

## BOOK REVIEW

Scott D. Batterman,<sup>1</sup> Ph.D.

### Review of: *Forensic Accident Investigation: Motor Vehicles: Forensic Accident Investigation: Motor Vehicles—2*

**REFERENCE:** Bohan TL, Damask AC, editors; Bee H, assistant editor. *Forensic Accident Investigation: Motor Vehicles*. Michie Butterworth, a division of Reed Elsevier Inc., 1995, 606 pp. *Forensic Accident Investigation: Motor Vehicles—2*. Lexis Law Publishing, a division of Reed Elsevier, Inc., 1997, 854 pp.

This two-volume set is comprised of a collection of chapters (articles) submitted by various authors on topics relating to the forensic investigation of motor vehicle accidents. The editors are to be complimented for compiling a relevant collection of timely topics.

The first volume is comprised of ten chapters, and is arranged as follows:

Chapter 1	An Introduction to the Physics of Motor Vehicle Accidents
Chapter 2	Determination of Speed from Pedestrian Throw
Chapter 3	An Occupant Restraint Primer
Chapter 4	Determination of Speed from Yaw Marks
Chapter 5	The Effects of Payload on Large Truck Rollover
Chapter 6	Limitations of Momentum Methods for Accident Reconstruction
Chapter 7	Determination of Speed from Crush
Chapter 8	Computer Implementation of Momentum and Energy Solutions
Chapter 9	Computer-Generated Images (CGI)
Chapter 10	Real Time, Accurate Recall, and Other Myths
Appendix A.	References
Appendix B.	About the Authors
Appendix C.	Units and Symbols
Appendix D.	Accident Reconstruction Methods
	List of Illustrations
	Index

The second volume is also comprised of ten chapters, and they are arranged as follows:

Chapter 1	Low-Speed Impacts
Chapter 2	Air Bag System Analysis
Chapter 3	Child Restraint Systems
Chapter 4	Transfer Evidence in Motor Vehicle Accident Investigation

Chapter 5	Structural Failure From Brittle Spot Welds
Chapter 6	Establishing Quality Controls for Forensic Expertise
Chapter 7	Beware Forensic Delusion
Chapter 8	The Trouble With Memory
Chapter 9	Close Range Photogrammetry In Accident Investigation
Chapter 10	The Intelligent Lawyer's Guide To Evaluating Accident Reconstructions and Forensics Experts
Appendix A.	References
Appendix B.	About the Authors
Appendix C.	Units and Symbols
	List of Illustrations
	Index

The subject two volume set attempts to cover a wide range of topics associated with the forensic engineering investigation and analysis of motor vehicle accidents. In general, the books do contain useful information. I would recommend that consultants and investigators in the field be familiar with them and have copies on their shelves for reference. In this reviewer's opinion, one of the most valuable assets of the two books is the very comprehensive list of references in Appendix A of each volume.

Each chapter stands alone as a self-contained essay on the stated topic. It is noted, however, that there is a noticeable variation in the technical quality, depth and level of treatment between topics (chapters). The reasons for this are likely twofold. First, there is the inevitable variation of expertise amongst the contributing authors. Second, in this reviewer's opinion, the editors tried to reach a broad target audience with varying degrees of success. While an admirable goal, it is not practical to write a series of short technical essays that are on a level appropriate to both practicing engineers as well as people with non-technical backgrounds. As such, there is a large variation in the technical level from chapter to chapter, as individual author's appeared to choose their own target audience. In the Editor's Introduction to Chapter 1 of the first volume, it is stated that efforts were made to keep the mathematics to a minimum for

<sup>1</sup> Consultants Associates, Inc., Cherry Hill, NJ.

the benefit of “. . . the intelligent, well-educated laypeople who make up a large segment of the volume’s target audience . . .”. In this reviewer’s opinion, this leads to a loss of necessary rigor when discussing the underlying physics and methodology used in engineering accident reconstruction. This loss of rigor does lead to some technically incorrect statements. I also caution readers to check the

correctness of any mathematical equations which do appear in either volume prior to relying on or using them as some mathematical misstatements (errors) were noticed during the review.

On balance, however, this two-volume set does contain much useful information and would be a valuable reference addition to a technical library.