

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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SCHAEFFLER GROUP USA INC.,  
Petitioner,

v.

BORGWARNER ITHACA LLC,  
Patent Owner.

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Case IPR2020-01482  
Patent 7,194,992 B2

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Before PATRICK R. SCANLON, MATTHEW S. MEYERS, and  
ALYSSA A. FINAMORE, *Administrative Patent Judges*.

MEYERS, *Administrative Patent Judge*.

DECISION

Denying Petitioner's Request on Rehearing of  
Decision Denying Institution of *Inter Partes* Review  
*37 C.F.R. § 42.71(d)*

## I. INTRODUCTION

Schaeffler Group USA Inc., (“Petitioner”) filed a Petition for *inter partes* review of claims 1–4 of U.S. Patent No. 7,194,992 B2 (Ex. 1001, “the ’992 patent”). Paper 2 (“Pet.”). BorgWarner Ithaca LLC, (“Patent Owner”) filed a Preliminary Response. Paper 8 (“Prelim. Resp.”). On March 12, 2021, the Board issued a Decision denying institution determining that Petitioner has not shown a reasonable likelihood that it would prevail with respect to at least one of the challenged claims. Paper 13 (“Decision” or “Dec.”). On April 12, 2021, Petitioner filed a Request for Rehearing of our Decision. Paper 14 (“Req. Reh’g”).

For the reasons provided below, Petitioner’s Request for Rehearing is *denied*.

## II. ANALYSIS

When rehearing a decision on institution, the Board will review the decision for an abuse of discretion. *See* 37 C.F.R. § 42.71(c). An abuse of discretion may be determined if a decision is based on an erroneous interpretation of law, if a factual finding is not supported by substantial evidence, or if the decision represents an unreasonable judgment in weighing relevant factors. *See Star Fruits S.N.C. v. U.S.*, 393 F.3d 1277, 1281 (Fed. Cir. 2005); *Arnold P’ship v. Dudas*, 362 F.3d 1338, 1340 (Fed. Cir. 2004); *In re Gartside*, 203 F.3d 1305, 1315–16 (Fed. Cir. 2000). 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.” 37 C.F.R. § 42.71(d). “The burden of showing a decision should be modified lies with the party challenging the decision.” *Id.*

In our Decision, we found that Petitioner failed to show, on the preliminary record, a reasonable likelihood of prevailing in showing the unpatentability of at least one of claims 1–4 of the '992 patent based on grounds 1 through 6. Dec. 10–39.

Petitioner raises two primary arguments in its Request for Rehearing: (1) the Board misapprehends descriptions of “flow” and “restriction” as pertaining to structural differences because these terms describe different directions of flow at different phases of operation; and (2) the Board misapprehended or overlooked that there is no construction of “outer circumference” that supports denial of institution. *See generally* Req. Reh'g.

*A. Alleged Misapprehension of the Flow and Restriction Structure*

Petitioner asserts that the Board mistakenly interprets Nakayoshi's description of “flow” and the '992 patent's description of “restriction” as an indication of different structures. Req. Reh'g 1–2 (citing Dec. 20–21). According to Petitioner, however, the respective descriptions pertain to similar structures just “at different stages of VCT phaser operation.” *Id.* In particular, Petitioner argues that similar structures in both Nakayoshi and the '992 patent “allow for easy flow into the chambers in one direction of vane movement and restricted oil flow out of the chambers in the opposite direction of vane movement.” *Id.* Petitioner asserts that because Nakayoshi's VCT phasers operate in both directions, the Board mistakenly attributes Nakayoshi's “very quick” response to passage 31c during movement of the vane toward the wall, whereas “very quick” applies to movement away from the wall. *Id.* at 2–4.

On the record before us, we are not persuaded by Petitioner's contention that we misapprehended or overlooked the operation of

Nakayoshi's passage 31c. In our Decision, we found persuasive Patent Owner's argument that "Nakayoshi's connecting passage 31c is not the claimed 'restriction passage' because it continues to provide a direct unrestricted path between the face of the vane 70 and the passage 22 even at the limit of the vane 70's travel." Dec. 20 (citing Prelim. Resp. 18). In particular, we noted that "Nakayoshi identifies connecting passage 31c is used to increase flow in order to increase the response speed of its valve timing control device." *Id.* at 21 (citing Ex. 1004, 4:58–5:29). Although we appreciate Petitioner's contention that the cited portion of Nakayoshi refers to movement away from the wall as opposed to movement toward the wall, Petitioner does not explain adequately how the same passage, namely, passage 31c, will restrict flow in one direction, and will increase flow in the opposite direction. Passage 31c is depicted in Figure 5, reproduced below.

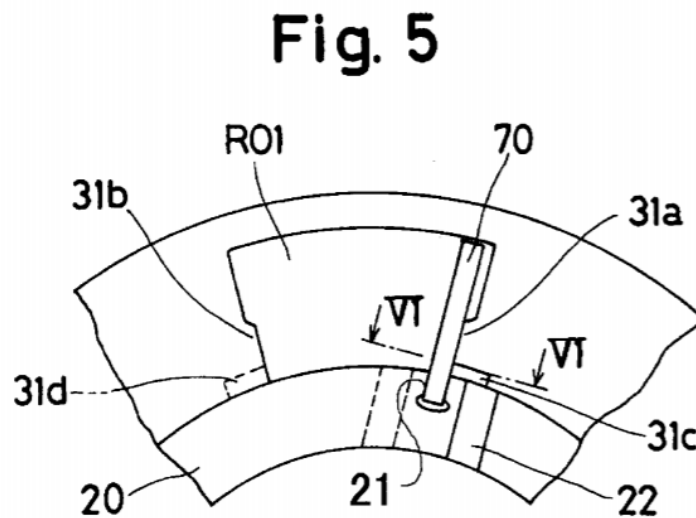


Figure 5 is a sectional view, on an enlarged scale, of a portion of a stopper. Ex. 1004, 2:36–42. Once vane 70 contacts stopper 31a, fluid flows out of chamber R01 through passage 23 (unnumbered dashed-line passage in

rotor 20), and at the same time, fluid starts to fill chamber R2 (to the right of vane 70 (*see* Fig. 2)) by flowing through passage 22 and passage 31c. *Id.* at 4:24–38, 4:58–5:11; *see also* Dec. 14–15. Similarly, once vane 70 contacts stopper 31b, fluid flows into chamber R01 through passage 23, and at the same time, fluid starts to flow out of chamber R2 by flowing through passage 31c and passage 22. *Id.*

Petitioner asserts that “Nakayoshi shows passage 31c which, when the vane moves towards wall 31a, restricts flow into passage 22.” Req. Reh’g 2 (citing Pet. 9). Petitioner’s assertion appears to assume that passage 31c restricts flow because it is smaller than passage 22. *See id.* at 8–9 (asserting “as vane 70 nears its end of travel, passage 22 ... is ... closed over such that fluid can only enter through connecting passage 31(c)[,] ... [which] serves to restrict fluid flow into the passage 22” (alterations in original)). This assumption, however, is not supported by the disclosure of Nakayoshi, despite the relative widths of the passages shown in the sectional view of Figure 5. In particular, Nakayoshi describes passage 31c as “connecting passage 31c.” Ex. 1004, 4:63–64. Nakayoshi further discloses that “connecting passage 31c is communicated between passage 22 and the torque receiving portion 70a of the vane 70 when the vane 70 contacts the stopper 31a.” *Id.* at 4:66–5:2. These portions of Nakayoshi support Patent Owner’s argument that connecting passage 31c “provide[s] a direct unrestricted path between the face of the vane 70 and the passage 22 even at the limit of the vane 70’s travel.” Dec. 20 (citing Prelim. Resp. 18). That is, Nakayoshi explicitly discloses that connecting passage 31c is for fluid communication (flow). *See* Dec. 21 (“[W]e agree with Patent Owner that Petitioner has not provided persuasive evidence or argument that one of

ordinary skill in the art would understand that Nakayoshi's 'connecting passage' to be a 'structure, which is used to limit the flow of fluid.'").

Notwithstanding Nakayoshi's disclosure, as noted above, it is not apparent how Nakayoshi's passage 31c will restrict flow into passage 22, but not out of passage 22. Specifically, Petitioner asserts that the Board relies on the disclosure in Nakayoshi that "refers to oil flow from the passage into (not out of) the chamber, which ... does not pertain to vane 70's approach to the wall, during which oil flows from chamber R01 into narrowed passage 31c (i.e., the restriction passage)." Req. Reh'g 9 (citing Dec. 20). Thus, according to Petitioner, "Nakayoshi's explanation of a beneficial effect of passage 31c when oil pressure reverses to assist the vane's movement away from the wall is immaterial to whether Nakayoshi's structures meet claim 1's requirements for the vane's movement toward the chamber wall." *Id.* at 11. We disagree.

As explained above and as Petitioner acknowledges, fluid flows into and out of passage 22. And, when fluid flows out of passage 22 into connecting passage 31c, "Nakayoshi identifies [that] connecting passage 31c is used to increase flow in order to increase the response speed of its valve timing control device." Dec. 21 (citing Ex. 1004, 4:58–5:29). Therefore, even if Nakayoshi's disclosure of a "very quick" response pertains to the flow out of the chamber, it is material to whether Nakayoshi's structures meet claim 1's requirements of a "restriction passage" that will "restrict[] fluid flow," as claim 1 requires.<sup>1</sup>

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<sup>1</sup> The Decision notes that "claim 1 also requires that 'the first passage or the second passage is completely closed except for fluid from a restriction passage formed between the housing and the length of the outer circumference of the

For these reasons, we are not persuaded that we misapprehended the evidence presented as to whether connecting passage 31 of Nakayoshi provides “restricted flow” as determined in our Decision, and as such, we do not modify our finding that Petitioner has not adequately established that connecting passage 31 is a restriction passage.

*B. Alleged Overlook of Missing “Outer Circumference” Construction*

In its Request, Petitioner asserts that the Board’s Decision to deny institution “with respect to Shirai and Komazawa essentially requires ‘outer circumference’ to mean the ‘most radially distal circumferential portion.’” Req. Reh’g 11–12. Petitioner argues that the Board misapprehended and/or overlooked that: (i) Petitioner construed “restriction passage” as it pertains to “outer circumference”; (ii) Petitioner addressed the understanding of “outer circumference” in the context of the file history and the construction of “restriction passage”; and (iii) Patent Owner declined to offer a claim construction for “outer circumference.” *Id.* at 11. Petitioner thus asserts that the Board misapprehended “Petitioner’s explanation of ‘outer circumference.’” *Id.* at 12.

Initially, we note that Petitioner does not indicate where in its Petition it addressed the meaning of “outer circumference.” *See* Pet. 20–24 (Claim Construction). Per 37 C.F.R. § 42.71(d), Petitioner must point out where the

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rotor’ ([Ex. 1001,] 12:39–42) such that the ‘restriction passage’ must be ‘formed between the housing and the length of the outer circumference of the rotor’ and ‘restrict[] fluid flow into the first passage or the second passage.’ *Id.* at 12:50–51. Thus, one of ordinary skill in the art would understand claim 1 to include flow through a passage ‘formed between the housing and the length of the outer circumference of the rotor’ and that flow through the passage is restricted.” Dec. 12–13.

matter previously was addressed in its Petition. We could not have misapprehended argument or evidence that was not presented. A request for rehearing is not an opportunity to supplement a petition. Moreover, even if Petitioner's allegations that "outer circumference" was sufficiently construed when "restriction passage" was construed, contrary to Petitioner's assertion, the decision to deny institution for the Shirai- and Komazawa-based grounds did not rest on the claimed "outer circumference" of the rotor.

Rather, the Decision determined that "Petitioner has not shown a reasonable likelihood of prevailing in demonstrating that the combination of Shirai and Konakawa discloses the argued limitation," namely, a "restriction passage," because "Shirai includes grooves 50–55, 150–155 to ensure sufficient flow" and is not a "restriction passage" in which fluid "is restricted or obstructed." *See* Dec. 29–30 ("We agree with Patent Owner that none of Shirai's grooves 50–55, 150–155 constitute a 'restriction passage.'"). That the Decision also noted that "the Petition fails to identify the "outer circumference" of the rotor with any particularity," does not entail that we overlooked Petitioner's arguments as to the outer circumference. Disagreement with the Board's analysis and conclusions is not a sufficient basis on which to request rehearing. It is not an abuse of discretion to have made an analysis or conclusion with which a party disagrees. Accordingly, the Decision did not misapprehend or overlook any arguments or evidence presented by Petitioner regarding the recited "outer circumference" with respect to Shirai and Konakawa. We did not abuse our discretion in determining that the Petitioner did not adequately establish a reasonable likelihood of prevailing on the proposed combination of Shirai and



Konakawa (Ground 2) and on the asserted ground based on Komazawa (Ground 3).

### III. CONCLUSION

For the foregoing reasons, Petitioner has not demonstrated that we misapprehended or overlooked arguments or evidence in determining whether claims 1–4 of the '992 patent are unpatentable. Accordingly, we see no reason to modify our Decision in this proceeding.

### IV. ORDER

Accordingly, it is

ORDERED that Petitioner's Request for Rehearing of our Decision is *denied*.

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