

**IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF NORTH CAROLINA
CHARLOTTE DIVISION**

ELECTROLYSIS PREVENTION
SOLUTIONS LLC,

Plaintiff,

v.

DAIMLER TRUCKS NORTH AMERICA
LLC,

Defendant.

Civil Action No.: 3:21-cv-00171-RJC-DCK

**DEFENDANT DAIMLER TRUCKS NORTH AMERICA LLC'S
AMENDED INVALIDITY CONTENTIONS**

Pursuant to Local Patent Rules 3.3, 3.4 and 3.6 and the Court's Post-Claim Construction Scheduling Order (Dkt. No. 46), Defendant Daimler Trucks North America LLC ("DTNA") hereby provides its Amended Invalidity Contentions. DTNA's contentions are made with the benefit of limited discovery and are based on DTNA's best good faith understanding of Plaintiff Electrolysis Prevention Solutions LLC's ("EPS") Initial Infringement Contentions, served August 2, 2021 and Amended Infringement Contentions Chart, served June 3, 2022. DTNA continues to pursue discovery and to investigate and analyze the prior art. DTNA reserves the right to modify, amend, and/or supplement these Amended Invalidity Contentions based on additional information obtained through further investigation and discovery or in light of any and all additional claim constructions by the Court. Finally, DTNA's submission of amended contentions is not intended and should not be construed as a waiver of any claim construction argument or non-infringement position.

To the extent that these Amended Invalidity Contentions rely on or otherwise embody particular constructions of terms or phrases in the asserted claims¹ that have not already been construed by the Court, DTNA is not proposing any such constructions as proper constructions of those terms or phrases. For purposes of these Amended Invalidity Contentions, DTNA may adopt alternative, and even inconsistent, claim construction positions for any terms or phrases in the asserted claims that have not already been construed by the Court. In particular, certain of these Amended Invalidity Contentions, including the attached charts, may be based on claim constructions and/or applications of claim constructions that appear to underlie Plaintiff’s Initial and Amended Infringement Contentions. DTNA does not concede that Plaintiff’s apparent constructions and applications are proper and may contest any such constructions and applications.

Plaintiff asserts that each asserted claim is entitled to a priority date of December 8, 2008, the filing date of U.S. Provisional Application No. 61/120,296. The asserted patent is a reissue of U.S. Patent No. 8,236,145, the non-provisional application for which was filed on December 7, 2009. The reissue application was filed on August 5, 2014. Each asserted claim was first added to the reissue application in 2018, and the specification was amended after the filing date of the reissue application. DTNA reserves the right to challenge whether each asserted claim is entitled to a priority date of December 8, 2008, December 7, 2009, and/or August 5, 2014.

In addition to the invalidity grounds set forth below, DTNA incorporates by reference any invalidity grounds set forth in its pleadings, its written discovery responses and supplements, its claim construction briefs, other grounds that are discovered (e.g., via third party discovery), etc.

¹ Plaintiff agreed to withdraw its assertion of claim 43 on December 15, 2021. See Dkt. No. 32 at 1 n. 1 (“Claim 43 is no longer being asserted in this case.”). However, when Plaintiff amended its infringement contentions on June 3, 2022, it once again asserted claim 43. Out of an abundance of caution and reserving all rights, DTNA has included invalidity positions for claim 43 here.

I. Identification of Prior Art for U.S. Patent No. RE47,494 (“the ’494 patent”)

Pursuant to P.R. 3.3(A), DTNA identifies the prior art that anticipates and/or renders obvious the asserted claims of the ’494 patent. Each of these references has been produced or will be made available for inspection:

PATENTS AND PATENT PUBLICATIONS

Number	Issue/Pub. Date	Inventor(s)	Country of Origin
WO2003100337A2 (“Godefroy WO’337”)	December 4, 2003	Godefroy	France
AU2006201202A1 (“Hopkins AU’202”)	October 12, 2006	Hopkins	Australia
US Patent No. 7,285,190 (“Martin ’190”)	October 23, 2007	Martin	United States
EP1146311A1 (“Ozaki EP’311”)	October 17, 2001	Ozaki	Japan
JPH06272069 (A) (“Masayuki JP’2069”)	September 27, 1994	Masayuki	Japan
U.S. Patent No. 5,465,783 (“O’Connor ’783”)	November 14, 1995	O’Connor	United States
U.S. Patent No. 2,468,357 (“Brown ’357”)	April 26, 1949	Brown	United States
U.S. Patent No. 5,512,149 (“MacKenna ’149”)	April 30, 1996	MacKenna	United States
U.S. Patent No. 5,292,595 (“Yamauchi ’595”)	March 8, 1994	Yamauchi	United States

PRINTED PUBLICATIONS

Title	Pub. Date	Author/Publisher
“Development of Aluminum Radiators Using the Nocolok Brazing Process — Corrosion Resistance of New Aluminum Radiators by Applying a Nocolok Brazing Process.”	1987	Ando, Yoichi, et al. <i>SAE Transactions</i> , vol. 96, SAE International, 1987, pp. 611–20.
“Vacuum Brazed Aluminum Radiator for Ford Tempo/Topaz” (“1986 SAE Paper”)	1986	Park, K., Barkley, J., and Woody, J., SAE Technical Paper 860644, 1986

In addition to the patents and printed publications identified above, DTNA identifies the following products that were known, used, offered for sale and/or sold in the United States prior

to the claimed invention of the '494 patent. These products may be prior art under §§ 102 and/or 103.²

PRIOR ART PRODUCTS

Product	Date of First Use, Sale, or Disclosure	Person Making Use, Sale, or Disclosure
2005 Freightliner Columbia Radiator ("2005 Behr Radiator")	2005 ³	Behr Heat Transfer Systems, Inc. and/or DTNA
Mercury Topaz Radiator	1991	Ford Motor Company and/or JCI
Ford Tempo Radiator ⁴	1985	Ford Motor Company

II. Anticipation and Obviousness

DTNA identifies the following prior art as references that anticipate and/or render obvious the asserted claims of the '494 patent under 35 U.S.C. §§ 102 and 103. DTNA's contention that the prior art references may be combined to render the asserted claims of the '494 patent obvious under 35 U.S.C. § 103 is not an admission or suggestion that the references do not independently anticipate or render obvious the asserted claims. Full citations and reference names for the anticipating prior art references are listed above. Exemplary citations to obviousness combinations

² DTNA provides this information on reasonable belief and current information. DTNA reserves the right to further substantiate these activities through further investigation and discovery, including third-party discovery.

³ On information and belief, Behr made and sold invalidating radiators in the United States at least as early as 2005 and continued to do so for a number of years thereafter. To the extent one or more of the asserted claims are not entitled to a priority date of December 8, 2008, December 7, 2009, and/or August 5, 2014, DTNA reserves the right to assert one or more later model Behr radiators as intervening prior art to invalidate any such asserted claims.

⁴ On information and belief, the 1991 Mercury Topaz radiator is representative of numerous Mercury Topaz and Ford Tempo radiators referenced in the 1986 SAE Paper starting with model year 1984, including 1985 Ford Tempo radiators. DTNA reserves the right to assert one or more later model Topaz and/or Tempo radiators as prior art to invalidate the asserted claims.

are contained in each chart produced concurrently. See **Exhibits A-K**. To the extent applicable,

DTNA identifies specific motivations to combine references in each chart. *Id.*

Ex.	Reference(s)	Claim(s)
A	§ 102: Godefroy WO'337	25, 26, 27, 29, 31, 34, 37 , 42, 43, 45
	§ 103: Godefroy WO'337 alone in view of knowledge of a person of ordinary skill in the art ("POSITA")	25, 26, 27, 29, 31, 32, 34-36, 37 , 42, 43, 45-47
	§ 103: Godefroy WO'337 in view of O'Connor '783	32
	§ 103: Godefroy WO'337 in view of Hopkins AU'202	32
	§ 103: Godefroy WO'337 in view of Masayuki JP'2069	33, 35, 36, 46, 47
	§ 103: Godefroy WO'337 in view of Brown '357	35, 36, 46, 47
	§ 103: Godefroy WO'337 in view of MacKenna '149	33
B	§ 102: Ozaki EP'311	25, 26, 27, 29, 31-35, 37 , 42, 43, 45, 46
	§ 103: Ozaki EP'311 alone in view of knowledge of a POSITA	25, 26, 27, 29, 31-36, 37 , 42, 43, 45-47
	§ 103: Ozaki EP'311 in view of Masayuki JP'2069	36, 47
	§ 103: Ozaki EP'311 in view of Brown '357	36, 47
C	§ 102: Hopkins AU'202	25, 26, 27, 31, 32, 34, 35, 37 , 42, 43, 45, 46
	§ 103: Hopkins AU'202 alone in view of knowledge of a POSITA	25, 26, 27, 31, 32, 34-36, 37 , 42, 43, 45-47
	§ 103: Hopkins AU'202 in view of Masayuki JP'2069	33, 36, 47
	§ 103: Hopkins AU'202 in view of Brown '357	36, 47
	§ 103: Hopkins AU'202 in view of Ozaki EP'311	33
	§ 103: Hopkins AU'202 in view of Godefoy WO'337	33
	§ 103: Hopkins AU'202 in view of MacKenna '149	33
D	§ 103: Masayuki JP'2069 alone in view of knowledge of a POSITA	25, 26, 27, 29, 31-36, 37 , 42, 43, 45-47
	§ 103: Masayuki JP'2069 in view of O'Connor '783	25, 26, 27, 29, 31-36, 37 , 42, 43, 45-47
	§ 103: Masayuki JP'2069 in view of Ozaki EP'311	25, 26, 27, 29, 31-36, 37 , 42, 43, 45-47
	§ 103: Masayuki JP'2069 in view of Hopkins AU'202	32, 34, 45
	§ 103: Masayuki JP'2069 in view of (O'Connor '783 or Ozaki EP'311) and Hopkins AU'202	32, 34, 45
	§ 103: Masayuki JP'2069 in view of MacKenna '149	37 , 42, 43, 45-47
	§ 103: Masayuki JP'2069 in view of (O'Connor '783 or Ozaki EP'311) and MacKenna '149	37 , 42, 43, 45-47
E	§102: O'Connor '783	25, 26, 27, 29, 31-36, 37 , 42, 43, 45-47
	§ 103: O'Connor '783 in view of Masayuki JP'2069	25, 26, 27, 29, 31-36, 37 , 42, 43, 45-47

Ex.	Reference(s)	Claim(s)
	§ 103: O'Connor '783 in view of 1986 SAE Paper	25, 26, 27, 29, 31-36, 37, 42, 43, 45-47
	§ 103: O'Connor '783 in view of 1987 SAE Paper	25, 26, 27, 29, 31-36, 37, 42, 43, 45-47
	§ 103: O'Connor '783 in view of Yamauchi '595	25, 26, 27, 29, 31-36, 37, 42, 43, 45-47
	§ 103: O'Connor '783 in view of (Masayuki JP'2069, 1986 SAE Paper, 1987 SAE Paper, or Yamauchi '595) and Ozaki EP'311	33, 35, 46
	§ 103: O'Connor '783 in view of (Masayuki JP'2069, 1986 SAE Paper, 1987 SAE Paper, or Yamauchi '595) and Godefroy WO'337	33
	§ 103: O'Connor '783 in view of (Masayuki JP'2069, 1986 SAE Paper, 1987 SAE Paper, or Yamauchi '595) and Brown '357	35, 36, 46, 47
	§ 103: O'Connor '783 in view of (Masayuki JP'2069, 1986 SAE Paper, 1987 SAE Paper, or Yamauchi '595) and MacKenna '149	33
F	§ 103: MacKenna '149 in view of O'Connor '783	25, 26, 27, 29, 31-36, 37, 42, 43, 45-47
	§ 103: MacKenna '149 in view of Hopkins AU'202	25, 26, 27, 29, 31-36, 37, 42, 43, 45-47
	§ 103: MacKenna '149 in view of (O'Connor '783 or Hopkins AU'202) and Ozaki EP'311	33, 35, 46
	§ 103: MacKenna '149 in view of (O'Connor '783 or Hopkins AU'202) and Godefoy WO'337	33
	§ 103: MacKenna '149 in view of (O'Connor '783 or Hopkins AU'202) and Masayuki JP'2069	33, 35, 36, 46, 47
	§ 103: MacKenna '149 in view of (O'Connor '783 or Hopkins AU'202) and Brown '357	35, 36, 46, 47
G	§ 103: Martin '190 alone in view of knowledge of a POSITA	25, 26, 27, 31, 32, 34, 35, 36, 37, 42, 43, 45-47
	§ 103: Martin '190 in view of O'Connor '783	25, 26, 27, 29, 31-36
	§ 103: Martin '190 in view of Ozaki EP'311	25, 26, 27, 29, 31-36, 46
	§ 103: Martin '190 in view of Brown '357	25, 26, 27, 29, 31-36, 37, 42, 43, 45-47
	§ 103: Martin '190 in view of (O'Connor '783 or Ozaki EP'311) and Brown '357	25, 26, 27, 29, 31-36
	§ 103: Martin '190 in view of (O'Connor '783, Ozaki EP'311, or Brown '357) and MacKenna '140	29, 33
	§ 103: Martin '190 in view of (O'Connor '783 or Ozaki EP'311) and Brown '357 and MacKenna '140	29, 33
	§ 103: Martin '190 in view of (O'Connor '783, Ozaki EP'311, or Brown '357) and Masayuki JP'2069	33, 35, 46, 47

Ex.	Reference(s)	Claim(s)
	§ 103: Martin '190 in view of (O'Connor '783 or Ozaki EP'311) and Brown '357 and Masayuki JP'2069	33, 35, 46, 47
	§ 103: Martin '190 in view of (O'Connor '783, Ozaki EP'311, or Brown '357) and Godefoy WO'337	33
	§ 103: Martin '190 in view of (O'Connor '783 or Ozaki EP'311) and Brown '357 and Godefoy WO'337	33
	§ 103: Martin '190 in view of (O'Connor '783, Ozaki EP'311, or Brown '357) and Hopkins AU'202	32
	§ 103: Martin '190 in view of (O'Connor '783 or Ozaki EP'311) and Brown '357 and Hopkins AU'202	32
H	§ 102: 2005 Behr Radiator	25, 26, 27, 29, 31-36, 37, 42, 43, 45-47
	§ 103: 2005 Behr Radiator alone in view of knowledge of a POSITA	25, 26, 27, 29, 31-36, 37, 42, 43, 45-47
	§ 103: 2005 Behr Radiator view of (Osaki EP'311, O'Connor '783, or Hopkins AU'202)	34, 45
	§ 103: 2005 Behr Radiator view of (Osaki EP'311, Masayuki JP'2069, or Brown '357)	35, 46
	§ 103: 2005 Behr Radiator view of (Masayuki JP'2069 or Brown '357)	36, 47
I	§ 102: 1986 SAE Paper	25, 26, 27, 29, 31-36, 37, 42, 43, 45-47
	§ 103: 1986 SAE Paper alone in view of knowledge of a POSITA	25, 26, 27, 29, 31-36, 37, 42, 43, 45-47
	§ 103: 1986 SAE Paper in view of (Masayuki JP'2069 or Brown '357)	36, 47
J	§ 102: 1991 Topaz Radiator	25, 26, 27, 29, 31-36, 37, 42, 43, 45-47
	§ 103: 1991 Topaz Radiator alone in view of knowledge of a POSITA	25, 26, 27, 29, 31-36, 37, 42, 43, 45-47
	§ 103: 1991 Topaz Radiator in view of (Osaki EP'311, O'Connor '783, or Hopkins AU'202)	34, 45
	§ 103: 1991 Topaz Radiator in view of (Osaki EP'311, Masayuki JP'2069, or Brown '357)	35, 46
	§ 103: 1991 Topaz Radiator in view of (Masayuki JP'2069 or Brown '357)	36, 47
K	§ 102: Yamauchi '595	25, 26, 27, 29, 31-33, 37, 42, 43
	§ 103: Yamauchi '595 alone in view of knowledge of a person of ordinary skill in the art ("POSITA")	25, 26, 27, 29, 31-36, 37, 42, 43, 45-47
	§ 103: Yamauchi '595 in view of knowledge of a person of ordinary skill in the art ("POSITA") and (Ozaki EP'311, O'Connor '783, Hopkins AU'202, 1991 Topaz Radiator, 1985 Ford Temp Radiator, or 2005 Behr Radiator)	25, 26, 27, 29, 31-36, 37, 42, 43, 45-47

Ex.	Reference(s)	Claim(s)
	§ 103: Yamauchi '595 in view of Ozaki EP'311	25, 26, 27, 29, 31-35, 37, 42, 43, 45, 46
	§ 103: Yamauchi '595 in view of O'Connor '783	25, 26, 27, 29, 31-34, 37, 42, 43, 45
	§ 103: Yamauchi '595 in view of (Hopkins AU'202, 1991 Topaz Radiator, 1985 Ford Temp Radiator, or 2005 Behr Radiator)	25, 26, 27, 29, 31-33, 37, 42, 43
	§ 103: Yamauchi '595 in view of O'Connor '783 and Ozaki EP'311	25, 26, 27, 29, 31-35, 37, 42, 43, 45, 46
	§ 103: Yamauchi '595 in view of (Ozaki EP'311, O'Connor '783, Hopkins AU'202, 1991 Topaz Radiator, 1985 Ford Temp Radiator, or 2005 Behr Radiator) and (Masayuki JP'2069 or Brown '357)	35, 36, 46, 47
	§ 103: Yamauchi '595 in view of (1991 Topaz Radiator, 1985 Ford Temp Radiator, or 2005 Behr Radiator) and Hopkins AU'202	34, 45

The references identified in each § 103 combination are each analogous prior art and are, therefore, properly combinable. Specifically, each of the above references discloses a radiator and/or electrolysis prevention device having a sacrificial anode, *i.e.* a metal that protects the radiator from the effects of corrosion. Therefore, these references provide interrelated teachings and a POSITA would look to the concepts in any of these references when seeking to solve the problems purportedly solved by the '494 patent.

In addition, a POSITA would have been motivated to combine these references in the combinations detailed above.⁵ One of skill in the art would also have been motivated to combine these reference by his or her education, knowledge, and experience; by the state of the prior art as a whole; by the nature of the problem to be solved (e.g., electrolysis prevention solutions, including for radiators in vehicles); by common sense; and by a desire to implement known technologies to provide protection from galvanic corrosion. Moreover, one of skill in the art would have been well-

⁵ The Supreme Court's holding in *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398 (2007) does not necessarily require express motivations to combine.

equipped with sufficient education, knowledge, and training to make the specific combinations with a reasonable expectation of success. Furthermore, each of the references identified above as an invalidating reference also serves as a motivation to combine these references, illustrates the state of the art as a whole, and demonstrates the likelihood of success for such combinations.

Further, Plaintiff has not identified any secondary considerations of non-obviousness. DTNA reserves the right to amend these contentions to rebut any purported secondary considerations of non-obviousness identified by Plaintiff.

III. Invalidity based on 35 U.S.C. § 112 and § 101

a. Failure to Satisfy the Written Description Requirement

The specification of the '494 patent does not provide an adequate written description to support the application of the asserted claims sought by EPS in furtherance of its infringement theories. Title 35 U.S.C. § 112 requires a patent specification to contain “a written description of the invention.” The written description “must do more than merely disclose that which would render the claimed invention obvious.” *ICU Med., Inc. v. Alaris Med. Sys., Inc.*, 558 F.3d 1368, 1377 (Fed. Cir. 2009). The written description must “clearly allow persons of ordinary skill in the art to recognize that the inventor invented what is claimed” by the time of the application filing date. *Ariad Pharm., Inc. v. Eli Lilly & Co.*, 598 F.3d 1336, 1351 (Fed. Cir. 2010) (en banc). Thus, a written description is inadequate where the claim in question exceeds the scope of what the patent discloses by (for example) omitting an attribute of the described invention from the limitations, thereby over-extending the reach of the claim. *ICU*, 558 F.3d at 1377-78; *see also Gentry Gallery, Inc. v. Berkline Corp.*, 134 F.3d 1473, 1479 (Fed. Cir. 1998) (“the scope of the right to exclude may be limited by a narrow disclosure.”). To satisfy the written description requirement, “the applicant must ‘convey with reasonable clarity to those skilled in the art that, as of the filing date

sought, he or she was in possession of the invention,’ and demonstrate that by disclosure in the specification of the patent.” *Carnegie Mellon Univ. v. Hoffmann-La Roche Inc.*, 541 F.3d 1115, 1122 (Fed. Cir. 2008) (quoting *Vas-Cath Inc. v. Mahurkar*, 935 F.2d 1555, 1563-64 (Fed. Cir. 1991)); *see also Tronzo v. Biomet, Inc.*, 156 F.3d 1154, 1159-60 (Fed. Cir. 1998) (statements in specification distinguishing prior art as inferior cannot be used to support written description of the invention). Below are a few examples of the written description deficiencies in the ’494 patent.

Asserted independent claim 25 and dependent claims 26, 27, and 31-36 do not include an anode holder requirement. However, all embodiments in the specification identify an “anode holder.” For at least this reason, claims 25-27 and 31-36 do not satisfy the written description requirement.

Asserted independent claim 25 and dependent claims 26, 27, 29 and 31-36 may allow for a sacrificial anode external to the radiator so long as it is within 10 inches of the hot liquid inlet of the radiator. However, all embodiments in the specification identify a sacrificial anode internal to the radiator. For at least this reason, claims 25-27, 29 and 31-36 do not satisfy the written description requirement.

Asserted independent claims 25 and 37⁶ and dependent claims 26, 27, 29, 31-36, 42, 43 and 45-47 do not expressly require that the “sacrificial anode” preferentially corrode by acting as an anode (to prevent corrosion caused by electrolysis.) To the extent the application of the claims sought by EPS in furtherance of its infringement theories cover corrosion prevention by causes other than by electrolysis, the specification does not contain written description support for such a “sacrificial anode.” All embodiments in the specification require the corrosion protection device

⁶ The preamble of independent claim 37 recites, “[a]n electrolysis prevention device,” which may limit claim 37 and its dependent claims. To date, the Court has not construed the preamble of claim 37 to determine whether it is limiting.

to prevent corrosion caused by electrolysis. For at least this reason, claims 25, 26, 27, 29, 31-36, 37, 42, 43, 45-47 do not satisfy the written description requirement.

The scope of asserted independent claims 25 and 37 and dependent claims 26, 27, 29, 31-36, 42, 43 and 45-47 include embodiments with a sacrificial anode that is a piece of metal used to protect another piece of metal by preferentially corroding, where the “another piece of metal” is not part of the radiator. The specification does not contain any written description support for a sacrificial anode that would preferentially corrode a metal in the described system that is not a metal comprising the radiator. For at least this reason, claims 25, 26, 27, 29, 31-36, 37, 42, 43, 45-47 do not satisfy the written description requirement.

Asserted independent claims 25 and 37 (and each asserted dependent claim) require a sacrificial anode. To the extent the Court’s construction of “sacrificial anode” and/or Plaintiff’s application of that construction encompasses a “sacrificial layer” (e.g., as described at column 2, lines 14-23 of the ’494 patent) as opposed to a “separate” or “discrete” anode (e.g., as described and shown throughout the rest of the ’494 patent specification), then each asserted claim is invalid for failing to meet the written description requirement. The inventor cannot rely on a portion of the specification that distinguishes prior art as inferior (column 2, lines 14-36 of the ’494 patent). *See e.g., Tronzo*, 156 F.3d at 1159-60. In other words, if the specification indicates that the inventor only invented a single species (e.g., a separate anode), then the specification provides inadequate support for a claim directed to the genus (e.g., a separate anode and a layered anode) under the first paragraph of Section 112. *Id.*; *see also LizardTech, Inc. v. Earth Resource Mapping, Inc.*, 424 F.3d 1336, 1344-47 (Fed. Cir. 2005). For at least this reason, claims 25, 26, 27, 29, 31-36, 37, 42, 43, 45-47 do not satisfy the written description requirement.

b. Failure to Satisfy the Enablement Requirement

The specification of the '494 patent does not provide enablement to a person skilled in the art to support the application of the asserted claims sought by EPS in furtherance of its infringement theories. Title 35 U.S.C. § 112 requires a patent specification to contain “full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same.” Enablement requires that the specification, at the time the application was filed, must teach one skilled in the art how to make and/or use the full scope of the claimed invention without undue experimentation. *In re Wright*, 999 F.2d 1557, 1562 (Fed. Cir. 1993). “To be enabling, the specification of a patent must teach those skilled in the art how to make and use the full scope of the claimed invention without undue experimentation.” *Trs. of Bos. Univ. v. Everlight Elecs. Co.*, 896 F.3d 1357, 1362 (Fed. Cir. 2018); *id.* at 1365 (“[I]f BU wanted to exclude others from what it regarded as its invention, its patent needed to teach the public how to make and use that invention.”). Below are a few examples of the enablement deficiencies in the '494 patent.

Asserted independent claims 25 and 37 and dependent claims 26, 27, 29, 31-36, 42, 43 and 45-47 do not expressly require that the “sacrificial anode” preferentially corrode by acting as an anode (to prevent corrosion caused by electrolysis.) To the extent the application of the claims sought by EPS in furtherance of its infringement theories cover corrosion prevention by causes other than by electrolysis, the specification does not enable a person having skill in the art to make and use such a “sacrificial anode” without undue experimentation. For at least this reason, claims 25, 26, 27, 29, 31-36, 37, 42, 43, 45-47 do not satisfy the enablement requirement.

The scope and/or Plaintiff’s application of asserted independent claims 25 and 37 and dependent claims 26, 27, 29, 31-36, 42, 43 and 45-47 includes embodiments with a sacrificial anode that is a piece of metal used to protect another piece of metal by preferentially corroding,

where the “another piece of metal” is not part of the radiator. The specification does not enable a person having skill in the art to make and use, without undue experimentation, a sacrificial anode that would preferentially corrode a metal in the described system other than a metal comprising the radiator. For at least this reason, claims 25, 26, 27, 29, 31-36, 37, 42, 43, 45-47 do not satisfy the enablement requirement.

The scope and/or Plaintiff’s application of asserted independent claims 25 and 37 and dependent claims 26, 27, 29, 31-36, 42, 43 and 45-47 includes embodiments where an aluminum “sacrificial anode” preferentially corrodes in an aluminum radiator. The specification does not enable a person having skill in the art to make and use an aluminum sacrificial anode that would prevent corrosion caused by electrolysis in an aluminum radiator without undue experimentation. For at least this reason, claims 25, 26, 27, 29, 31-36, 37, 42, 43, 45-47 do not satisfy the enablement requirement.

The enablement requirement and the written description requirement are closely related, and those “two requirements usually rise and fall together.” *LizardTech*, 424 F.3d at 1344-1345. Thus, DTNA identifies and incorporates by reference here the same grounds set forth above with respect to the written description requirement. For at least this reason, claims 25, 26, 27, 29, 31-36, 37, 42, 43, 45-47 do not satisfy the enablement requirement.

c. Failure to Satisfy the Utility Requirement

The scope and/or Plaintiff’s application of the asserted claims sought by Plaintiff in furtherance of its infringement theories includes devices that lack utility. Title 35 U.S.C. § 101 requires an invention to be any “useful process, machine, manufacture, or composition of matter” or any “useful improvement thereof” in order for a patent to be obtained. “Lack of enablement and absence of utility are closely related grounds of unpatentability....If a patent claim fails to meet the utility requirement because it is not useful or operative, then it also fails to meet the how-to-

use aspect of the enablement requirement.” *Process Control Corp. v. HydReclaim Corp.*, 190 F.3d 1350, 1357-58 (Fed. Cir. 1999). *See also In re '318 Patent Infringement Litig.*, 583 F.3d 1317, 1323-24 (Fed. Cir. 2009) (“Enablement is closely related to the requirement for utility....The utility requirement prevents mere ideas from being patented.”) and *EMI Grp. V. Cypress Semiconductor Corp.*, 268 F.3d 1342, 1348 (Fed. Cir. 2001) (“A claimed invention having an inoperable or impossible claim limitation may lack utility under 35 U.S.C. § 101 and certainly lacks an enabling disclosure under 35 U.S.C. § 112.”). DTNA identifies lack of utility under § 101 as a further ground of invalidity for the asserted claims for at least the same reasons as the grounds identified above based on lack of enablement, and hereby incorporates by reference those grounds here. For example, to the extent the asserted claims encompass a radiator or device in which an aluminum “sacrificial anode” preferentially corrodes in an aluminum radiator, on information and belief the asserted claims are inoperable and lack utility and are therefore invalid under Section 101.

d. Failure to Satisfy the Definiteness Requirement

To some extent, the indefiniteness grounds identified in DTNA’s Preliminary Invalidity Contentions have been addressed in the claim construction process, and DTNA reserves the right to address indefiniteness on appeal. However, other indefiniteness grounds were not addressed during claim construction, such as those relating to claim 43 which was purportedly withdrawn during the claim construction process (*see* footnote 1). Moreover, there may be additional claim constructions later in this case if such disputes arise. For at least these reasons, DTNA incorporates by reference here the claim construction record in this case, to the extent it relates to indefiniteness, and restates the indefiniteness positions below from its Preliminary Invalidity Contentions.

Pursuant to P.R. 3.3(D), DTNA provides the following grounds of invalidity under 35 U.S.C. § 112, ¶ 2 and/or 35 U.S.C. § 112(b) which requires that a patent claim “particularly point[]

out and distinctly claim[] the subject matter which the applicant regards as his invention.” “[A] patent is invalid for indefiniteness 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.” *Nautilus, Inc. v. Biosig Instrs., Inc.*, 572 U.S. 898, 901 (2014).

The asserted claims identified below fail to satisfy the requirements of 35 U.S.C. § 112, ¶ 2 and/or 35 U.S.C. § 112(b) because each of the identified terms fail to inform, with reasonable certainty, those skilled in the art about the scope of the invention. As a result, the asserted claims identified in the following table are invalid as indefinite.

Indefinite Term	Asserted claims of '494 patent
“installed within 10 inches of the hot liquid inlet of the radiator”	25, 26, 27, 29, 31-36
“adapted for installation in an engine radiator within 10 inches of a hot liquid inlet to the engine radiator”	37, 42, 43, 45-47
“essentially of an active metal”	26-27
“made of an active metal”	37, 42-43, 45-47
“the hot coolant inlet”	43

The phrase “installed within 10 inches of the hot liquid inlet of the radiator” renders independent claim 25 and its dependent claims indefinite because “the hot liquid inlet of the radiator” is not a single point from which a distance can be measured. As a result, one of skill in the art is not informed with reasonable certainty of the scope of the invention.

The phrase “adapted for installation in an engine radiator within 10 inches of a hot liquid inlet to the engine radiator” renders independent claim 37 and its dependent claims indefinite because “a hot liquid inlet to the engine radiator” is not a single point from which a distance can be measured. As a result, one of skill in the art is not informed with reasonable certainty of the scope of the invention.

The phrase “essentially of an active metal” renders claims 26-27 indefinite because it does not inform, with reasonable certainty, those skilled in the art of the portion of the sacrificial anode which must be an active metal.

The phrase “made of an active metal” renders independent claim 37 and its dependent claims indefinite because it does not inform, with reasonable certainty, those skilled in the art of the portion of the sacrificial anode which must be an active metal.

The phrase “the hot coolant inlet” renders claim 43 indefinite because there is no antecedent basis.

IV. Document Production

The only accused product charted by EPS pursuant to P.R. 3.1(C) is Part No. A05-34822-000. Pursuant to P.R. 3.4(A), DTNA has made that part available for inspection, and it is sufficient to show the operation of any aspects or elements identified in plaintiff’s P.R. 3.1(C) charts. Additionally, documents that may relate to Part No. A05-34822-000 have been produced at DTNA00000001 to DTNA00000049.

Pursuant to P.R. 3.4(B), DTNA has produced a copy of each item of prior art identified pursuant to P.R. 3.3(A) that does not appear in the file history of the patent at issue at DTNA00000050 - DTNA00000221. In addition, images of certain prior art products have been produced at DTNA00000222 - DTNA00000346. To the extent any such item is not in English, an English translation of the portion(s) relied upon has been produced.

Dated: July 5, 2022

Respectfully submitted,

/s/ Patrick A. Lujin

Patrick A. Lujin (admitted *Pro Hac Vice*)

B. Trent Webb (admitted *Pro Hac Vice*)

Mary Jane Peal (admitted *Pro Hac Vice*)

Lydia C. Raw (admitted *Pro Hac Vice*)
SHOOK, HARDY & BACON L.L.P.
2555 Grand Boulevard
Kansas City, Missouri 64108
T: 816.474.6550
F: 816.421.5547
bwebb@shb.com
plujin@shb.com
mpeal@shb.com
lraw@shb.com

Fiona A. Bell (admitted *Pro Hac Vice*)
SHOOK, HARDY & BACON L.L.P.
600 Travis Street, Suite 3400
Houston, TX 77002
T: 713.227.8008
F: 713.227.9508
fbell@shb.com

Jennifer K. Van Zant
North Carolina Bar No. 21280
William A. Robertson
North Carolina Bar No. 53589
BROOKS PIERCE
2000 Renaissance Plaza
230 North Elm Street
Greensboro, NC 27401
T: 336.271.3132
F: 336.232.9132
jvanzant@brookspierce.com
wrobertson@brookspierce.com

Attorneys for Defendant
Daimler Trucks North America LLC

CERTIFICATE OF SERVICE

Pursuant to the Federal Rules of Civil Procedure, I hereby certify that on July 5, 2022, I served the foregoing via electronic mail to the following:

ALBERT P. ALLAN
alallan@allaniplitigation.com
CHRISTOPHER G. GRANAGHAN
chris@nelbum.com
EDWARD R. NELSON III
ed@nbafirm.com
TIMOTHY E. GROCHOCINSKI
tim@nbafirm.com
CHARLES A. GINNINGS
austin@nbafirm.com

/s/ Dana E. Hardy