



James Womack, Daniel Jones, and Daniel Roos wrote *The Machine That Changed the World* in 1990, Japanese automakers, Toyota in particular, were making a strong showing by applying principles of lean production. However, the full power of lean production was unproven, and they had not been applied outside of the automotive industry. Today, the power of lean production has been decisively proved by Toyota's unparalleled success, and the concepts have been widely applied in many industries.

Based on MIT's pioneering global study of industrial competition, *The Machine That Changed the World* offers a groundbreaking analysis of the entire lean business system, including product development, supplier management, sales, service, and production control analysis even more relevant today as GM and Ford struggle to compete and a wide range of British and American companies embrace lean production. A new Foreword by the authors brings the book up to date and details how their predictions were right. As a result, this reissue of a classic is as insightful and instructive today as when it was first published.



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THE MACHINE THAT CHANGED THE WORLD

How Lean Production Revolutionized the Global Car Wars

WITH A NEW FOREWORD BY THE AUTHORS

James P. Womack, Daniel T. Jones & Daniel Roos



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Foreword 2007

Why Toyota Won: A Tale of Two Business Systems

In 1990, when *The Machine That Changed the World* was originally published, Toyota was half the size of General Motors and two-thirds the size of Ford. Today, as this book is reissued for a new generation of readers, Toyota has easily passed Ford and is surging past GM to become the largest and most consistently successful industrial enterprise in the world. This book tells why.

However, this is not simply the story of three giant firms in one giant industry. The great contribution of this volume—the reason it is as relevant today as when it was first published—is that it clearly describes two fundamentally different business systems, two ways of thinking about how humans work together to create value. One system—mass production—was pioneered by General Motors in the 1920s as it passed Ford to become the world's largest industrial enterprise. This system was then widely copied and used by enterprises in practically every industry all over the globe—including Ford and General Electric—for nearly seventy-five years. The other business system—lean production—was pioneered by Toyota in the twenty years immediately after World War II and is now rapidly diffusing to every corner of the world.

In simplest terms, this book tells the story of mass versus lean and shows why lean is superior. It tells not only why Toyota won