The Winning Choice
For
Crankshafts
Connecting Rods
Camshaft Cores

CALLIES
2016
Callies Performance Products began manufacturing high performance crankshafts in 1989. Since then Callies has grown to be the industry leader for innovative product design through many years of engineering and employee experience.

Information shared between Sales, Engineering, and Manufacturing personnel on a daily basis creates company-wide continuity. This ensures Callies maintains a focus on developing products to meet the needs of a wide variety of customers.

By utilizing the latest in computer aided solid modeling and CNC machining centers, Callies is able to offer the best designed, highest quality crankshafts, connecting rods, and cam cores available on the market today.
Big Block Ford

The ultimate crankshaft for the Ford 460 / 429 competitor is here. Ultra billet Ford big block crankshafts have been designed with both durability and ease of balance in mind. Ultra big block Fords are produced from high nickel EN30B and fortified with a Perma-Case surface hardening nitride treatment. All Ultra BB Fords are machined with the short (High Performance Style) post. Ford BB Ultra crankshafts employ 3.000” mains and 2.200” rod journals, they can be ordered with a stroke custom tailored to your exact requirement. Ultra BB Fords are produced with center counterweights that can be removed by special order.

Duramax

Callies has developed a Duramax crankshaft that employs the industry’s best ideas. Improving the balance characteristics of this crankshaft was a primary design consideration. Increased counterweight angles, diameters and thickness are instrumental in making this the easiest balancing crankshaft of its type on the market today. For improved stiffness and durability rod journals are machined to a width that maximizes the effectiveness of all rod bearing inserts without unnecessary connecting rod mass. All Callies Duramax crankshafts are machined from triple heat treated 4330v steel before receiving our Perma-Case nitride. These crankshafts will accommodate all bearing inserts commonly available for GM Duramax engines.

Gen III Hemi

Performance Specific and durability enhanced, the Gen III Hemi crankshaft is ready for anything your racing program can throw at it. Your crankshaft can be ordered with or without center counterweights to perfectly suit your application. All Gen III Hemi Ultra crankshafts are machined with windage reducing directional counterweights. Your choice of Chrysler authentic reluctor wheels will ensure a smooth, misfire free computer signal. All Callies Gen III Hemi crankshafts are machined from triple heat treated 4330v steel before receiving our Perma-Case nitride. These crankshafts are available in a wide range of rod journal diameters and strokes.
Callies Ultra billets are intended for use in cutting edge applications where innovation is a must. To ensure absolute geometric consistency every Ultra crankshaft is ADCOLE inspected. This process provides valuable data used to verify the part you get is exactly what you ordered.

Ultra billets are produced from low carbon - high nickel steel that receives multiple heat treatments. Callies heat treat processing on our specialty steel yields a crankshaft with high core hardness, stiffness and fracture resisting ductility.

Callies Performance Products is now manufacturing and stocking crankshafts for the Roush-Yates RY45 engine. Available in a wide range of strokes, these billet shafts can be made to meet your specific requirement. RY-45 crankshafts are fully counterweighted and feature the Callies Aero-Shed super finish throughout. These shafts are machined from Para-Pure Timken steel and are intended for severe duty applications.

Ultra Sprint crankshafts are tailor made for the demanding environment of direct drive, injected alcohol open wheel applications. Ultra Sprints are offered in limited strokes ranging from 3.825 to 3.335 inch. These fully counterweighted crankshafts are designed to be rugged and lightweight. Available in all popular rod and main journal diameters, a typical 3.825/400/2.000 will weigh in at 43 pounds.
Our Aero-Shed super finish will give you a totally stress-riser free and incredibly aero efficient crankshaft. When the Ultra-Shed and Aero-Shed processes are combined, the result is a crankshaft with the lowest coefficient of drag in the industry.

Optional center counterweight shown with Ultra-Shed leading and trailing edge contouring.

Each Ultra billet crankshaft is uniquely machined with our Ultra-Shed counterweight profiles. The Ultra-Shed leading edge profile gently moves oil away from the oncoming counterweight while the directional trailing edge directs oil away from the oncoming rod journal.

Ultra Billets Are Available For The Following Engine Families:

- **SBC 4.400” - 4.500” Bore Spacing**
- **BBC 4.840”-4.900”-5.000”-5.300” Bore Spacing**
- **LSX all types, LT1**
- **Ford 302-351, 460**
- **Mopar Hemi - 440**
Callies has developed the Ultra connecting rod with the design goal of an uncompromised strength to weight ratio. Every Ultra connecting rod is produced from specially formulated Timken 4330 steel and precision forged for uniform grain flow and consistency.

Many geometric nuances are incorporated into the design of Ultra connecting rods, which are subject to high output, high RPM applications. These design features enhance the Ultra against specific loads and stresses.

Ultra connecting rods are fastened by high alloy cap screws produced specifically for severe applications by ARP. Purpose built 260Ksi Ultra Bolts offer improved thread engagement for a smoother, more consistent net clamping load.

To eliminate deformation and extrusion only AMS 642 bronze silica alloy is used within the wrist pin housing bore. This material has a proven hardness more than 25% greater than commonly used Ampco 18 material.

For high RPM or extreme horsepower applications Ultra connecting rods are fitted with MP 3.5 bolts. These ultra high alloy fasteners provide unparalleled clamping strength and toughness. Upgraded bolts are available for all Ultra I-Beam connecting rod configurations.

Multiple Lengths And Common Pin Diameters Are Available For These Popular Engine Families.

- Small Block Chevrolet
- Big Block Chevrolet
- Ford 460-351, Modular
- Big Block Mopar
- LSX, LT1
- Nissan GTR

Ultra Connecting Rod Quick Facts:

- **Weight:**
  - 6.750” BBC / 2.200” rod journal - 825 grams
  - 6.000” SBC / 2.100” rod journal - 835 grams

- **Bolt Type:** Purpose Built 260Ksi Ultra Bolt

- **Horsepower Recommendations:**
  - BBC - 1600Hp+
  - SBC - 1200Hp+
Ultra Connecting Rod Design Features

1. Camber Face of tower flanges improves stiffness and reduces weight.
2. Smooth, notch free, deep draw section at bearing housing shoulder.
3. Pressure Angle Arches disperse wrist pin induced strain.
4. Large web to flange transition radius.
5. Full fillet intersection of bolt spot face and interior gusset surfaces.
6. Stress spreading (twin rib caps) utilize the extended section concept of strength enhancement.
7. Precisely machined (Trapezoidal Contour) at the tower base eliminating parallel flange harmonics and increasing weight reduction.
8. Extended foot print at joint mating faces for superior housing stability.
9. Min/Max gusset; our analyzed design minimizes material yet achieves maximum stiffness.

This unique connecting rod design offers greater cam to connecting rod clearance. This innovation will allow the use of increased base circle cams for improved valve train performance, stability, and horsepower.

For the first time, engine builders are given greater flexibility in selecting valve train components when using a standard cam height block. The Ultra Xd concept has been track tested and proven to be a reliable, long term solution to troublesome connecting rod to camshaft interference problems.

Unique canted housing bore design provides at least 0.050" of additional cam clearance.

Available in I-beam or H-beam for the SBC, BBC, and LS Engine Families.
### Ultra (High Value) H-Beam Connecting Rods

Ultra H-Beam connecting rods are High Value American made engine components. Ultra H-Beams are forged from the same premium 4330 material as our entire Ultra line. Savings resulting from streamlined manufacturing design are passed directly on to you. The Ultra H design ensures the geometry of these critical components will remain true under high tensile and compressive load situations.

#### Ultra Connecting Rods

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Notes: Honda Journal I-beams are only available with Multi-Phase 3.5 bolts. Upgrading I-beams to either Custom Age Bolts or Multi-Phase 3.5 bolts will increase listed weights by several grams.
Magnum XL lightening profiles result in crankshafts having extremely high strength to weight ratios. Material is carefully removed from non-stressed areas of each shaft eliminating parasitic material and weight. The Callies Magnum XL profile is exceptionally effective at minimizing windage within the crankcase atmosphere. Oil control is improved through the elimination of disruptive undercuts, resulting in smooth sided, free flowing counterweights. Each main and rod journal is drilled for weight reduction and throttle response improvement.

All Magnum XL crankshafts feature the Callies Ultra-Case nitride heat treatment. This heat treatment method produces a deep case enhancing strength while creating an extremely hard bearing wear surface.

Magnum XL crankshafts are shipped fully balanced to your exact assembly weight without drilling. These crankshafts are available in many custom configurations. Your order will be processed specifically to meet your needs.

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**Small Block Chevy**
- Stroke Range of 2.600” to 4.300”
- 2.100” - 2.000” - 1.888” - 1.850” Rod Journal Diameters
- 400 - 350 - 283 Main Bearing Diameters
- BBC Post or SBC Post
- Star Flange
- Sprint Car 4 Bolt Flange
- Various Flange & Post Bolt Hole Configurations
- Weight Range of 34 lb. to 47 lb.

**LS1 Gen III - IV**
- Stroke Range of 2.600” to 4.300”
- 2.100” - 2.000” - 1.888” - 1.850” Rod Journal Diameters
- LS1 and Iron Duke Main Diameters
- With or Without Reluctor Wheel & Hub
- Multiple Post Keyways
- LS1 - LS6 or LS2 - LS7 Reluctor Wheel Available
- Weight Range of 34 lb. to 47 lb.

**Big Block Chevy**
- Stroke Range of 3.500” to 5.600”
- 2.200” - 2.100” - 2.000” Rod Journal Diameters
- 409 and Conventional B3C Main Bearing Diameters
- Various Flange & Post Bolt Hole Configurations.
- Dual Post Keyways and Deep Hole Post Drilling
- Weight Range of 58 lb. to 70 lb.

**440 and Hemi Mopar**
- Stroke Range of 3.750” to 5.000”
- 2.375” - 2.200” - 2.100” Rod Journal Diameters in either Mopar or Chevy Width
- Dual Post Keyways and Deep Hole Post Drilling
- Weight Range of 54 lb. to 70 lb.

**Ford 351 - 302**
- Stroke Range of 3.000” to 4.000”
- 2.100” - 2.000” - 1.888” Rod Journal Diameters
- 302 - 351 Main Bearing Diameters
- Weight Range of 34 lb. to 47 lb.
For nearly 20 years, Magnum XL crankshafts have proven to be the most durable, best performing lightweight crankshafts available. Machined from extremely high grade 4340 steel these lightweight crankshafts are capable of handling the high horsepower and RPM of today’s most advanced engines.

Our unique Magnum XL lightening profiles were developed to optimize material distribution for enhanced strength, superior bearing load reduction, and consistent balance.

Magnum XL crankshafts receive four separate heat treatments during their manufacturing process.

Close-up of SBC Magnum XL profiling

Big Block Chevy. All Strokes, All Rod Journal Combinations

GM LS series XL cranks are available with early LS1/LS6 or late LS2/LS7 reluctor wheels
After years of service, Magnum crankshafts by Callies have established themselves as one of the most durable competition crankshafts ever produced. Magnum crankshafts are manufactured from ultra pure AISI 4340 steel. Callies then subjects this material to multiple heat treatments, resulting in a crankshaft with unsurpassed wear and strength characteristics. All Magnum cranks feature Callies Ultra-Case heat treatment.

Each Magnum crank will have gun drilled mains and fully profiled counterweights, regardless of engine type. A typical 4.000" stroke Small Block Chevy will weigh less than 48 pounds. Magnum crankshafts are available for a variety of engine types and can be manufactured to your specific configuration.

Small Block Chevy
* Stroke Range of 2.600" to 4.500"
* 2.100" - 2.000" - 1.888" Rod Journal Diameters
* 400 - 350 - 283 Main Bearing Diameters
* BBC Post or SBC Post
* 4 Bolt Sprint or Star Flange
* One or Two Piece Type Rear Seal Flange

LS1 Gen III - IV, LT1
* Stroke Range of 3.000" to 4.600"
* 2.100" - 2.000" - 1.888" Rod Journal Diameters
* With or Without Reluctor Wheel & Hub
* Multiple Post Keyways

440 and Hemi Mopar Magnum
* Stroke range of 3.750" to 5.000"
* 2.375" - 2.200" Rod Journal Diameters in either Mopar or Chevy Width
* Multiple Post Keyway and Bolt Configurations
* Standard 8 Bolt Flange
Rugged, Lightweight, Ready to Meet Your Durability Needs

Your request for a lightweight and durable crankshaft for the powerful big block Chevy engine has been answered. Callies' design team has optimized material distribution throughout this crankshaft to produce a component that is strong yet easy to balance.

Many BBC crankshafts are counterweighted to offset simple balance forces detected at main bearings 1 and 5 by today's precision balancers. Callies Magnum Mass Correct counterweights have been strategically placed to reduce imbalance forces over the entire length of the shaft. The result is a crankshaft exhibiting superior bearing life and minimal wear.

Material distribution over the rod journal arms and critical strength generating regions of Magnum BBC crankshafts has been enhanced as well. These slight design changes improve the strength to weight ratio, ensuring each Magnum crankshaft will have an extended fatigue resistant life.

Quick Facts and Features for the Magnum Big Block Chevy:

A typical 4.500” stroke BBC crankshaft has a finished weight of 69 lbs. All rod journals are drilled with generously radiused lightening holes. Each counterweight features Callies' Dual Arc windage reducing leading edge. Stroke ranges available from 3.500” to 5.500.”

Main journal sizes available standard BBC 2.750” and 409 2.625.”

Enhanced rod oiling through the use of main bearing oil hole lead-ins.
Small Block Ford

Standard Features
- Average Weight for 3.800" Stroke Balanced to 1750g Bob weight = 48 lbs
- Gun Drilled Mains
- All Rod Journals Lightened
- Stroke Availability from 2.600" to 4.500"
- Heat Treatment = Perma Case Deep Nitride

Special Options
- Additional Post Keyways, Custom Post Drilling
- 2.100", 2.000", 1.888", and 1.825" Rod Journal Diameters
- 351 Cleveland or 302 Ford Type Main Diameters

Big Block Ford

Standard Features
- Average Weight – 78 pounds for a 4.750" stroke
- Gun Drilled Mains
- All Rod Journals Lightened - 2.200" Diameter
- Single 3/16 (Align- Ease) Keyway with Lead in Witness Mark
- Short Damper Fit (High Performance Style)
- Heat Treatment = Perma Case Deep Nitride

Options
- Full Internal Balance
- Dual Post Keyways

Callies now offers high quality domestically produced Magnum crankshafts for the Ford 460 – 429 engine families. These crankshafts are machined from high quality forgings that are heat-treated and metallurgically certified at our facility. Magnum Ford 460’s are counterweighted to balance bob weights up to 2400 grams without the use of heavy metal. We are confident in the ability of our Magnum 460’s to easily withstand the rigors of a 2,000 HP engine.
DragonSlayer crankshafts are made in the USA for American racers. With an expanded line of part numbers the DragonSlayer set the standard by which other sportsman crankshafts are measured.

These crankshafts are machined to the tolerances demanded by today’s high performance engine builder. Roundness and taper are held to less than .0003” on all rod and main journal diameters. Our final polishing procedures produce excellent load carrying surfaces that ensure extended bearing life and trouble free operation.

Each Callies DragonSlayer receives our proven Ultra-Case heat treatment. Callies heat treat expertise combined with our high purity premium 4340 forging produce a strength of unparalleled value. All DragonSlayers are produced with standard Chevy Rod journal diameters and widths for SBC, BBC, Mopar and Ford applications.

**Small Block Chevy**

Small Block Chevy DragonSlayer crankshafts are produced in a wide range of strokes. DragonSlayer crankshafts are machined with all four rod journals drilled and have a typical weight of 50 pounds.

* With 2.100” rod journals, 3.480”, 3.500”, 3.750”, 3.875”, and 4.000” strokes are available.
* With 2.000” rod journals, 3.480”, 3.500”, 3.625”, and 3.750” strokes are offered.
* Either 400 or 350 main sizes can be specified for most strokes.
* Late model one piece rear main seal crankshafts are produced in both 3.750” and 3.875” strokes.

**Big Block Chevy**

Big Block Chevy DragonSlayer crankshafts are produced on the high quality Callies eight counterweight forging. These crankshafts have ample counterweights to internally balance without heavy metal up to a 2350 gram bob weight.

* All four rod journals are drilled for improved throttle response and easy balancing.
* Big Block Chevy Dragonslayers receive our Ultra-Case heat treatment, ensuring long life and serviceability.
* Each DragonSlayer is shipped with dual 1/4” post keyways.
* With 2.200” rod journals, 3.750”, 4.000”, 4.250”, 4.375”, 4.500” and 4.750” strokes are available.
**LS1 / LS2 / LS7**

LS1 DragonSlayer crankshafts are machined from premium 4340 material and feature our Ultra-Case heat treatment for added strength and serviceability. DragonSlayer LS1 crankshafts are sold with gun drilled mains and Angalite drilled rod journals.

- With 2.100” rod journals, 3.625”, 4.000”, 4.100”, and 4.125” strokes are available.
- With 2.000” rod journals, a 4.000” stroke is offered.
- Each DragonSlayer is counterweight prepped and adequate heavy metal is installed to internally balance a 1785 gram bob weight.
- Available with either 24 or 53 tooth reluctor wheel, or extended LS7 length post.

**440 Mopar**

DragonSlayer crankshafts for the Mopar 440 and Hemi engines are manufactured from high quality 4340 steel. Each Mopar DragonSlayer is Ultra-Case nitride heat treated for long lasting wear and durability. DragonSlayer crankshafts are counterweighted to handle robust bobweights often found in Hemi engines.

- All four rod journals are drilled for improved throttle response and easy balancing.
- Available with either Mopar 2.375” or Chevy 2.200” rod journal diameters
- Strokes from 3.760” to 4.500” are available.
- Dual 1/4” post keyways for blower drive applications are standard.

**Small Block Ford 351 - 302**

Small Block Ford DragonSlayer crankshafts are machined from premium 4340 material, and feature our Ultra-Case heat treatment for added strength and serviceability. DragonSlayer Ford crankshafts are sold with gun drilled mains.

- Average Weight for 3.750” Stroke Balanced to 1750g Bob. = 50 lbs.
- All Rod Journals Lightened.
- Stroke Availability 3.000” - 4.100”.
- Limited Rod and Main Bearing Diameters.

Small Block Ford DragonSlayer
The future of cam core metallurgy is here today! Callies metallurgy and heat treat teams have perfected revolutionary methods to bring you unrivaled camshaft durability. Callies Titan cam cores give you more options for performance enhancing geometry while increasing life expectancy. The superior stiffness of Titan tool steel works in your favor to minimize bending and torsional flex. Your entire valve train will benefit from the added stability Titan cores offer. Camshafts finished on Titan cores also offer extended service by allowing secondary grinding options when needed. Titan cores are available for most popular American performance engines.

TITAN cores are machined from hardened shock resistant UNS T41907 tool steel formulated to withstand heavy impact and rolling loads. Every lobe is uniformly hardened for long term durability and resistance to the Hertzian stresses found in today’s valve trains.

5.300 Spread Bore TITAN Camshaft

Large radii, free of machining chatter are employed throughout the length of every Titan cam. These generous contours fortify each cam against fatigue while improving torsional stability.

SBC 4.500 Spread Bore TITAN Camshaft

3, 6, and 11 bolt configurations are available for Top Fuel and Top Alcohol applications. Bolt circle patterns are rigorously maintained ensuring quick and easy assembly.

6 Bolt Top Fuel TITAN Camshaft
Carbocore Performance Camshaft Cores

Carburized & Hardened 3620 steel camshaft cores are produced to AMS 2301(AQ) standards. Carbocore cams are specifically made for the cam grinding professional. Carbocore cams are available in a wide variety of configurations. Your samples can be used to create the characteristics your customers demand. Typical SB Chevy and BB Chevy cam cores are in stock for immediate shipment.

Callies Indurocore camshaft cores are machined from 1050 alloy steel that is induction hardened to create hard, durable lobes and bearings. Each camshaft application is evaluated to determine the best steel for its intended use. Indurocore camshafts are presently available in a wide range of profiles for a variety of applications. Custom cores are available for orders of 25 pieces or more.

Callies Indurocore camshafts are presently supported:

- BB Chevy
- SB Chevy
- Chevy LSX
- Ford 351
- Mopar
- Holden
- Buick
- Pontiac

Indurocore production is carefully monitored guaranteeing the consistency of hardness and depth for every heat pattern.

Radial cross section of an induction hardened lobe. The hardened band can be seen around the entire lobe. A consistent depth of hardness on both leading and trailing flanks is critical to trouble free service.

Linear cross section of an induction hardened cam lobe. Uniformity in the depth of wear pattern across the entire length of each lobe is very important for long term durability.

Special attention has been given to producing the most accurate and consistent drive gears in the industry. Each piece of gear hobbing machinery at Callies has been validated by outside experts. You will find Carbocore cam gears to have less than .002" of total indicated runout when measured from the adjacent main bearing. These factors combine to produce reliability unmatched by any other one-piece cam.
Compstar components were introduced in 2004 as a product line designed to meet and exceed the requirements of today’s Sportsman Racer. They are forged and semi-finished at various offshore locations. Out of respect for our customers and their integrity, Callies will not hide this fact. Instead, we are committed to constantly examining and evaluating these components, enabling Callies to offer the best offshore components available.

Unlike similar offerings by other companies, all Compstar components are finished and inspected at Callies’ manufacturing facility. Compstar utilizes precision gauging and material evaluation equipment that is routinely ISO 17025 certified for consistent accountability. This investment in perfection allows Compstar to maintain proper geometry while monitoring both metallurgy and design.

Because of our attention to detail, Compstar components are the benchmark by which other imported components are measured.
Intended for High RPM, High Output engines all SS (Sport Series) crankshafts are finished with the same care and detail as the entire line of Compstar crankshafts. All SS cranks are sold balanced and ready for assembly. SS crankshafts by Compstar feature the best metallurgy and heat treatment on the market today.

**Mitsubishi 4G63**
- Average weight 32 lbs for billet crank
- 8 counterweight design
- Material certified by Callies in house Metallurgical lab
- Ultra-Case nitriding performed and certified by Callies
- Rod and main journal surface finish refined to 4Ra or less
- Aeroshed finishing optional

**Mitsubishi 4B11T**

**Subaru EJ20 / EJ25**
- Average weight 18 lbs
- All rod journals drilled for lightening
- Material certified by Callies in house Metallurgical lab
- Ultra-Case nitriding performed and certified in house
- All journal diameters are held to .0005” tolerance
- Aeroshed finishing optional

### Mitsubishi 4G63

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### Mitsubishi 4B11T

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Sport Series (SS) connecting rods are available with either ARP 2000 or Custom Age 625 bolts for High Output applications. All Sport Series rods are H-beam design machined from fine grained steel. Wrist pin bushings are of deformation resistant Ampco 18 material.

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**Compstar Ford 302**

The Compstar Ford 302 crankshafts are consistently the easiest to balance crankshaft of its type available today. These Ford 302 crankshafts are finished to the same standards that have made Compstar the most trusted name in High Value crankshafts. Compstar 302's are nitride heat treated for wear and durability. These crankshafts can be purchased in a variety of strokes to create the displacement you need. Standard features on all Compstar 302s are large .125" journal radii, four drilled rod journals and counterweights contoured to your specific connecting rod length. Compstar 302s are available with either Ford or Chevy SBC rod journal configurations.

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**Compstar Modern Hemi**

The Chrysler 6.1 and 5.7 liter late model Hemi engines are showing tremendous potential. To help encourage this potential, Compstar has developed a crankshaft specifically for high output applications. Every aspect of this crankshaft has been meticulously engineered, beginning with a dual keyed post to securely locate supercharger drive pulleys and ending with super finished journals. For easy assembly, rod journals are standard SB Chevy diameter and width. Counterweights have been profiled for 6.125" connecting rods.

Compstar Hemi's are manufactured from 4340 steel and machined to a 4.050" stroke. This Compstar crank will easily achieve 426 CID in a 6.1 liter block and 392 CID in a 5.7 liter block. For improved crank case ventilation and reduced weight, main journals are gun drilled. All Compstar Hemi's are shipped with a billet reluctor wheel installed.
Compstar SBC

Designed by our engineers, rough machined to our specification on 4340 material forgings, then finished in our facility, these crankshafts are Compstar Correct. Our inhouse solid modeling abilities provide a great advantage in product development. At Callies we are able to see and test our ideas against established situations. We can also precisely locate material where it will yield the greatest advantage.

Beginning with properly placed counterweights that not only improve balance but reduce bearing loads, every aspect of these highly stressed components have been analyzed. Our forgings are rough machined in a process including double stress relief operations making these crankshafts dimensionally stable. Hardened with a deep nitride, Compstar cranks are ideal for abusive dirt track environments. All rod journals are drilled and counterweights are profiled for piston clearance.

With our consistent grind and polish along with our precise stroke and index, you will see why we say these crankshafts are Compstar Correct.

Compstar Small Block Chevy cranks are available with:
* 2.100” or 2.000” rod journals
* 350 or 400 mains
* 4340 steel
* One or two piece rear main seal type flange
* A variety of over 20 stroke and journal combinations
* Most SBC crankshafts will internally balance without expensive heavy metal
* Typical weight for a 3.480”, 350, 2.100” is 47 pounds
* Typical weight for a 4.000”, 400, 2.100” is 51 pounds
* Rod and Main journals are super finished to 4Ra or less

Compstar Comet SBC

The Compstar Comet is your answer to lightweight crankshaft needs for SBC engines. Produced from triple heat-treated and nitrided 4340 forged steel, Compstar Comets are ready for long term, trouble free use. Each Comet features gun drilled mains, lightened rods, pendulum cut counterweights, and a star flange. All journals are polished to 5Ra or less and match sized to within .0003” or finer throughout the entire crankshaft. Comets are produced with .125” journal radii and require performance grade bearing inserts.

Available strokes range from 3.335” to 4.000”. Rod journals can be specified with your choice of 2.100”, 2.000”, or Honda 1.886”. Compstar Comets are available with 350 mains.
LSX engines are taking the performance market by storm. To answer the needs of engine builders testing new limits, Compstar has developed the widest range of LSX crankshafts available anywhere. Compstar has the configuration you need for road race, marine, circle track, or street/strip applications.

Made from deep nitrided 4340 steel for strength and wearability, every Compstar crank is intended for high output installation. Compstar LSX crankshafts are counterweighted for enhanced bearing load distribution, allowing these shafts to withstand both high boost and high RPM applications.

To accommodate your engine control system, Compstar LSX crankshafts can be specified with either 58 tooth or the early style twin reluctor wheels. If you are building a dry sump LS7 style engine, Compstar offers an extended length post to easily complete your project. For tall deck block engine builds, strokes up to 4.250” can be specified to create large, reliable CID. Should you wish to reduce rod journal surface speed, 2.000” journal diameters are available. Machined with large journal radii, gun drilled mains, and fully lightened rod journals, the Compstar LSX crankshaft is truly built for performance. Every Compstar LSX is sold counterweight prepped to your bob weight.

Compstar Compweight BBC

Drawing from the deep history of experience at Callies, our Compstar engineers have been able to combine the best characteristics of performance crankshaft design into the Compstar Compweight for Big Block Chevy applications. Compstar Compweights are produced from 4340 material that is triple heat treated and stress relieved during machining. Compstar BBC Compweights will remain true during severe duty use.

All Compstar Compweights are center counterweighted for reduced bearing loads during high RPM use. Machined with .125” journal radii and conventional straight shot oiling, these cranks offer simple durability. With all four rod journals drilled, Compstar BBC Compweight cranks weigh in at 75 lbs or less. Compweights are fully deep case nitrided. Available in 3.760”, 4.000”, 4.375”, and 4.500” strokes.
Compstar Speed Packs

Ready to build, Compstar Speed Packs guarantee savings in both time and money. Made up of components specifically chosen for each application. Speed Packs offer the best component engineering available from leading manufacturers. As a standard, Compstar Speed Packs utilize Mahle or SRP pistons featuring the proven anti-friction Grafal skirt coating. All Mahle Speed Pack piston sets employ 1.5, 1.5, 3.0 mm, low friction specialty rings.

For specific Big Block Chevy applications, SRP pistons by JE are available to produce the exact compression ratio you demand. Pistons by Diamond Racing Products and Mahle have been made specifically for the LSX or Modern Hemi Speed Pack.

Built around a reliable Compstar crankshaft and connecting rods, every Speed Pack crankshaft is dynamically balanced to components that are weight matched to exact tolerances. Each Speed Pack includes: Crankshaft, Connecting Rods, Pistons, Pins, Rings, Locks, and Rod and Main Bearings.

Compstar H-Beam Connecting Rods

Designed and produced with engineering and finishing advancements, Compstar high performance connecting rods have what it takes to make your engine build trouble free and your finished product reliable. Every detail of this highly-stressed component has been carefully analyzed to maximize repeatability and dependability. ARP 2000 bolts are used exclusively for superior tensile strength and clamping force at the critical mating joint of the rod and cap. The placement of these bolts is also key to additional rotational clearance in stroker applications.

Our line of Compstar H-beam rods contains over 70 part numbers individually tailored for the best material utilization possible. Compstar rods are unmatched in strength to weight ratios.

Multiple Lengths and Common Pin Diameters are Available in These Popular Engine Families:

SBC, BBC, LSX, BB Mopar, Ford 302
MFS is more than a specialist in crankshaft fatigue testing. We are fully equipped and staffed to evaluate any component that is subject to completely reversed (R = -1) bending or torsional loading.

Today’s product designs are answering the demand for reduced material and manufacturing cost while providing high durability. Well thought out testing programs have proven capable of determining the likelihood of both low and high cycle fatigue failures. Your component evaluation will provide valuable insight into possible savings through material reduction, alloy change, and warranty cost elimination.

In addition to our fatigue capabilities, your project will also have full access to our on staff metallurgist and laboratory. Not only can we tell you the magnitude and duration of applied loads required to fail your crankshaft or component, we can identify the failure initiation site, the root cause, and give critical assessments to help eliminate the failure mode.

Testing and evaluation procedures for your project will be confidentially prepared according to your specifications by our on staff MSME. Should your project be Time Critical, MFS is staffed and equipped to operate 24–7 if necessary to meet your condensed time line.

MFS will not only give you data, we will give you sound evaluations and comparisons based on years of manufacturing and testing experience.