

C280-8

MARINE PROPULSION ENGINE

3345 mhp (3299 bhp) 2460 bkW
3684 mhp (3634 bhp) 2710 bkW

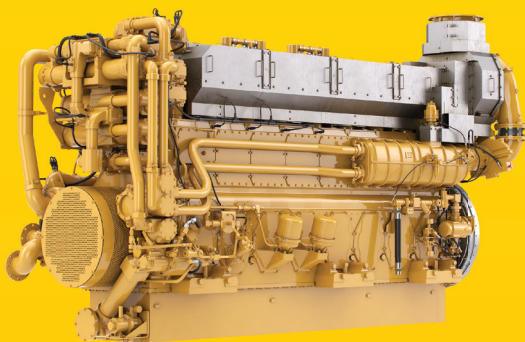


Image shown may not reflect actual engine

SPECIFICATIONS

In-line 8, 4-Stroke-Cycle-Diesel

- EPA Marine Tier 4 certified [Selective Catalytic Reduction (SCR) required]
- IMO Tier II emissions certified (SCR required)
- IMO Tier III emissions compliant (SCR required)
- 148 L (9031 in³) displacement
- 1000 rpm
- 280 mm (11 in) bore x 300 mm (11.8 in) stroke
- Turbocharged-aftercooled aspiration
- Electronically governed A4 ECU
- Single or combined cooling system
- Engine-mounted freshwater and seawater pumps
- Engine coolant water drains
- Refill capacity – engine only
 - Cooling system 530 L (140 gal)
 - Lube oil system 2876 L (760 gal)
- Counterclockwise rotation
- Engine diagnostics and general alarm
- Programmable parameters



COMPLETE SOLUTIONS FOR YOUR MARINE APPLICATIONS

- Single-source for support and service
- Industry-leading warranty coverage for factory packaged components
- Global dealer network for service in any location

EFFICIENT OPERATION

- Instrument panel with cold mode start strategy and programmable low idle
- Electronic governing control unit minimizes fuel consumption and monitors engine operating parameters
- Optional alarm and protection system

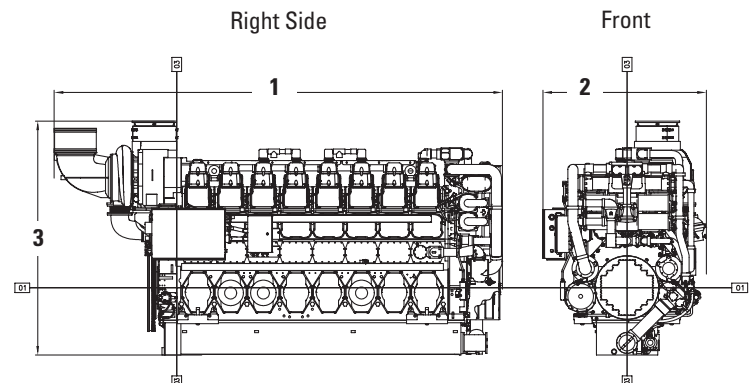
IMPROVED PERFORMANCE AND FUNCTION

- Advanced combustion design uses the optimum configurations and cylinder geometry.
- Enhanced control of fuel injection optimized through crank timing

ENVIRONMENTALLY CONSCIOUS

- Closed crankcase ventilation system and redesigned piston for improved efficiency and lower emissions
- Optimal nozzle geometry and electronic injection control for improved fuel delivery.
- EPA Marine Tier 4/IMO Tier II emissions certified

DIMENSIONS



ENGINE DIMENSIONS & WEIGHT

(1) Overall Length	4958 mm	195.2 in
(2) Overall Width	1804 mm	71.0 in
(3) Overall Height	2648 mm	104.2 in
Weight, Net Dry (approx)	19 000 kg	41,888 lb

Note: Do not use these dimensions for installation design. See general dimension drawings for detail.

MARINE ENGINE PERFORMANCE

Max Power

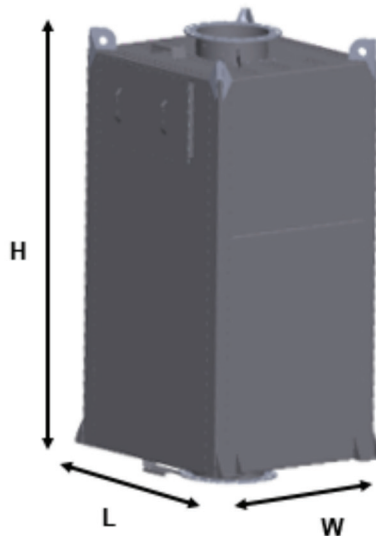
CS Rating		EM0842/EM0852 Fuel Consumption				DEF Consumption*		MC Rating		EM0843/EM0853 Fuel Consumption				DEF Consumption*	
rpm	bhp	bkW	g/hr	g/bkW-hr	g/hr	g/bkW-hr	rpm	bhp	bkW	g/hr	g/bkW-hr	g/hr	g/bkW-hr		
1000	3299	2460	152.6	197.0	8.9	14.8	1000	3634	2710	168.8	197.8	8.9	13.5		
900	3299	2460	150.7	194.6	9.3	15.5	900	3534	2710	167.4	196.1	9.7	14.8		
800	2441	1820	113.8	198.5	7.6	16.1	800	2767	2063	125.6	193.4	8.0	15.9		
700	1743	1300	83.9	204.9	5.5	15.6	700	1951	1455	92.2	201.3	5.5	15.6		
600	992	740	49.8	213.7	4.5	19.6	600	1261	940	65.0	219.4	4.5	19.7		
500	711	530	37.2	222.6	—	—	500	711	530	37.2	222.6	—	—		

*Assumes 40% DEF fluid concentration

Prop Demand

CS Rating		EM0842/EM0852 Fuel Consumption				DEF Consumption*		MC Rating		EM0843/EM0853 Fuel Consumption				DEF Consumption*	
rpm	bhp	bkW	g/hr	g/bkW-hr	g/hr	g/bkW-hr	rpm	bhp	bkW	g/hr	g/bkW-hr	g/hr	g/bkW-hr		
1000	2969	2214	139.1	199.6	7.6	14.1	1000	3090	2304	144.0	198.4	8.0	14.4		
900	2164	1614	103.2	203.1	5.4	13.8	900	2253	1680	106.9	202.1	5.7	14.0		
800	1521	1134	74.2	207.9	4.2	15.4	800	1581	1179	76.8	206.8	4.3	15.2		
700	1018	759	50.1	209.7	3.9	21.4	700	1059	790	52.1	209.3	4.0	20.7		
600	641	478	33.1	220.0	1.6	13.4	600	668	498	34.4	219.1	1.8	14.8		
500	371	277	19.9	228.2	—	—	500	386	288	20.6	227.4	—	—		

*Assumes 40% DEF fluid concentration



Clean Emissions Module (CEM)

This engine requires SCR technology to comply with EPA Tier 4 emission standards. The major components are shown below with dimensions, weights, and some of the installation requirements. Please refer to A&I guide LEBM0023-00.

CEM Dimensions & Weights

Length	1506.6 mm	59.3 in
Width	1681.4 mm	66.2 in
Height	3761.8 mm	148.1 in
Weight	3000 kg	6600 lb

(CEM must be installed vertically.)

Mixing Tube Dimensions

Length	3076 mm	121.1 in
Diameter	514 mm	20.2 in

Dosing Cabinet

Length	940 mm	37.0 in
Width	500 mm	19.7 in
Height	585 mm	23.0 in
Access	610 mm	24.0 in (sides)
	457 mm	8.0 in (front)
	52 mm	6.0 in (rear)

RATING DEFINITIONS AND CONDITIONS

Continuous Service (CS) Rating is suitable for continuous duty applications, including dredges, for operation without interruption or load cycling.

Maximum Continuous (MC) Rating is suitable for continuous duty applications, including dredges, generally used for vessel applications involving varying loads. The engine power actually produced is limited by application guidelines, leaving a power reserve for unusual operating conditions. Operating time at loads above the Continuous Service Rating for a given rpm is limited to one hour in 12 or 83% of total operating hours.

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