

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.: IPR2015-00787

**REPLY TO PATENT OWNER'S RESPONSE TO PETITION
FOR *INTER PARTES* REVIEW OF U.S. PATENT NO. 7,237,634**

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 A. Ibaraki ’882 discloses operating the engine/motor when the
 “*road load*” is above/below a “*setpoint*”4

 1. Paice’s power argument is not based on the figures nor
 disclosure of Ibaraki ’8826

 2. Fig. 5 of Ibaraki ’882 discloses mode selection based on
 road load and *setpoint*11

 3. Even if Ibaraki is power-based, the challenged claims are
 obvious based on the undisputed mathematical
 relationship between power and torque12

 B. Ibaraki ’882 discloses operating the motor and engine “*when
 the torque RL...is more than the MTO*”15

 1. Fig. 5 also discloses operating the motor and engine
 when “*road load*” is “*more than the MTO*”20

 C. Ibaraki ’882 discloses a *setpoint* substantially less than MTO22

V. Ground 2: As the Board has previously found, Vittone’s “steady state
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 B. Paice’s narrow interpretation of Ibaraki ’882 and Vittone is
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Certificate of Compliance Pursuant to 37 C.F.R. § 42.2430

Updated List of Exhibits

Exhibit No.	Description	Date	Identifier
1750	U.S. Patent No. 7,237,634	July 3, 2007	'634 Patent
1751	Ford Letter to Paice	Sept. 2014	
1752	U.S. Patent No. 5,789,882	Aug. 4, 1998	Ibaraki '882
1753	Oreste Vittone <i>et al.</i> , FIAT Research Centre, <i>Fiat Conceptual Approach to Hybrid Car Design,</i> 12 th (International Electric Vehicle Symposium, 1994)	1994	Vittone
1754	U.S. Patent No. 5,865,263	Feb. 23, 1996	Yamaguchi
1755	Declaration of Gregory Davis		Davis Dec.
1756	Toyota Litigations	2005	Toyota Litigation
1757	Hyundai Litigation	2013-2014	Hyundai Litigation
1758	PTAB Decisions & Preliminary Response in 2014-00571		
1759	7,237,634 File History (certified)	n/a	'634 Patent File History
1760	Excerpt of USPN 7,104,347 File History	n/a	'347 File History
1761	U.S. Patent No.7,104,347	Sept. 12, 2006	'347 Patent
1762	SAE 760121 (Unnewehr-1976)	Feb. 1, 1976	Unnewehr
1763	Microprocessor Design for HEV (Bumby-1988)	Sept. 1, 1988	Bumby 1988
1764	SAE SP-1331 (1998)	Feb. 1998	SAE SP-1331
1765	Innovations in Design: 1993 Ford Hybrid Electric Vehicle Challenge	Feb. 1994	
1766	1996 & 1997 Future Car Challenge	Feb. 1997 & Feb. 1998	
1767	Introduction to Automotive Powertrain (Davis)		Davis Textbook
1768	U.S. Application 60-100095	Filed Sept. 11, 1998	'095 Provisional

Exhibit No.	Description	Date	Identifier
1769	History of Hybrid Electric Vehicle (Wakefield-1998)	1998	Wakefield
1770	SAE 920447 (Burke-1992)	Feb. 1, 1992	Burke 1992
1771	Vehicle Tester for HEV (Duoba-1997)	Aug. 1, 1997	Duoba 1997
1772	DOE Report to Congress (1994)	April 1995	1994 Report to Congress
1773	SAE SP-1156 (1996)	Feb. 1996	SAE SP-1156
1774	DOE HEV Assessment (1979)	Sept. 30, 1979	HEV Assessment 1979
1775	EPA HEV Final Study (1971)	June 1, 1971	EPA HEV Final Study
1776	WO 9323263A1 (Field)	Nov. 25, 1998	9323263
1777	Toyota Prius (Yamaguchi-1998)	Jan. 1998	Toyota Prius Yamaguchi 1998
1778	US Patent 6,209,672	April 3, 2001	'672 Patent
1779	Propulsion System for Design for EV (Ehsani-1996)	1996	IEEE Eshani 1996
1780	Propulsion System Design for HEV (Ehsani-1997)	Feb. 1997	IEEE Eshani 1997
1781	Bosch Automotive Handbook (1996)	Oct. 1996	Bosch Handbook
1782	SAE SP-1089 (Anderson-1995)	Feb. 1995	SAE SP-1089
1783	Critical Issues in Quantifying HEV Emissions (An 1998)	Aug. 11, 1998	An 1998
1784	Gregory Davis Resume		
1785	U.S. Patent No. 5,327,992	July 12, 1994	Boll
1786	US Patent 5,343,970	Sept. 6, 1994	Severinsky '970
1787	Bumby, J.R. et al. "Optimisation and control of a hybrid electric car" - IEE Proc. A 1987, 134(6)	Nov. 1987	Bumby II
1788	Paice Complaint	Feb. 25, 2014	
1789	Automotive Electronics Handbook (Jurgen)	1995	Jurgen
1790	Engineering Fundamentals of the Internal Combustion Engine (Pulkrabek)	1997	Pulkrabek

Exhibit No.	Description	Date	Identifier
1791	Final Decision, IPR2014-00904, Paper 41	December 10, 2015	'904 Decision
1792	Final Decision, IPR2014-00571, Paper 44	September 28, 2015	'571 Decision
1793	Final Decision, IPR2014-01416, Paper 26	March 10, 2016	'1416 Decision
1794	Deposition Transcript of Neil Hannemann for IPR2014-01416	Sept. 4, 2015	Hannemann '1416 Dep.
1795	Final Decision, IPR2014-00884, Paper 38	December 10, 2015	'884 Decision
1796	Final Decision, IPR2014-00875, Paper 38	November 23, 2015	'875 Decision
1797	Final Decision, IPR2014-01415, Paper 30	March 10, 2016	'1415 Decision
1798	Deposition Transcript of Neil Hannemann for IPR2014-00570	April 8, 2015	Hannemann '570 Dep.
1799	Deposition Transcript of Neil Hannemann for IPR2014-00875	April 30, 2015	Hannemann '875 Dep.
1800	Exhibit 2 from deposition of Neil Hannemann for IPR2014-00875	April 30, 2015	'875 Dep. Exhibit
1801	Patent Owner's Response, IPR2014-00884, Paper 19	March 10, 2015	'884 POR
1802	Modern Electric, Hybrid Electric and Fuel Cell Vehicles	2005	Ehsani
1803	Bosch Handbook	1976	Bosch Handbook 1976
1804	Deposition Transcript of Neil Hannemann for IPR2014-00884	April 30, 2015	Hannemann '884 Dep.
1805	Deposition Transcript of Neil Hannemann for IPR2014-00787	April 27, 2016	Hannemann '787 Dep.
1806	Exhibit 12 from Deposition Transcript of Neil Hannemann (IPR2014-00884)	April 30, 2015	'884 Dep. Exhibit
1807	Patent Owner's Response, IPR2014-01416, Paper 17	June 17, 2015	'1416 POR
1808	Deposition Transcript of Neil Hannemann for IPR2014-00571	April 7, 2015	Hannemann '571 Dep.

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