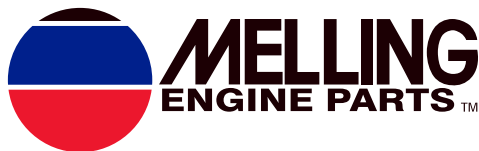




**Stock & High Performance
Marine Engine Replacement Parts**



**Chrysler Marine • Ford Marine •
Mercury Marine • OMC**





Chrysler Marine	2
(3.6L, 4.1L, 4.4L, 4.5L, 5.2L, 5.6L, 5.9L, 6.3L, 6.6L, 7.0L, 7.2L)	
Ford Marine	5
(4.7L, 5.0L, 5.8L, 7.0L, 7.5L)	
Mercury Marine	8
(2.5L, 3.0L, 3.7L, 4.1L, 4.3L, 4.6L, 5.0L, 5.4L, 5.7L, 5.8L, 7.0L, 7.4L, 7.9L, 8.1L, 8.2L)	
OMC Marine	17
(2.5L, 3.0L, 3.7L, 4.1L, 4.6L, 4.9L, 5.0L, 5.7L, 5.8L)	
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NOTE: While great care has been used in the compiling of this catalog information. It is the installers responsibility to check the parts used for proper size and function to be sure that they will correctly replace the original parts. When working on Marine engines, be sure you know what the components intended usage is and do not vary from it.

OIL PAN CLEARANCE NOTICE

When installing Melling oil pump screens always be aware of the oil pan clearance. This is especially important when installing high volume oil pumps. In many instances the higher volume is created by a larger oil pump body. The large body will extend the screen downward into the oil pan and may cause oil pan clearance issues. Oil pan modification may be necessary.

MELLING WARRANTY INFORMATION

For warranty information covering both Melling stock replacement and Melling high performance automotive and Marine engine parts go to **www.melling.com**. The online warranty information is current and takes legal precedence over all printed versions including all Melling printed catalogs.

Engine	Year	Line	Engine	Year	Line	Engine	Year	Line
6 Cyl. 218 (3.6) 251 (4.1)		1	V8 270 (4.4) 273 (4.5) 318 (5.2) 340 (5.6) 360 (5.9) 361 (5.9)		3	V8 (Continued) 383 (6.3) 400 (6.6) 426 (7.0) 440 (7.2)		9
		2		4	10			
				5	11			
				6	12			
				7				
				8				
Line No.	Part Type	Part No	Qty Req.	Description				
1	218 (3.6) ENG. - 6 Cyl. - 3.25 Bore (M6, M26, M36, ACE M46, ACE Special M46S)							
	Oil Pump	M-66C	1	Standard volume and pressure				
	Valve Lock	VL-100	6	Intake & Exhaust 2 Groove				
2	251 (4.1) ENG. - 6 Cyl. (REVERSE ROTATION)							
	Oil Pump	M-37R	1	Standard volume and pressure; right hand gear				
3	270 (4.4) ENG. - V8 - 3.625 Bore (ROYAL M44S)							
	Lifter	JB-812	16	Hydraulic				
	Valve Lock	VL-100	8	Exhaust 2 groove				
		VL-400	8	Intake 4 groove				
	Crank Sprocket	S274	1	23 Teeth				
4	273 (4.5) ENG. - V8 - 3.625 Bore (175, 200, SUPERBEE)							
	Oil Pump	M-72	1	Standard volume and pressure				
		M-72HV	1	High volume (25% additional volume of oil)				
	Oil Pump Drive Shaft	IS-72	1	Standard rotation				
	Camshaft	23103	1	High Performance; Hydraulic flat tappet, not California compliant, chain drive standard rotation, not computer compatible, cam lift .273 intake .274 exhaust; Class 1				
		23104	1	High Performance; Hydraulic flat tappet, not California compliant, chain drive reverse rotation, not computer compatible, cam lift .273 intake .274 exhaust; Class 1				
	Lifter	JB-2011	16	Hydraulic				
	Intake Valve	V0938	8	Head diameter 1.780				
	Exhaust Valve	V1329	8	Head diameter 1.500				
	Valve Spring	VS-1120	16	Single spring with damper				
	Valve Lock	474004	8	High Performance; Exhaust 4 groove (Hardened)				
		471004	8	High Performance; Intake 2 groove (Hardened)				
	Rocker Arm	MR-892	8	Left hand				
		MR-893	8	Right hand				
	Rocker Arm Shaft	MRS-661	2					
	Push Rod	500594	16	High Performance; Chrome-moly steel; Max spring pressure 350 lbs.				
	3 PC Speed Set	40406	1	High Performance; Includes seamless solid roller chain, cast iron camshaft sprocket & multiple keyway crankshaft sprocket				
5	318 (5.2) ENG. - V8 - 3.91 Bore (M80, M80A, 195, 195 SPECIAL, STERN DRIVE 195, 225, STERN DRIVE 240, 915, SUPERBEE II, JET II, SUPERBEE V-DRIVE)							
	Oil Pump	M-72	1	Standard volume and pressure				
		M-72HV	1	High volume (25% additional volume of oil)				
	Oil Pump Screen Assy.	72-S2	1	Screw-in				
	Oil Pump Drive Shaft	IS-72	1	Standard rotation				
	Camshaft	23103	1	High Performance; Hydraulic flat tappet, not California compliant, chain drive standard rotation, not computer compatible, cam lift .273 intake .274 exhaust; Class 1				
		23104	1	High Performance; Hydraulic flat tappet, not California compliant, chain drive reverse rotation, not computer compatible, cam lift .273 intake .274 exhaust; Class 1				
	Lifter	JB-2011	16	Hydraulic				
	Intake Valve	V0938	8	Head diameter 1.780				
	Intake Valve	V1180	8	Head diameter 1.880				

CHRYSLER MARINE (continued)

5	318 (5.2) ENG. - V8 - 3.91 Bore (M80, M80A, 195, 195 SPECIAL, STERN DRIVE 195, 225, STERN DRIVE 240, 915, SUPERBEE II, JET II, SUPERBEE V-DRIVE)			
	Exhaust Valve	V1401	8	Head diameter 1.600
	Valve Spring	VS-1120	16	Single spring with damper, 238 @ 1.22 open, 96 @ 1.65 installed, 1.10 Coil Bind
	Valve Lock	474004 471004	8 8	High Performance; Exhaust 4 groove (Hardened) High Performance; Intake 2 groove (Hardened)
	Rocker Arm	MR-892 MR-893	8 8	Left hand Right hand
	Rocker Arm Shaft	MRS-661	2	
	Push Rod	500594	16 1	High Performance; Chrome-moly steel; Max spring pressure 350 lbs
	3 PC Speed Set	40406		High Performance; Includes seamless solid roller chain, cast iron camshaft sprocket & multiple keyway crankshaft sprocket
6	340 (5.6) ENG. - V8 - 4.04 Bore (250, CHRYSLER III, SUPERBEE III, JET III, SUPERBEE V-DRIVE III)			
	Oil Pump	M-72 M-72HV	1 1	Standard volume and pressure High volume (25% additional volume of oil)
	Oil Pump Drive Shaft	IS-72	1	Standard rotation
	Camshaft	23103 23104	1 1	High Performance; Hydraulic flat tappet, not California compliant, chain drive standard rotation, not computer compatible, cam lift .273 intake .274 exhaust; Class 1 High Performance; Hydraulic flat tappet, not California compliant, chain drive reverse rotation, not computer compatible, cam lift .273 intake .274 exhaust; Class 1
	Lifter	JB-2011	16	Hydraulic
	Intake Valve	V1180	8	Head diameter 1.880
	Exhaust Valve	V1307	8	Head diameter 1.600
	Valve Spring	VS-1120	16	Single spring with damper
	Valve Lock	474004 471004	8 8	High Performance; Exhaust 4 groove (Hardened) High Performance; Intake 2 groove (Hardened)
	Rocker Arm	MR-892 MR-893	8 8	Left hand Right hand
	Rocker Arm Shaft	MRS-661	2	
	Push Rod	500594	16	High Performance; Chrome-moly steel; Max spring pressure 350 lbs
	3 PC Speed Set	40406	1	High Performance; Includes seamless solid roller chain, cast iron camshaft sprocket & multiple keyway crankshaft sprocket
7	360 (5.9) ENG. - V8 - 4.00 Bore (CHRYSLER JET, SUPERBEE V-DRIVE III, SUPERBEE III-VOLVO)			
	Oil Pump	M-72 M-72HV	1 1	Standard volume and pressure High volume (25% additional volume of oil)
	Oil Pump Drive Shaft	IS-72	1	Standard rotation
	Camshaft	23103 23104	1 1	High Performance; Hydraulic flat tappet, not California compliant, chain drive standard rotation, not computer compatible, cam lift .273 intake .274 exhaust; Class 1 High Performance; Hydraulic flat tappet, not California compliant, chain drive reverse rotation, not computer compatible, cam lift .273 intake .274 exhaust; Class 1
	Lifter	JB-2011	16	Hydraulic
	Intake Valve	V1180	8	Head diameter 1.880
	Exhaust Valve	V1401	8	Head diameter 1.600
	Valve Spring	VS-1120	16	Single spring with damper
	Valve Lock	474004 471004	8 8	High Performance; Exhaust 4 groove (Hardened) High Performance; Intake 2 groove (Hardened)
	Rocker Arm	MR-892 MR-893	8 8	Left hand Right hand
	Rocker Arm Shaft	MRS-661	2	

CHRYSLER MARINE (continued)

7	360 (5.9) ENG. - V8 - 4.00 Bore (CHRYSLER JET, SUPERBEE V-DRIVE III, SUPERBEE III-VOLVO) (continued)			
	Push Rod	500594	16	High Performance; Chrome-moly steel; Max spring pressure 350 lbs
	3 PC Speed Set	40406	1	High Performance; Includes seamless solid roller chain, cast iron camshaft sprocket & multiple keyway crankshaft sprocket
8	361 (5.9) ENG. - V8 - 4.125 Bore (M81 IMPERIAL)			
	Oil Pump Drive Shaft	IS-63-R	1	Reverse rotation
		IS-63	1	Standard rotation
	Intake Valve	V0577	8	Head diameter 1.880
	Valve Lock	VL-400	8	Exhaust 4 groove
		VL-100	8	Intake 2 groove
9	383 (6.3) ENG. - V8 - 4.25 Bore (M383, M383B, 260, 280)			
	Oil Pump Drive Shaft	IS-63-R	1	Reverse rotation
		IS-63	1	Standard rotation
	Lifter	JB-2011	8	Hydraulic
	Push Rod	MPR-321	16	
	Valve Lock	VL-300	8	Exhaust 1 groove
		VL-100	8	Intake 2 groove
	Rocker Arm	MR-850	8	Left hand
		MR-851	8	Right hand
	3 PC Timing Set	3-501SA	1	Includes [501], [S366], [S367] with silent type chain
10	400 (6.6) ENG. - V8 - 4.342 Bore (280)			
	Oil Pump	M-63	1	Standard volume and pressure
		M-63L	1	Standard volume and pressure (must use original cover)
		M-63HP	1	High pressure
		M-63HV	1	High volume (25% additional volume of oil)
	Push Rod	MPR-321	16	
	Intake Valve	V0548	8	Head diameter 2.080
	Valve Lock	VL-300	8	Exhaust 1 groove
		VL-100	8	Intake 2 groove
	Rocker Arm	MR-850	8	Left hand
		MR-851	8	Right hand
	Timing Chain	168	1	66 Links, double-roller
11	426 (7.0) ENG. - V8 - 4.250 Bore (M426B, M426D)			
	Oil Pump	M-63	1	Standard volume and pressure
		M-63HP	1	High pressure
		M-63HV	1	High volume (25% additional volume of oil)
12	440 (7.2) ENG. - V8 - 4.320 Bore (300, 330, 335, 375)			
	Oil Pump	M-63	1	Standard volume and pressure
		M-63HP	1	High pressure
		M-63HV	1	High volume (25% additional volume of oil)
	Oil Pump Drive Shaft	IS-63	1	
	Camshaft	SPD-11	1	Hydraulic flat tappet, chain drive, standard rotation, single bolt, computer compatible, not carb compliant, cam lift .289 intake .287 exhaust
	Lifter	JB-976	16	Hydraulic
	Intake Valve	V0548	8	Head diameter 2.080
	Exhaust Valve	V1156	8	Head diameter 1.740
	Valve Spring	VS-430	16	Single spring with damper
	Valve Lock	474004	8	High Performance; Exhaust 4 groove (Hardened)
		471004	8	High Performance; Intake 2 groove (Hardened)
	Rocker Arm	MR-850	8	Left hand
		MR-851	8	Right hand
	3 PC Speed Set	40217	1	High Performance; Includes double roller chain, steel camshaft sprocket & multiple keyway crankshaft sprocket, use with 3 bolt camshaft
		40407	1	High Performance; Includes seamless solid roller chain, cast iron camshaft sprocket & multiple keyway crankshaft sprocket, use with single bolt camshaft

FORD MARINE

Engine	Year	Line	Engine	Year	Line	Engine	Year	Line
V8			V8 (Continued)			V8 (Continued)		
289 (4.7)		1	351W (5.8)		3	460 (7.5)		5
302 (5.0)		2	429 (7.0)		4			

1 289 (4.7) ENG. - V8 - 4.000 Bore (BERKLEY JET DRIVE, CRUSADER, FORD MARINE, DEARBORN, HOLMAN-MOODY, INTERCEPTOR/CONQUEROR)

Oil Pump	M-68	1	Standard volume and pressure
	M-68A	1	High pressure
	10687	1	High Performance; standard Volume, +10 PSI
	M-68HV	1	High volume (25% additional volume of oil)
	10688	1	High Performance; 25% higher volume, +10 PSI
Oil Pump Drive Shaft	IS-68	1	Standard; Steel
	12680	1	High Performance; Chrome-moly Steel; Black oxide finish
Camshaft	SYB-35	1	Hydraulic flat tappet, OE replacement grind, chain drive, standard rotation, 351 firing order, (see specs), not carb compliant, cam lift .278 intake .283 exhaust
	24107	1	High Performance; Hydraulic flat tappet, not California compliant, chain drive standard rotation, 289 firing order, not computer compatible, cam lift .260 intake .278 exhaust, Class 1
	24209	1	High Performance; Hydraulic flat tappet, not California compliant, chain drive reverse rotation, 351W (18456273) firing order, not computer compatible, cam lift .278 intake .283 exhaust, Class 2
Lifter	JB-900	16	Hydraulic roller
Intake Valve	V1001	8	Head diameter 1.780
Exhaust Valve	V1000	8	Head diameter 1.450
Valve Spring	VS-270	16	Dual Spring
Valve Lock	476104	16	High Performance; Intake and exhaust 1 groove
Rocker Arm Kit	MRK-511	16	1963 to10/4/65 Kit includes 1-[MR-849], 1-[MRM-1772] & 1-[MRM-1786]
Ricker Arm Kit	MRK-610	16	From 1/4/65 to 1968 Kit includes 1-[MR-886], 1-[MRM-1772] & 1-[MRM-1786] 3/8" 1-[MRM-1791] 5/16"
Rocker Arm Stud	MRDS-934	16	
Push Rod	500584	16	High Performance; Chrome-moly steel; Max spring pressure 350 lbs,
3 PC Speed Set	40402	1	High Performance, Includes seamless solid roller chain, cast iron camshaft sprocket & multiple keyway crankshaft sprocket. Must use MF126 (3.356") thrust plate with this set. Do not use two piece fuel pump eccentric with this set. If engine has the two piece fuel pump eccentric discard & use one piece eccentric (Ford # C3AZ-6287-B)

2 302 (5.0) ENG. - V8 - 4.000 Bore (BERKLEY JET DRIVE, COMMANDER CRUSADER, CRUSADER, DEARBORN, FORD MARINE, GLASTRON, HOLMAN-MOODY, INDMAR, MERCUISER, OMC, OSCO, PALMER, PLEASURECRAFT, VOLVO-PENTA, WAUKESHA, INTERCEPTOR/CONQUEROR)

Oil Pump	M-68	1	Standard volume and pressure
	M-68A	1	High pressure
	10687	1	High Performance; standard Volume, +10 PSI
	M-68HV	1	High volume (25% additional volume of oil)
	10688	1	High Performance; 25% higher volume, +10 PSI
Oil Pump Drive Shaft	IS-68	1	Standard; Steel
	12680	1	High Performance; Chrome-moly Steel; Black oxide finish
Camshaft	SYB-35	1	Hydraulic flat tappet, OE replacement grind, chain drive, standard rotation, 351 firing order, (see specs), not carb compliant, cam lift .278 intake .283 exhaust
	24107	1	High Performance; Hydraulic flat tappet, not California compliant, chain drive standard rotation, 289 firing order, not computer compatible, cam lift .260 intake .278 exhaust, Class 1

2 302 (5.0) ENG. - V8 - 4.000 Bore (BERKLEY JET DRIVE, COMMANDER CRUSADER, CRUSADER, DEARBORN, FORD MARINE, GLASTRON, HOLMAN-MOODY, INDMAR, MERCUISER, OMC, OSCO, PALMER, PLEASURECRAFT, VOLVO-PENTA, WAUKESHA, INTERCEPTOR/CONQUEROR) <i>(continued)</i>			
Camshaft	24209	1	High Performance; Hydraulic flat tappet, not California compliant, chain drive reverse rotation, 351W (18456273) firing order, not computer compatible, cam lift .278 intake .283 exhaust; Class 2
Lifter	JB-900	16	Hydraulic roller
Intake Valve	V1001	8	Head diameter 1.780
	V1137	8	Head diameter 1.781
	V1538	8	Head diameter 1.782
	V1328	8	Head diameter 1.782
	V1328+3	8	Head diameter 1.782 (.003 oversize stem)
Exhaust Valve	V1238	8	Head diameter 1.844
	V1000	8	Head diameter 1.450
	V1135	8	Head diameter 1.452
	V1237	8	Head diameter 1.543
Valve Spring	V1173	8	Head diameter 1.710
	VS-280	16	Dual Spring
Valve Lock	476104	16	High Performance; Intake and exhaust 1 groove
Rocker Arm Kit	MRK-610	16	1968 -1978 Kit includes 1-[MR-849], 1-[MRM-1772] & 1-[MRM-1786] 3/8" 1-[MRM-1791] 5/16" with cast rocker arms
	MRK-548	16	1978 - 1968 Kit includes 1-[MR-889], 1-[MRM-1776] & 1-[MRM-1741] with stamped rocker arms
Rocker Arm Stud	MRDS-934	16	2.250" Length
Push Rod	500404	16	High Performance; Chrome-moly steel; Max spring pressure 350 lbs
3 PC Speed Set	40402	1	High Performance; Includes seamless solid roller chain, cast iron camshaft sprocket & multiple keyway crankshaft sprocket. Must use MF126 (3.356") thrust plate with this set. Do not use two piece fuel pump eccentric with this set. If engine has the two piece fuel pump eccentric discard & use one piece eccentric (Ford # C3AZ-6287-B)
3 351W (5.8) ENG. - V8 - 4.000 Bore (BERKLEY JET DRIVE, COMMANDER, CRUSADER, DEARBORN, FORD MARINE, GLASTRON, HOLMAN-MOODY, INDMAR, MERCUISER, INTERCEPTOR/CONQUEROR, OMC, OSCO, PALMER, PLEASURECRAFT, VOLVO-PENTA, WAUKESHA)			
Oil Pump	M-83	1	Standard volume and pressure
	10832	1	High Performance; standard Volume, +15 PSI
	M-83HV	1	High volume (25% additional volume of oil), stock relief valve and shaft design; may require oil pan modification
	10833	1	High Performance; 25% higher volume, +15 PSI
Oil Pump Drive Shaft	IS-83	1	Standard; Steel
	12830	1	High Performance; Chrome-moly Steel; Black oxide finish
Camshaft	SYB-35	1	Hydraulic flat tappet, OE replacement grind, chain drive, standard rotation, 351 firing order, (see specs), not carb compliant, cam lift .278 intake .283 exhaust
	24107	1	High Performance; Hydraulic flat tappet, not California compliant, chain drive standard rotation, 289 firing order, not computer compatible, cam lift .260 intake .278 exhaust; Class 1
	24209	1	High Performance; Hydraulic flat tappet, not California compliant, chain drive reverse rotation, 351W (18456273) firing order, not computer compatible, cam lift .278 intake .283 exhaust; Class 2
Lifter	JB-900	16	Hydraulic flat tappet
Intake Valve	V1328	8	Head diameter 1.782
	V1328+3	8	Head diameter 1.782 (.003 oversize stem)
	V1238	8	Head diameter 1.844

FORD MARINE (continued)

3 351W (5.8) ENG. - V8 - 4.000 Bore (BERKLEY JET DRIVE, COMMANDER, CRUSADER, DEARBORN, FORD MARINE, GLASTRON, HOLMAN-MOODY, INDMAR, MERCUISER, INTERCEPTOR/CONQUEROR, OMC, OSCO, PALMER, PLEASURECRAFT, VOLVO-PENTA, WAUKESHA) <i>(continued)</i>			
Exhaust Valve	V1135	8	Head diameter 1.452
	V1453	8	Head diameter 1.462
	V1453+3	8	Head diameter 1.462+3 (.003 oversize stem)
	V1237	8	Head diameter 1.543
Valve Spring	VS-280	16	Single with damper
Valve Lock	476104	16	High Performance; Intake and exhaust 1 groove
Rocker Arm Kit	MRK-610	16	1969 -1978 Kit includes 1-[MR-886],1-[MRM-1772] & 1-[MRM-1786] 3/8"1-[MRM-1791] 5/16" w/cast rocker arms
	MRK-548	16	1978 - 1997 Kit includes 1-[MR-889], 1-[MRM-1776] & 1-[MRM-1741] 3/8" with stamped rocker arms
3 PC Speed Set	40402	1	High Performance; Includes seamless solid roller chain, cast iron camshaft sprocket & multiple keyway crankshaft sprocket. Must use MF126 (3.356") thrust plate with this set. Do not use two piece fuel pump eccentric with this set. If engine has the two piece fuel pump eccentric discard & use one piece eccentric (Ford # C3AZ-6287-B)
4 429 (7.0) ENG. - V8 - 4.360 Bore (FORD MARINE)			
Oil Pump	M-84	1	Standard volume and pressure
Oil Pump Drive Shaft	IS-84	1	
Camshaft	24213	1	High Performance; Hydraulic flat tappet, not California compliant, chain drive, standard rotation, cam lift .285 intake .290 exhaust; Class 2
Lifter	JB-900	16	Hydraulic roller
Intake Valve	V1272	8	Head diameter 2.083
	V1166	8	Head diameter 2.245
Exhaust Valve	V1102	8	Head diameter 1.653
	V1271	8	Head diameter 1.653
	V1299	8	Head diameter 1.725
Valve Spring	VS-280	16	Single with damper
Valve Lock	476104	16	High Performance; Intake and exhaust 1 groove
3 PC Speed Set	40403	1	High Performance; Includes seamless solid roller chain, cast iron camshaft sprocket & multiple keyway crankshaft sprocket
5 460 (7.5) ENG. - V8 - 4.360 Bore ((BERKLEY JET DRIVE, CHRYSLER MARINE, COMMANDER, FORD MARINE, HARDEN, HOLMAN-MOODY, INDMAR, OMC, PLEASURECRAFT)			
Oil Pump	M-84	1	Standard volume and pressure
Oil Pump Drive Shaft	IS-84	1	
Camshaft	24213	1	High Performance; Hydraulic flat tappet, not California compliant, chain drive, standard rotation, cam lift .285 intake .290 exhaust; Class 2
Lifter	JB-900	16	Hydraulic roller
Intake Valve	V1272	8	Head diameter 2.083
Exhaust Valve	V1102	8	Head diameter 1.653
	V1271	8	Head diameter 1.653
	V1299	8	Head diameter 1.725
Valve Spring	VS-280	16	Single with damper
Valve Lock	476104	16	High Performance; Intake and exhaust 1 groove
3 PC Speed Set	40403	1	High Performance; Includes seamless solid roller chain, cast iron camshaft sprocket & multiple keyway crankshaft sprocket

Engine	Year	Line	Engine	Year	Line	Engine	Year	Line
4 Cyl. 153 (2.5) 181 (3.0) 224 (3.7) V6 250 (4.1) 6 Cyl. 250 (4.1)			6 Cyl. (Continued) 262 (4.3) V8 283 (4.6) 302 (5.0) 305 (5.0) 327 (5.4) 350 (5.7)			V8 (Continued) 351W (5.8) 427 (7.0) 454 (7.4) 482 (7.9) 495 (8.1) 502 (8.2)	2001-05	12 13 14 15 16 17
1	153 (2.5) ENG. - 4 Cyl. - 3.875 Bore (MERCUISER 120)							
Oil Pump		M-62 M-62HV	1 1	Standard volume and pressure High volume (20% additional volume of oil)				
Camshaft		22216	1	High Performance; Hydraulic flat tappet, not California compliant, gear drive, standard rotation, computer compatible cam lift .232 intake .232 exhaust; Class 2				
Lifter		JB-817 JB-817D	8 8	Hydraulic Hydraulic; First design with machined line				
Valve Spring		VS-380	8	Single with damper				
Rocker Arm Kit		MRK-402	8	Kit includes 1-[MR-844], 1-[MRM-1783] & 1-[MRM-1786]				
Rocker Arm Stud		MRDS-921 MRDS-2920	8 8	2.500" Length; .003" oversize High Performance; 2.325" Length; 7/16" diameter				
Push Rod		500494	8	High Performance; Chrome-moly steel; Max spring pressure 350 lbs				
Gear Set		2528S	1	Aluminum camshaft gear & Steel crankshaft gear				
2	181 (3.0) ENG. - 4 Cyl. - 4.000 Bore (MERCUISER 140, 3.0/3.0LX)							
Oil Pump		M-62 M-62HV	1 1	Standard volume and pressure High volume (20% additional volume of oil)				
Camshaft		22217	1	High Performance; Hydraulic flat tappet, not California compliant, gear drive, standard rotation, computer compatible cam lift .253 intake .253 exhaust; Class 2				
Lifter		JB-817 JB-817D	8 8	Hydraulic roller Hydraulic roller; First design with machined line				
Intake Valve		V1195	4	Head diameter 1.940				
Exhaust Valve		V0919	4	Head diameter 1.600				
Valve Spring		VS-380	8	Single with damper				
Valve Lock		476104	8	High Performance; Intake and exhaust 1 groove				
Rocker Arm Kit		MRK-402	8	Kit includes 1-[MR-844], 1-[MRM-1783] & 1-[MRM-1786]				
Rocker Arm Stud		MRDS-921 MRDS-2920	8 8	2.500" Length; .003" oversize High Performance; 2.325" Length; 7/16" diameter				
Push Rod		500494	8	High Performance; Chrome-moly steel; Max spring pressure 350 lbs				
Gear Set		2528S	1	Aluminum camshaft gear & Steel crankshaft gear				
3	224 (3.7) ENG. - 4 Cyl. - 4.360 Bore (MERCUISER 165/3.7L, 170 & 180/3.7LX, 190, 470, 485, 488)							
Oil Pump		M138	1	Standard volume and pressure; New design (cast iron); Use Mercury screen #13843A 2				
Lifter		JB-900	8	Hydraulic roller				
Push Rod		MPR-308	8	8.648 over all length				
Intake Valve		V1272	4	Head diameter 2.083				
Exhaust Valve		V1271	4	Head diameter 1.653				
Valve Spring		VS-810	8	Single spring				
Valve Lock		476104	8	High Performance; Intake and exhaust 1 groove				
Rocker Arm Kit		MRK-547	8	Kit includes 1-[MR-888], 1-[MRM-1740] & 1-[MRM-1776]				
4	229 (3.8) ENG. - V6 - 3.736 Bore (MERCUISER 185)							
Oil Pump		M-55A M-55HV	1 1	Standard volume and pressure High volume (20% additional volume of oil)				
Oil Pump Screen Assy.		55-S1	1	Press fit				
Oil Pump Drive Shaft		IS-55E IS-55G	1 1	Manufactured with steel shaft guide; Eliminates nylon shaft guide Uses M-55005 nylon shaft guide (sold separately)				
Lifter		JB-817	12	Hydraulic				

MERCURY MARINE (continued)

4 229 (3.8) ENG. - V6 - 3.736 Bore (MERCUISER 185) (continued)			
Lifter	JB-817D	12	Hydraulic; First design with machined line
Intake Valve	V1393	6	Head diameter 1.840
Valve Spring	VS-380	12	Single with damper
Valve Lock	476104	12	High Performance; Intake and exhaust 1 groove
Rocker Arm Kit	MRK-401	12	Kit includes 1-[MR-842], 1-[MRM-1731] & 1-[MRM-1786]
Push Rod	501004	12	High Performance; Chrome-moly steel; Max spring pressure 500 lbs
5 250 (4.1) ENG. - 6 Cyl. - 3.875 Bore (MERCUISER 160, 165)			
Oil Pump	M-62	1	Standard volume and pressure
	M-62HV	1	High volume (20% additional volume of oil)
Oil Pump Screen Assy.	62-S3	1	165 engine; Press-fit; From serial #2770032 to 4331786
	62-S6	1	165 engine; Press-fit; From serial #4331787 to 5178958
	62-S3	1	165 engine; Press-fit; From serial #5178959
	62-S3	1	Press-fit; All 160 engines
Camshaft	22218	1	High Performance; Hydraulic flat tappet, not California compliant, gear drive, standard rotation, not computer compatible cam lift .230 intake .230 exhaust, Class 2
Lifter	JB-817	12	Hydraulic
	JB-817D	12	Hydraulic; First design with machined line
Valve Spring	VS-390	12	Single spring
Valve Lock	476104	12	High Performance; Intake and exhaust 1 groove
Rocker Arm Kit	MRK-402	12	Kit includes 1-[MR-844], 1-[MRM-1783] & 1-[MRM-1786]
Rocker Arm Stud	MRDS-921	12	2.500" Length; .003" oversize
	MRDS-2920	12	High Performance; 2.325" Length; 7/16" diameter
Push Rod	500494	12	High Performance; Chrome-moly steel; Max spring pressure 350 lbs
Gear Set	2528S	1	Aluminum camshaft gear & Steel crankshaft gear
6 262 (4.3) ENG. - V6 - 4.000 Bore (MERCUISER 175/4.3L, 185, 205, 205/4.3LX)			
Oil Pump	M155HV	1	High volume (25% additional volume of oil) must use IS shaft with steel guide, 3/4" screen inlet, 4.3 LX GEN II from serial #OF601127 and up
	10553ST	1	High Performance; Standard volume, +10% PSI pressure spring installed, billet steel "Shark Tooth" gears
	M-55HV	1	High volume (25% additional volume of oil) must use IS shaft with steel guide, 5/8" screen inlet, all excluding 4.3 LX GEN II from serial #OF601127 and up
	10550ST	1	High Performance; 25% higher volume, +10% PSI pressure spring installed, billet steel "Shark Tooth" gears
Oil Pump Screen Assy.	213S	1	4.3LX GEN II from serial #OF601127 and up
	258S	1	4.3LX GEN II with cast aluminum pan 1996 and up
	55-S2	1	All excluding 4.3LX GEN II from serial #OF601127 and up
Oil Pump Drive Shaft	IS-55E	1	Standard; Manufactured with steel shaft guide; Eliminates nylon shaft guide
	12550	1	High Performance; Chrome-moly steel; Locking retainer
Camshaft	22123	1	High Performance; Hydraulic flat tappet, not California compliant, chain drive, standard rotation, not computer compatible, without balance shaft, cam lift .273 intake .273 exhaust, Class 1
	22222	1	High Performance; Hydraulic roller, not California compliant, chain drive, standard rotation, not computer compatible, with balance shaft, cam lift .269 intake .273 exhaust, Class 2
	22119	1	High Performance; Hydraulic roller, not California compliant, chain drive, standard rotation, not computer compatible, without balance shaft, cam lift .269 intake .276 exhaust, Class 1
	22120	1	High Performance; Hydraulic roller, not California compliant, gear drive, reverse rotation, not computer compatible, with out balance shaft, cam lift .269 intake .276 exhaust, Class 1

6 262 (4.3) ENG. - V6 - 4.000 Bore (MERCURUISER 175/4.3L, 185, 205, 205/4.3LX) (continued)			
Lifter	JB-817	12	Hydraulic Flat Tappet
	JB-817D	12	Hydraulic Flat Tappet ; First design with machined line
	JB-2079	12	Hydraulic roller
Push Rod	MPR-373 501004	12	Use with hydraulic roller lifter camshaft
		12	High Performance ; Chrome-moly steel; Max spring pressure 500 lbs
Exhaust Valve	V1195	6	Head diameter 1.940
Valve Spring	VS-380	12	Single with damper
Valve Lock	476104	12	High Performance ; Intake and exhaust 1 groove
Rocker Arm Kit	MRK-401	12	Kit includes 1-[MR-842], 1-[MRM-1731] & 1-[MRM-1786] Not for use with roller camshafts
Rocker Arm Stud	MRDS-921 MRDS-2920	12	2.500" Length; .003" oversize
		12	High Performance ; 2.325" Length; 7/16" diameter
3 PC set	3-506SB 40400	1	Kit includes [506], [S732] & [S505] use with roller lifter camshaft without balance shaft, for with standard drive rotation only
		1	High Performance ; Includes double seamless solid roller chain, cast iron camshaft sprocket & multiple keyway crankshaft sprocket, use with flat lifter camshaft, for standard drive rotation only
7 283 (4.6) ENG. - V6 - 3.875 Bore (MERCURUISER 190)			
Oil Pump	M-55	1	Standard volume and pressure
	10553ST	1	High Performance ; Standard volume, +10% PSI pressure spring installed, billet steel "Shark Tooth" gears
	M-55HV	1	High volume (25% additional volume of oil) must use IS shaft with steel guide
	10550ST	1	High Performance ; 25% higher volume, +10% PSI pressure spring installed, billet steel "Shark Tooth" gears
Oil Pump Screen Assy.	55-S2	1	Press fit; (See page 25 for dimensional information)
Oil Pump Drive Shaft	IS-55E	1	Standard; Manufactured with steel shaft guide; Eliminates nylon shaft guide
	IS-55G	1	Standard; Uses M-55005 nylon shaft guide (sold separately)
	12550	1	High Performance ; Chrome-moly steel; Locking retainer
Camshaft	22124	1	High Performance ; Hydraulic flat tappet, not California compliant, chain drive, standard rotation, not computer compatible, cam lift .267 intake .273 exhaust, Class 1
	22125	1	High Performance ; Hydraulic flat tappet, not California compliant, gear drive, reverse rotation, not computer compatible, cam lift .267 intake .273 exhaust, Class 1
Lifter	JB-817	12	Hydraulic flat tappet
Valve Spring	466354	12	High Performance ; Single with damper
Valve Lock	476104	12	High Performance ; Intake and exhaust 1 groove
Rocker Arm Kit	MRK-401	12	Kit includes 1-[MR-842], 1-[MRM-1731] & 1-[MRM-1786]
Rocker Arm Stud	MRDS-921 MRDS-2920	12	2.500" Length; .003" oversize
		12	High Performance ; 2.325" Length; 7/16" diameter
Push Rod	501004	12	High Performance ; Chrome-moly steel; Max spring pressure 350 lbs; 5/16 diameter; Standard length; Heat treated for guide plates
Crank Gear	2535	1	29 teeth; Reverse drive rotation
3 PC Timing Set	40400	1	High Performance ; Includes double seamless solid roller chain, cast iron camshaft sprocket & multiple keyway crankshaft sprocket, use with flat lifter camshaft, for standard drive rotation only
8 302 (5.0) ENG. - V8 - 4.000 Bore (MERCURUISER 215, 225, 225S, 888)			
Oil Pump	M-68	1	Standard volume and pressure; 5/8" screen inlet
	M-68A	1	Standard volume - High pressure; 5/8" screen inlet
	10687	1	High Performance ; Standard volume, +10PSI
	M-68HV	1	High volume (25% additional volume of oil): 5/8" screen
	10688	1	High Performance ; 25% higher volume, +10PSI
Oil Pump Drive Shaft	IS-68	1	inlet; may require oil pan modification

MERCURY MARINE (continued)

8 302 (5.0) ENG. - V8 - 4.000 Bore (MERCUISER 215, 225, 225S, 888) (continued)				
Camshaft	SYB-35	1	Hydraulic flat tappet, OE replacement grind, chain drive, standard rotation, 351 firing order, (see specs), not carb compliant, cam lift .278 intake .283 exhaust	
	24107	1	High Performance; Hydraulic flat tappet, not California compliant, chain drive standard rotation, (18456273) firing order, computer compatible, cam lift .260 intake .278 exhaust, Class 1	
	24209	1	High Performance; Hydraulic flat tappet, not California compliant, chain drive reverse rotation, (18456273) firing order computer compatible, cam lift .278 intake .283 exhaust, Class 2	
Lifter	JB-900	16	Hydraulic flat tappet	
Intake Valve	V1001	8	Head diameter 1.780	
	V1137	8	Head diameter 1.781	
	V1538	8	Head diameter 1.782 (4.940" Length)	
	V1328	8	Head diameter 1.782 (5.070" Length)	
	V1328+3	8	Head diameter 1.782 / .003 oversize stem	
	V1238	8	Head diameter 1.844	
	Exhaust Valve	V1000	8	Head diameter 1.450
		V1135	8	Head diameter 1.452
V1237		8	Head diameter 1.543	
V1173		8	Head diameter 1.710	
Valve Spring	VS-280	16	Single with damper	
Valve Lock	476104	16	High Performance; Intake and exhaust 1 groove	
Rocker Arm Kit	MRK-610	16	1968-78; Kit includes 1-[MR-886], 1-[MRM-1772] & 1-[MRM-1786] 3/8" & 1-[MRM-1791] 5/16" with cast rocker arms	
	MRK-548	16	1978-95; Kit includes 1-[MR-889], 1-[MRM-1776] & 1-[MRM-1741] with stamped rocker arms	
Rocker Arm Stud	MRDS-934	16	Standard	
Push Rod	500404	16	High Performance; Chrome-moly steel; Max spring pressure 350 lbs	
3 PC Timing Set	40402	1	High Performance; Includes seamless solid roller chain, cast iron camshaft sprocket & multiple keyway crankshaft sprocket. Must use MF126 (3.356") thrust plate with this set. Do not use two piece fuel pump eccentric with this set. If engine has two two piece fuel pump eccentric discard and use one piece eccentric (Ford #C3AZ-6287-B)	
9 305 (5.0) ENG. - V8 - 3.736 Bore (MERCUISER 200/5.0L, 228, 230/5.0L MIE, 230/5.0LX, 898, 898/198)				
Oil Pump	M-55	1	Standard volume and pressure	
	10553ST	1	High Performance; Standard volume, +10% PSI pressure spring installed, billet steel "Shark Tooth" gears	
	M-55HV	1	High volume (25% additional volume of oil) must use IS shaft with steel guide	
	10550ST	1	High Performance; 25% higher volume, +10% PSI pressure spring installed, billet steel "Shark Tooth" gears	
Oil Pump Screen Assy.	55-S2	1	Press fit (See page 25 for dimensional information)	
	55-S1	1	Press fit (See page 25 for dimensional information)	
	55-S	1	Press fit (See page 25 for dimensional information)	
Oil Pump Drive Shaft	IS-55E	1	Standard; Manufactured with steel shaft guide; Eliminates nylon shaft guide	
	IS-55G	1	Standard; Uses M-55005 nylon shaft guide (sold separately)	
Camshaft	12550	1	High Performance; Chrome-moly steel; Locking retainer	
	22124	1	High Performance; Hydraulic flat tappet, not California compliant, chain drive, standard rotation, not computer compatible, cam lift .267 intake .273 exhaust, Class 1	

9 305 (5.0) ENG. - V8 - 3.736 Bore (MERCUISER 200/5.0L, 228, 230/5.0L MIE, 230/5.0LX, 898, 898/198)			
Camshaft	22125	1	High Performance; Hydraulic flat tappet, not California compliant, gear drive, reverse rotation, not computer compatible, cam lift .267 intake .273 exhaust, Class 1
Lifter	JB-817	16	Hydraulic flat tappet
Valve Spring	466354	16	High Performance; Single with damper
Valve Lock	476104	16	High Performance; Intake and exhaust 1 groove
Rocker Arm Kit	MRK-401	16	Kit includes 1-[MR-842], 1-[MRM-1731] & 1-[MRM-1786]
Rocker Arm Stud	MRDS-921 MRDS-2920	16 16	2.500" Length; .003" oversize High Performance; 2.325" Length; 7/16" diameter
Push Rod	501004	16	High Performance; Chrome-moly steel; Max spring pressure 350 lbs; 5/16 diameter; Standard length; Heat treated for guide plates
Crank Gear	2535	1	29 teeth; For reverse drive rotation
3 PC Timing Set	40400	1	High Performance; Includes double seamless solid roller chain, cast iron camshaft sprocket & multiple keyway crankshaft sprocket, for standard drive rotation only
10 327 (5.4) ENG. - V8 - 4.000 Bore (MERCUISER 225, 250)			
Oil Pump	M-55	1	Standard volume and pressure
	10553ST	1	High Performance; Standard volume, +10% PSI pressure spring installed, billet steel "Shark Tooth" gears
	M-55HV	1	High volume (25% additional volume of oil) must use IS shaft with steel guide
	10550ST	1	High Performance; 25% higher volume, +10% PSI pressure spring installed, billet steel "Shark Tooth" gears
Oil Pump Screen Assy.	55-S2	1	Press fit (See page 25 for dimensional information)
	55-S1	1	Press fit (See page 25 for dimensional information)
	55-S	1	Press fit (See page 25 for dimensional information)
Oil Pump Drive Shaft	IS-55E	1	Standard; Manufactured with steel shaft guide; Eliminates nylon shaft guide
	IS-55G	1	Standard; Uses M-55005 nylon shaft guide (sold separately)
	12550	1	High Performance; Chrome-moly steel; Locking retainer
Camshaft	22124	1	High Performance; Hydraulic flat tappet, not California compliant, chain drive, standard rotation, not computer compatible, cam lift .267 intake .273 exhaust, Class 1
	22125	1	High Performance; Hydraulic flat tappet, not California compliant, gear drive, reverse rotation, not computer compatible, cam lift .267 intake .273 exhaust, Class 1
Lifter	JB-817	16	Hydraulic flat tappet
Intake Valve	V1195	8	Head diameter 1.940
Valve Spring	VS-380	16	Single with damper
Valve Lock	476104	16	High Performance; Intake and exhaust 1 groove
Rocker Arm Kit	MRK-401	16	Kit includes 1-[MR-842], 1-[MRM-1731] & 1-[MRM-1786]
Rocker Arm Stud	MRDS-921	16	2.500" Length; .003" oversize
	MRDS-2920	16	High Performance; 2.325" Length; 7/16" diameter
Push Rod	501004	16	High Performance; Chrome-moly steel; Max spring pressure 350 lbs; 5/16 diameter; Standard length; Heat treated for guide plates
Crank Gear	2535	1	29 teeth; For reverse drive rotation
3 PC Timing Set	40400	1	High Performance; Includes double seamless solid roller chain, cast iron camshaft sprocket & multiple keyway crankshaft sprocket, for standard drive rotation only
11 350 (5.7) ENG. - V8 - 4.000 Bore (MERCUISER 250, 255, 260, 260 5.7L, LX ALPHA, BRAVO, MAG BRAVO EFI, 270, 280, 300, 320 EFI, 260, MIE, 260/5.7 MIE, 5.7 SKI, 350 MAG SKI, MAG ALPHA)			
Oil Pump	M-55	1	Standard volume and pressure; 5/8" screen inlet
	10553ST	1	High Performance; Standard volume, +10% PSI pressure spring installed, billet steel "Shark Tooth" gears
	M-55HV	1	High volume (25% additional volume of oil) must use IS shaft with steel guide, 5/8" screen inlet
	10550ST	1	High Performance; 25% higher volume, +10% PSI pressure spring installed, billet steel "Shark Tooth" gears

MERCURY MARINE (continued)

11 350 (5.7) ENG. - V8 - 4.000 Bore (MERCUISER 250, 255, 260, 260 5.7L, LX ALPHA, BRAVO, MAG BRAVO EFI, 270, 280, 300, 320 EFI, 260, MIE, 260/5.7 MIE, 5.7 SKI, 350 MAG SKI, MAG ALPHA) (continued)			
Oil Pump Screen Assy.	55-S2	1	Press fit (See page 25 for dimensional information)
	55-S1	1	Press fit (See page 25 for dimensional information)
	55-S	1	Press fit (See page 25 for dimensional information)
Oil Pump Drive Shaft	IS-55E	1	Standard; Manufactured with steel shaft guide; Eliminates nylon shaft guide
	IS-55G	1	Standard; Uses M-55005 nylon shaft guide (sold separately)
	12550	1	High Performance; Chrome-moly steel; Locking retainer
Camshaft	22124	1	High Performance; Hydraulic flat tappet, not California compliant, chain drive, standard rotation, not computer compatible, cam lift .267 intake .273 exhaust, Class 1
	22125	1	High Performance; Hydraulic flat tappet, not California compliant, gear drive, reverse rotation, not computer compatible, cam lift .267 intake .273 exhaust, Class 1
	22221	1	High Performance; Hydraulic roller, not California compliant, chain drive, standard rotation, computer compatible, cam lift .289 .300 exhaust, Class 2
Lifter	JB-817	16	Hydraulic flat tappet
Intake Valve	V1195	8	Head diameter 1.940
Valve Spring	VS-380	16	Single with damper
Valve Lock	476104	16	High Performance; Intake and exhaust 1 groove
Rocker Arm Kit	MRK-401	16	Kit includes 1-[MR-842], 1-[MRM-1731] & 1-[MRM-1786]
Rocker Arm Stud	MRDS-921	16	2.500" Length; .003" oversize
	MRDS-2920	16	High Performance; 2.325" Length; 7/16" diameter
Push Rod	501004	16	High Performance; Chrome-moly steel; Max spring pressure 350 lbs; 5/16 diameter; Standard length; Heat treated for guide plates; For hydraulic flat tappet camshaft
Crank Gear	2535	1	29 teeth; For reverse drive rotation
3 PC Timing Set	40400	1	High Performance; Includes double seamless solid roller chain, cast iron camshaft sprocket & multiple keyway crankshaft sprocket, for standard drive rotation only
12 351W (5.8) ENG. - V8 - 4.000 Bore (MERCUISER 233, 255)			
Oil Pump	M-83	1	Standard volume and pressure
	10832	1	High Performance; standard volume, standard pressure, standard steel gears
	M-83HV	1	High volume (25% additional volume of oil), stock relief valve and shaft design; May require oil pan modification
	10833	1	High Performance; Standard pressure, high volume (25% additional volume of oil), standard gears, Includes optional (+15 PSI) pressure spring, Includes 12830 performance drive shaft, 5/8" screen inlet
Oil Pump Screen Assy.	83-S	1	Bolt on
Oil Pump Drive Shaft	IS-83	1	Standard
	12830	1	High Performance; Chrome-moly steel; hex drive
Camshaft	SYB-35	1	Hydraulic flat tappet, OE replacement grind, chain drive, standard rotation, 351 firing order, (see specs), not carb compliant, cam lift .278 intake .283 exhaust
	24107	1	High Performance; Hydraulic flat tappet, not California compliant, chain drive standard rotation, 351W firing order, not computer compatible, cam lift .260 intake .278 exhaust, Class 1
	24209		High Performance; Hydraulic flat tappet, not California compliant, chain drive reverse rotation, (18456273) firing order, not computer compatible, cam lift .278 intake .283 exhaust, Class 2
	JB-900		Hydraulic flat tappet
	MPR-280		
	V1328		Head diameter 1.782
	V1328+3		Head diameter 1.782 (.003 oversize stem)
	V1238		Head diameter 1.844

12 351W (5.8) ENG. - V8 - 4.000 Bore (MERCUISER 233, 255) (continued)			
Exhaust Valve	V1135	8	Head diameter 1.452
	V1453	8	Head diameter 1.462
	V1453+3	8	Head diameter 1.462+3 (.003 oversize stem)
	V1237	8	Head diameter 1.543
Valve Spring	VS-280	16	Single with damper
Valve Lock	476104	16	High Performance; Intake and exhaust 1 groove
Rocker Arm Kit	MRK-610	16	1969 -1978 Kit includes 1-[MR-886], 1-[MRM-1772] & 1-[MRM-1786] 3/8"1-[MRM-1791] 5/16" w/cast rocker arms
	MRK-548	16	1978 - 1991 Kit includes 1-[MR-889], 1-[MRM-1776] & 1-[MRM-1741] 3/8" with stamped rocker arms
3 PC Timing Set	40402	1	High Performance; Includes seamless solid roller chain, cast iron camshaft sprocket & multiple keyway crankshaft sprocket. Must use MF126 (3.356") thrust plate with this set. Do not use two piece fuel pump eccentric with this set. If engine has the two piece fuel pump eccentric discard & use one piece eccentric (Ford # C3AZ-6287-B)
13 427 (7.0) ENG. - V8 - 4.250 Bore (MERCUISER 325)			
Oil Pump	M-77	1	Standard volume and pressure; 3/4" screen inlet
	10774	1	High Performance; standard volume, +15 PSI pressure spring installed, billet steel gears, Includes 12770 chrome-moly drive shaft, Includes optional standard pressure spring, screw-in valve plug, 3/4" screen inlet
	M-77HV	1	25% higher volume, standard pressure; 3/4" screen inlet
	10770	1	High Performance; 25% higher volume, +15 PSI pressure spring installed, billet steel gears, Includes 12770 chrome-moly drive shaft, Includes optional standard pressure spring, standard valve plug, 3/4" screen inlet
Oil Pump Drive Shaft	10778	1	High Performance; 25% higher volume, +15 PSI pressure spring installed, billet steel gears, Includes 12770 chrome-moly drive shaft, Includes optional standard pressure spring, screw-in valve plug, 3/4" screen inlet
	IS-77	1	Standard; Manufactured with steel shaft guide; Eliminates nylon shaft guide
	IS-77A	1	Standard; Uses M-55005 nylon shaft guide (included)
	12770	1	High Performance; Chrome-moly steel; Locking retainer locks on oil pump shaft; 6.516" length
Camshaft	12774	1	High Performance; Chrome-moly steel; Locking retainer locks on oil pump shaft; 7.176" length
	22216	1	High Performance; Hydraulic flat tappet; OE replacement grind; chain drive; standard rotation; not computer compatible; cam lift .271 intake .282 exhaust, Class 2
	22219	1	High Performance; Hydraulic flat tappet; not California compliant; chain drive standard rotation; not computer compatible; cam lift .300 intake .300 exhaust, Class 2
	22218	1	High Performance; Hydraulic flat tappet; not California compliant; gear drive reverse rotation; not computer compatible; cam lift .272 intake .283 exhaust, Class 2
Intake Valve	22220	1	High Performance; Hydraulic flat tappet; not California compliant; gear drive reverse rotation; not computer compatible; cam lift .300 intake .300 exhaust, Class 2
	V0997	8	Head diameter 1.840
	V1107	8	Head diameter 2.065
	V1107+3	8	Head diameter 2.065+3 (.003 oversize stem)
Exhaust Valve	V1136	8	Head diameter 2.300
	V1261	8	Head diameter 1.720
Valve Spring	466224	16	High Performance; Single with damper (ASM height of 1.880)
Valve Lock	473004	16	High Performance; Intake and exhaust; 2 grooves; hardened steel; 0.375" valve stem

MERCURY MARINE (continued)

13 427 (7.0) ENG. - V8 - 4.250 Bore (MERCURISER 325) (continued)			
Rocker Arm Kit	MRK-405	16	1969 -1978 Kit includes 1-[MR-867],1-[MRM-1797] & 1-[MRM-1793] use w/adjustable valve train
Push Rod	500154	16	High Performance; Chrome-moly steel; Max spring pressure 350 lbs; 8.280" length; 3/8" diameter; 0.65" wall thickness
	500164	16	High Performance; Chrome-moly steel; Max spring pressure 350 lbs; 9.250" length; 3/8" diameter; 0.65" wall thickness
	500294	16	High Performance; Chrome-moly steel; Max spring pressure 350 lbs; 8.280" length; 7/16" diameter; 0.65" wall thickness
	500304	16	High Performance; Chrome-moly steel; Max spring pressure 350 lbs; 9.250" length; 7/16" diameter; 0.65" wall thickness
3 PC Timing Set	40401	1	High Performance; Includes seamless solid double roller chain, cast iron camshaft sprocket & multiple keyway crankshaft sprocket. For standard rotation, excludes roller camshaft applications, center distance 5.152"
14 454 (7.4) ENG. - V8 - 4.250 Bore (MERCURISER 330, 7.4-454 BRAVO, MAG ALPHA, MAG BRAVO, 370-400-420-425-440 TRS, 450-525 SC, 330 MIE, 340 MIE, 7.4 MIE W/HURTH, 7.4 EFI MIE, 454 EFI SKI 350 MIE)			
Oil Pump	M-77	1	Standard volume and pressure; 3/4" screen inlet
	10774	1	High Performance; standard volume, +15 PSI pressure spring installed, billet steel gears, Includes 12770 chrome-moly drive shaft,Includes optional standard pressure spring, screw-in valve plug, 3/4" screen inlet
	M-77HV	1	25% higher volume, standard pressure; 3/4" screen inlet
	10770	1	High Performance; 25% higher volume, +15 PSI pressure spring installed, billet steel gears, Includes 12770 chrome-moly drive shaft,Includes optional standard pressure spring, standard valve plug, 3/4" screen inlet
Oil Pump Screen Assy.	241S	1	Press-fit; For use with 9" oil pans
	305S	1	Press-fit; For use with 8" oil pans
Oil Pump Drive Shaft	IS-77	1	Standard; Manufactured with steel shaft guide; Eliminates nylon shaft guide
	IS-77A	1	Standard; Uses M-55005 nylon shaft guide (included)
	12770	1	High Performance; Chrome-moly steel; Locking retainer locks on oil pump shaft; 6.516" length
	12774	1	High Performance; Chrome-moly steel; Locking retainer locks on oil pump shaft; 7.176" length
Camshaft	MC1316		OE replacement grind; Hydraulic roller; chain drive; standard rotation; computer compatible; cam lift .282 intake .284 exhaust; Class 2
	22216		High Performance; Hydraulic flat tappet; not California compliant; chain drive; standard rotation; not computer compatible; cam lift .271 intake .282 exhaust; Class 2
	22219		High Performance; Hydraulic flat tappet; not California compliant; chain drive standard rotation; not computer compatible; cam lift .300 intake .300 exhaust; class 2
	22218		High Performance; Hydraulic flat tappet; not California compliant; gear drive reverse rotation; not computer compatible; cam lift .272 intake .283 exhaust; Class 2
	22213		High Performance; Hydraulic roller; not California compliant; chain drive standard rotation; not computer compatible; cam lift .284 intake .284 exhaust; Class 2

14 454 (7.4) ENG. - V8 - 4.250 Bore (MERCUISER 330, 7.4-454 BRAVO, MAG ALPHA, MAG BRAVO, 370-400-420-425-440 TRS, 450-525 SC, 330 MIE, 340 MIE, 7.4 MIE W/HURTH, 7.4 EFI MIE, 454 EFI SKI 350 MIE) (continued)

Lifter	JB-817	16	Hydraulic; use with adjustable valve train
	JB-969	16	Hydraulic; use with non-adjustable valve train
	JB-7003	16	Hydraulic roller; use with MC1316 camshaft only
Intake Valve	V0997	8	Head diameter 1.840
	V1107	8	Head diameter 2.065
	V1107+3	8	Head diameter 2.065+3 (.003 oversize stem)
	V1136	8	Head diameter 2.300
Exhaust Valve	V1261	8	Head diameter 1.720
Valve Spring	VS-2259	16	Single spring
	466224	16	High Performance; Single with damper (w/height of 1.88)
Valve Lock	473004	16	Intake and exhaust 2 grooves; hardened steel; for 0.375" valve stem only
Rocker Arm Kit	MRK-405	16	Kit includes 1-[MR-867], 1-[MRM-1797] & 1-[MRM-1793] use w/adjustable valve train
Push Rod	500294	16	High Performance; Chrome-moly steel; Max spring pressure 350 lbs; 8.280" length; 7/16" diameter; 0.65" wall thickness
	500304	16	High Performance; Chrome-moly steel; Max spring pressure 350 lbs; 9.250" length; 7/16" diameter; 0.65" wall thickness
	500164	16	High Performance; Chrome-moly steel; Max spring pressure 350 lbs; 9.250" length; 3/8" diameter; 0.65" wall thickness
	500154	16	High Performance; Chrome-moly steel; Max spring pressure 350 lbs; 8.280" length; 3/8" diameter; 0.65" wall thickness
3 PC Timing Set	40401	1	wall thickness High Performance; Includes seamless solid double roller chain, cast iron camshaft sprocket & multiple keyway crankshaft sprocket. For standard rotation, excludes roller camshaft applications, center distance 5.152"
Expansion Plug Kit	MPE-275BR	1	Bagged; Brass; Includes: (6) MPC-41-B, (1) MPC-154, (5) MPP-554, (10) MPP-567, (3) MPP-638
	MPE-275R	1	Bagged; Steel; Includes: (6) MPC-41, (1) MPS-154, (5) MPP-554, (10) MPP-567, (3) MPP-638

15 482 (7.9) ENG. - V8 - 4.250 Bore (MERCUISER 390, 460 TRS)

Oil Pump	M-77G	1	Standard volume and pressure; 3/4" screen inlet
	10774	1	High Performance; standard volume, +15 PSI pressure spring installed, billet steel gears, Includes 12770 chrome-moly drive shaft, Includes optional standard pressure spring, screw-in valve plug, 3/4" screen inlet
	M-77HV	1	High volume (25% additional volume of oil); 3/4" screen inlet
	10770	1	High Performance; 25% higher volume, +15 PSI pressure spring installed, billet steel gears, Includes 12770 chrome-moly drive shaft, Includes optional standard pressure spring, standard valve plug, 3/4" screen inlet
	10778	1	High Performance; 25% higher volume, +15 PSI pressure spring installed, billet steel gears, Includes 12770 chrome-moly drive shaft, Includes optional standard pressure spring, screw-in valve plug, 3/4" screen inlet
Oil Pump Screen Assy.	305S	1	Press-fit; For use with 8" oil pans
Oil Pump Drive Shaft	IS-77	1	Standard; Manufactured with steel shaft guide; Eliminates nylon shaft guide
	IS-77A	1	Standard; Uses M-55005 nylon shaft guide (included)
	12770	1	High Performance; Chrome-moly steel; 6.516" length; Locking retainer locks on oil pump shaft
	12774	1	High Performance; Chrome-moly steel; 7.176" length; Locking retainer locks on oil pump shaft

MERCURY MARINE (continued)

16	495 (8.1) ENG. - V8 - 4.250 Bore							
	Oil Pump Screen Assy.	353S	1					Press-fit
17	482 (8.2) ENG. - V8 - 4.466 Bore (MERCURISER 465, 500, 502 MAG BRAVO, 502 EFI, 600 SC & 8.2L MIE)							
	Oil Pump	M-77G 10774	1 1					Standard volume and pressure; 3/4" screen inlet High Performance; standard volume, +15 PSI pressure spring installed, billet steel gears, Includes 12770 chrome-moly drive shaft, Includes optional standard pressure spring, screw-in valve plug, 3/4" screen inlet
		M-77HV 10770	1 1					High volume (25% additional volume of oil); 3/4" screen inlet High Performance; 25% higher volume, +15 PSI pressure spring installed, billet steel gears, Includes 12770 chrome-moly drive shaft, Includes optional standard pressure spring, standard valve plug, 3/4" screen inlet
		10778	1					High Performance; 25% higher volume, +15 PSI pressure spring installed, billet steel gears, Includes 12770 chrome-moly drive shaft, Includes optional standard pressure spring, screw-in valve plug, 3/4" screen inlet
	Oil Pump Drive Shaft	IS-77 IS-77A 12770 12774	1 1 1 1					Standard; Manufactured with steel shaft guide; Eliminates nylon shaft guide Standard; Uses M-55005 nylon shaft guide (included) High Performance; Chrome-moly steel; 6.516" length; Locking retainer locks on oil pump shaft High Performance; Chrome-moly steel; 7.176" length Locking retainer locks on oil pump shaft
	Camshaft	22219 22223	1 1 1					High Performance; Hydraulic flat tappet; not California compliant; chain drive standard rotation; not computer compatible; cam lift .300 intake .300 exhaust; Class 2 High Performance; Hydraulic roller; not California compliant; chain drive standard rotation; not computer compatible; cam lift .284 intake .284 exhaust; Class 2
	Lifter	JB-969	1					Hydraulic flat tappets
	Expansion Plug Kit	MPE-275BR MPE-275R	1 1 1					Bagged; Brass; Includes: (6) MPC-41-B, (1) MPC-154, (5) MPP-554, (10) MPP-567, (3) MPP-638 Bagged; Steel; Includes: (6) MPC-41, (1) MPS-154, (5) MPP-554, (10) MPP-567, (3) MPP-638

OMC

Engine	Year	Line	Engine	Year	Line	Engine	Year	Line
4 Cyl.			6 Cyl.			V8		
153 (2.5)		1	250 (4.1)		4	302 (5.0)		7
181 (3.0)		2	V8			307 (5.0)		8
V6			283 (4.6)		5	350 (5.7)		9
225 (3.7)		3	8 Cyl		6	351W (5.8)		10
			300 (4.9)					

1	153 (2.5) ENG. - 4 Cyl. - 3.875 Bore (OMC 100, 110, 120)							
	Oil Pump	M-62 M-62HV	1 1					Standard volume and pressure High volume (20% additional volume of oil)
	Camshaft	22216	1					High Performance; Hydraulic flat tappet, not California compliant, gear drive, standard rotation, computer compatible cam lift .232 intake .232 exhaust; Class 2
	Lifter	JB-817 JB-817D	8 8					Hydraulic Hydraulic; First design with machined line
	Valve Spring	VS-380	8					Single with damper
	Valve Lock	476104	8					Intake and exhaust 1 groove
	Rocker Arm Kit	MRK-402	8					Kit includes 1-[MR-844], 1-[MRM-1783] & 1-[MRM-1786]
	Rocker Arm Stud	MRDS-921 MRDS-2920	8 8					2.500" Length; .003" oversize High Performance; 2.325" Length; 7/16" diameter
	Push Rod	500494	1					High Performance; Chrome-moly steel; Max spring
	Gear Set	2528S						pressure 350 lbs Aluminum camshaft gear & Steel crankshaft gear

2 181 (3.0) ENG. - 4 Cyl. - 4.000 Bore (OMC 140)			
Oil Pump	M-62 M-62HV	1 1	Standard volume and pressure High volume (20% additional volume of oil)
Camshaft	22217	1	High Performance; Hydraulic flat tappet, not California compliant, gear drive, standard rotation, computer compatible cam lift .253 intake .253 exhaust; Class 2
Lifter	JB-817 JB-817D	8 8	Hydraulic roller Hydraulic roller; First design with machined line
Intake Valve	V1195	4	Head diameter 1.940
Exhaust Valve	V0919	4	Head diameter 1.600
Valve Spring	VS-380	8	Single with damper
Valve Lock	476104	8	High Performance; Intake and exhaust 1 groove
Rocker Arm Kit	MRK-402	8	Kit includes 1-[MR-844], 1-[MRM-1783] & 1-[MRM-1786]
Rocker Arm Stud	MRDS-921 MRDS-2920	8 8	.2500" Length; .003" oversize High Performance; 2.325" Length; 7/16" diameter
Push Rod	500494	8	High Performance; Chrome-moly steel; Max spring pressure 350 lbs
Gear Set	2528S	1	Aluminum camshaft gear & Steel crankshaft gear
3 225 (3.7) ENG. - V6 - 3.750 Bore (OMC 150, 155)			
Oil Pump Repair Kit	K-20IHV	1	Repair kit for high volume oil pumps; Provides 29% higher volume; Includes longer gears, spacer, gasket, springs & instructions, May require removing timing cover to install; Hand tools & drill required (Includes drill bit)
	K-20I	1	Repair kit for standard volume oil pumps
Camshaft	SBC-8	1	Hydraulic flat tappet, OE replacement grind, chain drive, standard rotation, computer compatible, not carb compliant cam lift .251 intake .244 exhaust
Lifter	JB-896	12	Hydraulic
Exhaust Valve	V0976	6	1965-66; Head diameter 1.375
Push Rod	MPR-314	12	1965-66; Standard replacement
3 PC Set	3-595S	1	Kit includes 1-[359], 1-[S334] & 1-[S323]
4 250 (4.1) ENG. - 6 Cyl. - 3.875 Bore (OMC 165)			
Oil Pump	M-62 M-62HV	1 1	Standard volume and pressure High volume (20% additional volume of oil)
Oil Pump Screen Assy.	62-S3 62-S6	1 1	Press-fit; With out RI suffix Press-fit; With RI suffix
Camshaft	22218	1	High Performance; Hydraulic flat tappet, not California compliant, gear drive, standard rotation, not computer compatible cam lift .230 intake .230 exhaust; Class 2
Lifter	JB-817 JB-817D	12 12	Hydraulic Hydraulic; First design with machined line
Valve Spring	VS-390	12	Single
Valve Lock	476104	12	High Performance; Intake and exhaust 1 groove
Rocker Arm Kit	MRK-402	12	Kit includes 1-[MR-844], 1-[MRM-1783] & 1-[MRM-1786]
Rocker Arm Stud	MRDS-921 MRDS-2920	12 12	.2500" Length; .003" oversize High Performance; 2.325" Length; 7/16" diameter
Push Rod	500494	12	High Performance; Chrome-moly steel; Max spring pressure 350 lbs
Gear Set	2528S	1	Aluminum camshaft gear & Steel crankshaft gear
5 283 (4.6) ENG. - V6 - 3.875 Bore (OMC 185)			
Oil Pump	M-55 10553ST	1 1	Standard volume and pressure; 5/8" screen inlet High Performance; Standard volume, +10% PSI pressure spring installed, billet steel "Shark Tooth" gears
	M-55HV	1	High volume (25% additional volume of oil) must use IS shaft with steel guide, 5/8" screen inlet
	10550ST	1	High Performance; 25% higher volume, +10% PSI pressure spring installed, billet steel "Shark Tooth" gears
Oil Pump Screen Assy.	55-S1	1	Press fit
Oil Pump Drive Shaft	IS-55E	1	Standard; Manufactured with steel shaft guide; Eliminates nylon shaft guide
	12550 IS-55G	1 1	High Performance; Chrome-moly steel; Locking retainer Standard; Uses M-55005 nylon shaft guide (sold separately)

OMC (continued)

5 283 (4.6) ENG. - V6 - 3.875 Bore (OMC 185)			
Camshaft	22124	1	High Performance; Hydraulic flat tappet, not California compliant, chain drive, standard rotation, not computer compatible, cam lift .267 intake .273 exhaust; Class 1
	22125	1	High Performance; Hydraulic flat tappet, not California compliant, gear drive, reverse rotation, not computer compatible, cam lift .267 intake .273 exhaust; Class 1
Lifter	JB-817	12	Hydraulic
Valve Spring	466354	12	High Performance; Single with damper
Valve Lock	476104	12	High Performance; Intake and exhaust 1 groove
Rocker Arm Kit	MRK-401	12	Kit includes 1-[MR-842], 1-[MRM-1731] & 1-[MRM-1786]
Rocker Arm Stud	MRDS-921	12	.2500" Length; .003" oversize
	MRDS-2920	12	High Performance; 2.325" Length; 7/16" diameter
Push Rod	501004	12	High Performance; Chrome-moly steel; Max spring pressure 350 lbs; 5/16 diameter; Standard length; Heat treated for guide plates
Crank Gear	2535	1	29 teeth; Reverse drive rotation
3 PC Timing Set	40400	1	High Performance; Includes double seamless solid roller chain, cast iron camshaft sprocket & multiple keyway crankshaft sprocket, use with flat lifter camshaft, for standard drive rotation only
6 300 (4.9) ENG. - 8 Cyl. - 3.750 Bore (OMC 170, 200)			
Oil Pump Repair Kit	K-20IHV	1	Repair kit for high volume oil pumps; Provides 29% higher volume; Includes longer gears, spacer, gasket, springs & instructions, May require removing timing cover to install; Hand tools & drill required (Includes drill bit)
	K-20I	1	Repair kit for standard volume oil pumps
Lifter	JB-896	12	Hydraulic
Push Rod	MPR-314	12	1965-67; Standard replacement
3 PC Set	3-595S	1	Kit includes 1-[359], 1-[S334] & 1-[S323]
7 302 (5.0) ENG. - V8 - 4.000 Bore (OMC 170, 175, 190)			
Oil Pump	M-68A	1	Standard volume - High pressure; 5/8" screen inlet
	10687	1	High Performance; standard volume, +10 PSI pressure spring installed, Steel gears, Includes optional +20 PSI pressure spring, Adjustable relief valve, 5/8" screen inlet
	M-68HV	1	High volume (25% additional volume of oil); 5/8" screen inlet; may require oil pan modification
	10688	1	High Performance; 25% higher volume, +10PSI pressure spring installed, Steel gears, Includes optional +20 PSI pressure spring, Adjustable relief valve, 5/8" screen inlet
Oil Pump Drive Shaft	IS-68	1	Standard; Steel
	12680	1	High Performance; Chrome-moly steel; Black oxide finish
Camshaft	SYB-24	1	Hydraulic flat tappet, OE stock replacement grind, standard rotation, not carb compliant, use with 190 OMC engine, .260 intake .260 exhaust
Camshaft	SYB-25	1	Hydraulic flat tappet, OE stock replacement grind, standard rotation, not carb compliant, use with 170 and 175 OMC engines, .230 intake .230 exhaust
Lifter	JB-900	16	Hydraulic
Intake Valve	V1137	8	Head diameter 1.781; (170 and 175 engines)
Exhaust Valve	V1135	8	Head diameter 1.452; (170 and 175 engines)
Valve Spring	VS-280	16	Single with damper
Valve Lock	476104	16	High Performance; Intake and exhaust 1 groove
Rocker Arm Kit	MRK-610	16	Kit includes 1-[MR-886], 1-[MRM-1772] & 1-[MRM-1786] 3/8" & 1-[MRM-1791] 5/16"
Push Rod	500404	16	High Performance; Chrome-moly steel; Max spring pressure 350 lbs
3 PC Timing Set	40402	1	High Performance; Includes seamless solid roller chain, cast iron camshaft sprocket & multiple keyway crankshaft sprocket Must use MF126 thrust plate with this set. Do not use two piece fuel pump eccentric. If engine has two piece fuel pump eccentric discard and use one piece (Ford #C3AZ-6287-B)

8 307 (5.0) ENG. - V8 - 3.875 Bore (OMC 210, 215, 225, 230, 235, 245)			
Oil Pump	M-55	1	Standard volume and pressure
	10553ST	1	High Performance; Standard volume, +10% PSI pressure spring installed, billet steel "Shark Tooth" gears
	M-55HV	1	High volume (25% additional volume of oil) must use IS shaft with steel guide
	10550ST	1	High Performance; 25% higher volume, +10% PSI pressure spring installed, billet steel "Shark Tooth" gears
Oil Pump Screen Assy.	55-S2	1	Press fit (See page 25 for dimensional information)
	55-S1	1	Press fit (See page 25 for dimensional information)
	55-S	1	Press fit (See page 25 for dimensional information)
Oil Pump Drive Shaft	IS-55E	1	Standard; Manufactured with steel shaft guide; Eliminates nylon shaft guide
	IS-55G	1	Standard; Uses M-55005 nylon shaft guide (sold separately)
	12550	1	High Performance; Chrome-moly steel; Locking retainer
Camshaft	22124	1	High Performance; Hydraulic flat tappet, not California compliant, chain drive, standard rotation, not computer compatible, cam lift .267 intake .273 exhaust; Class 2
	22125	1	High Performance; Hydraulic flat tappet, not California compliant, gear drive, reverse rotation, not computer compatible, cam lift .267 intake .273 exhaust; Class 1
Lifter	JB-817	16	Hydraulic
Intake Valve	V1195	8	Head diameter 1.940
Valve Spring	466354	16	High Performance; Single with damper
Valve Lock	476104	16	High Performance; Intake and exhaust 1 groove
Rocker Arm Kit	MRK-401	16	Kit includes 1-[MR-842], 1-[MRM-1731] & 1-[MRM-1786]
Rocker Arm Stud	MRDS-921	16	.2.500" Length; .003" oversize
	MRDS-2920	16	High Performance; 2.325" Length; 7/16" diameter
Crank Gear	2535	1	29 teeth; Reverse drive rotation
3 PC Timing Set	40400	1	High Performance; Includes double seamless solid roller chain, cast iron camshaft sprocket & multiple keyway crankshaft sprocket, use with flat lifter camshaft, for standard drive rotation only
9 350 (5.7) ENG. - V8 - 4.000 Bore (OMC 250, 260, 290)			
Oil Pump	M-55	1	Standard volume and pressure
	10553ST	1	High Performance; Standard volume, +10% PSI pressure spring installed, billet steel "Shark Tooth" gears
	M-55HV	1	High volume (25% additional volume of oil) must use IS shaft with steel guide
	10550ST	1	High Performance; 25% higher volume, +10% PSI pressure spring installed, billet steel "Shark Tooth" gears
Oil Pump Drive Shaft	IS-55E	1	Standard; Manufactured with steel shaft guide; Eliminates nylon shaft guide
	IS-55G	1	Standard; Uses M-55005 nylon shaft guide (sold separately)
	12550	1	High Performance; Chrome-moly steel; Locking retainer
Camshaft	22124	1	High Performance; Hydraulic flat tappet, not California compliant, chain drive, standard rotation, not computer compatible, cam lift .267 intake .273 exhaust, Class 1
	22125	1	High Performance; Hydraulic flat tappet, not California compliant, gear drive, reverse rotation, computer compatible, cam lift .267 intake .273 exhaust; Class 1
Lifter	JB-817	16	Hydraulic
Intake Valve	V1195	8	Head diameter 1.940
Exhaust Valve	V1294	8	Head diameter 1.500
Valve Spring	VS-380	16	Single with damper
Valve Lock	476104	16	Intake and exhaust 1 groove
Rocker Arm Kit	MRK-401	16	Kit includes 1-[MR-842], 1-[MRM-1731] & 1-[MRM-1786]
Rocker Arm Stud	MRDS-921	16	.2.500" Length; .003" oversize
	MRDS-2920	16	High Performance; 2.325" Length; 7/16" diameter
Crank Gear	2535	1	29 teeth; For reverse drive rotation
3 PC Timing Set	40400	1	High Performance; Includes double seamless solid roller chain, cast iron camshaft sprocket & multiple keyway crankshaft sprocket, for standard drive rotation only

OMC (continued)
















10 351W (5.8) ENG. - V8 - 4.000 Bore (OMC 235, 240)			
Oil Pump	M-83	1	Standard volume and pressure High Performance; standard volume, standard pressure, standard steel gears High volume (25% additional volume of oil), stock relief valve and shaft design; May require oil pan modification High Performance; Standard pressure, high volume (25% additional volume of oil), standard gears, Includes optional (+15 PSI) pressure spring, Includes 12830 performance drive shaft, 5/8" screen inlet
	10832	1	
	M-83HV	1	
	10833	1	
Oil Pump Drive Shaft	IS-83 12830	1 1	Standard; Hex; Hardened steel High Performance; Chrome-moly steel; hex drive
Camshaft	SYB-24	1	Hydraulic flat tappet, OE stock replacement grind, not carb compliant, standard rotation, .260 intake .260 exhaust
Lifter	JB-900	16	Hydraulic
Push Rod	MPR-280	16	
Intake Valve	V1238	8	Head diameter 1.844
Exhaust Valve	V1237	8	Head diameter 1.543
Valve Spring	VS-280	16	Single with damper
Valve Lock	476104	16	High Performance; Intake and exhaust 1 groove
Rocker Arm Kit	MRK-610	1	Kit includes 1-[MR-886],1-[MRM-1772] & 1-[MRM-1786] 3/8"1-[MRM-1791] 5/16"
3 PC Timing Set	40402	1	High Performance; Includes seamless solid roller chain, cast iron camshaft sprocket & multiple keyway crankshaft sprocket. Must use MF126 (3.356") thrust plate with this set. Do not use two piece fuel pump eccentric with this set. If engine has the two piece fuel pump eccentric discard & use one piece eccentric (Ford # C3AZ-6287-B)

MELLING MARINE OIL PUMPS



<p>M-68HV</p> 	<p>M-72</p> 	<p>M-72HV</p> 	<p>M-77</p> 
<p>M-77G</p> 	<p>M-77HV</p> 	<p>M-83</p> 	<p>M-83HV</p> 
<p>M-84</p> 	<p>M138</p> 	<p>M155</p> 	<p>M155HV</p> 
<p>10550ST</p>  <p>MELLING PERFORMANCE</p>	<p>10552ST</p>  <p>MELLING PERFORMANCE</p>	<p>10553ST</p>  <p>MELLING PERFORMANCE</p>	<p>10554ST</p>  <p>MELLING PERFORMANCE</p>
<p>10555ST</p>  <p>MELLING PERFORMANCE</p>	<p>10687</p>  <p>MELLING PERFORMANCE</p>	<p>10688</p>  <p>MELLING PERFORMANCE</p>	<p>10770</p>  <p>MELLING PERFORMANCE</p>
<p>10774</p>  <p>MELLING PERFORMANCE</p>	<p>10778</p>  <p>MELLING PERFORMANCE</p>	<p>10832</p>  <p>MELLING PERFORMANCE</p>	<p>10833</p>  <p>MELLING PERFORMANCE</p>

MELLING MARINE OIL PUMP INTERMEDIATE DRIVE SHAFTS

<p>IS-55E</p> 	<p>IS-55G</p> 	<p>IS-63</p> 	<p>IS-63-R</p> 
<p>IS-68</p> 	<p>IS-72</p> 	<p>IS-77</p> 	<p>IS-77-A</p> 
<p>IS-83</p> 	<p>IS-84</p> 	<p>12550</p>  <p>MELLING PERFORMANCE</p>	<p>12680</p>  <p>MELLING PERFORMANCE</p>
<p>12770</p>  <p>MELLING PERFORMANCE</p>	<p>12774</p>  <p>MELLING PERFORMANCE</p>	<p>12830</p>  <p>MELLING PERFORMANCE</p>	

MELLING MARINE OIL PUMP SCREENS

<p>55-S</p> 	<p>55-S1</p> 	<p>55-S2</p> 	<p>62-S3</p> 
<p>62-S6</p> 	<p>68-S2</p> 	<p>68-S3</p> 	<p>68-S5</p> 

MARINE OIL PUMP SCREENS (continued)

<p>72-S2</p> 	<p>83-S</p> 	<p>213S</p> 	<p>241S</p> 
<p>258S</p> 	<p>305S</p> 		

OIL PUMP REPAIR KITS

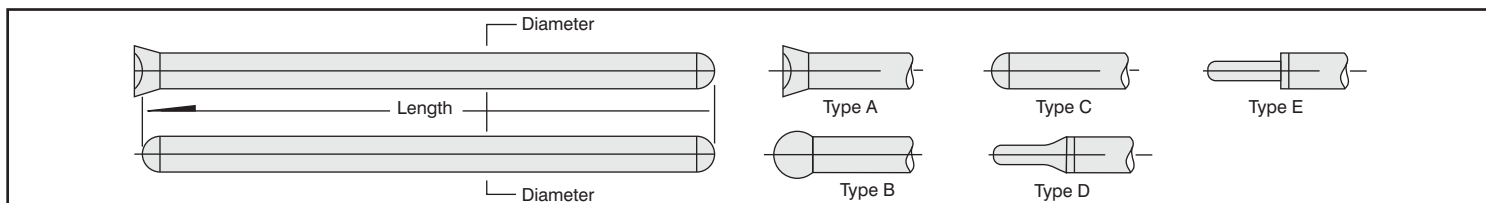
<p>K-201</p> 	<p>K-201HV</p> 
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OIL PUMP SCREEN REFERENCE CHART

Part No.	Volume Increase	Coatings	Shaft Support	Screw-in Valve Plug	Provision For Bolt-on Screen	Associated Screen No.	Tube Dia. (Inches)	Pan Depth Min - Max	
10550ST M-55HV	25% 25%	Mag Phosphate				55-S	5/8	7"	7-1/8"
						55-S1	5/8	6-7/8"	7"
						55-S2	5/8	7-3/4"	7-7/8"
						55-S3	5/8	7"	7-1/8"
						210S	5/8	9-3/4"	9-7/8"
						220S	5/8	7-1/2"	7-5/8"
M155HV	25%					211S	3/4	9-7/8"	10"
						213S	3/4	8-1/8"	8-1/4"
						221S	3/4	7-3/8"	7-1/2"
						243S	3/4	7-1/2"	7-1/2"
						244S	3/4	7-1/2"	7-5/8"
						245S	3/4	9-7/8"	10"
						251S	3/4	7-1/2"	7-5/8"
						258S	3/4	8"	8-1/8"
						259S	3/4	9-3/8"	9-1/2"
10553ST M-55	0% 0%	Mag Phosphate				55-S	5/8	6-3/4"	6-7/8"
						55-S1	5/8	6-5/8"	6-3/4"
						55-S2	5/8	7-1/2"	7-5/8"
						55-S3	5/8	6-3/4"	6-7/8"
						210S	5/8	9-1/4"	9-3/8"
						220S	5/8	7-1/4"	7-3/8"
M155	0%					211S	3/4	9-3/8"	9-1/2"
						213S	3/4	7-3/4"	7-3/4"
						221S	3/4	7-1/8"	7-1/4"
						243S	3/4	7"	7"
						244S	3/4	7-1/8"	7-1/4"
						245S	3/4	9-3/8"	9-1/2"
						251S	3/4	6-7/8"	7"
						258S	3/4	7-1/2"	7-5/8"
						259S	3/4	8-7/8"	9"
10687 10688	0% 25%	Mag Phosphate	X	X	X	68-S2	5/8	N/A	7-1/2"
		Mag Phosphate	X	X	X	68-S3	5/8	N/A	9-1/4"
						68-S5	5/8	7-3/4"	8"
						68-S2	5/8	N/A	7-1/2"
						68-S3	5/8	N/A	9-1/4"
						68-S5	5/8	7-3/4"	8"

NOTE: SCREEN TO PAN CLEARANCE DISTANCE CAN VARY DUE TO PAN GASKET THICKNESS

PUSH ROD IDENTIFICATION CHART



Part No.	Length (inches)	Diameter (inches)	Wall Thickness (inches)	Max. Spring Pressure (lbs)	End Type	Drilled	Heat Treated	Material
500154*	8.280	3/8	0.065	350	D&D	Yes	Yes	Seamless 4130 Chrome-Moly Steel
500164*	9.252	3/8	0.065	350	D&D	Yes	Yes	Seamless 4130 Chrome-Moly Steel
500294*	8.280	7/16	0.065	350	D&D	Yes	No	Seamless 4130 Chrome-Moly Steel
500304*	9.252	7/16	0.065	350	D&D	Yes	No	Seamless 4130 Chrome-Moly Steel
500404*	6.886	5/16	0.065	350	C&C	Yes	Yes	Seamless 4130 Chrome-Moly Steel
500494*	9.682	5/16	0.065	350	C&C	Yes	Yes	Seamless 4130 Chrome-Moly Steel
500584*	6.776	5/16	0.065	350	C&C	Yes	Yes	Seamless 4130 Chrome-Moly Steel
500594*	7.513	5/16	0.065	350	C&C	No	Yes	Seamless 4130 Chrome-Moly Steel
501004*	7.800	5/16	0.065	500	C&C	Yes	Yes	Seamless 4130 Chrome-Moly Steel
MPR-280	8.152	5/16	0.060	N/A	B&B	Yes	No	Welded Steel
MPR-314	8.725	3/8	0.060	N/A	B&B	No	No	Welded Steel
MPR-321	8.575	5/16	0.060	N/A	B&B	No	No	Welded Steel
MPR-373	7.195	5/16	0.060	N/A	B&B	Yes	No	Welded Steel

*High performance push rod

VALVE IDENTIFICATION CHART

Part No.	Valve Type	Head Diameter (inches)	Overall Length (inches)	Stem Diameter (inches)	Face Angle	Stem Type	Material
V0548	Intake	2.080	4.864	.3737	45°	2 Groove	Stainless Steel
V0577	Intake	1.880	5.668	.3725	45°	4 Groove	Stainless Steel
V0997	Intake	1.840	5.255	.3715	45°	1 Groove	Stainless Steel
V1001	Intake	1.780	4.865	.3423/.3416	44°	1 Groove	Stainless Steel
V1107	Intake	2.065	5.225	.3722/.3715	45°	1 Groove	Stainless Steel
V1107+3*	Intake	2.065	5.225	.3725/.3718	45°	1 Groove	Stainless Steel
V1136	Intake	2.300	5.192	.3722/.3715	45°	1 Groove	Stainless Steel
V1137	Intake	1.781	5.055	.3423/.3416	44°	1 Groove	Stainless Steel
V1166	Intake	2.245	5.288	.3423/.3416	29°	1 Groove	Stainless Steel
V1180	Intake	1.880	4.981	.3715/.3725	45°	2 Groove	Stainless Steel
V1195	Intake	1.940	4.880	.3414	45°	2 Groove	Stainless Steel
V1238	Intake	1.844	5.070	.3423/.3416	44°	1 Groove	Stainless Steel
V1272	Intake	2.083	5.204	.3423/.3416	45°	1 Groove	Stainless Steel
V1328	Intake	1.782	5.070	.3424/.3414	44°	1 Groove	Stainless Steel
V1328+3*	Intake	1.782	5.070	.3427/.3417	44°	1 Groove	Stainless Steel
V1393	Intake	1.840	4.912	.3414	45°	2 Groove	Stainless Steel
V1538	Intake	1.782	4.941	.3424/.3414	45°	1 Groove	Stainless Steel
V0919	Exhaust	1.600	4.903	.3415	45°	2 Groove	Stainless Steel
V0976	Exhaust	1.375	4.643	.3407	45°	1 Groove	Stainless Steel
V1000	Exhaust	1.450	4.873	.3415	44°	1 Groove	Stainless Steel
V1102	Exhaust	1.653	5.085	.3426/.3416	44°	1 Groove	Stainless Steel
V1135	Exhaust	1.452	5.068	.3418/.3408	45°	1 Groove	Stainless Steel
V1156	Exhaust	1.740	4.884	.3725/.3718	45°	4 Groove	Stainless Steel
V1173	Exhaust	1.710	5.058	.3418/.3411	44°	1 Groove	Stainless Steel
V1237	Exhaust	1.543	5.075	.3418/.3411	44°	1 Groove	Stainless Steel
V1261	Exhaust	1.720	5.355	.3717	45°	1 Groove	Stainless Steel
V1271	Exhaust	1.653	4.983	.3423/.3416	45°	1 Groove	Stainless Steel
V1294	Exhaust	1.500	4.923	.3717	46°	2 Groove	Stainless Steel
V1307	Exhaust	1.600	5.001	.3715/.3705	47°	4 Groove	Stainless Steel
V1329	Exhaust	1.500	5.003	.3720/.3710	43°	4 Groove	Stainless Steel
V1401	Exhaust	1.600	4.995	.3710	45°	4 Groove	Stainless Steel
V1453	Exhaust	1.462	5.010	.3418/.3411	44°	1 Groove	Stainless Steel
V1453+3*	Exhaust	1.462	5.010	.3448/.3441	44°	1 Groove	Stainless Steel

*.003" Oversize Stem

VALVE SPRING IDENTIFICATION CHART

Part No.	Spring Type	O.D.	I.D.	Installed Load & Height	Open Load & Height	Coil Bind	# Coils	Material
466224*	Single w/Damper	1.535	1.260	134 @ 1.935	312 @ 1.375	1.180	5.75 RH	Chrome Silicon
466354*	Single w/Damper	1.220	0.865	94 @ 1.800	235 @ 1.300	1.140	6.75 LH	Chrome Silicon
VS-270	Single w/Damper	1.437	1.025	89 @ 1.770	233 @ 1.380	1.260	6.00 LH	Corrosion Resistant Steel
VS-280	Single w/Damper	1.490	1.052	85 @ 1.820	268 @ 1.320	1.260	6.00 LH	Corrosion Resistant Steel
VS-380	Single w/Damper	1.222	0.868	80 @ 1.700	200 @ 1.250	1.150	6.60 RH	Corrosion Resistant Steel
VS-390	Single	1.225	0.872	60 @ 1.660	186 @ 1.270	1.170	6.70 RH	Corrosion Resistant Steel
VS-430	Single w/Damper	1.485	1.070	105 @ 1.860	246 @ 1.360	1.295	6.25 RH	Corrosion Resistant Steel
VS-810	Single	1.385	1.000	74.5 @ 1.790	200 @ 1.340	1.255	6.95 LH	Corrosion Resistant Steel
VS-1120	Single w/Damper	1.495	1.080	96 @ 1.650	238 @ 1.220	1.100	5.62 RH	Corrosion Resistant Steel

*High performance valve spring

- All numbers are nominal
- Springs should be checked in every application
- Springs with dampners 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 will be less

MARINE CAMSHAFTS

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 camshaft and the lifters.
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 the other engine components.
3. With performance camshafts - 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 an 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 rotors 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 camshafts 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. Manual or auto 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 or high stall auto transmission. May need improved carb, exhaust and ignition systems. Combination street and drag. Will have lower vacuum than stock.

Melling Select Performance recommends using MELL-LUBE Engine Assembly Lube to prevent scoring or galling during engine start-up. MELL-LUBE also contains corrosion inhibitors to prevent rust and pitting to new engines. MELL-LUBE is not for use on cylinder walls or piston rings. MELL-LUBE now has 1,400 PPM zinc for better protection.

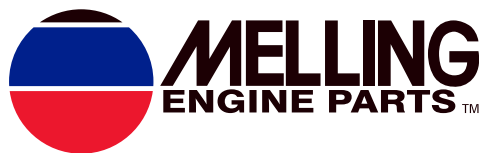
Use Intake Spec's Duration @ .050 Cam Lift	Approx. RPM Power Range	Approx. Peak Torque
200°	1000-4500	2500
210°	1500-5000	2800
220°	2000-5500	3000
230°	2500-6000	3500
240°	3000-6500	4000
250°	3500-7000	4500
260°	4000-7500	5000
270°	4500-8000	5500



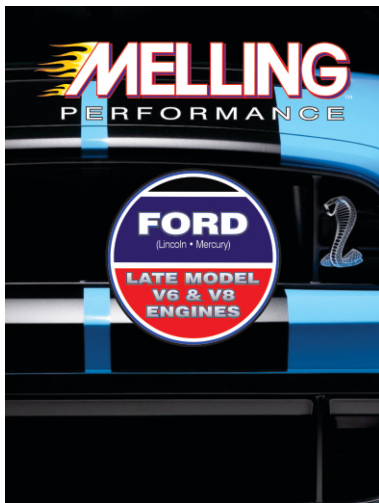
CAMSHAFT SPECIFICATIONS

Part No.		Specs @ 0.50 Cam Lift			SAE Specs @ (0.06/Rocker Arm Ratio) Cam Lift			Cam Lift	Gross Valve Lift	Center Line C/L	Rocker Arm Ratio	Valve Lash Clearance
		Opens	Closes	Duration	Opens	Closes	Duration					
22119*	Int.	-7 BTC	29 ABC	202	21 BTC	70 ABC	271	.269	.403	108	1.5	Hydraulic
22119*	Exh.	41 BBC	-8 ATC	213	70 BBC	34 ATC	284	.273	.409	116	1.5	Hydraulic
22120*	Int.	-7 BTC	29 ABC	202	21 BTC	70 ABC	271	.269	.403	108	1.5	Hydraulic
22120*	Exh.	41 BBC	-8 ATC	213	70 BBC	34 ATC	284	.273	.409	116	1.5	Hydraulic
22123*	Int.	-10 BTC	33 ABC	203	18 BTC	73 ABC	271	.273	.410	111	1.5	Hydraulic
22123*	Exh.	41 BBC	-7 ATC	214	69 BBC	36 ATC	285	.273	.410	115	1.5	Hydraulic
22124*	Int.	-7 BTC	29 ABC	202	20 BTC	71 ABC	271	.267	.401	108	1.5	Hydraulic
22124*	Exh.	37 BBC	-4 ATC	213	65 BBC	38 ATC	283	.273	.410	112	1.5	Hydraulic
22125*	Int.	7 ATC	29 ABC	202	20 BTC	71 ABC	271	.267	.401	108	1.5	Hydraulic
22125*	Exh.	37 BBC	4 BTC	213	65 BBC	38 ATC	283	.273	.410	112	1.5	Hydraulic
22213*	Int.	0 BTC	34 ABC	214	31 BTC	76 ABC	287	.296	.444	107	1.5	Hydraulic
22213*	Exh.	44 BBC	-10 ATC	214	75 BBC	32 ATC	287	.296	.444	117	1.5	Hydraulic
22216*	Int.	-4 BTC	38 ABC	214	29 BTC	81 ABC	290	.270	.476	110	1.76	Hydraulic
22216*	Exh.	49 BBC	-11 ATC	218	86 BBC	37 ATC	303	.282	.496	120	1.76	Hydraulic
22217*	Int.	-4 BTC	39 ABC	214	28 BTC	81 ABC	289	.270	.460	110	1.70	Hydraulic
22217*	Exh.	49 BBC	-10 ATC	218	86 BBC	36 ATC	301	.282	.480	120	1.70	Hydraulic
22218*	Int.	-4 BTC	38 ABC	214	28 BTC	81 ABC	289	.270	.460	110	1.7	Hydraulic
22218	Exh.	49 BBC	-11 ATC	218	86 BBC	36 ATC	301	.282	.480	120	1.7	Hydraulic
22219*	Int.	-3 BTC	47 ABC	224	29 BTC	85 ABC	294	.300	.510	114	1.7	Hydraulic
22219*	Exh.	48 BBC	-4 ATC	224	80 BBC	34 ATC	294	.300	.510	117	1.7	Hydraulic
22221*	Int.	-8 BTC	25 ABC	197	19 BTC	62 ABC	261	.289	.433	105	1.5	Hydraulic
22221*	Exh.	36 BBC	-10 ATC	206	64 BBC	32 ATC	276	.300	.450	114	1.5	Hydraulic
22222*	Int.	-9 BTC	31 ABC	202	27 BTC	71 ABC	278	.269	.403	108	1.5	Hydraulic
22222*	Exh.	40 BBC	-6 ATC	214	75 BBC	39 ATC	294	.273	.410	116	1.5	Hydraulic
22223*	Int.	0 BTC	44 ABC	224	37 BTC	79 ABC	296	.284	.483	113	1.7	Hydraulic
22223*	Exh.	51 BBC	-7 ATC	224	88 BBC	28 ATC	296	.284	.483	118	1.7	Hydraulic
23103*	Int.	-15 BTC	33 ABC	198	16 BTC	82 ABC	278	.273	.410	114	1.5	Hydraulic
23103*	Exh.	27 BBC	-8 ATC	199	61 BBC	41 ATC	282	.274	.412	108	1.5	Hydraulic
23104*	Int.	15 BTC	33 ABC	198	16 BTC	82 ABC	278	.273	.410	114	1.5	Hydraulic
23104*	Exh.	27 BBC	-8 ATC	199	61 BBC	41 ATC	282	.274	.411	108	1.5	Hydraulic
24107*	Int.	-15 BTC	32 ABC	197	18 BTC	82 ABC	280	.260	.396	111	1.6	Hydraulic
24107*	Exh.	38 BBC	-9 ATC	209	71 BBC	42 ATC	293	.278	.416	114	1.6	Hydraulic
24209*	Int.	13 BTC	40 ABC	207	17 BTC	85 ABC	282	.278	.445	117	1.6	Hydraulic
24209*	Exh.	47 BBC	6 BTC	221	83 BBC	41 ATC	304	.283	.453	113	1.6	Hydraulic
24213*	Int.	-1 BTC	37 ABC	216	38 BTC	90 ABC	308	.285	.493	109	1.73	Hydraulic
24213*	Exh.	50 BBC	-10 ATC	220	89 BBC	43 ATC	312	.290	.502	120	1.73	Hydraulic
MC1316	Int.	-15 BTC	39 ABC	204	16 BTC	77 ABC	273	.282	.480	118	1.7-1	Hydraulic
MC1316	Exh.	42 BBC	-13 ATC	209	83 BBC	35 ATC	298	.284	.483	118	1.7-1	Hydraulic
SBC-8	Int.	-15 BTC	29 ABC	194	18 BTC	74 ABC	272	.251	.391	112	N/A	Hydraulic
SBC-8	Exh.	31 BBC	-12 ATC	194	66 BBC	37 ATC	283	.244	.401	112	N/A	Hydraulic
SYB-24	Int.	-6 BTC	21 ABC	194	24 BTC	66 ABC	270	.260	.416	103	1.6	Hydraulic
SYB-24	Exh.	29 BBC	-5 ATC	194	59 BBC	31 ATC	270	.260	.416	112	1.6	Hydraulic
SYB-35	Int.	-14 BTC	40 ABC	206	18 BTC	85 ABC	283	.278	.445	117	1.6	Hydraulic
SYB-35	Exh.	47 BBC	-6 ATC	221	82 BBC	42 ATC	304	.283	.453	113	1.6	Hydraulic

*High performance camshaft



- Check out digital versions of our condensed catalogs focusing on the GM LS, Ford Modular, Chrysler Hemi V8 applications, Performance Valve Springs & Water pumps.
- In addition you can also download catalogs focusing on performance valve springs, heavy duty valve springs and SBC / BBC engines
- Don't forget to also check out the Melling tech video library covering a wide range of topics including detailed installation instructions. All this and more at www.melling.com





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