



**Semi - Finished Camshafts  
January, 2025**

717 Woodworth Rd. Jackson, Michigan 49202  
517-787-2040

# **EVERWEAR-GEAR™ CAMSHAFTS**



Camshaft Machine Company has manufactured camshafts since 1942. We specialize in both cast and steel semi-finished(UGL's) camshaft cores for the entire performance industry. Many of today's "performance" cam companies rely on Camshaft Machine Company cores for the development of their individual high performance finished grinds.

The High performance industry has struggled for years with durability problems between the distributor gears and steel camshaft gears. The materials used to manufacture steel camshafts today are extremely durable; however there have been some compatibility problems with stock distributor gears. These problems seem to arise when there is increased loads added to the system. Below are just a few of the variables that contribute to stress and or problems.

1. High Performance Oil Pumps (Higher Pressure which increases gear loads).
2. Different Oil Viscosity
3. Distributor Gear Quality
4. Cam Gear Quality
5. Lubrication for the gears
6. Miss matching of new and old gears.
7. Excessive backlash between the 2 gears.

Camshaft Machine Company developed the new Everwear-Gear™ in November of 2003.

We enlisted help from MSD as they have worked on gear wear problems for many years. MSD has developed a test standard that can measure durability, as well as allowing oil temperature, oil pressure and RPM changes. To measure our progress, and quantify our overall gear quality, we used the American Gear Manufactures Association (AGMA) standard 1 thru 15 scale, 1 being the lowest level of performance.

Our standard process is to plunge hob our gears, the hob is fed vertically into the gear on the camshaft. OEM manufacturing has used this plunge hob process for years with good success on stock oil pump and limited RPM applications. We rate the OEM production gear quality throughout the industry in the 3 – 4 range.

To make a precision quality gear, we wanted to find a better cast iron material than our "Proferall++". We developed a new cast iron material for our Everwear-Gear™ that has excellent wear characteristics. We used a special nitride process to case harden the gear. Once we had the material we needed to address the machining process for the gear, we had to go to a "through" hobbing process. Many improvements have been made in the design of the hobs over the years. We developed a new topping hob that holds the shape of the tooth (K curve), the pitch diameter, and O.D. in very close tolerance to the centerline of the gear. There is now a true relationship between the O.D. of the gear to the centerline of the gear. In the past engine builders would make a decision on the quality of the gear based on the run-out of the O.D. on the gear with the cam on the centers. Because we rough turn the O.D. of our standard production camshafts, there is no consistent relationship between the O.D. and the root or pitch diameter. With the new Everwear-Gear™, there is a very consistent relationship. Our Everwear-Gear™ has an AGMA rating of 9. This is truly a precision gear.

Our test setup used a DC motor to drive the engine, which is basically a "Reverse Dyno". The crank, camshaft, distributor and a high performance oil pump were installed for testing. The test used 50 wt. racing oil at 50°F, the test was setup to produce 150psi oil pressure. The engine was accelerated from 0 to 8000rpm and then held at 8000rpm. Using camshafts and gears currently being sold by several manufacturers, we were unable to have the gears live longer than 72 seconds. Using the MSD cast iron distributor gear #8531 and the new CMC Everwear-Gear™, the camshafts and Gears were removed after 38 Hours with minimal wear.

# CMC Bearing Journal Size Specifications

<b>Decsription</b>	<b>Finished Size</b>	<b>Bearing Type</b>
SB Chevy Std.	1.8687	Bushing
SB Chevy Roller Std.	1.875	Roller
BB & Rocket Block	1.9492	Bushing
50mm	1.9683	Roller
55mm	2.1653	Roller
LS1-6 55mm CMC	2.1653	Roller / Bushing
LS1-6 55mm GM Spec.	2.1659	Bushing

# AMC

AMC 1966-93 290-304-343-360-390-401 C.I. V-8 Roller follower only														EF001
PART NO.	.050 DUR		CAM LIFT		LSA	#1 Exh Timing CW from keyway	LOBE CENTER		BASE CIRCLE RAD.		BODY DIAMETER	LOBE WIDTH	STEEL	Notes:
	INT.	EXH.	INT.	EXH.			INT.	EXH.	INT.	EXH.				
310601	250°	250°	.350	.350	112.0°	4.0°	108°	116°	.680	.680	1.12	.58	5150	

  

Studebaker 1957-63 V-8 Roller follower only														EF007
PART NO.	.050 DUR		CAM LIFT		LSA	#1 Exh Timing CW from keyway	LOBE CENTER		BASE CIRCLE RAD.		BODY DIAMETER	LOBE WIDTH	STEEL	Notes:
	INT.	EXH.	INT.	EXH.			INT.	EXH.	INT.	EXH.				
310600	250°	250°	.325	.325	110.0°	0.0	108°	112°	.600	.600	.92	.56	8660	

# Buick - Cadillac

Buick 1962-67 198-225 C.I. V-6 (ODD FIRE) Roller Cams <span style="float: right;">EF105</span>														
PART NO.	.050 DUR		CAM LIFT		LSA	#1 Exh Timing CW from keyway	LOBE CENTER		BASE CIRCLE RAD.		BODY DIA.	LOBE WIDTH	STEEL GRADE	Notes:
	INT.	EXH.	INT.	EXH.			INT.	EXH.	INT.	EXH.				
313603	240°	240°	.350	.350	112°	5.5°	109°	115°	.558	.558	.87	.48	5150	
Buick 1990- 95 231 C.I. 3.8 L. V-6 Roller Vin Code "L" <span style="float: right;">EF112</span>														
PART NO.	.050 DUR		CAM LIFT		LSA	#1 Exh Timing CW from keyway	LOBE CENTER		BASE CIRCLE RAD.		BODY DIA.	LOBE WIDTH	STEEL GRADE	Notes:
	INT.	EXH.	INT.	EXH.			INT.	EXH.	INT.	EXH.				
313608	230°	230°	.305	.305	112.0°	140.0°	116°	108°	.605	.605	.87	.40	5150	
Buick 1995-01 231 C.I. 3.8 L. V-6 Roller Series II & III Eng. Codes "L36" , "L67" <span style="float: right;">EF113</span>														
PART NO.	.050 DUR		CAM LIFT		LSA	#1 Exh Timing CW from keyway	LOBE CENTER		BASE CIRCLE RAD.		BODY DIA.	LOBE WIDTH	STEEL GRADE	Notes:
	INT.	EXH.	INT.	EXH.			INT.	EXH.	INT.	EXH.				
313609	241°	241°	.305	.305	112.0°	140.0°	116°	108°	.630	.630	.87	.40	5150	
313614	274°	274°	.340	.340	110.0°	141.0°	110°	110°	.598	.598	.87	.40	5150	
313615	241°	241°	.305	.305	111.0°	143.0°	108°	114°	.630	.630	.87	.40	5150	
Buick 1961-67 215 C.I. Aluminum Block V-8 300-340 C.I. Cast Iron Block - Roller Cams <span style="float: right;">EF102</span>														
PART NO.	.050 DUR		CAM LIFT		LSA	#1 Exh Timing CW from keyway	LOBE CENTER		BASE CIRCLE RAD.		BODY DIA.	LOBE WIDTH	STEEL GRADE	Notes:
	INT.	EXH.	INT.	EXH.			INT.	EXH.	INT.	EXH.				
313613	270°	270°	.350	.350	110.0°	3.0°	108°	112°	.513	.513	.85	.48	5150	
Buick 1968-80 350 C.I. V-8 Roller Cams <span style="float: right;">EF104</span>														
PART NO.	.050 DUR		CAM LIFT		LSA	#1 Exh Timing CW from keyway	LOBE CENTER		BASE CIRCLE RAD.		BODY DIA.	LOBE WIDTH	STEEL GRADE	Notes:
	INT.	EXH.	INT.	EXH.			INT.	EXH.	INT.	EXH.				
313612	270°	270°	.350	.350	110.0°	1.0°	108°	112°	.557	.557	.92	.48	5150	
Buick 1957-66 364-401-425 C.I. V-8 Roller Cams <span style="float: right;">EF101</span>														
PART NO.	.050 DUR		CAM LIFT		LSA	#1 Exh Timing CW from keyway	LOBE CENTER		BASE CIRCLE RAD.		BODY DIA.	LOBE WIDTH	STEEL GRADE	Notes:
	INT.	EXH.	INT.	EXH.			INT.	EXH.	INT.	EXH.				
313611	270°	270°	.350	.350	110.0°	3.0°	108°	112°	.513	.513	.86	.56	5150	
Cadillac 1968-84 368-425-472-500 C.I. V-8 HYD ROLLER CAM <span style="float: right;">EF133</span>														
PART NO.	.050 DUR		CAM LIFT		LSA	#1 Exh Timing CW from hole	LOBE CENTER		BASE CIRCLE RAD.		BODY DIA.	LOBE WIDTH	STEEL GRADE	Notes:
	INT.	EXH.	INT.	EXH.			INT.	EXH.	INT.	EXH.				
314600	250°	250°	.350	.350	112.0°	144.0°	110°	114°	.540	.540	.92	.52	1055	2-piece: cam & flange assembly

# GM Holden

<b>GM HOLDEN L6 3.3L - 202 cu.in.</b>														EF322
PART NO.	.050 DUR		CAM LIFT		LSA	#1 Int Timing	LOBE CENTER		BASE CIRCLE RAD.		BODY DIAMETER	LOBE WIDTH	STEEL	Notes:
	INT.	EXH.	INT.	EXH.		CCW from keyway	INT.	EXH.	INT.	EXH.				
326607	240°	240°	.370	.370	110.0°	1.0°	108°	112°	.550	.550	.90	.54	5150	
326608	270°	270°	.400	.400	106.0°	3.0°	104°	108°	.525	.525	.90	.54	5150	
<b>GM HOLDEN V8 253-308 cu.in., CARBURATED - ROLLER CAM</b>														EF321
PART NO.	.050 DUR		CAM LIFT		LSA	#1 Int Timing	LOBE CENTER		BASE CIRCLE RAD.		BODY DIAMETER	LOBE WIDTH	ATERIA	Notes:
	INT.	EXH.	INT.	EXH.		CCW from dowel	INT.	EXH.	INT.	EXH.				
326601	250°	250°	.350	.350	111.0°	1.0°	108°	114°	.600	.600	1.00	.53	1055	
326604	240°	240°	.350	.350	108.0°	0.0°	106°	110°	.600	.600	1.00	.53	1055	
326605	282°	282°	.400	.400	106.0°	0.0°	106°	106°	.550	.550	1.00	.53	1055	
<b>GM HOLDEN V8 253-308 cu.in., WITH EFI - ROLLER CAM</b>														EF324
PART NO.	.050 DUR		CAM LIFT		LSA	#1 Int Timing	LOBE CENTER		BASE CIRCLE RAD.		BODY DIAMETER	LOBE WIDTH	ATERIA	Notes:
	INT.	EXH.	INT.	EXH.		CCW from dowel	INT.	EXH.	INT.	EXH.				
326600	250°	250°	.350	.350	111.0°	1.0°	108°	114°	.600	.600	1.00	.53	1055	
326602	280°	280°	.400	.400	107.0°	0.5°	107°	107°	.550	.550	1.00	.53	1055	
326603	228°	228°	.350	.350	112.0°	2.0°	110°	114°	.600	.600	1.00	.53	1055	
326606	240°	240°	.350	.350	108.0°	0.0°	106°	110°	.600	.600	1.00	.53	1055	

# GM V6

GM 1987-95 262C.I. (4.3L) V-6 (EVEN FIRE 90 Degree) Roller only - Standard Rotation RH														EF165
PART NO.	.050 DUR		CAM LIFT		LSA	#1 Exh Timing	LOBE CENTER		BASE CIRCLE RAD.		BODY DIA.	LOBE WIDTH	STEEL GRADE	Notes:
	INT.	EXH.	INT.	EXH.		CW from dowel	INT.	EXH.	INT.	EXH.				
315642	202°	213°	.269	.273	112.0°	5.0°	108°	116°	.675	.675	1.06	.48	1055	Distributor Gear Integral with shaft
GM 1990-97 262C.I. (4.3L) V-6 with balance shaft (front end pilot) Roller only														EF183
PART NO.	.050 DUR		CAM LIFT		LSA	#1 Exh Timing	LOBE CENTER		BASE CIRCLE RAD.		BODY DIA.	LOBE WIDTH	STEEL GRADE	Notes:
	INT.	EXH.	INT.	EXH.		CW from dowel	INT.	EXH.	INT.	EXH.				
315687	213°	213°	.273	.273	112.0°	5.5°	107°	117°	.675	.675	1.06	.48	1055	Distributor Gear Integral with shaft
GM 1987-95 262C.I. (4.3L) V-6 90 Degree "Gear Drive 1-2-3-4-5-6 - firing order" Roller only														EF165
PART NO.	.050 DUR		CAM LIFT		LSA	#1 Exh Timing	LOBE CENTER		BASE CIRCLE RAD.		BODY DIA.	LOBE WIDTH	STEEL GRADE	Notes:
	INT.	EXH.	INT.	EXH.		CW from dowel	INT.	EXH.	INT.	EXH.				
315643	202°	213°	.269	.273	112.0°	5.0°	108°	116°	.675	.675	1.06	.48	1055	Distributor Gear Integral with shaft
														RH cam rotation; LH crank rotation
GM LV1-LV3 GEN V Single Bolt with Variable Valve Timing "VVT" V-6 Roller Cam - With Fuel pump Tri-lobe														EF191
PART NO.	.050 DUR		CAM LIFT		LSA	#1 Exh Timing	LOBE CENTER		BASE CIRCLE RAD.		BODY DIA.	LOBE WIDTH	STEEL GRADE	Notes:
	INT.	EXH.	INT.	EXH.		CW from dowel	INT.	EXH.	INT.	EXH.				
316620	238°	238°	.338	.338	114.0°	10.0°	*	*	.760	.760	1.24	.48	5150	stock Tri-lobe Lift = .224
														Other available fuel pump lobes: plus14% (.251);
														plus 32% (.294) ; plus37%(.306)
* lobe centers are variable in engine														

# Chevy 1957-1996 Small Block V8

PART NO.	.050 DUR		CAMLIFT		LSA	#1 Exh Timing CW from dowel	LOBE CENTER		BASE CIRCLE RADIUS		BODY DIA.	LOBE WIDTH	MATERIAL	Notes:
	INT.	EXH.	INT.	EXH.			INT.	EXH.	INT.	EXH.				
<b>1957-94 SB ROLLER CAMS V-8 STANDARD SPACING FLAT FACE</b> <span style="float: right;">EF176</span>														
315772	194°	204°	.271	.286	112°	5.5°	107°	117°	.670	.662	.90	.48	8660 Q&T	EVERWEAR-GEAR™
315878	232°	242°	.330	.330	112°	5.5°	107°	117°	.618	.618	.90	.48	8660 Q&T	EVERWEAR-GEAR™
315673	232°	242°	.334	.334	112°	5.5°	107°	117°	.618	.618	.90	.48	5150	Distributor Gear Integral with shaft
315875	240°	244°	.350	.350	112°	5.0°	108°	116°	.470	.470	.85	.48	8660 Q&T	Small Base Circle - EVERWEAR-GEAR™
315848	260°	270°	.415	.415	106°	1.0°	104°	108°	.525	.525	.90	.48	8660 Q&T	EVERWEAR-GEAR™
315658	267°	274°	.434	.423	106°	1.5°	103°	109°	.500	.500	.92	.54	5150	Distributor Gear Integral with shaft
315648	267°	274°	.434	.423	106°	1.5°	103°	109°	.530	.530	.90	.48	5150	Distributor Gear Integral with shaft
315846	270°	270°	.415	.415	112°	4.0°	110°	114°	.532	.532	.90	.48	8660 Q&T	EVERWEAR-GEAR™
315630	274°	274°	.425	.425	108°	2.0°	106°	110°	.530	.530	.90	.48	5150	Distributor Gear Integral with shaft
315730	274°	274°	.425	.425	108°	2.0°	106°	110°	.530	.530	.90	.48	8660 Q&T	EVERWEAR-GEAR™
315803	275°	275°	.400	.400	106°	2.0°	102°	110°	.493	.493	.85	.48	8660 Q&T	Sm. Base Circle - - EVERWEAR-GEAR™
315876	275°	275°	.400	.400	106°	2.0°	102°	110°	.550	.550	.90	.48	8660 Q&T	Std Brg Journals - EVERWEAR-GEAR™
315856	275°	275°	.400	.400	106°	2.0°	102°	110°	.588	.588	1.00	.48	8660 Q&T	50mm(1.969")Roller bearing Journals - EVERWEAR-GEAR™
315805	275°	275°	.400	.400	106°	2.0°	102°	110°	.550	.550	.90	.48	8660 Q&T	Roller Brg. Jrnls 1.875" - EVERWEAR-GEAR™
315823	275°	275°	.400	.400	106°	2.0°	102°	110°	.583	.583	1.00	.48	8660 Q&T	1.949" BB Journals - EVERWEAR-GEAR™
315776	275°	275°	.400	.400	106°	1.0°	104°	108°	.553	.553	.90	.48	8660 Q&T	EVERWEAR-GEAR™
315840	275°	275°	.400	.400	108°	3.0°	104°	112°	.583	.583	1.00	.48	8660 Q&T	1.949" BB Journals - EVERWEAR-GEAR™
315824	275°	275°	.400	.400	108°	3.5°	103°	113°	.593	.593	1.00	.48	8660 Q&T	50mm (1.969") Journals - EVERWEAR-GEAR™
315822	278°	278°	.435	.435	106°	2.0°	102°	110°	.490	.490	.85	.48	8660 Q&T	EVERWEAR-GEAR™
315855	280°	280°	.430	.430	108°	3.5°	103°	113°	.523	.523	.90	.48	8660 Q&T	Roller Bearing 1.875" - EVERWEAR-GEAR™
315621	290°	290°	.350	.350	108°	2.0°	106°	110°	.590	.590	.90	.48	5150	Distributor Gear Integral with shaft
315721	292°	292°	.350	.350	108°	2.0°	106°	110°	.595	.595	.90	.48	8660 Q&T	EVERWEAR-GEAR™
415600	271°	271°	.350	.350	110°	3.0°	108°	112°	.595	.595	.90	.48	5150	Distributor Gear Integral with shaft
315807	290°	294°	.460	.445	108°	3.5°	103°	113°	.483	.499	.85	.48	8660 Q&T	EVERWEAR-GEAR™
<b>1957-95 SB ROLLER CAMS V-8 4 X 7 FIRING ORDER SWAP F.O. 1-8-7-3-6-5-4-2 FLAT FACE</b> <span style="float: right;">EF176</span>														
315706	256°	262°	.380	.380	112°	5.0°	108°	116°	.490	.490	.85	.48	8660 Q&T	Small Base Circle - EVERWEAR-GEAR™
315808	260°	270°	.415	.415	106°	1.0°	104°	108°	.525	.525	.90	.48	8660 Q&T	Std Bearings - EVERWEAR-GEAR™
315828	260°	270°	.415	.415	106°	1.0°	104°	108°	.525	.525	.90	.48	8660 Q&T	Roller Bearing Journals 1.875" - EVERWEAR-GEAR™
315835	260°	270°	.415	.415	106°	1.0°	104°	108°	.575	.575	1.01	.48	8660 Q&T	50mm(1.969") Roller Bearing Journals - EVERWEAR-GEAR™
315702	274°	274°	.425	.425	108°	2.0°	106°	110°	.530	.530	.90	.48	8660 Q&T	EVERWEAR-GEAR™
315809	275°	275°	.400	.400	106°	2.0°	101°	111°	.493	.493	.85	.48	8660 Q&T	Small Base Circle - EVERWEAR-GEAR™
315800	280°	290°	.485	.485	112°	4.0°	110°	114°	.613	.613	1.05	.48	8660 Q&T	55 mm (2.165") EVERWEAR-GEAR™
315844	286°	296°	.460	.445	114°	6.5°	109°	119°	.463	.478	.85	.48	8660 Q&T	Std Bearings - Small Base Circle - EVERWEAR-GEAR™
315821	286°	296°	.480	.460	114°	6.5°	109°	119°	.469	.488	.85	.48	8660 Q&T	EVERWEAR-GEAR™ - Roller Brg Journals 1.875" Small Base Circle
315722	273°	273°	.350	.350	110°	2.5°	108°	112°	.595	.595	.90	.48	8660 Q&T	EVERWEAR-GEAR™
315845	290°	296°	.460	.445	110°	4.0°	106°	114°	.463	.478	1.01	.48	8660 Q&T	50mm (1.969") Journals - EVERWEAR-GEAR™
<b>1957-95 SB ROLLER CAMS V-8 (4 X 7- 3 X 2) "C" FIRING ORDER SWAP F.O. 1-8-7-2-6-5-4-3 FLAT FACE</b> <span style="float: right;">EF176</span>														
315841	260°	270°	.390	.390	108°	2.0°	106°	110°	.560	.560	.90	.48	8660 Q&T	Roller Bearing 1.875 - EVERWEAR-GEAR™
315842	260°	270°	.415	.415	108°	2.0°	106°	110°	.675	.675	1.24	.48	8660 Q&T	55 mm (2.165")R.B. Journals - EVERWEAR-GEAR™
315847	260°	270°	.415	.415	108°	2.0°	106°	110°	.570	.570	1.00	.48	8660 Q&T	50mm (1.969") EVERWEAR-GEAR™
315747	260°	270°	.415	.415	108°	2.0°	106°	110°	.570	.570	1.00	.48	8660 Q&T	50mm (1.969") Dist.Gear Integral with shaft



# Chevy 1957-1996 Small Block V8

PART NO.	.050 DUR		CAMLIFT		LSA	#1 Exh Timing CW from dowel	LOBE CENTER		BASE CIRCLE RADIUS		BODY DIA.	LOBE WIDTH	MATERIAL	Notes:
	INT.	EXH.	INT.	EXH.			INT.	EXH.	INT.	EXH.				
<b>1987-96 SB ROLLER TAPPET V-8 REVERSE ROTATION STEPPED FACE (CHAIN DRIVE)</b> <span style="float: right;">EF179</span>														
315783	214°	214°	.300	.300	110.0°	111.0°	108°	112°	.640	.640	.90	.48	8660 Q&T	EVERWEAR-GEAR™
<b>GM 1987-96 SB V-8 LT1, LT4, L98, HYDRAULIC ROLLER CAMS STEPPED FRONT</b> <span style="float: right;">EF164</span>														
315769	194°	204°	.271	.286	111°	5.0°	106°	116°	.686	.671	.90	.48	8660 Q&T	EVERWEAR-GEAR™
315760	207°	207°	.242	.242	110°	3.0°	108°	112°	.712	.712	.90	.48	8660 Q&T	EVERWEAR-GEAR™
315757	214°	214°	.300	.300	112°	5.0°	108°	116°	.650	.650	.90	.48	8660 Q&T	EVERWEAR-GEAR™
315657	214°	214°	.300	.300	112°	5.0°	108°	116°	.650	.650	.90	.48	5150	Distributor Gear Integral with shaft
315670	232°	242°	.334	.334	112°	5.5°	107°	117°	.611	.611	.90	.48	5150	Distributor Gear Integral with shaft
315870	232°	242°	.334	.334	112°	5.5°	107°	117°	.610	.610	.90	.48	8660 Q&T	EVERWEAR-GEAR™
315653	274°	274°	.425	.425	108°	2.0°	106°	110°	.530	.530	.90	.48	5150	Distributor Gear Integral with shaft
315853	274°	274°	.425	.425	108°	2.0°	106°	110°	.530	.530	.90	.48	8660 Q&T	EVERWEAR-GEAR™
315816	275°	275°	.400	.400	108°	1.0°	108°	108°	.549	.549	.90	.48	8660 Q&T	EVERWEAR-GEAR™
315817	275°	275°	.400	.400	112°	3.0°	112°	112°	.549	.549	.90	.48	8660 Q&T	EVERWEAR-GEAR™
315818	275°	275°	.400	.400	112°	3.0°	112°	112°	.470	.470	.85	.48	8660 Q&T	EVERWEAR-GEAR™
315819	280°	288°	.441	.441	112°	3.0°	112°	112°	.508	.508	.90	.48	8660 Q&T	EVERWEAR-GEAR™
315820	280°	288°	.441	.441	112°	3.0°	112°	112°	.470	.470	.85	.48	8660 Q&T	EVERWEAR-GEAR™
315851	273°	273°	.350	.350	110°	2.5°	108°	112°	.595	.595	.90	.48	8660 Q&T	EVERWEAR-GEAR™; 4-7 swap firing order
315650	292°	292°	.350	.350	108°	2.0°	106°	110°	.595	.595	.90	.48	5150	Distributor Gear Integral with shaft
315827	290°	290°	.350	.350	112°	5.0°	108°	116°	.560	.560	.90	.48	8660 Q&T	Small Base Circle - EVERWEAR-GEAR™
315850	298°	298°	.350	.350	108°	2.0°	106°	110°	.595	.595	.90	.48	8660 Q&T	EVERWEAR-GEAR™
415601	271°	271°	.350	.350	110°	3.0°	108°	112°	.595	.595	.90	.48	5150	Distributor Gear Integral with shaft
These cams have stepped front nose with a reamed .50 hole. Pin protrudes .620 but can be pressed into .300 for early LT1/L98														
<b>1958-65 348-409 C.I. Chevy V-8 RETROFIT ROLLER CAMSHAFT</b> <span style="float: right;">EF153</span>														
315603	267°	267°	.325	.325	110°	6.0°	108°	112°	.624	.624	1.06	.50	8660 Q&T	4-7 SWAP FIRING ORDER; EVERWEAR-GEAR™
315610	270°	270°	.350	.350	110°	6.0°	108°	112°	.600	.600	1.06	.50	8660 Q&T	EVERWEAR-GEAR™
351636	270°	270°	.350	.350	110°	6.0°	108°	112°	.600	.600	1.06	.50	5150	EVERWEAR-GEAR™
<b>CHEVY NASCAR SB V-8 SB2 CYL HEADS WITH STD BLOCK</b> <span style="float: right;">EF189</span>														
315861	275°	275°	.400	.400	108°	3.5°	103°	113°	.545	.545	.90	.48	8660 Q&T	Std Bearings - EVERWEAR-GEAR™
315862	275°	275°	.400	.400	108°	3.5°	103°	113°	.545	.545	.90	.48	8660 Q&T	1.875" Roller Bearing Journals - EVERWEAR-GEAR™
315863	275°	275°	.410	.410	108°	3.5°	103°	113°	.580	.580	1.07	.48	8660 Q&T	1.949" Roller Bearing Journals - EVERWEAR-GEAR™
315864	275°	275°	.410	.410	108°	3.5°	103°	113°	.583	.583	1.07	.48	8660 Q&T	50 mm(1.969") Roller Bearing Journals - EVERWEAR-GEAR™
<b>CHEVY NASCAR SB V-8 SB2 CYL HEADS WITH SB2 BLOCK</b> <span style="float: right;">EF180</span>														
315895	275°	275°	.410	.410	113°	7.5°	105°	115°	.680	.680	1.12	.48	8660 Q&T	55MM BEARING NO GUN DRILL - EVERWEAR-GEAR™
315839	275°	275°	.410	.410	113°	7.5°	105°	115°	.583	.583	1.07	.48	8660 Q&T	50 mm(1.969") Roller Bearing Journals - EVERWEAR-GEAR™

# GM LS- Gen III-IV-V

GM 1997-UP LS V-8 3 BOLT Roller Cam <span style="float: right;">EF187</span>														
PART NO.	.050 DUR		CAM LIFT		LSA	#1 Exh Timing CW from dowel	LOBE CENTER		BASE CIRCLE RAD.		BODY DIA.	LOBE WIDTH	STEEL GRADE	Notes:
	INT.	EXH.	INT.	EXH.			INT.	EXH.	INT.	EXH.				
315647	240°	250°	.350	.350	113.0°	9.0°	110°	116°	.738	.738	1.24	.48	5150	
315604	234°	234°	.320	.320	114.0°	10.0°	110°	118°	.790	.790	1.24	.48	5150	
315703	234°	234°	.320	.320	109.0°	5.5°	109°	109°	.790	.790	1.24	.48	5150	
315709	234°	234°	.320	.320	118.0°	12.0°	114°	122°	.790	.790	1.24	.48	5150	
315623	236°	236°	.323	.323	112.0°	8.0°	110°	114°	.760	.760	1.24	.48	5150	
315692	240°	240°	.350	.350	114.0°	10.0°	110°	118°	.760	.760	1.24	.48	5150	
315654	240°	246°	.370	.365	113.0°	9.0°	110°	116°	.718	.723	1.24	.48	5150	
315704	258°	258°	.360	.360	109.0°	5.5°	109°	109°	.710	.710	1.24	.48	5150	
315705	258°	258°	.360	.360	112.0°	7.0°	112°	112°	.730	.730	1.24	.48	5150	
316610	267°	274°	.373	.365	117.0°	11.5°	113°	121°	.715	.723	1.24	.48	5150	
316611	260°	260°	.384	.384	111.0°	7.5°	109°	113°	.715	.715	1.24	.48	5150	
315600	260°	260°	.384	.384	109.0°	5.5°	109°	109°	.715	.715	1.24	.48	5150	
315815	275°	275°	.415	.415	110.0°	6.5°	109°	111°	.675	.675	1.15	.48	5150	NO GUN DRILL

  

GM "LS" GEN IV Single Bolt NON-VVT V-8 Roller Cam <span style="float: right;">EF190</span>														
PART NO.	.050 DUR		CAM LIFT		LSA	#1 Exh Timing CW from dowel	LOBE CENTER		BASE CIRCLE RAD.		BODY DIA.	LOBE WIDTH	STEEL GRADE	Notes:
	INT.	EXH.	INT.	EXH.			INT.	EXH.	INT.	EXH.				
315607	234°	234°	.320	.320	114.0°	10.0°	110°	118°	.790	.790	1.24	.48	5150	
315602	240°	240°	.350	.350	114.0°	10.0°	110°	118°	.760	.760	1.24	.48	5150	

  

GM "LS" GEN IV Single Bolt with Variable Valve Timing "VVT" V-8 Roller Cam <span style="float: right;">EF190</span>														
PART NO.	.050 DUR		CAM LIFT		LSA	#1 Exh Timing CW from dowel	LOBE CENTER		BASE CIRCLE RADIUS		BODY DIA.	LOBE WIDTH	STEEL GRADE	Notes:
	INT.	EXH.	INT.	EXH.			INT.	EXH.	INT.	EXH.				
315619	234°	234°	.320	.320	114.0°	10.0°	*	*	.790	.790	1.24	.48	5150	* lobe centers are variable in engine
315612	240°	245°	.340	.340	114.0°	9.0°	*	*	.758	.758	1.24	.48	5150	

\* lobe centers are variable in engine

  

GM "LT1" GEN V Single Bolt with Variable Valve Timing "VVT" V-8 Roller Cam - With Fuel pump Tri-lobe <span style="float: right;">EF193</span>														
PART NO.	.050 DUR		CAM LIFT		LSA	#1 Exh Timing CW from dowel	LOBE CENTER		BASE CIRCLE RAD.		BODY DIA.	LOBE WIDTH	STEEL GRADE	Available fuel pump lobes: stock (.224), +14% (.251) +32% (.294), +37% (.306) plus 32% Tri-lobe Lift = .294
	INT.	EXH.	INT.	EXH.			INT.	EXH.	INT.	EXH.				
315645	230°	240°	.335	.335	116.0°	8.0°	*	*	.758	.758	1.24	.48	5150	plus 32% Tri-lobe Lift = .294
315646	240°	250°	.350	.350	116.0°	8.0°	*	*	.743	.743	1.24	.48	5150	plus 32% Tri-lobe Lift = .294
315628	242°	242°	.330	.330	114.0°	9.0°	*	*	.768	.768	1.24	.48	5150	plus 32% Tri-lobe Lift = .294

\* lobe centers are variable in engine

  

GM GEN III/GEN V "Hybrid" 3 Bolt V-8 Cam With Fuel Pump Tri-lobe <span style="float: right;">EF195</span>														
PART NO.	.050 DUR		CAM LIFT		LSA	#1 Exh Timing CW from dowel	LOBE CENTER		BASE CIRCLE RAD.		BODY DIA.	LOBE WIDTH	STEEL GRADE	Available fuel pump lobes: stock (.224), +14% (.251) +32% (.294), +37% (.306) plus 37% Tri-lobe Lift = .306
	INT.	EXH.	INT.	EXH.			INT.	EXH.	INT.	EXH.				
316627	252°	267°	.360	.360	117.0°	11.5°	113°	121°	.737	.737	1.24	.48	5150	plus 37% Tri-lobe Lift = .306

# Chevy Big Block V8

1967-97 BB ROLLER CAM. V-8 STD ROTATION FLAT FACE Standard Firing Order														EP177
PART NO.	.050 DUR		CAMLIFT		effective LSA*	#1 Exh Timing CW from dowel	LOBE CENTER		BASE CIRCLE RADIUS		BODY DIAMETER	LOBE WIDTH	MATERIAL	Notes:
	INT.	EXH.	INT.	EXH.			INT.	EXH.	INT.	EXH.				
315678	232°	242°	.334	.334	112°	9.5°	107°	117°	.663	.663	1.05	.54	5150	Distributor Gear Integral with shaft
315778	232°	242°	.334	.334	112°	9.5°	107°	117°	.663	.663	1.03	.54	8660 Q&T	EVERWEAR-GEAR™
315838	248°	248°	.380	.380	114°	9.0°	112°	116°	.609	.609	.97	.54	8660 Q&T	EVERWEAR-GEAR™
315869	250°	250°	.350	.350	110°	7.0°	108°	112°	.642	.642	1.00	.54	8660 Q&T	EVERWEAR-GEAR™
315867	256°	262°	.380	.380	110°	7.0°	108°	112°	.604	.604	1.00	.54	8660 Q&T	EVERWEAR-GEAR™
315694	275°	275°	.400	.400	110°	5.5°	111°	109°	.595	.595	.95	.54	5150	Distributor Gear Integral with shaft
315794	275°	275°	.400	.400	110°	5.5°	111°	109°	.595	.595	.97	.54	8660 Q&T	EVERWEAR-GEAR™
315708	275°	280°	.410	.420	110°	8.5°	105°	115°	.570	.565	.97	.54	8660 Q&T	EVERWEAR-GEAR™
315811	275°	280°	.410	.420	108°	7.5°	103°	113°	.570	.565	.97	.54	8660 Q&T	EVERWEAR-GEAR™
315894	275°	286°	.400	.380	110°	8.5°	105°	115°	.583	.603	.97	.54	8660 Q&T	EVERWEAR-GEAR™
315810	280°	284°	.450	.425	110°	8.5°	105°	115°	.532	.556	.97	.54	8660 Q&T	EVERWEAR-GEAR™
315812	288°	292°	.460	.435	114°	10.5°	109°	119°	.530	.543	.97	.54	8660 Q&T	EVERWEAR-GEAR™
315729	290°	290°	.350	.350	110°	7.0°	108°	112°	.639	.639	1.00	.54	8660 Q&T	EVERWEAR-GEAR™
315629	290°	290°	.350	.350	110°	7.0°	108°	112°	.639	.639	.95	.54	5150	Distributor Gear Integral with shaft
315813	304°	320°	.480	.480	116°	11.0°	112°	120°	.515	.515	.90	.54	8660 Q&T	EVERWEAR-GEAR™

\* adjusted on cam plus or minus 6.25° for odd or even cylinders

CHEVY 1967-97 BB ROLLER CAM V8 4 X 7 FIRING ORDER SWAP FLAT FACE F.O. 1-8-7-3-6-5-4-2														EP177
PART NO.	.050 DUR		CAMLIFT		effective LSA*	#1 Exh Timing CW from dowel	LOBE CENTER		BASE CIRCLE RADIUS		BODY DIAMETER	LOBE WIDTH	MATERIAL	Notes:
	INT.	EXH.	INT.	EXH.			INT.	EXH.	INT.	EXH.				
315752	290°	310°	.500	.480	115°	11.0°	110°	120°	.535	.545	.97	.54	8660 Q&T	Distributor Gear Integral with shaft
315868	250°	250°	.350	.350	110°	7.0°	108°	112°	.640	.640	1.03	.54	8660 Q&T	EVERWEAR-GEAR™
315865	275°	286°	.400	.380	110°	8.5°	105°	115°	.583	.593	.97	.54	8660 Q&T	EVERWEAR-GEAR™
315836	280°	284°	.450	.425	110°	8.5°	105°	115°	.538	.550	.97	.54	8660 Q&T	EVERWEAR-GEAR™
315837	280°	284°	.450	.425	110°	8.5°	105°	115°	.538	.550	.97	.54	8660 Q&T	50mm Roller Bearing Journals - EVERWEAR-GEAR™
315879	285°	300°	.475	.450	114°	10.5°	109°	119°	.514	.539	.90	.54	8660 Q&T	EVERWEAR-GEAR™
315852	290°	310°	.455	.445	115°	11.0°	110°	120°	.535	.545	.90	.54	8660 Q&T	EVERWEAR-GEAR™
315825	304°	320°	.480	.480	116°	11.0°	112°	120°	.515	.515	.90	.54	8660 Q&T	EVERWEAR-GEAR™

\* adjusted on cam plus or minus 6.25° for odd or even cylinders

BB MARK VI ROLLER CAM. V-8 (STEPPED FRONT) Standard Firing Order														EP181
PART NO.	.050 DUR		CAMLIFT		effective LSA*	#1 Exh Timing CW from dowel	LOBE CENTER		BASE CIRCLE RADIUS		BODY DIAMETER	LOBE WIDTH	MATERIAL	Notes:
	INT.	EXH.	INT.	EXH.			INT.	EXH.	INT.	EXH.				
315885	222°	232°	.334	.334	112°	9.5°	107°	117°	.663	.663	1.03	.62	8660 Q&T	EVERWEAR-GEAR™
351635	222°	232°	.334	.334	112°	9.5°	107°	117°	.663	.663	.97	.54	5150	EVERWEAR-GEAR™
315697	232°	242°	.334	.334	112°	9.5°	107°	117°	.663	.663	.97	.54	5150	EVERWEAR-GEAR™
351634	250°	250°	.350	.350	110°	7.0°	108°	112°	.640	.640	.97	.54	5150	EVERWEAR-GEAR™
315696	275°	275°	.400	.400	110°	5.5°	111°	109°	.595	.595	.97	.62	8660 Q&T	Distributor Gear Integral with shaft
315896	275°	275°	.400	.400	110°	5.5°	111°	109°	.593	.593	.95	.62	8660 Q&T	EVERWEAR-GEAR™

\* adjusted on cam plus or minus 6.25° for odd or even cylinders

BB MARK VI ROLLER CAM. REVERSE ROTATION (STEPPED FRONT) F.O. 1-2-7-5-6-3-4-8														EP184
PART NO.	.050 DUR		CAMLIFT		effective LSA*	#1 Exh Timing CW from dowel	LOBE CENTER		BASE CIRCLE RADIUS		BODY DIAMETER	LOBE WIDTH	MATERIAL	Notes:
	INT.	EXH.	INT.	EXH.			INT.	EXH.	INT.	EXH.				
315788	222°	232°	.334	.334	112°	1.75°	107°	117°	.650	.650	1.03	.54	8660 Q&T	EVERWEAR-GEAR™
351637	222°	232°	.334	.334	112°	1.75°	107°	117°	.650	.650	.97	.54	5150	EVERWEAR-GEAR™

\* adjusted on cam minus or plus 6.25° for odd or even cylinders

BB 8.1L ROLLER CAM. V-8 STANDARD ROTATION FIRING ORDER 1-8-7-2-6-5-4-3														EP188
PART NO.	.050 DUR		CAMLIFT		effective LSA*	#1 Exh Timing CW from dowel	LOBE CENTER		BASE CIRCLE RADIUS		BODY DIAMETER	LOBE WIDTH	MATERIAL	Notes:
	INT.	EXH.	INT.	EXH.			INT.	EXH.	INT.	EXH.				
315710	254°	254°	.350	.350	112°	9.0°	108°	116°	.640	.640	1.03	.54	8660 Q&T	EVERWEAR-GEAR™ 5/16" threads
351633	254°	254°	.350	.350	112°	9.0°	108°	116°	.640	.640	.97	.54	5150	EVERWEAR-GEAR™ 5/16" threads

\* adjusted on cam plus or minus 6.25° for odd or even cylinders

# Chrysler - Dodge Truck

Chrysler 1964-73 273-340 C.I., 1967-90 318 C.I. 1971-93 360 C.I. V-8 (FOR ROLLER LIFTERS) "A" ENG. <span style="float: right;">EF036</span>														
PART NO.	.050 DUR		CAMLIFT		LSA	#1 Exh Timing CW from keyway	LOBE CENTER		BASE CIRCLE RADIUS		BODY DIAMETER	LOBE WIDTH	STEEL GRADE	Notes:
	INT.	EXH.	INT.	EXH.			INT.	EXH.	INT.	EXH.				
411631	222°	222°	.319	.319	114.0°	6.0°	109°	119°	.769	.769	1.00	.50	1055	
311802	280°	280°	.425	.425	110.0°	4.0°	105°	115°	.568	.568	.91	.56	8660 Q&T	
311619	290°	290°	.350	.350	110.0°	4.0°	105°	115°	.639	.639	1.00	.56	1055	
This camshaft has a 1.13" long gear press fit (Front Nose) and oil holes in the interm bearings.														
Dodge Truck 1990-91 318-360 5.2L, 5.9L V-8 Short Nose with oil holes <span style="float: right;">EF042</span>														
411627	222°	222°	.319	.319	114°	6.0°	109°	119°	.769	.769	1.00	.50	1055	
Dodge Truck 1994-98 360 5.9L V-8 Short Nose without oil holes <span style="float: right;">EF040</span>														
411628	222°	222°	.319	.319	114°	6.0°	109°	119°	.769	.769	1.00	.50	1055	
Chrysler 1958-78 ALL SB V-8 (Exc. Hemi) ROLLER CAM WITH 3 BOLT GEAR "B" ENG. <span style="float: right;">EF027</span>														
PART NO.	.050 DUR		CAMLIFT		LSA	#1 Exh Timing CCW from dowel	LOBE CENTER		BASE CIRCLE RADIUS		BODY DIAMETER	LOBE WIDTH	MATERIAL	Notes:
	INT.	EXH.	INT.	EXH.			INT.	EXH.	INT.	EXH.				
311821	244°	244°	.350	.350	112°	9.5°	108°	116°	.640	.640	.90	.56	5150	
311703	280°	280°	.425	.425	110°	10.0°	105°	115°	.568	.568	.90	.56	5150	
311823	310°	310°	.500	.500	114°	9.5°	112°	116°	.506	.506	.90	.56	8660	
Chrysler 1966-71 426 "Hemi" V-8 (USE 3 BOLT GEAR) ROLLER LIFTER <span style="float: right;">EF030</span>														
PART NO.	.050 DUR		CAMLIFT		LSA	#1 Exh Timing CCW from dowel	LOBE CENTER		BASE CIRCLE RADIUS		BODY DIAMETER	LOBE WIDTH	MATERIAL	Notes:
	INT.	EXH.	INT.	EXH.			INT.	EXH.	INT.	EXH.				
311704	280°	280°	.425	.425	110°	10.0°	105°	115°	.568	.568	.90	.56	5150	
Chrysler HEMI CAM; BAE & RODECK BLOCKS; 1.90 LIFTER BORE SPACING; #5 Journal 1.749; six 3/8-24 bolts														
PART NO.	.050 DUR		CAMLIFT		LSA	#1 Exh Timing CW from mark	LOBE CENTER		BASE CIRCLE RADIUS		BODY DIAMETER	LOBE WIDTH	MATERIAL	Notes:
	INT.	EXH.	INT.	EXH.			INT.	EXH.	INT.	EXH.				
311808	300°	300°	.510	.510	114°	0°	114°	114°	.578	.578	1.10	.56	S7 TOOL STEEL	1-8-7-3-6-5-4-2 FO ; J1-J4 54mm
311809	300°	300°	.510	.510	114°	0°	114°	114°	.695	.695	1.10	.56	S7 TOOL STEEL	1-8-7-3-6-5-4-2 FO ; J1-J4 60mm
311816	300°	300°	.510	.510	114°	0°	114°	114°	.578	.578	1.10	.56	S7 TOOL STEEL	1-8-7-2-6-5-4-3 FO ; J1-J4 54mm
Chrysler HEMI CAM; BAE & RODECK BLOCKS; 2.00 LIFTER BORE SPACING; All journals same size; three bolts & 3 dowels														
PART NO.	.050 DUR		CAMLIFT		LSA	#1 Exh Timing CCW from dowel	LOBE CENTER		BASE CIRCLE RADIUS		BODY DIAMETER	LOBE WIDTH	MATERIAL	Notes:
	INT.	EXH.	INT.	EXH.			INT.	EXH.	INT.	EXH.				
311817	300°	300°	.510	.510	117°	6.0°	111°	123°	.695	.695	1.22	.64	S7 TOOL STEEL	1-8-7-3-6-5-4-2 FO ; J1-J4 60mm
311818	300°	300°	.510	.510	117°	6.0°	111°	123°	.695	.695	1.22	.64	S7 TOOL STEEL	1-8-7-2-6-5-4-3 FO ; J1-J4 60mm
311819	300°	300°	.510	.510	117°	6.0°	111°	123°	.578	.578	1.10	.64	S7 TOOL STEEL	1-8-7-3-6-5-4-2 FO ; J1-J4 54mm
311820	300°	300°	.510	.510	117°	6.0°	111°	123°	.578	.578	1.10	.64	S7 TOOL STEEL	1-8-7-2-6-5-4-3 FO ; J1-J4 54mm
Chrysler HEMI 2000 UP 5.7L AND 6.2L ROLLER CAM without VVT <span style="float: right;">EF045A</span>														
PART NO.	.050 DUR		CAMLIFT		LSA	#1 Exh Timing CCW from dowel	LOBE CENTER		BASE CIRCLE RADIUS		BODY DIAMETER	LOBE WIDTH	MATERIAL	Notes:
	INT.	EXH.	INT.	EXH.			INT.	EXH.	INT.	EXH.				
311813	240°	240°	.360	.360	114°	47.0°	112°	116°	.778	.778	1.12	.56	5150	
Chrysler HEMI 2009 UP 5.7L AND 6.2L ROLLER CAM with VVT (Gen 3) <span style="float: right;">EF045A</span>														
311600	235°	245°	.360	.360	114°	46.0°	*	*	.778	.778	1.12	.56	5150	
311602	240°	253°	.350	.350	118°	44.0°	*	*	.777	.777	1.12	.56	5150	
311605	212°	220°	.330	.330	113°	46.0°	*	*	.798	.798	1.12	.56	5150	
311606	206°	218°	.318	.318	118°	40.0°	*	*	.763	.763	1.12	.56	5150	

\* lobe centers are variable in engine

# Ford

1983-88 122 C.I. (2.0L) 1974-90 140 C.I. (2.3L) OHC 4 Cyl. 4 CAM BEARING Roller Cam <span style="float: right;">EF086</span>														
PART NO.	.050 DUR		CAMLIFT		LSA	#1 Int Timing CW from dowel	LOBE CENTER		BASE CIRCLE RADIUS		BODY DIAMETER	LOBE WIDTH	STEEL GRADE	Notes:
	INT.	EXH.	INT.	EXH.			INT.	EXH.	INT.	EXH.				
312667	270°	270°	.340	.340	104°	132.0°	105°	105°	.560	.560	.95	.68	1055	
1989-91 232 C.I. (3. 8L) V-6 (USE W/ROLLER LIFTERS) <span style="float: right;">EF087</span>														
PART NO.	.050 DUR		CAMLIFT		LSA	#1 Int Timing CW from keyway	LOBE CENTER		BASE CIRCLE RADIUS		BODY DIAMETER	LOBE WIDTH	STEEL GRADE	Notes:
	INT.	EXH.	INT.	EXH.			INT.	EXH.	INT.	EXH.				
312636	224°	224°	.300	.300	113.5°	99.0°	108°	119°	.755	.755	1.00	.52	1055	
312643	225°	234°	.255	.267	112.0°	100.5°	112°	112°	.744	.744	1.12	.62	1055	
1962-91 221 - 302 C.I. V-8 ROLLER . FIRING ORDER 1-5-4-2-6-3-7-8 <span style="float: right;">EF076</span>														
PART NO.	.050 DUR		CAMLIFT		LSA	#1 Int Timing CCW from dowel	LOBE CENTER		BASE CIRCLE RADIUS		BODY DIAMETER	LOBE WIDTH	STEEL GRADE	Notes:
	INT.	EXH.	INT.	EXH.			INT.	EXH.	INT.	EXH.				
312650	198°	208°	.278	.294	112°	97.5°	112°	112°	.750	.734	.90	.51	1055	
312649	242°	242°	.334	.334	111°	94.5°	106°	116°	.704	.704	.90	.51	1055	
312624	290°	290°	.350	.350	108°	94.5°	106°	110°	.645	.645	.98	.51	1055	
1969-91 351W C.I., 1982-95 302 C.I. H/O V-8 ROLLER; FIRING ORDER 1-3-7-2-6-5-4-8 <span style="float: right;">EF077</span>														
PART NO.	.050 DUR		CAMLIFT		LSA	#1 Int Timing CCW from dowel	LOBE CENTER		BASE CIRCLE RADIUS		BODY DIAMETER	LOBE WIDTH	STEEL GRADE	Notes:
	INT.	EXH.	INT.	EXH.			INT.	EXH.	INT.	EXH.				
312653	208°	216°	.331	.331	112°	95.25	107.5°	116.5°	.697	.697	1.12	.51	1055	
312628	210°	210°	.278	.278	115°	98.5°	115°	115°	.760	.760	1.12	.51	1055	
312642	232°	232°	.334	.334	112°	96.0°	109°	115°	.720	.720	1.12	.51	1055	
312852	232°	242°	.334	.334	114°	96.25	109.5°	118.5°	.694	.694	1.00	.51	8660 Q&T	7/16-20 Tapped Nose - EVERWEAR-GEAR™
312652	232°	242°	.334	.334	114°	96.25	109.5°	118.5°	.694	.694	1.12	.51	1055	
312726	262°	262°	.380	.380	111°	95.0°	107°	115°	.653	.653	1.00	.51	5150	7/16-20 Tapped Nose - EVERWEAR-GEARTM
312673	275°	275°	.400	.400	108°	93.25	103°	113°	.633	.633	.98	.51	1055	Distributor Gear Integral with shaft 3/8-16 tapped nose
312801	275°	275°	.400	.400	108°	93.25	103°	113°	.633	.633	1.00	.51	8660 Q&T	All 5 Journals 2.051" - 7/16-20 Tapped Nose - EVERWEAR-GEAR™
312718	275°	275°	.430	.430	114°	96.5°	110°	118°	.603	.603	1.00	.51	5150	Distr. Gear Integral with shaft - 7/16-20 Tapped Nose
312800	280°	280°	.425	.425	110°	94.0°	105°	115°	.600	.600	1.00	.51	8660 Q&T	7/16-20 Tapped Nose - EVERWEAR-GEAR™
312707	280°	280°	.425	.425	106°	92.5°	101°	111°	.600	.600	1.00	.51	5150	7/16-20 Tapped Nose - EVERWEAR-GEAR™
312804	280°	280°	.425	.425	110°	94.25	105°	115°	.600	.600	1.00	.51	8660 Q&T	All 5 Journals 2.051" - 7/16-20 Tapped Nose - EVERWEAR-GEAR™
312819	280°	280°	.425	.425	110°	94.0°	105°	115°	.600	.600	1.00	.51	8660 Q&T	Distr. Gear Integral with shaft - 7/16-20 Tapped Nose
312713	286°	296°	.460	.445	114°	96.5°	110°	118°	.575	.588	1.00	.51	5150	Distr. Gear Integral with shaft - 7/16-20 Tapped Nose
312710	290°	290°	.350	.350	110°	96.5°	110°	110°	.563	.563	1.00	.51	5150	7/16-20 Tapped Nose - EVERWEAR-GEAR™
312625	290°	290°	.350	.350	108°	94.5°	106°	110°	.690	.690	1.12	.51	1055	
312665	290°	290°	.350	.350	112°	97.5°	112°	112°	.690	.690	1.12	.51	1055	
312725	290°	290°	.350	.350	108°	94.5°	106°	110°	.690	.690	1.00	.51	5150	7/16-20 Tapped Nose - EVERWEAR-GEAR™
312765	290°	290°	.350	.350	112°	97.5°	112°	112°	.690	.690	1.00	.51	5150	7/16-20 Tapped Nose - EVERWEAR-GEAR™
351W SVO BLOCKS 55 MM CORE WITH #5 MAIN 50 MM <span style="float: right;">EF077</span>														
PART NO.	.050 DUR		CAMLIFT		LSA	#1 Exh Timing CCW from dowel	LOBE CENTER		BASE CIRCLE RADIUS		BODY DIAMETER	LOBE WIDTH	STEEL GRADE	Notes:
	INT.	EXH.	INT.	EXH.			INT.	EXH.	INT.	EXH.				
312811	275°	275°	.430	.430	110°	94.5°	106°	114°	.668	.668	1.12	.51	8660 Q&T	Alternate Lobe Spacing 7/16-20 Tapped Nose - EVERWEAR-GEAR™
312812	275°	275°	.430	.430	110°	94.5°	106°	114°	.668	.668	1.12	.51	8660 Q&T	7/16-20 Tapped Nose - EVERWEAR-GEAR™



# Ford

1970-82 351C-351M-400 C.I. V-8 (USE HYDRAULIC ROLLER LIFTERS) <span style="float: right;">EF086</span>														
PART NO.	.050 DUR		CAMLIFT		LSA	#1 Int Timing	LOBE CENTER		BASE CIRCLE RADIUS		BODY DIAMETER	LOBE WIDTH	STEEL GRADE	Notes:
	INT.	EXH.	INT.	EXH.		CCW from dowel	INT.	EXH.	INT.	EXH.				
312626	290°	290°	.350	.350	108°	98.0°	106°	110°	.645	.645	.98	.51	5150	Distr. Gear Integral with shaft - 3/16-18 Tapped Nose
312668	240°	250°	.320	.320	111°	99.0°	108°	114°	.625	.625	.98	.51	5150	Distr. Gear Integral with shaft - 7/16-20 Tapped Nose
312806	285°	285°	.410	.410	108°	96.5°	103°	113°	.625	.625	.98	.51	8660 Q&T	Distr. Gear Integral with shaft - 7/16-20 Tapped Nose
1963-76 352-360-390-406-410-427-428 C.I. V-8 "FE" <span style="float: right;">EF064</span>														
PART NO.	.050 DUR		CAMLIFT		LSA	#1 Int Timing	LOBE CENTER		BASE CIRCLE RADIUS		BODY DIAMETER	LOBE WIDTH	STEEL GRADE	Notes:
	INT.	EXH.	INT.	EXH.		CW from dowel	INT.	EXH.	INT.	EXH.				
312705	232°	232°	.335	.335	111.0°	82.0°	106°	116°	.735	.735	1.12	.62	5150	Distr. Gear Integral with shaft - 7/16-20 Tapped Nose
312703	285°	285°	.410	.410	108.0°	83.5°	103°	113°	.663	.663	1.12	.62	5150	Distr. Gear Integral with shaft - 7/16-20 Tapped Nose
1968-94 370-429-460 cubic inch V-8 Roller cams <span style="float: right;">EF046</span>														
PART NO.	.050 DUR		CAMLIFT		LSA	#1 Int Timing	LOBE CENTER		BASE CIRCLE RADIUS		BODY DIAMETER	LOBE WIDTH	STEEL GRADE	Notes:
	INT.	EXH.	INT.	EXH.		CCW from dowel	INT.	EXH.	INT.	EXH.				
312808	237°	243°	.370	.377	110°	101.0°	104°	116°	.715	.712	1.12	.62	8660 Q&T	Distr. Gear Integral with shaft - 7/16-20 Tapped Nose
312802	282°	282°	.430	.430	108°	101.0°	104°	112°	.650	.650	1.12	.62	8660 Q&T	Distr. Gear Integral with shaft - 7/16-20 Tapped Nose
312809	300°	300°	.490	.490	114°	104.5°	111°	117°	.590	.590	1.00	.62	8660 Q&T	Distr. Gear Integral with shaft - 7/16-20 Tapped Nose
1996 - 2003 SOHC 4.6L 2 VALVE V-8 <span style="float: right;">EF081</span>														
PART NO.	.050 DUR		CAMLIFT		LSA	Timing	LOBE CENTER		BASE CIRCLE RADIUS		BODY DIAMETER	LOBE WIDTH	STEEL GRADE	Notes:
	INT.	EXH.	INT.	EXH.		CW from keyway	INT.	EXH.	INT.	EXH.				
312659	240°	248°	.306	.306	114°	#1 Int 124°	111°	117°	1.000	1.000	1.10	.44	1055	
312660	240°	248°	.306	.306	114°	#1 Exh 37°	111°	117°	1.000	1.000	1.10	.44	1055	
1996-2003 DOHC 4 VALVE 4.6L V-8 <span style="float: right;">EF081</span>														
PART NO.	.050 DUR		CAMLIFT		LSA	Timing	LOBE CENTER		BASE CIRCLE RADIUS		BODY DIAMETER	LOBE WIDTH	STEEL GRADE	Notes:
	INT.	EXH.	INT.	EXH.		CCW from keyway	INT.	EXH.	INT.	EXH.				
312661	213°	213°	.288	.288	NA	#1 Int 212°	112.7°	NA	.999	.999	1.10	.44	1055	RH Int.
312663	213°	213°	.288	.288	NA	#5 Int 127°	112.7°	NA	.999	.999	1.10	.44	1055	LH Int.
312662	217°	217°	.288	.288	NA	#1 Exh 123°	N/A	112.7°	.999	.999	1.10	.44	1055	RH Exh.
312664	217°	217°	.288	.288	NA	#5 Exh 347°	N/A	112.7°	.999	.999	1.10	.44	1055	LH Exh.
SOHC 3 VALVE 4.6L & 5.4I V-8 <span style="float: right;">EF088</span>														
PART NO.	.050 DUR		CAMLIFT		LSA	Timing	LOBE CENTER		BASE CIRCLE RADIUS		BODY DIAMETER	LOBE WIDTH	STEEL GRADE	Notes:
	INT.	EXH.	INT.	EXH.		CCW from keyway	INT.	EXH.	INT.	EXH.				
312671	213°	236°	.288	.300	133°	#1 Int 74°	105°	119°	.926	.926	1.15	.50	1055	RH
312672	213°	236°	.288	.300	91.2°	#5 Int 55.5°	105°	119°	.926	.926	1.15	.50	1055	LH
312681	213°	236°	.288	.300	133°	#1 Int 74°	105°	119°	.926	.926	1.15	.50	1055	RH Journals overisze .020"
312682	213°	236°	.288	.300	91.2°	#5 Int 55.5°	105°	119°	.926	.926	1.15	.50	1055	LH Journals overisze .020"
Ford 7.3 L "GODZILLA" V8 <span style="float: right;">EF088</span>														
PART NO.	.050 DUR		CAMLIFT		LSA	#1 Exh Timing	LOBE CENTER		BASE CIRCLE RADIUS		BODY DIAMETER	LOBE WIDTH	STEEL GRADE	Notes:
	INT.	EXH.	INT.	EXH.		CCW from keyway	INT.	EXH.	INT.	EXH.				
312602	248°	256°	.380	.380	115°	138.0°	*	*	.830	.830	1.16	.55	5150	revised timing October 2024
312610	230°	240°	.335	.335	121°	130.0°	*	*	.850	.850	1.16	.55	5150	new part October 2024

\* lobe centers are variable in engine

# Oldsmobile - Pontiac

Oldsmobile 1967-85 260-307-350-400-403-425-455 C.I. V-8 (39 DEG. CAM BANK ANGLE) <span style="float: right;">223</span>														
PART NO.	.050 DUR		CAM LIFT		LSA	#1 Int Timing	LOBE CENTER		BASE CIRCLE RAD.		BODY DIA.	LOBE WIDTH	STEEL GRADE	Notes:
	INT.	EXH.	INT.	EXH.		CCW from dowel	INT.	EXH.	INT.	EXH.				
317600	270°	270°	.350	.350	110.0°	12.0°	108°	112°	.652	.652	1.06	.53	1055	4-7 Swap firing order (1-8-7-3-6-5-4-2)
317603	270°	270°	.350	.350	110.0°	12.0°	108°	112°	.652	.652	1.06	.53	1055	Standard firing order (1-8-4-3-6-5-7-2)

  

Pontiac 1955-81 265-287-301-316-326-347-350-370-389-400-421-428-455 C.I. V-8 <span style="float: right;">EF241</span>														
PART NO.	.050 DUR		CAM LIFT		LSA	#1 Int Timing	LOBE CENTER		BASE CIRCLE RAD.		BODY DIA.	LOBE WIDTH	STEEL GRADE	Notes:
	INT.	EXH.	INT.	EXH.		CW from dowel	INT.	EXH.	INT.	EXH.				
318600	270°	270°	.350	.350	110.0°	2.0°	108°	112°	.615	.615	1.06	.52	5150	4-7 Swap firing order (1-8-7-3-6-5-4-2)
318601	278°	278°	.435	.435	110.0°	3.0°	106°	114°	.530	.530	1.06	.52	5150	4-7 Swap firing order (1-8-7-3-6-5-4-2)
318602	270°	270°	.350	.350	110.0°	2.0°	108°	112°	.615	.615	1.06	.52	5150	Standard firing order (1-8-4-3-6-5-7-2)

# Light Duty Diesel

2019-up Ram 6.7 L Cummins Diesel L6 with OEM roller camshaft <span style="float: right;">EF517</span>														
PART NO.	.050 DUR		CAMLIFT		LSA	#1 Exh Timing	LOBE CENTER		BASE CIRCLE RADIUS		BODY DIAMETER	LOBE WIDTH	MATERIAL	Notes:
	INT.	EXH.	INT.	EXH.			INT.	EXH.	INT.	EXH.				
TBD	your specs here										1.25	.75	5150	
Ford Powerstroke Diesel V8 2003-2010 6.0-6.4 L <span style="float: right;">EF266</span>														
PART NO.	.050 DUR		CAMLIFT		LSA	#1 Exh Timing	LOBE CENTER		BASE CIRCLE RADIUS		BODY DIAMETER	LOBE WIDTH	MATERIAL	Notes:
	INT.	EXH.	INT.	EXH.			INT.	EXH.	INT.	EXH.				
TBD	your specs here										1.50	.55	1055	
Ford " Scorpion" Powerstroke Diesel V8 2011-2017 6.7 L <span style="float: right;">EF048</span>														
PART NO.	.050 DUR		CAMLIFT		LSA	#1 Exh Timing	LOBE CENTER		BASE CIRCLE RADIUS		BODY DIAMETER	LOBE WIDTH	MATERIAL	Notes:
	INT.	EXH.	INT.	EXH.			INT.	EXH.	INT.	EXH.				
TBD	specs here										1.50	.50	5150	
GM Duramax Diesel <span style="float: right;">EF045A</span>														
PART NO.	.050 DUR		CAMLIFT		LSA	#1 Exh Timing	LOBE CENTER		BASE CIRCLE RADIUS		BODY DIAMETER	LOBE WIDTH	MATERIAL	Notes:
	INT.	EXH.	INT.	EXH.			INT.	EXH.	INT.	EXH.				
TBD	specs here										1.30	.58	5150	
Oldsmobile 1978-85 350 C.I. (5. 7L) V-8 DIESEL (ROLLER LIFTERS) <span style="float: right;">EF223</span>														
PART NO.	.050 DUR		CAM LIFT		LSA	#1 Int Timing	LOBE CENTER		BASE CIRCLE RAD.		BODY DIA.	LOBE WIDTH	STEEL GRADE	Notes:
	INT.	EXH.	INT.	EXH.		CCW from dowel	INT.	EXH.	INT.	EXH.				
317606	250°	250°	.350	.350	110.0°	11.0°	106°	114°	.685	.685	.92	.53	1055	