CROW CAMS

VALVE TRAIN 2020 CATALOGUE

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ORDERS May be emailed to sales@crowcams.com.au
Emergency orders received by 2.30pm will be shipped the same day (If in stock).
Payment may be made by Mastercard,Visa, EFT or PayPal

FREIGHT
Competitive freight rates are available on overnight air or road freight.

CROW CAMS

High Performance Camshafts and Valve Train Components

Terms & Conditions

1. In these conditions "the Company" shall mean Crow Cams Australia Pty Ltd, "the Customer" shall mean the person, firm or corporation from whom an order is accepted by the Company and "the Goods" shall mean the products, materials, equipment and services supplied by the Company. Unless the context requires otherwise, words purporting the singular shall be deemed to include the plural and words purporting gender shall be deemed to include all other genders.

2. Acknowledgement and acceptance of terms and conditions:
By accessing, browsing or using the Company website, or reading the Company catalogue, you agree to these conditions as amended from time to time, and acknowledge that you have read and understood these conditions. By purchasing a product, you agree to be bound by these conditions.

3. Quotations:
3.1. A quotation constitutes an invitation to the Customer to make an offer to contract. An agreement shall not be constituted until an official order from the Customer requesting goods upon these terms and conditions is accepted by the Company.
3.2. All prices quoted are subject to market fluctuations in accordance with Crow Cams Australia's pricing policies, its supplier's recommended prices or Government levied increase without reference to the Customer.
3.3. If acceptance of a quotation by a Customer exceeds thirty (30) days, quoted prices will need to be reconfirmed with the Company.
3.4. Prices offered are quoted on the availability of the total range of product being offered. Any product deletion or amendment may require requoting.
3.5. Any date of completion/delivery specified in the quotation is an estimate only.

4. Reservation/Retention of Title:
4.1. You acknowledge that the ownership of goods delivered is only transferred to you when you have paid all sums owing, and until that time we have the right to call for or recover the goods at our option (for which purpose our employees or agents may enter any of your premises) and you are obliged to deliver up the goods if so directed by this Company.
4.2. You agree to keep the goods in a fiduciary capacity for us until such time as ownership is transferred to you.
4.3. Notwithstanding the foregoing, you may sell the goods to a third party in the ordinary course of business, but title remains with us pursuant to these provisions.

5. Supply/Delivery of Goods:
5.1. The Customer acknowledges that the manner and conditions upon which the Company is able to supply Goods may be dependant upon factors beyond the Company's reasonable control including and, without limitation, changes to the terms and nature upon which Goods are supplied to the Company for resale to the Customer.
5.2. The Company reserves the right to make reasonable alterations or modifications to design or specification of the Goods without notice to the Customer unless this right is specifically waived by the Company in writing.
5.3. Cartage will be charged on all deliveries, unless quoted FIS.
5.4. Storage of any Goods for a period of time may incur holding costs charged to the Customer. During any period of storage all Goods remain at the risk of the Customer.
5.5. It is the Customer's responsibility to check the colour, type, condition and quantities of all orders upon receipt.

6. Pricing and Payments Terms:
6.1. All prices are subject to market fluctuation and prices charged will be those applicable at the date of delivery, unless firm quote provided.
6.2. Unless otherwise expressly provided in the quotation, the terms of payment of the contract price shall be:
6.2.1. Payment in full within thirty (30) days of invoice provided the Customer is currently approved for credit by the Company.
6.2.2. Where the Customer is not approved for credit, payment in full on or prior to delivery will be required.
6.2.3. Payment in full on all custom grinds must be made prior to job commencement.
6.3. Interest payable on outstanding accounts shall be charged at a rate of 2% above the overdraft rate charged to the Company by its bankers.
6.4. If payment is not received within our trading terms, the Company may suspend existing work, and/or trading facilities until such payment is received.

7. Returns & Credits:
7.1. No return of Goods will be accepted or credit issued for return of Goods unless the return has first been approved by an authorised representative of the Company.
7.2. Credits will not be issued for Goods returned unless an Invoice Number is quoted.
7.3. A limit of thirty (30) days applies to all returns and credits.
7.4. No credits will be issued for custom Goods.
7.5. All Goods returned will be subject to a minimum 15% restocking charge.

8. Warranties:
8.1. All Goods sold are subject to manufacturer's warranty and trading terms.
8.2. No warranty will come into effect until Goods have been paid for in full.
8.3. The Company will honour manufacturer's warranties to the extent provided by relevant law and to the extent the Company has the benefit of such warranty.
8.4. The Company does not provide any warranty beyond that required by relevant law.

9. Limitation of Liability:
9.1. Nothing in these terms shall exclude, restrict or modify any term, warranty, condition as contained in the Trade Practices Act 1974 or similar state or territory legislation.
9.2. **The Company's liability will be limited to the maximum extent permitted by law to replacement of any defective goods, the sup** ply of equivalent goods, the repair of such goods or the refund of the sale price.
9.3. The Company shall not be liable for any:
9.3.1. consequential or incidental damages;
9.3.2. damages or loss of any nature whatsoever relating to lost profits, business interruption, loss of data or privacy or confidentiality, personal injury or any failure to meet any duty; or
9.3.3. indirect, special or punitive damages arising in any manner.

10. The failure by the Company at any time to insist upon the strict observance by the Customer of any term, condition or warranty shall not be deemed a waiver thereof or amount to a waiver of any subsequent breach of any such term, condition or warranty.

Acceptance of Goods constitutes acceptance of the above terms. No other conditions as implied by Customer order, course of negotiations, correspondence or otherwise will be applicable unless accepted in writing by the Company.

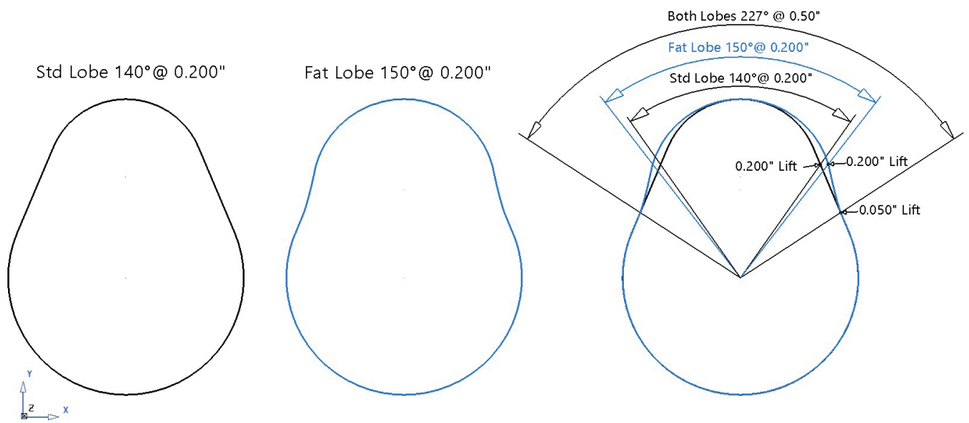
CROW CAMS FAT LOBE PROFILES

Crow Cams have unique in house cam development facilities and have produced powerful, high torque and efficient profiles for a large number of hydraulic roller engine combinations.

Over the past two years, we have uncovered the benefits of designing cam lobes with bigger .200" lift duration figures to increase the total area under the curve without resorting to excessive valve lift which can affect long term reliability.

Known as Crow Cams "Fat Lobes" these profies generate exceptional mid range power and torque over a broader RPM range. Crow "Fat Lobe" cams are easy to tune and deliver excellent driveability throughout the RPM range.

Look for the "Fat Lobe" mascot throughout the catalogue.



FITTING A NEW CAMSHAFT

REMEMBER THE FOLLOWING POINTS

1. Thoroughly clean camshaft including oil passages before fitting.
2. New Crow Cams lifters should always be fitted with a new camshaft. (Does not apply to roller cams)
   Warranty may be void if they are not Crow Cams lifters.
3. Coat the camshaft with a Crow Cams heavy duty anti-scuff lubricant (**Part no. LUB2**) Engine oil is not good enough. (Does not apply to roller cams)
   NOTE: For roller lifter soak in engine oil for at least 30 min before assembly.
4. Check timing gears for wear and replace timing chain.
5. New high performance valve springs should be fitted with a high performance camshaft. When Double Springs are fitted inner Spring is to be removed during run-in. (Except Rollers). Springs should be inspected carefully and tested in a valve spring testing machine if they are to be used again, even with a stock replacement cam. Make sure there is no coil bind or interference of valve train at full valve lift.
   If high performance valve springs aren't required it is still advised to purchase a new set of valve springs.
6. For the best results high performance cams should be fitted in accordance with the settings listed on the cam data card.
7. Prime oil filter and carburettor so that the engine will start instantly. Do not crank engine over to get oil pressure before starting, as it wipes off prelube.
8. Run engine above 1800rpm for 20 minutes.
   Check for leaks. Take car for test drive to load engine.
9. Do not allow engine to idle for any longer than necessary.
   WARNING: We strongly advise against the use of high volume oil pumps in street engines as the excessive load they provide causes premature failure of the oil pump drive gear.

CHECKING CAM POSITION

1. Find top dead centre on the number 1 cylinder using a dial indicator. Mark this position with a pointer mounted on the flywheel or degree wheel bolted to the front of the crankshaft.
2. After setting the dial indicator to zero on the back of the cam inlet lobe, rotate the crank until the pointer indicates the piston has reached top dead centre.
3. Read off the figure on the dial indicator and compare it to the figure shown for inlet lobe lift at T.D.C. on the cam data card supplied with the new cam. The figure shown on the cam data is a minimum and may be up to .005" more. Advance the camshaft to increase the lift at TDC retard the cam to decrease the lift.

THE TIME SPENT DIALLING THE CAM WILL BE REWARDED WITH OPTIMUM PERFORMANCE AND FUEL EFFICIENCY.

ENGINE OIL vs CROW DURA CAM

Modern engine oil has a low percentage of ZDDP wear additives to avoid damage to catalytic converters.

For vehicles not fitted with catalytic converters we advise the use of Crow Cams Dura Cam oil additive **Part Number ZDDP100** which brings the ZDDP levels in the oil to acceptable levels for high performance flat tappet camshafts.

SPECIFICATIONS & APPLICATIONS

At the time of writing we believe the specifications and applications in the catalogue to be correct, however we are engaged in a continuous program of research and development. We therefore reserve the right to upgrade the specifications without notice. The fitter should take reasonable care to ensure the replacement parts are suitable for the application suggested as our catalogue is a guide only.

NOTE: In some applications fitting a performance camshaft to emission control vehicles used on public roads may contravene local pollution control regulations. If in doubt please consult your government environment protection or pollution control authorities.

CUSTOM CAMSHAFT GRINDING

FOR CUSTOM CAMSHAFT RECOMMENDATIONS FILL OUT OUR ONLINE FORM AT WWW.CROWCAMS.COM.AU ALTERNATIVELY CONTACT OUR TECHNICAL DEPARTMENT

4WD

The increased popularity of heavy recreational vehicles and four wheel drives has greatly increased demand for cam profiles specifically designed to enhance low end and mid range torque. Crow Cams have a range of part numbers for most popular vehicles including towing cams for popular passenger cars and commercials. Most of these profiles are also well suited to LPG which is popular in many of these applications we have grinds to provide increased torque at low revs or increased power at higher rpm for highway and touring applications.

TURBO & SUPERCHARGED APPLICATIONS

Special grinds have been developed to reduce turbo lag and provide maximum efficiency from turbocharged engines. Mechanical and chemical supercharging also requires special considerations from the cam designer.

DRAG RACING

Many of Australia's fastest and most successful drag racers rely on Crow Cams technology to win championships and break records. Our R&D staff work closely with engine builders and racers to develop cam profiles specifically suited to engine combinations in both normally aspirated and supercharged applications.

For years Crow Cams have dominated the supercharged Top Door slammer class in Australia and smashed several world ET and speed records in the process. John Zappia used Crow camshaft technology to multiple world ET records and 8 Australian Top door slammer championships. Top fuel racer Darren Morgan has won multiple Australian championships using Crow Cams.

The same technology that powers these winners is available to all racers from off street to top fuel competition.

BURNOUT CAMS

Since the very beginning of Burnout competitions, Crow Cams have developed succesful and highly reliable camshaft and valve train packages for top champions including Gary & Jake Myers, Peter and Debbie Gray, George Separovich, Clint Ogilvie and John Taverna Jnr.

Whether your application is 6 cylinder, V8, flat tappet or roller, normally aspirated or blown, Crow will custom grind a cam that is kind on springs and other valve train components.

Talk to our technical staff today about a burnout cam to suit your specific application.

CIRCUIT RACING

Crow Cams involvement in circuit racing continues at every level from control classes such as Commodore Cup Saloon Car Series.

Crow engineers welcome new challenges from all classes of racing from the legendary 427 C5R Holden Monaro 24 hour race cars to more modest V6 and OHC saloon car applications.

SPEEDWAY

Crow Cams have a long history of successes in speedway racing with State and National Champions in classes as diverse as Street Stock, AMCA,Late Model, 360 Modified and 410 Sprint Car. Crow have a huge selection of special grinds for all classes of speedway racing and matching valve train components to ensure relaible, race winning performance.

POWER BOATS

Individual grinds are available to suit the diverse range of hull designs and power units used in today's high performance boats. Crow have had a long association with world class race boat teams from blown alcohol displacement to world championship jet sprint racing

STANDARD REPLACEMENT CAMS & VALVE SPRINGS

Make / Capacity	Cylinder	Year	Application	Engine	Part Number	Valve Spring
NOTE: If the model you require is not listed here check custom grind listing.						
CHEVROLET						
283-400 ci	V8	1957-86		Small Block.	**1613**	4931-16
350 ci	V8	1999-on	Corvette (300kw)	LS1, Gen III engine	**871001**	
CHRYSLER						
225 ci	6	1962-70		Slant 6	**7000**	5077-12
215-265 ci	6	1970-80		Hemi, 3 bolt gear	**6000 ***	5091-12
265 ci	6	1976-78	E38 Charger	Hemi 6	**6603 ***	7736-12
265 ci	6	1978-80	E49 Charger	Hemi 6 6 Pack	**6703 ***	7736-12
273-360 ci	V8	1968-80		Small Block	**18000**	5091-16
DAEWOO						
1498cc	4			G15ME,G15MS	**259000**	
1598cc	4		Lanos, Cielo	A15SMS Coil Pack	**261001**	
DODGE						
361ci - 440ci	V8	1972-77	Chain drive	3 Bolt gear	**45000**	
FORD						
997-1598cc	4	1959-78	Cortina	Pushrod engine	**51000**	
1597cc	4	1985-90	Laser, Capri SA	B6, SOHC Mech	**224000**	
1993cc	4	1971-on	Cortina,Escort	OHC	**26000**	
170-200	6	1960-64	Falcon	Solid Lifter	**63001**	
188-221ci	6	1964-70	Falcon	Hydraulic Lifter	**63002**	
200-250ci	6	1970-76	Falcon	Hydraulic Lifter	**63000**	
200-250ci	6	1976-85	Falcon	Cross flow	**14000 ***	5014-12
200-250ci	6	1986-88	Falcon	Unleaded	**14002 ***	5014-12
250ci	6	1984-87	Falcon	EFI engine	**14678 ***	5014-12
289-302ci	V8	1964-68	Falcon	Windsor	**15613**	
302ci	V8	1991-on	Falcon EB	Roller cam	**62951**	
302ci	V8	1993-on	Falcon EB GT	Roller Cam	**62050**	
302ci	V8	1996-on	Falcon XR8	200kw Roller Cam	**621338**	
302ci	V8	1998-on	Falcon XR8	220kw T Series	**621339**	
302ci	V8	1998-on	Falcon XR8	250kw T Series	**621368**	
4000cc	6	2002-2005	Falcon BA-BF	Barra DOHC IN	**323000**	
				Barra DOHC EX	**324000**	
5400cc	V8	2002-08	Falcon BA GT	DOHC RHI	**270-001**	
				DOHC LHI	**271-001**	
				DOHC RHE	**272-001**	
				DOHC LHE	**273-001**	
5400cc	V8	2008-on	Falcon FG GT	DOHC RHI	**270-002**	
				DOHC LHI	**271-002**	
				DOHC RHE	**272-002**	
				DOHC LHE	**273-002**	

Note: Part Numbers marked with * require Distributor Gear (Part No DG2 or DG2A) Factory gear not suitable

STANDARD REPLACEMENT CAMS & VALVE SPRINGS

Make / Capacity	Cylinder	Year	Application	Engine	Part Number	Valve Spring
NOTE: If the model you require is not listed here check custom grind listing.						
FORD						
302-351ci	V8	1968-84	Falcon	Cleveland	**21000**	5094-16
351ci	V8	1970-71	Falcon GT	HO Solid Cam	**21726**	7739-16
351ci	V8	1969-70	Falcon	Windsor	**62000**	5062-16
390-428ci	V8	1963-71	Galaxie	FE Engine	**19000**	
FORD COMMERCIAL						
200-250ci	6	1976-85	Falcon Ute, P'Van		**14000 ***	
200-250ci	6	1986-88	Falcon Ute, P'Van	Unleaded	**14002 ***	
200-250ci	6	1979-88	Falcon Ute, P'Van	EFI	**14678 ***	
302ci	V8	1985-86	F Series	EFI 302 firing order	**15001**	
302ci	V8	1986-90	F Series	EFI 351 firing order	**62001**	
351ci	V8	1990-93	F Series	EFI 351 firing order	**62002**	
HOLDEN						
1196cc	4	1994-97	Barina	C12NZ, C14NZ	**276000**	
1396cc	4	1998-on	Barina	C14SE	**373000**	
1471 cc	4	1985-87	Gemini RB	FWD 4XC1	**242000**	
1584 cc	4	1976-82	Gemini	G 161Z	**78000**	5078-8
1598cc	4	1996-98	Astra	C16SE	**261001**	
1598-1796cc	4	1987-90	Astra	Family II EFI	**92004**	
1598cc	4	1980-86	Camira	Family II Carb.	**92000**	
1798cc	4	1980-86	Camira	Family II Throttle Body	**92003**	
1798cc	4	1980-86	Camira	Family II Multi Point EFI	**92002**	
1998 cc	4	1984-87	Camira	Family II FI	**92001**	
149-202ci	6	1964-80	Red engine		**35002**	
202 ci	6		Red engine	XU1	**35604**	4823-12
202 ci	6		Red engine	Bathurst XU1	**35616**	4823-12
202 ci	6	1980-87	Commodore	Blue,Carby	**35002**	
202 ci	6	1986-87	Commodore	EFI engine	**35678**	
253-308ci	V8	1970-86		Red and Blue eng.	**5613**	4931-16
4987cc	V8	1988	Commodore	Walkinshaw	**4000**	4833-16
4987cc	V8	1989-97	Commodore VN-VS EFI engine		**4000**	4931-16
4987cc	V8	1999	Commodore	VT Holden Eng Hyd Roll	**4002**	4843-16
5700cc	V8	1999	Commodore	VT Holden Eng Hyd Roll Stroker	**4003**	4843-16
5700cc	V8	1993-1994	Commodore	HSV 215 Stroker	**4001**	4833-16
				Note: Parts 4002 & 4003 have smaller base circle, May require longer pushrods to obtain correct lifter preload.		

Note: Part Numbers marked with * require Distributor Gear (Part No DG2 or DG2A) Factory gear not suitable

STANDARD REPLACEMENT CAMS & VALVE SPRINGS

Make / Capacity	Cylinder	Year	Application	Engine	Part Number	Valve Spring
NOTE: If the model you require is not listed here check custom grind listing.						
HOLDEN						
307-350ci	V8	1968-78	Chev.	Small Block	**1613**	4931-16
3800cc	V6	1989-91	Commodore VN	Roller Hydraulic	**607000**	7328-12
			For engines with single spring and damper use			4835-12
3800cc	V6	1991-93	Series 2 VN-VR	Roller Hydraulic	**774000**	4936-12
3800cc	V6	1993-on	VS,VT,VY, VX	Roller Hydraulic	**853000**	4021-12
5700cc	V8	1999-on	VT-VZ	LS1 Engine	**871000**	4231-16
5700cc	V8	2004-on	VZ	300kw Engine	**871001**	
6000-6200cc	V8	2010-present	VE-VF	Single Bolt (Non AFM)	**872000**	
				3 Bolt Cam (Non AFM)	**871002**	
HOLDEN COMMERCIAL						
1389cc	4	1994-97	Combo	C14SE	**373000**	
1584cc	4	1980-83	Rodeo	G161Z	**78000**	5078-8
1817cc	4	1983-84	Rodeo	G180Z	**78000**	5078-8
1949cc	4	1983-85	Rodeo	G200Z	**78200**	5078-8
2200-2400cc	4	1999-on	Rodeo TF, RA	C22NE, C24NE	**92004**	
KIA						
1498 cc	4	1996-98	Mentor		**224001**	5080-8
LEYLAND						
1800cc	4	1962-78	MGB	Suit Slot Drive Only	**38000**	5840-8
3500cc	V8	1978-80	P76		**37000**	
MAZDA						
1600cc	4	1985-89	323	B6 Belt drive	**224000**	5080-8
1600cc	4	1985-89	323	B6 Belt drive hyd tappet	**224001**	5080-8
2605cc	4	1989-on		G6 12 Valve	**42100**	
NISSAN						
1598-1796cc	4	1987-92	Pulsar	LE18, Family II eng.	**92004**	
4169cc	6	1988-2000	Patrol	TB42 & TB45	**442000**	5840-12
4759cc	6	2001-on	Patrol	TB48 In	**538000**	4164-24
				Ex	**539000**	
ROVER, RANGE ROVER						
3500-4500 cc	V8	1966-81	Rover		**37000**	
TOYOTA COMMERCIAL						
1998-2237cc	4	1983-on	Torago,Hilux	3Y,4Y	**288000**	
2887-4230cc	6	1961-89	Landcruiser	F,2F,3F	**99000**	4828-12
4476cc	6	1992-03	Landcruiser	1Z-FE In	**528000**	
				Ex	**529000**	

TOUGH IDLE CAMS

Hot Rod and Street Machine builders often ask for cam combinations that will produce a tough idle and engine note without sacrificing street driveability or engine reliability. The range of Crow tough hydraulic grinds are designed with increased overlap to produce a lumpy idle that will stand out in the crowd.

Options are available for standard or hi stall converters with good power and strong torque through the RPM range. Please note tough cams will have low vacuum due to the tight lobe center.

CROW CAMS TOUGH CAM

Application	RPM Range	Part No.	Adv. Duration		.050" Duration		Valve Lift		LSA		Lash	Oil Additive	Lifters	Valve Spring	Installed Height	Retainer	Locks	Stem Seal	Timing Kit	Pushrods	Rockers
			Intake	Exhaust	Intake	Exhaust	Intake	Exhaust													
CHEVROLET SMALL BLOCK HYDRAULIC ROCKER RATIO 1.50																					
												NOTE: MUST USE CROW CAMS MELONISED DISTRIBUTOR GEAR. SEE PG 97 FOR DISTRIBUTOR GEARS									
Medium idle, strong mid range (See Fitting notes 1)	1600 - 4600	1603-8	280	280	214	214	.442"	.442"	108			ZDDP-100	HT817C-16	4843-16	1.700"	11707-16	11701-16	KG819-16	CS8350	PR-937-16	CRCSB153
Lumpy idle, strong mid / high range performance (See Fitting notes 1)	2500 - 5500	1686-8	292	292	224	224	.440"	.440"	108			ZDDP-100	HT817C-16	4843-16	1.700"	11707-16	11701-16	KG819-16	CS8350	PR-937-16	CRCSB153
FORD WINDSOR 289W-302W ROCKER RATIO 1.62																					
Medium idle, strong mid range (See Fitting notes 1 & 7)	1600 - 4600	15890-8	272	280	212	217	.467"	.475"	108			ZDDP-100	HT900-16	7736-16	1.700"	11700-16	11701-16	KG317-16	CS8302W	See Notes	CRFW163
Lumpy idle, strong mid / high range performance (See Fitting notes 1 & 7)	2500 - 5500	15689-6	282	289	222	230	.480"	.486"	106			ZDDP-100	HT900-16	7736-16	1.700"	11700-16	11701-16	KG317-16	CS8302W	See Notes	CRFW163
FORD CLEVELAND 302C - 351C ROCKER RATIO 1.73																					
Medium idle, strong mid range (See Fitting notes 1& 2)	1600 - 4600	21666-8	268	288	204	214	.481"	.512"	108			ZDDP-100	HT900-16	7739-16	1.760"	12706-16	11702-16	KG317-16	CS8351C	PR-414-16	CRFCL177
Lumpy idle, strong mid / high range performance. (See Fitting notes 1& 2)	2500 - 5500	21689-6	282	289	222	230	.512"	.519"	106			ZDDP-100	HT900-16	7739-16	1.760"	12706-16	11702-16	KG317-16	CS8351C	PR-414-16	CRFCL177
HOLDEN 304/355 V8 WITH VN-VT EFI HEADS																					
Medium idle, strong mid range. (See Fitting notes 1& 2)	1800 -4800	4890-8	272	283	212	217	.475"	.483"	108			ZDDP-100	HT969C-16	4833-16	1.700"	11707-16	11701-16	KG819-16	CS8308	PR-964-16	CRHL8167
Medium idle, strong mid range. (See Fitting notes 1& 2)	2000 - 5000	4770-8	280	290	214	224	.483"	.490"	108			ZDDP-100	HT969C-16	4833-16	1.700"	11707-16	11701-16	KG819-16	CS8308	PR-964-16	CRHL8167
Lumpy idle, strong mid / high range performance. (See Fitting notes 1& 2)	2200 - 5000	4689-6	280	289	222	230	.489"	.495"	106			ZDDP-100	HT969C-16	4833-16	1.700"	11707-16	11701-16	KG819-16	CS8308	PR-964-16	CRHL8167
HOLDEN 253-308 V8 HYDRAULIC																					
Lumpy cam, increased mid range performance. (See Fitting Notes 1 & 2)	1500 - 4800	5666-8	268	288	204	214	.481"	.512"	108			ZDDP-100	HT969C-16	4833-16	1.700"	11707-16	11701-16	KG819-16	CS8308	PR-964-16	CRHL8167
Lumpy street cam. (See Fitting Notes 1 & 2)	2600 - 5500	5689-6	280	289	222	230	.489"	.495"	106			ZDDP-100	HT969C-16	4833-16	1.700"	11707-16	11701-16	KG819-16	CS8308	PR-964-16	CRHL8167

Note: Springs marked with xxxx-xx^{D} denotes that it is a double spring.

FITTING NOTES: 1. Must use performance springs. 2. Must use performance retainers. 3 Machining required to fit these components. 4. Must use performance seal. 5. Notes 1 to 4 all apply to this part number. 6. Check valve train geometry before ordering pushrod. 7. Pushrod length varied in this model. Check length before ordering. 8. Spring height varies in models, check spring pressure before installation.

FITTING NOTES:
- Converter stall speed should be equal to or greater than the minimum rpm of the cam power range.
- All lash settings quoted are measured hot. • The use of high volume oil pumps may cause premature wear of the distributor gear.

CHEVROLET BIG BLOCK V8 ROCKER RATIO 1.70

Note: Installed heights may vary in every engine. Please check actual height before ordering spring, retainer and lock combinations

Application	RPM Range	Part No.	Adv. Duration		.050" Duration		Valve Lift		LSA		Lash	Oil Additive	Lifters	Valve Spring	Installed Height	Retainer	Locks	Stem Seal	Timing Kit	Pushrods	Rockers
			Intake	Exhaust	Intake	Exhaust	Intake	Exhaust													
HYDRAULIC CAMS																					
Mild street cam, good bottom end torque, smooth idle.	1100 - 4000	2666	268	288	204	214	.481"	.512"	112			ZDDP-100	HT817C-16	7737-16	1.880"	12700-16	12708-16	KG819-16	CS8454T	See notes	CRCBB177
Stock / Mild engine, economy and performance, dual patten suit LGP (See Fitting notes 1 & 2)	1200 - 4200	2602	270	270	208	208	.484"	.484"	110			ZDDP-100	HT817C-16	7737-16	1.880"	12700-16	12708-16	KG819-16	CS8454T	See notes	CRCBB177
Sporty idle, strong mid-range (See Fitting notes 1 & 2)	2000 - 4800	2605	280	290	220	235	.508"	.512"	108			ZDDP-100	HT817C-16	7737-16	1.880"	12700-16	12708-16	KG819-16	CS8454T	See notes	CRCBB177
Good idle good mid range power, suit strong street engine needs Hi-Stall (See Fitting notes 1, 2 & 3)	2200 - 5500	2778	290	290	230	230	.524"	.524"	110			ZDDP-100	HT817C-16	9731-16	1.950"	12710-16	12708-16	KG819-16	CS8454T	See notes	CRCBB177
Good idle great mid range for mild engine needs comp, rockers & Hi-Stall (See Fitting notes 1, 2 & 3)	2200 - 6000	21424	287	295	231	238	.561"	.565"	110			ZDDP-100	HT817R-16	9731-16	1.950"	12710-16	12708-16	KG819-16	CS8454T	See notes	CRCBB177
Rough idle for street/race engine needs comp rockers, hi -stall & diff gears (See Fitting notes 1, 2 & 3)	2800 - 6000	2700	304	316	242	250	.570"	.570"	108			ZDDP-100	HT817R-16	9731-16	1.950"	12710-16	12708-16	KG819-16	CS8454T	See notes	CRCBB177
SOLID CAMS																					
Choppy idle, great mid range power needs engine mods & hi stall (See Fitting notes 5)	2200 - 5700	2773	280	290	232	242	.510"	.532"	110		IN .020" EX .020"	ZDDP-100	AT992-16	9936-16[D]	1.980"	12710-16	12708-16		CS8454T	See notes	CRCBB177
Hot street appilcation, very strong mid range serious engine mods needed (See Fitting notes 5)	2600 - 5800	2626	278	288	238	244	.561"	.571"	109		IN .024" EX .024"	ZDDP-100	AT992-16	9936-16[D]	1.980"	12710-16	12708-16		CS8454T	See notes	CRCBB177
Street/strip appilcation, very strong mid range serious engine mods needed (See Fitting notes 5)	3000 - 6000	2639	290	300	248	255	.574"	.598"	109		IN .025" EX .025"	ZDDP-100	AT992L-16	9936-16[D]	1.980"	12710-16	12708-16		CS8454T	See notes	CRCBB177
Street/strip, needs good cyl heads headers etc comp, diff gears & hi stall (See Fitting notes 5)	3500 - 7000	2746	292	295	252	258	.587"	.614"	109		IN .018" EX .018"	ZDDP-100	AT992L-16	9936-16[D]	1.980"	12710-16	12708-16		CS8454T	See notes	CRCBB177
HYDRAULIC ROLLER CAMS																					
Hyd roller cam, great torque with minimal engine modifications, needs comp & headers (See Fitting notes 1, 2 & 3)	1800 - 4800	21330	278	283	220	227	.568"	.578"	110				5210H	9936-16[D]	1.980"	12710-16	12708-16		CS8454T	See notes	CRCBB177
Performance hyd roller, great mid range choppy idle needs heads, comp etc (See Fitting notes 1, 2 & 3)	2200 - 5800	21433	297	303	228	238	.636"	.632"	110				5210H	9936-16[D]	1.980"	12710-16	12708-16		CS8454T	See notes	CRCBB177
Performance cam great bottom end & mid range, choppy idle need manifold & headers (See Fitting notes 1, 2 & 3)	3200 - 6400	21315-9	303	307	238	244	.596"	.596"	109				5210H	9936-16[D]	1.980"	12710-16	12708-16		CS8454T	See notes	CRCBB177
Performance cam strong idle excellent bottom & mid range needs comp heads manifold etc & hi stall. (See Fitting notes 1, 2 & 3)	3500 - 6200	21719-10	295	315	238	243	.615"	.652"	110				5210H	9936-16[D]	1.980"	12710-16	12708-16		CS8454T	See notes	CRCBB177
Performance cam good mid to upper RPM range, aggressive idle needs comp manifold & headers etc + hi stall. (See Fitting notes 1, 2 & 3)	3500 - 6800	21725	290	296	242	246	.653"	.654"	109				5210H	9936-16[D]	1.980"	12710-16	12708-16		CS8454T	See notes	CRCBB177
Performance cam great upper RPM range, choppy idle needs manifold & headers comp etc, + hi stall. (See Fitting notes 1, 2 & 3)	3800 - 7000	21435-8	317	326	249	258	.596"	.596"	108				5210H	9936-16[D]	1.980"	12710-16	12708-16		CS8454T	See notes	CRCBB177

NOTE: MUST USE CROW CAMS MELONISED DISTRIBUTOR GEAR. SEE PG 97 FOR DISTRIBUTOR GEARS

FITTING NOTES: Pre 1967 engines must have cam or rear bearing grooved for correct oiling.

FITTING NOTES: 1. Must use performance springs. 2. Must use performance retainers. 3 Machining required to fit these components. 4. Must use performance seal. 5. Notes 1 to 4 all apply to this part number. 6. Check valve train geometry before ordering pushrod. 7. Pushrod length varied in this model. Check length before ordering. 8. Spring height varies in models, check spring pressure before installation.

Note: Springs marked with xxxx-xx[D] denotes that it is a double spring.

FITTING NOTES: Push Rods sold seperately. Check length before ordering from page 99-101.

- Converter stall speed should be equal to or greater than the minimum rpm of the cam power range.
- All lash settings quoted are measured hot. • The use of high volume oil pumps may cause premature wear of the distributor gear.

CHEVROLET BIG BLOCK V8 ROCKER RATIO 1.70

Note: Installed heights may vary in every engine. Please check actual height before ordering spring, retainer and lock combinations

Application	RPM Range	Part No.	Adv. Duration		.050" Duration		Valve Lift		LSA		Lash	Oil Additive	Lifters	Valve Spring	Installed Height	Retainer	Locks	Stem Seal	Timing Kit	Pushrods	Rockers
			Intake	Exhaust	Intake	Exhaust	Intake	Exhaust													
SOLID ROLLER CAMS																					
											NOTE: MUST USE CROW CAMS MELONISED DISTRIBUTOR GEAR. SEE PG 97 FOR DISTRIBUTOR GEARS										
Street roller, street /strip application small cube engine (See Fitting notes 1 - 7)	3500 - 6800	21301	286	295	252	260	.625"	.625"	108		IN .018" EX .018"		5212PF	4910-16 D	2.000"	13102-16	11101-16		CS8454T	See Notes	
Street /strip suit 396 - 427ci engine needs comp and after market heads (See Fitting notes 1 - 7)	3600 - 6800	21387	298	303	259	265	.678"	675"	108		IN .016" EX .016"		5212PF	4910-16 D	2.000"	13102-16	11101-16		CS8454T	See Notes	
Race roller, for max mid & upper RPM Big cubes, comp and after market heads (See Fitting notes 1 - 7)	4000 - 7000	2739-9	310	319	277	284	.740"	.740"	109		IN .020" EX .020"		5212PF	4920-16 D	2.000"	13102-16	11101-16		CS8454T	See Notes	
Race roller, prep engine needed. Blown or Nos engine application (See Fitting notes 1 - 7)	4500 - 7500	21356	322	332	278	289	.740"	.750"	112		IN .026" EX .026"		5212PF	4920-16 D	2.000"	13102-16	11101-16		CS8454T	See Notes	

CHEVROLET SMALL BLOCK V8 ROCKER RATIO 1.50

HYDRAULIC CAMS																					
Use for STD cam, Hi Torque/towing	1000- 3800	1613	260	267	194	202	.390"	.408"	112			ZDDP-100	HT817C-16	4931-16	1.700"	11707-16	11701-16	KG819-16	CS8350	PR-34B-16	CRCSB153
Power & ecomony cam suits LPG	1000 - 3800	1631	269	269	202	207	.395"	.395"	112			ZDDP-100	HT817C-16	4833-16	1.700"	11707-16	11701-16	KG819-16	CS8350	PR-937-16	CRCSB153
Mild cam better throttle response suit highway usage	1500 - 4500	1602	270	270	208	208	.420"	.420"	110			ZDDP-100	HT817C-16	4833-16	1.700"	11707-16	11701-16	KG819-16	CS8350	PR-937-16	CRCSB153
Great mid range, STD idle,good fuel economy & LPG suit 327ci & up (See Fitting notes 1)	1700 - 4700	1666	268	288	204	214	.417"	.444"	112			ZDDP-100	HT817C-16	4833-16	1.700"	11707-16	11701-16	KG819-16	CS8350	PR-937-16	CRCSB153
Mild street cam, good driveability auto / manual (See Fitting notes 1)	1800 - 4800	1892	275	275	215	215	.441"	.441"	112			ZDDP-100	HT817C-16	4843-16	1.700"	11707-16	11701-16	KG819-16	CS8350	PR-937-16	CRCSB153
Mild cam dual pattern suit small forced induction engine (See Fitting notes 1)	1900 - 4900	1665	280	290	214	224	.440"	.465"	112			ZDDP-100	HT817C-16	4843-16	1.700"	11707-16	11701-16	KG819-16	CS8350	PR-937-16	CRCSB153
Mild street cam, moderate idle needs pipes & carbie (See Fitting notes 1)	2200 - 5200	1651	282	282	222	222	.448"	.448"	114			ZDDP-100	HT817C-16	4843-16	1.700"	11707-16	11701-16	KG819-16	CS8350	PR-937-16	CRCSB153
Performance street cam, require better breathing (See Fitting notes 1 & 2)	2500 - 5500	1801	280	280	224	224	.450"	.450"	114			ZDDP-100	HT817C-16	4843-16	1.700"	11707-16	11701-16	KG819-16	CS8350	PR-937-16	CRCSB153
Broad power band suited for S/C or NOS engine need hi stall (See Fitting notes 1 & 2)	2600 - 5800	11367	293	299	226	236	.464"	.485"	112			ZDDP-100	HT817C-16	4843-16	1.700"	11707-16	11701-16	KG819-16	CS8350	PR-937-16	CRCSB153
Moderate idle good mid range power. Needs heads, mods & exhaust (See Fitting notes 1 & 2)	2700 - 5500	1650	292	292	230	230	.450"	.450"	113			ZDDP-100	HT817C-16	4843-16	1.700"	11707-16	11701-16	KG819-16	CS8350	PR-937-16	CRCSB153
Hyd cam strong mid range, needs headers, diff gear & 2500 stall (See Fitting notes 1 & 2)	2800 - 5600	1622	282	282	230	230	.480"	.480"	110			ZDDP-100	HT817C-16	4843-16	1.700"	11707-16	11701-16	KG819-16	CS8350	PR-937-16	CRCSB157
Good mid range, needs good heads to perform to max suit speedway (See Fitting notes 1 & 2)	2900 - 6000	1672	280	280	231	231	.480"	.480"	108			ZDDP-100	HT817C-16	4843-16	1.700"	11707-16	11701-16	KG819-16	CS8350	PR-937-16	CRCSB157
Hyd cam, rough idle high RPM range needs heads, comp, headers & stall (See Fitting notes 1, 2 & 3)	3000 - 6200	1747	294	307	236	246	.525"	.532"	107			ZDDP-100	HT817R-16	7333-16 D	1.800"	11710-16	4133-16	VSV530-16	CS8350	PR-937-16	CRCSB157
Hyd cam for max mid range & top end (See Fitting notes 1, 2 & 3)	3200 - 6200	1802	295	295	246	246	.508"	.508"	109			ZDDP-100	HT817R-16	7333-16 D	1.800"	11710-16	4133-16	VSV530-16	CS8350	PR-937-16	CRCSB157

FITTING NOTES: Pre 1967 engines must have cam or rear bearing grooved for correct oiling.

FITTING NOTES: 1. Must use performance springs. 2. Must use performance retainers. 3 Machining required to fit these components. 4. Must use performance seal. 5. Notes 1 to 4 all apply to this part number. 6. Check valve train geometry before ordering pushrod. 7. Pushrod length varied in this model. Check length before ordering. 8. Spring height varies in models, check spring pressure before installation.

Note: Springs marked with xxxx-xx D denotes that it is a double spring.

FITTING NOTES: Push Rods sold seperately. Check length before ordering from page 99-101.

- Converter stall speed should be equal to or greater than the minimum rpm of the cam power range.
- All lash settings quoted are measured hot. • The use of high volume oil pumps may cause premature wear of the distributor gear.

CHEVROLET SMALL BLOCK V8 ROCKER RATIO 1.50

Note: Installed heights may vary in every engine. Please check actual height before ordering spring, retainer and lock combinations

Application	RPM Range	Part No.	Adv. Duration		.050" Duration		Valve Lift		LSA		Lash	Oil Additive	Lifters	Valve Spring	Installed Height	Retainer	Locks	Stem Seal	Timing Kit	Pushrods	Rockers
			Intake	Exhaust	Intake	Exhaust	Intake	Exhaust													
SOLID CAMS																					
Choppy idle, great mid range power needs engine mods & hi stall (See Fitting notes 5)	3000 - 6000	1626	278	288	238	244	.485"	.494"	109		IN .024" EX .026"	ZDDP-100	AT992-16	7333-16 D	1.800"	11700-16	4134-16	VSV530-16	CS8350	PR-977-16	CRCSB157
Street/strip appilcation, very strong mid range serious engine mods needed (See Fitting notes 5)	3500 - 6500	1806	281	294	245	255	.490"	.507"	108		IN .018" EX .022"	ZDDP-100	AT992-16	7333-16 D	1.800"	11700-16	4134-16	VSV530-16	CS8350	PR-977-16	CRCSB157
Race application, needs good breathing comp, diff gears & hi stall (See Fitting notes 5)	3800 - 6800	1746	292	295	252	258	.508"	.532"	109		IN .018" EX .018"	ZDDP-100	AT992-16	7331-16 D	1.800"	11710-16	4133-16	VSV530-16	CS8350	PR-977-16	CRCSB157
Performance soild cam serious race use only need premium valve train parts (See Fitting notes 5)	3800 - 7000	1731	292	297	253	260	.531"	.543"	108		IN .026" EX .026"	ZDDP-100	AT992-16	7331-16 D	1.800"	11710-16	4133-16	VSV530-16	CS8350	PR-977-16	CRCSB157
HYDRAULIC ROLLER CAMS																					
Factory 375HP Grind (See Fitting notes 5)	1500 - 4600	1940	283	283	218	226	.475"	.475"	108				5200H	7342-16 D	1.850"	11710-16	4133-16	VSV530-16	CS8350	See Notes	CRCSB153
Mild performance cam great bottom end & mid range, needs manifold & headers (See Fitting notes 5)	2000 - 5000	11330-8	275	282	220	227	.492"	.501"	108				5200H	7342-16 D	1.850"	11710-16	4133-16	VSV530-16	CS8350	See Notes	CRCSB153
Mild performance cam great bottom end & mid range, choppy idle need manifold & headers (See Fitting notes 5)	2500 - 6200	11433	297	303	228	238	.552"	.548"	110				5200H	7342-16 D	1.850"	11710-16	4133-16	VSV530-16	CS8350	See Notes	CRCSB153
Performance cam great bottom end & mid range, choppy idle need manifold & headers (See Fitting notes 5)	3200 - 6200	11315-8	303	307	238	244	.516"	.516"	108				5200H	7342-16 D	1.850"	11710-16	4133-16	VSV530-16	CS8350	See Notes	CRCSB153
Performance cam aggressive idle excellent bottom & mid range needs comp heads manifold etc 3500 hi stall (See Fitting notes 5)	3200 - 6400	11719	295	315	238	243	.532"	.565"	107				5200H	7342-16 D	1.850"	11710-16	4133-16	VSV530-16	CS8350	See Notes	CRCSB153
Performance cam good mid to upper RPM range, aggressive idle need comp manifold & headers etc 3500 +hi stall (See Fitting notes 5)	3500 - 6500	11725	290	296	242	246	.567"	.567"	109				5200H	7342-16 D	1.850"	11710-16	4133-16	VSV530-16	CS8350	See Notes	CRCSB153
Performance cam good mid to upper RPM range, choppy idle need manifold & headers comp etc, 3500+ hi stall (See Fitting notes 5)	3500 - 6800	11571-8	310	310	246	246	.570"	.570"	108				5200H	7342-16 D	1.850"	11710-16	4133-16	VSV530-16	CS8350	See Notes	CRCSB153

NOTE: MUST USE CROW CAMS MELONISED DISTRIBUTOR GEAR. SEE PG 97 FOR DISTRIBUTOR GEARS

Some custom grinds are also available with Needle Roller Bearings, 4 x 7 Timing Swap and Cast Distributor Gears.
Please talk to our technical department regarding custom camshaft grinds.

**** Chev LS Roller Hydraulic cams see Holden LS V8 section.***

Note: Springs marked with xxxx-xx^{D} denotes that it is a double spring.

FITTING NOTES: Push Rods sold seperately. Check length before ordering from page 99-101.
- Converter stall speed should be equal to or greater than the minimum rpm of the cam power range.
- All lash settings quoted are measured hot. • The use of high volume oil pumps may cause premature wear of the distributor gear.

FITTING NOTES: 1. Must use performance springs. 2. Must use performance retainers. 3 Machining required to fit these components. 4. Must use performance seal. 5. Notes 1 to 4 all apply to this part number. 6. Check valve train geometry before ordering pushrod. 7. Pushrod length varied in this model. Check length before ordering. 8. Spring height varies in models, check spring pressure before installation.

CHEVROLET SMALL BLOCK V8 ROCKER RATIO 1.50

Note: Installed heights may vary in every engine. Please check actual height before ordering spring, retainer and lock combinations

Application	RPM Range	Part No.	Adv. Duration		.050" Duration		Valve Lift		LSA		Lash	Oil Additive	Lifters	Valve Spring	Installed Height	Retainer	Locks	Stem Seal	Timing Kit	Pushrods	Rockers
			Intake	Exhaust	Intake	Exhaust	Intake	Exhaust													
SOLID ROLLER CAMS														**NOTE: MUST USE CROW CAMS MELONISED DISTRIBUTOR GEAR. SEE PG 97 FOR DISTRIBUTOR GEARS**							
Small street roller, low lift, heap of bottom end torque, soft on valve springs (See Fitting notes 1 - 7)	2800 - 5800	1969	270	280	233	242	.495"	.495"	110		IN .016" EX .016"		5200PF	7342-16 D	1.850"	13101-16	11101-16	VSV530-16	CS8350	See Notes	
Small street roller, needs heads, comp, exhaust & hi stall. (See Fitting notes 1 - 7)	3200 - 6400	11551	278	284	245	251	.565"	.565"	107		IN .016" EX .016"		5200PF	4910-16 D	2.000"	13102-16	11101-16	VSV530-16	CS8350T	See Notes	
Street/strip application bracket engine cam needs comp, heads & hi stall (See Fitting notes 1 - 7)	3500 - 6800	11301	286	295	252	260	.542"	.542"	108		IN .018" EX .018"		5200PF	4910-16 D	2.000"	13102-16	11101-16	VSV530-16	CS8350T	See Notes	
Street/strip application bracket engine needs comp and after market heads etc (See Fitting notes 1 - 7)	3600 - 7000	11482-9	290	294	252	257	.605"	.605"	109		IN .016" EX .016"		5200PF	4920-16 D	2.000"	13102-16	11101-16	VSV530-16	CS8350T	See Notes	
Street/strip application, bracket engine needs comp, good heads etc (See Fitting notes 1 - 7)	3800 - 7200	1754	295	298	257	262	.600"	.616"	106		IN .016" EX .016"		5200PF	4920-16 D	2.000"	13102-16	11101-16	VSV530-16	CS8350T	See Notes	
Street/strip application, bracket engine needs comp, good heads etc (See Fitting notes 1 - 7)	4000 - 7200	11492	300	306	262	268	.566"	.566"	107		IN .018" EX .020"		5200PF	4920-16 D	2.000"	13102-16	11101-16	VSV530-16	CS8350T	See Notes	

Note: Springs marked with xxxx-xx D denotes that it is a double spring.

SPECIAL SOLID ROLLER CUSTOM GRINDS AVAILABLE ON THE FOLLOWING BILLETS:

- STANDARD JOURNAL, 1050 INDUCTION HARDENED STEEL WITH STANDARD FIRING ORDER

- 50MM JOURNAL, CARBURISED 8620 STEEL, STANDARD, 4X7 AND 3X2 SWAP FIRING ORDERS

- 50MM JOURNAL, CARBURISED 8620 STEEL STROKER BILLETS

CHRYSLER 5.7 & 6.1 HEMI V8 2004 ON ROCKER RATIO 1.65

HYDRAULIC ROLLER																					
Mild performance cam, great low down torque & mid range needs springs & computer calibration (See Fitting notes 1)	1800 - 5500	291208-14	275	281	216	220	.578"	.578"	114					4435-16 D	1.800"					PR-HEMI-16	
Street cam, good mid range power needs valve springs & computer calibration (See Fitting notes 1)	2100 - 6000	291247-14	286	286	219	227	.563"	.570"	114					4435-16 D	1.800"					PR-HEMI-16	

CHRYSLER 6.4 HEMI CAMSHAFTS AVAILABLE

PLEASE CONTACT CROW CAMS SALES TO ARRANGE YOUR CUSTOM CAMSHAFT

JEEP/CHRYSLER 6.4 SRT HEMI V8 DROP IN SPRINGS

Part Number	Installed Height	Installed Pressure	Pressure @.5 Lift	Max. Lift	Spring Retainer	Valve Locks
4232-16	2.050"	175 @ 2.050"	450 @ 1.400"	.650"	Standard	Standard

CHRYSLER HEMI KB & CHRYSLER SOLID LIFTER CAMS AVAILABLE

CONTACT OUR TECHNICAL DEPARTMENT

FITTING NOTES: 1. Must use performance springs. 2. Must use performance retainers. 3 Machining required to fit these components. 4. Must use performance seal. 5. Notes 1 to 4 all apply to this part number. 6. Check valve train geometry before ordering pushrod. 7. Pushrod length varied in this model. Check length before ordering. 8. Spring height varies in models, check spring pressure before installation.

FITTING NOTES: Push Rods sold seperately. Check length before ordering from page 99-101.
• Converter stall speed should be equal to or greater than the minimum rpm of the cam power range.
• All lash settings quoted are measured hot. • The use of high volume oil pumps may cause premature wear of the distributor gear.

CHRYSLER HEMI 6 ROCKER RATIO 1.73

Note: Installed heights may vary in every engine. Please check actual height before ordering spring, retainer and lock combinations

Application	RPM Range	Part No.	Adv. Duration		.050" Duration		Valve Lift		LSA		Lash	Oil Additive	Lifters	Valve Spring	Installed Height	Retainer	Locks	Stem Seal	Timing Kit	Pushrods	Oil Pump Gear
			Intake	Exhaust	Intake	Exhaust	Intake	Exhaust													
HYDRAULIC (Suit 3 bolt cam gear, must use 15 Tooth oil pump gear Part Number 60062)																					
Standard replacement cam. (See Fitting notes 1)	1000 - 3800	6000	266	269	194	194	.399"	.399"	109			ZDDP-100	HT2011-12	5091-12	1.687"	12700-12	12102-12	KG303-12	CS6265		60062
High torque, fuel efficient cam with smooth idle. Excellent for towing. (See Fitting notes 1)	1000 - 3800	6613	254	264	194	202	.450"	.470"	112			ZDDP-100	HT2011-12	5091-12	1.687"	12700-12	12102-12	KG303-12	CS6265		60062
L.P.G cam for good power and fuel economy in standard motor.	1200 - 4200	6771	258	266	201	205	.457"	.470"	111			ZDDP-100	HT2011-12	5091-12	1.687"	12700-12	12102-12	KG303-12	CS6265		60062
Improves throttle response, good highway cam for mild or stock engines. (See Fitting notes 1)	1500 - 4500	6602	270	270	208	208	.485"	.485"	110			ZDDP-100	HT2011-12	7736-12	1.687"	12700-12	12102-12	KG303-12	CS6265		60062
Increased mid range power with minimum effect on fuel economy and idle quality. (See Fitting notes 1)	1700 - 4700	6776	266	279	204	215	.469"	.481"	112			ZDDP-100	HT2011-12	7736-12	1.687"	12700-12	12102-12	KG303-12	CS6265		60062
Increased mid to top range performance (See Fitting notes 1)	1900 - 4900	6603	280	280	214	214	.510"	.510"	110			ZDDP-100	HT2011-12	7736-12	1.687"	12700-12	12102-12	KG303-12	CS6265		60062
Dual pattern profile for hot street modified engines. (See Fitting notes 1)	2000 - 5000	6770	280	290	214	226	.510"	.510"	111			ZDDP-100	HT2011-12	7736-12	1.687"	12700-12	12102-12	KG303-12	CS6265		60062
High performance street cam for modified engine with improved carburation. (See Fitting notes 1)	2500 - 5300	6686	292	292	224	224	.507"	.507"	108			ZDDP-100	HT2011-12	7736-12	1.687"	12700-12	12102-12	KG303-12	CS6265		60062
E49 reproduction cam for hot street engines. (See Fitting notes 1)	2800 - 5800	6703	312	312	232	232	.479"	.479"	110			ZDDP-100	HT2011-12	7736-12	1.687"	12700-12	12102-12	KG303-12	CS6265		60062

CHRYSLER SMALL BLOCK V8 273-360 ROCKER RATIO 1.5

HYDRAULIC																					
Standard replacement cam.	850 - 4000	18000	253	257	182	192	.365"	.395"	112			ZDDP-100	HT2011-16	5091-16	1.687"	12700-16	12108-16	KG303-16	CS8318		
Mild cam , smooth idle, for improved performance from stock engines.	1200 - 4200	18602	270	270	208	208	.420"	.420"	110			ZDDP-100	HT2011-16	5091-16	1.687"	12700-16	12108-16	KG303-16	CS8318		
Dual pattern cam giving excellent mid range power band. (See Fitting notes 1)	1400 - 4500	18666	268	288	204	214	.417"	.444"	112			ZDDP-100	HT2011-16	5091-16	1.687"	12700-16	12108-16	KG303-16	CS8318		
Mild performance street cam, needs improved carburation. (See Fitting notes 1 & 2)	2000 - 5000	18665	280	290	214	224	.440"	.465"	112			ZDDP-100	HT2011-16	7736-16	1.687"	12700-16	12108-16	KG303-16	CS8318		
High performance street applications. (See Fitting notes 1 & 2)	2500 - 5500	18619	286	290	226	232	.459"	.475"	110			ZDDP-100	HT2011R-16	7736-16	1.687"	12700-16	12108-16	KG303-16	CS8318		

CHRYSLER SLANT 6 ROCKER RATIO 1.5

SOLID																					
Standard replacement cam.	800 - 3800	7000	267	270	194	198	.396"	.402"	110		IN .018" EX .018"	ZDDP-100	AT31-12	5091-12	1.650"		12108-12		CS6225		
Mild street cam	2000-5000	7606	270	270	222	222	.397"	.397"	110		IN .016" EX .016"	ZDDP-100	AT31-12	5091-12	1.650"		12108-12		CS6225		

FITTING NOTES: 1. Must use performance springs. 2. Must use performance retainers. 3 Machining required to fit these components. 4. Must use performance seal. 5. Notes 1 to 4 all apply to this part number. 6. Check valve train geometry before ordering pushrod. 7. Pushrod length varied in this model. Check length before ordering. 8. Spring height varies in models, check spring pressure before installation.

Note: Springs marked with xxxx-xx^{D} denotes that it is a double spring.

FITTING NOTES:
- Converter stall speed should be equal to or greater than the minimum rpm of the cam power range.
- All lash settings quoted are measured hot. • The use of high volume oil pumps may cause premature wear of the distributor gear.

FORD 6 CYLINDER

Note: Installed heights may vary in every engine. Please check actual height before ordering spring, retainer and lock combinations

Application	RPM Range	Part No.	Adv. Duration		.050" Duration		Valve Lift		LSA		Lash	Oil Additive	Lifters	Valve Spring	Installed Height	Retainer	Locks	Stem Seal	Timing Kit	Pushrods	Rockers
			Intake	Exhaust	Intake	Exhaust	Intake	Exhaust													
PRE-CROSS FLOW HYDRAULIC ROCKER RATIO 1.5 **THESE GRINDS TO SUIT 250 ENGINE. SPECIAL GRINDS AVAILABLE FOR 220 & 200 ENGINES. 170 & 144 REGRIND ONLY.**																					
Standard replacement cam	900 - 3600	63000	255	255	194	194	.355"	.355"	112			ZDDP-100	HT950-12	1025-12	1.550"	11700-12	11703-12	KG317-12	CS6250		
Hi torque cam, improved performance, suit stock engine	1000 - 3800	63613	260	267	194	202	.390"	.408"	112			ZDDP-100	HT950-12	1025-12	1.550"	11700-12	11703-12	KG317-12	CS6250		
Highway cam, stock to mild engine improves throttle response (See Fitting notes 1)	1400 - 4200	63602	270	270	208	208	.420"	.420"	110			ZDDP-100	HT950-12	1025-12	1.550"	11700-12	11703-12	KG317-12	CS6250		
Great mid range, STD idle, good fuel economy suits LPG (See Fitting notes 1)	1500 - 4500	63666	268	288	204	214	.417"	.444"	112			ZDDP-100	HT950-12	1025-12	1.550"	11700-12	11703-12	KG317-12	CS6250		
Good performance & driveability suits modified engine (See Fitting notes 1)	1800 - 4800	63603	280	280	214	214	.442"	.442"	110			ZDDP-100	HT950-12	1025-12	1.550"	11700-12	11703-12	KG317-12	CS6250		
Moderate cam, suit modified engines needs headers & carbie (See Fitting notes 1)	2100 - 5500	63651	282	282	222	222	.448"	.448"	114			ZDDP-100	HT950-12	1025-12	1.550"	11700-12	11703-12	KG317-12	CS6250		
CROSS FLOW HYDRAULIC ROCKER RATIO 1.73 **DG2 OR DG2A DISTRIBUTOR GEAR MUST BE USED.** GRINDS TO SUIT 250 & 200 ENGINES.																					
Standard replacement suit carbie	850 - 3200	14002	256	256	188	188	.405"	.405"	107			ZDDP-100	HT900-12	7739-12	1.760"	12706-12	11704-12	KG317-12	CS6250	PR-917-12	CRFX177
Standard replacement suit EFI	900 - 3400	14678	260	260	197	197	.439"	.439"	109			ZDDP-100	HT900-12	7739-12	1.760"	12706-12	11704-12	KG317-12	CS6250	PR-917-12	CRFX177
Hi torque cam, improved performance excellent for towing, suit petrol / LGP (See Fitting notes 1& 2)	1000 - 3800	14613	260	267	194	202	.450"	.472"	112			ZDDP-100	HT900-12	7739-12	1.760"	12706-12	11704-12	KG317-12	CS6250	PR-917-12	CRFX177
Good power & economy, split duration suit LPG & std unleaded (See Fitting notes 1& 2)	1200 - 4000	14771	258	266	201	205	.457"	.471"	111			ZDDP-100	HT900-12	7739-12	1.760"	12706-12	11704-12	KG317-12	CS6250	PR-917-12	CRFX177
Highway cam, stock to mild engine improves throttle response (See Fitting notes 1& 2)	1400 - 4200	14221	265	271	205	209	.473"	.487"	109			ZDDP-100	HT900-12	7739-12	1.760"	12706-12	11704-12	KG317-12	CS6250	PR-917-12	CRFX177
Great mid range performance, good idle quality and fuel economy (See Fitting notes 1& 2)	1500 - 4500	14776	266	279	204	215	.469"	.481"	112			ZDDP-100	HT900-12	7739-12	1.760"	12706-12	11704-12	KG317-12	CS6250	PR-917-12	CRFX177
Mild hyd cam, improved performance suit mild street engine (See Fitting notes 1& 2)	1800 - 4500	14892	275	275	215	215	.510"	.510"	112			ZDDP-100	HT900-12	7739-12	1.760"	12706-12	11704-12	KG317-12	CS6250	PR-917-12	CRFX177
Designed for maximum mid range suit good street engine (See Fitting notes 1& 2)	2000 - 5000	14770	280	290	214	224	.510"	.514"	111			ZDDP-100	HT900-12	7739-12	1.760"	12706-12	11704-12	KG317-12	CS6250	PR-917-12	CRFX177
Performance cam heaps of bottom end & mid range, Street /Stock speedway (See Fitting notes 1& 2)	2200 - 5200	141550S	290	295	219	224	.510"	.510"	106			ZDDP-100	HT900R-12	7739-12	1.760"	12706-12	11704-12	KG317-12	CS6250	PR-917-12	CRFX177
Street/race cam, needs good head & compression, choppy idle (See Fitting notes 1 & 2)	2400 - 5400	14686	292	292	224	224	.507"	.507"	108			ZDDP-100	HT900R-12	7739-12	1.760"	12706-12	11704-12	KG317-12	CS6250	PR-917-12	CRFX177
Rough idle for street/race engine needs diff gears, rockers & hi -stall (See Fitting notes 1, 2 & 3)	2600 - 5500	14619	286	290	226	232	.529"	.548"	110			ZDDP-100	HT900R-12	7333-12 D	1.820"	12700-12	11704-12	VSV530-12	CS6250	PR-917-12	CRFX177
Mild idle good mid to upper RPM range, need to improve breathing (See Fitting notes 1, 2 & 3)	2800 - 6000	14650	292	292	230	230	.519"	.519"	113			ZDDP-100	HT900-12	7739-12	1.760"	12706-12	11704-12	KG317-12	CS6250	PR-917-12	CRFX177
Speedway cam works well in the higher RPM range, needs good valve train (See Fitting notes 1, 2 & 3)	3000 - 6200	14672	280	280	231	231	.550"	.550"	108			ZDDP-100	HT900R-12	7333-12 D	1.820"	12700-12	11704-12	VSV530-12	CS6250	PR-917-12	CRFX177

NOTE: 12706-12 RETAINER & 11704-12 LOCKS ARE MULTI GROOVE. FOR SINGLE GROOVE, USE 11700-12 & 4135-12

Note: Springs marked with xxxx-xx^{D} denotes that it is a double spring.

FITTING NOTES: 1. Must use performance springs. 2. Must use performance retainers. 3 Machining required to fit these components.
4. Must use performance seal. 5. Notes 1 to 4 all apply to this part number. 6. Check valve train geometry before ordering pushrod.
7. Pushrod length varied in this model. Check length before ordering. 8. Spring height varies in models, check spring pressure before installation.

FITTING NOTES:
- Converter stall speed should be equal to or greater than the minimum rpm of the cam power range.
- All lash settings quoted are measured hot. • The use of high volume oil pumps may cause premature wear of the distributor gear.

FORD 6 CYLINDER ROCKER RATIO 1.73

Note: Installed heights may vary in every engine. Please check actual height before ordering spring, retainer and lock combinations

Application	RPM Range	Part No.	Adv. Duration		.050" Duration		Valve Lift		LSA		Lash	Oil Additive	Lifters	Valve Spring	Installed Height	Retainer	Locks	Stem Seal	Timing Kit	Pushrods	Rockers
			Intake	Exhaust	Intake	Exhaust	Intake	Exhaust													
CROSS FLOW SOLID **DG2 OR DG2A DISTRIBUTOR GEAR MUST BE USED.** GRINDS TO SUIT 250 & 200 ENGINES.																					
Mechanical cam good mid range & high RPM power needs headers, rollers (See Fitting notes 5)	2800 - 6000	14872	262	262	231	231	.554"	.554"	108		IN .012" EX .014"	ZDDP-100	AT2000-12	7333-12 D	1.820"	12700-12	11704-12	VSV530-12	CS6250	PR5980	CRFX177
Performance street/race application needs head work, headers, rollers (See Fitting notes 5)	3000 - 6200	14626	278	288	238	244	.560"	.570"	109		IN .024" EX .026"	ZDDP-100	AT2000-12	7333-12 D	1.820"	12700-12	11704-12	VSV530-12	CS6250	PR5980	CRFX177
High performance race application (See Fitting notes 5)	3500 - 6500	14806	281	294	245	255	.564"	.585"	108		IN .018" EX .022"	ZDDP-100	AT2000-12	7333-12 D	1.820"	12700-12	11704-12	VSV530-12	CS6250	PR5980	CRFX177

FORD CLEVELAND V8 302c - 351c ROCKER RATIO 1.73

RPM RANGE TO SUIT 351, FOR 302 RPM RANGE ADD +500 RPM.

HYDRAULIC

NOTE: 12706-16 RETAINER & 11702-16 LOCKS ARE MULTI GROOVE. FOR SINGLE GROOVE, USE 11700-16 & 4135-16

Standard replacement	900 - 3500	21000	285	272	191	191	.405"	.400"	112		Multi Groove	ZDDP-100	HT900-16	7739-16	1.760"	12706-16	11702-16	KG317-16	CS8351C	PR-414-16	CRFCL177
Hi torque, fuel efficient, dual pattern stock idle	1000 - 3800	21613	260	267	194	202	.450"	.470"	112		Multi Groove	ZDDP-100	HT900-16	7739-16	1.760"	12706-16	11702-16	KG317-16	CS8351C	PR-414-16	CRFCL177
Torque & economy cam for towing dual patten, suits LPG needs valve springs (See Fitting notes 1& 2)	1200 - 4200	21771	258	262	200	205	.457"	.471"	111		Multi Groove	ZDDP-100	HT900-16	7739-16	1.760"	12706-16	11702-16	KG317-16	CS8351C	PR-414-16	CRFCL177
Mild street application, good low down torque, stock idle needs valve springs (See Fitting notes 1& 2)	1500 - 4200	21602	270	270	208	208	.484"	.484"	110		Multi Groove	ZDDP-100	HT900-16	7739-16	1.760"	12706-16	11702-16	KG317-16	CS8351C	PR-414-16	CRFCL177
Maximum low end torque, dual pattern suit LPG needs valve springs & exhaust (See Fitting notes 1& 2)	1600 - 4600	21666	268	288	204	214	.481"	.512"	112		Multi Groove	ZDDP-100	HT900-16	7739-16	1.760"	12706-16	11702-16	KG317-16	CS8351C	PR-414-16	CRFCL177
Medium idle, must use improved carbie & headers (See Fitting notes 1& 2)	1800 - 5000	21890	272	283	212	217	.498"	.507"	110		Multi Groove	ZDDP-100	HT900-16	7739-16	1.760"	12706-16	11702-16	KG317-16	CS8351C	PR-414-16	CRFCL177
Mild street applicaton, medium idle good mid range, needs valve springs etc (See Fitting notes 1& 2)	2200- 5600	21665	280	290	214	224	.512"	.539"	112		Multi Groove	ZDDP-100	HT900-16	7739-16	1.760"	12706-16	11702-16	KG317-16	CS8351C	PR-414-16	CRFCL177
Choppy idle, good low to mid range power, need valve springs & headers (See Fitting notes 1& 2)	2500 - 5700	21686	292	292	224	224	.507"	.507"	108		Multi Groove	ZDDP-100	HT900-16	7739-16	1.760"	12706-16	11702-16	KG317-16	CS8351C	PR-414-16	CRFCL177
Choppy idle,hot street cam, max power needs carbie, heads,headers & hi stall (See Fitting notes 1& 2)	2600 - 5700	21689-9	282	289	222	230	.512"	.519"	109		Multi Groove	ZDDP-100	HT900-16	7739-16	1.760"	12706-16	11702-16	KG317-16	CS8351C	PR-414-16	CRFCL177
Hot street cam, strong mid range needs headers, carbie, hi- stall & roller rockers suit NOs S/C (See Fitting notes 5)	2700 - 5900	211367	293	299	226	236	.535"	.560"	112		Single Groove	ZDDP-100	HT900R-16	7333-16 D	1.820"	11700-16	4133-16	VSV530-16	CS8351C	PR-950-16	CRFCL177
Choppy idle,excellent mid range power needs headers, carbie & hi stall etc (See Fitting notes 5)	2800 - 6000	21649	282	295	234	244	.525"	.525"	108		Multi Groove	ZDDP-100	HT900-16	7739-16	1.760"	12706-16	11702-16	KG317-16	CS8351C	PR-414-16	CRFCL177
Street /strip cam, aggressive idle needs heads, carbie headers, hi stall & roller rockers (See Fitting notes 5)	3000 - 6200	21787-9	284	295	238	246	.561"	.566"	109		Single Groove	ZDDP-100	HT900R-16	7333-16 D	1.820"	11700-16	4133-16	VSV530-16	CS8351C	PR-950-16	CRFCL177
Street/strip appilcation rough idle needs heads, carbie headers, hi stall & roller rockers (See Fitting notes 5)	3500 - 6400	21700	307	313	241	248	.570"	.570"	108		Single Groove	ZDDP-100	HT900R-16	7333-16 D	1.820"	11700-16	4133-16	VSV530-16	CS8351C	PR-950-16	CRFCL177
Max performance street/strip hyd cam need serious engine mods 4000 stall & roller rockers (See Fitting notes 5)	3800 - 6800	21648	320	322	248	252	.567"	.585"	108		Single Groove	ZDDP-100	HT900R-16	7333-16 D	1.820"	11700-16	4133-16	VSV530-16	CS8351C	PR-950-16	CRFCL177

Note: Springs marked with xxxx-xx D denotes that it is a double spring.

FITTING NOTES: 1. Must use performance springs. 2. Must use performance retainers. 3 Machining required to fit these components.
4. Must use performance seal. 5. Notes 1 to 4 all apply to this part number. 6. Check valve train geometry before ordering pushrod.
7. Pushrod length varied in this model. Check length before ordering. 8. Spring height varies in models, check spring pressure before installation.

FITTING NOTES:
- Converter stall speed should be equal to or greater than the minimum rpm of the cam power range.
- All lash settings quoted are measured hot. • The use of high volume oil pumps may cause premature wear of the distributor gear.

FORD CLEVELAND V8 302c - 351c ROCKER RATIO 1.73

RPM RANGE TO SUIT 351, FOR 302 RPM RANGE ADD +500 RPM.

Note: Installed heights may vary in every engine. Please check actual height before ordering spring, retainer and lock combinations

Application	RPM Range	Part No.	Adv. Duration		.050" Duration		Valve Lift		LSA		Lash	Oil Additive	Lifters	Valve Spring	Installed Height	Retainer	Locks	Stem Seal	Timing Kit	Pushrods	Rockers
			Intake	Exhaust	Intake	Exhaust	Intake	Exhaust													
SOLID																					
Choppy idle, great mid range power needs serious engine mods & hi stall (See Fitting notes 1, 2, 3 & 4)	2800 - 6000	21626	278	288	238	244	.560"	.570"	109		IN .024" EX .026"	ZDDP-100	AT2000-16	7333-16 D	1.820"	11700-16	4133-16	VSV530-16	CS8351C	PR-978-16	CRFCL177
GT HO solid (See Fitting notes 1, 2, 3 & 4)	3200 - 6000	21726	295	295	242	242	.510"	.510"	111		IN .024" EX .024"	ZDDP-100	AT2000-16	7333-16 D	1.820"	11700-16	4133-16	VSV530-16	CS8351C	PR-978-16	CRFCL177
Street/strip appilcation, very strong mid range serious engine mods needed (See Fitting notes 1, 2, 3 & 4)	3500 - 6500	21806	281	294	245	255	.564"	.585"	108		IN .018" EX .022"	ZDDP-100	AT2000-16	7333-16 D	1.820"	11700-16	4133-16	VSV530-16	CS8351C	PR-978-16	CRFCL177
Race application, needs good breathing comp, diff gears & hi stall (See Fitting notes 1, 2, 3 & 4)	3800 - 6800	21746	292	295	252	258	.586"	.614"	109		IN .018" EX .018"	ZDDP-100	AT2000L-16	7437-16 D	1.800"	11700-16	4133-16	VSV530-16	CS8351C	PR5850	CRFCL177
Performance soild cam, need premium valve train parts (See Fitting notes 1, 2, 3 & 4)	3800 - 7200	21731	292	297	253	260	.612"	.625"	108		IN .026" EX .026"	ZDDP-100	AT2000L-16	7437-16 D	1.800"	11700-16	4133-16	VSV530-16	CS8351C	PR5850	CRFCL177
HYDRAULIC ROLLER																					
Mild performance cam great bottom end & mid range, needs manifold & headers (See Fitting notes 5)	1700 - 5500	211414-8	277	287	213	223	.530"	.550"	108				5351HPF	7333-16 D	1.820"	11700-16	4133-16	VSV530-16	CS8351C	PR-988-16 See Notes	CRFCL177
Mild performance cam great bottom end & mid range, choppy idle need manifold & headers (See Fitting notes 5)	1800 - 5800	21940	283	283	218	226	.547"	.548"	108				5351HPF	7333-16 D	1.820"	11700-16	4133-16	VSV530-16	CS8351C	PR-988-16 See Notes	CRFCL177
Mild Performance cam great mid range, choppy idle need manifold & headers (See Fitting notes 5)	2200 - 6000	211330	276	283	220	227	.568"	.578"	110				5351HPF	7333-16 D	1.820"	11700-16	4133-16	VSV530-16	CS8351C	PR-988-16 See Notes	CRFCL177
Performance cam mid range, choppy idle need manifold & headers (See Fitting notes 5)	2500 - 6000	211515	294	298	228	234	.621"	.618"	107				5351HPF	7342-16 D	1.800"	11700-16	4133-16	VSV530-16	CS8351C	PR-988-16 See Notes	CRFCL177
Hi performance cam mid range & top end power, choppy idle need manifold & headers (See Fitting notes 5)	3000 - 6200	211477	304	314	234	240	.573"	.573"	108				5351HPF	7333-16 D	1.820"	11700-16	4133-16	VSV530-16	CS8351C	PR-988-16 See Notes	CRFCL177
Hi performance cam mid range & top end power, choppy idle need manifold & headers (See Fitting notes 5)	3200 - 6200	211315-8	303	307	238	244	.596"	.596"	108				5351HPF	7342-16 D	1.800"	11700-16	4133-16	VSV530-16	CS8351C	PR-988-16 See Notes	CRFCL177
SOLID ROLLERS																					
Street/ strip roller, med lift, heap of bottom end torque, soft on valve springs (See Fitting notes 1- 7)	3800 - 6500	211301	286	295	252	260	.625"	625"	107		IN .016" EX .016"		5351PF	4910-16 D	2.000"	13101-16	11101-16	VSV530-16	CS8351C	See Notes	
Race roller, for max mid & upper RPM needs, comp and after market heads etc (See Fitting notes 1- 7)	4000 - 7000	21819	291	298	259	266	.623"	.623"	108		IN .016" EX .016"		5351PF	4910-16 D	2.000"	13101-16	11101-16	VSV530-16	CS8351C	See Notes	
Street/strip application, bracket engine needs comp, good heads etc (See Fitting notes 1- 7)	4000 - 7100	211387	298	303	259	265	.678"	.676"	108		IN .016" EX .016"		5351PF	4920-16 D	2.000"	13101-16	11101-16	VSV530-16	CS8351C	See Notes	

NOTE: MUST USE CROW CAMS MELONISED DISTRIBUTOR GEAR. SEE PG 97 FOR DISTRIBUTOR GEARS

NOTE: MUST USE CROW CAMS MELONISED DISTRIBUTOR GEAR. SEE PG 97 FOR DISTRIBUTOR GEARS

FITTING NOTES: 1. Must use performance springs. 2. Must use performance retainers. 3 Machining required to fit these components. 4. Must use performance seal. 5. Notes 1 to 4 all apply to this part number. 6. Check valve train geometry before ordering pushrod. 7. Pushrod length varied in this model. Check length before ordering. 8. Spring height varies in models, check spring pressure before installation.

Note: Springs marked with xxxx-xx^{D} denotes that it is a double spring.

FITTING NOTES: Push Rods sold seperately. Check length before ordering from page 99-101.
- Converter stall speed should be equal to or greater than the minimum rpm of the cam power range.
- All lash settings quoted are measured hot. • The use of high volume oil pumps may cause premature wear of the distributor gear.

FORD WINDSOR V8 ROCKER RATIO 1.62

Note: Installed heights may vary in every engine. Please check actual height before ordering spring, retainer and lock combinations

Application	RPM Range	Part No.	Adv. Duration		.050" Duration		Valve Lift		LSA		Lash	Oil Additive	Lifters	Valve Spring	Installed Height	Retainer	Locks	Stem Seal	Timing Kit	Pushrods	Rockers
			Intake	Exhaust	Intake	Exhaust	Intake	Exhaust													
260/289/302 HYDRAULIC																					
Hi torque, fuel efficient cam can be used a STD cam	1100 - 3900	15613	260	267	194	202	.421"	.442"	112			ZDDP-100	HT900-16	7736-16	1.700"	11700-16	11701-16	KG317-16	CS8302W	See Notes	CRFW163
LPG cam, dual pattern, good power and economy	1200 - 4000	15631	269	269	202	207	.426"	.426"	112			ZDDP-100	HT900-16	7736-16	1.700"	11700-16	11701-16	KG317-16	CS8302W	See Notes	CRFW163
Mild idle, improved throttle response use in STD to Mild engine	1400 - 4000	15602	270	270	208	208	.454"	.454"	110			ZDDP-100	HT900-16	7736-16	1.700"	11700-16	11701-16	KG317-16	CS8302W	See Notes	CRFW163
Maximum low end torque, dual pattern suit LPG needs valve springs & exhaust (See Fitting notes 1, 2 & 4)	1700 - 4700	15666	268	288	204	214	.450"	.480"	112			ZDDP-100	HT900-16	7736-16	1.700"	11700-16	11701-16	KG317-16	CS8302W	See Notes	CRFW163
Mild street applicaton, medium idle good mid range, needs valve springs etc (See Fitting notes 1, 2 & 4)	2100 - 5200	15665	280	290	214	224	.475"	.502"	112			ZDDP-100	HT900-16	7736-16	1.700"	11700-16	11701-16	KG317-16	CS8302W	See Notes	CRFW163
Performance cam for street application needs heads, carbie headers & hi stall (See Fitting notes 1, 2 & 4)	2200 - 5600	151550	287	294	219	224	.478"	.478"	112			ZDDP-100	HT900-16	7736-16	1.700"	11700-16	11701-16	KG317-16	CS8302W	See Notes	CRFW163
Performance cam for street application needs heads, carbie headers & hi stall (See Fitting notes 1, 2 & 4)	2200 - 5600	151365	288	290	219	224	.463"	.471"	110			ZDDP-100	HT900-16	7736-16	1.700"	11700-16	11701-16	KG317-16	CS8302W	See Notes	CRFW163
Hot Street cam , good mid range needs heads, carbie headers & hi stall (See Fitting notes 1, 2 & 4)	2800 - 5800	151367	293	299	226	236	.502"	.526"	112			ZDDP-100	HT900-16	7333-16 D	1.800"	11700-16	4133-16	VSV530-16	CS8302W	See Notes	CRFW167
Performance street/strip hyd cam need engine mods + 3200 stall (See Fitting notes 5)	3000 - 6200	15747	294	307	236	246	.567"	.575"	107			ZDDP-100	HT900R-16	7333-16 D	1.800"	11700-16	4133-16	VSV530-16	CS8302W	See Notes	CRFW167
Street /strip hyd cam, aggressive idle needs heads, carbie headers & hi stall (See Fitting notes 5)	3100 - 6200	15787-9	284	295	238	246	.525"	.530"	109			ZDDP-100	HT900R-16	7333-16 D	1.800"	11700-16	4133-16	VSV530-16	CS8302W	See Notes	CRFW167
Max performance street/strip hyd cam need serious engine mods + 3500 stall (See Fitting notes 5)	3500 - 6500	15802	295	295	246	246	.547"	.547"	109			ZDDP-100	HT900R-16	7333-16 D	1.800"	11700-16	4133-16	VSV530-16	CS8302W	See Notes	CRFW167
260/289/302 SOLID																					
Choppy idle, great mid range power needs serious engine mods & hi stall (See Fitting notes 1- 7)	3000 - 6000	15626	278	288	238	244	.525"	.535"	109		IN .024" EX .026"	ZDDP-100	AT2000-16	7333-16 D	1.750"	11700-16	4135-16	VSV530-16	CS8302W	See Notes	CRFW167
Choppy idle, great mid range power needs serious engine mods & hi stall (See Fitting notes 1- 7)	3400 - 6500	151374	281	281	246	246	.552"	.552"	108		IN .016" EX .016"	ZDDP-100	AT2000-16	7333-16 D	1.750"	11700-16	4135-16	VSV530-16	CS8302W	See Notes	CRFW167
Race application, needs good breathing comp, diff gears & hi stall (See Fitting notes 1- 7)	3600 - 6500	15746	292	295	252	258	.550"	.575"	109		IN .018" EX .018"	ZDDP-100	AT2000-16	7333-16 D	1.750"	11700-16	4135-16	VSV530-16	CS8302W	See Notes	CRFW167
Performance soild cam, need premium valve train parts (See Fitting notes 1- 7)	3800 - 7200	15731	292	297	253	260	.575"	.585"	108		IN .026" EX .026"	ZDDP-100	AT2000L-16	7437-16 D	1.800"	11700-16	4133-16	VSV530-16	CS8302W	See Notes	CRFW167
Performance soild cam serious race use only need premium valve train parts (See Fitting notes 1- 7)	3600 - 7400	15794	306	311	265	268	.612"	.612"	107		IN .014" EX .018"	ZDDP-100	AT2000L-16	7437-16 D	1.800"	11700-16	4133-16	VSV530-16	CS8302W	See Notes	CRFW167

Note: Springs marked with xxxx-xx D denotes that it is a double spring.

FITTING NOTES: 1. Must use performance springs. 2. Must use performance retainers. 3 Machining required to fit these components.
4. Must use performance seal. 5. Notes 1 to 4 all apply to this part number. 6. Check valve train geometry before ordering pushrod.
7. Pushrod length varied in this model. Check length before ordering. 8. Spring height varies in models, check spring pressure before installation.

FITTING NOTES: Push Rods sold seperately. Check length before ordering from page 99-101.
- Converter stall speed should be equal to or greater than the minimum rpm of the cam power range.
- All lash settings quoted are measured hot. • The use of high volume oil pumps may cause premature wear of the distributor gear.

FORD WINDSOR V8 ROCKER RATIO 1.62

Note: Installed heights may vary in every engine. Please check actual height before ordering spring, retainer and lock combinations

Application	RPM Range	Part No.	Adv. Duration		.050" Duration		Valve Lift		LSA		Lash	Oil Additive	Lifters	Valve Spring	Installed Height	Retainer	Locks	Stem Seal	Timing Kit	Pushrods	Rockers
			Intake	Exhaust	Intake	Exhaust	Intake	Exhaust													
351W HYDRAULIC																					
Hot Street cam , good mid range needs heads, carbie headers & hi stall (See Fitting notes 5)	2700 - 6500	62620	294	294	234	234	.512"	.512"	108			ZDDP-100	HT900R-16	7333-16 D	1.800"	11700-16	4133-16	VSV530-16	CS8302W	See Notes	CRFW167
Street /strip hyd cam, aggressive idle needs heads, carbie headers & hi stall (See Fitting notes 5)	2800 - 6200	62787-9	284	295	238	246	.525"	.530"	109			ZDDP-100	HT900R-16	7333-16 D	1.800"	11700-16	4133-16	VSV530-16	CS8302W	See Notes	CRFW167
Performance street/strip hyd cam need engine mods + 3200 stall (See Fitting notes 5)	3200 - 6300	62747	294	307	236	246	.567"	.575"	107			ZDDP-100	HT900R-16	7333-16 D	1.800"	11700-16	4133-16	VSV530-16	CS8302W	See Notes	CRFW167
Street/strip appilcation rough idle needs heads, carbie headers & hi stall (See Fitting notes 5)	3500 - 6500	62700	304	316	242	250	.535"	.535"	108			ZDDP-100	HT900R-16	7333-16 D	1.800"	11700-16	4133-16	VSV530-16	CS8302W	See Notes	CRFW167
Max performance street/strip hyd cam need serious engine mods + 3500 stall (See Fitting notes 5)	3700 - 6500	62802	294	294	246	246	.547"	.547"	109			ZDDP-100	HT900R-16	7333-16 D	1.800"	11700-16	4133-16	VSV530-16	CS8302W	See Notes	CRFW167
351W SOLID																					
Choppy idle, great mid range power needs serious engine mods & hi stall (See Fitting notes 5)	3000 - 6000	62626	278	282	238	244	.525"	.535"	109		IN .024" EX .026"	ZDDP-100	AT2000-16	7333-16 D	1.750"	11700-16	4135-16	VSV530-16	CS8302W	See Notes	CRFW167
Choppy idle, great mid range power needs serious engine mods & hi stall (See Fitting notes 5)	3400 - 6500	621374	281	281	246	246	.552"	.552"	108		IN .016" EX .016"	ZDDP-100	AT2000-16	7333-16 D	1.750"	11700-16	4135-16	VSV530-16	CS8302W	See Notes	CRFW167
Race application, needs good breathing comp, diff gears & hi stall (See Fitting notes 5)	3600 - 6500	62746	292	295	252	258	.550"	.575"	109		IN .018" EX .018"	ZDDP-100	AT2000-16	7333-16 D	1.750"	11700-16	4135-16	VSV530-16	CS8302W	See Notes	CRFW167
Performance solid cam (See Fitting notes 5)	3600 - 7200	62731	292	297	253	260	.575"	.585"	108		IN .026" EX .016"	ZDDP-100	AT2000L-16	7437-16 D	1.800"	11700-16	4135-16	VSV530-16	CS8302W	See Notes	CRFW167
Performance solid cam (See Fitting notes 5)	3800 - 7400	62794	306	311	265	268	.612"	.612"	107		IN .014" EX .018"	ZDDP-100	AT2000L-16	7437-16 D	1.800"	11700-16	4135-16	VSV530-16	CS8302W	See Notes	CRFW167
351W HYDRAULIC ROLLER - FIRING ORDER 1, 3, 7, 2, 6, 5, 4, 8 **NOTE: MUST USE CROW CAMS MELONISED DISTRIBUTOR GEAR. SEE PG 97 FOR DISTRIBUTOR GEARS**																					
289W-302W we use 351W roller billet																					
Mild performance cam great low down torque to mid range, need manifold and headers (See Fitting notes 5)	1700 - 5700	621414-8	277	287	213	223	.499"	.515"	108				5351H	7333-16 D	1.800"	11700-16	11701-16	VSV530-16	CS8302W	See Notes	CRFW167
Mild performance cam great bottom end & mid range, choppy idle need manifold & headers (See Fitting notes 5)	1800 - 6000	621371C	290	290	216	216	.505"	.505"	108				5351H	7333-16 D	1.800"	11700-16	11701-16	VSV530-16	CS8302W	See Notes	CRFW167
Performance cam great mid range, choppy idle need manifold & headers (See Fitting notes 5)	2200 - 6200	621330	276	283	220	227	.532"	.542"	110				5351H	7333-16 D	1.800"	11700-16	11701-16	VSV530-16	CS8302W	See Notes	CRFW167
Performance cam great mid range & top end power, choppy idle need manifold & headers (See Fitting notes 5)	2600 - 6200	621515	294	298	228	234	.582"	.578"	107				5351H	7342-16 D	1.800"	11700-16	11701-16	VSV530-16	CS8302W	See Notes	CRFW167

Note: Springs marked with xxxx-xx D denotes that it is a double spring.

FITTING NOTES: Push Rods sold seperately. Check length before ordering from page 99-101.
- Converter stall speed should be equal to or greater than the minimum rpm of the cam power range.
- All lash settings quoted are measured hot. • The use of high volume oil pumps may cause premature wear of the distributor gear.

FITTING NOTES: 1. Must use performance springs. 2. Must use performance retainers. 3 Machining required to fit these components. 4. Must use performance seal. 5. Notes 1 to 4 all apply to this part number. 6. Check valve train geometry before ordering pushrod. 7. Pushrod length varied in this model. Check length before ordering. 8. Spring height varies in models, check spring pressure before installation.

FORD WINDSOR V8 ROCKER RATIO 1.62

Note: Installed heights may vary in every engine. Please check actual height before ordering spring, retainer and lock combinations

Application	RPM Range	Part No.	Adv. Duration		.050" Duration		Valve Lift		LSA		Lash	Oil Additive	Lifters	Valve Spring	Installed Height	Retainer	Locks	Stem Seal	Timing Kit	Pushrods	Rockers
			Intake	Exhaust	Intake	Exhaust	Intake	Exhaust													
351W SOLID ROLLERS										**NOTE:** MUST USE CROW CAMS MELONISED DISTRIBUTOR GEAR. SEE PG 97 FOR DISTRIBUTOR GEARS												
260, 289 & 302 use 351W roller billet																					
Street/strip application, bracket engine needs comp, good heads etc (See Fitting notes 1- 7)	3600 - 6600	621301	286	295	252	260	.585"	.585"	107		IN .016" EX .016"		5300PF	4910-16 D	2.000"	13101-16	11101-16	VSV530-16	CS8302W	See Notes	
Street/ strip roller med lift, heap of bottom end torque, soft on valve springs (See Fitting notes 1- 7)	3800 - 6800	621387	298	302	259	265	.635"	.633"	107		IN .016" EX .016"		5300PF	4910-16 D	2.000"	13101-16	11101-16	VSV530-16	CS8302W	See Notes	
Race roller, for max mid & upper RPM needs, comp and after market heads etc (See Fitting notes 1- 7)	4200 - 7200	62819	291	298	259	266	.583"	.583"	108		IN .016" EX .016"		5300PF	4920-16 D	2.000"	13101-16	11101-16	VSV530-16	CS8302W	See Notes	
Street/strip roller, suit stroker good bottom end torque, soft on valve springs (See Fitting notes 1- 7)	4500 - 7500	621576	307	310	276	278	.608"	.608"	108		IN .016" EX .016"		5300PF	4920-16 D	2.000"	13101-16	11101-16	VSV530-16	CS8302W	See Notes	
EFI HYDRAULIC ROLLER EB-AUII 5L 302 V8 FIRING ORDER 1,3,7,2,6,5,4,8										*NOTE: MUST REMOVE FACTORY FITTED SLOW ROTOR FROM EXHAUST WHEN USING 11700-XR8												
STD replacement	1000 - 4600	62952	262	262	186	196	.428"	.453"	117				5300H	7739-16	1.750"	11700-XR8*	4135-16		CS8302WEFI	See Notes	CRFW163
STD idle, improved throttle response use in STD to Mild engine 200k (See Fitting notes 1 & 2)	1600 - 5300	621338	272	272	210	210	.458"	.458"	118				5300H	7739-16	1.750"	11700-XR8*	4135-16		CS8302WEFI	See Notes	CRFW163
Mild street applicaton, stock idle good torque & mid range 220k (See Fitting notes 1 & 2)	1500 - 5000	621339	268	275	203	209	.455"	.455"	118				5300H	7739-16	1.750"	11700-XR8*	4135-16		CS8302WEFI	See Notes	CRFW163
Mild street engine suits genuine 250kw 347ci (See Fitting notes 1 & 2)	1600 - 5300	621368	275	275	211	211	.447"	.447"	116				5300H	7739-16	1.750"	11700-XR8*	4135-16		CS8302WEFI	See Notes	CRFW163
Medium performance cam, basic idle improved bottom & mid range suit auto (See Fitting notes 1 & 2)	1800 - 5800	621371E	290	290	216	216	.505"	505"	115				5300H	7739-16	1.750"	11700-XR8*	4135-16		CS8302WEFI	See Notes	CRFW163
Medium performance cam, grumpy idle improved bottom & mid range needs hi stall (See Fitting notes 5)	2500 - 6500	621317	309	296	222	217	.539"	.539"	112				5300H	7333-16 D	1.800"	11700-XR8*	4133-16		CS8302WEFI	See Notes	CRFW163
Good mid range performance needs hi stall (See Fitting notes 1 & 2)	2700 - 6700	621354E	293	299	225	224	.510"	.510"	115				5300H	7739-16	1.750"	11700-XR8*	4135-16		CS8302WEFI	See Notes	CRFW163
429, 460 HYDRAULIC ROCKER RATIO 1.73										*NOTE: SINGLE GROOVE VALVE LOCKS USE 11701-16, MULTI GROOVE VALVE USE 11702-16 & 12700-16												
Maximum low end torque, dual pattern suit LPG needs valve springs & exhaust (See Fitting notes 1 & 2)	1600 - 4500	31666	268	288	204	214	.481"	.512"	112			ZDDP-100	HT900-16	7739-16	1.750"	11700-16	4135-16	KG317-16	CS8460	PR-978-16	CRFCL177
Mild street applicaton, medium idle good mid range, needs valve springs etc (See Fitting notes 5)	2000 - 5000	31665	280	290	214	224	.512"	.539"	112			ZDDP-100	HT900-16	7739-16	1.750"	11700-16	4135-16	KG317-16	CS8460	PR-978-16	CRFCL177
Hot street cam, strong mid range needs headers, carbie, hi- stall etc (See Fitting notes 5)	2200 - 5700	311367	293	299	226	236	.535"	.560"	112			ZDDP-100	HT900R-16	7333-16 D	1.800"	11700-16	4133-16	VSV530-16	CS8460	PR-978-16	CRFCL177
Street /strip cam, aggressive idle needs heads, carbie headers & hi stall (See Fitting notes 5)	2600 - 6300	31787-9	284	295	238	246	.561"	.566"	109			ZDDP-100	HT900R-16	7333-16 D	1.800"	11700-16	4133-16	VSV530-16	CS8460	PR-978-16	CRFCL177
Street/strip appilcation rough idle needs heads, carbie headers & hi stall (See Fitting notes 5)	3200 - 6300	31700	304	316	242	250	.570"	.570"	108			ZDDP-100	HT900R-16	7333-16 D	1.800"	11700-16	4133-16	VSV530-16	CS8460	PR-978-16	CRFCL177

Note: Springs marked with xxxx-xx D denotes that it is a double spring.

FITTING NOTES: 1. Must use performance springs. 2. Must use performance retainers. 3 Machining required to fit these components. 4. Must use performance seal. 5. Notes 1 to 4 all apply to this part number. 6. Check valve train geometry before ordering pushrod. 7. Pushrod length varied in this model. Check length before ordering. 8. Spring height varies in models, check spring pressure before installation.

FITTING NOTES: Push Rods sold seperately. Check length before ordering from page 99-101.
- Converter stall speed should be equal to or greater than the minimum rpm of the cam power range.
- All lash settings quoted are measured hot. • The use of high volume oil pumps may cause premature wear of the distributor gear.

FORD BIG BLOCK V8 ROCKER RATIO 1.76

Note: Installed heights may vary in every engine. Please check actual height before ordering spring, retainer and lock combinations

Application	RPM Range	Part No.	Adv. Duration		.050" Duration		Valve Lift		LSA		Lash	Oil Addtive	Lifters	Valve Spring	Installed Height	Retainer	Locks	Stem Seal	Timing Kit	Pushrods	Rockers
			Intake	Exhaust	Intake	Exhaust	Intake	Exhaust													
FE, 332, 352, 390, 406, 427, 428 HYDRAULIC																					
Maximum low end torque, dual pattern suit LPG needs valve springs & exhaust (See Fitting notes 1, 2 & 3)	1500 - 4500	19666	268	288	204	214	.490"	.521"	112			ZDDP-100	HT950-16	7739-16	1.760"	12706-16	12708-16		CS8FE428		
Mild street applicaton, medium idle good mid range, needs valve springs etc (See Fitting notes 1, 2 & 3)	2000 - 5000	19665	280	290	214	224	.520"	.549"	112			ZDDP-100	HT950-16	7739-16	1.760"	12706-16	12708-16		CS8FE428		
Hot street cam, strong mid range needs headers, carbie, hi- stall etc & rockers (See Fitting notes 1, 2 & 3)	2200 - 5700	191367	293	299	226	236	.545"	.574"	112			ZDDP-100	HT950-16	7333-16 D	1.820"	12700-16	12708-16		CS8FE428		
Street /strip cam, aggressive idle needs heads, carbie headers & hi stall (See Fitting notes 1, 2 & 3)	2600 - 6300	19787-9	284	295	238	246	.570"	.576"	109			ZDDP-100	HT950-16	7333-16 D	1.820"	12700-16	12708-16		CS8FE428		
Street/strip appilcation rough idle needs heads, carbie, headers, hi stall & rockers (See Fitting notes 1, 2 & 3)	3200 - 6300	19700	304	316	242	250	.581"	.581"	108			ZDDP-100	HT950-16	7333-16 D	1.820"	12700-16	12708-16		CS8FE428		

FORD OHC 6 EA-AU CAMS MAY REQUIRE VERNIER GEAR

EA, EB, ED, EF, EL 1989 - JAN 98 MULTIPOINT EFI ROCKER RATIO 2.0

NOTE: FOR SINGLE GROOVE VALVES, USE 11700-12 RETAINERS & 11703-12 LOCKS

High torque cam to suit EA-ED multi point can use as STD replacement	900 - 3500	222002	242	240	192	187	.470"	.454"	114					7739-12	1.820"	12700-12	11704-12		CS6EA-VS		
Mild performance cam, EA-ED multi point suit STD computer needs headers	1000 - 4200	222825	265	265	196	196	.489"	.489"	113					7739-12	1.820"	12700-12	11704-12		CS6EA-VS		
Mild performance cam, EF-EL suit STD computer needs headers & valve springs	1200 - 4700	2222519	262	258	198	194	.494"	.472"	113					7739-12	1.820"	12700-12	11704-12		CS6EA-VS		
Medium performance cam needs ECU tuning, headers & valve springs	1500 - 5200	2222549	268	260	210	200	.530"	.500"	112					7739-12	1.820"	12700-12	11704-12		CS6EA-VS		
Aggressive street cam. Strong top end power. Needs ECU tuning, headers & valve springs.	2500 - 5800	2221300	282	288	220	220	.500	.500	110					7739-12	1.820"	12700-12	11704-12		CS6EA-VS		
EL-AU FEB 98-02 NON VCT ROCKER RATIO 1.8																					
High torque cam to suit AU can use with LPG	900 - 4500	2232526	265	265	197	192	.476"	.454"	115					7739-12	1.820"	11750-12	Standard		CS6EA-VS		
High torque cam to suit AU series can use with LPG	900 - 4500	2232522	265	260	201	194	.484"	.459"	115					7739-12	1.820"	11750-12	Standard		CS6EA-VS		
Medium performance cam needs computer mods headers & valve springs	1500 - 5200	2232549	268	260	210	200	.476"	.450"	112					7739-12	1.820"	11750-12	Standard		CS6EA-VS		
Performance street/strip cam lopey idle needs valve springs headers & computer	2500 - 5800	2231514	275	275	219	219	.504"	.504"	112					7739-12	1.820"	11750-12	Standard		CS6EA-VS		
Aggressive street cam. Very strong top end performance. Lopey idle. Requires ECU tuning, headers & valve springs.	2800 - 6200	2232596	283	283	226	226	.534	.537	110					7739-12	1.820"	11750-12	Standard		CS6EA-VS		

Note: Springs marked with xxxx-xx D denotes that it is a double spring.

FITTING NOTES: 1. Must use performance springs. 2. Must use performance retainers. 3 Machining required to fit these components.
4. Must use performance seal. 5. Notes 1 to 4 all apply to this part number. 6. Check valve train geometry before ordering pushrod.
7. Pushrod length varied in this model. Check length before ordering. 8. Spring height varies in models, check spring pressure before installation.

FITTING NOTES:
- Converter stall speed should be equal to or greater than the minimum rpm of the cam power range.
- All lash settings quoted are measured hot. • The use of high volume oil pumps may cause premature wear of the distributor gear.

FORD OHC 6

Note: Installed heights may vary in every engine. Please check actual height before ordering spring, retainer and lock combinations

Application	RPM Range	Part No.	Adv. Duration		.050" Duration		Valve Lift		LSA		Lash	Oil Additive	Lifters	Valve Spring	Installed Height	Retainer	Locks	Stem Seal	Timing Kit	Pushrods	Rockers
			Intake	Exhaust	Intake	Exhaust	Intake	Exhaust													
DOHC 6 CYLINDER BA - FG FOR TURBO APPLICATIONS, USE 323XXXT INLET CAMS																					
Mild cam, good mid range, choppy idle suit standard springs, needs computer mods & headers. **Not suitable for FG.** N/A Use 3231393 & 3241393 Turbo applications use 3231393T & 3241393	2700 - 6200	3231393 3231393T 3241393	259	259	195	195	.452"	.452"	112 112 112				BA-ADJ-24	1808-24	1.480"						
Performance street cams, great mid range and upper RPM, needs valve springs, headers, computer & high stall N/A Use 3232591 & 3242591 Turbo applications use 3232591T & 3242591	2700 - 6200	3232591 3232591T 3242591	260	260	204	204	.470"	.470"	112 112 112				BA-ADJ-24	VTKBA6T-24	1.520"						
Mild performance street cams, great mid range and upper RPM, Standard valve springs, headers, computer & high stall. N/A Use 3232590 & 3242590 Turbo applications use 3232590T & 3242590	2800 - 6500	3232590 3232590T 3242590	262	262	208	208	.471"	.471"	112 112 112				BA-ADJ-24	VTKBA6T-24	1.520"						
High performance street cams, great mid range and upper RPM, needs valve springs, headers, computer & high stall. Check valve to piston clearance. N/A Use 3232592 & 3242592 Turbo applications use 3232592T & 3242592	3200 - 6500	3232592 3232592T 3242592	268	268	214	214	.475"	.475"	112 112 112				BA-ADJ-24	VTKBA6T-24	1.520"						
High performance street /strips cams, great upper RPM range,needs valve springs, high stall, headers and computer N/A Use 3232593 & 3242593 Turbo applications use 3232593T & 3242593	3500 - 6800	3232593 3232593T 3242593	275	275	218	218	.495"	.495"	112 112 112				BA-ADJ-24	VTKBA6T-24	1.520"						
Street /strip application, serious engine only, needs head work,valve springs, high stall headers, computer & vernier gears N/A Use 3232562 & 3242562 Turbo applications use 3232562T & 3242562	3700 - 7000	3232562 3232562T 3242562	282	282	223	223	.500"	.500"	112 112 112				BA-ADJ-24	VTKBA6T-24	1.520"						
Race application only not for street use N/A Use 3232565 & 3242565 Turbo applications use 3232565T & 3242565	4000 - 7800	3232565 3232565T 3242565	309	309	237	237	.516"	.516"	112 112 112				BA-ADJ-24	VTKBA6T-24	1.520"						

NOTE: PARTS KIT VTKBA6T-24 INCLUDES 1809-24 SPRINGS AND 10703-24 RETAINERS

FORD DOHC 4.0L BARRA BA-FG SPRING TOOL & VERNIER GEAR

Part Number	Description	
SRT-BARRA	Ford DOHC 4L Barra Spring Compressor/Removal Tool. With this tool you do not need to remove the cylinder head. Made in Australia	
VG-BARRA	Ford DOHC 4L Barra Vernier camshaft gear set.	

FITTING NOTES: 1. Must use performance springs. 2. Must use performance retainers. 3 Machining required to fit these components. 4. Must use performance seal. 5. Notes 1 to 4 all apply to this part number. 6. Check valve train geometry before ordering pushrod. 7. Pushrod length varied in this model. Check length before ordering. 8. Spring height varies in models, check spring pressure before installation.

STANDARD BA-BF CAMSHAFTS 172/180 @ .050 .430" VALVE LIFT.

PART NO: **3230000** INTAKE. **3240000** EXHAUST.

STANDARD FG CAMSHAFTS 185/185 @ .050 .440" VALVE LIFT

PART NO: **3230001** INTAKE. **3240001** EXHAUST.

VTKBA6T-24 INCLUDES 1809-24 SPRINGS AND 10703-24 RETAINERS. **LOCKS NOT INCLUDED**

10703-24 RETAINER HAS A + .040" OFFSET TO INSTALL AT 1.520"

Part Number	Installed Height	Installed Pressure	Pressure @.5 Lift	Max. Lift	Solid Height	Spring Retainer	Valve Locks
1808-24	1.480"	90	200	.550"	.880"	Std	Std
1809-24	1.520"	105	205	.570"	.900"	10703	Std

FITTING NOTES:

- Converter stall speed should be equal to or greater than the minimum rpm of the cam power range.
- All lash settings quoted are measured hot. • The use of high volume oil pumps may cause premature wear of the distributor gear.

FORD MODULAR V8 RH CAM ORIENTATION IS DRIVER SIDE, LH IS PASSENGER SIDE.

Note: Installed heights may vary in every engine. Please check actual height before ordering spring, retainer and lock combinations

Application	RPM Range	Part No.	Adv. Duration		.050" Duration		Valve Lift		LSA		Cam Orientation	Lifters	Valve Spring	Installed Height	Retainer	Locks	Stem Seal	Timing Kit	Pushrods	Rockers
			Intake	Exhaust	Intake	Exhaust	Intake	Exhaust												
BA/BF QUAD CAM 260KW																				
											NOTE: PARTS KIT VTKBAXR8-32 INCLUDES 1809-24 SPRINGS AND 10704-32 RETAINERS										
Mild performance cams - Standard valve springs needs headers, performance cats and computer mods/tune - cams suit 260kw only May require vernier gear set	2300 - 6000	270XR8 271XR8 272XR8 273XR8	250	255	196	196	.435"	.435”	115		RH Inlet LH Inlet RH Exhaust LH Exhaust		1808-32 VTKBAXR8-32	1.490” 1.520”	Std	Std				
Mild performance camshafts, 260kw eng choppy idle suit blower 8 - 10psi needs valve springs, header/cat, computer mods/tune. May require vernier gear set	2300 - 6000	270XR8 271XR8 272XR82 273XR82	250	254	196	202	.435"	.435”	115		RH Inlet LH Inlet RH Exhaust LH Exhaust		1808-32 VTKBAXR8-32	1.490” 1.520”	Std	Std				
Performance cam - standard valve springs needs headers, performance cats etc computer mods/tune - cams suit 260kw only May require vernier gear set	2500 - 6500	270XR82 271XR82 272XR82 273XR82	254	254	202	202	.435"	.435”	115		RH Inlet LH Inlet RH Exhaust LH Exhaust		1808-32 VTKBAXR8-32	1.490” 1.520”	Std	Std				
BA/BF QUAD CAM 290KW																				
Performance cams suit 290kw engines great bottom end,good mid range,choopy idle, standard valve springs, needs headers /cats, computer mods/tune. May require vernier gear set	2500 - 6600	270GTP 271GTP 272GTP 273GTP	260	248	200	198	.508"	.466”	114		RH Inlet LH Inlet RH Exhaust LH Exhaust		1809-32	1.590”	10705-32	Std				
Performance camshafts, mid to upper RPM, lumpy idle suit 290kw needs valve springs, header/cat, computer mods/tune. May require vernier gear set	2900 - 6900	270GTPX 271GTPX 272GTPX 273GTPX	263	260	214	214	.525"	.475”	114		RH Inlet LH Inlet RH Exhaust LH Exhaust		1809-32	1.590”	10705-32	Std				
Performance camshafts, mid to upper RPM, choppy idle suit blower 8 - 10psi needs valve springs, header/cat computer mods/tune. May require vernier gear set	2900 - 6900	270GTP 271GTP 272GTPX 273GTPX	260	260	200	214	.508"	.475”	114		RH Inlet LH Inlet RH Exhaust LH Exhaust		1809-32	1.590”	10705-32	Std				
Performance cams, max RPM range, Non street application. Upper RPM power. Needs valve springs, header, cats, high end ECU & tune. May require vernier gear set	3500 - 7200	270GTHO 271GTHO 272GTHO 273GTHO	280	280	230	230	.540"	.504”	115		RH Inlet LH Inlet RH Exhaust LH Exhaust		1809-32	1.590”	10705-32	Std				
FG QUAD CAM 315KW																				
Mild cams suit 315kw engine, choppy idle, great bottom end suit standard valve springs needs headers, cats & computer mods/tune. May require vernier gear set	2500 - 6200	270-2567 271-2567 272-2567 273-2567	272	266	214	210	.561"	.517”	114		RH Inlet LH Inlet RH Exhaust LH Exhaust		1804-32	1.590”	Std	Std				
Medium cams suit 315kw engine,choppy idle, great bottom good med range needs springs headers/cats, computer mods/tune. May require vernier gear set	2700 - 6500	270-2568 271-2568 272-2568 273-2568	278	278	216	216	.545"	.510”	114		RH Inlet LH Inlet RH Exhaust LH Exhaust		1804-32	1.590”	Std	Std				
Performance cams suit 315kw, lumpy idle great upper RPM range, needs valve springs retainers, headers/cats, computer mods/tune. May require vernier gear set	3000 - 7000	270-2569 271-2569 272-2569 273-2569	280	280	224	223	.548"	.512”	114		RH Inlet LH Inlet RH Exhaust LH Exhaust		1804-32	1.590”	Std	Std				
FORD 5.0 LTR COYOTE MUSTANG 2016-ON																				
SEE PAGE 93 FOR SPRING KITS																				

FITTING NOTES: 1. Must use performance springs. 2. Must use performance retainers. 3 Machining required to fit these components.
4. Must use performance seal. 5. Notes 1 to 4 all apply to this part number. 6. Check valve train geometry before ordering pushrod.
7. Pushrod length varied in this model. Check length before ordering. 8. Spring height varies in models, check spring pressure before installation.

FITTING NOTES:
- Converter stall speed should be equal to or greater than the minimum rpm of the cam power range.
- All lash settings quoted are measured hot. • The use of high volume oil pumps may cause premature wear of the distributor gear.

FORD FLAT HEAD V8

Note: Installed heights may vary in every engine. Please check actual height before ordering spring, retainer and lock combinations

Application	RPM Range	Part No.	Adv. Duration		.050" Duration		Valve Lift		LSA		Lash	Oil Additive	Lifters	Valve Spring	Installed Height	Retainer	Locks	Stem Seal	Timing Kit	Pushrods	Rockers
			Intake	Exhaust	Intake	Exhaust	Intake	Exhaust													
FORD FLAT HEAD SOLID (1949 Onward)																					
Factory 1949-50 Mercury Grind	1500 - 4600	635950	243	254	210	210	.329"	.335"	110		IN .010" EX .012"	ZDDP-100									
Mild cam good bottom end power, for street engine	1500 - 4800	63582	273	289	210	215	.314"	.327"	111		IN .014" EX .016"	ZDDP-100									
Medium cam lumpy idle good mid range power	2200 - 5200	635290	285	290	228	228	.363"	.364"	110		IN .012" EX .012"	ZDDP-100									
Hot cam, lumpy idle, good upper RPM range need well prepared engine	2500 - 5500	635289	298	292	244	244	.406"	.406"	109		IN .012" EX .012"	ZDDP-100									
Aggressive cam, strong top end performance.	2600 - 5500	635930	270	265	247	240	.365"	.371"	111		IN .012" EX .012"	ZDDP-100									
For all pre 1949 SV engines use this part number, ask about the many grinds available for *Flat Head Fords*		633900										ZDDP-100									

FORD 4 CYLINDER .790" FACE DIAMETER LIFTERS ARE REFACE ONLY

Application	RPM Range	Part No.	Adv. Duration		.050" Duration		Valve Lift		LSA		Lash	Oil Additive	Lifters	Lifter Diam. (VT2014)	Valve Spring	Installed Height	Retainer	Locks	Timing Kit	Pushrods	Rockers
			Intake	Exhaust	Intake	Exhaust	Intake	Exhaust													
KENT ROCKER RATIO 1.50																					
STD replacement cam	900 - 4000	51000	255	265	194	202	.350"	.340"	111		IN .012" EX .012"	ZDDP-100	VT2014	.916" Face .512" Stem	2021-8	1.289"	Standard	Standard	CS41500		RR811
Mild cam, suit slighty mod engine, sporty idle quilty, needs valve springs headers	2000 - 5000	51606	260	260	222	222	.397"	.397"	110		IN .016" EX .016"	ZDDP-100	VT2014		2021-8	1.289"	Standard	Standard	CS41500		RR811
Performance cams, great mid range, needs valve springs headers carbies & ignition	2500 - 6000	51740	263	268	228	234	.400"	.400"	107		IN .016" EX .014"	ZDDP-100	VT2014		2834-8 D	1.280"	Standard	Standard	CS41500		RR811
Performance street/track, needs mod eng. head, comp, headers carbies & ignition	3500 - 7500	51623	270	270	240	240	.410"	.410"	106		IN .014" EX .014"	ZDDP-100	VT2014		2834-8 D	1.280"	Standard	Standard	CS41500		RR811
CORTINA/ESCORT/PINTO 2000																					
STD replacement cam	1200 - 5000	26000	265	265	205	205	.390"	.390"	108		IN .017" EX .017"	ZDDP-100			4250-8 D	1.417"	Standard	Standard	CS42000-V cam gear only		RR811
Mild cam, suit slighty mod engine, Sporty idle quality, needs valve springs headers	2500 - 6500	26874	275	275	221	221	.416"	.416"	114		IN .012" EX .012"	ZDDP-100			4250-8 D	1.417"	Standard	Standard	CS42000-V cam gear only		RR811
Performance street/strip, needs mod eng. head, comp, headers carbies & ignition	3000 - 7000	26661	280	290	233	242	.474"	.466"	112		IN .011" EX .011"	ZDDP-100			4250-8 D	1.417"	Standard	Standard	CS42000-V cam gear only		RR811

Note: Springs marked with xxxx-xx D denotes that it is a double spring.

FITTING NOTES:
- Converter stall speed should be equal to or greater than the minimum rpm of the cam power range.
- All lash settings quoted are measured hot. • The use of high volume oil pumps may cause premature wear of the distributor gear.

FITTING NOTES: 1. Must use performance springs. 2. Must use performance retainers. 3 Machining required to fit these components. 4. Must use performance seal. 5. Notes 1 to 4 all apply to this part number. 6. Check valve train geometry before ordering pushrod. 7. Pushrod length varied in this model. Check length before ordering. 8. Spring height varies in models, check spring pressure before installation.

HOLDEN GEMINI

Note: Installed heights may vary in every engine. Please check actual height before ordering spring, retainer and lock combinations

Application	RPM Range	Part No.	Adv. Duration		.050" Duration		Valve Lift		LSA		Lash	Oil Additive		Lifters	Valve Spring	Installed Height	Retainer	Locks	Stem Seal	Timing Kit	Pushrods	Rockers
			Intake	Exhaust	Intake	Exhaust	Intake	Exhaust														
1600 **NOTE: 1800cc and 2000cc engines use timing kit CS41800. 1800 & 2000cc engine camshafts are available as a custom grind.**																						
Mild cam to suit standard engine	2000 - 6000	782507	276	276	212	212	.425"	.425"	107		IN .008" EX .012"	ZDDP-100			5840-8 D	1.550"	Standard	Standard				
Medium performance suit modified engine needs extractors	2500 - 6500	782508	284	284	218	218	.425"	.425"	105		IN .008" EX .010"	ZDDP-100			5840-8 D	1.550"	Standard	Standard				
Hot street engine needs comp, carbies and good exhaust system	3000 - 7000	782509	288	288	225	226	.466"	.466"	109		IN .008" EX .010"	ZDDP-100			5833-8 D	1.550"	Standard	Standard				
Race cam needs cyl.head mods, comp, carbies & good exhaust	3500 - 7800	782510	297	297	235	235	.490"	.490"	107		IN .008" EX .010"	ZDDP-100			5833-8 D	1.550"	Standard	Standard				

HOLDEN 6 CYLINDER ROCKER RATIO 1.50

RED/BLUE & BLACK HYDRAULIC

STD replacement cam, suit carbie	800 - 3200	35002	258	269	187	199	.350"	.385"	108			ZDDP-100	Red Black/Blue	HT969C-12 HT969C-12	4719-12 4028-12	1.625" 1.470"	11707-12 11707-12	11703-12 11703-12	KG819-12 KG819-12	44HP 44HP	PR-105-12 PR-422-12	CRHL6153 CRHL6153
STD replacement cam, suit EFI	850 - 3500	35678	260	260	197	197	.381"	.381"	109			ZDDP-100	Red Black/Blue	HT969C-12 HT969C-12	4719-12 4028-12	1.625" 1.470"	11707-12 11707-12	11703-12 11703-12	KG819-12 KG819-12	44HP 44HP	PR-105-12 PR-422-12	CRHL6153 CRHL6153
Hi torque cam, suit towing good economy	1200 - 3900	35613	260	267	194	202	.390"	.408"	112			ZDDP-100	Red Black/Blue	HT969C-12 HT969C-12	4719-12 4028-12	1.625" 1.470"	11707-12 11707-12	11703-12 11703-12	KG819-12 KG819-12	44HP 44HP	PR-105-12 PR-422-12	CRHL6153 CRHL6153
Mild cam for LPG, good power suit STD motor minimum mods.	1400 - 4200	35631	269	269	202	207	.395"	.395"	112			ZDDP-100	Red Black/Blue	HT969C-12 HT969C-12	4719-12 4028-12	1.625" 1.470"	11707-12 11707-12	11703-12 11703-12	KG819-12 KG819-12	44HP 44HP	PR-105-12 PR-422-12	CRHL6153 CRHL6153
Mild cam, improves throttle response good hyway cam suit STD to mild engine	1700 - 4500	35602	270	270	208	208	.420"	.420"	110			ZDDP-100	Red Black/Blue	HT969C-12 HT969C-12	4719-12 4028-12	1.625" 1.470"	11707-12 11707-12	11703-12 11703-12	KG819-12 KG819-12	44HP 44HP	PR-105-12 PR-422-12	CRHL6153 CRHL6153
Mild cam, increased mid range, good economy suits LPG. smooth idle (See Fitting notes 1)	1900 - 4800	35666	270	280	204	214	.420"	.442"	112			ZDDP-100	Red Black/Blue	HT969C-12 HT969C-12	4719-12 4028-12	1.625" 1.470"	11707-12 11707-12	11703-12 11703-12	KG819-12 KG819-12	44HP 44HP	PR-105-12 PR-422-12	CRHL6153 CRHL6153
Mild cam, good performance & driveability needs headers, carbies, ignition mods (See Fitting notes 1)	2000 - 5000	35603	280	280	214	214	.442"	.442"	110			ZDDP-100	Red Black/Blue	HT969C-12 HT969C-12	4823-12 4028-12	1.625" 1.470"	11707-12 11707-12	11703-12 11703-12	KG819-12 KG819-12	44HP 44HP	PR-105-12 PR-422-12	CRHL6153 CRHL6153
Performance street cam good driveability needs headers carbies, ignition & hi stall (See Fitting notes 1 & 2)	2200 - 5200	35665	280	290	214	224	.440"	.465"	112			ZDDP-100	Red Black/Blue	HT969C-12 HT969C-12	4823-12 4823-12	1.625" 1.625"	11707-12 11717-12	11703-12 11703-12	KG819-12 KG819-12	44HP 44HP	PR-105-12 PR-422-12	CRHL6153 CRHL6153
Performance street cam good driveability needs headers carbies, ignition & hi stall (See Fitting notes 1 & 2)	2500 - 5800	35667	286	286	224	224	.467"	.467"	111			ZDDP-100	Red Black/Blue	HT969C-12 HT969C-12	4823-12 4823-12	1.625" 1.625"	11707-12 11717-12	11703-12 11703-12	KG819-12 KG819-12	44HP 44HP	PR-105-12 PR-422-12	CRHL6157 CRHL6157
Hot street cam, wide power range, choppy idle, needs headers carbies, ignition & hi stall (See Fitting notes 5)	2600 - 6100	35619	286	290	226	232	.459"	.475"	109			ZDDP-100	Red Black/Blue	HT969R-12 HT969R-12	4823-12 4823-12	1.625" 1.625"	11707-12 11717-12	11703-12 11703-12	KG819-12 KG819-12	44HP 44HP	PR-926-12 PR-990-12	CRHL6157 CRHL6157
Performance street cam good mid range & upper RPM needs carbies headers etc similar. Factory XU1 Grind. (See Fitting notes 1 & 2)	2800 - 6200	35604	304	304	228	228	.423"	.423"	110			ZDDP-100	Red Black/Blue	HT969C-12 HT969C-12	4823-12 4823-12	1.625" 1.625"	11707-12 11717-12	11703-12 11703-12	KG819-12 KG819-12	44HP 44HP	PR-926-12 PR-990-12	CRHL6157 CRHL6157
Performance street/strip cam needs head headers carbies, ignition & hi stall (See Fitting notes 5)	3200 - 6500	35672	280	280	231	231	.480"	.480"	108			ZDDP-100	Red Black/Blue	HT969R-12 HT969R-12	4823-12 4823-12	1.625" 1.625"	11707-12 11717-12	4134-12 4134-12	KG819-12 KG819-12	44HP 44HP	PR-926-12 PR-990-12	CRHL6157 CRHL6157
Performance street/strip cam, great mid range Bathurst XU-1 grind (See Fitting notes 5)	3500 - 6800	35616	300	300	240	240	.450"	.450"	110			ZDDP-100	Red Black/Blue	HT969R-12 HT969R-12	4823-12 4823-12	1.625" 1.625"	11707-12 11717-12	11703-12 4134-12	KG819-12 KG819-12	44HP 44HP	PR-926-12 PR-990-12	CRHL6157 CRHL6157
Aggressive hyd cam great upper RPM need good breathing & engine combo (See Fitting notes 5)	3700 - 6800	35802	295	295	246	246	.507"	.507"	108			ZDDP-100	Red Black/Blue	HT969R-12 HT969R-12	4334-12 D 4334-12 D	1.700" 1.700"	11707-12 11717-12	4134-12 4134-12	VSV530-12 VSV530-12	44HP 44HP	PR-926-12 PR-990-12	CRHL6157 CRHL6157

Note: Springs marked with xxxx-xx^{D} denotes that it is a double spring.

FITTING NOTES: 1. Must use performance springs. 2. Must use performance retainers. 3 Machining required to fit these components.
4. Must use performance seal. 5. Notes 1 to 4 all apply to this part number. 6. Check valve train geometry before ordering pushrod.
7. Pushrod length varied in this model. Check length before ordering. 8. Spring height varies in models, check spring pressure before installation.

FITTING NOTES:
- Converter stall speed should be equal to or greater than the minimum rpm of the cam power range.
- All lash settings quoted are measured hot. • The use of high volume oil pumps may cause premature wear of the distributor gear.

HOLDEN 6 CYLINDER ROCKER RATIO 1.50

Note: Installed heights may vary in every engine. Please check actual height before ordering spring, retainer and lock combinations

Application	RPM Range	Part No.	Adv. Duration		.050" Duration		Valve Lift		LSA		Lash	Oil Additive		Lifters	Valve Spring	Installed Height	Retainer	Locks	Stem Seal	Timing Kit	Pushrods	Rockers
			Intake	Exhaust	Intake	Exhaust	Intake	Exhaust														
RED/ BLUE & BLACK SOLID																						
Small solid cam for street appilcation (See Fitting notes 5)	2400 - 5800	35609	265	265	229	229	.442"	.442"	109		IN .016" EX .016"	ZDDP-100	Red Black/Blue	AT992-12 AT992-12	4823-12 4334-12 D	1.625" 1.700"	11707-12 11717-12	11703-12 4134-12	VSV530-12 VSV530-12	44HP 44HP	PR-926-12 PR-990-12	CRHL6157 CRHL6157
Solid cam, great mid to upper RPM range suit speedway or hot street (See Fitting notes 5)	2500 - 6000	35872	272	272	231	231	.480"	.480"	108		IN .012" EX .014"	ZDDP-100	Red Black/Blue	AT992-12 AT992-12	4823-12 4334-12 D	1.625" 1.700"	11707-12 11717-12	11703-12 4134-12	VSV530-12 VSV530-12	CS6202 CS6202	PR-926-12 PR-990-12	CRHL6157 CRHL6157
Solid cam, great mid range power, lumpy idle, needs head mods, headers, ignition & carbies (See Fitting notes 5)	2800 - 6200	35626	278	282	238	244	.486"	.495"	109		IN .024" EX .026"	ZDDP-100	Red Black/Blue	AT992-12 AT992-12	4334-12 D 4334-12 D	1.700" 1.700"	11707-12 11717-12	4134-12 4134-12	VSV530-12 VSV530-12	CS6202 CS6202	PR-926-12 PR-990-12	CRHL6157 CRHL6157
Solid cam, high lift, max upper RPM needs head mods, headers, ignition & carbies etc (See Fitting notes 5)	3000 - 6400	35803	295	295	248	248	.495"	.495"	108		IN .022" EX .024"	ZDDP-100	Red Black/Blue	AT992-12 AT992-12	4334-12 D 4334-12 D	1.700" 1.700"	11707-12 11717-12	4134-12 4134-12	VSV530-12 VSV530-12	CS6202 CS6202	PR-926-12 PR-990-12	CRHL6157 CRHL6157
Race/competiton, serious engine combo (See Fitting notes 5)	3600 - 6600	35647	308	308	254	254	.517"	.517"	107		IN .024" EX .024"	ZDDP-100	Red Black/Blue	AT992-12 AT992-12	4334-12 D 4334-12 D	1.700" 1.700"	11707-12 11717-12	4134-12 4134-12	VSV530-12 VSV530-12	CS6202 CS6202	PR-926-12 PR-990-12	CRHL6157 CRHL6157
VN SERIES 1 V6 1989-91 3 BOLT FLANGED CAM ROCKER RATIO 1.60																						
(VN series 1 Cylinder heads may have single or double valve springs)																						
Hi torque for STD engine. (See Fitting notes 1)	1500 - 5500	6071561	262	264	193	202	.440"	.440"	112					3800R-12	7332-12 D	1.700"	Standard	11703-12		CS6VN	PR-987-12	
Mild performance cam for STD engine needs headers & exhaust & ECU (See Fitting notes 1)	1800 - 5800	6071562	275	285	202	207	.440"	.440"	113					3800R-12	7332-12 D	1.700"	Standard	11703-12		CS6VN	PR-987-12	
Street cam for mod engines, needs ECU mods, headers & exhaust (See Fitting notes 1)	2000 - 6000	6071563	276	281	207	210	.472"	.472"	112					3800R-12	7332-12 D	1.700"	Standard	11703-12		CS6VN	PR-987-12	
VN SERIES 2 V6 TO VR 1991-93 ROCKER RATIO 1.60 **CUSTOM PROFILES AVAILABLE**																						
Hi torque for STD engine. (See Fitting notes 1)	1500 - 5500	7741561	262	264	193	202	.440"	.440"	112					3800R-12	4836-12	1.700"	Standard	11703-12		CS6VP	PR-987-12	
Mild performance cam for STD engine needs headers & exhaust & ECU etc (See Fitting notes 1)	1800 - 5800	7741562	275	285	202	207	.440"	.440"	113					3800R-12	4836-12	1.700"	Standard	11703-12		CS6VP	PR-987-12	
Street cam for mod engines, needs ECU mods, headers & exhaust (See Fitting notes 1)	2000 - 6000	7741563	276	281	207	210	.472"	.472"	112					3800R-12	4835-12	1.700"	11707-12	11703-12		CS6VP	PR-987-12	
Hot street cam for modified engines needs headers & exhaust & ECU etc (See Fitting notes 1 & 2)	2200 - 6300	774757	280	280	214	218	.499"	.501"	110					3800R-12	4835-12	1.700"	11707-12	11703-12		CS6VP	PR-987-12	
ECOTEC V6 VS-VY ROCKER RATIO 1.60 **CUSTOM PROFILES AVAILABLE**																						
Mild performance cam for STD engine needs headers & exhaust & ECU etc (See Fitting notes 1)	1800 - 5800	8531562	275	285	202	207	.440"	.440"	113					3800R-12	4231-12	1.780"	Standard	10701-12		CS6VS	PR-905-12	
Street cam for mod engines, needs ECU mods, headers & exhaust (See Fitting notes 1)	2000 - 6000	8531563	276	281	207	210	.472"	.472"	112					3800R-12	4231-12	1.780"	10707-12	10701-12		CS6VS	PR-905-12	
Hot street cam for S/C & Turbo mod engines needs headers & exhaust & ECU etc (See Fitting notes 1 & 2)	2000 - 6200	8531563T	276	281	207	210	.472"	.472"	114					3800R-12	4231-12	1.780"	10707-12	10701-12		CS6VS	PR-905-12	
Hot street cam for S/C mod engines needs headers & exhaust & ECU etc (See Fitting notes 1 & 2)	2000 - 6200	8531430	262	274	207	218	.505"	.505"	114					3800R-12	4231-12	1.780"	10707-12	10701-12		CS6VS	PR-905-12	
Hot street cam for modified engines needs headers & exhaust & ECU etc (See Fitting notes 1 & 2)	2200 - 6300	853757	280	280	214	218	.499"	.501"	110					3800R-12	4231-12	1.780"	10707-12	10701-12		CS6VS	PR-905-12	

Note: Springs marked with xxxx-xx D denotes that it is a double spring.

FITTING NOTES: 1. Must use performance springs. 2. Must use performance retainers. 3 Machining required to fit these components. 4. Must use performance seal. 5. Notes 1 to 4 all apply to this part number. 6. Check valve train geometry before ordering pushrod. 7. Pushrod length varied in this model. Check length before ordering. 8. Spring height varies in models, check spring pressure before installation.

FITTING NOTES:

- Converter stall speed should be equal to or greater than the minimum rpm of the cam power range.
- All lash settings quoted are measured hot. • The use of high volume oil pumps may cause premature wear of the distributor gear.

HOLDEN 253, 308 V8 ROCKER RATIO 1.65 **RPM RANGE TO SUIT 308, FOR 253 RPM RANGE ADD +500 RPM.**

Note: Installed heights may vary in every engine. Please check actual height before ordering spring, retainer and lock combinations

Application	RPM Range	Part No.	Adv. Duration		.050" Duration		Valve Lift		LSA		Lash	Oil Additive	Lifters	Valve Spring	Installed Height	Retainer	Locks	Stem Seal	Timing Kit	Pushrods	Rockers
			Intake	Exhaust	Intake	Exhaust	Intake	Exhaust													
RED/BLUE & BLACK HYDRAULIC																					
Hi torque, smooth idle, fuel efficient can use as STD cam	1100 - 3900	5613	260	267	194	202	.430"	.450"	112			ZDDP-100	HT969C-16	4931-16	1.700”	11707-16	11701-16	KG819-16	CS8308	PR-387-16	CRHL8167
Cam to suit LPG, good power, great torque in STD engine, can use petrol	1200 - 4000	5631	269	269	202	207	.434"	.434"	112			ZDDP-100	HT969C-16	4931-16	1.700”	11707-16	11701-16	KG819-16	CS8308	PR-387-16	CRHL8167
Hyd cam, for improved throttle response (See Fitting notes 1& 2)	1500 - 4500	5602	270	270	208	208	.462"	.462"	110			ZDDP-100	HT969C-16	4833-16	1.700”	11707-16	11701-16	KG819-16	CS8308	PR-964-16	CRHL8167
Cam for increased mid range, smooth idle good economy, dual pattern for LPG (See Fitting notes 1& 2)	1700 - 4700	5666	270	280	204	214	.462"	.486"	112			ZDDP-100	HT969C-16	4833-16	1.700”	11707-16	11701-16	KG819-16	CS8308	PR-964-16	CRHL8167
Designed for increased performance suit street, needs headers carbie & ignition (See Fitting notes 1& 2)	2000 - 4800	5603	280	280	214	214	.486"	.486"	110			ZDDP-100	HT969C-16	4833-16	1.700”	11707-16	11701-16	KG819-16	CS8308	PR-964-16	CRHL8167
Medium performance cam, good med range,needs headers carbie,ignition, hi stall (See Fitting notes 1& 2)	2100 - 5000	5665	280	290	214	224	.484"	.511"	112			ZDDP-100	HT969C-16	4845-16	1.850”	11717-16	4134-16	KG819-16	CS8308	PR-964-16	CRHL8167
Medium performance cam, great torque & mid range,needs headers carbie & ignition (See Fitting notes 1& 2)	2100 - 5000	5770	280	290	214	226	.483"	.490"	111			ZDDP-100	HT969C-16	4833-16	1.700”	11707-16	11701-16	KG819-16	CS8308	PR-964-16	CRHL8167
Med performance cam, good RPM range fair idle, headers carbie,ignition, hi stall (See Fitting notes 1& 2)	2400 - 5400	5651	282	282	222	222	.493"	.493"	114			ZDDP-100	HT969C-16	4833-16	1.700”	11707-16	11701-16	KG819-16	CS8308	PR-964-16	CRHL8167
Hot street cam, choppy idle. Wide power band. Needs headers, carbie, ignition & high stall. (See Fitting notes 1 & 2)	2400 - 5500	5689-9	280	289	222	230	.489"	.495"	109			ZDDP-100	HT969C-16	4845-16	1.850”	11717-16	4134-16	KG819-16	CS8308	PR-964-16	CRHL8167
Hot street cam, wide power range,choppy idle, needs headers carbies, ignition & hi stall (See Fitting notes 1 & 2)	2500 - 5600	5619	286	290	226	232	.505"	.522"	110			ZDDP-100	HT969C-16	4845-16	1.850”	11717-16	4134-16	KG819-16	CS8308	PR-964-16	CRHL8167
Aggressive street cam, great RPM range Lumpy idle needs headers carbie, ignition (See Fitting notes 1& 2)	2700 - 5800	5761	292	292	230	230	.495"	.495"	109			ZDDP-100	HT969C-16	4833-16	1.700”	11707-16	11701-16	KG819-16	CS8308	PR-964-16	CRHL8167
Aggressive hyd cam great upper RPM need good breathing & engine combo etc (See Fitting notes 1 & 2)	2700 - 6000	5620	294	294	234	234	.521"	.521"	110			ZDDP-100	HT969C-16	4845-16	1.850”	11717-16	4134-16	KG819-16	CS8308	PR-964-16	CRHL8167
Street /strip hyd cam, aggressive idle needs heads, carbie headers & hi stall (See Fitting notes 1& 2)	2800 - 6000	5649	282	295	234	244	.501"	.501"	108			ZDDP-100	HT969C-16	4833-16	1.700”	11707-16	11701-16	KG819-16	CS8308	PR-964-16	CRHL8167
Street /strip hyd cam, aggressive idle needs heads, carbie headers, hi stall & roller rockers (See Fitting notes 5)	2800 - 6200	5747	294	307	236	246	.577"	.586"	107			ZDDP-100	HT969R-16	7333-16 D	1.800”	11710-16	4133-16	KG819-16	CS8308	PR-964-16	CRHL8167
Strong mid range & top end power needs comp, pipes, heads ignition, hi stall & roller (See Fitting notes 1 & 2)	3000 - 6200	5690	300	310	238	243	.525"	.525"	108			ZDDP-100	HT969R-16	4845-16	1.800”	11717-16	4133-16	KG819-16	CS8308	PR-964-16	CRHL8167
Street /strip hyd cam, aggressive idle needs heads, carbie headers, hi stall & roller rockers (See Fitting notes 1 & 2)	3000 - 6200	5787-8	284	295	238	246	.535"	.540"	108			ZDDP-100	HT969R-16	4845-16	1.800”	11717-16	4133-16	VSV530-16	CS8308	PR-964-16	CRHL8167
Street / strip hyd cam, will need engine mods, comp,pipes,heads, ignition & hi stall (See Fitting notes 1& 2)	3200 - 6200	5616	300	300	240	240	.495"	.495"	110			ZDDP-100	HT969C-16	4833-16	1.700”	11707-16	11701-16	KG819-16	CS8308	PR-964-16	CRHL8167
Street/strip cam all out performance needs heads,carbie headers,ignition, hi stall & roller rockers (See Fitting notes 5)	3500 - 6500	5802	295	295	246	246	.558”	.558”	108			ZDDP-100	HT969R-16	7333-16 D	1.800”	11710-16	4133-16	VSV530-16	CS8308	PR-964-16	CRHL8167

Note: Springs marked with xxxx-xx^{D} denotes that it is a double spring.

FITTING NOTES: 1. Must use performance springs. 2. Must use performance retainers. 3 Machining required to fit these components.
4. Must use performance seal. 5. Notes 1 to 4 all apply to this part number. 6. Check valve train geometry before ordering pushrod.
7. Pushrod length varied in this model. Check length before ordering. 8. Spring height varies in models, check spring pressure before installation.

FITTING NOTES:
- Converter stall speed should be equal to or greater than the minimum rpm of the cam power range.
- All lash settings quoted are measured hot. • The use of high volume oil pumps may cause premature wear of the distributor gear.

HOLDEN 253, 308 V8 ROCKER RATIO 1.65 RPM RANGE TO SUIT 308, FOR 253 RPM RANGE ADD +500 RPM.

Note: Installed heights may vary in every engine. Please check actual height before ordering spring, retainer and lock combinations

Application	RPM Range	Part No.	Adv. Duration		.050" Duration		Valve Lift		LSA		Lash	Oil Additive	Lifters	Valve Spring	Installed Height	Retainer	Locks	Stem Seal	Timing Kit	Pushrods	Rockers
			Intake	Exhaust	Intake	Exhaust	Intake	Exhaust													
RED/BLUE/BLACK SOLID																					
Solid cam, great mid range power, lumpy idle, needs heads, headers & carbies etc (See Fitting notes 5)	2700 - 5700	5626	278	288	238	244	.534"	.544"	109		IN .024" EX .026"	ZDDP-100	AT992-16	7333-16 D	1.800”	11710-16	4133-16	VSV530-16	CS8308	PR-974-16	CRHL8167
Solid cam, high lift, needs head mods, headers,carbie, ignition (See Fitting notes 5)	3100 - 6200	5803	295	295	248	248	.545"	.545"	108		IN .022" EX .024"	ZDDP-100	AT992-16	7333-16 D	1.800”	11710-16	4133-16	VSV530-16	CS8308	PR-974-16	CRHL8167
Solid cam, high lift, max upper RPM needs head mods, headers,carbies ignition (See Fitting notes 5)	3300 - 6500	5806	281	294	245	255	.538"	.558"	109		IN .018" EX .022"	ZDDP-100	AT992-16	7333-16 D	1.800”	11710-16	4133-16	VSV530-16	CS8308	PR-974-16	CRHL8167
Serious street engine combo needed (See Fitting notes 5)	3500 - 6500	5731	292	297	253	260	.584"	.597"	108		IN .026" EX .026"	ZDDP-100	AT992L-16	7342-16 D	1.800”	11710-16	4133-16	VSV530-16	CS8308	PR5885-110	CRHL8167
Competition, serious engine combo needed (See Fitting notes 5)	3800 - 6800	5794	306	311	265	268	.623"	.623"	107		IN .014" EX .016"	ZDDP-100	AT992L-16	7342-16 D	1.850”	11710-16	4134-16	VSV530-16	CS8308	PR5885-110	CRHL8167
RED/BLUE/BLACK HYDRAULIC ROLLER																					
Mild performance cam great bottom end & mid range, choppy idle need manifold & headers (See Fitting notes 5)	1800 - 5400	51330	275	282	220	227	.541"	.551"	110				5208H	7333-16 D	1.800”	11710-16	4133-16	VSV530-16	CS8308	See Notes	CRHL8167
Performance cam great mid range, choppy idle need manifold & headers (See Fitting notes 5)	2800 - 6200	51433	297	303	228	238	.607"	.603"	110				5208H	7342-16 D	1.850”	11710-16	4134-16	VSV530-16	CS8308	See Notes	CRHL8167
Performance cam great mid range, choppy idle need manifold & headers (See Fitting notes 5)	3200 - 6400	51315-8	303	307	238	244	.568"	.568"	108				5208H	7342-16 D	1.850”	11710-16	4134-16	VSV530-16	CS8308	See Notes	CRHL8167
Performance cam aggressive idle excellent mid range needs comp heads manifold etc 3500 hi stall (See Fitting notes 5)	3300 - 6200	51719	295	315	238	243	.585"	.621"	107				5208H	7342-16 D	1.850”	11710-16	4133-16	VSV530-16	CS8308	See Notes	CRHL8167
Performance cam good mid to upper RPM range, aggressive idle need comp manifold & headers etc 3500 +hi stall (See Fitting notes 5)	3500 - 6800	51725	301	312	242	246	.624"	.624"	109				5208H	7342-16 D	1.850”	11710-16	4133-16	VSV530-16	CS8308	See Notes	CRHL8167
Performance cam good mid to upper RPM range, choppy idle need manifold & headers comp etc, 3500+ hi stall (See Fitting notes 5)	3700 - 7000	51571	310	310	246	246	.627"	.627"	110				5208H	7342-16 D	1.850”	11710-16	4133-16	VSV530-16	CS8308	See Notes	CRHL8167
Performance cam 355+cubes great upper RPM range, choppy idle need manifold & headers comp etc, 3500+ hi stall (See Fitting notes 5)	3800 - 7000	51435-8	317	326	249	258	.570"	.570"	108				5208H	7342-16 D	1.850”	11710-16	4133-16	VSV530-16	CS8308	See Notes	CRHL8167
RED/BLUE/BLACK SOLID ROLLER																					
Small street roller, low lift, heap of bottom end torque, soft on valve springs (See Fitting notes 5)	2800 - 5800	5969	304	315	233	242	.545”	.545”	110		IN .016" EX .016"		5208	7342-16 D	1.850”	11710-16	4133-16	VSV530-16	CS8308	See Notes	
Street roller. Great mid range torque (See Fitting notes 5)	3200 - 6400	51551	281	287	245	251	.621"	.621"	107		IN .016" EX .016"		5208	4910-16 D	2.000”	13101-16	11101-16	VSV530-16	CS8308	See Notes	
Street/strip application bracket engine cam needs comp A/F heads & hi stall (See Fitting notes 5)	3500 - 6800	51301	286	295	252	260	.596"	.596"	108		IN .018" EX .018"		5208	4910-16 D	2.000”	13101-16	11101-16	VSV530-16	CS8308	See Notes	
Street/strip application bracket engine needs comp and after market heads etc (See Fitting notes 5)	3600 - 7000	51482	290	294	252	257	.666"	.666"	113		IN .016" EX .016"		5208	4920-16 D	2.000”	13101-16	11101-16	VSV530-16	CS8308	See Notes	
Street/strip application, bracket engine needs comp, good heads etc (See Fitting notes 5)	3800 - 7200	5754	295	298	255	258	.660"	.677"	106		IN .016" EX .016"		5208	4920-16 D	2.000”	13101-16	11101-16	VSV530-16	CS8308	See Notes	
Performance cam 355+cubes great upper RPM range, choppy idle need manifold & headers comp etc, 3500+ hi stall (See Fitting notes 5)	4000 - 7200	51492	300	306	262	268	.623"	.623"	107		IN .018" EX .020"		5208	4920-16 D	2.000”	13101-16	11101-16	VSV530-16	CS8308	See Notes	

Note: Springs marked with xxxx-xx D denotes that it is a double spring.

FITTING NOTES: 1. Must use performance springs. 2. Must use performance retainers. 3 Machining required to fit these components.
4. Must use performance seal. 5. Notes 1 to 4 all apply to this part number. 6. Check valve train geometry before ordering pushrod.
7. Pushrod length varied in this model. Check length before ordering. 8. Spring height varies in models, check spring pressure before installation.

FITTING NOTES: Push Rods sold seperately. Check length before ordering from page 99-101.
- Converter stall speed should be equal to or greater than the minimum rpm of the cam power range.
- All lash settings quoted are measured hot. • The use of high volume oil pumps may cause premature wear of the distributor gear.

HOLDEN 304/355 V8 WITH VN-VT HEADS. ROCKER RATIO 1.65

CAMS ALSO SUIT 253-308 BLOCKS WITH VN-VT HEADS

Note: Installed heights may vary in every engine. Please check actual height before ordering spring, retainer and lock combinations

Application	RPM Range	Part No.	Adv. Duration		.050" Duration		Valve Lift		LSA		Lash	Oil Additive	Lifters	Valve Spring	Installed Height	Retainer	Locks	Stem Seal	Timing Kit	Pushrods	Rockers
			Intake	Exhaust	Intake	Exhaust	Intake	Exhaust													
HYDRAULIC EFI **ALL CAMS EXCEPT 4000 (304 ENGINE ONLY) & 4001 (215KW ENGINE ONLY) WILL REQUIRE TUNING**																					
Standard replacement cam. 304 No tune req'd	900 - 3800	4000	255	252	200	198	.422"	.422"	117			ZDDP-100	HT969C-16	4931-16	1.700”	11707-16	11701-16	KG819-16	CS8308	PR-387-16	CRHL8167
High torque fuel efficient cam suit LPG (See Fitting notes 1) Requires tuning.	1200 - 4200	4631	269	269	202	207	.434"	.434"	112			ZDDP-100	HT969C-16	4931-16	1.700”	11707-16	11701-16	KG819-16	CS8308	PR-387-16	CRHL8167
Genuine holden V8 5.7 215Kw No tune req'd for 215kW engine. (See Fitting notes 1)	1400 - 4200	4001	260	260	206	206	.463"	.463"	112			ZDDP-100	HT969C-16	4931-16	1.700”	11707-16	11701-16	KG819-16	CS8308	PR-387-16	CRHL8167
Cam for increased mid range, smooth idle, dual pattern for LPG. No stall req'd Requires tuning. (See Fitting notes 1)	1700 - 4700	4666	270	280	204	214	.462"	.486"	112			ZDDP-100	HT969C-16	4833-16	1.700”	11707-16	11701-16	KG819-16	CS8308	PR-964-16	CRHL8167
Mild cam suit standard engine. No stall req'dRequires tuning. (See Fitting notes 1)	1800 - 4800	4892	275	275	215	215	.487"	.487"	111			ZDDP-100	HT969C-16	4833-16	1.700”	11707-16	11701-16	KG819-16	CS8308	PR-964-16	CRHL8167
Medium performance cam, great torque & mid range, Requires tuning. Benefits with stall. (See Fitting notes 1)	2100 - 5000	4770	280	290	214	224	.483"	.490"	111			ZDDP-100	HT969C-16	4833-16	1.700”	11707-16	11701-16	KG819-16	CS8308	PR-964-16	CRHL8167
Medium performance cam, STD idle needs exhaust & requires tuning. No Stall (See Fitting notes 1)	2200 - 5000	4502	282	276	218	214	.485"	.485"	113			ZDDP-100	HT969C-16	4833-16	1.700”	11707-16	11701-16	KG819-16	CS8308	PR-964-16	CRHL8167
Performance cam, good driveability and mid range needs exhaust & requires tuning. Benefits with stall. See Fitting notes 1)	2250 - 5350	4651	282	282	222	222	.493"	.493”	114			ZDDP-100	HT969C-16	4833-16	1.700”	11707-16	11701-16	KG819-16	CS8308	PR-964-16	CRHL8167
Hot street cam, wide power range,choppy idle, needs headers, hi stall and tuning. (See Fitting notes 1 & 2)	2500 - 5500	4619-12	286	290	226	232	.505"	.522"	112			ZDDP-100	HT969C-16	4845-16	1.850”	11717-16	4134-16	KG819-16	CS8308	PR-964-16	CRHL8167
Performance cam, good mid range needs exhaust & requires tuning. Benefits with stall. (See Fitting notes 1)	2400 - 5500	4503	289	282	227	220	.486"	.486"	113			ZDDP-100	HT969C-16	4833-16	1.700”	11707-16	11701-16	KG819-16	CS8308	PR-964-16	CRHL8167
Aggressive street cam, idle needs headers, comp hi stall and tuning (See Fitting notes 1 & 2)	2600 - 5600	4761	292	292	230	230	.495"	.495"	109			ZDDP-100	HT969C-16	4833-16	1.700”	11707-16	11701-16	KG819-16	CS8308	PR-964-16	CRHL8167
Aggressive hyd cam, need good breathing & engine combo etc. Requires tuning & hi stall (See Fitting notes 1 & 2)	2700 - 6200	4620	294	294	234	234	.521"	.521"	110			ZDDP-100	HT969C-16	4845-16	1.850”	11717-16	4134-16	KG819-16	CS8308	PR-964-16	CRHL8167
Street /strip hyd cam, medium idle needs heads, headers, hi stall,roller rockers and tuning. (See Fitting notes 1 & 2)	2800 - 6000	4787	284	295	238	246	.535"	.540"	112			ZDDP-100	HT969R-16	4845-16	1.800”	11717-16	4133-16	KG819-16	CS8308	PR-964-16	CRHL8167
HYDRAULIC ROLLER EFI **(ALL CAMS WILL REQUIRE TUNING)**																					
Standard 355 Roller Camshaft. Can be used for mild performance 304ci applications.	1700 - 5500	4003	267	267	207	207	.463"	.463"	112				5208H	4845-16	1.800”	11717-16	4133-16	KG819-16	CS8308	PR-988-16	CRHL8167
Performance cam great mid range, std stall (See Fitting notes 1,2)	1900 - 6300	41318	281	275	218	214	.548	.548	111				5208H	4845-16	1.800”	11717-16	4133-16	KG819-16	CS8308	PR-988-16	CRHL8167
Improved mid/top end power. Twin Cat exhaust for maximum performance. Standard torque converter or 2000 hi stall can be used. (See Fitting notes 1,2)	2000 - 6500	4903	285	279	222	217	.548”	.548”	112				5208H	4845-16	1.800”	11717-16	4133-16	KG819-16	CS8308	PR-988-16	CRHL8167
Improved top end power. Twin Cat exhaust for maximum performance. requires hi stall	2600 - 6500	41753	276	270	229	224	.552"	.544"	112				5208H	7333-16 D	1.800”	11700-16	4134-16	VSV530-16	CS8308	See Notes	CRHL8167
Improved top end power. Twin Cat exhaust for maximum performance. Hi stall req'd, head work	3200 - 6500	41754	288	284	237	230	.559"	.554"	111				5208H	7333-16 D	1.800”	11700-16	4134-16	VSV530-16	CS8308	See Notes	CRHL8167

Note: Springs marked with xxxx-xx^{D} denotes that it is a double spring.

FITTING NOTES: 1. Must use performance springs. 2. Must use performance retainers. 3 Machining required to fit these components. 4. Must use performance seal. 5. Notes 1 to 4 all apply to this part number. 6. Check valve train geometry before ordering pushrod. 7. Pushrod length varied in this model. Check length before ordering. 8. Spring height varies in models, check spring pressure before installation.

FITTING NOTES:

- Converter stall speed should be equal to or greater than the minimum rpm of the cam power range.
- All lash settings quoted are measured hot. • The use of high volume oil pumps may cause premature wear of the distributor gear.

HOLDEN 304/355 V8 VN-VT HEADS. ROCKER RATIO 1.65

CAMS ALSO SUIT 253-308 BLOCKS WITH VN-VT HEADS

Note: Installed heights may vary in every engine. Please check actual height before ordering spring, retainer and lock combinations

Application	RPM Range	Part No.	Adv. Duration		.050" Duration		Valve Lift		LSA		Lash	Oil Additive	Lifters	Valve Spring	Installed Height	Retainer	Locks	Stem Seal	Timing Kit	Pushrods	Rockers
			Intake	Exhaust	Intake	Exhaust	Intake	Exhaust													
HYDRAULIC CARBY																					
Medium idle, strong mid range needs comp, std auto (See Fitting notes 1& 2)	1800 - 4800	4890-8	272	283	212	217	.475"	.483"	108			ZDDP-100	HT969C-16	4833-16	1.700”	11707-16	11701-16	KG819-16	CS8308	PR-964-16	CRHL8167
Hot street cam, choppy idle. Wide power band. Needs headers, carbie, ignition, comp & high stall. (See Fitting notes 1 & 2)	2500 - 5500	4689-8	280	289	222	230	.489"	.495"	108			ZDDP-100	HT969C-16	4833-16	1.700”	11707-16	11701-16	KG819-16	CS8308	PR-964-16	CRHL8167
Hot street cam, mildn idle. Wide power band. Needs headers, carbie, ignition, comp & high stall. (See Fitting notes 1 & 2)	2700 - 5800	4921-8	276	284	227	234	.536"	.556"	108			ZDDP-100	HT969C-16	4845-16	1.850”	11717-16	4134-16	KG819-16	CS8308	PR-964-16	CRHL8167
Aggressive street cam, choppy idle. Wide power band. Needs headers, carbie, ignition, comp & high stall. (See Fitting notes 1 & 2)	2800 - 5800	4761	292	292	230	230	.495"	.495"	109			ZDDP-100	HT969C-16	4833-16	1.700”	11707-16	11701-16	KG819-16	CS8308	PR-964-16	CRHL8167
Aggressive street cam, choppy idle. Wide power band. Needs headers, carbie, ignition, comp & high stall. (See Fitting notes 1 & 2)	2800 - 6200	41424	287	295	231	238	.535"	.538"	110			ZDDP-100	HT969C-16	4845-16	1.850”	11717-16	4134-16	KG819-16	CS8308	PR-964-16	CRHL8167
Aggressive street/strip cam, choppy idle. Needs headers, porting, carbie, ignition, comp & high stall.(See Fitting notes 1 & 2)	2900 - 6200	4649	282	295	234	244	.501"	.501"	108			ZDDP-100	HT969C-16	4833-16	1.700”	11707-16	4133-16	KG819-16	CS8308	PR-964-16	CRHL8167
Street/strip cam, aggresive idle. Needs headers, porting, carbie, ignition,comp, roller rockers & high stall.(See Fitting notes 1 & 2)	3000 - 6500	4747	294	307	236	246	.577"	.586"	107			ZDDP-100	HT969R-16	7333-16 [D]	1.800”	11710-16	4133-16	VSV530-16	CS8308	PR-964-16	CRHL8167
Strong mid/top end. Needs headers, porting, carbie, ignition, roller rockers, comp & high stall.(See Fitting notes 1 & 2)	3000 - 6500	4690	300	310	238	243	.525"	.525"	108			ZDDP-100	HT969R-16	4845-16	1.850”	11717-16	4134-16	KG819-16	CS8308	PR-964-16	CRHL8167
Big performance cam, Needs headers, porting, carbie, ignition, roller rockers, comp & high stall.(See Fitting notes 1 & 2)	3500 - 6500	4802	295	295	246	246	.558”	.558”	108			ZDDP-100	HT969R-16	7333-16 [D]	1.800”	11710-16	4133-16	VSV530-16	CS8308	PR-964-16	CRHL8167
SOLID CARBY																					
Great mid range power , lumpy idle, needs porting, comp, headers carby and hi stall (See Fitting notes 5)	2700 - 6000	4626	278	288	238	244	.534"	.544"	109		IN .024" EX .026"	ZDDP-100	AT992-16	7333-16 [D]	1.800”	11710-16	4133-16	VSV530-16	CS8308	PR-974-16	CRHL8167
Great top end power. lumpy idle, needs porting, comp, headers, carby and hi stall (See Fitting notes 5)	3300 - 6500	4806	281	294	245	255	.538"	.558"	109		IN .018" EX .026"	ZDDP-100	AT992-16	7342-16 [D]	1.800”	11710-16	4133-16	VSV530-16	CS8308	PR-974-16	CRHL8167
Aggressive street/strip cam. Needs all serious engine mods to work (See Fitting notes 5)	3500 - 6700	4746	290	295	252	258	.560"	.585"	109		IN .018" EX .018"	ZDDP-100	AT992L-16	7342-16 [D]	1.800”	11710-16	4133-16	VSV530-16	CS8308	PR5885-110	CRHL8167
Aggressive street/strip cam. Needs all serious engine mods to work (See Fitting notes 5)	3500 - 6700	4731	292	297	253	260	.584"	.597"	108		IN .026" EX .026"	ZDDP-100	AT992L-16	7342-16 [D]	1.800”	11710-16	4133-16	VSV530-16	CS8308	PR5885-110	CRHL8167
Aggressive street/strip cam. Needs all serious engine mods to work (See Fitting notes 5)	4000 - 7200	4794	306	311	265	268	.623"	.623"	107		IN .014" EX .016"	ZDDP-100	AT992L-16	7342-16 [D]	1.800”	11710-16	4133-16	VSV530-16	CS8308	PR5885-110	CRHL8167

FITTING NOTES: 1. Must use performance springs. 2. Must use performance retainers. 3 Machining required to fit these components.
4. Must use performance seal. 5. Notes 1 to 4 all apply to this part number. 6. Check valve train geometry before ordering pushrod.
7. Pushrod length varied in this model. Check length before ordering. 8. Spring height varies in models, check spring pressure before installation.

FITTING NOTES:
- Converter stall speed should be equal to or greater than the minimum rpm of the cam power range.
- All lash settings quoted are measured hot. • The use of high volume oil pumps may cause premature wear of the distributor gear.

HOLDEN 304/355 V8 WITH VN-VT EFI HEADS ROCKER RATIO 1.65

TIGHT LOBE CENTERS SUIT CARBY ENGINES. FOR EFI, REFER TO YOUR TUNER. CAMS ALSO SUIT 253-308 BLOCKS WITH VN-VT EFI HEADS

Note: Installed heights may vary in every engine. Please check actual height before ordering spring, retainer and lock combinations

Application	RPM Range	Part No.	Adv. Duration		.050" Duration		Valve Lift		LSA		Lash	Oil Additive	Lifters	Valve Spring	Installed Height	Retainer	Locks	Stem Seal	Timing Kit	Pushrods	Rockers
			Intake	Exhaust	Intake	Exhaust	Intake	Exhaust													
HYDRAULIC ROLLER CARBY																					
Mild street application, std stall converter. Works better with increased compression	1700 - 5300	4757	280	280	214	218	.513"	.513"	110				5208H	4845-16	1.850”	11717-16	4134-16	KG819-16	CS8308	PR-964-16	CRHL8167
Mild performance cam. Great bottom end & mid range. Choppy idle, needs manifold, headers,comp and hi stall. (See Fitting notes 5)	2000 - 5700	41330	275	282	220	227	.541"	.551"	110				5208H	7333-16 [D]	1.800”	11710-16	4133-16	VSV530-16	CS8308	See Notes	CRHL8167
Performance cam great mid range, choppy idle need manifold, headers, comp and hi stall (See Fitting notes 5)	2800 - 6200	41433	297	303	228	238	.607"	.603"	110				5208H	7342-16 [D]	1.800”	11710-16	4133-16	VSV530-16	CS8308	See Notes	CRHL8167
Performance cam great mid range, choppy idle need manifold, headers, hi stall and comp. (See Fitting notes 5)	3200 - 6400	41315-8	303	307	238	244	.568"	.568"	108				5208H	7342-16 [D]	1.800”	11710-16	4133-16	VSV530-16	CS8308	See Notes	CRHL8167
Performance cam aggressive idle excellent mid range needs comp, heads, manifold, headers and hi stall (See Fitting notes 5)	3300 - 6200	41719	295	315	238	243	.585"	.621"	107				5208H	7342-16 [D]	1.800”	11710-16	4133-16	VSV530-16	CS8308	See Notes	CRHL8167
Performance cam good mid to upper RPM range, Choppy idle needs comp, heads, manifold, headers and hi stall (See Fitting notes 5)	3500 - 6800	41725	307	312	242	246	.623"	.623"	109				5208H	7342-16 [D]	1.800”	11710-16	4133-16	VSV530-16	CS8308	See Notes	CRHL8167
Performance cam good mid to upper RPM range, choppy idle needs comp, heads, manifold, headers and hi stall (See Fitting notes 5)	3700 - 7000	41571	310	310	246	246	.627"	.627"	110				5208H	7342-16 [D]	1.800”	11710-16	4133-16	VSV530-16	CS8308	See Notes	CRHL8167
Suits 355+cubes great upper RPM range, choppy idle. needs comp, heads, manifold, headers and hi stall (See Fitting notes 5)	3800 - 7000	41435-8	317	326	249	258	.570"	.570"	108				5208H	7342-16 [D]	1.800”	11710-16	4133-16	VSV530-16	CS8308	See Notes	CRHL8167
SOLID ROLLER CARBY																					
Small street roller, heaps of bottom end torque, Low lift, soft on valve springs. Needs comp, heads, manifold, headers and hi stall (See Fitting notes 5)	2800 - 5800	4969	270	280	233	240	.544"	.544"	110		IN .016" EX .016"		5208	7333-16 [D]	1.800”	11710-16	4133-16	VSV530-16	CS8308	See Notes	
Street roller, Great mid range torque. needs comp, heads, manifold, headers and hi stall (See Fitting notes 5)	3200 - 6400	41551	278	284	245	251	.621"	.621”	107		IN .016" EX .016"		5208	4910-16 [D]	2.000”	13101-16	11101-16	VSV530-16	CS8308	See Notes	
Street/strip application needs comp, heads, manifold, headers & hi stall (See Fitting notes 5)	3500 - 6800	41301	286	295	252	260	.596"	.596"	108		IN .018" EX .018"		5208	4910-16 [D]	2.000”	13101-16	11101-16	VSV530-16	CS8308	See Notes	
Street/strip application Needs all serious engine mods to work well. (See Fitting notes 5)	3600 - 7000	41482	290	294	252	257	.666"	.666"	113		IN .016" EX .016"		5208	4920-16 [D]	2.000”	13101-16	11101-16	VSV530-16	CS8308	See Notes	
Street/strip application, Needs all serious engine mods to work well. (See Fitting notes 5)	3800 - 7200	4754	295	298	257	262	.660"	.677"	106		IN .016" EX .016"		5208	4920-16 [D]	2.000”	13101-16	11101-16	VSV530-16	CS8308	See Notes	
Suits 355+cubes great upper RPM range, Needs all serious engine mods to work well (See Fitting notes 5)	4000 - 7200	41492	300	306	262	268	.623"	.623"	107		IN .018" EX .020"		5208	4920-16 [D]	2.000”	13101-16	11101-16	VSV530-16	CS8308	See Notes	

FITTING NOTES: 1. Must use performance springs. 2. Must use performance retainers. 3 Machining required to fit these components.
4. Must use performance seal. 5. Notes 1 to 4 all apply to this part number. 6. Check valve train geometry before ordering pushrod.
7. Pushrod length varied in this model. Check length before ordering. 8. Spring height varies in models, check spring pressure before installation.

FITTING NOTES:
- Converter stall speed should be equal to or greater than the minimum rpm of the cam power range.
- All lash settings quoted are measured hot. • The use of high volume oil pumps may cause premature wear of the distributor gear.

HOLDEN/CHEV LS V8 3 BOLT CAMSHAFTS ROCKER RATIO 1.70

Spring kit includes items marked in black (Order as Kit or Individually)

Application	RPM Range	Part No.	Adv. Duration In	Adv. Duration Ex	.050" Dur In	.050" Dur Ex	Valve Lift In	Valve Lift Ex	LSA		Installed Height	Parts Kit	Valve Spring	Retainer	Locks	Stem Seal	Lifters (See Notes)	Timing Kit	Pushrods (See Notes)	Rocker Upgrade
EFI GRINDS ALL CAMSHAFTS IN THIS SECTION REQUIRE ECU TUNING & VALVE SPRING UPGRADES CROW CAMS *FAT LOBE* CAMSHAFTS PRODUCE GREATER AMOUNTS OF TORQUE OVER A WIDE POWER BAND.																				
Small Street cam. Increased low-mid range torque & power. Minimum effect on fuel economy. Mild idle. No high stall req'd Suit Rectangular port heads. (See Fitting note 1)	1500 - 6000	871780-14	264	285	203	219	.551"	.555"	114		1.780"	VTKLS1	4231-16	10707-16	10701-16	VSV900-8 VSV901-8	5250	See Pg 68	PR-957-16	CRCLSBUSH
Increased low - mid range min effect on economy. Mild Idle No high stall req'd Suits cathedral or rectangular heads. (See Fitting note 1)	1500 - 6000	871265	268	275	212	219	.519"	.528"	114		1.780"	VTKLS1	4231-16	10707-16	10701-16	VSV900-8 VSV901-8	5250	See Pg 68	PR-957-16	CRCLSBUSH
Street cam, Good mid range power, Mild idle No high stall req'd Suits cathedral or rectangular heads. (See Fitting note 1 & 2)	1800 - 6000	871208	271	276	216	222	.595"	.595"	112		1.780"	VTKLS8	4438-16 D	10708-16	10701-16	VSV900VTEX-16	5250	See Pg 68	PR-957-16	CRCLSBUSH
Street cam, Good mid range power, Mild idle No high stall req'd Suits cathedral or rectangular heads. (See Fitting note 1 & 2)	1800 - 6200	871384-14	278	285	216	223	.559"	.559"	114		1.780"	VTKLS8	4438-16 D	10708-16	10701-16	VSV900VTEX-16	5250	See Pg 68	PR-957-16	CRCLSBUSH
Strong low-mid range cam, Tough idle No high stall req'd Suits cathedral or rectangular heads. (See Fitting note 1 & 2)	1900 - 6200	871247	272	286	219	227	.580"	.587"	112		1.780"	VTKLS8	4438-16 D	10708-16	10701-16	VSV900VTEX-16	5250	See Pg 68	PR-957-16	CRCLSBUSH
Mild performance cam, Great low down torque & mid range. Mild idle No high stall req'd Suits cathedral or rectangular heads. (See Fitting note 1 & 2)	1900 - 6200	871202	282	292	220	225	.556"	.562"	114		1.780"	VTKLS1	4231-16	10707-16	10701-16	VSV900-8 VSV901-8	5250	See Pg 68	PR-957-16	CRCLSBUSH
Mild performance cam, Great low down torque & mid range. Mild idle No high stall req'd Suits cathedral or rectangular heads. (See Fitting note 1 & 2)	2000 - 6200	871732	278	279	221	221	.595"	.596"	114		1.780"	VTKLS8	4438-16 D	10708-16	10701-16	VSV900VTEX-16	5250	See Pg 68	PR-957-16	CRCLSBUSH
Great street cam. Can be used for boosted applications Great low down torque & mid range. Mild idle No high stall req'd. **Large split cam designed for rectangular heads.** (See Fitting note 1 & 2) 6.0/6.2 engine only	2000 - 6200	871286	275	292	221	238	.580"	.581"	115		1.780"	VTKLS8	4438-16 D	10708-16	10701-16	VSV900VTEX-16	5250	See Pg 68	PR-957-16	CRCLSBUSH
Big lift street cam, Good mid range torque. Tough idle May require stall converter, Check with tuner Suits cathedral for rectangular heads. (See Fitting note 1 & 2)	2100 - 6200	871730	281	287	222	230	.613"	.612"	114		1.780"	VTKLS8	4438-16 D	10708-16	10701-16	VSV900VTEX-16	5250	See Pg 68	PR-957-16	CRCLSBUSH
Moderate lift street cam, Good mid range power and torque. Tough idle May require stall converter, Check with tuner Suits cathedral or rectangular heads. (See Fitting note 1 & 2)	2200 - 6200	871270	277	281	223	228	.580"	.584"	114		1.780"	VTKLS8	4438-16 D	10708-16	10701-16	VSV900VTEX-16	5250	See Pg 68	PR-957-16	CRCLSBUSH
Big lift street cam, Good mid range power and torque. Tough idle May require stall converter, Check with tuner Suits cathedral or rectangular heads. (See Fitting note 1 & 2)	2300 - 6200	871229	280	286	224	230	.610"	.610"	114		1.780"	VTKLS8	4438-16 D	10708-16	10701-16	VSV900VTEX-16	5250	See Pg 68	PR-957-16	CRCLSBUSH
Performance cam, High acceleration rate great power gains. Aggresive idle Requires stall converter, Check with tuner Suits cathedral or rectangular heads. (See Fitting note 1 & 2)	2300 - 6200	871248	278	303	226	234	.578"	.591"	112		1.780"	VTKLS8	4438-16 D	10708-16	10701-16	VSV900VTEX-16	5250	See Pg 68	PR-957-16	CRCLSBUSH

Note: Springs marked with xxxx-xx D denotes that it is a double spring.

FITTING NOTES:
- Converter stall speed should be equal to or greater than the minimum rpm of the cam power range.
- All lash settings quoted are measured hot. • The use of high volume oil pumps may cause premature wear of the distributor gear.

FITTING NOTES: 1. Must use performance springs. 2. Must use performance retainers. 3 Machining required to fit these components. 4. Must use performance seal. 5. Notes 1 to 4 all apply to this part number. 6. Check valve train geometry before ordering pushrod. 7. Pushrod length varied in this model. Check length before ordering. 8. Spring height varies in models, check spring pressure before installation.

HOLDEN/CHEV LS V8 3 BOLT CAMSHAFTS ROCKER RATIO 1.70

Application	RPM Range	Part No.	Adv. Duration		.050" Duration		Valve Lift		LSA		Installed Height	Spring kit includes items marked in black (Order as Kit or Individually)							
			In	Ex	In	Ex	In	Ex				Parts Kit	Valve Spring	Retainer	Locks	Stem Seal	Lifters (See Notes)	Timing Kit	Pushrods (See Notes)	Rocker Upgrade
Tough street cam, Big power and torque gains. Aggressie idle. Most popular LS1 grind. May require stall converter, Check with tuner Suits cathedral or rectangular heads. (See Fitting note 1 & 2)	2400 - 6300	871249	277	284	226	232	.608"	.602"	112		1.780"	VTKLS8	4438-16 D	10708-16	10701-16	VSV900VTEX-16	5250	See Pg 68	PR-957-16	CRCLSBUSH
Tough street cam, Big power and torque gains. Tough idle May require stall converter, Check with tuner Suits cathedral or rectangular heads. (See Fitting note 1 & 2)	2400 - 6300	871777	277	284	226	236	.607"	.617"	113		1.780"	VTKLS8	4438-16 D	10708-16	10701-16	VSV900VTEX-16	5250	See Pg 68	PR-957-16	CRCLSBUSH
Performance street cam, Great mid range torque. Aggresive idle May require stall converter, Check with tuner Suits cathedral or rectangular heads. (See Fitting note 1 & 2)	2500 - 6300	871298	269	275	227	233	.609"	.601"	112		1.780"	VTKLS8	4438-16 D	10708-16	10701-16	VSV900VTEX-16	5250	See Pg 68	PR-957-16	CRCLSBUSH
Big lift cam, High acceleration. Gives max performance without losing bottom end. Tough idle Requires stall converter, **Large split cam designed for rectangular heads.** (See Fitting note 1 & 2)	2500 - 6400	871287	278	296	227	244	.607"	.610"	114		1.780"	VTKLS8	4438-16 D	10708-16	10701-16	VSV900VTEX-16	5250	See Pg 68	PR5740-110	CRCLSBUSH
Aggressive high lift performance cam. Requires stall converter, Suits cathedral or rectangular heads. (See Fitting note 1 & 2)	2500 - 6300	871729	284	292	228	235	.610"	.610"	114		1.780"	VTKLS8	4438-16 D	10708-16	10701-16	VSV900VTEX-16	5250	See Pg 68	PR5740-110	CRCLSBUSH
Lumpy street cam. High acceleration rate, great power gains. Aggresive idle. Easy on valve springs for sustained high rpm. Requires stall converter, Suits cathedral or rectangular heads. (See Fitting note 1 & 2)	2600 - 6300	871223	293	304	229	235	.584"	.585"	112		1.780"	VTKLS8	4438-16 D	10708-16	10701-16	VSV900VTEX-16	5250	See Pg 68	PR5740-110	CRCLSBUSH
Big lift street cam Great acceleration rate with big top end power Agressive idle Requires stall converter, Suits cathedral or rectangular heads. (See Fitting note 1 & 2)	2600 - 6300	871212	281	282	229	232	.611"	.614"	112		1.780"	VTKLS8	4438-16 D	10708-16	10701-16	VSV900VTEX-16	5250	See Pg 68	PR5740-110	CRCLSBUSH
Lumpy street cam, High acceleration rate with big top end power Agressive idle Requires stall converter, Suits cathedral or rectangular heads. (See Fitting note 1 & 2)	2700 - 6300	871266	285	288	232	233	.610"	.603"	112		1.780"	VTKLS8	4438-16 D	10708-16	10701-16	VSV900VTEX-16	5250	See Pg 68	PR5740-110	CRCLSBUSH
Lumpy low lift street cam, Strong mid and top end power. Agressive idle. Easy on valve springs for sustained high rpm Requires stall converter, Suits cathedral or rectangular heads. (See Fitting note 1 & 2)	2700 - 6300	871215	297	302	232	234	.584"	.582"	112		1.780"	VTKLS8	4438-16 D	10708-16	10701-16	VSV900VTEX-16	5250	See Pg 68	PR5740-110	CRCLSBUSH
Lumpy street cam, High acceleration rate. Strong mid to top end power range. Agressive idle Requires stall converter, Suits cathedral or rectangular heads. (See Fitting note 1 & 2)	2700 - 6400	871296	286	290	232	237	.612"	.604"	112		1.780"	VTKLS8	4438-16 D	10708-16	10701-16	VSV900VTEX-16	5250	See Pg 68	PR5740-110	CRCLSBUSH
Street / strip cam, Very strong mid range and top end. Agressive idle . Requires stall converter, Suits cathedral or rectangular heads. (See Fitting note 1 & 2)	2700 - 6400	871285	291	296	234	238	.595"	.595"	114		1.780"	VTKLS8	4438-16 D	10708-16	10701-16	VSV900VTEX-16	5250	See Pg 68	PR5740-110	CRCLSBUSH
Aggressive street cam, Great mid to upper power gains. Agressive idle Requires stall converter, Suits cathedral or rectangular heads. (See Fitting note 1 & 2)	2700 - 6400	871250	294	302	234	241	.608"	.609"	113		1.780"	VTKLS8	4438-16 D	10708-16	10701-16	VSV900VTEX-16	5250	See Pg 68	PR5740-110	CRCLSBUSH

Note: Springs marked with xxxx-xx D denotes that it is a double spring.

FITTING NOTES: 1. Must use performance springs. 2. Must use performance retainers. 3 Machining required to fit these components.
4. Must use performance seal. 5. Notes 1 to 4 all apply to this part number. 6. Check valve train geometry before ordering pushrod.
7. Pushrod length varied in this model. Check length before ordering. 8. Spring height varies in models, check spring pressure before installation.

FITTING NOTES:
- Converter stall speed should be equal to or greater than the minimum rpm of the cam power range.
- All lash settings quoted are measured hot. • The use of high volume oil pumps may cause premature wear of the distributor gear.

HOLDEN/CHEV LS V8 3 BOLT CAMSHAFTS ROCKER RATIO 1.70

Spring kit includes items marked in black (Order as Kit or Individually)

Application	RPM Range	Part No.	Adv. Duration		.050" Duration		Valve Lift		LSA		Installed Height	Parts Kit	Valve Spring	Retainer	Locks	Stem Seal	Lifters (See Notes)	Timing Kit	Pushrods (See Notes)	Rocker Upgrade
			In	Ex	In	Ex	In	Ex												
Wide power range. Agressive idle Requires stall converter, **Works best with ported heads and CAI/OTR** **Large split cam designed for rectangular heads** (See Fitting note 1 & 2)	2700 - 6500	871288	287	392	234	250	.610"	.610"	114		1.780"	VTKLS8	4438-16 D	10708-16	10701-16	VSV900VTEX-16	5250	See Pg 68	PR5740-110	CRCLSBUSH
Great mid to upper RPM gains. Agressive idle Requires stall converter, **Works best with ported heads and CAI/OTR** Suits cathedral or rectangular heads. (See Fitting note 1 & 2)	2700 - 6400	871251	292	296	235	243	.593"	.610"	113		1.780"	VTKLS8	4438-16 D	10708-16	10701-16	VSV900VTEX-16	5250	See Pg 68	PR5740-110	CRCLSBUSH
Street/strip cam, Wide power range. Agressive idle, Works best with ported heads and CAI/OTR Requires stall converter, **Large split cam designed for rectangular heads** (See Fitting note 1 & 2)	2800 - 6500	871289	295	319	238	254	.614"	.614"	113		1.780"	VTKLS8	4438-16 D	10708-16	10701-16	VSV900VTEX-16	5250	See Pg 68	PR5740-110	CRCLSBUSH
Aggressive idle. Requires stall converter, **Works best with ported heads and CAI/OTR** Suits cathedral or rectangular heads. (See Fitting note 1 & 2)	2900 - 6400	871232	293	294	239	242	.585"	.590"	114		1.780"	VTKLS8	4438-16 D	10708-16	10701-16	VSV900VTEX-16	5250	See Pg 68	PR5740-110	CRCLSBUSH
Strong top end performance. Agressive idle **Works best with ported heads and CAI/OTR.** **Requires stall converter,** **Suits cathedral or rectangular heads.** **(See Fitting note 1 & 2)**	2900 - 6600	871252	301	302	239	244	.614"	.614"	114		1.780"	VTKLS8	4438-16 D	10708-16	10701-16	VSV900VTEX-16	5250	See Pg 68	PR5740-110	CRCLSBUSH
Big lift. Large split aggressive duration cam. Requires stall converter, **Works best with ported heads and CAI/OTR** **Large split cam designed for rectangular heads.** (See Fitting note 1 & 2)	2900 - 6600	871290	301	321	239	256	.614"	.610"	114		1.780"	VTKLS8	4438-16 D	10708-16	10701-16	VSV900VTEX-16	5250	See Pg 68	PR5740-110	CRCLSBUSH
Big lift. Small split aggressive duration cam Strong top end performance **Works best with ported heads and CAI/OTR** Requires stall converter, **Suits cathedral or rectangular heads.** (See Fitting note 1 & 2)	3000 - 6600	871741	309	306	242	245	.623"	.623"	112		1.780"	VTKLS8	4438-16 D	10708-16	10701-16	VSV900VTEX-16	5250	See Pg 68	PR5740-110	CRCLSBUSH
Race cam, For big cube stroker engine. **Works best with ported heads and CAI/OTR** **Large split cam designed for rectangular heads** Requires stall converter, (See Fitting note 1 & 2)	3000 - 7200	871291	311	340	244	261	.621"	.616"	114		1.780"	VTKLS8	4438-16 D	10708-16	10701-16	VSV900VTEX-16	5250	See Pg 68	PR5740-110	CRCLSBUSH
Race cam, Strong top end performance. **Works best with stroker engines, ported heads and CAI/OTR** **Large split cam designed for rectangular heads** Requires stall converter, (See Fitting note 1 & 2)	3000 - 7200	871253	307	325	245	262	.615"	.615"	114		1.780"	VTKLS8	4438-16 D	10708-16	10701-16	VSV900VTEX -16	5250	See Pg 68	PR5740-110	CRCLSBUSH

FITTING NOTES: 1. Must use performance springs. 2. Must use performance retainers. 3 Machining required to fit these components.
4. Must use performance seal. 5. Notes 1 to 4 all apply to this part number. 6. Check valve train geometry before ordering pushrod.
7. Pushrod length varied in this model. Check length before ordering. 8. Spring height varies in models, check spring pressure before installation.

FITTING NOTES:
- Converter stall speed should be equal to or greater than the minimum rpm of the cam power range.
- All lash settings quoted are measured hot. • The use of high volume oil pumps may cause premature wear of the distributor gear.

HOLDEN/CHEV LS V8 3 BOLT CAMSHAFTS ROCKER RATIO 1.70

Application	RPM Range	Part No.	Adv. Duration In	Adv. Duration Ex	.050" Duration In	.050" Duration Ex	Valve Lift In	Valve Lift Ex	LSA		Installed Height	Spring kit includes items marked in black (Order as Kit or Individually) Parts Kit	Valve Spring	Retainer	Locks	Stem Seal	Lifters (See Notes)	Timing Kit	Pushrods (See Notes)	Rocker Upgrade
SUPERCHARGER / TURBO GRINDS																				
Street cam, Good low mid range power, Smooth idle No high stall req'd Suits cathedral or rectangular heads. (See Fitting note 1 & 2)	1800 - 6500	871384SC	278	285	216	223	.580"	. 584"	117		1.780"	VTKLS9	4439-16 D	10708-16	10701-16	VSV900VTEX-16	5250	See Pg 68	PR5740-110	CRCLSBUSH
Street cam, Good mid range power, Mild idle No high stall req'd Suits cathedral or rectangular heads. (See Fitting note 1 & 2)	2000 - 6500	871730SC	281	287	222	230	.613"	.612"	116		1.780"	VTKLS9	4439-16 D	10708-16	10701-16	VSV900VTEX-16	5250	See Pg 68	PR5740-110	CRCLSBUSH
Street/Strip twin turbo cam for medium to high boost engines. Excellent mid range power and torque. May require stall converter, Check with tuner Suits cathedral or rectangular heads. (See Fitting notes 1, 2)	3000 - 6800	871745	278	289	224	236	.612"	.620"	115		1.780"	VTKLS9	4439-16 D	10708-16	10701-16	VSV900VTEX-16	5250	See Pg 68	PR5740-110	CRCLSBUSH
Street cam for medium boost engines. Great power and torque through wide RPM range May require stall converter, Check with tuner **Large split cam designed for rectangular heads** (See Fitting notes 1, 2)	2200 - 6500	871292	276	296	225	244	.607"	.607"	115		1.780"	VTKLS9	4439-16 D	10708-16	10701-16	VSV900VTEX-16	5250	See Pg 68	PR5740-110	CRCLSBUSH
Street twin turbo cam for mild boost applications. Wide power and torque range (See Fitting notes 1, 2)	2700 - 6900	871295	280	285	227	231	.609"	.602"	114		1.780"	VTKLS9	4439-16 D	10708-16	10701-16	VSV900VTEX-16	5250	See Pg 68	PR5740-110	CRCLSBUSH
Street/Strip twin turbo cam for medium to high boost engines. Excellent mid range power and torque. Suits cathedral or rectangular heads. (See Fitting notes 1, 2)	2800 - 6900	871239	286	291	232	235	.613"	.622"	115		1.780"	VTKLS9	4439-16 D	10708-16	10701-16	VSV900VTEX-16	5250	See Pg 68	PR5740-110	CRCLSBUSH
Street / Race cam suits high boost twin turbo engines. Great mid to high end Power and torque, **Large split cam designed for rectangular heads** (See Fitting notes 1, 2)	3000 - 7000	871260	271	284	233	245	.615"	.623"	116		1.780"	VTKLS9	4439-16 D	10708-16	10701-16	VSV900VTEX-16	5250	See Pg 68	PR5740-110	CRCLSBUSH
Twin turbo Street Race cam for high boost engines. Great top end power and torque **Large split cam designed for rectangular heads** (See Fitting notes 1, 2 & 4)	2800 - 7000	871242T	294	303	238	250	.598"	.612"	116		1.780"	VTKLS9	4439-16 D	10708-16	10701-16	VSV900VTEX-16	5250	See Pg 68	PR5740-110	CRCLSBUSH
Supercharged street / strip cam. Great mid range and top end power **Large split cam designed for rectangular heads** (See Fitting notes 1, 2 & 4)	3000 - 7000	871293	294	303	238	250	.598"	.612"	114		1.780"	VTKLS9	4439-16 D	10708-16	10701-16	VSV900VTEX-16	5250	See Pg 68	PR5740-110	CRCLSBUSH
Streetable supercharged camshaft. Wide torque band, big top end power. Moderate lift, Easy on valve train. (See Fitting notes 1, 2 & 4)	3000 - 6800	871294	292	294	240	243	.581"	.585"	115		1.780"	VTKLS9	4439-16 D	10708-16	10701-16	VSV900VTEX-16	5250	See Pg 68	PR5740-110	CRCLSBUSH
REVERSE SPLIT SUPERCHARGER / TURBO GRINDS																				
Reverse split cam suitable for mild street single turbo applications. (See Fitting notes 1, 2 & 4)	2000 - 6000	871753	276	270	229	224	.570"	.561"	116		1.780"	VTKLS9	4439-16 D	10708-16	10701-16	VSV900VTEX-16	5250	See Pg 68	PR5740-110	CRCLSBUSH
Reverse split cam for high boost single turbo applications. (See Fitting notes 1, 2 & 4)	2500 - 6500	871754-15	284	276	237	230	.578"	.571"	115		1.780"	VTKLS9	4439-16 D	10708-16	10701-16	VSV900VTEX-16	5250	See Pg 68	PR5740-110	CRCLSBUSH
Street / Race reverse split single turbo cam suit high boost. Strong top end power. (See Fitting notes 1, 2 & 4)	2600 - 7000	871296R	290	286	237	232	.604"	.612"	115		1.780"	VTKLS9	4439-16 D	10708-16	10701-16	VSV900VTEX-16	5250	See Pg 68	PR5740-110	CRCLSBUSH

FITTING NOTES: 1. Must use performance springs. 2. Must use performance retainers. 3 Machining required to fit these components.
4. Must use performance seal. 5. Notes 1 to 4 all apply to this part number. 6. Check valve train geometry before ordering pushrod.
7. Pushrod length varied in this model. Check length before ordering. 8. Spring height varies in models, check spring pressure before installation.

FITTING NOTES:
- Converter stall speed should be equal to or greater than the minimum rpm of the cam power range.
- All lash settings quoted are measured hot. • The use of high volume oil pumps may cause premature wear of the distributor gear.

HOLDEN/CHEV LSA ENGINE ROCKER RATIO 1.70

Spring kit includes items marked in black (Order as Kit or Individually)

Application	RPM Range	Part No.	Adv. Duration In	Adv. Duration Ex	.050" Duration In	.050" Duration Ex	Valve Lift In	Valve Lift Ex	LSA		Installed Height	Parts Kit	Valve Spring	Retainer	Locks	Stem Seal	Lifters (See Notes)	Timing Kit	Pushrods (See Notes)	Rocker Upgrade
SUPERCHARGED LSA ENGINE																				
Smooth idle, Strong lower/mid range torque. Suit standard auto or manual. (See Fitting notes 1 & 2)	1800 - 6300	871279SC	267	302	215	249	.631"	.631"	121		1.780"	VTKLS8	4438-16 [D]	10708-16	10701-16	VSV900VTEX-16	5250	CS8LSA-SR CS8LSA	PR5740-110	CRCLSBUSH
Mild idle, Very strong low/ mid range torque and top end power. Suit standard auto or manual. (See Fitting notes 1 & 2)	2000 - 6500	871744SC	271	286	219	236	.608"	.620"	118		1.780"	VTKLS8	4438-16 [D]	10708-16	10701-16	VSV900VTEX-16	5250	CS8LSA-SR CS8LSA	PR5740-110	CRCLSBUSH
Mild idle, Strong mid/upper torque. Suit standard auto or manual. (See Fitting notes 1 & 2)	2200 - 6500	871286SC	275	292	221	238	.581"	.583"	119		1.780"	VTKLS8	4438-16 [D]	10708-16	10701-16	VSV900VTEX-16	5250	CS8LSA-SR CS8LSA	PR5740-110	CRCLSBUSH
Mild idle, Broad Torque curve with good top end power. Suit standard auto or manual. (See Fitting notes 1 & 2)	2400 - 6500	871777SC	277	284	226	236	.607"	.617"	116.5		1.780"	VTKLS8	4438-16 [D]	10708-16	10701-16	VSV900VTEX-16	5250	CS8LSA-SR CS8LSA	PR5740-110	CRCLSBUSH
Great cam for low to medium boost engines. Power and torque through wide RPM range. Suit standard auto or manual. (See Fitting notes 1, 2)	2500 - 6500	871292SC	276	296	227	244	.607"	.607"	118		1.780"	VTKLS8	4438-16 [D]	10708-16	10701-16	VSV900VTEX-16	5250	CS8LSA-SR CS8LSA	PR5740-110	CRCLSBUSH
Large duration cam for medium to high end performance. Will require hi stall in automatic. (See Fitting notes 1, 2)	2800 - 7000	871765SC	286	302	232	246	.614"	.601"	120		1.780"	VTKLS8	4438-16 [D]	10708-16	10701-16	VSV900VTEX-16	5250	CS8LSA-SR CS8LSA	PR5740-110	CRCLSBUSH
Large duration cam for Medium to high boost engines. Excellent mid range to high RPM power and torque. Will require hi stall in automatic. (See Fitting notes 1, 2)	3000 - 7000	871288SC	289	298	234	249	.610"	.610"	118		1.780"	VTKLS8	4438-16 [D]	10708-16	10701-16	VSV900VTEX-16	5250	CS8LSA-SR CS8LSA	PR5740-110	CRCLSBUSH

FITTING NOTES: 1. Must use performance springs. 2. Must use performance retainers. 3 Machining required to fit these components.
4. Must use performance seal. 5. Notes 1 to 4 all apply to this part number. 6. Check valve train geometry before ordering pushrod.
7. Pushrod length varied in this model. Check length before ordering. 8. Spring height varies in models, check spring pressure before installation.

FITTING NOTES:
- Converter stall speed should be equal to or greater than the minimum rpm of the cam power range.
- All lash settings quoted are measured hot. • The use of high volume oil pumps may cause premature wear of the distributor gear.

HOLDEN/CHEV LS V8 3 BOLT CAMSHAFTS ROCKER RATIO 1.70

Application	RPM Range	Part No.	Adv. Duration In	Adv. Duration Ex	.050" Duration In	.050" Duration Ex	Valve Lift In	Valve Lift Ex	LSA		Installed Height	Spring kit includes items marked in black (Order as Kit or Individually): Parts Kit	Valve Spring	Retainer	Locks	Stem Seal	Lifters (See Notes)	Timing Kit	Pushrods (See Notes)	Rocker Upgrade
AFM PERFORMANCE V8 CAM 2009 - ON PART NO. 871AFM3BG CONVERTS TO 3 BOLT CAM STYLE																				
Performance Cam for V8 AFM (Active Fuel Management) Engines. Expected performance increase of 15%. For use with Factory Valve Springs only. Will have a noticeable idle.	1800 - 6000	871AFM3BG	This cam is a performance replacement cam for AFM engines. It retains AFM lifters and AFM program but requires tuning to match performance specification. Supplied with 3 Bolt Conversion Gear & ARP Cam Bolts(134-1003). Uses factory Valve Springs Camshaft specifications at .050" Duration: Intake Mid 220. Exhaust Low 230. 115LSA. We recommend repalcing lifter guides when fitting this camshaft.								1.780"	Standard	Standard	Standard	Standard	Standard	5263AFM	Standard	Standard	Standard
LS CARBY CONVERSION GRINDS PISTON TO VALVE CLEARANCE MUST BE CHECKED.																				
Mild performance cam, Great low down torque & mid range. Needs springs (See Fitting note 1 & 2) Suits Carby conversions	2000 - 6200	871202C	282	292	220	225	.556"	.563"	108		1.780"	VTKLS8	4438-16 D	10708-16	10701-16	VSV900VTEX-16	5250	See Pg 68	PR-957-16* PR5740-110	CRCLSBUSH
Good street cam, Solid mid range torque. Needs valve springs (See Fitting note 1 & 2) Suits Carby conversions	2000 - 6400	871730C	281	287	222	230	.613"	.612"	109		1.780"	VTKLS8	4438-16 D	10708-16	10701-16	VSV900VTEX-16	5250	See Pg 68	PR-957-16* PR5740-110	CRCLSBUSH
Lumpy street cam, High acceleration rate great power gains need valve springs and exhaust. (See Fitting note 1 & 2) Suits Carby conversions	2400 - 6500	871223C	286	295	228	234	.586"	.586"	108		1.780"	VTKLS8	4438-16 D	10708-16	10701-16	VSV900VTEX-16	5250	See Pg 68	PR-957-16* PR5740-110	CRCLSBUSH
Aggressive street cam, Great mid to upper power gains. Needs pipes & valve springs. (See Fitting note 1 & 2) Suits Carby conversions	2500 - 6700	871285C	289	297	233	237	.595"	.595"	108		1.780"	VTKLS8	4438-16 D	10708-16	10701-16	VSV900VTEX-16	5250	See Pg 68	PR-957-16* PR5740-110	CRCLSBUSH
LS CUSTOM SOLID ROLLER CAMS AVAILABLE SEE PG 126 FOR AVAILABLE LS GRINDS.																				
Durations from 231 - 277 @ .050" Big lift profiles from .641" to .741" @ 1.7 RR. Your choice of lobe separation angle.		871950	This cam is a performance camshaft to suit solid roller LS conversions. Talk to our technical department about your requirements.								1.800"		1335-16 D	TR432-16	10701-16		5261	See Pg 68	See Fitting Note No.7	N/A

FITTING NOTES: 1. Must use performance springs. 2. Must use performance retainers. 3 Machining required to fit these components.
4. Must use performance seal. 5. Notes 1 to 4 all apply to this part number. 6. Check valve train geometry before ordering pushrod.
7. Pushrod length varied in this model. Check length before ordering. 8. Spring height varies in models, check spring pressure before installation.

FITTING NOTES:
- Converter stall speed should be equal to or greater than the minimum rpm of the cam power range.
- All lash settings quoted are measured hot. • The use of high volume oil pumps may cause premature wear of the distributor gear.

HIGH PERFORMANCE TIMING SETS

HIGH PERFORMANCE TIMING CHAIN SETS

Featuring hardened teeth for durability and multi keyway for precise cam timing.

Part Number	Application	Triggers	Type	Chain Part Number
CS8LS1	Holden LS1 3 bolt. Double row	**No Triggers**	Double	**3DR 60-IWIS**
CS8LS1-SR	Holden LS1 3 bolt. Single row	**No Triggers**	Single	**3SR 60-IWIS**
CS8LS2	Holden LS2 3 bolt. Double Row Single Trigger	**1 Trigger**	Double	**3DR 60-IWIS**
CS8LS2-SR	Holden LS2 3 bolt. Single row Single Trigger	**1 Trigger**	Single	**3SR 60-IWIS**
CS8LS7	Holden LS7 3 bolt. Double row 4 Trigger	**4 Triggers**	Double	**3DR 60-IWIS**
CS8LS7-SR	Holden LS7 3 bolt. Single row 4 Trigger	**4 Triggers**	Single	**3SR 60-IWIS**
CS8LS7-SRV	Holden LS7 3 bolt. Single row Vernier Gear.	**4 Triggers**	Single	**Vernier Gear Only**
CS8LSA	Holden LSA 3 bolt. Double row 4 Trigger	**4 Triggers**	Double	**3DR 60-IWIS**
CS8LSA-SR	Holden LSA 3 bolt. Single row 4 Trigger	**4 Triggers**	Single	**3SR 60-IWIS**
CS8L98	Holden L98 1 bolt. Double row 4 Trigger	**4 Triggers**	Double	**3DR 60-IWIS**
CS8LS-VE-SR	Holden 1 bolt LS3, L76, L77, L98, 6.0/6.2L Single row 4 Trigger	**4 Triggers**	Single	**3SR 60-IWIS**
CS8LS-VE3	Holden LS 3 bolt. **Cam Gear Only** Single row 4 Trigger	**4 Triggers**	Single	**Gear Only**
CS8LS-3BK	Holden LS 3 bolt Gear & ARP Cam Bolts. Single row 4 Trigger	**4 Triggers**	Single	**Gear & Bolts Only**
CS8LS2-3BK	Holden LS2 3 bolt Gear & ARP Cam Bolts. Double row 1Trigger	**1 Trigger**	Double	**Gear & Bolts Only**
12586481	Holden VE 3 bolt **Cam Gear Only** Genuine GM.	**4 Triggers**	Single	**Gear Only**

LS Line Bore Kits are available. Please contact sales for more information

No Trigger

1 Trigger

4 Trigger

LS GEAR DRIVE TIMING SETS

HIGH PERFORMANCE GEAR DRIVE SETS

Part Number	Application	Triggers	Type
GD8LS-3B1T	Holden LS 3 bolt Single trigger Gear Set	**1 Trigger**	Gear
CS8LS1-3B4T	Holden LS 3 bolt 4 Trigger Gear Set	**4 Trigger**	Gear

HIGH PERFORMANCE LS LIFTERS

HIGH PERFORMANCE LS LIFTERS

Part Number	Application	Type	Body Diameter
5250	GM LS V8 LS7 Style Roller Hydraulic Lifter	Geniune Replacement	.840”
5251	GM LS V8 Street Performance Roller Hydraulic Lifter	High Performance Tie Bar Lifter	.840”
5294	GM LS V8 High RPM .750” Hydraulic Roller Diameter	Tie Bar	.840”
5261	GM LS V8 Street Race .750” Solid Roller Diameter	Tie Bar	.840”
6177BUSH	GM LS V8 Solid Roller Lifter BUSH Bearing Pressure Fed	Tie Bar	.840”
5263AFM	Holden L76 AFM Hydraulic Roller Lifter	Genuine Replacement (8 x 5250, 8 x 5250AFM-1)	.840”

5250

5251

ARP LS BOLT / STUD KITS

134-1003
ARP LS CAMSHAFT BOLTS
(3x BOLTS)

234-2503
ARP LS BALANCER
BOLT

134-3609
ARP LS HEAD BOLT KIT
PRE 2004

234-4316
ARP LS HEAD STUD KIT
PRE 2004

134-3610
ARP LS HEAD BOLT KIT
2004 ONWARDS

234-4317
ARP LS HEAD STUD KIT
2004 ONWARDS

LS FAMILY SPRING KITS

VTKLS1 LS SINGLE CONICAL SPRING KIT INCLUDES:

(NOTE SPRING PRESSURE 120LBS @ 1.780" 270LBS @ .500" LIFT)

Retainers (10707-16)	Conical Valve Springs (4231-16)	Locks (10701-16)	Spring Seat & Seals (VSV900-8 & VSV901-8)
			

VTKLS5 LS SINGLE CONICAL SPRING KIT INCLUDES:

(NOTE SPRING PRESSURE 140LBS @ 1.780" 330LBS @ .500" LIFT)

Retainers (10707-16)	PSI Conical Valve Springs (1511ML-16)	Locks (10701-16)	Spring Seat & Seals (VSV900-8 & VSV901-8)
			

VTKLS8 LS DUAL SPRING KIT INCLUDES:

(NOTE SPRING PRESSURE 165LBS @ 1.780" 340LBS @ .500" LIFT)

Retainers (10708-16)	Dual Valve Springs (4438-16)	Locks (10701-16)	Spring Seat & Seals (VSV900VTEX-16)
			

VTKLS9 LS DUAL SPRING KIT INCLUDES:

(NOTE SPRING PRESSURE 165 @ 1.800" 360 @ .500" LIFT)

Retainers (10708-16)	Dual Valve Springs (4439-16)	Locks (10701-16)	Spring Seat & Seals (VSV900VTEX-16)
			

VTKLST LS DUAL SPRING TITANIUM RETAINER KIT INCLUDES:

(NOTE SPRING PRESSURE 165LBS @ 1.800" 360LBS @ .500" LIFT)

Titanium Retainers (TR435-16)	Dual Valve Springs (4439-16)	Locks (10701-16)	Spring Seat & Seals (VSV900VTEX-16)
			

LS FAMILY SPRING KITS

VTKLST1 LS DUAL SPRING TITANIUM RETAINER KIT INCLUDES:

(NOTE SPRING PRESSURE 155 @ 1.800" 385LBS @ .500" LIFT)

Retainers (TR435-16)	Dual Valve Springs (4207X-16)	Locks (10701-16)	Spring Seat & Seals (VSV900VTEX-16)
			

VTKLST2 LS DUAL SPRING TITANIUM RETAINER KIT INCLUDES:

(NOTE SPRING PRESSURE 160 @ 1.800" 415LBS @ .500" LIFT)

Retainers (TR435-16)	Dual Valve Springs (4209X-16)	Locks (10701-16)	Spring Seat & Seals (VSV900VTEX-16)
			

LS ULTRA LIGHTWEIGHT HIGH RPM RETAINERS

Part Number	Description	
TR435-16	LS Titanium Retainer Set. Ultra lightweight High RPM Retainers Suits all Dual LS Springs Best suited for Race/Track Engines	

**High Quality Chrome Moly retainers are general purpose retainers suited for street/ race applications. Use of Titanium Retainers in street cars may cause longevity issues.*

**Ultra Lightweight High RPM Titanium Retainers are suited for high revving engines with maximum power. Can be used for street applications but will not have the life expectancy of a Chrome Moly Retainer.*

**VTKLS1 Spring Kits are suited for stock or mild street LS Roller Camshafts. It will take a maximum lift of .560"*

**VTKLS5 Spring Kits are suited for mild-hot street LS Roller Camshafts if you prefer single Beehive Valve Springs. It will take a maximum lift of .600"*

**VTKLS8 Spring Kits are suited for hot street LS Camshafts. Can support up to .650" lift and give the added security of dual springs. The VTKLS8 is our most popular spring kit for street applications.*

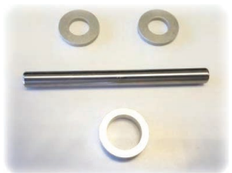
**VTKLS9, VTKLST, VTKLST1, VTKLST2 Spring kits are recommended for use with High RPM engines that require higher seat pressure. Maximum lift ranging from .650" to .750". Talk to the Crow Cams technical department to match a spring kit with a camshaft.*

LS FAMILY PARTS LIST

HIGH PERFORMANCE HOLDEN V8 LS SPRINGS

Part Number	Installed Height	Installed Pressure	Pressure @.5 Lift	Max. Lift	Solid Height	Spring Retainer	Valve Locks
4231-16	1.780"	120	270	.550"	1.100"	10707-16	10701-16
1511ML-16	1.780"	140	330	.600"	1.100"	10707-16	10701-16
4438-16 [D]	1.780"	165	345	.650"	1.000"	10708-16	10701-16
4439-16 [D]	1.800"	165	360	.650"	1.020"	10708-16	10701-16
4207X-16 [D]	1.800"	170	390	.700"	1.000"	TR435-16	10701-16
4209X-16 [D]	1.800"	180	425	.750"	1.000"	TR435-16	10701-16
4238X-16 [D]	1.800"	265	735 @ .750"	.800"	0.950"	TR435-16	10701-16
1335-16 [D]	1.800"	270	880 @ .750"	.800"	0.985"	TR435-16	10701-16

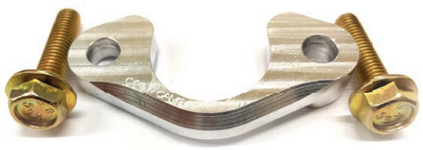
Note: Springs marked with xxxx-xx[D] denotes that it is a double spring.
Note: All dual valve springs are measured with a .100" step in the inner spring.

LS Rocker BUSH Trunnion Kit (CRCLSBUSH)	LS Rocker BUSH Trunnion Installation Kit (LSINST-KIT)
Factory Rocker LS Trunnion Upgrade Kit	LS Rocker Trunnion Installation Kit
 Severe duty replacement for factory rocker needle roller bearings. Bronze bushes have 300x greater load capacity than needle rollers. Simple to install.	Tools included in installation kit: 2x Installation Washers 1x Removal Washer 1x 7/16" Dlameter Press/Drive Pin 

LS ENGINE PUSHRODS

PR-956-16	7.350 Inch 1 Piece, 0.080" Wall Heat Treated High Carbon Steel
PR-959-16	7.375 Inch 1 Piece, 0.080" Wall Heat Treated High Carbon Steel
PR-957-16	7.400 Inch 1 Piece, 0.080" Wall Heat Treated High Carbon Steel
PR-958-16	7.450 Inch 1 Piece, 0.080" Wall Heat Treated High Carbon Steel
PR5730-110	7.300 Inch 5/16" 0.110" Wall 210 Radius Chrome Moly Pushrod
PR5732-110	7.325 Inch 5/16" 0.110" Wall 210 Radius Chrome Moly Pushrod
PR5735-110	7.350 Inch 5/16" 0.110" Wall 210 Radius Chrome Moly Pushrod
PR5737-110	7.375 Inch 5/16" 0.110" Wall 210 Radius Chrome Moly Pushrod
PR5740-110	7.400 Inch 5/16" 0.110" Wall 210 Radius Chrome Moly Pushrod
PR5742-110	7.425 Inch 5/16" 0.110" Wall 210 Radius Chrome Moly Pushrod
PR5745-110	7.450 Inch 5/16" 0.110" Wall 210 Radius Chrome Moly Pushrod

Crow Cams LS Oil Pick Up Tube 2 Bolt Girdle (PUG001)



LS ROCKER BUSH TRUNNION KIT (CRCLSBUSH)

These new bushing LS trunnion kits for factory LS rockers are designed to increase durability and load capacity without the failure prone needle bearings. Engineered to provide maximum lubrication to the trunnion while also providing maximum load capabilities, the NEW bushing LS trunnion Upgrade kits give the LS world peace of mind.

The proprietary bushing material is fed with an oil channel at the 11 and 1 O'Clock positions of the trunnion. This channel constantly feeds oil to the bushing surface ensuring proper lubrication unlike needle bearing trunnions that have to rely on oil "finding" it's way to the needles.

The greater surface area of the bushing will support 300X the load of a needle roller bearing due to the fact that there are only three needles on the bottom of the bearing that are carrying the load. There is also no chance of needle bearings destroying the engine when using much more aggressive cam profiles.

Kit includes the trunnion, bushings and C-Clips and can be used with the stock rocker bolt.
Fits all OEM LS Rockers, LS1, LS2, L76, L77, L98, LS3, LS6, LSA and LS7.

POWERBOND LS HARMONIC BALANCERS & KITS

LS1/LS6 5.7, LS2 6.0 CATHEDRAL PORT

Part Number	Application
PB1480-ST	LS1 5.7, LS2 6.0 Street, Std Diameter 6 Rib
PB1480-SS	LS1 5.7, LS2 6.0 Race, Std Diameter 6 Rib. Has keyway
PBU1480-SS10	LS1 5.7, LS2 6.0 Race 10% Underdrive Balancer
PBU1480-SS25	LS1 5.7, LS2 6.0 Race 25% Underdrive Balancer
PB081480-SC10	LS1, LS2 Supercharger Balancer 10% Overdrive 8 Rib
PBK001	LS1 5.7, LS2 6.0 25% Underdrive Balancer kit with Pulleys and Belts
OAP019	6 Rib LS1 alternator overrun pulley for retrofit to factory alternator
PK8030	8 Rib drive kit with std diameter balancer suit LS1. Does not suit VZ LS1, LS2
PK8031	8 Rib drive kit with 10% OD diameter balancer suit LS1. Does not suit VZ LS1, LS2.

L76, L77, L98 6.0, LS3 6.2 VE-ON RECTANGULAR

Part Number	Application
PB1117-SS	L76, L77, L98, LS3 6.0, 6.2 Race Std Diameter 6 Rib
PBU1117-SS10	L76, L77, L98, LS3 6.0, 6.2 VE Commodore 10% Underdrive Balancer
PBU1117-SS25	L76, L77, L98, LS3 6.0, 6.2 VE Commodore 25% Underdrive Balancer
PB081117-SC10	L76,L77, L98, LS3 Supercharger Balancer 10% Overdrive 8 Rib
PBK002	L76, LS3 VE to 8/2010 25% Underdrive Balancer kit with Pulleys & Belts.
PBK016	L77, LS3 9/2010 Onwards 25% Underdrive Balancer kit with Pulleys & Belts
PBK021	L77, LS3 VF 25% Underdrive Balancer kit with Pulleys & Belts.
OAP027	6 Rib L98 alternator overrun pulley for retrofit to factory alternator
PK8032	VE L76, L77, L98, LS3 8 Rib drive kit with std diameter balancer
PK8033	VE L76, L77, L98 LS3 8 Rib drive kit with 10% OD diameter supercharger balancer

LS7 7.0, LSA S/C 6.2 & INSTALLATION TOOL KITS

Part Number	Application
PB081503-SC10	LS7 Supercharger Balancer 10% Overdrive 8 Rib
PBK024	LSA 5% Overdrive Balancer and Drive Belt
PBK025	LSA 10% Overdrive Balancer and Drive Belt
PBK026	LSA 18% Overdrive Balancer and Drive Belt
PBK027	LSA 22% Overdrive Balancer, Drive Belt & Idler Bracket
PBK028	LSA 28% Overdrive Balancer, Drive Belt & Idler Bracket
PB01662-SS5	LSA Supercharger Balancer 5% Overdrive
PB01662-SS10	LSA Supercharger Balancer 10% Overdrive
PB01662-SS18	LSA Supercharger Balancer 18% Overdrive
PB01662-SS22	LSA Supercharger Balancer 22% Overdrive
PB01662-SS28	LSA Supercharger Balancer 28% Overdrive
BOP016625	5% Overdrive Pulley suit PB01662-SS
BOP0166210	10% Overdrive Pulley suit PB01662-SS
BOP0166218	18% Overdrive Pulley suit PB01662-SS
BOP0166222	22% Overdrive Pulley suit BOP01662-SS
BOP0166228	28% Overdrive Pulley suit BOP01662-SS
OAPTK001	Overrun pulley complete installation tool kit
IPB001	Idler Relocation bracket for 22% and 28% Overdrives

ICE IGNITION LEADS & COILS

ICE PRO LS IGNITION LEADS

Part Number	Application
9GM808	LS1, LS2 9mm Pro 100 Lead Set
9GM878	LS1, LS2 9mm Pro 100 Lead Set. Black with right angle plug leads.
9GM829	L76, L77, L98, LS3 9mm Pro 100 Lead Set Black
9GM868	LS1, LS2 9mm Pro 25mm longer lead set. 45 Degree plus ends.
9GM888	LS1, LS2 9mm Pro 50mm longer lead set for high covers. 45 Degree plus ends.
9GM000	Custom made LS Leads. Your choice of plugs & length. POA.

ICE PRO LS1 IGNITION COILS

Part Number	Application
ICE4300	LS1 direct bolt on Ignition Coil

Twice the energy of factory coils with supplied dwell table

Advanced design to withstand vibration and deliver constant, maximum output

Current limiting set at 20Amps, as opposed to fatctory 8.25Amps

9GM829
9GM868
9GM888

9GM808

9GM878

PARTS TO SUIT **EARLY LS1 TO 2004**

LS1LIFTEROHAUL
GM LS OEM LS LIFTER OVERHAUL KIT (Inc 5250 & 12595365-4, 12498544, 12498545-2)

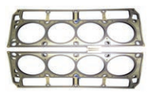
LS7LIFTERKIT
GM LS OEM LS LIFTER & GUIDE KIT (Inc 5250 & 12595365-4)

5250
GM LS LIFTER (SET OF 16)

12595365-4
GM LS LIFTER GUIDE (SET OF 4)

12551163
GM LS LIFTER GUIDE BOLT (4 REQ'D)

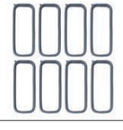
12498544
GM LS1 5.7 HEAD GASKET (PAIR)



12498545-2
GM LS LONG HEAD BOLT KIT TO 2004 (SET OF 2)

12557840
GM LS HARMONIC BALANCER BOLT

12533587
GM CATH PORT INTAKE GASKET SET

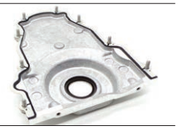


12551933
GM LS COOLANT AIR BLEED GASKET (4 REQ'D)

12552542
GM LS1 THROTTLE BODY SEAL

12558178
GM LS1 ONLY, VALLEY COVER GASKET

12561243
GM LS1 TIMING COVER & SEALS

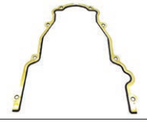


12585673
GM LS TIMING COVER SEAL

12602541
GM COOLANT AIR BLEED O'RING

12612350
GM LS OIL PAN GASKET

12633904
GM LS TIMING COVER GASKET



12639249
GM LS REAR COVER GASKET

12639250
GM LS REAR ENG COVER & SEALS

89060436
GM LS REAR MAIN SEAL

LSTIMINGGASKKIT
GM LS TIMING COVER GASKET KIT (Inc 12633904, 12630223-2, 12585673)

12552203
GM LS1 ROCKER ARM PIVOT BAR (2 REQ'D)

12557752
GM LS1 OIL PICK UP O'RING BLUE

12589016
GM LS CAM RETAINING PLATE

12696357
GM LS HIGH PRESSURE OIL PUMP

12681275
GM LS1,LS2,L98(EXH) ROCKER ARM (16 REQ'D)

11561455-4
GM LS CAM RETAINING PLATE BOLTS (SET OF 4)

LSCAMPLATEKIT
GM LS CAM RETAINING PLATE KIT (Inc 12589016 & 11561455-4)

12560228
GM LS1,LS2 CRANK POS SENSOR

12560961
GM LS ROCKER ARM BOLT

12602540
GM LS COOLANT AIR BLEED PLUG

12617944
GM LS EXHAUST MAINFOLD GASKET

12557520
GM LS DIPSTICK BLOCK OFF PLUG

LSOILPUMPKIT
GM LS HIGH PRESSURE OIL PUMP KIT (Inc 12696357, 12557752, 12584922, PUG001)

PARTS TO SUIT **LS1 2004 ON:**

Same parts as pre 2004 LS1 except for head bolts. Use part no 17800568-2.

17800568-2
GM LS SHORT HEAD BOLT KIT 2004 ON (SET OF 2)

PARTS TO SUIT **LS2**

L98LIFTEROHAUL
GM L98 LIFTER OVERHAUL KIT (Inc 5250 & 12595365-4, 12610046, 17800568-2)

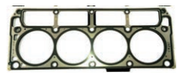
LS7LIFTERKIT
GM LS OEM LS LIFTER & GUIDE KIT (Inc 5250 & 12595365-4)

12595365-4
GM LS LIFTER GUIDE (SET OF 4)

5250
GM LS LIFTER (SET OF 16)

12551163
GM LS LIFTER GUIDE BOLT (4 REQ'D)

12610046
GM 6.0, 6.2 HEAD GASKET (2 REQ'D)



17800568-2
GM LS SHORT HEAD BOLT KIT 2004 ON (SET OF 2)

12557840
GM LS HARMONIC BALANCER BOLT

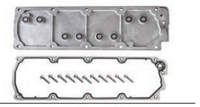
12533587
GM CATH PORT INTAKE GASKET SET

12551933
GM LS COOLANT AIR BLEED GASKET (4 REQ'D)

12576549
GM L98 THROTTLE BODY SEAL

12570471
GM LS2, LS3, L98 VALLEY COVER

12598832
GM LS VALLEY COVER NO EGR



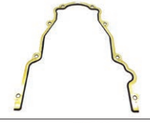
12610141
GM LS2, LS3, L98 VALLEY COVER GASKET

12585673
GM LS TIMING COVER SEAL

12602541
GM COOLANT AIR BLEED O'RING

12612350
GM LS OIL PAN GASKET

12633904
GM LS TIMING COVER GASKET



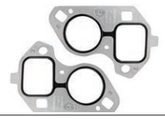
12633906
GM LS2, L98 TIMING COVER & SENSOR

12639249
GM LS REAR COVER GASKET

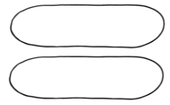
12639250
GM LS REAR ENG COVER & SEALS

89060436
GM LS REAR MAIN SEAL

12630223-2
GM WATER PUMP GASKET KIT (SET OF 2)



12637683-2
GM LS ROCKER COVER GASKET SET (SET OF 2)



LSTIMINGGASKKIT
GM LS TIMING COVER GASKET KIT (Inc 12633904, 12630223-2, 12585673)

12552203
GM LS1 ROCKER ARM PIVOT BAR (2 REQ'D)

12576407
GM LS2 CAM GEAR (3 BOLT)

12584922
GM L98 VE OIL PICK UP ORING RED

12588670
GM LS2, LS7 TIMING CHAIN DAMPER

12589016
GM LS CAM RETAINING PLATE

12557520
GM LS DIPSTICK BLOCK OFF PLUG

12591720
GM LS2, L98, L77, L76, LSA CAM POS SENSOR

12696357
GM LS HIGH PRESSURE OIL PUMP

12681275
GM LS1,LS2,L98(EXH) ROCKER ARM (16 REQ'D)

11561455-4
GM LS CAM RETAINER PLATE BOLTS (SET OF 4)

LSCAMPLATEKIT
GM LS CAM RETAINING PLATE KIT (Inc 12589016 & 11561455-4)

LSOILPUMPKIT
GM LS HIGH PRESSURE OIL PUMP KIT (Inc 12696357, 12557752, 12584922, PUG001)

12560228
GM LS1,LS2 CRANK POS SENSOR

12560961
GM LS ROCKER ARM BOLT

12602540
GM LS COOLANT AIR BLEED PLUG

12617944
GM LS EXHAUST MAINFOLD GASKET

PARTS TO SUIT **LS3 AND L98**

L98LIFTEROHAUL
GM L98 LIFTER OVERHAUL KIT (Inc 5250 & 12595365-4, 12610046, 17800568-2)

LS7LIFTERKIT
GM LS OEM LS LIFTER & GUIDE KIT (Inc 5250 & 12595365-4)

12595365-4
GM LS LIFTER GUIDE (SET OF 4)

5250
GM LS LIFTER (SET OF 16)

12551163
GM LS LIFTER GUIDE BOLT (4 REQ'D)

12610046
GM 6.0, 6.2 HEAD GASKET (2 REQ'D)

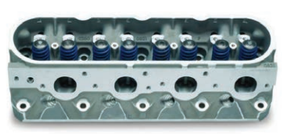
17800568-2
GM LS SHORT HEAD BOLT KIT 2004 ON (SET OF 2)

12557840
GM LS HARMONIC BALANCER BOLT

12576549
GM L98 THROTTLE BODY SEAL

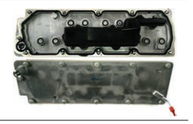
12551933
GM LS COOLANT AIR BLEED GASKET (4 REQ'D)

12675871
GM LS3 COMPLETE CYL HEAD. INC VALVES LOCKS, RETAINERS AND 0.550" LIFT SPRINGS. 68cc

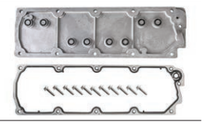


12617944
GM LS EXHAUST MAINFOLD GASKET

12570471
GM LS2, LS3, L98 VALLEY COVER



12598832
GM LS VALLEY COVER NO EGR



12610141
GM LS2, LS3, L98 VALLEY COVER GASKET

12633906
GM LS2, L98 TIMING COVER & SENSOR

12585673
GM LS TIMING COVER SEAL

12602541
GM COOLANT AIR BLEED O'RING

12612350
GM LS OIL PAN GASKET

12633904
GM LS TIMING COVER GASKET

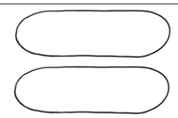
12639249
GM LS REAR COVER GASKET

12639250
GM LS REAR ENG COVER & SEALS

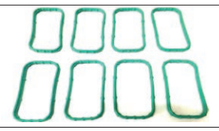
89060436
GM LS REAR MAIN SEAL

12630223-2
GM WATER PUMP GASKET KIT (SET OF 2)

12637683-2
GM LS ROCKER COVER GASKET SET (SET OF 2)



L98INTGASKET
GM L98 INTAKE GASKET SET (SET OF 8)



LSTIMINGGASKKIT
GM LS TIMING COVER GASKET KIT (Inc 12633904, 12630223-2, 12585673)

12600936
GM LS3 ROCKER ARM PIVOT STAND (2 REQ'D)

12584922
GM L98 VE OIL PICK UP O'RING RED

12589016
GM LS CAM RETAINING PLATE

12610160
GM LS VALLEY COVER PORT SEAL

12591720
GM LS2, L98, L77, L76, LSA CAM POS SENSOR

12626407
GM LS3, L98 CHAIN TENSIONER

12696357
GM LS HIGH PRESSURE OIL PUMP

12669995
GM L98 ROCKER ARM INTAKE (8 REQ'D)

12681275
GM LS1,LS2,L98(EXH) ROCKER ARM (8 REQ'D)

11561455-4
GM LS CAM RETAINER PLATE BOLTS (SET OF 4)

LSCAMPLATEKIT
GM LS CAM RETAINING PLATE KIT (Inc 12589016 & 11561455-4)

LSOILPUMPKIT
GM LS HIGH PRESSURE OIL PUMP KIT (Inc 12696357, 12557752, 12584922, PUG001)

12560961
GM LS ROCKER ARM BOLT

12585546
GM LS2, L98, L77, LS3, LSA CRANK SENSOR

12557520
GM LS DIPSTICK BLOCK OFF PLUG

PARTS TO SUIT **L76 AND L77**

L76DODDELETE
GM AFM L76 DOD DELETE KIT (Inc 5250 & 12595365-4, 12610046, 17800568-2, 12551163, 12598832)

L76LIFTERKIT
GM L76/L77 LIFTER & GUIDE KIT (Inc 5263AFM, 12571596 & 12571608)

5263AFM
GM LS AFM LIFTER (SET OF 16)

12571596
GM AFM REAR LIFTER GUIDE (2 REQ'D)

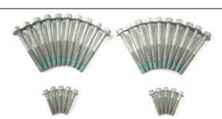
12571608
GM AFM FRONT LIFTER GUIDE (2 REQ'D)

12551163
GM LS LIFTER GUIDE BOLT (4 REQ'D)

12610046
GM 6.0, 6.2 HEAD GASKET (2 REQ'D)

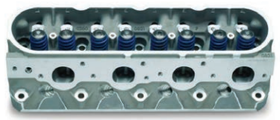
12551933
GM LS COOLANT AIR BLEED GASKET (4 REQ'D)

17800568-2
GM LS SHORT HEAD BOLT KIT 2004 ON (SET OF 2)

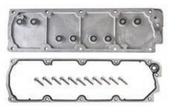


12557840
GM LS HARMONIC BALANCER BOLT

12675871
GM LS3 COMPLETE CYL HEAD. INC VALVES, LOCKS, RETAINERS AND 0.550" LIFT SPRINGS. 68cc



12598832
GM LS VALLEY COVER NO EGR



12610141
GM LS2, LS3, L98 VALLEY COVER GASKET

12633906
GM LS2, L98 TIMING COVER & SENSOR

12585673
GM LS TIMING COVER SEAL

12602541
GM COOLANT AIR BLEED O'RING

12612350
GM LS OIL PAN GASKET

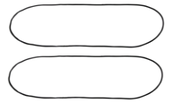
12633904
GM LS TIMING COVER GASKET

12639249
GM LS REAR COVER GASKET

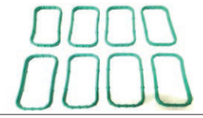
12639250
GM LS REAR ENG COVER & SEALS

12630223-2
GM WATER PUMP GASKET KIT (SET OF 2)

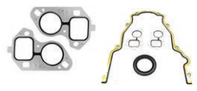
12637683-2
GM LS ROCKER COVER GASKET SET (SET OF 2)



L98INTGASKET
GM L98 INTAKE GASKET SET (SET OF 8)



LSTIMINGGASKKIT
GM LS TIMING COVER GASKET KIT (Inc 12633904, 12630223-2, 12585673)



12584922
GM L98 VE OIL PICK UP O'RING RED

12589016
GM LS CAM RETAINING PLATE

11561455-4
GM LS CAM RETAINER PLATE BOLTS (SET OF 4)

LSCAMPLATEKIT
GM LS CAM RETAINING PLATE KIT (Inc 12589016 & 11561455-4)

12560961
GM LS ROCKER ARM BOLT

12585546
GM L98,L77,LS3,LSA CRANK SENSOR

12602540
GM LS COOLANT AIR BLEED PLUG

12617944
GM LS EXHAUST MAINFOLD GASKET

12591720
GM LS2, L98, L77, L76, LSA CAM POSITION SENSOR

12626407
GM LS3, L98 CHAIN TENSIONER

12669995
GM L98 ROCKER ARM INTAKE (8 REQ'D)

12681275
GM LS1,LS2,L98(EXH) ROCKER ARM (8 REQ'D)

12557520
GM LS DIPSTICK BLOCK OFF PLUG

12612289
GM L76,LSA HIGH VOLUME

89060436
GM LS REAR MAIN SEAL

12610160
GM LS VALLEY COVER PORT SEAL

12600936
GM LS3 ROCKER ARM PIVOT STAND (2 REQ'D)

12588670
GM LS2, LS7 TIMING CHAIN DAMPER

PARTS TO SUIT **LSA**

LS7LIFTERKIT
GM LS OEM LS
LIFTER & GUIDE KIT
(Inc 5250 & 12595365-4)

12595365-4
GM LS LIFTER GUIDE
(SET OF 4)

5250
GM LS LIFTER (SET OF 16)

12551163
GM LS LIFTER GUIDE BOLT
(4 REQ'D)

12622033
GM 6.2 LSA/LS9 HEAD
GASKET (2 REQ'D)

17800568-2
GM LS SHORT HEAD BOLT
KIT 2004 ON (SET OF 2)

12557840
GM LS HARMONIC BALANCER
BOLT

12576549
GM L98 THROTTLE BODY
SEAL

12610141
GM LS2, LS3, L98 VALLEY
COVER GASKET

12633906
GM LS2, L98 TIMING COVER &
SENSOR

12600936
GM LS3 ROCKER ARM PIVOT
STAND (2 REQ'D)

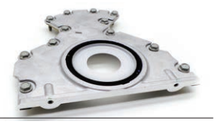
12585673
GM LS TIMING COVER
SEAL

12602541
GM COOLANT AIR
BLEED O'RING

12612350
GM LS OIL PAN GASKET

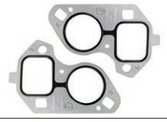
12633904
GM LS TIMING COVER
GASKET

12639249
GM LS REAR COVER
GASKET

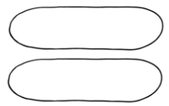


12639250
GM LS REAR ENG
COVER & SEALS

89060436
GM LS REAR MAIN
SEAL



12630223-2
GM WATER PUMP
GASKET KIT (SET OF 2)



12637683-2
GM LS ROCKER COVER
GASKET SET (SET OF 2)

LSTIMINGGASKKIT
GM LS TIMING
COVER GASKET KIT
(Inc 12633904,
12630223-2, 12585673)

12585546
GM L98,L77,LS3,LSA
CRANK SENSOR

12584922
GM L98 VE OIL PICK UP
O'RING RED

12589016
GM LS CAM RETAINING PLATE

12591720
GM LS2, L98, L77, L76, LSA
CAM POSITION SENSOR

12626407
GM LS3, L98 CHAIN
TENSIONER

12669995
GM L98 ROCKER ARM INTAKE
(8 REQ'D)

12681275
GM LS1,LS2,L98(EXH)
ROCKER ARM (8 REQ'D)

11561455-4
GM LS CAM RETAINER PLATE
BOLTS (SET OF 4)

LSCAMPLATEKIT
GM LS CAM
RETAINING PLATE KIT
(Inc 12589016 & 11561455-4)

12620947
GM LSA EXHAUST
MANIFOLD GASKET

12612289
GM L76,LSA HIGH
VOLUME

12602540
GM LS COOLANT AIR
BLEED PLUG

12557520
GM LS DIPSTICK
BLOCK OFF PLUG

12617944
GM LSA AIR CHARGE
INSULATOR

12612289
GM LSA S/C HOUSING
GASKET

19180613
GM LSA INTAKE
MANIFOLD GASKET

12560961
GM LS ROCKER ARM
BOLT

PARTS TO SUIT **LS7**

12579615
GM LS7 1.8 RATIO INTAKE
ROCKER

11588791
GM LS7 ROCKER ARM BOLT

12579617
GM LS7 1.8 RATIO
EXHAUST ROCKER

LEYLAND/ROVER V8 ROCKER RATIO 1.50

Note: Installed heights may vary in every engine. Please check actual height before ordering spring, retainer and lock combinations

Application	RPM Range	Part No.	Adv. Duration		.050" Duration		Valve Lift		LSA		Lash	Oil Additive	Lifters	Valve Spring	Installed Height	Retainer	Locks	Stem Seal	Timing Kit	Pushrods	Rockers
			Intake	Exhaust	Intake	Exhaust	Intake	Exhaust													
3.5/4.4 1961- 86 HYDRAULIC																					
STD replacement cam	800 - 3600	37000	254	254	196	196	.374"	.374"	107			ZDDP-100	HT969-16			Standard	Standard		CS8P76		
Hi torque cam, street & 4wd, towing application	1000 - 3900	37613	260	267	194	202	.390"	.408"	112			ZDDP-100	HT969-16			Standard	Standard		CS8P76		
Hi torque cam, street & 4wd, towing application, max for EFI without computer Ideal for stroker engines	1400 - 4200	37771	258	266	201	205	.397"	.408"	111			ZDDP-100	HT969-16			Standard	Standard		CS8P76		
Dual pattern cam, ideal for LPG application, max for auto without stall	1800 - 4200	37776	266	279	204	215	.406"	.417"	112			ZDDP-100	HT969-16			Standard	Standard		CS8P76		

ROVER V8 ROCKER RATIO 1.50

4.0/4.6 EFI 1995-ON HYDRAULIC No Distributor																					
Hi torque cam, street & 4wd, towing	900 - 3800	371613	260	267	194	202	.390"	.408"	112			ZDDP-100	HT969-16			Standard	Standard				
Hi torque cam, street & 4wd, towing application, max for EFI without computer	1250 - 4200	371771	258	266	201	205	.397"	.408"	111			ZDDP-100	HT969-16			Standard	Standard				

NISSAN

Application	RPM Range	Part No.	Adv. Duration		.050" Duration		Valve Lift		LSA		Lash	Oil Additive	Lifters	Valve Spring	Installed Height	Retainer	Locks	Stem Seal	Timing Kit	Pushrods	Rockers
			Intake	Exhaust	Intake	Exhaust	Intake	Exhaust													
RB30 SOHC 1986-1997																					
Stock replacement cam for normally aspirated	1500 - 5000	503000	256	255	195	191	.375"	.375"	110			ZDDP-100		5840-12 D	1.570"	10720-12	Standard		CS6RB30-V		
Stock replacement for TURBO engine (See Fitting notes 1)	1500 - 5000	503001	256	255	195	191	.375"	.375"	117			ZDDP-100		5833-12 D	1.570"	10720-12	Standard		CS6RB30-V		
Mild cam for normally aspirated engine (See Fitting notes 1)	2000 - 5800	503NA	250	250	194	194	.426"	.426"	110			ZDDP-100		5833-12 D	1.570"	10720-12	Standard		CS6RB30-V		
Mild performance cam for stock or near stock boost (See Fitting notes 1)	2200 - 6200	503TX1	265	271	205	209	.437"	.450"	117			ZDDP-100		5833-12 D	1.570"	10720-12	Standard		CS6RB30-V		
Meduim street performance turbo cam (See Fitting notes 1)	2500 - 6500	503TXM	280	280	214	214	.470"	.470"	117			ZDDP-100		5833-12 D	1.570"	10720-12	Standard		CS6RB30-V		
Street / strip TURBO cam (See Fitting notes 1)	3000 - 7000	503TX2	292	292	230	230	.483"	.483"	117			ZDDP-100		5833-12 D	1.570"	10720-12	Standard		CS6RB30-V		

Note: Springs marked with xxxx-xx^{D} denotes that it is a double spring.

FITTING NOTES: 1. Must use performance springs. 2. Must use performance retainers. 3 Machining required to fit these components. 4. Must use performance seal. 5. Notes 1 to 4 all apply to this part number. 6. Check valve train geometry before ordering pushrod. 7. Pushrod length varied in this model. Check length before ordering. 8. Spring height varies in models, check spring pressure before installation.

FITTING NOTES:
- Converter stall speed should be equal to or greater than the minimum rpm of the cam power range.
- All lash settings quoted are measured hot. • The use of high volume oil pumps may cause premature wear of the distributor gear.

NISSAN

Note: Installed heights may vary in every engine. Please check actual height before ordering spring, retainer and lock combinations

Application	RPM Range	Part No.	Adv. Duration		.050" Duration		Valve Lift		LSA		Lash	Oil Additive	Lifters	Valve Spring	Installed Height	Retainer	Locks	Stem Seal	Timing Kit	Pushrods	Rockers
			Intake	Exhaust	Intake	Exhaust	Intake	Exhaust													
L SERIES 4 CYLINDER ROCKER RATIO 1.47																					
High Torque cams for stock engines.	2000-5800	30643	295	292	212 @ .075"	210 @ .075"	.480"	.495"	108			ZDDP-100		Standard		Standard	Standard				
Mild Performance cam for stock/near stock engines.	2200-6000	30640	296	298	214 @ .075"	216 @ .075"	.485"	.495"	108			ZDDP-100		Standard		Standard	Standard				
Medium Street performance cam. (See Fitting notes 1)	3000-6500	30721	292	292	225 @ .075"	225 @ .075"	.495"	.495"	108			ZDDP-100		5840-8 D		Standard	Standard				
L SERIES 6 CYLINDER 2400, 2600, 2800, 1969-1983 ROCKER RATIO 1.47																					
Mild cam can use in near stock engine	2200 - 6200	58640	296	298	214 @ .075"	216 @ .075"	.485"	.495"	108		IN .014" EX .014"	ZDDP-100		5840-12 D		Standard	Standard				
Medium performance cam choppy idle needs headers, carbies & ignition (See Fitting notes 1)	3000 - 6500	58721	292	292	225 @ .075"	225 @ .075"	.495"	.495"	108		IN .010" EX .012"	ZDDP-100		5840-12 D		Standard	Standard				
SR20 1998 1992-2003																					
Mild performance cams VCT & non VCT	2200 - 6200	5302559 5022559	288	285	192	192	.370"	.370"				ZDDP-100		Standard		Standard	Standard				
High performance cams VCT & non VCT	3500 - 7500	5302553 5022553	295	295	220	220	.410"	.410"				ZDDP-100				Standard	Standard				
TB42/TB45 6 CYLINDER																					
High torque for stock & LPG engines suit towing,EFI engine may require tuning	2200 - 4000	442867	250	268	210	217	.420"	.425"	113		IN .016" EX .016"	ZDDP-100		5840-12 D		Standard	Standard				
Mild cam for towing, manual transmission NOT suitable for EFI	1600 - 4500	442846	267	281	218	225	.425"	.430"	109		IN .016" EX .016"	ZDDP-100		5840-12 D		Standard	Standard				
TB48 DOHC 24 VALVE																					
Stock replacement inlet Stock replacement exhaust	1000 - 4000	538000 539000	260	260	210	210	.373"	.373"				ZDDP-100		4162-24 VTK4162		10716-24					
Mild street inlet cam no tuning required Mild street exhaust cam no tuning needed	1500 - 4500	5381441 5391441	267	255	224	220	.397"	.380"				ZDDP-100		4162-24 VTK4162		10716-24					
Medium performance inlet cam Medium performance exhaust cam	2200 - 5200	5381461 5391461	275	275	234	231	.426"	.406"				ZDDP-100		4162-24 VTK4162		10716-24					

NOTE: PARTS KIT VTK4162 INCLUDES 4162-24 SPRINGS AND 10716-24 RETAINERS

FURTHER NISSAN TB48 GRINDS AVAILABLE ON PAGE 144

Note: Springs marked with xxxx-xx D denotes that it is a double spring.

FITTING NOTES: 1. Must use performance springs. 2. Must use performance retainers. 3 Machining required to fit these components. 4. Must use performance seal. 5. Notes 1 to 4 all apply to this part number. 6. Check valve train geometry before ordering pushrod. 7. Pushrod length varied in this model. Check length before ordering. 8. Spring height varies in models, check spring pressure before installation.

FITTING NOTES:

- Converter stall speed should be equal to or greater than the minimum rpm of the cam power range.
- All lash settings quoted are measured hot. • The use of high volume oil pumps may cause premature wear of the distributor gear.

TOYOTA

Note: Installed heights may vary in every engine. Please check actual height before ordering spring, retainer and lock combinations

Application	RPM Range	Part No.	Adv. Duration		.050" Duration		Valve Lift		LSA		Lash	Oil Additive	Lifters	Valve Spring	Installed Height	Retainer	Locks	Stem Seal	Timing Kit	Pushrods	Rockers
			Intake	Exhaust	Intake	Exhaust	Intake	Exhaust													
3SGE, 3SGTE TWIN CAM																					
Mild performance cams	2200 - 5800	3481416 3481416	264	264	207	207	.345"	.345"				ZDDP-100		Standard		Standard	Standard				
Mild performance cams	2700 - 6700	3481587 3481587	268	268	219	219	.360"	.360"				ZDDP-100									
Hot street/race cams	2800 - 6800	3481407 3481407	270	270	227	227	.368"	.368"				ZDDP-100									
4A-GE 1600 TWIN CAM																					
Mild performance cams	2200 - 6200	271215 272215	277	277	218	218	.315"	.315"				ZDDP-100		Standard		Standard	Standard				
Mild performance cams	2700 - 6700	271152 272152	280	280	234	234	.334"	.334"				ZDDP-100		Standard		Standard	Standard				
Hot street/race cams	3200 - 7200	2711323 2721323	285	285	240	240	.330"	.330"				ZDDP-100									
4A-GE 20 VALVE TWIN CAM																					
Mild performance cams	2000 - 5600	274215 275215	277	277	218	218	.315"	.315"				ZDDP-100		Standard		Standard	Standard				
Mild performance cams	2500 - 5800	274152 275152	280	280	234	234	.334"	.334"				ZDDP-100		Standard		Standard	Standard				
Mild street performance cams	2800 - 6000	2741323 2751323	285	285	240	240	.330"	.330"				ZDDP-100									
Hot street/race cams	3500 - 7200	274859 275859	307	307	257	257	.388"	.388"				ZDDP-100									
2JZ-GTE																					
Mild performance cams	2300 - 6200	5411587 5421587	268	268	219	219	.360"	.360"				ZDDP-100									
Mild street performance cams	2800 - 6800	5411407 5421407	270	270	227	227	.368"	.368"				ZDDP-100									
20R, 21R, 22R																					
Hi torque for stock engines	2000 - 5800	32643	295	292	212	210	.480"	.495"	108		IN .008" EX .010"	ZDDP-100		Standard		Standard	Standard				
Mild performance cam for stock or near to stock engines	2100 - 6100	32640	296	298	214	216	.485"	.495"	108		IN .014" EX .014"	ZDDP-100		Standard		Standard	Standard				
1FZ-FE 6 CYLINDER DOHC LANDCRUISER														**NOTE:** PARTS KIT VTK4163 INCLUDES 4163-24 SPRINGS AND 10715-24 RETAINERS							
Mild performance cams good torque & mid range power (See Fitting notes 1)	2000 - 5000	5281841 5291841	292 292	292 292	223 223	223 223	.401" .401"	.401" .401"			IN .012" EX .012"	ZDDP-100		4163-24 VTK6163	1.487"	10715-24					
Medium performance cams good torque & mid range power (See Fitting notes 1)	2400 - 5400	5281842 5291842	302 302	302 302	231 231	231 231	.425" .425"	.425" .425"			IN .012" EX .012"	ZDDP-100		4163-24 VTK4163	1.487"	10715-24					
Performance cams good torque maximim power, upper RPM range (See Fitting notes 1)	2800 - 5800	5281847 5291847	307 307	307 307	240 240	240 240	.405" .405"	.405" .405"			IN .012" EX .012"	ZDDP-100		4163-24 VTK4163	1.487"	10715-24					

FURTHER TOYOTA 1FZ-FE GRINDS AVAILABLE ON PAGE 145

FITTING NOTES: 1. Must use performance springs. 2. Must use performance retainers. 3 Machining required to fit these components. 4. Must use performance seal. 5. Notes 1 to 4 all apply to this part number. 6. Check valve train geometry before ordering pushrod. 7. Pushrod length varied in this model. Check length before ordering. 8. Spring height varies in models, check spring pressure before installation.

FITTING NOTES:

- Converter stall speed should be equal to or greater than the minimum rpm of the cam power range.
- All lash settings quoted are measured hot. • The use of high volume oil pumps may cause premature wear of the distributor gear.

CONICAL VALVE SPRING KITS

Part Number	Installed Height	Installed Pressure	Pressure @.5 Lift	Max. Lift	Solid Height	Spring Retainer	Valve Locks
FORD BA 6 CYLINDER INCLUDES SPRINGS AND RETAINERS. **LOCKS NOT INCLUDED**							
VTKBA6T-24	1.520”	105	205	.570”	.900”	10703-24	Std
FORD BA V8 XR8 TO MAY 2008 INCLUDES SPRINGS AND RETAINERS. **LOCKS NOT INCLUDED**							
VTKBAXR8-32	1.520”	105	205	.570”	.900”	10704-32	Std
FORD CLEVELAND V8 302-351 CONICAL SPRING KIT **SINGLE GROOVE VALVE ONLY** I NCLUDES SPRINGS, RETAINERS AND LOCKS							
VTKCS84	1.920”	140	310	.600”	1.220”	11709-16	4134-16
HOLDEN 6 VP-VR INCLUDES SPRINGS AND RETAINERS. **LOCKS NOT INCLUDED**							
VTKCS61	1.725”	125	275	.550”	1.100"	11708-12	Stock
HOLDEN ECOTEC V6 INCLUDES SPRINGS, RETAINERS AND LOCKS							
VTK-ECOTEC	1.780”	120	270	.550”	1.100”	10707-12	10701-12
VTK-ECOTEC-R	1.780"	150	310	.580"	1.100”	10707-12	10701-12
HOLDEN V8 304-308 CONICAL SPRING KIT NOTE: ENGINE NEEDS TO BE FITTED WITH POSITIVE STEM SEALS. SPECIAL FITTING REQUIRED. PLEASE CONTACT CROW CAMS TECHNICAL DEPARTMENT BEFORE FITTING. INCLUDES SPRINGS, RETAINERS AND LOCKS							
VTKCS83	1.800”	135	305	.600”	1.125”	11708-16	4133-16
VTKCS83A	1.850”	115	300	.600”	1.125”	11708-16	4134-16

VALVE SPRING & RETAINER KITS

Part Number	Installed Height	Installed Pressure	Pressure @.5 Lift	Max. Lift	Coil Bind	Spring	Spring Retainer	Valve Locks
CROW VALVE SPRING KITS **DUAL SPRINGS MEASURED WITH 0.100" SPACER ON INNER SPRING** SUITABLE FOR MILD FORD AND HOLDEN HYDRAULIC APPLICATIONS.								
VTK173K *HOLDEN 6CYL*	1.625”	90	210	0.645”	0.930”	4719-12	11707-12	11703-12
VTK186K *HOLDEN 6CYL*	1.625”	115	250	0.615”	0.960”	4823-12	11707-12	11703-12
VTK202K *HOLDEN 6CYL*	1.470”	120	215	0.470”	0.950”	4028-12	11707-12	11703-12
VTK250K *FORD 6CYL MULTI GROOVE VALVE*	1.760”	115	290	0.600”	1.120”	7739-12	12706-12	11704-12
VTK302K *WINDSOR V8*	1.700”	115	290	0.510”	1.150”	7736-12	11700-16	11701-16
VTK308K *HOLDEN V8*	1.700”	110	320	0.570”	1.080”	4833-16	11707-16	11701-16
VTK350K *SBC V8*	1.700”	120	320	0.490”	1.160”	4843-16	11707-16	11701-16
VTK351K *CLEVO V8 MULTI GROOVE VALVE*	1.760”	115	290	0.600”	1.120”	7739-16	12706-16	11702-16
VTKXR8 *(FORD EB-AU11 EFI 5L)*	1.750”	120	300	0.600”	1.120”	7739-16	11700-XR8	4135-16

NOTES: 2. Must use performance retainers 3. Machining required to fit these components 4. Must use performance seal 5. Notes 2 to 4 all apply to this part number.

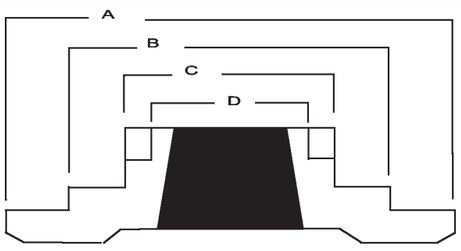
VALVE SPRING & RETAINER KITS

Part Number	Installed Height	Installed Pressure	Pressure @.5 Lift	Max. Lift	Spring Seat	Spring	Spring Retainer	Valve Locks
FORD 6 CYL AU SPRING KITS **DUAL SPRINGS MEASURED WITH RETAINER** INCLUDES SPRINGS AND RETAINERS. **LOCKS NOT INCLUDED. DUAL SPRINGS REQUIRE HEAD MACHINING TO FIT.**								
VTKAU[3]	1.820"	98	255	.650”	VSS1456	7332-12 [D]	11740-12	Stock
VTKAU-S[3]	1.820"	100	270	.600"	Std	7739-12	11750-12	Stock
VTKAU-R[3]	1.820”	124	285	.650”	VSS1456	7333-12 [D]	11740-12	Stock
FORD COYOTE V8 MUSTANG SPRING KIT INCLUDES SPRINGS AND TITANIUM RETAINERS. **LOCKS NOT INCLUDED**								
Part Number	Installed Height	Installed Pressure	Pressure @.5 Lift	Max. Lift	Coil Bind	Spring	Spring Retainer	Valve Locks
VTKCOYOTE	1.575”	92 @ 1.550"	218 @ 1.050”	.575”	0.941”		Titanium Retainers	Standard
HOLDEN V8 LS1, LS2, LS7 SINGLE SPRING KITS INCLUDES SPRINGS, RETAINERS, LOCKS, STEM SEALS AND SHIMS.								
VTKLS1	1.780"	120	270	.550"	1.100"	4231-16	10707-16	10701
VTKLS5	1.780"	140	330	.600"	1.100"	1511ML-16	10707-16	10701
HOLDEN V8 LS1, LS2, LS7 DOUBLE SPRING KIT INCLUDES SPRINGS, RETAINERS, LOCKS, STEM SEALS AND SHIMS. **DUAL SPRINGS MEASURED WITH 0.100"SPACER ON INNER SPRING**								
VTKLS8	1.780”	165	340	.650”	1.000"	4438-16 [D]	10708-16	10701
VTKLST	1.800”	165	360	.650”	1.020”	4439-16 [D]	Included Titanium	10701
VTKLS9	1.800”	165	360	.650”	1.020”	4439-16 [D]	10708-16	10701
VTKLST1	1.800"	170	390	.700"	1.000"	4207X-16 [D]	Included Titanium	10701
VTKLST2	1.800"	180	425	.750"	1.000"	4209X-16 [D]	Included Titanium	10701
NISSAN PATROL TB48 SINGLE SPRING KIT INCLUDES SPRINGS AND RETAINERS. **LOCKS NOT INCLUDED**								
VTK4162	1.550”	90	230	0.550”	0.94”	4162	10716	Std
TOYOTA LANDCRUISER 1FZ-FE SINGLE SPRING KIT INCLUDES SPRINGS AND RETAINERS. **LOCKS NOT INCLUDED**								
VTK4163	1.487"	105	235	.462"	0.93”	4163	10715	Stock

Note: Springs marked with xxxx-xx[D] denotes that it is a double spring.

VALVE SPRING RETAINERS

Part Number	Material	Diam A	Diam B	Diam C	Diam D	Valve Stem	Spring Height	Locks
HIGH PERFORMANCE & RACE VALVE SPRING RETAINERS								
10703	Chromoly	0.920”	0.630”	0.475”		6mm	Standard	7 degree
10704	Chromoly	0.950"	0.620"			7mm	Standard	7 degree
10705	Chromoly	0.950"	0.620"			7mm	Standard	7 degree
10706	Chromoly	1.030"	0.645"			8mm	+0.50"	7 degree
10707	Chromoly	1.045”	0.630”			8mm	Standard	7 degree
10708	Chromoly	1.205”	0.940”	0.675”		8mm	Standard	7 degree
10709	Chromoly	1.378"	1.063"	0.709"		8mm	Standard	7 degree
10710	Chromoly	0.925"	0.627"	0.469"		6mm	+0.100"	7 degree
10714	Chromoly	1.043"	0.740"	0.520"		6mm	Standard	7 degree
10715	Chromoly	1.150"	0.830"	0.640"		7mm	Standard	7 degree
10716	Chromoly	1.060"	0.770"	0.485"		7mm	Standard	7 degree
10720	Chromoly	1.300"	0.970"	0.690"		RB30 Std	RB30 Std	7 degree
11700	Chromoly	1.398"	1.025"	0.730"		.343"	Standard	7 degree
11706	Chromoly	1.205"	0.940"	0.675"		.343"	+0.040"	7 degree
11707	Chromoly	1.245"	0.850"	0.670"		.343"	Standard	7 degree
11708	Chromoly	1.015”	0.620”			.343”	Standard	7 degree
11709	Chromoly	1.015”	0.655”			.343”	Standard	7 degree
11710	Chromoly	1.400"	1.025"	0710"		.343"	+.0.100"	7 degree
11717	Chromoly	1.245"	0.865"	0.670"		.343"	+.0.100"	7 degree
11740	Chromoly	1.375”	1.045”	0.675”		7mm	Standard	7 degree
11750	Chromoly	1.375”	1.020”	0.675”		7mm	Standard	7 degree
12700	Chromoly	1.395"	1.030"	0.730"		.343"-.375"	Standard	7 degree
12706	Chromoly	1.395"	1.030"	0.730"		.343"-.375"	-0.060"	7 degree
12710	Chromoly	1.395"	1.025"	0.730"		.343"-.375"	+.0.100"	7 degree
13101	Chromoly	1.380"	1.060"	0.715"		.312"-.375"	+.0.100"	10 degree
13102	Chromoly	1.490”	1.105”	0.710”		.312”-.375”	+.0.100”	10 degree
TR405	Titanium	1.448”	1.090”	0.780”		.312"-.375"	+.0.100"	10 degree
TR435	Titanium	1.250"	0.940"	.680"		8mm	Standard	7 Degree
TR535	Titanium	1.500"	1.180"	0.830"	0.640”	.312"-.375"	+.0.100"	10 degree
TR565	Titanium	1.480"	1.180"	0.865"	0.635"	.312"-.375"	+.0.100"	10 degree



VALVE LOCKS (COLLETS)

Part Number	Type	Description	Sales Unit	Valve Stem	Spring Height	Taper
VALVE LOCKS / COLLETS						
4133-12 **4133-16**	Machined	Single Groove	Per Pair, 6/8 Cyl Set	.343”	Standard	7 degree
4134-12 **4134-16**	Machined	Single Groove	Per Pair, 6/8 Cyl Set	.343”	+.050”	7 degree
4135-12 **4135-16**	Machined	Single Groove	Per Pair, 6/8 Cyl Set	.343”	-.050"	7 degree
10701-12 **10701-16**	Hardened	Single Radius Groove	Per Pair, 6/8 Cyl Set	8mm	Standard	7 degree
11101-12 **11101-16**	Machined	Single groove	Per Pair, 6/8 Cyl Set	.343”	Standard	10 degree
11102-12 **11102-16**	Machined	Single Groove	Per Pair, 6/8 Cyl Set	.343”	-.050”	10 degree
11701-16	Hardened	Single groove	8 Cyl Set	.343”	Standard	7 degree
11702-16	Hardened	Multi Groove	8 Cyl Set	.343”	Standard	7 degree
11703-12	Hardened	Single Groove	6 Cyl Set	.343”	Standard	7 degree
11704-12	Hardened	Multi Groove	6 Cyl Set	.343”	Standard	7 degree
12102-12	Hardened	Chrysler Hemi 6 cylinder Set	6 Cyl Set	.375”	Standard	7 degree
12701-1	Hardened	Single Groove Chev, Ford B/B Chrysler	Per Pair	.375”	Standard	7 degree
12704-1	Hardened	Chrysler exhaust Multi Groove	Per Pair	.375”	Standard	7 degree
12708-16	Hardened	Single Groove, Chev ,Ford,Chrysler	8 Cyl Set	.375”	Standard	7 degree
12108-12 **12108-16**	Hardened	In 2 Groove, Ex 4 Groove. Chrysler	6/8 Cyl Set	.375”	Standard	7 degree

VALVE TRAIN ACCESSORIES

VALVE SPRING SEATS

Part Number	O/D	Spigot Diam.	Bore	Thickness	Part Number	O/D	Spigot Diam.	Bore	Thickness
VSS1251	1.280"	0.670"	0.510"	.050"	**VSS1451**	1.440"	1.080"	0.500"	.095"
VSS1252	1.270"	0.680"	0.560"	.045"	**VSS1452**	1.440"	0.790"	0.510"	.060"
VSS1258	1.280"	0.880"	0.500"	.060"	**VSS1456**	1.440"	0.790"	0.560"	.050"

VALVE SPRING SHIMS Marked Shims Available In .060"(A) .030"(B) And .015"(C) Thick.

Part Number	O.D.	I.D	Part Number	O.D.	I.D.	Part Number	O.D.	I.D.
VS250 (A,B,C)	1.250"	0.500"	**VS306 (B)**	1.440"	0.640"	**VS510 (A,B,C)**	1.510"	0.570"
VS203 (A,B)	1.250"	0.805"	**VS305 (B,C)**	1.440"	0.780"	**VS740 (A,B,C)**	1.640"	0.630"
VS438 (B)	1.435"	0.562"	**VS303 (A,B,C)**	1.480"	0.700"			
VS437 (A,B)	1.437"	0.500"	**VS103 (A)**	1.500"	1.020"			

VALVE STEM SEALS

Part Number	Valve Stem	Guide Diam.	Part Number	Valve Stem	Guide Diam.	Part Number	Valve Stem	Guide Diam.
VSV108	.342" (11/32")	.502"	**VSV530**	.342" (11/32")	.530"	**S9**	8mm	.500"
KG303	.342" (11/32")	.765"	**KG317**	.342" (11/32")	.700"	**VSV802**	.311" (5/16")	.531"
KG819	.342" (11/32")	.280"						

PUSHROD GUIDE PLATES

Part Number	Pushrod Diameter	Application	Part Number	Pushrod Diameter	Application
GP186	5/16"	Holden 6. 186,202	**GP308**	5/16"	Holden 308
GP350	5/16"	Chev 350 Stepped	**GP351**	5/16"	Ford 351C Stepped
GP302	5/16"	Ford 302W	**GP304**	5/16"	Holden EFI V8
GP455	7/16"	Chev Big Block			

VALVE STEM LASH CAPS (0.080" Thick)

Part Number	Dimensions	Application
34301	11/32" valve 0.343"	Holden, Chev SB, Ford 302-351

CROW CAMS DEGREE WHEELS

Part Number		Part Number	
DW1 **8" Black Degree Wheel** **Center Hole Diameter: 19.5mm**		**DW2** **11" Racer Degree Wheel** **Center Hole Diameter: 10mm**	

CROW CAMS DISTRIBUTOR GEARS

TREATED CAST IRON OIL PUMP / DISTRIBUTOR GEARS

Part Number	Application	Part Number	Application
DG2	Falcon 6 XD on with 0.490" dist. shaft.	**60062**	Valiant 265 15 tooth oil pump gear
DG2A	Falcon 6 points dist. with 0.530"shaft	**DG4**	Holden V8 oil pump gear suit roller cams

BRONZE & MELONITE COATED DISTRIBUTOR GEARS

Part Number	Application	Part Number	Application
BG3	Chev Bronze Gear .501" Shaft Size	**MG3**	Chev Melonite Gear .501" Shaft Size
BG4	Chev Bronze Gear .491" Shaft Size	**MG4**	Chev Melonite Gear .491" Shaft Size
BG5	Ford Windsor Bronze Gear .531" Shaft Size	**MG5**	Ford Windsor Melonite Gear .531" Shaft Size
BG6	Ford Cleveland Bronze Gear .531" Shaft Size	**MG6**	Ford Cleveland Melonite Gear .531" Shaft Size
BG8	Ford Windsor Bronze Gear .502" Shaft Size	**MG8**	Ford Windsor Melonite Gear .502" Shaft Size
BG9	Ford Cleveland Bronze Gear .502" Shaft Size	**MG9**	Ford Cleveland Melonite Gear .502" Shaft Size
BG10	Ford Windsor Bronze Gear .467" Shaft Size	**MG10**	Ford Windsor Melonite Gear .467" Shaft Size
BG13	Chrysler SB Bronze Gear .501" Shaft Size	**MG11**	Ford Cleveland Melonite Gear .491" Shaft Size
		MG12	Ford Windsor Melonite Gear .491" Shaft Size

BRONZE GEARS

Crow Bronze Distributor Gears are made in the US from premium IMPCO 45 B600C Bronze stock. They are suitable for all steel roller camshafts including severe duty Carburised 8620, 9310 and tool steel billets.

IMPCO 45 is known for its wear resistance compared to other bronze less expensive materials typically used.

MELONITE GEARS

Crow Melonite Distributor Gears are US made and have a melonite surface treatment to improve wear resistance on cast flat tappet and hydraulic roller cams. They are also suitable for all Crow 1050 Induction Hardened Steel Solid Roller Camshafts.

Melonite gears are not suitable for custom race cams using Carburised 8620, 9310 or Tool Steel.

CROW CAMS next gen
STAINLESS STEEL ROLLER ROCKERS

NOTE: REQUIRES STUDS AND GUIDE PLATES WHEN FITTING. NOT SUITABLE FOR SOLID ROLLER APPLICATIONS

An unbeatable combination of strength, rigidity and value for money. With more aggressive cam profiles and heavier valve springs now common in street and race applications the limitations of extruded alloy as a rocker material are clearly evident. The flex alloy rockers exhibit reduces valve lift and horsepower potential and the stresses can lead to arm failure

Crow Cams new stainless steel stud type roller rockers offer virtually zero arm deflection for maximum valve lift and unrivalled resistance to arm breakage.

The oversize rocker shafts allow for 7/16 studs to be used without comprising shaft strength. The larger shafts and needle roller bearings also offer greater load capacity for high valve springs pressures.

Every set come complete with poly locks for added value and simple, secure valve lash adjustments.

These are stud mount rockers so heads will require machining to fit studs and guide plates.

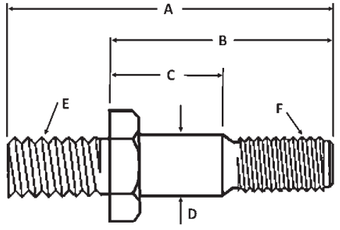
Application	Part Number	Max Spring Pressure	Guide Plates (5/16 Only)	Studs
Chev SB 1.5RR 3/8 stud	CRCSB153	500lb	GP350	CST102920
Chev SB 1.5RR 7/16 stud	CRCSB157	600lb	GP350	CST100941
Chev SB 1.6RR 3/8 stud	CRCSB163	500lb	GP350	CST102920
Chev SB 1.6RR 7/16 stud	CRCSB167	600lb	GP350	CST100941
Chev BB 1.73RR 7/16 stud	CRCBB177	600lb	N/A	CST100941
Ford Xflow 6 Cyl 1.73RR 7/16 stud	CRFX177	600lb	N/A	CST100941-12
Ford Windsor 1.6RR 3/8 stud	CRFW163	500lb	GP302	CST102920
Ford Windsor 1.6RR 7/16 stud	CRFW167	600lb	GP302	CST100940
Ford Cleveland 1.73RR 7/16 stud	CRFCL177	600lb	GP351	CST100940
Holden 6 1.5RR 3/8 stud	CRHL6153	500lb	GP186	CST102920-12
Holden 6 1.5RR 7/16 stud	CRHL6157	600lb	GP186	CST100941-12
Holden V8 1.65RR 7/16 stud	CRHL8167	600lb	GP308/GP304	CST100941

CROW CAMS
CRYO TREATED ROCKER STUDS

The best stud rockers deserve the best screw in rocker studs and Crow Cams now offer unique cryogenically treated rocker studs to suit 3/8" and 7/16" rockers.

Cryogenic treatment stabilises the material for great strength and maximises surface harness for wear resistance

Application	Part Number	Length (Refer to diagram)					
		A	B	C	D	E	F
Ford V8 Stud	CST100940	2.670"	1.910"	.810"	7/16	7/16 (UNC)	7/16 (UNF)
GM V8 Stud	CST100941	2.560"	1.765"	.875"	7/16	7/16 (UNC)	7/16 (UNF)
GM V8 Stud	CST102920	2.325"	1.725"	.850"	3/8	7/16 (UNC)	3/8 (UNF)
GM 6 Stud	CST102920-12	2.325"	1.725"	.850"	3/8	7/16 (UNC)	3/8 (UNF)
GM 6 Stud	CST100941-12	2.560"	1.765"	.875"	7/16	7/16 (UNC)	7/16 (UNF)



CROW CAMS next gen
ONE PIECE THICK WALL PUSHRODS

- Made in the USA by the leading OEM supplier for Crow Cams
- All popular sizes available ex-stock

5/16" 0.110" WALL 210 RADIUS

Length (inches)	Part Number	Length (inches)	Part Number	Length (inches)	Part Number
6.200	**PR5620-110**	7.550	**PR5755-110**	9.050	**PR5905-110**
6.250	**PR5625-110**	7.600	**PR5760-110**	9.100	**PR5910-110**
6.300	**PR5630-110**	7.650	**PR5765-110**	9.150	**PR5915-110**
6.350	**PR5635-110**	7.700	**PR5770-110**	9.200	**PR5920-110**
6.400	**PR5640-110**	7.750	**PR5775-110**	9.250	**PR5925-110**
6.450	**PR5645-110**	7.800	**PR5780-110**	9.300	**PR5930-110**
6.500	**PR5650-110**	7.850	**PR5785-110**	9.350	**PR5935-110**
6.600	**PR5660-110**	7.900	**PR5790-110**	9.400	**PR5940-110**
6.700	**PR5670-110**	7.950	**PR5795-110**	9.450	**PR5945-110**
6.750	**PR5675-110**	8.000	**PR5800-110**	9.500	**PR5950-110**
6.800	**PR5680-110**	8.050	**PR5805-110**	9.550	**PR5955-110**
6.850	**PR5685-110**	8.100	**PR5810-110**	9.600	**PR5960-110**
6.900	**PR5690-110**	8.150	**PR5815-110**	9.650	**PR5965-110**
6.950	**PR5695-110**	8.200	**PR5820-110**	9.700	**PR5970-110**
7.000	**PR5700-110**	8.250	**PR5825-110**	9.750	**PR5975-110**
7.025	**PR5702-110**	8.300	**PR5830-110**	9.800	**PR5980-110**
7.050	**PR5705-110**	8.350	**PR5835-110**	10.45	**PR5045-110**
7.100	**PR5710-110**	8.400	**PR5840-110**	10.55	**PR5055-110**
7.150	**PR5715-110**	8.450	**PR5845-110**	10.60	**PR5060-110**
7.200	**PR5720-110**	8.500	**PR5850-110**	10.70	**PR5070-110**
7.250	**PR5725-110**	8.550	**PR5855-110**	10.75	**PR5075-110**
7.300	**PR5730-110**	8.600	**PR5860-110**	10.80	**PR5080-110**
7.325	**PR5732-110**	8.650	**PR5865-110**	10.85	**PR5085-110**
7.350	**PR5735-110**	8.700	**PR5870-110**	10.95	**PR5095-110**
7.375	**PR5737-110**	8.750	**PR5875-110**		
7.400	**PR5740-110**	8.800	**PR5880-110**		
7.425	**PR5742-110**	8.850	**PR5885-110**		
7.450	**PR5745-110**	8.900	**PR5890-110**		
7.500	**PR5750-110**	8.950	**PR5895-110**		
7.525	**PR5752-110**	9.000	**PR5900-110**		

3/8" 0.138" WALL 210 RADIUS

Length (inches)	Part Number	Length (inches)	Part Number
6.300	**PR8630-138**	9.000	**PR8900-138**
6.500	**PR8650-138**	9.050	**PR8905-138**
7.000	**PR8700-138**	9.100	**PR8910-138**
7.100	**PR8710-138**	9.150	**PR8915-138**
7.250	**PR8725-138**	9.200	**PR8920-138**
7.325	**PR8732-138**	9.250	**PR8925-138**
7.375	**PR8737-138**	9.300	**PR8930-138**
7.500	**PR8750-138**	9.350	**PR8935-138**
7.550	**PR8755-138**	9.400	**PR8940-138**
7.600	**PR8760-138**	9.450	**PR8945-138**
7.650	**PR8765-138**	9.500	**PR8950-138**
7.700	**PR8700-138**	9.550	**PR8955-138**
7.750	**PR8775-138**	9.600	**PR8960-138**
7.800	**PR8780-138**	9.650	**PR8965-138**
7.850	**PR8785-138**	9.750	**PR8975-138**
7.900	**PR8790-138**	9.800	**PR8980-138**
7.950	**PR8795-138**	9.900	**PR8990-138**
8.000	**PR8800-138**	9.950	**PR8995-138**
8.050	**PR8805-138**		
8.100	**PR8810-138**		
8.150	**PR8815-138**		
8.200	**PR8820-138**		
8.250	**PR8825-138**		
8.300	**PR8830-138**		
8.350	**PR8835-138**		
8.400	**PR8840-138**		
8.450	**PR8845-138**		
8.500	**PR8850-138**		
8.550	**PR8855-138**		
8.600	**PR8860-138**		
8.865	**PR8865-138**		
8.700	**PR8870-138**		
8.750	**PR8875-138**		
8.800	**PR8880-138**		
8.850	**PR8885-138**		
8.900	**PR8890-138**		
8.950	**PR8950-138**		

CROW CAMS

ONE PIECE 180° CHROME MOLY PUSHRODS 0.80" WALL

PART NUMBER
5/16" .080 WALL

Length (inches)	Part Number
6.20	**PR5620**
6.40	**PR5640**
6.45	**PR5645**
6.75	**PR5675**
9.00	**PR5900**
9.05	**PR5905**
9.10	**PR5910**
9.15	**PR5915**
9.20	**PR5920**
9.25	**PR5925**
9.30	**PR5930**
9.35	**PR5935**
9.40	**PR5940**
9.45	**PR5945**

Length (inches)	Part Number
9.50	**PR5950**
9.55	**PR5955**
9.60	**PR5960**
9.65	**PR5965**
9.70	**PR5970**
9.75	**PR5975**
10.45	**PR5045**
10.55	**PR5055**
10.60	**PR5060**
10.70	**PR5070**
10.75	**PR5075**
10.80	**PR5080**
10.85	**PR5085**
10.95	**PR5095**

PART NUMBER
3/8" .080 WALL

Length (inches)	Part Number
8.65	**PR8865-210**
8.75	**PR8875-210**
8.95	**PR8895-210**
9.00	**PR8900-210**
9.05	**PR8905-210**
9.10	**PR8910-210**
9.15	**PR8915-210**
9.20	**PR8920-210**
9.45	**PR8945-210**

Length (inches)	Part Number
9.50	**PR8950-210**
9.55	**PR8955-210**
9.60	**PR8960-210**
9.65	**PR8965-210**
9.75	**PR8975-210**
9.80	**PR8980-210**
9.90	**PR8990-210**
9.95	**PR8995-210**

PR-HEMI-16 HEMI 5.7 PUSHROD SET. INDLUDES:

Length (inches)	Part Number	Quantity
6.60	**PR5660-110**	8
7.85	**PR5785-110**	8

CROW CAMS next Gen

ONE PIECE OIL RESTRICTOR PUSHRODS .083

- Pushrods designed to restrict excessive oil flow to cylinder heads. Top Oil Hole .040" Bottom Oil Hole .080". Wall Thickness .083"

PART NUMBER LISTING
5/16" .083" WALL

Length (inches)	Part Number
7.35	**PR5735R**
7.40	**PR5740R**
7.45	**PR5745R**
7.80	**PR5780R**
7.85	**PR5785R**
7.90	**PR5790R**
7.95	**PR5795R**
8.00	**PR5800R**
8.05	**PR5805R**
8.10	**PR5810R**

Length (inches)	Part Number
8.15	**PR5815R**
8.20	**PR5820R**
8.25	**PR5825R**
8.30	**PR5830R**
8.35	**PR5835R**
8.40	**PR5840R**
8.45	**PR5845R**
8.50	**PR5850R**
8.55	**PR5855R**
8.60	**PR5860R**

Length (inches)	Part Number
8.65	**PR5865R**
8.70	**PR5870R**
8.75	**PR5875R**
8.80	**PR5880R**
8.85	**PR5885R**
8.90	**PR5890R**
8.95	**PR5895R**
9.00	**PR5900R**
9.05	**PR5905R**

PUSHRODS

SUPERDUTY PUSHRODS 1 PIECE, 0.080" WALL HEAT TREATED HIGH CARBON STEEL 5/16"

Part Number	Length	Application	Part Number	Length	Application
PR-966	6.30"	Ford XR8 + 0.050"	**PR-988**	8.10"	Holden VT 304 V8 roller lifter
PR-963	6.80"	Ford 289W V8 68-69	**PR-947**	8.15"	Ford 351W
PR-948	6.90"	Ford 302W '69-85	**PR-995**	8.30"	Holden V8 Hyd. roller Lifters
PR-905	7.05"	Holden Ecotec V6	**PR-950**	8.40"	Ford 351C
PR-956	7.35"	LS1 – 0.050"	**PR-955**	8.50"	Ford 351C + 0.100"
PR-959	7.375"	LS1 - 0.025"	**PR-978**	8.55"	Ford 351. solid lifter. 429,460
PR-957	7.40"	Holden/Chev V8 LS1	**PR-964**	8.70"	Holden 253-308
PR-958	7.45"	LS1 + 0.050"	**PR-974**	8.80"	Holden 253-308 + 0.100"
PR-937	7.80"	Chev 350	**PR-990**	9.00"	Holden 202, 308 Group A
PR-977	7.90"	Chev 350 + 0.100"	**PR-926**	9.13"	Holden 186
PR-987	7.95"	Holden VN-VR V6	**PR-962**	9.65"	Ford XF - 0.030"
PR-983	8.00"	Chev 350 + 0.200"	**PR-917**	9.70"	Falcon Crossflow

STANDARD REPLACEMENT PUSHRODS 5/16" HARDENED WHERE MARKED*

Part Number	Length	Application	Part Number	Length	Application
PR-105*	9.136"	Holden 186	**PR-387***	8.721"	Holden 308 +.030"
PR-281*[1]	6.876"	Ford Windsor	**PR-414***	8.423"	Ford Cleveland +.015"
PR-309	8.408"	Ford Clev.Std	**PR-422***	9.016"	Holden 202
PR-317	9.682"	Ford XF Std	**PR-433**	7.290"	
PR-34B*	7.794"	Chev 350	**PR-605**	7.050"	Holden Ecotec V6 Std
PR-384	7.944"	Holden VP-VR V6			

NOTES: 1. Check length before ordering as length varies between models.

CROW CAMS MICROMETER CHECKING PUSHRODS

These precision crafted checking pushrods allow precise measurement of pushrod length without the need for callipers or micrometers. Available individually or in sets.

Part Number	Individual Range	Part Number	Sets
PR-CHECK-6	5.800 - 6.800	**PR-CHECK-10**	9.800 - 10.800
PR-CHECK-7	6.800 - 7.800	**PR-CHECK-11**	10.800 - 11.800
PR-CHECK-8	7.800 - 8.800	**PR-CHECK-S2**	2 piece set covering 7.80 - 9.80
PR-CHECK-9	8.800 - 9.800	**PR-CHECK-S4**	4 piece set covering 5.80 - 9.80

CROW CAMS BILLET PERFORMANCE CHAIN SETS

Crow single and double row billet steel timing chain sets are the ultimate in strength, timing accuracy and long term durability.

The new Crow Timing sets now feature a German IWIS brand timing chain for much greater resistance to chain stretch and breakage.

- Precision CNC Machined billet steel top and bottom gears
- Induction hardened crank gear for exceptional wear resistance on gear teeth
- Nine keyways broached on crank gear in one pass with one tool to insure timing accuracy 6 cylinder gear have 7 keyways
- German quality IWIS true roller timing chain

HIGH PERFORMANCE TIMING CHAIN SETS

Featuring hardened teeth for durability and multi keyway for precise cam timing.

Part Number	Application	Sensor Triggers	Type	Chain Part Number
CS8350	Chev Small Block 283-400	N/A	Double	**3DR 58-IWIS**
CS8350T	Chev Small Block with Torrington thrust	N/A	Double	**3DR 58-IWIS**
CS8350TPI	Chev Small Block late LT1 TPI injection	N/A	Double	**3DR 58-IWIS**
CS8350+005	Chev S/B +005L/Bore Timing Set	N/A	Double	**3DR 58-IWIS + 005”**
CS8350+010	Chev S/B +010L/Bore Timing Set	N/A	Double	**3DR 58-IWIS + 010”**
CS8454T	Chev Big Block with Torrington thrust	N/A	Double	**3DR 66-IWIS**
CS8LSA	Chev/Holden LSA 3 bolt	4 Triggers	Double	**3DR 60-IWIS**
CS8LSA-SR	Chev/Holden LSA 3 bolt. Single Row Chain	4 Triggers	Single	**3SR 60-IWIS**
CS8LS1	Chev/Holden LS1 3 bolt	No Triggers	Double	**3DR 60-IWIS**
CS8LS1-SR	Chev/Holden LS1 3 bolt. Single Row Chain	No Triggers	Single	**3SR 60-IWIS**
CS8LS2	Chev/Holden LS2 3 bolt with position trigger	Half Moon Single Trigger	Double	**3DR 60-IWIS**
CS8LS2-SR	Chev/Holden LS2 3 bolt with position trigger	Half Moon Single Trigger	Single	**3SR 60-IWIS**
CS8L98	Chev/Holden L98 1 bolt. Double Row Chain	4 Triggers	Double	**3DR 60-IWIS**
CS8LS-VE-SR	Chev/Holden LS3, L76, L77, L98, 6.0/6.2L.	4 Triggers	Single	**3SR 60-IWIS**
CS8LS7	Chev/Holden LS7 3 bolt. Double Row Chain	4 Triggers	Double	**3DR 60-IWIS**
CS8LS7-SR	Chev/Holden LS7 3 bolt. Single Row Chain	4 Triggers	Single	**3SR 60-IWIS**
CS8LS7+005	Chev/Holden LS7+5 Double Row Set	4 Triggers	Double	**3DR 60-IWIS + 005”**
CS6225	Chrysler Slant 6 engine	N/A	Double	**3DR 66-IWIS**
CS6265	Chrysler 245-265 3 Bolt	N/A	Double	**3DR 56-IWIS**
CS8318	Chrysler 273-360	N/A	Double	**3DR 68-IWIS**
CS8440	Chrysler Big Block 1 Bolt	N/A	Double	**3DR 66-IWIS**
CS8440B	Chrysler Big Block 3 Bolt	N/A	Double	**3DR 66-IWIS**
CS41500	Ford Kent 4 cyl Double Row race set	N/A	Double	**3DR 46-IWIS**

No Trigger

Single Trigger

4 Triggers

HIGH PERFORMANCE TIMING CHAIN SETS

Featuring hardened teeth for durability and multi keyway for precise cam timing.

Part Number	Application	Sensor Triggers	Type	Chain Part Number
CS6250	Ford Falcon 6 200-250	N/A	Double	**3DR 52-IWIS**
CS6250+010	Falcon 6 Chain Set LB 0.cacalc010”	N/A	Double	**3DR 60-IWIS + 010”**
CS6EA-VS	Ford Vernier Set suit EA-AU Falcon	N/A	Double	**3DR 114-IWIS**
CS6170	Ford 144,170,200 XM-XP Timing Set	N/A	Double	**3DR 50-IWIS**
CS8302W	Ford 289, 302, 351 Windsor	N/A	Double	**3DR 58-IWIS**
CS8302WEFI	Ford Falcon V8 EB on EFI engines and 351 Windsor	N/A	Double	**3DR 58-IWIS**
CS8302WEFI+005	Ford EB-EF V8 Chain Set + 0.005	N/A	Double	**3DR 58-IWIS + 005”**
CS8302WEFI+010	Ford EB-EF V8 Chain Set +0.010	N/A	Double	**3DR 58-IWIS + 010”**
CS8351C	Ford 302-351 Cleveland	N/A	Double	**3DR 64-IWIS**
CS8351C-SVO	Ford Cleveland stroker engine	N/A	Double	**3DR 64-IWIS**
CS8351C+005	Ford CS8351C +005” Line Bore Set	N/A	Double	**3DR 64-IWIS + 005”**
CS8351C+010	Ford CS8351C +010” Line Bore Set	N/A	Double	**3DR 64-IWIS + 010”**
CS8FE428	Ford FE V8 352-428	N/A	Double	**3DR 64-IWIS**
CS8460	Ford 429-460	N/A	Double	**3DR 66-IWIS**
CS6VN	Holden VN V6 Single Row to Nov’90	N/A	Single	**3SR 54-IWIS**
CS6VP	Holden VN,VP Nov’90 on 2 spline oil pump	N/A	Single	**3SR 54-IWIS**
CS6VS	Holden Oct-94 onVR,VS,VT 6 spline oil pump	N/A	Single	**3SR 54-IWIS**
CS6VSVTHP	Holden Ecotec Double Row Timing Set	N/A	Double	**3DR 54-IWIS**
CS8308	Holden V8 Suit 308 Carby and 304/355 EFI	N/A	Double	**3DR 62-IWIS**
CS8308+005	Holden 308 Linebore Timing Set 0.005”	N/A	Double	**3DR 62-IWIS + 005”**
CS8308+010	Holden 308 Linebore Timing Set 0.010”	N/A	Double	**3DR 62-IWIS + 010”**
CS8P76	Leyland Rover, P76 V8	N/A	Double	**3DR 54-IWIS**

HOLDEN 6CYL TIMING SETS Featuring Multiple keyways for precise cam timing

Part Number	Description
CS6202	Straight cut hardened steel gears. Not recommended for street use.
44HP	Helical gears for silent running, alloy cam gear, multi keyway iron crank gear & thrust plate.

VERNIER CAM GEARS For infinite and simple adjustment of valve timing

Part Number	Description		
CS42000-V	Ford 2000 steel vernier gear.	**CS8LS1-SRV**	GM LS1 Vernier Single Row Gear Set
CS6EA-V	Ford EA- AU vernier cam gear. Not VCT motor	**CS8LS7-SRV**	GM LS7, L98 Three Bolt Vernier Single Row Set
CS6RB30-V	Nissan RB30 vernier gear. Aluminium.	**VG-BARRA**	Vernier Cam Gears suit 4.0L BA-FG Barra DOHC.

HOLDEN LS CAM GEARS (See LS Grinds Page) Cam gear only.

Part Number	Description
12586481	VE 3 Bolt Gear Genuine GM Single Row **4 Triggers**
12576407	LS2 3 Bolt Gear Genuine GM Single Row **1 Trigger (Half Moon style)**
CS8LS-VE3	3 Bolt Heavy Duty Steel Cam Gear Single Row **4 Triggers**

CAM FOLLOWERS

HYDRAULIC LIFTERS NOTE* C SUFFIX DENOTES LIFTER WITH HEAVY DUTY CHILLED IRON BASE

Part Number	Application	Model	Body Dia.	Roller Dia.	Oil Through Pushrod	Max Pressure
HT817C	GM	Chevrolet	.840"	Flat Tappet	Yes	320
HT900	Ford	Falcon Xflow 6, Cleveland, Windsor V8 & 429-460	.872"	Flat Tappet	Yes	320
HT950	Ford Falcon 6, FE V8	Pre Xflow 6, FE V8	.872"	Flat Tappet	No	320
BA-ADJ-1	Ford	BA 6 Cyl Hyd Lifter	.550	Flat Tappet	No	320
HT951	Pontiac, Olds	Most V8	.840"	Flat Tappet	Yes	320
HT969C	Holden	Red, Blue, Black 6, V8	.840"	Flat Tappet	Yes	320
HT2011	Chrysler	Hemi 6 and V8	.902"	Flat Tappet	Yes	320

HIGH RPM HYDRAULIC LIFTERS

HT817R	GM	Chev	.840"	Flat Tappet	Yes	320
HT900R	Ford	Falcon Xflow 6, Cleveland, Windsor V8 & 429-460	.872"	Flat Tappet	Yes	320
HT969R	Holden	Red, Blue, Black 6, V8	.840"	Flat Tappet	Yes	320
HT2011R	Chrysler	Hemi 6 and V8	.902"	Flat Tappet	Yes	320

SOLID LIFTERS

AT31	Chrysler	Slant 6	.902"	Flat Tappet	No	400
AT282	Ford Falcon 6, FE V8	Pre Xflow 6, FE V8	.872"	Flat Tappet	No	400
AT992	GM	Chevrolet & Holden	.840"	Flat Tappet	Yes	400
AT992EO	GM Edge Orifice	Chevrolet & Holden	.840"	Flat Tappet	Yes	400
AT2000	Ford	Falcon Xflow 6, Cleveland, Windsor V8 & 429-460	.872"	Flat Tappet	Yes	400
VT2014	Ford	Cortina 1600 1970-81	.514"	Flat Tappet	No	400

SOLID LIFTERS WITH POSITIVE EDM OILING TO LIFTER FACE

AT2000L-16	Ford	Falcon Xflow 6, Cleveland, Windsor V8 & 429-460	.872"	Flat Tappet	Yes	400
AT992L-16	GM	Chevrolet and Holden	.840"	Flat Tappet	Yes	400

HYDRAULIC ROLLER LIFTERS STREET PERFORMANCE.

Part Number	Application	Model	Body Dia.	Roller Dia.	Type	
5200H	Chevrolet	Small Block V8 Retro Fit to 1986	.842"	.700"	Tie Bar	380
5200HP	Chevrolet	Small Block V8 Retro Fit. Performance 7000RPM Lifter.	.842"	.750"	Tie Bar	400
5318H	Chrysler	Small Block V8 Retro Fit	.902"	.700"	Tie Bar	380
5300H	Ford	Windsor EFI V8 Factory	.872"	.700"	Standard Replacement	300
5325	Ford	Big Block V8 460 and FE	.875"	.750"	Tie Bar	380
5351HPF	Ford	Ford V8 Retro Fit	.875"	.750"	Tie Bar	380
3800R	Holden 3800 V6	VN to VY Heavy Duty	.840"	.700"	Standard Replacement	400
5208H	Holden	Red, Blue, Black V8 & EFI	.840"	.700"	Tie Bar	380
5210H	Holden	Chev Big Block Hyd Roll	.842"	.700"	Tie Bar	380
5250	Holden	LS V8 LS7 Style	.840"	.700"	Standard Replacement	400
5251	Holden	LS V8 Street Performance	.840"	.700"	Tie Bar	450
5263AFM	Holden	LS V8 L76 AFM Engine	.840"	.700"	Std Replace (8 x 5250, 8 x 5250AFM-1)	Factory
5250AFM	Holden	LS V8 L76 AFM Engine	.840"	.700"	Std Replace Set of 8 AFM Lifters	Factory

CAM FOLLOWERS

HYDRAULIC ROLLER LIFTERS HIGH RPM STREET RACE BILLET BODY

NOTE* USE 5W40 OR LIGHTER WEIGHT OILS IN HIGH RPM HYDRAULIC ROLLER LIFTERS

Part Number	Application	Model	Body Dia.	Roller Dia.	Type	Max Pressure
5044	Chevrolet	Small Block V8 Retro fit to 1986	.840"	.750"	Tie Bar	550
5294	GM	LS V8	.840"	.750"	Tie Bar	550
5879	Ford	Cleveland & Windsor V8 - High RPM Lifter	.872"	.750"	Tie Bar	550

SOLID ROLLER LIFTERS STREET RACE

5200C	Chevrolet	Small Block V8 Retro Fit to 1986	.840"	.750"	Tie Bar	700
5208	Holden	Red, Blue, Black V8	.840"	.700"	Tie Bar	700
5210	Chevrolet	Big Block V8	.840"	.750"	Vertical Tie Bar	700
5211	Chevrolet	Big Block V8	.840"	.750"	Horizontal Tie Bar	700
5261	GM	LS V8	.840"	.750"	Tie Bari	700

SEVERE DUTY SOLID ROLLER LIFTERS WITH PRIORITY OILING

4838PF	Chevrolet	Small Block .180" Int Offset L&R	.840"	.750"	Tie Bar	700
5200PF	Chevrolet	Small Block V8 Severe Duty	.840"	.750"	Tie Bar	700
5212PF	Chevrolet	Big Block V8 Severe Duty	.840"	.750"	Tie Bar	700
5300PF	Ford	Windsor & Cleveland V8 Severe Duty	.872"	.750"	Tie Bar	700

ULTIMATE RACE SOLID ROLLER LIFTERS

BUSH BEARING PRESSURE FED LUBRICATION FOR MAXIMUM LOAD RATING

4838BUSH	Chevrolet	Small Block V8 .180" Offset L&R	.840"	.750"	Tie Bar	850
5200BUSH	Chevrolet	Small Block V8 Extreme Duty	.840"	.750"	Tie Bar	850
5212BUSH	Chevrolet	Big Block V8 Extreme Duty	.840"	.750"	Tie Bar	850
6177BUSH	Holden	LS Engines V8 Super Duty	.840"	.750"	Tie Bar	850
5300BUSH	Ford	Small Block V8 Extreme Duty	.872"	.750"	Tie Bar	850
5351BUSH	Ford	Small Block V8 Extreme Duty	.872"	.750"	Tie Bar	850

EXTREME DUTY .904" SOLID ROLLER LIFTERS.

PRESSURE FED EXTREME DUTY LIFTERS TO WITHSTAND SPRING PRESSURES OF OVER 1000LBS.

5209PF	Chevrolet	Small Block V8	.904"	.815"	Tie Bar	1000
52090S	Chevrolet	Small Block V8 .210" L & R Offset	.904"	.815"	Tie Bar	1000
5219PF	Chevrolet	Big Block V8	.904"	.815"	Tie Bar	1000
52190S	Chevrolet	Big Block V8 .210" L & R Offset	.904"	.815"	Tie Bar	1000
5309PF	Ford	Small Block V8	.904"	.815"	Tie Bar	1000
53090S	Ford	Small Block V8 .210" L & R Offset	.904"	.815"	Tie Bar	1000

CAM FOLLOWER ARMS

RR368	GM, Daewoo	All Family 1, 4 Cylinder Engines
RR811	Ford	Cortina 2000cc OHC Engine

INSTALLING AND ADJUSTING HYDRAULIC LIFTERS

FOLLOW THE FOLLOWING POINTS

1. Do not wash in any solvent. Wipe the parts off with a lint free towel.
2. Use 10W30 oil and lube the O.D of the body and wheel.
3. Make sure the lifter-to-bore clearance on cast iron blocks is .0015” to .0017”.
   On Aluminium blocks that oil the lifter (LS Series), the clearance is .0012” to .0014”.
   Both of these measrements are at 21 Deg C.
   The Aluminium block will have a higher rate of expansion, that is why the clearance is tighter.

ADJUSTING THE ZERO-LASH SETTING OF THE LIFTER:

1. We like using the firing order to set the valves. Put the engine on #1 Cylinder.
2. What we want is the Intake and Exhaust to be on the base circle of the camshaft
3. Adjust the rocker until the pushrod just starts to get tight while taking the pushrod and rolling it between your thumb and finger. Once you feel drag, this is what we call Zero-Lash
4. You are now ready to tighten down on the adjuster using the following method:
   - **a)** It’s important to know the thread pitch, in threads per inch, of the adjuster nut becuse one complete turn of the nut will move a distance of one complete thread. Therefore, verify the thread pitch of the adjuster nut as racing rocker manufacturers use different nut sizes and thread pitches.
   - **b)** If your adjuster nut is 7/16” x 20 threads per inch, then divide 1 inch by 20 threads per inch. One complete turn down on a 7/16” by adjuster nut will move .050”
   - **c)** Next, Divide .050” by 4 to calculate the distance for a quarter-turn of the adjuster nut (.05” / 4 = .0125”).
   - **d)** For a 3/8” x 24 adjuster nut, the calculations are: 1” / 24 TPI = .042” per full turn and .042” / 4 = .0105” per quarter turn.
   - **e)** Use the chart above to determine how many quarter-turns to tighten the adjuster nut after Zero-Lash:

Block and Head Type	Sizes
Cast Iron block and Cast Iron Head	.020” to .025”
Cast Iron Block and Aluminium Head	.030” to .035”
Aluminium Block and Aluminium Head	.045” to .050”

5. Repeat these adjustments for each cylinder running through the firing order.

TYPES OF MOREL HYDRAULIC LIFTERS:

1. Street Performance

The street performance hydraulic lifters are made from a cold formed body with a clipped axle and have 6500RPM capability. These lifters have a .120" plunger travel and have an 80% fill rate with the test oil. The lifter wheels in this series are .700" diameter.

Recommended Spring Pressure:

100-180lbs Seat Pressure

280-380lbs Open Pressure

2. Hi-RPM

The HI-RPM hydraulic lifters are made from a billet body and have a clipped axle. These lifters have 7000+ RPM capability with .120" plunger travel and have an 80% fill rate with the test oil. These lifters have a .750" diameter roller wheel for the .842" & .875" diameter lifters and a .810" diameter roller wheel for the .903" diameter lifters. The internal tolerances are much tighter in this series.

Do not use engine oil heavier than 5w40.

Recommended Spring Pressure:

100-225lbs Seat Pressure

350-550lbs Open Pressure

PERFORMANCE VALVE SPRING APPLICATION

Crow Cams valve springs are made from aircraft quality alloy steels to give the best performance and reliability at a reasonable price.
They are specially designed to suit our high lift, high acceleration profiles.
The following is a guide to popular applications, if your spring is not listed please see the spring specification chart on page xx or contact our technical staff.
Making correct measurements before assembly is critical as many variables are present to catch the unwary.
Note Dual Valve Springs may require head machining to fit. Dual Valve Springs measured with .100" Thick Retainer.

Part Number	Installed Height	Installed Pressure	Pressure @.5 Lift	Max. Lift	Solid Height	Spring Type	RH or LH (Outer)	Free Length	Spring Rate (Lb/in)	Spring Retainer	Valve Locks	O/D	ID of Outer	ID of Inner
CHEV. BIG BLOCK 396 - 454 Standard retainers have large step which may bind on damper.														
7737-16	1.880"	90	270	.520"	1.310"	1 + Damper	L	2.220"	345	12700	12708	1.510"	1.086"	0.965"
7437-16 D	1.880"	118	300	.780"	1.050"	2	L	2.260"	380	12700	12708	1.465"	1.080"	0.800"
4910-16 D	1.900"/2.000"	240 / 190	520 / 460	.700"	1.100"	2	R	2.466"	555	12710 / TR405	12708	1.550"	1.150"	0.800"
8937-16 D	1.900"	131	325	.650"	1.180"	2 + Damper	L	2.335"	390	12710	12708	1.530"	1.120"	0.760"
9731-16	1.950"	130	295	.720"	1.180"	1 + Damper	L	2.460"	320	12700	12708	1.550"	1.125"	1.000"
8337-16 D	1.980"	130	305	.725"	1.114"	2	L	2.350"	360	12710	12708	1.515"	1.120"	0.800"
9936-16 D	1.980"	143	345	.800"	1.180"	2 + Damper	L	2.460"	400	12710	12708	1.539"	1.120"	0.765"
9950-16 D	1.980"	165	410	.760"	1.150"	2 + Damper	L	2.430"	485	12710	12708	1.540"	1.130"	0.725"
9945-16 D	1.980"	138	370	.760"	1.200"	2 + Damper	L	2.475"	460	12710	12708	1.560"	1.010"	0.690"
4920-16 D	2.000"	267	574	.770"	1.180"	2	R	2.475"	620	12710 / TR405	12708	1.560"	1.110"	0.780"
CHEV. SMALL BLOCK V8														
4931-16	1.700"	85	250	.550"	1.140"	1 + Damper	R	2.020"	275	11707	11701	1.230"	0.880"	0.770"
4828-16	1.700"	110	285	.570"	1.080"	1	R	2.030"	360	11707	11701	1.250"	0.870"	
4833-16	1.700"	110	320	.570"	1.080"	1 + Damper	R	2.030"	415	11707	11701	1.255"	0.868"	0.780"
4843-16	1.700"	120	320	.490"	1.160"	1 + Damper	R	2.015"	411	11707	11701	1.265"	0.875"	0.760"
7328-16 D	1.700"	140	285	.690"	.960"	2	L	2.372"	280	11700	11701	1.430"	1.080"	0.810"
4438-16 D	1.800"	155	330	.650"	1.050"	2	R	2.345"	365	11717	4133	1.290"	0.948"	0.690"
7333-16 D	1.800"	130	295	.650"	1.050"	2	L	2.345"	330	13101/11710	11101 / 4134	1.450"	1.090"	0.820"
7331-16 D	1.800"	160	330	.700"	1.100"	2	L	2.350"	330	13101/11710	11101 / 4134-16	1.450"	1.090"	0.800"

Part Number	Installed Height	Installed Pressure	Pressure @.5 Lift	Max. Lift	Solid Height	Spring Retainer	Valve Locks	O/D	ID of Outer	ID of Inner	Spring Type	RH or LH (Outer)	Free Length	Spring Rate (Lb/in)
CHEV. SMALL BLOCK V8 ...CONTINUED														
4845-16	1.850”	95	285	.660”	1.140”	11717	4134	1.260"	0.880"	0.785"	1 + Damper	R	2.130"	380
7342-16 D	1.850”	125	320	.650”	1.060"	13101/11710	11101 / 4134	1.460"	1.080"	.800"	2	R	2.240"	390
7437-16 D	1.850”	130	315	.750”	1.050"	13101/11710	11101 / 4134	1.465"	1.080"	0.800"	2	L	2.260"	380
4910-16 D	1.900"/2.000"	240 / 190	520 / 460	.700"	1.100"	13101 / TR405	11101	1.550”	1.150”	0.800"	2	R	2.460"	555
4920-16 D	2.000”	267	574	.770”	1.180”	13101 / TR405	11101	1.560”	1.110"	0.780”	2	R	2.475"	620
CHRYSLER SMALL BLOCK 273 - 360 V8														
5091-16	1.687”	90	270	.542”	1.095”	12700	12108	1.500”	1.080”	0.990"	1 + Damper	R	1.960”	355
7736-16	1.687”	120	294	.510”	1.100”	12700	12108	1.440"	1.040"	0.950"	1 + Damper	L	2.100"	345
7331-16 D	1.687”	200	370	.700"	1.100"	12700	12108	1.450"	1.090"	0.800"	2	L	2.350"	330
CHRYSLER 300C V8 5.7 - 6.1														
4435-16	1.800”	135	314	.600”	1.150”	Stock	Stock	1.060” TOP 1.200” BOT	0.640” TOP 0.800” BOT		1 Conical	R	2.220”	350
CHRYSLER SLANT 6 225														
5091-12	1.650”	100	285	.542"	1.095”	Std.	Std.	1.500”	1.080”	0.990	1 + Damper	R	1.960”	355
CHRYSLER HEMI 6														
5091-12	1.687”	90	270	.542”	1.095”	12700	12102-12	1.500”	1.080”	0.990	1 + Damper	R	1.960”	355
7736-12	1.687”	120	295	.510”	1.100”	12700	12102-12	1.440"	1.040"	0.950"	1 + Damper	L	2.100"	345
DATSUN L SERIES ENGINES, 1600-2000 4CYL / 2400-2800 6CYL														
5840-8 D	1.580”	90	265	.670”	0.860”	Std.	Std.	1.335"	1.000"	0.720"	2	R	1.930"	345
FORD BA 6 CYLINDER														
1808-24	1.480”	90	200	.550”	.880”	Std	Std	0.970” TOP 1.060"BOT	0.650” TOP 0.727” BOT		1 Conical	R	1.970"	220
1809-24	1.520”	105	205	.570”	.900”	10703	Std	0.970” TOP 1.060"BOT	0.650” TOP 0.740” BOT		1 Conical	R	2.180”	205
FORD BA V8 290KW / XR8 FROM MAY 2008														
1808-32	1.490”	88	188	.550"	.880”	Std	Std	0.970” TOP 1.060"BOT	0.650” TOP 0.727” BOT		1 Conical	R	1.970"	220
1809-32	1.590”	90	190	.570"	.900”	10705	Std	0.970” TOP 1.060"BOT	0.650” TOP 0.740” BOT		1 Conical	R	2.180”	205
1804-32	1.590”	120	260	.520”	1.020”	Std	Std;	0.995” TOP 1.060"BOT	0.635” TOP 0.700” BOT		1 Conical	R	2.060"	280

Part Number	Installed Height	Installed Pressure	Pressure @.5 Lift	Max. Lift	Solid Height	Spring Retainer	Valve Locks	O/D	ID of Outer	ID of Inner	Spring Type	RH or LH (Outer)	Free Length	Spring Rate (Lb/in)
FORD FALCON CROSSFLOW														
7739-12	1.760"	115	290	.600"	1.120"	12706-12	11704-12	1.420"	1.015"	0.925"	1 + Damper	R	2.160"	340
7333-12 D	1.820"	124	285	.650”	1.050"	12700-12	11704-12	1.450"	1.090"	0.820"	2	L	2.345"	330
FORD FALCON AU NB. Step to be M/C off head for double springs														
7739-12	1.820"	100	270	.600"	1.120"	11750-12	Standard	1.420"	1.015"	0.925"	1 + Damper	R	2.160"	340
7332-12 D	1.820"	98	255	.650”	1.050"	11740-12	Standard	1.445"	1.090"	0.800"	2	L	2.335"	315
7333-12 D	1.820"	124	285	.650”	1.050"	11740-12	Standard	1.450"	1.090"	0.820"	2	L	2.345"	330
FORD FALCON PRE-CROSSFLOW														
1025-12	1.550”	125	260	.520”	1.030”	11700-12	11703-12	1.370”	1.005”		1	L	2.110"	265
FORD 4.6 V8 4 VALVE														
1832-32	1.470”	95	265	.500”	.900”	N/A	Standard	0.970”TOP 1.105”BOT	0.585”TOP 0.745”BOT		1 Conical	R	1.810"	310
FORD FALCON 6 OHC TO EL NB. Step to be M/C off head for double springs														
7739-12	1.820"	100	270	.600	1.120"	12700-12	11704-12	1.420"	1.015"	0.925"	1 + Damper	R	2.160"	340
7332-12 D	1.820"	98	255	.650”	1.050"	12700-12	11704-12	1.445"	1.090"	0.800"	2	L	2.335"	315
7333-12 D	1.820"	124	285	.650”	1.050"	12700-12	11704-12	1.450"	1.090"	0.820"	2	L	2.345"	330
FORD 998 - 1600 PUSHROD ENGINE NB. Step to be M/C off head for double springs														
2834-8 D	1.280"	115	270 @.400	.430"	.830"	Standard	Standard	1.140"	0.830"	0.612"	2	R	1.650"	390
2836-8 D	1.280"	130	290 @.400	.460”	.830"	Standard	Standard	1.140"	0.830"	0.612"	2	R	1.650"	355
2021-8	1.289"	75	195	.489"	.750"	Standard	Standard	1.140"	0.830"		1	R	1.650"	235
FORD 2000 OHC														
4250-8 D	1.417"	72	195	.550"	.805"	Standard	Standard	1.212"	0.930"	.0695"	2	R	1.960"	250

Part Number	Installed Height	Installed Pressure	Pressure @.5 Lift	Max. Lift	Solid Height	Spring Retainer	Valve Locks	O/D	ID of Outer	ID of Inner	Spring Type	RH or LH (Outer)	Free Length	Spring Rate (Lb/in)
FORD CLEVELAND & BIG BLOCK 370-460 SINGLE OR MULTI GROOVE VALVES NB. Step to be M/C off head for double springs														
7342-16 D	1.800"	145	340	.650"	1.060"	11700	4133	1.460"	1.080"	.800"	2	R	2.240"	390
7737-16	1.820"	110	295	.520"	1.310"	12700	11702	1.510"	1.086"	0.965"	1 + Damper	L	2.220"	370
7739-16	1.760"	115	290	.600"	1.120"	12706	11702	1.420"	1.015"	0.925"	1 + Damper	R	2.160"	340
7333-16 D	1.820"	124	285	.650"	1.050"	11700	4133	1.450"	1.090"	0.820"	2	L	2.345"	330
7437-16 D	1.820"	135	330	.750"	1.050"	11700	4133	1.465"	1.080"	0.800"	2	L	2.260"	380
4910-16 D	1.900"/2.000"	240 / 190	520 / 460	.700"	1.100"	12710 / TR405	12708	1.550"	1.150"	0.800"	2	R	2.460"	555
7331-16 D	1.920"	125	285	.700"	1.100"	13101	11101	1.450"	1.090"	0.800"	2	L	2.350"	315
9950-16 D	1.920"	190	440	.760"	1.150"	13102	11101	1.540"	1.130"	0.725"	2 + Damper	L	2.430"	500
4920-16 D	2.000"	267	574	.770"	1.180"	13101 / TR405	11101	1.560"	1.110"	0.780"	2	R	2.475"	620
FORD WINDSOR Check installed height before selecting springs as models vary														
7736-16	1.700"	115	290	.510"	1.150"	11700	11701	1.440"	1.040"	0.950"	1 + Damper	L	2.100"	345
7333-16 D	1.800"	130	295	.650"	1.050"	11710	11701 / 4134	1.450"	1.090"	0.820"	2	L	2.345"	330
7437-16 D	1.800"	145	335	.750"	1.050"	11710	4133	1.465"	1.080"	0.800"	2	L	2.260"	390
7342-16 D	1.800"	145	340	.650"	1.060"	11700	4134	1.460"	1.080"	.800"	2	R	2.240"	390
4910-16 D	1.900"/2.000"	240 / 190	520 / 460	.700"	1.100"	12710 / TR405	12708	1.550"	1.150"	0.800"	2	L	2.460"	555
4920-16 D	2.000"	267	574	.770"	1.180"	13101 / TR405	11101	1.560"	1.110"	0.780"	2	R	2.475"	620

Part Number	Installed Height	Installed Pressure	Pressure @.5 Lift	Max. Lift	Solid Height	Spring Retainer	Valve Locks	O/D	ID of Outer	ID of Inner	Spring Type	RH or LH (Outer)	Free Length	Spring Rate (Lb/in)
HOLDEN VN-VP V6														
4936-12	1.700"	85	250	.550"	1.120"	11707	11703	1.230"	0.875"	0.780"	1 + Damper	R	2.000"	330
4836-12	1.700"	115	315	.550"	1.100"	11707	11703	1.250"	0.875"	0.780"	1 + Damper	R	2.040"	405
4334-12 D	1.700"	120	280	.650"	.950"	11707	4133	1.280"	0.950"	0.710"	2	L	2.130"	340
4835-12	1.700"	120	290	.560"	1.090"	11707	11703	1.220"	0.860"	0.765"	1 + Damper	R	2.170"	340
7332-12 D	1.700"	135	295	.650"	1.050"	11700	4133	1.445"	1.090"	0.800"	2	L	2.335"	325
4231-12	1.780"	120	270	.550"	1.100"	11707	11703-12	1.045"TOP 1.275"BOT	0.650"TOP 0.870"BOT		1 Conical	R	2.260"	300
HOLDEN ECOTEC V6														
4231-12	1.780"	120	270	.550"	1.100"	10707	10701	1.045"TOP 1.275"BOT	0.650"TOP 0.870"BOT		1 Conical	R	2.260"	300
4438-12 D	1.780"	165	340	.650"	1.000"	10708	10701	1.295"	0.948"	0.690"	2	R	2.365"	355
4511X-12	1.780"	150	335	.600"	1.100"	10707	10701	1.035"TOP 1.290"BOT	0.655" TOP 0.910" BOT		1 Conical	R	2.230"	365
4919-12	1.780"	150	310	.590"	1.090"	10707	10701	1.050"TOP 1.275"BOT	0.650"TOP 0.880"BOT		1 Conical	R	2.390	320
4918-12	1.780"	135	295	.640"	1.090"	10707	10701	1.040"TOP 1.275"BOT	0.640" TOP 0.875" BOT		1 Conical	R	2.335"	314
4021-12	1.780"	55	230	.630"	1.150"	11707	11701	1.065"TOP 1.255"BOT	0.670" TOP 0.875" BOT		1 Conical	R	1.960"	350
HOLDEN 6 CYLINDER RED MOTOR														
4719-12	1.625"	85	210	.645"	.930"	11707	11703	1.240"	0.920"	0.840"	1	L	2.090"	250
4823-12	1.625"	115	250	.615"	.960"	11707	11703	1.275"	0.930"	0.850"	1 + Damper	L	2.170"	270
4334-12 D	1.700"	120	280	.650"	.950"	11707	4134	1.280"	0.950"	0.710"	2	L	2.130"	340
7333-12 D	1.810"	125	290	.650"	1.050"	11710	4134	1.450"	1.090"	0.820"	2	L	2.345"	325
7331-12 D	1.810"	160	324	.700"	1.100"	11710	4134	1.450"	1.090"	0.800"	2	L	2.350"	310

Part Number	Installed Height	Installed Pressure	Pressure @.5 Lift	Max. Lift	Solid Height	Spring Retainer	Valve Locks	O/D	ID of Outer	ID of Inner	Spring Type	RH or LH (Outer)	Free Length	Spring Rate (Lb/in)
HOLDEN 6 CYLINDER BLUE & BLACK MOTOR														
4028-12	1.470"	120	215	.470"	0.950"	11707	11703	1.250"	0.920"		1	L	2.105"	190
4038-12	1.470"	95	285	.500"	0.920"	11707	11703	1.200"	0.860"		1	R	1.830"	380
4823-12	1.605"	120	255	0.615"	0.960"	11717	4134	1.275"	0.930"	0.850"	1 + Damper	L	2.170"	275
4334-12 D	1.700"	120	280	.650"	.950"	11717	4134	1.280"	0.950"	0.710"	2	L	2.130"	340
HOLDEN GEMINI														
5840-8 D	1.550"	100	275	.640"	.860"	Standard	Standard	1.330"	0.990"	0.770"	2	R	1.930"	345
5833-8 D	1.550"	110	280	.600"	.900"	Standard	Standard	1.330"	0.990"	0.760"	2	R	2.160"	330
HOLDEN 253, 304, 308														
4931-16	1.700"	85	245	.550"	1.140"	11707	11701	1.230"	0.880"	0.780"	1 + Damper	R	2.020"	320
4828-16	1.700"	105	285	.570"	1.080"	11707	11701	1.250"	0.870"		1	R	2.030"	360
4833-16	1.700"	110	320	.570"	1.080"	11707	11701	1.255"	0.868"	0.780"	1 + Damper	R	2.030"	415
4843-16	1.700"	120	320	.490"	1.160"	11707	11701	1.265"	0.875"	0.760"	1 + Damper	R	2.015"	411
4438-16 D	1.800"	155	330	.650"	1.050"	11717	4133	1.290"	0.948"	0.690"	2	R	2.345"	365
7333-16 D	1.800"	125	290	.650"	1.050"	11710	4133	1.450"	1.090"	0.820"	2	L	2.345"	325
7331-16 D	1.800"	160	330	.700"	1.100"	13101/11710	11101 / 4134	1.450"	1.090"	0.800"	2	L	2.350"	330
4845-16	1.850"	95	285	.660"	1.140"	11717	4134	1.260"	0.875"	0.785"	1 + Damper	R	2.130"	380
7342-16 D	1.850"	125	320	.650"	1.060"	13101/11710	11101 / 4134	1.460"	1.080"	.800"	2	R	2.240"	390
7437-16 D	1.850"	130	315	.750"	1.050"	13101/11710	11101 / 4134	1.465"	1.080"	0.800"	2	L	2.260"	380
4910-16 D	1.900"/2.000"	240 / 190	520 / 460	.700"	1.100"	12710 / TR405	12708	1.550"	1.150"	0.800"	2	R	2.460"	555
4920-16 D	2.000"	267	574	.770"	1.180"	13101 / TR405	11101	1.560"	1.110"	0.780"	2	R	2.475"	620

Part Number	Installed Height	Installed Pressure	Pressure @.5 Lift	Max. Lift	Solid Height	Spring Retainer	Valve Locks	O/D	ID of Outer	ID of Inner	Spring Type	RH or LH (Outer)	Free Length	Spring Rate (Lb/in)
HOLDEN V8 LS ENGINE FAMILY														
4231-16	1.780"	120	270	.550"	1.100"	11707	11703	1.045"TOP 1.275"BOT	0.650"TOP 0.870"BOT		1 Conical	R	2.260"	300
1511ML-16	1.780"	140	330	.600"	1.100"	10707	10701	1.050" TOP 1.295" BOT	0.643" TOP 0.908" BOT		1 Conical	R	2.180"	385
4438-16 D	1.780"	165	340	.650"	1.000"	10708	10701	1.295"	0.948"	0.690"	2	R	2.365:	355
4439-16 D	1.800"	165	360	.650"	1.020"	10708	10701	1.305"	0.950"	0.690"	2	R	2.300"	375
4207X-16 D	1.800"	155	385	.700"	1.000"	10708	10701	1.304"	0.950"	0.680"	2	R	2.300"	430
4209X-16 D	1.800"	160	415	.750"	1.000"	10708	10701	1.324"	0.950"	0.689"	2	R	2.330"	495
1335-16 D	1.800"	250	860 @ .750"	.800"	0.985"	TR432-16	10701-16	1.300"	0.900"	0.616"	2	R	2.250"	813
NISSAN RB30														
5840-12 D	1.570"	95	270	.660"	0.860"	Standard	Standard	1.330"	0.990"	0.770"	2	R	1.930"	345
5833-12 D	1.570"	105	270	.600"	0.900"	Standard	Standard	1.330"	0.990"	0.760"	2	R	2.160"	330
5835-12 D	1.570"	110	280	.570"	0.950"	Standard	Standard	1.330"	0.971"	0.720"	2	R	1.920"	335
5838-12 D	1.600"	120	310	.550"	1.000"	Standard	Standard	1.330"	0.980"	0.690"	2	R	1.930"	395
MITSUBISHI SIGMA														
5840-8 D	1.560"	100	275	.660"	0.860"	Standard	Standard	1.330"	0.990"	0.770"	2	R	1.930"	345
TOYOTA 1FZ-FE														
4163-12	1.487"	105	235	.462"	0.975"	10715	Std	1.160"	0.835"		1	R	1.980"	260

STANDARD REPLACEMENT VALVE SPRING APPLICATION

These part numbers and dimensions are listings of applications we have used. Due to variations in models, dimensions & pressures should be checked before fitting. In some cases we may have used shims to adjust installed height.

Springs marked with * are a double spring.

Part Number	Model	Engine	I/H	Od	Int.	Id	Seat Press	.5 Lift	Solid Height
CHRYSLER									
5091-12	Slant 6	225	1.65	1.500		0.990	100	285	1.095
FORD 4									
2021-8	Pushrod Engine	998-1600	1.28	1.134		0.612	65	165	0.750
2834-8*	Cortina	1600	1.28	1.134	0.84	0.612	100	305	0.750
4028-8	Laser E3,E5	1300-1600	1.44	1.255		0.920	120	220	0.950
4250-8*	Laser	B6 1600	1.40	1.214	0.93	0.870	70	200	0.817
4250-8*	Escort, Cortina	2000 OHC	1.42	1.214	0.93	0.870	70	195	0.817
5840-8*	Telstar FE	Std Replace.	1.635	1.330	0.98	0.720	70	210	0.880
5833-8*	Telstar FE	Performance	1.635	1.330	0.98	0.760	80	240	0.900
FORD 6									
7739-12	Falcon EA-EL	XR6	1.82	1.420		0.916	110	275	1.150
4028-12	Capri	V6	1.54	1.255		0.920	95	205	0.950
5825-12	Zephyr	MKII	1.65	1.330		0.960	60	180	0.950
Note: Ford 6 Spring Retainer may need machining to suit double spring									
FORD 8									
0515-16	239 S/V	V8	1.89	1.15		0.73	40	115	1.05
7737-16	390	V8	1.82	1.510		0.965	110	295	1.310
GM 4									
5833-8*	Gemini	G161-G200Z	1.55	1.330	0.98	0.760	100	260	0.900
GM 6									
5088-12	Chev 6	235 Blue Flame	1.86	1.375		0.960	50	220	1.200
5092-12	Bedford	300	1.69	1.390		1.000	70	190	1.120

STANDARD REPLACEMENT VALVE SPRING APPLICATION

Part Number	Model	Engine	I/H	Od	Int.	Id	Seat Press	.5 Lift	Solid Height
GM 6									
5088-12	Holden	138 Grey	1.79	1.375		0.960	75	250	1.200
4028-12	Holden	Blue/Black	1.62	1.255		0.920	95	200	0.950
4021-12	Holden	Ecotec	1.78	1.04TOP 1.24BOT		0.67TOP 0.87BOT			1.190
4719-12	Holden	Red	1.62	1.255		0.920	95	200	0.930
5840-12*	Commodore	RB30	1.57	1.330	0.980	0.720	85	255	0.860
5835-12	Commodore	RB30	1.57	1.325	0.970	0.710	110	250	0.950
7332-12*	Commodore	VN V6	1.70	1.445	1.090	0.800	132	290	1.020
4836-12	Commodore	VP V6	1.70	1.255		0.780	115	310	1.100
GM V8									
4931-16	Holden VN-VS		1.70	1.240	.086	0.780	80	230	1.100
4843-16	Holden VT	V8 roller	1.75	1.260	0.86	0.780	120	320	1.160
INTERNATIONAL									
7739-16	345	V8	1.82	1.420		0.916	110	275	1.150
ISUZU									
5828-4*	4JB1	Diesel	1.50	1.330		0.660	80	270	0.840
LEYLAND,BMC									
2834-8*	Mini		1.47	1.134	0.84	0.612	35	210	0.750
5840-8*	MGB		1.55	1.330	0.98	0.720	95	265	0.860
MAZDA									
4250-8*		TC	1.21	1.214	0.93	0.870	120	220 @ .400	0.817
4250-8*	NA,MA	UC,VC	1.38	1.214	0.93	0.870	80	205	0.817
5080-8	single spring	B3/B6	1.41	1.283		0.930	75	165	0.930
4250-8*		B6	1.41	1.214	0.93	0.870	70	195	0.817
MITSUBISHI									
5080-8	Galant	4G63	1.46	1.283		0.930	60	180	0.930
5827-8	Cordia	4G62 Sirius	1.50	1.330		0.980	80	210	0.840
5840-8*[1]	Sigma	4G54	1.56	1.330	0.98	0.720	90	260	0.860
5825-8	Sigma	4G54	1.56	1.330		0.960	80	200	0.950
5840-8*[1]		4G63BT	1.66	1.330	0.98	0.720	75	225	0.860

Note 1: Mitsubishi 5840 Spring Retainer needs machining to suit double spring.

STANDARD REPLACEMENT VALVE SPRING APPLICATION

Part Number	Model	Engine	I/H	Od	Int.	Id	Seat Press	.5 Lift	Solid Height
NISSAN									
4038-8	Datsun	A12	1.52	1.197		0.840	80	250	0.920
4220-8*	Datsun	A12,A14,A15	1.55	1.210	0.93	0.700	80	180	0.820
5840-8/12*	Datsun	L Series	1.58	1.330	0.98	0.720	85	250	0.860
5840-8*	Datsun	CA20	1.55	1.330	0.98	0.720	95	255	0.860
4320-8	Pulsar	E15	1.58	1.255		0.920	100	190	0.930
NISSAN 6									
0612-12	300ZX	VG30DETT	1.45	1.07	0.81		65	130	0.82
5840-12*	Patrol	TB42,TB47T	1.58	1.330	0.98	0.720	95	265	0.860
5835-12	Patrol	TD42 Diesel	1.61	1.325	0.97	0.710	70	190	0.950
TOYOTA									
4038-8	Corolla	3K/4K	1.55	1.197		0.840	70	240	0.920
4220-8*	Corolla	3K/4K	1.55	1.210	0.93	0.700	80	180	0.820
4320-8	Hi Ace	2RZ 2400	1.59	1.255		0.920	95	195	0.930
4320-8	Celica	2T	1.46	1.255		0.920	115	210	0.930
4320-8	Corona	2S	1.54	1.255		0.920	100	195	0.930
4719-8		12R	1.55	1.255		0.920	100	200	0.930
5840-8*	Corona	18R	1.55	1.330	0.98	0.720	95	265	0.860
5827-8	Corona	18RG	1.5	1.330		0.720	80	210	0.840
5825-8	Corona	22R	1.58	1.330		0.960	75	195	0.950
4719-8	Corona	5R	1.55	1.255		0.920	100	200	0.930
5825-8		2RZ OHC	1.59	1.330		0.960	80	195	0.950
5827-8	Diesel	3L, 1HZ	1.46	1.330		0.980	85	225	0.840
4828-12	Landcruiser	2F	1.79	1.275		0.920	80	250	1.080
5840*	Diesel	3B	1.54	1.330	0.98	0.720	100	270	0.860

These part numbers and dimensions are listings of applications we have used. Due to variations in models, dimensions & pressures should be checked before fitting. In some cases we may have used shims to adjust installed height. **Springs marked * are double spring.**

VALVE SPRINGS

VALVE SPRINGS **PART NUMBER ORDER**

Part Number	O/D	ID of Outer	ID of Inner	Spring Type	RH or LH (Outer)	Free Length	Spring Rate (lb/in)	Solid Height
0507	1.000"	0.760"		1	L	2.050"	75	0.750"
0511	0.937"	0.697"		1	L	1.490"	123	0.740"
0513	0.953"	0.697"		1	L	1.937"	132	0.930"
0514	0.838"	0.612"		1	L	1.500"	145	0.710"
0515	1.015"	0.725"		1	L	2.165"	155	1.060"
0612	1.090"	0.810"		1	R	2.055"	120	0.880"
0613	1.080"	0.796"		1	R	2.230"	130	1.000"
0615	1.015"	0.740"		1	L	2.000"	135	0.870"
1025	1.370"	1.005"		1	L	2.110"	265	1.030"
1511ML	1.050" TOP 1.295" BOT	0.643" TOP 0.908" BOT		1 Conical	R	2.180"	385	1.100"
1804	0.995" TOP 1.060" BOT"	0.635" TOP 0.700" BOT		1 Conical	R	2.060"	280	1.020"
1808	0.970" TOP 1.060" BOT	0.650" TOP 0.727" BOT		1 Conical	R	1.970"	220	0.880"
1809	0.970" TOP 1.060" BOT	0.650" TOP 0.740" BOT		1 Conical	R	2.180"	205	0.900"
1832	0.970" TOP 1.105" BOT	0.585" TOP 0.745" BOT		1 Conical	R	1.810"	310	0.900"
2021	1.140"	0.840"		1	R	1.650"	235	0.750"
2834 [D]	1.140"	0.830"	0.612"	2	R	1.650"	390	0.830"
2836 [D]	1.140"	0.830"	0.612"	2	R	1.650"	355	0.830"
4021	1.065" TOP 1.255" BOT	0.670" TOP 0.875" BOT		1 Conical	R	1.960"	350	1.190"
4028	1.250"	0.920"		1	L	2.105"	190	0.950"
4038	1.200"	0.860"		1	R	1.830"	380	0.920"
4162	1.100"	0.765"		1	R	1.895"	260	0.980"
4163	1.160"	0.835"		1	R	1.980"	260	0.975"
4164	1.050"	0.735"		1	R	1.740"	265	0.840"
4177 [D]	1.113"	0.805"	0.636"	2	R	1.660"	230	0.730"
4207X [D]	1.304"	0.950"	0.680"	2	R	2.300"	430	1.000"
4209X [D]	1.324"	0.950"	0.689"	2	R	2.230"	495	1.000"
4220 [D]	1.210"	0.926"	0.700"	2	R	1.900"	200	0.820"
4231	1.045" TOP 1.275" BOT	0.650" TOP 0.870" BOT		1 Conical	R	2.260"	300	1.100"
4250 [D]	1.212"	0.930"	0.695"	2	R	1.960"	250	0.805"
4320	1.245"	0.910"		1	L	2.105"	210	0.950"
4330 [D]	1.280"	0.926"	0.700"	2	R	1.960"	315	0.925"
4334 [D]	1.280"	0.950"	0.710"	2	L	2.130"	340	0.950"
4403	1.000"	0.700"		1	R	1.900"	260	0.945"

Note: Springs marked with xxxx-xx[D] denotes that it is a double spring.

VALVE SPRINGS **PART NUMBER ORDER**

Part Number	O/D	ID of Outer	ID of Inner	Spring Type	RH or LH (Outer)	Free Length	Spring Rate (lb/in)	Solid Height
4420	1.110" TOP 1.440" BOT	0.660" TOP 0.990" BOT		1 Conical	R	2.445"	360	1.200"
4429 D	1.167"	0.860"	0.660"	2	R	1.820"	240	0.810"
4435	1.060" TOP 1.200" BOT	0.640" TOP 0.800" BOT		1 Conical	R	2.220"	350	1.150"
4438 D	1.290"	0.948"	0.690"	2	R	2.345"	365	1.050"
4439 D	1.305"	0.950"	0.690"	2	R	2.300"	375	1.020"
4511X	1.035" TOP 1.290" BOT	0.665" TOP 0.910" BOT		1 Conical	R	2.230"	365	1.100"
4718	1.255"	0.920"	0.835"	1	L	2.100"	230	0.930"
4719	1.240"	0.920"	0.840"	1	L	2.090"	250	0.930"
4823	1.275"	0.930"	0.850"	1 + Damper	L	2.170"	275	0.960"
4828	1.250"	0.870"		1	R	2.030"	360	1.080"
4830	1.220"	0.860"	0.755"	1 + Damper	R	2.140"	310	1.120"
4833	1.255"	0.868"	0.780"	1 + Damper	R	2.030"	415	1.100"
4835	1.220"	0.860"	0.765"	1 + Damper	R	2.170"	340	1.090"
4836	1.250"	0.875"	0.780"	1 + Damper	R	2.040"	405	1.080"
4843	1.265"	0.875"	0.760"	1 + Damper	R	2.015"	411	1.160"
4845	1.260"	0.880"	0.785"	1 + Damper	R	2.130"	380	1.140"
4910 D	1.550"	1.150"	0.800"	2	R	2.460"	555	1.110"
4918	1.040" TOP 1.275" BOT	0.640" TOP 0.875" BOT		1 Conical	R	2.335"	314	1.090"
4920 D	1.560"	1.110"	0.780"	2	R	2.475"	620	1.180"
4931	1.230"	0.880"	0.770"	1 + Damper	R	2.020"	275	1.140"
4936	1.230"	0.875"	0.780"	1 + Damper	R	2.000"	330	1.120"
5002	1.510"	1.090"	0.970"	1 + Damper	L	2.200"	345	1.300"
5014	1.420"	1.010"		1	L	2.145"	310	1.250"
5037	1.230"	0.875"		1	R	2.060"	265	1.230"
5038	1.211"	0.857"		1	R	1.780"	340	1.010"
5077	1.500"	1.080"	0.990	1 + Damper	R	1.960"	355	1.095"
5078 D	1.332"	0.990"	0.715	2	L	1.835"	330	1.070"
5080	1.283"	0.930"		1	R	1.750"	240	0.930"
5088	1.375"	0.960"		1	R	2.050"	335	1.200"
5091	1.500"	1.080"	0.99	1 + Damper	R	1.960"	355	1.095"

Note: Springs marked with xxxx-xx^{D} denotes that it is a double spring.

VALVE SPRINGS **PART NUMBER ORDER**

Part Number	O/D	ID of Outer	ID of Inner	Spring Type	RH or LH (Outer)	Free Length	Spring Rate (lb/in)	Solid Height
5092	1.390"	1.000"		1	R	2.035"	245	1.120"
5094	1.420"	1.000"		1	L	2.120"	350	1.265"
5107	1.330"	0.960"		1	R	1.920"	230	0.930"
5825	1.330"	0.960"		1	R	1.935"	230	0.950"
5827	1.330"	0.980"		1	R	1.860"	228	0.840"
5828 D	1.330"	0.980"	0.660"	2	R	1.860"	350	0.840"
5833 D	1.330"	0.990"	0.760"	2	R	2.160"	330	0.900"
5835 D	1.330"	0.971"	0.720"	2	R	1.920"	335	0.950"
5838 D	1.330"	0.980"	0.690"	2	R	1.930"	395	0.950"
5840 D	1.335"	1.000"	0.720"	2	R	1.930"	345	0.860"
5844-IRH	0.950"	0.720"		1	R	1.955"	95	0.750"
5854 D	1.335"	0.980"	0.690"	2	R	1.960"	410	0.900"
6038	1.255"	0.900"		1	R	2.050"	340	1.170"
7331 D	1.450"	1.090"	0.800"	2	L	2.350"	330	1.100"
7332 D	1.445"	1.090"	0.800"	2	L	2.335"	315	1.050"
7333 D	1.450"	1.090"	0.820"	2	L	2.345"	330	1.050"
7334 D	1.455"	1.080"	0.810"	2	L	2.440"	320	1.050"
7335	1.465"	1.070"		1	L	2.410"	285	1.040"
7341 D	1.470"	1.080"	0.800"	2	L	2.280"	430	1.050"
7342 D	1.460"	1.080"	0.800"	2	R	2.240"	390	1.060"
7437 D	1.465"	1.080"	0.800"	2	L	2.260"	380	1.050"
7733 D	1.465"	1.085"	0.790"	2	L	2.470"	320	1.030"
7736	1.440"	1.040"	0.950"	1 + Damper	L	2.100"	345	1.150"

Note: Springs marked with xxxx-xx^{D} denotes that it is a double spring.

VALVE SPRINGS **PART NUMBER ORDER**

Part Number	O/D	ID of Outer	ID of Inner	Spring Type	RH or LH (Outer)	Free Length	Spring Rate (lb/in)	Solid Height
7737	1.510"	1.086"	0.965"	1 + Damper	L	2.220"	345	1.310"
7739	1.420"	1.015"	0.925"	1 + Damper	R	2.160"	340	1.150"
7930 D	1.460”	1.000”	.690”	2 + Damper	L	2.360”	350	1.070”
7937 D	1.465"	1.000"	0.720"	2 + Damper	L	2.360"	350	1.080"
8333 D	1.515"	1.120"	0.800"	2	L	2.480"	350	1.210"
8335 D	1.515"	1.120"	0.795"	2	L	2.480"	322	1.210"
8337 D	1.515"	1.120"	0.800"	2	L	2.350"	360	1.114"
8937 D	1.530”	1.120”	0.760”	2 + Damper	L	2.335”	390	1.180”
9731	1.550"	1.125"	1.000"	1 + Damper	L	2.460"	320	1.180"
9936 D	1.539"	1.120"	0.765"	2 + Damper	L	2.460"	400	1.180"
9941 D	1.540"	1.025"	0.740"	2 + Damper	R	2.380"	440	1.140"
9945 D	1.560"	1.010"	0.690"	2 + Damper	L	2.475"	460	1.200"
9950 D	1.540"	1.130"	0.725"	2 + Damper	L	2.430"	485	1.150"

Note: Springs marked with xxxx-xx^{D} denotes that it is a double spring.

VALVE SPRINGS

VALVE SPRINGS **OUTSIDE DIAMETER ORDER**

Part Number	O/D	ID of Outer	ID of Inner	Spring Type	RH or LH (Outer)	Free Length	Spring Rate (lb/in)	Solid Height
0514	0.838"	0.612"		1	L	1.500"	145	0.710"
0511	0.937"	0.697"		1	L	1.490"	123	0.740"
5844-IRH	0.950”	0.710”		1	R	1.955”	95	0.750”
0513	0.953"	0.697"		1	L	1.937"	132	0.930"
1832	0.970” TOP 1.105” BOT	0.585” TOP 0.745” BOT		1 Conical	R	1.810”	310	0.900”
1808	0.970” TOP 1.060" BOT	0.650” TOP 0.727” BOT		1 Conical	R	1.970”	220	0.880”
1809	0.970” TOP 1.060” BOT	0.650” TOP 0.740” BOT		1 Conical	R	2.180”	205	0.900”
1804	0.995” TOP 1.060” BOT"	0.635” TOP 0.700” BOT		1 Conical	R	2.060"	280	1.020”
0507	1.000"	0.760"		1	L	2.050"	75	0.750"
4403	1.000”	0.700”		1	R	1.900”	260	0.945”
0615	1.015”	0.740”		1	L	2.000”	135	0.870”
0515	1.015”	0.725”		1	L	2.165”	155	1.060”
4511X	1.035” TOP 1.290” BOT	0.665” TOP 0.910” BOT		1 Conical	R	2.230"	365	1.100”
4918	1.040” TOP 1.275” BOT	0.640” TOP 0.875” BOT		1 Conical	R	2.335"	314	1.090”
4231	1.045” TOP 1.275” BOT	0.650” TOP 0.870" BOT		1 Conical	R	2.260"	300	1.100"
1511ML	1.050" TOP 1.295" BOT	0.643" TOP 0.908" BOT		1 Conical	R	2.180"	385	1.100"
4164	1.050”	0.735”		1	R	1.740”	265	0.840”
4435	1.060” TOP 1.200” BOT	0.640” TOP 0.800” BOT		1 Conical	R	2.220”	350	1.150”
4021	1.065” TOP 1.255” BOT	0.670” TOP 0.875” BOT		1 Conical	R	1.960"	350	1.190”
0613	1.080"	0.796"		1	R	2.230"	130	1.000"
0612	1.090”	0.810"		1	R	2.055”	120	0.880"
4162	1.100”	0.765”		1	R	1.895”	260	0.980”
4420	1.110” TOP 1.440” BOT	0.660” TOP 0.990” BOT		1 Conical	R	2.445”	360	1.200”
4177 D	1.113”	0.805”	0.636”	2	R	1.660”	230	0.730”
2021	1.140"	0.840"		1	R	1.650"	235	0.750"
2834 D	1.140"	0.830"	0.612"	2	R	1.650"	390	0.830"
2836 D	1.140"	0.830"	0.612"	2	R	1.650"	355	0.830"
4163	1.160”	0.835"		1	R	1.980”	260	0.975”
4429 D	1.167”	0.860”	0.660”	2	R	1.820”	240	0.810”

Note: Springs marked with xxxx-xx^{D} denotes that it is a double spring.

VALVE SPRINGS **OUTSIDE DIAMETER ORDER**

Part Number	O/D	ID of Outer	ID of Inner	Spring Type	RH or LH (Outer)	Free Length	Spring Rate (lb/in)	Solid Height
4038	1.200”	0.860"		1	R	1.830”	380	0.920”
4220 [D]	1.210"	0.926"	0.700"	2	R	1.900"	200	0.820"
5038	1.211”	0.857”		1	R	1.780”	340	1.010”
4250 [D]	1.212"	0.930"	0.695"	2	R	1.960"	250	0.805"
4830	1.220"	0.860"	0.755”	1 + Damper	R	2.140"	310	1.120"
4835	1.220”	0.860"	0.765"	1 + Damper	R	2.170"	340	1.090”
5037	1.230”	0.875"		1	R	2.060”	265	1.230”
4931	1.230"	0.880”	0.770"	1 + Damper	R	2.020"	275	1.140"
4936	1.230"	0.875"	0.780"	1 + Damper	R	2.000"	330	1.120"
4719	1.240"	0.920"	0.840"	1	L	2.090"	250	0.930"
4320	1.245"	0.910"		1	L	2.105"	210	0.950"
4836	1.250”	0.875"	0.780”	1 + Damper	R	2.040”	405	1.080”
4828	1.250"	0.870"		1	R	2.030"	360	1.080"
4028	1.250"	0.920"		1	L	2.105"	190	0.950"
4833	1.255"	0.868"	0.780"	1 + Damper	R	2.030"	415	1.100"
4718	1.255"	0.920”	0.835”	1	L	2.100”	230	0.930”
6038	1.255"	0.900”		1	R	2.050”	340	1.170”
4845	1.260"	0.880"	0.785"	1 + Damper	R	2.130"	380	1.140"
4843	1.265"	0.875”	0.760”	1 + Damper	R	2.015"	411	1.160"
4235	1.270”	0.885”	0.752”	1 + Damper	R	2.200”	390	1.080”
4823	1.275"	0.930"	0.850"	1 + Damper	L	2.170"	275	0.960"
4330 [D]	1.280"	0.926"	0.700"	2	R	1.960"	315	0.925"
4334 [D]	1.280"	0.950"	0.710"	2	L	2.130"	340	0.950"
5080	1.283”	0.930”		1	R	1.750”	240	0.930”
4438 [D]	1.290”	0.948”	0.690”	2	R	2.345”	365	1.050”

Note: Springs marked with xxxx-xx[D] denotes that it is a double spring.

VALVE SPRINGS **OUTSIDE DIAMETER ORDER**

Part Number	O/D	ID of Outer	ID of Inner	Spring Type	RH or LH (Outer)	Free Length	Spring Rate (lb/in)	Solid Height
4207X [D]	1.304”	0.950”	0.680”	2	R	2.300"	430	1.000”
4439 [D]	1.305"	0.950”	0.690”	2	R	2.300”	375	1.020"
4209X [D]	1.324”	0.950”	0.689”	2	R	2.330"	495	1.000"
5835 [D]	1.330"	0.971"	0.720"	2	R	1.920"	335	0.950"
5827	1.330"	0.980"		1	R	1.860"	228	0.840"
5828 [D]	1.330"	0.980"	0.660"	2	R	1.860"	350	0.840"
5833 [D]	1.330"	0.990"	0.760"	2	R	2.160"	330	0.900"
5107	1.330”	0.960”		1	R	1.920”	230	0.930”
5825	1.330”	0.960”		1	R	1.935”	230	0.950”
5838 [D]	1.330”	0.980"	0.690”	2	R	1.930"	395	0.950”
5078 [D]	1.332”	0.990”	0.715	2	L	1.835”	330	1.070”
5854 [D]	1.335”	0.980”	0.690”	2	R	1.960”	410	0.900”
5840 [D]	1.335"	1.000"	0.720"	2	R	1.930"	345	0.860"
1025	1.370”	1.005”		1	L	2.110”	265	1.030”
5088	1.375”	0.960”		1	R	2.050”	335	1.200”
5092	1.390”	1.000”		1	R	2.035”	245	1.120”
7739	1.420"	1.015"	0.925"	1 + Damper	R	2.160"	340	1.150"
5014	1.420”	1.010”		1	L	2.145”	310	1.250”
5094	1.420”	1.000”		1	L	2.120”	350	1.265”
7332 [D]	1.445"	1.090"	0.800”	2	L	2.335”	315	1.050”
7736	1.440"	1.040"	0.950"	1 + Damper	L	2.100"	345	1.150"
7331 [D]	1.450"	1.090"	0.800"	2	L	2.350"	330	1.100"
7333 [D]	1.450"	1.090"	0.820"	2	L	2.345"	330	1.050"
7334 [D]	1.455"	1.080"	0.810"	2	L	2.440"	320	1.050"
7342 [D]	1.460”	1.080”	0.800”	2	R	2.240”	390	1.060”
7930 [D]	1.460”	1.000"	.690”	2 + Damper	L	2.360”	350	1.070”
7937 [D]	1.465"	1.000"	0.720"	2 + Damper	L	2.360"	350	1.080"
7733 [D]	1.465”	1.085”	0.790”	2	L	2.470”	320	1.030”

Note: Springs marked with xxxx-xx[D] denotes that it is a double spring.

VALVE SPRINGS **OUTSIDE DIAMETER ORDER**

Part Number	O/D	ID of Outer	ID of Inner	Spring Type	RH or LH (Outer)	Free Length	Spring Rate (lb/in)	Solid Height
7335	1.465”	1.070”		1	L	2.410”	285	1.040”
7437 [D]	1.465"	1.080"	0.800"	2	L	2.260"	380	1.050"
7341 [D]	1.470”	1.080”	0.800”	2	L	2.280”	430	1.050”
5077	1.500”	1.080”	0.99	1 + Damper	R	1.960”	355	1.095”
5091	1.500”	1.080”	0.99	1 + Damper	R	1.960”	355	1.095”
7737	1.510"	1.086"	0.965"	1 + Damper	L	2.220"	345	1.310"
5002	1.510”	1.090”	0.970”	1 + Damper	L	2.200”	345	1.300”
8333 [D]	1.515"	1.120"	0.800"	2	L	2.480"	350	1.210"
8335 [D]	1.515"	1.120"	0.795"	2	L	2.480"	322	1.210"
8337 [D]	1.515"	1.120"	0.800"	2	L	2.350"	360	1.114"
8937 [D]	1.530”	1.120”	0.760”	2 + Damper	L	2.335”	390	1.180”
9936 [D]	1.539"	1.120"	0.765"	2 + Damper	L	2.460"	400	1.180"
9950 [D]	1.540"	1.130"	0.725"	2 + Damper	L	2.430"	485	1.150"
9941 [D]	1.540"	1.025"	0.740"	2 + Damper	R	2.380"	440	1.140"
9731	1.550"	1.125"	1.000"	1 + Damper	L	2.460"	320	1.180"
4910 [D]	1.550”	1.150”	0.800”	2	R	2.460”	555	1.110”
9945 [D]	1.560"	1.010"	0.690"	2 + Damper	L	2.475"	460	1.200"
4920 [D]	1.560”	1.110"	0.780"	2	R	2.475”	620	1.180”

Note: Springs marked with xxxx-xx[D] denotes that it is a double spring.

CUSTOM GRINDING SERVICE

Many engine builders know precisely the specifications of the camshaft they wish to run and Crow Cams custom grinding service gives access to Australia’s largest choice of masters listed on the following pages. All custom ground cams are produced on our CNC cam grinding machines and cam specs are read directly from each camshaft

Roller Camshafts are priced according to the type of billet used.

These profiles will vary slightly with changes in base circle diameter. For the LS family engines, see separate listing.

HYDRAULIC ROLLER PROFILES

Master Number	0.050" Dur		0.200” Dur		Adv. Dur 0.006"		Lobe Lift		Lobe Sep.
	In	Ex	In	Ex	In	Ex	In.	Ex	
1561	193	202	98	101	262	264	.275	.275	112
26	195	196	101	101	270	277	.273	.273	112
907	197	206	111	118	254	265	.288	.300	109
759	200	210	110	121	267	277	.289	.307	112
1524	200	207	102	107	262	270	.274	.274	109
1562	202	207	106	110	275	285	.275	.275	113
1339	203	209	109	113	268	275	.281	.281	118
1440	205	214	105	111	274	283	.268	.271	111
1335	206	212	111	116	256	265	.283	.283	114
50	207	209	110	112	265	268	.280	.280	117
160	207	207	113	113	267	267	.281	.281	112
1430	207	218	126	135	262	274	.315	.315	114
1563	207	210	115	118	276	281	.295	.295	112
1752	208	207	129	128	261	260	.321	.320	112
1309	209	214	119	122	275	282	.300	.300	114
1338	210	210	115	115	272	272	.282	.282	118
1350	210	210	114	114	280	260	.278	.277	115
1487	210	222	101	110	285	298	.259	.260	114
1336	211	209	115	113	278	270	.285	.284	119
1368	211	211	114	114	275	275	.277	.277	116
913	213	226	132	145	267	283	.324	.334	116
1331	213	209	122	118	277	280	.288	.288	115
1370	213	213	123	123	288	288	.311	.311	114
1414	213	223	124	134	277	287	.307	.318	112
1755	213	212	133	132	268	264	.315	.316	113
757	214	218	123	124	280	280	.311	.311	110

HYDRAULIC ROLLER PROFILES

Master Number	0.050" Dur		0.200" Dur		Adv. Dur 0.006"		Lobe Lift		Lobe Sep.
	In	Ex	In	Ex	In	Ex	In.	Ex	
1747	214	223	140	144	266	277	.353	.334	116
1738	215	223	128	132	274	283	.333	.333	114
1371	216	216	125	125	290	290	.312	.312	115
940	217	226	130	136	282	283	.316	.316	108
799	218	224	127	134	288	291	.322	.323	110
1318	218	214	133	129	281	275	.332	.332	111
1333	218	212	126	122	289	276	.305	.304	116
1756	218	218	128	134	268	272	.320	.316	115
1534	219	219	127	127	282	282	.322	.322	111
1565	219	219	130	130	284	284	.337	.336	111
1330	220	227	139	145	276	283	.328	.334	110
1771	220	232	143	148	269	286	.360	.338	114
1395	221	221	126	126	292	292	.300	.300	111
1317	222	217	135	130	309	296	.333	.333	112
1715	222	231	139	146	287	280	.329	.327	112
1354	225	224	134	134	293	299	.319	.319	116
1466	226	223	137	132	315	328	.335	.334	109
1528	226	230	135	139	290	290	.320	.320	110
1758	226	236	145	155	281	290	.344	.358	119
1433	228	237	148	155	297	303	.368	.365	110
1515	228	234	138	147	294	298	.359	.357	110
1734	228	233	141	144	288	290	.346	.344	108
1478	232	236	142	146	296	299	.323	.322	108
1735	232	236	144	146	296	301	.345	.346	108
669	234	240	142	147	304	314	.331	.331	110
1574	236	242	144	147	288	295	.320	.320	108
1477	237	241	146	148	307	314	.325	.324	107
1315	238	244	150	155	304	308	.345	.345	112
1719	238	243	156	157	295	315	.356	.378	107

HYDRAULIC ROLLER PROFILES

Master Number	0.050" Dur		0.200" Dur		Adv. Dur 0.006"		Lobe Lift		Lobe Sep.
	In	Ex	In	Ex	In	Ex	In.	Ex	
1725	241	246	155	158	298	306	.377	.378	108
926	245	252	165	170	301	311	.364	.363	110
900	246	253	166	174	301	313	.359	.376	110
1571	246	246	156	156	310	310	.380	.380	110
790	247	246	148	147	323	317	.322	.322	110
905	247	255	158	167	316	329	.358	.376	110
1435	249	258	158	166	317	326	.344	.344	111
909	250	260	165	174	326	335	.375	.375	108
1520	258	256	164	164	320	322	.338	.339	107
1707	258	263	164	167	324	336	.355	.356	103
1708	263	266	170	171	331	334	.370	.370	117
1728	267	277	180	188	334	338	.370	.367	114

SOLID ROLLER PROFILES

Specification of these cams will vary slightly with changes in base circle diameter. Lobe centre is easily changed when machining but lift and duration can only be changed by changing master. We can mix and match profiles, using an inlet lobe of one profile and exhaust of another. Any of the lobes can be used on inlet or exhaust. Availability of billets is an important consideration as it is desirable to use a semi finished billet as close to the finished lobe as possible to minimize the amount of material ground of the lobes.

Master Number	0.050" Dur		0.200" Dur		Adv. Dur 0.020"		Lobe Lift		Lobe Sep.
	In	Ex	In	Ex	In	Ex	In.	Ex	
750	222	220	124	124	262	260	.334	.332	109
1328	230	230	124	124	272	272	.294	.294	110
752	230	245	140	151	269	286	.326	.326	108
1599	232	230	147	146	265	265	.381	.380	115
969	233	242	142	147	304	315	.332	.332	110
902	236	239	271	277	151	153	.366	.370	108
945	237	241	278	279	151	155	.368	.372	108
914	238	246	278	286	152	159	.383	.393	106
1583	239	240	154	154	272	274	.378	.378	116
1471	239	247	150	158	280	288	.350	.360	109
942	241	243	298	300	167	170	.381	.375	108
618	242	247	155	160	280	284	.392	.388	107
691	244	252	145	154	284	291	.325	.338	107
1551	245	251	160	165	278	284	.376	.376	108
1476	248	250	157	162	288	292	.383	.383	106
1548	248	251	162	166	284	284	.401	.399	106
1573	248	253	162	166	282	287	.403	.402	106
809	249	250	159	163	290	290	.414	.410	105
751	250	248	161	161	294	298	.333	.333	106
1321	250	250	160	160	284	284	.350	.350	107
812	250	259	152	162	284	291	.340	.340	106
687	250	260	164	175	288	300	.397	.416	106
1532	252	252	166	166	284	284	.405	.405	108
816	252	254	156	158	298	303	.325	.328	113
1482	252	257	167	172	290	294	.404	.404	113
1301	252	260	165	170	286	295	.360	.360	108
904	253	265	282	295	173	184	.384	.396	110
1601	253	261	164	169	284	290	.361	.362	107
1304	253	253	108	108	285	285	.233	.233	108
621	253	264	163	174	289	299	.373	.373	104
916	254	261	287	293	176	183	.442	.441	108

SOLID ROLLER PROFILES

Master Number	0.050" Dur		0.200" Dur		Adv. Dur 0.020"		Lobe Lift		Lobe Sep.
	In	Ex	In	Ex	In	Ex	In.	Ex	
1305	254	254	163	163	285	285	.335	.333	104
1504	254	254	155	155	284	284	.309	.309	108
1423	254	262	179	184	284	291	.429	.419	110
939	255	262	287	300	176	180	.411	.422	107
813	255	255	170	170	288	288	.381	.382	110
1417	255	265	175	183	286	296	.409	.412	108
929	256	270	288	302	175	187	.390	.400	106
1590	257	257	160	160	287	287	.312	.312	102
1419	257	263	182	186	286	293	.431	.429	110
884	257	257	170	160	296	310	.374	.359	106
754	257	262	172	178	294	298	.398	.407	106
1518	258	250	178	165	290	282	.430	.409	106
856	258	268	172	170	297	308	.415	.340	108
612	258	274	170	181	297	315	.387	.397	110
1409	259	252	177	172	295	288	.430	.431	107
819	259	266	169	175	291	298	.360	.360	108
1594	259	256	176	173	292	288	.441	.414	107
1579	259	259	170	170	292	292	.366	.366	108
1538	259	259	172	172	292	292	.403	.403	108
1387	259	265	168	174	298	303	.392	.390	108
868	259	270	179	189	295	306	.423	.426	106
1468	260	266	181	187	293	299	.429	.429	105
915	260	271	287	306	183	191	.438	.427	108
1526	260	260	171	171	290	290	.358	.358	111
1348	260	267	170	175	304	311	.429	.406	107
1592	260	277	174	188	294	312	.438	.418	108
923	261	270	292	300	184	192	.435	.432	104
935	261	267	296	303	178	184	.431	.440	109
1516	261	250	181	166	290	286	.431	.409	109
1543	261	261	174	174	294	294	.414	.414	108
894	261	271	182	184	293	309	.445	.410	107
941	262	271	294	306	185	184	.446	.433	108
1358	262	263	180	179	296	297	.424	.398	107
662	262	264	173	174	309	314	.377	.380	105
1512	262	265	180	183	294	298	.430	.430	105
1475	262	267	165	170	303	307	.350	.350	107

SOLID ROLLER PROFILES

Master Number	0.050" Dur		0.200" Dur		Adv. Dur 0.020"		Lobe Lift		Lobe Sep.
	In	Ex	In	Ex	In	Ex	In.	Ex	
1492	262	268	165	171	301	306	.378	.038	107
732	262	271	177	187	300	310	.415	.415	108
1267	263	263	177	176	295	293	.406	.401	108
1481	263	266	175	178	304	306	.408	.404	112
922	263	271	294	303	184	192	.447	.454	107
818	263	263	173	173	312	312	.380	.380	105
1347	263	268	173	175	305	312	.405	.407	106
946	264	273	298	307	174	183	.375	.389	114
952	264	271	296	302	180	187	.398	.397	102
1313	264	264	180	180	310	310	.415	.415	101
1327	264	264	178	178	295	295	.391	.391	108
1355	264	264	182	182	297	297	.414	.415	101
638	265	264	181	178	305	305	.419	.417	106
1578	265	268	177	181	297	300	.365	.365	110
1359	265	269	184	185	299	302	.426	.399	110
1546	265	273	186	189	298	310	.448	.420	107
1470	266	262	181	183	300	295	.411	.443	106
1320	266	266	185	185	300	300	.432	.432	104
763	266	271	183	185	300	308	.416	.412	106
1376	266	271	182	187	303	308	.463	.463	107
908	267	276	297	311	188	197	.438	.448	107
1380	267	278	187	195	302	317	.451	.422	103
1357	267	271	186	189	310	315	.459	.438	109
758	267	277	165	166	306	315	.366	.355	110
938	268	274	300	305	183	189	.395	.398	108
1332	268	266	184	184	305	302	.418	.421	100
735	268	271	184	186	306	310	.440	.411	106
928	269	279	302	312	187	196	.449	.434	110
1389	269	269	190	190	302	302	.432	.413	107
1453	270	274	184	190	307	309	.414	.413	107
1314	270	266	302	298	185	183	.416	.414	100
1508	270	270	190	190	300	300	.437	.437	108
659	270	273	183	186	311	313	.417	.415	105
1361	270	274	188	189	302	308	.415	.415	103
811	270	280	185	194	306	316	.413	.414	106
1474	271	274	188	191	306	309	.418	.417	102

SOLID ROLLER PROFILES

Master Number	0.050" Dur		0.200" Dur		Adv. Dur 0.020"		Lobe Lift		Lobe Sep.
	In	Ex	In	Ex	In	Ex	In.	Ex	
1352	271	265	188	183	320	315	.429	.417	115
1418	272	282	194	199	302	315	.455	.440	108
1431	272	294	192	205	304	337	.502	.484	114
1545	272	274	185	186	307	309	.411	.398	108
1312	272	275	188	191	305	308	.431	.432	105
1378	272	277	183	187	306	312	.410	.408	103
1525	273	271	186	186	305	305	.409	.409	107
906	274	283	308	322	192	194	.468	.459	112
927	274	282	307	315	189	196	.396	.396	110
1536	274	281	184	190	309	314	.406	.390	108
936	275	282	308	315	196	201	.490	.490	112
1511	275	257	194	176	305	285	.431	.412	110
1373	275	270	191	185	309	304	.427	.402	104
1502	275	272	195	193	309	307	.410	.408	111
668	275	276	191	192	312	312	.420	.419	104
663	275	280	184	188	310	316	.435	.415	106
925	276	276	312	310	195	195	.524	.518	116
1325	276	317	320	376	176	216	.489	.508	118
1576	276	278	186	191	307	310	.375	.375	108
917	277	285	314	323	189	285	.442	.441	113
1580	277	282	196	199	314	320	.444	.435	107
1535	277	283	194	196	316	318	.460	.450	109
739	277	285	194	198	310	319	.428	.428	105
855	278	285	191	198	314	320	.422	.426	112
1356	278	289	187	197	322	332	.428	.433	112
1351	279	282	187	190	321	324	.428	.408	108
1465	280	286	199	204	313	321	.438	.438	107
807	280	290	183	189	337	347	.390	.390	104
901	281	288	314	321	200	201	.455	.439	110
808	281	291	187	198	322	336	.428	.446	105
932	282	300	316	340	200	211	.484	.484	115
646	282	280	191	188	327	330	.437	.389	107

SOLID ROLLER PROFILES

Master Number	0.050" Dur		0.200" Dur		Adv. Dur 0.020"		Lobe Lift		Lobe Sep.
	In	Ex	In	Ex	In	Ex	In.	Ex	
1489	283	304	191	211	328	350	.497	.497	119
869	283	295	203	208	316	339	.469	.450	113
1343	284	284	192	192	325	325	.420	.440	112
1342	284	285	202	199	316	320	.460	.427	106
1519	284	285	190	188	318	321	.376	.371	110
1349	284	291	195	202	330	337	.453	.455	107
1564	284	291	197	200	320	327	.472	.460	107
897	284	292	201	202	316	326	.477	.468	114
764	284	294	190	199	330	344	.402	.412	95
1570	284	297	196	200	324	341	.473	.443	112
1507	285	285	200	200	319	319	.465	.465	112
1517	285	288	194	197	319	322	.408	.410	106
1369	286	299	195	205	328	340	.489	.429	114
858	286	291	197	200	320	325	.454	.418	110
652	286	295	191	198	329	345	.435	.450	108
1549	287	282	185	177	337	328	.422	.403	114
1345	287	289	195	196	327	328	.438	.419	112
1542	287	292	195	197	324	330	.428	.419	107
1388	288	298	197	205	331	339	.489	.438	114
810	288	287	196	192	328	329	.466	.417	113
1310	288	288	202	202	327	327	.480	.480	116
1530	288	290	203	203	320	322	.473	.433	110
865	288	296	199	206	323	331	.470	.435	108
1469	289	296	197	211	332	333	.439	.476	115
1486	289	306	207	220	323	348	.523	.510	117
707	289	294	200	204	324	329	.470	.434	108
1501	289	295	206	212	321	330	.474	.474	115
1467	290	301	200	202	333	346	.473	.456	113
912	290	292	337	337	194	198	.481	.509	116
1415	290	295	197	202	334	340	.478	.512	116
1422	290	317	203	225	329	359	.510	.477	123
1541	290	290	205	205	323	323	.478	.477	115

SOLID ROLLER PROFILES

Master Number	0.050" Dur		0.200" Dur		Adv. Dur 0.020"		Lobe Lift		Lobe Sep.
	In	Ex	In	Ex	In	Ex	In.	Ex	
845	290	295	200	209	333	333	.473	.478	114
910	291	292	331	328	205	209	.525	.537	119
924	291	291	325	325	198	198	.420	.420	112
1434	291	307	206	220	330	348	.525	.500	116
1509	291	287	203	196	325	321	.457	.445	115
772	291	292	202	203	325	327	.467	.456	108
1319	291	291	205	204	328	326	.426	.424	108
1497	292	294	200	202	338	341	.501	.503	116
1505	292	292	200	193	328	330	.421	.410	114
1567	292	292	207	207	325	325	.506	.506	116
1495	293	293	205	205	337	335	.520	.517	116
1353	293	293	208	209	332	330	.506	.506	115
760	293	294	203	193	331	333	.457	.414	111
1366	294	302	193	199	340	353	.505	.521	117
1307	294	293	209	206	332	330	.492	.446	114
657	294	297	203	206	334	332	.446	.432	110
1454	295	299	208	213	333	338	.485	.511	117
1527	295	296	189	209	325	326	.429	.434	109
1523	295	297	207	209	329	331	.470	.472	114
844	295	297	209	211	332	335	.478	.508	113
891	295	301	206	215	333	340	.477	.511	114
1598	295	295	207	207	332	332	.477	.478	112
1456	296	296	197	197	345	345	.477	.477	113
1498	296	295	213	212	330	330	.523	.524	116
1595	296	296	334	335	206	206	.425	.427	114
1334	296	296	334	334	212	212	.476	.476	116
1408	296	296	206	206	333	333	.504	.505	115
1539	296	290	208	206	335	327	.475	.448	112
1577	298	300	212	214	335	337	.472	.473	114
1555	299	293	213	207	332	327	.516	.503	116
903	299	295	334	333	215	211	.499	.501	113
943	299	305	337	342	216	222	.561	.578	119
1451	300	289	212	200	344	333	.476	.475	115
1584	300	294	213	210	338	328	.473	.447	112
1452	302	300	214	212	343	342	.499	.499	114
1425	302	305	214	216	337	340	.500	.500	118

SOLID FLAT TAPPET PROFILES

Master Number	0.050" Dur		0.200" Dur		Adv. Dur 0.020"		Lobe Lift		Lobe Sep.
	In	Ex	In	Ex	In	Ex	In.	Ex	
645	206	206	115	115	236	236	0.279	0.280	110
867	209	217	116	121	240	255	0.280	0.283	113
779	213	223	101	115	245	260	0.255	0.263	108
165	214	214	107	109	247	247	0.263	0.265	107
860	214	216	120	121	243	247	0.283	0.281	110
846	218	225	121	127	257	267	0.283	0.286	109
328	220	224	122	126	258	265	0.284	0.287	109
606	222	222	115	115	260	260	0.264	0.264	110
402	223	225	114	117	260	265	0.263	0.265	108
740	228	234	117	120	263	268	0.267	0.267	107
609	229	229	130	130	264	264	0.295	0.295	109
872	231	231	140	140	258	258	0.320	0.320	108
1326	233	233	126	126	274	274	0.298	0.298	110
1306	234	243	142	147	272	280	0.330	0.329	108
696	236	236	144	144	267	267	0.314	0.317	108
773	232	242	132	140	276	280	0.294	0.310	110
664	237	237	140	140	280	280	0.324	0.324	108
785	238	242	152	156	268	272	0.351	0.357	108
626	238	244	140	146	278	288	0.321	0.328	110
608	240	240	130	130	275	275	0.274	0.272	107
623	240	240	132	132	270	270	0.273	0.273	106
660	241	241	140	140	278	278	0.325	0.325	110
628	242	249	147	154	274	282	0.332	0.331	105
699	242	242	142	142	284	284	0.306	0.306	110
726	242	242	136	136	285	285	0.295	0.295	111
611	244	244	145	145	305	305	0.329	0.329	109
736	244	244	150	150	278	278	0.322	0.322	106
838	244	245	148	148	275	275	0.323	0.327	103
167	245	245	152	152	278	278	0.325	0.327	103
806	245	255	147	157	282	293	0.325	0.338	108
1374	246	246	153	153	281	281	0.341	0.341	108
803	248	248	150	150	295	295	0.330	0.330	108

SOLID FLAT TAPPET PROFILES

Master Number	0.050" Dur		0.200" Dur		Adv. Dur 0.020"		Lobe Lift		Lobe Sep.
	In	Ex	In	Ex	In	Ex	In.	Ex	
824	246	256	146	158	285	295	0.322	0.338	108
639	247	255	152	163	293	303	0.331	0.345	107
630	248	252	127	131	285	299	0.270	0.270	105
1591	249	245	159	154	290	282	0.334	0.328	102
1302	250	255	152	153	291	296	0.335	0.325	108
642	252	260	158	167	288	298	0.352	0.363	112
684	252	252	153	153	310	310	0.322	0.322	114
746	252	258	154	162	292	295	0.339	0.355	109
1597	252	252	150	149	296	296	0.322	0.320	103
731	253	260	160	166	292	297	0.355	0.365	108
647	254	254	156	156	308	308	0.345	0.345	107
692	255	252	145	145	292	292	0.293	0.296	106
734	255	255	159	159	296	296	0.325	0.325	105
1362	255	255	166	166	285	285	0.365	0.365	106
693	257	269	158	172	299	316	0.328	0.341	112
1316	257	257	160	160	300	300	0.342	0.341	107
166	260	260	161	161	292	294	0.324	0.325	102
712	261	262	161	162	299	302	0.357	0.360	107
644	262	270	162	172	300	310	0.356	0.371	112
698	262	268	168	176	299	303	0.367	0.377	106
658	263	263	173	173	295	295	0.339	0.339	108
715	263	275	165	176	310	324	0.342	0.356	112
676	264	264	164	164	302	302	0.332	0.332	108
694	264	272	172	180	301	308	0.373	0.387	112
681	265	265	175	175	302	302	0.378	0.378	106
794	265	268	169	170	306	311	0.377	0.377	107
742	265	275	172	182	296	315	0.394	0.398	106
1566	265	273	175	185	295	303	0.386	0.402	108
713	266	276	169	179	303	314	0.351	0.364	110
679	267	265	176	172	307	302	0.380	0.375	106
610	269	269	170	170	311	311	0.356	0.357	108
680	270	270	175	175	308	308	0.370	0.370	100

SOLID FLAT TAPPET PROFILES

Master Number	0.050" Dur		0.200" Dur		Adv. Dur 0.020"		Lobe Lift		Lobe Sep.
	In	Ex	In	Ex	In	Ex	In.	Ex	
697	270	278	168	175	312	318	0.351	0.365	108
708	272	276	178	178	315	322	0.387	0.386	107
738	272	272	178	178	302	302	0.365	0.365	107
1379	272	275	182	182	307	311	0.395	0.395	108
1553	272	280	173	178	312	321	0.368	0.369	107
720	273	273	174	174	322	322	0.366	0.366	99
633	274	285	176	186	323	340	0.371	0.368	108
705	274	274	181	181	310	310	0.384	0.384	107
804	274	274	180	180	312	312	0.386	0.386	110
1582	274	282	175	183	318	324	0.379	0.380	106
1506	277	277	179	179	320	320	0.379	.379	108
717	278	278	181	183	316	316	0.344	0.344	100
741	279	290	188	196	315	326	0.400	0.410	107
706	280	280	186	186	314	314	0.384	0.384	108
632	281	287	191	198	312	318	0.405	0.405	106
727	280	290	187	196	265	275	0.395	0.410	108
714	284	290	186	189	321	323	0.388	0.384	108
716	289	289	187	189	326	331	0.395	0.395	108
725	290	290	191	191	330	330	0.400	0.400	108
SUIT FORD LIFTER (0.875" Minimum Diameter)									
785	238	242	152	156	268	271	0.351	0.357	108
823	249	258	159	169	288	288	0.357	0.363	105
866	256	266	165	173	287	298	0.388	0.395	106
814	268	272	180	184	299	305	0.402	0.408	106
820	257	263	168	175	290	296	0.360	0.389	108
1552	272	282	175	183	315	328	0.380	0.379	107
SUIT CHRYSLER LIFTER (0.905" Minimum Diameter)									
887	244	254	152	163	275	283	0.353	0.381	106
677	246	260	158	171	270	280	0.355	0.379	104
841	250	257	155	162	289	298	0.359	0.374	107
888	252	252	160	160	295	295	0.374	0.374	106

HYDRAULIC FLAT TAPPET PROFILES

Master Number	0.050" Dur		0.200" Dur		Adv. Dur 0.006"		Lobe Lift		Lobe Sep.
	In	Ex	In	Ex	In	Ex	In.	Ex	
1537	194	194	102	102	250	250	.266	.266	109
613	194	202	96	105	260	267	.261	.272	112
766	194	202	98	110	257	267	.264	.279	110
615	196	196	74	76	264	264	.230	.230	108
678	197	197	94	94	260	260	.254	.254	108
771	201	205	102	108	259	266	.265	.272	111
631	202	207	100	105	269	269	.263	.263	112
805	203	208	107	112	255	270	.275	.275	112
666	204	214	108	121	267	281	.278	.295	112
776	204	215	105	114	266	279	.271	.277	112
695	205	205	112	112	251	254	.280	.280	109
221	205	209	110	115	265	271	.273	.281	109
1364	206	206	113	113	260	260	.281	.281	112
220	206	211	103	105	270	280	.262	.264	109
624	206	222	110	118	268	300	.278	.284	116
602	208	208	116	116	270	270	.280	.280	110
745	212	212	113	114	280	280	.270	.270	108
890	212	218	117	124	273	278	.289	.293	110
603	214	214	120	120	280	280	.295	.295	110
665	214	224	120	133	280	290	.296	.312	112
892	215	215	121	121	275	275	.294	.294	112
770	214	226	120	130	280	290	.293	.297	111
1365	219	224	122	127	288	290	.286	.290	110
1540	218	214	123	119	282	276	.294	.294	113
170	219	219	121	121	280	280	.286	.284	111
843	219	219	116	116	286	286	.282	.282	110
1550	219	224	124	127	290	295	.295	.295	112
651	222	222	128	128	282	282	.298	.298	113
689	222	229	127	132	282	289	.298	.300	106
685	224	220	128	115	277	279	.282	.267	110
667	224	224	130	130	286	286	.306	.306	111
801	224	224	130	130	280	280	.300	.300	114
686	224	224	126	126	292	292	.293	.293	108

HYDRAULIC FLAT TAPPET PROFILES

Master Number	0.050" Dur		0.200" Dur		Adv. Dur 0.006"		Lobe Lift		Lobe Sep.
	In	Ex	In	Ex	In	Ex	In.	Ex	
619	226	232	130	137	286	290	.306	.316	109
817	226	230	137	138	280	282	.318	.320	109
1367	226	236	133	134	293	299	.310	.326	112
1510	227	226	132	132	294	291	.317	.316	106
1589	227	220	129	124	289	282	.294	.294	113
604	228	228	128	128	304	304	.280	.280	110
617	228	228	130	130	290	290	.294	.296	110
605	222	236	125	133	297	305	.291	.294	114
622	230	230	140	140	282	282	.320	.320	110
650	230	230	133	133	292	292	.300	.300	113
761	230	230	133	133	292	292	.300	.300	109
778	230	230	134	134	290	290	.303	302	110
672	230	230	137	137	280	280	.318	.317	108
880	231	231	138	138	285	285	.310	.310	110
1424	230	238	139	146	288	295	.324	.324	110
703	232	232	124	124	312	312	.276	.276	110
620	234	234	140	140	294	294	.315	.315	110
649	234	244	134	143	282	295	.303	.303	108
730	236	244	149	159	284	292	.340	.340	112
747	236	246	149	157	294	307	.349	.354	107
690	238	243	144	148	300	310	.320	.320	108
787	238	246	147	151	284	295	.324	.327	112
616	240	240	140	140	300	300	.299	.299	110
700	241	248	147	153	307	313	.332	.328	108
682	244	244	136	136	303	303	.288	.288	106
802	246	246	156	156	295	295	.338	.338	108
648	248	252	151	158	320	322	.326	.336	108
1520	258	256	164	164	320	322	.338	.339	107
675	258	258	161	161	307	307	.326	.325	108
671	259	259	164	164	310	310	.345	.345	108
1503	263	263	162	162	320	320	.324	.324	107
769	269	275	156	164	351	359	.327	.329	106

DIRECT OPERATING OHC (Bucket) Profiles

Use of these profiles in any engine is subject to cam follower diameter **For engines with shims on top of bucket, this is shim diameter.

Master Number	0.050" Dur.		Adv Dur.		Lobe Lift		Min Lifter **	
	In	Ex	In	Ex	In	Ex	Diameter Inch	Diameter mm
SOLID								
189	200	200	252	252	0.293	0.293	0.89	23
208	202	202	263	263	0.338	0.338	1.1	28
161	204	204	279	279	0.297	0.297	0.92	24
895	204	208	269	289	0.323	0.33	0.95	25
216	204	210	286	292	0.325	0.341	1.08	28
27	206	207	270	277	0.385	0.388	1.28	33
854	208	208	272	272	0.359	0.359	1.06	27
113	208	208	272	276	0.386	0.386	1.185	30
839	213	214	267	273	0.395	0.395	1.115	29
307	215	215	265	265	0.38	0.38	1.125	29
1587	219	219	268	268	0.361	0.361	1.02	26
627	221	222	304	308	0.392	0.394	1.2	30
60	222	226	262	285	0.402	0.402	1.08	28
97	224	225	262	267	0.328	0.331	1.0	26
1407	227	227	265	265	0.368	0.368	1.06	27
1377	227	228	277	282	0.379	0.38	1.09	28
1405	233	233	298	298	0.337	0.337	1.125	29
152	234	234	280	280	0.334	0.334	0.875	23
66	234	234	314	298	0.439	0.436	1.16	30
848	236	257	310	350	0.428	0.436	1.2	30
885	237	251	271	288	0.455	0.492	1.25	32
2	240	240	285	285	0.33	0.33	0.95	25
329	240	236	284	291	0.469	0.451	1.25	32
1376	241	241	275	275	0.463	0.463	1.3	33
1308	242	242	292	292	0.383	0.383	0.975	25
849	247	258	328	337	0.393	0.409	1.05	27
876	248	248	279	279	0.441	0.441	1.2	30
886	249	251	287	296	0.449	0.454	1.25	32
1581	256	256	322	322	0.453	0.453	1.1	28
859	257	257	306	306	0.388	0.388	1.06	27
837	258	258	327	327	0.435	0.435	1.25	32
1324	260	260	292	292	0.53	0.53	1.3	33
1303	262	266	321	326	0.398	0.41	0.925	24
1596	264	264	319	319	0.453	0.453	1.1	28
1568	270	270	311	311	0.479	0.479	1.125	29
1391	273	273	337	337	0.542		1.35	35
871	276	285	309	318	0.475	0.495	1.15	30
1556	276	276	308	308	0.598	0.598	1.395	36
873	281	283	321	311	0.48	0.46	1.11	29
728	281	281	304	304	0.527	0.527	1.25	32
737	282	283	316	318	0.434	0.432	1.02	26
HYDRAULIC								
89	211	211	250	250	0.4	0.4	1.22	31
575	216	216	265	265	0.347	0.347	1.2	30
1322	218	218	256	256	0.33	0.33	1.02	26
191	246	246	295	295	0.43	0.43	1.06	27

CHEV/HOLDEN V8 LS GRINDS

These are profiles we have already ground on LS cams. We have many more masters available but the specs may vary slightly with the larger base circle of the LS cam. Lobe centres can be modified within the range of the lobe profiles and cam billets available.

Part Number	0.050"Dur In / Ex	0.200"Dur In / Ex	Adv Dur 0.006" In / Ex	Lobe Lift In / Ex	Valve Lift @ 1.7 Ratio	Lobe Centre
HYDRAULIC ROLLER						
1245	199/205	114/118	262/264	.300/.300	.510/.511	112
1346	199/211	114/119	275/279	.292/.293	.496/.499	120
780	203/219	124/134	264/285	.324/.326	.551/.555	117
1200	204/212	119/125	260/269	.303/.305	.515/.519	116
1255	206/209	118/120	267/269	.300/.299	.510/.509	111
1259	207/213	119/125	262/267	.302/.306	.513/.520	112
1752	208/208	129/128	261/260	.321/.320	.546/.544	112
1230	209/229	128/143	262/281	.325/.321	.553/.545	120
1265	212/219	125/131	268/275	.305/.311	.519/.528	114
1276	215/247	142/172	267/298	.371/.387	.631/.657	121
1208	216/221	135/139	275/281	.350/.350	.595/.595	112
1384	216/223	136/142	278/285	.329/.329	.559/.559	117
1737	216/224	132/140	271/281	.349/.348	.593/.592	116
1208	217/222	135/139	275/281	.350/.351	.596/.596	111
1275	217/224	123/130	300/292	.310/.310	.528/.527	114
1759	217/246	141/168	267/296	.356/.367	.605/.624	120
1228	218/220	130/131	282/284	.341/.341	.579/.579	112
1744	219/236	144/159	271/286	.358/.365	.608/.620	118
1202	220/225	133/137	282/292	.327/.330	.556/.562	114
1771	220/233	143/149	269/286	.360/.338	.612/.575	114
1732	221/221	138/138	278/279	.350/.350	.595/.596	114
1749	221/228	144/151	276/282	.369/.368	.627/.625	116
1247	221/228	133/146	287/286	.342/.345	.581/.587	112
1256	221/229	131/144	293/290	.344/.348	.585/.591	116
1286	221/238	140/155	275/292	.342/.343	.580/.581	115
1730	222/230	141/148	281/287	.360/.360	.613/.612	114
1233	223/224	140/141	276/278	.331/.332	.562/.565	111
1270	223/228	144/149	278/282	.341/.346	.580/.589	114
1229	224/230	142/147	280/286	.359/.359	.610/.610	114
1262	224/232	146/153	278/284	.358/.359	.608/.611	114
1745	224/236	147/159	278/289	.360/.365	.612/.620	115
1263	225/232	141/148	285/291	.359/.358	.610/.609	114
949	225/243	146/163	278/294	.352/.357	.598/.607	118
1292	225/244	149/164	276/296	.357/.357	.607/.607	115
1226	226/222	146/143	279/276	.339/.339	.576/.576	115
1528	226/231	133/138	290/298	.320/.321	.544/.546	110
1249	226/232	149/153	277/284	.358/.354	.608/.602	112
1248	226/234	147/151	278/303	.340/.348	.578/.591	111
1777	226/236	148/158	279/285	.357/.362	.607/.615	113
1280	227/228	136/136	291/294	.322/.322	.547/.549	110
1295	227/231	150/152	280/285	.358/.354	.609/.602	114
1203	227/232	136/140	291/301	.324/.326	.551/.555	113
1298	227/233	149/153	282/290	.358/.353	.609/.601	112
1244	227/238	137/144	284/299	.309/.310	.525/.527	110
1218	227/244	146/159	286/297	.344/.346	.585/.588	114
1281	227/244	143/158	294/310	.355/.354	.603/.601	114
1287	227/244	150/165	278/296	.358/.359	.607/.610	114
1773	228/230	148/149	283/285	.352/.352	.598/.598	114
1234	228/231	145/147	281/284	.335/.337	.570/.572	112
1729	228/235	146/152	284/292	.359/.359	.610/.610	114
1243	228/238	138/144	286/296	.308/.307	.523/.522	110
1204	229/231	145/147	284/287	.334/.335	.568/.570	112
1212	229/232	151/155	281/282	.359/.361	.611/.614	112

CHEV/HOLDEN V8 LS GRINDS

Part Number	0.050"Dur In / Ex	0.200"Dur In / Ex	Adv Dur 0.006" In / Ex	Lobe Lift In / Ex	Valve Lift @ 1.7 Ratio	Lobe Centre
HYDRAULIC ROLLER						
1223	229/235	145/148	293/304	.344/.344	.584/.585	112
1753	230/225	151/145	279/275	.334/.330	.568/.561	116
1206	230/235	148/154	289/294	.335/.347	.571/.591	110
1762	230/237	153/160	282/289	.361/.365	.614/.621	109
1763	230/249	153/171	281/303	.360/.367	.612/.624	120
1214	231/239	153/155	282/291	.352/.342	.598/.581	112
1761	231/244	155/167	280/295	.362/.367	.615/.624	113
1261	232/232	152/152	285/285	.353/.353	.600/.600	110
1266	232/233	155/154	285/288	.359/.355	.610/.603	112
1215	232/234	144/146	297/302	.344/.342	.584/.582	112
1239	232/235	153/153	286/291	.361/.366	.613/.622	115
1296	232/237	155/157	286/290	.360/.356	.612/.604	112
1269	232/238	153/156	288/295	.363/.367	.617/.624	113
1765	232/246	154/163	286/302	.361/.354	.614/.602	120
1221	233/234	150/150	295/292	.343/.325	.583/.553	111
1236	233/239	142/148	309/317	.363/.369	.617/.627	114
1211	233/242	145/152	304/318	.322/.328	.548/.558	112
1260	233/245	155/167	283/298	.362/.367	.616/.623	115
1205	234/234	150/150	293/292	.329/.329	.559/.559	110
1285	234/238	148/152	291/296	.349/.350	.595/.595	114
1288	234/250	154/168	287/302	.359/.360	.610/.610	114
1772	235/236	154/154	289/288	.351/.351	.597/.597	110
1210	235/243	146/151	299/317	.321/.323	.546/.549	115
1251	235/243	155/164	292/296	.349/.359	.593/.610	113
1238	236/241	154/159	291/297	.367/.367	.625/.624	112
1250	236/242	152/155	294/302	.357/.358	.608/.609	113
947	236/248	155/169	289/299	.351/.364	.597/.619	113
1237	236/249	154/169	291/302	.367/.372	.624/.632	112
1754	237/231	156/151	288/281	.340/.336	.578/.571	115
1272	237/242	153/158	301/304	.368/.363	.625/617	112
1241	237/245	159/162	293/298	.365/.346	.620/.588	114
948	237/248	155/169	295/295	.361/.364	.614/.619	110
1283	238/242	159/162	293/296	.368/.368	.626/.625	114
1289	238/254	156/169	295/319	.362/.362	.614/.614	113
1232	239/242	155/158	294/295	.345/.347	.585/.590	114
1252	239/244	154/158	301/302	.362/.361	.614/.614	114
1299	239/244	160/164	292/299	.360/.360	.613/.611	112
1723	239/249	156/169	301/303	.362/.361	.615/.614	114
1242	239/250	158/169	294/303	.352/.360	.598/.612	112
1290	239/256	154/164	301/321	.362/.359	.614/.610	115
1294	240/243	155/159	292/294	.342/.344	.581/.585	116
1235	241/243	162/163	293/296	.357/.359	.607/.610	112
1741	242/245	159/163	309/306	.367/.367	.623/.623	112
1240	242/248	159/163	299/305	.352/.352	.598/.599	112
1231	243/246	158/161	296/298	.348/.350	.592/.595	114
1291	244/261	158/169	311/340	.365/.362	.621/.616	114
1282	245/251	166/172	304/307	.383/.383	.651/.651	115
1253	245/262	159/170	307/325	.363/.361	.615/.615	114
1733	246/251	162/165	306/314	.364/.365	.619/.621	112

CHEV/HOLDEN V8 LS GRINDS

Part Number	0.050"Dur In / Ex	0.200"Dur In / Ex	Adv Dur 0.006" In / Ex	Lobe Lift In / Ex	Valve Lift @ 1.7 Ratio	Lobe Centre
HYDRAULIC ROLLER						
1207	246/255	155/161	311/315	.329/.327	.559/.556	114
1268	248/253	170/174	299/304	.367/.366	.623/.622	114
1264	249/252	172/175	301/304	.386/.388	.656/.659	108
1219	250/250	163/166	309/311	.359/.363	.610/.617	108
1271	250/258	150/161	325/337	.361/.364	.614/.618	114
1760	253/253	173/173	304/302	.370/.370	.629/.629	110
1224	254/259	166/171	322/327	.374/.374	.636/.636	109
1770	255/265	176/185	305/315	.367/.367	.624/.624	112
1254	257/272	177/190	309/323	.366/.366	.622/.621	115
1216	266/274	175/182	325/332	.355/.353	.603/.600	114
1297	266/276	184/192	321/329	.364/.362	.619/.615	106
1213	267/271	182/186	331/332	.394/.393	.670/.668	110
1728	267/277	180/188	334/338	.370/.367	.629/.624	114
1217	274/274	191/191	327/328	.367/.366	.624/.622	114
SOLID ROLLER						
1757	246/246	164/165	278/280	.404/.404	.687/.687	112
1750	259/265	180/184	288/295	.401/.401	.682/.682	110
1222	273/277	189/192	307/311	.436"/.435"	.741"/.740"	108
1751	276/283	201/202	304/312	.464/.461	.789/.783	110

Note: Other solid roller profiles are available. These will need to be checked as durations will vary depending on base circle size. Please contat the Crow Cams Technical department to discuss a profile.

FORD OHC CUSTOM PROFILES

ROLLER CAM PROFILES FOR FALCON 6 OHC ENGINES

These are measurements of cam lobes not valve timing.
Use the standard specification for an approximate comparison. Where two figures are given, first is inlet.
EA-EF uses 2:1 Rocker Ratio. AU uses 1.8:1 Rocker Ratio

Part Number	0.050"Dur	Adv Dur	Lobe Lift	Lobe Centre
HYDRAULIC ROLLER				
STD AU	181 / 197	233/246	.247/.268	119
896	193 / 187	240/230	.236/.227	114
STD EB	193 / 187	241/239	.235/.227	114
825	195 /195	262	0.245	113
2526	197 / 192	249/246	.265/.252	115
2557	198 / 198	260	0.245	113
2519	199 / 194	262/251	.246/.236	113
2522	201 / 194	263/257	.269/.255	111
2543	209 / 207	271/269	.250/.239	114
2549	210 / 199	271/261	.264/.250	111
1514	219 / 219	275	0.28	112
1300	220 / 220	282/289	0.25	110
1560	224 / 220	282/277	0.28	115
2596	227 / 227	282	0.296	110
2546	233 / 233	295	0.264	110
2550 *	235 / 235	295	0.308	106

*** Warning:** This cam may have piston to valve clearance problems.

SOLID ROLLER				
2527	230	272	.300"	106
2518	237	295	.260"	107

NISSAN TB48 GRINDS

Part Number	Adv. Duration		.050" Duration		Valve Lift		LSA
	Intake	Exhaust	Intake	Exhaust	Intake	Exhaust	
538797 539797	287	287	258	258	.500"	.500"	
538876 539876	302	303	250	250	.500"	.500"	
5381472 5391472	265	265	248	248	.440"	.440"	
5381840 5391840	248	248	223	223	.401"	.401"	
5381841 5391841	248	248	231	223	.425"	.401"	
5381842 5391842	248	248	231	231	.406"	.406"	
5381843 5391843	254	254	231	231	.406"	.406"	
5381844 5391844	255	254	234	231	.426"	.426"	
5381845 5391845	255	255	234	234	.405"	.405"	
5381847 5391847	271	270	240	239	.405"	.405"	
5381848 5391848	255	255	238	238	.429"	.429"	
5381849 5391849	272	273	244	244	.468"	.467"	
5381850 5391850	265	256	248	238	.440"	.429"	
5381851 5391851	265	265	248	248	.440"	.440"	
5381764 5391764	294	294	253	253	.490"	.490"	

TOYOTA 1FZ-FE GRINDS

Part Number	Adv. Duration		.050" Duration		Valve Lift		LSA
	Intake	Exhaust	Intake	Exhaust	Intake	Exhaust	
528000 529000	277	277	194	194	.340"	.340"	
5281840 5291840	248	248	223	223	.401"	.401"	
5281843 5291843	254	254	231	231	.406"	.406"	
5281844 5291844	255	254	234	231	.426"	.406"	
5281845 5291845	255	255	234	234	.426"	.426"	
5281848 5291848	255	255	238	238	.429"	.429"	
5281849 5291849	272	273	244	244	.468"	.467"	
5281850 5291850	265	256	248	238	.440"	.429"	
5281851 5291851	265	265	248	248	.440"	.440"	
5281852 5291852	282	282	247	247	.472"	.472"	
5281764 5291764	294	294	253	253	.490"	.490"	

CROW CAMS MERCHANDISE

All Hoodies & T-Shirts available in S, M, L, XL, 2XL, 3XL

CROW CAMS HOODIE

Cotton Hoodie in black with unique Crow Cams hot rod garage theme printed on back.
Part Number: HOODIES (S TO 3XL)
Available in Zip or No-Zip

CROW CAMS HOT ROD BANNER

Large Fabric Banner with corner eyelets, size 1500mmx1100mm
Part Number: BANNER
Also available in Ford & Holden

CROW CAMS GT T-SHIRT

Heavy weight cotton T Shirt in Black with Crow Cams XW GT printed on back and small bird logo printed on front.
Part Number: TSG (S TO 3XL)

CROW CAMS STUBBY HOLDER

Cool Black Neoprene with printed Bird logo.
Part Number: SH1

CROW CAMS BIRD T-SHIRT

Heavy weight cotton T Shirt in Black with Crow Cams logo printed on back and small bird logo printed on front. **Part Number: TS (S TO 3XL)**

CROW CAMS STUBBY HOLDER

Cool Black Neoprene with printed Fat Lobe Bird logo.
Part Number: SH-F

CROW CAMS TORANA T-SHIRT

Heavy weight cotton T Shirt in Black with Crow Cams Torana printed on back and small bird logo printed on front. **Part Number: TST (S TO 3XL)**

CROW CAMS CHARGER T-SHIRT

Heavy weight cotton T Shirt in Black with Crow Cams Charger printed on back and small bird logo printed on front. **Part Number: TSC (S TO 3XL)**

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Comfortable durable cloth cap with Crow Bird Logo.
Part Number: CP2

CROW CAMS

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