was completed. Likewise, the parties agree that the terms of the contract permit Maersk USA to modify the rig as necessary to avoid infringement of Transocean's patents-in-suit. And, finally, the parties do not dispute that the prior art discloses rigs that are capable of conducting dual operations simultaneously on more than one well.

### III. CONTENTIONS OF THE PARTIES

#### A. Transocean's Contentions

Transocean contends that Maersk willfully infringed Claim 17 of the '069 Patent when it entered into the Statoil Contract. In this regard, Transocean asserts that the Contract was negotiated between two United States companies in the United States and calls for the use of the dual activity rig built by

Keppel FELS in the Gulf of Mexico which, according to Transocean, infringes its '069 Patent. Transocean contends that the Contract describes a rig, the specification of which, infringes Claim 17 of its '069 Patent. Finally, Transocean contends that the Contract, alone, between Maersk USA and Statoil is an act of infringement as it constitutes an "offer to sell" its rig to Statoil.

Transocean also contends that Maersk A/S Transocean's patented dual copied activity technology and, in the face of warnings from Transocean, Maersk USA contracted with Statoil to provide drilling activities in the Gulf of Mexico. In this regard, Transocean argues that Maersk A/S's conduct is the conduct of Maersk USA. Specifically, Transocean contends that Maersk A/S Transocean's technology and, as well, through Maersk USA, executed a contract with Statoil to perform drilling operations in the Gulf establishes willfulness to Maersk's infringe Transocean's Patents. In sum, Transocean asserts that Maersk USA violated 35 U.S.C. § 271(a), by "offering to sell" an infringing item in violation of Claim 17 of the '069 Patent and by copying its technology.

#### B. Maersk's Contentions

Maersk USA asserts that it is entitled to summary judgment on Transocean's willfulness claim because the relevant facts are undisputed. It is undisputed that: (a) Maersk's rig has a casing sleeve configuration identical to that constructed by GSF attached to the auxiliary rotary, which design was approved by this Court in related litigation between

GSF and Transocean.¹ See [Cause No. H-03-2910, Transocean v. Global Santa Fe; modified Final Judgment]; (b) Maersk USA only took possession of the DSS-21 Rig on January 2, 2009; (c) the DSS-21 Rig has never entered United States waters; (d) Transocean's willfulness arguments are based on waived infringement theories; (e) the act of contracting is not an act of infringement; and, (f) Transocean's claim of an infringing "offer to sell" is not pled, therefore, has been waived.

#### IV. STATEMENT OF THE RELEVANT LAW

### A. Summary Judgment Standard

Summary judgment is appropriate if no genuine issue of material fact exists and the moving party is entitled to judgment as a matter of law. Fed. R. Civ. P. 56. A fact is "material" if its resolution in favor of one party might affect the outcome of the suit under governing law. Anderson v. Liberty Lobby, Inc., 477 U.S. 242, 248 (1986). "Factual disputes that are irrelevant or unnecessary will not be counted." Id. at 248. An issue is "genuine" if the evidence is sufficient for a reasonable jury to return a verdict for the nonmoving party. Id. If the evidence rebutting the motion for summary judgment is only colorable or not significantly probative, summary judgment should be granted. Id. at 249-50; see also Shields v. Twiss, 389 F.3d 142, 149-50 (5th Cir. 2004).

<sup>&</sup>lt;sup>1</sup> A casing sock or sleeve is a hollow metal pipe that has a sealed bottom installed on the DSS-21 rig's auxiliary drill center that prevents the drill center from being able to advance tubulars, drilling pipe *et. seg.* into the water and/or the seabed.

Under Rule 56(c) of the Federal Rules of Civil Procedure, the moving party bears the initial burden of "informing the district court of the basis for its motion and identifying those portions of [the record] which it believes demonstrate the absence of a genuine issue for trial." Matsushita Elec. Ind. Co. v. Zenith Radio Corp., 475 U.S. 574, 586-87 (1986); Adams v. Travelers Indem. Co. of Connecticut, 465 F.3d 156, 163 (5th Cir. 2006). Where the moving party has met its Rule 56(c) burden, the nonmovant must come forward with "specific facts showing that there is a genuine issue for trial." Matsushita, 475 U.S. at 586-87 (quoting Fed. R. Civ. P. 56(e)) (emphasis in original); Celotex Corp. v. Catrett, 477 U.S. 317 (1986); and Adams, 465 F.3d at 164. To sustain the burden, the nonmoving party must produce evidence admissible at trial showing that reasonable minds could differ regarding a genuine issue of material fact. Anderson, 477 U.S. at 250-51; 255; Morris v. Covan World Wide Moving, Inc., 144 F.3d 377, 380 (5th Cir. 1998). In deciding a summary judgment motion, "t]he evidence of the nonmovant is to be believed, and all justifiable inferences are to be drawn in his favor." Anderson, 477 U.S. at 255.

### B. Willful Infringement Standard

By its motion for summary judgment, Maersk USA seeks to foreclose Transocean's opportunity for treble infringement damages. Title 35 U.S.C. § 284 permits a court to "increase the damages up to three times the amount found or assessed" where there has been willful infringement. *In re SEAGATE TECHNOLOGY, LLC*, 497 F.3d 1360, 1370 (Fed. Cir.

2007). Generally, the issue of infringement is reserved to a jury and only then after a finding of infringement. Patent infringement, while a tort, is not an intentional tort. Hence, there is no need to prove intent in a patent case. On the other hand, a claim for willful infringement does require a showing of intent.

The Supreme Court recently addressed the meaning of willfulness in Safeco Ins. Co. of Am v. Burr, 127 S.Ct. 2201 (2007). There, the Court stated that willfulness requires a showing of "reckless conduct" or a showing of reckless disregard for the rights of another. Id. at 2209. A person acts recklessly when he acts "in the face of unjustifiably high risk of harm that is either known or so obvious that it should be known." See Farmer v. Brennan, 511 U.S. 825, 836 (1994). On the other hand, it is legitimate to deliberately design around another's patent. See Read Corp. v. Portec, Inc., 970 F.2d 816, 828 (Fed. Cir. 1992). Therefore, Transocean must show by clear and convincing evidence that Maersk USA acted recklessly despite an objectively high likelihood that its actions constituted infringement of a valid patent. See In Re SEAGATE, 497 F.3d at 1371, [citing Safe Co., 1275 S.Ct. at 2215]. In the face of such an allegation of willful infringement, Maersk USA need only show that there is a reasonable basis for it to believe its actions were legitimate. See SRI Intern., Inc. v. Adv. Tech Lab., Inc., 127 F.3d 1462, 1464 (Fed. Cir. 1997).

#### V. DISCUSSION AND ANALYSIS

A.

Transocean advances two bases upon which its willfulness claim rests. First, Transocean asserts of the **DSS-21** construction constitutes infringement because Maersk A/S simply copied Transocean's patent design. Next, Transocean asserts that the executed contract between Maersk USA and Statoil constituted an "offer to sell" or a "sale" as those terms are intended in § 271(a). This assertion is supported by Transocean's claim that both Maersk USA and Statoil are United States corporations and negotiated and executed the Statoil Contract in the United States.

The evidence establishes that construction of the DSS-21 was the result of a contract between Kappel FELS Limited, a company organized under the laws of the Republic of Singapore, and Maersk A/S a Denmark company. Construction occurred at Keppel FELS' yard in Singapore. There is no evidence that the contract to build the DSS-21 was negotiated or consummated by either Maersk USA or Statoil or the two jointly. Therefore, the Court is of the opinion that as far as Transocean's claim of willfulness concerns the construction of the DSS-21, Maersk USA did not engage in willful conduct by the actions of its parent corporation Maersk A/S. Transocean's patents are legitimately contested. And, the fact that one court has recently ruled favorable to Transocean on one or apparatus claims does not resolve challenges that Maersk USA makes that nothing was invented by Transocean's several patents.

Moreover, the fact that Maersk A/S modified its rig in the face of past and current litigations means that willfulness is defeated even if Maersk A/S copied Transocean's patent design. See SRI Intern, Inc. 127 F3d 1464. Article 15.12 of the Maersk USA/Statoil Contract provides: "Notwithstanding the foregoing ... [Statoil] accepts that if intellectual property rights patents...are pertaining to Transocean's US determined ... to be infringed ... its [the rig's] use may be altered." It is apparent that Maersk A/S met with its engineers and perhaps Statoil when it became apparent that Transocean's patents would be sustained in order to avoid infringement. The Contract permitted alterations and the changes were incorporated. See Read Corp. 970 F.2d at 828.

Β.

Resolution of the issue regarding the manufacture of the DSS-21, however, does not resolve the issue of whether Maersk USA offered to sell or sold infringing technology by way of the Statoil Contract. In this regard, Transocean argues that: (a) the Contract between Maersk USA and Statoil was negotiated and consummated in the United States; and, (b) Maersk USA's use of the DSS-21 in the Gulf of Mexico to fulfill its contractual obligations with Statoil will constitute infringement.

Maersk USA argues that Transocean has not met its burden on willfulness by clear and convincing evidence that the Contract constitutes a willful "offer to sell" an infringing product. See Safeco, 127 S.Ct. at 2215. Maersk USA argues that this is so because it acted objectively reasonable in the manner that it

contracted with Statoil. In fact, it argues that it was cautious, anticipating the possibility that Transocean's patents could be held valid. Along these lines, Maersk USA asserts it took a position with regard to the DSS-21 that was consistent with the court's ruling in the Transocean/GSF litigation. In that litigation, the presiding judge held that modification to an infringing rig rendered it non-infringing. Hence, Maersk USA argues, the facts and ruling in that litigation negates the existence of "objective recklessness" on its part.

Maersk USA also argues that simply entering into an executory contract is not an infringement. First, it is non-infringing because Transocean's pleadings fail to allege the infringing item. In its pleadings Transocean alleges that it notified Maersk USA of its infringing activities. However, Maersk USA points out that Transocean's pleadings are lacking in allegations of any notice or alleged infringing conduct. Maersk points out that Transocean's Second Amended Complaint fails to assert sufficient facts constituting a claim for "offer willfulness under an to sell" theory. Transocean disputes this claim. Nevertheless, Maersk USA asserts, contrary to Transocean's argument, the Contract between Maersk USA and Statoil provides for unilateral changes in the DSS-21 to avoid infringement. Equally, Maersk USA argues, Transocean's "offer to sell" infringement theories were dropped from its case. Finally, Maersk USA argues that Transocean's pleadings fail to identify a

single infringing activity that has taken place in the United States.

The Court is of the opinion that Maersk USA's act of contracting with Statoil in the manner and place that it did does not constitute an act of willful infringement. The undisputed evidence shows that Maersk Drilling submitted its bid package to Statoil ASA's Norwegian office and that the Contract was executed in Stravanger, Norway. The evidence also shows that the DSS-21 is capable of modification and was, in fact, modified in a manner that makes it noninfringing, pursuant to the court's ruling in the Transocean/GSF litigation. Although Maersk A/S constructed the DSS-21 that, arguably, infringes Transocean's patents, subsequent modifications to the rig's auxiliary drill center removes any basis for a finding of willfulness on Maersk USA's part even though grounds remain upon which arguments of infringement may rest.

Transocean does not refute the fact that Maersk A/S made modifications to the DSS-21. Instead, it argues that Maersk USA's willfulness is established by the fact that it was aware of Transocean's patentsin-suit prior to entering into the Maersk USA/Statoil Contract. As well, Transocean argues, Maersk USA knew that Maersk A/S copied Transocean's design. Maersk USA then contracted with Statoil to utilize the DSS-21 in the Gulf of Mexico, all in the face of the Transocean/GSF litigation and direct communications from Transocean to Maersk USA concerning its conduct.

The copying of another's patented technology alone may constitute the requisite level of intent to constitute willful infringement. See GSI Group, Inc. v. Sukup Mfg. Co., 591 F.3d Supp. 2d 977 (C.D. Ill. 2008). However, here there is no evidence of any act of infringement occurring in the United States. See § 271(a); Rotec Indus., Inc. v. Mitsubishi Corp., 215 F.3d 1246, 1254 (Fed. Cir. 2000). The alleged act of infringement, an offer to sell an infringing rig in the United States, is not supported by the terms of the Contract. In fact, the terms of the Contract permit modifications to the rig that would make the rig noninfringing. Hence, the fact that Maersk A/S copied Transocean's patents, if it did, does not advance Transocean's claim of willfulness against Maersk USA because the rig was modified. See Hilgraeve Corp. v. Symantic Corp., 265 F.3rd 1336, 1343, (Fed. Cir. 2001)(citing to High Tech Med. Instrumentation, Inc. v New Image Indus., Inc., 49 F.3rd 1551, 1556 (Fed. Cir. 1995).

It is Ordered that Maersk's motion for summary judgment of no willfulness is GRANTED in all respects.

SIGNED and ENTERED this 14th day of May, 2009.

Kenneth M. Hoyt United States District Judge

## Appendix G

# UNITED STATES DISTRICT COURT SOUTHERN DISTRICT OF TEXAS HOUSTON DIVISION

Civil Action No. H-07-2392

Transocean Offshore Deepwater Drilling, Inc., Plaintiff,

v.

MAERSK CONTRACTORS USA INC., ET AL.,

Defendants.

Filed: July 28, 2009

#### MEMORANDUM AND OPINION

#### I. INTRODUCTION

Before the Court are the plaintiff, Transocean Offshore Deepwater Drilling, Inc.'s ("Transocean") motion for partial summary judgment for infringement (#117)<sup>1</sup>, and Maersk Contractors USA, Inc.'s ("Maersk USA") motion for summary judgment

<sup>&</sup>lt;sup>1</sup> The Court is of the opinion that Transocean's motion for partial summary judgment based on allegations of infringement was sufficiently addressed by the Court in an earlier Memorandum and Order (#142) that addressed willfulness. To the extent that there is room for disagreement concerning the scope of the Court's earlier Memorandum, any remaining claims of infringement are denied.

for non-infringement (#113). Also pending are Maersk USA's motion for partial summary judgment for invalidity concerning certain apparatus claims of Transocean's several patents for lack of enablement (#85), and its motion for summary judgment for several patents invalidity of the based anticipation and obviousness (#87). The Court has at its disposal the several responses, replies, sur-replies and attachments in support of the several motions for summary judgment. After a careful review of the pleadings and oral presentations, the Court is of the opinion that Transocean's motion should be denied; Maersk USA's motion for non-infringement should be granted; its motion for invalidity for lack of enablement should be granted; and, its motion for invalidity based on anticipation and obviousness should be granted.

#### II. FACTUAL BACKGROUND

Transocean brought suit against Maersk USA in 2007 for infringement of several apparatus and method claims associated with four of its patents; U.S. Patent 6,085,851 ("the '851"); U.S. Patent 6,047,781 ("the '781"); U.S. Patent 6,056,071 ("the '071"); and, U.S. Patent 6,068,069 ("the '069"). These patents disclose an offshore drilling structure with two tubular advancing stations, each of which is designed to supporting tubulars that extend to the seabed.

By way of background, in early 1996, Transocean conceived of a drilling rig that would permit a well to be drilled faster and more efficiently. At the time, Transocean was aware of other inventions that

contained two drill stations. As well, the technology for pipe handling systems that transfers tubulars on the drill floor of the rig to facilitate off-line stand building capacities, were known. Transocean's invention combined the concepts of two tubular advancing stations with automated pipe handling to transfer tubulars from one advancing station to the other. This technology resulted in the issuance of the '851 patent on July 11, 2000. Three other related applications were pending near the time that the '851 patent issued [the '071, '781 and '069 patents] and they were also issued. Transocean is now the assignee of the four patents.

#### III. PRIOR ART-DUAL ACTIVITY RIGS

## A. The Trend in Technology

Certain facts concerning the state of the prior art are not in dispute. The parties do not dispute that by May 3, 1996, the date of the application of the '851 patent, deep water drilling was moving toward automated pipe handling on newly built rigs. In fact, the trend was recognized by George Boyadjieff in 1981. See [Trends in Rig-floor Technology, Oil & Gas Journal, 1981]. Top-drive drilling systems were also commonplace and automated pipe handling was anticipated. By 1989, at least one country, Norway, required that rigs be equipped with automated pipe handling for safety purposes. During the same timeframe, pipe handling equipment was being mounted on rails built into the derrick set on a defined path, capable of travel only to the rotary table and back to the pipe area. The first patent to partially address this technology was the GB Horn 2.041.836A ("GB Horn"). By 1995, automated pipe handling on a floating rig was not uncommon in the industry. The discussion that follows addresses the state of the technology and prior art at the time that the '851 patent was conceived.

#### B. The Prior Art

On February 20, 1980, Inventor Lars Horn filed UK Patent Application GB 2.041.836A, ("the GB Horn"). The GB Horn describes:

a vessel for drilling hydrocarbon wells in the sea floor, such as a drill ship or a semisubmersible platform, is provided with a drilling tower which is dimensioned and constructed to receive at least two drill strings. Preferably, the mutual spacing between the drill strings is substantially equal to an integral multiple of the desired spacing between neighbouring wells and is at least equal to the spacing required to enable the drill strings to be operated concurrently.

The sum of the GB Horn invention is that it boasted of a semisubmersible platform drilling system that featured a single derrick, two tubular advancing stations, two drill strings to the seabed, and possible two riser pipes, albeit, for the purpose of drilling two wells. The GB Horn configuration was designed to shorten the time between the decision to put an oil field in production and the start of production. Notably, the patent configuration permits

the advancing of two drill strings to the seabed concurrently and common use of auxiliary equipment.

### C. The Lund '439 Patent

On October 29, 1986, Thomas A. Lund submitted an application to the United States Patent Office that claimed the invention of automation of pipe handling equipment. See (U.S. Patent No. 4,850,439) ("the Lund"). The Lund patent boasted of two tubular assembly stations and automated pipe handling equipment that permitted the building of stands of pipe simultaneously with drilling operations. As well, it disclosed a means for transporting tubulars between the tubular assembly stations and a tubular advancing station. The invention also revealed a first and second transporting means for tubulars mounted on upper and lower tracks or "other suitable transporting mechanism." Hence, automated pipe handling equipment, with the view that tubulars are made up in advance and available for use in drilling operations without delay, was the focus of the invention.

#### D. The Williford Patent

In July of 1987, inventors, including Frank B. Williford, presented an application to the United States Patent Office that disclosed a "floating drilling platform that contained dual work stations for performing deepwater drilling." A patent was issued on April 11, 1989. According to the invention, the platform "may be outfitted with dual drilling derricks," and, "various expedients . . . [would]

permit the equipment of one work station to be used in conjunction with the equipment of the other ... equipment subsea manipulation." Specifically, this invention permitted its dual drilling fluid systems [to acts in a] crossover [fashion] . . . in order that the mud pumps of one of the work stations [could] provide pumped fluid to the other work station as planned or [as] emergency needs arise." According to the summary of the invention, one rig could perform one function of the operation while the other performed a different or related function. The Williford configuration, thereby, permitted simultaneous support drilling operations "auxiliary" to the drilling operations.

### E. The Heerema Patent

On or about July 22, 1994, the Heerema Group Services BV filed UK Patent Application GB 2.29 1.664A ("the GB Heerema"). The GB Heerema was issued on January 31, 1996, prior to the date that Transocean claims conception of its invention, March 7, 1996. The invention claims a method for preassembly of "one or more parts of the casing string, the riser string or the drill string on the drilling rig at one or more pre-assembly points away from the drilling derrick" Hence, part of the activities for assembling a casing or riser string is carried out simultaneously with other activities resulting in a considerable saving of time. The object of the GB Heermea invention was to provide a method whereby the time necessary for completing a drilling was reduced. This savings was accomplished when the sub-assemblies, the casing string, are extended to the

seabed by a crane at the same time that drilling operations are being performed. Like the Williford patent, the Heerema patent permitted simultaneous support drilling operations auxiliary to the drilling operations. With these inventions in mind, the Court moves to address the parties' motions for summary judgment.

#### IV. SUMMARY JUDGMENT STANDARD

Summary judgment is appropriate if no genuine issue of material fact exists and the moving party is entitled to judgment as a matter of law. Fed. R. Civ. P. 56. A fact is "material" if its resolution in favor of one party might affect the outcome of the suit under governing law. Anderson v. Liberty Lobby, Inc., 477 U.S. 242, 248 (1986). "Factual disputes that are irrelevant or unnecessary will not be counted." Id. at 248. An issue is "genuine" if the evidence is sufficient for a reasonable jury to return a verdict for the nonmoving party. Id. If the evidence rebutting the motion for summary judgment is only colorable or not significantly probative, summary judgment should be granted. Id. at 249-50; see also Shields v. Twiss, 389 F.3d 142, 149-50 (5th Cir. 2004).

Under Rule 56(c) of the Federal Rules of Civil Procedure, the moving party bears the initial burden of "informing the district court of the basis for its motion and identifying those portions of [the record] which it believes demonstrate the absence of a genuine issue for trial." *Matsushita Elec. Ind. Co. v. Zenith Radio Corp.*, 475 U.S. 574, 586 - 87 (1986); *Adams v. Travelers Indem. Co. of Connecticut*, 465 F.3d 156, 163 (5th Cir. 2006). Where the moving

party has met its Rule 56(c) burden, the nonmovant must come forward with "specific facts showing that there is a genuine issue for trial." Matsushita, 475 U.S. at 586-87 (quoting Fed. R. Civ. P. 56(e)) (emphasis in original); Celotex Corp. v. Catrett, 477 U.S. 317 (1986); and Adams, 465 F.3d at 164. To sustain the burden, the nonmoving party must produce evidence admissible at trial showing that reasonable minds could differ regarding a genuine issue of material fact. Anderson, 477 U.S. at 250-51; 255; Morris v. Covan World Wide Moving, Inc., 144 F.3d 377, 380 (5th Cir. 1998). In deciding a summary judgment motion, "[t]he evidence of the nonmovant is to be believed, and all justifiable inferences are to be drawn in his favor." Anderson, 477 U.S. at 255.

### V. CLAIM CONTENTIONS OF THE PARTIES

#### A. Maersk USA's Lack of Enablement Contention

#### 1. Contentions

Maersk USA seeks summary judgment for invalidity of Transocean's apparatus claims found in its '851, '781 and '069 patents. The relevant claims are claim 10 of the '851 patent, claims 10-13 and 30 of the '781 patent and claim 17 of the '069 patent. Maersk USA contends that Transocean has failed to provide an enabling disclosure for its claimed transferring equipment. Maersk USA also contends that Transocean cannot point to a single element in any of its claims that constitutes an invention apart from the prior history present in the industry in 1996. Further, Maersk USA contends that, as it relates to automated pipe handling, designed to

transfer pipe from station to station: (a) top drives are the result of over 15 years of improvements and progress in technology and are not presented for the first time in Transocean's invention; (b) the use of columns, rail mounted pipe handlers that off-line build tubulars during drilling operations, as well, is not an invention; and, (c) rigs equipped with a drilling center capable of lowering tubulars to the seabed is not an invention. Finally, Maersk USA contends, earlier designed rigs were equipped to transfer tubulars from the right-hand side of the derrick to the left-hand side of the derrick in a north to west direction, [auxiliary drilling operations] for the purpose of shortening the "critical path" to the Therefore, nothing new is invented by Transocean's patents-in-suit.

Transocean asserts that its patents enable the invention because: (a) the mechanical arts require only a minimal description of the claimed equipment; (b) Maersk USA erroneously focuses on the effort produce a commercially embodiment as opposed to the effort required to make and use the invention based on the patent disclosure: (c) the drilling industry expects customize individual equipment when meeting customer requirements; (d) the inventors contemplated modifying known tubular handling systems not inventing a new system; and, (e) a fact issue exists as to whether the claimed tubular handling system could be built without excessive experimentation.

Maersk USA counters that the inventors and Transocean's expert witness acknowledge that Transocean's patents are not about designing or making an operable automated pipe handling apparatus and that the patents do not describe a pipe handling assembly. Moreover, Maersk USA points out, the company chosen to develop the necessary software found the task quite challenging. "It wasn't easy for them" according to witnesses for Transocean. Therefore, Maersk USA asserts, no disputed fact issue exists concerning the need for excessive experimentation. The contentions guide discussion on enablement.

#### 2. Law of Enablement

Enablement is a question of law that is based either on found or undisputed facts. Title 35 U.S.C. § 112 governs enablement and requires that the patentee "enable" his invention. Hence, the patent specification must disclose "in full, clear, concise and exact terms [so] as to enable any person skilled in the art to which it pertains ... to make and use the [invention]." See Nat'l Recovery Techs. Inc., v. Magnetic Separation Sys., Inc., 166 F.3d 1190, 1195-96 [Fed. Cir. 1999]. Therefore, in order to prevail on its claim of lack of enablement Maersk USA must show by clear and convincing evidence found in the discovery or undisputed facts that unduly excessive experimentation would be necessary to practice Transocean's invention. Koito Mfg. Co. v. N Am. Lighting, Inc., 381 F.3d 1142, 1155 (Fed. Cir. 2004). Some experimentation is permitted; however, "unduly laborious" experimentation renders the

invention invalid for lack of enablement. *Id.* A court begins its enablement analysis with the patent specification. *See Sitrick v. Dreamworks, LLC.*, 516 F.3d. 993, 999-1000 (Fed. Cir. 2008).

## 3. Analysis — Enablement

There is no dispute that Transocean's patent specifications, associated with claim 10 of the '851 patent, claims 10-13 and 30, of the '781 patent, and claim 17 of the '069 patent do not fully and concisely disclose how to make the claimed transferring equipment. The issue, according to Transocean is whether that disclosure is necessary to the invention since it focuses on the mechanics and not art. Transocean asserts that the specifications disclose a new configuration of known pipe handling equipment that enables one of ordinary skill to practice the invention. The Court agrees that the transferring equipment is not the invention. However, the Court is also of the opinion that a disclosure of the novel aspects of the claimed invention is necessary, and that the specification fails to make the necessary disclosure. The patent specifications references to three embodiments as the claimed transferring equipment: (a) rail supported pipe handlers; (b) overhead derrick crane (structure); and (c) equivalent structure. These references do not teach beyond the prior art.

In claim 10 of the '851 patent and claims 10-13 and 30 of the '781 patent, Transocean patents utilizes the phrase, a "means ... for transferring tubular assemblies between... "Claim 17 of the '069 patent, in like manner, utilizes the phrase "... assembly ...

operable to transfer tubular assemblies between. . . . " In each instance, the specification does not fully, clearly, concisely and exactly disclose the "... means ... for transferring." The same is true for the phrase "... assembly ... to transfer ..." Each of these phrases describes known pipe handling equipment that otherwise enables a person skilled in the art to make and use the invention. However, Transocean does not claim its pipe handling equipment as its claims that the pipe handling invention.  $\operatorname{It}$ equipment has been rearranged in an "assembly" that facilitates utilization and advancing of tubulars. Yet, 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.

It is the Court's view that a person skilled in the art would not be able to make and use the invention described without undue experimentation. Magnetic Separation Sys., Inc., 166 F.3d at 1195-96. This is so because the full scope of the means for transferring is not disclosed by the specifications, as required by § 112(1). The specification protocol for accomplishing the timesavings events claimed by Transocean in the production of a well does not and should not include the known equipment that is necessary to the drilling of any well. This is so because the same or essentially the same equipment is used in all well productions. Transocean might counter that location is everything in their protocol. To the extent that this argument exists in its briefing, it can be argued only that location is part of the invention, or at most a tool that helps effectuate the protocol for the invention, the invention being a timesaver event. In truth, it is how the known programmed, the mechanical equipment is modifications that constitute the invention. And, that programming must be presented in the specification in full, clear, concise and exact terms so as to inform a person skilled in the art of oil well production how to make and use the known equipment in a timesaving manner. Therefore, from an enablement perspective, the invention fails to satisfy the statutory mandate, and summary judgment is appropriate as to these claims.

#### B. Maersk USA's Claim of Non-Infringement

The Court previously addressed Transocean's claim that Maersk USA infringed its patents by an "offer-of-sale" or by the "sale" of an infringing item. The Court concluded that Transocean's evidence failed to prove that Maersk USA made, used, sold or offered for sale, within the United States, the accused rig. Moreover, it is undisputed that the activities that formed the basis of Transocean's claim infringement occurred outside the United States. Hence, for that reason as well, no infringement by "offer-of-sale" or "sale" can be proved. See Roter Indus., Inc. v. Mitsubishi Corp., 215 F.3d 1246, 1251 (Fed. Cir. 2000). Transocean argues, nevertheless, that soon Maersk USA's rig will be located in United States Gulf waters. And, as a result, Maersk USA will, or cause another to engage in infringing conduct because, in truth, the rig sold to Statoil is a copy of its rig. Against Transocean's motion for summary

judgment of infringement, Maersk USA seeks a determination that its conduct in all respects is noninfringing.

#### 1. Contentions

Maersk USA argues that, even if its rig were used in United States waters, its conduct is nonbecause Transocean is infringing collaterally estopped from making an infringement argument, citing the judgment in Transocean GlobalSantaFe [No. H-03-2910 SDTX]. Transocean's claims of infringement are directed to apparatus claim 10 of the '851 patent, apparatus claims 10-13 and 30 of the '781 patent and apparatus claims 9, 10 and 17 of the '069 patent. Each of these claims contain essentially the same claim language limitations featuring two tubular advancing stations both capable of advancing tubulars to the seabed.

Transocean concedes that in *Transocean v. GlobalSantaFe* the identical claims of infringement were litigated against GlobalSantaFe and were resolved by the court in a permanent injunction requiring GlobalSantaFe to modify its rigs by adding a casing sleeve to one of the two drill centers. The effect of installing the casing sleeve was to resolve and avoid infringement. *See* [No. H-03-2910, Dkt. No. 248]. Nevertheless, Transocean argues here that Maersk USA's ability to modify its rig(s) in the future does not address Maersk USA's future ability to infringe.<sup>2</sup> Transocean also argues that Maersk USA's

<sup>&</sup>lt;sup>2</sup> The Court addressed past infringement in a previous Memorandum and Order [#142].

motivation in copying its rig was to gain a commercial advantage *i.e.*, agreeing to supply an infringing dual activity rig, and after obtaining the contract, modifying the rig. Hence, the modifications made to the rig by Maersk USA should be considered irrelevant as to whether its rig is capable now or in the future of being used in an infringing manner.

#### 2. Analysis — Non-Infringement

In the Court's view, Maersk USA's claim of collateral estoppel or issue preclusion carries the day Transocean's claims of present or future infringement. The undisputed evidence shows that the identical issues were actually litigated by GlobalSantaFe, Transocean against and resolution of those issues was a necessary part of the judgment. See Next Level Commc'ns LP. v. DSC Commc'ns Corp., 179 F.3d 244, 250 (5th Cir. 1999). Hence, collateral estoppel applies. On the other hand, the essential feature of Transocean's invention is that the second or auxiliary drill center is capable of extending tubulars to the seabed. In Transocean's prior litigation it conceded that the structural modifications effected by the addition of the casing sleeve avoided infringement of Transocean's apparatus claims, both at that time and in the future. Maersk USA attached a similar casing sleeve to its rig after learning of the outcome of Transocean/ GlobalSantaFe litigation. In the Court's view, this modification was sufficient to avoid infringement of each of Transocean's apparatus claims.

Therefore, for the reasons stated herein and those stated in its previous Memorandum and Order (Inst. No. 142), the Court concludes that there is no disputed fact issue that Transocean's apparatus claims are not infringed by Maersk USA due to collateral estoppel. Hence, summary judgment is appropriate.

#### C. Anticipation and Obviousness

#### 1. Parties' Contentions

In a second motion for summary judgment, Maersk USA seeks to establish invalidity of Transocean's '851, '781, '071 and '069 patents as they disclose an offshore drilling structure with "two tubular advancing stations" based on anticipation and obviousness. Transocean has withdrawn its method claims from consideration.<sup>3</sup> Therefore, the Court will not address infringement based on the method(s) described in the claim language. Hence, the discussion will focus on the contentions of the parties as they relate to the apparatus claims.

<sup>&</sup>lt;sup>3</sup> See [Transcript of Summary Judgment Arguments, April 23, 2009, at page 68, Lines 1-4. The Court is of the opinion, however, that summary judgment concerning Transocean's apparatus claims based on collateral estoppel renders moot Transocean's method claim contentions. Once the casing sleeve is added, Transocean's method claims fall squarely into the prior art inventions and no longer have efficacy. Moreso, the Heerema patent discloses each of the methods described in Transocean's claim 23 of the '071 patent and claims 9 and 10 of the '069 patent. The Heerema patent addresses problems associated with a single well, simultaneously running a blowout preventer and riser to the seabed up to 90% of the final riser string length.

Maersk USA contends, by its motion, that Transocean's apparatus claims are invalid in light of the prior art. Specific reference is made to the GB Horn, the Lund, the Williford and the Heerema patents. In addition, Maersk USA contends that each of Transocean's method claims is taught or rendered obvious by the Heerema patent reference disclosed in the Heerema patent. Again, the Court will address only Maersk USA's apparatus claim assertions based on obviousness and anticipation.

#### 2. Status of Prior Art and Record

Transocean concedes that the GB Horn, the Lund, the Williford and the Heerema patents and references, together, are capable conducting simultaneous auxiliary operations on one well. Moreover, Transocean admits that its patent claims contain, in large measure, the same structural elements as described in the prior arts. However, it claims that its innovation is in the combination of all the previous timesavings designs into a single design. Bearing on this discussion is the testimony of Inventor Scott concerning the prior art, which testimony is instructive. During his testimony concerning the invention of the '851 patent, Inventor Scott, admitted the following:

(a) the GB Horn application reveals two tubular advancing stations capable of advancing tubulars to the seabed. As well, it discloses two drawworks for raising and lowering tubulars to the seabed, and is capable of working simultaneously from two drill centers on a single well. It discloses a derrick

for supporting drilling operations through a drilling deck, capable of operating auxiliary to the drilling operations. A rotary table is also disclosed capable of advancing tubular members to the seabed. And, a second rotary table capable also of advancing tubular members to the seabed. Like Transocean's invention, the GB Horn is capable of advancing a second drill string through the drilling deck to the seabed. The invention also claims to drill a well faster and more efficiently and, therefore, located its first and second places for the storage of drilling pipe adjacent to the tubular advancing stations. Therefore, Scott testified that had the GB Horn disclosed the ability to transfer tubulars from one station to the other, the Transocean invention would be, "in part," with disclosed. And. 15 years improvements in the technology, the GB Horn would have included top drives instead Kellys and would have included automated pipe handling instead of manual pipe handling;

(b) the GB Horn, reveals transferring equipment for advancing tubulars from one advancing station to the other. And, except for automated pipe handling to transfer tubulars from one advancing station to the other, ... [the GB Horn describes] essentially Transocean's invention; and,

(c) Transocean's innovation is not the many parts that admittedly constitute the makeup of prior art, but the combination of those parts in a new configuration that results in timesavings that did not exist in the previous separate designs. Hence, Transocean admits that it did not invent a single piece of equipment contained in its invention.

Scott also conceded that the Williford discloses a "dual activity" rig. The Williford patent was issued by the Patent Office in 1989, eleven (11) years prior to the issuance of the Transocean's '851 patent. Scott admitted that the Williford includes two derricks on a single platform, both capable of advancing tubular strings to the seabed. Like the GB Horn, the Williford discloses a twin driller arrangement. With work stations. the drillers permit workstation to assist in the operations of the other, equipment particularly subsea manipulation auxiliary to the drilling operations.

Transocean was also familiar with the Lund '439 patent that was issued by the United States Patent Office. Inventor Scott does not dispute the following facts concerning the Lund:

- (a) the Lund patent discloses two stations within a derrick. The derrick is located above a drilling deck that extends over an opening in the drilling deck;
- (b) the Lund rig consists of two hoists, one positioned above a tubular advancing station while the other is positioned above a tubular

assembly station. While the tubular assembly station is building stands of pipe, drilling operations are being simultaneously conducted. Both the drilling and preparation openings are associated with a drawworks and are capable of advancing and hoisting tubulars auxiliary to drilling operations;

- a drawworks is disclosed in the Lund. It is connected to a "traveling block" that is located inside the derrick. Like earlier drawworks supported inventions. the drilling operations on a single well through the drilling deck. Stands of pipe could be assembled simultaneous to drilling auxiliary operations. Hence, drilling are conducted while operations drilling operations are ongoing. The stands of pipe are stored in setback areas to be advanced at the appropriate time. The stands of pipe are transferred between the tubular assembly station and the tubular advancing station along track-mounted transporting a mechanism; and,
- (d) the Lund also discloses a tubular handling and transporting mechanism that moves tubulars between the drilling opening and the preparation opening. As well, there is a second tubular handling apparatus that operates on a rail. It facilitates auxiliary drilling operations. Transocean admits that it has the same "above and below" pipe handling rail mounted pipe handler as the

Lund. What Transocean claims as a distinguishing feature in its inventions is "the position of the rail [along] an east-west divide."

Finally, there is the Heerema patent application, published on January 31, 1996, that discloses a method for shortening the time to drill a well. Earlier in 1994, a paper was published presenting the concept(s) later disclosed in the Heerema patent. In this regard, Transocean does not dispute that the Heerema patent discloses the practice of making up tubulars [sub-assemblies] at a separate station away from the "critical path" of drilling and simultaneously with drilling operations. Nor does Transocean dispute that the sub-assembly station is capable of assembling bottom-hole assemblies, casing subassemblies, and capable of extending a BOP and riser string to 90% of its desired final length. As well, Transocean recognizes that the invention claims that the build-strings [assemblies] may be "hung off the stern of the vessel ..." and extended in proximity to the seabed, further, in order to substantially reduce drilling time. Finally, Transocean admits that a BOP stack and riser must reach the seabed, and does not dispute that the Heerema invention uses its crane to send and retrieve tubulars to the seabed, including the BOP.

#### 3. Law of Obviousness and Anticipation

"Section 103 forbids issuance of a patent when the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious, at the time the invention was made, to a person of ordinary skill in the art to which said subject matter pertains." See 35 U.S.C. § 102 and 103; see also KSR International Co. v. Teleflex, Inc., 550 U.S. 398, 127 S. Ct. 1727, 1734 (2007). The analysis that a court undertakes in making a § 103 assessment requires a court to determine: (a) the differences between the prior art and the claims at issue; and (b) the level of ordinary skill required in the pertinent art. Id. (citing to Graham v. John Deere Co. of Kansas City, 383 U.S. 1 (1966)). See also, Cross Medical Products, Inc. v. Medtronic Sofamor Danek, Inc., 424 F.3d 1293, 1321 (Fed. Cir. 2005).

#### 4. Analysis and Discussion

Maersk USA argues that the prior art teaches that one of ordinary skill in the art would combine the teachings of the GB Horn and the Lund patents if the objective or motivation is to increase the efficiency of the drilling process. Hence, it argues, the structure of the Transocean patents is simply a combination of the dual-activity rig from the GB Horn patent with the tubular transfer equipment from the Lund patent.

Generally, the Transocean apparatus claims require a drilling assembly with two tubular advancing stations and the necessary equipment to transfer tubulars between the tubular advancing stations. Transocean admits that each of its claim elements, except the means to transfer tubulars, is disclosed in the GB Horn and the Lund patents. A comparison of Transocean's claims to those of the GB

Horn and the Lund patents informs.<sup>4</sup> Disclosed in the prior art is a drilling deck that supports drilling operations to the seabed. The structure reveals two fully equipped and functional tubular advancing stations, each of which is capable of lowering and raising tubulars and rotating the drill string. Hence, the tubular advancing stations in the prior art are capable of, simultaneously, supporting drilling and auxiliary operations.

The Lund patent also discloses "rail-mounted" tubular transfer equipment package. The equipment is designed to transport tubulars between the drilling preparation openings. The drilling preparation openings are used to advance tubulars to the drawworks that hoists and advance tubulars. Transocean does not deny that the Lund patent discloses equipment for pipe handling equivalent to its apparatus claims. In addition, Transocean admits [the inventor of the '851 patent], as between the GB Horn and the '851 patents, the GB Horn is missing only automated pipe handling capability. And, if one were to add automated pipe handlers as transferring equipment, the GB Horn patent would be the same or equivalent of the '851 patent. See [Scott Deposition at pp. 212-213].

The Court determines that at the time of the application of the '851 patent, Transocean was aware of pipe handling systems that could be used to

<sup>&</sup>lt;sup>4</sup> The Court followed the model presented by Maersk USA in its Memorandum in addressing Maersk USA's motion for summary judgment. [See Instrument No. 88].

transfer tubulars. In fact, Transocean admits that it did not invent any of the equipment that constitutes the structure or protocol for its several patents. And, it admits that the GB Horn patent, as disclosed, is capable of working simultaneous from two drilling centers on a single well. What Transocean claims as its invention is "a design that could do things that were never done before, if you combine all of the timesavings of all of the previous designs into one different and new design." The Court is convinced that the combination of all previous timesavers by Transocean from prior art does not constitute an invention. To be an invention, the combining of the timesavings element would need to be expressed in a manner that distinguishes, mathematically scientifically, the time saved by comparing Transocean rig from the time saved using other rigs that also claim timesaving features.

When determining the patentability of a claimed invention that combines known elements, "the question is whether there is something in the prior art as a whole to suggest the desirability . . . of making the combination". See In re Rouffet, 149 F.3d 1350, 1356 (Fed. Cir. 1998). Clearly, the reason or motivation to combine the prior art is found in the prior art. For example, the use of automated pipe handling equipment recognized as early as 1981. See [George Boyadjieff, Trends in Rig-Floor Technology, Oil and Gas Journal, 1981]. Top drive systems were also commonplace by 1992; and, remote-controlled pipe handling equipment had become mandatory in Norway as early as 1979 [Ex. 5, Translated Oslo

Dec.]. Finally, pipe handling equipment was mounted on rails so that tubulars could travel to the rotary table. Hence, automation was the order of things in the industry, both as a time-saver, for efficiency and for safety at the time of Transocean's invention. The timesaver problems that the '851 patent addresses are identified by the inventors of the GB Horn and the Lund patents as the object of their invention. Except for distinctions in the method by which those problems were addressed, the combination of the GB Horn and Lund patents teach claim 10 of the '851 patent.

The Court is of the opinion that the state of the industry would lead inevitably to utilization of two drilling centers working simultaneously on a single well. The prior art supports the conclusion that the state of the industry recognized the need for timesaver innovations before May 3, 1996. Hence, the idea parallel operations, performing procedures at the same time to shorten the drilling time for a well, was addressed before the Patent Office issued Transocean's patents. The industry's response has been automation as seen in combining top-drives with advanced technology pipe handling systems. Hence, a person skilled in the art would be motivated to combine the teachings of the two, more so, to improve drilling efficiency. See Tec. Air, Inc. v. Denso Mfg. Michigan, Inc., 192 F.3d 1353, 1359-60 (Fed. Cir. 1999); see also Ruiz v. A. B. Chance Co. 234 F.3d 654, 665 (Fed. Cir. 2000) (citing to *Pro-Mold &* Tool Co. v. Great Lakes Plastics, Inc., 75 F.3d 1568, 1572). Hence, combining known equipment with no measurable change in their respective functions merely withdraws what is already known into the field of monopoly and, thereby, diminishes the resources available to skillful men. *KSR*, 127 S.Ct. at 1739. Therefore, an undefined, unspecified timesaving event is not an invention.

#### VI. CONCLUSION

The Court concludes that the combination of known equipment, as embodied in Transocean's, claim 10 of its '851, claims 10-13 and 30 of the '781 patent and claim 17 of the '069 patent, is obvious. The Court is persuaded that the combination of the GB Horn, the Lund, the Williford and the Heerema patents with other teachings toward automation, entitles Maersk USA to a judgment as a matter of law that Transocean's apparatus claims are invalid as anticipated and obvious. Therefore, the Court DENIES Transocean's motion for summary judgment for infringement and GRANTS Maersk USA's motions for summary judgment for non-infringement. The Court also GRANTS Maersk USA's motions for summary judgment for lack of enablement and lack of validity based on anticipation and obviousness.

It is so Ordered.

SIGNED at Houston, Texas this 28th day of July, 2009.

Kenneth M. Hoyt United States District Judge

# Appendix H

# UNITED STATES DISTRICT COURT SOUTHERN DISTRICT OF TEXAS HOUSTON DIVISION

Civil Action No. H-07-2392

TRANSOCEAN OFFSHORE DEEPWATER DRILLING, INC.,

Plaintiff,

v.

MAERSK CONTRACTORS USA INC.,

Defendant.

Filed: June 30, 2011

MEMORANDUM AND OPINION

#### I. INTRODUCTION

Before the Court are the various post-trial motions and briefs of the plaintiff, Transocean Offshore Deepwater Drilling, Inc., ["Transocean"] and the defendant Maersk Contractors USA, Inc., ["Maersk"]. Transocean has pending its: (a) motion for judgment as a matter of law on indefiniteness [Doc. No. 252]; (b) motion for judgment as a matter of law on enablement [Doc. No. 253]; (c) motion for judgment as a matter of law of non-infringement [Doc. No. 254]; (d) motion for judgment as a matter of

law on obviousness [Doc. No. 257]; and (e) motion for entry of a final judgment [Doc. No. 284].

Maersk has pending its: (a) motion for judgment as a matter of law concerning noninfringement and obviousness [Doc. Nos. 247]; (b) motion to enter proposed conclusions of law on enablement [Doc. No. 277]; (c) motion to enter proposed conclusions of law on obviousness [Doc. No. 279]; and (d) motion for judgment as a matter of law for failure to prove damages [Doc. No. 246]. Transocean and Maersk have each filed responses and/or replies addressing the others motions. The Court has reviewed the motions, responses and replies and determines that a judgment as a matter of law, pursuant to Federal Rules of Civil Procedure, Rule 50(a) should be entered in behalf of Maersk.

#### II. FACTUAL SUMMARY — JURY VERDICT

#### A. Factual Background<sup>1</sup>

The underlying factual history shows that the United States Patent Trademark Office ("PTO") issued United States Patent Nos. 6,047,781 ("the '781 patent") and 6,068,069 ("the '069 Patent") to Transocean on or about July 11, 2000. The invention is described as Multi-Activity Offshore Exploration and/or Development Drilling Method and Apparatus. Transocean's patents generally presents an offshore drilling assembly that includes a superstructure or derrick, a first and second tubular advancing station,

<sup>&</sup>lt;sup>1</sup> The background facts are as stated by the Court in its Memorandum Opinion, dated May 4, 2009, [Doc. No. 142].

and an assembly adjacent to the stations capable of transferring tubular assemblies between the stations allowing simultaneous drilling and auxiliary activities for a single well. As a drilling contractor, Transocean provides drilling rigs to oil companies with the pledge that its invention saves drilling time through the cooperation of the two drilling stations under a single derrick.

On May 27, 2005, A.P. Moller-Maersk A/S negotiated and contracted with Koppel FELS Limited to build a DSS-21, an Ultra Deepwater Development Semisubmersible drilling rig. Maersk A/S is a Denmark corporation and the parent ofdefendant Maersk. Maersk entered into a contract on November 22, 2006, with Statoil Gulf of Mexico, LLC to utilize the DSS-21 to fulfill its drilling obligations pursuant to the contract. And, although the contract between Maersk A/S and Keppel FELS was between two foreign corporations, Transocean contends that Maersk's parent corporation, Maersk A/S acted in behalf of Maersk, permitting Maersk to contract with Statoil to supply the DSS-21 to Statoil which rig infringes its patents.

At the time that Maersk contracted with Statoil, Transocean was involved in a suit with Global SantaFe Drilling Co., (GSF), that involved similar allegations of apparatus infringement of the same or similar claims as those asserted in the patents-insuit. A permanent injunction was granted in behalf of Transocean against GSF in January 2007, enjoining GSF's use of its Development Drillers I and II to

reach seabed and for drilling or auxiliary drilling operations.

In the case at bar, the parties acknowledge that the contract between Maersk and Statoil was executed before the rig was completed. Likewise, the parties agree that the terms of the contract permitted Maersk to modify the rig as necessary to avoid infringement of Transocean's patents-in-suit. And, finally, the parties do not dispute that the prior art discloses rigs that are capable of conducting dual operations simultaneously on more than one well.

# B. Jury Verdict Summary

This dispute was submitted to a jury over several days. On April 21, 2011, the jury returned a verdict in behalf of Transocean based on interrogatories that inquired whether Maersk's utilization of its drilling rig, pursuant to the contract with Statoil infringed Transocean's '069 and '781 patents, in particular, claim 17 of the '069 patent and claim 13 of the '781 patent. It was Maersk's position that there is no infringement due to "obviousness" and "lack of enablement." And, at the conclusion of trial, Maersk reiterated in its position, and further claimed that Transocean failed to prove the proper measure of damages, assuming infringement.

Special interrogatories were submitted to the jury. The jury answered "Yes" to the question whether Maersk had infringed Transocean's '069 and '781 patents. The jury also answered "No", finding that Maersk had failed to prove that the '069 and '781 patents were obvious. In further answers on the

issue of nonobviousness, the jury found in behalf of Transocean on each of the nonobvious secondary considerations, and against Maersk on factors indicating obviousness. The jury also found against Maersk on the issue of whether Transocean's patents were invalid due to lack of enablement. Finally, the jury awarded Transocean \$15,000,000 in damages based on testimony that the sum constituted a reasonable license fee. The Court now turns to the issues raised.

#### III. OBVIOUSNESS — A QUESTION OF LAW

At the outset, the Court incorporates by reference its Memoranda first entered in this case in May and July of 2009. See [Document Nos. 142 and 148]. In light of this incorporation by reference, the Court will not directly address resolved matters except to (a) focus on the issue(s) raised by the Federal Circuit in its remand and (b) resolve any issue(s) that must be resolved in order to reconcile the jury's verdict and the Court's prior legal conclusions. To the extent that any party contends that the rulings made here are in conflict with previous written or oral rulings, the prior rulings are withdrawn.

#### A. Prima Facie Obviousness

The Federal Circuit expressed the opinion that the combination of the GB Horn '836A and Lund '439 patents teach all the limitations of claim 17 of Transocean's '069 patent and claim 13 of Transocean's '781. However, it opined that the references alone were insufficient, as a matter of law,

to establish obviousness because Transocean had presented "significant objective evidence of nonobviousness." The Federal Circuit pointed to Transocean's evidence concerning industry skepticism, industry praise for the dual string rig, commercial success, and copying by others including A.P. Moller-Maersk/A/S.

Obviousness is a question of law based on underlying questions of fact. See Power-One, Inc. v. Artesyn Techs., Inc., 599 F.3d 1343, 1351 (Fed. Cir. 2010); Agrizap, Inc. v. Woodstream Corp., 520 F.3d 1337, 1343 (Fed. Cir. 2008). It is the Court's opinion, even in light of the jury's findings concerning the that secondary considerations. Transocean's invention merely combines familiar and known elements that do "no more than yield predictable results." Agrizap, 520 F.3d at 1344. The Court relies on its reasoning as set forth in its Memorandum and Opinion, dated July 28, 2009, (Document No. 148) and will not restate that reasoning here. However, the Court will address the secondary considerations that the jury found tends toward nonobviousness. It is the Court's opinion that the evidence presented is insufficient, as a matter of law, to overcome Maersk prima facie case of obviousness. Therefore, the Court disregards the jury's findings for the reasons stated.

First, the Court is of the opinion that the evidence fails to support the jury's finding that Transocean's dual string rig experienced "commercial success." The evidence shows that at the time Transocean's patent issued, the drilling industry was fully aware of the possibilities of a dual string rig as

prior art. In fact, it had been well established as part of the current rig landscape since 1990. However, the industry had determined that there was no great demand for the dual-string technology in shallow water drilling. Only when rig use in deep-waters increased around 2000 did interest in the capabilities of Transocean's new dual string rig attract attention. By this time, however, Transocean's technology had been rejected in Europe as failing to invent something new. The European patenting authority found that there was no significant difference between the prior art [Lund and Horn] and Transocean's claimed invention. It found not only did Lund and Horn teach all of the limitations of Transocean's '069 and '781 patents, but that Horn also presented the logic for combining the prior art in its reference.

Hence, this Court concludes that the evidence is insufficient and fails to support the jury's findings of commercial success, in light of the prior art. Further, the Court holds that in light of the fact that Transocean's sale of its technology is due primarily to various litigation, those sales do not support the argument for commercial success as the sales are not a result of a free market. *See EWP Corp. v. Reliance Universal Inc.*, 755 F.2d 898, 907-08 (Fed. Cir. 1985).

Likewise, the evidence fails to establish a "long felt but unresolved," need for dual string technology. That is what the Lund and Horn patents accomplished. Both sought, as did Transocean, to increase efficiency by multitasking. Moreover, until deepwater drilling commenced in earnest, there was no substantial appetite for dual string technology. Finally, the Court holds that dual string technology is not Transocean's invention. Transocean merely claims that its second string is capable of extending to the seabed and that this use was a new idea.

The evidence also fails to support Transocean's claim and the jury's finding that there existed "industry skepticism" about the use of dual string technology. It may be argued that a few in the market were skeptical; however, that issue was addressed in literature in 1990 or earlier; several years before Transocean filed its application with the Patent and Trademark Office in 1996.

Finally, there is no evidence of "unexpected and superior results" or "industry praise" associated with the use of the dual string technology. While the claimed invention speaks about these factors, there is no statistical data or testimony supporting the jury's findings that these elements have actually manifested in the industry apart from Transocean's litigation. Hence, Transocean's time-saving claims are unsupported by independent data beyond the representation found in Transocean's patents and promotional literature.

Therefore, the Court concludes that the evidence offered in support of secondary considerations, regarding nonobviousness is unsupported by data or other objective evidence. Hence, the jury's findings concerning nonobviousness secondary considerations do not overcome the Court's holding of *prima facie* obviousness. *See Leapfrog Enters, Inc. v. Fisher-Price, Inc.*, 485 F.3d 1157, 1162 (Fed. Cir. 2007). As well,

the evidence failed to establish a nexus to the claimed invention. For example, there is no evidence that Transocean's claimed success rested in the features of the claimed invention. Nor is there evidence that the commercial leases obtained were associated with the features of claimed invention. Hence, the subject matter as a whole would have been obvious, and was, in fact, obvious in 1996 to a person of ordinary skill in the art.<sup>2</sup>

#### B. Lack of Enablement

The jury determined that Maersk had failed to prove that it [was] highly probable that claims 13 of the '781 and claim 17 of the '069 patents were invalid because they were not properly "enabled." Whether a claim is invalid for failure to meet the requirements of 35 U.S.C. § 112 is a question of law on which Maersk bears the burden of proof by clear and convincing evidence. See Dreamworks, LLC, 516 F.3d at 999. The Court addressed the issue of enablement in its previous Memorandum and Opinion. (See Doc. No. 148). After the testimony of witnesses, the Court concludes that no new evidence was presented that persuaded the Court that its summary judgment should be withdrawn. By this assertion, the Court is

<sup>&</sup>lt;sup>2</sup> The testimony of Transocean's witnesses shows that it took just two weeks for their inventors to combine the concepts of *Horn*, dual driller and *Lund*, pipe handler for the '069 and '781 claimed inventions. The difference between the subject matter sought to be patented by Transocean and the prior art were obvious at the time of the claimed invention and had been rejected in Europe as an invention. *See* 35 U.S.C. § 103(a); *see also Graham v. John Deere Co.*, 383 U.S. 1 (1966).

not shifting the burden of proof to Transocean, but holding that the evidence presented by Transocean fails to support the advisory findings of fact made by the jury, and fails to negate the summary judgment evidence. Therefore, the Court holds that a person skilled in the art would not be able to make and use the invention described without undue experimentation. See Magnetic Separation Sys., Inc., 166 F.3d 1190, 1995-96 (Fed. Cir. 1999); See also Liebel-Flarsheim v. Medrad, Inc., 481 F.3d 1371, 1379 (Fed. Cir. 2007).<sup>3</sup>

Alternatively, the Court is of the opinion that the enablement protocol was so obvious that it failed to invent or enable the claimed invention. The fact that Transocean expended enormous time creating a mechanical device that would assemble, transfer and/or store tubulars, failed to add anything to the claimed invention. The prior history teaches that a tubular system would be required for any dual string driller. Transocean's extremely sophisticated mechanical devices, therefore, added nothing to the claimed invention and Transocean admits such. Thus, the inclusion of known equipment that would be necessary for a dual string driller added nothing to the claimed invention. And, to the extent that

<sup>&</sup>lt;sup>3</sup> While Transocean claims as part of its invention "transferring equipment" technology, the invention fails to disclose the pipe handling equipment so that one skilled in the art might readily know how to make the transfers happen. *See Sitrick v. Dreamworks, LLC*, 516 F.3d 993, 999 (Fed. Cir. 2008). A patent specification must contain an enabling disclosure for the claimed invention. *Id.* 

Transocean now claims that device as part of its invention, the specifications of the '069 and '781 patents fail to enable it.

#### C. Lack of Infringement

Transocean asserts that Maersk infringed its '069 and '781 patents by "sale" or "offer for sale" of its drilling rig, the DSS-21. The evidence shows that Maersk contracted to perform a drilling service for Statoil intending to use its parent company's yet to be constructed DSS-21. It is undisputed that the final design of the DSS-21 hinged on the outcome of pending litigation in this District. See Transocean Offshore Deepwater Drilling, Inc. v. Global Santa Fe Corp., No. H-03-2910, 2006 WL 3227315 (Nov. 6, 2006 S.D. Tex). Therefore, the contract for the drilling services forecasted that the DSS-21 would be appropriately modified to bring it into compliance with the law before it became operational. In fact, at the time of the completion of the DSS-21, the rig had been modified to avoid a claim of infringement. The concludes that because the contract anticipated that resolution of the Global Santa Fe litigation would be determinative of the final design, no rig was offered for sale, or sold in violation of 35 U.S.C. § 271(a).

The evidence also fails to show that a sale or offer for sale of the DSS-21 was ever made. (See Doc. No. 142). The contract between Statoil and Maersk called for "drilling services" by Maersk on Statoil's site. The Court is of the opinion that, while using an infringing device to perform a drilling agreement may constitute a violation of § 271(a), that claim was

not made by Transocean. Moreover, the evidence establishes that, no such use occurred. Therefore, as a matter of law, the contract between Statoil and Maersk did not constitute a sale or offer for sale of a rig that infringed either the '069 or '781 patents.

#### IV. THE PROPER MEASURE OF DAMAGES

Transocean presented evidence that the proper measure of damages for Maersk's infringement was an upfront lump-sum royalty of \$15,000,000. In addition, Transocean seeks to recover prejudgment interest of \$8,733,211, based on the jury's award of interest at a rate of 10% per year, compounded daily from November 22, 2006. Transocean relies on 35 U.S.C. § 284 as the basis for its claim for an upfront lump-sum royalty. Generally § 284(1) provides that the minimum amount of damages that a patentee may recover for infringement is a reasonable royalty. In response to Transocean's claim for a reasonable royalty, Maersk asserts that: (a) Transocean suffered no harm due to an infringing act; (b) Transocean failed to offer evidence that supports the jury's damage award; and (c) Transocean failed to comply with the notice requirements of 35 U.S.C. § 287.

The Court is of the opinion that Transocean is not entitled to an award of damages for the reasons previously stated concerning obviousness, lack of enablement, and lack of infringement. The Court is also of the opinion that because there was no contract to "sell" or an "offer to sell" the DSS-21, there is no basis for a claim of damages. In order for Transocean to recover damages based on infringement, it must establish an injury due to acts that occurred in the

United States. See NTP, Inc. v. Research in Motion Ltd., 418 F.3d 1282, 1313 (Fed. Cir. 2005). Conduct outside the United States is irrelevant and does not confer rights under the laws of the United States. See Rotec Indus., Inc. v. Mitsubishi Corp., 215 F.3d 1246, 1251 (Fed. Cir. 2000). Hence, Maersk was free to enter into a contract with Statoil to use the DSS-21 in any configuration outside the United States and its territories. See Transocean Offshore Deepwater Drilling, Inc. v. Stena Drilling Ltd., No. H-07-2797, 2008 WL 2065808 (May 13, 2008 S.D. Tex.)

A review of the contract between Maersk and Statoil and the finished product, the DSS-21, reveals that Maersk did not make, use, offer to sell or sell a patented invention in the United States or elsewhere. An offer to enter into a contract that includes language that avoids infringement cannot constitute an infringing act. Therefore, no infringing act occurred upon which damages might be assessed. Moreover, the evidence also shows that the services that were to be provided to Statoil did not require the use of an infringing rig. It is undisputed that a modified non-infringing rig was delivered to Statoil's site for drilling.

Assuming, however, that simply entering into a contract that permits modification of an otherwise infringing rig constitutes infringement, an award of a "reasonable royalty" may be unconscionable because the harm may be de minimis. See Holbrook, T. Liability for the 'Threat of Sale': Assessing Patent Infringement for Offering to Sell an Invention and Implications for the On-Sale Patentability Bars and

other Forms of Infringement, 43 Santa Clara L. Rev. 751, 789-792 (2003). The true question is what is the economic impact, if any, to Transocean or the market under the facts of this case?

The evidence shows that the alleged "infringer" did not practice the claimed invention in the United States. And, there is no evidence that Transocean was required to lower its price on its dual string rig to compete with Maersk for the Statoil contract. In fact, the evidence shows that Transocean did not bid its dual string rig but, instead, submitted a bid based on its single string rigs. It appears, therefore, that in this instance, "price erosion" may be the proper measure of damages. *Id.* at 791-92. Nevertheless, there is no evidence of price erosion.

The Court is of the opinion that a "reasonable royalty" is an improper measure of damages because there is no evidence of actual harm. Equally, there is no evidence that Transocean lost an opportunity to sell or use its patented invention when it submitted its bid to Statoil. In fact, the evidence shows that construction on the patented invention had not been completed.

#### V. CONCLUSION

It is, therefore, ORDERED that Transocean shall take nothing by its suit against Maersk and that a Final Judgment shall be entered, accordingly.

SIGNED at Houston, Texas this 30th day of June, 2011.

Kenneth M. Hoyt United States District Judge

# Appendix I

# RELEVANT EXCERPTS FROM MARINE DRILLING CONTRACT BETWEEN STATOIL GULF OF MEXICO LLC AND MAERSK CONTRACTORS USA INC.

Contract No. SAP4600008188

\* \* \*

#### CONDITIONS OF CONTRACT

Date: 22.11.2006

This Contract is entered into on the 22nd of November 2006 ("Date of Contract") between Company on the one part and Contractor on the other part (individually, a "Party" and, collectively, the "Parties").

The Parties hereto agree as follows:

#### PART I GENERAL PROVISIONS

#### Art. 1 Definitions

\* \* \*

i. Company means Statoil Gulf of Mexico LLC, having its registered address at 2101 Citywest Boulevard, Houston, Texas.

\* \* \*

o. Contractor means Maersk Contractors
USA Inc., having its registered address at
1209 Orange Street, Room 123,
Wilmington, DE 19801

\* \* \*

q. Daily Rates means the daily rates referred to in Exhibit B, item 2 and item 3.

\* \* \*

- t. Drilling Unit means the deep water semi submersible drilling unit currently under construction at Keppel FELS Limited in Singapore and identified for construction purposes as Hull No. B280 and all appurtenant items and equipment as detailed in the Contract and all other equipment, materials, replacement and spare parts thereon of whatsoever nature provided by Contractor and used in connection with the Work with the exception of any Free Placement Equipment.
- u. Drilling Services means the services listed in item 2 of Exhibit A.

\* \* \*

- ee. Operating Area means US Gulf of Mexico (excluding United States state waters).
- ff. Operating Rate (OR) means the rate described as same in Exhibit B, item 3.1.

\* \* \*

rr. Work means the work Contractor shall perform or cause to be performed in accordance with the Contract.

\* \* \*

#### Art. 2 Contract Documents — Interpretation

Art. 2.1 The Contract consists of these Conditions of Contract and the following Exhibits

Exhibit A – Scope of Work

Exhibit B – Compensation

Exhibit C – Contract Schedule

Exhibit D – Administration Requirements

Exhibit E – Functional and Technical Requirements

Exhibit F – Patents

Exhibit G – Company Provided Items and Services

Exhibit H – Subcontractors

Exhibit I – Not Used

Exhibit J – Not Used

Exhibit K – Not Used

Exhibit L – Not Used

\* \* \*

# PART II PERFORMANCE OF THE WORK

# Art. 4 Obligations of the Contractor — Main Rules

Art. 4.1 Contractor shall from the Actual Commencement Date to the Completion Date perform the Drilling Services as set forth in Exhibit A item 2. Furthermore, Contractor shall meet all of its other obligations of the Contract from the Date of the Contract and until they have been fulfilled.

\* \* \*

The overall performance of the Work, and Art. 4.3 the management and direction of the Drilling Unit and Company Provided Equipment, personnel and Subcontractors shall be the sole responsibility Contractor. For the avoidance of doubt this provision shall not be construed so as to render Contractor responsible for the performance of the Work to the extent performance where such has prevented by the Company's failure to perform obligations under its the Contract.

\* \* \*

#### Art. 6 Personnel for the Work

Art. 6.1 together with Contractor its Subcontractors shall provide personnel in with Exhibit accordance personnel shall at all times be competent so as to ensure that the Work may be performed safely and efficiently. If in reasonable Company's opinion, personnel have not been provided, then Contractor shall provide, at its cost, replacement personnel. Such personnel shall be subject to Company's approval which shall not be unreasonably withheld or delayed.

\* \* \*

Art. 15.12 Company acknowledges that it has been made fully aware that Transocean Inc. ("Transocean") has alleged that the Drilling Unit may infringe Transocean's intellectual property rights.

Contractor shall Indemnify Company Group from and against any Claim resulting from infringement of patents or other intellectual property rights arising out of or in connection with the Work or Company's later operation of the Well. Nevertheless this shall not apply where such infringement results from Company Provided Equipment and Services.

Notwithstanding the foregoing of this Article 15.12, Company accepts that if intellectual property rights pertaining to Transocean's US patents as listed in Exhibit F and/or intellectual property rights deriving therefrom (the "Patents") owned from time to time by Third Parties are determined by judgment in a court of law or by any patent Authority to be infringed by the Drilling Unit and or its use or if the Drilling Unit or its use is enjoined by a court order the Drilling Unit and/or its use may be altered.

Furthermore, Company agrees that Contractor may make such alterations in Contractor's discretion in view of court or administrative determinations throughout the World that favour the validity or infringement arguments of Transocean as relate to the Patents. The cost of such alterations shall be borne solely by Contractor: whereas the time spent performing such alterations shall be bv Company compensated Operating Rate if such alterations have to be done outside Yard or to the extent such directly alterations postpone Actual Commencement Date.

Contractor shall not be responsible for the effect that such alteration may have on the performance of the Work. Any consequence hereof, including diminished efficiency or increased cost shall be the sole responsibility of Company, subject only to Contractor's reasonable efforts, in cooperation with Company, to mitigate adverse consequences to the extent reasonably practical. Contractor shall, irrespective of any adverse such impact on the Drilling Unit or the Work be entitled to and Company agrees to pay Operating Rate. For the avoidance of doubt. Contractor shall not be under any the adjudicated obligation, despite infringement of the Patents to adjust the Operating Rate, obtain any license, make any settlement or to obtain permission to use the Drilling Unit in order that Company can carry out the Work.

# Art. 26 Governing Law

- will This Contract be construed. a. interpreted, enforced and litigated and the relations between the Parties determined in accordance with the General Maritime Laws of the United States of America, not including, however, any of its conflicts of law rules which would direct or refer to the laws of any other jurisdiction. If, for any reason, the General Maritime Laws of the United States of America is not applicable, then the Contract will be governed by the laws of the State of Texas, not including, however, any of its conflicts of law rules which would direct or refer to the laws of any other jurisdiction.
- b. The following Articles, when required by law, are incorporated in the Contract by reference as if fully set out:
  - (i) the Equal Opportunity Clause prescribed in 41 CFR 60-1.4.
  - (ii) the Affirmative Action Clause prescribed in 41 CFR 60-250.4 regarding veterans and veterans of the Vietnam era.
  - (iii) the Affirmative Action Clause for handicapped workers prescribed in 41 CFR 60-741.4.
  - (iv) the Certification of Compliance with Environmental Laws prescribed in 40 CFR 20.5.

\* \* \*

# Art. 28 Entire Agreement

Art. 28.1 The Contract constitutes the entire between the Parties and agreement supersedes existing previous oror collateral arrangements, representations, understandings, proposals. letters intent and undertakings including correspondence, negotiations, precontractual representations and communications between the Parties, in each case, whether oral or in writing.

\* \* \*

#### **EXHIBIT A**

#### SCOPE OF WORK

\* \* \*

#### 1. GENERAL

1.1 In this Exhibit A the words and expressions established as definitions and references in the Condition of Contract shall have the meaning as assigned to them therein. References to Articles herein shall be to Articles in the Conditions of Contract.

# 2. DRILLING SERVICES

2.1 Contractor shall perform the following drilling, completion and intervention work with the Drilling Unit:

- Drill production, injection, exploration and relief wells at sea depths from 1200 (in DP mode) to 10,000 feet, and with well depths up to 30,000 feet measured depth, including deviation drilling, deepening, branching or side tracking, respudding, perforation and killing of wells
- Batch drilling implying BOP jumping
- Complete, test and maintain HPHT wells
- Carrying out coiled tubing and wire line operations
- Perform Pull-in operation of Flow-lines and umbilicals
- Marine operations
- Completion and maintenance of sub-sea wells and templates
- Install and retrieve sub-sea templates and sub-sea equipment

\* \* \*

#### EXHIBIT B

#### COMPENSATION

\* \* \*

# 2. DAILY RATES PREAMBLES

#### 2.1 General

Further to the provisions of the General Preambles hereof, the Daily Rates contained in this section shall be applied in accordance with the principles detailed hereunder.

Without prejudice to item 2.4 below Contractor shall be paid the applicable Daily Rates, or where applicable portions thereof calculated pro rata to the nearest half hour based on a twenty-four (24) hour Day, from and including the Actual Commencement Date up to and including the time on the Completion Date.

Contractor shall not be entitled to any Daily Rates for the period up to the Actual Commencement Date. Contractor shall be paid the Daily Rates during the Acceptance Test of the Drilling Unit after arrival in the Operating Area as further described in Exhibits C and E unless and until such testing fail to confirm that the Drilling Unit conforms with agreed Contractual specifications and is out of operation/testing in which case Contractor shall not be entitled to any Daily Rate until Contractor has rectified the part of the Drilling Unit which was not in accordance with the contractual specifications and the Drilling Unit is back in operation/testing.

Furthermore it is understood and agreed that the Daily Rates payable hereunder shall be paid even in circumstances where the Drilling Unit is unable to meet the agreed functional requirements hereunder

due to reasons attributable to adjudicated infringements of the Patents (as described in Article 15.12) or similar intellectual property rights owned by Third Parties or made in view of court or administrative determinations throughout the World that favour the validity or infringement arguments of Third Parties as relate to similar intellectual property rights.

# 2.2 Operating Rate

The Operating Rate set out in item 3, shall be paid for the period referred to in item 2.1 above except for those Days, or parts thereof, for which the Standby Rate, Moving Rate, Suspension Rates, Force Majeure or Redrilling Rate shall be paid and for those Days for which No Payment of Rate shall apply pursuant to the items below.

# EXHIBIT F PATENTS

\* \* \*

\* \* \*

Patent number	Publication date	Application number	Priority	Status
AP 1278A ARIPO African Org.	20040519	AP 9701164A	US 9700537W 19970127 US 64241796A 19960503	Granted
AU 710636B2 Australia	19990923	AU 1827897A	US 9700537W 19970127 US 64241796A 19960503	Granted

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Patent number	Publication date	Application number	Priority	Status
BR 9706592A Brazil	19991228	BR 9706592A	US 9700537W 19970127 US 64241796A 19960503	Granted
CA 2225755C Canada	20020611	CA 2225755A	US 9700537W 19970127 US 64241796A 19960503	Granted
CN 1079483C China	20020220	CN 97190599A	US 64241796A 19960503	Granted
DE69718592D1 Germany	20030227	DE 69718592A	US 9700537W 19970127 US 64241796A 19960503	EP 836668 not validated in Germany
DK 836668T3 Denmark	20030512	DK 97903797T	US 9700537W 19970127 US 64241796A 19960503	EP 836668 validated in Denmark
EP 0836668B1 EPO-European Org.	20030122	EP 97903797A	US 9700537W 19970127 US 64241796A 19960503	Granted
EP 1148206A3 EPO-European Org.	20020227	EP 01114469A	EP 97903797A 19970127 US 64241796A 19960503	Deemed to be withdrawn
EP 1277913A3 EPO-European Org.	20050810	EP 02022449A	EP 97903797A 19970127 US 64241796A 19960503	Pending
ES 2191820T3 Spain	20030916	ES 97903797T	US 64241796A 19960503	EP 836668 validated in Spain
JP 3002545B2 Japan	20000124	JP 53989697A	US 9700537W 19970127 US 64241796A 19960503	Granted
KR 302149B South Korea	20011122	KR 98700012	-	Granted
MX 9800111A1 Mexico	19981101	MX 98111	?	Pending

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Patent number	Publication date	Application number	Priority	Status
NO 313207B1 Norway	20020826	NO 976037A	US 9700537W 19970127 US 64241796A 19960503	Granted
NO 20020181A Norway	19980302	NO 20020181A	NO 976037A 19971222 NO 20020181A 20020114 US 9700537W 19970127 US 64241796A 19960503	Pending
NO 20053630A Norway	19980302	NO 20053630A	US 9700537W 19970127 US 64241796A 19960503	Pending
NO 20053631A Norway	19980302	NO 20053631A	US 9700537W 19970127 US 64241796A 19960503	Pending
NO 20053632A Norway	19980302	NO 20053632A	US 9700537W 1997127 US 64241796A 19960503	Pending
NZ 329650A New Zealand	19990929	NZ 32965097A	US 9700537W 19970127 US 64241796A 19960503	Granted
OA 10649A OAPI African Org.	20010505	OA 70173A	US 64241796A 19960503	Granted
SG 51245 Singapore	20010724	9706031-3	US 64241796A 19960503	Granted
US 6047781A USA	20000411	US 5746698A	US 5746698A 19980409 US 64241796A 19960503	Granted
US 6056071A USA	20000502	US 29129399A	US 29129399A 19990414 US 64241796A 19960503	Granted

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Patent number	Publication date	Application number	Priority	Status
US 6068069A USA	20000530	US 29148399A	US 5746698A 19980409 US 29148399A 19990414 US 64241796A 19960503	Granted
US 6085851A USA	20000711	US 64241796A	US 64241796A 19960503	Granted
WO 9742393A1 WIPO International Org.	19971113	US 9700537W	US 64241796A 19960503	Completed

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