

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

TOYOTA MOTOR CORPORATION,

Petitioner,

v.

BUNKER HILL TECHNOLOGIES, LLC,

Patent Owner.

Case No.: IPR2026-00250

U.S. Patent No. 10,549,648

PATENT OWNER'S PRELIMINARY RESPONSE

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EXHIBIT LIST

<u>Exhibit No.</u>	<u>Description</u>
2001	Declaration of David M. Pridham
2002	<i>Bunker Hill Technologies, LLC v. Toyota Motor Corporation et al.</i> , No. 2:25-cv-1133 (E.D. Tex.) Complaint

I. INTRODUCTION

The Petition fails to demonstrate a reasonable likelihood of prevailing on any challenged claim because it fundamentally misapprehends the drivetrain architecture required by U.S. Patent No. 10,549,648 (“the ’648 patent”) and relies on anticipation and obviousness theories that collapse distinct claim elements, dilute structural limitations into operational concepts, and impermissibly reconstruct the prior art.

The ’648 patent is directed to a hybrid and electric vehicle propulsion system that employs two electric traction motors with structurally distinct coupling relationships relative to the vehicle transmission device. As recited in independent Claims 1, 9, and 16, the claimed system requires (i) a transmission device comprising planetary gears coupled to a first traction motor, and (ii) a separate gear assembly coupled between a second traction motor and the transmission device, arranged such that the output of the second traction motor bypasses the transmission device. None of the asserted prior-art references disclose the bypass-capable coupling relationship between the second motor and a distinct gear assembly relative to the transmission device demanded by the claims.

Petitioner’s challenges based on Conlon fail because they rest on a fundamental mischaracterization of both the claims and Conlon’s disclosed

drivetrain architecture. Rather than describing a propulsion system with the architectural “bypass” recited in independent Claims 1 and 16, Conlon discloses a single, integrated electrically variable transmission (EVT) in which multiple planetary gear sets and both electric machines are mechanically embedded within the same transmission structure, with torque routing managed internally through interconnected planetary members and clutches. Petitioner’s anticipation theory improperly disassembles this integrated EVT, relabeling internal planetary gear sets as separate claim elements and equating mode-dependent operation with the claimed structural bypass. Anticipation law does not permit such relabeling or reliance on operating modes to supply missing structure.

Nor can these deficiencies be cured through obviousness. The Petition never articulates a coherent modification theory explaining how or why a person of ordinary skill would restructure Conlon’s integrated EVT to create a distinct downstream gear assembly and a bypass-capable coupling relationship to the transmission device—let alone why doing so would be consistent with Conlon’s design objectives, which emphasize integration and internal mode control. Petitioner’s reliance on hindsight reconstruction rather than express disclosure or reasoned modification therefore dooms its Conlon-based anticipation and obviousness grounds.

Petitioner's challenges based on Ortmann fail for a fundamental architectural reason that mirrors the defects in its Conlon challenges. Independent Claims 1, 9, and 16 require a drivetrain architecture that includes a distinct gear assembly coupled between the second traction motor and the transmission device, arranged such that, when the second motor drives the vehicle through that gear assembly, its mechanical output bypasses the transmission device. As properly construed, this bypass is architectural, not merely modal: it requires a drivetrain architecture that includes a bypass-capable coupling relationship relative to the transmission device, such that when the second motor drives the vehicle through the gear assembly, its mechanical output bypasses the transmission device—not merely a mode in which one motor happens to drive while other components are disengaged.

Ortmann discloses a power-split drivetrain organized around a planetary gearset that functions as the transmission device, with a countershaft and layshaft/differential arrangement transmitting output torque to the wheels. Although Ortmann describes the traction motor as being continuously geared to the countershaft via layshaft gearing, Ortmann's own disclosure makes clear that this architecture operates in mutually exclusive configurations: in motor-only mode, the planetary transmission device is

isolated from the active driveline path; in powersplit mode, the planetary transmission device is mechanically engaged via a ring-gear connection to the same countershaft. Ortmann never discloses a single configuration in which the second traction motor drives the vehicle through a distinct gear assembly as claimed, while the transmission device remains coupled yet bypassed in the manner required by Claims 1, 9, and 16. Instead, Petitioner's theory improperly mixes and matches different operating states to satisfy different portions of the claim—an approach that cannot establish anticipation. Accordingly, Ortmann does not anticipate the challenged claims.

Across all grounds, the Petition relies on conclusory assertions, hindsight reconstruction, and generalized references to POSITA knowledge in place of express disclosure, coherent modification theories, or articulated motivation. Instituting trial would require the Board to relax core anticipation principles and/or supply missing analysis on Petitioner's behalf, which it may not do. Because the Petition does not establish a reasonable likelihood of success on the merits as to any challenged claim, institution should be denied.

II. OVERVIEW OF THE '648 PATENT AND ITS KEY CLAIM DISTINCTIONS

The '648 patent is directed to hybrid and electric vehicle propulsion systems that employ two electric traction motors operating with distinct mechanical coupling paths relative to the transmission device. Ex. 1001 at 1:7-11; 5:3-25. The patent addresses limitations of conventional power-split and electrically variable transmissions by providing a drivetrain architecture in which one traction motor is coupled to a transmission device, while the other traction motor drives the vehicle through a separate gear assembly arranged to provide a bypass of the transmission device. *Id.* at 5:3-25. This dual-path configuration enables flexible operating modes by providing a drivetrain architecture in which, when the second motor is operated to drive the vehicle through the gear assembly, its mechanical output need not be mechanically processed through the transmission device's planetary-gear architecture.

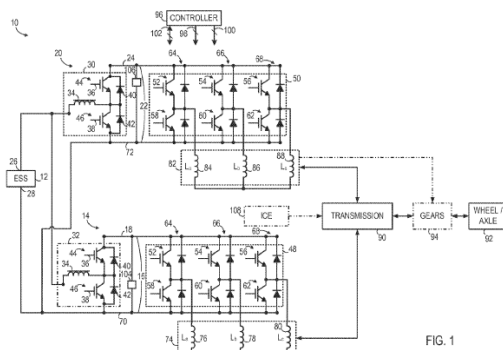
The core architectural distinction reflected across independent Claims 1, 9, and 16 is structural, not merely functional. Each claim requires:

- (1) a transmission device (e.g., an EVT with planetary gearing) coupled to a first traction motor;
- (2) a gear assembly coupled between the second traction motor and the transmission device; and

(3) an arrangement such that the output of the second traction motor bypasses the transmission device.

Id. at 13:27-33; 14:10-16, 51-57. This language describes a physical drivetrain topology in which the second traction motor has a bypass-capable coupling relationship to the driveline via the gear assembly, such that when the second motor is operated to drive the vehicle through the gear assembly, its mechanical output reaches the driveline without traversing the transmission device. The bypass is achieved by component arrangement and coupling relationships, not by operating mode, clutch state, or control logic alone.

The Claimed Architecture ('648 Patent)



- Two motors with distinct coupling relationships relative to the transmission device
- Transmission device (planetary gears)
- Distinct gear assembly coupled relative to the transmission device
- Bypass is architectural (coupling-based), not modal

This structural separation distinguishes the '648 patent from conventional integrated power-split systems, in which all propulsion torque, whether from an engine or electric machines, is mechanically processed

within a single transmission architecture. By contrast, the '648 patent claims a system with two mechanically distinct propulsion coupling configurations relative to the transmission device: one in which propulsion torque is routed through the transmission device, and another in which propulsion torque from the second motor is delivered through a separate gear assembly that can bypass the transmission device when selected. That distinction is carried consistently across the independent claims and is central to the patent's advantages in efficiency, flexibility, and control.

The asserted prior-art references fail to disclose this architecture. They rely on integrated drivetrains, downstream driveline elements, or mode-dependent internal torque routing within a single transmission, none of which disclose a bypass-capable coupling arrangement in which a distinct gear assembly is coupled relative to the transmission device such that, when the second motor drives through that gear assembly, its output bypasses the transmission device, as claimed. These architectural distinctions defeat Petitioner's anticipation and obviousness challenges alike.

III. CLAIM CONSTRUCTION

A. Governing Standards

In *inter partes* reviews such as this one, the Board applies the same claim construction standard used to construe a claim in a civil action under 35 U.S.C. § 282(b). *Changes to the Claim Construction Standard for Interpreting Claims in Trial Proceedings Before the Patent Trial and Appeal Board*, 83 Fed. Reg. 51,340 (Oct. 11, 2018). Absent specific definitions, the claims are construed consistent with their plain and ordinary meaning as understood by a person of ordinary skill in the art when read in the context of the specification and prosecution history. *Thorner v. Sony Comput. Ent. Am. LLC*, 669 F.3d 1362, 1365 (Fed. Cir. 2012) (citing *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312–13 (Fed. Cir. 2005) (*en banc*)). “The ordinary and customary meaning of a claim term is the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention.” *Phillips*, 415 F.3d at 1313. The Board need not adopt an express construction for every term, but it must apply a construction sufficient to resolve the disputes presented by the Petition. See *Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co. Ltd.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017).

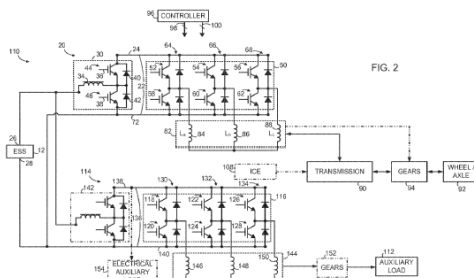
As explained below, the plain and ordinary meaning of the following terms is evident from the '648 patent itself:

- Transmission device: the planetary-gear transmission architecture, including (in the disclosed EVT embodiment) clutching that operates within the transmission device to configure torque flow.
- Gear assembly coupled between: a distinct gearing element positioned between the second motor and the transmission device, consistent with the disclosure of downstream gear assembly 94 that couples the transmission output to the wheels/axles.
- Bypasses the transmission device: a bypass-capable coupling arrangement such that, when the second motor drives through the gear assembly as claimed, its mechanical output reaches the driveline without traversing the planetary-gear transmission device.

B. The Dispute that Matters: “Bypass” as a Feature of the Claimed Coupling Architecture

Independent Claims 1, 9, and 16 recite the same core drivetrain topology: a transmission device comprising planetary gearing coupled to a first motor, and a gear assembly coupled between a second motor and the transmission device “such that” the second motor’s output “bypasses” the transmission device. Ex. 1001 at 13:27-33; 14:10-16, 51-57. The key interpretive issue is whether “bypasses” is satisfied by (i) mode-dependent internal torque routing within an integrated transmission, or instead requires (ii) a bypass-capable coupling relationship between the second motor and a distinct gear assembly relative to the transmission device. The intrinsic record compels the latter.

What “Bypass” Means in the ’648 patent



- Bypass is relative to the transmission device
- Bypass is defined by the coupling arrangement, not operating mode
- Requires a distinct gear assembly arranged to provide a bypass-capable coupling

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^a The output of transmission 90 is coupled to one or more driving wheels or axles 92 of a vehicle (not shown) through a gear assembly 94, which may include a differential. Depending on how the clutches of transmission 90 are configured, electromechanical device 82 may be coupled to gear assembly 94 through transmission 90 or may be directly coupled to gear assembly 94 such that the output of electromechanical device 82 bypasses transmission 90.

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The specification explains that “transmission 90” may be constructed as a gear/belt assembly and, in one embodiment, “is configured as an electrically variable transmission (EVT) that couples the outputs [of the motors] through an arrangement of planetary gears and clutches.” *Id.* at 5:5-11. Accordingly, for Claims 1, 9, and 16, the recited “transmission device” refers to the vehicle transmission architecture that includes an arrangement of planetary gears and, in the disclosed EVT embodiment, associated clutching that operates within the transmission device itself, rather than providing a separate bypass path.

Why this matters: Understanding how the specification defines the “transmission device” is critical to understanding how the term “bypass” is used. The “bypass” limitation is not about bypassing one motor’s participation; it is about bypassing the planetary-gear transmission device itself. When the bypass condition is established by the claimed coupling arrangement, the mechanical output of the second motor reaches the driveline without traversing the transmission device’s planetary-gear arrangement.

As the Petition admits, the claims separately list the “transmission device” and the “gear assembly,” and require that the gear assembly is coupled between the second motor and the transmission device. Pet. at 17-

18; Ex. 1001 at 13:27-33; 14:10-16, 51-57. This “between” language describes a positional/structural relationship among three distinct items: the second motor, the gear assembly, and the transmission device—consistent with the specification’s depiction of transmission 90 and a downstream gear assembly 94 that couples the transmission output to the wheels/axles. Ex. 1001 FIGs. 1-3; 5:3-25.

The phrase “such that” ties the required bypass to the claimed coupling arrangement: the gear assembly’s placement and coupling relationship must be such that the mechanical output of the second motor reaches the driveline without traversing the transmission device. The specification makes the distinction explicit in describing how the bypass occurs in the disclosed system: “Depending on how the clutches of transmission 90 are configured,” the second motor “may be coupled to gear assembly 94 through transmission 90 or may be directly coupled to gear assembly 94 such that the output ... bypasses transmission 90.” *Id.* at 5:22-25.

This disclosure is pivotal for three reasons:

1. Bypass is defined relative to the transmission device itself, not relative to a particular motor’s participation or to an internal transmission element. The specification’s bypass example is that

the second motor can be directly coupled to the gear assembly 94 such that its mechanical output bypasses transmission 90.

2. Bypass is a consequence of the claimed coupling arrangement, not merely of operating mode. While the disclosed embodiment uses clutches, those clutches operate within a drivetrain architecture that already includes a distinct gear assembly positioned relative to the transmission device; they do not convert internal torque routing within a single transmission into a bypass.
3. The bypass therefore reflects an architectural distinction, namely, a drivetrain that includes a distinct downstream gear assembly (94) and a bypass-capable coupling relationship to it, such that when the second motor drive the vehicle through that gear assembly, its mechanical output reaches the driveline without traversing the transmission device.

The proper construction therefore follows directly from this intrinsic record: “bypasses the transmission device,” in the context of Claims 1, 9, and 16, means that the system includes a bypass-capable coupling arrangement such that, when the second motor is operated to drive the vehicle through the gear assembly (as the claims recite), the second motor’s

mechanical output reaches the driveline without passing through the transmission device's planetary-gear transmission architecture.

IV. LEGAL STANDARDS

A petition must be judged as it is written. The Board may not overlook flaws in the petition or reformulate its challenges to enhance their suitability. *See SAS Inst. Inc. v. Iancu*, 138 S. Ct. 1348, 1355 (2018) (“[I]t’s the petitioner, not the Director, who gets to define the contours of the proceeding.”); *see also id.* (“[T]he petitioner is master of its complaint . . .”); *see also id.* at 1353 (forbidding the Board from “curat[ing]” the petition).

A patent claim is “invalid for anticipation [only] if a single prior art reference discloses each and every limitation” of the claim. *Schering Corp. v. Geneva Pharm.*, 339 F.3d 1373, 1377 (Fed. Cir. 2003). Each element, and the “arrangement or combination” of those elements, must be present in the prior art reference. *See Net MoneyIN, Inc. v. VeriSign, Inc.*, 545 F.3d 1359, 1371 (Fed. Cir. 2008). The key is that, within “the four corners of a single, prior art document . . . every element of the claimed invention [must be described], either expressly or inherently, such that a person of ordinary skill in the art could practice the invention without undue experimentation.” *Advanced Display Sys., Inc. v. Kent State Univ.*, 212 F.3d 1272, 1282 (Fed.

Cir. 2000). Simply put, “there must be no difference between the claimed invention and the reference disclosure, as viewed by a person of ordinary skill in the field of the invention.” *Scripps Clinic & Research Found. v. Genentech, Inc.*, 927 F.2d 1565, 1576 (Fed. Cir. 1991).

As to obviousness, a petition must include “some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” *KSR Int’l v. Teleflex Inc.*, 550 U.S. 398, 418 (2007). Petitioner must supply the factual basis for the challenge and “may not resort to speculation, unfounded assumptions or hindsight reconstruction to supply deficiencies in its factual basis.” *In re Warner*, 379 F.2d 1011, 1017 (CCPA 1967). Additionally, Petitioner must also establish that one skilled in the art would have had a reasonable expectation of success to make a modification or combination. *Intelligent Bio-Sys., Inc. v. Illumina Cambridge Ltd.*, 821 F.3d 1359, 1367-68 (Fed. Cir. 2016). The modification or combination must not “require a substantial reconstruction and redesign of the elements” in a reference or “a change in the basic principles under which [a reference] was designed to operate.” *In re Ratti*, 270 F.2d 810, 813 (CCPA 1959). Nor can the modification or combination render a reference unsatisfactory or “inoperable for its intended purpose.” *In re Gordon*, 733 F.2d 900, 902 (Fed. Cir. 1984).

Also, the prior art must be considered for all that it teaches, and a *prima facie* case of obviousness may be rebutted “by showing that prior art teaches away from claimed invention in any material respect.” *In re Peterson*, 315 F.3d 1325, 1331 (Fed. Cir. 2003).

Last but not least,

A factfinder should be aware, of course, of the distortion caused by hindsight bias and must be cautious of arguments reliant upon *ex post* reasoning.

KSR, 550 U.S. at 421 (citations omitted).

V. THE PETITION FAILS TO DEMONSTRATE A REASONABLE LIKELIHOOD THAT ANY CHALLENGED CLAIM IS UNPATENTABLE

A. Ground 1 Fails Because Independent Claims 1 and 16 Are Not Anticipated by Conlon

Petitioner has not demonstrated a reasonable likelihood of prevailing on its assertion that independent Claims 1 and 16 are anticipated by Conlon (U.S. PGPUB 2009/0176610). Anticipation requires that a single prior-art reference disclose each and every limitation of the claim as arranged, without resort to gap-filling or reconstruction. Here, Petitioner’s Conlon theory fails because under the proper construction of the claims, “bypasses the transmission device” does not mean merely that torque avoids some

internal element *within* the transmission device itself in a particular operating mode. It requires a drivetrain architecture in which the second motor has a bypass-capable coupling relationship to a distinct gear assembly positioned between that motor and the transmission device, such that when the second motor drives the vehicle through the gear assembly, its mechanical output reaches the driveline without traversing the transmission device's planetary-gear transmission architecture.

1. Independent Claims 1 and 16 Each Require A Distinct Gear Assembly and a Bypass-Capable Coupling Relationship Relative to the Transmission Device

Claim 1 recites:

- (1) a transmission device . . . comprising an arrangement of planetary gears; and
- (2) a gear assembly coupled between the second traction motor and the transmission device such that the output of the second traction motor bypasses the transmission device.

Ex. 1001 at 13:27-33. Claim 16 includes the same structural architecture in materially identical form. *Id.* at 14:51-57.

(i) The Specification Describes the Bypass

The specification confirms the nature of the bypass: the transmission (90) may be an EVT with planetary gears and clutches, and the output of the transmission (90) is coupled to the wheels/axles through a separate gear assembly (94). *Id.* at 5:7-11. 18-20. It then draws the critical distinction: “Depending on how the clutches of transmission 90 are configured,” the second electromechanical device (82) “may be coupled to gear assembly 94 through transmission 90 or may be directly coupled to gear assembly 94 such that the output ... bypasses transmission 90.” *Id.* at 5:21-25. Thus, the intrinsic record ties “bypass” to a direct coupling relationship to a distinct downstream gear assembly (94) that avoids the transmission device (90) when that bypass configuration is selected.

(ii) The Prosecution History Confirms the Nature of the Bypass

During prosecution of the parent application (15/799,045), the bypass limitation was added to distinguish systems in which motor outputs are mechanically integrated into a single transmission. Ex. 1007 at 524-535 (adding EVT/planetary gears and gear assembly limitations), 374-385 (adding “bypass” limitation). The prior art failed because it did not disclose such an architecture. *Id.* at 531-533, 382-384. The record thus reflects the importance of these separate coupling paths. The present continuation

application was later allowed on first action without amendment, Ex. 1002 at 152-160, reinforcing that the Examiner understood the claim language to define this architecture. See *Becton, Dickinson and Co. v. Tyco Healthcare Gr., LP*, 616 F.3d 1249, 1254 (Fed. Cir. 2010) (“Where a claim lists elements separately, ‘the clear implication of the claim language is that those elements are ‘distinct component[s]’ of the [claimed] invention.”) (quoting *Gaus v. Conair Corp.*, 363 F.3d 1284, 1288 (Fed. Cir. 2004)); *Engel Indus., Inc. v. Lockformer Co.*, 96 F.3d 1398, 1404-05 (Fed. Cir. 1996) (where a claim provides for two separate elements (a “second portion” and a “return portion” in *Engel*), these two elements “logically cannot be one and the same.”).

Thus, for Conlon to anticipate Claims 1 and 16, Petitioner must show that Conlon discloses: (a) a transmission device comprising planetary gears; (b) a distinct gear assembly coupled “between” the second motor and the transmission device; and (c) an arrangement in which the second motor’s mechanical output can be coupled to that gear assembly in a “bypass” configuration relative to the transmission device, consistent with the claims’ requirement that the second motor drives the vehicle through the gear assembly. Conlon does not disclose this architecture.

2. Conlon Discloses a Single Integrated EVT Architecture; Not a Transmission Device Plus a Distinct Gear Assembly

Conlon expressly describes an “electrically-variable transmission or EVT 14” having “multiple interconnections” and depicts that EVT using two levers (20 and 22), each representing a planetary gear set, with interconnections between them. Ex. 1004 at [0028], [0029]; *and see id.* at [0030]-[0032]. Conlon further defines a “node” as a component of a transmission that can act as a junction of torques, and explains that the “other components” interacting with a node include “interconnections to members of other planetary gear sets which appear as nodes on another lever,” and other transmission members such as the input and output members. *Id.* at [0030].

Conlon Overview: Integrated EVT

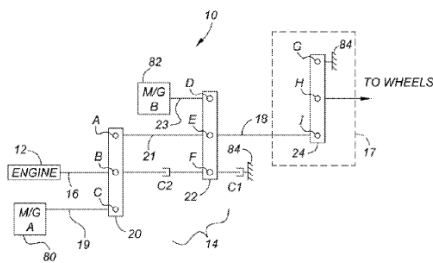


FIG. 1

- Single electrical variable transmission (EVT) 14
- Two planetary levers (20,22)
- Both motors (80, 82) embedded in EVT

In that same disclosure, Conlon explains how lever 20 and lever 22 are interconnected: node A of lever 20 is continuously connected to node E of lever 22, node B of lever 20 may be selectively connected to node F of lever 22, and node E of lever 22 is continuously connected to the output member. *Id.* at [0031]-[0032]. These statements are not the disclosure of a transmission device followed by a separate downstream gear assembly. They are the disclosure of a single transmission (EVT 14) comprised of two planetary gear sets that operate together via interconnections and selective connections.

Why Conlon Does *Not* Have a Structural Bypass

EVT 14 has multiple interconnections ...
nodes on one lever interact with nodes on another lever ...
nodes include input member and output member.

Conlon [0030]-[0032]

- Mode changes **which motor supplies power, not where torque is processed**
- In every mode, MG B torque is resolved by **EVT 14's planetary gears**
- No mode creates a coupling where MG B drives **through a gear assembly outside the transmission**

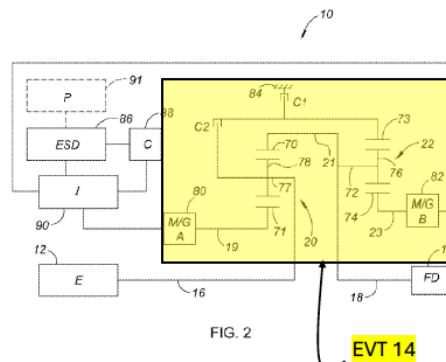


FIG. 2

EVT 14

ENGINE	C1	CP	MODE (M)
OFF	x		EVT1: INPUT SPLIT (1)
ON		x	EVT1: COMPOUND SPLIT (2)
OFF	x	x	PARALLEL (M/B)
OFF			NEUTRAL (N)

FIG. 3

In Conlon, MG B may bypass MG A's *participation*—but it never bypasses the *transmission device*.

Accordingly, Petitioner's core mapping in Ground 1—treating lever 20 as the “transmission device” and lever 22 as the separate “gear

assembly,” Pet. at 16-18—does not reflect what Conlon discloses. Conlon does not describe lever 22 as a distinct downstream gear assembly positioned between the second motor and a separate transmission device; it describes lever 22 as part of EVT 14 itself, interacting with lever 20 as a coupled planetary system within the transmission. Ex. 1004 at [0032]. A petitioner may not carve an internal subcomponent out of a disclosed structure and relabel it as a separate claimed element where the reference itself treats the components as part of a single integrated device. *Becton, Dickinson & Co.*, 616 F.3d at 1254.

The “between” requirement exposes and reinforces Petitioner’s error. Claims 1 and 16 presuppose three distinct components arranged in sequence (second motor → gear assembly → transmission device). That positional relationship matters. In Conlon, the second motor is mechanically integrated *into* the EVT and there is no intermediate gearing external to the EVT that sits between the motor and the transmission. Ex. 1004 at [0030]-[0032].

Conlon defines the EVT as a single transmission composed of interconnected planetary gear sets:

The various nodes A–F may be embodied by a ring gear member, a sun gear member, and a carrier member having a plurality of pinion gears.... The other components which may interact with a given node of the EVT 14 include other coaxial

members of the same set of planetary gears... [and]
interconnections to members of other planetary gear sets which
appear as nodes on another lever....

Id. at [0030]. Thus, Conlon treats all planetary gearing and interconnections
as part of EVT 14 itself, not as external gearing.

Further, the second motor is continuously connected to a planetary
member of the EVT:

With reference to lever 22, node D is continuously connected to
the second motor/generator 82 (also referred to as M/G B) via
the interconnecting member 23. Node E is continuously
connected to the output member 18 for common rotation
therewith.

Id. at [0032]. Thus, the second motor is always mechanically coupled
directly into the EVT's planetary structure; there is no disclosure of any gear
assembly external to EVT 14 between M/G B and the transmission; and
output flows from EVT planetary members to the output member, not
around them.

Finally, all output torque exits Conlon through EVT output member
18, which Conlon repeatedly treats as part of the EVT itself:

[O]ther transmission members, such as the input member 16 or
the output member 18.

Node E is continuously connected to the output member 18....

Id. at [0030], [0032]. Hence, the output member is part of the EVT, not downstream gearing, and there is no structural break where a separate gear assembly could sit “between” the motor and the transmission.

Accordingly, nowhere in Conlon is there: a gear assembly positioned between M/G B and EVT 14, a separate reduction gear outside EVT 14, or any disclosure of the second motor driving through external gearing that avoids EVT planetary members. Instead, Conlon repeatedly emphasizes: interconnections between planetary levers, and mode selection within EVT 14.

Diagram block boundaries and arrows (as used in the Petition) cannot cure these defects. Conlon describes the planetary gear sets as components of a single EVT, with operating modes defined through internal configuration of that transmission. The claims, by contrast, require a gear assembly that is structurally distinct from—and coupled *between*—the second traction motor and the transmission device. Conlon does not disclose such an intermediate gear assembly positioned between the motor and the transmission device. Petitioner’s mapping not only engages in creative relabeling, it eliminates the “between” relationship by redefining internal portions of the EVT as external structures. That is impermissible for anticipation.

3. Conlon Does Not Disclose the Claimed Bypass-Capable Coupling Relationship to a Distinct Gear Assembly

Applying the proper construction, the bypass question is straightforward: does Conlon disclose an arrangement in which the second motor (M/G B 82) can be directly coupled to a distinct gear assembly positioned between the second motor and the transmission device, such that the second motor's mechanical output reaches the driveline without traversing the transmission device's planetary-gear transmission architecture? Conlon does not.

Conlon's disclosure instead places M/G B 82 *within* EVT 14: node D of lever 22 is continuously connected to M/G B 82, and node E of lever 22 is continuously connected to the output member. *Id.* at [0032]. That is internal transmission architecture: the second motor is mechanically integrated into the EVT's planetary structure, which is itself the transmission device disclosed by Conlon.

Petitioner's reliance on Conlon's operating Mode 1 (generator/motor roles) does not change that analysis. See *Continental Can Co. USA, Inc. v. Monsanto Co.*, 948 F.2d 1264, 1268 (Fed. Cir. 1991) (anticipation cannot be based on cherry-picking one operating mode from a multi-mode reference unless the claimed structure is *necessarily* present in the reference). Under the '648 patent, "bypass" is not established merely because the first motor is

generating while the second motor drives; it is established when the second motor is directly coupled to the downstream gear assembly (94) in the claimed driving configuration, such that its mechanical output bypasses the transmission device (90). Conlon contains no disclosure of that kind of direct-to-separate-gear-assembly bypass coupling arrangement. It discloses only an integrated EVT architecture in which torque is resolved through the interconnected planetary levers within EVT 14.

Furthermore, Conlon's figures do not depict any mechanical arrangement in which the second motor drives through a gear assembly positioned between the motor and the transmission device so as to avoid the transmission's planetary-gear structure. Any alleged bypass exists only as internal torque routing within EVT 14. That does not satisfy the claims' requirement that the second motor's output bypass the transmission device.

4. Petitioner's Inherency/POSITA Reasoning Theories Cannot Supply the Missing Bypass-Capable Architecture

Because Conlon does not expressly disclose a distinct gear assembly and a bypass-capable coupling relationship to it relative to a separate transmission device, Petitioner cannot cure the gap by invoking inherency or POSITA "understanding." Anticipation requires the claimed structure to be disclosed in the reference (expressly or inherently as necessarily present),

not supplied by relabeling internal substructures or by arguing what a POSITA might implement. Here, Conlon’s own description treats both levers as part of the EVT transmission architecture, interconnected and interacting within EVT 14. *Id.* A distinct downstream gear assembly to which the second motor can be directly coupled so as to bypass the transmission device is not “necessarily present” in that disclosure, hence, Petitioner’s argument fails as a matter of law. *Trintec Indus., Inc. v. Top-U.S.A. Corp.*, 295 F.3d 1292, 1295 (Fed. Cir. 2002).

Nor can expert testimony, even in the guise of POSITA reasoning, supply missing disclosure. PTAB Consolidated Trial Practice Guide at 36 (Nov. 2019) (citing *Verdegaal Bros. v. Union Oil Co.*, 814 F.2d 628, 631 (Fed. Cir. 1987)). A POSITA’s general knowledge may be relevant to understanding what a disclosed structure is or interpreting ambiguous terminology. It may *not* be used to add new components, rearrange disclosed structures, or convert an integrated transmission into multiple separate claim elements. Yet here, Petitioner’s expert does exactly that: recharacterizing Conlon’s internal planetary gear sets as if they were discrete, externally arranged drivetrain components. Ex. 1003 at ¶¶ 85-86. Such testimony does not explain Conlon; it supplements it. Anticipation forbids that move. Neither Conlon’s text nor its figures disclose a gear assembly separate from

the EVT, nor a path by which the second motor's output bypasses the transmission device. No expert opinion can somehow supply those teachings.

For at least the foregoing reasons, Petitioner has not shown that Conlon anticipates either of independent Claims 1 and 16. The remaining claims challenged in Ground 1 depend, respectively, from claim 1 or 16; hence, for at least the same reasons, none of those claims is anticipated by Conlon. Consequently, Petitioner has failed to demonstrate a reasonable likelihood that any challenged claim is unpatentable under Ground 1.

B. Ground 2 Fails Because Petitioner Does Not Establish Obviousness of Independent Claims 1 or 16 In View Of Conlon

The failure of Ground 1 also frames, and constrains, Ground 2. As explained above, Conlon does not disclose the claimed drivetrain architecture because it lacks a bypass-capable coupling relationship between the second motor and a distinct gear assembly positioned relative to the transmission device. That conclusion rests on Conlon's own disclosure of a single, integrated EVT architecture in which multiple planetary gear sets operate together as the transmission itself. Ground 2 cannot evade that deficiency by relabeling or hindsight reconstruction.

To prevail on obviousness, Petitioner must identify a reasoned basis, grounded in the prior art, not the challenged claims, to modify Conlon's integrated EVT by segregating part of its planetary structure into a distinct downstream gear assembly and re-architecting the drivetrain so that the second motor can be directly coupled to that gear assembly in a configuration that bypasses the transmission device, as the claims require. Nothing in Conlon suggests such a restructuring; to the contrary, Conlon repeatedly teaches coordinated operation of multiple planetary levers within a single transmission to manage power flow via internal clutching. Thus, the same architectural distinction that defeats anticipation also defines the precise structural modification Petitioner must justify under §103 and Petitioner's failure to supply that justification is fatal to Ground 2 as well.

1. The Claim Construction Defines the Modification Petitioner Must Justify and Ground 2 Never Addresses it

As set forth above, Claims 1 and 16 require a drivetrain architecture that includes (i) a planetary-gear "transmission device" (including clutching in the disclosed EVT embodiment), and (ii) a distinct gear assembly positioned and coupled relative to the second motor and the transmission device "such that" the second motor's mechanical output bypasses the transmission device when the second motor drives the vehicle through the

gear assembly. Ex. 1001 at 13:27–33; 14:51–57. The specification confirms this relationship. *Id.* at 5:7-11, 18-25.

Conlon’s disclosure, by contrast, describes EVT 14 as a single transmission architecture represented by levers 20 and 22, with multiple interconnections between those levers and selective connections that establish operating modes, Ex. 1004 at [0030]-[0032]; i.e., coordinated operation *within* an integrated EVT, not a distinct downstream gear assembly enabling a bypass-capable coupling relationship relative to the transmission device. Under § 103, Petitioner must therefore explain, concretely, how and why a POSITA would restructure Conlon’s integrated EVT into the claimed dual-path topology (or otherwise arrive at the bypass-capable coupling arrangement required by the claims). Ground 2 never does.

To modify Conlon to meet the requirements of Claims 1 and 16, at minimum a POSITA would need to:

1. Provide a configuration in which the second motor can deliver mechanical output through a distinct gear assembly external to the EVT, rather than solely through the EVT’s planetary architecture;
2. Provide a discrete gear assembly external to the EVT;

3. Mechanically couple that gear assembly between the second motor and the driveline; and
4. Reroute torque such that the second motor's output does not traverse the EVT planetary gears.

Not only does the Petition fail to identify these steps, see Pet. at 16-18, 30-31, it fails to describe where the second motor would be relocated, what gearing would be added, how that gearing would interface with the existing drivetrain, or how the resulting system would operate coherently with Conlon's mode structure. Without such an explanation, there is no obviousness case. See *KSR Int'l*, 550 U.S. at 415-421 (maintaining that the key to supporting an obviousness rejection is a clear articulation of why the claimed invention would have been obvious). To the extent the petition merely assumes the transformation, that is hindsight, not obviousness.

2. Ground 2 Does Not Provide a Coherent Modification Path from Conlon to the Claimed Bypass-Capable Architecture

In addition to failing to identify the required modifications themselves, Ground 2 fails to articulate *how* Conlon's EVT would be modified to create the required bypass-capable coupling relationship. Instead, it focuses on Conlon's operating modes and asserts that a "control system" would have been obvious if not inherent. Pet. at 30-31. That is not

responsive to the dispositive structural issue under the proper construction; namely, the presence of a distinct gear assembly positioned relative to the second motor and the transmission device, and a coupling relationship that enables the second motor's output to bypass the transmission device when the second motor drives through that gear assembly.

Moreover, even if Petitioner could establish that it would have been obvious to include a control system to select Conlon's disclosed modes (which is all Ground 2 substantively addresses), that does not explain why it would have been obvious to alter Conlon's integrated EVT architecture to produce the claimed bypass-capable coupling relationship. Having identified substantial structural differences between the claims and Conlon, Petitioner was required, under *KSR*, to articulate a clear, reasoned theory explaining how and why a POSITA would modify Conlon to arrive at the claimed invention. In particular, to establish obviousness, Petitioner was required to explain: what would be modified in Conlon, how it would be modified, why a POSITA would make that modification, and why the modification would yield the claimed bypass architecture. *KSR Int'l*, 550 U.S. at 415-421.

Rather than fulfill this obligation, Ground 2 essentially asserts—in but a single paragraph—that the claims would have been obvious over Conlon in view of alleged POSITA knowledge, without identifying any specific

structural change to Conlon's EVT. In other words, Petitioner relies on conclusory assertions, generalized references to POSITA knowledge, and re-labeling of Conlon's internal components. That approach is legally insufficient to support institution, and Petitioner cannot look to the Board to supply its missing explanations. *SAS Inst.*, 138 S.Ct. at 1355.

3. Petitioner's Reliance on Knowledge of a POSITA is Conclusory and Cannot Supply the Missing Architectural Rationale

Critically, Petitioner does not dispute that the claims require a separate gear assembly or a structural bypass. Pet. at 17-18. But rather than grapple with this structural requirement, Ground 2 simply relies on averred POSITA general knowledge to argue that a control system for switching modes would have been obvious if not inherent. *Id.* at 30-31. But the claim-critical gap here is not merely a control system; it is the drivetrain architecture that enables the claimed bypass relationship in the '648 patent. Petitioner offers no articulated, record-grounded rationale for why a POSITA would depart from Conlon's integrated EVT design (two interconnected levers *within* EVT 14) to a topology that includes a distinct gear assembly positioned relative to the transmission device and a bypass-capable coupling relationship for the second motor.

Changing from one topology to the other is not a routine substitution or design choice. It requires rethinking how torque is introduced into the driveline, how motors interact mechanically with the transmission, and how propulsion responsibilities are divided across components. That level of change confirms that the differences are substantial.

An obviousness analysis must do more than identify that elements were “known.” It must explain what specific modifications would be made to the prior art, how those modifications would be implemented, and why a POSITA would be motivated to make them, with a reasonable expectation of success. This is especially true where, as here, the claim requires a different system architecture, not a parameter tweak or substitution of equivalents. Ground 2 does not contain that explanation.

4. Conlon’s Disclosure Points Toward Internal EVT Reconfiguration, Not Toward Segregating a Gear Assembly to Enable Bypass

Conlon explains that EVT 14 has “multiple interconnections,” including interconnections between lever 20 and lever 22, and selective connections used to establish operating modes. Ex. 1004 at [0030]-[0032]. That is, Conlon’s solution space is internal transmission reconfiguration—precisely the opposite of what Petitioner must justify under the proper construction: a bypass-capable coupling relationship to a distinct gear

assembly relative to the transmission device. Ground 2 never reconciles this mismatch between Conlon’s disclosed approach (integrated EVT topology) and the claimed architecture.

5. Ground 2 Improperly Treats an Architectural Gap as if it Were a Minor Implementation Detail

Petitioner identifies no specific structural modification to Conlon that would yield the required distinct gear assembly and bypass-capable coupling arrangement; its asserted rationale focuses on control system selection of modes rather than the drivetrain redesign required by the claims. But that assertion does not supply (or even address) the claim-defining bypass-capable coupling arrangement, which is explicitly tied to the gear assembly being coupled between the second motor and the transmission device “such that” the second motor’s output bypasses the transmission device when driving through the gear assembly. A generalized statement that “control systems were well known” does not bridge that structural gap.

6. Summary: As to Obviousness, Ground 2 Fails

Ground 2 is expressly contingent and derivative: Petitioner “incorporate[s]” Ground 1 and asserts that, “to the extent” Conlon is “found not to disclose” the claimed control system, the challenged claims “still would have been obvious ... based on the teachings of Conlon.” Pet. at 30-

31. That approach does not carry Petitioner’s burden under § 103—particularly under the proper construction of the bypass limitation. Under that construction, the central issue is not whether Conlon’s integrated EVT can be operated in multiple modes, but whether Petitioner has identified an articulated, evidence-based reason to modify Conlon’s integrated EVT architecture so that the second motor has a bypass-capable coupling relationship to a distinct gear assembly positioned relative to the transmission device, such that when the second motor drives the vehicle through the gear assembly (as the claims require), its output reaches the driveline without traversing the transmission device’s planetary-gear transmission architecture. Petitioner has not done so; hence, Ground 2 fails.

VI. GROUND 3 FAILS BECAUSE INDEPENDENT CLAIM 9 IS NOT OBVIOUS IN VIEW OF CONLON AND REYNOLDS AND REYNOLDS DOES NOT CURE DEFICIENCIES OF CONLON FOR CLAIMS DEPENDING FROM CLAIMS 1 OR 16

Independent Claim 9 contains the same drivetrain architecture as Claim 1, including the requirement that the output of the second traction motor bypass the transmission device via a separate gear assembly. Ex. 1001 at 14:10-16. In Ground 3, Petitioner relies exclusively on Conlon for those limitations and invokes Reynolds only for ancillary electrical features. Pet.

at 32, 37 (as to Claim 1), 43 (as to claims 9-15), 53 (as to claim 16). Because Reynolds is not cited to address any of the structural deficiencies in Conlon, the same anticipation and obviousness failures discussed with respect to Claims 1 and 16 apply equally to claims depending therefrom and to Claim 9 and its dependent claims. Accordingly, Ground 3 fails to establish a reasonable likelihood that any challenged claim is unpatentable and does not support institution of trial.

VII. GROUND 4 FAILS BECAUSE INDEPENDENT CLAIMS 1, 9, and 16 ARE NOT ANTICIPATED BY ORTMANN

Petitioner's anticipation challenge based on Ortmann fails to present a reasonable likelihood of unpatentability because it relies on an impermissible reconstruction of Ortmann's drivetrain architecture and a mode-by-mode cherry-picking of different operating states to satisfy different portions of the claims. Under the proper construction, independent Claims 1, 9, and 16 require a drivetrain architecture that includes a distinct gear assembly coupled between the second traction motor and the transmission device, arranged such that, when the second motor drives the vehicle through that gear assembly, its mechanical output reaches the driveline without traversing the transmission device's planetary-gear

transmission architecture. Ortmann does not disclose that arrangement as arranged in the claims.

A. Anticipation Requires Disclosure of the Claimed Architecture As Arranged

Anticipation is a strict inquiry. A single reference must disclose each claim limitation, arranged as in the claim, in a single embodiment or configuration. *Verdegaal Bros.*, 814 F.2d at 631. It is not sufficient that different limitations can be located in different operating modes or different states of engagement. Where a reference discloses mutually exclusive configurations—one satisfying one aspect of a limitation and another satisfying a different aspect—anticipation fails as a matter of law. See *Microsoft Corp. v. Biscotti, Inc.*, 878 F.3d 1052, 1069 (Fed. Cir. 2017) (“[A]nticipation is not proven by multiple, distinct teachings that the artisan might somehow combine to achieve the claimed invention.”).

B. What Ortmann Actually Discloses About Its Drivetrain Topology

Ortmann describes a power-split hybrid drivetrain built around a planetary gearset 14 and a countershaft 34 with downstream layshaft and differential gearing: The planetary gearset 14 includes a sun gear connected to generator 22, a carrier 25 connected to engine 12, and a ring gear 28. “The ring gear 28 is connected to countershaft 34 and layshaft gear pair 36–37.

The rotor 30 of motor 16 is connected to countershaft 34 through the layshaft gear pair 32–33.” Ex. 1008 at [0020].

Ortmann Overview: Power-Split Drivetrain

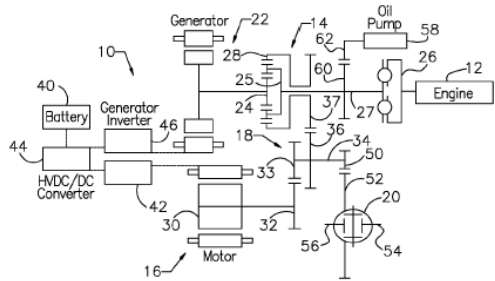


Fig. 1

- Power-split architecture
- Planetary gearset combines torque
- Downstream layshaft/differential

Thus, Ortmann discloses that motor 16 is continuously geared to the countershaft via layshaft gearing, and that the ring gear of the planetary gearset is connectable to that same countershaft. Ortmann further explains—when describing specific operating modes—how clutching determines whether the planetary gearset is mechanically engaged in the driveline topology. *Id.* at [0029], [0032]. These disclosures are important because they show how Ortmann switches between fundamentally different drivetrain configurations, not a single configuration that simultaneously satisfies the claim.

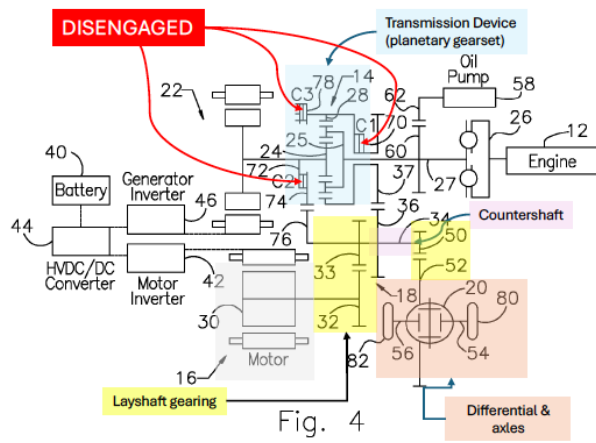
C. Ortmann Does Not Disclose a Configuration that Satisfies “Coupled Between . . . Such That . . . Bypasses

Claims 1, 9, and 16 require a drivetrain configuration in which the second traction motor has a bypass-capable coupling relationship to a distinct gear assembly relative to the transmission device. For anticipation, Petitioner must show that Ortman describes this precise configuration in a single embodiment. Ortmann does not.

1. Motor-Only Operation Achieves Drive by Isolating—Not Bypassing—the Transmission Device

In Ortmann’s one-motor electric drive mode (Mode 1), all clutches and the brake are disengaged, and motor 16 “is connected directly to the wheels . . . through layshaft gears.” Ex. 1008 at [0029]. In this mode, Ortmann expressly notes, “Losses are minimized due to the planetary gearset 14 and generator 22 not rotating.” *Id.*

Ortmann's Mode 1: Motor-Only Drive By Isolating the Planetary Transmission



Mode 1: One Motor Electric Drive

[0029] When clutches 70, 72 and brake 78 are disengaged, motor 16 is isolated from the primary axis of shaft 27 and is connected directly to the wheels 80, 82 through layshaft gears 32-33, countershaft 34, layshaft gears 50-52, differential 20. Mode 1 is used to drive the vehicle electrically under most conditions. Losses are minimized due to the planetary gearset 14 and generator 22 not rotating.

Planetary gearset 14 (transmission device) is **not rotating / effectively isolated**

Only motor 16 drives the wheels via the countershaft/differential path

Why this doesn't meet the claims:

There is no gear assembly "coupled **between**" the motor and the transmission device

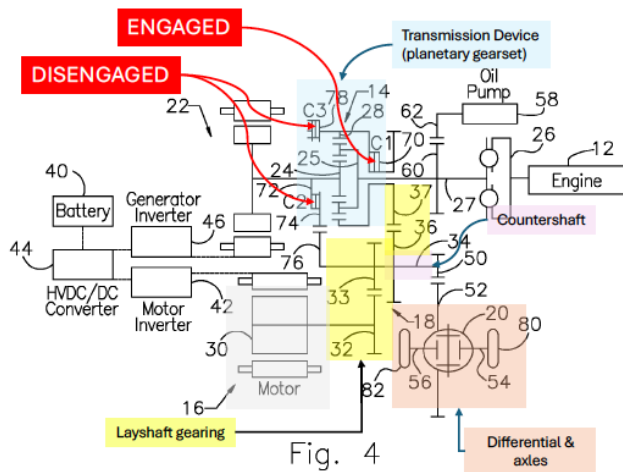
The transmission device is **not part of the claimed coupled-between relationship in this configuration** (it's isolated)

This disclosure confirms that motor-only operation is achieved by isolating or disengaging the planetary transmission device from the active driveline path. In that configuration, the planetary gearset is not part of the coupling relationship at all. The transmission device is not "bypassed" *while remaining coupled in the manner required by the claims*; rather, in this configuration, it is not part of the claimed "coupled between" relationship at all. A configuration in which the transmission device is decoupled or isolated cannot satisfy a claim limitation that presupposes a gear assembly *coupled between* the second motor and that transmission device.

2. When the Planetary Transmission Device Is Coupled, Motor Torque Does Not Bypass It

In Ortmann's powersplit mode (Mode 4), clutching establishes a mechanical connection between the ring gear 28 (a member of planetary gearset 14) and the countershaft. *Id.* at [0032].¹ In this configuration, the planetary gearset “directs the engine power to either an electric drive path or a mechanical drive path,” and the ring gear is mechanically tied into the output path. *Id.*

Ortmann's Mode 4: Powersplit Engages the Planetary Transmission



Mode 4: Powersplit

[0032] When clutch 70 is engaged, and both clutch 72 and brake 78 are disengaged, the planetary gearset 14 directs the engine power to either an electric drive path or a mechanical drive path. The sun gear 24 of the planetary gearset 14 is connected to the generator 22. The carrier 25 of the planetary gearset 14 is connected to the engine 12 through a torsion damper 26 and shaft 27. The ring gear 28 is connected to countershaft 34 through clutch 70 and layshaft gear pair 36-37. The rotor 30 of motor 16 is connected to countershaft 34 through the layshaft gear pair 32-33.

Planetary gearset 14 is actively directing power (i.e., the transmission device is engaged)

The ring gear (a planetary member) is mechanically coupled into the output path via clutch 70

Why this doesn't meet the claim:

The transmission device is “in the chain,” but the motor's output is not “bypassing” the transmission device—it is mechanically integrated with it.

¹ “When clutch 70 is engaged . . . [t]he ring gear 28 is connected to countershaft 34 through clutch 70 and layshaft gear pair 36-37.”

In this mode then, motor 16's torque at the countershaft is mechanically coupled to a member of the planetary gearset. The planetary transmission device is therefore engaged in the driveline topology and participates in defining the kinematic and torque relationships at the output. In this configuration, the second motor's output *does not bypass* the transmission device; it is mechanically integrated with it.

3. Ortmann's Disclosure Is Mutually Exclusive, Not Cumulative

Ortmann's own mode descriptions thus present an either/or situation:

- Either the planetary transmission device is isolated (motor-only mode), in which case there is no “coupled between” relationship to satisfy the claim;
- Or the planetary transmission device is engaged (power-split mode), in which case the motor's output does not bypass it.

Petitioner's anticipation theory depends on improperly combining these mutually exclusive configurations—using motor-only operation to argue “bypass,” while simultaneously treating the planetary gearset as the referenced “transmission device” to satisfy the “between” requirement. Anticipation law does not permit such mixing and matching across modes. See *Biscotti, Inc.*, 878 F.3d at 1069.

Put simply, Ortmann never discloses a single drivetrain configuration in which a distinct gear assembly is coupled between the second motor and the transmission device while the transmission device remains coupled yet bypassed, as the claims require.

D. Layshaft Gearing 18 Is Not the Claimed “Gear Assembly” Under the Proper Construction

Petitioner attempts to equate Ortmann’s layshaft gearing with the claimed “gear assembly.” Pet. at 60-61. That attempt fails under the proper claim construction.

Ortmann’s layshaft gearing serves to transmit motor and/or ring-gear torque to the countershaft, which in turn delivers torque to the wheels through the differential mechanism. Ex. 1008 at [0019–0022]. In particular, Ortmann begins by defining the power-split transmission around planetary gearset 14: “FIG. 1 illustrates a HEV powertrain 10 having a power flow architecture commonly known as powersplit. Powertrain 10 includes an engine 12; planetary gearset 14; electric machine 16 ... and electric machine 22.” *Id.* at [0019]. Then Ortmann explains what the planetary gearset does: “The planetary gearset 14 directs the engine power to either an electric drive path or a mechanical drive path.” *Id.* at [0020]. This is the classic definition

of a transmission device: the component that resolves speed/torque relationships and directs power flow.

Next, Ortmann describes how both the motor and the planetary ring gear connect to the countershaft: “The ring gear 28 is connected to countershaft 34 and layshaft gear pair 36–37. The rotor 30 of motor 16 is connected to countershaft 34 through the layshaft gear pair 32–33.” *Id.* This establishes the countershaft 34 as the common output node for torque leaving the planetary gearset and/or motor. Ortmann does not say the countershaft *is* the transmission. It is the output shaft of the transmission architecture.

Later, Ortmann states: “Countershaft 34 is connected through a pinion 50 and ring gear 52 of the differential mechanism 20, which transmits power to the vehicle wheels through halfshafts or axle shafts 54, 56.” *Id.* at [0022]. This establishes the following chain: planetary gearset 14 / motor 16 → countershaft 34 → differential 20 → axle shafts 54, 56 → wheels.

The layshaft gearing therefore does ***not*** constitute a distinct intermediate gear assembly positioned relative to both the second motor and the transmission device in a manner that establishes a bypass-capable coupling relationship while the second motor drives through it. Instead, the layshaft operates either when the transmission device is isolated (motor-only

mode) or as part of a driveline topology in which the transmission device is mechanically engaged (power-split mode). In neither case does Ortmann disclose the claimed arrangement.

E. Conclusion (Ground 4)

Because Ortmann does not disclose, in any single configuration, a distinct gear assembly coupled between the second traction motor and the transmission device such that, when the second motor drives the vehicle through that gear assembly, its output bypasses the transmission device, Petitioner has not demonstrated a reasonable likelihood that independent Claims 1, 9, or 16 are anticipated. The Petition's Ortmann challenge relies on impermissible reconstruction across different operating states and therefore fails to satisfy the "arranged as claimed" requirement for anticipation. Instituting trial on this ground would require the Board to relax a central architectural requirement of the claims and to reconstruct Ortmann's disclosure. Such actions are impermissible. *SAS Inst.*, 138 S.Ct. at 1355; hence, institution should be denied as to this ground.

VIII. GROUND 5 FAILS FOR THE SAME REASONS AS GROUND 4

In Ground 5, Petitioner alleges that Claims 3 and 11, which depend, respectively, from Claims 1 and 9, are obvious in view of Ortmann. Pet. at

83. However, in making this challenge the Petition merely incorporates in analysis of claims 1 and 9 in Ground 4 for the features of those respective independent claims. *Id.* As demonstrated above, those allegations are to claims 1 and 9 fail, hence, the challenges presented in Ground 5 likewise fail.

IX. CONCLUSION

For the foregoing reasons, Patent Owner respectfully requests that the Director deny institution of IPR2026-00250.

Respectfully submitted,

Dated: May 12, 2026

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WORD-COUNT CERTIFICATE

I certify that the foregoing document complies with the type-volume limitation of 37 C.F.R. § 42.24(a) and (b) and contains 8,596 words (including words in drawings created by the Patent Owner or as annotations added by the Patent Owner to images reproduced in this document) based on the word count indicated by Microsoft® Word for Mac v. 16.106.2, excluding those portions exempted by the rule.

/Tarek N. Fahmi/

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CERTIFICATE OF SERVICE

The undersigned hereby certifies that a copy of the foregoing
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