US jury properly relied upon second considerations of non-obviousness to overcome prima facie obviousness


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Abstract

The US Court of Appeals for the Federal Circuit in addressing the role of secondary considerations of non-obviousness and the weight to be accorded to them found no error in the jury’s reliance on overwhelming evidence of secondary considerations of non-obviousness to conclude that a prima facie case of obviousness was overcome, thus saving the patent claim from invalidation.

Legal context

One of the most difficult questions in patent law is determining whether a patent claim is obvious. The extended saga in Transocean Offshore Deepwater Drilling, Inc v Maersk Drilling USA, Inc demonstrates just how difficult this determination can be. For the second time in the Transocean lawsuit, the US Court of Appeals for the Federal Circuit has addressed the role of secondary considerations of non-obviousness and the weight to be accorded to them. This time, the court found no error in the jury’s reliance on overwhelming evidence of secondary considerations of non-obviousness to conclude that a prima facie case of obviousness was overcome, thus saving the patent claim from invalidation.

Facts

The Transocean patents relate to offshore drilling techniques. In particular, the process of seafloor drilling requires that a drill be lowered to the seafloor, along with casings to line the wall of the drilled hole and a blowout preventer, which,
among other things, functions as a fail-safe device to prevent the ejection of fluid from the well. These components are lowered on a series of pipe sections known as a drill string, which must be assembled and disassembled to lower each component. Conventional rigs use a single advancing station for handling the drill string such that only one component is lowered at a time. The Transocean patents disclose a ‘dual-activity’ drilling rig having a single derrick with two advancing stations that enable faster lowering of components to the seafloor. Each of the two stations can assemble drill strings, improving efficiency, and drill strings can be transferred between the two stations.

In the initial proceedings, the district court relied upon two prior art references to establish a prima facie case of obviousness: Transocean Offshore Deepwater Drilling, Inc v Maersk Contrs USA Inc, No H-07-2392, 2009 US Dist LEXIS 130590, at *5–6 (SD Tex 28 July 2009) (‘Transocean I’). The first reference discloses a rig with a single derrick and two advancing stations, each of which can lower pipe sections to the seafloor. Although that reference does not teach the limitation of transferring drill strings between the two stations, this limitation is taught by the second reference. The district court found that there was a motivation to combine the teachings of the two references, as the prior art indicated an industry trend towards automation and efficiency. Based on the foregoing, the district court granted summary judgment that the claims were obvious.

On appeal, the Federal Circuit agreed that the combination of references established a prima facie case of obviousness and acknowledged that there was a motivation to combine the references, but it nonetheless found that summary judgment was inappropriate because the district court failed to consider the patentee’s objective evidence of non-obviousness, stating that ‘a district court must always consider any objective evidence of non-obviousness presented in a case’. The case was remanded to the district court for further proceedings.

On remand, despite the finding of the Court of Appeals, the jury revisited the prima facie case of obviousness and found that the defendant failed to prove that the claims were obvious. The jury specifically found that the prior art did not disclose every element of the claims and that several objective factors supported the non-obviousness of the claimed invention: Transocean Offshore Deepwater Drilling, Inc v Maersk Contrs USA, Inc, No H-07-2392, 2011 US Dist LEXIS 70774, at *6 (SD Tex 30 June 2011) (‘Transocean III’); see also Transocean IV, 2012 US App. LEXIS 23486, at *5–6.

On motion from defendant Maersk, however, the district court granted Judgment as a Matter of Law (JMOL), holding that the asserted claims were obvious, not enabled, and not infringed. See Transocean IV, at *6.

Transocean again appealed to the Federal Circuit.

Analysis
In Transocean IV, the court began its analysis by noting that it was improper to present to the jury the question of whether the prior art established a prima facie case of obviousness, since the court had already decided that issue in Transocean II. However, the Federal Circuit held that the district court did not err by allowing the jury to weigh the strength of the prima facie case together with the objective indicia of non-obviousness since ‘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:’ ‘citing Stratoflex, Inc v Aeroquip Corp, 713 F 2d 1530, 1538 (Fed Cir 1983). The Federal Circuit therefore instructed that ‘objective evidence must be “considered as part of all the evidence”’.  

The court then reviewed the record pertaining to the secondary indicia of non-obviousness to determine whether the jury’s findings on secondary indicia were supported by substantial evidence. The Federal Circuit found support with respect to the indicia as follows:  

1. Commercial success  

The patentee must show both commercial success and a nexus ‘between that success and the merits of the claimed invention’, citing Iron Grip Barbell Co v USA Sports, Inc, 392 F 3d 1317, 1324 (Fed Cir 2004). Here, Transocean demonstrated that its dual-activity rig fetched a higher market premium than the single-activity rigs, as seen from contracts for each type of rig. The court found that customer demand for the dual-activity rig also supported a finding of commercial success with a nexus to the dual-activity features.  

2. Industry praise and unexpected results  

Showing industry praise, Transocean cited reports from competitors and articles in trade publications, which recognized the efficiency savings of 20–40 per cent of its dual-activity rig and hailed it as ‘critical to [the] future’. Unexpected results were demonstrated by evidence showing doubt in the industry as to whether the technology would cut costs, leading to a study, which concluded that savings in cost and efficiency could actually be greater than Transocean claimed. Unexpected results are less likely to have been obvious to a person of skill in the art.  

3. Copying  

Testimony showed that Maersk knew about the Transocean technology when building its accused rig. Transocean also identified a Maersk document that stated the need to incorporate the efficiency improvements of Transocean's dual-activity rigs. That document ties Maersk's copying to the inventive dual-activity features, thus establishing the required nexus to the claimed invention.  

4. Industry scepticism
Testimony described how ‘industry experts and Transocean's customers were skeptical of the claimed dual-activity feature due to fears of clashing’, a situation where the two drill strings, which extend down toward the seafloor, can collide. Although other evidence indicated that there was no basis for such fears, the Federal Circuit nonetheless concluded that ‘a reasonable jury could accept Transocean's evidence of skepticism’. Industry scepticism over whether the claimed invention would even work properly lends support to a finding that the invention was not obvious to a person skilled in the art of drill rigs.

5. Licensing

Transocean provided evidence that others in the industry had licensed its technology. Maersk argued that those licences were only attributable to the threat of litigation and thus did not reflect the technology's value. Transocean countered that the licences exceeded litigation costs, which would only make sense if the technology has independent value. Transocean also showed that companies not threatened by litigation obtained licences. The Federal Circuit found this evidence sufficient for a reasonable jury to find that the licences reflect the value of the technology.

6. Long-felt but unsolved need

The Federal Circuit concluded that Transocean provided sufficient evidence that its dual-activity drilling satisfied a long-felt need, namely, for more efficient deepwater drilling. Failed efforts to increase efficiency by building the drill string at a separate location from the well being drilled indicated an unsolved need. Testimony about deepwater drilling since the 1970s also indicated that the need was long-felt.

In sum, Transocean IV recognized that the extensive evidence presented concerning objective indicia of non-obviousness make this case ‘precisely the sort of case where the objective evidence “establish[es] that an invention appearing to have been obvious in light of the prior art was not”’, citing Stratoflex, 713 F 2d at 1538. Accordingly, the Federal Circuit reversed the district court’s grant of JMOL of obviousness, thus reinstating the jury verdict that the patents are not obvious.

Practical significance

Since the Supreme Court addressed obviousness in KSR Int'l Co v Teleflex, Inc, 550 US 398 (2007), calling for a more flexible inquiry, the Federal Circuit has noted that secondary indicia nonetheless must be considered as part of the obviousness determination. In many instances, the Federal Circuit has discounted such evidence as insufficient to overcome a prima facie case of obviousness (see eg Ball Aerosol & Specialty Container, Inc v Limited Brands, Inc, 555 F 3d 984, 994 (Fed Cir 2009); Boston Scientific Scimed, Inc v Cordis Corp, No 2008-1073, 2009 US App LEXIS 588, at *25–26 (Fed Cir 15 Jan 2009); Sundance Inc v Demonte Fabricating, Ltd, 550 F 3d 1356, 1368 (Fed Cir 2008)). The Transocean saga, however, illustrates a case where a strong evidentiary showing on secondary indicia of
non-obviousness was sufficient to overcome a prima facie case of obviousness.

Footnotes

Charles Macedo is a partner, Michael J. Kasdan was a partner, and Richard P. Zemsky is an associate at Amster, Rothstein & Ebenstein LLP. Their practice specializes in intellectual property issues including litigating patent, trademark and other intellectual property disputes. They may be reached at cmacedo@arelaw.com and rzemsky@arelaw.com.