

IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF IOWA
WESTERN DIVISION

GUNTERT & ZIMMERMAN	) Case No.
CONSTRUCT DIV INC.	) 5:20-cv-04007
Plaintiff	) CJW-KEM
vs.	)
GOMACO CORP, an Iowa	)
corporation	)
Defendants	)

Zoom Videotaped Deposition of
Kenneth Mark Bryden
August 13, 2020
1:05 p.m.

Reported by: Bonnie L. Russo

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21

22

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22	(Exhibits bound separately.)		

1 P R O C E E D I N G S

2

3 THE VIDEOGRAPHER: This is Media
4 Unit No. 1 of the videotaped deposition of Dr.
5 Mark Bryden. This is in the matter of Guntert
6 and Zimmerman Construction Division, Inc.,
7 versus GOMACO Corporation. This is in the
8 United States District Court for the Northern
9 District of Iowa, Western Division. Case No.
10 5:20-cv-4007 CJW-KEM.

11 This deposition is being held
12 remotely via zoom on August 13, 2020, and the
13 time on the video monitor is now 1:05 p.m.
14 Eastern Standard Time.

15 My name is David Campbell. I am the
16 legal videographer from Digital Evidence Group.
17 The court reporter is Bonnie Russo and the hot
18 seat is Jeffrey Roberts, both are from Digital
19 Evidence Group.

20 Counsel, will you please identify
21 yourselves for the record after which the court
22 reporter will please swear in the witness and

1 we can proceed.

2 MR. MROZ: David Mroz and Sonja
3 Sahlsten both on behalf of GOMACO from
4 Finnegan, and Thad Cosgrove from the Cosgrove
5 law firm on behalf of GOMACO as well.

6 MR. HANNAH: James Hannah from
7 Kramer Levin representing GZC and the witness.

8 THE COURT REPORTER: Counsel, do I
9 have permission to remotely swear in the
10 witness?

11 MR. HANNAH: Yes.

12 MR. MROZ: Yes.

13

14 KENNETH MARK BRYDEN,
15 being first duly sworn, to tell the truth, the
16 whole truth and nothing but the truth,
17 testified as follows:

18 EXAMINATION BY COUNSEL FOR DEFENDANT

19 BY MR. MROZ:

20 Q. Okay. Good afternoon, Dr. Bryden.
21 Thanks for being here today. I know the storms
22 were a little bit problematic. I hope you made

1 it through okay and everything is better now.

2 A. We did. Thanks for asking.

3 Q. Good. Good. So is this your --
4 have you been deposed before?

5 A. No.

6 Q. So I'll give you have a little
7 rundown of how it usually works. I will be
8 asking you the questions, you will be providing
9 the answers. If there is a question that you
10 don't understand or isn't clear, let me know
11 and I will rephrase it. But if you don't let
12 me know, I will assume that you think the
13 answer is -- that you understand the question.
14 Make sense?

15 A. Fair enough.

16 Q. Okay. Please wait for me to finish
17 my question before you answer. The reason for
18 that is, if we don't do that, it's going to
19 create a nightmare of a record for the court
20 reporter. We will get yelled at by the court
21 reporter I'm sure.

22 Your attorney, Mr. Hannah, as I'm

1 sure he told you will be possibly objecting
2 during the deposition. Unless he instructs you
3 not to answer the question, you can feel free
4 to answer my question.

5 A. Okay.

6 Q. Is there any reason why you cannot
7 testify truthfully today?

8 A. No.

9 (Deposition Exhibit 1 was marked
10 for identification.)

11 BY MR. MROZ:

12 Q. Okay. So I'm going to give you
13 three exhibits to start, Exhibits 1, 2 and 3.

14 The first one is your original
15 declaration. So Mr. Roberts -- do you have
16 that document with you, Dr. Bryden?

17 A. I do, yes.

18 Q. I will just get these in front of
19 you to start so that way you can refer to them
20 throughout the deposition, you can have them in
21 front of you if you need to refer to them.

22 MR. HANNAH: Can we put the same

1 link in the chat? The last time we had the FTP
2 link in the chat and that way I can just click
3 on it.

4 MR. ROBERTS: It's in the FTP right
5 now.

6 MR. HANNAH: I just need the link in
7 the chat. I mean, I guess I can go pull it up.
8 The last time we just put the link in the chat,
9 it made it easier.

10 MR. MROZ: While we're doing this,
11 I'll get the other two in. We have Exhibit 2
12 which is the corrected Dr. Bryden declaration.

13 (Deposition Exhibit 2 was marked for
14 identification.)

15 BY MR. MROZ:

16 Q. You get that out, Dr. Bryden, and
17 then Exhibit 3 is going to be the '749 patent,
18 so that's U.S. Patent 1,029,749.

19 (Deposition Exhibit 3 was marked for
20 identification.)

21 BY MR. MROZ:

22 Q. So for purposes of this deposition,

1 the accused products, we will call those the
2 products that you have concluded infringe
3 Claims 1 or 11 of the '749 patent.

4 So my understanding and correct me
5 if I am wrong, in your declaration, these
6 products are the GP3, GP4, GP-2400 and
7 Commander III pavers made by GOMACO; is that
8 correct?

9 A. Yes.

10 Q. Okay. So whenever I refer to the
11 word "accused products," I am referring to
12 those products, just so we have the
13 nomenclature here and we are on the same page
14 throughout the deposition today.

15 A. Okay.

16 Q. You run through several legal
17 standards on pages through -- sorry, Paragraphs
18 13 to 27. We will use Exhibit 2 right now,
19 your corrected declaration.

20 A. Okay.

21 Q. Pages -- Paragraphs 13 through 27,
22 you refer to various legal standards, most of

1 which relate to infringement, and some of these
2 legal standards refer to direct infringement,
3 some refer to induced infringement, some refer
4 to contributory infringement, some refer to
5 infringement of the Doctrine of Equivalents,
6 some refer to some willful infringement.

7 A. Yes.

8 Q. Of these standards, am I correct
9 that the analysis in your declaration is a
10 direct infringement analysis?

11 A. Yes.

12 Q. Okay. You are not asserting or
13 arguing anything under the Doctrine of
14 Equivalence; is that right?

15 A. Nothing under the Doctrine of
16 Equivalents.

17 Q. Nothing under contributory
18 infringement?

19 A. Nothing under contributory
20 infringement.

21 Q. And nothing under induced
22 infringement?

1 A. Nothing under induced infringement.

2 Q. And nothing under willful
3 infringement?

4 A. Nothing under --

5 MR. HANNAH: Objection. Calls for
6 legal conclusion.

7 And just for the record, we are
8 doing this via zoom so there is a delay and so
9 also just to caution you, Dr. Bryden, just give
10 me a chance to object, the format actually
11 works pretty well, but there is a latency in
12 it.

13 THE WITNESS: Yep. Will do. Let me
14 slow down just a little bit.

15 BY MR. MROZ:

16 Q. Sure. And your declaration is an
17 infringement declaration, correct?

18 A. Yes.

19 Q. You don't analyze whether Claims 1
20 and 11 of the '749 patent are valid or invalid,
21 correct?

22 A. No, I do not.

1 Q. In Paragraph 10, you mention you are
2 compensated -- you're being compensated for
3 your work in this case.

4 What is your hourly rate?

5 A. My hourly rate is \$200 an hour.

6 Q. So let's talk about the accused
7 products a little bit. They are concrete
8 paving machines, correct?

9 A. Yes.

10 Q. What is a concrete paving machine?

11 A. Give me a little more detail of what
12 you are looking for here. It looks like it's
13 -- there's an opportunity to be circular and
14 it's a machine that does concrete paving.

15 Q. Okay. That's fine. Is a concrete
16 paving machine different from an asphalt paving
17 machine?

18 A. Yes, of course.

19 Q. Why is that?

20 A. Because an asphalt paving machine
21 does asphalt and the materials of asphalt are
22 quite a bit different and the mechanisms for

1 laying asphalt are quite a bit different.

2 Q. What are those differences in
3 mechanisms?

4 A. Is there a place in my deposition
5 that you are referring to specifically?

6 Q. I am just trying to get an idea for
7 what you view as concrete pavers and how far
8 the definition goes.

9 A. The difference between concrete
10 pavers as opposed to asphalt pavers, I didn't
11 study that topic and I'm not prepared to talk
12 about it today.

13 Q. Okay. That's fine.

14 Have you seen any GOMACO accused
15 products in person?

16 A. Only while driving past them this
17 summer.

18 Q. Okay. And which ones were those?

19 A. I wouldn't be able to tell you off
20 the top of my head. I was just in some
21 construction on the interstate and said, ah,
22 those are GOMACO products, and I was aware of

1 them because of the fact that they were -- I
2 was working on this case.

3 Q. Okay. Do the accused products in
4 your declaration cover every GOMACO product?

5 A. No.

6 Q. How do you know that the products
7 you saw were accused products on the side of
8 the road?

9 A. I don't think you asked me if I had
10 seen accused products. You asked me if I had
11 seen GOMACO products. If I misunderstood you.

12 Q. I'll ask it again just so we're
13 clear.

14 A. Concrete pavers, whether they were
15 the specific ones, I didn't -- I am driving 70
16 miles an hour down the interstate and then I
17 get stopped for a moment and it's 30 miles
18 where you are going past the construction, so I
19 didn't stop and get a picture. But I knew
20 nobody was going to like that.

21 Q. Understood. I'm going to ask you a
22 better question. I think I was unclear in my

1 last question that started this.

2 Have you seen any of the GOMACO
3 accused products in person?

4 A. Not that I am specifically aware of.

5 Q. Have you seen a video of any of the
6 GOMACO accused products?

7 A. Yes, I have.

8 Q. Which ones, which machines?

9 A. I think all three -- all four of
10 them. I mean, there is a number of YouTube
11 videos online and I have watched a number of
12 those.

13 Q. Have you ever inspected any of the
14 GOMACO accused products in person?

15 A. No.

16 Q. Have you ever operated a concrete
17 paving machine?

18 A. No, but I wish that I had.

19 Q. I think we all do.

20 A. I run power plants, I run farming
21 equipment but pavers are not on my list.

22 Q. Okay. Have you ever designed a

1 concrete paving machine?

2 A. No, I have not had that opportunity.

3 Q. Have you ever designed any type of
4 road construction machine at all?

5 A. No, I have never worked on road
6 construction machinery.

7 Q. Okay. Let's go to Exhibit 3, the
8 '749 patent.

9 A. Okay.

10 Q. Specifically Claim 1. I'm just
11 going to go through some of these terms and
12 talk with you about them so we make sure we are
13 on the same page about what we are talking
14 about. It sometimes gets tricky in these
15 patent cases, where we talk past each other
16 because we don't know exactly what it is we're
17 referring to.

18 So I want to make sure that we have
19 a commonality in the terms that we are talking
20 about and an understanding about what it is.

21 So my first question for Claim 1:

22 Is Claim 1 confined to a concrete paving

1 machine?

2 MR. HANNAH: Objection.

3 THE WITNESS: Yes.

4 MR. HANNAH: Vague.

5 BY MR. MROZ:

6 Q. Where in the claim does it mention a
7 concrete paving machine?

8 A. The abstract specifically tells you
9 that a paving machine for spreading, leveling
10 and finishing concrete, paving. The claim
11 itself doesn't claim that.

12 Q. So Claim 1 is not confined to a
13 concrete paving machine, is it?

14 A. Let me read back through it to see
15 if that's the case, but I believe it ---I do
16 not see a reference to a concrete paving
17 machine in Claim 1.

18 Q. So it's a claim to a swing leg
19 assembly, right?

20 A. Yes.

21 Q. And Claim 1 mentions a swing leg,
22 correct?

1 A. Correct.

2 Q. What does a swing leg mean in this
3 claim?

4 MR. HANNAH: Objection. Vague.

5 THE WITNESS: Say it again. There
6 was another voice, I didn't hear it.

7 BY MR. MROZ:

8 Q. What is a swing leg as claimed in
9 Claim 1?

10 MR. HANNAH: Objection. Vague.

11 THE WITNESS: So a swing leg would
12 be as in my deposition if we were to look at --

13 BY MR. MROZ:

14 Q. Just so the record is clear, you
15 mean your declaration, right?

16 A. A picture of a swing leg and we
17 would see that it is a leg which swings.

18 Q. Okay.

19 A. Would you like me to describe it
20 further, you can go to Page 16, Paragraph 46 of
21 my deposition.

22 Q. Does the swing leg have to pivot?

1 A. As implemented here, yes. As for
2 all swing legs, I am not prepared to speak on
3 that issue.

4 Q. When you say "as implemented here,"
5 do you mean in Claim 1?

6 A. I mean as in Picture 16 of my --
7 Page 16 of my statement, my description as
8 described in this patent.

9 Q. What about the swing leg described
10 in Claim 1, does that have to pivot?

11 MR. HANNAH: Objection. Calls for
12 legal conclusion.

13 You can answer.

14 THE WITNESS: Here, I'm checking to
15 make sure that I have this right, but I believe
16 that they tell you that it has a pin in it and
17 if it has the pin, then it's intention is to
18 pivot. Whether it has to pivot or not, I'm not
19 prepared to draw a conclusion.

20 BY MR. MROZ:

21 Q. It's designed to pivot?

22 A. The design is that it pivots.

1 Q. Is it designed to pivot?

2 A. Yes.

3 Q. I'm going to give you what has been
4 marked as -- what we're going to mark this out
5 of order as Exhibit 7.

6 (Deposition Exhibit 7 was marked for
7 identification.)

8 THE WITNESS: You are calling this
9 Exhibit 7, right?

10 BY MR. MROZ?

11 Q. Yes. We're going to get up to that
12 later but for purposes of my outline, I've
13 already --

14 A. I have 12 in the --

15 Q. For purposes of today, it is Exhibit
16 7.

17 A. I have it marked as 7 and I will try
18 to remember.

19 MR. HANNAH: I'm sorry, what is
20 marked as Exhibit 7?

21 BY MR. MROZ:

22 Q. Do you know what this document is,

1 Dr. Bryden?

2 A. Yes. This is the Commander III
3 brochure and it is Reference 12 in my
4 statement.

5 Q. Okay. Great.

6 A. Declaration.

7 Q. Can you please turn to Page 11 of
8 Exhibit 7.

9 MR. HANNAH: Dave, just so I am
10 clear, so -- and Mark, how were you able to
11 know what that exhibit was that he was talking
12 about that was as Exhibit 7? Did it pop up
13 someplace?

14 THE WITNESS: It is on my front
15 screen and I can see the front page.

16 MR. HANNAH: Okay, you have a
17 different -- sorry.

18 THE WITNESS: Just looking at the
19 front page, I can say, oh, yes, I know what
20 that front page is. I just needed to
21 cross-reference it.

22 MR. HANNAH: I was looking at the

1 FTP site.

2 THE WITNESS: I'm not looking at the
3 FTP site.

4 MR. HANNAH: Okay.

5 BY MR. MROZ:

6 Q. So do you see the top right picture
7 of Exhibit 7, under it says: All track
8 positioning ATP"?

9 A. Uh-huh.

10 Q. Do you see a swing leg in that
11 picture?

12 A. It would appear that the pivoting
13 power swing leg for positioning left front
14 track is a swing leg.

15 Q. Okay. What about the other legs,
16 are those swing legs?

17 A. From the information given, I can't
18 tell. We have a telescoping leg and we have a
19 power slide leg so absent additional
20 information, we wouldn't know the answer to
21 that.

22 And these machines are designed with

1 various options for various vendors, so you can
2 probably buy it with the swing leg or not with
3 the swing leg or the telescoping leg, not with
4 the telescoping leg, that is typical both in
5 agricultural equipment and in heavy equipment,
6 heavy industry equipment and likely possible
7 here.

8 Q. Would it be possible to turn that
9 telescoping leg into a swing legal that also
10 telescopes?

11 MR. HANNAH: Objection.
12 Speculation.

13 THE WITNESS: If you bought that
14 option.

15 BY MR. MROZ?

16 Q. If you bought what?

17 MR. HANNAH: Objection. Calls for
18 speculation.

19 THE WITNESS: I think when you say
20 is it possible to turn it into it, that seems
21 to me to be a fuzzy question. I meaning in
22 deed an engineer could turn -- could put

1 anything they want there and you could buy
2 anything you want there, whether you can
3 physically turn that leg into a telescope --
4 into a swing leg, I can't tell from the
5 drawing.

6 Again, this is not a drawing that
7 provides sufficient detail, and it doesn't
8 proclaim itself to be a pivoting leg or a swing
9 leg. It provides itself to be a telescoping
10 leg.

11 If you buy a swing leg and put it
12 there, but can you turn it into, seems, you
13 know, an odd question or an ill-formed
14 question.

15 BY MR. MROZ:

16 Q. Okay. Understood. Let's turn to
17 Page 4 of this document.

18 A. Okay.

19 Q. This is Page 4 of Exhibit 7.

20 Do you can see the jacking column on
21 the far left of the page?

22 A. Far left? Yes.

1 Q. Right under the description that
2 says: "Hydraulically power charging conveyer."
3 It's right underneath that.

4 A. Yes.

5 Q. Okay. Perfect.

6 MR. MROZ: Thank you, Mr. Roberts.
7 That's the swing leg I am talking about.

8 BY MR. MROZ:

9 Q. So, Dr. Bryden, do you know what a
10 four-bar linkage is?

11 A. Yes.

12 Q. What is a four-bar linkage?

13 A. I'm not sure that's a part of this
14 discussion. Is it somewhere in my deposition?

15 Q. Is that design right there that we
16 are looking at --

17 A. I haven't studies that and so I
18 don't want to go on record in a way that would
19 be inaccurate. This is like getting ready for
20 a class. I study a particular set of
21 information. My knowledge may extend beyond
22 there, but I'm not sure that my expert

1 knowledge at the moment is there. So if you
2 find various linkages, indeed I took a class, I
3 have taught it, but whether I know it today in
4 a way that could not be questioned, I'm not
5 ready to go there.

6 Q. So this is a Commander III machine,
7 correct?

8 A. Right.

9 Q. And you accuse this Commander III
10 machine of infringing Claims 1 and 11 of the
11 '749 patent, right?

12 A. Yes.

13 Q. So this is a machine that is within
14 the confines of your declaration?

15 A. Yes.

16 Q. Okay. So I just want to ask you
17 about the design of this machine. That's all.

18 A. Okay.

19 Q. So take a look at that connection
20 between the jacking column and the machine
21 frame.

22 Do you know what that is?

1 A. Where are you trying to point me to?
2 I'm sorry, I'm not seeing what you are looking
3 at.

4 MR. MROZ: Mr. Roberts, can you
5 circle the arm of that device there, between
6 the -- it's in the middle.

7 No. No, that's the jacking column.
8 Horizontally across. Yeah, right there, that
9 part right there.

10 BY MR. MROZ:

11 Q. The connection between the jacking
12 column and the rest of the machine.

13 Do you see that, Dr. Bryden?

14 A. Yes.

15 Q. What is that?

16 A. It's generally referred as the
17 bolster.

18 Q. Can that pivot?

19 A. From this drawing, I can't tell but
20 I'm -- so it's hard to see, I don't see the
21 pivot here. I don't see the pivot location.

22 Q. Do you see the smart cylinder?

1 A. I see the smart cylinder. That
2 would be different than the swing leg cylinder
3 though, so I'm not sure that this leg can
4 pivot. I do see that we have the other piece.

5 Q. Do you see the arrow that says:
6 "Parallelogram on the smart power swing front
7 leg"?

8 A. Yes.

9 Q. What does that mean?

10 A. I can't tell you what they are
11 trying to say with that.

12 Q. Okay. You have accused this machine
13 of infringing Claim 1, correct?

14 A. It said that it had swing legs
15 possible on it. I didn't accuse this drawing
16 of infringing.

17 The question is, is there a machine
18 offered which is the Commander III which has
19 all the elements of Claim 1 and those elements
20 in Claim 11 and the answer is that is an
21 available option. Whether this drawing has
22 that option, I'm not able to speculate.

1 Q. Let's go to Page 5.

2 A. Okay.

3 Q. Let's look at the top left drawing
4 on Page 5.

5 A. Top left drawing, Page 5. Okay.
6 I'm with you.

7 Q. Of Exhibit 7.

8 Do you see the front left leg on
9 that machine, it's actually on the right side
10 of the picture?

11 A. Front left leg. I am looking front.

12 Q. Let me make this easier.

13 A. I tried to put this together with my
14 hand. I think you are saying right side of the
15 drawing, upper half. Is that what you are
16 saying?

17 Q. Yeah, there's a description there
18 that smart --

19 A. I was just trying to go forward.
20 It's upside down and backwards. I'm sorry.
21 I'm just trying to make sure I know which one
22 we're talking about.

1 Q. No problem, I got you.

2 So do you see the description that
3 says: "Smart power swing leg for positioning
4 left front track"?

5 A. Right.

6 Q. Is that a swing leg on the Commander
7 III?

8 A. It says it's a swing leg.

9 Q. Do you agree with that?

10 A. Do you have -- there's not enough in
11 the drawing to tell you whether it's a swing
12 leg that infringes on this patent, but it does
13 say that it's a swing leg comprising, so
14 whether it has all of the elements or not on
15 that particular drawing, it's not possible to
16 be seen.

17 Q. Do you see the pivot point right
18 above that number that says "900151," there are
19 two pivot points?

20 A. Yes.

21 Q. So would this be a swing leg with
22 two pivot points?

1 MR. HANNAH: Objection. Vague.

2 THE WITNESS: No.

3 BY MR. MROZ:

4 Q. Would this be a four-bar linkage
5 design?

6 A. Again, I haven't studied four-bar
7 linkage design.

8 Q. You studied the Commander III
9 product?

10 A. I have.

11 Q. Just not this version?

12 A. Just not this particular version.
13 Again, the question is, did it have a swing leg
14 that matched up with the patent available, not
15 was it a particular design.

16 Q. Okay. Does this machine match up
17 with the patent available?

18 A. This particular picture?

19 Q. Yes.

20 A. I'm not able to reach that
21 conclusion.

22 Q. One way or the other?

1 A. One way or the other. Again, the
2 drawings are intended for sales not for
3 technical review.

4 Q. Okay. But those are the drawings
5 you reviewed in your analysis to conclude
6 infringement, correct?

7 A. I included those, plus if you look,
8 you will also see I took technical drawings
9 that were available on the website from GOMACO.

10 Q. If you relied on one of these
11 brochure drawings for sales, should we assume
12 that is not sufficient to prove infringement?

13 MR. HANNAH: Objection. Vague.
14 Calls for legal conclusion.

15 THE WITNESS: I think that what you
16 are looking at is the preponderance of evidence
17 and the fact that you do have technical
18 drawings available on your website.

19 BY MR. MROZ:

20 Q. Okay. But you've also relied on
21 these brochures and I am trying to figure out
22 how much weight to give to your analysis of the

1 brochures. Should we give that no weight?

2 MR. HANNAH: Objection. Vague.

3 Calls for legal conclusion.

4 THE WITNESS: I think that it's the
5 preponderance of evidence, like I said, we are
6 looking for cases, not for generic, so is it
7 available with the swing leg.

8 BY MR. MROZ:

9 Q. Okay. So let's go back to Claim 1
10 of the '749 patent.

11 A. Okay.

12 Q. There's a term in there that says
13 "module frame."

14 A. Uh-huh.

15 Q. See that?

16 A. Where are we looking? Oh, could
17 have been connected to the surface of the
18 module frame, yes.

19 Q. Yes. Looking at Figure 1 of the
20 '749 patent, where is the module frame in
21 Figure 1?

22 A. Unfortunately, it's hard -- I can't

1 click on this and draw around it. The module
2 frame is the frame of the machine, so if we
3 look at the '749 patent, we -- let's look in
4 the lower -- let's see, we have 58 and 16 at
5 the bottom of the drawing. Let's start there.

6 Q. Okay.

7 A. You will see the crawler -- don't
8 make it bigger, I'm sorry, you are not helping
9 me here. I appreciate the help but we are not
10 getting there, so if we start there, we'll see
11 the swing leg and we'll see the pivot on the
12 swing leg. At the back, it doesn't have a
13 number. The module frame is where it's
14 connected.

15 Q. Were the swing legs --

16 A. The module being the module of the
17 device.

18 Q. Okay. What is a bolster?

19 A. A bolster is the device that runs --
20 that connects the jacking column to the module
21 frame.

22 Q. Okay. So is the swing leg a

1 bolster?

2 A. No. A bolster is a term that is
3 used generically in a number of circumstances,
4 so it's support, and depending on what it
5 means, depending on where you find it, it will
6 mean different things, but here, it means the
7 support for the jacking column.

8 Q. Okay. Is the bolster part of the
9 module frame?

10 A. No.

11 Q. Okay. So in this drawing, I guess
12 I'm trying to figure out. Where is the swing
13 leg, where is the bolster, and where is the
14 module frame?

15 A. An easier drawing to look at here I
16 think is Figure 7 that would answer your
17 question.

18 Q. Let's do that.

19 A. And relate it back to Figure 1.

20 Q. Okay.

21 A. So Figure 7 shows you the swing leg
22 module which is then connected, if we look at

1 the descriptor where it says a swing leg
2 assembly, so remember that we are dealing with
3 what is a swing leg and what is a swing leg
4 assembly here, and Figure 7 is called out in
5 the patent as a swing leg, and then the
6 assembly includes all of the elements
7 downstream thereof.

8 Q. Okay.

9 A. And we can see Figure 7, if you go
10 back to Figure 1, then you can relate that back
11 to the picture.

12 MR. MROZ: Okay. So Mr. Roberts,
13 let's go back to Figure 1.

14 BY MR. MROZ:

15 Q. Let's maybe look at the left side of
16 that drawing --

17 A. Okay.

18 Q. -- where Figure 7 is incorporated.

19 A. Uh-huh.

20 Q. Where is the bolster and where is
21 the module frame?

22 A. Let's see. The bolster again is the

1 connection between the -- it's the support
2 between the module frame and the jacking column
3 which you've identified and then the module
4 frame is the module frame on which everything
5 rides.

6 Again, I don't know how to point it
7 out to you because I can't touch the screen and
8 say this is it. There's a lot of stuff on this
9 drawing.

10 Q. Is 22 -- I'm sorry, I didn't mean to
11 interrupt you. Go ahead.

12 A. So they are complicated machines and
13 so lots of things ride on the module frame.
14 The word "frame" merely implies that this is
15 the frame for this thing, right?

16 Q. So is 22 -- No. 22, is that a swing
17 arm or the bolster or both?

18 A. Both. I mean, when you say "swing
19 arm," swing arm assembly is the entire thing
20 from the pivot out, right?

21 Q. I meant to say swing leg. I meant
22 to say swing leg.

1 A. Obviously a swing arm is configured
2 mechanically coupled that includes a -- with a
3 module frame, a power track, upright jacking
4 column, so they have defined swing leg assembly
5 for us in the patent.

6 So in that sense, it's everything
7 out from the pivot, out from the pivot point on
8 and including the connection back to the module
9 frame where the hydraulic cylinder and anything
10 that makes that work.

11 So they've defined swing -- I can't
12 go redefine swing leg assembly for you. You're
13 going to have to live with what's in the
14 patent. That said, then it's connected to the
15 frame and bolster is a generic term that says,
16 I'm supporting this thing, and is used in many
17 industries to say, I'm going from the frame out
18 to something, in this case, the power track, so
19 what we are calling a bolster then fits into
20 the -- is a part of the swing leg assembly as
21 defined in this patent.

22 Q. Okay. Can a bolster also be part of

1 a module frame?

2 A. Could be. In this case, it does not
3 appear to be.

4 Q. Okay.

5 A. I mean, the question is, if you
6 don't have a swing leg, then you have the
7 bolster, right?

8 Q. Is Item 22 a bolster?

9 A. I'm not sure I know what 22 is
10 referring to. I'd have to go back and look at
11 the nomenclature in the patent itself. There
12 are a lot of numbers in these documents. If I
13 look over on the other side, it says 20, and so
14 I don't know what 22 means.

15 Q. Okay.

16 A. I am looking around to see if I can
17 find it for clarity.

18 Q. That general piece --

19 A. There is a lot of moving parts on
20 these diagrams that it takes a moment to
21 understand what the engineer intended when they
22 put them together.

1 Q. I understand. So that piece between
2 the module frame and the jacking column, it
3 looks like both 20 and 22 point to -- I'm
4 talking about that whole big --

5 A. I got it. I'm trying to figure out
6 whether they are talking about just that or
7 whether they have something else going on
8 there. Like I said, I don't want to get in a
9 place where you say, well, gee, you didn't tell
10 the truth because --

11 Q. No, no. No. I just want to refer
12 to that piece.

13 A. The patent said and my remembrance
14 of what a hundred different numbers in the
15 patent mean are -- is somewhat limited.

16 Q. Okay. Let's look at the far
17 right -- far right of the drawing.

18 Do you see where the swing leg
19 pivots?

20 A. Yes.

21 Q. Okay. That pivot connection
22 point --

1 A. Which appears that it's looking at
2 the plate that reinforces the pivot points.
3 That may be something else. But you will
4 notice the consistency between the 36s on both
5 of those and --

6 Q. And my question --

7 A. And 20 and 22 makes me be reluctant
8 to agree with you on that, because I don't know
9 what the engineer intended. You'll see there
10 is a 20 and a 22 and a 20.

11 Q. I'm not looking for you to agree or
12 disagree with me. I am just trying to figure
13 out what these components are. So there is
14 that piece between where the hinge point is,
15 the pivot point of that swing arm -- swing leg,
16 and then the -- that connects it to the jacking
17 column, that piece right there.

18 Is that piece a bolster, a swing leg
19 or both?

20 A. I refer to my deposition. I'm not
21 sure that I called out the word "bolster" in my
22 deposition nor that it's a part of this patent.

1 So I am trying to understand why we care about
2 this particular vocabulary word.

3 Q. I am just trying to figure out what
4 the different parts of the machine are
5 because --

6 A. I'm just trying to figure out what's
7 in the patent. That's all I reviewed, what's
8 in the patent.

9 Q. So the claim requires the swing arm
10 to connect to the module frame, right?

11 A. Yes.

12 Q. I am trying to figure out if the
13 swing arm connects to the module frame or to a
14 bolster.

15 A. Does it -- I don't see that in the
16 patent. I don't see that in the patent, I
17 don't think that I'm prepared to provide a
18 detailed explanation of it.

19 Q. Sorry, what's not in the patent?

20 A. I can study it and get back to you.

21 Q. What's not in the patent?

22 A. This word "bolster" into the claims.

1 So I'm looking for a -- you're coming back and
2 trying to say, was it a bolster, a swing arm
3 assembly, what are the names, and I don't see
4 the callout for a bolster, I'm sorry. If you
5 can direct me to it, I'd be -- in my testimony
6 or in the patent, I would be happy to --

7 Q. I will. I didn't realize -- I'm
8 sorry, I think I realize what the point of
9 confusion is so we will get you a number.

10 So No. 12, the patent calls a side
11 bolster.

12 A. Okay. Does that surprise you?

13 Q. No. I am just trying to understand
14 --

15 A. I think the patent description but
16 not the claims in the patent.

17 MR. HANNAH: Doctor, this is an
18 unusual format. You usually have the entire
19 document in front of you, so if you want them
20 to show any part of the document, any part of
21 the patent or the columns, or if he is
22 referring to, you know, talking about the 12 in

1 this instance, maybe talking specification, you
2 know, you should feel free to -- I know it's a
3 weird format, but feel free to be able to have
4 them page through the document, that's what
5 we've done. You just have to give narratives
6 in terms of what --

7 THE WITNESS: Sure. That would be
8 great. Why don't we look at the place that
9 you're talking about, we were talking about 12.

10 BY MR. MROZ:

11 Q. Sure. So in the patent --

12 A. Lights just a little bit here,
13 better down so we get better video, it's harder
14 for me to read the small lighted.

15 Q. Understood.

16 A. I am using my production lighting
17 not my reading lighting. A little more
18 challenging. This way, you will get a little
19 more shine off the top of my head. Okay.

20 Q. Let's go to Column 8, Line 52.

21 A. I don't see it on the screen.

22 Q. Yes, it is pulling up. Column 8,

1 Line 52.

2 A. Let me catch up. Column 8. I'm
3 with you. Okay.

4 Q. Do you see where it says: "Side
5 bolster is 12"?

6 A. Yes.

7 Q. Now we're going to look at No. 20.
8 That is on Page 9 at around 27. It says:
9 "Bolster swing leg 20."

10 A. Okay. Indeed. Your question?

11 Q. Now, let's go back to Figure 1, now
12 looking at 20 and 12 on that figure.

13 A. Uh-huh.

14 Q. What is the bolster, what is the
15 swing arm or swing leg and can they be the same
16 thing?

17 A. In the vocabulary they've used here,
18 yes, but I don't think that -- I think you are
19 trying to go from their description to their
20 claim and their claim is broader than that
21 descriptor I believe, but I haven't had a
22 chance to read it so give me a moment to read

1 through it and catch up with you.

2 So I am looking back to your 9.

3 Let's see here. I have to find -- I have to
4 get back to where we had it so -- and a bolster
5 swing leg 20. Yeah. So I am not sure that the
6 vocabulary is so precise here that you would
7 say that the entire of the swing leg was a
8 bolster.

9 I don't think that even it's -- it's
10 the intention of this statement is that that's
11 a bolster. I believe it's saying it's a
12 bolster swing leg, that is, that it's
13 supporting the column, the jacking column, but
14 in the description of the claim, the jacking
15 column is a part of their swing leg assembly.

16 So I think the context is very
17 important in this case, and I think also that
18 the assembly and system is the critical piece.
19 The context is important here. I'm not quite
20 certain why we are trying to pick this down to
21 one piece, but if you can give me more -- I
22 might be able to help you more if you gave me

1 more, where are we trying to head to, what's
2 the --

3 Q. I appreciate that. So is the claim
4 -- claim's description of swing arm in the
5 patent's description of -- is the claims --
6 strike that.

7 Is the claim's description of swing
8 leg and the patent's description of swing leg
9 in the specification different?

10 A. No.

11 MR. HANNAH: Objection. Calls for
12 legal conclusion.

13 Go ahead.

14 THE WITNESS: No. I mean, given
15 that one, we are talking about a swing leg
16 assembly in one case and we are talking about a
17 swing leg pointed out on a -- bolster swing leg
18 pointed out on a diagram, those do not seem to
19 be inconsistent. Again, I think the context of
20 the use and the clear description of each does
21 not put them in conflict with each other.
22 Again, context becomes very important here.

1 I'm surprised at the questions. The context is
2 critical.

3 BY MR. MROZ:

4 Q. Okay. So let's go to your
5 declaration, Paragraph 29. Your new
6 declaration and your old one.

7 A. Hold on. Let me catch up. I want
8 to clamp my papers together so we don't create
9 a big mess and I can't find my way through
10 this. I like linear --

11 Q. While you are doing that, turn, if
12 you wouldn't mind, please turn to Paragraph 29
13 in both declarations.

14 A. I will be there in a minute. Take a
15 deep breath. I am still cleaning up after the
16 Exhibit 3. There we go. Go ahead. So we are
17 now on -- I have my declaration. I'm good.

18 Q. Paragraph 29, please, of both.

19 A. Paragraph 29. Okay.

20 Q. Specifically, the picture in
21 Paragraph 29.

22 A. As opposed to the revised

1 declaration.

2 Q. Yes. So my understanding is that
3 one of the changes you made in your corrected
4 declaration was moving the label from module
5 frame from a portion in the middle of the
6 machine to a portion over on the right by the
7 swing leg area; is that correct?

8 A. That was not the intention.

9 Q. Okay. So can you please explain.

10 A. Module frame, I think that in this
11 case, I was trying to get to the far -- let me
12 look and see where that hits. Intention was
13 that it would hit further back.

14 Q. So maybe you can explain for me,
15 what's the difference between what you
16 originally labeled as the module frame in your
17 first declaration and what you now label as the
18 module frame in your second declaration.

19 A. The intention is the same in both
20 cases and I don't see any difference. We can
21 quibble over -- we can quibble over a picture
22 where there's a small variation in the location

1 where the arrow hits, but the module frame
2 remains the module frame.

3 Q. Then why did you submit a corrected
4 declaration changing this?

5 A. I did a correct declaration because
6 I had a typo in here. When I work, I work from
7 a -- I never have written notes. This includes
8 generally when I am writing my book. And I
9 work from documents and I insert things and
10 take things out as I move forward.

11 In this case, I started out with a
12 picture of a paver -- of a placer and put that
13 in there and then later said, oh, now, I have
14 to change that up and I didn't drop the picture
15 and I neglected to change the reference also,
16 and I -- was it intention, but I didn't get
17 there, so it's simply a typo.

18 Q. Where was that typo?

19 A. I submitted the declaration, I did
20 not get the -- the reference updated, and
21 that's -- I think that happened because in my
22 software, I deleted everything except the

1 reference and so it didn't have anywhere to go
2 so it made the reference true.

3 Q. Where was that typo?

4 A. That's in the very back in the
5 references.

6 Q. In the references. Okay. Were
7 there any other changes to your declaration
8 besides that?

9 A. None that I am aware of. I found
10 that yesterday when I was reading through it in
11 preparation for that. Ah, another typo. I
12 haven't written a 750-page book. In a 51-page
13 document, there is probably one or two more but
14 I can't find it.

15 Q. Understood. Understood. But there
16 were some other changes that you corrected in
17 your -- sorry, can you please let me finish my
18 question so the court reporter can get it down.

19 A. Sure. Sorry.

20 Q. So for your corrected declaration
21 compared to your original declaration, what
22 changes did you make?

1 A. I recall three changes --

2 Q. Okay.

3 A. -- related to sensor and G box. I
4 had inadvertently implied that the sensors were
5 in the G box, that was not intentional, or that
6 the G box was a part of the sensors. I may
7 have cut and pasted a sentence from before, but
8 somehow, when I read it back to you, it was
9 clear that was not the case. In this case, I
10 saw the drawing was the wrong drawing.

11 Q. Understood. So now comparing those
12 pictures on Paragraph 29, old and new, are
13 those pictures identical, the labels?

14 A. The labels should remain the same.

15 Q. Okay. Do you see how the module
16 frame points to a different place on the
17 drawing?

18 A. I don't see the same place in both
19 drawings because the drawings are from
20 different angles so I'm not sure that I can
21 point to the same place.

22 Q. Okay.

1 A. I know the intention and I know the
2 module frame is shortly thereby, although the
3 extension jack may tell us the module frame is
4 a little further back.

5 Q. Okay. Was the module frame label in
6 your old declaration incorrect?

7 A. No.

8 Q. Okay. Where -- on this figure in
9 your second -- in your corrected declaration,
10 Paragraph 29, where are the bolsters?

11 A. Again, I don't see bolsters as a
12 part of the claim here or of my -- of my
13 statement, so if you can refer me back to where
14 that is in the claim that I reviewed or in my
15 statement, I would be happy to pursue that
16 conversation.

17 Q. Okay. Well, you had mentioned that
18 the bolster can be part of the swing arm or the
19 swing leg, correct?

20 A. That was in response to your
21 question, but we are going in the wrong
22 direction there in the sense that I mean, as we

1 saw, bolster can have a number of different
2 meanings.

3 Q. So you're not going to answer?

4 A. It was not part of my review nor a
5 part of the claim.

6 Q. So you're refusing --

7 A. There is a bolster here nor in my
8 statement allege that there was a bolster. If
9 you give me a moment to finish, that would be
10 great also.

11 Q. Sorry. Go ahead.

12 Okay. So are you refusing to
13 testify about what a bolster is?

14 A. I am saying it wasn't a part of my
15 thing and I'm not prepared to answer that in a
16 way that would be fully informed.

17 Q. Okay.

18 A. Bolster has many meanings. And so I
19 need to both understand the context, and I need
20 to study and decide what you are trying to --
21 what the answer is.

22 Q. Understood. Thank you.

1 A. I'd be happy to answer, but we need
2 to have time to study and it was not a part of
3 the preparation nor a part of the preparation
4 of the statement for the deposition.

5 Q. Okay. Now, one of the claim
6 requirements in Claim 1 requires the module
7 frame to attach to the -- excuse me. Let me
8 just read it to you.

9 So Claim 1 required a swing leg to
10 mechanically couple with the surface of a
11 module frame; is that correct?

12 MR. HANNAH: Objection.

13 THE WITNESS: Okay. What I see as
14 what is claimed, a swing leg is certainly
15 comprising -- a swing leg configured
16 mechanically to couple with the surface of the
17 module frame. Yes.

18 BY MR. MROZ:

19 Q. Now, Claim 2, there is a hinge
20 bracket that is between the swing leg and the
21 surface of the module frame.

22 Do you see that?

1 A. Uh-huh. First thing, let me see,
2 Claim 2, go to Claim 2, swing leg assembly of
3 Claim 1 further, so a dependent clause. I
4 remind you that I did not review Claim 2 as a
5 part of this deposition.

6 Q. Sure. So if Claim 2 requires a
7 hinge bracket to be between the module frames
8 and the swing leg, how can the swing leg couple
9 to the surface of the module frame as Claim 1
10 requires?

11 MR. HANNAH: Objection.

12 THE WITNESS: That seems like
13 speculation. There are many ways to engineer
14 things and I did not study that nor did I
15 provide a deposition statement on that.

16 BY MR. MROZ:

17 Q. Okay. I don't think you can dispute
18 that Claim one mentions a jacking column,
19 correct?

20 A. I can read it like you can. I
21 didn't -- I am not disputing anything. I am
22 telling you that I did not review Claim 2 in

1 detail.

2 Q. Understood.

3 A. My assignment was very clear and I
4 did my assignment but it did not involve Claim
5 2.

6 Q. Got it. I'm going to give you
7 Exhibit 6 now. I'm going to --

8 MR. MROZ: Mr. Roberts, can you put
9 Exhibit 6 up. This is going to be the GP-2400
10 slip form paver document.

11 (Deposition Exhibit 6 was marked for
12 identification.)

13 THE WITNESS: That would be
14 Reference 10 in my statement. Okay.

15 BY MR. MROZ:

16 Q. Okay. Great. What is a jacking
17 column?

18 A. A jacking column is the upright
19 piece, you see one on the right and one to the
20 left that can move up and down. Hence, the
21 word "jacking" and allows the machine to be
22 level.

1 Q. Okay. What are the components of
2 the jacking column?

3 A. I'm not sure I understand what you
4 are trying to say.

5 Q. So let's go to the '749 patent,
6 Column 11.

7 A. '749, Column 11.

8 Q. Line --

9 A. Give me one moment.

10 Q. Sure. Line 14.

11 A. Okay. 11, Line 14. Okay.

12 Q. Do you see where it says:
13 "Referring to the drawing, this is Figure 4
14 through Figure 7"?

15 A. Yes.

16 Q. Jacking, Column 14, has a telescopic
17 -- "Telescoping outer and inner tubes, 48, 50
18 of a generally rectangular cross-section as is
19 typical for jacking columns on paving machines
20 and a vertically-oriented hydraulic actuator,
21 52, having a cylinder and piston appropriately
22 secured."

1 A. Okay.

2 Q. So will you agree that a jacking
3 column has an inner telescoping member, an
4 outer telescoping member, and a piston cylinder
5 inside -- or hydraulic cylinder inside?

6 MR. HANNAH: Objection. Vague.
7 Calls for legal conclusion.

8 THE WITNESS: I don't see that I can
9 draw that -- I mean, I can see that this is
10 their generic description. I don't find that
11 to be -- as I recall, the claims are the only
12 thing that matters here. These are
13 descriptors, they are generic descriptors of
14 things and I don't think this is a "must," I
15 think of this is as a "sometimes."

16 Writing patents and I would write a
17 generic description, and this is a generic
18 description, specifics than going to the
19 claims. I do not see that claim in the
20 specifics.

21 BY MR. MROZ:

22 Q. Did you consider the specification

1 whenever you interpret the claim?

2 A. Indeed. But the specification is
3 generic guidance, not specific guidance. The
4 jacking column around, that would not exclude
5 it from Claim 1.

6 Q. No, that's fine. I am just trying
7 to figure out what the components of it are.
8 So let's look --

9 A. I'm not the lawyer here, so I am
10 going from my experience as an engineer,
11 engineering manager and a business owner that
12 has worked on patents.

13 Q. Understood. Let's go to Figure 4
14 and look at Components 48 and 50 on Figure 4.

15 A. 48 and 50. Figure 4. Okay. You're
16 looking -- we've moved from the GP-24. Let me
17 catch up.

18 Q. Yep.

19 A. I went to Page 4 not Figure 4. Got
20 lost here momentarily, so let me go to Figure
21 4. Okay.

22 Q. If you remember the clause we just

1 read from the patent, we talked about
2 telescoping outer and inner tubes 48 and 50.

3 A. Okay.

4 Q. So is 48 the telescoping outer tube
5 on the drawing?

6 A. Yep, I'm just checking. Again, the
7 numbers on the drawings, I am doing the same
8 thing you can do, which is I'm looking back at
9 Paragraph 11.

10 Q. Perfect.

11 A. And it says that it has a
12 telescoping inner and outer tubes, 48 and 50.
13 50 appears to be inner and 48 appears to be
14 outer.

15 Q. I am just trying to get the
16 nomenclature down, so when we're talking down
17 the road --

18 A. I am making sure that I am accurate
19 here and that I'm not -- the engineer wasn't
20 calling out something that I'm missing.

21 Q. Understood. And then Column 11,
22 around Line 19, 20, talks about hydraulic

1 actuator 52, and that is shown in Figure 4 as
2 well, right? The hydraulic actuator 52?

3 A. Let me find it. Yes. We would
4 generally expect that, right?

5 Q. Yes. I just want to make sure we
6 have these three concepts understood.

7 So we have an outer telescoping
8 tube, an inner telescoping tube and a hydraulic
9 cylinder that does the telescoping actuation.

10 A. Yes.

11 Q. Now I want to talk about this
12 principle relative to the 2400 machine that is
13 Exhibit 6.

14 Let's go to Page 9.

15 A. Okay. Let me get back to the 2400
16 machine here. I'm there. Okay.

17 Q. Okay. So on the far left jacking
18 column, do you see the yellow outer tube?

19 A. Yes.

20 Q. And then do you see the black inner
21 tube?

22 A. Yes.

1 Q. And then we obviously can't see the
2 hydraulic cylinder inside.

3 A. Uh-huh.

4 Q. Okay. So below the -- what is
5 attached below the lower inner tube?

6 MR. HANNAH: Where are you talking
7 about?

8 MR. MROZ: Same picture. We're
9 going to be talking about that picture on Page
10 9 of Exhibit 6.

11 THE WITNESS: I'm looking at that.
12 There's a lot of things attached below the
13 black tube so I'm not --

14 BY MR. MROZ:

15 Q. I see that. Is the crawler track
16 attached --

17 A. The crawler track is on the bottom.
18 It's attached to all the stuff in the middle.
19 We could call the whole assembly the crawler
20 track assembly coming back to context matters.

21 Q. Perfect. This is why we are trying
22 to get the nomenclature down. This is great.

1 Thank you.

2 If you look, there is some text with
3 an arrow pointing to a smart cylinder on the
4 left of that of Page 9 of Exhibit 6, where it
5 says: "Exclusive smart steering cylinders."

6 Do you see that?

7 A. I do.

8 Q. And it says: "Used for dependable
9 steering control with electronic feedback for
10 push button steering set up and setting
11 parameters."

12 Do you know how that steering
13 cylinder operates?

14 A. I can speculate, but I don't know,
15 given that --

16 Q. You are not prepared to testify
17 about how -- do you know how the steering on
18 the 2400 operates?

19 A. This particular drawing, I would
20 tell you that it's very complicated and more
21 complicated than I think you are trying to make
22 it to be, because you need to coordinate both

1 the swing arm and the crawler track, and there
2 is two sets of linkages that do that.

3 On top of that, you've got to keep
4 track of the string line or the 3D space and
5 so, I mean, it's a very hard computational
6 problem. At a simple level, the cylinder is
7 moving the side ring and I am presuming,
8 looking at the piece, remember that -- what I
9 looked at was a slew drive, and we don't see a
10 slew drive here but it could well be hidden in
11 here in this drawing.

12 Q. Okay. Here the --

13 A. The question is, does this drawing
14 have -- does this drawing have all the
15 elements. The question is, do you sell one of
16 these that has all the elements.

17 Q. Okay.

18 A. I think I provided that evidence in
19 my deposition.

20 Q. Okay. For this smart steering
21 cylinder that is attached to the ring that you
22 mentioned, what do you call that ring?

1 MR. HANNAH: Objection. Vague.

2 BY MR. MROZ:

3 Q. Sorry, Dr. Bryden, you had referred
4 to that steering cylinder as attaching to a
5 ring, I believe, right?

6 A. Yes. I -- again, that's not part of
7 my deposition nor a part of my investigation,
8 so I'm not prepared for a quiz on that in the
9 sense that I am sure that there is vocabulary
10 that I use. Given time to prepare I'm sure
11 that I could be there.

12 Q. I just want to know what -- you can
13 call it whatever you want, I just want to be
14 calling it the same thing as you.

15 A. I'm going to call it the ring
16 attached to the hydraulic cylinder, so you can
17 call it that if you like.

18 Q. Perfect. So the ring attached to
19 the hydraulic cylinder --

20 A. I'm going to ask why we are talking
21 about that though. Again, I am trying to
22 understand where that fits into our -- our

1 conversation and into my deposition and into
2 the patents, so I'm going to come back to that
3 and just make sure I understand that we are
4 staying on track.

5 Q. Okay. I'll keep us on track, I
6 promise you that, but you still have to answer
7 my question.

8 A. I am wondering -- I am worrying
9 about that but I will give you some space.

10 Q. You just have to answer my
11 questions, that's all. It's a simple process.

12 A. I have to make sure we stay on space
13 also.

14 Q. If we -- I shouldn't use the word
15 "steering" when I was talking earlier. What
16 causes the track to rotate?

17 A. I don't think you can tell that from
18 this drawing. I actually think it's an unclear
19 question. As I said, it is a very complex
20 system.

21 Q. Here, it says: "A steering cylinder
22 is used for dependable steering control."

1 A. Right.

2 Q. So would the steering cylinder be
3 located --

4 A. When we say there is a steering
5 cylinder, indeed, the cylinder must be doing
6 the steering, I can read like you can. I'm not
7 aware of the mechanism here as to what's
8 turning what, whether it's track, so I don't
9 think this drawing provides us with sufficient
10 detail in order to be able to assert that.

11 Q. Okay. Let's go to your declaration.
12 Is it your position that if this
13 machine did not have a slew gear drive and was
14 steered with only the smart steering cylinder,
15 it would not infringe?

16 MR. HANNAH: Objection. Vague.
17 Calls for legal conclusion.

18 THE WITNESS: No.

19 BY MR. MROZ:

20 Q. How would it infringe?

21 A. Let me slow down a little bit. I'm
22 jumping in too quickly.

1 MR. HANNAH: Objection. Vague.

2 Calls for legal conclusion. Calls for
3 speculation.

4 THE WITNESS: So when we read --
5 remember, we have two claims we're dealing
6 with. One is Claim 1, one is Claim 11. Claim
7 11 claims the slew drive. Claim 1 claims that
8 it simply steers. We can look back at those
9 words and make sure that we have them correctly
10 but, you know, which says: "An upright jacking
11 column secured to the swing leg having rotary
12 connection between the jacking column and the
13 crawler track permitting relative rotational
14 movements of the crawler track and the jacking
15 column, about the first upright axis."

16 So clearly, this can be steered. It
17 says it can be steered. You see the mechanisms
18 to support steerage and therefore, it impinges
19 on Claim 1. Sold without a slew gear, then it
20 can be -- then we can say, oh, it doesn't
21 impinge on 11.

22 BY MR. MROZ:

1 Q. I see. Under this design here,
2 which you said infringes Claim 1, if the
3 steering cylinder extends, does the track
4 rotate with the lower inner cylinder -- sorry,
5 the lower inner tube?

6 MR. HANNAH: Objection. Misstates
7 testimony. Calls for speculation.

8 THE WITNESS: Again, we don't see
9 enough information here to know the answer to
10 that question. If we went back through the
11 technical drawings for this machine, I'm sure
12 that we could sort out the mechanism by which
13 it does it. The deposition didn't require
14 that. It simply requires the --

15 BY MR. MROZ:

16 Q. Let me ask it this way: Claim 1
17 requires a power drive between the jacking
18 column and the crawler track.

19 A. Let me read Claim 1 and make sure we
20 are all on the same page with the same Claim 1.

21 Q. Sure.

22 A. What is claimed? A swing leg

1 assembly comprising a swing leg configured to
2 mechanically couple with the surface of a
3 module frame. We've talked about that, so we
4 should be good. Okay.

5 A crawler track, an upright jacking
6 column secured to the swing leg having a rotary
7 connection between the jacking column and the
8 crawler track permitting relative rotational
9 movement of the crawler jack and the jacking
10 column to the first upright axis. That's the
11 piece we were just talking about.

12 Now I think you are trying to come
13 down a little bit but let's examine what is
14 happening in between. A first angular position
15 transducer between the jacking column and the
16 crawler track. That is something that measures
17 the angle between them, configured to emit a
18 first signal which is indicative of an angular
19 orientation of the crawler track relative to
20 the jacking column.

21 Fair enough. We know what that
22 means now. A second angular position

1 transducer between the swing leg and the module
2 frame configured to emit a second signal which
3 is indicative of the angular orientation of a
4 swing leg relative to the module frame.

5 The power drive -- this is the part
6 you're coming to, between the jacking column
7 and the crawler track configured for
8 translating relative rotational motion between
9 the jacking column and the crawler track, end
10 of process. We will stop there for a minute.

11 So I am trying to understand what
12 your question is now, so I think you are trying
13 to assert a specific position for that powered
14 line, is that what you're trying to do?

15 Q. Yes. Exactly.

16 MR. MROZ: Let's go back to that
17 drawing, Mr. Roberts, on Page 9.

18 BY MR. MROZ:

19 Q. I understand we can have a slew
20 drive at the bottom of the lifting column,
21 below the lower inner cylinder, I get that
22 design. Here, the design is however, the

1 rotary -- or the drive is up higher above the
2 lower inner telescoping tube.

3 A. Right. So your assertion -- I'm
4 sorry. Go ahead. I am jumping in.

5 Q. My question is: When you have the
6 rotary drive -- excuse me, when you have the
7 power drive up high like that, up in the middle
8 of the jacking column, is that between the
9 jacking column and the crawler track?

10 MR. HANNAH: Objection. Vague.

11 THE WITNESS: Yes.

12 BY MR. MROZ:

13 Q. Why is that?

14 A. Why is it not? I don't think that
15 this is referring to a physical location. I
16 think the "between" is telling us that, indeed,
17 between these two components, we are able to
18 have relative motion and we have a power drive
19 that does that. I'm not sure the "between" --
20 we may have to fight the semantics on that but
21 I'm not sure that that's the -- that the
22 implication is that there is a physical thing

1 between. There may well be because we don't
2 understand this drawing fully.

3 Q. Okay. So what if I have a
4 situation --

5 A. Where the "between" is between two
6 components. Look, we have a complex system.
7 I'm going to give you the professor lecture for
8 a minute and James is going to give me the evil
9 eye, so -- but when we talk about complex
10 systems, we talk about the between in them.

11 We have a number of different
12 betweens, one is the physical connection
13 between, the other is the -- I'm going to say
14 the information between, the translation of
15 things between them, and so I think that that
16 both -- that "between" covers both of those. I
17 don't think it's a physical thing.

18 Q. Okay. Does that definition of
19 between also apply to the locations of the
20 transducers, the first and second transducers?

21 A. Yes, though we would have to find a
22 way to measure without being physically

1 present, which we could do with a number of
2 things. Those would be expensive so it's
3 likely that it's not done that way here.

4 Q. So if I put a rotary sensor on top
5 of the lifting column and measure the rotation
6 of components going down through the shaft of
7 the upper tube, would that be between the
8 jacking column?

9 A. Yes. And if we put light, used
10 light to measure the relative difference to
11 everything exactly, that would also be between,
12 because it's measuring the -- it's measuring
13 the angle between.

14 Q. Okay. You said a light. Okay. I
15 understand.

16 A. I am just saying, I mean, there is
17 many different ways to measure things with
18 trans -- many different kinds of transducers.
19 A specific transducer type is not called out
20 here, it's simply an instrument, and so
21 regardless of the type of transducer, it's
22 covered under Claim 1.

1 Q. I was talking about -- if you put
2 the rotary drive on top of the -- both the
3 rotary drive and the transducer on top of the
4 lifting -- the jacking column, would that be
5 between the jacking column and the crawler
6 track?

7 MR. HANNAH: Objection. Vague.

8 THE WITNESS: The answer of course
9 is yes. I mean, again, the "between," I am not
10 sure that it means to me -- I don't think they
11 have to be layered like pancakes here.

12 BY MR. MROZ:

13 Q. Okay.

14 A. There are many ways that we can
15 connect things. Engineers are clever, there's
16 a desire to reduce cost, there's a desire to
17 make things better, the moving of a component
18 and say, well, now, it's not between because,
19 gee, the hamburger's on the outside of the bun,
20 not the inside, doesn't necessarily mean that
21 it isn't a hamburger.

22 Q. I understand.

1 A. The information as sensed by the
2 machine and used by the machine says they are
3 between.

4 Q. Okay. So let's talk now about this
5 relative movement concept between the track and
6 the jacking column.

7 Now we could have a situation where
8 the inner lower cylinder rotates with the track
9 but the upper cylinder, outer cylinder is
10 constant, does not rotate. So you have the
11 relative movement is between the track/the
12 lower cylinder and vis-a-vis the upper tube, I
13 should say.

14 So in this situation where we have
15 the track and the lower tube rotating relative
16 to the upper tube, does that qualify as the
17 relative movement under this claim between the
18 crawler track and the jacking column?

19 MR. HANNAH: Objection. Vague.

20 THE WITNESS: Restate the question.

21 BY MR. MROZ:

22 Q. I'm sorry?

1 A. Restate the question just a little.

2 Q. Sure. I'm going to do it --

3 A. I think you said -- I understand, to
4 hear it again while I'm reading the words to
5 make sure I'm with you.

6 Q. Yeah, I'm going to do this piecemeal
7 because that was a long-winded question. We
8 can have a situation where the track and the
9 lower tube rotate together, correct?

10 A. Yes.

11 Q. Okay. And in that situation, we
12 could also have a scenario where the track and
13 the lower tube rotate together, but the upper
14 tube remains fixed rotationally.

15 MR. HANNAH: Objection. Vague.

16 BY MR. MROZ:

17 Q. Is that a yes?

18 A. Correct.

19 Q. In that situation, is there relative
20 rotational movement between the crawler track
21 and the jacking column?

22 A. Yes, because like -- you are trying

1 to argue that the jacking column is the
2 cylinder and the jacking column is not the
3 cylinder.

4 Q. Okay.

5 A. Relative between the jacking column
6 and the track. The jacking column remains the
7 vertical column, not the position of a
8 particular cylinder. Your arguing that the
9 cylinders moved or didn't move doesn't have
10 anything to do with the patent.

11 Q. Okay. I am just trying to
12 understand this.

13 A. Let me suggest that -- we have been
14 at this for an hour and ten minutes roughly.

15 Q. I am almost finished with my line of
16 --

17 A. Take a quick break for me? Is that
18 fair?

19 Q. I am almost finished with my line of
20 questioning. Can I finish?

21 A. Please. Sure. I thought you were.

22 Q. So we can have a situation where

1 both the inner and the outer tubes rotate
2 together or stay the same, and then the track
3 below rotates relative to those components
4 separately, correct?

5 A. Correct.

6 Q. Or we could have a situation where
7 the track rotates with the lower tube relative
8 to the upper tube, correct?

9 A. Correct. I think we said that
10 earlier.

11 Q. In that second situation where the
12 track rotates with the lower tube relative to
13 the upper tube, does that satisfy the Claim 1
14 limitation requiring relative movement,
15 relative rotational movements between the
16 jacking column and the crawler track?

17 A. Yes, because as we said, again, the
18 tube is not the jacking column. I mean, my
19 answer is the same as it was two minutes ago.
20 That the hydraulic -- the jacking column
21 comprises a number of components and whether
22 the components move or not relative to the

1 crawler track assembly doesn't tell me that the
2 column was moving.

3 Q. Understood. Okay. I think we are
4 good for the break now. Thank you.

5 MR. HANNAH: Shall we do ten
6 minutes?

7 THE VIDEOGRAPHER: Going off the
8 record at 2:14.

9 (A short recess was taken.)

10 THE VIDEOGRAPHER: We are back on
11 the record at 2:30.

12 BY MR. MROZ:

13 Q. Thank you, Dr. Bryden. Welcome
14 back.

15 So I'm going to go to Claim 11 now
16 and specifically the term "slew gear drive."

17 A. Okay.

18 Q. Shall I just read Claim 11. It's
19 the swing leg assembly of Claim 1 wherein the
20 power drive comprises a slew gear drive.

21 That -- is there any difference
22 between the term "slew gear drive" and "slew

1 drive"?

2 A. When we talk about things like
3 vocabulary, the world is not terribly precise.
4 Okay. Generically, maybe, but as understood
5 here, I think you could say within the
6 description of the patent the words are used
7 interchangeably.

8 Q. Okay. I am not trying to trick you,
9 I'm just trying to figure out.

10 A. I am just trying to keep us clear
11 that semantics is an interesting space and I do
12 some work there with decisionmaking in one
13 thing and another, and people often use words
14 interchangeably that you can pick apart and
15 say, well, it's not quite that -- sort of like
16 swing leg and swing leg assembly, context
17 becomes very, very important, so I'm not
18 willing to say that all uses of slew gear do
19 not mean slew gear drive or vice versa. It's a
20 context question.

21 Q. Understood.

22 A. It's a little bit of a professor

1 point but I'm a little bit -- I like to make
2 sure that we are precise and clear.

3 Q. That's fine. So I think you said
4 for purposes of this patent, we can say that
5 slew gear drive is the same thing as a slew
6 drive?

7 A. I'm not prepared to say that a
8 hundred percent. Let me say that from my
9 memory, I think that those -- I think the word
10 "slew gear" appears in the patent absent the
11 word "drive," but means the same thing.

12 Q. Okay.

13 A. I don't -- I should probably not
14 have said that. I am trying to -- my memory is
15 that there is some -- that the words -- that
16 it's there, but I have to go look.

17 Q. Okay.

18 A. You don't want to watch me -- you
19 don't want to have me try to read through this
20 or do a word search.

21 Q. That's fine.

22 A. So my point wasn't that the patent

1 says that, but rather, when you say -- you
2 didn't say does the patent use the slew gear
3 and slew gear drive different, maybe, but
4 often, the context is more important
5 understanding what they are saying than the
6 actual grouping of words.

7 Q. Understood. Is a rotary drive a
8 slew gear -- sorry, strike that.

9 Is a slew gear drive a rotary drive?

10 A. Can you be more specific? I am
11 trying to understand what you're saying.

12 Q. Okay. What is a slew gear drive to
13 you?

14 A. A slew gear drive is a drive that
15 comprises a worm gear, in the case of the
16 GOMACO products, two worm gears, we can see a
17 picture of one in my deposition. Let me pull
18 that up.

19 It doesn't have the insides of it,
20 but you can see a picture of one so we can make
21 sure that we know what we are talking about,
22 and inside of that, there is a gear ring and

1 the movement of the rings, I think that's on
2 page -- let me pull that up. I saw it a moment
3 ago.

4 Yeah, Page 12, below Paragraph 40,
5 and we see there and we see the two pieces on
6 the side on the sort of top and bottom right
7 and left side, so between that and then you
8 have the gear ring, then you can say, oh, yes,
9 so I have two -- what appear to be two worm
10 gears driving a main gear, so they are allowing
11 rotary motion and you use worm, you use slew
12 drives in cases where you need high precision
13 and you have high torque. That would be
14 similar to this case. That would be a very
15 standard application.

16 Q. So is a dual worm gear a type of
17 slew drive?

18 A. I am again trying to understand the
19 question. There are probably other worm gear
20 drives that are not slew drives, but in this
21 case, it would appear that they have two worm
22 gears and yes, I can buy slew gears that have

1 two worm drives, that would be called by
2 industry to be a slew gear.

3 You look at a catalog for a company,
4 you're going to see that. You can also buy
5 them with one gear. If you have a high torque
6 situation, you might well go with two. It
7 gives you a nice balance and it works well
8 mechanically.

9 But there are probably other place
10 where we are using worm gears that we -- where
11 we are not calling them slew drives and they
12 are, but within the context of this patent and
13 within the context of the GOMACO products,
14 those are slew drives and they are called out
15 by GOMACO as slew drives. They tell you
16 repeatedly that they are using a slew drive in
17 that application.

18 Q. When I use the term "rotary drive,"
19 what does that mean to you?

20 A. I have no idea what that means. I
21 am not being difficult here or refusing to
22 answer the question. I mean, partly, I regard

1 you as part of the broad audience of technical
2 terms as opposed to a precise engineering term,
3 and I actually give a lecture on this to my
4 students about precision and language and the
5 word I use to think about is efficiency. It
6 has a very specific technical meaning and not
7 -- but it's used generically by the public, so
8 you're the public and you're using this for a
9 rotary drive, so I don't know what you mean.

10 If I were an engineer, I would not
11 call this out as a rotary drive, I would call
12 this out as a slew drive because that's what it
13 is. So precision in language and context
14 become very, very important to understand the
15 intent of the engineer.

16 Q. What about the concept of a rotary
17 connection? Claim 1 requires a rotary
18 connection between the jacking column and the
19 crawler track.

20 A. Okay.

21 Q. So what does that term "rotary
22 connection" mean?

1 A. So what we mean there is the jacking
2 column and the rotary track can move
3 independent from each other in -- across that
4 rotary axis as it were.

5 Q. Okay. So I think we talked about
6 earlier, there were four machines that you have
7 accused of infringing, the GP3, GP4, 2400 and
8 the Commander III, correct?

9 A. Yes.

10 Q. All right. So for the 2400, do you
11 know if every -- I will ask you questions first
12 about the pivot sensor.

13 A. Give me one second. I need to
14 change the volume here. You are fading on me
15 and I don't know why.

16 Q. I will be sure to speak up.

17 A. Got to find the volume button here,
18 it is hidden behind the Zoom thing so I have to
19 get that.

20 MR. HANNAH: Test, test. Can you
21 hear me?

22 THE WITNESS: I hear you great.

1 It's just that Dave is fading on me. Give me a
2 test.

3 BY MR. MROZ?

4 Q. Is this better?

5 A. Much better.

6 Q. Okay.

7 A. That's good. Let me get back to the
8 Zoom screen.

9 Q. Okay.

10 A. Okay. I'm back. Thank you.

11 Q. All right. Thanks. All right. So
12 Claim 1 requires a second angular position
13 transducer between the swing leg and the module
14 frame, right?

15 A. Yes. Let me come here. So yes,
16 that would be -- yes, I have found that. "A
17 second angular position transducer between the
18 swing leg and the module frame configured to
19 emit a second signal which is indicative of an
20 angular orientation to the swing leg relative
21 to the module frame."

22 Q. Yes. Is that transducer monitoring

1 the pivot position of the pivot leg, swing leg?

2 A. What are you trying to say?

3 Q. What is that second angular position
4 transducer sensing?

5 A. It's between the swing leg
6 configured to emit a second signal which is
7 indicative of the angular orientation of the
8 swing leg relative to the module frame, so it's
9 giving you the angle between the swing leg and
10 the module frame.

11 Q. Okay. Does every Commander III
12 machine have that type of second angular
13 position transducer?

14 A. I'm not prepared to speak about
15 every Commander III machine. As I told you
16 before, I only looked for evidence that there
17 were Commander III machines available with that
18 on it, not all of them were sold with that.

19 Q. Okay.

20 A. Heavy industrial equipment, again,
21 come back to this, is sold with many, many
22 options. So my assignment wasn't to go find

1 out if all options were there. My assignment
2 was to go find out if that is an available
3 option, and I ascertained that through, one,
4 the drawings that you provide on your website
5 and, two, the literature and, 3, what you
6 advertise in your YouTube videos. So that's --
7 then I provided that evidence in my deposition.

8 Q. Okay. You didn't include your
9 YouTube videos in your documents considered,
10 did you?

11 A. No. And in fact, I did -- as I
12 said, it's the group of things and then at the
13 end that you filter down to what the specific
14 evidence is.

15 Q. Okay.

16 A. As I said, I don't keep written
17 notes and I don't keep track of things. We did
18 this in the professorly or scholarly manner,
19 where you get a call and they say, hey, we have
20 something and so you go look at a bunch of
21 videos and then you say, oh, okay, I'm
22 interested in this topic and then you sort of

1 filter down, so by the time I have gotten to
2 writing, I was well beyond -- and had an
3 assignment, I was well beyond that point.

4 Q. How important were those videos to
5 your understanding of how the accused products
6 worked?

7 A. Not at all. They provided me with
8 an initial quick overview. The drawings that
9 are cited are the ones that I used.

10 Q. Okay.

11 A. If I didn't use it, if it was not --
12 if it was not -- if it was not cited, it's not
13 included in my decisionmaking process.

14 Q. Okay. So for the 2400 machines,
15 does every 2400 machine that GOMACO sells have
16 a second angular position transducer?

17 A. Again, I think we have asked this
18 question before. Again, I have no idea what
19 all is sold. All I know is that they do sell
20 them with, whether they all come with it or
21 not, I have no idea.

22 Q. Okay. I have to ask the same

1 question for the GP3 and GP4.

2 A. The answer remains the same.

3 Q. What's that?

4 A. The answer is that -- I mean, we do
5 not know how they configure these and what
6 configurations are available. We simply know
7 that they do sell configurations that do
8 infringe.

9 Q. Okay. So you could have found one
10 GP3 that has a second angular position
11 transducer and that could be all you relied on
12 in your analysis?

13 A. I think if you go back and look at
14 my analysis, you will find that I have cited
15 your sales brochure so I don't think that's
16 one. I think that's available for sale. How
17 many you have sold, I don't have access to say
18 in the records.

19 Q. Are you aware, Dr. Bryden, that
20 infringement goes on a product-by-product
21 basis?

22 A. Yes.

1 Q. So a single product has to have
2 every single element to infringe?

3 A. Yes.

4 Q. So if a product is missing the
5 second angular position transducer, that term,
6 it cannot infringe; is that correct?

7 A. That appears to be true, though that
8 appears to be a legal opinion so I'm going to
9 say -- that is my understanding, but I'm not
10 sure I know where you are going there.

11 Q. Okay.

12 A. I mean, I think that I provided
13 evidence and you haven't challenged that
14 evidence that indeed, these products do have
15 that second angular transducer or the
16 equivalent thereof, but we didn't go with
17 equivalency and they clearly state they do and
18 the evidence came from your literature.

19 Q. Are you aware that GOMACO offers a
20 two-track version of the GP3, GP4, and GP-2400?

21 A. Yes.

22 Q. Are you aware that those machines

1 don't have swing legs?

2 A. I wasn't asked that question and so
3 I didn't investigate what options were
4 available on what machines.

5 Q. If those machines did not have any
6 swing legs, would they infringe?

7 MR. HANNAH: Objection. Vague.

8 THE WITNESS: The infringement is on
9 the swing leg so if you don't have swing legs,
10 you don't infringe. It's not clear to me that
11 those are not offered without a swing leg, but
12 that may be -- you may be right.

13 BY MR. MROZ:

14 Q. Okay.

15 A. I mean, to my knowledge comes again
16 from the sales brochure and from your online
17 drawings and in general, it's a little bit like
18 buying cars. If there is an option you can buy
19 it with your car even though it may not be
20 offered with that car.

21 And I don't think the issue here is
22 whether pavers infringe overall. The question

1 is whether your swing legs infringe. The swing
2 leg assemblies infringe.

3 Q. Okay. Let's look at Exhibit 6 which
4 you already have. That's the 2400 manual.

5 A. Sales brochure. Let's not use the
6 word "manual" here.

7 Q. Sales brochure. Does that make a
8 difference to you?

9 A. Yes, a lot.

10 Q. Why is that?

11 A. Why do you think?

12 Q. You are the one who is answering the
13 questions today, sir.

14 A. Okay. I am surprised that you would
15 think a sales brochure was a manual. When we
16 say "manual," again, context but vocabulary is
17 important here. A manual generally provides a
18 great deal of information. I just purchased a
19 Subaru Assent, it came with a sales brochure,
20 it showed me pictures of Subarus out in the
21 mountains, it showed pictures of diagrams, the
22 features I can buy, one thing and another, and

1 it also came with a manual. The manual was 400
2 pages long. I still haven't weighted through
3 it.

4 So the manual and the sales brochure
5 are very different. The sales brochure
6 indicates what you are selling. The manual
7 indicates what I bought.

8 Q. I understand. I never thought about
9 it that way. Do you view sales brochures as
10 less -- what is a better document to look at
11 when you are trying to determine how a machine
12 operates, a sales brochure or a manual?

13 MR. HANNAH: Objection. Vague.

14 THE WITNESS: I think that you are
15 going to have to put two different meanings on
16 "operate" here. If I want to learn how the
17 machine operates, I'm going to go to a school,
18 I'm going to read the manual, I'm going to have
19 a lot of other pieces on it. That's different
20 than how it is designed, and that's different
21 than how I might -- the options I might be able
22 to buy it with.

1 Now as far as infringement, the
2 sales brochure is more than sufficient to see
3 what it is you have and what you're selling.

4 BY MR. MROZ:

5 Q. Okay.

6 A. I mean, there are a number of
7 documents, the repair documents, right, we have
8 that that we have to go through. There is a
9 product brochure, there is the manual, there is
10 a lot of things and so the question of what is
11 it you're offering for sale, is well-handled by
12 the product brochure, particularly with the
13 detail that GOMACO provides in their sales
14 brochures.

15 Q. When you are trying to determine how
16 a product is designed and operates, is a sales
17 brochure more reliable than a manual?

18 MR. HANNAH: Objection. Vague.
19 Calls for speculation.

20 THE WITNESS: I'm coming back to
21 this word "operates," and I'm not sure what you
22 are trying to say.

1 Can you work on that a little bit
2 for me?

3 BY MR. MROZ:

4 Q. I will just say design. When you
5 are trying to determine how a product is
6 designed, is a sales brochure more reliable
7 than a manual?

8 MR. HANNAH: Objection. Vague.

9 THE WITNESS: Let's work on your
10 vocabulary here with "design," and say that
11 design is generally handled not by a manual,
12 but by a series of drawings which are held as
13 proprietary. We can surmise how something
14 works by what you reveal in your sales brochure
15 and other things, but if I were to design a
16 paver, I mean, that's a big -- remember, pavers
17 are very complicated and very complex and the
18 element of -- the swing leg element we are
19 talking about is the small part of this overall
20 thing, so I'm sure that this has got lots and
21 lots and lots of engineers and drawings and
22 complication, so the question doesn't make

1 sense to me.

2 The question is in reviewing a
3 product and determining its capabilities
4 whether it's infringing, is there sufficient
5 information in the sales brochure. In this
6 case, yes. That's because GOMACO is very
7 explicit in their sales brochures in general.
8 That's probably because they are selling to
9 technical people who want those details. It's
10 not my sales brochure for my car.

11 BY MR. MROZ:

12 Q. Let me ask it this way: If you
13 wanted to know what features the GOMACO
14 concrete paver had, would you pick a manual or
15 a sales brochure if you only had one choice?

16 A. I wouldn't pick either. If I was
17 buying one of these things, the sales guy's
18 going to hook me up and we're going to go
19 through their website, but if I am thinking
20 about it, the brochure is going to give me a
21 better land than the manual.

22 Q. Did you --

1 A. When you say "what options." The
2 question here isn't what options they offer.
3 The question is, do they offer a swing leg
4 option and they say they do. I mean, we can
5 look -- if we look here at the 2400 you have
6 up, I would bet that they use the word "swing
7 leg," and they tell us that they have
8 transducers.

9 I mean, I think the evidence is
10 well-hidden. They are selling to technical
11 people and you'll see that they provide a wide
12 range of technical information in their
13 brochure.

14 Q. You didn't review any manuals?

15 A. These are not pretty brochures.
16 These are brochures to sell to people who
17 understand pavers and own them. So in that
18 sense, they are detailed but they are not
19 manuals.

20 Q. You didn't review any manuals of
21 GOMACO's concrete pavers, did you?

22 A. No. I reviewed technical drawings

1 that were available and I think I only cited
2 one that I reviewed in detail.

3 Q. So you reviewed some technical
4 drawings and didn't cite them in your --

5 A. I did cite one of them. Let me find
6 it for you.

7 Q. Thank you.

8 A. Let me go back to Appendix B, at
9 least I believe I cited it. Yeah. Reference
10 8, GOMACO GP3 slipform paver -- no. Drawing of
11 GP4 rather available at, and I give you a web
12 location for the drawings.

13 Q. Did you look at other drawings that
14 you did not include in this referenced
15 materials list?

16 A. Not to my recollection at that
17 point. At that point, I was looking for
18 specific detail that wasn't in the sales
19 brochure so then I went to go find the drawings
20 that were available online.

21 Q. What was that detail?

22 A. I would have to go back and look and

1 see what was referenced in Reference 8.

2 Q. That's okay.

3 A. I will be happy to go look that up
4 for you. Give me a moment. It's one of the
5 drawings, that was 8. Let me find it. Well,
6 you probably don't want to watch me go do that.
7 It's a sense of completeness of an open end.

8 Page 9. Come on, where are you.

9 Page -- I'm not going to find it quickly so I
10 will let you look.

11 Q. Thanks for checking. So can we go
12 to Paragraph 46 of your corrected declaration.

13 A. Sure.

14 MR. MROZ: And specifically, the
15 picture at the bottom, Jeff, is all we need to
16 see.

17 THE WITNESS: Paragraph 46.

18 BY MR. MROZ:

19 Q. The annotated figure there of the
20 GP4, correct?

21 A. I am looking at paragraph -- yes.

22 Q. Then go to Paragraph 52. Hold

1 Paragraph 46 but then page to Paragraph 52.

2 A. Okay.

3 Q. There, you have an annotated figure
4 of a 2400, correct?

5 A. I'm not on the same page as you.
6 Let me catch up.

7 Q. Sorry. It's Page 21.

8 A. I got it. You said Paragraph 52.
9 So I went to 52 but I didn't get to Page 21,
10 part of Paragraph 52. So I apologize. I
11 wasn't as good at following directions as I
12 hoped. Okay. I'm with you.

13 Q. The swing leg assemblies on both of
14 these figures, that's the figure in Paragraph
15 46 and the figure in Paragraph 52, they are not
16 the same, are they?

17 A. No.

18 Q. What's the difference?

19 A. In one, you have the slew gear and
20 in the other, you do not.

21 Q. In the 2400, without the slew -- is
22 that the one that does not have the slew gear

1 on Paragraph 52?

2 A. It appears to be, yes.

3 Q. Looks like it has a hydraulic
4 cylinder for steering the track?

5 A. Right, uh-huh.

6 Q. And then the 2400 in Paragraph 52,
7 it doesn't have a hydraulic cylinder for
8 steering or for swinging the leg, does it?

9 A. Say that again. I got lost.

10 Q. That's fine. For the 2400 on
11 Paragraph 52 --

12 A. Okay.

13 Q. -- that doesn't have a slew drive
14 for swinging the leg, does it?

15 MR. HANNAH: Objection. Vague.

16 THE WITNESS: It does not appear to,
17 no.

18 BY MR. MROZ:

19 Q. There is a turn buckle, right?

20 A. It appears to be. I don't know if
21 it's a turn buckle but it does have a hydraulic
22 cylinder, it appears.

1 Q. Let's go back to Paragraph 46.

2 A. Okay.

3 Q. The GP4 drawing, it does have a slew
4 drive for swinging the swing leg, correct?

5 A. That's true.

6 Q. So the GP4 swing leg design and the
7 2400 swing leg designs are different?

8 MR. HANNAH: Objection. Vague.

9 BY MR. MROZ:

10 Q. In terms of how they pivot.

11 A. I think the differences in these two
12 pictures, whether the design is different is
13 not clear to me. So it may be that they are
14 able to fit either one of these on the same
15 machine. That's why -- I think what you are
16 trying to say, all 2400s are as shown in
17 Paragraph 52, and I am not ready to agree with
18 that statement.

19 Q. I'm not saying that. I am saying
20 this design shown in the picture in Paragraph
21 52 is different than the design shown in
22 Paragraph 46; is that correct?

1 A. I already agreed with that so of
2 course, yes, but then you asserted further that
3 therefore, the 2400 was different than the GP4
4 and I am not sure that is necessarily true,
5 because I'm not privy to their design process,
6 but it may mean that they simply have swing
7 legs and they attach them to various frames.

8 May not be. I think you are asking
9 for a broad -- the question you are asking is,
10 too vague and I am not able to answer it
11 accurately.

12 Q. I just meant to talk about the
13 pictures and the differences in the pictures.
14 That was inartful in my question, so sorry for
15 doing that.

16 Let's go to --- back to -- keep your
17 finger on Paragraph 46. We're going to turn to
18 Paragraph 58 now. We're going to compare the
19 GP4 to the Commander III.

20 A. Okay.

21 Q. Specifically, the top picture at the
22 top of the page.

1 A. Uh-huh.

2 Q. That Commander III picture, that
3 Commander III machine annotated in that picture
4 does not have a slew drive for swinging the
5 leg, does it?

6 MR. HANNAH: Objection. Vague.

7 THE WITNESS: I guess I'm going to
8 say it sure looks like it does. It has two
9 worm drives on both sides of it and you asked
10 why are there worm drives on the side of that
11 connection.

12 BY MR. MROZ:

13 Q. I'm sorry, I meant the pivot -- for
14 the pivoting drive. Sorry. Let me ask it this
15 way.

16 A. Sure.

17 Q. Looking at the drawing at the top of
18 Page 25 in Paragraph 58.

19 A. Okay.

20 Q. There is not a slew drive used for
21 swinging the leg, correct?

22 A. Let me --

1 MR. HANNAH: Objection. Vague.

2 THE WITNESS: Let me try to be clear
3 as to where you are talking about. So I think
4 you are trying to argue that there is no slew
5 drive at the point of the connection between
6 the swing arm and the module frame.

7 BY MR. MROZ:

8 Q. Exactly.

9 A. That's true.

10 Q. Okay. Because there is an actuator
11 there instead, correct?

12 A. It would be appear to be a hydraulic
13 actuator. It's a little bit hard to tell from
14 the detail provided by the drawing and I don't
15 think that detail is critical here.

16 Q. But you did rely on this picture --

17 A. I did.

18 Q. -- in your declaration to talk
19 about, it's showing at least one swing leg
20 assembly.

21 A. And it does have one swing leg
22 assembly. It has more than that, but it's hard

1 to tell from the other side whether it's a
2 swing leg or not, but it looks like it. In the
3 larger picture, remember, I was able to look at
4 high res pictures of these online whereas these
5 have now gotten smaller and fuzzy.

6 Q. Makes sense. Now let's compare the
7 GP4 swing leg assembly on Page 16, Paragraph
8 46, with this Commander III machine we are
9 talking about.

10 A. Sure.

11 Q. With the second -- the second
12 Commander III on Page 25, the lower one.

13 A. Okay.

14 Q. The swing leg assemblies in these
15 drawings are not the same either, are they?

16 MR. HANNAH: Objection. Vague.

17 THE WITNESS: It's very hard to tell
18 what is going on in this drawing from above,
19 from an appearance viewpoint, the answer would
20 be yes, but you can't really see the swing
21 drive and you don't get enough detail so when
22 you are looking at different pictures, it can

1 be difficult to tell what they are.

2 BY MR. MROZ:

3 Q. It looks like the GP4 has a slew
4 drive for steering the track, correct?

5 A. It looks like some GP4s have a slew
6 drive for drawing -- steering the track.

7 Q. In this picture in Paragraph 25 --
8 excuse me, in this picture on Page 25,
9 Paragraph 58, the hydraulic cylinder is used
10 for steering the track on GP3, correct?

11 MR. HANNAH: Objection. Vague.

12 THE WITNESS: Let me read through.
13 I am trying to make sure I answer your question
14 clearly and I need to make sure I know what you
15 have got.

16 So we are starting out on Page 24
17 and looking at the Commander III which is a
18 trimmer slipform, okay. It comes in three
19 different versions and all of them have been
20 shown. So I want to make sure that both
21 pictures are referring to the same machine from
22 the same brochure. I think they are.

1 BY MR. MROZ:

2 Q. If you look at Paragraph 60, it
3 might help you answer the question.

4 A. Looking above from the Commander III
5 product brochure, the picture below the Page 11
6 shows the three track. Okay. I think that
7 might be a picture above. Shows -- here is the
8 three track. I'm good. Got it. I'm good with
9 this. It's where we are at and what we are
10 doing. So come back to your question. I'm
11 sorry.

12 Q. Did you read Paragraph 60 while you
13 were doing that?

14 A. I only got as far as 59.

15 Q. Take a look at 60 if you don't mind.

16 A. "The elements of Claim 1E are found
17 in the description taken below from Page 2 of
18 the Commander III product brochure, 12. As
19 described, the Commander III includes a second
20 angular position transducer comprised of a
21 smart hydraulic cylinder to determine the
22 rotary position of the swing leg relative to

1 the module frame configured to emit a second
2 signal that is indicative of angular
3 orientation of the swing leg relative to module
4 frame. The language below shows the Commander
5 III's sensed All Track Steering provides the
6 transducer claim in Claim 1E, which informs the
7 G-plus system of what angle the swing arms are
8 at relative to module frame and can give the
9 'contractor more options for dealing with
10 obstacles.'" Okay?

11 Q. I think that might clarify my
12 question. Page 16, Paragraph 46, we have a
13 slew drive in the GP4 for rotating the track?

14 A. Yes.

15 Q. In then in the Commander III on Page
16 25, Paragraph 58, the second picture down, we
17 have a smart cylinder that rotates the track.

18 A. I would say we have an apparent
19 smart cylinder. The drawing is hard to
20 interpret for that particular detail.

21 Q. You say in Paragraph 60: "As
22 described, the Commander III includes a second

1 angular position transducer comprised of a
2 smart hydraulic cylinder to determine the
3 rotary position of a swing leg relative to the
4 module frame."

5 A. That is their vocabulary, not mine.

6 Q. Before that, one second, sorry.

7 Okay. Okay.

8 A. Go ahead, please.

9 Q. Sure. How -- this concept of the
10 second angular position transducer where you
11 have a smart hydraulic cylinder to determine
12 the rotary position of the swing leg, how does
13 that happen? How does the linear actuator, how
14 is that used to determine rotary position?

15 A. I'm surprised you're asking the
16 question because there are many ways that that
17 can be done and as long as you took high school
18 trigonometry, we should be in good shape with
19 that. I don't know how the engineers did it in
20 this case.

21 I am simply relying on their
22 statement which is given above Paragraph 16,

1 that says: "The intelligent ATP of Commander
2 III includes a smart hydraulic cylinder; all
3 three legs. The smart cylinders allow
4 G-plus-plus to note the position of the three
5 tracks and can make steering adjustments as
6 needed."

7 So there are many ways.

8 MR. HANNAH: Just to give you a
9 heads up when you're reading, start reading
10 very slow because it's hard for the court
11 reporter to type down what you are saying.
12 When we read, we have a tendency to speak very
13 fast, so just to give you a heads up.

14 THE WITNESS: Thanks for that,
15 James. I'm sorry to be quick. Bonnie, I'm
16 sorry to work you too hard.

17 BY MR. MROZ:

18 Q. To answer -- or to follow up on
19 that, so anyone who took high school
20 trigonometry would know that you could use a
21 linear actuator to determine the rotary
22 position of a swing leg?

1 A. I would say any engineer.

2 MR. HANNAH: Objection. Misstates
3 testimony.

4 Go ahead and answer.

5 THE WITNESS: I would agree with the
6 misstatement of the testimony. I mean, clearly
7 from geometry -- from trigonometry, we can know
8 that we can determine an angle's given lengths.
9 An hydraulic cylinder can determine length and
10 there are many ways we can accomplish that. I
11 mean, it's hard to speculate as to what
12 mechanism they use.

13 I suspect that they went to a vendor
14 catalog and they found one that was durable and
15 well that they worked with and they purchased
16 that one, but there are many ways you can do
17 that. That's not -- that is not a -- they have
18 got an onboard computer, that's an easy thing
19 so creating a transducer that can measure angle
20 as we talked about earlier can be done in many,
21 many ways.

22 BY MR. MROZ:

1 Q. Would Claim 1 cover all of --

2 A. I didn't try to -- I didn't try to
3 say which way they used nor does this patent
4 require that it be done in a particular way.

5 Q. That's all I was actually going to
6 ask, so Claim 1 would cover all the different
7 ways you can do it?

8 A. Let's read the words again. I will
9 read slowly, Bonnie. If we find -- we're
10 looking on the second angular transducer,
11 right?

12 Q. Yes.

13 A. "The second angular position
14 transducer between the swing leg and the module
15 frame configured to emit a second signal which
16 is indicative of an angular orientation of the
17 swing leg relative to the module frame."

18 I would note here that they haven't
19 even said that they're measuring the angle
20 accurately. They are measuring it -- it's
21 indicative, so they can use the angle relative
22 to where they were to go make decisions. It

1 doesn't matter what the absolute angle is. It
2 only matters what the change of angles is, so
3 they left themselves a lot of space in this
4 description.

5 Q. No matter what, a linear actuator
6 can be used --

7 A. Yes.

8 Q. -- to make this kind of measurement.

9 A. If we go back and say, is indicative
10 of an angular orientation, of course.

11 Q. Same question with the first angular
12 position transducer, can I use a smart cylinder
13 to provide angular position?

14 MR. HANNAH: Objection. Vague.

15 THE WITNESS: Again, there are many,
16 many ways you can measure angular position,
17 both relative and absolute, and smart cylinder
18 is one of those and they haven't told us what
19 they mean by smart cylinders, so we are left
20 wondering what they tell us what a smart
21 cylinder does so we know it's action.

22 We don't know the mechanism by what

1 they do it -- what they are doing on the inside
2 to make it smart.

3 BY MR. MROZ:

4 Q. Got it. I can use a linear actuator
5 based design and sense that extension and
6 retraction to determine or calculate the
7 angular position of the track?

8 MR. HANNAH: Objection. Vague.

9 THE WITNESS: Let me come back and
10 say, I think you used the word "sense" the
11 angular, you said --

12 BY MR. MROZ:

13 Q. Let me ask it again.

14 A. There was a funny word in there.

15 Q. Let me ask it again.

16 A. Extension, and I don't think that's
17 what they are doing here.

18 Q. Let me ask it again. So we have --
19 can we have a situation where the first angular
20 position transducer's is a linear actuator?

21 A. Yes.

22 Q. Okay. That's all I want to know.

1 A. It's adequately sensed and does all
2 those things. Let's be careful that -- I mean,
3 there are many ways you can do that, a
4 hydraulic cylinder by itself doesn't do that,
5 but these smart cylinders can well come to
6 something that tells you what their distance
7 is, and we can buy products on that line, of
8 that type from manufacturing catalogs.

9 I am presuming their engineers
10 looked at a set of catalogs and they picked out
11 a hydraulic cylinder that had instrumentation
12 associated with it and chose that.

13 Q. Okay. So let's go back to the
14 comparison between the GP4 and the Commander
15 III.

16 A. Okay.

17 Q. So in the GP4, we have a slew drive
18 that is monitoring the pivoting of the swing
19 leg; is that correct?

20 A. It's not clear to me that the slew
21 drive is monitoring the pivoting, it could well
22 be.

1 Q. What is monitoring the pivoting?

2 A. Well, I mean, it's doing the
3 pivoting, that's different than monitoring the
4 pivoting, so we may have a separate sensor, it
5 may not.

6 Q. That's what I meant. Let me ask it
7 again. So one second.

8 So is there a slew drive or an
9 actuator that is pivoting the swing leg in the
10 GP4 in your picture on Page 16 of your
11 declaration?

12 A. In the picture on Page 16, which is
13 at the bottom of Paragraph 46 and above
14 Paragraph 47, we don't see what is causing the
15 leg to pivot. We can surmise if you look at
16 swing leg that we see two worm gears and -- and
17 a slew drive below, where I have written
18 upright pivotal shaft. So it looks like that's
19 a slew drive but given -- if you were given
20 another view, you might come to a different
21 conclusion but it looks like a slew drive.
22 Okay.

1 So it looks like we have two -- to
2 be very clear, to make sure we talk about it,
3 it looks like we have two slew drives in this
4 diagram.

5 Q. One at the pivot point for the swing
6 arm or swing leg and one at the track, correct?

7 A. Yes.

8 Q. Okay. Got it. Now let's do the
9 same analysis for Paragraph 58, the Commander
10 III machine. There, we have two actuators
11 doing the pivoting. We have one doing the
12 pivoting and one doing the rotation for the
13 track, correct?

14 A. Yeah. Give me a moment. Like I
15 said, this diagram is -- you said on -- which
16 diagram? I am looking at the upper diagram.
17 Are you looking at the lower diagram?

18 Q. The lower is probably easier to see
19 what I'm talking about.

20 A. They have two different things going
21 on in these diagrams. The diagrams are not the
22 same.

1 Q. Sure. I want to focus on the one at
2 the bottom of Page 25.

3 A. Yeah. I think the one at the bottom
4 doesn't give us sufficient detail to allow us
5 to draw a conclusion.

6 Q. Do you see hydraulic cylinders in
7 that drawing?

8 A. Give me a moment to catch up. I am
9 trying to catch up with the big drawing as
10 opposed to the small drawing, and I might be
11 able to see it better.

12 I am looking at -- the first one is
13 on Page 11. Okay. I found the drawing. I
14 guess it's not any help here. If I had to blow
15 it up on my screen, it would be helpful. This
16 appears to be a hydraulic cylinder.

17 Q. At the pivot point and at the
18 rotation point for the track?

19 MR. HANNAH: Objection. Vague.

20 THE WITNESS: I can't see what the
21 rotation point for the track is. All I see is
22 a hydraulic cylinder attached to the pivot

1 point, though there may be -- it's very
2 difficult to see what is going on there.

3 BY MR. MROZ:

4 Q. Okay.

5 A. It's not a -- because you kind of
6 want to say, if you look at this drawing, I am
7 looking at the swing leg that is on the upper
8 right side of the diagram.

9 Q. Okay.

10 A. And we are seeing a connection
11 coming out that appears to be a hydraulic
12 cylinder, though it's a long ways out and very
13 thin, and then we are seeing -- if we look at
14 the upper picture of the track, we see another
15 cylinder that seems to be in there and maybe
16 they are working together and maybe they are
17 not. It's very difficult to see from this
18 diagram, but that's fine.

19 Q. Okay. If --

20 A. It's not the detail that I pulled
21 off of this diagram in answer to your next
22 question.

1 Q. Got it. Well, my question is: If
2 this is, in fact, a design for the Commander
3 III where -- this picture, where the hydraulic
4 actuators are used to pivot the arm or to pivot
5 the leg and to rotate the track, this would, in
6 fact, be different than the slew drive based
7 design that we just talked about for the GP4,
8 correct?

9 MR. HANNAH: Objection. Vague.
10 Calls for legal conclusion.

11 THE WITNESS: It would be different
12 but it would be different than what we are
13 showing for a Commander III up above.

14 BY MR. MROZ:

15 Q. Okay.

16 A. So clearly, they come in various
17 options.

18 Q. Yes. We're going to do the same
19 exercise, we are almost done, we are getting
20 through this.

21 The same exercise with Paragraph 46
22 and then Paragraph 62, so stay with Paragraph

1 46.

2 A. Getting organized. I've got 46 in
3 front of me and where are we going?

4 Q. We have already established that 46
5 has the slew drive design at the pivot arm and
6 at the track. So now we're going to compare
7 that to --

8 A. Pivot arm. So don't put words in my
9 mouth. I am looking at a very small drawing.
10 It looks like a slew drive.

11 Q. A slew drive with a pivot leg on it,
12 not a pivot arm. I understand.

13 A. It appears to be or likely is, that
14 is different. I'm going to stake my reputation
15 on that being a slew.

16 Q. Understood.

17 A. I just want to make sure we are
18 clear. I don't lead you astray.

19 Q. Thank you. We're going to compare
20 that drawing to the annotated drawing, there
21 are actually two --

22 A. Wow, they made this one small.

1 Q. The drawing in Paragraph 62, the
2 first one on Page 26 of your corrected
3 declaration.

4 Do you see the swing leg in that
5 drawing on Page 27?

6 A. Yeah. Let me -- I am actually
7 looking at -- let me see if I can find that in
8 the brochure because it might be bigger. Of
9 course not. This is Commander III. Page 5.
10 Okay. Let me catch up. Maybe it will be
11 bigger, somewhat bigger, not amazingly bigger.

12 Q. Okay.

13 A. I'm with you.

14 Q. Okay. Is this a hydraulic actuator
15 based pivot design?

16 A. For?

17 Q. For the drawing on Page 27.

18 A. 27. And ask -- and go back here. I
19 mean, where are you asking for is there a
20 hydraulic cylinder? Again, I see a number of
21 slew drives in this diagram, right.

22 Q. Yes. On the front or on the leg on

1 the farthest right.

2 A. Okay.

3 Q. I see some slew drives, I think, and
4 correct me if I am wrong, down at the track.

5 A. Right. Correct.

6 Q. But I also see a hydraulic cylinder
7 that is pivoting that is doing the pivoting of
8 the swing leg?

9 A. I see --

10 MR. HANNAH: Objection. Vague.

11 THE WITNESS: I am not seeing that.
12 That doesn't mean that it's not there. I see a
13 hydraulic cylinder, but it doesn't -- I'm not
14 sure that -- I'm going to look at this and try
15 to decide if that's even the swing leg. Let's
16 start there.

17 BY MR. MROZ:

18 Q. Okay. Do you see a slew drive up
19 there?

20 A. A lot of detail. I'm looking at a
21 better picture than the one you are looking at.
22 I'm looking at the original. I'm not seeing

1 it. I'm seeing the hydraulic cylinder, but I
2 don't see its function.

3 Q. Okay. You can see other slew drives
4 on it?

5 A. Yeah, I'm not seeing -- let me go
6 back and read this. Let me see if I can help
7 myself by reading this paragraph just to make
8 sure that I'm not missing something.

9 As regards to Claim 1G, let me
10 remember what 1G is, there is a processor found
11 on the system that receives signals from the
12 first and second sensors that are used to drive
13 the power drive of the all-track steering and
14 change the rotation of the position relative to
15 the desired orientation of the crawler track.
16 And that's an extreme --

17 MR. HANNAH: Doctor, it's probably
18 easier for the court reporter if you just read
19 to yourself and then you can just let us know
20 when you have had a chance to go through
21 everything.

22 THE WITNESS: It's the professor

1 thing. You share with the students.

2 MR. HANNAH: You can just read it to
3 yourself. It will just make it easier I think
4 and then just let us know when you are done.

5 THE WITNESS: I think the question
6 in Paragraph 62 has to do with, do these
7 transducers report back to a computer. This is
8 the evidence that in fact the transducers
9 report back to computers, so I wasn't looking
10 at this particular drawing to see if it had
11 particular detail. It's hard to tell detail
12 from this drawing.

13 I was trying to describe to you, why
14 did I use this drawing. It's so hard to figure
15 out. I was looking at the words in the
16 diagram.

17 BY MR. MROZ:

18 Q. Sure.

19 A. You can see that they allow it to do
20 this, so that was the question because I think
21 the patent, if you flip back to there. It
22 requires -- yeah, the last part of the Claim 1

1 requires a processor able to receive the first
2 and second signals and then control the track.
3 This was my discussion of -- indeed, there is a
4 computer and there are sensors and they can
5 control the track. I was focused on the words,
6 I included the picture primarily for context.

7 Q. Got it. But you can see the slew
8 drives at the bottom of the tracks, they're
9 down by those tracks, correct?

10 A. Yes.

11 Q. Okay. Do you see any kind of slew
12 drive up by the swing leg, on the far right?

13 A. I don't, but I wouldn't be willing
14 to testify one way or the other. The drawing
15 is not specific enough to provide you enough
16 detail. I mean, you look at ten pixels, so it
17 doesn't look like it, but I'm not -- unwilling
18 willing to commit on that one. I'm sorry.

19 Q. That's fine. No problem. You
20 identified --

21 MR. MROZ: How long have we been
22 going? I am about to start a new line of

1 questioning. I think I can get through this
2 one before our next break.

3 BY MR. MROZ:

4 Q. So you identified at least three
5 versions of the Commander III product line,
6 correct? I will refer you to Paragraph 58 of
7 your declaration.

8 A. Okay. Let me work my way back to
9 that.

10 Q. You can read that to yourself if --
11 as Mr. Hannah suggested, if you need to.

12 A. I am at Paragraph 58.

13 Q. Page 24 of your corrected
14 declaration. My question is: It looks like
15 you outlined or you opined that there are three
16 versions of the Commander III product line; is
17 that correct, at least three?

18 A. At least three, uh-huh.

19 Q. Okay.

20 A. Again, based on the -- version is a
21 term that -- I mean, you can buy these with
22 many different options.

1 Q. Understood. Can you please go to
2 paragraph -- excuse me, Exhibit 7, Page 5.
3 Before I -- let me know when you are there.

4 A. Yeah. I just want to make sure I
5 keep my pieces of paper squared away. I have
6 them clipped together. I don't want to get too
7 out of control. Otherwise, I will have to
8 spend my break getting everything assembled as
9 opposed to getting a break. Okay. I'm on 7.

10 Q. Okay. So you identify in Paragraph
11 58, a three-track version, a four-track version
12 and an extreme three-track version, called the
13 Xtreme Commander IIIX, correct?

14 A. Yes.

15 Q. Can we go to that Page 5 of Exhibit
16 7. In the bottom right corner, do you see a
17 machine called four-track Commander IIIX

18 A. Yes.

19 Q. You didn't analyze the four-track
20 Commander IIIX machine, did you?

21 MR. HANNAH: Objection. Vague.

22 THE WITNESS: It was not included in

1 my overt description of what I'm seeing.

2 BY MR. MROZ:

3 Q. Okay.

4 A. As I said, these come in many
5 options so I didn't catch that there was a --
6 that that particular option was available.

7 Q. Okay. So I understand, well, then,
8 you didn't offer any opinions in your
9 declaration on whether the four-track Commander
10 IIIx machine infringes, correct?

11 MR. HANNAH: Objection. Misstates
12 testimony.

13 Counsel, you are misrepresenting his
14 declaration. It's on Page 31 of his
15 declaration.

16 THE WITNESS: Yes.

17 BY MR. MROZ:

18 Q. You didn't say you considered that
19 in your list of three that you provided in
20 Paragraph 58 though, correct?

21 A. We looked at Paragraph 58. Let me
22 flip back to Paragraph 58. I think we can

1 argue again the semantics on this, but clearly,
2 the intent was that all incarnations of this
3 can infringe, provided they have this swing leg
4 configuration.

5 I could imagine that there are six
6 others that they offer that are -- that could
7 be called different things, and so whether this
8 says three track or four track, we can either
9 write that out or say gee, there is another
10 typo. We had that discussion in the beginning.
11 There are probably one or two more in here but
12 the intent was that everything I saw that said
13 Commander III infringed.

14 Q. Okay.

15 A. I'm going to say, had the intent --
16 you could put it up in versions that don't
17 infringe, but the inclusion of the swing leg
18 makes it infringe.

19 Q. Even --

20 A. As you see in the diagram on 5.

21 Q. Even if that -- so it's your
22 position that a machine, any GOMACO machine

1 with a swing leg, paver machine with a swing
2 leg infringes?

3 A. It depends on whether it's a swing
4 leg assembly and whether it meets the criteria
5 of Claim 1 or the dependent Claim 11 and in
6 this case, if we look at this diagram, the
7 answer is clearly yes.

8 Q. Okay. We can have swing leg
9 assemblies for GOMACO that do not infringe,
10 correct?

11 A. I didn't look at that question. I
12 mean, an engineer may be able to find their way
13 through and call something a swing leg assembly
14 and not include the elements of Claim 1.

15 Q. Such as the --

16 A. And that's a question beyond my
17 investigation. My investigation focused on, do
18 these investigate, not is it possible to not --
19 to have a swing leg and not infringe.

20 Q. For --

21 A. Now, you could hire an engineer and
22 an engineering professor and they could do that

1 for you, but so -- I mean, I'm not willing to
2 sign on that all GOMACO products that have a
3 swing leg infringe. I am only willing to
4 insight the ones I looked at had all the
5 elements of Claim 1.

6 Q. If I had a GOMACO swing leg with no
7 sensor for the pivot arm or pivot leg, that
8 would not infringe Claim 1, correct?

9 MR. HANNAH: Objection. Calls for
10 legal conclusion. Vague. Calls for
11 speculation.

12 THE WITNESS: If it doesn't meet the
13 requirements of Claim 1 in the patent, then
14 it's off the table.

15 BY MR. MROZ:

16 Q. So Claim 1 has a sensor, a
17 transducer requirement for the pivot arm or
18 pivot leg, correct?

19 A. We can go back and read through that
20 again but I believe that's the vocabulary.

21 Q. So if it doesn't have that second
22 angular position transducer, it can't infringe.

1 MR. HANNAH: Objection. Vague.

2 Calls for speculation.

3 THE WITNESS: Again, we're going to
4 see if it meets the requirements of the claim,
5 Claim 1, it infringes. If it doesn't, it
6 doesn't.

7 BY MR. MROZ:

8 Q. So I want to talk about what those
9 requirements are. You can't just tell the
10 Court that it meets the requirements of the
11 claim. You have to say why. So I want to
12 explain why this infringes. I want to
13 understand why this infringes and why it
14 doesn't, so if it doesn't have a second angular
15 position transducer, how can it infringe?
16 That's a required claim element?

17 A. I don't think I was asked to
18 speculate what wouldn't infringe. Everything I
19 looked at hadn't, so if you can find a way that
20 meets your function without having a second
21 angular transducer, which is an interesting
22 question, it sounds like a question one could

1 -- it could be interesting to explore but other
2 than that, it seems like a hypothetical.

3 Q. So you didn't explore that question?

4 A. I didn't explore the hypothetical of
5 how GOMACO could engineer their products and
6 not infringe on this patent, no. I only
7 explored did they.

8 Q. In this patent, the '749 patent, are
9 transducers sensors?

10 MR. HANNAH: Objection. Vague.

11 THE WITNESS: Explain the question.

12 BY MR. MROZ:

13 Q. I just want to know if -- in terms
14 of what this patent describes as a transducer,
15 does a sensor qualify as a transducer?

16 A. A sensor could be part of a
17 transducer column or a sensor. I mean, again,
18 this is a semantic question and so if you are
19 trying to tie it around a semantic question,
20 maybe. Clearly, the words are used
21 interchangeably by some.

22 Q. Okay. So let's talk about if we

1 have a rotary -- sorry, a slew drive and we
2 have a sensor coupled with that slew drive that
3 measures the rotation of the track?

4 A. Uh-huh.

5 Q. Is that sensor a position
6 transducer?

7 A. Yes.

8 Q. Okay. Now, let's talk about a
9 linear situation. A linear actuator, we are
10 measuring the movement of a linear actuator.
11 Is that -- can that be an angular position
12 transducer?

13 A. Yes.

14 Q. Okay.

15 A. Remember, that the -- in this case,
16 it's the system and the context, not the, oh, I
17 have -- all I'm doing is measuring distance
18 because you have a computer that's doing all
19 these things, so your system has created a
20 transducer that measures angle, relative or
21 absolute.

22 MR. MROZ: Okay. I think now is a

1 good time for a break. Does that work?

2 THE VIDEOGRAPHER: Going off the
3 record at 3:30.

4 (A short recess was taken.)

5 THE VIDEOGRAPHER: We are back on
6 the record at 3:48.

7 BY MR. MROZ:

8 Q. Great. Okay. We are in the last
9 leg.

10 Dr. Bryden. Almost finished. So
11 I'm going to give you Exhibit 4 -- sorry, 4 and
12 5.

13 (Deposition Exhibit 4 was marked for
14 identification.)

15 (Deposition Exhibit 5 was marked for
16 identification.)

17 MR. MROZ: Mr. Roberts, can you show
18 Exhibit 4. It's the GP3 brochure, and then
19 Exhibit 5 is the GP4 brochure.

20 THE WITNESS: So 3 is which one?
21 I'm sorry.

22 BY MR. MROZ:

1 Q. So Exhibit 4 is the GP3 brochure.

2 Exhibit 5 is the GP4 brochure.

3 A. Got it. Thank you.

4 Q. Do you recognize these documents,
5 Dr. Bryden?

6 A. Yes.

7 Q. You relied on them in your analysis?

8 A. Yes.

9 Q. Let's turn in Exhibit 4 to Page 8,
10 please. Please let me know when you are there.

11 A. I'm with you.

12 Q. So this is a two-track GP3 machine,
13 correct?

14 A. Yes. It says that it's a two-track
15 GOMACO GP3.

16 Q. Does it have any swing legs?

17 A. I don't think I analyzed this. Let
18 me review my deposition. It does not show
19 swing leg.

20 Q. The same questions for Exhibit 5,
21 Page 4. The GP4 manual. On the top there, it
22 shows you the two-track machine again for the

1 GP4 this time.

2 Does that have any swing legs?

3 A. It does not appear to have swing
4 legs.

5 Q. And then back to Exhibit 6, Page 5.

6 A. Exhibit 6.

7 Q. Page 5. It's the 2400 brochure.

8 A. I just had to catch up for a moment.
9 There we go. Page 5. Okay. I'm with you.

10 Q. That's also a two-track machine for
11 the GP-2400, correct?

12 A. That's what it says it is, yes.

13 Q. That doesn't have any swing legs
14 either, correct?

15 A. It doesn't appear to, no.

16 Q. I would like to ask now about the
17 last limitation in Claim 1 which is the
18 processor limitation. If you can read that to
19 yourself, I would appreciate that.

20 A. I enjoy reading out loud so much.
21 Okay.

22 Q. I just want to walk through this

1 piece by piece.

2 So a processor that is receiving the
3 first and second signals, where are those
4 signals coming from?

5 A. From the patent we see, as they
6 describe them, we have a first angular
7 transducer which is the first signal, and we
8 have a second angular transducer which is the
9 second signal, which we surmise.

10 Q. And it's -- the machine is
11 activating the power drive and rotationally
12 moving crawler track relative to the jacking
13 column to maintain an orientation of the
14 crawler track in response to changes of the
15 first signal caused by pivotal motion of the
16 swing leg above an upright pivot shaft.

17 I am trying to figure out how that
18 control system would work. Does the '749
19 patent describe how this orientation
20 maintaining occurs?

21 A. I'm sorry, I don't understand. Is
22 there a question in that?

1 Q. Sure. So what -- this processor
2 claim talks about this relationship between the
3 position of the crawler track and the position
4 of the pivot arm, correct?

5 MR. HANNAH: Objection. Vague.

6 THE WITNESS: Where are we talking
7 about on this document right now? I'm sorry.

8 BY MR. MROZ:

9 Q. I am talking purely about the
10 processor -- I want to learn how the processor
11 works in this claim. What is it doing?

12 A. Let me come back and say that word
13 -- work seems vague and I don't know whether
14 you want a lesson in controls. In adaptive
15 controls, we do a lot of research in that
16 space. We can spend several hours there. I
17 think you are trying -- I guess I just don't
18 know what you are asking me.

19 Q. So this --

20 A. We have -- don't talk over the top
21 of me.

22 Q. I thought you were finished. Go

1 ahead.

2 A. No. If you are not finished, please
3 go ahead.

4 Q. No, no, I thought you were. You
5 keep going. That's fine.

6 A. I am trying to put some breaks in my
7 voice so that everybody can keep up with me.
8 Zoom tends to require that.

9 Q. Not a problem.

10 A. So here, we have two signals and
11 they are controlling something and we don't
12 know the specifics of how they control it. We
13 simply know that they do. And we can speculate
14 on that, but the patent doesn't require us to
15 speculate on that nor does the industrial
16 brochure require us to speculate on it.

17 Could I design something that does
18 that? Certainly, but we don't know the
19 mechanism so I am trying to figure out what
20 level do you want. We have two signals and you
21 can think about this as -- I have the
22 temperature for my house and I have the

1 temperature for my office and I have got some
2 transducers -- my house is more complicated
3 because it's a mechanical engineering
4 professor's house, together they make decisions
5 based off a computer that I've arranged for my
6 house, so there is a lot of different control
7 mechanisms available. The "how" isn't clear to
8 me what you are asking.

9 Q. Okay. So this last limitation in
10 Claim 1 has a processor and it ascribes to it
11 certain functionalities that have to be
12 performed.

13 A. Sure. Correct.

14 Q. What are those functionalities?

15 A. It has to receive the first and
16 second signals. It has to commit -- emit a
17 control signal for activating a power drive and
18 thereby rotationally moving the crawler track
19 relative to the jacking column to maintain the
20 orientation of the crawler track in response to
21 changes in the first signal caused by the
22 pivotal motions of the swing leg above the

1 upright pivot shaft.

2 Q. When we talk about this concept of
3 rotationally moving the crawler track relative
4 to the jacking column, what does that mean?

5 A. We talked about that earlier, and so
6 we have the jacking column and it is this
7 column which is horizontal and as I think you
8 tried to argue that the column could translate
9 on its own and that would make it different but
10 it doesn't. We know the location of this
11 column and we know the center line of that
12 column and we know that the crawler track can
13 move relative to it. That's why we have these
14 various drives, we have the hydraulic cylinders
15 or slew drives, so we need to change that angle
16 relative to the jacking column to be able to
17 turn corners or do other operations that we
18 might want our paving machine to do.

19 Q. Now this concept of -- let me make
20 sure I use the right language here.

21 A. Okay.

22 Q. So changing the angle relative to

1 the jacking column to be able to turn the -- in
2 relation to the swing leg, is that something
3 that has to be programmed into the machine?

4 A. Say that again. I'm sorry.

5 Q. So when I am trying to take this --
6 perform this function of rotating the track in
7 conjunction with pivoting the swing leg, do I
8 have to use computer code to achieve that
9 function?

10 A. Let's be careful with the word "have
11 to." It's likely that we would. You may be
12 able to code this in some way that -- I use the
13 "code." You may be able to design this in a
14 way that doesn't require that though that
15 wouldn't make any sense. So that's why we have
16 this word "processor." So the processor
17 receives the signals, it does some work so
18 that's code, computer code, and then it goes
19 off and does that and we can -- computer and
20 processor have many incarnations in industrial
21 equipment and in power plants and farm
22 equipment and other things, but at the end, you

1 are getting two signals and you are making some
2 decision with those signals about whether
3 they're doing what you want them to do and how
4 to get them to do that.

5 Q. How does the processor know what
6 decision to make?

7 A. Remember --

8 MR. HANNAH: Objection. Vague.

9 Go ahead.

10 THE WITNESS: So remember that this
11 device is being run off of string line and
12 string that tells us where we want it to go or
13 it's going off a 3D piece that we programmed in
14 and said do this and do that, so it's comparing
15 the path with the string line or the path with
16 the 3D intent, and so it says, here is my
17 intent and here's what I want this to do.

18 It's a relatively sophisticated form
19 of the self-driving that would be the -- the
20 beginning points of self-driving that we see in
21 cars where we center on a lane. You can follow
22 the car in front of you and center on the lane,

1 and in the same way, you can find an error
2 signal that says, I want to go do this, and I
3 use the word "error signal," it should not mean
4 that that's a mistake, that's sort of
5 vocabulary here, that I want to go here and I
6 have got to change in order to be -- continued
7 to do that. So that's what it is doing. It's
8 doing that comparison. It's likely it's doing
9 it in a very sophisticated way.

10 Because it -- you don't want to lay
11 the pavement down and then say, oh, I didn't
12 want to do that. You want to be looking ahead
13 and saying, well, in order to get there, I have
14 got to be here. That is still process just --
15 when we use error signal in controls, what we
16 mean is that the machine is not doing what I
17 want -- I need to make a change. Not that it's
18 wrong at this moment. Is that helpful?

19 BY MR. MROZ:

20 Q. Are you talking about the
21 relationship between the rotation of the track
22 and the pivot arm?

1 A. How does this processor work. I
2 think that's question I'm answering.

3 Q. I only care today about how the
4 processor works regarding that relationship
5 between the track position and the pivot leg
6 position, swing leg position.

7 A. Right. And I think I answered that
8 question if you need -- if I didn't, ask me
9 another question or try another way. I mean,
10 it does that by saying where do I want it and
11 where is it and making that decision and that
12 decision is often a forecast decision.
13 Computer controls have become very
14 sophisticated.

15 Q. Okay. So that analysis of where do
16 I want it and where is it, wouldn't you need
17 computer code to drive that?

18 MR. HANNAH: Objection. Vague.

19 THE WITNESS: How are you defining
20 computer code here?

21 BY MR. MROZ:

22 Q. There has to be some program

1 control.

2 A. Indeed, I read that we have G-plus
3 program controls on this machine so I'm
4 assuming that that's where this appears. It
5 could appear elsewhere. You could perform this
6 with a, quote unquote, processor which you
7 might not call a computer and you might not
8 have code.

9 You might argue whether embedded
10 code on the G-PROM is actually code and things
11 like that. In the general vocabulary, that's
12 all going to be code and it's all going to be
13 computer, though you could try to nuance that
14 and say, well, I've got -- but this is not --
15 when it says processor, this is likely not a
16 mechanical processor.

17 Q. I was going to say, I was thinking
18 more of a --

19 A. Otherwise receiving an electronic
20 signal. We use the word "transducer or
21 sensor," meaning we are getting electrical
22 signal in here. Those electrical signals are

1 being used in some fashion to get to the
2 answer. You're not going to follow 3D
3 guideline or string line without having some
4 form of computer code.

5 Q. I was getting at I think that point,
6 I can't just buy an off-the-shelf processor,
7 plug it into the machine and expect it to be
8 able to control the track rotation relative to
9 the pivot leg, swing leg; is that correct?

10 A. I don't even know what an
11 off-the-shelf processor is. Could I take my
12 computer and stick it in here? I don't know,
13 with a lot of work.

14 Q. You have to do coding, right,
15 additional coding?

16 A. Right. There is the hardware and
17 the software part. If the question is, is
18 there software involved here? Yes.

19 Q. That was my question.

20 A. I understand the question. Sorry.
21 I am just not getting where we are going.

22 Q. Okay. So for the processor in Claim

1 1 to perform this function of controlling the
2 track position relative to the swing leg
3 pivoting position, I need software to make that
4 happen?

5 MR. HANNAH: Objection. Vague.
6 Misstates testimony.

7 BY MR. MROZ:

8 Q. Is that correct?

9 A. I'm not sure what you mean by
10 "software." We need computer code.

11 Q. Let me ask it that way.

12 A. I think we need to be careful
13 between software and computer code and other
14 things. But yes. We have a computer, a
15 processor and we have to provide it with
16 instructions. Those instructions are likely in
17 the form of some computer language.

18 Q. Okay.

19 A. Probably a controls language.

20 Q. Probably what language?

21 A. Probably a controls language, right.

22 This is a controller. Likely in some -- but

1 there is many computer languages and when you
2 say "software," it's hard to know what we are
3 saying.

4 Q. Does the '749 patent in the
5 specification tell us anything about the
6 instructions that are necessary to perform this
7 function of controlling the track relative to
8 the movement of the swing leg?

9 A. What we see in the '749 patent is
10 that you have a processor and that the two
11 signals are configured, it configures those to
12 do that. It does not tell us the mechanism why
13 would it works -- how that works.

14 Q. By mechanism, you mean the source
15 code instructions?

16 A. We don't know whether it's a source
17 code. Again, there is a lot of different ways
18 to skin this cat. So we don't know the
19 mechanism, much like we don't know the
20 mechanism of other patents. We know the
21 overall.

22 Q. Understood.

1 A. Remember that software, we don't
2 patent software anymore. So we patent the
3 effect of the software.

4 Q. So you said there are many ways to
5 skin a cat.

6 A. Right.

7 Q. The '749 patent doesn't give us any
8 of those ways, correct, when it comes to
9 controlling the rotation of the track relative
10 to the swing leg pivoting.

11 MR. HANNAH: Objection. Vague.

12 This is -- I mean, this has been
13 going a little while, but it sounds like a
14 validity question in terms of written
15 description, so I'm not sure where you are
16 going with this one, Counsel.

17 MR. MROZ: There is a process or
18 limitation in the claim. We have to figure out
19 if the product infringes that limitation. I'm
20 trying to figure out --

21 MR. HANNAH: If you are just asking
22 about the claim limitation, that's fine, but it

1 sounded like you were asking for support in the
2 specification on that question.

3 MR. MROZ: Yeah, we are trying to
4 figure out what that -- what this means in the
5 specification by looking at the specification
6 which is part of the claim construction.

7 BY MR. MROZ:

8 Q. So back to my question. I will ask
9 it again, Mr. -- or Dr. Bryden. You mentioned
10 that there are many ways to skin a cat and the
11 '749 patent doesn't give us any of those ways
12 at all when it comes to -- when it comes to
13 controlling the rotation of the track relative
14 to the swing legs pivoting; is that correct?

15 A. No. I think you misstated what my
16 intent was. I may have misspoken incorrectly,
17 but you may have repeated that, what I said
18 incorrectly.

19 What I was trying to say here was
20 that once you have a processor, you have a lot
21 of options. So simply the use of a processor
22 infringes in this case. If your swing leg

1 includes transducers, signals, that go to a
2 processor and has been directed by the
3 processor, that is, your swing leg can be
4 controlled, it infringes.

5 Q. Okay. Now, I respectfully may
6 disagree with you. I think that we do have to
7 look at the specification to see how that
8 processor works as part of the infringement
9 analysis.

10 Does the specification of the '749
11 patent tell us anything about the steps that
12 are performed when we are trying to determine
13 how the processor controls the rotation of the
14 track relative to the pivoting arm, swing leg
15 -- sorry, the swing leg's position?

16 A. No, and we couldn't --

17 MR. HANNAH: Counsel, do you want
18 him to read through the patent? I mean, it's
19 32 pages. It's going to take up all your time
20 for him to read through the patent to figure
21 out where the descriptions of the processor are
22 and it's not in his declaration. So it seems

1 inappropriate to me.

2 MR. MROZ: Okay. I think we are --
3 he's happy to refer to the patent or he's
4 allowed to refer to the patent if he wants to.
5 I think Dr. Bryden is well-informed of what the
6 patent says.

7 BY MR. MROZ:

8 Q. So actually, let's go back to
9 Exhibits 4 and 5 if we can. Let's start with
10 Exhibit 4, page -- actually, give me one
11 second.

12 Let's go to -- let's use your
13 declaration. It will be easier. In Paragraph
14 40 specifically.

15 So we have -- in Paragraph 40, we
16 have a picture of the GP3 swing leg; is that
17 correct? So your corrected declaration,
18 Exhibit 2.

19 Let me rephrase the question. We
20 are looking at Paragraph 40 here, it has a
21 picture of GP3 swing leg; is that correct?

22 A. Yes.

1 Q. Okay. So we talked earlier about
2 the track rotating relative to the jacking
3 column.

4 Do you know in this machine when the
5 track rotates, does the jacking column also
6 rotate with the track or does the jacking
7 column stay fixed?

8 A. No, and we've discussed this before.
9 I don't think that it makes any difference with
10 respect to the patent.

11 Q. Sorry, let me ask my question.

12 A. It helps provide specific directions
13 as to what part rotates, but if we look at the
14 leg, I mean, why would you have a rotary
15 connection if the crawler track wasn't rotating
16 with respect to something on the jacking
17 column.

18 Remember, we are talking about the
19 jacking column assembly, not simply does it
20 move with the hydraulic cylinder or not or with
21 the outer casing or the inner casing or all of
22 those things, so I mean, I don't have knowledge

1 of that, but I don't think it's relevant in
2 this case and I don't think it's discussed in
3 my deposition unless you can find it somewhere
4 or in the patent for that matter.

5 Q. I think I asked -- my question was
6 unfortunately a little bit unclear. I'm going
7 to simplify it.

8 Does -- in this picture on Paragraph
9 40 of your corrected declaration, Exhibit 2,
10 when the track rotates, does the jacking column
11 also rotate with the track?

12 A. I think I answered that question
13 before, but I can answer it again. It's your
14 time. We do not know the answer to that
15 question. It seems unlikely, given the
16 diagram, but I have not examined that and I
17 don't believe that that has -- is related to
18 the question on the table.

19 Q. Okay. So --

20 A. It might be in the patent where it
21 specifically calls out how that rotation is
22 achieved.

1 Q. If you don't know the answer to that
2 question, how do you know that this machine has
3 a jacking column that has a rotary connection
4 between the jacking column and the crawler
5 track permitting relative rotational movement
6 of the crawler track and the jacking column
7 without a first separate axis?

8 A. Because the brochure tells you that
9 it can move relative to the hydraulic column --
10 jacking column. Also, it wouldn't make sense
11 that you go put an expensive slew drive in
12 there and then not be able to rotate the
13 crawler track. Why would you keep the crawler
14 track static.

15 Decoration -- we can put racing
16 stripes on our paver, too, but that wouldn't
17 fix the problem. So you have to see a rotary
18 connection to a slew drive so we have to think
19 about that slew drive and why is it there and
20 why are claims made that they can control the
21 crawler track position.

22 Q. So I don't disagree with you that

1 the crawler track can rotate. I absolutely
2 agree with you there.

3 My question is: When the crawler
4 track rotates, does the jacking column also
5 rotate or does the jacking column stay
6 rotationally still?

7 MR. HANNAH: Objection.

8 THE WITNESS: The jacking column
9 stays in the same location because I think you
10 are trying to argue the casing is the jacking
11 column or the hydraulic cylinder is the jacking
12 column and that's not true.

13 The cylinder that is comprised there
14 stays in the same horizontal position
15 regardless of its rotational position. And so
16 the rotation of the crawler track is relative
17 to that horizontal position, not relative to
18 some casing or some other minor artifact.

19 BY MR. MROZ:

20 Q. Okay.

21 A. We can look back in the patent if we
22 want to go explore that discussion. I think

1 you read some of that to me earlier where we
2 looked at what is a column.

3 Q. You said the rotational is relative
4 to the horizontal -- rotation of the crawler
5 track is relative to the horizontal position?

6 A. Right.

7 Q. Doesn't the claim say rotation is
8 relative to the first upright axis?

9 A. Let me go back and look at the
10 claim. Where are you looking at the claim?

11 Q. The upright jacking column claim.

12 A. Indeed. What do you think the first
13 upright axis is?

14 Q. I think it's the -- well, what do
15 you think it is?

16 A. I think it's that horizontal column.
17 What do you think an upright axis is? You have
18 a cylinder. It's upright, and the center of
19 that becomes the axis, so we are permitting
20 rotation around that axis.

21 Q. It looks horizontal. I am
22 misunderstanding what is horizontal.

1 A. Vertically horizontal. I got it.
2 Let me go back and read this more carefully.
3 Let me look carefully at the words. (Reading.)
4 Am looking for horizontal. I have lost it.
5 I'm sorry. Where you looking? Here we go.
6 (Reading.) I don't see -- I still don't find
7 horizontal, I'm sorry.

8 Q. I don't think horizontal's in there.
9 I think you're the one who said horizontal. I
10 was trying to figure out what you meant.

11 A. That was a misspeak. Depending on
12 how -- what we mean -- let me use the
13 vocabulary they use to make sure that we are in
14 the same place.

15 The upright first axis, so the
16 upright first axis being the column, right?

17 Q. Yes.

18 A. Upright jacking column secured to
19 the swing leg having a rotary connection
20 between the jacking column and the crawler
21 track permitting relative rotational motions in
22 the crawler track and the jacking column about

1 a first upright axis.

2 So they tell us the upright axis is
3 -- they say the jacking column is upright and
4 they say that their column is upright, so we
5 can use their vocabulary to say that the
6 jacking column is upright column that they
7 refer axis. The center of that column is then
8 the axis of pivot.

9 Q. That's how I understood it, too, so
10 my question is: If the crawler track is
11 rotating, do you know if the jacking column is
12 going to rotate with the crawler track or is it
13 going to stay rotationally still while the
14 crawler track rotates underneath it?

15 A. I think you are allowed to do both
16 and I think again, you are trying to say -- we
17 are coming back to the same point and I don't
18 know how to say it six other ways.

19 You're trying to make the jacking
20 column the external column, the external
21 covering or the internal -- internal hydraulic
22 cylinder or something and the jacking column is

1 the entire thing, and so whether they -- so I
2 don't see that the jacking column rotates.
3 Elements in the jacking column may.

4 Q. I see. Okay.

5 A. But we don't -- we do not know the
6 mechanism by which they achieve this. We
7 simply know that they do.

8 Q. Okay. How do you know that they do?

9 A. Because they say they do.

10 Q. Okay. Okay. One second. Okay.

11 We are almost there, Dr. Bryden. We
12 have a little less than 20 minutes left by my
13 count.

14 A. Sure.

15 Q. I would like to talk about your
16 background a little bit. It seems like you
17 have a lot of expertise in the combustion area;
18 is that true?

19 A. In regard as an international expert
20 in the combustion of small stoves and of wood
21 combustion. I am highly cited in that area,
22 yes.

1 Q. Do you -- have you ever worked on
2 combustion projects with vehicles?

3 A. No. I have knowledge of that and I
4 have a research partner who does.

5 Q. Have you ever worked on combustion
6 projects with road construction machines?

7 A. The answer is obviously no, and
8 where are we in my deposition?

9 Q. I am looking at your -- asking about
10 your background which --

11 A. Did I assert that I have combustion
12 expertise regarding vehicles?

13 Q. No. I am just trying to see what --
14 how far your experience extends. You have a
15 resume, a CV in here and --

16 A. Yes.

17 Q. It's abbreviated, so I'm just going
18 to ask you about some of your experience. It's
19 well within the confines of the deposition.
20 Don't worry.

21 A. I am just trying to keep you on
22 track here because it wouldn't seem like the

1 combustion mechanism for the engine that drives
2 the paver has anything to do with the paver.

3 Q. I appreciate that. Thank you.

4 So do you -- have you done any work
5 in your career on road construction machines?

6 A. No, and I answered that earlier.

7 Q. Okay. Do you consider yourself a
8 road construction machine expert?

9 A. I consider myself an expert in
10 mechanical engineering and the design of
11 mechanical things.

12 Q. Do you consider yourself an expert
13 in road construction machines?

14 A. If they are mechanical things, I
15 would say I'm an expert in that, yes.

16 Q. You just said you have never worked
17 on road construction machines before.

18 A. Yes, but they are very complex
19 mechanical devices just like power plants and
20 just like other things that I have worked on,
21 so given time and energy, I can go design one.
22 I probably wouldn't be inclined to, since I'm

1 not at that point in my life where I would want
2 to go take on that project, but I can
3 understand a paver, whether I'm an expert in
4 understanding it, indeed, I am.

5 Q. So has your experience in your stove
6 or other fields you worked on, the non-road
7 construction machine fields, given you the
8 expertise you need to work as an expert in this
9 case on concrete pavers?

10 A. Yes.

11 Q. Why is that?

12 A. Early in my career, I was the
13 operations assistant manager for a nuclear
14 power plant. I was also the operations -- I
15 was also the manager of three nuclear power
16 plants and one of the few full fuel cutting
17 facilities in the world. Nuclear fuel cutting
18 facilities in the world. They have many
19 complex pieces. They have many parts. They
20 are in many ways, more complex than pavers, but
21 they are mechanical devices just like a paver.

22 More recently, I have worked on farm

1 equipment, on pickers, on harvesters, on
2 combines, which are extraordinary complicated
3 and have controllers and mechanisms similar to
4 pavers, so complicated machines, I am an expert
5 on.

6 Q. These farm machines you just talked
7 about, would their design help someone who is
8 trying to design a concrete paver?

9 A. When we teach our students, we teach
10 them to be able to design many things, so a
11 student who has learned how to design farm
12 equipment would know how to design concrete
13 pavers or others.

14 Now, clearly, there is a moment
15 where you have to -- the details, as you go
16 deeper and deeper and deeper, but as we said,
17 when you say "concrete paver," I am betting a
18 hundred percent that GOMACO did not go out and
19 design a slew drive. They went out and bought
20 it out of a catalog. Does that make them an
21 expert on slew drives, in the application of a
22 slew drive? In the same way, I am an expert on

1 the design and operation of mechanical devices.

2 I have 45 years of professional experience.

3 Q. So if you were designing -- you seem
4 like a very thorough person. If you were
5 designing a concrete paver, would you look to
6 other fields like farming equipment in
7 designing your concrete paver?

8 A. I would hope so. I am willing to
9 learn anywhere I can learn and I think
10 competitive edge comes from many places.
11 That's a lesson that I have learned across my
12 career.

13 Q. When you say you "would hope so,"
14 why did you say you would hope so?

15 A. Let me say yes. I mean, it seemed
16 obvious to me, of course, I'm going to look
17 around and try to learn from other fields.

18 Q. Why is that?

19 A. They are very closely related
20 fields.

21 Q. Why is that?

22 A. Do you not think that farm equipment

1 or power plants or other complex mechanical
2 devices would have lessons to be taught to
3 pavers and vice versa?

4 Q. I don't know. I am asking you.
5 What are some lessons --

6 A. Yes, they do. And if we think about
7 this more, I mean, I would -- I am guessing
8 that people who are designing paving equipment
9 end up being transferable between other fields.
10 Very few have been hired for life so they are
11 hired, they come in with mechanical engineering
12 skills and mechanical engineering bits and they
13 move and they do that.

14 Q. You mentioned that people hired --
15 other people I guess --

16 A. My experience, sorry, I interrupted.
17 Go ahead.

18 Q. No, go ahead.

19 A. My experience having been a
20 corporate manager for more than ten years and
21 having started a couple of startups is that we
22 buy skills, not devices. So we don't go hire

1 somebody who is -- it's hard to find somebody
2 who has the exact -- you design pavers for
3 GOMACO and I'm going to hire you to make pavers
4 for Mark Bryden. We hire people who have
5 skills that are smart and capable and they go
6 design those pieces of equipment and they are
7 experts. So we hire experts who design complex
8 mechanical devices.

9 Q. Would you say in this concrete paver
10 field, it would be customary to look in other
11 fields, like farm equipment?

12 A. I have no idea. I don't know the
13 competitive edge that GOMACO provides.

14 Q. But you would do it if you were
15 working and designing the concrete paver?

16 A. And I am jumping in too quickly.
17 I'll slow down.

18 Q. What did you say when I said, but
19 you would do it if you were working on a
20 slipform paver design?

21 MR. HANNAH: Objection. Vague.

22 THE WITNESS: If I were designing

1 any piece of equipment, the first thing I would
2 do is understand how the equipment works, and
3 then I would go out and find out how things
4 that were related to it, similar to it and
5 maybe distant from it, were working and what I
6 could learn from it if I were the chief
7 engineer. And I have been the chief engineer
8 on projects.

9 BY MR. MROZ:

10 Q. Did you do that when you were
11 working as the chief engineer on projects?

12 A. Yes, I was well-known for it.

13 Q. You view that as one of your best
14 attributes as a chief engineer?

15 A. It's one of my attributes. I'm not
16 sure what best would be and wouldn't be. I am
17 a good engineer, a very good engineer.

18 Q. You just never worked on concrete
19 pavers before.

20 A. Never had the opportunity to work on
21 concrete pavers before.

22 Q. Okay.

1 MR. MROZ: I think I am almost
2 finished. Go off the record for just two
3 minutes and we will be back on. Is that okay?

4 THE VIDEOGRAPHER: Going off the
5 record at 4:27.

6 (A short recess was taken.)

7 THE VIDEOGRAPHER: We are back on
8 the record at 4:31.

9 BY MR. MROZ:

10 Q. Welcome back.

11 So Claim 1 in the '749 patent talks
12 about a swing leg mechanically -- sorry. A
13 swing leg configured to mechanically couple
14 with a surface of a module frame.

15 I wanted to ask you about that
16 concept "mechanically couple." Is this a
17 direct mechanical connection or coupling or is
18 it indirect? What is your interpretation of
19 that term?

20 A. Explain what you mean by "direct and
21 indirect."

22 Q. What do you think I mean?

1 A. I have no idea. I'm going to
2 confess, I am trying to understand what you
3 mean. I am not being difficult here. I just
4 don't understand.

5 Q. No, no problem. So whenever it
6 says: "A swing leg configured to mechanically
7 couple with a surface of a module frame," does
8 the swing leg have to be physically contacting
9 the module frame?

10 MR. HANNAH: Objection. Vague.
11 Calls for legal conclusion.

12 THE WITNESS: You know, again, I'm
13 confused here. I think you are trying to say,
14 does it have to be hard-fastened to the module
15 frame, and if there is an intermediate piece,
16 then it's not hard-fastened. Is that what we
17 are trying to do?

18 BY MR. MROZ:

19 Q. I'm not trying to do anything, I am
20 just trying to figure out what your position
21 is.

22 A. I am trying to figure out what your

1 position is. I don't know what direct and
2 indirect are.

3 Q. We'll use that word "hard-fastened."

4 A. Direct would seem like it's
5 connected and indirect means -- I don't know
6 what it is.

7 Q. Okay. Let's use that word
8 "hard-fastened."

9 A. I am confused by the vocabulary. I
10 am an expert in mechanical systems and I have
11 not encountered this word.

12 Q. Okay. So when we talk about a swing
13 leg being configured to mechanically couple
14 with a surface of a module frame, does that
15 mean that the swing leg has to be hard-fastened
16 to the module frame?

17 MR. HANNAH: Objection. Vague.
18 Calls for legal conclusion.

19 THE WITNESS: Again, I am going to
20 come back and say that -- I don't think this
21 requires that the device in -- whatever we call
22 the module frame needs to be hard-coupled to

1 the swing leg. That there can be mechanisms
2 that are a part of that coupling or a part of
3 other pieces, and so maybe that's where you are
4 trying to go with indirect. Are there other
5 stuff in there.

6 I don't know. There are many ways
7 to put things together and I am not -- again, I
8 don't think the patent speaks to the many ways.

9 BY MR. MROZ:

10 Q. Okay. So it sounds like this claim,
11 and correct me if I am wrong, based on this
12 claim, mechanically coupled means, in your
13 interpretation, that there can be other
14 components between the swing leg and the module
15 frame.

16 A. Yes. I believe that when we say
17 "mechanically-coupled," that means that they
18 are together mechanically as opposed to by some
19 other means. It means it is not being
20 computer-controlled and it's an independent
21 leg.

22 I mean, I think that the use of

1 mechanically-coupled here, as opposed to very
2 specifics, is the way I would have written this
3 patent, to be open, to cover the various
4 mechanisms that it would be included in it.

5 Q. Okay. Did you, during our breaks
6 today, talk to Mr. Hannah at all about the
7 deposition?

8 A. Yes.

9 Q. What did you talk about?

10 A. Nothing. He told me I was doing a
11 good job.

12 Q. Okay.

13 A. I like a pat on the back, so I think
14 -- he didn't say do this or do that or watch
15 out for this or watch out for that. He
16 basically said you are doing a good job, hang
17 in there, we've only got two more left. He
18 just said, hey, you only got about 20 minutes
19 left, it's going to be good.

20 I asked him am I doing a good job on
21 this. He said, sure. I said what about my
22 defense of my qualifications. Yeah, yeah, you

1 are good. So I would say that he was a
2 cheerleader. Unfortunately, he didn't give me
3 any direction. I am not very good at taking
4 direction so it's just as well.

5 Q. Why did you ask him, am I doing good
6 on the background stuff?

7 A. It's just a conversation piece.

8 Q. Okay.

9 A. I hadn't done it before, and I was
10 very -- I was enthusiastic about being involved
11 in this process when I was asked, because I
12 hadn't done it before and it seemed like it
13 would be interesting to understand this part of
14 the process.

15 As I said before, I have been
16 involved with people who were writing patents
17 and helped them, not my own patent, but working
18 with an attorney in order to write -- in order
19 to write patents. I have written my own also.

20 As far as this, it was exciting. It
21 was interesting, and this is exciting, so I am
22 not sure what he said after that. It's kind of

1 like the football coach. You've got to tell
2 everybody they are doing great even if they are
3 losing, right, but I like the compliment. I
4 hadn't done it before so being told I am doing
5 okay is good.

6 Q. Okay. How much -- how long did you
7 prepare before this deposition for this
8 deposition?

9 A. I spent about an hour and a half
10 with James talking through what it would be
11 like.

12 MR. HANNAH: Doctor, we are not
13 getting into what we discussed. This is a
14 privilege area. He is just asking, I think you
15 just asked a time frame in terms of --

16 THE WITNESS: Time frame. I might
17 have spent six to eight hours.

18 BY MR. MROZ:

19 Q. Okay. What about in preparing your
20 declaration, how long did you spend preparing
21 that?

22 A. 20, maybe 30.

1 Q. Did you draft that or did the
2 attorneys draft that?

3 A. I drafted that.

4 Q. Okay.

5 MR. MROZ: No further questions.

6 MR. HANNAH: We have no questions at
7 this time. We will mark the transcript highly
8 confidential, attorneys' eyes only, and we will
9 review and sign the transcript.

10 MR. MROZ: I don't think we need to
11 mark it highly confidential.

12 MR. HANNAH: Actually, you are
13 right. We don't need to mark it. We just need
14 to review and sign the transcript.

15 MR. MROZ: It's not going to be
16 marked confidential.

17 THE VIDEOGRAPHER: If that is
18 everything, we are going off the record on
19 August 13, 2020, at 4:37 p.m. Eastern Standard
20 Time.

21 (Whereupon, the proceeding was
22 concluded at 4:37 p.m.)

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1 Kenneth Mark Bryden, c/o

KRAMER LEVIN

2 990 Marsh Road

Menlo Park, California 94025

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