



QSL9

QUANTUM SERIES ENGINE

Features

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

Lubrication System: Handed spin-on Fleetguard lube filter

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

Coolant System: Sea water heat exchanger cooling system; Keel cooled system available

Emissions: EPA Tier 2, IMO, and RCD certified

Engine Overview

- Dependability and long life proven through thousands of hours of reliable commercial and trawler operation
- Clean, quiet operation with virtually no startup smoke from the high-pressure common-rail fuel system
- Excellent fuel economy for long range cruising
- 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 145 mm (4.49 in x 5.71 in)
Displacement	8.9 L (542 in ³)
Aspiration	Turbocharged / Aftercooled
Rotation	Counterclockwise facing flywheel



Power Ratings

Rating	MD/HO	HD/HO	CD/HO
Metric hp	405	330	285
bhp	400	326	281
KW	298	243	210
Rated rpm	2100	1800	1800
Max Torque ft-lbs	1194	1145	983
Max Torque N-m	1619	1553	1332
rpm @ max torque	1400	1400	1400

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

Fuel Consumption (Prop Curve)

Rating	QSL9 405 MD/HO				QSL9 330 HD/HO			QSL9 280 CD/HO		
rpm	2100	1900	1700	1600	1800	1600	1400	1800	1600	1400
KW	298	293	274	262	243	245	228	210	203	195
l/hr	80.2	55.6	41.4	35.9	61.7	44.3	29.8	54.3	37.9	26.2
bhp	400	392	368	352	326	328	305	281	273	262
lb/hp-hr	0.371	0.263	0.207	0.189	0.350	0.250	0.181	0.359	0.256	0.184
gal/hr	21.2	14.7	10.9	9.5	16.3	11.7	7.9	14.4	10	6.9

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	842	33.2	1086	42.8	9.7	2000

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

Available Accessories

Air Intake System: Light duty or servicable type air cleaner

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

Instrumentation: SmartCraft® 2.2 digital displays and/or analog gauges provide data on engine speed, oil pressure, engine load and more

Vessel System Integration: SmartCraft® 2.2 monitors fluid level, vessel range, depth, vessel speed, rudder position, temperatures and more

Accessory Drive Pulley: Single and dual groove for FPTO

Hydraulic pump drive: SAE A or SAE B flange

Wet and Dry exhaust connections

Ratings Definitions

Continuous (CD): Intended for use in applications requiring uninterrupted and unlimited service at full power.

Heavy Duty (HD): Intended for nearly continuous use in variable load applications, where full power is limited to eight hours out of every ten 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 5000 hours per year.

Medium Continuous (MD): Intended for moderate use in variable load applications, where full power is limited to six hours out of every twelve 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 3000 hours per year.

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.

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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