

Grooms
GENUINE
MARINE

When Only The Best Will Do

REMANUFACTURED
LONG BLOCK
ENGINE
CATALOG

Revised - 12/01

4 CYLINDER ENGINES

140/2.3L

<u>APPROX. YEARS</u>	<u>DESCRIPTION</u>	<u>STANDARD ROTATION</u>	<u>REVERSE ROTATION</u>	<u>BLOCK CASTING</u>	<u>HEAD CASTING</u>	<u>CRANK CASTING</u>
86-89	Rear dipstick, fuel pump hole, smooth rear main for one-piece pan gasket, "D" shaped intake ports and round exhaust ports.	FM140-3-4-L		D42E D6EE D7EE D8EE D9EE E3ZF E59E E69E	D4ZE D52E D6EE D7EE D8EE D9EE E1BE	1D 2D E2ZE

8 CYLINDER ENGINES

302/5.0L

<u>APPROX. YEARS</u>	<u>DESCRIPTION</u>	<u>STANDARD ROTATION</u>	<u>REVERSE ROTATION</u>	<u>BLOCK CASTING</u>	<u>HEAD CASTING</u>	<u>CRANK CASTING</u>
68-76	Dipstick in timing cover, 2-piece rear seal, heavy crank, flat tappets, 5/16 rocker arm studs, small water passages and 18mm spark plugs . Has Windsor firing order: 1-3-7-2-6-5-4-8. Estimated at 190 to 225 HP.	FM302-1-2-L		C8OE C8TE D1MZ D1OE D4DE	C8TE C9TE D1AE D0DE D2DE D3OE	2M 2MA 2MAD
77-81	Left side dipstick in block, 2-piece rear seal, heavy crank, flat tappets, bolt-down rockers, without A.I.R. holes, has large water passages. Has Windsor firing order: 1-3-7-2-6-5-4-8. NOTE: Harmonic balancer has one of the following engineering numbers on it: D20E, D6ZE, D8TE or E0AE. Estimated at 190 to 225 HP.	FM302-4-5-L		D8DE D9OE D0DE	D8OE D90E D94E E5AE E6TE	2M 2MA 2MAD
81-95	Left side dipstick in block, 1-piece rear seal, lightweight crank, flat tappets, bolt-down rockers, without A.I.R. holes, has large water passages. NOTE: Harmonic balancer has one of the following engineering numbers on it: E1AE, E1BE OR E1TE. Estimated at 190 to 225 HP.	FM302-6-5-L		E0AE E5AE	D8OE D90E D94E E5AE E6TE	2MAE

NOTE: Installing an engine with the wrong crank for the application will cause the engine to vibrate.

8 CYLINDER ENGINES

351W/5.8L

<u>APPROX. YEARS</u>	<u>DESCRIPTION</u>	<u>STANDARD ROTATION</u>	<u>REVERSE ROTATION</u>	<u>BLOCK CASTING</u>	<u>HEAD CASTING</u>	<u>CRANK CASTING</u>
75-87	Dipstick in pan or front cover, flat tappets, studed or bolt-down rockers. Estimated at 230 to 250 HP.	FM351W-3-3-L	FM351W-3R-3-L	C9OE D9AE D9TE E3AE E4AE	D7OE D8OE D8TE D9AE D9TE	3M 3MA 7M 7MA
88-93	Dipstick in block, flat tappets, bolt-down rockers. Estimated at 230 to 250 HP.	FM351W-5-5-L	FM351W-5R-5-L	D9AE D9TE E4AE E9AE F0AE	E7TE	3M 3MA 7M 7MA

460/7.5L

<u>APPROX. YEARS</u>	<u>DESCRIPTION</u>	<u>STANDARD ROTATION</u>	<u>REVERSE ROTATION</u>	<u>BLOCK CASTING</u>	<u>HEAD CASTING</u>	<u>CRANK CASTING</u>
78-87	Lightweight, externally balanced crank, 2-piece rear seal, flat tappets, bolt-down rockers, perimeter-mounted valve covers. NOTE: Has cast counterweight and D9OE on harmonic balancer. Estimated at 330 to 340 HP.	FM460-3-2-L		D9TE	D2VE D3VE	1D 3Y 3YA

NOTE: Do not interchange with an earlier engine with the internally-balanced 2Y/2YA/2YB crank or you will have vibration problems.

6 CYLINDER ENGINES

250/4.1L

<u>APPROX. YEARS</u>	<u>DESCRIPTION</u>	<u>STANDARD ROTATION</u>	<u>REVERSE ROTATION</u>	<u>BLOCK CASTING</u>	<u>HEAD CASTING</u>	<u>CRANK CASTING</u>
70-80	Inline six cylinder, dipstick in block, flat tappets, 2-piece rear seal. Estimated at 160 HP.	CM250-3-2-L		328575 348675 366855 377127 2775308	3895052 3927763 3962084	460407 3876802

262/4.3L

<u>APPROX. YEARS</u>	<u>DESCRIPTION</u>	<u>STANDARD ROTATION</u>	<u>REVERSE ROTATION</u>	<u>BLOCK CASTING</u>	<u>HEAD CASTING</u>	<u>CRANK CASTING</u>
87-92	Without balance shaft , roller tappets, 1-piece rear seal, center-mounted valve covers, narrow (.250") space above intake ports. Estimated at 175 to 205 HP.	CM262V6-5-2-L		10066011 10105867 10172756 14093683 14099073	10144103 14099067 14094768	10055480 10105865 14088640
93-94	Without balance shaft , roller tappets, 1-piece rear seal, center-mounted valve covers, wide (.500") space above intake ports. Estimated at 175 to 205 HP.	CM262V6-5-6-L (w/non-adjustable valves) CM262V6-5-7-L (w/adjustable valves)		10066011 10105867 10172756 14093683 14099073	10238181 10240209 14099064	10055480 10105865 14088640
93-95	With balance shaft , roller tappets, 1-piece rear seal, center-mounted valve covers, wide (.500") space above intake ports. Estimated at 175 to 205 HP.	CM262V6-7-7-L (w/adjustable valves)		10224534 10224535 10227196	10238181 10240209 14099064	14088640 1055480H 10105865H

8 CYLINDER ENGINES

305/5.0L

<u>APPROX. YEARS</u>	<u>DESCRIPTION</u>	<u>STANDARD ROTATION</u>	<u>REVERSE ROTATION</u>	<u>BLOCK CASTING</u>	<u>HEAD CASTING</u>	<u>CRANK CASTING</u>
76-79	Left side dipstick, flat tappets, 2-piece rear seal, 4 bolts around perimeter of valve cover. Estimated at 200 to 230 HP.	CM305-1-2-L	CM305-1R-2-L	355909 361979 460776 460777 460778	376450 378450 14014416	3932442
80-85	Right side dipstick, flat tappets, 2-piece rear seal, 4 bolts around perimeter of valve cover. Estimated at 200 to 230 HP.	CM305-2-2-L	CM305-2R-2-L	14010201 14010202 14010203 14016381	376450 378450 14014416	3932442
86	Right side dipstick, flat tappets, 1-piece rear seal, 4 bolts around perimeter of valve cover. Estimated at 200 to 230 HP.	CM305-3-3-L	CM305-3R-3-L	14088551 14093627 14094766	14022601	14088526 14088835
87-95	Right side dipstick, flat tappets, 1-piece rear seal, 4 bolts in center of valve cover. Estimated at 200 to 230 HP.	CM305-3-4-L	CM305-3R-4-L	14088551 14093627 14094766	2187 14101081	14088526 14088835

8 CYLINDER ENGINES

350/5.7L

<u>APPROX. YEARS</u>	<u>DESCRIPTION</u>	<u>STANDARD ROTATION</u>	<u>REVERSE ROTATION</u>	<u>BLOCK CASTING</u>	<u>HEAD CASTING</u>	<u>CRANK CASTING</u>
68-79	Left side dipstick, flat tappets, 2-piece rear seal, 4 bolts around perimeter of valve covers. Estimated at 260 HP.	CM350-1-2-L	CM350-1R-2-L	366245 3970010 3970014 14016379	333882 3886336 3973487 3998920 3998993	3932442
80-85	Right side dipstick, flat tappets, 2-piece rear seal, 4 bolts around perimeter of valve covers. Estimated at 260 HP.	CM350-2-2-L	CM350-2R-2-L	1400209 14010207 14813287	333882 3886336 3973487 3998920 3998993	3932442
86	Right side dipstick, flat tappets, 1-piece rear seal, 4 bolts around perimeter of valve covers. Estimated at 260 to 270 HP.	CM350-3-2-L	CM350-3R-2-L	14088548 14093638 14101148	333882 3886336 3973487 3998920 3998993	14088526 14088535
86	Right side dipstick, flat tappets, 1-piece rear seal, 4 bolts around perimeter of rocker covers. Estimated at 300 to 320 HP.	CM350-4-2-L		14088548 14093638 14101148	333882 3886336 3973487 3998920 3998993	14088526 14088535
87-95	Right side dipstick, flat tappets, 1-piece rear seal, 4 bolts in center of valve covers. Has new Dart or World heads with the correct , marine non-swirl intake ports so the engine makes full-rated horsepower. Estimated at 260 to 270 HP.	CM350-3-5N-L	CM350-3R-5N-L	14088548 14093638 14101148	14096217 14101083	14088526 14088535
87-95	Right side dipstick, flat tappets, 1-piece rear seal, 4 bolts in center of valve covers. Has new Dart or World heads with the correct , marine non-swirl intake ports so the engine makes full-rated horsepower. Estimated at 300 to 320 HP.	CM350-4-5N-L		14088548 14093638 14101148	14096217 14101083	14088526 14088535
87-95	Right side dipstick, roller lifters, 1-piece rear seal, 4 bolts in center of valve covers. Has new Dart or World heads with the correct , marine non-swirl intake ports so the engine makes full-rated horsepower. Estimated at 260 to 270 HP.	CM350-5-5N-L		14088548 14093638 14101148	14096217 14101083	14088526 14088535

(CHEVY 350/5.7L Continued on Page 6)

NOTE: Some late model Chevy 350s came with a plastic front cover that requires a unique block that has wide bosses around the bolt holes. This plastic cover will not seal on the regular '87-'95 blocks so it must be replaced with a stamped steel cover or the engine will have a serious oil leak.

8 CYLINDER ENGINES

350/5.7L

<u>APPROX. YEARS</u>	<u>DESCRIPTION</u>	<u>STANDARD ROTATION</u>	<u>REVERSE ROTATION</u>	<u>BLOCK CASTING</u>	<u>HEAD CASTING</u>	<u>CRANK CASTING</u>
96-99	Fuel injected , roller lifters, no fuel pump hole. New Vortec heads with 4 bolts per head for intake manifold and no heat crossover.	CM350-6-7N-L		10243880	10239906 12558062	14088526

454/7.4L

<u>APPROX. YEARS</u>	<u>DESCRIPTION</u>	<u>STANDARD ROTATION</u>	<u>REVERSE ROTATION</u>	<u>BLOCK CASTING</u>	<u>HEAD CASTING</u>	<u>CRANK CASTING</u>
71-79	Generation IV block, two-bolt mains, right side dipstick, flat tappets, 2-piece rear seal, small (1-5/8") oval intake ports. Estimated at 330 HP.	CM454-1-1-L	CM454-1R-1-L	3963512 3999289	336781 346236 353049 14081045	353039
80-90	Generation IV block, two-bolt mains, right side dipstick, flat tappets, 2-piece rear seal, small (1-5/8") oval intake ports. Estimated at 330 HP.	CM454-3-1-L	CM454-3R-1-L	361959 10069286 14015445	336781 346236 353049 14081045	353039
91-95	Generation V block, two-bolt or four-bolt mains, right side dipstick, flat tappets, 1-piece rear seal, small (1-5/8") oval intake ports. Estimated at 330 HP.	CM454-5-3-L	CM454-5R-3-L	10114182	10114156	10114188
96-98	Carbureted , Generation VI block four-bolt mains, right side dipstick, roller cam, 1-piece rear seal, 6 bolt holes for aluminum front cover . Heads have small (1-5/8") oval intake ports, oval exhaust ports and a heat crossover. Estimated at 330 HP.	CM454-7-3-L		10237297 12550313	10114156	10114188
96-98	Multiport injected , Generation VI block, "Vortech" engine, four-bolt mains, right side dipstick, roller cam, 1-piece rear seal, 6 bolt holes for aluminum front cover , "Vortech" heads with no heat crossover. Estimated at 330 HP.	CM454-7-5-L		10237297 12550313	10141279 12553166 12558162 12560241	10114188

NOTES:

- (1) The CM454-1-1-L/CM454-1R-1-L long blocks can be interchanged with the CM454-3-1-L/CM454-3R-1-L.
- (2) 360 HP Chevy 454s with four-bolt mains, steel cranks and rectangular port heads are available on a custom-build basis. Call for more information.

8 CYLINDER ENGINES

318/5.2L

<u>APPROX. YEARS</u>	<u>DESCRIPTION</u>	<u>STANDARD ROTATION</u>	<u>REVERSE ROTATION</u>	<u>BLOCK CASTING</u>	<u>HEAD CASTING</u>	<u>CRANK CASTING</u>
75-88	Dipstick in front of block, flat tappets, 2-piece rear seal, heads have rocker shafts and big pads for exhaust manifold. Estimated at 240 HP.	CHM318-2-2-L	CHM318-2R-2-L	2536030 2806030 4104230 4179730	3769973 4027163 4027593	2128869 2658378 2658393 3462387 3751841

360/5.9L

<u>APPROX. YEARS</u>	<u>DESCRIPTION</u>	<u>STANDARD ROTATION</u>	<u>REVERSE ROTATION</u>	<u>BLOCK CASTING</u>	<u>HEAD CASTING</u>	<u>CRANK CASTING</u>
76-88	Dipstick in front of block, flat tappets, 2-piece rear seal, heads have rocker shafts and big pads for exhaust manifold. Estimated at 275 HP.	CHM360-2-2-L	CHM360-2R-2-L	3418496 3870230 4006830 4045601 4179930	3679974 4027596 4071051 4323345	3418640 4027169

NOTE: Improper application may lead to vibration problems.



Car Engine vs. Marine Engine ... What's the Difference?

Some answers to frequently asked questions ...

- Car engines are cheaper because they don't have as much horsepower and they won't live as long as the engine that originally came in your boat.
- Car engines don't have to work very hard, so they are built with light-duty parts. Marine engines have to work hard all the time, so they are built with heavy-duty parts, more like the ones found in truck motors. They also have a special cam that is designed specifically to put the torque and power where you need it to get the boat up on plane, so a car engine just won't work in your boat.
- A car engine won't work very well in your boat. We have dyno-tested both a new Chevy 350 car engine and a marine engine to see how they compare. The car engine had about 30 horsepower less and made considerably less torque (299 foot pounds vs. 328 foot pounds @ 3500 rpm) where you need it, so a car engine will not perform well in your boat.
- A car engine won't last very long in your boat. Car engines don't come with the heavy-duty parts like the double roller timing chain that's required for all marine engines or the heavy-duty heads with hard seats and premium valves that are needed to survive the combustion temperatures and loads generated by a boat engine.
- Boat engines work hard. Running across the lake towing a skier is like hooking a loaded trailer behind your car, putting it in second gear and pulling the trailer up a steep hill for 10 or 20 minutes at a time. Try it with your car engine day after day and see how long it lasts. Then you'll know why you need a Genuine Marine engine!