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UNITED STATES DISTRICT COURT
DISTRICT OF NEW JERSEY

VINCENT LUPPINO et al, Plaintiffs, v. MERCEDES-BENZ USA, LLC, Defendant.	Civil Action No. 09-5582 (JLL) (JAD) **OPINION**

LINARES, District Judge.

This matter comes before the Court upon three motions by Plaintiffs and Defendant to exclude various expert reports and testimony relevant to Plaintiffs' class certification motion.[1] (ECF Nos. 361, 366, 395). The Court has carefully considered the submissions made in support of and in opposition to these motions as well as the arguments presented by the parties at oral argument on June 2, 2015. For the reasons set forth below, Plaintiffs' motion to exclude Defendant's expert Mark Fleming, (ECF No. 361), is **denied**, Defendant's motion to strike Dr. James Lucas, Dr. David J. Duquette, and Mr. Robert A. Russell is **granted in part and denied in part**, and Defendant's motion to exclude Dr. Jacob Jacoby, (ECF No. 395), is **denied**.

I. BACKGROUND

This is a nationwide class action against Mercedes-Benz USA, LLC, (hereinafter "MBUSA" or "Defendant") on behalf of individuals who purchased/leased a Mercedes-Benz

[1] This Court terminated the Motion for Class Certification pending the outcome of the current *Daubert* motions.

passenger vehicle, Model Year 2006 to present, in any state (or, in the alternative, in the State of New Jersey), equipped with 17, 18, or 19-inch wheels (hereinafter the "Wheels"). The Wheels allegedly suffer from a uniform design defect rendering them unduly susceptible to failure. According to Plaintiffs, Defendant has failed to disclose to purchasers this design flaw and has also refused to cover replacement costs under the warranty.

Plaintiffs seek class certification under Fed. R. Civ. P. 23(c)(4) with respect to the issue of liability, so that damages can later be calculated through an appropriate Special Master or other claims process that the Court determines is best suited for this case. Plaintiffs propose to define the class as "All persons and entities in the United States who purchased or leased a Mercedes-Benz passenger vehicle, Model Year 2006 to present, in any state, equipped with17, 18, or 19-inch Wheels." In support of and in opposition to class certification, the Parties have offered various expert reports and testimony to establish all of the Wheels suffer (or do not suffer) from the same defect. The following experts are the subject of the current *Daubert* motions before the Court.

A. Defendant's Expert, Mark Fleming

Dr. Fleming is proffered by Defendant as an expert in Finite Element Analysis ("FEA"). FEA is a computer based tool, method or technique commonly used in mechanical engineering to analyze, assess and predict, through computer simulation and based upon mathematics, how specified loads, stresses and strains affect different materials and structures, with known physical properties. (Pls.' Br., ECF No. 362 at 3). Dr. Fleming holds a Bachelor's degree in Mechanical Engineering, a Master's degree in Theoretical and Applied Mechanics, and a Ph.D. in Theoretical and Applied Mechanics from Northwestern University in Evanston, Illinois, where his Ph.D. thesis related to finite element analysis and computer simulation methods for fatigue crack propagation.

(Id.). He is a licensed professional engineer in Illinois, as well as a member of the American Society of Mechanical Engineers and the SAE. (Id.). Dr. Fleming has been conducting FEA in connection with his work as a mechanical engineer for at least 17 years, and he is currently an Adjunct Professor at Northwestern University, where he teaches a graduate-level course on advanced finite element analysis. (Id.).

Defendant retained Dr. Fleming in response to Plaintiffs' claim that all of the subject wheels develop radial fatigue cracks only "from the normal loading of vehicles." (Def. Opp., ECF No 388 at 3). Indeed, Dr. Fleming performed FEA to assess whether—particularly with commonality/predominance susceptible to class treatment—the wheels show "potential for fatigue crack initiation" under both normal and severe loading conditions. (Id. at 4).

B. Plaintiffs Expert, James Lucas

Dr. James Lucas is a statistician used to aid Plaintiffs' metallurgical and engineering experts choose a representative sample of Wheels to examine. (Opp., ECF No. 370 at 4). Dr. Lucas has an extensive resume in statistics including a Ph.D. in statistics, and his current work for Kevin Kennedy & Associates includes providing "statistical analysis" and "quality management systems consulting." (Id.). Dr. Lucas used the JMP Statistical Program, from SAS Corporation, to develop sampling plans for the examinations by Plaintiffs' experts. Dr. Lucas chose a "stratified sample" of 50 Wheels, which was based on two "strata": first, a sample of 75 wheels selected by Plaintiffs' expert Robert Russell and second, a random sampling from all of the 797 wheels in Plaintiffs' possession. (Id.). After reviewing the two strata, Dr. Lucas then randomly selected 25 wheels from each stratum to provide what he considered to be a representative sample.

C. Plaintiffs Expert, David J. Duquette

Plaintiffs offer Dr. Duquette as an expert in metallurgy to evaluate the alloy used in the Wheels. Dr. Duquette is a professor of Materials and Science Engineering at Rensselaer Polytechnic Institute and received his Ph.D. in Materials Science from the Massachusetts Institute of Technology. (Id. at 9). Dr. Duquette analyzed the metallurgy of the Wheels through stereo, reflected light, and electron optical scanning microscopy. (ECF No. 353 at 8). Subsequently, Dr. Duquette concludes in his report that all of the Wheels were manufactured using the same process (die casting) and the same alloy (ASTM A356 in T6 heat treatment condition). According to Dr. Duquette, these Wheels were designated for installation "on virtually every model of Mercedes-Benz passenger vehicles, including the C, E, S, SL, CLK, and CL classes although the preponderance of failed wheels have been associated with the C, E, and S classes." (Id. at 8).

Dr. Duquette's report notes that approximately 30% of the 50 Wheels that Dr. Duquette examined had cracks that were "visible to the unaided eye." (Id.). In particular, Dr. Duquette observed radial cracks in wheels that were in good to excellent condition and did not appear to have been abused in any way and concludes that radial cracking is observed in virtually all of the wheel configurations and for virtually every model of automobile manufactured by DAG and is induced by cyclic deformation (high cycle fatigue) during normal vehicle operation. He categorized this typing of cracking as "fatigue cracks," and noted three possible changes that could ameliorate the radial cracking he observed including wheel design and stress, alloy selection, and choosing forged aluminum alloys rather than cast alloys. (Opposition, ECF No. 370 at 11-12).

D. Plaintiffs Expert, Robert A. Russell

Mr. Russell is a licensed professional engineer with experience in the design and production of road wheels as well as the assessment and evaluation of the fatigue failures of automobile components. (Opposition, ECF No. 370 at 17). Mr. Russell also has extensive training and knowledge regarding FEA and the widespread use of FEA in the automotive industry. (Id.). According to Mr. Russell's report, the Wheels have a uniform defect; specifically, that the Wheels are overly susceptible to fail particularly when they are paired with low-profile tires that leaves little cushion between the Wheel and the road. (ECF No. 353 at 7). As a result of the low-profile tires uniformly placed on passenger vehicles, the "reduction in clearance between the wheel rim and the road surface requires necessarily stiffer tires, and results in substantially increased vulnerability of the" Wheels. (Id. at 8). According to Russell, the thinner tire "transform[s] normal road irregularities into damaging driving events." (Id. at 22).

E. Plaintiffs Expert, Jacob Jacoby

According to Plaintiffs, Dr. Jacoby is one of the leading experts in the country in the field of consumer behavior. (Opposition, ECF No. 397 at 2). Initially, in support of their motion for class certification, Plaintiffs did not include Dr. Jacoby's expert report. However, as part of its opposition, Defendant submitted a report from a marketing expert, Larry Chiagouris, Ph.D. (the "Chiagouris Report"), who expressed the opinion that Plaintiffs and the members of the class knew or should have known about the alleged defect in the wheels prior to making their purchases. He purported to support this overall opinion with subsidiary opinions that consumers conduct research before making purchases, that there was a lot of information available about Mercedes automobiles, and that when he visited MBUSA showrooms the salespeople provided information

in response to his questions concerning wheels. After receiving the Chiagouris Report, Plaintiffs retained Jacob Jacoby, Ph.D., to provide a rebuttal to the Chiagouris Report.

Dr. Jacoby is currently the Merchant Council Professor of Consumer Behavior and Retail Management at New York University's Leonard N. Stern Graduate School of Business. Relying on academic literature as well as Dr. Jacoby's 50-year career in the field of consumer behavior, his report provides direct rebuttal to many specific assertions set forth in the Chiagouris Report, ultimately opposing the notion that members of the class knew or should have known about the alleged defect in the wheels prior to making their purchases.

II. LEGAL STANDARD

Rule 702 of the Federal Rules of Evidence governs the admissibility of expert testimony. Rule 702 allows a witness qualified as an expert to give testimony if the expert's scientific, technical or specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue if: (i) the testimony is based upon sufficient facts or data, (ii) the testimony is the product of reliable principles and methods, and (iii) the expert witness has applied the principles and methods reliably to the facts of the case. Fed. R. Evid. 702. The United States Court of Appeals for the Third Circuit has explained that Rule 702 "embodies a trilogy of restrictions on expert testimony: qualification, reliability, and fit." *Schneider v. Fried*, 320 F.3d 396, 404 (3d Cir.2003) (citing *In re Paoli R.R. Yard PCB Litig.*, 35 F.3d 717, 741–43 (3d Cir.1994)).

The district court is required to act as a gatekeeper, preventing the admission of opinion testimony that does not meet these three requirements. *Id.* (citing *Daubert v. Merrell Dow Pharm., Inc.*, 509 U.S. 579, 592 (1993)). The proponent of the evidence bears the burden of establishing

the existence of each factor by a preponderance of the evidence. *Daubert*, 509 U.S. at 592; In re Paoli, 35 F.3d at 743–44. A court's rejection of expert testimony should be the exception rather than the rule. Fed. R. Evid. 702 Advisory Committee Note. As the United States Supreme Court noted in *Daubert*, "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." 509 U.S. at 595.

An expert's opinion is reliable if it is "based on the 'methods and procedures of science' rather than on 'subjective belief or unsupported speculation'; the expert must have 'good grounds' for his or her belief." *Calhoun v. Yamaha Motor Corp., U.S.A.*, 350 F.3d 316, 321 (3d Cir. 2003) (quoting *Daubert*, 509 U.S. at 589). "*Daubert* suggests several factors that a district court should take into account in evaluating whether a particular scientific methodology is reliable[.]" *In re Paoli*, 35 F.3d at 742. The factors that *Daubert* and this Court have already declared important include:

> (1) whether a method consists of a testable hypothesis; (2) whether the method has been subject to peer review; (3) the known or potential rate of error; (4) the existence and maintenance of standards controlling the technique's operation; (5) whether the method is generally accepted; (6) the relationship of the technique to methods which have been established to be reliable; (7) the qualifications of the expert witness testifying based on the methodology; and (8) the non-judicial uses to which the method has been put.

Id. at 742 n. 8 (citing *United States v. Downing*, 753 F.2d 1224, 1238–41 (3d Cir. 1985)).

The Supreme Court in *Kumho Tire*, however, clearly indicated that this list is non-exclusive and that each factor need not be applied in every case. The Court further explained that:

> [T]he trial judge must have considerable leeway in deciding in a particular case how to go about determining whether particular expert testimony is reliable. That is to say, a trial court should

> consider the specific factors identified in Daubert where they are reasonable measures of the reliability of expert testimony.

Kumho Tire Co., Ltd. v. Carmichael, 526 U.S. 137, 152 (1999); *see also Milanowicz v. The Raymond Corp.*, 148 F.Supp.2d 525, 536 (D.N.J.2001) (reconfiguring *Daubert* for application to "technical" or "other specialized" subjects such as engineering and identifying several factors for trial courts to consider in evaluating reliability, including relevant literature, evidence of industry practice, and product design and accident history). As such, "[t]he inquiry envisioned by Rule 702 is ... a flexible one." *Daubert*, 509 U.S. at 594.

III. DISCUSSION

A. Defendant's Expert, Mark Fleming

Dr. Fleming's qualifications are undisputed. Instead, Plaintiffs argue that Dr. Fleming's FEA is unreliable and that his proffered opinions do not fit the facts of this case. Specifically, Plaintiffs bring this *Daubert* motion claiming Dr. Fleming's FEA model did not account for the performance of road wheels *while on a vehicle* but rather improperly separated these entities for his analysis. Further, Plaintiffs claim Dr. Fleming failed to account for inclines, bumps, and other typical road surface conditions, by using a model which assumed a perfectly smooth and flat road. However, Defendant argues, and the Court agrees, that because Dr. Fleming followed the applicable testing standards established by the Society of Automotive Engineers (SAE)—which are the accepted methods for radial impact and radial fatigue-testing of automotive wheels—Dr. Fleming's adherence to these industry standards is sufficient to render his opinion reliable and admissible. Similarly, Plaintiffs have also failed to convince this Court that Dr. Fleming's opinions are based on insufficient facts or venture far from his area of expertise, as they are based on widely accepted scientific methods and procedures. *See Altana Pharma AG v. Teva Pharms. USA, Inc.*, 2013 U.S.

Dist. LEXIS 74211 at *8 (2013) ("The proponent of expert testimony need not prove that its expert is correct, but that the expert's 'opinion is based on valid reasoning and a reliable methodology'") (citing *Oddi v. Ford Motor Co.*, 234 F.3d 136, 145 (3d Cir. 2000)). At their core, Plaintiffs' arguments go to credibility of Dr. Flemings's analysis, not admissibility.

B. Plaintiffs' Expert, James Lucas

Defendant argues that Dr. Lucas' sampling does not fit the defect theory of this case because he failed to account for the design "system" which includes tires and vehicles (including suspensions, weights, driving circumstances etc). (Brief, ECF No. 367 at 7). Defendant explains that because Plaintiffs' experts claim a design flaw in the "system," these varying characteristics should have been considered for the sampling selection. Additionally, Defendant argues that Dr. Lucas' sample was derived from a "non-representative collection of 797 used, discarded, and damaged wheels subpoenaed from only three [NJ] dealerships." (Id. at 7-8). Put simply, Defendant labels the sampling as "cherry-picked." (Id. at 8). This Court does not agree.[2]

First, Dr. Lucas's report does not need to "fit" the "defect theory" as Defendant claims; rather his report only needs to show that he established the most representative sample possible under the circumstances. Further, Defendant fails to address Dr. Lucas' explanation that the process and manufacturing of wheels is a "stable process" and therefore only a very small sample is needed to find a defect. (Opposition, ECF No. 370 at 7). The Court is also unconvinced by Defendant's claim that using "discarded" wheels provides for a "cherry-picked" sample given the stability of the manufacturing process. Dr. Lucas' opinions and sampling are therefore admissible.

[2] For the reasons set forth in this Section, Defendant's motions to exclude other experts on the theory of "cherry-picked wheels" is also denied.

C. Plaintiffs' Expert, David J. Duquette

Defendant claims Dr. Duquette's opinions are inadmissible for the following reasons. First, Dr. Duquette should be prohibited from opining on the design of wheels as he is not a design expert. (Brief, ECF No. 367 at 10). Second, Dr. Duquette's methodology in determining the cracks are "fatigue cracks" is not based in acceptable methodology. And finally, Dr. Duquette's opinions do not satisfy the *Daubert* "fit" requirement because there "is a disconnect between his analysis and his conclusion." (Id. at 21). The Court takes each argument in turn.

Dr. Duquette, given his education and experience as a metallurgist is presumed to understand the properties of metal and what characteristics would cause a metal to crack or make the metal stronger. While Dr. Duquette will not be permitted to hypothetically redesign one of the wheels in question, he should certainly be permitted to explain what elements, given his experience, tend to ameliorate cracking in certain metals. Similarly, Dr. Duquette's explanation of why he classifies the cracks as "fatigue cracks" is well within his expertise. That is, Dr. Duquette explains that he was able to label these cracks upon thorough examination (including stereo-microscopy) of the wheels given they appeared to be "slow growing" and were "initiated at locations where impact was not a factor." (Opposition, ECF No. 370 at 12-14). The Court therefore does not find a disconnect between Dr. Duquette's methods and conclusions in this regard. Dr. Duquette's opinions are admissible.

D. Plaintiffs' Expert, Robert A. Russell

Mr. Russell's report describes the uniform defect that the Wheels are overly susceptible to fail particularly when they are paired with low-profile tires that leaves little cushion between the Wheel and the road. (ECF No. 353 at 7). Defendant does not challenge Mr. Russell's

qualifications in rendering this opinion but rather the basis for such. However, as explained by Plaintiffs, Mr. Russell's opinions are based upon the following: 1) his inspection and evaluation of the Dealers' Wheels; 2) his review and evaluation of the manufacturer's specifications for all of the wheels designated for use on Mercedes-Benz vehicles within the scope of the proposed definition of the class; 3) documents produced in this litigation by Defendant and the vehicle manufacturer (Daimler AG); and 4) his more than 40 years of training, knowledge, and experience in the fields of wheel design and production, mechanical and materials engineering, failure analysis and Quality Assurance. With this backdrop, the proffered criticisms of Mr. Russell's opinions are directed not to the general reliability of the methods, theories, and procedures implemented, but rather to the sufficiency of the facts and data relied upon. In challenging these factual conclusions, not Dr. Russell's credentials or methods, Defendant fails to make a sufficient showing for this Court to conclude that Mr. Russell's opinions and testimony should be excluded. *See Oddi*, 234 F.3d at 145–46 ("The test of admissibility is not whether a particular scientific opinion has the best foundation or is demonstrably correct. Rather, the test is whether the particular opinion is based on valid reasoning and reliable methodology.").

The Court does note however that at the oral argument held June 2, 2015, Plaintiffs conceded that Dr. Russell did not apply the proper FEA standard. This Court is therefore not persuaded that the methodology he used in this regard passes muster under even a lenient *Daubert* standard. Thus, while Dr. Russell will be permitted to attack the credibility of Defendant's FEA expert and his conclusions, he will be excluded from offering conclusions or opinions that are premised on the FEA he conducted.

E. Plaintiffs' Expert, Jacob Jacoby

Defendant seeks to strike the rebuttal report of Dr. Jacoby as both unreliable and untimely. Defendant first criticizes Dr. Jacoby for failing to conduct a consumer survey or empirical testing. The Court finds these criticisms are not properly targeted towards admissibility. Indeed, Dr. Jacoby's report explains that his opinions are based on his review of case documents, professional literature, and his expertise in the field. This Court stands by its previous holding that the absence of a study conducted by an expert is relevant to the weight, not the admissibility, of his or her conclusion. *See Schwartz v. Avis Rent a Car System LLC*, No. 11-cv-4052, 2014 U.S. Dist. LEXIS 121322 (D.N.J. Aug. 28, 2014) (Linares, J.). Further, given that Dr. Jacoby's report was a rebuttal to Defendant's own expert and Defendant was unable to convince the Court of any prejudice it would be susceptible to if the report is admitted, this Court finds Dr. Jacoby's report admissible. That being said, Defendant shall, once the class certification motions are refiled at the Parties' request, be permitted to supply the Court with a sur-reply, limited to the opinions of Dr. Jacoby and Defendant's expert as to same.

IV. CONCLUSION

For the reasons set forth above, Plaintiffs' motion to exclude Defendant's expert Mark Fleming, (ECF No. 361), is **denied**, Defendant's motion to strike Dr. James Lucas, Dr. David J. Duquette, and Mr. Robert A. Russell, (ECF No. 366), is **granted in part** only in so far as Mr. Russell may not offer opinions on his own FEA, **and denied in part**, and Defendant's motion to exclude Dr. Jacob Jacoby, (ECF No. 395), is **denied**.

An appropriate Order accompanies this Opinion.

DATED: June 29, 2015

s/ Jose L. Linares
Jose L. Linares
United States District Judge