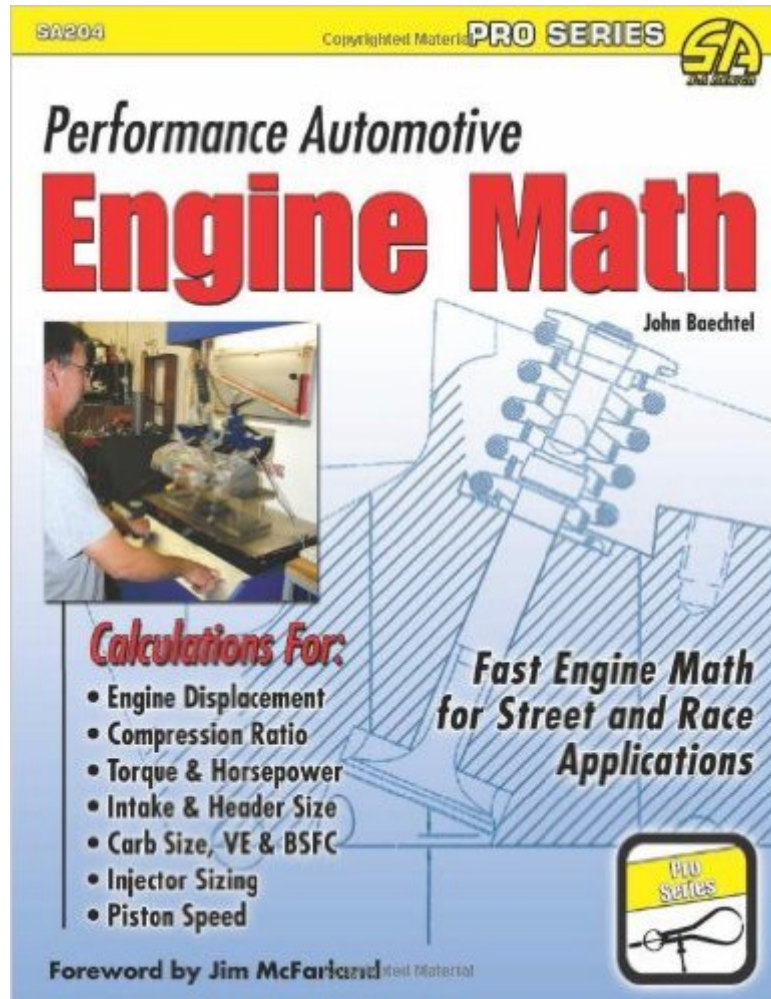# Performance Automotive Engine Math (Sa Design-Pro)

Synopsis

All the parts within any engine are designed and engineered using the appropriate mathematics to function efficiently and be durable. When discussing high-performance automotive engines, a specific set of math formulas are used to develop and design power plants to make more power at higher rpm levels and still survive. The various forms of motorsport and street use all have different requirements, but the math used to design engines to be competitive does not change, regardless of the specific discipline. Multi-time author and well-regarded performance engine builder/designer John Baechtel has assembled the relevant mathematics and packaged it all together in a book designed for automotive enthusiasts. This book walks readers through the complete engine, showcasing the methodology required to define each specific parameter, and how to translate the engineering math to the hard measurements reflected in various engine parts. Designing the engine to work as a system of related components is no small task, but the ease with which Baechtel escorts the reader through the process makes this book perfect for both the budding engine enthusiast and the professional builder. Author Baechtel's experience and writing capabilities shine in Performance Automotive Engine Math, and this book will surely be a strong addition to any high-performance library.

Book Information

Series: Sa Design-Pro

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Average Customer Review: 4.7 out of 5 stars See all reviews (61 customer reviews)

Best Sellers Rank: #63,320 in Books (See Top 100 in Books)   #22 in Books > Engineering & Transportation > Automotive > Repair & Maintenance > Engines & Transmissions   #53 in Books > Engineering & Transportation > Transportation > Owner's Manuals & Maintenance Guides

Customer Reviews

Based on all the glowing reviews, I picked up a copy, only to find that most of the content is very basic engine math. There were only a couple formulae that I didn't already have, so that means:1)

I'm a really smart guy with engine math (not likely :)), or2) This is a really basic bookToo, there's quite a bit of space dedicated to carburetor math, which, by nearly any measure, is outdated. I was surprised to see it, considering the book was published in 2011. And typically, all the illustrations and most of the text assumes the reader is working with 2 valve heads, cam in block, domestic American engines. No mention of 4 valve, OHC engines, or helpful formulas to size injectors, etc.One of the main reasons I bought the book is that I noticed it had a section on using spreadsheets for engine math. I mistakenly assumed there might have been a USB stick with the spreadsheet included, or at least some Excel formulas that could have been copied & pasted. No such luck, instead there was a very basic tutorial on how to enter a formula into Excel. Really? Who in this day & age hasn't used Excel for at least some basic purpose? And there's also a section on how to use a pocket calculator? C'mon.......?The author definitely knows his subject matter, but after reading it, I had the feeling I'd just been transported back in time 20-25 years, and I was left wondering "Is that all there is?" Disappointed, and my copy of the book may be up for sale soon in the used section of .Suggestions for future revisions:1. Lose the carburetor math & replace it with EFI math2. Give equal treatment to 4 valve heads as 2 valve heads3.

Performance Automotive Engine Math (Sa Design-Pro) Automotive Heating and Air Conditioning (7th Edition) (Automotive Systems Books) Computerized Engine Controls (New Automotive & Truck Technology Titles!) Small Engine Repair - Quick and Simple Tips to Get Your Small Engine Running Again They Made America: From the Steam Engine to the Search Engine: Two Centuries of Innovators Little Engine Shaped Board Books: Trevor the Steam Train; Sally the Sea Ferry; Harriet the Helicopter; Freddy the Fire Engine Engine Out Survival Tactics: Fighter Pilot Tactics for General Aviation Engine Loss Emergencies Go Pro Camera: Video editing for Beginners: How to Edit Video in Final Cut Pro and Adobe Premiere Pro Step by Step Secret Of Mental Math Arithmetic: 70 Secrets To Super Speed Calculation & Amazing Math Tricks: How to Do Math without a Calculator 2nd Grade Math Flashcards: 240 Flashcards for Building Better Math Skills Based on Sylvan's Proven Techniques for Success (Sylvan Math Flashcards) 3rd Grade Math Flashcards: 240 Flashcards for Improving Math Skills Based on Sylvan's Proven Techniques for Success (Sylvan Math Flashcards) 4th Grade Math Flashcards: 240 Flashcards for Improving Math Skills Based on Sylvan's Proven Techniques for Success (Sylvan Math Flashcards) 1st Grade Math Flashcards: 240 Flashcards for Building Better Math Skills Based on Sylvan's Proven Techniques for Success (Sylvan Math Flashcards) Kindergarten Math Flashcards: 240 Flashcards for Building Better Math Skills Based on Sylvan's Proven Techniques for Success (Sylvan Math Flashcards) 3D Engine

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