

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

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

v.

YECHEZKAL EVAN SPERO,
Patent Owner

Case IPR2023-00318¹
U.S. Patent No. 9,955,551

**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

¹Porsche Cars North America, Inc., which filed a petition in IPR2023-01296, 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 1070, Petitioner’s

Demonstratives for Oral Argument.

Exhibit No.	Description
1001	U.S. Patent No. 9,955,551 B2 to Spero (“the ’551 patent”)
1002	File History of Ex Parte Reexamination of U.S. Patent No. 9,955,551, Control No. 90/014,815
1003	Declaration of Dr. Jianzhong Jiao
1004	Curriculum Vitae of Dr. Jianzhong Jiao
1005	U.S. Patent No. 6,144,158 to Beam
1006	<i>Intentionally Left Blank</i>
1007	<i>Intentionally Left Blank</i>
1008	U.S. Patent No. 6,049,749 to Kobayashi
1009	WIPO Patent Publication No. 2002/004247 to Braun <i>et al.</i>
1010	WIPO Patent Publication No. 1998/054030 to Karlsson
1011	<i>Intentionally Left Blank</i>
1012	U.S. Patent No. 5,588,733 to Gotou
1013	English Translation of Japanese Unexamined Patent Application Publication H7-65603 to Nakamura <i>et al.</i>
1014	English Translation of Japanese Unexamined Patent Application Publication H7-101291 to Satonaka <i>et al.</i>
1015	Westermann, “History and Scientific Back-up,” 48th Session of GRE, EUREKA Project 1403, Informal Document No. 30, April 30, 2002
1016	“Adaptive Front Lighting Systems (AFS),” 48th Session of GRE, EUREKA Project 1403, Informal Document No. 28, April 12, 2002
1017	Hogrefe <i>et al.</i> , “Adaptive Light Pattern – A New Way to Improve Light Quality,” SAE Transactions, Vol. 106, No. 6, February 27, 1997
1018	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
1019	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

Exhibit No.	Description
1020	Michael Hamm, “System Strategies for Adaptive Lighting Systems,” 2001 Symposium: Progress in Automobile Lighting (PAL), pp. 368-380, September 26, 2001
1021	<i>Intentionally Left Blank</i>
1022	<i>Intentionally Left Blank</i>
1023	Manassero et al., Adaptive Lighting Systems: Technical Solutions and Methodological Approach for Photometric Specifications, Progress in Automotive Lighting Vol. 6, pp. 514-525 (1999).
1024	Hanno Westermann, Lighting Performance Requirements in Vehicle Lighting Exemplified by System Requirements for AFS, Progress in Automotive Lighting Vol. 6, pp. 807-820 (1999).
1025	Diem et al., Analysis of the Eye-Movement Behaviour During Use Moveable Headlamps, Progress in Automotive Lighting Vol. 5, pp. 185-207 (1999).
1026	Kobayashi & Sugimoto, Development of the Phase-I AFS Front Lighting System, Progress in Automotive Lighting Vol. 5, pp. 449-464 (1999).
1027	Alejandro Vukotich, 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).
1028	Bernhard Wörner, Adaptive Frontlighting – Experimental System, Development and Functional Evaluation, Progress in Automotive Lighting Vol. 6, pp. 844-853 (1999).
1029	Mark van den Berg, Development of high Brightness LED’s for Automotive Applications, Progress in Automotive Lighting Vol. 9, 987-993 (2001).
1030	Assessment of Headlamp Glare and Potential Countermeasures, Survey of Advanced Front Lighting System (AFS) Research and Technology, National Highway Traffic Safety Administration (2005)
1031	Watanabe et al., The Research on the Effectiveness of AFS Bending Lamp in Japanese Road Environment, Progress in Automotive Lighting Vol. 9, 1042-1053 (2001).
1032	<i>Intentionally Left Blank</i>
1033	<i>Intentionally Left Blank</i>
1034	U.S. Patent No. 6,127,947 to Uchida <i>et al.</i>
1035	Ex Parte Reexamination Certificate of U.S. Patent No. 9,955,552

Exhibit No.	Description
	to Spero, issued Aug. 19, 2022
1036	U.S. Patent No. 5,523,193 to Nelson
1037	U.S. Patent Application 2004/0052090 to Pederson
1038	U.S. Patent No. 4,662,746 to Hornbeck
1039	U.S. Patent No. 5,061,049 to Hornbeck
1040	U.S. Patent No. 5,933,183 to Enomoto et al.
1041	<i>Intentionally Left Blank</i>
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1049	<i>Intentionally Left Blank</i>
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1051	United States District Courts – National Judicial Caseload Profile, June 2022
1052	Supplemental Declaration of Dr. Jianzhong Jiao
1053	Transcript of the Deposition of Matthew A. Turk, Ph.D., in IPR2023-00315 regarding U.S. Patent No. 9,955,551
1054	Transcript of the Deposition of Matthew A. Turk, Ph.D., in IPR2022-01586 regarding U.S. Patent No. 11,208,029
1055	Definition of “classify”, <i>Webster’s New Explorer Large Print Dictionary</i> , Merriam-Webster, Incorporated (2000)
1056	Moddel, G., Spatial Light Modulators: Processing Light in Real Time, <i>Optics and Photonics News</i> , pp. 17-21 (March 1997)
1057	U.S. Patent No. 6,132,072 to Turnbull et al.
1058	U.S. Patent No. 5,754,217 to Allen
1059	U.S. Patent No. 6,195,136 to Handschy et al.
1060	U.S. Patent No. 11,208,029 to Spero
1061	Bishop, C.M., <i>Neural Networks for Pattern Recognition</i> , Clarendon Press, Oxford (1995)
1062	U.S. Patent No. 4,907,044 to Schellhorn et al.
1063	Leighty, et al., “Developing Technologies for Army Autonomous Land Vehicles (U),” Army Engineer Topographic Labs, Fort Belvoir, October 1985 (accessible online at https://apps.dtic.mil/sti/tr/pdf/ADA187972.pdf , last accessed

Exhibit No.	Description
	October 30, 2023)
1064	Lowrie, et al., “The Autonomous Land Vehicle (ALV) Preliminary Road-Following Demonstration,” Proceedings of SPIE, Vol. 579 Intelligent Robot and Computer Vision, 1985 (accessible at https://home.ttic.edu/~mturk/pubs/ALVpreliminary-SPIE1985.pdf , last accessed October 30, 2023)
1065	Surface Vehicle Recommended Practice, SAE International, J1383, May 2018
1066	Standard No. 108; Lamps, reflective devices, and associated equipment, 49 C.F.R. § 571.108 (November 3, 2023)
1067	Terminology: Motor Vehicle Lighting, SAE J387, November 1987
1068	“The International System of Units (SI),” Bureau International des Poids et Mesures, 7th Edition (1998) (Excerpt)
1069	Certificate of Correction in U.S. Patent No. 9,955,551 C1, granted January 10, 2023
1070	Petitioner’s Demonstratives for Oral Argument

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX PLLC

/Jason A. Fitzsimmons/

Jason A. Fitzsimmons
Registration No. 65,367
Attorney for Petitioner
Volkswagen Group of America, Inc.

Date: March 18, 2024

1101 K Street, NW, 10th Floor
Washington, DC 20005
(202) 371-2600

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

I certify that the above-captioned **PETITIONER VOLKSWAGEN GROUP OF AMERICA, INC.'S UPDATED EXHIBIT LIST** and **EXHIBIT 1070** were served in their entireties on March 18, 2024, upon the following parties via electronic mail:

Yechezkal Evan Spero

Sangeeta G. Shah (Lead Counsel)
David S. Bir (Back-up Counsel)
Andrew B. Turner (Back-up Counsel)
BROOKS KUSHMAN P.C.
TRCH0115IPR@brookskushman.com
TRCH0115IPR1@brookskushman.com

Porsche Cars North America, Inc.

Edgar H. Haug (Lead Counsel)
Robert E. Colletti (Back-up Counsel)
HAUG PARTNERS LLP
ehaug@haugpartners.com
rcolletti@haugpartners.com
PTAB-Porsche@haugpartners.com

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX PLLC

/Jason A. Fitzsimmons/

Jason A. Fitzsimmons
Registration No. 65,367
Attorney for Petitioner
Volkswagen Group of America, Inc.

Date: March 18, 2024

1101 K Street, NW, 10th Floor
Washington, DC 20005
(202) 371-2600