

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

AISIN SEIKI CO., LTD., TOYOTA MOTOR CORP. and
AMERICAN HONDA MOTOR CO., INC.,
Petitioner,

v.

INTELLECTUAL VENTURES II LLC,
Patent Owner.

Case IPR2017-01539¹
Patent 7,683,509 B2

Before KRISTEN L. DROESCH, JOHN A. HUDALLA, and
AMANDA F. WIEKER, *Administrative Patent Judges*.

DROESCH, *Administrative Patent Judge*.

DECISION

Denying Patent Owner's Request for Rehearing
37 C.F.R. § 42.71(d)

¹ Case IPR2018-00444 has been joined with this proceeding.

I. INTRODUCTION

Patent Owner filed a Request for Rehearing (Paper 44, “Req. Reh’g”) of our Final Written Decision, dated December 12, 2018 (Paper 43, “Final Written Decision” or “Final Dec.”), finding challenged claims 1, 2, 14, and 15 of U.S. Patent 7,683,509 B2 (Ex. 1001, “’509 Patent”) unpatentable. Patent Owner contends the Board: (1) misapprehended the ’509 Patent’s “pump embodiment,” causing the Board to misconstrue “fluid pathway in the monolithic body” and find erroneously that Umeda discloses, teaches, or suggests this claim limitation; (2) misapprehended Patent Owner’s argument addressing Umeda’s support frame 16; and (3) overlooked evidence that the motor being “fluid-cooled” is an important part of the invention. *See* Req. Reh’g 2–15. For the reasons explained below, Patent Owner’s Request for Rehearing is *denied*.

II. ANALYSIS

The applicable standard for a request for rehearing of a Final Written Decision is set forth in 37 C.F.R. § 42.71(d), which provides that a request for rehearing “must specifically identify all matters the party believes the Board misapprehended or overlooked, and the place where each matter was previously addressed in a motion, an opposition, or a reply.” The party challenging a decision bears the burden of showing the decision should be modified. *Id.*

Pump Embodiment

Patent Owner contends that the Board’s rejection of Patent Owner’s claim construction in the Final Written Decision of IPR2017-01494² (“1494 IPR”) relied on the Board’s understanding that the “pump embodiment” disclosed in U.S. Patent 6,659,737 (“’737 Patent”) is an embodiment of the claims of the ’509 Patent. *See* Req. Reh’g 3 (citing 1494 IPR, Paper 36 (“1494 IPR Final Dec.”), 17–18). Patent Owner asserts that the Board construed “pathway” identically in both the Final Written Decision for this IPR and the Final Written Decision for the 1494 IPR. *See id.* (citing Final Dec. 16; 1494 IPR Final Dec. 17–18). Patent Owner notes the Board’s Final Written Decision in this IPR does not include the entire discussion of the “pump embodiment” that is included in the Final Written Decision of the 1494 IPR. *See id.* at 4. Notwithstanding, Patent Owner asserts the Board’s understanding of the “pump embodiment” necessarily formed a part of the claim construction analysis in both decisions, because that understanding informed the Board’s understanding of what “pathway” means in view of the ’509 Patent Specification. *See id.*

Patent Owner asserts that it “addressed the true nature of the ‘pump embodiment’ at the oral hearing.” Req. Reh’g 4–5 (reproducing Paper 42 (“Tr.”), 31:1–32:7; citing Ex. 2019, slide 16). According to Patent Owner, “Patent Owner made it clear that the **modification** of the ’737 pump disclosed by the ’509 Patent shows that the ‘fluid pathway **in the monolithic body**’ limitation requires the pathway to be **formed into** the monolithic body,

² IPR2017-01494 also challenged the ’509 Patent. The Final Written Decision for IPR2017-01494 also was entered on December 12, 2018.

not just a void bounded by the inner walls of a pump housing.” *Id.* at 5.

Patent Owner further asserts that it applied this argument to both the Umeda grounds in this IPR and the Stephan grounds in the 1494 IPR. *See id.* (quoting Tr. 32:8–33:3).

Patent Owner also contends that it “explained the same thing—that the ‘pump embodiment’ disclosed in the ’509 Patent is a **modification** of the ’737 Patent’s pump, in which the pump ‘has a channel, **formed into the monolithic body**’—in its Sur-Reply in the -01494 IPR.” Req. Reh’g 5–6 (quoting 1494 IPR, Paper 29 (“1494 IPR Sur-Reply”), 4). In support of its argument, Patent Owner reproduces the following passage from the ’509 Patent:

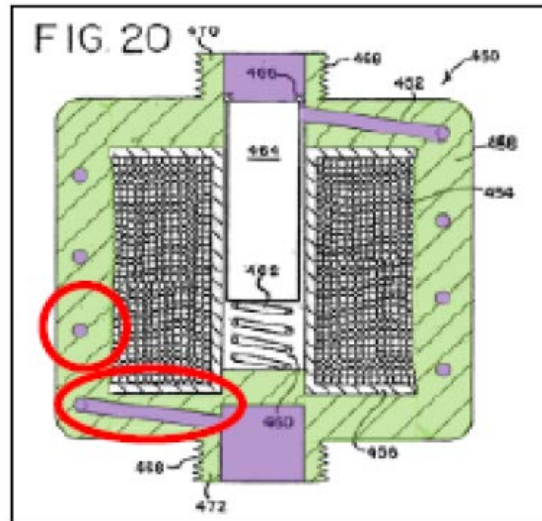
The fluid transported by the pump can circulate through **apertures formed in the encapsulant**. . . . The **flow path through the plastic** could be formed by either **injecting gas** into the molten plastic in the mold so as **to produce channels**, or by **molding around** a plurality of **conduits** filled with ice or wax which could later be removed **to leave an integrated flow path through the body**. In either manner, a fluid inlet port and a fluid outlet port could be formed in the body of injection molded thermoplastic, and the **pathway through the body would be confined within the body**. Thus the pathway is a defined **pathway through a housing** that is **formed**, at least in part, **out of the same monolithic body** that encapsulates the conductor.

Req. Reh’g 6 (reproducing Ex. 1001, 20:13–53 (Patent Owner’s emphasis)). According to Patent Owner, this passage of the ’509 Patent was also reproduced in the oral hearing slides and in the 1494 IPR Sur-Reply. *See id.* (citing Ex. 2019, slide 16; 1494 IPR Sur-Reply 4–5).

Patent Owner argues that, despite Patent Owner’s explanation, the Board misapprehended the nature of the “pump embodiment” because the “pump embodiment” of the ’737 Patent is not an embodiment of the claims

of the '509 Patent. See Req. Reh'g 6. According to Patent Owner, "the specification of the '509 Patent makes it abundantly clear to a person of ordinary skill in the art that ***the 'pump embodiment' of the '737 Patent is actually a prior art pump that is not covered by the claims of the '509 Patent.***" *Id.* at 6–7 (quoting Ex. 1001, 20:29–31). Patent Owner contends "the Board's determination that the ***unmodified prior art*** pump of the '737 Patent is an embodiment of the claims of the '509 Patent was erroneous." *Id.* at 7. According to Patent Owner, "a correct understanding of both the ***unmodified prior art*** pump of the '737 Patent and the ***modified and inventive*** 'pump embodiment' of the '509 Patent compels the conclusion that 'the present invention' includes a fluid pathway or structural channel, that is ***formed into the monolithic body.***" *Id.* at 8–9 (reproducing Ex. 1001, 20:13–53, Fig 20 with annotations; citing Ex. 2019, slide 16; 1494 IPR Sur-Reply 4–5). Patent Owner argues that the "pump embodiment" is consistent with the '509 Patent's disclosure of its other embodiments, including Figure 20. *Id.* at 8–9.

Patent Owner's annotated Figure 20 of the '509 Patent is reproduced below:



According to Patent Owner,

Figure 20 illustrates in a picture the exact same thing that the '509 Patent describes in words with respect to the modified and inventive “pump embodiment.” Specifically, Figure 20 illustrates a channel that is made of “apertures formed in the encapsulant” or by “molding around a plurality of conduits filled with ice or wax which could later be removed to leave an integrated flow path through the body.”

Req. Reh’g 9 (quoting Ex. 1001, 20:13–53). Patent Owner contends “Figure 20 illustrates a structural channel **formed into** the monolithic body, not a mere void bounded by the inner walls of the monolithic body.” *Id.* Patent Owner also asserts that “the pathway formed into the monolithic body depicted by Figure 20 is representative of **every** example of a pathway disclosed in the figures or text of the '509 Patent.” *Id.* at 10.

Patent Owner does not direct us to any location in the Response or Sur-Reply filed in this IPR where Patent Owner addressed the “pump embodiment.” For this reason alone, we are not persuaded that we misapprehended or overlooked arguments or evidence previously addressed in the Patent Owner Response or Sur-Reply. For this same reason, we also are not persuaded by Patent Owner’s arguments that we erroneously

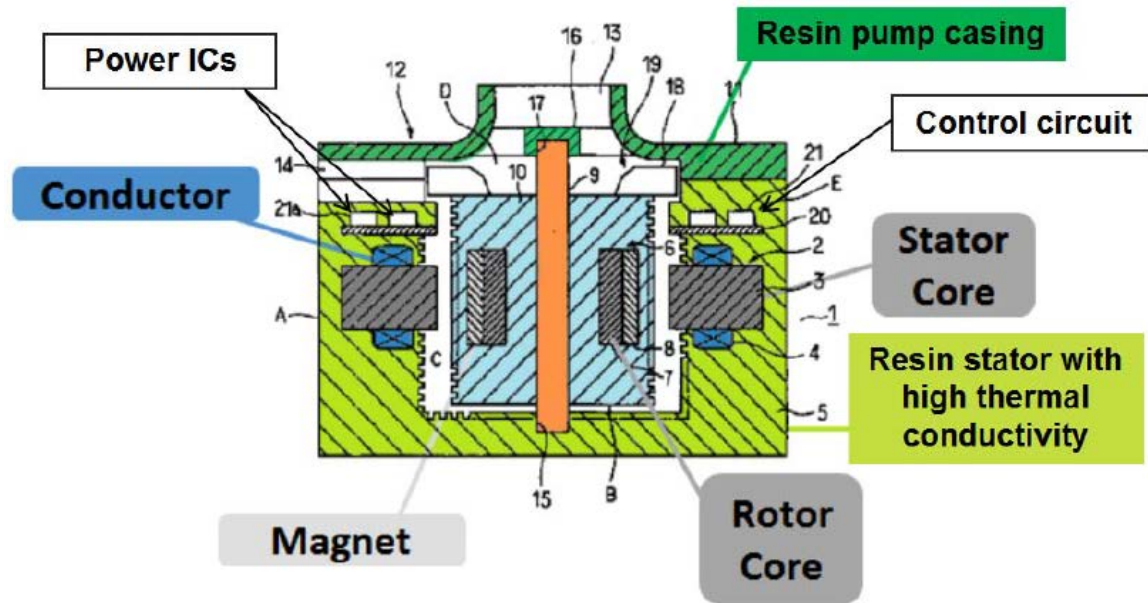
construed “fluid pathway in the monolithic body,” and erroneously found that Umeda discloses, teaches, or suggests that claim limitation. *See* Req. Reh’g 10–12.

Umeda’s Support Frame

Patent Owner argues that the Board misapprehended Patent Owner’s argument that Umeda’s support frame 16 is not covered by a monolithic body. *See* Req. Reh’g 12 (citing Final Dec. 45); *see also* PO Resp. 36–37 (Patent Owner’s argument). Patent Owner asserts that the Board accepted Petitioner’s argument that Patent Owner acknowledged that Umeda’s support frame 16 is part of resin pump casing cover 11. *See id.* (citing Final Dec. 46); *see also* Reply 16–17 (Petitioner’s argument). Patent Owner contends that it never admitted that support frame 16 is part of casing cover 11, and asserts that Patent Owner argued the opposite. *See id.*

Patent Owner contends that support frame 16 and casing cover 11 have different reference numbers because they are different components. *See* Req. Reh’g 12. Patent Owner argues that Patent Owner has always asserted that support frame 16 is separate from, and not covered by, casing cover 11. *See id.* at 12–13 (quoting PO Resp. 20, 33, 36–37; citing PO Resp. 19–24). Patent Owner asserts that Petitioner used the color-coding in the figure on page 30 of the Patent Owner Response to support its assertion that Patent Owner admitted that support frame 16 is part of casing cover 11, but that this is a “manufacture[d] . . . spurious assertion.” *Id.* at 13 (citing PO Resp. 30); *see also* Reply 17 (reproducing annotated Umeda Figure 1 from PO Resp. 30).

Patent Owner’s reproduction of Umeda’s Figure 1 with annotations from page 30 of the Patent Owner Response is reproduced below:



Patent Owner’s annotated reproduction of Umeda’s Figure 1 depicts casing cover 11 and support frame 16 shaded in green, and a label “Resin pump casing” also in the same green color, and molded stator A shaded in lime green and a label “Resin stator with high thermal conductivity” also in the same lime green color.³ According to Patent Owner, the text of Patent Owner’s Response refutes Petitioner’s assertion that the color-coding constitutes an admission. See Req. Reh’g 13–14. Patent Owner asserts “the figure Patent Owner used to show that support frame 16 is separate from and not covered by casing cover 11 does **not** include color-coding even remotely supporting Petitioner’s assertion.” *Id.* at 14 (citing PO Resp. 35). Finally, Patent Owner contends that the Board’s citation to paragraph 17 of Umeda does not show that support frame 16 is part of casing cover, but merely discloses the relative location of support frame 16 within intake port 12 of

³ A similar annotated reproduction of Umeda’s Figure 1 with identical green shading for casing cover 11 and support frame 16 is included on page 27 of the Patent Owner Response.

casing cover 11. *See* Req. Reh’g 14; *see also* Reply 16 (Petitioner citing Ex. 1004 ¶ 17 in support of its argument that Umeda’s support frame is part of casing cover 11).

We are not persuaded by Patent Owner’s arguments, which are responsive to Petitioner’s Reply arguments. Patent Owner had an opportunity to address Petitioner’s Reply arguments in its Sur-Reply. Instead of addressing Petitioner’s Reply arguments in its Sur-Reply, Patent Owner now attempts to rebut Petitioner’s Reply arguments in its Request for Rehearing. A request for rehearing is not an opportunity to respond belatedly to Petitioner’s Reply arguments. For these reasons, we are not persuaded that we misapprehended or overlooked arguments and evidence in the Patent Owner Response or Sur-Reply.

“Fluid-Cooled”

Patent Owner contends “[t]he Board overlooks pages 8–10 of the Patent Owner Response, which establish in exhausting detail that the specification discloses that the motor or device being ‘fluid-cooled’ is a fundamental part of the invention that distinguishes the invention from ‘existing motor designs’ with ‘limited effective dissipation of the heat.’” Req. Reh’g 14–15. Patent Owner asserts that the Board should consider this overlooked specification evidence and find that “fluid-cooled” is a claim limitation and find that the challenged claims are not unpatentable over Bramm. *See id.* at 15.

We are not persuaded that we misapprehended or overlooked Patent Owner’s arguments at pages 8–10 of the Patent Owner Response. As addressed on page 11 of the Final Written Decision, we considered Patent Owner’s argument that the ’509 Patent Specification “repeatedly and

consistently indicates that cooling of the motor is an important part of the invention disclosed and claimed in the '509 Patent,” and considered Patent Owner’s numerous citations to the '509 Patent in support of its arguments. See Final Dec. 11. Specifically, the Final Written Decision at page 11 cites the numerous passages of the '509 Patent quoted by Patent Owner on pages 8 through 10 of the Patent Owner Response (i.e., Ex. 1001, Abstract, 1:6–9, 1:43–58, 2:6–9, 2:15–19). Thus, in rendering the Final Written Decision, we did not overlook Patent Owner’s arguments on pages 8–10 of the Response and the disclosures of the '509 Patent (Ex. 1001, Abstract, 1:6–9, 1:43–58, 2:6–9, 2:15–19) cited therein by Patent Owner in support of its arguments. Accordingly, we are not persuaded that we overlooked arguments or evidence at pages 8–10 of the Patent Owner’s Response addressing “fluid cooled.”

III. DECISION ON REHEARING

Accordingly, Patent Owner’s request for rehearing is *denied*.

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