

“WORLD CLASS” ENGINES

MERLIN



**STREET
BIG
BLOCK
CHEVY**



**OPTIONAL
ALL-ALUMINUM
MERLIN™ ENGINE
WEIGHS ONLY 471 LBS.**

509 & 540

There's nothing quite as "in-your-face" as a big-inch "rat" motor. With a much larger displacement than any factory big block Chevrolet offering, World's 509 and 540 cubic inch Merlin powerplants give you ground-pounding horsepower and torque at a moderate price.

World Products' famed Merlin block is the foundation for these engines. They have a number of important features not found in OEM blocks that help produce extra power with an exceptional level of reliability. Important improvements in cooling, oiling and manufacturing procedures. The Merlin cylinder heads are likewise far superior to factory offerings both in flow characteristics and cooling. Yes, they're covered by a 2-year limited warranty—what other high horsepower "crate motor" comes with this kind of backing?

Like all other Bill Mitchell/World engines, each one is individually dyno tested to assure performance at or above published figures. Let Merlin perform magic under your hood!

BUILD SHEET

Block: **Merlin III cast iron**
 Crankshaft: **Eagle 4340 crankshaft**
 Balancer: **ProRace internal**
 Connecting Rods: **Eagle H-beam 4340 L-19 bolt**
 Pistons: **Mahle coated/Manley**
 Piston Rings: **Total Seal**
 Compression: **9.5:1**
 Bore/Stroke: **509 c.i.d. = 4.500" x 4.000"**
 540 c.i.d. = 4.500" x 4.250"
 Bearings: **Clevite H-bearings**
 Camshaft: **Hardcore hydraulic**
 Timing Chain: **Hardcore double roller**
 Cylinder Heads: **World Merlin III**
 (cast iron or aluminum)
 Valves: **Manley Street Master**
 (2.300" intake, 1.880" exhaust)
 Valve Springs: **Hardcore**
 Retainers: **Manley**
 Valve Locks: **Manley**
 Valve Seals: **Hardcore**
 Rocker Arm Studs: **Hardcore**
 Pushrods: **Hardcore 4340 1 pc.**
 Pushrod Guide Plates: **Hardcore**
 Rocker Arms: **Scorpion aluminum rollers**
 Oil Pan: **Milodon/Canton**
 Oil Pump: **Melling**
 Assembly Components: **Stainless hardware**
 Intake Manifold: **Merlin single plane**
 Carburetor: **Hardcore 870 cfm (4150 type)**
 Distributor: **HEI**
 Fuel: **Pump gas**

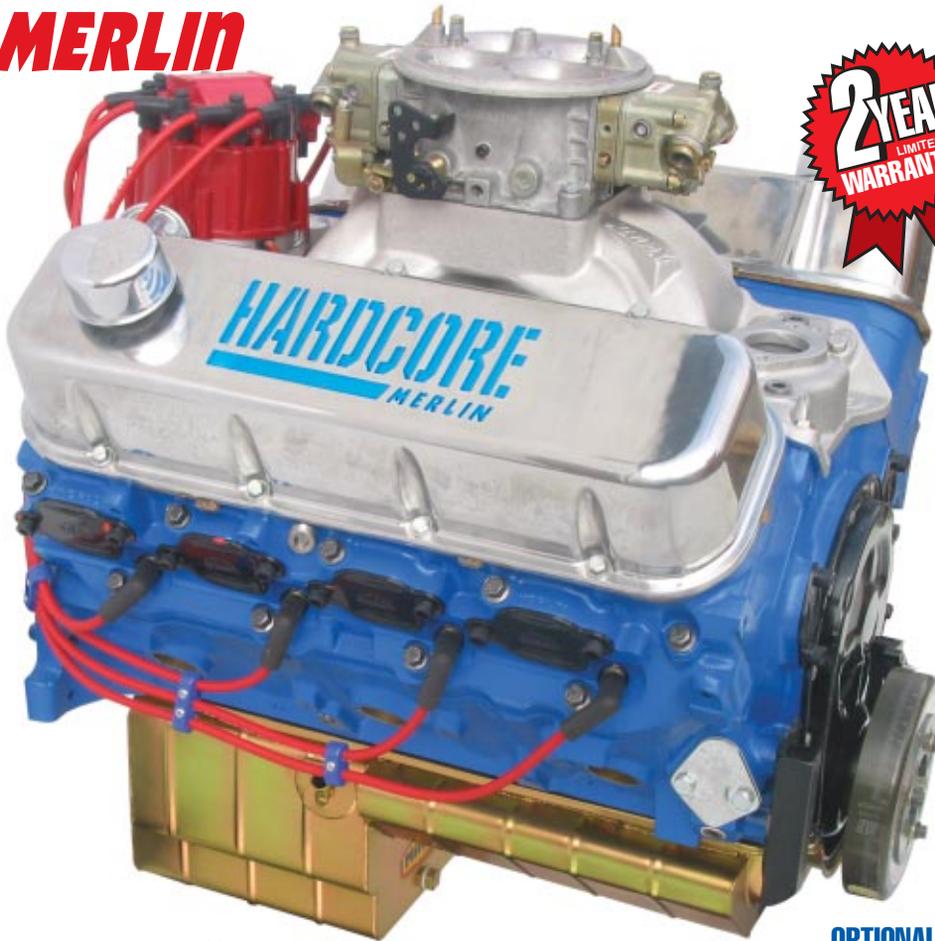
World Class Big Block Chevrolet Street Engines

Part #	C.I.D.	HP	Torque	Block	Heads
108000	509	540	575 ft. lbs.	Merlin III cast iron	Merlin 345 cast iron
108001	509	560	585 ft. lbs.	Merlin III cast iron	Merlin III 350 aluminum
1080019	509	560	585 ft. lbs.	Merlin X aluminum	Merlin III 350 aluminum
108050	540	580	595 ft. lbs.	Merlin III cast iron	Merlin 345 cast iron
108051	540	600	605 ft. lbs.	Merlin III cast iron	Merlin III 350 aluminum
1080519	540	600	605 ft. lbs.	Merlin X aluminum	Merlin III 350 aluminum

"HARDCORE" ENGINES

MERLIN

**STREET
BIG
BLOCK
CHEVY**



540 & 572

**OPTIONAL
ALL-ALUMINUM
MERLIN™ ENGINE
WEIGHS ONLY 471 LBS.**

You'll probably want to compare these big-inch "Hardcore" engines to the GM ZZ572/620, and conclude that you can get far more bang for your buck right here. Our 572, which is based on a race-proven Merlin block and cylinder heads, is dyno-certified to produce over one hundred horsepower more than the GM crate motor, costs substantially less, and comes with a 2-year warranty. Is there any question? Our 540 puts out nearly as much power as the GM 572 and costs about three thousand bucks less. You do the math!

These engines run on ordinary pump gas and perform flawlessly. In addition to the highly regarded Merlin block and heads, a stellar combination of the performance aftermarket's finest components contribute to an outstanding engine package. Experienced technicians hand assemble each engine to ultra-stringent racing standards, carefully break them in, then test them on the dyno to assure meeting published power levels. You get the dyno sheet!

BUILD SHEET

Block: **World Merlin III cast iron**
 Crankshaft: **Eagle 4340 crankshaft**
 Balancer: **Pro Race**
 Connecting Rods: **Eagle H-beam 4340 L-19 bolt**
 Pistons: **Mahle coated/Manley**
 Piston Rings: **Total Seal**
 Compression: **10.1:1**
 Bore/Stroke: **540 c.i.d. = 4.500" x 4.250"**
 572 c.i.d. = 4.500" x 4.500"
 Bearings: **Clevite H-bearings**
 Camshaft: **Hardcore solid lifter**
 Timing Chain: **Hardcore double roller**
 Cylinder Heads: **World Merlin III**
 (cast iron or aluminum)
 Valves: **Manley Race Master**
 (2.300" intake, 1.880" exhaust)
 Valve Springs: **Hardcore**
 Retainers: **Manley**
 Valve Locks: **Manley**
 Valve Seals: **Hardcore**
 Rocker Arm Studs: **Hardcore**
 Pushrods: **Hardcore**
 Pushrod Guide Plates: **Hardcore**
 Rocker Arms: **Scorpion aluminum rollers**
 Oil Pan: **Milodon/Canton**
 Oil Pump: **Melling**
 Assembly Components: **Stainless hardware**
 Intake Manifold: **Merlin-X single plane**
 Carburetor: **Hardcore 1050 cfm (4500 type)**
 Distributor: **HEI**
 Fuel: **Pump gas**

Hardcore Big Block Chevrolet Street Engines

Part #	C.I.D.	HP	Torque	Block	Heads
108052	540	610	610 ft. lbs.	Merlin III cast iron	Merlin 345 cast iron
108053	540	630	630 ft. lbs.	Merlin III cast iron	Merlin III 350 aluminum
1080539	540	630	630 ft. lbs.	Merlin III aluminum	Merlin III 350 aluminum
108055	572	675	685 ft. lbs..	Merlin III cast iron	Merlin 345 cast iron
108056	572	700	715 ft. lbs.	Merlin III cast iron	Merlin III 350 aluminum
1080569	572	700	715 ft. lbs.	Merlin III aluminum	Merlin III 350 aluminum

CRATE ENGINES

REV 2/07

**WORLD
PRODUCTS**

“LIMITED EDITION” ENGINES

MERLIN



STREET BIG BLOCK CHEVY



632

BUILD SHEET

Block: **World Merlin III cast iron billet caps**
 Crankshaft: **Callies 4340**
 Balancer: **ATI**
 Connecting Rods: **Eagle H-beam 4340 L-19 bolt**
 Pistons: **Mahle coated/Manley**
 Piston Rings: **Total Seal**
 Compression: **10.5:1**
 Bore/Stroke: **632 c.i.d. = 4.600" x 4.750"**
 Bearings: **Clevite H-bearings**
 Camshaft: **Hardcore solid roller lifter**
 Timing Chain: **Hardcore double roller**
 Cylinder Heads: **World Merlin III (aluminum)**
 Valves: **Manley Severe Duty® (2.300" intake, 1.880" exhaust)**
 Valve Springs: **Hardcore**
 Retainers: **Manley**
 Valve Locks: **Manley**
 Valve Seals: **Hardcore**
 Rocker Arm Studs: **Manley**
 Pushrods: **Hardcore 4340 1 pc.**
 Pushrod Guide Plates: **Hardcore**
 Rocker Arms: **Scorpion aluminum rollers**
 Oil Pan: **Milodon/Canton**
 Oil Pump: **Melling**
 Assembly Components: **Stainless hardware**
 Intake Manifold: **Merlin-X single plane**
 Carburetor: **Hardcore 1050 cfm (4500 type)**
 Distributor: **HEI**
 Fuel: **Pump gas**

It's hard to beat this "Limited Edition" Hardcore 632 engine for all-out power, tree stump-pulling torque and total reliability. It delivers 800 dyno-tested horsepower on pump gas and everything is covered by a 2-year limited warranty.

What's more, reliability is clearly one of the important features of the hot "Limited Edition" engines from Bill Mitchell Hardcore Racing Products. Each engine is individually assembled to racing tolerances by skilled technicians, carefully broken in, then dyno-tested and certified to meet or exceed published performance data. Roller cams and Hardcore blueprinted 4500 series carburetors help give these engines a whopping 775 foot-pounds of torque. This is definitely the "king of the hill" when it comes to powerful, yet reliable street engines. We urge you to compare this to any other "crate engine" on the market today. It stands alone!

Limited Edition Big Block Chevrolet Street Engines

Part #	C.I.D.	HP	Torque	Block	Heads
108061	632	800	775	Merlin III cast iron	Merlin III 350 aluminum

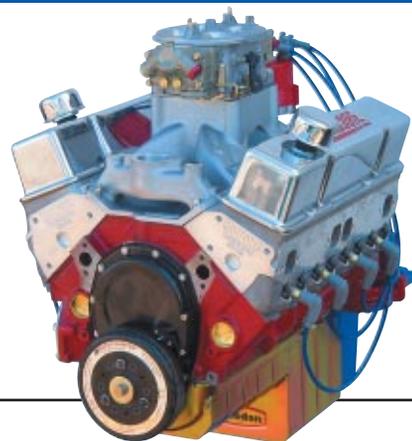
DRAG RACE ENGINES

SMALL BLOCK CHEVY

Here's a small block that can comfortably run with big blocks. It's got a healthy 427" displacement and puts out nearly 600 ft. lbs. of torque. The World Motown block is reinforced in all critical areas to provide superior dependability. Take your pick from iron or aluminum-headed combinations that produce 625 and 650 dyno-certified HP respectively. You won't find a better overall value in drag race small blocks than these offerings from the Hardcore engine shop!

BUILD SHEET

Block: **World Motown cast iron**
 Crankshaft: **Eagle 4340**
 Balancer: **ATI Super Damper**
 Connecting Rods: **Eagle H-beam 4340**
 Pistons: **Mahle**
 Compression: **13.5:1**
 Bore/Stroke: **427 c.i.d. = 4.125" x 4.000"**
 Camshaft: **Hardcore solid roller lifter**
 Cylinder Heads: **World Motown (iron & alum.)**
 Rocker Arms: **Scorpion aluminum rollers**
 Intake Manifold: **Motown single plane**
 Carburetor: **Hardcore 1050 cfm (4500 type)**
 Distributor: **MSD**
 Oil Pan: **Moroso**



Small Block Chevy Drag Racing Engines

Part #	Block	Displacement	Cylinder Heads	Fuel Type	HP	Torque
101020	World Motown cast iron	427 c.i.d.	Cast Iron	Racing Gas	600	575 ft. lbs.
101021	World Motown cast iron	427 c.i.d.	Aluminum	Racing Gas	625	575 ft. lbs.
1010219	World Motown aluminum	427 c.i.d.	Aluminum	Racing Gas	625	575 ft. lbs.

BIG BLOCK CHEVY

In the world of Super Gas and Super Comp Eliminator, Bill Mitchell's Hardcore big blocks have earned a reputation for delivering solid power with great round-to-round consistency. They're proven race-winners for the likes of all-time "Super" standout Scotty Richardson and many others. Now available in three sizes, you can choose between 540, 572 and 632" powerplants. Each engine is carefully broken-in and dyno-tested to ensure that they're ready to be installed and win!

BUILD SHEET

Block: **World Merlin cast iron**
 Crankshaft: **Eagle 4340 (Callies on 632)**
 Connecting Rods: **Eagle 4340**
 Pistons: **Mahle**
 Compression: **13.5:1**
 Bore/Stroke: **540 c.i.d. = 4.500" x 4.250"**
 572 c.i.d. = 4.500" x 4.500"
 632 c.i.d. = 4.600" x 4.750"
 Camshaft: **Hardcore solid roller lifter**
 Cylinder Heads: **World Merlin (iron & alum.)**
 Rocker Arms: **Aluminum Rollers**
 Intake Manifold: **Merlin-X Single plane**
 Carburetor: **Hardcore 1050 cfm (4500 type)**
 Distributor: **MSD**



Big Block Chevy Drag Racing Engines

Part #	Block	Displacement	Cylinder Heads	Fuel Type	HP	Torque
108080	World Merlin III cast iron	540 c.i.d.	Cast Iron	Racing Gas	775	665 ft. lbs.
108081	World Merlin III cast iron	540 c.i.d.	Aluminum	Racing Gas	825	685 ft. lbs.
1080819	World Merlin III aluminum	540 c.i.d.	Aluminum	Racing Gas	825	685 ft. lbs.
108086	World Merlin III cast iron	572 c.i.d.	Aluminum	Racing Gas	850	700 ft. lbs.
1080869	World Merlin III aluminum	572 c.i.d.	Aluminum	Racing Gas	850	700 ft. lbs.
108090	World Merlin III cast iron	632 c.i.d.	Aluminum	Racing Gas	900	725 ft. lbs.

SMALL BLOCK FORD

The latest race engine to emerge from the Hardcore race shop is based on World's new Man O' War block and raises the bar in terms of Ford power, consistency and reliability. With a big 427 c.i.d. displacement, this is one "small block" that launches like a big block! It's got 625 naturally aspirated horses. Think of what a little "squeeze" will do! This dyno-certified powerhouse is perfect for many applications, and liable to start a new trend among Ford racers!

BUILD SHEET

Block: **World Man O' War cast iron**
 Crankshaft: **Eagle 4340**
 Balancer: **ATI Super Damper**
 Connecting Rods: **Eagle H-beam 4340**
 Pistons: **Mahle**
 Compression: **13.5:1**
 Bore/Stroke: **427 c.i.d. = 4.125" x 4.000"**
 Camshaft: **Hardcore solid roller lifter**
 Cylinder Heads: **World Windsor Sr.**
 Rocker Arms: **Scorpion aluminum rollers**
 Intake Manifold: **Single plane**
 Carburetor: **Hardcore 1050 cfm (4500 type)**
 Distributor: **MSD**
 Oil Pan: **Moroso**



Small Block Ford Drag Racing Engines

Part #	Block	Displacement	Cylinder Heads	Fuel Type	HP	Torque
102091	World Man O' War cast iron	427 c.i.d.	Aluminum	Racing Gas	625	565 ft. lbs.
102090	World Man O' War cast iron	427 c.i.d.	Cast Iron	Racing Gas	600	575 ft. lbs.

“DAILY DRIVER” ENGINES

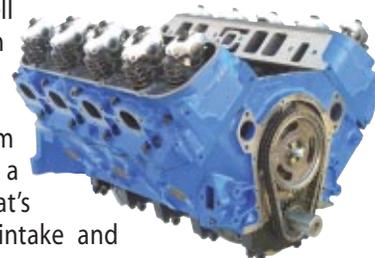


This new series of engines developed by World Products is an alternative to factory crate motors that will provide you with true high performance components and incredible dependability. They all feature brand new World cast iron blocks—which have proven to be far superior to OEM offerings for a variety of reasons. They are reinforced in all critical areas, and should you ever decide to opt for power-adders, they are ready for the task at hand.

Internal components are likewise a level above factory parts. Connecting rods are 4340 forged steel H-beams with 200,000 psi bolts. Pistons are forged (not cast) and equipped with moly rings. Bearings are likewise high performance Clevite models. You also

get new World Products cylinder heads equipped with Manley stainless steel valves, an aftermarket dual plane intake and a 870 cfm “blueprinted” Bill Mitchell Hardcore carburetor and a high performance Milodon oil pan.

Should you want to use some existing system components, you can purchase a partial engine assembly that’s ready to go, just add your intake and ignition systems, plus an oil pan.



350 SMALL BLOCK CHEVROLET

BUILD SHEET: Motown block, Eagle forged crank, Eagle I-beam connecting rods, Clevite H-bearings, hydraulic camshaft, S/R Torquer cylinder heads, stamped steel rockers, Milodon oil pan, dual plane manifold, Hardcore 870 carburetor, bore/stroke 4.000 x 3.480, compression 9.0:1, fuel - pump gas

PARTIAL ENGINE:

Includes all the components in the complete engine, less intake system, oil pan and ignition.....#101500

COMPLETE ENGINE:

350 c.i.d.

Dyno Tested & Warranted

350HP

.....#100000

302 SMALL BLOCK FORD

BUILD SHEET: Man O’ War 8.200 block, Eagle forged crank, Eagle I-beam connecting rods, Clevite H-bearings, hydraulic camshaft, Windsor Jr. cylinder heads, stamped rockers, Milodon oil pan, dual plane manifold, Hardcore 870 carb, bore/stroke 4.000 x 3.000, compression 9.0:1, fuel - pump gas

PARTIAL ENGINE:

Includes all the components in the complete engine, less intake system, oil pan and ignition.....#102000

COMPLETE ENGINE:

302 c.i.d.

Dyno Tested & Warranted

302HP

.....#102015

454 BIG BLOCK CHEVROLET

BUILD SHEET: Merlin III block, Eagle forged crank, Eagle I-beam connecting rods, Clevite H-bearings, hydraulic camshaft, Merlin 269 oval port cylinder heads, stamped rockers, Milodon oil pan, dual plane manifold, Hardcore 870 carb, bore/stroke 4.250 x 4.000, compression 9.0:1, fuel - pump gas

PARTIAL ENGINE:

Includes all the components in the complete engine, less intake system, oil pan and ignition.....#108500

COMPLETE ENGINE:

454 c.i.d.

Dyno Tested & Warranted

454HP

.....#107000

351 SMALL BLOCK FORD

BUILD SHEET: Man O’ War 9.500 block, Eagle forged crank, Eagle I-beam connecting rods, Clevite H-bearings, hydraulic camshaft, Windsor Jr. cylinder heads, stamped rockers, Milodon oil pan, dual plane manifold, Hardcore 870 carb, bore/stroke 4.000 x 3.500, compression 9.0:1, fuel - pump gas

PARTIAL ENGINE:

Includes all the components in the complete engine, less intake system, oil pan and ignition.....#102010

COMPLETE ENGINE:

351 c.i.d.

Dyno Tested & Warranted

351HP

.....#102020

“CRUISER POWER” ENGINES



Responding to street rodders and muscle car owners who are more into cruising than all-out performance, World Products has developed another new series of engines. Called “Cruiser Power,” this family of engines has the same beefy bottom end as the more potent powerplants, but features cylinder heads with smaller runners (designed more for velocity than flow), dual plane intake manifolds and 870 cfm carburetors. The net result is an engine with outstanding bottom-end torque, and a very broad power curve. Even with a dyno-certified output of 1-horsepower-per-cubic-inch, World’s “Cruiser Power” engines exhibit excellent fuel economy.

The foundation for these engines are World’s Motown, Merlin

and new Man O’ War cast iron blocks, coupled with the appropriate World cast iron cylinder heads.

There are many compelling reasons why World “Cruiser Power” engines represent your best investment when compared to factory “crate engines.” First, there’s the fact that the block and heads are far superior to OEM pieces in terms of design, construction and manufacturing accuracy. Each engine is individually assembled by skilled technicians who maintain super-close racing tolerances. The engines are broken-in, thoroughly dyno-tested, and certified to meet specified performance levels. And it’s backed by a 2-year warranty. Who else gives you all of this?

415 SMALL BLOCK CHEVROLET

BUILD SHEET: World Motown cast iron block, Eagle 4340 crank, Eagle 4340 forged steel H-beam connecting rods, Clevite H-bearings, hydraulic camshaft, World Motown cylinder heads, Scorpion rockers, Milodon oil pan, dual plane intake manifold, Hardcore 870 blueprinted carburetor, HEI ignition. Completely balanced and dyno tested.

Bore: 4.000"
Stroke: 3.875"
Compression Ratio: 9.0:1
Fuel: pump gas

415 c.i.d.
Dyno Tested & Warranted **435HP**
.....#100050

349 SMALL BLOCK FORD

BUILD SHEET: World Man O’ War 8.200 deck cast iron block, Eagle 4340 crank, Eagle 4340 forged steel H-beam connecting rods, Clevite H-bearings, hydraulic camshaft, Windsor Sr. cylinder heads, Scorpion rockers, Milodon oil pan, dual plane intake manifold, Hardcore 870 cfm blueprinted carburetor, HEI ignition. Completely balanced and dyno tested.

Bore: 4.000"
Stroke: 3.470"
Compression Ratio: 9.0:1
Fuel: pump gas

349 c.i.d.
Dyno Tested & Warranted **370HP**
.....#102025

509 BIG BLOCK CHEVROLET

BUILD SHEET: World Merlin III cast iron block, Eagle 4340 crank, Eagle 4340 forged steel H-beam connecting rods, Clevite H-bearings, hydraulic camshaft, Merlin 269 oval port cylinder heads, roller rockers, Milodon oil pan, dual plane manifold, Hardcore 870 cfm blueprinted carburetor, HEI ignition. Completely balanced and dyno-tested.

Bore: 4.500"
Stroke: 4.000"
Compression Ratio: 9.0:1
Fuel: pump gas

509 c.i.d.
Dyno Tested & Warranted **515HP**
.....#107050

427 SMALL BLOCK FORD

BUILD SHEET: World Man O’ War 9.500 deck cast iron block, Eagle 4340 crank, Eagle 4340 forged steel H-beam rods, Clevite H-bearings, hydraulic camshaft, Windsor Sr. cylinder heads, Scorpion rockers, Milodon oil pan, dual plane manifold, Hardcore 870 cfm blueprinted carburetor, HEI ignition. Completely balanced and dyno-tested.

Bore: 4.125"
Stroke: 4.000"
Compression Ratio: 9.0:1
Fuel: pump gas

427 c.i.d.
Dyno Tested & Warranted **450HP**
.....#102030