# UNITED STATES PATENT AND TRADEMARK OFFICE ————— BEFORE THE PATENT TRIAL AND APPEAL BOARD —————

FORD MOTOR COMPANY Petitioner,

V.

PAICE LLC & ABELL FOUNDATION, INC. Patent Owner.

U.S. Patent No. 7,237,634 to Severinsky et al.

IPR Case No.: IPR2014-00904

PETITION FOR *INTER PARTES* REVIEW UNDER 35 U.S.C. § 311 *ET SEQ*. AND 37 C.F.R. § 42.100 *ET SEQ*. (CLAIMS 1, 14, 16, 18, AND 24 OF U.S. PATENT NO. 7,237,634)



## **TABLE OF CONTENTS**

EXH	IRLL L	AST	111	
I.	INTR	ODUCTION	1	
II.	MAN	IDATORY NOTICES UNDER 37 C.F.R. § 42.8	1	
	A. B. C. D.	Real Party-In-Interest - 37 C.F.R. § 42.8(b)(1)	1 2	
III.	REQUIREMENTS UNDER 37 C.F.R. § 42.104			
	A. B. C.	Grounds for Standing - 37 C.F.R. § 42.104(a)	3	
IV.	PERS	SON OF ORDINARY SKILL IN THE ART (POSA)	5	
V.	STA	ΓE OF THE ART	5	
VI.	OVERVIEW OF THE '634 PATENT			
	A. B. C.	Prosecution History of the '634 Patent	9	
VII.	CLAIM CONSTRUCTION — 37 C.F.R. § 42.104 (B)(3)			
	A. B. C.	"road load (RL)" and "RL" (claims 16, 18 and 24) "Setpoint (SP)" and "SP" (claim 1, 14, 16 and 18) "low-load mode I," "highway cruising mode IV," "acceleration mode V" (Claims 16)	14	
VIII.	UNP	ATENTABILITY GROUNDS		
	Ground 1: Claims 1, 14, 16, 18 and 24 are Obvious over Severinsky '970 in view of Field, SAE 1996 and the General Knowledge of			
		a POSA		
	А. В.	Motivation to Combine		
	Б. С.	Claim 14		
	D.	Claim 16		
	E.	Claim 18		
	F.	Claim 24	48	



	Ground 2: Claims 1, 14, 16, 18, and 24 are Obvious Over Ehsani in				
		view of Severinsky '970	50		
	A.	Motivation to Combine	50		
	B.	Claim 1	53		
	C.	Claim 14	58		
	D.	Claim 16	58		
	E.	Claim 18	59		
	F.	Claim 24	59		
IX.	OBJ	ECTIVE INDICIA OF NONOBVIOUSNESS	59		
X.	CON	NCLUSION	60		
CER'	TIFIC	ATE OF SERVICE	61		

# **EXHIBIT LIST**

Exhibit			
No.	Description	Date	Identifier
1001	U.S. Patent No. 7,237,634	n/a	The '634 Patent
1002	'634 Patent File History	n/a	'634 Patent File
			History
1003	U.S. Patent No. 5,343,970	Sept. 6, 1994	Severinsky '970
1004	U.S. Patent No. 5,586,613	Dec. 24, 1996	Ehsani
1005	Declaration of Gregory Davis	n/a	Davis
1006	Plaintiff Paice LLC's Reply Claim	Mar. 8, 2005	n/a
	Construction Brief (Case No.		
	2:04-cv-00211		
1007	Plaintiff Paice LLC's Claim	Mar. 29, 2005	n/a
	Construction Brief (Case No.		
	2:04-cv-00211)		
1008	Claim Construction Order (Case	Sept. 28, 2005	n/a
_	No. 2:04-cv-00211)		
1009	Plaintiff Paice LLC's Opening	June 25, 2008	n/a
	Claim Construction Brief (Case		
	No. 2:07-cv-00180)		
1010	Plaintiff Paice LLC's Reply Brief	Aug. 1, 2008	n/a
	on Claim Construction (Case No.		
	2:07-cv-00180)		
1011	Claim Construction Order (Case	Dec. 5, 2008	n/a
	No. 2:07-cv-00180)		
1012	Plaintiff Paice LLC and Abell	Nov. 14, 2013	n/a
	Foundation, Inc.'s Opening Claim		
	Construction Brief (Case No.		
	1:12-cv-00499)		
1013	Plaintiff Paice LLC and Abell	Dec. 16, 2013	n/a
	Foundation, Inc.'s Responsive		
	Brief on Claim Construction (Case		
	No. 1:12-cv-00499)		
1014	U.S. Patent Trial and Appeal	Jan. 3, 2014	n/a
	Board January 3, 2014 Decision		
	(Appeal No. 2011-004811)		



Description	Date	Identifier
•		Declaration Ex.
Davis		
Innovations in Design: 1993 Ford	Feb. 1994	Declaration Ex.
Hybrid Electric Vehicle Challenge		
1996 Future Car Challenge	Feb. 1997	Declaration Ex.
	Feb. 1998	Declaration Ex.
History of the Electric Automobile	1998	Declaration Ex.
<ul> <li>Hybrid Electric Vehicles</li> </ul>		
Hybrid Vehicle for Fuel Economy		Declaration Ex.
Hybrid/Electric Vehicle Design	Feb. 24-28,	Declaration Ex.
•		
	_	Declaration Ex.
<b>.</b>	1997	
•	April 1995	Declaration Ex.
J		
	Feb. 1998	Declaration Ex.
•	Feb. 1996	SAE 1996
	G . 20 1050	D 1 1 D
•	Sept. 30, 1979	Declaration Ex.
	1 1071	D 1 4 E
1 0	June 1, 1971	Declaration Ex.
· · · · · · · · · · · · · · · · · · ·	G 1 1000	D : 1 : F
	Sept. 1, 1988	Declaration Ex.
<u> </u>		
<u> </u>		
	1006	Declaration Ex.
	1770	Deciaration Ex.
	Feb 1997	Declaration Ex.
	100.1777	Deciaration Ex.
· ·	Oct 1996	Declaration Ex.
		Declaration Ex.
•	1 20. 1775	Designation LA.
	Apr. 3, 2001	Declaration Ex.
	Innovations in Design: 1993 Ford Hybrid Electric Vehicle Challenge 1996 Future Car Challenge 1997 Future Car Challenge History of the Electric Automobile – Hybrid Electric Vehicles Hybrid Vehicle for Fuel Economy	Curriculum Vitae of Gregory Davis  Innovations in Design: 1993 Ford Hybrid Electric Vehicle Challenge 1996 Future Car Challenge History of the Electric Automobile - Hybrid Electric Vehicles Hybrid Vehicle for Fuel Economy Hybrid/Electric Vehicle Design Options and Evaluations Challenges for the Vehicle Tester in Characterizing Hybrid Electric Vehicles Electric and Hybrid Vehicles Program Technology for Electric and Hybrid Vehicle Design Hybrid Vehicle Potential Assessment Final Report Hybrid Heat Engine / Electric Systems Study Transactions of the Institute of Measurements and Control: A microprocessor controlled gearbox for use in electric and Hybrid- electric Vehicles Propulsion System Design of Electric and Hybrid Vehicles Bosch Handbook Design Innovations in Electric and Hybrid Electric and Hybrid Feb. 1996  Feb. 1996  Feb. 1997  Feb. 1996  Feb. 1996  Feb. 1996  Feb. 1996  Feb. 1996  Feb. 1997  Feb. 1996  Feb. 1996  Feb. 1997



# DOCKET

# 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.

