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CONFIDENTIAL MATERIAL

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SEADRILL AMERICAS, INC., SEADRILL GULF OPERATIONS AURIGA, LLA, SEADRILL GULF OPERATIONS VELA, LLC, SEADRILL GULF OPERATIONS NEPTUNE, LLC,
Petitioner,

v.

TRANSOCEAN OFFSHORE DEEPWATER DRILLING, INC.,
Patent Owner.

IPR2015-01929 (Patent 6,047,781)
IPR2015-01989 (Patent 6,085,851)
IPR2015-01990 (Patent 6,068,069)

Held: February 13, 2017

BEFORE: WILLIAM V. SAINDON, BARRY L. GROSSMAN, and TIMOTHY J. GOODSON, Administrative Patent Judges.

The above-entitled matter came on for hearing on Monday, February 13, 2017, commencing at 1:01 p.m., at the U.S. Patent and Trademark Office, 600 Dulany Street, Alexandria, Virginia.

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P R O C E E D I N G S

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JUDGE SAINDON: Good afternoon. Please have a seat. This is oral argument for IPR2015-01929, 1989 and 1990 involving three different patents. I'm Judge Saindon. With me are Judges Grossman and Judge Goodson, who is appearing remotely. Before I get started, I would like to do some appearances from the parties. We'll start with patent owner.

MR. WALKER: Thank you, Judge. Charles Walker. And here with me today is Andrew Liddell and Mark Eberhard for the patent owner.

JUDGE SAINDON: Petitioner.

MR. BAKER: Good afternoon, Your Honor. Charles Baker and Matt Reeves on behalf of the petitioner, Seadrill.

JUDGE SAINDON: All right. When we present today we will be going from the podium. Please speak into the microphone. That's the best way for everyone to hear you. Also, Judge Goodson will not be able to see the slides that are shown. So please identify every slide that you discuss by slide number and discuss the exhibit that you are talking about or whatever paper.

We have provided 90 minutes for each side, and we discussed a couple days ago about reserving ten minutes a side for a closed courtroom session at the end. Let's reserve those ten minutes per side to only matters involving confidential information. The remainder of the hearing will be open to the public and everything said will be part of the public record.

Other business, we have some objections from petitioner on the slides. Those objections are overruled. We will let those slides be presented. That doesn't mean that the arguments are not new. The decision will still be based on what's in the briefs.

With that, I believe we are ready to start. Petitioner, if you would like to reserve some of your time for rebuttal, let me know and I'll take that away and we'll put it on to the clock. So you may begin when ready.

MR. BAKER: Yes, Your Honor. We would like to -- we'll have the ten minutes and then 20 minutes for the rebuttal. So a total for 30.

JUDGE SAINDON: Okay.

MR. REEVES: May it please the panel, this is Matt Reeves for petitioner. I would like to begin, I have shortened my presentation quite a bit because I think, especially going back and reading some of the decisions that have been written in this case,

that the panel has a pretty good grasp on the technology and I'm going to try not to belabor points. I'm going to try to be brisk so that we have as much time as we need to discuss secondary considerations.

I'm going to begin with demonstrative or slide 17, which is the start of our presentation for anticipation by Lund. As you know, we've claimed that Lund is anticipated -- anticipates claims 10 of the '851, claim 30 of the '781 and claim 17 and 18 of the '069 patent.

All these claims are directed to what the patent owner calls a multiactivity drilling assembly or drilling apparatus. It's essentially just four elements. It's a derrick with a first means for lowering tubulars, a second means for lowering tubulars and a means to transfer the tubulars between those two lowering means.

All these things are shown identically structure-wise in Lund. Lund shows a drawworks. It shows a preparation hoist 20. It shows a drilling hoist 12 that lower tubulars below the drill deck and it has a transfer means to transfer those tubulars between the two hoists there. The only distinction that the patent owner has ever made over Lund is a functional one, the claim that Lund's so-called preparation hoist doesn't lower tubulars all the way to the seabed. It lowers them down below the drill floor to

be sure, but the claim is it doesn't lower them all the way to the seabed. And that simply can't support patentability.

Let me go and explain this in a little bit more detail with reference to slide 19. As I have said, all these claims that are at issue in the anticipation grounds are basically the same. So I'm just going to use claim 10 as sort of an example claim. Claim 10 of the '851 patent. And all the elements that I have grayed out here, the multiactivity drilling assembly, the drilling superstructure, the first means for advancing tubulars and then the fairly lengthy claim that really just concerns the means for transferring tubulars, all those things are explicitly shown in Lund and is really not even disputed. At least we haven't really seen where translation is contested that those elements aren't found in Lund.

Everything centers on the second means. Now, the second means is, of course, a means-plus-function claim, and the panel has already construed that to mean to require a corresponding structure of a drawworks. That is shown in Lund explicitly. I'm looking at slide 24 now. And you can see this is a floor plan view of the Lund patent, and drawworks 34 is shown there on the right-hand side. And that is the device that lowers the tubulars through the preparation opening 21. So Lund is structurally identical to the claimed invention here.

It's our view that this entire case, then, at least as to the grounds of anticipation is controlled by *In Re Schreiber*. *In re Schreiber* plainly tells us that it's settled law that the recitation of a new use for an old product can make that old product patentable. Well, I mean, everything about Lund is old. It's an old product. The only difference here is whether it's using it to simply lower tubulars or to lower tubulars to the seabed. And in fact, not only does that claimed use not make it patentable, but it's not even important whether Lund even recognized that use at the time that he made his invention.

JUDGE SAINDON: Counsel, I would like to ask a question about the second means. So our preliminary construction pointed to the part in the spec that says that that means is a drawworks. Now, it's my understanding that there are some additional arguments being made by patent owner on that point, specifically that the drawworks is not any drawworks. It has to be capable of, say, a certain amount of strength or something like that.

MR. REEVES: Right. That is the patent owner's argument, and I want to address that. In fact, first off, I want to point out a couple of things. Let me go back to the slide I was just looking at. You'll notice that there's no limitations on where

the seabed is. This claim doesn't say to the seabed wherein the seabed is located a thousand feet below the drill floor.

JUDGE GROSSMAN: Can you just make sure we are clear on the record what slide you are displaying and what claim you are referring to.

MR. REEVES: Yes, Your Honor. That's slide 19 from our demonstratives. It's claim 10 of the '851 patent. So this is very broadly claimed. It covers any seabed at any location relative to the drill floor, from essentially zero all the way to the bottom of the Marianas Trench. So for anticipation, all that has to happen is that we have a drawworks 34 that's able to lower the tubulars somewhat below -- any amount below the drill floor because that's all covered by the claim.

JUDGE SAINDON: Counsel, I mean, I understand your point that it's not limited, but aren't there some practical considerations? You know, if there were a hole that were ten miles deep or something like that or if the sea were an inch deep, there seems to be some amount of, I won't call them inherent, but implied constraints that someone of ordinary skill in the art would understand, okay, well, we don't set up this huge platform to drill in the sea when the sea is one inch deep or something like that. Are there any evidence of those types of constraints?

MR. REEVES: Well, let me say first off that it's often done that they set up these kind of drilling structures in very shallow seas. You know, off the coast of Louisiana, the marsh is just a few feet deep, for example. So that's not quite true. This isn't something that's just required to go out 10,000 feet in the ocean. Although it's been kind of characterized that way by patent owner, there is no limitations as to the size of the drawworks, the carrying capacity of the drawworks, how deep it has to go or anything else. So it covers all those uses.

JUDGE SAINDON: So do we have evidence in the record that will say, for example, I think you had a drawing of the Lund derrick and then the seabed was 20 feet or meters, I don't recall, do we have evidence that that is actually a practical situation in which a derrick like that would be used?

MR. REEVES: We do. We have evidence like that. It's in the Schaaf declaration where he talks about that Lund could be used to drill in shallow depths. And even patent owner's own expert conceded that if you were in, say, 20 feet of water, you could reach the seabed with Lund.

So for example, I have a slide on that. It's a little bit out of order, but I can go to it. This is the situation that I discussed with patent owner's expert. So Lund plainly discloses if nothing else, it at least gives us one embodiment where the drawworks 34

is able to lower tubulars 20 meters below the deck. So obviously any time the seabed is 20 meters or less or below the deck, then it would be able to reach the seabed. So in the case where you have 20 feet, for example, if you are in 20 feet of water -- maybe not 20 feet of water, but where the seabed is 20 feet below the drill deck, then obviously the embodiment disclosed expressly in Lund would be able to reach the seabed, would be capable of doing that.

And Transocean's own expert, I asked him about that and he admitted it would. If everything works perfect, was his answer to that question.

JUDGE GROSSMAN: Again, Mr. Reeves, just for the record so when we look at this a month from now, we know what you are referring to.

MR. REEVES: It's slide 33, Your Honor. I apologize for that. So there is evidence in the record that it would be capable of reaching the seabed at least under certain circumstances. The question then becomes for anticipation, does the claim cover those circumstances. Well, claim 10, again, simply requires reaching the seabed under any circumstances. Doesn't give a depth. Doesn't give any kind of specifications as to the size or the power of the drawworks.

JUDGE SAINDON: So again, just to belabor the point, I guess, we have this testimony here where if everything was set up, then it would touch the seabed, and that's 20 feet from the floor. Do we have any examples where there's an actual installed derrick that is that height above the sea floor? Again, you mentioned that Louisiana, the waters around there were not very deep. Do we have any specific concrete examples of one of these in use or a specific example of that depth?

MR. REEVES: We don't have any specific examples of the Lund structure in use.

JUDGE SAINDON: Or anything similar to it?

MR. REEVES: Or any depth?

JUDGE SAINDON: Anything similar to it at a very shallow depth where a 20-meter tube stand would hit the sea floor.

MR. REEVES: We have only the testimony from Bob Schaaf, our expert, that it would be able to reach in shallow waters. So 60 feet would certainly qualify as shallow waters, I think.

JUDGE GOODSON: Do you happen to know where in the Schaaf declaration that testimony is located?

MR. REEVES: I believe it's probably in a couple of places. It would have been in the first few paragraphs. If you

have a PDF version, which I believe you should, of the Schaaf declaration, then you should be able to simply word search on it and the word "shallow depth" will appear. Or shallow will bring you to that paragraph.

JUDGE GROSSMAN: Do you have an exhibit number for the Schaaf declaration?

MR. REEVES: I do. I think the Schaaf declaration is -- I'll have to get the thumb drive. I want to say it's Exhibit 11. Let me see if I have that. Anyhow, we are going to get the exhibit number for the Schaaf declaration.

While we are looking for that, let me continue. I want to respond to some of the arguments that have been made against anticipation in this case. One of the arguments that's been made is that Lund doesn't disclose a drawworks 34 that reaches the seabed because the claim is that Lund would be blocked from reaching the seabed. That's simply not a fair reading of Lund. If I could go to slide 34, this is a quote from the Lund patent, and this is one of the things that's referred to in the patent owner's brief about his basis for claiming that Lund is blocked. Lund says the possible occurrence of well heads does not always provide sufficient space to lower the tubulars 20 meters through the preparation opening 21.

So Lund clearly contemplates that the drawworks 34 is capable of lowering tubulars 20 meters through the preparation hoist opening. It's just that sometimes it can't happen. But clearly he contemplates that the drawworks 34 itself is able to do it. It has that capability. The fact that sometimes it might be blocked is really just a question of the environment that Lund is being used in. Not the capacity of the drawworks itself. And I think that's what is missing from the patent owner's argument. You know, the fact that it could be used in a separate environment where it won't work doesn't mean that the disclosed structure isn't there or that a person wouldn't recognize a disclosed structure for what it is. So they are confusing the -- where it's used with what the structure actually is.

The other problem is a lot of the evidence that was cited by patent owner comes from their expert, Mr. Barnhill. But if you look at Mr. Barnhill's testimony, really it's just a lot of ipse dixit about how things would work and how things typically work. That may be true, but again, it misses the point. The point is not how it's used in a particular case. The point is, you know, whether it can be adapted to -- whether it infringes or anticipates the claimed use.

So another argument that patent owner relies on is they rely heavily on the *Transclean* case for the proposition that the

mere capability of lowering tubulars to the seabed is not sufficient for anticipation. And I think this is just a simple misreading of what the *Transclean* case is. *Transclean*, what happened there was the claimed device was directed to a transmission fluid-replacing apparatus for equalizing the fluid flow. What was the prior art was this *Becnel* reference that had a different structure than what was disclosed and it performed a different function, which was equalizing fluid volume. So that's not an unexpected result right there. That would not be anticipation. I mean, it's a different structure and a different function. So of course, it doesn't anticipate.

Now, what happened in *Transclean* was the defendant tried to arguing that you could take that *Becnel* structure, the prior art structure, and then operate it in such a way by reading the gauges and manually adjusting the valves so that you could make it perform the claimed function. And *Transclean* said, well, that's not good enough. But the difference, though, is that that's not the way the *Becnel* structure was disclosed as operating. It was using it outside of its normal course of operation. If you use the *Becnel* structure in its normal course of operation, then what you would get is something that equalized fluid volume. Not fluid flow.

In this case, this is a different situation. I mean, we are using or you would be using the hoist in its natural operation, just

simply lowering tubulars. And any time you lower tubulars according to how it's described in Lund, if you are within the range of the hoist and you lowered it down to the seabed, then that's within the normal function of that -- how the hoist operates and it's not a situation like they had in *Becnel* and *Transclean*.

JUDGE SAINDON: Counsel, I would like to go back to the means-plus-function one more time. So we have the corresponding structure being the drawworks. And the drawworks in the specification is one that's described as part of an entire hoist system that also has a top drive. It's intended for drilling. It's got a certain amount of strength in it. So I guess my question is when we do the means-plus-function analysis and we look to the spec to see what is the corresponding structure, we can stop at the word "drawworks" or we could say, well, it's the drawworks particularly in the spec which has all these implied capabilities for strength and so forth because the spec's embodiment is intended to be able to drill at some certain depth.

So I'm just trying to understand where do we stop in the equivalent structure analysis and why.

MR. REEVES: I think you stop simply at the drawworks structure. That's all that's required. What you have got to do in that type of analysis is just look to what structure has been linked to performing the function. And the drawworks is

what raises and lowers the tubulars. And that's what's disclosed in all three of these patents that are in question that share a common specification. So I think you stop there. There's no requirement that that drawworks has to be of a particular size or a particular strength.

JUDGE SAINDON: What if the specification only describes a certain type of drawworks? I guess the word "drawworks" is somewhat generic and describes lots of different capabilities. It doesn't really tell us too much other than it's going to turn the spool. So I guess I'm asking again why do we not incorporate the particular embodiment in the spec?

MR. REEVES: Because there's nothing in the spec that gives a particular type of drawworks. It's a generic description of a drawworks in the spec. It doesn't say a drawworks that, you know, is at least able to carry, you know, a million pounds or a drawworks that has so much capable or a drawworks that's of a specific type or driven in a specific -- or anything else. The spec is very broad. The spec itself just simply says drawworks. So that's the drawworks that the panel has to construe to be corresponding structure.

JUDGE SAINDON: And even if the drawworks itself doesn't have much description but it's always described in context with several other features like the top drive which implies, again,

a certain amount of strength of the associated drawworks? So you are saying that would be incorporating something outside of that structure, outside the drawworks structure? If the context of all the disclosed drawworks implies something about it because it's always with the top drive, it's described as capable of drilling, stuff like that, why don't we also look to that disclosure and say, well, that's the type of drawworks that's being described?

MR. REEVES: Because there is simply no basis to say that's the type of drawworks being described. So in order for this claim to even be definite, you have to have some sort of boundaries on it. There's nothing in the patent -- so what would that be? A drawworks that's capable of carrying 5,000 pounds, 10,000 pounds, a million pounds, what would it be? There's no basis for the panel to make that construction. There is no basis, there is no structural basis that the panel could read into the term "drawworks" to distinguish one drawworks from another drawworks. What is the difference between a drawworks that also transports a hoist and one that doesn't? I mean -- I'm sorry. I said hoist. I meant top drives and one that doesn't. There's no -- there's just nothing in the spec. The claims have to be interpreted in light of the spec because the spec was very broad in terms of its use of drawworks and not specific at all that therefore, the claims have to be interpreted the same way. And the only

corresponding structure you have is the drawworks. Does that answer your question or am I not getting there?

JUDGE SAINDON: Yes. Thank you.

JUDGE GOODSON: Counsel, I think I located the portion of the Schaaf declaration that you were referring to. I'm looking at paragraph 94 of the declaration. And there it says that Lund teaches that in shallow water the preparation hoist could reach the seabed. And it cites to Lund at column 9, lines 58 to 64, which is the same excerpt that you've got on your slide 30.

I was just wondering if there is any deposition testimony or anything else in the record where Mr. Schaaf explains how he derives an understanding of this excerpt on slide 30 as teaching that this hoist can be used in shallow water.

MR. REEVES: Well, I don't have the cite to the testimony right in front of me, but at one point, and I believe it's in the patent owner's own slides, they were deposing him. Again, we can look at those slides to see where that is, but they asked Mr. Schaaf how deep the drawworks 34 could go. And of course what Lund talks about is lowering different kinds of tubulars. But the tubulars that Lund describes, he describes it as using things like drill collars, which are heavier than smaller drill pipe, let's say. So just because you could lower collars 20 meters, you could lower a drill pipe even further. So there's deposition

testimony, and I'll try to endeavor to get that here in a minute, but it's in the slides and it's an excerpt from Schaaf's deposition where he describes it as going anywhere from at least 20 meters all the way down to about 150 feet, I think, is what he was willing to say on the record.

JUDGE GOODSON: Okay. Well -- sorry. Go ahead.

MR. REEVES: And then after that he said he would have to do calculations or something like that to consider whether the drawworks 34 disclosed in Lund could lower any type of tubulars farther than that.

JUDGE GOODSON: Looking at the excerpt that you have got on slide 30, the specification is telling us that the possible occurrence of well heads around the well center does not always provide sufficient space to lower tubular lengths. And I'm just trying to understand, does that mean that if there are well heads or other structures and that's potentially interfering with these tubular singles, does that mean that it's talking about a situation where the tubular singles have hit the seabed or is there some other reason why it might be -- why those tubular singles might be getting interference from structures like well heads?

MR. REEVES: Well, if I understood your question, what this is talking about is whether you can use what he calls the first embodiment. Remember, what Lund is doing is he's taking a

first tubular and he's lowering it down below the drilling deck and holding it there with what they call the slips or the rotary table. Then you take the second tubular and screw that on the top, and then you drop those two tubulars down below the drill deck with just a little bit of the upper tubular extending above the drill deck. At that point you are approximately 20 meters on a standard-size drilling tube down below the deck.

Then what you do is you take a third tubular and screw that onto the first two so that you have what Lund calls a triple. Then the triple is picked up and moved over by the transfer means to the hoist that's doing the drilling. And then that prevents that hoist from having to make up every joint. It only has to make up every third joint, so to speak. So basically what Lund is doing is he's making up triples with a preparation hoist while the drilling hoist is drilling away to save time.

So Lund recognizes though that there could be instances where perhaps you are in shallow water -- he is not real specific about this. You might be a well head, there could be the seabed, there could be any kind of thing down there that would prevent you from lowering tubulars 20 meters below the drill floor. So that would certainly be the case in shallow waters. So if that happens, what Lund has is a different embodiment. He says the first embodiment, the one I just described, can't be used. If you

read Lund, he then goes on to describe a second embodiment where he's got a third hoist and he actually only lowers the tubular one length below the drill floor and then screws the second one on top and then moves it to another hoist in order to avoid the -- whatever is obstructing the preparation hoist.

JUDGE GOODSON: Okay. So the interference could be as a result of the rig being in shallow water or it could be some other source of interference?

MR. REEVES: Anything.

JUDGE GOODSON: Okay. Thank you.

MR. REEVES: So let me go back now to slide 32 and mention one other thing here that I have read in the patent owner's brief that I think is also -- kind of misunderstands *Transclean*. They also rely on *Transclean* for the proposition of just the fact that Lund might be used in shallow waters doesn't mean that it would necessarily result in hitting the seabed. The specific thing that they are talking about in *Transclean* is there was a second piece of prior art that was held that was asserted as anticipatory in that case. And in that piece of prior art, again, it was a different structure and it functioned to equalize the fluid, I believe, weight. And what they argued, what the defendant argued in *Transclean* was that structure at times might also just happen to equalize the fluid volume. And the Court in

Transclean said, no, the mere fact that something was possible doesn't mean that you have inherent anticipation.

So what the patent owner has done here is they have seized on that *Transclean* case and said, well, it's not inherent that Lund would be used in, let's say, 20 feet of water. Lund could also be used in 10,000 feet of water. But I think that misses the point of *Transclean*. The issue in *Transclean* is they are confusing the inherent result with the intended use. It may not be inherent that Lund would be used in any particular depth or any particular environment. But once it is, then the question is, would it perform the function? And it would. If it was in 20 meters of water and the seabed -- I'm sorry, if it was in 20 feet water, then Lund inherently has the ability to, and would, if you lowered it in the ordinary course of operation 20 feet, it would reach the seabed.

So the focus has to be on what the claims cover. Not the environment it's used in. I think that gets back to *In Re Schreiber*. For example, it wouldn't have been an answer for the applicant in *In Re Schreiber* to argue that, well, yeah, it dispenses the popcorn, but the lid could also have been used to dispense water or as a paperweight or anything else. I mean, the fact that those other uses are possible doesn't speak to whether the claim covers the use that the prior art is teaching.

So, yeah, Lund could be used in deeper waters, but that's not the point. The point is does the claim cover Lund being used in 20 feet of water? And it does. That's all that's required for anticipation.

So the remarks that I have just made regarding anticipation would apply equally to the other claims that are under review that are covered by the anticipation grounds as well. So there's no real difference. All of them turn on just whether the to the seabed function is disclosed in Lund or not.

Even if it's not, the only thing, there's still the issue of obviousness. And let me go to slide 35. As the panel is well aware, the Federal Circuit has already considered these claims in view -- or most of these claims in view of a combination of Lund and Horn before. And they have held that we agree that Horn and Lund establish a prima facie case that the claims would have been obvious. I think that is still the result here. You are going to hear a lot on secondary considerations, but at the end of the day, all we are talking about is whether you can lower -- use the drawworks 34 to lower tubulars to the seabed. And that's something that's been done for years.

Let me go to the combination of Horn and Lund on slide 36 here. You can see Lund on the left and Horn on the right. We think this is one of the rare cases where you could find

obviousness just based upon Lund itself even if you didn't combine it with anything. If you look on the drilling hoist on the left, there's no dispute that it goes to the seabed. Even Transocean, I believe, would agree with that. So all we are talking about is a mere duplication of parts. Just take the hoist on the left number 12 and just duplicate it as hoist -- as the preparation hoist.

If a teaching were needed that you could actually make two hoists that would both go to the seabed, that teaching is supplied by Horn, as you can see here, which teaches two drill strings going to the seabed simultaneously. There's many reasons why you might combine those two things. What Lund teaches is that you gain benefits of saving time if you can make up tubulars on one hoist and then drill with another one. What Horn teaches is that you could also save time if you can drill two wells at the same time. Horn describes the short drill season, for example, up in the North Sea. So obviously if you combine those two things, you would have the benefit that the resulting structure could perform either one of these tasks. It could either make up tubulars or it could drill two wells at once.

Another teaching, another reason to combine these two would be what we see on slide 37. We have the prior art reference of what's called *Rike*. This is an old reference that goes

back to the 1960s. Here we have two rigs that are -- or two hoists that plainly go to the seabed. One is doing completion work and the other is doing drilling. Obviously if you combined Rike with Lund, then you would be able to either make up tubulars or complete one well while drilling another one.

So there's other reasons as well that have been covered by the Federal Circuit. The Federal Circuit noted that Horn discussed the ability to save -- to concentrate common equipment such as the tubulars.

So with that, I have some more slides, but what I would like to do now, because I know Mr. Baker has a lot of slides that he needs to discuss on secondary considerations, is I would like to ask if there's any questions from the panel. If not, I would like to turn it over to him because I'm getting a little concerned about time.

JUDGE SAINDON: I have hopefully a quick question for you. So from what I understand from your petition, you basically have Lund and Horn, and you've provided rationales where you could start with one and go and modify the teachings of the other. So if we were to do that, if we started with Lund, the modification is to add the top drive, for lack of a better word, the stronger -- to basically duplicate the drilling hoist and replace the

preparation hoist. You keep the transfer portion. If we start with Horn, then the modification is just to add the transfer rail?

MR. REEVES: Correct.

JUDGE SAINDON: And that's it. I mean, obviously it's a little more complicated than that, but that's the gist of both combinations?

MR. REEVES: That is the gist of both combinations. And again, we have shown a lot of -- all these features were old in the art. There's no question top drives were known. Top drives were developed in the '80s. We have shown that. We have cited to the deposition transcripts from patent owner's own expert, Mr. Barnhill. It's just a natural progression of technology. Horn didn't discuss top drives because that was 1980. By the mid-1980s, top drives were there. It would have been obvious to just include those with Horn. The same way with the -- if I could just find it real quick. I think it's 38, slide 38.

In that case, what I'm going to do is go back to slide 1. I'm going to just leave it there. I think everything is on brief. So rather than just repeat that, I'll ask if there's any other questions. If not, I'll turn it over to Mr. Baker.

JUDGE GOODSON: Just one question. You cited this excerpt from the Transocean case, the previous Transocean case in the Federal Circuit. Does petitioner contend that the patent

owner is estopped by this determination from the Federal Circuit regarding a prima facie case of obviousness?

MR. REEVES: We do contend that.

JUDGE GOODSON: Which estoppel doctrine binds the patent owner?

MR. REEVES: I would say it's just the general principles of estoppel. They had their day in court. They tried to prove that there was a difference and they weren't able to do that. And the Federal Circuit ruled against them.

JUDGE GOODSON: Okay. Collateral estoppel or res judicata --

MR. REEVES: Collateral estoppel.

JUDGE GOODSON: Is that in your briefing?

MR. REEVES: I believe it is. Yes, it is.

JUDGE GOODSON: Thank you.

MR. BAKER: Good afternoon, Your Honors. I'm here to speak hopefully very quickly about secondary considerations. So I would like to start off, I have got a lot of slides to go through, so I apologize, but we are limited on time.

Patent owner argues that there's several objective indicia that demonstrate the nonobviousness of its claimed invention, including long-felt need, industry skepticism, unexpected results, industry praise, copying and commercial

success. Transocean must first establish that's evidence of nonobviousness is directly tied to the claimed invention, otherwise known as nexus.

All types of objective evidence of nonobviousness must be shown to have a nexus. The objective evidence must also be relevant which means that any evidence of nonobviousness must be reasonably commensurate in scope with the claimed invention.

Now, the objective evidence is not commensurate and is coextensive in scope of the claimed subject matter. The claims are broader in scope than the scope of the objective evidence which means the product included elements or features not recited in the claims which may be responsible for the commercial success.

In addition, in order to afford sufficient weight to carry the day, the more fundamental requirement must be met, a showing of nexus between the merits of the claimed invention and the evidence of secondary considerations.

Now, all of Transocean's purported evidence, objective evidence is not commensurate in scope with the claimed invention. For example, Transocean admitted that the scope of the claims applies to all water depths. Yet, the device has not been used or praise for work in shallow waters. Transocean has also admitted that the scope of the claims applied to all tops of

drilling rigs, including drill ships, semi-submersibles, tension, jack-up platforms and also towers. However, Transocean has never utilized the claimed invention in those rigs.

Now, Transocean spends 14 pages of its response trying to establish a nexus via its numerous references to documents that use the multi-meaning term "dual activity" or to patents in general, many claims which don't require the elements in the challenged claims. In contrary to Transocean's argument, the term "dual activity" has a wide range of meanings. It encompasses prior art inventions and is not universally known in the industry to mean the claimed invention.

I first want to point to an exhibit. Slide 5 is an excerpt from the declaration of Mark Childers who undoubtedly is a premier expert in his field. He's got over 40 years of experience in the offshore drilling industry and he knows these patents and he knows the technology.

Now, Mr. Childers has testified that the term "dual activity" may refer to many things, including dual load pass or offline activity or offline stand building or drilling two wells at the same time or something doing more than one thing at a time. It could mean doing the same thing at the main well center while the drilling is ahead.

We also submitted declarations in slide 6 of Christian Beckett. He is a former officer at Transocean and he is currently an officer at Pacific Drilling. He worked for a good bit of time at Transocean. And he talks about how in his experience the industry considers certain well-known features to mean dual activity such as a large hull size or large variable deck load, a large derrick, a large setback in offline stand building capabilities.

In addition, we fortunately have the testimony of Inventor Herrmann. And Inventor Herrmann here talks about how there is no such universal meaning in the industry. For example, at the bottom you see there dual activity, as I mentioned earlier, means different things to different people.

Here is another excerpt from Mr. Herrmann's deposition that was taken in the underlying litigations. What does it mean? Well, depends on who you talk to.

Here is Inventor Herrmann again, slide 9: It could mean offline stand building or running things over the side with a crane.

We also have the deposition testimony of Charles Springett, who is a corporate representative of Transocean. He again talks about how dual activity can mean two things at the same time, that you know, you otherwise have to do after the other.

Mr. Childers then took it upon himself and found different industry publications that talk about how dual activities means different things. Here is an example from a brochure. It's slide 11 that refers to performing work that one operation at a time, including working over the side with a crane, is consistent with Inventor Herrmann's testimony. That's not what Transocean prescribes to today.

JUDGE SAINDON: Counsel, let's say we agree with you that sometimes dual activity means something that has nothing to do with the claimed patent. But what if sometimes it clearly does? What are we supposed to do with nexus there? Do we only focus on those where it clearly is?

MR. BAKER: Yes. And I challenge Transocean to come forward with that evidence where it says only the claimed invention means dual activity. You'll never see a bit of evidence in the record here today that says that. You are going to see unpatented features. You are going to see prior art discussions. You are going to see everything but the claimed invention because no one in the industry, except for people like Mark Childers, who really knows what's going on here, knows what dual activity is. It's a very limited, limited invention that's never described by Transocean.

Now, Mr. Childers also points out in slide 12 how Transocean describes its patents as dual activity, but some of the patents don't even have means for transferring. So it can't be a dual activity patent.

Mr. Childers also found different articles -- and again, this is slide 13 -- that refer to Transocean rigs as dual activity, but they are not. They are single-activity rigs. Again, confusion in the industry. And here is from the OTC, a publication, and the author here talks about the Sedco Express as a dual-activity rig. Well, the Sedco Express is a single-activity rig. It's a single-activity rig with very good exceptional offline stand building. And that's critical. Again, Mr. Childers found another example of what dual activity means. It's not industry-wide.

Now I want to -- and again, my focus here is on the dual activity because Transocean wants you to believe that if you use the term "dual activity" in all these different articles that they pulled together, that means the claimed invention and that's what everybody meant. Well, clearly that's not the case. They are trying to establish nexus. They can't do it by just saying that different document is our invention.

Now, Transocean claims that the rigs have been commercially successful because they have entertained a price premium, it's been widely adopted, recognized as saving time,

praised by its competitors and demanded by consumers. However, the evidence is only significant again if there's a nexus. And the key here on commercial success, it's essentially a but-for rule. It's got to be the direct result of the unique characteristics of the claimed invention as opposed to other economic and commercial factors unrelated to the quality of the patented subject matter.

And again, if the commercial success is due to unclaimed features or features in a prior art, there is no nexus. And it's their burden of proof that the success of the rigs were solely to the claimed invention. Here there's not even a presumption. In some cases there is, but there's not even a presumption because the products and the claims are not coextensive.

JUDGE SAINDON: Counsel, by that do you mean two-way coextensive as in the claims and the product are equal matches? Not one is broader than the other?

MR. BAKER: Yes.

JUDGE SAINDON: That's what the case law requires?

MR. BAKER: Yes. And then finally, again, another element on commercial, if it's in the prior art, no nexus, Horn and Lund, Federal Circuit, it's already there. And the combination, it

performs the same functions as the claimed invention. Then there could be no nexus.

Now, here is an example in slide 21 of some promotional material by Exhibit 2024 by Transocean. And you look on the right there, the highlighted portion, it talks about nonpatented features: Two rotaries, two top drives, two drawworks, capable of moving tubulars out of the critical path. Then you look at the size of that ship, Discover Enterprise. It's not twice as big as Discover 534. Look at the weight difference. It's five times. This is what the invention here is basically. They are claiming this is what caused the commercial success. It's the size of the drill ship. It's the ability to put all these unpatented features on there and to create more efficiency. It's not related to what they claim going to the seabed.

Now, I'll skip. This is where Mr. Childers has found other evidence of, again, unpatented features being promoted by Transocean. And we'll go through that evidence. This is the testimony that we'll talk about in the session from Mr. Ambrose that has been designated as confidential still.

Their own expert has agreed that nonpatented features were advantageous for these drill ships. And here is an example. Is it advantageous to have multiple mud pumps? Yes. And did the patent address mud systems at all? I don't believe so.

Mr. Cook was also asked about other different features. Variable deck load, dynamic positioning, rig have a dual mud system, all those are unpatented features that are advantageous and that Transocean promoted over the years, year in and year out.

Here is Inventor Ray. What does he say? The capability to make quad drill pipes and triples in casing are all nonpatented features. That was attributed to greater efficiencies. He gives an example where a customer, Amoco, the desirable feature for having the large storage capacity, a hundred thousand barrels.

Similarly, Mr. Beckett testified -- and he was there when Transocean made extensive marketing efforts in its enterprise class rigs. During that time Transocean flooded the market and described how these class rigs had 15 to 30 percent reductions in total well drilling times. However, the marketing claims did not differentiate between the source of any such claimed benefits but rather all claimed benefits were treated as dual activity. And in reality, very little, if any, of the benefit claim resulted from Transocean patents. That's slide 36.

Again, Mr. Beckett describes in great detail their marketing efforts. That's important. We'll discuss here shortly why the commercial success, there's a lack of nexus because they

promoted this very heavily, and Transocean has not put forth any evidence to the contrary.

Here is Inventor Herrmann: Mud systems? Yes. Other unpatented? Yes. Large platform benefits? Yes. Again, Mr. Stobart, who testified earlier, talks about how all these nonpatented features enhance the drill shift capacity.

Now, Transocean claims that they got premium and day rates. Well, that's not what they say in their pleadings. They say day rates for all their drilling rigs are profoundly affected by the rig availability and the availability is affected by the price of oil. And in request for admission in the underlying Pacific cay, they admit that all these factors go into day rates at slide 42.

Mr. Childers, again, 40 years in the business and he says that it's unreasonable to conclude that so-called dual activity drill ships command a premium. And he talks about the various factors that go into setting day rates, his experience. He also went through and actually looked at the various day rates over a period of time, and he compared them and he again looked at the various factors that went into these particular contracts. In particular, Transocean focuses on one contract with Anadarko. And Mr. Childers says that's not the reason why they got a higher rate. The reason why they got a higher rate in that one instance, one and only instance is the fact that the dual-activity ship was

brand new. The single-activity ship was old and didn't even have offline capability. So there is going to be a difference in pay rates there.

Again, slide 47, he went through and analyzed all these contracts which are publicly available information over a period of time, dual activity versus single activity, and he consistently found that single-activity rigs, they commanded higher day rates. There is no nexus. There is no tie. And again, Mr. Beckett also said the same thing. He says availability is really the key here. He gives an example: If I got a higher day rate contract for a lower spec rig that's not immediately available, then he'll put in the higher spec rate even though it's less -- may make less money on it. It all depends upon, in his mind, availability.

Now, Transocean likes to pick on this contract with PD-02 and that means that the dual activity had some benefit and that there's a nexus here. Well, actually, PD-03 PD-03, in other words, the dual-activity invention is used such a small percentage of time in drilling a rig, that at the end of the day, it didn't matter much on the revenue. It had very little impact. In fact, it didn't make any sense to pay more for dual activity because at the end of the day,

it was cheaper to use single activity, and efficiency was not that much different.

Transocean claims they've got 50 percent market share. They had their expert come up with some numbers, and he came up with a 50 percent market share. Unfortunately, what he did was he used the wrong market. He used it only on the ultra deepwater rigs that are out in the Gulf of Mexico and cut out all the other type of rigs, semisubmersibles and other rigs that are practicing in lower depth waters, which is what the claims require. So when Mr. Childers went through and looked at this, he noticed that the market was much, much less than what Transocean's expert -- 3.6 with respect to the number of ships and with respect to contracts, it's only 13.2 percent. And that's slide 50.

JUDGE SAINDON: Counsel, can we go back to that slide 50. So we have 3.6 percent is the number of rigs that are owned by Transocean that are dual activity. And then 13.2 is the number of contracts won, for lack of a better word. Doesn't that show us that 3.6 of the market of the rigs are getting -- I mean, 3 is a lot smaller than 13. Doesn't that tell us something that those 3 percent are getting more than their share of the market?

MR. BAKER: Your Honor, I don't know if that's the case. I have not drilled down on that particular analysis to be

able to answer that question here today. But what I understand is that the fixtures, that there is a difference in what rigs there are out there dual activity. And I believe in this instance, actually, Mr. Childers took out the Transocean dual-activity rigs -- I'm trying to remember. No, he took out the competitor rigs, which was correct, and he left in the 24 dual active. And that's where he came up with the 3.6. As to the total market share on a dollar basis, I agree that is a little bit different.

JUDGE SAINDON: I'm just wondering, at first glance it looks like it's showing that Transocean is getting a disproportionate share of the fixtures versus the size of its fleet.

MR. BAKER: Well, that could be for a variety of different reasons. That shows there's 300 dual-activity fixtures out there which are the contract, and they do have a certain number. I don't know as I sit here now what the exact difference was and what caused that difference.

JUDGE SAINDON: Okay. Just curious. Thank you.

MR. BAKER: Now, what is more telling, though, is what rigs are coming online in the next few years. What have operators, what have they contracted to build? And this is undisputed by Transocean. Seventy-nine percent of the rigs that are coming online in the next few years are all single-activity rigs. You would think the dual-activity patents just expired last

year. And people know that in the industry, believe me. Why wouldn't there be more orders for dual-activity rigs? Single-activity rigs are just as efficient. Their day rates are less. All this is is just hyped up marketing by Transocean, and people don't want the dual-activity rigs.

Now, you'll also see evidence where here, for example, an operator, Petrobras, they didn't want to pay for a dual-activity rig because the single-activity rig was just as significant in efficiency gains. And so they went the other way. They had no interest. And this is with Transocean.

We got more testimony from Mr. Childers. He says here that it's a very common request by operators for single offline capability, especially in these circumstances to build and disassemble drilling and completion tubulars.

He also notes that in his experience, he rarely, if ever, sees invitations or bids just for dual activity. And then he was able to put together some examples of different RFIs, which are request for instructions, where people are bidding and the operators are saying this is the type of drilling rig we want. And you don't see anything in these specifications about dual activity.

Here is one from Chevron. Chevron is supposedly very much in favor of dual-activity rigs, but they also have technology they believe in with what's called dual gradient. Here is an RFI

from Chevron. I apologize to the panel you can't see it, but undisputed they are not asking for dual-activity rigs. Their specifications are semisubmersible, what rig type and that sort of thing, but nothing about dual activity.

JUDGE GOODSON: Are you on slide 59 right now?

MR. BAKER: Slide 60, Your Honor.

JUDGE GOODSON: Thank you.

MR. BAKER: I'm going to save this interesting tidbit here on the Pacific for rebuttal. And same here for Mr. Beckett.

And again, this is a summary about Mr. Childers saying at the end of the day, the small percentage of time savings just doesn't justify the increased expense for the dual-activity rigs. High capital expenditure, higher crew costs, higher overall operating costs are very hard to justify. Customers did not demand the patented invention.

Interestingly, we were able to take a declaration from Mr. Beckett, and he talked about how Transocean performed an internal rate of return analysis, and guess what, their single pathfinder rigs are more profitable. They have a higher internal rate of return. And here is a chart right here. It's from a deposition of Barbara Wood taken in the underlying Pacific case not produced -- we eventually got it. You'll see the different internal rate of returns. The top are the enterprise, and then you'll

see various single-activity rigs. The Pathfinders and Horizon rigs are clearly -- their internal rate of return is better for Transocean.

Now, Transocean has taken the position that there's all this humongous industry praise out there and they cite to a couple of articles saying, see, industry praise. Well, unfortunately, the praise is their own praise, as we call self-praise, because these are articles that are all written by Transocean employees. And at times you will also see where the praising is not about the claimed invention, but it's about the rig.

Again, Mr. Childers dug down into this and he looked at these articles and he said this is not right. There's other factors here that could go into these so-called efficiencies, but nobody discusses them. Again, this drilling contractor, which they point to as their piece of industry praise, was written by their own employee.

And in fact, we'll talk about the inventors. You won't believe what they don't know about these authors. Here we go. There's Mr. Herrmann: Do you know the author, Mr. Greenberg? No, I don't. Do you know about his credentials? No, I don't. What about this 50 events article? That's their other second piece they point to. Do you know what criteria he used? No, I don't.

Here is the testimony from Inventor Scott: Do you know the author? No, I don't. Do you know what materials he

used? No, I don't. Do you know how it was peer-reviewed? I don't know if it was. Do you know if Transocean ever received an award for this claimed invention? No, not that I'm aware of.

JUDGE SAINDON: Counsel, just letting you know that you are into your rebuttal time.

MR. BAKER: Okay. In fact, none of the named inventors had even heard of this so-called greatest 50 citation. All the self-praise, all these articles, every one is written by a Transocean employee.

Also noted by Mr. Childers is that far from praising the patents, many in the industry have challenged them. And Transocean, in a request for admission in the Pacific case, described how companies like BP and others across the world have challenged the patents and in fact, in Norway and other countries, those patents have been invalidated.

JUDGE GROSSMAN: Is that in the record?

MR. BAKER: Yes. Efficiency gains, now, Transocean claims that the efficiency, that the small percent of efficiencies gained by the claimed invention were unexpected. Well, that's not what Mr. Childers says. He says it's not unexpected that efficiency would be improved by adding these two additional features. You are just doubling up. You have got a bigger ship. It's twice the size, twice the capabilities, two crews and all these

other nonpatented features to save time and money. A lot of the efficiency gains are due to the offline stand building and the use of taller stands of drill pipe. That's not the invention.

The testimony of Inventor Herrmann: Large stable platforms, are these various benefits for having a larger driller ship? Yes. How about the transit speed, is that a benefit? Yes. How about very large drill spore space, moon pools, all these nonpatented features, did they help efficient well construction? Yes. That's slide 101. Not part of the patent.

Again, he talks about other nonpatented features in slide 102. And he talked mud pumps, again, let you drill faster. They reduce the cost? Yes. Patented? No.

Mr. Beckett confirms the same thing. In fact, Transocean, they didn't see this as just some great invention. They viewed it as an incremental change, just like all these other features right here. In fact, this is just the next logical step in Transocean's opinion. Nothing earth shattering.

Now, very quickly on copying, Transocean points to some evidence that they put together in the *Maersk* case, and unfortunately that's not Seadrill. They claim that there's industrywide -- one person who may have allegedly copied is not industrywide. There is also -- excuse me. They point to Pacific copying the invention. There's no evidence of that. There's no

evidence that Pacific's rigs meet the claim limitations. They claim that Global Santa Fe copied because they are an infringer. Being an infringer doesn't mean you copied. We all know that. There's also no evidence that Seadrill, again, has made any copying. So instead, they again try to lump this together and say, well, there's got to be copying because there's all these people out there using our invention. Well, that's just not the case. There is nothing in the evidence to show that.

On top of that, copying could result from a lack of concern about the patent property or content for the patent or accepted practices in the industry. And in fact, *Maersk* -- and this is in the record, *Maersk* testified that they didn't believe the patents were valid. And I'm not saying that's the excuse they used if copying was admitted, but *Maersk* took that position in the trial.

There is no industry skepticism. Talk about clashing. Clashing is, by Mr. Childers, hypothetical. And we'll see one industry expert after another -- and this is slide 117. This is a company called Maritime Engineering. They were trying to develop this dual-rig system, and the engineers evaluated the possibility of clashing and they found it was low risk.

The Aker H-5, again, another competitor, is in building drill ships at that time. Risk of interference with regard is

extremely small. Here is the analysis they performed, Aker did, and you'll see again I've highlighted extremely small, the risk of interference. Wiliford and Horn, prior art references, talk about clashing with two strings in the water. But they teach the issue can be easily dealt with.

GSF Investigation, this is Global Santa Fe, predecessor to Transocean, they recognized the risk and they had hired somebody to go look into it, and they said the risk could be controlled with reasonable operations. And they also identify procedures to easily minimize the risk. Here is a copy of this report, slide 122, 123, 124. The conclusions: Contact could be virtually eliminated making less contact unlikely. Contact can be avoided in most cases except when the vessel is too far out.

Notably, nobody knows about any instances of actual clashing. It's never occurred because they know how to design around it. They know how to engineer it so it doesn't happen. Here is what Scott says. It's prudent engineering, right. Yes. If you have properly trained people to operate the rig, it's more or less procedural.

Slide 127, who are the people that worry about this? Well, Inventor Ray says mostly people that don't do deepwater drilling.

Licensing program, they are all a product of litigation directly or indirectly. Transocean points to, well, Shell was not being sued. Well, Shell's contractor was being sued. Same thing with respect to Hess. So what does the contractor -- excuse me, the operator do? Operator goes and gets a license as well because they are contractors being sued. Everybody else took these under threats of litigation except for one company called Petrobras. They wanted a license in case they built a ship. And guess what, they never built a ship. They never paid a dollar to Transocean. The scope of the licenses are beyond the dual-activity patents here in the United States. They include foreign patents. The licenses also do not have any designation as to the value of the Transocean dual-activity patents. They are just paying lump-sum payments in potential running royalties, which I would note for the record, no one is paying running royalties. You look at the chart, their exhibit, and you'll see people have paid under threats of litigation or litigation results that all came after the Global Santa Fe trial, by the way, that they paid a lump sum and they are not using the technology. They are putting on a casing sleeve and saying this technology is not worth it. I'll just pay the lump sum and go on because at the end of the day, it doesn't justify to pay the running royalty.

JUDGE GOODSON: So does that mean that the patent owner is the only one that is marketing this technology in the industry? The licensees aren't offering this technology because they are not paying running royalties?

MR. BAKER: They are not offering the technology. They are not offering the claimed invention technology, yes, Your Honor. What they are doing, they are essentially putting a casing sleeve in the secondary hull and they are allowed to perform offline capabilities, but they are not putting tubes to the seabed because it just doesn't make sense.

We talked about people contesting the patents. They have sent out many letters. No one has agreed to a license. Here is a copy of the letter, slide 138.

Drilling collar we just talked about. It's not acquiescence. Mr. Beckett talks about PD-04 PD-04 it makes sense to put them in and to PD-04 PD-04 .

No long-felt need. I don't need to spend much time on this. All this need came up in the mid-1990s. It all came about because the market had been dead for ten years and then certain technological advances happened outside of this technology. There was 3D, there's seismic, there was other things that came about. There's good drilling hits in the Gulf of Mexico, so

deepwater came back. It only happened for about a year or two. Not a long-felt need. Transocean points to, well, there's always this long-felt need for efficiencies in the Gulf of Mexico. No one disputes that. But their own inventor says we were not trying to fix the efficiencies forever. This is just a very limited efficiency. You can't always fix all the efficiencies because it's a never-ending process, as Mr. Childers described.

Here we go. Here is Mr. Herrmann, inventor. Customers demanding new rigs? No, they were not. Here is Herrmann again. Were they asking you to build more efficient rigs in the offshore? That's right. Here is more testimony from Mr. Herrmann. It's a never-ending need, right? Yes. Need to improve, need to improve efficiencies in a drilling offshore wells, reduce costs. That's always a need. It's never been met. Did anyone ask you to please build more efficient rigs? No. It was kind of a leap of faith for Transocean? Yes.

They were betting on the market and they hit it because the timing was right. Here we've got more examples here, again, there was no long-felt need. It all came to fruition in 1995 when they started talking about the potential invention internally at Transocean.

No failure of others. There's been no evidence of that. Transocean has not submitted any evidence of failure of others.

Does the panel have any questions?

JUDGE SAINDON: No. Thank you.

MR. WALKER: If it please the Court, Charles Walker for the patent owner. Today we are going to address three main issues. First we are going to start with anticipation. Then we are going to move to motivation to combine and then we will conclude with secondary considerations and address along the way some of the outstanding orders or motions that are out there along the way.

But first I want to start with anticipation. And each of the claims at issue require either a second station drawworks or means for advancing tubulars "to the seabed." "To the seabed" appears in each one of these claims, and it's critical. It was added during the prosecution and argued to distinguish specifically over Lund, the very reference that we are dealing with.

In Lund it defines not only the difference in the function, but also in the structure. Lund itself identifies itself as having a preparation hoist and a drilling hoist. They are both referred to as drawworks, but the question was, does that imply a different structure? It does within Lund itself. The capacities themselves help define what the structure are. It's the reason why Lund, when we see the drawworks illustrated, one is much larger than the other. When we see what the capabilities are and the

functions are, they are far different because they are viewed to the person of ordinary skill as different types of equipment being used for different purposes. And that was the limitation that was used to distinguish these inventions over Lund.

Now, the law that we deal with is that each reference, in this case Lund, must either expressly disclose the limitation or inherently do so. And here there is no question that Lund does not expressly state it goes to the seabed. Nowhere in it does it mention that the preparation hoist goes to the seabed. In fact, it doesn't even mention it goes into the water.

The section, as we see on slide 8, the section from Lund that petitioner relies upon for its statement that Lund's second hoist goes to the seabed because there is, quote, no room until -- it lowers it until there's no more room is relying on Lund, column 9 starting at line 58. And in this section we see that it doesn't mention going to the seabed, doesn't mention going into the water and it doesn't mention anything about continuing to lower it until there is no more room.

In fact, taken in context, what Lund says about that preparation hoist is there is a limit to how far it will go. And it will be limited by the stand it is lowering. It states in Lund that it is preferable to have the stand as long as possible, but that height is necessarily limited by the height of the derrick. You cannot

have a stand that is set back inside the derrick be taller than the derrick. So the desired length is something that's about the size of the derrick but is necessarily smaller than the height of the derrick.

So what the Lund preparation hoist is doing is lowering a stand that is, at most, the height of the derrick, and that part of that will go below the drill floor. Nowhere in there does it say that Lund's preparation hoist will continue to lower that stand until there's no more room. It states that it goes a portion of that stand, which is something less than the height of the derrick. So there is a limit to how far Lund goes, at least as expressly stated within Lund.

JUDGE GROSSMAN: Mr. Walker, where in the claim are you relying on limitations to make that distinction over Lund? For example, you said lower the stand until it can't be lowered any further. What language, for example, if we are looking in the 1929 case, can you point to in claim 30 that distinguishes over Lund on those points that you were just making?

MR. WALKER: Certainly, the claim language that was added and the claim language --

JUDGE GROSSMAN: Can you give me words, lines, columns?

MR. WALKER: Sure. It's the language "to the seabed." And each of the claims have the language of the second drawworks stations or means for advancing to the seabed.

JUDGE GROSSMAN: But it's just that one phrase, "to the seabed," that's doing all of those distinctions that you just --

MR. WALKER: That's correct. It's the one phrase, being able to go to seabed, for advancing tubulars to the seabed. That's the claim language we are focused on.

So then the question is what does Lund teach us. Lund only teaches us that it is extending some length of tubulars that are smaller than the height of the derrick parts of the way through the drill floor. It doesn't even extend it past the drill floor. It needs to be able to hook it up and work on it inside the drill floor. So it doesn't even fully extend the tubulars past the drill floor. So in the natural operation of Lund as described, there is a limit to how far it goes. And that limit is never expressed as the ability to go to the seabed. In fact, it never even gets it beyond the drill floor.

JUDGE SAINDON: So counsel, let me ask you a few questions on that. My understanding was when you are using the preparation hoist, you drop the tube until just the top or so is popping out. Then you put in the slips and add in the next one, screw it in and then either stick it in the rack with all the others or

maybe you add a third, whatever. Is that how the preparation hoist works?

MR. WALKER: That is correct.

JUDGE SAINDON: So say we are making -- we are doing that and we are making three tubes long, each tube is 10 meters. So that would mean there's about 20 meters underneath the floor. Now, the floor is some height above the seabed. And my question is, are there instances where the derrick's floor is less than 20 meters from the seabed?

MR. WALKER: There is no evidence in the record. But it is likely that that might be the case in certain very shallow water instances. But none of those are disclosed in Lund. Lund doesn't say what water depth it's in.

We do know from the evidence in the record that there is an air gap, a distance between the drill floor and the water. So these drilling structures are put on platforms. They need to be taller than maximum wave heights. And so there is an air gap that is going to be many feet from the distance from the drill floor to the water. And then you have to get a distance from there to the seabed. There isn't any evidence as to whether or not there are rigs out there that have a distance from the drill floor to the seabed of 20 meters or more. Is it possible? Yes, it likely is, in

very shallow surf. But it's not disclosed in Lund. It's not disclosed in Lund that that's something you are trying to do.

So since it's not expressly put in Lund, the next question, is it inherently within Lund. And the law of inherency is very limited. The law of inherency says that it necessarily results from the natural operation of what's disclosed in the patent. So all this law goes back to *Continental Can*. We've cited several cases, but most of these cases at some point cite back to *Continental Can* for that premise. You either have to have it expressly or inherently. And if the functional limitation is not expressly stated in the reference, then you have to say does it necessarily result from the natural operations of that disclosed in the patent.

And here when you look at the natural operations of Lund, it does not necessarily go to the seabed. First, for the very reason that they have stated, it only does so in the shallowest of water, in water that is sufficiently shallow for the Lund preparation hoist. That right there means that it does not necessarily do so. That is a certain situation or a certain circumstance in which it could go to the seabed but does not naturally flow from the operations disclosed.

JUDGE GROSSMAN: So your position is it's got to be necessarily inherent in every conceivable situation in which it might possibly be used?

MR. WALKER: No, not in every conceivable situation. It needs to result from the natural operations as disclosed in Lund.

JUDGE GROSSMAN: If I use it now in 10 feet of water and I have got my air gap and the seabed is another 10 feet below the top of the water, would that be a natural inherent result of using Lund in shallow water?

MR. WALKER: No, because you are assuming that there is a minimum size of air gap, which I think is actually higher than 10 feet, and that there is a minimum amount of water. Those are all assumptions that you are having to make to get to that point. So that's a limited circumstance where it would. In that limited circumstance, yes, it could hit.

But the law is not what merely possibly could happen. It's not even what probably could happen. It's what necessarily flows. And this goes back to the *Continental Can* case in which it was a water bottle with ribs and the claimed element were that the ribs were hollow. These plastic ribs on the water bottle were hollow. In the prior art it had everything in there except it didn't state that the ribs were hollow. But the method, the process of making those ribs were the exact same in the prior art as they

were in the invention. So clearly there were situations, there were circumstances in which the process would make hollow ribs at times, but because it didn't necessarily do so, it wasn't an anticipatory reference because it did not inherently disclose the hollow ribs.

And here we have a situation where if you have a limited circumstance and actually an unlikely circumstance, you would have a distance that the preparation hoist in Lund could make it to the seabed.

JUDGE SAINDON: Counsel, I guess a difference here is that in *Continental Can* it was whether the structure was something or not based on it being an injection blow mold, whether injection blow mold necessarily left a hollow thing. They remanded it back for fact finding to figure out whether that was the case or not.

Here we know what the structure is. We know how it works. There's no probabilities in what the structure is. We know exactly what it is. The issue is whether you take that same structure and you stick it in one spot or you stick it in another, things are going to happen. So I see a distinction being necessarily what the structure is versus necessarily if you use it in this case what happens. And so to me one issue is whether that situation is possible or not possible. You know, like you said,

there's got to be an air gap. But I don't think that's an issue that it could be that 20 feet is the height from the seabed to the derrick floor.

So that's more what I'm looking for rather than whether it's possible that it could be or not in that circumstance because that's an intended use. You can imagine a patent to a screwdriver with a flat blade, that's a screwdriver, that's the intended use. Is it capable of popping open a paint can? Yeah, everybody knows that. Somebody could testify to that. That would provide the context. It wouldn't be probabilities or possibilities because it is what it is. It's a flat-bladed screwdriver.

So I see a distinction between probabilities with intended uses and structures, and I'm interested in the intended use. What makes this intended use that petitioner is trying to characterize the structure and not reasonable?

MR. WALKER: It's not just an intended use. It is a functional limitation of the structure. It was added to functionally define it. In *Continental Can*, the hollow ribs, the hollowness was a characteristic of the rib. To the seabed is essentially a defining capability or characteristic of what this hoist needs to be able to do. It's more than just an intended use because Lund itself distinguishes itself between the light preparation hoist on one side and the drilling hoist on the other. They are different capacities.

They are different types of equipment that would be understood by a person of ordinary skill.

JUDGE SAINDON: So that sounds to me like it's -- I'm sorry.

JUDGE GOODSON: Go ahead.

JUDGE SAINDON: That could be a claim construction issue as to what implications you have for how strong the hoist is and those types of -- so you are saying that “to the seabed” means that the hoist is a particular strength or something like that. Whereas, “to the seabed” could also just mean it bumps into the ground if you dangle a pipe long enough off of it. That ties into the means-plus-function, which we can get to in a minute or maybe you want to go right to that, but is that a claim construction issue, the “to the seabed,” in that it implies a certain structure?

MR. WALKER: There is a -- yes. There is a physical limitation of the functional “to the seabed” element. It was added to distinguish over Lund. They were comparing the light hoists of Lund to the drilling hoists of Lund to show how they were different. The functional limitation is two sides of one coin between whether the difference is structural or the difference is a functional limitation. If it has enough capacity, then it will be able to go to the seabed. If it has -- if it's able to go to the seabed,

it's going to have enough capacity. But they are different sets of equipment.

So, yes, there is a structural element to it, but it's clear in *Transclean* and also in *Continental Can*, you have to disclose in the reference every functional limitation, every limitation. In this case what we are focusing on is to the seabed. And the first question is whether Lund expressly states that it does. It does not. And then second, whether it inherently does.

We've addressed this issue about whether it could or not, but there's a second point on this. On inherency, you have to look at the natural operation described in Lund. And here the operation described in Lund is they ram a conductor pipe into the ground. They hammer it into the ground. The testimony on this is this is consistent with having a surface well head. A surface well head sits on top of the conductor pipe. The conductor pipe extends essentially from right below the drill floor down into the seabed. And then on top of that you put the BOP and the other equipment around there. That equipment is going to exist above the water line, but it's just not suspended there. It's on a platform. And in shallow water where petitioner would like to have Lund used, in shallow water what is done is these conductors are rammed into the ground and the well head, BOP and other equipment are on a platform that exist above the water.

And if we go to the picture -- so looking at slide 18 is an excerpt from the material that shows the difference between a surface well head and a subsea well head. A subsea well head are used in deeper water where you can't have a structural element holding a BOP a thousand miles up in the water. So you have to necessarily take it down to the seabed. But in shallower water, you have this structural casing that you put into the seabed to support your platform with your well head on it. And that's typical of what's done in shallow water, which is explained in the reference that we have.

JUDGE GROSSMAN: Just to make sure our record is clear for later on, I think you are looking at slide 13. I may have misheard or you may have misspoken.

MR. WALKER: I probably misspoke. So, yes, it is slide 13. And if we go to slide 18, this is an example of a standard platform and how it is drilled in shallow waters. Now, this comes from petitioner's expert, Childers', book on the background of these technologies. But in shallow water, you will traditionally do it on a platform. And here you see on the right-hand side in the picture in the brown, that is the platform that would support your well head and all your other equipment.

And then what the drillers will do is they will bring this jack-up rig in. This jack-up rig, when it's moving around, has its

legs up in the air and is floating around like a barge. When it gets on location as it is here, it will lower its legs, jack up the rig and then it will cantilever out the drilling rig that you see suspended over the platform. So this is the operation that Lund is describing when he talks about hammering in, ramming in the conductor pipe and having these surface well heads.

You would have in here in the natural operation of Lund and the natural operation of everything that was going on in this time, as confirmed by petitioner's own expert that said 99 percent of -- over 99 percent of the time you are going to have a surface well head. Well, with that comes the platform. As you can see, these platforms are underneath the drill floor. And they provide a physical barrier, a permanent physical barrier that would prevent a Lund preparation hoist from even reaching the water, much less the seabed.

And this helps tie in to the one section that petitioner cites in Lund about the interference of well head and other equipment shortly below the drill floor. That's from this equipment and the well head that would be on this platform that is blocking the way. But it's not just the equipment that's blocking it. You physically have a platform that would prevent it. And when you look at inherency, inherency you have to look at the natural operations that are described in Lund. And when

those operations are done, there will be a physical structure there. And that is uncontroverted testimony. There is no testimony from petitioner that says this is not the case, that platforms aren't used, that the platforms some way would allow for a Lund preparation hoist to lower through it to the seabed because it doesn't exist.

JUDGE GOODSON: Counsel, how do you respond to petitioner's argument that the patents being challenged don't provide any notice of how much strength or capacity is necessary for a hoist to be one that's capable of lowering tubulars to the seabed versus simply a preparation hoist as in Lund?

MR. WALKER: Sure. Well, first of all, in Lund they use two separate terms. They use preparation hoists and drilling hoists. That by itself suggests that there is a difference. There's also the testimony of our expert, Barnhill, where he describes how the person of ordinary skill would not confuse the preparation hoist with the drilling hoist, with the drilling assemblies that are talked about in the Transocean patent and related to the claims.

So at a high level, you can generalize anything where they are similar. We could call it equipment, but the equipment itself doesn't give you enough bearing to know how it applies. Here just because it's a drawworks, that's not all you can focus in

on. You have to focus in on what it's used for. And Lund itself identifies that these are different pieces of equipment. And the patent itself only focuses on the equipment that's used for drilling that would be more associated with the drilling hoist that is defined in Lund on the first station but is different from what Lund itself distinguishes as a preparation hoist.

JUDGE SAINDON: Counsel, before we move off of anticipation, as far as the second means for advancing tubular members and the equivalent structure being drawworks, we talked about this a little bit with petitioner, is that where we stop, drawworks?

MR. WALKER: No. First of all, means for advancing or even the station for advancing aren't limited to just drawworks. When you look at some of the claims themselves, you will see that there is a means for advancing and then a subsequent including a means for hoisting. The hoisting of the drawworks is a subset of the means for advancing. When you look at the specification, it describes how each of these tubular advancing stations have to be able to not only hoist, but also to make up and break down tubulars. There's other equipment associated with it. The patent talks about iron roughnecks. You have the slips to be able to hold things and take it apart. There's other equipment involved.

Now, for the purposes of distinguishing Lund, the other equipment isn't really necessary to what we are talking about here because Lund would have some sort of equipment to take things apart and hold it together.

The key feature would be the hoisting equipment. And the fact that Lund is a preparation hoist which has a defined capacity within Lund that limits itself and that a person of ordinary skill would naturally see is something different than the drilling hoist. Because remember, a drilling hoist not only has to go to the seabed, it's got to be able to go down to the bottom of the well, which can be thousands of feet more. With a drilling hoist, you are lowering a BOP, which is a structure that's probably twice or three times the size of this room that's a hundred thousand -- a lot of weight. I'm going to misstate the weight. But it has to have much more capacity. No one is going to confuse the two. I mean, a go-kart and an 18-wheeler tractor trailer are both motorized vehicles, but no one is going to be confusing the two when you are talking about trying to the haul loads over long distances. The capacities have structural meaning to a person of ordinary skill.

JUDGE SAINDON: So how do we define the equivalent structure so that it's clear we are talking about one and not the other?

MR. WALKER: All you have to do is define what it's not. And the patent has already done that through the amendment of "to the seabed." The applicant distinguished over Lund and the examiner agreed that the structure associated with equipment going to the seabed distinguishes it from Lund. That's all that we have to do here. We don't have to try to define what infringes and what doesn't. We just know through a *Phillips* analysis, which we have here, which means we must take into account the prosecution history, that that adding of "to the seabed" and the remarks associated with it have meaning in defining what the invention is not. And the invention is not going to the seabed with the Lund preparation hoist.

The only other thing I want to point out on the case law, petitioner relies on Schreiber for the idea that a new -- you can't have a new use for an old element. A few things about Schreiber. First of all, they went through the inherency analysis. They talk about a burden shifting where at that point it was an examiner proved up that there was the natural result of something would lead to the invention. And then that burden shifted it back to the patent owner or at that time the applicant to show that there was no inherency.

Here the petitioner hasn't even come forth with any evidence to say it was inherent. They have ignored it. It's not in

their opening petition. They haven't even tried to come forward with evidence to say that it naturally results from the operations of Lund. It's an area they have completely ignored. So there's no evidence to even shift it to patent owner to rebut.

But here the patent owner has come in with evidence of the platform, the other things blocking it as well as to point out the fact that they haven't proved up the required standard for inherency that no one has challenged in this case.

More importantly, this isn't a new use for an old product. Lund points out this is not a new use for a preparation hoist. Lund has a preparation hoist. Transocean is not using a preparation hoist. And it's Lund itself that distinguishes that those are two separate concepts for a person of ordinary skill in the art.

Unless there are other questions on anticipation, I'll move to motivation to combine.

JUDGE SAINDON: Proceed. Thanks.

MR. WALKER: Thank you. Petitioner starts with either Horn or with Lund and tries to move to the invention. But in both cases there are no explanation or very little explanation to explain why you would go from one to the invention. More importantly, when they do so, they end up contradicted the stated purposes of their starting reference.

This panel, though, in the institution decision relied on a rationale provided in *Maersk I*. Petitioner did not rely upon and did not provide any evidence in support of the rationale used in *Maersk I*. And since the institution decision, the Federal Circuit in *Magnum Oil* has made it clear that it is up to the petitioner to set forth its grounds and reasons for invalidity, which would include a motivation to combine. And here petitioner has not addressed it.

So first of all, when looking at the original petition, petitioner does not cite to Horn at page 1, 120. This is the section where we deal with the common auxiliary equipment that is relied upon by the Federal Circuit in *Maersk I*. Petitioner doesn't even cite to that section. Petitioner doesn't even cite to *Maersk I*. The only time that petitioner cites to Maersk is *Maersk II*. It's *Maersk I* where they found the motivation to combine. *Maersk II* just said it was the law of the case because it was the same parties, same case, couldn't change your theories. And petitioner didn't cite to *Maersk II* in its motivation to combine section. It cited it in footnote 1 on page 49 dealing with secondary considerations.

The only time that petitioner has referenced the magic language "concentrating common auxiliary equipment" was in the declaration of its expert Schaaf. That's Exhibit 107 at

paragraph 67. However, petitioner did not cite to paragraph 67 anywhere in its petition. Petitioner cannot incorporate something that it never referenced. And even if it did reference it, it has to explain it in its petition, and it did not.

Moreover, Schaaf in paragraph 67 isn't even relying on the same rationale that the Federal Circuit relied on. Schaaf in paragraph 67 essentially says that Horn teaches one hoist assists another hoist for a different well based upon the statement that the obvious advantage of concentrating auxiliary equipment. That was not the rationale used by the Federal Circuit. The Federal Circuit said that common auxiliary equipment was referring to sharing equipment like a pipe handler and used that to incorporate a pipe handler into Horn. So Schaaf, in his one-line sentence related to the issue, doesn't even reference what the Federal Circuit relied on.

And here patent owner does have the ability to relitigate this issue. Petitioner has not identified in its petition any rationale for res judicata. It didn't identify collateral estoppel or anything else. It just has a blanket statement, res judicata applies, without any case cite, without any rationale. But under collateral estoppel or any other issue of res judicata, when we have different parties in a different proceeding and more importantly, different evidence, we have different evidence, it requires you to

look at it again. And here there is new evidence in the form of expert testimony.

JUDGE GOODSON: But the evidence that the Federal Circuit was relying on for its holding regarding a prima facie case of obviousness were the same two references.

MR. WALKER: Correct. Same two references, but they made an interpretation of that one phrase through the eyes of a person of ordinary skill. That's a fact issue. An interpretation of a reference is a question of fact.

When the Federal Circuit made that determination, they made it without the benefit of any expert declarations, any briefing, any attorney argument. In fact, that line had never even been cited by anyone in the lower court proceeding or in the appellate court proceeding. It did not appear until the opinion came out. And it shows the problem with going ahead and taking something out of the reading without the benefit of expert testimony to help see what a person of ordinary skill would understand. And because in this situation we have expert testimony that was never considered and we have argument that was never considered because the issue was not raised, it's imperative upon this panel to do its own separate analysis of the issue of whether there's a motivation to combine, even if you

assume that petitioner can raise it even though they did not address it in its opening petition.

And the fact is the Federal Circuit was wrong on this issue. The Federal Circuit took the phrase concentrating -- one of the benefits of Horn would be the concentrating of common auxiliary equipment. The Federal Circuit interpreted that to mean that you could share equipment such as pipe handlers.

There are several issues with that. First, the idea that you could share this type of equipment, you can't share pipe handlers. Pipe handlers are built into the system, into the rigs, built into the floor. These are not things that you could sort of move from one station to the other and share. In Horn, we have an express description of two independent drill centers. Each one has its own rotary table. Each one has its own set of setback storage areas for pipe. Each have their own traveling blocks. Each have all the equipment they need to drill. Those are not pieces of equipment that you can just share between each other. They are built into the derrick. They are built into the rig.

The pipe handlers that we are talking about are the same. So we see examples of the pipe handlers in the Varco reference which is Exhibit 1011, starts at page 9, I believe. And these show examples of pipe handlers, of how they are built into the derrick and built into the floor. These are not like a pair of

wrenches or a chain or something that you can move around the drill floor. They are built in permanently. So they are not something that you can share.

JUDGE GROSSMAN: Mr. Walker, where can you direct us to the claim language that meets that argument that you are making now that these pipe handlers are built in and they aren't shareable? For example, I'm looking at claim 30 in the '781 patent, which is in the 1929 case, but choose any one of the claims.

MR. WALKER: So the claim language is what we are trying to find out is a motivation. We are not looking for structure to match up with the claims. What the Federal Circuit did is it used this one line, the advantage in Horn of concentrating auxiliary equipment, quote/unquote, provided a motivation for a person of ordinary skill to share pipe handlers between two drill stations.

So what we are doing is we are analyzing this motivation. Does this motivation exist? Is the interpretation of that line truly a motivation to get from Horn to the invention.

JUDGE GROSSMAN: So I'm looking at the invention. And under your analysis there would be structure in the invention that's immovable. They are two distinct structures. They are not shareable. And see if you can direct me to some language that

establishes that the structure in the claim is somehow precluded from being shareable.

MR. WALKER: Okay.

JUDGE GROSSMAN: You described how it's built in. All of those would be structural limitations which could preclude it, but I'm looking for if you could just direct me to where in the claim those structural limitations are there that establish that it is precluded.

MR. WALKER: Certainly. The only structure that we are adding from Horn to the invention is a means for transferring between the two stations for advancing to the seabed. So that's the structural element that we are trying to add. The question is whether that means for transferring is a type of auxiliary equipment that you could share between stations.

The real question that we are trying to figure out is what does Horn mean by saying we want to concentrate common auxiliary equipment. The only position that we are talking about here is that that statement does not motivate a person of ordinary skill to add transfer between the two stations, in part, because Horn itself focuses on the two stations having separate equipment, one for each set independent of each other.

Horn also uses the word -- I always stumble on this one, appurtenant. It refers to appurtenant equipment seven times

throughout Horn. And when it refers to appurtenant equipment, it is referring to the equipment that's necessarily used for each station to drill. So that would be the rotary table. It would be the drilling hoist. It would be the traveling block. It would be the setback envelopes. And each station has its own set of equipment. That's the appurtenant equipment.

The one time that we are using auxiliary equipment is in this one line in Horn that was the basis of the *Maersk* decision. And we have set forth through expert testimony that that would be viewed as something different than the main drilling equipment. The pipe handlers that we are talking about here would be the necessary equipment to actually drill the well and each drilling station would have its own.

In fact, the testimony now and by our expert but also by petitioner's expert says that the pipe handlers that they envision having in Horn would be moving pipe from the setback areas into each individual station. And that is what is borne out by the references in *Varco* as well which is Exhibit 1011. Again, those show equipment that are built in the rig that aren't just being able to move things anywhere in the rig, but are designed to get it from point A which would be the setback for storage areas into point B, which would be the well center.

Petitioner doesn't have any explanation of this term in its opening petition. It tries to in its reply. We would say that it's too late. It cannot. But even if considered, this panel must look at the most logical conclusion of what is the term "concentrating common auxiliary equipment mean." And we contend and I believe that a thorough review of that and especially in light of the expert testimony does not provide any motivation here.

But let's focus now on the motivation that petitioner did rely upon. And we'll start with Horn first because that's what the Federal Circuit did. In its opening petition, petitioner relied for the motivation to start with Horn and get to the invention on Schaaf at paragraphs 11 through 12. Those are just general overviews of Horn. They do not detail the reasoning of how you get from Horn to the invention. All that is stated is that Horn would have benefitted from rail-mounted pipe handling systems. This would presumably ensure crew safety because whenever you can put in pipe handling systems, you are taking roughnecks off the drill floor and you are keeping people from losing fingers and lives. So that's not contested.

But what Horn doesn't show is why you would want to move the pipe from one station to the other. Understand that transfer equipment, no one disputes that you could build a transfer equipment to move from any point A to any point B and

the derrick. The question is why would you want to go from one to the other. What Horn is teaching you is that you have two independent stations. No reasons to transfer between them. If you added pipe handlers in it just like as you see in the *Varco* reference, you would be moving necessarily from each individual setback dedicated to one well center into that one well center. And there would be two independent systems in Horn.

That's borne out by the expert testimony. Not only ours but also with petitioner's own expert. So expert Schaaf, Exhibit 107 at paragraph 81 says that Horn inherently would have required pipe handling equipment to move between the drilling hoist and the storage areas. And that's typical what you see in *Varco*. You go from the storage area into your drilling hoist. But as seen in Horn, each drilling center has its own set of storage areas that flank it on either side. And so there isn't any reason to try to share between the two drilling centers.

JUDGE GROSSMAN: Is that necessary that each has to have its own independent storage? Could you have a single storage area with a single transfer that goes to the storage area and delivers some pipe to well A and then goes to the same storage area and delivers certain pipe to well B?

MR. WALKER: And that would be quite inventive. And that's part of the Transocean invention. One of the features

is when you go to these two well centers that are communicating with each other, one of the things that you can do and some of the dependent claims is you have a shared setback area. And that's what's described in the Transocean invention patent.

But unless you were having two well centers there trying to work on one well, there's no reason for that. And that's the reason why Horn doesn't show that. Horn is trying to work on two wells independently, simultaneously and independently. And as a result, there is no reason for the two to share with each other. There's no reason for them to share setback areas. They have their traditional standard independent setbacks for each station.

JUDGE SAINDON: So counsel, though, if we started with Horn and then somebody with a Horn platform saw Lund and said, hey, that's cool, they can build tubes offline, I want to modify my station to do that, and they know they have to refigure stuff, but all they have to do is look to see, well, what did Horn do to accomplish this. And I think that was petitioner's rationale on page 48 of the petition, in order for a first hoist to assemble -- about the third sentence there. But that's why you would add this pipe handling system and whatever you need to actually make it work. So the motivation is more coming not from Horn itself, but trying to take what was in Lund and put it into Horn. So what's the flaw in that?

MR. WALKER: Sure. If you start with Horn and you take the teachings of Lund, Horn says we want to drill a whole field faster by drilling two wells at the same time. Lund says we can speed up drilling a particular well by building stands offline. So what Lund is teaching you is -- and the way it's set out in Lund is you have -- so if we are looking at slide 20, on the left-hand side at the bottom is Figure 2, and this comes from Lund. As you will see here, the well center is 48, I believe. And then there is a rail that is highlighted in blue that leads the preparation area. On either side of that blue area marked as 32 and 31 are the two setback areas that are associated with that well. So what Lund does is it puts a preparation area on the other side of the rail that would naturally exist there feeding pipe into the well center. So what it does is it takes advantage of the pipe handling systems there. It just configures it so it can now reach to the preparation area, take a prepared stand, store it for later use in one of those setback areas, and then when it's needed, move into the drill center.

Well, if you wanted to do that with Horn, and you'll see that on the right, you have the two stations in Horn, 7A and 7B. And you have for 7A, the well station 7A, you have 17A and 18A. Those are the two setback areas associated with that first well center. So you would put a pipe handler on a rail that runs in

between those two setbacks into the well center. And at the opposite end, you would see, as you see in the blue dot, would be the preparation area that you would add from Lund to speed up the process of drilling that one well by building stands offline. And you would build one for each station. That's how you would combine the teachings of the two.

JUDGE SAINDON: I was just going to say, so I could see this as a way to do it, but I mean, there may be many different ways to do it, all of which may be obvious. One might be more obvious, one less, but all we care about is whether what petitioner said is obvious or nonobvious. So there might be something that's more obvious, I think we can set that aside. Why is what petitioner proposes--where instead of having basically a duplication, you just use the two existing holes? Why not do that particular combination?

MR. WALKER: Because it runs counter to the intended purpose of each reference. Let's start with Horn. Horn is telling you save time by drilling two wells simultaneously. If you now set up a pipe handler between the two to try to build stands offline, you would now have to stop the drilling operations and clear out the drilling operations on one side to build up the stands to move over to the other. When you are drilling two wells simultaneously, there is always something in the rotary

table, always something in the drill center being made up or extending to the seabed. It's not available to build stands offline.

Similarly, if you start with Lund and you have the idea of having a preparation hoist to build stands offline to speed up your process and then as you do what petitioner would have you do is to convert it to a drilling hoist. So in petitioner's words, you could drill two wells at the same time like Horn. Well, if you are drilling two wells at the same time like Horn, you again cannot build up stands and use them for the other side. Or if you continue to build up stands, you are not going to be drilling simultaneously on two wells. The two purposes do not meet in the way that they are trying to add them together. You have to have a logical reason of why you get from one reference to the invention. And every time they start with one reference and get to the invention, they run counterintuitive to the stated purposes of each of the references.

The only way that the two can coexist where you still have their intended time savings is if you have two separate well centers, each with their own preparation hoist to build stands offline. And that's why their motivation lacks the internal consistency necessary to establish a proper motivation to combine.

And this runs true regardless of if we are looking at Varco or Baker or Lund or if you start with Lund and you are looking at Horn or Moore or Rike. The same issue happens where the two purposes do not intermix. The time savings, if you combine the two in the way that petitioner has added, you are going to sacrifice the time-saving benefits from one reference or the other.

JUDGE SAINDON: So just to follow up on that with Horn, you are saying, I'll make up a term, an essential purpose or what Horn is doing is dual drilling or simultaneously drilling. That's what Horn is for. That's why you ship it out to wherever in the ocean and use it to drill more than one well at the same time.

MR. WALKER: Yes. And that's how petitioner's experts have described it as well, simultaneously drilling two wells.

Now, one related issue that was raised by petitioner's expert is they tried to say that Horn, when it's drilling a second well, that is an auxiliary operation. And this gets to the issue of whether the invention applies to one well or two. And we need to focus on the claim language. Each of the claims we are dealing with here have language that focuses the operations on one well. They do it in different ways. '781 claim 10 talks about a first drawworks for drilling operations on a well and then a second

drawworks for auxiliary operations on the well. So naturally read, that's referring to the same well. '781, 30 is a slightly different approach. They describe as having a drilling superstructure for simultaneously supporting drilling and auxiliary operations on the well. So there is some variation of each of that in the claims. But when you look at the claim language, what we are focused on in the claims are operations that have to happen on the same well. That wouldn't include Horn.

Petitioner points out that there's one phrase in the patent that says this invention can be used on multiple wells at the same time. That's great because it can be, but the claims that we are dealing with, the way that they are crafted are all focused on having the ability to work on one well and the ability to have drilling and auxiliary operations simultaneously performed on that well, which would not be Horn.

JUDGE SAINDON: So counsel, I could understand that if it was a method claim. But we have, I think, all of these are structural claims.

MR. WALKER: Correct.

JUDGE SAINDON: So what's structurally different?

MR. WALKER: It goes to the motivation. And the reason why this is important is for the motivation. There is no

reason to have two drilling stations communicating with each other unless they are actually trying to work together on one well. That's what the transfer means does. It allows for work on one station to be used on another station, allows you to make it up ahead of time so that you save time for when it's needed. Horn, Rike, none of these dual driller references are trying to work on one well with two drilling stations. There are no references out there where you have two drilling stations working together on one well.

The transfer means is the structural reference that's used to distinguish. But the functional limitation of having these for drilling an auxiliary operations for one well also helps to explain the motivation of why you can't start with Horn and get to the invention, because without that known need for cooperating, you have no reason to add transfer between the two. And that's why it's important in this case.

Unless there are other questions on motivation to combine, I would like to use the rest of my time on secondary considerations. First of all, the reviewing court in this case has already determined that Transocean has provided substantial evidence of each of the factors that have been presented before the panel. That was the finding in both *Maersk I* and *Maersk II*.

The Federal Circuit has then gone on to say that -- well, if this panel also finds that there is evidence of these, then the Federal Circuit has already concluded as a matter of law that when weighing those factors against what they presume to be a prima facie case or a motivation to combine, then the secondary considerations as a matter of law outweigh it. That's a legal analysis the Federal Circuit has already done.

JUDGE SAINDON: Counsel, isn't this a little different? The Federal Circuit in *Transocean II* said there was substantial evidence to support a jury verdict. They didn't actually start from scratch and weigh it using any standard. They just said, well, we can find something that they were pointing to.

MR. WALKER: That is correct. And here -- so I said substantial evidence because that's a lower standard. They didn't say there was a preponderance or clear and convincing. They just said substantial. Your role here is to determine whether on balance or not, each of these secondary considerations exist. Now, and I'll get to the moment of why that is established in this case.

But assuming that you do find that there are each of these secondary considerations, the next step is then to legally balance them with the other three Graham factors. And the Federal Circuit has already made that determination as a matter of

law. So the question here is whether Transocean has met its burden to come forward with evidence of secondary considerations that haven't been sufficiently rebutted by petitioner.

And understand that while there is a different level of evidence, a burden of clear and convincing evidence on a defendant in a court case and petitioner has a preponderance of the evidence, that doesn't deal with secondary considerations. It's not the challenger's burden related to secondary considerations in a court case or here. It's the patent owner's burden of production of coming forward. I will tell you it's not very clear in the law. No one has really described what that burden is supposed to be, but it's certainly patent owner's burden to come forward with evidence here, just as it was in the District Court, and then to see if there has been evidence to establish that. So even though that we are in a different type of proceeding, patent owner's burden, as near as I can tell, is the same as it was in the District Court as it is here. And we meet this here even better than we did before because we've gathered even more evidence since then.

Go to slide 22. A large portion of petitioner's attack -- well, first let me back up. Patent owner has put forth all the evidence that has been looked at in the *Maersk* decisions that this panel is familiar with but has added more. One of the attacks by

petitioner here is that there isn't a sufficient nexus between the two. And they oversimplify the argument and they ignore the vast majority of the exhibits that patent owner relies upon.

If we look at slide 22, we categorized the different buckets of secondary consideration exhibits. And there are several of these exhibits that directly tie the discussion to the patents that we have in play here. So that certainly includes the licenses. Over $86 million have been collected, not only in upfront fees, but also in running royalties, as stated in exhibits we'll get to later. We have letters from Chevron where they are talking about the value of a patent to the -- a license to these patents being worth $27 million or no more than $27 million. We have the Seadrill's -- PD-05 [redacted] PD-05 [redacted] PD-05 [redacted] PD-05 [redacted] And in this memo at 2099, it's clear that it's referring dual activity to the patents in part because it states in there one of the risks is that Transocean has dual activity patents on this.

And it's clear that what we are talking about dual activity in this memo is not some vague form of dual activity that petitioner would have you believe but is directly related here not only with reference to the patent, because it tells you what it's

going to do to get from a single-activity rig to a dual-activity rig. To get from a single-activity rig to a dual-activity rig they want $30 million for an extra set of drawworks and other related drilling equipment for a second drill station.

I'm going to save some comments for later. Then we have another bucket. So we have several of these references, including a number of contracts also that are listed here that specifically reference discounts related to the patent activity claims and other references that are specifically tying discussion of benefits of dual activity or the value of dual activity or the benefits of dual activity have all been tied to the patents that we are talking about in this case.

Then we have another set of exhibits where the exhibits themselves provide sufficient context and know exactly what we are talking about. Generally what these exhibits will tell you is they will make reference to two separate drilling stations and make some reference to some ability to communicate between them, either by referencing the pipe handling system that runs between them or relating to the operations that would require that such as building stands offline. So through either the description of the operations and/or the description of the structure, in the context of these particular exhibits, we know exactly what you are referring to as dual activity. And in each of these exhibits,

these are somehow talking about the benefits of dual activity through increased efficiency, through premium gains, through marketability, through other factors of commercial success.

What's interesting is petitioner really doesn't address any of these exhibits. Petitioner only addressed a very small number of these exhibits. In fact, their expert, technical expert primarily focused on secondary considerations. It is Childers at Exhibit 1038. And he only identifies 22 out of Transocean's 137 exhibits on secondary considerations.

Now, I will tell you that even fewer of those are addressed in the petition, but even just looking at the declaration, he only cherry-picks ones to try to attack. And in none of those cases does Childers argue that the term "dual activity" as used in the reference is meaning something else besides the invention. What he is usually doing is taking -- criticizing whether or not there really is that much efficiency associated with it or whether there's that much benefit or whether there is that much skepticism. He's trying to critique it, but he is never arguing that -- he is never coming out and saying this reference of dual activity is something completely different than the invention.

And if I missed one, I apologize, but I went through what we thought were every reference he made and could not find it. Instead, the references that he points to that say dual activity

mean other things are the references they included in their reply. And these references aren't the ones we are pointing to for commercial success or praise or anything else. They are petitioner's own strawman.

And if we go to Exhibit 40, we have a list of all of the exhibits in petitioner's reply that relate to these secondary consideration factors. Patent owner contends that this panel may ignore all of these exhibits, at least the ones that weren't cited. You see on slide 40, the ones on the left are the only exhibits that are presented in their reply that are cited in the petition and explained in any form. The rest are essentially incorporated by references to a declaration that then goes into great detail of trying to describe each of these references.

These can be ignored for three reasons. First, petitioner is required to explain its evidence in its papers. Not by incorporating hundreds of pages of declarations to try to explain that. Second, petitioner could and should have addressed all of these in its opening petition. If we go to the next slide, 41, what you see highlighted are all the documents, all the exhibits that petitioner relied on that they already had from Transocean in the underlying litigation. And the rest of them are largely publicly available information that are available to petitioner before they filed their additional petition.

Petitioner has the burden of coming forward with all of its evidence. It knew that these issues were in play. It addressed these issues in its opening brief. It addressed nexus. It addressed commercial success. It addressed praise. It addressed skepticism. It addressed all these issues but didn't put forth all of its exhibits. Instead, it waited until its reply where patent owner does not have the ability to effectively come back and address.

And there are a few things that were mentioned today, as we'll get to. I'll point out why they were incorrect if we had the opportunity to present, but this panel does not need to give any weight to any of these exhibits. It doesn't go to the admissibility. But it does go to the weight which these panel should give these exhibits.

JUDGE SAINDON: Counsel, I just want to jump in there. I recall we had a conference call on this issue and we asked you to identify, and we had an opportunity for you to file a surreply. And we asked for arguments to be identified and we weren't given any, I guess. I just want to point that out. This is different if you are arguing something different.

MR. WALKER: No. So we asked for permission to file a motion to strike, exclude these exhibits. That was denied. We were told that we could pursue any of the avenues available, whether that was filing a motion to exclude, raising it at the

hearing, whatever it was. We went back and looked at the law, what other panels have done, and they have considered this issue about failing to cite or put -- mostly putting it in the reply as opposed to putting it in the opening brief as to be an issue that's addressed at the hearing and because it goes to the weight that it should be given as opposed to the admissibility. That's what we have determined from looking at the guidance of prior panels.

But there is a third substantive reason why you can ignore it. That's because most of this does not address the secondary consideration evidence that we put forth. Most of it is strawman trying to tear it down. Others of it is trying to argue that the references we have are incorrect because we are not as efficient or as commercially beneficial. But they still point out that there is an efficiency, there is a premium, that there is a benefit to it. Just not as much as the references that we point to. Fine. We can agree to disagree on that point. But the fact is that the evidence that they are pointing to still shows that there's an increase in efficiency, still shows that there is some commercial demand for it, still shows that there is some premium associated with it, still indicates that there is some benefit. And that's what the secondary consideration is about, how did the industry react to the invention. You look at commercial, real-world evidence to say if -- how did people react and did it react in such a way to

indicate that this was ho-hum, nothing new or did they react in a way where they were willing to pay more, demanded more and indicate that it really was a new invention.

JUDGE SAINDON: Counsel, I would like to --

JUDGE GROSSMAN: I just want to understand the purpose of this slide 40 and then the next slide, 41. So it's your position that we don't need to read the 154 exhibits that are in the pink color or only need to look at the few exhibits that are in your green color on that chart because those are the only exhibits specifically addressed in at least the reply?

MR. WALKER: Correct. And I would argue that you do not even have to read the green ones as well because they should have been raised in the original petition. Not waited for in the reply. These are all related to issues the petitioner addressed in its opening petition. They just decided to withhold the declarations and all the exhibits until its reply, and that's not allowed.

JUDGE SAINDON: So let's get to the commercial success because one thing I would like help understanding is: folks are usually willing to pay for a service or a good. And just because they are willing to pay doesn't mean that it's commercially successful, even if it's an add-on feature. So I want to go through this evidence that you have provided of where folks

have paid extra for the feature or paid less for not having the feature to see if they are just paying for something or not paying for something, or if this is something that is unique and drove them to consider purchasing or renting, whatever the term is, the ship in the first place.

MR. WALKER: Okay. There are several contractor arrangements that provide for discounts if the dual activity feature is not available. So if you are not able to do all your activities offline on the second well station, there's a reduction in price. We see those in Transocean contracts. We see those in competitor contracts. We see some contracts that specifically reference the Transocean patents, that if there is a change to the design as a result of the Transocean patents, that there is a reduction in rate. So there we have a clear connection between the patents and the price that's paid.

All that petitioner has come in on that point is to say, well, that really, in essence, doesn't mean a whole lot. We are arguing over degrees here. But as long as there's some benefit, that's an indication of secondary consideration of value associated with it. And it's generally in terms of billions of dollars is what we are talking about.

JUDGE SAINDON: Counsel, but there's a difference between saying there's some value in it. I mean, everything

commercially on the market has value if people are willing to pay for it. I don't think that somebody is willing to pay for something means it's commercially successful. I think everything at the store has a cost associated to it. That doesn't mean it's successful. It just means somebody is willing to buy it. So I see a distinction there between say somebody is going to pick one product that has the optional feature and an equivalent product that does not have that option.

To me choosing the company who is offering the alternative service, whatever it is, if people are going to that because of the option, that's fine, whether or not they pay for it, to me, that makes sense. I mean, if you are going to buy two of something, you pay twice as much. If you are buying something that works faster, you are going to pay a little more because it costs less for you to operate it. So I'm trying to tease out the distinction there. If the invention is trying to make something more efficient, it makes sense that the cost would be affected by that if you couldn't use that particular aspect. So what here points to the actual value of the invention rather than just the price of it?

MR. WALKER: There are a few things. Let me first focus on market share, because we recognize in this industry there's a lot of things that affect price. Everyone agrees to that. So let's look at market share. The market for these rigs is the

ultra deepwater market. You wouldn't take a rig that's $500,000 a day built for deep water and market in shallow water where you have something a tenth of the price available. Those are different markets. And we have evidence in the record about what these different markets are.

And petitioner is not marketing its deepwater rigs in the shallow water markets where you have jack-ups. So what petitioner has done is said you need to look at the entire offshore industry, and it says that we only have a 13 percent market share. So first of all, that's the wrong market. But even if you assume that, we've gone from zero to 13 percent over the last 15-plus years. So that's an increase in market share. The real market, though, is not the shallow water stuff, which makes up a large number of the rigs. It's this premium deepwater market.

Commercial success, we are not required to show commercial success in every available market. When navigation systems first came out in cars, if you look at the overall car market, it was a very small percentage of them. But if you looked at the luxury car market, it had a pretty sizable increase because those are different markets. Just like here, you have a different market, and this feature is very valuable in it. So when you look at those, the testimony that really has not been contradicted is that

the share is about 50 percent now of the market, from zero to 50 percent over the last 15-plus years.

More importantly, we are in a down market now and rigs are getting stacked because when you don't have a contract, you have to put it in storage. And the larger percentage of rigs being put in storage are single-activity rigs. Not dual-activity rigs. When we look at the premium that's gathered, we recognize that any one individual sale is affected by a lot of different factors. It's why our expert looked at all the different deepwater rigs all around the world over the last 20 years and to help try to normalize out all those other factors. And when you look at it, you see over a 20 percent premium that's been paid for dual-activity rigs versus single-activity rigs. And those single-activity rigs are generally comparable to the dual-activity rigs. You even see that in 2099 where it was a single-activity rig from Pacific comparable to other rigs in every feature except it didn't have this ability to upgrade to dual activity. That was the feature that was being upgraded. So a lot of rigs out there have similar features, but the ones with dual activity, which is a known quantity -- when people go out there and they rate rigs, they look at them and say are you standard/conventional, do you have offline capability, you get a tick. If you are dual activity, you get another tick because that's considered separate and apart from

offline capable and separate and apart from traditional. And that's meaningful because the industry has recognized dual activity as a separate category than offline standard, than just a traditional rig.

When you look at the one piece that petitioner focused on was the rigs that are supposed to be built in the future. They have a projection of rigs being built out past 2020, that most of them are going to be single-activity rigs. This is a prime example of why this should have been brought up in the original petition, because what they are citing to are a bunch of people that collect data on drilling contractors to say, hey, we are building a rig. But that's all the information they know about it. So they put a tick, yes, they are building a rig, but they don't know any information about what the equipment is on there, to be able to categorize it as offline capable or dual activity. So there is a large portion of these future rigs that no one knows any information about that petitioner is classifying as single activity, when the fact is no one knows what they are going to be.

And the fact is most likely most of those contracts have been cancelled since then because this is a dead market and people are trying to get out of it. The only thing we do know is the rigs that are on the market. And the rigs that are on the market that have been built over the last 20 years has been a steady increase to where there's almost 50 percent of the rigs are

now dual-activity rigs. A dramatic market share in a relatively short amount of time in this slow-moving industry.

We have evidence of copying --

JUDGE GOODSON: Can I jump in before we go on to copying. Do I understand that what we have here is a possibility to rent the same drill ship and you can choose to enable or disable this feature? It's the same drill ship and you can choose whether to enable or not to enable the feature and you pay a premium if you choose to enable it?

MR. WALKER: Yes. There was in the original Global Santa Fe litigation, there was an injunction that provided a safe harbor for people to avoid a charge of infringement. And that was essentially to weld a plate or a permanent structure that prevented you from going to the seabed on your second station.

JUDGE GOODSON: Okay. And then does the record indicate in how many instances or what percentage of the time the feature is disabled for the same drill ships that have that feature generally?

MR. WALKER: There are several instances where Noble took off its equipment, took off its drilling equipment off its second station. There are several where they welded the plate in place. And that's important here. That's important here because in each situation, that necessarily reduced the efficiency

of the rig. Each of these people removed the equipment or welded in place a plate to prevent going to the seabed knowing that it decreased the efficiency of the rig. We've pointed to examples of it from competitors that identify this efficiency. Even petitioner's own experts have identified the efficiency. So people have knowingly crippled their rig and lowered their efficiency out of respect for this patent. That is a sign of acquiescence. That is a sign of a secondary consideration and respect for the patent.

JUDGE GOODSON: Or it could alternatively be a sign that this feature is not really the reason why they want the drill ship. It could be because they want the drill ship because it has a large capacity and the feature is not really significant to them.

MR. WALKER: There is no doubt that for some customers they are not as concerned about dual activity. Some do not have the capability of managing it. Some are concerned about clashing. There are many reasons. We do not have to show commercial success to everybody. We do not need to show that everybody demanded it. We just need to show that there was a demand for it, that there were people out there who specifically wanted this.

And the builders of these rigs, when you go to a car lot and the car lot is picking which cars to put on the lot for people to

come buy, they recognize that everybody wants power seats. Not everybody wants satellite radio, but they put it in a lot of the cars because they know there are people who do want it and that is the difference between making a sale or not. And that's why drilling contractors tend to add these features, because they are trying to get multibillion dollar contracts. They don't want to be missing out on the feature that's important to the next bid that they are trying to submit.

JUDGE GOODSON: But if it were a commercially successful, you would expect that most of the time when the feature is available, people would be selecting to enable it. And I'm just wondering if the record indicates what percentage of the time or how many instances they selected to enable this feature.

MR. WALKER: We do not have that. And it also depends on who controls the drilling contractor or the operator. As to who is responsible for that in contract, a lot of times they negotiate who is responsible for paying for the license or paying for the agreement. And that will affect on whether the drilling contractor comes to Transocean or not or the operator for a license. And there are several instances of Shell and Hess and others coming to Transocean to get a license to use dual activity when the rig was in the Gulf of Mexico.

I have plenty more, but I am over my time.

JUDGE SAINDON: Counsel, I have a few more questions for you. Since we have been asking the questions, it will be on our time. First I'm looking at Exhibit 2080, paragraph 26, which is the Bratic declaration. It's the chart, the bar chart showing the percent of ultra deepwater drill ships, the one I think you were using to say that about 50 percent of the market has converted. Now, of that 50 percent, how many are your ships versus somebody else's ships?

MR. WALKER: I do not know. I do know that Transocean, being the largest drilling contractor in the world, has more dual-activity rigs than any other individual. But I do know that they have a minority share of the total rigs.

JUDGE SAINDON: I guess my question is, so we have this growth trend here and I'm curious, is this growth Transocean, and everyone else who has one is flat? Or are other people also increasing as well? Do we have any evidence of that?

MR. WALKER: I think you can get there. So we have -- you can identify --

JUDGE SAINDON: Can you speak up in the microphone.

MR. WALKER: We can supplement with actual numbers for you, but you should be able to get there with the information. We have a list in this Brandt declaration, which is

Exhibit 2085, that identifies all the Transocean rigs with dual activity. We can compare that number with the numbers that are used underlying the data and what Bratic's data to get to that to see what that split is. But generally speaking, it has increased in part because of some of the information that petitioner provided. Samsung, Heavy Industries is one of the few primary builders of drill ships in the world. And they just simply have a standard design, and that standard design, much like the car with the air-conditioning, has dual activity built into it.

Petitioner complains it was more expensive to try to take it out, but the fact is the manufacturer recognized it's become such a standard feature, they have just included it in their basic design.

JUDGE SAINDON: I had one other question for you. You had mentioned that this dual activity being a requested feature, I remember in the record there was a number of contracts, and I think some of them specifically -- not contracts, RFIs, request for information, asking for dual activity. But I think there was only three or something like that. If this was something that customers requested, why wouldn't it be reflected by having lots of RFIs saying we want a dual-activity ship?

MR. WALKER: There are two answers to that. One is we simply haven't gone out and tried to comb all the requests for

information out there. Two, not every customer demands it because they recognize that at the end of the day for the operator, it's how much is it going to take to build my well, to construct my well? What is the overall price? And they look into that, what is the cost per day versus how long it's going to take me. So if you come with a single-activity rig that is 15 percent less efficient than a dual-activity rig but you are going to give a 40 percent discount, then that's a much more viable option.

But what we are locked in about here is in the competitive marketplace, what is the benefit dual activity gives? So even if they don't require dual activity, we have information in the record about how BHP and BHP Billiton are examples of customers of how they use efficiency to determine what the costs will be to use this rig on a well and then use that to determine -- to compare the different rates that are being offered for a bid.

So the dual activity clearly gives an advantage because of its increased efficiency, an efficiency the petitioner acknowledges. It just doesn't agree with how much it is. But there is an increased efficiency that would naturally lead to a competitive advantage when customers look at it and we provided internal presentations of customers in evaluating dual- versus single-activity rigs that highlight this specific point.

JUDGE SAINDON: Thank you. Any other questions from the panel?

JUDGE GOODSON: I did have one. The petitioner in its presentation said that the evidence shows that the licensees of the technology aren't paying running royalties and therefore, aren't using the patented technology anymore. Is that correct?

MR. WALKER: I apologize, would you repeat that again so I don't answer the wrong question?

JUDGE GOODSON: The petitioner argued that the licensees of the technology aren’t paying running royalties and therefore, aren't using the patented feature; is that correct?

MR. WALKER: They certainly aren't now because the patent is expired in the Gulf of Mexico. But there have been several people that have been paying running royalties even including the last year of the patent and extending back. So the most recent I think was Hess or maybe Shell paid several million to do one well. And so, yes, that is incorrect. There have been several incidences of running royalties. I believe that the royalty revenue sheet which I believe -- let's see if we can find it on slide -- I think it's Exhibit 2097. Is it slide 34? So this is a redacted version, but I believe in the unredacted version that the panel has access to for Exhibit 1929 I believe will show the running royalties paid versus the upfront royalties that were paid.

JUDGE GOODSON: Thank you.

MR. WALKER: And in answer to your question, there are 98 dual-activity rigs. In Mr. Bratic's chart, 19 of them were Transocean rigs. So the vast majority of them were nonTransocean rigs.

JUDGE SAINDON: Thank you. Any further questions? Thank you very much.

MR. WALKER: Thank you very much.

JUDGE SAINDON: Petitioner, I'm going to give you a little extra time just because we asked so many questions. So for your rebuttal, you have 12 minutes. Then after this we'll take a brief recess and then readjourn for the confidential portion.

MR. REEVES: Well, I don't know if I need to set up any slides. I think I have shown the slides. Anyhow, let me just respond to a few things. Some of the things I heard just didn't strike me as correct. For one thing, the notion that the drilling rig alone would be limited to three stands. Lund talks about three stands, but it's not limited to that. The way it works is it drops one, screws another one, drops another one. Lund could put on as many stands as he wanted to in order to go as deep as the hoist would allow depending on its capacity. So it's not limited to just three because of the size of the derrick.

So the other thing is the *Continental Can* argument and the argument about the natural operation, I showed earlier a slide and it was pretty self-explanatory, at a very minimum, Lund shows an embodiment where the tubulars can go down 20 meters. Obviously if you are 20 feet -- if a seabed is 20 feet from the floor of the drilling hoist, Lund could reach it.

Now, what Mr. -- what patent owner here argued was that you have to look at Lund and say what is the natural operation? And he read all of these things into it. You know, you are going down and you are only going to use it in a certain circumstance. That's not it. The natural operation of drawworks 34 is simply to raise and lower tubulars. That's all there is to it. And if you lower tubulars 20 feet and the seabed is 20 feet down, you are inherently going to reach it. It's that simple. You don't have to read all the particular uses that are described in Lund.

So for example, let's go back to *In Re Schreiber*. There the prior art was simply a cone that fit on top of an oil can used to dispense oil. The wannabe patentee took that same cone, put it on top of a popcorn bin and used it to dispense popcorn. Obviously the prior art didn't say anything about dispensing popcorn. It was just enough -- you have to look at it from the scope of the claims. The claims just say it has to bunch up the

popcorn and dispense a few kernels at time. And the Lund structure did that. That was all that was required.

You couldn't argue, for example, if you were representing Schreiber that, well, Lund talks about the oil and he talks about the containers. That's not it. The natural function in the context of the claim, and that's what keeps getting ignored here, these are very broad claims, and much of this struck me as an effort to just read things in to narrow them down.

Let me see what else.

JUDGE SAINDON: Counsel, I would like to talk about that a little bit more. So let's say that in *Schreiber* you have the oil can, let's say, for a 55-gallon drum of oil, huge. Let's say we are trying to apply it to a test tube or something. So there we have the practical realities of size. I mean, the test tube is not going to hook up too well to the funnel intended to be used for a 55-gallon drum.

So here we have -- let's say that we know that there could be 20 feet or 20 meters or whatever of pipe hanging below the deck. But the deck isn't the bottom of the whole structure. There is something to hold the deck together. There's space underneath it, some sort of structure to hold the deck up. So I'm wondering is that amount of structure, does that make it so that it's necessarily so that it's always going to cover that 20 feet or

20 meters -- the 20 meters of pipe is never going to dangle low enough to the seabed because we know there has to be 10 meters of structure, for example, to support the derrick and that it has to be so many meters above the top of the sea level so that waves and so forth. What practical realities do we need to account for?

MR. REEVES: First off, we already have testimony that you could use Lund to reach the seabed in shallow water. That's sufficient. The practical realities of this depends on what's in the claim. If the claim doesn't mention depth and is not limited to any particular depth, then it's just a matter of use. And that's the thing. The structure is disclosed. The structure can be used in different ways. Even if in practical realities the way Lund was describing it and wanted to use it was in a concern condition, whether it would be an air gap -- which I don't believe Lund even mentions an air gap. This is all stuff that's just ipse dixit being read in. Even if that was Lund's intent, it could be that years after Lund somebody realizes for the first time, hey, you know what, we can just lower this thing down, get a little closer to the seabed and now we can use it to reach the seabed. So the use doesn't even have to be recognized at the time. So this case is really a lot more straightforward, I think, on anticipation than what is being made out to be by the patent owner, who is just trying to make it more complicated than the issue really is.

As far as the claim construction issue, the corresponding structure is, as the panel knows, the structure that is clearly linked to performing the claimed function. And what that is in the patent owner's patents is a drawworks. It's that simple. It doesn't describe any particular drawworks. It doesn't limit the drawworks in any way in terms of their size or capability or the depth they can reach. It just simply says drawworks.

So the panel's construction to just say it's a drawworks is absolutely the right one. Now, if that means that it includes a whole lot of drawworks, even smaller ones, as long as they can perform the function of reaching the seabed at some depth, then that's the price you pay for drafting broad claims.

So one of the remarks that I heard, for example, was a comparison, nobody -- if you are talking about a mechanized vehicle, nobody is going to confuse a go-kart with a semi tractor trailer truck. Well, that's true as far as it goes. But if your claims recite a mechanized vehicle, well, then you have arguably, at least, covered the go-kart and the semi tractor trailer truck. And if that leads to anticipation, well, that's just the law of anticipation.

As far as the arguments about *Magnum Oil*, these are the same two patents that were cited going back to the original Transocean case. We cited that case in our brief and it's in the

declaration of our expert, Bob Schaaf, as they have already noted. And the patent owner has responded to that argument, so obviously they had every opportunity to respond. The panel is certainly free to review any parts of the record that it wants. They are in the record and there's been no objection that Horn is in the record. That's point one about that.

The second thing is as to the argument about common equipment and sharing, plainly what the Federal Circuit was saying is that it would have been obvious to share common equipment. That's how it interpreted Horn and that's the proper way to interpret it. It's not just the pipe handling equipment. But it's the pipes, the tubulars themselves that move back and forth that are shared. And there's lots of motivation to do that. The motivation is found in Lund. What you would do if you combined Lund and Horn, you would get a structure that could be used in both cases, in the case of either using it for offline stand building or dual drilling, and you would have that flexibility. That's the point to our argument or at least one of the arguments for a motivation to combine. You wouldn't have to combine it in the kind of mechanical way that patent owner is suggesting. I think the Federal Circuit even addressed that argument and said a person of ordinary skill in the art is not an automaton. He can think of more than one way to combine these references.

The gist of the argument, as I read it, was that it would be mutually exclusive to try to combine Horn and Lund. So I'll leave it at that unless the panel has any questions.

JUDGE SAINDON: Okay. Thank you.

MR. BAKER: Thank you, Your Honor. I just want to discuss very quickly a couple of points Mr. Walker made on secondary considerations. First of all, when we unseal that exhibit, you'll see that the majority of those licensees don't pay a running royalty. That evidence will be in the record because they don't place any value to it. That's why these rate reductions don't have any meaning in these contracts.

Our expert, Keith Ugone, did spend time in the record and analyze these contracts. And his declaration is Exhibit 1041. He says if you take these percentages and you apply them to real-world, in particular day rates, that the impact is de minimis at the end of the day. This is why people will put a casing sleeve on and not pay a running royalty or pay a royalty whatsoever, because at the end of the day, think about this, if you put in the casing sleeve, you are going to lose a couple days on a 300-day well program. That's where supposedly the efficiency is on a single well. You have to look at the day rates. What are the day rates then that that particular contractor is losing? These day rate, let's say they run $500,000 a day. You are talking about at the

end of the day a couple million dollars. These contracts are huge. A couple million dollars, quite honestly, Your Honor, it's chump change to these guys. They don't want to go pay $15 million for a license in return. Why should they do that? Because they can save a lot more just by not using dual activity. People don't want to use the invention. They have come around, a work-around and that's what they are using today.

You saw the chart on Mr. Bratic a while ago asking questions. They've now admitted most of those rigs are not even Transocean rigs. We don't even know if they are practicing dual activity today. Mr. Bratic just threw them in there and said, well, this our market share; it's over 50 percent. That's not Transocean's market share. It's much less than that. And the law requires not only commercial success today but they should have had commercial success when the invention came out. Why didn't it happen? Because there was no demand. Nobody wants to pay for dual activity.

JUDGE GROSSMAN: Do we know how many of those 97 dual-activity rigs are being used as dual-activity?

MR. BAKER: We don't know.

JUDGE GROSSMAN: As patent owner said, they would weld a plate over.

MR. BAKER: Or put the casing sleeve. And we don't know how many. We don't know how many are in the Gulf of Mexico. We don't know how many are stacked. Bratic just assumed if they say DA, they must be practicing the invention and are part of the market share.

This whole thing about stacked, that's ludicrous. Rigs become stacked because when they come off, there's no place for them to work. It's not whether single or dual activity. If you come off and there's no work, you are not going to get a contract and you are going to be dry stacked.

JUDGE SAINDON: All right, counsel, we have expired all of our time. So what we are going to do is take a brief break. We'll try to start back up at 4:10, try to walk back in. At that time we would like the room to be only the folks that are subject to the protective order. And before we get started, I'll ask counsel for both parties to confirm that they are okay with everyone in the room. So until then, we are adjourned.

(A recess was taken.)

JUDGE SAINDON: We are back on the record in IPR2015-1929, 89 and 90. This portion of the hearing is just to discuss the confidential information. I would just like to have both parties come up to the mic and confirm that they are satisfied with everybody in the room.

MR. BAKER: On behalf of petitioner, yes, Your Honor.

MR. WALKER: Patent owner is satisfied as well.

JUDGE SAINDON: We have provided ten minutes for each side. Petitioner, you can reserve some of that time for rebuttal. And if there's a particular amount of time you would like to reserve, let me know. I'll take that off the clock.

MR. BAKER: I just want to be clear, are we restricted to just talking about the information that is confidential and not public?

JUDGE SAINDON: That's right. It's not for rebutting things that we've already discussed.

MR. BAKER: Okay. Well, this should be shorter than ten minutes, I believe. Would you care for me to start since this is part of my presentation?

JUDGE SAINDON: Yes, please. Would you like to reserve any time for rebuttal?

MR. BAKER: Sure. Two minutes.

JUDGE SAINDON: You may begin.

MR. BAKER: So the testimony that was redacted is from Mr. Billy Ambrose, the corporate representative of Transocean. And if the panel will recall, this is testimony that we had to fight very hard to get. This was testimony that was not

produced to us voluntarily and we had to come to the panel for a motion for additional discovery. So it's interesting that this testimony is very relevant and as we'll show right now. For example, these discussions, these numbered slides, we are talking again about what was Transocean's position about what type of features it pushed to its customers. And as you'll see here, he testified --

JUDGE GOODSON: Which slide are you looking at, counsel?

MR. BAKER: I'm sorry. Your Honor, I had to -- let me -- I had to pull -- when I redid the slides, they renumbered them. Bear with me one second. It's from Exhibit 1081.

JUDGE GOODSON: Okay. Thank you.

MR. BAKER: All this is from Exhibit 1081. And again, we asked -- well, not us, but counsel for Pacific Drilling asked some questions about, again, what was promoted with respect to the Enterprise and there were some documents that were referred to. Again, these are nonpatented features. At the bottom he testified, Was this an attractive feature to Transocean's customers, and he said yes.

Next slide, again, did you market the Enterprise on that basis? Yes. Are these features claimed in the Transocean patents? No. And he said, None of these features are they

claimed in the Transocean patents; is that correct? None of them are claimed.

And then we go down and there's some more testimony: What about the ability of large number of tubulars and consumables, is that an attractive feature for drilling rigs? Yes, it is. And were these features attractive to your Transocean customers? The answer was, For the most. I mean, some customers don't need it, but in some areas like the North Sea, I would say less so. But in the Gulf of Mexico, Africa, Brazil, yes.

Again, more testimony about what was advantageous and what Transocean promoted. Large setback areas, yes. Does the patent talk about a large setback area? No, it does not. And were these advantages for the customers? And of course.

JUDGE GROSSMAN: Were you finished reading from the slide?

MR. BAKER: Yes.

JUDGE GROSSMAN: I just wanted to make sure because we didn't have a slide number, you indicated you reordered and that's okay -- but if you can just read in, I think it's -- well, I have a different slide number, but if you could just read in the label that's at the bottom of the slide to identify where in Exhibit 1081 you were just reading.

MR. BAKER: Okay. Let's see, the very first slide is Exhibit 1081, page 159, lines 18 through page 164, line 15.

JUDGE GROSSMAN: And I think your slide that you have on the screen which is your slide number 1 corresponds to the slides you submitted for the record to slide 23 of protective order material.

MR. BAKER: Yes, Your Honor. And then here again for the second slide that was Exhibit 1081, page 80, line 17 through page 81, line 19. The third Ambrose slide, Exhibit 1081, page 80, line 17 to page 81, line 19. And this is slide 4 of Ambrose and this is Exhibit 1081, page 80, line 17 to page 80, line 19. And again, Mr. Ambrose is talking about mud pumps. They are not claimed by the Transocean patents and that they are advantageous and why they are advantageous, because they are for things that are called out here. It's more efficient to switch back and forth between the different types of fluids.

The next slide for Mr. Ambrose, again, he is talking about more attractive features that were promoted to customers. Again, Exhibit 1081, page 80, line 17 to page 81, line 19. And he is again confirming these things like mud systems are not covered by the patents.

JUDGE SAINDON: Counsel, I have a question. Let's say you are manufacturing cars and we are discussing a patent

about steering wheels and the steering assembly. And so somebody is trying to show secondary success for this car with a patent dealing with the particular steering mechanism. And you are telling us, well, people bought the car because it has leather seats, because it's got a great paint job. It's got all these other things, that's why they bought the car. The fact that they bought it for other reasons doesn't mean they might not have bought it for steering. So I guess pointing out all of these features with respect to mud, I understand your point, but how does this tells us whether or not they did buy it for the particular feature we are worried about?

MR. BAKER: Well, there's no evidence to that fact, you are right. The evidence is that Transocean promoted all these other features, so there may be one person out there that said, well, I want to buy it because of this feature. But the law says what is it that the patent owner is promoting? If the patent owner is only promoting the patented invention, you assume then that that's what drove demand.

Here you have got all kind of features that are being pushed out there. If you see it over and over again in these exhibits, and Exhibit 1041 is a very, very good example where Transocean promoted a host of features in 1996 when they were trying to get a contract from, I can't remember, Shell or

somebody. And you'll see where they just talk about, yeah, there's dual activity, but by the way, here is a host of about 10 or 12 other features that really, really make it more efficient and you ought to contract with us.

That's what the law says, you should have just focused on dual activity, the invention. Not the name, but the invention, which is what. It's going to the seabed. You don't see anything in seabed here, we got more benefit because we can go to the seabed.

You got to remember the prior art too. The prior art disclosed all these things. What is the invention? And Mr. Walker agreed they convinced the patent examiner to the seabed.

The rest of the slides, just very quickly, the Petrobras we talked about that earlier, they didn't want dual activity. Mr. Ambrose confirmed that. Another slide, Exhibit 1081, page 231, line 2 to 9 talks about internal rate of return. All these slides deal with how and confirming what we had said earlier that the internal rate of return showed that the single-activity rigs were more profitable than dual-activity. And there's one testimony, it's a simple fix, again, on clashing.

JUDGE SAINDON: You have saved two minutes for rebuttal.

MR. WALKER: The confidential information that was sealed but became relevant to our discussion is the Exhibit 2097. And the question was asked about how much is related to a running royalty. And unfortunately, it's not as easy as I thought it would be. What this does is it summarizes each of the people that have paid royalties. There is a middle column there, royalties received by type, those are clearly identified with running royalties on contracts where there's an upfront payment and a running royalty. Several of these, though, show lump payments which also include running royalties. I'll just quickly explain, you can get this from looking at the underlying settlement agreement or the underlying license. But with Maersk, that shows a lump sum. That was a settlement that didn't relate to any running royalties because they capped off their rig before they arrived in the Gulf of Mexico. So there wasn't any running royalties. There was just the sale of their rig on the initial drilling contract based upon the dual activity features.

We have Stena is a -- TO-03 [redacted] Both the Shell and the Hess licenses, they are shown as lump sums, but those were customers that came to Transocean, and those lump sums were based upon

the estimated time it was going to take to drill the well. There was no upfront amount paid. There was an estimation of what the running royalty would be over that time period. And if you look at the licenses, you'll see that it was an estimation on the number of days at the rate that they were paying for a 5 percent royalty rate. And so those are more recent examples, actually, of customers who come to take out short dual-activity licenses when they were in the Gulf of Mexico.

And that also gets to where are these rigs used. The big issue has been when they are in the Gulf of Mexico, people will try to alter it. But the main areas for deep shore drilling are also West Africa and Brazil. And there people have been less than respectful of the patent and we have people routinely using them. You see that in Exhibit 2117 where Chevron states that most of its fleet is dual activity and they routinely use it to realize the efficiencies and cost savings.

You have the 2099 memo internal to Pacific in which they identify the risks of upgrading to dual activity would be to having to approach Transocean for a license in the U.S. But there's less respect for it outside the U.S. So the question was, is this the being used? Yes outside of the U.S. really without concern. It's in the U.S. where people have more concern and try to show respect to the patent by modifying their rig.

And then finally, the question from the judge about what is -- how much of a nexus there needs to be to this one feature versus others. And I believe that the *Apple v. Samsung* recent decision is very illuminating because they go through a number of secondary considerations.

MR. BAKER: Your Honor, I thought we were supposed to stay restricted to confidential information. Now he's bringing up rebuttal argument that I thought you said was not allowed.

MR. WALKER: I can rest, but it was raised in the last session. So I was just rebutting it.

JUDGE SAINDON: That's right. Let's stick to the confidential.

MR. WALKER: That's fine. If that's the case, that's all the information I have on confidential information.

MR. BAKER: Your Honor, can I just speak real quick on the rebuttal?

MR. WALKER: Other than to say all the points that are raised in the Ambrose deposition that were confidential, yes, there are other things that make these rigs desirable. But just like the iPhone, there are hundreds, if not thousands of features that are attracting it. That doesn't mean that you can't show nexus to

any one particular feature. And we have done that and then some, and the Federal Circuit has agreed.

JUDGE SAINDON: Thank you.

MR. WALKER: Thank you, unless there are any other questions.

JUDGE SAINDON: No. Thank you.

MR. BAKER: Your Honors, I just want to point out just very quickly the Stena payment, I believe Mr. Walker said they included some past royalty, the way it was determined. But it's interesting TO-04 [redacted]

JUDGE GROSSMAN: Is there any evidence to that or is that just your understanding?

MR. BAKER: All I know is that they are not paying royalties, obviously.

JUDGE GROSSMAN: Is there any evidence of that?

MR. BAKER: Yes, right there.

JUDGE GROSSMAN: That they paid TO-05 [redacted]?

MR. BAKER: TO-06 [redacted]

JUDGE SAINDON: Depending on how that gets answered, whether or not it is confidential information, it's not -- we are not hearing it.

MR. WALKER: We had conceded there are no more running royalties because the patent expired in May. So there are no more. And there is nothing on the record to know whether people have taken the sleeves off now or not. We have a suspicion, but we don't have evidence.

MR. BAKER: But there was a period of time when the patents were enforceable and running royalties could be paid, and that chart doesn't reflect it.

JUDGE SAINDON: Is there anything further?

MR. BAKER: No, your Honor.

JUDGE SAINDON: With that, the case is submitted. The panel appreciates the parties' time. And have a great afternoon.

(Whereupon, the proceedings at 4:31 p.m., were concluded.)