

My apologies but I'm in British Columbia looking after a daughter who had shoulder surgery yesterday. This was expected surgery but was advanced by about a month to yesterday.

Special thanks to...

- Central Pennsylvania Corvair Club
- March 2019 Newsletter for the idea
- ... and thank you for the acknowledgement of some of my recommendations!

I wrote a outline years ago on VV that ended up on Brian Blackwell's Autoxer pages so thanks to the CPCC March newsletter this initiated the idea again for the Performance Corvair Group.

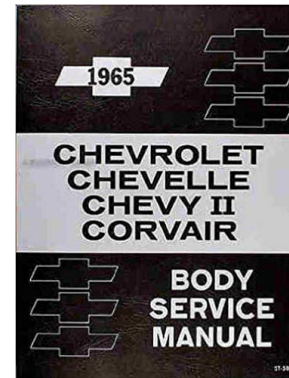
## Chevrolet Chassis Shop Manual Corvair

This is the official guide to servicing Corvairs used by the dealer mechanics. They are still available new, just make sure you get a supplement for your spec year if you need one (for example a '67 needs both the '65 manual and '67 supplement). If you want to do any work on your Corvair, you need one of these. If you don't want to spring for a new one, they can often be found used at Corvair swap meets for very low prices. Available from most Corvair vendors.



Let's start with the basics, the next few slides are basic manuals for any Corvair performance. You will need the full manual and yearly supplement appropriate to your Corvair

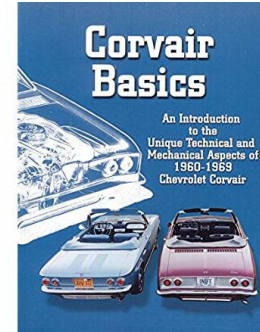
1965 Body Service Manual



If you bend it you will want this and it's helpful to make sure you start with a straight chassis and body.

### Corvair Basics

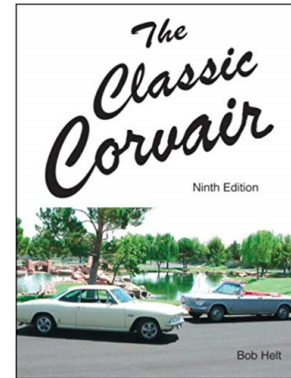
Also known as the Beginner's Manual, this book was written by a group of volunteers from Virtual Vairs and is oriented toward the enthusiast who is new to Corvairs. Although oriented toward the novice, there are a lot of accumulated tips and tricks, along with a good general discussion of how the systems are supposed to work. If you are just getting into Corvairs, this book is for you! Available from: CORSA (you have to fill out the form and mail it in) as well as most Corvair vendors.



Enough said we all need the basics

### The Classic Corvair By Bob Helt

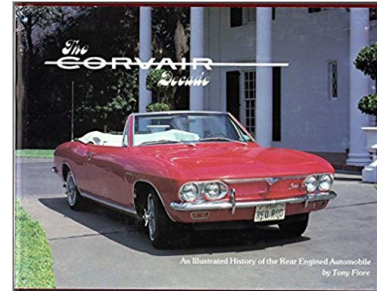
The Classic Corvair, is aimed at all Corvair owners but is more in depth than Corvair Basics, so he covers many of the more popular performance modifications and has more detail on the technical aspects of the car. Bob is well known in the Corvair community for his technical knowledge, and his book is a great illustration of his extensive background, he explains many of the crucial details that are helpful if you're going to modify your Corvair. 330 pages. Available from most Corvair vendors.



More good information from another Corvair expert, Bob kept adding knowledge through 9 editions.

The Corvair Decade by Tony Fiore

Tony was one of the founding Corsa members, and he wrote this history of the Corvair, published in 1980. It has information on how the Corvair came about, production changes, and includes information on the major independently built Corvair derivatives. Available from CORSA.



Not necessary as a racer but still has good information

How to Identify and Rebuild Corvai  
Carter YH Carburetors Used on  
Corvair Turbocharged Engines

for the Carter YH carbs that came  
on turbo Corvairs, comprehensive  
turbo carburetor rebuild  
information. Available from most  
Corvair vendors.

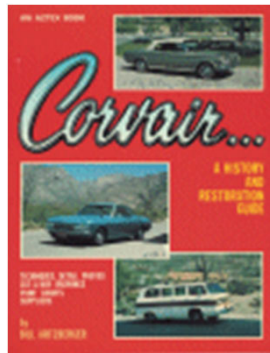
**HOW TO  
IDENTIFY AND REBUILD  
CARTER YH CARBURETORS  
USED ON CORVAIR  
TURBOCHARGED ENGINES**



**By Bob Helt**

Useful. Wish I had it in the 70's when we ice raced a turbo Corvair





Corvair...A History and Restoration Guide  
by Bill Artzberger

Oriented more towards building a show car, this book is useful since it covers the full sequence of buying, tearing down, and rebuilding a Corvair. An extensive section of tables

Not racer oriented but more basic information



Let's get to the good stuff!

## SCCA Rule Book

- <https://www.scca.com/pages/cars-and-rules>



You need the rule book or rule books where your going to run. Start with the safety then move to the modifications. The SCCA rules are a good baseline for anywhere you run as a road racer.

## HSR Rule Book

- <https://hsrace.com/race-series/hsr-rules-and-regulations/>
- [http://hsrace.com/wp-content/uploads/2016/03/GM-6\\_\\_Yenko\\_Stinger-HSR\\_15.pdf](http://hsrace.com/wp-content/uploads/2016/03/GM-6__Yenko_Stinger-HSR_15.pdf)



Moving to the historical road racing here are the links to vintage racing associations

## SVRA Rule Book

- [https://svra.com/wp-content/uploads/2012/09/Corvair-Yenko\\_Stinger.pdf](https://svra.com/wp-content/uploads/2012/09/Corvair-Yenko_Stinger.pdf)
- <https://svra.com/rules/>



SVRA rules

## SOVREN Rule Book


- [http://sovrenracing.org/wp-content/uploads/2014/03/SCCA\\_PCS\\_69.pdf](http://sovrenracing.org/wp-content/uploads/2014/03/SCCA_PCS_69.pdf)
- <http://sovrenracing.org/wp-content/uploads/2014/03/72pcs.pdf>
- [http://sovrenracing.org/wp-content/uploads/2015/04/2015\\_Compensation\\_Rules.pdf](http://sovrenracing.org/wp-content/uploads/2015/04/2015_Compensation_Rules.pdf)



Sovern on the west coast and probably others I don't know about.

NHRA

- <https://www.nhra.com/nhra>

The logo for NHRA Championship Drag Racing is an oval shape. The top half of the oval is red with the word "CHAMPIONSHIP" in white, uppercase letters. The bottom half is blue with the words "DRAG RACING" in white, uppercase letters. In the center of the oval, the letters "NHRA" are written in a large, bold, blue font with a white outline.

Drag racing and there are a few who do drag race Corvairs, not my area of expertise but still performance Corvairs.

SCTA  
(Bonneville)

- [www.scta-bni.org/bonneville.html](http://www.scta-bni.org/bonneville.html)



Michael Leveque would be able to tell us more with his experience building for Bonneville.



The logo for the Performance Corvair Group is a rectangular emblem with a blue border. The background is a yellow and white checkerboard pattern. The text "PERFORMANCE CORVAIR GROUP" is written in a bold, black, sans-serif font across the top and middle. A red Chevrolet bowtie logo is positioned to the right of the word "GROUP". The emblem is set against a circular blue background with a splatter effect.

Performance Corvairs  
Group Newsletters

- <http://www.corvair.org/chapters/pcg/newsletters.html>

One of the sources is the web pages of the Performance Corvair Group.



## Performance Corvairs

- By Seth Emerson & Bill Fisher
- **ISBN-10:** 1931128227
- **ISBN-13:** 978-1931128223
- Available from Seth & Clark's

If you don't buy anything else buy this book. You will note from now on I've included ISBN numbers to help you get these books locally at your favourite local book store (FLBS)! Or other sources on line.



[Corvair Performance Handbook,  
\(Hot Rod Magazine technical library\)](#)

- 1963
- by OCee Ritch
- *Out of Print--Limited Availability*
- If you ever get a copy it looks a lot like the original  
How to Hot Rod your Corvair

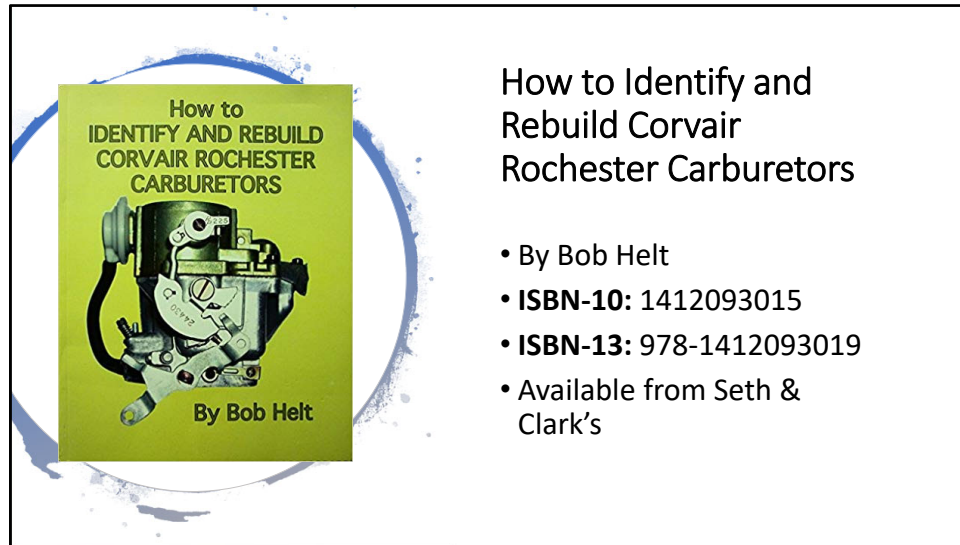
This book is out of print but it's a fun piece of history regarding Corvair Performance if you find it online at a reasonable price collect a copy.



### How to Keep Your Corvair Alive

- By Richard Finch
- ISBN-13: 978-0966145700
- ISBN-10: 0966145704
- Available from Clark's

Richard Finch's book still some useful information. Today many of the ideas he has regarding performance tools (e.g. rod balancing) can be bought for reasonable prices at places like Summit and JEGS. Still worthwhile.



If your going to be working with Rochesters on a Corvair this is the start.

BTW tell Seth I need a copy!



Grose Jet listings  
including Corvair

- **D & G Valve Manufacturing CO Inc**
- 8 Mount Vernon Street  
Stoneham, MA 02180
- Phone: (781) 438-1789
- Name: Marilyn Grose, Owner
- [http://www.97330.com/GroseJet\\_id\\_sheets/D&G\\_valve\\_mfg\\_co\\_inc.html](http://www.97330.com/GroseJet_id_sheets/D&G_valve_mfg_co_inc.html)
- RE42 for Rochester HV

Question has any race used these successfully? Have you experienced any problems with the normal float seats?

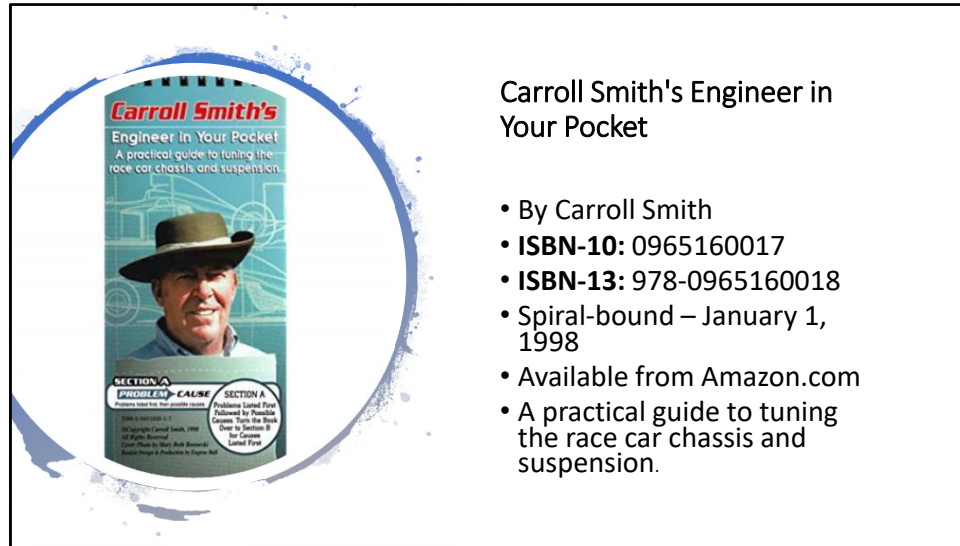


**PREPARE TO WIN**  
THE NUTS AND BOLTS GUIDE TO PROFESSIONAL RACE CAR PREPARATION  
CARROLL SMITH

## Prepare to Win

- By Carroll Smith
- **ISBN-10:** 0615547338
- **ISBN-13:** 978-0615547336
- Available from Amazon.com

The next few books are from Carroll Smith who I had the opportunity to meet at a Formula Atlantic race at Westwood race track. He didn't think much of scrutineers in his books but we as the scrutineers had all read his books and were full of questions and praise for his books. Prepare to Win is the first in the series.



## Carroll Smith's Engineer in Your Pocket

- By Carroll Smith
- **ISBN-10:** 0965160017
- **ISBN-13:** 978-0965160018
- Spiral-bound – January 1, 1998
- Available from Amazon.com
- A practical guide to tuning the race car chassis and suspension.

Don't have this pocket guide but it's on my list to purchase.





## Tune to Win

- By Carroll Smith
- **ISBN-13:** 978-0879380717
- **ISBN-10:** 0879380713
- Available from Amazon.com

Carroll's second book about methodologies to set up your car.



## Engineer to Win

- By Carroll Smith
- ISBN 0-87938-186-8
- Available from Amazon.com

Carroll's third book goes to the basics of engineering and relates them in simple terms as they relate to racing.

A side story as a engineering technologist in the plastics industry I loaned my copy to the retired Vice President of Engineering who was mentoring the engineering team on plastic injection mold design. I mentioned most of the team understood little about fatigue and its affect. Look up "Mold Engineering" by Herbert Rees a Hanser publication, Chapter 18 is on fatigue and used the information from Carroll Smith's book. Never did get that copy of the book back but Herbert gave me the money to buy another copy.



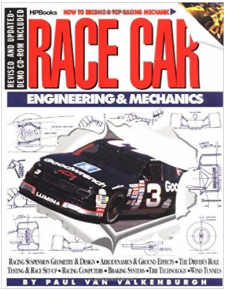
**Nuts, Bolts, Fasteners and Plumbing Handbook**

- By Carroll Smith
- ISBN 0-87938-406-9
- Available from Amazon.com

Some duplication in this Carroll Smith book from his earlier books but a consolidation of the information into one place making it easier to put together the information.



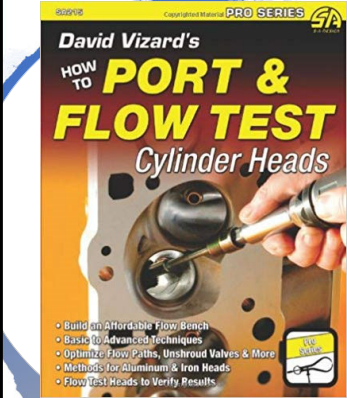
Carroll's input from his perspective as the race engineer into how to look at driving from his years working with some of the best drivers and experiences with his son as a race driver. Also he got to see some not so got drivers with too much money.



## Race Car Engineering and Racing

- By Paul Van Valkenburgh
- ISBN 0-9617425-0-X
- Available from HP Books & Amazon.com

Paul's knowledge from working with Chevrolet Research and Development, Penske Racing, Mark Donahue, Sports Car Graphic when Carrol Smith published his first articles and a list of who's who in automotive research and racing.



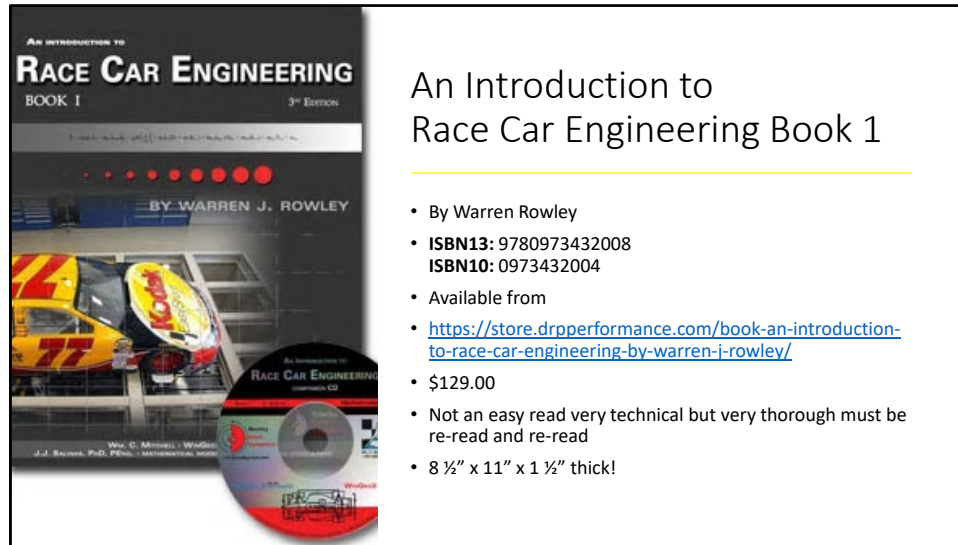
## How to Port & Flow Test Cylinder Heads

- By David Vizard
- ISBN 978-1-934709-64-1
- Available from Amazon and many speed shops
- Best simple flow bench for under \$200
- Design info from one of the best in a simple to understand guide
- <https://www.youtube.com/watch?v=cg77Uz31EX8>
- <https://www.youtube.com/watch?v=fLrDjNqj5rQ>

David Vizard is an expert on Mini's and making cylinder heads flow. His book here shows how to make your own homemade flow bench and have some science to it plus his years of cylinder head work in England and the USA. Expertise on cylinder heads from the USA. Easy to read and understand.

The two YouTube links are from two Canadians who follow his advice and build the cheapest flow bench and waste their efforts on a Russian built Niva SUV a terrible vehicle that should never have left Communist territory! It hilarious but shows how simple things can be turned to useful science in developing race cars.

David's wealth of experience is easily shared. Currently on sale in many speed shops.



## An Introduction to Race Car Engineering Book 1

- By Warren Rowley
- **ISBN13:** 9780973432008  
**ISBN10:** 0973432004
- Available from
- <https://store.drpperformance.com/book-an-introduction-to-race-car-engineering-by-warren-j-rowley/>
- \$129.00
- Not an easy read very technical but very thorough must be re-read and re-read
- 8 ½" x 11" x 1 ½" thick!

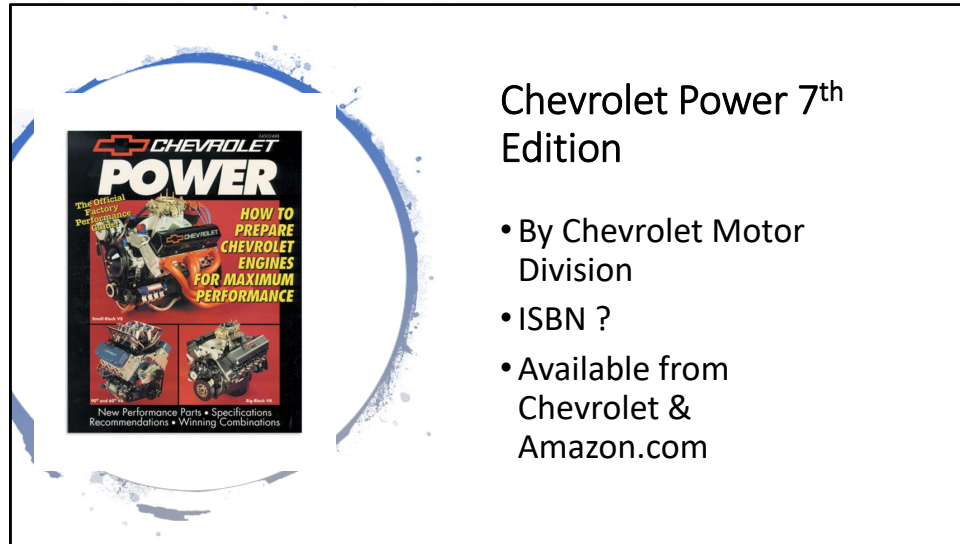
This is the heavy weight both by size, volume and depth of engineering. Warren Rowley of Calgary Alberta has written a volumous tome to the science of race car engineering starting with the science of the race tire. Even for engineers it's not a one time read I've learned. Needs re reading and lots of thought and at 1.5 inches thick it's not overnight reading. If your serious about racing this is one to have but it's work.

## Competition Setup A Chassis Adjustment Analysis

- By Warren L. Harvey & D. B. Ressler Jr.
- ISBN: 9780914952008
- Available from Amazon.com
- basics of each type of chassis
- 3 ring binder

If I was there with you I'd have brought this with me it was written in the 70's and gives the basics with pro's and con's or the good and the limitations of many suspension systems. Sorry not online picture to show.

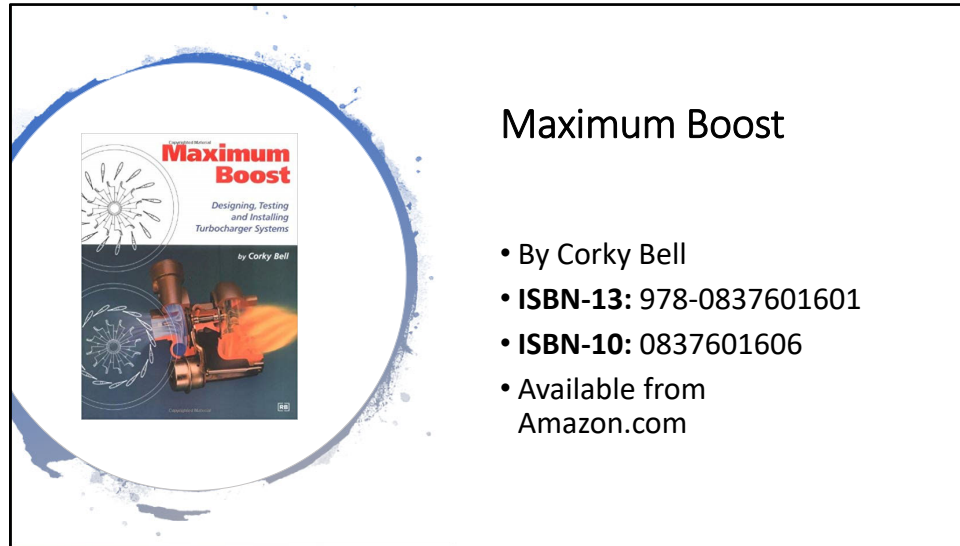




## Chevrolet Power 7<sup>th</sup> Edition

- By Chevrolet Motor Division
- ISBN ?
- Available from Chevrolet & Amazon.com

Chevrolet's information on race cars and a lot of basics on how to configure systems in race cars.



## Maximum Boost

- By Corky Bell
- **ISBN-13:** 978-0837601601
- **ISBN-10:** 0837601606
- Available from Amazon.com

Corky Bell elaborates on boosted automotive systems this and his other volume next slide are the basis for turbocharge understanding



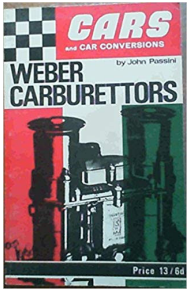
Corky Bell's second book



## Weber Carburetors Owners Workshop Manual

- By J H Haynes & A K Legg
- ISBN 0-85696-393-3
- Available from
- <http://www.carburettorshop.com>
- \$39.95 US

Carburetors or the English or Italian spelling, the next several books outline Weber information



## Weber Carburetors 1 Theory

- By John Passini
- ISBN 0-903-192-40-3
- Available from Amazon.com

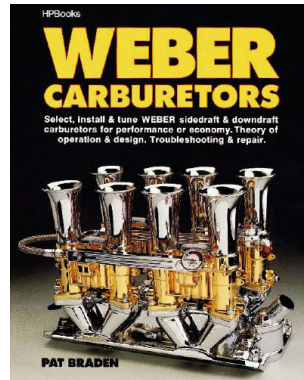
Small English publication 2<sup>nd</sup> choice over the previous slide



## Weber Carburetors 2 Tuning & Maintenance

- By John Passini
- ISBN 0-85113-0607
- Available from ?


More of the same 2nd choice over the first Weber book



## Weber Carburetors

- By Pat Braden
- ISBN 0-89586-377-4
- Available from HP Books and
- [www.pegasusautoracing.com](http://www.pegasusautoracing.com)

A North American volume on Webers well written equal to the Haynes information



## Weber Carburetor Tuning Manual

- By Weber Carburetor
- ISBN n/a
- Available from Weber Carburetor
- <https://www.racetep.com/manufacturer/carbs-and-injection/weber/weber-carb-tuning-and-technical-info/jetting-and-tuning-downdraft-and-sidedraft-weber-carbs.html>

The factory manual really good info but just the technical stuff of the Webers

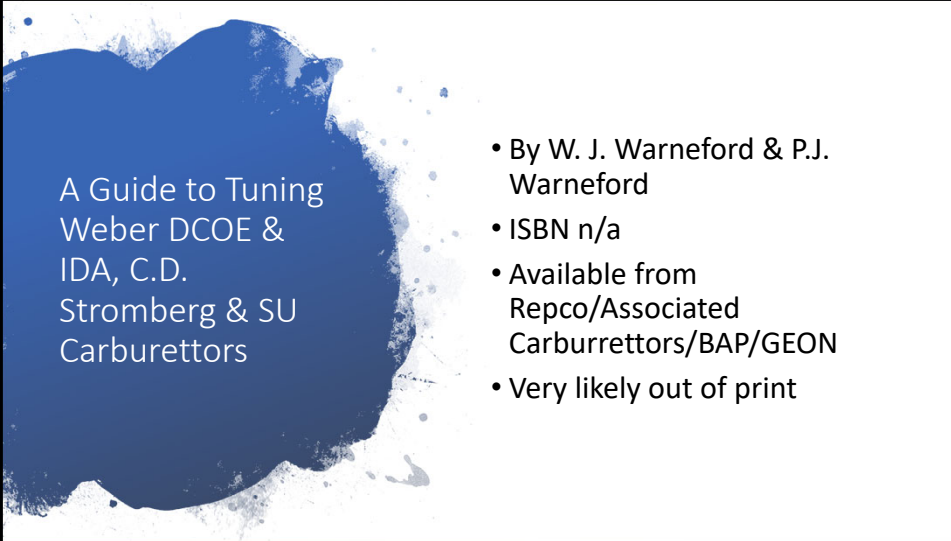




Master Catalog  
Technical  
Introduction  
4<sup>th</sup> Ed

- By Weber Carburetor
- ISBN n/a
- Available from Weber Carburetor
- on line PDF @
- <https://www.lainefamily.com/images/WeberTuningManual.pdf>

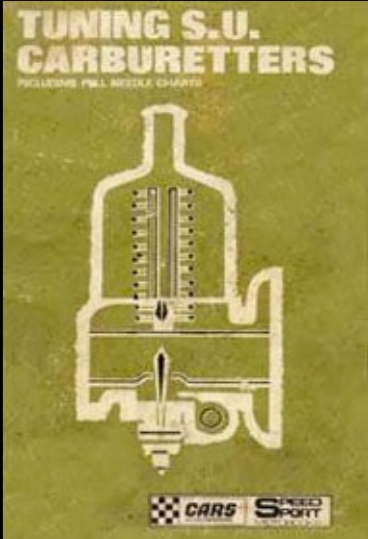
The catalog now out of print but available on line as a PDF download.



A Guide to Tuning  
Weber DCOE &  
IDA, C.D.  
Stromberg & SU  
Carburettors

- By W. J. Warneford & P.J. Warneford
- ISBN n/a
- Available from Repco/Associated Carburettors/BAP/GEON
- Very likely out of print

Australian info can't find anyone selling even old copies.



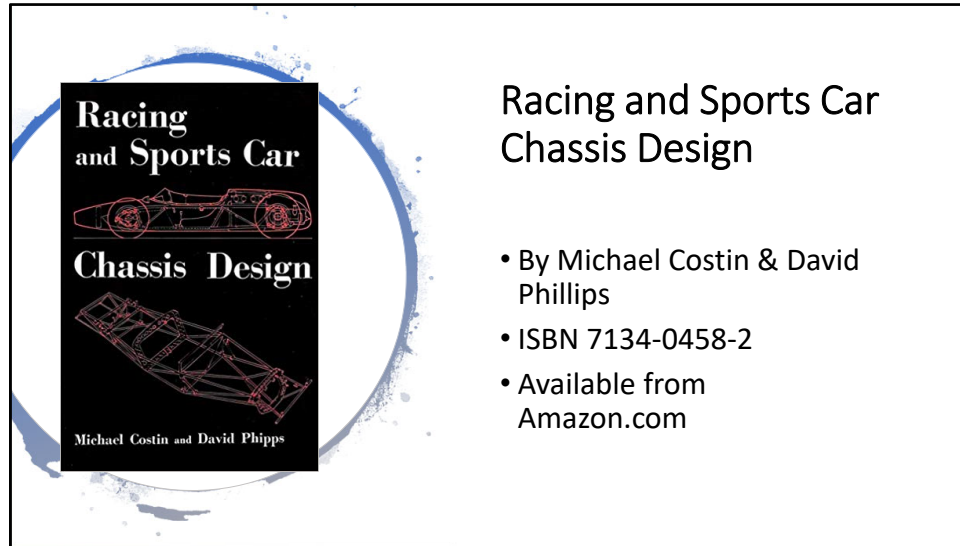
**TUNING S.U.  
CARBURETTORS**  
INCLUDING P.W.L. NEEDLE CHARTS

**Tuning SU Carburettors**

- By Speed Sport Motorbooks
- ISBN n/a
- Free on line @
- [http://tecb.eu/onewebmedia/Tuning\\_SU\\_Carburetors.pdf](http://tecb.eu/onewebmedia/Tuning_SU_Carburetors.pdf)
- Other S.U. Books at
- <http://sucarb.co.uk/catalogues-manuals-books.html>

**CARS SPEED SPORT**

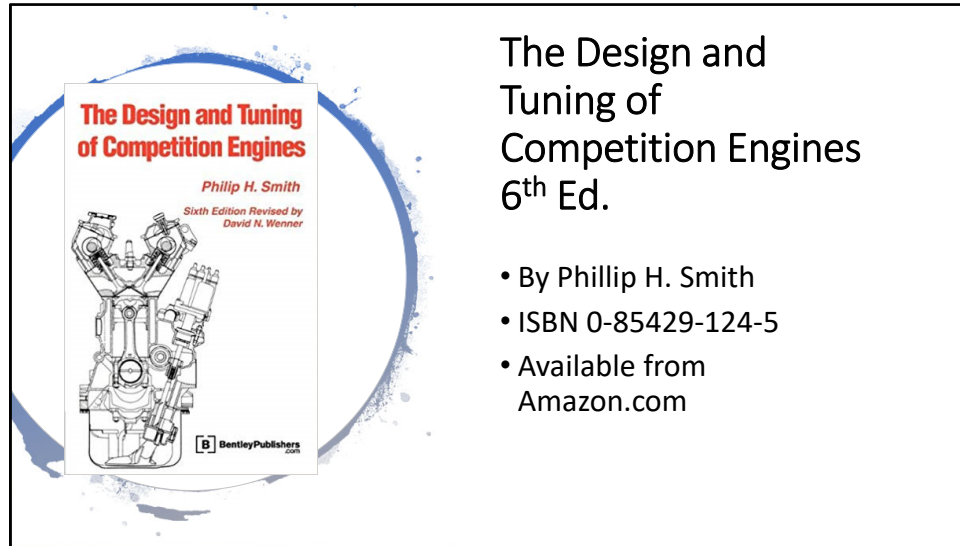
Available as a PDF from SU see the link above. Good information for those putting an SU on a turbo.



## Racing and Sports Car Chassis Design

- By Michael Costin & David Phillips
- ISBN 7134-0458-2
- Available from Amazon.com

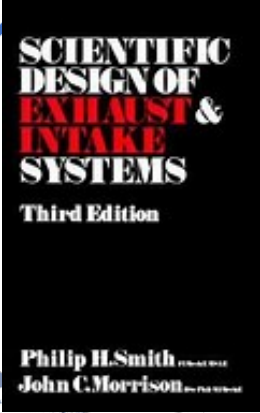
The bible of chassis design in its day but still good technical science



## The Design and Tuning of Competition Engines 6<sup>th</sup> Ed.

- By Phillip H. Smith
- ISBN 0-85429-124-5
- Available from  
Amazon.com

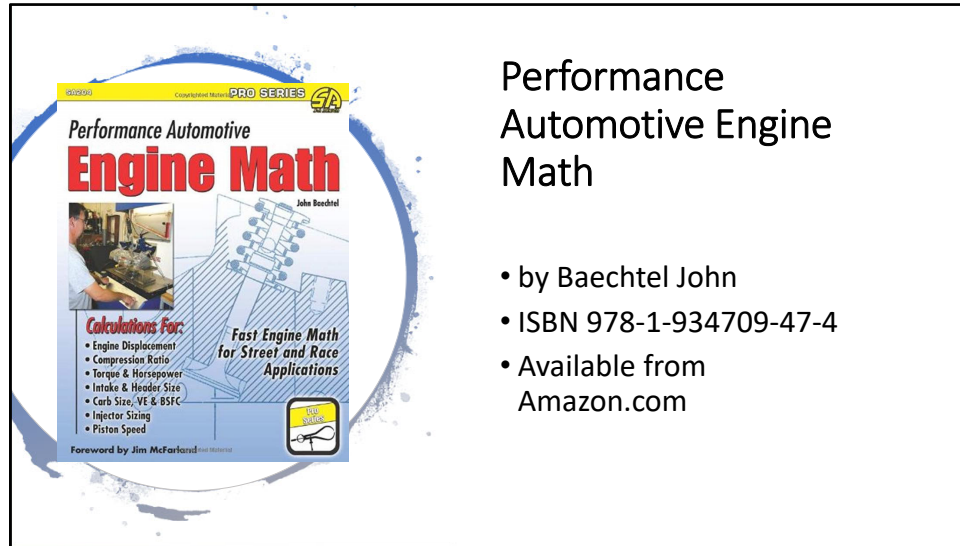
Another bible to technical science in its day but gives good basics. Some of what's here we wish we could do to Corvairs especially cylinder head design.



Scientific Design of  
Exhaust & Intake  
Systems 3rd Ed.

- By Phillip H. Smith
- ISBN 0-85429-126-1
- My copy says -*This Edition  
Not To be sold in the USA!*
- Available from  
Amazon.com

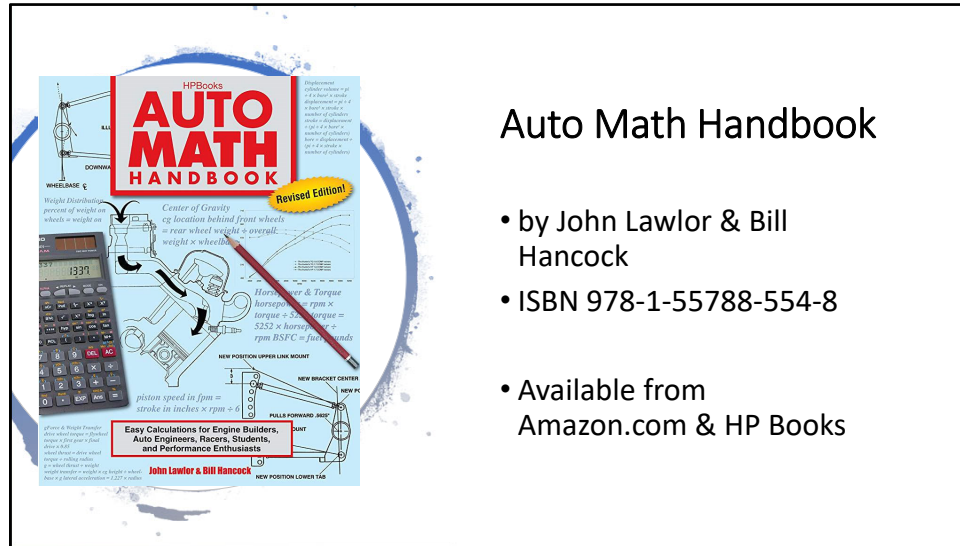
Available in the USA in spite of the warning in my copy! Again the basics of exhaust and intake design.



## Performance Automotive Engine Math

- by Baechtel John
- ISBN 978-1-934709-47-4
- Available from  
Amazon.com

I don't have a copy of this book but any racer needs to have the information to the math. Next slide is an alternative.



## Auto Math Handbook

- by John Lawlor & Bill Hancock
- ISBN 978-1-55788-554-8
- Available from Amazon.com & HP Books

I have this book as the 1<sup>st</sup> edition and was disappointed however this is a newer version with an additional co-author so the page count is up and it may be better. Still provides some basic automotive math.

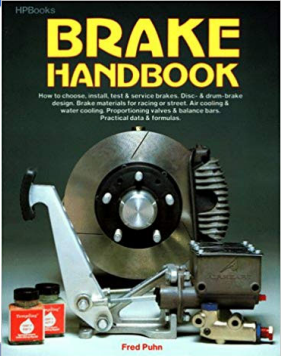




## How To Rebuild and Modify High Performance Manual Transmissions

- by Paul Cangialosi
- ISBN-10: 1934709298
- ISBN-13: 978-1934709290
- Available from Amazon.com & Barnes and Noble

Paul Cangialosi has been rebuilding and modifying transmissions for years he has online YouTube videos of modification to Muncie M22s for better shifting. I don't have a copy but if anyone has this book it would be great if you can share perspective especially if there's anything about Saginaw's or you've learned from this to apply it to our Corvairs.

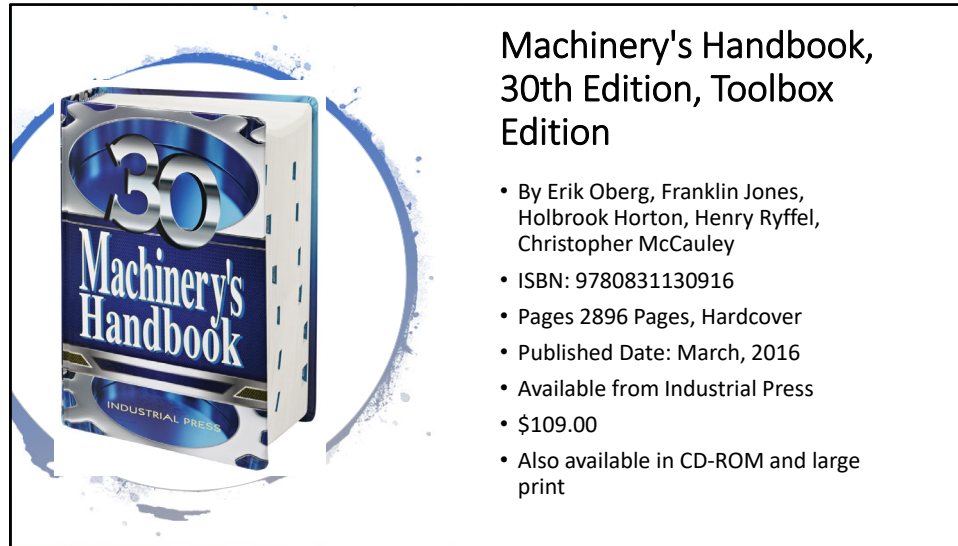


**Brake Handbook**

- by Fred Puhn
- **ISBN-10:** 0895862328
- **ISBN-13:** 978-0895862327

• Available from  
Amazon.com & HP Books

The basics of brake upgrading

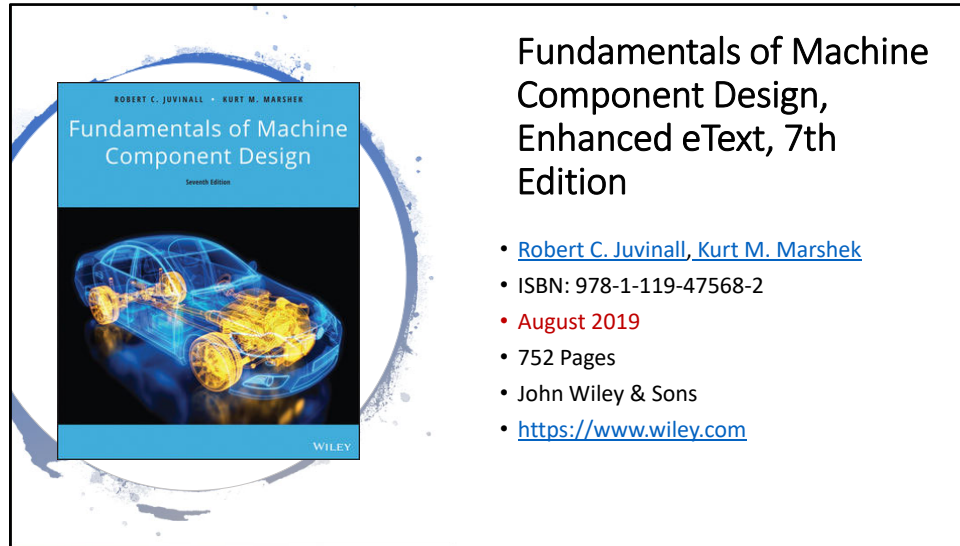


## Machinery's Handbook, 30th Edition, Toolbox Edition

- By Erik Oberg, Franklin Jones, Holbrook Horton, Henry Ryffel, Christopher McCauley
- ISBN: 9780831130916
- Pages 2896 Pages, Hardcover
- Published Date: March, 2016
- Available from Industrial Press
- \$109.00
- Also available in CD-ROM and large print

An engineers handbook of everything for machinery from gears, cylinder fits, bearings, nuts and bolts, spring loads and deflections, rivets, metals and their specification, sheet metal gauges, thread form specs, taps and dies, centers of gravity, centrifugal forces, force vector, formulas, conversions, trigonometry and, fits; either press or allowing motion, its here in Machinery's Handbook.

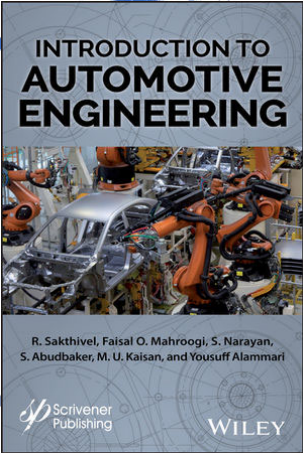
I'd recommend this to anyone getting serious about building race cars as a reference to much of the manufacturing information needed to build soundly.



## Fundamentals of Machine Component Design, Enhanced eText, 7th Edition

- [Robert C. Juvinall, Kurt M. Marshek](#)
- ISBN: 978-1-119-47568-2
- August 2019
- 752 Pages
- John Wiley & Sons
- <https://www.wiley.com>

A new book being released in August it looks interesting



**INTRODUCTION TO  
AUTOMOTIVE  
ENGINEERING**

R. Sakthivel, Faisal O. Mahroogi, S. Narayan,  
S. Abudbaker, M. U. Kaisan, and Youssef Alammari

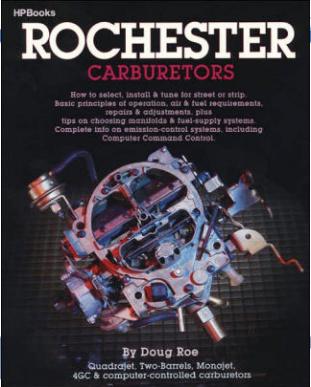
Scrivener  
Publishing

WILEY

## John Wiley & Sons

- [R. Sakthivel, Faisal O. Mahroogi, S. Narayan, S. Abudbaker, M. U. Kaisan, Youssef Alammari](#)
- ISBN: 978-1-119-47980-2
- **March 2019**
- 180 Pages
- John Wiley & Sons
- <https://www.wiley.com>

Also a new book just being released I haven't seen a copy but it looks interesting



**Rochester**  
**Carburetors: Tune, Rebuild or Modify**

- By Doug Roe
- **ISBN-10:** 9780895863010
- **ISBN-13:** 978-0895863010
- Available from Clark's & Amazon.com
- Be aware that this book only really covers the QJet, but if you have one of Warren LeVeque's manifolds for your turbo, this book can help you get the most out of the carb.
- Available from Barnes & Noble

The Rochester bible for all other Rochester's from Doug Roe.

## Other Free Carburetor Manuals

- [https://www.carburetor-parts.com/Free-Carburetor-Manuals\\_ep\\_274.html](https://www.carburetor-parts.com/Free-Carburetor-Manuals_ep_274.html)

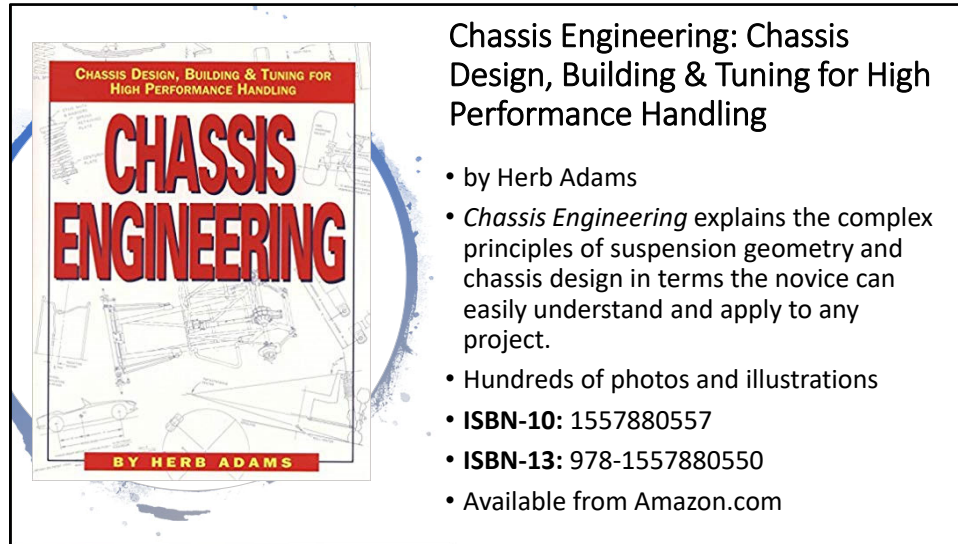
Here' a link to all kinds of free carburetor manuals if you have something different.

## Other Handbooks

- How to Build and Power Tune Weber & Dellorto DCOE & DHLA Carburetors by Des Hammill
- How to Build & Power Tune SU Carburetors by Des Hammill

More carb books sorry no further information

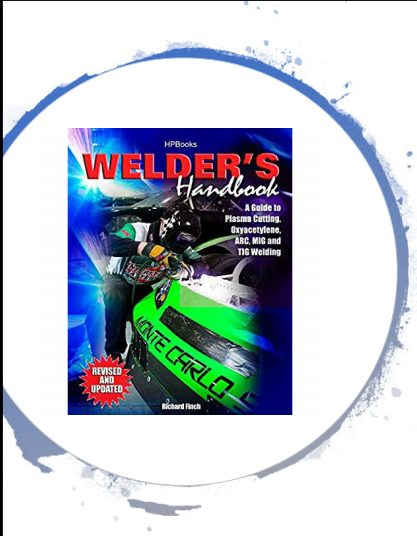




## Chassis Engineering: Chassis Design, Building & Tuning for High Performance Handling

- by Herb Adams
- *Chassis Engineering* explains the complex principles of suspension geometry and chassis design in terms the novice can easily understand and apply to any project.
- Hundreds of photos and illustrations
- **ISBN-10:** 1557880557
- **ISBN-13:** 978-1557880550
- Available from Amazon.com

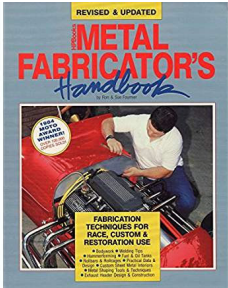
Herb Adams the guy who took his wife's Pontiac GTO to a Trans Am race and nearly won. All about suspension geometry and chassis design.



## Welder's Handbook

- by Richard Finch and Tom Monroe
- **ISBN-13:** 978-1557885135
- **ISBN-10:** 1557885133
- Covers MIG, TIG, gas and arc welding, including selecting equipment, what to use where, sample projects, and more. Yes, that's the same Richard Finch, so you'll see some Corvair examples in the book.

Richard Finch's book on welding. Who doesn't have to weld on a car especially when it's being modified.



## Metal Fabricators Handbook

- by Ron Fournier
- An excellent book on race car fabrication. Like Carroll Smith's books it's oriented toward pure race cars, but it's still very useful for techniques to build lots of cool parts for your Corvair based racer or even for restoration.
- **ISBN-10:** 0895868709
- **ISBN-13:** 978-0895868701
- Available from [amazon.com](http://amazon.com)

Everyone needs to fabricate something for a race car this is from an expert and provides practical examples and information on fabricating.



## Race Tech

- Magazine from Britain
- Available as print and electronic

OK time for a change this is a magazine out of Britain with information from around the world on race technology. Not as cheap as North American magazines but both well written and many technical articles.



## Historic Racing & Technology

- Magazine from Britain
- Available as print and electronic

Another magazine out of Britain same comments as Race Tech



## Race Engine Technology

- Magazine from Britain
- Available as print and electronic

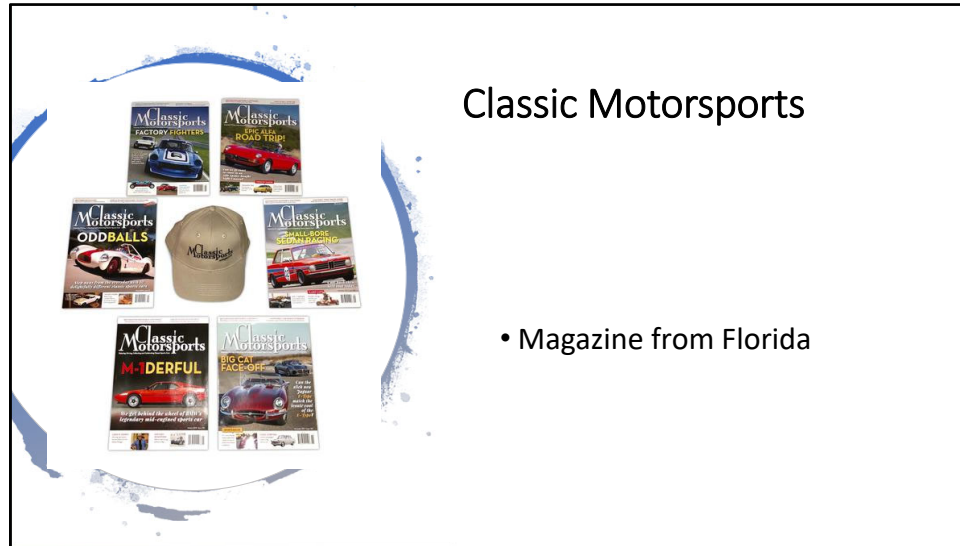
The Engine Tech magazine out of Britain same technical level of information as the previous 2 magazines.



## Grassroots Motorsport

- Magazine from Florida

What's there to say the publisher's wife drove a Corvair

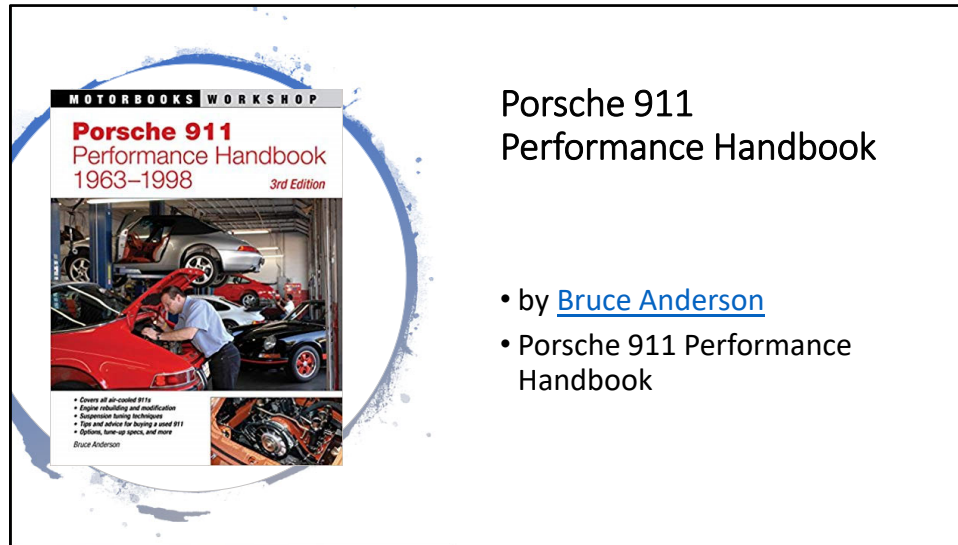


## Classic Motorsports

- Magazine from Florida

The companion to Grassroots magazine





## Porsche 911 Performance Handbook

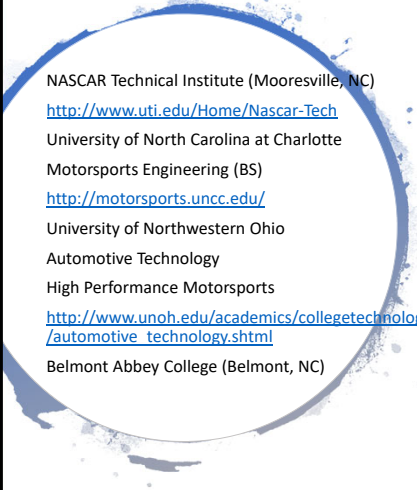
- by [Bruce Anderson](#)
- Porsche 911 Performance Handbook

OK why this? Learn from others about their technology maybe you can apply their learning to your race needs.

## How to Modify Your Nissan and Datsun OHC Engine

- by Frank Honsowetz
- Also an older out of print HP book
- How to Modify Your Datsun 510...
- By Bob Waar & Bill Fisher
- Learn ideas and race tech from other makes

Same thing but this is part of where I learned a lot of race technology as a few slides on will show.



## Motorsports Schools

NASCAR Technical Institute (Mooresville, NC)  
<http://www.uti.edu/Home/Nascar-Tech>

University of North Carolina at Charlotte  
Motorsports Engineering (BS)  
<http://motorsports.uncc.edu/>

University of Northwestern Ohio  
Automotive Technology  
High Performance Motorsports  
[http://www.unoh.edu/academics/collegetechnologies/automotive\\_technology.shtml](http://www.unoh.edu/academics/collegetechnologies/automotive_technology.shtml)

Belmont Abbey College (Belmont, NC)

Motorsports Management Minor  
[http://www.belmontabbeycollege.edu/academics/Programs/Concentration/motor-sports-management.aspx?zoom\\_highlight=motorsports](http://www.belmontabbeycollege.edu/academics/Programs/Concentration/motor-sports-management.aspx?zoom_highlight=motorsports)

University of Virginia  
Motorsports Engineering Program  
<http://www.mae.virginia.edu/motor/>

Central Piedmont Community College (Charlotte, NC)

H.S. for College Credit  
Certificate Program – Automotive Systems with a Specialization in Motorsports  
[http://www1.cpcc.edu/transport\\_systems/programs-of-study/motorsports-1](http://www1.cpcc.edu/transport_systems/programs-of-study/motorsports-1)

Chattanooga State University  
AAS Motorsports  
<http://www.chattanoogaastate.edu/engineering/enmotrsp.html>

Here's a list of known motorsports schools in the USA on this page and the next.

## Motorsports Schools

Clemson University Motorsports Engineering Program

Brooks Institute for Sports Science

<http://www.clemson.edu/centers-institutes/brooks-sports/>

Greenville (SC) Technical College

Motorsports Technology

<http://www.gvltec.edu/motorsports/>

Forsyth Technical Community College (Winston-Salem, NC)

AAS Race Car Technology

<http://www.forsythtech.edu/credit-programs/credit-track/programs-a-z/richard-childress-race-car-technology>

Patrick Henry Community College (Martinsville, VA)

Associate in Applied Science (AAS) with Specialization in Motorsports Technology

<http://164.106.143.10/programs.cfm?c=0&path=25,209&action=display&ID=33>

More Usa motoersports schools



**Address:** National Motorsport Academy Rufford Hall, Waterside Way Nottingham NG2 4DP

**Phone:** [+44 \(0\)1159 123 456](tel:+441159123456)

**Email:** [admissions@motorsport.nma.ac.uk](mailto:admissions@motorsport.nma.ac.uk)

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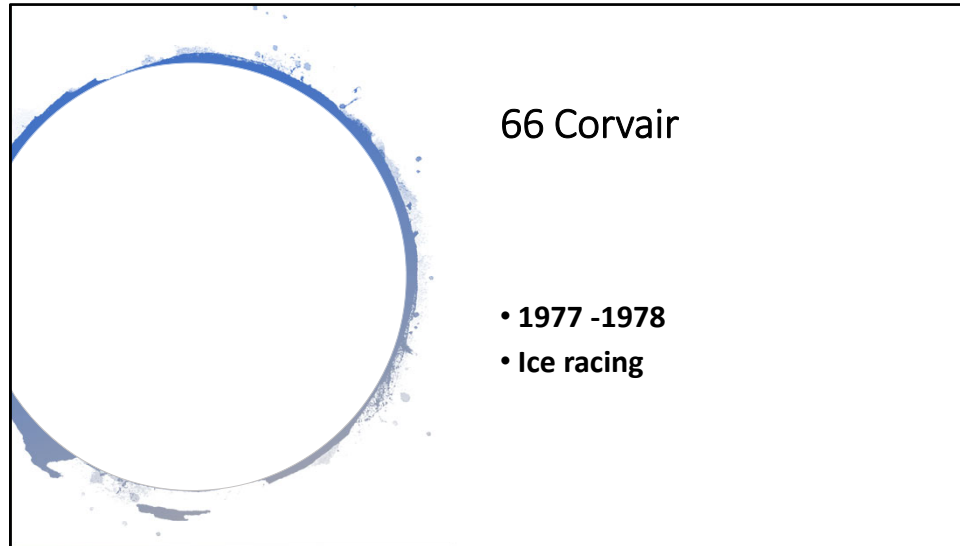
*Courses can be taken online*

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Online  
BSc (Hons) Motorsport Engineering  
full 3-year Bachelor's Degree course – Flexible Study  
BSc (Hons) Motorsport Engineering – Final Year Top-Up  
Top up your FdSc or HND to a full BSc (Hons) by studying 3 final year modules.  
MSc. Advanced Motorsport Engineering  
For a career in Motorsport Management or as a Senior Motorsport Specialist

Applications from non-NMA and mature students welcome

This is what you can get in Britain and if your really serious no matter where you are in the world you can earn a university degree and a Masters degree in motorsports online. The Undergrad degree is 3 years but can take up to 7 years on your own time and the Masters is similar with extended time for online learning at your own pace.



... a short bit of my racing history

OK missing the picture of our ice racing turbo charged Corvair 500 its buried somewhere in thousands of slides in the back closet

66 500 originally 95 hp 3 speed

We already had a Turbo 180 with modified cam and no muffler to install

Rebuilt 95 hp heads

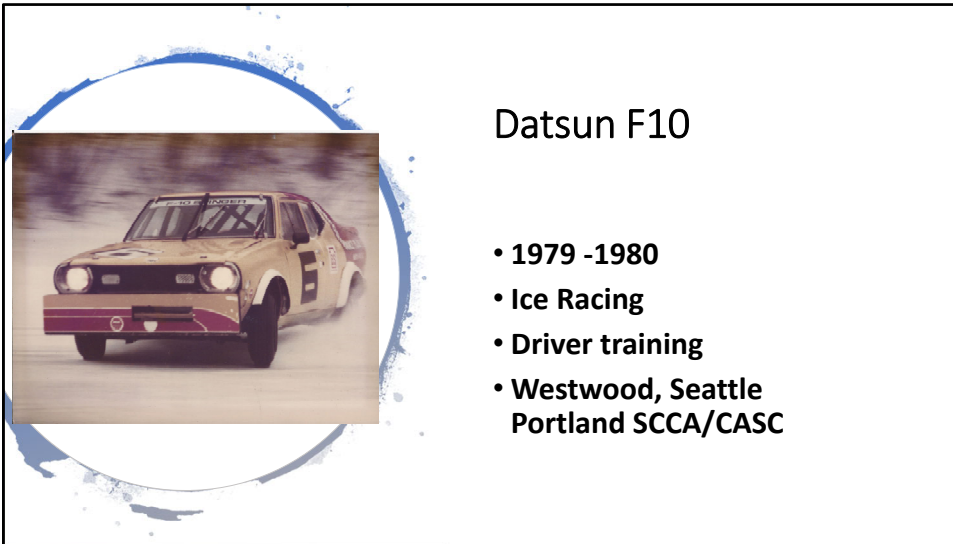
Added 4 speed

6 point roll cage

Cost \$25 to buy the car with a failed clutch and loose rivet flywheel

\$\$\$\$ later in nuts bolts and a roll cage we went ice racing in the 70's

Still own the shell today collecting bits for a YS clone as \$ allow



## Datsun F10

- 1979 -1980
- Ice Racing
- Driver training
- Westwood, Seattle  
Portland SCCA/CASC

2<sup>nd</sup> ice racer we wanted to be near the front

1400 cc pushrod

FIA large port cylinder head

Headers

Welded 4 speed diff for ice racing

Flat top piston engine and cam for ice racing

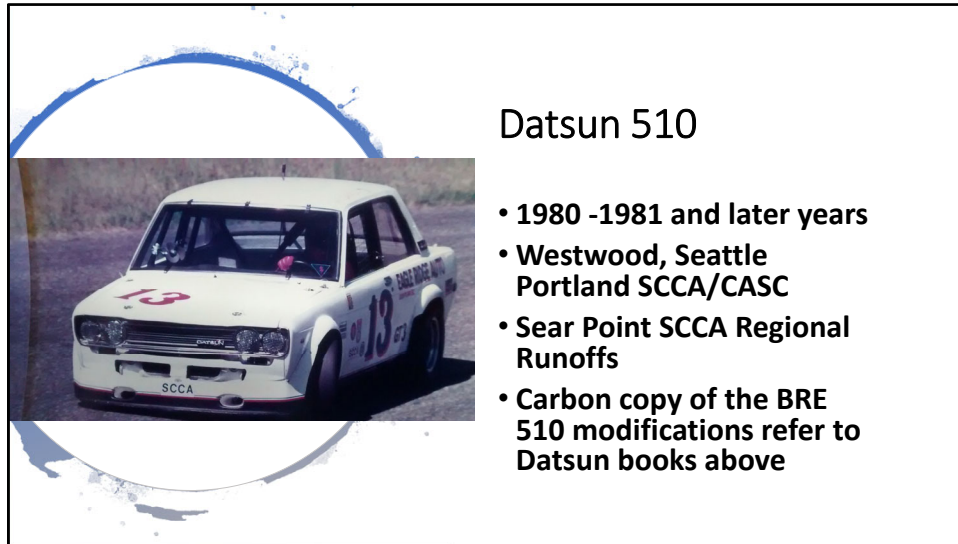
Open diff and 5 speed for track use

Arais pop up pistons

FIA large port head

4 into 2 into 1 headers

6" Compomotive wheels for race slicks



A copy of the engineering in the BRE 2.5 Trans Am 510 with further developments

Rear ride height adjustment, toe-in and camber settings

Coil over front struts with camber and caster adjustments

Chrome moly roll cage

Urethane paint top and bottom

1800 cc motor 6 bolt crank

SSS cylinder head from BC Germolay that started life as a raw casting allowing for some “adjustments”

Cosworth pistons

Carrillo rods

Don Allen fuel cell

Twin 44 mm Mikuni Solex with no venturi choke

Ultra close 5 speed replaced by a competition direct drive 5 speed

AP front brakes and eventually rear disc brakes too

2 rubber hoses, the upper rad and the lower rad hose everything else braided stainless with AN fittings

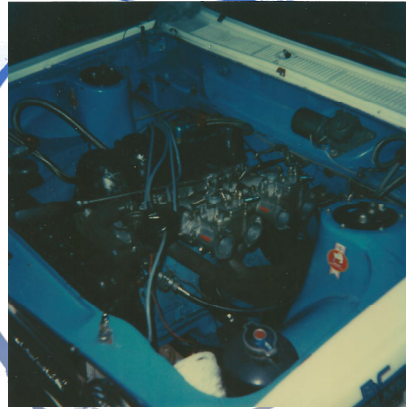
High temperature nickel-copper wiring with Teflon and glass insulation



Circuit breaker switches no fuses

My friend Tom bought the car with 18 hours of racing on it in 4 years and we set about developing and setting it up to run at the front of the B Sedan & GT 3 class

about 10 times the cost of a new 510 invested in the building back in the late 70's



## Datsun 510

- **1980 -1981**
- **Westwood, Seattle  
Portland SCCA/CASC**
- **Sear Point SCCA Regional  
Runoffs**
- **Carbon copy of the BRE  
510 modifications**

Polaroid shot of the engine in the 510 sorry for the poor lighting it was in the back of the shop at the time. We spent our time on making the car run not documenting the changes in photographs. Oh to be able to do this over and document it.



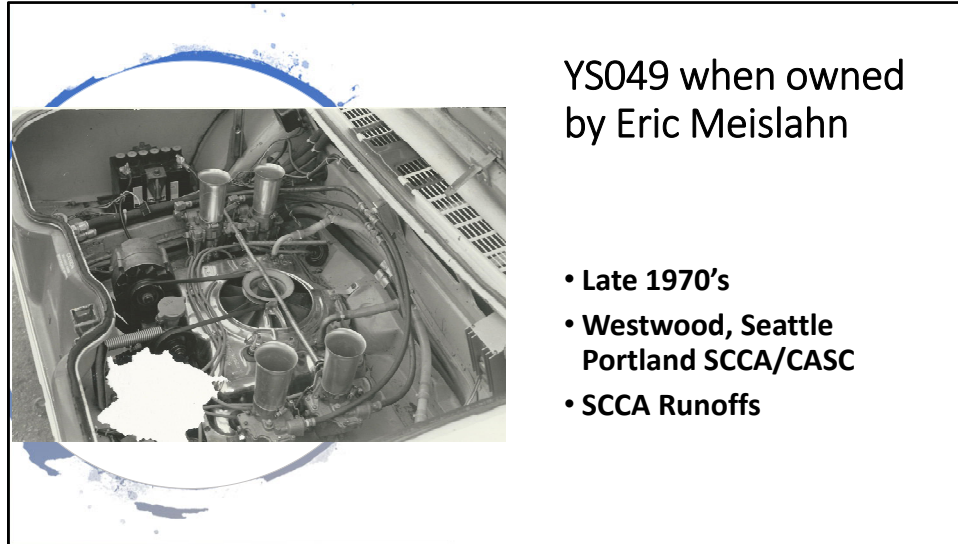
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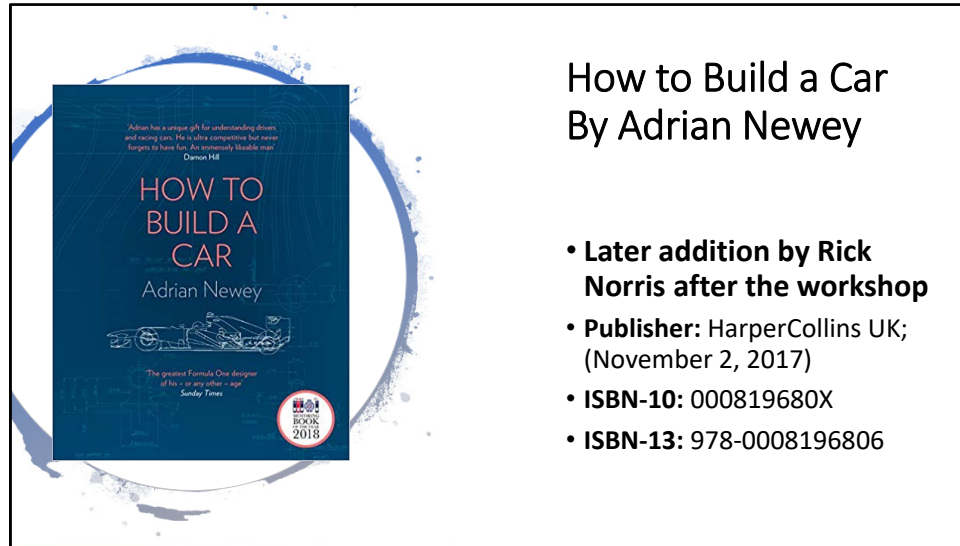
Shot of the rear with battery and fuel cell.



Pictures taken at Westwood race track BC when Eric attended either a CASC or SCCA race at Westwood



Another shot sorry but 2 prints stuck together and I lost a piece of the picture



## How to Build a Car By Adrian Newey

- **Later addition by Rick Norris after the workshop**
- **Publisher:** HarperCollins UK; (November 2, 2017)
- **ISBN-10:** 000819680X
- **ISBN-13:** 978-0008196806

Added after the workshop in an email from Rick Norris I have yet to buy this.