

Dauch, Richard. (1993). *Passion for manufacturing*. Dearborn, MI: Society of Manufacturing Engineers, \$29.00 (hardcover), 280 pp. (ISBN 0-87263-436-1)

Reviewed by Harvey Fred Walker

The automobile industry has employed many talented and capable individuals who have made noteworthy contributions to the field of manufacturing. One such individual is Richard Dauch, a former executive with Chrysler, Volkswagen, and General Motors. Mr. Dauch served in positions such as Executive Vice President of Diversified Operations; Executive Vice President of Stamping, Assembly, and Diversified Operations; Executive Vice President of Manufacturing; and Executive Vice President of Worldwide Manufacturing during his twenty year career.

Much of this book is devoted to discussing Mr. Dauch's attempts to revitalize his employers' competitiveness through productivity improvement. These discussions were focused on identifying productivity problems which hinder competitiveness in American manufacturing in general, and how these problems were eliminated or minimized at Chrysler.

A chronological review of manufacturing methods used in this industry from World War II to the present set the stage for a discussion of the current state of manufacturing technology. Lean production was identified as an emerging technology which emphasizes efficiency and effectiveness of manufacturing resources. Agile manufacturing was also identified as a tool to synthesize innovative methods and practices such as networking machine tools, implementing robotics, and accepting delivery of parts "just in time" to be used in manufacturing operations.

Mr. Dauch appeals to American leaders in industry and academia to work together to identify and provide educational experiences which will enable graduates to contribute to competitive revitalization. In fact, Dauch devoted an entire chapter to comparing and contrasting inadequacies in the American educational system to those abroad. Specifically compared were the amount of course work required in mathematics, physics, applied science, and advanced technology. Another comparison involved the relationships between educat-

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ional institutions and industry in areas such as sharing expertise, facilities, and financial support.

Realizing the potential benefits of improving team-work between academia and industry, Dauch and Chrysler took steps to form strategic partnerships with selected educational institutions. The steps taken were intended to strengthen the curricula Chrysler employees would be exposed to in applied mathematics, reading, and writing. Working for change in these "basic" areas, Dauch suggests, would enable technically-based curricula to address more advanced topics.

In addition to redefining the critical importance of academia/industry relationships and technically-relevant education, Mr. Dauch focused the reader's attention on the importance of remaining technological leaders in global manufacturing. Mr. Dauch made the point that many college graduates never even visit a factory until after graduation. Lack of exposure to operational manufacturing settings continues to delay many graduates from becoming productive members of the work force and significantly adds to corporate training and development costs. Further, too many college graduates continue to receive a formal education that is technically obsolete. Mr. Dauch considered formal education "out-of-date" because the types of knowledge, skills, and abilities possessed by newly-hired graduates often lags leading-edge technology by as much as five to ten years.

In response to the perception of obsolete technology in the academic setting, Mr. Dauch identified and discussed state-of-the-art technology, equipment, and management practices currently used in manufacturing facilities at Chrysler. These discussions would enable the technology educator and technology education student to review new types of technology, discover how these technologies have been put to use in industry, and understand how these technologies are combined into a synthesized and integrated system. The strategies outlined in this book reviewed current and emerging manufacturing practices. Primarily discussed were concurrent engineering, planning, control, supply, distribution, manufacturing, and management. Many of the concepts addressed are currently a part of technology-teacher preparation in educational programs emphasizing manufacturing.

In conclusion, *Passion for manufacturing* provided many useful insights into the current state of manufacturing technology and practices. Through many appropriate examples, technology educators may gain valuable insights into identifying curricula content that better serves the needs of students they are teaching. Similarly, technology education students can gain a unique perspective into current manufacturing practices which may help them be better prepared to enter the teaching profession.