

UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF TEXAS
HOUSTON DIVISION

TRANSOCEAN OFFSHORE DEEPWATER	§	
DRILLING, INC.,	§	
	§	
Plaintiff,	§	
VS.	§	CIVIL ACTION NO. H-07-2392
	§	
MAERSK CONTRACTORS USA INC., <i>et al</i> ,	§	
	§	
Defendants.	§	

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)¹, and Maersk Contractors USA, Inc.'s ("Maersk USA") motion for summary judgment 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 invalidity of the several patents based on 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.

¹ 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.

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 . . . such as subsea equipment 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 pre-assembly 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 Heerema 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 well. 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 necessary to produce a commercially viable embodiment as opposed to the effort required to make and use the invention based on the patent disclosure; (c) the drilling industry expects to 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 our 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 contain 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 invention. It claims that the pipe handling 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. *See 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 equipment is programmed, the mechanical 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 of 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 non-infringing.

1. Contentions

Maersk USA argues that, even if its rig were used in United States waters, its conduct is non-infringing because Transocean is collaterally estopped from making an infringement argument, citing to the judgment in *Transocean v. 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.²

² The Court addressed past infringement in a previous Memorandum and Order [#142].

Transocean also argues that Maersk USA's 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 on Transocean's claims of present or future infringement. The undisputed evidence shows that the identical issues were actually litigated by Transocean against GlobalSantaFe, and that 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.³ 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.

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 related references, together, are capable of conducting simultaneous auxiliary operations on one well. Moreover, Transocean admits that its patent claims contain, in large measure, the same

³ 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. Moreover, 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.

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," disclosed. And, with 15 years of improvements in the technology, the GB Horn would have included top drives instead of 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 make-up 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 dual work stations, the drillers permit one workstation to assist in the operations of the other, particularly subsea equipment 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;
- (c) a drawworks is disclosed in the Lund. It is connected to a "traveling block" that is located inside the derrick. Like earlier inventions, the drawworks supported drilling operations on a single well through the drilling deck. Stands of pipe could be assembled simultaneous to drilling operations. Hence, auxiliary drilling operations are conducted while 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 a track-mounted transporting 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 sub-assemblies, 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.⁴ 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 and preparation openings. The drilling and 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

⁴ 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].

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 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 or scientifically, the time saved by comparing a 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 of parallel operations, performing two 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.

A handwritten signature in black ink, appearing to read "Kenneth M. Hoyt", written over a horizontal line.

Kenneth M. Hoyt
United States District Judge