

CB Super Race Cranks

Chromoly steel is one of the strongest metals that can be used for the manufacture of crankshafts. Progressive dies are used in the forging process to assure a grain flow that follows the shape of the finished crankshaft.

The special design of the counterweights help reduce oil foaming during high RPM while smoothing out your engines entire power range. The integral counterweights flatten out high-speed harmonic and dampen engine vibrations.

Super Race Crankshafts are available in several different strokes and connecting rod combinations.

1153	Super Race Crank - 78.4mm Stroke - VW Journals
1154	Super Race Crank - 82mm Stroke - VW Journals
2668	Super Race Crank - 78.4mm Stroke - Chevy Journals
2669	Super Race Crank - 82mm Stroke - Chevy Journals
2673	Super Race Crank - 84mm Stroke - Chevy Journals
2674	Super Race Crank - 86mm Stroke - Chevy Journals



**MACHINED FROM
AN E4340 CHROMOLY
FORGING!**

FEATURES:

- Forged from one-piece Chromoly billet
- Cross groove oiling holes
- Extra long 8mm crank/ flywheel dowels
- Uses standard or lightweight flywheels
- Micro polished bearing journals
- Dynamically balanced
- Bearing surfaces are nitrided
- Magnafluxed

Forged Chromoly Cranks

BOLT IN the HIGH RPM ADVANTAGE Today!

Machined from a 4140 Chromoly forging! Chromoly steel is one of the strongest metals that can be used for the manufacture of crankshafts. Progressive dies are used in the forging process to assure a grain flow that follows the shape of the finished crankshaft.

The special design of the counterweights help reduce oil foaming during high RPM while smoothing out your engines entire power range. The integral counterweights flatten out high-speed harmonics and dampen engine vibration.

The Natural Choice for high performance engines. Forged into the shape of a VW crank and then CNC machined, ground and micro-polished, every CB Forged Chromoly Crankshaft is shot peened, balanced and equipped with 8 hardened dowels. The bearing journals are standard, because it's brand new and it's stronger than a previously owned welded crank.

1105	4140 Forged Chromoly Crank (69mm Stroke) VW Journals
1106	4140 Forged Chromoly Crank (76mm Stroke) VW Journals
1107	4140 Forged Chromoly Crank (74mm Stroke) VW Journals



**THE NATURAL CHOICE
FOR HIGH PERFORMANCE
ENGINES!**

FEATURES:

- Forged from one-piece Chromoly Billet
- Cross groove oiling holes
- Extra long 8mm crank/ flywheel dowels
- Uses standard or lightweight flywheels
- Micro polished bearing journals
- Dynamically balanced
- Magnafluxed



Wedge-Mated SUPER RACE Crankshaft with Flywheel and Dowel Pins

Wedge-Mated SUPER RACE Crank with #1303 Lightweight Flywheel. Features eight 11/32" dowel pins. Available in VW or Chevy Journals.

Engineered for high horsepower engines, whether it's for off-road, street or race applications. If you're punishing your motor with hi-revving launches, or sustained RPM exceeding 6500, you're going to want to take a serious look at this setup.

We start with our Super Race Crankshaft (forged from 4340 Chromoly billet) and pair it with one of our Lightweight Chromoly Flywheels. Next, they're machined with a high-tolerance matching taper which delivers maximum contact area for a high-friction conical fit. This ensures superior strength and stability for increased durability and reliability.



NOTE: Once the crank and flywheel are fully assembled and torqued, the fitment is so strong that a special tool is required to separate them later. CB recommends the Ron Lummus Racing Wedge-Mate Flywheel Removal Tool. **Endplay shims sold separately.**

- | | |
|------|---|
| 1122 | Wedge-Mated SUPER RACE Crank (84mm Stroke) Chevy Journals |
| 1124 | Wedge-Mated SUPER RACE Crank (86mm Stroke) Chevy Journals |
| 1128 | Wedge-Mated SUPER RACE Crank (82mm Stroke)VW Journals |

Rev Power Welded Counterweight Crank

A pre-stressed Welded Counterweight Crankshaft will smooth out your engine's total power range. The welded counterweights help prevent "whipping" and upper RPM vibration due to normal 4 cylinder operation.



The Welded Counterweight is a good investment for high- performance or long haul street engines. A counterweight engine runs smoother, produces more power and lasts longer than similar non-counterweighted engines.

Each Welded Counterweight supplied by CB is precision indexed and ground to assure perfect alignment and straightness. Each bearing journal is radiused to prevent stress and breakage. The assembled counterweight unit is shot peened prior to grinding and micro polishing. The stock stroke (69mm) welded counterweight is your assurance of a strong bottom end and non-harmonic mid-range performance.

NOTE: These are drilled for 8 dowel, but dowels are sold separately (#1415, #1418) **These Counterweighted Crankshafts are cut UNDERSIZED, so ask a salesperson which bearings you will need.**

- | | |
|------|---|
| 1110 | Rev Power Welded Counterweight Crank - 69mm |
|------|---|

Lightweight Forged Chromoly Flywheel

CB flywheels are precision ground to insure quick, smooth clutch action. All flywheels are drilled for 8 dowel pins. You can increase the life of your engine by cutting down on rotating weight. Lightweight flywheels are recommended for use with all stroker cranks.

FOR STREET OR COMPETITION USE.



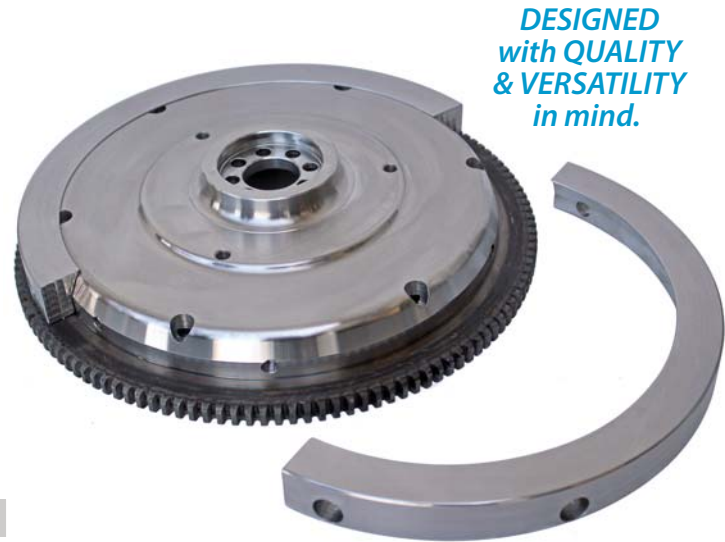
1303 Lightweight Forged Chromoly Flywheel - 200mm (o-ring seal)

Dual Weight Chromoly Flywheel

We often get asked at CB, "what is the best flywheel for my application, stock or lightweight? The answer is, "it all depends on the application." Some heavier vehicles respond well to a heavy flywheel, lighter cars respond well to a lightweight flywheel.

Run the Dual Weight Chromoly Flywheel in stock form, and if you ever wanted to try a lightweight flywheel, simply remove the weight rings!

Manufactured from 4140 Chromoly Steel, and precision ground and drilled for 8 dowel pins. Accepts standard O-ring seal.



1305 Dual Weight Chromoly Flywheel

Standard Replacement Flywheel

Worn and defective flywheels can often result in high repair cost and expensive down time. Starters can be ruined by worn flywheel teeth. Clutches can chatter due to worn and uneven clutch surfaces.

Crankshafts and dowel pins often leak oil due to loose dowel pin holes. Crankshafts have even broken due to misfit of defective flywheels.

If you are in doubt replace your old unit with a factory fresh flywheel.



1308 Standard Replacement Flywheel (12 volt) 200mm (o-ring seal)

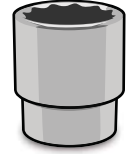
Racing Gland Nut with Washer

Manufactured from chromoly steel to provide the strongest gland nut available. The extra large thrust surface helps hold the flywheel firmly against the crankshaft to prevent loose dowel pins and oil loss. The increased diameter has better holding power than stock gland nuts.

Complete with inner needle bearing and special grease seal. Can be used with stock or lightweight flywheels with 4 or 8 hole pattern. Each Racing Gland Nut is sold with a hardened steel thrust washer for added strength and holding power. For use on all 40hp, 13, 15 & 1600cc based engines.



**REQUIRES
1-1/2"
SOCKET**



1360 Racing Gland Nut with Washer

Stock Replacement Gland Nut & Washer

Loose gland nut bearings will often freeze on the transmission main shaft and cause expensive repair and inconvenience.

Install a new gland nut at clutch replacement time and eliminate costly teardown due to worn gland nut bearings. Gland Nut Washer is sold separately.



1361 Gland Nut - Stock Replacement

1364 Gland Nut Washer - Stock Replacement

End Play Shim Kit

A flywheel or bearing change calls for re-setting the end play.

This kit contains a selection of end play shims to fit 12, 13, 15 & 1600 based engines to allow you to dial in the correct amount of crank shaft end play.



1362 End Play Shim Kit

Spring Steel Thrust Washer

Designed to provide a solid crush against the flywheel to help eliminate loose dowell pins and engine failure.

Also helps to keep the gland nut from loosening up. Can be used on stock or high performance gland nuts on 40hp, 13, 15 & 1600 based engines.



1363 Spring Steel Thrust Washer

Flywheel O-ring

New silicone based rubber O-rings are designed to keep a perfect seal under extreme temperature conditions.

Old style O-rings often fail, resulting in oil leakage and ruined clutches, and expensive down time. Don't gamble, install a silicone based O-ring and save time and money.



1375 Flywheel O-ring

White Rhino Aluminum Super Case

Available in multiple bore sizes, and deck heights.

Features:

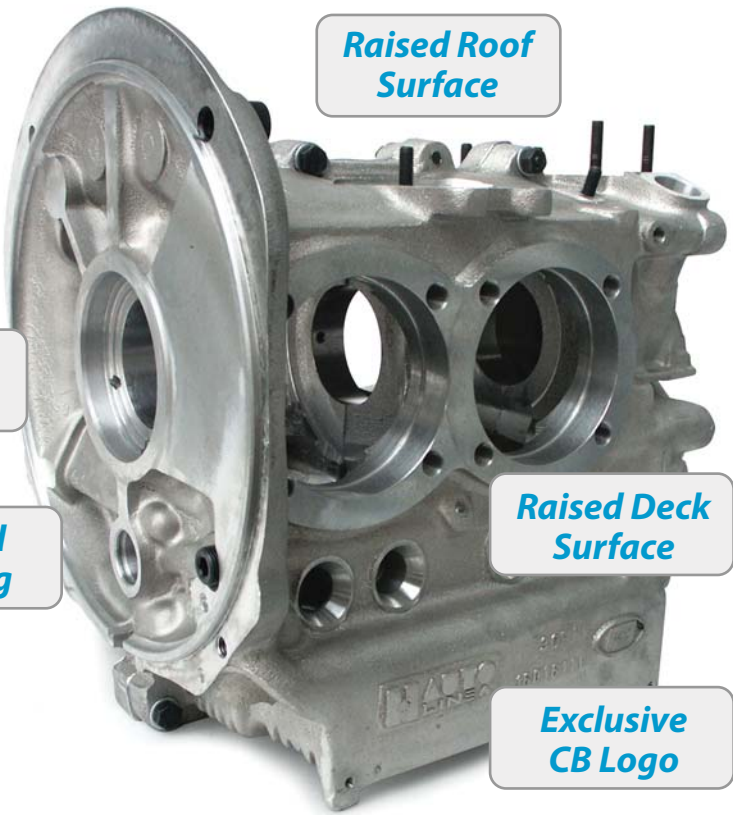
- 6 Shuffle Pins for added strength
- Raised deck surface to eliminate the usage of Barrel Spacers or custom long cylinders
- Drilled & Tapped for Full Flow
- Cut for Grooved Cam Plug
- Filled in behind #3
- Clearanced for 86 stroke Crankshafts
- Pick up tube included

Specify 8mm or 10mm Case Savers - Included but not installed.
(Can be installed for \$25.00)

Dealers: Ask about our special dealer discounts when you buy in bulk!

1155	White Rhino Alum. Super Case (STD Bore) 9.5mm Deck (not drilled for head studs)
1156	White Rhino Alum. Super Case (94 Bore) STD Deck
1157	White Rhino Alum. Super Case (94 Bore) 3.5mm Deck
1158	White Rhino Alum. Super Case (94 Bore) 7.0mm Deck

1159	White Rhino Alum. Super Case (94 Bore) 9.5mm Deck
1160	White Rhino Alum. Super Case (92 Bore) STD Deck
1161	White Rhino Alum. Super Case (92 Bore) 3.5mm Deck
1162	White Rhino Alum. Super Case (92 Bore) 7.0mm Deck
1163	White Rhino Alum. Super Case (92 Bore) 9.5mm Deck



CB Super Case

We begin with a brand new case, and inspect each one in our Machine Shop, to ensure it meets our rigid standards, prior to beginning the transformation into a CB Super Case. Each case is clearanced for stroker cranks, using a 3-axis CNC mill. We offer your choice of Cylinder Bore, in 88 machine, 90.5/92mm or 94mm. Additionally, we also drill the case for full flow and include a plug if not needed. **IMPORTANT NOTICE: Only use the Shortened Plug provided by CB when NOT running Full Flow. DO NOT use other plugs, as it could damagem the case.**

We use only the latest O.E. AS41 Dual Relief Universal Cases. These new engine cases are made by RIMA of Brazil for Volkswagen, using brand new tooling. The new tooling is so precise, that there is NO CORE SHIFT and welding behind the #3 Cylinder is no longer necessary.

A CB Super Case will speed up the assembly of larger engines. For example, you will be able to "drop in" CB #1154 and #1289 when you use a CB Super Case. Additional grinding, cutting, or other machine operations are not required. Universal cases are equipped with rear mounts for use in late buses.

1274	Engine Case - CB Super Case (88, 90.5/92, or 94 Bore)
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AS41 Dual Relief VW Universal Engine Case

New engine cases are equipped with steel case savers for use with 8mm studs. Also factory installed are the main journal studs, case half studs, and oil pick up tube. The main bearing saddles are factory standard.

Universal means it not only fits Type-1's, but it also has the mounting holes for a Type-2 Bus installation, as well as the dipstick hole for a Type-3 (Universal Case/Type-3 Block Offs are also available).

1275 AS41 Dual Relief VW Universal Engine Case (Type-1 & 2)



Dual Relief Engine Case

New engine cases are equipped with steel case savers for use with 8mm studs, and the #3 front top is deep studded for added strength.

Also factory installed are the main journal studs, case half studs, and the preferred large ID oil pick up tube. The main bearing saddles are factory standard.

043-101-005 Dual Relief Engine Case (fits Type-1 & Type-2)



CB's Max-Flow Oil Pick-Up Tubes

Our Max-Flow Pick-Up Tubes utilize the large ID tubing found in the dual relief 1600 engine case for maximum oil flow. We have made the Cut To Length tube over 5" long to work with most aftermarket oil sumps. Each tube is brazed on all seams to insure a perfect "no leak" fit and finish.

Included with the Max-Flow Cut to Length Pick-Up Tube is a template to help you cut the tube to the correct length for all of the CB Oil Sumps. Use these when installing a high volume oil pump or build a high revving VW engine.

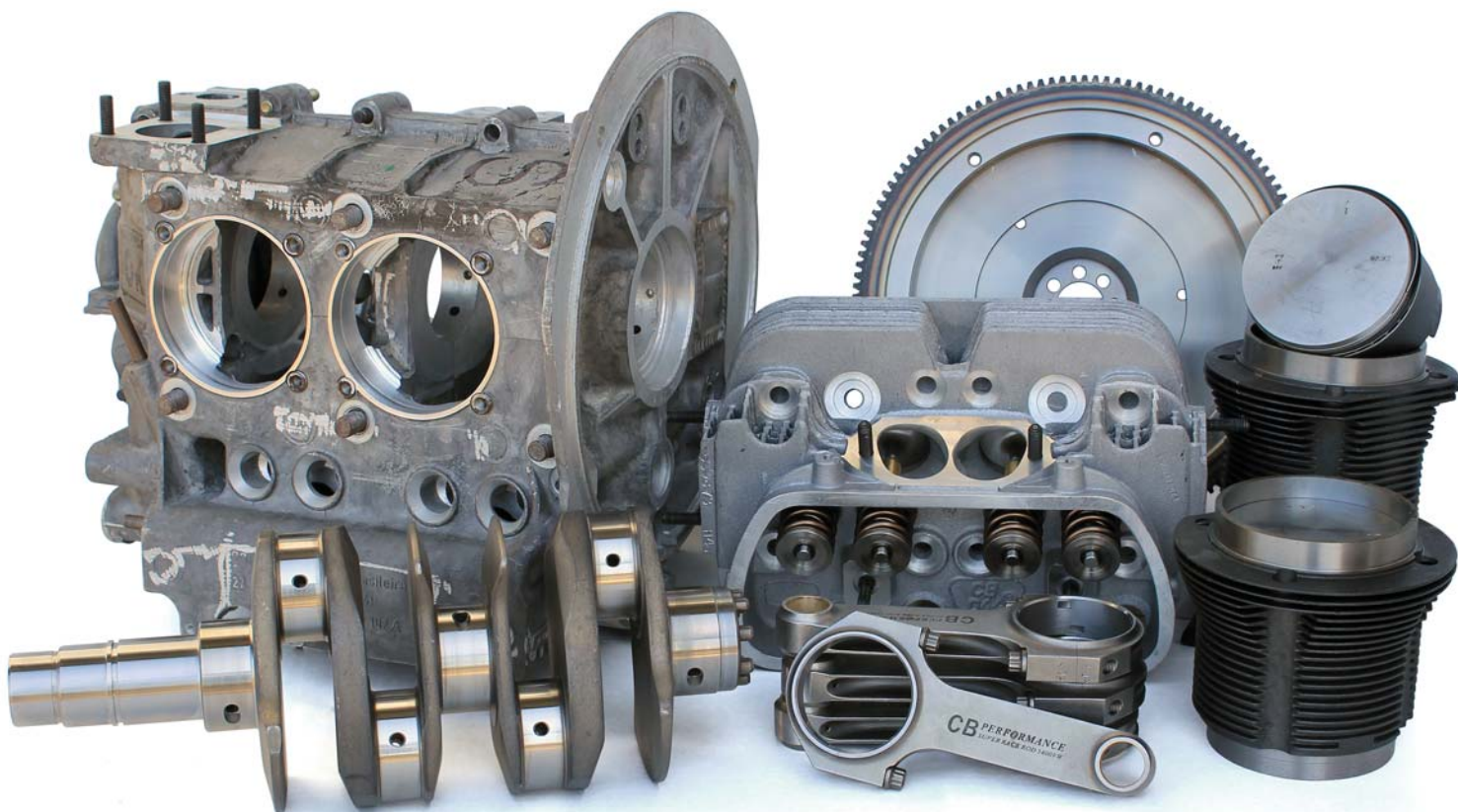
1272 Stock Replacement Max-Flow Oil Pick-Up Tube

1273 Cut to Length Max-Flow Oil Pick-Up Tube



**CB Max-Flow
PICKUP TUBES**

BUILDER'S CHOICE Engine Kits



Conceived, designed & developed by Award Winning engine builder, Pat Downs!

The "Builders Choice" Engine Kits are set up with the novice builder in mind. Easy to assemble with pre-determined compression ratio's, connecting rod length, camshaft and cylinder heads.

The "Builder's Choice" engine kit takes all the guesswork out of building your own engine. Each kit is listed with the correct carburetor size, intake manifold, and exhaust type needed to achieve the advertised Horsepower output. Never before have engine-building secrets like these been let out to the public! ***Take advantage from years of engine building experience with the Builders Choice Engine Kits!***

1179	Builder's Choice Engine Kits - 1904cc (74 x 90.5) - Gas Saver
1180	Builder's Choice Engine Kits - 105 HP 1776cc
1181	Builder's Choice Engine Kits - 120 HP 1915cc
1182	Builder's Choice Engine Kits - 140 HP 2005cc
1183	Builder's Choice Engine Kits - 150 HP 2110cc

1184	Builder's Choice Engine Kits - 160 HP 2165cc
1185	Builder's Choice Engine Kits - 180 HP 2276cc
1186	Builder's Choice Engine Kits - 200 HP 2332cc
1187	Builder's Choice Engine Kits - 220 HP 2387cc
	The Big Power Signature Kit

CB Super Race Rods

Manufactured from 4340 Chromoly forgings and then heat treated, CNC machined, and stress relieved. Each Race Rod is then visually inspected and magnfluxed.

The crankshaft end of the rod is bolted together, CNC machined and precision honed to + or - .0002". The rod journal bearing surfaces are hone finished to a fine crosshatch. Silicon bronze wrist pin bushings are pressed in and finish honed to + or - .0002". Super Race Rods are available to fit VW and Chevy Rod journals and in lengths from 5.325" to 5.700". Super Race Rods are assembled with ARP 2000 Rod Bolts and shipped in matched sets of four to assure continuity and convenience during engine assembly. You'll get bottom end torque with a set of CB Super Race Rods.

Super Race Rods are lighter and yet stronger than O.E.M VW connecting rods. The rod caps are engineered to reduce the amount of internal case clearancing inquired to drop in a stroker crank. You can run strokes up to 76mm without case clearancing. Super Race Rods allow you to run longer strokes while maintaining the structural integrity of the engine case.



1287	Super Race Rods - VW rod journal - 5.325" length
1289	Super Race Rods - VW rod journal - 5.400" length
1290	Super Race Rods - VW rod journal - 5.500" length
1291	Super Race Rods - VW rod journal - 5.600" length
2664	Super Race Rods - Chevy rod journal - 5.600" length
2665	Super Race Rods - Chevy rod journal - 5.500" length
2666	Super Race Rods - Chevy rod journal - 5.700" length
2667	Super Race Rods - Chevy rod journal - 5.325" length

SHORT RODS or LONG RODS?

The choice is yours, but modern engine builders know that longer rods make more power by reducing side load on the pistons. Long rods move the power band up the RPM scale because longer rods cause the piston to "dwell" longer in the vicinity of top dead center. This produces a cleaner burn of the

air/fuel mixture, and there is actually a longer period of time for the pressure created to press against the top of the piston. Rod ratios are an important part of engine design. The key factor is that pure-bred racing engines are equipped with the longest rods possible.

UNI-TECH Performance Rods

Race Level Quality at an Affordable Price!

Uni-Tech Performance Rods start life as brand new chromoly forgings. These are not re-manufactured stock rods. Uni-Tech Performance Rods are clearanced by design and can easily be installed in engines running strokes up to 82mm. Each rod is shot peened and finish honed to exact tolerances. Each rod is equipped with specially machined rod nuts to insure the proper clearance for use with stroker crankshafts. They can be used in stock engines or big bore stroker engines and are sold in balanced matched sets of 4.

1253	Uni-Tech Performance Rods - 5.500" (VW Rod Journal)
1254	Uni-Tech Performance Rods - 5.400" (VW Rod Journal)



Race Ready 94mm AA Cylinders & Wiseco Pistons

WISECO Pistons require additional clearance due to their design. Additionally, the hone finish on a standard AA Cylinder is not ideal for performance piston rings used on the Wiseco piston. CB Performance, in conjunction with Geoff Hart of Hart Performance and Machine, came up with the ideal hone finish and wall clearance for the Race Ready Cylinder. Each cylinder is precision honed using a torque plate, resulting in a perfectly straight cylinder once installed. We use a 480 grit hone finish for superior ring seal and break-in time.

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| 1021 | Race Ready 94mm AA Cylinders and WISECO Pistons (2 x 2 x 4 Ring Pack) |
| 1022 | Race Ready 94mm AA Cylinders and WISECO Pistons (1 x 1.2 x 2.8 Ring Pack) |
| 1020 | Race Ready 94mm AA Cylinders (CYLINDERS ONLY - NO PISTONS) |



AA Cast Piston & Barrel Kit

This is a new set of VW Aircooled Type-1 Pistons and cylinders.

Each kit is complete with four pistons with rings, cylinders, wrist-pins and clips.

*This kit does require machine work on the cylinder heads and case.

***MACHINE
WORK
REQUIRED***

- | | |
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| 1023 | AA Cast Piston & Barrel Kit (90.5 x 69mm) |
| 1024 | AA Cast Piston & Barrel Kit (90.5 x 82mm) |
| 1025 | AA Cast Piston & Barrel Kit (94 x 69mm) |
| 1026 | AA Cast Piston & Barrel Kit (94 x 82mm) |



Wrist Pins & Wrist Pin Locks

Lightweight Wrist Pins are manufactured from L13 Tool Steel and are precision taper ground to ensure that each wrist pin is identical in weight. Replaces wrist pins in MAHLE Pistons 88mm thru 94mm.

True-Arc Wrist Pin Locks (#1030) securely retains your wrist pins under high RPM use. A must for any high performance engine.



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|------|---|
| 1213 | CB Lightweight Tool Steel Wrist Pins (set of 4) |
| 1030 | True-Arc Wrist Pin Locks (set of 8) |

ARP 2000 Rod Bolts

ARP 2000 Rod Bolts are a superior choice for any person planning on pushing his/her car to its limits.

Designed from an exclusive hybrid-alloy to assure superior strength and far better fatigue properties. Although 8740 and 2000's share some similar qualities and characteristics, ARP 2000's are capable of clamp loads in the 215,000 to 220,000 psi range. In this strength level, stress corrosion and hydrogen embrittlement are typically not a problem, providing care and the proper torque is applied during assembly.



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| 1260 | ARP 2000 Rod Bolts - 5/16" (each) |
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Super Big Bore Piston & Barrel Kits

These Super Big Bore Kits are designed with close tolerance expansion characteristics for maximum compression and performance. Special thick wall cylinder design provides greater strength for use with hot fuel blends. Machine type Big Bore Kits have been used by long distance desert cars and drag strip machines. Two-strokes are available to fit 69mm and 82mm cranks.

Each kit contains: four barrels, pistons and hand fitted wrist pins. The rings supplied with each kit are high performance design.

92 and 94mm Big Bores are designed for competition use and have close tolerance expansion characteristics for maximum compression and performance.

90.5-94mm Big Bore Kits require machining the cylinder heads and engine case before installation.



INSTANT HORSEPOWER!

THESE PISTONS ARE FORGED.

1046	Forged Piston & Barrel Kit (85.5 x 69mm)
1048	Forged Big Bore Piston & Barrel Kit (87 x 69mm)
1052	Forged Super Big Bore Piston & Barrel Kit (90.5 x 69mm)
1053	Forged Super Big Bore Piston & Barrel Kit (90.5 x 82mm)

1054	Forged Super Big Bore Piston & Barrel Kit (92 x 69mm)
1055	Forged Super Big Bore Piston & Barrel Kit (92 x 82mm)
1081	Forged Super Big Bore Piston & Barrel Kit (94 x 69mm)
1082	Forged Super Big Bore Piston & Barrel Kit (94 x 82mm)

Tapered Ring Compressors

Hard-Anodized and Teflon-coated for low friction and prolonged wear resistance.

Manufactured by Wiseco.



**MADE IN THE
USA!**

Size	85.5mm	87mm	88mm	90.5mm	92mm	94mm
Part#	6573	6574	6575	6576	6577	6578

Teflon Wrist Pin Buttons

A must in high performance VW engines! Standard VW wrist pin clips are small, fragile, and easily damaged during installation. Shipped in complete sets for one engine.



1083	85.5mm Teflon Wrist Pin Buttons
1084	87mm Teflon Wrist Pin Buttons
1085	88mm Teflon Wrist Pin Buttons
1039	90.5mm Teflon Wrist Pin Buttons
1040	92mm Teflon Wrist Pin Buttons
1087	94mm Teflon Wrist Pin Buttons
1033	Teflon Wrist Pin Buttons - for Lightweight Wrist Pins (94)

AA or MAHLE Barrels

These 94mm Barrels can be used as replacements or with other 94mm Pistons, like Wiseco, J.E., etc.

The MAHLE Barrels are the same barrels that are included in our Mahle Forged Piston & Barrel Kits.

Shipped in sets of four.



1034	AA Barrels - 94mm
1038	Mahle Barrels - 94mm

Cast Piston & Barrel Kits

Get more power in your VW with this new 1600cc Piston & Barrel kit. This kit can be used to convert your tired 13, 15 or 1600cc VW into a powerhouse! Special fin design runs cooler and increases engine horsepower. Each kit is complete with four pistons with rings, cylinders, wrist pins and clips. All pistons are factory balanced and matched to the cylinder. **THESE PISTONS ARE CAST.**



1000	Moresa Cast Piston & Barrel Kit - 1600cc
1002	Mahle Cast Piston & Barrel Kit - 1600cc

Cast Big Bore Piston & Barrel Kits

The biggest of the Big Bore Kits that can be installed without cutting the case or heads! Increase the displacement of your 1500 or 1600cc VW engine.



Bolts right into any 1500 or 1600cc VW Engine without machine work. Our 87mm kit can be used on 1300cc engines with minor machining on the cylinder heads. **THESE PISTONS ARE CAST.**

1003	Mahle Cast Big Bore Piston & Barrel Kit - 87mm (slip-in)
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Wiseco Forged Piston Set

- * Precision tolerance CNC machined for quality and performance.
- * Honed pin bore holes for a precise tolerance fit between piston pin and piston.
- * Complex piston skirt profiles that reduce power-robbing friction, yet promote stability in bore for optimum ring seal.
- * Precision machined ring grooves featuring excellent surface finish and flatness providing maximum ring seal and minimizes blow by and oil consumption.
- * The #1035 features a 2mm gas nitrited barrel faced top ring, 2mm Taper faced Napier cast iron 2nd ring, 4mm 3 piece oil assembly with stainless steel flex vent spacers and gas nitrited rails. The thicker rings offer the best protection against extreme heat produced by turbos.

1035	Wiseco Forged Piston Set - 94mm with 2 x 2 x 4 Ring Pack (set of 4)
1037	Wiseco Forged Piston Set - 94mm with 1 x 1.2 x 2.8 Ring Pack (set of 4)



CB High Performance Case Kit

We put this kit together with all the finest components available.

OEM oil pressure pistons, springs, socket style bypass plugs (non-OEM), main bearing dowel pins and an aluminum case block off plate really set this kit apart from the rest.



1278 CB High Performance Case Kit

Engine Hardware Kit

No need to run around spending valuable time and money looking for new hardware, this kit includes all the hardware necessary to assemble a long block except for the head nuts. We have even included copper locking exhaust nuts that will not come loose, even after years of use.



Does not include head nuts, which are available separately.

1901 Engine Hardware Kit (without Head Nuts)

Engine Case Washer Set & Lock Nut Kit

#1904 includes Six 12mm Washers and Eighteen 8mm Washers.

#1908 includes Twenty-Four 8mm Nylon Lock Nuts, Six 12mm Nylon Lock Nuts, and Eight 6mm Nylon Lock Nuts.



1904 Engine Case Washer Set

1908 Engine Case Lock Nut Kit

Shake-Proof Nut Kits

Includes head nuts & all nuts required to assemble short block.



1920 10mm - Shake-Proof Nut Kit

1921 8mm - Shake-Proof Nut Kit

Crankshaft Components

This Distributor Drive Gear Pinion Spring is OEM, which means you are getting a Top-Quality Part!

The Crankshaft Racer Spacer fits all 40hp. 1300 1500 and 1600 based engines.



1909 Distributor Drive Gear Pinion Spring - OEM

1919 Crankshaft Racer Spacer

Engine Case Bolts

These three bolts are used to keep your engine case halves mated properly.

8mm x 55mm.



1277 Engine Case Bolts - 8x55 (set of 3)

Piston Rings

Now available for high performance VW engines!

Competition proven piston rings have shown their merit at Pike's Peak, the Baja, and many other international events.

They are engineered to help eliminate blow-by in large bore VW engines. The top rings will withstand severe heat and give longer life under competition conditions. The second ring is designed to give torsional twist to help control oil at all engine speeds. These rings offer quick seating and side sealing qualities to back up the top compression rings.

The oil rings are engineered for maximum circumferential expansion and positive side sealing. The oil rings give top oil control with a minimum of drag.

Sold in complete engine sets only.



1056	Piston Rings (Type-1) 77mm 1200cc '54-64
1057	Piston Rings (Type-1) 77mm 1300cc '66
1058	Piston Rings (Type-1) 83mm 1500cc '67-70
1060	Piston Rings (Type-1) 85.5mm 1600cc '66-76
1063	Piston Rings (Type-1) 83mm 40hp Big Bore
1068	Piston Rings (Type-1) 15-1600cc Forged CIMA/MAHLE
1069	Piston Rings (Type-1) 90.5mm Forged CIMA/MAHLE
1071	Piston Rings (Type-1) 87mm 15-1600cc CIMA/MAHLE

1072	Piston Rings (Type-1) 92mm Forged CIMA/MAHLE
1075	Piston Rings (Type-1) 86mm Big Bore Porsche
1078	Piston Rings (Type-1) 94mm Forged CIMA/MAHLE
1061	Piston Rings (Type-4) 90mm 1700cc '72
1076	Piston Rings (Type-4) 93mm 1800cc
1077	Piston Rings (Type-4) 94mm 2000cc
1080	Piston Rings (Type-4) 96mm 1700cc

Wiseco Replacement Ring Sets

- Wiseco rings only fit Wiseco pistons
- Maintain their size and geometry for exceptional ring seal providing sustained peak performance in race applications.



1036	Wiseco Replacement Ring Set - fits 1 piston (1 x 1.2 x 2.8)
1041	Wiseco Replacement Ring Set - fits 1 piston (2 x 2 x 4)
1042	Replacement Wiseco Spiral Lox (1 pair)

TOTAL SEAL Pro Ring Set

Gapless Pro Ring Sets have 2 interlocking rings, designed to overlap and eliminate the old-tyle ring gap. Lower leak down figures and less blow-by are the result of the special interlocking rings. **Pro Ring Sets include 2nd ring only!**



We recommend you also use Total Seals QUICKSEAT dry assembly lube.

Part#	1206	1207	1208	1209	1210	1211
Size	85.5mm	87mm	88mm	90.5mm	92mm	94mm

Rear Main Seal

Top quality seals are now available from CB.



1940	Rear Main Seal - 40hp VW Engine
1941	Rear Main Seal - 13, 15, & 1600cc
1942	Rear Main Seal - Type-4 914 & 2 Liter
1943	Front Main Seal - Type-4 914 & 2 Liter

Gasket Sets



1971	Gasket Set - 40hp VW Engine
1973	Gasket Set - 13, 15, & 1600cc Dual & Single Port Engines
1974	Gasket Set - Type-4 - 1800cc/914 Engines
1975	Gasket Set - Type 4 - 1700cc/914 Engines
1976	Gasket Set - 2 Liter Engines

QUICKSEAT Dry Assembly Lube



Quickseat is Total Seal's new dry film break-in compound that is applied to the cylinder walls prior to assembly. With the use of Quickseat, ring to cylinder bedding is almost immediate. When used in conjunction with Gapless rings, cylinder leakage rate is typically 0-1%.

Additionally Quickseat provides excellent piston to cylinder wall lubrication during the critical break-in operation.

1212	QUICKSEAT Dry Assembly Lube
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Engine Case Sealer



This is the same sealant used on factory VW aircooled engines. Provides a soft, pliable bond on engine case sealing surfaces. Loctite 518 Engine Case Sealer is oil and heat resistant and formulated for use on aluminum magnesium alloys.

- Preferred sealant for rigid metals flanges
- 1.69 Fl. Oz / Cont. 50 mL

3904	Engine Case Sealer - Loctite 518
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Dowel Pins

Longer and stronger, to help hold your flywheel in place. Use the super, tough long-reach 8mm dowels to beef up your present crank before your high winding engine rips out the dowel. Just drill the crank dowel pinholes deeper and install. The larger diameter 11/32 dowel can be used to restore a crankshaft that has parted company with the flywheel.



1415	8mm Extra Length Double Duty Dowel Pins (set of 8)
1416	11/32 Extra Length Double Duty Dowel Pins (set of 8)
1418	Standard Length 8mm Dowel Pins (set of 4)

Main Bearing Dowel Pins

They fit all 40hp through 1600cc engines to help hold your main bearings in position.

Use CB's factory fresh main bearing dowel pins to replace worn and misplaced parts.



1424	Main Bearing Dowel Pins (111-101-123) (set of 5)
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Main Bearings

Manufactured by OEM suppliers to exact factory standards. They are the duplicate of the originals in size. Sold in matched sets for perfect fit, long life, and like new performance.



CRANKSHAFT JOURNAL SIZES

(Main & Rod) 12, 13, 15 & 1600cc
Series VW Engines

Standard Size: 2.164"

-0.010": 2.154" (0.25mm)
-0.020": 2.144" (0.50mm)
-0.030": 2.134" (0.75mm)
-0.040": 2.124" (1.00mm)

MAIN BEARING O.D. SIZES

(Standard & Align Bore)
12, 13, 15 & 1600cc
Series VW Engines

Standard Size: 2.559"

+0.020": 2.579" (0.50mm)
+0.040": 2.599" (1.00mm)
+0.060": 2.619" (1.50mm)
+0.080": 2.639" (2.00mm)

Engine bearing sets are available in all popular sizes. Special align bore bearing sets are also available to fit rebuilt engine cases. Make certain of your year, model, and journal size when ordering engine bearings. Most crank grinders mark crankshafts during rebuilding. If in doubt to what size the crankshaft is, give us a the measurement of the main and rod journals. We can then select the correct size for you.

Main Bearings (Type-1)

Part#	Case (O.D.)	Crank (I.D.)	Thrust
1804	STD	STD	STD
1805	STD	-.010"	STD
1806	STD	-.020"	STD
1832	STD	-.030"	STD
1831	STD	-.040"	STD

Align Bore Main Bearings (Type-1)

Part#	Case (O.D.)	Crank (I.D.)	Thrust
1807	+.020"	STD	STD
1808	+.020"	-.010"	STD
1809	+.020"	-.020"	STD
1810	+.020"	-.030"	STD
1812	+.040"	STD	STD
1813	+.040"	-.010"	STD
1814	+.040"	-.020"	STD
1815	+.040"	-.030"	STD

Align Bore Wide Thrust Main Bearings (Type-1)

Part#	Case (O.D.)	Crank (I.D.)	Thrust
1807w	+.020"	STD	.040" (1mm)
1808w	+.020"	-.010"	.040" (1mm)
1809w	+.020"	-.020"	.040" (1mm)
1810w	+.020"	-.030"	.040" (1mm)
1811w	+.020"	-.040"	.040" (1mm)
1812w	+.040"	STD	.040" (1mm)
1813w	+.040"	-.010"	.040" (1mm)
1814w	+.040"	-.020"	.040" (1mm)
1815w	+.040"	-.030"	.040" (1mm)
1817w	+.060"	STD	.080" (2mm)
1819w	+.060"	-.010"	.080" (2mm)
1820w	+.060"	-.020"	.080" (2mm)
1821w	+.060"	-.030"	.080" (2mm)
1816w	+.080"	STD	.080" (2mm)
1818w	+.080"	-.010"	.080" (2mm)
1822w	+.080"	-.020"	.080" (2mm)
1823w	+.080"	-.030"	.080" (2mm)
1824w	+.080"	-.040"	.080" (2mm)

Main Bearings (Type-4)

Part#	Case (O.D.)	Crank (I.D.)	Thrust
1850	STD	STD	STD
1851	STD	-.010"	STD
1852	STD	-.020"	STD

Align Bore Main Bearings (Type-4)

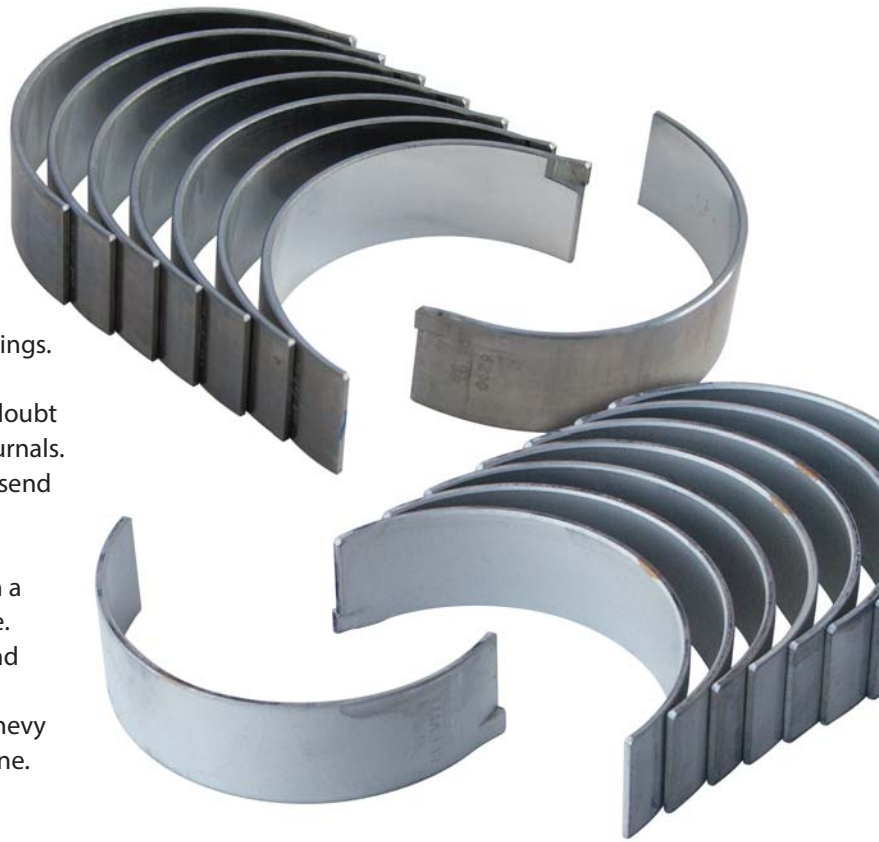
Part#	Case (O.D.)	Crank (I.D.)	Thrust
1833	+.020"	STD	STD
1837	+.020"	-.010"	STD
1838	+.020"	-.020"	STD

Rod Bearings

Manufactured by OEM suppliers to exact factory standards. They are the duplicate of the originals in size and material. Engine bearing sets are shipped in matched sets for perfect fit, long life and like new performance. Engine bearing sets are available in all popular sizes. Special align bore bearing sets are also available to fit rebuilt engine cases. Make certain to list year, model and journal size when ordering engine bearings.

Most crank grinders mark crankshafts during rebuilding. If in doubt to what size, give us the measurement of the main and rod journals. We can then ship you the correct size bearings. If time allows, send us your old bearings. We can check them for proper size.

Clevite Rod Bearings are made of a tri-metal construction with a steel backing, copper lead center and a soft alloy inner surface. Clevite bearings withstand the friction, dirt, wear, corrosion and heat that chew away at bearing and journal life. Clevite Rod Bearings are available to fit standard and undersize VW and Chevy rod journals. They are shipped in complete sets to fit one engine.



1865	Rod Bearings Type-1 (STD)
1866	Rod Bearings Type-1 (-.010")
1867	Rod Bearings Type-1 (-.020")
1834	Rod Bearings Type-1 (-.030")
1835	Rod Bearings Type-1 (-.040")
1855	Rod Bearings - Type-4, 1.7 & 1.8 Liter (STD)
1856	Rod Bearings - Type-4, 1.7 & 1.8 Liter (-.010")
1857	Rod Bearings - Type-4, 1.7 & 1.8 Liter (-.020")

1836	Rod Bearings - 2 Liter Porsche Engines - STD.
1874	Rod Bearings - 912 Porsche (STD)
1875	Rod Bearings - 912 Porsche (-.010")
1876	Rod Bearings - 912 Porsche (-.020")

2672	Rod Bearings - Clevite 77 Chevy Journals (STD)
2670	Rod Bearings - Clevite 77 Chevy Journals (-.010")
2671	Rod Bearings - Clevite 77 Chevy Journals (-.020")

Cam Bearings

The #1849 Racing Camshaft Bearing Set features double thrust shoulders provide an equal 360 degree base to aid in stabilizing the camshaft. The thrust shoulders also reduce friction and wear. Now available to fit all late 40hp, 1300, 1500 and 1600cc engines.

Camshaft Bearing Sets replace original parts to help restore oil pressure and quiet your engine. Shipped in complete sets to assure matched performance. Available to fit late 40hp through 1600 VW engines and Type-4 & 914 Porsche engines.

1849	Racing Camshaft Bearing Set
1880	Camshaft Bearing Set - fits 40hp-1600cc
1881	Camshaft Bearing Set - fits Type-4 & 914 Porsche

