

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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DYNACRAFT BSC, INC.,  
Petitioner,

v.

MATTEL, INC.,  
Patent Owner.

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Case IPR2018-00039  
Patent 7,950,978

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**DECLARATION OF DR. MICHAEL D. SIDMAN**

Dynacraft BSC, Inc.

**Exhibit 1017**

Dynacraft BSC, Inc. v. Mattel, Inc.

IPR2018-00039

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The undersigned, Michael D. Sidman, Ph.D., resident at 6120 Wilson Road Colorado Springs, Colorado, declares the following:

## **I. Scope of Work and Summary of Opinions**

1. I am an expert in the interdisciplinary field of “mechatronics” which encompasses mechanical, electronic, software, signal processing, and control systems technologies.

2. I have been asked to provide my opinion concerning the patentability of certain claims of United States Patent No. 7,950,978 (“the ’978 patent”) (“the challenged claims”) and whether they would have been anticipated or obvious to one of ordinary skill in the art as of February 12, 2001. As explained below, I have concluded that each of the challenged claims would have been obvious in view of the combination of U.S. Patent No. 5,859,509 (“Bienz”) and U.S. Patent No. 4,634,941 (“Klimo”) (“Ground 1”) and the combination of Bienz, Klimo, and U.S. Patent No. 5,994,853 (“Ribbe”) (“Ground 2”).

## **II. Qualifications**

3. My current curriculum vitae is being filed contemporaneously with this Declaration as Exhibit (“Ex.”) 1018.

4. I completed my undergraduate studies at Northeastern University, where I earned a Bachelor’s and a Master’s degree in Electrical Engineering concurrently in 1975.

5. I earned my Ph.D. from Stanford University in 1986 as a Digital Equipment Corporation Fellow and University Resident. At Stanford, I developed an adaptive digital control system for a lightly-damped mechanism in the Stanford Aero/Astro Robotics Laboratory.

6. I am a named inventor on eighteen U.S. patents relating to technologies including: control of head positioning actuators, active damping of mechanical resonances, servo correction for shock and vibration, runout correction, solid-state relay design, digital control systems, analog and digital electronics, sensing and position control, adaptive control, among other things. A complete list of those patents is attached to this Declaration in Appendix A.

7. I have more than 40 years of experience in product design and applied research in mechatronics in a wide variety of commercial and other products and systems. Mechatronic products and systems often include an electric motor or actuator, a sensor, an embedded microcontroller, and power and signal processing electronics. I have authored numerous publications relating to these fields, and a list of selected publications is also attached to this Declaration in Appendix B.

8. I am a member of professional organizations dedicated to mechatronic and control systems technology. I am a Senior Member of the Institute of Electrical and Electronics Engineers (IEEE) where I am a member of the Control Systems Society. I am also a member of the American Society of Mechanical

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