UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

FORD MOTOR COMPANY
Petitioner

v.

PAICE LLC & THE ABELL FOUNDATION
Patent Owner

Case IPR2014-00571
Patent 7,104,347

DECLARATION OF NEIL HANNEMANN
IN SUPPORT OF THE PATENT OWNER'S RESPONSE

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TABLE OF CONTENTS

I. INTRODUCTION 1

II. QUALIFICATIONS AND EXPERIENCE 2

III. LEGAL UNDERSTANDING 5

IV. DEFINITION OF A PERSON OF SKILL IN THE ART 7

V. THE '347 PATENT 8

VI. CLAIM CONSTRUCTIONS 11

VII. OVERVIEW OF RELEVANT TECHNICAL CONCEPTS 12

A. Engine Operating Range 12

B. Engine Output 13

C. Engine Control Strategy 14

VIII. OVERVIEW OF THE ASSERTED REFERENCES 22

A. Severinsky 22

1. Topology 22

2. Control Strategy 23

B. Ehsani 31

IX. ANALYSIS OF THE CLAIMS 32

A. General Critiques of Ford and Dr. Davis's Analysis 32

B. Ground 1 39

1. Severinsky Does Not Employ the Engine Based on Road Load 39

2. Severinsky Does Not Employ the Motor When Road Load is Less Than a Setpoint 59

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3. Severinsky Does Not Employ the Engine to Propel the Vehicle When the Torque RL Required to do so is Less Than the Lower Level SP and Using the Torque Between RL and SP to Drive the at Least One Electric Motor to Charge the Battery 63

4. Severinsky Does not Disclose or Render Obvious a "setpoint" 69

C. Ground 2 71

1. Severinsky in View of Ehsani does not Render Obvious "wherein said controller starts and operates said engine when torque require to be produced by said engine to propel the vehicle and/or to drive either one or both said electric motor(s) to charge said battery is at least equal to a setpoint (SP) above which said engine torque is efficiently produced" as Required by Claim 1 72

2. Severinsky in View of Ehsani does not Render Obvious a "Setpoint" 76

3. Severinsky in View of Ehsani does not Render Obvious Operating Modes Responsive to the Value for the Road Load (RL) and Setpoint SP as Required by Claim 7 77

4. Severinsky in View of Ehsani does not Render Obvious "a highway cruising mode IV, wherein said vehicle is propelled by torque provided by said internal combustion engine, while SP<RL<MTO" as Required by Claim 7 78

5. Severinsky in View of Ehsani Does not Render Obvious "a low-load mode I, wherein said vehicle is propelled by torque provided by said second electric motor in response to energy supplied from said battery, while RL<SP" as Required by Claim 7 79

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6. Severinsky in View of Ehsani does not Render Obvious Claim 9 80

D. Ground 3 82

X. CONCLUSION 82

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DECLARATION EXHIBITS

Patent Owner Exhibit Number	Exhibit Description
Ex. 2003	Dr. Gregory W. Davis Deposition Transcript (Jan. 13, 2015)
Ex. 2004	Excerpt from File History for U.S. Patent 8,214,097
Ex. 2005	Integrated Microprocessor Control of a Hybrid i.c. Engine/Battery-Electric Automotive Power Train," P.W. Masding, J.R. Bumby, Jan. 1990
Ex. 2006	Masding, Philip Wilson (1988) "Some drive train control problems in hybrid i.c engine/battery electric vehicles," Durham theses, Durham University
Ex. 2007	Excerpt from McGraw-Hill Dictionary of Scientific and Technical Terms, Sixth Ed., 2003.
Ex. 2008	Neil Hannemann CV

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