

Car Engine Rebuild

The small-block Chevrolet is easily the most popular V-8 engine ever built. It was introduced in 1955, and remained in production until the mid-1990s, powering legendary cars such as the 1955-1957 Chevys, Camaros, Impalas, Novas, Chevelles, and of course, the most popular sports car of all time, the Corvette. Of course, whether restoring or modifying one of these classics, the time comes when your small-block Chevy needs rebuilding. This updated version of Small-Block Chevrolet: Stock and High-Performance Rebuilds is a quality, step-by-step Workbench book that shows you how to rebuild a street or racing small-block Chevy in your own garage. It includes more than 600 color photos and easy-to-read text that explains every procedure a professional builder uses to assemble an engine, from crankshaft to carburetor. Detailed sections show how to disassemble a used engine, inspect for signs of damage, spruce up machine work, check critical component fit, and much more! Performance mods and upgrades are discussed along the way, so the needs of all enthusiasts, from restorers to hot rodders. Small Block Chevrolet: Stock and High-Performance Rebuilds is a must-have for every small-block Chevy fan.

This revised and updated color edition of How to Rebuild the Small-Block Ford walks you step by step through a rebuild, including: planning your rebuild, disassembly and inspection, choosing the right parts, machine work, assembling your engine, and first firing and break-in.

All of the information in this valuable companion guide is presented in terms easy to understand. Packed with general tips, techniques, and procedures that can be applied to all types of engine building, whether for musclecars, classics, hot rods, powerboats or all-out race cars. Sections covered include:
· Blueprinting
· Machining
· Reconditioning short blocks
· Degreasing camshafts
· Reconditioning cylinder heads
· Valvetrain assembly
· Measuring tools
· Engine assembly

Rebuild your American Motors Corporation (AMC) V-8 engine with help and guidance from Don's Auto Parts & Machine Shop, which is located in Kenosha, Wisconsin, the home of American Motors! The AMC Gen II and Gen III V-8 family consists of 290-, 304-, 343-, 360-, 390-, and 401-ci engines. Manufactured in Kenosha, Wisconsin, these engines reside between the fenders of classic cars (such as the AMC Javelin, AMX, Gremlin, AMC Rebel Machine, Matador, and Rambler and SC/Rambler) as well as Jeep CJs and full-size Jeeps. If this is your first time rebuilding an AMC engine, this book contains detailed photos and instructions beginning with disassembling your engine and determining the machining you will need. All of the fine details about boring and honing, crankshaft grinding, balancing, cylinder head rebuilding, engine assembly, oil modifications, and performance upgrades are detailed with photos.

Many of the most specialized and exciting steps that are needed for a performance build that your local machine shop might not know about are included in this book. AMC V-8 Engines: Rebuild & Modify not only shows the steps of a rebuild in detail but also helps you determine what kind of build is right for your project. It will assist you in making the correct decisions on compression ratio, camshaft selection, and which performance parts are needed. Many engine replacement parts are getting hard to find, so this book reveals some of the aftermarket and restoration companies that specialize in remaking AMC engine parts. Items such as camshafts, forged pistons, connecting rods, and cylinder head manufacturers are covered. Get ready to rebuild your AMC V-8. We look forward to helping you along the way!

How to Rebuild Pontiac V-8s

Stock and High-Performance Rebuilds

How to Rebuild Big-Block Chevy Engines, 1991-2000 Gen V & Gen VHP15150

How to Rebuild the Big-Block Mopar

Oldsmobile V-8 Engines 1964-1990

Ford Inline Six

Ford was unique in that it had two very different big-block engine designs during the height of the muscle car era. The original FE engine design was pioneered in the late 1950s, primarily as a more powerful replacement for the dated Y-block design. What began as torquey engines meant to move heavyweight sedans morphed into screaming high-performance mills that won Le Mans and drag racing championships throughout the 1960s. By the late 1960s, the FE design was dated, so Ford replaced it with the 385 Series, also known as the Lima design, in displacements of 429 and 460 ci, which was similar to the canted-valve Cleveland design being pioneered at the same time. It didn't share the FE pedigree of racing success, mostly due to timing, but the new design was better in almost every way; it exists via Ford Motorsports' offerings to this day. Beginning in 1971, the 429 found its way between the fenders of Mustangs and Torinos in high-compression 4-barrel versions called the Cobra Jet and Super Cobra Jet, and they were some of the most powerful passenger car engines Ford ever built. If the muscle car era had not died out shortly after the release of these powerful engines, without a doubt the 429 performance variants would be ranked with the legendary big-blocks of all time. In this revised edition of How to Rebuild Big-Block Ford Engines, now titled Ford 429/460 Engines: How to Rebuild, Ford expert Charles Morris covers all the procedures, processes, and techniques for rebuilding your 385 Series big-block. Step-by-step text provides details for determining whether your engine actually needs a rebuild, preparation and removal, disassembly, inspection, cleaning, machining and parts selection, reassembly, start-up, and tuning. Also included is a chapter in building the Special Boss 429 engines, as well as a bonus chapter on the Ford 351 Cleveland, Ford's little brother to the big-block.

From workhorse to racehorse, the big-block Chevy provided the power demands of the mid-'60s, used in everything from medium-duty trucks to Corvettes, these engines are worth rebuilding. Do it right with this book! Clear, concise text guides you through each engine-rebuilding step. Includes complete specifications and more than 500 photos, drawings, charts and graphs. Covers troubleshooting, parts reconditioning and engine assembly. Tells you how to do a complete overhaul or a simple parts swap. One whole chapter on parts identification tells how to interchange parts for improvised durability or performance. Includes comprehensive specifications and casting numbers.

Includes: Tool List, General Information, Engine Rotation (CW vs CCW), Engine Disassembly FE Series, FE Series Torque and Bore Specs, FE Series Performance - Jetting, 22mm Mikuni, Timing Advance Keys, Flywheel Lightening, Cylinder Head Milling, Porting, Cam Timing, Building the 325cc Big Bore FE290 and CW Removal, FE Series Repairs - Remote Oil Cooler, Bolted Cam Gear, FE400 Smoke fix, Exhaust Guide Repair, Link Arm Bushing Replacement, Cylinder Assembly and Piston Orientation, FE Series Assembly, KF82 General Information - KF82 Torque Specs, KF82 Disassembly, KF82 Measurement / Inspection, KF82 Assembly, KF82 Pictures for Reference, KF82 / FE290 - FE400 Ignition Testing, KF82 / FE290 - FE400 Parts Reference, 1997-2013 Club Car Gas Transaxle, 1997-2013 CC Gas / Type K HS Gear Installation, 1997-2013 CC Gas / Type K Posi Shims, 1997-13 CC Gas Transaxle Pictures for Reference and more! Also includes: 1997-2013 Club Car / Kawasaki Gas Transaxle Rebuild / Hi Speed Gear Installation!

Learn how to rebuild and upgrade your Buick Nailhead with the first book ever dedicated to the subject! In this all-new book from Nailhead racer and veteran engine builder Gary Weldon, you will learn everything you need to know about how to rebuild and upgrade the venerable Buick Nailhead engine. Weldon takes you through each step, including a review of the birth of the Nailhead, the benefits of its unique design, serial and casting number information to source and identify the best project, and a history of the engine in development. Also covered are the processes of rebuilding, including disassembly, inspection, sourcing the best parts, making critical upgrades, reassembly, and break-in. Of course, all the machine shop work is covered, and practical advice on building engines for competition is provided. The Nailhead was a throwback to the early overhead-valve engine design, and that unique design makes it a popular choice for period-correct hot rod projects. In addition, if your torquey Nailhead resides between the fenders of a Buick Special, LeSabre, Invicta, Roadmaster, Riviera, Century, Skylark, Wildcat, or Electra 225, this book will help you keep that old beauty on the road.

How to Rebuild Big-Block Ford Engines

KF82 - FE290 - FE350 - FE400, Including 1997 - 2013 Gas Transaxle

Chrysler Slant Six Engines

How to Rebuild and Modify

How to Rebuild Small-Block Ford Engines

How to Rebuild

The photos in this edition are black and white. From factory drag racing, to the AC Cobra, to the legendary Mustang, the history of the Ford big-block is a long and storied one. Making its debut in the late 1950s, the Ford FE big-block engine sat between the fenders of factory lightweights, Cobra Jet Mustangs, 427 Cobras, Cougar Eliminators, Talledega Torinos, and Mach 1s. While the FE engines remained in production through the mid 1970s, mostly in light-truck applications, Ford had plans for a new engine on the horizon. In the late 1960s, Ford transllated the FE big-block into production in passenger cars and performance applications in favor of an all-new design, called the 385 series, also known as Lima big-block. Originally used in luxury-car applications, the 429-cubic-inch version of this engine found its way into performance applications such as Mustangs and Torinos starting in 1971. The high-compression 4-barrel versions, called Cobra Jet or Super Cobra Jet, are some of the most powerful engines Ford has ever produced. An engine similar in design to the Lima series engine, the legendary 351 Cleveland made its debut in 1970. While technically a small-block in many ways, its oval ports, canted heads, and physical size made people think of it more as a mid-block than a small-block. The 351- and 400-cubic-inch versions (the latter known as M Series engines) of the Cleveland engine were used in passenger car applications and in light trucks starting in 1975. The M stood for modified, as the deck height, bearing sizes, as well as pistons and connecting rods were modified for low-compression passenger car and light truck use, and they were used all the way through the early 1980s. All three engines are covered in full detail in this Workbench series rebuild volume. Included are step-by-step heavily illustrated instructions, that walk you through the entire process of rebuilding your Ford engine. If you want to breathe new life into your tired old Ford engine, this is the book for you.

This book covers the vast majority of Powerstroke Diesel engines on the road, and gives you the full story on their design. Each of the engine is described and discussed in detail, with full-color photos of every critical component. A full and complete step-by-step engine rebuild is also included.

The venerable Jeep 4.0-liter inline-six engine has powered millions of Jeeps, including CJs, YJs, Wranglers, Cherokees, and Wagoneers. The 4.0 delivers adequate horsepower from the factory, but many off-road drivers want more horsepower and torque to conquer challenging terrain, which means these engines are often built and modified. The Jeep 4.0, or 242-ci, is affordable, abundant, exceptionally durable, and many consider it one of the best 4x4 off-road engines. In this Workbench title, veteran author and Chrysler/Jeep engine expert Larry Shepard provides an in-depth, step-by-step rebuild in exceptional detail. He covers all the critical parts, including block, heads, rotating assembly, intake, and exhaust. Critical machining processes are covered, such as decking the block, line boring, and overboring the block. The book provides exceptional detail during the step-by-step assembly so your engine is strong and reliable. Installing a larger-displacement rotating assembly or stroker package is one of the most cost-effective ways to increase performance, and the author covers a stroker package installation in detail. With millions of Jeep 4.0 engines in the marketplace (which are subjected to extreme use), many of these engines require a rebuild. In addition, many owners want to extract more torque and horsepower from their 4.0 engines so these engine are also modified. Until now, there has not been a complete and authoritative guide that covers the engine rebuild and build-up process from beginning to end. Jeep 4.0 Engines is the essential guide for an at-home mechanic to perform a professional-caliber rebuild or a high-performance build-up.

This complete textbook provides detailed content on the theory of operation, diagnosis, repair, and rebuilding of automotive engines. In addition to essential technical expertise, the text helps users develop the skills and knowledge they need for professional success, including critical thinking and awareness of key industry trends and practices. The text emphasizes universal repair techniques and case histories based on real-world scenarios to prepare users for careers in the field. Instructor resources include lesson plans, customizable lab sheets that address NATEF Standards, a customizable test bank with questions based on chapter content, presentations in PowerPoint, and more. Now updated with new, full-color images and information on the latest trends, tools, and technology—including hybrid engines and high-performance components—AUTOMOTIVE ENGINES: DIAGNOSIS, REPAIR, REBUILDING, Seventh Edition, is the ideal resource for automotive programs who want a complete teaching package for their Engines course. Important Notice: Media content referenced within the product description or the product text may not be available in the ebook version.

How to Rebuild and Modify Porsche 911 Engines 1965-1999

How to Rebuild & Modify

Ford Flathead Engines: How to Rebuild & Modify

How to Rebuild - Revised Edition

How to Rebuild the Small-Block Ford

How to Rebuild Your Mopar Magnum V8

Ford Flathead engines are produced in GM 6.2 and 6.5L diesel engines! In the late 1970s and early 1980s, there was considerable pressure on the Detroit automakers to increase the fuel efficiency for their automotive and light-truck lines. While efficient electronic engine controls and computer-controlled gas engine technology was still in the developmental stages, the efficiency of diesel engines was already well documented during this time period. As a result, General Motors added diesel engine options to its car and truck lines in an attempt to combat high gas prices and increase fuel efficiency. The first mass-produced V-8 diesel engines of the era, the 5.7L variants, appeared in several General Motors passenger-car models beginning in 1978 and are often referred to as the Oldsmobile Diesels because of the number of Oldsmobile cars equipped with this option. This edition faded from popularity in the early 1980s as a result of falling gas prices and quality issues with diesel fuel suppliers, giving the cars a bad reputation for dependability and reliability. The 6.2L appeared in 1982 and the 6.5L in 1992, as the focus for diesel applications shifted from cars to light trucks. These engines served faithfully and remained in production until 2001, when the new Duramax design replaced it in all but a few military applications. While very durable and reliable, most of these engines have a lot of miles on them, and many are in need of a rebuild. This book will take you through the entire rebuild process step by step from diagnosis to tear down, inspection to parts sourcing, machining, and finally reassembly. Also included is valuable troubleshooting information, detailed explanations of how systems work, and even a complete Standadye DB2 rebuild section to get the most out of your engine in the modern era. If you have a 6.2, or 6.5L GM diesel engine, this book is a must-have item for your shop or library.

Learn how to rebuild a Volkswagen air-cooled engine! This guide will teach the reader how to troubleshoot, remove, tear down, inspect, assemble, and install Bug, Bus, Karmann Ghia, Thing, Type-3, Type-4, and Porsche 914 engines. All models from 1961 on up are included.

If you have a small-block Ford, then you need this book! This detailed guide covers the step-by-step rebuilding process of the popular small-block Ford engine. Parts inspection, diagnosis, reconditioning, and assembly are outlined in simple text. Hundreds of photos, charts, and diagrams visually walk you through the entire rebuild. You'll be able to completely disassemble your engine, recondition the block and cylinder heads, then reassemble and install the engine in your vehicle. There's even a section on how to perform tune-ups to maximize performance and economy. Sections on parts interchanging will help you identify all parts and determine which ones can and can't be swapped. This is truly a "hands-on" book. Don't put off your project any longer. Start rebuilding your small-block Ford today!

Since 1991, the popular and highly modifiable Ford 4.6-liter has become a modern-day V-8 phenomenon, powering everything from Ford Mustangs to hand-built hot rods and the 5.4-liter has powered trucks, SUVs, the Shelby GT500, and more. The wildly popular 4.6-liter has created an industry unto itself with a huge supply of aftermarket high-performance parts, machine services, and accessories. Its design delivers exceptional potential, flexibility, and reliability. The 4.6-liter can be built to produce 300 hp up to 2,000 hp, and in turn, it has become a favorite among rebuilders, racers, and high-performance enthusiasts. 4.6-/5.4-Liter Ford Engines: How to Rebuild expertly guides you through each step of rebuilding a 4.6-liter as well as a 5.4-liter engine, providing essential information and insightful detail. This volume delivers the complete nuts-and-bolts rebuild story, so the enthusiast can professionally rebuild an engine at home and achieve the desired performance goals. In addition, it contains a retrospective of the engine family, essential identification information, and component differences between engines made at Romeo and Windsor factories for identifying your engine and selecting the right parts. It also covers how to properly plan a 4.6-/5.4-liter build-up and choose the best equipment for your engine's particular application. As with all Workbench Series books, this book is packed with detailed photos and comprehensive captions, where you are guided step by step through the disassembly, machine work, assembly, start-up, break-in, and tuning procedures for all iterations of the 4.6-/5.4-liter engines, including 2-valve and 3-valve SOHC and the 4-valve DOHC versions. It also includes an easy-to-reference spec chart and suppliers guide so you find the right equipment for your particular build up.

How to Rebuild Your Engine to Original or Improved Condition

Automotive Engines

Small-Block Chevrolet

How to Rebuild Big-Block Mopar Engines

From an Engine Rebuild to Having a Key Out. Save Time and Money on the Restoration of Parts and Services, for Cars and Motorcycles. Veteran, Vintage, Classic, Custom

How to Rebuild Your Small-Block Chevy

As Ford's follow-up to the famous flathead, the Y-block was Ford's first overhead-valve V-8 and it established an impressive high-performance legacy, winning many races in NASCAR and setting records at the Bonneville Salt Flats. This venerable Ford engine, which powers classic Thunderbirds, Crown Victorias, Edsels, and other cars, is enjoying a performance renaissance. Many aftermarket parts, including heads, can turn a sedate Y-block into a powerhouse. The engine earned its name from its deep-skirt block design that looked like a 'Y.' This stout engine was installed in millions of Ford cars from 1954 to 1962 and Ford trucks from 1952 to 1964. Author and Ford tech expert Charles Morris explains each critical aspect of rebuilding a stock 290-, 256-, 272-, 292-, and 312-ci Y-block and building a modified Y-block. He shows you how to identify components and conduct a thorough inspection so you select a sound block, heads, intake, and other components. He explains the specifics for obtaining high-quality machining work and verifying clearances. In addition, he delves into the intricacies of each step of the assembly process so you can rebuild a strong-running and reliable engine. Most important, Morris details the steps to effectively remedy the Y-block oiling problems. This is the book Ford Y-block owners and fans have been waiting for. It's an indispensable guide to performing a professional-caliber rebuild and buildup of the Y-Block.

When Chrysler introduced the 350 and 361 (B) series of engines in 1958, they launched a legacy of performance that sparked the muscle car war of the sixties and early seventies. Within a few years, these engines evolved into the famed 426 Hemi, 413 Max Wedge and 440 Six-Pack. Dubbed [elephant motors] by enthusiasts, racers, and hot rodders alike, these big-blocks ruled the streets in Barracudas, Challengers, Furs, and Chargers. They were also used in a wide variety of other Chrysler, Dodge, and Plymouth cars and trucks. How to Rebuild Big-Block Mopar Engines is a comprehensive hands-on guide to rebuilding these motors to factory specifications. Included are fully illustrated, step-by-step sections that cover the entire engine rebuilding process, from inspection, removal, and disassembly, to machine shop work, reconditioning, assembly, installation, and tune-up. Collectors and restorers who rely on correct casting numbers for authenticity will find the parts identification and interchange information to be invaluable. Written in an easy-to-understand and easy-to-follow format, this is an essential resource created by any serious Mopar fan.

Bring that old Oldsmobile engine back to life with this new, all-color Workbench-edition book. Oldsmobile caught the performance world by surprise when it launched its very new overhead valve (OHV) V-8 in 1949 called the Rocket. These engines, along with Cadillac, were the first post-war OHV design produced by General Motors. In a world of flathead V-8 performance, they were a major step forward and an instant hit. As was the norm for all American car manufacturers in the 1950s and 1960s, the Rocket V-8s grew in size and performance capability until the Generation II engines began production in 1964. Offered in a variety of displacements over the 27-year run, the Generation II engine was offered in sizes ranging from 260 to 455 ci, sitting every possible need from reliable fuel economy to all-out performance. In Oldsmobile V-8 Engines 1964/1990: How to Rebuild, veteran author Mike Forsythe takes you through the complete process of rebuilding and restoring your Generation II Rocket V-8 to its original glory. Covered in a thorough step-by-step format are the tools required, the disassembly process, analysis of what went wrong, parts selection and replacement, the machining process, pre-assembly, final assembly, and the break-in process. Some performance upgrade options are also included. The Oldsmobile Generation II engine had a lengthy and productive run not only powering Oldsmobiles but also a variety of Buicks and Pontiacs. If you are in the restoration process or simply want a return to factory-original performance in your Cutlass, Delta 88, Vista Cruiser, Toronado, 98, or 442, this book is an essential tool to bring your Oldsmobile back to its original glory.

Clear and concise text guides you through each engine-rebuilding step. Complete information is included on how to diagnose, remove, tear down, inspect, recondition, assemble, and install all Nissan and Datsun L-series engines. Bonus sections list parts identification and interchange, and explains in-vehicle cylinder head and timing chain repair.

How to Troubleshoot, Remove, Tear Down, Inspect, Assemble & Install Your Bug, Bus, Karmann Ghia, Thing, Type-3, Type-4 & Porsche 914 Engine

How to Rebuild Big-Block Chevy Engines

Rebuilding Any Automotive Engine

Jeep 4.0 Engines

Troubleshooting, Removal, Disassembly, Reconditioning, Assembly, Installation & Tune-Ups

How to Rebuild GM LS-Series Engines

Chevrolet's inline 6-cylinder, affectionately known as the "Stovebolt," was produced and applied to Chevrolet-powered automobiles from 1929 through 1962. Its effectiveness and simplicity greatly contributed to the lengthy duration of its life span, with the engine still being created in some capacity into 2009.

Deve Krehbiel of devestech.net has taken his decades of knowledge on the inline-6 and created the ultimate resource on rebuilding the Stovebolt Chevrolet powerplant. Using color photography with step-by-step sequencing, Deve takes you through the disassembly, rebuild, and reassembly of these engines, including rebuilding the carburetor, distributor, and intake/exhaust systems. Tech Tips highlight areas that can be overlooked, such as proper cleaning and determining if a part is reusable, and an appendix provides information on decoding casting numbers. With millions of Chevrolets built with an inline-6 engine, there's no shortage of candidates for a rebuild. With Chevrolet Inline-6 Engine: How to Rebuild, you will now have the perfect complementary tool to walk you through the entire engine-rebuilding process.

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· Complete Engine Rebuild to Factory Stock Specifications. Covers all Mopar Magnum V8 Car and Truck Engines, 1992 to Present. This is a complete step-by-step guide to rebuilding the newest line of Chrysler, Dodge, and Plymouth V8 engines. Taking you through the process from beginning to end, it includes sections on: inspection and analysis, engine removal, disassembly, and much more.
· A sidebook for every car and motorcycle restorer, both amateur and professional. Designed to save time and money, the guide lists many quality parts restoration and services from mainly UK based companies. From an engine rebuild to having a key cut. For Veteran, Vintage, Classic, and Custom. A discounted door-to-door courier enables the guide to be used worldwide. There is also a description of some of the different listed companies and the services they provide to avoid confusion. An article of one of the largest electronic ignition systems for cars, boats and agricultural machinery is also included. They are a leading aftermarket ignition manufacturer with arguably the widest range of products and applications offering a huge selection. Both their English and American dealers are listed. The beauty of this easy to fit system is that you do not have to drill or adapt the distributor.
· The English dealership offers excellent telephone customer service to answer any questions.Details of the largest, independent and well established automotive vintage and classic insurers in the UK are also included.

The photos in this edition are black and white. The Mopar big-block RB and B engines have powered millions of Dodge, Plymouth, and Chrysler cars from 1959 to 1978, including some of the most iconic muscle cars—the Charger, Superbird, Barracuda, GTX, Road Runner, Super Bee, and many others. Over the course of 50-plus years, these engines have required and will continue to require rebuilding, and this book is an indispensable guide for the process. Veteran magazine writer Arvid Svendsen documents a professional-caliber rebuild in this latest Workbenches Series title. Full-color photographs accompanied by exceptionally detailed captions with clear, concise instructions guide you through each crucial stage of the rebuild process. You will be able to confidently complete the rebuild of an entire engine, which includes pulling the engine from the car and disassembling the long block. In addition, you'll learn how to inspect all components, guide machine work, select optimal parts for a specific performance level, assemble the complete engine, and perform a final shake-down of the engine. All crucial steps of assembly are shown and discussed in exquisite detail, so you can install main bearings, crankshaft, pistons, rods, lifters, push rods, and the entire valvetrain, heads, intake, carb, and all other parts with confidence. Once the engine is installed and the ignition key is turned, you will have the satisfaction of having soundly rebuilt an engine that provides years of strong faithful service. This book is a must-have for any Mopar enthusiast.

Ford 429/460 Engines

How to Rebuild Ford V-8 Engines

Buick Nailhead: How to Rebuild & Modify 1953-1966

Club Car / Kawasaki 4-Stroke Air-Cooled Engines 1984 - 2013

Ford Flathead Engines

How to Rebuild Your Honda Car Engine

Hundreds of photos, charts, and diagrams guide readers through the rebuilding process of their small-block Chevy engine. Each step, from disassembly and inspection through final assembly and tuning, is presented in an easy-to-read, user-friendly format.

The photos in this edition are black and white. There comes a time in every automobile's life when the engine just doesn't perform as it should anymore. It may be burning oil, it may be leaking, the compression may be so low that it only starts on cold days, or maybe it just isn't very efficient anymore. When all of this happens, you have to decide whether to just dump the car and replace it, or add some new life to your old car by rebuilding the engine. Rebuilding the engine in any used car, much less a classic, seems like a much more attractive option when you can save a lot of money by doing it yourself. Sometimes the savings are the difference between keeping your car or letting it go. If you want to keep your car running strong and lasting for years, this is the book for you. A part of CarTech's Workbench Series, "How to Rebuild Any Automotive Engine" covers the basics of any engine rebuild in more than 400 photos of step-by-step instruction. Subjects covered include preparation and tool requirements, engine removal, engine disassembly, machine work and clean-up, short-block assembly, final engine assembly, installation, start-up, and break in. Also visited are the options of purchasing crate engines, remanufactured engines, and performance upgrades. This book applies to all cars on the road that feature an internal combustion engine. Spend a little on this book and save hundreds of dollars down the road.

None of us published information details the nuances of tackling this daunting task! From dropping the engine, to reconditioning and blueprinting, through final reinstallation and break-in, Dempsey guides you step-by-step through the pitfalls often experienced by even the best mechanics. Contains reliable information on parts interchange, performance modifications, reliability upgrades, tear down, and potential problems encountered along the way. Essential information for do-it-yourselfers and for those looking to hire a professional.

Ford FE engines, which were manufactured from the late 1950s all the way through the mid-1970s, were designated as the large-displacement engines in the Ford lineup. FE means Ford Edsel, and reflects an era when Ford sought to promote the Edsel name. The design of these engines was implemented to increase displacement over its predecessor, the Y-Block engines of the previous decade. Early models were fairly modest in displacement, as were most big-blocks of the era, but they grew quickly to fill the needs of rapidly changing chassis requirements and consumer demand for larger vehicles. As it grew, the FE engine performed admirably as a heavy passenger car and light truck engine. It also became quite accomplished in performance circles, winning the 24 Hours of Le Mans, as well as powering Ford's muscle car and drag racing programs in the mid- to late 1960s. In this book, you will learn everything you need to know to rebuild one of these legendary engines. CarTech's unique Workbench series format takes you step-by-step through the entire rebuilding process. Covered are engine identification and selection, disassembly, cleaning, parts analysis and assessment, machine shop processes, replacement parts selection, re-assembly and start-up/break-in techniques. Along the way you find helpful tips on performance upgrades, trouble spots to look for, special tools required, and professional builder's tips. FE master, owner of Survival Motorsports, and veteran author Barry Rabinovich shares all of his tricks and secrets on building a durable and reliable FE engine.

Whether you are simply rebuilding an old truck for reliable service use, restoring a 100-point show car, or building the foundation for a high-performance street and strip machine, this book will be an irreplaceable resource for all your future FE engine projects.

How to Rebuild Any Automotive Engine

How to Rebuild Your Nissan & Datsun OHC Engine

How to Rebuild

Ford FE Engines

How to Rebuild Your Volkswagen Air-Cooled Engine

The Automotive Restorers Guide

Although not the first V-8 ever produced, Conceptions on your decision to build and modify one of the most popular engines from some of the most popular cars in Ford's long history with Ford Inline Six: How to Rebuild.
While the first V-8s were produced, calculations on your decision to build and modify one of the most popular engines from some of the most popular cars in Ford's long history with Ford Inline Six: How to Rebuild.
Because of Henry Ford's stubbornness, the first versions were less than ideal. The technology was in its infancy and cost-cutting measures limited the output and reliability of the early models. Over time, however, the "Flattie" became the go-to powerplant for a whole generation of new hobbyists who were called "hot rodders." The engine maintained its position in the hobby well into the 1950s, even when more modern overhead-valve designs started coming out of Detroit. It's hard to overstate the impact that this simple little engine had on a whole generation of enthusiasts. Even today, people choose a flathead for period-correct builds over far more powerful options. The style and sound of a modified flathead is an iconic part of American history. In Ford Flathead Engines: How to Rebuild & Modify, veteran author Tony Thacker and flathead guru of H&H Flatheads, Mike Herman, take you step-by-step through rebuilding a vintage flathead. One of the most important steps is actually find a good, usable core; many have been sitting for a very long time and the engine design is prone to cracking. Running changes are also an important consideration when selecting a core, and include cooling system, ignition, and transmission mount. After you have selected a core, Thacker and Herman take you through the entire process of a rebuild, including teardown, parts inspection, machine shop processes, replacement part selection, re-assembly, start up, and break-in. Also covered is a unique performance build completed at the H&H shop for legendary race car team manager and all-around enthusiast Ray Everham. It all adds up to more than 500 color photos and insider tips on building what could be called the most iconic engine ever built, the Ford flathead V-8. With this book, you can confidently complete your Hemi rebuild and get your car or truck back into action! The modern Hemi engine is lighter and stronger and offers far better drivability and performance than its predecessors. However, after hundreds of thousands of miles, extreme use, or high-performance applications, these rugged engines require a professional caliber rebuild. Long-time Mopar engineer, racing coordinator, and veteran author Larry Shepard delivers thorough instructions for each crucial step of the rebuilding process. Before commencing engine tear down, Shepard shows you how to perform compression and leak down testing to accurately assess the health of the engine. Disassembly and comprehensive inspection instructions are provided so you can determine and remedy any underlying problems. Expert insight allows you to select the ideal parts package for your rebuild, whether OEM replacement or compatible and complementary high-performance parts are selected. The most pertinent information for the latest machining practices is provided, so you can coordinate with the machine shop to return the block, head, intake, and other surfaces to like-new condition. Assembling the cylinder heads as well as accurately measuring, checking clearances, and test fitting parts will, so you' re sure all components are within spec and ready for final assembly. Finally, comprehensive step-by-step instructions are provided for assembling all components into a completed engine. p.pl (margin: 0.0px 0.0px 0.0px 0.0px; font: 12.0px Arial)

"Under the guidance of Semon "Bunkie" Knutson, John DeLorean, and a host of creative and innovative people, Pontiac established its own identity and distinct V-8 engine platform under the GM banner. In 1955, Pontiac's V-8 started out at a meager 287 cubic inches, but it was an auspicious beginning to an illustrious line of engines. The potent powerplant grew and evolved over the coming decades, which included the 389 Tri-Power, 421, Ram Air IV 400, 428, and the Super Duty 455. These V-8s powered a number of legendary cars the GTO, Firebird, Trans-Am, and many others. This Workbench series book will guide proud owners who will rebuild these engines and give them a new lease on life. Long-time Pontiac expert and magazine writer Rocky Rotella guides the reader through the entire rebuild process. Drawing on his vast experience, Rotella uses detailed captions and explanatory photos to show each crucial step of the disassembly, inspection, machine work, parts selection, assembly, and break-in process. The book instructs the reader how to skillfully pull the engine and prevent damage to the car. It documents how to carefully inspect the components for problems and fix these issues that could spell doom for a newly rebuilt engine. Finding a reputable and professional machine shop that specializes in Pontiac engines is discussed, as well as aftermarket parts and OEM parts interchange for high-performance, so you can select the best parts for a particular engine. All essential machine shop procedures are covered in detail. Inspection and pre-assembly are thoroughly explained. Most importantly, the methodical and practical approach provides the insight and vital information required for the task, as with all Workbench series titles. This, the first ever book dedicated to rebuilding the Pontiac V-8 engine, is a valuable addition to any Pontiac enthusiast's library"--Product description.

With the rise of the rod and rat scene in the 1950s and has become an enduring power plant of the hot rodding community. Modif A readers, Datsun coupes, and a myriad of other Ford passenger cars and hot rods were powered by the Ford flathead. It has been installed in many non-Ford hot rods, customs, and passenger cars as well. Since the 1950s, a thriving aftermarket has offered a variety of parts, including heads, cams, and headers. Aftermarket manufacturers have also continued to develop better crankshafts, blocks, pistons, heads, and other parts. In this Workbench title, renowned flathead expert Mike Herрман of H&H Flatheads and veteran automotive writer Kirk Jones chronicle the entire flathead rebuilding process. Step-by-step photos and captions cover disassembly of the engine. Inspection of all critical parts, including block, heads, rotating assembly, intake, and exhaust is documented so you can identify problem areas. The parts-selecting process is detailed so you can choose compatible and complementary parts for a stock rebuild or high-performance build. The assembly process is explained in exceptional detail so you can put together a strong and reliable engine. Installing a larger rotating assembly or stroker package is one of the most cost-effective ways to increase performance, and the authors cover a stroker package installation in detail. Millions of flatheads have been manufactured but original cores are not readily available so you have to carefully buy a used block or a new aftermarket unit. Owners want to rebuild their flatheads in their own shop and take the guesswork out of the process. "Ford Flathead Engines: How to Rebuild & Modify: 1932-1953" is the complete, authoritative guide that covers the engine rebuild and build-up process from beginning to end. It is the essential guide for an at-home mechanic to perform a pro-level rebuild.

New Hemi Engines 2003-Present

AMC V-8 Engines 1966 -- 1991

Ford Y-Block Engines: How to Rebuild & Modify

How to Rebuild Ford Power Stroke Diesel Engines 1994-2007

Engine Builder's Handbook HP1245

Chevrolet Inline-6 Engine 1929-1962

Rebuild and modify your Ford inline six with help from the leading performance builders of these engines, Vintage Inlines! Covering Ford's small 6-cylinder engine made famous in Falcons, Comets, Mustangs, and many other models from the 1960s and 1970s, this book has everything you need to know from step-by-step rebuilding instructions to performance parts that will set you apart from the rest of the crowd. If this is your first engine build, you'll be glad to know that every aspect of a complete rebuild is here. Starting with engine removal, you'll learn all the different steps, including examination, machine work, reassembly, and reinstallation. The mystery is revealed on setting ring gap, checking valve-to-piston clearance, and even degreasing the camshaft for spot-on valve timing! Whether it's replacing the undersized and outdated 1-barrel carburetor or the original Load-O-Matic distributor, you'll learn how to get the most from the engine that came as original equipment in literally millions of our favorite Ford vehicles. With the information in this book, you'll learn how to add a 2-barrel carburetor, electronic ignition, and even consider so you can have the smoothest running engine on the block.

From racing to heavy-duty hauling, the big-block Ford engine has been used successfully in Ford Motor Co. vehicles ranging from full-size trucks and passenger cars to the LeMans-winning GT40. How to Rebuild Big-Block Ford Engines details how you can rebuild your FE or FT engine to perform running condition using factory stock components. All rebuilding steps are covered with easy-to-understand text, illustrated with over 500 photos, charts, drawings and diagrams. You'll find tips on engine removal, disassembly, parts reconditioning, assembly and installation. You'll be able to do either a complete overhaul or a simple parts swap. As an added bonus, a complete section on parts identification and swapping is also included, along with the most complete and correct listing of specifications and casting numbers available on big-block Ford engines. Don't put off your project any longer. Rebuild your big-block Ford engine today!

With the increasing popularity of GM's LS-Series engine family,

If you have one of the 351C, 351M, 400, 429 or 460 Ford V8s, this comprehensive book is a must. It walks you through a complete engine rebuild, step-by-step, with minimum use of special tools. Save money by finding out if your engine really needs rebuilding, or just simple and inexpensive maintenance. Results from diagnosis outlines in this book should be your guide, not the odometer. All rebuilding steps are illustrated from beginning to end. How to inspect parts of damage and wear, and to recondition each part yourself to get the job done right! The most complete source of information identifying major engine parts. Casting numbers, parts description, when a part was used and how it can be interchanged is fully covered in the text, in 20 tables and in 560 photos or drawings. This book will make you an expert!

4.6L & 5.4L Ford Engines

A Step-by-step Guide to Rebuilding Magnum Series Engines to Factory Specifications

GM 6.2 & 6.5 Liter Diesel Engines

Automotive industry insider and former editor Barry Kluczyk explains each procedure in exceptional detail with exquisite photos that reveal vital information, so the novice builder can confidently build a reliable and strong running engine. This step-by-step engine-building journey covers engine removal, disassembly and inspection, machine work, short-block and top-end assembly, start-up, tuning, break-in, performance upgrades, and more. With 400 photos and in-depth text and captions, an engine builder can rebuild almost any engine, foreign or domestic, cam-in-belt or cam-in-head. A fully illustrated step-by-step guide to rebuilding big-block Chevys for better-than-stock performance. For millions of Chevy car and truck owners, this is the best and most complete engine rebuilding guide, including informative sections on: Casting numbers and parts ID ? Disassembly ? Cleaning and inspection ? Cylinder block and bottom-end reconditioning ? Cylinder head reconditioning ? Engine specs and clearances ? Step-by-step engine reassembly ? Torque values ? OEM part numbers.

Now 60 years old, your Slant Six could probably use some freshening up. Slant Six engine expert Doug Dutra has produced this volume to walk you through every aspect of disassembly, evaluation, rebuild, and reassembly in an easy-to-read, step-by-step format. The book also covers modifications, showing how to squeeze the most out of your engine. The year 1960 was an important one in auto manufacturing: it was the year all of the Big Three unveiled entrants in a new class of car called the compact. Chrysler's offering, the Plymouth Valiant, was paired with the Slant Six, known by its nickname the "leaning tower of power." This engine powered the Valiants when they swept the top seven positions in the newly christened compact race that precluded the Daytona 500. With its legacy intact, Chrysler's Slant Six powered Mopar automobiles for decades to come in three displacement offerings (170, 198, 225). With millions of Slant Six engines built over the 30-plus years that the engine was produced, it's always a good idea to have this book handy, as you never know when the next "leaning tower of power" will find its way to you. [font: 12.0px Arial]

Offers detailed guidance on removing, tearing down, reconditioning, assembling, installing, and tuning up the engine of a Honda car