

ENGINE SPECIFICATIONS - 12

PCM MASTER ENGINE SPECIFICATIONS - 2012

MODEL	CES/MPI HO303	CES/MPI EX343	CES/MPI ZR409/ ZR450	XS550
Displacement	5.0L (305 CID)	5.7L (350 CID)	6.0L (366 CID)	6.2L (376 CID)
Bore	3.75 in. (95.0 mm)	4.0 in. (101.6 mm)	4.0007 in. (101.618 mm)	4.0649 in. (103.25 mm)
Stroke	3.48 in. (88.3 mm)	3.48 in. (88.3 mm)	3.622 in. (92.0 mm)	3.622 in. (92.0 mm)
Compression Ratio	9.4:1	9.4:1	9.67:1	9.1:1
Compression	130 - 215 psi	130 - 215 psi	130 - 215 psi	130 - 215 psi
WOT Operating RPM Preferred WOT RPM	4800-5000 4900	5000 - 5300 5200	5400 - 5600 5500	5200 - 5400 5300
Cruising RPM (Max)	3800	4000	4000	4000
Idle RPM (In Gear)	650 (Not Adjustable)	650 (Not Adjustable)	650 (Not Adjustable)	650 (Not Adjustable)
Oil Pressure @ 2000 RPM	25 - 60 psi (172 - 414 kPa)	25 - 60 psi (172 - 414 kPa)	25 - 80 psi (172 - 552 kPa)	25 - 80 psi (172 - 552 kPa)
Minimum Oil Pressure	5 psi (35 kPa) at Idle	5 psi (35 kPa) at Idle	5 psi (35 kPa) at Idle	5 psi (35 kPa) at Idle
Spark Plug P/N Spark Plug Gap	R030010 0.060 in.	R030010 0.060 in.	R030011 0.040 in.	R030012 0.040 in.
Firing Order	1-8-4-3-6-5-7-2 (LH) 1-2-7-5-6-3-4-8 (RH)	1-8-4-3-6-5-7-2 (LH) 1-2-7-5-6-3-4-8 (RH)	1-8-7-2-6-5-4-3 (LH) NA	1-8-7-2-6-5-4-3 (LH) NA
Thermostat	RWC 160°F (61.7°C) FWC 170°F (76.7°C)	RWC 160°F (61.7°C) FWC 170°F (76.7°C)	NA FWC 160°F (61.7°C)	NA FWC 160°F (61.7°C)
Over- Temperature	200° F (93.3° C)	200° F (93.3° C)	200° F (93.3° C)	200° F (93.3° C)
Electrical System	12 Volt Negative (-) Ground	12 Volt Negative (-) Ground	200° F (93.3° C) Ground	200° F (93.3° C) Ground
Alternator Rating	100 Amps	100 Amps	100 Amps	100 Amps
Ignition Timing	Not Adjustable	Not Adjustable	Not Adjustable	Not Adjustable
CAM Retard	15 + / - 2 degrees	15 + / - 2 degrees	Not Adjustable	Not Adjustable
Battery Rating	650 CCA (Minimum) 120 Ah	650 CCA (Minimum) 120 Ah	650 CCA (Minimum) 120 Ah	650 CCA (Minimum) 120 Ah

PCM MASTER FUEL PRESSURE SPECIFICATIONS - 2012

MODEL	ALL HO303	ALL EX343	ALL ZR409/ZR450
Fuel Pressure STD. FCC	57-62 psi @ WOT	57-62 psi @ WOT	
Fuel Pressure - FCC Returnless to Rail			57-62 psi (WOT)
Fuel Pressure - LPFP ALL ENGINES	7 - 9 psi (WOT)	7 - 9 psi (WOT)	7 - 9 psi (WOT)

IMPORTANT: FUEL PRESSURE MEASUREMENT MUST BE MADE WITH THE ENGINE UNDER LOAD.

PCM MASTER WARNING/ALARM SPECIFICATIONS - 2012

MODEL	HO303	EX343	ZR409/ZR450/XS550	HO303 CES	EX343 CES	ZR409/ZR450 CES
Coolant Over-Temperature Sensor	200°F DTC 116/217 MIL and Buzzer Engine Derates	200°F DTC 116/217 MIL and Buzzer Engine Derates	200°F DTC 116/217 MIL and Buzzer Engine Derates	200°F DTC 116/217 Check Gauges Lamp and Buzzer Engine Derates	200°F DTC 116/217 Check Gauges Lamp and Buzzer Engine Derates	200°F DTC 116/217 Check Gauges Lamp and Buzzer Engine Derates
Exhaust Manifold Water Temperature Sensors	Not Applicable	Not Applicable	Not Applicable	240°F/ 250°F DTC 1415/1416/ 1417/1418 Check Gauges Lamp and Buzzer Engine Derates	240°F/ 250°F DTC 1415/1416/ 1417/1418 Check Gauges Lamp and Buzzer Engine Derates	240°F/ 250°F DTC 1415/1416/ 1417/1418
Low Oil Pressure Sensor	< 5 psi @ idle / < 24 psi @ 4000 DTC 524 MIL and Buzzer	< 5 psi @ idle / < 24 psi @ 4000 DTC 524 MIL and Buzzer	< 5 psi @ idle / < 24 psi @ 4000 DTC 524 MIL and Buzzer	< 5 psi @ idle / < 24 psi @ 4000 DTC 524 Check Gauges Lamp and Buzzer	< 5 psi @ idle / < 24 psi @ 4000 DTC 524 Check Gauges Lamp and Buzzer	< 5 psi @ idle / < 24 psi @ 4000 DTC 524 Check Gauges Lamp and Buzzer

NOTE: FOR NEW BOAT PROPPING, IT IS RECOMMENDED THAT OEMS PROP TO THE MAXIMUM RPM LISTED.

