

Foreword

Neither a history lesson nor an engineering text, *Automotive Milestones* is a bit of both. Samuel Johnson said, “*The two most engaging powers of an author are to make new things familiar and familiar things new.*” Professor Bob Norton certainly has succeeded in this. From Nicholas Cugnot’s steam-powered vehicle of 1769 and Dr. Ferdinand Porsche’s 1901 Lohner P1 hybrid, to modern dual-clutch, automatic-manual transmissions, Bob explains automotive engineering and progress in a way that is uniquely understandable, yet not oversimplified, and without requiring deep math skills. Well-chosen diagrams and photos clearly illustrate concepts. Although easily readable front-to-back, its logical organization makes it an excellent reference work. Bob provides Internet links and references for those desiring more extensive information.

Many automotive books depend on opinions and secondary sources for information, and may therefore contain inaccuracies. One of the most significant aspects of this book is its extensive use of original sources. Bob visited many museums and collections and read many patents and original technical papers. Many of the photos were taken specifically for the book, and many facts were verified by examining the actual vehicles. I was blessed with the opportunity of making available the many unique resources of the collection at the Tampa Bay Automobile Museum.

What will be the automotive milestones of the future? It is obvious that we will see significantly more dependence on digital technology, requiring more capable electrical systems. So one milestone will surely be the introduction of 48-volt systems in a production vehicle, already planned by Audi. Another will be fully active suspension—Mercedes’ “Magic Ride Control,” already in production, is a predecessor. I’m not so sure about autonomous vehicles—will they be a milestone or a millstone? They’ll certainly be a boon for the lawyers.

Shakespeare wrote, “*What’s past is prologue.*” This book proves it, at least as far as automobiles are concerned. Many of today’s automotive milestones had their origins in the distant past, and to enter production only required advances in supporting technologies, often prompted by economic and social pressures. Regardless of their impetus, *Automotive Milestones* covers them in an engaging and readable manner.

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