IN THE UNITED STATES DISTRICT COURT

FOR THE DISTRICT OF NEW MEXICO

IRMA MARTINEZ, FELIPE MARTINEZ, LARRY MUNN, JOSE PRIETO, and LEE HUNT, *as personal representative of the estate of Abel Portillo, deceased*,

Plaintiffs,

vs. Case No. 1:17-cv-00922-KWR-JFR

CONTINENTAL TIRE THE AMERICAS, LLC, *An Ohio Limited Liability Company*

Defendant.

MEMORANDUM OPINION AND ORDER[1]

THIS MATTER comes before the Court upon Defendant's Motion to Exclude Plaintiffs' Expert Dennis Carlson (**Doc. 525**). Having reviewed the parties' pleadings, evidence, and the applicable law, the Court finds that the motion is not well taken and is therefore **DENIED.**

BACKGROUND

I. Introduction.

This case arises out of a single-vehicle accident allegedly resulting from the failure or blowout of a left rear Continental tire (the "subject tire"). Plaintiffs allege that manufacturing defects in the subject tire resulted in a tread-belt separation. Defendant is the tire manufacturer. Several plaintiffs were injured in the incident. Abel Portillo died, and Plaintiff Lee Hunt is the personal representative of his wrongful death estate.

[1] This is a redacted opinion in which certain language was removed at the request of the parties. The Court's full opinion is in the *Sealed Memorandum Opinion and Order* (Doc. 572) filed on June 22, 2021.

On August 2, 2017, Plaintiffs filed a complaint for wrongful death and personal injuries. In April 2020, Plaintiffs agreed to the dismissal of Counts III, IV, and V. Therefore, it appears that the following claims remain:

Count I: Strict Products Liability

Count II: Negligence (causing death and injury)

Count VI: Loss of Consortium (as to Plaintiff Irma Martinez)

Plaintiffs seek compensatory and punitive damages.

II. Dennis Carlson's reports and expert opinions.

In this motion, Defendant seeks to exclude the opinion of Plaintiffs' proposed expert Dennis Carlson. On December 11, 2020, Mr. Carlson produced a supplemental report titled "Failure Analysis of a Tread Separation Incident involving a General Radial Light Truck Tire." He concluded that the tread and belt of the subject tire separated due to the following defects:

- A thin inner liner;
- An open splice crack in the inner liner; and
- Adhesion defects in the cushion.

He also ruled out service abuse as the cause of the tread-belt separation. He also opined that, based on an examination of the tire and the record, there was no service abuse, and abuse did not cause the tread-belt separation. He concluded that:

- The subject tire failed after low service mileage during its original tread life as a result of a separation of the tread and steel belt structure of the tire from its carcass. He opened that "in a properly designed and manufactured steel belted radial tire, this type of failure should not occur during the tire's normal useful life."

- "Separation resulted from manufacturing defects. These defects created high stresses at the belt edge, the area where tread and outer belt separations begin. This opinion finds additional support in the recently produced warranty records."
- "The subject tire was defective in manufacture in that it had inadequate aging resistance. The thin and cracked inner liner are manufacturing defects that allowed excessive air and moisture into the internal structure resulting in the subject tire's failure."
- The subject tire was defective in manufacture in that there was inadequate adhesion in the cushion as evidenced by pattern marks and knit lines.
- The subject tire exhibits no evidence of pre-accident road hazard or impact damage, overheating or over deflected sidewall damage due to underinflation (supported by Trac Work Maintenance records/practices) or overloading, high speed operation (speed was within the tire specifications) and there is no evidence of failure as a result of any intentional or unintentional misuse of the subject tire.

Doc. 533-2 at 29-30.

The parties did not request a hearing on this *Daubert* motion,[1] and they expressly asked the Court to rule on the papers. **Docs. 452, 453.** The Court has sufficient evidence before it to make a ruling, including Mr. Carlson's reports, affidavit, deposition testimony, and other exhibits. Neither party indicated that they would present additional evidence at a hearing. Therefore, the Court concludes that a hearing is not necessary.

LEGAL STANDARD

Federal Rule of Evidence 702 provides:

> A witness who is qualified as an expert by knowledge, skill, experience, training, or education, may testify in the form of an opinion or otherwise if:

[1] Plaintiffs only requested a hearing if the Court were to exclude Mr. Carlson's testimony. The Court is not excluding Mr. Carlson's testimony.

> (a) the expert's scientific, technical, or other specialized knowledge will help the trier of fact to understand the evidence or to determine a fact in issue;
> (b) the testimony is based on sufficient facts or data;
> (c) the testimony is the product of reliable principles and methods, and
> (d) the expert has reliably applied the principles and methods to the facts of the case.

Fed. R. Evid. 702.

The gatekeeping function involves a two-step analysis. *Milne v. USA Cycling Inc.*, 575 F.3d 1120, 1134 (10th Cir. 2009). First, the Court must determine whether the witness may be qualified as an expert. To qualify as an expert, the witness must possess such "knowledge, skill, experience, training, or education" in the particular field so that it appears that his or her opinion rests on a substantial foundation and tends to aid the trier of fact in its search for the truth. *LifeWise Master Funding v. Telebank*, 374 F.3d 917, 928 (10th Cir. 2004). "Rule 702 thus dictates a common-sense inquiry of whether a juror would be able to understand the evidence without specialized knowledge concerning the subject." *United States v. McDonald*, 933 F.2d 1519, 1522 (10th Cir. 1991).

Second, the Court must determine whether the witness' opinions are reliable under the principles set forth in *Daubert* and *Kumho Tire. See Ralston v. Smith & Nephew Richards, Inc.*, 275 F.3d 965, 969 (10th Cir. 2001). In *Daubert*, the Supreme Court identified five factors that may or may not be pertinent in assessing reliability: (1) the theory or technique in question can be and has been tested; (2) it has been subjected to peer review and publication; (3) it has a known or potential error rate; (4) the existence and maintenance of standards controlling its operation; and (5) whether it has attracted widespread acceptance within a relevant scientific community. 509 U.S. at 593–94. These factors are not exclusive, and the Court may consider the *Daubert* factors to the extent relevant, which will depend on the nature of the issue, the expert's particular expertise,

and the subject of his testimony. *Kumho Tire*, 526 U.S. at 150-51. "[W]hether *Daubert's* specific factors are, or are not, reasonable measures of reliability in a particular case is a matter that the law grants the trial judge broad latitude to determine." *Kumho*, 526 U.S. at 139.

Additionally, the Court assesses several non-exclusive factors to determine whether the testimony will assist the trier of fact, including: (1) whether the testimony is relevant; (2) whether it is within the juror's common knowledge and experience; (3) whether there is a sufficient factual basis and reliable application of the methodology to the facts; and (4) whether it will usurp the juror's role of evaluating a witness's credibility. *United States v. Rodriguez-Felix*, 450 F.3d 1117, 1122-23 (10th Cir. 2006). The question is "whether [the] reasoning or methodology properly can be applied to the facts in issue." *Daubert*, 509 U.S. at 591, 593, 113 S.Ct. 2786.

So long as the district court has enough evidence to perform its duty in assessing an expert's proposed testimony, a hearing is not required. *See United States v. Call*, 129 F.3d 1402, 1405 (10th Cir. 1997); *See Goebel*, 215 F.3d at 1087 (noting that a *Daubert* hearing "is not mandated" and that a district court may "satisfy its gatekeeper role when asked to rule on a motion in limine"); *United States v. Nacchio*, 555 F.3d 1234, 1251 (10th Cir. 2009). The proponent of the expert bears the burden by a preponderance of the evidence to establish that the requirements for admissibility have been met. *Id*.

"Vigorous cross-examination, presentation of contrary evidence, and careful instruction on the burden of proof are the traditional and appropriate means of attacking shaky but admissible evidence." *Daubert*, 509 U.S. 579.

DISCUSSION

Defendant does not contest Mr. Carlson's qualifications to testify as an expert on tread-belt separations. Mr. Carlson has been admitted as an expert in numerous cases, including cases, as

here, involving tread-belt separations. The Court finds that he is well-qualified based on his knowledge, skill, experience, training, and education to testify as an expert on tread-belt separations. *See, e.g.* **Doc. 533-2 at 28-29.**

Instead, Defendant argues that Mr. Carlson's opinions are not based on sufficient facts or data and are not the product of reliable methodology. Defendant also argues that Mr. Carlson did not reliably apply the principles and methods to the facts of the case.

The Court disagrees with Defendant's arguments. In thorough, well-written and well-supported expert reports, Mr. Carlson identified three manufacturing defects which contributed to the tread-belt separation, and he ruled out alleged service abuse as the cause of the tread-belt separations. Mr. Carlson's opinions are based on extensive review of the facts or data and are the product of a reliable methodology. He also reliably applied his methodology to the facts of this case to formulate his opinion. His opinions are well supported by an examination of the tire and the record, and he supports his methodology by citation to studies and other experts.

I. Mr. Carlson's opinions.

Mr. Carlson identified three defects: (1) a thin inner liner; and (2) an open splice crack; and (3) adhesion defects in the cushion. Mr. Carlson also set forth his general methodology for visual and tactile examination of a tire. **Doc. 533-2 at 18.** He applied that methodology and identified the manufacturing defects that contributed to the tread-belt separation and tire failure. First, he opined that the inner liner was too thin, which could allow air and moisture to permeate and cause degradation of interior components of the tire. He measured the inner liner, and he cited to studies for his opinion. **Doc. 533-2 at 19-20.**

Second, he opined that he observed a visible splice crack on the tire's inner liner. He stated that an inner liner can form due to manufacturing defects, and he cited to studies for this

proposition. **Doc. 533-2 at 20.** This defect in inner liner would also allow air and moisture to permeate the inner parts of the tire, causing it to age and fail earlier than expected.

Third, he opined that physical evidence indicated an adhesion defect between the components of the subject tire. He identified numerous pattern marks and knit lines in the cushion rubber. He opined that a "tire depends on the adhesion between its components and the physical strength of those components to withstand the normal stresses it experiences in use." **Doc. 533-2 at 21.** He also opined that "the presence of liner pattern impressions in the internal rubber components of a cured tire indicates a clear adhesion defect between the interface of two rubber layers." ***Id.*** He cited to his experience while working at Michelin and to studies or opinions by other experts. **Doc. 533-2 at 21- 23.**

Finally, Mr. Carlson opined that the record showed that abuse was not the cause of the tread-belt separation. He found no evidence of abuse based on an examination of the tire and the record, and he also alternatively opined that generally under-inflation, over-deflection, overloading, road impacts, cuts in the tread/punctures, and improper repairs, do not generally cause the tread and outer belt separations that occurred in this case. **Doc. 533-2 at 15-17.** He cited to research and studies for this opinion. ***Id.***

All of these opinions are well supported by (1) Mr. Carlson's visual and tactile examination of the tire and the record and (2) and his knowledge, skill, training, and experience, and the studies or opinions of other experts.

II. Mr. Carlson's opinions are based on sufficient facts and data.

Defendant argues that Mr. Carlson's opinions are not based on sufficient facts and data. The Court disagrees. It is clear from Mr. Carlson's reports and affidavits that he bases his

conclusions on sufficient facts and data, including a tactile and visual inspection of the extant remains of the subject tire, and the records before him. *See* **Doc. 533-2 and Doc. 544-1 at ¶ 49**.

Defendant argues that it is not possible to identify defects based on the portion of the tire that remained after the tread-belt separation. Mr. Carlson based his expert opinion on the remnants of the physical tire, including the belt and inner liner. The Court finds that Defendant's arguments go to the weight of the evidence or appear to be mere disagreement between experts and does not merit exclusion of Mr. Carlson's opinion.

Initially, the Court notes that Defendant's expert Joseph Grant has *ruled out* defects based on the same physical evidence. In other words, another expert agrees that there is sufficient evidence to come to an opinion on whether defects or abuse caused the tread-belt separation.

Mr. Carlson's opinions are not speculative but were based on visual and tactile inspection of the remaining physical evidence. Based on the physical evidence, he was able to generally identify the area where the separation began. **Doc. 409 at 195-196; Doc. 544 at ¶ 52.** Almost all of the tire's inner liner was recovered from the crash, which is a critical component in making a determination on tread-belt separation. **Doc. 544 at 7-8.** The tire's beads, body plies and sidewalls were also recovered. Finally, approximately 20 percent of the bottom steel belt and 10 percent of the top steel belt was recovered. **Doc. 544 at 8.** Mr. Carlson opined that it is not unusual for the steel belts to be missing.

Moreover, Mr. Carlson's opinions about the lack of evidence of service abuse was based on the record and not conjecture. Mr. Carlson primarily based his opinion about the lack of service abuse on a visual and tactile examination of the tire. Mr. Carlson also reviewed deposition testimony, Ford's subpoena response letter, vehicle specifications, physical evidence, and maintenance records. **Doc. 544 at 10-11.** He determined that the tire at issue was an original spare

tire and had only been in service of 19,000 miles, well within the tire's wear life. It had usable tread remaining.

He opined that based on a visual and tactile inspection of subject tire, the tire exhibited no evidence of impact or puncture damage, overheating, or over-deflected damage due to underinflation or overloading. **Doc. 544-1 at ¶ 70-75**. Mr. Carlson also considered other records, such as inspection service records. The tire was inspected on the day of the crash. **Doc. 364-9 at 223.** The person who inspected the tire on the morning of the crash did not find any debris, cuts, low pressure, punctures, cracking, or other damage. **Doc. 544 at 12.** The tire underwent an inspection, including tread check and tire pressure check. **Doc. 544 at 12.** The occupants testified that truck did not hit any debris or road hazards. ***Id.***

Defendant argues that Mr. Carlson is relying on the absence of evidence to show a lack of evidence of service abuse. The Court disagrees. The visual and tactical inspection of the tire, along with the other evidence, including testimony and service records, are sufficient facts and data for Mr. Carlson to opine on whether abuse caused the tire failure. **Doc. 544-1 at ¶ 70-75**.

III. Mr. Carlson's opinions are based on a reliable methodology and this methodology was reliably applied to the facts of this case.

Defendant alternatively argues that (1) Mr. Carlson did not use a reliable methodology and (2) he did not reliably apply his methodology to the facts of this case. The Court disagrees.

Initially, Defendant references *Kumho Tire,* in which the United States Supreme Court concluded that a district court did not abuse its discretion in excluding Mr. Carlson's testimony based on the reliability of his methodology. *Kumho Tire Co., Ltd. v. Carmichael*, 526 U.S. 137 (1999). There is nothing to suggest that Mr. Carlson's methodology in this case is at all similar to the methodology in *Kumho Tire*. Mr. Carlson has been admitted as an expert in approximately 48

cases since *Kumho Tire* and was selected by a group consisting of 50 attorneys general to investigate the Firestone ATX and Wilderness AT separation problem. **Doc. 544-1 at ¶ 38.** Trial courts and experts routinely adapt to new guidance provided by appellate courts.

Mr. Carlson began his examination by conducting a visual and tactile inspection of the remains of the subject tire. The details are discussed in Mr. Carlson's reports, affidavit, and Plaintiffs' response. **Doc. 544 at 9-10.** Mr. Carlson's methodology is similar to Defendant's expert's methodology, and is the standard methodology established in his field. **Doc. 544-1 at ¶ 47; Doc. 365-3 at 34:9-36:22.** Plaintiffs described Mr. Carlson's methodology, which is consistent with the methodology used by other experts in his field**. Doc. 533-2 at 17-18, 28.**

For the reasons stated above and by Plaintiffs, Mr. Carlson's methodology in ruling out service abuse as the cause of the tire failure was reliable. *See* **Doc. 544 at 11-16.**

Moreover, Mr. Carlson used a reliable methodology in opining that the tread-belt separation was caused by defects in the failed tire. As noted above, Mr. Carlson identifies three defects which contributed to the tread-belt separation: (1) the inner liner was too thin; (2) the inner liner had an open splice crack; and (3) there was an adhesion effect in the cushion area. As thoroughly explained by Plaintiffs, this is based on a review of the physical evidence and is the product of reliable, accepted principles in the tire failure analysis field. *See* **Doc. 544 at 16-22.**

Mr. Carlson's opinion that the inner liner was too thin and contributed to the tread-belt separation was based on reliable methodology. **Doc. 544 at 16-18; Doc. 533-2 at 19-21.** A defect in the inner liner can cause corrosion and accelerate the degradation of the tire and cause tread-belt failure. ***Id.*** The inner liner is a layer of rubber designed to retain compressed air and moisture inside the tire, creating tire pressure. The inner liner also reduces the tire's permeability to air and moisture. Air and moisture are corrosive and can accelerate the degradation of a tire's internal

components and cause tread-belt separation failure. **Doc. 533-2 at 19-20; Doc. 365-3 at 92:21-93:30.** Mr. Carlson supported this theory by citation to multiple studies. **Doc. 533-2 at 19-20.**

Mr. Carlson cited to studies and other expert opinions that a too thin inner liner may cause the tread-belt to separate and cause rapid air pressure loss. **Doc. 544-1 at 32.** A thin inner liner increases air and moisture permeability through the structure of the tire. The oxidation of components inside the tire can cause or accelerate a separation.

Mr. Carlson opined that the thickness of an inner liner and the amount of halobutyl rubber used to create it are the primary factors that affect a tire's resistance to air permeability. **Doc. 544-1 at ¶ 65.** Mr. Carlson opined that Mr. Carlson opined that "[t]esting has shown that inner liner breaches such as exists in the subject tire reduces tire life by 63 percent." **Doc. 544-1 at ¶ 68,** *citing* **Doc. 364-1 at 296-299**.

Mr. Carlson opined that a tire of this type should an inner liner of approximately .080 inches, but an inner liner of .064 inches would have been adequate. **Doc. 544-1 at 31-32.** Mr. Carlson opined that the subject tire was designed to have a minimum inner liner which was too thin. He opined that the inner liner in fact measured to be .046. He asserts CTA trains its employees to measure the inner liner. **Doc. 353-11 at 209, 211, 244-246.** Mr. Carlson opined that similar tires by other manufacturers have an inner liner thickness of .70 and .80 inches. He also opined that the weakness caused by the air permeation allowed the separation to spread more quickly. **Doc. 544-1 at ¶53.**

Moreover, Mr. Carlson identified a visible splice crack on the inner liner. Mr. Carlson opined that an inner liner that is not properly formed or adhered during manufacture can crack. **Doc. 544-1 at 33-34.** He also opined that an open splice could have occurred based on rough handling of the tire during manufacture. He cited to testimony from Defendant that an inner splice

should not open up if a tire was manufactured correctly. *See* **Doc. 544-1 at 34** *citing* **Doc. 271-5 at 278-279.** He opined that a splice crack in the inner liner can result in mechanical separation as well as oxygen degradation compromising the belt's adhesion. **Doc. 533-2 at 20.** He cited to studies to support this assertion. **Doc. 533-2 at 20.**

Mr. Carlson opined that the tire exhibited reduced adhesion between the tread belts and carcass caused by insufficient bonding during the manufacturing process, as evidenced by liner pattern impressions and knit lines in the cushion area of the tire. **Doc. 544-1 at ¶ 54.** He opined that these pattern marks and knit lines should disappear during the vulcanization process when the tire is subjected to high heat and pressure. He also opined that these marks indicate that the rubber components did not properly bond together. He opined that based on this improper bonding, internal separations can occur between a tire's components causing premature failure of the tire. **Doc. 544-1 at ¶ 56**. Mr. Carlson's opinions that the pattern marks are an indication of poor adhesion and could cause tread-belt separation are supported by studies and physical evidence, including the opinions of other experts in the tire industry, published papers, and a book on forensic tire investigation that pattern marks are an indication of poor adhesion. **Doc. 533-2 at 21-24.** Although Defendant cites to a contrary study, a contrary expert opinion does not merit exclusion of Mr. Carlson's opinion.

Some of the *Daubert* factors are relevant here. The Court finds that: (1) the theory or technique in question can be and has been tested; (2) the theory has been subjected to peer review and publication[2]; and (4) it has attracted widespread acceptance within a relevant scientific community. 509 U.S. at 593–94. The Court concludes that Mr. Carlson's testimony is the product

[2] As Plaintiffs note, Mr. Carlson need not have published his theory or methodology when the theory or methodology has already been published.

of reliable principles and methods and he has reliably applied these principles and methods to the facts of this case.

IV. Defendant's remaining arguments are unavailing.

"[A] trial court's focus generally should not be upon the precise conclusions reached by the expert, but on the methodology employed in reaching those conclusions." *Bitler v. A.O. Smith Corp.,* 400 F.3d 1227, 1233 (10th Cir.2004), *cited in Ho v. Michelin N. Am., Inc.*, 520 F. App'x 658, 663 (10th Cir. 2013). Defendant makes several arguments in a reply brief. **Doc. 551.** The Court finds that none of these arguments alter the Court's conclusion that:

> (b) the testimony is based on sufficient facts or data;
> (c) the testimony is the product of reliable principles and methods, and
> (d) the expert has reliably applied the principles and methods to the facts of the case.

Fed. R. Evid. 702. Mere disagreement between experts does not merit exclusion of Mr. Carlson's opinions, given that he has shown his testimony is the product of reliable principles and methods and he has reliably applied his methodology to the facts of this case. The Court agrees with Plaintiffs that Defendant's "contrary studies, criticism of Mr. Carlson's methods, and allegations that there was insufficient physical evidence to rule out possible causes of the tire's failure are all appropriate topics for cross-examination." **Doc. 544 at 23.**

Defendant argues that Mr. Carlson cannot identify precisely where the tread-belt separation started. As noted above, Mr. Carlson could identify generally where the tread-belt separation occurred. Even if he could not, it is unclear why this would merit wholesale exclusion of his testimony, given that his testimony about the defects and how they caused the tread-belt separation are otherwise well-supported. At most this goes to the weight of his testimony.

Defendant also request that the Court exclude Mr. Carlson's testimony about the manufacturing process he observed at the Mt. Vernon production facility at the time the tire at

issue was manufactured. Defendant argues that Mr. Carlson observed the production of a different tire line and his observations are therefore irrelevant to the tire at issue. The Court finds that Mr. Carlson's testimony is relevant, and Defendant's argument goes to the weight of the testimony.

CONCLUSION

For the reasons stated above, Defendant's motion to exclude Plaintiffs' expert Dennis Carlson is not well-taken. He is well-qualified to testify as an expert on tread-belt separation and he reliably applied his methodology to the facts of this case.

IT IS THEREFORE ORDERED that Defendant Continental Tire the Americas, LLC's Motion to Exclude Plaintiffs' Expert Dennis Carlson **(Doc. 525) is DENIED.**

IT IS SO ORDERED.

KEA W. RIGGS
UNITED STATES DISTRICT JUDGE