

1 about when a consumer does look at the operator's  
2 manual how much of that information is retained?

3 A. No.

4 Q. So is it Deere's position that the  
5 placement of the RIO button on the front on the dash  
6 helps operators remember to look behind them?

7 A. That's our position, yes.

8 Q. And if an operator's trained to look  
9 behind them and pressing a button on the dash, could  
10 they also be trained to look behind them pressing a  
11 button in a different location?

12 A. Again, I don't know.

13 Q. Do you think that putting the button  
14 behind or to the side of the operator will make  
15 visibility or the ability to see children behind the  
16 machine worse or better or it would make no  
17 difference?

18 A. I don't know.

19 Q. Okay. And you see nothing at Deere that  
20 would help you know. Is that correct?

21 A. Correct.

22 Q. Exhibit 175, 2007 Deere video for riding  
23 lawn mowers. There's an image on the screen and  
24 narrative that they reported 25,000 riding lawn  
25 mower injuries per year at that time serious enough

1 for emergency room hospital treatment.

2 Do you remember that?

3 A. I haven't seen the video in a while.

4 Q. Has Deere done any research to find out  
5 what the frequency of riding lawn mower injuries are  
6 in the United States after the 2007 video that  
7 showed 25,000 per year?

8 A. Not that I've seen.

9 Q. Has Deere & Company ever looked at any of  
10 the medical literature on the percentage of riding  
11 lawn mower injuries that involve forward operation  
12 or reverse operation?

13 A. I have seen some medical articles. I  
14 don't recall any of them specifically, but sometimes  
15 journal articles do come across my desk.

16 Q. What was your purpose for reading those  
17 medical articles about riding lawn mower injuries?

18 A. To see if there's any new information  
19 coming in from any published research. If there  
20 was -- if there were new findings that were  
21 interesting to us, we'd escalate it and share that  
22 information elsewhere in the company.

23 Q. So if there were information, for example,  
24 that the number of riding lawn mower injuries was  
25 increasing over time, would that be of interest to

1 the company that you'd want to share it?

2 A. Potentially.

3 Q. And if there's information that the  
4 technologies being used for back-over safety now may  
5 not be as effective as desired and that was the  
6 medical literature, is that something that would be  
7 interesting that you'd want to share within the  
8 company?

9 A. You're asking me to assume that, what's in  
10 articles I haven't read. I really can't answer that  
11 question.

12 Q. I'm asking about the articles you did  
13 read. Did you find that interesting? Did you share  
14 any of that information within the company?

15 A. No. I just -- I don't remember what I  
16 read and with whom I shared what information.

17 Q. Thank you, sir. So Request for Documents  
18 No. 9 as ordered by the Court is, quote, all  
19 documents that reflect an analysis, study, or  
20 calculations either, A, comparing the number of  
21 alleged back-over accidents or injuries on Deere  
22 riding lawn mowers with the RIO system to Deere  
23 riding lawn mowers without the RIO system; and, B,  
24 comparing the number of alleged back-over accidents  
25 or injuries on Deere riding lawn mowers to riding

1 lawn mowers -- excuse me -- riding mowers  
2 manufactured by other companies.

3           It's my understanding that Deere & Company  
4 did not produce any documents in response to this  
5 request. Is that your understanding also?

6           A.     Yes. Because we have no documents.

7           Q.     So is it correct that Deere & Company does  
8 not do or does not have any analysis, study, or  
9 calculations comparing the number of back-over  
10 accidents or injuries on Deere riding lawn mowers  
11 with the RIO system to Deere riding lawn mowers  
12 without the RIO system?

13          A.     Correct.

14          Q.     So is it correct, sir, that  
15 Deere & Company does not have any analysis, study,  
16 or calculations comparing the number of back-over  
17 injuries on Deere riding lawn mowers to the number  
18 of riding lawn mowers manufactured by other  
19 companies?

20          A.     Correct.

21          Q.     Okay. So if someone wanted to say, hey,  
22 we're having a higher frequency or lower frequency  
23 with RIO or without RIO on this machine versus that  
24 machine, Deere just doesn't have the information to  
25 support or contradict those assertions. Is that

1 correct?

2 A. I don't know what you want me to say.

3 I've --

4 Q. Whatever the truth is.

5 A. Well, we don't have those documents.

6 Q. Well, is it correct that it's Deere's  
7 understanding that its riding lawn mowers are  
8 typically operated in a forward direction?

9 A. Yes.

10 Q. Do you have any sense of what percentage  
11 of the time they're operated going forward?

12 A. I'd imagine it's most of the time, but I  
13 don't have any specific numbers that indicate  
14 forward versus reverse operation times.

15 Q. And typically when you're driving a riding  
16 lawn mower, for example, you've gone forward with  
17 occasional backing up to reposition -- is that a  
18 fair statement?

19 A. Yes.

20 Q. And do you think that is a fairly typical  
21 consumer behavior with a riding lawn mower?

22 A. That's how I use the machine. I can't  
23 speak for the whole population of users.

24 Q. As a product safety engineer for Deere,  
25 working on back-over protection and improvement

1 technologies for safety, is that your expectation  
2 how consumers typically ride a riding lawn mower?

3 A. In all likelihood, yes.

4 Q. And is it correct that Deere & Company  
5 does not have any comparisons or calculations on the  
6 number or relative frequency of front run-over  
7 accidents or injuries in relation to the time lawn  
8 mowers are operated in a forward direction?

9 A. Correct.

10 Q. Okay. Let's talk about reverse direction  
11 then. Isn't it correct that Deere & Company does  
12 not have any research, analysis, studies about the  
13 relative frequency of back-over injuries in relation  
14 to the time lawn mowers are operated in a reverse  
15 direction?

16 A. Like I said in the previous questions, you  
17 know, we don't have that kind of data.

18 Q. And is it correct that Deere & Company  
19 does not have any comparisons or calculations on the  
20 number or relative frequency of back-over injuries  
21 in relation to the time lawn mowers are operated in  
22 reverse?

23 A. Correct.

24 Q. So the question we're coming back to, has  
25 Deere & Company received any reports of child

1 amputation injuries involving one of its four-wheel  
2 steering riding lawn mowers backing over a child?

3       A.     Looking at the incident reports, which I  
4 appreciate you having me let look through, I could  
5 break the data into -- or the incident reports into  
6 three categories: One that I could tell if the  
7 machine was four-wheel steer or not; the other was a  
8 machine -- well, there are three categories: Was it  
9 four-wheel steering, was it two-wheel steering, or  
10 cannot determine based on the information.

11           Looking through the incidents, there may  
12 be one or two that could be a four-wheel steering  
13 machine, but there's not enough information to tell  
14 based on the information in the incident reports.  
15 And looking at this data, I cannot confirm any  
16 four-wheel steering machines in this information.

17       Q.     Okay. So thank you. Raising it  
18 differently where you could tell from the product  
19 incident reports whether it was four-wheel steering  
20 or a two-wheel steering machine, you could tell that  
21 it was -- well, none of those was a report of a  
22 four-wheel steering riding lawn mower backing over a  
23 child, but the subject you just couldn't tell if it  
24 was two or four wheels. Is that a fair statement?

25       A.     Correct.

1 Q. Has Deere & Company received any reports  
2 of child amputation injuries involving one of its  
3 700 series riding lawn mowers that had a mirror on  
4 it that backed over a child?

5 A. No.

6 Q. Has Deere & Company received any reports  
7 of child amputation injuries involving one of its  
8 900 series riding lawn mowers that had a mirror on  
9 it that backed over a child?

10 A. No.

11 Q. Had Deere & Company received any reports  
12 of any child amputations involving any of its riding  
13 lawn mowers that had a mirror on it that backed over  
14 a child?

15 A. Not that I'm aware of.

16 Q. Does Deere & Company have any studies,  
17 reports, analyses, or any documentation of any kind  
18 on the ability of the operator to hear during the  
19 riding lawn mower's operation or use?

20 A. Not that I recall.

21 Q. And then is Exhibit 179, the  
22 Deere & Company safety manual -- does that appear to  
23 be the safety manual from 1985 or so?

24 A. Just like the previous one, it appears to  
25 be dated from that time frame, and it appears to

1 contain all the pages.

2 Q. And you're familiar with Deere & Company  
3 having these product safety manuals?

4 A. Yes.

5 Q. And they get updated from time to time?

6 A. Yes.

7 Q. And simply, I'm just trying to ask, these  
8 safety manuals are updated from time to time. And  
9 what we're looking at here with Exhibit 178 and 179  
10 is simply older versions.

11 A. It would appear that way.

12 Q. And the next sentence under Hazard as part  
13 of this recall, quote, RIO has a safety system that  
14 shuts off power to the mower blades when the machine  
15 is placed into reverse, closed quote.

16 Is that also information that Deere  
17 provided to the Consumer Product Safety Commission?

18 A. If I remember correctly, yes.

19 Q. So has Deere & Company received any  
20 reports of child amputation injuries involving one  
21 of its zero-turn radius lawn mowers that was  
22 reported at least to be backing over the child?

23 A. No.

24 Q. Have there been any studies or focus  
25 groups on the effectiveness of the warnings for the

1 RIO system?

2 A. Not that I recall.

3 Q. In any of the Deere operator's manuals  
4 have you seen a warning that the operator could look  
5 down and behind them for backing and still may not  
6 see a child behind the riding lawn mower?

7 A. Again, I don't remember.

8 Q. Have you ever seen such a warning?

9 A. I don't remember.

10 Q. Do you think it'd be a good idea?

11 A. Again, I'd be speculating.

12 Q. What do you think, though, as an engineer  
13 for Deere?

14 A. You know, I'd be speculating, and I'd  
15 rather not speculate.

16 Q. Okay. I mean, do you have a personal  
17 opinion on the subject or you just haven't formed an  
18 opinion?

19 A. I don't have an opinion. I haven't formed  
20 one yet. I haven't looked into this.

21 Q. Okay. On any of the Deere stickers that  
22 are on the machine itself or subsequent models of  
23 this kind of a riding lawn mower, is there any kind  
24 of a warning or information that the operator can  
25 look down and behind from backing and still may not

1 see a child behind the riding lawn mower?

2 A. Not that I'm aware of.

3 Q. Okay. Just thinking about any information  
4 that Deere produces or provides to a consumer in any  
5 form, have you ever seen Deere warn that the  
6 operator can look down and behind for backing and  
7 still may not see a child behind their riding lawn  
8 mower?

9 A. Again, not that I'm aware of.

10 Q. Does Deere & Company think that consumers  
11 expect that manufacturers will warn about product  
12 safety risks?

13 A. Yes.

14 Q. And does Deere & Company think that  
15 consumers expect that manufacturers will warn about  
16 safety risks that consumers are not likely to figure  
17 out on their own?

18 A. Yes.

19 Q. And that the real purpose of warnings is  
20 things the consumer may not know about, they may  
21 need to be told about, or warned about?

22 A. Potentially.

23 Q. Is it correct that Deere & Company has no  
24 research or articles about consumer understandings  
25 about graphic warnings or instructions about the RIO

1 button?

2 A. Yes.

3 Q. Is it correct that Deere & Company has no  
4 research or articles about consumer understandings  
5 about operating in reverse a riding lawn mower like  
6 the one in this case?

7 A. I'm not aware of any.

8 Q. And this is sort of follow-up because  
9 there's different kinds of specific questions asked  
10 in this item.

11 Is it correct that Deere & Company has no  
12 studies, surveys, or notes about consumer  
13 understanding about graphic warnings, instructions  
14 about the RIO button, or operating in reverse a  
15 riding lawn mower?

16 A. Nothing that I've been able to locate.

17 Q. Okay. And is it correct that  
18 Deere & Company has no consumer testing, marketing,  
19 or focus group studies about consumer understanding  
20 about graphic warnings or instructions about the RIO  
21 button or about operating in reverse?

22 A. Again, nothing that I've been able to  
23 locate.

24 Q. Does Deere think that consumers expect  
25 that if they operate the machine in accordance with

1 the instructions that they and their families will  
2 be safe?

3 A. Yes.

4 Q. Has Deere ever done any visibility studies  
5 with real people on a riding lawn mower to see what  
6 they see when they're on the riding lawn mower?

7 A. I don't remember any. I don't. I haven't  
8 found any studies of that nature.

9 Q. Let me rephrase it differently. Has Deere  
10 done any visibility studies of real people on a  
11 riding lawn mower to see what their natural line of  
12 sight is?

13 A. I'm not aware of any. I know that we have  
14 machines that operated for thousands of hours on  
15 field testing and test operators share their  
16 feedback with the designers, but, you know,  
17 that's -- that's a lot of the work that gets done in  
18 the new product development process.

19 Q. If I can turn your attention to 21 Roman  
20 Numeral VI, six, this asks for any consideration,  
21 research, or analysis, including consumer testing,  
22 focus groups, and human factors analysis the  
23 possible locations for the RIO button.

24 And the starting point earlier -- the  
25 director of engineer for Deere, Mr. David Holm,

1 testified this question and this answer.

2           Question: Quote, from your knowledge, has  
3 Deere ever considered doing, locating the reverse  
4 implement switch behind the seat, closed quote.

5           Answer: No, closed quote.

6           That was some years ago. Is there any  
7 update to that information?

8           A. No updates.

9           Q. Has there been any consideration of any  
10 location of the RIO button other than the front dash  
11 of these riding lawn mowers?

12          A. I haven't seen anything in the documents  
13 I've looked at.

14          Q. For example, we saw in some of the  
15 consumer feedback that we went through earlier in  
16 testimony for Deere & Company some of the costumers  
17 have written in suggesting that maybe there could be  
18 a different location for the switch.

19                 Do you remember the comments that having  
20 it on the front dash might interfere with turning  
21 around and one saying, quote, maybe we can put it  
22 beside the operator, unquote, and so forth?

23                 Has Deere considered those kind of  
24 consumer comments to consider possible other  
25 locations for the RIO button?

1           A.     I don't know what the design teams have  
2 considered.

3           Q.     Have you ever seen any documentation in  
4 Deere & Company that anyone has considered other  
5 locations for the RIO switch other than the front  
6 dashboard?

7           A.     Not that I found.

8           Q.     Is it correct that other than what's in  
9 the consumer survey comments we've already talked  
10 about that Deere & Company has no documents relating  
11 to lawn mower consumers' understanding or  
12 interpretation or beliefs or expectations about what  
13 the RIO button is or what it does?

14          A.     Correct.

15          Q.     Okay. Setting aside documents, does Deere  
16 have any information of any kind about what lawn  
17 mower consumers think the RIO button is or what it  
18 does?

19          A.     You know, I haven't been able to find  
20 anything.

21          Q.     Okay. So in terms of action or response  
22 to the information about back-over injuries  
23 involving these riding lawn mowers, is it still  
24 Deere's view that one injury is one injury too many?

25          A.     Yes.

1 Q. And it's not acceptable?

2 A. The goal is to eliminate injury.

3 Q. Zero?

4 A. Within the -- maintaining the utility of  
5 the product for its intended use.

6 Q. Mechanically, what happens when you push  
7 the RIO button?

8 A. Mechanically, when you push the RIO  
9 button, you close contacts in a switch.

10 Q. And what is closing contacts in a switch  
11 do?

12 A. The -- my understanding is there's an  
13 electrical system. And when you close those  
14 contacts, the machine will be allowed to move in  
15 reverse with the power attachments still under  
16 power.

17 Q. Hmm. Has Deere considered putting a  
18 warning, instructions saying, quote, push this  
19 button. When you back up, your blades will still be  
20 powered, unquote?

21 A. No.

22 Q. Why not?

23 A. I don't know.

24 Q. Mr. Hemming, you have before you the  
25 exhibit about the Consumer Product Safety Commission