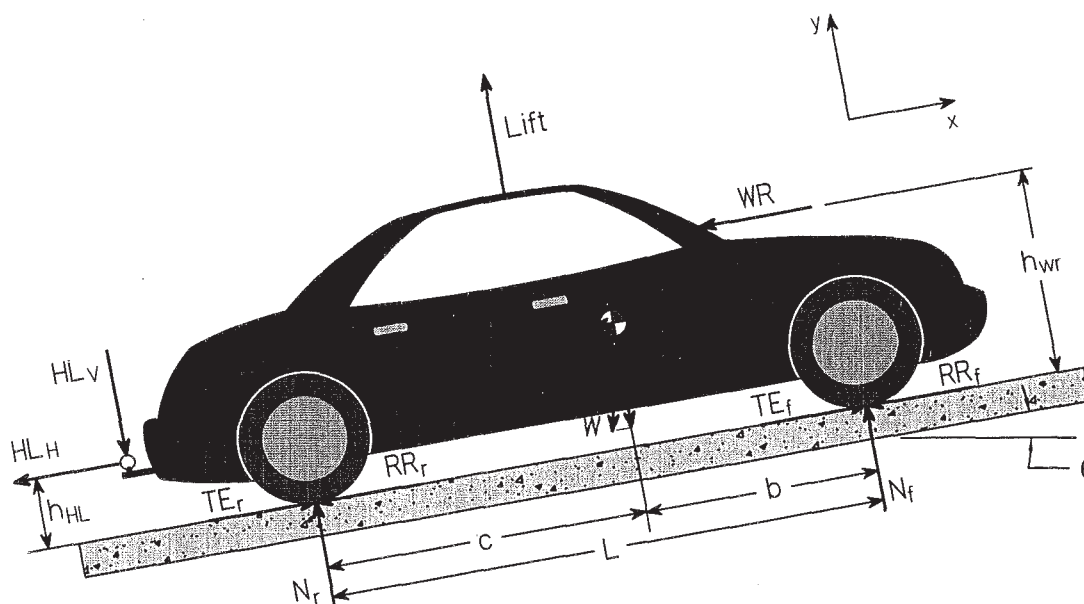


Introduction to Automotive Powertrains



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Preface

This book is intended for advanced engineering students and practicing automotive engineers who are interested in learning about the overall design of an automotive powertrain. It is an introductory text on the topic, but it will provide the interested reader with a basis for understanding the fundamentals of automotive engines and automotive transmissions, and more importantly how to select those components to provide the optimum compromise between acceleration performance, gradeability performance and fuel economy performance.

The level of analysis used in the text is not particularly difficult (it is assumed that the reader has a good grasp of engineering mechanics), however the equations derived in the text become the basis for developing computer models that can be used to predict vehicle performance.

Acknowledgements

The authors of this book would like to thank and to acknowledge the work and support of many others who have come before us. In particular, we would like to thank Dr. Colin Jordan for his significant contributions to the original notes from which this book was drawn. Finally, we would like to acknowledge the works of others who have made many of the original illustrations in this edition. Unfortunately, we have not yet been able to track down the sources of some of these works. We are working diligently to locate the authors and to replace illustrations as needed. This work is currently a pre-production work intended for educational use.

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