QSC8.3

QUANTUM SERIES ENGINE

Features

Fuel System: Cummins High-Pressure Common-Rail; handed spin-on engine mounted fuel filter

Lubrication System: Handed spin-on engine mounted lube filter, cast aluminum oil pan

Electrical System: 12-volt and 24-volt systems available

Coolant System: Sea water heat exchanger cooling system

Emissions: EPA Tier 3, IMOII, and RCD certified, EIAPP and RRR certificate options available

Engine Overview

- Unmatched performance from industry-leading power density on this four-valve-per-cylinder engine
- Increased durability from innovative engine design characteristics
- Improved fuel economy and sociability from the high-pressure common-rail fuel system
- 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

Engine Specifications

Configuration	In-line 6-cylinder, 4-stroke diesel
Bore & Stroke	114 mm x 135 mm (4.49 in x 5.31 in)
Displacement	8.3 L (505 in^3)
Aspiration	Turbocharged / Aftercooled
Rotation	Counterclockwise facing flywheel

Power Ratings

Rating	Cooling type	kW	MHP	BHP	Rated RPM	Max Torque		Emissions
						N-m	RPM	
HO	HX	441	600	592	3000	1799	1800	EPA Tier 3, IMO II, RCD, EU Stage IIIa
GS	HX	441	600	592	2800	1799	1800	
HO	HX	4	550	543	3000	1799	1800	
HO/ID	HX	368	500	493	2600	1799	1800	
HO	HX	441	600	593	3000	1799	1800	EPA Tier 2, IMO II, RCD, EU Stage IIIa
GS	HX	441	600	593	3000	1799	1800	
HO	HX	404	550	543	3000	1799	1800	
HO/ID	HX	368	500	493	2600	1799	1800	

Ratings and specifications subject to change without notice. Not responsible for typographical errors.

Fuel Consumption (Prop Curve)

Rating	kW	MHP	BHP	Fuel Consumption		Emissions
				Rated L/hr(gal/hr)	Cruise L/hr(gal/hr)	
HO	441	600	592	122.7(32.4)	88.8(23.4)	EPA Tier 3, IMO II, RCD, EU Stage IIIa
GS	441	600	592	123(32.4)	85.4(22.5)	
HO	4	550	543	113(29.9)	82.2(21.7)	
HO/ID	368	500	493	96(25.4)	76.2(20.1)	
HO/GS	441	600	593	123.1(32.5)	83.7(22.1)	EPA Tier 2, IMO II, RCD, EU Stage IIIa
HO	404	550	543	112.7(29.8)	80.3(21.2)	
HO/ID	368	500	493	96.1(25.4)	76.1(20.1)	

Fuel consumption data represents performance along a 2.7 fixed pitch propeller curve (for HO, ID, MCD, 3.0 for HD and CON ratings). Fuel consumption is based on fuel of 35° API gravity at 16°C (60°F) having an LHV of 42, 780 KJ/KG (18,390 BTU/lb) when used at 29°C (85°F) and weighing 838.9 g/liter (7.001 lb/US gal). Observed horsepower is certified within ±5% of rated horsepower. Consult your local Cummins professional for further information.

Engine Dimensions

Length		Width		Height		Weight (Dry)*	
mm	in	mm	in	mm	in	kg	lb
1174	46.2	839	33	982	38.7	896	1975

*Does not include exhaust connection. Weights vary by rating.

Available Accessories

Engine Controls: Digital Throttle and Shift; Electronic Throttle and Shift (ETS) and optional potentiometer for mechanical controls

Instrumentation: SmartCraft® 2.5 digital displays and/or analog gauges provide data on engine speed, oil pressure, engine load and more

Vessel System Integration: SmartCraft® 2.5 monitors fluid level, vessel range, depth, vessel speed, rudder position, temperatures and more

Ratings Definitions

Intermittent (ID): Intended for intermittent use in variable load applications, where full power is limited to two hours out of every eight hours of operation. Also, reduced power operation must be at or below cruise rpm, which is 200 rpm below the maximum rated speed. This rating is for applications operating less than 1500 hours per year.

Government Service (GS): Intended for infrequent use in variable load applications, where full power is limited to one hour out of every eight hours of operation. Also, reduced power operation must be at or below cruise speed (rpm). Cruise speed (rpm) is dependent on the engine rated speed (rpm), Refer to Table 1 below. For applications operating less than 500 hours per year. Engines with this rating are restricted to non-revenue generating government service propulsion applications. It is not to be used in any revenue generating commercial applications, nor is it to be used in recreational/pleasure applications

High Output (HO): Intended for infrequent use in variable load applications, where full power is limited to one hour out of every eight hours of operation. Also, reduced power operation must be at or below cruise speed (rpm). Cruise speed (rpm) is dependent on the engine rated speed (rpm), Refer to Table 1 below. For applications operating less than 500 hours per year. Engines with this rating are intended for powering recreational/pleasure use vessels only. Commercial use is defined as any work or employment related use of the product, or any use of the product which generates income, for any part of the warranty period, even if the product is only occasionally used for such purposes.

Rating Conditions: Declared power ratings are based upon ISO 15550 reference conditions/ air pressure of 100kPa (29.612 in Hg) air temperature of 25° C (77°F) and 30% relative humidity. Propeller Shaft Power represents the net power available after typical reverse/reduction gear losses and is 97% of rated power. Power rated in accordance with IMCI procedures.

Table 1

Rated Speed	Cruise Speed (reduction from rated)
2000 to 2800 rpm	200 rpm
2801 to 3500 rpm	300 rpm
3501 to 4500 rpm	400 rpm

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Bulletin #4087253 Printed in U.S.A. Rev. 10/13
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