

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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VOLKSWAGEN GROUP OF AMERICA, INC. and  
PORSCHE CARS NORTH AMERICA, INC.,  
Petitioner

v.

YECHEZKAL EVAN SPERO,  
Patent Owner

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Case IPR2022-01586<sup>1</sup>  
U.S. Patent No. 11,208,029

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**PETITIONER VOLKSWAGEN GROUP OF AMERICA, INC.'S  
UPDATED EXHIBIT LIST**

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Patent Trial and Appeal Board  
U.S. Patent and Trademark Office  
P.O. Box 1450  
Alexandria, VA 22313-1450

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<sup>1</sup> Porsche Cars North America, Inc., which filed a petition in IPR2023-01122, has been joined as a party to this proceeding.

Petitioner Volkswagen Group of America, Inc. (“Petitioner”), files this

Updated Exhibit List to accompany filing of Exhibit 1048, the Petitioner’s

Demonstratives for Oral Argument.

**PETITIONER’S UPDATED EXHIBIT LIST**

<b><i>Exhibit #</i></b>	<b><i>Description</i></b>
<b>1001</b>	U.S. Patent No. 11,208,029 B2 to Spero (“the ’029 patent”)
<b>1002</b>	Prosecution File History of U.S. Patent No. 11,208,029 B2 (“’029 File History”)
<b>1003</b>	Declaration of Dr. Jianzhong Jiao
<b>1004</b>	Curriculum Vitae of Dr. Jianzhong Jiao
<b>1005</b>	U.S. Patent No. 6,144,158 to Beam
<b>1006</b>	U.S. Patent Application Publication No. 2001/0019486 to Thominet <i>et al.</i>
<b>1007</b>	<i>Intentionally Left Blank</i>
<b>1008</b>	U.S. Patent No. 6,049,749 to Kobayashi
<b>1009</b>	WIPO Patent Publication No. 2002/004247 to Braun <i>et al.</i>
<b>1010</b>	WIPO Patent Publication No. 1998/054030 to Karlsson
<b>1011</b>	WIPO Patent Publication No. 2001/001038 to Harbers <i>et al.</i>
<b>1012</b>	U.S. Patent No. 5,588,733 to Gotou
<b>1013</b>	<i>Intentionally Left Blank</i>
<b>1014</b>	<i>Intentionally Left Blank</i>
<b>1015</b>	Westermann, “History and Scientific Back-up,” 48th Session of GRE, EUREKA Project 1403, Informal Document No. 30, April 30, 2002
<b>1016</b>	“Adaptive Front Lighting Systems (AFS),” 48th Session of GRE, EUREKA Project 1403, Informal Document No. 28, April 12, 2002
<b>1017</b>	Hogrefe <i>et al.</i> , “Adaptive Light Pattern – A New Way to Improve Light Quality,” SAE Transactions, Vol. 106, No. 6, February 27, 1997

<b><i>Exhibit #</i></b>	<b><i>Description</i></b>
<b>1018</b>	Löwenau <i>et al.</i> , “Adaptive Light Control – A New Light Concept Controlled by Vehicle Dynamics and Navigation, SAE Transactions, Vol. 107, No. 6, pp. 33-38, February 26, 1998
<b>1019</b>	Manassero <i>et al.</i> , “Adaptive Headlamp: A contribution for Design and Development of Motorway Light,” SAE Transactions, Vol. 107, No. 6, February 26, 1998
<b>1020</b>	Michael Hamm, “System Strategies for Adaptive Lighting Systems,” 2001 Symposium: Progress in Automobile Lighting (PAL), pp. 368-380, September 26, 2001
<b>1021</b>	<i>Intentionally Left Blank</i>
<b>1022</b>	U.S. Patent No. 5,975,734 to Müller
<b>1023</b>	Manassero <i>et al.</i> , Adaptive Lighting Systems: Technical Solutions and Methodological Approach for Photometric Specifications, Progress in Automotive Lighting Vol. 6, pp. 514-525 (1999).
<b>1024</b>	Hanno Westermann, Lighting Performance Requirements in Vehicle Lighting Exemplified by System Requirements for AFS, Progress in Automotive Lighting Vol. 6, pp. 807-820 (1999).
<b>1025</b>	Diem <i>et al.</i> , Analysis of the Eye-Movement Behaviour During Use Moveable Headlamps, Progress in Automotive Lighting Vol. 5, pp. 185-207 (1999).
<b>1026</b>	Kobayashi & Sugimoto, Development of the Phase-I AFS Front Lighting System, Progress in Automotive Lighting Vol. 5, pp. 449-464 (1999).
<b>1027</b>	Alejandro Vukotiich, Evaluation of the applicability of digital maps for the reconstruction of the real street shape, Progress in Automotive Lighting Vol. 6, pp. 774-790 (1999).
<b>1028</b>	Bernhard Wörner, Adaptive Frontlighting – Experimental System, Development and Functional Evaluation, Progress in Automotive Lighting Vol. 6, pp. 844-853 (1999).
<b>1029</b>	Mark van den Berg, Development of high Brightness LED’s for Automotive Applications, Progress in Automotive Lighting Vol. 9, 987-993 (2001).

<b><i>Exhibit #</i></b>	<b><i>Description</i></b>
<b>1030</b>	Assessment of Headlamp Glare and Potential Countermeasures, Survey of Advanced Front Lighting System (AFS) Research and Technology, National Highway Traffic Safety Administration (2005)
<b>1031</b>	Watanabe <i>et al.</i> , The Research on the Effectiveness of AFS Bending Lamp in Japanese Road Environment, Progress in Automotive Lighting Vol. 9, 1042-1053 (2001).
<b>1032</b>	First Amended Complaint, <i>Torchlight Techs. LLC v. Daimler AG, et al.</i> , Civil Action No. 1:22-cv-00751 (D. Del.), filed August 26, 2022 (ECF No. 24)
<b>1033</b>	File History of <i>Ex Parte</i> Reexamination of U.S. Patent No. 9,955,551, Control No. 90/014,815
<b>1034</b>	U.S. Patent No. 6,127,947 to Uchida <i>et al.</i>
<b>1035</b>	United States District Courts – National Judicial Caseload Profile, June 2022
<b>1036</b>	Declaration of Jianzhong Jiao, Ph.D., in Support of Petitioner’s Reply
<b>1037</b>	Transcript of the Deposition of Matthew A. Turk, Ph.D.
<b>1038</b>	Leighty, <i>et al.</i> , “Developing Technologies for Army Autonomous Land Vehicles (U),” Leighty & Lane, available at Army Engineer Topographic Labs, Fort Belvoir, October 1985 (accessible online at <a href="https://apps.dtic.mil/sti/tr/pdf/ADA187972.pdf">https://apps.dtic.mil/sti/tr/pdf/ADA187972.pdf</a> , last accessed October 30, 2023)
<b>1039</b>	Lowrie, <i>et al.</i> , “The Autonomous Land Vehicle (ALV) Preliminary Road-Following Demonstration,” Lowrie, James, Thomas, Mark, Gremban, Keith, Turk, Matthew, Proceedings of SPIE, Vol. 579 Intelligent Robot and Computer Vision, (11 December 1985), (accessible at <a href="https://home.ttic.edu/~mturk/pubs/ALV-preliminary-SPIE1985.pdf">https://home.ttic.edu/~mturk/pubs/ALV-preliminary-SPIE1985.pdf</a> , last accessed October 30, 2023)
<b>1040</b>	U.S. Patent. No. 5,426,294, to Kobayashi <i>et al.</i> , issued June 20, 1995
<b>1041</b>	“The International System of Units (SI),” Bureau International des Poids et Mesures, 7 <sup>th</sup> Edition (1998) (Excerpt)

<b><i>Exhibit #</i></b>	<b><i>Description</i></b>
<b>1042</b>	Surface Vehicle Recommended Practice, Performance Requirement for Motor Vehicle Headlamps, J1383 (May 2018)
<b>1043</b>	“Turk Diagram,” (Exhibit A) From the Deposition of Matthew A. Turk PhD, October 17, 2023
<b>1044</b>	49 C.F.R. 571.108, Standard No. 108 (Up To date as of Nov. 3, 2023)
<b>1045</b>	Terminology – Motor Vehicle Lighting, SAE J387 Nov87, The Engineering Society For Advancing Mobility Land Sea Air and Space (Revised Nov. 1987)
<b>1046</b>	Complete copy of “The International System of Units (SI),” Bureau International des Poids et Mesures, 7 <sup>th</sup> Edition (1998) (EX1041) ( <i>served not filed</i> )
<b>1047</b>	E-mail dated February 7, 2024, from Andrew B. Turner to <a href="mailto:trials@uspto.gov">trials@uspto.gov</a>
<b>1048</b>	Petitioner’s Demonstratives for Oral Argument

Respectfully submitted,

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**CERTIFICATE OF SERVICE (37 C.F.R. § 42.6(e))**

I certify that the above-captioned **PETITIONER'S UPDATED EXHIBIT LIST** and **EXHIBIT 1048** were served in their entireties on February 20, 2024, upon the following parties via electronic mail:

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