

DO IT RIGHT...

# ISKY RACING CAMS

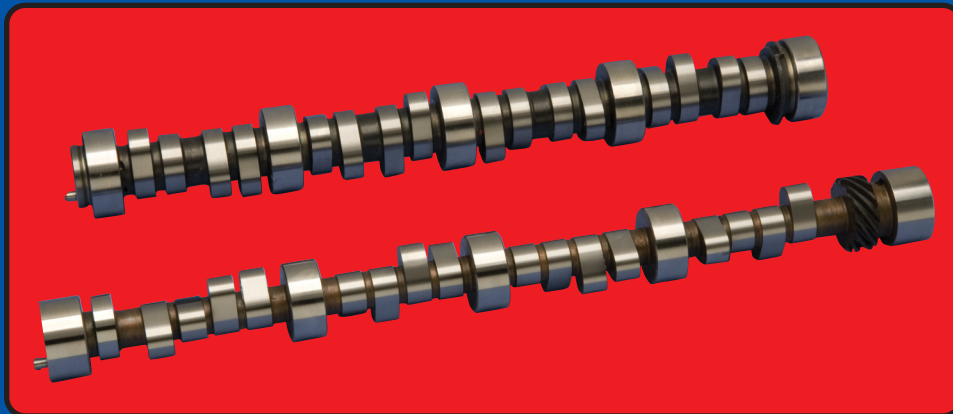
...RACE WITH  
THE LEGEND



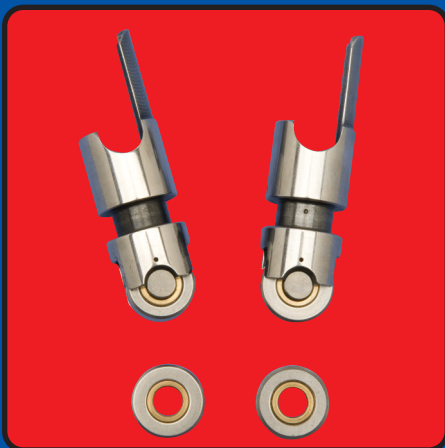
New RAD™ Tool Room



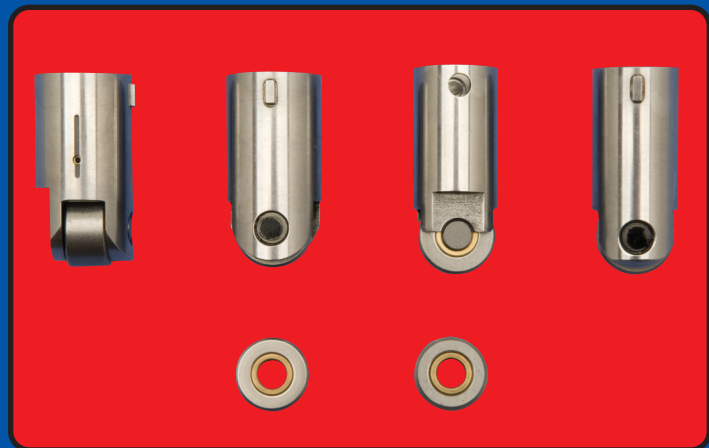
NEW Red-Zone™ Roller Lifter



New Expanded Cam Profile Listings



New EZ-Roll™ Bearing Option



New EZ-Roll™ Keyway Roller Lifters

# ED ISKENDERIAN RACING CAMS



**ED ISKENDERIAN**

## INTRODUCTION

The name Ed Iskenderian is a legend among racers worldwide. Ed's life history parallels the proverbial success story. He was born in 1921 in the grapevine country of Tulare County, California.

His future as a winemaker never materialized, however, because several heavy frosts destroyed the vineyards. These conditions forced the Iskenderian family to move to Los Angeles.

While attending Polytechnic High School in Los Angeles, Ed's pet project was building a Model T Ford roadster. Ed learned the fundamentals of mechanics by working with the Model T Fords and later adapted the overhead conversion by Frontenac (more commonly known as Fronty), as well as the George Riley head known to the racers in those days as the "multi-flat head."

Experiencing repeated crankshaft failure, Ed began searching for an engine with a stronger lower end. He examined the Ford Model A and B and found them to be only slightly stronger than the Model T. Turning his attention toward the later Ford V-8 flat-head engine, he found the crank to be much more rugged with larger bearings and a counter balanced crankshaft. He installed special Maxi "F" type cylinder heads (with overhead exhaust valves) and slingshot intake manifold.

Ed had the combustion chambers in the heads cast iron filled and he then re-contoured the combustion chambers as advised by his good friend Ed Winfield. The actual compression ratio turned out to be a whopping 13:1, an extremely high ratio for the early days of hot rodding.

This was Ed Iskenderian's first hot rod and it still occupies a corner of his plant today.

After graduating, Ed obtained mechanical experience working as an apprentice tool and die maker. This is where Ed developed the skill and experience of always striving for quality and perfection. His career was interrupted by WWII. Because of his interest in speed, Ed decided to try his hand with an even faster vehicle and enlisted in the Army Air Corps. He served with the Air Transport Command, repeatedly flying supplies to the islands of the Pacific.

After his war time absence, Ed lost no time in getting back to his hot rod and getting it ready for California's dry lake bed meets. When rebuilding his V-8, he wanted to obtain a special camshaft. However, the boom had hit hot rodding and there was a great deal of business for the few racing camshaft manufacturers on the west coast. Their production schedules were taxed, which resulted in slow delivery. During the five month waiting period for his special camshaft, Ed decided to enter the cam grinding business. He bought a used conventional cylindrical grinder. Drawing on his tool making and mechanical experience, Ed converted it to a universal cam grinding machine. This machine produced camshafts with a noticeable improvement in performance over the conventional racing Ford camshafts. Ed's cams were the first to produce 1 H.P. per Cu. In. on gasoline in postwar OHV V-8 Dodge Hemi's and 1.3 H.P. per Cu. In. on gasoline in postwar OHV 283 Chevy V-8's.

Ed saw that racers could benefit from the advancement of higher-technology in racing so he created the first HardFace Overlay camshafts in the industry and became the first to employ computers in camshaft design. With the computer, Ed created the most advanced cam-profiles of the late 1950s and early 60s like the famous 5-Cycle and Polydyne Profile 505 Magnum's along with the very first Hydraulic racing camshafts in the industry. Not stopping here, Ed knew that these new camshafts needed equally technologically advanced components -- So, he developed the first High-Density Chilled-Iron lifters for the ever growing Fuel Burning Supercharged Dragster class (now known as Top Fuel Dragsters), the first drop-in self locking roller tappets and the first Anti-Pump-Up hydraulic lifters enabling Hydraulic camshafts to produce higher R.P.M.

This created a new challenge. As the new camshafts were delivering greater lifts and durations for higher R.P.M., the resulting higher lift rates required advanced valve spring designs. Recognizing this, Ed then introduced to the racing industry the first Vasco Jet 1000 Valve Springs after having pioneered the first valve spring assemblies for racing a decade before. New Cams and Components were not the only thing Ed brought to the young Drag Racing programs. Under a gentlemen's agreement, Ed Iskenderian and a young racer from Florida named Don Garlits entered into the first corporate sponsorship of a race operation. During this time Ed was given the nickname of Isky the "Camfather".

In addition to the numerous racing advancements, Ed also turned his interest to helping the stock/street enthusiasts. He offered among many other things, the first coordinated cam and assembly kit to take the guess work out of ordering. To help fine tune racers engines he offered the first "Ultra Rev-Kits" for small block Chevy V-8 roller cams and the first anti-cam walk kit for the Chevy V-8s, along with the first offset cam keys and bushings for adjusting cam timing.

In 1963, Ed in collaboration with a few other industry pioneers, created the "Speed Equipment Manufacturers Association", now known as the "Speciality Equipment Market Association" or "SEMA". Ed presided as its first president in 1963 and 1964 and led the group through its first crucial years.

With the advent of the new small cars and the consumers trend towards economy, Ed turned his efforts to enlarging his line of economy camshafts and components, creating a camshaft that would deliver economy without robbing performance. This led to the newest and strongest line of street/performance camshafts. The SuperCams for economy/performance and the MegaCams, the maximum in street/performance hydraulic camshafts.

Ed, although still overseeing the entire operation, has recently turned the reins over to his sons Ron and Richard who have continued their father's traditions. In the last three years, Ron has developed over 100 new cam profiles using a new computer design program which he developed to cut the design time by more than 3/4.

In collaboration with his brother Richard, they have designed over a dozen new valve spring combinations for oval track and drag racing (blown alcohol and top fuel classes). Richard is personally present at many major and local tracks, conventions, and seminars to talk with the racers, engine builders and owners in order to keep an eye on the everchanging needs of a growing industry. In addition, Isky who created the first manufacturers' cash contingency awards for drag racing in the 1950s, is involved with major and minor sponsorships as well as a growing support of local tracks to give many racers a chance to race in their home towns.

One of Ed's proudest achievements came in 1985 when he was inducted as a member of Chevrolet's "Legends of Performance", an honorary group of "Men whose visions, skill and perseverance have reshaped the automobile into something more than just transportation. Men who have elevated motorsports and high performance to the levels of prominence they enjoy today," quoting Chevrolet. Also in the same year, Ed was inducted into the SEMA hall of Fame, the only Cam Manufacturer to be honored by both organizations.

Isky's present location in Gardena, California consists of a four-building complex of over 75,000 square feet on property a full city block long. Isky employs over 100 specialists, including engineers and technical advisers to assist the thousands of Isky dealers throughout the world and the hundreds of thousands of Isky customers. To answer the many questions that come in daily from enthusiasts of circle track, off road, drag racing, Bonneville, truck and tractor pullers, monster trucks, street, and stock cars and boats, Ed has written many helpful pamphlets for technical advice on cam installations including installing, valve timing, cam degreasing, dyno tuning, preventing roller cam walk and top tuning tips. Most of these are included in this catalog.

As the world's largest racing, performance, and economy cam manufacturer, Isky maintains a dynamometer testing program for constant improvement of camshaft and valve train design. These tests are conducted daily in Isky's new enlarged dyno facility. To properly evaluate and prove the efficiency of Isky racing cams and valve train components, Isky maintains a continuous engine testing program. Still another dynamometer is used exclusively for the purpose of testing the endurance of racing valve gear components in today's OHV engines. The final phase of testing is accomplished when the newly dyno tested cams and components are coordinated with the best stock and performance equipment into racing cars and boats as well as performance and stock street machines. The testing is completed under actual racing and street conditions that our customers may encounter. This assures the consumer of accuracy and quality control unparalleled in the industry. The results of these tests are available to all hot rodders, racers, and engine builders in the form of horsepower charts, plus information on carburetion, jetting, ignition, timing, and exhausts. These are just a few of the many ways Isky's research is shared with the racing enthusiasts.

At Isky Racing Cams you can always count on helpful, courteous service, the highest quality materials in all our products, the newest advancements and the finest workmanship available.



**ED ISKENDERIAN'S T ROADSTER**

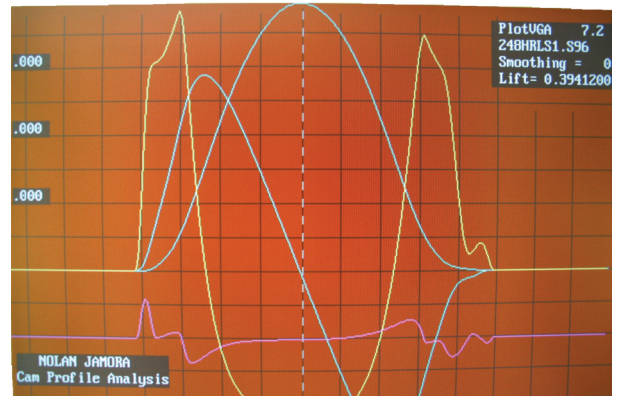


## Cam-Profile Headquarters, U.S.A.™! Attention: Engine Builders/Valve-Train Designers

**NEW!**

### **Custom MasterCam-Profile Service★**

We are pleased to announce the recent expansion of our facilities for the rapid-prototyping of new cam profile design and manufacturing. Now on line and running is our new state-of-the-art ProCam™ cam-design program (incorporating “neural-optimization” technology) and our specially equipped (1 micron) precision CNC master cam generator. We are also currently in the process of upgrading and servicing every one of our precision



If you're an engine builder who's not satisfied with whatever cam-grinder's product you may be using, please give us a call regarding your cam profile needs or any other questions you may have on the subject. We'd enjoy hearing from you and hopefully we can help with your concerns. Real cam help from real cam experts!!

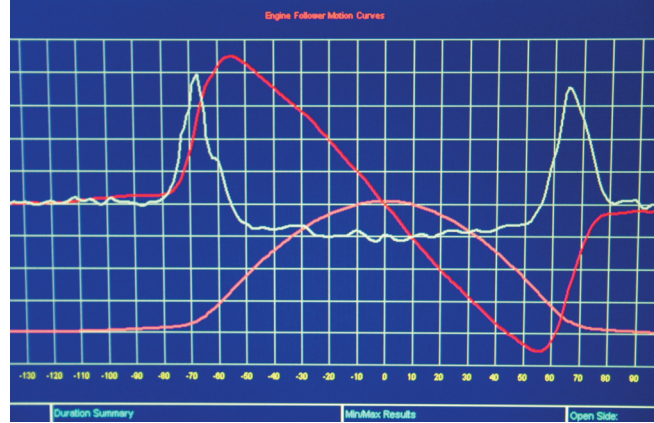
Norton, Cincinnati and Landis cam grinding machines in preparation for the implementation of our new Accu-Cam™ precision profile measurement and accuracy standards.



★ Moderate Tooling & Design Costs May Apply. (Available upon request)

## ***Accu-Cam™: Precision Profile Measurement and Accuracy Standards***

The strategically aggressive nature of new cam lobe profiles now under development at Isky utilizing our exclusive Profile Expansion Technology™, has led to the implementation of new higher standards for cam profile accuracy and measurement - Accu-Cam™ standards will ensure that these new state-of-the-art cam profiles will perform as designed - expanded to maximize area under the lift curve! This means that for a given cam lobe lift and duration at .050", these new profiles will be longer in duration or "fatter" at the higher lift check points (.200", .300", etc.) to maximize engine breathing potential like never before!



## ***The next generation of cam profile designs!***

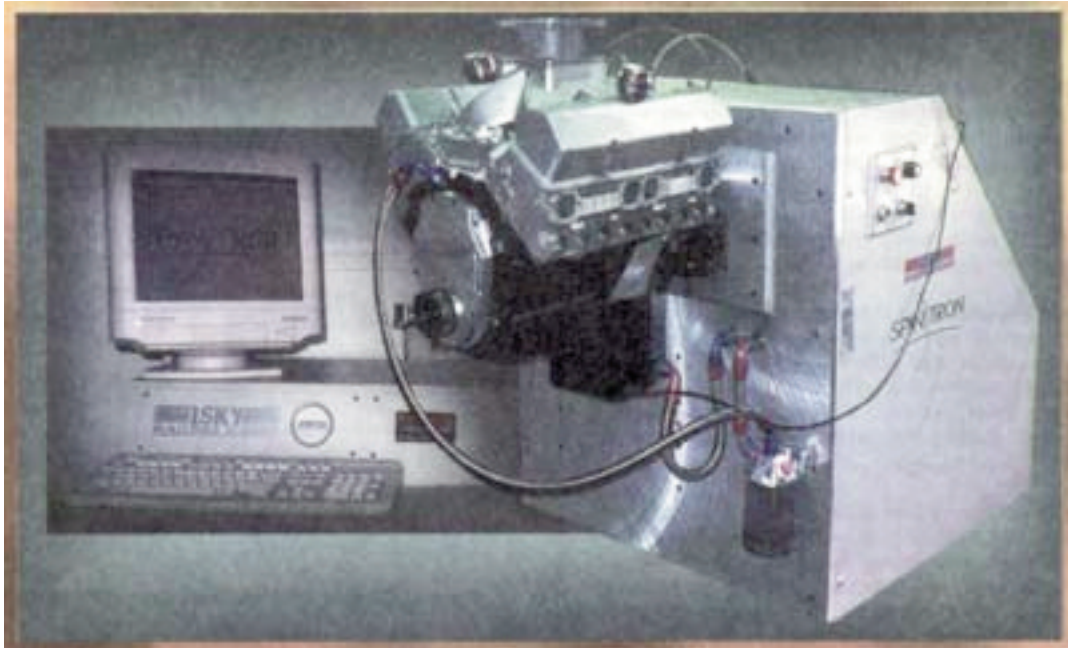


Specially Equipped  
1 Micron Precision CNC Master -  
Cam Generator

available for you!

Many new cam lobe profiles utilizing OUR exclusive Profile Expansion Technology™ are currently available with more on the way! See lobe specification chart pages 173, 174, 177 & 179. These lobe designs are the most aggressive cam profiles ever created and generated by ISKY. Significant increases in cam-profile envelope (the area under the valve lift curve) and engine breathing mean that without sacrificing low & mid range torque, as engine RPM increases there will be more horsepower

## RESEARCH & DEVELOPMENT...SPINTRON ENDURANCE TESTING



The demands of Endurance Racing today are such that every manufacturer of critical engine components, (not their customers), should be testing them on a regular basis to guard against the possibility, however remote, of catastrophic failure. This point was brought home recently when a well-known east coast valve manufacturer initiated a massive recall of defective heavy-duty stainless steel valves, after their stems began "snapping off" at the keeper groove. The manufacturer's reputation, already suffering from prior embarrassments concerning connecting rod failures, was eroded even further over this unfortunate incident. The lesson to be learned here is that this could have all been avoided had this manufacturer of engine components considered testing to be as important a priority as their advertising campaigns.

We at Isky Racing Cams do recognize the absolute necessity to regularly test critical engine components such as our Endurance Valve Springs and Roller Lifters. That's why we created the most rigorous realworld endurance test ever established, the grueling Spintron® 1,000 Racing Mile Endurance Test Standard™. The first and only one of its kind in the industry, it's a test with a "Zero" Failure Tolerance, because its either pass or fail for our Racing Valve Springs & Roller Lifters-there is no gray area in between! If they don't measure up, we won't sell them-period! We have to, because we know you're depending on the Iskenderian family name to deliver the absolute maximum endurance possible in all of our valve train components. Your peace of mind and continued customer loyalty are of primary importance to us and you may rest assured we will never "cut corners" in our efforts to bring you the World's Finest Endurance Racing Valve Springs and Roller Lifters. Our reputation rides with every set!



# ISKENDERIAN RACING CAM SERIES

## Hi-Rev Series

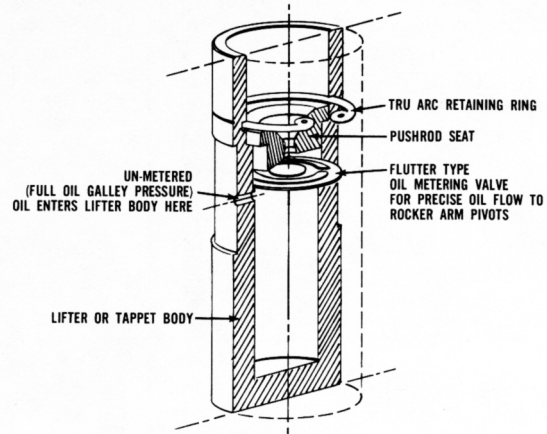
Isky Hi-Rev Series cams are manufactured from the finest, high quality Proferal Cast Iron Billets. Combined with mechanical (solid) lifters, they are extremely popular for high-performance dual purpose and competition engines.

These popular Isky cams will provide excellent horsepower and revving ability while using relatively low valve spring pressure, thus assuring long cam and lifter life.

Various grinds are available for most all American-produced automobile engines. From the mild 3/4-race to the Super Competition, this series also offers a wide price range for the enthusiast who prefers the solid lifter cam and kit at a modest cost. We offer the Isky Hi-Rev series as the top performing finest quality Proferal Cast Iron Camshafts available today.

After grinding the Isky Hi-Rev series camshaft profiles on high quality Proferal cast iron billets, they are flame hardened, super-finished and Parko Lubrite coated. Isky's superior craftsmanship, plus the use of only the highest quality material, is your assurance of long cam life and years of trouble-free service.

## Isky First



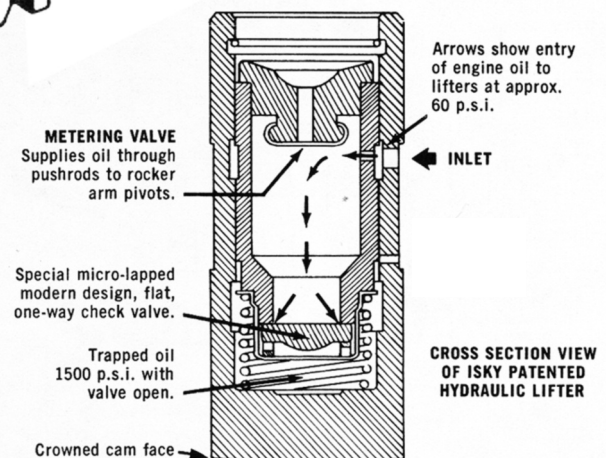
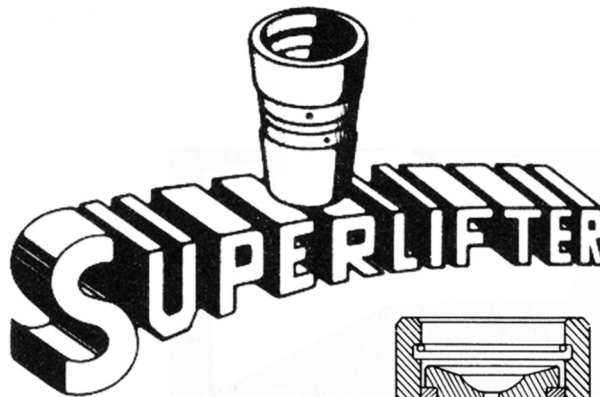
Cut-a-way view of an Isky high quality hardenable iron lifter.

## Hydraulic Series

In former years, the first step in building a high performance engine was to eliminate hydraulic tappets and install mechanical tappets and camshafts. Isky has completely reversed this concept...today's wiser breed of racer recognizes the advantages of the Isky Hydraulic racing cam and tappet combination.

After years of both dynamometer and field testing, Isky has developed highly advanced concepts in hydraulic cam and lifter design. They are now actually producing more power and rpm than the mechanical (flat tappets) in road-driven cars. This can be attributed to inherent qualities of providing precise cam timing at all times as it operates at zero lash. Thermal expansion and contraction is automatically taken up by the tappets and therefore no valve lash adjustments are required after the initial adjustment. Also there is no tappet noise or hydraulic lifter pump-up, due to accidental over-revving, with the Isky patented Anti-pump-up Hydraulic racing tappets.

For the performance-minded car owner, who wants to use his everyday car for street and drags, with increased horsepower and rpm, this Isky Hydraulic Cam and Coordinated Assembly Kit is ideal. Isky Hydraulic racing cams, and anti-pump-up hydraulic tappets, are available for most popular V-8 and 6-cylinder American engines. Made from the finest, high quality Proferal Cast Iron Billets, these cams are flame hardened, super finished and Parko Lubrite coated for long life.



Cut-a-way view of an Isky high quality Superlifter.

# ISKENDERIAN RACING CAM SERIES (CONTINUED)

## HYDRAULIC Roller Series

Isky Hydraulic Roller Camshafts are manufactured from the finest quality, Special Deep Hardened Steel Billets that are fully compatible with stock factory style cast iron distributor gears. We offer a broad assortment of profiles for Small & Big Block Chevy V-8, Late Model Chevy LS-1/LT-1 V8, 4.3 Litre Chevy V-6 and Late Model Ford 302-HO.

These popular camshaft combinations will yield the best horsepower/torque ratios for those looking for hydraulic roller assemblies.

Complete kit assemblies are offered for Early Small & Big Block Chevy V-8's including retro-fit hydraulic roller lifters. On Late Model Small Block Chevy V-6 & V-8 and Ford 302-HO where the Engines are already equipped with hyd. roller cams and lifters, our kit components are supplied to work in conjunction with the Factory Hyd. Roller Lifters.

You can always be assured of receiving the finest quality components in any Hydraulic Roller Cam Kit from Isky.



## ROLLER SERIES

## Isky Invention

**STEEL BILLET CAMS...**For over 35 years ISKY Steel Billet Roller Cams have been machined from solid 8620 steel bar stock. Famous grinds like the 5 Cycle 7000, the 505 Magnums, the 550 Super Le Gerra, the 600 and now the 640 & 747 Roller Magnum have dominated drag strip and oval track racing throughout the country.

**ROLLER TAPPETS...**ISKY patented the first self-locking roller tappet way back in 1958 and for 50 years they've set the standard by which others are judged. Precisely machined from HI-STRENGTH ALLOY STEEL, they have nearly twice the tensile strength of anything else on the market.

ED ISKENDERIAN was the first to invent, introduce and patent a self-guiding roller tappet. No special tool or machining is required for installation. The unique self-locking design which "Bridges" the pairs allows slip-in installation.

***INTRODUCING...***  
**The NEW "DRAG RACE" SPORTSMAN SERIES for**  
**BIG BLOCK CHEVY V8.**  
**Designed with Isky's New Exclusive...**  
**Profile Expansion™ Technology**



Part No. Std. Bearing Size Std. Firing Order	Part No. Std. Bearing Size 4/7 Swap	Part No. 55-MM Brg Size 4/7 Swap	Cubic Inch	Valve Lift	Adv Dur	.050 Dur	Lobe Centers
396765	396765-4/7	—	540 CI	.808" .765"	310° 320°	282° 292°	110
396808	396808-4/7	—	555 CI	.808" .765"	318° 328°	284° 298°	112
396809	396809-4/7	—	572 CI	.808" .765"	318° 336°	288° 308°	114
396867	396867-4/7	396867-5547	622 CI	.867" .808"	318° 348°	288° 306°	117



# TUNING AIDS

## HEIGHT MIKE:



The most accurate way to measure Valve Spring Installed Height is with the Height Mike! This tool sets in between the retainer and cylinder head spring seat. Easy to read dial (just like a micrometer) for accurate measurements every time.

Part No.	Installed Height Range
100-HM	1.400 - 1.800"
200-HM	1.600 - 2.100"

## CAM DEGREEING TOOLS:



Here's a unique tool which checks the lift of the Camshaft directly from the Camshaft in the Block. Installs right inside the lifter bore, is accurate and is very simple to use. Both a flat and rounded probe are included for checking Roller and Hyd/Flat Tappet Cams.

Part No.	Application
200-CDT	All GM (.842") and FORD (.875") Lifter Bore Applications
300-CDT	All CHRYSLER & AMC (.904") Lifter Bore Applications

## ADJUSTABLE CHECKING PUSHRODS:

These units are designed for checking the proper pushrod length in applications where valve train geometry has been affected by modifications such as angle milled heads, decked blocks, small base circle cams, etc....Each pushrod has an adjustment range of approximately .700".

Once the proper pushrod length has been established, refer to our pushrod section. If you don't see the length you need, call our factory and we will make them up on special order. Each package contains **one** pushrod, 5/16" diameter.

**NOTE: NOT DESIGNED TO BE RUN IN ENGINE**

Part No.	Adjustment Range	Application
PRC-1	6.400" - 7.100"	Small Block Chevy V-8 (1241 Series Roller Lifter) 289-302 Ford V-8
PRC-2	7.650" - 8.350"	290-401 AMC V-8 283-400 Small Block Chevy V-8
PRC-3	8.000" - 8.700"	396-454 Chevy Big Block V8-Int. 383 Mopar "B" V-8 351-Ford Windsor V-8
PRC-4	8.350" - 9.050"	427-454 Chevy Big Block V-8 Truck Block Intake 351 Ford Cleveland/Boss V-8 429-460 Ford V-8
PRC-5	9.000" - 9.700"	396-454 Chevy Big Block V-8 Exhaust 440-Mopar "B" V-8 Pontiac V-8, 1967 & later
PRC-6	9.400" - 10.100"	427-454 Chevy Big Block V-8 Truck Block Exhaust 400-M Ford V-8

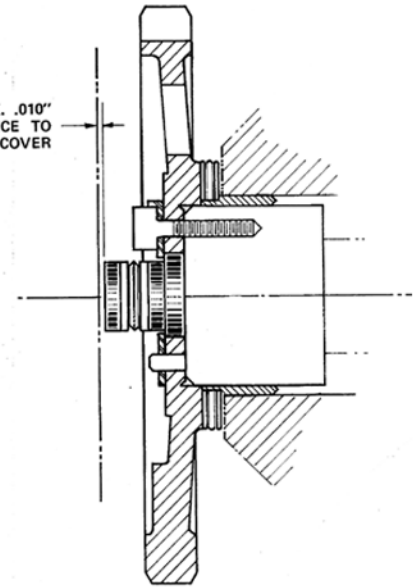


ISKY RESCUES THE CHEVY V8 WITH THE

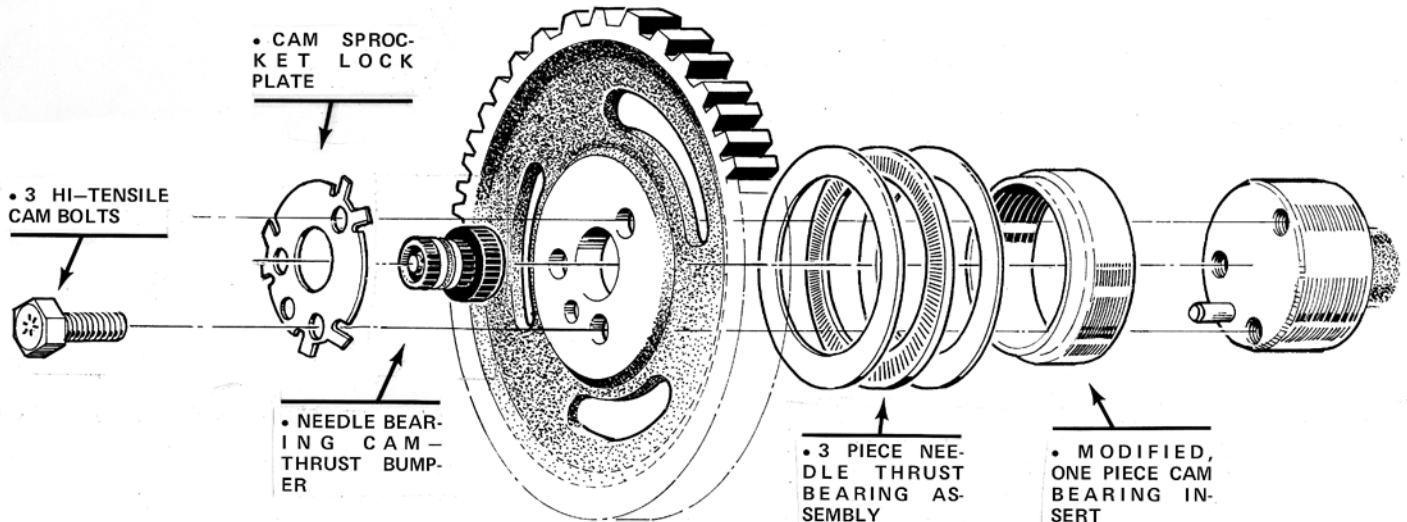
# ANTI CAM-WALK KIT

A must for alleviating cam walk in roller-cammed Chevy engines.

• APPROX. .010" CLEARANCE TO FRONT COVER



Cross Sectional View of the "ANTI CAM-WALK KIT" installed.



Often when expensive racing engines don't perform up to par, the culprit is "Cam Walk" (the fore and aft movement of the camshaft in the Block) - more thoroughly explained in "How To Prevent Roller Cam Walk".

To cure this perplexing problem, the "Anti Cam-Walk Kit" consists of the following:

- (1) Our famous Needle Bearing Thrust Bumper to prevent "Forward Cam Walk."
- (2) Isky's cam sprocket lock plate to securely fasten the "thrust bumper" and cam sprocket to the camshaft.
- (3) A special precision needle thrust bearing assembly for installation between the cam sprocket and engine block, to prevent "Backward Cam Walk."
- (4) Our specially modified cam bearing insert to locate the needle thrust bearing assembly.

The only engine modification required to install the Anti Cam-Walk kit is the machining of the engine block cam-thrust surface (to compensate for the thickness of the needle thrust bearing assembly). End your cam-walk problems forever with Isky's "Anti-Cam-Walk Kit".

Anti Cam-Walk Kit (with complete installation instructions)

Part No.	Application
200-ACW	283-400 CHEVROLET Small Block V8
200-96-ACW	396-454 CHEVROLET Big Block V8

# PRECISION EQUIPMENT



## Rocker Arm Pivot Balls

Isky Rocker Arm Pivot Balls are specially "grooved" on the lower radius to allow added lubrication with stock style, stamped steel rocker arms when employing higher spring pressures in high performance applications.

Available for both Small & Big Block Chevy V-8.

Part No.	Application
200-RAPB	Small Block Chevy V-8 3/8 Stud
300-RAPB	Small Block Chevy V-8 "TUFFTRIDE Coat" Heat Treated wear resisting finish for high load applications 7/16 Stud only
400-RAPB	Big Block Chevy V-8 7/16 Stud



## Lash Caps

Now Available for 5/16, 11/32, & 3/8" Valve Stems. Designed for use with recessed 10 Deg. Valve Locks. Top of Caps are .080" thick and the legs are .130" deep. Overall depth is .210". Machined from Premium Nickel Chrome Moly Steel, Heat Treated & Black Oxided to resist corrosion.

Part No.	Description
LC-1000	5/16 Lash Caps (Set of 16)
LC-2000	11/32 Lash Caps (Set of 16)
LC-3000	3/8 Lash Caps (Set of 16)



## Cam Sprocket Lock Plate

This special heat treated lock plate is for all Chevy V-8s. It comes complete with three high tensile bolts for positive locking of cam sprocket to camshaft.

Part No.	Application
200-LP	Small & Big Block Chevy V8



## Rotator Cups: Big Block Chevy V-8

Eliminates the need for stacking several shims underneath Dual Valve Springs when removing the exhaust rotators on Big Block Chevy V-8 cylinder heads. Cups are .300" thick.

Part No.	Description
390-RC	Set of 8 cups

# HIGH PERFORMANCE INSURANCE

## Valve Stem Oil Seals

ISKY valve stem oil seals positively control unwanted oil flow through the valve guides. They are particularly effective in racing engines by eliminating oil pollution of the combustion chamber, a horsepower robbing factor. Heavy duty steel and teflon construction.

Installation requires the machining of the valve guide tops with our cutter. Isky valve stem oil seals are available in sets of 8, 12 & 16 for 4, 6 & 8 cyl. applications.

### Installation cutter for seals:

Valve Stem Diameter	Seal Part No.	Cutter Part No.	
5/16"	IVS-5/16	VST-5/16	
11/32"	IVS-11/32	VST-11/32	
3/8"	IVS-3/8	VST-3/8	
5/16"	IVS-400	N/A	LSI - Chevy V8 (late)



## Isky First

### Degree Wheel

A must for every engine builder, ISKY degree wheels feature permanent anodized calibrations in one degree increments. Made from heavy gauge aluminum they will become a permanent addition to your tool box. As an added bonus easy to follow instructions for finding T.D.C. are permanently etched on the face of the wheel. The wheel is 7" in diameter and has a 7/16" dia. center hole.

Part No.  
7-DW



## CC Kit

Why be mystified by cubic centimeters? ISKY takes out the mystery with this handy kit. The kit consists of a 100 cc graduated beaker, clear plastic combustion chamber plate, and our compression ratio wheel (circular slide rule). You can easily equalize the volume of your combustion chambers and actually figure your true compression ratio using the graduated beaker to measure the actual combustion chamber volume with the cylinder head attached and the piston at T.D.C. After determining the combustion chamber volume simply set the bore at the stroke on the compression ratio wheel and read your compression ratio opposite the combustion chamber volume. Simple? You bet.

Part No.  
202-CCK

Isky First

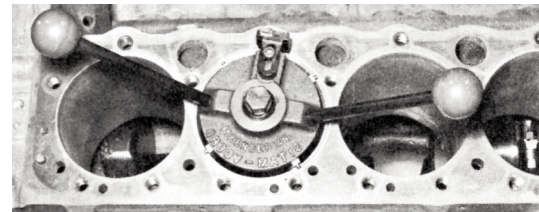




## Cylinder Block O-Ringing Tool

You will discover this tool to be both an exceptional time-saver and money-maker. The amazing versatility of the "ISKY" Groov-O-Matic permits Block O-Ring grooving to be done anywhere, in the shop or in the field, in only a matter of minutes.

The tool pilots in the cylinder bore & is easily adjustable for bore diameter. Also adjustable for both diameter and depth of cut for the copper O-ring groove. This tool will undoubtedly become standard equipment for every efficiently run speed shop. (Copper wire and complete instructions furnished with tool).



- Groov-O-Matic is the fast and profitable way to "O-Ring" the cylinder block face.
- Groov-O-Matic alleviates blown head gaskets on supercharged, turbocharged or hi-compression engines.

Part No.	Type & Bore Range
100-GRM	"Sport Compact" Mini Groov-O-Matic (with copper wire and complete instructions) 3 1/8 - 3 3/4 Cylinder Bores
200-GRM	Full-Size "V8" Groov-O-Matic (with copper wire and complete instructions) 3 3/4 - 4 3/8 Cylinder Bores

### Groov-O-Matic Replacement Parts:

Cobalt Cutting Blades

Aluminum Guide Bars (Standard Bores) up to 4-3/8"

Set of 4 Special Extension Guide Bars to fit bores up to 4.650"

Copper Wire (1 lb. spool/approx. 300 ft.)

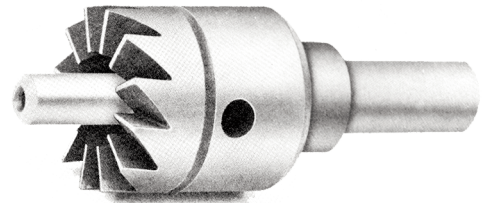
# INSTALLATION AIDS

## Counter-Boring Hole Saws

Occasionally when Iskenderian designs a valve spring for a specific engine, a spring diameter may no longer match the mounting surface of the cylinder head, in which case we offer the use of these hole saws.

HOLE SAWS ARE AVAILABLE FOR ALL POPULAR SPRING DIAMETERS AS SHOWN BELOW:

Part No.	O.D.	ID.
210	1.000	.450
208	1.250	.640
568	1.450	(stepped) .700
1448	1.450	(flat) .700
1258	1.500	.700
3608	1.560	.700



HOLE SAW PILOT SIZES:

Part No.	Pilot Diameter
HP-5/16	5/16
HP-11/32	11/32
HP-3/8	3/8

**NOTE:** One Pilot is included with every hole saw. Specify Size.

## Piston Notching Tool

**Isky Invention**

Many racers purchase custom forged pistons made to their engine specifications then find (and usually too late) that they have V/P interference (valve to piston interference) usually caused by mislocated valve pockets in the piston's domes. Only ISKY markets this tool where your own cylinder head is used to obtain perfect geometry with the valve that cuts its own proper relief in the piston dome. Available in 1 5/8, 1 3/4, 1 7/8, 2, 2 1/16, 2 1/8, 2 1/4 and 2 3/8 inch diameters for nearly any engine requirement. Proper procedure, is to choose the next larger cutting size than your valve diameter, for proper valve pocket side clearance. Pilot sizes are 5/16, 11/32 and 3/8 diameters. Perfect for the Racing mechanic or speed shop, the tool may also be rented at a nominal fee.

Cutter only (specify size) (hand driven with tap handle wrench)

Pilot (specify stem dia.) (hand driven with tap handle wrench)

(Rental charge) refund due customer when returned (for 1 pilot and cutter)

\*Above Prices are net, no further discount.



<u>P.N.T. Cutters</u>		<u>P.N.T. Pilots</u>	
Part No.	Diameter	Part No.	Pilot Diameter
PNT-158	1 5/8"	NP-516	5/16"
PNT-134	1 3/4"	NP-1132	11/32"
PNT-178	1 7/8"	NP-38	3/8"
PNT-200	2"		
PNT-216	2 1/16"		
PNT-218	2 1/8"		
PNT-214	2 1/4"		
PNT-238	2 3/8"		

**NOTE:** This Tool is effective for cutting eyebrow only (up to a 50% valve face area cut). Beyond this point efficiency is significantly reduced.

\*Call Isky factory for availability.

# HIGH PERFORMANCE GEAR



## Heavy Duty Performance Timing Set (Small Block Chevy V-8)

An economical yet durable timing set consisting of Cast Iron Cam Gear, Roller Timing Chain Assembly and a 3-Keyway "Multi-Indexed" Steel Crank Sprocket. Ideal for Supercam and Megacam Hydraulic Cam Installations. These sets are included in our NEW "CLT" Small Block Kits.

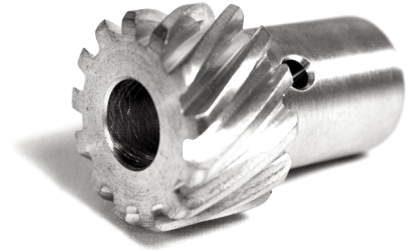
◆ PART NO. 300-TS



## 3 Bolt Conversion Kit

All 1970 and later 440 six-pack engines use the new 3-bolt cam sprocket and roller timing chain which is far superior to the single-bolt sprocket-Now you can convert your early "B" engine to the latest 3-bolt timing gear assembly.

Part No. 1650-3BK (Cam & crank sprockets, roller chain and cam sprocket bolts)



## ALUMINUM BRONZE DISTRIBUTOR GEARS

Isky aluminum bronze distributor gears replace factory cast-iron gears and will withstand much higher loading. The aluminum-bronze gear is ideal for use with steel billet roller cams

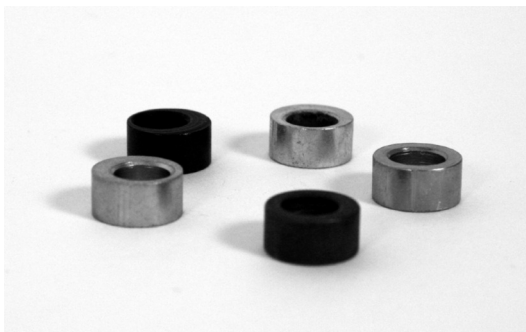
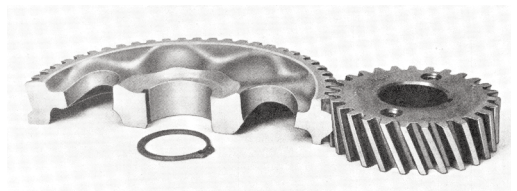
Part No.	Application	Shaft Dia.
200-DGS	Small & Big Block Chevy V-8 (Standard Rotation)	.490"
200-DGR	Small & Big Block Chevy V-8 (Reverse Rotation when using Isky 200-GDS Gear Drive)	.490"
250-DG	Chevy II 4 & 6-Cyl 230 & 250 CID	.490"
310-DG	Ford 429-460 V-8	.530"
380-DG	Ford 260-289-302 V-8	.467"
430-DG	Ford 351 Cleveland V-8	.530"
900-DG	Pontiac V-8	.490"
1600-DG	Chrysler 383-440 V-8	.488"

## Machined Matched Timing Gear Set

This matched timing gear set is shown in cutaway to reveal machining for Tru-Arc snap ring. Timing gear can never come off accidentally! Set includes specially heat treated aluminum timing gear with Tru-Arc snap ring and steel crankshaft gear. Set is recommended for all Chevy II 4- and 6-cylinder engines.

Note: Camshaft gear is free with all Chevy II 4- and 6-cylinder Cam Kits. Also sold separately.

Camshaft gear	#250-TGM
Crankshaft gear	#250-CG
Matched Set	#250-MGS



Isky Invention

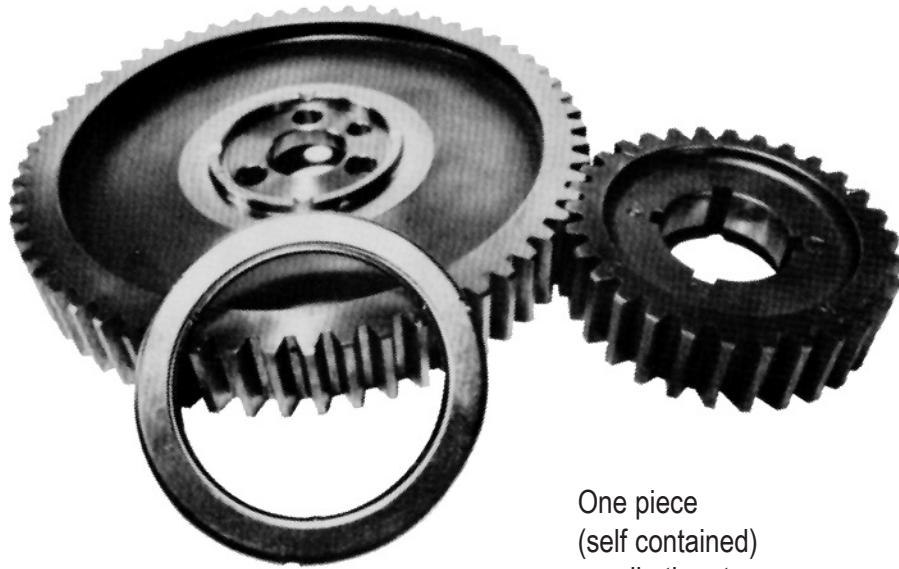
## Offset Cam Bushings

Before there were only a few expensive ways to vary your cam position relative to the crankshaft. "CAM TUNING" was the private sanctuary of the old top pros. Now anyone can do it! ISKY Offset Bushings are offered in 0, 2, 4, 6 and 8 Crankshaft degrees and are color coded for easy identification.

Part #	Description
OFB-O-2-4-6-8	Set of 5 Offset Bushings (includes complete installation instruction) Fits all Chevrolet V-8 engines, Chrysler 383-440, 426 Hemi and Slant 6 cyl. 170-225 engines.
OFB-16	6° at the crank for Olds 1949 & up V-8 engines.

◆ Not legal for sale or use on pollution controlled motor vehicles operated on highways or roads.

# ISKY 2-GEAR DRIVE



One piece  
(self contained)  
needle thrust  
bearing assembly

## ◆ Part No. 200-GDS

### APPLICATION: Small Block Chevy V-8

#### Features:

- 4130 Chromemoly Steel Cam & Crank Gears.
- "Stub Tooth" design for durability & extra strength.
- Super Strong/Lightweight!
- Crank Gear fully indexed for advancing cam timing four or eight crank degrees or retarding four crank degrees.
- Back thrust side of cam gear machined to accept our special self-contained needle thrust bearing assembly (supplied with gear drive) to prevent cam from walking back into block.
- Comes complete with front thrust bumper and cam sprocket lock plate with bolts.

The heavy-duty stub tooth gear design was originally developed for sprint and oval track racing where engines are operated consistently in the 5500 RPM range and undergo severe torsional vibration of the crankshaft. Timing chain stretch and the erratic ignition and valve timing that go with it are eliminated with the Isky gear drive. Dynamometer tests show an astounding 20 horse-power Increase over the standard chain-drive arrangement; the direct result of immaculate (precision perfect) valve and ignition timing. **Because the direction of camshaft rotation is reversed with the gear drive arrangement, a specially ground Isky gear drive roller cam is necessary for operation, along with our special part no. 200-DGR 'Reverse Cut' Aluminum Bronze Distributor Gear!**

**NOTE:** ISKY GEAR DRIVE crank gears are available shaved .010" undersize on the pitch dia. for use with align-bored blocks. Specify -.010" crank gear when ordering. (Also available are -.020" crank gears for twice align-bored blocks).



# STUD GIRDLES

## Small Block Chevy V-8

Manufactured from 6061 T-6 Aluminum & CNC Machined to ensure accuracy, Isky Stud Girdles for Small Block Chevy's feature close tolerance rolled threads and are tumble deburred and anodized.



Mounting Hardware in each kit includes (8) ARP 12-Point bolts and (16) 4130 Chrome Moly rocker Adjusters (Lock Nuts). All Hardware is Black Oxide finished for corrosion resistance.

Part No.	Stud Size	Application
<b>SG200-38</b>	3/8	Chevy 350-400, Stock Head Layout
<b>SG200-716</b>	7/16	Chevy 350-400, Stock Head Layout

**NOTE:** All Mounting Hardware necessary for installation is included with each stud girdle part number listed above.

Rocker Adjuster (Lock Nuts) may also be purchased separately as shown below:

Part No.	Stud Size
LN-38	3/8
LN-716	7/16

# LIFTER BORE BUSHINGS

Isky Lifter Bore Bushings are precision made from a special bronze alloy that lasts 2-4 times longer than most others. They also prevent excessive "Scuffing" of Roller Lifter Bodies.

Requires machining of lifter bores prior to installation.

UNIVERSAL STYLE (NON-KEYED): FOR USE WITH CONVENTIONAL "TIE-BAR" ROLLER LIFTERS.

Part No.	Bushing O.D.	Bushing I.D.	Overall Length
<b>LB-842</b>	1.002"	.842"	1.700"
<b>LB-874</b>	1.002"	.874"	1.750"
<b>LB-904</b>	1.002"	.904"	1.750"
<b>LB-937</b>	1.062"	.937"	1.750"



KEYED STYLE (FOR USE WITH KEYWAY ROLLER LIFTERS)

Part No.	Bushing O.D.	Bushing I.D.	Overall Length	Application
<b>KLB-936</b>	1.062"	.936"	1.990"	Small & Big Block Chevy V-8 For use with 936 & 937 Prefix Isky Keyway Roller Lifters
<b>KLB-937</b>	1.062"	.936"	2.070"	Ford V-8 For use with 937 Prefix Isky Keyway Roller Lifters
<b>KLB-1062</b>	1.188"	1.058"	2.090"	Big Block Chevy V8 For use with 1061 & 1062 Prefix Isky Keyway Roller Lifters

# “ULTRA REV KITS” • ROLLER TAPPET (PATENTED)

Isky Invention

Invented by Isky in 1958, the original "ULTRA-REV KIT" has now been copied by most other cam grinders. A tribute to Isky's Engineering Designs.

The "ULTRA REV-KIT" is engineered to increase engine RPM and prolong roller tappet bearing life by pre-loading the roller tappets to the cam lobe (eliminating stop-start "Skidding".)

Pre-load springs are held in place by lightweight aluminum retaining bars which install beneath the cylinder head (a drop-in installation).

Ultra Rev-Kits are included free with most roller cam & kit assemblies in this catalog, however they may be purchased separately.



PART NO.	APPLICATION	REV PLATE INFORMATION			ISKY ROLLER LIFTER APPLICATION
		CAST ALUM.	MACHINED ALUM. PLATE	HARD-COAT ANODIZED	
100-LRK	Chevy 90° V-6		X		1241-LOV6, 1241-874 V-6
200-LRK	Small Block Chevy V-8	X			1241-LSH, 1241-LO, 1241-ORSB
210-LRK	Small Block Chevy V-8	X			202-RH
220-LRK	Small Block Chevy V-8	X			202-874-RH
300-LRK	Small Block Chevy V-8		X	X	1241-LSH, 1241-LO, 1241-ORSB
310-LRK	Small Block Chevy V-8		X	X	202-RH
320-LRK	Small Block Chevy V-8		X	X	202-874-RH
150-LRK	Small Block Chevy V-8		X	X	1241LO-150, 1241-LO-185, 1241-LO150-874
1300-LRK	Small Block Chevy V-8 "Bow-Tie blocks with Raised Lifter Bosses		X	X	1341-LSH, 1341-LO
1350-LRK	Small Block Chevy V-8 "Bow-Tie blocks with Raised Lifter Bosses		X	X	1341-LO-150
1650-URK	Chry "B" 383" low block V-8	X			1612-RH, 1612-RHC
1650-LRK	Chry "B" 440" high block V-8	X			1612-RH, 1612-RHC
430-LRK	Ford 351 SVO V-8; 9.200" short deck block with yates cylinder heads		X	X	432-RH
450-LRK	Ford 351 SVO V-8; 9.500" tall deck block with yates cylinder heads		X	X	432-RH

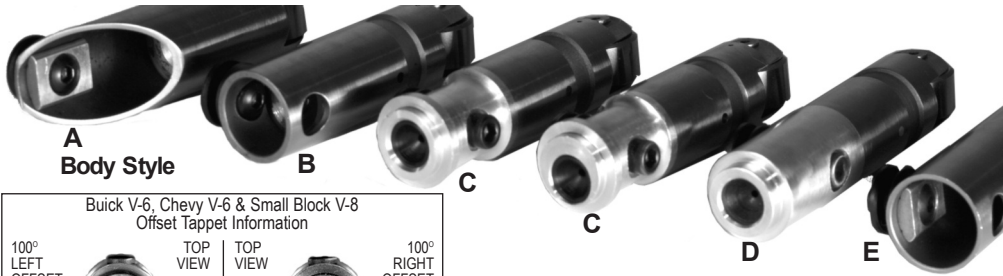
## Special Note:

Included with every set of 1241-series Roller Lifters is a package of P/N 200-RTW Roller Tappet Washers, designed to protect your Roller Lifters from Rev-Spring "chaffing". They are also available for sale in replacement form as well. P/N 200-RTW...set of sixteen (16) pieces.

**NOTE:** When ordering replacement Rev-Springs, use the following part numbers.

Part No.	Application
1243-L	Chevy 90° V-6 and Small Block V-8 (Supplied in 100, 150, 200, 210, 300, & 310-LRK Rev Kits)
1343-L	Small Block Chevy V-8 "Bow-Tie" blocks with Raised Lifter Bosses. (Supplied in 1300 & 1350-LRK Rev-Kits)
943-L	Chrysler 383-440 V-8 (Supplied in 1650-LRK/1650-URK Rev-Kits)
906-RH (8)	Ford 351 SVO V-8; 9.200" "Short Deck" Blocks w/yates cylinder heads (Supplied in 430-LRK Rev-Kits)
806-S (8)	Ford 351 SVO V-8; 9.500" "Tall Deck" Blocks w/yates cylinder heads. (Supplied in 450-LRK Rev-Kits)

# Endurance Plus™ ROLLER LIFTERS from ISKY!



All Endurance Plus Roller Lifters feature a .750" Diameter Roller Bearing and a Heavy Duty 4340 Chrome Moly Pin.

They are our "original" design and have seen many improvements over the past 30 years.

They are recommended for normally aspirated applications with a maximum valve spring open load of 750 lbs.

For supercharged/nitrous and/or valve spring open loads over 750 lbs., we highly recommend our Red Zone Series

Buick V-6, Chevy V-6 & Small Block V-8  
Offset Tappet Information

100° LEFT OFFSET

WHEN ORDERING INDIVIDUAL PIECES USE PART # 1241-LOLS

TOP VIEW

TOP VIEW

100° RIGHT OFFSET

PART NO. 1241-LORS/1241-ORSB

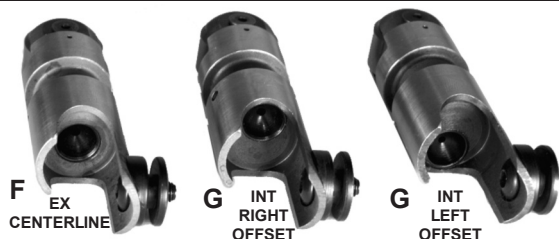
**SPECIAL NOTE:**

On offset lifters, the direction of the offset is determined by looking at the lifter with the guide bar and its alignment spool facing you.

APPLICATION	PART NO.	BODY STYLE	DIA.	STYLE/PUSHROD SEAT LOCATION	ISKY PUSHROD	LENGTH	ULTRA-REV KIT
<b>SMALL BLOCK CHEVY V-8</b> All sets include 1 set of 8 pcs. GB-200 guide bars   <p><b>#202 Style</b> All Steel Body (stock pushrod seat height)</p>  <p><b>#1241 Style</b> Aluminum Top Body Utilizes a shorter pushrod for increased rigidity</p>	202-RH	B	.842"	Steel Body (Centerline)	**203-HG (std. length)	7.781"	210-LRK & 310-LRK
	202-874-RH	B	.874"	Steel Body (Centerline)	**203-HG (std. length)	7.781"	220-LRK & 320-LRK
	1241-LSH	C	.842"	Aluminum Top (Centerline)	**1235-L	6.500"	200-LRK & 300-LRK
	1241-LSH/874	C	.874"	Aluminum Top (Centerline)	**1235-L	6.500"	200-LRK & 300-LRK
	1241-LO	C	.842"	Aluminum Top (8 - Centerline) (4-.100" Right Offset) (4-.100" Left Offset)	**1235-L	6.500"	200-LRK & 300-LRK
	1241-LO-874	C	.874"	Aluminum Top (8 - Centerline) (4-.100" Right Offset) (4-.100" Left Offset)	**1235-L	6.500"	200-LRK & 300-LRK
	1241-LO-150	C	.842"	Aluminum Top (8 - Centerline) (4-.150" Right Offset) (4-.150" Left Offset)	**1235-L	6.500"	150-LRK
	1241-LO-150-874	C	.874"	Aluminum Top (8 - Centerline) (4-.150" Right Offset) (4-.150" Left Offset)	**1235-L	6.500"	150-LRK
	1241-LO-185	C	.842"	Aluminum Top (8 - Centerline) (4-.185" Right Offset) (4-.185" Left Offset)	**1235-L	6.500"	150-LRK
	<sup>+</sup> 1341-LSH	C	.842"	Aluminum Top (Centerline)	**1235-L - .350"	6.150"	1300-LRK
<b>NEW "BOW TIE" BLOCKS WITH RAISED LIFTER BOSSES</b>	1341-LO	C	.842"	Aluminum Top (8 - Centerline) (4-.100" Right Offset) (4-.100" Left Offset)	**1235-L - .350"	6.150"	1300-LRK
	<sup>*</sup> 1341-LO-150	C	.842"	Aluminum Top (8 - Centerline) (4-.150" Right Offset) (4-.150" Left Offset)	**1235-L - .350"	6.150"	1350-LRK
<b>BIG BLOCK CHEVY V-8</b> All sets include 1 set of 8 pcs. GB-454 guide bars	202-96-RH	B	.842"	Steel Body (Centerline)	203-96 (std. length)	8.281" Int 9.250" Ex	N/A
	202-96-RHC* (Chrome Body)	B	.842"	Steel Body (Centerline)	203-96 (std. length)	8.281" Int 9.250" Ex	N/A
	202-96-RHM	F	.842"	Steel Body (Centerline) Ultra-Liteweight Version	203-96 (std. length)	8.281" Int 9.250" Ex	N/A
<b>NEW "BOW-TIE" Blocks with raised Lifter Bosses:</b> Sets include 1 set (8) pcs. GB-502 guide bars	302-96-RH	B	.842"	Steel Body (Centerline)	203-96 (std. length)	8.281" Int 9.250" Ex	N/A
	302-96-RHM	F	.842"	Steel Body (Centerline) Ultra-Liteweight Version	203-96 (std. length)	8.281" Int 9.250" Ex	N/A
<sup>©</sup> CHRYSLER "B" 383-440 V-8	1612-RH	E	.904"	Steel Body (Centerline)	1663-A (Low Block) 1663-B (High Block)	8.578" 9.265"	
	1612-RHC* (Chrome Body)	E	.904"	Steel Body (Centerline)	1663-A (Low Block) 1663-B (High Block)	8.578" 9.265"	
<sup>©</sup> CHRYSLER 392" Hemi V-8	3612-RH	A	.904"	Steel Body (Centerline)	3603-L	Adj.	N/A

# Endurance Plus™ ROLLER LIFTERS from ISKY!

## \* - 180" OFFSET TAPPET INFORMATION



## Replacement Guide Bar Sets:

Application	Part No.	Description	**Length (see below)
Chevy 90 Deg. V-6	GB-100	Set of (6) pcs.	(2) 1.355" (4) 1.240"
Chevy Small Block V-8	GB-200	Set of (8) pcs.	1.240"
Chevy Big Block V-8	GB-454	Set of (8) pcs.	1.500" Std Block
Chevy Big Block V-8	GB-502	Set of (8) pcs.	1.500" Bow Tie Block
Chrysler V-8 (All)	GB-1600	Set of (8) pcs.	1.465"
Ford 302-351 c.i. V-8	GB-380	Set of (8) pcs.	1.410"
Ford 429-460 V-8	GB-310	Set of (8) pcs.	1.750"
Pontiac 4-Cyl. 151 c.i.	GB-951	Set of (4) pcs.	1.580"
Pontiac V-8	GB-900	Set of (8) pcs.	1.465"

APPLICATION	PART NO.	BODY STYLE	DIA.	STYLE/PUSHROD SEAT LOCATION	ISKY PUSHROD	LENGTH	ULTRA-REV KIT
CHRYSLER 426" Hemi V-8	4612-RH	A	.904"	Steel Body (Centerline)	4103-3/8 or 7/16	10.828" Int 11.765" Ex	N/A
	4612-RHC* (Chrome Body)	A	.904"	Steel Body (Centerline)	4103-3/8 or 7/16	10.828" Int 11.765" Ex	N/A
DONOVAN 417" V-8	3612-RHC* (Chrome Body)	A	.904"	Steel Body (Centerline)	3633-L	Adj.	N/A
FORD 351" Boss/Cleveland V-8	352-RH	F	.874"	Steel Body (Centerline)	393-C-HG	8.470"	N/A
FORD 351SVO V-8	382-RH	F	.874"	Steel Body (Centerline)	683-A-HG	8.125"	N/A
FORD 289-302 STD & Boss V-8	382-RH	F	.874"	Steel Body (Centerline)	----	----	N/A
FORD 429-460 Wedge V-8 <small>Sets include 1 set (8) pcs. GB-310 guide bars</small>	312-RH	F	.874"	Steel Body (Centerline)	383-C-HG (Std. Length)	8.671"	N/A
PONTIAC 4-cylinder 151" Iron Duke <small>Sets include 1 set (8) pcs. GB-951 guide bars</small>	1241-XL	D	.842"	Aluminum Top (Centerline)	**203-HG	7.781"	1243-L(8)
PONTIAC V-8 <small>Sets include 1 set (8) pcs. GB-900 guide bars</small>	962-RH	B	.842"	Steel Body (Centerline)	923-HG (Std. Length)	9.125"	N/A

°These Chrysler sets include 1 set of (8) pcs. GB-1600 guide bars.

†These Ford sets include 1 set of (8) pcs. GB-380 guide bars.

\*For blocks with lifter bores enlarged to .874", use P/N 1341-LSH/874

‡For blocks with lifter bores enlarged to .874", use P/N 1341-LO-150-874

\*\*Guide Bar

Length dimension:



**Note:** \*Roller lifters with "C" on the end of Part No. have HARD CHROMED bodies to prevent scuffing in aluminum block motors.

\*\*1235-L & 203-HG pushrods also available in plus and minus lengths to accommodate angle-milled heads and/or long valve applications.

## Get Serious with **New Durathon™** Roller Lifters from **ISKY!** (The ABSOLUTE BEST VALUE IN RACING TODAY)

The Durathon™ Series was developed utilizing the latest advances in precision CNC Machine Cell Technology, focusing on the most popular (Highest Volume) applications. Durathon™ Lifters feature a High Quality, tough alloy body and roller bearing assembly and come standard with "Captive" (Permanently Attached) Guide Bars. All Lifters are precision ground "True-Round" .842" Diameter. Durathon™ Roller Lifters are absolutely 100% Made In The U.S.A. and are competitively priced to go head to head with those lower cost foreign made lifters.

Durathon™ Roller Lifters are compatible with All Isky Tool Room™ Valve Springs and recommended for applications where up to 700 lbs. Maximum Valve Open Spring force is employed.



APPLICATION	PART NO.	PUSHROD SEAT LOCATION
Small Block Chevy V-8	362-RHM	Centerline (Fits both Standard & Raised Lifter Bosses)
Big Block Chevy V-8	366-RHM	Centerline (Fits both Standard & Raised Lifter Bosses)
Ford 289-302 & 351-W V-8	3862-RH	Centerline

**Note:** Durathon Roller Lifters are NOT Rebuildable.

# LONGER LIFE • EXTENDED RANGE

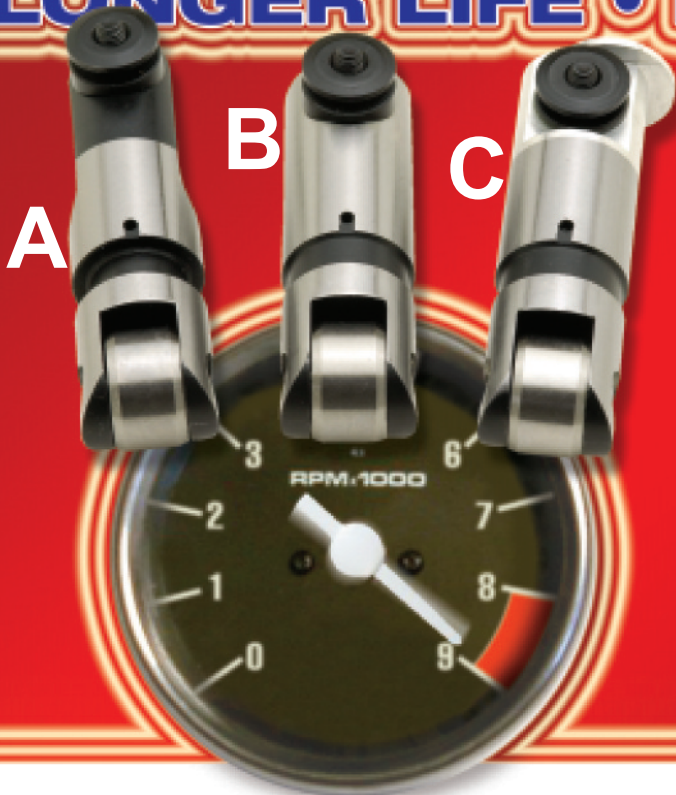
## NEW!

# RED-ZONE™

## MAXIMUM ENDURANCE

# ROLLER LIFTERS

# from ISKY



**RED ZONE™** Roller Lifters feature the new **Marathon™** Roller Bearing—the bearing that keeps on rolling longer! **Marathon™** Bearings utilize a larger diameter pin and a shock absorbing thicker outer race for higher fracture toughness! The resulting increased cross sectional area helps prevent premature bearing failures even under the sustained RPM red line abuse of professional endurance racing. In drag racing, **Marathon™** Bearings withstand higher (up to 1/2 ton) spring loads, delivering over twice the number of runs between rebuilds!



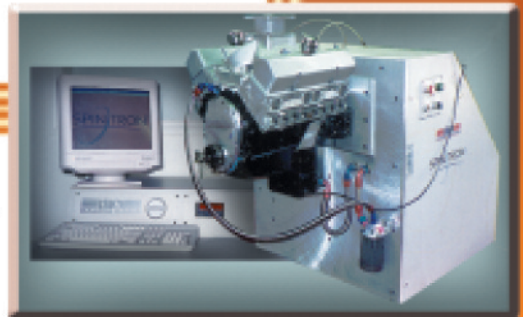
Smoother finish alloy steel body repels scuffing. Fully rebuildable!



Exclusive **Full Spectrum 3 Point Oiling System** features continuous dual action pressurized lubrication at all times to the roller bearings and an extra shot of oil over the nose of the cam where loads are greatest (U.S. Patent in process). Helps prevent premature needle-roller wear.

**Test Proven RED ZONE™ Safe!**

**Marathon™** Bearings routinely log back to back 1,000 racing mile endurance runs via the most rigorous real world test standard ever created, Spintron Test II. It's a no holds barred run as high as 9000 RPM, where race ending competitive abuse is continuously revisited!



# Red Zone™ MAXIMUM ENDURANCE ROLLER LIFTERS

APPLICATION	PART NO.	BODY DIA.	BEARING DIA.	BODY TYPE	ISKY PUSHROD	LENGTH	REV-KIT
SMALL BLOCK CHEVY V-8	272-RH	.842"	.750"	STEEL "B" (Centerline)	203-HG (std. length)	7.781"	210-LRK 310-LRK
	272-RH/874	.874"	.750"	STEEL "B" (Centerline)	203-HG (std. length)	7.781"	210-LRK 310-LRK
	272-RHM-904	.903"	.810"	STEEL "A" (Centerline) Lightweight Version	203-HG Series		N/A
	272-LO-180	.842"	.750"	STEEL "A" (8-Centerline) (4 ea. .180" Left & Right Offset)	203-HG (std. length)	7.781"	N/A
	272-LO-180/874	.874"	.750"	STEEL "A" (8-Centerline) (4 ea. .180" Left & Right Offset)	203-HG (std. length)	7.781"	N/A
	272-180-904	.903"	.810"	STEEL "A" (8-Centerline) (4 ea. .180" Left & Right Offset)	203-HG Series		N/A
	372-RH (extra tall version to fit into late bow-tie blocks with raised lifter bosses)	.842"	.750"	STEEL "B" (Centerline)	203-HG (std. length)	7.781"	N/A
	372-RHM (extra tall version to fit into late bow-tie blocks with raised lifter bosses)	.842"	.750"	STEEL "A" Lightweight Version	203-HG (std. length)	7.781"	N/A
	372-RHM-904 (extra tall version to fit into late bow-tie blocks with raised lifter bosses)	.903"	.810"	STEEL "A" (Centerline) Lightweight Version	203-HG Series		N/A
	372-RHM-937 (extra tall version to fit into late bow-tie blocks with raised lifter bosses)	.936"	.850"	STEEL "A" (Centerline) Lightweight Version	203-HG Series		N/A
	372-LO-180 (extra tall version to fit into late bow-tie blocks with raised lifter bosses)	.842"	.750"	STEEL "A" (8-Centerline) (4 ea. .180" Left & Right Offset)	203-HG (std. length)	7.781"	N/A
	372-LO-180/874 (extra tall version to fit into late bow-tie blocks with raised lifter bosses)	.874"	.750"	STEEL "A" (8-Centerline) (4 ea. .180" Left & Right Offset)	203-HG Series	7.781"	N/A
	372-180-904 (extra tall version to fit into late bow-tie blocks with raised lifter bosses)	.903"	.810"	STEEL "A" (8-Centerline) (4 ea. .180" Left & Right Offset)	203-HG Series		N/A
	372-180-937 (extra tall version to fit into late bow-tie blocks with raised lifter bosses)	.936"	.850"	STEEL "A" (8-Centerline) (4 ea. .180" Left & Right Offset)	203-HG Series		N/A
	1271-LSH	.842"	.750"	ALUMINUM TOP "C" (Centerline)	1235-L	6.500"	200-LRK 300-LRK
	1271-LSH/874	.874"	.750"	ALUMINUM TOP "C" (Centerline)	1235-L	6.500"	200-LRK 300-LRK
	1271-LO	.842"	.750"	ALUMINUM TOP "C" (8-Centerline) (4 ea. .100" Left & Right Offset)	1235-L	6.500"	200-LRK 300-LRK
	1271-LO-150	.842"	.750"	ALUMINUM TOP "C" (8-Centerline) (4 ea. .150" Left & Right Offset)	1235-L	6.500"	150-LRK
	1271-LO-185	.842"	.750"	ALUMINUM TOP "C" (8-Centerline) (4 ea. .185" Left & Right Offset)	1235-L	6.500"	150-LRK
	1271-LO-150/874	.874"	.750"	ALUMINUM TOP "C" (8-Centerline) (4 ea. .150" Left & Right Offset)	1235-L	6.500"	150-LRK
	1371-LSH (extra tall version to fit into late bow-tie blocks with raised lifter bosses)	.842"	.750"	ALUMINUM TOP "C" (Centerline)	1235-L-.350"	6.150"	1300-LRK
	1371-LO-150 (extra tall version to fit into late bow-tie blocks with raised lifter bosses)	.842"	.750"	ALUMINUM TOP "C" (8-Centerline) (4 ea. .150" Left & Right Offset)	1235-L-.350"	6.150"	1350-LRK
SMALL BLOCK CHEVY V-8 WITH SPRAYED VALVE OR SB-2 HEAD	372-LO-SPL (extra tall version to fit into late bow-tie blocks with raised lifter bosses)	.842"	.750"	STEEL "A" (8 ea. .180" Left & Right Offset)	203-HG Series	7.781"	N/A
	372-LO-SPL/904 (extra tall version to fit into late bow-tie blocks with raised lifter bosses)	.903"	.810"	STEEL "A" (8 ea. .180" Left & Right Offset)	203-HG Series	7.781"	N/A

# Red Zone™ MAXIMUM ENDURANCE ROLLER LIFTERS

APPLICATION	PART NO.	BODY DIA.	BEARING DIA.	BODY TYPE	ISKY PUSHROD	LENGTH	REV-KIT
CHEVY V-8 SB-2.2 BLOCK WITH SB-2.2 HEADS	377-RHM-842	.842"	.750"	STEEL "A" (Centerline) (Lightweight Version)	--	(std. length)	N/A
	377-RHM-874	.874"	.750"	STEEL "A" (Centerline) (Lightweight Version)	--	(std. length)	N/A
	377-RHM-904	.903"	.810"	STEEL "A" (Centerline) (Lightweight Version)	--	(std. length)	N/A
	377-180-842	.842"	.750"	STEEL "A" (8-Centerline) (4 ea. .180" Left & Right Offset)	--	(std. length)	N/A
	377-180-874	.874"	.750"	STEEL "A" (8-Centerline) (4 ea. .180" Left & Right Offset)	--	(std. length)	N/A
	377-180-904	.903"	.810"	STEEL "A" (8-Centerline) (4 ea. .180" Left & Right Offset)	--	(std. length)	N/A
BIG BLOCK CHEVY V-8	272-96-RH	.842"	.750"	STEEL "B" (Centerline)	203-96 (std. length)	8.281" Int 9.250" Ex	N/A
	276-RHM-904	.903"	.810"	STEEL "A" (Centerline) Lightweight Version	203-96 Series		N/A
	272-96-LO-180	.842"	.750"	STEEL "A" (8-Centerline) (4 ea. .180" Left & Right Offset)	203-96 (std. length)	8.281" Int 9.250" Ex	N/A
	276-180-904	.903"	.810"	STEEL "A" (8-Centerline) (4 ea. .180" Left & Right Offset)	203-96 Series		N/A
	372-96-RH (extra tall version to fit into late bow-tie blocks with raised lifter bosses)	.842"	.750"	STEEL "B" (Centerline)	203-96 (std. length)	8.281" Int 9.250" Ex	N/A
	372-96-RH/874 (extra tall version to fit into late bow-tie blocks with raised lifter bosses)	.874"	.750"	STEEL "B" (Centerline)	203-96 (std. length)	8.281" Int 9.250" Ex	N/A
	372-96-RHM (extra tall version to fit into late bow-tie blocks with raised lifter bosses)	.842"	.750"	STEEL "A" (Centerline) Lightweight Version	203-96 Series		N/A
	376-RHM-904 (extra tall version to fit late bow-tie blocks with raised lifter bosses)	.903"	.810"	STEEL "A" (Centerline) Lightweight Version	203-96 Series		N/A
	376-RHM-937 (extra tall version to fit late bow-tie blocks with raised lifter bosses)	.936"	.850"	STEEL "A" (Centerline) Lightweight Version	203-96 Series		N/A
	372-96-LO-180 (extra tall version to fit late bow-tie blocks with raised lifter bosses)	.842"	.750"	STEEL "A" (8-Centerline) (4 ea. .180" Left & Right Offset)	203-96 (std. length)	8.281" Int 9.250" Ex	N/A
	376-180-904 (extra tall version to fit late bow-tie blocks with raised lifter bosses)	.903"	.810"	STEEL "A" (8-Centerline) (4 ea. .180" Left & Right Offset)	203-96 Series		N/A
	376-180-937 (extra tall version to fit late bow-tie blocks with raised lifter bosses)	.936"	.850"	STEEL "A" (8-Centerline) (4 ea. .180" Left & Right Offset)	203-96 Series		N/A
CHRYSLER "R" BLOCK 318-360 CU IN WITH 48 DEG. LIFTER BANK ANGLE	3272-RH (for blocks & cyl. heads that require pushrod oiling; pushrod seat location moved up .250")	.903"	.810"	STEEL "A" (Centerline) Lightweight Version	--	-.250"	N/A
CHRYSLER "B" 383-440 CU IN. V-8	3472-RH	.903"	.810"	STEEL "A" (Centerline) Lightweight Version	--	(std. length)	N/A
	3772-LO-180 (For use with NEW Indy cyl. heads with relocated intake valve position) (Pushrod seat location moved up .250")	.903"	.810"	STEEL "A" (8-Centerline) (4 ea. .180" Left & Right Offset)	--	-.250"	N/A
	3672-RH (Pushrod seat location moved up .125")	.903"	.810"	STEEL "A" (Centerline) Lightweight Version	--	-.125"	N/A
	3372-RH (for blocks & cyl. heads that require pushrod oiling; pushrod seat location moved up .250")	.903"	.810"	STEEL "A" (Centerline) Lightweight Version	--	-.250"	N/A

# Red Zone™ MAXIMUM ENDURANCE ROLLER LIFTERS

APPLICATION	PART NO.	BODY DIA.	BEARING DIA.	BODY TYPE	ISKY PUSHROD	LENGTH	REV-KIT
CHRYSLER HEMI V-8 1956-58 354-392 CU IN	3472-RHM	.903"	.810"	STEEL "A" (Centerline) Lightweight Version	--	(std. length)	N/A
	3672-RHM	.903"	.810"	STEEL "A" (Centerline) Lightweight Version (Pushrod seat location moved up .125") Supplied with special tie-bar to work with both- Standard and 2.000" bore spacing blocks	--	-.125"	N/A
DONOVAN 417 CU IN 1964-UP 426 CU IN	3372-RH	.903"	.810"	STEEL "A" (Centerline) Lightweight Version (for blocks & cyl. heads that require pushrod oiling; pushrod seat location moved up .250")	--	-.250"	N/A
	3972-RH	.874"	.750"	STEEL "A" (Centerline) Lightweight Version	--	Std. Length	N/A
FORD V-8, 351 SVO, 289/302, BOSS 302	3972-RH/904	.903"	.810"	STEEL "A" (Centerline) Lightweight Version	--	Std. Length	N/A
	3972-RH/937	.936"	.850"	STEEL "A" (Centerline) Lightweight Version	--	Std. Length	N/A
	3972-YATES180	.874"	.750"	STEEL "A" (8-Centerline) (8 ea. .180" Left Offset)	--	Std. Length	N/A
	3972-Y180/904	.903"	.810"	STEEL "A" (8-Centerline) (8 ea. .180" Left Offset)	--	Std. Length	N/A
	3972-Y180/937	.936"	.850"	STEEL "A" (8-Centerline) (8 ea. .180" Left Offset)	--	Std. Length	N/A
	3172-RH	.874"	.750"	STEEL "A" (Centerline) Lightweight Version	--	Std. Length	N/A
FORD V-8 429-460 cu. in.	3172-RH/904	.903"	.810"	STEEL "A" (Centerline) Lightweight Version	--	Std. Length	N/A
	3172-RH/937	.936"	.850"	STEEL "A" (Centerline) Lightweight Version	--	Std. Length	N/A
	3172-YATES180	.874"	.750"	STEEL "A" (8-Centerline) (8 ea. .180" Left Offset)	--	Std. Length	N/A
	3172-Y180/904	.903"	.810"	STEEL "A" (8-Centerline) (8 ea. .180" Left Offset)	--	Std. Length	N/A
	3172-Y180/937	.936"	.850"	STEEL "A" (8-Centerline) (8 ea. .180" Left Offset)	--	Std. Length	N/A

## "Captive" Tie Bar option for ISKY Mechanical Roller Lifters



We are now offering a "Captive" (permanently linked) tie-bar for the most Severe Roller Lifter applications. This option is now available for both Endurance Plus & Red Zone lifters. It is a standard feature on all .904 dia. Chrysler and Chevy .937 dia. Red Zone lifters. As with all Isky tie bars, they are specially heat treated to avoid wear and insure against failures.

### Applications now available

\*Small & Big Block Chevy V-8 - \*Chrysler V-8; "B" & Hemi

\*Ford Small Block (289-302); 351 Windsor and Cleveland V-8 - \*Ford 429/460 V-8



For Extreme Conditions, ISKY's New

**RED-ZONE**<sup>TM</sup>

\*Patent Pending



\* **EZ-Roll**<sup>TM</sup> Lifters ARE "NEEDLE FREE"!

"Traditional Needle-Roller Bearing and its small load distribution footprint."

**EXTREME-LOAD RACING'S NEW STANDARD OF EXCELLENCE!**

**HARDCORE RACERS:**

For your environment, needles are old news! At ISKY, we've seen the future of roller lifter bearing development and it's NEEDLE FREE!

Introducing the revolutionary new **EZ-Roll**<sup>TM</sup> bearing option, exclusively for ISKY **RED-ZONE**<sup>TM</sup> Roller Lifters! **EZ-Roll**<sup>TM</sup> "needle-free" roller bearings solve the age old dilemma of needle bearing overload. Although needle roller bearings perform well in light to moderately heavy load applications, the often **extreme loading** demands of "all out" drag, pro-street, continuous operation endurance and off-shore marine applications have long



required a better performing alternative. Solution: ISKY'S proprietary solid bearing raceway **EZ-Roll**<sup>TM</sup> Bearing! Spintron® and field test proven over the past 3 years, **EZ-Roll**<sup>TM</sup> bearings carry far greater loads. Their advanced **needle-free** design and greater surface area to load distribution footprint deliver a solid 350% higher load rating! **EZ-Roll**<sup>TM</sup>, ... because needles really are old news!

The new **EZ-Roll**<sup>TM</sup> bearing option is available in your choice of 3 endurance grades to suit your exact requirements:

**NEW FOR 2010**

**HIGH!**  
**EZ-Roll**<sup>TM</sup>

Tough wearing **Epsilon-Z**<sup>TM</sup> Solid Bearing Raceway; a high tech/low friction alternative to needle-roller bearings. Recommended for normally aspirated .842" dia. **Red-Zone**<sup>TM</sup> Roller Lifters that see a maximum of 750 lbs. valve open spring force. For this grade, add "**EZ**" to the end of the **Red-Zone**<sup>TM</sup> Roller Lifter part number when ordering. Captive guide bar feature automatically included.

**HIGHER!**  
**EZ-RollX**<sup>TM</sup>

Upgraded **Epsilon-ZX**<sup>TM</sup> Solid Bearing Raceway Material; a super low friction, high-tech alternative to needles. Ideal for offshore marine and other normally aspirated environments where up to 1,100 lbs. valve open spring force is employed and nitrous applications with up to 900 lbs. Open pressure. Required for .904" and .937" dia. lifters and recommended for all .842" dia. off-set intake applications. For this grade, add "**EZX**" to the end of the **Red-Zone**<sup>TM</sup> Roller Lifter part number when ordering. Includes captive guide bar feature.

**HIGHEST!!**  
**EZ-RollMAX**<sup>TM</sup>

Upgraded **Epsilon-ZMAX**<sup>TM</sup> Solid Bearing Raceway Material; an "ultra" low friction, high-tech alternative to needles. Ideal for the most extreme loading environments:

- High boost turbo, high HP nitrous & blown gas/alcohol
- Offshore marine & all-out, normally aspirated applications

**EZ-MAX**<sup>TM</sup> is recommended for ANY .842, .904 or 937 dia lifter installed with over 400 lbs. seat and 1,100-1,400 lbs. valve open spring force.

For this grade, add "**EZ-MAX**" to the end of the Red Zone roller lifter part number when ordering. Includes captive guide bar feature.

ROLL "EZ"....



.... **RED-ZONE**<sup>TM</sup> Safe!

"Proudly leading the charge for the plane bearing revolution"

★Patent Pending

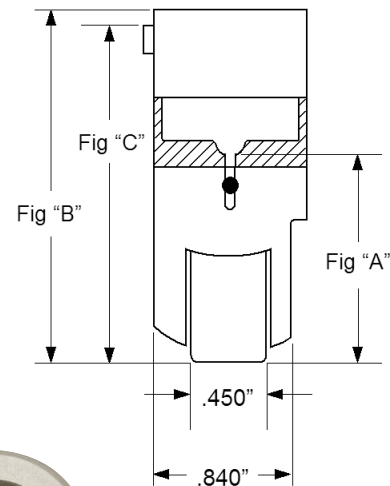
# Hi-tech **EZ-ROLL™** Keyway-Lifters (Because needles are old news!)

**.937 & 1.062 dia Keyway style REDZONE™ Roller Lifters equipped standard with our exclusive NEEDLE-FREE EZ-ROLL™ Bearings!**

The proliferation of modern valve-trains (i.e. aggressive cam profiles, higher rocker arm ratios and 1,200 lb. PLUS open pressure valve springs) have often seen even the oversized/overpriced specialty roller lifters quickly succumb to pre-

mature needle bearing over-load failure! The phenomenal success of our “needle free” **EZ-ROLL™** Bearing option for conventional Isky **RED-ZONE™** “tie-bar” style Roller Lifters has spawned their extension to the next platform:

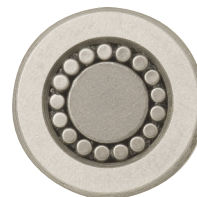
By popular demand of major engine builders and racers across the country, we proudly announce this revolutionary patent-pending design technology is now available for Keyway Style Roller Lifters! After months of development at the Isky Spintron® research facility and in the field, the fail-safe peace of mind alternative to needle-roller bearings will soon change the way professional racers view their roller lifter needs forever! **EZ-ROLL™** Keyway Roller Lifters are suitable for hi-end circle track, offshore marine and drag race applications employing modified lifter bore spaced blocks (where it's difficult or impossible to install tie-bar style rollers).



precision ground polished body



ISKY's Revolutionary New Wide Foot Print Low Friction EZ-Roll Bearing!



“Traditional Needle-Roller Bearing and it's small load distribution footprint.”

EZ-ROLL™ Keyway Lifter Part No.	Body Diameter	Bearing Diameter	Pushrod Seat Location	Body Style	Weight (Grams)	Pushrod Seat Height (Fig A)	Overall Length (Fig B)	Key Height (Fig C)
•936KEZX	.936"	.850"	(16) Centered	Open Body	100 g	1.290"	2.130"	2.030
•936K050EZX	.936"	.850"	(16) .050" Offset	Open Body	100 g	1.290"	2.130"	2.030
•936K150EZX	.936"	.850"	(16) .150" Offset	Open Body	100 g	1.290"	2.130"	2.030
•937KEZX	.936"	.850"	(16) Centered	Open Body	102 g	1.290"	2.280"	*2.180
•937K050EZX	.936"	.850"	(16) .050" Offset	Open Body	102 g	1.290"	2.280"	*2.180
•937K150EZX	.936"	.850"	(16) .150" Offset	Open Body	102 g	1.290"	2.280"	*2.180
-1061KEZMAX	1.061"	.850"	(16) Centered	Open Body	121 g	1.385"	2.130"	2.030
-1061K150EZMAX	1.061"	.850"	(16) .150" Offset	Open Body	121 g	1.385"	2.130"	2.030
-1062KEZMAX	1.061"	.850"	(16) Centered	Open Body	123 g	1.385"	2.280"	2.030
-1062K150EZMAX	1.061"	.850"	(16) .150" Offset	Open Body	123 g	1.385"	2.280"	2.030

\*Key Height is raised .150"

ROLL "EZ"....



.... RED-ZONE™ Safe!

# RACING LIFTERS

## Hydraulic Roller Lifters

Isky Hydraulic Roller Lifters are designed to retrofit early style V-8 (non-hydraulic roller equipped engines) without any machining required for installation. Special Length pushrods are required as shown below

Application	Part No.	Style	Dia.	Pushrod Length / Part No.	Rev-Kit	
Small Block Chevy V-8 (1957-87)	2070-HYRT	(Anti pump-up)	.842"	7.200" (203-HG-.580")	N/A	
Big Block Chevy V-8 (1967-UP)	3970-HYRT	(Anti pump-up)	.842"	Int: 7.650" Ex: 8.600"	203-96-.650"	N/A
Chevy 409 CI V8	2460-HYRT	perf series	.842"	Int: 8.125" Ex: 8.450"	223-.650"	N/A
Small Block Ford V8	3860-HYRT	perf series	.875"			
289/302 .....				6.200"	1235-L-.300"	N/A
351 Windsor .....				7.600"	203-HG-.180"	
429/460 Ford V8	3160-HYRT	perf series	.875"	8.000"	203-HG+.200"	N/A



## Hydraulic Roller Lifters: LS-1 Chevy V-8



**PART NO.**  
2050-HYRT

We now offer an Anti Pump-UP Hyd. Roller Lifter for the LS-1, engineered with a .280" longer body that works with both stock and "high lift" (reduced base circle) Hydraulic Roller Cams. They can be installed with base circles as small as 1.300" without dropping out of the Stock LS-1 Lifter Tray and will accommodate valve lifts up to .650".

## Mechanical Roller Lifters: LS-1 Chevy V-8

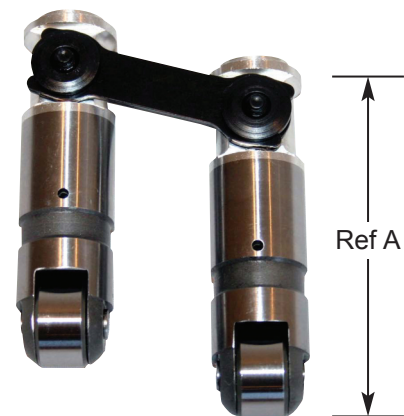
**PART NO.**  
205-RH



(For use with Mechanical Roller Camshafts)

For those wishing to retain the Stock LS-1 Lifter Tray, we are now offering a simple "drop-in" design for use with moderate performance mechanical roller camshafts up to .675" valve lift and base circles as small as 1.300" without dropping out of the Stock LS-1 Lifter Tray.

For more severe duty applications, we recommend removing the Factory Lifter Tray and installing our "Tie-Bar" Style Roller Lifters, which have a taller body/pushrod seat location, allowing for a shorter pushrod. With the shorter pushrod, there is less "deflection" in the valve train.



PART NO.	REF A
1251-LSH	3.040"
*1277-LSH	3.040"
*1377-LSH	3.390"

\*Maximum endurance Red Zone Series.

# RACING LIFTERS



## Anti-Pump-Up Hydraulics

Although the Isky patented SUPERLIFTER outwardly appears similar to a standard hydraulic tappet, there is a world of difference in the function of the internal mechanism and design. SUPERLIFTERS allow you to use a more radical camshaft without loss of compression and horsepower from valves being held off their seats, and because SUPERLIFTERS do not bleed down completely, they are far more durable than any others on the market.

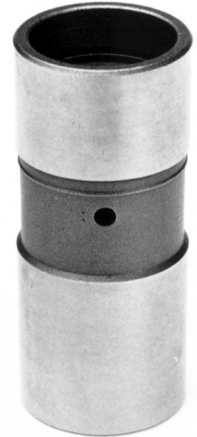
Set of 16 SUPERLIFTERS

Part No.	Description
202-HY	For all Chevrolet and Pontiac V-8 Engines Plus 1968 & later Olds V-8 (.842" dia.)

## Quiet Power Hydraulics

Isky has available premium-quality stock replacement hydraulic valve lifters. They are ideal for installation with our famous SUPERCAM series of economy-performance camshafts as well as with any other application where a drop-in stock replacement hydraulic lifter is required.

Part No.	Description
222-HY	All Chevrolet, V-8 Engines *Chevy V-6 and 230-250 in-line 6 cyl.
392-HY	Ford V-8 332-352-360-361-390-391-427-428 cu. in. Lincoln V-8 430-462 cu. in. Ford 6 Cyl. 144-170-200-250 cu. in.
432-HY	Ford V-8 221-260-289-302 cu. in. Ford V-8 351-400 Windsor & Cleveland Ford V-8 370-429-460 *Ford 6 Cyl. 240-300 cu. in.
3912-HY	Chrysler "B" engine 383-440 cu. in. V-8
3912-A-HY	Chrysler "A" engine 273-318-340-360 cu. in. V-8
692-HY	Olds. V-8, 1968 & later .842" dia. Pontiac V-8



## Hardenable Iron Solids

Isky Hardenable Iron Solid Lifters are the ultimate in dependability and performance when used in conjunction with Isky Hi-Rev Series solid lifter cams. Engineered with the stress of Hi-Speed competition in mind, they are also excellent as Hi-Performance replacement for stock lifters when overhauling an engine or replacing the camshaft. Stronger by design yet lighter in weight than the stock components they replace, Isky hardenable iron solid lifters are an absolute necessity for today's sophisticated racing engines. (Set of 16)

Part No.	Description
202-H	For all Chevrolet and Pontiac V-8 Engines
3102-H	All Chrysler Products
382-H	For all Ford V-8 Engines

# RACING LIFTERS



## Special Oiling Solid Lifters

As cam profiles become more aggressive to meet the demands of today's sophisticated Solid Lifter Oval Track Applications, increasing oil delivery to the cam lobe-face is critical; especially when higher valve spring pressures are employed. Isky now has special oiling solid lifters available, based around our popular 202-H Chevy and 382-H Ford designs. A .024" oil hole is EDM'd through the cam-face of the lifter, into the pressurized main oil passage of the body. The result is increased oil delivery at all times to the cam lobe-face area with extended cam lobe/lifter life.

Part No.	Application
SO 202-H	Small & Big Block Chevy V-8
SO 382-H	Small Block Ford V-8

# ISKY ADJUSTABLE GUIDE PLATES

Patent No. 5,044,329



## Small Block Chevy V-8 & 90 Degree V-6

\* Made simple to minimize modifications associated with high performance factory aftermarket aluminum or cast iron cylinder heads where intake ports have been relocated from their original factory position.

\* Fully adjustable guide plates come with two pieces. One male and one female.

\* Grind centers for a closer setting.

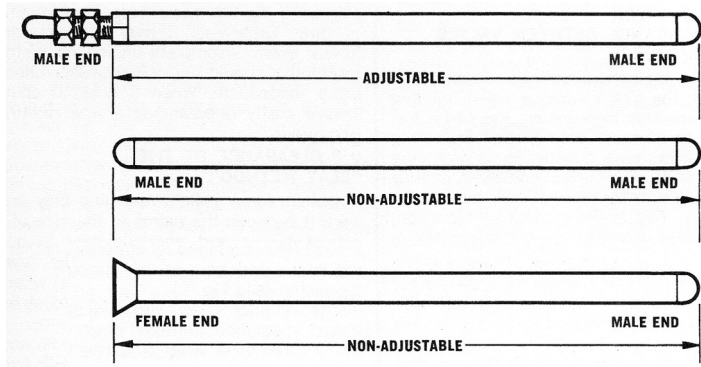
\* Can easily be adjusted inward or outwards.

\* For more stability, guide plates can be welded once final adjustments are made.

Part No.	Description
200-AGP	5/16 Diameter Pushrods
300-AGP	3/8 Diameter Pushrods

Adjustable guide plates: Set of (8) pair.

## ISKY CHROME MOLY TUBULAR PUSHRODS



### Iskenderian Method of Measuring Pushrods

The proper method of measuring the length of pushrods is to include the theoretical overall length, however, this is difficult for the average individual since special equipment is required. In the interest of accuracy and to avoid confusion, we have adopted the above method of measurement. This eliminates the difficulties that arise when making measurements in the field, or when installing special length pushrods (custom made) on special order for our customers.)

\*All Pushrod part numbers with an asterik (\*) are not usually carried in inventory and should be considered special order items.

Part No.	Description	Tube Size	Oil Hole	Isky Length		Adj.	Non Adj.	Hyd. Lifter	Solid Lifter	Roller Lifter	Cup & Ball	Ball & Ball
				Int.	Ext.							
203	Chevrolet 55 and up, 265" TO 400" Stock Adj. Rocker, Stock or Isky Lifter	5/16	Yes	7.781	7.781		X	X	X			X
203-HG	Chevrolet 55 and up, 265" to 400", Stock or Isky Solid Lifter, Heat Treated for Guide Plate Heads	5/16	Yes	7.781	7.781		X	X	X			X
203-HG 3/8	Chevrolet 55 and up, 265" to 400" Stock Adj. Rocker, Stock or Isky Lifter Heat Treated for 3/8 Guide Plates	3/8	Yes	7.781	7.781		X	X	X			X
203-HG + 100"	Chevrolet 55 and up, 265" to 400" Stock or Isky Solid/Hyd. Lifter	5/16	Yes	7.881	7.881		X	X	X			X
203-HG + .160"	Chevrolet 55 and up, 265" to 400", Stock or Isky Solid/Hyd. Lifter, Heat Treated for Guide Plates	5/16	Yes	7.941	7.941		X	X	X			X
203-HG + .200"	Chevrolet 55 and up, 265" to 400", Stock or Isky Solid/Hyd. Lifter, Heat Treated for Guide Plates	5/16	Yes	7.981	7.981		X	X	X			X
203-HG + .250"	Chevrolet 55 and up, 265" to 400", Stock or Isky Solid/Hyd. Lifter, Heat Treated for Guide Plates	5/16	Yes	8.031	8.031		X	X	X			X
203-HG - .100"	Chevrolet 55 and up, 265" to 400", Stock or Isky Solid/Hyd. Lifter, Heat Treated for Guide Plates, Jessel Rocker	5/16	Yes	7.681	7.681		X	X	X			X
203-HG-.460	Chevrolet 55 and up, 265" to 400". Stock Adj. Rocker, 2020-HYRT Retrofit Hyd. Roller Lifter. Heat Treated for Guide Plates	5/16	Yes	7.320	7.320		X					X
203-HG-.580	Chevrolet 55 and up, 265" to 400". Stock Adj. Rocker, 2070-HYRT Isky Retrofit "Anti Pump Up" Hyd. Roller Lifter. Heat Treated for Guide Plates.	5/16	Yes	7.200	7.200		X					X
203RMHG	Chevrolet 55 and up, 265" to 400". 160 Short, Isky #252 Roller Heat Treated for Guide Plate Heads	5/16	Yes	6.281	6.281		X			X		X
203-96 3/8	Chevrolet 65 and up, 396" to 454" H.T., Guide Plates, Stock Adj. Rocker, Stock or Isky Lifter	3/8	Yes	8.281	9.250		X	X	X			X
203-96 7/16	Chevrolet 65 and up, 396" to 454" Stock Adj. Rocker, Stock or Isky Lifter Heat Treated for Guide Plates	7/16	Yes	8.281	9.250		X	X	X			X
203-96TB 3/8	Chevrolet 65 and up, 366 Truck Block Stock Adj. Rocker, Stock or Isky Lifter Heat Treated for Guide Plates	3/8	Yes	8.687	9.656		X	X	X	X		X
203-96-.650	Chevrolet 65 and up, 396" to 454". Stock Adj. Rocker, 3970-HYRT Isky Retrofit "Anti Pump Up" Hyd. Roller Lifter. Heat Treated for Guide Plates	3/8	Yes	7.650	8.600		X					X
203-96TB 7/16	Chevrolet 65 and up, 366 Truck Block Stock Adj. Rocker, Stock or Isky Lifter Heat Treated for Guide Plates	7/16	Yes	8.687	9.656		X	X	X	X		X
223	Chevrolet 61 to 65, 409" to 427" Stock Adj. Rocker, Stock or Isky Lifter	3/8	Yes	8.796	9.125		X	X	X			X
233	Chevrolet II 4 & 6 Cyl. 63 & up, 153" to 250" Stock Adj. Rocker, Stock or Isky Lifter	5/16	Yes	9.687	9.687		X	X	X			X
273B	Chevrolet 6 Cyl. 37 to 62, 216" to 261". Stock Adj. Rocker	5/16	No	11.250	11.250		X		X		X	
293	Chevrolet 292" Truck, 63 and up Stock Adj. Rocker, Stock or Isky Lifter	5/16	Yes	11.377	11.377		X	X	X			X
303	Ford/Merc. 54 to 62, 239" to 312" Stock Adj. Rocker, Stock or Isky Lifter	3/8	No	8.187	8.187		X		X		X	
303A	Ford 68 and up, 170" and 200" Stock Non Adj. Rocker, Isky Hyd Lifter	3/8	No	7.312	7.312			X				X
303B	Ford 69 and up, 250". Stock Non Adj. Rocker, Isky Hyd. Lifter	3/8	No	8.312	8.312			X				X
333	Ford 6 Cyl. 65 and up, 240" to 300" Stock Adj. Rocker, Stock or Isky Lifter	5/16	Yes	10.109	10.109	X	X	X	X			X
383	Ford 58 to 72, 332" to 428" Stock Adj. Rocker, Isky #384 Adj. Rocker, Isky Lifter	3/8	No	9.343	9.343	X	X		X		X	
*383-B	Ford 58 to 72, 332" to 428". Gotha Adj. Rocker, Isky Lifter	3/8	No	9.218	9.218		X		X		X	
383C-HG	Ford 68 and up, 429 Wedge Stock Adj. Rocker, Stock or Isky Lifter, Heat Treated	5/16	Yes	8.671	8.671		X	X	X			X
393	Fairlane 62 and up, 221" to 302", Stock Adj. rocker, Isky Lifter	5/16	Yes	6.875	6.875		X	X	X			X
393-HG	Fairlane 62 and up, 221" to 302", Stock Adj. Rocker, Isky Lifter Heat Treated for Guide Plates	5/16	Yes	6.875	6.875		X	X	X			X
393-A	Fairlane 351 Windsor, 68 to 72, Isky Lifter Stock Adj. rocker. This also fits Olds 350-68 and up	5/16	Yes	8.250	8.250		X	X	X			X
393-A-HG	Fairlane 351 Windsor, 68 to 72, Isky Lifter, Stock Adj. Rocker. This also fits Olds 350-68 and up, Heat Treated for Guide Plates	5/16	Yes	8.250	8.250		X	X	X			X
393-BHG	Ford Boss 302, 69 and up, Isky Lifter Stock Adj. Rocker, Heat Treated for Guide Plate Heads	5/16	Yes	7.562	7.562		X		X			X

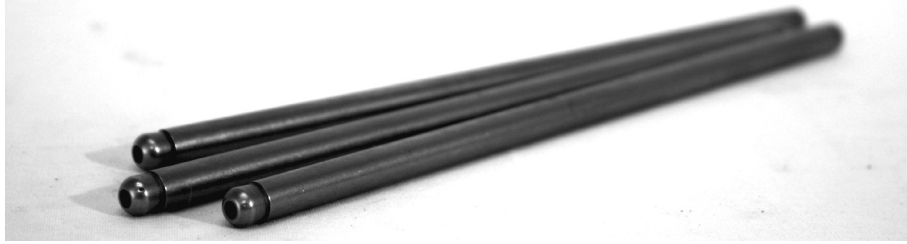


Part No.	Description	Tube Size	Oil Hole	Isky Length		Adj.	Non Adj.	Hyd. Lifter	Solid Lifter	Roller Lifter	Cup & Ball	Ball & Ball
				Int.	Ex t.							
*1203	Lincoln 52-57, 368", Ford "6" 52 to 64 Stock Adj. Rocker, Isky Lifter	3/8	No	9.671	9.671		X		X		X	X
1235-L	Chevrolet 55 and up, 265" to 400", Stock Adj. Rocker, Isky Roller Lifter, Heat Treated for Guide Plates	5/16	Yes	6.500	6.500		X			X		X
1235-L - .100"	Chevrolet 55 and up, 265" to 400", Jessel. Rocker, Isky Roller Lifter, Heat Treated for Guide Plates	5/16	Yes	6.400	6.400		X			X		X
1235-L + .100"	Chevrolet 55 and up, 265" to 400", Stock Adj. Rocker, Isky Roller Lifter, Heat Treated for Guide Plates	5/16	Yes	6.600	6.600		X			X		X
1235-L + .160"	Chevrolet 55 and up, 265" to 400", Stock Adj. Rocker, Isky Roller Lifter, Heat Treated for Guide Plates	5/16	Yes	6.660	6.660		X			X		X
1235-L + .250"	Chevrolet 55 and up, 265" to 400", Stock Adj. Rocker, Isky Roller Lifter, Heat Treated for Guide Plates	5/16	Yes	6.750	6.750		X			X		X
1235-L 3/8	Chevrolet 55 and up, 265" to 400", Stock Adj. Rocker, Isky Roller Lifter, Heat Treated for 3/8 Guide Plates	3/8	Yes	6.500	6.500		X			X		X
*1283	Lincoln 58 to 67, 383-430-462, Stock Ford Adj. Rocker, Isky #384 Adj. Rocker, Isky Lifter	3/8	No	9.734	9.734		X		X		X	
*1303	Rambler 57 to 66, 287"-327", Stock Non Adj. Rocker, Isky 3102H Lifter	5/16	No	8.078	8.078	X			X			X
*1313	Rambler 57 to 66, 287"-327", Stock Non Adj. Rocker, Isky Lifter	5/16	No	7.828	7.828	X		X				X
1343-A	American Motors 304-Jeep V8	5/16	Yes	6.812	6.812	X		X				X
1353	American Motors 66 to 72, 290"-401" Stock Adj. Rocker, Isky Solid Lifter Only	5/16	Yes	8.015	8.015		X		X			X
*1403-L	Plymouth 55 to 56, 270" Stock Non Adj. Rocker, Isky Lifter	5/16	No	7.406	7.406	X			X			X
*1413	Plymouth 55 to 56, 270" Stock Non Adj. Rocker, Isky Lifter	5/16	No	7.156	7.156	X		X				X
1503	Plymouth 55-66, 277" to 318" Stock Adj. Rocker, Stock Solid or Isky Lifter	3/8	No	8.578	8.578		X		X		X	
1523-L	Valiant 6 Cyl. 60 to 72, 170" Stock Adj. Rocker, Stock Solid or Isky Lifter	3/8	No	8.296	8.296		X		X		X	
1533-L	Valiant 6 Cyl. 60 to 72, 225" Stock Adj. Rocker, Stock Solid or Isky Lifter	3/8	No	9.953	9.953		X		X		X	
1603-L	Chrysler "B" 58 to 72, 350" to 383", Stock Non Adj. Rocker, Isky Lifter, 3102H	3/8	No	7.890	7.890	X			X			X
1613	Chrysler "B" 58 to 72, 350" to 383", Stock Adj. Rocker, Isky Adj. Rocker, Isky Hyd. Lifter	3/8	No	8.250	8.250		X	X			X	
*1613-A	Chrysler "B" 58 to 67, 350" to 383", Stock Non Adj. Rocker, Isky Hyd. Lifter	3/8	No	8.593	8.593		X	X				X
*1613-B	Chrysler "B" 58 to 67, 350" to 383", Stock Adj. Rocker, Isky Adj. Rocker, Stock Hyd. Lifter	3/8	No	8.375	8.375		X	X			X	
1623	Chrysler "B" 59 to 72, 413-426-440, Stock Adj. Rocker, Isky Adj. Rocker, Isky Hyd. Lifter	3/8	No	8.984	8.984		X	X			X	
*1623-A	Chrysler "B" 59 to 67, 413-426, Stock Non Adj. Rocker, Stock Hyd. Lifter	3/8	No	9.328	9.328		X	X				X
*1623-B	Chrysler "B" 58 to 67, 413-426, Stock Adj. Rocker, Isky Adj. Rocker, Stock Hyd. Lifter	3/8	No	9.125	9.125		X	X			X	
1633-A	Chrysler "B" 58 to 72, 350" to 383", Stock Adj. Rocker, Isky Adj. Rocker, Isky Lifter	3/8	No	8.578	8.578		X		X		X	
1633-B	Chrysler "B" 59 to 72, 413"-440", Stock Adj. Rocker, Isky Adj. Rocker, Stock Solid or Isky Lifter	3/8	No	9.265	9.265		X		X		X	
1643-A	Dodge 62 to 67, 426", Heat Treated, Stock Adj. Rocker, Isky Adj. Rocker, Stock Solid or Isky Lifter	3/8	No	9.375	9.375		X		X		X	
1643-L	Chrysler "B" 59 to 72, 413" to 440", Stock Non Adj. Rocker, Stock Solid or Isky Lifter	3/8	No	8.625	8.625	X			X			X
1683	Chrysler "B" 58 to 72, 350" to 383", Stock Non Adj. Rocker, Isky Hyd. Lifter	3/8	No	7.593	7.593	X		X				X
1693	Chrysler "B" 58 to 72, 413"-440", Stock Non Adj. Rocker, Stock Hyd. Lifter	3/8	No	8.421	8.421	X		X				X
*1703-L	Dodge 56 to 58, 315" to 325", Stock Non Adj. Rocker, Stock Solid Lifter or Isky Lifter	5/16	No	8.375	8.375	X			X			X
*1713	Dodge 56 to 58, 315" to 325" Stock Non Adj. Rocker, Isky Hyd. Lifter	5/16	No	8.171	8.171	X			X			X
*1803-L	Dodge Hemi 53-55, 241" to 270", Stock Non Adj. Rocker, Stock Solid Lifter or Isky Lifter	3/8	No	7.640	9.187	X			X			X
*1813	Dodge Hemi 53-55, 241" to 270", Stock Non Adj. Rocker, Isky Hyd. Lifter	3/8	No	7.468	8.750	X		X				X
*2103-L	Dodge Hemi 57 D500, 325" Stock Non Adj. Rocker, Stock Solid Lifter or Isky Lifter	5/16	No	8.750	10.031	X			X			X
*2113	Dodge Hemi 57 D500, 325" Stock Non Adj. Rocker, Isky Hyd. Lifter	5/16	No	8.515	9.796	X		X				X
*2303-L	DeSoto Hemi 52 to 55, 341", Stock Non Adj. Rocker, Stock Solid Lifter or Isky Lifter	3/8	No	8.062	9.328	X			X			X
*2313	DeSoto Hemi 52 to 55 Stock Non Adj. Rocker, Isky Hyd. Lifter	3/8	No	7.796	9.062	X		X				X
*2403-L	DeSoto Hemi 56 to 57, 341", Stock Non Adj. Rocker, Stock Solid Lifter or Isky Lifter	3/8	No	8.812	10.078	X			X			X
*2413	DeSoto Hemi 56 to 57, 341", Stock Non Adj. Rocker, Isky Hyd. Lifter	3/8	No	8.531	9.796	X		X				X
*3003-L	Chrysler Hemi 51 to 56, 301" to 354" Stock Non Adj. Rocker, Stock Solid Lifter or Isky Lifter	3/8	No	8.906	10.375	X			X			X
*3013	Chrysler Hemi 51 to 56, 301" to 354" Stock Non Adj. Rocker, Isky Hyd. Lifter	3/8	No	8.640	10.109	X		X				X
*3023	Chrysler Hemi 51 to 56, 301" to 354" Stock 300 Adj. Rocker, Stock Solid Lifter or Isky Lifter	3/8	No	9.750	11.250		X		X			X
*3033-L	Chrysler Hemi 51 to 56, 301" to 354" Heat Treated Stock Non Adj. Rocker, Stock Solid Lifter or Isky Lifter	3/8	No	8.906	10.375	X			X			X



Part No.	Description	Tube Size	Oil Hole	Isky Length		Adj.	Non Adj.	Hyd. Lifter	Solid Lifter	Roller Lifter	Cup & Ball	Ball & Ball
				Int.	Ex t.							
3603-L	Chrysler Hemi 57 to 58, 392" Stock Non Adj. Rocker, Stock Solid Lifter or Isky Lifter	3/8	No	9.390	10.859	X			X			X
3613	Chrysler Hemi 57 to 58, 392" Stock Non Adj. Rocker, Isky Hyd. Lifter	3/8	No	9.093	10.562	X		X				X
3623	Chrysler Hemi 57 to 58, 392" Stock 300 Adj. Rocker, Stock Solid Lifter or Isky Lifter	3/8	No	10.234	11.734		X		X			X
3633-L	Chrysler Hemi 57 to 58, 392" Heat Treated Stock Non Adj. Rocker, Stock Solid Lifter or Isky Lifter	3/8	No	9.390	10.859	X			X			X
3903	Chrysler 64 to 72, 273" to 360" "A" Engine, Stock or Isky 3904 Adj. Rocker, Stock Solid Lifter or Isky Lifter	5/16	No	7.531	7.531		X		X		X	
3913	Chrysler 64 to 72, 273" to 360" "A" Engine, Stock or Isky 3904 Adj. Rocker, Isky Hyd. Lifter	5/16	No	7.265	7.265		X	X			X	
3923	Chrysler 64 to 72, 273" to 360" "A" Engine, Stock Non Adj. Rocker, Isky Hyd. Lifter	5/16	No	6.625	6.625	X		X				X
4103	Chrysler Hemi 64 to 71, 426", Heat Treated, Stock Adj. Rocker, Stock Solid Lifter or Isky Lifter	3/8	No	10.828	11.765		X		X		X	
4103	Chrysler Hemi 64 to 71, 426", Heat Treated, Stock Adj. Rocker, Stock Solid Lifter or Isky Lifter	7/16	No	10.828	11.765		X		X		X	
4613	Chrysler Hemi 64 to 71, 426", Heat Treated, Stock Adj. Rocker, Isky Hyd. Lifter	3/8	No	10.546	11.484		X	X			X	
AN-003	Anglia, 105E and 109e, Stock Adj. Rocker, Stock Lifter or Isky Lifter	5/16	No	6.656	6.656		X		X		X	
AN-013	Anglia, 116E & Cortina, Stock Adj. Rocker, Stock Lifter or Isky Lifter	5/16	No	7.328	7.328		X		X		X	
AH-003	Austin Healy, 6 Cyl., 3000 Stock Adj. Rocker, Stock Solid Lifter	5/16	No	8.218	8.218		X		X		X	
AH-013	Austin Healy, 4 Cyl. Stock Adj. Rocker, Stock Solid Lifter	3/8	No	10.062	10.062		X		X		X	
D-003	Datsun, 4 Cyl., 1300cc Stock Adj. Rocker, Stock Lifter	5/16	No	7.140	7.140		X		X		X	
D-013	Datsun, 4 Cyl., 1500cc to 1600cc Stock Adj. Rocker, Stock Lifter	5/16	No	7.687	7.687		X		X		X	
M-003	MG, TF-TD-TC, 4 Cyl. Stock Adj. Rocker, Stock Lifter	5/16	No	8.546	8.546		X		X		X	
MG-003	MGA-MGB, 4 Cyl. 56 to 72 Stock Adj. Rocker, Stock Lifter	5/16	No	8.703	8.703		X		X		X	
MG-013	MGA-MGB, 4 Cyl. 56 to 72 Stock Adj. Rocker, Sprite or Morris Minor Lifter	5/16	No	10.656	10.656		X		X		X	
RN-003	Renault, R8-R10 Engines, 4 Cyl. Stock Adj. Rocker, Stock Lifter or Isky Lifter	5/16	No	6.812	6.812		X		X		X	
SP-003	Sprite-Morris Minor-Mini-Cooper -- Midget 948 to 1048cc, Stock Adj. Rocker, Stock Lifter	5/16	No	8.437	8.437		X		X		X	
SP-013	Sprite-Morris Minor-Mini-Cooper -- Midget 1275cc, Stock Adj. Rocker, Stock Lifter	5/16	No	8.703	8.703		X		X		X	
SB-003	Sunbeam Alpine, 4 Cyl. & Hillman Min Stock Adj. Rocker, Stock Lifter	3/8	No	10.312	10.312		X		X		X	
TR-003	Triumph, 4 Cyl. TR-2-3-4 Stock Adj. Rocker, Stock Lifter	5/16	No	10.062	10.062		X		X		X	
TR-013	Triumph Spitfire & Herald, 4 Cyl. Stock Adj. Rocker, Stock Lifter	5/16	No	7.812	7.812		X		X		X	
VL-003	Volvo, B16, 4 Cyl. Stock Adj. Rocker, Stock Lifter	5/16	No	8.328	8.328		X		X		X	
VL-013	Volvo, B18-B20, 4 Cyl. Stock Adj. Rocker, Stock Lifter	5/16	No	8.015	8.015		X		X		X	
VL-123	Volvo, B18-B20, 4 Cyl. Stock Adj. Rocker, Isky 202-H Lifter	5/16	No	8.737	8.737		X		X		X	
V-003	Volkswagen, 1200cc Stock Adj. Rocker, Isky Hyd. Lifter	5/16	Yes	10.187	10.187		X	X				X
V-003B	Volkswagen, 1200cc Stock Adj. Rocker, Stock Lifter or Isky Lifter	5/16	Yes	10.671	10.671		X		X			X
V-003C	Volkswagen, 1300cc to 1600cc Stock Adj. Rocker, Stock Lifter or Isky Lifter	5/16	Yes	11.078	11.078		X		X			X
V-003 minus .075	Volkswagen, 1200cc Stock Adj. Rocker, Isky Hyd. Lifter	5/16	Yes	10.112	10.112		X	X				X
V-003A minus .075	Volkswagen, 1300cc to 1600cc Stock Adj. Rocker, Isky Hyd. Lifter	5/16	Yes	10.675	10.675		X	X				X
V-003B minus .075	Volkswagen, 1200cc Stock Adj. Rocker, Stock Lifter or Isky Lifter	5/16	Yes	10.596	10.596		X		X			X
V-003C minus .075	Volkswagen, 1300cc to 1600cc Stock Adj. Rocker, Stock Lifter or Isky Lifter	5/16	Yes	11.000	11.000		X		X			X

# ONE PIECE 5/16 DIAMETER PUSHRODS



All Isky One-Piece 5/16" Diameter Pushrods are manufactured from the finest available grade of Seamless .095" Wall, Chrome Moly Tubing; specially Heat Treated. All ends are Precision Formed in a Turning Center (Not Swedged) to assure you the most reliable and strongest 5/16" Diameter Pushrods in the Automotive Racing Industry!

Part No.	Application	Overall Length	Part No.	Application	Overall Length
1235-L Minus .400	Small Block Chevy V-8	6.100"	393-B-HG	Ford Boss 302 V-8	7.562"
1235-L Minus .350	Small Block Chevy V-8	6.150"	203-HG Minus .180	Pontiac 4-Cyl	7.600"
1235-L Minus .300	Small Block Chevy V-8	6.200"	203-HG Minus .150	Small Block Chevy V-8	7.631"
1235-L Minus .250	Small Block Chevy V-8	6.250"	203-HG Minus .100	Small Block Chevy V-8	7.681"
203-RM-HG	Small Block Chevy V-8	6.281"	203-HG Minus .050	Small Block Chevy V-8	7.731"
1235-L Minus .200	Small Block Chevy V-8	6.300"	203-HG	Small Block Chevy V-8	7.781"
1235-L Minus .150	Small Block Chevy V-8	6.350"	203-HG + .050	Small Block Chevy V-8	7.831"
1235-L Minus .100	Small Block Chevy V-8	6.400"	203-HG + .100	Small Block Chevy V-8	7.881"
1235-L Minus .050	Small Block Chevy V-8	6.450"	203-HG + .160	Small Block Chevy V-8	7.941"
1235-L	Small Block Chevy V-8	6.500"	203-HG + .200	Small Block Chevy V-8	7.981"
1235-L + .050	Small Block Chevy V-8	6.550"	203-HG + .250	Small Block Chevy V-8	8.031"
1235-L + .100	Small Block Chevy V-8	6.600"	203-HG + .300	Small Block Chevy V-8	8.081"
1235-L + .160	Small Block Chevy V-8	6.660"	683-A-HG	Ford 351 Windsor V-8	8.125"
1235-L + .200	Small Block Chevy V-8	6.700"	203-HG + .350	Small Block Chevy V-8	8.131"
1235-L + .250	Small Block Chevy V-8	6.750"	203-HG + .400	Small Block Chevy V-8	8.181"
393-SLHG	Ford 289-302 V-8	6.812"	203-HG + .450	Small Block Chevy V-8	8.231"
393-HG	Ford 289-302 V-8	6.875"	393-A-HG	Ford 351 Windsor V-8	8.250"
1235-L + .400	Small Block Chevy V-8	6.900"	203-HG + .500	Small Block Chevy V-8	8.281"
1235-L + .450	Small Block Chevy V-8	6.950"	203-HG + .550	Small Block Chevy V-8	8.331"
1235-L + .500	Small Block Chevy V-8	7.000"	203-HG + .600	Small Block Chevy V-8	8.381"
1235-L + .550	Small Block Chevy V-8	7.050"	203-HG + .650	Small Block Chevy V-8	8.431"
1235-L + .600	Small Block Chevy V-8	7.100"	393-C-HG	Ford Boss 351 V-8	8.470"
1235-L + .650	Small Block Chevy V-8	7.150"	383-C-HG	Ford 429-460 V-8	8.671"
203-HG Minus .580	Small Block Chevy V-8	7.200"	923-HG	Pontiac V-8	9.125"
203-HG Minus .460	Small Block Chevy V-8	7.320"	233-HG + .125	Chevy II 4 & 6 Cyl	9.812"
203-HG Minus .380	LS-1 Chevy V-8	7.400"			

All the above listed pushrods are compatible with Pushrod Guide Plates.

## SPECIAL NOTE:

We now have available a limited supply of each of the following special length one-piece .095" wall pushrods for a slightly higher price than our normal production length one-piece pushrods.

7.425", 7.450", 7.500", 8.560", 8.610" and 9.250"

Contact Factory for current pricing.

# CHROME MOLY STEEL RETAINERS



Isky 4130 Chrome Moly Light-Weight Steel Valve Spring Retainers are ideal for street and highly-stressed competition applications.

They are specially heat treated and black oxide finished to protect against corrosion.

Set of 16-4130 Chromemoly steel retainers.

## Isky First

RETAINER PART NO.	VALVE STEM SIZE	ISKY SPRING APPLICATION	INNER STEP DIA (I) OUTER STEP DIA (O)	ISKY STD. 7° VALVE LOCK NO.	SUPER-7 7° VALVE LOCK NO.
327-ST	5/16	455/456, VW Rabbit SOHC V-005-D, 411 VW/Porsche 914 625/626, Volvo B-16 & B-20 4 Cyl.	.665 (I) .920 (O)	N/A	N/A
4107-ST	5/16	5005, 6005, 6105, 6205, 8005-A, 8305, 9005, 9105, 9265	.725 (I) 1.060 (O)	VL-5/16	N/A
507-ST	11/32	5005, 6005, 6105, 6205 8005-A, 8305, 9005, 9105, 9265	.735 (I) 1.080 (O)	VL-32	N/A
507-STA .060 HIGHER INST. HGT. THAN 507-ST	11/32	5005, 6005, 6105, 6205 8005-A, 8205, 8305, 9005, 9105, 9265	.735 (I) 1.080 (O)	VL-32	N/A
527-STA	11/32	9205, 9315, 9365	.730 (I) 1.120 (O)	VL-32	N/A
607-STA	11/32	6005, 8005-A (351 CLEVELAND V-8 WITH ROTATING VALVES)	.730 (I) 1.060 (O)	N/A	N/A
707-ST	11/32	4005, 4205, 205-D	.886 (O)	VL-32	N/A
707-STA	11/32	235-D, 295-D	.886 (O)	VL-32	N/A
927-ST	11/32	5005 -- PONTIAC V-8 ONLY	.710 (I) 1.065 (O)	VL-32	N/A
347-ST	3/8	5005, 6005, 6105, 6205 8005-A, 8305, 9005, 9105, 9265	.735 (I) 1.080 (O)	VL-3/8	N/A
627-ST	3/8	625/626 (EARLY BUICK V-6 & V-8 ONLY)	.670 (I) .895 (O)	N/A	N/A
3607-ST .060 HIGHER INST. HGT. THAN 347-ST	3/8	5005, 6005, 6105, 6205 8005-A, 8205, 8305, 9005, 9105, 9265	.730 (I) 1.065 (O)	VL-3/8	N/A
175-ST	ALL	8005-A, 8205, 8305 9005, 9265	.725 (I) 1.105 (O)	N/A	VL-600, VL-700, VL-800 5/16 11/32 3/8
275-ST	ALL	9205, 9275, 9315, 9365, 9365-SP 9375/85 PLUS, 9385, 9425, 9905 9915, 9925, 9965, 9975, 9985, 9995	.730 (I) 1.120 (O)	N/A	VL-600, VL-700, VL-800 5/16 11/32 3/8
375-ST	ALL	9685, 9705, 9945	.765 (I) 1.165 (O)	N/A	VL-600, VL-700, VL-800 5/16 11/32 3/8
*200-ST/10 DEG	ALL	8005-A, 8205, 8305, 9005, 9205, 9265, 9275 9315, 9365, 9365-SP, 9375/85 PLUS, 9385 9425, 9905, 9915, 9925, 9965, 9975, 9985, 9995	.725 (I) 1.115 (O)	N/A	*VL-10-5/16, *VL-10-11/32, *VL-10-3/8 5/16 11/32 3/8
*300-ST/10 DEG	ALL	9685, 9705, 9945	.765 (I) 1.165 (O)	N/A	*VL-10-5/16, *VL-10-11/32, *VL-10-3/8 5/16 11/32 3/8

\* 10 DEGREE VALVE LOCKS

# TITANIUM RETAINERS



**ISKY TITANIUM RETAINERS ARE 20-40% STRONGER** than all other retainers. They are made from specially heat treated 100% aircraft quality bar stock material.

RETAINER PART NO.	VALVE STEM SIZE	ISKY SPRING APPLICATION	INNER STEP DIA (I) OUTER STEP DIA (O)	ISKY STD. 7° VALVE LOCK NO.	SUPER-7 7° VALVE LOCK NO.
50-Ti	5/16	5005, 5105 6005, 6105, 6205	.725 (I) 1.060 (O)	VL-5/16	N/A
57-Ti	5/16	235-D, 295-D	.886 (O)	VL-500	(Bead lock on late model LS-1 Small Block Chevy V8)
60-Ti	11/32	5005, 5105 6005, 6105, 6205	.735 (I) 1.080 (O)	VL-32	N/A
70-Ti	3/8	5005, 5105 6005, 6105, 6205	.730 (I) 1.065 (O)	VL-3/8	N/A
91-Ti	ALL	8005-A, 8205, 8305, 9005, 9205, 9265, 9275, 9315, 9365, 9365-SP 9375/85 PLUS, 9385, 9425, 9905, 9925	.720 (I) 1.110 (O)	N/A	VL-600, VL-700, VL-800 5/16 11/32 3/8
92-Ti	ALL	9915, 9965, 9975, 9985, 9995 + All RAD & 1600 Series versions of above	.740 (I) 1.140 (O)	N/A	VL-600, VL-700, VL-800 5/16 11/32 3/8
94-Ti	ALL	9935	.820 (I) 1.145 (O)	N/A	VL-600, VL-700, VL-800 5/16 11/32 3/8
975-Ti	ALL	9685, 9705, 9945, 9955 9945 RAD, 9955 RAD	.765 (I) 1.165 (O)	N/A	VL-600, VL-700, VL-800 5/16 11/32 3/8
*90-Ti/10 DEG	ALL	8005-A, 8205, 8305, 9005, 9205, 9265, 9275 9315, 9365, 9365-SP, 9375/85 PLUS, 9385 9425, 9905, 9915, 9925	.725 (I) 1.115 (O)	N/A	*VL-10-5/16, *VL-10-11/32, *VL-10-3/8 5/16 11/32 3/8
*92-Ti/10 DEG	ALL	9915, 9965, 9975, 9985, 9995 + All RAD & 1600 Series versions of above	.740 (I) 1.140 (O)	N/A	*VL-10-5/16, *VL-10-11/32, *VL-10-3/8 5/16 11/32 3/8
*94-Ti/10 DEG	ALL	9935	.820 (I) 1.145 (O)	N/A	*VL-10-5/16, *VL-10-11/32, *VL-10-3/8 5/16 11/32 3/8
*95-Ti/10 DEG	ALL	1224 PSI	.850 (I) 1.170 (O)	N/A	*VL-10-5/16, *VL-10-11/32, *VL-10-3/8 5/16 11/32 3/8
*97-Ti/10 DEG	ALL	9685, 9705, 9945, 9955 9945 RAD, 9955 RAD	.765 (I) 1.165 (O)	N/A	*VL-10-5/16, *VL-10-11/32, *VL-10-3/8 5/16 11/32 3/8
*980-Ti/10 DEG	ALL	9701, 9801-A, 9901-A 1246, 1247, 1248, 1249, 1250 PSI	.640 (I) .880 (M) 1.195 (O)	N/A	*VL-10-5/16, *VL-10-11/32, *VL-10-3/8 5/16 11/32 3/8

\* 10 DEGREE VALVE LOCKS

# THE ORIGINAL STRONGER ROLLER ROCKER ARMS

## Since 1967...

Using our Special Extruded Aluminum Alloy and high arch rib design, Isky Roller Rockers still surpass all others in Durability and Performance.

Our Roller Rocker Arms have been proven by thousands of satisfied customers in Oval Track, Drag Boats, Road and Drag Racing, etc. ... across the nation and the world for over 40 years!

So why take chances? Buy the BEST.



APPLICATION	PART NO.	COLOR	RATIO	STUD SIZE
SMALL BLOCK CHEVY V-8	204	Black	1.5	3/8
	204-716	Black	1.5	7/16
	◆ 204-6	Red	1.6	3/8
	◆ 204-6-716	Red	1.6	7/16
	◆ 204-65-716	Brown	1.65	7/16
BIG BLOCK CHEVY V-8	◆ 204-96	Blue	1.75	7/16
	◆ 204-96-8	Purple	1.8	7/16
BOSS 302-351 FORD V-8	204-96	Blue	1.75	7/16
	◆ 204-96-8	Purple	1.8	7/16
429-460 WEDGE FORD V-8 (WHEN USING CHEVY STYLE ROCKER STUDS)	204-96	Blue	1.75	7/16
	◆ 204-96-8	Purple	1.8	7/16

# ISKY VALVE TRAIN WEAPONS • ROCKER ARMS

## Long Slot Rocker Arms



- \* Improved Heat Treat
- \* Long Slot Design

Stamped Steel Rocker for Small & Big Block Chevy V-8's. Isky "Long Slot" rocker arms are ideal for high perf. street, bracket racing and oval track (hydraulic and solid lifter cam) applications where a high performance, stock appearing rocker arm is either desired or required. These precision rockers have the added insurance of a longer slot to prevent rocker to stud interference, common with stock-type rocker arms when valve lifts exceed .450-.500".

These rockers are heat treated for added reliability and are also supplied with our new "grooved" rocker arm pivot balls to insure adequate lubrication. Also supplied is a one ounce container of Isky Rev-Lube with XP-2000 for trouble free break-in!

Part No.	Application	Ratio	Stud
2015-LSR	Small Block Chevy V-8	1.5	3/8
2016-LSR	Small Block Chevy V-8	1.6	3/8
2017-LSR	Small Block Chevy V-8	1.5	7/16
2018-LSR	Small Block Chevy V-8	1.6	7/16
3960-LSR	Big Block Chevy V-8	1.72	7/16

**NOTE: NOT recommended for use with hydraulic and mechanical roller camshafts.**

## Roller Tip Rocker Arms

Isky Roller Tip Rocker Arms are stamped from high strength alloy steel and specially heat treated to resist rocker arm flex. They are engineered with the longer slot for use with higher lift hydraulic and solid lifter cams over .500"

Each kit comes complete with our popular "Poly-Lock" adjusting nuts and grooved rocker pivot balls for added lubrication. Isky roller tip rocker arms are ideal for high perf. street, bracket racing and oval track where a roller tip rocker is allowed, yet an otherwise stock appearing rocker arm is required. Also supplied is a one ounce container of Isky Rev-Lube with XP-2000 for trouble free break-in!

Part No.	Application	Ratio	Stud
2025-RTR	Small Block Chevy V-8	1.5	3/8
2026-RTR	Small Block Chevy V-8	1.6	3/8
2027-RTR	Small Block Chevy V-8	1.5	7/16
2028-RTR	Small Block Chevy V-8	1.6	7/16
3980-RTR	Big Block Chevy V-8	1.72	7/16

**NOTE: NOT recommended for use with hydraulic and mechanical roller camshafts.**



- \* Increase Horsepower
- \* Reduce Tip-Rocker Friction
- \* Long Slot Design
- \* H-11 Tool Steel Roller & Pin Ass'y

# ISKY VALVE TRAIN WEAPONS • ROCKER ARMS

## Ford 332-428 (NASCAR Type)

Manufactured from high-quality ductile iron and incorporating our high arch rib design. Much stronger than the stock Ford 1.75:1 ratio rockers they replace, and resist failure under the stress of high RPM competition and increased valve spring pressures.

Features a precision, induction hardened adjusting screw with polished end and positive racing jam nut.

**Part No. 384 - Set of 16**

\*Call Isky factory for availability.



## Chrysler "A" 273-340-360

Those who've experienced the tedious procedure of setting the valve lash using adjustable pushrods on the Chrysler "A" block wedge engines can appreciate the convenience and reliability of the Isky adjustable rocker arm. Positive racing jam-nut type adjusting screw, perfect geometry, high-strength design and ductile iron quality assure you of the finest possible performance from these 1:5:1 ratio rockers.

Part No.	Description
3904	Set of 16 (including hardened spacers)
1604-AS	Adjusting screw and jam nut assembly, set of 16
3904-SP	Hardened tubular spacers, set of 8



\*Call Isky factory for availability.

## Chrysler "B" 383-440

Manufactured from High Quality ductile iron, this rocker arm replaces all non-adjustable stock 1.5:1 ratio rockers and fits all standard Chrysler "B" wedge engines. Our Unique Extra High arch-rib design and the strength of the ductile iron gives you valve train High Fidelity -- there is no lost motion. You get out what your cam puts in. Other features are our high quality induction hardened grade 8 SAE adjusting screw and jam nut.

Part No.	Description
1604	Set of 16 including spacer springs
1604-AS	Adjusting screw and jam nut assembly, set of 16
1604-SP	Spacer spring, set of 8



\*Call Isky factory for availability.

# HI-STRENGTH ROCKER STUDS

Another ISKY first, introduced to the industry in 1958. ISKY Hi-strength Screw-In Rocker Arm Studs replace stock pressed-in studs which are prone to pull-out with higher valve spring loads and valve lift during the stress of high-speed competition. Manufactured from aircraft quality 4130 chrome moly steel, they featured rolled threads for better structural grain flow and fatigue resistance. Three types are available to the high-performance enthusiast.

## 1/8" Longer Threaded Top!

A genuine aero-space quality product! Isky Chrome Moly Rocker Arm Studs are forged for higher strength and optimum metallurgical properties - not machined from screw stock like the competition. They also feature rolled threads and are 1/8" longer than stock Chevy studs for better Rocker-Nut Grip!

Part No.	Application	Set of 16
209-A*	Chevy 283-350 V8 (3/8-24 top thread) + 1/8" longer than the OEM Chevy stud: provides for 3 more threads in contact with rocker arm adj. nuts	
219-A*	Chevy 283-350 V8 (7/16-20 top thread) Heavy duty conversion Chevy 396-454 V8 (7/16-20 top thread) High performance stock replacement	
1309 #210*	AMC-V8 Engines (3/8-24 top thread) Tool Kit (Holesaw Pilot and Bottoming Tap)	



## Self-Locking (Jam Thread) Type

Requires the use of only a pilot & bottoming tap for easy installation (ideal for street and strip cars.)

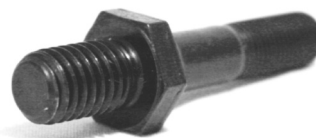
Part No.	Application	Set of 16
209-B	Chevrolet Small Block (283-350 V8)	
7/16	Pilot & Bottoming Tap Kit (for 209-B Studs)	
919	Pontiac V8 (1961-63 Engines Only)	



## Jam Nut Type (2 Piece)

For early Pontiac V8 applications -- stud boss machining is required. Use our #210 Tool Kit listed below.

Part No.	Application	Set of 16
909	Pontiac V8 (1955-60 engines only)	
#210	Tool Kit (Holesaw, Pilot and Bottoming Tap)	



## POLY LOCKS • Rocker Arm Adj. Nuts

Isky Poly Locks replace OEM crimped rocker arm adjusting nuts and eliminate the bothersome re-adjustment procedures associated with the stock components, which are prone to come loose during competition. The allen set screw threads into the large hex-nut and securely shoulders against the top of the rocker stud to provide steadfast valve lash adjustment.

**Don't settle for an imitation.** Insist on genuine Isky Poly Locks.

Part No.	Application	Set of 16 (includes set screws & allen wrench)
PL-7/16	Chevrolet 396-454 and Pontiac NASCAR 61-63	
PL-3/8	Chevrolet Small Block and Ford 221-260-289-302 V8 & Pontiac 55 and 61 and up	
PL-5/16	Pontiac V-8 1956-60 & Ford 351 Windsor	

The following are for Isky ALUMINUM rocker arms.

204-PL	Chevy 265-350, 3/8 Stud (204 & 204-6 Part No.'s)
204-716-PL	Chevy 265-350, 7/16 Stud (204-716, 204-6-716 & 204-65-716 Part No.'s)
204-96-PL	Chevy 396-454 (204-96 & 204-96-8 Part No.'s)



**Isky First**



# PERFORMANCE EQUIPMENT



**Isky Invention**

## Chevy Roller Thrust Bearing

This bearing nests between the camshaft sprocket and the front timing case cover. Its function is to eliminate axial float (fore and aft movement) of the cam in the block. Unit consists of a precision needle bearing assembly contained in a steel housing which may be disassembled for inspection. Anti-thrust bearing included FREE with Chevy Roller Cam Kits.

Part No.	Description
200-TB	Small Block Chevy 1955-77 V8
210-TB	Small Block Chevy 1978-up with shallow front cover
200-96-TB	Chevy 396-454
4600-TB	426 Chrysler Hemi

## Precision Valve Spring Shims

Valve Spring Shims are a facet of overall camshaft performance. Part of this performance is fitting the valve spring to its correct height so that it exerts the proper recommended pressure. Shims are .030" thick. Specify spring diameter, single or dual springs.

Part No.	OD / ID	Thickness	Total Shims in Set
1	1.500 x 1.000	.060"	16
2	1.425 x .700	.030"	32
3	1.250 x .650	.030"	32
4	1.250 x .875	.030"	16
5	1.540 x .625	.030"	32



## Micro Shim Kits

This is a precision shim kit for the mechanic who desires perfection in installing racing valve springs to a precise height. Each shim is made from tempered steel for maximum strength.



Part No.	OD / ID	Shims per Kit	Individual Breakdown	Valve Spring Applications
6	1.250 x .625	118	(20) .010" (30) .015" (34) .020" (34) .030"	205-G, 4005, 4205
7	1.425 x .700	118	(20) .010" (30) .015" (34) .020" (34) .030"	5005, 5105, 6005, 6105, 6205
8	1.560 x .625	96	(24) .010" (24) .015" (24) .020" (24) .030"	8005-A, 8205, 8305, 9005, 9205, 9265, 9275 9315, 9365, 9365-SP, 9375/85 PLUS, 9385 9425, 9905, 9915, 9925, 9965, 9975, 9985, 9995
9	1.625 x .625	96	(32) .015" (32) .020" (32) .030"	9685, 9701, 9705 9801-A, 9901-A, 9945, 9955
11	1.220 x .505	32	(16) .015" (16) .030"	165-A, 195-A & 4905 (LS-1) Small Block Chevy V8

# TIMING CHAIN / GEAR SETS • PRECISION-MATCHED

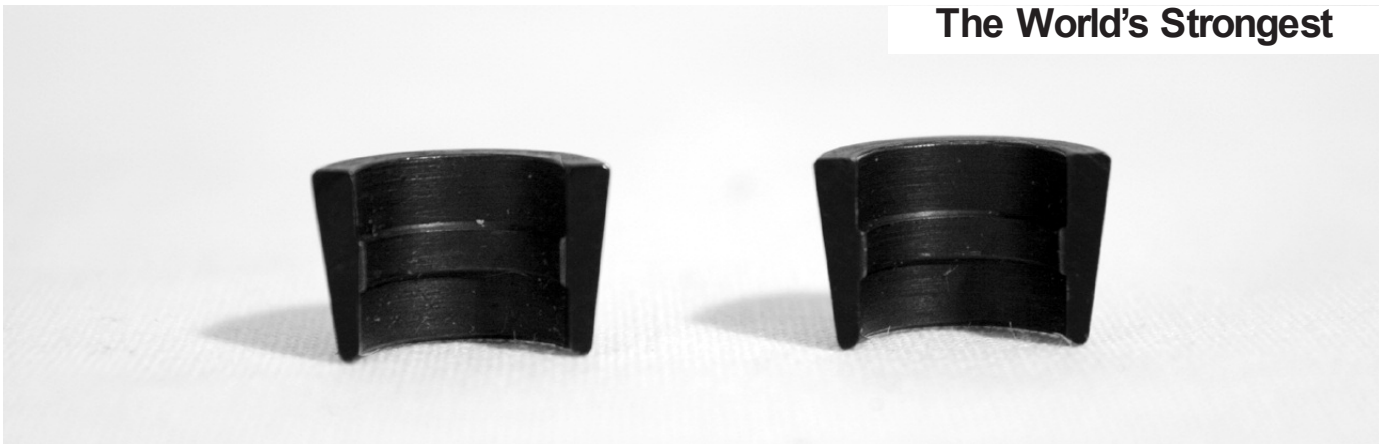


Isky's timing chain and gear sets are perfectly matched and precisely machined for accurate cam to crank phasing and valve timing. ALL cam sprockets are machined from high quality "Ductile Iron" and heat treated for maximum durability. Isky sprockets and chains are the widest available for greater load-carrying and minimum chain stretch.

Part No.	Application
300-TS	Chevrolet 283-400 Small Block V-8
390-TS	Chevrolet 396-454 Big Block V-8
310-TS	Ford 429-460 V8 (1968 and up)
350-TS	Ford 352-390-428 V8 (1963 and up)
380-TS	Ford 255-302-351 Windsor V8 (1974 and later only)
430-TS	Ford 351c-351m/400m V8
1600-TS	Chrysler "B" 383-440 (Single Bolt)
1650-3BK	Chrysler "B" & 426 Hemi (3 Bolt Roller Chain)
3900-TS	Chrysler "A" 273-318-340-360
620-TS	Buick V8 215 Aluminum & 300-340-350 Iron
1150-TS	Buick 400-430-455 V8 (1967-78)
1160-TS	Buick V6 198-225-231 (1962-77) (Odd-Fire)
1190-TS	Buick V6 Even Fire 196-231-252 1977 and up (with integral dist. gear)
690-TS	Oldsmobile V8 330-350-400-403-425-455 cu. in.
900-TS	Pontiac V8 389-421-455 cu. in.
1350-TS	American Motors 290-401 V8 1966 and up

# VALVE LOCKS • MACHINED FROM 4140 CHROME MOLY BAR STOCK

The World's Strongest



Isky 4140 Chrome Moly Split Valve Locks are too tough to stamp. Our tooling marks will prove to you that they are turned on a lathe. Beware of those cheaper split locks on the market, that are merely stock cold stamped parts (some may be case hardened for a hard surface -- but they lack core strength)!

Isky Heat Treated Locks with the proper taper angle grip your valve retainers with greater locking force and will out tensile anything on the market today. They are an absolute must for today's Hi-RPM racing engines. Don't take chances with blackened or plated stock type locks masquerading as genuine heat treated Isky. The safety of your racing engine demands only the best...**ISKY CHROME MOLY VALVE LOCKS.**

7° Locks Part No.	10° Locks Part No.	Description	Application
VL-5/16	VL10-5/16	For 5/16" Valve Stems Set of 32	Chrysler 426 hemi and Small Block Chevy V-8 with Special 5/16 Valves, etc.
VL-11/32	VL10-11/32	For 11/32" Valve Stems Set of 32	Chevy Small Block V-8, Ford 289-302 V-8 and Pontiac V-8 Engines, etc.
VL-3/8	VL10-3/8	For 3/8" Valve Stems Set of 32	Chevy 396-454 V-8, *Chrysler "B" 383 & 440, some Chrysler "A" Engines and Ford 332-428 V-8

\*Isky Chrome Moly Valve Locks are for single groove valves only and will not fit 3 and 4 Groove Type Valve Stems.

## Super 7° Valve Locks

Designed for maximum endurance in roller cammed Oval Track, Road Racing and Drag Racing applications where maximum locking force with the valve stem is required. These heavy-duty valve locks are also machined from 4140 Chrome Moly Bar-Stock and heat treated like our standard 7 deg. valve locks shown above.

Super 7 Valve Locks incorporate a ground finish on the O.D. which allows a more consistent installed height for each retainer on its valve. Super 7 deg. valve locks are used in conjunction with the following Isky retainers only:

Type	Isky Retainer
Chrome Moly Steel	175-ST, 275-ST, 375-ST
Titanium	91-TI, 92-TI, 94-TI, 975-TI



**New!** Bead Valve Locks  
for use with Bead Groove Valves  
Part No.

Part No.	Application (for use with standard groove valves)	Set of 32	Part No.
VL-600	5/16" Valve Stem Applications		VL-1600
VL-650	5/16 Valve Stem Applications: +.050" higher installed height		VL-1650
VL-700	11/32" Valve Stem Applications		VL-1700
VL-750	11/32 Valve Stem Applications: +.050" higher installed height		VL-1750
VL-800	3/8" Valve Stem Applications		
VL-850	3/8 Valve Stem Applications: +.050" higher installed height		

# ISKY VALVE SPRINGS



We make Valve Springs to cover all applications, from street to all-out competition in single, dual and multi-coil designs.

PART NO.	TYPE/MAT'L	COLOR CODE	INDIVIDUAL SPRING PART NUMBERS			O.D.	I.D.	SEAT PRESSURE	OPEN PRESSURE	RATE PER INCH	COIL BIND	MAX NET LIFT
			(IN) INNER	(M) MIDDLE	(O) OUTER							
9901-A	MULTI-COIL	NATURAL	(IN)	---	.885	.640	340 lbs	1000 lbs	740	1.140	.850"	
		NATURAL	(M)	---	1.200	.885	@2.100"	@1.200"				.900"
		NATURAL	(O)	---	1.660	1.200						
9801-A	MULTI-COIL	NATURAL	(IN)	---	.885	.640	330 lbs	925 lbs	740	1.140	.800"	
		NATURAL	(M)	---	1.200	.885	@2.025"	@1.225"				.850"
		NATURAL	(O)	---	1.660	1.200						
9701	MULTI-COIL	NATURAL	(IN)	---	.885	.640	285 lbs	790 lbs	680	1.140	.750"	
		NATURAL	(M)	---	1.200	.885	@2.000"	@1.250"				.800"
		NATURAL	(O)	---	1.650	1.200						
4905	DUAL (CHROME SILICON)	NATURAL	(IN)	---	.940	.690	125 lbs	360 lbs	360	1.065	.650"	
		NATURAL	(O)	---	1.290	.940	@1.800"	@1.150"				
3005	DUAL (CHROME SILICON)	NATURAL	(IN)	---	.950	.715	80 lbs	230 lbs	300	.770	.500"	
		NATURAL	(O)	---	1.255	.950	@1.400"	@.900"				
4205	DUAL (CHROME SILICON)	WHITE	(IN)	1006-W	.915	.660	130 lbs	290 lbs	320	1.020	.500"	
		GREY	(O)	205-G	1.240	.925	@1.687"	@1.187"				
4005	DUAL (CHROME SILICON)	GREY	(IN)	206-G	.925	.690	115 lbs	240 lbs	250	.960	.500"	
		GREY	(O)	205-G	1.240	.925	@1.687"	1.187"				
625/626	DUAL (CHROME SILICON)	NATURAL	(IN)	---	.900	.675	75 lbs	240 lbs	300	.940	.550"	
		NATURAL	(O)	---	1.235	.905	@1.687"	@1.137"				
9705	DUAL W/DAMPER (H-11 TOOL STEEL)	NATURAL	(IN)	---	1.079	.767	250 lbs	675 lbs	570	1.150	.750"	
		BLUE	(O)	---	1.625	1.189	@1.950"	@1.200"				
9685	DUAL W/DAMPER (ISKYLOY ENDURANCE)	YELLOW	(IN)	---	1.065	.770	240 lbs	685 lbs	550	1.150	.750"	
		YELLOW	(O)	---	1.625	1.175	@2.000"	@1.250"				
9425	DUAL W/DAMPER (Tool Room Outer/Silicon Inner)	NATURAL	(IN)	---	1.040	.740	250 lbs	620 lbs	520	1.190	.700"	
		NATURAL	(O)	---	1.560	1.145	@1.950"	@1.250"				
9385 PLUS	DUAL W/DAMPER (Tool Room Outer/Silicon Inner)	NATURAL	(IN)	---	1.040	.740	245 lbs	600 lbs	500	1.180	.720"	
		SILVER/RED	(O)	---	1.560	1.145	@2.000"	@1.280"				
9385	DUAL W/DAMPER (ISKYLOY ENDURANCE)	NATURAL	(IN)	---	1.040	.740	240 lbs	600 lbs	500	1.180	.720"	
		SILVER	(O)	---	1.560	1.145	@2.000"	@1.280"				
9375/85 PLUS	DUAL W/DAMPER (Tool Room Outer/Silicon Inner)	NATURAL	(IN)	---	1.040	.740	250 lbs	580 lbs	470	1.190	.680"	
		SILVER/ORANGE	(O)	---	1.560	1.145	@1.970"	@1.290"				
9375 PLUS	DUAL W/DAMPER (Tool Room Outer/Silicon Inner)	ORANGE	(IN)	---	1.040	.740	230 lbs	560 lbs	480	1.190	.680"	
		SILVER/ORANGE	(O)	---	1.560	1.145	@1.970"	@1.290"				

# ISKY VALVE SPRINGS (CONTINUED)

PART NO.	TYPE/MAT'L	COLOR CODE	INDIVIDUAL SPRING PART NUMBERS				SEAT PRESSURE	OPEN PRESSURE	RATE PER INCH	COIL BIND	MAX NET LIFT
			(IN) INNER	(O) OUTER	O.D.	I.D.					
<b>9365 PLUS</b>	DUAL W/DAMPER (Tool Room Outer/Silicon Inner)	BLUE SILVER/ORG	(IN) --- (O) ---	---	1.040 1.560	.740 1.145	235 lbs @1.950"	560 lbs @1.270"	470	1.170	.680"
<b>9365</b>	DUAL W/DAMPER (CHROME SILICON)	GREEN GREEN	(IN) 875-G (O) 975-G	---	1.025 1.550	.740 1.135	215 lbs @1.950"	550 lbs @1.270"	460	1.170	.680"
<b>9315</b>	DUAL W/DAMPER (CHROME SILICON)	RED RED	(IN) --- (O) ---	---	1.025 1.550	.740 1.135	210 lbs @1.900"	520 lbs @1.240"	480	1.130	.660"
<b>9005</b>	DUAL W/DAMPER (CHROME SILICON)	NATURAL ORANGE	(IN) 806-S (O) 805-DO	---	1.005 1.530	.725 1.110	185 lbs @1.875"	465 lbs @1.225"	430	1.160	.650"
<b>9265</b>	DUAL W/DAMPER (CHROME SILICON)	NATURAL YELLOW	(IN) 806-S (O) 3605-D	---	1.005 1.540	.725 1.115	175 lbs @1.875"	510 lbs @1.200"	490	1.130	.675"
<b>6205</b>	DUAL W/DAMPER (CHROME SILICON)	NATURAL ORG/YELL	(IN) 806-S (O) 305-DHS	---	1.025 1.430	.725 1.070	175 lbs @1.812"	350 lbs @1.260"	320	1.160	.550"
<b>9205</b>	DUAL W/DAMPER (CHROME SILICON)	PURPLE PURPLE	(IN) 826-P (O) 825-DP	---	1.040 1.550	.755 1.130	170 lbs @1.950"	475 lbs @1.250"	435	1.175	.675"
<b>8305</b>	DUAL W/DAMPER (CHROME SILICON)	--- ---	(IN) --- (O) ---	---	1.005 1.510	.730 1.110	160 lbs @1.875"	380 lbs @1.275"	370	1.175	.600"
<b>5105</b>	DUAL W/DAMPER (CHROME SILICON)	RED GREEN	(IN) 906-RH (O) 905-D	---	1.000 1.430	.730 1.075	150 lbs @1.531"	345 lbs @1.000"	370	.940	.530"
<b>8205</b>	DUAL W/DAMPER (CHROME SILICON)	ORG/YELL BROWN	(IN) 926-OY (O) 815-DB	---	1.005 1.530	.730 1.110	140 lbs @1.900"	430 lbs @1.250"	440	1.170	.650"
<b>8005-A</b>	DUAL W/DAMPER (CHROME SILICON)	BLUE ORANGE	(IN) 906-AM (O) 805-DO	---	1.005 1.530	.730 1.110	135 lbs @1.875"	395 lbs @1.225"	400	1.160	.650"
<b>6105</b>	DUAL W/DAMPER (CHROME SILICON)	RED ORG/YELL	(IN) 906-RH (O) 305-DHS	---	1.000 1.430	.730 1.070	135 lbs @1.812"	315 lbs @1.260"	330	1.120	.550"
<b>6005</b>	DUAL W/DAMPER (CHROME SILICON)	BLUE ORG/YELL	(IN) 906-AM (O) 305-DHS	---	1.005 1.430	.730 1.070	135 lbs @1.750"	285 lbs @1.200"	275	1.120	.550"
<b>5005</b>	DUAL W/DAMPER (CHROME SILICON)	BLUE GREEN	(IN) 906-AM (O) 905-D	---	1.005 1.430	.730 1.075	125 lbs @1.531"	285 lbs @1.031"	320	.980	.500"
<b>935-DR</b>	OUTER W/DAMPER (CHROME SILICON)	RED	---	---	1.550	1.120	160 lbs @1.850"	340 lbs @1.370"	380	1.200	.550"
<b>*3105-D</b>	OUTER W/DAMPER (CHROME SILICON)	NATURAL	---	---	1.490	1.076	130 lbs @1.700"	320 lbs @1.200"	370	1.100	.500"
<b>*805-DO</b>	OUTER W/DAMPER (CHROME SILICON)	ORANGE	---	---	1.530	1.110	120 lbs @1.875"	290 lbs @1.350"	330	1.120	.525"
<b>235-D</b>	OUTER W/DAMPER (CHROME SILICON)	BLUE	---	---	1.260	.886	130 lbs @1.750"	320 lbs @1.200"	350	1.150	.550"
<b>*205-D</b>	OUTER W/DAMPER (CHROME SILICON)	YELLOW	---	---	1.260	.886	115 lbs @1.700"	268 lbs @1.210"	310	1.160	.490"
<b>*3605-D</b>	OUTER W/DAMPER (CHROME SILICON)	YELLOW	---	---	1.540	1.115	110 lbs @1.875"	300 lbs @1.350"	360	1.130	.525"
<b>305-DHS</b>	OUTER W/DAMPER (CHROME SILICON)	ORG/YELL	---	---	1.430	1.070	95 lbs @1.812"	185 lbs @1.362"	200	1.120	.450"
<b>905-D</b>	OUTER W/DAMPER (CHROME SILICON)	GREEN	---	---	1.430	1.075	85 lbs @1.531"	200 lbs @1.081"	250	.960	.450"
<b>205-G</b>	OUTER (CHROME SILICON)	GREY	---	---	1.240	.925	85 lbs @1.687"	165 lbs @1.210"	170	.930	.475"

\*OEM Factory Replacement

# VALVE SPRING HIGHLIGHTS

We are proud to announce that Isky has recently been appointed a Distributor for **PSI Sportsman Drag Race Valve Springs**.

You can trust **PSI** (Performance Springs Inc.) Valve Springs to out-perform all others because they are exclusively 100% American Made using the finest materials, the best CNC Equipment and state of the art trade secret processing.

Don't settle for those foreign made springs of lesser quality. Insist on Genuine **PSI** Drag Race Valve Springs and get into the winners circle!

Isky Stocks the following **PSI** Part numbers.

Note: 1200 Series Springs utilize special Heat Treating and additional "Special Processing" for minimal load loss.



		Valve Springs Specifications								
		(Tolerance = +/- .005)				Load Tolerance = +/- 3%				
		I.D.								
Part #	Type	O.D.	Outer	Middle	Inner	Seat Pressure	Open Pressure	Rate Per Inch	Max Net Lift	Coil Bind
1224	Dual	1.625"	1.175"	N/A	.855"	275 LBS. @ 2.000"	750 LBS @ 1.200"	594	.800"	1.130"
1246	Triple	1.645"	1.195"	.870"	.630"	300 LBS. @ 2.000"	890 LBS. @ 1.200"	738	.800"	1.100"
1247	Triple	1.660"	1.195"	.870"	.630"	340 LBS. @ 2.070"	940 LBS. @ 1.270"	750	.800"	1.130"
1248	Triple	1.660"	1.195"	.870"	.630"	375 LBS. @ 2.100"	1045 LBS. @ 1.200"	744	.900"	1.130"
1249	Triple	1.660"	1.195"	.870"	.630"	385 LBS. @ 2.200"	1110 LBS. @ 1.200"	725	1.000"	1.130"
1250	Triple	1.660"	1.195"	.870"	.630"	395 LBS. @ 2.250"	1178 LBS. @ 1.200"	746	1.050"	1.130"

## Street, Oval & Drag (Hydraulic & Solid Applications)

### 8205, 8305, 8005-A, 6005 DUAL WITH DAMPER

Our most popular Chrome Silicon Valve Springs, covering a wide variety of applications and installed heights.

- 8205** 1.530" O.D. Installed Height @ 1.900": Solid Lifter Camshafts Only
- 8305** 1.510" O.D. Installed Height @ 1.875": Solid Lifter Camshafts Only
- 8005-A** 1.530" O.D. Installed Height @ 1.875": Hydraulic & Solid Lifter Camshafts
- 6005** 1.430" O.D. Installed Height @ 1.750": Hydraulic Camshafts Only



### O.E.M. Factory Replacement

#### **205-D, 805-DO, 3105-D, 3605-D**

Compatible with stock retainers & valve seals for use with both hyd. & Solid lifter cams. Also, ideally suited for N.H.R.A. stock eliminator classes where a stock O.D. valve spring is required.

#### **\*235-D Small Block Chevy V-8**

Ideal for Oval Track Classes. Will handle up to .550" Net Valve Lift. Requires Isky Part No. 707-STA Steel Retainer to obtain 1.750" installed height.

**\*205-D** Small Block Chevy V-8 & V-6, Buick V-6 (late model)

**\*805-D** Big Block Chevy V-8

**\*3105-D** 340-360 Mopar V-8  
302 & 351 Ford Windsor V-8

**\*3605-D** Big Block Chevy V-8  
383-440 Chrysler V-8  
429-460 Ford V-8  
360-390 Ford V-8  
302-351 Boss Ford V-8  
360-390-401 AMC V-8



# SPECIAL PROCESSING "SP" SERIES HIGH ENDURANCE Valve Springs

High Endurance™ "SP" Springs are wound from "Super Clean" Hi-Tensile Chrome Silicone Wire!

**SP Series**



Every Part No. Test-Proven  
**700**  
Racing Miles (every batch)

The "SP" series utilizes "Hi-Tensile" Chrome Silicon outer spring material. For applications with radical cams and/or moderately high rpm, where traditional chrome silicon springs prove inadequate, the "SP" series is the next highest level of endurance. All "SP" series springs are Spintron Test-Proven up to 8000 rpm for 700 racing miles.

Part No.	Style	Outer OD/ID	Inner OD/ID	Seat Pressure	Open Pressure	Rate Per Inch	Coil Bind	Max. Net Lift	Type of Cam
6105-SP	Dual w/	1.440"	.985"	145 lbs	365 lbs	360	1.060"	.625"	Hyd. Roller
	Damper	1.083"	.730"	@1.800"	@1.175"				
8005-SP	Dual w/	1.530"	1.005"	150 lbs	435 lbs	415	1.160"	.650"	Solid
	Damper	1.110"	.730"	@1.875"	@1.225"				
8205-SP	Dual w/	1.530"	1.005"	150 Lbs	440 Lbs	440	1.150"	.650"	Solid
	Damper	1.110"	.730"	@1.900"	@1.300"				
9365-SP	Dual w/	1.550"	1.025"	225 Lbs	550 Lbs	460	1.170"	.680"	Roller
	Damper	1.135"	.740"	@1.950"	@1.270"				

# Endurance Plus™ SERIES EXTREME HIGH ENDURANCE Valve Springs

Endurance Plus™ Springs feature a Higher Alloy Outer Spring "Plus" special processing for increased durability!

**"PLUS" Series**



Every Part No. Test-Proven  
**850**  
Racing Miles (every batch)

The Endurance Plus™ series of valve springs utilizes a specially processed Tool Room Material outer spring for increased endurance/reliability beyond the "SP" series. Endurance Plus™ springs are designed for late models, modifieds, etc., and are Spintron Test-Proven up to 8400 rpm for 850 racing miles.

Part No.	Style	Outer OD/ID	Inner OD/ID	Seat Pressure	Open Pressure	Rate Per Inch	Coil Bind	Max. Net Lift	Type of Cam
8005 PLUS	Dual w/	1.530"	1.005"	140 Lbs	400 Lbs	420	1.160"	.650"	Solid
	Damper	1.110"	.730"	@1.875"	@1.275"				
8205 PLUS	Dual w/	1.530"	1.005"	150 Lbs	420 Lbs	440	1.120"	.650"	Solid
	Damper	1.110"	.730"	@1.900"	@1.300"				
9005 PLUS	Dual w/	1.530"	1.005"	170 Lbs	455 Lbs	455	1.160"	.650"	Solid
	Damper	1.110"	.725"	@1.900"	@1.300"				
9315 PLUS	Dual w/	1.550"	1.025"	220 Lbs	530 Lbs	480	1.130"	.660"	Roller
	Damper	1.135"	.740"	@1.900"	@1.240"				
9365 PLUS	Dual w/	1.560"	1.040"	235 Lbs	560 Lbs	470	1.170"	.680"	Roller
	Damper	1.145"	.740"	@1.950"	@1.270"				
9375 PLUS	Dual w/	1.560"	1.040"	230 Lbs	560 Lbs	480	1.190"	.680"	Roller
	Damper	1.145"	.740"	@1.970"	@1.290"				
9375/85 PLUS	Dual w/	1.560"	1.040"	250 Lbs	580 Lbs	470	1.190"	.680"	Roller
	Damper	1.145"	.740"	@1.970"	@1.290"				
9385 PLUS	Dual w/	1.560"	1.040"	245 Lbs	600 Lbs	500	1.180"	.720"	Roller
	Damper	1.145"	.740"	@2.000"	@1.280"				

# The World's Finest Racing Valve Springs™

**RUN HARDER    REV HIGHER    & LIVE LONGER**



**Go  
for  
the  
GOLD!**

**Isky's New  
"Gold Stripe"  
Tool Room™  
Valve Springs.**

- **Full-Spectrum Harmonic Vibration Control™**  
technologically advanced designs suppress surge and avoid harmonic convergence.
- **100% "Hands-On" Precision Manufactured...**  
by master valve spring craftsmen. Our standards are the highest in the performance industry!
- **Absolute Maximum Endurance™**  
Exclusive trade-secret endurance processing delivers "near zero" pressure drop after 1,000 racing test miles!
- **The 1,000 Racing Mile Endurance Test Standard™**  
Each set is guaranteed "race ready" because we test-prove every part number, every batch!
- **Gold Stripe Test Certification**  
Tool Room springs™ earn their "Gold Stripes" and written certification only after two full sets go the distance!
- **Exclusive Performance Guarantee**  
If you are not completely satisfied that our 9900 Series Tool Room™ springs are the most durable, fatigue resistant valve springs you have ever tried, return them to Isky for a full refund!

Only precision Tool Room™ valve springs with the exclusive "Gold Stripe" deliver this level of full throttle, indefatigable performance!





# ISKY'S 1,000 RACING MILE ENDURANCE TEST STANDARD

## *(How Tool Room™ Springs earn their "Gold" Stripes)*

Theoretically, it's possible for almost anyone to make a good valve spring once. Even with rather "loose" manufacturing and quality control standards, they can simply be lucky. They may even do it again some day. But, there is only one way to do it right every time. You must of course begin with the finest valve spring wire obtainable, wind it precisely on modern equipment and employ the special processing techniques necessary for maximum load retention. Even this however, is not enough, because valve springs that are routinely manufactured this way can and do experience failures (Just Ask Our Competition). The only way to be absolutely certain every batch of endurance racing valve springs is "worthy" is to test them. Not just any test mind you. (One company we know of feels that five or ten minutes of "prototype" testing at RPM is adequate)! This is an endurance test? Of course not and those who pretend to be endurance testing while performing such "phantom" tests are guilty of deceiving the racing community.

Rather than meaningless tests such as these, a real measure of stamina would be an endurance test of long duration under actual engine/race track operating conditions. Our 1,000 Racing Mile Endurance Test Standard is such a test, the first and only one of its kind in the industry. A test where only the best earn their stripes. GOLD STRIPES. The Precision 9900 Series "Gold Stripe" Tool Room™ Racing Valve Springs by Isky. They're the world's only endurance test-certified racing valve springs, guaranteed "One of the Thousand," alumni of the grueling 1,000 mile Spintron® endurance test, where two complete sets are run with a zero failure tolerance. No breakage and no excessive load loss are permitted, because it's pass or fail for Tool Room™ Springs - there is no gray area in between. If they don't measure up, we don't sell them—period! We test every batch of every part number we produce. We have to because you're depending on us to deliver the absolute maximum endurance possible in a racing valve spring. And we do. In a word, Tool Room™ valve springs are indefatigable! That's why we refer to them as The World's Finest Racing Valve Springs™—because without any doubt whatsoever, they most certainly are!

***Tool Room™ Valve Springs; the Crown Jewels of Isky's Endurance 9000™ family of racing valve springs.***



Isky TOOL ROOM™ Valve Springs are the ultimate for Winston Cup, Busch, Super Truck, WoO, Hav-a-Tampa series, and other 9:1 or all-out high compression oval track engines.

**R U N**  
**"ONE OF THE THOUSAND"**

**For your next high performance racing engine, insist on the NEW "Gold Standard". ISKY TOOL ROOM™ quality Oval Track Racing Valve Springs!**

**1,000 racing miles proven. Every Part Number! Every Batch!**

### Tool Room™ Racing Valve Springs Specifications

Part No.	Style	Outer OD/ID	Inner OD/ID	Seat Pressure	Open Pressure	Rate Per Inch	Coil Bind	Max. Net Lift	Type of Cam
295-D	Single w/ Damper	1.260" .886"	—	135 Lbs @1.775"	350 Lbs @1.175"	360	1.100"	.600"	Solid
9905	Dual w/ Damper	1.534" 1.120"	1.010" .740"	165 Lbs @1.900"	450 Lbs @1.300"	475	1.160"	.600"	Solid
9915	Dual w/ Damper	1.560" 1.145"	1.040" .740"	195 Lbs @1.975"	540 Lbs @1.275"	500	1.175"	.700"	Roller
9925	Dual w/ Damper	1.534" 1.120"	1.010" .740"	170 Lbs @1.950"	450 Lbs @1.350"	470	1.160"	.600"	Solid
9935	Dual Damperless	1.560" 1.155"	1.153" .820"	245 Lbs. @1.950"	590 Lbs. @1.250"	490	1.150"	.700"	Roller
9945	Dual w/ Damper	1.625" 1.175"	1.065" .770"	250 Lbs. @2.020"	675 Lbs. @1.270"	550	1.180"	.750"	Roller
9955	Dual w/ Damper	1.625" 1.175"	1.065" .770"	265 Lbs. @2.120"	700 Lbs. @1.320"	545	1.240"	.800"	Roller
9965	Dual w/ Damper	1.560" 1.145"	1.040" .740"	245 Lbs. @1.950"	585 Lbs. @1.270"	470	1.170"	.680"	Roller
9975	Dual w/ Damper	1.560" 1.145"	1.040" .740"	245 Lbs. @1.970"	585 Lbs. @1.290"	480	1.190"	.680"	Roller
9985	Dual w/ Damper	1.560" 1.145"	1.040" .740"	245 Lbs. @2.000"	600 Lbs. @1.300"	500	1.200"	.700"	Roller
9995	Dual w/ Damper	1.570" 1.145"	1.035" .740"	250 Lbs. @2.030"	625 Lbs. @1.300"	510	1.200"	.730"	Roller



# OPERATION FULL THROTTLE!



## Test Proven: Every Part No., Every Batch, Every Time!

You're almost there. The end of a tough race is fast approaching, but to win, you'll need to push your engine to the limit. The tach will read close to 9000 RPM. Such sustained red-line abuse is like sudden death overtime for your valve train. Ordinary roller valve springs will quickly succumb to resonant vibration, putting you out of the race. Only one valve spring can go there and come back alive, every time!

Introducing Isky's new **RAD-9000™** process option for *Tool Room™* valve springs. Under trade secret *Radial-Densification™* (RAD), the physical properties of *Tool Room™* springs are optimized for even greater surface to core uniformity. To insure they'll withstand the tortures of

sustained high rpm operation, we subject each batch to the most rigorous real world test standard ever created, SPINTRON-TEST II. It's a

no holds barred run as high as 9000 RPM where for over 1,000 miles, race ending competitive abuse is continuously revisited. This pass or fail benchmark is the only test of its kind in the performance industry and every set of *Tool Room™* springs conforms to its high standard.

So why take a chance on anything else? Run the only racing valve springs with sustained red-line protection. **RAD-9000™** process *Tool Room™* valve springs from Isky. Absolutely the world's finest, and the *new* standard of excellence in endurance racing today!

**RAD-9000™** technology is available for the following **TOOL ROOM™** valve springs.

Part No.	Style	Outer OD/ID	Inner OD/ID	Seat Press.	Open Press.	Rate	Coil Bind	Max Lift
<b>9945 RAD</b>	Dual w/ Damper	1.625" 1.175"	1.065" .770"	250 Lbs. @2.020"	675 Lbs. @1.270"	550	1.180"	.750"
<b>9955 RAD</b>	Dual w/ Damper	1.625" 1.175"	1.065" .770"	265 Lbs. @2.120"	700 Lbs. @1.320"	545	1.240"	.800"
<b>9965 RAD</b>	Dual w/ Damper	1.560" 1.145"	1.040" .740"	245 Lbs. @1.950"	590 Lbs. @1.270"	475	1.170"	.680"
<b>9968 RAD*</b>	Dual w/ Damper	1.570" 1.145"	1.040" .745"	250 Lbs. @1.950"	665 Lbs. @1.200"	560	1.100"	.750"
<b>9975 RAD</b>	Dual w/ Damper	1.560" 1.145"	1.040" .740"	245 Lbs. @1.970"	590 Lbs. @1.290"	485	1.190"	.680"
<b>9985 RAD</b>	Dual w/ Damper	1.560" 1.145"	1.040" .740"	245 Lbs. @2.000"	600 Lbs. @1.300"	500	1.200"	.700"
<b>9988 RAD*</b>	Dual w/ Damper	1.570" 1.145"	1.040" .745"	250 Lbs. @2.000"	660 Lbs. @1.250"	550	1.150"	.750"
<b>9995 RAD</b>	Dual w/ Damper	1.570" 1.145"	1.035" .740"	250 Lbs. @2.030"	625 Lbs. @1.300"	510	1.200"	.730"
<b>9998 RAD*</b>	Dual w/ Damper	1.600" 1.150"	1.040" .745"	250 Lbs. @2.050"	735 Lbs. @1.250"	600	1.160"	.800"
<b>9999 RAD*</b>	Dual w/ Damper	1.600" 1.150"	1.040" .745"	250 Lbs. @2.000"	770 Lbs. @1.200"	650	1.150"	.800"

**RAD-9000™** **TOOL ROOM™** valve springs are a higher performance option and feature premium pricing.

★ **Higher Frequency: Finely Tuned For Higher RPM, Valve Lifts & Rocker Ratios.**

# Marathon Level Endurance!

## **NEW!** Super-Rad™

### Tool Room™ Valve Springs from ISKY. World Champions Of Endurance!



#### *Precision Made in the U.S.A. Quality/Absolute Maximum Endurance™*

Designed for use in the most grueling, Sustained Hi-RPM Oval Track environments, Marathon Grade Super RAD™ Tool Room™ Valve Springs are manufactured from a Revolutionary new alloy steel.

They employ precision nitride heat treating to enhance their longevity well beyond anything ever seen before in an endurance racing valve spring. Simply put, the 1600 Super RAD™ Series

#### **\* Spintron Test III: Marathon**

**In tribute to the Legendary Run, we salute Olympia with the ultimate test of endurance: 1024 Racing Miles of abuse followed by 26 continuous miles of absolutely Flat Out (9000 RPM) Sustained Full throttle operation!**

succeeds where other valve springs fail! Test proven in the ISKY Research LAB under Spintron Test III\* parameters, Super-Rad's take endurance to the next level one step beyond our 9900 RAD Series.

#### 1600 Series SUPER-RAD™ Valve Springs Specifications

Part No.	Style	Outer OD/ID	Inner OD/ID	Seat Pressure	Open Pressure	Rate Per Inch	Coil Bind	Max Net Lift	Type of Cam
1645	Dual w/ Damper	1.625" 1.175"	1.065" .770"	250 Lbs. @ 2.020"	690 Lbs. @ 1.245"	550	1.180"	.775"	Roller
1685	Dual w/ Damper	1.560" 1.145"	1.040" .740"	250 Lbs. @ 2.000"	610 Lbs. @ 1.280"	500	1.200"	.720"	Roller
1695	Dual w/ Damper	1.570" 1.145"	1.035" .740"	250 Lbs. @ 2.030"	640 Lbs. @ 1.280"	510	1.200"	.750"	Roller
1698 ★	Dual w/ Damper	1.600" 1.150"	1.040" .745"	250 Lbs. @ 2.050"	735 Lbs. @ 1.250"	605	1.160"	.800"	Roller
<b>NEW!</b> 1699 ★	Dual w/ Damper	1.600" 1.150"	1.040" .745"	250 Lbs. @ 2.000"	770 Lbs. @ 1.200"	650	1.150"	.800"	Roller

★ **Higher Frequency: Finely Tuned For Higher RPM, Valve Lifts & Rocker Ratios.**

And like all ISKY ToolRoom™ Valve Springs, we test every part number of every batch, every time – no exceptions! The following Part Numbers are now available. More new designs will be added in the near future to meet the ever changing demands of Oval Track Racing!

# SMALL BLOCK CHEVY V8 283-327-350-400 CU IN. (1955-91)

We've been receiving many requests to adapt the LS-1 Style "B-HIVE™" Valve Springs to the earlier Small Block Chevy V-8's (1955-91) for Moderate Performance Hydraulic, Hydraulic Roller and Solid Lifter Cam Applications. Using either the 165-A or 195-A in these applications will require the use of our 165-ST Steel Retainer which is compatible with both stock and our VL-32 (11/32) Valve locks.



PART NO.	"TOP" RETAINER END OD/ID	"BOTTOM" LOCATER END OD/ID	MAT'L	SEAT PRESS	OPEN PRESS	RATE PER INCH	COIL BIND	MAX LIFT	RETAINER PART NO.
165-A	$\frac{1.055"}{.660"}$	$\frac{1.290"}{.885"}$	Super clean Chrome Silicon OVATE Wire	130 Lbs. @1.800"	320 Lbs. @1.200"	310	1.140"	.600"	165 ST
195-A	$\frac{1.015"}{.630"}$	$\frac{1.290"}{.905"}$	"Tool Room" Mat'l/Specially Processed Round wire	120 Lbs. @1.800"	360 Lbs. @1.175"	380	1.100"	.625"	165 ST

## Big Block Chevy V-8

For the Big Block Chevy V-8 1967-95 and Gen-6 Engines, we have recently introduced our new part no. 175-A "B-HIVE™" Valve Springs, designed for use in Moderate Performance Hydraulic & Hydraulic Roller Applications. When using the 175-A valve spring, it is required to use our 169-ST matching steel retainer which is compatible with either stock or Isky VL-3/8, (3/8") valve locks.



PART NO.	"TOP" RETAINER END OD/ID	"BOTTOM" LOCATER END OD/ID	MAT'L	SEAT PRESS	OPEN PRESS	RATE PER INCH	COIL BIND	MAX LIFT	RETAINER PART NO.
175-A	$\frac{1.095"}{.650"}$	$\frac{1.445"}{1.000"}$	Super clean Chrome Silicon OVATE Wire	155 Lbs. @1.880"	375 Lbs. @1.280"	370	1.210"	.600"	169-ST

# LS-1 CHEVY V8 350 CU. IN. (1997-UP)

With the increased popularity of the Late Model LS-1 Chevy V8 Platform, we are pleased to introduce the following new Valve Train Components.



## “B-HIVE™” Form Valve Springs:

We are now offering two high performance “B-HIVE™” Valve Springs that are “drop-in” replacements for the Stock LS-1 “B-HIVE™” spring. Both Springs are compatible with stock retainers and locks... but we highly recommend for increased performance, the use of our 135-ST steel retainer and VL-500 Machined Bead Locks (see below).

PART NO.	“TOP” RETAINER END OD/ID	“BOTTOM” LOCATER END OD/ID	MAT'L	SEAT PRESS	OPEN PRESS	RATE PER INCH	COIL BIND	MAX LIFT	RETAINER & LOCK COMBO PART NO.
165-A	$\frac{1.055"}{.660"}$	$\frac{1.290"}{.885"}$	Super clean Chrome Silicon OVATE Wire	130 Lbs. @1.800"	320 Lbs. @1.200"	310	1.140"	.600"	135-ST VL-500
195-A	$\frac{1.015"}{.630"}$	$\frac{1.290"}{.905"}$	“Tool Room” Mat'l/Specially Processed Round wire	120 Lbs. @1.800"	360 Lbs. @1.175"	380	1.100"	.625"	135-ST VL-500

## Machined Steel Retainers:

(For use with 165-A and 195-A “B-HIVE™” Valve Springs)

Our P/N 135-ST Steel Retainer weighs the same as the Stock LS-1 “Stamped” Retainer but is superior in strength. It is machined from 4130 Chromemoly Steel & Heat Treated for Maximum “Pull-Thru” Strength.

The combination of the 135-ST steel retainer and our “Machined” VL-500 Bead Locks yields a more precise, consistent installed height and gives added insurance in your LS-1 Engine with more aggressive hydraulic roller cam profiles at higher RPM. This combination can be used with stock LS-1 “B-HIVE™” springs as well.

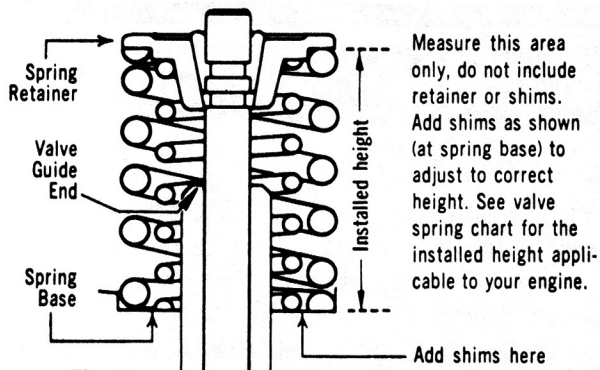


## LS-1 Dual Valve Springs:

When looking for the increased reliability of a “Drop-In” Dual Valve Spring (No Machining Required) our High Quality 4905 is manufactured from Hi-Tensile, Chrome Silicon Alloy and will accommodate Hydraulic Roller Cams up to .650” Valve Lift comfortably. When converting from the stock Beehive to the 4905 Dual Springs, it is also required to use our matching 185-ST Steel Retainers, 185-VSL Spring Locaters and IVS-400 Oil Seals.

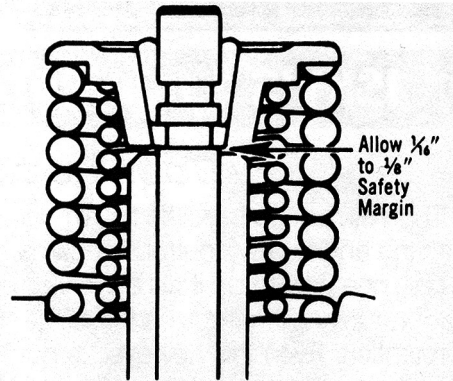


P A R T N U M B E R				OUTER OD/ID	INNER OD/ID	SEAT PRESS	OPEN PRESS	RATE PER INCH	COIL BIND	MAX NET LIFT
VALVE SPRINGS	STEEL RETAINERS	SPRING LOCATERS	VALVE SEALS							
4905	185-ST	185-VSL	IVS-400	$\frac{1.290"}{.940"}$	$\frac{.940"}{.690"}$	$\frac{125 \text{ lbs.}}{@1.800"}$	$\frac{360 \text{ lbs.}}{@1.150"}$	360	1.065"	.650"



**Fig. 1**  
**CORRECT SPRING HEIGHT**

Allow  $\frac{1}{16}$ " to  $\frac{1}{8}$ " clearance between valve guide (or oil seal) end and the spring retainer, with valve in the full open position. Machine down valve guide to provide clearance if necessary.



**Fig. 2**  
**VALVE OPEN CLEARANCE CHECK**

ENGINE	HYDRAULIC HI-REV SOLID		ISKY SPRING RETAINER	HOLE SAW REQUIRED		ROLLER		ISKY RETAINER AL-Alum TI-Titanium ST-Steel	HOLE SAW REQUIRED	
	SPRING	INSTALLED HEIGHT		SAW	PILOT	SPRING	INSTALLED HEIGHT		SAW	PILOT
Chevrolet 265-350	235-D	@ 1.750	707-STA	NONE		9315	@ 1.900	275-ST	3608	11/32
	6005	@ 1.750	507-ST	568	11/32	9265	@ 1.875	507-STA	3608	11/32
	205-D	@ 1.700	707-ST	NONE		9365	@ 1.950	91-TI/275-ST	3608	11/32
	4205	@ 1.687	707-AL	208	11/32	9425	@ 1.950	91-TI/275-ST	3608	11/32
	6105	@ 1.812	507-STA	568	11/32	9385	@ 2.000	91-TI/275-ST	3608	11/32
Chevrolet 396-454	8005-A	@ 1.875	347-ST	NONE		9265	@ 1.875	347-ST	NONE	
	8305	@ 1.875	347-ST	NONE		9705	@ 1.950	975-TI	3708	3/8
	3605-D	@ 1.875	347-ST	NONE		9315	@ 1.900	275-ST	NONE	
	805-DO	@ 1.875	347-ST	NONE		9425	@ 1.950	91-TI/275-ST	NONE	
						9685	@ 2.000	975-TI	3708	3/8
						9365	@ 1.950	91-TI/275-ST	NONE	
						9385	@ 2.000	91-TI/275-ST	NONE	
Chevy II 4 & 6 Cyl. 292 Truck	205-D	@ 1.700	707-ST	NONE		4205	@ 1.687	707-AL	208	11/32
	6005	@ 1.750	507-ST	1258	11/32	6205	@ 1.750	507-ST	1258	11/32
Chevy 6 37-53 & 54-62	Stock Outer & 1006W	@ 1.812	267-AL	NONE						
GMC 6 Cyl. (Not V-6)	1006W	@ 1.687	267-AL	NONE						
Corvaire 1960-69	4005	@ 1.687	707-AL	208 (80 H.P. Eng. Only)						
Chevy V-6 90°	205-D	@ 1.700	707-ST	NONE		9205	@ 1.900	91-TI/275-ST	3608	11/32
Chry-Ply 277-301-318	6005	@ 1.687	347-ST	NONE		6005	@ 1.687	347-ST	NONE	
Chry-Dodge-Ply 273-318-340	6005	@ 1.687/1.720	See Catalog	1258	See Catalog	6005	@ 1.687/1.720	See Catalog	1258	See Catalog
Chrysler "B" 383-440	8005-A	@ 1.875	3607-ST	1258	3/8	9265	@ 1.875	3607-ST	1258	3/8
	3605-D	@ 1.875	3607-ST	NONE		9425	@ 1.930	91-TI/275-ST	1258	3/8
Chrysler Hemi 51-58	Stock Outer & 906 AM @ Stock Height		Stock	NONE		9265	@ 1.812	3607-ST	1258	3/8
	6005	@ 1.812	3607-ST	1258	3/8	9315	@ 1.920	91-TI/275-ST	3608	3/8
Chrysler 426 Hemi	8005-A	@ 1.830	4107-ST	1258	5/16	9265	@ 1.850	4107-ST	1258	5/16
			4107-ST	1258	5/16	9425	@ 1.950	91-TI/275-ST	3608	5/16
						9705	@ 1.950	975-TI	3708	5/16
Ford 221-302 (Fairlane)	6005	@ 1.750	See Catalog	1258	See Catalog	9265	@ 1.875	507-STA	3608	11/32
Ford 351 Cleveland	6005	@ 1.750	See Catalog	1258	11/32	9425	@ 1.950	91-TI/275-ST		
Ford Boss 302-351	8005-A	@ 1.875	507-STA	NONE		9425	@ 1.950	91-TI/275-ST		
Ford V8 272-292-312	6005	@ 1.750	507-ST	208	11/32	6005	@ 1.750	507-ST	208	11/32
Ford 332-352-361 390-406-427-428	8005-A	@ 1.875	3607-ST	NONE		6205	@ 1.875	3607-ST	NONE	
	6205	@ 1.875	3607-ST	NONE		9705	@ 1.950	975-TI	3708	11/32
	8005-A	@ 1.830	507-STA	1258	11/32	9425	@ 1.950	91-TI	NONE	
Ford 429 Wedge						9701	@ 2.000	980-TI/10	3708	11/32
						6205	@ 1.750	507-ST	208	11/32
Ford 6 Cyl (All Exc. Falcon)	305-D	@ 1.750	507-ST	NONE						
	6005	@ 1.750	507-ST	208	11/32					
Ford Falcon 144-170-200-250	1005W-206G	@ 1.625	327-ST	208	5/16	4205	@ 1.687	327-ST	208	5/16
Oldsmobile V-8 '49-64	6005	@ 1.750	507-ST	NONE		6005	@ 1.750	507-ST	508	11/32
Oldsmobile 1965 & up 330-455	5005	@ 1.531	927-ST	NONE		6005	@ 1.687	507-ST	NONE	
	6005	@ 1.750	507-ST	NONE						
Olds. f-85 215 cu. in.	625-626	@ 1.687	707-AL	208	11/32	4205	@ 1.687	707-AL	208	11/32
Pontiac V8 1955-Up	5005	@ 1.531	927-ST	NONE		5105	@ 1.531	927-ST	NONE	
Pontiac 4-Cyl 151" Iron Duke						9265	@ 1.875	507-STA	3608	11/32
	8005-A	@ 1.875	507-STA	3608	11/32	9205	@ 1.900	91-TI/275-ST	3608	11/32
						9425	@ 1.950	91-TI/275-ST	3608	11/32
American Mtrs. 290-401	8005-A	@ 1.830	3607-ST	1258	3/8	6205	@ 1.750	3607-ST	1258	3/8
Buick V-6 198-225	625-626	@ 1.687	627-ST	NONE						
Buick Spec. 215 Alum., 340 Iron	625-626	@ 1.687	707-AL	NONE		4205	@ 1.687	707-AL	NONE	
Buick V8 53-56 & 57-66	1006W	@ 1.530	1007-AL	NONE		1005W-1006W	@ 1.530	1007-AL	NONE	
Buick V8 '68 & up 350	625-626	@ 1.687	627-ST	NONE		4205	@ 1.687	627-ST	NONE	
Buick V8 400-455, '67 & up	7005	@ 1.687	1007-AL	NONE		6105	@ 1.687	1007-AL	NONE	
Buick V-6 Even Fire 231"	625/626	@ 1.687	707-AL	NONE		9365	@ 1.950	91-TI/275-ST	NONE	
Valiant 6 Cyl.	305D	@ 1.625	247-AL	NONE		4205	@ 1.625	247-AL	208	3/8

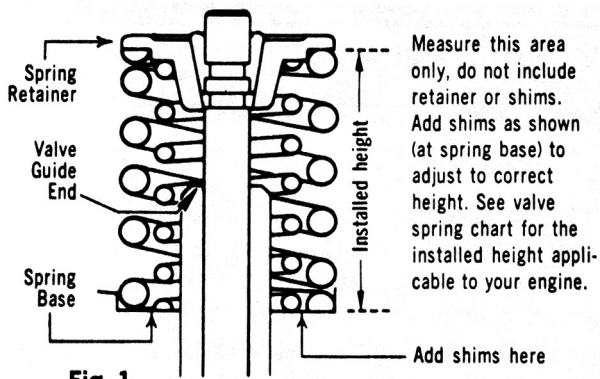


Fig. 1

**CORRECT SPRING HEIGHT**

Allow  $\frac{1}{16}$ " to  $\frac{1}{8}$ " clearance between valve guide (or oil seal) end and the spring retainer, with valve in the full open position. Machine down valve guide to provide clearance if necessary.

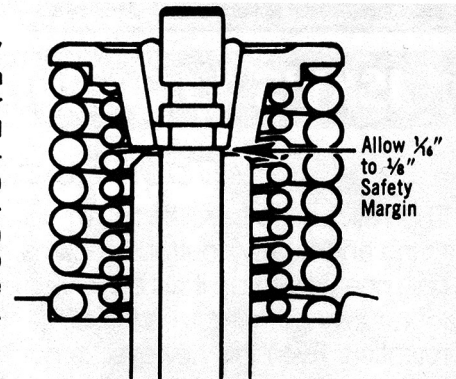
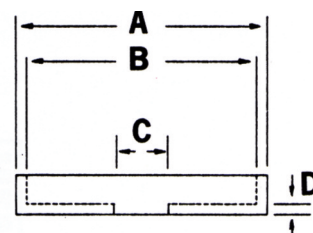


Fig. 2

**VALVE OPEN CLEARANCE CHECK**

ENGINE MAKE	YR/MODEL	VALVE SPRING PART NO.	INSTALLED HEIGHT	SEAT PRESSURE	RETAINER	MAX COIL BIND HEIGHT	SPRING RATE LBS PER INCH	OUTER SPRING O.D. I.D.	INNER SPRING O.D. I.D.
A/Healey 4 cyl.	BMC "C" Type	906AM Stock Outer	1.687	105 lbs	Stock	1.060	---	---	1.005 .730
A/Healey 6 cyl.	BMC "C" Type	906AM Stock Outer	1.594	94 lbs	Stock	1.060	---	---	1.005 .730
Alpha Romeo	Early 4 Cyl. DOHC	JA-005 JA-006	1.312	105 lbs	Stock	.860	200	1.145 .875	.855 .635
Alpha Romeo	Late 4 Cyl. DOHC	455-D JA-006	1.350	112 lbs	Stock	.850	225	1.210 .925	.855 .635
Anglia (Street & Comp.)		VWE-005 SP-006	1.250	80 lbs	AN-007	.720	260	1.095 .815	.820 .625
Anglia (Super Comp.)		VWE-005 SP-116	1.250	100 lbs	AN-007	.720	320	1.095 .815	.815 .605
Anglia GT Cross Flow Hd	66 & Up Cortina-Pinto	VWE-005 SP-006	1.200	90 lbs	AN-007	.720	260	1.095 .815	.820 .625
Anglia	Cosworth	VWE-005 SP-006	1.250	80 lbs	Stock	.720	260	1.095 .815	.820 .625
BMW S.O.H.C.	2002-1600	625 626	1.550	120 lbs	Stock	.970	300	1.235 .900	.905 .675
Datsun S.O.H.C.	L-16, L-24	1005-W 206-G	1.650	115 lbs	1624-ST	.940	250	1.320 .985	.935 .690
Datsun	1200 (A-12)	455-D JA-006	1.500	80 lbs	Stock	.850	225	1.210 .855	.855 .635
Datsun S.O.H.C.	L-16, L-18, L-24	7005	1.700	130 lbs	1624-ST	.970	280	1.340 1.000	1.000 .748
Ford Pinto	2000	455 456	1.400	85 lbs	457-AL	.850	270	1.210 .925	.925 .685
Renault Gordini/ Lotus Europa		456-INNER Stock Outer	1.420	92 lbs	Stock	.910	270	---	.925 .685
Ford Pinto/Capri	2300 cc	905-D	1.480	95 lbs	347-ST	.960	240	1.430 1.075	---
Ford V-6	2600 cc	905-D	1.450	100 lbs	4107-AL	.960	240	1.430 1.075	---
Ford V-6	2800 cc	905-D	1.450	100 lbs	4107-ST	.960	240	1.430 1.075	---
Fiat D.O.H.C.	124/125	455 626	1.417	114 lbs	Stock	.900	230	1.210 .925	.905 .675
Jaguar	6 Cyl. DOHC	JA-005 JA-006	1.312	110 lbs	Stock	.860	200	1.145 .875	.855 .635
MGA-MGB	56 & Up	MG-05 MG-06	1.560	115 lbs	3607-ST	1.060	320	1.430 1.075	1.005 .730
Porsche	53-71	625-626	1.560	110 lbs	PO-07 PO-17	.970	300	1.235 .900	.905 .675
Sprite (Street & Comp.)	BMC "A" Type	VWE-005 SP-006	1.187	100 lbs	SP-007	.720	260	1.095 .815	.820 .625
Sprite (Super Comp.)	BMC "A" Type	VWE-005 SP-116	1.187	115 lbs	SP-007	.720	320	1.095 .815	.815 .605
Sunbeam-Hillman	OHV	625 626	1.710 (Remove Bot. Ret. & Shims)	70 lbs	Stock	.970	300	1.235 .900	.905 .675
Toyota Corolla Hemi	71 & Up	455 626	1.480	105 lbs	(See Pg. 97)	.940	230	1.210 .925	.905 .675
Toyota	18RC SOHC	Stock Outer 626 Inner	Stock Ht.	80 lbs	Stock	.970	---	---	.905 .675
Toyota	20RC SOHC	Stock Outer 626 Inner	1.594	93 lbs	Stock	---	---	---	.905 .675
Toyota	1200	455 626	1.510	100 lbs	STMR	.930	230	1.210 .925	.905 .675
Triumph (Street & Comp.)	Spittire	VWE-005 SP-006	1.187	100 lbs	Stock	.720	260	1.095 .815	.820 .625
Triumph (Super Comp.)	Spittire	VWE-005 SP-116	1.187	115 lbs	Stock	.720	320	1.095 .815	.815 .605
Triumph TR-2-3-4	TR-2-3-4	TR-05 TR-06	1.625	100 lbs	927-ST	1.060	320	1.430 1.075	1.005 .730
Volkswagen	61 & Up 40 HP	205-G	1.530	100 lbs	V-007	.970	170	1.240 .925	---
Volkswagen	61 & Up 40 HP	V-005D	1.530	135 lbs	V-007	.970	240	1.250 .925	---
Volks-Porsche	411-914	205-G	1.530	100 lbs	Stock	.970	170	1.240 .925	---
Volks-Porsche	411-914	V-005D	1.530	135 lbs	327-ST	.970	240	1.250 .925	---
Volvo	B-16 B-18	625 626	1.625	98 lbs	(See Pg. 98)	.970	300	1.235 .900	.905 .675

# VALVE SPRING CUPS

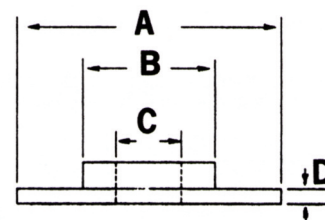


Valve Spring Cups locate the outside diameter of the valve spring in relation to the Valve Guide, preventing spring movement which leads to "Galling" on aluminum heads. Isky Valve Spring Cups are manufactured from Chrome Moly Steel, then heat treated for maximum durability. They are designed to fit over .625" O.D. Valve Guides.

\*NOTE: Spring seat area must be enlarged when installing Spring Cups.

Spring Seat Cup Part No.	Dim. A	Dim. B	Dim. C	Dim. D	*Installation Cutter	Corresponding Isky Spring Part No.
900-SC	1.660"	1.540"	.630"	.060"	N/A	8005-A, 8205, 8305, 9005, 9105
940-SC	1.660"	1.560"	.630"	.050"	N/A	9205, 9265, 9315, 9365, 9385, 9425, 9905, 9925, 9935, 9965, 9975, 9985, 9995
970-SC	1.730"	1.630"	.630"	.050"	N/A	9685, 9705, 9945, 9955
990-SC	1.750"	1.670"	.630"	.060"	N/A	9701, 9801-A, 9901-A

# VALVE SPRING LOCATERS



Valve Spring Locaters are designed for applications where excessive diameter machining on the cyl. head is prohibitive. They locate the inside of the inner spring in relation to the valve guide, preventing spring movement on aluminum heads. Spring locaters are manufactured from Chrome Moly Steel, heat treated and are designed to fit over both .565" and .625" O.D. Valve Guides.

Spring Locater Part No.	Dim. A	Dim. B	Dim. C	Dim. D	*Installation Cutter	Corresponding Isky Spring Part No.
165-VSL	1.280"	.880"	.575"	.045"	-	165-A & 195-A on LT-1 & Early SB Chevy V8
175-VSL	1.280"	.880"	.505"	.045"	-	165-A & 195-A on LS-1 Chevy V8
185-VSL	1.280"	.665"	.505"	.045"	-	4905 on LS-1 Chevy V8
255-VSL	1.250"	.765"	.575"	.075"	-	235-D on LT-1 SB Chevy V8
700-VSL	1.520"	.720"	.570"	.045"	-	8005-A, 8205, 8305, 9005, 9105, 9265
800-VSL	1.540"	.740"	.570"	.045"	-	9205, 9315, 9365, 9365-SP, 9375/85 PLUS, 9385, 9425, 9905, 9915, 9925, 9965, 9975, 9985, 9995
900-VSL	1.520"	.720"	.630"	.045"	-	8005-A, 8205, 8305, 9005, 9105, 9265
940-VSL	1.540"	.740"	.630"	.045"	-	9205, 9315, 9365, 9365-SP, 9375/85 PLUS, 9385, 9425, 9905, 9915, 9925, 9965, 9975, 9985, 9995
950-VSL	1.500"	.810"	.570"	.060"	-	9935
960-VSL	1.500"	.810"	.630"	.060"	-	9935
965-VSL	1.615"	.765"	.570"	.045"	-	9685, 9705, 9945, 9955
970-VSL	1.615"	.765"	.630"	.045"	-	9685, 9705, 9945, 9955



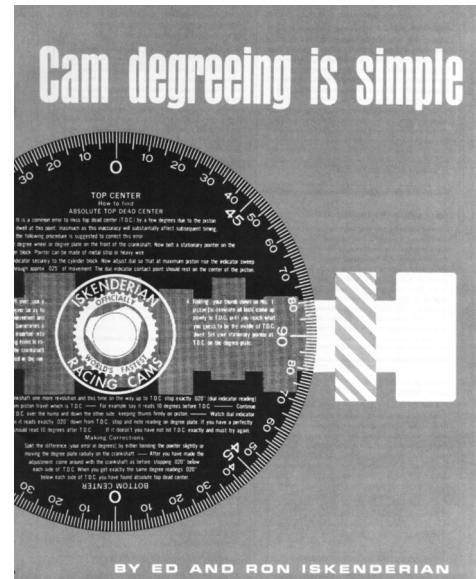
# ISKY ACCESSORIES



## Decals

Part No.	Description	Size
ID-5	Racing Cams - Standard	7 1/2" x 2 1/4"
* ID-6	Racing Cams - Contingency	10 3/4" x 3"
ID-7	Racing Cams - Mini	2 1/4" x 3/4"
ID-8	Roller Lifters	10 3/4" x 3"
ID-9	Valve Springs	10 3/4" x 3"
ID-12	Assortment Pack - 4 of each decal listed above	

\*NOTE: Attention Racers . . . ID-6 is the contingency decal needed on your car or boat where there is an Isky Racing Cams contingency sponsorship in effect.



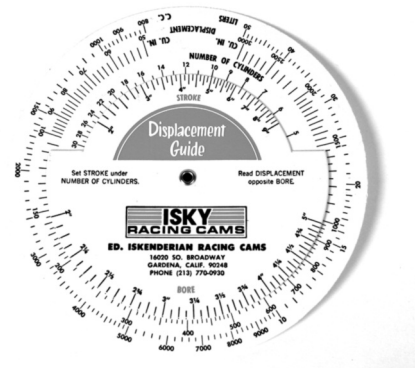
## Cam Degreeing Made Simple

An easy to read step by step illustrated guide to degreeing your cam. Contains complete instructions for the first timer as well as valuable information for the seasoned veteran.



## Fender Covers

Made of durably strong material with soft non-slip backing that won't scratch your car's finish.



## Isky Ratio Computer

Here is a necessary tool for all racing enthusiasts and engine builders. It simply converts MPH to RPM, or RPM to MPH. On the reverse side is a Displacement Guide which accurately figures displacement in cubic inches (or centimeters). Just dial in the stroke and number of cylinders and read the displacement opposite the bore size.

# ISKY APPAREL



## Shop Aprons

A very useful three pocket Shop Apron. Rugged and durable, one size fits all. Black with Isky logo on chest.

**Part No. SA-100**



## Corduroy Hats

Available in Red, Blue and Black. Adjustable.

**Part No. HAT-200** (specify color when ordering)



## Jackets

Flight Jackets with our Isky Racing Cams logo embroidered emblem on front and back. This is a very popular "Racers Jacket" for all around weather use.

Available in Small, Medium, Large, X-Large and XX-Large sizes. Available in Black only.

**Part No. 50-JKT**



On Back of T-Shirt

## T-Shirts

"Do It Right" Isky Racing Cams logo on front. #1 for 50 Years logo on back. 100% cotton.

Available in Small, Medium, Large, X-Large and XX-Large sizes. Available in White only.

**Part No. SHIRT-200**

# CAM CHECKING EQUIPMENT

## “Soft Springs”

## “Light Tension” Spring Kit

Soft springs are the simple and practical way to check V/P (valve to piston clearance).

Introduced by Isky over 20 years ago, they are supplied free with every cam and kit purchase.

They may also be purchased separately and each kit includes simple step-by-step instructions.

**Part No. 100-LSK** (One pair light tension springs)

**Part No. 116-LSK** (Set of 16 light tension springs)

**Isky First**



## Professional Cam Timing Kit

A must for today's professional engine builder. This kit allows you to perform an ultra-precise check of cam timing in the engine. Kit includes a cast aluminum fixture which locates on the block, two extended length flat lifters, two light springs to preload the tappets, a degree wheel and full instructions.

Positive dial indicator location assures absolute parallel movement of the indicator's stem with that of the lifters. May also be used with roller tappets. Fixture accepts standard 3/8" dia. x 2" indicator shank. (Kit does not include dial indicator shown.)

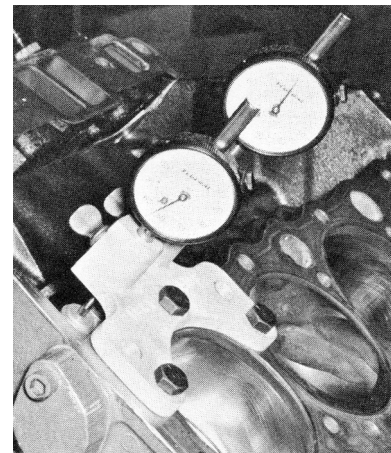
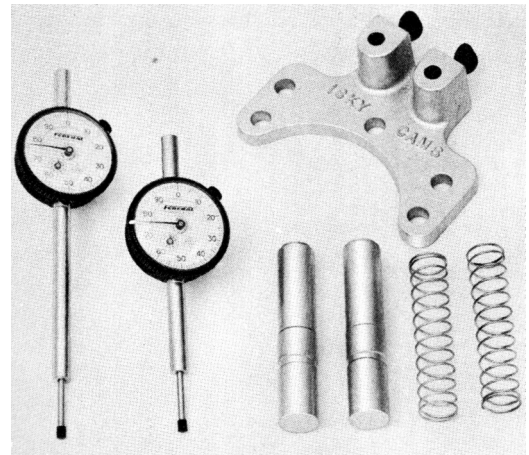
**Fits 265-350 cu. in. small block Chevy V8 engines only.**

**Part No. 200-PCK**

**Part No. 200-DI** - 2" Travel Dial Indicator for above

**Part No. 100-DI** - 1" Travel Dial Indicator for Magnetic Base

**Part No. 100-MB** - Magnetic Base and Holder for Dial Indicator



**Isky First**

## ZDDP Plus™: Restores Optimum Zinc/Phosphate Levels to motor oils!

### What is ZDDPlus™?

ZDDPlus™ is an oil supplement that contains very high concentrations of the well-known additive ZDDP (Zinc Dialkyl-Dithio-Phosphate), which has been the primary EP (Extreme Pressure) ingredient in all quality motor oils for over 70 years.



### Why do I need ZDDP?

The EPA has placed stricter emission requirements on new cars, which have influenced manufacturers to remove ZDDP from motor oils. If you have an older car that was specified to use SF or earlier motor oil, its design requires ZDDP. Your engine could be damaged with the use of modern SM oils. If you have a race car that runs a flat tappet mechanical or hydraulic lifter cam, your engine is at serious risk.

### Can I use ZDDPlus™ with regular and synthetic oils?

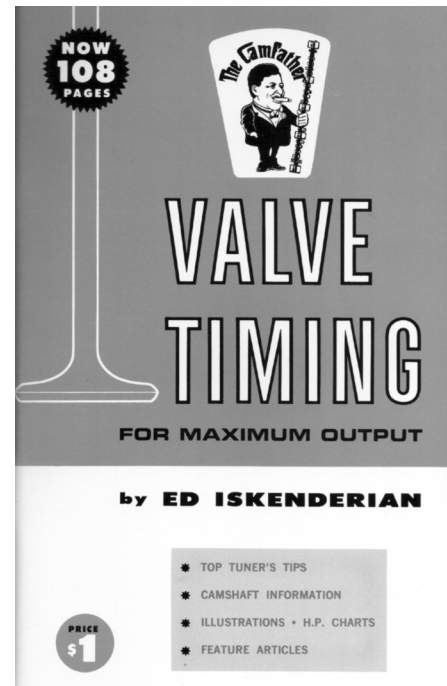
ZDDPlus™ should be compatible with all conventional (on road) and synthetic oils intended for automotive use. Virtually all of these oils have contained higher amounts of ZDDP for years and only recently have the levels been decreased.

### When should ZDDPlus™ be added?

ZDDPlus™ can be added any time, but the best time is whenever the oil is changed. A single 4 oz. bottle of ZDDPlus™ provides the proper concentration for a 4- to 5-quart oil change.

Part No.	Pkg
ZDDP	4 oz. Bottle

## Valve Timing Booklet



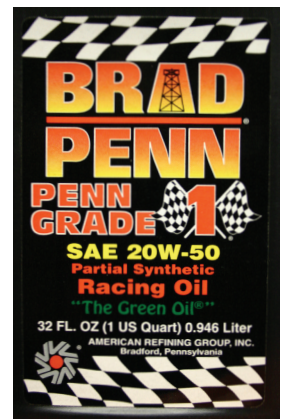
Written by the legendary camfather, Ed Iskenderian, "Valve Timing for Maximum Output" is the basic knowledge for today's cam grinders. Fully illustrated with many photos, charts and drawings, "valve timing" has for many years been required reading for many auto shop classes around the country.

## "BRAD-PENN": King of Performance Motor Oils!

Truly the worlds finest performance motor oil, **BRAD-PENN** is refined from 100% Pure Pennsylvania Grade (Paraffin Base) Crude - the best on planet earth! The original Kendall Refinery in Bradford, PA is the oldest continuously operated facility in the USA, producing the "Green Oil" Racers have come to love and trust! Endorsed by Isky as the premier oil for protection of your flat tappet mechanical or hydraulic lifter camshaft, **BRAD-PENN** has the optimum "Zinc/Phosphate" additive package you need.

	Part No.
- 30 wt "Break-in" Oil	BP-30
- 10 w/30 Racing Oil	BP-10
- 20 w//50 Racing Oil	BP-20

**Call ISKY Factory  
for current pricing.**



SPECIAL NOTE: Because Pennsylvania's finest "brad-penn" motor oils are so precisely formulated and their "zinc/phosphate" additive package has been refined to perfection, no additive is either necessary or recommended. Specifically in fact, the company warns that the use of any normally recognized oil additive may in fact actually disrupt or dilute their optimized formulation. Too much of a good thing can work to your disadvantage!

Eliminate

Dry  
Start-Up!

Fight  
Premature  
Wear



## ABSOLUTE MAXIMUM PROTECTION

New Formula *Isky RevLube™* with *XP-2000* Prevents “Dry Start-Up” and virtually eliminates engine main/rod bearing, camshaft and gear wear by treating these surfaces with a proprietary, heat-activated, extreme pressure chemical barrier. *RevLube™* offers absolute maximum protection during engine “break-in” (the critical mating-in period of virgin metal surfaces), because its microscopic smoothing action effectively redistributes loading over a wider surface area.

Laboratory tests confirm that *RevLube™* with *XP-2000* more than doubles the actual load bearing surface area (the equivalent of reducing applied load forces in half!) Used as directed, *RevLube™* delivers unequalled protection for cam lobes, bearings, lifters, distributor drive gears, timing chains/gears, wrist-pins, rocker arms, valve stems/guides and pushrod ends. Furthermore, you assemble with confidence because *RevLube™* will not run off -- stored engines remain protected even after months of exposure to extreme temperature conditions.

Part No.	Description	Color
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XPL-208	8 oz. Container <i>RevLube™</i> with <i>XP-2000</i>	Red
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XPL-216	16 oz. Container <i>RevLube™</i> with <i>XP-2000</i>	Red
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(Ideal for bearings, gears, wrist pins, rocker arms, valve stems/guides and pushrod ends)

RL-1	4 oz. Container of <i>RevLube™</i>	Black
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RL-12	(12 pack display) of 4 oz. <i>RevLube™</i>	Black
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RL-24	(24 pack display) of 4 oz. <i>RevLube™</i>	Black
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RL-48	(48 pack display) of 4 oz. <i>RevLube™</i>	Black
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RL-100	16 oz. Container of <i>RevLube™</i>	Black
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(Ideal for cam and lifter assembly protection on “Flat Tappet” hydraulic & solid cams)



## CAM & LIFTER (CL) KITS



Available for Popular V8 Applications (Chevy, Chrysler, Ford, Oldsmobile and Pontiac). Our Cam & Lifter Kits (Hydraulic Assemblies) each consist of the Hydraulic Camshaft of your choice, a set of Isky "Quiet Power" Hydraulic Lifters, can of rev-lube and installation instructions.

To order one of these kits, just add a "CL" to the part number of the camshaft of your choice (i.e., a Small Block Chevy 262-HL/HYD cam & lifter kit would be CL-201262).

## CAM, LIFTER & HEAVY DUTY TIMING SET (CLT) KITS

### Small Block Chevy V8



Now available for Small Block Chevy V8 only is our new (CLT) Hydraulic Cam, Lifter & Heavy Duty Performance Timing Set Kits. Each kit contains the Hydraulic cam of your choice, a set of Isky "Quiet Power" Hydraulic Lifters and our **NEW PART NO. 300-TS** Heavy Duty Performance Timing Set, consisting of Cast-Iron Cam Gear, Roller Timing Chain Assembly and 3-Keyway "Multi-Index" Steel Crank Sprocket. Purchasing this as a complete kit will save you money and at the same time assure you of a precision timed cam installation!

To order one of these kits, just add a "CLT" to the part number of the camshaft of your choice (i.e., a 270-MEGA Hyd cam, lifter & timing set assembly would be CLT-201271). You can also add a 300-TS to one of our complete assembly kits. Doing so will save you money off the normal purchase of the timing set by itself.

# ISKY MEGA-CAMS™ THE LATEST AND MOST POWERFUL HYDRAULIC CAMS

Utilizing the latest advances in computer technology combined with forty-five years of experience, no wonder over 100,000 satisfied customers worldwide have proven Isky Mega-Cams™ to be the most powerful hydraulic cams available.

The Mega-Cam line was designed to produce more power over a broader RPM range. By having this wider range, gear ratio and weight can easily be compromised, minimizing the sacrifice of low-end performance to gain top end horsepower and creating a truly versatile line of performance cams.

Recommended For... High Performance Use: Bracket Racing, Oval Track Racing, Marine, 4-WD and Off Road Use.

CAM TUNING FOR MAXIMUM OUTPUT						
GRIND	DESCRIPTION	IDLE	RPM RANGE	RECOMMENDED		
				TRANS	AXLE RATIO	CARB CFM RATING
264 Mega Hyd.	Compression Ratio: 9-10.5:1 Tremendous Torque and good Mid-Range Power	Good	2000-5800	Any	3.23/3.70	up to 625 CFM
270 Mega Hyd.	Compression Ratio: 9-10.5:1 Excellent Mid-Range Performance	Fair	2000-6200	Manual or Auto w/Stock Converter	3.70/4.11	550-650
280 Mega Hyd.	Compression Ratio: 9.5-10.5:1 Combination High Performance Use/Bracket Racing	Lopey	2500-6800	Manual or Auto with 2500 RPM Converter	3.90/4.11	625-780
292 Mega Hyd.	Compression Ratio: 10-11:1 Combination Hi-Performance Use/Bracket Racing	Rough	3000-7000	Manual or Auto with 2800 RPM Converter	4.11/4.56	650-780
304 Mega Hyd.	Compression Ratio: 11:1 & Up Ultimate Hi-Performance Use/Bracket Racing	Rough	3200-7500	Manual or Auto with 3000 RPM Converter	4.33/4.88	700-850

**NOTE:** Dual pattern mega-cams also available. Contact your local speed shop or Isky Factory Direct for purchasing information.

## CHEVROLET v8 265-283-302-305-307-327-350-400 cu. in. engines (SMALL BLOCK) (1957-87)

### Vacuum Rule / Oval Track:

With the increased enforcement of vacuum rule camshafts at many oval tracks across the country, Isky has introduced several new Mega Hydraulic grinds to meet this demand. The most popular applications are listed below. More grinds will be added in the near future.

Part No. Cam Only	Grind No./Type	Application	RPM-Range	Valve Lift INT. EX.	Valve Lash Hot INT. EX.	ADV. Duration INT. EX.	.050 Duration INT. EX.	Lobe Center
201SL1/14	SL-1 HYDRAULIC	Classes where stock lift rules apply; 16" Vacuum @ 1,000 RPM	2400-6600	.390 .410	.000 .000	268° 272°	228° 232°	114°
201SL3	SL-3 HYDRAULIC	Classes where stock lift rules apply; 18" Vacuum @ 750 RPM	2000-5700	.390 .410	.000 .000	252° 260°	208° 216°	114°
201LR1/14	LR-1 HYDRAULIC	.420" lift rule class; 16" Vacuum @ 1000 RPM	2200-6400	.415 .415	.000 .000	264° 264°	224° 224°	114°
201268/14	268-MEGA HYDRAULIC	.450" lift rule class; 16" Vacuum @ 1000 RPM	2200-6400	.450 .450	.000 .000	268° 268°	224° 224°	114°
201264/14	264-MEGA HYDRAULIC	.450" lift rule class; 16" Vacuum @ 800 RPM	2200-6000	.450 .450	.000 .000	264° 264°	214° 214°	114°
201271/14	270-MEGA HYDRAULIC	Hobby stock & street stock classes: 16" vacuum @ 1000 RPM	2200-6400	.465 .465	.000 .000	270° 270°	221° 221°	114°

# ISKY MEGA-CAMS™ AVAILABLE FOR THESE POPULAR V-8 ENGINES

APPLICATION	CAM ONLY PART NO.	CAM & KIT PART NO.	GRIND	TYPE	LIFT	ADVERTISED DURATION	.050" DURATION	LOBE CENTER
Small Block Chevy V8	201264	200264	264-Mega-cam	Hyd.	.450"	264°	214°	108°
	201271	200271	270-Mega-cam	Hyd.	.465"	270°	221°	108°
	201281	200281	280-Mega-cam	Hyd.	.485"	280°	232°	108°
	201292	200292	292-Mega-cam	Hyd.	.505"	292°	244°	108°
	201304	200304	304-Mega-cam	Hyd.	.525"	304°	256°	108°
Big Block Chevy V8	396264	390264	264-Mega-cam	Hyd.	.525"	264°	214°	108°
	396271	390271	270-Mega-cam	Hyd.	.542"	270°	221°	108°
	396281	390281	280-Mega-cam	Hyd.	.565"	280°	232°	108°
	396282	390282	280-Mega-cam	Hyd.	.565"	280°	232°	110°
	396292	390292	292-Mega-cam	Hyd.	.590"	292°	244°	108°
396304	390304	304-Mega-cam	Hyd.	.612"	304°	256°	108°	
Ford 429/460 V8	311264	310264	264-Mega-cam	Hyd.	.525"	264°	214°	108°
	311271	310271	270-Mega-cam	Hyd.	.542"	270°	221°	108°
	311281	310281	280-Mega-cam	Hyd.	.565"	280°	232°	108°
Ford 360/390/428 V8	351264	350264	264-Mega-cam	Hyd.	.525"	264°	214°	108°
	351271	350271	270-Mega-cam	Hyd.	.542"	270°	221°	108°
	351281	350281	280-Mega-cam	Hyd.	.565"	280°	232°	108°
Ford 289/302 V8	381264	380264	264-Mega-cam	Hyd.	.480"	264°	214°	108°
	381271	380271	270-Mega-cam	Hyd.	.496"	270°	221°	108°
	381281	380281	280-Mega-cam	Hyd.	.517"	280°	232°	108°
	381292	380292	292-Mega-cam	Hyd.	.538"	292°	244°	108°
	381304	380304	304-Mega cam	Hyd.	.560"	304°	256°	108°
Ford 351/400 Cleveland V8	431264	430264	264-Mega-cam	Hyd.	.525"	264°	214°	108°
	431271	430271	270-Mega-cam	Hyd.	.542"	270°	221°	108°
	431281	430281	280-Mega-cam	Hyd.	.565"	280°	232°	108°
	431292	430292	292-Mega-cam	Hyd.	.590"	292°	244°	108°
Olds 350-455 late V8	691264	690264	264-Mega-cam	Hyd.	.480"	264°	214°	108°
	691271	690271	270-Mega-cam	Hyd.	.496"	270°	221°	108°
	691281	690281	280-Mega-cam	Hyd.	.517"	280°	232°	108°
	691291	690291	292-Mega-cam	Hyd.	.538"	292°	244°	108°
	691304	690304	304-Mega-cam	Hyd.	.560"	304°	256°	108°
Pontiac V8	901264	900264	264-Mega-cam	Hyd.	.450"	264°	214°	108°
	901271	900271	270-Mega-cam	Hyd.	.465"	270°	221°	108°
	901281	900281	280-Mega-cam	Hyd.	.485"	280°	232°	108°
	901292	900292	292-Mega-cam	Hyd.	.505"	292°	244°	108°
	901304	900304	304-Mega cam	Hyd.	.525"	304°	256°	108°
Chrysler "B" 383-440 V8 Single Bolt	160164	160064	264-Mega-cam	Hyd.	.450"	264°	214°	108°
	160171	160071	270-Mega-cam	Hyd.	.465"	270°	221°	108°
	160181	160081	280-Mega-cam	Hyd.	.485"	280°	232°	108°
	160129	160029	292-Mega-cam	Hyd.	.505"	292°	244°	108°
	160134	160034	304-Mega cam	Hyd.	.525"	304°	256°	108°
Chrysler "B" 383-440 V8 "3-Bolt"	165164	165064	264-Mega-cam	Hyd.	.450"	264°	214°	108°
	165171	165071	270-Mega-cam	Hyd.	.465"	270°	221°	108°
	165181	165081	280-Mega-cam	Hyd.	.485"	280°	232°	108°
	165129	165029	292-Mega-cam	Hyd.	.505"	292°	244°	108°
	165134	165034	304-Mega cam	Hyd.	.525"	304°	256°	108°
Chrysler "A" 273-340 360 V8	390164	390064	264-Mega-cam	Hyd.	.450"	264°	214°	108°
	390171	390071	270-Mega-cam	Hyd.	.465"	270°	221°	108°
	390181	390081	280-Mega-cam	Hyd.	.485"	280°	232°	108°
	390129	390029	292-Mega-cam	Hyd.	.505"	292°	244°	108°
	390134	390034	304-Mega cam	Hyd.	.525"	304°	256°	108°



# ISKY PERFORMANCE-ECONOMY SUPERCAMS™

After many years of testing, Iskenderian has developed the 256 & 262 Hyd. Supercams to provide fuel economy with low end and mid range RPM performance. They are computer-designed with low valve overlap to maintain smooth idling, with specially profiled valve events to maximize volumetric efficiency, enabling them to work with both O.E.M. and aftermarket carburetors and intake manifolds. Recommended compression ratio is between 8-10:1. Supercams will also work in conjunction with computer controls with no modifications required.

So, if you're looking to increase power and still maintain good economy, see your Isky dealer and purchase a Supercam. You'll join the thousands of satisfied customers across the nation who have proven the Supercam is the No. 1 Performance/Economy Camshaft!

- 256 Hyd. Supercam is designed for normal operation of cars, vans, pick-ups, 4-WD's, etc..using high gear ratios; also light to moderate towing.
- 262 Hyd. Supercam is for vehicles that demand moderately higher RPM power with lower gear ratios.

CAM TUNING FOR MAXIMUM OUTPUT						
GRIND	DESCRIPTION	IDLE	RPM RANGE	RECOMMENDED		
				TRANS	AXLE RATIO	CARB CFM RATING
256 Supercam	Economy plus more mid-range power for highway driving or towing/hauling applications - high or low compression.	Smooth	1500-4800	Any	Standard	500-625
262 Supercam	Good economy plus magnum force performance for extended highway and/or high performance driving	Good	2000-5500	Any	3.08-3.70	Up to 625

# ISKY SUPERCAMS™ SPECIFICATIONS

APPLICATION	PART NO.	GRIND	LIFT	ADVERTISED DURATION	LOBE CENTER	HYD. LIFTER PART NO.	TIMING CHAIN & GEAR SET
CHEVY V6, 90° 200-229 cu.in.	101256	256 Supercam	.425	256°	112°	222-HY	N/A
	101262	262 Supercam	.435	262°	108°		
CHEVROLET V6, 60° 173 cu. in.	111256	256 Supercam	.425	256°	112°	222-HY	N/A
	111262	262 Supercam	.435	262°	108°		
CHEVY V8 SMALL BLOCK *305 V-8 only 283-327-350-400	201256	256 Supercam	.425	256°	112°	222-HY	300-TS
	*201258	256 Super cam	.425	256°	108°		
	201262	262 Supercam	.435	262°	108°		
CHEVY V8 BIG BLOCK 396-402-427-454	396256	256 Supercam	.492	256°	112°	222-HY	390-TS
	396262	262 Supercam	.488	262°	108°		
CHEVY II 6 CYL 194-230-250	231256	256 Supercam	.492	256°	112°	222-HY	250MGS
	231262	262 Supercam	.488	262°	109°		
CHEVY II 4 CYL 153 cu. in. engines	251256	256 Supercam	.492	256°	112°	222-HY	250MGS
	251262	262 Supercam	.488	262°	109°		
CHEVY 6 292 Truck	291256	256 Supercam	.492	256°	112°	222-HY	Cam Gear is Supplied w/Cam
	291266	262 Supercam	.488	262°	109°		
FORD 6 CYL 144-170-200 cu. in.	321256	256 Supercam	.450	256°	112°	392-HY	N/A
	321262	262 Supercam	.445	262°	109°		
FORD 6 CYL 240-300	331256	256 Supercam	.450	256°	112°	432-HY	N/A
	331262	262 Supercam	.445	262°	108°		
FORD V8 429-460	311256	256 Supercam	.492	256°	112°	432-HY	310-TS
	311262	262 Supercam	.488	262°	108°		
FORD V8 330-360-390-427-428	351256	256 Supercam	.492	256°	112°	392-HY	350-TS
	351262	262 Supercam	.488	262°	108°		
FORD V8 221-260-289-302	381256	256 Supercam	.450	256°	112°	432-HY	380-TS (1974-up)
	381262	262 Supercam	.445	262°	108°		
FORD V8 351 Windsor	388256	256 Supercam	.450	256°	112°	432-HY	380-TS (1974-up)
	388262	262 Supercam	.445	262°	108°		
FORD V8 CLEVELAND 351-351-M-400-400-M	431256	256 Supercam	.492	256°	112°	432-HY	430-TS
	431262	262 Supercam	.488	262°	108°		
BUICK V8 215- ALUM. 300-340-IRON	621256	256 Supercam	.450	256°	112°	202-HY	620-TS
	621262	262 Supercam	.445	262°	110°		
BUICK V8 1968 & UP 350 cu. in.	671256	256 Supercam	.450	256°	112°	202-HY	620-TS
	671262	262 Supercam	.445	262°	110°		
OLDS V8 1968 & UP 350-400-403-425-455	691256	256 Supercam	.450	256°	112°	692-HY	690-TS
	691262	262 Supercam	.445	262°	108°		
BUICK V8 1968 & UP 400-430-455	115125	256 Supercam	.450	256°	112°	202-HY	1150-TS
	115126	262 Supercam	.445	262°	108°		
BUICK V6 (1962-71) 198-225 cu. in. engines	116125	256 Supercam	.450	256°	112°	202-HY	1160-TS
	116126	262 Supercam	.465	262°	109°		
BUICK V6 1975-77 (Odd Fire) 231 cu. in. engines	117125	256 Supercam	.450	256°	112°	202-HY	1160-TS
	117126	262 Supercam	.465	262°	109°		
BUICK V6 1978 & Up (Even Fire) 196-231-252	119125	256 Supercam	.450	256°	112°	202-HY	1190-TS
	119126	262 Supercam	.465	262°	109°		
PONTIAC V8 350-389-421-428-455	901256	256 Supercam	.425	256°	112°	692-HY	900-TS
	901262	262 Supercam	.435	262°	108°		
AMERICAN MTRS 6 CYL 199-233-258	133125	256 Supercam	.450	256°	111°	3052-HY	N/A
	133126	262 Supercam	.445	262°	110°		
AMERICAN MTRS V8 304-360-390-401	135125	256 Supercam	.450	256°	112°	3052-HY	1300-TS
	135126	262 Supercam	.465	262°	108°		
CHRYSLY/PLYM. DODGE V8 383-413-426-440	160125	256 Supercam	.425	256°	112°	3912-HY	1600-TS
	160126	262 Supercam	.435	262°	108°		
CHRYSLY/PLYM. DODGE V8 (3-Bolt Cam) 383-413-426-440	165125	256 Supercam	.425	256°	112°	3912-HY	1650-3BK
	165126	262 Supercam	.435	262°	108°		
INTERNATIONAL V8 304-345-392 cu. in.	190156	256 Supercam	.450	256°	112°	1902-HY	N/A
	190162	262 Supercam	.465	262°	108°		
CHRYSLER V8 340-360	390125	256 Supercam	.425	256°	112°	3912-A-HY	3900-TS
	390126	262 Supercam	.435	262°	108°		

NOTE: To insure maximum reliability and performance, you should also purchase a set of our premium quality "Quiet Power" Hydraulic Lifters and one of our wide-body all metal Timing Chain/Gear Sets.

# DUAL PATTERN SUPERCAMS™

After Extensive Testing, Iskenderian has just released the New Dual Pattern Supercams for Popular V-6 and V-8 Engines.

Like our traditional single pattern Supercams, Dual Pattern Supercams provide fuel economy with low end and mid range RPM performance. They are computer-designed with low valve overlap to maintain smooth idling and will work with both O.E.M. and aftermarket carburetors and intake manifolds. They work best with compression ratios between 8-10:1. Dual Pattern Supercams will also work in conjunction with computer controls with no modifications required.

Dual Pattern Supercams have shown a substantial increase in pulling power and torque in heavy towing applications with rear axle ratio's from 3:23 to 4:11! They also work well with restricted exhaust ports in stock cylinder heads. The longer exhaust duration allows better breathing and produces more overall power and torque in these applications.

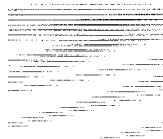
CAM TUNING FOR MAXIMUM OUTPUT						
GRIND	DESCRIPTION	IDLE	RPM RANGE	RECOMMENDED		
				TRANS	AXLE RATIO	CARB CFM RATING
256/262 HYD	Economy plus more mid-range power for highway driving or towing/hauling applications - high or low compression.	Smooth	1800-5000	Any	3:23-4:11	500-625

# ISKY DUAL PATTERN SUPERCAMS™ SPECIFICATIONS

APPLICATION	PART NUMBER	GRIND	LIFT	ADVERTISED DURATION	LOBE CENTER	HYD. LIFTER PART NO.	TIMING CHAIN & GEAR SET
CHEVY V-6, 90° 200-229 cu. in.	101256/262	256/262 HYD	.425 .435	256° 262°	110°	222-HY	N/A
CHEVROLET V-6, 60° 173 cu. in.	111256/262	256/262 HYD	.425 .435	256° 262°	110°	222-HY	N/A
CHEVY V-8 SMALL BLOCK 283-327-350-400	201256/262	256/262 HYD	.425 .435	256° 262°	110°	222-HY	300-TS
CHEVY V8 BIG BLOCK 396-402-427-454	396256/262	256/262 HYD	.492 .488	256° 262°	110°	222-HY	390-TS
FORD V-8 429-460	311256/262	256/262 HYD	.492 .488	256° 262°	110°	432-HY	310-TS
FORD V-8 330-360-390-427-428	351256/262	256/262 HYD	.492 .488	256° 262°	110°	392-HY	350-TS
FORD V-8 221-260-289-302	381256/262	256/262 HYD	.450 .445	256° 262°	110°	432-HY	380-TS (1974-up)
FORD V-8 351 Windsor	388256/262	256/262 HYD	.450 .445	256° 262°	110°	432-HY	380-TS (1974-up)
FORD V-8 CLEVELAND 351-351-M-400-400-M	431256/262	256/262 HYD	.492 .488	256° 262°	110°	432-HY	430-TS
OLDS V-8 1968 & UP 350-400-403-425-455	691256/262	256/262 HYD	.450 .445	256° 262°	110°	692-HY	690-TS
BUICK V-6 1975-77 (Odd Fire) 231 cu. in. engines	117125/26	256/262 HYD	.450 .465	256° 262°	110°	202-HY Set of 12	1160-TS
BUICK V-6 1978 & Up (Even Fire) 196-231-252	119125/26	256/262 HYD	.450 .465	256° 262°	110°	202-HY Set of 12	1190-TS
PONTIAC V-8 350-389-421-428-455	901256/262	256/262 HYD	.425 .435	256° 262°	110°	692-HY	900-TS
AMERICAN MOTORS 6 CYL 199-233-258	133125/26	256/262 HYD	.450 .445	256° 262°	110°	3052-HY Set of 12	N/A
CHRYSL./PLYM./DODGE V8 383-413-426-440	160125/26	256/262 HYD	.425 .435	256° 262°	110°	3912-HY	1600-TS
CHRYSLER/PLYMOUTH V8 (3-Bolt Cam) 383-413-426-440	165125/26	256/262 HYD	.425 .435	256° 262°	110°	3912-HY	1650-3BK
INTERNATIONAL V8 304-345-392 cu. in.	190125/26	256/262 HYD	.450 .465	256° 262°	110°	N/A	N/A
CHRYSLER V8 340-360	390125/26	256/262 HYD	.425 .435	256° 262°	110°	3912-A-HY	3900-TS

# AMERICAN MOTORS • V-8 1966-and up 304 Jeep and 360 cu. in. engines only

Cast Iron Billet  
HYDRAULIC



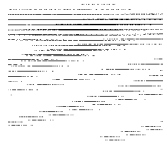
## 1.6:1 Rocker Ratio



Part No. Cam Only	Grind No./Type	APPLICATION	RPM-Range	Valve Lift INT. EX.	Valve Lash Hot INT. EX.	ADV. Duration INT. EX.	.050 Duration INT. EX.	Lobe Center
135125	256-SUPERCAM HYDRAULIC	Best torque & economy in passenger cars & trucks. Max compr., 9.5:1, smooth idle, std. axle ratio, good vacuum, computer compatible. Std. to 600 CFM Carb.	1500-4800	.450 .450	.000 .000	256° 256°	202° 202°	112°
135125/26	256/262 HYDRAULIC	Best overall cam for towing. Trucks, Vans, R.V., etc. Broad torque band. Good vacuum. 3.55-4.10 axle ratio. 9.5:1 compr. Computer compatible. Smooth idle.	1800-5000	.450 .465	.000 .000	256° 262°	202° 208°	110°
135126	262-SUPERCAM HYDRAULIC	Low/mid-range performance cam. 9.5:1 compr. 3.08-3.70 axle ratio. Passenger cars & trucks. Up to 625 CFM Carb.	2000-5500	.465 .465	.000 .000	262° 262°	208° 208°	108°
135127	270-HL HYDRAULIC	Good All-Around Performance. Fair idle. stock Converter. 3:70-4:11 Axle Ratio. Up to 650 CFM Carb. 9.5:1 Compr.	2000-6000	.470 .470	.000 .000	270° 270°	216° 216°	108°
135128	280-HL HYDRAULIC	High Perf. Use. Lopey idle. 2500 Stall. 3.70-4.11 axle ratio. Up to 750 CFM Carb. 9.5:1 compr.	2500-6500	.490 .490	.000 .000	280° 280°	224° 224°	108°

# AMERICAN MOTORS • V-8 1966-and up 290-343-390-401 cu. in. engines

Cast Iron Billet  
HYDRAULIC



## 1.6:1 Rocker Ratio



Part No. Cam Only	Grind No./Type	APPLICATION	RPM-Range	Valve Lift INT. EX.	Valve Lash Hot INT. EX.	ADV. Duration INT. EX.	.050 Duration INT. EX.	Lobe Center
135125	256-SUPERCAM HYDRAULIC	Best torque & economy in passenger cars & trucks. Max compr., 9.5:1, smooth idle, std. axle ratio, good vacuum, computer compatible. Std. to 600 CFM Carb.	1500-4800	.450 .450	.000 .000	256° 256°	202° 202°	112°
135125/26	256/262 HYDRAULIC	Best overall cam for towing. Trucks, Vans, R.V., etc. Broad torque band. Good vacuum. 3.55-4.10 axle ratio. 9.5:1 compr. Computer compatible. Smooth idle.	1800-5000	.450 .465	.000 .000	256° 262°	202° 208°	110°
135126	262-SUPERCAM HYDRAULIC	Low/mid-range performance cam. 9.5:1 compr. 3.08-3.70 axle ratio. Passenger cars & trucks. Up to 625 CFM Carb.	2000-5500	.465 .465	.000 .000	262° 262°	208° 208°	108°
135127	270-HL HYDRAULIC	Good All-Around Performance. Fair idle. stock Converter. 3:70-4:11 Axle Ratio. Up to 650 CFM Carb. 9.5:1 Compr.	2000-6000	.470 .470	.000 .000	270° 270°	216° 216°	108°
135128	280-HL HYDRAULIC	High Perf. Use. Lopey idle. 2500 Stall. 3.70-4.11 axle ratio. Up to 750 CFM Carb. 9.5:1 compr.	2500-6500	.490 .490	.000 .000	280° 280°	224° 224°	108°

# AMERICAN MOTORS • V-8 1966-and up 304 Jeep and 360 cu. in. engines only

## Recommended Valve Train Components



		These items included in Cam & complete kit						Optional accessories		
CAM & COMPLETE KIT P/N	CAM & LIFTER KIT P/N	LIFTERS P. 31-32	PUSHRODS P. 33-37	VALVE SPRINGS P. 47-58	SPRING SHIMS P. 44	STEEL RETAINERS P. 38	POLY LOCKS P. 43	TIMING SET P. 18,45	VALVE LOCKS P. 46	VALVE SEALS P. 15
134025	—	3052-HY	1343-A <sup>J</sup>	8005-A <sup>B</sup>	# 2	3607-ST	N/A	1350-TS	VL-3/8	VS-3/8 <sup>Q</sup>
134025/26	—	3052-HY	1343-A <sup>J</sup>	8005-A <sup>B</sup>	# 2	3607-ST	N/A	1350-TS	VL-3/8	VS-3/8 <sup>Q</sup>
134026	—	3052-HY	1343-A <sup>J</sup>	8005-A <sup>B</sup>	# 2	3607-ST	N/A	1350-TS	VL-3/8	VS-3/8 <sup>Q</sup>
134027	—	3052-HY	1343-A <sup>J</sup>	8005-A <sup>B</sup>	# 2	3607-ST	N/A	1350-TS	VL-3/8	VS-3/8 <sup>Q</sup>
134028	—	3052-HY	1343-A <sup>J</sup>	8005-A <sup>B</sup>	# 2	3607-ST	N/A	1350-TS	VL-3/8	VS-3/8 <sup>Q</sup>

# AMERICAN MOTORS • V-8 1966-and up 290-343-390-401 cu. in. engines

## Recommended Valve Train Components

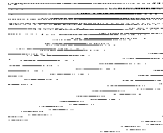


		These items included in Cam & complete kit						Optional accessories		
CAM & COMPLETE KIT P/N	CAM & LIFTER KIT P/N	LIFTERS P. 31-32	SCREW-IN ROCKER STUDS P. 43	VALVE SPRINGS P. 47-58	SPRING SHIMS P. 44	STEEL RETAINERS P. 38	POLY LOCKS P. 43	TIMING SET P. 18,45	VALVE LOCKS P. 46	VALVE SEALS P. 15
135025	—	3052-HY	1309 <sup>K</sup>	8005-A <sup>B</sup>	# 2	3607-ST	PL-3/8 <sup>K</sup>	1350-TS	VL-3/8	VS-3/8 <sup>Q</sup>
135025/26	—	3052-HY	1309 <sup>K</sup>	8005-A <sup>B</sup>	# 2	3607-ST	PL-3/8 <sup>K</sup>	1350-TS	VL-3/8	VS-3/8 <sup>Q</sup>
135026	—	3052-HY	1309 <sup>K</sup>	8005-A <sup>B</sup>	# 2	3607-ST	PL-3/8 <sup>K</sup>	1350-TS	VL-3/8	VS-3/8 <sup>Q</sup>
135027	—	3052-HY	1309 <sup>K</sup>	8005-A <sup>B</sup>	# 2	3607-ST	PL-3/8 <sup>K</sup>	1350-TS	VL-3/8	VS-3/8 <sup>Q</sup>
135028	—	3052-HY	1309 <sup>K</sup>	8005-A <sup>B</sup>	# 2	3607-ST	PL-3/8 <sup>K</sup>	1350-TS	VL-3/8	VS-3/8 <sup>Q</sup>

- B Requires cylinder heads be machined with Isky #1258 Hole Saw
- J Adjustable Pushrods
- K 1309 Studs are Mandatory when using PL-3/8 Poly Locks.
- Q Requires cylinder heads be machined with VST-3/8 Cutter

# AMERICAN MOTORS • 6-CYLINDER 199-232-258 cu. in. engines

Cast Iron Billet  
HYDRAULIC



## 1.6:1 Rocker Ratio

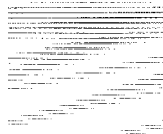


Part No. Cam Only	Grind No./Type	APPLICATION	RPM-Range	Valve Lift INT. EX.	Valve Lash Hot INT. EX.	ADV. Duration INT. EX.	.050 Duration INT. EX.	Lobe Center
1331-M	Mile-A-Mor HYDRAULIC	Mileage & Maximum Lower RPM Torque for Late Model, Low Compression (8-9.5:1 Max) Engines.	1000-3800	.425 .425	.000 .000	248° 248°	194° 194°	108°
133125	256-SUPERCAM HYDRAULIC	Best torque & economy in passenger cars & trucks. Max compr., 9.5:1, smooth idle, std. axle ratio, good vacuum, computer compatible. Std. to 600 CFM Carb.	1500-4800	.450 .450	.000 .000	256° 256°	202° 202°	111°
133125/26	256/262 HYDRAULIC	Best overall cam for towing. Trucks, Vans, R.V., etc. Broad torque band. Good vacuum. 3.55-4.10 axle ratio. 9.5:1 compr. Computer compatible. Smooth idle.	1800-5000	.450 .445	.000 .000	256° 262°	202° 208°	110°
133126	262-SUPERCAM HYDRAULIC	Low/Mid-Range performance cam. 9.5:1 compr. 3.08-3.70 axle ratio. Passenger cars & trucks. Up to 625 CFM Carb.	2000-5500	.445 .445	.000 .000	262° 262°	208° 208°	109°
133127	270-HL HYDRAULIC	Good All-Around Performance. Fair idle. stock Converter. 3:70-4:11 Axle Ratio. Up to 650 CFM Carb. 9.5:1 Compr.	2000-6000	.475 .475	.000 .000	270° 270°	216° 216°	109°
133128	282 HYDRAULIC	High Perf. Use. Lopey idle. 2500 Stall. 3.70-4.11 axle ratio. Up to 750 CFM Carb. 9.5:1 compr.	2500-6500	.467 .467	.000 .000	282° 282°	224° 224°	109°

# BUICK SPECIAL • V-8 1961-67

300-340 cu.in. Cast Iron Engines  
215 cu. in Aluminum Engines

Cast Iron Billet  
HYDRAULIC



## 1.6:1 Rocker Ratio



Part No. Cam Only	Grind No./Type	APPLICATION	RPM-Range	Valve Lift INT. EX.	Valve Lash Hot INT. EX.	ADV. Duration INT. EX.	.050 Duration INT. EX.	Lobe Center
621256	256-SUPERCAM HYDRAULIC	Best torque & economy in 327-400 c.i. Passenger cars & trucks. Max. compr. 9.5:1. Smooth idle. Std axle ratio, good vacuum, computer compatible. Std to 600 CFM Carb.	1500-4800	.450 .450	.000 .000	256° 256°	202° 202°	112°
621262	262-SUPERCAM HYDRAULIC	Low/mid-range performance cam. 9.5:1 compr. 3.08-3.70 axle ratio. Passenger cars & trucks. Up to 625 CFM Carb.	2000-5500	.445 .445	.000 .000	262° 262°	208° 208°	110°
621270	270-HL HYDRAULIC	Good All-Around Performance. Fair idle. stock Converter. 3:70-4:11 Axle Ratio. Up to 650 CFM Carb. 9.5:1 Compr.	2000-6000	.470 .470	.000 .000	270° 270°	216° 216°	109°
621282	282 HYDRAULIC	High Perf. Use. Lopey idle. 2500 Stall. 3.70-4.11 axle ratio. Up to 750 CFM Carb. 9.5:1 compr.	2500-6500	.467 .467	.000 .000	282° 282°	224° 224°	109°

# AMERICAN MOTORS • 6-CYLINDER 199-232-258 cu. in. engines

## Recommended Valve Train Components



These items included in Cam & complete kit							Optional accessories		
CAM & COMPLETE KIT P/N	LIFTERS P. 31-32	PUSHRODS P. 33-37	VALVE SPRINGS P. 47-58	SPRING SHIMS P. 44	STEEL RETAINERS P. 38	POLY LOCKS P. 43	TIMING SET P. 18,45	VALVE LOCKS P. 46	VALVE SEALS P. 15
1331-MK	3052-HY (12 pcs)	693-B <sup>J</sup> (12 pcs)	6005 <sup>B</sup> (12 pcs)	# 2	3607-ST (12 pcs)	—	N/A	VL-3/8 (24 pcs)	VS-3/8 <sup>Q</sup> (12 pcs)
133025	3052-HY (12 pcs)	693-B <sup>J</sup> (12 pcs)	6005 <sup>B</sup> (12 pcs)	# 2	3607-ST (12 pcs)	—	N/A	VL-3/8 (24 pcs)	VS-3/8 <sup>Q</sup> (12 pcs)
133025/26	3052-HY (12 pcs)	693-B <sup>J</sup> (12 pcs)	6005 <sup>B</sup> (12 pcs)	# 2	3607-ST (12 pcs)	—	N/A	VL-3/8 (24 pcs)	VS-3/8 <sup>Q</sup> (12 pcs)
133026	3052-HY (12 pcs)	693-B <sup>J</sup> (12 pcs)	6005 <sup>B</sup> (12 pcs)	# 2	3607-ST (12 pcs)	—	N/A	VL-3/8 (24 pcs)	VS-3/8 <sup>Q</sup> (12 pcs)
133027	3052-HY (12 pcs)	693-B <sup>J</sup> (12 pcs)	6005 <sup>B</sup> (12 pcs)	# 2	3607-ST (12 pcs)	—	N/A	VL-3/8 (24 pcs)	VS-3/8 <sup>Q</sup> (12 pcs)
133028	3052-HY (12 pcs)	693-B <sup>J</sup> (12 pcs)	6005 <sup>B</sup> (12 pcs)	# 2	3607-ST (12 pcs)	—	N/A	VL-3/8 (24 pcs)	VS-3/8 <sup>Q</sup> (12 pcs)

# BUICK SPECIAL • V-8 1961-67

300-340 cu.in. Cast Iron Engines  
215 cu. in Aluminum Engines

## Recommended Valve Train Components



These items included in Cam & complete kit							Optional accessories		
CAM & COMPLETE KIT P/N	LIFTERS P. 31-32	PUSHRODS P. 33-37	VALVE SPRINGS P. 47-58	SPRING SHIMS P. 44	STEEL RETAINERS P. 38	POLY LOCKS P. 43	TIMING SET P. 18,45	VALVE LOCKS P. 46	VALVE SEALS P. 15
625256	202-HY	1033 (215 CI) 1033-A (300 CI) 1193-A (340 CI)	625/626	# 3	627-ST	N/A	620-TS <sup>L</sup>	N/A	VS-11/32 <sup>F</sup>
625262	202-HY	1033 (215 CI) 1033-A (300 CI) 1193-A (340 CI)	625/626	# 3	627-ST	N/A	620-TS <sup>L</sup>	N/A	VS-11/32 <sup>F</sup>
625270	202-HY	1033 (215 CI) 1033-A (300 CI) 1193-A (340 CI)	625/626	# 3	627-ST	N/A	620-TS <sup>L</sup>	N/A	VS-11/32 <sup>F</sup>
625282	202-HY	1033 (215 CI) 1033-A (300 CI) 1193-A (340 CI)	625/626	# 3	627-ST	N/A	620-TS <sup>L</sup>	N/A	VS-11/32 <sup>F</sup>

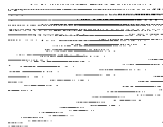
F Requires cylinder heads be machined with VST -11/32 Cutter  
J Adjustable Pushrods  
L 300 & 340 C.I. Engines only

Q Requires cylinder heads be machined with VST-3/8 Cutter  
B Requires cylinder heads be machined with Isky #1258 hole Saw



# BUICK • V-8 1968-and up 350 cu. in. engines (1977-and up ★ BUICK 350 SEE NOTE BELOW)

Cast Iron Billet  
HYDRAULIC



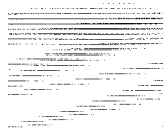
## 1.6:1 Rocker Ratio



Part No. Cam Only	Grind No./Type	APPLICATION	RPM-Range	Valve Lift INT. EX.	Valve Lash Hot INT. EX.	ADV. Duration INT. EX.	.050 Duration INT. EX.	Lobe Center
671-M	Mile-A-Mor HYDRAULIC	Mileage & Maximum Lower RPM Torque for Late Model, Low Compression (8-9.5:1 Max) Engines.	1000-3800	.425 .425	.000 .000	248° 248°	194° 194°	108°
671256	256-SUPERCAM HYDRAULIC	Best torque & economy in passenger cars & trucks. Max compr., 9.5:1, smooth idle, std. axle ratio, good vacuum, computer compatible. Std. to 600 CFM Carb.	1500-4800	.450 .450	.000 .000	256° 256°	202° 202°	112°
671262	262-SUPERCAM HYDRAULIC	Low/Mid-Range performance cam. 9.5:1 compr. 3.08-3.70 axle ratio. Passenger cars & trucks. Up to 625 CFM Carb.	2000-5500	.445 .445	.000 .000	262° 262°	208° 208°	110°
671282	282 HYDRAULIC	High Perf. Use. Lopey idle. 2500 Stall. 3.70-4.11 axle ratio. Up to 750 CFM Carb. 9.5:1 compr.	2500-6500	.467 .467	.000 .000	282° 282°	224° 224°	109°

# BUICK • V-6 1962-71 198-225 cu. in. engines (Also AMC Jeep V-6 1965-71)

Cast Iron Billet  
HYDRAULIC



## 1.6:1 Rocker Ratio



Part No. Cam Only	Grind No./Type	APPLICATION	RPM-Range	Valve Lift INT. EX.	Valve Lash Hot INT. EX.	ADV. Duration INT. EX.	.050 Duration INT. EX.	Lobe Center
116125	256-SUPERCAM HYDRAULIC	Best torque & economy in passenger cars & trucks. Max compr., 9.5:1, smooth idle, std. axle ratio, good vacuum, computer compatible. Std. to 600 CFM Carb.	1500-4800	.450 .450	.000 .000	256° 256°	202° 202°	112°
116126	262-SUPERCAM HYDRAULIC	Low/mid-range performance cam. 9.5:1 compr. 3.08-3.70 axle ratio. Passenger cars & trucks. Up to 625 CFM Carb.	2000-5500	.465 .465	.000 .000	262° 262°	208° 208°	109°

★ General Motors has distributed engines from one division to another in recent years. Specifically 1977-81 Buicks may come equipped with either Buick, Chevy or Oldsmobile built 350 cu. in. V8 engines. Be sure of which G.M. Division built your engine before ordering.

# BUICK • V-8 1968-and up 350 cu. in. engines

## Recommended Valve Train Components



These items included in Cam & complete kit							Optional accessories		
CAM & COMPLETE KIT P/N	LIFTERS P. 31-32	PUSHRODS P. 33-37	VALVE SPRINGS P. 47-58	SPRING SHIMS P. 44	STEEL RETAINERS P. 38	POLY LOCKS P. 43	TIMING SET P. 18,45	VALVE LOCKS P. 46	VALVE SEALS P. 15
670-MK	202-HY	1193-A(1968-69) 233 (1970& UP)	625/626	# 3	627-ST	N/A	620-TS	N/A	VS-3/8 Q
670256	202-HY	1193-A(1968-69) 233 (1970& UP)	625/626	# 3	627-ST	N/A	620-TS	N/A	VS-3/8 Q
670262	202-HY	1193-A(1968-69) 233 (1970& UP)	625/626	# 3	627-ST	N/A	620-TS	N/A	VS-3/8 Q
670282	202-HY	1193-A(1968-69) 233 (1970& UP)	625/626	# 3	627-ST	N/A	620-TS	N/A	VS-3/8 Q

# BUICK • V-6 1962-71 198-225 cu. in. engines (Also AMC Jeep V-6 1965-71)

## Recommended Valve Train Components

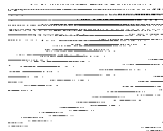


These items included in Cam & complete kit							Optional accessories		
CAM & COMPLETE KIT P/N	LIFTERS P. 31-32	PUSHRODS P. 33-37	VALVE SPRINGS P. 47-58	SPRING SHIMS P. 44	STEEL RETAINERS P. 38	POLY LOCKS P. 43	TIMING SET P. 18,45	VALVE LOCKS P. 46	VALVE SEALS P. 15
116025	202-HY (12 pcs)	1053 J 1103 J,L (12 pcs)	625/626 (12 pcs)	# 3	627-ST (12 pcs)	N/A	N/A	N/A	N/A
116026	202-HY (12 pcs)	1053 J 1103 J,L (12 pcs)	625/626 (12 pcs)	# 3	627-ST (12 pcs)	N/A	N/A	N/A	N/A

- J Adjustable Pushrods
- L For 1962, 198 cu. c.i. Engines only
- Q Requires cylinder heads be machined with VST-3/8 Cutter

# BUICK • V-6 1975-77 231 cu. in. "ODD FIRE" Engines Only

Cast Iron Billet  
HYDRAULIC



## 1.6:1 Rocker Ratio



Part No. Cam Only	Grind No./Type	APPLICATION	RPM-Range	Valve Lift INT. EX.	Valve Lash Hot INT. EX.	ADV. Duration INT. EX.	.050 Duration INT. EX.	Lobe Center
1171-M	Mile-A-Mor HYDRAULIC	Mileage & Maximum Lower RPM Torque for Late Model, Low Compression (8-9.5:1 Max) Engines.	1000-3800	.425 .425	.000 .000	248° 248°	194° 194°	108°
117125	256-SUPERCAM HYDRAULIC	Best torque & economy in passenger cars & trucks. Max compr., 9.5:1, smooth idle, std. axle ratio, good vacuum, computer compatible. Std. to 600 CFM Carb.	1500-4800	.450 .450	.000 .000	256° 256°	202° 202°	112°
117126	262-SUPERCAM HYDRAULIC	Low/Mid-Range performance cam. 9.5:1 compr. 3.08-3.70 axle ratio. Passenger cars & trucks. Up to 625 CFM Carb.	2000-5500	.465 .465	.000 .000	262° 262°	208° 208°	109°
117127	270-HL HYDRAULIC	Good All-Around Performance. Fair idle. stock Converter. 3:70-4:11 Axle Ratio. Up to 650 CFM Carb. 9.5:1 Compr.	2000-6000	.470 .470	.000 .000	270° 270°	216° 216°	109°
1171-TA	TURBOCYCLE-A HYDRAULIC	Maximum economy/torque. Turbocharged. Up to 7 PSI Boost. Smooth idle. Stock converter. Std. axle ratio. Up to 650 CFM Carb.	1000-5000	.445 .415	.000 .000	262° 250°	208° 194°	114°

# BUICK • V-6 1978 and UP 196-231-252 cu. in. "EVEN FIRING" Engines

Cast Iron Billet  
HYDRAULIC



## 1.6:1 Rocker Ratio



Part No. Cam Only	Grind No./Type	APPLICATION	RPM-Range	Valve Lift INT. EX.	Valve Lash Hot INT. EX.	ADV. Duration INT. EX.	.050 Duration INT. EX.	Lobe Center
1191-M	Mile-A-Mor HYDRAULIC	Mileage & Maximum Lower RPM Torque for Late Model, Low Compression (8-9.5:1 Max) Engines.	1000-3800	.425 .425	.000 .000	248° 248°	194° 194°	108°
119125	256-SUPERCAM HYDRAULIC	Best torque & economy in passenger cars & trucks. Max compr., 9.5:1, smooth idle, std. axle ratio, good vacuum, computer compatible. Std. to 600 CFM Carb.	1500-4800	.450 .450	.000 .000	256° 256°	202° 202°	112°
119126	262-SUPERCAM HYDRAULIC	Low/Mid-Range performance cam. 9.5:1 compr. 3.08-3.70 axle ratio. Passenger cars & trucks. Up to 625 CFM Carb.	2000-5500	.465 .465	.000 .000	262° 262°	208° 208°	109°
119127	270-HL HYDRAULIC	Good All-Around Performance. Fair idle. stock Converter. 3:70-4:11 Axle Ratio. Up to 650 CFM Carb. 9.5:1 Compr.	2000-6000	.470 .470	.000 .000	270° 270°	216° 216°	109°
1191-TA	TURBOCYCLE-A HYDRAULIC	Maximum economy/torque. Turbocharged. Up to 7 PSI Boost. Smooth idle. Stock converter. Std. axle ratio. Up to 650 CFM Carb.	1000-5000	.445 .415	.000 .000	262° 250°	208° 194°	114°

# BUICK • V-6 1975-77 231 cu. in. "ODD FIRE" Engines Only



## Recommended Valve Train Components

These items included in Cam & complete kit							Optional accessories		
CAM & COMPLETE KIT P/N	LIFTERS P. 31-32	PUSHRODS P. 33-37	VALVE SPRINGS P. 47-58	SPRING SHIMS P. 44	STEEL RETAINERS P. 38	VALVE LOCKS P. 46	TIMING SET P. 18,45		
1171-MK	202-HY (12 pcs)	1173-CA <sup>J</sup> (12 pcs)	625/626 (12 pcs)	# 3	627-ST (12 pcs)	—	1160-TS		
117025	202-HY (12 pcs)	1173-CA <sup>J</sup> (12 pcs)	625/626 (12 pcs)	# 3	627-ST (12 pcs)	—	1160-TS		
117026	202-HY (12 pcs)	1173-CA <sup>J</sup> (12 pcs)	625/626 (12 pcs)	# 3	627-ST (12 pcs)	—	1160-TS		
117027	202-HY (12 pcs)	1173-CA <sup>J</sup> (12 pcs)	625/626 (12 pcs)	# 3	627-ST (12 pcs)	—	1160-TS		
1170-TKA	202-HY (12 pcs)	1173-CA <sup>J</sup> (12 pcs)	625/626 (12 pcs)	# 3	627-ST (12 pcs)	—	1160-TS		

# BUICK • V-6 1978 and UP 196-231-252 cu. in. "EVEN FIRING" Engines



## Recommended Valve Train Components

These items included in Cam & complete kit							Optional accessories		
CAM & COMPLETE KIT P/N	LIFTERS P. 31-32	PUSHRODS P. 33-37	VALVE SPRINGS P. 47-58	SPRING SHIMS P. 44	RETAINERS P. 38	VALVE LOCKS P. 46	TIMING SET P. 18,45		
1191-MK	202-HY (12 pcs)	1173-CA <sup>J</sup> (12 pcs)	625/626 (12 pcs)	# 3	707-AL <sup>N</sup> (12 pcs)	—	1190-TS		
119025	202-HY (12 pcs)	1173-CA <sup>J</sup> (12 pcs)	625/626 (12 pcs)	# 3	707-AL <sup>N</sup> (12 pcs)	—	1190-TS		
119026	202-HY (12 pcs)	1173-CA <sup>J</sup> (12 pcs)	625/626 (12 pcs)	# 3	707-AL <sup>N</sup> (12 pcs)	—	1190-TS		
119027	202-HY (12 pcs)	1173-CA <sup>J</sup> (12 pcs)	625/626 (12 pcs)	# 3	707-AL <sup>N</sup> (12 pcs)	—	1190-TS		
1190-TKA	202-HY (12 pcs)	1173-CA <sup>J</sup> (12 pcs)	625/626 (12 pcs)	# 3	707-AL <sup>N</sup> (12 pcs)	—	1190-TS		

# BUICK • V-8 1967-and up 400-430-455 cu. in. Engines

Cast Iron Billet  
HYDRAULIC



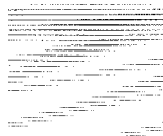
## 1.6:1 Rocker Ratio



Part No. Cam Only	Grind No./Type	APPLICATION	RPM-Range	Valve Lift INT. EX.	Valve Lash Hot INT. EX.	ADV. Duration INT. EX.	.050 Duration INT. EX.	Lobe Center
1151-M	Mile-A-Mor HYDRAULIC	Mileage & Maximum Lower RPM Torque for Late Model, Low Compression (8-9.5:1 Max) Engines.	1000-3800	.425 .425	.000 .000	248° 248°	194° 194°	108°
115125	256-SUPERCAM HYDRAULIC	Best torque & economy in passenger cars & trucks. Max compr., 9.5:1, smooth idle, std. axle ratio, good vacuum, computer compatible. Std. to 600 CFM Carb.	1500-4800	.450 .450	.000 .000	256° 256°	202° 202°	112°
115126	262-SUPERCAM HYDRAULIC	Low/Mid-Range performance cam. 9.5:1 compr. 3.08-3.70 axle ratio. Passenger cars & trucks. Up to 625 CFM Carb.	2000-5500	.445 .445	.000 .000	262° 262°	208° 208°	108°
115128	280 HYDRAULIC	High Perf. Use. Lopey idle. 2500 Stall. 3.70-4.11 axle ratio. Up to 750 CFM Carb. 9.5:1 compr.	2500-6500	.467 .467	.000 .000	280° 280°	224° 224°	108°

# CORVAIR

Cast Iron Billet  
HYDRAULIC



## 1.5:1 Rocker Ratio



Part No. Cam Only	Grind No./Type	APPLICATION	RPM-Range	Valve Lift INT. EX.	Valve Lash Hot INT. EX.	ADV. Duration INT. EX.	.050 Duration INT. EX.	Lobe Center
221260	260 HYDRAULIC	Low/mid-range performance cam. 9.5:1 compr. 3.08-3.70 axle ratio. Passenger cars & trucks. Up to 625 CFM Carb.	2000-5500	.417 .417	.000 .000	260° 260°	208° 208°	108°
221270	270-HL HYDRAULIC	Good All-Around Performance. Fair idle. stock Converter. 3:70-4:11 Axle Ratio. Up to 650 CFM Carb. 9.5:1 Compr.	2000-6000	.440 .440	.000 .000	270° 270°	216° 216°	108°
221280	280 HYDRAULIC	High Perf. Use. Lopey idle. 2500 Stall. 3.70-4.11 axle ratio. Up to 750 CFM Carb. 9.5:1 compr.	2500-6500	.440 .440	.000 .000	280° 280°	224° 224°	108°
221300	300 HYDRAULIC	High Perf. Street/strip. Lopey idle. 2800 Stall. 4.11-4.88 axle ratio. Up to 750 CFM Carb. 10.5:1 compr.	3000-6800	.440 .440	.000 .000	300° 300°	234° 234°	108°

# BUICK • V-8 1967-and up 400-430-455 cu. in. engines

## Recommended Valve Train Components



These items included in Cam & complete kit							Optional accessories		
CAM & COMPLETE KIT P/N	LIFTERS P. 31-32	PUSHRODS P. 33-37	VALVE SPRINGS P. 47-58	SPRING SHIMS P. 44	ALUMINUM RETAINERS P. 38	POLY LOCKS P. 43	TIMING SET P. 18,45	VALVE LOCKS P. 46	VALVE SEALS P. 15
1151-MK	202-HY	1193-A 663-B J (1970-77)	7005	# 3	1007-AL	N/A	1150-TS	N/A	VS-3/8 Q
115025	202-HY	1193-A 663-B J (1970-77)	7005	# 3	1007-AL	N/A	1150-TS	N/A	VS-3/8 Q
115026	202-HY	1193-A 663-B J (1970-77)	7005	# 3	1007-AL	N/A	1150-TS	N/A	VS-3/8 Q
115028	202-HY	1193-A 663-B J (1970-77)	7005	# 3	1007-AL	N/A	1150-TS	N/A	VS-3/8 Q

# CORVAIR

## Recommended Valve Train Components



These items included in Cam & complete kit							Optional accessories		
CAM & COMPLETE KIT P/N	LIFTERS P. 31-32	PUSHRODS P. 33-37	VALVE SPRINGS P. 47-58	SPRING SHIMS P. 44	ALUMINUM RETAINERS P. 38	POLY LOCKS P. 43	TIMING SET P. 18,45	VALVE LOCKS P. 46	VALVE SEALS P. 15
220260	222-HY (12 pcs)	N/A	4005 (12 pcs)	# 3	707-AL (12 pcs)	PL-3/8 (12 pcs)	N/A	VL-32 (24 pcs)	VS-11/32 F (12 pcs)
220270	222-HY (12 pcs)	N/A	4005 (12 pcs)	# 3	707-AL (12 pcs)	PL-3/8 (12 pcs)	N/A	VL-32 (24 pcs)	VS-11/32 F (12 pcs)
220280	222-HY (12 pcs)	N/A	4005 (12 pcs)	# 3	707-AL (12 pcs)	PL-3/8 (12 pcs)	N/A	VL-32 (24 pcs)	VS-11/32 F (12 pcs)
220300	222-HY (12 pcs)	N/A	4005 (12 pcs)	# 3	707-AL (12 pcs)	PL-3/8 (12 pcs)	N/A	VL-32 (24 pcs)	VS-11/32 F (12 pcs)

F Requires cylinder heads be machined with VST-11/32 Cutter  
 J Adjustable Pushrods (1970-77 engines) with oil hole  
 Q Requires cylinder heads be machined with VST-3/8 Cutter

# CHEVY II • 1962-71 4 Cylinder 153 cu. in. Engines

HYDRAULIC  
SOLID

1.75:1 Rocker Ratio



Part No. Cam Only	Grind No./Type	APPLICATION	RPM-Range	Valve Lift INT. EX.	Valve Lash Hot INT. EX.	ADV. Duration INT. EX.	.050 Duration INT. EX.	Lobe Center
251256	256-SUPERCAM HYDRAULIC	Best torque & economy in passenger cars & trucks. Max compr., 9.5:1, smooth idle, std. axle ratio, good vacuum, computer compatible. Std. to 600 CFM Carb.	1500-4800	.493 .493	.000 .000	256° 256°	202° 202°	112°
251262	262-SUPERCAM HYDRAULIC	Low/mid-range performance cam. 9.5:1 compr. 3.08-3.70 axle ratio. Passenger cars & trucks. Up to 625 CFM Carb.	2000-5500	.488 .488	.000 .000	262° 262°	208° 208°	109°
251270	270-HL HYDRAULIC	Good All-Around Performance. Fair idle. stock Converter. 3:70-4:11 Axle Ratio. Up to 650 CFM Carb. 9.5:1 Compr.	2000-6000	.510 .510	.000 .000	270° 270°	216° 216°	109°
251525	525-A SOLID	Strong low-end and mid-range power on 1/4-3/8 mile oval tracks with little or no bank. Limited carburetion.	2000-6000	.525 .525	.025 .025	268° 268°	228° 228°	109°
251526	525-B SOLID	Great mid-range power on 1/4-3/8 mile oval tracks (banked). Works best with 2-BBL. Carburetion	2500-6500	.525 .525	.025 .025	278° 278°	238° 238°	109°
251565	565 SOLID	Broad power-band on banked 3/8-1/2 mile fast oval tracks. 2-BBL Carburetion.	3500-7000	.565 .565	.025 .025	290° 290°	242° 242°	109°

# CHEVROLET • 409 cu. in. V-8 (1958-65)

HYDRAULIC  
SOLID  
ROLLER

1.7:1 Rocker Ratio



New cam cores are now available. We can custom grind hydraulic, hydraulic roller, solid and mech roller camshafts to suit customers' applications. Kit components such as lifters (hydraulic, hydraulic roller, solid and mech roller), valve springs, steel retainers, valve locks and pushrods are also available. Call the Isky factory for more information.

# CHEVY II • 1962-71 4 cylinder 153 cu. in. Engines



## Recommended Valve Train Components

		These items included in Cam & complete kit							Optional accessories		
CAM & COMPLETE KIT P/N	MODIFIED TIMING GEAR P. 18	LIFTERS P. 31-32	BRONZE DIST. GEAR P.18	PUSH RODS P.33	VALVE SPRINGS P. 47-58	SPRING SHIMS P. 44	STEEL RETAINERS P. 38	POLY LOCKS P. 43	ROCKER ARMS P. 40	VALVE LOCKS P. 46	VALVE SEALS P. 15
250256	250-TGM <sup>P</sup>	202-HY (8 pcs)	—	—	205-D (8 pcs)	# 4	707-ST (8 pcs)	PL-3/8 (8 pcs)	—	VL-32 (16 pcs)	VS-11/32 <sup>F</sup> (8 pcs)
250262	250-TGM <sup>P</sup>	202-HY (8 pcs)	—	—	205-D (8 pcs)	# 4	707-ST (8 pcs)	PL-3/8 (8 pcs)	—	VL-32 (16 pcs)	VS-11/32 <sup>F</sup> (8 pcs)
250270	250-TGM <sup>P</sup>	202-HY (8 pcs)	—	—	205-D (8 pcs)	# 4	707-ST (8 pcs)	PL-3/8 (8 pcs)	—	VL-32 (16 pcs)	VS-11/32 <sup>F</sup> (8 pcs)
250525	250-TGM <sup>P</sup>	202-H (8 pcs)	250-DG	—	4205 (8 pcs)	# 3	707-ST (8 pcs)	PL-3/8 (8 pcs)	★204-96 (8 pcs)	VL-32 (16 pcs)	VS-11/32 <sup>F</sup> (8 pcs)
250526	250-TGM <sup>P</sup>	202-H (8 pcs)	250-DG	—	4205 (8 pcs)	# 3	707-ST (8 pcs)	PL-3/8 (8 pcs)	★204-96 (8 pcs)	VL-32 (16 pcs)	VS-11/32 <sup>F</sup> (8 pcs)
250565	250-TGM <sup>P</sup>	202-H (8 pcs)	250-DG	—	6005 <sup>B</sup> (8 pcs)	# 2	507-ST (8 pcs)	PL-3/8 (8 pcs)	★204-96 (8 pcs)	VL-32 (16 pcs)	VS-11/32 <sup>F</sup> (8 pcs)



Curt Spalding; IMCA Modified; Midwest Region

- ★ When installing 204-96 Rocker Arms, you must also convert to #219-A studs and 233-HG+125 Pushrods.
- B Requires cylinder heads be machined with Isky #1258 Hole Saw
- F Requires cylinder heads be machined with VST-11/32 Cutter
- P Nose of cam has been grooved for snap ring to prevent gear movement. Gear is supplied FREE with cam. ISKY 250-TGM cam gear must be used with Cloyes #2501 or ISKY 250CG crank gear.



# CHEVY II • 6 Cylinder 194-230-250 cu. in. Engines

HYDRAULIC  
SOLID

1.75:1 Rocker Ratio



Part No. Cam Only	Grind No./Type	APPLICATION	RPM-Range	Valve Lift INT. EX.	Valve Lash Hot INT. EX.	ADV. Duration INT. EX.	.050 Duration INT. EX.	Lobe Center
231-M	Mile-A-Mor <b>HYDRAULIC</b>	Mileage & maximum lower RPM torque for late model, low compression (8-9.5:1 max) engines.	1000-3800	.450 .450	.000 .000	248° 248°	194° 194°	109°
231256	256-SUPERCAM <b>HYDRAULIC</b>	Best torque & economy in passenger cars & trucks. Max compr., 9.5:1, smooth idle, std. axle ratio, good vacuum, computer compatible. Std. to 600 CFM Carb.	1500-4800	.492 .492	.000 .000	256° 256°	202° 202°	112°
231262	262-SUPERCAM <b>HYDRAULIC</b>	Low/Mid-Range performance cam. 9.5:1 compr. 3.08-3.70 axle ratio. Passenger cars & trucks. Up to 625 CFM Carb.	2000-5500	.488 .488	.000 .000	262° 262°	208° 208°	109°
231270	270-HL <b>HYDRAULIC</b>	Good all-around performance. Fair idle. Stock converter. 3.70-4.11 axle ratio. Up to 650 CFM Carb. 9.5:1 compr.	2000-6000	.510 .510	.000 .000	270° 270°	216° 216°	109°
231-TA	TURBOCYCLE-A <b>HYDRAULIC</b>	Maximum economy/torque. Turbocharged. Up to 7 PSI Boost. Smooth idle. Stock converter. Std. axle ratio. Up to 650 CFM Carb.	1000-5000	.485 .455	.000 .000	264° 252°	208° 194°	114°
231525	525-A <b>SOLID</b>	Strong low-end and mid-range power on 1/4-3/8 mile oval tracks with little or no bank. Limited carburetion.	2000-6000	.525 .525	.025 .025	268° 268°	228° 228°	109°
231526	525-B <b>SOLID</b>	Good mid-range power on 1/4-3/8 mile oval tracks (banked). Works best with 2-BBL carburetion.	2500-6500	.525 .525	.025 .025	278° 278°	238° 238°	109°
231527	525-C <b>SOLID</b>	Great mid-range power on banked 1/4-3/8 mile tracks & 2-BBL carburetion.	2700-7000	.525 .525	.016 .018	278° 278°	248° 248°	105°
231565	565 <b>SOLID</b>	Broad power-band on banked 3/8-1/2 mile fast oval tracks. 2-BBL carburetion.	3500-7000	.572 .572	.025 .025	290° 290°	242° 242°	109°
231595	595-A <b>SOLID</b>	Best overall cam for high-banked, fast oval (1/2-5/8 mile tracks) or road racing. Good power band for drag race use as well.	4000-7500	.591 .591	.028 .028	298° 298°	254° 254°	106°

# CHEVY II • 6 Cylinder 194-230-250 cu. in. Engines



## Recommended Valve Train Components

		These items included in Cam & complete kit							Optional accessories		
CAM & COMPLETE KIT P/N	MODIFIED TIMING GEAR P. 18	LIFTERS P. 31-32	BRONZE DIST. GEAR P.18	PUSH RODS P. 33-37	VALVE SPRINGS P. 47-58	SPRING SHIMS P. 44	STEEL RETAINERS P. 38	POLY LOCKS P. 43	ROCKER ARMS P. 40	VALVE LOCKS P. 46	VALVE SEALS P. 15
231-MK	250-TGM <sup>P</sup>	222-HY (12 pcs)	—	—	205-D (12 pcs)	# 4	707-ST (12 pcs)	PL-3/8 (12 pcs)	—	VL-32 (24 pcs)	VS-11/32 <sup>F</sup> (12 pcs)
230256	250-TGM <sup>P</sup>	222-HY (12 pcs)	—	—	205-D (12 pcs)	# 4	707-ST (12 pcs)	PL-3/8 (12 pcs)	—	VL-32 (24 pcs)	VS-11/32 <sup>F</sup> (12 pcs)
230262	250-TGM <sup>P</sup>	222-HY (12 pcs)	—	—	205-D (12 pcs)	# 4	707-ST (12 pcs)	PL-3/8 (12 pcs)	—	VL-32 (24 pcs)	VS-11/32 <sup>F</sup> (12 pcs)
230270	250-TGM <sup>P</sup>	202-HY (12 pcs)	—	—	205-D (12 pcs)	# 4	707-ST (12 pcs)	PL-3/8 (12 pcs)	—	VL-32 (24 pcs)	VS-11/32 <sup>F</sup> (12 pcs)
230-TKA	250-TGM <sup>P</sup>	222-HY (12 pcs)	—	—	205-D (12 pcs)	# 4	707-ST (12 pcs)	PL-3/8 (12 pcs)	—	VL-32 (24 pcs)	VS-11/32 <sup>F</sup> (12 pcs)
230525	250-TGM <sup>P</sup>	202-H (12 pcs)	—	—	6005 <sup>B</sup> (12 pcs)	# 2	507-ST (12 pcs)	PL-3/8 (12 pcs)	★204-96 (12 pcs)	VL-32 (24 pcs)	VS-11/32 <sup>F</sup> (12 pcs)
230526	250-TGM <sup>P</sup>	202-H (12 pcs)	—	—	6005 <sup>B</sup> (12 pcs)	# 2	507-ST (12 pcs)	PL-3/8 (12 pcs)	★204-96 (12 pcs)	VL-32 (24 pcs)	VS-11/32 <sup>F</sup> (12 pcs)
230527	250-TGM <sup>P</sup>	202-H (12 pcs)	—	—	6005 <sup>B</sup> (12 pcs)	# 2	507-ST (12 pcs)	PL-3/8 (12 pcs)	★204-96 (12 pcs)	VL-32 (24 pcs)	VS-11/32 <sup>F</sup> (12 pcs)
230565	250-TGM <sup>P</sup>	202-H (12 pcs)	—	—	6005 <sup>B</sup> (12 pcs)	# 2	507-ST (12 pcs)	PL-3/8 (12 pcs)	★204-96 (12 pcs)	VL-32 (24 pcs)	VS-11/32 <sup>F</sup> (12 pcs)
230595	250-TGM <sup>P</sup>	202-H (12 pcs)	—	—	6005 <sup>B</sup> (12 pcs)	# 2	507-ST (12 pcs)	PL-3/8 (12 pcs)	★204-96 (12 pcs)	VL-32 (24 pcs)	VS-11/32 <sup>F</sup> (12 pcs)

★ When installing 204-96 Rocker Arms, you must also convert to #219-A studs and 233-HG+125 Pushrods.

B Requires cylinder heads be machined with Isky #1258 Hole Saw

F Requires cylinder heads be machined with VST-11/32 Cutter

P Nose of cam has been grooved for snap ring to prevent gear movement. Gear is supplied FREE with cam. ISKY 250-TGM cam gear must be used with Cloyes #2501 or ISKY 250CG crank gear.

# CHEVROLET • 6-Cylinder 1963 and up 292 Truck Engines

★ SEE FOOT NOTE  
BELOW, 1971 & UP

Cast Iron Billet  
**SOLID**

## 1.75:1 Rocker Ratio



Part No. Cam Only	Grind No./Type	APPLICATION	RPM-Range	Valve Lift INT. EX.	Valve Lash Hot INT. EX.	ADV. Duration INT. EX.	.050 Duration INT. EX.	Lobe Center
291462	E-462 <b>SOLID</b>	Good low-speed power & torque for stock engines. Std. rear-axle ratio. Std. carburetion. Smooth idle.	1500-4800	.410 .410	.015 .015	264° 264°		109°
291162	X-162 <b>SOLID</b>	Good mid-range performance. 3.23-3.70 axle ratio. Re-jetted stock carburetor. Fair idle.	2000-5500	.428 .428	.018 .018	286° 286°	220° 220°	109°
291262	X-262 <b>SOLID</b>	High performance use. 3.70-4:10 axle ratio. 2-BBL carburetor recommended. Lopey idle.	2500-6000	.428 .428	.018 .018	296° 296°	228° 228°	109°
291505	505-A-62 <b>SOLID</b>	Best overall performance on banked 1/4-3/8 mile oval tracks. 2-BBL carb.	3000-6500	.525 .525	.025 .025	300° 300°	228° 228°	109°
291506	505-B-62 <b>SOLID</b>	Best overall performance on banked 1/2 mile oval tracks. 2-BBL carb. Good results in drag race as well.	3500-7000	.525 .525	.025 .025	310° 310°	250° 250°	109°
291507	505-C-62 <b>SOLID</b>	Drag race use. Fully modified engine with higher compression and multiple carburetion.	4000-7500	.558 .558	.025 .025	320° 320°	252° 252°	109°

\* Hydraulic grinds (for approx. 1971 & later engines originally equipped with hydraulic lifters) available on special order.

# CHEVROLET • 60° — V6 1980-UP • 173 cu. in. engines (2.8L) & (3.1L)

Cast Iron Billet  
**HYDRAULIC**

## 1.5:1 Rocker Ratio



Part No. Cam Only	Grind No./Type	APPLICATION	RPM-Range	Valve Lift INT. EX.	Valve Lash Hot INT. EX.	ADV. Duration INT. EX.	.050 Duration INT. EX.	Lobe Center
111256	256-SUPERCAM <b>HYDRAULIC</b>	Best torque & economy in passenger cars & trucks. Max compr., 9.5:1, smooth idle, std. axle ratio, good vacuum, computer compatible. Std. to 600 CFM Carb.	1500-4800	.425 .425	.000 .000	256° 256°	202° 202°	112°
111256/262	256/262 <b>HYDRAULIC</b>	Best overall cam for towing. Trucks, Vans, R.V., etc. Broad torque band. Good vacuum. 3.55-4:10 axle ratio. 9.5:1 compr. Computer compatible. Smooth idle.	1800-5000	.425 .435	.000 .000	256° 262°	202° 208°	110°
111262	262-SUPERCAM <b>HYDRAULIC</b>	Low/Mid-Range performance cam. 9.5:1 compr. 3.08-3.70 axle ratio. Passenger cars & trucks. Up to 625 CFM Carb.	2000-5500	.435 .435	.000 .000	262° 262°	208° 208°	108°

# CHEVROLET • 6-Cylinder 1963 and up 292 Truck Engines

## Recommended Valve Train Components



These items included in Cam & complete kit							Optional accessories		
CAM & COMPLETE KIT P/N	LIFTERS P. 31-32	MODIFIED TIMING GEAR P. 18	VALVE SPRINGS P. 47-58	SPRING SHIMS P. 44	STEEL RETAINERS P. 38	POLY LOCKS P. 43	PUSHRODS P. 33-37	VALVE LOCKS P. 46	VALVE SEALS P. 15
290462	202-H (12pcs)	255-TGM <sup>Q</sup>	205-D (12pcs)	# 4	707-ST (12pcs)	PL-3/8 (12pcs)	293 (12pcs)	VL-32 (24pcs)	VS-11/32 <sup>F</sup> (12pcs)
290162	202-H (12pcs)	255-TGM <sup>Q</sup>	205-D (12pcs)	# 4	707-ST (12pcs)	PL-3/8 (12pcs)	293 (12pcs)	VL-32 (24pcs)	VS-11/32 <sup>F</sup> (12pcs)
290262	202-H (12pcs)	255-TGM <sup>Q</sup>	205-D (12pcs)	# 4	707-ST (12pcs)	PL-3/8 (12pcs)	293 (12pcs)	VL-32 (24pcs)	VS-11/32 <sup>F</sup> (12pcs)
290505	202-H (12pcs)	255-TGM <sup>Q</sup>	6005 <sup>B</sup> (12pcs)	# 2	507-ST (12pcs)	PL-3/8 (12pcs)	293 (12pcs)	VL-32 (24pcs)	VS-11/32 <sup>F</sup> (12pcs)
290506	202-H (12pcs)	255-TGM <sup>Q</sup>	6005 <sup>B</sup> (12pcs)	# 2	507-ST (12pcs)	PL-3/8 (12pcs)	293 (12pcs)	VL-32 (24pcs)	VS-11/32 <sup>F</sup> (12pcs)
290507	202-H (12pcs)	255-TGM <sup>Q</sup>	6005 <sup>B</sup> (12pcs)	# 2	507-ST (12pcs)	PL-3/8 (12pcs)	293 (12pcs)	VL-32 (24pcs)	VS-11/32 <sup>F</sup> (12pcs)

# CHEVROLET • 60° — V6 1980-UP • 173 cu. in. engines (2.8L) & (3.1L)

## Recommended Valve Train Components



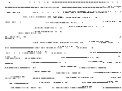
These items included in Cam & complete kit				
CAM & COMPLETE KIT P/N	LIFTERS P. 31-32	VALVE SPRINGS P. 47-58	SPRING SHIMS P. 44	STEEL RETAINERS P. 38
110256	222-HY (12pcs)	205-D (12pcs)	# 4	707-ST (12pcs)
110256/262	222-HY (12pcs)	205-D (12pcs)	# 4	707-ST (12pcs)
110262	222-HY (12pcs)	205-D (12pcs)	# 4	707-ST (12pcs)

B Requires cylinder heads be machined with Isky #1258 Hole Saw  
 F Requires cylinder heads be machined with VST-11/32 Cutter  
 Q Nose of cam has been grooved for snap ring to prevent gear movement. Gear is supplied FREE with cam.

# CHEVROLET • 90°—V-6 1978 and Up • 200-229 cu. in. (3.8L) Odd-Fire

HYDRAULIC  
ROLLER

1.5:1 Rocker Ratio



Part No. Cam Only	Grind No./Type	APPLICATION	RPM-Range	Valve Lift INT. EX.	Valve Lash Hot INT. EX.	ADV. Duration INT. EX.	.050 Duration INT. EX.	Lobe Center
101256	256-SUPERCAM HYDRAULIC	Best torque & economy in passenger cars & trucks. Max compr., 9.5:1, smooth idle, std. axle ratio, good vacuum, computer compatible. Std. to 600 CFM Carb.	1500-4800	.425 .425	.000 .000	256° 256°	202° 202°	112°
101256/262	256/262 HYDRAULIC	Best overall cam for towing. Trucks, Vans, R.V., etc. Broad torque band. Good vacuum. 3.55-4:10 axle ratio. 9.5:1 compr. Computer compatible. Smooth idle.	1800-5000	.425 .435	.000 .000	256° 262°	202° 208°	110°
101262	262-SUPERCAM HYDRAULIC	Low/Mid-Range performance cam. 9.5:1 compr. 3.08-3.70 axle ratio. Passenger cars & trucks. Up to 625 CFM Carb.	2000-5500	.435 .435	.000 .000	262° 262°	208° 208°	108°
101642	RR-640/60-64 ROLLER	Banked 3/8-1/2 mile asphalt tracks; 9:1 compr.; 390+Carb. For use with 90/150 modified odd-fire with common crank-throws.	4400-7800	.640 .640	.028 .028	294° 298°	260° 264°	106°
101648	RR-640/72-76 ROLLER	Good overall perf. in ASA & ARCA sanctions on 5/8 mile and longer tracks. 9:1 compr.; 390+Carb. for use with 90/150 modified odd-fire with common crank-throws.	4800-8200	.640 .640	.028 .028	306° 310°	272° 276°	106°

# CHEVROLET • 90° — V6 1985-86 • 4.3L (262 cu. in.)

Cast Iron Billet  
HYDRAULIC

1.5:1 Rocker Ratio



Part No. Cam Only	Grind No./Type	APPLICATION	RPM-Range	Valve Lift INT. EX.	Valve Lash Hot INT. EX.	ADV. Duration INT. EX.	.050 Duration INT. EX.	Lobe Center
121256	256-SUPERCAM HYDRAULIC	Best torque & economy in passenger cars & trucks. Max compr., 9.5:1, smooth idle, std. axle ratio, good vacuum, computer compatible. Std. to 600 CFM Carb.	1500-4800	.425 .425	.000 .000	256° 256°	202° 202°	112°
121256/262	256/262 HYDRAULIC	Best overall cam for towing. Trucks, Vans, R.V., etc. Broad torque band. Good vacuum. 3.55-4:10 axle ratio. 9.5:1 compr. Computer compatible. Smooth idle.	1800-5000	.425 .435	.000 .000	256° 262°	202° 208°	110°
121262	262-SUPERCAM HYDRAULIC	Low/Mid-Range performance cam. 9.5:1 compr. 3.08-3.70 axle ratio. Passenger cars & trucks. Up to 625 CFM Carb.	2000-5500	.435 .435	.000 .000	262° 262°	208° 208°	108°
<b>HYDRAULIC ROLLER CAMSHAFTS – STEEL BILLET</b>			<b>NOTE: 1987 &amp; LATER 4.3L HYDRAULIC ROLLER CAMS AND CHEVROLET 90° V-6—4.3 LITRE — 262 CU. IN. (1987-91)</b>					
131252	RR-252 HYDRAULIC ROLLER	Best torque & economy in passenger cars & trucks. Max compr., 9.5:1, smooth idle, std. axle ratio, good vacuum, computer compatible. Std. to 600 CFM Carb.	1200-4800	.450 .450	.000 .000	252° 252°	204° 204°	112°
131252/257	RR-252/257 HYDRAULIC ROLLER	Best overall cam for towing. Trucks, Vans, R.V., etc. Broad torque band. Good vacuum. 3.55-4:10 axle ratio. 9.5:1 compr. Computer compatible. Smooth idle.	1400-5000	.450 .465	.000 .000	252° 257°	204° 209°	112°

# CHEVROLET • 90°—V-6 1978 and Up • 200-229 cu. in. (3.8L) Odd-Fire



## Recommended Valve Train Components

These items included in Cam & complete kit

CAM & COMPLETE KIT P/N	LIFTERS P. 31-32	PUSHRODS P. 33-37	VALVE SPRINGS P. 47-58	SPRING SHIMS P. 44	ST=STEEL TI=TITANIUM RETAINERS P. 38	REV KIT P. 21	POLY LOCKS P. 43	VALVE LOCKS P. 46	ALUM. BRONZE DIST. GEAR P. 18
100256	222-HY (12 pcs)	—	205-D (12 pcs)	# 4	707-ST (12 pcs)	—	PL-3/8 (12 pcs)	—	—
100256/262	222-HY (12 pcs)	—	205-D (12 pcs)	# 4	707-ST (12 pcs)	—	PL-3/8 (12 pcs)	—	—
100262	222-HY (12 pcs)	—	205-D (12 pcs)	# 4	707-ST (12 pcs)	—	PL-3/8 (12 pcs)	—	—
100642	1241-LOV6 (12 pcs)	1235-L <sup>G</sup> (12 pcs)	9205 <sup>B</sup> (12 pcs)	# 2	91-Ti (12 pcs)	100-LRK	—	VL-700 (24 pcs)	200-DGS
100648	1241-LOV6 (12 pcs)	1235-L <sup>G</sup> (12 pcs)	9205 <sup>B</sup> (12 pcs)	# 2	91-Ti (12 pcs)	100-LRK	—	VL-700 (24 pcs)	200-DGS

# CHEVROLET • 90° — V6 1985-86 • 4.3L (262 cu. in.)



## Recommended Valve Train Components

These items included in Cam & complete kit

Optional accessories

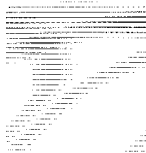
CAM & COMPLETE KIT P/N	LIFTERS P. 31-32	PUSHRODS P. 33-37	VALVE SPRINGS P. 47-58	SPRING SHIMS P. 44	STEEL RETAINERS P. 38	POLY LOCKS P. 43	VALVE LOCKS P. 46	VALVE SEALS P. 15
120256	222-HY (12 pcs)	—	205-D (12 pcs)	# 4	707-ST (12 pcs)	PL-3/8 (12 pcs)	VL-32 (24 pcs)	VS-11/32 <sup>F</sup> (12 pcs)
120256/262	222-HY (12 pcs)	—	205-D (12 pcs)	# 4	707-ST (12 pcs)	PL-3/8 (12 pcs)	VL-32 (24 pcs)	VS-11/32 <sup>F</sup> (12 pcs)
120262	222-HY (12 pcs)	—	205-D (12 pcs)	# 4	707-ST (12 pcs)	PL-3/8 (12 pcs)	VL-32 (24 pcs)	VS-11/32 <sup>F</sup> (12 pcs)
<b>HYDRAULIC ROLLER CAMSHAFTS – STEEL BILLET</b> CHEVROLET 90° V-6—4.3 LITRE — 262 CU. IN. (1987-91)					NOTE: 1987 & LATER 4.3L HYDRAULIC ROLLER CAMS AND LIFTERS CAN <u>NOT</u> BE INSTALLED IN EARLIER 4.3L ENGINES			
130252	★ See Below	★ See Below	205-D (12 pcs)	# 4	707-ST (12 pcs)	PL-3/8 (12 pcs)	VL-32 (24 pcs)	VS-11/32 <sup>F</sup> (12 pcs)
130252/257	★ See Below	★ See Below	205-D (12 pcs)	# 4	707-ST (12 pcs)	PL-3/8 (12 pcs)	VL-32 (24 pcs)	VS-11/32 <sup>F</sup> (12 pcs)

B Requires cylinder heads be machined with Isky #1258 Hole Saw  
 F Requires cylinder heads be machined with VST-11/32 Cutter  
 G Compatible with guide plate cylinder heads.

★ USE LATE MODEL (1987 AND UP) FACTORY HYDRAULIC ROLLER LIFTERS & PUSHRODS WITH ABOVE CAM & ASSEMBLY KITS.

# CHEVROLET • V-8 265-283-302-305-307-327-350-400 cu. in. engines (SMALL BLOCK) (1957-87)

Cast Iron Billet  
HYDRAULIC



## 1.5 :1 Rocker Ratio



Part No. Cam Only	Grind No./Type	APPLICATION	RPM-Range	Valve Lift INT. EX.	Valve Lash Hot INT. EX.	ADV. Duration INT. EX.	.050 Duration INT. EX.	Lobe Center
201256	256-SUPERCAM HYDRAULIC	Best torque & economy in 327-400 C.I. passenger cars & trucks. Max. compr., 9.5:1, smooth idle, std. axle ratio, good vacuum, computer compatible. Std. to 600 CFM Carb.	1500-4800	.425 .425	.000 .000	256° 256°	202° 202°	112°
201258	256-SUPERCAM HYDRAULIC	Best torque & economy in 305 C.I. 9:1 compr., passenger cars & trucks. Std. axle ratio, std. to 600 CFM Carb. smooth idle.	1500-4800	.425 .425	.000 .000	256° 256°	202° 202°	108°
201256/262	256/262 HYDRAULIC	Best overall cam for towing. Trucks, Vans, R.V., etc. Broad torque band. Good vacuum. 3.55-4:10 axle ratio. 9.5:1 compr. Computer compatible. Smooth idle.	1800-5000	.425 .435	.000 .000	256° 262°	202° 208°	110°
201262	262-SUPERCAM HYDRAULIC	Low/Mid-Range performance cam. 9.5:1 compr. 3.08-3.70 axle ratio. Passenger cars & trucks. Up to 625 CFM Carb.	2000-5500	.435 .435	.000 .000	262° 262°	208° 208°	108°
201262/270-12	262/270 HL HYDRAULIC	Excellent performance cam with good vacuum, good idle. 3.08-3.73 axle ratio, 9.5:1 compr. Up to 650 CFM Carb. Computer compatible. Stock converter.	2000-5700	.435 .445	.000 .000	262° 270°	208° 216°	112°
201264	264-MEGA HYDRAULIC	Tremendous torque & good mid-range power. 9-10.5:1 compr., good idle, stock converter. 3.23-3.70 axle ratio. Up to 625 CFM Carb.	2000-5800	.450 .450	.000 .000	264° 264°	214° 214°	108°
201264/271-12	264/270 MEGA HYDRAULIC	Good mid-range power. Good vacuum & good idle. 3.23-3.70 axle ratio. 9.5-10.5:1 compr. Computer compatible with stage 1 chip. Stock converter. Up to 650 CFM Carb.	2000-6000	.450 .465	.000 .000	264° 270°	214° 221°	112°
201270	270-HL HYD HYDRAULIC	Good all-around performance. Fair idle, Stock converter, 3.70-4.11 axle ratio. up to 650 CFM Carb. 9.5:1 compression.	2000-6000	.445 .445	.000 .000	270° 270°	216° 216°	108°
201271	270-MEGA HYDRAULIC	Excellent mid-range performance. Fair idle. Stock converter. 9-10.5:1 compr., 3.70-4.11 axle ratio. Up to 650 CFM Carb.	2000-6200	.465 .465	.000 .000	270° 270°	221° 221°	108°
201271/281-12	270/280 MEGA HYDRAULIC	Good all around performance. Good idle & vacuum. 3.70-4.11 axle ratio. 9.5-10.5:1 compr. Computer compatible with stage 1 or 2 chip. Stock converter.	2200-6500	.465 .485	.000 .000	270° 280°	221° 232°	112°
201281	280-MEGA HYDRAULIC	High performance use/bracket racing. Lopey idle. 2500 Stall. 9.5-10.5:1 compr. 3.90-4.11 axle ratio. Up to 780 CFM Carb.	2500-6800	.485 .485	.000 .000	280° 280°	232° 232°	108°
201292	292-MEGA HYDRAULIC	High performance use/bracket racing. Rough idle. 2800 Stall. 10-11:1 compr. 4.11-4.56 axle ratio. Up to 780 CFM Carb.	2800-7000	.505 .505	.000 .000	292° 292°	244° 244°	108°
201304	304-MEGA HYDRAULIC	Ultimate high-performance use/bracket racing. Rough idle. 3000 Stall. 11:1 & up compr. 4.33-4.88 axle ratio. Up to 850 CFM Carb.	3200-7500	.525 .525	.000 .000	304° 304°	256° 256°	108°
201-TKA	TURBOCYCLE-A HYDRAULIC	Maximum economy/torque. Turbocharged. Up to 7 PSI Boost. Smooth idle. Stock converter. Std. axle ratio. Up to 650 CFM Carb.	1000-5000	.435 .400	.000 .000	262° 250°	208° 194°	114°

NOTE: Special cores are available for swapping cylinders 4 & 7 firing order to obtain a smoother torque curve. Use Part # 201-CY 4/7, then grind no. and Lobe Center when ordering.

## Recommended Valve Train Components



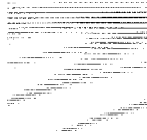
		These items included in Cam & complete kit					Optional accessories			
CAM & COMPLETE KIT P/N	CAM & <sup>A</sup> LIFTER KIT P/N	LIFTERS P. 31-32	VALVE SPRINGS P. 47-58	SPRING SHIMS P. 44	STEEL RETAINERS P. 38	POLY LOCKS P. 43	TIMING SET P. 18, 45	PUSHRODS P. 33-37	VALVE LOCKS P. 46	VALVE SEALS P. 15
200256	CL-201256	222-HY	205-D	# 4	707-ST	PL-3/8	300-TS ♦	203-HG <sup>G</sup>	VL-32	VS-11/32 <sup>F</sup>
200258	CL-201258	222-HY	205-D	# 4	707-ST	PL-3/8	300-TS ♦	203-HG <sup>G</sup>	VL-32	VS-11/32 <sup>F</sup>
200256/262	CL-201256/262	222-HY	205-D	# 4	707-ST	PL-3/8	300-TS ♦	203-HG <sup>G</sup>	VL-32	VS-11/32 <sup>F</sup>
200262	CL-201262	222-HY	205-D	# 4	707-ST	PL-3/8	300-TS ♦	203-HG <sup>G</sup>	VL-32	VS-11/32 <sup>F</sup>
200262/270-12	CL 201262/270-12	222-HY	205-D	# 4	707-ST	PL-3/8	300-TS ♦	203-HG <sup>G</sup>	VL-32	VS-11/32 <sup>F</sup>
200264	CL-201264	202-HY	205-D	# 4	707-ST	PL-3/8	300-TS ♦	203-HG <sup>G</sup>	VL-32	VS-11/32 <sup>F</sup>
200264/271-12	CL 201264/271-12	202-HY	205-D	# 4	707-ST	PL-3/8	300-TS ♦	203-HG <sup>G</sup>	VL-32	VS-11/32 <sup>F</sup>
200270	CL-201270	202-HY	205-D	# 4	707-ST	PL-3/8	300-TS ♦	203-HG <sup>G</sup>	VL-32	VS-11/32 <sup>F</sup>
200271	CL-201271	202-HY	205-D	# 4	707-ST	PL-3/8	300-TS ♦	203-HG <sup>G</sup>	VL-32	VS-11/32 <sup>F</sup>
200271/281-12	CL 201271/281-12	202-HY	205-D	# 4	707-ST	PL-3/8	300-TS ♦	203-HG <sup>G</sup>	VL-32	VS-11/32 <sup>F</sup>
200281	CL-201281	202-HY	6005 <sup>B</sup>	# 2	507-ST	PL-3/8	300-TS ♦	203-HG <sup>G</sup>	VL-32	VS-11/32 <sup>F</sup>
200292	CL-201292	202-HY	6005 <sup>B</sup>	# 2	507-ST	PL-3/8	300-TS ♦	203-HG <sup>G</sup>	VL-32	VS-11/32 <sup>F</sup>
200304	CL-201304	202-HY	6005 <sup>B</sup>	# 2	507-ST	PL-3/8	300-TS ♦	203-HG <sup>G</sup>	VL-32	VS-11/32 <sup>F</sup>
200-TKA	N/A	222-HY	205-D	# 4	707-ST	PL-3/8	300-TS ♦	203-HG <sup>G</sup>	VL-32	VS-11/32 <sup>F</sup>

**A** Cam & lifter kits are supplied with 222-HY lifters  
**B** Requires cylinder heads be machined with Isky # 568 hole saw  
**F** Requires cylinder heads be machined with Isky VST-11/32 cutter  
**G** Compatible with guide plate cylinder heads  
**♦** Not legal for sale or use on pollution controlled motor vehicles operated on highways or roads



# CHEVROLET • V-8 265-283-302-307-327-350-400 cu. in. engines (SMALL BLOCK) (1957-87)

HI-REV SERIES  
SOLID LIFTER



## 1.5:1 Rocker Ratio



Part No. Cam Only	Grind No./Type	APPLICATION	RPM-Range	Valve Lift INT. EX.	Valve Lash Hot INT. EX.	ADV. Duration INT. EX.	.050 Duration INT. EX.	Lobe Center
201020	Z-20 SOLID	Mid-range performance. Good idle. Stock converter. 3:70-4:11 axle ratio. Up to 650 CFM Carb. 9:1 compr.	2000-6000	.448 .448	.018 .018	268° 268°	228° 228°	112°
201025	Z-25 SOLID	Strong mid-range performance. Lopey idle. 2500 RPM Stall. 3;70-4;11 axle ratio. 650-750 CFM Carb. 10.5:1 compr.	2500-6500	.480 .480	.018 .018	278° 278°	244° 244°	108°
201027	Z-27 SOLID	Great mid-range performance. Lopey idle. 2500 RPM Stall. 3;70-4;11 axle ratio. 650-750 CFM Carb. 10.5:1 compr.	2800-6800	.507 .507	.018 .018	282° 282°	247° 247°	108°
201030	Z-30 SOLID	High performance use/bracket racing. Lopey idle. 3000 Stall. 10.5:1 compr. 3:90-4:11 axle ratio Up to 800 CFM Carb.	3000-7000	.480 .480	.030 .030	290° 290°	250° 250°	108°
201035	Z-35 SOLID	High performance. Street/strip. Lopey idle. 2800 Stall. 4:11-4:88 axle ratio. Up to 750 CFM Carb. 10.5:1 Compr.	3000-7500	.525 .525	.016 .016	288° 288°	254° 254°	108°
201506	505-T SOLID	Bracket racing. Rough idle. 2800 Stall. 4:11-4:56 axle ratio. 650-750 CFM Carb. 10:1 compr.	3000-7000	.505 .505	.030 .030	290° 290°	254° 254°	108°
201050	Z-50 SOLID	Bracket racing. Rough idle. 3000 Stall. 4:11-4:56 axle ratio. Up to 850 CFM Carb. 10.5:1 compr.	3500-7500	.507 .507	.028 .028	300° 300°	254° 254°	108°
201060	Z-60 SOLID	High performance. Street/strip. Lopey idle. 3200 Stall. 4:56-4:88 axle ratio. Up to 800 CFM Carb. 10.5-11:1 compr.	3500-7500	.548 .548	.016 .016	292° 292°	259° 259°	108°
201065	Z-65 SOLID	All out competition/drags. 5000 Stall. 5:13-5:57 axle ratio. 850+ CFM Carb. 12:1 compr.	4000-8000	.560 .560	.028 .028	314° 314°	272° 272°	108°
201070	Z-70 SOLID	Bracket racing. Lopey idle. 4000 Stall. 4:88-5:38 axle ratio. Up to 850 CFM Carb. 11:1 compr.	3500-7500	.548 .548	.028 .028	304° 304°	264° 264°	108°
201075	Z-75 SOLID	All out competition/drags. 5000 Stall. 5:13-5:57 axle ratio. 850+ CFM Carb. 12:1 compr.	4000-8000	.570 .570	.028 .028	320° 320°	274° 274°	108°
201079	Z-79 SOLID	All out competition/drags. 5000 Stall. 5:13-5:57 axle ratio. 850+ CFM Carb. 12:1 compr.	4200-8200	.570 .585	.028 .030	320° 330°	274° 284°	108°
201085	Z-85 SOLID	All out competition/drags. 5000+ Stall. 5:38-5:86 axle ratio. 850+ CFM Carb. 12.5:1 compr.	4500-8500	.585 .585	.030 .030	330° 330°	284° 284°	108°

NOTE: Special cores are available for swapping cylinders 4 & 7 firing order to obtain a smoother torque curve. Use Part # 201-C 4/7, then grind no. and Lobe Center when ordering.

## Recommended Valve Train Components



		These items included in Cam & complete kit					Optional accessories			
CAM & COMPLETE KIT P/N	CAM & LIFTER KIT P/N	LIFTERS P. 31-32	VALVE SPRINGS P. 47-58	SPRING SHIMS P. 44	STEEL RETAINERS P. 38	POLY LOCKS P. 43	ROCKER ARMS P. 40	PUSHRODS P. 33-37	VALVE LOCKS P. 46	VALVE SEALS P. 15
200020	—	202-H	205-D	# 4	707-ST	PL-3/8	204	203-HG <sup>G</sup>	VL-32	VS-11/32 <sup>F</sup>
200025	—	202-H	205-D	# 4	707-ST	PL-3/8	204	203-HG <sup>G</sup>	VL-32	VS-11/32 <sup>F</sup>
200027	—	202-H	205-D	# 4	707-ST	PL-3/8	204	203-HG <sup>G</sup>	VL-32	VS-11/32 <sup>F</sup>
200030	—	202-H	205-D	# 4	707-ST	PL-3/8	204	203-HG <sup>G</sup>	VL-32	VS-11/32 <sup>F</sup>
200035	—	202-H	6005 <sup>B</sup>	# 2	507-ST	PL-3/8	204	203-HG <sup>G</sup>	VL-32	VS-11/32 <sup>F</sup>
200506	—	202-H	6005 <sup>B</sup>	# 2	507-ST	PL-3/8	204	203-HG <sup>G</sup>	VL-32	VS-11/32 <sup>F</sup>
200050	—	202-H	6005 <sup>B</sup>	# 2	507-ST	PL-3/8	204	203-HG <sup>G</sup>	VL-32	VS-11/32 <sup>F</sup>
200060	—	202-H	6005 <sup>B</sup>	# 2	507-ST	PL-3/8	204	203-HG <sup>G</sup>	VL-32	VS-11/32 <sup>F</sup>
200065	—	202-H	6005 <sup>B</sup>	# 2	507-ST	PL-3/8	204	203-HG <sup>G</sup>	VL-32	VS-11/32 <sup>F</sup>
200070	—	202-H	6005 <sup>B</sup>	# 2	507-ST	PL-3/8	204	203-HG <sup>G</sup>	VL-32	VS-11/32 <sup>F</sup>
200075	—	202-H	6005 <sup>B</sup>	# 2	507-ST	PL-3/8	204	203-HG <sup>G</sup>	VL-32	VS-11/32 <sup>F</sup>
200079	—	202-H	6005 <sup>B</sup>	# 2	507-ST	PL-3/8	204	203-HG <sup>G</sup>	VL-32	VS-11/32 <sup>F</sup>
200085	—	202-H	6005 <sup>B</sup>	# 2	507-ST	PL-3/8	204	203-HG <sup>G</sup>	VL-32	VS-11/32 <sup>F</sup>

- B Requires cylinder heads be machined with Isky #568 hole saw
- F Requires cylinder heads be machined with VST-11/32 cutter
- G Compatible with guide plate cylinder heads

# CHEVROLET •

HYDRAULIC ROLLER CAMSHAFTS—DEEP HARDENED STEEL BILLET  
V-8 265-283-302-307-327-350-400 cu. in. engines (1957-87) small block

HYDRAULIC  
ROLLER

## 1.5:1 Rocker Ratio



NOTE: 1988-Up 305 & 350 cu. in. engines use a different type of cam core than the 1957-87 engines and therefore cannot be interchanged

Part No. Cam Only	Grind No./Type	APPLICATION	RPM-Range	Valve Lift INT. EX.	Valve Lash Hot INT. EX.	ADV. Duration INT. EX.	.050 Duration INT. EX.	Lobe Center
201252/257	RR-252/257 HYDRAULIC ROLLER	Best overall cam for towing. Trucks, Vans, R.V., etc. Broad torque band. Good vacuum. 3.55-4:10 axle ratio. 9.5:1 compr. Computer compatible. Smooth idle.	1200-5000	.450 .465	.000 .000	252° 257°	204° 209°	112°
201257/265	RR-257/265 HYDRAULIC ROLLER	Excellent performance cam with good vacuum, good idle. 3.08-3.73 axle ratio, 9.5:1 compr. Up to 650 CFM Carb. Computer compatible. Stock converter.	1400-5600	.465 .485	.000 .000	257° 265°	209° 217°	112°
201265/272	RR-265/272 HYDRAULIC ROLLER	Good mid-range power. Good vacuum & good idle. 3.23-3.70 axle ratio. 9.5-10.5:1 compr. Computer compatible with stage 1 chip. Stock converter. Up to 650 CFM Carb.	2000-6000	.485 .505	.000 .000	265° 272°	217° 225°	112°
201272/282	RR-272/282 HYDRAULIC ROLLER	Good all around performance. Good idle & vacuum. 3.70-4.11 axle ratio. 9.5-10.5:1 compr. Computer compatible with stage 1 or 2 chip. Stock converter.	2500-6400	.505 .530	.000 .000	272° 282°	225° 234°	112°
201282/294	RR-282/294 HYDRAULIC ROLLER	High performance use/bracket racing. Lopey idle. 2500 Stall. 9.5-10.5:1 compr. 3.90-4.11 axle ratio. Up to 780 CFM Carb.	3000-7000	.530 .550	.000 .000	282° 294°	234° 246°	110°

# CHEVROLET •

HYDRAULIC ROLLER CAMSHAFTS—DEEP HARDENED STEEL BILLET  
V-8 305-350 cu. in. engines (1988-UP) small block

HYDRAULIC  
ROLLER

## 1.5:1 Rocker Ratio



NOTE: 1988-Up 305 & 350 cu. in. engines use a different type of cam core than the 1957-87 engines and therefore cannot be interchanged.  
1992-96 LT-1 & LT-4 engines require a modified "Front End" type cam core.

Part No. Cam Only	Grind No./Type	APPLICATION	RPM-Range	Valve Lift INT. EX.	Valve Lash Hot INT. EX.	ADV. Duration INT. EX.	.050 Duration INT. EX.	Lobe Center
211252/257	RR-252/257 HYDRAULIC ROLLER	Best overall cam for towing. Trucks, Vans, R.V., etc. Broad torque band. Good vacuum. 3.55-4:10 axle ratio. 9.5:1 compr. Computer compatible. Smooth idle.	1200-5000	.450 .465	.000 .000	252° 257°	204° 209°	112°
211257/265	RR-257/265 HYDRAULIC ROLLER	Excellent performance cam with good vacuum, good idle. 3.08-3.73 axle ratio, 9.5:1 compr. Up to 650 CFM Carb. Computer compatible. Stock converter.	1400-5600	.465 .485	.000 .000	257° 265°	209° 217°	112°
211265/272	RR-265/272 HYDRAULIC ROLLER	Good mid-range power. Good vacuum & good idle. 3.23-3.70 axle ratio. 9.5-10.5:1 compr. Computer compatible with stage 1 chip. Stock converter. Up to 650 CFM Carb.	2000-6000	.485 .505	.000 .000	265° 272°	217° 225°	112°
211272/282	RR-272/282 HYDRAULIC ROLLER	Good all around performance. Good idle & vacuum. 3.70-4.11 axle ratio. 9.5-10.5:1 compr. Computer compatible with stage 1 or 2 chip. Stock converter.	2500-6400	.505 .530	.000 .000	272° 282°	225° 234°	112°
211282/294	RR-282/294 HYDRAULIC ROLLER	High performance use/bracket racing. Lopey idle. 2500 Stall. 9.5-10.5:1 compr. 3.90-4.11 axle ratio. Up to 780 CFM Carb.	3000-7000	.530 .550	.000 .000	282° 294°	234° 246°	110°

NOTE: All Isky Hydraulic Roller Cams are compatible with stock cast iron dist. gears.

# CHEVROLET •

HYDRAULIC ROLLER CAMSHAFTS—DEEP HARDENED STEEL BILLET  
V-8 265-283-302-307-327-350-400 cu. in. engines (1957-87) small block



## Recommended Valve Train Components

These items included in Cam & complete kit							Optional accessories	
CAM & COMPLETE KIT P/N	HYDRAULIC ROLLER LIFTERS P. 30	PUSHRODS P. 33-37	VALVE SPRINGS P. 47-58	SPRING SHIMS P. 44	STEEL RETAINERS P. 38	CAM SPROCK. LOCK PLATE THRUST BUMP P.14, 44	TIMING SET P. 18,45	VALVE LOCKS P. 46
200252/257	2070-HYRT	203-HG <sup>G</sup> MINUS .580	205-D	# 4	707-ST	200-LP 200-TB <sup>H</sup> 210-TB <sup>I</sup>	200-TS	VL-32
200257/265	2070-HYRT	203-HG <sup>G</sup> MINUS .580	205-D	# 4	707-ST	200-LP 200-TB <sup>H</sup> 210-TB <sup>I</sup>	200-TS	VL-32
200265/272	2070-HYRT	203-HG <sup>G</sup> MINUS .580	6105 <sup>B</sup>	#2	507-STA	200-LP 200-TB <sup>H</sup> 210-TB <sup>I</sup>	200-TS	VL-32
200272/282	2070-HYRT	203-HG <sup>G</sup> MINUS .580	6105 <sup>B</sup>	# 2	507-STA	200-LP 200-TB <sup>H</sup> 210-TB <sup>I</sup>	200-TS	VL-32
200282/294	2070-HYRT	203-HG <sup>G</sup> MINUS .580	6105 <sup>B</sup>	# 2	507-STA	200-LP 200-TB <sup>H</sup> 210-TB <sup>I</sup>	200-TS	VL-32

# CHEVROLET

HYDRAULIC ROLLER CAMSHAFTS—DEEP HARDENED STEEL BILLET  
• V-8 305-350 cu. in. engines (1988-up) small block



## Recommended Valve Train Components

These items included in Cam & complete kit							Optional accessories		
CAM & COMPLETE KIT P/N	HYDRAULIC ROLLER LIFTERS	PUSHRODS P. 33-37	VALVE SPRINGS P. 47-58	SPRING SHIMS P. 44	STEEL RETAINERS P. 38		BRONZE DISTR. GEAR P. 18	VALVE LOCKS P. 46	VALVE SEALS P. 15
210252/257	★ SEE BELOW	203-HG <sup>G</sup> MINUS. 580	205-D	# 4	707-ST		200-DGS	VL-32	VS-11/32 <sup>F</sup>
210257/265	★ SEE BELOW	203-HG <sup>G</sup> MINUS. 580	205-D	# 4	707-ST		200-DGS	VL-32	VS-11/32 <sup>F</sup>
210265/272	★ SEE BELOW	203-HG <sup>G</sup> MINUS. 580	6105 <sup>B</sup>	# 2	507-STA		200-DGS	VL-32	VS-11/32 <sup>F</sup>
210272/282	★ SEE BELOW	203-HG <sup>G</sup> MINUS. 580	6105 <sup>B</sup>	# 2	507-STA		200-DGS	VL-32	VS-11/32 <sup>F</sup>
210282/294	★ SEE BELOW	203-HG <sup>G</sup> MINUS. 580	6105 <sup>B</sup>	# 2	507-STA		200-DGS	VL-32	VS-11/32 <sup>F</sup>

B Requires cylinder heads be machined with Isky #568 Hole Saw  
 F Requires cylinder heads be machined with VST-11/32 Cutter  
 G Compatible with guide plate cylinder heads.  
 H 1957-77 Motors only

I 1978-87 Motors only  
 ★ Use late model (1988 & up) factory hydraulic roller lifters with these roller kits.

# CHEVROLET •

**HYDRAULIC ROLLER CAMSHAFTS—DEEP HARDENED STEEL BILLET**  
V-8 305-350 cu. in. engines LT-1 small block (1992-96)

HYDRAULIC  
ROLLER

## 1.5:1 Rocker Ratio



Part No. Cam Only	Grind No./Type	APPLICATION	RPM-Range	Valve Lift INT. EX.	Valve Lash Hot INT. EX.	ADV. Duration INT. EX.	.050 Duration INT. EX.	Lobe Center
261252/257	RR-252/257 HYDRAULIC ROLLER	Best overall cam for towing. Trucks, Vans, R.V., etc. Broad torque band. Good vacuum. 3.55-4:10 axle ratio. 9.5:1 compr. Computer compatible. Smooth idle.	1200-5000	.450 .465	.000 .000	252° 257°	204° 209°	112°
261257/265	RR-257/265 HYDRAULIC ROLLER	Excellent performance cam with good vacuum, good idle. 3.08-3.73 axle ratio, 9.5:1 compr. Up to 650 CFM Carb. Computer compatible. Stock converter.	1400-5600	.465 .485	.000 .000	257° 265°	209° 217°	112°
261265/272	RR-265/272 HYDRAULIC ROLLER	Good mid-range power. Good vacuum & good idle. 3.23-3.70 axle ratio. 9.5-10.5:1 compr. Computer compatible with stage 1 chip. Stock converter. Up to 650 CFM Carb.	2000-6000	.485 .505	.000 .000	265° 272°	217° 225°	112°
261272/282	RR-272/282 HYDRAULIC ROLLER	Good all around performance. Good idle & vacuum. 3.70-4.11 axle ratio. 9.5-10.5:1 compr. Computer compatible with stage 1 or 2 chip. Stock converter.	2500-6400	.505 .530	.000 .000	272° 282°	225° 234°	112°
261282/294	RR-282/294 HYDRAULIC ROLLER	High performance use/bracket racing. Lopey idle. 2500 Stall. 9.5-10.5:1 compr. 3.90-4.11 axle ratio. Up to 780 CFM Carb.	3000-7000	.530 .550	.000 .000	282° 294°	234° 246°	110°

# CHEVROLET •

**HYDRAULIC ROLLER CAMSHAFTS—DEEP HARDENED STEEL BILLET**  
V-8 350 cu. in. LS-1 engines (1997 up) small block  
(Also Vortec 1999-Up 4800-5300, 6000 Series)

HYDRAULIC  
ROLLER

## 1.7:1 Rocker Ratio



**NOTE:** all cams listed are 3-Bolt mounting style. Single Bolt Mounting style is available on Special Order. Contact Isky factory for single bolt ordering information.

Part No. Cam Only	Grind No./Type	APPLICATION	RPM-Range	Valve Lift INT. EX.	Valve Lash Hot INT. EX.	ADV. Duration INT. EX.	.050 Duration INT. EX.	Lobe Center
271252/257	RR-252/257 HYDRAULIC ROLLER	Best overall cam for towing. Trucks, Vans, R.V., etc. Broad torque band. Good vacuum. 3.55-4:10 axle ratio. 9.5:1 compr. Computer compatible. Smooth idle.	1200-5000	.495 .510	.000 .000	252° 257°	206° 212°	113°
271257/265	RR-257/265 HYDRAULIC ROLLER	Excellent performance cam with good vacuum, good idle. 3.08-3.73 axle ratio, 9.5:1 compr. Up to 650 CFM Carb. Computer compatible. Stock converter.	1400-5600	.510 .530	.000 .000	257° 265°	212° 220°	113°
271265/275	RR-265/275 HYDRAULIC ROLLER	Good mid-range power. Good vacuum & good idle. 3.23-3.70 axle ratio. 9.5-10.5:1 compr. Computer compatible with stage 1 chip. Stock converter. Up to 650 CFM Carb.	2000-6000	.530 .550	.000 .000	265° 275°	220° 230°	113°
271280/290	RR-280/290 HYDRAULIC ROLLER	Excellent mid-range performance. Fair idle. 2500 stall. 3.70-4.00 axle ratio. Up to 10.5:1 compr. Up to 750 CFM Carb.	2500-6800	.530 .540	.000 .000	280° 290°	232° 242°	113°

**CHEVROLET •****HYDRAULIC ROLLER CAMSHAFTS—DEEP HARDENED STEEL BILLET**  
V-8 LT-1 305-350 cu. in. engines (1992--96) small block

## Recommended Valve Train Components



These items included in Cam & complete kit							Optional accessories
CAM & COMPLETE KIT P/N	HYDRAULIC ROLLER LIFTERS	PUSHRODS P. 33-37	VALVE SPRINGS P. 47-58	SPRING SHIMS P. 44	STEEL RETAINERS P. 38	SPRING LOCATORS P. 59	VALVE LOCKS P. 46
260252/257	*SEE BELOW	203-HG <sup>G</sup> MINUS. 580	235-D	# 3	707-STA	255-VSL	VL-32
260257/265	*SEE BELOW	203-HG <sup>G</sup> MINUS. 580	235-D	# 3	707-STA	255-VSL	VL-32
260265/272	*SEE BELOW	203-HG <sup>G</sup> MINUS. 580	235-D	#3	707-STA	255-VSL	VL-32
260272/282	*SEE BELOW	203-HG <sup>G</sup> MINUS. 580	235-D	# 3	707-STA	255-VSL	VL-32
260282/294	*SEE BELOW	203-HG <sup>G</sup> MINUS. 580	235-D	# 3	707-STA	255-VSL	VL-32

**CHEVROLET •****HYDRAULIC ROLLER CAMSHAFTS—DEEP HARDENED STEEL BILLET**  
V-8 350 cu. in. LS-1 engines (1997 up) small block  
(Also Vortec 1999-Up 4800-5300, 6000 Series)

## Recommended Valve Train Components



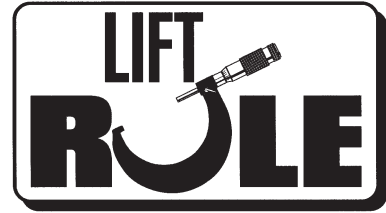
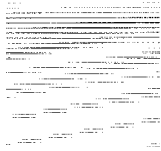
These items included in Cam & complete kit							
CAM & COMPLETE KIT P/N	HYDRAULIC ROLLER LIFTERS	PUSHRODS P. 33	SPRING LOCATORS P. 59	VALVE SPRINGS P. 47-58	SPRING SHIMS P. 44	STEEL RETAINERS P. 38	VALVE LOCKS P. 46
270252/257	*SEE BELOW	203-HG <sup>G</sup> MINUS. 380	175-VSL	165-A	# 11	135-ST	VL-500
270257/265	*SEE BELOW	203-HG <sup>G</sup> MINUS. 380	175-VSL	165-A	# 11	135-ST	VL-500
270265/275	*SEE BELOW	203-HG <sup>G</sup> MINUS. 380	175-VSL	165-A	# 11	135-ST	VL-500
270280/290	*SEE BELOW	203-HG <sup>G</sup> MINUS. 380	175-VSL	165-A	# 11	135-ST	VL-500

G Compatible with guide plate cylinder heads.

★ Use late model (1992 &amp; up) factory hydraulic roller lifters with these roller kits.

# CHEVROLET • V-8 265-283-302-305-307-327-350-400 cu. in. engines (SMALL BLOCK) (1957-87)

Cast Iron Billet  
HYDRAULIC



## OVAL TRACK

Part No. Cam Only	Grind No./Type	APPLICATION	RPM-Range	Valve Lift INT. EX.	Valve Lash Hot INT. EX.	ADV. Duration INT. EX.	.050 Duration INT. EX.	Lobe Center
201SL1	SL-1 HYDRAULIC	Classes where stock lift rules apply; 1/4-3/8 mile tracks with slight bank.	2000-6500	.390 .410	.000 .000	268° 272°	228° 232°	108°
201SL2	SL-2 HYDRAULIC	Classes where stock lift rules apply; banked 3/8-1/2 mile tracks.	2400-6800	.390 .410	.000 .000	276° 280°	236° 240°	106°
201LR1	LR-1 HYDRAULIC	.420" lift rule class; 1/4-3/8 mile tracks with slight bank.	2000-6200	.415 .415	.000 .000	264° 264°	224° 224°	107°
201LR2	LR-2 HYDRAULIC	.420" lift rule class; banked 1/4-3/8 mile tracks.	2400-6600	.415 .415	.000 .000	272° 272°	232° 232°	106°
201LR3	LR-3 HYDRAULIC	.420" lift rule class; banked 3/8-1/2 mile tracks.	2500-6800	.415 .415	.000 .000	280° 280°	240° 240°	106°
201LR4	LR-4 HYDRAULIC	.420" lift rule class; high banked 1/2 mile tracks.	3000-7200	.420 .420	.000 .000	296° 296°	248° 248°	105°
201268	268-MEGA HYDRAULIC	.450" lift rule class; 1/4-3/8 mile tracks with slight bank.	2000-6400	.450 .450	.000 .000	268° 268°	224° 224°	107°
201278	278-MEGA HYDRAULIC	.450" lift rule class; banked 1/4-3/8 mile tracks.	2500-6800	.450 .450	.000 .000	278° 278°	234° 234°	106°
201288	288-MEGA HYDRAULIC	.450" lift rule class; high banked 3/8-1/2 mile tracks.	2800-7000	.450 .450	.000 .000	288° 288°	244° 244°	106°
201271	270-MEGA HYDRAULIC	Hobby stock & street stock classes; 1/4-3/8 mile tracks with slight bank. 2BBL carburetor.	2000-6200	.465 .465	.000 .000	270° 270°	221° 221°	108°
201274	274-MEGA HYDRAULIC	Hobby stock & street stock classes; 1/4-3/8 mile tracks with slight bank. 2BBL carburetor.	2200-6500	.490 .490	.000 .000	274° 274°	226° 226°	108°
201281/6	280-MEGA HYDRAULIC	Hobby stock & street stock classes; banked 1/4-3/8 mile tracks. Any carburetor.	2500-6800	.485 .485	.000 .000	280° 280°	232° 232°	106°
201284/6	284 MEGA HYDRAULIC	Street stock & sportsman classes; banked 3/8-1/2 mile tracks. Any carburetor.	2600-6900	.510 .510	.000 .000	284° 284°	236° 236°	106°
201284/292-6	284/292 MEGA HYDRAULIC	Sportsman classes; 3/8-1/2 mile banked tracks when using stock exhaust manifolds. Any carburetor.	2700-7000	.510 .505	.000 .000	284° 292°	236° 244°	106°
201286/6	286 MEGA HYDRAULIC	.500" lift rule class; banked 3/8-1/2 mile tracks.	2700-7000	.500 .500	.000 .000	286° 286°	240° 240°	106°
201292/6	292 MEGA HYDRAULIC	Sportsman classes; 3/8-1/2 mile banked tracks. Any carburetor.	2800-7000	.505 .505	.000 .000	292° 292°	244° 244°	106°
201292/296-6	292/296 MEGA HYDRAULIC	Sportsman classes; 3/8-1/2 mile banked tracks when using stock exhaust manifolds. Any carburetor.	2900-7100	.505 .530	.000 .000	292° 296°	244° 248°	106°
201296/6	296-MEGA HYDRAULIC	Sportsman classes; 1/2 mile high banked track. Any carburetor.	3000-7200	.530 .530	.000 .000	296° 296°	248° 248°	106°
201296/304-6	296/304-MEGA HYDRAULIC	Sportsman classes; 1/2 mile high banked track when using stock exhaust manifolds. Any carburetor.	3200-7400	.530 .525	.000 .000	296° 304°	248° 256°	106°

NOTE: Special cores are available for swapping cylinders 4 & 7 firing order to obtain a smoother torque curve.  
Use Part # 201-CY 4/7, then grind no. and Lobe Center when ordering.

All Camshafts on this page are not legal for sale or use on pollution controlled motor vehicles operated on highways or roads.



## Recommended Valve Train Components

CAM & COMPLETE KIT P/N	CAM & <sup>A</sup> LIFTER KIT P/N	These items included in Cam & complete kit					Optional accessories			
		LIFTERS P. 31-32	VALVE SPRINGS P. 47-58	SPRING SHIMS P. 44	STEEL RETAINERS P. 38	POLY LOCKS P. 43	TIMING SET P. 18,45	PUSHRODS P. 33-37	VALVE LOCKS P. 46	VALVE SEALS P. 15
200SL1	—	202-HY	205-D	# 4	707-ST	PL-3/8	300-TS ♦	203-HG <sup>G</sup>	VL-32	VS-11/32 <sup>F</sup>
200SL2	—	202-HY	205-D	# 4	707-ST	PL-3/8	300-TS ♦	203-HG <sup>G</sup>	VL-32	VS-11/32 <sup>F</sup>
200LR1	—	202-HY	205-D	# 4	707-ST	PL-3/8	300-TS ♦	203-HG <sup>G</sup>	VL-32	VS-11/32 <sup>F</sup>
200LR2	—	202-HY	205-D	# 4	707-ST	PL-3/8	300-TS ♦	203-HG <sup>G</sup>	VL-32	VS-11/32 <sup>F</sup>
200LR3	—	202-HY	205-D	# 4	707-ST	PL-3/8	300-TS ♦	203-HG <sup>G</sup>	VL-32	VS-11/32 <sup>F</sup>
200LR4	—	202-HY	205-D	# 4	707-ST	PL-3/8	300-TS ♦	203-HG <sup>G</sup>	VL-32	VS-11/32 <sup>F</sup>
200268	—	202-HY	205-D	# 4	707-ST	PL-3/8	300-TS ♦	203-HG <sup>G</sup>	VL-32	VS-11/32 <sup>F</sup>
200278	—	202-HY	205-D	# 4	707-ST	PL-3/8	300-TS ♦	203-HG <sup>G</sup>	VL-32	VS-11/32 <sup>F</sup>
200288	—	202-HY	205-D	# 4	707-ST	PL-3/8	300-TS ♦	203-HG <sup>G</sup>	VL-32	VS-11/32 <sup>F</sup>
200271	CL-201271	202-HY	205-D	# 4	707-ST	PL-3/8	300-TS ♦	203-HG <sup>G</sup>	VL-32	VS-11/32 <sup>F</sup>
200274	CL-201274	202-HY	6005 <sup>B</sup>	# 2	507-ST	PL-3/8	300-TS ♦	203-HG <sup>G</sup>	VL-32	VS-11/32 <sup>F</sup>
200281/6	—	202-HY	6005 <sup>B</sup>	# 2	507-ST	PL-3/8	300-TS ♦	203-HG <sup>G</sup>	VL-32	VS-11/32 <sup>F</sup>
200284/6	—	202-HY	6005 <sup>B</sup>	# 2	507-ST	PL-3/8	300-TS ♦	203-HG <sup>G</sup>	VL-32	VS-11/32 <sup>F</sup>
200284/292-6	—	202-HY	6005 <sup>B</sup>	# 2	507-ST	PL-3/8	300-TS ♦	203-HG <sup>G</sup>	VL-32	VS-11/32 <sup>F</sup>
200286/6	—	202-HY	6005 <sup>B</sup>	# 2	507-ST	PL-3/8	300-TS ♦	203-HG <sup>G</sup>	VL-32	VS-11/32 <sup>F</sup>
200292/6	—	202-HY	6005 <sup>B</sup>	# 2	507-ST	PL-3/8	300-TS ♦	203-HG <sup>G</sup>	VL-32	VS-11/32 <sup>F</sup>
200292/296-6	—	202-HY	6005 <sup>B</sup>	# 2	507-ST	PL-3/8	300-TS ♦	203-HG <sup>G</sup>	VL-32	VS-11/32 <sup>F</sup>
200296/6	—	202-HY	6005 <sup>B</sup>	# 2	507-ST	PL-3/8	300-TS ♦	203-HG <sup>G</sup>	VL-32	VS-11/32 <sup>F</sup>
200296/304-6	—	202-HY	6005 <sup>B</sup>	# 2	507-ST	PL-3/8	300-TS ♦	203-HG <sup>G</sup>	VL-32	VS-11/32 <sup>F</sup>

A Cam & lifter kits are supplied with 222-HY LIFTERS

B Requires cylinder heads be machined with Isky #568 Hole Saw

F Requires cylinder heads be machined with VST-11/32 Cutter

G Compatible with guide plate cylinder heads.

♦ Not legal for sale or use on pollution controlled motor vehicles operated on highways or roads



HI-REV SERIES  
SOLID LIFTER



## 1.5:1 Rocker Ratio OVAL TRACK



Part No. Cam Only	Grind No./Type	APPLICATION	RPM-Range	Valve Lift INT. EX.	Valve Lash Hot INT. EX.	ADV. Duration INT. EX.	.050 Duration INT. EX.	Lobe Center
201524	524 SOLID	1/4-3/8 mile tracks with little or no bank. 2-BBL Carb.	2400-6600	.524 .534	.016 .018	278° 282°	244° 248°	106°
201525	525-A SOLID	1/4-3/8 mile tracks with little or no bank. 4-BBL Carb.	2600-6800	.507 .525	.016 .018	282° 288°	247° 254°	106°
201534	534-A SOLID	1/4-3/8 mile tracks with little or no bank. 2-BBL Carb.	2600-6800	.534 .525	.016 .018	282° 288°	248° 254°	106°
201526	525-B SOLID	Banked 1/4-3/8 mile tracks. 4-BBL Carb.	3000-7000	.525 .548	.016 .018	288° 292°	254° 259°	106°
201547	547-A SOLID	Banked 1/4-3/8 mile tracks. Any carburetor.	3000-7000	.547 .548	.016 .018	288° 292°	254° 259°	106°
201527	525-C SOLID	Banked 1/2 mile track. 4-BBL Carb.	3200-7200	.525 .555	.016 .016	288° 296°	254° 263°	106°
201549	547-B SOLID	Banked 3/8-1/2 mile tracks. Very broad power range. Any carburetor.	3000-7200	.547 .555	.016 .016	288° 296°	258° 263°	106°
201548	548 SOLID	High bank 1/2 mile track; 4-BBL Carb.	3400-7400	.548 .555	.016 .016	292° 296°	259° 263°	106°
201555	555 SOLID	High bank 1/2 mile track; 4-BBL Carb.	3600-7600	.555 .560	.016 .016	296° 302°	263° 268°	106°
201561	561 SOLID	Road racing. 4-BBL Carb.	3800-8000	.560 .570	.016 .016	302° 306°	268° 272°	106°
201CC1	CC1 MECHANICAL	Ideal for IMCA & Wisconsin modified classes. Broad power band on banked 1/4-3/8 mile tracks. 2-BBL Carb.	3000-6800	.525 .520	.016 .018	290° 296°	254° 260°	106°
201CC2	CC2 MECHANICAL	Ideal for IMCA & Wisconsin modified classes. Best on faster tracks (Banked 3/8-1/2 mile). Any carburetor.	3200-7000	.525 .545	.016 .026	290° 304°	254° 264°	106°
201506	505-T SOLID	Ideal for IMCA & Wisconsin modified classes. 2-BBL Carb. Banked 1/4-3/8 mile tracks.	3000-7000	.505 .505	.030 .030	290° 290°	254° 254°	108°

**SPECIAL NOTE:** Extra Hard "Proferral 55" (R/c 55) Cam Cores for maximum cam life, are available on a special order basis. To order, specify - 201-CP55 along with Grind Number & Lobe Center.

NOTE: Special cores are available for swapping cylinders 4 & 7 firing order to obtain a smoother torque curve. Use Part # 201-C 4/7, then grind no. and Lobe Center when ordering.

All Camshafts on this page are not legal for sale or use on pollution controlled motor vehicles operated on highways or roads.

## Recommended Valve Train Components



CAM & COMPLETE KIT P/N	CAM & LIFTER KIT P/N	These items included in Cam & complete kit					Optional accessories			
		LIFTERS P. 31-32	VALVE SPRINGS P. 47-58	SPRING SHIMS P. 44	STEEL RETAINERS P. 38	POLY LOCKS P. 43	ROCKER ARM P. 40	PUSHRODS P. 33-37	VALVE LOCKS P. 46	VALVE SEALS P. 15
200524	—	202-H	6105 <sup>B</sup>	# 2	507-ST	PL-3/8	204	203-HG <sup>G</sup>	VL-32	VS-11/32 <sup>F</sup>
200525	—	202-H	6105 <sup>B</sup>	# 2	507-ST	PL-3/8	204	203-HG <sup>G</sup>	VL-32	VS-11/32 <sup>F</sup>
200534	—	202-H	6105 <sup>B</sup>	# 2	507-ST	PL-3/8	204	203-HG <sup>G</sup>	VL-32	VS-11/32 <sup>F</sup>
200526	—	202-H	6105 <sup>B</sup>	# 2	507-ST	PL-3/8	204	203-HG <sup>G</sup>	VL-32	VS-11/32 <sup>F</sup>
200547	—	202-H	6105 <sup>B</sup>	# 2	507-ST	PL-3/8	204	203-HG <sup>G</sup>	VL-32	VS-11/32 <sup>F</sup>
200527	—	202-H	6105 <sup>B</sup>	# 2	507-ST	PL-3/8	204	203-HG <sup>G</sup>	VL-32	VS-11/32 <sup>F</sup>
200549	—	202-H	6105 <sup>B</sup>	# 2	507-ST	PL-3/8	204	203-HG <sup>G</sup>	VL-32	VS-11/32 <sup>F</sup>
200548	—	202-H	6105 <sup>B</sup>	# 2	507-ST	PL-3/8	204	203-HG <sup>G</sup>	VL-32	VS-11/32 <sup>F</sup>
200555	—	202-H	6105 <sup>B</sup>	# 2	507-ST	PL-3/8	204	203-HG <sup>G</sup>	VL-32	VS-11/32 <sup>F</sup>
200561	—	202-H	6105 <sup>B</sup>	# 2	507-ST	PL-3/8	204	203-HG <sup>G</sup>	VL-32	VS-11/32 <sup>F</sup>
200CC1	—	202-H	235-D	# 4	707-STA	PL-3/8	204	203-HG <sup>G</sup>	VL-32	VS-11/32 <sup>F</sup>
200CC2	—	202-H	235-D	# 4	707-STA	PL-3/8	204	203-HG <sup>G</sup>	VL-32	VS-11/32 <sup>F</sup>
200506	—	202-H	6005 <sup>B</sup>	# 2	507-ST	PL-3/8	204	203-HG <sup>G</sup>	VL-32	VS-11/32 <sup>F</sup>

B Requires cylinder heads be machined with Isky #568 Hole Saw  
 F Requires cylinder heads be machined with VST-11/32 Cutter  
 G Compatible with guide plate cylinder heads.

# CHEVROLET • V-8 265-283-302-305-307-327-350-400 cu. in. engines (SMALL BLOCK) (1957-87)

**SOLID**

**ROLLER**

## 1.5:1 Rocker Ratio - OVAL TRACK



NEW MAGNUM-XL SOLID AND ACCELERATOR INTAKE ROLLER PROFILES (P/N 201652 & 201653)

Part No. Cam Only	Grind No./Type	APPLICATION	RPM-Range	Valve Lift INT. EX.	Valve Lash Hot INT. EX.	ADV. Duration INT. EX.	.050 Duration INT. EX.	Lobe Center
201530	530/242 MECH <b>SOLID</b>	Single pattern/overlap reduced for restricted intake classes (Late model stock) 1/4 mile track/long rod applications.	2300-6500	.530 .530	.014 .016	270° 270°	242° 242°	108°
201535	535/246 MECH <b>SOLID</b>	Single pattern/overlap reduced for restricted intake classes (Late model stock) 1/4 mile track/long rod applications.	2400-6600	.535 .535	.014 .016	274° 274°	246° 246°	108°
201544	545/250 MECH <b>SOLID</b>	Single pattern/overlap reduced for restricted intake classes (Late model stock) 3/8 mile track/long rod applications.	2500-6700	.545 .545	.014 .016	278° 278°	250° 250°	108°
201554	555/254 MECH <b>SOLID</b>	Single pattern/overlap reduced for restricted intake classes (Late model stock) 1/2-5/8 mile track/long rod applications.	2600-6800	.555 .555	.014 .016	282° 282°	254° 254°	108°
201532	530-A MECH <b>SOLID</b>	1/4-3/8 mile tracks with little or no bank, 5.7-5.85" rod length.	2300-6600	.530 .535	.014 .016	270° 274°	242° 246°	106°
201536	535-A MECH <b>SOLID</b>	Banked 1/4-3/8 mile tracks/5.7-5.85" rod length.	2400-6800	.535 .545	.014 .016	274° 278°	246° 250°	106°
201546	545-A MECH <b>SOLID</b>	Banked 3/8-1/2 mile tracks/5.7-5.85" rod length.	2600-7000	.545 .555	.014 .016	278° 282°	250° 254°	106°
201556	555-A MECH <b>SOLID</b>	High Banked 3/8-1/2 mile oval, 5.7-5.85" rod length	2800-7200	.555 .565	.014 .016	282° 286°	254° 258°	106°
201571	570-A MECH <b>SOLID</b>	High Banked 1/2 mile oval, 5.7-5.85" rod length	3000-7600	.570 .580	.014 .016	286° 290°	258° 262°	106°
201581	580-A MECH <b>SOLID</b>	High Banked 1/2-5/8 mile oval, 5.7-5.85" rod length	3200-7800	.580 .585	.014 .016	290° 294°	262° 266°	106°
201615	RR-615 <b>ROLLER</b>	Good overall perf. on 3/8-1/2 mile banked tracks. Compression motors. 4-BBL Carb., easy on valve train.	3500-7500	.615 .617	.028 .028	294° 302°	260° 268°	106°
*201652	RR-652 <b>ROLLER</b>	Ultimate performance on 1/4-3/8 mile tracks; Plenty of torque off corners with excellent power down the straights. Compression motors. Any carb.	3800-7400	.650 .645	.024 .028	286° 298°	256° 264°	106°
*201653	RR-653 <b>ROLLER</b>	Ultimate performance on 3/8-1/2 mile tracks; Plenty of torque off corners with excellent power down the straights. Compression motors. Any carb.	4000-7600	.650 .645	.024 .028	290° 302°	260° 268°	106°



**SPECIAL NOTE: Extra Hard 'Proferral 55" (R/c 55) Solid Cam Cores for maximum cam life, are available on a special order basis.**

To order, specify - 201-CP55 along with Grind Number & Lobe Center.

\*Also available for 360 cu. in. Sprint Application with rear accessory drive. Simply add "RAD" to end of part number: i.e. - 201652RAD or 201653RAD.

All Camshafts on this page are not legal for sale or use on pollution controlled motor vehicles operated on highways or roads.

## Recommended Valve Train Components



These items included in Cam & complete kit

CAM & COMPLETE KIT P/N	LIFTERS P. 22-32	PUSHRODS P. 33-37	VALVE SPRINGS P. 47-58	SPRING SHIMS P. 44	STEEL RETAINERS P. 38	REV KIT P. 21	THRUST BUMPER P. 44	CAM SPROCKET LOCKS PLATE P. 14	ALUM BRONZE DIST GEAR P. 18
200530	202-H	—	6105 <sup>B</sup>	# 2	507-ST	—	—	—	—
200535	202-H	—	6105 <sup>B</sup>	# 2	507-ST	—	—	—	—
200544	202-H	—	6105 <sup>B</sup>	# 2	507-ST	—	—	—	—
200554	202-H	—	6105 <sup>B</sup>	# 2	507-ST	—	—	—	—
200532	202-H	—	6105 <sup>B</sup>	# 2	507-ST	—	—	—	—
200536	202-H	—	6105 <sup>B</sup>	# 2	507-ST	—	—	—	—
200546	202-H	—	6105 <sup>B</sup>	# 2	507-ST	—	—	—	—
200556	202-H	—	6105 <sup>B</sup>	# 2	507-ST	—	—	—	—
200571	202-H	—	6105 <sup>B</sup>	# 2	507-ST	—	—	—	—
200581	202-H	—	6105 <sup>B</sup>	# 2	507-ST	—	—	—	—
200615	1241-LSH	1235-L <sup>G</sup>	9315 <sup>R</sup>	# 2	527-STA	200-LRK	200-TB <sup>H</sup> 210-TB <sup>I</sup>	200-LP	200-DGS
200652	1241-LSH	1235-L <sup>G</sup>	9365 <sup>R</sup>	# 2	527-STA	200-LRK	200-TB <sup>H</sup> 210-TB <sup>I</sup>	200-LP	200-DGS
200653	1241-LSH	1235-L <sup>G</sup>	9365 <sup>R</sup>	# 2	527-STA	200-LRK	200-TB <sup>H</sup> 210-TB <sup>I</sup>	200-LP	200-DGS

### CHEVROLET CYLINDER HEADS ★ 1970-73 Z-28, LT-1 AND ANGLE PLUG ★ CYLINDER HEAD WARNING

1970-73 Chevy cylinder heads of the Z-28 — 302, 327 and 350 cubic inch series came through from the factory three pounds lighter than previous cylinder heads. Unfortunately, a lot of metal has been removed from the spring seat area and anyone hollow-milling or hole-sawing for larger springs is almost certain to cut through into the water jacket and ruin the heads. The exhaust valve spring seats at each end of the head are the most prone to break through.

We recommend that you do NOT use these cylinder heads with a spring diameter larger than 1½-inches. Use instead our standard 1.435 O.D. 6105 OR 6205 springs. To safely enlarge the spring-seats for either of the above spring combinations, use our special stepped hole saw #568 and instructions to prevent cutting into Z-28 water jacket when opening up spring seats.

B Requires cylinder heads be machined with Isky #568 Hole Saw  
 G Compatible with guide plate cylinder heads.  
 H 1955-77 Motors only

I 1978 & up motors with shallow timing cover  
 R Requires cylinder heads be machined with Isky #3608 Hole Saw.

# CHEVROLET • V-8 265-283-302-305-307-327-350-400 cu. in. engines (SMALL BLOCK) (1957-87)

**ROLLER  
SERIES**  
**Steel Billet**



## 1.5:1 Rocker Ratio OVAL TRACK



*Part No. Cam Only	Grind No./Type	APPLICATION	RPM-Range	Valve Lift INT. EX.	Valve Lash Hot INT. EX.	ADV. Duration INT. EX.	.050 Duration INT. EX.	Lobe Center
201640	RR-640/56-60 <b>ROLLER</b>	Flat 1/4-3/8 mile asphalt tracks; 9-1 compr.; 390+Carb.	3800-7200	.640 .640	.028 .028	290° 294°	256° 260°	106°
201641	RR-640/56-64 <b>ROLLER</b>	1/4-3/8 mile dirt tracks with little banking; Compression motors. 390+Carburetion.	4000-7200	.640 .640	.028 .028	290° 298°	256° 264°	106°
201642	RR-640/60-64 <b>ROLLER</b>	Banked 3/8-1/2 mile asphalt tracks; 9-1 compr; 390+Carb.	4100-7300	.640 .640	.028 .028	294° 298°	260° 264°	106°
201654	RR-645/60-64 <b>ROLLER</b>	Banked 1/4-3/8 mile asphalt tracks; 9-1 compr; 390+Carb.	3800-7200	.645 .645	.028 .028	294° 298°	260° 264°	104°
201643	RR-640/60-68 <b>ROLLER</b>	Banked 3/8-1/2 mile dirt or asphalt tracks; Compression motors; 390+Carb.	4200-7400	.640 .640	.028 .028	294° 302°	260° 268°	106°
201643RAD	RR-645/60-68 <b>ROLLER</b>	Best overall perf. in 360 C.I. Sprint motors. Very broad power band. Rear of cam is drilled & tapped to accept sander rear accessory drive.	4200-7400	.645 .645	.028 .028	294° 302°	260° 268°	106°
201644	RR-640/64-68 <b>ROLLER</b>	High banked 3/8-1/2 mile asphalt tracks (All pro. circuit). Excellent mid to upper end power. 9-1 compr. 390+Carb.	4300-7400	.640 .640	.028 .028	298° 302°	264° 268°	106°
201645	RR-640/64-72 <b>ROLLER</b>	Banked 1/2-5/8 mile dirt or asphalt tracks. Compression motors; 390+Carb. Also good perf. in 400 cu. in. sprint applications as well. (Use P/N 201645 RAD)	4400-7500	.640 .640	.028 .028	298° 306°	264° 272°	106°
201646	RR-640/68-72 <b>ROLLER</b>	Banked 5/8 mile dirt or asphalt tracks. Compression motors; 650+Carb. Good overall perf. in champ. dirt cars.	4500-7500	.640 .640	.028 .028	302° 306°	268° 272°	106°
201647	RR-640/68-76 <b>ROLLER</b>	Banked 5/8 mile dirt or asphalt tracks. Compression motors; 650+Carb. Good overall perf. in champ. dirt cars.	4500-7600	.640 .640	.028 .028	302° 310°	268° 276°	106°
201648	RR-640/72-76 <b>ROLLER</b>	Road race applications. Broad power band. Under 350 C.I.	4500-7600	.640 .640	.028 .028	306° 310°	272° 276°	106°
201649	RR-640/72-80 <b>ROLLER</b>	Road race applications. Broad power band. 350 C.I. and above.	4500-7700	.640 .640	.028 .028	306° 314°	272° 280°	106°
201655	RR-640/76-80 <b>ROLLER</b>	High RPM road racing. 350+C.I.	4500-7700	.640 .640	.028 .028	310° 314°	276° 280°	106°
201656	RR-640/76-82 <b>ROLLER</b>	High RPM road racing. 350+C.I.	4600-7800	.640 .640	.028 .028	310° 318°	276° 282°	106°

\* NOTE: Add "G" to End Of Part No. When Ordering a Gear Drive Cam

NOTE: Special cores are available for swapping cylinders 4 & 7 firing order to obtain a smoother torque curve. Use Part # 201-RR 4/7, then grind no. and Lobe Center when ordering. Specify bearing size also.

All Camshafts on this page are not legal for sale or use on pollution controlled motor vehicles operated on highways or roads.

## Recommended Valve Train Components



These items included in Cam & complete kit

★ CAM & COMPLETE KIT P/N	ROLLER LIFTERS P. 22-30	PUSHRODS P. 33-37	VALVE SPRINGS P. 47-58	SPRING SHIMS P. 44	STEEL RETAINERS P. 38	REV KIT P. 21	THRUST BUMPER P. 44	CAM SPROCKET LOCK PLATE P. 14	ALUM BRONZE DIST GEAR P. 18
200640	1241-LSH	1235-L <sup>G</sup>	9315 <sup>R</sup>	# 2	527-STA	200-LRK	200-TB <sup>H</sup> 210-TB <sup>I</sup>	200-LP	200- DGS
200641	1241-LSH	1235-L <sup>G</sup>	9315 <sup>R</sup>	# 2	527-STA	200-LRK	200-TB <sup>H</sup> 210-TB <sup>I</sup>	200-LP	200- DGS
200642	1241-LSH	1235-L <sup>G</sup>	9315 <sup>R</sup>	# 2	527-STA	200-LRK	200-TB <sup>H</sup> 210-TB <sup>I</sup>	200-LP	200- DGS
200654	1241-LSH	1235-L <sup>G</sup>	9315 <sup>R</sup>	# 2	527-STA	200-LRK	200-TB <sup>H</sup> 210-TB <sup>I</sup>	200-LP	200- DGS
200643	1241-LSH	1235-L <sup>G</sup>	9315 <sup>R</sup>	# 2	527-STA	200-LRK	200-TB <sup>H</sup> 210-TB <sup>I</sup>	200-LP	200- DGS
200643RAD	1241-LSH	1235-L <sup>G</sup>	9315 <sup>R</sup>	# 2	527-STA	200-LRK	200-TB <sup>H</sup> 210-TB <sup>I</sup>	200-LP	200- DGS
200644	1241-LSH	1235-L <sup>G</sup>	9315 <sup>R</sup>	# 2	527-STA	200-LRK	200-TB <sup>H</sup> 210-TB <sup>I</sup>	200-LP	200- DGS
200645	1241-LSH	1235-L <sup>G</sup>	9315 <sup>R</sup>	# 2	527-STA	200-LRK	200-TB <sup>H</sup> 210-TB <sup>I</sup>	200-LP	200- DGS
200646	1241-LSH	1235-L <sup>G</sup>	9315 <sup>R</sup>	# 2	527-STA	200-LRK	200-TB <sup>H</sup> 210-TB <sup>I</sup>	200-LP	200- DGS
200647	1241-LSH	1235-L <sup>G</sup>	9315 <sup>R</sup>	# 2	527-STA	200-LRK	200-TB <sup>H</sup> 210-TB <sup>I</sup>	200-LP	200- DGS
200648	1241-LSH	1235-L <sup>G</sup>	9315 <sup>R</sup>	# 2	527-STA	200-LRK	200-TB <sup>H</sup> 210-TB <sup>I</sup>	200-LP	200- DGS
200649	1241-LSH	1235-L <sup>G</sup>	9315 <sup>R</sup>	# 2	527-STA	200-LRK	200-TB <sup>H</sup> 210-TB <sup>I</sup>	200-LP	200- DGS
200655	1241-LSH	1235-L <sup>G</sup>	9315 <sup>R</sup>	# 2	527-STA	200-LRK	200-TB <sup>H</sup> 210-TB <sup>I</sup>	200-LP	200- DGS
200656	1241-LSH	1235-L <sup>G</sup>	9315 <sup>R</sup>	# 2	527-STA	200-LRK	200-TB <sup>H</sup> 210-TB <sup>I</sup>	200-LP	200- DGS

\* NOTE: Add "G" to End Of Part No. When Ordering a Gear Drive Cam & kit. Assembly Kit Includes A 200-GDS (2-Gear Drive set) & 200-DGR Rev- Rotation Alum. Bronze Dist. Gear.

G Compatible with guide plate cylinder heads.  
H 1955-77 Motors only

I 1978 & up motors with shallow timing cover  
R Requires cylinder heads be machind with Isky #3608 Hole Saw.

# CHEVROLET • V-8 265-283-302-305-307-327-350-400 cu. in. engines (SMALL BLOCK) (1957-87)

**STEEL  
BILLET  
ROLLER**



## 1.5:1 Rocker Ratio



*Part No. Cam Only	Grind No./Type	APPLICATION	RPM-Range	Valve Lift INT. EX.	Valve Lash Hot INT. EX.	ADV. Duration INT. EX.	.050 Duration INT. EX.	Lobe Center
201490	RR-490 <b>ROLLER</b>	Strong low-end perf. Fair idle. 2500 stall. 3.55-3.90 axle ratio. 10-11:1 compr. Up to 680 CFM Carb.	2200-6000	.485 .495	.024 .028	278° 284°	234° 242°	108°
201520	RR-520 <b>ROLLER</b>	Strong low-end perf. Fair idle. 2500 stall. 3.55-3.90 axle ratio. 10-11:1 compr. Up to 680 CFM Carb.	2400-6200	.525 .525	.020 .020	280° 280°	240° 240°	108°
201575	RR-575 <b>ROLLER</b>	Good mid-range perf. Rough idle. 2500 stall. 3.90-4.10 axle ratio. 10-11:1 compr. Up to 750 CFM Carb.	2600-6500	.576 .576	.028 .028	284° 284°	244° 244°	108°
201570	RR-570-T <b>ROLLER</b>	Good mid-range perf. Lopey idle. 2800 stall. 4.10-4.56 axle ratio. 10-11:1 compr. Up to 780 CFM Carb.	3000-7000	.570 .570	.028 .028	290° 290°	250° 250°	108°
201602	RR-602 <b>ROLLER</b>	Good cam for 3500LB bracket racing "drags". 3000 stall. 4.56-4.88 axle ratio. 11-12:1 compr. Up to 800 CFM Carb.	3500-7500	.602 .602	.028 .028	300° 300°	260° 260°	108°
201675	RR-675 <b>ROLLER</b>	Good mid-range perf. for heavy bracket racing "drags". 3500-4000 stall. 4.56-5.13 axle ratio. 11-12:1 compr. Up to 850 CFM Carb.	4000-8000	.675 .630	.024 .028	308° 314°	264° 272°	108°
201600	RR-600 <b>ROLLER</b>	Moderate lift, top end power cam. Great for nostalgia drags. 4500-5000 stall. 5.38-5.57 axle ratio. High compression. 850 CFM Carb.	4500-8500	.588 .588	.028 .028	320° 320°	280° 280°	108°
201630	RR-630 <b>ROLLER</b>	Good all around perf. for bracket racing. 4000-4500 stall. 4.88-5.13 axle ratio. 11-12:1 compr. 850+Carb.	4000-8000	.630 .630	.028 .028	314° 314°	272° 272°	108°
201631	RR-630-A <b>ROLLER</b>	Good all around perf. for bracket racing. 4000-4500 stall. 4.88-5.13 axle ratio. 11-12:1 compr. 850+Carb.	4200-8300	.630 .630	.028 .028	314° 322°	272° 280°	108°
201670	RR-641-A <b>ROLLER</b>	Super stock automatic: 265 cu. in. 4500-5000 stall. 5.13-5.57 axle ratio. High compr.	4400-8000	.641 .641	.028 .028	306° 306°	272° 272°	104°
201671	RR-641-B <b>ROLLER</b>	Super stock, 4 speed: 265 cu. in. 5.38 axle ratio. High compr.	4600-8000	.641 .641	.028 .028	310° 310°	276° 276°	106°
201672	RR-641-C <b>ROLLER</b>	Super stock, automatic: 283 cu. in. 4500-5000 stall. 5.38-5.57 axle ratio. High compr.	4600-8000	.641 .641	.028 .028	310° 314°	276° 280°	104°

NOTE: Special cores are available for swapping cylinders 4 & 7 firing order to obtain a smoother torque curve. Use Part # 201-RR 4/7, then grind no. and Lobe Center when ordering. Specify bearing size also.

\* NOTE: Add "G" to End Of Part No. When Ordering a Gear Drive Cam

## Recommended Valve Train Components



These items included in Cam & complete kit

★ CAM & COMPLETE KIT P/N	ROLLER LIFTERS P. 22-30	PUSHRODS P. 33-37	VALVE SPRINGS P. 47-58	SPRING SHIMS P. 44	STEEL RETAINERS P. 38	REV KIT P. 21	THRUST BUMPER P. 44	CAM SPROCKET LOCK PLATE P. 14	ALUM BRONZE DIST GEAR P. 18
200490	1241-LSH	1235-L <sup>G</sup>	6205 <sup>B</sup>	# 2	507-STA	200-LRK	200-TB <sup>H</sup> 210-TB <sup>I</sup>	200-LP	200- DGS
200520	1241-LSH	1235-L <sup>G</sup>	6205 <sup>B</sup>	# 2	507-STA	200-LRK	200-TB <sup>H</sup> 210-TB <sup>I</sup>	200-LP	200- DGS
200575	1241-LSH	1235-L <sup>G</sup>	6205 <sup>B</sup>	# 2	507-STA	200-LRK	200-TB <sup>H</sup> 210-TB <sup>I</sup>	200-LP	200- DGS
200570	1241-LSH	1235-L <sup>G</sup>	6205 <sup>B</sup>	# 2	507-STA	200-LRK	200-TB <sup>H</sup> 210-TB <sup>I</sup>	200-LP	200- DGS
200602	1241-LSH	1235-L <sup>G</sup>	9265 <sup>R</sup>	# 2	507-STA	200-LRK	200-TB <sup>H</sup> 210-TB <sup>I</sup>	200-LP	200- DGS
200675	1241-LSH	1235-L <sup>G</sup>	9265 <sup>R</sup>	# 2	507-STA	200-LRK	200-TB <sup>H</sup> 210-TB <sup>I</sup>	200-LP	200- DGS
200600	1241-LSH	1235-L <sup>G</sup>	9265 <sup>R</sup>	# 2	507-STA	200-LRK	200-TB <sup>H</sup> 210-TB <sup>I</sup>	200-LP	200- DGS
200630	1241-LSH	1235-L <sup>G</sup>	9265 <sup>R</sup>	# 2	507-STA	200-LRK	200-TB <sup>H</sup> 210-TB <sup>I</sup>	200-LP	200- DGS
200631	1241-LSH	1235-L <sup>G</sup>	9265 <sup>R</sup>	# 2	507-STA	200-LRK	200-TB <sup>H</sup> 210-TB <sup>I</sup>	200-LP	200- DGS
200670	1241-LSH	1235-L <sup>G</sup>	9265 <sup>R</sup>	# 2	507-STA	200-LRK	200-TB <sup>H</sup> 210-TB <sup>I</sup>	200-LP	200- DGS
200671	1241-LSH	1235-L <sup>G</sup>	9265 <sup>R</sup>	# 2	507-STA	200-LRK	200-TB <sup>H</sup> 210-TB <sup>I</sup>	200-LP	200- DGS
200672	1241-LSH	1235-L <sup>G</sup>	9265 <sup>R</sup>	# 2	507-STA	200-LRK	200-TB <sup>H</sup> 210-TB <sup>I</sup>	200-LP	200- DGS

### WARNING

Late model cylinder heads 1970 & Up with pushrod guide plates, require the use of special hardened pushrods, to prevent pushrod wear.

USE THE FOLLOWING

For Flat Tappet Cams ..... #203-HG • For Roller Cams (#1241-LSH Tappet) ..... #1235-L • For Roller Cams (#202-RH Tappet) ..... #203-HG

NOTE: Do not attempt to use our standard 203 pushrods as they will be ruined by rubbing against the hardened guide plates.

\* NOTE: Add "G" to End Of Part No. When Ordering a Gear Drive Cam & kit. Assembly Kit Includes A 200-GDS (2-Gear Drive set) & 200-DGR Rev- Rotation Alum. Bronze Dist. Gear.

B Requires cylinder heads be machined with Isky #568 Hole Saw  
 G Compatible with guide plate cylinder heads.  
 H 1955-77 Motors only

I 1978 & up motors with shallow timing cover  
 R Requires cylinder heads be machined with Isky #3608 Hole Saw.



# CHEVROLET • V-8 265-283-302-305-307-327-350-400 cu. in. engines (SMALL BLOCK) (1957-87)

**STEEL  
BILLET  
ROLLER**



## 1.5:1 Rocker Ratio



★Part No. Cam Only	Grind No./Type	APPLICATION	RPM-Range	Valve Lift INT. EX.	Valve Lash Hot INT. EX.	ADV. Duration INT. EX.	.050 Duration INT. EX.	Lobe Center
201673	RR-641-D ROLLER	Super stock, 4-speed: 283 cu. in. 5.86 axle ratio. High compr.	4800-8200	.641 .641	.028 .028	314° 320°	280° 286°	104°
201674	RR-641-E ROLLER	Super stock, automatic: 327,350 cu. in. 5000+stall. 5.38 axle ratio. High compr.	4800-8200	.641 .641	.028 .028	318° 320°	282° 286°	104°
201660	RR-660 ROLLER	Good all-around perf. in super-gas & super comp. 5000 stall. 5.38-5.86 axle ratio. High compr. 850+CFM.	4500-8500	.660 .660	.028 .028	324° 324°	282° 282°	108°
201662	RR-662 ROLLER	Good all-around perf. in super-gas & super comp. 5000+ stall. 5.57-5.86 axle ratio. High compr. 850+CFM.	5000-9000	.662 .662	.028 .028	332° 332°	286° 286°	108°
201665	RR-665 ROLLER	Good all-around perf. in super-gas & super comp. 5000+ stall. 5.57-5.86 axle ratio. High compr. 850+CFM.	4800-8800	.660 .662	.028 .028	324° 332°	282° 286°	108°
201718	RR-718 ROLLER	Good all-around perf. for super-comp. 4500+stall. 5.38-5.86 axle ratio. High compr. Tunnel Ram manifold with 2 carburetors.	4500-8500	.718 .660	.024 .028	318° 324°	274° 282°	108°
201735	RR-735 ROLLER	Good all-around perf. for super-comp. 4500+stall. 5.38-5.86 axle ratio. High compr. Tunnel Ram manifold with 2 carburetors.	4500-8800	.735 .685	.026 .028	322° 332°	278° 286°	108°
201663	RR-664-A ROLLER	Super stock, 4-speed: 327 C.I. 5.86 axle ratio. High compr.	5000-8500	.664 .664	.028 .028	314° 318°	282° 286°	106°
201664	RR-664-B ROLLER	Super stock, 4-speed: 350 C.I. 5.86 axle ratio. High compr.	5000-8700	.664 .630	.028 .028	314° 322°	282° 290°	106°
201685	RR-685 ROLLER	Comp. eliminator, super-comp drags. 5000+stall. 5.86-6.14 axle ratio. High compr. Tunnel ram manifold with 2 carburetors.	5000-9000	.685 .685	.028 .030	332° 336°	286° 292°	108°
201686	RR-685-A ROLLER	Comp. eliminator, super-comp drags. 5000+stall. 5.86-6.14 axle ratio. High compr. Tunnel ram manifold with 2 carburetors.	5000-9000	.685 .654	.028 .030	332° 336°	286° 292°	108°

NOTE: Special cores are available for swapping cylinders 4 & 7 firing order to obtain a smoother torque curve. Use Part # 201-RR 4/7, then grind no. and Lobe Center when ordering. Specify bearing size also.

\* NOTE: Add "G" to End Of Part No. When Ordering a Gear Drive Cam

## Recommended Valve Train Components



These items included in Cam & complete kit

★ CAM & COMPLETE KIT P/N	ROLLER LIFTERS P. 22-30	PUSHRODS P. 33-37	VALVE SPRINGS P. 47-58	SPRING SHIMS P. 44	STEEL RETAINERS P. 38	REV KIT P. 21	THRUST BUMPER P. 44	CAM SPROCKET LOCK PLATE P. 14	ALUM BRONZE DIST GEAR P. 18
200673	1241-LSH	1235-L <sup>G</sup>	9265 <sup>R</sup>	# 2	507-STA	200-LRK	200-TB <sup>H</sup> 210-TB <sup>I</sup>	200-LP	200- DGS
200674	1241-LSH	1235-L <sup>G</sup>	9265 <sup>R</sup>	# 2	507-STA	200-LRK	200-TB <sup>H</sup> 210-TB <sup>I</sup>	200-LP	200- DGS
200660	1241-LSH	1235-L <sup>G</sup>	9265 <sup>R</sup>	# 2	507-STA	200-LRK	200-TB <sup>H</sup> 210-TB <sup>I</sup>	200-LP	200- DGS
200662	1241-LSH	1235-L <sup>G</sup>	9265 <sup>R</sup>	# 2	507-STA	200-LRK	200-TB <sup>H</sup> 210-TB <sup>I</sup>	200-LP	200- DGS
200665	1241-LSH	1235-L <sup>G</sup>	9265 <sup>R</sup>	# 2	507-STA	200-LRK	200-TB <sup>H</sup> 210-TB <sup>I</sup>	200-LP	200- DGS
200718	1241-LSH	1235-L <sup>G</sup>	9265 <sup>R</sup>	# 2	507-STA	200-LRK	200-TB <sup>H</sup> 210-TB <sup>I</sup>	200-LP	200- DGS
200735	1241-LSH	1235-L <sup>G</sup>	9265 <sup>R</sup>	# 2	507-STA	200-LRK	200-TB <sup>H</sup> 210-TB <sup>I</sup>	200-LP	200- DGS
200663	1241-LSH	1235-L <sup>G</sup>	9265 <sup>R</sup>	# 2	507-STA	200-LRK	200-TB <sup>H</sup> 210-TB <sup>I</sup>	200-LP	200- DGS
200664	1241-LSH	1235-L <sup>G</sup>	9265 <sup>R</sup>	# 2	507-STA	200-LRK	200-TB <sup>H</sup> 210-TB <sup>I</sup>	200-LP	200- DGS
200685	1241-LSH	1235-L <sup>G</sup>	9265 <sup>R</sup>	# 2	507-STA	200-LRK	200-TB <sup>H</sup> 210-TB <sup>I</sup>	200-LP	200- DGS
200686	1241-LSH	1235-L <sup>G</sup>	9265 <sup>R</sup>	# 2	507-STA	200-LRK	200-TB <sup>H</sup> 210-TB <sup>I</sup>	200-LP	200- DGS

**1974 AND UP CHEVROLET CYLINDER HEADS  
1974 PART NO. 340292 • 1975 PART NO. 3965784 & STANDARD ANGLE PLUG**

Part No. 304292 and 3965784 heads are competition only "Off-Road" racing cylinder heads, introduced by Chevrolet.

Both these and the standard 1974 angle plug heads come from the factory with large 1.450" dia. spring seats and therefore require no additional hole-sawing to install our 6005, 6105 and 6205 springs. The 9005, 9265, 9315 and 9365 springs require machining with our #3608 holesaw.

\* NOTE: Add "G" to End Of Part No. When Ordering a Gear Drive Cam & kit. Assembly Kit Includes A 200-GDS (2-Gear Drive set) & 200-DGR Rev- Rotation Alum. Bronze Dist. Gear.

G Compatible with guide plate cylinder heads.  
H 1955-77 Motors only

I 1978 & up motors with shallow timing cover  
R Requires cylinder heads be machined with Isky #3608 Hole Saw.

# CHEVROLET • V-8 396-402-427-454 cu. in. engines (BIG BLOCK) (1967-95)

Cast Iron Billet  
HYDRAULIC

MEGA-CAMS! HYDRAULIC PERFORMANCE



1.75 :1 Rocker Ratio

Part No. Cam Only	Grind No./Type	APPLICATION	RPM-Range	Valve Lift INT. EX.	Valve Lash Hot INT. EX.	ADV. Duration INT. EX.	.050 Duration INT. EX.	Lobe Center
396256	256-SUPERCAM HYDRAULIC	Best torque & economy. Passenger cars & trucks. Maximum compr. 9.5:1. Smooth idle. Std. axle ratio. Good vacuum. Computer compatible. Std. to 600 CFM Carb.	1500-4800	.490 .490	.000 .000	256° 256°	202° 202°	112°
396256/262	256/262 HYDRAULIC	Best overall cam for towing, trucks, vans R.V., etc. Broad torque band. Good vacuum. 3.55-4:10 axle ratio. 9.5:1 compr. Computer compatible. Smooth idle.	1800-5000	.490 .488	.000 .000	256° 262°	202° 208°	110°
396262	262-SUPERCAM HYDRAULIC	Low/mid-range performance cam. 9.5:1 compr. 3.08-3.70 axle ratio. Passenger cars & trucks. Up to 625 CFM Carb.	2000-5500	.488 .488	.000 .000	262° 262°	208° 208°	108°
396264	264-MEGA HYDRAULIC	Tremendous torque & good mid-range power 9-10.5:1 compr. Good idle. Stock converter. 3.23-3.70 axle ratio. Up to 625 CFM Carb.	2000-5800	.525 .525	.000 .000	264° 264°	214° 214°	108°
396270	270-HL HYDRAULIC	Replacement for factory LS-5 Cam. Good all-around performance. Good idle. Stock converter. 3:36-3:90 axle ratio. Up to 750 CFM Carb.	2000-6000	.510 .510	.000 .000	270° 270°	216° 216°	114°
396271	270-MEGA HYDRAULIC	Excellent mid-range performance. Fair idle. Stock converter. 9-10.5:1 compr. 3.70-4.11 axle ratio. Up to 650 CFM Carb.	2000-6200	.542 .542	.000 .000	270° 270°	221° 221°	108°
396271/281-14	270/280 MEGA HYDRAULIC	Good all around performance. Good idle & vacuum. 3.70-4.11 axle ratio. 9.5-10.5:1 compr. Computer compatible with stage 1 or 2 chip. Stock converter.	2200-6500	.542 .565	.000 .000	270° 280°	221° 232°	114°
396286	286 HYDRAULIC	High performance use/bracket racing. Lopey idle. 2500 Stall. 9.5-10.5:1 compr. 3:90-4:11 axle ratio. Up to 780 CFM Carb.	2500-6500	.510 .510	.000 .000	286° 286°	224° 224*	108°
396296	296 HYDRAULIC	High performance use/bracket racing. Good idle. 2800 Stall. 10-11:1 compr. 3:90-4:11 axle ratio. Up to 800 CFM Carb.	2500-6500	.510 .510	.000 .000	296° 296°	234° 234°	114°
396281	280-MEGA HYDRAULIC	High performance use/bracket racing. Lopey idle. 2500 Stall. 9.5-10.5:1 compr. 3:90-4:11 axle ratio. Up to 780 CFM Carb.	2500-6800	.565 .565	.000 .000	280° 280°	232° 232°	108°
396282	280-MEGA HYDRAULIC	Great performance in Jet-Boat (Marine Use). Lopey idle. 10:1 compr. Up to 800 CFM Carb.	2500-6800	.565 .565	.000 .000	280° 280°	232° 232°	110°
396292	292-MEGA HYDRAULIC	High performance use/bracket racing. Rough idle. 2800 Stall. 10-11:1 compr. 4:11-4:56 axle ratio. Up to 780 CFM Carb.	2800-7000	.590 .590	.000 .000	292° 292°	244° 244°	108°
396304	304-MEGA HYDRAULIC	Ultimate high-performance use/bracket racing. Rough idle. 3000 Stall. 11:1 & up compr. 4:33-4:88 axle ratio. Up to 850 CFM Carb.	3200-7500	.612 .612	.000 .000	304° 304°	256° 256°	108°
396-TA	TURBOCYCLE-A HYDRAULIC	Maximum economy/torque. Turbocharged. Up to 7 PSI Boost. Smooth idle. Stock converter. Standard axle ratio. Up to 650 CFM Carb.	1000-5000	.485 .455	.000 .000	264° 252°	208° 194°	114°



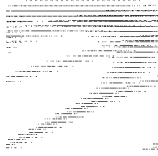
## Recommended Valve Train Components

		These items included in Cam & complete kit					Optional accessories			
CAM & COMPLETE KIT P/N	CAM & LIFTER KIT P/N <sup>A</sup>	LIFTERS P. 31-32	VALVE SPRINGS P. 47-58	SPRING SHIMS P. 44	STEEL RETAINERS P. 38	POLY LOCKS P. 43	TIMING SET P. 18, 45	PUSHRODS P. 33-37	VALVE LOCKS P. 46	VALVE SEALS P. 15
390256	CL-396256	222-HY	8005-A	# 2	347-ST	PL-7/16	390-TS	203-96 <sup>C</sup>	VL-3/8	VS-3/8 <sup>F</sup>
390256/262	CL-396256/262	222-HY	8005-A	# 2	347-ST	PL-7/16	390-TS	203-96 <sup>C</sup>	VL-3/8	VS-3/8 <sup>F</sup>
390262	CL-396262	222-HY	8005-A	# 2	347-ST	PL-7/16	390-TS	203-96 <sup>C</sup>	VL-3/8	VS-3/8 <sup>F</sup>
390264	CL-396264	202-HY	8005-A	# 2	347-ST	PL-7/16	390-TS	203-96 <sup>C</sup>	VL-3/8	VS-3/8 <sup>F</sup>
390270	CL-396270	202-HY	8005-A	# 2	347-ST	PL-7/16	390-TS	203-96 <sup>C</sup>	VL-3/8	VS-3/8 <sup>F</sup>
390271	CL-396271	202-HY	8005-A	# 2	347-ST	PL-7/16	390-TS	203-96 <sup>C</sup>	VL-3/8	VS-3/8 <sup>F</sup>
390271/281-14	CL 396271/281-14	202-HY	8005-A	# 2	347-ST	PL-7/16	390-TS	203-96 <sup>C</sup>	VL-3/8	VS-3/8 <sup>F</sup>
390286	CL-396286	202-HY	8005-A	# 2	347-ST	PL-7/16	390-TS	203-96 <sup>C</sup>	VL-3/8	VS-3/8 <sup>F</sup>
390296	CL-396296	202-HY	8005-A	# 2	347-ST	PL-7/16	390-TS	203-96 <sup>C</sup>	VL-3/8	VS-3/8 <sup>F</sup>
390281	CL-396281	202-HY	8005-A	# 2	347-ST	PL-7/16	390-TS	203-96 <sup>C</sup>	VL-3/8	VS-3/8 <sup>F</sup>
390282	CL-396282	202-HY	8005-A	# 2	347-ST	PL-7/16	390-TS	203-96 <sup>C</sup>	VL-3/8	VS-3/8 <sup>F</sup>
390292	CL-396292	202-HY	8005-A	# 2	347-ST	PL-7/16	390-TS	203-96 <sup>C</sup>	VL-3/8	VS-3/8 <sup>F</sup>
390304	CL-396304	202-HY	8005-A	# 2	347-ST	PL-7/16	390-TS	203-96 <sup>C</sup>	VL-3/8	VS-3/8 <sup>F</sup>
390-TKA	N/A	222-HY	8005-A	# 2	347-ST	PL-7/16	390-TS	203-96 <sup>C</sup>	VL-3/8	VS-3/8 <sup>F</sup>

A Cam & lifter kits are supplied with 222-HY lifters  
 C 3/8 diameter pushrods  
 F Requires cylinder heads be machined with VST-3/8 cutter

# CHEVROLET • V-8 396-402-427-454 cu. in. engines (BIG BLOCK) (1967-95)

HI-REV SERIES  
Solid Lifter



## 1.75 :1 Rocker Ratio



Part No. Cam Only	Grind No./Type	APPLICATION	RPM-Range	Valve Lift INT. EX.	Valve Lash Hot INT. EX.	ADV. Duration INT. EX.	.050 Duration INT. EX.	Lobe Center
396266	Z-66 <b>SOLID</b>	Good mid-range power. Fair idle. Stock converter. 3:55-3:90 axle ratio. 600-650 CFM Carb. 10:1 compr.	2000-6000	.520 .520	.020 .020	268° 268°	228° 228°	108°
396245	Z-45 <b>SOLID</b>	Strong mid-range performance. Lopey idle. 2500 RPM Stall. 3:70-4:11 axle ratio. 650-750 CFM Carb. 10.5:1 compr.	2500-6500	.530 .530	.018 .018	278° 278°	244° 244°	108°
396233	Z-33 <b>SOLID</b>	High performance use/bracket racing. Lopey idle. 3000 Stall. 10.5:1 compr. 3:90-4:11 axle ratio. Up to 800 CFM Carb.	3000-7000	.560 .560	.030 .030	290° 290°	250° 250°	108°
396255	Z-55 <b>SOLID</b>	Bracket racing. Rough idle. 3000 Stall. 4:11-4:56 axle ratio. Up to 850 CFM Carb. 10.5:1 compr.	3500-7500	.590 .590	.028 .028	300° 300°	254° 254°	108°
396277	Z-77 <b>SOLID</b>	High performance use/bracket racing. Rough idle. 3500 Stall. 4:11-4:56 axle ratio. 11:1 compr. Up to 850 CFM Carb.	4000-7500	.590 .590	.028 .028	310° 310°	264° 264°	108°
396289	Z-89 <b>SOLID</b>	Good pulling power for drags in heavy car. Rough idle. 3500 Stall. 4:33-4:56 axle ratio. 11:1 compr. Up to 850 CFM Carb.	3500-7500	.630 .630	.028 .028	304° 304°	264° 264°	108°
396288	Z-88 <b>SOLID</b>	All-out drags. 4000-4500 Stall. 4:56-4:88 axle ratio. 850+ CFM Carb. 11.5:1+ compr.	3800-7500	.650 .650	.028 .028	314° 314°	272° 272°	108°
396290	Z-90 <b>SOLID</b>	Great performance for marine use V-drive. Rough idle. High compr. 850+ CFM Carb.	4500-7500	.595 .635	.024 .024	314° 334°	264° 274°	110°
396295	Z-95 <b>SOLID</b>	All-out drags. 5000 Stall. 4:88-5:13 axle ratio. 850+ CFM Carb. 12:1 compr.	4500-7500	.665 .665	.030 .030	320° 320°	274° 274°	108°
396297	Z-97 <b>SOLID</b>	All-out drags. 5000 Stall. 4:88-5:13 axle ratio. 850+ CFM Carb. 12:1 compr.	4500-8000	.665 .654	.030 .030	320° 330°	274° 286°	110°
396654	654 <b>SOLID</b>	All-out drags. 5000 Stall. 4:88-5:13 axle ratio. 850+ CFM Carb. 12:1 compr.	4500-8000	.654 .654	.030 .030	330° 330°	286° 286°	108°

NOTE: Special cores are available for swapping cylinders 4 & 7 firing order to obtain a smoother torque curve.  
Use Part No. 396-C4/7, then grind no. and Lobe Center when ordering.

## Recommended Valve Train Components



		These items included in Cam & complete kit					Optional accessories			
CAM & COMPLETE KIT P/N	CAM & LIFTER KIT P/N	LIFTERS P. 31-32	VALVE SPRINGS P. 47-58	SPRING SHIMS P. 44	STEEL RETAINERS P. 38	POLY LOCKS P. 43	ROCKER ARMS P. 40 ♦	PUSHRODS P. 33-37	VALVE LOCKS P. 46	VALVE SEALS P. 15
390266	—	202-H	8005-A	# 2	347-ST	PL-7/16	204-96	203-96 <sup>C</sup>	VL-3/8	VS-3/8 <sup>F</sup>
390245	—	202-H	8005-A	# 2	347-ST	PL-7/16	204-96	203-96 <sup>C</sup>	VL-3/8	VS-3/8 <sup>F</sup>
390233	—	202-H	8005-A	# 2	347-ST	PL-7/16	204-96	203-96 <sup>C</sup>	VL-3/8	VS-3/8 <sup>F</sup>
390255	—	202-H	8005-A	# 2	347-ST	PL-7/16	204-96	203-96 <sup>C</sup>	VL-3/8	VS-3/8 <sup>F</sup>
390277	—	202-H	8005-A	# 2	347-ST	PL-7/16	204-96	203-96 <sup>C</sup>	VL-3/8	VS-3/8 <sup>F</sup>
390289	—	202-H	8005-A	# 2	347-ST	PL-7/16	204-96	203-96 <sup>C</sup>	VL-3/8	VS-3/8 <sup>F</sup>
390288	—	202-H	8005-A	# 2	347-ST	PL-7/16	204-96	203-96 <sup>C</sup>	VL-3/8	VS-3/8 <sup>F</sup>
390290	—	202-H	8005-A	# 2	347-ST	PL-7/16	204-96	203-96 <sup>C</sup>	VL-3/8	VS-3/8 <sup>F</sup>
390295	—	202-H	8005-A	# 2	347-ST	PL-7/16	204-96	203-96 <sup>C</sup>	VL-3/8	VS-3/8 <sup>F</sup>
390297	—	202-H	8005-A	# 2	347-ST	PL-7/16	204-96	203-96 <sup>C</sup>	VL-3/8	VS-3/8 <sup>F</sup>
390654	—	202-H	8005-A	# 2	347-ST	PL-7/16	204-96	203-96 <sup>C</sup>	VL-3/8	VS-3/8 <sup>F</sup>

C 3/8 Diameter pushrods

F Requires cylinders heads be machined with VST-3/8 cutter

♦ Not legal for sale or use on pollution controlled motor vehicles operated on highways or roads

# CHEVROLET • V-8 396-402-427-454 cu. in. engines Big Block V-8 (1967-95)

**STEEL  
BILLET  
ROLLER**



## 1.75:1 Rocker Ratio



Part No. Cam Only	Grind No./Type	APPLICATION	RPM-Range	Valve Lift INT. EX.	Valve Lash Hot INT. EX.	ADV. Duration INT. EX.	.050 Duration INT. EX.	Lobe Center
396570	RR-570 <b>ROLLER</b>	Strong low-mid range perf. Fair idle. 2500+stall. 3.73-4.10 axle ratio. 10.5-11.5:1 compr. 650-750 CFM Carb.	2600-6200	.565 .575	.024 .028	278° 284°	236° 244°	110°
396620	RR-620 <b>ROLLER</b>	High perf. useage, bracket race drags. 3000 stall. 4.10-4.56 axle ratio. 11-12:1 compr. 780+CFM Carb.	2800-6400	.620 .620	.030 .030	290° 290°	248° 248°	108°
396640	RR-640 <b>ROLLER</b>	High perf. useage, bracket race drags. 3000 stall. 4.10-4.56 axle ratio. 11-12:1 compr. 780+CFM Carb.	3200-6800	.640 .640	.028 .028	304° 304°	264° 264°	108°
396644	RR-644 <b>ROLLER</b>	3/8-1/2 mile banked oval track on dirt. 750 CFM Carb.	3600-7200	.640 .644	.028 .028	304° 310°	264° 270°	108°
396645	RR-645 <b>ROLLER</b>	Pro-Street; Fair idle. 3500 stall. 4:56 axle ratio. 11-12:1 compr. 850+CFM Carb. Also works well in jet drive, marine: Lake Use.	3400-6800	.640 .650	.028 .028	304° 318°	264° 272°	112°
396650	RR-650 <b>ROLLER</b>	Bracket Racing. 4000 stall. 4.56-4.88 axle ratio. High compr. 850+CFM Carb.	3500-7200	.650 .650	.028 .028	318° 318°	272° 272°	108°
396686	RR-686 <b>ROLLER</b>	Excellent choice for super gas competition. 4500 stall. 4.88 axle ratio. High compr. 850+CFM Carb.	4500-8000	.686 .686	.028 .028	320° 320°	282° 282°	108°
396652	RR-652 <b>ROLLER</b>	Good choice for off-shore marine use. Oval course. High compr. 850+CFM Carb.	3800-7500	.650 .654	.028 .030	318° 330°	274° 286°	110°
396454	RR-654 <b>ROLLER</b>	Popular super gas cam. 5000 stall. 4.88 axle ratio. High compr. 850+CFM Carb.	4500-8000	.654 .654	.030 .030	330° 330°	286° 286°	108°
396688	RR-688 <b>ROLLER</b>	Off-shore marine racing, long oval course. High compr. 850+CFM Carb.	4500-8200	.686 .654	.028 .030	320° 330°	284° 286°	110°
396727	RR-727 <b>ROLLER</b>	Super gas, super comp. drags. 5000 stall. 4.88-5.13 axle ratio. High compr. Tunnel Ram Intake with 2 carburetors.	4500-8500	.727 .727	.030 .030	330° 330°	288° 288°	108°
396730	RR-730 <b>ROLLER</b>	Super Gas: 4500 stall. 4.56-4.88 axle ratio. High compr. Tunnel Ram Intake with 2 carburetors.	3800-7500	.730 .730	.028 .028	314° 314°	274° 274°	108°
396731	RR-730-A <b>ROLLER</b>	Super Gas, Super Comp: 4500 stall. 4.88 axle ratio. High compr. Tunnel Ram Intake with 2 carburetors.	3800-7600	.730 .730	.028 .028	314° 322°	274° 282°	110°
396732	RR-730-B <b>ROLLER</b>	Super Gas, Super Comp: 5000 stall. 4.88 axle ratio. High compr. Tunnel Ram Intake with 2 carburetors.	4000-8200	.730 .727	.028 .030	322° 330°	282° 288°	110°

NOTE: Special cores are available for swapping cylinders 4 & 7 firing order to obtain a smoother torque curve. Use Part # 396-RR 4/7, then grind no. and Lobe Center when ordering. Specify bearing size also.



## Recommended Valve Train Components

These items included in Cam & complete kit									Optional accessories	
CAM & COMPLETE KIT P/N	ROLLER LIFTERS P.22-30	VALVE SPRINGS P. 47-58	SPRING SHIMS P. 44	RETAINERS P. 38-39	VALVE LOCKS P. 46	BRONZE Dist. Gear P. 18	THRUST BUMPER P. 44	CAM SPROCKET LOCK PLATE P. 14	VALVE LOCKS P. 46	VALVE SEALS P. 15
390570	202-96-RH	9265	#2	347-ST <sup>M</sup>	—	200-DGS	200-96-TB	200-LP	VL-3/8	VS-3/8 <sup>F</sup>
390620	202-96-RH	9265	#2	347-ST <sup>M</sup>	—	200-DGS	200-96-TB	200-LP	VL-3/8	VS-3/8 <sup>F</sup>
390640	202-96-RH	9265	#2	347-ST <sup>M</sup>	—	200-DGS	200-96-TB	200-LP	VL-3/8	VS-3/8 <sup>F</sup>
390644	202-96-RH	9265	#2	347-ST <sup>M</sup>	—	200-DGS	200-96-TB	200-LP	VL-3/8	VS-3/8 <sup>F</sup>
390645	202-96-RH	9265	#2	347-ST <sup>M</sup>	—	200-DGS	200-96-TB	200-LP	VL-3/8	VS-3/8 <sup>F</sup>
390650	202-96-RH	9265	#2	347-ST <sup>M</sup>	—	200-DGS	200-96-TB	200-LP	VL-3/8	VS-3/8 <sup>F</sup>
390686	202-96-RH	9265	#2	347-ST <sup>M</sup>	—	200-DGS	200-96-TB	200-LP	VL-3/8	VS-3/8 <sup>F</sup>
390652	202-96-RH	9265	#2	347-ST <sup>M</sup>	—	200-DGS	200-96-TB	200-LP	VL-3/8	VS-3/8 <sup>F</sup>
390454	202-96-RH	9265	#2	347-ST <sup>M</sup>	—	200-DGS	200-96-TB	200-LP	VL-3/8	VS-3/8 <sup>F</sup>
390688	202-96-RH	9265	#2	347-ST <sup>M</sup>	—	200-DGS	200-96-TB	200-LP	VL-3/8	VS-3/8 <sup>F</sup>
390727	366-RHM	9425	#5	275-ST <sup>M</sup>	VL-800	200-DGS	200-96-TB	200-LP	—	VS-3/8 <sup>F</sup>
390730	366-RHM	9425	#5	275-ST <sup>M</sup>	VL-800	200-DGS	200-96-TB	200-LP	—	VS-3/8 <sup>F</sup>
390731	366-RHM	9425	#5	275-ST <sup>M</sup>	VL-800	200-DGS	200-96-TB	200-LP	—	VS-3/8 <sup>F</sup>
390732	366-RHM	9425	#5	275-ST <sup>M</sup>	VL-800	200-DGS	200-96-TB	200-LP	—	VS-3/8 <sup>F</sup>

F Requires cylinder heads machined with VST-3/8 cutter  
M Steel Retainers



**STEEL  
BILLET  
ROLLER**

## 1.75:1 Rocker Ratio



Part No. Cam Only	Grind No./Type	APPLICATION	RPM-Range	Valve Lift INT. EX.	Valve Lash Hot INT. EX.	ADV. Duration INT. EX.	.050 Duration INT. EX.	Lobe Center
396734	RR-730-C ROLLER	Super stock automatic: 427 & 454 cu. in. 4500+stall. 4.88-5.13 axle ratio. High compr.	3800-7800	.730 .730	.028 .028	318° 320°	284° 288°	108°
396747	RR-747-A ROLLER	Super stock automatic: 396 cu. in. 4500+stall. 4.56-4.88 axle ratio. High compr.	3800-7600	.747 .730	.028 .028	306° 314°	274° 282°	108°
396748	RR-747-B ROLLER	Super stock: 4-speed. 4500+stall. 396 cu. in. 4.88-5.13 axle ratio. High compr.	3800-7800	.747 .730	.028 .028	314° 320°	282° 288°	108°
396749	RR-747-C ROLLER	Super stock: 4-speed. 5000+stall. 427 cu. in. 4.88-5.13 axle ratio. High compr.	3800-7800	.747 .730	.028 .028	318° 320°	284° 288°	108°
396750	RR-747-D ROLLER	Super stock: 4-speed. 5000+stall. 454 cu. in. 4.88-5.13 axle ratio. High compr.	4000-8200	.747 .730	.028 .028	320° 322°	288° 292°	108°
396770	RR-770 ROLLER	Super gas, super comp. 4500+stall. 4.88 axle ratio. High compr. Tunnel ram intake with 2 carburetors.	4500-8200	.770 .770	.028 .028	324° 324°	284° 284°	108°
396772	RR-772 ROLLER	Super gas, super comp. 4500+stall. 4.88-5.13 axle ratio. High compr. Tunnel ram intake with 2 carburetors.	4600-8600	.772 .772	.028 .028	332° 332°	288° 288°	108°
396774	RR-774 ROLLER	Super gas, super comp. 4500+stall. 4.88-5.13 axle ratio. High compr. Tunnel ram intake with 2 carburetors.	4500-8500	.770 .772	.028 .028	324° 332°	284° 288°	110°
396775	RR-775 ROLLER	Super comp. good choice for nitrous oxide. 4.88-5.13 axle ratio. 5000 stall or lenco. High compr. tunnel ram intake with 2 carburetors.	4800-8800	.772 .763	.028 .028	332° 336°	288° 294°	110°
396798	RR-798 ROLLER	All-out competition. Comp eliminator. 4.88-5.13 axle ratio. 5000 stall or lenco. High compr. tunnel ram intake with 2 carburetors.	4800-8800	.798 .798	.028 .028	332° 332°	288° 288°	110°
396799	RR-799 ROLLER	All-out competition. Comp eliminator. 4.88-5.13 axle ratio. 5000 stall or lenco. High compr. tunnel ram intake with 2 carburetors.	5000-9000	.799 .799	.028 .028	336° 336°	294° 294°	110°
396800	RR-800-A ROLLER	Pro-stock; 500 cu.in./blown alcohol applications; Lenco transmission. High compr. tunnel ram intake with 2 carburetors. 5.13-5.38 axle ratio.	5200-9200	.800 .801	.028 .030	332° 344°	288° 304°	114°
396801	RR-800-B ROLLER	Pro-stock; Mountain motor. Lenco transmission. High compr. tunnel ram intake with 2 carburetors. 5.13-5.38 axle ratio.	5500-9500	.800 .801	.028 .030	336° 344°	294° 304°	114°
396831	RR-831 ROLLER	500 cu. in. pro-stock; Lenco transmission. High compr. tunnel ram intake with 2 carburetors. 5.13-5.38 axle ratio.	5600-9600	.831 .805	.028 .028	332° 350°	288° 310°	114°

NOTE: Special cores are available for swapping cylinders 4 & 7 firing order to obtain a smoother torque curve. Use Part # 396-RR 4/7, then grind no. and Lobe Center when ordering. Specify bearing size also.

## Recommended Valve Train Components



These items included in Cam & complete kit									Optional accessories	
CAM & COMPLETE KIT P/N	ROLLER LIFTERS P. 22-30	VALVE SPRINGS P. 47-58	SPRING SHIMS P. 44	RETAINERS P. 38-39	VALVE LOCKS P. 46	BRONZE Dist. Gear P. 18	THRUST BUMPER P. 44	CAM SPROCKET LOCK PLATE P. 14	VALVE LOCKS P. 46	VALVE SEALS P. 15
390734	366-RHM	9425	#5	275-ST <sup>M</sup>	VL-800	200-DGS	200-96-TB	200-LP	—	VS-3/8 <sup>Q</sup>
390747	366-RHM	9425	#5	275-ST <sup>M</sup>	VL-800	200-DGS	200-96-TB	200-LP	—	VS-3/8 <sup>Q</sup>
390748	366-RHM	9425	#5	275-ST <sup>M</sup>	VL-800	200-DGS	200-96-TB	200-LP	—	VS-3/8 <sup>Q</sup>
390749	366-RHM	9425	#5	275-ST <sup>M</sup>	VL-800	200-DGS	200-96-TB	200-LP	—	VS-3/8 <sup>Q</sup>
390750	366-RHM	9425	#5	275-ST <sup>M</sup>	VL-800	200-DGS	200-96-TB	200-LP	—	VS-3/8 <sup>Q</sup>
390770	372-96-RH	9705 <sup>R</sup>	#9/030	375-ST <sup>M</sup>	VL-800	200-DGS	200-96-TB	200-LP	—	VS-3/8 <sup>Q</sup>
390772	372-96-RH	9705 <sup>R</sup>	#9/030	375-ST <sup>M</sup>	VL-800	200-DGS	200-96-TB	200-LP	—	VS-3/8 <sup>Q</sup>
390774	372-96-RH	9705 <sup>R</sup>	#9/030	375-ST <sup>M</sup>	VL-800	200-DGS	200-96-TB	200-LP	—	VS-3/8 <sup>Q</sup>
390775	372-96-RH	9705 <sup>R</sup>	#9/030	375-ST <sup>M</sup>	VL-800	200-DGS	200-96-TB	200-LP	—	VS-3/8 <sup>Q</sup>
390798	372-96-RH	9705 <sup>R</sup>	#9/030	375-ST <sup>M</sup>	VL-800	200-DGS	200-96-TB	200-LP	—	VS-3/8 <sup>Q</sup>
390799	372-96-RH	9705 <sup>R</sup>	#9/030	375-ST <sup>M</sup>	VL-800	200-DGS	200-96-TB	200-LP	—	VS-3/8 <sup>Q</sup>
390800	372-96-RH	9705 <sup>R</sup>	#9/030	375-ST <sup>M</sup>	VL-800	200-DGS	200-96-TB	200-LP	—	VS-3/8 <sup>Q</sup>
390801	372-96-RH	9705 <sup>R</sup>	#9/030	375-ST <sup>M</sup>	VL-800	200-DGS	200-96-TB	200-LP	—	VS-3/8 <sup>Q</sup>
390831	372-96-RH	9901-A <sup>R</sup>	#9/030	980-TI/10 <sup>O</sup>	VL-10-11/32	200-DGS	200-96-TB	200-LP	—	VS-11/32 <sup>F</sup>

F Requires cylinder heads machined with VST-11/32 cutter  
 Q Requires cylinder heads be machined with VST-3/8 cutter  
 R Requires cylinder heads be machined with isky #3708 hole saw

M Steel Retainers  
 O Titanium Retainers

# CHEVROLET • V-8 396-402-427-454 cu. in. engines Big Block V-8 (1967-95)

## HYDRAULIC ROLLER

### 1.7:1 Rocker Ratio



Part No. Cam Only	Grind No./Type	APPLICATION	RPM-Range	Valve Lift INT. EX.	Valve Lash Hot INT. EX.	ADV. Duration INT. EX.	.050 Duration INT. EX.	Lobe Center
396252/257	RR-252/257 <b>HYDRAULIC ROLLER</b>	Best overall cam for towing. Trucks, Vans, R.V., etc. Broad torque band. Good vacuum. 3.55-4:10 axle ratio. 9.5:1 compr. Computer compatible. Smooth idle.	1200-5000	.495 .510	.000 .000	252° 257°	204° 210°	112°
396257/265	RR-257/265 <b>HYDRAULIC ROLLER</b>	Excellent performance cam with good vacuum, good idle. 3.08-3.73 axle ratio, 9.5:1 compr. Up to 650 CFM Carb. Computer compatible. Stock converter.	1400-5600	.510 .530	.000 .000	257° 265°	210° 218°	112°
396265/275	RR-265/275 <b>HYDRAULIC ROLLER</b>	Good mid-range power. Good vacuum & good idle. 3.23-3.70 axle ratio. 9.5-10.5:1 compr. Computer compatible with stage 1 chip. Stock converter. Up to 650 CFM Carb.	2000-6000	.530 .553	.000 .000	265° 275°	218° 228°	112°
396275/284	RR-275/284 <b>HYDRAULIC ROLLER</b>	Excellent mid-range perf. Fair idle. 2000 stall. 3.70-4.10 axle ratio. Up to 10.5:1 compr. up to 750 CFM Carb.	2500-6400	.553 .578	.000 .000	275° 284°	228° 238°	112°
396284/294	RR-284/294 <b>HYDRAULIC ROLLER</b>	High perf. use/bracket racing; off shore marine with I/O drive. Lopey idle. 2500 stall. Up to 11:1 compr. 3.90-4.10 axle ratio. Up to 780 CFM Carb.	3000-7000	.578 .608	.000 .000	284° 294°	238° 248°	110°

# CHEVROLET • V-8 1996-UP 454-502 cu. in. Gen 6 Big Block

## HYDRAULIC ROLLER

### 1.7:1 Rocker Ratio



1996-Up Gen 6 engines when using these camshafts need to be converted to adjustable rocker arms. Use ARP P/N 1357102 rocker arm studs (no machining required) and factory guide plates. If choosing to stay with stock non-adjustable rocker arms, special length pushrods will need to be ordered to obtain correct lifter preload.

Part No. Cam Only	Grind No./Type	APPLICATION	RPM-Range	Valve Lift INT. EX.	Valve Lash Hot INT. EX.	ADV. Duration INT. EX.	.050 Duration INT. EX.	Lobe Center
696252/257	RR-252/257 <b>HYDRAULIC ROLLER</b>	Best overall cam for towing. Trucks, Vans, R.V., etc. Broad torque band. Good vacuum. 3.55-4:10 axle ratio. 9.5:1 compr. Computer compatible. Smooth idle.	1200-5000	.495 .510	.000 .000	252° 257°	204° 210°	112°
696257/265	RR-257/265 <b>HYDRAULIC ROLLER</b>	Excellent performance cam with good vacuum, good idle. 3.08-3.73 axle ratio, 9.5:1 compr. Up to 650 CFM Carb. Computer compatible. Stock converter.	1400-5600	.510 .530	.000 .000	257° 265°	210° 218°	112°
696265/275	RR-265/275 <b>HYDRAULIC ROLLER</b>	Good mid-range power. Good vacuum & good idle. 3.23-3.70 axle ratio. 9.5-10.5:1 compr. Computer compatible with stage 1 chip. Stock converter. Up to 650 CFM Carb.	2000-6000	.530 .553	.000 .000	265° 275°	218° 228°	112°
696275/284	RR-275/284 <b>HYDRAULIC ROLLER</b>	Excellent mid-range perf. Fair idle. 2000 stall. 3.70-4.10 axle ratio. Up to 10.5:1 compr. up to 750 CFM Carb.	2500-6400	.553 .578	.000 .000	275° 284°	228° 238°	112°
696284/294	RR-284/294 <b>HYDRAULIC ROLLER</b>	High perf. use/bracket racing; off shore marine with I/O drive. Lopey idle. 2500 stall. Up to 11:1 compr. 3.90-4.10 axle ratio. Up to 780 CFM Carb.	3000-7000	.578 .608	.000 .000	284° 294°	238° 248°	110°

Note: All Isky Hydraulic Roller Cams are compatible with Stock Cast Iron Dist. Gear

All Camshafts on this page are not legal for sale or use on pollution controlled motor vehicles operated on highways or roads.

# CHEVROLET • V-8 396-402-427-454 cu. in. engines Big Block V-8 (1967-95)

## Recommended Valve Train Components



These items included in Cam & complete kit								Optional accessories	
CAM & COMPLETE KIT P/N	HYDRAULIC ROLLER LIFTERS	PUSHRODS P. 33-37	VALVE SPRINGS P. 47-58	SPRINGS SHIMS P. 44	STEEL RETAINERS P. 38	POLY LOCKS P. 43	THRUST BUMPER & LOCK PLATE P. 14, 44	VALVE LOCKS P. 46	VALVE SEALS P. 15
390252/257	3970-HYRT	203-96-.650" <sup>C</sup>	805-DO	#2	347-ST	PL-7/16	200-96-TB 200-LP	VL-3/8	VS-3/8 <sup>F</sup>
390257/265	3970-HYRT	203-96-.650" <sup>C</sup>	805-DO	#2	347-ST	PL-7/16	200-96-TB 200-LP	VL-3/8	VS-3/8 <sup>F</sup>
390265/275	3970-HYRT	203-96-.650" <sup>C</sup>	805-DO	#2	347-ST	PL-7/16	200-96-TB 200-LP	VL-3/8	VS-3/8 <sup>F</sup>
390275/284	3970-HYRT	203-96-.650" <sup>C</sup>	8005-A	#2	347-ST	PL-7/16	200-96-TB 200-LP	VL-3/8	VS-3/8 <sup>F</sup>
390284/294	3970-HYRT	203-96-.650" <sup>C</sup>	8005-A	#2	347-ST	PL-7/16	200-96-TB 200-LP	VL-3/8	VS-3/8 <sup>F</sup>

# CHEVROLET • V-8 1996-UP 454-502 cu. in. Gen 6 Big Block

## Recommended Valve Train Components



These items included in Cam & complete kit								Optional accessories	
CAM & COMPLETE KIT P/N	HYDRAULIC ROLLER LIFTERS	PUSHRODS P. 33-37	VALVE SPRINGS P. 47-58	SPRINGS SHIMS P. 44	STEEL RETAINERS P. 38	POLY LOCKS P. 43		VALVE LOCKS P. 46	VALVE SEALS P. 15
690252/257	3970-HYRT	203-96-.650" <sup>C</sup>	805-DO	#2	347-ST	PL-7/16		VL-3/8	VS-3/8 <sup>F</sup>
690257/265	3970-HYRT	203-96-.650" <sup>C</sup>	805-DO	#2	347-ST	PL-7/16		VL-3/8	VS-3/8 <sup>F</sup>
690265/275	3970-HYRT	203-96-.650" <sup>C</sup>	805-DO	#2	347-ST	PL-7/16		VL-3/8	VS-3/8 <sup>F</sup>
690275/284	3970-HYRT	203-96-.650" <sup>C</sup>	8005-A	#2	347-ST	PL-7/16		VL-3/8	VS-3/8 <sup>F</sup>
690284/294	3970-HYRT	203-96-.650" <sup>C</sup>	8005-A	#2	347-ST	PL-7/16		VL-3/8	VS-3/8 <sup>F</sup>

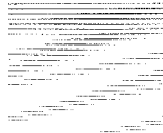
C 3/8 Diameter pushrods

F Requires cylinder heads be machined with VST-3/8 cutter

# CHRYSLER-PLYMOUTH-DODGE- "A" ENGINE

- V-8 1964-Up 273-340-360 cu. in. engines
- 318 cu. in. 1967 & Up

Cast Iron Billet  
HYDRAULIC



## 1.5:1 Rocker Ratio



Part No. Cam Only	Grind No./Type	APPLICATION	RPM-Range	Valve Lift INT. EX.	Valve Lash Hot INT. EX.	ADV. Duration INT. EX.	.050 Duration INT. EX.	Lobe Center
3901-M	MILE-A-MOR HYDRAULIC	Mileage & Maximum Lower RPM Torque for 1972 & later (340-360 CI) Low Compression Engines.	1000-3800	.400 .400	.000 .000	248° 248°	194° 194°	108°
3902-M	MILE-A-MOR HYDRAULIC	Mileage & Maximum Lower RPM Torque for 1972 & later (273-318 CI) Low Compression Engines.	1000-3800	.375 .375	.000 .000	236° 236°	186° 186°	108°
390125	256-SUPERCAM HYDRAULIC	Best torque & economy in passenger cars & trucks. Max compr., 9.5:1, smooth idle, std. axle ratio, good vacuum, computer compatible. Std. to 600 CFM Carb.	1500-4800	.425 .425	.000 .000	256° 256°	202° 202°	112°
390125/26	256/262 HYDRAULIC	Best overall cam for towing. Trucks, Vans, R.V., etc. Broad torque band. Good vacuum. 3.55-4:10 axle ratio. 9.5:1 compr. Computer compatible. Smooth idle.	1800-5000	.425 .435	.000 .000	256° 262°	202° 208°	110°
390126	262-SUPERCAM HYDRAULIC	Low/Mid-Range performance cam. 9.5:1 compr. 3.08-3.70 axle ratio. Passenger cars & trucks. Up to 625 CFM Carb.	2000-5500	.435 .435	.000 .000	262° 262°	208° 208°	108°
390164	264-MEGA HYDRAULIC	Tremendous torque & good mid-range power. 9-10.5:1 compr., good idle, stock converter. 3.23-3.70 axle ratio. Up to 625 CFM Carb.	2000-5800	.450 .450	.000 .000	264° 264°	214° 214°	108°
390127	270-HL HYDRAULIC	Good all-around performance. Fair idle. Stock converter. 3.70-4.11 axle ratio. Up to 650 CFM Carb. 9.5:1 compr.	2000-6000	.445 .445	.000 .000	270° 270°	216° 216°	108°
390171	270-MEGA HYDRAULIC	Excellent mid-range performance. Fair idle. Stock converter. 9-10.5:1 compr., 3.70-4.11 axle ratio. Up to 650 CFM Carb.	2000-6200	.465 .465	.000 .000	270° 270°	221° 221°	108°
390128	280-HL HYDRAULIC	High perf. Use. Lopey idle. 2500 stall. 3.70-4.11 axle ratio. Up to 750 CFM Carb. 9.5:1 compr.	2500-6500	.465 .465	.000 .000	280° 280°	224° 224°	108°
390181	280-MEGA HYDRAULIC	High performance use/bracket racing. Lopey idle. 2500 Stall. 9.5-10.5:1 compr. 3.90-4.11 axle ratio. Up to 780 CFM Carb.	2500-6800	.485 .485	.000 .000	280° 280°	232° 232°	108°
390129	292-MEGA HYDRAULIC	High performance use/bracket racing. Rough idle. 2800 Stall. 10-11:1 compr. 4.11-4.56 axle ratio. Up to 780 CFM Carb.	2800-7000	.505 .505	.000 .000	292° 292°	244° 244°	108°
390130	300-HL HYDRAULIC	High perf. Street/strip. Lopey idle. 2800 stall. 4.11-4.88 axle ratio. Up to 750 CFM Carb. 10.5:1 compr.	3000-7000	.485 .485	.000 .000	300° 300°	234° 234°	108°
390134	304-MEGA HYDRAULIC	Ultimate high-performance use/bracket racing. Rough idle. 3000 Stall. 11:1 & up compr. 4.33-4.88 axle ratio. Up to 850 CFM Carb.	3200-7500	.525 .525	.000 .000	304° 304°	256° 256°	108°
3901-TA	TURBOCYCLE-A HYDRAULIC	Maximum economy/torque. Turbocharged. Up to 7 PSI Boost. Smooth idle. Stock converter. Std. axle ratio. Up to 650 CFM Carb.	1000-5000	.435 .400	.000 .000	262° 250°	208° 194°	114°

# CHRYSLER-PLYMOUTH-DODGE- "A" ENGINE

- V-8 1964-Up 273-340-360 cu. in. engines
- 318 cu. in. 1967 & Up



## Recommended Valve Train Components

CAM & COMPLETE KIT P/N	CAM & LIFTER KIT P/N	These items included in Cam & complete kit						Optional accessories		
		LIFTERS P. 31-32	PUSHRODS P. 33-37	VALVE SPRINGS P. 47-58	SPRING SHIMS P. 44	STEEL RETAINERS P. 38	ADJ. ROCKER ARMS P. 42	TIMING SET P. 18,45	VALVE LOCKS P. 46	VALVE SEALS P. 15
—	—	3912-AHY	3913	6005 <sup>B</sup>	# 2	3607-ST	3904	3900-TS	N/A	VS-3/8 <sup>F</sup>
—	—	3912-AHY	3913	6005 <sup>B</sup>	# 2	3607-ST	3904	3900-TS	N/A	VS-3/8 <sup>F</sup>
390025	CL-390125	3912-AHY	3913	6005 <sup>B</sup>	# 2	3607-ST	3904	3900-TS	N/A	VS-3/8 <sup>F</sup>
390025/26	CL-390125/26	3912-AHY	3913	6005 <sup>B</sup>	# 2	3607-ST	3904	3900-TS	N/A	VS-3/8 <sup>F</sup>
390026	CL-390126	3912-AHY	3913	6005 <sup>B</sup>	# 2	3607-ST	3904	3900-TS	N/A	VS-3/8 <sup>F</sup>
390064	CL-390164	3912-AHY	3913	6005 <sup>B</sup>	# 2	3607-ST	3904	3900-TS	N/A	VS-3/8 <sup>F</sup>
390027	CL-390127	3912-AHY	3913 <sup>★</sup>	6005 <sup>B</sup>	# 2	3607-ST	3904 <sup>★</sup>	3900-TS	N/A	VS-3/8 <sup>F</sup>
390071	CL-390171	3912-AHY	3913 <sup>★</sup>	6005 <sup>B</sup>	# 2	3607-ST	3904 <sup>★</sup>	3900-TS	N/A	VS-3/8 <sup>F</sup>
390028	CL-390128	3912-AHY	3913 <sup>★</sup>	6005 <sup>B</sup>	# 2	3607-ST	3904 <sup>★</sup>	3900-TS	N/A	VS-3/8 <sup>F</sup>
390081	CL-390181	3912-AHY	3913 <sup>★</sup>	6005 <sup>B</sup>	# 2	3607-ST	3904 <sup>★</sup>	3900-TS	N/A	VS-3/8 <sup>F</sup>
390029	CL-390129	3912-AHY	3913 <sup>★</sup>	6005 <sup>B</sup>	# 2	3607-ST	3904 <sup>★</sup>	3900-TS	N/A	VS-3/8 <sup>F</sup>
390030	CL-390130	3912-AHY	3913 <sup>★</sup>	6005 <sup>B</sup>	# 2	3607-ST	3904 <sup>★</sup>	3900-TS	N/A	VS-3/8 <sup>F</sup>
390034	CL-390134	3912-AHY	3913 <sup>★</sup>	6005 <sup>B</sup>	# 2	3607-ST	3904 <sup>★</sup>	3900-TS	N/A	VS-3/8 <sup>F</sup>
3900-TKA	—	3912-AHY	3913 <sup>★</sup>	6005 <sup>B</sup>	# 2	3607-ST	3904 <sup>★</sup>	3900-TS	N/A	VS-3/8 <sup>F</sup>

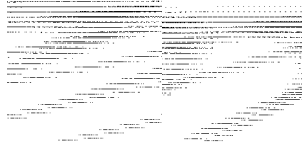
B Requires cylinder heads be machined with Isky #1258 Hole Saw  
 F Requires cylinder heads be machined with VST-3/8 cutter

★ 3913 Pushrods and 3904 ADJ. Rocker Arms are mandatory with 270-HL and Hotter cams

# CHRYSLER-PLYM

• 318 cu. in. 1967 and Up  
 MOPAR-DART-VALIANT-CUDA • V-8 1964 and up 273-340-360 cu. in. engines

Cast Iron Billet  
 HYDRAULIC  
 SOLID



## 1.5:1 Rocker Ratio



Part No. Cam Only	Grind No./Type	APPLICATION	RPM-Range	Valve Lift INT. EX.	Valve Lash Hot INT. EX.	ADV. Duration INT. EX.	.050 Duration INT. EX.	Lobe Center
390171	270-MEGA HYDRAULIC	<u>OVAL TRACK:</u> Hobby stock & street stock classes; 1/4-3/8 mile tracks with slight bank. 2BBL carburetor.	2000-6200	.465 .465	.000 .000	270° 270°	221° 221°	108°
390174	274-MEGA HYDRAULIC	<u>OVAL TRACK:</u> Hobby stock & street stock classes; banked 1/4-3/8 mile tracks. Any carburetor.	2200-6500	.490 .490	.000 .000	274° 274°	226° 226°	107°
390180	280-MEGA HYDRAULIC	<u>OVAL TRACK:</u> Hobby stock & street stock classes; banked 1/4-3/8 mile tracks. Any carburetor.	2500-6800	.485 .485	.000 .000	280° 280°	232° 232°	106°
390184	284-MEGA HYDRAULIC	<u>OVAL TRACK:</u> Street stock & sportsman classes; banked 3/8-1/2 mile tracks. Any carburetor.	2600-6900	.510 .510	.000 .000	284° 284°	236° 236°	106°
390196	292-MEGA HYDRAULIC	<u>OVAL TRACK:</u> Sportsman classes; 3/8-1/2 mile banked tracks. Any carburetor.	2800-7000	.505 .505	.000 .000	292° 292°	244° 244°	106°
390144	E-4 SOLID	Tremendous torque & good mid-range power. 9-10:1 compr., good idle, stock converter. 3.23-3.70 axle ratio. Up to 625 CFM Carb.	2000-5500	.425 .425	.015 .015	260° 260°	216° 216°	108°
390177	B-777 SOLID	Strong mid-range perf. Lopey idle. 2500 RPM stall. 3.70-4.11 axle ratio. 650-750 CFM Carb. 10.5:1 compr.	3000-7000	.480 .480	.018 .018	280° 280°	240° 240°	108°
390157	505-A SOLID	Bracket racing. Rough idle. 3000 stall. 4.11-4.56 axle ratio. Up to 850 CFM Carb. 10.5:1 compr.	3500-7000	.507 .507	.028 .028	300° 300°	254° 254°	108°
390135	Z-35 SOLID	High perf. Street/strip. Lopey idle. 2800 stall. 4.11-4.88 axle ratio. Up to 750 CFM Carb. 10.5:1 compr.	3000-7000	.525 .525	.016 .018	288° 288°	254° 254°	108°
390155	555 SOLID	High perf. Street/strip. Lopey idle. 3200 stall. 4.56-4.88 axle ratio. Up to 800 CFM Carb. 11:1 compr.	3200-7200	.555 .555	.014 .016	296° 296°	263° 263°	108°
390110	1012-C SOLID	All out drags. 5000 stall. 4.88-5.13 axle ratio. 850+CFM Carb. 12:1 compr.	4500-8000	.580 .580	.028 .028	312° 312°	274° 274°	104°



Todd Stewart; D.I.R.T. Modified



## Recommended Valve Train Components

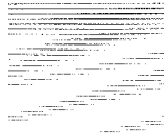
CAM & COMPLETE KIT P/N	CAM & LIFTER KIT P/N	These items included in Cam & complete kit						Optional accessories		
		LIFTERS P. 31-32	PUSHRODS P. 33-37	VALVE SPRINGS P. 47-58	SPRING SHIMS P. 44	STEEL RETAINERS P. 38	ADJ. ROCKER ARMS P. 42	TIMING SET P. 18,45	VALVE LOCKS P. 46	VALVE SEALS P. 15
390071	CL-390171	3912-A-HY	3913 ★	6005 <sup>B</sup>	# 2	3607-ST	3904 ★	3900-TS	N/A	VS-3/8 <sup>F</sup>
390074	—	3912-A-HY	3913 ★	6005 <sup>B</sup>	# 2	3607-ST	3904 ★	3900-TS	N/A	VS-3/8 <sup>F</sup>
390080	—	3912-A-HY	3913 ★	6005 <sup>B</sup>	# 2	3607-ST	3904 ★	3900-TS	N/A	VS-3/8 <sup>F</sup>
390084	—	3912-A-HY	3913 ★	6005 <sup>B</sup>	# 2	3607-ST	3904 ★	3900-TS	N/A	VS-3/8 <sup>F</sup>
390096	—	3912-A-HY	3913 ★	6005 <sup>B</sup>	# 2	3607-ST	3904 ★	3900-TS	N/A	VS-3/8 <sup>F</sup>
390044	—	3102-H	3903	6005 <sup>B</sup>	# 2	3607-ST	3904	3900-TS	N/A	VS-3/8 <sup>F</sup>
390077	—	3102-H	3903	6005 <sup>B</sup>	# 2	3607-ST	3904	3900-TS	N/A	VS-3/8 <sup>F</sup>
390057	—	3102-H	3903	6005 <sup>B</sup>	# 2	3607-ST	3904	3900-TS	N/A	VS-3/8 <sup>F</sup>
390035	—	3102-H	3903	6005 <sup>B</sup>	# 2	3607-ST	3904	3900-TS	N/A	VS-3/8 <sup>F</sup>
390055	—	3102-H	3903	6005 <sup>B</sup>	# 2	3607-ST	3904	3900-TS	N/A	VS-3/8 <sup>F</sup>
390010	—	3102-H	3903	6005 <sup>B</sup>	# 2	3607-ST	3904	3900-TS	N/A	VS-3/8 <sup>F</sup>

B Requires cylinder heads be machined with Isky #1258 Hole Saw  
F Requires cylinder heads be machined with VST-3/8 cutter

★ 3913 Pushrods and 3904 ADJ. Rocker Arms are mandatory with these hydraulic cams.



Cast Iron Billet  
HYDRAULIC



## 1.5:1 Rocker Ratio



Part No. Cam Only		Grind No./Type	APPLICATION	RPM-Range	Valve Lift INT. EX.	Valve Lash Hot INT. EX.	ADV. Duration INT. EX.	.050 Duration INT. EX.	Lobe Center
Three Bolt	Single Bolt								
165125	160125	256-Supercam HYDRAULIC	Best torque & economy in passenger cars & trucks. Max compr., 9.5:1, smooth idle, std. axle ratio, good vacuum, computer compatible. Std. to 600 CFM Carb.	1500-4800	.425 .425	.000 .000	256° 256°	202° 202°	112°
165125/26	160125/26	256/262 HYDRAULIC	Best overall cam for towing. Trucks, Vans, R.V., etc. Broad torque band. Good vacuum. 3.55-4:10 axle ratio. 9.5:1 compr. Computer compatible. Smooth idle.	1800-5000	.425 .435	.000 .000	256° 262°	202° 208°	110°
165126	160126	262-Supercam HYDRAULIC	Low/Mid-Range performance cam. 9.5:1 compr. 3.08-3.70 axle ratio. Passenger cars & trucks. Up to 625 CFM Carb.	2000-5500	.435 .435	.000 .000	262° 262°	208° 208°	108°
165164	160164	264-MEGA HYDRAULIC	Tremendous torque & good mid-range power. 9-10.5:1 compr., good idle, stock converter. 3.23-3.70 axle ratio. Up to 625 CFM Carb.	2000-5800	.450 .450	.000 .000	264° 264°	214° 214°	108°
165127	160127	270-HL HYDRAULIC	Good all-around performance. Fair idle. Stock converter. 3.70-4.11 axle ratio. Up to 650 CFM Carb. 9.5:1 compr.	2000-6000	.445 .445	.000 .000	270° 270°	216° 216°	108°
165171	160171	270-MEGA HYDRAULIC	Excellent mid-range performance. Fair idle. Stock converter. 9-10.5:1 compr., 3.70-4.11 axle ratio. Up to 650 CFM Carb.	2000-6200	.465 .465	.000 .000	270° 270°	221° 221°	108°
165128	160128	280-HL HYDRAULIC	High perf. Use. Lopey idle. 2500 stall. 3.70-4.11 axle ratio. Up to 750 CFM Carb. 9.5:1 compr.	2500-6500	.465 .465	.000 .000	280° 280°	224° 224°	108°
165181	160181	280-MEGA HYDRAULIC	High performance use/bracket racing. Lopey idle. 2500 Stall. 9.5-10.5:1 compr. 3.90-4.11 axle ratio. Up to 780 CFM Carb.	2500-6800	.485 .485	.000 .000	280° 280°	232° 232°	108°
165130	160130	300-HL HYDRAULIC	High perf. Street/strip. Lopey idle. 2800 stall. 4.11-4.88 axle ratio. Up to 750 CFM Carb. 10.5:1 compr.	3000-6500	.485 .485	.000 .000	300° 300°	234° 234°	108°
165129	160129	292-MEGA HYDRAULIC	High performance use/bracket racing. Rough idle. 2800 Stall. 10-11:1 compr. 4.11-4.56 axle ratio. Up to 780 CFM Carb.	2800-7000	.505 .505	.000 .000	292° 292°	244° 244°	108°
165134	160134	304-MEGA HYDRAULIC	Ultimate high-performance use/bracket racing. Rough idle. 3000 Stall. 11:1 & up compr. 4.33-4.88 axle ratio. Up to 850 CFM Carb.	3200-7500	.525 .525	.000 .000	304° 304°	256° 256°	108°
1651-TA	1601-TA	Turbocycle-A HYDRAULIC	Maximum economy/torque. Turbocharged. Up to 7 PSI Boost. Smooth idle. Stock converter. Std. axle ratio. Up to 650 CFM Carb.	1000-5000	.435 .400	.000 .000	264° 252°	208° 194°	114°
1651-TB	1601-TB	Turbocycle-B HYDRAULIC	High performance turbocharged appl's. with higher boost. Good idle, stock converter, std. axle ratio. Up to 650 CFM Carb.	2000-6000	.440 .410	.000 .000	274° 260°	216° 200°	114°



## Recommended Valve Train Components

Cam & Complete Kit Part No.		These items included in Cam & complete kit						Optional accessories		
Three Bolt	Single Bolt	LIFTERS P. 31-32	PUSHRODS P. 33-37	VALVE SPRINGS P. 47-58	SPRING SHIMS P. 44	STEEL RETAINERS P. 38	ADJ. ROCKER ARMS P. 42	TIMING SET		VALVE SEALS P. 15
								Three Bolt P. 18,45	Single Bolt P. 45	
165025	160025	3912-HY	1613 <sup>J</sup> 1623 <sup>L</sup>	8005-A <sup>B</sup>	# 2	3607-ST	1604	1650-3BK	1600-TS	VS-3/8 <sup>F</sup>
165025/26	160025/26	3912-HY	1613 <sup>J</sup> 1623 <sup>L</sup>	8005-A <sup>B</sup>	# 2	3607-ST	1604	1650-3BK	1600-TS	VS-3/8 <sup>F</sup>
165026	160026	3912-HY	1613 <sup>J</sup> 1623 <sup>L</sup>	8005-A <sup>B</sup>	# 2	3607-ST	1604	1650-3BK	1600-TS	VS-3/8 <sup>F</sup>
165064	160064	3912-HY	1613 <sup>J</sup> 1623 <sup>L</sup>	8005-A <sup>B</sup>	# 2	3607-ST	1604	1650-3BK	1600-TS	VS-3/8 <sup>F</sup>
165027	160027	3912-HY	1613 <sup>J</sup> 1623 <sup>L</sup>	8005-A <sup>B</sup>	# 2	3607-ST	1604	1650-3BK	1600-TS	VS-3/8 <sup>F</sup>
165071	160071	3912-HY	1613 <sup>J</sup> 1623 <sup>L</sup>	8005-A <sup>B</sup>	# 2	3607-ST	1604	1650-3BK	1600-TS	VS-3/8 <sup>F</sup>
165028	160028	3912-HY	1613 <sup>J</sup> 1623 <sup>L</sup>	8005-A <sup>B</sup>	# 2	3607-ST	1604	1650-3BK	1600-TS	VS-3/8 <sup>F</sup>
165081	160081	3912-HY	1613 <sup>J</sup> 1623 <sup>L</sup>	8005-A <sup>B</sup>	# 2	3607-ST	1604	1650-3BK	1600-TS	VS-3/8 <sup>F</sup>
165030	160030	3912-HY	1613 <sup>J</sup> 1623 <sup>L</sup>	8005-A <sup>B</sup>	# 2	3607-ST	1604	1650-3BK	1600-TS	VS-3/8 <sup>F</sup>
165029	160029	3912-HY	1613 <sup>J</sup> 1623 <sup>L</sup>	8005-A <sup>B</sup>	# 2	3607-ST	1604	1650-3BK	1600-TS	VS-3/8 <sup>F</sup>
165034	160034	3912-HY	1613 <sup>J</sup> 1623 <sup>L</sup>	8005-A <sup>B</sup>	# 2	3607-ST	1604	1650-3BK	1600-TS	VS-3/8 <sup>F</sup>
1650-TKA	1600-TKA	3912-HY	1613 <sup>J</sup> 1623 <sup>L</sup>	8005-A <sup>B</sup>	# 2	3607-ST	1604	1650-3BK	1600-TS	VS-3/8 <sup>F</sup>
1650-TKB	1600-TKB	3912-HY	1613 <sup>J</sup> 1623 <sup>L</sup>	8005-A <sup>B</sup>	# 2	3607-ST	1604	1650-3BK	1600-TS	VS-3/8 <sup>F</sup>

B Requires cylinder heads be machined with Isky #1258 Hole Saw  
 F Requires cylinder heads be machined with VST-3/8 cutter  
 J 350-361-383 cu. in. Low Block  
 L 413-426-440 cu. in. High Block

★ NOTE: All 1970 and later 440 Six Pack Engines use the new 3-bolt cam sprocket and roller timing chain which is far superior to the single bolt cam sprocket. We highly recommend the 3-bolt conversion for any "B" engine, using the following:

# CHRYSLER •

Specify "Single Bolt" or "Three Bolt" Cam.  
V-8 1958 and up "B" engines (Wedge-Dodge/Plymouth)

Low Block 350-361-383 c.i.  
High Block 413-426-440 c.i.

SOLID  
ROLLER

## 1.5:1 Rocker Ratio



Part No. Cam Only		Grind No./Type	APPLICATION	RPM-Range	Valve Lift INT. EX.	Valve Lash Hot INT. EX.	ADV. Duration INT. EX.	.050 Duration INT. EX.	Lobe Center
Three Bolt	Single Bolt								
165177	160177	B-777 <b>SOLID</b>	Strong mid-range perf. Lopey idle. 2500 RPM stall. 3.70-4.11 axle ratio. 650-750 CFM Carb. 10.5:1 compr.	2500-6500	.480 .480	.018 .018	280° 280°	240° 240°	108°
165155	160155	505-T <b>SOLID</b>	Bracket racing. Rough idle. 2800 stall. 4.11-4.56 axle ratio. 650-750 CFM Carb. 10:1 compr.	3500-7000	.505 .505	.028 .028	290° 290°	254° 254°	108°
165135	160135	Z-35 <b>SOLID</b>	High perf. Street/strip. Lopey idle. 2800 stall. 4.11-4.88 axle ratio. Up to 750 CFM Carb. 10.5:1 compr.	3000-7000	.525 .525	.016 .018	288° 288°	254° 254°	108°
165170	160170	Z-70 <b>SOLID</b>	Bracket racing. Lopey idle. 4000 stall. 4.88-5.38 axle ratio. Up to 850 CFM Carb. 11:1 compr.	3500-7500	.548 .548	.028 .028	304° 304°	264° 264°	108°
165175	160175	Z-75 <b>SOLID</b>	All out competition/drags. 5000 stall. 5.13-5.57 axle ratio. 850+CFM Carb. 12:1 compr.	4000-8000	.570 .570	.028 .028	320° 320°	274° 274°	108°
165195	160195	590 <b>SOLID</b>	All out drags. 5000 stall. 4.88-5.13 axle ratio. 850+CFM Carb. 12:1 compr.	4000-7500	.590 .590	.025 .025	320° 320°	282° 282°	104°
165150	N/A	RR-505-T <b>ROLLER</b>	Good mid-range perf. Rough idle. 2500 stall. 3.90-4.10 axle ratio. 10-11:1 compr. Up to 750 CFM Carb.	2500-6400	.531 .531	.028 .028	290° 290°	248° 248°	108°
165160	N/A	RR-602 <b>ROLLER</b>	Good mid-range perf. Lopey idle. 2800 stall. 4.10-4.56 axle ratio. 10-11:1 compr. Up to 780 CFM Carb.	3000-7000	.602 .602	.028 .028	300° 300°	260° 260°	108°
165163	N/A	RR-630 <b>ROLLER</b>	Bracket Racing. 4000 stall. 4.56-4.88 axle ratio. High compr. 850+CFM Carb.	3800-7400	.630 .630	.028 .028	314° 314°	272° 272°	108°
165162	N/A	RR-627 <b>ROLLER</b>	Bracket Racing. 4000 stall. 4.56-4.88 axle ratio. High compr. 850+CFM Carb.	4000-7500	.622 .588	.025 .025	316° 320°	282° 282°	108°
165166	N/A	RR-660 <b>ROLLER</b>	Excellent choice for super gas competition. 4500 stall. 4.88 axle ratio. High compr. 850+CFM Carb.	4000-7500	.660 .660	.028 .028	324° 324°	282° 282°	108°
165165	N/A	RR-665 <b>ROLLER</b>	Super Gas, Super Comp: 4500 stall. 4.88 axle ratio. High compr. Tunnel Ram Intake with 2 carburetors.	4500-8000	.660 .662	.028 .028	324° 332°	282° 286°	110°
165176	N/A	RR-705 <b>ROLLER</b>	Super Gas, Super Comp: 4500 stall. 4.88 axle ratio. High compr. Tunnel Ram Intake with 2 carburetors.	4500-8000	.705 .705	.028 .028	324° 324°	282° 282°	108°
165173	N/A	RR-735 <b>ROLLER</b>	Super Gas, Super Comp: 5000 stall. 4.88 axle ratio. High compr. Tunnel Ram Intake with 2 carburetors.	4500-8000	.735 .685	.026 .028	322° 332°	278° 286°	110°



## Recommended Valve Train Components

Cam & Complete Kit Part No.		These items included in Cam & complete kit							
Three Bolt	Single Bolt	LIFTERS P. 22-32	★ PUSHRODS P. 33-37	VALVE SPRINGS P. 47-58	SPRING SHIMS P. 44	STEEL RETAINERS P. 38	ADJ. ROCKER ARMS P. 42	THRUST BUMPER P. 44	ULTRA REV-KIT P. 21
165077	160077	3102-H	1633-A <sup>J</sup> 1633-B <sup>L</sup>	8005-A <sup>B</sup>	# 2	3607-ST	1604	—	—
165055	160055	3102-H	1633-A <sup>J</sup> 1633-B <sup>L</sup>	8005-A <sup>B</sup>	# 2	3607-ST	1604	—	—
165035	160035	3102-H	1633-A <sup>J</sup> 1633-B <sup>L</sup>	8005-A <sup>B</sup>	# 2	3607-ST	1604	—	—
165070	160070	3102-H	1633-A <sup>J</sup> 1633-B <sup>L</sup>	8005-A <sup>B</sup>	# 2	3607-ST	1604	—	—
165075	160075	3102-H	1633-A <sup>J</sup> 1633-B <sup>L</sup>	8005-A <sup>B</sup>	# 2	3607-ST	1604	—	—
165095	160095	3102-H	1633-A <sup>J</sup> 1633-B <sup>L</sup>	8005-A <sup>B</sup>	# 2	3607-ST	1604	—	—
165050	N/A	1612-RH	1663-A <sup>J</sup> 1663-B <sup>L</sup>	9265 <sup>B</sup>	# 2	3607-ST	1604	4600-TB	1650-URK <sup>J</sup> 1650-LRK <sup>L</sup>
165060	N/A	1612-RH	1663-A <sup>J</sup> 1663-B <sup>L</sup>	9265 <sup>B</sup>	# 2	3607-ST	1604	4600-TB	1650-URK <sup>J</sup> 1650-LRK <sup>L</sup>
165063	N/A	1612-RH	1663-A <sup>J</sup> 1663-B <sup>L</sup>	9265 <sup>B</sup>	# 2	3607-ST	1604	4600-TB	1650-URK <sup>J</sup> 1650-LRK <sup>L</sup>
165062	N/A	1612-RH	1663-A <sup>J</sup> 1663-B <sup>L</sup>	9265 <sup>B</sup>	# 2	3607-ST	1604	4600-TB	1650-URK <sup>J</sup> 1650-LRK <sup>L</sup>
165066	N/A	1612-RH	1663-A <sup>J</sup> 1663-B <sup>L</sup>	9265 <sup>B</sup>	# 2	3607-ST	1604	4600-TB	1650-URK <sup>J</sup> 1650-LRK <sup>L</sup>
165065	N/A	1612-RH	1663-A <sup>J</sup> 1663-B <sup>L</sup>	9265 <sup>B</sup>	# 2	3607-ST	1604	4600-TB	1650-URK <sup>J</sup> 1650-LRK <sup>L</sup>
165076	N/A	1612-RH	1663-A <sup>J</sup> 1663-B <sup>L</sup>	9265 <sup>B</sup>	# 2	3607-ST	1604	4600-TB	1650-URK <sup>J</sup> 1650-LRK <sup>L</sup>
165073	N/A	1612-RH	1663-A <sup>J</sup> 1663-B <sup>L</sup>	9265 <sup>B</sup>	# 2	3607-ST	1604	4600-TB	1650-URK <sup>J</sup> 1650-LRK <sup>L</sup>

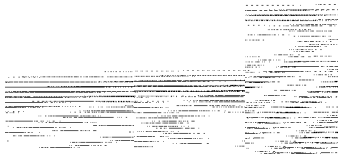
B Requires cylinder heads be machined with Isky #1258 Hole Saw  
J 350-361-383 cu. in. Low Block  
L 413-426-440 cu. in. High Block

of Cam & Kit when requiring these pushrods.

★ USE P/N 1643-A; Heat Treated, Non-ADJ. Pushrods in 426 c.i. Engines. Add 212.00 to the retail price

# MOPAR • 426 HEMI/KEITH BLACK ALUMINUM/MILODON 7 LITRE/JP-1

HYDRAULIC  
SOLID  
ROLLER



1.57:1 Rocker Ratio INT.  
1.52:1 Rocker Ratio EX.



Part No. Cam Only	Grind No./Type	APPLICATION	RPM-Range	Valve Lift INT. EX.	Valve Lash Hot INT. EX.	ADV. Duration INT. EX.	.050 Duration INT. EX.	Lobe Center
460128	288 HYDRAULIC	High performance use/bracket racing. Lopey idle. 2500 Stall. 9.5-10.5:1 compr. 3.90-4.11 axle ratio. Up to 780 CFM Carb.	3000-7000	.480 .480	.000 .000	288° 288°	240° 240°	108°
460144	SH-444 SOLID	High perf. Use/bracket racing. Lopey idle. 3000 stall. 10.5:1 compr. 3.90-4.11 axle ratio. Up to 800 CFM Carb.	3500-7000	.510 .510	.028 .028	300° 300°	254° 254°	108°
460152	SH-520 SOLID	All out drags. 4000-4500 stall. 4.56-4.88 axle ratio. 850+CFM Carb. 11.5:1+compr.	4000-7500	.534 .534	.028 .028	318° 318°	270° 270°	108°
460159	590 SOLID	All out drags. 5000 stall. 4.88-5.13 axle ratio. 850+CFM Carb. 12:1 compr.	4500-7500	.590 .590	.025 .025	320° 320°	282° 282°	104°
460161	616 SOLID	All out drags. 5000 stall. 4.88-5.13 axle ratio. 850+CFM Carb. 12:1 compr.	4500-7500	.616 .590	.025 .025	314° 320°	282° 282°	104°
460170	RR-700 ROLLER	All-out competition; Single 4-BBL. 4500+stall. 850+CFM Carb. High compr.	4000-8200	.716 .694	.028 .028	332° 332°	286° 286°	106°
460171	RR-770/288 ROLLER	Super stock automatic; 5000 stall. 850+CFM Carb. High compr.	4300-8600	.770 .745	.028 .028	326° 326°	288° 288°	106°
460180	RR-780/294 ROLLER	Super stock, 4-speed; 850+CFM Carb. High compr.	4500-8800	.780 .755	.028 .028	334° 334°	294° 294°	106°

## CHRYSLER-HEMI •

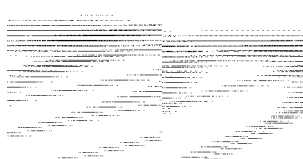
354 cu. in. V-8  
1955-56 Engines

#3001  
Prefix

392 cu. in. V-8  
1957-58 Engines

#3601  
Prefix

Cast Iron Billet  
HYDRAULIC  
SOLID



1.5:1 Rocker Ratio



New cam cores are now available again! We can custom grind hydraulic and solid lifter camshafts to suit customer's applications. Kit components such as hydraulic and solid lifters, valve springs, steel retainers, valve locks and adjustable pushrods are also available. Call the Isky Factory for more information.

# MOPAR • 426 HEMI/KEITH BLACK ALUMINUM/MILODON 7 LITRE/JP-1

## Recommended Valve Train Components



		These items included in Cam & complete kit							Optional accessories	
CAM & COMPLETE KIT P/N	CAM & LIFTERS KIT P/N	LIFTERS P.22-32	PUSHRODS P. 33-37	VALVE SPRINGS P. 47-58	SPRING SHIMS P. 44	RETAINERS P. 38-39	VALVE LOCKS P.46	THRUST BUMPER P. 44	VALVE LOCKS P. 46	VALVE SEALS P. 15
460028	—	3912-HY	4613 S	8005-A B	# 2	4107-ST M	—	—	VL-5/16	VS-5/16 F
460044	—	3102-H	4103 S	8005-A B	# 2	4107-ST M	—	—	VL-5/16	VS-5/16 F
460052	—	3102-H	4103 S	8005-A B	# 2	4107-ST M	—	—	VL-5/16	VS-5/16 F
460059	—	3102-H	4103 S	8005-A B	# 2	4107-ST M	—	—	VL-5/16	VS-5/16 F
460061	—	3102-H	4103 S	8005-A B	# 2	4107-ST M	—	—	VL-5/16	VS-5/16 F
460070	—	4612-RH	4103 S	9705 R	# 9/030	975-TI O	VL-600	4600-TB	—	VS-5/16 F
460071	—	4612-RH	4103 S	9705 R	# 9/030	975-TI O	VL-600	4600-TB	—	VS-5/16 F
460080	—	4612-RH	4103 S	9705 R	# 9/030	975-TI O	VL-600	4600-TB	—	VS-5/16 F

B Requires cylinder heads be machined with Isky #1258 Hole Saw  
 F Requires cylinder heads be machined with VST-5/16 cutter  
 M Steel Retainers

O Titanium Retainers  
 R Requires cylinder heads be machined with Isky #3708 Hole Saw.  
 S 3/8 DIA. Heat Treated Pushrods

# FORD • 4 CYL. PINTO—CAPRI 1971-73 2000cc OHC Engines

Cast Iron Billet  
SOLID LIFTER

1.6:1 Rocker Ratio



Part No. Cam Only	Grind No./Type	APPLICATION	RPM-Range	Valve Lift INT. EX.	Valve Lash Hot INT. EX.	ADV. Duration INT. EX.	.050 Duration INT. EX.	Lobe Center
451440	440 SOLID	Good All-Around Cam for Low-END and Mid-Range Power on street.	2000-6000	.442 .442	.010 .010	280° 280°	230° 230°	116°
451465	465 SOLID	Good Mid-Range & Top End Camshaft. Manual Transmission; street & strip.	3000-7000	.465 .465	.010 .010	300° 300°	240° 240°	112°
451505	505-B SOLID	High banked 3/8 mile oval	3600-7500	.510 .510	.010 .010	310° 310°	255° 255°	110°

# FORD • MUSTANG-PINTO-CAPRI 4 CYL. 1974-87 2300cc OHC Engines

Cast Iron Billet  
SOLID LIFTER

1.6:1 Rocker Ratio

OVAL TRACK



Part No. Cam Only	Grind No./Type	APPLICATION	RPM-Range	Valve Lift INT. EX.	Valve Lash Hot INT. EX.	ADV. Duration INT. EX.	.050 Duration INT. EX.	Lobe Center
461465	465 SOLID	Pony stocks: 1/4-3/8 mile flat oval	3000-7000	.465 .465	.010 .010	300° 300°	240° 240°	116°
461500	505-A SOLID	Pony stocks: 1/4-3/8 mile banked oval	3200-7200	.500 .500	.010 .010	300° 300°	246° 246°	112°
461505	505-B SOLID	High banked 3/8 mile oval	3600-7500	.510 .510	.010 .010	310° 310°	255° 255°	110°
461510	510 SOLID	3/8-1/2 mile oval, high banked	3400-7800	.510 .510	.010 .010	300° 300°	264° 264°	108°
461511	510 SOLID	3/8-1/2 mile oval, medium bank	3200-7600	.510 .510	.010 .010	300° 300°	264° 264°	106°

# FORD • 4 CYL. PINTO—CAPRI 1971-73 2000cc OHC Engines



## Recommended Valve Train Components

These items included in Cam & complete kit

CAM & COMPLETE KIT P/N	ALUMINUM RETAINERS	VALVE SPRINGS P. 47-58
450440	457-AL	455/456 <sup>B</sup>
450465	457-AL	455/456 <sup>B</sup>
450505	457-AL	455/456 <sup>B</sup>

# FORD • MUSTANG-PINTO-CAPRI 4 CYL. 1974-87 2300cc OHC Engines



## Recommended Valve Train Components

These items included in Cam & complete kit

CAM & COMPLETE KIT P/N	SOLID LIFTERS	VALVE SPRINGS P. 47-58	SPRING SHIMS P. 44	STEEL RETAINERS P. 38
460465	462-A <sup>E</sup>	905-D(8)	# 2	347-ST(8)
460500	462-A <sup>E</sup>	905-D(8)	# 2	347-ST(8)
460505	462-A <sup>E</sup>	905-D(8)	# 2	347-ST(8)
460510	462-A <sup>E</sup>	905-D(8)	# 2	347-ST(8)
460511	462-A <sup>E</sup>	905-D(8)	# 2	347-ST(8)

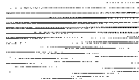
<sup>B</sup> Requires cylinder heads be machined with Isky #208 Hole Saw  
<sup>E</sup> Isky #462-A Lifters are compatible only with solid lifter Camshafts.



# FORD FALCON - COMET • 6-CYLINDER OHV 144-170-200 cu. in Engines

Cast Iron Billet  
HYDRAULIC

1.6:1 Rocker Ratio



Part No. Cam Only	Grind No./Type	APPLICATION	RPM-Range	Valve Lift INT. EX.	Valve Lash Hot INT. EX.	ADV. Duration INT. EX.	.050 Duration INT. EX.	Lobe Center
321-M	MILE-A-MOR HYDRAULIC	Mileage & maximum lower RPM torque for late model, low compression (8-9.5:1 max) engines.	1000-3800	.415 .415	.000 .000	248° 248°	194° 194°	109°
321256	256-Supercam HYDRAULIC	Best torque & economy in passenger cars & trucks. Max compr., 9.5:1, smooth idle, std. axle ratio, good vacuum, computer compatible. Std. to 600 CFM Carb.	1500-4800	.450 .450	.000 .000	256° 256°	202° 202°	112°
321262	262-Supercam HYDRAULIC	Low/Mid-Range performance cam. 9.5:1 compr. 3.08-3.70 axle ratio. Passenger cars & trucks. Up to 625 CFM Carb.	2000-5500	.445 .445	.000 .000	262° 262°	208° 208°	109°
321280	280-HL HYDRAULIC	High perf. Use. Lopey idle. 2500 stall. 3.70-4.11 axle ratio. Up to 750 CFM Carb. 9.5:1 compr.	2500-6500	.465 .465	.000 .000	280° 280°	224° 224°	109°
321-TA	Turbocycle-A HYDRAULIC	Maximum economy/torque. Turbocharged. Up to 7 PSI Boost. Smooth idle. Stock converter. Std. axle ratio. Up to 650 CFM Carb.	1000-5000	.420 .390	.000 .000	260° 248°	208° 194°	114°

# FORD V6 • 1972-UP V6 Engines 2600cc — 2800cc

Cast Iron Billet  
SOLID  
LIFTER

1.6:1 Rocker Ratio



PART NO. CAM ONLY			Grind No. Type	APPLICATION	RPM-Range	Valve Lift INT. EX.	Valve Lash Hot INT. EX.	ADV. Duration INT. EX.	.050 Duration INT. EX.	Lobe Center
2600cc	<sup>T</sup> UP TO 1983 2800cc	<sup>T,U</sup> 1984 & UP 2800cc								
760144	760144	765144	F6-4 SOLID	Tremendous torque & good mid-range power. 9-10:1 compr., good idle, stock converter. 3.23-3.70 axle ratio. Up to 625 CFM Carb.	2000-5500	.425 .425	.015 .015	260° 260°	216° 216°	109°
760166	760166	765166	F6-66 SOLID	Good mid-range power. Fair idle, stock converter. 3.55-3.90 axle ratio. 600-650 CFM Carb. 10:1 compr.	2500-6300	.448 .448	.018 .018	264° 264°	228° 228°	109°

<sup>T</sup>

<sup>T,U</sup>

**SPECIAL NOTE: 2800cc ENGINES**

Drill out hold down bolts on oil baffle 1/16" oversize and shift baffle over for rocker arm and spring clearance.

**SPECIAL NOTE: 1984 & later 2800cc ENGINES**

The cams in these motors have larger diameter bearing journals and therefore will not interchange with pre-84' engines.

# FORD FALCON - COMET • 6-CYLINDER OHV 144-170-200 cu. in Engines

## Recommended Valve Train Components



		These items included in Cam & complete kit					Optional accessories
CAM & COMPLETE KIT P/N	CAM & LIFTERS KIT P/N	LIFTERS P. 31-32	PUSHRODS P. 33-37	VALVE SPRINGS P. 47-58	SPRING SHIMS P. 44	STEEL RETAINERS P. 38	ADJ. PUSHRODS P. 33-37
321-MK	—	392-HY (12)	303 (12)	1005-W <sup>B</sup> 206-G (12)	# 3	327-ST (12)	303-A <sup>D</sup> (12PCS)
320256	—	392-HY (12)	303 (12)	1005-W <sup>B</sup> 206-G (12)	# 3	327-ST (12)	303-A <sup>D</sup> (12PCS)
320262	—	392-HY (12)	303 (12)	1005-W <sup>B</sup> 206-G (12)	# 3	327-ST (12)	303-A <sup>D</sup> (12PCS)
320280	—	392-HY (12)	303 (12)	1005-W <sup>B</sup> 206-G (12)	# 3	327-ST (12)	303-A <sup>D</sup> (12PCS)
320-TKA	—	392-HY (12)	303 (12)	1005-W <sup>B</sup> 206-G (12)	# 3	327-ST (12)	303-A <sup>D</sup> (12PCS)

# FORD V6 • 1972-UP V6 Engines 2600cc — 2800cc

## Recommended Valve Train Components

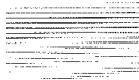


PART NO: CAM AND KIT			These items included in Cam & complete kit				
2600 cc	UP TO 1983 2800 cc	1984 & UP 2800 cc	LIFTERS P. 31-32	VALVE SPRINGS P. 47-58	SPRING SHIMS P. 44	STEEL RETAINERS P. 38	VALVE LOCKS P. 46
760044	760544	765044	342-H (12)	905-D (12)	# 2	4107-ST (12)	VL-5/16 (24 PCS)
760066	760566	765066	342-H (12)	905-D (12)	# 2	4107-ST (12)	VL-5/16 (24 PCS)

# FORD V-6 • 3.8L (232 cu. in.) 1982-87

Cast Iron Billet  
HYDRAULIC

1.6:1 Rocker Ratio

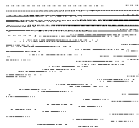


Part No. Cam Only		Grind No./Type	APPLICATION	RPM-Range	Valve Lift INT. EX.	Valve Lash Hot INT. EX.	ADV. Duration INT. EX.	.050 Duration INT. EX.	Lobe Center
1982-83	1984 & up								
860125	870125	256-Supercam HYDRAULIC	Best torque & economy in passenger cars & trucks. Max compr., 9.5:1, smooth idle, std. axle ratio, good vacuum, computer compatible. Std. to 600 CFM Carb.	1500-4800	.450 .450	.000 .000	256° 256°	202° 202°	112°
860126	870126	262-Supercam HYDRAULIC	Low/Mid-Range performance cam. 9.5:1 compr. 3.08-3.70 axle ratio. Passenger cars & trucks. Up to 625 CFM Carb.	2000-5500	.445 .445	.000 .000	262° 262°	208° 208°	108°
860124	870124	264-MEGA HYDRAULIC	Tremendous torque & good mid-range power. 9-10.5:1 compr., good idle, stock converter. 3.23-3.70 axle ratio. Up to 625 CFM Carb.	2200-6000	.480 .480	.000 .000	264° 264°	214° 214°	108°

# FORD - MERC - T-BIRD • (Y - BLOCK) V-8 272-292-312 cu. in Engines

Cast Iron Billet  
SOLID

1.5:1 Rocker Ratio



Part No. Cam Only	Grind No./Type	Application	RPM-Range	Valve Lift INT. EX.	Valve Lash Hot INT. EX.	ADV. Duration INT. EX.	.050 Duration INT. EX.	Lobe Center
301444	E-4 SOLID	Low/Mid-Range performance cam. 9.5:1 compr. 3.08-3.70 axle ratio. Passenger cars & trucks. Up to 625 CFM Carb.	2000-5000	.425 .425	.015 .015	260° 260°	216° 216°	108°
301333	RPM-300 SOLID	Good mid-range power. Fair idle, stock converter. 3.55-3.90 axle ratio. 600-650 CFM Carb. 10:1 compr.	2500-5500	.448 .448	.020 .020	270° 270°	228° 228°	112°
301300	F-300 SOLID	Strong mid-range perf. Lopey idle. 2500 RPM stall. 3.70-4.11 axle ratio. 650-750 CFM Carb. 10:1 compr.	3000-6000	.448 .448	.020 .020	286° 286°	250° 250°	108°
301505	505-T SOLID	Bracket racing. Rough idle. 2800 stall. 4.11-4.56 axle ratio. 650-750 CFM Carb. 10:1 compr.	3500-7000	.505 .505	.028 .028	290° 290°	254° 254°	108°

# FORD V-6 • 3.8L (232 cu. in.) 1982-87

## Recommended Valve Train Components



These items included in Cam & complete kit

CAM & COMPLETE KIT PART NO.		LIFTERS P. 31-32	VALVE SPRINGS P. 47-58	SPRING SHIMS P. 44	STEEL RETAINERS P. 38
1982-83	1984 & UP				
860025	870025	432-HY (12)	3105-D (12) <sup>U</sup>	—	347-ST (12) <sup>T</sup>
860026	870026	432-HY (12)	3105-D (12) <sup>U</sup>	—	347-ST (12) <sup>T</sup>
860024	870024	432-HY (12)	3105-D (12) <sup>U</sup>	—	347-ST (12) <sup>T</sup>

# FORD - MERC - T-BIRD • (Y - BLOCK) V-8 272-292-312 cu. in Engines

## Recommended Valve Train Components



These items included in Cam & complete kit

Optional accessories

CAM & COMPLETE KIT P/N	LIFTERS P. 31-32	PUSHRODS P. 33-37	VALVE SPRINGS P. 47-58	SPRING SHIMS P. 44	STEEL RETAINERS P. 38	Optional accessories		
						OFFSET CAM KEY (8°)	VALVE LOCKS P. 46	VALVE SEALS P. 15
300444	302-H	303	6005 <sup>B</sup>	# 2	507-ST	OFK - E 8	VL-32	VS-11/32 <sup>F</sup>
300333	302-H	303	6005 <sup>B</sup>	# 2	507-ST	OFK - E 8	VL-32	VS-11/32 <sup>F</sup>
300300	302-H	303	6005 <sup>B</sup>	# 2	507-ST	OFK - E 8	VL-32	VS-11/32 <sup>F</sup>
300505	302-H	303	6005 <sup>B</sup>	# 2	507-ST	OFK - E 8	VL-32	VS-11/32 <sup>F</sup>

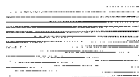
B Requires cylinder heads be machined with Isky #208 Hole Saw  
 F Requires cylinder heads be machined with VST-11/32 Cutter

T Must be used with stock multi-groove valve locks  
 U 3105-D installs @ 1.720" with #125 lbs. seat pressure.

# FORD • (Standard Gear-Drive from Factory) 6-CYLINDER 1965-and up OHV 240-300 cu. in. Engines

Cast Iron Billet  
HYDRAULIC

1.6:1 Rocker Ratio

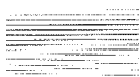


Part No. Cam Only	Grind No./Type	APPLICATION	RPM-Range	Valve Lift INT. EX.	Valve Lash Hot INT. EX.	ADV. Duration INT. EX.	.050 Duration INT. EX.	Lobe Center
331-M	MILE-A-MOR HYDRAULIC	Mileage & maximum lower RPM torque for late model, low compression (8-9.5:1 max) engines.	1000-3800	.415 .415	.000 .000	248° 248°	194° 194°	108°
331256	256-Supercam HYDRAULIC	Best torque & economy in passenger cars & trucks. Max compr., 9.5:1, smooth idle, std. axle ratio, good vacuum, computer compatible. Std. to 600 CFM Carb.	1500-4800	.450 .450	.000 .000	256° 256°	202° 202°	112°
331262	262-Supercam HYDRAULIC	Low/Mid-Range performance cam. 9.5:1 compr. 3.08-3.70 axle ratio. Passenger cars & trucks. Up to 625 CFM Carb.	2000-5500	.445 .445	.000 .000	262° 262°	208° 208°	108°
331280	280 HYDRAULIC	High perf. Use. Lopey idle. 2500 stall. 3.70-4.11 axle ratio. Up to 750 CFM Carb. 9.5:1 compr.	2500-6500	.465 .465	.000 .000	280° 280°	224° 224°	109°
331-TA	Turbocycle-A HYDRAULIC	Maximum economy/torque. Turbocharged. Up to 7 PSI Boost. Smooth idle. Stock converter. Std. axle ratio. Up to 650 CFM Carb.	1000-5000	.445 .415	.000 .000	262° 250°	208° 194°	114°

# FORD — FALCON • MUSTANG • MAVERICK 6 Cyl. 250 cu. in Engines

Cast Iron Billet  
HYDRAULIC

1.6:1 Rocker Ratio



Part No. Cam Only	Grind No./Type	APPLICATION	RPM-Range	Valve Lift INT. EX.	Valve Lash Hot INT. EX.	ADV. Duration INT. EX.	.050 Duration INT. EX.	Lobe Center
321A-M	MILE-A-MOR HYDRAULIC	Mileage & maximum lower RPM torque for late model, low compression (8-9.5:1 max) engines.	1000-3800	.415 .415	.000 .000	248° 248°	194° 194°	108°
321255	256-Supercam HYDRAULIC	Best torque & economy in passenger cars & trucks. Max compr., 9.5:1, smooth idle, std. axle ratio, good vacuum, computer compatible. Std. to 600 CFM Carb.	1500-4800	.450 .450	.000 .000	256° 256°	202° 202°	112°
321266	262-Supercam HYDRAULIC	Low/Mid-Range performance cam. 9.5:1 compr. 3.08-3.70 axle ratio. Passenger cars & trucks. Up to 625 CFM Carb.	2000-5500	.445 .445	.000 .000	262° 262°	208° 208°	108°
321288	280 HYDRAULIC	High perf. Use. Lopey idle. 2500 stall. 3.70-4.11 axle ratio. Up to 750 CFM Carb. 9.5:1 compr.	2500-6500	.465 .465	.000 .000	280° 280°	224° 224°	109°

# FORD • (Standard Gear-Drive from Factory) 6-CYLINDER 1965-and up OHV 240-300 cu. in. Engines

## Recommended Valve Train Components



These items included in Cam & complete kit						Optional accessories	
CAM & COMPLETE KIT P/N	LIFTERS P. 31-32	PUSHRODS P. 33-37	VALVE SPRINGS P. 47-58	SPRING SHIMS P. 44	STEEL RETAINERS P. 38	VALVE LOCKS P. 46	VALVE SEALS P. 15
331-MK	432-HY (12)	333 (12 pcs)	6005 <sup>B</sup> (12)	# 2	507-ST (12)	VL-32 (24)	VS-11/32 <sup>F</sup> (12)
330256	432-HY (12)	333 (12 pcs)	6005 <sup>B</sup> (12)	# 2	507-ST (12)	VL-32 (24)	VS-11/32 <sup>F</sup> (12)
330262	432-HY (12)	333 (12 pcs)	6005 <sup>B</sup> (12)	# 2	507-ST (12)	VL-32 (24)	VS-11/32 <sup>F</sup> (12)
330280	432-HY (12)	333 (12 pcs)	6005 <sup>B</sup> (12)	# 2	507-ST (12)	VL-32 (24)	VS-11/32 <sup>F</sup> (12)
330-TKA	432-HY (12)	333 (12 pcs)	6005 <sup>B</sup> (12)	# 2	507-ST (12)	VL-32 (24)	VS-11/32 <sup>F</sup> (12)

# FORD — FALCON • MUSTANG • MAVERICK 6 Cyl. 250 cu. in Engines

## Recommended Valve Train Components



These items included in Cam & complete kit					
CAM & COMPLETE KIT P/N	LIFTERS P. 31-32	ADJUSTABLE PUSHRODS P. 33-37	VALVE SPRINGS P. 47-58	SPRING SHIMS P. 44	STEEL RETAINERS
321A-MK	392-HY (12)	303-B (12 pcs)	1005-W <sup>B</sup> 206-G (12)	# 3	327-ST (12)
320255	392-HY (12)	303-B (12 pcs)	1005-W <sup>B</sup> 206-G (12)	# 3	327-ST (12)
320266	392-HY (12)	303-B (12 pcs)	1005-W <sup>B</sup> 206-G (12)	# 3	327-ST (12)
320288	392-HY (12)	303-B (12 pcs)	1005-W <sup>B</sup> 206-G (12)	# 3	327-ST (12)

B Requires cylinder heads be machined with Isky #208 Hole Saw  
 F Requires cylinder heads be machined with VST-11/32 Cutter

# FORD - MERCURY • V-8 1932-53 FLATHEAD

STREET  
&  
STRIP



Part No. Cam Only		Grind No./Type	APPLICATION	TYPE	Valve Lift INT. EX.	Valve Lash INT. EX.	ADV. Duration INT. EX.	.050 Duration INT. EX.	Lobe Center
21-A 1932-48	8-BA 1949-53								
217700	817700	77-B SOLID	Good Low Speed and Mid-Range Power Cam. Good Idle. Std. Carburetion Ok.	3/4	.325 .325	.014 .014	260° 260°	220° 220°	111°
211100	811100	MAX #1 SOLID	Good Low Speed Power Cam in conjunction with stock carb. and intake manifold. Good idle.	3/4	.364 .364	.014 .014	249° 249°	226° 226°	111°
218800	818800	88 SOLID	Good Mid-Range Power for high perf. street use. Fair idle. modified carb & intake recommended.	FULL RACE	.320 .320	.010 .012	264° 264°	224° 224°	111°
214000	814000	400-JR SOLID	Competition use: oval track & drags. modified carb. and intake required. Lopey idle.	TRACK	.400 .400	.018 .018	258° 258°	244° 244°	111°
210433	810433	433 SOLID	All-out competition only: Drags. modified carb. and intake required. Lopey idle.	All-Out Competition	.410 .410	.020 .020	280° 280°	263° 263°	111°

## CLARIFICATION OF FORD V-8 ENGINES

ENGINE	FIRING ORDER	ISKY CAM, COMMENTS ORDERING INSTRUCTIONS	ROCKER ARM & PUSHROD INFORMATION
289 Standard	15426378	Part No. 381	1.6:1 Rocker Ratio. Pre-1969 Engines have ball stud Rockers Pushrods guided in head (Isky Pushrod #393-HG)
302 Standard	15426378	Part No. 381	1969 & up engines use rail-guide type Rocker Arms. Rocker guides over valve stem end. (Isky pushrod #393-HG)
302 Boss	15426378	Part No. 381	1.76:1 Rocker Ratio. Fulcrum-Stud Rockers. Uses pushrod guide plates with hardened pushrods. Isky pushrod #963-HG when used with #204-96 Rocker Arms.
351 Windsor	13726548	See cam section (351 Windsor) or use Part No. 381 & change firing order to 15426378	1.6:1 Rocker Ratio. Rail-guide type rocker arms. Takes a longer pushrod than the standard 289-302 because block-deck is higher. (Isky pushrod #393-A-HG)
351 Cleveland 400 Cleveland 351-400M	13726548	Special cam, has larger front Journal than the 351 Windsor. Isky Cam Part # 431	1.76:1 Rocker Ratio. Rockers guided by cyl. head stud castles (posi-Lock Rockers) No method of adjustment (Stock engine comes with HYD. cam) To convert to solid lifter, heads must be machined to accept Boss 302-351 studs & guide plates.
351 Boss			SAME AS 302 BOSS
429-460	ALL Same Firing Order	Part No. 311	1.75:1 Rocker Ratio. Rail guided, Malleable Iron Rockers, with shoulder-lock stud. (No method of Adjustment) Install 429 Cobra Jet Rocker Arms, studs & guide plates, when converting to solid lifter cam.
Cobra-Jet 429 & Super Cobra Jet Wedge		Part No. 311	1.76:1 Stamped Steel Fulcrum-Stud Adjustable Rockers, with pushrod guide plates and hardened pushrods.
429 Boss		Isky cam Part No. 311 No Kit Parts Available	1.65:1 INT. & 1.75:1 EX. Rocker Ratio. Individual Stock-Adj. Shaft Rockers with pushrod guide plates and hardened pushrods (oils thru rocker shafts).

# FORD - MERCURY • V-8 1932-53 FLATHEAD

## Recommended Valve Train Components



These items included in Cam & complete kit

CAM & COMPLETE KIT PART NO.		LIFTERS	VALVE SPRINGS P. 47-58	SPRING SHIMS P. 44	STEEL RETAINERS P. 38
21-A (1932-48)	8-BA (1949-53)				
207700	807700	F85-02	185-G (single)	# 404	—
201100	801100	F85-02	185-G (single)	# 404	—
208800	808800	F85-02	185-G (single)	# 404	—
204000	804000	F85-02	4005 (dual)	# 404	87-F
200433	800433	F85-02	4005 (dual)	# 404	87-F



World Renowned BIGFOOT 4-WD Monster Trucks



# FORD • CLEVELAND 351-400 & 351M-400M, BOSS-351

Cast Iron Billet  
HYDRAULIC

SOLID

1.75:1 Rocker Ratio



Part No. Cam Only	Grind No./Type	APPLICATION	RPM-Range	Valve Lift INT. EX.	Valve Lash Hot INT. EX.	ADV. Duration INT. EX.	.050 Duration INT. EX.	Lobe Center
431256	256-Supercam HYDRAULIC	Best torque & economy in passenger cars & trucks. Max compr., 9.5:1, smooth idle, std. axle ratio, good vacuum, computer compatible. Std. to 600 CFM Carb.	1500-4800	.492 .492	.000 .000	256° 256°	202° 202°	112°
431256/262	256/262 HYDRAULIC	Best overall cam for towing. Trucks, Vans, R.V., etc. Broad torque band. Good vacuum. 3.55-4:10 axle ratio. 9.5:1 compr. Computer compatible. Smooth idle.	1800-5000	.492 .488	.000 .000	256° 262°	202° 208°	110°
431262	262-Supercam HYDRAULIC	Low/Mid-Range performance cam. 9.5:1 compr. 3.08-3.70 axle ratio. Passenger cars & trucks. Up to 625 CFM Carb.	2000-5500	.488 .488	.000 .000	262° 262°	208° 208°	108°
431264	264-MEGA HYDRAULIC	Tremendous torque & good mid-range power. 9-10.5:1 compr., good idle, stock converter. 3.23-3.70 axle ratio. Up to 625 CFM Carb.	2000-5800	.525 .525	.000 .000	264° 264°	214° 214°	108°
431270	270-HL HYDRAULIC	Good all-around performance. Fair idle. Stock converter. 3.70-4.11 axle ratio. Up to 650 CFM Carb. 9.5:1 compr.	2000-6000	.510 .510	.000 .000	270° 270°	216° 216°	108°
431271	270-MEGA HYDRAULIC	Excellent mid-range performance. Fair idle. Stock converter. 9-10.5:1 compr., 3.70-4.11 axle ratio. Up to 650 CFM Carb.	2000-6200	.542 .542	.000 .000	270° 270°	221° 221°	108°
431281	280-MEGA HYDRAULIC	High performance use/bracket racing. Lopey idle. 2500 Stall. 9.5-10.5:1 compr. 3.90-4.11 axle ratio. Up to 780 CFM Carb.	2500-6800	.565 .565	.000 .000	280° 280°	232° 232°	108°
431292	292-MEGA HYDRAULIC	High performance use/bracket racing. Rough idle. 2800 Stall. 10-11:1 compr. 4.11-4.56 axle ratio. Up to 780 CFM Carb.	2800-7000	.590 .590	.000 .000	292° 292°	244° 244°	108°
431-TA	Turbocycle-A HYDRAULIC	Maximum economy/torque. Turbocharged. Up to 7 PSI Boost. Smooth idle. Stock converter. Std. axle ratio. Up to 650 CFM Carb.	1000-5000	.485 .455	.000 .000	264° 252°	208° 194°	114°
431584	584 SOLID	Banked 1/4-3/8 mile oval tracks. Any carburetor.	2600-6800	.584 .588	.018 .020	282° 288°	247° 254°	106°
431360	FL-360 SOLID	Strong mid-range perf. Lopey idle. 2500 RPM stall. 3.70-4.11 axle ratio. 650-750 CFM Carb. 10.5:1 compr.	2500-6500	.530 .530	.018 .018	278° 278°	240° 240°	108°
431380	FL-380 SOLID	High perf. Use/bracket racing. Lopey idle. 3000 stall. 10.5:1 compr. 3.90-4.11 axle ratio. Up to 800 CFM Carb.	3000-7000	.560 .560	.030 .030	290° 290°	250° 250°	108°
431570	FL-570 SOLID	All-out competition/drags. Rough idle. 4500 stall. 4.88-5.38 axle ratio. 850 CFM Carb. 11:1 compr.	4000-8000	.644 .644	.028 .028	312° 312°	266° 266°	108°
431670	FL-670 SOLID	All out competition/drags. 5000 stall. 5.13-5.57 axle ratio. 850+CFM Carb. 12:1 compr.	5000-8500	.682 .682	.028 .028	330° 330°	284° 284°	108°

# FORD • CLEVELAND 351-400 & 351M-400M, BOSS-351

## Recommended Valve Train Components



CAM & COMPLETE KIT PART NO.		CAM & A LIFTER KIT P/N	351 Boss kit components				351/400 Cleveland/M Kit Components				
351 BOSS	351/400 CLEVE/M		LIFTERS P. 31-32	VALVE SPRINGS P. 47-58	SPRING SHIMS P. 44	STEEL RETAINERS P. 38	LIFTERS P. 31-32	VALVE SPRINGS P. 47-58	SPRING SHIMS P. 44	STEEL RETAINERS P. 38	ADJ. PUSHRODS P. 33-37
420256	430256	CL-431256	432-HY	8005-A <sup>B</sup>	# 2	507-STA	432-HY	6005 <sup>B</sup>	# 2	507-ST <sup>M</sup> 607-STA <sup>N</sup>	393-DA <sup>J</sup> 403-A <sup>L</sup>
420256/262	430256/262	CL-431256/262	432-HY	8005-A <sup>B</sup>	# 2	507-STA	432-HY	6005 <sup>B</sup>	# 2	507-ST <sup>M</sup> 607-STA <sup>N</sup>	393-DA <sup>J</sup> 403-A <sup>L</sup>
420262	430262	CL-431262	432-HY	8005-A <sup>B</sup>	# 2	507-STA	432-HY	6005 <sup>B</sup>	# 2	507-ST <sup>M</sup> 607-STA <sup>N</sup>	393-DA <sup>J</sup> 403-A <sup>L</sup>
420264	430264	CL-431264	432-HY	8005-A <sup>B</sup>	# 2	507-STA	432-HY	6005 <sup>B</sup>	# 2	507-ST <sup>M</sup> 607-STA <sup>N</sup>	393-DA <sup>J</sup> 403-A <sup>L</sup>
420270	430270	CL-431270	432-HY	8005-A <sup>B</sup>	# 2	507-STA	432-HY	6005 <sup>B</sup>	# 2	507-ST <sup>M</sup> 607-STA <sup>N</sup>	393-DA <sup>J</sup> 403-A <sup>L</sup>
420271	430271	CL-431271	432-HY	8005-A <sup>B</sup>	# 2	507-STA	432-HY	6005 <sup>B</sup>	# 2	507-ST <sup>M</sup> 607-STA <sup>N</sup>	393-DA <sup>J</sup> 403-A <sup>L</sup>
420281	430281	CL-431281	432-HY	8005-A <sup>B</sup>	# 2	507-STA	432-HY	6005 <sup>B</sup>	# 2	507-ST <sup>M</sup> 607-STA <sup>N</sup>	393-DA <sup>J</sup> 403-A <sup>L</sup>
420292	430292	CL-431292	432-HY	8005-A <sup>B</sup>	# 2	507-STA	432-HY	6005 <sup>B</sup>	# 2	507-ST <sup>M</sup> 607-STA <sup>N</sup>	393-DA <sup>J</sup> 403-A <sup>L</sup>
420-TKA	430-TKA	—	432-HY	8005-A <sup>B</sup>	# 2	507-STA	432-HY	6005 <sup>B</sup>	# 2	507-ST <sup>M</sup> 607-STA <sup>N</sup>	393-DA <sup>J</sup> 403-A <sup>L</sup>
420584	430584	—	382-H	8005-A <sup>B</sup>	# 2	507-STA	382-H	6005 <sup>B</sup>	# 2	507-ST <sup>M</sup> 607-STA <sup>N</sup>	—
420360	430360 <sup>*</sup>	—	382-H	8005-A <sup>B</sup>	# 2	507-STA	382-H	6005 <sup>B</sup>	# 2	507-ST <sup>M</sup> 607-STA <sup>N</sup>	—
420380	430380 <sup>*</sup>	—	382-H	8005-A <sup>B</sup>	# 2	507-STA	382-H	6005 <sup>B</sup>	# 2	507-ST <sup>M</sup> 607-STA <sup>N</sup>	—
420570	430570 <sup>*</sup>	—	382-H	8005-A <sup>B</sup>	# 2	507-STA	382-H	6005 <sup>B</sup>	# 2	507-ST <sup>M</sup> 607-STA <sup>N</sup>	—
420670	430670 <sup>*</sup>	—	382-H	8005-A <sup>B</sup>	# 2	507-STA	382-H	6005 <sup>B</sup>	# 2	507-ST <sup>M</sup> 607-STA <sup>N</sup>	—

\* NOTE: Cleveland 351 heads must be machined to accept boss 302. 351 guide plate, studs and rocker arms in order to obtain adjustment for solid lifter cams, or use isky adjustable pushrods.  
 # 393-DA (Adjustable pushrods 351 Cleveland)  
 #403-A (Adjustable pushrods 351-M & 400 engines)

A Cam & Lifter kits are supplied with 432-HY lifters  
 B Requires cylinder heads be machined with Isky #1258 Hole Saw  
 J 351 Cleveland only

L 400 Engines & 351M only  
 M Single groove valve stem applications  
 N For use on engines with rotating valves and 4-groove valve locks.

# FORD • V-8 BOSS-351 Engine only

STEEL  
BILLET  
ROLLER



## 1.75:1 Rocker Ratio



Part No. Cam Only	Grind No./Type	APPLICATION	RPM-Range	Valve Lift INT. EX.	Valve Lash Hot INT. EX.	ADV. Duration INT. EX.	.050 Duration INT. EX.	Lobe Center
431640	RR-640 ROLLER	Good cam for 3500LB bracket racing "drags". 3000 stall. 4.56-4.88 axle ratio. 11-12:1 compr. Up to 800 CFM Carb.	3200-6800	.640 .640	.028 .028	304° 304°	264° 264°	108°
431650	RR-650 ROLLER	Good all around perf. for bracket racing. 4000-4500 stall. 4.88-5.13 axle ratio. 11-12:1 compr. 850+Carb.	3500-7200	.650 .650	.028 .028	318° 318°	272° 272°	108°
431686	RR-686 ROLLER	Good all-around perf. in super-gas & super comp. 5000 stall. 5.38-5.86 axle ratio. High compr. 850+CFM.	4500-8000	.686 .686	.028 .028	320° 320°	282° 282°	108°
431730	RR-730 ROLLER	Super Gas, Super Comp: 5000 stall. 4.88 axle ratio. High compr. Tunnel Ram Intake with 2 carburetors.	3800-7500	.730 .730	.028 .028	314° 314°	272° 272°	108°
431727	RR-727 ROLLER	Good all-around perf. in super-gas & super comp. 5000 stall. 5.38-5.86 axle ratio. High compr. 850+CFM.	4500-8500	.727 .727	.030 .030	330° 330°	286° 286°	108°
431749	RR-747-C ROLLER	Comp. eliminator, super-comp drags. 5000+stall. 5.86-6.14 axle ratio. High compr. Tunnel ram manifold with 2 carburetors.	4200-8400	.747 .730	.028 .028	318° 320°	284° 288°	106°
431750	RR-747-D ROLLER	Comp. eliminator, super-comp drags. 5000+stall. 5.86-6.14 axle ratio. High compr. Tunnel ram manifold with 2 carburetors.	4400-8800	.747 .730	.028 .028	320° 322°	288° 292°	106°

# FORD • V-8 BOSS-351 Engine only

## Recommended Valve Train Components



These items included in Cam & complete kit						Optional accessories		
CAM & COMPLETE KIT P/N	ROLLER LIFTERS P. 22-30	VALVE SPRINGS P. 47-58	SPRING SHIMS P. 44	STEEL RETAINERS P. 38	BRONZE DIST. GEAR P. 18	PUSHRODS P. 33-37	VALVE LOCKS P. 46	VALVE SEALS P. 15
420640	352-RH	9265	#2	507-STA	430-DG	393-C-HG <sup>G</sup>	VL-32	VS-11/32 <sup>F</sup>
420650	352-RH	9265	#2	507-STA	430-DG	393-C-HG <sup>G</sup>	VL-32	VS-11/32 <sup>F</sup>
420686	352-RH	9265	#2	507-STA	430-DG	393-C-HG <sup>G</sup>	VL-32	VS-11/32 <sup>F</sup>
420730	352-RH	9265 <sup>U</sup>	#2	507-STA	430-DG	393-C-HG <sup>G</sup>	VL-32	VS-11/32 <sup>F</sup>
420727	352-RH	9265 <sup>U</sup>	#2	507-STA	430-DG	393-C-HG <sup>G</sup>	VL-32	VS-11/32 <sup>F</sup>
420749	352-RH	9265 <sup>U</sup>	#2	507-STA	430-DG	393-C-HG <sup>G</sup>	VL-32	VS-11/32 <sup>F</sup>
420750	352-RH	9265 <sup>U</sup>	#2	507-STA	430-DG	393-C-HG <sup>G</sup>	VL-32	VS-11/32 <sup>F</sup>

# FORD BOSS • 302 V-8

SOLID

ROLLER

1.75:1 Rocker Ratio



Part No. Cam Only	Grind No./Type	APPLICATION	RPM-Range	Valve Lift INT. EX.	Valve Lash Hot INT. EX.	ADV. Duration INT. EX.	.050 Duration INT. EX.	Lobe Center
381360	FL-360 <b>SOLID</b>	Strong mid-range perf. Lopey idle. 2500 RPM stall. 3.70-4.11 axle ratio. 650-750 CFM Carb. 10.5:1 compr.	2500-6500	.530 .530	.018 .018	278° 278°	240° 240°	108°
381380	FL-380 <b>SOLID</b>	High perf. Use/bracket racing. Lopey idle. 3000 stall. 10.5:1 compr. 3.90-4.11 axle ratio. Up to 800 CFM Carb.	3000-7000	.560 .560	.030 .030	290° 290°	250° 250°	108°
381370	FL-370 <b>SOLID</b>	High perf. Use/bracket racing. Lopey idle. 3000 stall. 10.5:1 compr. 3.90-4.11 axle ratio. Up to 800 CFM Carb.	3000-7000	.528 .528	.028 .028	300° 300°	250° 250°	108°
381470	FL-470 <b>SOLID</b>	All out drags. 4000-4500 stall. 4.56-4.88 axle ratio. 850+CFM Carb. 11.5:1+compr.	3500-7500	.602 .602	.028 .028	304° 304°	266° 266°	108°
381570	FL-570 <b>SOLID</b>	All-out competition/drags. Rough idle. 4500 stall. 4.88-5.38 axle ratio. 850 CFM Carb. 11:1 compr.	4000-8000	.644 .644	.028 .028	312° 312°	266° 266°	108°
381670	FL-670 <b>SOLID</b>	All out competition/drags. 5000 stall. 5.13-5.57 axle ratio. 850+CFM Carb. 12:1 compr.	5000-8500	.682 .682	.028 .028	330° 330°	284° 284°	108°
381644	RR-640 <b>ROLLER</b>	Good cam for 3500LB bracket racing "drags". 3000 stall. 4.56-4.88 axle ratio. 11-12:1 compr. Up to 800 CFM Carb.	3200-6800	.640 .640	.028 .028	304° 304°	264° 264°	108°
381650	RR-650 <b>ROLLER</b>	Good all around perf. for bracket racing. 4000-4500 stall. 4.88-5.13 axle ratio. 11-12:1 compr. 850+Carb.	3500-7200	.650 .650	.028 .028	318° 318°	272° 272°	108°
381686	RR-686 <b>ROLLER</b>	Good all-around perf. in super-gas & super comp. 5000 stall. 5.38-5.86 axle ratio. High compr. 850+CFM.	4500-8000	.686 .686	.028 .028	320° 320°	282° 282°	108°
381730	RR-730 <b>ROLLER</b>	Super Gas, Super Comp: 5000 stall. 4.88 axle ratio. High compr. Tunnel Ram Intake with 2 carburetors.	3800-7500	.730 .730	.028 .028	314° 314°	272° 272°	108°
381727	RR-727 <b>ROLLER</b>	Good all-around perf. in super-gas & super comp. 5000 stall. 5.38-5.86 axle ratio. High compr. 850+CFM.	4500-8500	.727 .727	.030 .030	330° 330°	286° 286°	108°

# FORD BOSS • 302 V-8

## Recommended Valve Train Components



These items included in Cam & complete kit						Optional accessories		
CAM & COMPLETE KIT P/N	LIFTERS P. 22-32	VALVE SPRINGS P. 47-58	SPRING SHIMS P. 44	STEEL RETAINERS P. 38	BRONZE DIST. GEAR P. 18	PUSHRODS P. 33-37	VALVE LOCKS P. 46	VALVE SEALS P. 15
380360	382-H	8005-A	#2	507-STA	—	393-B-HG <sup>G</sup>	VL-32	VS-11/32 <sup>F</sup>
380380	382-H	8005-A	#2	507-STA	—	393-B-HG <sup>G</sup>	VL-32	VS-11/32 <sup>F</sup>
380370	382-H	8005-A	#2	507-STA	—	393-B-HG <sup>G</sup>	VL-32	VS-11/32 <sup>F</sup>
380470	382-H	8005-A	#2	507-STA	—	393-B-HG <sup>G</sup>	VL-32	VS-11/32 <sup>F</sup>
380570	382-H	8005-A	#2	507-STA	—	393-B-HG <sup>G</sup>	VL-32	VS-11/32 <sup>F</sup>
380670	382-H	8005-A	#2	507-STA	—	393-B-HG <sup>G</sup>	VL-32	VS-11/32 <sup>F</sup>
380644	382-RH	9265	#2	507-STA	380-DG	393-B-HG <sup>G</sup>	VL-32	VS-11/32 <sup>F</sup>
380650	382-RH	9265	#2	507-STA	380-DG	393-B-HG <sup>G</sup>	VL-32	VS-11/32 <sup>F</sup>
380686	382-RH	9265	#2	507-STA	380-DG	393-B-HG <sup>G</sup>	VL-32	VS-11/32 <sup>F</sup>
380730	382-RH	9265 <sup>U</sup>	#2	507-STA	380-DG	393-B-HG <sup>G</sup>	VL-32	VS-11/32 <sup>F</sup>
380727	382-RH	9265 <sup>U</sup>	#2	507-STA	380-DG	393-B-HG <sup>G</sup>	VL-32	VS-11/32 <sup>F</sup>

# FORD • V-8 221-260-289-302 cu. in. engines

THESE CAMS MAY BE USED IN 351 WINDSOR BY  
CHANGING TO 289 FIRING ORDER

Cast Iron Billet  
HYDRAULIC

## 1.6:1 Rocker Ratio



Part No. Cam Only	Grind No./Type	APPLICATION	RPM-Range	Valve Lift INT. EX.	Valve Lash Hot INT. EX.	ADV. Duration INT. EX.	.050 Duration INT. EX.	Lobe Center
381256	256-SUPERCAM HYDRAULIC	Best torque & economy. Passenger cars & trucks. Max compr. 9.5:1. Smooth idle. Standard axle ratio. Good vacuum. Computer compatible. Std. to 600 CFM Carb.	1500-4800	.450 .450	.000 .000	256° 256°	202° 202°	112°
381256/262	256/262 HYDRAULIC	Best overall cam for towing. Trucks, vans, R.V., etc. Broad torque band. Good vacuum. 3.55-4:10 axle ratio. 9.5:1 compr. Computer compatible. Smooth idle.	1800-5000	.450 .445	.000 .000	256° 262°	202° 208°	110°
381262	262-SUPERCAM HYDRAULIC	Low/mid-range performance cam. 9.5:1 compr. 3.08-3.70 axle ratio. Passenger cars & trucks. Up to 625 CFM Carb.	2000-5500	.445 .445	.000 .000	262° 262°	208° 208°	108°
381264	264-MEGA HYDRAULIC	Tremendous torque & good mid-range power. 9-10.5:1 compr. Good idle. Stock converter. 3.23-3.70 axle ratio. Up to 625 CFM Carb.	2000-5800	.480 .480	.000 .000	264° 264°	214° 214°	108°
381270	270-HL HYDRAULIC	Good all-around performance. Fair idle. Stock converter. 3:70-4:11 axle ratio. Up to 650 CFM Carb. 9.5:1 compr.	2000-6000	.470 .470	.000 .000	270° 270°	216° 216°	108°
381271	270-MEGA HYDRAULIC	Excelent mid-range performance. Fair idle. Stock converter. 9-10.5:1 compr. 3.70-4.11 axle ratio. Up to 650 CFM Carb.	2000-6200	.496 .496	.000 .000	270° 270°	221° 221°	108°
381280	280 HYDRAULIC	High performance. Lopey idle. 2500 Stall. 3:70-4:11 axle ratio. Up to 750 CFM Carb. 9.5:1 compr.	2500-6500	.467 .467	.000 .000	280° 280°	224° 224°	108°
381281	280-MEGA HYDRAULIC	High performance. Use/bracket racing. Lopey idle. 2500 Stall. 9.5-10.5:1 compr. 3:90-4:11 axle ratio. Up to 780 CFM Carb.	2500-6800	.517 .517	.000 .000	280° 280°	232° 232°	108°
381292	292-MEGA HYDRAULIC	High performance. Use/bracket racing. Rough idle. 2800 Stall. 10-11:1 compr. 4:11-4:56 axle ratio. Up to 780 CFM Carb.	2800-7000	.538 .538	.000 .000	292° 292°	244° 244°	108°
381304	304-MEGA HYDRAULIC	Ultimate high performance Use/bracket racing. Rough idle. 3000 Stall. 11:1 & up compr. 4:33-4:88 axle ratio. Up to 850 CFM Carb.	3200-7500	.560 .560	.000 .000	304° 304°	256° 256°	108°
381-TA	TURBOCYCLE-A HYDRAULIC	Maximum economy/torque. Turbocharged. Up to 7 PSI boost. Smooth idle. Stock converter. Std. axle ratio. Up to 650 CFM Carb.	1000-5000	.445 .415	.000 .000	262° 250°	208° 194°	114°
381-TB	TURBOCYCLE-B HYDRAULIC	High performance. Turbocharged appl's. with higher boost. Good idle. Stock converter. Std. axle ratio. Up to 650 CFM Carb.	2000-6000	.470 .435	.000 .000	274° 260°	216° 200°	114°

## Recommended Valve Train Components



		These items included in Cam & complete kit						Optional accessories		
CAM & COMPLETE KIT P/N	CAM & LIFTER KIT P/N <sup>A</sup>	LIFTERS P. 31-32	PUSHRODS P. 33-37	VALVE SPRINGS P. 47-58	SPRING SHIMS P. 44	STEEL RETAINERS P. 38	POLY LOCKS P. 43	TIMING SET P. 18,45	VALVE LOCKS P. 46	VALVE SEALS P. 15
380256	CL-381256	432-HY	393-HG <sup>D,G</sup>	6005 <sup>B</sup>	# 2	507-ST	PL-3/8 <sup>D</sup>	380-TS	VL-32	VS-11/32 <sup>F</sup>
380256/262	CL-381256/262	432-HY	393-HG <sup>D,G</sup>	6005 <sup>B</sup>	# 2	507-ST	PL-3/8 <sup>D</sup>	380-TS	VL-32	VS-11/32 <sup>F</sup>
380262	CL-381262	432-HY	393-HG <sup>D,G</sup>	6005 <sup>B</sup>	# 2	507-ST	PL-3/8 <sup>D</sup>	380-TS	VL-32	VS-11/32 <sup>F</sup>
380264	CL-381264	432-HY	393-HG <sup>D,G</sup>	6005 <sup>B</sup>	# 2	507-ST	PL-3/8 <sup>D</sup>	380-TS	VL-32	VS-11/32 <sup>F</sup>
380270	CL-381270	432-HY	393-HG <sup>D,G</sup>	6005 <sup>B</sup>	# 2	507-ST	PL-3/8 <sup>D</sup>	380-TS	VL-32	VS-11/32 <sup>F</sup>
380271	CL-381271	432-HY	393-HG <sup>D,G</sup>	6005 <sup>B</sup>	# 2	507-ST	PL-3/8 <sup>D</sup>	380-TS	VL-32	VS-11/32 <sup>F</sup>
380280	CL-381280	432-HY	393-HG <sup>D,G</sup>	6005 <sup>B</sup>	# 2	507-ST	PL-3/8 <sup>D</sup>	380-TS	VL-32	VS-11/32 <sup>F</sup>
380281	CL-381281	432-HY	393-HG <sup>D,G</sup>	6005 <sup>B</sup>	# 2	507-ST	PL-3/8 <sup>D</sup>	380-TS	VL-32	VS-11/32 <sup>F</sup>
380292	CL-381292	432-HY	393-HG <sup>D,G</sup>	6005 <sup>B</sup>	# 2	507-ST	PL-3/8 <sup>D</sup>	380-TS	VL-32	VS-11/32 <sup>F</sup>
380304	CL-381304	432-HY	393-HG <sup>D,G</sup>	6005 <sup>B</sup>	# 2	507-ST	PL-3/8 <sup>D</sup>	380-TS	VL-32	VS-11/32 <sup>F</sup>
380-TKA	N/A	432-HY	393-HG <sup>D,G</sup>	6005 <sup>B</sup>	# 2	507-ST	PL-3/8 <sup>D</sup>	380-TS	VL-32	VS-11/32 <sup>F</sup>
380-TKB	N/A	432-HY	393-HG <sup>D,G</sup>	6005 <sup>B</sup>	# 2	507-ST	PL-3/8 <sup>D</sup>	380-TS	VL-32	VS-11/32 <sup>F</sup>

- A Cam & Lifter Kits are supplied with 432-HY Lifters
- B Requires cylinder heads be machined with Isky #1258 Hole Saw
- D 289/302 Cylinder Heads only. (For 351-W Cylinder Heads, use 393-A-HG Pushrods and PL-5/16 Poly Locks)
- F Requires cylinder heads be machined with VST-11/32 Cutter
- G Compatible with guide plate cylinder heads



# FORD • V-8 221-260-289-302 cu. in. engines

THESE CAMS MAY BE USED IN 351 WINDSOR BY  
CHANGING TO 289 FIRING ORDER

SOLID

ROLLER

## 1.6:1 Rocker Ratio



Part No. Cam Only	Grind No./Type	APPLICATION	RPM-Range	Valve Lift INT. EX.	Valve Lash Hot INT. EX.	ADV. Duration INT. EX.	.050 Duration INT. EX.	Lobe Center
381333	RPM-300 <b>SOLID</b>	Good low to mid-range performance. Fair idle. 2500 Stall. 3:70-4:11 axle ratio. Up to 650 CFM Carb. 9.5:1 compr.	2000-6000	.476 .476	.020 .020	270° 270°	228° 228°	108°
381358	FL-358 <b>SOLID</b>	High performance Use. Rough idle. Great mid-range power. 2500 Stall. 3:70-4:11 axle ratio. Up to 650 CFM Carb.	2500-6500	.512 .512	.018 .018	278° 278°	244° 244°	108°
381368	FL-368 <b>SOLID</b>	Strong mid-range performance. Lopey idle. 2500 RPM Stall. 3:70-4:11 axle ratio. 650-750 CFM Carb. 10.5:1 compr.	3000-7000	.476 .476	.020 .020	290° 290°	250° 250°	108°
381378	FL-378 <b>SOLID</b>	Strong mid-range performance. Lopey idle. 2500 RPM Stall. 3:70-4:11 axle ratio. 650-750 CFM Carb. 10.5:1 compr.	3000-7000	.512 .512	.030 .030	290° 290°	250° 250°	108°
381505	505-T <b>SOLID</b>	Bracket racing. Rough idle. 2800 Stall. 4:11-4:56 axle ratio. 650-750 CFM Carb. 10:1 compr.	3500-7000	.540 .540	.028 .028	290° 290°	254° 254°	108°
381468	FL-468 <b>SOLID</b>	All-out competition/drags. Rough idle. 4500 Stall. 4:88-5:38 axle ratio. 850 CFM Carb. 11:1 compr.	3500-7500	.540 .540	.028 .028	304° 304°	266° 266°	108°
381568	FL-568 <b>SOLID</b>	All-out competition/drags. Rough idle. 4500 Stall. 4:88-5:38 axle ratio. 850 CFM Carb. 11:1 compr.	4000-8000	.578 .578	.028 .028	312° 312°	264° 264°	108°
381608	FL-608 <b>SOLID</b>	All out drags. Rough idle. 5000 Stall. 5:13-5:38 axle ratio. 850+CFM Carb. 12:1 compr.	4000-8000	.608 .608	.028 .028	320° 320°	274° 274°	108°
381641	RR-641 <b>ROLLER</b>	Good cam for 3500LB bracket racing "drags". 3000 stall. 4.56-4.88 axle ratio. 11-12:1 compr. Up to 800 CFM Carb.	3500-7500	.640 .640	.028 .028	300° 300°	260° 260°	108°
381672	RR-672 <b>ROLLER</b>	Good all around perf. for bracket racing. 4000-4500 stall. 4.88-5.13 axle ratio. 11-12:1 compr. 850+Carb.	4000-8000	.672 .672	.028 .028	314° 314°	272° 272°	108°
381673	RR-670-A <b>ROLLER</b>	Super stock automatic; 289-302 cu. in. 4500-5000 stall. 5.13-5.57 axle ratio. High compr.	4000-8000	.670 .670	.028 .028	310° 314°	276° 280°	104°
381674	RR-670-B <b>ROLLER</b>	Super stock, 4-speed; 289-302 cu. in. 5.13-5.57 axle ratio. High compr.	4000-8000	.670 .670	.028 .028	310° 314°	276° 280°	106°
381704	RR-704 <b>ROLLER</b>	Good all-around perf. in super-gas & super comp. 5000+ stall. 5.57-5.86 axle ratio. High compr. 850+CFM Carb.	4500-8500	.704 .704	.028 .028	324° 324°	282° 282°	108°



## Recommended Valve Train Components

CAM & COMPLETE KIT P/N	These items included in Cam & complete kit						Optional accessories			
	LIFTERS P. 22-32	VALVE SPRINGS P. 47-58	SPRING SHIMS P. 44	STEEL RETAINERS P. 38	POLY LOCKS P. 43	BRONZE DIST. GEAR P. 18	TIMING SET P. 18,45	PUSHRODS P. 33-37	VALVE LOCKS P. 46	VALVE SEALS P. 15
380333	382-H	6005 B	#2	507-ST	PL-3/8 D	—	380-TS	393-SL-HG D,G	VL-32	VS-11/32 F
380358	382-H	6005 B	#2	507-ST	PL-3/8 D	—	380-TS	393-SL-HG D,G	VL-32	VS-11/32 F
380368	382-H	6005 B	#2	507-ST	PL-3/8 D	—	380-TS	393-SL-HG D,G	VL-32	VS-11/32 F
380378	382-H	6005 B	#2	507-ST	PL-3/8 D	—	380-TS	393-SL-HG D,G	VL-32	VS-11/32 F
380505	382-H	6005 B	#2	507-ST	PL-3/8 D	—	380-TS	393-SL-HG D,G	VL-32	VS-11/32 F
380468	382-H	6005 B	#2	507-ST	PL-3/8 D	—	380-TS	393-SL-HG D,G	VL-32	VS-11/32 F
380568	382-H	6005 B	#2	507-ST	PL-3/8 D	—	380-TS	393-SL-HG D,G	VL-32	VS-11/32 F
380608	382-H	6005 B	#2	507-ST	PL-3/8 D	—	380-TS	393-SL-HG D,G	VL-32	VS-11/32 F
380641	382-RH	9265 Q	#2	507-STA	PL-3/8 D	380-DG	—	393-HG D,G	VL-32	VS-11/32 F
380672	382-RH	9265 Q	#2	507-STA	PL-3/8 D	380-DG	—	393-HG D,G	VL-32	VS-11/32 F
380673	382-RH	9265 Q	#2	507-STA	PL-3/8 D	380-DG	—	393-HG D,G	VL-32	VS-11/32 F
380674	382-RH	9265 Q	#2	507-STA	PL-3/8 D	380-DG	—	393-HG D,G	VL-32	VS-11/32 F
380704	382-RH	9265 Q	#2	507-STA	PL-3/8 D	380-DG	—	393-HG D,G	VL-32	VS-11/32 F

B Requires cylinder heads be machined with Isky #1258 Hole Saw  
D 289/302 cylinder heads only. (For 351-W Cylinder Heads, use 683-A-HG Pushrods and PL-5/16 Poly Locks)

F Requires cylinder heads be machined with VST-11/32 Cutter  
G Compatible with guide plate cylinder heads.  
Q Requires cylinder heads be machined with 3608 Hole Saw

# FORD • V-8 1969-UP • 351- WINDSOR

Cast Iron Billet  
HYDRAULIC

SOLID

## 1.6:1 Rocker Ratio



Part No. Cam Only	Grind No./Type	APPLICATION	RPM-Range	Valve Lift INT. EX.	Valve Lash Hot INT. EX.	ADV. Duration INT. EX.	.050 Duration INT. EX.	Lobe Center
388256	256-Supercam HYDRAULIC	Best torque & economy. Passenger cars & trucks. Maximum comp. 9.5:1. Smooth idle. Standard axle ratio. Good vacuum. Computer compatible. Standard to 600 CFM carb.	1500-4800	.450 .450	.000 .000	256° 256°	202° 202°	112°
388256/262	256/262 HYDRAULIC	Best overall cam for towing. Trucks, Vans, R.V., etc. Broad torque band. Good vacuum. 3.55-4.10 axle ratio. 9.5:1 compr. Computer compatible. Smooth idle.	1800-5000	.450 .445	.000 .000	256° 262°	202° 208°	110°
388262	262-Supercam HYDRAULIC	Low/mid-range performance cam. 9.5:1 compr. 3.08-3.70 axle ratio. Passenger cars & trucks. Up to 625 CFM Carb.	2000-5500	.445 .445	.000 .000	262° 262°	208° 208°	108°
388270	270-HL HYDRAULIC	Good All-Around Performance. Fair idle. stock Converter. 3:70-4:11 Axle Ratio. up to 650 CFM Carb. 9.5:1 Compr.	2000-6000	.470 .470	.000 .000	270° 270°	216° 216°	108°
388566	566-A SOLID	1/4-3/8 mile oval tracks with little or no bank. 2BBL. carburetor.	2600-6800	.566 .560	.018 .020	282° 288°	248° 254°	106°

## HYDRAULIC ROLLER CAMSHAFTS—STEEL BILLET

FORD V8—302 CU. IN. 5.0 LITRE HO (1985-95) (FIRING ORDER: 1-3-7-2-6-5-4-8)

HYDRAULIC  
ROLLER

## 1.6:1 Rocker Ratio



NOTE: THE 302-HO HYDRAULIC ROLLER CAMS LISTED BELOW UTILIZE THE 351-W FIRING ORDER AND CAN BE INSTALLED IN 1985 AND LATER STANDARD 302 ENGINES BY REWIRING THE FIRING ORDER TO (1-3-7-2-6-5-4-8)

Part No. Cam Only	Grind No./Type	APPLICATION	RPM-Range	Valve Lift INT. EX.	Valve Lash Hot INT. EX.	ADV. Duration INT. EX.	.050 Duration INT. EX.	Lobe Center
371252/257	RR-252/257 HYD	Best overall cam for towing. Trucks, Vans, R.V., etc. Broad torque band. Good vacuum. 3.55-4:10 axle ratio. 9.5:1 compr. Computer compatible. Smooth idle.	1200-5000	.465 .480	.000 .000	252° 257°	204° 210°	112°
371257/265	RR-257/265 HYD	Excellent performance cam with good vacuum, good idle. 3.08-3.73 axle ratio, 9.5:1 compr. Up to 650 CFM Carb. Computer compatible. Stock converter.	1400-5600	.480 .500	.000 .000	257° 265°	210° 218°	112°
371265/275	RR-265/275 HYD	Good mid-range power. Good vacuum & good idle. 3.23-3.70 axle ratio. 9.5-10.5:1 compr. Computer compatible with stage 1 chip. Stock converter. Up to 650 CFM Carb.	2000-6000	.500 .520	.000 .000	265° 275°	218° 228°	112°
371275/284	RR-275/284 HYD	Good all around performance. Good idle & vacuum. 3.70-4.11 axle ratio. 9.5-10.5:1 compr. Computer compatible with stage 1 or 2 chip. Stock converter.	2500-6400	.520 .544	.000 .000	275° 284°	228° 238°	112°
371284/294	RR-284/294 HYD	High performance use/bracket racing. Lopey idle. 2500 Stall. 9.5-10.5:1 compr. 3.90-4.11 axle ratio. Up to 780 CFM Carb.	3000-7000	.544 .573	.000 .000	284° 294°	238° 248°	110°

Note: Factory production 5.0 litre H.O. Camshaft specs are: 266 DEG. ADV. Duration, 210 DEG. @ .050" and .444" Valve Lift for Intake & Exhaust  
All Camshafts on this page are not legal for sale or use on pollution controlled motor vehicles operated on highways or roads.

# FORD • V-8 1969-UP • 351- WINDSOR

## Recommended Valve Train Components



These items included in Cam & complete kit							Optional accessories		
CAM & COMPLETE KIT P/N	LIFTERS P. 31-32	PUSHRODS P. 33-37	VALVE SPRINGS P. 47-58	SPRING SHIMS P. 44	STEEL RETAINERS P. 38	POLY LOCKS P. 43	TIMING SET P. 18,45	VALVE LOCKS P. 46	VALVE SEALS P. 15
385256	432-HY	393-A-HG <sup>G</sup>	6005 <sup>B</sup>	#2	507-ST	PL-5/16	380-TS	VL-32	VS-11/32 <sup>F</sup>
385256/262	432-HY	393-A-HG <sup>G</sup>	6005 <sup>B</sup>	#2	507-ST	PL-5/16	380-TS	VL-32	VS-11/32 <sup>F</sup>
385262	432-HY	393-A-HG <sup>G</sup>	6005 <sup>B</sup>	#2	507-ST	PL-5/16	380-TS	VL-32	VS-11/32 <sup>F</sup>
385270	432-HY	393-A-HG <sup>G</sup>	6005 <sup>B</sup>	#2	507-ST	PL-5/16	380-TS	VL-32	VS-11/32 <sup>F</sup>
385566	382-H	683-A-HG <sup>G</sup>	6105 <sup>B</sup>	#2	507-ST	PL-5/16	—	VL-32	VS-11/32 <sup>F</sup>

### HYDRAULIC ROLLER CAMSHAFTS—STEEL BILLET

FORD V8—302 CU. IN. 5.0 LITRE HO (1985-95) (FIRING ORDER: 1-3-7-2-6-5-4-8)



These items included in Cam & complete kit				
CAM & COMPLETE KIT P/N	PUSHRODS P. 33-37	VALVE SPRINGS P. 47-58	SPRING SHIMS P. 44	STEEL RETAINERS P. 38
370252/257	203-RM-HG <sup>G</sup>	3105-D	# 1	—
370257/265	203-RM-HG <sup>G</sup>	3105-D	# 1	—
370265/275	203-RM-HG <sup>G</sup>	3105-D	# 1	—
370275/284	203-RM-HG <sup>G</sup>	6005 <sup>B</sup>	# 2	507-ST
370284/294	203-RM-HG <sup>G</sup>	6005 <sup>B</sup>	# 2	507-ST

**NOTE:** USE LATE MODEL (1985 & UP) FACTORY HYDRAULIC ROLLER LIFTERS WITH THESE CAM & ASSEMBLY KITS.

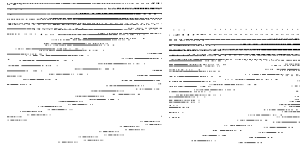
**SPECIAL NOTE:** 1985 and later 302 cu. in. Hyd. Roller Cams CAN be installed in earlier 302 & 351 cu. in. Windsor engines by also installing our retrofit part no. 3860-HYRT Hyd. Roller Lifters and Corresponding pushrods.

B Requires cylinder heads be machined with Isky #1258 Hole Sawr  
 F Requires cylinder heads be machined with VST-11/32 Cutter  
 G Compatible with guide plate cylinder heads.

# FORD • V-8 352-360-361-390-406-427-428 cu. in. engines (1963 & up)

Cast Iron Billet  
HYDRAULIC

SOLID



1.75:1 Rocker Ratio



Part No. Cam Only	Grind No./Type	APPLICATION	RPM-Range	Valve Lift INT. EX.	Valve Lash Hot INT. EX.	ADV. Duration INT. EX.	.050 Duration INT. EX.	Lobe Center
351256	256-SUPERCAM HYDRAULIC	Best torque & economy in passenger cars & trucks. Max compr., 9.5:1, smooth idle, std. axle ratio, good vacuum, computer compatible. Std. to 600 CFM Carb.	1500-4800	.492 .492	.000 .000	256° 256°	202° 202°	112°
351256/262	256/262 HYDRAULIC	Best overall cam for towing. Trucks, Vans, R.V., etc. Broad torque band. Good vacuum. 3.55-4:10 axle ratio. 9.5:1 compr. Computer compatible. Smooth idle.	1800-5000	.492 .488	.000 .000	256° 262°	202° 208°	110°
351262	262-SUPERCAM HYDRAULIC	Low/Mid-Range performance cam. 9.5:1 compr. 3.08-3.70 axle ratio. Passenger cars & trucks. Up to 625 CFM Carb.	2000-5500	.488 .488	.000 .000	262° 262°	208° 208°	108°
351264	264-MEGA HYDRAULIC	Tremendous torque & good mid-range power. 9-10.5:1 compr., good idle, stock converter. 3.23-3.70 axle ratio. Up to 625 CFM Carb.	2000-5800	.525 .525	.000 .000	264° 264°	214° 214°	108°
351270	270-HL HYDRAULIC	Good all-around performance. Fair idle. Stock converter. 3.70-4.11 axle ratio. Up to 650 CFM Carb. 9.5:1 compr.	2000-6000	.510 .510	.000 .000	270° 270°	216° 216°	108°
351271	270-MEGA HYDRAULIC	Excellent mid-range performance. Fair idle. Stock converter. 9-10.5:1 compr., 3.70-4.11 axle ratio. Up to 650 CFM Carb.	2000-6000	.542 .542	.000 .000	270° 270°	221° 221°	108°
351281	280-MEGA HYDRAULIC	High performance use/bracket racing. Lopey idle. 2500 Stall. 9.5-10.5:1 compr. 3.90-4.11 axle ratio. Up to 780 CFM Carb.	2500-6800	.565 .565	.000 .000	280° 280°	232° 232°	108°
351350	EE-350 SOLID	Good mid-range power. Fair idle, stock converter. 3.55-3.90 axle ratio. 600-650 CFM Carb. 10:1 compr.	2500-6000	.525 .525	.018 .018	264° 264°	228° 228°	108°
351360	EE-360 SOLID	Strong mid-range perf. Lopey idle. 2500 RPM stall. 3.70-4.11 axle ratio. 650-750 CFM Carb. 10.5:1 compr.	2500-6200	.530 .530	.018 .018	278° 278°	240° 240°	108°
351391	EE-391 SOLID	High perf. Use/bracket racing. Lopey idle. 3000 stall. 10.5:1 compr. 3.90-4.11 axle ratio. Up to 800 CFM Carb.	3000-7000	.560 .560	.030 .030	290° 290°	250° 250°	108°
351392	EE-392 SOLID	Bracket racing. Rough idle. 3000 stall. 4.11-4.56 axle ratio. Up to 850 CFM Carb. 10.5:1 compr.	3500-7500	.590 .590	.028 .028	300° 300°	254° 254°	108°
351393	EE-393 SOLID	All out drags. 5000 stall. 4.88-5.13 axle ratio. 850+CFM Carb. 12:1 compr.	4000-7000	.596 .596	.026 .026	320° 320°	266° 266°	108°
351396	EE-396 SOLID	All out drags. 4000-4500 stall. 4.56-4.88 axle ratio. 850+CFM Carb. 11.5:1+compr.	3500-7000	.630 .630	.028 .028	312° 312°	266° 266°	108°
351399	EE-399 SOLID	All out drags. 5000 stall. 4.88-5.13 axle ratio. 850+CFM Carb. 12:1 compr.	4000-7500	.632 .632	.028 .028	324° 324°	276° 276°	108°

# FORD • V-8 352-360-361-390-406-427-428 cu. in. engines (1963 & up)

## Recommended Valve Train Components



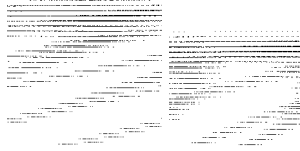
CAM & COMPLETE KIT P/N	CAM & <sup>A</sup> LIFTER KIT P/N	These items included in Cam & complete kit						Optional accessories		
		LIFTERS P. 31-32	PUSHRODS P. 33-37	VALVE SPRINGS P. 47-58	SPRING SHIMS P. 44	STEEL RETAINERS P. 38	ADJ. ROCKERS P. 40	TIMING SET P. 18,45	VALVE LOCKS P. 46	VALVE SEALS P. 15
350256	CL-351256	392-HY	383	8005-A	# 2	3607-ST	384	350-TS	VL-3/8	VS-3/8 <sup>F</sup>
350256/262	CL-351256/262	392-HY	383	8005-A	# 2	3607-ST	384	350-TS	VL-3/8	VS-3/8 <sup>F</sup>
350262	CL-351262	392-HY	383	8005-A	# 2	3607-ST	384	350-TS	VL-3/8	VS-3/8 <sup>F</sup>
350264	CL-351264	392-HY	383	8005-A	# 2	3607-ST	384	350-TS	VL-3/8	VS-3/8 <sup>F</sup>
350270	CL-351270	392-HY	383	8005-A	# 2	3607-ST	384	350-TS	VL-3/8	VS-3/8 <sup>F</sup>
350271	CL-351271	392-HY	383	8005-A	# 2	3607-ST	384	350-TS	VL-3/8	VS-3/8 <sup>F</sup>
350281	CL-351281	392-HY	383	8005-A	# 2	3607-ST	384	350-TS	VL-3/8	VS-3/8 <sup>F</sup>
350350	—	382-H	383	8005-A	# 2	3607-ST	384	350-TS	VL-3/8	VS-3/8 <sup>F</sup>
350360	—	382-H	383	8005-A	# 2	3607-ST	384	350-TS	VL-3/8	VS-3/8 <sup>F</sup>
350391	—	382-H	383	8005-A	# 2	3607-ST	384	350-TS	VL-3/8	VS-3/8 <sup>F</sup>
350392	—	382-H	383	8005-A	# 2	3607-ST	384	—	VL-3/8	VS-3/8 <sup>F</sup>
350393	—	382-H	383	8005-A	# 2	3607-ST	384	—	VL-3/8	VS-3/8 <sup>F</sup>
350396	—	382-H	383	8005-A	# 2	3607-ST	384	—	VL-3/8	VS-3/8 <sup>F</sup>
350399	—	382-H	383	8005-A	# 2	3607-ST	384	—	VL-3/8	VS-3/8 <sup>F</sup>

A Cam & Lifter kits are supplied with 392-HY Lifters  
 F Requires cylinder heads be machined with VST-3/8 Cutter

# FORD • V-8 1968 and up 370-429-460 cu. in. (WEDGE ENGINES ONLY)

Cast Iron Billet  
HYDRAULIC

SOLID



1.75:1 Rocker Ratio



Part No. Cam Only	Grind No./Type	APPLICATION	RPM-Range	Valve Lift INT. EX.	Valve Lash Hot INT. EX.	ADV. Duration INT. EX.	.050 Duration INT. EX.	Lobe Center
311256	256-SUPERCAM HYDRAULIC	Best torque & economy in passenger cars & trucks. Max compr., 9.5:1, smooth idle, std. axle ratio, good vacuum, computer compatible. Std. to 600 CFM Carb.	1500-4800	.492 .492	.000 .000	256° 256°	202° 202°	112°
311256/262	256/262 HYDRAULIC	Best overall cam for towing. Trucks, Vans, R.V., etc. Broad torque band. Good vacuum. 3.55-4:10 axle ratio. 9.5:1 compr. Computer compatible. Smooth idle.	1800-5000	.492 .488	.000 .000	256° 262°	202° 208°	110°
311262	262-SUPERCAM HYDRAULIC	Low/Mid-Range performance cam. 9.5:1 compr. 3.08-3.70 axle ratio. Passenger cars & trucks. Up to 625 CFM Carb.	2000-5500	.488 .488	.000 .000	262° 262°	208° 208°	108°
311264	264-MEGA HYDRAULIC	Tremendous torque & good mid-range power. 9-10.5:1 compr., good idle, stock converter. 3.23-3.70 axle ratio. Up to 625 CFM Carb.	2000-5800	.525 .525	.000 .000	264° 264°	214° 214°	108°
311270	270-HL HYDRAULIC	Good all-around performance. Fair idle. Stock converter. 3.70-4.11 axle ratio. Up to 650 CFM Carb. 9.5:1 compr.	2000-6000	.510 .510	.000 .000	270° 270°	216° 216°	108°
311271	270-MEGA HYDRAULIC	Excellent mid-range performance. Fair idle. Stock converter. 9-10.5:1 compr., 3.70-4.11 axle ratio. Up to 650 CFM Carb.	2000-6000	.542 .542	.000 .000	270° 270°	221° 221°	108°
311281	280-MEGA HYDRAULIC	High performance use/bracket racing. Lopey idle. 2500 Stall. 9.5-10.5:1 compr. 3.90-4.11 axle ratio. Up to 780 CFM Carb.	2500-6800	.565 .565	.000 .000	280° 280°	232° 232°	108°
311-TA	Turbocycle-A HYDRAULIC	Maximum economy/torque. Turbocharged. Up to 7 PSI Boost. Smooth idle. Stock converter. Std. axle ratio. Up to 650 CFM Carb.	1000-5000	.485 .455	.000 .000	264° 252°	208° 194°	114°
311-TB	Turbocycle-B HYDRAULIC	High performance turbocharged appl's. with higher boost. Good idle, stock converter, std. axle ratio. Up to 650 CFM Carb.	2000-6000	.515 .475	.000 .000	274° 260°	216° 200°	114°
311360	EE-360 SOLID	Strong mid-range perf. Lopey idle. 2500 RPM stall. 3.70-4.11 axle ratio. 650-750 CFM Carb. 10.5:1 compr.	2500-6200	.530 .530	.018 .018	278° 278°	240° 240°	108°
311391	EE-391 SOLID	High perf. Use/bracket racing. Lopey idle. 3000 stall. 10.5:1 compr. 3.90-4.11 axle ratio. Up to 800 CFM Carb.	3000-7000	.560 .560	.030 .030	290° 290°	250° 250°	108°
311392	EE-392 SOLID	Bracket Racing. Rough idle. 3000 stall. 4.11-4.56 axle ratio. Up to 850 CFM Carb. 10.5:1 compr.	3500-7500	.590 .590	.028 .028	300° 300°	254° 254°	108°
311289	Z-89 SOLID	Good pulling power for drags in heavy car. Rough idle. 3500 stall. 4.33-4.56 axle ratio. 11:1 compr. Up to 850 CFM Carb.	3500-7500	.630 .630	.028 .028	304° 304°	264° 264°	108°
311295	Z-95 SOLID	All out drags. 5000 stall. 4.88-5.13 axle ratio. 850+CFM Carb. 12:1 compr.	4500-7500	.665 .665	.030 .030	320° 320°	274° 274°	108°

# FORD • V-8 1968 and up 370-429-460 cu. in. (WEDGE ENGINES ONLY)



## Recommended Valve Train Components

CAM & COMPLETE KIT P/N	CAM & <sup>A</sup> LIFTER KIT P/N	These items included in Cam & complete kit					Optional accessories			
		LIFTERS P. 31-32	PUSHRODS P. 33-37	VALVE SPRINGS P. 47-58	SPRING SHIMS P. 44	STEEL RETAINERS P. 38	POLY LOCKS P. 43	TIMING SET P. 18,45	VALVE LOCKS P. 46	VALVE SEALS P. 15
310256	CL-311256	432-HY	383-C-HG <sup>G</sup>	8005-A <sup>B</sup>	# 2	507-STA 507-ST <sup>D</sup>	PL-7/16	310-TS	VL-32	VS-11/32 <sup>F</sup>
310256/262	CL-311256/262	432-HY	383-C-HG <sup>G</sup>	8005-A <sup>B</sup>	# 2	507-STA 507-ST <sup>D</sup>	PL-7/16	310-TS	VL-32	VS-11/32 <sup>F</sup>
310262	CL-311262	432-HY	383-C-HG <sup>G</sup>	8005-A <sup>B</sup>	# 2	507-STA 507-ST <sup>D</sup>	PL-7/16	310-TS	VL-32	VS-11/32 <sup>F</sup>
310264	CL-311264	432-HY	383-C-HG <sup>G</sup>	8005-A <sup>B</sup>	# 2	507-STA 507-ST <sup>D</sup>	PL-7/16	310-TS	VL-32	VS-11/32 <sup>F</sup>
310270	CL-311270	432-HY	383-C-HG <sup>G</sup>	8005-A <sup>B</sup>	# 2	507-STA 507-ST <sup>D</sup>	PL-7/16	310-TS	VL-32	VS-11/32 <sup>F</sup>
310271	CL-311271	432-HY	383-C-HG <sup>G</sup>	8005-A <sup>B</sup>	# 2	507-STA 507-ST <sup>D</sup>	PL-7/16	310-TS	VL-32	VS-11/32 <sup>F</sup>
310281	CL-311281	432-HY	383-C-HG <sup>G</sup>	8005-A <sup>B</sup>	# 2	507-STA 507-ST <sup>D</sup>	PL-7/16	310-TS	VL-32	VS-11/32 <sup>F</sup>
310-TKA	—	432-HY	383-C-HG <sup>G</sup>	8005-A <sup>B</sup>	# 2	507-STA 507-ST <sup>D</sup>	PL-7/16	310-TS	VL-32	VS-11/32 <sup>F</sup>
310-TKB	—	432-HY	383-C-HG <sup>G</sup>	8005-A <sup>B</sup>	# 2	507-STA 507-ST <sup>D</sup>	PL-7/16	310-TS	VL-32	VS-11/32 <sup>F</sup>
310360	—	382-H	383-C-HG <sup>G</sup>	8005-A <sup>B</sup>	# 2	507-STA 507-ST <sup>D</sup>	PL-7/16	310-TS	VL-32	VS-11/32 <sup>F</sup>
310391	—	382-H	383-C-HG <sup>G</sup>	8005-A <sup>B</sup>	# 2	507-STA 507-ST <sup>D</sup>	PL-7/16	310-TS	VL-32	VS-11/32 <sup>F</sup>
310392	—	382-H	383-C-HG <sup>G</sup>	8005-A <sup>B</sup>	# 2	507-STA 507-ST <sup>D</sup>	—	—	VL-32	VS-11/32 <sup>F</sup>
310289	—	382-H	383-C-HG <sup>G</sup>	8005-A <sup>B</sup>	# 2	507-STA 507-ST <sup>D</sup>	—	—	VL-32	VS-11/32 <sup>F</sup>
310295	—	382-H	383-C-HG <sup>G</sup>	8005-A <sup>B</sup>	# 2	507-STA 507-ST <sup>D</sup>	—	—	VL-32	VS-11/32 <sup>F</sup>

- A Cam & Lifter kits are supplied with 432-HY Lifters
- B Requires cylinder heads be machined with Isky #1258 Hole Saw
- D For use on cobra-jet cylinder heads to prevent interference with rail guide rocker arms
- F Requires cylinder heads be machined with VST-11/32 Cutter
- G Compatible with guide plate cylinder heads



# FORD • V-8 1968 and up 370-429-460 cu. in. (WEDGE ENGINES ONLY)

STEEL  
BILLET  
ROLLER

1.75:1 Rocker Ratio



Part No. Cam Only	Grind No./Type	APPLICATION	RPM-Range	Valve Lift INT. EX.	Valve Lash Hot INT. EX.	ADV. Duration INT. EX.	.050 Duration INT. EX.	Lobe Center
311640	RR-640 ROLLER	High perf. useage, bracket race drags. 3000 stall. 4.10-4.56 axle ratio. 11-12:1 compr. 780+CFM Carb.	3200-6800	.640 .640	.028 .028	304° 304°	264° 264°	108°
311650	RR-650 ROLLER	Bracket Racing. 4000 stall. 4.56-4.88 axle ratio. High compr. 850+CFM Carb.	3500-7200	.650 .650	.028 .028	318° 318°	272° 272°	108°
311730	RR-730 ROLLER	Super Gas: 4500 stall. 4.56-4.88 axle ratio. High compr. Tunnel Ram Intake with 2 carburetors.	3800-7500	.730 .730	.028 .028	314° 314°	274° 274°	108°
311770	RR-770 ROLLER	Super gas, super comp. 4500+stall. 4.88 axle ratio. High compr. Tunnel Ram Intake with 2 carburetors.	4500-8500	.770 .770	.028 .028	324° 324°	284° 284°	108°
311772	RR-772 ROLLER	Super gas, super comp. 4500+stall. 4.88-5.13 axle ratio. High compr. Tunnel Ram Intake with 2 carburetors.	4500-8500	.772 .772	.028 .028	332° 332°	288° 288°	108°
311774	RR-774 ROLLER	Super gas, super comp. 4500+stall. 4.88-5.13 axle ratio. High compr. Tunnel Ram Intake with 2 carburetors.	4800-8800	.770 .772	.028 .028	324° 332°	284° 288°	110°
311800	RR-800-A ROLLER	Pro-Stock; 500 cu.in./blown alcohol applications; Lenco transmission. High compr. Tunnel Ram Intake with 2 carburetors. 5.13-5.38 axle ratio.	5200-9200	.800 .801	.028 .030	332° 344°	288° 304°	114°
311801	RR-800-B ROLLER	Pro-Stock; Mountain Motor. Lenco transmission. High compr. Tunnel Ram Intake with 2 carburetors. 5.13-5.38 axle ratio.	5500-9500	.800 .801	.028 .030	336° 344°	294° 304°	114°

**SPECIAL NOTE:** We now have a retrofit hydraulic roller lifter (part no. 3160-HYRT) and corresponding P/N 203-HG+200 pushrods available for the 429/460 Ford V-8. At the time of this catalog printing, we do NOT have any hydraulic roller cam cores, but do hope to have them available in the very near future.

# FORD • V-8 1968 and up 370-429-460 cu. in. (WEDGE ENGINES ONLY)



## Recommended Valve Train Components

These items included in Cam & complete kit							Optional accessories		
CAM & COMPLETE KIT P/N	ROLLER LIFTERS P. 22-30	BRONZE DIST. GEAR P. 18	VALVE SPRINGS P. 47-58	SPRING SHIMS P. 44	RETAINERS P. 38-39	VALVE LOCKS P. 46	PUSHRODS P. 33-37	VALVE LOCKS P. 46	VALVE SEALS P. 15
310640	312-RH	310-DG	9265 <sup>B</sup>	#2	507-STA <sup>M</sup>	—	383-C-HG <sup>G</sup>	VL-32	VS-11/32 <sup>F</sup>
310650	312-RH	310-DG	9265 <sup>B</sup>	#2	507-STA <sup>M</sup>	—	383-C-HG <sup>G</sup>	VL-32	VS-11/32 <sup>F</sup>
310730	312-RH	310-DG	9265 <sup>B</sup>	#2	507-STA <sup>M</sup>	—	383-C-HG <sup>G</sup>	VL-32	VS-11/32 <sup>F</sup>
310770	312-RH	310-DG	9705 <sup>R</sup>	#9/.030	975-TI <sup>O</sup>	VL-700	383-C-HG <sup>G</sup>	—	VS-11/32 <sup>F</sup>
310772	312-RH	310-DG	9705 <sup>R</sup>	#9/.030	975-TI <sup>O</sup>	VL-700	383-C-HG <sup>G</sup>	—	VS-11/32 <sup>F</sup>
310774	312-RH	310-DG	9705 <sup>R</sup>	#9/.030	975-TI <sup>O</sup>	VL-700	383-C-HG <sup>G</sup>	—	VS-11/32 <sup>F</sup>
310800	312-RH	310-DG	9705 <sup>R</sup>	#9/.030	975-TI <sup>O</sup>	VL-700	383-C-HG <sup>G</sup>	—	VS-11/32 <sup>F</sup>
310801	312-RH	310-DG	9705 <sup>R</sup>	#9/.030	975-TI <sup>O</sup>	VL-700	383-C-HG <sup>G</sup>	—	VS-11/32 <sup>F</sup>

### CAMSHAFT AND LIFTERS FOR 1964 AND UP OLDSMOBILE ENGINES

This chart has been made available by the Oldsmobile factory to clarify camshaft and lifter usage on 1964 and later Oldsmobile engines. NOTE: Due to the different tappet sizes and lobe spacings, it is imperative that full information regarding year, make, model, and original cubic inch displacement be given when ordering.

YEAR: ENGINES		330- 350	400	425-455 Except Toronado	425-455 Toronado
1964	Lifter dia.	.842"	—	—	—
	Cam Part No.	681	—	—	—
1965	Lifter dia.	.842"	.842"	.842"	—
	Cam Part No.	681	681	681	—
1966	Lifter dia.	.842"	.921"	.842"	.921"
	Cam Part No.	681	691	681	691
1967	Lifter dia.	.842"	.921"	.842"	.921"
	Cam Part No.	691	691	691	691
1968 & Up	Lifter dia.	.842"	.842"	.842"	.842"
	Cam Part No.	691	691	691	691

Note: Early Blocks with 45 Deg. Lifter Bank Angle use 681 Ordering Prefix.  
Late Blocks with 39 Deg. Lifter Bank Angle use 691 Ordering Prefix.

B Requires cylinder heads be machined with Isky #3608 Hole Saw  
F Requires cylinder heads be machined with VST-11/32 Cutter  
G Compatible with guide plate cylinder heads.

M Steel Retainers  
O Titanium Retainers  
R Requires cylinder heads be machined with 3708 Hole Saw

# INTERNATIONAL • V-8 304-345-392 cu. in. engines

Cast Iron Billet  
HYDRAULIC

1.6:1 Rocker Ratio



INTERNATIONAL ENGINEERING  
10000 W. 10th Ave. Denver, CO 80202  
Tel: 303-751-8000 Fax: 303-751-8001  
www.isky.com

Part No. Cam Only	Grind No./Type	APPLICATION	RPM-Range	Valve Lift INT. EX.	Valve Lash Hot INT. EX.	ADV. Duration INT. EX.	.050 Duration INT. EX.	Lobe Center
190156	256-Supercam HYDRAULIC	Best torque & economy in passenger cars & trucks. Max compr., 9.5:1, smooth idle, std. axle ratio, good vacuum, computer compatible. Std. to 600 CFM Carb.	1500-4800	.450 .450	.000 .000	256° 256°	202° 202°	112°
190125/26	256/262 HYDRAULIC	Best overall cam for towing. Trucks, Vans, R.V., etc. Broad torque band. Good vacuum. 3.55-4:10 axle ratio. 9.5:1 compr. Computer compatible. Smooth idle.	1800-5000	.450 .465	.000 .000	256° 262°	202° 208°	110°
190162	262-Supercam HYDRAULIC	Low/Mid-Range performance cam. 9.5:1 compr. 3.08-3.70 axle ratio. Passenger cars & trucks. Up to 625 CFM Carb.	2000-5500	.465 .465	.000 .000	262° 262°	208° 208°	108°
190170	270-HL HYDRAULIC	Good all-around performance. Fair idle. Stock converter. 3.70-4.11 axle ratio. Up to 650 CFM Carb. 9.5:1 compr.	2000-6000	.490 .490	.000 .000	270° 270°	216° 216°	108°

# OLDSMOBILE F-85 • V-8 1961-63 Aluminum 215 cu. in. engines (Pontiac 1961-62)

Cast Iron Billet  
HYDRAULIC

1.6:1 Rocker Ratio



INTERNATIONAL ENGINEERING  
10000 W. 10th Ave. Denver, CO 80202  
Tel: 303-751-8000 Fax: 303-751-8001  
www.isky.com

Part No. Cam Only	Grind No./Type	Application	RPM-Range	Valve Lift INT. EX.	Valve Lash Hot INT. EX.	ADV. Duration INT. EX.	.050 Duration INT. EX.	Lobe Center
621256	256-Supercam HYDRAULIC	Best torque & economy in passenger cars & trucks. Max compr., 9.5:1, smooth idle, std. axle ratio, good vacuum, computer compatible. Std. to 600 CFM Carb.	1500-4800	.450 .450	.000 .000	256° 256°	202° 202°	112°
621262	262-Supercam HYDRAULIC	Low/Mid-Range performance cam. 9.5:1 compr. 3.08-3.70 axle ratio. Passenger cars & trucks. Up to 625 CFM Carb.	2000-5500	.445 .445	.000 .000	262° 262°	208° 208°	110°
621270	270-HL HYDRAULIC	Good all-around performance. Fair idle. Stock converter. 3.70-4.11 axle ratio. Up to 650 CFM Carb. 9.5:1 compr.	2000-6000	.470 .470	.000 .000	270° 270°	216° 216°	109°
621282	282 HYDRAULIC	High perf. Use. Lopey idle. 2500 stall. 3.70-4.11 axle ratio. Up to 750 CFM Carb. 9.5:1 compr.	2500-6500	.467 .467	.000 .000	282° 282°	224° 224°	109°

# INTERNATIONAL • V-8 304-345-392 cu. in. engines

Sorry. Hydraulic lifters are no longer available for this motor.



# OLDSMOBILE F-85 • V-8 1961-63 Aluminum 215 cu. in. engines (Pontiac 1961-62)

## Recommended Valve Train Components



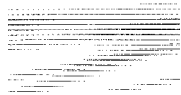
These items included in Cam & complete kit						Optional accessories	
CAM & COMPLETE KIT P/N	LIFTERS P. 31-32	PUSHRODS P. 33-37	VALVE SPRINGS P. 47-58	SPRING SHIMS P. 44	ALUMINUM RETAINERS	VALVE LOCKS P.46	VALVE SEALS P. 15
620256	202-HY	643	625/626 <sup>B</sup>	# 3	707-AL	VL-32	VS-11/32 <sup>F</sup>
620262	202-HY	643	625/626 <sup>B</sup>	# 3	707-AL	VL-32	VS-11/32 <sup>F</sup>
620270	202-HY	643	625/626 <sup>B</sup>	# 3	707-AL	VL-32	VS-11/32 <sup>F</sup>
620282	202-HY	643	625/626 <sup>B</sup>	# 3	707-AL	VL-32	VS-11/32 <sup>F</sup>

B Requires cylinder heads be machined with Isky # 208 Hole Saw  
 F Requires cylinder heads be machined with VST-11/32 Cutter

# OLDSMOBILE • V-8 1967 and up 330-350-400-403-425-455 cu. in. engines

Cast Iron Billet  
HYDRAULIC

## 1.6:1 Rocker Ratio



Part No. Cam Only	Grind No./Type	APPLICATION	RPM-Range	Valve Lift INT. EX.	Valve Lash Hot INT. EX.	ADV. Duration INT. EX.	.050 Duration INT. EX.	Lobe Center
691256	256-Supercam HYDRAULIC	Best torque & economy in passenger cars & trucks. Max compr., 9.5:1, smooth idle, std. axle ratio, good vacuum, computer compatible. Std. to 600 CFM Carb.	1500-4500	.450 .450	.000 .000	256° 256°	202° 202°	112°
691256/262	256/262 HYDRAULIC	Best overall cam for towing. Trucks, Vans, R.V., etc. Broad torque band. Good vacuum. 3.55-4:10 axle ratio. 9.5:1 compr. Computer compatible. Smooth idle.	1800-5000	.450 .445	.000 .000	256° 262°	202° 208°	110°
691262	262-Supercam HYDRAULIC	Low/Mid-Range performance cam. 9.5:1 compr. 3.08-3.70 axle ratio. Passenger cars & trucks. Up to 625 CFM Carb.	2000-5500	.445 .445	.000 .000	262° 262°	208° 208°	108°
691264	264-MEGA HYDRAULIC	Tremendous torque & good mid-range power. 9-10.5:1 compr., good idle, stock converter. 3.23-3.70 axle ratio. Up to 625 CFM Carb.	2000-5800	.480 .480	.000 .000	264° 264°	214° 214°	108°
691270	270-HL HYDRAULIC	Good all-around performance. Fair idle. Stock converter. 3.70-4.11 axle ratio. Up to 650 CFM Carb. 9.5:1 compr.	2000-6000	.470 .470	.000 .000	270° 270°	216° 216°	108°
691271	270-MEGA HYDRAULIC	Excellent mid-range performance. Fair idle. Stock converter. 9-10.5:1 compr., 3.70-4.11 axle ratio. Up to 650 CFM Carb.	2000-6000	.496 .496	.000 .000	270° 270°	221° 221°	108°
691281	280-MEGA HYDRAULIC	High performance use/bracket racing. Lopey idle. 2500 Stall. 9.5-10.5:1 compr. 3.90-4.11 axle ratio. Up to 780 CFM Carb.	2500-6800	.517 .517	.000 .000	280° 280°	232° 232°	108°
691282	282 HYDRAULIC	High perf. Use. Lopey idle. 2500 stall. 3.70-4.11 axle ratio. Up to 750 CFM Carb. 9.5:1 compr.	2500-6000	.467 .467	.000 .000	282° 282°	224° 224°	108°
691291	292-MEGA HYDRAULIC	High performance use/bracket racing. Rough idle. 2800 Stall. 10-11:1 compr. 4.11-4.56 axle ratio. Up to 780 CFM Carb.	2800-7000	.538 .538	.000 .000	292° 292°	244° 244°	108°
691292	292 HYDRAULIC	Bracket racing. Rough idle. 2800 stall. 4.11-4.56 axle ratio. 650-750 CFM Carb. 10:1 compr.	3000-6800	.467 .467	.000 .000	292° 292°	234° 234°	108°
691304	304-MEGA HYDRAULIC	Ultimate high-performance use/bracket racing. Rough idle. 3000 Stall. 11:1 & up compr. 4.33-4.88 axle ratio. Up to 850 CFM Carb.	3200-7500	.560 .560	.000 .000	304° 304°	256° 256°	108°
691-TA	Turbocycle-A HYDRAULIC	Maximum economy/torque. Turbocharged. Up to 7 PSI Boost. Smooth idle. Stock converter. Std. axle ratio. Up to 650 CFM Carb.	1000-5000	.465 .425	.000 .000	264° 250°	208° 194°	114°

# OLDSMOBILE • V-8 1967 and up 330\*-350\*-400-403-425-455 cu. in. engines



## Recommended Valve Train Components

CAM & COMPLETE KIT P/N	CAM & A LIFTER KIT P/N	These items included in Cam & complete kit					Optional accessories			
		LIFTERS P. 31-32	PUSHRODS P. 33-37	VALVE C SPRINGS P. 47-58	SPRING SHIMS P. 44	STEEL C RETAINERS P. 38	OFFSET CAM BUSHING P. 18	TIMING SET P. 18,45	VALVE LOCKS P. 46	VALVE SEALS P. 15
690256	CL-691256	692-HY V	393-A <sup>D 1</sup> 683-A <sup>D 2</sup> 683-B <sup>D 3</sup> 683-C <sup>D 4</sup>	5005	# 2	927-ST	OFB-16	690-TS	VL-32	VS-11/32 <sup>F</sup>
690256/262	CL-691256/262	692-HY V	393-A <sup>D 1</sup> 683-A <sup>D 2</sup> 683-B <sup>D 3</sup> 683-C <sup>D 4</sup>	5005	# 2	927-ST	OFB-16	690-TS	VL-32	VS-11/32 <sup>F</sup>
690262	CL-691262	692-HY V	393-A <sup>D 1</sup> 683-A <sup>D 2</sup> 683-B <sup>D 3</sup> 683-C <sup>D 4</sup>	5005	# 2	927-ST	OFB-16	690-TS	VL-32	VS-11/32 <sup>F</sup>
690264	CL-691264	202-HY V	393-A <sup>D 1</sup> 683-A <sup>D 2</sup> 683-B <sup>D 3</sup> 683-C <sup>D 4</sup>	5005	# 2	927-ST	OFB-16	690-TS	VL-32	VS-11/32 <sup>F</sup>
690270	CL-691270	202-HY V	393-A <sup>D 1</sup> 683-A <sup>D 2</sup> 683-B <sup>D 3</sup> 683-C <sup>D 4</sup>	5005	# 2	927-ST	OFB-16	690-TS	VL-32	VS-11/32 <sup>F</sup>
690271	CL-691271	202-HY V	393-A <sup>D 1</sup> 683-A <sup>D 2</sup> 683-B <sup>D 3</sup> 683-C <sup>D 4</sup>	5005	# 2	927-ST	OFB-16	690-TS	VL-32	VS-11/32 <sup>F</sup>
690281	CL-691281	202-HY V	393-A <sup>D 1</sup> 683-A <sup>D 2</sup> 683-B <sup>D 3</sup> 683-C <sup>D 4</sup>	5005	# 2	927-ST	OFB-16	690-TS	VL-32	VS-11/32 <sup>F</sup>
690282	CL-691282	202-HY V	393-A <sup>D 1</sup> 683-A <sup>D 2</sup> 683-B <sup>D 3</sup> 683-C <sup>D 4</sup>	5005	# 2	927-ST	OFB-16	690-TS	VL-32	VS-11/32 <sup>F</sup>
690291	CL-691291	202-HY V	393-A <sup>D 1</sup> 683-A <sup>D 2</sup> 683-B <sup>D 3</sup> 683-C <sup>D 4</sup>	5005	# 2	927-ST	OFB-16	690-TS	VL-32	VS-11/32 <sup>F</sup>
690292	CL-691292	202-HY V	393-A <sup>D 1</sup> 683-A <sup>D 2</sup> 683-B <sup>D 3</sup> 683-C <sup>D 4</sup>	5005	# 2	927-ST	OFB-16	690-TS	VL-32	VS-11/32 <sup>F</sup>
690304	CL-691304	202-HY V	393-A <sup>D 1</sup> 683-A <sup>D 2</sup> 683-B <sup>D 3</sup> 683-C <sup>D 4</sup>	5005	# 2	927-ST	OFB-16	690-TS	VL-32	VS-11/32 <sup>F</sup>
690-TKA	—	692-HY V	393-A <sup>D 1</sup> 683-A <sup>D 2</sup> 683-B <sup>D 3</sup> 683-C <sup>D 4</sup>	5005	# 2	927-ST	OFB-16	690-TS	VL-32	VS-11/32 <sup>F</sup>

**C SPECIAL NOTE: Valve Springs & Retainers for late Model and Marine Heads**

Approx. 1971 and later Oldsmobile heads have counter-bored valve spring pockets for valve rotators. These heads require a different valve spring and retainer combination. Use the following:

6005	16	PAIR Dual Valve Springs
507-ST	16	Chrome Moly steel retainers

A Cam & Lifter Kits are supplied with 692-HY Lifters  
D1 350 C.I. Engines only  
D2 330 C.I. Engines only  
D3 1965 & 1968-76, 400-425-455 C.I. Engines only  
D4 1966 & 1967, 400 C.I. Only  
F R requires cylinder heads be machined with VST-11/32 Cutter V .842" DIA. Lifters

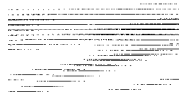
\* General Motors has distributed engines between divisions in recent years. 1975-80 Oldsmobile cars with 350 cu. in. V8 engines may be built by either the Oldsmobile, Chevy or Buick division. 1975 400 cu. in. engines were built by the Pontiac division. Be sure of which G.M. division built your engine before ordering.

# PONTIAC • V-8 1955 and up 265-287-301-350-389-421-428-455 cu. in. engines

(EXCEPT RAM AIR V ENGINES)

Cast Iron Billet  
HYDRAULIC

## 1.5:1 Rocker Ratio



Part No. Cam Only	Grind No./Type	APPLICATION	RPM-Range	Valve Lift INT. EX.	Valve Lash Hot INT. EX.	ADV. Duration INT. EX.	.050 Duration INT. EX.	Lobe Center
901256	256-Supercam HYDRAULIC	Best torque & economy in passenger cars & trucks. Max compr., 9.5:1, smooth idle, std. axle ratio, good vacuum, computer compatible. Std. to 600 CFM Carb.	1500-4800	.425 .425	.000 .000	256° 256°	202° 202°	112°
901256/262	256/262 HYDRAULIC	Best overall cam for towing. Trucks, Vans, R.V., etc. Broad torque band. Good vacuum. 3.55-4:10 axle ratio. 9.5:1 compr. Computer compatible. Smooth idle.	1800-5000	.425 .435	.000 .000	256° 262°	202° 208°	110°
901262	262-Supercam HYDRAULIC	Low/Mid-Range performance cam. 9.5:1 compr. 3.08-3.70 axle ratio. Passenger cars & trucks. Up to 625 CFM Carb.	2000-5500	.435 .435	.000 .000	262° 262°	208° 208°	108°
901264	264-MEGA HYDRAULIC	Tremendous torque & good mid-range power. 9-10.5:1 compr., good idle, stock converter. 3.23-3.70 axle ratio. Up to 625 CFM Carb.	2000-5800	.450 .450	.000 .000	264° 264°	214° 214°	108°
901270	270-HL HYDRAULIC	Good all-around performance. Fair idle. Stock converter. 3.70-4.11 axle ratio. Up to 650 CFM Carb. 9.5:1 compr.	2000-5500	.445 .445	.000 .000	270° 270°	216° 216°	108°
901271	270-MEGA HYDRAULIC	Excellent mid-range performance. Fair idle. Stock converter. 9-10.5:1 compr., 3.70-4.11 axle ratio. Up to 650 CFM Carb.	2000-6200	.465 .465	.000 .000	270° 270°	221° 221°	108°
901280	280-HL HYDRAULIC	High perf. Use. Lopey idle. 2500 stall. 3.70-4.11 axle ratio. Up to 750 CFM Carb. 9.5:1 compr.	2500-6000	.465 .465	.000 .000	280° 280°	224° 224°	108°
901281	280-MEGA HYDRAULIC	High performance use/bracket racing. Lopey idle. 2500 Stall. 9.5-10.5:1 compr. 3.90-4.11 axle ratio. Up to 780 CFM Carb.	2500-6800	.485 .485	.000 .000	280° 280°	232° 232°	108°
901292	292-MEGA HYDRAULIC	High performance use/bracket racing. Rough idle. 2800 Stall. 10-11:1 compr. 4.11-4.56 axle ratio. Up to 780 CFM Carb.	2800-7000	.505 .505	.000 .000	292° 292°	244° 244°	108°
901304	304-MEGA HYDRAULIC	Ultimate high-performance use/bracket racing. Rough idle. 3000 Stall. 11:1 & up compr. 4.33-4.88 axle ratio. Up to 850 CFM Carb.	3200-7500	.525 .525	.000 .000	304° 304°	256° 256°	108°
901-TKA	Turbocycle-A HYDRAULIC	Maximum economy/torque. Turbocharged. Up to 7 PSI Boost. Smooth idle. Stock converter. Std. axle ratio. Up to 650 CFM Carb.	1000-5000	.435 .400	.000 .000	264° 252°	208° 194°	114°
901-TKB	Turbocycle-B HYDRAULIC	High performance turbocharged appl's. with higher boost. Good idle, stock converter, std. axle ratio. Up to 650 CFM Carb.	2000-6000	.440 .410	.000 .000	274° 260°	216° 200°	114°

# PONTIAC • V-8 1955 and up 265-287-301-350-389-421-428-455 cu. in. engines

(EXCEPT RAM AIR V ENGINES)



## Recommended Valve Train Components

CAM & COMPLETE KIT P/N	CAM & A LIFTER KIT P/N	These items included in Cam & complete kit					Optional accessories			
		LIFTERS P. 31-32	VALVE SPRINGS P. 47-58	SPRING SHIMS P. 44	STEEL RETAINERS P. 38	POLY LOCKS P.43	TIMING SET P. 18,45	PUSHRODS P. 33-37	VALVE LOCKS P. 46	VALVE SEALS P. 15
900256	CL-901256	692-HY	5005	# 2	927-ST	PL-5/16 <sup>D1</sup> PL-3/8 <sup>D2</sup>	900-TS	923-HG <sup>G</sup>	VL-32	VS-11/32 <sup>F</sup>
900256/262	CL-901256/262	692-HY	5005	# 2	927-ST	PL-5/16 <sup>D1</sup> PL-3/8 <sup>D2</sup>	900-TS	923-HG <sup>G</sup>	VL-32	VS-11/32 <sup>F</sup>
900262	CL-901262	692-HY	5005	# 2	927-ST	PL-5/16 <sup>D1</sup> PL-3/8 <sup>D2</sup>	900-TS	923-HG <sup>G</sup>	VL-32	VS-11/32 <sup>F</sup>
900264	CL-901264	202-HY	5005	# 2	927-ST	PL-5/16 <sup>D1</sup> PL-3/8 <sup>D2</sup>	900-TS	923-HG <sup>G</sup>	VL-32	VS-11/32 <sup>F</sup>
900270	CL-901270	202-HY	5005	# 2	927-ST	PL-5/16 <sup>D1</sup> PL-3/8 <sup>D2</sup>	900-TS	923-HG <sup>G</sup>	VL-32	VS-11/32 <sup>F</sup>
900271	CL-901271	202-HY	5005	# 2	927-ST	PL-5/16 <sup>D1</sup> PL-3/8 <sup>D2</sup>	900-TS	923-HG <sup>G</sup>	VL-32	VS-11/32 <sup>F</sup>
900280	CL-901280	202-HY	5005	# 2	927-ST	PL-5/16 <sup>D1</sup> PL-3/8 <sup>D2</sup>	900-TS	923-HG <sup>G</sup>	VL-32	VS-11/32 <sup>F</sup>
900281	CL-901281	202-HY	5005	# 2	927-ST	PL-5/16 <sup>D1</sup> PL-3/8 <sup>D2</sup>	900-TS	923-HG <sup>G</sup>	VL-32	VS-11/32 <sup>F</sup>
900292	CL-901292	202-HY	5005	# 2	927-ST	PL-5/16 <sup>D1</sup> PL-3/8 <sup>D2</sup>	900-TS	923-HG <sup>G</sup>	VL-32	VS-11/32 <sup>F</sup>
900304	CL-901304	202-HY	5005	# 2	927-ST	PL-5/16 <sup>D1</sup> PL-3/8 <sup>D2</sup>	900-TS	923-HG <sup>G</sup>	VL-32	VS-11/32 <sup>F</sup>
900-TKA	N/A	692-HY	5005	# 2	927-ST	PL-5/16 <sup>D1</sup> PL-3/8 <sup>D2</sup>	900-TS	923-HG <sup>G</sup>	VL-32	VS-11/32 <sup>F</sup>
900-TKB	N/A	692-HY	5005	# 2	927-ST	PL-5/16 <sup>D1</sup> PL-3/8 <sup>D2</sup>	900-TS	923-HG <sup>G</sup>	VL-32	VS-11/32 <sup>F</sup>

A Cam & Lifter Kits are supplied with 692-HY Lifters  
D1 1956-60 Engines only  
D2 1955 and 1961 and up Engines only  
F Requires cylinder heads be machined with Isky VST-11/32 Cutter  
G Compatible with guide plate cylinder heads, 1967 & later engines



# PONTIAC • V-8 1955 and up 265-287-301-350-389-421-428-455 cu. in. engines

(EXCEPT RAM AIR V ENGINES)

SOLID

ROLLER

## 1.5:1 Rocker Ratio



Part No. Cam Only	Grind No./Type	APPLICATION	RPM-Range	Valve Lift INT. EX.	Valve Lash Hot INT. EX.	ADV. Duration INT. EX.	.050 Duration INT. EX.	Lobe Center
901303	RPM-300 <b>SOLID</b>	Mid range perf. good idle. Stock converter. 3.70-4.11 axle ratio. Up to 650 CFM Carb. 9:1 compr.	2500-6000	.448 .448	.020 .020	270° 270°	228° 228°	108°
901400	CC-400 <b>SOLID</b>	Strong mid-range perf. Lopey idle. 2500 RPM stall. 3.70-4.11 axle ratio. 650-750 CFM Carb. 10.5:1 compr.	2500-6200	.480 .480	.018 .018	278° 278°	240° 240°	108°
901500	CC-500 <b>SOLID</b>	High perf. Street/strip. Lopey idle. 2800 stall. 4.11-4.88 axle ratio. Up to 750 CFM Carb. 10.5:1 compr.	3000-7000	.525 .525	.016 .018	288° 288°	254° 254°	108°
901070	Z-70 <b>SOLID</b>	Bracket racing. Lopey idle. 4000 stall. 4.88-5.38 axle ratio. Up to 850 CFM Carb. 11:1 compr.	3500-7500	.548 .548	.028 .028	304° 304°	264° 264°	108°
901075	Z-75 <b>SOLID</b>	All out competition/drags. 5000 stall. 5.13-5.57 axle ratio. 850+CFM Carb. 12:1 compr.	4000-8000	.570 .570	.028 .028	320° 320°	274° 274°	108°
901602	RR-602 <b>ROLLER</b>	Good cam for 3500LB bracket racing "drags". 3000 stall. 4.56-4.88 axle ratio. 11-12:1 compr. Up to 800 CFM Carb.	3500-7500	.602 .602	.028 .028	300° 300°	260° 260°	108°
901630	RR-630 <b>ROLLER</b>	Good all around perf. for bracket racing. 4000-4500 stall. 4.88-5.13 axle ratio. 11-12:1 compr. 850+Carb.	4000-8000	.630 .630	.028 .028	314° 314°	272° 272°	108°
901675	RR-675 <b>ROLLER</b>	Good mid-range perf. for heavy bracket racing "drags". 3500-4000 stall. 4.56-5.13 axle ratio. 11-12:1 compr. Up to 850 CFM Carb.	4000-8000	.675 .630	.024 .028	308° 314°	264° 272°	108°
901660	RR-660 <b>ROLLER</b>	Good all-around perf. in super-gas & super comp. 5000 stall. 5.38-5.86 axle ratio. High compr. 850+CFM Carb.	4500-8500	.660 .660	.028 .028	324° 324°	282° 282°	108°
901665	RR-665 <b>ROLLER</b>	Good all-around perf. in super-gas & super comp. 5000+ stall. 5.57-5.86 axle ratio. High compr. 850+CFM Carb.	4800-8800	.660 .662	.028 .028	324° 332°	282° 286°	108°

# PONTIAC • V-8 1955 and up 265-287-301-350-389-421-428-455 cu. in. engines

(EXCEPT RAM AIR V ENGINES)



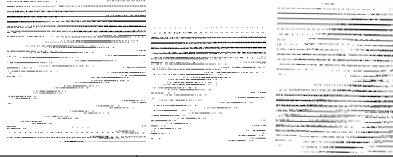
## Recommended Valve Train Components

CAM & COMPLETE KIT P/N	CAM & LIFTER KIT P/N	These items included in Cam & complete kit							Optional accessories	
		LIFTERS P. 22-32	VALVE SPRINGS P. 47-58	SPRING SHIMS P. 44	STEEL RETAINERS P. 38	POLY LOCKS P. 43	BRONZE DIST. GEAR P. 18	PUSHRODS P. 33-37	VALVE LOCKS P. 46	VALVE SEALS P. 15
900303	—	202-H	5005	# 2	927-ST	PL-5/16 <sup>D1</sup> PL-3/8 <sup>D2</sup>	—	—	VL-32	VS-11/32 <sup>F</sup>
900400	—	202-H	5005	# 2	927-ST	PL-5/16 <sup>D1</sup> PL-3/8 <sup>D2</sup>	—	—	VL-32	VS-11/32 <sup>F</sup>
900500	—	202-H	5005	# 2	927-ST	PL-5/16 <sup>D1</sup> PL-3/8 <sup>D2</sup>	—	—	VL-32	VS-11/32 <sup>F</sup>
900070	—	202-H	5005	# 2	927-ST	PL-5/16 <sup>D1</sup> PL-3/8 <sup>D2</sup>	—	—	VL-32	VS-11/32 <sup>F</sup>
900075	—	202-H	5005	# 2	927-ST	PL-5/16 <sup>D1</sup> PL-3/8 <sup>D2</sup>	—	—	VL-32	VS-11/32 <sup>F</sup>
900602	—	962-RH	9265 <sup>C</sup>	# 2	507-STA <sup>C</sup>	PL-3/8 <sup>D2</sup>	900-DG	923-HG <sup>G</sup>	VL-32	VS-11/32 <sup>F</sup>
900630	—	962-RH	9265 <sup>C</sup>	# 2	507-STA <sup>C</sup>	PL-3/8 <sup>D2</sup>	900-DG	923-HG <sup>G</sup>	VL-32	VS-11/32 <sup>F</sup>
900675	—	962-RH	9265 <sup>C</sup>	# 2	507-STA <sup>C</sup>	PL-3/8 <sup>D2</sup>	900-DG	923-HG <sup>G</sup>	VL-32	VS-11/32 <sup>F</sup>
900660	—	962-RH	9265 <sup>C</sup>	# 2	507-STA <sup>C</sup>	PL-3/8 <sup>D2</sup>	900-DG	923-HG <sup>G</sup>	VL-32	VS-11/32 <sup>F</sup>
900665	—	962-RH	9265 <sup>C</sup>	# 2	507-STA <sup>C</sup>	PL-3/8 <sup>D2</sup>	900-DG	923-HG <sup>G</sup>	VL-32	VS-11/32 <sup>F</sup>

C For use on later model ram air IV or late production aftermarket alum. cyl. heads (1.875" installed height required.)  
 D1 1956-60 Engines only  
 D2 1961 and up Engines only  
 F Requires cylinder heads be machined with Isky VST-11/32 Cutter  
 G Compatible with guide plate cylinder heads, 1967 & later engines

# PONTIAC • 4 cyl. Super Duty 151 cu. in. "IRON DUKE", 1979 and up

HYDRAULIC  
SOLID  
ROLLER



(HYDRAULIC & SOLID)  
1.7:1 Rocker Ratio  
(ROLLER)  
1.55:1 Rocker Ratio



Part No. Cam Only		Grind No./Type	APPLICATION	RPM-Range	Valve Lift INT. EX.	Valve Lash Hot INT. EX.	ADV. Duration INT. EX.	.050 Duration INT. EX.	Lobe Center
3-BRG. CORE	5-BRG. CORE								
951256	—	256-Supercam <b>HYDRAULIC</b>	Best torque & economy in passenger cars & trucks. Max compr., 9.5:1, smooth idle, std. axle ratio, good vacuum, computer compatible. Std. to 600 CFM Carb.	1500-4800	.480 .480	.000 .000	256° 256°	202° 202°	112°
951262	—	262-Supercam <b>HYDRAULIC</b>	Low/Mid-Range performance cam. 9.5:1 compr. 3.08-3.70 axle ratio. Passenger cars & trucks. Up to 625 CFM Carb.	2000-5500	.493 .493	.000 .000	262° 262°	208° 208°	108°
951271	—	270-MEGA <b>HYDRAULIC</b>	Hobby stock & street stock classes; 1/4-3/8 mile tracks with slight bank. 2BBL carburetor.	2000-6200	.527 .527	.000 .000	270° 270°	221° 221°	108°
951281	—	280-MEGA <b>HYDRAULIC</b>	Hobby stock & street stock classes; banked 1/4-3/8 mile tracks. Any carburetor.	2500-6800	.549 .549	.000 .000	280° 280°	232° 232°	106°
951284	—	284-MEGA <b>HYDRAULIC</b>	Street stock & sportsman classes; banked 3/8-1/2 mile tracks. Any carburetor.	2600-6900	.578 .578	.000 .000	284° 284°	236° 236°	106°
951292	—	292-MEGA <b>HYDRAULIC</b>	Sportsman classes; 3/8-1/2 mile banked tracks. Any carburetor.	2800-7000	.572 .572	.000 .000	292° 292°	244° 244°	106°
951560	—	560 <b>SOLID</b>	1/4-3/8 mile tracks with little or no bank. 2-BBL Carb.	2600-6800	.560 .574	.020 .020	276° 282°	242° 247°	106°
951574	—	574 <b>SOLID</b>	Banked 1/4-3/8 mile tracks. Any carburetor.	3000-7000	.574 .568	.020 .020	282° 286°	247° 252°	106°
951568	—	568 <b>SOLID</b>	Banked 3/8-1/2 mile tracks. Very broad power range. Any carburetor.	3200-7200	.568 .588	.020 .020	286° 294°	252° 260°	106°
951588	—	588 <b>SOLID</b>	High bank 1/2 mile track; 4-BBL Carb.	3400-7400	.588 .588	.020 .020	294° 298°	260° 264°	106°
951663	N/A	RR-660/60-68 <b>ROLLER</b>	Short Track Special: Banked 1/4-3/8 Mile (Goody's Dash Series). Broad Power Band.	4200-7600	.660 .660	.028 .028	294° 302°	260° 268°	106°
951647	N/A	RR-660/68-76 <b>ROLLER</b>	Long Track Special: Superspeedway (Daytona) W/Restrictor plate. Goody's Dash Seies.	4600-8000	.660 .660	.028 .028	302° 310°	268° 276°	106°
951682	N/A	RR-682 <b>ROLLER</b>	Long Track (Superspeedway) W/out Restrictor. Broad power band.	4800-8400	.682 .682	.028 .028	324° 324°	282° 282°	104°
951760	N/A	RR-760 <b>ROLLER</b>	All-out competition: 1/4 mile drags. High compr. Multiple carburetion.	5500-9200	.760 .708	.028 .028	326° 336°	286° 292°	106°

# PONTIAC • 4 cyl. Super Duty 151 cu. in. "IRON DUKE", 1979 and up



## Recommended Valve Train Components

Cam & Complete Kit Part No.		These items included in Cam & complete kit							
3-BRG. CORE	5-BRG. CORE	LIFTERS P. 22-32	PUSHRODS P. 33-37	VALVE SPRINGS P. 47-58	SPRING SHIMS P. 44	RETAINERS P. 38-39	VALVE LOCKS P. 46	REV-KIT P. 21	ALUM-BRONZE DIST. GEAR P. 18
950256	—	222-HY (8pcs)	—	—	—	—	—	—	—
950262	—	222-HY (8pcs)	—	—	—	—	—	—	—
950271	—	202-HY (8pcs)	923-HG <sup>G</sup> (8pcs)	805-DO (8pcs)	# 2	507-STAM <sup>M</sup> (8pcs)	VL-32 (16pcs)	—	—
950281	—	202-HY (8pcs)	923-HG <sup>G</sup> (8pcs)	805-DO (8pcs)	# 2	507-STAM <sup>M</sup> (8pcs)	VL-32 (16pcs)	—	—
950284	—	202-HY (8pcs)	923-HG <sup>G</sup> (8pcs)	805-DO (8pcs)	# 2	507-STAM <sup>M</sup> (8pcs)	VL-32 (16pcs)	—	—
950292	—	202-HY (8pcs)	923-HG <sup>G</sup> (8pcs)	805-DO (8pcs)	# 2	507-STAM <sup>M</sup> (8pcs)	VL-32 (16pcs)	—	—
950560	—	202-H (8pcs)	923-HG <sup>G</sup> (8pcs)	8005-A (8pcs)	# 2	507-STAM <sup>M</sup> (8pcs)	VL-32 (16pcs)	—	—
950574	—	202-H (8pcs)	923-HG <sup>G</sup> (8pcs)	8005-A (8pcs)	# 2	507-STAM <sup>M</sup> (8pcs)	VL-32 (16pcs)	—	—
950568	—	202-H (8pcs)	923-HG <sup>G</sup> (8pcs)	8005-A (8pcs)	# 2	507-STAM <sup>M</sup> (8pcs)	VL-32 (16pcs)	—	—
950588	—	202-H (8pcs)	923-HG <sup>G</sup> (8pcs)	8005-A (8pcs)	# 2	507-STAM <sup>M</sup> (8pcs)	VL-32 (16pcs)	—	—
950663	N/A	1241-XL (8pcs)	—	9205 (8pcs)	# 5	91-TI <sup>O</sup> (8pcs)	VL-700 (16pcs)	1243-L (8)	250-DG
950647	N/A	1241-XL (8pcs)	—	9205 (8pcs)	# 5	91-TI <sup>O</sup> (8pcs)	VL-700 (16pcs)	1243-L (8)	250-DG
950682	N/A	1241-XL (8pcs)	—	9205 (8pcs)	# 5	91-TI <sup>O</sup> (8pcs)	VL-700 (16pcs)	1243-L (8)	250-DG
950760	N/A	1241-XL (8pcs)	—	9425 (8pcs)	# 5	91-TI <sup>O</sup> (8pcs)	VL-700 (16pcs)	1243-L (8)	250-DG

G Compatible with guide plate cylinder heads  
M Steel Retainers  
O Titanium Retainers

# MARINE CAMS AND COMPONENTS

## Big Block Chevy V-8

## 1.75:1 Rocker Ratio

Part No. Cam Only	Grind No./Type	APPLICATION	RPM-Range	Valve Lift	Valve Lash Hot	Advertised Duration	.050 Duration	Lobe Center
396278	278-MEGA HYDRAULIC	Jet boat, A-B impeller. All around use. Skiing, pleasure use.	2000-5400	.525 .525	.000 .000	278° 278°	234° 234°	110°
396282	280-MEGA HYDRAULIC	Jet boat, A-B impeller. Skiing and high performance use.	2000-5500	.565 .565	.000 .000	280° 280°	232° 232°	110°
396271/281-14	270/280 MEGA HYDRAULIC	Stage 1 pleasure use. Mercruiser I-O drive.	1800-5000	.543 .565	.000 .000	270° 280°	221° 232°	114°
396281/292-14	280/292 MEGA HYDRAULIC	Stage 2, perf. use. Mercruiser I-O drive.	2000-5500	.565 .590	.000 .000	280° 292°	232° 244°	114°
396257	Z-57 SOLID	Good all-around perf. for V-drive with moderate compr.	2500-6000	.590 .590	.028 .028	300° 310°	254° 264°	110°
396290	Z-90 SOLID	High perf. use. Bracket racing, V-drive, high compr.	3000-6400	.595 .635	.024 .022	314° 334°	264° 274°	110°
396297	Z-97 SOLID	Excellent circle racing application, V-drive, flat bottom.	3600-7000	.665 .654	.030 .030	320° 330°	274° 286°	110°
396645	RR-645 ROLLER	Best high perf. jet boat cam. B-impeller	3600-6800	.640 .650	.028 .028	304° 318°	264° 272°	112°
396652	RR-652 ROLLER	Bracket racing: jet w/B-impeller, flat bottom, hydro	4500-7400	.650 .654	.028 .030	318° 330°	274° 286°	110°
396732	RR-730-B ROLLER	Bracket racing. Normally aspirated or supercharged gas flat bottom, hydro.	4800-7500	.730 .727	.028 .030	322° 330°	282° 288°	110°
396775	RR-775 ROLLER	Bracket racing. Normally aspirated or supercharged gas flat bottom, hydro.	5000-7700	.772 .763	.028 .028	332° 336°	288° 294°	110°
396811	RR-810B ROLLER	All-out-racing: gas or alcohol normally aspirated or supercharged	5000-8500	.788 .788	.028 .028	318° 334°	288° 300°	112°

NOTE: Additional Cam Profiles are available in each category to suit any special application requirements. Contact the Isky Factory Technical Department for assistance.

# MARINE CAMS AND COMPONENTS

## Big Block Chevy V-8

## Recommended Valve Train Components

Lifters	Timing Set	Pushrods	Rocker Arms	Valve Springs	Retainers		Valve Locks	Dist. Gear
					Steel	Titanium		
202-HY	390-TS	203-96	204-96	8005-A	347-ST	-	VL-3/8	200DGS
					175-ST	91-Ti	VL-800	
202-HY	390-TS	203-96	204-96	8005-A	347-ST	-	VL-3/8	200DGS
					175-ST	91-Ti	VL-800	
202-HY	390-TS	203-96	204-96	8005-A	347-ST	-	VL-3/8	200DGS
					175-ST	91-Ti	VL-800	
202-HY	390-TS	203-96	204-96	8005-A	347-ST	-	VL-3/8	200DGS
					175-ST	91-Ti	VL-800	
202-H	390-TS	203-96	204-96	8005-A	347-ST	-	VL-3/8	200DGS
					175-ST	91-Ti	VL-800	
202-H	390-TS	203-96	204-96	8005-A	347-ST	-	VL-3/8	200DGS
					175-ST	91-Ti	VL-800	
202-H		203-96	204-96	8005-A	347-ST	-	VL-3/8	200DGS
					175-ST	91-Ti	VL-800	
202-96-RH		203-96	204-96	9265	3607-ST	-	VL-3/8	200DGS
					175-ST	91-Ti	VL-800	
202-96-RH		203-96	204-96	9265	3607-ST	-	VL-3/8	200DGS
					175-ST	91-Ti	VL-800	
366-RHM		203-96	204-96	9365	275-ST	91-Ti	VL-800	200DGS
372-96-RH		203-96-7/16	204-96	9705	375-ST	975-Ti	VL-800	200DGS
					300-ST/10°	97-Ti/10°	VL-10-3/8	
372-96-RH		203-96-7/16	204-96	9701	—	—	—	200DGS
					—	980-Ti/10°	VL-10-3/8	

# MARINE CAMS AND COMPONENTS

## Small Block Chevy V-8

## 1.5:1 Rocker Ratio

Part No. Cam Only	Grind No./Type	APPLICATION	RPM-Range	Valve Lift	Valve Lash Hot	Advertised Duration	.050 Duration	Lobe Center
201262/270-12	262/270 HL HYDRAULIC	Mild Performance. Mercruiser I-O drive. Skiing, pleasure use.	1800-4600	.435 .445	.000 .000	262° 270°	208° 216°	112°
201264/271-12	264/270-MEGA HYDRAULIC	Medium Performance. Mercruiser I-O drive. Skiing.	2000-4800	.450 .465	.000 .000	264° 270°	214° 221°	112°
201271/281-12	270/280 MEGA HYDRAULIC	Maximum Performance. Mercruiser I-O drive. Combination Skiing. High perf.	2200-5200	.465 .485	.000 .000	270° 280°	221° 232°	112°
201042	Z-42 SOLID	Good all around performance for V-drive, skiing.	2500-5800	.525 .520	.016 .018	290° 296°	254° 260°	110°
201604	RR-604 ROLLER	Maximum performance for V-drive, high perf. lake use, skiing.	2800-6200	.600 .600	.028 .028	294° 300°	260° 266°	110°

## Ford 429/460 C.I. V-8

## 1.75:1 Rocker Ratio

Part No. Cam Only	Grind No./Type	APPLICATION	RPM-Range	Valve Lift	Valve Lash Hot	Advertised Duration	.050 Duration	Lobe Center
311278/10	278 MEGA HYDRAULIC	Jet boat, A-B impeller. All around use. Skiing, pleasure use.	2000-5400	.525 .525	.000 .000	278° 278°	234° 234°	110°
311281/10	280 MEGA HYDRAULIC	Jet boat, A-B impeller. Skiing and high performance use.	2000-5500	.565 .565	.000 .000	280° 280°	232° 232°	110°

## Oldsmobile 455 C.I. V-8

## 1.6:1 Rocker Ratio

Part No. Cam Only	Grind No./Type	APPLICATION	RPM-Range	Valve Lift	Valve Lash Hot	Advertised Duration	.050 Duration	Lobe Center
691281/10	280 MEGA HYDRAULIC	Jet boat, A-B impeller. All around perf. use. Skiing, pleasure use.	2000-5400	.517 .517	.000 .000	280° 280°	232° 232°	110°

NOTE: Additional Cam Profiles are available in each category to suit any special application requirements. Contact the Isky Factory Technical Department for assistance.

# MARINE CAMS AND COMPONENTS

## Small Block Chevy V-8

## Recommended Valve Train Components

Lifters	Timing Set	Pushrods	Rocker Arms	Valve Springs	Retainers		Valve Locks	Dist. Gear
					Steel	Titanium		
202-HY	200-TS	203-HG	204	205-D	707-ST	—	VL-32	200DGS
202-HY	200-TS	203-HG	204	205-D	707-ST	—	VL-32	200DGS
202-HY	200-TS	203-HG	204	205-D	707-ST	—	VL-32	200DGS
202-H	300-TS ◊	203-HG	204	6005	507-ST	60-Ti	VL-32	200DGS
1241-LSH	—	1235-L	204	9005	507-STA	—	VL-32	200DGS
					175-ST	91-Ti	VL-700	

## Ford 429/460 C.I. V-8

## Recommended Valve Train Components

Lifters	Timing Set	Pushrods	Rocker Arms	Valve Springs	Retainers		Valve Locks	Dist. Gear
					Steel	Titanium		
432-HY	310-TS	383-CHG	204-96	8005-A	507-STA	-	VL-32	310DG
					175-ST	91-Ti	VL-700	
432-HY	310-TS	383-CHG	204-96	8005-A	507-STA	-	VL-32	310DG
					175-ST	91-Ti	VL-700	

## Oldsmobile 455 C.I. V-8

## Recommended Valve Train Components

Lifters	Timing Set	Pushrods	Rocker Arms	Valve Springs	Retainers		Valve Locks	Dist. Gear
					Steel	Titanium		
202-HY	690-TS	683-B	—	6005	507-ST	60-Ti	VL-32	—



**LOBE SPECIFICATION CHART**

**(HYDRAULIC & HYDRAULIC ROLLER)**

TYPE OF CAM	LOBE LIFT	ADVERTISED DURATION	.050 DUR	.100 DUR	.200 DUR	.300 DUR	MASTER No.	Valve Lift With Zero Lash Rocker Arm Ratio		
								1.5	1.6	1.7
R.V. Hydraulic: .842" Dia.	.250"	236°	186°	150°	84°	—	H-361	.375"	.400"	.425"
	.266"	248°	194°	162°	100°	—	H-372	.400"	.425"	.452"
	.272"	258°	200°	170°	106°	—	H-168	.408"	.435"	.462"
	.278"	262°	208°	175°	113°	—	H-312	.417"	.445"	.473"
	.283"	256°	202°	172°	112°	—	H-375	.425"	.453"	.481"
	.290"	258°	208°	176°	116°	—	H-606	.435"	.464"	.493"
	.290"	262°	208°	176°	118°	—	H-373	.435"	.464"	.493"
	.293"	270°	214°	183°	122°	—	H-353	.440"	.469"	.498"
	.310"	280°	224°	191°	130°	34°	H-352	.465"	.496"	.527"
Hydraulic Lift Rule: "OVAL TRACK" .842" Dia.	.242"	288°	242°	205°	111°	—	H-573	.363"	.387"	.411"
	.242"	294°	248°	211°	113°	—	H-497	.363"	.387"	.411"
	.260"	296°	248°	212°	129°	—	H-568	.390"	.416"	.442"
	.262"	252°	208°	178°	110°	—	H-647	.393"	.419"	.445"
	.264"	268°	228°	195°	121°	—	H-551	.396"	.422"	.449"
	.264"	276°	236°	202°	125°	—	H-566	.396"	.422"	.449"
	.268"	296°	248°	213°	134°	—	H-498	.402"	.429"	.455"
	.275"	260°	216°	186°	121°	—	H-648	.412"	.440"	.467"
	.277"	264°	224°	193°	126°	—	H-601	.415"	.443"	.471"
	.277"	272°	232°	200°	130°	—	H-552	.415"	.443"	.471"
	.277"	280°	240°	207°	136°	—	H-567	.415"	.443"	.471"
	.281"	296°	248°	214°	142°	—	H-448	.420"	.449"	.477"
.333"	286°	240°	209°	151°	74°	H-655	.500"	.532"	.566"	
Performance Street, Strip, & Oval Track: .842" Dia.	.300"	264°	214°	181°	122°	—	H-520	.450"	.480"	.510"
	.300"	278°	234°	202°	141°	—	H-593	.450"	.480"	.510"
	.300"	288°	244°	212°	150°	—	H-595	.450"	.480"	.510"
	.303"	268°	224°	193°	134°	23°	H-569	.454"	.485"	.515"
	.310"	270°	221°	188°	130°	38°	H-390	.465"	.496"	.527"
	.320"	280°	224°	192°	135°	54°	H-583	.480"	.512"	.544"
	.320"	284°	236°	203°	144°	60°	H-609	.480"	.512"	.544"
	.323"	280°	232°	199°	142°	60°	H-391	.485"	.517"	.549"
	.326"	274°	226°	194°	137°	61°	H-438	.490"	.522"	.554"
	.337"	292°	244°	211°	153°	75°	H-392	.505"	.539"	.573"
	.337"	298°	252°	220°	162°	83°	H-584	.505"	.539"	.573"
	.340"	284°	236°	203°	144°	73°	H-439	.510"	.544"	.578"
	.350"	304°	256°	222°	164°	92°	H-393	.525"	.560"	.595"
	.354"	296°	248°	214°	158°	91°	H-443	.530"	.566"	.602"
.370"	306°	258°	224°	166°	101°	H-442	.555"	.592"	.629"	
Hydraulic Roller: Small Block Chevy V8	.300"	252°	204°	172°	116°	—	HR-524	.450"	.480"	.510"
	.310"	257°	209°	178°	122°	36°	HR-501	.465"	.496"	.527"
	.323"	265°	217°	185°	131°	56°	HR-500	.485"	.517"	.549"
	.337"	272°	225°	194°	141°	72°	HR-481	.505"	.539"	.573"
	.353"	282°	234°	201°	150°	86°	HR-474	.530"	.565"	.600"
	.366"	294°	246°	210°	157°	98°	HR-525	.550"	.586"	.622"
Hydraulic Roller: Big Block Chevy V8 and Ford 302 HO V8	.290"	252°	204°	172°	113°	—	HR-542	.435"	.465"	.495"
	.300"	257°	210°	178°	120°	—	HR-543	.450"	.480"	.510"
	.312"	265°	218°	185°	129°	42°	HR-544	.468"	.500"	.530"
	.325"	275°	228°	196°	139°	61°	HR-545	.488"	.520"	.552"
	.340"	284°	238°	206°	150°	80°	HR-546	.510"	.544"	.578"
	.358"	294°	248°	216°	162°	96°	HR-547	.537"	.573"	.608"
	.363"	305°	258°	226°	171°	103°	HR-636	.544"	.581"	.617"

**LOBE SPECIFICATION CHART  
EXPANSION TECHNOLOGY SERIES**

**(HYDRAULIC ROLLER) LATE MODEL LS-1 CHEVY V-8**

TYPE OF CAM	LOBE LIFT	ADVERTISED DURATION	.050 DUR	.100 DUR	.200 DUR	.300 DUR	MASTER No.	Valve Lift With Zero Lash @ 1.7 ROCKER RATIO
LS-1 Standard Series Hydraulic Roller  1.450" Dia. Base Circle	.325"	254°	206°	176°	126°	56°	HR-674	.553"
	.330"	260°	212°	181°	131°	62°	HR-673	.561"
	.333"	263°	215°	184°	134°	65°	HR-740	.566"
	.335"	266°	218°	187°	136°	68°	HR-672	.570"
	.338"	269°	221°	190°	139°	71°	HR-741	.575"
	.340"	272°	224°	193°	142°	75°	HR-671	.578"
	.342"	300°	256°	225°	168°	97°	HR-731	.581"
	.344"	275°	227°	196°	145°	78°	HR-742	.585"
	.348"	278°	230°	200°	151°	86°	HR-675	.592"
	.350"	281°	233°	203°	154°	89°	HR-743	.595"
	.352"	284°	236°	206°	157°	93°	HR-676	.598"
	.353"	294°	250°	220°	166°	98°	HR-730	.600"
	.356"	288°	240°	210°	161°	97°	HR-744	.605"
	.359"	290°	243°	213°	163°	99°	HR-670	.610"
	.360"	296°	249°	219°	168°	104°	HR-669	.612"
	.370"	302°	254°	225°	174°	110°	HR-677	.629"
.375"	308°	260°	231°	180°	116°	HR-678	.638"	
LS-1 NEW HRX Max Area Lift Curve Series Hydraulic Roller  1.450" Dia. Base Circle	.290"	260°	214°	183°	124°	—	HR-887	.493"
	.309"	260°	212°	183°	130°	39°	HR-848	.525"
	.313"	254°	210°	181°	127°	45°	HR-800	.532"
	.313"	256°	212°	183°	129°	45°	HR-801	.532"
	.313"	258°	214°	185°	131°	46°	HR-802	.532"
	.313"	260°	216°	187°	133°	47°	HR-803	.532"
	.340"	284°	240°	211°	157°	85°	HR-804	.578"
	.340"	286°	242°	213°	159°	86°	HR-805	.578"
	.340"	288°	244°	215°	161°	87°	HR-806	.578"
	.340"	290°	246°	217°	163°	87°	HR-807	.578"
	.342"	273°	224°	195°	146°	79°	HR-815	.581"
	.353"	264°	214°	184°	139°	82°	HR-813	.600"
	.356"	268°	218°	188°	143°	86°	HR-814	.605"
	.358"	274°	224°	194°	149°	90°	HR-816	.608"
	.358"	277°	227°	198°	152°	93°	HR-837	.608"
	.360"	280°	230°	201°	154°	95°	HR-817	.612"
	.362"	286°	236°	207°	159°	98°	HR-818	.615"
	.365"	292°	242°	212°	165°	104°	HR-819	.620"
	.382"	286°	242°	213°	164°	110°	HR-808	.650"
	.382"	288°	244°	215°	166°	112°	HR-809	.650"
.382"	290°	246°	217°	168°	113°	HR-810	.650"	
.382"	292°	248°	219°	170°	115°	HR-811	.650"	
.394"	292°	248°	219°	170°	118°	HR-812	.670"	

**LOBE SPECIFICATION CHART HYDRAULIC, HYDRAULIC ROLLER & SOLID LIFTER (EXPANSION TECHNOLOGY SERIES)**

TYPE OF CAM	LOBE LIFT	ADVERTISED DURATION	.050 DUR	.100 DUR	.200 DUR	.300 DUR	MASTER No.	Valve Lift With Zero Lash Rocker Arm Ratio		
								1.5	1.6	1.7
Oval Track; Hydraulic Lift Rule .842" Dia Lifter	.250"	250°	202°	169°	96°	—	H-893	.375"	.400"	.425"
	.250"	256°	208°	174°	99°	—	H-894	.375"	.400"	.425"
	.250"	264°	216°	181°	103°	—	H-895	.375"	.400"	.425"
	.260"	262°	215°	177°	104°	—	H-749	.390"	.416"	.442"
	.280"	276°	236°	204°	134°	—	H-738	.420"	.448"	.476"
	.280"	284°	244°	211°	140°	—	H-737	.420"	.448"	.476"
	.280"	286°	246°	214°	142°	—	H-835	.420"	.448"	.476"
	.280"	290°	250°	218°	146°	—	H-836	.420"	.448"	.476"
	.280"	294°	254°	222°	150°	—	H-897	.420"	.448"	.476"
	.300"	274°	230°	199°	139°	—	H-838	.450"	.480"	.510"
	.300"	284°	240°	208°	147°	—	H-735	.450"	.480"	.510"
	.300"	292°	248°	216°	154°	—	H-736	.450"	.480"	.510"
	.320"	290°	244°	212°	152°	61°	H-700	.480"	.512"	.544"
	.334"	280°	242°	212°	153°	77°	H-851	.501"	.534"	.568"
	.334"	284°	246°	216°	157°	79°	H-852	.501"	.534"	.568"
	.357"	300°	252°	219°	162°	95°	H-881	.536"	.571"	.607"
.363"	304°	256°	223°	165°	100°	H-880	.545"	.581"	.617"	
Hydraulic Roller Small Block Chevy V-8  1.100" Dia. Base Circle	.290"	268°	220°	187°	125°	—	HR-878	.435"	.464"	.493"
	.316"	272°	218°	186°	131°	48°	HR-853	.474"	.506"	.537"
	.326"	256°	209°	177°	126°	56°	HR-745	.489"	.522"	.554"
	.340"	276°	222°	191°	140°	74°	HR-854	.510"	.544"	.578"
	.350"	266°	222°	192°	142°	78°	HR-746	.525"	.560"	.595"
	.373"	270°	222°	191°	144°	92°	HR-759	.560"	.597"	.634"
	.373"	274°	226°	196°	149°	96°	HR-760	.560"	.597"	.634"
.373"	278°	230°	200°	154°	100°	HR-761	.560"	.597"	.634"	
Hydraulic Roller Big Block Chevy and Ford 302 HO V-8  1.200" Dia. Base Circle	.278"	291°	241°	206°	135°	—	HR-861	.417"	.445"	.473"
	.278"	296°	246°	211°	139°	—	HR-862	.417"	.445"	.473"
	.372"	282°	236°	204°	152°	93°	HR-762	.558"	.595"	.632"
	.372"	286°	240°	208°	156°	97°	HR-763	.558"	.595"	.632"
	.372"	290°	244°	212°	160°	101°	HR-764	.558"	.595"	.632"
	.372"	294°	248°	216°	164°	105°	HR-682	.558"	.595"	.632"
	.372"	298°	252°	220°	168°	108°	HR-683	.558"	.595"	.632"
	.372"	302°	256°	224°	172°	112°	HR-680	.558"	.595"	.632"
	.372"	306°	260°	228°	175°	114°	HR-726	.558"	.595"	.632"
	.372"	310°	264°	232°	179°	116°	HR-681	.558"	.595"	.632"
	.372"	314°	268°	237°	185°	120°	HR-856	.558"	.595"	.632"
	.372"	320°	274°	243°	191°	124°	HR-857	.558"	.595"	.632"
	.400"	298°	246°	214°	166°	116°	HR-888	.600"	.640"	.680"
	.400"	302°	250°	218°	170°	119°	HR-889	.600"	.640"	.680"
	.400"	306°	254°	222°	174°	122°	HR-890	.600"	.640"	.680"
	.400"	310°	258°	227°	178°	125°	HR-891	.600"	.640"	.680"
	.400"	314°	262°	231°	182°	128°	HR-892	.600"	.640"	.680"
	.400"	318°	266°	235°	186°	131°	HR-885	.600"	.640"	.680"
	.400"	322°	270°	238°	189°	133°	HR-886	.600"	.640"	.680"
	Street/Drag Oval Track; Solid Lifter .842 Dia.  Valve Lash Hot: .014" Int .016" Ex	.210"	232°	200°	160°	49°	—	S-863	.315"	.336"
.266"		258°	226°	190°	117°	—	S-769	.399"	.426"	.452"
.266"		261°	229°	193°	120°	—	S-770	.399"	.426"	.452"
.290"		273°	234°	198°	132°	—	S-903	.435"	.464"	.493"
.294"		254°	226°	195°	132°	—	S-904	.441"	.470"	.500"
.300"		276°	244°	210°	146°	—	S-758	.450"	.480"	.510"
.344"		264°	236°	205°	149°	81°	S-879	.516"	.550"	.585"
.346"		298°	264°	231°	172°	95°	S-782	.520"	.553"	.588"
.356"		298°	264°	229°	170°	100°	S-868	.534"	.570"	.605"
.358"		278°	246°	215°	158°	94°	S-882	.537"	.573"	.608"
.383"		312°	276°	242°	185°	121°	S-755	.575"	.613"	.651"
.387"		318°	280°	246°	189°	125°	S-756	.580"	.619"	.658"
.390"		324°	284°	250°	193°	129°	S-757	.585"	.624"	.663"

**LOBE SPECIFICATION CHART**

**(SOLID LIFTER) STREET, DRAG & OVAL TRACK**

TYPE OF CAM	LOBE LIFT	ADVERTISED DURATION	.050 DUR	.100 DUR	.200 DUR	.300 DUR	MASTER No.	Valve Lift With Zero Lash Rocker Arm Ratio		
								1.5	1.6	1.7
<b>SOLID LIFTER: .842" DIA. Street Perf. Valve Lash Hot .020"</b>	.283"	256°	210°	180°	121°	—	S-50E4	.425"	.453"	.481"
	.283"	260°	216°	183°	118°	—	S-99+10	.425"	.453"	.481"
	.298"	264°	228°	193°	133°	—	S-66	.448"	.477"	.506"
	.298"	286°	250°	213°	144°	—	S-84	.448"	.477"	.506"
	.320"	272°	238°	202°	140°	56°	S-598	.480"	.512"	.544"
	.320"	278°	244°	223°	157°	64°	ZM-89	.480"	.512"	.544"
<b>SOLID LIFTER: .842" Dia. Bracket Race Drags</b>	.320"	290°	250°	216°	156°	68°	S-293	.480"	.512"	.544"
	.365"	304°	264°	225°	166°	102°	S-302	.548"	.584"	.620"
	.373"	314°	272°	232°	174°	110°	S-364	.560"	.597"	.634"
	.373"	330°	286°	246°	189°	121°	S-336	.560"	.597"	.634"
	.380"	320°	274°	236°	178°	116°	S-344	.570"	.608"	.646"
	.390"	330°	284°	244°	186°	125°	S-346	.585"	.624"	.663"
<b>SOLID LIFTER: .842" Dia. Oval Track Valve Lash Hot .016" INT .018" EX.</b>	.320"	282°	254°	222°	160°	64°	S-650	.480"	.512"	.544"
	.320"	286°	258°	226°	164°	68°	S-643	.480"	.512"	.544"
	.330"	276°	242°	207°	148°	74°	S-574	.495"	.528"	.561"
	.334"	286°	252°	218°	158°	78°	S-604	.501"	.534"	.568"
	.338"	282°	247°	212°	154°	79°	S-404	.507"	.541"	.574"
	.341"	288°	254°	218°	158°	84°	S-564	.512"	.546"	.580"
	.346"	294°	260°	224°	164°	90°	S-565	.520"	.553"	.588"
	.350"	278°	244°	209°	152°	85°	S-550	.525"	.560"	.595"
	.350"	285°	251°	217°	158°	87°	S-599	.525"	.560"	.595"
	.350"	288°	254°	220°	161°	90°	S-385	.525"	.560"	.595"
	.356"	282°	248°	214°	156°	89°	S-521	.534"	.570"	.605"
	.363"	284°	251°	216°	160°	94°	S-613	.544"	.581"	.617"
	.365"	288°	254°	219°	162°	97°	S-480	.547"	.584"	.620"
	.365"	288°	258°	225°	168°	102°	S-539	.547"	.584"	.620"
	.365"	292°	259°	223°	164°	98°	S-396	.547"	.584"	.620"
	.370"	296°	263°	229°	171°	108°	S-387	.555"	.592"	.629"
	.374"	302°	268°	234°	178°	112°	S-447	.560"	.598"	.636"
	.380"	306°	272°	238°	181°	117°	S-537	.570"	.608"	.646"
<b>SOLID LIFTER: .842" Dia. MAGNUM-XL Oval Track Series: Valve Lash Hot .014" INT .016" EX</b>	.352"	270°	242°	210°	154°	88°	S-652	.528"	.563"	.598"
	.356"	274°	246°	214°	158°	92°	S-635	.534"	.570"	.605"
	.363"	278°	250°	218°	162°	98°	S-633	.545"	.580"	.617"
	.370"	282°	254°	223°	166°	104°	S-632	.555"	.592"	.629"
	.376"	286°	258°	227°	170°	108°	S-645	.565"	.602"	.640"
	.386"	290°	262°	228°	172°	112°	S-621	.580"	.617"	.656"
<b>*SOLID LIFTER: .842" Dia. Oval Track</b>	.390"	294°	266°	232°	176°	116°	S-630	.585"	.624"	.663"
	.345"	276°	248°	218°	161°	89°	S-654	.517"	.552"	.586"
	.350"	280°	252°	222°	165°	95°	S-642	.525"	.560"	.595"
<b>SOLID LIFTER: NASCAR .875" Dia. Oval Track Series: Valve Lash Hot .014" INT .016" EX</b>	.357"	284°	256°	226°	169°	101°	S-653	.535"	.571"	.606"
	.335"	274°	247°	217°	161°	82°	S-644	.502"	.536"	.569"
	.380"	288°	258°	224°	168°	108°	S-585	.570"	.608"	.646"
	.386"	292°	262°	228°	173°	113°	S-611	.580"	.617"	.656"
	.388"	286°	258°	228°	173°	115°	S-634	.582"	.621"	.660"
	.392"	296°	266°	232°	177°	118°	S-528	.588"	.627"	.666"
	.394"	300°	270°	237°	182°	122°	S-522	.590"	.630"	.670"
	.403"	304°	274°	241°	187°	128°	S-505	.604"	.645"	.685"
.403"	308°	278°	245°	191°	132°	S-523	.604"	.645"	.685"	
.407"	312°	282°	249°	195°	136°	S-504	.610"	.651"	.692"	

\* New; Longer life, Tru radius "Bullnose" grinds: 35% smoother over the nose. (Excellent for higher ratio rockers)

LOBE SPECIFICATION CHART		1.000" BASE CIRCLE		.750" DIA. ROLLER BEARING		(OVAL TRACK ROLLER)				
TYPE OF CAM	LOBE LIFT	ADVERTISED DURATION	.050 DUR	.100 DUR	.200 DUR	.300 DUR	MASTER No.	Valve Lift With Zero Lash Rocker Arm Ratio		
								1.5	1.6	1.7
Oval Track Roller: Valve Lash Hot .028"	.376"	294 Deg.	260°	226°	173°	112°	R-561	.564"	.602"	.639"
	.376"	300 Deg.	266°	232°	177°	116°	R-562	.564"	.602"	.639"
	.376"	312 Deg.	278°	244°	186°	120°	R-559	.564"	.602"	.639"
	.393"	294 Deg.	260°	226°	174°	117°	R-555	.590"	.629"	.668"
	.393"	300 Deg.	266°	232°	180°	123°	R-503	.590"	.629"	.668"
	.393"	314 Deg.	280°	246°	192°	131°	R-560	.590"	.629"	.668"
	.400"	284 Deg.	252°	218°	168°	116°	R-582	.600"	.640"	.680"
	.400"	290 Deg.	256°	223°	172°	119°	R-554	.600"	.640"	.680"
	.400"	294 Deg.	260°	228°	176°	122°	R-548	.600"	.640"	.680"
	.400"	300 Deg.	266°	233°	181°	125°	R-534	.600"	.640"	.680"
	.400"	304 Deg.	270°	236°	184°	128°	R-533	.600"	.640"	.680"
	.400"	308 Deg.	274°	240°	187°	130°	R-479	.600"	.640"	.680"
	.410"	288 Deg.	254°	221°	172°	122°	R-514	.615"	.656"	.697"
	.410"	294 Deg.	260°	226°	177°	126°	R-494	.615"	.656"	.697"
	.410"	298 Deg.	264°	230°	181°	128°	R-553	.615"	.656"	.697"
	.410"	300 Deg.	266°	233°	183°	130°	R-571	.615"	.656"	.697"
	.411"	302 Deg.	268°	235°	185°	132°	R-493	.616"	.657"	.698"
	.411"	308 Deg.	274°	241°	189°	135°	R-515	.616"	.657"	.698"
	.420"	286 Deg.	254°	222°	174°	125°	R-558	.630"	.672"	.714"
	.420"	290 Deg.	258°	226°	177°	128°	R-581	.630"	.672"	.714"
	.420"	298 Deg.	264°	232°	183°	133°	R-556	.630"	.672"	.714"
	.420"	304 Deg.	268°	236°	185°	133°	R-590	.630"	.672"	.714"
	.420"	304 Deg.	270°	240°	188°	135°	R-535	.630"	.672"	.714"
	.420"	306 Deg.	272°	242°	190°	137°	R-651	.630"	.672"	.714"
	.420"	310 Deg.	276°	243°	191°	138°	R-467	.630"	.672"	.714"
	.420"	314 Deg.	280°	247°	194°	140°	R-469	.630"	.672"	.714"
	.420"	318 Deg.	282°	248°	195°	141°	R-470	.630"	.672"	.714"
	.430"	290 Deg.	256°	223°	175°	128°	R-586	.645"	.688"	.731"
	.430"	292 Deg.	258°	225°	177°	129°	R-661	.645"	.688"	.731"
	.430"	294 Deg.	260°	227°	178°	130°	R-575	.645"	.688"	.731"
.430"	296 Deg.	262°	229°	180°	132°	R-663	.645"	.688"	.731"	
.430"	298 Deg.	264°	231°	182°	133°	R-576	.645"	.688"	.731"	
.430"	302 Deg.	268°	234°	185°	136°	R-577	.645"	.688"	.731"	
.430"	306 Deg.	272°	238°	189°	138°	R-578	.645"	.688"	.731"	
.430"	310 Deg.	276°	243°	192°	141°	R-587	.645"	.688"	.731"	
Oval Track Roller: "Accelerator" Intake Profiles. Valve Lash Hot .024"	.433"	282 Deg.	252°	221°	175°	130°	R-627	.650"	.693"	.736"
	.433"	286 Deg.	256°	225°	179°	134°	R-625	.650"	.693"	.736"
	.433"	288 Deg.	258°	227°	181°	136°	R-667	.650"	.693"	.736"
	.433"	290 Deg.	260°	229°	183°	137°	R-624	.650"	.693"	.736"
	.433"	292 Deg.	262°	231°	185°	139°	R-668	.650"	.693"	.736"
	.433"	294 Deg.	264°	233°	187°	141°	R-623	.650"	.693"	.736"
	.433"	298 Deg.	268°	237°	191°	145°	R-626	.650"	.693"	.736"
	.433"	302 Deg.	272°	241°	195°	149°	R-649	.650"	.693"	.736"
Oval Track Roller Intake Valve Lash Hot .018"	.440"	290 Deg.	260°	228°	180°	132°	R-607	.660"	.704"	.748"
	.446"	294 Deg.	264°	234°	186°	139°	R-518	.670"	.713"	.758"

LOBE SPECIFICATION CHART			(OVAL TRACK) ROLLER:				EXPANSION TECHNOLOGY SERIES			
TYPE OF CAM	LOBE LIFT	ADVERTISED DURATION	.050 DUR	.100 DUR	.200 DUR	.300 DUR	MASTER No.	Valve Lift With Zero Lash Rocker Arm Ratio		
								1.5	1.6	1.7
Standard Bearing Core: .750" Dia. Roller Brg	.376"	272°	238°	205°	151°	94°	R-867	.564"	.602"	.639"
	.376"	276°	242°	209°	154°	96°	R-855	.564"	.602"	.639"
	.376"	280°	246°	213°	160°	100°	R-859	.564"	.602"	.639"
1.000" Base Circle	.376"	286°	252°	219°	165°	105°	R-777	.564"	.602"	.639"
	.376"	290°	256°	223°	170°	109°	R-858	.564"	.602"	.639"
Valve Lash Hot .024"	.376"	304°	270°	236°	180°	118°	R-709	.564"	.602"	.639"
	.376"	308°	274°	240°	183°	120°	R-710	.564"	.602"	.639"
	.376"	316°	282°	248°	189°	124°	R-711	.564"	.602"	.639"
	.393"	292°	258°	226°	175°	119°	R-797	.590"	.629"	.668"
	.400"	276°	244°	212°	161°	109°	R-865	.600"	.640"	.680"
	.400"	280°	248°	215°	164°	113°	R-866	.600"	.640"	.680"
	.400"	298°	264°	232°	179°	124°	R-712	.600"	.640"	.680"
	.405"	302°	268°	236°	185°	130°	R-798	.607"	.648"	.688"
	.410"	290°	256°	223°	174°	124°	R-716	.615"	.656"	.697"
	.411"	306°	272°	239°	187°	134°	R-717	.616"	.657"	.698"
	.411"	310°	276°	243°	191°	137°	R-718	.616"	.657"	.698"
	.420"	288°	256°	224°	176°	127°	R-720	.630"	.672"	.714"
	.420"	292°	260°	228°	179°	130°	R-721	.630"	.672"	.714"
	.420"	294°	262°	230°	181°	132°	R-722	.630"	.672"	.714"
	.420"	298°	266°	234°	184°	133°	R-723	.630"	.672"	.714"
	.420"	308°	274°	242°	190°	137°	R-724	.630"	.672"	.714"
	.430"	300°	266°	232°	183°	134°	R-687	.645"	.688"	.731"
	.430"	304°	270°	236°	187°	137°	R-688	.645"	.688"	.731"
	.430"	308°	274°	240°	191°	140°	R-689	.645"	.688"	.731"
	.433"	296°	266°	235°	189°	143°	R-701	.650"	.693"	.736"
	.433"	300°	270°	239°	193°	147°	R-702	.650"	.693"	.736"
	.433"	304°	274°	243°	197°	151	R-703	.650"	.693"	.736"
	.433"	306°	276°	245°	199°	153°	R-704	.650"	.693"	.736"
	.446"	284°	253°	221°	174°	129°	R-697	.670"	.713"	.758"
	.446"	288°	258°	227°	179°	131°	R-686	.670"	.713"	.758"
	.446"	292°	261°	229°	181°	134°	R-698	.670"	.713"	.758"
	.446"	292°	262°	232°	184°	137°	R-706	.670"	.713"	.758"
.446"	296°	266°	234°	186°	137°	R-685	.670"	.713"	.758"	
.446"	298°	268°	238°	190°	143°	R-707	.670"	.713"	.758"	
.446"	302°	272°	242°	194°	147°	R-708	.670"	.713"	.758"	
.450"	280°	250°	220°	177°	135°	R-860	.675"	.720"	.765"	
55-MM Core .750" Dia. Roller Brg	.410"	298°	264°	231°	182°	130°	R-820	.615"	.656"	.697"
	.410"	302°	268°	235°	186°	134°	R-821	.615"	.656"	.697"
	.420"	286°	254°	223°	175°	127°	R-822	.630"	.672"	.714"
1.275" Base Circle	.420"	290°	258°	227°	180°	131°	R-823	.630"	.672"	.714"
	.420"	296°	264°	233°	186°	137°	R-824	.630"	.672"	.714"
Valve Lash Hot .024"	.420"	300°	268°	237°	191°	141°	R-825	.630"	.672"	.714"
	.430"	290°	260°	230°	181°	132°	R-826	.645"	.688"	.731"
	.430"	294°	264°	234°	186°	136°	R-827	.645"	.688"	.731"
	.430"	298°	268°	238°	191°	140°	R-828	.645"	.688"	.731"
	.430"	302°	272°	242°	195°	144°	R-829	.645"	.688"	.731"
	.430"	306°	276°	246°	199°	148°	R-830	.645"	.688"	.731"
	.433"	286°	256°	226°	181°	135°	R-831	.650"	.693"	.736"
	.433"	290°	260°	230°	185°	139°	R-832	.650"	.693"	.736"
	.433"	294°	264°	234°	190°	143°	R-833	.650"	.693"	.736"
	.433"	298°	268°	238°	194°	147°	R-834	.650"	.693"	.736"
	.440"	311°	272°	238°	188°	139°	R-899	.660"	.704"	.748"
	.446"	300°	270°	240°	194°	146°	R-839	.670"	.713"	.758"
	.450"	298°	265°	235°	189°	144°	R-898	.675"	.720"	.765"

LOBE SPECIFICATION CHART			(STREET & DRAG RACE) "ROLLER"					.750" DIA ROLLER BRG.		
TYPE OF CAM	LOBE LIFT	ADVERTISED DURATION	.050 DUR	.100 DUR	.200 DUR	.300 DUR	MASTER No.	Valve Lift With Zero Lash Rocker Arm Ratio		
								1.5	1.6	1.7
STREET ROLLER: VALVE LASH HOT .028"	.323"	278°	234°	197°	138°	60°	R-549	.484"	.517"	.549"
	.329"	284°	242°	208°	149°	69°	R-516	.493"	.526"	.559"
	.350"	280°	240°	206°	153°	87°	R-483	.525"	.560"	.595"
	.354"	290°	246°	212°	157°	91°	R-259	.531"	.566"	.602"
	.380"	290°	250°	215°	162°	107°	R-359	.570"	.608"	.646"
	.385"	284°	244°	211°	160°	106°	R-412	.578"	.616"	.654"
DRAG RACE ROLLER: VALVE LASH HOT .028"	.376"	300°	266°	232°	177°	116°	R-562	.564"	.602"	.639"
	.376"	312°	278°	244°	186°	120°	R-559	.564"	.602"	.639"
	.393"	300°	266°	232°	180°	123°	R-503	.590"	.629"	.668"
	.393"	314°	280°	246°	192°	131°	R-560	.590"	.629"	.668"
	.400"	300°	260°	225°	173°	120°	R-358	.600"	.640"	.680"
	.400"	300°	266°	233°	181°	125°	R-534	.600"	.640"	.680"
	.400"	304°	270°	236°	184°	128°	R-533	.600"	.640"	.680"
	.400"	308°	274°	240°	187°	130°	R-479	.600"	.640"	.680"
	.410"	300°	270°	238°	188°	134°	R-486	.615"	.656"	.697"
	.410"	334°	298°	263°	206°	146°	R-512	.615"	.656"	.697"
	.410"	338°	302°	266°	209°	148°	R-580	.615"	.656"	.697"
	.411"	302°	268°	235°	185°	132°	R-493	.616"	.657"	.698"
	.411"	308°	274°	241°	189°	135°	R-515	.616"	.657"	.698"
	.420"	304°	270°	240°	188°	135°	R-535	.630"	.672"	.714"
	.420"	310°	276°	243°	191°	138°	R-467	.630"	.672"	.714"
	.420"	314°	280°	247°	194°	140°	R-469	.630"	.672"	.714"
	.420"	318°	282°	248°	195°	141°	R-470	.630"	.672"	.714"
	.420"	320°	286°	252°	200°	144°	R-468	.630"	.672"	.714"
	.420"	322°	290°	257°	205°	148°	R-471	.630"	.672"	.714"
	.420"	326°	294°	261°	208°	151°	R-509	.630"	.672"	.714"
	.427"	302°	268°	236°	185°	136°	R-417	.640"	.683"	.726"
	.427"	306°	272°	239°	189°	138°	R-424	.640"	.683"	.726"
	.427"	310°	276°	243°	192°	140°	R-426	.640"	.683"	.726"
	.427"	314°	280°	248°	196°	144°	R-414	.640"	.683"	.726"
	.427"	318°	282°	249°	197°	145°	R-427	.640"	.683"	.726"
	.427"	320°	286°	253°	201°	148°	R-466	.640"	.683"	.726"
	.430"	302°	268°	234°	185°	136°	R-577	.645"	.688"	.731"
	.430"	306°	272°	238°	189°	138°	R-578	.645"	.688"	.731"
	.430"	310°	276°	243°	192°	141°	R-587	.645"	.688"	.731"
	.440"	306°	274°	242°	193°	144°	R-527	.660"	.704"	.748"
	.440"	322°	290°	258°	207°	155°	R-508	.660"	.704"	.748"
	.440"	326°	294°	261°	210°	157°	R-499	.660"	.704"	.748"
	.443"	314°	282°	250°	200°	150°	R-473	.664"	.708"	.753"
	.443"	318°	286°	254°	204°	153°	R-472	.664"	.708"	.753"
	.450"	318°	286°	254°	204°	153°	R-495	.675"	.720"	.765"
	.450"	322°	290°	257°	206°	154°	R-511	.675"	.720"	.765"
	.450"	324°	292°	259°	207°	156°	R-536	.675"	.720"	.765"
	.450"	334°	298°	264°	210°	158°	R-513	.675"	.720"	.765"
	.457"	332°	288°	251°	200°	152°	R-406	.686"	.731"	.777"
	.457"	336°	292°	255°	204°	155°	R-400	.686"	.731"	.777"
	.457"	344°	304°	266°	213°	164°	R-517	.686"	.731"	.777"
	.457"	354°	314°	278°	224°	169°	R-489	.686"	.731"	.777"
.460"	308°	276°	244°	195°	148°	R-592	.690"	.736"	.782"	
.460"	314°	282°	250°	200°	152°	R-507	.690"	.736"	.782"	
.460"	318°	286°	254°	204°	155°	R-506	.690"	.736"	.782"	
.460"	350°	310°	274°	221°	169°	R-488	.690"	.736"	.782"	
.464"	321°	290°	258°	208°	160°	R-453	.696"	.742"	.789"	
.470"	324°	282°	247°	198°	153°	R-409	.705"	.752"	.799"	
.470"	318°	286°	254°	205°	157°	R-510	.705"	.752"	.799"	
.472"	326°	295°	262°	213°	165°	R-452	.708"	.755"	.802"	
.475"	332°	288°	252°	203°	157°	R-487	.712"	.760"	.807"	
.480"	332°	300°	267°	218°	171°	R-454	.720"	.768"	.816"	
.490"	326°	288°	254°	206°	162°	R-456	.735"	.784"	.833"	
.497"	334°	294°	260°	211°	167°	R-455	.745"	.795"	.845"	
.506"	332°	300°	268°	221°	175°	R-482	.759"	.809"	.860"	
.507"	342°	302°	267°	218°	174°	R-441	.760"	.811"	.862"	
.520"	334°	294°	260°	213°	171°	R-440	.780"	.832"	.884"	

LOBE SPECIFICATION CHART			(DRAG RACE) ROLLER:				EXPANSION TECHNOLOGY SERIES			
TYPE OF CAM	LOBE LIFT	ADVERTISED DURATION	.050 DUR	.100 DUR	.200 DUR	.300 DUR	MASTER No.	Valve Lift With Zero Lash Rocker Arm Ratio		
								1.5	1.6	1.7
Small Block Chevy V-8: Std. Bearing Core. .750" Dia Roller Brg. 1.000" Base Circle  Valve Lash Hot .024"	.400"	312°	278°	244°	191°	134°	R-713	.600"	.640"	.680"
	.400"	316°	282°	248°	195°	138°	R-714	.600"	.640"	.680"
	.400"	320°	286°	252°	199°	142°	R-715	.600"	.640"	.680"
	.411"	314°	280°	247°	195°	141°	R-719	.616"	.657"	.698"
	.420"	312°	278°	245°	193°	139°	R-725	.630"	.672"	.714"
	.430"	312°	278°	245°	194°	143°	R-690	.645"	.688"	.731"
	.430"	314°	280°	247°	196°	145°	R-691	.645"	.688"	.731"
	.430"	316°	282°	249°	198°	147°	R-692	.645"	.688"	.731"
	.430"	318°	284°	251°	200°	149°	R-693	.645"	.688"	.731"
	.430"	320°	286°	253°	202°	151°	R-694	.645"	.688"	.731"
	.430"	324°	290°	257°	206°	155°	R-768	.645"	.688"	.731"
	.440"	310°	278°	246°	197°	148°	R-695	.660"	.704"	.748"
Big Block Chevy V-8: Std. Bearing Core. .750" Dia. Roller Brg. 1.100" Base Circle  Valve Lash Hot .024"	.450"	320°	292°	261°	214°	164°	R-791	.675"	.720"	.765"
	.450"	332°	297°	262°	212°	160°	R-728	.675"	.720"	.765"
	.450"	328°	298°	267°	220°	170°	R-792	.675"	.720"	.765"
	.450"	336°	308°	277°	227°	174°	R-793	.675"	.720"	.765"
	.460"	328°	284°	247°	200°	155°	R-850	.690"	.736"	.782"
	.470"	322°	290°	258°	209°	161°	R-696	.705"	.752"	.799"
	.471"	346°	304°	269°	216°	165°	R-739	.707"	.754"	.801"
	.475"	310°	282°	251°	205°	160°	R-788	.713"	.760"	.808"
	.475"	318°	284°	250°	201°	155°	R-729	.713"	.760"	.808"
	.475"	318°	288°	257°	211°	166°	R-789	.713"	.760"	.808"
	.475"	348°	306°	270°	221°	174°	R-790	.713"	.760"	.808"
	.480"	328°	290°	257°	209°	162°	R-901	.720"	.768"	.816"
	.480"	356°	316°	279°	228°	179°	R-849	.720"	.768"	.816"
	.483"	320°	284°	248°	199°	155°	R-732	.725"	.773"	.821"
	.483"	328°	292°	257°	208°	164°	R-778	.725"	.773"	.821"
	.483"	332°	296°	261°	213°	168°	R-779	.725"	.773"	.821"
	.484"	306°	268°	234°	190°	150°	R-771	.726"	.774"	.822"
	.488"	323°	283°	250°	203°	158°	R-900	.732"	.781"	.830"
	.505"	324°	292°	260°	214°	172°	R-874	.758"	.808"	.859"
	.506"	342°	310°	278°	231°	186°	R-875	.759"	.810"	.860"
.508"	358°	317°	279°	227°	181°	R-734	.762"	.813"	.864"	
.510"	320°	288°	257°	214°	174°	R-794	.765"	.816"	.867"	
.527"	322°	290°	257°	212°	172°	R-735	.791"	.843"	.896"	
Small & Big Block Chevy V-8:  55-MM Core .850" Dia Roller Brg. 1.275" Base circle  Valve Lash Hot .024"	.460"	328°	296°	263°	215°	166°	R-884	.690"	.736"	.782"
	.464"	322°	290°	258°	211°	165°	R-883	.696"	.742"	.789"
	.470"	304°	274°	244°	199°	156°	R-766	.705"	.752"	.799"
	.470"	310°	280°	250°	205°	162°	R-767	.705"	.752"	.799"
	.475"	348°	306°	271°	223°	176°	R-795	.713"	.760"	.808"
	.475"	354°	314°	275°	223°	174°	R-786	.713"	.760"	.808"
	.487"	310°	276°	244°	198°	156°	R-781	.731"	.779"	.828"
	.496"	320°	286°	252°	206°	162°	R-752	.744"	.794"	.843"
	.500"	340°	300°	264°	213°	168°	R-783	.750"	.800"	.850"
	.508"	358°	318°	281°	230°	184°	R-734	.762"	.813"	.864"
	.510"	318°	288°	258°	214°	174°	R-796	.765"	.816"	.867"
	.510"	328°	292°	255°	208°	167°	R-785	.765"	.816"	.867"
	.510"	340°	300°	263°	212°	169°	R-748	.765"	.816"	.867"
	.524"	312°	279°	244°	197°	157°	R-747	.786"	.838"	.890"
	.524"	318°	286°	254°	209°	170°	R-765	.786"	.838"	.890"
.527"	323°	291°	259°	215°	175°	R-733	.791"	.843"	.896"	



# FAST-ZONE

## VALVE SPRING KITS

### LATE MODEL HONDA/ACURA MOTORS

We are pleased to offer our new Fast-Zone™ High Performance Harmonically Dampened Valve Spring Kits for the popular late model Honda 4-CYL SOHC and DOHC Platforms.

Isky Valve Spring Kits are engineered for street or race applications. All kits are drop-in installations. In some cases with ihger lift cams, the only modification required is machining the valve guide to allow for additional retainer to seal clearance.

Isky Valve Springs are wound from the finest quality, super clean chrome-silicon wire and processed for maximum durability and sustained performance.



### HONDA CIVIC D16A6 1.6L SOHC

The Civic kit consists of Single Valve Springs, Titanium Retainers and Exhaust Valve Spring Locaters. No machining required for installation.

#### KIT COMPONENTS

Kit Part No.	(16) Valve Springs	O.D. I.D.	Seat Press.	Open Press.	(16) Titanium Retainers	(8) Exhaust Spring Locaters	Coil Bind	Max Lift
12300	306-S	.934" .650"	65 lbs @1.670"	155 lbs @1.220"	116-TI	116-VSL	1.080"	.475"

**Note:** Isky 306-S single valve springs are compatible with stock steel retainers. However, stock retainers weigh 11.4 grams and our 116-TI is only 6 grams (a considerable weight advantage for the high revving enthusiast)! Retain stock intake locaters but discard stock exhaust locaters and replace with Isky 116-VSL for a uniform intake/exhaust installed valve spring height. Use stock valve locks.



# FAST-ZONE

## VALVE SPRING KITS

### ACURA B-18A/B 1.8L DOHC (NON-VTEC)

Several options are available for the B-Series Acura. The 406-S Single Outer is a great Harmonically Dampened "Stock Replacement" Valve Spring for pure Stock Cams and is compatible with Stock Retainers, Locaters and Valve Locks.

When converting to Dual Springs for high performance applications on the "B" Series Cylinder Head, you must also install our special Hand-Seat Locaters and Titanium Retainers as the Stock units are not machined to accept the inner spring. Use Stock Valve Locks with both 12500 and 12600 kits.



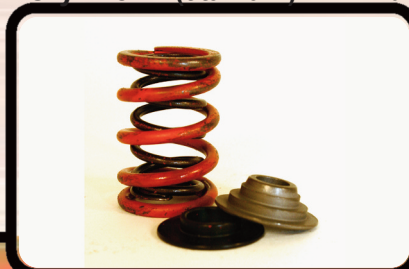
#### KIT COMPONENTS

Kit Part No.	(16) Valve Springs	Outer OD/ID	Inner OD/ID	Seat Press.	Open Press.	(16) Titanium Retainers	(16) Spring Locaters	Coil Bind	*Max Lift
12500	406-S (Single)	1.105" .815"	---	50 lbs @1.400"	125 lbs @1.000"	---	---	.750"	.400"
	3205 *(Dual) street	1.105" .815"	.815" .630"	54 lbs @1.400"	160 lbs @.950"	118-TI	118-VSL	.720"	*.480"
12600	3305 *(Dual) race	1.105" .815"	.815" .610"	70 lbs @1.400"	204 lbs @.950"	118-TI	118-VSL	.720"	*.500"

\*Warning: any valve lift over .440" will require machining down the valve guide to prevent retainer to valve seal interference.

#### Weight Comparison (grams)

Stock Retainers 14.3  
Isky 118-TI (titanium) 7.0



# FAST-ZONE

## VALVE SPRING KITS

**D16Z & Y 50HC VTEC**

The "D" Series VTEC kit consists of Single Harmonic Dampening Valve Springs and Titanium Retainers. In most cases, the stock steel retainer is adequate, as it only weighs 6.4 grams. However, for those who want maximum weight reduction, Isky 117-TI Titanium Retainers weigh only 4.2 grams. The 506-S Single Valve Spring is great for all around performance.

*No machining required for installation.*



### KIT COMPONENTS

Kit Part No.	(16) Valve Springs	O.D. I.D.	Seat Press.	Open Press.	(16) Titanium Retainers	Coil Bind	Max Lift
12400	506-S	.889" .605"	60 lbs @1.950"	165 lbs @1.500"	117-TI	1.395"	.450"

**Note:** retain stock intake and exhaust locaters and valve locks.



# FAST-ZONE

## VALVE SPRING KITS

### HONDA/ACURA DOHC VTEC

**B Series (B-16A, B-17A, B-18C)  
H-22 Series**

*The DOHC VTEC kit consists of Dual Harmonically Dampened Valve Springs, Hard-Seat Spring Locaters and Titanium Retainers. No machining is required for installation.*

*Although compatible with stock retainers, for sustained high rpm we highly recommend Isky 119-TI Titanium Retainers as they offer a tremendous weight savings. See chart below.*



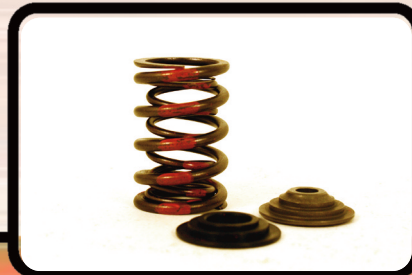
#### KIT COMPONENTS

Kit Part No.	(16) Valve Springs	Outer OD/ID	Inner OD/ID	Seat Press.	Open Press.	(16) Titanium Retainers	(16) Spring Locaters	Coil Bind	Max Lift
12700	3405 "B" Series	1.169" .885"	.885" .675"	80 lbs @1.320"	190 lbs @.850"	119-TI	119-VSL	.760"	.470"
12800	3505 "H-22" Series	1.169" .885"	.885" .659"	78 lbs @1.400"	195 lbs @.930"	119-TI	119-VSL	.880"	.470"

Note: retain stock valve locks.

#### Weight Comparison (grams)

Stock Retainers 13.5  
Isky 119-TI (titanium) 9.0



**ISKY**  
RACING CAMS

# BMC • "A" TYPE 4 Cyl. OHV Engines AUSTIN-HEALY SPRITE

Sprite - Morris Minor - Mini - Cooper - Midget  
850, 948, 970, 997, 998, 1070, 1098 & 1275 CC

\*NOTE: CAMS NOT AVAILABLE OUTRIGHT.



GRIND NO.	TYPE	INTAKE	EXHAUST	VALVE LIFT	VALVE LASH HOT	ADVERTISED DURATION	.050 DURATION	GRIND CUSTOMERS CAM
MM-32	TORQUER	22-56	59-25	.330	.016	258°	221°	B
				.325	.019	264°	228°	
MM-55	COMBINATION	25-59	59-25	.325	.016	264°	228°	A
				.325	.019	264°	228°	
MM-66	COMPETITION	36-70	70-36	.325	.020	286°	250°	A
				.325	.020	286°	250°	
MM-88	MAX. COMP	43-77	77-43	.405	.025	300°	254°	A
				.405	.025	300°	254°	
MM-99	MAX. COMP	53-87	87-53	.405	.025	320°	262°	A
				.405	.025	320°	262°	

### ASSEMBLY KIT COMPONENTS (STREET & COMPETITION)

VVE-005	8	SILICON CHROME OUTER VALVE SPRINGS
SP-006	8	SILICON CHROME INNER VALVE SPRINGS
SP-003	8	CHROME MOLY TUBULAR PUSHRODS (850-1098CC)
SP-013	8	CHROME MOLY PUSHRODS (1275CC)
SP-007	8	ALUMINUM VALVE SPRING RETAINERS

(ONE CAN OF ISKY REV LUBE INCLUDED FREE WITH CAMS)

### COMPETITION ASSEMBLY KIT (SUPER COMPETITION)

VVE-005	8	SILICON CHROME OUTER VALVE SPRINGS
SP-116	8	SILICON CHROME INNER VALVE SPRINGS
SP-003	8	CHROME MOLY TUBULAR PUSHRODS (850-1098CC)
SP-013	8	CHROME MOLY PUSHRODS (1275CC)
SP-007	8	ALUMINUM VALVE SPRING RETAINERS

# BMW • 2002-1600 4 CYL SOHC



GRIND NO.	TYPE	VALVE LIFT	VALVE LASH COLD	ADVERTISED DURATION	GRIND CUSTOMERS CAM
Z-329	COMBINATION	.378	.010	300°	B
Z-338	COMPETITION	.410	.010	310°	B
Z-327	SUPER COMBINATION	.438	.010	320°	B This grind can only be put on the factory 324° cam.

### VALVE SPRING KIT

Use stock valve spring retainers.

625	8	SILICON CHROME OUTER VALVE SPRINGS
626	8	SILICON CHROME INNER VALVE SPRINGS

**DATSUN • 4-Cyl.**1300cc (B-210)  
& LATE 1200cc Pushrod Engine (A-12)

\*NOTE: CAMS NOT AVAILABLE OUTRIGHT.



GRIND NO.	TYPE	INTAKE	EXHAUST	VALVE LIFT	VALVE LASH HOT	ADVERTISED DURATION	.050 DURATION	GRIND CUSTOMERS CAM
DB-66	COMBINATION	22-64	64-22	.420	.020	266°	228°	A
DB-77	COMPETITION	32-74	74-32	.420	.020	286°	250°	A
DB-99	SUPER COMPETITION	39-81	81-39	.480	.028	300°	254°	A
Z-105-14	SUPER COMPETITION	52-80	80-52	.534	.028	312°	270°	A
Z-291-04	SUPER COMPETITION	46-84	74-56	.512	.028	310°	265°	A

**ASSEMBLY KIT COMPONENTS**

455-D 8 SILICON CHROME OUTER VALVE SPRINGS  
 JA-006 8 SILICON CHROME INNER VALVE SPRINGS

(ONE CAN OF ISKY REV LUBE INCLUDED FREE WITH CAM.)

**DATSUN • 4-Cyl. Pushrod Engines**EARLY 1200/1300cc \*(J-13) &  
LATE 1500/1600cc \*(R-16)

\*NOTE: CAMS NOT AVAILABLE OUTRIGHT.

GRIND NO.	TYPE	INTAKE	EXHAUST	VALVE LIFT	VALVE LASH HOT	ADVERTISED DURATION	.050 DURATION	GRIND CUSTOMERS CAM
DR-66	COMBINATION	24-62	62-24	.420	.020	266°	228°	A
DR-77	COMPETITION	34-72	72-34	.420	.020	286°	250°	A
DR-99	SUPER COMPETITION	42-78	78-42	.480	.028	300°	254°	A

**ASSEMBLY KIT COMPONENTS**

#906-AM(8) 8 SILICON CHROME INNER VALVE SPRINGS  
 D-003 8 CHROME MOLY TUBULAR PUSHRODS, NON-ADJUSTABLE (1300 C.C.)  
 D-013 8 CHROME MOLY TUBULAR PUSHRODS, NON-ADJUSTABLE (1500 C.C.)

ENGINE SERIAL OR ID# STAMPED ON BLOCK BEGINS WITH THIS CODE.  
 (ONE CAN OF ISKY REV LUBE INCLUDED FREE WITH CAM.)

# DATSUN • 1600cc L-16 : 1800cc L-18 & NEW 2000cc L-20 4 Cyl. SOHC Engines

\*NOTE: Thicker valve lash caps are required for correct geometry (order by Part # listed below).



OUTRIGHT PART NO.	GRIND NO.	VALVE LASH CAP PART NO.	TYPE	INTAKE	EXHAUST	VALVE LIFT	VALVE LASH COLD	ADVERTISED DURATION	.050 DURATION	GRIND CUSTOMERS CAM
710147	L-475	LC-175	STAGE I	26-64	64-26	.475	.006 .008	270°	222°	A
710148	L-480	LC-175	STAGE II	31-69	69-31	.480	.008 .010	280°	232°	A
710149	L-490	LC-175	STAGE III	36-74	74-36	.490	.010 .012	290°	242°	A
710196	Z-196	LC-263	COMPETITION	51-75	75-51	.530	.010	306°	264°	A
710127	Z-273	LC-263	COMPETITION	51-75	75-51	.595	.010	306°	274°	A

### ASSEMBLY KIT

7005 (8) 8 PAIR SPECIAL ALLOY DUAL VALVE SPRINGS  
 1624-ST (8) 8 STEEL VALVE SPRING RETAINERS

# DATSUN • 6 Cyl. SOHC L-24 Engine 2400cc (240-Z) & 2600cc (260-Z) & 2800cc (280-Z)

\*NOTE: Thicker valve lash caps are required for correct rocker arm geometry (order by Part # listed below).



240Z/260Z OUTRIGHT PART NO.	280Z OUTRIGHT PART NO.	GRIND NO.	VALVE LASH CAP PART NO.	TYPE	INTAKE	EXHAUST	VALVE LIFT	VALVE LASH COLD	ADVERTISED DURATION	.050 DURATION	GRIND CUSTOMERS CAM
715147	718147	L-475	LC-175	STAGE I	26-64	64-26	.475	.006 .008	270°	222°	B
715148	718148	L-480	LC-175	STAGE II	31-69	69-31	.480	.008 .010	280°	232°	B
715149	718149	L-490	LC-175	STAGE III	36-74	74-36	.490	.010 .012	290°	242°	B
715196	718196	Z-196	LC-263	COMPETITION	51-75	75-51	.530	.010	306°	264°	B
715127	718127	Z-273	LC-263	COMPETITION	51-75	75-51	.595	.010	306°	274°	B

### ASSEMBLY KIT

7005 (12) 12 PAIR SPECIAL ALLOY DUAL VALVE SPRINGS  
 1624-ST(12) 12 STEEL VALVE SPRING RETAINERS

(ONE CAN OF ISKY REV LUBE INCLUDED FREE WITH CAMS.)

ENGINE:	240Z	260-280Z
STAGE I	HIGHER LIFT THAN STOCK CAM (SAME DURATION)	HIGHER LIFT BUT SLIGHTLY SHORTER DURATION THAN STOCK CAM
STAGE II	HIGHER LIFT + 10° DURATION OVER STOCK	HIGHER LIFT THAN STOCK CAM (SAME DURATION)
STAGE III	HIGHER LIFT + 20° DURATION OVER STOCK	HIGHER LIFT + 10° DURATION STOCK

# FORD ANGLIA 105E, 109E, 116E and Cortina \*PINTO 1600 Engine & FIESTA



OUTRIGHT PART NO.	GRIND NO.	TYPE	INTAKE	EXHAUST	VALVE LIFT	VALVE LASH HOT	ADVERTISED DURATION	GRIND CUSTOMERS CAM
580184	OR-84	MAXIMUM COMP.	41-79	79-41	.448	.020	300°	A
580144	E-4	TORQUER	19-57	57-19	.425	.018	256°	A
580166	AN-66	COMBINATION	23-61	61-23	.448	.018	264°	A
580100	RPM	COMPETITION	30-68	68-30	.426	.018	278°	A
580111	SUPER RPM	COMPETITION	47-85	85-47	.429	.030	312°	A
580188	AN-88	SUPER COMPETITION	41-79	79-41	.507	.028	300°	A
580133	*PT-3	For '67 & Up 1600 engs.	18-62	62-18	.455	.024	260°	A

### ASSEMBLY KIT COMPONENTS

AN-003	8	CHROME MOLY TUBULAR PUSHRODS, 105E, 109E
AN-013	8	CHROME MOLY TUBULAR PUSHRODS (116E)
*453	8	CHROME MOLY TUBULAR PUSHRODS (1600) PINTO & CORTINA
VVE-005	8	SILICON CHROME OUTER VALVE SPRINGS
SP-006	8	SILICON CHROME INNER VALVE SPRINGS (STREET & COMPETITION)
SP-116	8	SILICON CHROME INNER VALVE SPRINGS (SUPER COMPETITION)
AN-007	8	ALUMINUM VALVE SPRING RETAINERS

**\*NOTE:** This is the only cam that may be installed without notching the piston on the '67 and later 1600 GT engine with crossflow heads and dish-top pistons. This engine also comes in the Ford Pinto. These engines take the #453 pushrod.

# HONDA "CIVIC" • 4 CYL. SOHC (1973-79) (1200cc)



OUTRIGHT PART NO.	GRIND NO.	TYPE	VALVE LIFT	ADVERTISED DURATION	VALVE LASH COLD	GRIND CUSTOMER'S CAM
570129	H-294	OVAL TRACK ROAD RACING	.414	294°	.012 .014	B
570133	Z-337	OVAL TRACK ROAD RACING	.465	290°	.010	B

### ASSEMBLY KIT COMPONENTS

VVE-005	8	CHROME SILICON OUTER VALVE SPRINGS
SP-116	8	CHROME SILICON INNER VALVE SPRINGS

(USE STOCK RETAINERS & INSTALL OUTER SPRING AT 1.300" - SHIM IF NECESSARY)



# FORD ESCORT • 4 Cylinder SOHC (cam in head) Early Engines

\*NOTE: CAMS NOT AVAILABLE OUTRIGHT.

Similar profiles are available for later model factory camshafts equipped with hyd roller lifters. Please contact the Isky factory for more information.



GRIND NO.	TYPE	INTAKE	EXHAUST	VALVE LIFT	VALVE LASH HOT	ADVERTISED DURATION	GRIND CUSTOMERS CAM
256-HYD	TORQUER	18-58	70-6	.467	.000	256°	B
262-B HYD	COMBINATION	19-63	63-19	.458	.000	262°	B
Z-206B HYD	COMPETITION	28-72	72-28	.480	.000	280°	B

# JAGUAR • D.O.H.C. • 6-Cylinder

CAMS NOT AVAILABLE OUTRIGHT.



GRIND NO.	TYPE	INTAKE	EXHAUST	VALVE LIFT	VALVE LASH COLD	ADVERTISED DURATION	.050 DURATION	GRIND CUSTOMERS CAM
X-5	TORQUER	17-57	57-17	.390 .390	.012 .014	254° 254°	230° 230°	E
*XM-2	COMBINATION	19-59	59-19	.404 .404	.012 .014	258° 258°	232° 232°	E
*XM-3	MAXIMUM COMPETITION	24-64	64-24	.424 .424	.012 .014	268° 268°	242° 242°	E
*Z-199	COMPETITION	19-59	59-19	.444 .444	.012 .014	258° 258°	236° 236°	E
*XM-5	ULTRA-SUPER COMP.	29-69	69-29	.440 .440	.012 .014	278° 278°	254° 254°	E

## ASSEMBLY KIT COMPONENTS

JA-005	12	SILICON CHROME OUTER VALVE SPRINGS
JA-006	12	SILICON CHROME INNER VALVE SPRINGS
JA-008	12	THICKENED, HARDENED ADJUSTING DISCS (.177" THICK)

\*These profiles are ground on modified cores only. Prices shown are for (1) Pair of Cams. (ONE CAN OF ISKY REV LUBE INCLUDED FREE WITH CAMS.)

# MGA & MGB • MAGNETTE SEDAN • BMC "B" TYPE •

1500, 1600, 1622 &  
1800 cc engines



\*NOTE: CAMS NOT AVAILABLE OUTRIGHT.

GRIND NO.	TYPE	INTAKE	EXHAUST	LIFT	VALVE LASH HOT	DURATION	.050 DURATION	GRIND CUSTOMERS CAM
Z-99	STOCK REFINISHING	16-50	50-16	.410 .410	.016 .016	246° 246°	---- ----	A
Z-50E4	MILD PERFORMANCE	19-53	53-19	.420 .420	.018 .019	252° 252°	210° 210°	A
T-32	STREET / AUTOCROSS	23-57	59-25	.435 .430	.018 .019	260° 264°	222° 228°	B
T-55	COMPETITION	25-59	59-25	.430 .430	.018 .019	264° 264°	228° 228°	A
T-55+10	COMPETITION	30-64	64-30	.430 .430	.018 .019	274° 274°	238° 238°	A
T-66	MAXIMUM COMP.	36-70	70-36	.430 .430	.020 .020	286° 286°	250° 250°	A

## ASSEMBLY KIT COMPONENTS

\*MG-05 8 SILICON CHROME OUTER VALVE SPRINGS

927-ST(8) 8 CHROME MOLY STEEL RETAINERS

\*MG-06 8 SILICON CHROME INNER VALVE SPRINGS

MG-003 8 CHROME MOLY TUBULAR PUSHRODS (STOCK LIFTER)

3607-ST 8 CHROME MOLY STEEL RETAINERS (MGB-1800cc ENGINES)

MG-013 8 CHROME MOLY TUBULAR PUSHRODS (Sprite or Morris Lifter)

\*#1258 Holesaw required on some MGB engines with small dia. spring seats

(ONE CAN OF ISKY REV LUBE INCLUDED FREE WITH CAMS.)

# MITSUBISHI/CHRYSLER "K-CAR" • 2.2 Litre • 4 Cyl. SOHC



OUTRIGHT PART NO.	GRIND NO.	TYPE	VALVE LIFT	VALVE LASH COLD	ADVERTISED DURATION	.050 DURATION	GRIND CUSTOMERS CAM
550144	440	COMBINATION	.440	.006 .008	280°	230°	B
550146	465	COMPETITION	.465	.006 .008	300°	240°	B
550140	Z-405	COMPETITION	.504	.006 .008	294°	238°	B
550133	Z-338	COMPETITION	.512	.006	310°	254°	B

# OPEL • 4 Cyl. SOHC • \*1900 Engine (See Note Below)

OUTRIGHT		GRIND NO.	TYPE	INTAKE	EXHAUST	VALVE LIFT	SOLID CAM VALVE LASH HOT	ADVERTISED DURATION	.050 DURATION	GRIND CUSTOMERS CAM
SOLID LIFTER CAM.	HYD. LIFTER CAM PART NO.									
625144	625140	OR-4	TORQUER	18-58	58-18	.407	.018	256°		B
625166	625160	OR-66	COMBINATION	24-64	64-24	.430	.018	268°	228°	B
625177	----	OR-77	MAX. COMP.	32-72	72-32	.430	.020	284°	248°	B
625199	----	OR-99	ULT.-SUP. COMP	40-80	80-40	.480	.028	300°	252°	B

\*NOTE: 1971 & later Opel engines come equipped with hydraulic lifters from the factory, and should remain hydraulic. Solid lifter cams should be used in Pre 71' engines that came equipped with factory solid lifters.

ONE CAN OF ISKY REV LUBE INCLUDED FREE WITH CAMS.

# TYPE 4 • 1700-2000cc • PORSCHE 914 • VOLKS 411

## FLAT TAPPET SERIES

OUTRIGHT PART NO.	GRIND NO.	TYPE	INTAKE	EXHAUST	VALVE LIFT	VALVE LASH COLD	ADVERTISED DURATION	.050 DURATION
485121	VP-221	TORQUER	22-58	58-22	.429	.008	260°	222°
485128	VP-228	COMBINATION	27-63	63-27	.433	.008	270°	228°
485110	VP-1010A	COMPETITION	48-84	84-48	.463	.018 .021	312°	268°
485197	Z-197-08	COMPETITION	31-67	67-31	.499	.013 .015	278°	246°
485111	VP-1010	MAX. COMPETITION	54-90	90-54	.468	.018 .021	324°	282°
485112	VP-1212	SUPER COMPETITION	52-88	88-52	.510	.018 .021	320°	282°
485113	VP-1011	DUAL PATTERN	48-84	90-54	.463 .468	.018 .021	312° 324°	268° 282°
485114	VP-1213	DUAL PATTERN	48-84	88-52	.463 .510	.018 .021	312° 320°	268° 282°

### COMPETITION KIT (VW411)

4852-H	8	SPECIALLY HARDENED LIFTERS
V-005D	8	SILICON CHROME OUTER VALVE SPRINGS WITH DAMPER
327-ST	8	CHROME MOLY STEEL RETAINERS
V-003A-75	8	CHROME MOLY TUBULAR PUSHRODS

### STREET & DRAG KIT (PORSCHE 914)

4852-H	8	SPECIALLY HARDENED LIFTERS
205-G	8	SILICON CHROME OUTER VALVE SPRINGS (USE STOCK RETAINERS)

\*NOTE: The popular 1600cc truck cyl. head and 914 heads require our #208 holesaw and 5/16 pilot for installation. No holesaw is required on standard 411 heads.

(ONE CAN OF ISKY REV LUBE INCLUDED FREE WITH CAMS.)

**WARNING!** Many replacement lifters on the market for these engines are not properly hardened and will cause pre-mature cam lobe wear. For this reason a set of Isky Lifters must be purchased with camshaft for the warranty to be in effect.

**TYPE 4 • 1700-2000cc****PORSCHE 914 • VOLKS 411****HYDRAULIC  
SERIES**

OUTRIGHT PART NO. CAM	GRIND NO.	TYPE	INTAKE	EXHAUST	VALVE LIFT	VALVE LASH COLD	ADVERTISED DURATION	.050 DURATION
485122	222 HYD	TORQUER	29-65	65-29	.433	.000	274°	220°
485129	229 HYD	COMBINATION	33-69	69-33	.450	.000	282°	228°

**ASSEMBLY KIT COMPONENTS (VW411)**

4852-HY*	8	SPECIAL HYDRAULIC LIFTERS
V-005D	8	SILICON CHROME OUTER VALVE SPRINGS
327-ST	8	CHROME MOLY STEEL RETAINERS
V-003*	8	CHROME MOLY TUBULAR PUSHRODS, REQUIRED FOR USE WITH 4852-HY LIFTERS

**ASSEMBLY KIT COMPONENTS (PORSCHE 914)**

4852-HY*	8	SPECIAL HYDRAULIC LIFTERS
205-G	8	SILICON CHROME VALVE SPRINGS
V-003*	8	CHROME MOLY TUBULAR PUSHRODS REQUIRED FOR USE WITH 4852-HY LIFTERS

\*NOTE: These camshafts are intended for use with engines originally factory equipped with hydraulic lifters. ONE CAN OF ISKY REV LUBE INCLUDED FREE WITH CAMS.

## VOLKS RABBIT/SCIROCCO • 4 Cyl. 1500 cc SOHC



OUTRIGHT PART NO.	GRIND NO.	TYPE	INTAKE	EXHAUST	VALVE LIFT	VALVE LASH COLD	ADVERTISED DURATION	.050 DURATION	GRIND CUSTOMERS CAM
**470140	*R-405	TORQUER	26-66	66-26	.405	.014 .016	272°	244°	B
**470142	*R-428	RACE	31-71	71-31	.428	.016 .018	282°	258°	B
470138	*Z-386B-02	FULL RACE	48-72	72-48	.502	.008 .010	302°	280°	B
470136	*Z-367-02	FULL RACE	53-77	77-53	.541	.012 .014	310°	274°	B

**STREET SPRING KIT**

SP-116	8	SILICON INNER VALVE SPRINGS (FOR USE WITH STOCK OUTER VALVE SPRING & RETAINER)
*AL-13	8	HARDENED VALVE LASH CAPS FOR REFITTING LASH - REGROUND AND FULL RACE CAMS ONLY

**\*COMPETITION ASSEMBLY KIT**

455/456	8	SILICON CHROME DUAL VALVE SPRINGS
327-ST	8	LIGHTWEIGHT CHROME MOLY STEEL RETAINERS
*AL-13	8	HARDENED VALVE LASH CAPS FOR REFITTING VALVE LASH (REGROUND AND FULL RACE CAMS ONLY)

**OPTIONAL DUAL SPRING AND RETAINER KIT (RECOMMENDED FOR USE WITH Z-386B-02 & Z-367-02)**

3005	8	SILICON CHROME DUAL VALVE SPRINGS
327-STM	8	LIGHTWEIGHT CHROME MOLY STEEL RETAINERS

\*\*NOTE: These new Isky Cams are ground with stock base circle dia. - lash caps are not necessary. Part No. 470136 & 470138 cams will not work with stock cyl. heads. They are designed for racing heads only.

# VOLKS • (cams with 3-rivet gears)\*\*

1200-1300-1500-1600 cc Engines 1961 thru 1971 Engines (1972-77 see note below)

## FLAT TAPPET SERIES



OUTRIGHT PART NO. CAM ONLY	OUTRIGHT PART NO. CAM & KIT	GRIND NO.	TYPE	INTAKE	EXHAUST	VALVE LIFT	VALVE LASH COLD	VALVE LASH COLD	ADVERTISED DURATION	.050 DURATION
480122	480022	226-MAX	GOOD ALL AROUND	28-62	62-28	.400 .400	*.004 *.004	.008 .008	270° 270°	226° 226°
480123	480023	234-MAX	BROAD MID-RANGE	33-67	67-33	.410 .410	*.004 *.004	.008 .008	280° 280°	234° 234°
480121	480021	221	TORQUER	23-57	57-23	.363 .363	*.004 *.004	.008 .008	260° 260°	222° 222°
480128	480028	228	COMBINATION	28-62	62-28	.366 .366	*.004 *.004	.008 .008	270° 270°	228° 228°
480198	480098	Z-198	COMPETITION	32-66	66-32	.420 .420	*.010N *.012X	---- ----	278° 278°	256° 256°
480110	480010	1010-A	COMPETITION	49-83	83-49	.391 .391	*.013 *.015	.018 .021	312° 312°	268° 268°
480111	480011	1010	MAX. COMPETITION	55-89	89-55	.396 .396	*.013 *.015	.018 .021	324° 324°	282° 282°
480112	480012	1212	SUPER COMPETITION	53-87	87-53	.432 .432	*.013 *.015	.018 .021	320° 320°	282° 282°
480126	480026	Z-264	COMPETITION	43-77	77-43	.422 .422	*.013 *.015	---- ----	300° 300°	258° 258°
480130	480030	Z-300	COMPETITION	50-84	84-50	.450 .450	*.013 *.015	---- ----	314° 314°	282° 282°
480129	480029	Z-298	COMPETITION	51-85	85-51	.460 .460	*.013 *.015	---- ----	316° 316°	282° 282°
480133	480033	Z-332	COMPETITION	55-89	89-55	.464 .464	*.013 *.015	---- ----	324° 324°	280° 280°

**\*IMPORTANT: THESE VALVE LASH SETTINGS SHOULD BE USED ON ALL 1966 AND LATER ENGINES.**

### ASSEMBLY KIT COMPONENTS

VS-002	8	SPECIAL ALLOY HARDENABLE IRON TAPPETS
205-G	8	SILICON CHROME VALVE SPRINGS
V-007	8	ALUMINUM VALVE SPRING RETAINERS
V-004	8	HEX HEAD ADJUSTING SCREWS (FREE WITH KIT)

### RECOMMENDED OPTIONAL EQUIPMENT

V-003-B	8	CHROME MOLY TUBULAR PUSHRODS (1200 CC)
V-003-C	8	CHROME MOLY TUBULAR PUSHRODS (1300-1600 CC)
V-004	8	ROCKER ARM ADJUSTING SCREWS
V-005-D	8	SILICON CHROME OUTER VALVE SPRINGS WITH DAMPER
208	1	HOLE SAW FOR #V-005-D SPRINGS

# TOYOTA LAND CRUISER • 6 Cylinder Engines

\*NOTE: CAMS NOT AVAILABLE OUTRIGHT.



GRIND NO.	TYPE	INTAKE	EXHAUST	VALVE LIFT	VALVE LASH HOT	ADVERTISED DURATION	GRIND CUSTOMERS CAM
Z-50 E 4/06	COMBINATION	17-49	49-17	.425	.018	246°	B
Z-99 + E4	COMBINATION	21-57	57-21	.425	.018 .020	258°	B
Z-99-005	COMBINATION	25-55	55-25	.406	.016 .018	260°	B

# TOYOTA-20R-22R • 4 Cylinder SOHC Engines



OUTRIGHT PART NO.	GRIND NO.	TYPE	VALVE LIFT	VALVE LASH COLD	ADVERTISED DURATION	.050 DURATION	GRIND CUSTOMERS CAM
690144	440	MILD GRIND FOR TURBOCHARGER	.440	.008	280°	230°	B
690146	465	BEST ALL-AROUND PERFORMANCE	.465	.010	300°	240°	B
690155	505B	MAXIMUM COMPETITION	.505	.010	310°	255°	B

### VALVE SPRINGS

626 8 SILICON CHROME INNER VALVE SPRINGS  
(USE WITH STOCK OUTER SPRING)

# TOYOTA CORONA • 1900 cc & COROLLA • 1200 cc 4-Cylinder Pushrod Engines

\*NOTE: CAMS NOT AVAILABLE OUTRIGHT.



1200 GRIND NO.	1900 GRIND NO.	TYPE	INTAKE	EXHAUST	VALVE LIFT	VALVE LASH HOT	ADVERTISED DURATION	GRIND CUSTOMERS CAM
TC-66	TC4-66	COMBINATION	22-62	62-22	.420	.018	264°	A
TC-84	TC4-84	COMPETITION	33-73	73-33	.420	.018	286°	A
505A	505-A	MAXIMUM COMPETITION	40-80	80-40	.480	.028	300°	A

### ASSEMBLY KIT 1200 CC COROLLA ONLY

455/626 8 SILICON CHROME DUAL VALVE SPRINGS STMR 8 STEEL VALVE SPRING RETAINERS

# TOYOTA COROLLA • 1600 cc 4-Cylinder - Pushrod-Hemi Engine (2-TC)



OUTRIGHT PART NO.	GRIND NO.	TYPE	INTAKE	EXHAUST	VALVE LIFT	VALVE LASH HOT	ADVERTISED DURATION	.050 DURATION	GRIND CUSTOMERS CAM
678155	TH-55	COMBINATION	19-61	61-19	.430	.024	260°	222°	A
678177	TH-77	COMPETITION	29-71	71-29	.460	.018	280°	240°	A
678150	LL 505-T	COMPETITION	34-76	76-34	.490	.028	290°	242°	A
678199	TH-99	COMPETITION	39-81	81-39	.480	.028	300°	254°	A
678135	Z-35	COMPETITION	34-74	74-34	.508	.018	288°	254°	A
678190	TH-99 + 10	COMPETITION	44-86	86-44	.480	.028	310°	264°	A
678160	Z-60	MAX. COMPETITION	36-76	76-36	.529	.018	292°	259°	A

## ASSEMBLY KIT COMPONENTS

455/626 8 SILICON CHROME DUAL VALVE SPRINGS  
 STMR 8 STEEL VALVE SPRING RETAINERS

(ONE CAN OF ISKY REV LUBE INCLUDED FREE WITH CAMS.)

# TOYOTA-18 RC • SOHC • 4 Cylinder Corona - Celica Model 8 RC, 18 RC - 1900/2000 cc Engines



OUTRIGHT PART NO.	GRIND NO.	TYPE	INTAKE	EXHAUST	VALVE LIFT	VALVE LASH COLD	ADVERTISED DURATION	GRIND CUSTOMERS CAM
675183	Z-383	COMBINATION	----	----	.450	.006 .008	270°	B
675128	228	COMBINATION	32-68	68-32	.450	.010	280°	B
675174	74-S	COMPETITION	42-78	78-42	.500	.008	300°	B

## ASSEMBLY KIT COMPONENTS

626 8 INNER VALVE SPRINGS (USE WITH STOCK OUTER SPRING AND RETAINER)

(ONE CAN OF ISKY REV LUBE INCLUDED FREE WITH CAMS.)

# TRIUMPH SPITFIRE • 4-Cylinder OHV

\*NOTE: CAMS NOT AVAILABLE OUTRIGHT.



GRIND NO.	TYPE	INTAKE	EXHAUST	VALVE LIFT	VALVE LASH HOT	ADVERTISED DURATION	GRIND CUSTOMERS CAM
HR-8-003	STOCK REFINISH	13-53	53-13	.356	.012	250°	A
E4-58A	COMBINATION	20-60	60-20	.375	.016	260°	A
ZM-66	COMPETITION	24-64	64-24	.430	.018	268°	A
ZM-66+10	COMPETITION	29-69	69-29	.430	.018	278°	A
Z-307	SUPER COMPETITION	40-80	80-40	.480	.028	300°	A

### ASSEMBLY KIT COMPONENTS

VWE-005 8 SILICON CHROME OUTER VALVE SPRINGS  
 SP-116 8 SILICON CHROME INNER VALVE SPRINGS (SUPER COMP.)  
 SP-006 8 SILICON CHROME INNER VALVE SPRINGS (STREET & COMP.)

(ONE CAN OF ISKY REV LUBE INCLUDED FREE WITH CAMS.)

**NOTE: USE STOCK VALVE SPRING RETAINERS**

# TRIUMPH • TR-2, TR-3, TR-4

\*NOTE: CAMS NOT AVAILABLE OUTRIGHT.



GRIND NO.	TYPE	INTAKE	EXHAUST	VALVE LIFT	VALVE LASH HOT	ADVERTISED DURATION	GRIND CUSTOMERS CAM
TR-23	COMBINATION	20-60	60-20	.440	.015	260°	A
TR-555	COMPETITION	24-64	64-24	.435	.015	268°	A
TR-555+10	COMPETITION	29-69	69-29	.435	.015	268°	A
TR-666	COMPETITION	33-73	73-33	.435	.018	286°	A
TR-777	MAX. COMPETITION	40-80	80-40	.480	.028	300°	A

### ASSEMBLY KIT COMPONENTS

TR-05 8 SILICON CHROME OUTER VALVE SPRINGS  
 TR-06 8 SILICON CHROME INNER VALVE SPRINGS  
 TR-003 8 CHROME MOLY TUBULAR PUSHRODS, NON-ADJUSTABLE  
 927-ST(8) 8 CHROME MOLY STEEL RETAINERS

(ONE CAN OF ISKY REV LUBE INCLUDED FREE WITH CAMS.)



# TRIUMPH • 6-Cylinder OHV Engines TR-6, GT-6

\*NOTE: CAMS NOT AVAILABLE OUTRIGHT.



GRIND NO.	TYPE	INTAKE	EXHAUST	VALVE LIFT	VALVE LASH HOT	ADVERTISED DURATION	GRIND CUSTOMERS CAM
Z-19	ROAD & RACE	24-64	64-25	.400	.016	268°	B
Z-66+10	COMPETITION	31-71	71-31	.425	.018	282°	B

# VOLVO • 4-Cylinder B-16 or B-18/20 Model Engines

OUTRIGHT		GRIND NO.	TYPE	INTAKE	EXHAUST	VALVE LIFT	VALVE LASH HOT	ADVERTISED DURATION	GRIND CUSTOMERS CAM
B-16 PART NO.	B-18/20 PART NO.								
705161	700161	VV-61	STOCK REPL. TORQUER	20-56	56-20	.425	.020	256°	A
705171	700171	VV-71	COMBINATION	26-62	62-26	.428	.020	268°	A
705181	700181	VV-81	COMPETITION	35-71	71-35	.428	.020	286°	A
	700132	Z-322	COMPETITION	32-68	68-32	.480	.018	280°	A
705191	700191	VV-91	MAX. COMPETITION	42-78	78-42	.480	.028	300°	A
	700139	Z-349	MAX. COMPETITION	42-78	78-42	.510	.014 .016	300°	A
705110	700110	VV-101	MAX. COMPETITION	44-86	86-44	.480	.028	310°	A
705111	700111	VV-111	SUPER COMPETITION	49-91	91-49	.480	.028	320°	A
	700130	Z-309	SUPER COMPETITION	49-85	85-49	.538	.028	314°	A

\*NOTE: ONE CAN OF ISKY REV LUBE INCLUDED FREE WITH CAMS.

### B-16 ASSEMBLY KIT

*625	8	OUTER VALVE SPRINGS
*626	8	INNER VALVE SPRINGS
327-ST	8	CHROME MOLY STEEL RETAINERS

IVS-5/16	8	ISKY VALVE STEM OIL SEALS
*VST-5/16	1	INSTALLATION CUTTER FOR SEALS
*208-M	1	HOLESAW REQUIRED FOR SPRING INSTALLATION

### B-18 ASSEMBLY KIT

*625	8	OUTER VALVE SPRINGS
*626	8	INNER VALVE SPRINGS
PO-17	8	ALUMINUM SPRING RETAINERS
202-H	8	HARDENABLE IRON LIFTERS
VL-123	8	CHROME MOLY PUSHRODS (FOR 202-H LIFTER)

IVS-11/32	8	ISKY VALVE STEM OIL SEALS
*VST-11/32	1	INSTALLATION CUTTER FOR VALVE SEALS
*208-M	1	HOLESAW REQUIRED FOR SPRING INSTALLATION

### B-20 ASSEMBLY KIT

*625	8	OUTER VALVE SPRINGS
*626	8	INNER VALVE SPRINGS
327-ST	8	CHROME MOLY STEEL RETAINERS
202-H	8	HARDENABLE IRON LIFTERS
VL-123	8	CHROME MOLY PUSHROD (FOR 202-H LIFTER)

IVS-5/16	8	ISKY VALVE STEM OIL SEALS
*VST-5/16	1	INSTALLATION CUTTER FOR VALVE SEALS
*208-M	1	HOLESAW REQUIRED FOR SPRING INSTALLATION
VL-013	8	PUSHRODS - B-18-20 ENGINE - STOCK LIFTER

- HOLE-SAWING PROCEDURE FOR -  
VALVE SPRING SEATS

**CHEV SMALL BLOCK, 265 THRU 400**

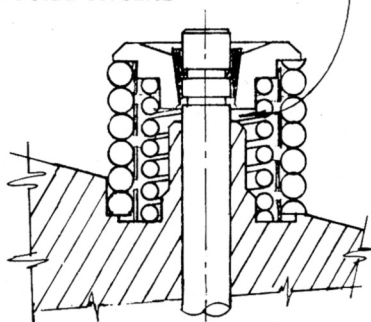
**1970-73 LT-1, Z-28 and ANGLE PLUG CYLINDER HEADS**  
(Chevy Part No. 3965742)

THIS ASSEMBLY AND PROCEDURE IS NOW STANDARD ON ALL ISKY HYD. SOLID & ROLLER CAMS.

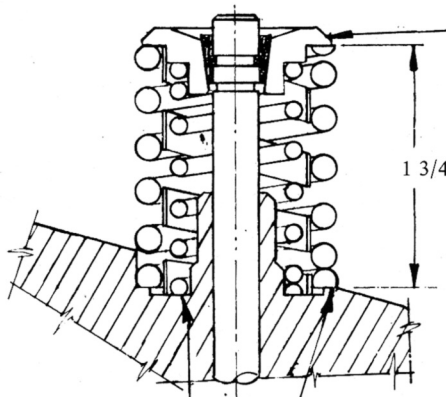
PARTS IN ASSEMBLY:

No. 507-ST	CHROME MOLY STEEL RETAINERS
No. 6005, 6105	DUAL VALVE SPRINGS (HYD, HYD. ROLLER & SOLID)
No. 507-STA	CHROME MOLY STEEL RETAINERS
No. 6205	DUAL VALVE SPRINGS (MECH. ROLLER)

APPROX. 380 LBS. AT .600" LIFT  
ALLOW 1/16" TO 1/8" CLEARANCE  
TO GUIDE OR SEAL



170-180 LBS. AT SEAT  
WITH No. 507-ST  
STEEL RETAINER



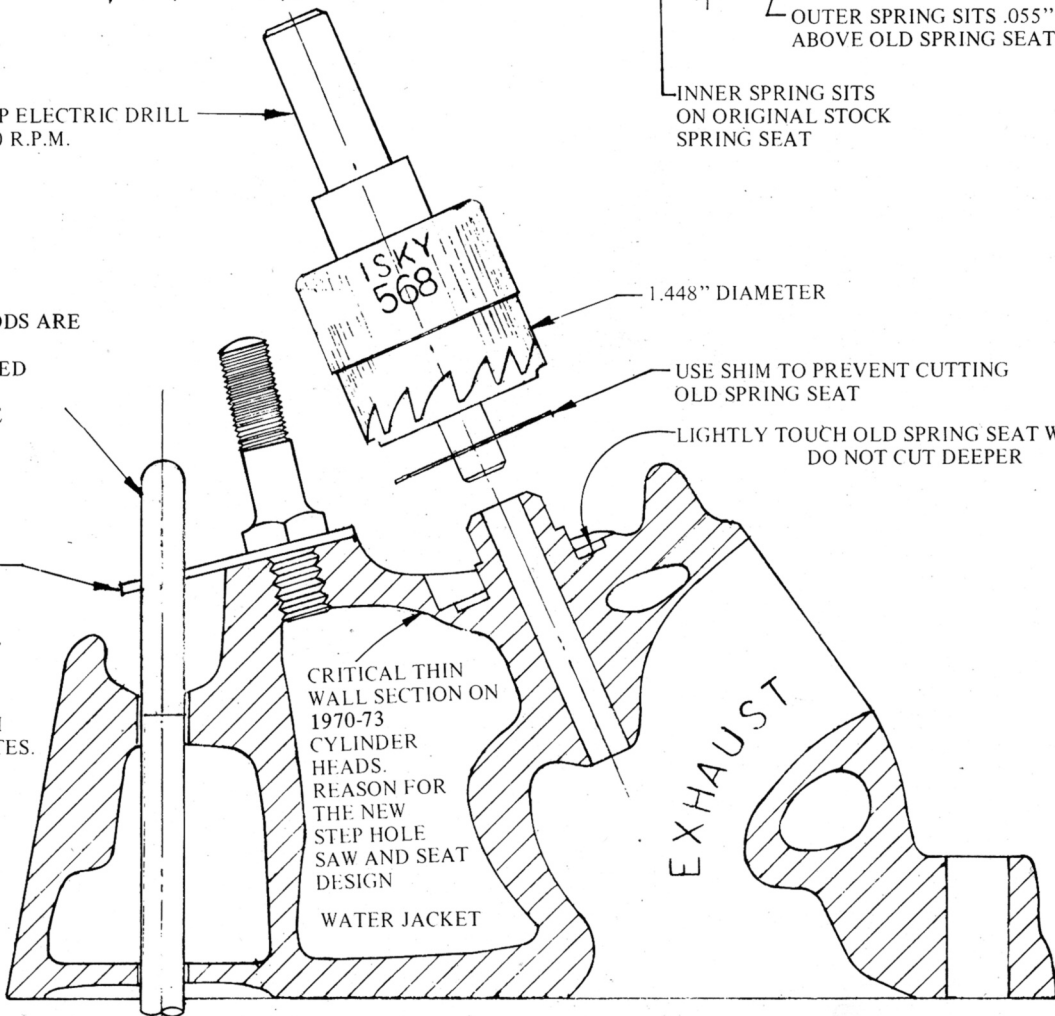
1 3/4

OUTER SPRING SITS .055"  
ABOVE OLD SPRING SEAT

INNER SPRING SITS  
ON ORIGINAL STOCK  
SPRING SEAT

DRIVE WITH 1/2 HP ELECTRIC DRILL  
200-400 R.P.M.

ISKY PUSHRODS ARE  
AVAILABLE  
HEAT-TREATED  
TO SUIT NEW  
GUIDE PLATE



1.448" DIAMETER

USE SHIM TO PREVENT CUTTING  
OLD SPRING SEAT

LIGHTLY TOUCH OLD SPRING SEAT WITH CUTTER  
DO NOT CUT DEEPER

LATE 1970 HEADS  
& UP HAVE CASE  
HARDENED PUSH  
ROD GUIDES AND  
SCREW IN STUDS.  
CASE HARDENED  
PUSHRODS ARE  
MANDATORY WITH  
THESE GUIDE PLATES.

CRITICAL THIN  
WALL SECTION ON  
1970-73  
CYLINDER  
HEADS.  
REASON FOR  
THE NEW  
STEP HOLE  
SAW AND SEAT  
DESIGN

WATER JACKET

EXHAUST

# Do you know your V.O.T.C.?



## What is V.O.T.C.?

V.O.T.C. is ISKY'S revolutionary new concept in aiding in the selection and installation of a racing camshaft. V.O.T.C. (Short for VALVE OPENING AT TOP DEAD CENTER) is "the amount the valves are actually off their seats at TDC" during overlap. How does this help you? Well, very simply it will tell you whether or not the racing camshaft you're thinking of installing in your engine will be tolerated. In other words will it install with sufficient V/P (Valve to Piston) clearance?

## Why worry about V.O.T.C.?

Very simply V.O.T.C. has a direct bearing on your V/P clearance because as V.O.T.C. increases V/P clearance decreases. Unfortunately the most unasked question by racers installing a particular racing camshaft is "Will my valves clear my pistons?" This most important aspect is very often overlooked and many engines are damaged by insufficient V/P (Valve to Piston) clearance. If the camshaft is a mild hydraulic grind to be installed in a low compression stock engine, there is usually NO PROBLEM. However, with the multitude of engine models, from year to year, having variables such as cylinder head combustion chamber volume, compression ratio, stock camshaft, etc., it is becoming impossible to give a definite yes or no answer as to V.P.C. (Valve/Piston Clearance).

Even when using special racing pistons, insufficient V.P.C. can result when long overlap cams are employed.

## EXAMPLE: Engines in the Car

The simple removal of one intake and one exhaust valve spring on your engine will enable you to determine your V/P clearance with a modified camshaft. Begin by cranking the engine over to T.D.C. compression on #1 cyl. With ball-stud rocker arm engines remove the intake and exhaust rocker arms from #1 cyl. With shaft mounted rocker engines, it is necessary to remove the entire rocker shaft from the #1 cylinder side. A Valve Spring Removal Kit is next used to remove the intake and exhaust valve springs. The kit includes an air fitting which threads into the spark plug hole and accepts shop air pressure to hold the valves up on their seats, and two "Light Tension Springs" that simulate the original springs and facilitate checking.

Remove the #1 cyl. spark plug and replace it with the appropriate air fitting. Connect shop air pressure to the fitting and using the Valve Spring Removal Tool, remove the #1 cyl. intake and exhaust valve springs. Install ISKY'S "Light Tension" checking springs and replace the keepers and retainers. Release the air pressure and employ a dial indicator on the retainer or a graduate scale alongside, and now measure and record the distance of free valve travel from the seated position to the piston crown. You may then subtract the ISKY V.O.T.C. Value from this figure and determine what your actual V/P clearance will be when the Isky cam is installed. Follow the same procedure to determine your exhaust V/P clearance. Having accomplished this reconnect the shop air pressure to the cylinder, replace the regular intake and exhaust valve springs and the rocker arms to their original position.

## EXAMPLE: Sufficient V/P Clearance

The valve traveled distance from seated position to open, on a certain Chevy small block V-8 engine is .250" Int. and .270" Ex. The V.O.T.C. for the desired ISKY 310 Hyd. cam is .132", hence 250" travel minus .132" V.O.T.C. = .118" Int. V/P clearance and .270" Travel minus .132" V.O.T.C. = .138" Ex. V/P clearance. This is greater than the tolerable minimum clearance of .100", so the 310° HYD. camshaft will install in this engine nicely.

## EXAMPLE: Insufficient Clearance

Valve traveled distance seat to piston is .200" Int. and .210" Ex. Intake valve travel .200" minus .132" V.O.T.C. = .068" V/P clearance. Ex. Valve Travel .210" minus .132" V.O.T.C. = .078" V/P clearance. Since .068" and .078" are both under the tolerance .100" V/P minimum clearance, this cam will not install safely!

## EXAMPLE: Engine on Engine Stand

When building up an engine on the bench from scratch, you'll be ordering special racing piston no doubt. By all means do furnish the Piston Co. with the V.O.T.C. values pertinent to your camshaft plus your valve diameters. This way your piston reliefs (eyebrows) should be correct. But you can't be too careful! So let's install #1 piston (without rings) in the bore for the actual check of V/P clearance.

The table on the following page contains the pertinent V.O.T.C. values for all popular V.8 engines in use today. Space prohibits listing less popular V-8 and 6 cyl engines. However, should you desire V.O.T.C. information for any engine not listed feel free to write the ISKY factory for this information. We know the Racer and Top Tuners will accept ISKY'S new term V.O.T.C. because it's needed and long over due. We suspect our contemporaries will fight the term and attempt to conjure up a new term to seal the credit for themselves. We at ISKENDERIAN refer to that as the "Penalty of Leadership."

**LISTED BELOW ARE EXAMPLES OF THE VALVE OPEN VALUES AT T.D.C. OVERLAP (V.O.T.C.)  
ON SOME OF OUR MORE POPULAR CAM PROFILES FOR THESE ENGINES**

Engine	Grind	Tappet Lift at TDC Overlap	
		Intake / Exhaust	VOTC Intake / Exhaust
<b>CHEVY SMALL BLOCK V-8 265-350</b>	256-HYD	.040 / .016	.060 / .024
	262-HL-HYD	.042	.063
	270-HYD-HL	.049 / .051	.074 / .076
	270-MEGA-HYD	.056 / .059	.084 / .089
	280-MEGA-HYD	.072 / .074	.109 / .112
	292-MEGA-HYD	.091 / .094	.137 / .141
	304-MEGA-HYD	.110 / .112	.165 / .168
	Z-20	.066	.099
	Z-25	.094	.141
	Z-35	.106	.159
	Z-40	.118 / .121	.177 / .181
	Z-50	.103 / .104	.155 / .156
	Z-65	.126	.189
	Z-70	.114	.172
	Z-75	.133	.200
Z-85	.144	.216	
505-T	.104	.156	
RR-520	.080	.120	
RR-570-T	.098	.147	
RR-505-T	.093	.139	
RR-575	.091	.137	
RR-641-E	.162 / .171	.243 / .257	
RR-602	.126	.189	
RR-630	.135	.202	
RR-660	.152	.228	
RR-662	.160	.240	
<b>CHEVY BIG BLOCK V8 396-454</b>	262-HL-HYD	.042	.073
	270-MEGA-HYD	.059"	.103
	280-MEGA-HYD	.074"	.129
	292-MEGA-HYD	.094"	.164
	256-HYD	.040 / .016	.070 / .028
	Z-55	.103 / .104	.180 / .182
	Z-33	.101	.177
	Z-77	.118 / .121	.207 / .212
	Z-90	.111 / .125	.194 / .219
	Z-95	.133	.233
	Z-89	.114	.200
	Z-88	.126	.220
	RR-640	.114	.200
	RR-650	.126	.220
	RR-727	.163	.285
RR-654	.152	.266	
RR-747-C	.162 / .168	.283 / .294	
<b>CHRYSLER "B" ENGINE 383-440</b>	256-HYD	.040 / .016	.060 / .024
	262-HL-HYD	.042	.063
	270-HYD-HL	.049 / .051	.074 / .076
	280-HYD-HL	.060	.090
	270-MEGA-HYD	.056 / .059	.084 / .089
	280-MEGA-HYD	.072 / .074	.109 / .112
	RPM-300	.066	.099
	B-777	.085	.127
	292-MEGA-HYD	.091 / .094	.137 / .141
	304-MEGA-HYD	.110 / .112	.165 / .168
	Z-35	.106	.159
	505-T	.104	.156
	Z-70	.114	.172
	Z-75	.133	.200
	590	.167	.251
	616	.171 / .167	.257 / .251
	RR-627	.174 / .167	.261 / .251
	RR-505-T	.093	.139
	RR-735	.168 / .158	.252 / .237
	RR-660	.152	.228

\* ALL TAPPET LIFT AND VALVE OPEN VALUES  
ARE BASED ON ZERO VALVE LASH.

Engine	Grind	Tappet Lift at TDC Overlap	
		Intake / Exhaust	VOTC Intake / Exhaust
<b>CHRYSLER "A" ENGINE 273-360</b>	256-HYD	.040 / .016	.060 / .024
	262-HL-HYD	.042	.063
	270-HYD-HL	.049 / .051	.074 / .076
	280-HYD-HL	.060	.090
	300-HYD-HL	.076	.114
	B-777	.085	.127
	292-MEGA-HYD	.091 / .094	.137 / .141
	304-MEGA-HYD	.110 / .112	.165 / .168
	1012-C	.155	.232
	505-A	.104	.156
Z-35	.106	.159	
555	.132	.198	
<b>CHRYSLER 426 ST. HEMI</b>	288-HYD	.085	.127
	SH-444	.103	.155
	SH-520	.132	.198
	590	.167	.251
	616	.171 / .167	.257 / .251
	RR-700	.174 / .174	.273 / .264
	RR-780/294	.199 / .199	.312 / .302
	RR-781-A	.164 / .178	.267 / .270
	RR-770/288	.186 / .186	.292 / .282
	<b>FORD 221-302 &amp; 351 WINDSOR</b>	270-HL-HYD	.049 / .051
280-HYD		.060	.096
300-HYD		.073	.117
256-HYD		.040 / .016	.064 / .026
262-B-HYD		.040	.060
270-MEGA-HYD		.056 / .059	.090 / .095
280-MEGA-HYD		.072 / .074	.116 / .120
292-MEGA-HYD		.091 / .094	.146 / .150
FL-368		.095	.152
FL-468		.118 / .121	.189 / .194
FL-568	.114	.182	
FL-358	.094	.150	
FL-378	.101	.161	
RR-670-A	.150 / .157	.240 / .251	
<b>FORD BOSS 302-351 &amp; 351 CLEVELAND</b>	FL-370	.095	.166
	FL-470	.118 / .121	.206 / .211
	FL-570	.114	.200
	RR-747-C	.170 / .176	.298 / .308
	RR-747-D	.179 / .186	.314 / .326
<b>FORD 332-428 V-8</b>	262-HYD	.040	.070
	282-HYD	.060	.105
	270-MEGA-HYD	.056 / .059	.098 / .102
	280-MEGA-HYD	.072 / .074	.126 / .129
	EE-391	.101	.177
	EE-390	.095	.166
	EE-393	.118 / .121	.206 / .211
EE-396	.114	.200	
EE-399	.130	.228	
<b>PONTIAC 389-421 V-8</b>	280-HYD-HL	.060	.090
	270-MEGA-HYD	.056 / .059	.084 / .089
	280-MEGA-HYD	.072 / .074	.109 / .112
	292-MEGA-HYD	.091 / .094	.137 / .141
	304-MEGA-HYD	.110 / .112	.165 / .168
	RPM-300	.066	.099
	256-HYD	.040 / .016	.060 / .024
	262-HL-HYD	.042	.063
	270-HL-HYD	.049 / .051	.074 / .076
	CC-400	.094	.141
	CC-500	.106	.159
	Z-70	.114	.172
	Z-75	.133	.200
	RR-630	.135	.202
	RR-675	.138 / .135	.207 / .202

# HOW TO PREVENT ROLLER CAM WALK

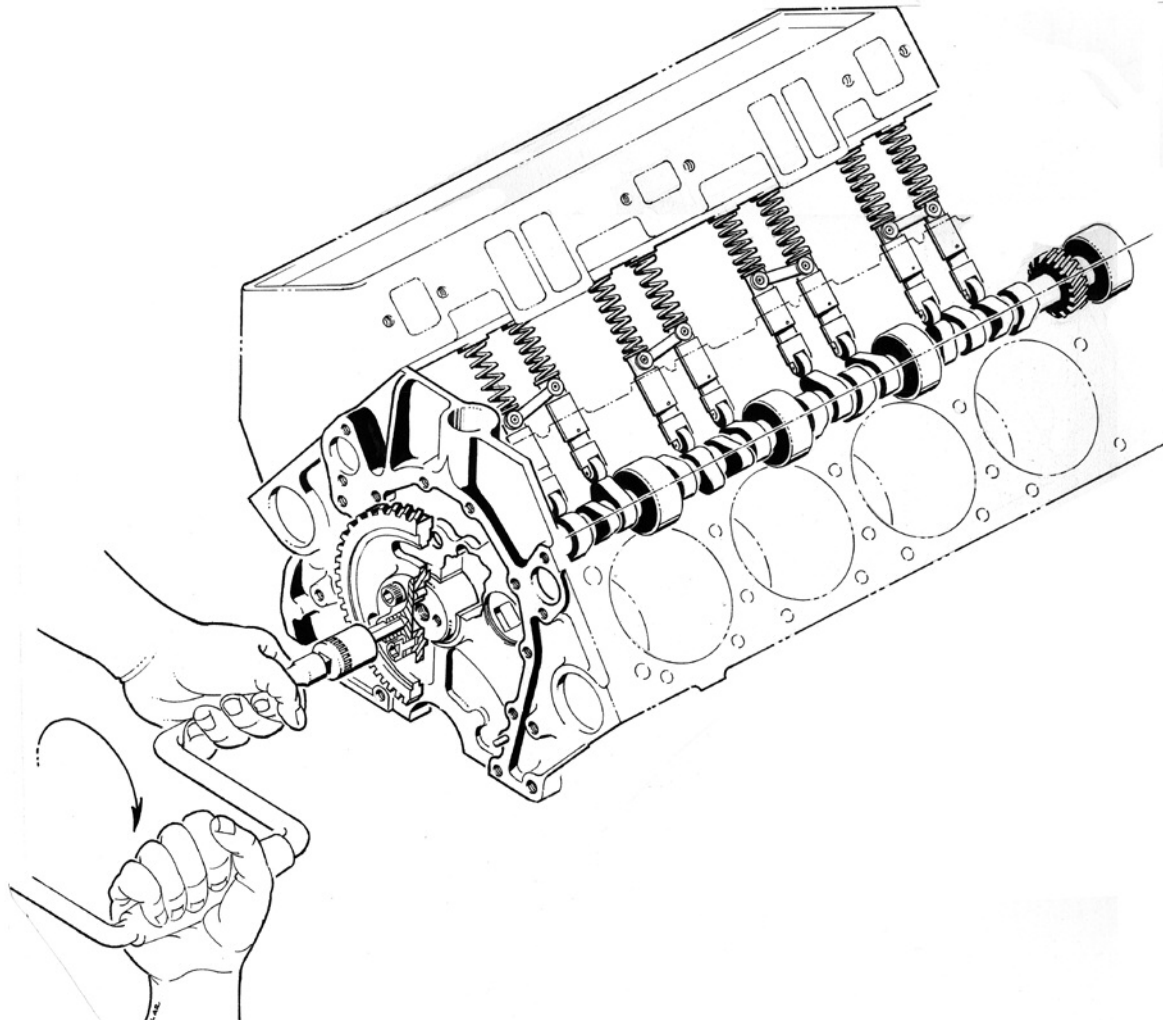


Figure 1

## WHY USE ROLLER TAPPETS?

The advantage in using roller tappets is that they take in stride every engine condition from slow speed idling, through intermediate to extreme high speed operation. The first V-8 roller tappet camshafts were tedious to install requiring the block to be drilled for bolt-in guide plates. Later, when Isky patented the first self-guided roller tappets in 1958, the roller camshaft became a simple slip-in installation.

## CAM WALK (AXIAL THRUST) PHENOMENON

As roller cams became more popular and racers removed their flat lifter camshafts in favor of the roller cams, some racers experienced cam walk (either forward or backward cam movement in the block) along with erratic distributor timing. The tell-tale signs are a worn thrust face on the block (if movement was backward) or a scored timing chain cover (if movement was forward), or excessive wear of the cam's distributor drive gear.

## THE ENGINE BLOCK IS DISCOVERED TO BE THE PROBLEM

At about this time Iskenderian was running Dynamometer Tests of flat versus roller cams on the new 327 cu. in. Chevy engine. After all scheduled flat lifter cams were tested, we began testing a series of roller grinds for power output. Much to our dismay the first roller cam tested showed a bad power loss. A check up showed the distributor timing had moved. Further inspection showed the cam had walked forward in the block, scoring the timing chain cover.

Ed Iskenderian immediately took interest in these problems and to isolate the cause, he removed the timing chain (disconnecting the cam from the crank) and removed all pushrods and rocker arms from the engine, leaving only the camshaft, rollers and rev kit springs (which pre-load the tappets to the camshaft.) With the cam now independent of the crankshaft, he revolved the cam with a speed handle wrench and socket on one of the cam sprocket bolts (Figure 1). Turning in the normal running direction, after 20-30 turns, sure enough the camshaft had screwed itself out of the block approximately 1/8 inch.

Then in curiosity he reversed the turning direction and found the cam to walk backward (Figure 1a). Now, where did the problem lie? In the cam assembly or the cylinder block? Isky's curiosity induced him to try this same cam and roller tappet combination in another spare block. When he did he found he could turn the cam in either direction indefinitely, without experiencing cam walk. This confirmed his suspicion that the first block had its tappet bosses bored out of square with the cam bearing bore, causing the roller tappets to thread the camshaft in or out, depending on the direction of rotation.

**HOW CAN THE TAPPET BOSSES BE "OUT OF SQUARE"?**

Since Factory machining of the engine block is done in sequence at different stations, an engine block having just been line bored, next moves down to the tappet boss boring station and could easily be mislocated slightly, if any of its datum points were burred or if a metal chip lodged between the datum point and the fixture. While the angular error would probably only amount to a fraction of a degree, the roller followers can now no longer take a true path around the cam lobe. Instead, the followers now skid laterally during the rise and fall cycle. It is this lateral skid force that transfers to the camshaft and all 16 tappets can easily create several hundred lbs. of cam thrust force (Figure 2).

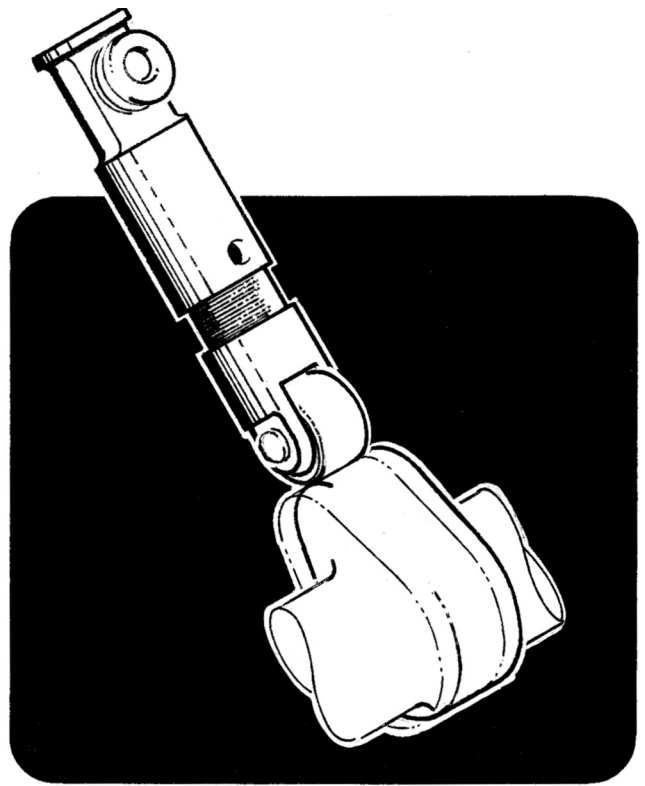


Figure 1a

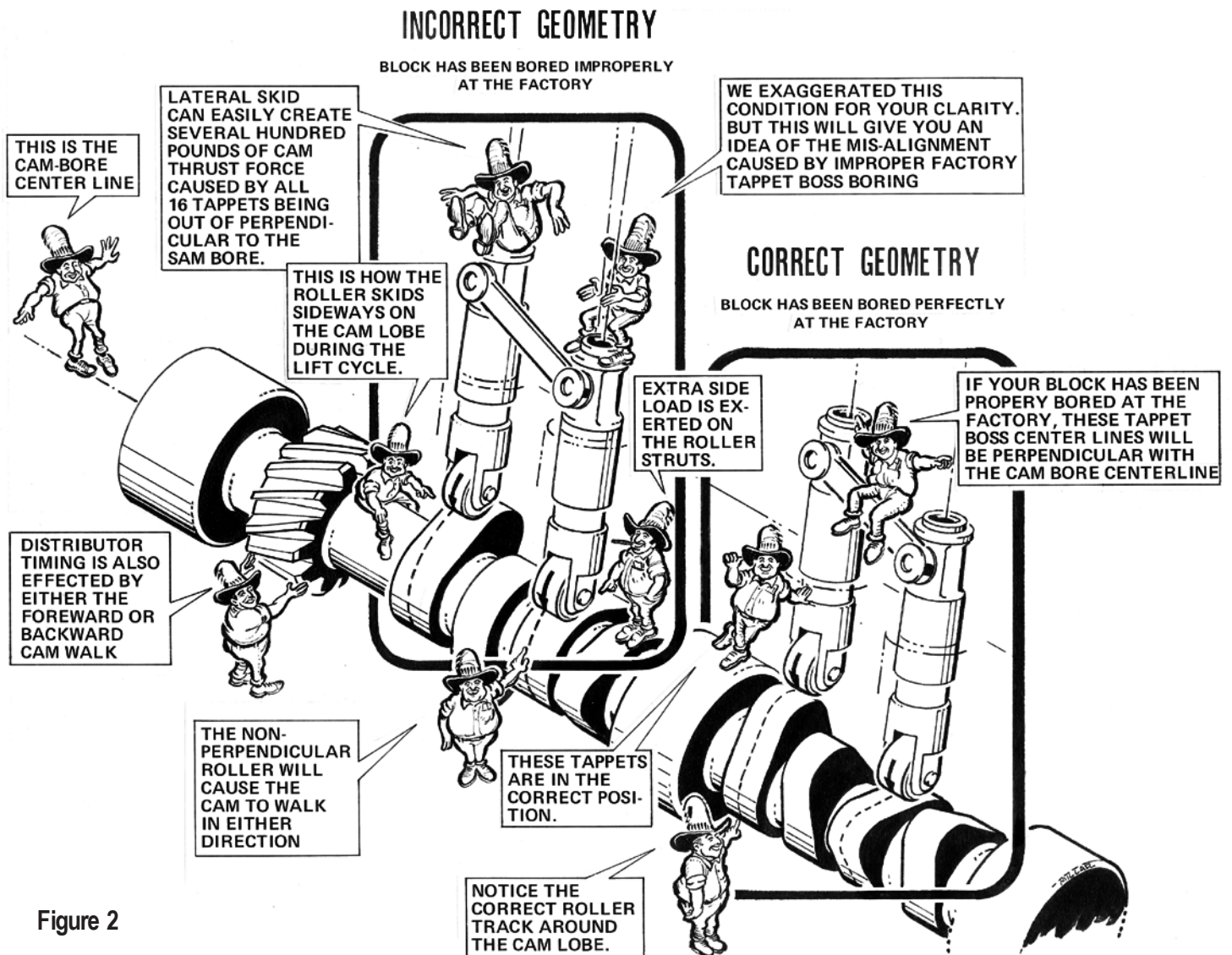


Figure 2

## EXAGGERATED VIEW FOR CLARITY

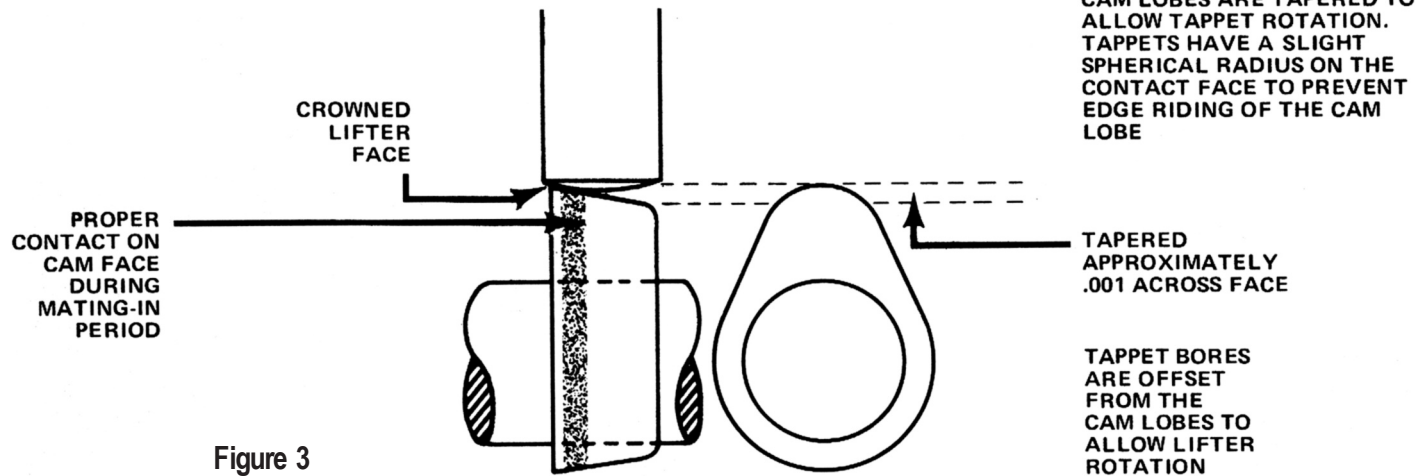


Figure 3

### WHY IS THIS PROBLEM UNHEARD OF WITH FLAT-LIFTER CAMS?

The flat lifter camshaft either in stock or racing form, is designed to compensate for these occasional engine block inaccuracies. As (Figure 3) illustrates, each lobe of the camshaft is intentionally tapered approximately .001" across the face, and the commonly referred to flat-lifter in reality is a large spherical radius (approximately 60 inch) to mate with the tapered lobe. This does two things:

1. It insures good contact pattern between the lobe and lifter face, even in lieu of misalignment of the tappet bores with the cam bore (prevents edge riding).
2. It also causes the lifter to rotate while moving in the bore to evenly distribute the load across the entire tappet face.

### CHECK YOUR BLOCK FOR MISALIGNMENT

When installing a roller camshaft, always check for a possible cam-walking condition. Use the same procedure as Isky did in preparing the block by installing only the camshaft, cam gear, roller lifters, and ultra-rev-kit springs. The cylinder heads must also be installed (two head bolts will suffice) to locate and support the ultra-rev-kit guide bars (Figure 1).

### CHECKING FOR FORWARD WALK

To check for forward walk, revolve the camshaft in the normal running direction. Chain driven cams rotate clockwise, Isky positive gear drive cams rotate counter clockwise. Observe for any forward movement of the camshaft out of the block. If there is no forward movement don't stop here! Remember, the cam could be back walking in the block. It depends on which way the tappet bosses are out of square.

### CHECKING FOR BACK CAM WALK

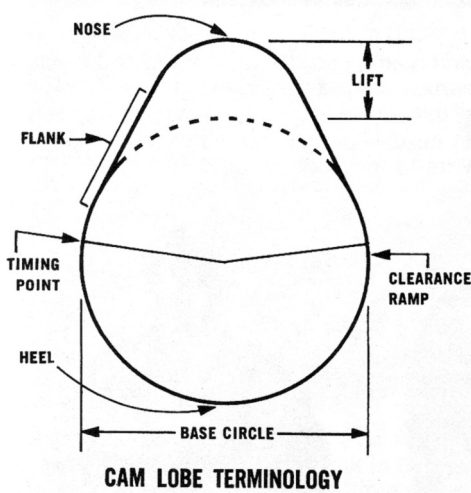
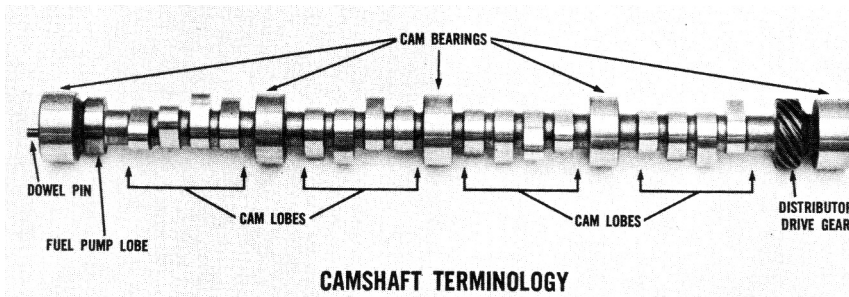
Since it is impossible to detect backward walk of the camshaft because the thrust flange of the block will prevent visual detection, simply turn the cam in the opposite from normal running direction and observe for forward cam walk. Why forward walk? Because, as explained earlier, misalignment of the tappet bores causes the roller followers to act as threads in guiding the camshaft forward or backward, and if a block was a "Back Walker" with the cam rotating in the normal running direction, it will be a "Front Walker" when cam rotation is reversed (threading the cam in or out like a bolt, depending only on the direction of turning).

### WHAT DOES ISKY DO TO CORRECT CAM WALK?

Firstly, we use "Torroidial" or crowned roller bearing followers to prevent edge riding of the rollers on the cam lobes in case of misaligned tappet bores. Secondly, we invented and furnish a roller bearing thrust bumper with each Chevy roller camshaft that fastens to the cam sprocket and prevents forward cam walk from damaging the timing chain cover. Also, we can provide a bronze or needle thrust bearing for installation behind the cam sprocket, to prevent thrust flange wear in case of a backwalk condition. When using these thrust bearings it is necessary to machine off the back of your cam sprocket or gear, the corresponding thickness of the bearing to axially locate the cam.

Remember, nothing we can do will prevent a "bad walker" from possible engine damage. So when building an engine for a roller tappet camshaft, make the "Isky Roller Cam Spin Test" *before investing in any block preparation whatsoever!* If your block doesn't pass inspection, remember it's still good for flat tappet cams and you can probably swap for one that will pass the test.

# Installing A Racing Camshaft



A racing camshaft is a precision product that requires tender loving care in its installation. Probably anyone with some natural feel for mechanics can install a racing camshaft, especially if he is careful and observant, before and during the removal of the stock camshaft.

Before removing the stock camshaft, revolve the crankshaft slowly a few turns and notice the position of the timing marks on the cam and crank sprockets, with the No. 1 cylinder piston at T.D.C. (Top Dead Center). Be sure that when installing your new camshaft you align these timing marks in the same, position (see Figure 1 or consult your motor manual). If these timing marks are not aligned properly during assembly, the camshaft will be out of phase with the crankshaft and the valves may be damaged if they strike the pistons.

After removing the timing chain and lifters, place the cam sprocket back on the camshaft and revolve the cam in the block by hand and observe how freely it turns. Your racing cam should also turn this freely in the block, when installed correctly. Before installing your new camshaft, the part numbers of the camshaft and valve gear components should be checked to coincide with those in this catalog, to avoid any mismatch of equipment in the event of a shipping error. The camshaft and all valve gear components should be washed in solvent (with the exception of hydraulic lifters which will become contaminated) and dried thoroughly. Coat the cam lobes and bearings with the Isky Cam Lube Oil Conditioner

supplied with the cam, and carefully revolve the cam while inserting it through the block, taking care not to score the cam bearings.

Assemble the timing chain and cam sprocket while aligning the timing marks properly, and torque the cam sprocket bolt or bolts to the proper specifications. Next, lubricate and install the lifters, always using a new set of lifters, for proper tappet-to-cam-lobe contact (Figure 2). Also check each lifter in its bore for free unrestricted movement. If any of the lifters do not rotate freely in their bosses, the contact pattern between the cam and lifter face will not be properly distributed, and this can result in cam and lifter failure (Figure 3).

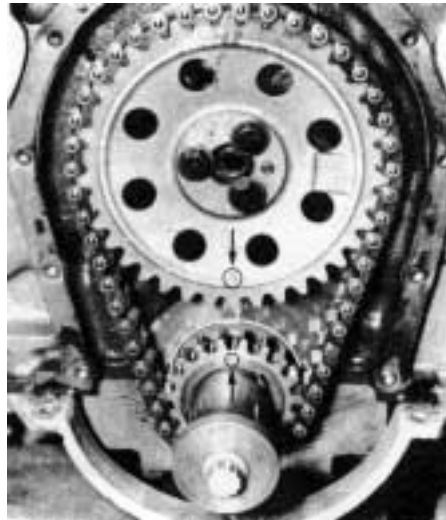
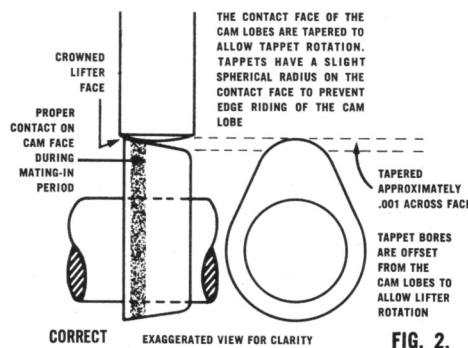


Figure 1  
Shown is the procedure for aligning timing marks on a 427-cu-in Chevy; however, procedures vary from engine to engine. If you cannot find the timing marks, DO NOT remove the camshaft -- consult a motor manual.



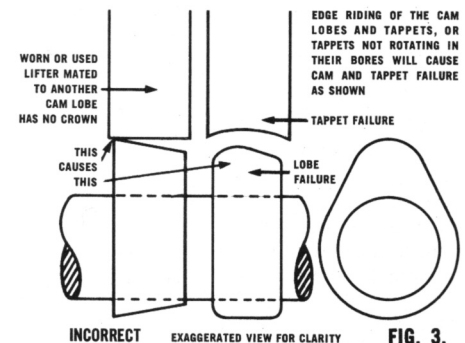
## ASSEMBLING VALVE SPRINGS AND CHECKING FOR INTERFERENCE

The next step is checking for interference in the valve gear, and its importance cannot be overemphasized. Any one of the following conditions can cause severe cam and lifter wear, as well as damage to the other valve gear components. Remember, good judgment and common sense are necessary here, and when in doubt, consult your motor manual or someone with more experience than yourself. These interferences are:

1. Spring retainer-to-valve guide interference.
2. Valve spring coil bind (stacking solid).
3. Rocker arm-to-stud interference (on engines equipped with ball-stud rockers).
4. Piston-to-valve interference (V/P clearance).

## THE CHECK FOR RETAINER-TO-GUIDE INTERFERENCE

This is a simple procedure and is easily done on a workbench. However, if the engine is in the car, and you wish to remove the springs without removing the cylinder heads, you can purchase a valve spring removal kit (Figure 4) containing a spark plug fitting that allows the valve to be held up on its seat with shop air pressure, while you compress and remove the valve spring, using the companion clamp tool. After removing the stock spring, place the new spring retainer and split locks back on the valve and pull up on the retainer, to simulate the tension of the valve spring. Now, measure the amount of free travel between the top of the guide and the bottom of the retainer. This measurement should be sufficient to cover the full valve lift of your camshaft plus 1/16" to 1/8" extra safety margin (Figure 5). Next check the installed height (fitted dimension), that the valve spring will assume when installed on the cylinder head (Figure 5A). Be sure the dimension is identical within 1/32" to the dimension supplied with the valve springs. If it is longer, the supplied spring shims will correct this dimension. *Note:* Most Iskenderian Hydraulic Series valve springs install like stock springs and require no machining of the cylinder heads. However, our Solid Lifter and Roller tappet camshafts come equipped with heavy-duty inner springs and larger diameter outer springs, and on some engines it's necessary to use a counter-boring hole saw cutter to re-machine the spring seats on the cylinder heads, for their acceptance.





Now, proceed to assemble the springs on the cylinder heads, and also install the pushrods and rocker arms. Adjust the valve lash to the proper specifications, being certain that the lifter is on the heel of the cam lobe each time (Figure 6).

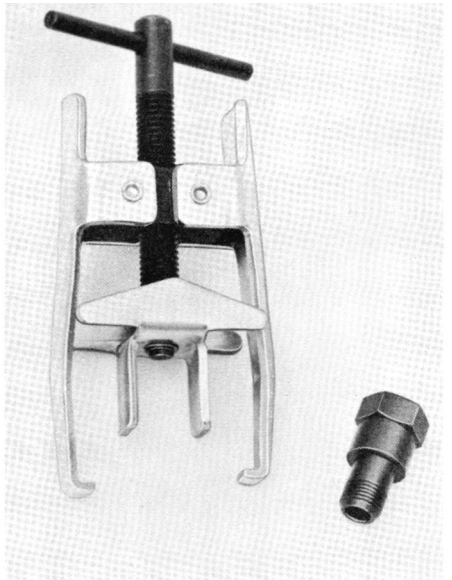


FIG. 4.

Allow 1/16" to 1/8" safety margin at full valve lift so that retainer cannot strike guide.

ALLOW 1/16-INCH TO 1/8-INCH SAFETY MARGIN AT FULL VALVE LIFT SO THAT RETAINER CANNOT STRIKE GUIDE

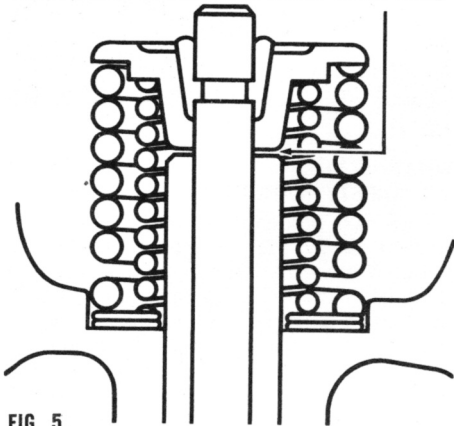


FIG. 5.

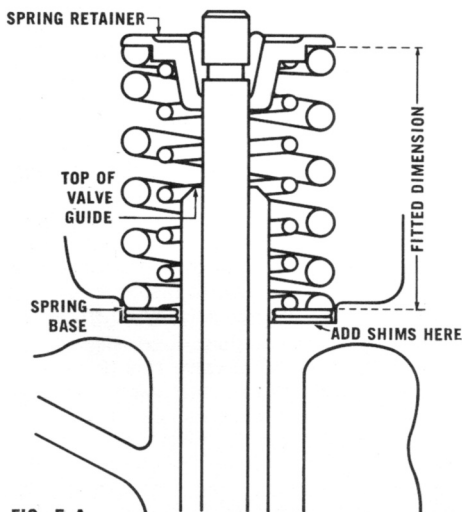


FIG. 5 A.

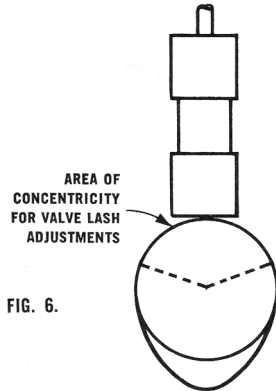
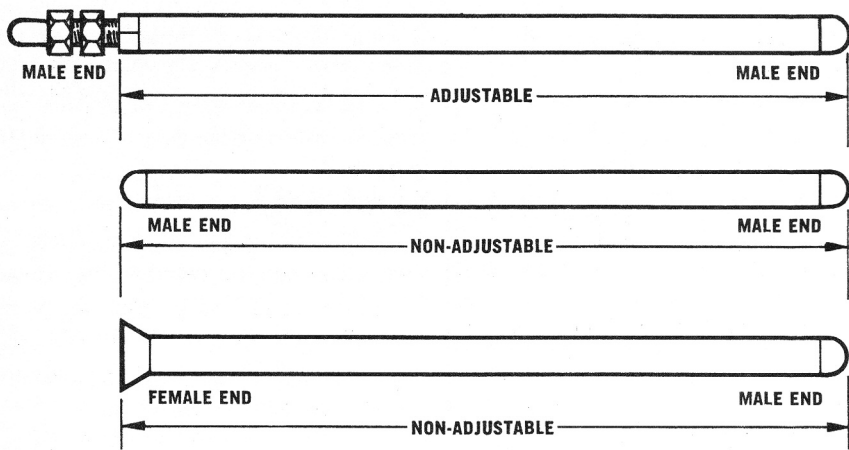


FIG. 6.

#### ISKENDERIAN METHOD OF MEASURING PUSHRODS

The proper method of measuring the length of pushrods is to include the theoretical overall length, however, this is difficult for the average individual since special equipment is required. In the interest of accuracy and to avoid confusion, we have adopted the above method of measurement. This eliminates the difficulties that arise when making measurements in the field, or when installing special length pushrods (custom made on special order for our customers).

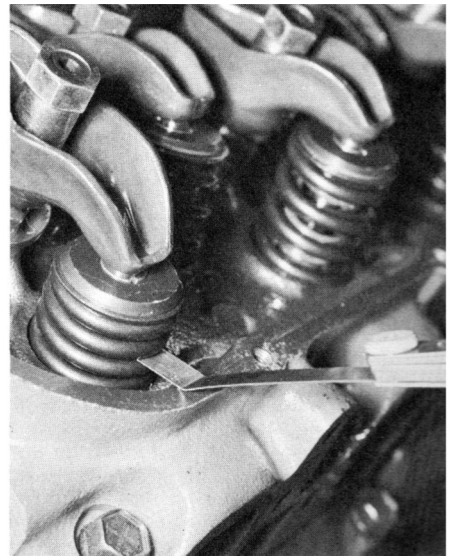


FIG. 7.

#### THE CHECK FOR VALVE SPRING STACKING SOLID (COIL BIND)

To insure that your valve springs are not stacking solid (which will destroy your valve train), rotate the engine over slowly to the full lift position of the intake and exhaust valves and look for air space between the coils. If you cannot tell by eye, verify by inserting a .010-inch feeler gauge between the coils (Figure 7). A .010 space between five coils would give a total of .050 safety margin before stacking solid. If you cannot pass the feeler gauge between the coils, the spring is either coil bound or dangerously close to this condition, and you have probably overshimmed the spring (the fitted dimension is too short). Remove the unnecessary shims and recheck the fitted dimension, and for a coil bound condition of the spring.

#### THE CHECK FOR ROCKER-TO-STUD INTERFERENCE

Where engines are equipped with ball stud rocker arms, even experienced mechanics have difficulty in detecting this dangerous condition. However, accurate detection can be made by the Isky probe method -- by probing the area between the rocker arm slot end and the stud with an appropriately bent paper clip or wire solder at both valve open and closed positions (Figure 8). If there is insufficient clearance here, it will be evidenced by the pinching of the wire probe or clipping off of the wire solder, thus indicating that the slot in the rocker arms must be lengthened on the appropriate side or sides by grinding with a grinder and a 3/8" diameter stone.

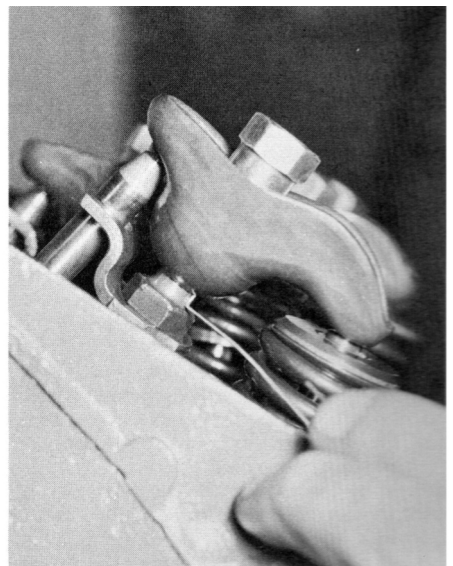


FIG. 8.

## HOW TO CHECK FOR CLEARANCE BETWEEN VALVES AND PISTONS

It's the engine mechanics's responsibility to check the V/P clearance when building an engine. This information should be furnished to the customer along with piston clearances, bearing clearances, spark lead, etc., in an "Engine Data Form." Even "big name" racers have questioned us regarding total valve lift on a certain camshaft, so they could notch, or "eyebrow," their pistons accordingly. This is not a pertinent question, since "total valve lift" is not the criterion for V/P clearance...because, when total valve lift occurs, the piston is more than half-way down the cylinder. Therefore, the proper phrasing of the question should be, "How far are the valves open at T.D.C. with the cam in the split-overlap position?" For only when the piston is in the immediate vicinity of Top Dead Center is there a danger of V/P interference (valves striking pistons). Of course, this occurs only every other revolution of the crankshaft during the overlap period, when both intake and exhaust valves are partially open.

In the old days, the first four-cycle engine had very short valve timing by today's standards. The valve timing then was: intake valve opens at T.D.C., and as the piston lowers, it draws in the fuel/air mixture; the intake valve then closes at (B.D.C.)...hence, the intake stroke. The piston rises, with both valves closed to compress the fuel/air mixture...hence, the compression stroke. The spark plug fires and ignites the fuel/air mixture which drives the piston down to B.D.C. (again the valves are closed)...hence, the power stroke. Also, the exhaust valve opens at B.D.C. The burnt gasses, due to their high pressure, virtually expel themselves, and the piston drives the last of the gasses out; the exhaust valve closes at T.D.C....hence, the exhaust stroke. These early engines had 0° overlap or no overlap whatsoever.

By experimentation, the more progressive cam engineers of the 1910's and 1920's discovered that the mid-range and high-speed power could be greatly improved by lengthened valve timing. The stretching of the intake valve timing allowed the engine to breathe deeper and take in greater amounts of air and fuel, thus creating a more powerful explosion in the combustion chamber.

An important advantage gained from lengthened exhaust valve timing is that the greatly expanded burnt gasses are eliminated more efficiently. Unless these burnt gasses are completely expelled from the combustion chambers, they will remain to displace and contaminate the incoming fresh fuel/air charge.

Lengthening of valve timing in the gasoline engine brought on overlapping of the intake and exhaust valve events. (Both intake and exhaust valves are slightly open at T.D.C., and for up to 60 degrees on either side of T.D.C. on a radical cam.)

In the early days, any unintentional overlapping was considered detrimental. But much later, it was discovered that a mild supercharging effect could be obtained from the overlap event when an optimum exhaust system was used. Thus, the overlap event created a new "fifth cycle" in the four-cycle engine.

It will prove to be both practical and more economical to make your check of the V/P clearance in the early stages of engine building. Otherwise, it may be necessary to tear down a complete engine for piston machining, should the V/P clearance check prove inadequate. When it does, it could involve costly rebalancing of the rotating and reciprocating components.

## CHECKING V/P CLEARANCE BY THE "CLAY METHOD"

Obtain some child's modeling clay and work it between the palms to the size of a pat of butter and approximately 1/4-inch thick. Place these clay pads in the "eyebrows" (the machined relief pockets) where the intake and exhaust valves could strike the piston (see Figure 9).

The cylinder head with gasket is now placed in position, and held down with only two or three bolts. After adjusting the valve lash, the engine is now rotated clockwise through at least two crankshaft revolutions to assure cycling through one overlap event. Now, remove the cylinder head, and observe the impression made by the valves on the clay pads, as shown in Figure 10. By measuring the compressed thickness of the clay with a machinist's scale or micrometer, you can determine the valve-to-piston clearance of the intake and exhaust valves.

It is important to look for the following -- any one of these "symptoms" will cause problems: 'eyebrows' that are mislocated on the piston crown; cut on the wrong angle; or notched for a smaller valve diameter than the valve size now employed.

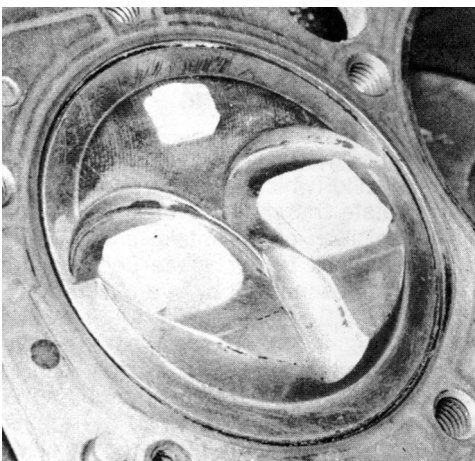


Figure 9

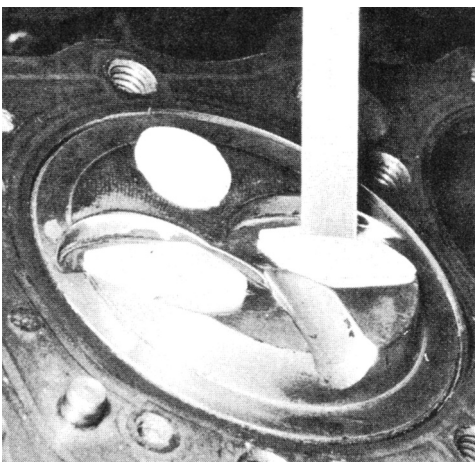


Figure 10

## THE ISKY "LIGHT SPRING" METHOD OF CHECKING V/P CLEARANCE

In this procedure, Isky employs two light compression springs on the intake and exhaust valves of the No. 1 cylinder. These springs resemble normal racing springs except that they are quite weak by comparison, exerting only 10 pounds load. The gasket and cylinder head are installed with two or three bolts. Tappets, pushrods and rocker arms are then installed for the No. 1 cylinder, and the valve lash is adjusted. The crankshaft is revolved and stopped at T.D.C., with intake and exhaust valves partially open in overlap position.

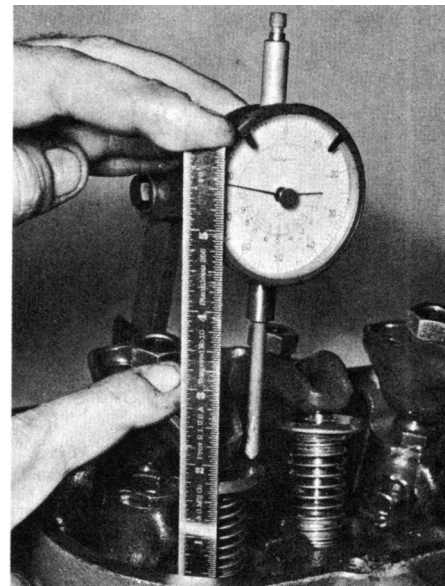


Figure 11

## WHAT IS THE V/P SAFETY MARGIN?

The next procedure is to determine the unseen safety margin (space) remaining between these partially opened valves and the piston crown in its uppermost T.D.C. position. If clearance is insufficient, severe damage may result during high-speed operation when the valves literally play tag with the piston. Since we have installed light 10-pound springs instead of regular 200-pound valve springs, the V/P clearance can be checked by merely applying thumb pressure, as shown in Figure 11.

By placing a machinist's scale, or mounting a dial indicator, at the side of the spring retainer, as shown in Figure 11, we can now exert thumb pressure on the rocker arm and feel the valve head make contact with the piston crown. By observing the movement of the valve at the machinist's scale, or reading the dial indicator, the V/P clearance may now be determined. *Caution:* Check valve-to-piston clearance five to 10 degrees on either side of T.D.C., because in some instances (due to piston dwell and valve velocity) the valves may be in closer proximity to the piston when slightly off from T.D.C. In case of valve toss (float) due to over-revving, the exhaust valve is always the first to make contact with the piston. Since it is closing as the piston is rising, any discrepancy in following the dictates of the cam profile may cause contact with the piston. A good mechanic will always look for exhaust valve contact when disassembling an engine.

## WHAT IS CONSIDERED SUFFICIENT V/P CLEARANCE?

Ideally, we would like .250 clearance, or even more, but this cannot be obtained in today's racing engine, except in low compression (6:1) supercharged engines. In normally aspirated racing engines, compression ratios of 10 to 12:1 must be employed to obtain maximum power. Consequently, high-dome pistons are mandatory. These high domes invade the domain of our valuable valve operating space. And, even after machining valve reliefs (eyebrows), we are forced to compromise for less V/P clearance than is desirable. Consequently, in today's normally aspirated high-compression engines, we are settling for .125-inch V/P clearance, and in difficult situations, getting by with as little as .100 V/P clearance. If aluminum connecting rods are employed, the engine builder should allow for an additional .020 due to heat expansion.

We have now covered the four forms of valve gear interference and are ready to start the engine. Before starting, however, observe the following important rules. Be sure that:

1. Oil level in pan is up to mark.
2. Cooling system is full.
3. No obstructions (tools, parts, etc.) are in the way of the fan or crankshaft.
4. Battery is fully charged.
5. There is fuel in carburetor.

Steps 4 and 5 are most important because you should avoid overcranking the engine before firing. If possible, prime the oil system by turning the oil pump shaft with a speed wrench until pressure is indicated on the oil gauge.

Start the engine and immediately rev it to 2500-3000 rpm. *Do not idle the engine* for the first 15 minutes of operation. This is necessary to allow full oil pressure in the engine to lubricate the cam and lifters during this very critical mating-in period. Remember that running the engine at this rpm and using Isky Cam Lube during this critical mating-in period insures you of many years of troublefree service.

One last point: When using our Hydraulic or Hi-Rev Series camshafts, always use a quality detergent oil clearly labeled MS-DG. This is particularly important when using hydraulic lifters as detergent oil prevents the varnish build-up which can cause sticking in hydraulic lifters. Detergent oil is used in all new automobiles equipped with hydraulic lifters and is available at all service stations. With our Hi-Rev and Roller tappet camshafts, a racing grade of non-detergent oil is preferable because of its improved lubricating properties at high engine speeds.

## TIMING THE CAMSHAFT

Because Iskenderian cams are manufactured with such high precision, you can install them on the stock timing marks without any further checking; however, for those who wish to learn how to properly check and verify valve timing, we recommend the following procedure.

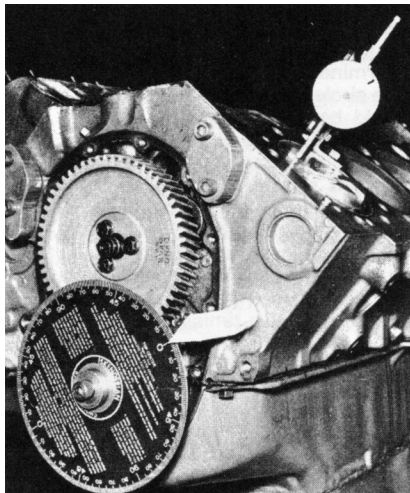
## HOW TO FIND TOP DEAD CENTER

Finding absolute Top Dead Center (T.D.C.) is the most important step in timing a cam-shaft. And trying to operate an engine without this vital marker is like trying to read a

tachometer without an indicator needle. The T.D.C. marker is the all-important datum (tuning) point from which all ignition and valve timing is based. Quite often, we have observed racers at Bonneville, drag strips and circle tracks who neglected to provide themselves with a T.D.C. marker. All stock engines have a stationary pointer affixed to the block, and a T.D.C. marker on the crankshaft harmonic balancer. But, these racers lost the original pointer when they changed to an aluminum timing gear cover. Or, on supercharged engines, when they changed to a steel crankshaft drive hub, they lost the original T.D.C. marker. Now, here is their predicament: they now have no way of accurately setting their spark lead or valve timing. Had this engine been accurately calibrated for T.D.C. by utilizing the "Isky Positive Stop Method" while still on the bench, all doubts and frustrations would have been avoided. Thus, a possible winner became a loser.

It is a common error to miss T.D.C. by a few degrees due to the piston dwell at top center. Inasmuch as this inaccuracy will substantially affect subsequent timing, the following procedure is suggested to correct this error.

1. Mount degree wheel on the front of the crankshaft. Now bolt a stationary pointer on the cylinder block (see illustration). Pointer can be made of metal strip or 1/4" steel rod.
2. Mount a dial indicator securely to the cylinder block. Now adjust dial so that at maximum piston rise the indicator sweep hand travels through approximately .300 of movement. The dial indicator contact point should rest on the center of the piston.



3. Now to turn crankshaft over, use a long-handle wrench or lever so as to get an even, steady movement and not a jerky motion. The crankshaft should always be rotated in the normal running direction.
4. Holding your thumb down on the No. 1 piston (to eliminate all lash), come up slowly to T.D.C. until you reach what you guess to be the middle of T.D.C. dwell. Set your degree wheel to read T.D.C. against the pointer.
5. Now rotate crankshaft one more revolution and this time on the way up to T.D.C., stop exactly .200 (dial indicator reading) below the maximum piston travel. Now read the degree wheel: if, for example, it reads 40 degrees before T.D.C., continue rotating slowly on up to T.D.C., over the hump and down the other side, keeping thumb firmly

on piston. Watch dial indicator closely, and when it reads exactly .200 down from T.D.C., stop and note reading on degree wheel. If you have a perfectly split overlap, it should read 40 degrees after T.D.C. If it doesn't, you have not found exact T.D.C., therefore, you must try again.

## MAKING CORRECTIONS

Split the difference (your error in degrees) by moving the degree wheel radially on the crankshaft. After you have made the adjustment, come around with the crankshaft as before, stopping .200 below each side of T.D.C. When you get exactly the same degree readings .200-inch below each side of T.D.C., you have found absolute Top Dead Center. *NOTE: The exact travel of .100-inch below T.D.C. is not important. Any check point between .100 and .500 will give good results, as long as you check each side of T.D.C. equidistantly.*

## POSITIVE STOP METHOD OF FINDING T.D.C.

The most practical way of locating T.D.C. is known as the positive stop method. No dial indicator is required for this procedure. First, let's see how it's done, utilizing the degree wheel.

1. Fasten the degree wheel to the crank. Then, take a stiff 1/4-inch rod or similar material and sharpen one end to form a pointer. Attach this pointer so that it rests very close to the damper to eliminate parallax viewing error.
2. Obtain a stout strip of steel about seven inches long and drill three 1/2-inch holes in it (see Figure 12 & 13 for position of holes). This strip is placed across the center of the No. 1 cylinder bore and bolted on each end to secure it to the block. Caution: Be sure that the strip of steel is rigid enough so that it will not be deflected when the piston contacts the center bolt stop. Incidentally, the positive stop should be adjusted so as to stop the piston's upward travel at approximately .200 to .800 below T.D.C.

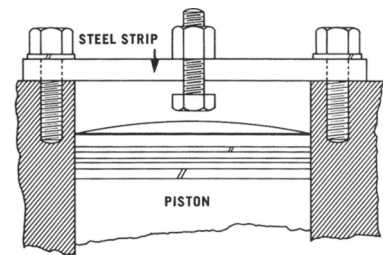


FIG. 12.

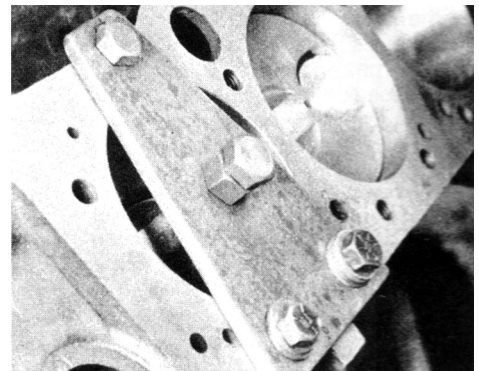


FIG. 13.

3. Rotate the crankshaft in normal running direction (clockwise) until the piston crown lightly strikes the positive stop.
4. Now, radially adjust and lock the degree wheel to the crankshaft at 40-degrees before T.D.C. at the pointer.
5. Now rotate the crankshaft backwards to the positive stop. If the degree wheel reads 40 degrees from T.D.C., you have hit Top Dead Center exactly, and the zero mark between the two 40-degree readings is absolute T.D.C.
6. However if your readings were unbalanced, you will have to split the difference (your errors in degrees) by moving the degree wheel radially on the crankshaft. Then, try again until you get exactly the same degree readings against the positive stop on either side of T.D.C. *NOTE: The lower the positive stop is located below T.D.C., the greater the degree readings will be. But, the results will always be accurate. T.D.C. always lies equidistant between the two positive stop readings.*

### FINDING T.D.C. ON YOUR HARMONIC DAMPER WITHOUT DEGREE WHEEL

Even without the degree wheel, you can and always should calibrate the T.D.C. mark on your harmonic damper when building or assembling a new engine. By using Step No. 3 and No. 5, each time you contact the positive stop, rotating both forward and backward, scribe a mark on the damper in line with the pointer. T.D.C. will be exactly between the two scribed stop marks. Carefully measure and scribe a permanent T.D.C. marker between these two stop marks. Remember the T.D.C. marker is the important datum (tuning) point from which all ignition and valve timing is based.

### CHECKING THE CAMSHAFT

Having determined T.D.C. and using your degree wheel and 1/2" travel dial indicator, you are now ready to proceed with degreing-in your camshaft. The first rule is that a camshaft must always be checked at the lifter and never at the valve. This is important since production tolerances on stock rocker arms can confuse your readings at the valve, whereas the direct motion of the lifter on the cam lobe will be the same for each lifter in the block. Another reason for never checking at the valve is that a rocker arm's theoretical ratio, usually 1.5:1, is true only at approximately mid (1/2) valve lift. The ratio varies from slightly more to slightly less than 1.5:1 through the lifting cycle, because the rocker arm continually varies its point of contact on the valve stem.

The purpose of checking the camshaft in the block is to determine whether the camshaft is installed in the correct relationship (or phasing) with the crankshaft. Generally speaking, most cams perform best at split overlap, because they give their best all-round performance in this position. Split overlap means that the intake and exhaust valves are equally open at T.D.C., although the intake valve is opening and the exhaust valve is closing. Also this means that the intake valve opens the same number of degrees before T.D.C., as the exhaust valve closes after T.D.C. A cam in the advanced position would have its intake valves open further at T.D.C. than the exhaust valves,

and also open at a greater number of degrees before T.D.C. than the exhaust valves close after T.D.C. Conversely, a cam in the retarded position would have its exhaust valves open further at T.D.C. than the intake valves, and also close at a greater number of degrees after T.D.C. than the intake valves open before T.D.C. Also, remember that a cam turns at 1/2 the speed of the crank; consequently two degrees of crank rotation is equal to one degree of cam rotation, and two degrees of crank advance will equal one degree of cam advance. Always use a new timing chain when installing or checking the timing on a new camshaft. An excessively stretched chain can retard cam timing, as much as four cam degrees, because of the slack in the links. Also, even though most of the valve timing figures in this catalog are listed at split overlap, most of our camshafts are ground from one to two cam degrees advanced to allow for eventual stretch in the timing chain. Therefore, if upon timing your camshaft you find it to be one to two degrees advanced at the cam, it should be left in this position because subsequent stretch of the timing chain will retard the timing slightly and it will be closer to split overlap.

To begin your check of the camshaft, rotate the crankshaft until the No. 1 cylinder intake tappet is on the base circle (heel) of the cam lobe. Lubricate the tappet with light oil and check to see that it has free, unrestricted movement in the bore. Position the dial indicator stem parallel to the lifter in both planes, and pre-load the indicator's stem .050-.100 on the tappet. At Iskenderian to facilitate checking, we use an extended tappet which brings the tappet to the proximity of the head gasket face and provides a level surface for the stem of the dial indicator (Figure 14). Rotate the crankshaft clockwise several times to determine the runout or eccentricity of the base circle. This should not exceed .001 and should be centered equally on both sides of the zero on the dial indicator.

The timing tag you received with your camshaft shows the timing as determined by Iskenderian engineers at a specific checking height off the base circle. This height is indicated on the tag and is usually between .017 and .023 depending on which specific cam you have. For example, let's assume the valve timing is as follows:

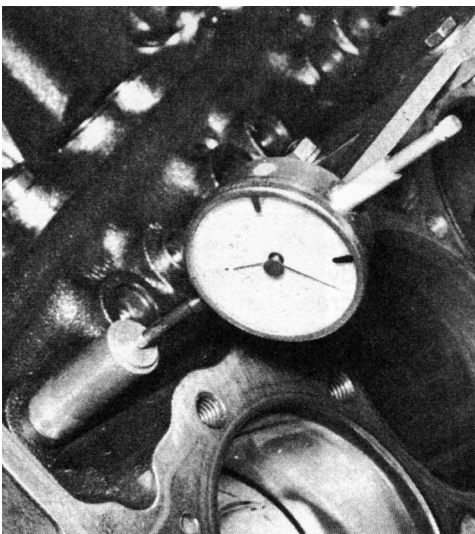


Figure 14

For typical 280 degrees duration camshaft:  
 Intake Open 30 degrees before T.D.C.  
 Intake Close 70 degrees after B.D.C.  
 Exhaust Open 70 degrees before B.D.C.  
 Exhaust Close 30 degrees after T.D.C.

Assuming the checking figure is .020, rotate the crankshaft clockwise until .020 dial indicator movement is detected and read the degree wheel opposite the stationary pointer. It should read 30° before T.D.C. (Figure 15). Record this reading and continue rotating the crankshaft, watching the lifter reach full lift and begin its descent and stop the crankshaft movement at .020 indicator reading before zero on the closing side of the cam lobe. The reading should be 70° after B.D.C. (Bottom Dead Center of piston travel -- Figure 16).

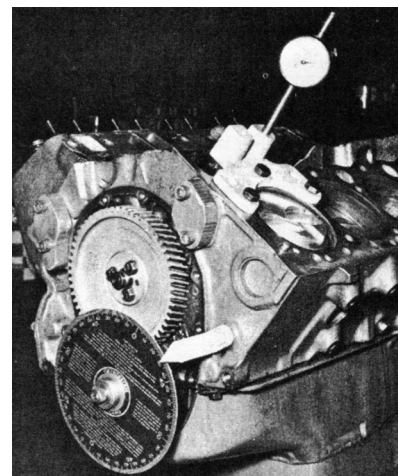


Figure 15

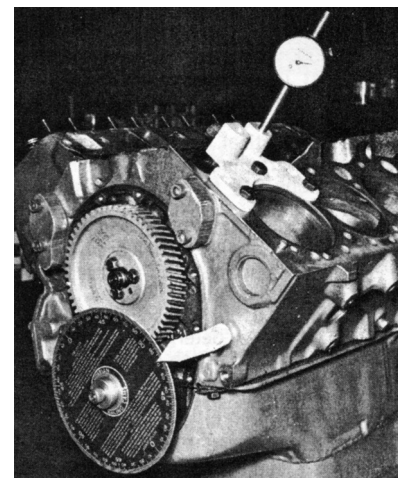
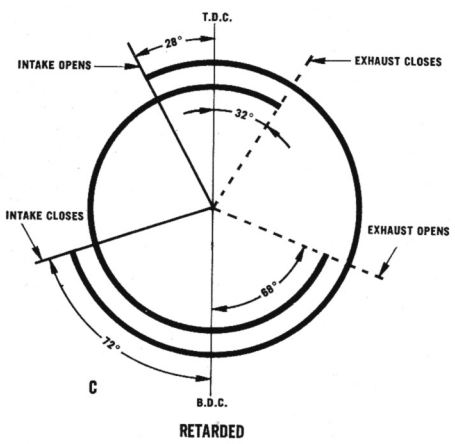
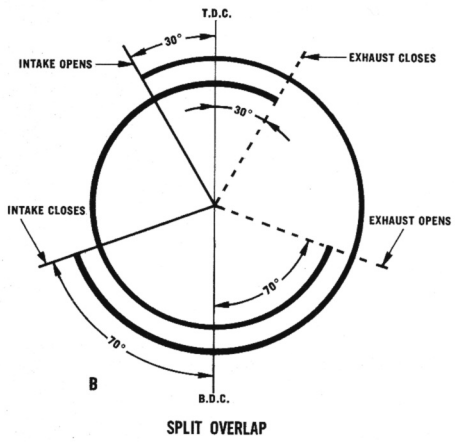
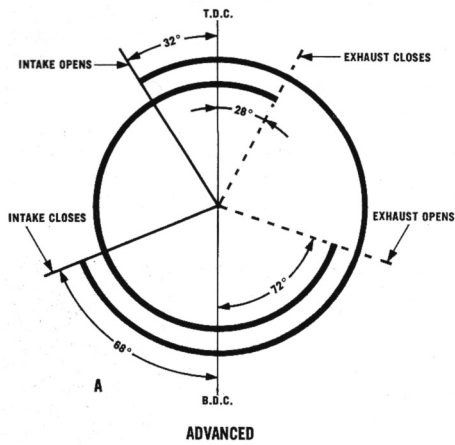


Figure 16

The total duration of the opening period then, was 30 degrees before T.D.C. plus 180 degrees to B.D.C. plus 70 degrees after B.D.C., or 280 crankshaft degrees. Using this same procedure, check the exhaust lobe of the same cylinder and record your readings. If the opening and closing points of the camshaft vary, but the total duration figure is correct or within two crankshaft degrees, the camshaft is slightly out of phase with the crankshaft (slightly advanced or retarded as explained earlier). Aside from timing chain stretch and the slight amount of advance built into the cam, this condition may also be caused by the slight errors in the crankshaft or crank sprocket keyway location, or in the key or dowel pin hole of the cam sprocket. These slight errors may either accumulate or cancel each other, but if they

accumulate they can vary the cam timing as much as two crankshaft degrees. An example of this is shown here.



Shown are three different timing figures. In each illustration the same camshaft was used; however, A is advanced, B is split overlap and C is retarded.

The above-mentioned checking procedure will produce fairly accurate results if all conditions are perfect - tappet bores not excessively worn, dial indicator in an absolute parallel plane with the lifter to avoid any cosine errors, absolute T.D.C. determined, and an experienced operator performing the check.

However, to really accurately determine the position of your camshaft in the engine, it is advisable to use a wider checking clearance of .050 off the base circle for the following reasons:

1. At .020 lift off the base circle the lifter is still moving at a very slow rate in relation to crankshaft movement, and a checking height error of only .001 can change your degree wheel reading as much as five crankshaft degrees.
2. However, at .050 lifter rise a .001 error in checking height would only affect your degree wheel reading about 1/2 crank degree because the lifter is moving much faster in relation to crank rotation.

Therefore, the professional engine builder checks his camshafts at this .050 rise to eliminate all possible errors. The procedure for checking at this height is the same as mentioned earlier; however, the camshaft will appear to be very short in duration because you are checking higher up on the cam flank, and not really checking the actual valve seat timing.

For your convenience the timing for the .050 lifter rise check is also shown on the timing tag.

### CHECKING VALVE OVERLAP WITHOUT DEGREE WHEEL OR DIAL INDICATOR

When installing a camshaft, or when an occasion arises where it is necessary to make a check on valve timing and no appropriate instruments are available, the recommended lsky procedure is as follows:

1. Insert the camshaft and mesh the timing gears on the stock marks. Do not as yet install the timing gear cover.
2. Using a long wrench or lever, turn the engine over in the normal running direction. Use enough leverage to get an even, steady movement instead of a jerky motion. Rotate until the intake and exhaust valves of No. 1 cylinder are in the overlap position (both valves opened slightly). Stop exactly on T.D.C., which is marked on the harmonic damper.
3. Now loosen and back off the rocker arm adjusting screws until the intake and exhaust valves are just barely closed. Lock the tappet adjustment screws so that the intake and exhaust valves are at exactly zero clearance.
4. Now turn the engine over exactly one revolution of the crankshaft to T.D.C. on the harmonic damper. You are now at T.D.C. on the compression or firing stroke.
5. Take notice! Now there is a large space between the rockers and valve stem tips. This space indicates the actual amount the valves were open at T.D.C. of the overlap period (less valve lash, of course).
6. We will measure this gap space by probing with common feeler gauges of various thicknesses combined until we determine the gap space. After computing the gap, record the figures for both intake and exhaust in your notebook. If the amount of gap on intake and exhaust is exactly the same, you have a perfect split overlap.

### AN EXAMPLE USING AN RPM 300 CAM

**Advanced Cam Position:** If your intake happens to come out with .100 gap, and the exhaust with say .080 gap, your cam is in an advanced position. In this position, the cam will produce more low-speed power or torque. However, there might be a slight loss of power at high rpm. **Retarded Cam Position:** If, on the

other hand, the intake came out with .080 gap, and the exhaust at .100, your cam is in a retarded position. In this position, there will be some loss in low-speed torque and power, and probably some subsequent gain in high-speed power.

**Split Overlap:** If intake and exhaust gap read out exactly even, or within .005 of each other, you have a split overlap. Generally speaking, all racing cams run best in the split overlap position. While there are exceptions to this rule, it is usually best for overall performance.

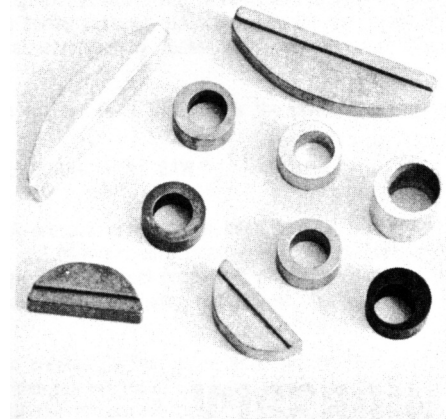


Figure 17

Finally it should be noted that sometimes it is desirable to advance or retard the camshaft from two to eight degrees to make the engine perform better at certain engine speeds. Generally speaking, advancing the camshaft increases low speed and mid-range torque while causing highspeed power to suffer slightly. Retarding the camshaft usually provides an increase in top-end power and consequently a slight loss in low-speed and mid-range torque. We manufacture various offset bushings and offset keys (Figure 17) which will change your cam timing to either correct slight errors in sprocket or crank keyway location, or to provide the above-mentioned changes in the power output curve to suit various operational or race track conditions. Whether using our offset cam bushing or cam keys, the thing to remember is that with chain driven camshafts, move the cam itself clockwise in relation to its sprocket to advance the cam and counterclockwise to retard the cam (Figure 18). With gear-driven camshafts that revolve in the opposite direction of the crankshaft, move the cam itself counterclockwise in relation to its gear to advance the cam and clockwise to retard the cam timing. Also, when using our offset bushings, it is necessary to drill the dowel pin and bolt holes in the cam sprocket oversize, as specified in the instructions.

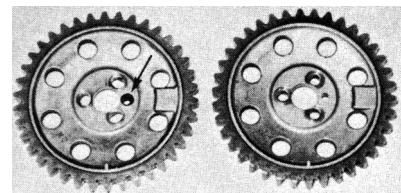
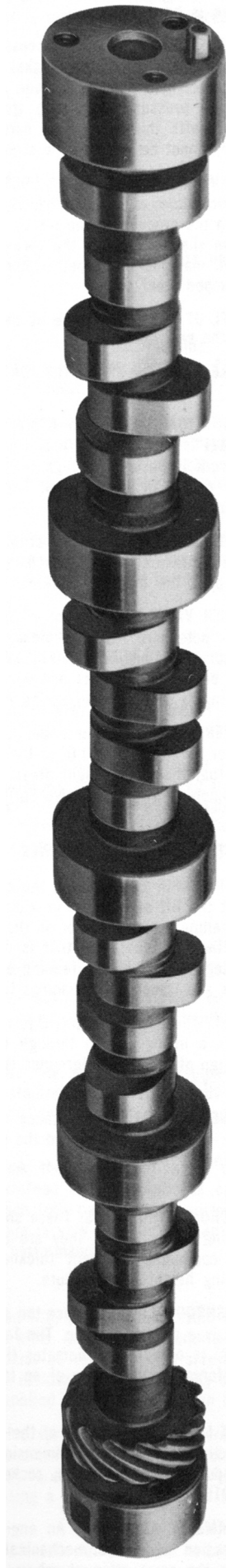


Figure 18

Shown above right is a stock camshaft drive sprocket. At left is the same sprocket with bolt and dowel pin holes drilled oversize to accept offset bushing in the advanced position.

# Glossary of Camshaft terms and related Valve Gear Components



## A

**ANTI-PUMP-UP TAPPET:** The Iskenderian Hydraulic tappet which automatically bleeds off trapped lifter oil through a patented relief port when the lifter pumps up due to accidental over revving of the engine.

**ANTI-THRUST BEARING:** A special needle bearing secured to the cam sprocket or gear which prevents axial float of the camshaft into the timing case cover at high speed. This condition can drastically change ignition timing as well as damage the cam and engine.

**AREA UNDER THE HORSEPOWER CURVE:** The area the horsepower curve envelops when plotted graphically from dynamometer torque and rpm readings.

## B

**BARREL SPRING:** A valve spring design by Iskenderian which visibly resembles the shape of a barrel, being slightly smaller in diameter at each end than at the center.

**BASE CIRCLE:** The concentric or round portion of the cam lobe where valve lash adjustments are made (also called the heel).

**BLOWER (or supercharger):** A mechanical device which forces greater quantities of fuel and air into the engine's cylinders by means of rotating impellers which are driven from the power of the engine. The 2 most common types are centrifugal and Roots (GMC type). Also called forced induction.

**BLOWN:** Refers to a supercharged engine.

**BOOST:** The amount of pressurized air forced into the engine by the supercharger, measured in lbs. per sq. in. or on the barometer in inches of mercury. One lb. per sq. in. equals approximately 2 inches of mercury on the barometer. Atmospheric pressure at sea level is approximately 15 lbs. per sq. in. and most of today's supercharged engines raise this pressure to approximately 30 lbs. per sq. in. or 2 atmospheres.

## C

**CALIBRATED CRANKSHAFT HUB:** A hub calibrated in degrees so that ignition and cam timing may be accurately determined.

**CAM COMPARATOR:** This expensive equipment compares and evaluates production cams to a precision master cam to check any possible variation.

**CAM CONTOUR:** See CAM PROFILE.

**CAM FOLLOWER:** Usually a roller or flat faced companion to the camshaft that transfers the action of the camshaft to the rest of the valve train by sliding or rolling on the cam lobe surface.

**CAM MASTER:** After the design of the cam is computed, it's transferred to a precision template or master. The master is then installed in the cam grinding machine to generate the shape of the lobes of the production cam. The lobes on the master are 5 times that of a regular camshaft so that any variance from the actual computed profile is reduced 5 times.

**CAM PROFILE:** The actual shape of the cam lobe. At Iskenderian, these profiles are determined by an IBM computer.

**CAMSHAFT:** A shaft containing many cams that convert rotary motion to reciprocating (lifting) motion. For every 2 revolutions of the crankshaft, the camshaft rotates 1 revolution. The lobes on the camshaft actuate the valve train in relation to the piston movement in an internal combustion engine.

**CARBURIZING:** Gas carburizing is a method used by Iskenderian to heat treat steel camshaft billets. In this method the camshaft is placed in a gas-carbon atmosphere furnace and heated to the proper temperature. When the shaft has absorbed the proper amount of carbon it's removed from the furnace and quenched to the proper temper.

**CAST BILLET:** A term used by Iskenderian to describe a camshaft which is made from a casting. The material for the casting is a special grade of iron alloy called Proferal."

**CHILLED IRON LIFTER:** A cam follower made from high quality iron alloy that is heat treated by pouring the molten iron into a honeycomb mold with a chilled steel plate at the bottom to heat treat the face of the lifter. It's compatible with steel and hardface overlay cams only.

**CLEARANCE RAMPS:** The portion of the cam lobe adjacent to the base circle which lifts at a constant slow speed (usually .00035-.00055 in. per degree of cam rotation). Its purpose, in theory, is to compensate for small deflections and take up the slack in the valve train created by the valve lash.

**COIL BIND:** A valve spring that has been compressed to the point where the coils are stacked solid and the spring's downward movement has stopped.

**CONCENTRIC:** Running true or having the same center. In camshaft terminology the cam bearings and lobes are concentric to each other when the cam is straight and there is .001 or less runout between all cams and bearings.

**CORE DIAMETER:** The diameter of the camshaft as measured between the cam lobes.

**CORRECTION GRINDING:** The process by which another manufacturer's camshaft is reground and corrected to the perfect geometric coordinates of an Iskenderian design.

**COUNTER-BORING HOLE SAW:** When installing high performance large diameter valve springs, it's sometimes necessary to enlarge the spring bases on the head by using this type of tool.

## D

**DESMODROMIC:** A special and complex type of valve train. Each valve is operated by 2 lobes...1 lobe opens the valve, the other lobe closes; therefore no springs are used to return the valves to their seats.

**DREAM WHEEL:** A name for the Iskenderian Ratio Computer. Accurately converts MPH to RPM, or RPM to MPH . . . Set gear ratio desired opposite tire diameter, and read MPH opposite engine RPM. The dream wheel resembles a circular slide rule.

**DURATION:** The amount of time measured in degrees that the valves are off their seats during the lifting cycle of the cam lobe.

**DYNAMOMETER:** An apparatus for measuring the torque of an automobile engine at various rpm. This torque reading is then converted to horsepower.

**DYNO:** An abbreviated word for dynamometer.

## E

**ECCENTRIC:** A disc having its axis of revolution out of its center of figure...used for reciprocating or lifting motion. The lobes of the camshaft are eccentric to the cam bearings.

## F

**FITTED DIMENSION:** Referring to valve springs, this is the same as installed height of the spring from its base on the cylinder head to its seat at spring retainer.

**FLAME HARDENING:** A heat treating process whereby a camshaft is exposed to an open flame and then quenched (cooled in oil).

**FLANKS:** The sides of the cam lobe, or the portion of the lobe that lies between the nose and the base circle on either side.

**FORCED INDUCTION:** See "SUPERCHARGER."

**FORGING:** A metal object which was formed under pressure while in a red hot or semi-molten state.

**4130:** A common grade of chrome-moly steel. The 41 represents the molecular structure of chrome-moly steel, and 30 represents 30/100 of 1% of carbon present in the material. This carbon factor determines to what degree the material may be heat treated.

## G

**GEAR DRIVE:** A special camshaft drive employing gears in lieu of the common timing chain. The gear drive eliminates cam and distributor timing changes due to wear or stretch of the stock timing chain. The gear drive gives immaculate (precision-perfect) timing.

**GILMER BELT:** A trade name for a flat rubber cog belt used to drive superchargers. The rubber belt has a core of steel wire for reinforcement and the inner side of the belt has evenly spaced cogs which match grooves machined in the supercharger drive pulleys.

**GILMER PULLEY:** A trade name which is used in conjunction with the Gilmer belt. The pulley has grooves machined into it to mesh with the cogs on the Gilmer belt.

**GROOV-MATIC "O" RING TOOL:** A tool designed and manufactured by Iskenderian to cut a groove around the cylinder. After the groove is cut, copper wire is inserted so that .010 of the wire is above the plane of the block. The purpose of the raised portion of wire is to increase the pressure on the head gasket around the cylinder to prevent pressure leaks when supercharging the engine.

**GROSS LIFT:** The theoretical valve lift obtained by multiplying the cam lift by the rocker arm ratio.

## H

**HARDENABLE IRON LIFTERS:** A cam follower made from high quality iron alloy. Manufactured with the latest electronic furnace techniques,

this special alloy is compatible with the cast iron billet camshafts employed in Iskenderian Hydraulic and Hi Rev series. The entire body of the hardenable iron lifter is hard as compared to the chilled iron lifter where only the base is hardened.

**HARDFACE OVERLAY:** A process originated by Ed Iskenderian to apply a tungstencarbide, chrome-nickel alloy to the outer surface of the cam lobe. These combined alloys provide an extra-durable surface for the tremendous spring pressures and high rpm of today's all-out competition engines. Camshafts that have been hardfaced are for maximum competition only, and cannot be used on the street.

**HEAVY DUTY SPLIT VALVE LOCKS:** A component which resembles a semiconical form on the outside. The inside of the cone is notched to coincide with the grooves on the top of the valve. The valve locks prevent the valve from slipping through the spring retainer.

**HEEL OF THE LOBE:** Same as the "BASE CIRCLE" or the concentric portion of the cam lobe.

**HOLE SAW:** See "COUNTER-BORING HOLE SAW."

## I

**INERTIA RAM:** A condition created by the piston as it reaches the bottom of its intake stroke, by which the inertia of the intake air column continues to pack the cylinder until the pressure exceeds that of the atmosphere.

**INNER VALVE SPRING:** For many racing applications a single valve spring may not exert adequate pressure on the valve train and valve float may occur. Isky engineers have determined the spring pressures necessary for each of our grinds and when this pressure cannot be obtained with 1 spring, a smaller inner spring is used inside the larger outer spring.

**INTERFERENCE FIT:** In a dual spring combination where the O.D. of the inner spring and the I.D. of the outer spring nearly approximate each other so that there is a slight press fit between the 2 springs. This produces a dampening effect on valve spring vibration and surge.

## L

**LIFTER:** See "CAM FOLLOWER."

**LIFT GRAPH:** By installing the camshaft in a bare block, the mechanic can plot the lift of the cam in relation to each degree of camshaft rotation by installing a dial indicator on the cam follower or tappet and a degree wheel on the crankshaft. All that is necessary is to rotate the crankshaft every 5 degrees and take a reading on the dial indicator at each of these intervals and transfer the readings to graph paper.

**LOBE:** The lobe is eccentric to the cam bearings of the camshaft and transmits a lifting motion through the valve train to operate the valves. The design of the lobe determines the usage of the camshaft -- i.e., street use, all-out competition.

**LOBE CENTERS:** The distance measured in degrees between the center line of the intake lobe and the center line of the exhaust lobe of the same cylinder.

## M

**MICRO SPRING SHIMS:** These shims serve the same function as the regular spring shims except they are offered by Iskenderian in .005 increments. By combining different thicknesses, the mechanic can precisely adjust spring height and pressure.

**MUSHROOM LIFTER:** Serves the same purpose as a regular lifter (flat tappet) but is a different shape. The face of the lifter (the area that contacts the cam) is of a larger diameter than that of the lifter body...it vaguely conforms to the shape of an inverted mushroom.

## N

**NET LIFT:** The actual lift of the valve. This lift can be approximated by subtracting the valve lash dimension from the gross lift figure in the catalog. Production tolerances on rocker arms can vary this figure as much as  $\pm .010$ .

**NORMALLY ASPIRATED:** An engine that utilizes either carburetors or fuel injection without a mechanical device that forces the fuel/air mixture into the combustion chambers (non-supercharged).

**NOSE OF LOBE:** The highest portion of the cam lobe off the base circle (full lift position).

## O

**OFFSET BUSHINGS:** An eccentric bushing placed in the cam gear or sprocket to advance or retard the camshaft with relation to the crankshaft. The dowel pin hole in the cam gear or sprocket is drilled oversize to accept this bushing.

**OFFSET KEY:** A stepped key which is used to advance or retard the camshaft where the cam contains a keyway rather than a dowel pin. Offset keys are also used on the crankshaft to vary cam timing.

**OHV:** Abbreviation for "over head valve."

**OUTER VALVE SPRING:** In a dual spring combination the outer valve spring is always the larger of the 2 springs. It's usually made from a heavier wire than that of the inner spring.

**OVERLAP:** A situation where both the intake and exhaust valves are open at the same time when the piston is at (TDC).

## P

**PARKERIZING:** A thermo-chemical application whereby a non-metallic, oil absorptive coating is applied to the outer surface of the camshaft. This permits rapid break-in without scuffing the cam lobes.

**PISTON NOTCHING TOOL:** Today's high lift camshafts often bring the engine's valves too close to the piston crown. Therefore, it's necessary to cut deeper notches in the piston crown to allow adequate valve-to-piston clearance, and prevent the valves from striking the pistons. (Minimum recommended clearance is .100)

**POLY LOCKS:** A valve train component which replaces the stock adjusting nuts on Chevrolet, Pontiac and Ford rocker arms. These Poly-Locks allow for a finer and more secure adjustment over a wider range and can be used with either mechanical or hydraulic tappets.

**PRE-LOAD:** To load before applying a different load as with the Isky UltraRev Kit which pre-loads the roller tappets to the cam lobe to keep them in constant contact.

**PROFERAL IRON:** A very high quality cast iron alloy. Used primarily for camshafts because of its excellent wearing ability.

**PUSHROD:** A component of the valve train which connects the tappet and rocker arm in an OHV engine. Iskenderian pushrods are manufactured from seamless chrome-moly tubing and come either adjustable or non-adjustable. They are also of special wall thickness for highest strength and lightest possible weight.

## R

**RATIO COMPUTER:** See "DREAM WHEEL."

**REFINISHING:** A process by which the cam face is refinished to the same geometrical shape, however, being slightly smaller in size.

**REGRINDING:** Refers to an operation where a stock camshaft is modified to racing specifications. This should only be done where it is difficult to obtain new cores, as with imported cars.

**REV LUBE:** A non-detergent lubricant containing Molybdenum-Disulphide which is spread on the cam lobes when installing a camshaft to prevent galling and insure protection during the critical break-in-period - the first 5 minutes of operation.

**ROLLER TAPPET:** The roller tappet performs the same function as the mechanical or hydraulic tappet. However, instead of sliding on the cam face, the lifter contains a roller bearing which rolls over the cam surface. Its main advantage is that its operating range is very flexible and can be used for street and strip, low or high speed performance.

## S

**SCREW-IN STUDS:** Some engines are equipped with press-in studs from the factory for locating and attaching the rocker arms. Under racing conditions, these studs are prone to pulling out and must be replaced with screw-in type rocker arm studs. Installation requires removal of the old studs and tapping the stud holes with a special tap supplied with the installation kit.

**SEAT BOUNCE:** When there is a lack of valve spring tension, or where a poorly designed cam having excessive deceleration and velocity characteristics is used, the valve lands with such force on the valve seat that it has a tendency to bounce on impact, causing a loss of compression and power in the cylinder.

**SOLIDS:** Purely mechanical cam followers. This follower or tappet requires either adjustable pushrods or adjustable rocker arms to obtain the required valve lash.

**SPLIT OVERLAP:** An occurrence when both the intake valves and exhaust valves are off their seats at the same time and the same

distance. At this time, the TDC mark on the harmonic damper should correspond with the pointer on the engine.

**SPRING FATIGUE:** Valve springs have a tendency to lose tension after being run in an engine for certain periods of time, because of the tremendous stress they are under. At 6000 rpm, for example, each spring must cycle 50 times per second. The tremendous heat generated by this stress eventually effects the heat-treating of the spring wire and causes the spring to take a slight set (drop in pressure).

**SPRING HARMONICS:** See "SPRING SURGE."

**SPRING HEIGHT:** See "FITTED DIMENSION."

**SPRING PRESSURE:** The force exerted by a valve spring as it is compressed (measured in pounds per sq. in.).

**SPRING RETAINER:** A stepped type washer made of either steel, titanium or aluminum that transfers the force exerted by the compressed valve spring to the valve.

**SPRING SHIM:** A thin metal washer which is placed between the spring seat and the head. Its purpose is to compress the spring to the correct installed height and tension.

**SPRING SURGE:** The factor which causes unpredictable valve spring behavior at high reciprocating frequencies. It's caused by the inertia effect of the individual coils of the valve spring. At certain critical engine speeds, the vibrations caused by the cam movement excite the natural frequency characteristics of the valve spring and this surge effect substantially reduces the available static spring load. In other words, these inertia forces oppose the valve spring tension at critical speeds.

**STACK SOLID:** Refers to valve springs. See "COIL BINDING."

**STEEL BILLET:** A solid piece of steel bar stock from which Iskenderian machines most of their roller tappet camshafts.

**SUPERCHARGER:** A mechanical device which forces greater quantities of fuel and air into the engine's cylinders by means of rotating impellers which are driven from the power of the engine. The main types are centrifugal, Roots (GMC type) and vane.

## U

**ULTRA REV KIT:** A device designed by Ed Iskenderian to preload the roller tappet to the camshaft to allow higher rpm. The kit consists of 2 plates which are located on each side of the valley chamber and a spring for each roller tappet. The springs fit between the roller tappet and the valley plate.

## V

**VALVE:** A mushroomed shaped object which is used to regulate the incoming fresh air fuel mixture and the outgoing exhaust gases in the cylinder of an internal combustion engine.

**VALVE EVENT:** The opening and closing points of the valve with relation to the crankshaft.

**VALVE FLOAT:** A detrimental condition caused by over revving of the engine, or by inadequate spring pressure, resulting in a lag of the valve gear components where they fail to follow the dictates of the cam profile. Under this condition the valve is a greater distance off its seat than it normally would be, causing a loss in compression and power as well as possible damage to the engine if the floating valve strikes the oncoming piston.

**VALVE GEAR:** Same as "VALVE TRAIN."

**VALVE LASH:** Same as valve clearance. Valve lash is necessary to allow for thermal expansion of the valve train components during operation.

**VALVE SPRING DAMPER:** A flat wound spring coil inside the outer valve spring, which because of its rubbing contact on the inner surface of the coils, produces a friction-dampening effect on valve spring surge (harmonics). Wherever possible, Iskenderian Valve Springs incorporate this damper coil.

**VALVE TRAIN:** The components or train of parts used to operate the valves in conjunction with the camshaft.

**VINCO CAMSHAFT INSPECTION OPTICAL DIVIDING HEAD:** The world's most accurate dividing head - accurate to  $\pm 1$  second of arc (1/3600 part of 1 degree) and .000015 (115 millionths of an inch). This machine is used to inspect all Iskenderian camshafts for angular and linear displacement accuracy.



## THE FOUR CYCLE ENGINE

Indeed, cam degreasing is simple, but first let's make sure you have a good understanding of the cam's function in the four cycle engine. You probably already know the four basic strokes of the four cycle engine: *INTAKE*, *COMPRESSION*, *POWER*, and *EXHAUST*. Each stroke represents one-half of a revolution of the crankshaft or 180 crank degrees.  $4 \text{ cycles} \times 180^\circ = 720^\circ$  or two revolutions of the crankshaft. Two revolutions complete one sequence of the four strokes. The camshaft is connected via the timing chain and sprockets at a 1:2 ratio to the crankshaft and therefore revolves once for every two turns of the crank. Its purpose is to operate the intake and exhaust valves in the correct timing with the piston as it sequences thru the four strokes.

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## EARLY SLOW SPEED ENGINES

In the old days, the first four cycle engine had very short valve timing, but rightfully so because these were slow speed engines. The engineers of the late 1800's were only concerned with harnessing power of the gasoline and air explosions in an internal combustion engine to propel an automobile, hopefully, a little faster than a horse. They were merely concerned with getting the engines to run at slow speeds. Even in their wildest inspirations they would never have believed that a quarter or half century later, with better structures, these same engines would be revved five times as fast and produce many times more power.

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## EARLY SLOW SPEED VALVE TIMING

The old valve timing then was: Intake valve opens at T.D.C., and as the piston lowers, it draws in the fuel/air mixture; the intake valve then closes at (B.D.C.) hence, the intake stroke. The piston rises, with both valves closed to compress the fuel/air mixture...hence, the compression stroke. The spark plug fires and ignites the fuel/air mixture which drives the piston down to B.D.C. (again the valves are closed)... hence, the power stroke. Also, the exhaust valve opens at B.D.C. The burnt gases, due to their high pressure, virtually expel themselves, and the piston drives the last of the gases out; the exhaust valve closes at T.D.C....hence, the exhaust stroke. These early engines had  $0^\circ$  overlap or no overlap whatsoever.

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## BRAZEN EXPERIMENTS WITH LONGER DURATION CAMS

By experimentation, the more progressive cam engineers of the 1910's and 1920's discovered that the midrange and high-speed power could be greatly improved by lengthened valve timing. The stretching of the intake valve timing allowed the engine to breathe deeper and take in greater amounts of air and fuel, thus creating a more powerful explosion in the combustion chamber. An important advantage gained from lengthened valve timing is that the greatly expanded gases are eliminated more efficiently and virtually by their own pressure. Unless these burnt gases are completely expelled from the combustion chambers, they will remain behind to displace and contaminate the incoming fresh fuel/air charge.

---

## VALVE OVERLAP IS DISCOVERED

Lengthening of valve timing in the gasoline engine brought on accidental overlapping of the intake and exhaust valve events. (Both intake and exhaust valves are slightly open at T.D.C.) In the early days, this unintentional overlapping was at first considered detrimental. But much later, it was discovered that a mild scavenging effect was obtained from the overlap event when the exhaust actually pulled some of the intake charge in.

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## ISKY INTRODUCES THE 5th CYCLE AND SUPER SCAVENGING

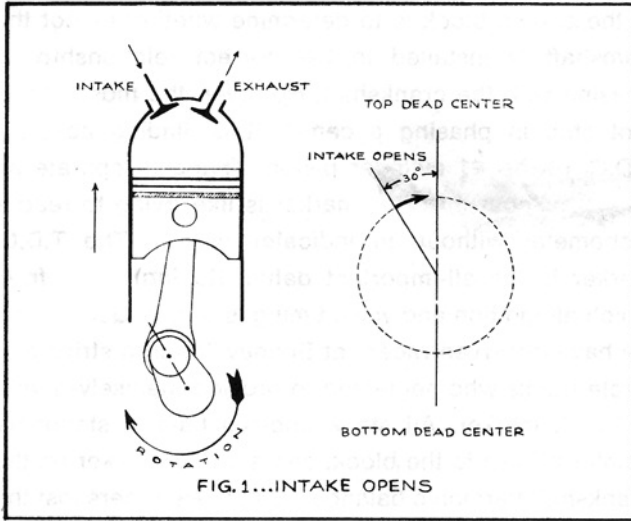
In the early 1950's, Iskenderian introduced the first long duration cams which took full advantage of an extra long overlap period to super scavenge the combustion chamber and create in effect a fifth cycle in the four cycle engine. This required an optimum exhaust pipe system and at high speed the column inertia slug of exhaust gases helped pull the cool fuel/air mixture into and through the combustion chamber to produce substantially more horsepower.

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## INTAKE OPENS -- WHEN AND WHY -- ON A MILD RACING CAM

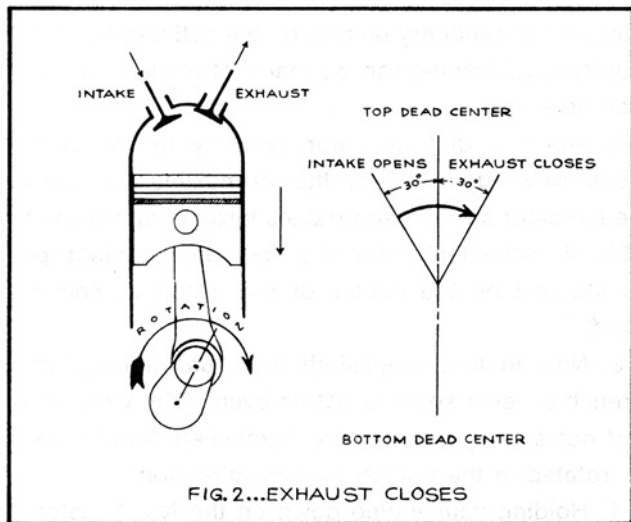
In the cylinder and valve timing diagram of (Figure 1) note that the intake valve begins opening  $30^\circ$  before T.D.C. (top dead center) or before the piston actually starts on the suction (intake) stroke. This is purposely done to give the relatively slow opening

valve a head start on the piston so at T.D.C. the valve will be well off its seat so as to offer little resistance to the incoming charge.



### EXHAUST CLOSURES - WHEN AND WHY

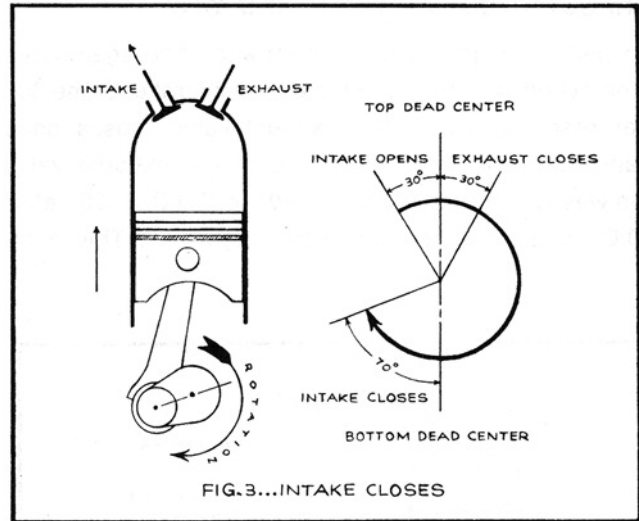
As the piston reaches and passes T.D.C., the exhaust valve is still slightly open and slowly closing. The burnt exhaust gases in the header pipe contain a great deal of column inertia. At high engine speeds, a noticeable scavenging phenomenon occurs when this column inertia actually helps draw in the intake charge during the short overlap period. At 30° past T.D.C. the exhaust valve finally closes (Figure 2).



### INTAKE CLOSURES - WHEN AND WHY

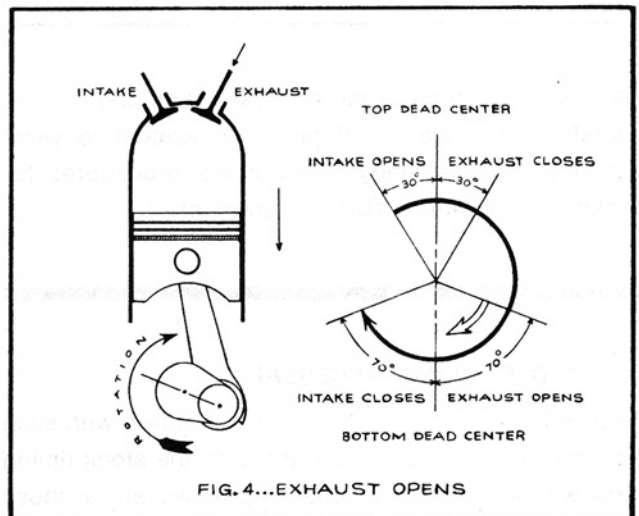
The intake stroke continues as the piston moves downward, drawing the fuel/air mixture into the

cylinder, reaches B.D.C. (bottom dead center) and starts again to rise in the cylinder beginning the compression stroke. Had the intake valve been prematurely closed at B.D.C. there would be a considerable loss in power at hi-speed since the intake charge having been in motion has built up kinetic energy and continues to flow filling the cylinder long after the piston changes direction. Some 70° after B.D.C. the intake valve closes completing the intake stroke (Figure 3). Reviewing the intake valves' operation we see that its total opening period was 30° before T.D.C. + 180° to B.D.C. + 70° after B.D.C. for a total of 280 crankshaft degrees.



### EXHAUST OPENS - WHEN AND WHY

The piston continues upward on the compression stroke compressing the fuel/air mixture to approximately 1/10 its original inducted volume. Just before reaching T.D.C. the spark plug ignites, and the flame gradually propagates through the charge. As the piston reaches T.D.C. the ignited mixture is expanding

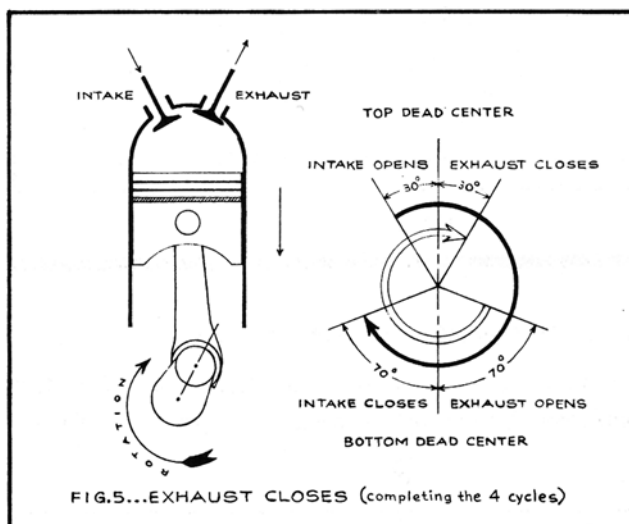


creating the "power stroke" and forces the piston downward once again. 70 crankshaft degrees before the piston reaches B.D.C. the exhaust valve opens to begin the exhaust stroke well before the power stroke has actually been completed (Figure 4). This seemingly loss of useful power is offset by the fact that the hot exhaust gases now leave the cylinder by virtue of their own pressure, thereby reducing the effort on the engine's part to expel the burnt gases on the upward stroke of the piston.

---

## EXHAUST CLOSURES - WHEN AND WHY

The piston completes its descent and once again rises in the cylinder to continue the exhaust stroke. Some 30° after reaching T.D.C. the exhaust valve closes once again. The total opening period of the exhaust valve then was 70° before B.D.C. + 180° to T.D.C. + 30° after T.D.C. or 280° of event (Figure 5).



This completes one sequence of the 4 strokes. You should now understand the relation of piston movement to valve operation and are ready to learn the procedures for checking valve timing (Cam degreeing).

---

## IS CAM DEGREEING NECESSARY?

Because Iskenderian Cams are manufactured with such high precision you can install them on the stock timing marks without any further checking; however, for those who wish to learn how to properly check and verify valve timing, we recommend the following procedure.

## FINDING T.D.C. -

### CAM DEGREEING'S FIRST STEP

The purpose of checking or degreeing in the camshaft in the engine block is to determine whether or not the camshaft is installed in the correct relationship or phasing with the crankshaft. However, the most important step in phasing a camshaft is finding absolute T.D.C. of the #1 cylinder piston. Trying to operate an engine without this vital marker is like trying to read a tachometer without an indicator needle. The T.D.C. marker is the all-important datum (tuning) point from which all ignition and valve timing is based. Quite often, we have observed racers at Bonneville, drag strips and circle tracks who neglected to provide themselves with a T.D.C. marker. All stock engines have a stationary pointer affixed to the block, and a T.D.C. marker on the crankshaft harmonic balancer. But these racers lost the original pointer when they changed to an aluminum timing gear cover. Or, on supercharged engines, when they changed to a steel crankshaft drive hub, they lost the original T.D.C. marker. Now here is their predicament: they now have no way of accurately setting their spark lead or valve timing. Had this engine been accurately calibrated for T.D.C. by utilizing the "Isky Positive Stop Method" while still on the bench, all doubts and frustrations would have been avoided. Thus, a possible winner became a loser.

It is a common error to miss T.D.C. by a few degrees due to the piston dwell at top center. Inasmuch as this inaccuracy will substantially affect subsequent timing, the following procedure is suggested to correct this error.

1. Mount degree wheel on the front of the crankshaft. Now bolt a stationary pointer on the cylinder block (see illustration). Pointer can be made of metal strip or 1/4" steel rod.
2. Mount a dial indicator securely to the cylinder block. Now adjust dial so that at maximum piston rise the indicator sweep hand travels through approximately .300 of movement. The dial indicator contact point should rest on the center of the piston as shown in Figure 6.
3. Now to turn crankshaft over, use a long-handle wrench or lever so as to get an even, steady movement and not a jerky motion. The crankshaft should always be rotated in the normal running direction.
4. Holding your thumb down on the No. 1 piston (to eliminate all lash), come up slowly to T.D.C. until you reach what you guess to be the middle of T.D.C. dwell. Set your degree wheel to read T.D.C. against the pointer.

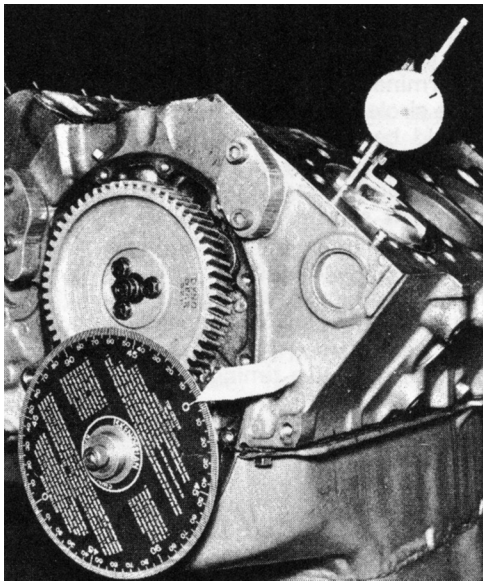


Figure 6

5. Now rotate crankshaft one more revolution and this time on the way up to T.D.C., stop exactly .200 (dial indicator reading) below the maximum piston travel. Now read the degree wheel; if for example, it reads 40 degrees before T.D.C., continue rotating slowly on up to T.D.C., over the hump and down the other side, keeping thumb firmly on piston. Watch dial indicator closely, and when it reads exactly .200 down from T.D.C., stop and note reading on degree wheel. If you have a perfectly split overlap, it should read 40 degrees after T.D.C. If it doesn't, you have not found exact T.D.C., therefore you must try again.

## MAKING CORRECTIONS

Split the difference (your error in degrees) by moving the degree wheel radially on the crankshaft. After you have made the adjustment, come around with the crankshaft as before, stopping .200 below each side of T.D.C. When you get exactly the same degree readings .200" below each side of T.D.C., you have found absolute Top Dead Center. NOTE: The exact travel of .100-inch below T.D.C. is not important. Any check point between .100 and .500 will give good results, as long as you check each side of T.D.C. equidistantly.

## POSITIVE STOP METHOD OF FINDING T.D.C.

The most practical way of locating T.D.C. is known as the positive stop method. No dial indicator is required for this procedure. First, let's see how it's done, utilizing the degree wheel.

1. Fasten the degree wheel to the crank. Then, take a stiff 1/4" rod or similar material and sharpen one end to form a pointer. Attach this pointer so that it rests very close to the damper to eliminate parallax viewing error.
2. Obtain a stout strip of steel about seven inches long and drill three 1/2" holes in it (see Figures 7 & 8 for position of holes). This strip is placed across the center of the No. 1 cylinder bore and bolted on each end to secure it to the block. Caution: Be sure that the strip of steel is rigid enough so that it will not be deflected when the piston contacts the center bolt stop.

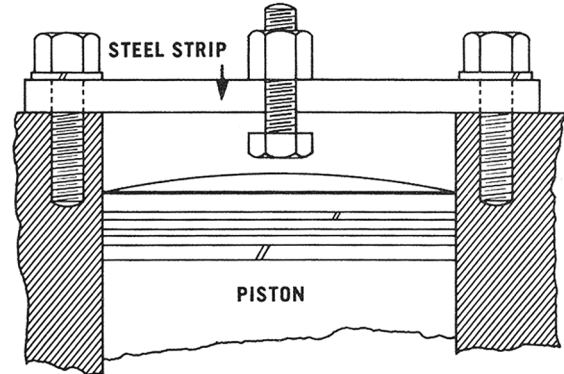


Figure 7

Incidentally, the positive stop should be adjusted so as to stop the piston's upward travel at approximately .200 to .800 below T.D.C.

3. Rotate the crankshaft in normal running direction (clockwise) until the piston crown lightly strikes the positive stop.

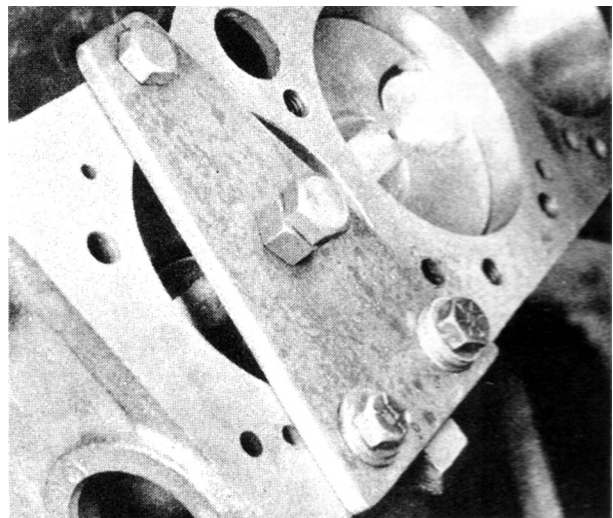


Figure 8

4. Now, radially adjust and lock the degree wheel to the crankshaft at 40 degrees before T.D.C. at the pointer.

5. Now rotate the crankshaft backwards to the positive stop. If the degree wheel reads 40 degrees from T.D.C. you have hit Top Dead Center exactly, and the zero mark between the two 40-degree readings is absolute T.D.C.

6. However if your readings were unbalanced, you will have to split the difference (your errors in degrees) by moving the degree wheel radially on the crankshaft. Then, try again until you get exactly the same degree readings against the positive stop on either side of T.D.C. NOTE: The lower the positive stop is located below T.D.C., the greater the degree readings will be. But, the results will always be accurate. T.D.C. always lies equidistant between the two positive stop readings.

### FINDING T.D.C. ON YOUR HARMONIC DAMPER WITHOUT DEGREE WHEEL

Even without the degree wheel, you can and always should calibrate the T.D.C. mark on your harmonic damper when building or assembling a new engine. By using Step 3 and 5, each time you contact the positive stop, rotating both forward and backward, scribe a mark on the damper in line with the pointer. T.D.C. will be exactly between the two scribed stop marks. Carefully measure and scribe a permanent T.D.C. marker between these two stop marks. Remember the T.D.C. marker is the important datum (tuning) point from which all ignition and valve timing is based.

### CAM DEGREEING PREPARATION

Having determined T.D.C., using your 1/2" travel dial indicator and degree wheel you are now ready to degree-in your camshaft. The two most common frustrations that people experience in cam degreeing are: 1. Checking at the valve. 2. Checking the valve-seat timing.

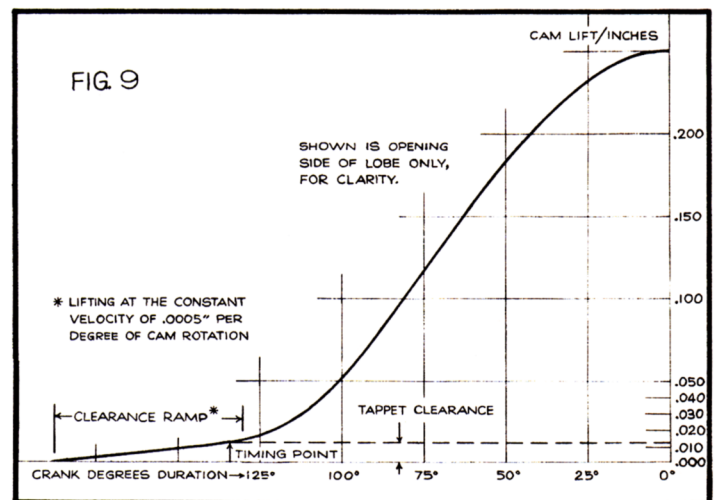
### CHECKING AT THE VALVE

Checking valve timing at the valve is not recommended because *production tolerances on stock rocker arms* can confuse your readings at the valve, whereas the direct motion of the lifter on the cam lobe will be the same for each lifter in the block. Another reason for never checking at the valve is that a rocker arm's theoretical ratio, usually 1.5:1, is true only at approximately mid (1/2) valve lift. The ratio varies from slightly more to slightly less than 1.5:1 through the

lifting cycle, because the rocker arm continually varies its point of contact on the valve stem.

### CHECKING VALVE SEAT TIMING - CLEARANCE RAMP ERROR

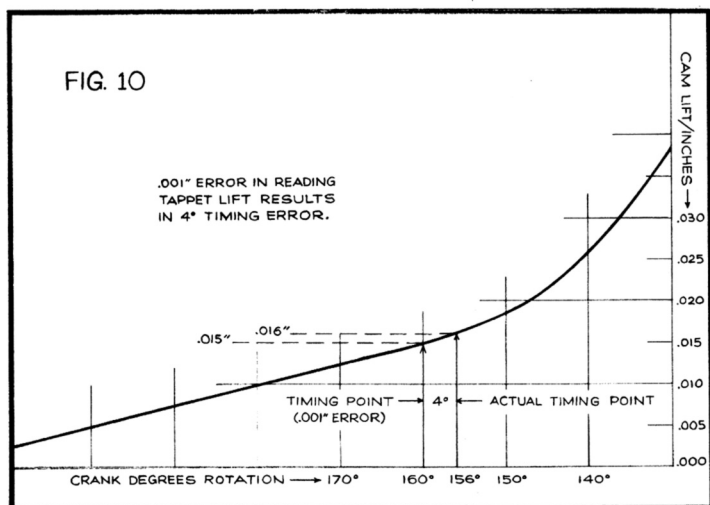
Checking the cam at the lifter is much more accurate but can still cause confusion if you try to check the actual valve seat timing, which involves checking on the clearance ramps of the cam lobe. The clearance ramps are the slow lifting portions of the lobe which provide a smooth, transition between the base circle and the cam flank on both the opening and closing sides of the lobe. On the clearance ramps, the first .010" or .015" of lifter movement is usually at the slow rate of .0005" per cam degree. In addition to gradually taking up the valve lash (necessary because of valve expansion and small deflections of the valve gear components), the clearance ramp provides the initial, gentle acceleration of the valve off its seat. An example of these clearance ramps is described in the cam lift curve of Figure 9. As indicated in Figure 9, only the end of the clearance ramp directly adjacent to the cam flank is actually used to open and seat the valve, while the remainder is used to take up the



clearance and compensate for small deflections or runout in the valve gear. Since the clearance ramp rate of lift (velocity) is .0005" per cam degree, a slight error on your part of say .001" in checking the valve seat timing at a certain point on these clearance ramps, could account for 2 cam degrees (4 crank degrees) of error in determining the timing point as exemplified in Figure 10. And it is very easy to accumulate .001" error if the dial indicator's stem is not running parallel to the lifter (cosine error) or if you

view the dial indicator's calibrations from an angle (parallax error) or if the cam bearings or tappet bosses are worn slightly. Obviously then to properly determine the position of your camshaft in the engine, the cam

(a point where the valve is far enough open to pass an effective air flow). Also, the velocity (rate of cam lift) of most camshafts is approximately .004" per cam degree at .050" lifter rise. Therefore, a .002" error in checking height would only affect the degree wheel reading about 1 crank degree as shown in Figure 11. The ISKENDERIAN .050" lifter rise check has now become a standard in the racing cam industry.



timing must be checked at a lifter height off the base circle where the velocity (rate of cam rise) is high enough so that small checking height errors of .001" or so will not result in gross degree wheel reading error.

## DEGREEING THE CAM

### CAM INSTALLATION

Before installing the cam in the engine block clean it thoroughly with solvent and air dry. Place a light coating of oil (preferably 10 Wt.) on the cam journals and the cam lobes you intend to check. Carefully revolve the cam while inserting it through the block, taking care not to score the cam bearings. Assemble the timing chain and cam sprocket while aligning the timing marks properly (Figure 12), and torque the cam sprocket bolt or bolts to the proper specifications. Always use a new timing chain when installing or timing a new camshaft. An excessively stretched chain can retard cam timing as much as four cam degrees.

### ISKENDERIAN .050 LIFTER RISE METHOD

Many years ago a standard height was sought after by ISKENDERIAN engineers where all racing camshafts could be timed to give accurate results and in 1958 it was decided and later published in our top tuner's manual, "Valve Timing for Maximum Output" that .050" lifter rise off the base circle would be the accepted standard for our camshafts. This figure was ideal because it was not far enough off the base circle to confuse the engine builder when timing the camshaft, and it was high enough to show effective valve timing

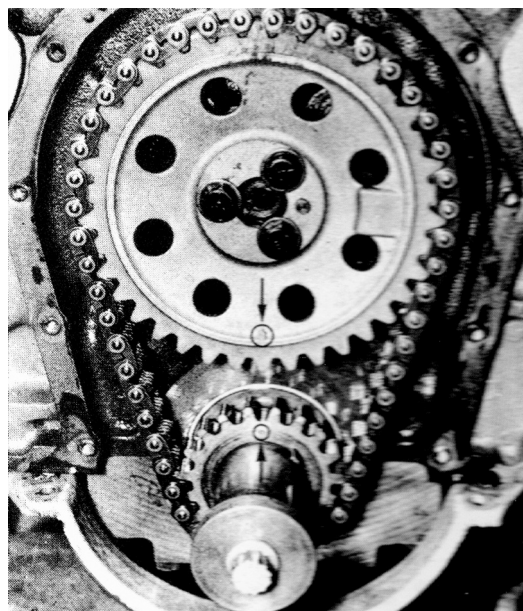
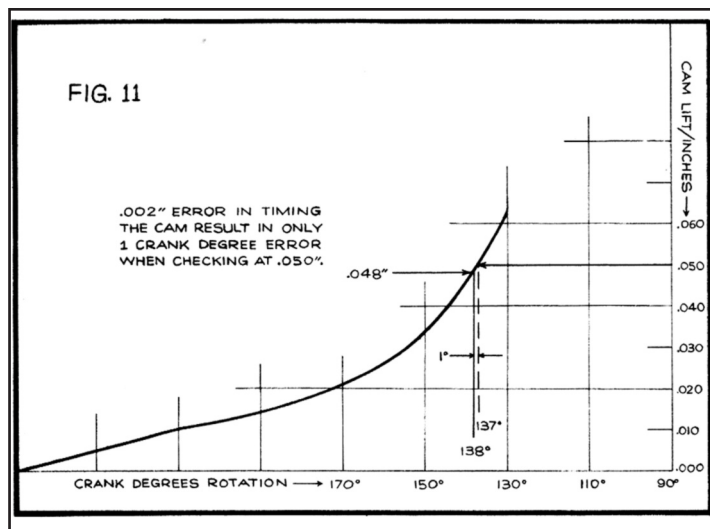


Figure 12

Shown is the procedure for aligning timing marks on a 427-cu.-in. Chevy; however, procedures vary from engine to engine. If you cannot find the timing marks, DO NOT remove the camshaft - consult a motor manual.

## TIMING TAG CONTENT

The timing tag you received with your camshaft shows the timing as determined by ISKENDERIAN engineers at a specific checking height off the cam's base circle. This height is indicated on the tag and is usually between .017"-.023" depending on the individual model cam you have. Checking the cam at this height would give you the actual valve seat timing, but as explained earlier this is not recommended. Instead, for more accurate results, use the figures taken at .050"

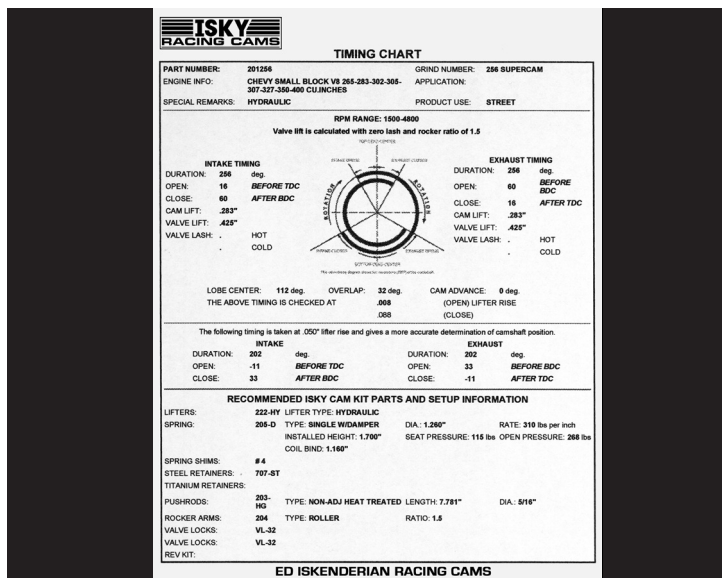


Figure 13

lifter rise (also on the tag) to degree-in the cam. For example only, we will use the ISKENDERIAN 283-350 Chevy Z-80 cam in describing the proper cam-degrees procedure (Figure 13). The valve seat timing of the Z-80 is intake opens at 57 and closes at 93 and exhaust opens at 93 and closes at 57 checked at .020 lifter rise. At .050" lifter rise because you are checking much higher up the cam flank the timing shortens to *intake opens at 33 and closes at 69* and *exhaust opens at 69 and closes at 33*.

## DIAL INDICATOR SET-UP

To begin your check of the camshaft, rotate the crankshaft until the No. 1 cylinder intake tappet is on the base circle (heel) of the cam lobe. Lubricate the tappet with light oil and check to see that it has free, unrestricted movement in the bore. Position the dial indicator stem parallel to the lifter in both planes, and preload the indicator's stem .050" - .100" on the tappet. At ISKENDERIAN to facilitate checking, we use an extended length tappet which brings the tappet to the proximity of the head gasket face and provides

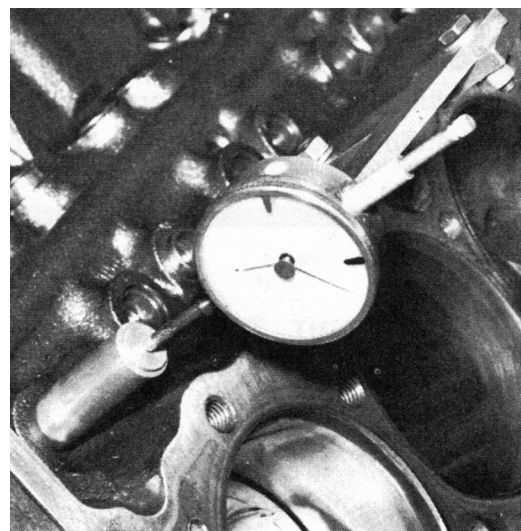


Figure 14

a level surface for the stem of the dial indicator (Figure 14). Rotate the crankshaft clockwise several times to determine the runout or eccentricity of the base circle. This should not exceed .001 and should be centered equally on both sides of the zero on the dial indicator.

## DEGREEING THE INTAKE LOBE

Rotate the crankshaft clockwise until .050" dial indicator movement is detected and read the degree wheel opposite the stationary pointer. It should read intake opening 33° before T.D.C. (Figure 15). Record your reading and continue rotating the crankshaft watching the lifter reach full lift and begin to descend and stop the crankshaft's movement at .050" dial indicator reading before zero. The reading opposite the stationary pointer should be intake closing at 69° after B.D.C. (Figure 16). Record your reading and

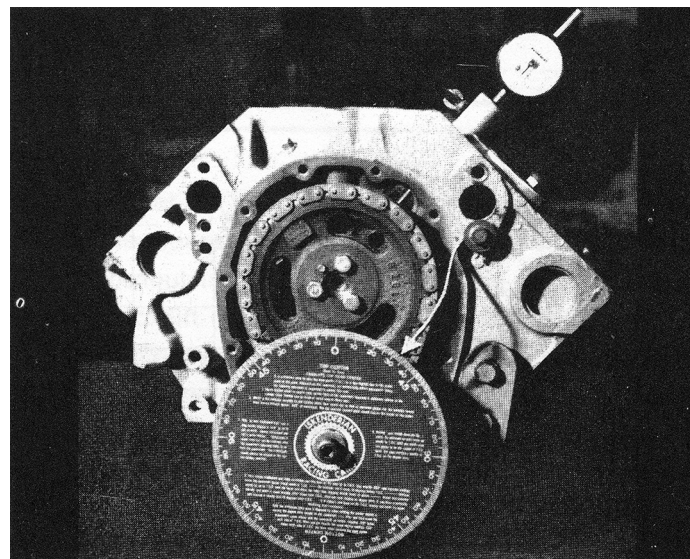


Figure 15

repeat your check of the opening and closing points of the intake cam to insure against human error in reading the indicator or degree wheel.

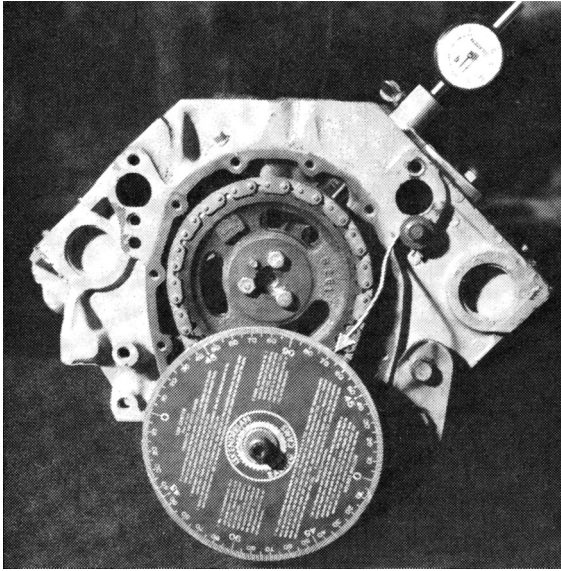


Figure 16

### DEGREEING THE EXHAUST LOBE

Remove the dial indicator and reposition it on the exhaust tappet of the same cylinder using the same setup procedure as before. Rotate the crankshaft clockwise until .050" dial indicator movement is detected and again read the degree wheel opposite the pointer. It should read exhaust opening at 69° before B.D.C. (Figure 17). Record your reading and again rotate the crankshaft watching the tappet reach full lift and descend and stop the crankshaft at .050" dial indicator reading before zero. Opposite the stationary pointer the reading should be exhaust

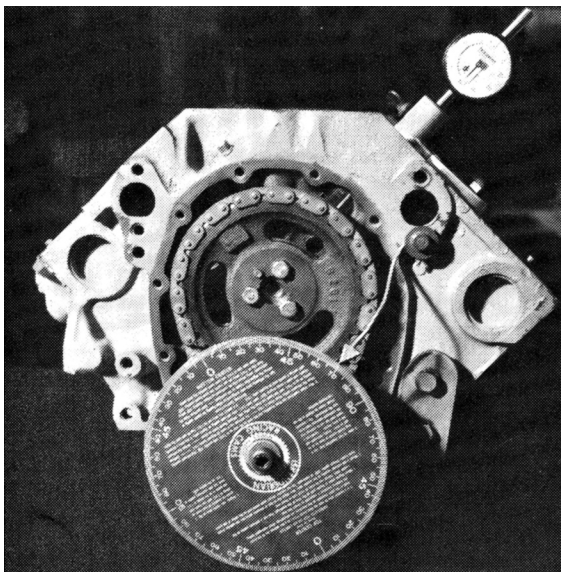


Figure 17

closing 33° after T.D.C. (Figure 18). Record your reading and repeat your check of the exhaust lobe.

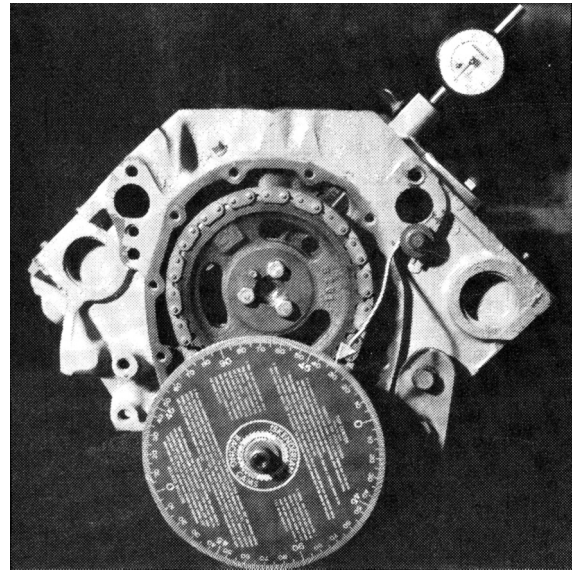


Figure 18

### COMPARING YOUR READINGS TO THE TIMING TAG

The readings you have taken on the intake and exhaust lobes may very well be off 2 to 4 crankshaft degrees from the timing tag figures. If this is the case, the cause is probably slight errors in keyway location of the crankshaft or crank sprocket, or in the keyway or dowel pin hole location of the cam sprocket. These slight errors may be corrected by the use of two Isky inventions; the offset cam bushings or the offset cam and crank keys which will offset the camshaft with relation to the crank to bring the cam into phase with the crankshaft. They may also be used however, to either further advance or retard the cam to obtain the desired results. How do you determine an advanced or retarded cam position? This is explained in the following section.

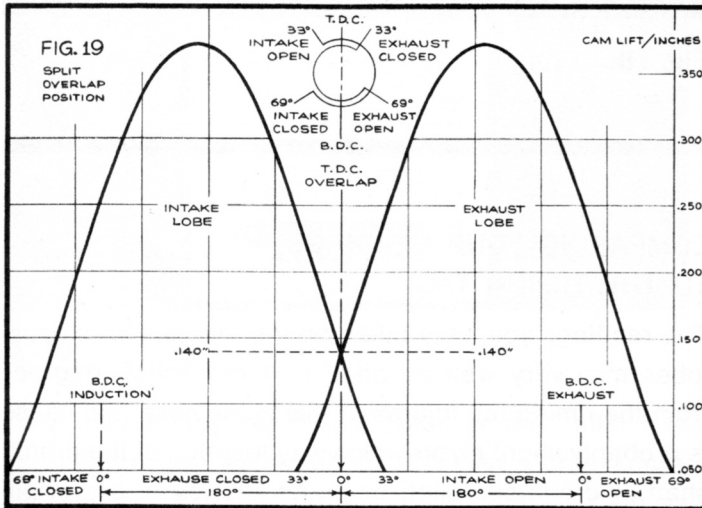
### RELATING VALVE OVERLAP TO THE TIMING TAG - WHAT IS A SPLIT OVERLAP?

Split overlap means that the intake and exhaust valves are split or open an equal distance at T.D.C. Overlap. Of course, this also means that the intake and exhaust tappets are split or equally off their cam's base circle at T.D.C. Overlap. The cam would be *advanced* if the intake tappet was open further at T.D.C., and retarded if the exhaust tappet was open further at T.D.C.

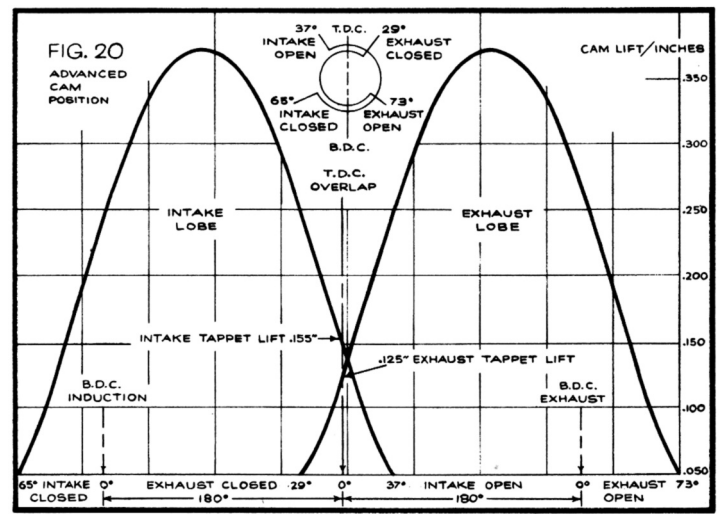


## SINGLE PATTERN SYMMETRICAL CAMS

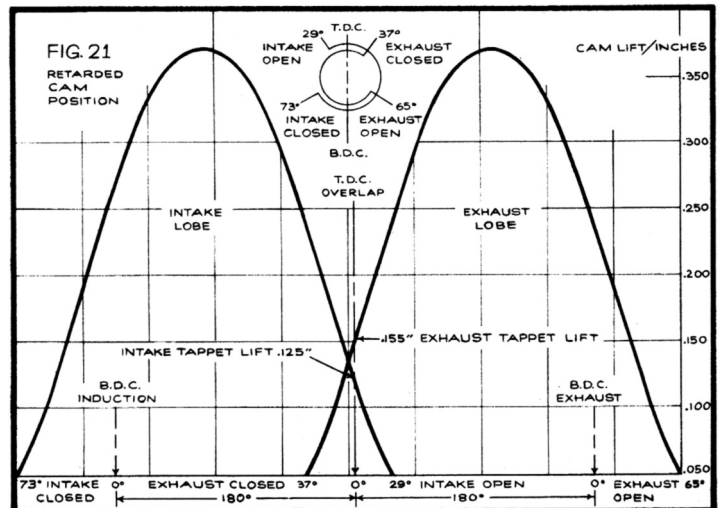
When the camshaft is single pattern (intake and exhaust cam profiles are the same) and the opening and closing sides of the lobes are the same shape (symmetrical) it is a simple procedure to check the phasing of the camshaft for split overlap or an advanced or retarded position. Figures 19, 20, and 21 are good examples of these conditions showing how the position of the intake and exhaust tappets at T.D.C. Overlap affect the opening and closing points of the tappets of the Z-80 camshaft. Figure 19 shows the intake and exhaust tappets equally off their base



circles at T.D.C. Overlap and the timing diagram adjacent to the lift curve indicates the intake tappet opening at  $33^{\circ}$  B.T.D.C. and the exhaust tappet closing  $33^{\circ}$  A.T.D.C. The intake opening and exhaust closing figures of the timing diagram are known as the "Top Timing" because they refer to the intake and exhaust timing points nearest T.D.C. Conversely, the exhaust opening and intake closing figures are known as the "Bottom Timing" because they refer to the intake and exhaust timing points nearest B.D.C. The fact that the intake and exhaust Top Timing is the same, and the Bottom Timing is likewise shows the cam is in the split overlap position. Figure 20 shows the camshaft in the advanced position with the intake tappet open much further at T.D.C. than the exhaust tappet. The timing diagram adjacent to the lift curve indicates that the intake tappet has opened  $4^{\circ}$  earlier and the exhaust tappet closed  $4^{\circ}$  earlier than when the camshaft was in the split overlap position. This accounts for why the intake tappet is open further than the exhaust tappet at T.D.C. To determine the amount the camshaft is advanced in crankshaft degrees, simply subtract the difference between the intake and

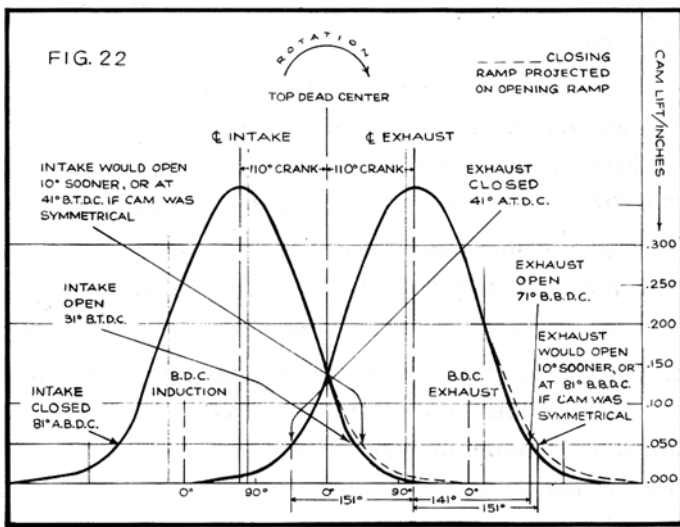


exhaust Top Timing and divide by two. In this case  $37^{\circ} - 29^{\circ} = 8^{\circ} \div 2 = 4^{\circ}$  -crankshaft degrees of advance. To obtain the actual amount of advance or retard in camshaft degrees, simply divide the figure by two again, hence  $4^{\circ} \div 2 = 2^{\circ}$  of cam advance. Figure 21 shows the camshaft in just the opposite condition being four crankshaft degrees retarded.



## SINGLE PATTERN ASYMMETRICAL CAMS

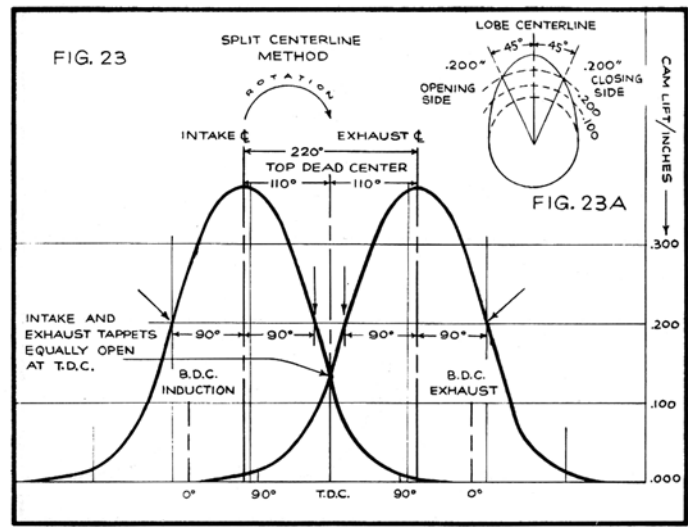
Thus far, we have seen how it is possible to use the cam timing diagram to determine the camshaft position in the engine with symmetrical cams only. But what of camshafts that are asymmetrical in shape? (The opening and closing sides of the lobes differ in profile). For the answer let us consult Figure 22 where we see that even though the tappets are equally open at T.D.C., indicating a split overlap, the timing diagram indicates the camshaft is five crank degrees retarded because of the extended closing ramp of the



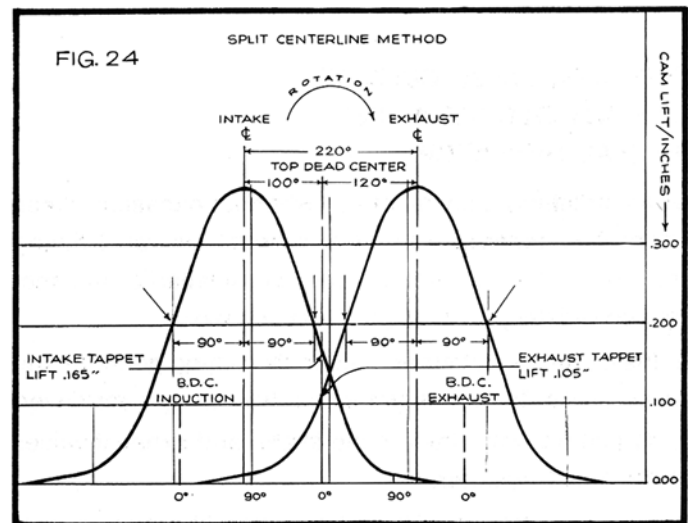
assymetrical cam lobe. Therefore, it is evident that with an asymmetrical cam, the timing diagram cannot always be used to check for split overlap. A more accurate method then would be to check the theoretical "Cen-terline" (point of maximum lift) position of the intake and exhaust lobes. In Figure 22 notice that regardless of how the cam timing changes with the addition of higher closing ramps, the centerline of the intake lobe remains 110 crank degrees after T.D.C. and the centerline of the exhaust lobe remains 110 crank degrees before T.D.C. Therefore, we find that splitting the difference in crank degrees between the centerline of the intake and the exhaust lobes either side of T.D.C. is a more reliable means of phasing an asymmetrical cam.

### THE SPLIT CENTER LINE METHOD

The camshaft is ground with a predetermined angular distance between the intake and exhaust lobes of the same cylinder. This distance is determined by the cam designer and verified through dynamometer testing of the cam design. This distance is known as the cam-shaft's "lobe centers" and is generally between 104° and 114°. This would be 208-228 crank degrees since crank speed is twice cam speed. Figure 22 exemplifies this distance at 220° with the centerline of the intake and exhaust lobes equally positioned on either side of T.D.C. This is a very accurate method of phasing the camshaft because it eliminates checking down near the clearance ramps. An example of how to phase the camshaft using the "Split Centerline" method is given in Figure 23. From this illustration we see that if we take degree wheel readings at .200" tappet rise, on both the opening and closing sides of the cam lobe (Figure 23) the centerline of the lobe will

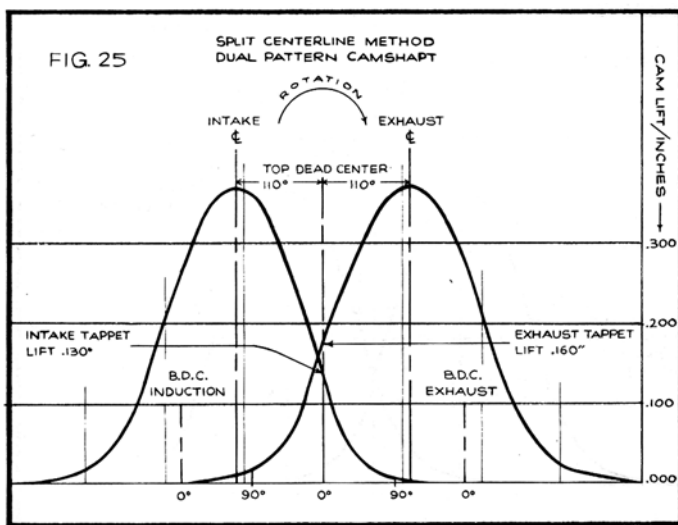


be equidistant between these two points on the degree wheel. When the centerline of both the intake and exhaust lobes is determined, positioning them an equal number of degrees from either side of T.D.C. will give a split overlap. Of course, if it is desired to advance the camshaft one would merely move the centerline of the intake lobe closer to T.D.C. and thereby increasing the intake tappet lift and decreasing the exhaust tappet lift at T.D.C. This is exemplified in Figure 24.



### DUAL PATTERN CAMSHAFTS

The Split Centerline method can also be used to phase the camshaft if it is dual pattern (different intake and exhaust cam profiles). However, this may or may not give you a Split Overlap, depending on the actual difference in the two cam shapes. This condition is exemplified in Figure 25. Here we see that although the centerline of the intake and exhaust lobes are positioned equidistantly on either side of T.D.C. the



amount the tappets are open at T.D.C. differs because of the longer duration exhaust lobe. Of course, the opposite could also occur, where the intake lobe was longer in duration and the intake tappet open further at T.D.C. Taking the cam in Figure 25 it would be best to run the camshaft in the "Split Centerline" position first to determine the performance of the engine and then either advance it slightly to a true "Split Overlap" or retard the camshaft even further to obtain the desired results.

### CHECKING VALVE OVERLAP WITHOUT DEGREE WHEEL OR DIAL INDICATOR

When installing a camshaft, or when an occasion arises where it is necessary to make a check on valve timing and no appropriate instruments are available, the recommended Isky procedure is as follows:

1. Insert the camshaft and mesh the timing gears on the stock marks. Do not as yet install the timing gear cover.
2. Adjust the valve lash of the intake and exhaust valves of the No. 1 cylinder.
3. Using a long wrench or lever, turn the engine over in the normal running direction. Use enough leverage to get an even, steady movement instead of a jerky motion. Rotate until the intake and exhaust valves of No. 1 cylinder are in the overlap position (both valves

opened slightly). Stop exactly on T.D.C., which is marked on the harmonic damper.

4. Now loosen and back off the rocker arm adjusting screws until the intake and exhaust valves are just barely closed. Lock the adjustment screws so that the intake and exhaust valves are at exactly zero clearance.

5. Now turn the engine over exactly one revolution of the crankshaft to T.D.C. on the harmonic damper. You are now at T.D.C. on the compression or firing stroke.

6. Take Notice! Now there is a large space between the rockers and valve stem tips. The space indicates the actual amount the valves were open at T.D.C. of the overlap period (less valve lash, of course).

7. We will measure this gap space by probing with common feeler gauges of various thicknesses combined until we determine the gap space. After computing the gap, record the figures for both intake and exhaust in your notebook. If the amount of gap on intake and exhaust is exactly the same, you have a perfect split overlap.

### AN EXAMPLE USING AN RPM 300 CAM

*Advanced Cam Position:* If your intake happens to come out with .100 gap, and the exhaust with say .080 gap, your cam is in an advanced position. In this position, the came will produce more low-speed power or torque. However, there might be a slight loss of power at high RPM.

*Retarded Cam Position:* If, on the other hand, the intake came out with .080 gap, and the exhaust at .100, your cam is in a retarded position. In this position, there will be some loss in low-speed torque and power, and probably some subsequent gain in high-speed power.

*Split Overlap:* If the intake and exhaust gap read out exactly even, or within .005 of each other, you have a split overlap. Generally speaking, all racing cams run best in the split overlap position. While there are exceptions to this rule, it is usually best for overall performance.

