

**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE**

AMERICAN AXLE & MANUFACTURING, INC.,

Plaintiff,

v.

NEAPCO HOLDINGS LLC and NEAPCO
DRIVELINES LLC,

Defendants.

Civil Action No. 15-1168-GBW

MEMORANDUM OPINION

Jeff Castellano, DLA PIPER LLP (US), Wilmington, DE; James R. Nuttall, John L. Abramic, Robert F. Kappers, STEPTOE LLP, Chicago, IL; Boyd Cloern, STEPTOE LLP, Washington, D.C.

Counsel for Plaintiff

Melanie K. Sharp, James L. Higgins, YOUNG CONAWAY STARGATT & TAYLOR, LLP, Wilmington, DE; J. Michael Huget, Sarah E. Waidelich, HONIGMAN LLP, Ann Arbor, MI; Dennis J. Abdelnour, Jenna E. Saunders, HONIGMAN LLP, Chicago, IL.

Counsel for Defendants

September 22, 2026
Wilmington, Delaware

GREGORY B. WILLIAMS
UNITED STATES DISTRICT JUDGE

This is a patent infringement action between Plaintiff American Axle & Manufacturing Inc. (“Plaintiff” or “AAM”) and Defendants Neapco Holdings LLC and Neapco Drivelines LLC (together, “Neapco” or “Defendants”). Pending before the Court is Defendants’ Renewed Motion for Judgment as a Matter of Law (“JMOL”) and Alternative Request for a New Trial or Remittitur (D.I. 358) (“Motion”). For the reasons set forth below, Defendants’ Motion is DENIED.

I. BACKGROUND

A. Pre-Trial History

On December 18, 2015, Plaintiff filed its original Complaint, alleging, *inter alia*, infringement by Defendants of United States Patent No. 7,774,911 (“the ’911 Patent”). D.I. 1.

On April 7, 2017, Judge Leonard Stark¹ issued a Memorandum Opinion on claim construction, which was later revisited upon Plaintiff’s motion for reargument. D.I. 113; D.I. 180. After claim construction, the case continued to summary judgment. On February 27, 2018, Judge Stark issued a Memorandum Opinion resolving the parties’ motions for summary judgment, which determined that the then-asserted claims of the ’911 Patent were invalid under 35 U.S.C. § 101. D.I. 219; D.I. 220.

Plaintiff appealed. *See* D.I. 225. Initially, the Federal Circuit affirmed. D.I. 229; D.I. 229-1. Plaintiff then petitioned the Federal Circuit for a panel rehearing and a rehearing *en banc*. On July 31, 2020, the Federal Circuit issued a modified opinion, affirming-in-part, vacating-in-part, and remanding for further proceedings. D.I. 232; D.I. 232-1. Specifically, the Federal Circuit

¹ The Honorable Leonard Stark has since been elevated and is serving as a United States Circuit Judge of the United States Court of Appeals for the Federal Circuit.

“vacate[d] as to claim 1 and its dependent claims and remand[ed] for further proceedings” D.I. 232-1 at 32. On February 17, 2021, proceedings in this action were stayed pending the resolution of Plaintiff’s petition for a writ of certiorari. D.I. 245. On June 30, 2022, the United States Supreme Court denied Plaintiff’s petition. *See* D.I. 251 at 5. Soon after, the stay was lifted.

On September 9, 2022, the parties moved for summary judgment. D.I. 255; D.I. 260. Defendants moved for summary judgment of invalidity under 35 U.S.C. § 101 and non-infringement. D.I. 255. Plaintiff moved for summary judgment of no invalidity under 35 U.S.C. §§ 101 and 102. D.I. 260. Plaintiff also filed a *Daubert* motion to exclude portions of the testimony of both of Defendants’ experts (D.I. 261), which it later withdrew. D.I. 305; D.I. 306. On July 19, 2023, the Court issued a Memorandum Order resolving the parties’ motions for summary judgment. D.I. 304.

B. Trial and the Jury’s Verdict

The Court presided over a three-day jury trial in January 2024. Plaintiff went to trial on Claims 1-6, 12-13, and 19-21 of the ’911 Patent (together, the “Asserted Claims”). D.I. 344 at 3. Following the close of Plaintiff’s case, Defendants moved for JMOL of no literal infringement, as well as JMOL under the doctrine of equivalents. *See* Trial Transcript (“Tr.”) at 421:14-424:8.² The Court denied Defendants’ motion for JMOL of no literal infringement and granted Defendants’ motion for JMOL of no infringement under the doctrine of equivalents. Tr. at 437:23-25.

At the end of the trial, the jury returned a verdict finding that Defendants’ method of manufacturing the Accused Propshafts – propshafts with diameters of 4.5 inches, 5.0 inches, and

² The trial transcript is docketed at D.I. 395, D.I. 396, and D.I. 397.

5.775 inches – infringed various claims of the '911 Patent.³ D.I. 344 at 3. The jury also found that none of the Asserted Claims were invalid as anticipated or invalid due to inadequate written description or indefiniteness. *Id.* at 4-5. The jury awarded damages in the amount of \$1,889,860 for the 4.5 inch Accused Propshafts, \$1,880,130 for the 5.0 inch Accused Propshafts, and \$235,630 for the 5.775 inch Accused Propshafts. *Id.* at 6. The jury did not award any damages for lost profits. *Id.*

Following the jury verdict, the Court entered judgment in favor of Plaintiff in the amount of \$4,005,620. D.I. 350. Defendants' Motion is fully briefed. D.I. 359; D.I. 372; D.I. 377.

C. The '911 Patent

The '911 Patent is generally directed towards a “method for attenuating vibration in a driveline having a shaft assembly that transmits torque between first and second driveline components.” '911 Patent at Abstract. Of the Asserted Claims, Claim 1 is the only independent claim and recites:

1. A method for manufacturing a shaft assembly of a driveline system, the driveline system further including a first driveline component and a second driveline component, the shaft assembly being adapted to transmit torque between the first driveline component and the second driveline component, the method comprising:

providing a hollow shaft member;

tuning at least one liner to attenuate at least two types of vibration transmitted through the shaft member; and

positioning the at least one liner within the shaft member such that the at least one liner is configured to damp shell mode vibrations in the shaft member by an amount that is greater than or equal to about 2%, and the at least one liner is also

³ The parties agreed, for the purposes of trial, that various Accused Propshafts bearing different General Motors part numbers shared the “same design.” *See* Tr. at 138:19-139:16.

configured to damp bending mode vibrations in the shaft member, the at least one liner being tuned to within about $\pm 20\%$ of a bending mode natural frequency of the shaft assembly as installed in the driveline system.

'911 Patent at Claim 1. The other Asserted Claims are dependent claims and recite:

2. The method of claim 1, wherein the at least one liner is tuned within $\pm 15\%$ of the bending mode natural frequency of the shaft assembly as installed in the driveline system.
3. The method of claim 2, wherein the at least one liner is tuned to within $\pm 10\%$ of the bending mode natural frequency of the shaft assembly as installed in the driveline system.
4. The method of claim 3, wherein the at least one liner is tuned to within $\pm 5\%$ of the bending mode natural frequency of the shaft assembly as installed in the driveline system.
5. The method of claim 3, wherein the shell mode is at least one of a first shell mode, a second shell mode and a third shell mode.
6. The method of claim 5, wherein the bending mode is at least one of a first bending mode, a second bending mode and a third bending mode.

* * *

12. The method of claim 3, wherein the at least one liner includes a structural portion and at least one resilient member that is coupled to the structural portion, the liner being inserted to the shaft member such that a wall of the shaft member contacts the at least one resilient member.
13. The method of claim 12, wherein the at least one resilient member extends helically about and along the structural portion.

* * *

19. The method of claim 12, wherein the structural portion is formed of a material selected from a group consisting of cardboard, plastic resin, carbon fiber, fiberglass, metal and combinations thereof.

20. The method of claim 3, wherein a first one of the liners is positioned along the shaft member symmetrically about a bending anti-node.

21. The method of claim 20, wherein a second one of the liners is positioned along the shaft member symmetrically about another bending anti-node.

'911 Patent at Claims 2-6, 12-13, and 19-21.

The claim construction submitted to the jury regarding '911 Patent construed the terms as follows:

Claim Term	Construction
bending mode vibration	Vibration that causes a shaft to bend
shell mode vibration	Vibration that causes the cross-section of a shaft to deflect or bend along one or more axes
tuning at least one liner to attenuate at least two types of vibration transmitted through the shaft member	controlling characteristics of at least one liner to configure the liner to match a relevant frequency or frequencies to reduce at least two types of vibration transmitted through the shaft member
bending anti-node	Plain and ordinary meaning: a position of maximum displacement for the shaft member in a bending mode of vibration

D.I. 341 at 27.

II. LEGAL STANDARDS

A. **Judgment as a Matter of Law**

A court may enter JMOL against the non-moving party where it “finds that a reasonable jury would not have a legally sufficient evidentiary basis to find for the party on [an] issue.” Fed. R. Civ. P. 50(a)(1). However, JMOL is appropriate “only if, viewing the evidence in the light most favorable to the nonmovant and giving it the advantage of every fair and reasonable inference, there is insufficient evidence from which a jury reasonably could find liability.” *Lightning Lube, Inc. v. Witco Corp.*, 4 F.3d 1153, 1166 (3d Cir. 1993). “Although judgment as a matter of law

should be granted sparingly, a scintilla of evidence is not enough to sustain a verdict of liability.” *Id.* (citation omitted). “In determining whether the evidence is sufficient to sustain liability, the court may not weigh the evidence, determine the credibility of witnesses, or substitute its version of the facts for the jury’s version.” *Id.* (citation omitted).

The standards that govern a Rule 50(b) motion, however, “vary according to whether the movant has the burden of proof.” *Fireman’s Fund Ins. Co. v. Videfreeze Corp.*, 540 F.2d 1171, 1177 (3d Cir. 1976). To grant JMOL in favor of a party with the burden of proof, the court “must be able to say not only that there is sufficient evidence to support the finding, even though other evidence could support as well a contrary finding, but additionally that there is insufficient evidence for permitting any different finding.” *Id.* (citation omitted).

B. Motion for New Trial

“Federal Rule of Civil Procedure 59 provides that a new trial may be granted ‘after a jury trial, for any reason for which a new trial has heretofore been granted in an action at law in federal court.’” *Ponzini v. Monroe Cnty.*, 789 F. App’x 313, 315 (3d Cir. 2019) (citation omitted). These reasons include: “(1) improper admission or exclusion of evidence; (2) improper instructions to the jury; (3) misconduct of counsel; (4) newly discovered evidence; or (5) a finding that the jury’s verdict is against the weight of the evidence.” *Id.* (citation omitted).

III. DISCUSSION

The Court divides its discussion into three parts. First, the Court addresses Defendants’ contentions for why Defendants believe they are entitled to JMOL or, in the alternative, a new trial, with respect to the issue of infringement. Second, the Court addresses Defendants’ separate bases for why the Court should grant a new trial. Third, the Court addresses Defendants’ bases

for why the Court should grant a new trial on the issue of damages or, alternatively, remit the damages award.

A. The Court Denies Defendants' Motion for JMOL or a New Trial on Non-Infringement

"Infringement is a question of fact, reviewed for substantial evidence when tried to a jury." *Lucent Techs., Inc. v. Gateway, Inc.*, 580 F.3d 1301, 1309 (Fed. Cir. 2009) (quoting *Finisar Corp. v. DirecTV Group, Inc.*, 523 F.3d 1323, 1332 (Fed. Cir.), *cert. denied*, 555 U.S. 1070 (2008)). "To infringe a method claim, a person must have practiced all steps of the claimed method." *Id.* at 1317 (citing *Joy Techs., Inc. v. Flakt, Inc.*, 6 F.3d 770, 775 (Fed. Cir. 1993)). Defendants assert that they are entitled to JMOL or, in the alternative, a new trial because (1) there was insufficient evidence of the "tuning" limitation, *see* D.I. 359 at 3-11; and (2) there was insufficient evidence of the "as installed in the driveline system" limitation, *see id.* at 11-14. The Court will address each in turn.

1. The "Tuning" Limitation of Claim 1 of the '911 Patent

As stated above, Judge Stark construed the "tuning" limitation – "tuning at least one liner to attenuate at least two types of vibration transmitted through the shaft member" – to mean "controlling characteristics of at least one liner to configure the liner to match a relevant frequency or frequencies to reduce at least two types of vibration transmitted through the shaft member." D.I. 113 at 9. The parties did not contest this construction on appeal to the Federal Circuit. *Am. Axle & Mfg., Inc. v. Neapco Holdings LLC*, 967 F.3d 1285, 1291 (Fed. Cir. 2020) ("No party contests the district court's construction on appeal."); *see also id.* at 1300 ("In light of the district court's construction of claim 1, which requires only controlling characteristics and positioning the liner, we cannot conclude that it is merely directed to Hooke's law.").

Defendants contend that “there is no evidence of ‘tuning’ as construed by this Court.” D.I. 359 at 3. More specifically, Defendants contend that the Court’s construction requires designing a liner with knowledge of relevant frequencies, that Plaintiff’s technical expert did not apply this interpretation of the Court’s construction, and that there is insufficient evidence to support the jury’s verdict under this interpretation of the Court’s construction. *Id.* at 3-9.

Plaintiff first responds by asserting that Defendants waived any issue of claim construction under *O2 Micro*. D.I. 372 at 1. “When the parties raise an actual dispute regarding the proper scope of these claims, the court, not the jury, must resolve that dispute.” *O2 Micro Int’l Ltd. v. Beyond Innovation Tech. Co.*, 521 F.3d 1351, 1360 (Fed. Cir. 2008). “‘There is not necessarily an *O2 Micro* issue, however, whenever further claim construction could resolve the parties’ dispute’—rather, a party must ‘sufficiently request further construction of the relevant limitation’ to ‘raise an actual dispute.’” *Kaufman v. Microsoft Corp.*, 34 F.4th 1360, 1369 (Fed. Cir. 2022) (quoting *LifeNet Health v. LifeCell Corp.*, 837 F.3d 1316, 1322 (Fed. Cir. 2016)). “A proper claim construction provides a legal standard for the jury to apply, and so the requirement of clear, timely raising of an argument for a claim construction reflects the strong requirement of timely raising of distinct objections to jury instructions.” *Id.* at 1370 (citations omitted).

During trial, the Court indicated that it was “struggling with whether” there was “an *O2 Micro* issue on the matching requirement in terms of whether or not the Court needs to further construe the controlling characteristics of at least one liner to configure” and requested that the parties give their positions. Tr. at 428:16-429:10. In response to that direct inquiry, neither party requested further claim construction. Tr. at 430:17-18 (Plaintiff); 431:5-7 (Defendants). Accordingly, the Court concluded that no *O2 Micro* issue existed and that no further claim construction was required. Tr. at 432:9-12 (“So both sides agree that no further claim construction

is required. . . . I’m going to leave it like that.”); *see also LifeNet Health*, 837 F.3d at 1322 (party “fail[ed] to properly raise an *O2 Micro* issue” through its “failure to sufficiently request further construction of the relevant limitation leading up to and during trial”).

As stated above, Defendants contend that the Court’s construction “requires . . . designing a liner with knowledge of relevant propshaft frequencies” and that Dr. Rahn “applied a far broader construction” at trial. *See* D.I. 359 at 3-7.⁴ In the present case, neither the claim language nor the Court’s construction explicitly recite a “design with knowledge” requirement. Defendants could have – but did not – seek further construction to eliminate any such ambiguity. *Cf. PPG Indus. v. Guardian Indus. Corp.*, 156 F.3d 1351, 1355 (Fed. Cir. 1998) (“[A]fter the court has defined the claim with whatever specificity and precision is warranted by the language of the claim and the evidence bearing on the proper construction, the task of determining whether the construed claim reads on the accused product is for the finder of fact.”); *Acumed LLC v. Stryker Corp.*, 483 F.3d 800, 806 (Fed. Cir. 2007) (“[A] sound claim construction need not always purge every shred of ambiguity.”). Under the circumstances, the Court declines Defendants’ invitation for a post-trial reinterpretation of claim scope. *See Hewlett–Packard Co. v. Mustek Sys., Inc.*, 340 F.3d 1314,

⁴ To Defendants’ credit, Plaintiff has not always been consistent in its interpretation as to what the Court’s construction requires. *Compare* D.I. 360-2, Ex. B at 40 (chart within Plaintiff’s appellate brief titled “Exemplary Elements of the Asserted Claims,” which includes “Identify Relevant Propshaft Shell Mode Frequency” and “Identify Relevant Propshaft Bending Mode Frequency”), 64 (“Claim 1, however, expressly requires the step of ‘tuning at least one liner to attenuate at least two types of vibration,’ which, *as construed*, requires *specifically designing the liner* by controlling its characteristics (e.g., length, width, interference fit, location, etc.).” (emphasis added)), *with* D.I. 372 at 9 (“The phrases ‘designing a liner,’ ‘identify relevant propshaft shell [or bending] mode frequency,’ and ‘identify liner frequency’ are not recited in the asserted claims or the Court’s claim construction.”); *cf. Amazon.com, Inc. v. Barnesandnoble.com, Inc.*, 239 F.3d 1343, 1351 (Fed. Cir. 2001) (“A patent may not, like a ‘nose of wax,’ be twisted one way to avoid anticipation and another to find infringement.”). Ultimately, however, the Court declines Defendants’ post-verdict invitation to reevaluate its summary judgment stage holding that the Asserted Claims are not invalid under Section 101. *Cf.* D.I. 359 at 6.

1321 (Fed. Cir. 2003); *Wi-Lan, Inc. v. Apple, Inc.*, 811 F.3d 455, 464 (Fed. Cir. 2016) (holding that the district court erred by adopting a “post-verdict reconstruction [that] altered the scope of the original construction and undermined [the defendant’s] invalidity case post-verdict”).

Next, Defendants claim that Plaintiff’s infringement theory does not follow the order of the steps recited in Claim 1. D.I. 359 at 9-10. The Court is not persuaded. Again, the Court observes that this appears to be an attempt to seek further claim construction. *See Hewlett-Packard*, 340 F.3d at 1320-21.

Finally, Defendants contend that, under Plaintiff’s alleged “new construction,” there is insufficient evidence to support the jury’s verdict. D.I. 359 at 10-11. Putting this characterization aside, the Court turns to whether there is sufficient evidence to support infringement of the tuning limitation under the instruction presented to the jury. *See Hewlett-Packard Co.*, 340 F.3d at 1321 (“The verdict must be tested by the charge actually given and by giving the ordinary meaning of the language of the jury instruction.”); *Wi-Lan, Inc.*, 811 F.3d at 465 (similar). As stated above, JMOL is only appropriate “if, viewing the evidence in the light most favorable to the nonmovant and giving it the advantage of every fair and reasonable inference, there is insufficient evidence from which a jury reasonably could find liability.” *Lightning Lube*, 4 F.3d at 1166. Plaintiff contends that there is sufficient evidence supporting the jury’s verdict. *See* D.I. 372 at 6-10 (gathering documentary evidence and testimony). The Court agrees with Plaintiff.

During trial, Plaintiff’s technical expert, Dr. Christopher Rahn, was asked by Plaintiff to provide his testimony on whether Defendants infringed the ’911 Patent. Dr. Rahn testified, numerous times, that he applied the Court’s construction in his analysis. *See, e.g.*, Tr. at 181:11-21, 255:2-11. In summary, Dr. Rahn testified that the Accused Propshafts were produced as part of General Motors’ (“GM”) 31XXM program, wherein Defendants produced the Accused

Propshafts for GM's Canyon and Colorado pickup trucks. Tr. at 171:4-7, 171:14-22 (describing the evidence that Dr. Rahn considered in informing him of what Defendants did to develop the Accused Propshafts, including witness testimony and technical design documents), 184:4-20 (similar). Dr. Rahn testified that GM told Defendants that it "needed tuned liners for these propshafts," that Defendants had not been doing this previously, and that Defendants "produced propshafts that had tuned liners and met GM's specifications." Tr. at 172:1-15. As to the tuning limitation, Dr. Rahn explained, *inter alia*, how Defendants controlled the characteristics of at least one liner and how Defendants' configured liners to match a relevant frequency or frequencies, causing a reduction to at least two types of vibration, for each of the Accused Propshafts. *See generally* Tr. at 210:23-217:8 (discussing testing for 5.775 inch propshafts), 222:12-224:8 (5.0 inch propshafts), 226:6-229:6 (4.5 inch propshafts).

Plaintiff does not rely solely on Dr. Rahn's testimony. *See* D.I. 372 at 6-10. For example, Plaintiff cites an email sent by Mr. Robert Wehner, who was then Defendants' Product Development Manager, wherein Mr. Wehner stated that, "[i]n essence, this is what we are trying to achieve with the GM31XXN liners . . . to attenuate both shell modes (which all liners do to some degree) and a targeted bending mode frequency." D.I. 360-7, PTX-13; *see also* D.I. 360-7, PTX-12. During trial, Mr. Wehner testified that Defendants created an excel spreadsheet tracking various liners, sizes, and frequencies. *See* Tr. at 561:3-12. Moreover, Mr. Paul Roman, who worked for Defendants as an engineer from 2014 to 2016, testified that he determined bending mode and shell mode frequencies of Defendants' propshafts. *See* Tr. at 412:5-16. Mr. Roman also agreed that, by performing tests on cardboard liners, Defendants learned that they had some benefit for the bending and shell modes. *See* Tr. at 413:8-12.

Having thoroughly reviewed and considered the evidence presented during trial, the Court finds that the jury's verdict of infringement is supported by sufficient evidence that Defendants practiced the "tuning" limitation. While Defendants dispute the credibility of Plaintiff's witnesses and technical expert, and claims that the jury should have agreed with Defendants' witnesses and technical expert regarding infringement, those were factual disputes left for the jury. *See Lightning Lube, Inc.*, 4 F.3d at 1166; *cf. Alco Standard Corp. v. Tenn. Valley Auth.*, 808 F.2d 1490, 1503 (Fed. Cir. 1986) ("Although the evidence of infringement is circumstantial, that does not make it any less credible or persuasive."). The Court cannot make credibility determinations or substitute its own conclusions for those of the jury where the record supports multiple inferences. *See Lightning Lube, Inc.*, 4 F.3d at 1166. For the foregoing reasons, Defendants are not entitled to JMOL or a new trial on this issue with respect to any of the Accused Propshafts.

2. The "As Installed" Limitation of Claim 1 of the '911 Patent

Defendants claim that "JMOL of, or alternatively a new trial on, non-infringement is appropriate because there is no record evidence of matching a propshaft bending mode frequency 'as installed in the driveline system.'" D.I. 359 at 11. The Court disagrees.

As stated above, Claim 1 of the '911 Patent requires "positioning the at least one liner within the shaft member such that the at least one liner is configured to damp shell mode vibrations in the shaft member by an amount that is greater than or equal to about 2%, and the at least one liner is also configured to damp bending mode vibrations in the shaft member, the at least one liner being tuned to within about $\pm 20\%$ of a bending mode natural frequency of the shaft assembly *as installed in the driveline system.*" '911 Patent at Claim 1 (emphasis added).

During trial, Dr. Rahn presented results from bench testing of the Accused Propshafts, which Dr. Rahn asserted would yield "the same results every time" as a propshaft measured in a

vehicle. *See* Tr. 194:20-195:8. Defendants contend that Dr. Rahn's theory fails for two related reasons: first, because it contradicts the patent, reads the "as installed in the driveline" limitation out of the patent, and is not supported by the record; and second, because "[Plaintiff's] argument goes to [the doctrine of equivalents], which [Plaintiff] abandoned during trial." D.I. 359 at 11-13. Plaintiff opposes, contending that Defendants misread the claim language, which permits testing under either condition, and that there is adequate basis in the record to support Dr. Rahn's opinion. *See* D.I. 372 at 11-13. The Court agrees with Plaintiff.

Again, with respect to the bending mode natural frequency, the relevant claim language requires "the at least one liner being tuned to within about $\pm 20\%$ of a bending mode natural frequency of the shaft assembly as installed in the driveline system." However, as Plaintiff observes (D.I. 372 at 12), the claim language is silent as to how the propshaft frequency must be measured. As a result, the propshaft frequency could be measured with bench testing or as installed in the driveline system so long as the bench testing could demonstrate "the at least one liner being tuned to within about $\pm 20\%$ of a bending mode natural frequency of the shaft assembly as installed in the driveline system."

During trial, Dr. Rahn presented testing of the Accused Propshafts performed by a third-party. *See, e.g.*, Tr. at 192:5-23, 193:17-22. The tests performed by that third-party were done in a "pinned-pinned" condition, wherein the propshaft being tested was pinned at the two points where it would be connected to the transmission and the rear axle. *See* Tr. at 193:19-194:11; *see also* Tr. at 195:12-197:4 (describing the other "boundary conditions" for the testing). Whether bench testing of the propshaft could accurately model in-vehicle testing was a disputed issue of fact at trial. On one hand, Defendants' technical expert, Mr. Becker, testified that the results between these tests could be "the difference between infringing and noninfringing." Tr. at 614:22-

23. On the other, Dr. Rahn offered competing testimony that bench testing would lead to the same results as in-vehicle testing. *See, e.g.*, Tr. at 194:20-23, 687:16-688:24. For example, Dr. Rahn analyzed Mr. Becker's testing regarding a prior art propshaft, and concluded that Mr. Becker's testing also supported his analysis. *See* Tr. at 688:7-23. Another disputed fact at trial was whether Dr. Rahn's testing yielded frequencies that materially differed from frequency targets provided by GM. *Compare* D.I. 359 at 13, *with* D.I. 372 at 16. Ultimately, when evaluating a motion for JMOL, "the court may not weigh the evidence, determine the credibility of witnesses, or substitute its version of the facts for the jury's version." *Lightning Lube, Inc.*, 4 F.3d at 1166. For the foregoing reasons, the Court finds that there was sufficient evidence to support the jury's verdict and that Defendants are not entitled to JMOL, or alternatively, a new trial on the issue of infringement as to the "as installed in the driveline system" limitation.

B. The Court Denies Defendants' Other Bases for a New Trial

Defendants contend that the Court should grant a new trial on any of six grounds. The Court addresses each in turn.

1. Dr. Sun's Unavailability at Trial

Defendants first request a new trial due to their inability to cross-examine Dr. Sun live during trial. *See* D.I. 359 at 14. During discovery, Defendants had the opportunity to depose Dr. Sun (and did so). Shortly before trial, Defendants' trial witness list indicated that it would call Dr. Sun by deposition. *Id.* Plaintiff, on the other hand, had initially put Dr. Sun on its "will call" list, but decided shortly before trial that it would not be calling Dr. Sun. *Id.* Plaintiff's decision not to call Dr. Sun was made shortly after Defendants withdrew their enablement and obviousness defenses. *See* Tr. at 5:8-19. Shortly before trial began, the Court rejected Defendants' objection on this basis, citing the Court's inability to compel Dr. Sun's attendance, Defendants' ability to

play testimony from Dr. Sun's deposition, and the late-breaking changes to the parties' defenses and witness lists. Tr. at 4:7-16, 5:8-19.

Having considered Defendants' contentions, the Court is not persuaded that a new trial is warranted because Defendants were unable to cross-examine Dr. Sun live. First, the Court is not persuaded that Plaintiff "improperly shielded" Dr. Sun, as Defendants claim. Rather, Plaintiff's decision not to call Dr. Sun as a witness appears to be a late-breaking pre-trial adjustment made promptly after Defendants' own pre-trial narrowing of their defenses. Second, though Defendants could have initially identified Dr. Sun as a "will call" witness, Defendants chose not to do so, which cuts against Defendants' contention that the live testimony sought of Dr. Sun was important to Defendants' case. Third, Defendants were able to (and did) play testimony from Dr. Sun's deposition. For the foregoing reasons, the Court denies Defendants' request for a new trial predicated on its inability to call Dr. Sun as a live witness.

2. Documents Subject to Defendants' Motions *in Limine*

Prior to trial, Defendants filed a motion *in limine* seeking to prevent "Plaintiff from referencing any purported copying or studying of Plaintiff's patents or products," including "argument, evidence, or testimony of alleged copying or studying of Plaintiff's products or patents unless and until Defendants present an obviousness defense at trial, including in opening statements." D.I. 313-11⁵ at 164 (Defendants' motion *in limine* No. 2). Relevant here, Defendants sought to exclude PTX-12, PTX-13, PTX-16, PTX-50, and PTX-278, among others. *Id.* The Court granted-in-part and denied-in-part that motion *in limine*. See D.I. 325 at 7. In so doing, it concluded that "that Plaintiff may introduce evidence of copying if Defendants raise either an

⁵ Citations to D.I. 313-11 are to its ECF pagination.

obviousness defense, a non-enablement defense, or both.” *Id.* at 8. Moreover, it stated that, “if Plaintiff seeks to introduce evidence of copying, Plaintiff shall prepare an appropriate limiting instruction in connection with that use for the Court’s consideration.” *Id.* (citation omitted). Defendants ultimately dropped their obviousness and enablement defenses prior to trial. *See* D.I. 359 at 15.

PTX-12, PTX-13, PTX-16, and PTX-50. On the day before trial, “[Plaintiff] informed [Defendants] that it would seek to admit PTX-12, PTX-13, PTX-16, and PTX-50, in redacted form, along with related testimony, despite the [Court’s motion *in limine*] ruling.” D.I. 359 at 16 (citation omitted). The Court permitted Plaintiff to admit the redacted documents. *See* Tr. at 6:22-7:1 (PTX-12) (“[A]s redacted, this document doesn’t implicate copying; rather, the document discusses Neapco’s efforts to tune liners for shell modes, thus the exhibit appears relevant to rebut Neapco’s position that it did not tune for shell modes when the work was done.”), 7:6 (PTX-13), 7:14-15 (PTX-50). The Court also permitted Defendants to introduce the documents in full if it believed the redactions were prejudicial. *See* Tr. at 7:2-4. As for PTX-16, the Court permitted admission because the document referred to Defendants’ propshaft testing data. *See* Tr. at 7:23-24.

Defendants contend that admission of the redacted documents badly prejudiced Defendants, “who relied on the Court’s order in deciding to forego [their] obviousness and enablement defenses.” D.I. 359 at 16. Defendants further contend that admission of the redacted versions of the redacted documents “exacerbated the prejudice by inviting speculation about the redactions, including speculation that the redacted text suggests a nefarious motive by [Defendants].” *Id.* The Court is not persuaded. The documents were relevant to issues to be proved at trial (namely, infringement), and the redactions sufficiently ameliorated the prejudice, if

any, to Defendants. Additionally, as for Defendants' claim that admission of the redacted versions "exacerbated" prejudice, the Court is similarly not persuaded, given that Defendants were presented the opportunity to cure any perceived prejudice by admitting the documents in full.

PTX-278. As for PTX-278, Defendants claim that Plaintiff "sought to publish and admit PTX-278 during its cross of Mr. Wehner, to which [Defendants] objected." D.I. 359 at 16. When Defendants objected, Plaintiff quickly moved on from PTX-278, and did not return to it during the trial. Tr. at 559:1-16. Though Plaintiff's counsel made a reference PTX-278 during its closing statement, the Court is not persuaded that this reference made it "reasonably probable" that the jury's verdict was impacted. *See Fineman v. Armstrong World Indus., Inc.*, 980 F.2d 171, 207 (3d Cir. 1992).

For the foregoing reasons, the Court denies Defendants' request for a new trial predicated on admission of or reference to documents excluded by the Court's ruling on Defendants' second motion *in limine* that were later admitted during trial.

3. Closing Argument

Defendants next contend that Plaintiff made "attorney arguments that were unsupported by the record evidence, which warrants a new trial." D.I. 359 at 16-17. However, the Court instructed the jury that any such "attorney arguments" were not evidence. Tr. at 789:6-8. "It is well established that, absent extraordinary circumstances, jurors are presumed to follow the instructions given them by the court." *Glenn v. Wynder*, 743 F.3d 402, 407 (3d Cir. 2014) (collecting cases). In addition, Defendants did not object to the remarks during Plaintiff's closing argument. *See Murray v. Fairbanks Morse*, 610 F.2d 149, 152 (3d Cir. 1979) ("Counsel's failure to object precludes him from seeking a new trial on the grounds of the impropriety of opposing counsel's closing remarks."). In any event, the Court is not persuaded that the statements cited by

Defendants are improper such that a new trial is warranted. Thus, the Court denies Defendants' request for a new trial on this basis.

4. Confusion of the Jury

Defendants contend that a new trial is warranted because "[Plaintiff] also confused the jury about Dr. Rahn's test results and [Defendants'] arguments relating thereto." D.I. 359 at 17. Defendants assert that, during trial, they "established that Dr. Rahn's measured frequencies differed significantly from GM's in-vehicle testing." *Id.* (citation omitted). Next, Defendants claim that Plaintiff made improper statements to the jury that "Dr. Rahn's results differed from GM's frequency targets because GM based its targets on computer modeling." *Id.* (citing Tr. at 679:25-680:11). The first portion of testimony that Defendants cite is drawn from Dr. Rahn's testimony:

Q. Did you hear Mr. Becker criticize you because the results of your physical test differed from the results of computer modeling?

A. Yes, I did hear that.

Q. Now, in your opinion, was that a fair criticism?

A. No.

Q. Why not?

A. Well, as I said, those numbers from GM were part of the finite element simulation early in the design process. I tested the actual final manufactured propshafts, so it's – as I said in my cross before, it's apples and oranges.

Q. Thank you, Dr. Rahn.

Tr. at 679:25-680:12; *see also* Tr. at 315:21-317:2 (Dr. Rahn, testifying in reference to PTX-44 that he believed it discussed computer modeling). Having reviewed the relevant statements and testimony, the Court finds that they were not improper. Moreover, Defendants did not object to

this exchange. The latter statement to which Defendants take issue is drawn from Plaintiff's rebuttal during the parties' closing statements:

I do want to talk about the criticisms of Dr. Rahn have thoroughly been about comparing computer simulation numbers to actual physical testing. Those are apples and oranges, and criticizing Dr. Rahn because his physical testing doesn't match up with GM's computer simulation is an improper criticism.

Tr. at 784:4-9. This latter statement appears to reference the "apples and oranges" testimony quoted above. Ultimately, while Defendants claim that Dr. Rahn was wrong in his interpretation of the underlying documents regarding the frequency targets, the Court finds that this factual question presented an issue for the cross-examination of Dr. Rahn, at most, rather than a reason for the Court to grant a new trial, and that the relevant attorney argument was not unsupported by the trial record. In addition, as set forth above, the jury was instructed that attorney argument is not to be considered evidence. For the foregoing reasons, the Court denies Defendants' request for a new trial on this basis.

5. Written Description

Defendants contend that the jury's verdict on written description is "against the clear weight of the evidence." D.I. 359 at 18. The Court disagrees. "The written description 'test requires an objective inquiry into the four corners of the specification from the perspective of a person of ordinary skill in the art.'" *Mondis Tech. Ltd. v. LG Elecs. Inc.*, 149 F.4th 1291, 1300 (Fed. Cir. 2025) (quoting *Ariad Pharms., Inc. v. Eli Lilly & Co.*, 598 F.3d 1336, 1351 (Fed. Cir. 2010) (en banc). "A specification adequately describes an invention when it 'reasonably conveys to those skilled in the art that the inventor had possession of the claimed subject matter as of the filing date.'" *Seagen Inc. v. Daiichi Sankyo Co., Ltd.*, 160 F.4th 1322, 1329 (Fed. Cir. 2025)

(quoting *Ariad Pharms.*, 598 F.3d at 1351). Defendants bear the burden of demonstrating a lack of written description by clear and convincing evidence. *See Mondis Tech. Ltd.*, 149 F.4th at 1297.

Defendants assert that admissions by the inventors made years after the filing of the '911 Patent show that “the inventors themselves did not possess the full scope of the claimed invention as of the time of the patent application.” D.I. 359 at 18. Plaintiff opposes, asserting that Defendants fail to address what the specification does disclose and improperly rely upon evidence after the '911 Patent priority date. D.I. 372 at 16-17. Thus, Plaintiff claims that a new trial is not warranted. *See id.* The Court agrees with Plaintiff that a new trial is not warranted on this basis. In general, “evidence illuminating the state of the art subsequent to the priority date is not relevant to written description.” *Amgen Inc. v. Sanofi*, 872 F.3d 1367, 1373-74 (Fed. Cir. 2017) (citing *Ariad*, 598 F.3d at 1355). In their opening brief, however, Defendants rely on evidence from after the filing of the '911 Patent and do not address the specification of the '911 Patent. *See* D.I. 359 at 18. Ultimately, the Court finds that Defendants have not met their burden and denies their request for a new trial on written description.

6. Indefiniteness

Defendants contend that “[t]he jury’s indefiniteness verdict is also against the clear weight of the evidence.” D.I. 359 at 19 (citation omitted). The Court disagrees. “A patent is indefinite ‘if its claims, read in light of the specification delineating the patent, and the prosecution history, fail to inform, with reasonable certainty, those skilled in the art about the scope of the invention.’” *Ironburg Inventions Ltd. v. Valve Corp.*, 64 F.4th 1274, 1284 (Fed. Cir. 2023) (quoting *Nautilus, Inc. v. Biosig Instruments, Inc.*, 572 U.S. 898, 904 (2014)). “Moreover, any fact critical to a holding on indefiniteness . . . must be proven by the challenger by clear and convincing evidence.”

Id. (quoting *Grace Instrument Indus., LLC v. Chandler Instruments Co.*, 57 F.4th 1001, 1008 (Fed. Cir. 2023)).

According to Defendants, “[t]he evidence established that there are many ways and conditions under which to measure natural frequencies and damping, all which lead to different results that could mean the difference between infringement and non-infringement.” D.I. 359 at 19 (citations omitted). Defendants then string cite a series of exhibits and testimony, but do not explain how the cited evidence meets Defendants’ burden on indefiniteness. *See id.* Plaintiff opposes, claiming that “[Defendants] string cite[] eight exhibits and several pages of trial testimony, but makes no real effort to explain how that evidence establishes indefiniteness, let alone how the jury’s determination that [Defendants] failed to prove indefiniteness is against the clear weight of the evidence.” D.I. 372 at 17; *cf. Chervon (HK) Ltd. v. One World Techs., Inc.*, C.A. No. 19-1293-GBW, 2025 WL 2630480, at *10 (D. Del. Feb. 5, 2025) (“Judges are not like pigs, hunting for truffles buried in briefs.” (cleaned up)). As Plaintiff observes, the jury heard evidence that the conditions “seemingly identified by [Defendants]” would lead to the same result (except for temperature), albeit with variability between tests. D.I. 372 at 18; *see also id.* at 18-19 (collecting testimonial and documentary evidence regarding testing on bench versus in-vehicle, testing with an impact hammer versus a shaker, the number of accelerometers, and whether the vehicle was set to drive or coast). Ultimately, the Court finds that Defendants have not met their burden and denies their request for a new trial on indefiniteness.

C. The Court Denies Defendants’ Request for a New Trial on Damages or, in the Alternative, Remittitur

“A jury’s decision with respect to an award of damages must be upheld unless the amount is grossly excessive or monstrous, clearly not supported by the evidence, or based only on speculation or guesswork.” *Lucent*, 580 F.3d at 1310 (cleaned up). During trial, Plaintiff’s expert,

Mr. John Hansen, testified that a \$7 to \$10 per unit royalty rate would be appropriate, applying the *Georgia-Pacific* factors.⁶ Tr. at 361:10-367:16. “[T]he standard *Georgia-Pacific* reasonable royalty analysis takes account of the importance of the inventive contribution in determining the royalty rate that would have emerged from the hypothetical negotiation.” *Exmark Mfg. Co. Inc. v. Briggs & Stratton Power Prods. Grp., LLC*, 879 F.3d 1332, 1349 (Fed. Cir. 2018) (citation omitted); *Sprint Commc’ns Co., L.P. v. Time Warner Cable, Inc.*, 760 F. App’x 977, 983 (Fed. Cir. 2019) (noting that “the objective of apportionment can be achieved in different ways, one of which is through the jury’s determination of an appropriate royalty by applying the so-called *Georgia-Pacific* factors, under proper instructions embodying apportionment principles” (collecting cases)).

Mr. Hansen testified that he analyzed “each” factor, and that he found certain factors to be the “most instructive.” Tr. at 363:11-15. To support his conclusion on reasonable royalties, Mr. Hansen considered “the [\$]24.57 that [Plaintiff] would have to consider the consequences of granting a license, the \$6.54 profit improvement, the \$8 to [\$]11.45 of cost savings, as well as value of infringing use of [\$]11.94.” Tr. at 366:8-12. Furthermore, Mr. Hansen grounded his analysis within factors of the *Georgia-Pacific* framework. See Tr. at 363:16-367:6 (addressing numerous *Georgia-Pacific* factors within the context of the record). These analyses demonstrate a reasonable attempt by Mr. Hansen to determine the value of the patented invention itself within the context of the *Georgia-Pacific* framework. The jury awarded a royalty rate of \$10 per unit, consistent with Mr. Hansen’s analysis.

⁶ See generally *Georgia-Pac. Corp. v. U.S. Plywood Corp.*, 318 F. Supp. 1116 (S.D.N.Y. 1970).

Defendants contend that the jury's damages award "was against the clear weight of the evidence and contrary to well-established damages principles." D.I. 359 at 19. According to Defendants, Plaintiff's expert erred by basing "his royalty rate on the profit for the entire propshaft (not just the liner)," without providing further "evidence" that the patented method drove demand. *Id.* (citing Tr. at 363:16-364:14). The Court disagrees. As stated above, Mr. Hansen's analysis appears consistent with the relevant *Georgia-Pacific* factors and ordinary damages apportionment principles. Coupled with the Court's jury instructions on damages, which made clear the importance of valuing the invention itself, *see* Tr. at 824:11-826:16, the Court is not persuaded that the jury's verdict is "grossly excessive or monstrous, clearly not supported by the evidence, or based only on speculation or guesswork." *Lucent*, 580 F.3d at 1310 (citation omitted).

Defendants briefly advance two other bases for a new trial, or, in the alternative, remittitur: first, that Plaintiff's witnesses "offered conclusory testimony that [Plaintiff] made hundreds of millions of dollars of sales of propshafts practicing the invention"; and second, that Mr. Hansen "ignored the impact of size on the amount of profit" resulting from the difference in size of the larger propshafts in his incremental profit analysis. D.I. 359 at 20. As for both bases, the Court finds that Defendants have not adequately described how these alleged "errors" warrant a new trial on damages or remittitur. Rather, they seem like issues properly addressed during cross-examination. For the foregoing reasons, the Court denies Defendants' request for a new trial on damages.

IV. CONCLUSION

For the foregoing reasons, Defendants' Motion is DENIED.