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SUPER CHEVY

THE #1 CHEVROLET ENTHUSIAST MAGAZINE



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**AFTER YOU'VE GOT
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MAKING IT
ALL WORK

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TO DRESS
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**WILD
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696-HORSE
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PHOTO BY JOHN MOORE

POWERFUL DECISION

THE LATEST IN CRATE ENGINES AND THE OTHER COMPONENTS YOU NEED TO MOTIVATE YOUR BOW TIE.

By Calin Head | Photos by the Manufacturers

To build or buy is one of the most important questions to ask yourself when it comes to engines. If you are going to build a motor from scratch you will need a myriad of specialty tools, a decent recipe of parts, and a good machine shop in your back pocket. Now if you already have things like a rod bolt stretch gauge, piston ring filer, and so on, then you most likely will be building your own. For the guy who can install an engine, but maybe not build one from scratch, then buying an assembled motor might be the best option.

Let's face facts, it's hard enough to build a car let alone having to come up with an engine recipe that will produce power and stay together for more than a few miles. Luckily, today there are complete engines available that are built by professionals that won't put you in the poor house. There are some engines out there that are expensive, but there are also crate engines for the more budget minded.

As you will see, we compiled a very diverse selection of engines in this guide to help you find the right

one for your project. We made sure there was something for everybody, the traditional small-block 350 for the budget guy, a ground shaking big-block for the drag guy and (of course) the LS platform for the modern performance guy. Most of the content is pretty abbreviated, but full details can be found on each of the company's web sites. Once you are finished drooling over the engines, make sure to check out the other sections in the guide so you can pair your new engine with the proper goodies.

ATK



When it comes to crate engines for your muscle car, ATK High Performance Division engine packages range from mild to wild and are built custom for each customer. One of the most popular engines is a small-block 350 that puts out 325 hp and 370 lb-ft of torque for under \$2,000. This unit consists of a four-bolt, cast iron block topped with cast iron heads and a flat tappet cam. Since it is a performance engine, it comes with hypereutectic skirt coated pistons with moly rings. It features an 8.9:1 compression ratio, so it will run just fine on pump gas and comes with a two-year unlimited mileage warranty. Need it as a drop in? All of the performance engines can be customized with fuel systems, pulley kits, and even engraved custom valve covers with your name on them.

ATK

866/721-2315

www.high-performance-engines.com

EDELBROCK



Edelbrock's most popular crate engine, the Performer RPM E-Tec

uses the latest in engine technology to squeeze every drop of power possible from the timeless Chevy 350 platform. It features a hydraulic roller cam, E-Tec 170 aluminum heads, and hypereutectic pistons. Based upon the GM ZZ4 block equipped with a forged steel crank, this engine generates 435 hp and 435 lb-ft of torque. The engine is available in a variety of finishes, including polished and the easy to care for Endurashine. It is backed by Edelbrock's two-year, unlimited mileage warranty and includes cast valve covers, MSD distributor, Moroso oil pan and optional water pump.



Something a little bigger in size and power is Edelbrock's 555ci Big-Block rat. The new Edelbrock/Musi 555 RPM XT big-block Chevy produces 697 hp and 643 lb-ft of torque when equipped with the Edelbrock Pro-Flo 2 EFI system and 676 hp and 649 lb-ft of torque with an 800cfm Thunder AVS carburetor. Based on a Dart Big-M 9.8-inch iron block, it features a forged steel crank from

Scat, forged aluminum pistons from JE and Eagle forged H-beam rods. The engine also features Edelbrock RPM Xtreme aluminum cylinder heads that retain the stock exhaust flange location for compatibility with off-the-shelf headers. A Moroso oil pan and Mallory distributor round out this mill, and everything is backed by a two-year, unlimited mileage warranty.

EDELbrock
310/781-2222
www.edelbrock.com

GM PERFORMANCE PARTS



As far as crate engines go, this is the one that might have started it all. The ZZ4 350 Turn-Key crate engine has a forged steel crankshaft, hypereutectic pistons, hydraulic roller cam and aluminum cylinder heads. The ZZ4's Corvette-derived high-performance heads feature high velocity intake runners and D-shaped

exhaust ports to promote efficient and unobstructed flow through the engine—providing strong

power and torque at all rpm levels. It is delivered with an aluminum dual-plane intake manifold, HEI distributor, cast iron water pump, damper, flex-plate, an accessory drive package, fuel pump, chrome air cleaner kit, Holley 750cfm carburetor, starter, and spark plug wires. The ZZ4 comes to you with a full 355 hp and 405 lb-ft of torque.



On the LS side, the LS7 features a unique big-bore cylinder block that is anchored with a forged crankshaft, titanium connecting rods, and friction-coated pistons. But it's the airflow

capability of the LS7's cavernous, CNC-ported heads that enables its 500 naturally aspirated horsepower and 470 lb-ft of torque rating. Large-volume, straight-passage intake runners channel air directly around 2.20-inch titanium intake valves. The mixture is burned in large, 70cc combustion chambers and what's left exits through 1.61-inch sodium-filled exhaust valves. GM Performance Parts' LS7 7.0L crate engine package includes a production-style engine with the dry sump oil pan, manifold assembly with injectors, electronically controlled throttle body, and log-style exhaust manifolds.



GM Performance Parts' recreation of the classic L88 big-block combination, now called the ZZ427/480, rated at 480 hp. Like the original, it features an iron block, forged steel crankshaft, and

high-flow aluminum cylinder heads. GM upgraded the camshaft from the original's mechanical flat-tappet design to a more contemporary hydraulic roller, giving this 21st-century L88 modern drivability characteristics and a greater rev range. A lower 10.1:1 compression ratio lets it live on pump gas. The ZZ427/480 comes complete with high-flow oval-port heads, a high-lift camshaft (0.510-inch intake/0.540-inch exhaust), an aluminum intake manifold, 870cfm Holley carburetor, an HEI distributor, aluminum water pump, balancer, spark plug wires, and a 14-inch flex-plate.

Back in the day, the big daddy of all GM powerplants was the all aluminum ZL1. Not many were made and who knows how many even survived. Luckily, you still can be a part of muscle car history



by picking up one of these aluminum Anniversary 427s. That's right GMPP is cranking out a limited number of these lightweight big-blocks. The Anniversary Edition 427 starts with a new version of the ZL1 aluminum block using the exact same tooling used back in '69. The aluminum 4-bolt main block is filled with a forged steel crank, forged

rods, and forged aluminum pistons for a 9.5:1 final compression ratio. Aluminum, oval port heads have a 110cc combustion chamber and carry 1.7:1 aluminum roller rockers, 2.19-inch intake and 1.88-inch exhaust valves. A matching, high-flow aluminum oval-port intake



feeds the heads with the help of an 870cfm carburetor. The camshaft is a hydraulic roller with 0.510-inch of lift on the intake and 0.540-inch on the exhaust. Like the original ZL1, the Anniversary 427 comes underrated at 430 hp. Only 427 of these crate engines were produced before the ZL1 tooling was retired forever and according to our contact at GMPP, not many are left.

Based on the potent LS9, the LSA is a bit detuned with a slightly smaller 1.9L Eaton supercharger. The engine consists of an aluminum block, forged steel crankshaft, high-flow aluminum L92 style cylinder heads with as cast 68cc chambers, powdered metal rods and hypereutectic aluminum pistons.