

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

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**BEFORE THE PATENT TRIAL AND APPEAL BOARD**

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NHK SEATING OF AMERICA, INC.

Petitioner,

v.

LEAR CORPORATION

Patent Owner.

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U.S. Patent No. 8,434,818 B2 to Lear Corporation

IPR Case No. IPR2014-00925

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**PETITIONER NHK SEATING OF AMERICA'S  
NOTICE OF APPEAL**

Notice is hereby given, pursuant to 35 U.S.C. § 141 and 37 C.F.R. § 90.2(a), that Petitioner NHK Seating of America, Inc. (“NHK”) hereby appeals to the United States Court of Appeals for the Federal Circuit from the Final Written Decision entered on December 15, 2015 (Paper 38, attached hereto as Exhibit A) and from all underlying or related decisions, rulings, and opinions that are adverse to NHK, including, without limitation, those within the Decision on Institution of *Inter Partes* Review, entered December 15, 2014 (Paper 10), and the Decision Denying Request for Rehearing, entered September 23, 2016 (Paper 43).<sup>1</sup>

In accordance with 37 C.F.R. § 90.2(a)(3)(ii), NHK further indicates that the issues on appeal include, without limitation: claim construction (including the Board’s interpretation of “tab” in the Final Written Decision); the determination that NHK failed to demonstrate the unpatentability of claim 2; any finding or determination supporting or related to those issues; as well as all other issues decided adversely to NHK in any orders, decisions, rulings and opinions.

Pursuant to 37 C.F.R. § 90.2(a)(1) and (a)(2), and as reflected in the attached Certificate of Service, this Notice of Appeal is being filed with: (1) the Director of the United States Patent and Trademark Office; (2) the Patent Trial and Appeal

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<sup>1</sup> Per the Decision on Request under 37 C.F.R. § 90.3(c)(1)(ii) issued March 20, 2017 by the Director, NHK’s time for seeking judicial review of the Board decision in this IPR proceeding under 37 C.F.R. § 90.3(a)(1) was extended to April 19, 2017 (attached hereto as Exhibit B).

Board; and (3) the Clerk's Office for the United States Court of Appeals for the Federal Circuit along with the requisite filing fee.

Respectfully submitted,

/William H. Mandir/

William H. Mandir  
Lead Counsel for Petitioner  
Registration No. 32,156

## CERTIFICATE OF FILING AND SERVICE

The undersigned hereby certifies that on April 7, 2017, a complete and entire copy of **PETITIONER NHK SEATING OF AMERICA'S NOTICE OF APPEAL** was served via email on counsel of record for Patent Owner as follows:

Frank A. Angileri (Reg. No. 36,733)  
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I also certify that in addition to being filed electronically with the Board via PRPS, the original of the foregoing Petitioner's Notice of Appeal is being sent, pursuant to 37 C.F.R. § 104.2, via first class mail on April 7, 2017 to the Director of the United States Patent and Trademark Office at the following address:

General Counsel  
United States Patent and Trademark Office  
P.O. Box 15667  
Arlington, VA 22215

with a copy, pursuant to Fed.Cir.R. 15 Practice Notices, to:

Office of the Solicitor  
United States Patent and Trademark Office  
Mail Stop 8  
P.O. Box 1450  
Alexandria, VA 22313-1450

I further certify that a copy of the foregoing Petitioner's Notice of Appeal was filed via CM/ECF on April 7, 2017, with the United States Court of Appeals for the Federal Circuit.

Respectfully submitted,

/William H. Mandir/  
William H. Mandir  
Registration No. 32,156

# EXHIBIT A

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD'

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NHK SEATING OF AMERICA, INC.,  
Petitioner,

v.

LEAR CORPORATION,  
Patent Owner.

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Case IPR2014-00925  
Patent 8,434,818 B2

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Before RICHARD E. RICE, MITCHELL G. WEATHERLY, and  
CARL M. DeFRANCO, *Administrative Patent Judges*.

WEATHERLY, *Administrative Patent Judge*.

FINAL WRITTEN DECISION  
*35 U.S.C. § 318(a)*

I. INTRODUCTION

A. BACKGROUND

NHK Seating of America, Inc. (“NHK”) filed a Petition (Paper 1, “Pet.”) requesting an *inter partes* review of claims 1–4 of U.S. Patent No. 8,434,818 B2 (Ex. 1001, “the ’818 patent”). NHK supported the Petition with a declaration from Richard W. Kent, PhD (Ex. 1009). Lear Corporation (“Lear”) timely filed a Preliminary Response. Paper 9 (“Prelim. Resp.”).

On December 15, 2014, based on the record before us at the time, we instituted an *inter partes* review of claims 1–4, Paper 10 (“Institution Decision” or “Dec.”), on the following grounds:

Reference(s)	Basis	Claims
German Patent Publication DE 102 32 017, (“DE ’017”) (Ex. 1003 with certified translation at Ex. 1004) and German Patent Publication DE 100 54 826 (“DE ’826”) (Ex. 1005 with certified translation at Ex. 1006).	§ 103	1–4
DE ’017, DE ’826, and German Patent Publication DE 100 49 961 (“DE ’961”) (Ex. 1007 with certified translation at Ex. 1008).	§ 103	1–4

Dec. 12.

After we instituted review, Lear filed a Patent Owner Response in opposition to the Petition (Paper 14, “Resp.”) that was supported by the declaration of David C. Viano, PhD (Ex. 2008). NHK filed a Reply in support of the Petition (Paper 16, “Reply”) that was supported by an additional declaration from Dr. Kent (Ex. 1013). With our prior authorization, Lear filed a surreply in response to the Reply (Paper 20, “Surreply”) that was supported by an additional declaration from Dr. Viano (Ex. 2019).

Lear also filed a Motion to Strike and/or Exclude the Testimony of NHK’s Expert, Richard W. Kent. Paper 24 (“Motion” or “Motion to Exclude”). NHK opposed the Motion to Exclude. Paper 29 (“Mot. Opp.”). Lear filed a Reply in support of the Motion. Paper 30 (“Mot. Reply”). Lear did not move to amend any claim in the ’818 patent.

We heard oral argument on September 9, 2015. A transcript is entered as Paper 37 (“Tr.”).

For the reasons expressed below, we conclude that NHK has demonstrated, by a preponderance of evidence, that the combination of DE '017 and DE '826 renders claims 1, 3, and 4 unpatentable as obvious under 35 U.S.C. § 103 but has failed to do so with respect to claim 2. We also deny Lear's Motion to Exclude.

#### B. RELATED MATTERS

NHK identified as a related proceeding the co-pending district court litigation of *Lear Corporation v. NHK Seating of America, Inc.*, No. 2:13-cv-12937-SJM-RSW (D. Mich.), filed July 5, 2013. Pet. 1.

#### C. THE '818 PATENT

The '818 patent relates to a vehicle seat having an active head restraint system. Ex. 1001, 1:19–20. Active head restraints move toward the passenger's head when a vehicle collides with the rear of the passenger's vehicle to reduce the separation between the occupant and the head restraint. *Id.* at 1:54–2:4. Because this separation can lead to neck injury commonly called “whiplash,” the industry sought to reduce this separation as a way of reducing the chances of whiplash injury. *Id.* at 1:33–2:4. Early attempts at active head restraint systems improved safety, but the patentee contends that a need remained to “more efficiently and more quickly transfer[] forces from the occupant to the head restraint system for more effective actuation of the head restraint toward the occupant during a collision.” *Id.* at 2:28–31.

Claim 1, which is the sole independent claim and representative of the claimed invention, recites:

1. A vehicle seat assembly comprising:  
a seatback frame comprising:

- a pair of side frame members disposed in an upright orientation and spaced horizontally relative to one another,
  - an upper cross member extending horizontally between the pair of side frame members, and
  - a lower cross member extending horizontally between the pair of side frame members with at least one cam surface formed therein;
- an active head restraint system operatively supported by the seatback, the active head restraint system comprising:
- an upper armature moveably mounted to the seatback frame and disposed proximate the upper cross member of the seatback frame, the upper armature comprising:
    - a cross bar disposed horizontally, and
    - multiple posts spaced on the cross bar and extending upright therefrom,
  - a head restraint mounted to an upper end of each post of the upper armature to be disposed proximate to a head and neck area of an occupant, such that movement of the cross bar consequently moves the posts and the head restraint from an upright position toward the head and neck area of the occupant at an operative position, and
  - a lower armature disposed below and operatively attached to the upper armature, the lower armature being operable to move rearward, and to act upon the upper armature to transfer forces to the upper armature in response to a predetermined force from the occupant on the lower armature, to move the head restraint toward the head and the neck of the occupant, the lower armature comprising:
- an impact body oriented generally upright, the impact body including a lower end disposed proximate to a pelvic area of the occupant, the impact body being moveable in relation to the seatback frame such that force from the occupant generated during a rear end collision is

transferred from the impact body to the lower armature as the impact body is moved rearward,

a transverse bar cooperating with the at least one cam surface of the lower cross member of the frame, and

at least one transfer member operatively connected to the transverse bar and the upper armature, to move and act upon the upper armature and to slide the transverse bar along the cam surface in response to a predetermined force applied to the impact body to move the head restraint toward the occupant; and

a biasing member operatively mounted to the active head restraint system and the seatback frame to bias the upper armature toward the upright position in absence of the predetermined force.

*Id.* at 10:63–12:21.

## II. CLAIM INTERPRETATION

“A claim in an unexpired patent shall be given its broadest reasonable construction in light of the specification of the patent in which it appears.” 37 C.F.R. § 42.100(b); *see also In re Cuozzo Speed Techs., LLC*, 793 F.3d 1268, 1278 (Fed. Cir. 2015) (“We conclude that Congress implicitly approved the broadest reasonable interpretation standard in enacting the AIA.”). When applying that standard, we interpret the claim language as it would be understood by one of ordinary skill in the art in light of the specification. *In re Suitco Surface, Inc.*, 603 F.3d 1255, 1260 (Fed. Cir. 2010). Thus, we give claim terms their ordinary and customary meaning. *See In re Translogic Tech., Inc.*, 504 F.3d 1249, 1257 (Fed. Cir. 2007) (“The ordinary and customary meaning ‘is the meaning that the term would have to a person of ordinary skill in the art in question.’”). Only terms which are in controversy need to be construed, and then only to the extent necessary to

resolve the controversy. *Vivid Techs., Inc. v. Am. Sci. & Eng'g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999).

#### A. OUR INTERPRETATION OF CLAIM TERMS

At the urging of one or both of the parties, we interpreted a number of claim terms as expressed in the Institution Decision including “cross bar” and “cam surface.” Dec. 5–8. After our Institution Decision, the parties expressly dispute only our interpretation of “cam surface.” Resp. 28–35; Reply 15–19. For the purposes of this Final Written Decision, we adopt our interpretation of “cross bar” as expressed in the Institution Decision, and we address only the parties’ arguments regarding “cam surface” below.

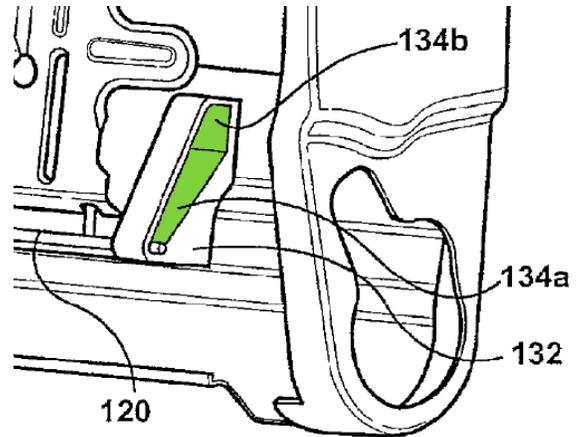
#### B. CAM SURFACE

Claim 1 recites a “lower cross member . . . with at least one cam surface.” Ex. 1001, 11:3–5. In our Institution Decision, we preliminarily interpreted “cam surface” as meaning “a surface that guides a path of travel.” Dec. 8. In doing so, we had rejected Lear’s initial interpretation of “cam surface” as meaning “a surface that changes a path of travel of an engaged part to result in variable movement.” *Id.* at 6–8. At trial, Lear urges that we revise our preliminary interpretation of “cam surface” to mean “a surface that changes the trajectory of travel” because our preliminary interpretation renders “cam” meaningless and other claim language superfluous. Resp. 29–33. We find Lear’s arguments to be unpersuasive and maintain our interpretation of “cam surface.”

First, we are not persuaded that our interpretation rendered “cam” meaningless. If our interpretation were to render “cam” meaningless, we would have equated “cam surface” to “surface.” We did not. Instead, we interpreted “cam surface” to refer to a surface “that guides a path of travel.”

Not all surfaces guide a path of travel. We imposed this limitation based upon our review of the Specification. The pertinent portion of Figure 5 from

the '818 patent (reproduced at right) illustrates ramp 132 having two cam surfaces 134a and 134b (highlighted in green). These two cam surfaces together comprise cam surface 134. Ex. 1001, 8:65–9:2. Although we agree with Lear



that the combination of cam surfaces 134a, 134b “changes the trajectory of travel” of the ends of lower crossbar 120, Lear fails to persuade us that the Specification justifies reading such a limitation into “cam surface.” The Specification specifically counsels against reading such a limitation into the claims by stating: “Those having ordinary skill in the art will appreciate that the ramp 132 can include *any number of cam surfaces oriented in any manner* toward the upper armature 50 without departing from the scope of the invention.” Ex. 1001, 9:9–13 (emphasis added). Accordingly, either of cam surfaces 134a or 134b is within the “scope of the invention” because either one constitutes “any number of cam surfaces oriented in any manner.”

Second, we are not persuaded by Lear’s argument that, by interpreting “cam surface” as meaning “a surface that guides a path of travel,” we render “to slide the transverse bar along the cam surface” superfluous. Resp. 33–35. We read “to slide the transverse bar along the cam surface” as specifying which “path of travel” the “cam surface” guides, namely, the path of travel of the “transverse bar.” Because we are unpersuaded by Lear’s arguments for altering our preliminary interpretation of “cam surface,” we

maintain our interpretation of “cam surface” as meaning “a surface that guides a path of travel.”

### III. THE CHALLENGES TO PATENTABILITY

We instituted a review of the patentability of claims 1–4 of the ’818 patent on the grounds that those claims may be obvious in light of combinations of (1) DE ’017 and DE ’826 and (2) those references along with DE ’961. Dec. 8–12.

The Supreme Court in *KSR International Co. v. Teleflex Inc.*, 550 U.S. 398 (2007) reaffirmed the framework for determining obviousness as set forth in *Graham v. John Deere Co.*, 383 U.S. 1 (1966). As observed by the Court in *KSR*, the factual inquiries set forth in *Graham* that are applied for establishing a background for determining obviousness under 35 U.S.C. § 103(a) are summarized as follows:

1. Determining the scope and content of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

*KSR*, 550 U.S. at 406. With these standards in mind, we address each challenge below.

#### A. THE PARTIES’ POST-INSTITUTION ARGUMENTS

In our Institution Decision, we concluded that NHK demonstrated a reasonable likelihood that it would prevail in showing that: (1) the combination of DE ’017 and DE ’826 rendered claims 1–4 obvious, Dec. 9–11; and (2) the combination of DE ’017, DE ’826, and DE ’961 rendered

claims 1–4 obvious, *id.* at 11–12.<sup>1</sup> We must now determine whether NHK has established by a preponderance of the evidence that the combination of DE '017 and DE '826 renders claims 1–4 unpatentable as obvious.

35 U.S.C. § 316(e). In this connection, we previously instructed Lear that “any arguments for patentability not raised in the [Patent Owner Response] will be deemed waived.” Paper 11, 2–3; *see also* 37 C.F.R. 42.23(a) (“Any material fact not specifically denied may be considered admitted.”).

Additionally, the Board’s Trial Practice Guide states that the Patent Owner Response “should identify all the involved claims that are believed to be patentable and state the basis for that belief.” Office Patent Trial Practice Guide, 77 Fed. Reg. 48,756, 48,766 (Aug. 14, 2012).

Lear argues that the combination of DE '017 and DE '826 fails to describe the “cam surface” recited in claim 1, Resp. 28–37, and the “tab” introduced in claim 2, *id.* at 37–44. Lear does not present persuasive evidence or argument on the remaining elements of the claims, that is, those elements other than the “cam surface” and “tab.” *See id.* at 28–44.

Accordingly, with regard to all other limitations of the claims, the record now contains unrebutted arguments and evidence presented by NHK

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<sup>1</sup> NHK added DE '961 to the combination of DE '017 and DE '826 solely to account for the possibility that we may find that neither DE '017 nor DE '826 explicitly or inherently described the “seatback frame” element of claim 1. Pet. 35. We instituted inter partes review on the combination of prior art including DE '961. Dec. 11–12. During oral argument, the parties agreed that NHK’s reliance on DE '961 to teach the seatback frame was unnecessary and that both challenges to patentability collapsed into the challenge based on the combination of DE '017 and DE '826. Tr. 28:8–16, 47:19–22. Accordingly, in this Final Written Decision, we address only the challenge to patentability based on the combination of DE '017 and DE '826.

regarding the merits of the teachings of DE '017 and DE '826. We agree with and adopt NHK's factual contentions set forth in the Petition and the Reply with regard to these limitations. We find that the preponderance of the evidence of record developed at trial supports our conclusion that NHK has set forth how the alleged prior art teaches or suggests those other limitations of the reviewed claims. Accordingly, we do not address these other limitations in our discussion below.

B. OBVIOUSNESS OF CLAIMS 1–4 IN VIEW OF DE '017 AND DE '826

Claim 1 is the only independent claim, and each of claims 2–4 depends directly from claim 1. We preliminarily determined that NHK had established a reasonable likelihood of showing that the combination of DE '017 and DE '826 renders claims 1–4 unpatentable as obvious. Dec. 9–11. Lear argues that NHK's obviousness challenge based on the combination of DE '017 and DE '826 fails because an ordinarily skilled artisan would not combine DE '017 and DE '826 in the manner that NHK suggests. Resp. 14–28. Lear also argues that the combination of DE '017 and DE '826 fails to describe the “cam surface” recited in claim 1, *id.* at 28–37, and the “tab” introduced in claim 2, *id.* at 37–44. We address each argument below.

*1. The Propriety of Combining DE '017 and DE '826 as Proposed by NHK*

Lear argues that a skilled artisan would not combine the teachings of DE '017 and DE '826 as suggested by NHK for two reasons. First, Lear contends that replacing components of the headrest system in DE '017 with those of DE '826 would destroy the principle of operation of the headrest system in DE '017. Resp. 18–24. Second, Lear contends that making the proposed substitution of elements from DE '826 into DE '017 would render

the headrest system of DE '017 inoperable for its intended purpose. *Id.* at 24–28. For the reasons expressed below, we are not persuaded by Lear’s argument and evidence.

a) The Headrest Systems of DE '017 and DE '826

*(1) DE '017*

DE '017 generally discloses a seat with an active head restraint as illustrated in the colorized versions of Figures 1 and 2 reproduced below. Headrest 3 (pink) is connected to a pair of guide tubes 2b (pink), which are linked to bar 2c (blue). Bar 2c (blue) is connected on its ends to pivot lever 2d (blue) that pivots around axis 4 that is fixed with respect to backrest structure 1. Ex. 1004 ¶ 15. Dr. Kent describes DE '017 as a “force-based” system. Ex. 1009 ¶ 47. Dr. Viano describes DE '017 as a “valve-activated” system. Ex. 2003 ¶ 85.

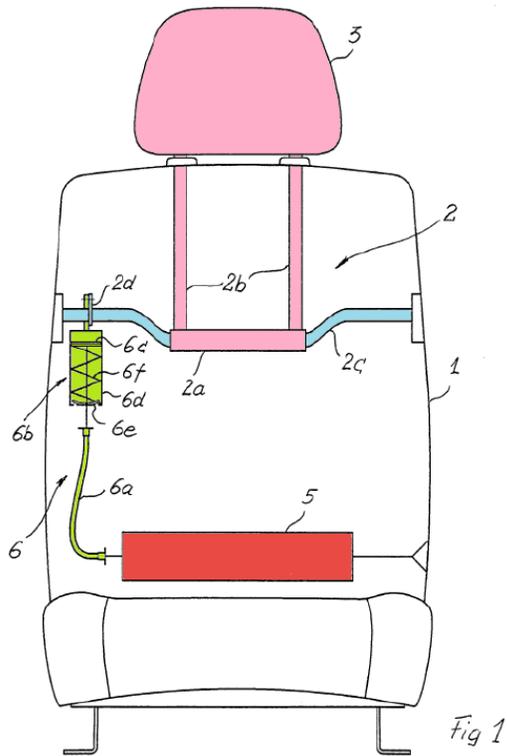


Fig 1

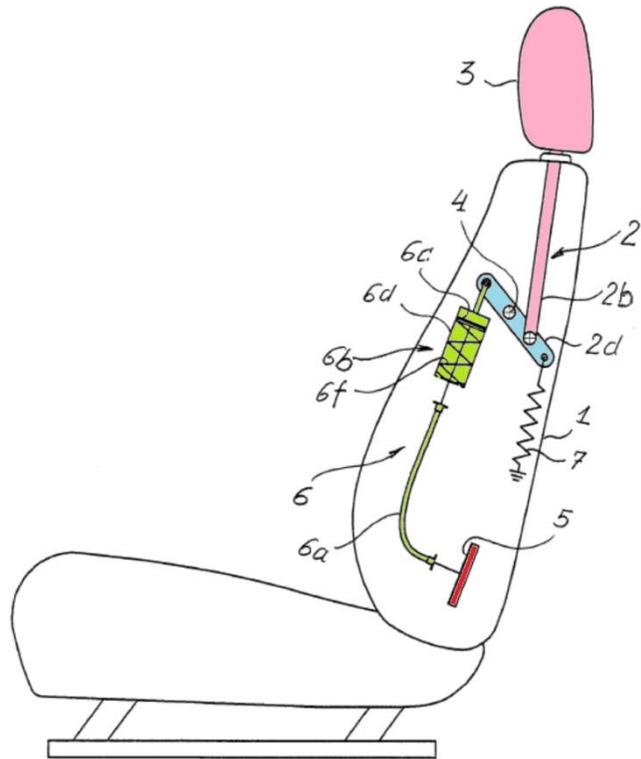


Fig.2a

Figure 1 of DE '017 is a schematic front view of the internal components of an active head restraint system. Figure 2a of DE '017 is a schematic side view of the internal components of an active head restraint system shown in Figure 1.

During a rear-end collision, an occupant is pressed rearward in the seat against pressure organ 5 (red). Ex. 1004, Abstract. Connection device 6 includes cable 6a, which actuates coupling element 6b. *Id.* ¶ 17. DE '017 explains how coupling element 6b is illustrated in Figure 2b of DE '017 (reproduced at right) and operates as follows:

The coupling end 6b comprises a cylinder 6d in which a piston 6c is openly displaceable. The piston 6c is stressed on the one side by a spring 6f and connected to the core of the

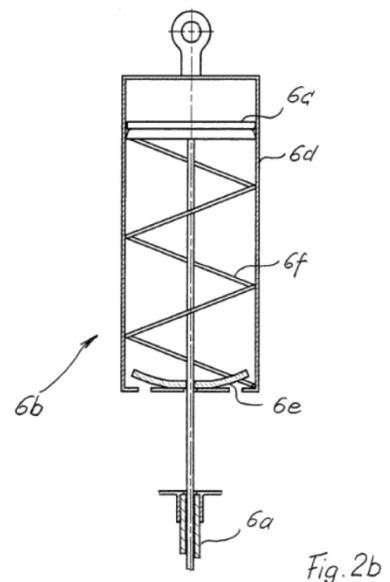


Fig.2b

Bowden cable 6a. The spring 6f is supported on the bottom of the cylinder, which is provided with a valve 6e for a controlled inhaling and exhaling of air.

Ex. 1004 ¶ 17. Valve 6e must close to transform coupling element 6b into a stiff member, and valve 6e only closes when piston 6c moves quickly enough to increase the pressure within cylinder 6d above a threshold. *Id.*

¶ 18. Both parties' experts agree that coupling element 6b causes the headrest to move only when sufficiently high forces cause sudden movement of pressure organ 5. Ex. 2004, 64:19–68:25; Ex. 2003 ¶¶ 89–90. Both parties' experts also agree that when forces are applied to pressure organ 5 slowly, pressure organ 5 moves gradually, and headrest 3 does not move. Ex. 2004, 75:5–18; Ex. 2003 ¶¶ 89–90. Accordingly, headrest 3 of DE '017 moves only in response to the types of abrupt forces applied to pressure organ 5 during a collision.

(2) DE '826

DE '826 also describes an active head restraint system. The system of DE '826 is illustrated in the colorized versions of Figures 1 and 3 that are reproduced below in which the same colors used to annotate figures from DE '017 indicate items in both systems that perform similar functions.

When an occupant displaces impact plate 10 (red) rearward, bolt 18 on arm 11 (green) slides within slot 17 so that bolt 18 moves downwardly (as shown in the figures). Cable 19, which is secured to bolt 18, is also pulled, which causes the chain of link elements 22 (pink) and head rest 2 (pink) to move upwardly. Cable 6 simultaneously pulls the leading edge of elements 22 (pink) so that the chain of elements 22 (pink) bend as shown, which causes headrest 2 (pink) to move forwardly also.

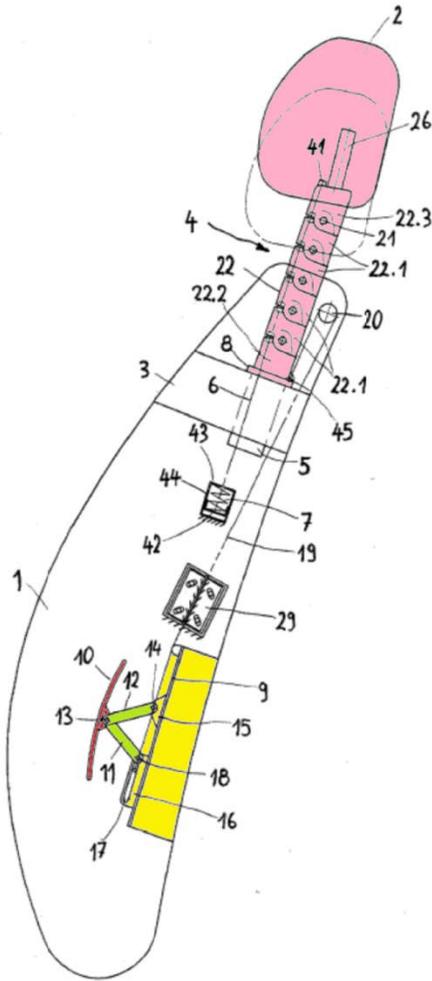


Fig.1

Figure 1 of DE '826 is a schematic side view illustrating head rest 2 in a non-actuated position.

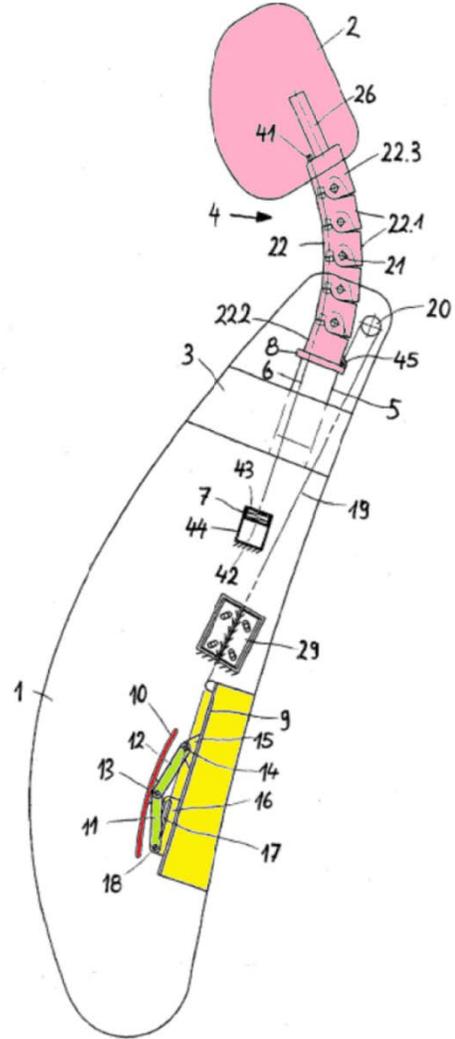


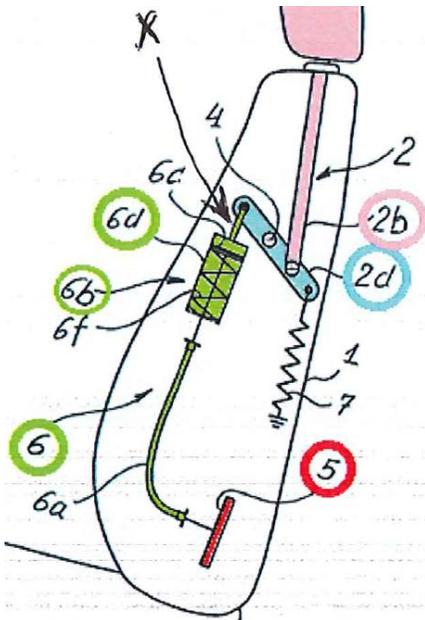
Fig.3

Figure 3 of DE '826 is a schematic side view illustrating head rest 2 in an actuated position.

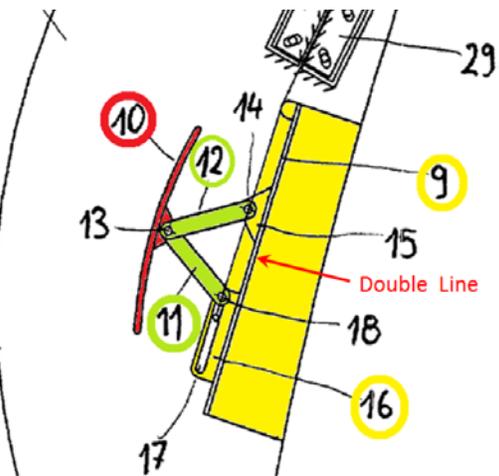
Both parties' experts agree that DE '017 and DE '826 describe active head restraint systems that operate differently at a high level. For example, Dr. Kent describes the system of DE '826 as a "displacement-based" system rather than a "force-based" system. Ex. 1009 ¶ 47. Dr. Viano describes DE '826 as a "cable-linkage" system rather than a "valve-activated" system. Ex. 2003 ¶¶ 102-08.

b) NHK's Proposed Combination of DE '017 and DE '826

Both DE '017 and DE '826 describe systems that move the head rest in response to forces encountered during a rear-end collision. Pet. 14–17 (citing Ex. 1004, Abstract, ¶¶ 15, 16, 18; Ex. 1006 ¶¶ 27–30). NHK contends that a skilled artisan would have found it obvious to “make the straightforward substitution of the impact plate mechanism of DE '826 for the bladder/belt mechanism of DE '017.” *Id.* at 18 (citing Ex. 1009, ¶¶ 45–48). More specifically, Dr. Kent testifies that a skilled artisan would have found it obvious to substitute the red and green elements shown in the colorized version of the pertinent part of DE '017's Figure 2a (reproduced below left) with the red, green, and yellow components that are shown to the left of the double line of the pertinent part of DE '826's Figure 1 (reproduced below right). Ex. 2004, 62:15–64:13; Ex. 2007.



The pertinent portion of DE '017, Figure 1, illustrates components colorized red and green that transmit forces to the head rest during a collision.



The pertinent portion of DE '826, Figure 2a, illustrates components colorized red, green, and yellow that transmit forces to the head rest during a collision.

After substituting components from DE '826 into DE '017, Dr. Kent testifies that a skilled artisan would have connected cable 19 of DE '826 to lever 2d (blue) of DE '017 at the location marked with an "X" in the figure shown above left. Ex. 2004, 89:6–90:10; Ex. 2006.

NHK contends that a skilled artisan would have recognized advantages of using the impact plate mechanism of DE '826 as being "more consistent, reliable, and accurate for transferring loads than pressure-based systems such as the DE '017 bladder/belt system." Pet. 19 (citing Ex. 1009 ¶ 47). For example, Dr. Kent testifies that a skilled artisan would have known that "[t]he reaction timing of the bladder type would be slower than a mechanical linkage system," and "a bladder system may leak over time, thereby degrading its reliability over time." Ex. 1009 ¶ 48.

c) Lear's Argument Against NHK's Proposed Combination of DE '017 and DE '826

Lear contends that the experts believe that a skilled artisan would have understood that the system described in DE '017 operates according to "force-based" or "valve-activated" principles. Resp. 18 (citing Ex. 2004, 64:19–68:25; Ex. 2003 ¶¶ 89–90, 103–08). Lear further contends that, using this principle of operation, the intended purpose of the system of DE '017 is to move the headrest only in response to the abrupt forces encountered during collisions but not in response to forces normally encountered. *Id.* at 20. Lear cites most of the detailed description in DE '017 as being dedicated to describing this feature. *Id.* at 18–22 (citing Ex. 1004 ¶¶ 5, 16–18, Abstract). Lear focuses particularly on the following statements from DE '017:

The connection device comprises a coupling element, which in case of abrupt stress of the pressure organ, transmits this

displacing motion via the connection device to the support structure and in case of a gradual stress separates the flux of force via the connection device.

\* \* \*

The invention implements the principle of a generally elastic connection between a pressure organ and a support structure which is permanently active, and only in case of a crash it is converted into a quasi-stiff connection.

*Id.* at 20 (quoting Ex. 1004, Abstract, ¶ 5 (with emphasis)).

According to Lear, a skilled artisan would not replace pressure organ 5 and coupling element 6b of DE '017 with impact plate 10 of DE '826 and its associated linkages because doing so would destroy the intended purpose of DE '017 and completely change the principle of operation. Lear cites the Federal Circuit's non-precedential decision in *Plas-Pak Industries, Inc. v. Sulzer Mixpac AG*, 600 F. App'x. 755 (Fed. Cir. 2015) as supporting its argument. Resp. 23–28. In *Plas-Pak*, the Federal Circuit affirmed the PTAB's affirmance of an Examiner's decision not to reject claims as obvious because the proposed combination of prior art would either alter the "principle of operation" in one reference or render the other prior art reference "inoperable for its intended purpose." *Plas-Pak*, 600 F. App'x at 760. The Federal Circuit considered both reasons to be evidence that a skilled artisan would not have been motivated to pursue the combination of the two prior art references. *Id.* at 758–60. The Federal Circuit left undisturbed the PTAB's factual findings because they were supported by substantial evidence. *Id.*

d) Analysis

We are not persuaded by Lear's argument that DE '017 teaches away from a combination with DE '826.

[O]bviousness must be determined in light of all the facts, and there is no rule that a single reference that teaches away will mandate a finding of nonobviousness. Likewise, a given course of action often has simultaneous advantages and disadvantages, and this does not necessarily obviate motivation to combine. *See Winner Int'l Royalty Corp. v. Wang*, 202 F.3d 1340, 1349 n.8 (Fed. Cir. 2000) (“The fact that the motivating benefit comes at the expense of another benefit, however, should not nullify its use as a basis to modify the disclosure of one reference with the teachings of another. Instead, the benefits, both lost and gained, should be weighed against one another.”).

*Medichem, S.A. v. Rolabo, S.L.*, 437 F.3d 1157, 1165 (Fed. Cir. 2006).

We are not persuaded by Lear’s contention that modifying DE ’017 would render it inoperable for its intended purpose. First, we determine that both references have the same intended purpose, namely to move the head rest to a supportive position in response to a rear-end collision. Ex. 1004, Abstract, ¶¶ 15, 16, 18; Ex. 1006 ¶¶ 27–30. Second, we determine that DE ’017 and DE ’826 both operate according to principles that efficiently translate the forces applied by the occupant to the seat back during a collision into movement of the head rest. Ex. 1004, Abstract, ¶ 5, claim 1; Ex. 1006 ¶¶ 27–30. Third, we determine that both DE ’017 and DE ’826 do not move the head rest in response to forces encountered in normal, non-collision, conditions. Both systems respond only to forces large enough to overcome biasing forces imparted by springs that hold the head rest in the non-actuated position during normal conditions. Ex. 1004 ¶ 17; Ex. 1006 ¶ 25; Ex. 1012, 25:11–23; Ex. 1013 ¶¶ 27–29. Accordingly, we are not persuaded that NHK’s proposed modification of DE ’017 would render DE ’017 inoperable for its intended purpose.

We are also not persuaded by Lear's contention that altering DE '017 as proposed changes its principle of operation so completely that it would preclude a skilled artisan from combining teachings of DE '017 and DE '826. We agree with Lear that DE '017 and DE '826 use different mechanisms for avoiding movement of the head rest in response to normal forces and that pressure organ 5 of DE '017 can move slowly without moving headrest 3. We also agree with Lear that any displacement of impact plate 10 in DE '826 will move headrest 2. Nevertheless, during the critical operational timeframe, i.e., during a collision, the activation mechanisms in both references function like a stiff, mechanical linkage.

NHK persuades us that a skilled artisan would have regarded the proposed combination of elements from DE '017 and DE '826 to be substitution of familiar elements according to known methods. The Supreme Court noted that such combinations of prior art are likely to be obvious when the combination does no more than yield predictable results. *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 401 (2007). As explained below, NHK persuades us that the proposed combination would yield predictable results.

We determine that NHK proposes merely combining the most conventional of elements described in each of DE '017 and DE '826. Those elements from DE '017 and DE '826 are shown below, highlighted yellow, in the pertinent portions of Figure 2a from DE '017 (shown below left) and Figure 1 from DE '826 (shown below right).

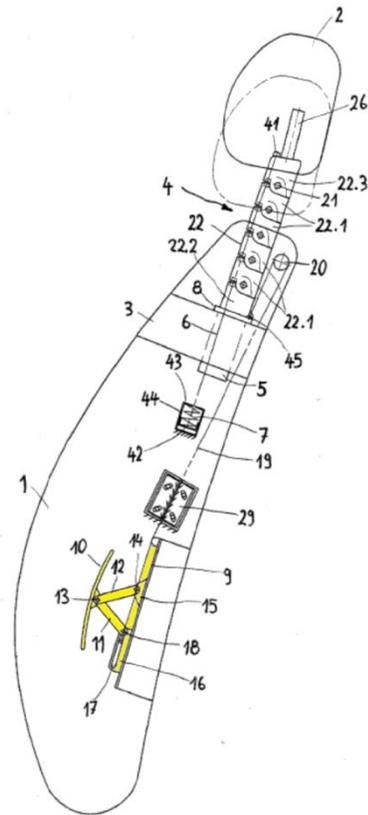
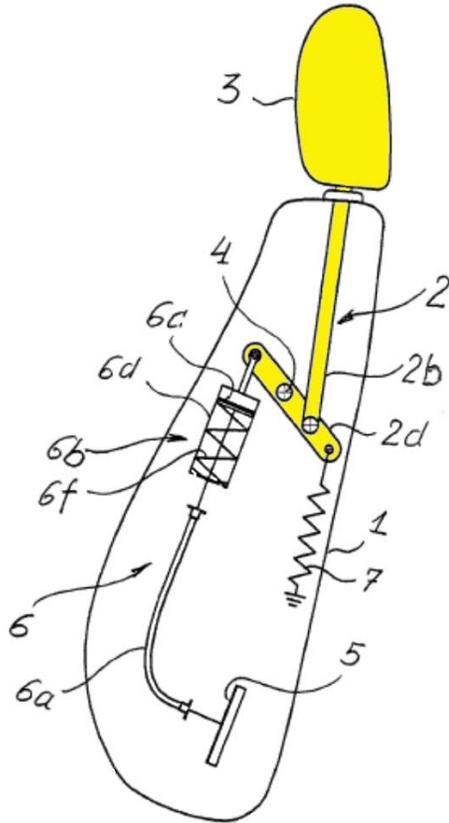


Fig.1

The pertinent portion of Figure 2a of DE '017 is a side schematic view of components inside the seatback.

Figure 1 of DE '826 is a side schematic view of components inside the seatback.

DE '017 briefly describes the highlighted support structure 2 for headrest 3 with its longitudinal guides 2b, cranked bar 2c, and pivot lever 2d. Ex. 1004 ¶ 15. Similarly, DE '826 briefly describes the highlighted subframe 9, impact plate 10, guides 11 and 12, and fastening plate 16 with oblong hole 17, as the mechanical components that translate displacement of impact plate 10 into tension on cable 19. Ex. 1006 ¶ 28. We are persuaded by NHK that a skilled artisan would have considered all these highlighted elements from DE '017 and DE '826 to be conventional mechanisms that would operate in combination in known ways. We are also persuaded by NHK that a skilled artisan would predict that the combination would successfully move the head restraint in response to forces encountered

during a collision but not in response to forces encountered during normal operation. Accordingly, we are persuaded that a skilled artisan would consider the use of the highlighted elements to be no more than “the predictable use of prior art elements according to their established functions,” which supports a conclusion that NHK’s proposed combination of elements from DE ’017 and DE ’826 renders claims obvious. *KSR*, 550 U.S. at 417–18. Because we are not persuaded by Lear’s argument against combining DE ’017 and DE ’826, we address below Lear’s arguments that the combination fails to describe specific elements of the claims.

*2. Claims 1–4: Whether the Combination of DE ’017 and DE ’826 Describes the “Cam Surface”*

Independent claim 1, and thus all claims, recites “a lower cross member . . . with at least one cam surface.” Ex. 1001, 11:3–5. Lear argues that neither DE ’017 nor DE ’826 describes the “cam surface” and relies upon its proposed interpretation of “cam surface” as meaning “a surface that changes the trajectory of travel.” For reasons expressed in part II.B above, we reject Lear’s proposed interpretation and instead maintain our interpretation of “cam surface” as meaning “a surface that guides a path of travel.”

NHK contends that slot 17 of DE ’826 meets the claimed “cam surface” because slot 17 guides a path of travel for pin 18, which is operatively connected to impact plate 10 of DE ’826. Pet. 25, 31–32. On the record before us, and under our interpretation of “cam surface,” we are persuaded by NHK’s argument. Accordingly, we conclude that NHK has established by a preponderance of evidence that DE ’826 describes the “cam surface” recited in claim 1.

3. *Claim 2: Whether the Combination of DE '017 and DE '826 Describes the "Tab"*

Claim 2 depends from claim 1 and recites that the restraint system further comprises "at least one tab connecting the at least one transfer member to the upper armature." Ex. 1001, 12:22–24.

In the Petition, NHK identifies the "tab" as the structure at the upper end of cable 6 that is circled in red in the portion of Figure 2a of DE '017 reproduced below. Pet. 34.



A portion of Figure 2a of DE '017 illustrates an unnumbered structure extending from the top end of Bowden cable 6a.

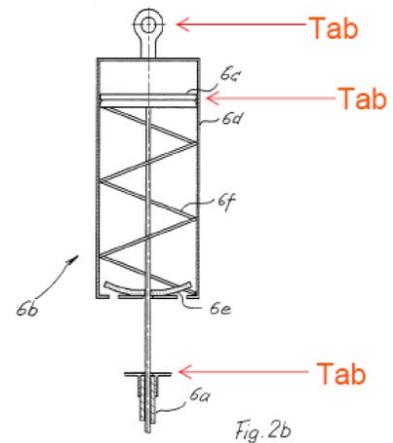
NHK asserts that the identified tab "connects the transfer member (cable 6) to the upper armature." *Id.* at 22. NHK also cites testimony from Dr. Kent as supporting its argument. Ex. 1009 ¶ 54. We find, however, that Dr. Kent testifies that the identified tab is "attached to a fixed structure in the seat back."

Lear argues that the combination of DE '017 and DE '826 as set forth in the Petition fails to describe the claimed "tab." Lear argues that the alleged tab connects the cable housing to the seatback frame, but does not connect the "transfer member to the upper armature" as required in claim 2. Resp. 41–42 (citing Ex. 2004, 91:2–92:5 (referring to Ex. 2006)); *see also* Ex. 1004 ¶ 16 ("jacket of the Bowden cable 6a is fastened with its end at the backrest structure 1"). We are persuaded that the alleged "tab" at the end of

Bowden cable 6a fails to meet all the limitations on “tab” recited in claim 2 because it is not connecting the transfer member to the upper armature.

In its Reply, NHK attempts to cure the deficiencies in its Petition relating to the challenge to claim 2. First, NHK agrees with Lear’s interpretation of “tab” as referring to a “structure that extends outward” but contends that Lear’s interpretation is indefinite because it does not specify “where the outward extension is from.” NHK, therefore, proposes that a more “appropriate” interpretation of “tab” is a “structure that extends outward from the transfer member or upper armature.” Reply 20. NHK offers no support for its interpretation. *Id.* We conclude that NHK’s additional limitation on “tab” is unnecessary because other language in the claim implicitly addresses the location from which the “tab” must extend. Namely, claim 2 recites “a tab connecting the transfer member to the upper armature.” Ex. 1001, 12:22–24. Accordingly, we conclude that the “tab” must not only extend outward from one or the other of the transfer member and the upper armature but also connect the transfer member to the upper armature.

Second, NHK identifies two additional items in DE ’017 that allegedly constitute the claimed “tab” as shown in the annotated version of Figure 2b reproduced at right. Reply 22. For the reasons stated above, we are not persuaded that the lowermost “tab” shown in the annotated figure meets all limitations of claim 2. Lear argues that “middle member” alleged to be a “tab” identified in the annotated figure also fails to “connect” the transfer member to the upper armature. Surreply 2–



3 (citing Ex. 1004 ¶¶ 17–18, Figs. 2a, 2b; Ex. 2019 ¶¶ 12–18). We are persuaded by this argument. DE '017 describes piston 6c as “openly displaceable” within cylinder 6d. Accordingly, we are persuaded that piston 6c fails to connect the transfer member to the upper armature and, thus, does not constitute the claimed “tab.”

Third, Lear argues that the alleged “tab” identified at the top of the annotated figure is not a “tab” but instead an eyebolt. Because DE '017 never directly describes or discusses this uppermost “tab” structure, Lear supports its argument with testimony from Dr. Viano. Surreply 3 (citing Ex. 2019 ¶¶ 19–22). The only portion of DE '017 relating to this uppermost structure is a passage stating “At the end of the pivot lever 2d, opposite the pivotal axis 4, the coupling element 6b of the connection device 6 is suspended in an articulate fashion.” Ex. 1004 ¶ 17. Dr. Viano testifies that, because of the way that this uppermost structure is illustrated in Figure 2b and the functional description of the connection between coupling element 6b and lever 2d, a skilled artisan would conclude that this uppermost structure is akin to an eyebolt. Ex. 2019 ¶ 22. Dr. Kent testifies that concluding that the uppermost structure is “drawn as a tab” is a “reasonable inference . . . based on the way it is characterized in the drawing and the mechanical function it performs.” Ex. 2020, 19:6–17. Dr. Kent offers no further explanation for his inference that the uppermost structure is a “tab.” We accept Dr. Viano’s testimony on how a skilled artisan would view the uppermost structure that NHK identifies in the annotated version of Figure 2b of DE '017 as being more credible, thorough, and reasoned than Dr. Kent’s. On the record before us, we are persuaded by Lear’s argument

and evidence that the uppermost structure does not constitute the claimed “tab.”

On the record before us, we determine that NHK has failed to establish by a preponderance of evidence that the combination of DE '017 and DE '826 describes the “tab” of claim 2. Accordingly, we conclude that NHK has failed to establish by a preponderance of evidence that the combination of DE '017 and DE '826 renders claim 2 unpatentable as obvious.

#### *4. Conclusion*

As stated in part III.A above, we are persuaded that NHK has established by a preponderance of evidence that the combination of DE '017 and DE '826 describes all elements of claims 1–4 other than the “cam surface” (claims 1–4) and “tab” (claim 2). As explained in part III.B.2 above, we are persuaded that NHK has established that the combination of DE '017 and DE '826 also describes the claimed “cam surface.” As explained in part III.B.3 above, we are not persuaded that NHK has established by a preponderance of evidence that the combination of DE '017 and DE '826 describes the “tab” of claim 2. Accordingly, we conclude that NHK has established by a preponderance of evidence that the combination of DE '017 and DE '826 renders claims 1, 3, and 4 unpatentable as obvious, but that NHK has failed to do so with regard to claim 2.

#### IV. LEAR'S MOTION TO EXCLUDE

We have reviewed Lear's Motion to Exclude, NHK's Opposition to the Motion, and Lear's Reply in support of the Motion. Based on our review, we deny the Motion in all respects for one or both of the following reasons: (1) the Motion is moot because it seeks to exclude evidence not

considered or relied upon in rendering this Decision or (2) the Motion addresses issues more appropriate to determining the weight ascribed to the evidence rather than the admissibility of evidence. In rendering this Decision, we determine and ascribe the appropriate weight to all proffered evidence and, when appropriate, comment upon the weight ascribed.

## V. CONCLUSION

For the reasons expressed above, we determine that NHK has shown by a preponderance of the evidence that claims 1, 3, and 4 of the '818 patent are unpatentable as obvious in view of the combination of DE '017 and DE '826. We also determine that NHK has not established by a preponderance of evidence that claim 2 is unpatentable in view of the combination of DE '017 and DE '826.

## VI. ORDER

For the reasons given, it is:

ORDERED that claims 1, 3, and 4 of the '818 patent are held *unpatentable*;

FURTHER ORDERED that claim 2 of the '818 patent is held *not unpatentable*;

FURTHER ORDERED that Lear's Motion to Exclude is *denied*; and

FURTHER ORDERED that because this is a Final Written Decision, parties to the proceeding seeking judicial review of the Decision must comply with the notice and service requirements of 37 C.F.R. § 90.2.

IPR2014-00925  
Patent 8,434,818 B2

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# EXHIBIT B

UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE DIRECTOR

<b>NHK Seating of America, Inc.</b>	)	
Petitioner	)	IPR2014-00925
	)	U.S. Patent No. 8,434,818
v.	)	
	)	Decision on Request
<b>Lear Corporation</b>	)	under 37 C.F.R. § 90.3(c)(1)(ii)
<u>Patent Owner</u>	)	

**MEMORANDUM AND ORDER**

On January 27, 2017, Petitioner NHK Seating of America, Inc. (“NHK”) filed a request seeking an additional 63 days in which to file a notice of appeal in this IPR proceeding involving Patent Owner Lear Corporation (“Lear”). The Board issued its Rehearing Decision in the underlying IPR on September 23, 2016. Per Rule 90.3(a), any Notice of Appeal to the Federal Circuit was due on or before November 25, 2016. Because this Request was filed after the expiration of the period for seeking judicial review, the Director may extend the time for filing an appeal “upon a showing that the failure to act was the result of excusable neglect.” 37 C.F.R. § 90.3(c)(1)(ii). The authority to decide such requests has been delegated to the Solicitor. *See* MPEP § 1002.02(k)(3).

In determining excusable neglect, the USPTO applies the standard used by the Federal Courts. *See* MPEP § 1216; *see, e.g., Acqis LLC v. Hewlett-Packard Co.*

(withdrawn) & IBM (withdrawn), Memorandum and Order on 37 C.F.R. § 90.3

Request (*Inter Partes* Reexam Control No. 95/001,475) (Oct. 2, 2015); *Rambus, Inc. v. Nvidia, Corp.*, Memorandum and Order on 37 C.F. R. § 90.3 Request (*Inter Partes* Reexam Control No. 95/001,169) (Jul. 11, 2013). The “excusable neglect” inquiry is

an equitable one, taking account of all relevant circumstances surrounding the party’s omission. These include . . . [1] the danger of prejudice to [another party], [2] the length of the delay and its potential impact on judicial proceedings, [3] the reason for the delay, including whether it was within the reasonable control of the movant, and [4] whether the movant acted in good faith.

*Pioneer Inv. Servs. Co. v. Brunswick Assocs. Ltd. P’ship*, 507 U.S. 380, 395 (1993).

Excusable neglect “is understood to encompass situations in which the failure to comply with a filing deadline is attributable to negligence.” *Id.* at 390; *see also*

*Information Sys. and Networks Corp. v. United States*, 994 F.2d 792, 796 (Fed. Cir. 1993)

(holding that a party’s failure to answer a counterclaim based on the mistaken belief that no answer was required constituted excusable neglect for purposes of Fed. R.

Civ. P. 60(b)). Moreover, “[a]lthough inadvertence, ignorance of the rules, or mistakes construing the rules do not usually constitute excusable neglect, it is clear that

excusable neglect . . . is a somewhat elastic concept and is not limited strictly to

omissions caused by circumstances beyond control of the movant.” *Pioneer*, 507 U.S.

at 392 (internal quotation marks omitted). The third *Pioneer* factor—relating to why

the filing was delayed—is generally considered the most important factor in the

analysis. *See, e.g., FirstHealth of the Carolinas, Inc. v. Carefirst of Maryland, Inc.*, 479 F.3d 825

(Fed. Cir. 2007); *Pumpkin Ltd. v. The Seed Corps*, 43 USPQ2d 1582, 1587 n.7 (TTAB 1997).

NHK explains that it did not meet the 63-day filing deadline because it was unaware that the Board had issued its Rehearing Decision. NHK asserts that it never received the Rehearing Decision and only became aware of its existence on December 13, 2016. *See* Req. at 2. NHK states that it then “immediately called the Board and the representative of the Board informed Petitioner that the Board records indicated that the Board inadvertently did not serve the Decision.” *Id.* NHK maintains that the Board indicated it would schedule a conference call and re-date the Rehearing Decision. *See id.* The record indicates that on January 24, 2017, NHK sent an email to the Board regarding the conference call and decision “re-dating.” *See* Lear’s Opposition to NHK’s Petition for Extension of Time (“Lear Opp.”) at Exh. B. On January 25, 2017, the Board communicated with NHK and Lear, explaining that the Board would not schedule a conference call or “re-date” the Rehearing Decision. *See* Req. at 1-2; Lear Opp. at Exh. B. Rather, the Board instructed NHK to the “guidance provided in 37 C.F.R. § 90.3(c)” regarding extensions of time for filing an appeal. Lear Opp. at Exh. B; *see* Req. at 1-2. Lear then filed the underlying Request two days later on January 27, 2017.

On the critical third factor, NHK represents that it missed the deadline because it did not receive the Rehearing Decision and did not become aware of it until after

the deadline had passed. There is no affirmative evidence in the record that the Rehearing Decision was not mailed in accordance with usual PTAB practice other than NHK's representations. But Lear's Opposition here did not proffer any objection to that representation. And NHK's January 24, 2017 email to the PTAB contained the allegation, and the PTAB's January 25<sup>th</sup> email response did not disagree with it. Thus, the Director accepts NHK's representation that it did not receive notice of the Rehearing Decision before the filing deadline. Under those circumstances, the third *Pioneer* factor weighs in favor of granting the requested relief.

The other *Pioneer* factors similarly weigh in favor of granting the request. The Director finds that there is no danger of prejudice to other proceedings or parties based on the existing record. Nor is there evidence of bad faith conduct by NHK. As discussed above, the Director accepts that NHK's representation that it did not receive the Rehearing Decision in a timely fashion. While parties should make efforts to monitor the status of their judicial and administrative proceedings, it cannot be debated that the PTAB typically communicates decisions and other relevant papers to the involved parties. Relying on that normal practice is certainly reasonable. Lear protests that NHK's failure to act cannot be the result of "excusable neglect" because "NHK failed to seek this relief as soon as reasonably possible." Lear Opp. at 1. While the amount of time elapsed between the missed deadline and when additional time is sought is relevant under the *Pioneer* factors, the Director does not find that the period

between the missed November 25, 2016 deadline and the January 27, 2017 filing of the underlying Request is abnormally or impermissibly long. That is particularly true under the circumstances of this case, where the record indicates that NHK took reasonable steps to remedy the missed deadline once it became aware of it. NHK promptly contacted the Board about how to proceed after learning of the Rehearing Decision on December 13, 2016, and then immediately filed the underlying Request after receiving the Board's response in January, 2017. Lear suggests that NHK should have done something between calling the Board and filing the underlying Request (*see* Lear Opp. at 3), but it was reasonable for NHK to await action from the Board given the posture of the proceedings. NHK's conduct certainly does not rise to the level of "bad faith" conduct.

Thus, on balance, the Director finds that application of the *Pioneer* factors here weighs in favor of granting NHK's Request. However, NHK's Request seeks 63 additional days from the date of this Order in which to file its notice of appeal, which is the appeal period provided under Rule 90. NHK does not offer a reason for why it needs such a long extension and none is apparent. NHK already had more than a month to consider the merits of seeking judicial review in this IPR proceeding when it filed the Request. And NHK has had the period between the filing of its Request and this Decision for that deliberation as well. Given these considerations, the Director will grant a shorter extension period of 30 additional days from the date of this Order.

ORDER

Upon consideration of the Request for an extension of time under 37 C.F.R. § 90.3(c)(1)(i), it is ORDERED that the Request is granted.

NHK's time for seeking judicial review of the Board decision in the underlying IPR proceeding here under 37 C.F.R. § 90.3(a)(1) is extended from November 25, 2016 to April 19, 2017.

MICHELLE K. LEE  
UNDERSECRETARY OF COMMERCE  
FOR INTELLECTUAL PROPERTY AND  
DIRECTOR OF THE UNITED STATES  
PATENT AND TRADEMARK OFFICE



By: Nathan K. Kelley  
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