

# QSC8.3

Marine propulsion engines for commercial and government applications



## GENERAL SPECIFICATIONS

<b>Configuration</b>	In-line, 6-cylinder, 4-stroke diesel
<b>Aspiration</b>	Turbocharged / Aftercooled
<b>Displacement</b>	8.3 L (505 in <sup>3</sup> )
<b>Bore and stroke</b>	114 X 135 mm (4.49 X 5.31 in)
<b>Rotation</b>	Counterclockwise facing flywheel
<b>Fuel system</b>	High pressure common rail



## PRODUCT DIMENSIONS AND WEIGHT

<b>Overall length</b>	1422.0 mm (55.99 in)
<b>Length of block</b>	856.0 mm (33.70 in)
<b>Overall width</b>	977.5 mm (38.48 in)
<b>Overall height</b>	981.6 mm (38.65 in)
<b>Weight</b>	896 kg (1975 lb)

Dimensions and weight may vary based on selected engine configuration.

## POWER RATINGS

Engine model	Output power			Engine speed RPM	Rating definition	Fuel consumption*		Emissions			
	kW	MHP	BHP			Rated speed L/hr (gal/hr)	ISO** L/hr (gal/hr)	IMO	EPA	EU	RCD
<b>Variable speed</b>											
QSC8.3	368		493	2600	Intermittent Duty	96.2 (25.4)	66.0 (17.4)	2	3	3a	-
QSC8.3	395	537	530	2800	Intermittent Duty	110.3 (29.1)	72.3 (19.1)	2	3	-	-
QSC8.3	441		592	2800	Light Duty	122.7 (32.4)	80.9 (21.4)	2	3	3a	-

\* Fuel consumption numbers may vary depending on specific ratings. Contact your local Cummins Sales and Service representative for more information.

\*\* Average fuel consumption based on ISO 8178 E3 Standard Test Cycle (variable speed models) and ISO 8178 D2 Standard Test Cycle (fixed speed model)

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## Marine propulsion engines for commercial and government applications

### Features and benefits

**Engine design** – Unmatched performance from industry-leading power density on this four-valve-per-cylinder engine. Maximize vessel performance and access comprehensive vessel diagnostic information via SmartCraft® electronics. Peace of mind delivered by the Cummins Captain's Briefing and global service network.

**Fuel system** – Improved fuel economy and sociability from Cummins high pressure common rail fuel system; handed spin-on engine mounted fuel filter.

**Lubrication system** – Handed spin-on engine mounted lube filter, cast aluminum oil pan.

**Cooling system** – Sea water heat exchanger and keel cooler system.

**Air intake system** – New Walker air filter significantly reduces noise.

**Exhaust system** – Cast water cooled exhaust manifold for lower surface temperatures, safety and improved performance.

**Electronics** – 12v and 24v Quantum System electronics feature a proven ECM to monitor operating parameters such as fuel consumption, duty cycle, engine load and speed, while providing diagnostics, prognostics and complete engine protection. Simplified electrical customer interface box for all vessel connections to reduce installation complexity.

**Rotor** – Complies with U.S. EPA Tier 3 emissions regulations without the use of aftertreatment. Designed to meet the International Association of Classification Societies (IACS) and SOLAS requirements. Consult your local Cummins professional for a complete listing of available class approvals.

### Optional equipment

- Engine controls: Digital Throttle and Shift; Electronic Throttle and Shift (ETS) and optional potentiometer for mechanical controls
- Instrumentation: SmartCraft® digital displays and/or analog gauges provide data on engine speed, oil pressure, engine load and more
- Vessel system integration: SmartCraft® monitors fluid level, vessel range, depth, vessel speed, rudder position, temperatures and more
- C Command Connect

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## MARINE PROPULSION ENGINES

## RECREATIONAL APPLICATIONS

### GENERAL SPECIFICATIONS

<b>Configuration</b>	In-line, 6-cylinder, 4-stroke diesel
<b>Aspiration</b>	Turbocharged / Aftercooled
<b>Displacement</b>	8.3 L [505 in <sup>3</sup> ]
<b>Bore &amp; Stroke</b>	114 x 135 mm [4.49 x 5.31 in]
<b>Rotation</b>	Counterclockwise facing flywheel
<b>Fuel System</b>	High pressure common rail

### PRODUCT DIMENSIONS AND WEIGHT

<b>Overall Length</b>	mm (in)	1422.0 (55.99)
<b>Length of Block</b>	mm (in)	856.0 (33.70)
<b>Overall Width</b>	mm (in)	977.5 (38.48)
<b>Overall Height</b>	mm (in)	981.6 (38.65)
<b>Weight</b>	kg (lb)	896 (1975)



# POWER RATINGS

Engine Model	Output Power		Engine Speed RPM	Rating Definition	Fuel Consumption				Emissions			
	kW	MHP			Rated Speed L/hr (gal/hr)	ISO* L/hr (gal/hr)		IMO	EPA	EU	RCD	
<b>Variable Speed</b>												
QSC8.3	368	500	2600	High Output	96.0	25.4	66.0	17.4	2	3	—	2
QSC8.3	404	550	3000	High Output	113.0	29.9	76.0	20.1	2	3	—	2
QSC8.3	441	600	3000	High Output	122.7	32.4	80.9	21.4	2	3	—	2

\*Average fuel consumption based on ISO 8178 E3 Standard Test Cycle (variable speed models) and ISO 8178 D2 Standard Cycle (fixed speed models).

## FEATURES AND BENEFITS

**Engine Design** – Unmatched performance from industry-leading power density on this four-valve-per-cylinder engine. Maximize vessel performance and access comprehensive vessel diagnostic information via C Command Connect electronics. Peace of mind delivered by the Cummins Captain’s Briefing and global service network.

**Fuel System** – Improved fuel economy and sociability from Cummins high pressure common rail fuel system; handed spin-on engine mounted fuel filter.

**Cooling System** – Sea water heat exchanger cooling system.

**Exhaust System** – Cast water cooled exhaust manifold for lower surface temperatures, safety and improved performance.

**Air System** – Walker air filter significantly reduces noise.

**Lubrication System** – Handed spin-on engine mounted lube filter, cast aluminum oil pan.

**Electronics** – 12v and 24v Quantum System electronics feature a proven ECM to monitor operating parameters such as fuel consumption, duty cycle, engine load and speed, while providing diagnostics, prognostics and complete engine protection. Simplified electrical customer interface box for all vessel connections to reduce installation complexity.

**Certifications** – Complies with U.S. EPA Tier 3 emissions regulations without the use of aftertreatment. Designed to meet the International Association of Classification Societies (IACS) and SOLAS requirements.

Consult your local Cummins professional for a complete listing of available class approvals.

## OPTIONAL EQUIPMENT

- Engine Controls: Digital Throttle and Shift; Electronic Throttle and Shift (ETS) and optional potentiometer for mechanical controls
- Instrumentation: C Command Connect digital displays and/or analog gauges provide data on engine speed, oil pressure, engine load and more
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