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Paper 8
Entered: May 13, 2016

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

ROBERT BOSCH LLC and DAIMLER AG,
Petitioner,

v.

ORBITAL AUSTRALIA PTY LTD,
Patent Owner.

Case IPR2016-00083
Patent 5,655,365

Before KEN B. BARRETT, JEREMY M. PLENZLER, and AMANDA F. WIEKER, *Administrative Patent Judges*.

BARRETT, *Administrative Patent Judge.*

DECISION
Denying Institution of *Inter Partes* Review
and Dismissing Motion for Joinder
35 U.S.C. §§ 315(c), 325(d); 37 C.F.R. §§ 42.122, 42.108

I. INTRODUCTION

Robert Bosch LLC and Daimler AG (collectively "Petitioner") filed a Petition requesting *inter partes* review of U.S. Patent No. 5,655,365 ("the '365 patent"). Paper 3 ("Pet."). The Petition challenges the patentability of claims 1, 2, 5, 9, 10, 12–14, and 18 of the '365 patent on the grounds of anticipation under 35 U.S.C. § 102 and obviousness under 35 U.S.C. § 103. Concurrently with the filing of the Petition, Petitioner filed a Motion for Joinder requesting joinder with one of two *inter partes* review trials currently pending before the Patent Trial and Appeal Board, *Robert Bosch LLC and Daimler AG v. Orbital Australia Pty Ltd*, Cases IPR2015-01258 and IPR2015-01259. Paper 4 ("Joinder Motion"). Specifically, Petitioner requests that the instant proceeding be joined with IPR2015-01258 or, alternatively, IPR2015-01259 should there be no institution in IPR2015-01258. *Id.* at 1. Orbital Australia Pty Ltd, the owner of the '365 patent, did not file a Preliminary Response to the Petition or an Opposition to the Joinder Motion. We have jurisdiction under 35 U.S.C. § 314(a).

Upon consideration of the Petition, Motion for Joinder, and the specific facts of this case, we exercise our discretion to deny review under 35 U.S.C. § 325(d). Because we determine that the Petition does not warrant institution, we are prohibited from granting, and thus dismiss as moot, the Motion for Joinder under 35 U.S.C. § 315(c).

A. Related Proceedings

Both parties identify, as matters involving the '365 patent, a district court case *Orbital Australia Pty Ltd. & Orbital Fluid Techs., Inc., v. Daimler AG, Mercedes-Benz USA LLC, Mercedes-Benz US Int'l Inc., Robert*

Bosch GmbH, & Robert Bosch LLC, Case No. 3:14-cv-808-REP (E.D. Va.), later transferred to the Eastern District of Michigan, Case No. 2:15-cv-12398, and Patent Trial and Appeal Board cases IPR2015-01258 and IPR2015-01259. Pet. 57–58; Paper 7.

B. The '365 Patent

The '365 patent pertains to "a method of operating an internal combustion engine in order to produce high exhaust gas temperatures" in the context of catalytic treatment of exhaust gases to reduce contaminants. Ex. 1001, col. 1, ll. 4–9. The patent explains that the catalyst, to effectively reduce contamination levels, must attain a minimum operating temperature, the "light-off" temperature. *Id.*, col. 1, ll. 10–17. The patent is directed to a method to reduce the time required to raise the catalyst to a light-off temperature condition, for example, upon engine start-up after a period of non-operation, and to maintain that condition. *Id.*, col. 1, ll. 19–25, 49–55.

The '365 patent describes a method where the ignition of the air/fuel mixture within at least one engine cylinder is retarded to after top dead centre[1] (ATDC) and, while the ignition is retarded, increasing the fueling rate to that cylinder to a level higher than required when operating normally. *Id.*, col. 1, ll. 56–64. The Specification, explaining why there is a need to increase the fueling rate during the disclosed method of operation, states:

> [A]t startup the engine typically will operate at a relatively low load and speed, such as is termed "engine idle", and therefore the amount of fuel being delivered to the engine is comparatively small and hence, only a relatively small amount

[1] The '365 patent uses Australian spelling for certain words such as "centre" and "fuelling." We use in this decision both the Australian and American spellings interchangeably.

> of heat is available for raising the temperature of the exhaust gases and hence the temperature of the catalytic material to its "light-off" temperature.

Id., col. 1, ll. 26–32. The timing of the introduction of fuel is maintained at before top dead centre (BTDC). *Id.*, col. 6, ll. 16–18 (claim 1).

Figures 1 and 2 of the '365 patent are reproduced below:

Fig. 1

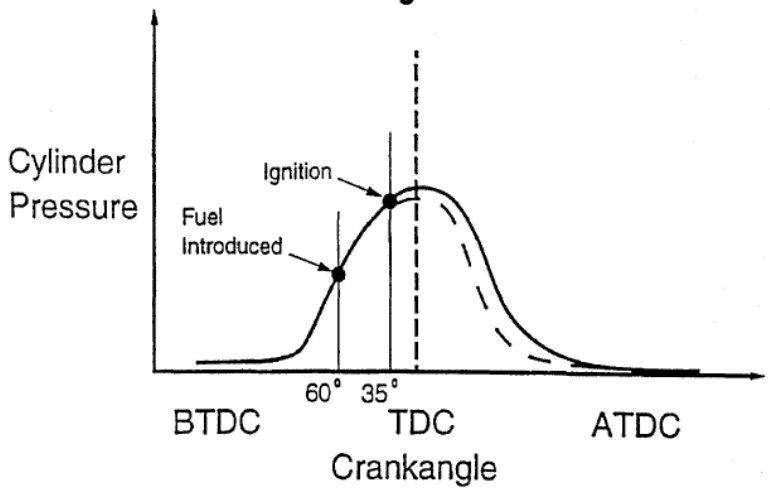
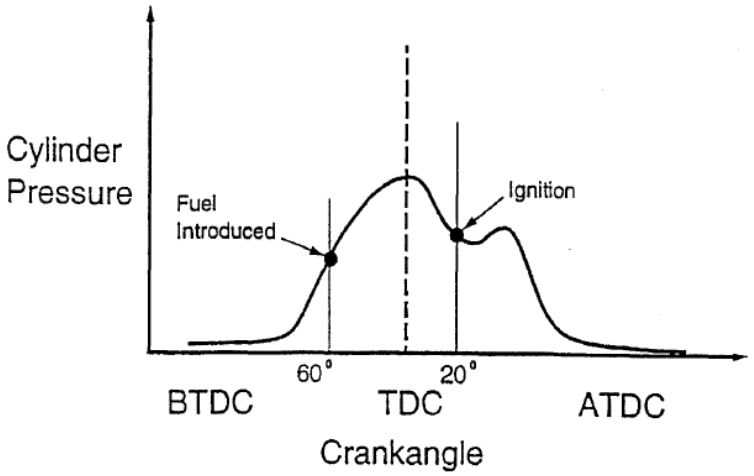


Fig. 2



Figures 1 and 2 depict graphs showing the cylinder pressure-crankangle characteristics for a typical direct injected two-stroke internal combustion

engine and for such an engine operated according to the method of the '365 patent, respectively. *Id.*, col. 2, ll. 46–52.

C. Illustrative Claim

Claim 1 is an independent claim. Claims 2, 5, 9, 10, 12–14, and 18 depend directly or indirectly from independent claim 1. Claim 1, reproduced below with paragraphing added, is illustrative:

> 1. A method of operating an internal combustion engine comprising
>
> retarding the ignition of a gas/fuel mixture within at least one cylinder of the engine to after top dead centre (ATDC) in respect of the combustion cycle of said at least one cylinder of the engine and,
>
> while said ignition is so retarded, increasing the fuelling rate of said at least one cylinder to a level higher than that required when the engine is operating normally to thereby assist in increasing the exhaust gas temperature of the engine,
>
> the timing of the introduction of fuel into the at least one cylinder being maintained at before top dead centre (BTDC).

Ex. 1001, col. 6, ll. 7–18.

D. Applied References

W E. Bernhardt and E. Hoffman, *Methods for Fast Catalytic System Warm-Up During Vehicle Cold Starts*, Society of Automotive Engineers (1972) ("Bernhardt")			Ex. 1002
Eichler et al. ("Eichler '791")	GB 1 447 791	Sept. 2, 1976	Ex. 1003
Griese	US 3,799,134	Mar. 26, 1974	Ex. 1004
Onishi	US 3,572,298	Mar. 23, 1971	Ex. 1005
Ahern	US 4,926,806	May 22, 1990	Ex. 1011

Petitioner relies also on the Declaration of Dr. Ron Matthews dated November 10, 2015 (Ex. 1006), the Declaration of Alana Bevan dated November 6, 2015 (Ex. 1015), and the Declaration of Catherine Alexandrovna Vassilkova dated November 6, 2015 (Ex. 1016), in support of Petitioner's arguments.

E. Asserted Grounds of Unpatentability

Petitioner asserts the following grounds of unpatentability:

Reference(s)	**Basis**	**Claims**
Bernhardt	§ 102(b)	1, 2, 5, 10, 12, 13, and 18
Bernhardt and Onishi	§ 103(a)	9
Bernhardt and Griese	§ 103(a)	14
Eichler '791 and Bernhardt	§ 103(a)	1, 2, 5, 10, 12–14, and 18
Eichler '791, Bernhardt, and Onishi	§ 103(a)	9
Onishi and Bernhardt	§ 103(a)	12
Ahern and Bernhardt	§ 103(a)	1, 2, 5, 9, 10, 12, 13, and 18
Ahern, Bernhardt, and Griese	§ 103(a)	14

II. PROCEDURAL POSTURE

Petitioner filed Petitions challenging claims of the '365 patent in related cases IPR2015-01258 (Paper 3) and IPR2015-01259 (Paper 3). In its preliminary responses in the related cases, Patent Owner argued that Petitioner failed to establish Bernhardt as prior art. *E.g.*, IPR2015-01258, Prelim. Resp. 29. Prior to the issuance of decisions on the two Petitions, Petitioner, through an email to the Board, "request[ed] permission, under 37 C.F.R. § 42.5(b), to submit additional documents relating to the publication

of the Bernhardt paper in the 1970s." IPR2016-00083, Ex. 1017. In that email, Petitioner represented "Patent Owner has had the opportunity to review the three documents." *Id.*

The Board responded to the request, stating: "The Board, having considered Petitioner's email of October 20, 2015, denies Petitioner's request to submit additional documents at this time, and declines to schedule a telephone conference to discuss the matter." *Id.* Although not explicit in the Board's response to Petitioner's email, the request was denied as premature because trial had not been instituted, yet. *See id.* (denying the request to submit additional documents "at this time"); *see also* 37 C.F.R. § 42.123(a) ("*Once a trial has been instituted*, a party may file a motion to submit supplemental information in accordance with [certain] requirements.") (emphasis added).

Petitioner then filed a third Petition, the Petition in the case at bar, again requesting *inter partes* review of '365 patent. IPR2016-00083, Paper 3. As mentioned, Petitioner filed, concurrently with the Petition, a Motion for Joinder requesting joinder of the proceeding with one of the two related cases. *See* IPR2016-00083, Paper 4 (Motion for Joinder), 1. According to Petitioner:

> Out of an abundance of caution and in view of the approaching time bar under 35 U.S.C. § 315(b), Petitioner has filed the Third '365 IPR consolidating the existing *Bernhardt*-related grounds with additional evidence showing the publication and public accessibility of *Bernhardt* well before the critical date.

Id. at 5. Petitioner filed the instant Petition "only to add additional evidence of publication." *Id.* at 11.

In due course, the Board instituted an *inter partes* review in each of the two earlier, related cases. IPR2015-01258, Paper 11; IPR2015-01259, Paper 9. Subsequently, Patent Owner filed authenticity and hearsay objections to the Bernhardt Exhibits in those related cases. IPR2015-01258, Paper 14; IPR2015-01259, Paper 12.

We ordered the parties to meet and confer in good faith to discuss Patent Owner's objections to the Bernhardt Exhibits in light of the supplemental evidence provided by Petitioner to Patent Owner, and to discuss any potential resolution of the issue of admissibility of the Bernhardt Exhibits. IPR2015-01258, Paper 20, 3–4; IPR2015-01259, Paper 18, 3–4. We further authorized Petitioner to file a motion to submit supplemental information pursuant to 37 C.F.R. § 42.123 in the event that the parties could not reach agreement. IPR2015-01258, Paper 20, 4; IPR2015-01259, Paper 18, 4.

The parties filed, in the related cases, a joint notice indicating that they had reached agreement on the admissibility of the Bernhardt exhibits. IPR2015-01258, Paper 22, 2; IPR2015-01259, Paper 20, 2. In that notice, the agreement is described as follows:

> Patent Owner agrees to withdraw its authenticity objections to the Bernhardt Exhibit under FRE 901 and 902 and its hearsay objections to the Bernhardt Exhibit under FRE 801-807, as asserted in Patent Owner's First Objections to Evidence Pursuant to 37 C.F.R. § 42.64, dated January 13, 2016 (Paper 14). Patent Owner also agrees that it will not submit in the IPR2015-01258 proceeding any arguments challenging the admissibility of the Bernhardt Exhibit in a motion to exclude, at the Oral Hearing, or at any other time in the IPR2015-01258 proceeding, including in any appeal of a final written decision.

IPR2015-01258, Paper 22, 2–3; *see also* IPR2015-01259, Paper 20, 2–3 (substantively similar agreement to not challenge the admissibility of the Bernhardt exhibit in IPR2015-01259).

III. ANALYSIS

Our statutory authority to institute *inter partes* review derives from 35 U.S.C. § 314(a), which provides that a review may not "be instituted unless the Director[2] determines that the information presented in the petition . . . shows that there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition." As we have recognized, "Congress did not mandate that an *inter partes* review must be instituted under certain conditions. Rather, by stating that the Director—and by extension, the Board—*may not* institute review *unless* certain conditions are met, Congress made institution discretionary." *Intelligent Bio-Systems, Inc. v. Illumina Cambridge Ltd.*, Case IPR2013-00324, slip op. at 4 (PTAB Nov. 21, 2013) (Paper 19). In determining whether to institute an *inter partes* review, the Board may "deny some or all grounds for unpatentability for some or all of the challenged claims." 37 C.F.R. § 42.108(b); *see* 35 U.S.C. § 314(a).

Our discretion is further guided by 35 U.S.C. § 325(d), which states, in relevant part, that "[i]n determining whether to institute or order a

[2] "The Board institutes the trial on behalf of the Director." 37 C.F.R. § 42.4(a).

proceeding under this chapter, chapter 30, or chapter 31,[3] the Director may take into account whether, and reject the petition or request because, the same or substantially the same prior art or arguments previously were presented to the Office."

The Board, acting on behalf of the Director, also has broad discretion whether to join a party to an *inter partes* review under 35 U.S.C. § 315(c):

> JOINDER.–If the Director institutes an inter partes review, the Director, in his or her discretion, may join as a party to that inter partes review any person who properly files a petition under section 311 that the Director, after receiving a preliminary response under section 313 or the expiration of the time for filing such a response, determines warrants the institution of an inter partes review under section 314.

Thus, joinder in an *inter partes* review may be warranted in certain circumstances, but is not required in any. *See Sony Corp. v. Network-1 Sec. Solutions, Inc.*, Case IPR2013-00386, slip. op. at 3 (PTAB July 29, 2013) (Paper 16) ("[t]he Board will determine whether to grant joinder on a case-by-case basis, taking into account the particular facts of each case, substantive and procedural issues, and other considerations"). The statute does, however, set forth at least one circumstance in which we do *not* have the discretion to join a party: if the Board determines that a later (in this case third) petition does not warrant institution. 35 U.S.C. § 315(c) ("the Director . . . may join as a party . . . any person who properly files a petition . . . that the Director . . . determines warrants the institution of an inter partes review under section 314").

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[3] Chapter 31 of the Patent Act covers *inter partes* review proceedings. Thus, although § 325(d) appears in Chapter 32, which is directed to post-grant reviews, it is applicable to *inter partes* reviews.

With these statutory provisions in mind, we turn to the question of whether, in our discretion, the Petition in this case warrants *inter partes* review. Petitioner states in the Joinder Motion that its third Petition "raises the same grounds of unpatentability as the First and Second '365 IPRs, with the same support from the same expert, the only change being the additional evidence supporting *Bernhardt's* publication." Motion for Joinder 1; *see also id.* at 6–7 (same). Petitioner also represents "[t]he Third '365 IPR Petition is identical to the First and Second '365 IPR petitions on the grounds related to *Bernhardt*." *Id.* at 5 (citing IPR2016-00083, Paper 3 (Petition), 58). Petitioner states:

> If the Board elects not to institute trial on any grounds in IPR2015-01258 and IPR2015-01259, based on insufficient evidence being presented in those petitions to prove that *Bernhardt* is prior art under 35 U.S.C. § 102(b), the Board should grant this petition and institute trial on all grounds because this petition provides additional evidence sufficient to prove that *Bernhardt* was published and sufficiently accessible to the public interested in the art prior to the '365 patent's earliest priority date.

Pet. 57–58. We understand that Petitioner filed this third Petition "[o]ut of an abundance of caution and in view of the approaching time bar" in the event that we denied institution in the earlier two Petitions. Motion for Joinder 5.

The Board instituted *inter partes* review in both IPR2015-01258 (Paper 11) and IPR2015-01259 (Paper 9) and on all the challenged claims. Additionally, it appears that there no longer is an issue as to the admissibility of the Bernhardt exhibits. Nor does there appear to be any other challenge to Bernhardt's status as prior art. *See, e.g*, IPR2015-01258, Paper 19 (Patent Owner's Response), 51–52. Accordingly, we determine this third petition is

moot because, as stated by Petitioner, it "is identical to the First and Second '365 IPR petitions on the grounds related to *Bernhardt*" and Petitioner's stated need for the Petition is not present. Motion for Joinder 5.

IV. SUMMARY

For the foregoing reasons, we determine that the Petition presents substantially the same art and arguments as in the first two Petitions and taking into the account the parties' agreement concerning the admissibility of Bernhardt, we exercise our discretion to deny institution of review under 35 U.S.C. § 325(d). Consequently, we are prohibited from granting, and thus dismiss as moot, Petitioner's Motion for Joinder.

V. ORDER

For the foregoing reasons, it is

ORDERED that Petition is *denied* as to all challenged claims of the '365 patent; and

FURTHER ORDERED that the Motion for Joinder with IPR2015-01258 or alternatively IPR2015-01259 is *dismissed*.

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