DART

CHAMPIONSHIP ENGINE COMPONENTS

VOL. 23 PERFORMANCE PARTS CATALOG

CHAMPIONSHIP ENGINE COMPONENTS SINCE 1981

DART MACHINERY

Many of America's most successful companies can trace their roots to basements, tool sheds and spare bedrooms. Like Hewlett Packard, Boeing, and Apple Computer, Dart Machinery began in humble surroundings. Richard Maskin founded Dart in 1981 in a two-car garage in Oak Park, Michigan. In the years since Maskin started his business with a desk and a telephone, Dart has become the proven leader in aftermarket cylinder heads, intake manifolds and engine blocks.

RICHARD MASKIN
(IN MEMORY OF)

Richard Maskin was well known to drag racing fans as a mechanical mastermind whose engines have won multiple NHRA Pro Stock world championships and dozens of national events. Like many successful entrepreneurs, Maskin turned his passion for drag racing into a thriving enterprise. The seeds were planted when Maskin competed with a variety of drag racing machines ranging from Modified Production Camaros to Pro Stock Gremlins. He developed raised intake runners, offset pushrods, and sheet metal intake manifolds for his innovative Pro Stock engines in the mid-'70s. These breakthroughs were quickly imitated by rival racers. Eventually, Maskin learned how to produce complete cylinder heads from scratch. This hands-on experience laid the foundation for Dart Machinery.

The company's first products were Aluminum Hemi cylinder heads that dominated the Top Fuel and Funny Car categories. These purpose-built heads provided the power that ultimately broke drag racing's 300 mph barrier and produced the first 4.0-second Funny Car elapsed time. Maskin's Pro Stock roots were evident in the Race Series heads for big block Chevrolet V8s that soon followed. In recent years, Dart's spread port Big Chief heads have set the standard in classes ranging from Pro Street to Pro Mod. This tradition of innovation continued with the introduction of affordable Iron Eagle and PRO1 cylinder heads for small block and big block Chevy V8s, followed by Cast Aluminum and Iron engine blocks designed to meet the specialized needs of racers and performance enthusiasts. The company has since expanded its product line to include Small Block Ford and Modern Muscle and Sports Compact components.

Dart is committed to producing the best engine components available. All development, machining and assembly are done at Dart's own facilities in order to maintain the highest standards of quality. State-of-the-art CNC machining centers, a dynamometer and the proprietary "Speed Flow" technology/wet flow bench are among the assets that contribute to "the Dart advantage".

The Dart Team continues to honor Richard Maskin's "Big M" legacy by leading with innovation and advancing racing technology to offer Championship Engine Components.

QUALITY • STRENGTH • PERFORMANCE

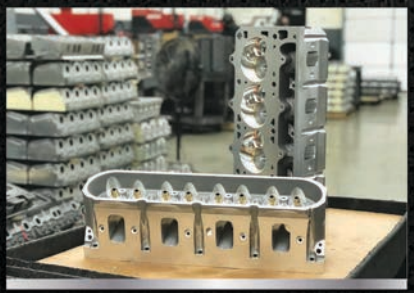


TABLE OF CONTENTS

ITEM PAGE

GENERAL INFORMATION
Research and Development 2-3
Manufacturing Quality 4-5
Casting and Metallurgy 6-7
Important Features of Dart Heads 8
CNC Porting and Head Options 9
Important Features of Dart Blocks 10
Custom Block Machining Options 11

HEMI®
Iron Eagle Blocks Non VVT & VVT 12

SMALL BLOCK CHEVY
SHP Short Blocks 13
SBC Top End Kits 14
SHP Blocks 15
SHP PRO Blocks 16
SHP 305 Blocks 17
Little M Sportsman Blocks 18
Little M Blocks 19
Little M² Blocks 20
Iron Eagle Blocks 21
Iron Eagle 4.500" B/S Blocks 22
Race Series Aluminum Blocks 23
Race Series Aluminum 4.500" Blocks 24
Iron Eagle 23° 165cc S/S Heads 25
Iron Eagle 23° 170cc S/S Vortec Heads 26
SHP 23° 180cc Heads 27
SHP 23° 200cc Heads 28
PRO1 23° 180cc Heads 29
PRO1 23° 200cc Heads 30
PRO1 23° 215cc Heads 31
PRO1 23° 230cc Heads 32
PRO1 23° 227cc CNC Heads 33
PRO1 23° 245cc CNC Heads 34
PRO1 18° 245cc Heads 35
Race Series 18° 250-272cc CNC Heads 36
Race Series 15° 284cc CNC Heads 37
Race Series 12.5° 265cc CNC Heads (Oval) . . . 38
Race Series 12.5° 296cc CNC Heads 39
Race Series 9° Castings 40
SBC Intake Manifolds 41
SBC Accessories 42

GEN III LS NEXT
SHP LS Next Short Blocks 43
SHP LS Next Blocks (Skirted) 44
SHP LS Next PRO Blocks (Skirted) 45
LS Next Iron Blocks 46
LS Next² Iron Blocks 47

ITEM PAGE

LS Next Aluminum Blocks (Skirted) 48
LS Next² Aluminum Blocks (Skirted) 49
LS Next Aluminum Blocks 50
LS Next² Aluminum Blocks 51
PRO1 LS 15° 205cc Heads (LS1 Compatible) . . 52
PRO1 LS 15° 225cc Heads (LS1 Compatible) 53
PRO1 LS 15° 250cc CNC Heads (LS1 Compatible) 54
PRO1 LS 15° 280cc Heads (LS3 Compatible) 55
PRO1 LS 12° 285cc CNC Heads (LS7 Compatible) 56
PRO1 LS 12° 305cc CNC Heads (LS7 Compatible) . . . 57
Race Series LS 10° 368cc CNC Heads 58
LS Manifolds 59
LS Next Accessories 60

BIG BLOCK CHEVY
BBC Top End Kits 61
Big M Gen V & VI Blocks 62
Big M Sportsman Blocks 63
Big M Blocks 64
Big M² Blocks 65
Big M Aluminum Blocks 66
Big M Race Series Aluminum Blocks 67
PRO1 24° 275cc Heads (Oval) 68
PRO1 24° 310cc Heads 69
PRO1 24° 325cc Heads 70
PRO1 24° 345cc Heads 71
PRO1 24° 525 MMR Heads (Marine) 72
PRO1 24° 335cc CNC Heads 73
PRO1 24° 355cc CNC Heads 74
PRO1 24° 365cc CNC Heads 75
PRO1 20° 440cc Heads 76
PRO1 20° 409cc/451cc CNC Heads 77
Race Series 20X 485cc CNC Head 78
PRO2 24° 380cc CNC Heads 79
Race Series 24° 340/370cc Heads (Oval) 80
Race Series 18° 330/383cc Heads 81
PRO1 Big Chief 18°/14° 424cc Heads 82
Big Chief 18° 424cc/14° 440cc CNC Heads . . . 83
Big Chief 14° 433cc CNC Heads (Oval) 84
Big Chief II 11° 555cc CNC Heads 85
Big Chief III 11° 596 Billet Heads 86
Big Chief 14° 505cc 5.000" Heads 87
BBC Intake Manifolds 88
BBC Accessories 89

SMALL BLOCK FORD
SHP Short Blocks 94
SBF Top End Kits 95
SHP SBF Blocks 90

ITEM PAGE

SBF Top End Kits 91
SHP SBF Cast Iron Blocks 92
Iron Eagle Cast Iron Blocks 93
Iron Eagle PRO SBF Blocks 94
Race Series Aluminum Blocks 95
SHP 20° 175cc Heads 96
SHP 20° 205cc Heads 97
PRO1 20° 170cc Heads 98
PRO1 20° 195cc Heads 99
PRO1 20° 210cc CNC Heads 100
PRO1 20° 225cc CNC Heads 101
SBF Manifolds 102
SBF Accessories 103

BILLET BLOCKS AND HEADS
Custom Billet Blocks and Heads 104-105

ACCESSORIES AND SERVICE PARTS
Accessories and Service Parts 106-115

NEW PRODUCTS
SHP LS Next² Gen III Short Blocks 116
LS Gen III Crankshaft 117
BBC Crankshaft 118

DART EXTRAS
Dart Promotional Items 119

F.A.Q.
Frequently Asked Questions 120

NOTES
Notes Page 121

SOCIAL MEDIA/BLOG
All Access 122

LEGAL
Policies/Warranty . . . . . 123 (INSIDE BACK COVER)

LEGAL NOTICES

EMISSIONS NOTICE: Dart components are not intended for sale or use in connection with pollution controlled motor vehicles. **SPECIFICATIONS:** We are committed to continuously improving our products. We reserve the right to change specifications and to discontinue products without notice. We have made every effort to ensure the accuracy of this catalog; however, Dart is not responsible for typographical errors or omissions. **POLICIES AND WARRANTIES:** Please see inside back cover for important ordering, shipping, and warranty information. **TRADEMARKS:** PRO, PRO1, PRO2, PRO1 LS, Big M, Big M PRO, Big Chief, SHP, Little M, LS NEXT, Little Chief, Iron Eagle, Race Series, Iron Eagle PRO, SHP PRO are registered trademarks of Dart Machinery, Chevrolet, Chevy, LS3, LS7, Dominator, Edelbrock, Ford, HEMI®, Holley, MAHLE and other trademarks used in this catalog are the property of their respective trademark holders and are used for identification purposes only.

WARNING:

This product contains chemicals known to the State of California to cause cancer and reproductive harm.
www.P65Warnings.ca.gov

R&D

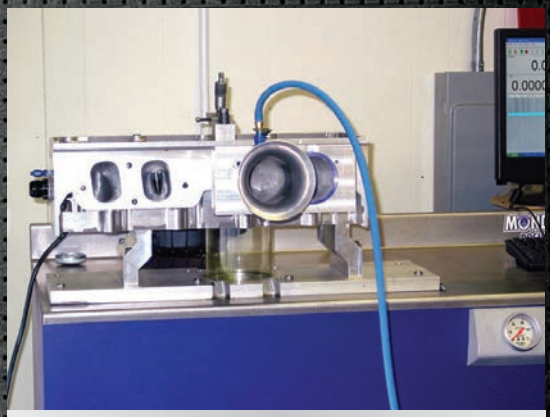
RESEARCH & DEVELOPMENT.

ADVANCED ENGINEERING *MEANS UNDERSTANDING* ***EVERY ASPECT OF A DESIGN.***

When testing and designing components for an internal combustion engine, every piece of data that's missing might be a breakthrough that gets left on the table. That is why it is important to ensure that your research equipment is capable of capturing the bigger picture.

Dart's custom-built wet flow bench was created for exactly this reason. Along with high-tech digital design and testing on a traditional flow bench, in the dyno cell and on the race track, Dart's research and development process makes use of our state of the art equipment to get the most complete data possible to produce maximum engine strength and performance.

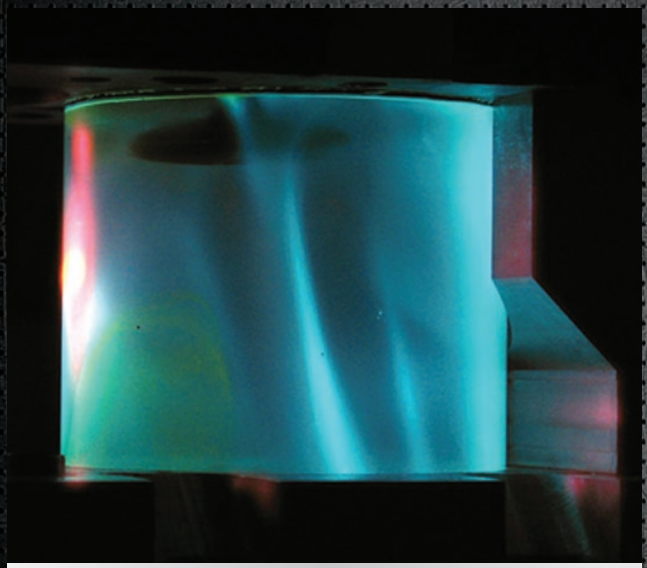
It is often said that an engine is an air pump, but in fact an engine also moves a considerable volume of fuel through its induction system and cylinders. After all, it is the fuel that contains the energy that drives the car. Burning more fuel produces more power, provided that combustion efficiency is maintained. Unfortunately, a bench that only measures dry airflow can't simulate this crucial characteristic of a running engine.



The computer on the wet flow bench captures data about airflow, fuel consumption and air/fuel ratios.

Dart's proprietary wet flow bench can flow 800cfm - with fuel in the mixture, and operates at 55 inches of depression rather than the 28 inches which is commonly used for testing dry flow. This more closely replicates the conditions present in an actual racing engine.

RESEARCH & DEVELOPMENT



A clear cylinder sleeve allows technicians to observe the physical behavior of the air/fuel mixture entering the chamber.

Traditional flow benches are still a useful tool in cylinder head development, but cannot provide any data regarding the fuel handling capabilities of a port or chamber design.

Dart's wet flow bench uses a testing liquid with the same specific gravity as gasoline, which has been laced with a fluorescent dye, allowing researchers to observe the behavior of the fuel as it flows through the head. In this manner, our head designers can see what designs encourage proper fuel atomization and avoid designs that cause fuel to congeal into solid streams or become overly turbulent.

Wet flow has shown us some of the key design principles that optimize fuel behavior in a cylinder head. A port design that flows more fuel and air, while remaining smaller, will make more power. Sharp edges around the intake seats will shear the fuel flow and increase atomization, and thus, fuel flow. Through repeated trials Dart researchers have been able to collect hard data from the wet flow bench that has directly resulted in increased performance.

Like dry flow benches and dynos, the wet flow bench is another weapon in Dart's arsenal. The wet flow bench makes the formerly invisible movement of fuel and air readily apparent, and it provides hard data on a cylinder head's ability to move fuel and air efficiently.

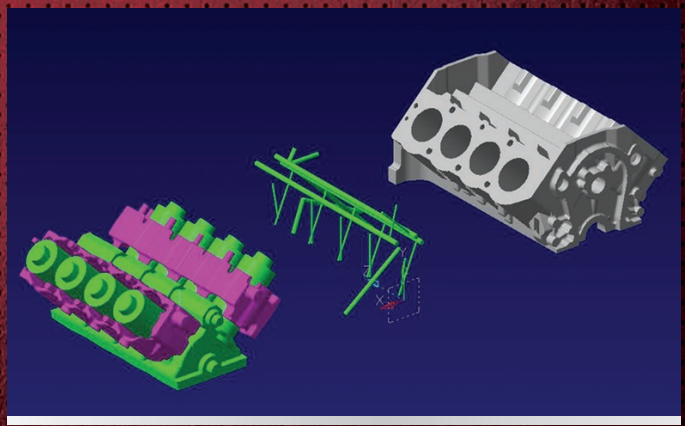
MANUFACTURING QUALITY.

EACH DART PRODUCT IS FOUNDED ON ***STATE-OF-THE-ART COMPUTER ASSISTED DESIGN*** *AND* ***PREMIUM CASTINGS.***

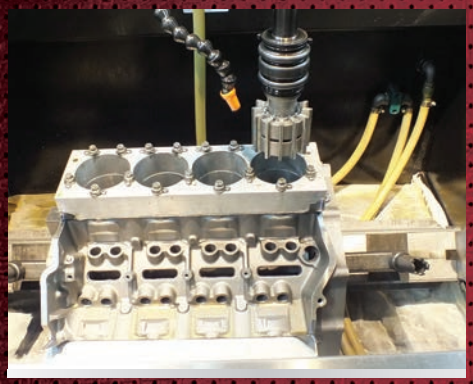
Dart's machining and qualifying is designed to maintain the highest level of quality throughout the manufacturing process. Our production facility runs 24 hours a day, 6 days a week. These top of the line machines are the same ones used by major automotive manufacturers as well as some in the aerospace industry. Each Dart component is thoroughly inspected to ensure that they are free of porosity and other defects.

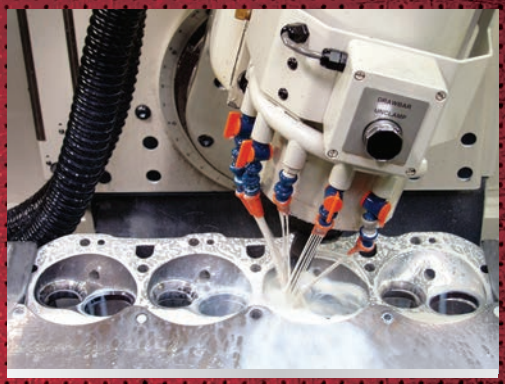
Dart uses an advanced Zeiss coordinate measuring machine to ensure the utmost accuracy in each part produced. The Zeiss is capable of measuring hundreds of points along virtually any surface of a part. The CMM employs dynamic navigation software that compensates for the deflection that occurs as the passive scanning probe pushes against the surface of a component while in motion. This powerful machine gives us the ability to maintain exact tolerances and monitor our machining tools to prevent inaccuracies due to tool wear.

Dart makes use of highly advanced CNC technology for finish machining procedures and porting. Our 5-axis CNC machines craft blocks and heads with precision and detail.



MANUFACTURING QUALITY





Our wide array of CNC equipment allows us to manufacture components with the highest level of finish in the industry, and even finished to your specifications on request. Dart also offers a full range of custom machining options for blocks and heads, available by special order.

Getting the best results requires the right tools for the job, so Dart employs an array of highly specialized machinery to optimize every process. Our Sunnen SV-20 CNC hone allows us to maintain extraordinary bore size accuracy and to carefully control the peaks and valleys of the bore, achieving the perfect hone in a fraction of the time.

There aren't any shortcuts when it comes to crafting the best performing, most reliable components around. At Dart, we believe that the formula is hard work, seasoned experience, and the best equipment money can buy.

CASTING & METALLURGY.

THE QUALITY, STRENGTH *AND* ***PERFORMANCE*** *OF A* ***CASTING DEFINE THE POTENTIAL*** *OF THE FINAL PART.*

Castings made with mediocre materials will never be able to support the heat and power that a casting made from premium alloys will. Castings poured without the utmost attention to detail can suffer crippling structural flaws that lower the bar for the performance of the end product in ways that no amount of machining can alleviate.

Because it's important to build on a solid foundation, Dart takes the casting process very seriously. Every single Dart casting is 100% made in the United States from start to finish. Many of our Aluminum castings employ aerospace quality alloy, the best in the industry for the high temperature, high pressure demands of performance engine operation. Our Iron castings use a selection of premium alloys, carefully chosen to meet the needs of each of our product lines. These Iron alloys offer excellent tensile strengths and Brinell hardness ratings from 200 to 250 or more, well above that of a "bargain" casting. This translates to blocks and heads that have longer life spans and can be built to more demanding specifications.

Top grade alloys are just one piece of the puzzle. Dart also works closely with our American foundries to ensure that the casting process has been perfected to an art. Everything from the pouring process, to the temperature the molten metal reaches before pouring, to the heat treatment procedure can have a dramatic impact on the final quality of the casting. Even small oversights can lead to components that suffer from porosity, often completely invisible to the naked eye, which can weaken the integrity of the entire block or head. Dart metallurgists confer with experts at our partner foundries on a regular basis to ensure that every step of the casting process is carefully observed and controlled.

United States tier two foundries have extensive experience with automotive requirements and practices, and have served the American auto industry for many decades.

All of Dart's castings are produced at foundries in the Midwest United States, within six hours driving time of our Detroit area headquarters and manufacturing facility.

CASTING & METALLURGY

Dart maintains a large inventory of raw castings which must be ordered months in advance in order to keep our production and delivery times on a tight schedule.

Casting design also factors heavily into the quality of the final product. Dart's R&D (Research & Development) department is involved in casting design from the earliest stages. Dart components use "chills," special metal inserts into the casting mold which cool the metal at a different rate in the area around them as it is being poured. This allows us to control more than just the final shape of the part and quality of the alloy – it also allows us to increase the final density of the metal in the specific areas that need it most. Techniques like this allow us ultimate control over the final casting.

With the quality, strength and performance of Dart castings, you can be assured that you're getting the best components money can buy.

IMPORTANT FEATURES OF DART HEADS

PRO 1

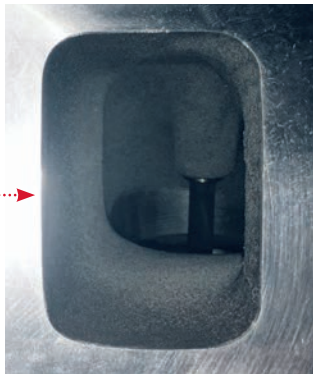
345cc

CYLINDER HEAD EXAMPLE

Raised and machined valve cover rails help to contain oil and increase valve cover rocker arm clearance.

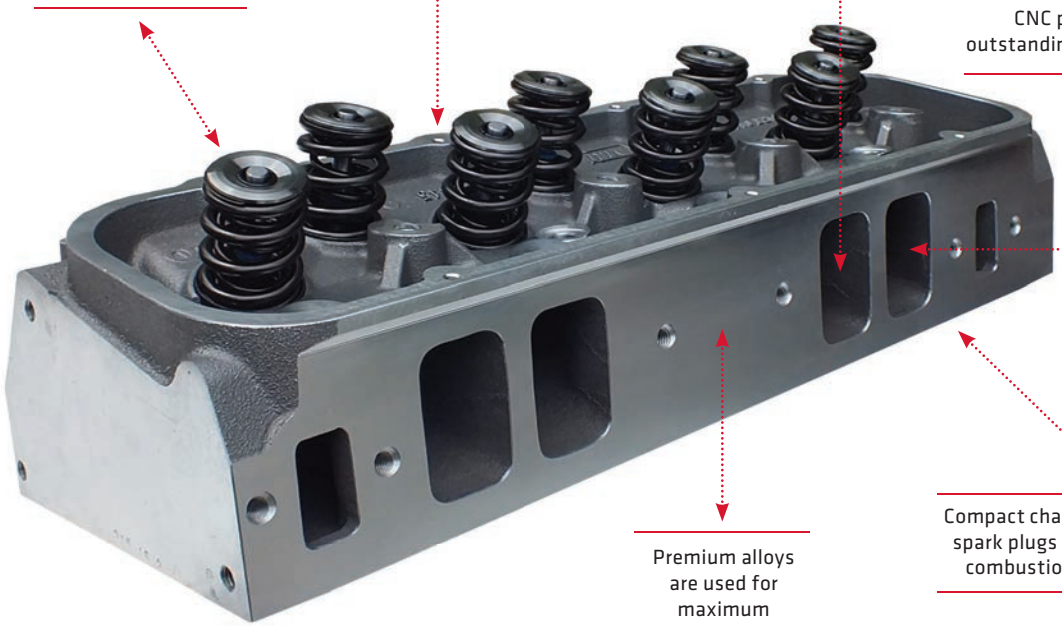
Precision as cast ports and chambers give you ported style performance at a fraction of the cost.

Choices in intake runner volumes are available to suit your performance requirements.



CNC porting options provide outstanding accuracy and consistency.

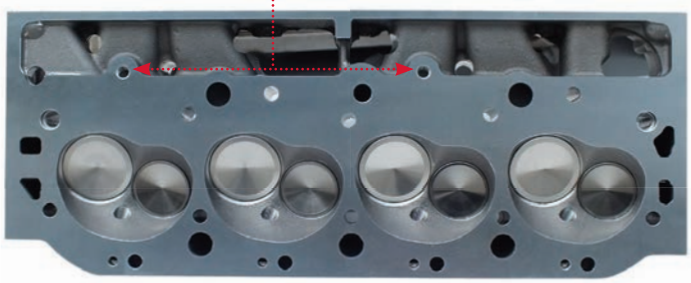
Rolled valve angles on many style heads provide smaller chambers and improved airflow.



Premium alloys are used for maximum strength and durability.

Compact chambers with relocated spark plugs to promote efficient combustion and flame travel.

Big block heads have provision for extra head studs in valley area.



Not intended for sale or use with pollution controlled vehicles.

CNC PORTING & CYLINDER HEAD OPTIONS

AS CAST

Dart can provide CUSTOM MACHINED and ASSEMBLED cylinder heads to meet your needs.

Now you can get Dart Race Series small block and big block cylinder heads prepared to your exact requirements! We've expanded our range of CNC porting and component options to fit more applications and budgets.

FULL PORT INTAKE

FULL PORT EXHAUST

CNC CHAMBER

COPPER VALVE SEATS

TITANIUM VALVES

MANGANESE-BRONZE GUIDES

AS CAST: [redacted]
Dart Iron Eagle and PRO1 heads have intake ports, exhaust ports and combustion chambers which are designed to be used as is. They are cast based on hand developed models to deliver excellent performance without requiring any additional porting or grinding.

FULL PORT: [redacted]
Full CNC machining of intake ports, exhaust ports, and combustion chambers for maximum power and consistency. Includes precision valve job and hand blending.

NITROUS & CONICAL CHAMBER OPTIONS: [redacted]
Dart's conical chamber machining helps to extract maximum performance from nitrous and forced induction engines.

VALVE SEAT OPTIONS: [redacted]
Powder metal, Ductile Iron and Copper infiltrated seats are standard in most Dart heads. Copper and hardened seat options are available.

VALVE MATERIAL OPTIONS: [redacted]
Premium Stainless Steel valves are standard in Dart cylinder heads. Titanium and Inconel are an available option. Inconel valves are recommended for marine or turbocharged applications.

VALVE GUIDES: [redacted]
Dart manufactures our own valve guides from premium Manganese & Nickel Bronze for improved wear characteristics and precise tolerances.

IMPORTANT FEATURES OF DART BLOCKS

Dart blocks are loaded with features you won't find in any factory casting.

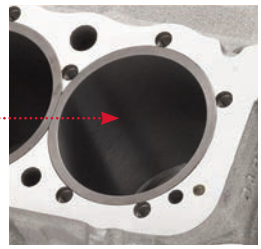
Working with top racers and engine builders, we've designed blocks to solve the problems of production-type blocks used in high performance and competition applications.

Premium alloys, extra thick decks, siamese bores, enlarged water jackets, priority main oiling, 4-bolt main caps, finished main bearing bores and cam tunnels, honed lifter bores and coated cam bearings make it easier to build superior racing and performance engines.

Blocks are machined in-house on precision CNC equipment to ensure quality and to eliminate the need for expensive blueprinting.

Every machining operation on every Dart block is documented for future reference.

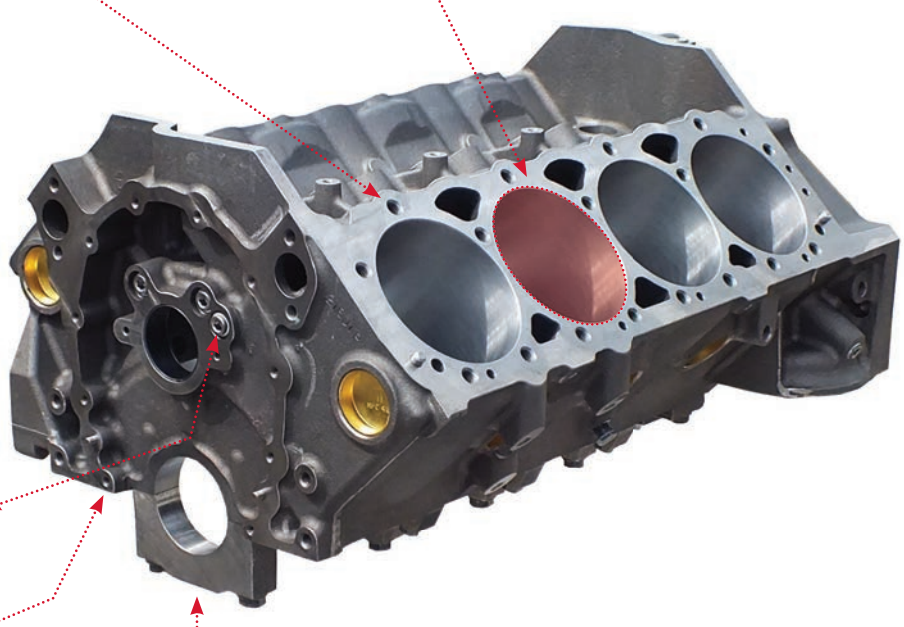
Aluminum blocks use Ductile Iron sleeves and extra thick cylinder walls.



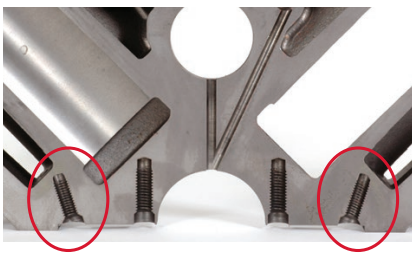
Siamese cylinders with extra thick walls provide superior ring seal, and resist cracking. Enlarged water jackets improve cooling.

Blind head bolts don't go through to water.

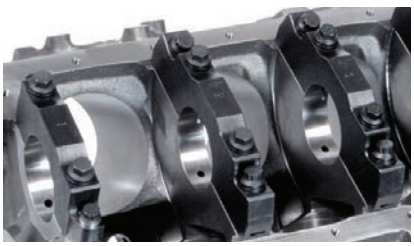
Priority main oiling system delivers oil to the critical main bearings first for reliable high RPM lubrication.



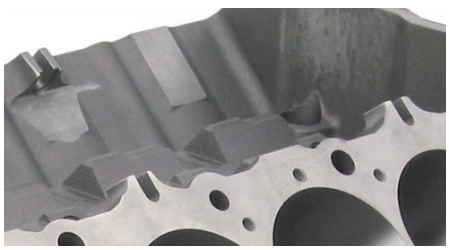
Splayed outer bolts on the main bearing caps are secured into the strongest part of the main webs.



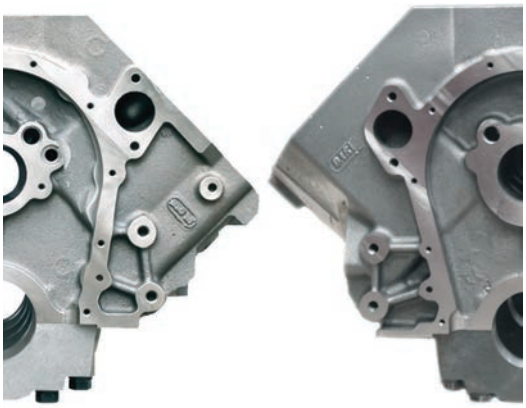
Ductile Iron or billet steel main caps with splayed outer bolts for maximum strength.

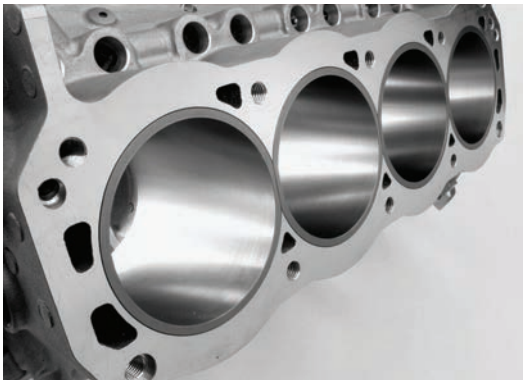


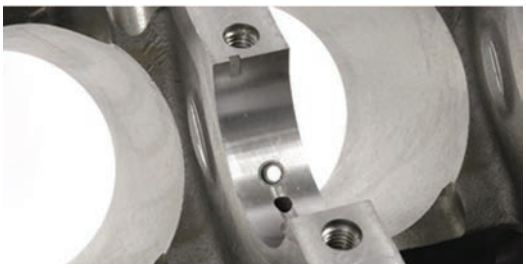
Big blocks have provision for extra head studs in valley.

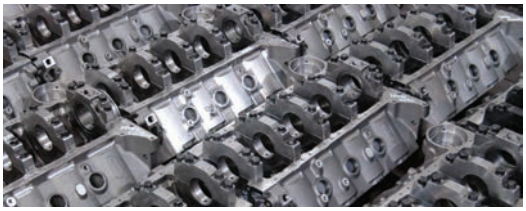


CUSTOM BLOCK MACHINING OPTIONS









Dart can fulfill VIRTUALLY ALL custom block machining needs.

CUSTOM DECK HEIGHTS:
Decks can be ordered milled to your specification for custom applications.

CUSTOM BORE SIZES:
Order your cylinder bores in the sizes you need right from Dart. Final hone is required to finish.

CAM BORE RESIZING:
Available cam upgrades include 50mm Roller, 55mm Roller, 54 Babbitt (2.125), 55mm Babbitt, 60mm Roller & 60mm Babbitt and other options.

LIFTER BORE RESIZING:
Lifter bores can be ordered resized for oversize and special lifter diameters.

BRONZE LIFTER BUSHINGS:
Bronze bushed lifter bores for .842", .874", .904" and .937" lifters. We also have keyed lifter bushings available.

LIFTER RELOCATING:
We can supply blocks with altered lifter locations for exotic cylinder head applications.

BLOCK LIGHTENING:
Dart has CNC lightening programs which are designed to preserve the integrity of the block, so that weight can be removed without loss of strength in critical areas. We can also lighten main caps.

STROKE CLEARANCE:
We offer stroke clearance programs for most Dart blocks and accommodate most rotating assemblies. Please call a sales associate today for program information and qualification of your components.

MAIN STUD KITS:
Blocks with standard main cap bolts (Little M, Big M and Ford Iron blocks) can be ordered with main cap studs.

PISTON OIL SQUIRTERS:
Keeping the pistons cool is one of the keys to reliability in endurance racing engines. Spraying the underside of the piston top with a jet of pressurized oil can help to prevent piston failure in oval track, marine, and heavy duty applications.

BLOCK PREP:
Dart can finish hone and deck, install cam bearings, freeze plugs, pipe plugs, wash and bag your block so it is ready for assembly when you receive it. Requires customer supplied specifications.

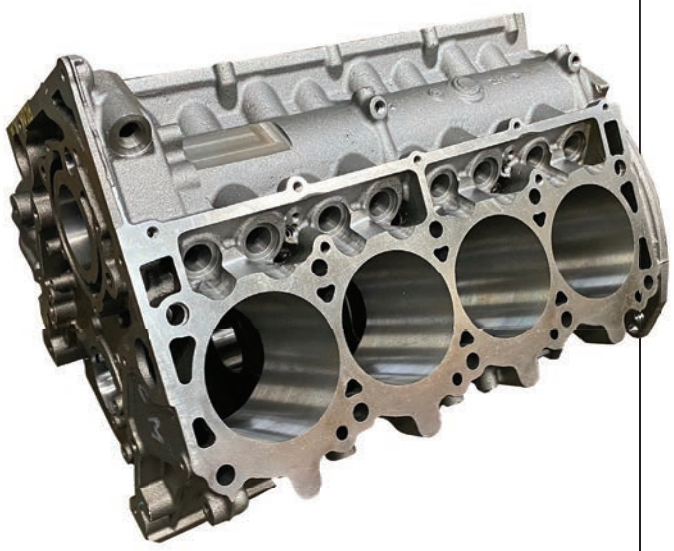
IRON EAGLE GEN III HEMI®* CAST IRON ENGINE BLOCKS

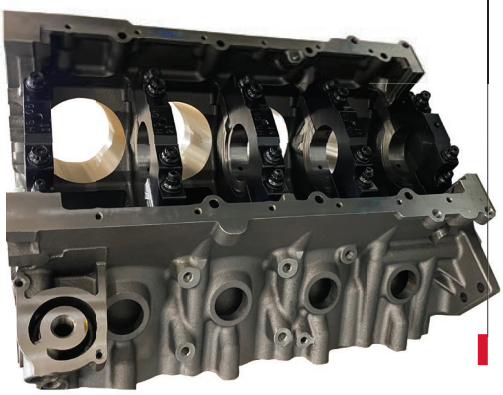
NEW

QUICK INFO >>>

Designed from a clean slate approach, the Iron Eagle block has addressed the shortcomings of the Hemi® Gen 3 platform and is the ideal candidate for hot rodders, drag racers, circle track competitors, off-roaders, and high performance marine enthusiasts.

By utilizing conventional style main caps with Gen 3 rotating assemblies and related components, Dart has addressed the windage and oil control problems along with revising the cooling and oiling passages for improved flow. Non-VVT and VVT versions available.





FEATURES

- Priority main oiling system with two lifter crossovers and restrictor provisions.
- Siamesed cylinder bores with extra thick walls.
- Extra thick decks ensure reliable head gasket seal.
- Blind head bolt holes available in 7/16" standard or 1/2" upgrade.
- Scalloped water jackets increase flow around cylinders for better cooling.
- Clearance for 4.050" stroke w/ steel rods.
- Billet steel 4 bolt main caps 1-5, center 3 main caps splayed. Main studs standard.
- Gen 3 Hemi® style motor mounts.
- Provisions for OE stock roller lifters and cam.
- Uses stock timing covers.
- All OE bolt holes for starter, water pump, etc.
- Parts kit included (part# 32000050 Non VVT, Part# 32000051 VVT). Parts kits do not include cam bearings.

IRON EAGLE - GEN III - IRON (NON VVT)

PART NO.	DESCRIPTION	REAR SEAL	CAPS	MAINS	DECK	BORE
31612111	Iron Eagle Gen III Non VVT	Std.	Steel	Std.	9.250"	3.927"
31612211	Iron Eagle Gen III Non VVT	Std.	Steel	Std.	9.250"	4.090"
31612311	Iron Eagle Gen III Non VVT	Std.	Steel	Std.	9.250"	4.125"
31622111	Iron Eagle Gen III Non VVT	Std.	Steel	Std.	9.250"	4.250"

IRON EAGLE GEN III - IRON (VVT)

PART NO.	DESCRIPTION	REAR SEAL	CAPS	MAINS	DECK	BORE
31622211	Iron Eagle Gen III VVT	Std.	Steel	Std.	9.285"	3.927"
31622221	Iron Eagle Gen III VVT	Std.	Steel	Std.	9.285"	4.090"
31622311	Iron Eagle Gen III VVT	Std.	Steel	Std.	9.285"	4.125"
31622321	Iron Eagle Gen III VVT	Std.	Steel	Std.	9.285"	4.250"

SPECIFICATIONS

MATERIAL:	220 BHN Cast Iron
DECK HEIGHT:	9.250" up to 9.285"
CYLINDER BORES:	3.927" up to 4.250"(max)
MAIN BEARINGS:	Stock
MAIN CAPS:	Billet Steel 4-bolt 1-5
CAM LOCATION:	Stock
LIFTER BORES:	Stock .842" Dia.
FREEZE PLUGS:	Press fit
REAR SEAL:	Stock
WEIGHT:	call

*HEMI® is a registered trademark of the Stellantis Corporation.
Not intended for sale or use with pollution controlled vehicles.

SHP SPECIAL HIGH PERFORMANCE

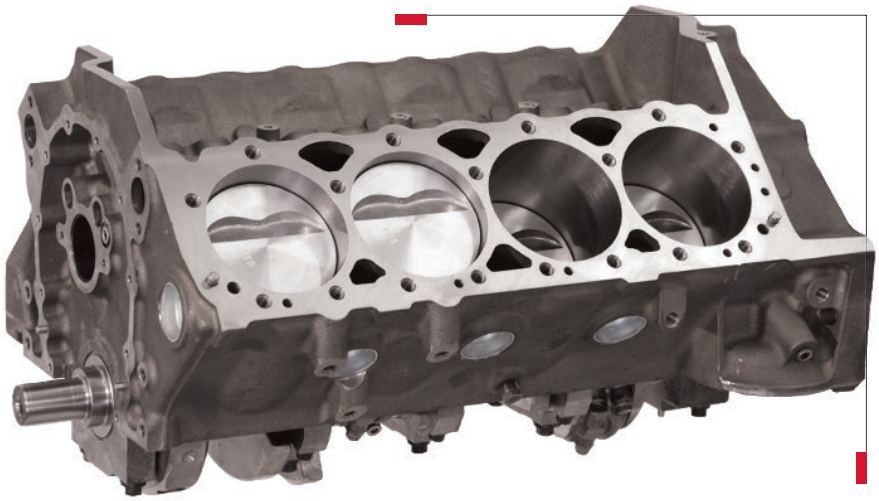
SMALL BLOCK CHEVY SHORT BLOCKS

QUICK INFO »»»
Professionally built short blocks with brand new premium components. Street performance and Sportsman racing.

372, 400, 427 & 434 CUBIC INCHES

Simplify engine building and save time with pre-engineered, dyno tested short block combinations from Dart's SHP (Special High Performance) group.

These quality component packages are designed to allow the user to build more powerful and durable engines at a very affordable cost.



Top off your Dart short block with one of our performance matched top end kits for a great performing engine at an affordable price.

372 CUBIC INCH SHORT BLOCK

Internally Balanced
Special High Performance Dart Block (SHP)
4.125" Bore x 3.480" Stroke
Plate Honed Cylinders
Cast Steel Crankshaft
Forged 4340 I-Beam Rods w/ 3/8" Cap Screws
Hypereutectic Flat Top Pistons w/ Full Floating Pin
Premium Moly Rings
Clevite Bearings
Coated Cam Bearings

Upgrades Available: Forged 4340 Crank, H-Beam Rods w/ 7/16" ARP 2000 Bolts & Forged Pistons.

CR 9.9:1 w/64cc chamber & .041" gasket.

CR 9.1:1 w/72cc chamber & .041" gasket.

400 CUBIC INCH SHORT BLOCK

Internally Balanced
Special High Performance Dart Block (SHP)
4.125" Bore x 3.750" Stroke
Plate Honed Cylinders
Cast Steel Crankshaft
Forged 4340 I-Beam Rods w/ 3/8" Cap Screws
Hypereutectic Flat Top Pistons w/ Full Floating Pin
Premium Moly Rings
Clevite Bearings
Coated Cam Bearings

Upgrades Available: Forged 4340 Crank, H-Beam Rods w/ 7/16" ARP 2000 Bolts & Forged Pistons.

CR 10.8:1 w/64cc chamber & .041" gasket.

CR 10:1 w/72cc chamber & .041" gasket.

427 CUBIC INCH SHORT BLOCK

Internally Balanced
Special High Performance Dart Block (SHP)
4.125" Bore x 4.000" Stroke
Plate Honed Cylinders
Forged 4340 Steel Crankshaft
Forged 4340 H-Beam Rods - 7/16" ARP 2000 Bolts
Forged Flat Top Pistons w/ Full Floating Pin
Premium Moly Rings
Clevite Bearings
Coated Cam Bearings

Options Available: 20cc Dished Pistons. Reduce CR by 1.2.

CR 11.4:1 w/64cc chamber & .041" gasket.

CR 10.5:1 w/72cc chamber & .041" gasket.

***Must use small base circle camshaft.**

434 CUBIC INCH SHORT BLOCK

Internally Balanced
Special High Performance Dart Block (SHP)
4.155" Bore x 4.000" Stroke
Plate Honed Cylinders
Cast Steel Crankshaft
Forged 4340 Steel Crankshaft
Forged 4340 H-Beam Rods - 7/16" ARP 2000 Bolts
Forged Flat Top Pistons w/ Full Floating Pin
Premium Molly Rings
Clevite Bearings
Coated Cam Bearings

CR 11.5:1 w/64cc chamber & .041" gasket.

CR 10.6:1 w/72cc chamber & .041" gasket.

***Must use small base circle camshaft.**

SHP CHEVY SHORT BLOCKS

PART NO.	DESCRIPTION	CRANK	PISTONS	RODS	STROKE	BORE	BALANCE
03113722	372 SHP	Cast	Hyper	I-Beam	3.480"	4.125"	Internal
03113722-Forged	372 SHP	Forged	Forged	H-Beam	3.480"	4.125"	Internal
03114002	400 SHP	Cast	Cast	I-Beam	3.750"	4.125"	Internal
03114002-Forged	400 SHP	Forged	Forged	H-Beam	3.750"	4.125"	Internal
03124272FT	427 SHP	Forged	Forged	H-Beam	4.000"	4.125"	Internal
03124342	434 SHP	Forged	Forged	H-Beam	4.000"	4.155"	Internal

SMALL BLOCK CHEVY
TOP END KITS - CAST IRON OR CAST ALUMINUM

QUICK INFO >>>
Performance matched top end kits from Dart are the perfect way to finish off your Dart short block or upgrade your existing engine.

Dart top end kits for small block Chevy engines offer a full complement of performance matched parts that make building your engine simple and easy. These kits were designed to deliver excellent performance at a great price.

DART TOP END KITS INCLUDE

- Fully assembled cylinder heads.
- Chromed steel valve covers - standard (cast upgrade available).
- Intake manifold, selected to compliment the cylinder heads.
- Intake gaskets, head gaskets, and exhaust gaskets.
- Spark plugs.
- Head bolts.

SHP SPECIAL HIGH PERFORMANCE

See page 27-28 for more information on SHP cylinder heads used in these kits.

SBC TOP END KITS WITH DART SHP CYLINDER HEADS

PART NO.	HEADS	PORTS	CHAMBER	PLUGS	VALVES	SPRINGS	MANIFOLD
01411111	SHP	180cc	64cc	Straight	2.020"/1.600"	1.250"	Dual Plane 4150
01411112	SHP	180cc	64cc	Straight	2.020"/1.600"	1.437"	Dual Plane 4150
01411121	SHP	180cc	72cc	Straight	2.020"/1.600"	1.250"	Dual Plane 4150
01411122	SHP	180cc	72cc	Straight	2.020"/1.600"	1.437"	Dual Plane 4150
01411132	SHP	200cc	64cc	Straight	2.020"/1.600"	1.437"	Dual Plane 4150
01411142	SHP	200cc	72cc	Straight	2.020"/1.600"	1.437"	Dual Plane 4150

PRO 1

See pages 29-35 for more information on PRO1 cylinder heads used in these kits.

SBC TOP END KITS WITH DART PRO1 CYLINDER HEADS

PART NO.	HEADS	PORTS	CHAMBER	PLUGS	VALVES	SPRINGS	MANIFOLD
01211111	PRO1	180cc	64cc	Straight	2.020"/1.600"	1.250"	Dual Plane 4150
01211112	PRO1	180cc	64cc	Straight	2.020"/1.600"	1.437"	Dual Plane 4150
01211101	PRO1	200cc	64cc	Straight	2.020"/1.600"	1.250"	Dual Plane 4150
01211102	PRO1	200cc	64cc	Straight	2.020"/1.600"	1.437"	Dual Plane 4150
01211002	PRO1	215cc	64cc	Straight	2.050"/1.600"	1.437"	Single Plane 4150
01210002	PRO1	215cc	64cc	Angle	2.050"/1.600"	1.437"	Single Plane 4150
01211003	PRO1	230cc	64cc	Straight	2.080"/1.600"	1.550"	Single Plane 4150
01210003	PRO1	230cc	64cc	Angle	2.080"/1.600"	1.550"	Single Plane 4150

***Also available with 72cc combustion chambers. Call Dart for details.**

SHP SPECIAL HIGH PERFORMANCE

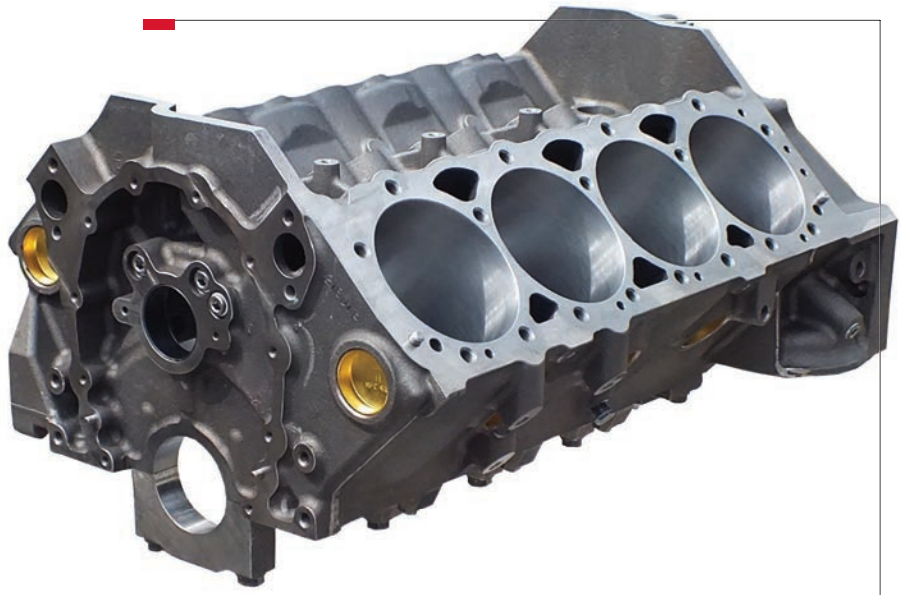
SMALL BLOCK CHEVY
CAST IRON ENGINE BLOCKS

SIAMESE AND NON-SIAMESE

QUICK INFO >>>
Excellent upgrade or stock replacement block.
Street performance, Sportsman racing.

Designed for high performance and medium duty applications, the SHP (Special High Performance) block is the ideal starting point for hot rodders, drag racers, circle track competitors, off-roaders, and high performance marine enthusiasts.

Don't waste your valuable time sourcing, cleaning, machining and prepping a 40 year-old core when you can have a brand new precision machined block with all the most desirable features for just a few dollars more.



FEATURES

- Priority main oiling system.
- Siamese cylinder bores with extra thick walls.
- Optional full water jacketed non-siamese cylinder bores.
- Extra thick decks ensure reliable head gasket seal.
- Blind head bolt holes don't go through to water jacket.
- Scalloped water jacket walls improve flow around cylinders for better cooling.
- Clearance for 3.750" stroke with steel rods.
- Splayed outer bolts on middle main bearing caps.
- Non-siamese water blocks have 2-bolt mains on all 5 locations.
- Uses + .300" tall stock 87-95 roller lifters.
- Provisions for OE stock roller lifters & cams.
- Uses 1981-1985 stock style oil pan & passenger side dipstick.
- Uses stock stamped steel or plastic timing cover.
- All OE bolt holes for starter, clutch ball, etc.
- Oil restrictors available through aftermarket resources.
- Parts kit sold separately (PN 32000013)

SPECIAL HIGH PERFORMANCE (SIAMESE) - IRON

PART NO.	DESCRIPTION	REAR SEAL	CAPS	MAINS	DECK	BORE
31161111	SHP Block	2-Piece	Ductile	350	9.025"	4.000"
31161211	SHP Block	2-Piece	Ductile	350	9.025"	4.125"
31161111L	SHP Block	1-Piece*	Ductile	350	9.025"	4.000"
31161211L	SHP Block	1-Piece*	Ductile	350	9.025"	4.125"
31162111	SHP Block	2-Piece	Ductile	400	9.025"	4.000"
31162211	SHP Block	2-Piece	Ductile	400	9.025"	4.125"

SPECIAL HIGH PERFORMANCE WATER (NON-SIAMESE) / (2-BOLT) - IRON

PART NO.	DESCRIPTION	REAR SEAL	CAPS	MAINS	DECK	BORE
31171111L	SHP Block Non-Siamese	1-Piece*	2-Bolt Ductile	350	9.025"	4.000"

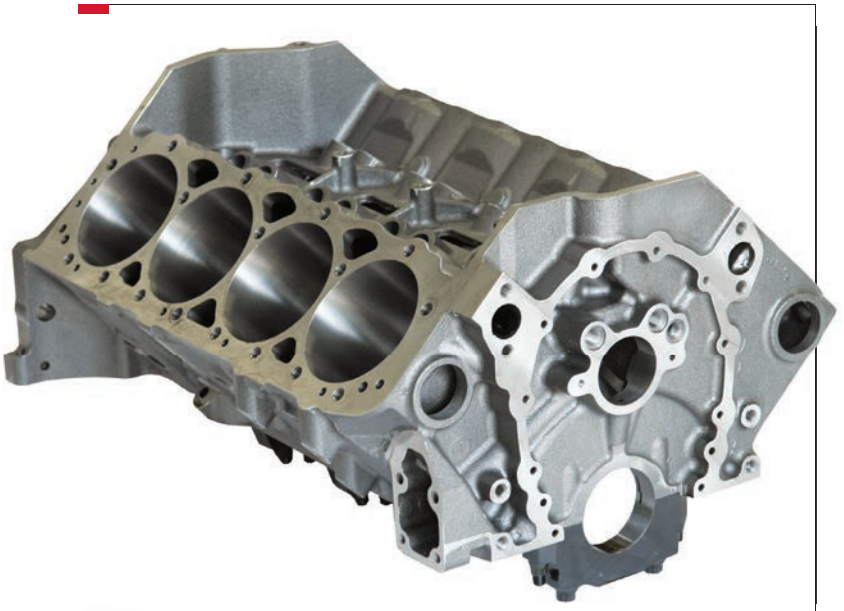
Adapter for 1-Piece rear seal is included.

SHP SPECS

Material:	Class 30 Grey Iron
Deck Height:	9.025"
Cylinder Bores	4.000" or 4.125"
Siamesed:	4.165" (max)
Non-Siamesed:	4.000" to 4.060" (max)
Main Bearings:	350 or 400
Main Caps:	Ductile Iron 4-bolt #2, 3 & 4 2-bolt #1 & 5
Cam Location:	Stock
Lifter Bores:	Stock 87-95 style
Freeze Plugs:	Press fit
Rear Seal:	1 or 2-Piece
Weight:	170-178 lbs.

SHP PRO
SPECIAL HIGH PERFORMANCE

SMALL BLOCK CHEVY
CAST IRON ENGINE BLOCKS



QUICK INFO >>>

Upgraded version of the SHP for high RPM applications. Emphasis on racing use.

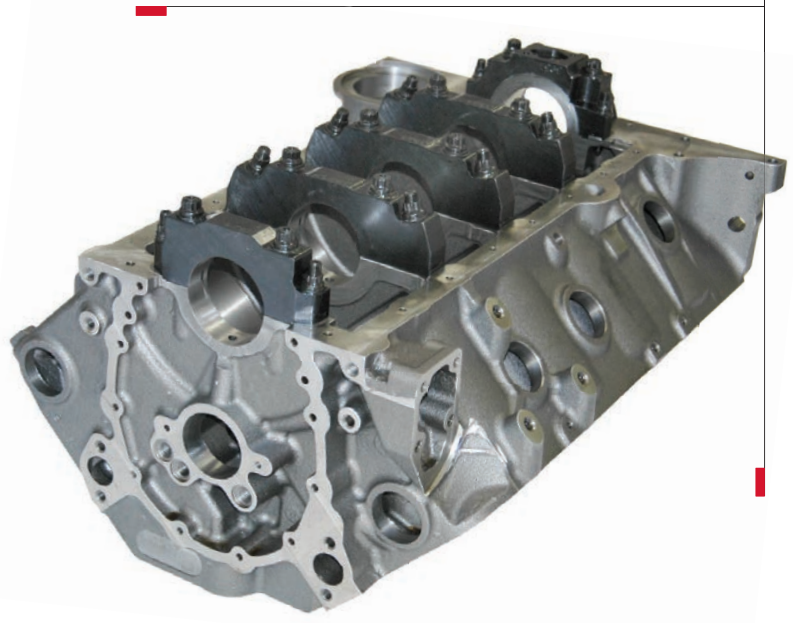
The SHP PRO has been upgraded with machining options which were previously only available as custom modifications.

With all the standard features of the SHP (Special High Performance) block plus upgraded mains, cam and lifters, the SHP PRO block is the ideal foundation for small block engines with high RPM potential. The added stability provided by upgraded valve train and bottom end components improve both performance and reliability at sustained high RPM.

UPGRADES

- Upgraded with Billet Steel 4-bolt main caps.
- Upgraded with ARP main stud kit.
- Upgraded with .904" lifter bores.
- Upgraded with BBC cam journal.
- Parts kit included (PN 32000030).

Parts kits do not include cam bearings.



PLUS STANDARD SHP FEATURES

- Priority main oiling system.
- Oil restrictors available through aftermarket resources.
- Siamese cylinder bores with extra thick walls.
- Extra thick decks ensure a reliable head gasket seal.
- Blind head bolt holes don't go through to water jacket.
- Clearance for 3.750" stroke w/steel rods.
- Splayed outer bolts on middle main bearing caps.
- All OE bolt holes for starter, clutch ball, etc.

SPECIAL HIGH PERFORMANCE PRO - IRON

PART NO.	DESCRIPTION	REAR SEAL	CAPS	MAINS	DECK	BORE
31161112	SHP PRO	2-Piece	Steel	350	9.025"	4.000"
31161212	SHP PRO	2-Piece	Steel	350	9.025"	4.125"
31162112	SHP PRO	2-Piece	Steel	400	9.025"	4.000"
31162212	SHP PRO	2-Piece	Steel	400	9.025"	4.125"

SHP PRO SPECS

Material:	Class 30 Grey Iron
Deck Height:	9.025"
Cylinder Bores:	4.000" or 4.125"
Main Bearings:	350 or 400
Main Caps:	Steel 4-Bolt (All)
Cam Location:	Stock
Lifter Bores:	.904" Dia.
Freeze Plugs:	Press fit
Rear Seal:	2-Piece
Weight:	170-178lbs

SHP SPECIAL HIGH PERFORMANCE

305 WATER SMALL BLOCK CHEVY CAST IRON ENGINE BLOCKS

NEW

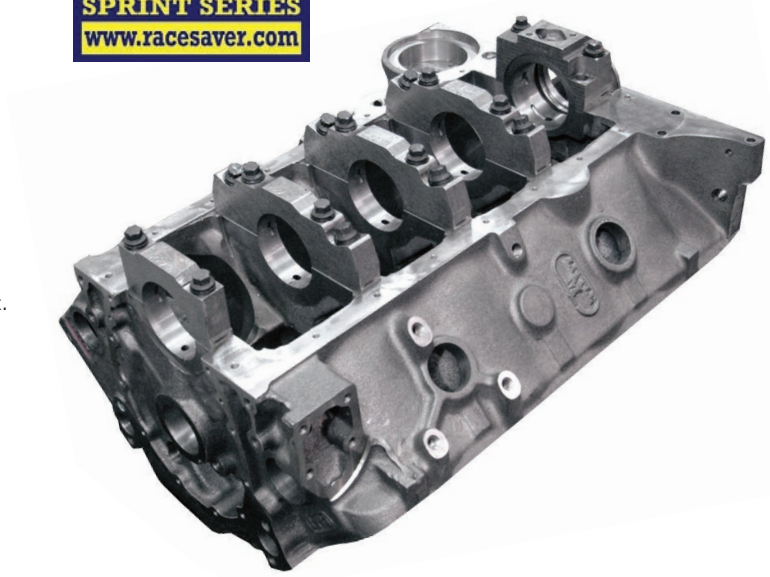
QUICK INFO >>>

Excellent upgrade for stock replacement, street performance, Sportsman racing, circle track and legal for **305 RACESAVER® Sprint Series**.

Designed for high performance and medium duty applications, the SHP (Special High Performance) block is the ideal starting point for hot rodders, drag racers, circle track competitors, off-roaders, and high-performance marine enthusiasts.

Don't waste your valuable time sourcing, cleaning, machining and prepping a 40-year-old core when you can have a brand-new precision machined block with all the most desirable features for just a few dollars more.

RACESAVER SPRINT SERIES www.racesaver.com



FEATURES

- Priority main oiling system.
- Extra thick decks ensure reliable head gasket seal.
- Blind head bolt holes don't go through to water jacket.
- Scalloped water jacket walls improve flow around cylinders for better cooling.
- 4 Bolt Splayed main caps on 2-4 mains.
- Uses + .300" tall stock 87-95 roller lifters.
- Provisions for OE stock roller lifters & cams.
- Uses 1981-1985 stock style oil pan & passenger side dipstick.
- Uses stock stamped steel or plastic timing cover.
- All OE bolt holes for starter, clutch ball, etc.
- Oil restrictors available through aftermarket resources.
- Parts kit included (PN 32000030).

Parts kit does not include cam bearings.

LITTLE M 305 WATER SPECS

Material:	220 BHN Cast Iron
Deck Height:	9.025"
Cylinder Bores:	3.750" 3.810" (max)
Main Caps:	Ductile
Cam Location:	Standard Iron
Lifter Bores:	Standard .842"
Freeze Plugs:	Press fit
Rear Seal:	2-Piece
Weight:	194 lbs.

SPECIAL HIGH PERFORMANCE WATER - IRON

PART NO.	DESCRIPTION	REAR SEAL	CAPS	MAINS	DECK	BORE
31161411	SHP Block 305	2-Piece	Ductile	350	9.025"	3.750"

LITTLE M SPORTSMAN SMALL BLOCK CHEVY CAST IRON ENGINE BLOCKS

QUICK INFO >>>

Excellent racing, marine performance upgrade or stock replacement block. Street performance, Sportsman racing.

Dart's Little M Sportsman block is the affordable alternative for Sportsman racers and serious street performance.

The Sportsman block shares most of the Little M's best features, but saves you money by using Ductile Iron main bearing caps (4-bolt on the center three and 2-bolt on the ends), and employing a rear external oil feed, crossover and restrictor provision.

FEATURES

- Uses standard small block parts, including cam, timing chain, oil pump, oil pan, oil filter, motor mounts, mechanical fuel pump, and clutch linkage.
- Priority main oiling system feeds the main bearings first.
- Siamese cylinder bores with extra thick walls resist cracking and improve ring seal for more power (minimum .275" thick with 4.185" bore).
- Scalloped water jacket walls improve flow around cylinders for better cooling.
- Open lifter valley improves oil return to pan.
- Solid lifter bar design, to allow for offset and oversize lifters.
- Blind head bolt holes don't go through to water jacket.
- Splayed outer bolts on middle main bearing caps.
- Rear external oil feed, crossover and restrictor provision.
- Parts kit sold separately (PN 32000021)

LITTLE M SPORTSMAN - IRON

PART NO.	DESCRIPTION	REAR SEAL	CAPS	MAINS	DECK	BORE
31191111	Sportsman Block	2-Piece	Ductile	350	9.025"	4.000"
31191211	Sportsman Block	2-Piece	Ductile	350	9.025"	4.125"
31192111	Sportsman Block	2-Piece	Ductile	400	9.025"	4.000"
31192211	Sportsman Block	2-Piece	Ductile	400	9.025"	4.125"

LITTLE M SPORTSMAN SPECS

Material:	220 BHN Cast Iron
Deck Height:	9.025" (stock)
Cylinder Bores:	4.000" or 4.125" 4.185" (max)
Main Bearings:	350 or 400
Main Caps:	Ductile Iron 4-bolt #2, 3 & 4 2-bolt #1 & 5
Cam Location:	Stock
Lifter Bores:	Stock .842"
Freeze Plugs:	Press fit
Rear Seal:	2-Piece
Weight:	197-205 lbs.

Not intended for sale or use with pollution controlled vehicles.

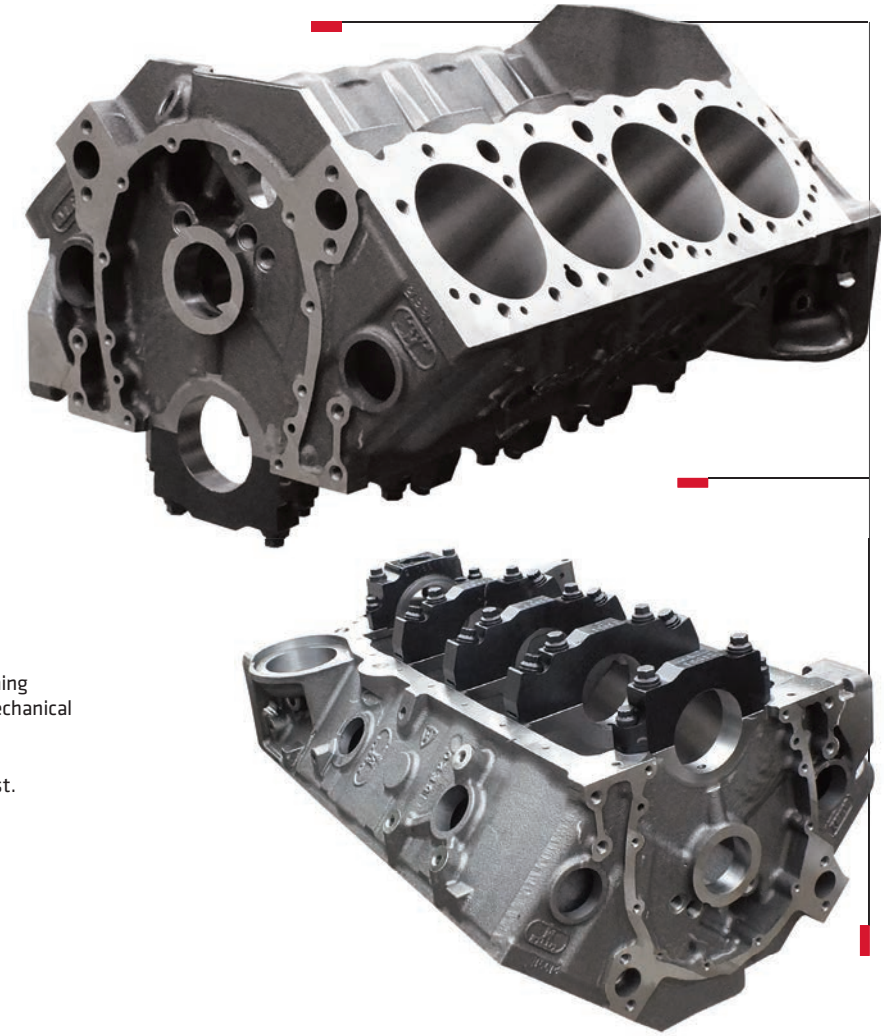
LITTLE M
SMALL BLOCK CHEVY CAST IRON ENGINE BLOCKS

QUICK INFO >>>

True race block which will work with most standard components. Provisions for wet or dry sump oiling systems. Great for power adders and maximum effort engines.

The Dart Little M is designed from the ground up as a true racing engine block which can be used with standard off the shelf small block components.

The Little M is cast from premium high strength Iron and beefed up in all the critical areas. A competition oiling system ensures adequate lubrication to the main bearings at high RPM. Front and rear external oil feed, crossover and restrictor provision simplify plumbing with external pumps.



FEATURES

- Uses standard small block parts, including cam, timing chain, oil pump, oil pan, oil filter, motor mounts, mechanical fuel pump, and clutch linkage.
- Priority main oiling system feeds main bearings first.
- Siamese cylinder bores with extra thick walls resist cracking and improve ring seal for more power (minimum .275" thick with 4.185" bore).
- Open lifter valley improves oil return to pan.
- Enlarged lifter bosses accommodate offset and oversize lifters.
- Blind head bolt holes don't go through to water jacket.
- Billet steel 4-bolt main bearing caps on all 5 mains.
- Front & rear external oil feed, crossover and restrictor provision to simplify use of external oil pumps.
- Parts kit included (PN 32000028).
  Parts kits do not include cam bearings.

Dart blocks can be special ordered with a wide array of special machining options to suit your specific requirements.

LITTLE M SPECS

Material:	220 BHN Cast Iron
Deck Height:	9.025" (stock)
Cylinder Bores:	4.000" or 4.125" 4.185"(max)
Main Bearings:	350 or 400
Main Caps:	Steel 4-bolt
Cam Location:	Stock
Lifter Bores:	Stock .842"
Freeze Plugs:	Press fit
Rear Seal:	2-Piece
Weight:	197-205 lbs.

LITTLE M - IRON

PART NO.	DESCRIPTION	REAR SEAL	CAPS	MAINS	DECK	BORE
31181111	Little M	2-Piece	Steel	350	9.025"	4.000"
31181211	Little M	2-Piece	Steel	350	9.025"	4.125"
31182111	Little M	2-Piece	Steel	400	9.025"	4.000"
31182211	Little M	2-Piece	Steel	400	9.025"	4.125"

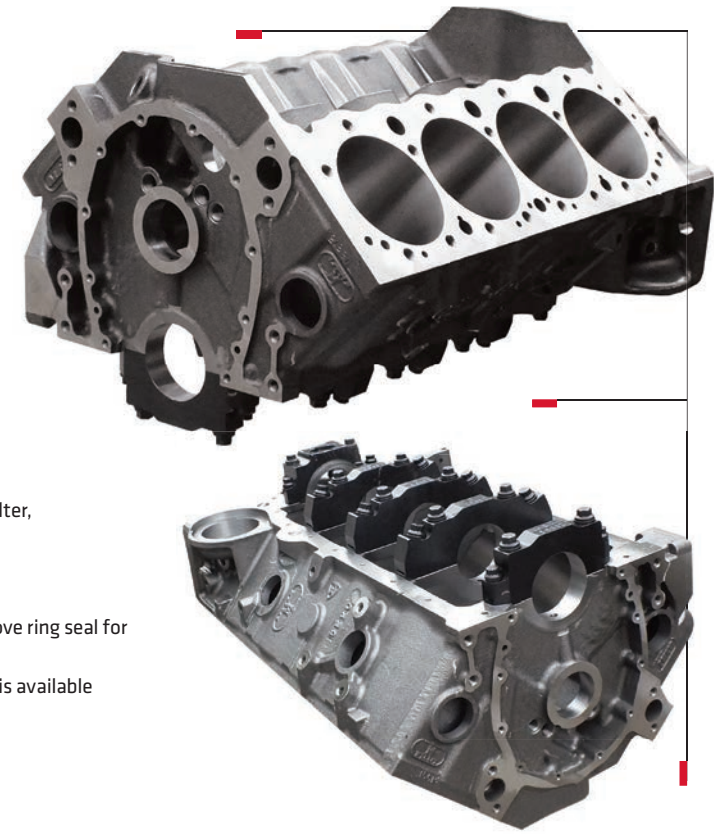
SMALL BLOCK CHEVY
CAST IRON ENGINE BLOCKS

QUICK INFO >>>

True race block which will work with most standard components. Provisions for wet or dry sump oiling systems. Great for power adders and maximum effort engines.

The Dart Little M is designed from the ground up as a true racing engine block which can be used with standard off the shelf small block components.

The Little M is cast from premium high strength Iron and beefed up in all the critical areas. A competition oiling system ensures adequate lubrication to the main bearings at high RPM. Front and rear external oil feed, crossover and restrictor provision simplify plumbing with external pumps.



FEATURES

- Uses standard small block parts, including cam, oil pump, oil pan, oil filter, motor mounts, mechanical fuel pump, and clutch linkage.
- Priority main oiling system feeds main bearings first.
- Center lifter oil crossover for improved lifter oiling.
- Siamese cylinder bores with extra thick walls resist cracking and improve ring seal for more power (minimum .275" thick with 4.185" bore).
- Lifter valley not drilled for oil drainbacks, machining for oil drainbacks is available as a machining option by request.
- Solid lifter bar design, to allow for offset and oversize lifters.
- Blind head bolt holes don't go through to water jacket.
- Billet steel 4-bolt main caps on all 5 mains.
- Standard oil pan rail width.
- Oil gallery holes machined for o-ring plugs.
- Parts kit included (PN 32000028). Parts kits do not include cam bearings.

Dart blocks can be special ordered with a wide array of special machining options to suit your specific requirements.

LITTLE M² - IRON

PART NO.	DESCRIPTION	CAM LOC.	CAM	REAR SEAL	CAPS	MAINS	DECK	BORE
31181115	Little M2	Raised .391"	Std	2-Piece	Steel	350	9.025"	4.000"
31181215	Little M2	Raised .391"	Std	2-Piece	Steel	350	9.025"	4.125"
31182115	Little M2	Raised .391"	Std	2-Piece	Steel	400	9.025"	4.000"
31182215	Little M2	Raised .391"	Std	2-Piece	Steel	400	9.025"	4.125"
31181125	Little M2	Raised .391"	Std	2-Piece	Steel	350	9.325"	4.000"
31181225	Little M2	Raised .391"	Std	2-Piece	Steel	350	9.325"	4.125"
31182125	Little M2	Raised .391"	Std	2-Piece	Steel	400	9.325"	4.000"
31182225	Little M2	Raised .391"	Std	2-Piece	Steel	400	9.325"	4.125"
31181135	Little M2	Raised .391"	Std	2-Piece	Steel	350	9.500"	4.000"
31181235	Little M2	Raised .391"	Std	2-Piece	Steel	350	9.500"	4.125"
31182135	Little M2	Raised .391"	Std	2-Piece	Steel	400	9.500"	4.000"
31182235	Little M2	Raised .391"	Std	2-Piece	Steel	400	9.500"	4.125"
31181115-55	Little M2	Raised .391"	55mm	2-Piece	Steel	350	9.025"	4.000"
31181215-55	Little M2	Raised .391"	55mm	2-Piece	Steel	350	9.025"	4.125"
31182115-55	Little M2	Raised .391"	55mm	2-Piece	Steel	400	9.025"	4.000"
31182215-55	Little M2	Raised .391"	55mm	2-Piece	Steel	400	9.025"	4.125"
31181125-55	Little M2	Raised .391"	55mm	2-Piece	Steel	350	9.325"	4.000"
31181225-55	Little M2	Raised .391"	55mm	2-Piece	Steel	350	9.325"	4.125"
31182125-55	Little M2	Raised .391"	55mm	2-Piece	Steel	400	9.325"	4.000"
31182225-55	Little M2	Raised .391"	55mm	2-Piece	Steel	400	9.325"	4.125"
31181135-55	Little M2	Raised .391"	55mm	2-Piece	Steel	350	9.500"	4.000"
31181235-55	Little M2	Raised .391"	55mm	2-Piece	Steel	350	9.500"	4.125"
31182135-55	Little M2	Raised .391"	55mm	2-Piece	Steel	400	9.500"	4.000"
31182235-55	Little M2	Raised .391"	55mm	2-Piece	Steel	400	9.500"	4.125"

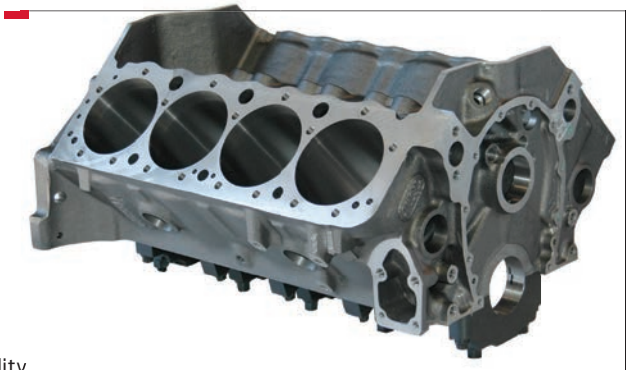
LITTLE M² SPECS

Material:	220 BHN Cast Iron
Deck Height:	9.025", 9.325" or 9.500"
Cylinder Bores:	4.000" or 4.125" 4.185"(max)
Main Bearings:	350 or 400
Main Caps:	Steel 4-bolt
Cam Location:	Raised .391"
Lifter Bores:	Stock .842"
Freeze Plugs:	Press fit
Rear Seal:	2-Piece
Weight:	197-205 lbs.

SMALL BLOCK CHEVY
CAST IRON ENGINE BLOCKS

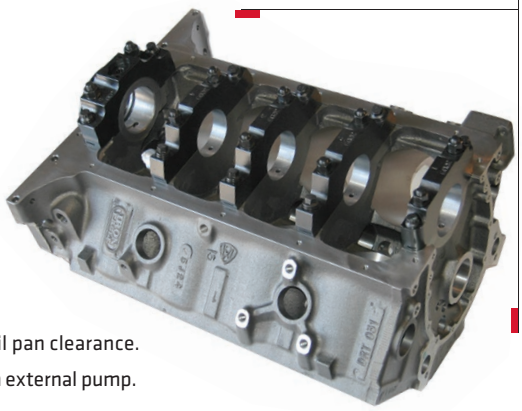
QUICK INFO >>>

Race block available with tall deck and with raised cam location. Provisions for wet or dry sump oiling systems. Maximum effort racing engines.



Iron Eagle small blocks are available in standard (9.025") and tall deck (9.325") versions so you can select the crankshaft stroke and connecting rod length that's right for your combination.

We raised the camshaft and spread the oil pan rails to provide extra clearance for stroker cranks. The versatile Iron Eagle block is the perfect starting point for a big cubic inch small block project.



FEATURES

- Standard 9.025" and tall deck 9.325" or 9.500" versions allow greater versatility.
- Raised camshaft .391" (4.912" camshaft-to-crankshaft centerlines) provides more clearance for stroker cranks and eliminates need for fragile small base circle cams. Option for .434 raised cam available as special order upgrade.
- Relocated oil pan rails are spread .400" per side (.800" wider than stock) to increase crank/rod clearance and reduce windage losses.
- Requires use of remote oil filter. No provision for block mounted filters.
- Oil pan bolt holes are relocated in line with main caps to eliminate interference with rotating assembly.
- Big block camshaft bearings allow the use of cams with larger base circle diameter to improve strength and reduce twisting with cam-driven pumps (small block cam tunnel available).
- Dual starter mounts allow starter to be mounted on either side of block for chassis and oil pan clearance.
- Front & rear external oil inlets, crossovers, and restrictor provisions to simplify plumbing with external pump.
- Parts kit included (PN 32000052) Parts kits do not include cam bearings.

IRON EAGLE - IRON

PART NO.	DESCRIPTION	CAM LOC.	CAM	REAR SEAL	CAPS	MAINS	DECK	BORE
31121111	Iron Eagle	Raised .391"	Std	2-Piece	Steel	350	9.025"	4.000"
31121112	Iron Eagle	Raised .391"	BBC	2-Piece	Steel	350	9.025"	4.000"
31121112-55	Iron Eagle	Raised .391"	55mm	2-Piece	Steel	350	9.025"	4.000"
31121121	Iron Eagle	Raised .391"	Std	2-Piece	Steel	350	9.325"	4.000"
31121122	Iron Eagle	Raised .391"	BBC	2-Piece	Steel	350	9.325"	4.000"
31121122-55	Iron Eagle	Raised .391"	55mm	2-Piece	Steel	350	9.325"	4.000"
31121211	Iron Eagle	Raised .391"	Std	2-Piece	Steel	350	9.025"	4.125"
31121212	Iron Eagle	Raised .391"	BBC	2-Piece	Steel	350	9.025"	4.125"
31121212-55	Iron Eagle	Raised .391"	55mm	2-Piece	Steel	350	9.025"	4.125"
31121221	Iron Eagle	Raised .391"	Std	2-Piece	Steel	350	9.325"	4.125"
31121222	Iron Eagle	Raised .391"	BBC	2-Piece	Steel	350	9.325"	4.125"
31121222-55	Iron Eagle	Raised .391"	55mm	2-Piece	Steel	350	9.325"	4.125"
31122311	Iron Eagle	Raised .391"	Std	2-Piece	Steel	350	9.500"	4.125"
31122312	Iron Eagle	Raised .391"	BBC	2-Piece	Steel	350	9.500"	4.125"
31122312-55	Iron Eagle	Raised .391"	55mm	2-Piece	Steel	350	9.500"	4.125"
31122111	Iron Eagle	Raised .391"	Std	2-Piece	Steel	400	9.025"	4.000"
31122112	Iron Eagle	Raised .391"	BBC	2-Piece	Steel	400	9.025"	4.000"
31122112-55	Iron Eagle	Raised .391"	55mm	2-Piece	Steel	400	9.025"	4.000"
31122121	Iron Eagle	Raised .391"	Std	2-Piece	Steel	400	9.325"	4.000"
31122122	Iron Eagle	Raised .391"	BBC	2-Piece	Steel	400	9.325"	4.000"
31122122-55	Iron Eagle	Raised .391"	55mm	2-Piece	Steel	400	9.325"	4.000"
31122211	Iron Eagle	Raised .391"	Std	2-Piece	Steel	400	9.025"	4.125"
31122212	Iron Eagle	Raised .391"	BBC	2-Piece	Steel	400	9.025"	4.125"
31122212-55	Iron Eagle	Raised .391"	55mm	2-Piece	Steel	400	9.025"	4.125"
31122221	Iron Eagle	Raised .391"	Std	2-Piece	Steel	400	9.325"	4.125"
31122222	Iron Eagle	Raised .391"	BBC	2-Piece	Steel	400	9.325"	4.125"
31122222-55	Iron Eagle	Raised .391"	55mm	2-Piece	Steel	400	9.325"	4.125"
31122321	Iron Eagle	Raised .391"	Std	2-Piece	Steel	400	9.500"	4.125"
31122322	Iron Eagle	Raised .391"	BBC	2-Piece	Steel	400	9.500"	4.125"
31122322-55	Iron Eagle	Raised .391"	55mm	2-Piece	Steel	400	9.500"	4.125"

IRON EAGLE SPECS

Material:	220 BHN Cast Iron
Deck Heights:	9.025" and 9.325"
Cylinder Bores:	4.000" or 4.125" 4.185" (max)
Main Bearings:	350 or 400
Main Caps:	Steel 4-bolt
Oil Pan Rails:	Spread .400"/side
Cam Location:	Raised .391" or .434"
Cam Journal:	BBC or SBC
Lifter Bores:	Stock .842"
Freeze Plugs:	Press fit
Rear Seal:	2-Piece
Weight:	198-224 lbs.

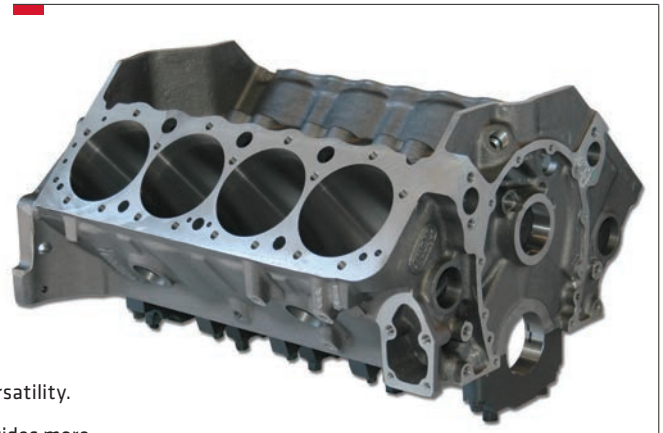
Not intended for sale or use with pollution controlled vehicles.

IRON EAGLE 4.500" BORE SPACE SMALL BLOCK CHEVY CAST IRON ENGINE BLOCKS

QUICK INFO >>>

Advanced engine builders, maximum competition, unlimited late model, off-road truck. Spread bore space requires special 4.500" cylinder heads and components..

This block features cylinder bores which have been spread to 4.500" from the standard 4.400" center to center dimension. This allows larger bore diameters while maintaining adequate cylinder wall thickness and gasket sealing surface between bores.



FEATURES

- 4.500" bore spacing allows bore sizes up to 4.250".
- Standard 9.025" and tall deck 9.325" or 9.500" versions allow greater versatility.
- Raised camshaft .391" (4.912" camshaft-to-crankshaft centerlines) provides more clearance for stroker cranks and eliminates need for fragile small base circle cams. Option for .434 raised cam available as special order upgrade.
- Relocated oil pan rails are spread .400" per side (.800" wider than stock) to increase crank/rod clearance and reduce windage losses.
- Requires use of remote oil filter. No provision for block mounted filters.
- Oil pan bolt holes are relocated in line with main caps to eliminate interference with rotating assembly.
- Big block camshaft bearings allow the use of cams with larger base circle diameter to improve strength and reduce twisting with cam-driven pumps.
- Dual starter mounts allow starter to be mounted on either side of block for chassis and oil pan clearance.
- Front & rear external oil inlets, crossovers, and restrictor provisions to simplify plumbing with external pump.
- Parts kit included (PN 32000052) Parts kits do not include cam bearings.

IRON EAGLE 4.500" BORE SPACE - IRON

PART NO.	DESCRIPTION	CAM LOC.	CAM	CAPS	MAINS	DECK	BORE
31521312	Iron Eagle 4.500" BS	Raised .391"	BBC	Steel	350	9.025"	4.180"
31521313	Iron Eagle 4.500" BS	Raised .391"	50mm	Steel	350	9.025"	4.180"
31521313-55	Iron Eagle 4.500" BS	Raised .391"	55mm	Steel	350	9.025"	4.180"
31521342	Iron Eagle 4.500" BS	Raised .391"	BBC	Steel	350	9.075"	4.180"
31521343	Iron Eagle 4.500" BS	Raised .391"	50mm	Steel	350	9.075"	4.180"
31521343-55	Iron Eagle 4.500" BS	Raised .391"	55mm	Steel	350	9.075"	4.180"
31521322	Iron Eagle 4.500" BS	Raised .391"	BBC	Steel	350	9.325"	4.180"
31521323	Iron Eagle 4.500" BS	Raised .391"	50mm	Steel	350	9.325"	4.180"
31521323-55	Iron Eagle 4.500" BS	Raised .391"	55mm	Steel	350	9.325"	4.180"
31521332	Iron Eagle 4.500" BS	Raised .391"	BBC	Steel	350	9.500"	4.180"
31521333	Iron Eagle 4.500" BS	Raised .391"	50mm	Steel	350	9.500"	4.180"
31521333-55	Iron Eagle 4.500" BS	Raised .391"	55mm	Steel	350	9.500"	4.180"
31522312	Iron Eagle 4.500" BS	Raised .391"	BBC	Steel	400	9.025"	4.180"
31522313	Iron Eagle 4.500" BS	Raised .391"	50mm	Steel	400	9.025"	4.180"
31522313-55	Iron Eagle 4.500" BS	Raised .391"	55mm	Steel	400	9.025"	4.180"
31522342	Iron Eagle 4.500" BS	Raised .391"	BBC	Steel	400	9.075"	4.180"
31522343	Iron Eagle 4.500" BS	Raised .391"	50mm	Steel	400	9.075"	4.180"
31522343-55	Iron Eagle 4.500" BS	Raised .391"	55mm	Steel	400	9.075"	4.180"
31522322	Iron Eagle 4.500" BS	Raised .391"	BBC	Steel	400	9.325"	4.180"
31522323	Iron Eagle 4.500" BS	Raised .391"	50mm	Steel	400	9.325"	4.180"
31522323-55	Iron Eagle 4.500" BS	Raised .391"	55mm	Steel	400	9.325"	4.180"
31522332	Iron Eagle 4.500" BS	Raised .391"	BBC	Steel	400	9.500"	4.180"
31522333	Iron Eagle 4.500" BS	Raised .391"	50mm	Steel	400	9.500"	4.180"
31522333-55	Iron Eagle 4.500" BS	Raised .391"	55mm	Steel	400	9.500"	4.180"

IRON EAGLE 4.500" SPECS

Material:	220 BHN Cast Iron
Deck Height:	9.025" to 9.325"
Bore Spacing:	4.500"
Cylinder Bores:	4.180" 4.250" (max)
Main Bearings:	350 or 400
Main Caps:	Steel 4-bolt
Oil Pan Rails:	Spread .400"/side
Cam Location:	Raised .391" or .434"
Cam Journal:	BBC, 50mm or 55mm
Lifter Bores:	Stock .842"
Freeze Plugs:	Press fit
Rear Seal:	2-Piece
Weight:	208-224 lbs.

RACE SERIES

SMALL BLOCK CHEVY
CAST ALUMINUM ENGINE BLOCKS

QUICK INFO >>>

Race block available with tall deck and with raised cam location. Can be used in Sprint car, modified and late model stock car classes. As well as dragster and unlimited competition classes

We created all new tooling and added superior new features like central oil cross-overs and extended cylinder barrels. Deck heights from 8.850" to 9.500" are available. Dart's Aluminum small block is light, strong, and affordable.

FEATURES

- Deck heights from 8.850" to 9.500" provide maximum versatility. Cylinder barrels are extended at the bottom for better piston support with long strokes.
- Raised camshaft (+.391") provides more clearance for stroker cranks and eliminates need for fragile small base circle cams. Option for .434" raised cam also available as special order upgrade.
- Siamese 4.000" or 4.125" cylinders can be safely bored to 4.165". Ductile Iron sleeves and extra thick walls produce excellent ring seal.
- Requires use of remote oil filter. No provision for block mounted filters.
- Relocated oil pan rails are spread .400" per side (.800" wider than stock). Oil pan bolt holes are relocated in line with main caps.
- Big block camshaft bearings allow the use of cams with larger base circle diameter to improve strength and reduce twisting with cam driven pumps.
- Rear external oil inlets, with crossovers and restrictor provisions located centrally in the valley to simplify plumbing with external pump.

RACE SERIES - ALUMINUM

PART NO.	DESCRIPTION	CAM LOC.	CAM	CAPS	MAINS	DECK	BORE
31711152	SBC Aluminum	Raised .391"	BBC	Steel	350	8.850"	4.000"
31711153	SBC Aluminum	Raised .391"	50mm	Steel	350	8.850"	4.000"
31711153-55	SBC Aluminum	Raised .391"	55mm	Steel	350	8.850"	4.000"
31711252	SBC Aluminum	Raised .391"	BBC	Steel	350	8.850"	4.125"
31711253	SBC Aluminum	Raised .391"	50mm	Steel	350	8.850"	4.125"
31711253-55	SBC Aluminum	Raised .391"	55mm	Steel	350	8.850"	4.125"
31711112	SBC Aluminum	Raised .391"	BBC	Steel	350	9.025"	4.000"
31711113	SBC Aluminum	Raised .391"	50mm	Steel	350	9.025"	4.000"
31711113-55	SBC Aluminum	Raised .391"	55mm	Steel	350	9.025"	4.000"
31711212	SBC Aluminum	Raised .391"	BBC	Steel	350	9.025"	4.125"
31711213	SBC Aluminum	Raised .391"	50mm	Steel	350	9.025"	4.125"
31711213-55	SBC Aluminum	Raised .391"	55mm	Steel	350	9.025"	4.125"
31711242	SBC Aluminum	Raised .391"	BBC	Steel	350	9.075"	4.125"
31711243	SBC Aluminum	Raised .391"	50mm	Steel	350	9.075"	4.125"
31711243-55	SBC Aluminum	Raised .391"	55mm	Steel	350	9.075"	4.125"
31711122	SBC Aluminum	Raised .391"	BBC	Steel	350	9.325"	4.000"
31711123	SBC Aluminum	Raised .391"	50mm	Steel	350	9.325"	4.000"
31711123-55	SBC Aluminum	Raised .391"	55mm	Steel	350	9.325"	4.000"
31711222	SBC Aluminum	Raised .391"	BBC	Steel	350	9.325"	4.125"
31711223	SBC Aluminum	Raised .391"	50mm	Steel	350	9.325"	4.125"
31711223-55	SBC Aluminum	Raised .391"	55mm	Steel	350	9.325"	4.125"
31711132	SBC Aluminum	Raised .391"	BBC	Steel	350	9.500"	4.000"
31711133	SBC Aluminum	Raised .391"	50mm	Steel	350	9.500"	4.000"
31711133-55	SBC Aluminum	Raised .391"	55mm	Steel	350	9.500"	4.000"
31711232	SBC Aluminum	Raised .391"	BBC	Steel	350	9.500"	4.125"
31711233	SBC Aluminum	Raised .391"	50mm	Steel	350	9.500"	4.125"
31711233-55	SBC Aluminum	Raised .391"	55mm	Steel	350	9.500"	4.125"
31712112	SBC Aluminum	Raised .391"	BBC	Steel	400	9.025"	4.000"
31712113	SBC Aluminum	Raised .391"	50mm	Steel	400	9.025"	4.000"
31712113-55	SBC Aluminum	Raised .391"	55mm	Steel	400	9.025"	4.000"
31712212	SBC Aluminum	Raised .391"	BBC	Steel	400	9.025"	4.125"
31712213	SBC Aluminum	Raised .391"	50mm	Steel	400	9.025"	4.125"
31712213-55	SBC Aluminum	Raised .391"	55mm	Steel	400	9.025"	4.125"
31712142	SBC Aluminum	Raised .391"	BBC	Steel	400	9.075"	4.000"
31712143	SBC Aluminum	Raised .391"	50mm	Steel	400	9.075"	4.000"
31712143-55	SBC Aluminum	Raised .391"	55mm	Steel	400	9.075"	4.000"
31712242	SBC Aluminum	Raised .391"	BBC	Steel	400	9.075"	4.125"
31712243	SBC Aluminum	Raised .391"	50mm	Steel	400	9.075"	4.125"
31712243-55	SBC Aluminum	Raised .391"	55mm	Steel	400	9.075"	4.125"
31712122	SBC Aluminum	Raised .391"	BBC	Steel	400	9.325"	4.000"
31712123	SBC Aluminum	Raised .391"	50mm	Steel	400	9.325"	4.000"
31712123-55	SBC Aluminum	Raised .391"	55mm	Steel	400	9.325"	4.000"
31712222	SBC Aluminum	Raised .391"	BBC	Steel	400	9.325"	4.125"
31712223	SBC Aluminum	Raised .391"	50mm	Steel	400	9.325"	4.125"
31712223-55	SBC Aluminum	Raised .391"	55mm	Steel	400	9.325"	4.125"
31712132	SBC Aluminum	Raised .391"	BBC	Steel	400	9.500"	4.000"
31712133	SBC Aluminum	Raised .391"	50mm	Steel	400	9.500"	4.000"
31712133-55	SBC Aluminum	Raised .391"	55mm	Steel	400	9.500"	4.000"
31712232	SBC Aluminum	Raised .391"	BBC	Steel	400	9.500"	4.125"
31712233	SBC Aluminum	Raised .391"	50mm	Steel	400	9.500"	4.125"
31712233-55	SBC Aluminum	Raised .391"	55mm	Steel	400	9.500"	4.125"

RACE SERIES SPECS

Material:	RMR Cast Aluminum Alloy
Deck Height:	8.850" to 9.500"
Cylinder Bores:	4.000" or 4.125" 4.165" (max)
Main Bearings:	350 or 400
Main Caps:	Steel 4-bolt
Oil Pan Rails:	Spread .400"/side
Cam Location:	Raised .391" or .434"
Cam Journal:	BBC, 50mm or 55mm
Lifter Bores:	Stock .842"
Freeze Plugs:	Screw-in
Rear Seal:	2-Piece
Weight:	105 lbs.

Not intended for sale or use with pollution controlled vehicles.

RACE SERIES

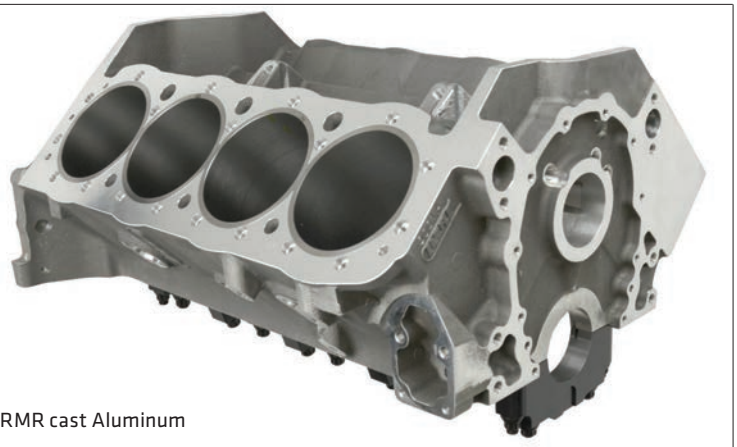
4.500" BORE SPACE

SMALL BLOCK CHEVY CAST ALUMINUM ENGINE BLOCKS

QUICK INFO >>>

Advanced engine builders, maximum competition, unlimited late model, off-road truck. Spread bore space requires special 4.500" cylinder heads and components.

The Race Series Aluminum block features cylinder bores which have been spread to 4.500" from the standard 4.400" center to center dimension. This allows larger bore diameters while maintaining adequate cylinder wall thickness and gasket sealing surface between bores.



FEATURES

- Premium alloy: Dart Aluminum blocks are cast from proprietary RMR cast Aluminum alloy for superior strength.
- 4.500" bore spacing allows bore sizes up to 4.250".
- Standard 17 head bolt pattern or optional 19 bolt pattern available.
- Deck heights of 8.850", 9.025: 9.075" and tall deck 9.325" & 9.500" versions allow for greater versatility for preferred rod ratio and angle.
- Raised camshaft .391" (4.912" camshaft-to-crankshaft centerlines) Option for .434" raised cam available as a special order upgrade.
- Requires use of remote oil filter. No provision for block mounted filters.
- Relocated oil pan rails are spread .400" per side (.800" wider than stock) to increase crank/rod clearance and reduce windage losses.
- Big block camshaft bearings allow the use of cams with larger base circle diameter to improve strength and reduce twisting with cam-driven pumps.
- Rear external oil inlets, with crossovers and restrictor provisions located centrally in the valley.
- Parts kit included (Part# 32000045) Parts kits do not include cam bearings.

RACE SERIES 4.500" - ALUMINUM

PART NO.	DESCRIPTION	CAM LOC.	CAM	CAPS	MAINS	DECK	BORE
31511351	SBC Aluminum 4.500"	Raised .391"	BBC	Steel	350	8.850"	4.180"
31511352	SBC Aluminum 4.500"	Raised .391"	50mm	Steel	350	8.850"	4.180"
31511352-55	SBC Aluminum 4.500"	Raised .391"	55mm	Steel	350	8.850"	4.180"
31511312	SBC Aluminum 4.500"	Raised .391"	BBC	Steel	350	9.025"	4.180"
31511313	SBC Aluminum 4.500"	Raised .391"	50mm	Steel	350	9.025"	4.180"
31511313-55	SBC Aluminum 4.500"	Raised .391"	55mm	Steel	350	9.025"	4.180"
31511342	SBC Aluminum 4.500"	Raised .391"	BBC	Steel	350	9.075"	4.180"
31511343	SBC Aluminum 4.500"	Raised .391"	50mm	Steel	350	9.075"	4.180"
31511343-55	SBC Aluminum 4.500"	Raised .391"	55mm	Steel	350	9.075"	4.180"
31511322	SBC Aluminum 4.500"	Raised .391"	BBC	Steel	350	9.325"	4.180"
31511323	SBC Aluminum 4.500"	Raised .391"	50mm	Steel	350	9.325"	4.180"
31511323-55	SBC Aluminum 4.500"	Raised .391"	55mm	Steel	350	9.325"	4.180"
31511332	SBC Aluminum 4.500"	Raised .391"	BBC	Steel	350	9.500"	4.180"
31511333	SBC Aluminum 4.500"	Raised .391"	50mm	Steel	350	9.500"	4.180"
31511333-55	SBC Aluminum 4.500"	Raised .391"	55mm	Steel	350	9.500"	4.180"
31512312	SBC Aluminum 4.500"	Raised .391"	BBC	Steel	400	9.025"	4.180"
31512313	SBC Aluminum 4.500"	Raised .391"	50mm	Steel	400	9.025"	4.180"
31512313-55	SBC Aluminum 4.500"	Raised .391"	55mm	Steel	400	9.025"	4.180"
31512342	SBC Aluminum 4.500"	Raised .391"	BBC	Steel	400	9.075"	4.180"
31512343	SBC Aluminum 4.500"	Raised .391"	50mm	Steel	400	9.075"	4.180"
31512343-55	SBC Aluminum 4.500"	Raised .391"	55mm	Steel	400	9.075"	4.180"
31512322	SBC Aluminum 4.500"	Raised .391"	BBC	Steel	400	9.325"	4.180"
31512323	SBC Aluminum 4.500"	Raised .391"	50mm	Steel	400	9.325"	4.180"
31512323-55	SBC Aluminum 4.500"	Raised .391"	55mm	Steel	400	9.325"	4.180"
31512332	SBC Aluminum 4.500"	Raised .391"	BBC	Steel	400	9.500"	4.180"
31512333	SBC Aluminum 4.500"	Raised .391"	50mm	Steel	400	9.500"	4.180"
31512333-55	SBC Aluminum 4.500"	Raised .391"	55mm	Steel	400	9.500"	4.180"

RACE SERIES 4.500" SPECS

Material:	RMR Cast Aluminum Alloy
Deck Height:	8.850" to 9.500"
Cylinder Bores:	4.180" 4.250" (max)
Main Bearings:	350 or 400
Main Caps:	Steel 4-bolt
Oil Pan Rails:	Spread .400"/side
Cam Location:	Raised .391" or .434"
Cam Journal:	BBC, 50mm or 55mm
Lifter Bores:	Stock .842"
Freeze Plugs:	Screw-in
Rear Seal:	2-Piece
Weight:	105 lbs.

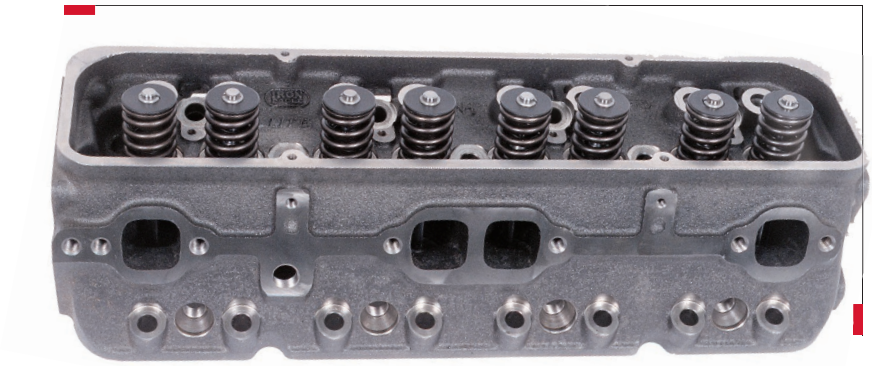
Not intended for sale or use with pollution controlled vehicles.

IRON EAGLE 23° 165cc SMALL BLOCK CHEVY S/S CAST IRON CYLINDER HEADS

QUICK INFO >>>

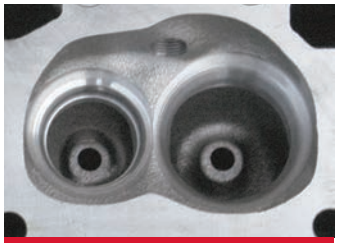
Stock replacement, street and strip performance, or towing upgrade with mildly modified engines from idle to 5,500 RPM. Best for 305-383 cubic inch engines. Works with most standard components.

Dart Iron Eagle S/S 23° 165cc heads produce great throttle response and low to mid-range torque for street performance engines. Our precision cast ports and chambers produce outstanding air flow without time consuming porting. Dart S/S heads are legal in many racing sanctions with Iron head rules.



FEATURES

- Integral Iron valve guides.
- Hardened & radiused exhaust seats.
- Assemblies include stainless steel valves, premium springs, locks, retainers, seals. Guide plates not included for self-aligning rocker styles.
- Uses 3/8 screw-in rocker studs.
- Heads are sold individually.



1955-86 STYLE INTAKE FACE

IRON EAGLE S/S 23° 165cc [55-86 Std. Intake Face] 1.940"/1.500" VALVES

PART NO.	CONFIGURATION FOR USE	MAX. LIFT	CHAMBER CC
10021070	Bare Head	-	72
10021070HD	Bare Head w/ Steel guides and seats	-	72
10021171	1.250" Single Springs for Hydraulic Flat Tappet Cam	.510"	72
10021171S	1.250" Single Springs for Hydraulic Flat Tappet Cam w/ Steel guides	.510"	72

IRON EAGLE S/S 23° 165cc [55-86 Std. Intake Face] 2.020"/1.600" VALVES

PART NO.	CONFIGURATION FOR USE	MAX. LIFT	CHAMBER CC
10021010	Bare Head w/ Steel guides	-	72
10021111	1.250" Single Springs for Hydraulic Flat Tappet Cam w/ Steel guides	.510"	72

IRON EAGLE S/S 23° 165cc [55-86 Std. Face w/ Self-Aligning Rockers] 1.940"/1.500" VALVES

PART NO.	CONFIGURATION FOR USE	MAX. LIFT	CHAMBER CC
10024361	Bare Head	-	67
10024361A	1.250" Single Springs for Hydraulic Flat Tappet Cam	.510"	67

IRON EAGLE S/S 23° 165cc [55-86 Std. Face w/ Self-Aligning Rockers] 2.020"/1.600" VALVES

PART NO.	CONFIGURATION FOR USE	MAX. LIFT	CHAMBER CC
10024266	Bare Head	-	67
10024266-125	Bare Head w/ .125" rocker pad machining for guide plates		67
10024266A	1.250" Single Springs for Hydraulic Flat Tappet Cam	.510"	67
10024266-125A	1.250" Single Springs for Hydraulic Flat Tappet Cam w/ .125" rocker pad machining	.510"	67

IRON EAGLE S/S 23° 165cc [55-86 Std. Face w/ Self-Aligning Rockers] 1.940"/1.500" VALVES

PART NO.	CONFIGURATION FOR USE	MAX. LIFT	CHAMBER CC
10024360	Bare Head	-	76
10024360A	1.250" Single Springs for Hydraulic Flat Tappet Cam	.510"	76

IRON EAGLE S/S 23° 165cc [55-86 Std. Face w/ Self-Aligning Rockers] 2.020"/1.600" VALVES

PART NO.	CONFIGURATION FOR USE	MAX. LIFT	CHAMBER CC
10024267	Bare Head	-	76
10024267A	1.250" Single Springs for Hydraulic Flat Tappet Cam	.510"	76

RECOMMENDED MANIFOLD

PN# 42811000	SHP Dual Plane

SPECIFICATIONS

Material:	Class 30 Grey Iron
Valve Angle:	23° (Stock)
Intake Port Volume:	165cc
Intake Valve Size:	1.940" or 2.020"
Exhaust Valve Size:	1.500" or 1.600"
Chamber Volume:	67, 72 or 76cc
Plug Types:	Straight

FLOW DATA @ 28" WATER

LIFT	INTAKE	EXHAUST
.200"	126	108
.300"	185	128
.400"	221	136
.500"	232	138

Not intended for sale or use with pollution controlled vehicles.

IRON EAGLE

23° 170cc LATE MODEL & VORTEC STYLES

SMALL BLOCK CHEVY S/S CAST IRON CYLINDER HEADS

QUICK INFO >>>

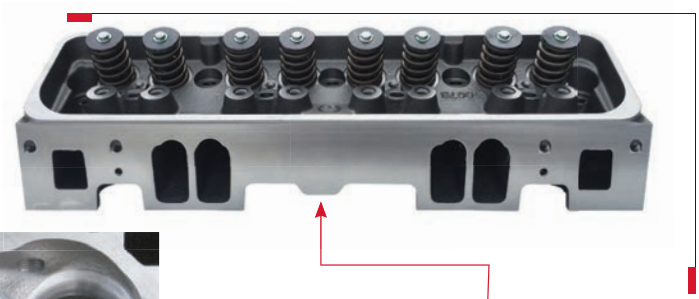
Late model and Vortec intake face. Stock replacement, street & strip performance, towing upgrade with mildly modified engines from idle to 5,500 RPM. Best for 305-383 cubic inch engines.

Dart Iron Eagle S/S 23° 170cc late model and Vortec style heads produce great throttle response and low to mid-range torque for street performance engines. Our precision cast ports and chambers produce outstanding air flow without time-consuming porting.

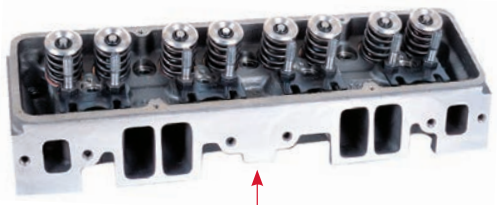
Dart S/S heads are legal in many racing sanctions with Iron head rules.

Assemblies include Stainless Steel valves, premium springs, locks, retainers and seals.

Heads are sold individually.



VORTEC STYLE INTAKE FACE



LATE MODEL STYLE INTAKE FACE

IRON EAGLE S/S 23° 170cc (87-95 Late Model Intake Face with Self-Aligning Rockers) 1.940"/1.500" VALVES

PART NO.	CONFIGURATION FOR USE	MAX. LIFT	CHAMBER CC
10024365	Bare Head - Center bolt valve covers only	-	67
10024365A	1.250" Single Springs for Hydraulic Flat Tappet Cam	.510"	67

IRON EAGLE S/S 23° 170cc (87-95 Late Model Intake Face with Self-Aligning Rockers) 1.940"/1.500" VALVES

PART NO.	CONFIGURATION FOR USE	MAX. LIFT	CHAMBER CC
10021070S	Bare Head - Center bolt valve covers only	-	72

IRON EAGLE S/S 23° 165cc (55-86 Std. Face w/ Self-Aligning Rockers) 1.940"/1.500" VALVES

PART NO.	CONFIGURATION FOR USE	MAX. LIFT	CHAMBER CC
10024364	Bare Head - Center bolt valve covers only	-	76
10024364A	1.250" Single Springs for Hydraulic Flat Tappet Cam	.510"	76

IRON EAGLE S/S 23° 170cc (96-99 Vortec Intake Face with Self-Aligning Rockers) 1.940"/1.500" VALVES

PART NO.	CONFIGURATION FOR USE	MAX. LIFT	CHAMBER CC
10024370	Bare Head - Center bolt valve covers only	-	67
10024370HD	Bare Head - Center bolt valve covers only w/ steel guides & seats	-	67
10024370A	1.250" Single Springs for Hydraulic Flat Tappet Cam	.510"	67

IRON EAGLE S/S 23° 170cc (96-99 Vortec Intake Face with Self-Aligning Rockers) 2.020"/1.600" VALVES

PART NO.	CONFIGURATION FOR USE	MAX. LIFT	CHAMBER CC
10024270	Bare Head - Center bolt valve covers only	-	67
10024270A	1.250" Single Springs for Hydraulic Flat Tappet Cam	.510"	67

IRON EAGLE S/S 23° 170cc SPECS

Material:	Class 30 Grey Iron
Valve Angle:	23° (stock)
Intake Port Volume:	170cc
Intake Valve:	1.940"
Exhaust Valve:	1.500"
Valve Guides:	Integral Iron
Chamber Volume:	67, 72 or 76cc
Plug Type:	Straight

FLOW DATA @ 28" WATER

LIFT	INTAKE	EXHAUST
.200"	126	108
.300"	185	128
.400"	221	136
.500"	232	138

Uses 3/8" screw-in rocker studs.

Uses center-bolt valve covers.

Not intended for sale or use with pollution controlled vehicles.

SHP
SPECIAL HIGH PERFORMANCE

23° 180cc SMALL BLOCK CHEVY CAST ALUMINUM CYLINDER HEADS

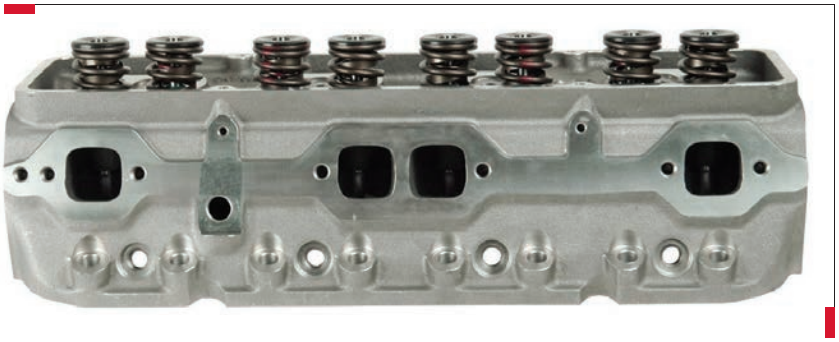
QUICK INFO >>>

Excellent street, strip, oval track, truck or marine performance upgrade. Maximum torque and throttle response from idle to 6,000 RPM. Best for 327-400 cubic inch engines. Works with most standard components.

Dart's SHP (Special High Performance) 23° 180cc cylinder heads provide an affordable option to those looking for the weight savings of an Aluminum head for a street performance engine. The SHP is designed to work with most off the shelf components.

The SHP head's precision cast ports are designed to offer excellent flow and power without the need for CNC porting. Optimized chambers increase combustion efficiency, and multi-angle intake seats and radiused exhaust seats dramatically increase performance. Manganese Bronze valve guides increase the life of the head.

Heads are sold individually.



Head parts kit - see page 107.

Uses 3/8" screw-in rocker studs. 7/16" upgrade available.

SHP 23° 180cc - ALUMINUM

64cc COMBUSTION CHAMBERS

PART NO.	CONFIGURATION FOR USE	MAX. LIFT
126111	Bare Head	
126121	1.250" Single Springs for Hydraulic Flat Tappet Cam	.510"
126122	1.437" Dual Springs for Hydraulic Roller or Solid Flat Tappet Cam	.650"

72cc COMBUSTION CHAMBERS

PART NO.	CONFIGURATION FOR USE	MAX. LIFT
126211	Bare Head	
126221	1.250" Single Springs for Hydraulic Flat Tappet Cam	.510"
126222	1.437" Dual Springs for Hydraulic Roller or Solid Flat Tappet Cam	.650"

SHP TOP END KITS ALSO AVAILABLE

- Fully assembled SHP cylinder heads
- Chromed steel valve covers
- Intake manifold
- Gaskets
- Spark plugs
- ARP head bolts

See page 14 for information.

RECOMMENDED MANIFOLD

42811000 SHP Dual Plane

SHP 23° 180cc SPECS

Material:	RMR Cast Aluminum Alloy
Valve Angle:	23° (stock)
Intake Port Volume:	180cc
Intake Valve:	2.020"
Exhaust Valve:	1.600"
Chamber Volume:	64 or 72cc
Plug Type:	Straight

FLOW DATA @ 28" WATER

LIFT	INTAKE	EXHAUST
.200"	127	103
.300"	175	143
.400"	217	170
.500"	248	186
.600"	250	195

SHP
SPECIAL HIGH PERFORMANCE

23° 200cc SMALL BLOCK CHEVY CAST ALUMINUM CYLINDER HEADS

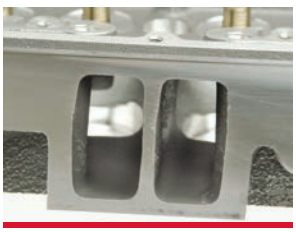
QUICK INFO >>>

Street performance, restricted oval track, and marine performance upgrade. Mid-range to 6,500 RPM. Best for 383-434 cubic inch engines.

Dart's SHP (Special High Performance) 23° 200cc cylinder heads provide an affordable option for larger displacement street performance engines. The SHP is designed to work with most off the shelf components.

The SHP head's precision cast ports are designed to offer excellent flow and power without the need for CNC porting. Optimized chambers increase combustion efficiency, and multi-angle intake seats and radiused exhaust seats dramatically increase performance. Manganese Bronze valve guides increase the life of the head.

Heads are sold individually.



Head parts kit - see page 107.

Uses 3/8" screw-in rocker studs.
7/16" upgrade available.

SHP 23° 200cc - ALUMINUM

64cc COMBUSTION CHAMBERS

PART NO.	CONFIGURATION FOR USE	MAX. LIFT
126311	Bare Head	
126322	1.437" Dual Springs for Hydraulic Roller or Solid Flat Tappet Cam	.650"

72cc COMBUSTION CHAMBERS

PART NO.	CONFIGURATION FOR USE	MAX. LIFT
126411	Bare Head	
126422	1.437" Dual Springs for Hydraulic Roller or Solid Flat Tappet Cam	.650"

RECOMMENDED MANIFOLD

42811000 SHP Dual Plane

SHP 23° 200cc SPECS

Material:	RMR Cast Aluminum Alloy
Valve Angle:	23° (stock)
Intake Port Volume:	200cc
Intake Valve:	2.020"
Exhaust Valve:	1.600"
Chamber Volume:	64 or 72cc
Plug Type:	Straight

FLOW DATA @ 28" WATER

LIFT	INTAKE	EXHAUST
.200"	149	103
.300"	197	143
.400"	237	170
.500"	252	186
.600"	254	195

SHP SHORT BLOCKS 372, 400 & 427 CUBIC INCH

Simplify engine building and save time with pre-engineered, dyno tested short block combinations from Dart's Special High Performance group.

See page 13 for information.

PRO1 23° 180cc SMALL BLOCK CHEVY CAST ALUMINUM CYLINDER HEADS

QUICK INFO >>>

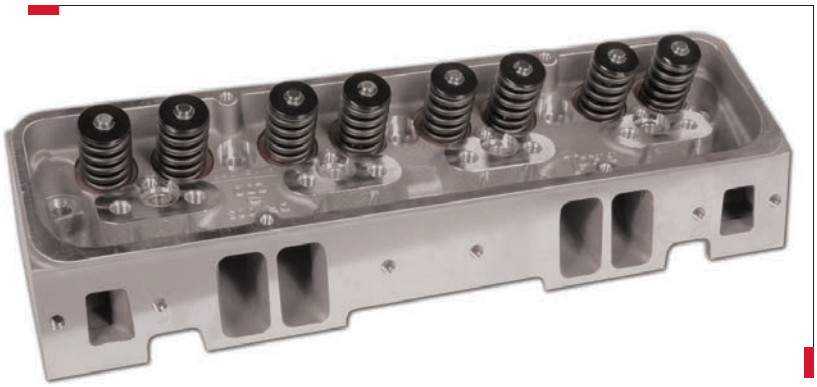
Excellent street, strip, oval track, truck or marine performance upgrade. Maximum torque and throttle response from idle to 6,000 RPM. Best for 327-400 cubic inch engines. Works with most standard components.

Dart's PRO1 23° 180cc Platinum series heads utilize wet flow technology. Independent tests have demonstrated an average 25 horsepower gain over the original trend setting PRO1 design.

These 180cc as cast heads out perform many larger heads in a wide range of applications. Long wearing Bronze valve guides, screw-in studs, multi-angle intake seats and hardened, radiused exhaust seats are standard.

Assemblies include Stainless Steel valves, premium springs, locks, retainers, studs, guide plates and seals.

Heads are sold individually.



Head parts kit - see page 107.

Uses 3/8" screw-in rocker studs. 7/16" upgrade available.

Heads with 49cc chambers require special 21.5° pistons.

PRO1 23° 180cc - ALUMINUM [Straight Plug Heads]

64cc COMBUSTION CHAMBERS

PART NO.	CONFIGURATION FOR USE	MAX. LIFT
11120010P	Bare Head	
11121111P	1.250" Single Springs for Hydraulic Flat Tappet Cam	.510"
11121112P	1.437" Dual Springs for Hydraulic Roller or Solid Flat Tappet Cam	.650"

72cc COMBUSTION CHAMBERS

PART NO.	CONFIGURATION FOR USE	MAX. LIFT
11220010P	**Bare Head**	
11221111P	1.250" Single Springs for Hydraulic Flat Tappet Cam	.510"
11221112P	1.437" Dual Springs for Hydraulic Roller or Solid Flat Tappet Cam	.650"

PRO1 23° 180cc - ALUMINUM [Angle Plug Heads]

64cc COMBUSTION CHAMBERS

PART NO.	CONFIGURATION FOR USE	MAX. LIFT
11110010P	Bare Head	
11111111P	1.250" Single Springs for Hydraulic Flat Tappet Cam	.510"
11111112P	1.437" Dual Springs for Hydraulic Roller or Solid Flat Tappet Cam	.650"

72cc COMBUSTION CHAMBERS

PART NO.	CONFIGURATION FOR USE	MAX. LIFT
11210010P	Bare Head	
11211111P	1.250" Single Springs for Hydraulic Flat Tappet Cam	.510"
11211112P	1.437" Dual Springs for Hydraulic Roller or Solid Flat Tappet Cam	.650"

RECOMMENDED MANIFOLD

42811000 SHP Dual Plane

PRO1 23° 180cc SPECS

Material:	RMR Cast Aluminum Alloy
Valve Angle:	23° (stock)
Intake Port Volume:	180cc
Intake Valve:	2.020"
Exhaust Valve:	1.600"
Chamber Volume:	49, 64 or 72cc
Plug Types:	Straight or angle

FLOW DATA @ 28" WATER

LIFT	INTAKE	EXHAUST
.200"	139	117
.300"	194	154
.400"	233	179
.500"	260	195
.600"	269	205

PRO1 23° 200cc SMALL BLOCK CHEVY CAST ALUMINUM CYLINDER HEADS

QUICK INFO >>>
Street performance, restricted oval track, and marine performance upgrade. Mid-range to 6,500 RPM. Best for 383-434 cubic inch engines.

Dart's PRO1 23° 200cc Platinum series heads offer increased air flow at high valve lift for large displacement engines. Our precision cast ports produce outstanding airflow without time consuming porting.

Assemblies include Stainless Steel valves, premium springs, locks, retainers, studs, guide plates and seals.

Heads are sold individually.

PRO1 23° 200cc - ALUMINUM [Straight Plug Heads] - 2.020"/1.600" VALVES

64cc COMBUSTION CHAMBERS

PART NO.	CONFIGURATION FOR USE	MAX. LIFT
11320010P	Bare Head	
11321111P	1.250" Single Springs for Hydraulic Flat Tappet Cam	.510"
11321112P	1.437" Dual Springs for Hydraulic Roller or Solid Flat Tappet Cam	.650"
11321113P	1.550" Dual Springs for Solid Roller Cam	.700"

72cc COMBUSTION CHAMBERS

PART NO.	CONFIGURATION FOR USE	MAX. LIFT
11420010P	Bare Head	
11421111P	1.250" Single Springs for Hydraulic Flat Tappet Cam	.510"
11421112P	1.437" Dual Springs for Hydraulic Roller or Solid Flat Tappet Cam	.650"
11421113P	1.550" Dual Springs for Solid Roller Cam	.700"

PRO1 23° 200cc - ALUMINUM [Angle Plug Heads] - 2.020"/1.600" VALVES

49cc COMBUSTION CHAMBERS

PART NO.	CONFIGURATION FOR USE	MAX. LIFT
11310010PF	Bare Head	
11311111PF	1.250" Single Springs for Hydraulic Flat Tappet Cam	.510"
11311112PF	1.437" Dual Springs for Hydraulic Roller or Solid Flat Tappet Cam	.650"
11311113PF	1.550" Dual Springs for Solid Roller Cam	.700"

64cc COMBUSTION CHAMBERS

PART NO.	CONFIGURATION FOR USE	MAX. LIFT
11310010P	Bare Head	
11311111P	1.250" Single Springs for Hydraulic Flat Tappet Cam	.510"
11311112P	1.437" Dual Springs for Hydraulic Roller or Solid Flat Tappet Cam	.650"
11311113P	1.550" Dual Springs for Solid Roller Cam	.700"

72cc COMBUSTION CHAMBERS

PART NO.	CONFIGURATION FOR USE	MAX. LIFT
11410010P	Bare Head	
11411111P	1.250" Single Springs for Hydraulic Flat Tappet Cam	.510"
11411112P	1.437" Dual Springs for Hydraulic Roller or Solid Flat Tappet Cam	.650"
11411113P	1.550" Dual Springs for Solid Roller Cam	.700"

Head parts kit - see page 107.

Uses 3/8" screw-in rocker studs. 7/16" upgrade available.

Assemblies with 1.550" valve spring use +.100" long valves.

Heads with 49cc chambers require special 21.5° pistons.

RECOMMENDED MANIFOLD

42811000 SHP Dual Plane

PRO1 23° 200cc SPECS

Material:	RMR Cast Aluminum Alloy
Valve Angle:	23° (stock)
Intake Port Volume:	200cc
Intake Valve:	2.020"
Exhaust Valve:	1.600"
Chamber Volume:	49, 64 or 72cc
Plug Types:	Straight or angle

FLOW DATA @ 28" WATER

LIFT	INTAKE	EXHAUST
.200"	139	117
.300"	191	154
.400"	235	179
.500"	266	195
.600"	274	205

Not intended for sale or use with pollution controlled vehicles.

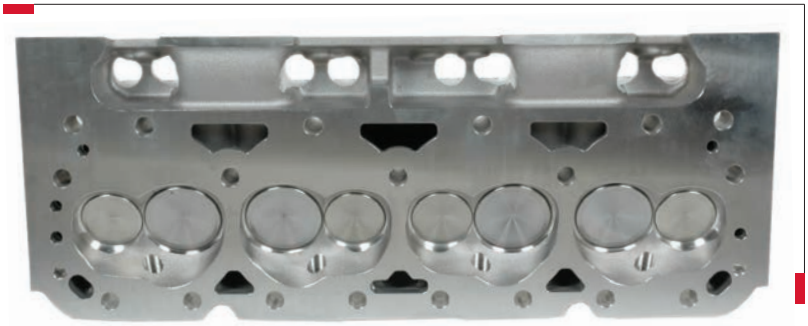
PRO1 23° 215cc SMALL BLOCK CHEVY CAST ALUMINUM CYLINDER HEADS

QUICK INFO >>>
Serious street performance, modified oval track and bracket racing. Mid-range to 7,000 RPM. Best for 400+ cubic inch engines.

Dart's PRO1 23° 215cc Platinum series heads are for big cubic inch, high RPM applications which favor peak power over low end flexibility. Our precision cast ports produce outstanding airflow without time consuming porting.

Assemblies include Stainless Steel valves, premium springs, locks, retainers, studs, guide plates and seals.

Heads are sold individually.



PRO1 23° 215cc - ALUMINUM (Straight Plug Heads) - 2.050"/1.600" VALVES

49cc COMBUSTION CHAMBERS

PART NO.	CONFIGURATION FOR USE	MAX. LIFT
11520020PF	Bare Head	
11521122PF	1.437" Dual Springs for Hydraulic Roller or Solid Flat Tappet Cam	.650"
11621123PF	1.550" Dual Springs for Solid Roller Cam	.700"

64cc COMBUSTION CHAMBERS

PART NO.	CONFIGURATION FOR USE	MAX. LIFT
11520020P	Bare Head	
11521122P	1.437" Dual Springs for Hydraulic Roller or Solid Flat Tappet Cam	.650"
11521123P	1.550" Dual Springs for Solid Roller Cam	.700"

72cc COMBUSTION CHAMBERS

PART NO.	CONFIGURATION FOR USE	MAX. LIFT
11620020P	Bare Head	
11621122P	1.437" Dual Springs for Hydraulic Roller or Solid Flat Tappet Cam	.650"
11621123P	1.550" Dual Springs for Solid Roller Cam	.700"

PRO1 23° 215cc - ALUMINUM (Angle Plug Heads) - 2.050"/1.600" VALVES

49cc COMBUSTION CHAMBERS

PART NO.	CONFIGURATION FOR USE	MAX. LIFT
11510020PF	Bare Head	
11511122PF	1.437" Dual Springs for Hydraulic Roller or Solid Flat Tappet Cam	.650"
11511123PF	1.550" Dual Springs for Solid Roller Cam	.700"

64cc COMBUSTION CHAMBERS

PART NO.	CONFIGURATION FOR USE	MAX. LIFT
11510020P	Bare Head	
11511122P	1.437" Dual Springs for Hydraulic Roller or Solid Flat Tappet Cam	.650"
11511123P	1.550" Dual Springs for Solid Roller Cam	.700"

72cc COMBUSTION CHAMBERS

PART NO.	CONFIGURATION FOR USE	MAX. LIFT
11610020P	Bare Head	
11611122P	1.437" Dual Springs for Hydraulic Roller or Solid Flat Tappet Cam	.650"
11611123P	1.550" Dual Springs for Solid Roller Cam	.700"

Not intended for sale or use with pollution controlled vehicles.

Head parts kit - see page 107.

Uses 3/8" screw-in rocker studs. 7/16" upgrade available.

Assemblies with 1.550" valve spring use +.100" long valves.

Heads with 49cc chambers require special 21.5° pistons.

RECOMMENDED MANIFOLD

PART NO. 42411000 Single Plane

PRO1 23° 215cc SPECS

Material:	RMR Cast Aluminum Alloy
Valve Angle:	23° (stock)
Intake Port Volume:	215cc
Intake Valve:	2.050"
Exhaust Valve:	1.600"
Chamber Volume:	49, 64 or 72cc
Plug Types:	Straight or angle

FLOW DATA @ 28" WATER

LIFT	INTAKE	EXHAUST
.200"	132	117
.300"	189	154
.400"	232	179
.500"	263	195
.600"	283	205

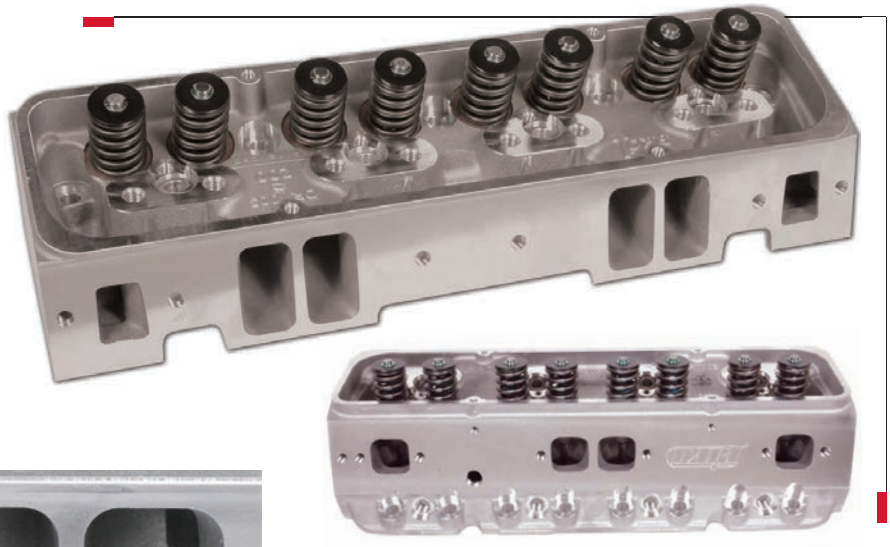
PRO1 23° 230cc SMALL BLOCK CHEVY CAST ALUMINUM CYLINDER HEADS

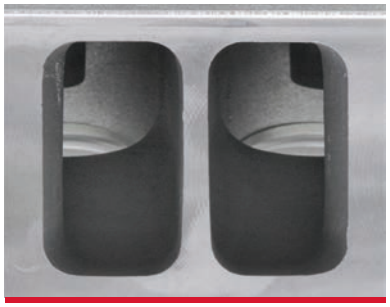
QUICK INFO »»»
Maximum performance/full competition, unlimited oval and super classes. 7,000+ RPM, 400+ cubic inch engines.

Dart's PRO1 23° 230cc Platinum series heads are intended for maximum effort competition engines with large displacement and very high RPH usage. Our precision cast ports produce outstanding airflow without time consuming porting.

Assemblies include Stainless Steel valves, premium springs, locks, retainers, studs, guide plates and seals.

Heads are sold individually.





Head parts kit - see page 107.

Uses 3/8" screw-in rocker studs. 7/16" upgrade available.

Assemblies with 1.550" valve spring use +.100" long valves.

Heads with 49cc chambers require special 21.5° pistons.

PRO1 23° 230cc - ALUMINUM (Straight Plug Heads) - 2.080"/1.600" VALVES

64cc COMBUSTION CHAMBERS

PART NO.	CONFIGURATION FOR USE	MAX. LIFT
11720040P	Bare Head	
11721143P	1.550" Dual Springs for Solid Roller Cam	.700"

72cc COMBUSTION CHAMBERS

PART NO.	CONFIGURATION FOR USE	MAX. LIFT
11820040P	Bare Head	
11821143P	1.550" Dual Springs for Solid Roller Cam	.700"

PRO1 23° 230cc - ALUMINUM (Angle Plug Heads) - 2.080"/1.600" VALVES

49cc COMBUSTION CHAMBERS

PART NO.	CONFIGURATION FOR USE	MAX. LIFT
11710040PF	Bare Head	
11711143PF	1.550" Dual Springs for Solid Roller Cam	.700"

64cc COMBUSTION CHAMBERS

PART NO.	CONFIGURATION FOR USE	MAX. LIFT
11710040P	Bare Head	
11711143P	1.550" Dual Springs for Solid Roller Cam	.700"

72cc COMBUSTION CHAMBERS

PART NO.	CONFIGURATION FOR USE	MAX. LIFT
11810040P	Bare Head	
11811143P	1.550" Dual Springs for Solid Roller Cam	.700"

RECOMMENDED MANIFOLDS

PART NO. 42411000 Single Plane
PART NO. 42421000 Single Plane (4500)

PRO1 23° 230cc SPECS

Material:	RMR Cast Aluminum Alloy
Valve Angle:	23° (stock)
Intake Port Volume:	230cc
Intake Valve:	2.080"
Exhaust Valve:	1.600"
Chamber Volume:	49, 64 or 72cc
Plug Types:	Straight or angle

FLOW DATA @ 28" WATER

LIFT	INTAKE	EXHAUST
.200"	129	117
.300"	184	154
.400"	231	179
.500"	271	195
.600"	296	205
.700"	308	207

PRO 1

23° 227cc CNC SMALL BLOCK CHEVY CAST ALUMINUM CYLINDER HEADS

QUICK INFO >>>

Maximum performance/full competition, unlimited oval and super classes. 7,000+ RPM, 400+ cubic inch engines.

Dart's PRO1 23° 227cc cnc series heads are professional quality competition cylinder heads. We applied the airflow technology developed in our championship winning Pro Stock engine program to produce these state of the art heads.

FEATURES

- Premium alloy: Dart PRO1 cylinder heads are cast from proprietary RMR cast Aluminum alloy for superior strength.
- Every intake port, exhaust runner, valve bowl and combustion chamber is 100% CNC machined.
- Manganese bronze valve guides.
- 7/16" Screw-in studs.
- Assemblies with 1.550" valve spring use +.100" long valves.
- Multi-angle intake seats.
- Hardened & radiused exhaust seats.
- Heads are sold individually.

Head parts kit - see page 107.

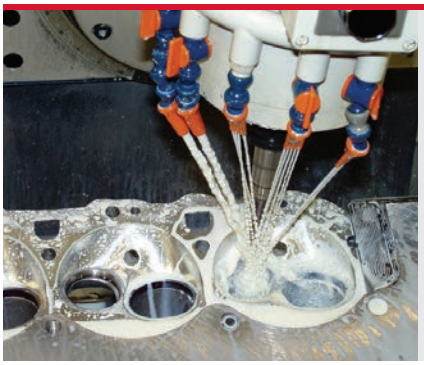
Uses 7/16" screw-in rocker studs.

Assemblies with 1.550" valve spring use +.100" long valves.

PRO1 23° 227cc CNC - ALUMINUM [Angle Plug Heads] - 2.080"/1.600" VALVES

66cc COMBUSTION CHAMBERS

PART NO.	CONFIGURATION FOR USE	MAX. LIFT
11970040P	Bare Head	
11971142P	1.437" Dual Springs for Hydraulic Roller or Solid Flat Tappet Cam	.650"
11971143P	1.550" Dual Springs for Solid Roller Cam	.700"



The consistency and accuracy of CNC (Computer Numerical Control) machining makes every CNC ported Dart head virtually identical. Our automated 5-axis machining centers port heads with incredible accuracy, and you get the performance benefits at a very affordable price!

RECOMMENDED MANIFOLDS

PART NO. 42411000 Single Plane
PART NO. 42421000 Single Plane (4500)

PRO1 23° 227cc CNC SPECS

Material:	RMR Cast Aluminum Alloy
Valve Angle:	23° (stock)
Intake Port Volume:	227cc CNC
Intake Valve:	2.080"
Exhaust Valve:	1.600"
Chamber Volume:	66cc
Plug Type:	Angle

FLOW DATA @ 28" WATER

LIFT	INTAKE	EXHAUST
.200"	158	123
.300"	209	157
.400"	257	187
.500"	293	206
.600"	302	221
.700"	309	228
.800"	324	235

PRO 1

23° 245cc CNC

SMALL BLOCK CHEVY CAST ALUMINUM CYLINDER HEADS

QUICK INFO >>>

Maximum performance/full competition, unlimited oval and super classes. 7,000+ RPM, 400+ cubic inch engines.

Dart's PRO1 23° 245cc cnc series heads are professional quality competition cylinder heads. We applied the airflow technology developed in our championship winning Pro Stock engine program to produce these state of the art heads.

Note: Requires use of .150" offset intake rockers.

Heads are sold individually.

FEATURES

- Premium alloy: Dart PRO1 cylinder heads are cast from proprietary RMR cast Aluminum alloy for superior strength.
- Every intake port, exhaust runner, valve bowl and combustion chamber is 100% CNC machined.
- Manganese bronze valve guides.
- Requires shaft mount rocker systems (.150" offset intake rockers).
- Assemblies with 1.550" valve spring use +.100" long valves.
- Multi-angle intake seats.
- Hardened & radiused exhaust seats.
- Heads are sold individually.
- Head part kit – see page 107.
- Exhaust "A" Port is standard pattern, "B" Port is Stahl pattern only, call for further details.

Head parts kit - see page 107.

Requires shaft mount rockers.

Assemblies with 1.550" valve spring use +.100" long valves.

RECOMMENDED MANIFOLD

PART NO. 42411000 Single Plane 4150

PART NO. 42421000 Single Plane 4500

PRO1 23° 245cc CNC SPECS

Material:	RMR Cast Aluminum Alloy
Valve Angle:	23° (stock)
Intake Port Volume:	245cc CNC
Intake Valve:	2.100"
Exhaust Valve:	1.600"
Chamber Volume:	66cc
Plug Type:	Angle

PRO1 23° 245CC CNC - ALUMINUM (ANGLE PLUG HEADS) - A PORT EXHAUST - 2.100"/1.600" VALVES

PART NO.	CONFIGURATION FOR USE	MAX. LIFT	CHAMBER CC
11980060P	Bare Head	-	66
11981163P	1.550" Dual Springs for Solid Roller Cam	.700"	66

PRO1 23° 245CC CNC - ALUMINUM (ANGLE PLUG HEADS) - B PORT EXHAUST - 2.100"/1.600" VALVES

PART NO.	CONFIGURATION FOR USE	MAX. LIFT	CHAMBER CC
11980070P	Bare Head	-	66
11981173P	1.550" Dual Springs for Solid Roller Cam	.700"	66

FLOW DATA @ 28" WATER

LIFT	INTAKE	*A-PORT EXHAUST	*B-PORT EXHAUST
.200"	161	123	116
.300"	219	157	170
.400"	263	187	203
.500"	296	206	225
.600"	316	221	237
.700"	325	228	244
.800"	327	235	251

Not intended for sale or use with pollution controlled vehicles.

PRO1 18° 245cc SMALL BLOCK CHEVY CAST ALUMINUM CYLINDER HEADS

QUICK INFO >>>

Maximum competition, comp/modified drag racing, circle track. Over 7,000 RPM, high compression.

By reducing the valve angle, reshaping the raised intake ports, and optimizing the combustion chambers. We produced a significant increase in both airflow and combustion efficiency, resulting in large power increases over our standard PRO1 23° cylinder heads.

Heads are sold individually.

FEATURES

- Premium alloy: Dart PRO1 cylinder heads are cast from proprietary RMR cast Aluminum alloy for superior strength.
- Cast intake ports with bowl blends.
- CNC exhaust ports
- CNC chambers.
- Manganese bronze valve guides.
- Requires shaft mount rocker systems and offset lifters.
- Multi-angle intake seats.
- Hardened & radiused exhaust seats.
- Heads are sold individually.
- Head part kit – see page 107.
- Assemblies include: Stainless steel valves (Titanium valve upgrades available), premium springs, locks, retainers and seals. Designed for use on a 4.155" or larger bore.

Head parts kit - see page 107.

Requires shaft mount rockers and offset lifters.

Requires special pistons.

RECOMMENDED MANIFOLD

42711000 Single Plane (4150)

PRO1 18° 245cc SPECS

Material:	RMR Cast Aluminum Alloy
Valve Angle:	18°
Intake Port Volume:	245cc
Intake Valve:	2.150"/2.180"
Exhaust Valve:	1.600"
CNC Chamber Volume:	66cc
Plug Type:	Angle

FLOW DATA @ 28" WATER

LIFT	INTAKE	EXHAUST
.200"	149	114
.300"	222	160
.400"	280	204
.500"	320	235
.600"	331	246
.700"	337	253

PRO1 18° 245cc - ALUMINUM

66cc COMBUSTION CHAMBERS - 2.150"/1.600" VALVES

PART NO.	CONFIGURATION FOR USE	MAX. LIFT
11992010	Bare Head	
11992113	1.550" Dual springs for Solid Roller Cam	.750"

66cc COMBUSTION CHAMBERS - 2.180"/1.600" VALVES

PART NO.	CONFIGURATION FOR USE	MAX. LIFT
11992030	Bare Head	
11992133	1.550" Dual springs for Solid Roller Cam	.750"

Not intended for sale or use with pollution controlled vehicles.

RACE SERIES

18° 250-272cc CNC

SMALL BLOCK CHEVY CAST ALUMINUM CYLINDER HEADS

QUICK INFO >>>
Maximum competition, comp/modified drag racing, circle track. Over 7,000 RPM, high compression.

By reducing the valve angle, reshaping the raised intake ports, and optimizing the combustion chambers, we produced a significant increase in both airflow and combustion efficiency - and that means more power!

Dart delivers the features that put you ahead of the competition. We've refined the 18° design to give our customers more versatility, more performance, more reliability, and higher quality.

Assemblies include Stainless Steel valves, premium springs, locks, retainers and seals. Titanium valves are an available option.

Heads are sold individually.

PRO1 18° 250cc FULL P+A34:1620RT CNC STD - ALUMINUM 2.150"/1.600" VALVES

PART NO.	CONFIGURATION FOR USE	MAX. LIFT	CHAMBER CC
14100000C	Bare Head - No Porting	-	66
14172010	Bare Head - Full Port	-	66
14172111	1.550" Dual Springs for Solid Roller Cam	.750"	66

PRO1 18° 250cc FULL PORT CNC STD - ALUMINUM 2.150"/1.625" VALVES

PART NO.	CONFIGURATION FOR USE	MAX. LIFT	CHAMBER CC
14172020	Bare Head - Full Port	-	66
14172121	1.550" Dual Springs for Solid Roller Cam	.750"	66

PRO1 18° 250cc FULL PORT CNC STD - ALUMINUM 2.180"/1.600" VALVES

PART NO.	CONFIGURATION FOR USE	MAX. LIFT	CHAMBER CC
14172030	Bare Head - Full Port	-	66
14172131	1.550" Dual Springs for Solid Roller Cam	.750"	66

PRO1 18° 250cc FULL PORT CNC STD - ALUMINUM 2.180"/1.625" VALVES

PART NO.	CONFIGURATION FOR USE	MAX. LIFT	CHAMBER CC
14172040	Bare Head - Full Port	-	66
14172141	1.550" Dual Springs for Solid Roller Cam	.750"	66

PRO1 18° 272cc FULL PORT CNC LG - ALUMINUM 2.180"/1.600" VALVES

PART NO.	CONFIGURATION FOR USE	MAX. LIFT	CHAMBER CC
14182030	Bare Head - Full Port	-	66
14182131	1.550" Dual Springs for Solid Roller Cam	.750"	66

PRO1 18° 272cc FULL PORT CNC LG - ALUMINUM 2.180"/1.625" VALVES

PART NO.	CONFIGURATION FOR USE	MAX. LIFT	CHAMBER CC
14182040	Bare Head - Full Port	-	66
14182041	1.550" Dual Springs for Solid Roller Cam	.750"	66

PRO1 18° 272cc FULL PORT CNC LG - ALUMINUM 2.200"/1.625" VALVES

PART NO.	CONFIGURATION FOR USE	MAX. LIFT	CHAMBER CC
14182060	Bare Head - Full Port	-	66
14182061	1.550" Dual Springs for Solid Roller Cam	.750"	66

Head parts kit - see page 107.

Requires shaft mount rockers and offset lifters.

Requires special pistons.

RECOMMENDED MANIFOLD

42711000 Single Plane 4150

RACE SERIES 18° 250-272cc CNC SPECS

Material:	RMR Cast Aluminum Alloy
Valve Angle:	18°
Intake Port Volume:	250-272cc CNC
Intake Valve:	2.150"/2.180"
Exhaust Valve:	1.600"
Chamber Volume:	66cc w/SS
Plug Type:	Angle

FLOW DATA @ 28" WATER

LIFT	INTAKE	EXHAUST
.200"	155	118
.300"	225	169
.400"	280	216
.500"	323	242
.600"	347	254
.700"	361	258
.800"	365	260

Figures for Full CNC Port Lg.

RACE SERIES

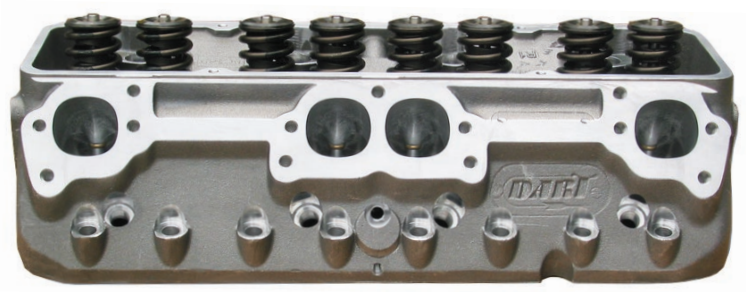
15° 284cc CNC SMALL BLOCK CHEVY CAST ALUMINUM CYLINDER HEADS

QUICK INFO >>>
Maximum competition, comp/modified drag racing, circle track. Over 7,000 RPM, high compression.

Dart Race Series 15° 284cc CNC small block heads deliver awesome performance. The shallow valve angle, reshaped raised intake ports and optimized combustion chambers produce a significant increase in both airflow and combustion efficiency.

It is recommended that you contact a Dart technical representative before placing an order for this item. Detailed information about your planned engine build will help to ensure that you choose the right configuration for your motor and that any special parts and considerations are taken into account.

Heads are sold individually.



DUAL EXHAUST BOLT PATTERNS TO FIT A VARIETY OF HEADERS.

RACE SERIES 15° 284cc CNC - ALUMINUM

PART NO.	CONFIGURATION FOR USE	MAX. LIFT
14300000C	Bare Head - No Porting	
FULL PORT CNC - 2.150"/1.600" VALVES		
PART NO.	**CONFIGURATION FOR USE**	**MAX. LIFT**
14372010	Bare Head - Full Port	
14372111	1.550" Dual Springs for Solid Roller Cam	.750"
FULL PORT CNC - 2.180"/1.600" VALVES		
PART NO.	**CONFIGURATION FOR USE**	**MAX. LIFT**
14372030	Bare Head - Full Port	
14372131	1.550" Dual Springs for Solid Roller Cam	.750"
FULL PORT CNC - 2.180"/1.625" VALVES		
PART NO.	**CONFIGURATION FOR USE**	**MAX. LIFT**
14372040	Bare Head - Full Port	
14372141	1.550" Dual Springs for Solid Roller Cam	.750"

Head parts kit - see page 107.

Requires shaft mount rockers and offset lifters.

Requires special pistons.

Assemblies with 1.550" valve spring use +.600" long valves.

RECOMMENDED MANIFOLD

42711000 Single Plane 4150

RACE SERIES 15° 284cc CNC SPECS

Material:	RMR Cast Aluminum Alloy
Valve Angle:	15°
Intake Port Volume:	284cc CNC
Intake Valve:	2.150"/2.180"
Exhaust Valve:	.600"/1.625"
Chamber Volume:	48cc w/Ti
Plug Type:	Angle

FLOW DATA @ 28" WATER

LIFT	INTAKE	EXHAUST
.200"	160	128
.300"	232	175
.400"	293	214
.500"	333	242
.600"	357	256
.700"	369	265
.800"	372	266

RACE SERIES

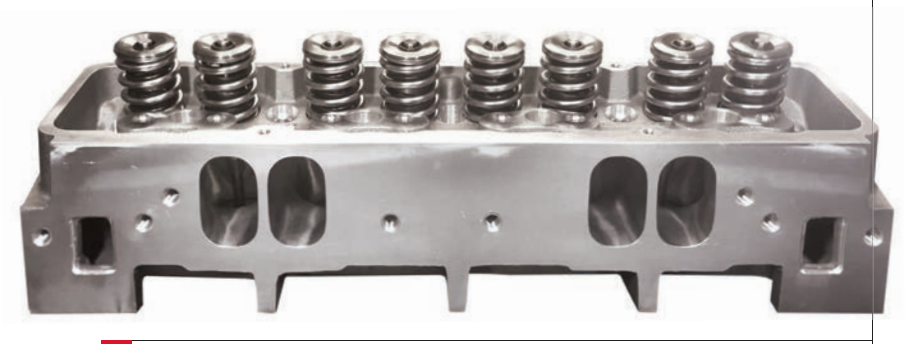
12.5° 265cc CNC OVAL PORT SMALL BLOCK CHEVY CAST ALUMINUM CYLINDER HEADS

QUICK INFO >>>

Maximum competition, Specifically designed for circle track racing, Super Late Model or Sprint. Over 7,000 RPM, high compression - low dome.

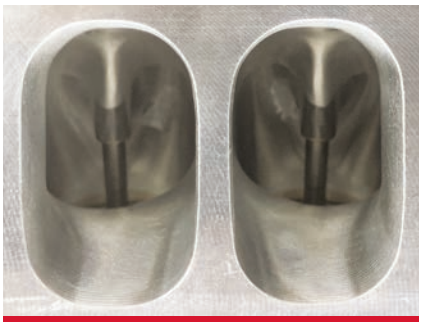
Dart Race Series 12.5° 265cc CNC oval port heads offer outstanding performance in a raised runner style casting. By reducing the valve angle, reshaping the raised intake ports and optimizing the combustion chambers, we produced a significant increase in both airflow and combustion efficiency.

Heads are sold individually.



FEATURES

- Premium alloy: Dart PRO1 cylinder heads are cast from proprietary RMR cast Aluminum alloy for superior strength.
- CNC intake ports.
- CNC exhaust ports.
- CNC chambers.
- Manganese bronze valve guides.
- Assemblies with 1.550" valve spring uses +.600" long valves.
- Requires shaft mount rocker systems and offset lifters.
- Multi-angle intake seats.
- Hardened & radiused exhaust seats.
- Heads are sold individually.
- Head part kit – see page 107.
- Dual exhaust bolt pattern to fit a variety of headers.



Head parts kit - see page 107.

Requires shaft mount rockers and offset lifters.

Requires special pistons.

Assemblies with 1.550" valve spring use +.600" long valves.

RECOMMENDED MANIFOLD

42711005 Single Plane 4150 (Filed core)

RACE SERIES 12.5° 265cc CNC SPECS

Material:	RMR Cast Aluminum Alloy
Valve Angle:	12.5°
Intake Port Volume:	265cc CNC
Intake Valve:	2.150"
Exhaust Valve:	1.600"
Chamber Volume:	36cc
Plug Type:	Angle

FLOW DATA @ 28" WATER

LIFT	INTAKE	EXHAUST
.200"	145	109
.300"	214	158
.400"	279	203
.500"	306	234
.600"	344	256
.700"	347	265

RACE SERIES 12.5° 265cc CNC - ALUMINUM (OVAL PORT)

FULL PORT CNC - 2.150"/1.600" VALVES

PART NO.	CONFIGURATION FOR USE	MAX. LIFT
14462010	Bare Head	
14462111	1.550" Dual Springs for Solid Roller Cam	.750"

Not intended for sale or use with pollution controlled vehicles.

RACE SERIES

12.5° 296cc CNC SMALL BLOCK CHEVY CAST ALUMINUM CYLINDER HEADS

QUICK INFO >>>

Maximum competition, comp/modified drag racing, circle track. Over 7,000 RPM, high compression - low dome.

Dart Race Series 12.5° 296cc CNC heads offer outstanding performance in a raised runner style casting. By reducing the valve angle, reshaping the raised intake ports and optimizing the combustion chambers, we produced a significant increase in both airflow and combustion efficiency.

Heads are sold individually.

FEATURES

- Premium alloy: Dart PRO1 cylinder heads are cast from proprietary RMR cast Aluminum alloy for superior strength.
- CNC intake ports.
- CNC exhaust ports.
- CNC chambers.
- Manganese bronze valve guides.
- Assemblies with 1.550" valve spring uses +.600" long valves.
- Requires shaft mount rocker systems and offset lifters.
- Multi-angle intake seats.
- Hardened & radiused exhaust seats.
- Heads are sold individually.
- Head part kit – see page 107.
- Dual exhaust bolt pattern to fit a variety of headers.

Head parts kit - see page 107.

Requires shaft mount rockers and offset lifters.

Requires special pistons.

Assemblies with 1.550" valve spring use +.600" long valves.

RECOMMENDED MANIFOLD

PART NO. 42711000 Single Plane 4150

RACE SERIES 12.5° 296cc CNC SPECS

Material:	RMR Cast Aluminum Alloy
Valve Angle:	12.5°
Intake Port Volume:	296cc CNC
Intake Valve:	2.150"/2.180"
Exhaust Valve:	1.600"
Chamber Volume:	38cc w/Ti
Plug Type:	Angle

RACE SERIES 12.5° 296cc CNC - ALUMINUM

PART NO.	CONFIGURATION FOR USE	MAX. LIFT
14400000C	Bare Head - No Porting - C Core	

FULL PORT CNC - 2.150"/1.600" VALVES

PART NO.	CONFIGURATION FOR USE	MAX. LIFT
14472010	Bare Head	
14472111	1.550" Dual Springs for Solid Roller Cam	.750"

FULL PORT CNC - 2.180"/1.600" VALVES

PART NO.	CONFIGURATION FOR USE	MAX. LIFT
14482030	Bare Head	
14482131	1.550" Dual Springs for Solid Roller Cam	.750"

FLOW DATA @ 28" WATER

LIFT	INTAKE	EXHAUST
.200"	157	116
.300"	231	162
.400"	287	206
.500"	340	251
.600"	367	271
.700"	377	279
.800"	385	281
.900"	386	283

Not intended for sale or use with pollution controlled vehicles.

RACE SERIES

9° CASTINGS SMALL BLOCK CHEVY CAST ALUMINUM CYLINDER HEADS

QUICK INFO »»»

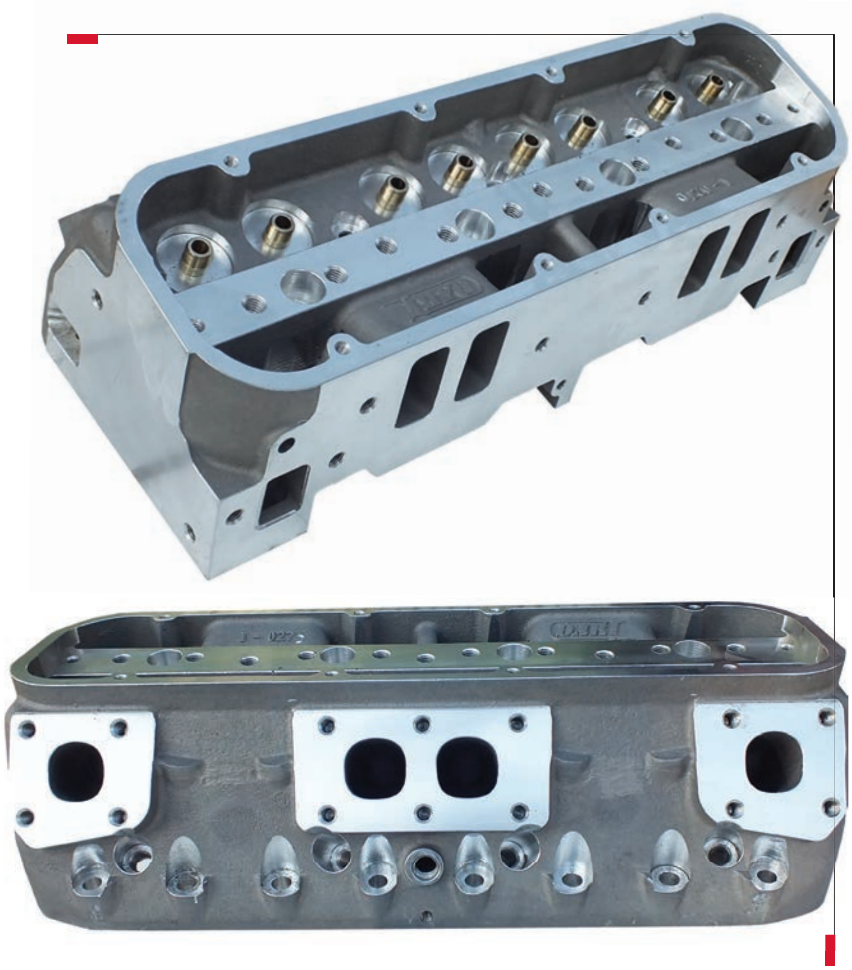
Maximum competition, competition/modified drag racing, circle track. Desert/endurance racing, Over 7,000 RPM, high compression – low dome.

Dart 9° c-core heads offer the maximum performance for cylinder head porters and machine shops with CNC capability. These are the ultimate castings for head porters. The redesigned casting has been optimized for CNC porting.

Features include raised intake and exhaust port locations, optimized spark plug locations, optimized deck thickness, expanded water jacket capacity, bosses for down nozzles and revised valve cover rail to clear long ratio rocker geometry. Provisions for extra head bolts have been added to each end, making for an improved seal. Available in standard 4.400" or 4.500" spread bore spacing.

It is recommended that you contact a Dart technical representative before placing an order for this item. Detailed information about your planned engine build will help to ensure that you choose the right configuration for your motor and that any special parts and considerations are taken into account.

Heads are sold individually.



RACE SERIES 9° SPECS

Material:	RMR Cast Aluminum Alloy
Valve Angle:	9°
Intake Port Volume:	C-Core for Porting Only
Intake Valve:	N/A
Exhaust Valve:	N/A
Chamber Volume:	N/A
Plug Type:	Angle

RACE SERIES 9° - ALUMINUM

PART NO.	CONFIGURATION FOR USE	BORE SPACING
14500000C	SBC 9°	4.400" bore space casting
14500001C	SBC 9°	4.500" bore space casting

SMALL BLOCK CHEVY
INTAKE MANIFOLDS

An engine's cylinder heads and intake manifold must work together as an integrated system to produce maximum performance. The intake charge should make a seamless transition from the manifold runners to the cylinder head ports. Dart intake manifolds incorporate sophisticated wet flow technology developed on successful oval track and drag racing engines. We've optimized the port shape, the plenum volumes, and the runner angle for each application. Dart manifolds are designed to make engine building easier. For example, our small block manifolds have provisions for "four corner" and center cooling. Most Dart manifolds have bosses for nitrous injectors.

42811000
SHP

DUAL PLANE SHP

PART NO	USE WITH HEADS	PORT LOCATION	DECK	CARB
42811000	SBC Iron/SHP/PRO 1	Standard	Std.	4150

42411000
SBC 4150

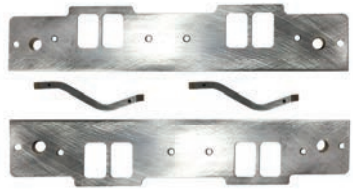
SINGLE PLANE

PART NO	USE WITH HEADS	PORT LOCATION	DECK	CARB
42411000	SBC Iron/PRO 1	Standard	Std.	4150
42412000	SBC Iron/PRO 1	Standard	9.325"	4150
42421000	SBC Iron/PRO 1	Standard	Std.	4500
42422000	SBC Iron/PRO 1	Standard	9.325"	4500
42711000	18°/15°/12.5°	Raised	9.025"	4150
42711005	12.5°/Oval Port	File Core	9.025"	4150

42421000
SBC 4500

SINGLE PLANE 220

PART NO	USE WITH HEADS	PORT LOCATION	DECK	CARB
42311000	SBC 220	Standard	Std.	4150
42312000	SBC 220	Standard	9.325"	4150
42321000	SBC 220	Standard	Std.	4500
42322000	SBC 220	Standard	9.325"	4500
42511000	SBC 220 RR	Raised Runner	Std.	4150
42512000	SBC 220 RR	Raised Runner	9.325"	4150
42521000	SBC 220 RR	Raised Runner	Std.	4500
42522000	SBC 220 RR	Raised Runner	9.325"	4500



INTAKE MANIFOLD SPACER KITS

PART NO.	DESCRIPTION
62210002	SBC Manifold spacers, tall deck (9.325") block, 23° heads (¼" thick)
62210003	SBC Manifold spacers, tall deck (9.500") block, 23° heads (½" thick)
62210004	SBC Manifold spacers, tall deck (9.325") block, 18° heads (¼" thick)
62210008	SBC Manifold spacers, tall deck (9.500") block, 18° heads (½" thick)

Dart manifolds may be ordered with CNC porting options. Super Mod (gasket match) or Super Mod Complete, which includes hand blending and plenum work. Full port options are available.

SMALL BLOCK CHEVY ACCESSORIES

VALVE COVERS

Our extra tall valve covers are designed to clear racing valve trains and stud girdles, and to specifically fit Dart cylinder heads.

Chrome plated stamped steel valve covers have a breather hole and baffle with an embossed Dart logo. Cast Aluminum valve covers feature machined gasket surfaces to prevent messy oil leaks. The raised Dart logo stands out with a contrasting machined finish. Our new inverted ange valve covers provide extra room for long ratio rockers and over sized springs.

VALVE COVERS

PART NO.	DESCRIPTION	FITS	INCLUDES
68000050	Stamped Steel Valve Cover Set	Dart SBC	Gaskets & Fasteners
68000015	Cast Aluminum Valve Cover Set	Dart SBC	Gaskets & Fasteners
68000016	Fabricated Aluminum Valve Cover Set W/ Logo	Dart SBC	Gaskets & Fasteners
68000017	Fabricated Aluminum Valve Cover Set W/ No Logo	Dart SBC	Gaskets & Fasteners
68000018	Fabricated Aluminum Valve Cover Set w/ Logo Black Anodized	Dart SBC	Gaskets & Fasteners
68000019	Fabricated Aluminum Valve Cover Set w/ No Logo Black Anodized	Dart SBC	Gaskets & Fasteners

VALVE TRAIN STABILIZERS

Valve train stabilizers, also known as "stud girdles" improve the performance and reliability of engines equipped with stud mounted rocker arms. Extra long adjusting nuts are tightly clamped between rigid Aluminum bars that prevent stud deflection under high loads. The valve motion more closely follows the cam profile, producing more power and reducing breakage. Unlike "universal" girdles, these valve train stabilizers are designed to fit the specific valve locations, valve angles, and valve lengths in Dart cylinder heads. Kits include hardened polylock adjusting nuts.

VALVE TRAIN STABILIZERS

PART NO.	DESCRIPTION	FITS
64110002	Valve Train Stabilizer w/ 3/8" polylocks	Dart SBC
64110003	Valve Train Stabilizer w/ 7/16" polylocks	Dart SBC

HEAD PARTS KITS

Dart parts kits include everything you need to assemble a cylinder head: Stainless Steel valves, springs, locks, retainers, seals, studs, and guide plates. These kits contain the same high quality components we use in our cylinder head assemblies. Each kit does one cylinder head. For both Iron and Aluminum heads.

SMALL BLOCK HEAD PARTS KITS *(INCLUDES STEEL RETAINERS)*

PART NO.	INT.	EXH.	SPRING
28111000	2.020"	1.600"	1.250" single
28112000	2.020"	1.600"	1.437" double
28211000	2.050"	1.600"	1.250" single
28212000	2.050"	1.600"	1.437" double
28223000	2.050"	1.600"	1.550" double
28423000	2.080"	1.600"	1.550" double

SBC ONE PIECE STAMPED GUIDE PLATES

PART NO.	DESCRIPTION
27001110	Stamped guide plate 5/16" each (4 required per head)

SBC ADJUSTABLE GUIDE PLATES

PART NO.	DESCRIPTION
27001410	Adjustable guide plate 5/16" each
27001410-4	Adjustable guide plates 5/16" Set of 4 (for one head)

Not intended for sale or use with pollution controlled vehicles.

SHP SPECIAL HIGH PERFORMANCE

LS NEXT

GEN III - SHORT BLOCKS
CAST IRON BLOCKS

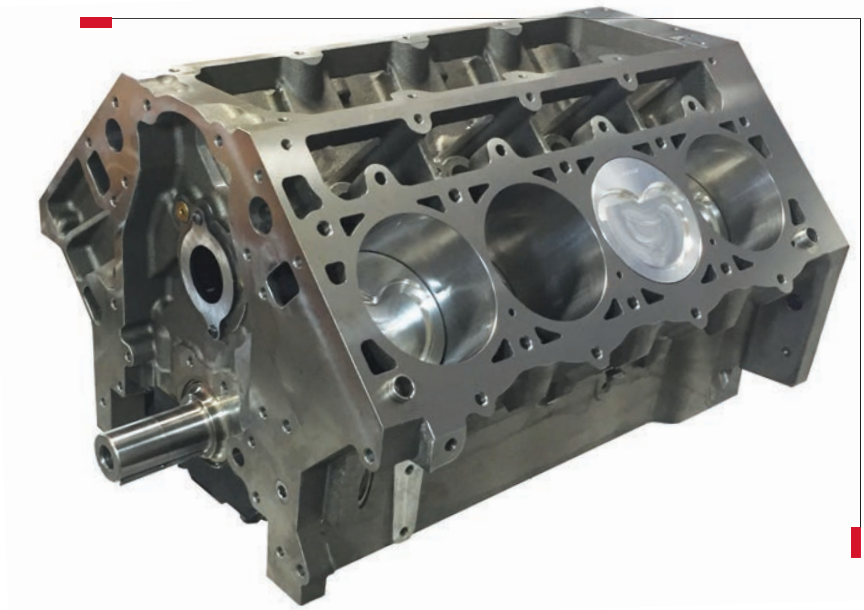
FULL SKIRT DESIGN

QUICK INFO >>>
Professionally built short blocks with brand new premium components. Street performance and Sportsman racing.

427 CUBIC INCHES

Simplify engine building and save time with pre-engineered, dyno tested short block combinations from Dart's SHP (Special High Performance) group.

These quality component packages are designed to allow the user to build more powerful and durable engines at a very affordable cost.



Top off your Dart short block with one of our performance matched top end kits for a great performing engine at an affordable price.

427 CUBIC INCH SHORT BLOCK (6CW)

LS3/LS7 Compatible
Internally Balanced
Special High Performance LS NEXT Dart Block
4.125" Bore x 4.000" Stroke
Plate Honed Cylinders
Forged 4340 Steel Crankshaft (6 Counterweight)
Forged 4340 H-Beam Rods - 7/16" ARP 2000 Bolts
Forged Flat Top Pistons w/ Full Floating Pin
Premium Moly Rings
Clevite Bearings
Coated Cam Bearings
58 Tooth Reluctor

Optional LS3/LS7 Flat Top or Dished Pistons

Flat Top: CR 11.3:1 w/68cc chamber & .053" gasket.

Dish: CR 9.2:1 w/68cc chamber & .053" gasket.

427 CUBIC INCH SHORT BLOCK (8CW)

LS3/LS7 Compatible
Internally Balanced
Special High Performance LS NEXT Dart Block
4.125" Bore x 4.000" Stroke
Plate Honed Cylinders
Billet 4340 Steel Crankshaft (8 Counterweight)
Forged 4340 H-Beam Rods - 7/16" ARP 2000 Bolts
Forged Flat Top Pistons w/ Full Floating Pin
Premium Moly Rings
Clevite Bearings
Coated Cam Bearings
58 Tooth Reluctor

Optional LS3/LS7 Flat Top or Dished Pistons

Flat Top: CR 11.3:1 w/68cc chamber & .053" gasket.

Dish: CR 9.2:1 w/68cc chamber & .053" gasket.

SHP LS NEXT SHORT BLOCKS

PART NO.	DESCRIPTION	CRANK	PISTONS	RODS	BORE	STROKE	BALANCE
03424272DT	427 SHP 6CW	Cast	Forged Dish	H-Beam	4.125"	4.000"	Internal
03424272FT	427 SHP 6CW	Forged	Forged Flat Top	H-Beam	4.125"	4.000"	Internal
03484272DT	427 SHP 8CW	Forged	Forged Dish	H-Beam	4.125"	4.000"	Internal
03484272FT	427 SHP 8CW	Forged	Forged Flat Top	H-Beam	4.125"	4.000"	Internal

RECOMMENDED HEADS

PRO1 LS 15° 280cc (LS3) - See page 55

PRO1 LS 12° 285cc CNC (LS7) - See page 56

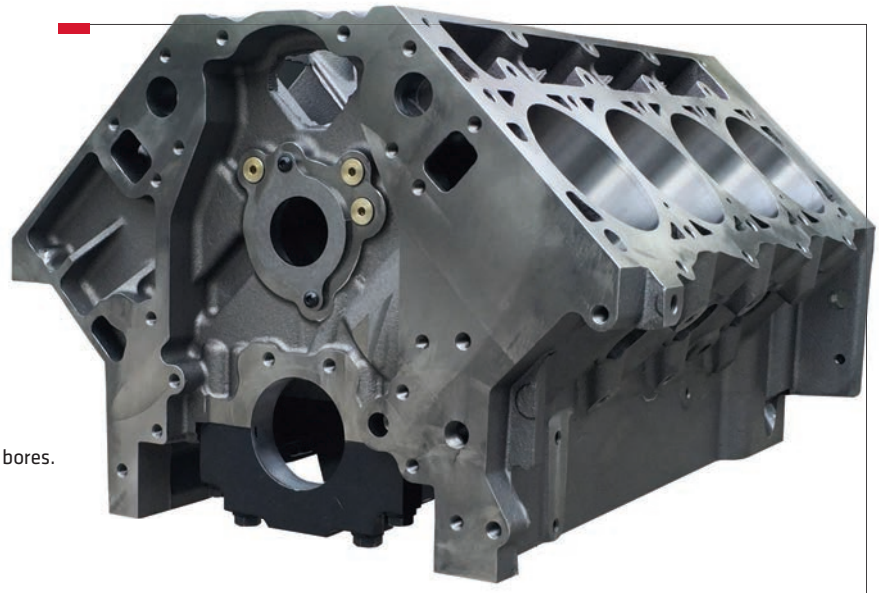
Not intended for sale or use with pollution controlled vehicles.

SHP SPECIAL HIGH PERFORMANCE

LS NEXT GEN III CAST IRON BLOCKS

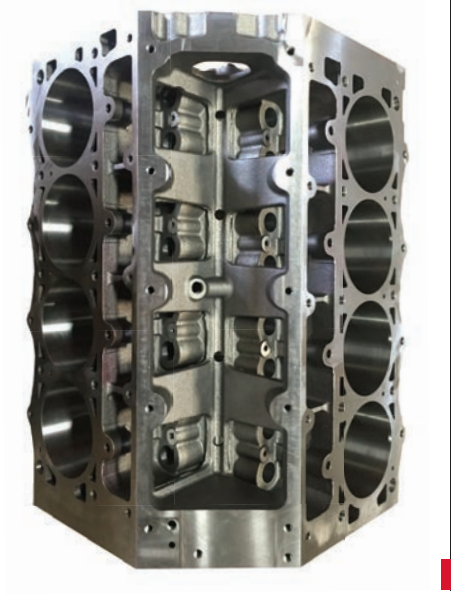
FULL SKIRT DESIGN

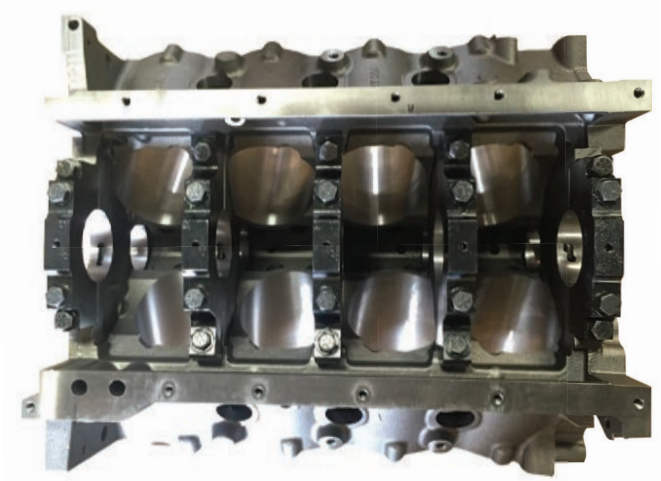
QUICK INFO >>>
Designed for high performance and medium duty applications, the SHP LS Next Block is the ideal starting point for hot rodders, drag racers, circle track competitors, off-roaders, and high performance marine enthusiasts.



FEATURES

- Dart priority main oiling system with provisions for stock oil filter mounting.
- Accepts factory and aftermarket oil pans.
- Siamesed cylinder bores with thick walls.
- Cylinder barrels extended .375" at the bottom of the bores.
- Thick decks ensure reliable head gasket seal.
- Blind head bolt holes available in 7/16" or 1/2" upgrade option.
- 6-bolt per cylinder capability.
- Scalloped water jackets increase flow around cylinders for better cooling.
- Clearanced up to 4.100" stroke w/ steel rods.
- Clearanced for center counterweighted crankshafts.
- Splayed outer bolts on middle main bearing caps.
- Provisions for LSX roller lifters and cam.
- Uses OE front and rear covers.
- All OE bolt holes for starter, water pump, etc.
- Parts kit included (PN: 32000034). Parts kits do not include cam bearings.





SHP LS NEXT - GEN III - IRON (FULLY SKIRTED)

PART NO.	DESCRIPTION	REAR SEAL	CAPS	MAINS	DECK	BORE
31867111	LS Next SHP	STD	Steel	STD	9.240"	4.000"
31867211	LS Next SHP	STD	Steel	STD	9.240"	4.125"

SHP LS NEXT SPECS

Material:	Class 30 Grey Iron
Deck Height:	9.240" (stock)
Cylinder Bores:	4.000" up to 4.185" (max)
Main Bearings Size:	Stock LS
Main Caps:	Steel 4-bolt 1-5
Cam Location:	Stock 55mm
Lifter Bores:	Stock .842" dia.

SHP SPECIAL HIGH PERFORMANCE

LS NEXT PRO

GEN III CAST IRON BLOCKS

FULL SKIRT DESIGN

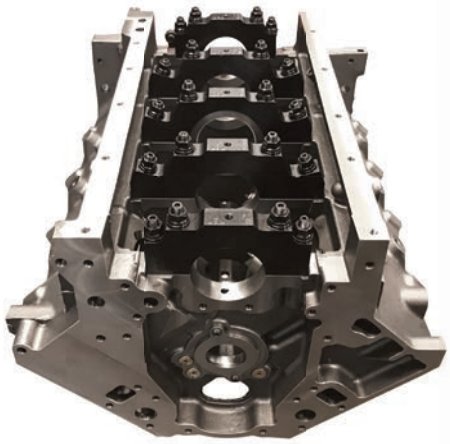
NEW

QUICK INFO »»»

Designed for high performance and heavy duty applications, the SHP LS Next PRO is the NEXT-LEVEL PERFORMANCE block for hot rodders, drag racers, circle track competitors, off-roaders, and high performance marine enthusiasts.

FEATURES

- Superior strength 220 BHN Cast Iron.
- Dart priority main oiling system with provisions for stock oil filter mounting.
- Accepts factory and aftermarket oil pans.
- Siamesed cylinder bores with thick walls.
- Cylinder barrels extended .375" at the bottom of the bores.
- Thick decks ensure reliable head gasket seal.
- Blind head bolt holes available in 7/16" or 1/2" upgrade option.
- 6-bolt per cylinder capability.
- Scalloped water jackets increase flow around cylinders for better cooling.
- Clearanced up to 4.100" stroke w/ steel rods.
- Clearanced for center counterweighted crankshafts.
- Splayed outer bolts on middle main bearing caps.
- ARP-2000 Material Main Studs Included.
- Provisions for LSX roller lifters and cam.
- Uses OE front and rear covers.
- All OE bolt holes for starter, water pump, etc.
- Parts kit included (PN: 32000034).
  Parts kits do not include cam bearings.



SHP LS NEXT PRO - GEN III - CAST IRON (FULLY SKIRTED)

PART NO.	DESCRIPTION	REAR SEAL	CAPS	MAINS	DECK	BORE
31867112	LS Next SHP PRO	STD	Steel	STD	9.240"	4.000"
31867212	LS Next SHP PRO	STD	Steel	STD	9.240"	4.125"

SHP LS NEXT PRO SPECS

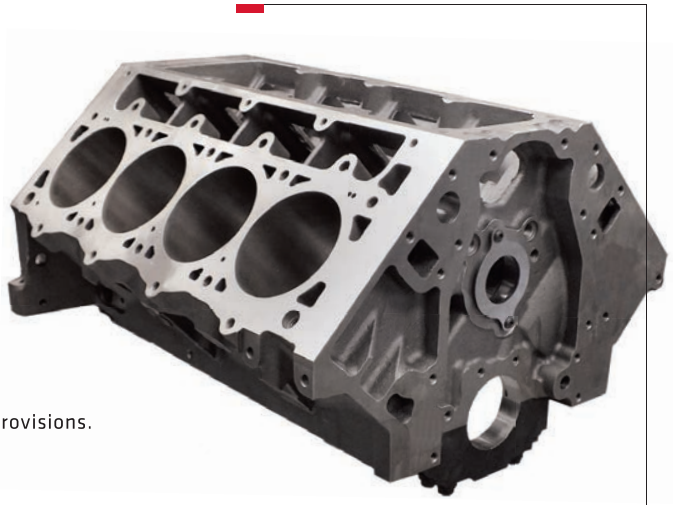
Material:	220 BHN Cast Iron
Deck Height:	9.240" (stock)
Cylinder Bores:	4.000" up to 4.185" (max)
Main Bearings Size:	Stock LS
Main Caps:	Steel 4-bolt 1-5
Cam Location:	Stock 55mm
Lifter Bores:	Stock .842" dia.

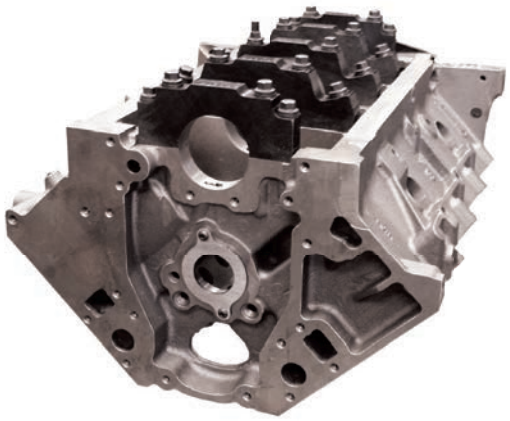
LS NEXT GEN III CAST IRON BLOCKS

QUICK INFO >>>

Designed from a clean slate approach the LS Next Iron block has addressed the shortcomings of the LS platform and is the ideal candidate for hot rodders, drag racers, circle track competitors, off-roaders, and high performance marine enthusiasts.

By utilizing conventional style main caps and oil pans with LS rotating assemblies and related components, Dart has addressed the windage and oil control problems which result from the factory LS engine's separated crankcase bays.





FEATURES

- Priority main oiling system with two lifter crossovers and restrictor provisions.
- Siamesed cylinder bores with extra thick walls.
- Cylinder barrels extended .375" at the bottom.
- Extra thick decks ensure reliable head gasket seal.
- 7/16" Blind head bolt holes.
- Scalloped water jackets increase flow around cylinders for better cooling.
- Clearance for 4.100" stroke w/ steel rods.
- MUST BE clearanced for center counterweighted crankshafts.
- Splayed outer bolts on middle main bearing caps.
- LS style motor mounts.
- Provisions for OE stock roller lifters and cam.
- Uses stock timing covers and stock rear cover.
- All OE bolt holes for starter, water pump, etc.
- Driver or passenger side starter mounts.
- Parts kit sold separately (PN: 32000016 - see page 107).

LS NEXT OIL PAN RAIL SPACERS

PART NO.	DESCRIPTION
62230001	LS Next Oil Pan Rail Spacers w/ power steering, AC & oil dipstick provision.

LS NEXT - GEN III - IRON (RACE BLOCK)

PART NO.	DESCRIPTION	REAR SEAL	CAPS	MAINS	DECK	BORE
31837111	LS Next Iron	STD	Steel	STD	9.240"	4.000"
31837211	LS Next Iron	STD	Steel	STD	9.240"	4.125"
31837121	LS Next Iron	STD	Steel	STD	9.450"	4.000"
31837221	LS Next Iron	STD	Steel	STD	9.450"	4.125"

LS NEXT (RACE BLOCK) SPECS

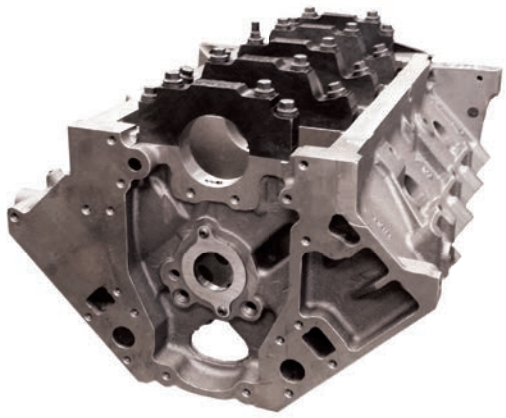
Material:	220 BHN Cast Iron
Deck Height:	9.240" (stock) up to 9.450"
Cylinder Bores:	4.000" up to 4.200" (max)
Main Bearings:	Stock LS
Main Caps:	Steel 4-bolt 1-5
Cam Location:	Stock
Lifter Bores:	Stock .842" dia.
Freeze Plugs:	Press fit
Rear Seal:	Stock LS
Weight:	227 lbs.

LS NEXT 2

STRENGTH TO THE NEXT POWER!

GEN III CAST IRON BLOCKS

NEW



QUICK INFO >>>

The ultimate upgrade for adding strength in the Aluminum or Iron LS Next platform is the LS NEXT² upgrade. This offers larger Billet Steel main caps using Ford (2.750") or LS (2.560") mains, that feature 1/2" main studs giving superior clamping force for even higher power levels. Blocks come machined to accept fully counterweighted crankshafts & machined for 1/2" head studs.

By utilizing conventional style main caps and oil pans with LS rotating assemblies and related components, Dart has addressed the windage and oil control problems which result from the factory LS engine's separated crankcase bays.

FEATURES

- Priority main oiling system with two lifter crossovers and restrictor provisions.
- Siamesed cylinder bores with extra thick walls.
- Cylinder barrels extended .375" at the bottom.
- Extra thick decks ensure reliable head gasket seal.
- Blind 1/2" head bolt holes.
- Scalloped water jackets increase flow around cylinders for better cooling.
- Clearance for 4.100" stroke w/ steel rods.
- Clearanced for center counterweighted crankshafts.
- 1/2" main studs, with 4 splayed outer bolts on middle main bearing caps.
- LS style motor mounts.
- Provisions for OE stock roller lifters and cam.
- Uses stock timing covers and stock rear cover.
- All OE bolt holes for starter, water pump, etc.
- Driver or passenger side starter mounts.
- Parts kit included (Part# 32000033). Parts kits do not include cam bearings.

LS NEXT OIL PAN RAIL SPACERS

PART NO.	DESCRIPTION
62230001	LS Next Oil Pan Rail Spacers w/ power steering, AC & oil dipstick provision.

LS NEXT² - GEN III - IRON [RACE BLOCK]

PART NO.	DESCRIPTION	REAR SEAL	CAPS	MAINS	DECK	BORE
31837111-WW1	LS Next² Iron	Std.	Steel	2.560"	9.240"	4.000"
31837111-WW2	LS Next² Iron	Std.	Steel	2.750"	9.240"	4.000"
31837121-WW1	LS Next² Iron	Std.	Steel	2.560"	9.450"	4.000"
31837121-WW2	LS Next² Iron	Std.	Steel	2.750"	9.450"	4.000"
31837211-WW1	LS Next² Iron	Std.	Steel	2.560"	9.240"	4.125"
31837211-WW2	LS Next² Iron	Std.	Steel	2.750"	9.240"	4.125"
31837221-WW1	LS Next² Iron	Std.	Steel	2.560"	9.450"	4.125"
31837221-WW2	LS Next² Iron	Std.	Steel	2.750"	9.450"	4.125"

LS NEXT [RACE BLOCK] SPECS

Material:	220 BHN Cast Iron
Deck Height:	9.240" (stock) up to 9.450"
Cylinder Bores:	4.000" up to 4.185" (max)
Main Bearings:	Stock LS
Main Caps:	Steel 4-bolt 1-5
Cam Location:	Stock
Lifter Bores:	Stock .842" dia.
Freeze Plugs:	Press fit
Rear Seal:	Stock LS
Weight:	227 lbs.

LS NEXT

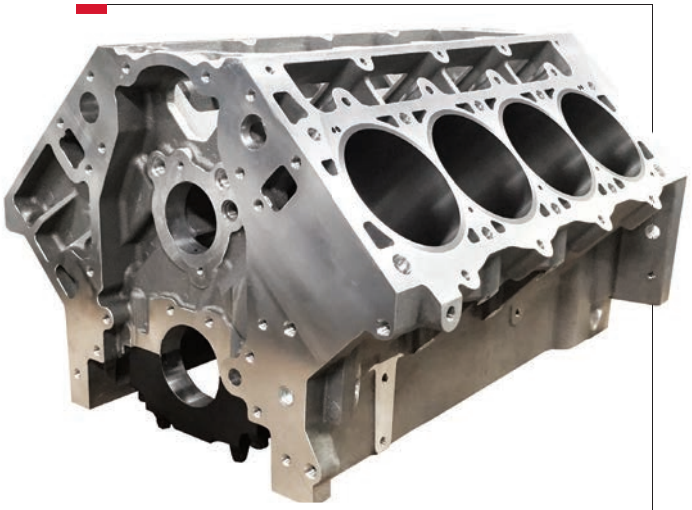
GEN III CAST ALUMINUM BLOCKS

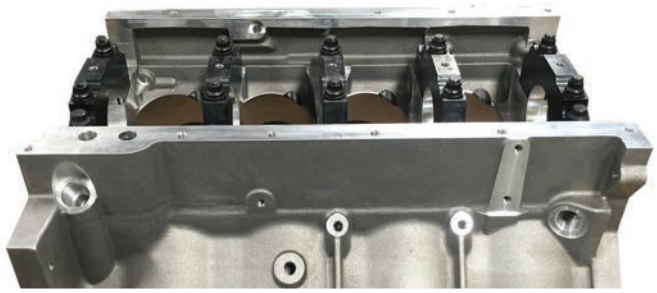
FULL SKIRT DESIGN

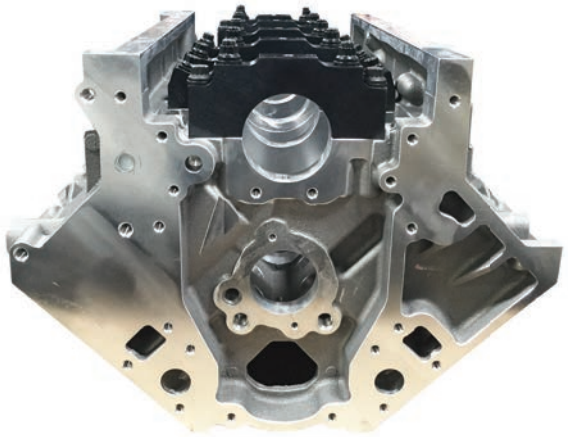
QUICK INFO >>>

Designed from a clean slate approach the LS Next Aluminum block has addressed the shortcomings of the LS platform and is the ideal candidate for hot rodders, drag racers, circle track competitors, off-roaders, and high performance marine enthusiasts.

Features Dart priority main oiling system with provisions for stock oil filter mounting. By utilizing conventional style main caps and oil pans with LS rotating assemblies and related components, Dart has addressed the windage and oil control problems which result from the factory LS engine's separated crankcase bays.







FEATURES

- Priority main oiling system.
- Available in deck heights from 9.240", 9.450", 9.750".
- Cylinder barrels extended .375" at the bottom.
- Extra thick decks ensure reliable head gasket seal.
- 7/16" Blind head bolt holes.
- Scalloped water jackets increase flow around cylinders for better cooling.
- Clearance for 4.100" stroke with steel rods.
- MUST BE clearanced for center counterweighted crankshafts.
- Splayed outer bolts on middle main bearing caps.
- LS style motor mounts.
- Provisions for OE stock roller lifters and cam.
- Uses stock timing covers and stock rear cover.
- All OE bolt holes for starter, water pump, etc.
- Driver or passenger side starter mounts (Not available with skirted version).
- Parts kit included (Part# 32000035). Parts kits do not include cam bearings.

LS NEXT - GEN III - ALUMINUM (FULLY SKIRTED)

PART NO.	DESCRIPTION	REAR SEAL	CAPS	MAINS	DECK	BORE
31947111	LS Next Aluminum (Skirted)	STD	Steel	STD	9.240"	4.000"
31947112	LS Next Aluminum Raised Cam (Skirted)	STD	Steel	STD	9.240"	4.000"
31947211	LS Next Aluminum (Skirted)	STD	Steel	STD	9.240"	4.125"
31947212	LS Next Aluminum Raised Cam (Skirted)	STD	Steel	STD	9.240"	4.125"
31947121	LS Next Aluminum (Skirted)	STD	Steel	STD	9.450"	4.000"
31947122	LS Next Aluminum Raised Cam (Skirted)	STD	Steel	STD	9.450"	4.000"
31947221	LS Next Aluminum (Skirted)	STD	Steel	STD	9.450"	4.125"
31947222	LS Next Aluminum Raised Cam (Skirted)	STD	Steel	STD	9.450"	4.125"
31947142	LS Next Aluminum Raised Cam (Skirted)	STD	Steel	STD	9.750"	4.000"
31947242	LS Next Aluminum Raised Cam (Skirted)	STD	Steel	STD	9.750"	4.125"

LS NEXT SPECS

Material:	RMR Cast Aluminum Alloy
Deck Height:	9.240", 9.450", 9.750"
Cylinder Bores:	4.000" up to 4.165" (max)
Main Bearings:	Stock LS
Main Caps:	Steel 4-bolt 1-5
Cam Location:	Standard or raised .388"
Lifter Bores:	Stock .842" dia.
Freeze Plugs:	Screw-in
Rear Seal:	Stock LS
Weight:	115 lbs.

Not intended for sale or use with pollution controlled vehicles.

LS NEXT 2

GEN III CAST ALUMINUM BLOCKS

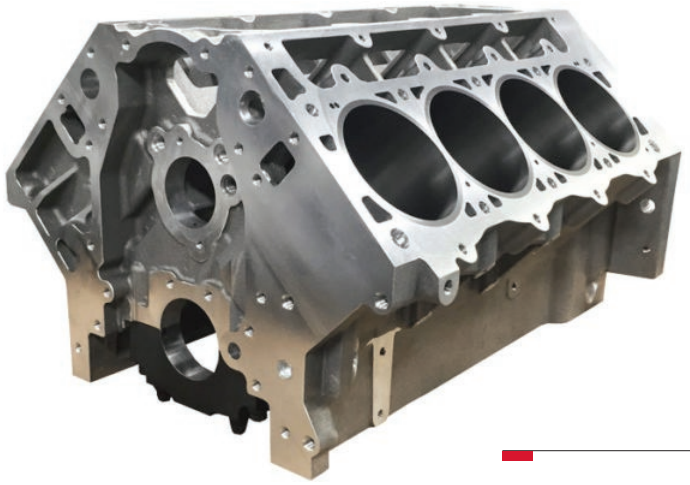
STRENGTH TO THE NEXT POWER!

NEW

QUICK INFO >>>

The ultimate upgrade for adding strength in the Aluminum or Iron LS Next platform is the LS NEXT² upgrade. This offers larger Billet Steel main caps using Ford (2.750") or LS (2.560") mains, that feature 1/2" main studs giving superior clamping force for even higher power levels. Blocks come machined to accept fully counterweighted crankshafts & machined for 1/2" head studs.

Features Dart priority main oiling system with provisions for stock oil filter mounting. By utilizing conventional style main caps and oil pans with LS rotating assemblies and related components, Dart has addressed the windage and oil control problems which result from the factory LS engine's separated crankcase bays.



FEATURES

- Priority main oiling system.
- Available in deck heights from 9.240", 9.450", 9.750".
- Cylinder barrels extended .375" at the bottom.
- Extra thick decks ensure reliable head gasket seal.
- Blind 1/2" head bolt holes.
- Scalloped water jackets increase flow around cylinders for better cooling.
- Clearance for 4.100" stroke with steel rods.
- Clearanced for center counterweighted crankshafts.
- 1/2" main studs, with 4 splayed outer bolts on middle main bearing caps.
- LS style motor mounts.
- Provisions for OE stock roller lifters and cam.
- Uses stock timing covers and stock rear cover.
- All OE bolt holes for starter, water pump, etc.
- Driver or passenger side starter mounts (Not available with skirted version).
- Parts kit included (Part# 32000035). Parts kits do not include cam bearings.

LS NEXT² - GEN III - ALUMINUM FULLY SKIRTED (RACE BLOCK)

PART NO.	DESCRIPTION	REAR SEAL	CAPS	MAINS	DECK	BORE
31947111-WW1	LS Next² Aluminum Skirted	Std.	Steel	2.560"	9.240"	4.000"
31947111-WW2	LS Next² Aluminum Skirted	Std.	Steel	2.750"	9.240"	4.000"
31947112-WW1	LS Next² Aluminum Skirted - Raised Cam	Std.	Steel	2.560"	9.240"	4.000"
31947112-WW2	LS Next² Aluminum Skirted - Raised Cam	Std.	Steel	2.750"	9.240"	4.000"
31947211-WW1	LS Next² Aluminum Skirted	Std.	Steel	2.560"	9.240"	4.125"
31947211-WW2	LS Next² Aluminum Skirted	Std.	Steel	2.750"	9.240"	4.125"
31947212-WW1	LS Next² Aluminum Skirted - Raised Cam	Std.	Steel	2.560"	9.240"	4.125"
31947212-WW2	LS Next² Aluminum Skirted - Raised Cam	Std.	Steel	2.750"	9.240"	4.125"
31947121-WW1	LS Next² Aluminum Skirted	Std.	Steel	2.560"	9.450"	4.000"
31947121-WW2	LS Next² Aluminum Skirted	Std.	Steel	2.750"	9.450"	4.000"
31947122-WW1	LS Next² Aluminum Skirted - Raised Cam	Std.	Steel	2.560"	9.450"	4.000"
31947122-WW2	LS Next² Aluminum Skirted - Raised Cam	Std.	Steel	2.750"	9.450"	4.000"
31947221-WW1	LS Next² Aluminum Skirted	Std.	Steel	2.560"	9.450"	4.125"
31947221-WW2	LS Next² Aluminum Skirted	Std.	Steel	2.750"	9.450"	4.125"
31947222-WW1	LS Next² Aluminum Skirted - Raised Cam	Std.	Steel	2.560"	9.450"	4.125"
31947222-WW2	LS Next² Aluminum Skirted - Raised Cam	Std.	Steel	2.750"	9.450"	4.125"
31947142-WW1	LS Next² Aluminum Skirted - Raised Cam	Std.	Steel	2.560"	9.750"	4.000"
31947142-WW2	LS Next² Aluminum Skirted - Raised Cam	Std.	Steel	2.750"	9.750"	4.000"
31947242-WW1	LS Next² Aluminum Skirted - Raised Cam	Std.	Steel	2.560"	9.750"	4.125"
31947242-WW2	LS Next² Aluminum Skirted - Raised Cam	Std.	Steel	2.750"	9.750"	4.125"

LS NEXT SPECS

Material:	RMR Cast Aluminum Alloy
Deck Height:	9.240" up to 9.750"
Cylinder Bores:	4.000" up to 4.165" (max)
Main Bearings:	Stock LS or 351C
Main Caps:	Steel 4-bolt 1-5
Cam Location:	Standard or raised .388"
Lifter Bores:	Stock .842" Dia.
Freeze Plugs:	Screw-in
Rear Seal:	Stock LS
Weight:	115 lbs.

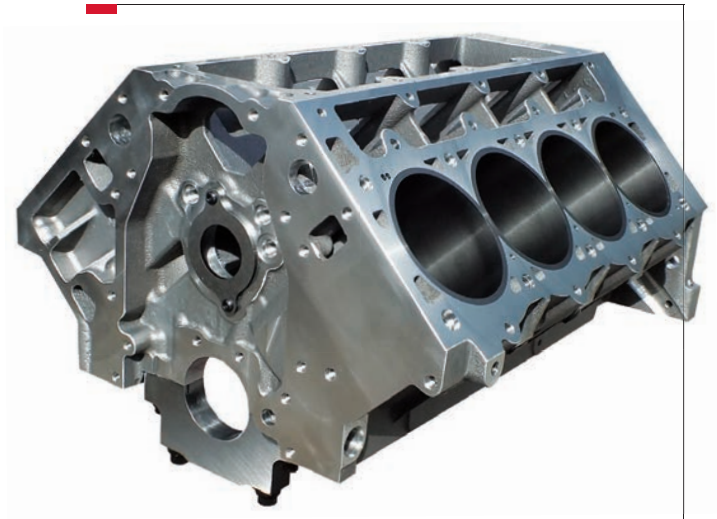
LS NEXT

GEN III
CAST ALUMINUM BLOCKS

QUICK INFO >>>

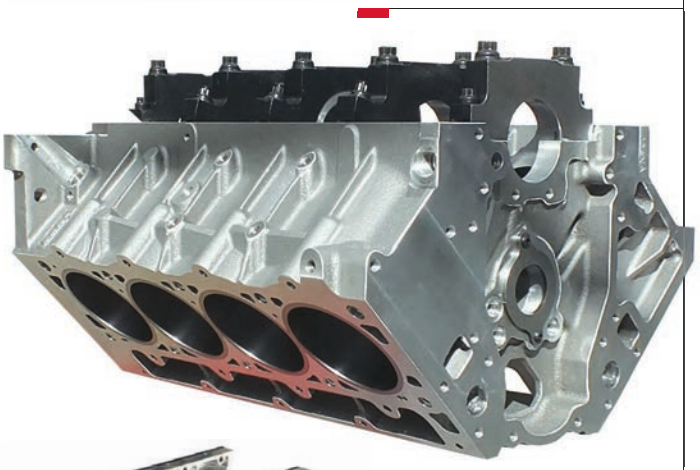
Designed from a clean slate approach the LS Next Aluminum block has addressed the shortcomings of the LS platform and is the ideal candidate for hot rodders, drag racers, circle track competitors, off-roaders, and high performance marine enthusiasts.

By utilizing conventional style main caps and oil pans with LS rotating assemblies and related components, Dart has addressed the windage and oil control problems which result from the factory LS engine's separated crankcase bays.



FEATURES

- Priority main oiling system.
- Available in deck heights from 9.240", 9.450", 9.750".
- STD or raised .388" cam location.
- Cylinder barrels extended .375" at the bottom.
- Extra thick decks ensure reliable head gasket seal.
- 7/16" Blind head bolt holes.
- Scalloped water jackets increase flow around cylinders for better cooling.
- Clearance for 4.100" stroke with steel rods.
- MUST BE clearanced for center counterweighted crankshafts.
- Splayed outer bolts on middle main bearing caps.
- LS style motor mounts.
- Provisions for OE stock roller lifters and cam.
- Uses stock timing covers and stock rear cover. (Raised Cam blocks require special front and rear covers.)
- All OE bolt holes for starter, water pump, etc.
- Driver or passenger side starter mounts (Not available with skirted version).
- Parts kit included (Part# 32000035). Parts kits do not include cam bearings.



LS NEXT OIL PAN RAIL SPACERS

PART NO.	DESCRIPTION
62230001	LS Next Oil Pan Rail Spacers w/ power steering, AC & oil dipstick provision.

LS NEXT - GEN III - ALUMINUM

PART NO.	DESCRIPTION	REAR SEAL	CAPS	MAINS	DECK	BORE
31937111	LS Next Aluminum	STD	Steel	STD	9.240"	4.000"
31937112	LS Next Aluminum Raised Cam	STD	Steel	STD	9.240"	4.000"
31937211	LS Next Aluminum	STD	Steel	STD	9.240"	4.125"
31937212	LS Next Aluminum Raised Cam	STD	Steel	STD	9.240"	4.125"
31937121	LS Next Aluminum	STD	Steel	STD	9.450"	4.000"
31937122	LS Next Aluminum Raised Cam	STD	Steel	STD	9.450"	4.000"
31937221	LS Next Aluminum	STD	Steel	STD	9.450"	4.125"
31937222	LS Next Aluminum Raised Cam	STD	Steel	STD	9.450"	4.125"
31937142	LS Next Aluminum Raised Cam	STD	Steel	STD	9.750"	4.000"
31937242	LS Next Aluminum Raised Cam	STD	Steel	STD	9.750"	4.125"

LS NEXT SPECS

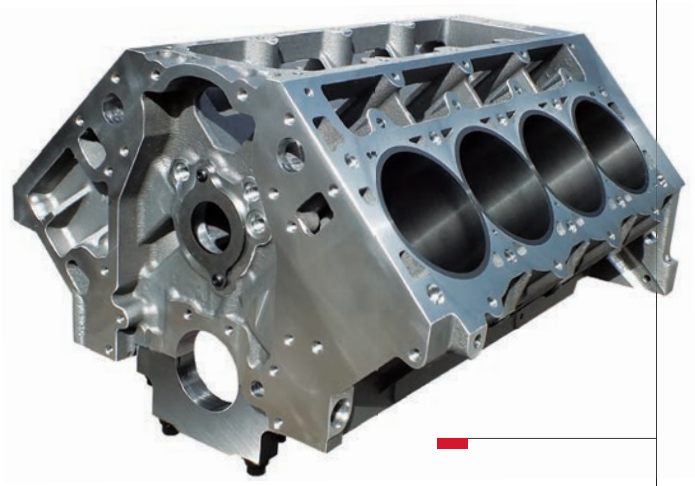
Material:	RMR Cast Aluminum Alloy
Deck Height:	9.240", 9.450", 9.750"
Cylinder Bores:	4.000" up to 4.165" (max)
Main Bearings:	Stock LS
Main Caps:	Steel 4-bolt 1-5
Cam Location:	Standard or raised .388"
Lifter Bores:	Stock .842" dia.
Freeze Plugs:	Screw-in
Rear Seal:	Stock LS
Weight:	115 lbs.

LS NEXT 2

STRENGTH TO THE NEXT POWER!

GEN III CAST ALUMINUM BLOCKS

NEW



QUICK INFO >>>

The ultimate upgrade for adding strength in the Aluminum or Iron LS Next platform is the LS NEXT² upgrade. This offers larger Billet Steel main caps using Ford (2.750") or LS (2.560") mains, that feature 1/2" main studs giving superior clamping force for even higher power levels. Blocks come machined to accept fully counter-weighted crankshafts & machined for 1/2" head studs.

Features Dart priority main oiling system with provisions for stock oil filter mounting. By utilizing conventional style main caps and oil pans with LS rotating assemblies and related components, Dart has addressed the windage and oil control problems which result from the factory LS engine's separated crankcase bays.

FEATURES

- Priority main oiling system.
- Available in deck heights from 9.240", 9.450", 9.750".
- Cylinder barrels extended .375" at the bottom.
- Extra thick decks ensure reliable head gasket seal.
- Blind 1/2" head bolt holes.
- Scalloped water jackets increase flow around cylinders for better cooling.
- Clearance for 4.100" stroke with steel rods.
- Clearanced for center counterweighted crankshafts.
- 1/2" main studs, with 4 splayed outer bolts on middle main bearing caps.
- LS style motor mounts.
- Provisions for OE stock roller lifters and cam.
- Uses stock timing covers and stock rear cover. (Raised Cam blocks require special front and rear covers.)
- All OE bolt holes for starter, water pump, etc.
- Driver or passenger side starter mounts (Not available with skirted version).
- Parts kit included (Part# 32000035). Parts kits do not include cam bearings.

LS NEXT OIL PAN RAIL SPACERS

PART NO.	DESCRIPTION
62230001	LS Next Oil Pan Rail Spacers w/ power steering, AC & oil dipstick provision.

LS NEXT² - GEN III - ALUMINUM (RACE BLOCK)

PART NO.	DESCRIPTION	REAR SEAL	CAPS	MAINS	DECK	BORE
31947111-WW1	LS Next² Aluminum Skirted	Std.	Steel	2.560"	9.240"	4.000"
31947111-WW2	LS Next² Aluminum Skirted	Std.	Steel	2.750"	9.240"	4.000"
31947112-WW1	LS Next² Aluminum Skirted - Raised Cam	Std.	Steel	2.560"	9.240"	4.000"
31947112-WW2	LS Next² Aluminum Skirted - Raised Cam	Std.	Steel	2.750"	9.240"	4.000"
31947211-WW1	LS Next² Aluminum Skirted	Std.	Steel	2.560"	9.240"	4.125"
31947211-WW2	LS Next² Aluminum Skirted	Std.	Steel	2.750"	9.240"	4.125"
31947212-WW1	LS Next² Aluminum Skirted - Raised Cam	Std.	Steel	2.560"	9.240"	4.125"
31947212-WW2	LS Next² Aluminum Skirted - Raised Cam	Std.	Steel	2.750"	9.240"	4.125"
31947121-WW1	LS Next² Aluminum Skirted	Std.	Steel	2.560"	9.450"	4.000"
31947121-WW2	LS Next² Aluminum Skirted	Std.	Steel	2.750"	9.450"	4.000"
31947122-WW1	LS Next² Aluminum Skirted - Raised Cam	Std.	Steel	2.560"	9.450"	4.000"
31947122-WW2	LS Next² Aluminum Skirted - Raised Cam	Std.	Steel	2.750"	9.450"	4.000"
31947221-WW1	LS Next² Aluminum Skirted	Std.	Steel	2.560"	9.450"	4.125"
31947221-WW2	LS Next² Aluminum Skirted	Std.	Steel	2.750"	9.450"	4.125"
31947222-WW1	LS Next² Aluminum Skirted - Raised Cam	Std.	Steel	2.560"	9.450"	4.125"
31947222-WW2	LS Next² Aluminum Skirted - Raised Cam	Std.	Steel	2.750"	9.450"	4.125"
31947142-WW1	LS Next² Aluminum Skirted - Raised Cam	Std.	Steel	2.560"	9.750"	4.000"
31947142-WW2	LS Next² Aluminum Skirted - Raised Cam	Std.	Steel	2.750"	9.750"	4.000"
31947242-WW1	LS Next² Aluminum Skirted - Raised Cam	Std.	Steel	2.560"	9.750"	4.125"
31947242-WW2	LS Next² Aluminum Skirted - Raised Cam	Std.	Steel	2.750"	9.750"	4.125"

LS NEXT SPECS

Material:	RMR Cast Aluminum Alloy
Deck Height:	9.240", 9.450", 9.750"
Cylinder Bores:	4.000" up to 4.165" (max)
Main Bearings:	Stock LS
Main Caps:	Steel 4-bolt 1-5
Cam Location:	Standard or raised .388"
Lifter Bores:	Stock .842" dia.
Freeze Plugs:	Screw-in
Rear Seal:	Stock LS
Weight:	115 lbs.

Not intended for sale or use with pollution controlled vehicles.

PRO1 LS 15° 205cc LS

GEN III - CATHEDRAL PORT CAST ALUMINUM CYLINDER HEADS

QUICK INFO >>>

PRO1 LS 15° 205cc intake runner covers applications from street cars and trucks to racing. As cast ports flow more than many ported designs at a much more affordable price.

Dart's 15° 205cc Aluminum cathedral port cylinder heads for GM LS series small block V8 engines offer higher performance and more versatility than factory designs.

The Dart LS cathedral port high performance cylinder has better airflow, more efficient combustion chambers, and more user-friendly features than production LS castings.

The Dart LS style cylinder head retains stock valve angles, stock valve locations and stock accessory mounting holes to make installation easy. Virtually everything else has been improved.

Heads are sold individually.

Head parts kit - see page 107.

PRO1 LS 15° 205cc SPECS

Material:	RMR Cast Aluminum Alloy
Valve Angle:	15° (stock)
Intake Port Volume:	205cc
Intake Valve:	2.020"
Exhaust Valve:	1.600"
Chamber Volume:	62cc

PRO1 LS 15° 205cc - ALUMINUM - LS1 (CATHEDRAL PORT) - 4 BOLT CASTING - 2.020"/1.600" VALVES

PART NO.	CONFIGURATION FOR USE	MAX. LIFT	CHAMBER CC
11010010	Bare Head	-	62
11011112	1.290" Beehive Springs for Hydraulic Roller	.625"	62

PRO1 LS 15° 205cc - ALUMINUM - LS1 (CATHEDRAL PORT) - 6 BOLT CASTING - 2.020"/1.600" VALVES

PART NO.	CONFIGURATION FOR USE	MAX. LIFT	CHAMBER CC
11010020	Bare Head	-	62
11011122	1.290" Beehive Springs for Hydraulic Roller	.625"	62

FLOW DATA @ 28" WATER

LIFT	INTAKE	EXHAUST
.200"	156	109
.300"	215	154
.400"	258	187
.500"	290	205
.600"	298	214

PRO1 LS 15° 225cc LS

GEN III - CATHEDRAL PORT CAST ALUMINUM CYLINDER HEADS

QUICK INFO >>>

PRO1 LS 15° 225cc intake runner covers applications from street cars and trucks to racing. As cast ports flow more than many ported designs at a much more affordable price.

Dart's 15° 225cc Aluminum cathedral port cylinder head for GM LS series small block V8 engines offers higher performance and more versatility than factory designs.

The Dart LS high performance cylinder head has better airflow, more efficient combustion chambers, and more user-friendly features than production LS castings.

The Dart LS style cylinder head retains stock valve angles, stock valve locations and stock accessory mounting holes to make installation easy. Virtually everything else has been improved.

Heads are sold individually.

Head parts kit - see page 107.

PRO1 LS 15° 225cc - ALUMINUM - LS1 (CATHEDRAL PORT) - 4 BOLT CASTING - 2.050"/1.600" VALVES

PART NO.	CONFIGURATION FOR USE	MAX. LIFT	CHAMBER CC
11020020	Bare Head	-	62
11021122	1.290" Beehive Springs for Hydraulic Roller	.625"	62
11021123	1.295" Dual Spring for Hydraulic Roller	.650"	62

PRO1 LS 15° 225cc - ALUMINUM - LS1 (CATHEDRAL PORT) - 6 BOLT CASTING - 2.050"/1.600" VALVES

PART NO.	CONFIGURATION FOR USE	MAX. LIFT	CHAMBER CC
11020030	Bare Head	-	62
11021132	1.290" Beehive Springs for Hydraulic Roller	.625"	62
11021133	1.295" Dual Spring for Hydraulic Roller	.650"	62

PRO1 LS 15° 225cc SPECS

Material:	RMR Cast Aluminum Alloy
Valve Angle:	15° (stock)
Intake Port Volume:	225cc
Intake Valve:	2.050"
Exhaust Valve:	1.600"
Chamber Volume:	62cc

FLOW DATA @ 28" WATER

LIFT	INTAKE	EXHAUST
.200"	144	109
.300"	202	154
.400"	254	187
.500"	290	205
.600"	313	214

Not intended for sale or use with pollution controlled vehicles.

PRO1 LS 15° 250cc LS - CNC

GEN III - CATHEDRAL PORT CAST ALUMINUM CYLINDER HEADS

QUICK INFO >>>
Recommended for engines with 4.000" bore or larger. Maximum competition, competition modified drag racing, circle track. Over 7,000 RPM.

Dart's PRO1 LS 15° 250cc CNC ported Aluminum cathedral port cylinder heads for GM LS series small block V8 engines take performance to the next level.

This LS CNC cathedral port head is machined on a dedicated casting with extra thick sections to maintain the proper wall thickness after porting. Due to the large diameter intake valves, the Dart LS CNC head is recommended for use on engines with 4.000 inch and larger cylinder bores. Precise computer-controlled CNC machining, multi-angle intake seats, and radiused exhaust seats enhance airflow. Extra material above the ports accommodates valve train upgrades.

Heads are sold individually.

Head parts kit - see page 107.

PRO1 LS 15° 250CC CNC - ALUMINUM - LS1 (CATHEDRAL PORT) - 4 BOLT CASTING - 2.080"/1.600" VALVES

PART NO.	CONFIGURATION FOR USE	MAX. LIFT	CHAMBER CC
11071040	Bare Head	-	68
11071142	1.290" Beehive Springs for Hydraulic Roller	.625"	68
11071143	1.295" Dual Spring for Hydraulic Roller	.650"	68

PRO1 LS 15° 250cc CNC - ALUMINUM - LS1 (CATHEDRAL PORT) - 6 BOLT CASTING - 2.080"/1.600" VALVES

PART NO.	CONFIGURATION FOR USE	MAX. LIFT	CHAMBER CC
11071050	Bare Head	-	68
11071152	1.290" Beehive Springs for Hydraulic Roller	.625"	68
11071153	1.295" Dual Spring for Hydraulic Roller	.650"	68
11071154	1.310" Dual Springs for Solid Roller	.700"	68

PRO1 LS 15° 250cc CNC SPECS

Material:	RMR Cast Aluminum Alloy
Valve Angle:	15° (stock)
Intake Port Volume:	250cc CNC
Intake Valve:	2.080"
Exhaust Valve:	1.600"
Chamber Volume:	68cc

FLOW DATA @ 28" WATER

LIFT	INTAKE	EXHAUST
.200"	144	114
.300"	214	157
.400"	264	192
.500"	305	219
.600"	344	240

PRO1 LS 15° 280cc LS

GEN III - RECTANGLE PORT CAST ALUMINUM CYLINDER HEADS

QUICK INFO >>>

Recommended for engines with 4.000" bore or larger. Maximum competition, comp/modified drag racing, circle track, and heavy duty applications.

Dart's LS based PRO1 LS 15° 280cc Aluminum rectangle port cylinder head (LS3 compatible) for GM LS series small block V8 engines take performance to the next level. Offers higher performance and more versatility than factory designs.

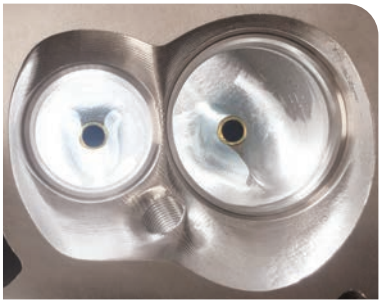
The 15° based high performance cylinder head has better airflow, more efficient combustion chambers and more user-friendly features than production LS castings. The Dart PRO1 280cc cylinder head retains stock valve angles, stock valve locations and stock accessory mounting holes to make installation easy. Virtually everything else has been improved.

Heads are sold individually.

Head parts kit - see page 107.

UPGRADE

SMC (SUPER MOD COMPLETE)



PRO1 LS 15° 280cc SPECS

Material:	RMR Cast Aluminum Alloy
Valve angle:	15°
Intake port volume:	280cc
Intake valve:	2.165"
Exhaust valve:	1.600"
Chamber Volume:	68cc

(SMC) PRO1 LS 15° 282cc SPECS

Material:	RMR Cast Aluminum Alloy
Valve angle:	15°
Intake port volume:	282cc
Intake valve:	2.165"
Exhaust valve:	1.600"
Chamber Volume:	68cc

FLOW DATA @ 28" WATER

LIFT	INTAKE	EXHAUST
.200"	163	126
.300"	233	171
.400"	283	204
.500"	321	235
.600"	343	244
.700"	371	249

PRO1 LS 15° 280CC - ALUMINUM - LS3 (RECTANGLE PORT) - 6 BOLT CASTING - 2.165"/1.600" VALVES

PART NO.	CONFIGURATION FOR USE	MAX. LIFT	CHAMBER CC
11030050	Bare Head		68
110300505MC	Bare Head - SMC Port		68
11030152	1.290" Beehive springs for Hydraulic roller	.625"	68
11030153	1.295" Dual springs for Hydraulic roller	.650"	68
11030154	1.310" Dual Springs for Solid Roller	.700"	68

(SMC) FLOW DATA @ 28" WATER

LIFT	INTAKE	EXHAUST
.200"	155	130
.300"	222	171
.400"	269	199
.500"	318	228
.600"	356	244
.700"	376	252

PRO1 LS 12° 285cc LS - CNC

GEN III - RECTANGLE PORT CAST ALUMINUM CYLINDER HEADS

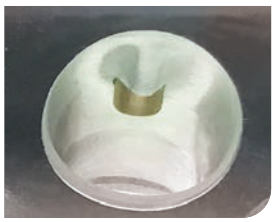
QUICK INFO >>>

Recommended for engines with 4.125" bore or larger. Maximum competition, comp/modified drag racing, circle track, and heavy duty applications.

Dart's new PRO1 LS 12° 285cc CNC Aluminum rectangle port cylinder head for GM LS7 Compatible small block V8 engines take performance to the next level. This full CNC ported cylinder head offers higher performance and more versatility than factory designs.

The 12° based high performance cylinder head has better airflow, more efficient combustion chambers and more user-friendly features than production LS castings. The Dart PRO1 285cc cylinder head retains stock valve angles, stock valve locations and stock valve train mounting with dowel holes to make installation easy and durable.

Dart Rocker bar included (61400011).
Revised .750" finish deck thickness.
Heads are sold individually.
Head parts kit - see page 107.



RECOMMENDED MANIFOLD

45311021

See page 59

PRO1 LS 12° 285cc CNC (LS) SPECS

Material:	RMR Cast Aluminum Alloy
Valve angle:	12°
Intake port volume:	285cc CNC
Intake valve:	2.200"
Exhaust valve:	1.625"
Chamber Volume:	66cc

PRO1 LS 12° 285cc CNC - ALUMINUM - LS7 COMPATIBLE (RECTANGLE PORT)

PART NO.	CONFIGURATION FOR USE	MAX. LIFT	CHAMBER CC
11060000	C-Core Casting	-	-
11060000J	C-Core Casting (Jesel Rocker Bar Machining)	-	-
11061080	Bare head (Dart Rocker Bar Machining)	-	66
11061080J	Bare head (Jesel Rocker Bar Machining)	-	66
11061183	1.295" Dual springs for Hydraulic roller (Dart Rocker Bar Machining)	.650"	66
11061183J	1.295" Dual springs for Hydraulic roller (Jesel Rocker Bar Machining)	.650"	66
11061184	1.310" Dual springs for Solid roller (Dart Rocker Bar Machining)	.650"	66
11061184J	1.310" Dual springs for Solid roller (Jesel Rocker Bar Machining)	.650"	66

FLOW DATA @ 28" WATER

LIFT	INTAKE	EXHAUST
.200"	162	118
.300"	233	164
.400"	293	208
.500"	334	230
.600"	361	244
.700"	380	252
.800"	381	263

PRO1 LS 12° 305cc LS - CNC

GEN III - RECTANGLE PORT CAST ALUMINUM CYLINDER HEADS

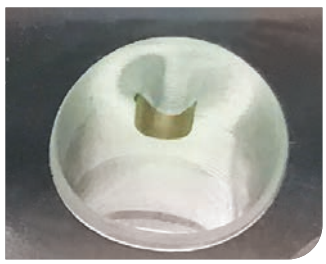
NEW

QUICK INFO >>>
Recommended for engines with 4.125" bore or larger. Maximum competition, comp/modified drag racing, circle track, and heavy duty applications.

Dart's new PRO1 LS 12° 305cc CNC Aluminum rectangle port cylinder head for GM LS7 Compatible small block V8 engines take performance to the next level. This full CNC ported cylinder head offers higher performance and more versatility than factory designs.

The 12° based high performance cylinder head has better airflow, more efficient combustion chambers and more user-friendly features than production LS castings. The Dart PRO1 305cc cylinder head retains stock valve angles, stock valve locations and stock valve train mounting with dowel holes to make installation easy and durable.

Revised .750" finish deck thickness.
Heads are sold individually.
Head parts kit - see page 107.



Head parts kit - see page 107.

PRO1 LS 12° 285cc CNC (LS) SPECS

Material:	RMR Cast Aluminum
Valve angle:	12°
Intake port volume:	305cc CNC
Intake valve:	2.250"
Exhaust valve:	1.600"
Chamber Volume:	68cc
Exhaust Location:	Raised .150"

FLOW DATA @ 28" WATER

LIFT	INTAKE	EXHAUST
.200"	160	126
.300"	234	169
.400"	302	205
.500"	358	233
.600"	397	248
.700"	419	259
.800"	432	269

PRO1 LS 12° 305cc CNC - ALUMINUM - LS7 COMPATIBLE (RECTANGLE PORT)

PART NO.	CONFIGURATION FOR USE	MAX. LIFT	CHAMBER CC
11061280J	Bare head (Jesel Rocker Bar Machining)	-	68
11061283J	1.550" Dual springs for Solid roller (Jesel Rocker Bar Machining)	.800"	68

RACE SERIES LS

10° 368cc LS - CNC

GEN III - OVAL PORT CAST ALUMINUM CYLINDER HEADS

QUICK INFO >>>

Recommended for maximum competition LS engines with 4.155" bore or larger. Drag race, maximum competition, naturally aspirated, heavy nitrous or forced induction applications.

Dart's New Race Series 10° LS cylinder head is the ultimate choice for maximum competition. Designed with raised Pro Stock oval ports, canted valves and highly efficient wedge style combustion chambers, the Race Series 10° LS is a radical departure from traditional LS heads in one other area. The intake and exhaust valve locations for each cylinder have been reversed. This feature has been the standard for maximum power wedge engines for decades.

The huge flow resulting from the 10° valve angle, splayed valve layout, reversed symmetrical intake ports, and highly efficient combustion chambers deliver maximum power!

It is recommended that you contact a Dart technical representative before placing an order for this item. Detailed information about your planned engine build will help to ensure that you choose the right configuration for your motor and that any special parts are taken into consideration.

***Optional Front Water Inlet Machining.**

Heads are sold individually.

Requires Jesel Shaft Mount Rockers.

Uses Custom Gen5, LT1 style camshaft.

RACE SERIES LS 10° 368cc CNC SPECS

Material:	Cast Aluminum Alloy
Valve Angle:	10° (stock)
Intake Port Volume:	368cc CNC
Intake Valve:	2.300"
Exhaust Valve:	1.600"
Chamber Volume:	57cc

RACE SERIES LS 10° 368cc CNC - ALUMINUM (OVAL PORT)

PART NO.	CONFIGURATION FOR USE	MAX. LIFT	CHAMBER CC
11081000	C-Core Casting	-	-
11081050	Bare head	-	57
11081156	1.625" Dual Springs for Solid Roller Cam - Stainless Valves	.900"	57
11081156-1	1.500" Dual Springs for Solid Roller Cam - Titanium Valves	.900"	57

FLOW DATA @ 28" WATER

LIFT	INTAKE	EXHAUST
.200"	167	117
.300"	252	163
.400"	320	204
.500"	378	241
.600"	419	267
.700"	437	288
.800"	446	304
.900"	452	311
1.000"	456	316

LS
INTAKE MANIFOLDS

GEN III
CAST ALUMINUM LS MANIFOLDS

An engine's cylinder heads and intake manifold must work together as an integrated system to produce maximum performance. The intake charge should make a seamless transition from the manifold runners to the cylinder head ports. We've optimized the port shape, the plenum volumes, and the runner angle for each application.

PRO1 LS 12° SINGLE PLANE INTAKE MANIFOLD (LS7 COMPATIBLE)

PART NO	DESCRIPTION	PORT STYLE	DECK	CARB	INJ. MACHINING	CNC
45310000	2-PC Split Single Plane	Raw	N/A	N/A	N/A	N/A
45311020	2-PC Split Single Plane	Rectangle	9.240"	4150	No	No
45311021	2-PC Split Single Plane	Rectangle	9.240"	4150	Yes	No
45311024	2-PC Split Single Plane	Rectangle	9.240"	4150	No	Yes
45311025	2-PC Split Single Plane	Rectangle	9.240"	4150	Yes	Yes

45311021
PRO1 LS 12° SINGLE PLANE (LS7 COMPATIBLE)

RACE SERIES LS 10° BOX RAM INTAKE MANIFOLD

PART NO	DESCRIPTION	PORT STYLE	DECK	CARB	INJ. MACHINING
45241100	10° LS Box Ram	Oval	9.240"	4500	No
45242100	10° LS Box Ram	Oval	9.450"	4500	No
45243100	10° LS Box Ram	Oval	9.750"	4500	No

45241100
RACE SERIES LS 10° BOX RAM
(TOP PLATE NOT INCLUDED)

RACE SERIES LS 10° BOX RAM TOP PLATE AND ACCESSORIES

PART NO	DESCRIPTION	CARB
62450010	Pent Roof Box Ram Billet Top Plate	4500
62450010A	Pent Roof Box Ram Gasket and Spacer	N/A

62450010
RACE SERIES LS 10° BOX RAM BILLET TOP PLATE

GEN III - LS NEXT ACCESSORIES

VALVE COVER

PART NO.	DESCRIPTION	FITS	INCLUDES
68000085	Billet Aluminum Valve Cover Set w/Logo	LS 12°/15°	Gaskets & Fasteners
68000086	Billet Aluminum Valve Cover Set w/Logo Black Anodized	LS 12°/15°	Gaskets & Fasteners
68000090	Fabricated Aluminum Valve Cover Set w/Logo	LS 10°	Gaskets & Fasteners
68000091	Fabricated Aluminum Valve Cover Set w/No Logo	LS 10°	Gaskets & Fasteners
68000092	Fabricated Aluminum Valve Cover Set w/Logo Black Anodized	LS 10°	Gaskets & Fasteners

LS NEXT OIL PAN RAIL SPACERS

PART NO.	DESCRIPTION
62230001	LS Next Oil Pan Rail Spacers with power steering, AC & oil dipstick provision.

LS NEXT/SHP LS NEXT WINDAGE TRAYS

PART NO.	DESCRIPTION
32000121F	LS Next/Next2 Windage Tray kit (LS1, LS2, LS3, LS6)
32000122F	LS Next/Next2 SHP Windage Tray kit (LS7)

LS NEXT HEAD STUD KITS

PART NO.	ENGINE	DESCRIPTION
66120017	LS	7/16" 23 bolt 10° Race Series Iron LS Next Block
66120018	LS	7/16" 15 bolt Iron LS Next Block
66120018B	LS	7/16" 23 bolt (LS3/LS7) Iron LS Next Block
66130018	LS	1/2" 15 bolt Iron LS Next Block
66130018B	LS	1/2" 23 bolt (LS3/LS7) Iron LS Next Block
66120027	LS	7/16" 23 bolt 10° Race Series Aluminum LS Next Block
66120028	LS	7/16" 15 bolt Aluminum LS Next Block
66120028B	LS	7/16" 23 bolt (LS3/LS7) Aluminum LS Next Block
66130128	LS	1/2" 15 bolt Aluminum LS Next Block
66130128B	LS	1/2" 23 bolt (LS3/LS7) Aluminum LS Next Block

HEAD PART KITS

Dart parts kits include everything you need to assemble a cylinder head: Stainless Steel valves, springs, locks, retainers, seals, studs, and guide plates. These kits contain the same high quality components we use in our cylinder head assemblies. Each kit does one cylinder head.

GEN III LS HEAD PARTS KITS

PART NO.	INT.	EXH.	SPRING	DESCRIPTION
28112100	2.020"	1.600"	1.290" single	PRO1 205cc LS
28212100	2.050"	1.600"	1.290" single	PRO1 225cc LS
28422200	2.080"	1.600"	1.295" double	PRO1 250cc LS
28811200	2.165"	1.600"	1.290" single	PRO1 280cc LS
28812200	2.165"	1.600"	1.295" double	PRO1 280cc LS

DART LS7 COMPATIBLE ROCKER BAR

PART NO.	DESCRIPTION
61400011	Dart LS7 Compatible Rocker Bar (for use with P/N: 11061080)

LS NEXT CAM THRUST PLATE WITH HARDWARE

PART NO.	DESCRIPTION
32226000	LS Next Cam Thrust Plate with Hardware

BIG BLOCK CHEVY
TOP END KITS - CAST IRON OR CAST ALUMINUM

QUICK INFO »»

Performance matched top end kits from Dart are the perfect way to finish off your Dart short block or upgrade your existing engine.

Dart top end kits for big block Chevy engines offer a full compliment of performance matched parts that make building your engine simple and easy. These kits were designed to deliver excellent performance at a great price!

DART TOP END KITS INCLUDE:

- Fully assembled cylinder heads.
- Chromed steel valve covers with gaskets and hardware.
- Intake manifold, selected to compliment the cylinder heads.
- Intake gaskets, head gaskets, and exhaust gaskets.
- Spark plugs.
- Head bolts.
- Rocker studs and guideplates.

PRO 1

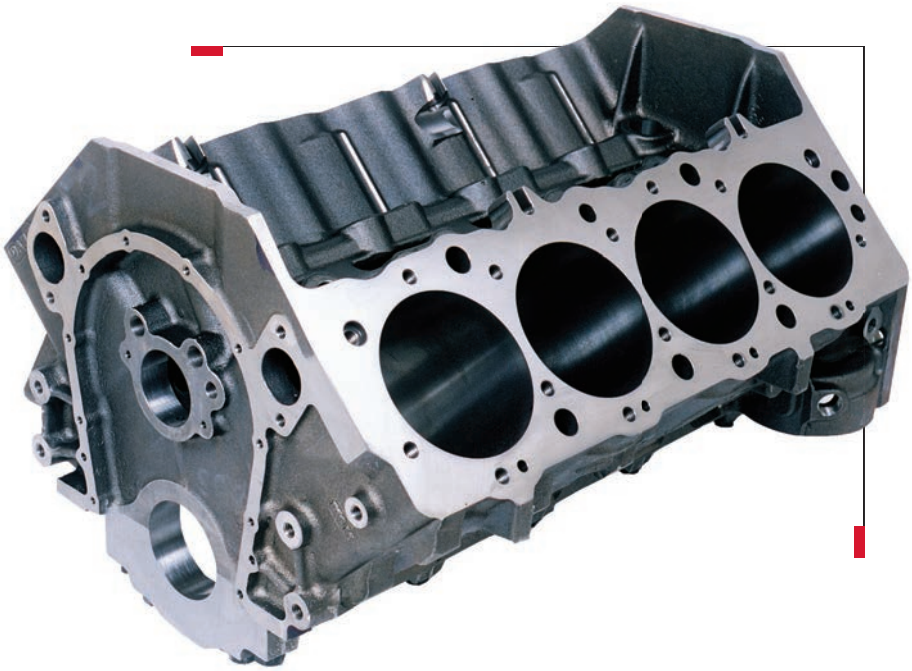
See pages 72-77 for more information on PRO1 cylinder heads.

BBC TOP END KITS WITH DART PRO1 CYLINDER HEADS

PART NO.	HEADS	PORTS	PORT SHAPE	CHAMBER	VALVES	SPRING TYPE	SPRINGS	MANIFOLD	BLOCK
01220023	PRO1	275cc	Oval	121cc	2.250"/1.880"	1.550"	Solid Roller	Single Plane 4150	9.800"
01220006	PRO1	310cc	Rectangle	121cc	2.250"/1.880"	1.550"	Solid Roller	Single Plane 4150	9.800"
01220007	PRO1	325cc	Rectangle	121cc	2.250"/1.880"	1.550"	Solid Roller	Single Plane 4150	9.800"
01220008	PRO1	345cc	Rectangle	121cc	2.300"/1.880"	1.625"	Solid Roller	Single Plane 4150	9.800"
01220010	PRO1	335cc CNC	Rectangle	121cc	2.300"/1.880"	1.625"	Solid Roller	Single Plane 4150	9.800"

BIG M

GEN V GEN VI BIG BLOCK CHEVY CAST IRON ENGINE BLOCKS



QUICK INFO >>>

Engineered for applications where water between the bores is a requirement. Siamese bore versions are also available for larger bore applications.

Gen V and Gen VI blocks use a 1-piece rear seal as well as a different timing cover pattern.

These blocks are based on Dart's Big M design, and include features like priority main oiling and 4-bolt main caps.

FEATURES

- Standard 9.800" and tall 10.200" deck heights available.
- Uses +.300" tall Gen VI style lifters. Modification for Gen IV style available.
- 4-bolt main bearing caps in Ductile Iron have splayed outer bolts for extra strength.
- Lifter valley bosses for OE style roller lifters and retainer (GEN VI only).
- Mechanical fuel pump boss, clutch linkage mounts, and side and front motor mounts simplify installation in any chassis.
- Parts kit sold separately (PN 32000022 - see page 107).

BIG M GEN V (SIAMESE) - IRON

PART NO.	DESCRIPTION	REAR SEAL	CAPS	MAINS	DECK	BORE
31273344V	Big M Gen V Siamese Iron	1 Piece	Ductile	Std.	9.800"	4.250"
31273354V	Big M Gen V Siamese Iron	1 Piece	Ductile	Std.	10.200"	4.250"

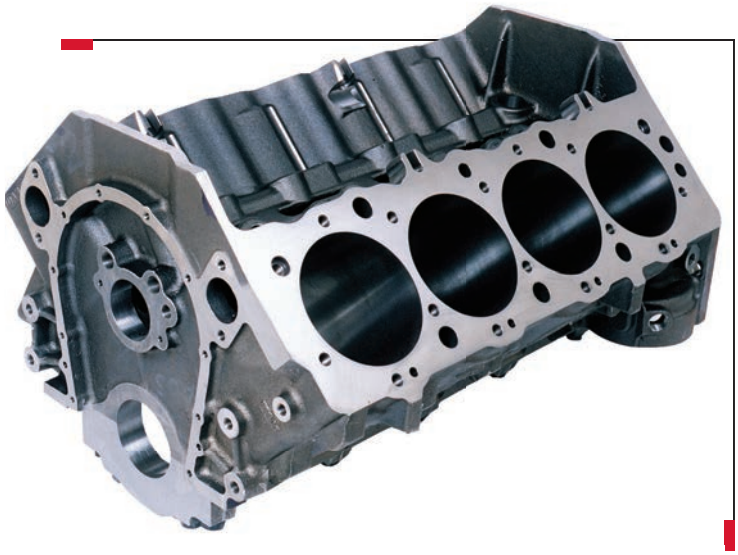
BIG M GEN VI (SIAMESE) - IRON

PART NO.	DESCRIPTION	REAR SEAL	CAPS	MAINS	DECK	BORE
31273344VI	Big M Gen VI Siamese Iron	1 Piece	Ductile	Std.	9.800"	4.250"
31273354VI	Big M Gen VI Siamese Iron	1 Piece	Ductile	Std.	10.200"	4.250"
31273444VI	Big M Gen VI Siamese Iron	1 Piece	Ductile	Std.	9.800"	4.500"
31273454VI	Big M Gen VI Siamese Iron	1 Piece	Ductile	Std.	10.200"	4.500"

MK IV, GEN V & GEN VI SPECS

Material:	220 BHN Cast Iron
Deck Height:	9.800" 10.200"
Cylinder Bores Siamesed:	4.250" to 4.600" (max)
Main Caps:	Ductile
Cam Location:	Standard
Lifter Bores:	Standard
Freeze Plugs:	Press fit
Rear Seal:	1-Piece
Weight:	250-280 lbs.

BIG M SPORTSMAN
BIG BLOCK CHEVY CAST IRON ENGINE BLOCKS



QUICK INFO >>>

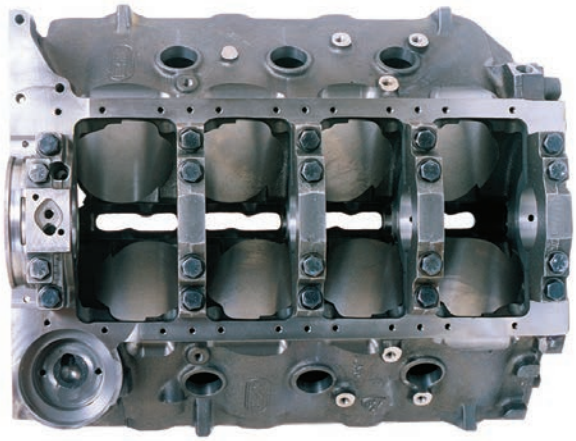
Dart engineered the Big M to be the strongest, most reliable, and easiest to build big block on the market.

With deck heights of 9.800" and 10.200" and bore sizes up to 4.600", the Big M gives you the versatility to build a wide variety of engine combinations.

The Sportsman block is fitted with Ductile Iron 4-bolt main caps.

FEATURES

- Standard 9.800" and tall 10.200" deck heights.
- Standard 4.250", 4.500", 4.560" or 4.600" bore sizes with siamesed extra thick cylinder walls to resist cracking and improve ring seal (minimum .300" thick with 4.625" bore).
- Uses +.300" tall Gen VI style lifters. Modification for Gen IV style available.
- 4-bolt main bearing caps in steel or Ductile Iron have splayed outer bolts for extra strength.
- True priority main oil system lubricates the main bearings before the lifters. Our stepped main oil gallery (9/16" to 1/2" to 7/16") increases the flow of oil to the crank at high RPM, and our front oil crossover eliminates internal oil leaks around the distributor shaft.
- Lifter valley head stud bosses prevent blown head gaskets.
- Dual oil pan bolt patterns fit standard and notched oil pans.
- Big M Sportsman: Parts kit sold separately (PN 32000022 - see page 107).



Dart blocks can be special ordered with a wide array of special machining options to suit your specific requirements.

BIG M SPORTSMAN - IRON

PART NO.	DESCRIPTION	CAM	CAPS	MAINS	DECK	BORE
31223344	Big M Sportsman Iron	Std.	Ductile	Std.	9.800"	4.250"
31223354	Big M Sportsman Iron	Std.	Ductile	Std.	10.200"	4.250"
31223444	Big M Sportsman Iron	Std.	Ductile	Std.	9.800"	4.500"
31223454	Big M Sportsman Iron	Std.	Ductile	Std.	10.200"	4.500"
31223544	Big M Sportsman Iron	Std.	Ductile	Std.	9.800"	4.560"
31223554	Big M Sportsman Iron	Std.	Ductile	Std.	10.200"	4.560"
31223644	Big M Sportsman Iron	Std.	Ductile	Std.	9.800"	4.600"
31223654	Big M Sportsman Iron	Std.	Ductile	Std.	10.200"	4.600"

BIG M SPORTSMAN SPECS

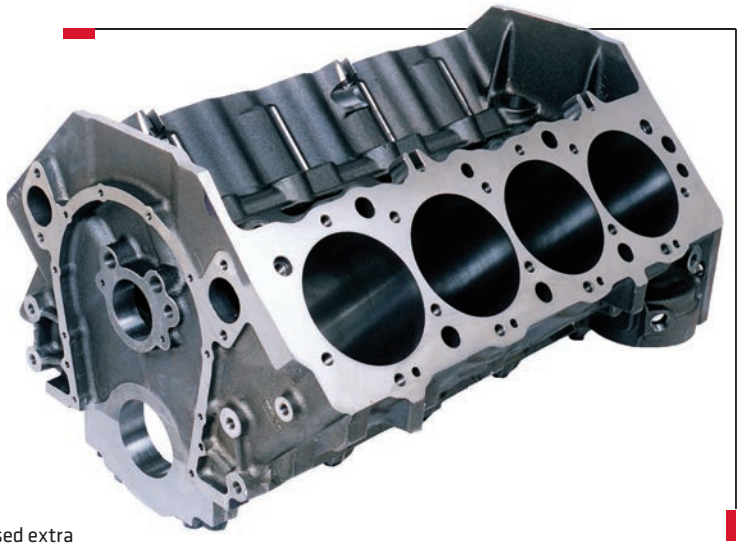
Material:	220 BHN Cast Iron
Deck Height:	9.800" to 10.200"
Cylinder Bores:	4.250" to 4.600"
Main Caps:	Ductile
Cam Location:	Standard
Lifter Bores:	.842"
Freeze Plugs:	Press fit
Rear Seal:	2-Piece
Weight:	250-280 lbs.

BIG M
BIG BLOCK CHEVY
CAST IRON ENGINE BLOCKS

QUICK INFO >>>
Dart engineered the Big M to be the strongest, most reliable, and easiest to build big block on the market.

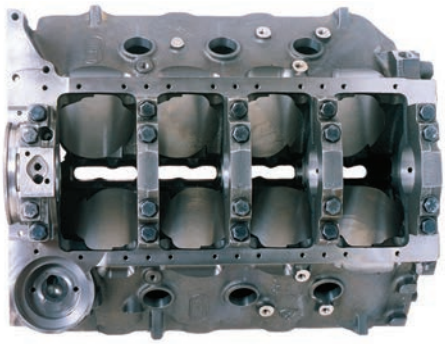
With deck heights of 9.800" and 10.200" and bore sizes up to 4.600", the Big M gives you the versatility to build a wide variety of engine combinations.

The Big M is fitted with Billet Steel 4-bolt main caps for ultimate bottom end strength.



FEATURES

- Standard 9.800" and tall 10.200" deck heights.
- Standard 4.250", 4.500", 4.560" or 4.600" bore sizes with siamesed extra thick cylinder walls to resist cracking and improve ring seal (minimum .300" thick with 4.625" bore).
- Uses +.300" tall Gen VI style lifters. Modification for Gen IV style available.
- 4-bolt main bearing caps in steel have splayed outer bolts for extra strength.
- True priority main oil system lubricates the main bearings before the lifters. Our stepped main oil gallery (9/16" to 1/2" to 7/16") increases the flow of oil to the crank at high RPM, and our front oil crossover eliminates internal oil leaks around the distributor shaft.
- Lifter valley head stud bosses prevent blown head gaskets.
- Dual oil pan bolt patterns fit standard and notched oil pans.
- Big M: Parts kit included (Part# 32000039). Parts kits do not include cam bearings.



Dart blocks can be special ordered with a wide array of special machining options to suit your specific requirements.

BIG M - IRON

PART NO.	DESCRIPTION	CAPS	MAINS	CAM	DECK BORE
31213344	Big M Iron	Std. Steel	Std.	9.800"	4.250"
31213354	Big M Iron	Std. Steel	Std.	10.200"	4.250"
31213444	Big M Iron	Std. Steel	Std.	9.800"	4.500"
31213454	Big M Iron	Std. Steel	Std.	10.200"	4.500"
31213544	Big M Iron	Std. Steel	Std.	9.800"	4.560"
31213554	Big M Iron	Std. Steel	Std.	10.200"	4.560"
31213644	Big M Iron	Std. Steel	Std.	9.800"	4.600"
31213654	Big M Iron	Std. Steel	Std.	10.200"	4.600"

BIG M SPECS

Material:	220 BHN Cast Iron
Deck Height:	9.800" to 10.200"
Cylinder Bores:	4.250" to 4.600"
Main Caps:	Steel
Cam Location:	Standard
Lifter Bores:	.842"
Freeze Plugs:	Press fit
Rear Seal:	2-Piece
Weight:	250-280 lbs.

BIG M²

BIG BLOCK CHEVY
CAST IRON ENGINE BLOCKS

QUICK INFO >>>

Dart engineered the Big M to be the strongest, most reliable, and easiest to build big block on the market.

The Dart Big M² is designed from the ground up as a true racing engine block which can be used with standard off the shelf big block components.

The Big M² is cast from premium high strength Iron and beefed up in all the critical areas. A competition oiling system ensures adequate lubrication to the main bearings at high RPM.

FEATURES

- Standard 9.800" and tall 10.200"/10.400" deck heights.
- Standard 4.250", 4.500", 4.560", or 4.600" bore sizes with siamesed extra thick cylinder walls to resist cracking and improve ring seal (minimum .300" thick with 4.625" bore).
- Uses +.300" tall Gen VI style lifters. Modification for Gen IV style available.
- 4-bolt main bearing caps in steel or ductile iron have splayed outer bolts for extra strength.
- True priority main oil system lubricates the main bearings before the lifters. Our stepped main oil gallery (9/16" to 1/2" to 7/16") increases the fl ow of oil to the crank at high RPM, and our front oil crossover eliminates internal oil leaks around the distributor shaft.
- Lifter valley head stud bosses prevent blown head gaskets.
- Dual oil pan bolt patterns fit standard and notched oil pans.
- Oil gallery holes machined for o-ring plugs
- Big M2 parts kit included (Part# 320000037). Parts kits do not include cam bearings

BIG M PRO SPECS

Material:	220 BHN Cast Iron
Deck Height:	9.800" to 10.400"
Cylinder Bores:	4.250" to 4.600"
Main Bearings:	Standard
Oil Pan Rails:	Standard
Main Caps:	Ductile or Steel
Cam Location:	Raised +.400"
Lifter Bores:	.842"
Freeze Plugs:	Press fit
Rear Seal:	2-Piece
Weight:	250-310 lbs.

BIG M² - IRON - DUCTILE CAP

PART NO.	DESCRIPTION	CAM	CAPS	MAINS	DECK	BORE
31223345	Big M² Ductlile Cap	Raised .400"	Ductile	Std.	9.800"	4.250"
31223355	Big M² Ductlile Cap	Raised .400"	Ductile	Std.	10.200"	4.250"
31223395	Big M² Ductlile Cap	Raised .400"	Ductile	Std.	10.400"	4.250"
31223445	Big M² Ductlile Cap	Raised .400"	Ductile	Std.	9.800"	4.500"
31223455	Big M² Ductlile Cap	Raised .400"	Ductile	Std.	10.200"	4.500"
31223495	Big M² Ductlile Cap	Raised .400"	Ductile	Std.	10.400"	4.500"
31223545	Big M² Ductlile Cap	Raised .400"	Ductile	Std.	9.800"	4.560"
31223555	Big M² Ductlile Cap	Raised .400"	Ductile	Std.	10.200"	4.560"
31223595	Big M² Ductlile Cap	Raised .400"	Ductile	Std.	10.400"	4.560"
31223645	Big M² Ductlile Cap	Raised .400"	Ductile	Std.	9.800"	4.600"
31223655	Big M² Ductlile Cap	Raised .400"	Ductile	Std.	10.200"	4.600"
31223695	Big M² Ductlile Cap	Raised .400"	Ductile	Std.	10.400"	4.600"

BIG M² - IRON - DUCTILE CAP

PART NO.	DESCRIPTION	CAM	CAPS	MAINS	DECK	BORE
31223345	Big M² Steel Cap	Raised .400"	Steel	Std.	9.800"	4.250"
31223355	Big M² Steel Cap	Raised .400"	Steel	Std.	10.200"	4.250"
31223395	Big M² Steel Cap	Raised .400"	Steel	Std.	10.400"	4.250"
31223445	Big M² Steel Cap	Raised .400"	Steel	Std.	9.800"	4.500"
31223455	Big M² Steel Cap	Raised .400"	Steel	Std.	10.200"	4.500"
31223495	Big M² Steel Cap	Raised .400"	Steel	Std.	10.400"	4.500"
31223545	Big M² Steel Cap	Raised .400"	Steel	Std.	9.800"	4.560"
31223555	Big M² Steel Cap	Raised .400"	Steel	Std.	10.200"	4.560"
31223595	Big M² Steel Cap	Raised .400"	Steel	Std.	10.400"	4.560"
31223645	Big M² Steel Cap	Raised .400"	Steel	Std.	9.800"	4.600"
31223655	Big M² Steel Cap	Raised .400"	Steel	Std.	10.200"	4.600"
31223695	Big M² Steel Cap	Raised .400"	Steel	Std.	10.400"	4.600"

BIG BLOCK CHEVY
CAST ALUMINUM ENGINE BLOCKS

QUICK INFO >>>

Designed to be the strongest, most durable and easiest to build Aluminum big block available. The ultimate choice for competition engines.

Based on the Chevrolet big block V8 design, these Aluminum blocks feature extra strengthening in critical areas, increased displacement capacity, true priority main oiling and precision CNC machining.

Conventional configuration that retains all production dimensions for compatibility with standard components. Advanced engineering makes Dart Aluminum big blocks the choice for serious competition.

FEATURES

- Standard 9.800" or 10.200" tall deck heights available for stroker engines.
- 4.250", 4.500" or 4.600" bore sizes standard.
- Ductile Iron sleeves with extra thick cylinder walls promote excellent ring seal.
- Reinforcing ribs strengthen the lifter valley and bell housing flange.
- Inboard valley head stud bosses improve head gasket sealing.
- Priority main oiling system delivers oil directly to the crankshaft bearings to enhance reliability at high engine speeds.
- Steel 4-Bolt main caps with splayed outer bolts for extra strength.
- Dual bolt patterns for standard BBC and notched oil pans.
- Parts kit included (Part# 32000040). Parts kits do not include cam bearings.

Dart blocks can be special ordered with a wide array of special machining options to suit your specific requirements.

BIG M - ALUMINUM

PART NO.	DESCRIPTION	CAM	CAPS	MAINS	DECK	BORE
31264344	Big M - Aluminum	Std.	Steel	Std.	9.800"	4.250"
31264354	Big M - Aluminum	Std.	Steel	Std.	10.200"	4.250"
31264444	Big M - Aluminum	Std.	Steel	Std.	9.800"	4.500"
31264454	Big M - Aluminum	Std.	Steel	Std.	10.200"	4.500"
31264644	Big M - Aluminum	Std.	Steel	Std.	9.800"	4.600"
31264654	Big M - Aluminum	Std.	Steel	Std.	10.200"	4.600"

BIG M ALUMINUM SPECS

Material:	RMR Cast Aluminum Alloy
Deck Height:	9.800" to 10.200"
Cylinder Bores:	4.250" to 4.600"
Main Bearings:	Standard
Main Caps:	Ductile or Steel
Cam Location:	Standard
Lifter Bores:	.842"
Freeze Plugs:	Screw-in
Rear Seal:	2-Piece
Weight:	140-160 lbs.

BIG M RACE SERIES

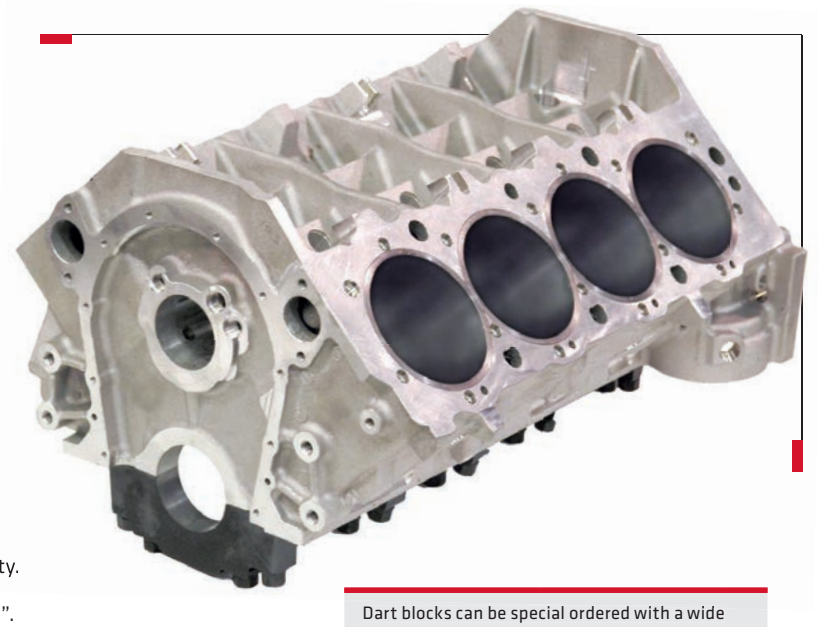
BIG BLOCK CHEVY
CAST ALUMINUM ENGINE BLOCKS

QUICK INFO >>>

Dart's Race Series Aluminum big block is based on the Chevrolet big block V8 design, with added features like increased deck height and a raised cam location.

The camshaft is raised .400" above the stock location to increase clearance for the connecting rods and crankshaft counterweights. The main oil gallery is located alongside the camshaft tunnel to eliminate interference with the crank assembly.

Advanced engineering makes Dart Aluminum big blocks the choice for serious competition.



Dart blocks can be special ordered with a wide array of special machining options to suit your specific requirements.

FEATURES

- Premium alloy: Dart Aluminum blocks are cast from RMR Cast Aluminum alloy for superior strength and integrity.
- Standard 9.800" or 10.200" deck heights/options to 10.400".
- Raised camshaft location +.400" clears stroker crankshafts.
- Ductile Iron sleeves with extra thick cylinder walls promote excellent ring seal.
- Reinforcing ribs strengthen the lifter valley and bell housing flange.
- Inboard valley head stud bosses improve head gasket sealing.
- Priority main oiling system delivers oil directly to the crankshaft bearings to enhance reliability at high engine speeds.
- With or without distributor provision.
- Steel 4-bolt main caps with splayed outer bolts for extra strength.
- Dual bolt patterns for standard BBC and notched oil pans.
- Parts kit included (Part# 32000040). Parts kits do not include cam bearings.

RACE SERIES - ALUMINUM

PART NO.	DESCRIPTION	CAM	CAPS	MAINS	DECK	BORE
31264345	Big M Race Series Aluminum	+.400"	Steel	Std.	9.800"	4.250"
31264445	Big M Race Series Aluminum	+.400"	Steel	Std.	9.800"	4.500"
31264645	Big M Race Series Aluminum	+.400"	Steel	Std.	9.800"	4.600"
31264385	Big M Race Series Aluminum	+.400"	Steel	Std.	10.000"	4.250"
31264485	Big M Race Series Aluminum	+.400"	Steel	Std.	10.000"	4.500"
31264685	Big M Race Series Aluminum	+.400"	Steel	Std.	10.000"	4.600"
31264355	Big M Race Series Aluminum	+.400"	Steel	Std.	10.200"	4.250"
31264455	Big M Race Series Aluminum	+.400"	Steel	Std.	10.200"	4.500"
31264655	Big M Race Series Aluminum	+.400"	Steel	Std.	10.200"	4.600"
31264395	Big M Race Series Aluminum	+.400"	Steel	Std.	10.400"	4.250"
31264495	Big M Race Series Aluminum	+.400"	Steel	Std.	10.400"	4.500"
31264695	Big M Race Series Aluminum	+.400"	Steel	Std.	10.400"	4.600"

ALUMINUM TIMING CHAIN COVER

PN 67240002
For +.400" Raised Cam Block (includes gasket).

RACE SERIES SPECS

Material:	RMR Cast Aluminum Alloy
Deck Height:	9.800" to 10.400"
Cylinder Bores:	4.250" to 4.600"
Oil Pan Rails:	Stock
Main Caps:	Steel
Cam Location:	Raised +.400"
Lifter Bores:	.842"
Freeze Plugs:	Screw-in
Rear Seal:	2-Piece
Weight:	136-168 lbs.

PRO 1

24° 275cc OVAL PORT

BIG BLOCK CHEVY CAST ALUMINUM CYLINDER HEADS

QUICK INFO >>>

For street performance, mild bracket racing and marine. Under 6,800 RPM, under 500 cubic inches. Excellent mid-range torque and power, good for heavier vehicles.

A new high velocity oval port design makes this head an ideal choice for street cars and trucks. The PRO1's race proven features include rolled valve angles, improved spark plug location, extra-long intake valves, raised exhaust ports, and fast burn chambers.

Long wearing Bronze valve guides, screw-in studs, multi-angle intake seats with hardened, radiused exhaust seats are standard. Best of all, our precision cast ports produce outstanding airflow without time consuming porting.

Assemblies include Stainless Steel valves, premium springs, locks, retainers, guide plates and seals.

Uses +.250" long intake valves.

Heads are sold individually.

PRO1 24° 275CC - ALUMINUM 2.190"/1.880" VALVES

PART NO.	CONFIGURATION FOR USE	MAX. LIFT	CHAMBER CC
19900070	Bare Head		110
19900171	1.550" Single Springs for Hydraulic Flat Tappet Cam	.700"	110
19900172H	1.550" Dual Springs for Hydraulic Roller Cam	.700"	110
19900172	1.550" Dual Springs for Solid Roller	.700"	110

PRO1 24° 275CC - ALUMINUM 2.250"/1.880" VALVES

PART NO.	CONFIGURATION FOR USE	MAX. LIFT	CHAMBER CC
19900010	Bare Head		110
19900111	1.550" Single Springs for Hydraulic Flat Tappet Cam	.700"	110
19900112H	1.550" Dual Springs for Hydraulic Roller Cam	.700"	110
19900112	1.550" Dual Springs for Solid Roller	.700"	110

PRO1 24° 275CC - ALUMINUM 2.190"/1.880" VALVES

PART NO.	CONFIGURATION FOR USE	MAX. LIFT	CHAMBER CC
19000070	Bare Head		121
19000171	1.550" Single Springs for Hydraulic Flat Tappet Cam	.700"	121
19000172H	1.550" Dual Springs for Hydraulic Roller Cam	.700"	121
19000172	1.550" Dual Springs for Solid Roller	.700"	121

PRO1 24° 275CC - ALUMINUM 2.250"/1.880" VALVES

PART NO.	CONFIGURATION FOR USE	MAX. LIFT	CHAMBER CC
19000010	Bare Head		121
19000111	1.550" Single Springs for Hydraulic Flat Tappet Cam	.700"	121
19000112H	1.550" Dual Springs for Hydraulic Roller Cam	.700"	121
19000112	1.550" Dual Springs for Solid Roller	.700"	121
19000116	1.625" Dual Springs for Solid Roller	.850"	121

PRO1 24° 275CC - ALUMINUM (MARINE HEADS) 2.190"/1.880" VALVES

PART NO.	CONFIGURATION FOR USE	MAX. LIFT	CHAMBER CC
19000070M	Bare Head		121
19000172M	1.550" Dual Springs for Hydraulic Roller Cam	.700"	121

PRO1 24° 275CC - ALUMINUM (MARINE HEADS) 2.250"/1.880" VALVES

PART NO.	CONFIGURATION FOR USE	MAX. LIFT	CHAMBER CC
19000010M	Bare Head		121
19000112M	1.550" Dual Springs for Hydraulic Roller Cam	.700"	121

RECOMMENDED MANIFOLDS

FOR 9.800" DECK BLOCKS

41214000 Single Plane 4150
41224000 Single Plane 4500

FOR 10.200" DECK BLOCKS

41215000 Single Plane 4150
41225000 Single Plane 4500

PRO1 24° 275cc SPECS

Material:	RMR Cast Aluminum Alloy
Valve Angle:	24°
Intake Port Volume:	275cc
Intake Valve:	2.190"/2.250"
Exhaust Valve:	1.880"
Chamber Volume:	110cc or 121cc
Intake Port Shape:	Oval
Exhaust Port Location:	.300" raised

FLOW DATA @ 28" WATER

LIFT	INTAKE	EXHAUST
.200"	154	127
.300"	225	170
.400"	284	211
.500"	318	244
.600"	341	267
.700"	352	282

PRO1 24° 310cc BIG BLOCK CHEVY CAST ALUMINUM CYLINDER HEADS

QUICK INFO >>>

For street performance and mild bracket racing. Under 7,000 RPM, under 500 cubic inches. Excellent midrange torque and power, good for heavier vehicles.

Inspired by Dart's championship winning Pro Stock designs, the PRO1's race proven features include rolled valve angles, improved spark plug location, extra-long intake valves, raised exhaust ports, and fast burn chambers - yet the PRO1 310cc can be used with off the shelf pistons, valve train components, and intake manifolds.

Long wearing Bronze valve guides, screw-in studs, multi-angle intake seats with hardened, radiused exhaust seats are standard. Best of all, our precision cast ports produce outstanding airflow without time consuming porting.

Assemblies include Stainless Steel valves, premium springs, locks, retainers, guide plates and seals.

Uses +.250" long intake valves.

Heads are sold individually.

DART MARINE PRO1 CYLINDER HEADS

Features an exclusive Teflon© surface finish to inhibit corrosion and extend the life of the head.

Fitted with Inconel exhaust valves to withstand the extended running time and temperatures typical of marine usage.

Head part kits - see page 107.

Uses +.250" long intake valves.

PRO1 24° 310CC - ALUMINUM 2.250"/1.880" VALVES

PART NO.	CONFIGURATION FOR USE	MAX. LIFT	CHAMBER CC
19100010	Bare Head	-	121
19100111	1.550" Single Springs for Hydraulic Flat Tappet Cam	.700"	121
19100112H	1.550" Dual Springs for Hydraulic Roller Cam	.700"	121
19100112	1.550" Dual Springs for Solid Roller	.700"	121
19100116	1.625" Dual Springs for Solid Roller Cam	.850"	121

PRO1 24° 310CC - ALUMINUM 2.300"/1.880" VALVES

PART NO.	CONFIGURATION FOR USE	MAX. LIFT	CHAMBER CC
19100030	Bare Head	-	121
19100132H	1.550" Dual Springs for Hydraulic Roller Cam	.700"	121
19100132	1.550" Dual Springs for Solid Roller	.700"	121
19100136	1.625" Dual Springs for Solid Roller Cam	.700"	121

PRO1 24° 310CC - ALUMINUM [MARINE] 2.190"/1.880" VALVES

PART NO.	CONFIGURATION FOR USE	MAX. LIFT	CHAMBER CC
19100070M	Bare Head	-	121

PRO1 24° 310CC - ALUMINUM [MARINE] 2.250"/1.880" VALVES

PART NO.	CONFIGURATION FOR USE	MAX. LIFT	CHAMBER CC
19100010M	Bare Head	-	121
19100112M	1.550" Dual Springs for Hydraulic Roller Cam	.700"	121

PRO1 24° 310CC - ALUMINUM [MARINE] 2.300"/1.880" VALVES

PART NO.	CONFIGURATION FOR USE	MAX. LIFT	CHAMBER CC
19100030M	Bare Head	-	121
19100132M	1.550" Dual Springs for Hydraulic Roller Cam	.700"	121

RECOMMENDED MANIFOLDS

FOR 9.800" DECK BLOCKS
41114000 Single Plane 4150
41124000 Single Plane 4500

FOR 10.200" DECK BLOCKS
41115000 Single Plane 4150
41125000 Single Plane 4500

PRO1 24° 310cc SPECS

Material:	RMR Cast Aluminum Alloy
Valve Angle:	24°
Intake Port Volume:	310cc
Intake Valve:	2.250"/2.300"
Exhaust Valve:	1.880"
Chamber Volume:	121cc
Intake Port Shape:	Rectangle
Exhaust Port Location:	.300" raised

FLOW DATA @ 28" WATER

LIFT	INTAKE	EXHAUST
.200"	167	127
.300"	250	170
.400"	302	211
.500"	333	244
.600"	352	267
.700"	360	282
.800"	363	294

Not intended for sale or use with pollution controlled vehicles.

PRO1 24° 325cc BIG BLOCK CHEVY CAST ALUMINUM CYLINDER HEADS

QUICK INFO >>>
Serious street performance, mild bracket racing, and marine. Over 7,000 RPM, 525+ cubic inches. Can be used on smaller engines with a tight converter

The PRO1 24° 325cc delivers increased airflow at high valve lift for high RPM, big cubic inch engines, and still remains compatible with off the shelf pistons, valve train components, and intake manifolds.

Long wearing Bronze valve guides, screw-in studs, multi-angle intake seats with hardened, radiused exhaust seats are standard. Best of all, our precision cast ports produce outstanding airflow without time consuming porting.

Assemblies include Stainless Steel valves, premium springs, locks, retainers, guide plates and seals.

Uses +.250" long intake valves.

Heads are sold individually.

DART MARINE PRO1 CYLINDER HEADS

Features an exclusive Teflon© surface finish to inhibit corrosion and extend the life of the head.

Fitted with Inconel exhaust valves to withstand the extended running time and temperatures typical of marine usage.

Head parts kit - see page 107.

Uses +.250" long intake valves.

PRO1 24° 325CC - ALUMINUM - 2.250"/1.880" VALVES

PART NO.	CONFIGURATION FOR USE	MAX. LIFT	CHAMBER CC
19200010	Bare Head	-	121
19200111	1.550" Single Springs for Hydraulic Flat Tappet Cam	.700"	121
19200112H	1.550" Dual Springs for Hydraulic Roller Cam	.700"	121
19200112	1.550" Dual Springs for Solid Roller Cam	.700"	121
19200116	1.625" Dual Springs for Solid Roller Cam	.850"	121

PRO1 24° 325CC - ALUMINUM - 2.300"/1.880" VALVES

PART NO.	CONFIGURATION FOR USE	MAX. LIFT	CHAMBER CC
19200030	Bare Head	-	121
19200132H	1.550" Dual Springs for Hydraulic Roller Cam	.700"	121
19200132	1.550" Dual Springs for Solid Roller Cam	.700"	121
19200136	1.625" Dual Springs for Solid Roller Cam	.850"	121

PRO1 24° 325CC - ALUMINUM [MARINE] - 2.250"/1.880" VALVES

PART NO.	CONFIGURATION FOR USE	MAX. LIFT	CHAMBER CC
19200010M	Bare Head	-	121
19200112M	1.550" Dual Springs for Hydraulic Roller Cam	.700"	121

PRO1 24° 325CC - ALUMINUM [MARINE] - 2.300"/1.880" VALVES

PART NO.	CONFIGURATION FOR USE	MAX. LIFT	CHAMBER CC
19200030M	Bare Head	-	121
19200132M	1.550" Dual Springs for Hydraulic Roller Cam	.700"	121

RECOMMENDED MANIFOLDS

FOR 9.800" DECK BLOCKS
41114000 Single Plane 4150
41124000 Single Plane 4500

FOR 10.200" DECK BLOCKS
41115000 Single Plane 4150
41125000 Single Plane 4500

PRO1 24° 325cc SPECS

Material:	RMR Cast Aluminum Alloy
Valve Angle:	24°
Intake Port Volume:	325cc
Intake Valve:	2.250"/2.300"
Exhaust Valve:	1.880"
Chamber Volume:	121cc
Intake Port Shape:	Rectangle
Exhaust Port Location:	.300" raised

FLOW DATA @ 28" WATER

LIFT	INTAKE	EXHAUST
.200"	166	127
.300"	245	170
.400"	297	211
.500"	330	244
.600"	355	267
.700"	370	282
.800"	377	294

PRO1 24° 345cc BIG BLOCK CHEVY CAST ALUMINUM CYLINDER HEADS

QUICK INFO >>>

Maximum street or marine performance, bracket racing, heads up and super classes. Over 7,000 RPM, 540+ cubic inches.

The PRO1 24° 345cc cylinder head is for uncompromising performance and racing applications which favor high RPM power over low end flexibility. Best for big cubic inch, high RPM use.

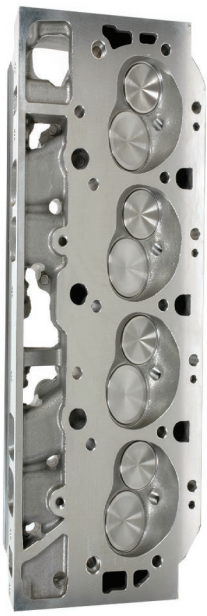
Rolled valve angles, improved spark plug location, extra-long intake valves, raised exhaust ports, and fast burn chambers. Works with off the shelf pistons, valve train components, and intake manifolds.

Long wearing Bronze valve guides, screw-in studs, multi-angle intake seats with hardened, radiused exhaust seats are standard.

Assemblies include Stainless Steel valves, premium springs, locks, retainers, guide plates and seals.

Uses +.250" long intake valves.

Heads are sold individually.



DART MARINE PRO1 CYLINDER HEADS

Features an exclusive Teflon© surface finish to inhibit corrosion and extend the life of the head.

Fitted with Inconel exhaust valves to withstand the extended running time and temperatures typical of marine usage.

Head parts kit - see page 107.

Uses +.250" long intake valves.

RECOMMENDED MANIFOLDS

FOR 9.800" DECK BLOCKS
41114000 Single Plane 4150
41124000 Single Plane 4500

FOR 10.200" DECK BLOCKS
41115000 Single Plane 4150
41125000 Single Plane 4500

PRO1 24° 345cc SPECS

Material:	RMR Cast Aluminum Alloy
Valve Angle:	24°
Intake Port Volume:	345cc
Intake Valve:	2.300"
Exhaust Valve:	1.880"
Chamber Volume:	121cc
Intake Port Shape:	Rectangle
Exhaust Port Location:	.300" raised

FLOW DATA @ 28" WATER

LIFT	INTAKE	EXHAUST
.200"	165	127
.300"	244	170
.400"	308	211
.500"	355	244
.600"	378	267
.700"	396	282
.800"	399	294

PRO1 24° 345CC - ALUMINUM - 2.300"/1.880" VALVES

PART NO.	CONFIGURATION FOR USE	MAX. LIFT	CHAMBER CC
19300030	Bare Head	-	121
19300132H	1.550" Dual Springs for Hydraulic Roller Cam	.700"	121
19300132	1.550" Dual Springs for Solid Roller	.700"	121
19300136	1.625" Dual Springs for Solid Roller Cam	.850"	121

PRO1 24° 345CC - ALUMINUM [MARINE] - 2.300"/1.880" VALVES

PART NO.	CONFIGURATION FOR USE	MAX. LIFT	CHAMBER CC
19300030M	Bare Head	-	121
19300132M	1.550" Dual Springs for Hydraulic Roller Cam	.700"	121

Not intended for sale or use with pollution controlled vehicles.

PRO1 24° 525 MMR 310/325/345cc BIG BLOCK CHEVY CAST ALUMINUM CYLINDER HEADS

QUICK INFO >>>

Mercury Racing 525 replacement style heads. Three intake runner sizes offer potential for increased levels of performance.

We've retooled Dart's PRO1 BBC castings to produce a true bolt on upgrade for the Mercury Racing 525 engine. The PRO1 24° 525 MMR is available with 310cc, 325cc or 345cc intake runners and has the correct exhaust bolt pattern for the factory manifolds. A grey chromate surface treatment inhibits salt corrosion for marine usage.

Uses +.250" long intake valves.

Heads are sold individually.

DART MARINE PRO1 CYLINDER HEADS

Features an exclusive Teflon© surface finish to inhibit corrosion and extend the life of the head.

Fitted with Inconel exhaust valves to withstand the extended running time and temperatures typical of marine usage.

Head parts kit - see page 107.

Uses +.250" long intake valves.

RECOMMENDED MANIFOLDS

FOR 9.800" DECK BLOCKS

41114000 Single Plane 4150
41124000 Single Plane 4500

PRO1 24° 310cc MERC STYLE - ALUMINUM [w/ 2.250" Intake Valve]

PART NO.	CONFIGURATION FOR USE	MAX. LIFT
19100010MMR	Bare Head	
19100112MMR	1.550" Dual Springs for Hydraulic Roller Cam	.700"

PRO1 24° 325cc MERC STYLE - ALUMINUM [w/ 2.250" Intake Valve]

PART NO.	CONFIGURATION FOR USE	MAX. LIFT
19200010MMR	Bare Head	
19200112MMR	1.550" Dual Springs for Hydraulic Roller Cam	.700"

PRO1 24° 325cc MERC STYLE - ALUMINUM [w/ 2.300" Intake Valve]

PART NO.	CONFIGURATION FOR USE	MAX. LIFT
19200030MMR	Bare Head	
19200132MMR	1.550" Dual Springs for Hydraulic Roller Cam	.700"

PRO1 24° 345cc MERC STYLE - ALUMINUM [w/ 2.300" Intake Valve]

PART NO.	CONFIGURATION FOR USE	MAX. LIFT
19300030MMR	Bare Head	
19300132MMR	1.550" Dual Springs for Hydraulic Roller Cam	.700"

PRO1 24° 310cc MERC STYLE SPECS

Material:	RMR Cast Aluminum Alloy
Valve Angle:	24°
Intake Port Volume:	310/325/345cc
Intake Valve:	2.250"/2.300"
Exhaust Valve:	1.880"
Chamber Volume:	121cc
Intake Port Shape:	Rectangle
Exhaust Port Location:	.300" raised

310cc FLOW DATA @ 28" WATER

LIFT	INTAKE	EXHAUST
.200"	167	127
.300"	250	170
.400"	302	211
.500"	333	244
.600"	352	267
.700"	360	282
.800"	363	294

325cc FLOW DATA @ 28" WATER

LIFT	INTAKE	EXHAUST
.200"	166	127
.300"	245	170
.400"	297	211
.500"	330	244
.600"	355	267
.700"	370	282
.800"	377	294

345cc FLOW DATA @ 28" WATER

LIFT	INTAKE	EXHAUST
.200"	165	127
.300"	244	170
.400"	308	211
.500"	355	244
.600"	378	267
.700"	396	282
.800"	399	294

PRO 1

24° 335cc CNC

BIG BLOCK CHEVY CAST ALUMINUM CYLINDER HEADS

QUICK INFO >>>

Maximum performance, bracket racing, heads up and super classes. Over 7,500 RPM, 500+ cubic inches, great head for maximum effort comp or bracket cars.

Dart PRO1 24° 335cc CNC heads are professional quality competition cylinder heads. We applied the airflow technology developed in our championship winning Pro Stock engine program to produce these state-of-the-art heads.

Every intake port, exhaust runner, valve bowl, and every combustion chamber is 100% CNC machined in special dedicated PRO1 castings. Our 5-axis, computer-controlled machining centers produce compound curves and complex shapes that no human could duplicate with a hand grinder.

Assemblies include Stainless Steel valves, premium springs, locks, retainers, guide plates and seals.

Heads are sold individually.

Head parts kit - see page 107.

Uses +.250" long intake valves.

DART MARINE PRO1 CYLINDER HEADS

Features an exclusive Teflon© surface finish to inhibit corrosion and extend the life of the head.

Fitted with Inconel exhaust valves to withstand the extended running time and temperatures typical of marine usage.

RECOMMENDED MANIFOLDS

FOR 9.800" DECK BLOCKS
41114000 Single Plane 4150
41124000 Single Plane 4500

FOR 10.200" DECK BLOCKS
41115000 Single Plane 4150
41125000 Single Plane 4500

PRO1 24° 335cc CNC SPECS

Material:	RMR Cast Aluminum Alloy
Valve Angle:	24°
Intake Port Volume:	335cc
Intake Valve:	2.300"
Exhaust Valve:	1.880"
Chamber Volume:	121cc
Intake Port Shape:	Rectangle
Exhaust Port Location:	.300" raised

PRO1 24° 335cc CNC - ALUMINUM

PART NO.	CONFIGURATION FOR USE	MAX. LIFT
19474030	Bare Head	
19474136	1.625" Dual Springs for Solid Roller	.850"
19474139	1.650" Triple Springs for Solid Roller Cam	.900"

PRO1 24° 335cc CNC - ALUMINUM (Marine Heads)

PART NO.	CONFIGURATION FOR USE	MAX. LIFT
19474030M	Bare Head	
19474136M	1.625" Dual Springs for Solid Roller	.850"

FLOW DATA @ 28" WATER

LIFT	INTAKE	EXHAUST
.200"	174	136
.300"	245	178
.400"	306	235
.500"	353	265
.600"	383	282
.700"	401	296
.800"	406	303

Not intended for sale or use with pollution controlled vehicles.

PRO 1

24° 355cc CNC

BIG BLOCK CHEVY
CAST ALUMINUM CYLINDER HEADS

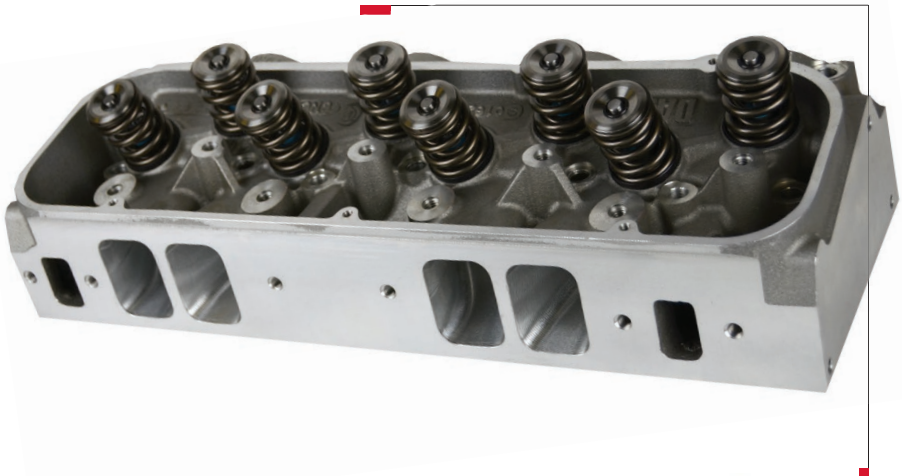
QUICK INFO >>>
Maximum performance, bracket racing, heads up and super classes. Over 7,500 RPM, 540+ cubic inches, a great head for maximum effort comp or bracket cars.

The PRO1 24° 355cc CNC heads are for uncompromising performance and racing applications which favor high RPM power over low end flexibility. Best for big cubic inch, high RPM use.

Every intake port, exhaust runner, valve bowl, and every combustion chamber is 100% CNC machined on special dedicated PRO1 castings. Our 5-axis, computer-controlled machining centers produce compound curves and complex shapes that no human could duplicate with a hand grinder.

Assemblies include Stainless Steel valves, premium springs, locks, retainers, guide plates and seals.

Heads are sold individually.



DART MARINE PRO1 CYLINDER HEADS

Features an exclusive Teflon© surface finish to inhibit corrosion and extend the life of the head.

Fitted with Inconel exhaust valves to withstand the extended running time and temperatures typical of marine usage.

Head parts kit - see page 107.

Uses +.250" long intake valves.

RECOMMENDED MANIFOLDS

FOR 9.800" DECK BLOCKS
41114000 Single Plane 4150
41124000 Single Plane 4500

FOR 10.200" DECK BLOCKS
41115000 Single Plane 4150
41125000 Single Plane 4500

PRO1 24° 355cc CNC SPECS

Material:	RMR Cast Aluminum Alloy
Valve Angle:	24°
Intake Port Volume:	355cc CNC
Intake Valve:	2.300"
Exhaust Valve:	1.880"
Chamber Volume:	121cc
Intake Port Shape:	Rectangle
Exhaust Port Location:	.300" raised

PRO1 24° 355cc CNC - ALUMINUM

PART NO.	CONFIGURATION FOR USE	MAX. LIFT
19574030	Bare Head	
19574136	1.625" Dual Springs for Solid Roller	.850"
19574139	1.650" Triple Springs for Solid Roller Cam	.900"

PRO1 24° 355cc CNC - ALUMINUM [Marine Heads]

PART NO.	CONFIGURATION FOR USE	MAX. LIFT
19574030M	Bare Head	
19574136M	1.625" Dual Springs for Solid Roller	.850"

FLOW DATA @ 28" WATER

LIFT	INTAKE	EXHAUST
.200"	177	136
.300"	251	178
.400"	310	235
.500"	360	265
.600"	399	282
.700"	402	296
.800"	426	303

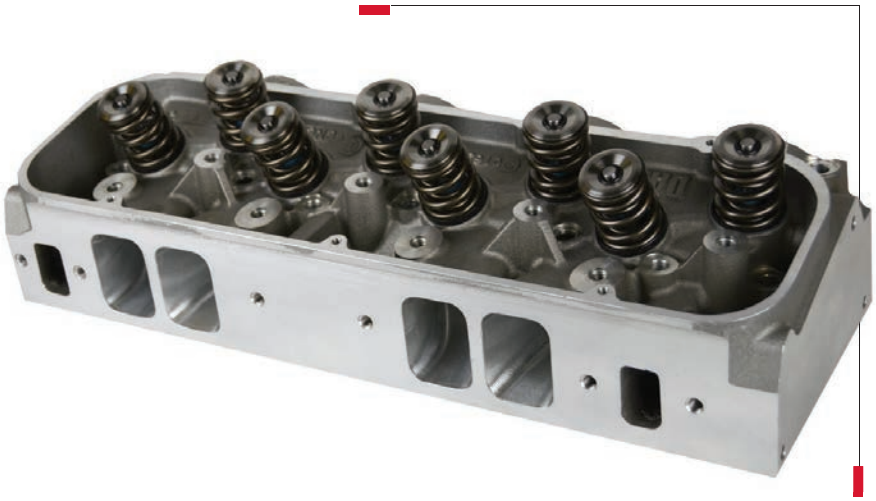
PRO 1

24° 365cc CNC

BIG BLOCK CHEVY CAST ALUMINUM CYLINDER HEADS

QUICK INFO >>>

Maximum performance, bracket racing, heads up and super classes. 7,500 RPM, 540+ cubic inches, great head for maximum effort, comp or bracket cars.



The PRO1 24° 365cc CNC is for uncompromising performance and racing applications which favor high RPM power over low end flexibility. Best for big cubic inch, high RPM use.

Every intake port, exhaust runner, valve bowl, and every combustion chamber is 100% CNC machined on special dedicated PRO1 castings. Our 5-axis, computer-controlled machining centers produce compound curves and complex shapes that no human could duplicate with a hand grinder.

Assemblies include Stainless Steel valves, premium springs, locks, retainers, guide plates and seals.

Heads are sold individually.

DART MARINE PRO1 CYLINDER HEADS

Features an exclusive Teflon© surface finish to inhibit corrosion and extend the life of the head.

Fitted with Inconel exhaust valves to withstand the extended running time and temperatures typical of marine usage.

Head parts kit - see page 107.

Uses +.350" long intake valves.

RECOMMENDED MANIFOLDS

FOR 9.800" DECK BLOCKS
41114000 Single Plane 4150
41124000 Single Plane 4500

FOR 10.200" DECK BLOCKS
41115000 Single Plane 4150
41125000 Single Plane 4500

PRO1 24° 365cc CNC SPECS

Material:	RMR Cast Aluminum Alloy
Valve Angle:	24°
Intake Port Volume:	365cc CNC
Intake Valve:	2.350"
Exhaust Valve:	1.850"
Chamber Volume:	121cc
Intake Port Shape:	Rectangle
Exhaust Port Location:	.300" raised

PRO1 24° 365cc CNC - ALUMINUM

PART NO.	CONFIGURATION FOR USE	MAX. LIFT
19874080	Bare head	
19874186	1.625" Dual Springs for Solid Roller	.850"
19874189	1.650" Triple Springs for Solid Roller Cam	.900"

PRO1 24° 365cc CNC - ALUMINUM (Marine Heads)

PART NO.	CONFIGURATION FOR USE	MAX. LIFT
19874080M	Bare head	
19874186M	1.625" Dual Springs for Solid Roller	.850"

FLOW DATA @ 28" WATER

LIFT	INTAKE	EXHAUST
.200"	171	132
.300"	248	171
.400"	310	240
.500"	362	273
.600"	405	290
.700"	414	300
.800"	428	307

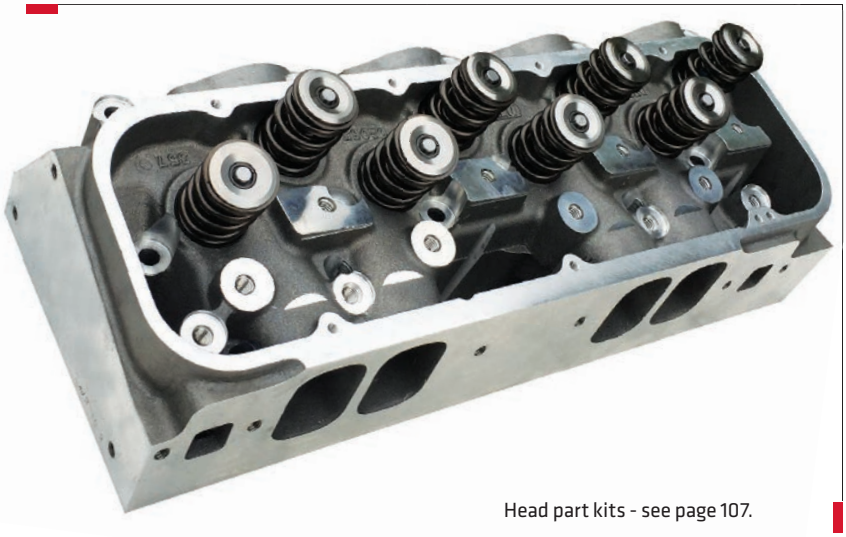
PRO1 20° 440cc BIG BLOCK CHEVY CAST ALUMINUM CYLINDER HEADS

QUICK INFO >>>
Maximum competition, high torque, high compression - low dome. 8000+ RPM, 500+ cubic inches.

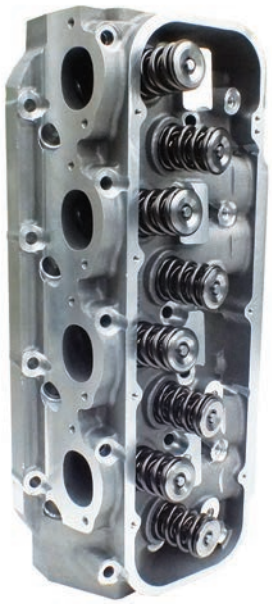
Dart developed the first successful aftermarket aluminum heads for the big block Chevy engine platform, and we've done it again! We have continued to refine our revolutionary designs through our in-house research and development program and now offer the latest of our advancements in the PRO1 20° 440cc Aluminum cylinder heads.

The Dart PRO1 20° heads deliver superior performance, by utilizing 440cc runners in a raised asymmetrical port design, and feature a 20° rolled valve angle with redesigned shallow combustion chambers. These heads are ideal for maximum effort naturally aspirated, big boost forced induction, or nitrous applications.

- **Designed to use conventional BBC intake manifolds.**
- **Requires use of shaft mounted rockers.**
- **Requires special pistons.**
- **HIP (Hot Isostatic Pressed) Casting.**
- **Solid heads available by special order.**
- **MUST use Copper seats with Titanium Valves.**
- **Heads are sold individually.**



Head part kits - see page 107.



RECOMMENDED MANIFOLDS

FOR 9.800" DECK BLOCKS
62220010 End Rail Spacers ***REQUIRED**
41125200 Single Plane 4500

FOR 10.200" DECK BLOCKS
62220011 End Rail Spacers ***REQUIRED**
41125300 Single Plane 4500

PRO1 20° 440cc SPECS

Material:	RMR Cast Aluminum Alloy
Valve Angle:	20°
Intake Port Volume:	440cc
Intake Valve:	2.400"
Exhaust Valve:	1.800"
CNC Chamber Volume:	97cc
Intake Port Shape:	Rectangle
Exhaust Port Location:	.500" raised

PRO1 20° 440CC - ALUMINUM - 4.500 BORE CHAMBER - 2.400"/1.800" VALVES

PART NO.	CONFIGURATION FOR USE	MAX. LIFT	CHAMBER CC
19705090	Bare head	-	97
19705196	1.625" Solid Roller Cam	.850"	97
19705199	1.650" Triple Springs for Solid Roller Cam	.900"	97

PRO1 20° 440CC - ALUMINUM - 4.600 BORE CHAMBER - 2.400"/1.800" VALVES

PART NO.	CONFIGURATION FOR USE	MAX. LIFT	CHAMBER CC
19706090	Bare head	-	97
19706196	1.625" Solid Roller Cam	.850"	97
19706199	1.650" Triple Springs for Solid Roller Cam	.900"	97

FLOW DATA @ 28" WATER

LIFT	INTAKE	EXHAUST
.200"	156	133
.300"	242	181
.400"	321	224
.500"	388	257
.600"	425	284
.700"	448	306
.800"	452	321
.900"	460	326
1.000"	467	333

PRO1 20° 409cc-451cc CNC BIG BLOCK CHEVY CAST ALUMINUM CYLINDER HEADS

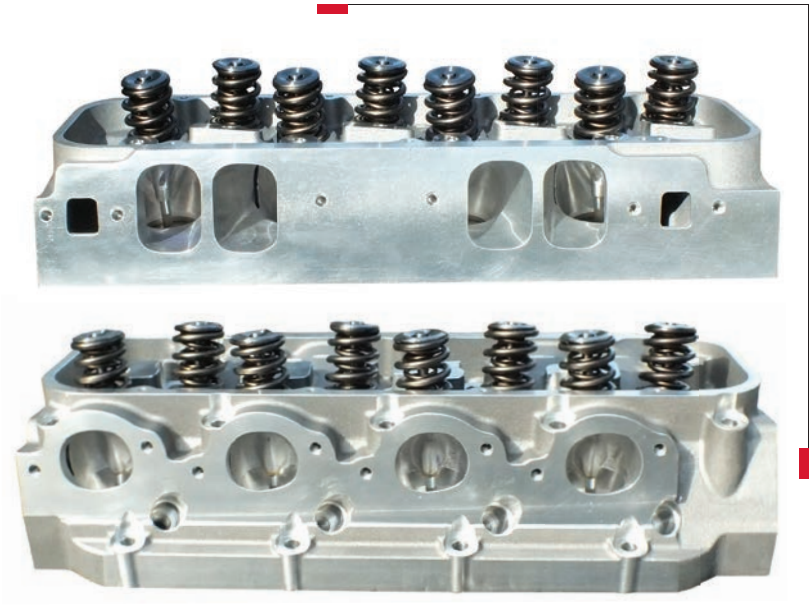
QUICK INFO >>>

Maximum competition, high torque, high compression - low dome. 8000+ RPM, 500+ cubic inches.

Dart developed the first successful aftermarket aluminum heads for the big block Chevy engine platform, and we've done it again! We have continued to refine our revolutionary designs through our in-house research and development program and now offer the latest of our advancements in the PRO1 20° 451cc CNC Aluminum cylinder heads.

The Dart PRO1 20° heads deliver superior performance, by utilizing 451cc runners in a raised asymmetrical port design, and feature a 20° rolled valve angle with redesigned shallow combustion chambers. These heads are ideal for maximum effort naturally aspirated, big boost forced induction, or nitrous applications.

- **Designed to use conventional BBC intake manifolds.**
- **Requires use of shaft mounted rockers.**
- **Requires special pistons.**
- **HIP (Hot Isostatic Pressed) Casting.**
- **Solid heads available by special order.**
- **MUST use Copper seats with Titanium Valves.**
- **Heads are sold individually.**



Head part kits - see page 107.

PRO1 20° 409CC CNC - ALUMINUM - 4.500" BORE CHAMBER - 2.350"/1.800" VALVES

PART NO.	CONFIGURATION FOR USE	MAX. LIFT	CHAMBER CC
19770000	C-Core	-	-
19774080	Bare head	-	97
19774186	1.625" Solid Roller Cam	.850"	97

PRO1 20° 451CC CNC - ALUMINUM - 4.500 BORE CHAMBER - 2.400"1.800" VALVES

PART NO.	CONFIGURATION FOR USE	MAX. LIFT	CHAMBER CC
19770000	C-Core	-	-
19775090	Bare head	-	97
19775196	1.625" Solid Roller Cam	.850"	97
19775199	1.650" Triple Springs for Solid Roller Cam	.900"	97

PRO1 20° 451CC CNC - ALUMINUM - SOLID CASTING - 4.500 BORE CHAMBER - 2.400"1.800" VALVES

PART NO.	CONFIGURATION FOR USE	MAX. LIFT	CHAMBER CC
19770000S	C-Core	-	-
19775090S	Bare head	-	97
19775196S	1.625" Solid Roller Cam	.850"	97
19775199S	1.650" Triple Springs for Solid Roller Cam	.900"	97

PRO1 20° 451CC CNC - ALUMINUM - 4.600 BORE CHAMBER - 2.400"1.800" VALVES

PART NO.	CONFIGURATION FOR USE	MAX. LIFT	CHAMBER CC
19776090	Bare head	-	97
19776196	1.625" Solid Roller Cam	.850"	97
19776199	1.650" Triple Springs for Solid Roller Cam	.900"	97

PRO1 20° 451CC CNC - ALUMINUM - SOLID CASTING - 4.600 BORE CHAMBER - 2.400"1.800" VALVES

PART NO.	CONFIGURATION FOR USE	MAX. LIFT	CHAMBER CC
19776090S	Bare head	-	97
19776196S	1.625" Solid Roller Cam	.850"	97
19776199S	1.650" Triple Springs for Solid Roller Cam	.900"	97

RECOMMENDED MANIFOLDS

FOR 9.800" DECK BLOCKS

62220010 End Rail Spacers ***REQUIRED**
41125200 Single Plane 4500

FOR 10.200" DECK BLOCKS

62220011 End Rail Spacers ***REQUIRED**
41125300 Single Plane 4500

PRO1 20° 451cc CNC SPECS

Material:	RMR Cast Aluminum Alloy
Valve Angle:	20°
Intake Port Volume:	451cc CNC
Intake Valve:	2.400"
Exhaust Valve:	1.800"
CNC Chamber Volume:	97cc
Intake Port Shape:	Rectangle
Exhaust Port Location:	.500" raised

FLOW DATA @ 28" WATER 451CC CNC

LIFT	INTAKE	EXHAUST
.200"	176	145
.300"	250	197
.400"	309	237
.500"	375	273
.600"	429	300
.700"	460	326
.800"	479	342
.900"	486	351
1.000"	489	357

RACE SERIES

20X 485cc CNC

BIG BLOCK CHEVY CAST ALUMINUM CYLINDER HEADS

QUICK INFO »»»

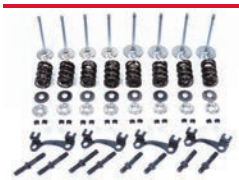
Maximum competition, performance marine and high torque, 8,000+ RPM, 500+ cubic inches.

Dart developed the first successful aftermarket aluminum heads for the big block Chevy engine platform, and we've done it again! We have continued to refine our revolutionary designs through our in-house research and development program and now offer the latest of our advancements in the Race 20°X 485cc CNC Aluminum cylinder heads.

The Dart Race Series 20° X heads deliver superior performance, by utilizing 485cc runners in a raised asymmetrical port design, and feature a 20° rolled valve angle with redesigned shallow combustion chambers. Dart utilizes its "X" pattern lifter and rocker layout creating the industry's most stable valvetrain. These heads are ideal for maximum effort naturally aspirated, big boost forced induction, or nitrous applications.

- **Designed to use conventional BBC intake manifolds.**
- **Requires use of Darts exclusive X pattern T&D shaft mounted rockers.**
- **Requires special pistons.**
- **HIP (Hot Isostatic Pressed) Casting.**
- **Solid heads available by special order.**
- **MUST use Copper seats with Titanium Valves.**
- **Heads are sold individually.**

NEW



HEAD PARTS

Dart has everything you need to assemble a cylinder head: Titanium or Stainless Steel valves, springs, locks, retainers, seals, studs, and guide plates.

See page 107.

RACE SERIES 20X 485CC CNC - ALUMINUM - WATER CASTING - 2.420"/1.800" 4.500 BORE

PART NO.	CONFIGURATION FOR USE	MAX. LIFT	CHAMBER CC
19770000X	C-Core	-	-
19775090X	Bare head	-	97
19775090X-PRO	Bare head - Features O Ring Ports & Fire Ring Deck	-	97
19775199X	1.650" Triple Springs for Solid Roller Cam	.900"	97
19775199X-PRO	1.650" Triple Springs for Solid Roller Cam - Features O Ring Ports & Fire Ring Deck	.900"	97

RACE SERIES 20X 485CC CNC - ALUMINUM - SOLID CASTING - 2.420"/1.800" 4.500 BORE

PART NO.	CONFIGURATION FOR USE	MAX. LIFT	CHAMBER CC
19770000XS	C-Core	-	-
19775090XS	Bare head	-	97
19775090XS-PRO	Bare head - Features O Ring Ports & Fire Ring Deck	-	97
19775199XS	1.650" Triple Springs for Solid Roller Cam	.900"	97
19775199XS-PRO	1.650" Triple Springs for Solid Roller Cam - Features O Ring Ports & Fire Ring Deck	.900"	97

RACE SERIES 20X 485CC CNC - ALUMINUM - WATER CASTING - 2.420"/1.800" 4.600 BORE

PART NO.	CONFIGURATION FOR USE	MAX. LIFT	CHAMBER CC
19776090X	Bare head	-	97
19776090X-PRO	Bare head - Features O Ring Ports & Fire Ring Deck	-	97
19776199X	1.650" Triple Springs for Solid Roller Cam	.900"	97
19776199X-PRO	1.650" Triple Springs for Solid Roller Cam - Features O Ring Ports & Fire Ring Deck	.900"	97

RACE SERIES 20X 485CC CNC - ALUMINUM - SOLID CASTING - 2.420"/1.800" 4.600 BORE

PART NO.	CONFIGURATION FOR USE	MAX. LIFT	CHAMBER CC
19776090XS	Bare head	-	97
19776090XS-PRO	Bare head - Features O Ring Ports & Fire Ring Deck	-	97
19776199XS	1.650" Triple Springs for Solid Roller Cam	.900"	97
19776199XS-PRO	1.650" Triple Springs for Solid Roller Cam - Features O Ring Ports & Fire Ring Deck	.900"	97

SPECIFICATIONS

Material:	RMR Cast Aluminum
Valve Angle:	20°
Intake Port Volume:	485cc
Intake Valve Size:	2.420"
Exhaust Valve Size:	1.800"
Chamber Volume:	97cc
Intake Port Shape:	Rectangle
Exhaust Port Location:	.500" Raised

FLOW DATA @ 28" WATER

LIFT	INTAKE	EXHAUST
.200"	181	144
.300"	269	190
.400"	345	229
.500"	409	274
.600"	459	309
.700"	490	332
.800"	499	342
.900"	514	351
1.000"	528	354

PRO 2

24° 380cc CNC

BIG BLOCK CHEVY
CAST ALUMINUM CYLINDER HEADS

QUICK INFO >>>

Maximum performance, bracket racing, heads up and super classes. Over 7,500 RPM, 500+ cubic inches, a great head for maximum effort comp or bracket cars.

Dart's PRO2 24° 380cc CNC heads have been revised with larger 2.350" intake valves and a revised port design for improved airflow and a substantial horsepower increase!

These cylinder heads were designed to make competitive engine building easier and less expensive by incorporating the rugged features of our famous Race Series casting into a ready to use, professional quality competition cylinder head. Every intake port, every exhaust runner, every valve bowl, and every combustion chamber are 100% digitally CNC machined for the ultimate in consistency.

Assemblies include Stainless Steel valves, premium springs, locks, retainers, guide plates and seals.

Heads are sold individually.

DART MARINE PRO1 CYLINDER HEADS

Features an exclusive Teflon© surface finish to inhibit corrosion and extend the life of the head.

Fitted with Inconel exhaust valves to withstand the extended running time and temperatures typical of marine usage.

Head part kits - see page 107.

Uses +.350" long intake valves.

RECOMMENDED MANIFOLDS

FOR 9.800" DECK BLOCKS
41125200 Single Plane 4500

FOR 10.200" DECK BLOCKS
41125300 Single Plane 4500

PRO2 24° 380cc CNC SPECS

Material:	RMR Cast Aluminum Alloy
Valve Angle:	24°
Intake Port Volume:	380cc CNC
Intake Valve:	2.300"/2.350"
Exhaust Valve:	1.880"/1.850"
Chamber Volume:	124cc
Intake Port Shape:	Rectangle
Exhaust Port Location:	.500" raised

FLOW DATA @ 28" WATER

LIFT	INTAKE	EXHAUST
.200"	170	134
.300"	244	178
.400"	306	223
.500"	359	274
.600"	399	300
.700"	425	318
.800"	434	330
.900"	440	338

PRO2 380CC CNC - ALUMINUM - 2.300"/1.880" VALVES

PART NO.	CONFIGURATION FOR USE	MAX. LIFT	CHAMBER CC
19674030	Bare Head	-	124
19674136	1.625" Dual Springs for Solid Roller Cam	.850"	124
19674139	1.650 Triple Springs for Solid Roller Cam	.900"	124

PRO2 380CC CNC - ALUMINUM - 2.350"/1.850" VALVES

PART NO.	CONFIGURATION FOR USE	MAX. LIFT	CHAMBER CC
19674080	Bare Head	-	124
19674186	1.625" Dual Springs for Solid Roller Cam	.850"	124
19674189	1.650 Triple Springs for Solid Roller Cam	.900"	124

PRO2 380CC CNC - ALUMINUM - MARINE - 2.300"/1.880" VALVES

PART NO.	CONFIGURATION FOR USE	MAX. LIFT	CHAMBER CC
19674030M	Bare Head	-	124
19674136M	1.625" Dual Springs for Solid Roller Cam	.850"	124

PRO2 380CC CNC - ALUMINUM - MARINE - 2.350"/1.850" VALVES

PART NO.	CONFIGURATION FOR USE	MAX. LIFT	CHAMBER CC
19674080M	Bare Head	-	124
19674186M	1.625" Dual Springs for Solid Roller Cam	.850"	124

Not intended for sale or use with pollution controlled vehicles.

RACE SERIES

24° 340/370cc OVAL PORT BIG BLOCK CHEVY CAST ALUMINUM CYLINDER HEADS

QUICK INFO »»»
Maximum competition, performance marine and high torque, 8,000+ RPM, 500+ cubic inches.

Dart 340/370cc oval port Aluminum cylinder heads have high velocity 340/370cc intake runners that produce incredible midrange torque and throttle response. Oval port heads really "wake up" a big block in marine applications, or in a heavy car with an automatic transmission. They also work great in a light car with a tight torque converter.

Dart big block heads deliver superior performance without the hassles of welding and modifying stock castings. We applied proven Pro Stock technology to produce big block heads that outperform the competition, yet Dart heads can be used with most off the shelf pistons, manifolds, headers, and valve train components.

Heads are sold individually.

Head part kits - see page 107.

Uses +.250" long intake valves.

RACE SERIES 340CC CNC - ALUMINUM - 2.250"/1.880" VALVES - 4.500" BORE

PART NO.	CONFIGURATION FOR USE	MAX. LIFT	CHAMBER CC
16776010	Bare Head	-	125
16776116	1.625" Dual Springs for Solid Roller Cam	.850"	125

RACE SERIES 340CC CNC - ALUMINUM - 2.250"/1.880" VALVES - 4.600" BORE

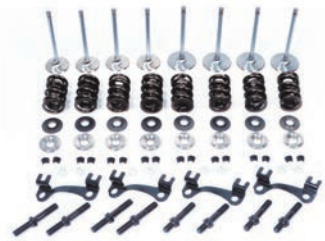
PART NO.	CONFIGURATION FOR USE	MAX. LIFT	CHAMBER CC
16777010	Bare Head	-	125
16777116	1.625" Dual Springs for Solid Roller Cam	.850"	125

RACE SERIES 370CC CNC - ALUMINUM - 2.300"/1.880" VALVES - 4.500" BORE

PART NO.	CONFIGURATION FOR USE	MAX. LIFT	CHAMBER CC
16774030	Bare Head	-	125
16774136	1.625" Dual Springs for Solid Roller Cam	.850"	125

RACE SERIES 370CC CNC - ALUMINUM - 2.300"/1.880" VALVES - 4.600" BORE

PART NO.	CONFIGURATION FOR USE	MAX. LIFT	CHAMBER CC
16775030	Bare Head	-	125
16775136	1.625" Dual Springs for Solid Roller Cam	.850"	125



HEAD PARTS

Dart has everything you need to assemble a cylinder head: Titanium or Stainless Steel valves, springs, locks, retainers, seals, studs, and guide plates.

See page 107.

RECOMMENDED MANIFOLDS

FOR 9.800" DECK BLOCKS
41114000 Single Plane 4150*
41124000 Single Plane 4500*

FOR 10.200" DECK BLOCKS
41115000 Single Plane 4150*
41125000 Single Plane 4500*

(*With slight porting modification)

RACE SERIES 24° 340/370cc SPECS

Material:	RMR Cast Aluminum Alloy
Valve Angle:	24°
Intake Port Volume:	340/370cc
Intake Valve:	2.250"/2.300"
Exhaust Valve:	1.880"
Chamber Volume:	125cc
Intake Port Shape:	Oval
Exhaust Port Location:	.300" raised

FLOW DATA @ 28" WATER

LIFT	INTAKE	EXHAUST
.200"	175	135
.300"	238	187
.400"	302	231
.500"	350	280
.600"	385	292
.700"	411	310
.800"	420	319

RACE SERIES

18° 330/383cc BIG BLOCK CHEVY CAST ALUMINUM CYLINDER HEADS

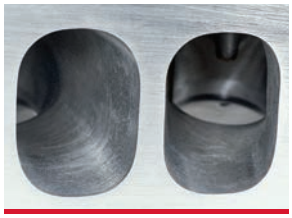
QUICK INFO >>>

Maximum competition. High torque, high compression - low dome. 8,000+ RPM, 500+ cubic inches.

Race Series big block 18° oval port heads bridge the gap between conventional heads and Dart's Big Chief heads.

Utilizing Pro Stock style oval intake ports with 330cc or 383cc runners in a conventional asymmetrical port design, and featuring an 18° rolled valve angle with redesigned shallow combustion chambers, this design is ideal for drag racing, marine applications and dirt modified classes permitting big blocks.

Heads are sold individually.



Head part kits - see page 107.

Uses +.350" long intake valves.

Must use shaft mount rockers.

Requires special pistons.

RECOMMENDED MANIFOLDS

FOR 9.800" DECK BLOCKS

41214100 Single Plane 4150
41214100 Single Plane 4500

FOR 10.200" DECK BLOCKS*

41215100 Single Plane 4150
41215100 Single Plane 4500

***Requires spacer plate kit.**

62210007 330cc Intake Ports
62210009 383cc Intake Ports

RACE SERIES 18° 330/383cc SPECS

Material:	RMR Cast Aluminum Alloy
Valve Angle:	18°
Intake Port Volume:	330/383cc
Intake Valve:	2.250"/2.350"
Exhaust Valve:	1.840"
Chamber Volume:	102cc
Intake Port Shape:	Oval
Exhaust Port Location:	.400" raised

RACE SERIES 330CC CNC - ALUMINUM - 2.250"/1.840" VALVES - 4.500" BORE

PART NO.	CONFIGURATION FOR USE	MAX. LIFT	CHAMBER CC
16876040	Bare Head	-	102
16876146	1.625" Dual Springs for Solid Roller Cam	.850"	102

RACE SERIES 330CC CNC - ALUMINUM - 2.250"/1.840" VALVES - 4.600" BORE

PART NO.	CONFIGURATION FOR USE	MAX. LIFT	CHAMBER CC
16877040	Bare Head	-	102
16877146	1.625" Dual Springs for Solid Roller Cam	.850"	102

RACE SERIES 383CC CNC - ALUMINUM - 2.350"/1.840" VALVES - 4.500" BORE

PART NO.	CONFIGURATION FOR USE	MAX. LIFT	CHAMBER CC
16874050	Bare Head	-	102
16874156	1.625" Dual Springs for Solid Roller Cam	.850"	102

RACE SERIES 383CC CNC - ALUMINUM - 2.350"/1.840" VALVES - 4.600" BORE

PART NO.	CONFIGURATION FOR USE	MAX. LIFT	CHAMBER CC
16875050	Bare Head	-	102
16875156	1.625" Dual Springs for Solid Roller Cam	.850"	102

330cc FLOW DATA @ 28" WATER

LIFT	INTAKE	EXHAUST
.200"	190	120
.300"	254	164
.400"	318	191
.500"	377	222
.600"	404	257
.700"	412	276
.800"	413	301

383cc FLOW DATA @ 28" WATER

LIFT	INTAKE	EXHAUST
.200"	162	136
.300"	236	177
.400"	314	216
.500"	376	254
.600"	420	289
.700"	444	316
.800"	450	330

BIG CHIEF PRO1 18° & 14° 424cc BIG BLOCK CHEVY CAST ALUMINUM CYLINDER HEADS

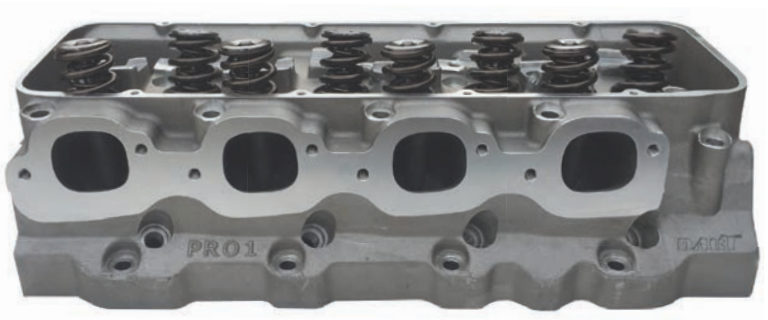
QUICK INFO »»»
Maximum Top Sportsman, Top Dragster, Pro Mod and Pro Street competition. Excellent with alcohol and nitrous, over 7,000 RPM, over 500 cubic inches.

The original Dart Big Chief put the spread port design on the map, winning three NHRA Pro Stock championships before being banned from the class.

We have applied the PRO1 design concept to the Big Chief in order to help make spread port technology more affordable for Sportsman racers. High flowing as cast ports combined with CNC machined chambers and bowls deliver awesome power.

Big Chief PRO1 18° and 14° head assemblies include hardened seats and stainless valves. Copper seats and Titanium valves are optional.

Heads are sold individually.



Head part kits - see page 107.

PRO1 14° 424CC - ALUMINUM - 2.400"/1.900" VALVES - 4.500" BORE

PART NO.	CONFIGURATION FOR USE	MAX. LIFT	CHAMBER CC
18474030	Bare Head	-	100
18474136	1.625" Dual Springs for Solid Roller Cam	.850"	100

PRO1 14° 424CC - ALUMINUM - 2.400"/1.900" VALVES - 4.600" BORE

PART NO.	CONFIGURATION FOR USE	MAX. LIFT	CHAMBER CC
18475030	Bare Head	-	100
18475136	1.625" Dual Springs for Solid Roller Cam	.850"	100

PRO1 18° 424CC - ALUMINUM - 2.400"/1.900" VALVES - 4.500" BORE

PART NO.	CONFIGURATION FOR USE	MAX. LIFT	CHAMBER CC
18464030	Bare Head	-	100
19464136	1.625" Dual Springs for Solid Roller Cam	.850"	100

PRO1 18° 424CC - ALUMINUM - 2.400"/1.900" VALVES - 4.600" BORE

PART NO.	CONFIGURATION FOR USE	MAX. LIFT	CHAMBER CC
18465030	Bare Head	-	100
18465136	1.625" Dual Springs for Solid Roller Cam	.850"	100

BIG CHIEF PRO1 18° & 14° SPECS

Material:	RMR Cast Aluminum Alloy
Valve Angle:	18° & 14°
Intake Port Volume:	424cc
Intake Valve:	2.400"
Exhaust Valve:	1.900"
CNC Chamber Volume:	95cc w/Ti 100cc w/SS
Intake Port Shape:	Rectangle
Port Location:	Spread port

FLOW DATA @ 28" WATER

LIFT	INTAKE	EXHAUST
.200"	158	138
.300"	222	185
.400"	284	229
.500"	345	267
.600"	390	293
.700"	420	302
.800"	431	305
.900"	437	309

BIG CHIEF

18° 424cc | 14° 440cc CNC

BIG BLOCK CHEVY CAST ALUMINUM CYLINDER HEADS

QUICK INFO >>>

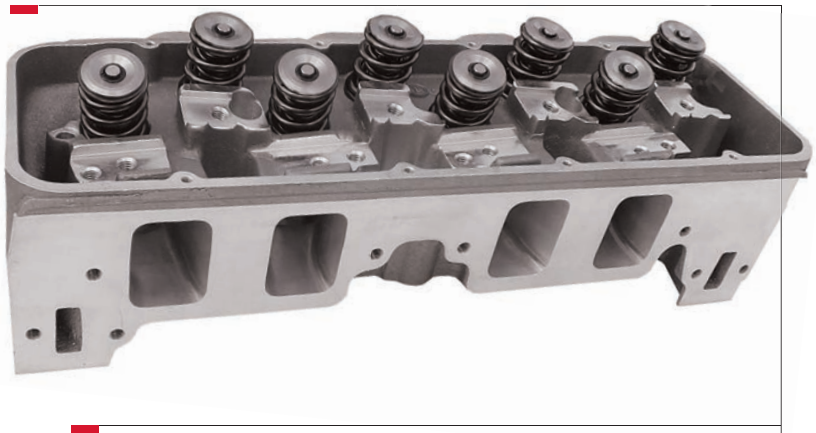
Maximum Top Sportsman, Top Dragster, Pro Mod and Pro Street competition. Excellent with alcohol and nitrous, over 7,000 RPM, over 500 cubic inches.

Big Chief heads have dominated in Sportsman through Pro Stock classes since their introduction, and we have continued to improve the design with the latest Pro Stock technology.

With our sophisticated CNC machining programs, we can tailor a pair of Big Chief 18° or 14° heads to fit your exact engine combination.

Big Chief PRO1 18° and 14° head assemblies include hardened seats and stainless valves. Copper seats and Titanium valves are optional.

Heads are sold individually.



Head part kits - see page 107.

PRO1 14° 440CC CNC - ALUMINUM - 2.400"1.900" VALVES

PART NO.	CONFIGURATION FOR USE	MAX. LIFT	CHAMBER CC
18100000	Bare Head	-	87
18100000S	Bare Head - Solid	-	87

PRO1 14° 440CC CNC - ALUMINUM - 2.400"1.900" VALVES - 4.500" BORE

PART NO.	CONFIGURATION FOR USE	MAX. LIFT	CHAMBER CC
18174030	Bare Head	-	87
18174136	1.625" Dual Springs for Solid Roller Cam	.850"	87

PRO1 14° 440CC CNC- ALUMINUM - 2.400"1.900" VALVES - 4.600" BORE

PART NO.	CONFIGURATION FOR USE	MAX. LIFT	CHAMBER CC
18175030	Bare Head	-	87
18175136	1.625" Dual Springs for Solid Roller Cam	.850"	87

PRO1 18° 424CC CNC - ALUMINUM - 2.400"1.900" VALVES

PART NO.	CONFIGURATION FOR USE	MAX. LIFT	CHAMBER CC
18000000	Bare Head	-	87
18000000S	Bare Head - Solid	.850"	87

PRO1 18° 424CC CNC- ALUMINUM - 2.400"1.900" VALVES - 4.500" BORE

PART NO.	CONFIGURATION FOR USE	MAX. LIFT	CHAMBER CC
18074030	Bare Head	-	87
18074136	1.625" Dual Springs for Solid Roller Cam	.850"	87

PRO1 18° 424CC CNC - ALUMINUM - 2.400"1.900" VALVES - 4.600" BORE

PART NO.	CONFIGURATION FOR USE	MAX. LIFT	CHAMBER CC
18075030	Bare Head	-	87
18075136	1.625" Dual Springs for Solid Roller Cam	.850"	87

BIG CHIEF 18° & 14° CNC SPECS

Material:	RMR Cast Aluminum Alloy
Valve Angle:	18°/14°
Intake Port Volume:	424/440cc CNC
Intake Valve:	2.400"
Exhaust Valve:	1.900"
Chamber Volume:	87cc
Intake Port Shape:	Rectangle
Port Location:	Spread port

FLOW DATA @ 28" WATER

LIFT	18°/2.400" INTAKE	14°/2.400" INTAKE	1.900" EXHAUST
.200"	158	154	158
.300"	233	233	217
.400"	296	296	264
.500"	359	357	316
.600"	403	410	326
.700"	433	438	329
.800"	452	454	337
.900"	460	463	340

BIG CHIEF

14° 433cc CNC OVAL PORT

BIG BLOCK CHEVY CAST ALUMINUM CYLINDER HEADS

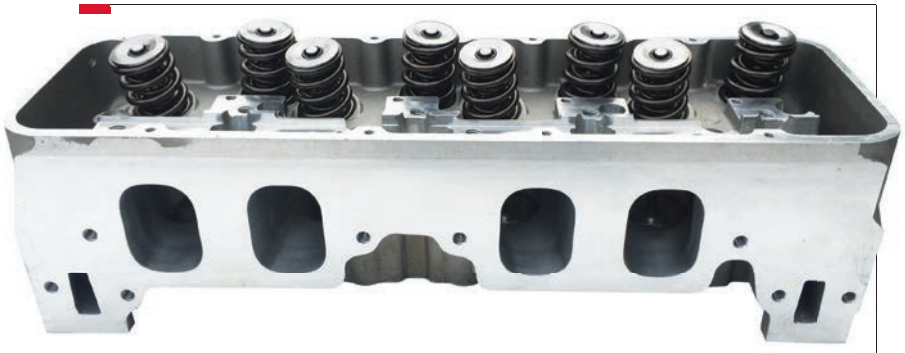
QUICK INFO >>>
Maximum Top Sportsman, Top Dragster, Pro Mod and Pro Street competition. Excellent with alcohol and nitrous, over 7,000 RPM, over 500 cubic inches.

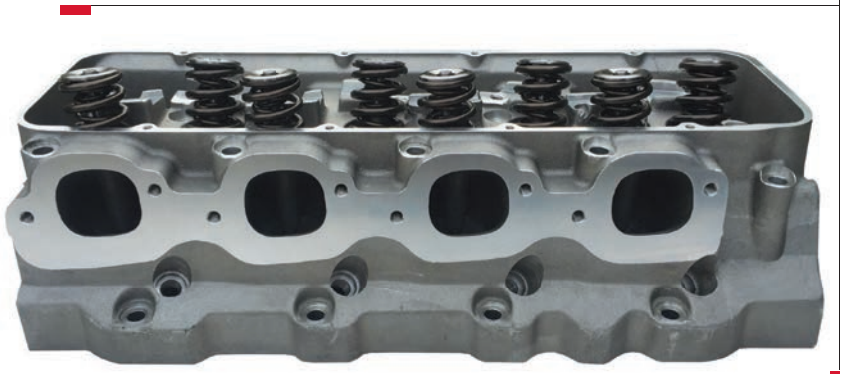
An updated Dart Big Chief 385 program incorporates a 2.500" intake valve for a dramatic increase in air flow.

Big Chief heads have dominated in Sportsman classes since their introduction, and we have continued to improve the design with the latest Pro Stock technology.

With our sophisticated CNC machining programs, we can tailor a pair of Big Chief 14° CNC heads to fit your exact engine combination. Copper seats are standard, and assemblies come with Titanium valves.

Heads are sold individually.





PRO1 14° 433CC CNC - ALUMINUM

PART NO.	CONFIGURATION FOR USE	MAX. LIFT	CHAMBER CC
18200000C	Bare Head - C Core	-	-
18200000CS	Bare Head - C Core Solid	-	-

PRO1 14° 433CC CNC - ALUMINUM - 2.470"/1.800" VALVES - 4.600" BORE

PART NO.	CONFIGURATION FOR USE	MAX. LIFT	CHAMBER CC
18200000	Bare Head - No Porting	-	-
18275070	Bare Head	-	87
18275179	1.650" Triple Springs for Solid Roller Cam	-	87

PRO1 14° 433CC CNC - ALUMINUM - 2.500"/1.800" VALVES - 4.600" BORE

PART NO.	CONFIGURATION FOR USE	MAX. LIFT	CHAMBER CC
18300000	Bare Head - No Porting	-	-
18375080	Bare Head	-	87
18375189	1.650" Triple Springs for Solid Roller Cam	-	87

BIG CHIEF 14° 433cc CNC SPECS

Material:	RMR Cast Aluminum Alloy
Valve Angle:	14°
Intake Port Volume:	433cc CNC
Intake Valve:	2.470"/2.500"
Exhaust Valve:	1.800"
Chamber Volume:	86cc
Intake Port Shape:	Oval
Port Location:	Spread port

FLOW DATA @ 28" WATER

LIFT	2.470" INTAKE	2.500" INTAKE	1.800" EXHAUST
.200"	164	169	129
.300"	254	251	182
.400"	333	330	218
.500"	398	395	251
.600"	446	447	288
.700"	482	499	316
.800"	493	523	338
.900"	495	525	349

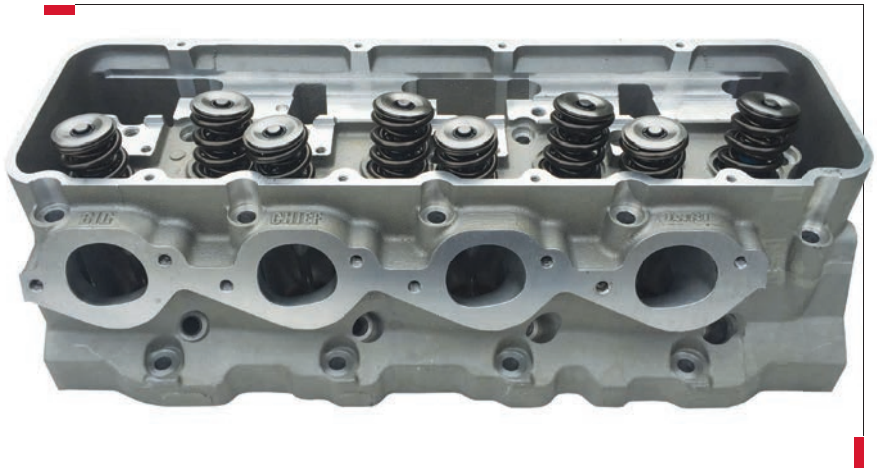
Not intended for sale or use with pollution controlled vehicles.

BIG CHIEF II

11° 555cc CNC OVAL PORT

BIG BLOCK CHEVY CAST ALUMINUM CYLINDER HEADS

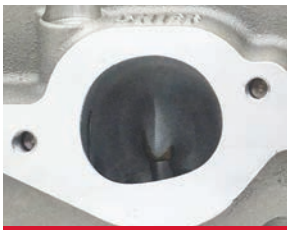
QUICK INFO >>>
Maximum Top Sportsman, Top Dragster, Pro Mod and Pro Street competition. Excellent with alcohol and nitrous, over 7,000 RPM, over 500 cubic inches.



The latest Big Chief evolution with an 11° valve angle, this head features a multitude of revisions: relocated valve centers, relocated port cores, and a redesigned valve train for increased power and reliability.

With our sophisticated CNC machining programs, we can tailor a pair of Big Chief II heads to fit your exact engine combination. Copper seats are standard, and assemblies come with Titanium valves. Standard 2.500"/1.850" intake/exhaust valves.

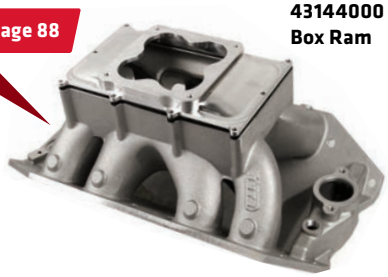
Heads are sold individually.



RECOMMENDED MANIFOLD

See page 88

43144000
Box Ram



BIG CHIEF II 11° 555cc CNC SPECS

Material:	RMR Cast Aluminum Alloy
Valve Angle:	11°
Intake Port Volume:	555cc CNC
Intake Valve:	2.500"
Exhaust Valve:	1.850"
Chamber Volume:	56-90cc
Intake Port Shape:	Oval
Port Location:	Spread port

FLOW DATA w/ 2.500-1.850 valves

LIFT	INTAKE	EXHAUST
.200"	168	136
.300"	262	186
.400"	338	232
.500"	399	279
.600"	456	321
.700"	501	348
.800"	521	357
.900"	522	363
1.000"	534	364

RACE SERIES 11° 555CC CNC - ALUMINUM - 2.470"/1.800" VALVES

PART NO.	CONFIGURATION FOR USE	MAX. LIFT	CHAMBER CC
18500000	Bare Head - No Porting	-	-
18575070	Bare Head	-	call
18575179	1.650" Triple Springs for Solid Roller Cam	.900"	call

RACE SERIES 11° 555CC CNC - ALUMINUM - 2.500"/1.850" VALVES

PART NO.	CONFIGURATION FOR USE	MAX. LIFT	CHAMBER CC
18575090	Bare Head	-	call
18575090CN	Bare Head - Nitrous Softened Chamber	-	call
18575199	1.650" Triple Springs for Solid Roller Cam	.900"	call
18575199CN	1.650" Triple Springs for Solid Roller Cam - Nitrous Softened Chamber	.900"	call

BIG CHIEF III 11° 569cc CNC OVAL PORT

BIG BLOCK CHEVY BILLET HEADS

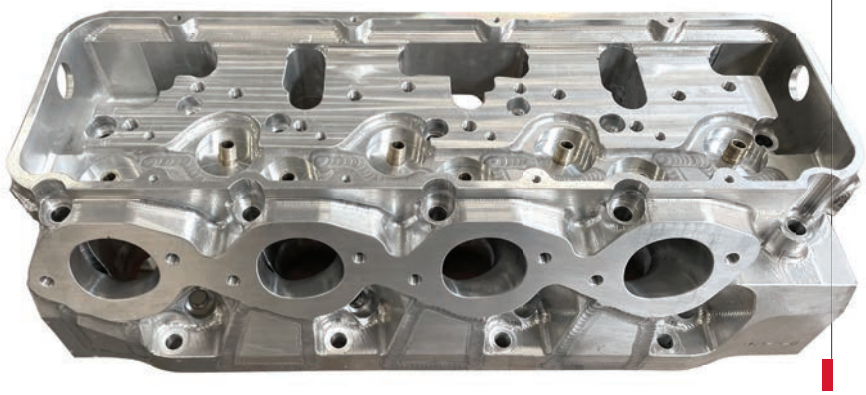
NEW

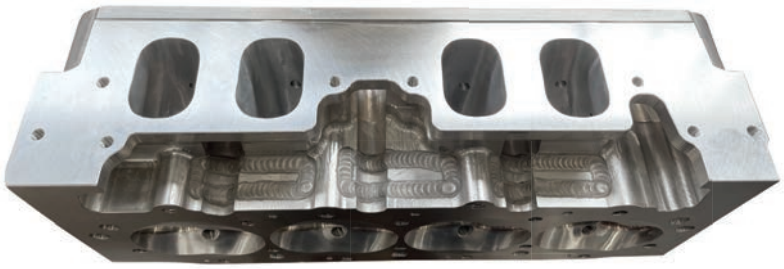
QUICK INFO >>>
Maximum Top Sportsman, Top Dragster, Pro Mod and Pro Street competition. Excellent with alcohol and nitrous, over 7,000 RPM, over 500 cubic inches.

The latest Big Chief evolution with an 11° valve angle, this head features a multitude of revisions: relocated valve centers, relocated port cores, and a redesigned valve train for increased power and reliability.

Copper seats are standard and assemblies come with Titanium valves. Standard 2.550"/1.875" intake/exhaust valves.

Heads are sold individually.

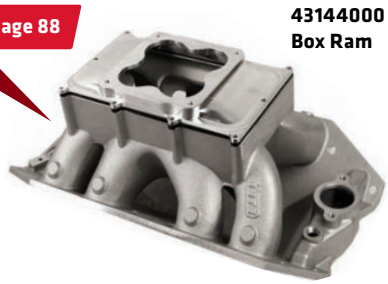




RECOMMENDED MANIFOLD

See page 88

43144000
Box Ram



BIG CHIEF III 11° 569cc CNC SPECS

Material:	RMR Cast Aluminum Alloy
Valve Angle:	11°
Intake Port Volume:	569cc CNC
Intake Valve:	2.550"
Exhaust Valve:	1.875"
Chamber Volume:	87cc
Intake Port Shape:	Oval
Port Location:	Spread port

RACE SERIES 11° 569cc CNC - ALUMINUM - 2.550"/1.875" VALVES

PART NO.	CONFIGURATION FOR USE	MAX. LIFT	CHAMBER CC
18600070	Bare Head	-	87
18600070CN	Bare Head - Nitrous Softened Chamber	-	call
18600170	1.680" Triple Springs for Solid Roller Cam	1.100"	87
18600170CN	1.680" Triple Springs for Solid Roller Cam - Nitrous Softened Chamber	1.100"	call

FLOW DATA w/ 2.550-1.875 valves

LIFT	INTAKE	EXHAUST
.200"	162	149
.300"	257	203
.400"	339	263
.500"	408	309
.600"	469	351
.700"	515	401
.800"	539	419
.900"	547	431
1.000"	559	433
1.100"	578	433
1.200"	585	434

Not intended for sale or use with pollution controlled vehicles.

BIG CHIEF

14° 505cc 5.000" BORE SPACE

BIG BLOCK CHEVY CAST ALUMINUM CYLINDER HEADS

QUICK INFO >>>

For 5.000" bore space engines. Maximum Top Sportsman, Top Dragster, Pro Mod and Pro Street competition. Excellent with alcohol and nitrous, over 7,000 RPM.

The original Dart Big Chief put the spread port design on the map, winning three NHRA Pro Stock championships before being banned from the class.

Our 14° Big Chiefs have dominated in Sportsman classes since their introduction, and we have continued to improve the design with the latest Pro Stock technology now available in 5.000" bore centers.

With our sophisticated CNC machining programs, we can tailor a pair of Big Chief heads to fit your exact engine combination.

Heads are sold individually.

BIG CHIEF 14° 505cc (5.000") SPECS

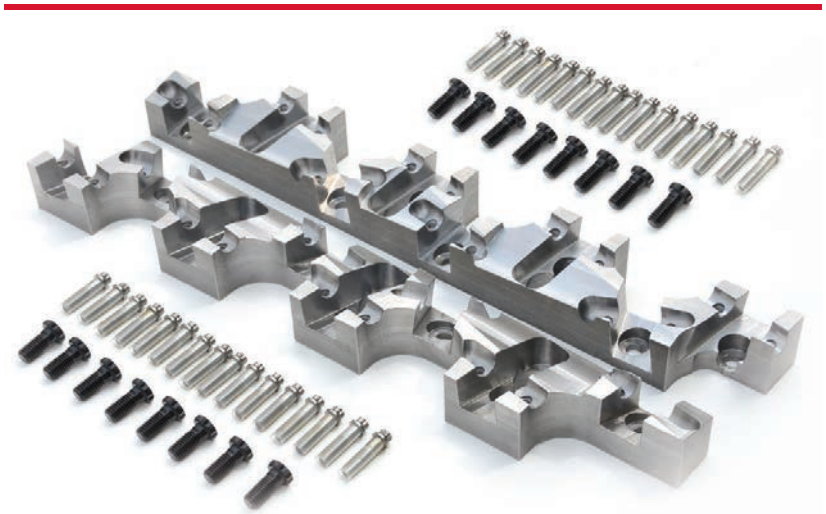
Material:	RMR Cast Aluminum Alloy
Valve Angle:	14°
Intake Port Volume:	505cc
Intake Valve:	2.575"
Exhaust Valve:	1.900"
Chamber Volume:	76cc
Intake Port Shape:	Oval
Port Location:	Spread port

BIG CHIEF 14° 505CC CNC - ALUMINUM - 2.575"/1.900" VALVES - 5.000" BORE SPACE

PART NO.	CONFIGURATION FOR USE	MAX. LIFT	CHAMBER CC
18777060	Bare Head	-	76
18777169	1.650" Triple Springs for Solid Roller Cam	1.000"	76

FLOW DATA @ 28" WATER

LIFT	INTAKE	EXHAUST
.200"	163	152
.300"	260	203
.400"	344	251
.500"	413	302
.600"	468	334
.700"	512	356
.800"	540	366
.900"	551	371
1.000"	560	374



DART ONE-PIECE ROCKER BAR

For "No-Z" rocker arms PN 61400001

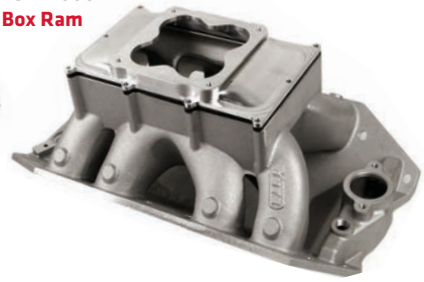
Use T&D rocker arms T&D PN 16-1578

BIG BLOCK CHEVY INTAKE MANIFOLDS

An engine's cylinder heads and intake manifold must work together as an integrated system to produce maximum performance. The intake charge should make a seamless transition from the manifold runners to the cylinder head ports. Dart has accomplished this in every intake manifold we make.

41114000
BBC 4150

43144000
Box Ram



41616010
8.1L Dual Plane

24°/26° SINGLE PLANE

PART NO	DESCRIPTION	PORT STYLE	DECK	CARB
41114000	BBC Manifold	Rectangle	9.800"	4150
41115000	BBC Manifold	Rectangle	10.200"	4150
41124000	BBC Manifold	Rectangle	9.800"	4500
41125000	BBC Manifold	Rectangle	10.200"	4500
41124200	BBC Manifold - Sniper Jr.	Rectangle	9.800"	4500
41124300	BBC Manifold - Sniper Jr.	Rectangle	10.200"	4500
41125200	BBC Manifold - Sniper	Rectangle	9.800"	4500
41125300	BBC Manifold - Sniper	Rectangle	10.200"	4500
41214000	BBC Manifold	Oval	9.800"	4150
41215000	BBC Manifold	Oval	10.200"	4150
41224000	BBC Manifold	Oval	9.800"	4500
41225000	BBC Manifold	Oval	10.200"	4500

PART NO	DESCRIPTION	PORT STYLE	DECK	CARB
PART NO	DESCRIPTION	PORT STYLE	DECK	CARB
43144000	Box Ram Big Chief	Oval	9.800"	4500
43145000	Box Ram Big Chief	Oval	10.200"	4500
43144100	Box Ram Big Chief	Rectangle	9.800"	4500
43145100	Box Ram Big Chief	Rectangle	10.200"	4500
62430010	Box Ram Pent Roof Top Plate	-	-	4500

Includes Flat Single 4500 Top Plate, Pent Roof Top Must Be Purchased Separately

GEN 7 8.1 LITER DUAL PLANE (CATHEDRAL PORT)

PART NO	DESCRIPTION	PORT STYLE	DECK	CARB
41616010	8.1L Dual Plane	Cathedral	10.236"	4150

BIG BLOCK CHEVY ACCESSORIES

VALVE COVERS

Our extra tall valve covers are designed to clear racing valve trains and stud girdles, and to specifically fit Dart cylinder heads.

Chrome plated stamped steel valve covers have a breather hole and baffle with an embossed Dart logo. Cast Aluminum valve covers feature machined gasket surfaces to prevent messy oil leaks. The raised Dart logo stands out with a contrasting machined finish. Our new inverted flange valve covers provide extra room for long ratio rockers and oversized springs.

Fabricated valve covers are built with billet gasket rail, for proper gasket sealing preventing oil leaks. Covers are available with or without Dart logo, in natural and black anodized finish.

Billet valve covers are designed for use with our Big Chief 3 Billet Cylinder Head, covers feature Dart logo, in natural and black anodized finish.

Stamped Steel

Big Chief Billet

PRO1 20° Fabricated Aluminum

Big Chief

VALVE COVERS

PART NO.	DESCRIPTION	FITS	INCLUDES
68000060	Stamped Steel Valve Cover Set	Dart 24°	Gaskets & Fasteners
68000040	Cast Aluminum Valve Cover Set	Dart 24°	Gaskets & Fasteners
68000041	Fabricated Aluminum Valve Cover Set w/ Logo	Dart 24°	Gaskets & Fasteners
68000042	Fabricated Aluminum Valve Cover Set w/ No Logo	Dart 24°	Gaskets & Fasteners
68000043	Fabricated Aluminum Valve Cover Set w/ Logo Black Anodized	Dart 24°	Gaskets & Fasteners
68000044	Fabricated Aluminum Valve Cover Set w/ No Logo Black Anodized	Dart 24°	Gaskets & Fasteners
68000045	Fabricated Aluminum Valve Cover Set w/ Logo	Dart 20°	Gaskets & Fasteners
68000046	Fabricated Aluminum Valve Cover Set w/ No Logo	Dart 20°	Gaskets & Fasteners
68000047	Fabricated Aluminum Valve Cover Set w/ Logo Black Anodized	Dart 20°	Gaskets & Fasteners
68000048	Fabricated Aluminum Valve Cover Set w/ No Logo Black Anodized	Dart 20°	Gaskets & Fasteners
68000031	Fabricated Aluminum Valve Cover Set w/ Logo	Dart Big Chief I/II	Gaskets & Fasteners
68000032	Fabricated Aluminum Valve Cover Set w/ No Logo	Dart Big Chief I/II	Gaskets & Fasteners
68000033	Fabricated Aluminum Valve Cover Set w/ Logo Black Anodized	Dart Big Chief I/II	Gaskets & Fasteners
68000034	Fabricated Aluminum Valve Cover Set w/ No Logo Black Anodized	Dart Big Chief I/II	Gaskets & Fasteners
68000035	Billet Aluminum Valve Cover Set w/ Logo	Dart Big Chief III	Gaskets & Fasteners
68000036	Billet Aluminum Valve Cover Set w/ Logo Black Anodized	Dart Big Chief III	Gaskets & Fasteners

VALVE TRAIN STABILIZERS

Valve train stabilizers, also known as "stud girdles" improve the performance and reliability of engines equipped with stud mounted rocker arms. Extra long adjusting nuts are tightly clamped between rigid Aluminum bars that prevent stud deflection under high loads. The valve motion more closely follows the cam profile, producing more power and reducing breakage. Unlike "universal" girdles, these valve train stabilizers are designed to fit the specific valve locations, valve angles, and valve lengths in Dart cylinder heads. Kits include hardened poly-lock adjusting nuts.

VALVE TRAIN STABILIZERS

PART NO.	DESCRIPTION	FITS
64110001	Valve Train Stabilizer	Dart BBC

BIG-BLOCK ADJUSTABLE GUIDE PLATES

PART NO.	DESCRIPTION
27001230-1	Adj. guide plate each
27001230-4	Adj. guide plate Set of 4 (for one head)

HEAD PARTS KITS

Dart parts kits include everything you need to assemble a cylinder head: Stainless Steel valves, springs, locks, retainers, seals, studs, and guide plates. These kits contain the same high quality components we use in our cylinder head assemblies. Each kit does one cylinder head.

BIG BLOCK HEAD PARTS KITS

PART NO.	INTAKE	EXHAUST	SPRING
28000011	2.250"	1.880"	1.550" Single
28000012	2.250"	1.880"	1.550" Double
28000013	2.250"	1.880"	1.625" Double
28000022	2.250"	1.900"	1.550" Double
28000023	2.250"	1.900"	1.625" Double
28000033	2.300"	1.880"	1.625" Double
28000042	2.300"	1.900"	1.550" Double
28000043	2.300"	1.900"	1.625" Double
28000063	2.350"	1.850"	1.625" Double
28000073	2.350"	1.880"	1.625" Double
28000093	2.400"	1.800"	1.625" Double
28000094	2.400"	1.800"	1.650" Triple

Not intended for sale or use with pollution controlled vehicles.

SHP SPECIAL HIGH PERFORMANCE

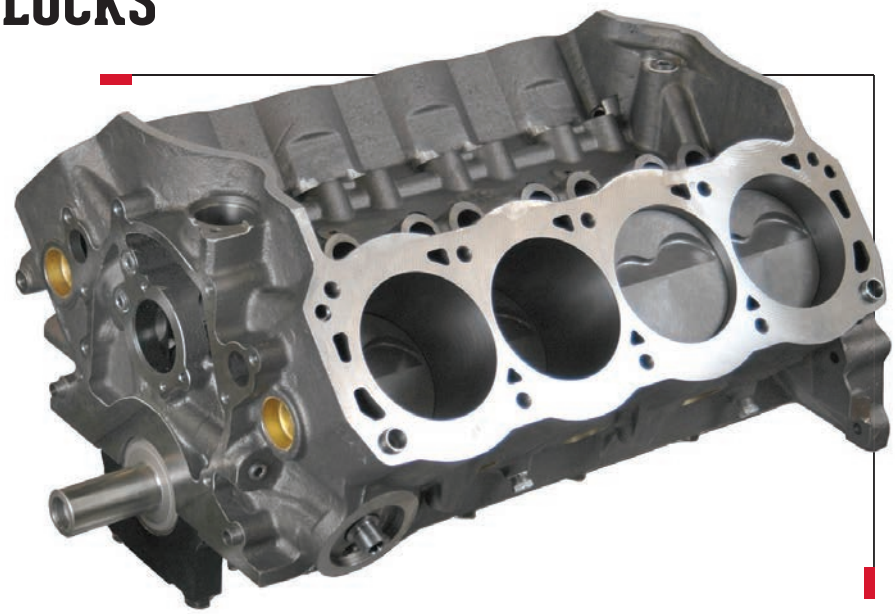
SMALL BLOCK FORD SHORT BLOCKS

QUICK INFO >>>
Professionally built short blocks with all brand new premium components. Street performance, Sportsman racing.

347, 363 & 427 CUBIC INCHES

Simplify engine building and save time with pre-engineered, dyno tested short block combinations from Dart's Special High-Performance group

These quality component packages are designed to allow you to build powerful and durable engines at a very affordable cost.



Top off your Dart short block with one of our performance matched top end kits for a great performing engine at an affordable price.

347 CUBIC INCH SHORT BLOCK

- Externally Balanced 28oz
- Special High Performance 8.200" Dart Block
- 4.030" Bore x 3.400" Stroke
- Plate Honed Cylinders
- Cast Steel Crankshaft
- Forged 4340 I-Beam Rods w/ 3/8" Cap Screws
- Forged Flat Top Pistons w/ Full Floating Pin
- Premium Moly Rings
- Clevite Bearings
- Coated Cam Bearings

Part# 03213472-FORGED: Forged 4340 Crank, H-Beam Rods w/ 7/16" ARP 2000 Bolts & Forged Pistons. Internal Balance.

Flat Top: CR 10.0:1 w/58cc chamber & .041" gasket.

Flat Top: CR 9.5:1 w/62cc chamber & .041" gasket.

363 CUBIC INCH SHORT BLOCK

- Externally Balanced 28oz
- Special High Performance 8.200" Dart Block
- 4.125" Bore x 3.400" Stroke
- Plate Honed Cylinders
- Cast Steel Crankshaft
- Forged 4340 I-Beam Rods w/ 3/8" Cap Screws
- Forged Flat Top Pistons w/ Full Floating Pin
- Premium Moly Rings
- Clevite Bearings
- Coated Cam Bearings

Part# 03243632-FORGED: Forged 4340 Crank, H-Beam Rods w/ 7/16" ARP 2000 Bolts & Forged Pistons. Internal Balance.

Flat Top: CR 10.2:1 w/58cc chamber & .041" gasket.

Flat Top: CR 9.7:1 w/62cc chamber & .041" gasket.

427 CUBIC INCH SHORT BLOCK

- Internally Balanced
- Special High Performance 9.500" Dart Block
- 4.125" Bore x 4.000" Stroke
- Plate Honed Cylinders
- Forged 4340 Steel Crankshaft
- Forged 4340 H-Beam Rods w/ 7/16" ARP 2000 Bolts
- Forged Dished Pistons w/ Full Floating Pin
- Premium Moly Rings
- Clevite Bearings
- Coated Cam Bearings

Dish -26cc Top: CR 10.2:1 w/58cc chamber & .041" gasket.

Dish -26cc Top: CR 9.8:1 w/62cc chamber & .041" gasket.

SHP FORD SHORT BLOCKS

PART NO.	DESCRIPTION	CRANK	PISTONS	RODS	BORE	STROKE	BALANCE
03213472	347 SHP	Cast	Forged	I-Beam	4.030"	3.400"	28oz External
03213472-Forged	347 SHP	Forged	Forged	H-Beam	4.030"	3.400"	Internal
03243632	363 SHP	Cast	Forged	I-Beam	4.125"	3.400"	28oz External
03243632-Forged	363 SHP	Forged	Forged	H-Beam	4.125"	3.400"	Internal
03224272	427 SHP	Forged	Forged	H-Beam	4.125"	4.000"	Internal

SMALL BLOCK FORD
TOP END KITS - CAST ALUMINUM

QUICK INFO »»

Performance matched top end kits from Dart are the perfect way to finish off your Dart short block or upgrade your existing engine.

Dart top end kits for small block Ford engines offer a full compliment of performance matched parts that make building your engine simple and easy. These kits were designed to deliver excellent performance at a great price!

DART TOP END KITS INCLUDE

- Fully assembled cylinder heads.
- Aluminum valve covers.
- Intake manifold, selected to compliment the cylinder heads.
- Intake gaskets, head gaskets, and exhaust gaskets.
- Spark plugs.
- Head bolts.

Available with 7/16" head bolts for stock blocks or 1/2" head bolts for Dart blocks.

SHP SPECIAL HIGH PERFORMANCE

See pages 96-97 for more information on Iron Eagle cylinder heads used in these kits.

SBF TOP END KITS WITH DART SHP CYLINDER HEADS

PART NO.	HEADS	PORTS	CHAMBER	BLOCK	VALVES	SPRINGS	MANIFOLD
01160111	SHP	175cc	58cc	302 - 8.200"	2.020"/1.600"	1.250"	Dual Plane 4150
01160112	SHP	175cc	58cc	302 - 8.200"	2.020"/1.600"	1.437"	Dual Plane 4150
01161111	SHP	175cc	58cc	351 - 9.500"	2.020"/1.600"	1.250"	Dual Plane 4150
01161112	SHP	175cc	58cc	351 - 9.500"	2.020"/1.600"	1.437"	Dual Plane 4150
01160122	SHP	205cc	58cc	302 - 8.200"	2.050"/1.600"	1.437"	Single Plane 4150
01160132	SHP	205cc	62cc	302 - 8.200"	2.050"/1.600"	1.437"	Single Plane 4150
01161122	SHP	205cc	58cc	351 - 9.500"	2.050"/1.600"	1.437"	Single Plane 4150
01161132	SHP	205cc	62cc	351 - 9.500"	2.050"/1.600"	1.437"	Single Plane 4150

PRO 1

See pages 98-101 for more information on PRO1 cylinder heads used in these kits.

SBF TOP END KITS WITH DART PRO1 CYLINDER HEADS

PART NO.	HEADS	PORTS	CHAMBER	BLOCK	VALVES	SPRINGS	MANIFOLD
01250101	PRO1	170cc	62cc	302 - 8.200"	2.020"/1.600"	1.250"	Dual Plane 4150
01250102	PRO1	170cc	62cc	302 - 8.200"	2.020"/1.600"	1.437"	Dual Plane 4150
01251101	PRO1	170cc	62cc	351 - 9.500"	2.020"/1.600"	1.250"	Dual Plane 4150
01251102	PRO1	170cc	62cc	351 - 9.500"	2.020"/1.600"	1.437"	Dual Plane 4150
01251122	PRO1	195cc	62cc	351 - 9.500"	2.050"/1.600"	1.437"	Dual Plane 4150
01251123	PRO1	195cc	62cc	351 - 9.500"	2.050"/1.600"	1.550"	Dual Plane 4150
01250023	PRO1	195cc	62cc	302 - 8.200"	2.050"/1.600"	1.550"	Single Plane 4150

SHP SPECIAL HIGH PERFORMANCE

SMALL BLOCK FORD
CAST IRON ENGINE BLOCKS

QUICK INFO »»

Designed for high performance and heavy duty applications, the SHP block is the ideal starting point for hot rodders, drag racers, circle track competitors, off-roaders, and high performance marine enthusiasts.

The SHP Ford block is tailored to the most popular performance and racing applications, with an 8.200" (302) or 9.500" (351w) deck height and a choice of 4.000" or 4.125" siamesed cylinder bores which can safely be bored to 4.185". Steel main caps are splayed 4-bolt on the center three and 2-bolt on #1 and #5, and utilize 1/2" bolts. The valley is machined to accept factory roller lifter guides and retainer (spider).

FEATURES

- Priority main oiling system directs oil to main bearings first for more dependable lubrication.
- No provision for oil restrictors.
- Available with an 8.200" (302) or 9.500" (351w).
- Provisions for OE stock roller lifters, dog bones & spider.
- Siamese bores 4.000" or 4.125" (unfinished) with extra thick cylinder walls.
- Extended cylinder barrels for improved piston support.
- Extra thick decks ensure reliable head gasket seal.
- Blind head bolt holes don't go through to water jacket.
- Steel 4-bolt main caps on #2, 3 and 4 with splayed outer bolts. 2-bolt main caps on #1 and 5.
- Can use most stock components and accessories.
- Scalloped water jackets increase coolant flow around cylinder barrels to prevent detonation, extend engine life and produce consistent cylinder temperatures.
- Parts kit sold separately (Part# 32000042).

SPECIAL HIGH PERFORMANCE - IRON

PART NO.	DESCRIPTION	CAPS	MAINS	DECK	BORE
31374175	302 SHP Block	Steel	302	8.200"	4.000"
31374275	302 SHP Block	Steel	302	8.200"	4.125"
31375135	351 SHP Block	Steel	351C	9.500"	4.000"
31375235	351 SHP Block	Steel	351C	9.500"	4.125"

SHP SPECS

Material:	Class 30 Grey Iron
Deck Heights:	8.200" or 9.500"
Cylinder Bores:	4.000" or 4.125"
Main Bearings:	302 or 351C
Main Caps:	Steel
Lifter Provision:	OE roller or aftermarket
Freeze Plugs:	Press fit
Weight:	178-210 lbs.

IRON EAGLE SMALL BLOCK FORD CAST IRON ENGINE BLOCKS

QUICK INFO >>>

Designed for high performance and heavy duty applications, the Sportsman block is ideal for drag racers, circle track competitors, off-roaders, and high performance marine enthusiasts.

Dart's Iron blocks for Ford are designed to work with stock components, but are much more than a stock replacement. Designed from the ground up for hard core racing, all the weaknesses of the factory castings have been addressed. Dart blocks are cast from premium high strength Iron with extra thick cylinder walls and decks. The main webs are beefed up and fitted with steel 4-bolt main caps. The Gen 2 design has been re-engineering for 6 head bolts per cylinder, for maximum cylinder head clamping force.

NEW

FEATURES

- Re-designed casting with 6-Bolt per cylinder head bolt pattern, for maximum cylinder head gasket sealing.
- Siamesed cylinders: Standard 4.000" or 4.125" cylinders can be safely bored to 4.185" diameter, extra thick walls prevent cracking and improve ring seal.
- Extended cylinder barrels for improved piston support.
- Available deck heights: 8.200" (302) and 9.500" (351W) allow increased displacements up to 468 cubic inches.
- Steel 4-bolt main bearing caps are standard. Three center caps have splayed outer bolts for maximum strength.
- Two main bearing diameters: 302 (2.249") or 351C (2.749") allow choice of small or large journal crankshaft.
- Upgraded oiling system has been completely redesigned with a low restriction priority main oiling system with rear external oil pump feed.
- Reinforced head bolt bosses are blind tapped to prevent leaks and produce accurate torque readings. Extra thick decks prevent head gasket leaks.
- Parts kit included (Part# 32000048). Parts kits do not include cam bearings.

IRON EAGLE - 6 HEAD BOLT - IRON

PART NO.	DESCRIPTION	CAPS	MAINS	DECK	BORE
31394175	302 Iron Eagle Block Gen 2	Steel	302	8.200"	4.000"
31394275	302 Iron Eagle Block Gen 2	Steel	302	8.200"	4.125"
31394135	351 Iron Eagle Block Gen 2	Steel	302	9.500"	4.000"
31394235	351 Iron Eagle Block Gen 2	Steel	302	9.500"	4.125"
31395135	351 Iron Eagle Block Gen 2	Steel	351C	9.500"	4.000"
31395235	351 Iron Eagle Block Gen 2	Steel	351C	9.500"	4.125"

IRON EAGLE SPECS

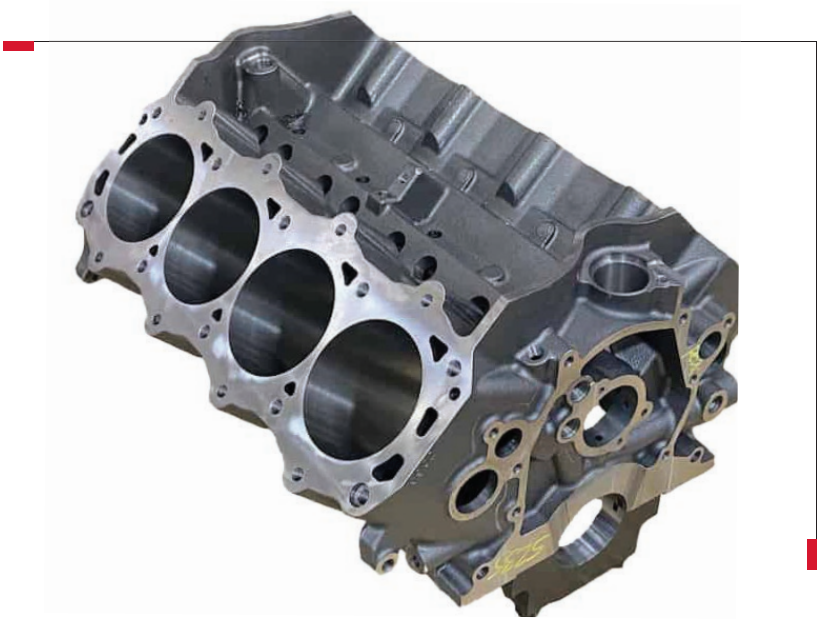
Material:	220 BHN Cast Iron
Deck Heights:	8.200" or 9.500"
Cylinder Bores:	4.000" or 4.125" 4.185" (max)
Main Bearings:	302 or 351C
Main Caps:	Steel 4-bolt
Lifter Provision:	.875" tie bar
Restrictor Provision:	Front & rear
Freeze Plugs:	Press fit
Weight:	178-210 lbs.

IRON EAGLE PRO SMALL BLOCK FORD CAST IRON ENGINE BLOCKS

QUICK INFO >>>

The Dart Iron Eagle PRO is a true race block that is modified to accommodate 21st century power levels for most nitrous, blower or turbo applications.

Dart's Iron blocks for Ford are designed to work with stock components, but are much more than a stock replacement. Designed from the ground up for hard core racing, all the weaknesses of the factory castings have been addressed. Dart blocks are cast from premium high strength Iron with extra thick cylinder walls and decks. The main webs are beefed up and fitted with steel 4-bolt main caps. The Gen 2 design has been re-engineering for 6 head bolts per cylinder, for maximum cylinder head clamping force.



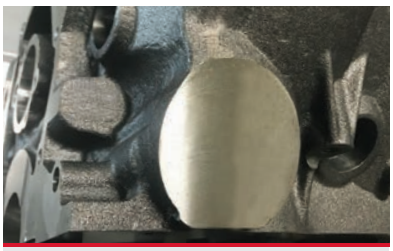
UPGRADE FEATURES FROM STD IRON EAGLE

- Upgraded main bolts to main studs.
- Reduced .250" main oil feed holes.
- Reduced .090" cam to crank oil feed (Babbit cam).
- Removed cam to crank oil feed (Roller cam).
- Removed oil filter location.
- Removed front -10AN oil feed.
- Removed rear lifter cross over.
- External dry sump or external wet sump only.
- Removed stock oil pump mounting boss.

OPTIONAL FEATURES

- Machine for threaded freeze plugs.
- Removed distributor bore for coil on plug applications.
- Tie bar or keyed lifter bushings.

1/2" NPT Oil Feed / Removed Rear Crossover



Removed -10AN oil feed and oil filter mount

#1 MAIN OIL FEED

IRON EAGLE PRO

IRON EAGLE STANDARD

IRON EAGLE PRO - 6 HEAD BOLT - IRON

PART NO.	DESCRIPTION	CAPS	MAINS	DECK	BORE
31394176	302 Iron Eagle PRO Block Gen 2	Steel	302	8.200"	4.000"
31394276	302 Iron Eagle PRO Block Gen 2	Steel	302	8.200"	4.125"
31395136	351 Iron Eagle PRO Block Gen 2	Steel	351C	9.500"	4.000"
31395236	351 Iron Eagle PRO Block Gen 2	Steel	351C	9.500"	4.125"

IRON EAGLE PRO SPECS

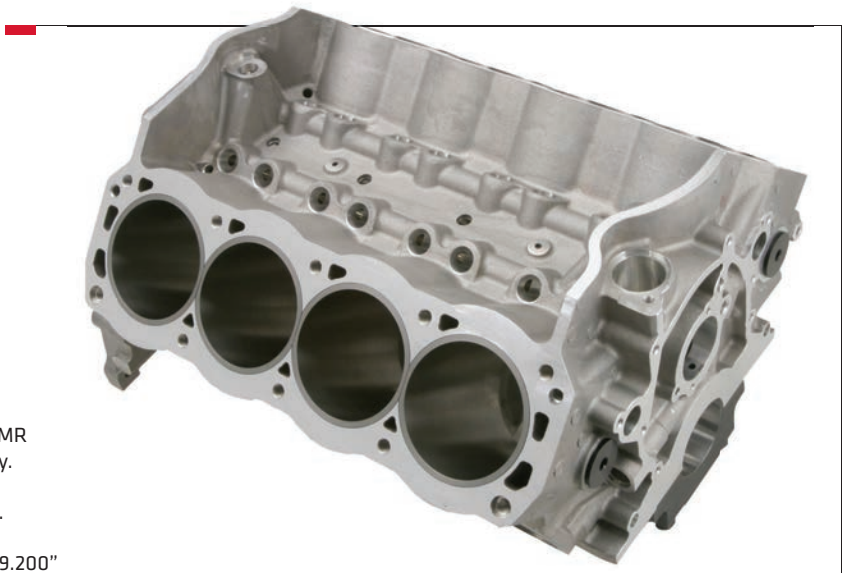
Material:	220 BHN Cast Iron
Deck Heights:	8.200" or 9.500"
Cylinder Bores:	4.000" or 4.125" 4.185" (max)
Main Bearings:	302 or 351C
Main Caps:	Steel 4-bolt
Lifter Provision:	.875" tie bar
Restrictor Provision:	Front Oil Crossover
Freeze Plugs:	Press fit or Screw-in
Weight:	178-210 lbs.

RACE SERIES
SMALL BLOCK FORD
CAST ALUMINUM ENGINE BLOCKS

QUICK INFO »»

The Dart Aluminum small block is light, strong, and affordable. With displacements up to 450 cubic inches, the Dart Aluminum block is ideal for sprint cars, modifies, late model stock cars, dragsters, and unlimited competition classes.

With pressed-in dry sleeves, upgraded oiling and steel 4-bolt main caps, Dart's Aluminum blocks have the features that Ford racers need to build powerful and reliable engines.



FEATURES

- Premium alloy: Dart Aluminum blocks are cast from RMR cast Aluminum alloy for superior strength and integrity.
- Extended cylinder barrels for improved piston support.
- Four deck heights: 8.200" (302), 8.700" (stroker 302), 9.200" (351C) and 9.500" (351W) allow displacements up to 450 cubic inches.
- Siamesed cylinders: Standard 4.000" or 4.125" cylinders can be safely bored to 4.165" diameter. Ductile Iron sleeves and extra thick walls prevent cracking and produce excellent ring seal.
- Steel 4-bolt main bearing caps are standard. Three center caps have splayed outer bolts for maximum strength; rear cap uses standard one piece seal.
- Upgraded oiling system has been completely redesigned with a low restriction priority main oiling system with rear external oil pump feed.
- Dual crossovers allow oil flow to be metered with restrictors for roller lifter cams and/or roller rocker arms to reduce oil flow and windage.
- Reinforced head bolt bosses are blind tapped to prevent leaks and produce accurate torque readings. Extra thick decks prevent head gasket leaks.
- Parts kit included (Part# 32000032). Parts kits do not include cam bearings.

Dart blocks can be special ordered with a wide array of special machining options to suit your specific requirements.

RACE SERIES - ALUMINUM

PART NO.	DESCRIPTION	CAPS	MAINS	DECK	BORE
31344175	302 Race Series Block	Steel	302	8.200"	4.000"
31344275	302 Race Series Block	Steel	302	8.200"	4.125"
31344185	302 Race Series Block	Steel	302	8.700"	4.000"
31344285	302 Race Series Block	Steel	302	8.700"	4.125"
31344195	351W Race Series Block	Steel	302	9.200"	4.000"
31344295	351W Race Series Block	Steel	302	9.200"	4.125"
31345195	351W Race Series Block	Steel	351C	9.200"	4.000"
31345295	351W Race Series Block	Steel	351C	9.200"	4.125"
31345135	351W Race Series Block	Steel	351C	9.500"	4.000"
31345235	351W Race Series Block	Steel	351C	9.500"	4.125"

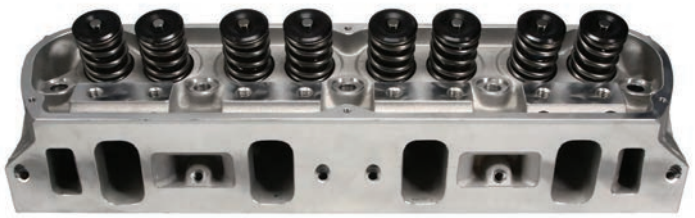
RACE SERIES SPECS

Material:	RMR Cast Aluminum Alloy
Deck Heights:	8.200", 8.700", 9.200" and 9.500"
Cylinder Bores:	4.000" or 4.125"
Main Bearings:	302 or 351C
Main Caps:	Steel 4-bolt
Cam Location:	Stock
Lifter Bores:	.875" tie bar
Restrictor Provision:	Front & Rear
Freeze Plugs:	Screw-in
Weight:	85-109 lbs.

SHP
SPECIAL HIGH PERFORMANCE

20° 175cc SMALL BLOCK FORD CAST ALUMINUM CYLINDER HEADS

NEW



QUICK INFO »»

Excellent street, strip, oval track and truck or marine performance upgrade. Maximum torque and throttle response from idle to 6,000 RPM. Best for 302-351 cubic inch engines. Works with most standard components.

Dart's SHP (Special High Performance) 20° 175cc cylinder heads provide an affordable option to those looking for the weight savings of an Aluminum head for a street performance engine. The SHP is designed to work with most off the shelf components.

The SHP head's precision cast ports are designed to offer excellent flow and power without the need for CNC porting. Optimized chambers increase combustion efficiency, and multi-angle intake seats and radiused exhaust seats dramatically increase performance. Manganese Bronze valve guides increase the life of the head.

FEATURES

- Manganese Bronze valve guides.
- Uses 3/8" screw-in rocker studs. 7/16" upgrade available.
- Hardened & radiused exhaust seats.
- Assemblies include stainless steel valves, premium springs, locks, retainers, guide plates and seals.
- Heads are sold individually.
- Head part kit – see page 107.

SHP 20° 175CC - ALUMINUM

PART NO.	CONFIGURATION FOR USE	MAX. LIFT	CHAMBER CC
128111	Bare Head	-	58
128121	1.250" Single Springs for Hydraulic Flat Tappet Cam	.510"	58
128122	1.437" Dual Springs for Hydraulic Roller or Solid Flat Tappet Cam	.650"	58
128211	Bare Head	-	62
128221	1.250" Single Springs for Hydraulic Flat Tappet Cam	.510"	62
128222	1.437" Dual Springs for Hydraulic Roller or Solid Flat Tappet Cam	.650"	62

SPECIFICATIONS

Material:	RMR Cast Aluminum Alloy
Valve Angle:	20° (stock)
Intake Port Volume:	175cc
Intake Valve:	2.020"
Exhaust Valve:	1.600"
Chamber Volume:	58cc or 62cc
Plug Types:	Angle

FLOW DATA @ 28" WATER

LIFT	INTAKE	EXHAUST
.200"	143	129
.300"	192	157
.400"	235	174
.500"	260	181
.600"	267	183

SHP
SPECIAL HIGH PERFORMANCE

20° 205cc SMALL BLOCK FORD CAST ALUMINUM CYLINDER HEADS

QUICK INFO >>>

Excellent street, strip, oval track, truck or marine performance upgrade. Maximum torque and throttle response from idle to 6,000 RPM. Best for 302-427 cubic inch engines. Works with most standard components.

Dart's SHP (Special High Performance) 20° 205cc cylinder heads provide an affordable option to those looking for the weight savings of an Aluminum head for a street performance engine. The SHP is designed to work with most off the shelf components.

The SHP head's precision cast ports are designed to offer excellent flow and power without the need for CNC porting. Optimized chambers increase combustion efficiency, and multi-angle intake seats and radiused exhaust seats dramatically increase performance. Manganese Bronze valve guides increase the life of the head.

FEATURES

- Manganese Bronze valve guides.
- Uses 3/8" screw-in rocker studs. 7/16" upgrade available.
- Hardened & radiused exhaust seats.
- Assemblies include stainless steel valves, premium springs, locks, retainers, guide plates and seals.
- Heads are sold individually.
- Head part kit – see page 107.

SHP 20° 205CC - ALUMINUM

PART NO.	CONFIGURATION FOR USE	MAX. LIFT	CHAMBER CC
128215	Bare Head	-	58
128225	1.437" Dual Springs for Hydraulic Roller or Solid Flat Tappet Cam	.650"	58
128315	Bare Head	-	62
128325	1.437" Dual Springs for Hydraulic Roller or Solid Flat Tappet Cam	.650"	62

SPECIFICATIONS

Material:	RMR Cast Aluminum Alloy
Valve Angle:	20° (stock)
Intake Port Volume:	205cc
Intake Valve:	2.050"
Exhaust Valve:	1.600"
Chamber Volume:	58cc or 62cc
Plug Types:	Angle

FLOW DATA @ 28" WATER

LIFT	INTAKE	EXHAUST
.200"	156	122
.300"	217	161
.400"	270	186
.500"	290	198
.600"	300	205
.700"	306	207

20° 170cc SMALL BLOCK FORD CAST ALUMINUM CYLINDER HEADS

QUICK INFO >>>

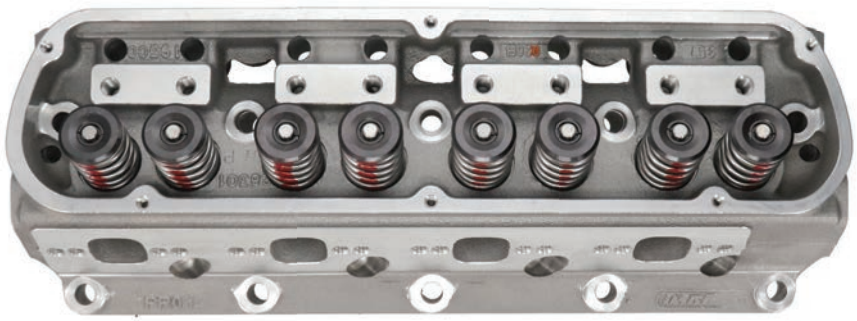
Excellent street, strip, oval track and truck or marine performance upgrade. Maximum torque and throttle response from idle to 6,000 RPM. Best for 302-351 cubic inch engines. Works with most standard components.

Small block Ford PRO1 20° 170cc Aluminum cylinder heads feature high flowing as cast ports with profiled valve guide bosses and are bowl blended on 5-axis CNC machining centers.

Standard valve angle and spacing is retained for bolt on compatibility. Exhaust runners are raised .135" for improved flow. Manganese Bronze valve guides are used for long life, and hardened valve seats provide durability with unleaded fuels.

Assemblies include Stainless Steel valves, premium springs, locks, retainers, studs, guide plates and seals.

Heads are sold individually.



Head parts kit - see page 107.

Uses 3/8" screw-in rocker studs.
7/16" upgrade available.

PRO1 20° 170CC - ALUMINUM - 1.940"/1.600" VALVES

PART NO.	CONFIGURATION FOR USE	MAX. LIFT	CHAMBER CC
13100080	Bare Head	-	58
13101181	1.250" Single Springs for Hydraulic Flat Tappet Cam	.510"	58
13101182	1.437" Dual Springs for Hydraulic Roller or Solid Flat Tappet Cam	.650"	58
13110080	Bare Head	-	62
13111181	1.250" Single Springs for Hydraulic Flat Tappet Cam	.510"	62
13111182	1.437" Dual Springs for Hydraulic Roller or Solid Flat Tappet Cam	.650"	62

PRO1 20° 170CC SPECS

Material:	RMR Cast Aluminum
Valve Angle:	20° (stock)
Intake Port Volume:	170cc
Intake Valve:	1.940"
Exhaust Valve:	1.600"
Chamber Volume:	58cc or 62cc
Plug Types:	Angle

FLOW DATA @ 28" WATER

LIFT	INTAKE	EXHAUST
.200"	137	112
.300"	200	151
.400"	240	171
.500"	251	173
.600"	261	172

PRO1 20° 195cc SMALL BLOCK FORD CAST ALUMINUM CYLINDER HEADS

QUICK INFO >>>
Serious performance upgrade for street, mild bracket racing and oval track racing. Maximum torque and throttle response from idle to 6,800 RPM. Best for 347-427 cubic inch engines. Works with most standard components.

PRO1 20° 195cc Aluminum cylinder heads feature increased airflow for larger engines and higher RPM usage.

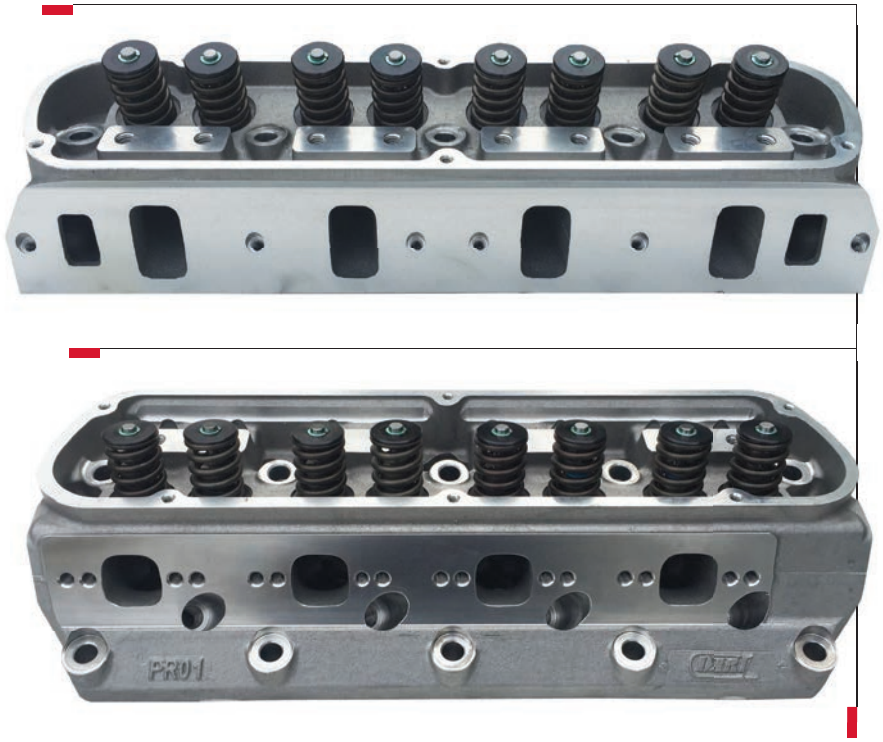
Standard valve angle and spacing is retained for bolt on compatibility. Exhaust runners are raised .135" for improved flow. Manganese Bronze valve guides are used for long life, and hardened valve seats provide durability with unleaded fuels. Features both 2.500" and 3.000" exhaust bolt patterns.

Assemblies include Stainless Steel valves, premium springs, locks, retainers, studs, guide plates and seals.

Uses 3/8" screw-in rocker studs. 7/16" upgrade available.

Assemblies with 1.550" valve spring use +.100" long valves.

Heads are sold individually.



Head parts kit - see page 107.

Uses 3/8" screw-in rocker studs.
7/16" upgrade available.

Assemblies with 1.550" valve spring
use +.100" long valves.

PRO1 20° 195CC - ALUMINUM - 2.020"/1.600" VALVES

PART NO.	CONFIGURATION FOR USE	MAX. LIFT	CHAMBER CC
13200010	Bare Head	-	58
13201111	1.250" Single Springs for Hydraulic Flat Tappet Cam	.510"	58
13201112	1.437" Dual Springs for Hydraulic Roller or Solid Flat Tappet Cam	.650"	58
13201113	1.550" Dual Springs for Solid Roller Cam	.700"	58
13210010	Bare Head	-	62
13211111	1.250" Single Springs for Hydraulic Flat Tappet Cam	.510"	62
13211112	1.437" Dual Springs for Hydraulic Roller or Solid Flat Tappet Cam	.650"	62
13211113	1.550" Dual Springs for Solid Roller Cam	.700"	62

PRO1 20° 195cc SPECS

Material:	RMR Cast Aluminum Alloy
Valve Angle:	20° (stock)
Intake Port Volume:	195cc
Intake Valve:	2.020"
Exhaust Valve:	1.600"
Chamber Volume:	58cc or 62cc

FLOW DATA @ 28" WATER

LIFT	INTAKE	EXHAUST
.200"	145	112
.300"	205	151
.400"	246	171
.500"	272	173
.600"	283	172
.700"	288	185

Not intended for sale or use with pollution controlled vehicles.

PRO 1

20° 210cc CNC

SMALL BLOCK FORD
CAST ALUMINUM CYLINDER HEADS

QUICK INFO >>>

Excellent street, strip, oval track and truck or marine performance upgrade. Maximum torque and throttle response from 3,000 to 7,000+ RPM. Best for 347-427 cubic inch engines. Works with most standard components.

Dart PRO1 20° 210cc CNC heads for Ford small blocks are professional quality competition cylinder heads. We applied the airflow technology developed in our championship winning Pro Stock engine program to produce these state of the art heads.

Exhaust runners are raised .135" for improved flow. Manganese Bronze valve guides are used for long life, and hardened valve seats provide durability with unleaded fuels. Features 2.500" and 3.000" exhaust bolt pattern.

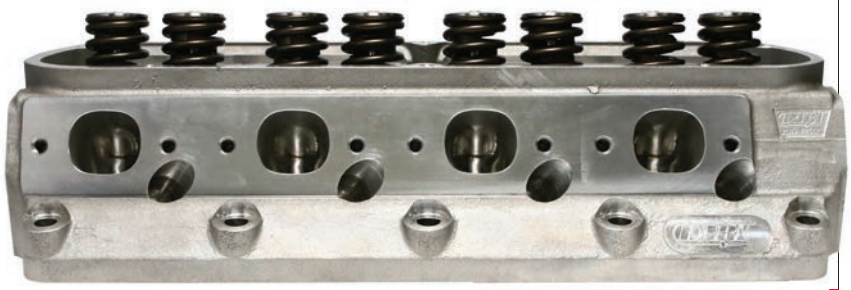
Assemblies include Stainless Steel valves, premium springs, locks, retainers, studs, guide plates and seals.

Heads are sold individually.

Head parts kit - see page 107.

Uses 7/16" screw-in rocker studs.

Assemblies with 1.550" valve spring use +.100" long valves.



PRO1 20° 210cc CNC - ALUMINUM

62cc COMBUSTION CHAMBERS

PART NO.	CONFIGURATION FOR USE	MAX. LIFT
13071020	Bare Head	
13071122	1.437" Dual Springs for Hydraulic Roller or Solid Flat Tappet Cam	.650"
13071123	1.550" Dual Springs for Solid Roller Cam	.700"

PRO1 20° 210cc CNC SPECS

Material:	RMR Cast Aluminum Alloy
Valve Angle:	20° (stock)
Intake Port Volume:	210cc CNC
Intake Valve:	2.050"
Exhaust Valve:	1.600"
Chamber Volume:	62cc

FLOW DATA @ 28" WATER

LIFT	INTAKE	EXHAUST
.200"	132	108
.300"	195	151
.400"	252	187
.500"	287	203
.600"	305	208
.700"	304	212

PRO 1

20° 225cc CNC SMALL BLOCK FORD CAST ALUMINUM CYLINDER HEADS

QUICK INFO >>>

Serious street performance, mild bracket racing and oval track. Maximum torque and throttle response from 3,500 to 7,800 RPM. Best for 363-427 cubic inch engines. Works with most standard components.

Every intake port, exhaust runner, valve bowl, and every combustion chamber is 100% CNC machined on special dedicated PRO1 castings. These heads are ideal for high compression, big cubic inch small blocks and are great for supercharged applications.

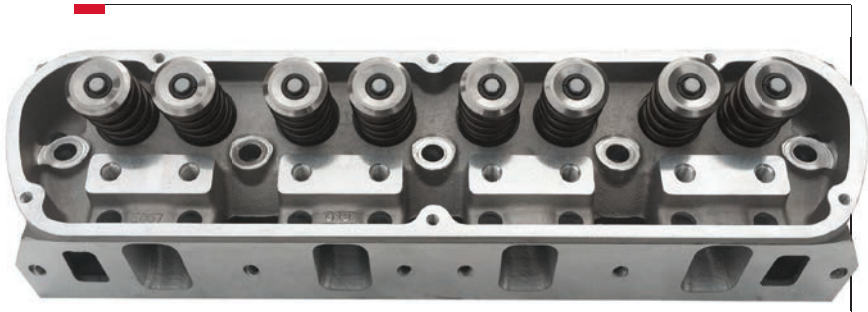
Exhaust runners are raised .135" for improved flow. Manganese Bronze valve guides are used for long life, and hardened valve seats provide durability with unleaded fuels. Features 3.000" exhaust bolt pattern.

Assemblies include Stainless Steel valves, premium springs, locks, retainers, studs, guide plates and seals.

Uses 7/16" screw-in rocker studs.

Assemblies with 1.550" valve spring use +.100" long valves.

Heads are sold individually.



Head parts kit - see page 107.

Uses 7/16" screw-in rocker studs.

Assemblies with 1.550" valve spring use +.100" long valves.

PRO1 20° 225cc CNC SPECS

Material:	RMR Cast Aluminum Alloy
Valve Angle:	20° (stock)
Intake Port Volume:	225cc CNC
Intake Valve:	2.080"
Exhaust Valve:	1.600"
Chamber Volume:	62cc

FLOW DATA @ 28" WATER

LIFT	INTAKE	EXHAUST
.200"	136	115
.300"	201	164
.400"	259	205
.500"	300	225
.600"	323	231
.700"	325	238

PRO1 20° 225cc CNC - ALUMINUM

62cc COMBUSTION CHAMBERS

PART NO.	CONFIGURATION FOR USE	MAX. LIFT
13072040	Bare Head	
13072142	1.437" Dual Springs for Hydraulic Roller or Solid Flat Tappet Cam	.650"
13072143	1.550" Dual Springs for Solid Roller Cam	.700"

SMALL BLOCK FORD
INTAKE MANIFOLDS

An engine's cylinder heads and intake manifold must work together as an integrated system to produce maximum performance. The intake charge should make a seamless transition from the manifold runners to the cylinder head ports. Dart has taken this into consideration for every intake manifold we sell.

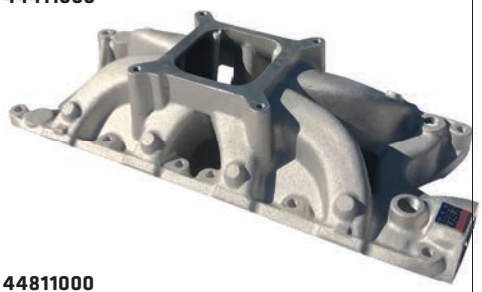
DUAL PLANE

PART NO	DESCRIPTION	PORT STYLE	DECK	CARB
44811000	SBF Manifold	Rectangle	8.200"	4150
44814000	SBF Manifold	Rectangle	9.500"	4150

SINGLE PLANE

PART NO	DESCRIPTION	PORT STYLE	DECK	CARB
44411000	SBF Manifold	Rectangle	8.200"	4150
44414000	SBF Manifold	Rectangle	9.500"	4150

44411000



44811000

44414000

44814000

Not intended for sale or use with pollution controlled vehicles.

SMALL BLOCK FORD ACCESSORIES

VALVE COVERS

Our extra tall valve covers are designed to clear racing valve trains and stud girdles, and to specifically fit Dart cylinder heads.

Fabricated Aluminum valve covers mount through tubes welded directly to the valve covers, to help maintain gasket rail flatness and prevent leaks. They feature a tall design that will clear most rocker combinations as well as stud girdles and have the Dart Logo CNC machined into them. Valve cover sets include gaskets and mounting hardware.

VALVE COVERS

SMALL BLOCK FORD

PART NO.	DESCRIPTION	FITS
68000110	Fabricated Aluminum Valve Cover Set	Dart SBF

Note: Uses stock 302 valve cover gasket.

VALVE TRAIN STABILIZERS

Valve train stabilizers also known as "stud girdles" improve the performance and reliability of engines equipped with stud mounted rocker arms. Extra long adjusting nuts are tightly clamped between rigid Aluminum bars that prevent stud deflection under high loads. The valve motion more closely follows the cam profile, producing more power and reducing breakage. Unlike "universal" girdles, these valve train stabilizers are designed to fit the specific valve locations, valve angles, and valve lengths in Dart cylinder heads. Kits include hardened poly-lock adjusting nuts.

VALVE TRAIN STABILIZERS

PART NO.	DESCRIPTION	FITS
64110005	Valve Train Stabilizer w/ 3/8" polylocks	Dart SBF
64110006	Valve Train Stabilizer w/ 7/16" polylocks	Dart SBF

HEAD PARTS KITS

Dart parts kits include everything you need to assemble a cylinder head: Stainless Steel valves, springs, locks, retainers, seals, studs, and guide plates. These kits contain the same high quality components we use in our cylinder head assemblies. Each kit does one cylinder head.

SMALL BLOCK FORD HEAD PARTS KITS *(INCLUDES STEEL RETAINERS)*

PART NO.	INT.	EXH.	SPRING
28622000F	1.940"	1.600"	1.250" single
28622300F	1.940"	1.600"	1.437" double
28111000F	2.020"	1.600"	1.250" single
28112000F	2.020"	1.600"	1.437" double
28113000F	2.020"	1.600"	1.550" double
28211000F	2.050"	1.600"	1.250" single
28212000F	2.050"	1.600"	1.437" double
28223000F	2.050"	1.600"	1.550" double
28422000F	2.080"	1.600"	1.437" double
28423000F	2.080"	1.600"	1.550" double

SBF OIL FILTER ADAPTER

PART NO.	DESCRIPTION
32940000	SBF Oil Filter Adapter for use with SBF Dart Blocks

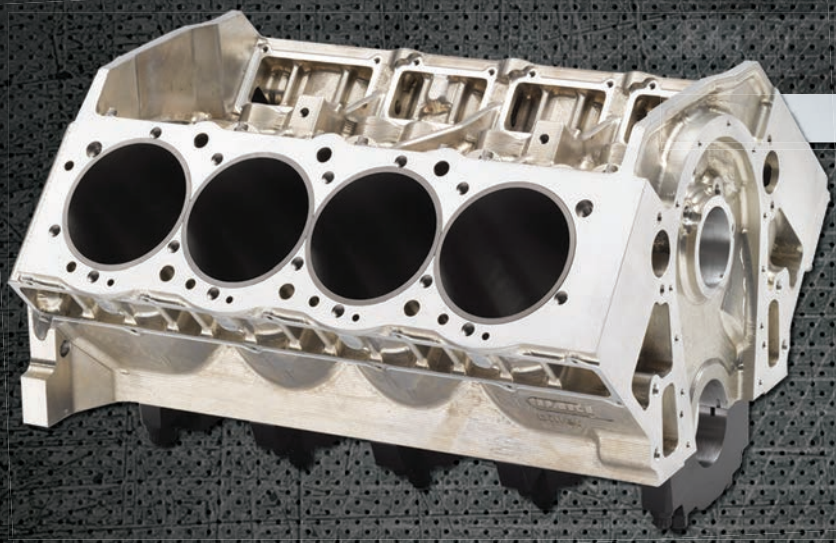
SBF ADJUSTABLE GUIDE PLATES

PART NO.	DESCRIPTION
27001410	adjustable guide plate 5/16" each
27001410-4	adjustable guide plates 5/16" Set of 4 (does one head)

DART

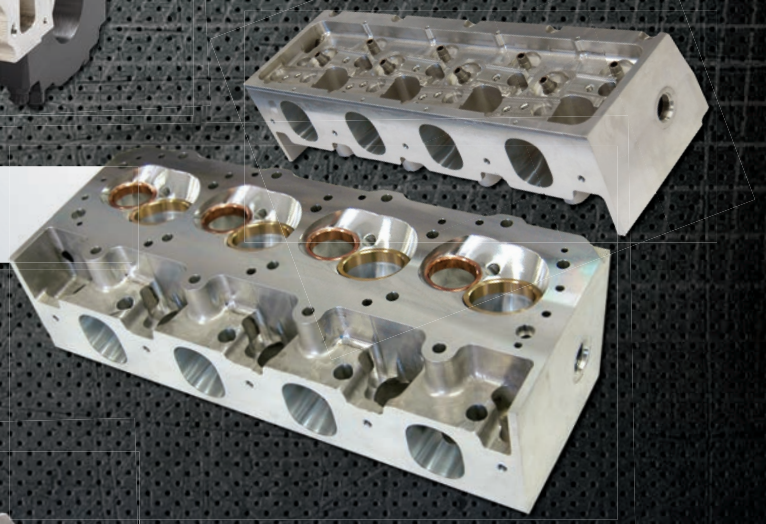
BILLET

TRUSTED BY THE BEST OF THE BEST!



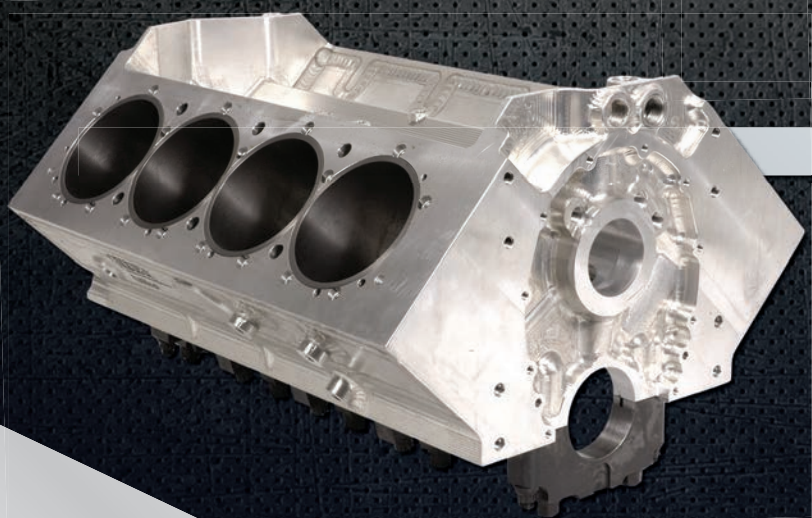
BBC BILLET BLOCKS

- 4.840", 5.000", 5.200", 5.300" bore space
- Deck heights up to 12.500"
- High capacity water jackets
- Custom lifter options
- Cam tunnel options up to 70mm
- Raised cam locations up to +1.915"



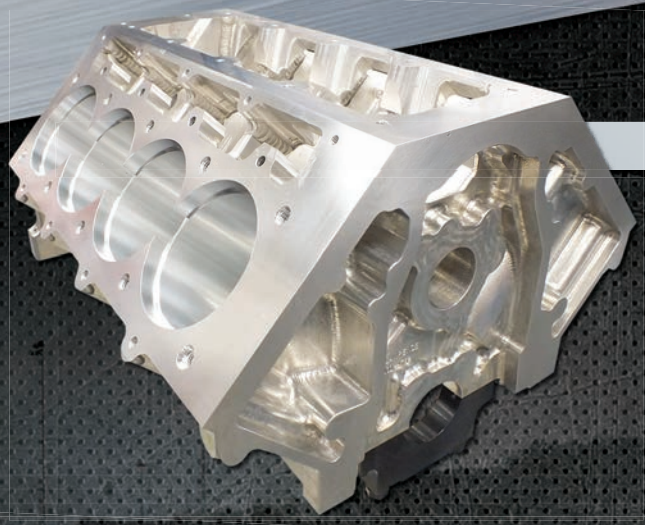
BBC BILLET ALUMINUM HEADS

- 4.840", 5.000", 5.200", 5.300" bore space
- Spread port or symmetrical port
- High capacity water jackets
- Copper seats



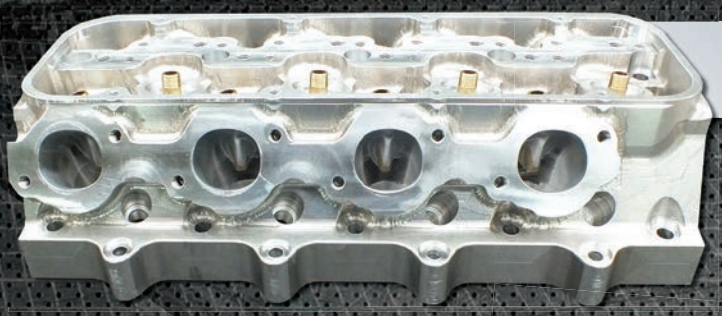
SBC BILLET BLOCKS

- Forged 6061 Aerospace Alloy
- Custom machined for your application
- Custom deck height options
- Cylinder bore spacing: standard or 4.500"
- Raised camshaft locations
- Cam tunnel options up to 60mm
- Custom lifter diameters and locations
- Steel or optional Aluminum main caps
- Full water jackets



LS / LS NEXT BILLET BLOCKS

- Forged 6061 Aerospace Alloy
- Custom machined for your application
- Custom deck height options
- Raised camshaft locations
- Cam tunnel options up to 60mm
- Custom lifter diameters
- Steel or optional Aluminum main caps
- Available with LS NEXT^2 upgrade
- Full water jackets

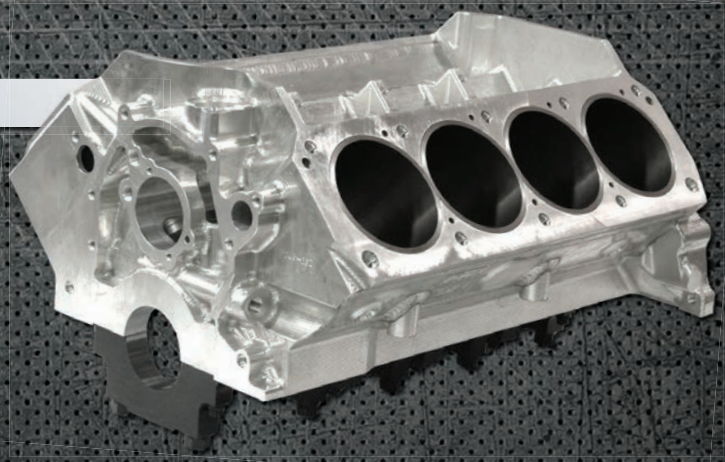


LS BILLET ALUMINUM HEADS

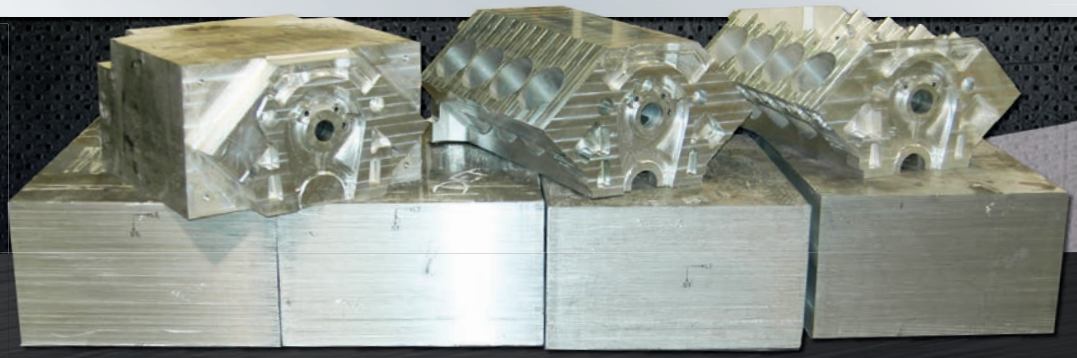
- 4.400" bore space
- Symmetrical ports
- High capacity water jackets or solid
- Copper seats
- 6 bolt per cylinder
- 6061 Billet Alloy

SBF BILLET BLOCKS

- Forged 6061 Aerospace Alloy
- Custom machined for your application
- Custom deck height options
- Cylinder bore spacing: standard or 4.500"
- Raised camshaft locations
- Cam tunnel options up to 60mm
- Custom lifter diameters and locations
- Steel or optional Aluminum main caps
- Full water jackets



CUSTOM BILLET BLOCKS CAN BE ENGINEERED TO CUSTOMER SPECIFICATION.



Precision machined from a solid Billet of Aerospace Aluminum, Dart Billet blocks offer virtually unlimited choices in bore centerline, deck height, bore diameter, lifter and cam options.

START YOUR CUSTOM BUILD TODAY BY CALLING 248-362-1188.

ACCESSORIES & SERVICE PARTS

Dart stocks a wide variety of parts and accessories.

BLOCK PARTS KITS

Dart block parts kits include the same quality components we use in our performance engine blocks. Each kit includes coated cam bearings, freeze plugs and dowel pins for timing cover and oil pump (see page 107 for details).

STUD KITS & STUDS

High quality studs and stud kits, for maximum strength and thread engagement. Premium materials with rolled threads and centerless ground shanks. Stud lengths are optimized for use with Dart blocks and heads.

VALVES

We stock a huge inventory of Stainless Steel, Inconel and Titanium valves in a wide range of diameters and lengths. Please call with your specific requirements.

VALVE SPRINGS

Our in-house engine research and development program and our daily contact with top engine builders have taught us which springs will perform under the stress of competition. We offer valve springs for all types of engines, including street performance, oval track, and drag racing. Call us for the right spring for your combination.

SEATS AND GUIDES

Our Ductile Iron valve seats are machined from continuous cast solid bars. We heat treat our intake and exhaust seats to different specifications because of the different environments in which they operate. Replacement valve guides and guide liners are available for all Dart heads.

GASKETS

We have gaskets to fit every cylinder head we sell - including hard to find valve cover and exhaust gaskets. Most intake manifold gaskets are available in several thicknesses to maintain port alignment with milled blocks and heads. We carry composite and other head gaskets in a variety of bore sizes and thicknesses.

SLEEVES

Premium quality sleeves are manufactured from high strength Ductile Iron. Oversize sleeves available for restoring Dart Aluminum blocks to like new condition.

CAM BEARINGS

Dart's high quality cam bearings are prepared with a special coating for enhanced durability and features three oil hole with a 360° annulus for improved oiling.

ASSEMBLY LUBRICANT

CMD Extreme Pressure Lube is capable of withstanding high temperatures and pressures of up to 50,000 PSI. It reduces galling, frictional heat and scoring caused by metal to metal contact. Used as an assembly lubricant, it produces more accurate torque readings and higher clamping loads.

REPAIRS

When an engine disaster strikes, you can count on Dart Machinery to make it right. We offer repair services for all Dart cylinder heads. Our cylinder head specialists can bring dead heads back to life. Dart can weld chambers, repair ports, water jackets, and install new seats and guides. Prices are based on condition of head and extent of damage.

ACCESSORIES & SERVICE PARTS

SMALL BLOCK CHEVY HEAD PARTS KITS

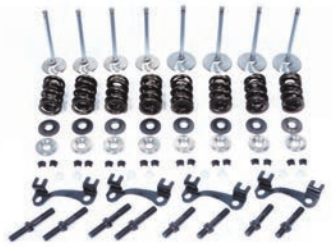
Includes valves, springs, steel retainers, locks, guide plates, studs, and seals (per head).

PART NO.	VALVES	SPRINGS	HEAD TYPE
28111000	2.020"/1.600"	1.250"S 7° locks, retainers	IE, PRO1 180-200
28112000	2.020"/1.600"	1.437"D 10° locks, retainers	IE, PRO1 180-200
28113000	2.020"/1.600"	1.550"D 10° locks, retainers	IE, PRO1 180-200
28112100	2.020"/1.600"	1.290"B Titanium retainers	LS1 Single Spring
28212000	2.050"/1.600"	1.437"D 10° locks, retainers	IE, PRO1 215
28212100	2.050"/1.600"	1.290"B Titanium retainers	LS1 Single Spring
28223000	2.050"/1.600"	1.550"D 10° locks, retainers	IE, PRO1 215
28323000	2.050"/1.625"	1.550"D 10° locks, retainers	IE, PRO1 215
28422000	2.080"/1.600"	1.437"D 10° locks, retainers	IE, PRO1 230
28422200	2.080"/1.600"	1.295"D Titanium retainers	LS1 Double Spring
28423000	2.080"/1.600"	1.550"D 10° locks, retainers	IE, PRO1 230
28811200	2.165"/1.600"	1.290"B	LS3
28812200	2.165"/1.600"	1.295"D	LS3
28821200	2.200"/1.625"	1.290"B Titanium retainers	LS7 Single Spring
28822200	2.200"/1.625"	1.295"D Titanium retainers	LS7 Dual Spring
28823200	2.200"/1.625"	1.310" D Titanium retainers	LS7 Dual Spring (Solid Roller)

BIG BLOCK CHEVY HEAD PARTS KITS

Includes valves, springs, steel retainers, locks, guide plates, studs, and seals (per head).

PART NO.	VALVES	SPRINGS	HEAD TYPE
28000011	2.250"/1.880"	1.550"S	IE 308, PRO1 275-325
28000012	2.250"/1.880"	1.550"D	IE 308, PRO1 275-325
28000012M	2.250"/1.880"	1.550"H Inconel exhaust	IE 308, PRO1 275-325, marine
28000013	2.250"/1.880"	1.625"D Titanium retainers	IE 308, PRO1 275-325
28000022	2.250"/1.900"	1.550"D	IE 308, PRO1 275-325
28000023	2.250"/1.900"	1.625"D Titanium retainers	IE 308, PRO1 275-325
28000032	2.300"/1.880"	1.550"D	IE 345, PRO1 310-355
28000032M	2.300"/1.880"	1.550"H Inconel exhaust	IE 345, PRO1 310-355, marine
28000033	2.300"/1.880"	1.625"D Titanium retainers	IE 345, PRO1 310-355
28000043	2.300"/1.900"	1.625"D Titanium retainers	IE 345, PRO1 310-355
28000073	2.350"/1.880"	1.625"D Titanium retainers	Big M
28000063	2.350"/1.880"	1.625"D Titanium retainers	365 CNC Head
28000093	2.400"/1.800"	1.625"D	BBC 20°
28000095	2.400"/1.800"	1.625"D	BBC 20°



SMALL BLOCK FORD HEAD PARTS KITS

Includes valves, springs, steel retainers, locks, guide plates, studs, and seals (per head).

PART NO.	VALVES	SPRINGS	HEAD TYPE
28622000F	1.940"/1.600"	1.250"S 7° locks, retainers	Iron Eagle 180
28622300F	1.940"/1.600"	1.437"D 10° locks, retainers	Iron Eagle 180
28111000F	2.020"/1.600"	1.250"S 7° locks, retainers	IE 180-200, PRO1 170-195
28112000F	2.020"/1.600"	1.437"D 10° locks, retainers	IE 180-200, PRO1 170-195
28113000F	2.020"/1.600"	1.550"D 10° locks, retainers	IE 180-200, PRO1 170-195
28211000F	2.050"/1.600"	1.250"S 7° locks, retainers	IE 215, PRO1 210
28212000F	2.050"/1.600"	1.437"D 10° locks, retainers	IE 215, PRO1 210
28223000F	2.050"/1.600"	1.550"D 10° locks, retainers	IE 215, PRO1 210
28422000F	2.080"/1.600"	1.437"D 10° locks, retainers	PRO1 225
28423000F	2.080"/1.600"	1.550"D 10° locks, retainers	PRO1 225

BLOCK PARTS KITS

PART NO.	BLOCK TYPE
32000013	SHP Small Block Chevy - coated cam bearings, brass freeze plugs, head, front cover, dowel pins & pipe plugs.
32000014	SHP Pro Small Block Chevy - coated BBC cam bearings, brass freeze plugs, head, front cover, dowel pins & pipe plugs.
32000001	Little M Small Block Chevy - coated cam bearings, brass freeze plugs, head, front cover, dowel pins & pipe plugs.
32000011	Iron Eagle Small Block Chevy - coated BBC cam bearings, brass freeze plugs, head, front cover, dowel pins & pipe plugs.
32000012	Aluminum Small Block Chevy - coated BBC cam bearings, screw-in freeze plugs w/ o-rings, head, front cover, dowel pins & pipe plugs.
32000002	Big M Big Block Chevy - coated cam bearings, brass freeze plugs, head, front cover, dowel pins & pipe plugs.
32000005	BIG M PRO/Race Block - coated cam bearings, brass freeze plugs, head, front cover, dowel pins & pipe plugs.
32000006	Aluminum Big Block Chevy - coated cam bearings, screw-in freeze plugs, head, front cover, dowel pins & pipe plugs.
32000015	SHP Small Block Ford - coated cam bearings, brass freeze plugs, head, front cover, dowel pins & pipe plugs.
32000003	Iron Small Block Ford - coated cam bearings, brass freeze plugs, head, front cover, dowel pins & pipe plugs.
32000004	Aluminum Small Block Ford - coated cam bearings, screw-in freeze plugs, head, front cover, dowel pins & pipe plugs.
32000016	LS Next Iron - coated cam bearings, brass freeze plugs, dowel pins & pipe plugs.
32000017	LS Next Aluminum - coated cam bearings, screw-in freeze plugs w/ o-rings, dowel pins & pipe plugs.
64210240	Big Block Chevy Inside Head Stud Kit (4 studs, nuts, washers, and shoes).
32000018	LS NEXT SHP Iron / LS Next SHP PRO
32000019	LS NEXT Skirted Aluminum.
32000118F	LS1, LS2, LS3 LS NEXT SHP/Skirted windage tray fasteners kit.
32000119F	LS7 LS NEXT SHP/Skirted windage tray fasteners kit.

ACCESSORIES & SERVICE PARTS

LUBRICANTS & EPOXIES

PART NO.	DESCRIPTION
70000003	Araldite Rapid Epoxy - 30ml
70000009	Dart Assembly Lubricant - 8 oz
70000009-12	Dart Assembly Lubricant, Case
LUBE	CMD #3 Assembly Lubricant - 4 oz

ENGINE BAG

PART NO.	DESCRIPTION
BAG-ENGINE	Dart Engine Bag

SMALL BLOCK CHEVY BLOCK SLEEVES

(Old Style SBC = black) **(New Style SBC = red)**

PART NO.	DECK	BORE	LENGTH	O.S.
32110111	9.025"	4.000"	5.625"	
32110112	9.025"	4.000"	5.625"	+.010"
32110113	9.025"	4.000"	5.625"	+.020"
32110121	9.325"	4.000"	5.925"	
32110122	9.325"	4.000"	5.925"	+.010"
32110123	9.325"	4.000"	5.925"	+.020"
32110131	9.500"	4.000"	6.100"	
32110132	9.500"	4.000"	6.100"	+.010"
32110133	9.500"	4.000"	6.100"	+.020"
32110141	8.850"	4.000"	5.425"	
32110211	9.025"	4.125"	5.625"	
32110212	9.025"	4.125"	5.625"	+.010"
32110213	9.025"	4.125"	5.625"	+.020"
32110221	9.325"	4.125"	5.925"	
32110222	9.325"	4.125"	5.925"	+.010"
32110223	9.325"	4.125"	5.925"	+.020"
32110231	9.500"	4.125"	6.100"	
32110232	9.500"	4.125"	6.100"	+.010"
32110233	9.500"	4.125"	6.100"	+.020"
32110241	8.850"	4.125"	5.425"	
32110242	8.850"	4.125"	5.425"	+.010"
32110243	8.850"	4.125"	5.425"	+.020"
32114111	9.325"	4.180"	6.150"	for 4.500" BS
32120211	9.025"	4.125"	5.825"	
32120212	9.025"	4.125"	5.825"	+.010"
32120221	9.325"	4.125"	6.125"	
32120222	9.325"	4.125"	6.125"	+.010"
32120231	9.500"	4.125"	6.300"	
32120232	9.500"	4.125"	6.300"	+.010"

LS NEXT BLOCK SLEEVES

PART NO.	DECK	BORE	LENGTH	O.S.
32110251	9.240"	4.125"	5.825"	
32110261	9.750"	4.125"	6.335"	
32110151	9.240"	4.000"	5.825"	
32110161	9.750"	4.000"	6.335"	

*Add "S" to the part number to specify Single Flat. Single Flat is not available for Honda.

BIG BLOCK CHEVY BLOCK SLEEVES

PART NO.	DECK	BORE	LENGTH	O.D.	FLANGE
32160111	9.800"	4.250"	6.370"	4.740"	4.940"
32160121	10.200"	4.250"	6.770"	4.740"	4.940"
32160131	10.400"	4.250"	7.000"	4.740"	4.940"
32160211	9.800"	4.500"	6.370"	4.740"	4.940"
32160221	10.200"	4.500"	6.770"	4.740"	4.940"
32160231	10.400"	4.500"	7.000"	4.740"	4.940"
32160311	9.800"	4.600"	6.370"	4.740"	4.940"
32160321	10.200"	4.600"	6.770"	4.740"	4.940"
32160331	10.400"	4.600"	7.000"	4.740"	4.940"
32160411	Custom	4.650"	8.200"	4.880"	5.045"
32160511	Custom	4.650"	8.200"	4.860"	5.200"
32160611	Custom	4.950"	8.250"	5.130	5.380"

SMALL BLOCK FORD BLOCK SLEEVES

PART NO.	DECK	BORE	LENGTH	O.S.
32140111	8.200"	4.000"	5.175"	
32140112	8.200"	4.000"	5.175"	+.010"
32140113	8.200"	4.000"	5.175"	+.020"
32140121	8.700"	4.000"	5.650"	
32140123	8.700"	4.000"	5.650"	+.020"
32140131	9.200"	4.000"	5.575"	
32140132	9.200"	4.000"	5.575"	+.010"
32140133	9.200"	4.000"	5.575"	+.020"
32140141	9.500"	4.000"	5.850"	
32140142	9.500"	4.000"	5.850"	+.010"
32140143	9.500"	4.000"	5.850"	+.020"
32140211	8.200"	4.125"	5.175"	
32140212	8.200"	4.125"	5.175"	+.010"
32140213	8.200"	4.125"	5.175"	+.020"
32140221	8.700"	4.125"	5.650"	
32140222	8.700"	4.125"	5.650"	+.010"
32140223	8.700"	4.125"	5.650"	+.020"
32140231	9.200"	4.125"	5.575"	
32140232	9.200"	4.125"	5.575"	+.010"
32140233	9.200"	4.125"	5.575"	+.020"
32140241	9.500"	4.125"	5.850"	
32140242	9.500"	4.125"	5.850"	+.010"
32140243	9.500"	4.125"	5.850"	+.020"

FRONT COVERS, TIMING CHAINS & DRIVES

PART NO.	DESCRIPTION
67110002	Timing Chain Set - Cam .390" Raised
67240002	Front Cover - BBC Cam .400" Raised w/Gasket

ACCESSORIES & SERVICE PARTS

SMALL BLOCK CHEVY COATED CAM BEARINGS

PART NO.	DESCRIPTION
32210010	2.120" Standard Set (Iron Eagle /SHP Pro/BBC core)
32210011	2.120" Standard
32210012	Oversize 2.120" +.010"
32210013	Oversize 2.120" +.020"
32210014	Oversize 2.120" +.030"
32210020	2.000" Standard Set (SHP, Little M)
32210021	2.000" Standard (SHP, Little M)
32210022	Oversize 2.000" +.010"
32210023	Oversize 2.000" +.020"
32210024	Oversize 2.000" +.030"

SMALL BLOCK CHEVY COATED CAM BEARINGS

PART NO.	DESCRIPTION
32210100	55mm Babbitt Set (2 wide, 3 narrow)
32210101	55mm Babbitt #1, #5 (.780"/.770" wide)
32210102	Oversize 55mm Babbitt #1, #5 +.010"
32210103	Oversize 55mm Babbitt #1, #5 +.020"
32210104	Oversize 55mm Babbitt #1, #5 +.030"
32210105	55mm Babbitt #2, #3, #4 (.640"/.630" wide)
32210106	Oversize 55mm Babbitt #2, #3, #4 +.010"
32210107	Oversize 55mm Babbitt #2, #3, #4 +.020"
32210108	Oversize 55mm Babbitt #2, #3, #4 +.030"

BIG BLOCK CHEVY COATED CAM BEARINGS

PART NO.	DESCRIPTION
32210030	Standard Set (Big M)
32210031	Standard Each (Big M)
32210032	Oversize +.010"
32210033	Oversize +.020"
32210034	Oversize +.030"
32210101-5	55mm Babbit Set
32210101	55mm Babbit Each
32210200	60mm Babbitt Set
32210201	60mm Babbitt Each
32220050	Race Series Standard Set
32220051	Race Series Standard 2.253"

SMALL BLOCK FORD COATED CAM BEARINGS

PART NO.	DESCRIPTION
32210041	Standard Set (SHP, Sportsman, Iron Eagle)
32210042	Oversize +.010" Set
32210043	Oversize +.020" Set
32210051	2.081 Standard #1
32210052	Oversize +.010" #1
32210053	Oversize +.020" #1
32210061	Standard #2
32210062	Oversize +.010" #2
32210063	Oversize +.020" #2
32210071	Standard #3
32210072	Oversize +.010" #3
32210073	Oversize +.020" #3
32210081	Standard #4
32210082	Oversize +.010" #4
32210083	Oversize +.020" #4
32210091	Standard #5
32210092	Oversize +.010" #5
32210093	Oversize +.020" #5
32210105	55mm Babbit Each

LS NEXT COATED CAM BEARINGS

PART NO.	DESCRIPTION
32210101-5	55mm Babbitt Set
32210101	55mm Babbitt (.780"/.770" wide)
32210102	Oversize 55mm Babbitt +.010"
32210103	Oversize 55mm Babbitt +.020
32210104	Oversize 55mm Babbitt +.030

ROLLER CAM BEARINGS

PART NO.	DESCRIPTION
32220041	50mm Each
32220041-5	50mm Set
32220042	55mm Each
32220042-5	55mm Set
32220043	60mm Each

BLOCK COMPONENTS

PART NO.	DESCRIPTION
32810000B	Iron Block Brass Freeze Plug 1-5/8"
32820000B	Iron Block Brass Freeze Plug 1-1/2"
32830000B	Iron Block Brass Freeze Plug 1-1/2" Deep
32310000	Freeze Plug - Threaded (1-5/16" -12) O-Ring not included
32410000	Freeze Plug - O Ring
32510000	Freeze Plug - SBC Cam Bore 2.375" / 55mm Babbit
32540000	Freeze Plug - SHP 2.106 Cam Bore
32520000	Freeze Plug - BBC Cam Bore
32530000	Freeze Plug - 55 MMR Cam Bore
32550000	Freeze Plug - 60 MMR Cam Bore
32610000	Snap Ring - Cam Plug
32620000	Snap Ring - Cam Plug 2.500"
32650000	Snap Ring - Cam Plug 60 MMR
32910000	Dowel Pin - Timing Cover
32920000	Dowel Pin - Oil Pump
32930000	Standard Lifter Bushing BBC No Through Hole 1.062" OD
32930001	Standard Lifter Bushing w/Through Hole BBC
32930100	Lifter Bushing - 55mm SBC only
32930200	Lifter Bushing - 55mm BBC only
32930400	Keyed Ford Lifter Bushing 1.062" OD x .926" ID
32931000	Keyed Lifter Bushing 1.062" OD x .925" ID
32931010	Keyed Lifter Bushing 1.065" OD x .925" ID
32932000	Keyed Lifter Bushing 1.187" OD x 1.050" ID
32933000	Keyed Lifter Bushing 1.222" OD x 1.080" ID
32940000	Oil Filter Adapter - SB Ford
PR200FP	Fuel Pump Pushrod +.200" (Iron Eagle small block)

SMALL BLOCK CHEVY MAIN CAPS - HONE READY

PART NO.	BLOCK TYPE	STYLE	MAINS	POSITION	MATERIAL
32711010H	Aluminum	4 Bolt	350	Full Set	Steel
32711020H	Aluminum	4 Bolt	350	Front	Steel
32711030H	Aluminum/IE	4 Bolt	350	Interior	Steel
32711050H	Aluminum/IE	4 Bolt	350	Rear	Steel
32712010H	Aluminum	4 Bolt	400	Full Set	Steel
32712020H	Aluminum	4 Bolt	400	Front	Steel
32712030H	Aluminum	4 Bolt	400	Interior	Steel
32712050H	Aluminum	4 Bolt	400	Rear	Steel
32721014H	Iron Eagle	4 Bolt	350	Full Set	Steel
32721024H	Iron Eagle	4 Bolt	350	Front	Steel
32722014H	Iron Eagle	4 Bolt	400	Full Set	Steel

ACCESSORIES & SERVICE PARTS

SMALL BLOCK CHEVY MAIN CAPS - HONE READY

PART NO.	BLOCK TYPE	STYLE	MAINS	POSITION	MATERIAL
32722024H	Iron Eagle	4 Bolt	400	Front	Steel
32722030H	Iron Eagle	4 Bolt	400	Interior	Steel
32722050H	Iron Eagle	4 Bolt	400	Rear	Steel
32731010H	Little M	4 Bolt	350	Full Set	Steel
32731020H	Little M	4 Bolt	350	Front	Steel
32731030H	Little M	4 Bolt	350	Interior	Steel
32731050H	Little M	4 Bolt	350	Rear	Steel
32732010H	Little M	4 Bolt	400	Full Set	Steel
32732020H	Little M	4 Bolt	400	Front	Steel
32732030H	Little M	4 Bolt	400	Interior	Steel
32732050H	Little M	4 Bolt	400	Rear	Steel
32751010H	Little M	2-4 Bolt	350	Full Set	Ductile
32751020H	Little M	2 Bolt	350	Front	Ductile
32751030H	Little M	4 Bolt	350	Interior	Ductile
32751050H	Little M	2 Bolt	350	Rear	Ductile
32752010H	Little M	2-4 Bolt	400	Full Set	Ductile
32752020H	Little M	2 Bolt	400	Front	Ductile
32752030H	Little M	4 Bolt	400	Interior	Ductile
32752050H	Little M	2 Bolt	400	Rear	Ductile
32791010H	SHP	2-4 Bolt	350	Full Set	Ductile
32791020H	SHP	2 Bolt	350	Front	Ductile
32791030H	SHP	4 Bolt	350	Interior	Ductile
32791050H	SHP	2 Bolt	350	Rear	Ductile

BIG BLOCK CHEVY MAIN CAPS - HONE READY

PART NO.	BLOCK TYPE	STYLE	MAINS	POSITION	MATERIAL
32763010H	BBC	4 Bolt	Std	Full Set	Steel
32763020H	BBC	4 Bolt	Std	Front	Steel
32763030H	BBC	4 Bolt	Std	Interior	Steel
32763050H	BBC	4 Bolt	Std	Rear	Steel
32773010H	BBC	4 Bolt	Std	Full Set	Ductile
32773020H	BBC	4 Bolt	Std	Front	Ductile
32773030H	BBC	4 Bolt	Std	Interior	Ductile
32773050H	BBC	4 Bolt	Std	Rear	Ductile
32763050VIH	Gen VI	4 Bolt	Std	Rear	Steel
32773050VIIH	8.1 Liter	4 Bolt	Std	Rear	Ductile

SMALL BLOCK FORD MAIN CAPS - HONE READY

PART NO.	BLOCK TYPE	STYLE	MAINS	POSITION	MATERIAL
32781010H	Iron Eagle	4 Bolt	302	Full Set	Steel
32781020H	Iron Eagle	4 Bolt	302	Front	Steel
32781030H	Iron Eagle	4 Bolt	302	Interior	Steel
32781050H	Iron Eagle	4 Bolt	302	Rear	Steel
32781040H	Iron Eagle	4 Bolt	302	C. Thrust	Steel
32782010H	Iron Eagle	4 Bolt	351	Full Set	Steel
32782040H	Iron Eagle	4 Bolt	351	Interior	Steel
32782050H	Iron Eagle	4 Bolt	351	Rear	Steel
32783010H	Aluminum	4 Bolt	302	Full Set	Steel
32783020H	Aluminum	4 Bolt	302	Front	Steel
32783030H	Aluminum	4 Bolt	302	Interior	Steel
32783050H	Aluminum	4 Bolt	302	Rear	Steel

SMALL BLOCK FORD MAIN CAPS - HONE READY

PART NO.	BLOCK	STYLE	MAINS	POSITION	MATERIAL
32784010H	Aluminum	4 Bolt	351	Full Set	Steel
32784020H	Aluminum	4 Bolt	351	Front	Steel
32784030H	Aluminum	4 Bolt	351	Interior	Steel
32784050H	Aluminum	4 Bolt	351	Rear	Steel
32785010H	Aluminum	4 Bolt	302/351	Full Set	Steel
32785020H	Aluminum	4 Bolt	302/351	Front	Steel
32785030H	Aluminum	4 Bolt	302/351	Interior	Steel
32785050H	Aluminum	4 Bolt	302/351	Rear	Steel

CARB SPACERS/ADAPTERS

PART NO.	DESCRIPTION
62100000	Spacer - 4150 1/2" Open Phenol
62100001	Spacer - 4150 1/2" Cloverleaf Phenol
62100002	Spacer - 4150 1" Cloverleaf Phenol
62100003	Spacer - 4500 1/4" 4xH Phenol
62100004	Spacer - 4500 1/2" 4xH Phenol
62100005	Spacer - 4500 1" 4xH Phenol
62100006	Spacer - 4500 1" Cloverleaf Phenol
62100008	Spacer - 4500 2" Cloverleaf Phenol
62100007	Adapter 4150 to 4500 2"

INTAKE SPACER PLATE KITS - W/ END RAIL SPACERS

PART NO.	ENGINE	DESCRIPTION
62210002	SBC	23°, 9.325"
62210003	SBC	23°, 9.500"
62210004	SBC	18°, 9.325"
62210005	SBC	18°, 9.500"
62210001	BBC	24°, 10.200" Rect port
62210010	BBC	24°, 10.200" Oval port
62210009	BBC	18°, 10.200" Rect port (383cc)
62210007	BBC	18°, 10.200" Oval port (330cc)
62210006	BBC	18°, 10.200" Big Chief Rect port
62210012	BBC	14° & 11°, 10.200" Big Chief Oval port

INTAKE SPACER PLATES (PAIR)

PART NO.	ENGINE	DESCRIPTION
62230004	SBC	23° 9.325" ¼"
62230003	SBC	23° 9.500" ½"
62230005	SBC	18° 9.325" ¼"
62230002	SBC	18° 9.500" ½"
62230009	BBC	24° Rect Port 10.200" 3/8"
62230010	BBC	24° Oval Port 10.200" 3/8"
62230013	BBC	18° Rect Port (383cc) 10.200" 3/8"
62230012	BBC	18° Oval Port (330cc) 10.200" 3/8"
62230006	BBC	18° Big Chief Rect Port 10.200" 3/8"
62230008	BBC	14° & 11° Big Chief Oval Port 10.200" 3/8"

ACCESSORIES & SERVICE PARTS

END RAIL SPACERS (PAIR)

PART NO.	ENGINE	DESCRIPTION
62220007	SBC	9.325" 1/4"
62220005	SBC	9.325" 5/16"
62220003	SBC	9.500" 1/2"
62220006	BBC	10.200" 3/8"
62220008	BBC	10.200" 1/4" PRO2 380cc
62220010	BBC	9.800" PRO1 20°
62220011	BBC	10.200" PRO1 20°
62220009	BBC	10.200" 18° 1/2"

INTAKE GASKETS (EACH)

PART NO.	ENGINE	DESCRIPTION
65111204	SBC	#1204 (SHP, Iron Eagle, PRO1 - 180cc)
65111205	SBC	#1205 (SHP, Iron Eagle, PRO1 - 200cc)
65111206	SBC	#1206 (Iron Eagle, PRO1 - 215cc, 230cc)
65111207	SBC	#1207
65111256	SBC	#1256
65121100	SBC	Raised runner or standard .060"
65121200	SBC	Raised runner or standard .120"
65122100	SBC	18° .060"
65122200	SBC	18° .120"
65002155	BBC	14° Big Chief large oval port .060"
65002157	BBC	Big Chief small oval port .060"
65002158	BBC	14° Big Chief oval port .120"
65111251	BBC	#1251, trim to fit
65123100	BBC	.060 #121 (Iron Eagle, PRO1, PRO2)
65123200	BBC	.120 (Iron Eagle, PRO1, Pro2)
65123300	BBC	Big M .060"
65123400	BBC	Big M .120"
65123500	BBC	18° Race Series .062"
65123600	BBC	18° Race Series .125"
65124101	BBC	Big Chief .060"
65124103	BBC	Big Chief N ports .060"
65124201	BBC	Big Chief .120"
65124203	BBC	Big Chief N ports .120"
65128000	SBF	170cc and 195cc
65128100	SBF	CNC 210cc and 225cc

EXHAUST GASKETS

PART NO.	ENGINE	DESCRIPTION
65211405	SBC	#1405 (SHP, Iron Eagle, PRO1)
65211406	SBC	#1406
65222000	SBC	18° Race Series
65221000	BBC	18° Race Series
65223000	BBC	Big Chief or BBC Full port
65224000	BBC	Standard port
65228000	SBF	170cc and 195cc
65228100	SBF	CNC 210cc and 225cc

VALVE COVER GASKETS

PART NO.	ENGINE	DESCRIPTION
65311604	SBC	#1604
65321000	SBC	Standard
65321200	SBC	5/16 cork
65322000	BBC	18° .062"
65323000	BBC	Standard
65323200	BBC	5/16" cork
65324000	BBC	Big Chief
65326100	LS	.060" Paper
65326101	LS	.100" Steel Core

PUSHROD GUIDE PLATES

PART NO.	ENGINE	DESCRIPTION
27001110	SBC	5/16" Flat
27001230	BBC	3/8" Adjustable
27001230-4	BBC	3/8" Adjustable (set of 4)
27001410	SBF/SBC	Adjustable

ROCKER STUDS

PART NO.	ENGINE	DESCRIPTION
27002101	SBC/SBF	3/8"
27002102	SBC/SBF	7/16"
27002103	SBC	3/8" S/S
27002104	SBC	3/8" S/S set
27002204	BBC	Long exhaust rocker studs
27002223	BBC	Short intake rocker studs

STUD GIRDLE PARTS

PART NO.	ENGINE	DESCRIPTION
64210210	BBC	7/16" intake, long stud girdle nut
64210220	BBC	7/16" exhaust, short stud girdle nut
64210230	SBC	3/8" SBC stud girdle nut

HEAD STUD KITS

PART NO.	ENGINE	DESCRIPTION
66110012	SBC	18° 7/16" and 3/8" for Iron blocks
66110013	SBC	Little Chief 7/16" and 3/8" for Iron blocks
66110022	SBC	18° 7/16" and 3/8" for Aluminum blocks
66110023	SBC	Little Chief 7/16" and 3/8" for Aluminum blocks
66120011	SBC	Standard 7/16" for Iron blocks
66120012	SBC	18° 7/16" for Iron blocks
66120021	SBC	Standard 7/16" for Aluminum blocks
66120022	SBC	18° 7/16" for Aluminum blocks
66110014	SBC	12.5° & 13° 7/16 and 3/8" for Iron blocks
66110027	SBC	9° 4.4" bore space
66110027A	SBC	9° 4.5" bore space
66110017A	SBC	9° 4.5" bore space 7/16" and 3/8" for Iron blocks
66120014	BBC	Standard 7/16" for Iron blocks (Old PRO1)
66120015	BBC	Big Chief 7/16" 12-pt for Iron blocks
66120024	BBC	7/16 12-pt for Aluminum blocks
66120025	BBC	Big Chief 7/16" 12-pt for Aluminum blocks
66130021	SBF	Dart PRO1 1/2" for Iron blocks
66130022	SBF	Yates HP 1/2" for Iron blocks
66130121	SBF	Dart PRO1 1/2" for Aluminum blocks
66130122	SBF	Yates HP 1/2" for Aluminum blocks
64210240	BBC	Inside head stud kit w/shoes
66120014-20	BBC	Dart PRO1 BBC & 20° for Iron blocks

ACCESSORIES & SERVICE PARTS

LS NEXT HEAD STUD KITS

PART NO.	ENGINE	DESCRIPTION
66120017	LS	7/16" 23 bolt 10° Race Series Iron LS Next Block
66120018	LS	7/16" 15 bolt Iron LS Next Block
66120018B	LS	7/16" 23 bolt (LS3/LS7) Iron LS Next Block
66130018	LS	1/2" 15 bolt Iron LS Next Block
66130018B	LS	1/2" 23 bolt (LS3/LS7) Iron LS Next Block
66120027	LS	7/16" 23 bolt 10° Race Series Aluminum LS Next Block
66120028	LS	7/16" 15 bolt Aluminum LS Next Block
66120028B	LS	7/16" 23 bolt (LS3/LS7) Aluminum LS Next Block
66130128	LS	1/2" 15 bolt Aluminum LS Next Block
66130128B	LS	1/2" 23 bolt (LS3/LS7) Aluminum LS Next Block

HEAD STUDS

PART NO.	ENGINE	DESCRIPTION
66526000	BBC	Single 6" exhaust stud
66613550	Custom	7/16" and 3/8" x 3.550" for Aluminum blocks
66616100	Custom	7/16" and 3/8" x 6.100" for Aluminum blocks
66623400	Custom	7/16" x 3.400" for Aluminum blocks
66623750	Custom	7/16" x 3.750" for Aluminum blocks
66625150	Custom	7/16" x 5.150" for Aluminum blocks
66625450	Custom	7/16" x 5.450" for Aluminum blocks
66625650	Custom	7/16" x 5.650" for Aluminum blocks
66625800	Custom	7/16" x 5.800" for Aluminum blocks
66626050	Custom	7/16" x 6.050" for Aluminum blocks
66626250	Custom	7/16" x 6.250" for Aluminum blocks
66677000	Custom	7/16" x 7.000" for billet Aluminum blocks

MAIN STUD KITS

PART NO.	ENGINE	DESCRIPTION
66311000	SBC	Standard for Iron Eagle blocks
66311110	SBC	SHP
66311400	SBC	Splayed for Little M blocks and SHP PRO
66321000	SBC	For Aluminum blocks w/ 10mm splay
66311300	BBC	Splayed, hex, for Big M Iron blocks
66311320	BBC	Splayed, for Big M Aluminum blocks
66311500	SBF	Splayed, 302, for Iron blocks (Iron Eagle)
66311600	SBF	Splayed, 351, for Iron blocks (Iron Eagle)
66311010	LS	Iron LS Next Block
66311011	LS	Iron LS SHP and SHP PRO
66311020	LS	Aluminum LS Next Block
66311510	SBF	302 SHP
66311610	SBF	351 SHP

BOLT KITS

PART NO.	ENGINE	DESCRIPTION
66220011	SBC	Standard 7/16 head bolt for Iron blocks
66412200	SBC	7/16" for PRO1 top end kit
66220014	BBC	Standard 7/16" small hex head bolt Iron blocks
66422100	BBC	7/16 for Iron Eagle top end kit
66422200	BBC	7/16 for Iron Eagle or PRO1 top end kit

BOLTS

PART NO.	ENGINE	DESCRIPTION
66424000	BBC	Head bolt, 7/16" - 14 x 4.210"
66426000	BBC	#6 exhaust bolt, 7/16" - 14 x 5.200"
66443500	BBC	Inverted valve cover bolt, 1/4" - 20 x 3.500"
66454375	BBC	6mm x 75mm factory 8.1 liter bolt
66440500	BBC	Ram top plate bolt 1/4" - 20 x 1/2" button head
66722000	SBC	Main bolt 3/8" x 2.000" 12-pt for Little M blocks
66722687	SBC	Main bolt 7/16" x 2.687" 6-pt for Little M blocks
66723200	SBC	Main bolt 7/16" x 3.200" small hex

NUTS

PART NO.	ENGINE	DESCRIPTION
66810100	Custom	Cylinder head nut 3/8" - 24 12-pt
66820100	Custom	Cylinder head nut 7/16" - 20 12-pt
66830100	Custom	Cylinder head nut 1/2" - 20 12-pt
66820200	Custom	Cylinder head nut 7/16" - 20 6-pt
66830200	Custom	Cylinder head nut 1/2" - 20 6-pt

WASHERS

PART NO.	ENGINE	DESCRIPTION
66910000	Custom	3/8" ground chamfer .625 OD
66910001	Custom	3/8" ground .750 OD
66920000	Custom	7/16" ground .810 OD
66921000	Custom	7/16" ground .700 OD (BCII & LC)
66925000	Custom	7/16" ID x .875 OD insert washer (used for Dart heads on stock Ford 8.2 blocks)
66930000	Custom	1/2" ground .870 OD

Not intended for sale or use with pollution controlled vehicles.

ACCESSORIES & SERVICE PARTS

STAINLESS STEEL INTAKE VALVES

PART NO.	ENGINE	DESCRIPTION	O.S.
21311940	SBC	1.940" x 11/32" (Iron Eagle S/S, Vortec)	No
21312020	SBC	2.020" x 11/32" (SHP, IE, PRO1 - 180, 200)	No
21312050	SBC	2.055" x 11/32"	No
21312080	SBC	2.080" x 11/32"	No
21322020	SBC	2.020" x 11/32"	+.100"
21322055	SBC	2.055" x 11/32"	+.100"
21322080	SBC	2.080" x 11/32"	+.100"
21322100	SBC	2.100" x 11/32"	+.100"
21332080	SBC	2.080" x 11/32"	+.200"
21332100	SBC	2.100" x 11/32"	+.200"
21362125	SBC	2.125" x 11/32" (Race Series 12.5° - 18°)	+.600"
21362150	SBC	2.150" x 11/32" (Race Series 12.5° - 18°)	+.600"
21362180	SBC	2.180" x 11/32" (Race Series 12.5° - 18°)	+.600"
21362200	SBC	2.200" x 11/32" (Race Series 12.5° - 18°)	+.600"
21392020	LS1	2.020" x 8mm	No
21392055	LS1	2.055" x 8mm	No
21392080	LS1	2.080" x 8mm	No
21392165	LS3	2.165" x 8mm	No
21392165H	LS3	2.165" x 8mm (Hollow Stem)	No
21397200	LS7	2.200" x 8mm	No
21342250	BBC	2.250" x 11/32" (IE 308 - PRO1 275, 325)	+.250"
21342300	BBC	2.300" x 11/32" (IE 345 - PRO1 310, 355)	+.250"
21342325	BBC	2.325" x 11/32"	+.250"
21612250	BBC	2.250" x 3/8"	+.250"
21642190	BBC	2.190" x 3/8" (PRO1 275, 310)	+.250"
21642300	BBC	2.300" x 3/8" (PRO1 325, 345)	+.250"
21382350	BBC	2.350" x 11/32" (Big M)	+.350"
21372400	Big Chief	2.400" x 11/32"	No

STAINLESS STEEL EXHAUST VALVES

PART NO.	ENGINE	DESCRIPTION	O.S.
21311500	SBC	1.500" x 11/32" (Iron Eagle S/S, Vortec)	No
21311600	SBC	1.600" x 11/32" (SHP, Iron Eagle, PRO1)	No
21311625	SBC	1.625" x 11/32" (IE, PRO1 230 - CNC 227)	No
21321600	SBC	1.600" x 11/32" (PRO1 180, 230 - CNC 227)	+.100"
21361600	SBC	1.600" x 11/32" (Race Series 12.5° - 18°)	+.600"
21361625	SBC	1.625" x 11/32" (Race Series 12.5° - 18°)	+.600"
21391600	LS1/LS3	1.600" x 8mm	No
21397625	LS7	1.625" x 8mm	No
21311880	BBC	1.880" x 11/32" (Iron Eagle, PRO1)	No
21321880	BBC	1.880" x 11/32" (Iron Eagle, PRO1)	+.100"
21611880	BBC	1.880" x 3/8" (Iron Eagle, PRO1)	No
21311900	BBC	1.900" x 11/32" (Iron Eagle, PRO1)	No
21311840	BBC 18°	1.840" x 11/32"	No
21371900	Big Chief	1.900" x 11/32"	No

ACCESSORIES & SERVICE PARTS

TITANIUM INTAKE VALVES

PART NO.	ENGINE	DESCRIPTION	O.S.
21432100	SBC	2.100" x 11/32" (Race Series 220)	+.200"
21432125	SBC	2.125" x 11/32" (Race Series 220)	+.200"
21431625	SBC	1.625" x 11/32" (Race Series 220)	+.200"
21462100	SBC	2.100" x11/32" (Race Series 12.5° - 18°)	+.600"
21462125	SBC	2.125" x 11/32" (Race Series 12.5° - 18°)	+.600"
21462150	SBC	2.150" x 11/32" (Race Series 12.5° - 18°)	+.600"
21462150S	SBC	2.150" x 5/16" (Race Series 12.5° - 18°)	+.600"
21462180	SBC	2.180" x 11/32" (Race Series 12.5° - 18°)	+.600"
21442300	BBC	2.300" x 11/32" (IE 345 - PRO1 310, 355)	+.250"
21482350	BBC	2.350" x 11/32" (Big M)	+.350"
21472400	Big Chief	2.400" x 11/32"	No
21472470	Big Chief	2.470" x 11/32"	No
21472470S	Big Chief	2.470" x 5/16"	No
21472500	Big Chief	2.500" x 11/32"	No

TITANIUM EXHAUST VALVES

PART NO.	ENGINE	DESCRIPTION	O.S.
21461600	SBC	1.600" x 11/32" (Race Series 12.5° - 18°)	+.600"
21461625	SBC	1.625" x 11/32"	+.600"
21411840	BBC 18°	1.840" x 11/32"	No
21411880	BBC	1.880" x 11/32" (Iron Eagle, PRO1)	No
21411900	BBC	1.900" x 11/32" (Iron Eagle, PRO1)	No
21431600	BBC	1.600" x 11/32" (Iron Eagle, PRO1)	No
21471800	Big Chief	1.800" x 11/32"	No
21471850	Big Chief	1.850" x 11/32"	No
21471900	Big Chief	1.900" x 11/32"	No

INCONEL EXHAUST VALVES

PART NO.	ENGINE	DESCRIPTION	O.S.
21811840	BBC	1.840" x 11/32" (Race Series 18°)	No
21811880	BBC	1.890" x 3/8" (Iron Eagle, PRO1)	No
21811890	BBC	1.890" x 11/32" (Iron Eagle, PRO1)	No
21811900	BBC	1.900" x 3/8" (Iron Eagle, PRO1)	No

LASH CAPS

PART NO.	DESCRIPTION
29000001	5/16" (Set of 16)
29000002	11/32" (Set of 16)
29000003	3/8" (Set of 16)

VALVE LOCKS

PART NO.	DESCRIPTION	
24000021	11/32", 10 degree	Pair
24000022	11/32", 10 degree +.050	Pair
24000023	11/32", 10 degree -.050	Pair
24000031	3/8", 10 degree	Pair
24000121	11/32", 7 degree (1.250 valve spring only)	Pair
24000151	8mm, LS1	Pair

VALVE SPRINGS

PART NO.	DESCRIPTION
22000002	1.625" dual Hi-Tech w/o damper (1024)
22000002i	1.625" dual #9685
22000001	1.625" single Vasco Jet
22000004	1.700" triple short (1047)
22000005	1.700" triple tall (1048)
22000010	1.250" single
22000011	1.290" LS1 single beehive
22000111	1.295" LS1 dual
22000120	1.310" OD .665" ID LS7 solid dual
22000020	1.437" dual
22000030	1.550" BBC single outer
22000040	1.550" SBC tall
22000050	1.550" dual BBC
22000050H	1.550" hydraulic roller HD solid dual
22000060	1.550" #9365
22000070	1.560" #9385
22000080	1.550" Pacaloy tall dual

VALVE SPRING RETAINERS

PART NO.	DESCRIPTION
25000111	1.250"steel
25000112	1.437", 10 degree
25000113	1.550", 10 degree
25000212	1.437" Titanium dual
25000213	1.550" Titanium dual
25000214	1.625" Titanium dual
25000215	1.625" Titanium triple
25000216	1.290" 14 degree LS1/LS3/LS7
25000217	1.295" 14 degree dual LS1/LS3/LS7
25000218	1.310" 14 degree dual LS1/LS3/LS7

VALVE SEALS

PART NO.	DESCRIPTION
26000010	PC Seal .311" x .415" Pro Stock
26000011	PC Seal .311" x .531"
26000012	PC Seal .311" x .500" (LS Dual Spring)
26000021	PC Seal .341" x .530"
26000022	PC Seal .341" x .500"
26000023	Rubber Seal, Umbrella S/S head
26000025	PC Seal S/S Head
26000031	PC Seal .371" x .530"
26000051	PC Seal .287" x .490" (LS Single Spring)

VALVE SPRING CUPS

PART NO.	DESCRIPTION
23100002	1.690" x 1.550" x .060"
23100003	1.740" x 1.625" x .035"
23100004	1.740" x 1.655" x .060"
23100005	1.740" x 1.550" x .060"
23100006	1.740" x 1.550" x .150"

ACCESSORIES & SERVICE PARTS

VALVE SPRING LOCATORS

PART NO.	DESCRIPTION
23200200	1.625"D x .060" - 15°, 16° & 18°
23200050	1.550"x.690"x.060" - 1.437" spring, 1.487" OD
23200100	1.550"x.730"x.060 "- 1.487" OD
23200152	1.300"x.510"x.060" - LS 1.295" OD Dual

VALVE SPRING SHIMS

PART NO.	DESCRIPTION
23300010	1.550" x .015"
23300020	1.550" x .030"
23300030	1.550" x .060"
23300040	1.625" x .015"
23300050	1.625" x .030"
23300060	1.625" x .060"
23300070	1.250" x .015"
23300080	1.250" x .030"
23300090	1.250" x .060"

VALVE GUIDES

PART NO.	DESCRIPTION
63121101	1.950" - .502" - 5/16" MB
63121102	2.100" - .502" - 5/16" MB I
63121103	2.250" - .502" - 5/16" MB E
63121104	3.000" - .502" - 5/16" MB BC I
63121105	3.000" - .502" - 5/16" MB BC E
63121106	2.450" - .502" - 5/16" MB LC
63121201	1.950" - .502" - 11/32" MB
63121202	2.100" - .502" - 11/32" MB
63121203	2.250" - .502" - 11/32" MB
63121204	3.000" - .502" - 11/32" MB BC I Tapered
63121204II	2.825" - .502" - 11/32" MB BC II Tapered
63121205	3.000" - .502" - 11/32" MB BC E
63121206	2.450" - .502" - 11/32" MB LC
63121210	1.950" - .439" - 11/32" MB
63121213	2.250" - .439" - 11/32" MB
63121302	2.100" - .502" - 3/8" MB
63121303	2.250" - .502" - 3/8" MB
63121502	2.150" - .439" - 8mm MB LS1
63121603	2.250" - .502" - 7mm MB
63121613	2.250" - .439" - 7mm MB
63131201	BBC 11/32" .502" Steel
63131202	Big Chief .502" Steel
63121108	2.750" - .502" - 5/16" MB I E
63121208	2.750" - .502" - 11/32" MB I E

Some Phosphorus Bronze guides available. Call for availability.

VALVE GUIDE LINERS

PART NO.	DESCRIPTION
63210112	5/16" - 30 x 3.125"
63210122	5/16" - 60 x 3.125"
63210132	5/16" +.003" x 3.125"
63210211	11/32" x 2.400"
63210212	11/32" - 30 x 3.125"
63210213	11/32" - 30 x 3.875"
63210222	11/32" - 60 x 3.125"
63210232	11/32" +.003 x 3.125"
63210312	3/8" - 30 x 3.125"
63210322	3/8" - 60 x 3.125"
63210332	3/8" +.003 x 3.125"

HEAD BOLT SLEEVES

PART NO.	DESCRIPTION
63300010	.500" x .014" x 2.800"
63300020	.500" x 12
63300030	.563" x 12
63300040	.625" x .014" x 2.600"
63300050	.656" x .014" x 2.800"

VALVE SEATS

PART NO.	DESCRIPTION
VS2160	2.160" x 1.810" x .350" powder metal
VS2160BT	2.160" x 1.880" x .350" powder metal
VS2450	2.450" x 2.000" x .375" powder metal
VS2450BT	2.450" x 2.090" x .375" powder metal
VS2000	2.000" x 1.600" x .375" powder metal
VS1650	1.650" x 1.250" x .350" Iron Eagle standard, powder metal
VS1660	1.700" x 1.350" x .375" powder metal
VS2010	2.010" x 1.600" x.375 "powder metal
VS2460	2.460 x 2.000" x.375" powder metal
VS2490	2.490" x 2.150" x .375" Iron
VS2520	2.520" x 2.150" x .375" Iron
VS1650BC	1.650" x 1.350" x .400" Copper BX material
VS2000BC	2.000" x 1.600" x .375" Copper BX material
VS2450BC	2.450" x 2.000" x .375" Copper B1 material
VS2520BC	2.520" x 2.200" x .375" Copper B1 material

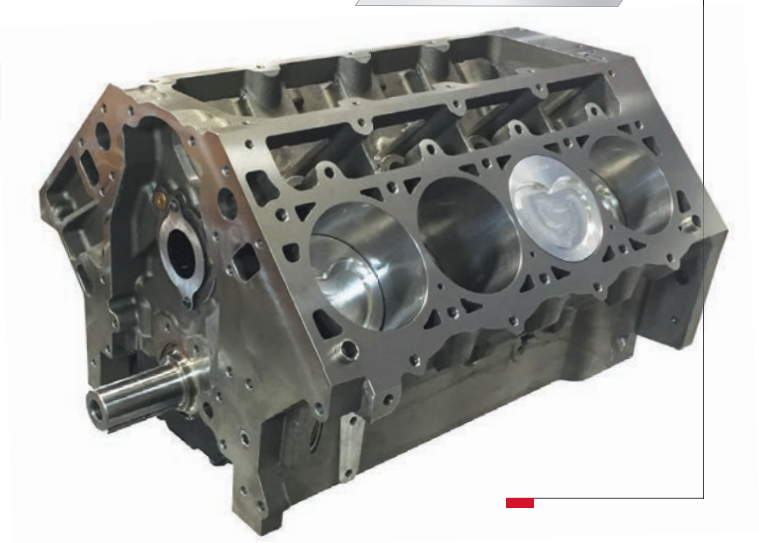
*Add an "I" to end of the part number to specify Ductile Iron instead of Powder Metal.

LS NEXT 2

STRENGTH TO THE NEXT POWER!

GEN III LS NEXT SHORT BLOCKS

NEW



QUICK INFO »»»

Professionally built short blocks with all brand new premium components. Designed and build for Street performance and all out heads up racing.

388 & 427 CUBIC INCHES

Simplify engine building and save time with pre-engineered, dyno tested short block combinations from Dart's SHP (Special High Performance) group.

These quality component packages are designed to allow the user to build more powerful and durable engines at a very affordable cost.

Top off your Dart short block with one of our performance matched top end kits for a great performing engine at an affordable price.

388 CUBIC SHORT BLOCK (8CW)

- LS3/LS7 Compatible
- Internally Balanced
- LS NEXT² Dart Block
- Machined for ½ Main and Head Studs
- 4.125" Bore x 3.622" Stroke
- Plate Honed Cylinders
- Billet 4340 Steel Crankshaft (8 Counterweight)
- Forged Boostline 6.125" Rods - 7/16" ARP 2000 Bolts
- Forged Diamond LS2K Flat Top Pistons w/ Full Floating H13 .250W Pin
- Total Seal AP Rings
- Clevite Bearings
- Coated Cam Bearings
- 58 Tooth Reluctor

Flat Top: CR 10.0:1 w/70cc chamber & .053" gasket.

2000HP Rated

427 CUBIC SHORT BLOCK (8CW)

- LS3/LS7 Compatible
- Internally Balanced
- LS NEXT² Dart Block
- Machined for ½ Main and Head Studs
- 4.125" Bore x 4.000" Stroke
- Plate Honed Cylinders
- Billet 4340 Steel Crankshaft (8 Counterweight)
- Forged Boostline 6.125" Rods - 7/16" ARP 2000 Bolts
- Forged Diamond LS2K Flat Top Pistons w/ Full Floating H13 .250W Pin
- Total Seal AP Rings
- Clevite Bearings
- Coated Cam Bearings
- 58 Tooth Reluctor

Flat Top: CR 11.0:1 w/70cc chamber & .053" gasket.
Dish Top: CR 9.5:1 w/70cc chamber & .053" gasket.

2000HP Rated

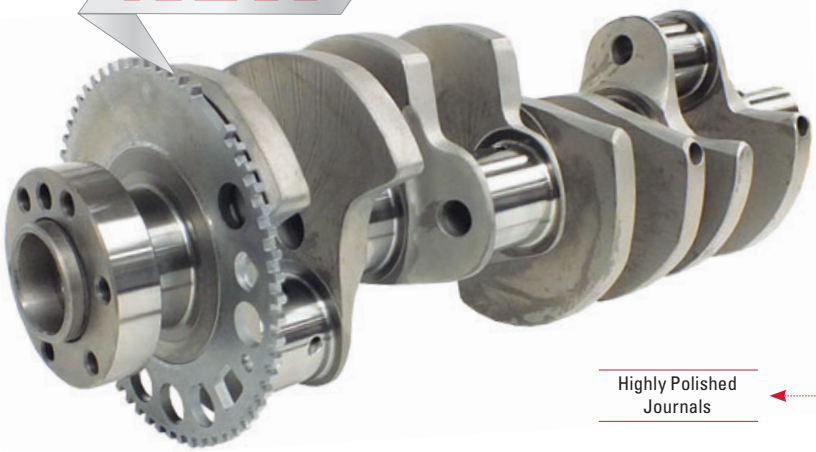
SHP LS NEXT SHORT BLOCKS

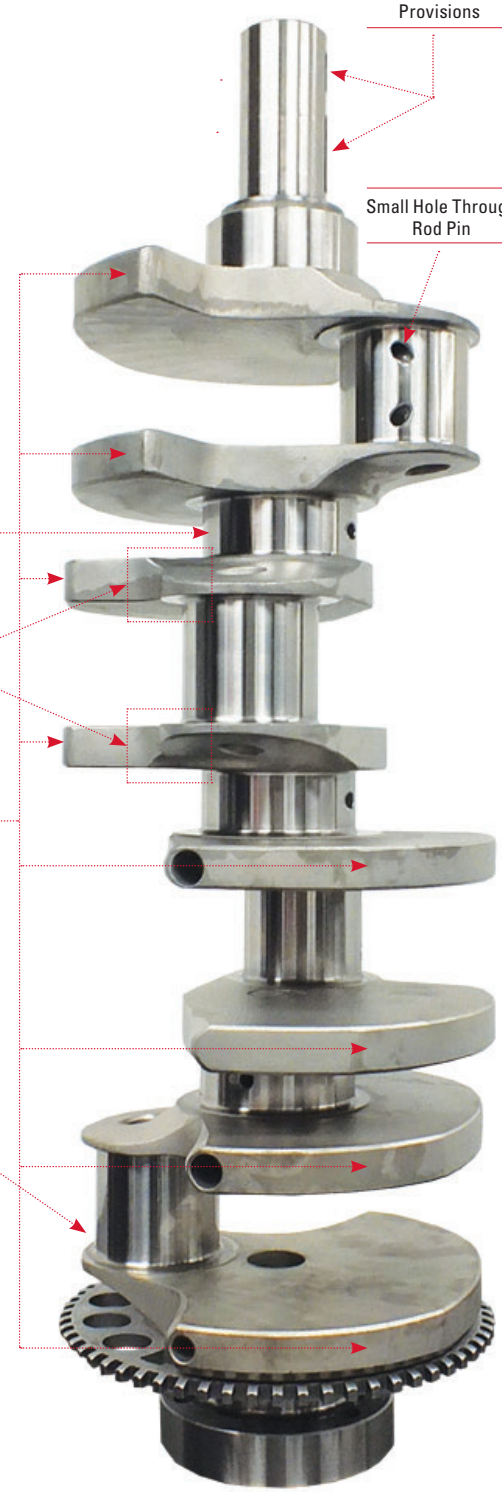
PART NO.	DESCRIPTION	CRANK	PISTONS	RODS	BORE	STROKE	BALANCE
03493882FT-2K	388 LS Next² 8CW	Forged	LS²K Flat Top	Boostline	4.125"	3.622"	Internal
03494272FT-2K	427 LS Next² 8CW	Forged	LS²K Flat Top	Boostline	4.125"	4.000"	Internal
03494272DT-2K	427 LS Next² 8CW	Forged	LS²K Dish	Boostline	4.125"	4.000"	Internal

LS CRANKSHAFT

GEN III LS BILLET
FULLY COUNTERWEIGHTED CRANKSHAFT

NEW





FEATURES

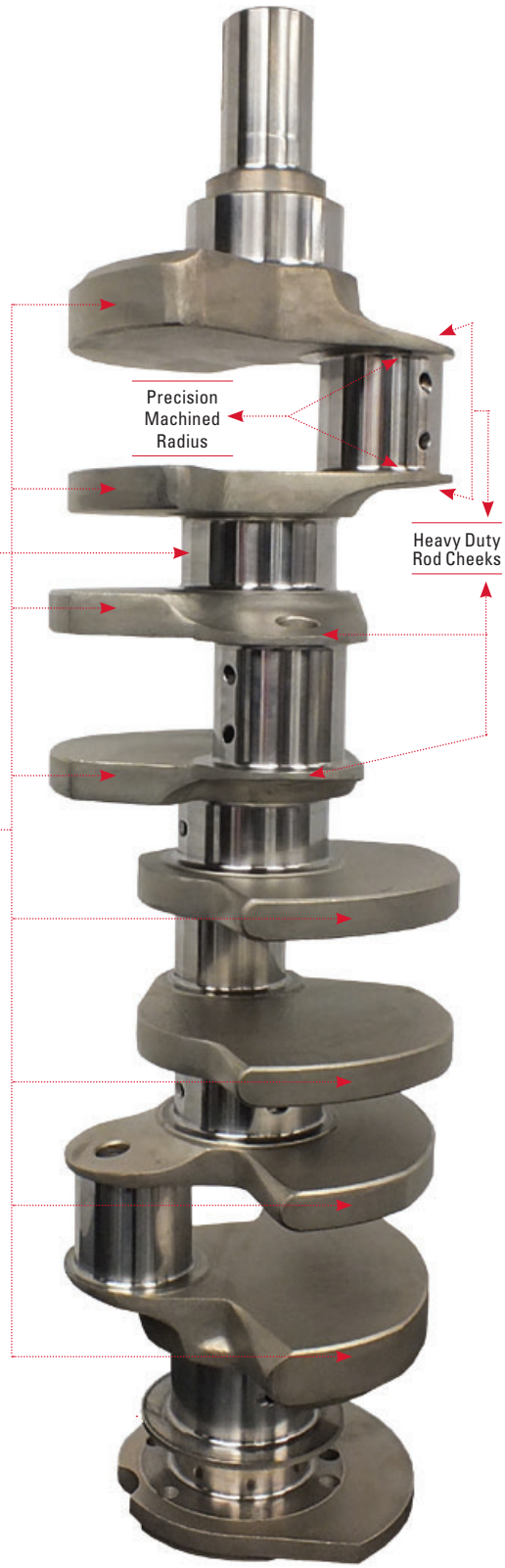
- 4340 Billet material.
- 8 full counterweights.
- Knife-edged center counterweights available (KE suffix).
- Precision machined radius.
- Heavy duty rod cheeks.
- Small hole through rod pin.
- Thicker flanges.
- Dual keyway provisions.
- Rough balanced @ 1780 grams.

CHEVY LS GEN 3 (LS1-LS6) - BILLET - 8 FULLY COUNTERWEIGHTED

PART NO.	DESCRIPTION	STROKE	MIN. ROD LENGTH	MAIN JOURNAL	ROD JOURNAL
9-34636226125-8	LS1/6 Billet 8C Forged Crankshaft	3.622"	6.125"	2.559"	2.100"
9-34636226125-8-KE	LS1/6 Billet 8C Forged Crankshaft	3.622"	6.125"	2.559"	2.100"
9-34640006125-8	LS1/6 Billet 8C Forged Crankshaft	4.000"	6.125"	2.559"	2.100"
9-34640006125-8-KE	LS1/6 Billet 8C Forged Crankshaft	4.000"	6.125"	2.559"	2.100"

BIG BLOCK CHEVY
FULLY COUNTERWEIGHTED CRANKSHAFT

NEW



Dart 4340 forged BBC crankshaft: 4.250", 4.375", 4.500" and 4.750" (1 or 2 piece).

FEATURES

- 8 full counterweights.
- Precision machined radius.
- Thicker flanges.
- Highly polished journals.
- Dual keyway provisions.

BIG BLOCK CHEVY FORGED CRANKSHAFT - FULLY COUNTERWEIGHTED

PART NO.	DESCRIPTION	STROKE	MIN. ROD LENGTH	MAIN JOURNAL	ROD JOURNAL
9-45442506385	BBC 4340 8C Forged Crankshaft	4.250"	6.385"	2.750"	2.200"
9-45443756535	BBC 4340 8C Forged Crankshaft	4.375"	6.535"	2.750"	2.200"
9-45445006700	BBC 4340 8C Forged Crankshaft	4.500"	6.700"	2.750"	2.200"
9-45447506700	BBC 4340 8C Forged Crankshaft	4.750"	6.700"	2.750"	2.200"

ORDER 24/7 AT DARTHEADS.COM

DART PRO1 LS NEXT RACER HAT

Embroidered 100% cotton. Adjustable, one size fits most.

PART NO. AP0010HTLS

Back view

LS NEXT (side logo)

DART CHAMPIONSHIP ENGINE COMPONENTS T-SHIRT

100% pre-shrunk cotton. Available in Medium, Large, XL, 2XL, 3XL

Front

Back

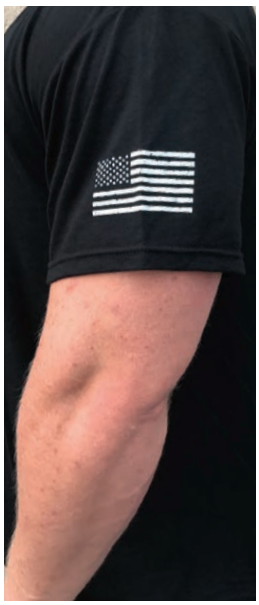
SIZE	PART NO.
Medium	AP0012TS
Large	AP0013TS
XL	AP0014TS
XXL	AP0015TS
XXXL	AP0016TS

DART BLOCKS & HEADS WIN RACES T-SHIRT

Jerzees Sport with Moisture Wicking / 100% Polyester. Available in Medium, Large, XXL and XXXL.

Front

Left Sleeve



Back

SIZE	PART NO.
Medium	AP0012TS-V
Large	AP0013TS-V
XL	AP0014TS-V
XXL	AP0015TS-V
XXXL	AP0016TS-V

Not intended for sale or use with pollution controlled vehicles.

FREQUENTLY ASKED QUESTIONS

How do I identify my Dart blocks and heads?

Dart blocks and heads are stamped or cast with various numbers that can tell you quite a bit about the part. Knowing how to read and interpret these markings can save a lot of time and hassle when you need to know exactly what you're working with. For a step by step guide to identifying your Dart blocks and heads, visit this link: http://dartheads.com

What spark plug does Dart recommend for my application?

Due to the multitude of different applications and components this spark plug application chart is a recommended starting point only. Dart recommends contacting the spark plug manufacture for your specific application. For chart, visit this link: https://dartheads.com/frequently-asked-questions

Can I use my factory LS oil pan on a Dart LS block?

Yes, you can use your factory oil pan on any "full skirt design" LS Next Block. The SHP LS Next and Aluminum SHP LS Next blocks allow factory oil pans to be used without any special modifications. Additionally, the "non-skirted design", cast iron and aluminum LS Next blocks also allow the use of factory oil pans, but you MUST use Dart's billet oil pan rail adapters that mount between the engine block and oil pan. Please note that when using the non-skirted blocks, you will need to use a relocated oil filter as the blocks do not have the oil integral oil passages to support the oil pan mounted oil filter.

Why do you make a non-skirted LS Next block and is it a better design?

The non-skirted block design reduces horsepower robbing crankcase windage and allows for the use of a better oil pan design. Removing the skirts at the bottom of the block allows for a deeper profile oil pan that has room for more oil control features such as windage trays, crank scrapers, baffles, trap doors, etc. Controlling the oil in the pan and reducing crankcase windage is key to producing the most power possible with your engine.

Will Dart build me a custom short block assembly or a complete engine?

No. Dart does not sell complete engines and our short blocks offered are limited to the assemblies shown and spec'd out on our website and in our catalog. For a custom short block assembly or engine you will need to contact a performance engine builder.

Do I need to run oil restrictors in my Dart block?

In most cases, if you are running a standard volume/standard pressure oil pump, there should be no need to run restrictors. However, if you are running a high volume/high pressure pump it may be necessary to run oil restrictors to control the amount of oil to the top of the engine based on the efficiency of the oil system.

What size oil restrictors do I need to run?

The size of the restrictor will vary based on pump output, weight of oil, and bearing clearances. It is the engine builders responsibility to determine the appropriate size for the given application.

For additional technical information visit **www.dartheads.com** or call **248-362-1188** and speak to a technical staff member during standard business hours.

NOTES

TO ORDER: Dart Machinery, Ltd sells products through qualified dealers. To make it easier for you to place an order, please have our assigned account number ready. Using your account number will make placing orders or checking on previous orders faster and easier to process. If you wish to prepay your order, please contact us with your needs prior to placing any orders. You must include your name, address, phone number, parts ordered, and correct shipping address on each prepaid order.

SPECIAL ORDERS: All special orders are non-returnable and non-refundable. Special orders will include a 50% deposit and/or prepayment. Special orders include, but are not limited to the following: any CNC package, cylinder head assemblies, valvetrain components, short block assemblies, engine blocks, special machining and/or labor operations.

STOCK ADJUSTMENTS: Stock adjustments will be accepted from January through October of the current year. Stock adjustments will not be accepted after that time. Returned product not in resalable condition, including packaging that has been defaced by customer labels or other markings, will be repackaged and subject to appropriate charges. Customer must obtain a Dart RGA number prior to shipping a stock adjustment. Returned product must be shipped prepaid. Collect shipments will be refused. Only products manufactured by Dart will be accepted for credit. Dart distributors will be allowed to return no more than 2 1/2% of previous calendar year's sales, accompanied by a 2:1 offsetting order. Stock adjustment returns not accompanied by an offsetting order will be subject to a 10% restocking charge. Special orders, short block assemblies and product older than 18 months will not be accepted for return.

WARRANTY RETURNS: All merchandise returned for warranty consideration, inspection, repair, etc. must be sent prepaid and insured. Included with this return must be the sender's name, address, phone number, explanation of the problem and work to be done. A return authorization number must also accompany the return: this can be obtained by contacting Dart Machinery at 248-362-1188. Dart Machinery will ship warranties back in the most cost effective way. Any additional cost for freight upgrade will be at the customer's expense. This warranty covers replacement or repair of the product only and does not cover the cost of removal and/or installation. All warranty returns are subject to the attached warranty policy.

THERE IS ABSOLUTELY NO WARRANTY ON THE FOLLOWING: A) Any products used in racing applications, B) Any product that has been physically altered, or improperly installed or maintained, C) Any product used in improper applications, abused or not used in conjunction with the proper parts.

RETURNED MERCHANDISE: All merchandise being returned for credit must have prior approval and a RGA number from Dart Machinery. All merchandise being returned for credit must be in original condition and will be inspected at time of receipt. It should be returned prepaid insured and will be subject to a minimum 10% restocking charge. Credit to any warehouse will be issued at the last purchase price. No returns will be accepted after 90 days from invoice date.

RETURNED MERCHANDISE FOR INSPECTION/REBOX: All merchandise being returned to Dart for inspection or rebox will be subject to a 10% inspection/rebox fee. Part will be inspected, reboxed and shipped back to customer freight collect or prepaid.

SHIPPING POLICY: All expenses resulting from a refused shipment will be the responsibility of the customer. A credit will be issued for the cost of product less freight and any other cost incurred from the refusal. **All shipments are insured; therefore claims for damage must be made with the shipping company.** Do not return merchandise to Dart unless prior arrangements have been made.

DROP SHIP POLICY: A drop-ship fee of $25.00 for each pair of cylinder heads or each intake manifold will apply. A drop-ship fee of $45.00 will apply for all engine blocks.

PRICES AND PAYMENT: Prices are subject to change without notice. Dart Machinery cannot accept responsibility for printing errors in price sheets. All payments are C.O.D. unless otherwise noted. Customers receiving product are responsible for all taxes. Customer shall be responsible for actual costs of collection incurred by Dart Machinery (including reasonable attorney's fees) for any invoices which are not timely paid, plus interest on the unpaid balance at 3% per month or the highest rate permitted by applicable law, whichever is less. All prices are stated and all payments shall be made in U.S. currency. Visa, Discover and Mastercard are accepted for payments.

MINIMUM ADVERTISED PRICING: It is the corporate policy of Dart Machinery, Ltd. not to sell it's products to resellers that engage in advertising of Dart's products at prices that are discounted below Dart Machinery, Ltd.'s published jobber pricing or that resell to others that engage in such advertising. It is not our intention to dictate, or even suggest, the prices that our retailers charge. However, in order to maintain the reputation that our products have earned of being of the highest quality in the industry, we will exercise our right not to do business with anyone that would jeopardize that image by engaging in such advertising.

SHIPPING CHARGES: Standard shipping is F.O.B. Warren, MI. UPS / FedEx service. Drop shipments are available to prepaid and open accounts only. All orders over $15,000.00 will be shipped pre-paid freight within the continental United States. All C.O.D. and direct customers will be shipped freight collect or pre-paid. Residential lift gate fees may apply.

INTERNATIONAL SHIPPING: International, including Canada and Mexico customers are required to have in place a United States ship to broker. Customers without an established US broker will be charged an additional but not limited to 15% handling fee to cover taxes and brokerage fees.

ACCEPTANCE: By placing an order with Dart Machinery, Ltd. the purchaser expressly consents to the terms and conditions contained herein and upon Dart Machinery, Ltd. providing the products ordered, these terms and conditions shall form an essential part of the contract between the parties. Any terms or provisions in the purchase order which are in any way inconsistent with those herein shall be null and void and these terms and conditions shall control. The placing of a purchase order shall constitute acceptance of these terms, policies and conditions.

WARRANTY: Dart Machinery, Ltd. warrants to the original purchaser its products to be free from defects in materials and workmanship under normal and recommended use and that the products will conform to Dart's published specifications or, if applicable, Buyer's specifications to the extent accepted by Dart in a separate writing. Dart's obligation under this warranty shall be limited to repair or replacement, at Dart's option, of any parts or products which may prove defective under normal use within six (6) months from the date of sale, and which the examination of Dart Machinery, Ltd. reveals to its satisfaction that the products in question are in fact defective.

THIS WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES EXPRESSED OR IMPLIED INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR USE AND OF ALL OTHER OBLIGATIONS OR LIABILITIES ON THE PART OF DART MACHINERY, LTD. THE PURCHASER ACKNOWLEDGES THAT HE IS NOT RELYING ON DART MACHINERY, LTD.'S SKILL OR JUDGMENT TO SELECT OR FURNISH GOODS SUITABLE FOR ANY PARTICULAR PURPOSE AND THAT THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF. THE WARRANTY CONTAINED HEREIN SHALL NOT APPLY TO ANY PART OR PRODUCT WHICH HAS BEEN SUBJECT TO ACCIDENT, NEGLIGENCE, ALTERATION, ABUSE, OR MISUSE. DART MACHINERY, LTD. MAKES NO WARRANTY WHATSOEVER IN RESPECT TO ACCESSORIES OR PARTS NOT SUPPLIED BY DART MACHINERY, LTD. THIS WARRANTY SHALL APPLY ONLY WITHIN THE BOUNDARIES OF THE CONTINENTAL UNITED STATES.

Any affirmation of fact or promise made by Dart Machinery, Ltd. shall not be deemed to create an express warranty that the product shall conform to the affirmation or promise; any description of the product is for the sole purpose of identifying it and shall not be deemed to create an express warranty that the product shall conform to such description; any sample or model is for illustrative purposes only and shall not be deemed to create an express warranty that the product shall conform to the sample or model; and no affirmation or promise, or description, or sample or model shall be deemed part of the basis of the bargain.

LIMITATION OF LIABILITY: The sole liability of Dart Machinery, Ltd. under the warranties contained herein shall be the repair or replacement of parts or products sold. Dart Machinery, Ltd. shall not be held liable for any delays caused by circumstances beyond its control including, without limitation, fire, labor problems, shortage of supplies or materials, and any other conditions which are beyond Dart Machinery, Ltd.'s control. Dart Machinery, Ltd. products may not be considered "street legal," may adversely affect the original manufacturer's warranty and may violate State and Federal laws for vehicles equipped with pollution-control devices. Purchasers bear full risk of any such violation.

WARNING:

This product contains chemicals known to the State of California to cause cancer and reproductive harm.

www.P65Warnings.ca.gov

IF THE PURCHASER BRINGS ANY ACTION AT LAW OR EQUITY AGAINST DART MACHINERY, LTD., NO CAUSE OF ACTION BY PURCHASER SHALL INCLUDE A CLAIM, NOR MAY RECOVERY BE HAD AGAINST DART MACHINERY, LTD. FOR ANY PUNITIVE, INCIDENTAL OR CONSEQUENTIAL DAMAGES, INCLUDING BUT NOT LIMITED TO DAMAGES TO PERSONS, PROPERTY, FOR LOSS OF USE, LOSS OF TIME, LOSS OF PROFITS OR INCOME. UNDER NO CIRCUMSTANCES SHALL THE LIABILITY OF DART MACHINERY, LTD. TO PURCHASER EXCEED TWICE THE COST OF THE PRODUCT PURCHASED, AND, IN THAT EVENT, ONLY WHEN THE REMEDY OF REPAIR OR REPLACEMENT IS INADEQUATE.