

MELLING
PERFORMANCE



Big Block Chevy

***PERFORMANCE
PARTS GUIDE***



GM Big Block Chevy Parts Guide

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This catalog may contain part numbers that are both new, no longer available or obsolete. This is done intentionally to support new products we are adding and to also support customers who may still need important information for performance products we no longer catalog.

Visit our online catalog at www.melling.com or contact Melling Engine Parts directly for the most current part status.

Features / Specifications								
Part #	Upgrade for Stock	Manuf. Volume	Manuf. Pressure	Optional Spring 1	Optional Spring 2	Gear Type (Billet Steel)	Housing Material	Screen Information
10070-800SS	M-77HV	25% Higher	(Pink) 70 PSI	(Red) 60 PSI	(Brown) 80 PSI	"Shark Tooth"	Billet Aluminum	Screen Included 8"
10070-900SS	M-77HV	25% Higher	(Pink) 70 PSI	(Red) 60 PSI	(Brown) 80 PSI	"Shark Tooth"	Billet Aluminum	Screen Included 9"
10070-1000SS	M-77HV	25% Higher	(Pink) 70 PSI	(Red) 60 PSI	(Brown) 80 PSI	"Shark Tooth"	Billet Aluminum	Screen Included 10"
10077-800SS	M-77	Standard	(Pink) 70 PSI	(Red) 60 PSI	(Brown) 80 PSI	"Shark Tooth"	Billet Aluminum	Screen Included 8"
10077-900SS	M-77	Standard	(Pink) 70 PSI	(Red) 60 PSI	(Brown) 80 PSI	"Shark Tooth"	Billet Aluminum	Screen Included 9"
10770	M-77HV	25% Higher	(Pink) 70 PSI	(Plain) 52 PSI	N/A	Billet Steel Spur	Cast Iron	3/4" Press In
10774	M-77, M-77G	Standard	(Pink) 70 PSI	(Plain) 52 PSI	N/A	Billet Steel Spur	Cast Iron	3/4" Press In
10778	10770	25% Higher	(Pink) 70 PSI	(Plain) 52 PSI	N/A	Billet Steel Spur	Cast Iron	3/4" Press In
10778C	10770	25% Higher	(Pink) 70 PSI	(Plain) 52 PSI	N/A	Billet Steel Spur	Cast Iron	3/4" Press In

All oil pumps shown above excluding the 10778C are manufactured for "Street and Strip" applications.

Melling billet aluminum high performance oil pumps feature a lightweight billet 6061-T6 aluminum housing & cover with a durable anodized hardcoat. Pump shafts are extended into the cover for additional support. Features billet steel spur gears for optimum performance on the street or on the drag strip. Also includes the 12770 chrome-moly steel drive shaft including a pinned steel shaft guide. The oil pickup screen is integrated into the pump body and features a stainless steel mesh. These oil pumps feature multiple pressure settings and a supercharged inlet for improved performance at high RPM's. (396-454)

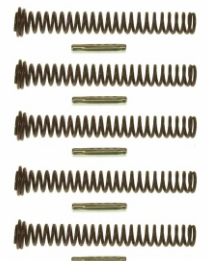
The "traditional" Melling cast iron high performance oil pumps feature a CNC machined and phosphate coated housing & cover, optional pressure spring settings and screw in pressure relief valves depending on the pump that is selected. Features billet steel spur gears for optimum performance on the street or on the drag strip. These pumps also include the 12770 chrome-moly steel drive shaft including a pinned steel shaft guide. (396-454)



Part #	Material	Features / Specifications	Length	Dia.	Fitment
12770	High Strength Chrome-Moly Steel	Improved steel drive shaft retainer locks onto oil pump drive shaft	6.516" (Stock)	.482"	396-454
12774	High Strength Chrome-Moly Steel	Improved steel drive shaft retainer locks onto oil pump drive shaft	7.176" (Stock + .400")	.482"	396-454



Features / Specifications					
Part #	Material	PSI	Color	Contains	Fitment
77052	Steel	52.0	Plain	(5) M-77007 Springs / (5) M15509 Spring Pins	396-454
77060	Steel	60.0	Blue	(5) M-77009 Springs / (5) M15509 Spring Pins	396-454
77070	Steel	70.0	Pink	(5) 3870399 Springs / (5) M15509 Spring Pins	396-454
7752M	Steel	52.0	Plain	(5) M-77007 Springs / Spring Pin Not Required	396-454
7760M	Steel	60.0	Blue	(5) M-77009 Springs / Spring Pin Not Required	396-454
7770M	Steel	70.0	Pink	(5) 3870399 Springs / Spring Pin Not Required	396-454





High Performance Oil Pump / Screen Reference Chart

Part No.	Volume Increase	Coatings	Shaft Support	Screw-in Valve Plug	Bolt-on Screen	Anti-Cavitation Grooves	Associated Screen No.	Tube Dia. (Inches)	Pan Depth	
									Min	Max
10770	25%	Mag Phosphate					77-S1	3/4"	7-1/2"	7-5/8"
							305S	3/4"	7-7/8"	8"
							241S	3/4"	8-7/8"	9"
							353S	3/4"	9-1/8"	9-1/2"
							307S	3/4"	9-5/8"	9-3/4"
10774	0%	Mag Phosphate					77-S1	3/4"	7-1/2"	7-5/8"
							305S	3/4"	7-7/8"	8"
							241S	3/4"	8-7/8"	9"
							353S	3/4"	9-1/8"	9-1/2"
							307S	3/4"	9-5/8"	9-3/4"
10778	25%	Mag Phosphate	X	X	X		77-S1	3/4"	7-1/2"	7-5/8"
							305S	3/4"	7-7/8"	8"
							241S	3/4"	8-7/8"	9"
							353S	3/4"	9-1/8"	9-1/2"
							307S	3/4"	9-5/8"	9-3/4"
10778C	25%	Mag Phosphate	X	X	X	X	77-S1	3/4"	7-1/2"	7-5/8"
							305S	3/4"	7-7/8"	8"
							241S	3/4"	8-7/8"	9"
							353S	3/4"	9-1/8"	9-1/2"
							307S	3/4"	9-5/8"	9-3/4"
10070-800SS	25%	Hardcoat Anodize	X	X	N/A		N/A	N/A	N/A	N/A
10070-900SS	25%	Hardcoat Anodize	X	X	N/A		N/A	N/A	N/A	N/A
10070-1000SS	25%	Hardcoat Anodize	X	X	N/A		N/A	N/A	N/A	N/A
10077-800SS	0%	Hardcoat Anodize	X	X	N/A		N/A	N/A	N/A	N/A
10077-900SS	0%	Hardcoat Anodize	X	X	N/A		N/A	N/A	N/A	N/A

NOTE: Minimum screen to pan clearance distance (3/8" to 1/2") can vary due to pan gasket thickness



High Performance Cylinder Sleeves (Flanged)



Features / Specifications										
Part #	Material	Bore Finish	I.D. +/- .005"	O.D. +/- .001"	Wall Thickness	O.A.L. +/- .015"	Press Fit Max	Sleeve Type	Flange Dia.	Flange Thickness
592256	High Strength Gray Iron	Semi	4.095"	4.378"	N/A	7.500"	.003"	Universal Flanged	4.518"	.125"
590297	High Strength Gray Iron	Semi	4.220"	4.503"	N/A	7.000"	.003"	Universal Flanged	4.643"	.125"

Visit Melling.com for specific application information



High Performance Cylinder Sleeves (Non-Flanged)



Features / Specifications									
Part #	Material	Bore Finish	I.D. +/- .005"	O.D. +/- .001"	Wall Thickness	O.A.L. +/- .015"	Press Fit Max	Sleeve Type	Bore Dia.
CSL197HP	High Strength Gray Iron	Semi	4.220"	4.440"	3/32"	7.000"	.003"	Universal Non-Flanged	4.250"
CSL297HP	High Strength Gray Iron	Semi	4.220"	4.503"	1/8"	7.000"	.003"	Universal Non-Flanged	4.250"

Visit Melling.com for specific application information



High Performance Double Roller Timing Chains



Part #	Part Description	Features / Specifications	Fitment
40001	Double Roller Timing Chain	Premium Seamless Double Roller; .250" Diameter Roller; .235" Pitch; .945" Width; 55 Links	396-454



Melling Performance offers precision timing chains for your performance engines. Options include both single and double roller chains to provide optimum choices for your performance engine build. Melling Performance timing chains are engineered and manufactured using the highest quality materials and workmanship for rugged worry free performance during high RPM motor operation.

Part #	Features / Specifications
40205	.220" Seamless double roller chain; Cast iron camshaft sprocket; 2° Maximum Adv./Ret. at camshaft; 3 Keyway adjustable crankshaft sprocket; Center distance 5.152" (396-454)
40401	.250" Seamless double roller chain; Induction heat treated cast iron camshaft sprocket; 2° Maximum Adv./Ret. at camshaft; Billet steel 3 keyway adjustable crankshaft sprocket; Center distance 5.152" (396-454)
40510	.335" Seamless single roller chain; Induction heat treated cast iron camshaft sprocket; 2° Maximum Adv./Ret. at camshaft; Billet steel 3 keyway adjustable crankshaft sprocket; Center distance 5.152" (396-454)
48510T-9	.250" Seamless double roller chain; Billet steel camshaft sprocket; Induction heat treated 9 keyway adjustable billet steel crankshaft sprocket; One piece Torrington thrust bearing; Center distance 5.152" (396-454)
48573T	.250" Seamless double roller chain; 2 piece adjustable billet steel camshaft sprocket with thrust bearing; 6° Maximum Adv./Ret. at camshaft; Heat treated billet steel crankshaft sprocket with black oxide coating; Includes custom camshaft sprocket adjusting tool; Center distance 5.152" (396-454)



Part #	Features / Specifications
48410Q	Includes cam button, thrust washer if required; Designed to fit under stock OEM timing covers; Street/Strip performance gear drive; Gears Are CNC machined from premium billet steel and Induction Heat Treated for maximum strength; Precision cut idler gears and plate assembly; 3 Keyway adjustable crankshaft sprocket; Quiet running gear drive (396-454)



Features / Specifications											
Part #	Class	RPM Range	Duration @ 0.50 Int.	Duration @ 0.50 Exh.	Duration Int.	Duration Exh.	Cam Lift Int.	Cam Lift Exh.	Cam Type	CA Compliant	Fitment
MTC-6*	Class 1	1000 - 4500	204	208	288	298	.270	.270	Hyd. Fit Tap	No	396-454
22100	Class 1	Idle - 4000	192	203	271	281	.234	.253	Hyd. Fit Tap	No	396-454
22114	Class 1	1400 - 4900	208	208	280	280	.280	.280	Hyd. Fit Tap	No	454
22127	Class 1	700 - 4500	190	202	261	272	.258	.273	Hyd. Fit Tap	No	396-454
22141	Class 1	1700 - 5200	216	228	288	300	.295	.300	Retro Roller	No	396-454
22204	Class 2	1700 - 5200	214	224	292	302	.296	.311	Hyd. Fit Tap	No	396-454
22214	Class 2	1700 - 5200	214	214	293	293	.296	.296	Hyd. Fit Tap	No	396-454
22236	Class 2	2200 - 5700	224	234	296	308	.527	.544	Retro Roller	No	396-454
22296	Class 2	2200 - 5700	222	235	310	325	.294	.297	Hyd. Fit Tap	No	396-454
22302	Class 3	2500 - 6000	230	230	309	309	.302	.302	Hyd. Fit Tap	No	396-454
22306	Class 3	2500 - 6000	224	234	302	308	.311	.325	Hyd. Fit Tap	No	396-454
22396	Class 3	2200 - 5700	242	242	310	297	.306	.306	Hyd. Fit Tap	No	396-454
22427	Class 4	4500 - 8000	264	270	322	322	.329	.341	Mech Fit Tap	No	396-454
22471	Class 4	3200 - 6700	240	246	305	311	.329	.337	Hyd. Fit Tap	No	396-454
22472	Class 4	2600 - 6300	237	245	335	329	.368	.376	Retro Roller	No	396-454

*(RV/Towing camshaft)



- **Class 1:** (200°-215°) Good idle quality. Low RPM torque and mid-range performance. Will work with stock or slightly modified engine. For use with manual or auto transmission.
- **Class 2:** (215°-230°) Fair Idle quality. Good low to mid-range RPM torque and horsepower. Will work with stock or modified engine. For use with manual or auto transmission. Possibly lower vacuum than stock.
- **Class 3:** (230°-245°) Rough Idle quality. Good mid to high RPM torque and horsepower. For use with manual transmission or high stall automatic. May need improved carb, exhaust and ignition systems. Combination "Street and Strip" camshaft. Will have lower vacuum than stock.
- **Class 4:** (245°-UP) Rough Idle quality. Mid to high RPM torque and horsepower. Racing camshaft. Needs proper selection of rear axle ratio and improvements in carb and exhaust systems. For use with manual transmission or an automatic with a very high stall converter. Will not have enough vacuum for power accessories.

MELLING High Performance Camshaft And Lifter Kits

Part #	Contents	Features / Specifications	Fitment
CL-MTC-6	Contains (1) MTC-6 "RV / Torque" camshaft, (16) JB-817 Lifters and 4oz Bottle of Mell Lube. Check For coil bind. Use VS-380 Valve spring w/Installed height of 1.90". Not California compliant.		396-454

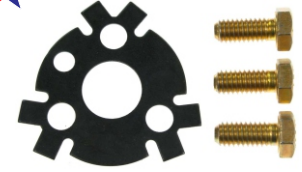


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MELLING High Performance Camshaft Bolt Lock Plate

Part #	Features / Specifications	Fitment
4605-LPK	Prevents the camshaft bolt from loosening and therefore preventing costly valve train and engine damage. Camshaft bolt lock plates are easily installed by applying torque to the bolt and properly bending the locking tabs into place to secure the bolt.	396-454

MADE IN USA



MELLING High Performance Push Rods

Features / Specifications								
Part #	Length	Diameter	Bottom Tip Diameter	Top Tip Diameter	Bottom Tip Type	Top Tip Type	Material	Fitment
500154	7.910"	.315"	.315"	.315"	Rounded	Rounded	Chrome-Moly Steel	396-402 & 454
500164	7.910"	.393"	.315"	.315"	Rounded	Rounded	Chrome-Moly Steel	396-402 & 454
500294	7.795"	.315"	.315"	.315"	Rounded	Rounded	Chrome-Moly Steel	396-402 & 454
500304	7.590"	.315"	.315"	.315"	Rounded	Rounded	Chrome-Moly Steel	396-402 & 454
500624	8.680"	.375"	.310"	.310"	Rounded	Rounded	Chrome-Moly Steel	427
500634	9.645"	.393"	.315"	.315"	Rounded	Rounded	Chrome-Moly Steel	427

MADE IN USA



MELLING High Performance Push Rod Guide Plates

Melling Performance push rod guide plates are manufactured from high quality heat treated steel to help reduce flexing.

Each guide plate is black oxide coated to prevent rusting. Must be used with screw in rocker arm studs.

Features / Specifications									
Part #	Length	Width	Thickness	Slot Width	Mount Hole Diameter	Mount Hole Qty	Material	Fitment	
MGP1064	1.750"	3.822"	.120"	.450"	.445"	2	Steel	396-454	
MGP1074	1.725"	3.800"	.113"	.385"	.445"	2	Steel	396-454	

MADE IN USA



MGP1064



MGP1074

MELLING High Performance Valve Springs - (Sold individually)

Features / Specifications									
Part #	Free Length	O.D.	I.D.	Closed Pressure / Height	Open Pressure / Height	Solid Height	Material	Spring Type	Fitment
466154	2.350"	1.535"	1.140"	131.5 @ 1.750"	240 @ 1.250"	1.220"	Chrome Silicon	Single	396-454
466164	2.040"	1.138"	.795"	72.5 @ 1.620"	148 @ 1.120"	1.110"	Chrome Silicon	Single	396-454
466224	2.400"	1.535"	1.260"	134 @ 1.935"	312 @ 1.375"	1.180"	Chrome Silicon	Single w/Damper	396-454
466474	2.362"	1.426"	1.016"	160 @ 1.900"	400 @ 1.250"	1.193"	Chrome Silicon	Beehive	396-454
466754	2.350"	1.550"	.795"	190.2 @ 1.750"	375.4 @ 1.250"	1.220"	Chrome Silicon	Dual	396-454



466154



466164



466224



466474



466754

MELLING High Performance Valves

Features / Specifications								
Part #	Valve Type	Length	Head Dia.	Stem Dia.	Seat Angle	Groove Qty	Material	Fitment
451064	Exhaust	5.350"	1.725"	.372"	45°	1	Chrome Plated Steel	396, 402 & 454
451084	Exhaust	5.355"	1.890"	.354"	45°	1	Chrome Plated Steel	396, 402 & 454
451054	Intake	5.230"	2.190"	.372"	45°	1	Chrome Plated Steel	396, 402 & 454
451074	Intake	5.230"	2.300"	.372"	45°	1	Chrome Plated Steel	396, 402 & 454



451064



451084



451054



451074

MELLING High Performance Valve Lock



Part #	Features / Specifications
473004	.380" Length; .530" Width; 1 Valve lock groove qty; Steel (396-454)
476104	.365" Length; .480" Width; Fits .341"; 1 Valve lock groove qty; Steel (396-454)



MELLING High Performance Hydraulic Valve Lifters



Features / Specifications					
Part #	Material	O.D.	Length	Notes	Fitment
BB817RF16	Cold forged steel body	.842"	3.168"	Hydraulic Retro-Fit Roller Lifter; For engines not originally equipped with hydraulic roller lifters; Will also fit engines originally equipped with roller lifters and aftermarket blocks with .300" tall lifter bores; Must use with a roller camshaft; Sold in set of 16 ; Proprietary tie-bar system	396-454
292116BBR	Cold forged steel body	.826"	2.280"	Hydraulic Roller Lifter; .300" tall reduced travel; Sold in set of 16 ; Proprietary tie-bar system	Sold by Dimension
291002	Cold forged steel body	.842"	2.000"	roller lifters and aftermarket blocks with .300" tall lifter bores; Must use with a roller camshaft. Sold in set of 16 ; Proprietary tie-bar system	454
298174	Cold forged steel body	0.842"	2.000"	Use w/ factory settings	396-454
298184	Cold forged steel body	0.842"	2.000"	Anti-Pump Up; Set at zero lash; Use w/ adjustable valve train	396-454
299704	Cold forged steel body	0.842"	2.000"	Anti-Pump Up; Set at zero lash; Use w/ adjustable valve train	396-454



299704



298184



291002

MELLING High Performance Valve Train Set-Up Spring Set



VTSS100

Valve train check spring features "Low Tension" design that allows for hand installation. Used for measuring to valve clearance, rocker arm ratio and camshaft degreeding. Material: Steel (Sold in sets of 2)





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- Oil Pumps - Cast Iron, Aluminum and Billet Aluminum
- Oil Pump Pick-up Screens and Pick Up Tube Support Brackets
- Camshafts
- Timing Chain Speed Sets
- Valve Train Kits and Components
- Cylinder Sleeves
- Speciality Items and Installation Tools

On behalf of Melling Performance, thank you for your continued support for over 78 years.

Melling Engine Parts are manufactured with key advantages. Each part is backed by resources, technologies and people who are the very best in the world at designing, manufacturing and building exceptional products. Melling Performance parts deliver "An Advantage by Design".