No. 2021-2348

UNITED STATES COURT OF APPEALS
FOR THE FEDERAL CIRCUIT

LKQ CORPORATION, KEYSTONE AUTOMOTIVE INDUSTRIES, INC.,

Appellants,

v.

GM GLOBAL TECHNOLOGY OPERATIONS LLC,

Appellee,

Appeal from The United States Patent and Trademark Office, Patent Trial and Appeal Board in IPR2020-00534

BRIEF OF *AMICI CURIAE* ALLIANCE FOR AUTOMOTIVE INNOVATION AND RIVIAN AUTOMOTIVE, INC. IN SUPPORT OF APPELLEE

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UNITED STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT

CERTIFICATE OF INTEREST

Case Number 2021-2348

Short Case Caption LKQ Corporation v. GM Global Technology Operations

Filing Party/Entity Amicus Curiae Alliance For Automotive Innovation and Rivian Automotive, Inc.

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Date: 10/26/2023

Signature: /s/ James R. Ferguson

Name: James R. Ferguson

1. Represented Entities. Fed. Cir. R. 47.4(a)(1).	**2. Real Party in Interest.** Fed. Cir. R. 47.4(a)(2).	**3. Parent Corporations and Stockholders.** Fed. Cir. R. 47.4(a)(3).
Provide the full names of all entities represented by undersigned counsel in this case.	Provide the full names of all real parties in interest for the entities. Do not list the real parties if they are the same as the entities. ☑ None/Not Applicable	Provide the full names of all parent corporations for the entities and all publicly held companies that own 10% or more stock in the entities. ☐ None/Not Applicable
Alliance For Automotive Innovation		None
Rivian Automotive, Inc.		No parent corporation. Amazon.com NV Investment Holdings LLC (wholly-owned subsidiary of Amazon.com, Inc.) owns 10% or more stock.

☐ Additional pages attached

4. Legal Representatives. List all law firms, partners, and associates that (a) appeared for the entities in the originating court or agency or (b) are expected to appear in this court for the entities. Do not include those who have already entered an appearance in this court. Fed. Cir. R. 47.4(a)(4).

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James R. Ferguson Mayer Brown LLP	Brian W. Nolan Mayer Brown LLP	Ryan T. Babcock Mayer Brown LLP

5. Related Cases. Other than the originating case(s) for this case, are there related or prior cases that meet the criteria under Fed. Cir. R. 47.5(a)?

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☑ None/Not Applicable ☐ Additional pages attached

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INTEREST OF THE AMICI CURIAE

Amicus Curiae The Alliance For Automotive Innovation ("AAI") is comprised of the manufacturers of nearly 98% of new cars and light trucks sold in the U.S., as well as original equipment suppliers, technology and other automotive-related companies, and trade associations. From the manufacturers producing most of the vehicles sold in the U.S. to autonomous vehicle innovators to equipment suppliers, battery producers and semiconductor makers—AAI represents the full auto industry, a sector supporting ten million American jobs and five percent of the economy.

Amicus Curiae Rivian Automotive, Inc. ("Rivian") was founded in 2009 with the thought of transitioning the world toward sustainable energy. Rivian seeks to create solutions that shift consumer mindsets and inspire other companies to fundamentally change the way they operate. To that end, the company designs, develops, manufactures, and sells electric vehicles and accessories. It offers vans, pickup trucks and sport utility vehicles, software solutions, charging products and a charging network, and vehicle repair and maintenance services. The company sells its products directly to customers in the consumer and commercial markets in North America and Europe.

Automobile manufacturers invest billions each year in new technologies and designs that are protected by U.S. patents. A robust patent system—including design

patents—is essential to support and maintain the industry's investment in automotive innovation. A clear and consistent interpretation of 35 U.S.C. § 103 as applied to design patents is vital to maintaining this system. AAI and Rivian have no personal interest in the outcome of this dispute. Their only interest is in seeking clarity and consistency in the application of obviousness law to design patents. AAI and Rivian are authorized to file this brief consistent with the order granting rehearing *en banc*. No person, party or party's counsel, other than amicus curiae or their counsel, authored this brief in whole or in part, or contributed money that was intended to fund preparing or submitting this brief.

ARGUMENT

I. INTRODUCTION

To provide context for the issues in this appeal, this Brief first describes the nature of the vehicle design process and its importance to the automotive industry. The Brief then addresses the differences between utility and design patents, showing how this Court has recognized these differences in a variety of contexts, including claim construction, infringement, anticipation and enablement. The Brief next explains why the same differences also require separate obviousness tests for utility and design patents, with the *Rosen-Durling* test providing a workable analytical framework. Finally, the Brief shows how the *Rosen-Durling* framework comports

with *KSR International Co. v. Teleflex, Inc.*, 550 U.S. 398, 415-422 (2007), citing this Court's decisions in the chemical compound cases as an instructive analogy.

II. THE NATURE AND IMPORTANCE OF VEHICLE DESIGN

The design of automotive vehicles accounts for as much as 60% of consumer purchasing decisions, thus making vehicle design a major driver of market performance.[1] Indeed, according to recent studies, vehicle design is often a primary cause of both market success and market failure in virtually every class of automotive vehicles.[2] In one oft-cited example, two sister companies co-developed a Crossover Sports Utility Vehicle with the same engine, the same platform and the same drive train. One company gave its model a more aggressive (and less appealing) styling, causing it to disappear from the market within four years,[3] while

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[1] A. Burnap, J.R. Hauser & A. Timoshenko, *Product Aesthetics: A Machine Learning Augmentation*, MARKETING SCIENCE (Nov. 2022) (*citing* R. Kreuzbauer & A.J. Malter, *Embodied Cognition and New Product Design: Changing Product Form to Influence Brand Categorization*, 22 JOURNAL OF PRODUCT INNOVATION MANAGEMENT 2:165-76 (2017)).

[2] Burnap, *supra* note 1 (*citing* H. Cho, S. Hasija & M. Sosa, *How Important is Design for the Automobile Value Chain?*, SOCIAL SCIENCE RESEARCH NETWORK (2015)); R.P. Jindal, K.R. Saramgee, R. Echambadi & S. Lee, *Designed to Succeed: Dimensions of Product Design and Their Impact on Market Share*, 80 JOURNAL OF MARKETING (4):72-89 (2016); Y. Liu, K.J. Li, H. Chen & S. Balachander, *The Effects of Products' Aesthetic Design on Demand and Marketing-Mix Effectiveness: The Role of Segment Prototypically and Brand Consistency*, 81 JOURNAL OF MARKETING (1):83-102 (2017); M. Palazzolo & F. Feinberg, *Modeling Consideration Set Substitution*, (University of Michigan Working Paper (2015)).

[3] Yale Insights, *Can AI Help Design a More Appealing Car?*, https://insights.som.yale.edu/insights/can-ai-help-design-more-appealing-car (Apr.

the other company re-launched its model with more innovative styling, resulting in a 30% price increase and a 15-year revenue stream that continues today:[4]

2005 Pontiac Aztek

2007 Buick Rendezvous

2008 Buick Enclave

As this example shows, vehicle design can sometimes spell the difference between billions of dollars in lost or gained revenue.[5] For this reason, the automotive industry invests heavily in vehicle design, committing an estimated $1.25 billion to design every new model, and up to $3 billion to re-work the design and platform of an existing vehicle.[6] This investment is necessary to support a long and often challenging creative process that can take up to five years to complete and often involves large teams of both designers and engineers.[7]

4, 2023); D. Demuro, *The Buick Rendezvous Was the Better-Looking Successful Aztek*, https://www.autotrader.com/archive/buick-rendezvous-was-better-looking-successful-aztek-281474979970896 (Oct. 28, 2019).

[4] B. Eastwood, *Artificial Intelligence Can Help Design More Appealing Cars*, MIT SLOAN IDEAS MADE TO MATTER, https://mitsloan.mit.edu/ideas-made-to-matter/artificial-intelligence-can-help-design-more-appealing-cars (Mar. 6, 2023).

[5] Yale Insights, *supra* note 3; Demuro *supra* note 3.

[6] Burnap, *supra* note 1 (*citing* B. Blonigan, C.R. Knittel & A. Soderbury, *Keeping It Fresh: Strategic Product Redesigns and Welfare*, NATIONAL BUREAU OF ECONOMIC RESEARCH (2013); G. Rubera, *Design Innovativeness and Product Sales' Evolution*, 34 MARKETING SCIENCE (1): 98-115 (2015); Yale Insights, *supra* note 3.

[7] Yale Insights, *supra* note 3.

The process typically begins with a series of preliminary sketches based on a "product plan" and market research identifying the characteristics of the target demographic.[8] After extensive refinements, the design team selects the major styling elements of the new design concept, which is then tested in focus groups (or "theme clinics") composed of would-be consumers from the target market.[9] After additional testing, the new concept is given a "packaging" review to accommodate physical constraints, such as the size and location of the engine.[10] The results of this review are then used to finalize the dimensions and proportion of the design elements.

With this information, the design team creates a digital model of the new concept, followed by a three-dimensional physical model (often made of clay) to determine if the integrated elements will meet production and other requirements.[11] Following still more modeling, testing and the construction of a prototype, the design team arrives at a final design, which is submitted to senior management for approval.

Thus, the vehicle design process combines individual design elements to create a finished product that evokes a desired response from the intended market. To illustrate, the Porsche 911 creates an image of speed and power by combining elements such as an unbroken convex curve extending from the roof of the car to

[8] S. Macey & G. Wardie, *H-Point: The Fundamentals of Car Design & Packaging,* at 38-39, Design Studio Press (2014).
[9] Yale Insights, *supra* note 3.
[10] MACEY & WARDIE, *supra* note 8, at 38-39.
[11] Yale Insights, *supra* note 3.

the rear bumper, a slightly descending curved hood, a sloped windshield, a low center of gravity, contoured fenders, a roof substantially narrower than the base of the car, circular headlights, and narrow taillights extending the width of the car:

On the other hand, the Jeep Wrangler uses far more angular lines to create a rugged image of outdoor adventure, combining individual elements such as a trapezoidal wheel arch, a seven-slot grille, a largely vertical windshield, a flat roof, a high center of gravity, and dramatically rounded fenders that extend out from the side panels of the car:

Finally, the Honda CR-V features more rounded lines and curvature, using a gently "swept-back" rear window, a sloping windshield, a strongly accented rear cargo area, a rounded and relatively short front end, and understated fenders to convey a more modern, accessible and versatile crossover Sports Utility Vehicle:

In each of these cases, the vehicle design combines individual design elements to create an innovative visual impression that enhances the appeal of the vehicle to its target market. The unique aspects of this creative process—and its final results—are directly relevant to the test used to assess the obviousness of design patents.

III. THIS COURT HAS TREATED UTILTY AND DESIGN PATENTS DIFFERENTLY IN A VARIETY OF CONTEXTS

In dealing with issues such as claim construction, infringement and anticipation, this Court has accorded different treatment to utility and design patents. These differences flow from the Congressional statutes limiting the scope of the two categories of patents. Under these statutes, a utility patent protects only useful or functional innovations, while a design patent protects only ornamental designs having no functional value. 35 U.S.C. §§ 101, 171. If a design patent purports to cover a useful or functional innovation, the design patent is invalid. *High Point Design LLC v. Buyer's Direct, Inc.*, 730 F.3d 1301, 1315 (Fed. Cir. 2013).

As a result of these differences, utility patents and design patents define their claims in very different ways. Utility patents rely on both text and figures to provide

detailed descriptions of the claimed invention and then break down each individual claim into distinct elements. By contrast, design patents provide no textual descriptions, relying instead on illustrations and drawings to define the scope of the claimed design. *See Crocs, Inc. v. Int'l Trade Comm'n*, 598 F.3d 1294, 1302-03 (Fed. Cir. 2010).

In light of these differences, this Court has developed different approaches for claim construction and infringement analysis in utility and design patent cases. With utility patents, the Court construes each element of the asserted claims and then determines if the accused product includes each of the properly-construed elements. *See, e.g., Absolute Software, Inc. v. Stealth Signal, Inc.*, 659 F.3d 1121, 1129-30 (Fed. Cir. 2011). With design patents, the Court relies primarily on an illustration of the claimed design and determines whether "in the eye of an ordinary observer" the accused article "embod[ies] the patented design or any colorable imitation thereof." *Egyptian Goddess, Inc. v. Swisa, Inc.*, 543 F.3d 665, 670, 678 (Fed. Cir. 2008); *see also Ethicon Endo-Surgery v. Covidien, Inc.,* 796 F.3d 1312, 1335 (Fed. Cir. 2015)

Likewise, in dealing with anticipation under 35 U.S.C. § 102, the Court draws a similar distinction between design and utility patents. In the case of utility patents, the Court determines whether a single prior art reference contains every element of the patented invention, while, in the case of design patents, the Court views the design as a whole and applies the "ordinary observer" test to the alleged anticipatory

reference. *Compare Arbutus Biopharma Corp. v. ModernaTX, Inc.*, 65 F.4th 656, 662 (Fed. Cir. 2023) *with Int'l Seaway Trading Corp. v. Walgreens Corp.*, 589 F.3d 1233, 1240 (Fed. Cir. 2009).

Finally, the Court distinguishes between utility and design patents in addressing indefiniteness and enablement issues under 35 U.S.C. § 112. With utility patents, the Court resolves these issues by determining whether the patent provides a sufficient disclosure to define the invention's scope and enable a skilled artisan to make the invention without "undue experimentation." *See, e.g., In re Wands*, 858 F.2d 731, 737 (Fed. Cir. 1988). With design patents, the Court determines the same issues by focusing on whether a skilled designer, when viewing the design in the eye of an ordinary observer, would understand the scope of the design with reasonable certainty. *In re Maatita*, 900 F.3d 1369, 1376-77 (Fed. Cir. 2018).

Thus, in each of these substantive areas—claim construction, infringement, anticipation, indefiniteness and enablement—the Court has recognized the fundamental differences between utility and design patents and developed separate tests to accommodate the differences.[12] As shown below, the test for obviousness should be no different.

[12] Congress has also accorded different treatment to utility and design patents by enacting different terms and damage structures. *See* 35 U.S.C. §§ 154 (utility patent term is 20 years from filing), 173 (design patent term is 15 years from issuance), 284 (utility patent damages include a minimum of a reasonable royalty), 289 (design patent damages include an infringer's total profits).

IV. DESIGN PATENTS REQUIRE A TAILORED OBVIOUSNESS TEST

Under 35 U.S.C § 103, an inventor can obtain a patent only if the "claimed invention as a whole" would not have been obvious to a person of ordinary skill in the art at the time of filing. To determine § 103 compliance, a court must assess whether a skilled artisan would find the invention obvious in light of both the prior art and certain objective indicia of non-obviousness. *Graham v. John Deere Co.,* 383 U.S. 1, 17-18 (1966). This determination requires a "expansive and flexible" approach that avoids rigid rules and relies on "common knowledge and common sense." *KSR*, 550 U.S. at 415, 420-21 (*quoting DyStar Textilfarben GmbH & Co. v. Deutschland KG*, 464 F.3d 1356, 1367 (Fed. Cir. 2006)).

These general principles inform the obviousness analysis for both design and utility patents. *In re Borden*, 90 F.3d 1570, 1574 (Fed. Cir. 1996). But this does not mean that the same analytical framework should apply to both categories of inventions. To the contrary, the differences between utility and design inventions are so substantial that the obviousness test for utility patents has little relevance for design patents.

With utility patents, the obviousness analysis first determines whether the claimed invention "solves" a technical problem through a "predictable use of prior art elements according to their established function." *KSR*, 550 U.S. at 417. If a predictable use of prior art elements would have a reasonable expectation of success,

the invention is deemed to be *prima facie* obvious, and the analysis then considers whether objective evidence of non-obviousness exists such as the failure of others, a long-felt but unmet need, unexpected results and commercial success. *Mintz v. Dietz & Watson, Inc.*, 679 F.3d 1372, 1378-79 (Fed. Cir. 2012).

This two-step inquiry provides a useful framework for assessing the obviousness of utility inventions, particularly its reliance on the objective indicia of non-obviousness. *Id.* These indicia often constitute the "most probative evidence of non-obviousness," and they thus serve as "powerful tools" in reducing the risks of hindsight analysis. *Id. See also Graham,* 383 U.S. at 36.

But when applied to design patents, this framework has at least two major limitations. First, the test for *prima facie* obviousness of utility patents does not apply to patented designs. Unlike utility patents, design patents encompass innovations that are purely aesthetic with no practical applications. Consequently, a test focused on whether the relevant invention solves a technical problem by using prior art elements with "established functions" has no real meaning in the context of design patents.

Second, the objective indicia of non-obviousness have only limited application to design patents. This is largely due to the limited scope of design patents which protect only the way an article looks, not the way it is used. *See* 35 U.S.C. § 171; *In re Mann*, 861 F.2d 1581, 1582 (Fed. Cir. 1988) ("Design patents

have almost no scope. The claim at bar, as in all design cases, is limited to what is shown in the application drawings."). As a result, patented designs do not solve problems that other designers failed to solve; they do not address a long-felt but unmet need for useful innovations; they do not achieve unexpected results having a practical benefit; and they do not incorporate insights that are contrary to the prior art.

Indeed, the only secondary consideration having even an occasional relevance to design patents is commercial success, but even this factor has limited value because the required nexus between the claimed design and increased sales is so difficult to prove. *Compare Crocs, Inc*. 598 F.3d at 1310-1311 with *Campbell Soup Co. v. Gamon Plus, Inc.*, 10 F.4th 1268, 1278-79 (Fed. Cir. 2021); *MRC Innovations, Inc. v. Hunter Mfg. LLP*, 747 F.3d 1326, 1336 (Fed. Cir. 2014). This is particularly true when the design relates to only one component of a multicomponent product—for example, the front fender of an automotive vehicle.

Thus, in *MRC*, the Court rejected a commercial success claim because the patentee failed to show that the commercial success related to the merits of the claimed design. 747 F.3d at 1336. Similarly, in *Campbell Soup*, the Court rejected a commercial success finding because the evidence did not show that the product's increased sales resulted from the "unique characteristics" of the patented design. 10 F.4th at 1278-79.

Accordingly, the analytical tools that are so effective in assessing the obviousness of utility inventions—and so critical in protecting against hindsight bias—have major limitations when applied to design patents. These limitations are especially problematic because of the heightened risks of hindsight analysis with patented designs. In virtually all cases, a novel design creates its desired effect by combining individual design elements (*e.g.*, angles, lines, curves, etc.) that are all part of the prior art:

> [A]lmost every new design is made up of elements which, individually, are old somewhere in the prior art, *but the fact that the individual elements are old, does not prove want of invention in assembling them*.

In re Glavas, 230 F.2d 447, 450 (C.C.P.A. 1956) (emphasis added). For this reason, a challenger can almost always re-create the same overall impression by combining individual prior art elements, thereby "read[ing] into the prior art the teachings of the invention in issue." *Graham,* 383 U.S. at 36.

Consequently, an obviousness test for design patents must adopt a measured approach that recognizes the unique nature of design innovation, while providing a meaningful check on hindsight bias.

V. THE *ROSEN-DURLING* TEST PROVIDES A WORKABLE FRAMEWORK FOR DESIGN PATENTS

To address the unique issues posed by design patents, this Court developed a two-step obviousness analysis now known as the *Rosen-Durling* test. *Durling v.*

Spectrum Furniture Co., 101 F.3d 100, 103 (Fed. Cir. 1996); *In re Rosen*, 673 F.2d 388, 390 (C.C.P.A. 1982). As shown below, this test adapts several of the insights underlying the obviousness test for utility inventions to the unique characteristics of design innovation.

A. The *Rosen-Durling* Framework

In the *Rosen-Durling* analysis, the first step is the identification of a primary reference (a "*Rosen* reference") that creates an overall image substantially similar to the patented design. *Durling*, 101 F.3d at 103. This step entails the selection of a prior art reference meeting two requirements: (1) the reference must be an *existing* design (as opposed to a design created solely for the obviousness analysis); and (2) it must convey "basically the same" overall visual impression as the patented invention. *Durling*, 101 F.3d at 103; *Application of Jennings*, 182 F.2d 207, 208 (C.C.P.A. 1950).

By requiring an existing design with "basically the same" visual impression, the first step focuses the inquiry on "something in existence" that can serve as a starting point for comparisons of the prior art with the patented design. *Borden,* 90 F.3d at 1574. In this way, the first step prevents a hindsight-based analysis that combines multiple elements from the prior art to create an entirely new design having the same overall look as the patented invention. *Borden,* 90 F.3d at 1574; *Jennings*, 182 F.2d at 208.

If a primary reference can be found, the second step then considers whether other references can be used to "create the same overall visual appearance as the claimed design." *Campbell Soup*, 10 F.4th at 1275 (internal quotation marks omitted); *Borden,* 90 F.3d at 1574; *Jennings*, 182 F.2d 207, 208. This step requires "some suggestion in the prior art to modify the basic design with features from the secondary references." *Borden,* 90 F.3d at 1574. In other words, the secondary references must be "so related" to the primary reference as to provide a reason to combine the references. *Id.* at 1575; *In re Rosen*, 673 F.2d at 391. The second step thus works to prevent an *ex post* analysis that simply selects individual references based on their presence in the claimed design—an analysis necessarily driven by the "teachings of the invention in issue." *Graham,* 383 U.S. at 36.

This two-step methodology has informed the Court's obviousness analysis in design patent cases for more than 25 years, enabling the Court to reliably invalidate obvious design improvements, while avoiding the "distortion caused by hindsight bias." *KSR*, 550 U.S. at 421.

To take only a few examples, in *Borden*, this Court upheld an obviousness finding for the design of a dispensing container after concluding that a primary reference had "basically the same" overall appearance, and certain secondary references identified the same additional features incorporated in the patented invention. 90 F.3d at 1574-75. Similarly, in *MRC*, this Court upheld an obviousness

finding for a jersey design based on a primary reference containing "three key similarities" with the claimed invention and two secondary references disclosing additional features. 747 F.3d at 1332-35. Likewise, in *Titan Tire Corp v. Case New Holland, Inc*., 566 F.3d 1372 (Fed. Cir. 2009), the Court upheld the denial of a preliminary injunction on the ground that the design patent was not likely to withstand an obviousness challenge in light of three potential primary references and numerous secondary references disclosing additional features of the patented design. 566 F.3d at 1381-82.

In these and many other cases, the Court has achieved predictable results through a consistent application of a well-reasoned methodology. Such predictability is especially important to the automotive industry where manufacturers invest billions of dollars each year to develop innovative designs that will give "new and original appearances" to automotive vehicles and thereby "enhance [their] salable value" and "enlarge [their market] demand." *Gorham Mfg. Co. v. White*, 81 U.S. 511, 525 (1871).

This, of course, is precisely the rationale for design patents:

> If customers prefer the 'peculiar or distinctive appearance' of Ford's designs over that of other designs that perform the same mechanical or utilitarian functions, that is exactly the type of market advantage 'manifestly contemplate[d]' by Congress in the laws authorizing design patents.

Auto. Body Parts Ass'n v. Ford Glob. Techs., 930 F.3d 1314, 1319 (Fed. Cir. 2019).

B. The "Lead Compound" Analogy

The two-step *Rosen-Durling* test finds a striking parallel in the framework adopted by this Court for assessing patentability in chemical compound cases. *Otsuka Pharm. Co. v. Sandoz, Inc.*, 678 F.3d 1280, 1291-92 (Fed. Cir. 2012); *Eisai Co. v. Dr. Reddy's Labs., Ltd.*, 533 F.3d 1353, 1356-57 (Fed. Cir. 2008); *Takeda Chem. Indus., Ltd. v. Alphapharm Pty., Ltd.*, 492 F.3d 1350, 1356-57 (Fed. Cir. 2007).

In that framework, the analysis first identifies a "lead compound," which is a "compound in the prior art that would be the most promising to modify in order to improve upon its. . . activity and obtain a compound with better activity." *Takeda*, 492 F.3d at 1357. This step focuses largely on the compound's "pertinent properties" in light of the claimed invention, such as activity, potency, toxicity and molecular weight. *Otsuka*, 678 F.3d at 1292.

If a suitable lead compound exists, the next step is to determine whether the prior art provides a "reason or motivation to modify [the] lead compound to make the claimed compound with a reasonable expectation of success." *Otsuka*, 678 F.3d at 1292. If such a reason or motivation cannot be found, the claimed compound will be deemed to be non-obvious over the prior art. *Id.*

For example, in *Eisai*, this Court upheld a summary judgment of non-obviousness based in part on a finding that the record revealed no reasons why a

skilled chemist would have modified the lead compound by removing a specific substituent. *Eisai*, 533 F.3d at 1359. Similarly, in *Otsuka*, the Court upheld a district court finding that the prior art disclosed neither an appropriate lead compound nor a suggestion to modify any prior art compound to create the claimed invention. *Otsuka*, 678 F.3d at 1296.

Thus, the "lead compound" analysis adopts the same basic methodology as the *Rosen-Durling* framework: It first selects a primary reference for comparison with the patented invention and then determines whether the prior art provides a reason or motivation to modify the lead compound to create the claimed invention. In this way, the "lead compound" analysis, like the *Rosen-Durling* framework, tailors the obviousness inquiry to accommodate the special characteristics of the patented subject matter.

VI. THE *ROSEN-DURLING* FRAMEWORK COMPORTS WITH *KSR*

In *KSR*, the Supreme Court held that an obviousness analysis must adopt an "expansive and flexible approach" that avoids "rigid and mandatory" rules and permits "recourse to common sense." *KSR*, 550 U.S. at 419, 421. In reaching this conclusion, the Court did not address design patents or otherwise overrule or abrogate the *Rosen-Durling* framework. To the contrary, as shown below, the *Rosen-Durling* framework, when properly construed and applied, meets the *KSR* requirement of an "expansive and flexible" approach to the obviousness issue.

A. The Two *Rosen-Durling* Steps Satisfy *KSR*

The *Rosen-Durling* framework first requires the identification of a "primary reference" having an overall appearance that is "basically the same" as the overall appearance of the patented design. This step calls for a common sense determination, made "almost instinctively," consistent with both *KSR* and the subjective nature of patented designs. *Durling*, 101 F.3d at 103. The inquiry encompasses virtually any prior art design with an overall appearance having no "significant differences" from the claimed invention. *Id.* at 104. Indeed, the "basically the same" standard is so flexible that in some cases *several* prior art designs from a variety of sources can qualify as multiple *Rosen* references. *Titan Tire*, 566 F.3d at 1381.

For example, in *Titan Tire*, the Court identified three prior art designs that qualified as primary references because they were each "basically the same" as the claimed design. *Id.* The Court then held that a designated secondary reference could be applied to any of the three primary references to "create a design with the same overall visual appearance as the [claimed design]." *Id.* at 1383. The Court thus made clear that the "primary reference" requirement is sufficiently "expansive and flexible" to encompass multiple pieces of prior art relating to a single patented design.

The second *Rosen-Durling* step also comports with *KSR*, which acknowledged the importance of identifying a "reason that would have prompted a

person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does." 550 U.S. at 418. The *KSR* decision cautioned only that the "motivation to combine" insight should not become a "rigid" or "constricted" test, but instead should inform a more "flexible" and "common sense" approach to the obviousness issue. *Id.* at 418, 421.

Consistent with *KSR*, this Court has applied the second step in a common sense way, upholding obviousness findings even when the prior art did not disclose a specific ornamental feature of the claimed invention. *MRC*, 747 F.3d at 1332-35. In so doing, the Court has never held that the "so related" language requires the relevant "suggestion to combine" to come from any specific field, industry or other source related to the patented invention.

Nevertheless, if any ambiguity remains, this Court should make clear that the requisite motivation can come from any source, including the "effects of demands known to the design community or present in the marketplace; and the background knowledge possessed by a person having ordinary skill in the art." *KSR*, 550 U.S. at 418. With this clarification, the "motivation to combine" analysis will constitute an expansive and open-ended inquiry informed by "common knowledge and common sense." *Id.* at 421.

Thus, the two steps of the *Rosen-Durling* framework, if properly construed and applied, incorporate insights endorsed by *KSR*, while complying with *KSR*'s command to adopt a flexible and common sense methodology.

B. This Court Rejected a Similar *KSR* Challenge in the Chemical Compound Cases

This Court reached a similar conclusion in rejecting a *KSR* challenge to the obviousness analysis used in the chemical compound cases. *Otsuka*, 678 F.3d at 1292; *Eisai*, 533 F.3d at 1359; *Takeda*, 492 F.3d at 1357. In so doing, the Court stressed that *KSR* endorsed the major premises underlying the two steps in the "lead compound" analysis: (1) the use of a "starting reference point or points in the art" (*i.e.*, the selection of a "lead compound"); and (2) the determination of a suggestion or motivation to combine references. *Eisai*, 533 F.3d at 1359. The Court also stressed that in its "lead compound" analysis "the reason or motivation for modifying a lead compound may come from any number of sources and need not necessarily be explicit in the prior art." *Otsuka*, 678 F.3d at 1292.

The Court therefore concluded that "post-*KSR* a *prima facie* case of obviousness for a chemical compound still, in general, begins with the reasoned identification of a lead compound," and then determines whether a skilled artisan would have any reason to modify the lead compound to create the claimed invention. *Eisai*, 533 F.3d at 1359; *see also Otsuka*, 678 F.3d at 1292; *Takeda*, 492 F.3d at 1357.

The same logic applies to patented designs. For exactly the same reasons, a post-*KSR* obviousness assessment in design patent cases should still begin with the reasoned identification of a primary reference and then determine whether a skilled designer would have any reason to modify the primary reference to create the claimed design. Consistent with *KSR*, such a "reason" can come from any prior art source and need not be explicit in the prior art.

Thus, as in the "lead compound" cases, the *Rosen-Durling* test provides a workable framework for assessing design patent obviousness in ways consistent with *KSR*.

VII. CONCLUSION

For the reasons discussed herein, AAI and Rivian respectfully submit that this Court should re-affirm the *Rosen-Durling* framework for evaluating design patent obviousness.

Dated: October 26, 2023

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CERTIFICATE OF SERVICE

I hereby certify that service on all parties was made through electronic filing the foregoing with the Clerk of the Court of the United States Court of Appeals for the Federal Circuit by using the Court's electronic-filing system on October 26, 2023 pursuant to Federal Circuit Rule 25(c)(2).

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CERTIFICATE OF COMPLIANCE

I certify that the foregoing Brief complies with the relevant type-volume limitation of the Federal Rules of Appellate Procedure and Federal Circuit Rules because the filing was prepared in MS Word, is proportionally spaced, has a typeface of 14-point Times New Roman, and contains 4,599 words, excluding those parts of the brief exempted by Fed. R. App. P. 5(c), Fed. R. App. P. 21(d), Fed. R. App. P. 27(d)(2), Fed. R. App. P. 32(f), or Fed. Cir. R. 32(b)(2).

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