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KEY TO ABBREVIATIONS

ADD'L	ADDITIONAL	H.D.	HEAVY DUTY	SPEC	SPECIAL
ALUM.	ALUMINUM	HI	HIGH	STD	STANDARD
BRG.	BEARING	HO	HIGH OUTPUT	VEL	VELOCITY
COMP.	COMPRESSION	HT	HEIGHT	VOL	VOLUME
CYL.	CYLINDER	HYD.	HYDRAULIC	W/	WITH
DIA.	DIAMETER	INT	INTAKE	WT	WEIGHT
ENG.	ENGINE	I/S	INTERMEDIATE SHAFT	2BC	2 BARREL CARBURETOR
EXC.	EXCLUDING	MECH	MECHANICAL	4BC	4 BARREL CARBURETOR
EHX.	EXHAUST	O/S	OVERSIZE	6BC	6 BARREL CARBURETOR
FWD	FRONT WHEEL DRIVE	RWD	REAR WHEEL DRIVE		

WARRANTY DISCLAIMER

Due to the intended usage of performance applications, the parts in this catalog are sold without any express warranty or any implied warranty or merchantability or fitness for the intended purpose. Installation of parts intended for "off-highway" use. Installation of these parts could affect the vehicle manufacture warranty coverage.

NOTE: It is illegal to use melling Performance Camshafts in vehicles that are operated on the public streets and highways of California. Various other federal and state laws may limit the use of these camshafts to "off-highway" applications only. Check current federal and state laws to be sure.

Performance Camshaft Specifications

CAUTION!!

1. Always install new lifters (followers) with a new camshaft. Installing used lifters with a new camshaft can cause premature failure of both the cam and the lifters (followers).
2. Do not allow the engine to run under 1500 rpm for the first 20 minutes. The first few minutes of the engine operation are the most critical and tests have shown that if there is no metal pickup or spalling during this period, the camshaft will wear as long as other engine components.
3. With performance cams - usually you will have to advance the distributor timing (on the vibration damper) more than stock specifications.
4. When installing any high performance or racing camshafts into a engine, check to make sure there is adequate clearance between the valves and pistons and also make sure the valve springs do not compress solid.
5. On all engines equipped with roto-coils or valve rotators in either the intake or exhaust positions check for possible coil bind. You might have to change the valve spring and retainer - (using aftermarket high performance valve springs is an alternative).

Listed below is a group classification for the custom (or high) performance cams listed in this catalog - (the durations shown are based on .050 cam lift). The descriptions within each group show the characteristics of the cams in that group as well as any recommended modifications to the car or engine that will help get the desired performance.

Class I (200° - 215°)

Good idle quality. Low rpm torque and mid range performance. Will work with stock or slightly modified engine. Manual or auto transmission.

Class II (215° - 230°)

Fair idle quality. Good low to mid range torque and horsepower. Will work with stock or modified engine. For use with manual or automatic transmission. Possibly lower vacuum than stock.

Class III (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 system, and ignition system. Combination street and drag. Will have lower vacuum than stock.

Class IV (245° - UP)

Rough idle quality. Mid to high rpm torque and horsepower. For serious racing. Need proper selection of rear axle ratio and improvements in carburation and exhaust systems. For use with manual transmission or automatic with very high stall converter. Will not have enough vacuum for power accessories.

(Use Intake Spec's)

Duration @ .050 cam Lift	Approx. RPM Power Range	Approx. Peak Torque
200°	1000-4500	2500
210°	1500-5000	2800
220°	2000-5500	3000
230°	2500-6000	3500
240°	3000-6500	4000
250°	3500-7000	4500
260°	4000-7500	5000
270°	4500-8000	5500

AMERICAN MOTORS & JEEP 290 - 401 1966-79 V8

(290 66-69 BORE 3.750) (304 70-79 BORE 3.750) (343 67-69 BORE 4.080) (360 70-78 BORE 4.080) (390 68-70 BORE 4.165) (401 71-76 BORE 4.165)

CAMSHAFTS USING HYDRAULIC LIFTERS

Part #	Degrees .050" dur		Degrees ADV. dur		Inches Valve lift		Degrees Lobe cntr		CHARACTERISTICS OF CAMSHAFT
	Int.	Exh.	Int.	Exh.	Int.	Exh.	Int.	Exh.	
20101 MTA-1	204	214	280	290	.448	.472	105	115	CLASS I TORQUE CAMSHAFT-GOOD DAILY USAGE, FUEL ECONOMY, LIGHT TOWING. POWER RANGE 1200-4700 RPM-HYD.
20205	222	222	296	296	.478	.478	114	114	CLASS II-GOOD PERFORMANCE USAGE, POWER RANGE 2200-5700 RPM-HYD.
20402	234	244	306	316	.520	.542	107	117	CLASS III-PERFORMANCE USAGE, GOOD MILD RANGE, ROUGH IDLE. POWER RANGE 2750-6250 RPM-HYD.

CAMSHAFT LIFTER KITS USING HYDRAULIC LIFTERS

Part #	
CL-MTA-1	KIT INCLUDES 1-MTA-1 TORQUE CAM, 16-29011 LIFTERS & 4OZ. MELL LUBE CIASS I.

MECHANICAL LIFTERS

29998	USE WITH CAST IRON CAMSHAFT
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HYDRAULIC LIFTERS

29011 29012	MUST BE USED WITH ADJUSTABLE VALVE TRAIN
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VALVE SPRING USED WITH HYDRAULIC LIFTERS

46643	USE WITH 20205 CAM - MACHINING MAY BE REQUIRED
VS-280	USE WITH MTA-1 CAM

VALVE LOCKS

47300	HARDENED
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RETAINERS

47514	CHROME MOLY - USE WITH 46643 SPRINGS
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CHROME MOLY PUSH RODS

50031	1970-79 HEAT TREATED FOR GUIDE PLATES
50100	1970-79 ONE PIECE - HEAT TREATED FOR GUIDE PLATES

BUICK 181 3.0-E 1982-85 V6

BORE 3.800

CAMSHAFTS USING HYDRAULIC LIFTERS

Part #	Degrees .050" dur		Degrees ADV. dur		Inches Valve lift		Degrees Lobe cntr		CHARACTERISTICS OF CAMSHAFT
	Int.	Exh.	Int.	Exh.	Int.	Exh.	Int.	Exh.	
21101 MTB-1	204	214	280	290	.448	.472	107	117	CLASS I TORQUE CAMSHAFT-GOOD DAILY USAGE, LIGHT TOWING, GOOD IDLE. POWER RANGE 1200-4700 RPM-HYD.
21102 MTB-2	194	204	270	280	.424	.448	109	109	CLASS I TORQUE CAMSHAFT-GOOD DAILY USAGE, LIGHT TOWING, GOOD IDLE. POWER RANGE 800-4500 RPM-HYD.

CAMSHAFT LIFTER KITS USING HYDRAULIC LIFTERS

Part #	
CL-MTB-1	KIT INCLUDES 1-MTB-1 TORQUE CAM, 12-29969 LIFTERS & 4OZ. MELL LUBE CIASS I.
CL-MTB-2	KIT INCLUDES 1-MTB-2 TORQUE CAM, 12-29969 LIFTERS & 4OZ. MELL LUBE CIASS I.

HYDRAULIC LIFTERS

29969	MUST BE USED WITH ADJUSTABLE VALVE TRAIN
29970	

CHROME MOLY PUSH RODS

Part #	
50057	HEAT TREATED FOR GUIDE PLATES

VALVE SPRING USED WITH HYDRAULIC LIFTERS

Part #	
VS-380	USE WITH MTB-1 & MTB-2 CAMS

VALVE LOCKS

Part #	
47610	HARDENED

3PC SET

Part #	
40404	1982-84 INCLUDES SEAMLESS SOLID ROLLER CHAIN, CAST IRON CAM SPROCKET & MULTIPLE KEYWAY CRANK SPROCKET. NOTE: DO NOT USE DAMPER

BUICK 231 & 4.1-4 1977-87 V6

(231-A ENG 1977-87, 231-G ENG 1978, 231-2 ENG 1978-79, 231-3 ENG 1978-85, 231-8 ENG 1983, 231-9 ENG 1984-85 ALL BORES 3.800) (4.1-4) (252) ENG

CAMSHAFTS USING HYDRAULIC LIFTERS

Part #	Degrees .050" dur		Degrees ADV. dur		Inches Valve lift		Degrees Lobe cntr		CHARACTERISTICS OF CAMSHAFT
	Int.	Exh.	Int.	Exh.	Int.	Exh.	Int.	Exh.	
21101 MTB-1	204	214	280	290	.448	.472	107	117	CLASS I TORQUE CAMSHAFT-GOOD DAILY USAGE, LIGHT TOWING, GOOD IDLE. POWER RANGE 1250-4750 RPM-HYD.
21102 MTB-2	194	204	270	280	.424	.448	109	109	CLASS I TORQUE CAMSHAFT-GOOD DAILY USAGE, LIGHT TOWING, GOOD IDLE. POWER RANGE IDLE-4500 RPM-HYD.

BUICK 231 & 4.1-4 (Continued)

(231-A ENG 1977-87, 231-G ENG 1978, 231-2 ENG 1978-79, 231-3 ENG 1978-85, 231-8 ENG 1983, 231-9 ENG 1984-85 ALL BORES 3.800) (4.1-4) (252) ENG

CAMSHAFTS USING HYDRAULIC LIFTERS

Part #	Degrees .050" dur		Degrees ADV. dur		Inches Valve lift		Degrees Lobe cntr		CHARACTERISTICS OF CAMSHAFT
	Int.	Exh.	Int.	Exh.	Int.	Exh.	Int.	Exh.	
MTB-1	204	214	280	290	.448	.472	107	117	CLASS I TORQUE CAMSHAFT-GOOD DAILY USAGE, LIGHT TOWING, GOOD IDLE. POWER RANGE 1200-4700 RPM-HYD.
MTB-2	194	204	270	280	.424	.448	109	109	CLASS I TORQUE CAMSHAFT-GOOD DAILY USAGE, LIGHT TOWING, GOOD IDLE. POWER RANGE 800-4500 RPM-HYD.
21206	224	224	300	300	.496	.496	107	117	CLASS II PERFORMANCE USAGE, GOOD MID RANGE, MILD BRACKET RACING, POWER RANGE 2250-5750 RPM-HYD.
21300	234	244	306	316	.520	.542	107	117	CLASS III PERFORMANCE USAGE, GOOD MID RANGE POWER RANGE 2750-6250 RPM-HYD.

CAMSHAFT LIFTER KITS USING HYDRAULIC LIFTERS

Part #	
CL-MTB-1	KIT INCLUDES 1-MTB-1 TORQUE CAM, 12-29969 LIFTERS & 4OZ. MELL LUBE CIASS I.
CL-MTB-2	KIT INCLUDES 1-MTB-2 TORQUE CAM, 12-29969 LIFTERS & 4OZ. MELL LUBE CIASS I.

HYDRAULIC LIFTERS

Part #	
29969	MUST BE USED WITH ADJUSTABLE VALVE TRAIN
29970	

CHROME MOLY PUSH RODS

Part #	
50057	HEAT TREATED FOR GUIDE PLATES

VALVE SPRING USED WITH HYDRAULIC LIFTERS

Part #	
VS-380	USE WITH MTB-1 & MTB-2 CAMS

RETAINERS

Part #	
47518	CHROME MOLY - USE WITH STOCK SPRINGS

VALVE LOCKS

Part #	
47610	HARDENED

3PC SET

Part #	
40404	NOTE: DO NOT USE DAMPER - INCLUDES SEAMLESS SOLID ROLLER CHAIN, CAST IRON CAM SPROCKET & MULTIPLE KEYWAY CRANK SPROCKET.

BUICK 350 B,H,J,X 1968-81 V8

BORE 4.0

3PC SET

Part #	
40210	INCLUDES ROLLER CHAIN, CAST IRON CAM SPROCKET & MULTIPLE KEYWAY CRANK SPROCKET.

CHEVROLET CARS & TRUCKS 262 4.3 1985-89 V6

BORE 4.0

OIL PUMPS

Part #	
10550	HI VOLUME PUMP-25% ADD'L VOL OF OIL THAN STOCK PUMP. INCLUDES I/S SHAFT W/STEEL GUIDE EXC CHEV II.
10551	SAME AS 10550 EXCEPT USES 3/4" DIA. PRESS IN SCREEN. EXC CHEV II - 19mm INLET.

CAMSHAFTS USING HYDRAULIC LIFTERS

Part #	Degrees .050" dur		Degrees ADV. dur		Inches Valve lift		Degrees Lobe cntr		CHARACTERISTICS OF CAMSHAFT
	Int.	Exh.	Int.	Exh.	Int.	Exh.	Int.	Exh.	
22113	194	204	270	278	.398	.420	104	117	CLASS I TORQUE CAMSHAFT EXC ROLLER LIFTERS POWER RANGE IDLE - 4500 RPM-HYD.

CAMSHAFT LIFTER KITS USING HYDRAULIC LIFTERS

Part #	
32113	KIT INCLUDES 1-22113 TORQUE CAM, 12-29817 LIFTERS & 4OZ. MELL LUBE CIASS I.

MECHANICAL LIFTERS

29840	CHILLED IRON ONLY USE W/STEEL OR HARDENED CAMSHAFTS - MELLING DOES NOT SUPPLY
29841	HARDENABLE IRON - EDGE ORIFICE OILING
29992	SPECIAL DESIGN METERING SYSTEM

HYDRAULIC LIFTERS

29817	MUST BE USED WITH ADJUSTABLE VALVE TRAIN
29818	

CHROME MOLY PUSH RODS

50031	5/16 DIA. STANDARD LENGTH HEAT TREATED FOR GUIDE PLATES - EXC. ROLLER
50061	5/16 DIA. + .100 O/S LENGTH - HEAT TREATED FOR GUIDE PLATES EXC. ROLLER
50067	5/16 DIA. + .100 O/S LENGTH EXC. ROLLER
50100	ONE PIECE 5/16 DIA. STANDARD LENGTH - HEAT TREATED FOR GUIDE PLATES EXC. ROLLER
50101	ONE PIECE 5/16 DIA. + .100 O/S LENGTH - HEAT TREATED FOR GUIDE PLATES EXC. ROLLER
50102	ONE PIECE 5/16 DIA. + .150 O/S LENGTH - HEAT TREATED FOR GUIDE PLATES EXC. ROLLER
50103	ONE PIECE 5/16 DIA. + .200 O/S LENGTH - HEAT TREATED FOR GUIDE PLATES EXC. ROLLER

VALVE SPRING WITH HYDRAULIC LIFTERS

46635	USE WITH 22113 CAM - MACHINING MAY BE REQUIRED
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RETAINERS

47518	CHROME MOLY - USE WITH 46635 SPRINGS
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VALVE LOCKS

47610	HARDENED
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3PC SET

40201	INCLUDES ROLLER CHAIN, CAST IRON CAM SPROCKET & MULTIPLE KEYWAY CRANK SPROCKET EXC. STOCK ROLLER CAM ENGINES.
40400	INCLUDES SEAMLESS SOLID ROLLER CHAIN, CAST IRON CAM SPROCKET & MULTIPLE KEYWAY CRANK SPROCKET EXC. STOCK ROLLER CAM ENGINES.

CHEVROLET CARS & TRUCKS 262-400 1957-87 8 Cyl.

(262 75-76 BORE 3.671) (267 79-82 BORE 3.500) (283 57-67 BORE 3.875) (302 67-87 BORE 4.000) (305 82-87 BORE 3.736) (307 68-73 BORE 3 7/8) (327 62-69 BORE 4.000) (350 67-87 BORE 4.000) (400 70-80 BORE 4.125)
EXC CHEVY II, FRONT SUMP.

OIL PUMPS

Part #	
10550	HI VOLUME PUMP-25% ADD'L VOL OF OIL THAN STOCK PUMP. INCLUDES I/S SHAFT W/STEEL GUIDE.
10551	SAME AS 10550 EXCEPT USES 3/4" DIA. PRESS IN SCREEN. - 19mm INLET.
10552	SPECIAL OIL PUMP SB STYLE HI VOL-10% ADD'L VOL OF OIL THAN STOCK PUMP. SHAFTS ARE EXTENDED INTO COVER FOR SUPPORT. RELIEF VALVE SPRING HAS SCREW IN PLUG. REQUIRES SPECIAL BOLT ON SCREEN. I/S SHAFT W/STEEL GUIDE.
10555	SPECIAL OIL PUMP. SB STYLE HI VOL-25% ADD'L VOL OF OIL THAN STOCK PUMP. SHAFTS ARE EXTENDED INTO COVER FOR SUPPORT. RELIEF VALVE SPRING HAS SCREW IN PLUG. REQUIRES SPECIAL BOLT ON SCREEN. I/S SHAFT W/STEEL GUIDE.

SCREEN ASSEMBLIES

Part #	
12554*	BOLT ON SCREEN FOR 10555. USE W/7" DEEP OVAL TRACK PAN. MESH IS TO THE RIGHT OF THE PUMP.
12556*	SAME AS 12554 EXCEPT FOR 7 1/2" DEEP PAN.
12557*	BOLT ON SCREEN FOR 10555. USE W/7" DEEP STOCK TYPE PAN. MESH IS IN STOCK LOCATION.
12558*	SAME AS 12557 EXCEPT FOR 7 1/2" DEEP PAN.
12559*	SAME AS 12557 EXCEPT FOR 8" DEEP PAN.

**Note: Clearance between the bolts and holes allows 3/16" to 1/4" adjustment up or down to custom fit your application. The mesh of the screen should be 3/8" to 1/2" above the oil pan.*

CAMSHAFTS USING MECHANICAL LIFTERS

Part #	Degrees .050" dur		Degrees ADV. dur		Inches Valve lift		Degrees Lobe cntr		CHARACTERISTICS OF CAMSHAFT
	Int.	Exh.	Int.	Exh.	Int.	Exh.	Int.	Exh.	
22380	239	239	283	283	.446	.446	109	118	CLASS III, STREET & STRIP, ROUGH IDLE, USE W/M.T. OR HI STALL AUTO TRANS, LOW VACUUM, POWER RANGE 2700-6200 RPM-MECH.
22400	257	270	304	312	.494	.512	108	116	CLASS IV OEM #3927140, DRAG STRIP ONLY, ROUGH IDLE, LOW VACUUM, USE W/M.T. OR VERY HI STALL AUTO TRANS, MAY NEED IMPROVED CARB. & EXH., GOOD MID TO HIGH TORQUE, 1st DESIGN Z28. POWER RANGE 3700-7300 RPM-MECH.
22402	240	250	280	290	.520	.520	106	106	CLASS IV, STREET & STRIP, ROUGH IDLE, LOW VACCUM, POWER RANGE 2700-6200 RPM-MECH.
22404	258	266	290	298	.540	.558	99	111	CLASS IV, DRAG STRIP ONLY, ROUGH IDLE, LOW VACUUM, USE W/M.T. OR VERY HI STALL AUTO TRANS, MAY NEED IMPROVED CARB. & EXH., GOOD MID TO HIGH TORQUE, 1st DESIGN Z28. POWER RANGE 3700-7300 RPM-MECH.

CHEVROLET CARS & TRUCKS 262-400 (Continued)

(262 75-76 BORE 3.671) (267 79-82 BORE 3.500) (283 57-67 BORE 3.875) (302 67-87 BORE 4.000) (305 82-87 BORE 3.736) (307 68-73 BORE 3 7/8) (327 62-69 BORE 4.000) (350 67-87 BORE 4.000) (400 70-80 BORE 4.125)

CAMSHAFTS USING MECHANICAL LIFTERS

Part #	Degrees .050" dur		Degrees ADV. dur		Inches Valve lift		Degrees Lobe cntr		CHARACTERISTICS OF CAMSHAFT
	Int.	Exh.	Int.	Exh.	Int.	Exh.	Int.	Exh.	
22410	254	254	295	295	.485	.485	110	118	CLASS IV OEM #3849346, 30-30 DUNTOV, DRAG STRIP ONLY, ROUGH IDLE, LOW VACUUM, USE W/M.T. OR VERY HI STALL AUTO TRANS, MAY NEED IMPROVED CARB. & EXH., GOOD MID TO HIGH TORQUE, 30-30 DUNTOV POWER RANGE 3600-7200 RPM-MECH.
22415	242	254	295	310	.459	.485	110	122	CLASS IV, STREET & STRIP, ROUGH IDLE, USE W/M.T. OR HI STALL AUTO TRANS, LOW VACUUM, OE # 3972178, POWER RANGE 2700-6200 RPM-MECH.
22450	262	273	309	318	.512	.536	108	116	CLASS IV, OEM #3965754, DRAG STRIP ONLY, ROUGH IDLE, LOW VACUUM, USE W/M.T. OR VERY HI STALL AUTO TRANS, MAY NEED IMPROVED CARB. & EXH., GOOD MID TO HIGH TORQUE, 2nd DESIGN Z28. POWER RANGE 3600-7200 RPM-MECH.

CAMSHAFTS USING HYDRAULIC LIFTERS

Part #	Degrees .050" dur		Degrees ADV. dur		Inches Valve lift		Degrees Lobe cntr		CHARACTERISTICS OF CAMSHAFT
	Int.	Exh.	Int.	Exh.	Int.	Exh.	Int.	Exh.	
22107	208	208	272	272	.408	.408	107	113	CLASS I, MAY NOT BE COMPUTER COMPATIBLE, NOTE: (50 STATES LEGAL) IN CALIFORNIA USE ONLY IN 1987 & OLDER S.B. CHEVY ENG. EQUIPPED WITH CARBURETTED 267-350 CID V8. GOOD IDLE, GOOD LOW END TORQUE & PULLING POWER, POWER RANGE 1000-4500 RPM-HYD.
22108	184	194	260	270	.368	.398	104	104	CLASS I, COMPUTER COMPATIBLE, NOTE: (50 STATES LEGAL) IN CALIFORNIA USE ONLY IN 1987 & OLDER S.B. CHEVY ENG. EQUIPPED WITH CARBURETTED 267-350 CID V8. STOCK IDLE, GOOD DAILY USAGE, GOOD LOW END TORQUE, POWER RANGE IDLE-4000 RPM-HYD.
22109	194	204	270	278	.398	.420	104	104	CLASS I, COMPUTER COMPATIBLE, NOTE: (50 STATES LEGAL) IN CALIFORNIA USE ONLY IN 1987 & OLDER S.B. CHEVY ENG. EQUIPPED WITH CARBURETTED 267-350 CID V8. STOCK IDLE, GOOD DAILY USAGE, GOOD LOW END TORQUE, POWER RANGE IDLE-4000 RPM-HYD.
22110	204	214	278	288	.420	.443	110	110	CLASS I, COMPUTER COMPATIBLE, NOTE: (50 STATES LEGAL) IN CALIFORNIA USE ONLY IN 1987 & OLDER S.B. CHEVY ENG. EQUIPPED WITH CARBURETTED 267-350 CID V8. GOOD IDLE, GOOD LOW END TORQUE AND PULLING POWER, POWER RANGE 1000-4500 RPM-HYD.
22111	194	204	270	278	.398	.422	107	117	CLASS I, MAY NOT BE COMPUTER COMPATIBLE, NOTE: (50 STATES LEGAL) IN CALIFORNIA USE ONLY IN 1987 & OLDER S.B. CHEVY ENG. EQUIPPED WITH CARBURETTED 267-350 CID V8. STOCK IDLE, GOOD DAILY USAGE, GOOD LOW END TORQUE, POWER RANGE IDLE -4000 RPM-HYD.

CHEVROLET CARS & TRUCKS 262-400 (Continued)

(262 75-76 BORE 3.671) (267 79-82 BORE 3.500) (283 57-67 BORE 3.875) (302 67-87 BORE 4.000) (305 82-87 BORE 3.736) (307 68-73 BORE 3 7/8) (327 62-69 BORE 4.000) (350 67-87 BORE 4.000) (400 70-80 BORE 4.125)

CAMSHAFTS USING HYDRAULIC LIFTERS

Part #	Degrees .050" dur		Degrees ADV. dur		Inches Valve lift		Degrees Lobe cntr		CHARACTERISTICS OF CAMSHAFT
	Int.	Exh.	Int.	Exh.	Int.	Exh.	Int.	Exh.	
22114	208	208	280	280	.420	.420	106	116	CLASS I, MAY NOT BE COMPUTER COMPATIBLE, NOTE: (50 STATES LEGAL) IN CALIFORNIA USE ONLY IN 1987 & OLDER S.B. CHEVY ENG. EQUIPPED WITH CARBURETTED 267-350 CID V8. GOOD IDLE, GOOD LOW END TORQUE & PULLING POWER, POWER RANGE 1400-4900 RPM-HYD.
22115	210	216	290	303	.435	.455	107	117	CLASS I, MAY NOT BE COMPUTER COMPATIBLE, NOTE: (50 STATES LEGAL) IN CALIFORNIA USE ONLY IN 1987 & OLDER S.B. CHEVY ENG. EQUIPPED WITH CARBURETTED 267-350 CID V8. GOOD IDLE, GOOD LOW END TORQUE & PULLING POWER, POWER RANGE 1500-5000 RPM-HYD.
22128	194	214	268	288	.398	.442	107	117	CLASS I, MAY NOT BE COMPUTER COMPATIBLE, NOTE: (50 STATES LEGAL) IN CALIFORNIA USE ONLY IN 1987 & OLDER S.B. CHEVY ENG. EQUIPPED WITH CARBURETTED 267-350 CID V8. GOOD IDLE, GOOD LOW END TORQUE & PULLING POWER, POWER RANGE 800-4300 RPM-HYD.
22200	222	222	290	290	.447	.447	110	118	CLASS II, OEM #3863151 MAY NOT BE COMPUTER COMPATIBLE, REPLACEMENT CAM FOR 327 CL - 350 HP CHEVROLET. HYD.
22203	214	224	288	298	.443	.465	107	117	CLASS II, MAY NOT BE COMPUTER COMPATIBLE, NOTE: (50 STATES LEGAL) IN CALIFORNIA USE ONLY IN 1987 & OLDER S.B. CHEVY ENG. EQUIPPED WITH CARBURETTED 267-350 CID V8. FAIR IDLE, GOOD LOW TO MID RANGE TORQUE, POWER RANGE 1700-5200 RPM-HYD.
22210	224	224	291	287	.450	.461	114	114	CLASS II, OEM #3896962 MAY NOT BE COMPUTER COMPATIBLE, REPLACEMENT CAM FOR 1973-80 LT-1 & L-82 CORVETTE. HYD.
22213	214	214	288	288	.443	.443	107	117	CLASS II, MAY NOT BE COMPUTER COMPATIBLE, NOTE: (50 STATES LEGAL) IN CALIFORNIA USE ONLY IN 1987 & OLDER S.B. CHEVY ENG. EQUIPPED WITH CARBURETTED 267-350 CID V8. FAIR IDLE, GOOD LOW TO MID RANGE TORQUE, POWER RANGE 1700-5200 RPM-HYD.
22215	220	220	295	295	.429	.429	108	112	CLASS II, MAY NOT BE COMPUTER COMPATIBLE, NOTE: (50 STATES LEGAL) IN CALIFORNIA USE ONLY IN 1987 & OLDER S.B. CHEVY ENG. EQUIPPED WITH CARBURETTED 267-350 CID V8. POWER RANGE 2000-5000 RPM-HYD.
22230	214	214	287	287	.444	.444	105	115	CLASS II, MAY NOT BE COMPUTER COMPATIBLE, NOTE: (50 STATES LEGAL) IN CALIFORNIA USE ONLY IN 1987 & OLDER S.B. CHEVY ENG. EQUIPPED WITH CARBURETTED 267-350 CID V8. FAIR IDLE, GOOD LOW TO MID RANGE TORQUE, POWER RANGE 1700-5300 RPM-HYD.

CHEVROLET CARS & TRUCKS 262-400 (Continued)

(262 75-76 BORE 3.671) (267 79-82 BORE 3.500) (283 57-67 BORE 3.875) (302 67-87 BORE 4.000) (305 82-87 BORE 3.736) (307 68-73 BORE 3 7/8) (327 62-69 BORE 4.000) (350 67-87 BORE 4.000) (400 70-80 BORE 4.125)

CAMSHAFTS USING HYDRAULIC LIFTERS

Part #	Degrees .050" dur		Degrees ADV. dur		Inches Valve lift		Degrees Lobe cntr		CHARACTERISTICS OF CAMSHAFT
	Int.	Exh.	Int.	Exh.	Int.	Exh.	Int.	Exh.	
22231	218	218	291	291	.455	.455	105	115	CLASS II, MAY NOT BE COMPUTER COMPATIBLE, NOTE: (50 STATES LEGAL) IN CALIFORNIA USE ONLY IN 1987 & OLDER S.B. CHEVY ENG. EQUIPPED WITH CARBURETTED 267-350 CID V8. FAIR IDLE, GOOD LOW TO MID RANGE TORQUE, POWER RANGE 1800-5300 RPM-HYD.
22232	220	231	304	287	.468	.480	106	114	CLASS II, MAY NOT BE COMPUTER COMPATIBLE, NOTE:(50 STATES LEGAL) IN CALIFORNIA USE ONLY IN 1987 & OLDER S.B. CHEVY ENG. EQUIPPED WITH CARBURETTED 267-350 CID V8. FAIR IDLE, GOOD LOW TO MID RANGE TORQUE, POWER RANGE 2000-5700 RPM-HYD.
22233	224	224	300	300	.437	.437	107	109	CLASS II, MAY NOT BE COMPUTER COMPATIBLE, NOTE:(50 STATES LEGAL) IN CALIFORNIA USE ONLY IN 1987 & OLDER S.B. CHEVY ENG. EQUIPPED WITH CARBURETTED 267-350 CID V8. FAIR IDLE, GOOD LOW TO MID RANGE TORQUE, POWER RANGE 2200-5800 RPM-HYD.
22301	230	230	287	287	.480	.480	107	111	CLASS III, MAY NOT BE COMPUTER COMPATIBLE, STREET & STRIP, ROUGH IDLE, USE W/M.T. OR HI STALL AUTO TRANS, LOW VACUUM, POWER RANGE 2500-6000 RPM-HYD.
22303	224	234	298	304	.465	.488	107	117	CLASS III, MAY NOT BE COMPUTER COMPATIBLE, STREET & STRIP, ROUGH IDLE, USE W/M.T. OR HI STALL AUTO TRANS, LOW VACUUM, POWER RANGE 2200-5700 RPM-HYD.
22304	232	234	308	308	.488	.488	106	110	CLASS III, MAY NOT BE COMPUTER COMPATIBLE, STREET & STRIP, ROUGH IDLE, USE W/M.T. OR HI STALL AUTO TRANS, LOW VACUUM, POWER RANGE 2600-6100 RPM-HYD.
22305	234	244	303	316	.488	.509	107	117	CLASS III, MAY NOT BE COMPUTER COMPATIBLE, STREET & STRIP, ROUGH IDLE, USE W/M.T. OR HI STALL AUTO TRANS, LOW VACUUM, POWER RANGE 2700-6200 RPM-HYD.
22320	230	230	304	304	.453	.453	112	116	CLASS III, MAY NOT BE COMPUTER COMPATIBLE, STREET & STRIP, ROUGH IDLE, USE W/M.T. OR HI STALL AUTO TRANS, LOW VACUUM, POWER RANGE 2500-6000 RPM-HYD.
22401	244	254	314	328	.510	.533	107	117	CLASS IV, MAY NOT BE COMPUTER COMPATIBLE, DRAG STRIP ONLY, ROUGH IDLE, LOW VACUUM, USE W/M.T. OR VERY HI AUTO STALL TRANS, MAY NEED IMPROVED CARB & EXHAUST, GOOD MID TO HIGH TORQUE, POWER RANGE 3300-6700 RPM-HYD.
22460	246	246	302	302	.509	.509	106	112	CLASS IV, MAY NOT BE COMPUTER COMPATIBLE, DRAG STRIP ONLY, ROUGH IDLE, LOW VACUUM, USE W/M.T. OR VERY HI AUTO STALL TRANS, MAY NEED IMPROVED CARB & EXHAUST, GOOD MID TO HIGH TORQUE, POWER RANGE 3300-6800 RPM-HYD.

CHEVROLET CARS & TRUCKS 262-400 (Continued)

(262 75-76 BORE 3.671) (267 79-82 BORE 3.500) (283 57-67 BORE 3.875) (302 67-87 BORE 4.000) (305 82-87 BORE 3.736) (307 68-73 BORE 3 7/8) (327 62-69 BORE 4.000) (350 67-87 BORE 4.000) (400 70-80 BORE 4.125)

CAMSHAFTS USING HYDRAULIC LIFTERS

Part #	Degrees .050" dur		Degrees ADV. dur		Inches Valve lift		Degrees Lobe cntr		CHARACTERISTICS OF CAMSHAFT
	Int.	Exh.	Int.	Exh.	Int.	Exh.	Int.	Exh.	
22470	255	266	287	297	.504	.504	99	111	CLASS IV, MAY NOT BE COMPUTER COMPATIBLE, DRAG STRIP ONLY, ROUGH IDLE, LOW VACUUM, USE W/M.T. OR VERY HI AUTO STALL TRANS, MAY NEED IMPROVED CARB & EXHAUST, GOOD MID TO HIGH TORQUE, POWER RANGE 3700-7300 RPM-HYD.
MTC-1	204	214	278	288	.420	.443	107	117	CLASS I TORQUE CAMSHAFT, MAY NOT BE COMPUTER COMPATIBLE, NOTE: (50 STATES LEGAL) IN CALIFORNIA USE ONLY IN 1987 & OLDER S.B. CHEVY ENG. EQUIPPED WITH CARBURETTED 267-350 CID V8. GOOD IDLE, GOOD LOW END TORQUE AND PULLING POWER, POWER RANGE 1000-4500 RPM-HYD.

CAMSHAFT LIFTER KITS USING MECHANICAL LIFTERS

Part #	
32400	KIT INCLUDES 1-22400 CAM, 16-29841 LIFTERS & 4OZ. MELL LUBE CIASS IV.
32410	KIT INCLUDES 1-22410 CAM, 16-29841 LIFTERS & 4OZ. MELL LUBE CIASS IV.
32415	KIT INCLUDES 1-22415 CAM, 16-29841 LIFTERS & 4OZ. MELL LUBE CIASS IV.
32450	KIT INCLUDES 1-22450 CAM, 16-29841 LIFTERS & 4OZ. MELL LUBE CIASS IV.

CAMSHAFT LIFTER KITS USING HYDRAULIC LIFTERS

Part #	
32108	KIT INCLUDES 1-22108 TORQUE CAM, 16-29817 LIFTERS & 4OZ. MELL LUBE. *CLASS I NOTE: (50 STATES LEGAL) IN CALIFORNIA USE ONLY IN 1987 & OLDER S.B. CHEVY ENG. EQUIPPED WITH CARBURETTED 267-350 CID V8.
32109	KIT INCLUDES 1-22109 TORQUE CAM, 16-29817 LIFTERS & 4OZ. MELL LUBE. *CLASS I NOTE: (50 STATES LEGAL) IN CALIFORNIA USE ONLY IN 1987 & OLDER S.B. CHEVY ENG. EQUIPPED WITH CARBURETTED 267-350 CID V8.
32110	KIT INCLUDES 1-22110 TORQUE CAM, 16-29817 LIFTERS & 4OZ. MELL LUBE. *CLASS I NOTE: (50 STATES LEGAL) IN CALIFORNIA USE ONLY IN 1987 & OLDER S.B. CHEVY ENG. EQUIPPED WITH CARBURETTED 267-350 CID V8.
32111	KIT INCLUDES 1-22111 TORQUE CAM, 16-29817 LIFTERS & 4OZ. MELL LUBE. - MAY NOT BE COMPUTER COMPATIBLE *CLASS I NOTE: (50 STATES LEGAL) IN CALIFORNIA USE ONLY IN 1987 & OLDER S.B. CHEVY ENG. EQUIPPED WITH CARBURETTED 267-350 CID V8.
32200	KIT INCLUDES 1-22200 CAM, 16-29817 LIFTERS & 4OZ. MELL LUBE. - MAY NOT BE COMPUTER COMPATIBLE, CLASS II.
32210	KIT INCLUDES 1-22210 CAM, 16-29818 LIFTERS & 4OZ. MELL LUBE. - MAY NOT BE COMPUTER COMPATIBLE, CLASS II.
CL-MTC-1	KIT INCLUDES 1-MTC-1 TORQUE CAM, 16-29817 LIFTERS & 4OZ. MELL LUBE, CLASS I.

MECHANICAL LIFTERS

29840	CHILLED IRON ONLY USE W/STEEL OR HARDENED CAMSHAFTS - MELLING DOES NOT SUPPLY
29841	HARDENABLE IRON - EDGE ORIFICE OILING
29992	SPECIAL DESIGN METERING SYSTEM

CHEVROLET CARS & TRUCKS 262-400 (Continued)

(262 75-76 BORE 3.671) (267 79-82 BORE 3.500) (283 57-67 BORE 3.875) (302 67-87 BORE 4.000) (305 82-87 BORE 3.736) (307 68-73 BORE 3 7/8) (327 62-69 BORE 4.000) (350 67-87 BORE 4.000) (400 70-80 BORE 4.125)

HYDRAULIC LIFTERS

29817	MUST BE USED WITH ADJUSTABLE VALVE TRAIN
29818	

VALVES

45101	HEAD DIA. 1.940 INT.
45102	HEAD DIA. 1.500 EXH.
45103	HEAD DIA. 2.020 INT.
45104	HEAD DIA. 1.600 EXH.

VALVE SPRING USED WITH MECHANICAL LIFTERS

46611	OUTER-USE WITH 22410, 22415, 22400, 22450 CAMS - MACHINING MAY BE REQUIRED
46620	USE WITH 22380 CAM
46627	INNER-USE WITH 22410, 22415, 22400, 22450 CAMS - MACHINING MAY BE REQUIRED
46635	USE WITH 22209 CAM

VALVE SPRING USED WITH HYDRAULIC LIFTERS

46620	USE WITH 22303, 22305 & 22401 CAMS - NOTE: ASM. HEIGHT OF 1.72 - MACHINING MAY BE REQUIRED
46635	USE WITH MTC-1, 22110, 22115, 22200, 22210, 22213, 22203, 22320 & 22301 CAMS - NOTE: ASM. HEIGHT OF 1.72 - MACHINING MAY BE REQUIRED
VS-380	USE WITH 22111, 22107, 22108, 22109, 22114 & 22215 CAMS - NOTE: ASM. HEIGHT OF 1.72

VALVE LOCKS

47610	HARDENED 11/32" STEM
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ROCKER ARMS

49840	LONG SLOT
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ROCKER ARM STUD

MRDS-1920	SCREW-IN SEE CHART FOR DIMENSIONS
MRDS-2920	SCREW-IN SEE CHART FOR DIMENSIONS
MRDS-941	SCREW-IN SEE CHART FOR DIMENSIONS

RETAINERS

47507	CHROME MOLY - USE WITH 46611 & 46627 SPRINGS
47518	CHROME MOLY - USE WITH 46620 & 46635 SPRINGS

CHROME MOLY PUSH RODS

50031	5/16 DIA. STANDARD LENGTH HEAT TREATED FOR GUIDE PLATES - EXC. ROLLER
50061	5/16 DIA. + .100 O/S LENGTH - HEAT TREATED FOR GUIDE PLATES EXC. ROLLER
50067	5/16 DIA. + .100 O/S LENGTH EXC. ROLLER
50100	ONE PIECE 5/16 DIA. STANDARD LENGTH - HEAT TREATED FOR GUIDE PLATES EXC. ROLLER
50101	ONE PIECE 5/16 DIA. + .100 O/S LENGTH - HEAT TREATED FOR GUIDE PLATES EXC. ROLLER
50102	ONE PIECE 5/16 DIA. + .150 O/S LENGTH - HEAT TREATED FOR GUIDE PLATES EXC. ROLLER
50103	ONE PIECE 5/16 DIA. + .200 O/S LENGTH - HEAT TREATED FOR GUIDE PLATES EXC. ROLLER

CHEVROLET CARS & TRUCKS 262-400 (Continued)

(262 75-76 BORE 3.671) (267 79-82 BORE 3.500) (283 57-67 BORE 3.875) (302 67-87 BORE 4.000) (305 82-87 BORE 3.736) (307 68-73 BORE 3 7/8) (327 62-69 BORE 4.000) (350 67-87 BORE 4.000) (400 70-80 BORE 4.125)

3PC SET

40201	INCLUDES ROLLER CHAIN, CAST IRON CAM SPROCKET & MULTIPLE KEYWAY CRANK SPROCKET EXC. STOCK ROLLER CAM ENGINES.
40400	INCLUDES SEAMLESS SOLID ROLLER CHAIN, CAST IRON CAM SPROCKET & MULTIPLE KEYWAY CRANK SPROCKET EXC. STOCK ROLLER CAM ENGINES.

GUIDE PLATES

MGP100	SLOT 5/16" WIDE-MUST BE USED WITH SCREW-IN ROCKER ARM STUDS.
MGP101	SLOT 3/8" WIDE-MUST BE USED WITH SCREW-IN ROCKER ARM STUDS.
MGP102	RAISED SLOT 3/8" WIDE-MUST BE USED WITH SCREW-IN ROCKER ARM STUDS.
MGP103	RAISED SLOT 3/8" WIDE-MUST BE USED WITH SCREW-IN ROCKER ARM STUDS.

CHEVROLET CARS & TRUCKS 396-454 1965-94 8Cyl.

(396 65-70 BORE 4.094) (400 70-71 BORE 4.125) (402 72 BORE 4.125) (427 66-69 BORE 4.250) (454 70-94 BORE 4.250)

OIL PUMPS

Part #	
10770	HI VOLUME PUMP-25% ADD'L VOL OF OIL THAN STOCK PUMP. INCLUDES I/S SHAFT W/STEEL GUIDE, USES STOCK 3/4" PRESS-IN SCREEN
10777	SPECIAL HI VOL PUMP. SHAFTS ARE EXTENDED INTO COVER FOR SUPPORT. RELIEF VALVE SPRING HAS SCREW IN PLUG. THE DRIVE SHAFT AND INTERMEDIATE SHAFT NOW HAVE A MALE/FEMALE HEX CONNECTION. REQUIRES SPECIAL SCREW IN SCREEN.

SCREEN ASSEMBLIES

Part #	
12701*	SCREW IN SCREEN FOR 10777 PUMP ONLY . FITS MOST VEHICLES WITH APPROX. 8" DEEP OIL PANS.
12702	SCREW IN SCREEN FOR 10777 PUMP ONLY . FITS MOST VEHICLES WITH APPROX. 9" DEEP OIL PANS.

*Note: The mesh of the screen should be 3/8" to 1/2" above the oil pan.

CAMSHAFTS USING MECHANICAL LIFTERS

Part #	Degrees .050" dur		Degrees ADV. dur		Inches Valve lift		Degrees Lobe cntr		CHARACTERISTICS OF CAMSHAFT
	Int.	Exh.	Int.	Exh.	Int.	Exh.	Int.	Exh.	
22396	242	242	309	295	.520	.520	108	120	CLASS III OEM #3904362, STREET & STRIP, ROUGH IDLE, USE W/M.T. OR HI STALL AUTO TRANS, LOW VACUUM, POWER RANGE 3200-7200 RPM-MECH.
22407	250	260	294	306	.576	.639	108	116	CLASS IV NOTE: 1965-66 REQUIRES A 3/16" WIDE X 7/16" DEEP GROOVE CUT IN THE REAR BEARING JOURNAL. STREET & STRIP, ROUGH IDLE, USE W/M.T. OR HI STALL AUTO TRANS, LOW VACUUM, POWER RANGE 3500-7500 RPM-MECH.

CHEVROLET CARS & TRUCKS 396-454 (Continued)

(396 65-70 BORE 4.094) (400 70-71 BORE 4.125) (402 72 BORE 4.125) (427 66-69 BORE 4.250) (454 70-94 BORE 4.250)

CAMSHAFTS USING MECHANICAL LIFTERS

Part #	Degrees .050" dur		Degrees ADV. dur		Inches Valve lift		Degrees Lobe cntr		CHARACTERISTICS OF CAMSHAFT
	Int.	Exh.	Int.	Exh.	Int.	Exh.	Int.	Exh.	
22408	268	276	325	325	.649	.670	112	108	CLASS IV NOTE: 1965-66 REQUIRES A 3/16" WIDE X 7/16" DEEP GROOVE CUT IN THE REAR BEARING JOURNAL. PERFORMANCE USAGE, GOOD MIDRANGE / ROUGH IDLE, POWER RANGE 4500-8000 RPM-MECH
22427	264	270	322	320	.559	.580	108	116	CLASS IV NOTE: 1965-66 REQUIRES A 3/16" WIDE X 7/16" DEEP GROOVE CUT IN THE REAR BEARING JOURNAL. DRAG STRIP ONLY, ROUGH IDLE, LOW VACUUM, USE W/M.T. OR VERY HI STALL AUTO TRANS, MAY NEED IMPROVED CARB. & EXH., GOOD MID TO HIGH TORQUE, POWER RANGE 4500-8000 RPM-MECH. L-88-OE #3928911

CAMSHAFTS USING HYDRAULIC LIFTERS

Part #	Degrees .050" dur		Degrees ADV. dur		Inches Valve lift		Degrees Lobe cntr		CHARACTERISTICS OF CAMSHAFT
	Int.	Exh.	Int.	Exh.	Int.	Exh.	Int.	Exh.	
22127	190	202	261	272	.439	.464	106	114	CLASS I, MAY NOT BE COMPUTER COMPATIBLE, STOCK IDLE, GOOD DAILY USAGE, GOOD LOW END TORQUE, POWER RANGE 700-4500 RPM-HYD.
22100	192	203	268	278	.398	.430	107	117	CLASS I - MAY NOT BE COMPUTER COMPATIBLE. STOCK IDLE, GOOD DAILY USAGE, GOOD LOW END TORQUE, POWER RANGE IDLE-4000 RPM-HYD.
22204	214	224	292	302	.502	.527	107	117	CLASS II MAY NOT BE COMPUTER COMPATIBLE. FAIR IDLE, GOOD LOW TO MID-RANGE TORQUE, POWER RANGE 1700-5200 RPM-HYD.
22214	214	214	292	292	.502	.502	109	119	CLASS II MAY NOT BE COMPUTER COMPATIBLE. FAIR IDLE, GOOD LOW TO MID-RANGE TORQUE, POWER RANGE 1700-5200 RPM-HYD.
22296	222	235	306	322	.500	.505	110	120	CLASS II MAY NOT BE COMPUTER COMPATIBLE. STREET & STRIP, ROUGH IDLE, USE W/M.T. OR HI STALL AUTO TRANS, LOW VACUUM, POWER RANGE 2200-5700 RPM-HYD.
22302	230	230	309	309	.513	.513	106	114	CLASS III MAY NOT BE COMPUTER COMPATIBLE. STREET & STRIP, ROUGH IDLE, USE W/M.T. OR HI STALL AUTO TRANS, LOW VACUUM, POWER RANGE 2500-6000 RPM-HYD.
22306	230	230	302	307	.529	.553	110	118	CLASS III MAY NOT BE COMPUTER COMPATIBLE. STREET & STRIP, ROUGH IDLE, USE W/M.T. OR HI STALL AUTO TRANS, LOW VACUUM, POWER RANGE 2500-6000 RPM-HYD.
MTC-6	204	208	288	298	.459	.459	108	116	CLASS I TORQUE CAMSHAFT - MAY NOT BE COMPUTER COMPATIBLE. GOOD IDLE, GOOD LOW END TORQUE AND PULLING POWER, POWER RANGE 1000-4500 RPM HYD.

CHEVROLET CARS & TRUCKS 396-454 (Continued)

(396 65-70 BORE 4.094) (400 70-71 BORE 4.125) (402 72 BORE 4.125) (427 66-69 BORE 4.250) (454 70-94 BORE 4.250)

CAMSHAFT LIFTER KITS USING MECHANICAL LIFTERS

Part #	
32396	KIT INCLUDES 1-22396 CAM, 16-29841 LIFTERS & 4OZ MELL LUBE, CLASS III
32427	KIT INCLUDES 1-22427 CAM, 16-29841 LIFTERS & 4OZ MELL LUBE, CLASS IV

CAMSHAFT LIFTER KITS USING HYDRAULIC LIFTERS

Part #	
32100	KIT INCLUDES 1-22100 TORQUE CAM, 16-29817 LIFTERS & 4OZ MELL LUBE, MAY NOT BE COMPUTER COMPATIBLE CLASS I
CL-MTC-6	KIT INCLUDES 1-MTC-6 TORQUE CAM, 16-29841 LIFTERS & 4OZ MELL LUBE, MAY NOT BE COMPUTER COMPATIBLE CLASS I

MECHANICAL LIFTERS

29840	CHILLED IRON ONLY USE W/STEEL OR HARDFACED CAMSHAFTS - MELLING DOES NOT SUPPLY
29841	HARDENABLE IRON - EDGE ORIFICE OILING
29992	SPECIAL DESIGN METERING SYSTEM

HYDRAULIC LIFTERS

29817	MUST BE USED WITH ADJUSTABLE VALVE TRAIN
29818	MUST BE USED WITH ADJUSTABLE VALVE TRAIN

VALVES

45105	HEAD DIA. 2.190 INT.
45106	HEAD DIA. 1.725 EXH.
45107	HEAD DIA. 2.300 INT.
45108	HEAD DIA. 1.880 EXH.

VALVE SPRING USED WITH MECHANICAL LIFTERS

46615	OUTER - USE WITH 22427 CAM - MACHINING MAY BE REQUIRED
46616	INNER - USE WITH 22427 CAM - MACHINING MAY BE REQUIRED
VS-320	USE WITH 22100, MTC-6 & 22106 CAMS - NOTE: ASM. HEIGHT OF 1.88

VALVE SPRING USED WITH HYDRAULIC LIFTERS

46622	USE WITH 22396 CAM - MACHINING MAY BE REQUIRED
46622	USE WITH 22214, 22204, 22296, 22306, 22302 & 22100 CAMS - NOTE: ASM. HEIGHT OF 1.88 - MACHINING MAY BE REQUIRED.

VALVE LOCKS

47300	HARDENED 3/8" STEM
47610	HARDENED 11/32" STEM

ROCKER ARMS

49868	LONG SLOT
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CHEVROLET CARS & TRUCKS 396-454 (Continued)

(396 65-70 BORE 4.094) (400 70-71 BORE 4.125) (402 72 BORE 4.125) (427 66-69 BORE 4.250) (454 70-94 BORE 4.250)

RETAINERS

47506	CHROME MOLY, USE WITH 46622 SPRING
47508	CHROME MOLY, USE WITH 46615 SPRING

CHROME MOLY PUSH RODS

50015	INT. 3/8 DIA. HEAT TREATED FOR GUIDE PLATES - ALL EXC. 427 ENG.
50016	EXH. DIA. 3/8, LENGTH 9.230 - HEAT TREATED FOR GUIDE PLATES ALL EXC. 427 ENG.
50029	INT. DIA. 7/16 - EXC. 427 ENG.
50030	EXH. DIA. 7/16 - EXC. 427 ENG.
50062	EXH. DIA. 3/8 FOR TRUCK BLOCK - WITH 427 ENG.
50063	EXH. DIA. 3/8 FOR TRUCK BLOCK - WITH 427 ENG.

3PC SET

40205	INCLUDES ROLLER CHAIN, CAST IRON CAM SPROCKET & MULTIPLE KEYWAY CRANK SPROCKET
40401	INCLUDES SEAMLESS SOLID ROLLER CHAIN, CAST IRON CAM SPROCKET & MULTIPLE KEYWAY CRANK SPROCKET

GUIDE PLATES

MGP106	RAISED SLOT 7/16" WIDE - MUST BE USED WITH SCREW-IN ROCKER ARM STUDS
MGP107	RAISED SLOT 3/8" WIDE - MUST BE USED WITH SCREW-IN ROCKER ARM STUDS

CHRYSLER PRODUCTS 273 - 360 1965-91 V8

(273 65-69 BORE 3.625) (340 68-73 BORE 3.40) (318 75-91 BORE 3.910) (360 71-91 BORE 4.000)

OIL PUMPS

Part #	
M-72HV	HI VOLUME PUMP-25% ADD'L VOL OF OIL THAN STOCK PUMP

CAMSHAFTS USING HYDRAULIC LIFTERS

Part #	Degrees .050" dur		Degrees ADV. dur		Inches Valve lift		Degrees Lobe cntr		CHARACTERISTICS OF CAMSHAFT
	Int.	Exh.	Int.	Exh.	Int.	Exh.	Int.	Exh.	
23123	204	204	278	278	.420	.420	106	114	CLASS I MAY NOT BE COMPUTER COMPATIBLE, EXC ROLLER LIFTERS. POWER RANGE 1200-4700 RPM-HYD.
23203	214	224	288	298	.443	.465	107	117	CLASS II MAY NOT BE COMPUTER COMPATIBLE, EXC ROLLER LIFTERS. PERFORMANCE USAGE, OFF ROAD. POWER RANGE 1700-5200 RPM-HYD.
23301	231	231	287	287	.480	.480	107	111	CLASS III MAY NOT BE COMPUTER COMPATIBLE, EXC ROLLER LIFTERS. PERFORMANCE USAGE, GOOD MID RANGE, MILD BRACKET RACING, POWER RANGE 1700-5200 RPM-HYD.
23101 MTD-1	204	214	278	288	.420	.443	107	117	CLASS I TORQUE CAMSHAFT. MAY NOT BE COMPUTER COMPATIBLE, EXC ROLLER LIFTERS. GOOD DAILY USAGE, ECONOMY, LIGHT TOWING POWER RANGE 1200-4700 RPM-HYD.

CHRYSLER PRODUCTS 273 - 360 (Continued)

(273 65-69 BORE 3.625) (340 68-73 BORE 3.40) (318 75-91 BORE 3.910) (360 71-91 BORE 4.000)

CAMSHAFT LIFTER KITS USING HYDRAULIC LIFTERS

Part #	
CL-MTD-1	KIT INCLUDES 1-MTD-1 TORQUE CAM, 16-29011 LIFTERS & 4OZ. MELL LUBE - MAY NOT BE COMPUTER COMPATIBLE, CIASS I EXC ROLLER LIFTERS.

MECHANICAL LIFTERS

29937	
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HYDRAULIC LIFTERS

29011	
29012	MUST BE USED WITH ADJUSTABLE VALVE TRAIN

CHROME MOLY PUSH RODS

50022	1965-1967 273 WITH MECH. LIFTERS
50059	1968-1969 HEAT TREATED 273 WITH HYD. LIFTERS
50059	1968-1973 HEAT TREATED 340 WITH HYD. LIFTERS EXC W/3-2BC
50059	1971-1988 HEAT TREATED 360 WITH HYD. LIFTERS
50059	1968-1989 HEAT TREATED 318 EXC ROLLER LIFTERS

VALVE SPRING USED WITH HYDRAULIC LIFTERS

46643	USE WITH MTD-1, 23301, 23203 & 23123 CAMS - MACHINING MAY BE REQUIRED
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RETAINERS

47514	CHROME MOLY - USE WITH 46643 SPRINGS
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VALVE LOCKS

47100	INT.
47400	EXH.

3PC SET

40202	INCLUDES ROLLER CHAIN, CAST IRON CAM SPROCKET & MULTIPLE KEYWAY CRANK SPROCKET
40406	INCLUDES SEAMLESS SOLID ROLLER CHAIN, CAST IRON CAM SPROCKET & MULTIPLE KEYWAY CRANK SPROCKET

CHRYSLER PRODUCTS 361 - 440 1959-78 V8

(361 61-64 BORE 4.125) (383 59-71 BORE 4.250) (400 72-78 BORE 4.342) (413 59-65 BORE 4.1876) (426 WEDGE 63-64 BORE 4.250) (440 66-78 BORE 4.320)

OIL PUMPS

Part #	
M-63HP	HI PRESSURE
M-63HV	HI VOL PUMP-25% ADD'L VOL OF OIL THAN STOCK PUMP.

CAMSHAFTS USING HYDRAULIC LIFTERS

Part #	Degrees .050" dur		Degrees ADV. dur		Inches Valve lift		Degrees Lobe cntr		CHARACTERISTICS OF CAMSHAFT
	Int.	Exh.	Int.	Exh.	Int.	Exh.	Int.	Exh.	
23204	214	224	288	298	.443	.465	107	117	CLASS II SINGLE BOLT CAM, PERFORMANCE USAGE, OFF ROAD. POWER RANGE 1700-5200 RPM HYD.

CHRYSLER PRODUCTS 361 - 440 (Continued)

(361 61-64 BORE 4.125) (383 59-71 BORE 4.250) (400 72-78 BORE 4.342) (413 59-65 BORE 4.1876) (426 WEDGE 63-64 BORE 4.250) (440 66-78 BORE 4.320)

CAMSHAFTS USING HYDRAULIC LIFTERS

Part #	Degrees .050" dur		Degrees ADV. dur		Inches Valve lift		Degrees Lobe cntr		CHARACTERISTICS OF CAMSHAFT
	Int.	Exh.	Int.	Exh.	Int.	Exh.	Int.	Exh.	
23204	214	224	288	298	.443	.465	107	117	CLASS II SINGLE BOLT CAM, PERFORMANCE USAGE, OFF ROAD. POWER RANGE 1700-5200 RPM HYD.
23302	230	230	300	300	.480	.480	107	111	CLASS III SINGLE BOLT CAM, PERFORMANCE USAGE, MILD BRACKET RACING, FAIR IDLE, POWER RANGE 2500-6000 RPM-HYD.
23401	242	252	312	320	.520	.550	108	110	CLASS IV SINGLE BOLT CAM, PERFORMANCE USAGE, GOOD MID RANGE, BRACKET RACING, POWER RANGE 3200-6700 RPM-HYD.
MTD-2 23102	204	214	278	288	.420	.443	107	117	CLASS I TORQUE CAMSHAFT - SINGLE BOLT CAM, GOOD DAILY USAGE, LIGHT TOWING, GOOD IDLE, POWER RANGE 1200-4700 RPM-HYD.

CAMSHAFT LIFTER KITS USING HYDRAULIC LIFTERS

Part #	
33103	1959-1967 KIT INCLUDES 1-23102 TORQUE CAM, 16-29812 LIFTERS & 4OZ. MELL LUBE - CLASS I SINGLE BOLT CAM
CL-MTD-2	1968-1970 KIT INCLUDES 1-MTD-2 TORQUE CAM, 16-29976 LIFTERS & 4OZ. MELL LUBE - CLASS I SINGLE BOLT CAM

MECHANICAL LIFTERS

29937

HYDRAULIC LIFTERS

29812	1959-1967
29976	1968-1978

CHROME MOLY PUSH RODS

50019	426 WEDGE 1963 MAX WEDGE ONLY - USE W/MECH. LIFTERS
50047	426 WEDGE - USE W/MECH. LIFTERS
50038	1961-1971 383 ENG. LOW BLOCK ENG. - USE W/MECH. LIFTERS
50033	1968-1978 440 ENG. USE W/HYD. LIFTERS - EXC. 440 RAISED WEDGE ENG
50035	1968-1978 440 ENG. USE W/MECH. LIFTERS - EXC. 440 RAISED WEDGE ENG
50047	1968-1978 440 ENG. USE W/MECH. LIFTERS - W/440 RAISED WEDGE ENG
50054	1968-1978 440 ENG. USE W/HYD. LIFTERS W/440 RAISED WEDGE ENG.

VALVE SPRING USED WITH MECHANICAL LIFTERS

46615	OUTER - USE WITH STOCK CAMS - MACHINING MAY BE REQUIRED
46616	INNER - USE WITH STOCK CAMS - MACHINING MY BE REQUIRED

VALVE SPRING USED WITH HYDRAULIC LIFTERS

46622	USE WITH 23302 & 23204 CAMS - NOTE ASM. HEIGHT OF 1.80 - MACHINING MAY BE REQUIRED
46643	USE WITH MTD-2 CAM - NOTE ASM. HEIGHT OF 1.80 - MACHINING MAY BE REQUIRED

RETAINERS

47509	CHROME MOLY - USE WITH 46615 & 46622 SPRINGS
47514	CHROME MOLY - USE WITH 46643 SPRINGS

CHRYSLER PRODUCTS 426 HEMI 1966-71 V8

(BORE 4.250)

OIL PUMPS

Part #	
M-63HP	HI PRESSURE
M-63HV	HI VOL PUMP-25% ADD'L VOL OF OIL THAN STOCK PUMP.

CHROME MOLY PUSH RODS

50036	1970-1970 INT.
50037	1970-1971 EXH.

3PC SET

40217	INCLUDES ROLLER CHAIN, CAST IRON CAM SPROCKET & MULTIPLE KEYWAY CRANK SPROCKET
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FORD PRODUCTS & TRUCKS 260,289,302 V8

(260 62-65 BORE 3.800) (289 63-68 BORE 4.000) (302 68-94 BORE 4.000)

OIL PUMPS

Part #	
10688	HI VOLUME PUMP-25% ADD'L VOL OF OIL THAN STOCK PUMP. BLACK MANGANESE PHOSPHATE COATED, ROTOR SHAFT EXTENDED INTO BOTTOM COVER FOR SUPPORT, RELIEF VALVE SPRING HAS SCREW IN PLUG, INCLUDES HEAT TREATED DRIVE SHAFT, PUMP MOUNTING GASKET & SCREEN MOUNTING GASKET. USES STOCK SCREEN ASSY. MAY REQUIRE MINOR OIL PAN MODIFICATIONS FOR CLEARANCE
10687	SAME AS 10688 EXC. THIS PUMP IS STD. VOLUME

CAMSHAFTS USING MECHANICAL LIFTERS

Part #	Degrees .050" dur		Degrees ADV. dur		Inches Valve lift		Degrees Lobe cntr		CHARACTERISTICS OF CAMSHAFT
	Int.	Exh.	Int.	Exh.	Int.	Exh.	Int.	Exh.	
24409	251	252	299	300	.528	.528	102	112	1968-85 CLASS IV PERFORMANCE USAGE, GOOD MID RANGE, BRACKET & OVAL RACING, USE W/M.T. OR HI STALL AUTOMATIC TRANSMISSION, LOW VACUUM, POWER RANGE 3500-7500 RPM-MECH.

CAMSHAFTS USING HYDRAULIC LIFTERS

Part #	Degrees .050" dur		Degrees ADV. dur		Inches Valve lift		Degrees Lobe cntr		CHARACTERISTICS OF CAMSHAFT
	Int.	Exh.	Int.	Exh.	Int.	Exh.	Int.	Exh.	
24108	190	202	258	273	.413	.437	106	114	1962-85 CLASS I GOOD LOW END TORQUE AND PULLING POWER, POWER RANGE 1000-4500 RPM-HYD. DO NOT USE WITH 302 H/O ENG. & ROLLER LIFTERS
24203	214	224	290	300	.472	.496	107	117	1962-85 CLASS II FAIR IDLE, GOOD LOW TO MID RANGE TORQUE, POWER RANGE 1700-5200 RPM-HYD. IF USING THIS CAM IN 302 H.O. ENG., USE FIRING ORDER (15426378)

FORD PRODUCTS & TRUCKS 260,289,302 (Continued)

(260 62-65 BORE 3.800) (289 63-68 BORE 4.000) (302 68-94 BORE 4.000)

CAMSHAFTS USING HYDRAULIC LIFTERS

Part #	Degrees .050" dur		Degrees ADV. dur		Inches Valve lift		Degrees Lobe cntr		CHARACTERISTICS OF CAMSHAFT
	Int.	Exh.	Int.	Exh.	Int.	Exh.	Int.	Exh.	
24210	224	234	300	305	.498	.520	107	117	CLASS II 260, 289 ENG. ONLY. STREET & STRIP, ROUGH IDLE, USE W/M.T. OR HI STALL AUTO TRANS, LOW VACCUM, POWER RANGE 2200-5700 RPM-HYD.
24212	218	218	298	298	.461	.461	107	119	1962-85 CLASS II, GOOD LOW TO MID RANGE TORQUE, POWER RANGE 1700-5200 RPM-HYD. IF USING THIS CAM IN 302 H.O. ENG., USE FIRING ORDER (15426378).
24301	230	230	288	288	.512	.512	107	111	1962-85 CLASS III, FAIR IDLE, GOOD LOW TO MID RANGE TORQUE, POWER RANGE 2500-6000 RPM-HYD. IF USING THIS CAM IN 302 H.O. ENG., USE FIRING ORDER (15426378).
MTF-1 24101	204	214	280	290	.448	.472	107	117	1962-85 CLASS I, TORQUE CAMSHAFT, GOOD IDLE, GOOD LOW END TORQUE AND PULLING POWER, POWER RANGE 1000-4500 RPM-HYD. DO NOT USE WITH 302 H.O. ENG.
MTF-5 24105	204	214	280	290	.448	.472	107	117	1962-85 CLASS I TORQUE CAMSHAFT, GOOD LOW END TORQUE AND PULLING POWER, POWER RANGE 1000-4500 RPM-HYD. USE WITH 302 H.O. ENG.

CAMSHAFT LIFTER KITS USING HYDRAULIC LIFTERS

Part #	
CL-MTF-1	1962-1985 KIT INCLUDES 1-MTF-1 TORQUE CAM, 16-29900 LIFTERS & 4OZ. MELL LUBE - EXC. 302 H.O. ENG.
CL-MTF-5	1962-1985 KIT INCLUDES 1-MTF-5 TORQUE CAM, 16-29900 LIFTERS & 4OZ. MELL LUBE - USE WITH 302 H.O. ENG.

MECHANICAL LIFTERS

29914	1962-1968
29200	1969-1985

HYDRAULIC LIFTERS

29900	1962-1992 EXC. ROLLER
29901	1962-1992 MUST BE USED WITH ADJUSTABLE VALVE TRAIN, EXC. ROLLER

VALVES

45109	HEAD DIA. 1.880 INT.
45110	HEAD DIA. 1.450 EXH.
45111	HEAD DIA. 1.940 INT.
45112	HEAD DIA. 1.600 EXH. - USE ONLY WITH STAMPED NON-RAIL ROCKER ARMS

VALVE SPRING USED WITH MECHANICAL LIFTERS

46611	OUTER - USE WITH 24409 CAM - MACHINING MAY BE REQUIRED
46627	INNER - USE WITH 24409 CAM - MACHINING MY BE REQUIRED

FORD PRODUCTS & TRUCKS 260,289,302 (Continued)

(260 62-65 BORE 3.800) (289 63-68 BORE 4.000) (302 68-94 BORE 4.000)

VALVE SPRING USED WITH HYDRAULIC LIFTERS

46612	INNER-USE WITH 24210, 24212, 24301, 24203 & MTF-1 CAMS - NOTE ASM. HEIGHT OF 1.80 - MACHINING MAY BE REQUIRED
46613	OUTER-USE WITH 24210, 24212, 24301, 24203 & MTF-1 CAMS - NOTE ASM. HEIGHT OF 1.80 - MACHINING MAY BE REQUIRED
46644	USE WITH 24210, 24212, 24301, 24203, MTF-1 & MTF-5 CAMS - NOTE ASM. HEIGHT OF 1.80 - MACHINING MAY BE REQUIRED

VALVE LOCKS

47200	
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RETAINERS

47505	CHROME MOLY - USE WITH 46613 SPRINGS
47507	CHROME MOLY - USE WITH 46611 SPRINGS

CHROME MOLY PUSH RODS

50058	HEAT TREATED 260, 289 ENG. ALL
50058	1968-1969 HEAT TREATED 302 ENG. TO CHANGE L-4
50041	1969-1970 302 BOSS ENG. HEAT TREATED
50044	1971-1972 302 BOSS ENG. HEAT TREATED
50040	1969-1985 HEAT TREATED 1

3PC SET

40206	SET INCLUDES ROLLER CHAIN, CAST IRON CAM SPROCKET & 3 KEYWAY CRANK SPROCKET, NOT FOR USE WITH ROLLER CAMS
40402	NOTE: DO NOT USE TWO PIECE FUEL PUMP ECCENTRIC WITH 40202 SET. IF ENGINE HAS TWO PIECE ECCENTRIC DISCARD & USE ONE PIECE ECCENTRIC FORD PT #C3AZ6287B. INCLUDES SEAMLESS SOLID ROLLER CHAIN, CAST IRON CAM SPROCKET & 3 KEYWAY CRANK SPROCKET, NOT FOR USE WITH ROLLER CAMS

GUIDE PLATES

MGP108	FLAT - 5/16" THICK - MUST BE USED WITH SCREW - IN ROCKER ARM STUDS
MGP109	FLAT - 3/8" THICK - MUST BE USED WITH SCREW - IN ROCKER ARM STUDS

FORD PRODUCTS & TRUCKS 351 WINDSOR 1969-94 V8

(BORE 4.000)

OIL PUMPS

Part #	
10832	THIS PUMP IS STD. VOLUME EXCEPT HAS SHAFTS EXTENDED INTO BOTTOM COVER FOR SUPPORT & RELIEF VALVE CUP PLUG HAS BEEN REPLACED BY SCREW IN PLUG. INCLUDES I/S SHAFT. MAY REQUIRE MINOR OIL PAN MODIFICATIONS FOR CLEARANCE
10833	HI VOL PUMP-25% ADD'L VOL OF OIL THAN STOCK PUMP EXCEPT HAS SHAFTS EXTENDED INTO BOTTOM COVER FOR SUPPORT & RELIEF VALVE CUP PLUG HAS BEEN REPLACED BY SCREW IN PLUG. INCLUDES I/S SHAFT. MAY REQUIRE MINOR OIL PAN MODIFICATIONS FOR CLEARANCE.

CAMSHAFTS USING HYDRAULIC LIFTERS

Part #	Degrees .050" dur		Degrees ADV. dur		Inches Valve lift		Degrees Lobe cntr		CHARACTERISTICS OF CAMSHAFT
	Int.	Exh.	Int.	Exh.	Int.	Exh.	Int.	Exh.	
24108	190	202	258	273	.413	.437	106	114	1962-85 CLASS I MAY NOT BE COMPUTER COMPATIBLE, GOOD LOW END TORQUE AND PULLING POWER, POWER RANGE 1000-4500 RPM-HYD. USE 302 FIRING ORDER 15426378

FORD PRODUCTS & TRUCKS 351 WINDSOR (Continued)

(BORE 4.000)

CAMSHAFTS USING HYDRAULIC LIFTERS

Part #	Degrees .050" dur		Degrees ADV. dur		Inches Valve lift		Degrees Lobe cntr		CHARACTERISTICS OF CAMSHAFT
	Int.	Exh.	Int.	Exh.	Int.	Exh.	Int.	Exh.	
24225	218	218	298	298	.461	.461	107	119	CLASS II MAY NOT BE COMPUTER COMPATIBLE, PERFORMANCE USAGE, OFF ROAD, SMOOTH IDLE, GOOD LOW TO MID RANGE TORQUE, POWER RANGE 1700-5200 RPM-HYD.
24211	224	234	298	304	.496	.520	107	117	CLASS II MAY NOT BE COMPUTER COMPATIBLE, STREET & STRIP, ROUGH IDLE, USE W/M.T. OR HI STALL AUTO TRANS, LOW VACCUM, POWER RANGE 2200-5700 RPM-HYD.
MTF-5 24105	204	214	280	290	.448	.472	107	117	1962-85 CLASS I TORQUE CAMSHAFT - MAY NOT BE COMPUTER COMPATIBLE, ECONOMY, GOOD IDLE, GOOD LOW END TORQUE AND PULLING POWER, POWER RANGE 1000-4500 RPM-HYD.

CAMSHAFT LIFTER KITS USING HYDRAULIC LIFTERS

Part #	
34211	KIT INCLUDES 24211 CAM, 16-29900 LIFTERS & 4OZ. MELL LUBE - MAY NOT BE COMPUTER COMPATIBLE
CL-MTF-5	KIT INCLUDES 1-MTF-5 TORQUE CAM, 16-29900 LIFTERS & 4OZ. MELL LUBE - CLASS I MAY NOT BE COMPUTER COMPATIBLE

MECHANICAL LIFTERS

29200	

HYDRAULIC LIFTERS

29900	
29901	MUST BE USED WITH ADJUSTABLE VALVE TRAIN

VALVES

45109	HEAD DIA. 1.880 INT.
45110	HEAD DIA. 1.450 EXH.
45111	HEAD DIA. 1.940 INT.
45112	HEAD DIA. 1.600 EXH.
45115	HEAD DIA. 1.780 INT.

VALVE SPRING USED WITH HYDRAULIC LIFTERS

46617	USE WITH 24225 & MTF-5 CAMS - MACHINING MAY BE REQUIRED
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VALVE LOCKS

47610	HARDENED
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RETAINERS

47505	CHROME MOLY - USE WITH 46617 SPRINGS
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CHROME MOLY PUSH RODS

50039	1969-1978 USE WITH CAST IRON ROCKER ARMS - HEAT TREATED
50066	1979-1994 USE W/STAMPED STEEL ROCKER ARMS - HEAT TREATED

FORD PRODUCTS & TRUCKS 351 WINDSOR (Continued)

(BORE 4.000)

3PC SET

40206	SET INCLUDES ROLLER CHAIN, CAST IRON CAM SPROCKET & 3 KEYWAY CRANK SPROCKET, NOT FOR USE WITH ROLLER CAMS
40402	NOTE: DO NOT USE TWO PIECE FUEL PUMP ECCENTRIC WITH 40202 SET. IF ENGINE HAS TWO PIECE ECCENTRIC DISCARD & USE ONE PIECE ECCENTRIC FORD PT #C3AZ6287B. INCLUDES SEAMLESS SOLID ROLLER CHAIN, CAST IRON CAM SPROCKET & 3 KEYWAY CRANK SPROCKET, NOT FOR USE WITH ROLLER CAMS

GUIDE PLATES

MGP108	FLAT - 5/16" THICK - MUST BE USED WITH SCREW - IN ROCKER ARM STUDS
MGP109	FLAT - 3/8" THICK - MUST BE USED WITH SCREW - IN ROCKER ARM STUDS

FORD PRODUCTS & TRUCKS 351-400 1970-82 V8

(351C 1970-74 BORE 4.000) (351M 1975-81 BORE 4.000) (400 1971-82 BORE 4.00)

OIL PUMPS

Part #	
M-84AHV	HI VOL PUMP-25% ADD'L VOL OF OIL THAN STOCK PUMP

CAMSHAFTS USING MECHANICAL LIFTERS

Part #	Degrees .050" dur		Degrees ADV. dur		Inches Valve lift		Degrees Lobe cntr		CHARACTERISTICS OF CAMSHAFT
	Int.	Exh.	Int.	Exh.	Int.	Exh.	Int.	Exh.	
24401	244	254	290	300	.569	.590	104	108	1968-85 CLASS IV PERFORMANCE USAGE, MAY NOT BE COMPUTER COMPATIBLE GOOD MID RANGE, ROUGH IDLE, POWER RANGE 3500-6700 RPM-MECH.

CAMSHAFTS USING HYDRAULIC LIFTERS

Part #	Degrees .050" dur		Degrees ADV. dur		Inches Valve lift		Degrees Lobe cntr		CHARACTERISTICS OF CAMSHAFT
	Int.	Exh.	Int.	Exh.	Int.	Exh.	Int.	Exh.	
24111	208	208	284	284	.484	.484	107	115	CLASS I, GOOD DAILY USAGE, ECONOMY, LIGHT TOWING, SMOOTH IDLE, POWER RANGE 1300-4800 RPM-HYD.
24204	214	224	292	302	.510	.536	107	117	CLASS II DAILY USAGE, OFF ROAD USAGE, MILD BRACKET RACING, POWER RANGE 1700-5200 RPM-HYD.
24224	219	219	308	308	.505	.505	108	120	CLASS II PERFORMANCE USAGE, OFF ROAD, BRACKET RACING, POWER RANGE 1900-5400 RPM-HYD.
24303	224	234	307	307	.538	.562	107	117	CLASS III PERFORMANCE USAGE, GOOD MID RANGE, POWER RANGE 2200-5700 RPM-HYD.
24102 MTF-2	204	214	282	292	.484	.510	107	117	CLASS I TORQUE CAMSHAFT, GOOD DAILY USAGE, ECONOMY, LIGHT TOWING, SMOOTH IDLE, POWER RANGE 1200-4700 RPM-HYD.

CAMSHAFT LIFTER KITS USING HYDRAULIC LIFTERS

Part #	
CL-MTF-2	KIT INCLUDES 1-MTF-2 TORQUE CAM, 16-29900 LIFTERS & 4OZ. MELL LUBE - CLASS I

FORD PRODUCTS & TRUCKS 351-400 (Continued)

(351C 70-74 BORE 4.000) (351M 75-81 BORE 4.000) (400 71-82 BORE 4.00)

MECHANICAL LIFTERS

29200

HYDRAULIC LIFTERS

29900

29901 MUST BE USED WITH ADJUSTABLE VALVE TRAIN

VALVES

45113 HEAD DIA. 2.190 351C ENG. INT.

45114 HEAD DIA. 1.725 351C ENG. EXH.

VALVE SPRING USED WITH MECHANICAL LIFTERS

46615 OUTER - USE WITH 24401 CAM - MACHINING MAY BE REQUIRED

46616 INNER - USE WITH 24401 CAM - MACHINING MAY BE REQUIRED

VALVE SPRING USED WITH HYDRAULIC LIFTERS

46617 USE WITH 24225 & MTF-5 CAMS - MACHINING MAY BE REQUIRED

VALVE LOCKS

47610 HARDENED 351C, 351M ENG.

47200 1978-1979 400 ENG. - EXH ONLY

47670 1978-1979 400 ENG. - EXC. EXH

RETAINERS

47505 351M, 400 ENG. - 1978 EXH. & 1979 ALL CHROME MOLY USE WITH 46115 & 46620 SPRINGS

47506 351M, 400 ENG. - 1975-77 ALL & 1978 INTAKE CHROME MOLY USE WITH 46615 & 46620 SPRINGS

47511 CHROME MOLY - USE WITH 46622 SPRINGS 351C ENG.

CHROME MOLY PUSH RODS

50042 351C ENG. EXC. BOSS - HEAT TREATED

50043 351C BOSS ENG. HEAT TREATED

3PC SET

40405 INCLUDES SEAMLESS SOLID ROLLER CHAIN, CAST IRON CAM SPROCKET & MULTIPLE KEYWAY CRANK SPROCKET

GUIDE PLATES

MGP110 RAISED - 3/8" THICK - MUST BE USED WITH SCREW - IN ROCKER ARM STUDS 351C, 351M, 302 BOSS

MGP111 RAISED - 3/8" THICK - MUST BE USED WITH SCREW - IN ROCKER ARM STUDS 351C, 351M, 302 BOSS

FORD PRODUCTS & TRUCKS 352-428 1958-76 V8

(352 58-66 BORE 4.000) (360 68-76 BORE 4.050) (390 61-71 BORE 4.050) (406 62-63 BORE 4.130) (427 63-68 BORE 4.233) (428 66-70 BORE 4.130)

OIL PUMPS

Part #

M-57HP 406, 427 ENG

FORD PRODUCTS & TRUCKS 352-428 (Continued)

(352 58-66 BORE 4.000) (360 68-76 BORE 4.050) (390 61-71 BORE 4.050) (406 62-63 BORE 4.130) (427 63-68 BORE 4.233) (428 66-70 BORE 4.130)

OIL PUMPS

Part #	
M-57HV	HI VOL PUMP-25% ADD'L VOL OF OIL THAN STOCK PUMP, 428 ENG. EXC. COBRA JET & SUPER COBRA JET
M-57HV	HI VOL PUMP-25% ADD'L VOL OF OIL THAN STOCK PUMP, 352, 360, 390 ENG
M-57B	1968-1970 428 ENG. - COBRA JET & SUPER COBRA JET

CAMSHAFTS USING HYDRAULIC LIFTERS

Part #	Degrees .050" dur		Degrees ADV. dur		Inches Valve lift		Degrees Lobe cntr		CHARACTERISTICS OF CAMSHAFT
	Int.	Exh.	Int.	Exh.	Int.	Exh.	Int.	Exh.	
24205	214	224	292	302	.510	.536	107	117	CLASS II DAILY USAGE, OFF ROAD USAGE, MILD BRACKET RACING, POWER RANGE 1700-5200 RPM-HYD.
24218	223	223	307	307	.514	.514	110	114	CLASS II DAILY USAGE, OFF ROAD USAGE, GOOD MID RANGE, POWER RANGE 2200-5700 RPM-HYD.
24302	230	230	304	304	.554	.554	107	111	CLASS III PERFORMANCE USAGE, GOOD MID RANGE, BRACKET & OVAL RACING, POWER RANGE 2500-6000 RPM-HYD.
24104 MTF-4	204	214	282	292	.484	.510	107	117	CLASS I TORQUE CAMSHAFT, GOOD DAILY USAGE, ECONOMY, LIGHT TOWING, SMOOTH IDLE, POWER RANGE 1200-4700 RPM-HYD.

CAMSHAFT LIFTER KITS USING HYDRAULIC LIFTERS

Part #	
CL-MTF-4	KIT INCLUDES 1-MTF-4 TORQUE CAM, 16-29083 LIFTERS & 4OZ. MELL LUBE - CLASS I

MECHANICAL LIFTERS

29872	
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HYDRAULIC LIFTERS

29082	HI PERF-MUST BE USED WITH ADJUSTABLE VALVE TRAIN
29083	

VALVE SPRING USED WITH HYDRAULIC LIFTERS

46622	USE WITH 24205, 24218, 24302 & MTF-4 CAMS - MACHINING MAY BE REQUIRED
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VALVE LOCKS

47300	HARDENED
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RETAINERS

47508	CHROME MOLY - USE WITH 46615 & 46622 SPRINGS
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CHROME MOLY PUSH RODS

50006	352, 360, 390 ENG. W/MECH. LIFTERS - SPEC. 4/BC OR 6/BC
50006	406, 427, 428 ENG. W/MECH. LIFTERS
50007	352, 360, 390, 406, 427, 428 ENG. W/DEEP SHELL TYPE-MECH. LIFTERS
50010	390, 428 ENG. 1961-1/15/68 W/HYD. LIFTERS
50010	427 ENG. 1963-67 W/HYD. LIFTERS

FORD PRODUCTS & TRUCKS 352-428 (Continued)

(352 58-66 BORE 4.000) (360 68-76 BORE 4.050) (390 61-71 BORE 4.050) (406 62-63 BORE 4.130) (427 63-68 BORE 4.233) (428 66-70 BORE 4.130)

3PC SET

40204	1963-1973 INCLUDES ROLLER CHAIN, CAST IRON CAM SPROCKET & MULTIPLE KEYWAY CRANK SPROCKET
40410	1963-1973 INCLUDES SEAMLESS SOLID ROLLER CHAIN, CAST IRON CAM SPROCKET & MULTIPLE KEYWAY CRANK SPROCKET

FORD PRODUCTS & TRUCKS 429-460 1968-92 V8

(429 68-73 BORE 4.360) (460 72-92 BORE 4.360)

OIL PUMPS

Part #	
M-84BHV	HI VOLUME PUMP-25% ADD'L VOL OF OIL THAN STOCK PUMP. USE WITH OIL PAN DEPTH OF 8 1/4" MAY REQUIRE MODIFICATION OF THE OIL PAN. INCLUDES BOLT ON PICKUP SCREEN EXC. TRUCK
M-84EHV	HI VOLUME PUMP-25% ADD'L VOL OF OIL THAN COBRA JET & SUPER COBRA JET PUMP. USE WITH OIL PAN DEPTH OF 8 5/8" MAY REQUIRE MODIFICATION OF THE OIL PAN. INCLUDES BOLT ON PICKUP SCREEN EXC. TRUCK

CAMSHAFTS USING MECHANICAL LIFTERS

Part #	Degrees .050" dur		Degrees ADV. dur		Inches Valve lift		Degrees Lobe cntr		CHARACTERISTICS OF CAMSHAFT
	Int.	Exh.	Int.	Exh.	Int.	Exh.	Int.	Exh.	
24406	214	224	293	303	.518	.544	107	117	CLASS II DAILY USAGE, OFF-ROAD USAGE, MILD BRACKET RACING, POWER RANGE 1700-5200 RPM-MECH.

CAMSHAFTS USING HYDRAULIC LIFTERS

Part #	Degrees .050" dur		Degrees ADV. dur		Inches Valve lift		Degrees Lobe cntr		CHARACTERISTICS OF CAMSHAFT
	Int.	Exh.	Int.	Exh.	Int.	Exh.	Int.	Exh.	
24206	214	224	293	303	.518	.544	107	117	CLASS II MAY NOT BE COMPUTER COMPATIBLE, DAILY USAGE, OFF-ROAD USAGE, MILD BRACKET RACING POWER RANGE 1700-5200 RPM-HYD.
24207	224	234	303	308	.544	.569	107	117	CLASS II MAY NOT BE COMPUTER COMPATIBLE, PERFORMANCE USAGE, GOOD MID RANGE, POWER RANGE 2400-5700 RPM-HYD.
MTF-3 24103	204	214	282	292	.490	.516	107	117	CLASS I TORQUE CAMSHAFT, MAY NOT BE COMPUTER COMPATIBLE, GOOD DAILY USAGE, ECONOMY, LIGHT TOWING, MILD BRACKET RACING, POWER RANGE 1200-4700 RPM-HYD.

CAMSHAFT LIFTER KITS USING HYDRAULIC LIFTERS

Part #	
34206	KIT INCLUDES 1-24206 CAM, 16-29900 LIFTERS & 4OZ. MELL LUBE - MAY NOT BE COMPUTER COMPATIBLE CLASS II
CL-MTF-3	KIT INCLUDES 1-MTF-3 TORQUE CAM, 16-29900 LIFTERS & 4OZ. MELL LUBE - MAY NOT BE COMPUTER COMPATIBLE CLASS I

FORD PRODUCTS & TRUCKS 429-460 (Continued)

(429 68-73 BORE 4.360) (460 72-92 BORE 4.360)

MECHANICAL LIFTERS

29200

HYDRAULIC LIFTERS

29900 MUST BE USED WITH ADJUSTABLE VALVE TRAIN

29901

VALVES

45119 HEAD DIA. 2.250 INT.

45120 HEAD DIA. 1.725 EXH.

3PC SET

40403 INCLUDES SEAMLESS SOLID ROLLER CHAIN, CAST IRON CAM SPROCKET & MULTIPLE KEYWAY CRANK SPROCKET

GUIDE PLATES

MGP112 RAISED - 3/8" THICK - MUST BE USED WITH SCREW - IN ROCKER ARM STUDS

MGP113 RAISED - 5/16" THICK - MUST BE USED WITH SCREW - IN ROCKER ARM STUDS

OLDSMOBILE 260-455 1965-88 V8

(260 75-82 BORE 3.500) (307 80-88 BORE 3.500) (350 68-80 BORE 4.057) (400 65-69 BORE 4.000) (403 77-79 BORE 4.350) (425 65-67 BORE 4.125) (455 68-75 BORE 4.125)

OIL PUMPS

Part #

M-22FHV HI VOL PUMP-25% ADD'L VOL OF OIL THAN STOCK PUMP. NOTE: THIS HI VOL PUMP IS MANUFACTURED W/BOLT ON TYPE FLANGE AND A CHAMFERED HOLE. EITHER A BOLT ON OR PRESS ON SCREEN CAN BE USED

CAMSHAFTS USING HYDRAULIC LIFTERS

Part #	Degrees .050" dur		Degrees ADV. dur		Inches Valve lift		Degrees Lobe cntr		CHARACTERISTICS OF CAMSHAFT
	Int.	Exh.	Int.	Exh.	Int.	Exh.	Int.	Exh.	
25211	214	224	290	300	.472	.496	107	117	1967-1984 CLASS II PERFORMANCE USAGE, MILD BRACKET RACING, POWER RANGE 1700-5200 RPM-HYD.
25309 ROC-9	244	244	314	314	.475	.475	110	110	1967-1984 CLASS III PERFORMANCE USAGE, MILD BRACKET RACING, GOOD MID RANGE, 1966-70 400 & 455 W/W-30-402569 POWER RANGE 3200-6700 RPM-HYD.
25310 ROC-10	232	232	329	329	.474	.474	112	114	1967-1984 CLASS III PERFORMANCE USAGE, MILD BRACKET RACING, GOOD MID RANGE, 1966-70 350 & 400 W/RAM AIR-402194. POWER RANGE 2650-6200 RPM-HYD.
25101 MTO-1	204	214	280	290	.448	.472	107	117	1967-1984 CLASS I TORQUE CAMSHAFT, GOOD DAILY USAGE, LIGHT TOWING, GOOD IDLE, ECONOMY, POWER RANGE 1200-4700 RPM-HYD.

OLDSMOBILE 260-455 (Continued)

(260 75-82 BORE 3.500) (307 80-88 BORE 3.500) (350 68-80 BORE 4.057) (400 65-69 BORE 4.000) (403 77-79 BORE 4.350) (425 65-67 BORE 4.125) (455 68-75 BORE 4.125)

CAMSHAFT LIFTER KITS USING HYDRAULIC LIFTERS

Part #	
35309	1967-84 KIT INCLUDES 1-25309 CAM, 16-29951 LIFTERS & 4OZ. MELL LUBE - CLASS III
35310	1967-84 KIT INCLUDES 1-25310 CAM, 16-29951 LIFTERS & 4OZ. MELL LUBE - CLASS III
CL-MTO-1	1967-84 KIT INCLUDES 1-MTO-1 TORQUE CAM, 16-29951 LIFTERS & 4OZ. MELL LUBE - CLASS I

HYDRAULIC LIFTERS

29951	EXC. 1985-88 307, 1966-67 400 & ALL 425 TORONADO
29952	EXC. 1985-88 307, 1966-67 400 & ALL 425 TORONADO

VALVE SPRING USED WITH HYDRAULIC LIFTERS

46612	INNER-USE WITH 25211, 25309, MTO-1 & 25310 CAMS - MACHINING MAY BE REQUIRED
46613	OUTER-USE WITH 25211, 25309, MTO-1 & 25310 CAMS - MACHINING MAY BE REQUIRED

VALVE LOCKS

47610	HARDENED
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RETAINERS

47505	CHROME MOLY - USE WITH 46613 SPRINGS
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CHROME MOLY PUSH RODS

50056	455 ENG. ALL HEAT TREATED
50056	1968-1969 400 ENG. HEAT TREATED

3PC SET

40409	INCLUDES SEAMLESS SOLID ROLLER CHAIN, CAST IRON CAM SPROCKET & MULTIPLE KEYWAY CRANK SPROCKET
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PONTIAC 301-455 1959-81 V8

(301 77-81 BORE 4.000) (326 63-73 BORE 3.719) (350 68-76 BORE 3.875) (350-P 77 BORE 3.875) (389 59-66 BORE 4.062) (400 67-69 BORE 4.12) (421 63-66 BORE 4.093) (428 67-69 BORE 4.12) (455 70-76 BORE 4.151)

OIL PUMPS

Part #	
10540	HI PRESSURE PUMP - INCLUDES SCREEN
10541	HI PRESSURE PUMP - 30% MORE PRESSURE THAN 10540 - INCLUDES SCREEN

CAMSHAFTS USING HYDRAULIC LIFTERS

Part #	Degrees .050" dur		Degrees ADV. dur		Inches Valve lift		Degrees Lobe cntr		CHARACTERISTICS OF CAMSHAFT
	Int.	Exh.	Int.	Exh.	Int.	Exh.	Int.	Exh.	
26204	214	224	288	298	.443	.465	107	117	1967-1984 CLASS II PERFORMANCE USAGE, MILD BRACKET RACING, POWER RANGE 1700-5200 RPM-HYD.
26303 SPC-3	224	236	297	310	.407	.407	112	119	1967-1984 CLASS III PERFORMANCE USAGE, MILD BRACKET RACING, GOOD MID RANGE, 1966-70 400 & 455 W/W-30-402569 POWER RANGE 3200-6700 RPM-HYD.

PONTIAC 301-455 (Continued)

(301 77-81 BORE 4.000) (326 63-73 BORE 3.719) (350 68-76 BORE 3.875) (350-P 77 BORE 3.875) (389 59-66 BORE 4.062) (400 67-69 BORE 4.12) (421 63-66 BORE 4.093) (428 67-69 BORE 4.12) (455 70-76 BORE 4.151)

CAMSHAFTS USING HYDRAULIC LIFTERS

Part #	Degrees .050" dur		Degrees ADV. dur		Inches Valve lift		Degrees Lobe cntr		CHARACTERISTICS OF CAMSHAFT
	Int.	Exh.	Int.	Exh.	Int.	Exh.	Int.	Exh.	
26308 SPC-8	231	240	304	315	.470	.470	112	115	1967-1984 CLASS III PERFORMANCE USAGE, MILD BRACKET RACING, GOOD MID RANGE, 1966-70 350 & 400 W/RAM AIR-402194. POWER RANGE 2650-6200 RPM-HYD.
26101 MTP-1	204	214	278	288	.420	.443	105	115	1967-1984 CLASS I TORQUE CAMSHAFT, GOOD DAILY USAGE, LIGHT TOWING, GOOD IDLE, ECONOMY, POWER RANGE 1200-4700 RPM-HYD.

CAMSHAFT LIFTER KITS USING HYDRAULIC LIFTERS

Part #	
CL-MTP-1	KIT INCLUDES 1-MTP-1 TORQUE CAM, 16-29951 LIFTERS & 4OZ. MELL LUBE - CLASS I

MECHANICAL LIFTERS

29992	
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HYDRAULIC LIFTERS

29951	326, 350, 389, 400, 421, 428, 455 ENGS
29969	1977 301 ENG
29970	1977-1981 MUST BE USED WITH ADJUSTABLE VALVE TRAIN

LIFTERS

29952	HYD. 326, 350, 389, 400, 421, 428 & 455 ENGS-MUST BE USED WITH ADJUSTABLE VALVE TRAIN
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VALVE LOCKS

47610	HARDENED
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ROCKER ARMS

49846	
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RETAINERS

47505	CHROME MOLY
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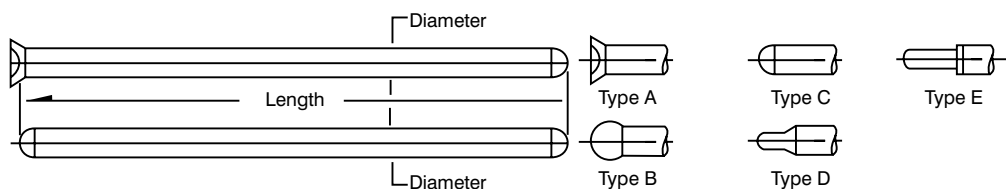
CHROME MOLY PUSH RODS

50027	350, 370, 455 ENG. ALL - HEAT TREATED
50027	400 ENG. EXC. 1967 TEMPEST W/2BC & PONT. W/1ST TYPE CYL. HEAD W/OUT PUSH ROD GUIDE PLATE - HEAT TREATED
50057	326, 389, 421, 428 ENG. ALL - HEAT TREATED
50057	400 ENG. EXC. 1967 TEMPEST W/2BC & PONT. W/1ST TYPE CYL. HEAD W/PUSH ROD GUIDE PLATE - HEAT TREATED

3PC SET

40408	INCLUDES SEAMLESS SOLID ROLLER CHAIN, CAST IRON CAM SPROCKET & MULTIPLE KEYWAY CRANK SPROCKET EXC. 301 ENG
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CHROME MOLY PUSH ROD IDENTIFICATION CHART



MELLING PART #	LENGTH	DIAMETER	END TYPE
50006	9.175	11/32	A & B
50007	10.498	11/32	A & B
50009	9.564	5/16	B & B
50010	9.594	5/16	B & B
50015 (H)	8.280	3/8	D & D
50016 (H)	9.252	3/8	D & D
50017	10.657	3/8	A & C
50018	11.585	3/8	A & C
50019	9.140	3/8	A & C
50020	9.375	5/16	C & D
50021	8.635	5/16	C & D
50022	7.342	5/16	A & C
50027 (H)	9.130	5/16	C & C
50029	8.280	7/16	D & D
50030	9.252	7/16	D & D
50031 (H)	7.800	5/16	C & C
50032	8.555	5/16	C & C
50033	9.295	5/16	C & C
50034	8.555	3/8	A & E
50035	9.295	3/8	A & E
50036	10.490	3/8	A & E
50037	11.457	3/8	A & E
50038	8.412	3/8	A & E

MELLING PART #	LENGTH	DIAMETER	END TYPE
50039 (H)	8.144	5/16	C & C
50040 (H)	6.886	5/16	C & C
50041 (H)	7.605	5/16	C & C
50042 (H)	8.408	5/16	C & C
50043 (H)	8.492	5/16	C & C
50044 (H)	7.645	5/16	C & C
50047	9.025	3/8	A & E
50049 (H)	9.682	5/16	C & C
50054	8.750	3/8	A & C
50055	8.136	3/8	A & C
50056 (H)	9.547	5/16	C & C
50057 (H)	8.693	5/16	C & C
50058 (H)	6.776	5/16	C & C
50059 (H)	7.513	5/16	C & C
50061 (H)	7.894	5/16	C & C
50062	8.680	3/8	D & D
50063	9.652	3/8	D & D
50066 (H)	8.812	5/16	C & C
50067	7.894	3/8	C & C
50100 (H)	7.800	5/16	C & C
50101 (H)	7.900	5/16	C & C
50102 (H)	7.950	5/16	C & C
50103 (H)	8.000	5/16	C & C

H = HEAT TREATED FOR USE WITH GUIDE PLATES

PERFORMANCE VALVES

MELLING PART #	HEAD DIAMETER	OVERALL LENGTH	STEM DIAMETER	SEAT ANGLE
45101	1.940	4.880	.341	45°
45102	1.500	4.905	.341	45°
45103	2.020	4.897	.341	45°
45104	1.600	4.881	.372	45°
45105	2.190	5.230	.372	45°
45106	1.725	5.350	.372	45°
45107	2.300	5.230	.372	45°
45108	1.880	5.350	.341	45°
45109	1.880	5.070	.341	45°
45110	1.451	5.070	.341	45°
45111	1.940	5.070	.341	45°
45112	1.600	5.050	.341	45°
45113	2.190	5.231	.341	45°
45114	1.725	5.070	.341	45°
45115	1.780	5.070	.341	45°
45119	2.250	5.280	.341	30°
45120	1.725	5.070	.341	45°

CHROME MOLY VALVE SPRING RETAINERS

MELLING PART #	DIAMETERS OUTSIDE/STEPS	RELATIVE HEIGHT*
FOR 11/32" VALVE STEMS		
47503	1.375/1.060/.675	+ .015"
47504	1.375/1.060/.675	+ .120"
47505	1.375/1.060/.675	+ .070"
47507	1.375/1.085/.805	+ .125"
47511	1.500/1.135/.665	+ .115"
47518	1.190/.870/.610	0
FOR 3/8" VALVE STEMS		
47502	1.375/1.075/.785	- .040"
47506	1.375/1.065/.675	- .120"
47508	1.375/1.085/.805	- .015"
47509	1.500/1.135/.635	+ .010"
47512	1.375/1.065/.670	0
47514	1.375/1.035/.785	- .030"

THESE RETAINERS ARE HEAT TREATED TO 40 ROCKWELL © SCALE

***NOTE:** There are many tolerances that effect the final location and spring height. The Relative Height Dimension is for comparison purposes of these retainers. We took a stock SB Chevy retainer with our 45103 valve and 47610 locks and measured from the rocker arm end of the valve to the spring seat on the retainer. We then took the same dimensions for our 11/32 stem retainers. The 47518 is the same as stock retainer and is shown as zero. The Relative Height tells how much the assembled spring height will be changed if you changed from the 47518. The 47501 would shorten the height by .070" while the 47505 would increase it the same amount. The same thing applies to the 3/8" stem retainers except we used a stock BB Chevy retainer with our 45105 valve and 47300 locks as a starting point.

VALVE SPRINGS			POUNDS PRESSURE AT THESE HEIGHTS									
PART #	OD	ID	1.88"	1.38"	1.80"	1.30"	1.72"	1.22"	1.67"	1.17"	COIL BIND	# COILS
46607	1.525	1.075	132	364							1.187	5.652
46617	1.475	1.061	90	260	115	285					1.125	6
46620	1.260	0.876					115	307	134	326	1.125	6.5
46622	1.539	1.125	158	318							1.2	6
46624	1.500	1.064	100	310							1.156	5.75
46635	1.215	0.861					110	260	125	284	1.125	6.75
46643	1.435	1.035					90	260	105	282	1.125	5.7
46644	1.437	1.075			105	217	123	235			1.062	6.5
46611	1.43	.796	128	296	154	322					1.015	6.25
46612	1.384	.804							90	240	.906	6
46613												
46615	1.55	.780		136@1.9		300@1.4		333@1.3		349@1.2	1.156	6.5
46616												

- All numbers are nominal.
- Springs should be checked in every application.
- Springs with dampeners should be oiled prior to testing and installing.
- Actual coil bind will vary because of the tolerances in the wire diameter.
- Coil bind can be checked by compressing the spring in a vise and measuring.
- Valve open height should be coil bind plus .100 or more
- Coil bind plus .050 has been used but the life of the spring is less.

NUMERICAL LISTINGS

Part Number	Applications	Part Number	Applications
Oil Pumps		Camshafts (cont.)	
10220	DISC. RELABLE TO M-22FHV OLDS V8	22200	CHEV. SB V8
10340	DISC. RELABLE TO M134FHV CHEV V6	22203	CHEV. SB V8
10540	PONTIAC V8	22204	CHEV. BB V8
10541	PONTIAC V8	22209	CHEV. SB V8
10550	CHEV V6 & SB V8	22210	CHEV. SB V8
10551	CHEV V6 & SB V8	22213	CHEV. SB V8
10552	GM 10% ADD'L VOL. THAN M-55	22214	CHEV. BB V8
10555	CHEV SPEC. SB V8	22215	CHEV. SB V8
10570	DISC. RELABLE TO M-57HV FORD	22229	DISC. CHEV. 200 & 229
10571	DISC. RELABLE TO M-57HP FORD	22230	CHEV. SB V8
10572	DISC. RELABLE TO M-57B FORD	22231	CHEV. SB V8
10630	DISC. RELABLE TO M-63HV CHRYSLER V8	22232	CHEV. SB V8
10631	DISC. RELABLE TO M-63HP CHRYSLER V8	22233	CHEV. SB V8
10680	DISC. RELABLE TO M-68HV FORD V8	22296	CHEV. BB V8
10681	DISC. RELABLE TO M-68A FORD	22301	CHEV. SB V8
10687	FORD SB SAME APPL. AS M-68 EXTENDED SHAFT	22302	CHEV. BB V8
10688	FORD SB 25% ADD'L VOL. OF OIL THAN M-68	22303	CHEV. SB V8
10720	DISC. RELABLE TO M-72HV CHRYSLER A V8	22305	CHEV. SB V8
10770	CHEV BB V8	22306	CHEV. BB V8
10777	GM CAR & TRUCK BB	22312	DISC. CHEV. 200 & 239
10830	DISC. RELABLE TO M-83HV FORD V8	22320	CHEV. SB V8
10832	FORD 351W SAME APP'L AS M-83 EXTENDED SHAFT	22325	CHEV. SB V8
10833	FORD 351W 25% ADD'L VOL. OF OIL THAN M-83	22380	CHEV. SB V8
10840	DISC. RELABLE TO M-84AHV FORD	22396	CHEV. BB V8
10842	DISC. RELABLE TO M-84BHV-S FORD V8	22400	CHEV. SB V8
10844	DISC. RELABLE TO M-84EHV-S FORD V8	22401	CHEV. SB V8
10990	DISC. RELABLE TO M-99HV-S CHEV V6 & SB V8	22402	CHEV. SB V8
M-22FHV	PONTIAC V8	22404	CHEV. SB V8
M-53HP	FORD V8	22407	CHEV. BB V8
M-57HV	FORD V8	22408	DISC. CHEV. BB V8
M-57B	FORD V8 COBRA JET & SUPER COBRA JET	22410	CHEV. SB V8
M-63HP	CHRYSLER V8	22415	CHEV. SB V8
M-63HV	CHRYSLER V8	22417	DISC. CHEV. BB V8
M-72HV	CHRYSLER V8	22427	CHEV. BB V8
M-84AHV	FORD V8	22450	CHEV. SB V8
M-84BHV	FORD V8	22460	CHEV. SB V8
M-84EHV	FORD V8	22470	CHEV. SB V8
Screens		23101	DISC. RELABLE TO MTD-1 CHRYSLER A V8
12554	CHEV SB V8	23102	DISC. RELABLE TO MTD-2 CHRYSLER B V8
12556	CHEV SB V8	23123	CHRYSLER A V8
12557	CHEV SB V8	23203	CHRYSLER A V8
12558	CHEV SB V8	23204	CHRYSLER B V8
12559	CHEV SB V8	23211	DISC. CHRYSLER B V8
12701	GM BB TRUCK PAN APPROX. 8" DEEP	23222	DISC. CHRYSLER A V8
12702	GM BB TRUCK PAN APPROX. 9" DEEP	23301	CHRYSLER A V8
Camshafts		23302	CHRYSLER B V8
20101	DISC. RELABLE TO MTA-1 AMERICAN MOTORS V8	23320	DISC. CHRYSLER A V8
20205	AMERICAN MOTORS V8	23321	DISC. CHRYSLER B V8
20402	DISC. AMERICAN MOTORS V8	23401	DISC. RELABLE TO MTF-1 CHRYSLER A V8
21101	DISC. RELABLE TO MTB-1 BUICK V6	24101	FORD V8
21102	DISC. RELABLE TO MTB-2 BUICK V6	24102	DISC. RELABLE TO MTF-2 FORD V8
21206	DISC. BUICK V6	24103	DISC. RELABLE TO MTF-3 FORD V8
21300	DISC. BUICK V6	24104	DISC. RELABLE TO MTF-4 FORD V8
22100	CHEV. BB V8	24105	DISC. RELABLE TO MTF-5 FORD V8
22101	DISC. RELABLE TO MTC-1 CHEV SB V8	24108	FORD V8
22102	DISC. RELABLE TO MTC-2 CHEV BB V8	24111	FORD V8
22105	DISC. RELABLE TO MTC-5 CHEV 2.8 V8	24203	FORD V8
22107	CHEV. SB V8	24204	FORD V8
22108	CHEV. SB V8	24205	FORD V8
22109	CHEV. SB V8	24206	FORD V8
22110	CHEV. SB V8	24207	FORD V8
22111	CHEV. SB V8	24210	FORD V8
22113	CHEV. 4.3 V6	24211	FORD V8
22114	CHEV. SB V8	24212	FORD V8
22115	CHEV. SB V8	24218	FORD V8
22127	CHEV. BB V8	24224	FORD V8
22128	CHEV. SB V8	24225	FORD V8
		24301	FORD V8

NUMERICAL LISTINGS

Part Number	Applications	Part Number	Applications
Camshafts (cont.)		Camshaft Lifter Kits (cont.)	
24302	FORD V8	32410	CHEV. SB V8
24303	DISC. FORD V8	32415	CHEV. SB V8
24401	DISC. FORD V8	32427	CHEV. BB V8
24405	DISC. FORD	32450	CHEV. SB V8
24406	FORD V8	33101	CHRYSLER A V8
24409	DISC. FORD V8	33102	CHRYSLER B V8
24413	FORD V8	33103	CHRYSLER B V8
25101	OLDS V8	34101	FORD V8
25211	DISC. OLDS V8	34102	FORD V8
25309	OLDS V8	34103	FORD V8
25310	OLDS V8	34104	FORD V8
25311	OLDS V8	34105	FORD V8
26101	DISC. PONTIAC	34206	FORD V8
26102	PONTIAC V8	34211	FORD V8
26204	PONTIAC V8	35101	OLDS. V8
26301	DISC. PONTIAC	35309	OLDS. V8
26303	DISC. SAME AS SPC-9	35310	OLDS. V8
26308	PONTIAC V8	36101	PONTIAC V8
26402	DISC. PONTIAC V8	Timing Kits	
Lifters		40102	DISC. CHEV.
29011	AMERICAN MOTORS-CHRYSLER V8	40118	DISC. AMERICAN MOTORS V8
29012	AMERICAN MOTORS-CHRYSLER V8	40201	CHEV. V6
29077	DISC. PONTIAC V8	40202	CHRYSLER A V8
29082	FORD V8	40203	CHRYSLER B V8
29083	FORD V8	40204	FORD V8
29084	DISC. REPLACED BY 29937 CHRYSLER V8	40205	CHEV. BB V8
29095	CHEV. V6	40206	FORD V8
29200	FORD V8	40207	DISC. PONTIAC V8
29812	CHRYSLER B V8	40208	DISC. OLDS. V8
29813	DISC. CHRYSLER B V8	40210	DISC. BUICK V6 & V8
29817	CHEV. V6 & V8	40217	CHRYSLER B V8
29818	CHEV. V6 & V8	40301	DISC. CHEV. V6 & V8
29840	CHEV. V6 & V8	40302	DISC. GM SB
29841	CHEV. V6 & V8	40303	DISC. CHRYSLER V8
29872	FORD V8	40304	DISC. CHRYSLER V8
29900	FORD V8	40305	DISC. FORD V8
29901	FORD V8	40306	DISC. FORD PROD.
29903	DISC. FORD	40307	DISC. CHEV. V8
29914	FORD V8	40308	DISC. CHEV.
29937	CHRYSLER V8	40309	DISC. FORD V8
29951	OLDS. - PONTIAC V8	40310	DISC. PONTIAC V8
29952	OLDS. - PONTIAC V8	40311	DISC. OLDS. V8
29957	DISC. OLDS. & PONTIAC V8	40312	DISC. BUICK, OLDS., PONTIAC
29969	BUICK V6	40313	DISC. FORD V8
29970	BUICK V6 & PONTIAC V8	40314	DISC. FORD PROD.
29976	CHRYSLER B V8	40315	DISC. BUICK V8
29977	DISC. CHRYSLER B V8	40316	DISC. BUICK V6
29992	CHEV. V6 & V8	40317	DISC. CHEVY V6
29998	AMERICAN MOTORS V8	40318	DISC. FORD V8
Camshaft Lifter Kits		40319	DISC. FORD V8
30101	AMERICAN MOTORS V8	40320	DISC. FORD V8
31101	DISC. RELABLE TO CL-MTA-1 BUICK V6	40323	DISC. CHRYSLER, DODGE, DODGE TK, PLYMOUTH
31102	DISC. RELABLE TO CL-MTB-2 BUICK V6	40400	CHEV. V6/90 & SB V8
32100	DISC. RELABLE TO CL-MTB-2 CHEV. BB V8	40401	CHEV. BB V8
32101	DISC. RELABLE TO CL-MTC-1 CHEV. SB V8	40402	FORD V8
32102	DISC. RELABLE TO CL-MTC-2 CHEV. BB V8	40403	FORD V8
32103	DISC. RELABLE TO CL-MTC-3 CHEV. V6	40404	BUICK
32104	DISC. RELABLE TO CL-MTC-4 CHEV V6	40405	FORD V8
32108	CHEV. SB V8	40406	CHRYSLER A V8
32109	CHEV. SB V8	40407	CHRYSLER B V8
32110	CHEV. SB V8	40408	PONTIAC V8
32111	CHEV. SB V8	40409	OLDS. V8
32113	CHEV. V6	40410	FORD V8
32200	CHEV. SB V8	Valves	
32210	CHEV. SB V8	45101	CHEV. SB V8
32396	CHEV. BB V8	45102	CHEV. SB V8
32400	CHEV. SB V8	45103	CHEV. SB V8

NUMERICAL LISTINGS

Part Number	Applications	Part Number	Applications
Valves (cont.)		Rocker Arm Studs	
45104	CHEV. SB V8	MRDS-1920	CHEV. SB V8
45105	CHEV. BB V8	MRDS-2920	CHEV. SB V8
45106	CHEV. BB V8	MRDS-941	CHEV. SB V8
45107	CHEV. BB V8	Push Rods	
45108	CHEV. BB V8	50006	FORD V8
45109	FORD V8	50007	FORD V8
45110	FORD V8	50009	DISC. FORD
45111	FORD V8	50010	FORD V8
45112	FORD V8	50012	DISC. PONTIAC V8
45113	FORD V8	50015	CHEV. BB V8
45114	FORD V8	50016	CHEV. BB V8
45115	FORD V8	50017	DISC. CHRYSLER V8
45119	FORD V8	50018	DISC. CHRYSLER V8
45120	FORD V8	50019	CHRYSLER V8
Valve Springs		50020	DISC. CHRYSLER V8
46600	DISC. NO APPLICATION - SEE SPEC'S	50021	DISC. CHRYSLER V8
46609	DISC. NO APPLICATION - SEE SPEC'S	50022	CHRYSLER V8
46610	DISC. NO APPLICATION - SEE SPEC'S	50025	DISC. VW
46611	FORD-GM V8	50026	DISC. VW
46612	FORD V8	50027	PONTIAC V8
46613	FORD V8	50029	CHEV. BB V8
46614	DISC. NO APPLICATION	50030	CHEV. BB V8
46615	CHRYSLER-FORD-GM V8	50031	CHEV. V6 & V8
46616	CHRYSLER-FORD-GM V8	50032	DISC. CHRYSLER V8
46617	FORD V8	50033	CHRYSLER V8
46620	GM V8	50034	DISC. CHRYSLER V8
46622	CHRYSLER-FORD-GM V8	50035	CHRYSLER V8
46627	GM V8	50036	CHRYSLER V8
46628	DISC. NO APPLICATION - SEE SPEC'S	50037	CHRYSLER V8
46629	DISC. NO APPLICATION - SEE SPEC'S	50038	CHRYSLER V8
46630	DISC. NO APPLICATION - SEE SPEC'S	50039	FORD V8
46635	GM V6 & V8	50040	FORD V8
46640	DISC. NO APPLICATION - SEE SPEC'S	50041	FORD V8
46642	DISC. NO APPLICATION - SEE SPEC'S	50042	FORD V8
46643	AMERICAN MOTORS - CHRYSLER V8	50043	FORD V8
46644	FORD V8	50044	FORD V8
46650	DISC. NO APPLICATION - SEE SPEC'S	30046	DISC. VW
VS-280	AMERICAN MOTORS V8	50047	CHRYSLER V8
VS-320	CHEV. BB V8	50054	CHRYSLER V8
VS-380	BUICK, CHEV. V6 & V8	50055	DISC. CHRYSLER V8
Valve Locks & Retainers		50056	OLDS. V8
47100	CHRYSLER V8	50057	BUICK & PONTIAC V6 & V8
47200	CHEV. - FORD V8	50058	FORD V8
47300	CHEV. - FORD V8	50059	CHRYSLER V8
47400	CHRYSLER V8	50061	CHEV. V6/90 & SB V8
47501	DISC. GM V6 & V8	50062	CHEV. BB V8
47502	1 3/8 - 1 1/2 O.D. SPRING W/ 3/8 STEM	50063	CHEV. BB V8
47503	1 3/8 - 1 1/2 O.D. SPRING W/ 11/32 STEM	50066	FORD V8
47504	1 3/8 - 1 1/2 O.D. SPRING W/ 11/32 STEM	50067	CHEV. V6/90 & SB V8
47505	FORD V8	50100	CHEV. V6/90 & SB V8
47506	FORD - GM V8	50101	CHEV. V6/90 & SB V8
47507	GM V8	50102	CHEV. V6/90 & SB V8
47508	CHRYSLER - GM - FORD V8	50103	CHEV. V6/90 & SB V8
47509	CHRYSLER V8	Guide Plates	
47511	FORD V8	MGP100	CHEV. SB V8
47512	1 3/8 - 1 1/2 O.D. SPRING W/ 3/8 STEM	MGP101	CHEV. SB V8
47514	AMERICAN MOTORS - CHRYSLER V8	MGP102	CHEV. SB V8
47518	CHEV. V6/90 & SB V8	MGP103	CHEV. SB V8
47610	BUICK - CHEV. - FORD - OLDS. - PONTIAC V6 & V8	MGP106	CHEV. BB V8
47670	FORD V8	MGP107	CHEV. BB V8
Rocker Arms		MGP108	FORD V8
49840	CHEV. V8	MGP109	FORD V8
49846	PONTIAC V8	MGP110	FORD V8
49868	CHEV. BB V8	MGP111	FORD V8
		MGP112	FORD V8
		MGP113	FORD V8

NOTES
