

UNITED STATES PATENT AND TRADEMARK OFFICE

---

BEFORE THE PATENT TRIAL AND APPEAL BOARD

---

VOLKSWAGEN GROUP OF AMERICA, INC.

Petitioner

Patent No. 7,237,634  
Issue Date: July 3, 2007  
Title: HYBRID VEHICLES

---

**PETITION FOR *INTER PARTES* REVIEW  
OF U.S. PATENT NO. 7,237,634  
PURSUANT TO 35 U.S.C. § 312 and 37 C.F.R. § 42.104**

Case No. IPR2017-00232

---

## TABLE OF CONTENTS

I.	Mandatory Notices (37 C.F.R. § 42.8)	1
II.	Grounds for Standing (37 C.F.R. § 42.104(a))	2
III.	Identification of Challenge (37 C.F.R. § 42.104(b)(1)-(3)) and Relief Requested (37 C.F.R. § 42.22(a)(1))	2
A.	The '634 Patent	2
B.	Prosecution History of the '634 Patent	3
C.	Inter Partes Review of the '634 Patent	5
D.	Patents and Printed Publications Relied On	7
E.	Statutory Grounds for Challenge (37 C.F.R. § 42.104(b)(1)-(2))	8
F.	Claim Construction (37 C.F.R. § 42.104(b)(3))	9

“

10

IV.	How Challenged Claims Are Unpatentable (37 C.F.R. § 42.104(b)(4)-(5))	10
A.	Claims 33-38, 43, 44, 46, 50, and 52 are Obvious in View of Barske, Gray, and Probst	14
1.	Independent Claim 33	16
2.	Dependent Claims 34-38, 43, 44, 46, 50, and 52	26
3.	Obviousness in View of Barske, Gray, and Probst	32
4.	Claim Charts	37
B.	Claims 39 and 40 are Obvious in View of Barske, Gray, Probst, and Moroto	51
1.	Claim 39	51
2.	Claim 40	53
3.	Obviousness in View of Barske, Gray, Probst, and Moroto	54
4.	Claim Chart	55
C.	Claim 41 is Obvious in View of Barske, Gray, Probst, and Lateur	56
1.	Claim 41	57
2.	Obviousness in View of Barske, Gray, Probst, and Lateur	57

3.	Claim Chart.....	58
D.	Claims 42 and 55 are Obvious in View of Barske, Gray, Probst, and Severinsky '970 .....	59
1.	Claim 42.....	59
2.	Claim 55.....	60
3.	Obviousness in View of Barske, Gray, Probst, and Severinsky '970.....	61
4.	Claim Chart.....	62
E.	Claim 53 is Obvious in View of Barske, Gray, Probst, and Vittone.....	63
1.	Claim 53.....	63
2.	Obviousness in View of Barske, Gray, Probst, and Vittone.....	64
3.	Claim Chart.....	65
F.	Claim 54 is Obvious in View of Barske, Gray, Probst, and Yamaguchi.....	66
1.	Claim 54.....	67
2.	Obviousness in View of Barske, Gray, Probst, and Yamaguchi.....	67
3.	Claim Chart.....	69
V.	Conclusion.....	70

## LISTING OF EXHIBITS

Exhibit 1001	U.S. Patent No. 7,237,634 to Severinsky et al.
Exhibit 1002	Declaration of Scott Andrews
Exhibit 1003	German Published Patent Application No. 44 44 545, including certified English-language translation
Exhibit 1004	U.S. Patent No. 5,495,912 to Gray, Jr. et al.
Exhibit 1005	U.K. Patent Application Publication No. 2 318 105
Exhibit 1006	U.S. Patent No. 5,697,466 to Moroto et al.
Exhibit 1007	U.S. Patent No. 5,823,280 to Lateur et al.
Exhibit 1008	U.S. Patent No. 5,343,970 to Severinsky
Exhibit 1009	Vittone et al., FIAT Research Centre, <i>Fiat Conceptual Approach to Hybrid Cars Design</i> , 12th International Electric Vehicle Symposium (1994)
Exhibit 1010	U.S. Patent No. 5,865,263 to Yamaguchi et al.
Exhibit 1011	Record of Oral Hearing, Held July 1, 2015, IPR2014-00570 (Paper 44, August 3, 2015)
Exhibit 1012	February 22, 2005 Amendment, U.S. Patent Application Serial No. 10/382,577, U.S. Patent No. 7,104,347
Exhibit 1013	Kalberlah, "Electric Hybrid Drive Systems for Passenger Cars and Taxis," SAE (Society of Automotive Engineers) International Congress and Exposition, Detroit, Michigan, February 26-March 1, 1991 (1991)

## **I. Mandatory Notices (37 C.F.R. § 42.8)**

### Real-Party-in Interest:

Volkswagen Group of America, Inc. (“VWGoA”), which is a subsidiary of Volkswagen AG.

### Related Matters:

The following judicial matters may affect, or be affected by, a decision in this *inter partes* review: *Paice LLC, et al. v. Ford Motor Co.*, 1:14-cv-00492 (D. Md.); *Paice LLC, et al. v. Hyundai Motor Co., et al.*, 1:12-cv-00499 (D. Md.); *Paice LLC v. Toyota Motor Corp., et al.*, 2:07-cv-00180 (E.D. Tex.).

The following administrative matters may affect, or be affected by, a decision in this *inter partes* review: *Hybrid Electric Vehicles and Components Thereof*, ITC-337-TA-998, in which VWGoA is a respondent; IPR2014-00904, IPR2014-01416, IPR2015-00606, IPR2015-00722, IPR2015-00758, IPR2015-00784, IPR2015-00785, IPR2015-00787, IPR2015-00790, IPR2015-00791, IPR2015-00799, IPR2015-00800, IPR2015-00801, IPR2016-00246, IPR2016-00247, IPR2016-00248, IPR2016-00249, IPR2016-00251.

### Lead Counsel:

Michael J. Lennon (Reg. No. 26,562)

### Backup Counsel:

Clifford A. Ulrich (Reg. No. 42,194)

# Explore Litigation Insights

Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

## Real-Time Litigation Alerts



Keep your litigation team up-to-date with **real-time alerts** and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

## Advanced Docket Research



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

## Analytics At Your Fingertips



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

## API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

## LAW FIRMS

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

## FINANCIAL INSTITUTIONS

Litigation and bankruptcy checks for companies and debtors.

## E-DISCOVERY AND LEGAL VENDORS

Sync your system to PACER to automate legal marketing.