

**Todd Springer**  
Engineering Consultant  
Augspurger Komm Engineering, Inc.  
& BTI Consultants  
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## **EDUCATION**

B.S. Mechanical Engineering, Arizona State University, 2006

## **SUMMARY**

Mr. Springer's areas of investigation and expertise include:

- Mechanical Failure Analysis
- Product Liability/Design Defect
- Machine Guarding and Safety
- Trip/Slip/Fall
- Construction Defect and Quality Analysis
- Property Damage Cause, Origin and Remediation
- Thermal Analysis/Modeling
- Auto Accident Reconstruction
- Capable of Reading, Writing and Conversing in Spanish

## **WORK HISTORY**

2008 – Present Augspurger Komm Engineering, Inc.

2006 – 2007 East Valley Glass, Installation Foreman

## **PROFESSIONAL AFFILIATIONS**

American Society of Mechanical Engineers, Member  
National Academy of Forensic Engineers, Correspondent  
Society of Automotive Engineers, Member

## **FORENSIC EXPERIENCE**

The following items have been involved in one or more of Mr. Springer's forensic investigations. This list is not intended to be comprehensive.

### Personal Injury/Product Liability

#### Consumer Product Failures

Washing machines, water heaters, range hoods, water connectors/supply lines

#### Industrial/Heavy Equipment

Proper guarding, adequacy of safety features implemented through design

#### Slip/Trip/Fall

Includes the examination of the single step and other foreseeable hazards, as well as proper guarding and warnings for slip/trip/fall scenarios

#### Auto Accident Reconstruction

Analysis of vehicle speeds, crush energies/deformation, auto accidents involving tractor-trailers, failed stunt attempts

### Structural

#### Floor Level Survey

Examination of foundations for structural integrity

#### Failed Structural Members

Failure mode determination, code compliance, design of reinforcement for existing structural components, post-fire evaluation of structural integrity

## **DESIGN EXPERIENCE**

### Car Cooling Device

Analysis of heat transfer rates, cooling capacity, cooling capacity requirements, and the analysis of various methods of heat transfer

### Water Wall Redesign

Analysis of flow patterns, flow rates, a design around existing geometry

### Redesign of High Temperature Furnace for the Department of Energy

Determination of critical stress points, and bending tolerances. Thermal analysis of heat exchange rates and thermal expansion. Design of long term, precise loading mechanism

## **PUBLICATIONS**

Eric A. Beebe, E.I.T., Kevin W. Hollander, Ph.D., David S. Komm, P.E., and Todd A. Springer, "Non-Destructive Testing Methods for Examination of Failed Plastic Parts," ASME Early Technical Conference, Arlington, TX, April 2009

**SEMINARS/CONFERENCES**

ARC-CSI 8<sup>th</sup> Annual Crash Conference, Las Vegas, NV, June 1-4, 2009

The TASA Group Presents: "The Life of a Lawsuit," Web Seminar, April 21, 2009

Solid Works Essentials, Digital Dimensions, Phoenix, AZ, February 2-6, 2009

Forensic Photography Techniques, Michael Wilson, Phoenix, AZ, December 18, 2008

Machine Guarding, National Safety Council, September 22, 2008

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