Marine Products Guide
2018

Technology That Transforms

Consolidating the power of Cummins to better serve the recreational, government, and commercial marine segments.

Contents

From The Cover

Courtesy of Nordhavn

Nordhavn

The Nordhavn 59 Coastal Pilot features a “CE Category A” unlimited offshore rating, insuring that the vessel has the sea keeping and strength capabilities to take on the most serious coastal cruises of up to 1000 miles. The semi-displacement hull is designed for modest top speeds in the 18-20 knot range with an efficient and sea kindly ride at lower cruising speeds. The 59CP is powered by two QSM11 main propulsion engines of 715 hp each and AC power is provided to the vessel via a 21.5 kW Onan generator.

Courtesy of Vigor

St. Francis

St. Francis is the latest edition to the San Francisco fire departments’ three boat fleet. Known on the radio as “Fireboat 3” to avoid confusion during response time. The 88 ft Jensen Maritime Consultants designed, Vigor Industrial built vessel is a multipurpose fireboat. Powered by three QSK19 EPA Tier 3 engines each rated at 750 hp, “Fireboat 3” is capable of 18,000 gpm using all three engines. One of the QSK19 engines is dedicated to run a fire pump while the other two are used as propulsion and pump units.

Courtesy of SEACOR Marine

SEACOR PANTHER

SEACOR PANTHER is the latest addition to SEACOR’s catamaran fast-supply vessel fleet. 188 ft in length and powered by four 4,000 hp Cummins QSK95 engines, the vessel is capable of running 40 knots. PANTHER is also equipped with two QSM11 powered generators rated at 290 kWe as well as one fully enclosed QSM11 powered deck generator rated at 270 kWe.

We Are Cummins.

Legacy

Founded in 1919 by self-taught mechanic and inventor Clessie Cummins and Columbus, Indiana banker W.G. Irwin, Cummins Inc. has a long history powering marine applications. Today, we provide products and services across a range of commercial, government and recreational marine applications globally.

Sustainability

Cummins takes a broad view of sustainability including such things as safety, diversity, leadership and governance along with environmental practices, community involvement and financial performance.

Innovation

From our very first marine diesel engine in 1919 to launching the first EPA Tier 2-certified marine diesel engine in 2005, Cummins empowers its employees to apply the creative ingenuity necessary to make us better, faster, first. We are confident this spirit of creativity will lead us to future success with the launch of marine aftertreatment and the most powerful high speed marine diesel engine, the QSK95.

Global Support

Present in over 190 countries and territories, Cummins has the most extensive service network in the world with over 600 servicing distributor locations. Plus, our regional response teams ensure service and application expertise is available when and where it's needed, even in the most remote operating locations.

Marine Expertise

Cummins employs an experienced team of technical and market experts focused on the marine industry and its customers. Factory trained Marine Application Engineers will help you select the right spec for your vessel and Qualified Marine Technicians keep you up and running once in service.

Complete Marine Solutions

Cummins offers a complete line of propulsion, generating set and auxiliary power solutions designed specifically for the challenges of marine applications. Because we understand customer needs and operating conditions vary, we also offer custom generator set packaging through our distribution channel.

Keep reading for more information on each of these topics…

Marine Legacy

1919

Cummins first diesel was the 1.5 to 8 hp HVID used by farmers for powering pumps. Founded by Clessie Cummins and W.G. Irwin, the Company is still located at the original factory site in Columbus, Indiana. 60 percent of production in that first year was marine.

1920s

Cummins introduced its first fully enclosed marine diesel engine in 1925.

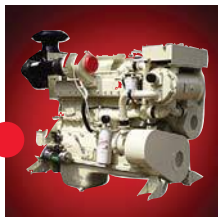
1940s

The Halton, a logging tug built by Russell Boatyard of Ontario in 1941, was capable of towing a mile-long boom of logs with a weight equivalent of 20,000 tons. With 440 hp from twin Cummins and a heavy steel hull, the tug could break through ice on the arduous waters from the forest to the pulp mill.

CUMMINS DIESEL

1960s

In 1968, the HM2 hovercraft was the first with an immersed sidewall design to be built. Propulsion came from two Cummins VT8 320 hp and lift from a V6 185 hp for 5 air cushion fans. Highly maneuverable and with a top speed of 40 mph, the U.K.-built HM2 pioneered the fast ferry concept.



1970s

Cummins launched the V903, V504 and 555 engines, the first modern compact marine inboard diesels.

1986

Cummins acquired a majority stake in Onan Corporation and the remaining share six years later. With over 60 years of relentless pursuit in product excellence, Onan was a legendary name in power generation.

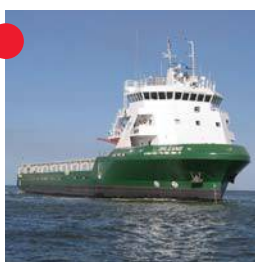
1993

Cummins established its Marine headquarters in Charleston, SC.

1990s

In 1999, the world's largest floating crane barge lifted bridge sections on the 10 mile Oresund link between Denmark and Sweden. Powered by Cummins KV 50 liter generator sets, the self-propelled Svanen (Swan) has a lift capacity of almost 9,600 tons up to 250 ft.

2004



Cummins entered the diesel electric market with the launch of Orleans, a platform supply vessel owned and operated by Louisiana-based Rigdon Marine, since acquired by Gulfmark. Powered by two QSK60 and one KTA38 powered marine generators, Orleans was the first of 10 Guido Perla-designed 64m x 16.5m vessels built

Marine Legacy

2005

Cummins introduced its first electronically-controlled marine engines and was the first to certify an electronic engine to EPA Tier 2 standards.

2000s

In 2009, Cummins provided power for the world's first hybrid tug, the Carolyn Dorothy. Foss Maritime won the Environmental Protection Agency's Clean Air Technology Award for the design and also contracted with Lloyd's Register to obtain the first Green Passport certification for a North American tug! In addition to two QSK50 main engines, the Carolyn Dorothy also features C Command Elite and two QSM11 generator sets.

2010

Cummins introduced its dual product line to meet global IMO Tier II standards, making the company the only diesel engine manufacturer to offer both mechanically- and electronically-controlled products meeting the most stringent emissions standards

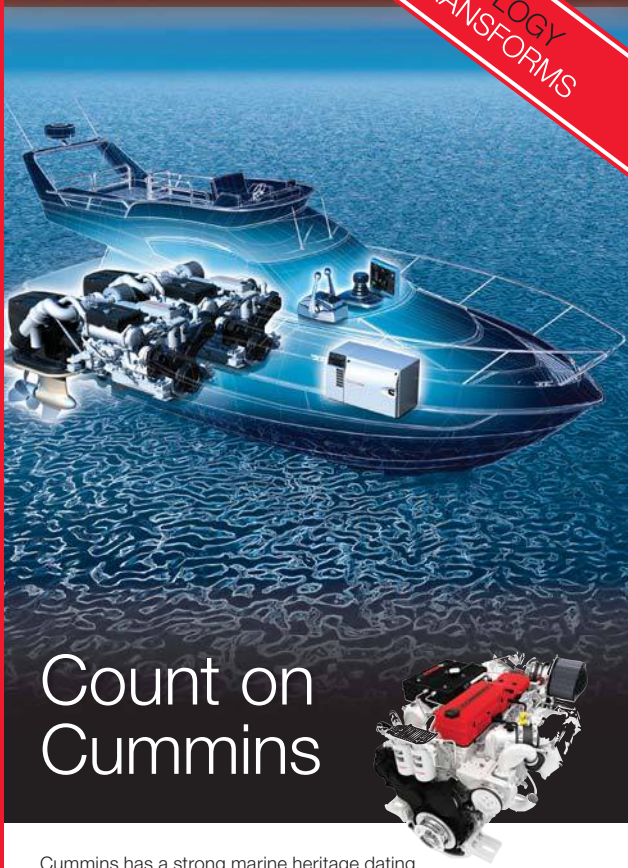
2011

Cummins introduced its largest engine to date, the QSK95.

2015

Cummins announced one larger marine organization, combining the Engine and Power Generation businesses under the Cummins Marine umbrella. The new Cummins Marine offers a complete line of propulsion and auxiliary power solutions from 75 to 3150 kw (100–4224 hp) and generator sets from four to 1240 kWe.

TECHNOLOGY THAT TRANSFORMS



Count on Cummins

Cummins has a strong marine heritage dating back to the Company's start in 1919. More than 90 years later, Cummins continues its legacy of providing reliable, durable diesels to the marine market with a broad range of power for recreational applications.

We offer engines from 6.7 liters to 95 liters, including a range of factory remanufactured ReCon engines from 5.9 to 19 liters. Our marine product line also includes marine generators from 4 to 1240 kWe, as well as a broad range of controls and optional equipment. Visit **marine.cummins.com** for more information.

Cummins®

Innovation

The Most Powerful High-Speed Marine Diesel.

With ratings from 2386 kW to 3132 kW (3200–4200 hp), the QSK95 achieves a power output previously available only from larger medium-speed marine engines, while bringing the advantages of a lower capital cost and a more compact installation.

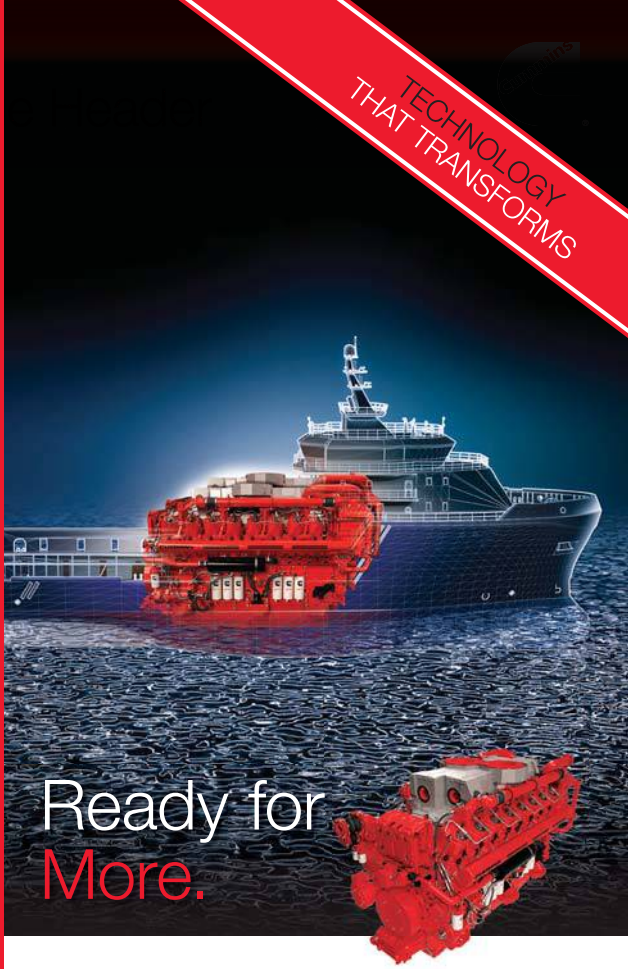
The QSK95 provides 95 liters of displacement in a 78-liter package. Nested cylinders and a 60-degree V enable a short, narrow engine block relative to other engines of comparable displacement. Even with the compact package size, the QSK95 provides best-in-class power density. In addition, the QSK95 weighs in just over 13,000 kg (28,660 lb) — this is between 25 percent and 70 percent less than medium-speed platforms of similar power output.

As operators continue to seek better vessel maneuverability, the QSK95 delivers faster transient response through a unique turbo arrangement and a dry system. By using one turbo per four cylinders, the QSK95 is able to utilize a small turbo model. The dry turbo housings and dry exhaust manifold maximize the available energy to the turbos, allowing them to spool up quickly, resulting in fast engine response.

Cummins design, validation and service teams devoted countless hours to ensuring that the QSK95 sets industry serviceability standards. From the early phases of engine design, qualified technicians participated in service tool and procedure validation, evaluating for safety, ergonomics, durability, reliability and repair quality robustness, and to reduce the cost and time of repairs. Design concepts were also evaluated for progressive damage prevention. Initial feedback from technicians servicing QSK95 engines in the field has confirmed that the focus on serviceability will provide considerable payback over the life of the engines.

At launch, the QSK95 will meet global International Maritime Organization (IMO) Tier II emissions standards with highly efficient fuel injection and clean combustion. It is manufactured at the Seymour Engine Plant in Seymour, Indiana; the first marine engines were put into service in the spring of 2017.

For technical data, see pages 53 and 79.
For availability, please contact your local Cummins distributor.



With ratings up to 4200 hp (3132 kW), Cummins QSK95 achieves power previously exclusive to medium-speed engines in a more compact installation. Innovative design makes it possible to provide 95 liters in a 78-liter platform weighing 25 to 70 percent less than medium speed platforms with similar power.

Plus, we optimized transient response using a unique turbo arrangement and dry system to provide operators with advanced maneuverability. Combined, all of this makes the QSK95 the ideal solution for high-hour, hardworking vessels such as tugs, offshore support vessels, short sea cargo and coastal tankers.

Ready for more? Visit **marine.cummins.com** for more information.

Cummins®

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For more information, please contact your local Cummins distributor.
To find your closet distributor, visit locator.cummins.com

Local Experts

Cummins sells its engines, generator sets and associated components through a global network of 600 distributor locations. Our local presence guarantees a face-to-face relationship wherever our products are operating, ensuring fast access to reliable service, engineering expertise and parts support.

Cummins provides fully integrated support at all stages of a new build or repower project, from vessel concept to installation, commissioning and sea trial. We work closely with partner suppliers, including gear manufacturers and system integrators to ensure proper engine selection, application and installation.

Our Marine Application Engineers (MAE) support projects during design and construction to ensure appropriate products are installed, while our Local Qualified Marine Technicians (QMT) support the equipment and customer once the vessel is in-service.

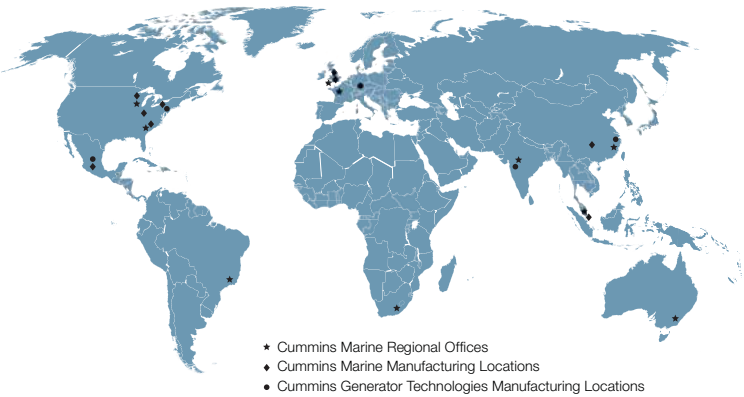
Both MAEs and QMTs undergo rigorous factory training and certification, including regular training in the latest advances in engines, diagnostics and repair. Distributors make a heavy investment in state-of-the-art repair tools, electronic hardware and software. In addition to on-site support, Cummins distributors operate workshops for more complex repairs and rebuilds, as well as custom builds and upfit.

Many Cummins distributors employ in-house engineering experts to design custom solutions featuring our marine auxiliary engines, base rails, electronics and customer's choice of alternator, including our own STAMFORD and AvK brands. These distributors also offer design and validation testing to ensure custom power packages meet performance, emissions and class society requirements.

Global Manufacturing

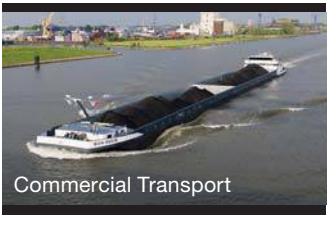
Cummins has an impressive global manufacturing presence that produces the right technology products for global and regional markets. We are the only engine manufacturer with a fully global network of production facilities, technical centers and service coverage — a unique capability which puts us ahead of the competition.

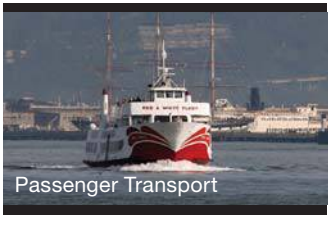
- Global build capability to meet local application and emission requirements
- Six Sigma led process improvement common across all worldwide facilities
- All products externally certified to ISO 9001–2000, the international standard for the highest quality design, manufacturing and supply

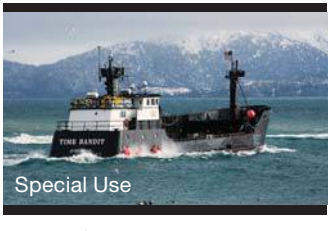


Experience

Cummins offers a complete line of propulsion, generating set and auxiliary power solutions designed specifically for the challenges of commercial, government and recreational marine applications. We have significant experience working with vessel owners, operators and fleets in a number of market segments including…







Commercial transport photo courtesy of Ari Jonkman; government/defense photo courtesy of Marsun Shipyard; offshore photo courtesy of Bourbon Offshore; passenger transport photo courtesy of Alan Haig–Brown; recreational photo courtesy of Princess Yachts; special use photo courtesy of the Hillstrand family.

The Right Technology

Cummins offers a range of engines with both mechanical and electronic fuel systems compliant to global emission requirements. This allows us to meet a variety of customer needs while distinguishing ourselves from other engine manufacturers who are offering only electronic emissionized products.

Mechanical Product Line

Cummins customers have communicated significant interest in mechanical products for IMO Tier II based on preference, the crew's comfort level in servicing the product and operator requirements — some operators simply do not need or require the features available on an electronic product. In addition, the mechanical product has lower initial costs and is a great option for fleets already powered by Cummins mechanical products who are seeking to standardize their fleet.

- B, K, N and V products with mechanical fuel systems
- Simple, proven design
- Easy to service
- Lower cost of ownership
- Basic functionality and monitoring
- Marine Classification Society approved

Quantum Series Electronic Product Line

Electronic engines offer numerous benefits including higher power while meeting more stringent emissions and providing a more sociable operating environment. Cummins Quantum Series engines allow engine fueling to be precisely measured and optimized, which can significantly reduce smoke when operating in transient conditions. Because fuel injection can be specifically controlled at varying loads and engine speed, fuel consumption can be optimized —not only at full power, but also at partial load conditions. Perhaps the most beneficial feature of an electronic engine is the ability to capture and interpret engine parameters specific to the vessel's operating pattern.

- Quantum Series with electronic fuel systems
- Advanced functionality, options and features
- World class durability
- Proven electronics
- Enhanced engine protection
- Marine Classification Society approved

Complementary Products

Cummins Inc., a global power leader, is a corporation of complementary business units that design, manufacture, distribute and service engines and related technologies, including fuel systems, controls, air handling, filtration, emission solutions and electrical power generation systems.

Cummins Emissions Solutions is dedicated to innovation and dependability in meeting global emissions regulations, developing and producing various emission technologies for all engine makes. Current solutions, along with future technologies under development, are designed to meet emission standards across all industries around the globe.

Cummins Filtration is the industry leader in filtration, exhaust, coolant and chemical technologies for diesel and gas markets, offering dependability and reliability beyond OEM specifications and customer requirements.

Cummins Generator Technologies offers premium quality alternators from two to 10,000 kVA. Our family of brands — MARKON®, STAMFORD® and AvK® — is known for their robust build, reliable performance and versatile configurations.

Cummins Power Systems provides dependable solutions for all your power needs. Our comprehensive line of products can be found in recreational vehicle, marine, commercial mobile, residential standby and portable applications.

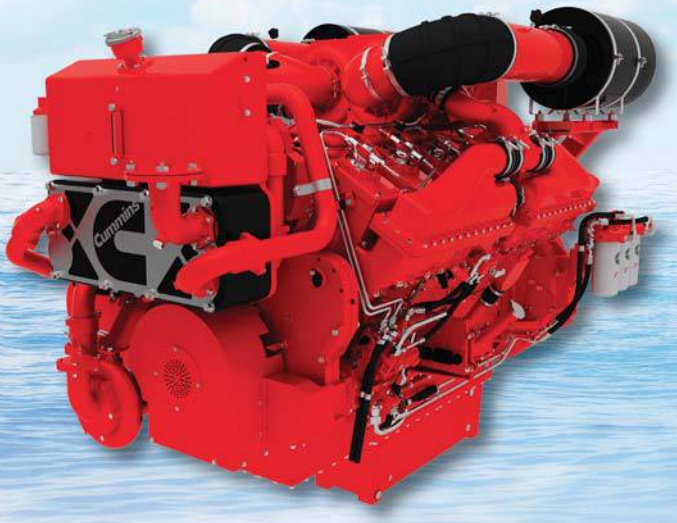
Cummins Turbo Technologies is the world's largest manufacturer of turbochargers for the medium-heavy duty diesel engine market and has a reputation for bringing innovative and dependable solutions to this key market sector.

Cummins Marine Propulsion

Cummins offers a complete line of variable speed propulsion solutions designed specifically for the challenges of commercial, government and recreational marine applications. Our propulsion line includes the mechanical K and N Series and the electronic Quantum Series.

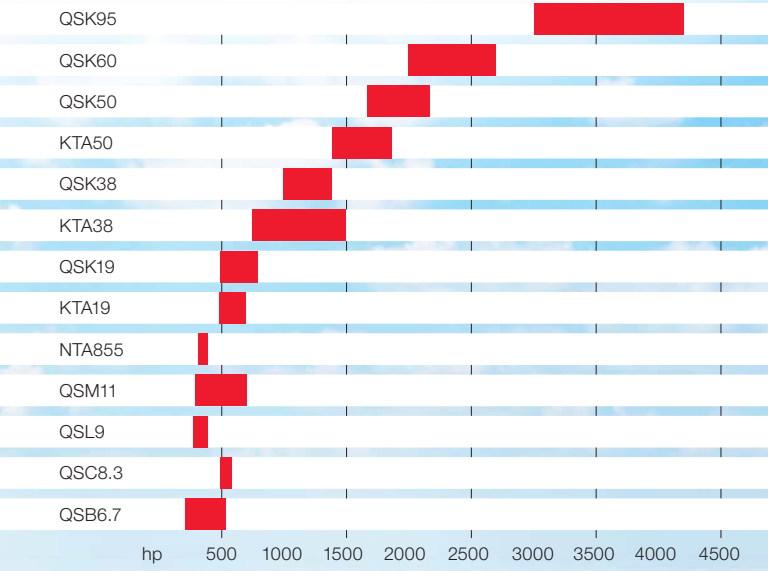
Both the N Series and the K Series have proven reliable and durable in tough marine environments for over 25 years. Many of our NTA855 and KTA19/38/50 propulsion ratings are now certified to meet more stringent IMO Tier II global emissions standards.

The Quantum Series product line was introduced in 2005 to meet the U.S. Environmental Protection Agency's stringent Tier 2 emission standard. Today the product line is certified to current EPA, IMO and EU regulations and will serve as the platform for future more stringent standards.



Power Range for Cummins Marine Propulsion Engines

(To view Cummins ReCon product offering, visit pages 138–150)



Rating Definitions

Continuous Duty (CON): Intended for continuous use in applications requiring a load factor of 70–90 percent.

Heavy Duty (HD): Intended for continuous use in variable load applications with a load factor of 60–75 percent. Full power is limited to 10 hours out of every 12 hours of operation. Reduced power operations must be at or below 80 percent load.

Medium Continuous (MCD): Intended for continuous use in variable load applications with a load factor of 40–60 percent. Full power is limited to six out of every 12 hours of operation. Reduced power operation must be at or below 80 percent load.

Intermittent (INT): Intended for intermittent use in variable load applications with a load factor of 20–40 percent. Full power is limited to two out of every eight hours of operation. Reduced power operations must be at or below 80 percent load.

Government Service (GS): Intended for intermittent use in variable load applications with a load factor of 10–30 percent. Full power is limited to one hour out of every eight hours of operation. Reduced power operation must be at or below 80 percent load.

High Output (HO): Intended for infrequent use in variable load applications with a load factor of 10–30 percent. Full power is limited to one out of every eight hours of operation. Reduced power operation must be at or below 80 percent load.

Engines with HO rating are restricted to recreational applications. It is not to be used in any revenue-generating commercial applications. Use of HO ratings in commercial applications will, at Cummins' discretion, void the warranty.

Contact your local Cummins applications expert for assistance matching a power rating to your specific installation. The definitions outlined here are intended to be a guide for selecting the appropriate ratings for a given application based on duty cycle and load factor.

Continuous Duty Ratings

kW	BHP	RPM	Engine Model	Fuel System
210	281	1800	QSL9	Electronic
213	286	1800	QSL9	Electronic
220	295	1800	QSM11	Electronic
242	325	1800	NTA855	Mechanical
261	350	1800	QSM11	Electronic
297	398	1800	QSM11	Electric
298	400	1800	NTA855	Mechanical
373	500	1800	KTA19	Mechanical
373	500	1800	QSK19	Electronic
447	600	1800	KTA19	Mechanical
447	600	1800	QSK19	Electronic
492	660	1800	QSK19	Electronic
559	750	1600	KTA38	Mechanical
559	750	1800	QSK19	Electronic
597	800	1800	KTA38	Mechanical
634	850	1800	KTA38	Mechanical
634	850	1800	K38	Mechanical
671	900	1600	KTA38	Mechanical
746	1000	1800	KTA38	Mechanical
746	1000	1800	K38	Mechanical
746	1000	1800	QSK38	Electronic
783	1050	1600	KTA38	Mechanical
895	1200	1800	KTA38	Mechanical
969	1300	1600	QSK38	Electronic
969	1300	1800	QSK38	Electronic
1044	1400	1600	KTA50	Mechanical
1193	1600	1800	KTA50	Mechanical
1268	1700	1600	QSK50	Electronic
1268	1700	1800	QSK50	Electronic
1491	2000	1600	QSK60	Electronic
1491	2000	1800	QSK60	Electronic
1641	2200	1800	QSK60	Electronic
2386	3200	1500	QSK95	Electronic

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Heavy Duty Ratings

kW	BHP	RPM	Engine Model	Fuel System
184	247	2600	QSB6.7	Electronic
243	326	1800	QSL9	Electronic
246	330	1800	QSL9	Electronic
298	400	2100	QSM11	Electronic
395	530	1800	KTA19	Mechanical
477	640	1800	KTA19	Mechanical
522	700	2100	KTA19	Mechanical
559	750	1800	QSK19	Electronic
567	760	2100	QSK19	Electronic
597	800	1800	QSK19	Electronic
597	800	2100	QSK19	Electronic
820	1100	1800	KTA38	Mechanical
969	1300	1800	KTA38	Mechanical
1007	1350	1900	KTA38	Mechanical
1007	1350	1950	KTA38	Mechanical
1044	1400	1600	QSK38	Electronic
1044	1400	1800	QSK38	Electronic
1044	1400	1900	QSK38	Electronic
1193	1600	1900	KTA50	Mechanical
1268	1700	1800	KTA50	Mechanical
1342	1800	1900	KTA50	Mechanical
1342	1800	1600	QSK50	Electronic
1342	1800	1800	QSK50	Electronic
1342	1800	1900	QSK50	Electronic
1715	2300	1900	QSK60	Electronic
2685	3600	1700	QSK95	Electronic

Typical vessel applications include displacement hull vessels such as mid-water trawlers, purse seiners and towboats where frequent slowing is common and engine speed and load is stable. Also used in high speed vessels such as ferries and crewboats.

Typical auxiliary applications include cargo pumps and thrusters in dynamic positioning modes.

Page	IMO I	IMO II	EPA3	EU3a
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38		■		■
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49	■	■		
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50		■	■	■
51		■		■
53		■		

Courtesy of ERGOTRAK SA

Courtesy of Arie Jonkman

Courtesy of Brian Gauvin

Medium Continuous Ratings

kW	BHP	RPM	Engine Model	Fuel System
224	301	2600	QSB6.7	Electronic
298	400	2100	QSL9	Electronic
302	404	2100	QSL9	Electronic
334	448	2100	QSM11	Electronic
336	450	2100	QSM11	Electronic
597	800	2100	QSK19	Electronic
1044	1400	1950	KTA38	Mechanical
1398	1875	1950	KTA50	Mechanical
1529	2050	1800	QSK50	Electronic
1641	2200	1900	QSK50	Electronic
1864	2500	1800	QSK60	Electronic
1864	2500	1900	QSK60	Electronic
2013	2700	1800	QSK60	Electronic
2013	2700	1900	QSK60	Electronic
2983	4000	1700	QSK95	Electronic

Typical vessel applications include planing hull ferries, fishing boats designed for high speeds to and from fishing grounds, (non-cargo) displacement hull yachts and short trip coastal freighters where engine load and speed are cyclical. Typical auxiliary applications include powerpacks and some cargo pumps.

Page	IMO I	IMO II	EPA3	EU3a
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Courtesy of Harald M. Valderhaug

Courtesy of Cummins South Pacific

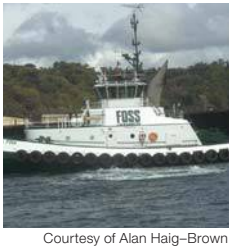
Courtesy of New York Water Taxi

Intermittent Ratings

kW	BHP	RPM	Engine Model	Fuel System
169	227	3000	QSB6.7	Electronic
261	350	2800	QSB6.7	Electronic
261	350	3000	QSB6.7	Electronic
280	375	3000	QSB6.7	Electronic
312	419	3000	QSB6.7	Electronic
353	473	3000	QSB6.7	Electronic
368	493	2600	QSC8.3	Electronic
449	602	2300	QSM11	Electronic
1119	1500	2050	KTA38	Mechanical
1998	2680	1900	QSK60	Electronic
3132	4200	1700	QSK95	Electronic

Typical vessel applications include planing hulls such as customs, military and police vessels, charter and some fishing vessels. Typical auxiliary applications include hydraulic powerpacks and thrusters for maneuvering, as well as emergency fire pumps.

Page	IMO I	IMO II	EPA3	EU3a
34		■	■	■
34		■	■	■
34		■	■	■
34		■	■	■
34		■	■	■
34		■	■	■
36		■	■	■
40		■	■	■
46	■	■		
51		■		
53		■		



Courtesy of Alan Haig–Brown

Government Service Ratings

kW	BHP	RPM	Engine Model	Fuel System
353	473	3300	QSB6.7	Electronic
404	542	3300	QSB6.7	Electronic
441	592	2800	QSC8.3	Electronic
442	593	3000	QSC8.3	Electronic
493	661	2300	QSM11	Electronic
526	705	2500	QSM11	Electronic

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 or recreational applications.

Typical applications include patrol, rescue, fire and assault vessels used by federal and state/local agencies.

Page	IMO I	IMO II	EPA3	EU3a
35		■	■	■
35		■	■	■
36		■	■	■
36		■		■
41		■	■	
41		■	■	

High Output Ratings

kW	BHP	RPM	Engine Model	Fuel System
184	247	2600	QSB6.7	Electronic
220	295	1800	QSM11	Electronic
224	301	2600	QSB6.7	Electronic
261	350	3000	QSB6.7	Electronic
280	375	3000	QSB6.7	Electronic
298	400	2100	QSM11	Electronic
302	404	2100	QSL9	Electronic
312	419	3000	QSB6.7	Electronic
336	450	2100	QSM11	Electronic
353	473	3300	QSB6.7	Electronic
368	493	2600	QSC8.3	Electronic
404	542	3300	QSB6.7	Electronic
404	543	3000	QSC8.3	Electronic
442	593	3000	QSC8.3	Electronic
449	602	2300	QSM11	Electronic
474	636	2300	QSM11	Electronic
493	661	2300	QSM11	Electronic
526	705	2500	QSM11	Electronic

Typical applications include sportfishers, motor yachts and cruisers.

Page	IMO I	IMO II	EPA3	RCD2
35		■	■	■
41		■		■
35		■	■	■
35		■	■	■
35		■	■	■
41		■		■
39		■	■	■
35		■	■	■
41		■		■
35		■	■	■
37		■	■	■
35		■	■	■
37		■	■	■
37		■	■	■
41		■	■	■
41		■		
41		■	■	■
41		■	■	■



Gear Matches

Engine Model	Duty Cycle	kW	MHP	RPM
QSB6.7	High Output	184	250	2600
		224	305	
		261	355	3000
		280	380	3000
		312	425	
		353	480	3300
		405	550	3300
	Government Services	353	480	3300
		405	550	
	Intermittent	169	230	3000
		261	355	2800
		261	355	3000
		280	380	
		312	425	
		353	473	3000
	Medium Continuous	224	305	2600
	Heavy Duty	184	250	2600

Gear Model	Gear Ratio (:1)
MG 5050 A ZF 85 A ZF 85 IV ZF 280–1 A	1.80 1.750, 1.962, 2.500 1.644, 2.008, 2.493 1.769, 2.000, 2.227
MG 5050 A ZF 85 A ZF 85 IV ZF 280–1 A ZF 286 A	1.80 1.750, 1.962, 2.500 1.644, 2.008, 2.493 1.769, 2.000, 2.227 1.750, 2.391
ZF 85 A ZF 85 IV ZF 280–1 A ZF 286 A	1.750, 1.962, 2.500 1.644, 2.008, 2.493 1.769, 2.000, 2.227 1.750, 2.391
ZF 85 A ZF 85 IV ZF 280–1 A ZF 286 A	1.750, 1.962, 2.500 1.644, 2.008, 2.493 1.769, 2.000, 2.227 1.750, 2.391
ZF 280–1 A ZF 280 IV ZF 286 A	1.769, 2.000, 2.227 2.063 1.750, 2.391
ZF 280–1 A	1.214
ZF 280–1 A ZF 280 IV ZF 286 A	1.214, 1.769, 2.000, 2.227 2.063 1.75, 2.391
MG 5050 A	1.80
MG 5050 A	1.80
ZF 85 A ZF 85 IV ZF 280–1 A ZF 286 A	1.750, 1.962, 2.500 1.644, 2.008, 2.493 1.769, 2.000, 2.227 1.750, 2.391
ZF 286 A	1.750, 2.391
MG 5050 A	1.80
MG 5050 A ZF 85 A ZF 85 IV ZF 280–1 A	1.80 1.750, 1.962, 2.500 1.644, 2.008, 2.493 1.769, 2.000, 2.227

Gear Matches

Engine Model	Duty Cycle	kW	MHP	RPM
QSC8.3	High Output	368	500	2600
		404	550	3000
		441	600	3000
	Intermittent	368	500	2600
QSM11	High Output	449	610	2300
		493	670	
		526	715	2500
	Government Services	493	670	2300
		526	715	2500
	Intermittent	449	610	2300

Gear Model	Gear Ratio (:1)
MG 5065 A	1.72, 2.04, 2.43
ZF 280–1 A	1.769
ZF 286	1.000
ZF 286 A	1.484, 1.750, 1.962, 2.208, 2.391
ZF 286 IV	1.535, 2.011, 2.322, 2.539
ZF 305–3 A	1.733, 2.423
MG 5065 A	1.72, 2.04, 2.43
ZF 280 IV	1.772
ZF 286 A	1.484, 1.750, 1.962, 2.208, 2.391
ZF 286 IV	1.535, 2.011, 2.322, 2.539
ZF 305–3 A	1.733, 2.423
MG 5065 A	1.72, 2.04, 2.43
ZF 286 A	1.484, 1.750, 1.962, 2.208, 2.391
ZF 286 IV	1.535, 2.011, 2.322, 2.539
ZF 305–3 A	1.733, 2.423
MG 5065 A	2.43
ZF 286 A	1.484, 1.750, 1.962, 2.208,
ZF 286 IV	1.535, 2.011
ZF 305–3 A	1.733, 2.423
ZF 325–1 A	1.733, 2.037, 2.240, 2.417
ZF 325 IV	1.793, 2.037, 2.417
ZF 325–1	1.000
ZF 325–1 A	1.733, 2.037, 2.240, 2.417
ZF 325 IV	1.793, 2.037, 2.417
ZF 325–1	1.000
ZF 325–1 A	1.733, 2.037, 2.240, 2.417
ZF 325 IV	1.793, 2.037, 2.417
ZF 325–1 A	1.733, 2.037, 2.240, 2.417
ZF 325 IV	1.793, 2.037, 2.417

QSB6.7
Main Propulsion

General Specifications

Configuration	In-line, 6 cylinder, 4-stroke diesel	
Aspiration	Turbocharged/Aftercooled	
Displacement	6.7 L	408 in^3
Bore & Stroke	107 x 124 mm	4.21 x 4.88 in
Fuel System	High Pressure Common Rail (HPCR)	

Commercial Ratings

			Fuel Consumption		Emissions		
kW	**BHP**	**RPM**	**Rated L/hr (Gal/hr)**	**ISO Avg L/hr (Gal/hr)**	**IMO**	**EPA**	**EU**
Heavy Duty							
184*	247	2600	46.9 (12.4)	33.0 (8.7)	2	3	3a
184**	247	2600	49.7 (13.1)	34.1 (9.0)	2	3	3a
Medium Continuous							
224*	301	2600	55.7 (14.7)	39.2 (10.4)	2	3	3a
224**	301	2600	58.7 (15.5)	40.4 (10.7)	2	3	3a
Intermittent							
169*	227	3000	47.3 (12.5)	32.2 (8.5)	2	3	3a
261*	350	2800	68.1 (18.0)	47.7 (12.6)	2	3	3a
261**	350	3000	71.8 (19.0)	48.6 (12.8)	2	3	3a
280*	375	3000	73.9 (19.5)	50.4 (13.3)	2	3	3a
280**	375	3000	75.7 (20.0)	51.7 (13.7)	2	3	3a
312*	419	3000	82.2 (21.7)	55.0 (14.5)	2	3	3a
312**	419	3000	84.3 (22.3)	56.9 (15.0)	2	3	3a
353*	473	3000	91.8 (24.3)	61.7 (16.3)	2	3	3a

For more information on average fuel consumption and emissions, refer to the Reference Materials section.
* Heat exchanged (HX) configuration
** Keel cooled (KC) configuration

QSB6.7
Main Propulsion

Government Ratings

			Fuel Consumption		Emissions		
kW	**BHP**	**RPM**	**Rated L/hr (Gal/hr)**	**ISO Avg L/hr (Gal/hr)**	**IMO**	**EPA**	**EU**
Government Services							
353	473	3300	96.2 (25.4)	64.1 (16.9)	2	3	3a
404	542	3300	110.2 (29.1)	72.7 (19.2)	2	3	3a

For more information on average fuel consumption and emissions, refer to the Reference Materials section.

Recreational Ratings

			Fuel Consumption		Emissions		
kW	**BHP**	**RPM**	**Rated L/hr (Gal/hr)**	**ISO Avg L/hr (Gal/hr)**	**IMO**	**EPA**	**RCD**
High Output							
184	247	2600	46.9 (12.4)	33.0 (8.7)	2	3	2
224	301	2600	55.7 (14.7)	39.2 (10.4)	2	3	2
261 ✓	350	3000	67.6 (17.9)	47.5 (12.5)	2	3	2
280 ✓	375	3000	73.9 (19.5)	50.3 (13.3)	2	3	2
312 ✓	419	3000	81.1 (21.4)	55.0 (14.5)	2	3	2
353	473	3300	96.2 (25.4)	64.1 (16.9)	2	3	2
404	542	3300	110.2 (29.1)	72.6 (19.2)	2	3	2

For more information on average fuel consumption and emissions, refer to the Reference Materials section.
✓ Available with SL option package; contact your local Cummins distributor for more information.

Product Dimensions

Length	mm (in)	1074	(42)
Width	mm (in)	898	(35)
Height	mm (in)	857	(34)
Weight	kg (lb)	634	(1398)

Dimensions may vary based on selected engine configuration.

See pages 30–31 for available gear matches.

QSC8.3
Main Propulsion

General Specifications

Configuration	In-line, 6 cylinder, 4-stroke diesel	
Aspiration	Turbocharged/Aftercooled	
Displacement	8.3 L	505 in^3
Bore & Stroke	114 x 135 mm	4.49 x 5.31 in
Fuel System	High Pressure Common Rail (HPCR)	

Commercial Ratings

			Fuel Consumption		Emissions		
kW	**BHP**	**RPM**	**Rated L/hr (Gal/hr)**	**ISO Avg L/hr (Gal/hr)**	**IMO**	**EPA**	**EU**
Intermittent							
368*	493	2600	96.1 (25.4)	65.3 (17.3)	2	—	3a
368*	493	2600	96.2 (25.4)	66.0 (17.4)	2	3	3a
368**	493	2600	101.8 (26.9)	68.6 (18.1)	2	3	3a

For more information on average fuel consumption and emissions, refer to the Reference Materials section.
* Heat exchanged (HX) configuration
** Keel cooled (KC) configuration

Government Ratings

			Fuel Consumption		Emissions		
kW	**BHP**	**RPM**	**Rated L/hr (Gal/hr)**	**ISO Avg L/hr (Gal/hr)**	**IMO**	**EPA**	**EU**
Government Services							
441	592	2800	122.7 (32.4)	80.9 (21.4)	2	3	3a
442	593	3000	123.1 (32.5)	75.5 (20.0)	2	—	3a

For more information on average fuel consumption and emissions, refer to the Reference Materials section.

QSC8.3
Main Propulsion

Recreational Ratings

			Fuel Consumption		Emissions		
kW	**BHP**	**RPM**	**Rated L/hr (Gal/hr)**	**ISO Avg L/hr (Gal/hr)**	**IMO**	**EPA**	**RCD**
High Output							
368	493	2600	96.2 (25.4)	66.0 (17.4)	2	3	2
404	543	3000	113.0 (29.9)	76.0 (20.1)	2	3	2
442	593	3000	123.1 (32.5)	83.6 (22.1)	2	3	2

For more information on average fuel consumption and emissions, refer to the Reference Materials section.

Product Dimensions

Length	mm (in)	1174	(46)
Width	mm (in)	839	(33)
Height	mm (in)	982	(39)
Weight	kg (lb)	896	(1975)

Dimensions may vary based on selected engine configuration.

See pages 32–33 for available gear matches.

Also built by Moose Boats, this Bridgeport Police boat is powered by a pair of QSC8.3 main engines.

Courtesy of Moose Boats

QSL9
Main Propulsion

General Specifications

Configuration	In-line, 6 cylinder, 4-stroke diesel	
Aspiration	Turbocharged/Aftercooled	
Displacement	8.9 L	542 in^3
Bore & Stroke	114 x 145 mm	4.49 x 5.71 in
Fuel System	High Pressure Common Rail (HPCR)	

Commercial Ratings

			Fuel Consumption		Emissions		
kW	**BHP**	**RPM**	**Rated L/hr (Gal/hr)**	**ISO Avg L/hr (Gal/hr)**	**IMO**	**EPA**	**EU**
Continuous							
210**	281	1800	54.3 (14.4)	36.9 (9.8)	2	—	3a
213*	286	1800	53.4 (14.1)	37.3 (9.9)	2	3	3a
213**	286	1800	54.9 (14.5)	38.0 (10.0)	2	3	3a
Heavy Duty							
243**	326	1800	61.7 (16.0)	42.1 (11.0)	2	—	3a
246*	330	1800	63.1 (16.7)	43.6 (11.5)	2	3	3a
246**	330	1800	66.1 (17.5)	44.4 (11.7)	2	3	3a
Medium Continuous							
298**	400	2100	80.2 (21.2)	53.0 (14.0)	2	—	3a
302*	404	2100	78.6 (20.8)	53.5 (14.1)	2	3	3a
302**	404	2100	82.3 (21.8)	55.9 (14.8)	2	3	3a

For more information on average fuel consumption and emissions, refer to the Reference Materials section.
* Heat exchanged (HX) configuration
** Keel cooled (KC) configuration

QSL9
Main Propulsion

Recreational Ratings

			Fuel Consumption		Emissions		
kW	**BHP**	**RPM**	**Rated L/hr (Gal/hr)**	**ISO Avg L/hr (Gal/hr)**	**IMO**	**EPA**	**RCD**
High Output							
302	404	2100	7837 (20.8)	53.5 (14.1)	2	3	2

For more information on average fuel consumption and emissions, refer to the Reference Materials section.

Product Dimensions

Length	mm (in)	1174	(46)
Width	mm (in)	842	(33)
Height	mm (in)	1086	(43)
Weight	kg (lb)	907	(2000)

Dimensions may vary based on selected engine configuration.

See pages 32–33 for available gear matches.

The Charleston, SC-based pilot boat Fort Johnson served as the field test boat for new QSL9 Tier 3 ratings.

Courtesy of Michael W Burnett

QSM11
Main Propulsion

General Specifications

Configuration	In-line, 6 cylinder, 4-stroke diesel	
Aspiration	Turbocharged/Aftercooled	
Displacement	10.8 L	661 in^3
Bore & Stroke	125 x 147 mm	4.92 x 5.79 in
Fuel System	Celect	

Commercial Ratings

			Fuel Consumption		Emissions		
kW	**BHP**	**RPM**	**Rated L/hr (Gal/hr)**	**ISO Avg L/hr (Gal/hr)**	**IMO**	**EPA**	**EU**
Continuous							
220**	295	1800	55.2 (14.6)	39.4 (10.4)	2	—	3a
260*	350	1800	67.6 (17.9)	46.1 (12.2)	2	3	3a
260**	349	1800	70.2 (18.5)	47.5 (12.5)	2	3	3a
297	398	1800	80.4 (21.2)	54.2 (14.3)	2	3	3a
Heavy Duty							
298**	400	2100	75.2 (19.9)	52.5 (13.9)	2	—	3a
298*	400	2100	80.6 (21.3)	54.3 (14.4)	2	3	3a
297**	398	2100	82.6 (21.8)	55.8 (14.7)	2	3	3a
Medium Continuous							
336**	450	2100	87.6 (23.1)	59.3 (15.7)	2	—	3a
334*	448	2100	92.5 (24.4)	60.9 (16.1)	2	3	3a
334**	448	2100	93.4 (24.7)	62.2 (16.4)	2	3	3a
Intermittent							
449*	602	2300	112.5 (29.7)	75.8 (20.0)	2	3	3a
449*	602	2300	116.6 (30.8)	76.1 (20.1)	2	—	—

For more information on average fuel consumption and emissions, refer to the Reference Materials section.
* Heat exchanged (HX) configuration
** Keel cooled (KC) configuration

QSM11
Main Propulsion

Government Ratings

			Fuel Consumption		Emissions		
kW	**BHP**	**RPM**	**Rated L/hr (Gal/hr)**	**ISO Avg L/hr (Gal/hr)**	**IMO**	**EPA**	**EU**
Government Services							
493*	661	2300	128.1 (33.9)	83.9 (22.2)	2	3	—
526*	705	2500	139.2 (36.8)	92.6 (24.5)	2	3	—

For more information on average fuel consumption and emissions, refer to the Reference Materials section.

Recreational Ratings

			Fuel Consumption		Emissions		
kW	**BHP**	**RPM**	**Rated L/hr (Gal/hr)**	**ISO Avg L/hr (Gal/hr)**	**IMO**	**EPA**	**RCD**
High Output							
220	295	1800	55.2 (14.6)	39.4 (10.4)	2	—	2
298	400	2100	75.2 (19.9)	52.5 (13.9)	2	—	2
336	450	2100	87.6 (23.1)	59.3 (15.7)	2	—	2
449	602	2300	112.5 (29.7)	75.8 (20.0)	2	3	2
474	636	2300	127.9 (33.8)	81.7 (21.6)	2	—	—
493	661	2300	127.9 (33.8)	83.9 (22.2)	2	3	2
526	705	2500	139.2 (36.8)	92.1 (24.3)	2	3	2

For more information on average fuel consumption and emissions, refer to the Reference Materials section.

Product Dimensions

Length	mm (in)	1349	(52)
Width	mm (in)	1104	(44)
Height	mm (in)	1012	(40)
Weight	kg (lb)	1188	(2620)

Dimensions may vary based on selected engine configuration.

See pages 32–33 for available gear matches.

NTA855
Main Propulsion

General Specifications

Configuration	In-line, 6 cylinder, 4-stroke diesel	
Aspiration	Turbocharged/Aftercooled	
Displacement	14 L	855 in^3
Bore & Stroke	140 x 152 mm	5.50 x 6.00 in
Fuel System	Pressure Time (PT)	

Commercial Ratings

			Fuel Consumption		Emissions		
kW	**BHP**	**RPM**	**Rated L/hr (Gal/hr)**	**ISO Avg L/hr (Gal/hr)**	**IMO**	**EPA**	**EU**
Continuous							
242	325	1800	61.0 (16.1)	45.0 (11.9)	2	—	—
298	400	1800	79.0 (20.9)	55.3 (14.6)	2	—	—

For more information on average fuel consumption and emissions, refer to the Reference Materials section.
For additional standard options available regionally, contact your local Cummins distributor.

Product Dimensions

Length	mm (in)	1298	(61)
Width	mm (in)	817	(32)
Height	mm (in)	1367	(53)
Weight	kg (lb)	1433	(3160)

Dimensions may vary based on selected engine configuration.

The M/V Royale Floatel is a NTA855–powered luxury floating hotel operating on the Mandovi River

Courtesy of Vijai Marine

KTA19
Main Propulsion

General Specifications

Configuration	In-line, 6 cylinder, 4-stroke diesel	
Aspiration	Turbocharged/Aftercooled	
Displacement	19 L	1150 in^3
Bore & Stroke	159 x 159 mm	6.25 x 6.25 in
Fuel System	Pressure Time (PT)	

Commercial Ratings

			Fuel Consumption		Emissions		
kW	**BHP**	**RPM**	**Rated L/hr (Gal/hr)**	**ISO Avg L/hr (Gal/hr)**	**IMO**	**EPA**	**EU**
Continuous							
373	500	1800	96.0 (25.4)	66.4 (17.5)	1	—	—
447	600	1800	111.1 (29.4)	79.8 (21.1)	1	—	—
447	600	1800	116.9 (30.9)	82.6 (21.8)	2	—	—
Heavy Duty							
395	530	1800	98.2 (25.9)	N/A	1	—	—
477	640	1800	119.9 (31.7)	84.1 (22.2)	1	—	—
522	700	2100	136.5 (36.0)	91.96 (24.3)	1	—	—

For more information on average fuel consumption and emissions, refer to the Reference Materials section.
For additional standard options available regionally, contact your local Cummins distributor.

Product Dimensions

Length	mm (in)	1877	(74)
Width	mm (in)	1003	(40)
Height	mm (in)	1905	(75)
Weight	kg (lb)	2073	(4570)

Dimensions may vary based on selected engine configuration.

QSK19
Main Propulsion

General Specifications

Configuration	In-line, 6 cylinder, 4-stroke diesel	
Aspiration	Turbocharged/Aftercooled	
Displacement	19 L	1150 in^3
Bore & Stroke	159 x 159 mm	6.25 x 6.25 in
Fuel System	Modular Common Rail (MCRS)	

Commercial Ratings

			Fuel Consumption		Emissions		
kW	**BHP**	**RPM**	**Rated L/hr (Gal/hr)**	**ISO Avg L/hr (Gal/hr)**	**IMO**	**EPA**	**EU**
Continuous							
373	500	1800	95.3 (25.2)	68.8 (18.2)	2	—	3a
373	500	1800	101.3 (26.8)	N/A	—	3	—
447	600	1800	114.8 (30.3)	77.7 (20.5)	2	—	3a
492	660	1800	126.0 (33.3)	94.9 (25.1)	2	—	3a
492	660	1800	128.1 (33.8)	90.7 (24.0)	2	3	—
559	750	1800	147.5 (39.0)	104.5 (27.6)	2	3	—
Heavy Duty							
560	750	1800	140.4 (37.1)	99.2 (26.2)	2	—	3a
567	760	2100	148.7 (39.3)	104.0 (27.5)	2	—	3a
597	800	1800	156.2 (41.3)	109.9 (29.0)	2	3	3a
597	800	2100	166.9 (44.1)	114.8 (30.3)	2	3	—
Medium Continuous							
597	800	2100	158.8 (41.9)	109.7 (29.0)	2	—	3a

For more information on average fuel consumption and emissions, refer to the Reference Materials section.

Product Dimensions

Length	mm (in)	2007	(79)
Width	mm (in)	963	(38)
Height	mm (in)	1880	(74)
Weight	kg (lb)	2189	(4825)

Dimensions may vary based on selected engine configuration.

K38
Main Propulsion

General Specifications

Configuration	V-12 cylinder, 4-stroke diesel	
Aspiration	Turbocharged/Aftercooled	
Displacement	38 L	2300 in^3
Bore & Stroke	159 x 159 mm	6.25 x 6.25 in
Fuel System	Pressure Time (PT)	

Commercial Ratings

			Fuel Consumption		Emissions		
kW	**BHP**	**RPM**	**Rated L/hr (Gal/hr)**	**ISO Avg L/hr (Gal/hr)**	**IMO**	**EPA**	**EU**
Continuous							
634	850	1800	161.0 (42.5)	113.5 (30.0)	2	—	3a
746	1000	1800	185.5 (48.6)	128.7 (34.1)	2	—	3a

For more information on average fuel consumption and emissions, refer to the Reference Materials section.

Product Dimensions

Length	mm (in)	2152	(84)
Width	mm (in)	1462	(58)
Height	mm (in)	2083	(82)
Weight	kg (lb)	4218	(9003)

Dimensions may vary based on selected engine configuration.

Courtesy of Greenland Institute of Natural Resources

Powered by a K38–M, the R/V Sanna researches halibut, crab and cod stocks in Greenland's coastal waters and ice fjords.

KTA38
Main Propulsion

General Specifications

Configuration	V-12 cylinder, 4-stroke diesel	
Aspiration	Turbocharged/Aftercooled	
Displacement	38 L	2300 in^3
Bore & Stroke	159 x 159 mm	6.25 x 6.25 in
Fuel System	Pressure Time (PT)	

Commercial Ratings

			Fuel Consumption		Emissions		
kW	**BHP**	**RPM**	**Rated L/hr (Gal/hr)**	**ISO Avg L/hr (Gal/hr)**	**IMO**	**EPA**	**EU**
Continuous							
559	750	1600	145.4 (38.4)	102.6 (27.1)	1	—	—
597	800	1800	155.6 (41.1)	106.4 (28.1)	1	—	—
634	850	1800	162.1 (42.8)	115.9 (30.6)	1	—	—
671	900	1600	169.6 (44.8)	120.0 (31.7)	1	—	—
746	1000	1800	185.1 (48.9)	132.3 (34.9)	1	—	—
783	1050	1600	201.5 (53.2)	138.0 (36.5)	1	—	—
895	1200	1800	224.4 (59.3)	153.1 (40.4)	1	—	—
895	1200	1800	229.1 (60.5)	162.0 (42.8)	2	—	—
Heavy Duty							
820	1100	1800	200.3 (52.9)	144.8 (38.3)	1	—	—
969	1300	1800	239.2 (63.2)	153.1 (40.4)	1	—	—
1007	1350	1900	250.3 (66.1)	172.6 (45.6)	1	—	—
1007	1350	1900	260.5 (68.8)	181.4 (47.9)	2	—	—
1007	1350	1950	247.1 (65.3)	181.1 (47.8)	1	—	—
Medium Continuous							
1044	1400	1950	256.7 (67.8)	179.0 (47.3)	1	—	—
Intermittent							
1119	1500	2050	279.0 (73.7)	197.6 (52.2)	1	—	—

For more information on average fuel consumption and emissions, refer to the Reference Materials section.

KTA38
Main Propulsion

Product Dimensions

Length	mm (in)	2152	(84)
Width	mm (in)	1462	(58)
Height	mm (in)	2083	(82)
Weight	kg (lb)	4218	(9300)

Dimensions may vary based on selected engine configuration.

Hope Services' Capt. Jack Higman is one of the many KTA38 powered pushboats operating on the U.S. inland rivers.

Courtesy of Jeff Yates

QSK38
Main Propulsion

General Specifications

Configuration	V-12 cylinder, 4-stroke diesel	
Aspiration	Turbocharged/Aftercooled	
Displacement	38 L	2300 in^3
Bore & Stroke	159 x 159 mm	6.25 x 6.25 in
Fuel System	Modular Common Rail (MCRS)	

Commercial Ratings

			Fuel Consumption		Emissions		
kW	**BHP**	**RPM**	**Rated L/hr (Gal/hr)**	**ISO Avg L/hr (Gal/hr)**	**IMO**	**EPA**	**EU**
Continuous							
746	1000	1800	191.7 (50.6)	143.9 (38.0)	2	3	—
746	1000	1800	185.6 (49.0)	136.6 (36.1)	2	—	3a
969	1300	1600	247.4 (65.3)	183.6 (48.5)	2	3	—
969	1300	1600	235.8 (62.3)	169.9 (44.9)	2	—	3a
969	1300	1800	247.6 (65.4)	182.8 (48.3)	2	3	—
969	1300	1800	248.4 (65.6)	170.8 (45.1)	2	—	3a
Heavy Duty							
1044	1400	1600	251.3 (66.4)	181.3 (47.9)	2	—	3a
1044	1400	1800	271.4 (71.7)	194.4 (51.4)	2	3	—
1044	1400	1800	261.2 (69.0)	182.3 (48.2)	2	—	3a
1044	1400	1900	265.4 (70.1)	194.4 (51.4)	2	3	—
1044	1400	1900	257.5 (68.0)	183.5 (48.5)	2	—	3a

For more information on average fuel consumption and emissions, refer to the Reference Materials section.

Product Dimensions

Length	mm (in)	2282	(90)
Width	mm (in)	1573	(62)
Height	mm (in)	2242	(88)
Weight	kg (lb)	4850	(10692)

Dimensions may vary based on selected engine configuration.

KTA50
Main Propulsion

General Specifications

Configuration	V-16 cylinder, 4-stroke diesel	
Aspiration	Turbocharged/Aftercooled	
Displacement	50 L	3067 in^3
Bore & Stroke	159 x 159 mm	6.25 x 6.25 in
Fuel System	Pressure Time (PT)	

Commercial Ratings

			Fuel Consumption		Emissions		
kW	**BHP**	**RPM**	**Rated L/hr (Gal/hr)**	**ISO Avg L/hr (Gal/hr)**	**IMO**	**EPA**	**EU**
Continuous							
1044	1400	1600	261.3 (69.0)	179.0 (47.3)	1	—	—
1193	1600	1800	290.7 (76.8)	209.1 (55.2)	1	—	—
1193	1600	1800	303.6 (80.2)	209.5 (55.3)	2	—	—
Heavy Duty							
1193	1600	1900	299.7 (79.2)	208.5 (55.1)	1	—	—
1268	1700	1800	309.9 (81.9)	221.2 (58.4)	1	—	—
1342	1800	1900	336.0 (88.8)	232.8 (61.5)	1	—	—
1342	1800	1900	345.8 (91.3)	236.7 (62.5)	2	—	—
Medium Continuous							
1398	1875	1950	348.0 (91.9)	248.6 (65.7)	1	—	—

For more information on average fuel consumption and emissions, refer to the Reference Materials section.

Product Dimensions

Length	mm (in)	2694	(106)
Width	mm (in)	1564	(62)
Height	mm (in)	2260	(89)
Weight	kg (lb)	5166	(11389)

Dimensions may vary based on selected engine configuration.

QSK50
Main Propulsion

General Specifications

Configuration	V-16 cylinder, 4-stroke diesel	
Aspiration	Turbocharged/Aftercooled	
Displacement	50 L	3068 in^3
Bore & Stroke	159 x 159 mm	6.25 x 6.25 in
Fuel System	Modular Common Rail (MCRS)	

Commercial Ratings

			Fuel Consumption		Emissions		
kW	**BHP**	**RPM**	**Rated L/hr (Gal/hr)**	**ISO Avg L/hr (Gal/hr)**	**IMO**	**EPA**	**EU**
Continuous							
1268	1700	1600	311.5 (82.3)	220.5 (58.2)	2	—	3a
1268	1700	1800	324.3 (85.7)	223.9 (59.1)	2	—	3a
Heavy Duty							
1342	1800	1600	335.3 (88.6)	238.2 (62.9)	2	—	3a
1342	1800	1800	346.6 (91.6)	235.8 (62.3)	2	—	3a
1342	1800	1900	353.3 (93.3)	240.0 (63.4)	2	—	3a
Medium Continuous							
1529	2050	1800	388.2 (102.6)	271.0 (71.6)	2	—	3a
1641	2200	1900	426.7 (112.7)	287.6 (76.0)	2	—	3a

For more information on average fuel consumption and emissions, refer to the Reference Materials section.

Product Dimensions

Length	mm (in)	2780	(109)
Width	mm (in)	1573	(62)
Height	mm (in)	2232	(88)
Weight	kg (lb)	6270	(13823)

Dimensions may vary based on selected engine configuration.

QSK60
Main Propulsion

General Specifications

Configuration	V-16 cylinder, 4-stroke diesel	
Aspiration	Turbocharged/Aftercooled	
Displacement	60.2 L	3672 in^3
Bore & Stroke	159 x 190 mm	6.25 x 7.48 in
Fuel System	Modular Common Rail (MCRS)	

Commercial Ratings

			Fuel Consumption		Emissions		
kW	**BHP**	**RPM**	**Rated L/hr (Gal/hr)**	**ISO Avg L/hr (Gal/hr)**	**IMO**	**EPA**	**EU**
Continuous							
1491	2000	1600	361.2 (95.4)	255.6 (67.5)	2	—	3a
1491	2000	1800	376.8 (99.5)	257.5 (68.0)	2	—	3a
1641	2200	1800	404.4 (106.8)	280.8 (74.2)	2	—	3a
Heavy Duty							
1715	2300	1900	434.4 (114.8)	296.3 (78.3)	2	—	3a
Medium Continuous							
1864	2500	1800	463.2 (122.4)	314.6 (83.1)	2	—	—
1864	2500	1900	462.2 (122.1)	322.6 (85.2)	2	—	3a
2013	2700	1800	502.3 (132.7)	339.2 (89.6)	2	—	—
2013	2700	1900	506.9 (133.9)	352.6 (93.2)	2	—	—
Intermittent							
1998	2680	1900	521.9 (137.9)	358.9 (94.8)	2	—	—

For more information on average fuel consumption and emissions, refer to the Reference Materials section.

See next page for product dimensions.

QSK60
Main Propulsion

Product Dimensions

Length	mm (in)	3290	(130)
Width	mm (in)	1757	(69)
Height	mm (in)	2415	(95)
Weight	kg (lb)	8754	(19300)

Dimensions may vary based on selected engine configuration.

Sheila Bordelon, the second in the three-vessel Stingray series, is powered by a pair of QSK60s.

Courtesy of Bordelon Marine

QSK95
Main Propulsion

General Specifications

Configuration	V-16 cylinder, 4-stroke diesel	
Aspiration	Turbocharged/Aftercooled	
Displacement	95 L	5797 in^3
Bore & Stroke	190 x 210 mm	7.48 x 8.27 in
Fuel System	Modular Common Rail (MCRS)	

Commercial Ratings

			Fuel Consumption		Emissions		
kW	**BHP**	**RPM**	**Rated L/hr (Gal/hr)**	**ISO Avg L/hr (Gal/hr)**	**IMO**	**EPA**	**EU**
Continuous							
2386	3200	1500	555.7 (146.8)	388.9 (102.7)	2	—	—
Heavy Duty							
2685	3600	1700	643.9 (170.1)	441.8 (116.7)	2	—	—
Medium Continuous							
2983	4000	1700	703.3 (185.8)	484.5 (128.0)	2	—	—
Intermittent							
3132	4200	1700	743.2 (196.3)	507.2 (134.0)	2	—	—

For more information on average fuel consumption and emissions, refer to the Reference Materials section.

Product Dimensions

Length	mm (in)	3654	(144)
Width	mm (in)	1728	(63)
Height	mm (in)	2362	(93)
Weight	kg (lb)	13282	(29282)

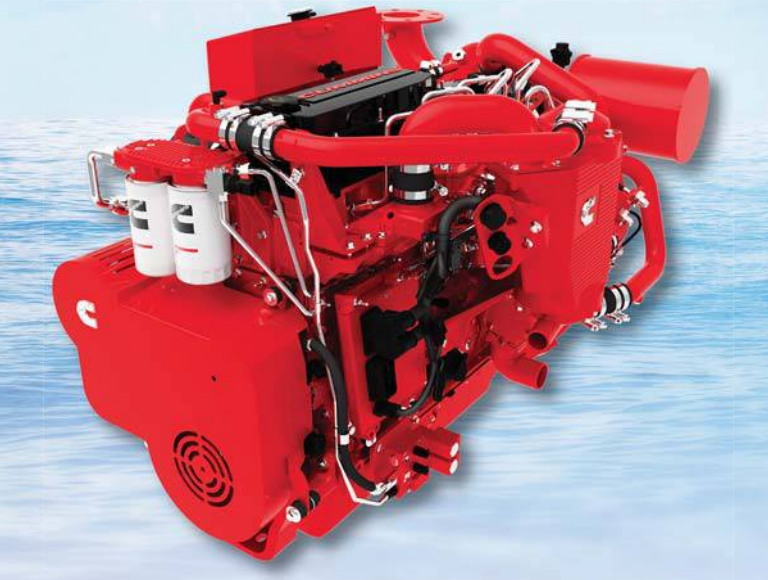
Dimensions may vary based on selected engine configuration.

Cummins Marine Auxiliaries

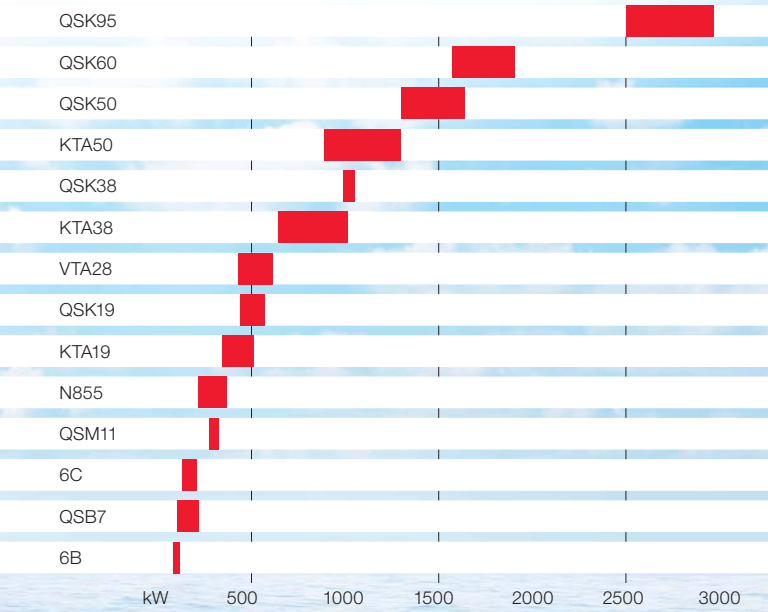
Cummins offers a complete line of constant speed marine power solutions designed specifically for auxiliary applications, including electrical power generation for emergency or ship service power, diesel electric propulsion, power units, fire pumps and hydraulic units.

For a custom generator set solution, all Cummins auxiliary engines can be matched to the customer's choice of alternator, including STAMFORD® and AvK® alternators from Cummins Generator Technologies. We have developed an Alternator Matching Guide to assist in your product selection; this can be found on pages 118–121.

As with our propulsion product line, Cummins offers both mechanical and electronic products to meet customer needs in terms of power, emissions requirements and incentives, sociability, available supply of quality fuel, monitoring and data requirements, and fleet standardization.



Power Range for Cummins Marine Auxiliary Engines



Rating Definitions

Prime Power Engines with this rating are available for an unlimited number of hours per year in variable load applications. Variable load is not to exceed a 80 percent average of the rated power. A 10 percent overload capability is available for a period of one hour within a 12 hour period of operation. Total operating time at the 10 percent overload power shall not exceed 25 hours per year. This power rating follows ISO 8528 guidelines.

Prime Power Ratings

kW	BHP	Engine Model	Fuel System
50 Hz Ratings			
78	104	6BT5.9	Mechanical
91	122	6BT5.9	Mechanical
122	164	QSB7	Electronic
122	164	6CT8.3	Mechanical
163	219	6CTA8.3	Mechanical
164	220	QSB7	Electronic
164	220	6CTA8.3	Mechanical
265	355	QSM11	Electronic
306	410	NTA855	Mechanical
336	450	KTA19	Mechanical
358	480	KTA19	Mechanical
403	540	KTA19	Mechanical
410	550	KTA19	Mechanical
421	565	VTA28	Mechanical
433	580	QSK19	Electronic
447	600	KTA19	Mechanical
526	705	QSK19	Electronic
560	750	VTA28	Mechanical
634	850	KTA38	Mechanical
664	890	KTA38	Mechanical
746	1000	KTA38	Mechanical
806	1080	KTA38	Mechanical
880	1180	KTA38	Mechanical
880	1180	KTA38	Mechanical
880	1180	KTA50	Mechanical
900	1206	KTA50	Mechanical
984	1320	QSK38	Electronic
1007	1350	KTA50	Mechanical
1096	1470	KTA50	Mechanical
1097	1470	KTA50	Mechanical

Continued on next page.

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64				
65		■	■	■
66	■			
67	■			
65		■	■	■
67	■			
68		■		
70				
71				
71		■		
71	■			
71		■		
73		■		
72		■		
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75		■		■
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76	■	■		
76				

Prime Power Ratings

Continued from previous page.

kW	HP	Engine Model	Fuel System
50 Hz Ratings			
1290	1730	QSK50	Electronic
1563	2095	QSK60	Electronic
1899	2547	QSK60	Electronic
2625	3520	QSK95	Electronic

Engines with a Prime Power rating are available for an unlimited number of hours per year in variable load applications. Variable load is not to exceed a 80 percent average of the rated power.

A 10 percent overload capability is available for a period of one hour within a 12 hour period of operation. Total operating time at the 10 percent overload power shall not exceed 25 hours per year. This power rating follows ISO 8528 guidelines.

Page	IMO I	IMO II	EPA3	EU3a
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78		■		■
78		■		
79		■		

Courtesy of Bourbon Offshore

Courtesy of Simon Møkster Rederi

Courtesy of ASL Shipyard

Prime Power Ratings

kW	HP	Engine Model	Fuel System
60 Hz Ratings			
91	122	6BT5.9	Mechanical
98	132	QSB7	Electronic
112	150	6BT5.9	Mechanical
112	150	QSB7	Electronic
130	174	QSB7	Electronic
140	188	6CT8.3	Mechanical
142	190	QSB7	Electronic
180	242	6CTA8.3	Mechanical
186	250	QSB7	Electronic
188	252	6CTA8.3	Mechanical
201	270	6CTA8.3	Mechanical
210	282	QSB7	Electronic
265	355	QSM11	Electronic
295	395	NT855	Mechanical
313	420	NTA855	Mechanical
317	425	QSM11	Electronic
358	480	NTA855	Mechanical
392	525	KTA19	Mechanical
425	570	KTA19	Mechanical
462	620	KTA19	Mechanical
485	650	KTA19	Mechanical
507	680	KTA19	Mechanical
563	755	QSK19	Electronic
597	800	QSK19	Electronic
608	815	VTA28	Mechanical
768	1030	KTA38	Mechanical
809	1085	KTA38	Mechanical
821	1100	KTA38	Mechanical

Continued on next page.

Page	IMO I	IMO II	EPA3	EU3a
64				
65		■	■	
64				
65		■	■	
65		■	■	
66	■			
65		■	■	
67	■			
65		■	■	
67	■			
67		■		
65		■	■	
68		■	■	
69				
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68		■	■	
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72		■	■	■
72		■	■	
73	■			
74				
74				
74	■			

Prime Power Ratings

Continued from previous page.

kW	HP	Engine Model	Fuel System
60 Hz Ratings			
910	1220	KTA38	Mechanical
970	1300	KTA38	Mechanical
1000	1340	KTA50	Mechanical
1007	1350	KTA38	Mechanical
1007	1350	KTA50	Mechanical
1044	1400	QSK38	Electronic
1141	1530	KTA50	Mechanical
1220	1635	KTA50	Mechanical
1290	1730	KTA50	Mechanical
1342	1800	QSK50	Electronic
1628	2183	QSK50	Electronic
1899	2547	QSK60	Electronic
2001	2683	QSK60	Electronic
3150	4224	QSK95	Electronic

Engines with a Prime Power rating are available for an unlimited number of hours per year in variable load applications. Variable load is not to exceed a 80 percent average of the rated power.

A 10 percent overload capability is available for a period of one hour within a 12 hour period of operation. Total operating time at the 10 percent overload power shall not exceed 25 hours per year. This power rating follows ISO 8528 guidelines.

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74	■	■		
76				
74				
76				
75		■	■	■
76	■			
76				
76	■	■		
77		■	■	■
77		■		■
78		■		■
78		■		
79		■		

Courtesy of Bourbon Offshore

Courtesy of Simon Møkster Rederi

Courtesy of ASL Shipyard

6BT5.9
Marine Auxiliary

General Specifications

Configuration	In-line, 6 cylinder, 4-stroke diesel	
Aspiration	Turbocharged	
Displacement	5.9 L	359 in^3
Bore & Stroke	102 x 120 mm	4.02 x 4.75 in
Fuel System	Inline Injection Pump	

Commercial Ratings

			Fuel Consumption		Emissions		
kW	**BHP**	**RPM**	**Rated L/hr (Gal/hr)**	**ISO Avg L/hr (Gal/hr)**	**IMO**	**EPA**	**EU**
Prime Power at 50 Hz							
78	104	1500	19.8 (5.2)	10.7 (2.8)	—	—	—
91	122	1500	22.4 (5.9)	11.3 (3.0)	—	—	—
Prime Power at 60 Hz							
91	122	1800	23.4 (6.2)	12.7 (3.3)	—	—	—
112	150	1800	27.1 (7.2)	14.0 (3.7)	—	—	—

Ratings below 130 kW are not subject to IMO emission regulations
For more information on average fuel consumption and emissions, refer to the Reference Materials section.

Product Dimensions

Length	mm (in)	1020	(40)
Width	mm (in)	601	(24)
Height	mm (in)	1201	(47)
Weight	kg (lb)	426	(940)

Dimensions may vary based on selected engine configuration.

Weeks Marine's accommodation barge BT213 served as the field test boat for Cummins QSB7–DM.

Courtesy of Alan Haig–Brown

QSB7
Marine Auxiliary

General Specifications

Configuration	In-line, 6 cylinder, 4-stroke diesel	
Aspiration	Turbocharged	
Displacement	6.7 L	408 in^3
Bore & Stroke	107 x 124 mm	4.21 x 4.88 in
Fuel System	High Pressure Common Rail (HPCR)	

Commercial Ratings

			Fuel Consumption		Emissions		
kW	**BHP**	**RPM**	**Rated L/hr (Gal/hr)**	**ISO Avg L/hr (Gal/hr)**	**IMO**	**EPA**	**EU**
Prime Power at 50 Hz							
122	164	1500	33.4 (8.8)	16.6 (4.4)	2	—	3a
164	220	1500	46.0 (12.2)	22.7 (6.0)	2	—	3a
Prime Power at 60 Hz							
98	132	1800	28.1 (7.4)	15.0 (4.0)	2	3	—
112	150	1800	31.7 (8.4)	16.6 (4.4)	2	3	—
130	174	1800	36.0 (9.5)	18.4 (4.9)	2	3	—
142	190	1800	39.2 (10.4)	19.8 (5.2)	2	3	—
186	250	1800	51.8 (13.7)	25.2 (6.7)	2	3	—
210	282	1800	58.1 (15.4)	28.4 (7.5)	2	3	—

Ratings below 130 kW are not subject to IMO emission regulations
For more information on average fuel consumption and emissions, refer to the Reference Materials section.

Product Dimensions

Length	mm (in)	1283	(50.5)
Width	mm (in)	952	(37.5)
Height	mm (in)	994	(39.1)
Weight	kg (lb)	708	(1558)

Dimensions may vary based on selected engine configuration.

6CT8.3
Marine Auxiliary

General Specifications

Configuration	In-line, 6 cylinder, 4-stroke diesel	
Aspiration	Turbocharged	
Displacement	8.3 L	504.5 in^3
Bore & Stroke	114 x 135 mm	4.49 x 5.32 in
Fuel System	Inline Injection Pump	

Commercial Ratings

			Fuel Consumption		Emissions		
kW	**BHP**	**RPM**	**Rated L/hr (Gal/hr)**	**ISO Avg L/hr (Gal/hr)**	**IMO**	**EPA**	**EU**
Prime Power at 50 Hz							
122	164	1500	30.3 (8.0)	14.9 (3.9)	1	—	—
Prime Power at 60 Hz							
140	188	1800	36.3 (9.6)	18.7 (4.9)	1	—	—

For more information on average fuel consumption and emissions, refer to the Reference Materials section.

Product Dimensions

Length	mm (in)	1182	(47)
Width	mm (in)	710	(28)
Height	mm (in)	1137	(45)
Weight	kg (lb)	684	(1505)

Dimensions may vary based on selected engine configuration.

Built by Saigon Shipmarin, the LPG carrier FACO is powered by a pair of N855 engines. Auxiliary power is provided by two 6C-powered generator sets.

Courtesy of Alan Haig–Brown

6CTA8.3
Marine Auxiliary

General Specifications

Configuration	In-line, 6 cylinder, 4-stroke diesel	
Aspiration	Turbocharged/Aftercooled	
Displacement	8.3 L	504.5 in^3
Bore & Stroke	114 x 135 mm	4.49 x 5.32 in
Fuel System	Inline Injection Pump	

Commercial Ratings

			Fuel Consumption		Emissions		
kW	**BHP**	**RPM**	**Rated L/hr (Gal/hr)**	**ISO Avg L/hr (Gal/hr)**	**IMO**	**EPA**	**EU**
Prime Power at 50 Hz							
163	219	1500	40.1 (10.6)	19.3 (5.1)	1	—	—
164	220	1500	41.3 (10.9)	20.5 (5.4)	1	—	—
Prime Power at 60 Hz							
180	242	1800	46.6 (12.3)	23.4 (6.2)	1	—	—
188	252	1800	47.3 (12.5)	23.0 (6.1)	1	—	—
201	270	1800	56.6 (14.9)	27.1 (7.2)	2	—	—

For more information on average fuel consumption and emissions, refer to the Reference Materials section.

Product Dimensions

Length	mm (in)	1182	(47)
Width	mm (in)	710	(28)
Height	mm (in)	1137	(45)
Weight	kg (lb)	702	(1545)

Dimensions may vary based on selected engine configuration.

QSM11
Marine Auxiliary

General Specifications

Configuration	In-line, 6 cylinder, 4-stroke diesel	
Aspiration	Turbocharged/Aftercooled	
Displacement	10.8 L	661 in^3
Bore & Stroke	125 x 147 mm	4.92 x 5.79 in
Fuel System	Celect	

Commercial Ratings

			Fuel Consumption		Emissions		
kW	**BHP**	**RPM**	**Rated L/hr (Gal/hr)**	**ISO Avg L/hr (Gal/hr)**	**IMO**	**EPA**	**EU**
Prime Power at 50 Hz							
265	355	1500	65.0 (17.2)	32.1 (8.5)	2	—	—
Prime Power at 60 Hz							
265	355	1800	65.4 (17.3)	33.7 (8.9)	2	—	—
265	355	1800	68.2 (18.0)	35.3 (9.3)	2	3	—
317	425	1800	78.6 (20.8)	39.2 (10.4)	2	—	—
317	425	1800	82.9 (21.9)	41.6 (11.0)	2	3	—

For more information on average fuel consumption and emissions, refer to the Reference Materials section.

Product Dimensions

Length	mm (in)	1475	(58)
Width	mm (in)	1081	(43)
Height	mm (in)	1039	(41)
Weight	kg (lb)	1118	(2464)

Dimensions may vary based on selected engine configuration.

Powered by four QSK60s, the Alex F. McCall is also equipped with three Cummins QSM11 powered 290–kW main generators.

Courtesy of SEACOR Marine

NT855
Marine Auxiliary

General Specifications

Configuration	In-line, 6 cylinder, 4-stroke diesel	
Aspiration	Turbocharged	
Displacement	14 L	855 in^3
Bore & Stroke	140 x 152 mm	5.50 x 6.00 in
Fuel System	Pressure Time (PT)	

Commercial Ratings

			Fuel Consumption		Emissions		
kW	**BHP**	**RPM**	**Rated L/hr (Gal/hr)**	**ISO Avg L/hr (Gal/hr)**	**IMO**	**EPA**	**EU**
Prime Power at 60 Hz							
295	395	1800	N/A	N/A	—	—	—

For more information on average fuel consumption and emissions, refer to the Reference Materials section.
For additional standard options available regionally, contact your local Cummins distributor

Product Dimensions

Length	mm (in)	1298	(61)
Width	mm (in)	817	(32)
Height	mm (in)	1367	(53)
Weight	kg (lb)	1388	(3060)

Dimensions may vary based on selected engine configuration.

NTA855
Marine Auxiliary

General Specifications

Configuration	In-line, 6 cylinder, 4-stroke diesel	
Aspiration	Turbocharged/Aftercooled	
Displacement	14 L	855 in^3
Bore & Stroke	140 x 152 mm	5.50 x 6.00 in
Fuel System	Pressure Time (PT)	

Commercial Ratings

			Fuel Consumption		Emissions		
kW	**BHP**	**RPM**	**Rated L/hr (Gal/hr)**	**ISO Avg L/hr (Gal/hr)**	**IMO**	**EPA**	**EU**
Prime Power at 50 Hz							
306	410	1500	N/A	N/A	—	—	—
Prime Power at 60 Hz							
313	420	1800	N/A	N/A	—	—	—
358	480	1800	86.7 (22.9)	N/A	—	—	—

For more information on average fuel consumption and emissions, refer to the Reference Materials section.
For additional standard options available regionally, contact your local Cummins distributor

Product Dimensions

Length	mm (in)	1298	(61)
Width	mm (in)	817	(32)
Height	mm (in)	1376	(53)
Weight	kg (lb)	1433	(3160)

Dimensions may vary based on selected engine configuration.

KTA19
Marine Auxiliary

General Specifications

Configuration	In-line, 6 cylinder, 4-stroke diesel	
Aspiration	Turbocharged/Aftercooled	
Displacement	19 L	1150 in^3
Bore & Stroke	159 x 159 mm	6.25 x 6.25 in
Fuel System	Pressure Time (PT)	

Commercial Ratings

			Fuel Consumption		Emissions		
kW	**BHP**	**RPM**	**Rated L/hr (Gal/hr)**	**ISO Avg L/hr (Gal/hr)**	**IMO**	**EPA**	**EU**
Prime Power at 50 Hz							
336	450	1500	82.5 (21.8)	44.8 (11.8)	—	—	—
403	540	1500	96.5 (25.5)	49.5 (13.1)	1	—	—
447	600	1500	107.5 (28.4)	54.2 (14.3)	—	—	—
358	480	1500	91.2 (24.1)	47.1 (12.5)	2	—	—
410	550	1500	102.6 (27.1)	52.5 (13.9)	2	—	—
Prime Power at 60 Hz							
392	525	1800	98.4 (26.0)	53.6 (14.2)	—	—	—
425	570	1800	106.4 (28.1)	58.8 (15.5)	2	—	—
485	650	1800	120.8 (31.9)	64.7 (17.1)	2	—	—
462	620	1800	110.9 (29.3)	59.3 (15.7)	1	—	—
507	680	1800	122.3 (32.3)	62.5 (16.5)	—	—	—

For more information on average fuel consumption and emissions, refer to the Reference Materials section.
For additional standard options available regionally, contact your local Cummins distributor

Product Dimensions

Length	mm (in)	1877	(74)
Width	mm (in)	1003	(40)
Height	mm (in)	1905	(75)
Weight	kg (lb)	2073	(4570)

Dimensions may vary based on selected engine configuration.

QSK19
Marine Auxiliary

General Specifications

Configuration	In-line, 6 cylinder, 4-stroke diesel	
Aspiration	Turbocharged/Aftercooled	
Displacement	19 L	1150 in^3
Bore & Stroke	159 x 159 mm	6.25 x 6.25 in
Fuel System	Modular Common Rail (MCRS)	

Commercial Ratings

			Fuel Consumption		Emissions		
kW	**BHP**	**RPM**	**Rated L/hr (Gal/hr)**	**ISO Avg L/hr (Gal/hr)**	**IMO**	**EPA**	**EU**
Prime Power at 50 Hz							
433	580	1500	111.1 (29.3)	57.9 (15.3)	2	—	—
526	705	1500	133.7 (35.3)	66.2 (17.5)	2	—	—
Prime Power at 60 Hz							
563	755	1800	142.3 (37.6)	72.4 (18.8)	2	—	3a
563	755	1800	148.5 (39.2)	75.8 (20.0)	2	3	—
597	800	1800	158.1 (41.8)	81.9 (21.6)	2	3	—

For more information on average fuel consumption and emissions, refer to the Reference Materials section

Product Dimensions

Length	mm (in)	2007	(79)
Width	mm (in)	693	(38)
Height	mm (in)	1880	(74)
Weight	kg (lb)	2189	(4825)

Dimensions may vary based on selected engine configuration.

VTA28
Marine Auxiliary

General Specifications

Configuration	V-12 cylinder, 4-stroke diesel	
Aspiration	Turbocharged/Aftercooled	
Displacement	28 L	1710 in^3
Bore & Stroke	140 x 152 mm	5.50 x 6.00 in
Fuel System	Pressure Time (PT)	

Commercial Ratings

			Fuel Consumption		Emissions		
kW	**BHP**	**RPM**	**Rated L/hr (Gal/hr)**	**ISO Avg L/hr (Gal/hr)**	**IMO**	**EPA**	**EU**
Prime Power at 50 Hz							
421	565	1500	104.3 (27.6)	N/A	2	—	—
560	750	1500	140.1 (37.0)	N/A	1	—	—
560	750	1500	134.2 (35.4)	N/A	2	—	—
Prime Power at 60 Hz							
608	815	1800	154.0 (40.7)	N/A	1	—	—

For more information on average fuel consumption and emissions, refer to the Reference Materials section.

Product Dimensions

Length	mm (in)	1900	(75)
Width	mm (in)	995	(39)
Height	mm (in)	1641	(65)
Weight	kg (lb)	2901	(6395)

Dimensions may vary based on selected engine configuration.

One of the two accommodation boats built at Guangzhou Mangtong Shipbuilding and outfitted with a pair of QSK60 main engines and three KTA38–powered generator sets.

Courtesy of Guangzhou Mangtong Shipbuilding

KTA38
Marine Auxiliary

General Specifications

Configuration	V-12 cylinder, 4-stroke diesel	
Aspiration	Turbocharged/Aftercooled	
Displacement	38 L	2300 in^3
Bore & Stroke	159 x 159 mm	6.25 x 6.25 in
Fuel System	Pressure Time (PT)	

Commercial Ratings

			Fuel Consumption		Emissions		
kW	**BHP**	**RPM**	**Rated L/hr (Gal/hr)**	**ISO Avg L/hr (Gal/hr)**	**IMO**	**EPA**	**EU**
Prime Power at 50 Hz							
634	850	1500	160.0 (42.3)	84.3 (22.3)	—	—	—
664	890	1500	167.0 (44.2)	87.5 (23.1)	—	—	—
746	1000	1500	176.8 (46.7)	91.7 (24.2)	1	—	—
806	1080	1500	194.0 (51.3)	103.7 (27.4)	—	—	—
880	1180	1500	208.6 (55.1)	109.4 (28.9)	—	—	—
880	1180	1500	215.9 (57.0)	109.0 (28.8)	1	—	—
880	1180	1500	216.7 (57.2)	115.2 (30.4)	2	—	—
Prime Power at 60 Hz							
768	1030	1800	195.0 (51.5)	104.4 (27.6)	—	—	—
809	1085	1800	204.4 (54.0)	108.6 (28.7)	—	—	—
821	1100	1800	195.7 (51.7)	104.0 (27.5)	1	—	—
910	1220	1800	217.7 (57.5)	116.8 (30.9)	—	—	—
970	1300	1800	240.0 (63.4)	129.3 (34.2)	1	—	—
970	1300	1800	243.2 (64.2)	132.2 (34.9)	2	—	—
1007	1350	1800	244.5 (64.6)	131.6 (34.8)	—	—	—

For more information on average fuel consumption and emissions, refer to the Reference Materials section.

Product Dimensions

Length	mm (in)	2152	(84)
Width	mm (in)	1462	(58)
Height	mm (in)	2083	(82)
Weight	kg (lb)	4218	(9300)

Dimensions may vary based on selected engine configuration.

QSK38
Marine Auxiliary

General Specifications

Configuration	V-12 cylinder, 4-stroke diesel	
Aspiration	Turbocharged/Aftercooled	
Displacement	38 L	2300 in^3
Bore & Stroke	159 x 159 mm	6.25 x 6.25 in
Fuel System	Modular Common Rail (MCRS)	

Commercial Ratings

			Fuel Consumption		Emissions		
kW	**BHP**	**RPM**	**Rated L/hr (Gal/hr)**	**ISO Avg L/hr (Gal/hr)**	**IMO**	**EPA**	**EU**
Prime Power at 50 Hz							
984	1320	1500	234.3 (61.9)	124.6 (32.9)	2	—	3a
Prime Power at 60 Hz							
1044	1400	1800	262.6 (69.4)	144.2 (38.1)	2	3	—
1044	1400	1800	252.5 (66.7)	135.8 (35.9)	2	—	3a

For more information on average fuel consumption and emissions, refer to the Reference Materials section.

Product Dimensions

Length	mm (in)	2282	(90)
Width	mm (in)	1573	(62)
Height	mm (in)	2242	(88)
Weight	kg (lb)	4850	(10692)

Dimensions may vary based on selected engine configuration.

The U.S. Navy's latest Ocean Class Auxiliary General Purpose Oceanographic Research (AGOR) vessel, R/V Neil Armstrong, is equipped with four QSK38-powered diesel electric generator sets.

Courtesy of Cummins Northwest

KTA50
Marine Auxiliary

General Specifications

Configuration	V-16 cylinder, 4-stroke diesel	
Aspiration	Turbocharged/Aftercooled	
Displacement	50 L	3067 in^3
Bore & Stroke	159 x 159 mm	6.25 x 6.25 in
Fuel System	Pressure Time (PT)	

Commercial Ratings

			Fuel Consumption		Emissions		
kW	**BHP**	**RPM**	**Rated L/hr (Gal/hr)**	**ISO Avg L/hr (Gal/hr)**	**IMO**	**EPA**	**EU**
Prime Power at 50 Hz							
880	1180	1500	217.3 (57.4)	116.8 (30.9)	—	—	—
900	1206	1500	252.9 (66.8)	N/A	—	—	—
1007	1350	1500	228.9 (60.5)	118.9 (31.4)	1	—	—
1096	1470	1500	267.0 (70.5)	141.4 (37.3)	1	—	—
1096	1470	1500	275.9 (72.9)	141.9 (37.5)	2	—	—
1097	1470	1500	253.6 (67.0)	134.1 (35.4)	—	—	—
Prime Power at 60 Hz							
1000	1340	1800	N/A	N/A	—	—	—
1007	1350	1800	N/A	138.1 (36.5)	—	—	—
1141	1530	1800	262.7 (69.4)	138.6 (36.6)	1	—	—
1220	1635	1800	282.0 (74.5)	153.7 (40.6)	—	—	—
1290	1730	1800	314.6 (83.1)	161.4 (42.6)	2	—	—
1290	1730	1800	320.8 (84.7)	168.6 (44.6))	1	—	—

For more information on average fuel consumption and emissions, refer to the Reference Materials section.

Product Dimensions

Length	mm (in)	2694	(106)
Width	mm (in)	1564	(62)
Height	mm (in)	2260	(89)
Weight	kg (lb)	5431	(11973)

Dimensions may vary based on selected engine configuration.

QSK50
Marine Auxiliary

General Specifications

Configuration	V-16 cylinder, 4-stroke diesel	
Aspiration	Turbocharged/Aftercooled	
Displacement	50 L	3068 in^3
Bore & Stroke	159 x 159 mm	6.25 x 6.25 in
Fuel System	Modular Common Rail (MCRS)	

Commercial Ratings

			Fuel Consumption		Emissions		
kW	**BHP**	**RPM**	**Rated L/hr (Gal/hr)**	**ISO Avg L/hr (Gal/hr)**	**IMO**	**EPA**	**EU**
Prime Power at 50 Hz							
1290	1730	1500	308.0 (81.4)	162.5 (42.9)	2	—	3a
Prime Power at 60 Hz							
1342	1800	1800	339.3 (89.6)	184.2 (48.7)	2	3	—
1342	1800	1800	332.3 (87.8)	177.3 (46.8)	2	—	3a
1628	2183	1800	413.8 (109.3)	209.7 (55.4)	2	—	3a

For more information on average fuel consumption and emissions, refer to the Reference Materials section.

Product Dimensions

Length	mm (in)	2780	(109)
Width	mm (in)	1573	(62)
Height	mm (in)	2232	(88)
Weight	kg (lb)	6270	(13823)

Dimensions may vary based on selected engine configuration.

QSK60
Marine Auxiliary

General Specifications

Configuration	V-16 cylinder, 4-stroke diesel	
Aspiration	Turbocharged/Aftercooled	
Displacement	60.2 L	3672 in^3
Bore & Stroke	159 x 190 mm	6.25 x 7.48 in
Fuel System	Modular Common Rail (MCRS)	

Commercial Ratings

			Fuel Consumption		Emissions		
kW	**BHP**	**RPM**	**Rated L/hr (Gal/hr)**	**ISO Avg L/hr (Gal/hr)**	**IMO**	**EPA**	**EU**
Prime Power at 50 Hz							
1563	2095	1500	378.1 (99.9)	192.1 (50.7)	2	—	3a
1899	2547	1500	451.8 (119.3)	222.7 (58.8)	2	—	—
Prime Power at 60 Hz							
1899	2547	1800	486.3 (128.5)	239.8 (63.4)	2	—	3a
2001	2683	1800	480.3 (126.9)	244.2 (64.5)	2	—	—

For more information on average fuel consumption and emissions, refer to the Reference Materials section.

Product Dimensions

Length	mm (in)	3290	(130)
Width	mm (in)	1757	(69)
Height	mm (in)	2415	(95)
Weight	kg (lb)	8754	(19300)

Dimensions may vary based on selected engine configuration.

QSK95
Marine Auxiliary

General Specifications

Configuration	V-16 cylinder, 4-stroke diesel	
Aspiration	Turbocharged/Aftercooled	
Displacement	95 L	5797 in^3
Bore & Stroke	190 x 210 mm	7.48 x 8.27 in
Fuel System	Modular Common Rail (MCRS)	

Commercial Ratings

			Fuel Consumption		Emissions		
kW	**BHP**	**RPM**	**Rated L/hr (Gal/hr)**	**ISO Avg L/hr (Gal/hr)**	**IMO**	**EPA**	**EU**
Prime Power at 50 Hz							
2625	3520	1500	599.8 (158.4)	302.7 (80.0)	2	—	—
Prime Power at 60 Hz							
3150	4224	1800	765.8 (202.3)	380.4 (100.5)	2	—	—

For more information on average fuel consumption and emissions, refer to the Reference Materials section.

Product Dimensions

Length	mm (in)	3654	(144)
Width	mm (in)	1728	(63)
Height	mm (in)	2362	(93)
Weight	kg (lb)	13282	(29282)

Dimensions may vary based on selected engine configuration.

TECHNOLOGY
THAT TRANSFORMS

Always
on Course.

The Difference Is Experience.

With hundreds of diesel electric packages in operation globally, Cummins is a leader in diesel electric generator sets. Our project engineers work closely with you to customize the package to meet your installation and operational needs. All generator sets are designed and built by Cummins as an integrated unit, and backed by a global network of marine specialists available 24/7/365. For marine power that's always on course, you can depend on Cummins.

Cummins®

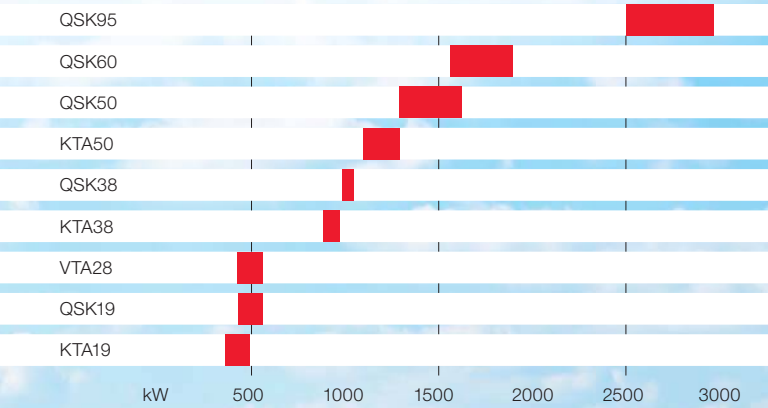
Cummins Diesel Electric

With a decade of experience and hundreds of diesel electric packages in operation globally, Cummins is one of the pioneers in diesel electric propulsion. The company has developed in-house capability to design generator set packages and support diesel electric vessels, long offering custom packages through the Cummins marine distribution channel as well as more standardized C Power generator sets from the factory.

The Difference is Experience.

- Hundreds of diesel electric packages in operation globally
- Regular integration meetings begin at vessel concept and continue through commissioning
- Customized packages for constant and variable speed propulsion feature Cummins marine auxiliary engines matched to customer's choice of alternator, including Cummins own STAMFORD® and AvK®, to meet your vessel requirements
- Major components designed and built by Cummins as an integrated unit
- Supported by a global network of marine service specialists available 24/7/365

Power Range for Cummins Marine Auxiliary Engines for Diesel Electric Propulsion



Rating Definitions

Prime Power: Engines with this rating are available for an unlimited number of hours per year in variable load applications. Variable load is not to exceed a 80 percent average of the rated power. A 10 percent overload capability is available for a period of one hour within a 12 hour period of operation. Total operating time at the 10 percent overload power shall not exceed 25 hours per year. This power rating follows ISO 8528 guidelines.

Diesel Electric Ratings

kW	BHP	Engine Model	Fuel System	Page
50 Hz Fixed Speed Ratings				
358	480	KTA19	Mechanical	71
410	550	KTA19	Mechanical	71
433	580	QSK19	Electronic	72
526	705	QSK19	Electronic	72
880	1180	KTA38	Mechanical	74
984	1320	QSK38	Electronic	75
1096	1470	KTA50	Mechanical	76
1290	1730	QSK50	Electronic	77
1563	2095	QSK60	Electronic	78
1899	2547	QSK60	Electronic	78
2675	3520	QSK95	Electronic	79
60 Hz Fixed Speed Ratings				
425	570	KTA19	Mechanical	71
485	650	KTA19	Mechanical	71
563	755	QSK19	Electronic	72
563	755	QSK19	Electronic	72
597	800	QSK19	Electronic	72
970	1300	KTA38	Mechanical	74
1044	1400	QSK38	Electronic	75
1044	1400	QSK38	Electronic	75
1290	1730	KTA50	Mechanical	76
1342	1800	QSK50	Electronic	77
1342	1800	QSK50	Electronic	77
1628	2183	QSK50	Electronic	77
1899	2547	QSK60	Electronic	78
2001	2683	QSK60	Electronic	78
3150	4224	QSK95	Electronic	79

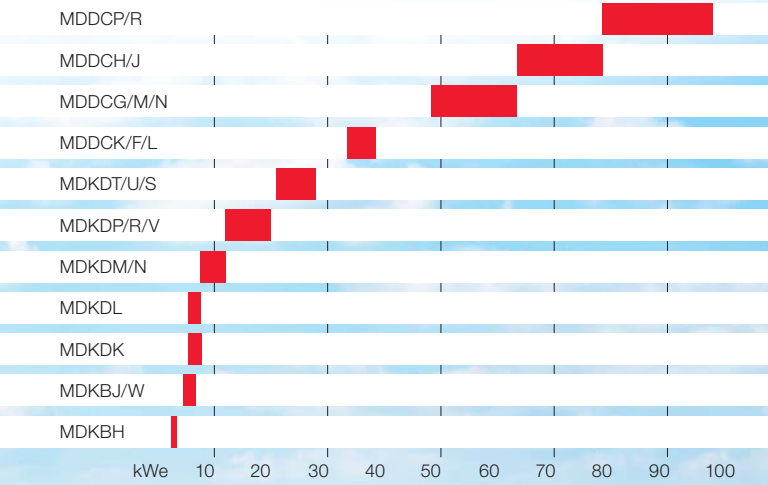
Fuel Consumption (L/hr (Gal/hr))		Emissions		
Rated	ISO Avg	IMO	EPA	EU
91.2 (24.1)	47.1 (12.5)	2	—	—
102.6 (27.1)	52.5 (13.9)	2	—	—
111.1 (29.3)	57.9 (15.3)	2	—	—
133.7 (35.3)	66.2 (17.5)	2	—	—
216.7 (57.2)	115.2 (30.4)	2	—	—
234.3 (61.9)	124.6 (32.9)	2	—	3a
275.9 (72.9)	141.9 (37.5)	2	—	—
308.8 (81.4)	162.8 (42.9)	2	—	3a
378.1 (99.9)	192.1 (50.7)	2	—	3a
451.8 (119.3)	222.7 (58.8)	2	—	—
619.0 (163.5)*	N/A	2	—	—
106.4 (28.1)	58.8 (15.5)	2	—	—
120.8 (31.9)	64.7 (17.1)	2	—	—
142.3 (37.6)	72.4 (18.8)	2	—	3a
148.5 (39.2)	75.8 (20.0)	2	3	—
158.1 (41.8)	81.9 (21.6)	2	3	—
243.2 (64.2)	132.2 (34.9)	2	—	—
262.6 (69.4)	144.2 (38.1)	2	3	—
252.5 (66.7)	135.8 (35.9)	2	—	3a
314.6 (83.1)	161.4 (42.6)	2	—	—
339.3 (89.6)	184.2 (48.7)	2	3	—
332.3 (87.8)	177.3 (46.8)	2	—	3a
413.8 (109.3)	209.7 (55.4)	2	—	3a
486.3 (128.5)	239.8 (63.4)	2	—	3a
480.3 (126.9)	244.2 (64.5)	2	—	—
765.9 (202.3)*	N/A	2	—	—

Cummins Marine Gensets

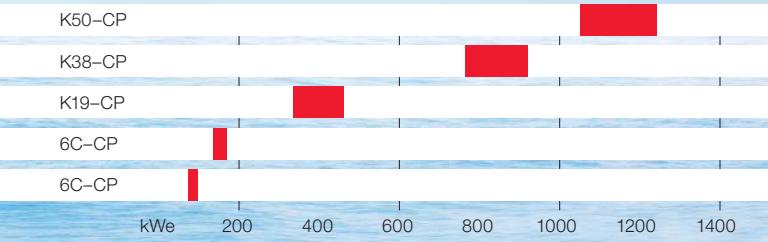
With more than 80 years of marine experience gained by supplying generators for commercial, recreational and government marine applications globally, Cummins marine generators offer the same reliability and durability operators have come to expect from Cummins. Our line of marine generator sets include Cummins Onan and C Power generator sets for ship's service and emergency power, as well as diesel electric propulsion.

Every major component our marine generator sets, including the engine, alternator and control system, is either designed and manufactured or integrated by divisions of the Cummins family. This means all elements of the generator set are engineered to operate with complete system harmony for optimal performance and maximum efficiency. And the best part is knowing your generator is backed by the full power of Cummins — support and service from the world's largest distributor/dealer network in the industry and a comprehensive global warranty.

Power Range for Onan Marine Generator Sets



Power Range for C Power Marine Generator Sets



Marine Generator Sets

kWe	Hz	RPM	Model	Product Line
KC– and HX–cooled ratings				
4	50	2400	MDKBH	Onan
5	60	2900	MDKBH	Onan
6	50	2400	MDKBJ	Onan
7	50	1500	MDKDK	Onan
7	50	1500	MDKDL	Onan
7.5	60	2900	MDKBJ	Onan
8	50	2880	MDKBW	Onan
9	60	1800	MDKDK	Onan
9	60	1800	MDKDL	Onan
9.5	50	1500	MDKDM	Onan
11	50	1500	MDKDN	Onan
11.5	60	1800	MDKDM	Onan
13.5	50	1500	MDKDP	Onan
13.5	60	1800	MDKDN	Onan
17	60	1800	MDKDP	Onan
17.5	50	1500	MDKDR	Onan
19	50	1500	MDKDV	Onan
21.5	60	1800	MDKDR	Onan
22.5	50	1500	MDKDT	Onan
27	50	1500	MDKDU	Onan
29	60	1800	MDKDS	Onan
35	50	1500	MDDCK	Onan
40	50	1500	MDDCF	Onan
40	60	1800	MDDCL	Onan
50	50	1500	MDDCG	Onan
55	60	1800	MDDCM	Onan
65	50	1500	MDDCH	Onan
65	60	1800	MDDCN	Onan

Continued on next page.

Page	IMO II	EPA3	EU3a
92		■	
92		■	
93		■	
94			
95			
93		■	
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94		■	
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96			
96			
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102			
102		■	
104			
102			

Marine Generator Sets

Continued from previous page.

kWe	Hz	RPM	Model	Product Line
KC– and HX–cooled ratings				
80	50	1500	MDDCJ	Onan
80	50	1500	6B–CP	C Power
80	60	1800	MDDCP	Onan
99	60	1800	MDDCR	Onan
99	60	1800	6B–CP	C Power
136	50	1500	6C–CP	C Power
160	60	1800	6C–CP	C Power
170	60	1800	6C–CP	C Power
335	50	1500	K19–CP	C Power
380	50	1500	K19–CP	C Power
390	50	1500	K19–CP	C Power
400	60	1800	K19–CP	C Power
450	60	1800	K19–CP	C Power
460	60	1800	K19–CP	C Power
764	50	1500	K38–CP	C Power
804	50	1500	K38–CP	C Power
832	50	1500	K38–CP	C Power
845	50	1500	K38–CP	C Power
888	60	1800	K38–CP	C Power
920	60	1800	K38–CP	C Power
1050	50	1500	K50–CP	C Power
1240	60	1800	K50–CP	C Power
RAD–cooled emergency ratings				
74	50	1500	6B–CP	C Power
92	60	1800	6B–CP	C Power
136	50	1500	6C–CP	C Power
152	60	1800	6C–CP	C Power

Page	IMO II	EPA3	EU3a
104			
108			
106			
106			
108			
109	■		
109	■	■	
109	■	■	
110	■		
110	■		
110	■		
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111	■		
111	■		
112	■		
112	■		
108			
108			
109	■		
109	■	■	

4–5 kW
Onan Marine Genset

KC- and HX- cooled ratings

kWe	kVa*	Hz	RPM	Phase	Voltage	Amps	Emissions
Model MDKBH							
4	4	50	2400	1	110 | 220 115 | 230 120 | 240	36.4 | 18.2 34.8 | 17.4 33.3 | 16.6	EPA3
5	5	60	2900	1	120 120 | 240	41.7 41.7 | 20.8	EPA3

Ratings below 130 kW are not subject to IMO emission regulations.
* Single phase output at 1.0 power factor; three phase output at .8 power factor.

Fuel Consumption

kWe	Hz	1/4 Load L/hr (Gal/hr)	1/2 Load L/hr (Gal/hr)	3/4 Load L/hr (Gal/hr)	Full Load L/hr (Gal/hr)
KC- and HX- cooled ratings					
4	50	0.8 (0.21)	1.0 (0.28)	1.3 (0.35)	1.7 (0.44)
5	60	1.0 (0.27)	1.3 (0.35)	1.7 (0.44)	2.1 (0.55)

For more information on average fuel consumption and emissions, refer to the Reference Materials section.

Product Dimensions

Length	mm (in)	662	(26)
Width	mm (in)	511	(20)
Height	mm (in)	524	(21)
Weight	kg (lb)	166	(365)

Dimensions may vary based on selected engine configuration.

Electrical power for the R–31S from Ranger Tugs is provided by a 5 kWe MDKBH Onan marine generator set.

Courtesy of Ranger Tugs

6–8 kW
Onan Marine Genset

KC- and HX- cooled ratings

kWe	kVa*	Hz	RPM	Phase	Voltage	Amps	Emissions
Model MDKBJ							
6	6	50	2400	1	110 | 220 115 | 230 120 | 240	54.5 | 27.3 52.2 | 26.1 50.0 | 25.0	EPA3
7.5	7	60	2900	1	120 120 | 240	62.5 62.5 | 31.3	EPA3
Model MDKBW							
6	6	50	2400	1	110 | 220 115 | 230 120 | 240	54.5 | 27.3 52.2 | 26.1 50.0 | 25.0	EPA3

Ratings below 130 kW are not subject to IMO emission regulations.
* Single phase output at 1.0 power factor; three phase output at .8 power factor.

Fuel Consumption

kWe	Hz	1/4 Load L/hr (Gal/hr)	1/2 Load L/hr (Gal/hr)	3/4 Load L/hr (Gal/hr)	Full Load L/hr (Gal/hr)
KC- and HX- cooled ratings					
6	50	1.12 (0.30)	1.46 (0.39)	1.84 (0.48)	2.28 (0.60)
7.5	60	1.40 (0.37)	1.84 (0.48)	2.33 (0.61)	2.93 (0.70)
8	50	1.41 (0.37)	1.85 (0.49)	2.35 (0.62)	2.97 (0.78)

For more information on average fuel consumption and emissions, refer to the Reference Materials section.

Product Dimensions

Length	mm (in)	664	(26)
Width	mm (in)	583	(23)
Height	mm (in)	535	(21)
Weight	kg (lb)	195	(429)

Dimensions may vary based on selected engine configuration.

7–9 kW
Onan Marine Genset

KC- and HX- cooled ratings

kWe	kVa*	Hz	RPM	Phase	Voltage	Amps	Emissions
Model MDKDK							
7	7	50	1500	1	110 | 220 115 | 230 120 | 240	63.6 | 31.8 60.9 | 30.4 58.3 | 29.2	—
9	9	60	1800	1	120 120 | 240	75 75 | 37.5	EPA3

Ratings below 130 kW are not subject to IMO emission regulations.
* Single phase output at 1.0 power factor; three phase output at .8 power factor.

Fuel Consumption

kWe	Hz	1/4 Load L/hr (Gal/hr)	1/2 Load L/hr (Gal/hr)	3/4 Load L/hr (Gal/hr)	Full Load L/hr (Gal/hr)
KC- and HX- cooled ratings					
7	50	1.1 (0.3)	1.5 (0.4)	2.0 (0.5)	2.8 (0.8)
9	60	1.3 (0.3)	1.9 (0.5)	2.6 (0.7)	3.8 (1.0)

For more information on average fuel consumption and emissions, refer to the Reference Materials section.

Product Dimensions

Length	mm (in)	823	(32)
Width	mm (in)	479	(19)
Height	mm (in)	560	(22)
Weight	kg (lb)	238	(525)

Dimensions may vary based on selected engine configuration.

7–9 kW
Onan Marine Genset

KC- and HX- cooled ratings

kWe	kVa*	Hz	RPM	Phase	Voltage	Amps	Emissions
Model MDKDL							
7	7	50	1500	1	110 | 220 115 | 230 120 | 240	63.6 | 31.8 60.9 | 30.4 58.3 | 29.2	—
9	9	60	1800	1	120 120 | 240	75 75 | 37.5	EPA3

Ratings below 130 kW are not subject to IMO emission regulations.
* Single phase output at 1.0 power factor; three phase output at .8 power factor.

Fuel Consumption

kWe	Hz	1/4 Load L/hr (Gal/hr)	1/2 Load L/hr (Gal/hr)	3/4 Load L/hr (Gal/hr)	Full Load L/hr (Gal/hr)
KC- and HX- cooled ratings					
7	50	1.1 (0.3)	1.5 (0.4)	2.0 (0.5)	2.8 (0.8)
9	60	1.3 (0.3)	1.9 (0.5)	2.6 (0.7)	3.8 (1.0)

For more information on average fuel consumption and emissions, refer to the Reference Materials section.

Product Dimensions

		Housed		Unhoused	
Length	mm (in)	911	(36)	911	(36)
Width	mm (in)	566	(22)	566	(22)
Height	mm (in)	593	(23)	585	(23)
Weight	kg (lb)	272	(600)	252	(555)

Dimensions may vary based on selected engine configuration.

9.5–13.5 kW
Onan Marine Genset

KC- and HX- cooled ratings

kWe	kVa*	Hz	RPM	Phase	Voltage	Amps	Emissions
Model MDKDK							
9.5	9.5	50	1500	1	110 | 220 115 | 230 120 | 240	86.4 | 43.2 82.6 | 41.3 79.2 | 39.6	—
Model MDKDM							
11.5	11.5	60	1800	1	120 120 | 240	95.8 95.8 | 47.9	EPA3
Model MDKDN							
11	11	50	1500	1	110 | 220 115 | 230 120 | 240	100 | 50 95.7 | 47.8 91.7 | 46	—
13.5	13.5	60	1800	1	120 120 | 240	112.5 112 | 56.3	EPA3

Ratings below 130 kW are not subject to IMO emission regulations.
* Single phase output at 1.0 power factor; three phase output at .8 power factor.

Fuel Consumption

kWe	Hz	1/4 Load L/hr (Gal/hr)	1/2 Load L/hr (Gal/hr)	3/4 Load L/hr (Gal/hr)	Full Load L/hr (Gal/hr)
KC- and HX- cooled ratings					
9.5	50	1.4 (0.4)	2.1 (0.6)	2.8 (0.7)	3.4 (0.9)
11	50	1.5 (0.4)	2.2 (0.6)	3.0 (0.8)	4.0 (1.0)
11.5	60	1.7 (0.4)	2.5 (0.7)	3.2 (0.8)	3.9 (1.0)
13.5	60	1.8 (0.5)	2.6 (0.7)	3.6 (1.0)	4.5 (1.2)

For more information on average fuel consumption and emissions, refer to the Reference Materials section.

Product Dimensions

		Housed		Unhoused	
Length	mm (in)	1033	(41)	1033	(41)
Width	mm (in)	566	(22)	566	(22)
Height	mm (in)	593	(23)	585	(23)
Weight	kg (lb)	315	(695)	290	(640)

Dimensions may vary based on selected engine configuration.

13.5–21.5 kW
Onan Marine Genset

KC- and HX- cooled ratings

kWe	kVa*	Hz	RPM	Phase	Voltage	Amps	Emissions
Model MDKDP							
13.5	13.5	50	1500	1	110 | 220 115 | 230 120 | 240	122.7 | 61.4 117.4 | 58.7 112.5 | 56.3	EU3a
13.5	16.9	50	1500	3	220 | 380	25.6	EU3a
17	17	60	1800	1	120 | 240	141.7 | 70.8	—
17	21.1	60	1800	3	120 | 208	59	—
Model MDKDR							
17.5	17.5	50	1500	1	110 | 220 115 | 230 120 | 240	159.1 | 79.5 152.2 | 76.1 145.8 | 72.9	EU3a
17.5	21.9	50	1500	3	220 | 380	33.2	EU3a
21.5	21.5	60	1800	1	120 | 240	179 | 89.6	EPA3
21.5	26.9	60	1800	3	120 | 208	74.6	EPA3
Model MDKDV							
19	19	50	1500	1	110 | 220 115 | 230	172.7 | 86.4 165.2 | 82.6	EU3a
19	23.8	50	1500	3	220 | 380	36.1	EU3a

Ratings below 130 kW are not subject to IMO emission regulations.
* Single phase output at 1.0 power factor; three phase output at .8 power factor.

Fuel Consumption

kWe	Hz	1/4 Load L/hr (Gal/hr)	1/2 Load L/hr (Gal/hr)	3/4 Load L/hr (Gal/hr)	Full Load L/hr (Gal/hr)
KC- and HX- cooled ratings					
13.5	50	1.9 (0.5)	2.7 (0.7)	3.6 (0.9)	4.8 (1.3)
17	60	2.6 (0.7)	3.6 (1.0)	4.8 (1.3)	6.1 (1.6)
17.5	50	2.5 (0.6)	3.4 (0.9)	4.7 (1.2)	6.5 (1.7)
19	50	2.5 (0.7)	3.9 (1.0)	5.2 (1.4)	6.6 (1.7)
21.5	60	2.9 (0.8)	4.1 (1.1)	5.7 (1.5)	8.2 (2.2)

For more information on average fuel consumption and emissions, refer to the Reference Materials section.

See next page for product dimensions.

13.5–21.5 kW
Onan Marine Genset

Product Dimensions

		Housed		Unhoused		
Length	mm (in)	1127	(44)	1127	(44)	
Width	mm (in)	602	(24)	602	(24)	
Height	mm (in)	698	(28)	672	(27)	
Weight	kg (lb)	408	(899)	381	(840)	MDKDP
		422	(930)	395	(870)	MDKDR
		422	(930)	395	(870)	MDKDV

Dimensions may vary based on selected model.

22.5–29 kW
Onan Marine Genset

KC- and HX- cooled ratings

kWe	kVa*	Hz	RPM	Phase	Voltage	Amps	Emissions
Model MDKDT							
22.5	22.5	50	1500	1	110 | 220 115 | 230 120 | 240	205 | 102 196 | 97.8 188 | 93.8	—
22.5	28.1	50	1500	3	220 | 380	42.7	—
Model MDKDU							
27	27	50	1500	1	110 | 220 115 | 230 120 | 240	245 | 123 235 | 117 225 | 113	—
27	33.8	50	1500	3	220 | 380	51.3	—
Model MDKDS							
29	29	60	1800	1	120 | 240	241.7 | 120.8	—
29	36.2	60	1800	3	120 | 208	100.6	—

Ratings below 130 kW are not subject to IMO emission regulations.
* Single phase output at 1.0 power factor; three phase output at .8 power factor.

Fuel Consumption

kWe	Hz	1/4 Load L/hr (Gal/hr)	1/2 Load L/hr (Gal/hr)	3/4 Load L/hr (Gal/hr)	Full Load L/hr (Gal/hr)
KC- and HX- cooled ratings					
22.5	50	3.0 (0.8)	4.0 (1.1)	5.2 (1.4)	7,0 (1.8)
27	50	3.0 (0.8)	4.7 (1.2)	6.2 (1.6)	9.1 (2.4)
29	60	3.9 (1.0)	5.6 (1.5)	7.6 (2.0)	10.7 (2.8)

For more information on average fuel consumption and emissions, refer to the Reference Materials section.

Product Dimensions

		Housed		Unhoused		
Length	mm (in)	1358	(54)	1358	(54)	
Width	mm (in)	622	(25)	622	(25)	
Height	mm (in)	761	(30)	731	(29)	
Weight	kg (lb)	601	(1325)	565	(1245)	MDKDT
		626	(1380)	590	(1300)	MDKDU
		626	(1380)	590	(1300)	MDKDS

Dimensions may vary based on selected engine configuration.

35–40 kW
Onan Marine Genset

Prime Power Ratings

KC- and HX- cooled ratings

kWe	kVa*	Hz	RPM	Phase	Voltage	Amps	Emissions
Model MDDCK							
35	35	50	1500	1	110 | 220 115 | 230 120 | 240	318.2 | 159.1 304.3 | 152.2 291.7 | 145.8	—
35	43.8	50	1500	3	110/190 115/200 120/208 110/220 115/230 120/240 220/380 230/400 240/416 255/440	229.6/132.9 219.6/126.3 210.5/121.4 229.6/114.8 219.6/109.8 210.5/105.2 114.8/66.5 109.8/63.1 105.2/60.7 99.1/57.4	—
Model MDDCF							
40	40	50	1500	1	110 | 220 115 | 230 120 | 240	363.6 | 181.1 347.8 | 173.9 333.3 | 166.7	—
40	50	50	1500	3	110/190 115/200 120/208 110/220 115/230 120/240 220/380 230/400 240/416 255/410	151.9 144.3 138.8 131.2 125.5 120.3 76 72.2 69.4 65.6	—
Model MDDCL							
40	40	60	1800	1	120 | 240	333.3 | 166.7	—
40	50	60	1800	3	120/208 127/220 120/240 139/240 240/416 255/440 277/480 115/230 220/380	138.8 131.2 120.3 120.3 69.4 65.6 60.1 69.4 131	—

Ratings below 130 kW are not subject to IMO emission regulations.
* Single phase output at 1.0 power factor; three phase output at .8 power factor.

35–40 kW
Onan Marine Genset

Fuel Consumption

kWe	Hz	1/4 Load L/hr (Gal/hr)	1/2 Load L/hr (Gal/hr)	3/4 Load L/hr (Gal/hr)	Full Load L/hr (Gal/hr)
KC- and HX- cooled ratings					
35	50	3.9 (1.0)	6.4 (1.7)	9.0 (2.4)	11.5 (3.0)
40	50	3.9 (1.0)	6.4 (1.7)	9.0 (2.4)	11.5 (3.0)
40	60	4.5 (1.2)	7.2 (1.9)	9.9 (2.6)	12.7 (3.4)

For more information on average fuel consumption and emissions, refer to the Reference Materials section.

Product Dimensions

		Housed		Unhoused		
Length	mm (in)	1738	(69)	1734	(69)	
Width	mm (in)	840	(33)	822	(32)	
Height	mm (in)	1039	(41)	994	(39)	
Weight	kg (lb)	1090	(2403)	990	(2183)	MDDCK
		1098	(2420)	998	(2200)	MDDCF
		1072	(2363)	972	(2143)	MDDCL

Dimensions may vary based on selected model.

50–65 kW
Onan Marine Genset

Prime Power Ratings

KC- and HX- cooled ratings

kWe	kVa*	Hz	RPM	Phase	Voltage	Amps	Emissions
Model MDDCG							
50	50	50	1500	1	110 | 220 115 | 230 120 | 240	454.4 | 227.3 434.8 | 217.4 416.7 | 208.3	—
50	62.5	50	1500	3	110/190 115/200 120/208 110/220 115/230 120/240 220/380 230/400 240/416 255/440	189.9 180.4 173.5 164 156.9 150.4 95 90.2 86.7 82	—
Model MDDCM							
55	55	60	1800	1	120 | 240	458.4 | 229.2	—
55	68.75	60	1800	3	120/208 127/220 120/240 139/240 240/416 255/440 277/480	190.8 180.4 165.4 165.4 95.4 90.2 82.7	—
Model MDDCN							
65	65	60	1800	1	120 | 240	541.6 | 270.8	—
65	81.25	60	1800	3	120/208 127/220 120/240 139/240 240/416 255/440 277/480	225.5 213.2 195.5 195.5 112.8 106.6 97.7	—

Ratings below 130 kW are not subject to IMO emission regulations.
* Single phase output at 1.0 power factor; three phase output at .8 power factor.

50–65 kW
Onan Marine Genset

Fuel Consumption

kWe	Hz	1/4 Load L/hr (Gal/hr)	1/2 Load L/hr (Gal/hr)	3/4 Load L/hr (Gal/hr)	Full Load L/hr (Gal/hr)
KC- and HX- cooled ratings					
50	50	4.6 (1.2)	7.6 (2.0)	10.8 (2.9)	14.1 (3.7)
55	60	5.5 (1.4)	9.2 (2.4)	13.0 (3.4)	16.8 (4.4)
65	60	5.8 (1.5)	10.7 (2.8)	14.3 (4.0)	19.7 (5.2)

For more information on average fuel consumption and emissions, refer to the Reference Materials section.

Product Dimensions

		Housed		Unhoused	
Length	mm (in)	1738	(70)	1779	(70)
Width	mm (in)	840	(33)	822	(32)
Height	mm (in)	1039	(41)	994	(39)
Weight	kg (lb)	1167	(2752)	1067	(2352)

Dimensions may vary based on selected engine configuration.

65–80 kW
Onan Marine Genset

Prime Power Ratings

KC- and HX- cooled ratings

kWe	kVa*	Hz	RPM	Phase	Voltage	Amps	Emissions
Model MDDCH							
65	65	50	1500	1	110 | 220 115 | 230 120 | 240	590.9 | 295.5 565.2 | 282.6 541.7 | 270.8	—
65	81.25	50	1500	3	110/190 115/200 120/208 110/220 115/230 120/240 220/380 230/400 240/416 255/440	246.9 234.5 225.5 213.2 204 195.5 123.4 117.3 112.8 106.6	—
Model MDDCJ							
80	80	50	1500	1	110 | 220 115 | 230 120 | 240	727.3/363.6 695.7/347.8 666.7/333.3	—
80	100	50	1500	3	110/190 115/200 120/208 110/220 115/230 120/240 220/380 230/400 240/416 255/440	303.9 288.7 277.6 262.4 251 240.6 151.9 144.3 138.8 131.2	—

Ratings below 130 kW are not subject to IMO emission regulations.
* Single phase output at 1.0 power factor; three phase output at .8 power factor.

65–80 kW
Onan Marine Genset

Fuel Consumption

kWe	Hz	1/4 Load L/hr (Gal/hr)	1/2 Load L/hr (Gal/hr)	3/4 Load L/hr (Gal/hr)	Full Load L/hr (Gal/hr)
KC- and HX- cooled ratings					
65	50	5.7 (1.5)	9.9 (2.6)	14.1 (3.7)	18.4 (4.9)
80	50	6.7 (1.8)	11.8 (3.1)	16.9 (4.5)	22.4 (5.9)

For more information on average fuel consumption and emissions, refer to the Reference Materials section.

Product Dimensions

		Housed		Unhoused	
Length	mm (in)	2146	(85)	2142	(84)
Width	mm (in)	840	(33)	822	(32)
Height	mm (in)	1039	(41)	994	(39)
Weight	kg (lb)	1434	(3161)	1320	(2910)

Dimensions may vary based on selected engine configuration.

80–99 kW
Onan Marine Genset

Prime Power Ratings

KC- and HX- cooled ratings

kWe	kVa*	Hz	RPM	Phase	Voltage	Amps	Emissions
Model MDDCP							
80	80	60	1800	1	120 | 240	666.6 | 333.3	—
80	100	60	1800	3	120/208 127/220 120/240 139/240 240/416 255/440 277/480	277.6 262.4 240.6 240.6 138.8 131.2 120.3	—
Model MDDCR							
99	99	60	1800	1	120 | 240	825 | 412.5	—
99	123.75	60	1800	3	120/208 127/220 120/240 139/240 240/416 255/440 277/480	343.5 324.8 297.7 297.7 171.7 162.4 148.8	—

Ratings below 130 kW are not subject to IMO emission regulations.
* Single phase output at 1.0 power factor; three phase output at .8 power factor.

Fuel Consumption

kWe	Hz	1/4 Load L/hr (Gal/hr)	1/2 Load L/hr (Gal/hr)	3/4 Load L/hr (Gal/hr)	Full Load L/hr (Gal/hr)
KC- and HX- cooled ratings					
80	60	7.6 (2.0)	13.2 (3.5)	18.7 (4.9)	24.2 (6.4)
99	60	9.2 (2.4)	15.5 (4.1)	22.9 (6.0)	29.4 (7.8)

For more information on average fuel consumption and emissions, refer to the Reference Materials section.

Product Dimensions

		Housed		Unhoused	
Length	mm (in)	2146	(85)	2142	(84)
Width	mm (in)	840	(33)	822	(32)
Height	mm (in)	1039	(41)	994	(39)
Weight	kg (lb)	1434	(3161)	1320	(2910)

Dimensions may vary based on selected engine configuration.

Onan Cruise Kits

The cruise kits provide all the necessary and essential generator maintenance and service parts boaters need for worry-free voyages. Enjoy peace-of-mind by having the parts on hand for routine maintenance.

The following parts are included:

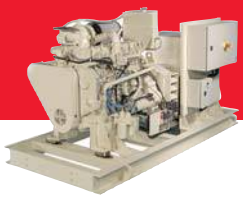
- (2) Oil filters
- (1) Oil filter wrench (for MDKBJ/W only)
- (2) Fuel filters
- (2) Sea water pump impeller kit
- (1) V-belt
- (2) Zinc pencils (not required or included for the MDKBH/J/W)
- Convenient plastic carrying case
- Laminated marine service & maintenance schedule

For more information on available accessories, visit
power.cummins.com/marine/marine–parts–and–accessories

Helen Merrill, the last in a series of five pushboats, is powered by a pair of KTA50s. Electrical requirements are met by a pair of 99 kW MDDCR generator sets.

Courtesy of Jeff L. Yates

6B–CP
C Power Marine Genset



General Specifications

Engine Model	6BT5.9–D(M)
Alternator	STAMFORD UCM274E

Prime Power Ratings

				Fuel Consumption		Emissions		
kWe	**kVa**	**Hz**	**Voltage**	**Rated L/hr (Gal/hr)**	**ISO Avg L/hr (Gal/hr)**	**IMO**	**EPA**	**EU**
KC– and HX–cooled ratings								
80	100	50	380 400 415	22.4 (5.9)	11.3 (3.0)	—	—	—
99	124	60	416 440 460 480	27.1 (7.2)	14.0 (3.7)	—	—	—
RAD–cooled emergency ratings								
74	93	50	380 400 415	22.4 (5.9)	11.3 (3.0)	—	—	—
92	115	60	416 440 460 480	27.1 (7.2)	14.0 (3.7)	—	—	—

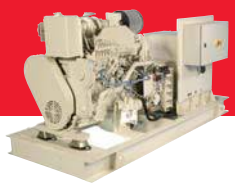
Ratings below 130 kW are not subject to IMO emission regulations.
For more information on average fuel consumption and emissions, refer to the Reference Materials section.

Product Dimensions

		KC and HX configurations		RAD configuration	
Length	mm (in)	2440	(88)	2320	(91)
Width	mm (in)	1250	(49)	1250	(49)
Height	mm (in)	1270	(50)	1280	(50)
Weight	kg (lb)	1720	(2800)	1370	(3020)

Dimensions may vary based on selected engine configuration.

6C–CP
C Power Marine Genset



General Specifications

Engine Model	6CTA8.3–D(M)
Alternator	STAMFORD UCM274H

Prime Power Ratings

				Fuel Consumption		Emissions		
kWe	**kVa**	**Hz**	**Voltage**	**Rated L/hr (Gal/hr)**	**ISO Avg L/hr (Gal/hr)**	**IMO**	**EPA**	**EU**
KC– and HX–cooled ratings								
136	170	50	380 400 415	22.4 (5.9)	11.3 (3.0)	—	—	—
160	200	60	416	41.3 (10.9)	23.4 (6.2)	2	3	—
170	213	60	416 440 460 480	27.1 (7.2)	14.0 (3.7)	—	—	—
RAD–cooled emergency ratings								
136	170	50	380 400 415	46.6 (12.3)	20.5 (5.4)	2	—	—
152	190	60	416 440 460 480	41.3 (10.9)	23.4 (6.2)	2	3	—

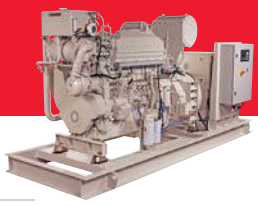
Ratings below 130 kW are not subject to IMO emission regulations.
For more information on average fuel consumption and emissions, refer to the Reference Materials section.

Product Dimensions

		KC and HX configurations		RAD configuration	
Length	mm (in)	2400	(94)	2550	(100)
Width	mm (in)	1250	(49)	1250	(49)
Height	mm (in)	1270	(50)	1480	(58)
Weight	kg (lb)	1720	(3792)	1850	(4079)

Dimensions may vary based on selected engine configuration.

K19–CP
C Power Marine Genset



General Specifications

Engine Model	KTA19–D(M1)
Alternator	STAMFORD HCM534E

Prime Power Ratings

				Fuel Consumption		Emissions		
kWe	**kVa**	**Hz**	**Voltage**	**Rated L/hr (Gal/hr)**	**ISO Avg L/hr (Gal/hr)**	**IMO**	**EPA**	**EU**
KC– and HX–cooled ratings								
335	419	50	380 400 415 440	91.1 (24.1)	47.1 (12.4)	2	—	—
380	475	50	380	102.6 (27.1)	52.5 (13.9)	2	—	—
390	488	50	400 415 440	102.6 (27.1)	52.5 (13.9)	2	—	—
400	500	60	416 440 460 480	106.4 (28.1)	58.8 (15.5)	2	—	—
450	563	60	416	120.8 (31.9)	64.7 (17.1)	2	—	—
460	575	60	440 460 480	120.8 (31.9)	64.7 (17.1)	2	—	—

Ratings below 130 kW are not subject to IMO emission regulations.
For more information on average fuel consumption and emissions, refer to the Reference Materials section.

Product Dimensions

		KC and HX configurations	
Length	mm (in)	3500	(137)
Width	mm (in)	1540	(60)
Height	mm (in)	2100	(62)
Weight	kg (lb)	4100	(9039)

Dimensions may vary based on selected engine configuration.

K38–CP
C Power Marine Genset

General Specifications

Engine Model	KTA38–D(M1)
Alternator	STAMFORD PM734B

Prime Power Ratings

				Fuel Consumption		Emissions		
kWe	**kVa**	**Hz**	**Voltage**	**Rated L/hr (Gal/hr)**	**ISO Avg L/hr (Gal/hr)**	**IMO**	**EPA**	**EU**
KC– and HX–cooled ratings								
764	955	50	380	206.0 (54.4)	107.5 (28.4)	2	—	—
804	1005	50	400	206.0 (54.4)	113.3 (29.9)	2	—	—
832	1040	50	415	206.0 (54.4)	117.1 (30.9)	2	—	—
845	1056	50	440	206.0 (54.4)	118.4 (31.3)	2	—	—
888	1110	60	416	226.7 (59.9)	129.7 (34.3)	2	—	—
920	1150	60	440 460 480	226.7 (59.9)	134.8 (35.6)	2	—	—

Ratings below 130 kW are not subject to IMO emission regulations.
For more information on average fuel consumption and emissions, refer to the Reference Materials section.

Product Dimensions

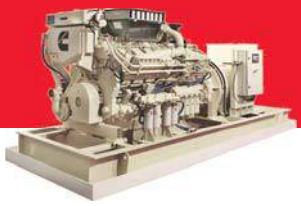
		KC and HX configurations	
Length	mm (in)	4500	(177)
Width	mm (in)	1900	(74)
Height	mm (in)	2100	(82)
Weight	kg (lb)	8200	(18078)

Dimensions may vary based on selected engine configuration.

Ship's service power is provided to Eilbek by three KTA38–CP marine generator sets.

Courtesy of Hansa Hamburg Shipping International

K50–CP
C Power Marine Genset



General Specifications

Engine Model	KTA50–D(M1)
Alternator	STAMFORD PM734E

Prime Power Ratings

				Fuel Consumption		Emissions		
kWe	**kVa**	**Hz**	**Voltage**	**Rated L/hr (Gal/hr)**	**ISO Avg L/hr (Gal/hr)**	**IMO**	**EPA**	**EU**
KC– and HX–cooled ratings								
1050	1313	50	380 400 415 440	244.5 (64.6)	141.9 (37.5)	2	—	—
1240	1550	60	416 440 460 480	290.7 (76.8)	169.6 (44.8)	2	—	—

Ratings below 130 kW are not subject to IMO emission regulations.
For more information on average fuel consumption and emissions, refer to the Reference Materials section.

Product Dimensions

		KC and HX configurations	
Length	mm (in)	5150	(203)
Width	mm (in)	1900	(75)
Height	mm (in)	2100	(83)
Weight	kg (lb)	9700	(21384)

Dimensions may vary based on selected engine configuration.

Endless Power Options

Through the Cummins marine distribution channel, Cummins offers a range of marine auxiliary engines from 6 to 60 liters, packaged with the customer's choice of engine monitoring and control system and alternator, including our own STAMFORD® and AvK® brands. A list of auxiliary ratings suitable for diesel electric applications is available on pages 84–85; a list of compatible alternators is available on pages 114–115.

Our marine experts work closely with our partner suppliers and customers, starting from the vessel concept and continuing through installation, testing and commissioning, to guarantee a product perfectly matched to vessel design, operating conditions and local content requirements.

We have designed countless packages for customers across the globe. Some of these projects include:

- QSB7 generator sets provide auxiliary power for Blessey Marine's latest K38 powered pushboat, the Erin C. Grenon
- QSM11 generator sets meet the auxiliary power requirements of New Generation Marine Service's supply vessel, Mr. Ernie
- QSK38 diesel electric generator sets for the U.S. Navy's latest research vessels, including the R/V Neil Armstrong
- KTA50 diesel electric generator sets for a series of Vard Group-designed PSVs built at Cochin Shipyard in India
- QSK60 emergency generator sets for Deepsea Metro II, a drill ship build by Hyundai Heavy Industries
- QSK60 diesel electric generator sets for Bravante Group's series of five platform supply vessels

Courtesy of (from top to bottom):
Jeff L. Yates; New Generation Marine Services;
Cummins Northwest; Eastern Shipbuilding

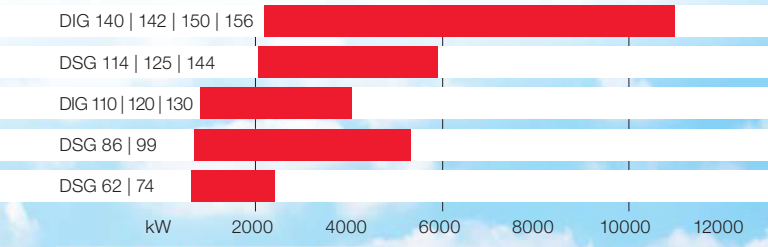
Marine Alternators

Cummins Generator Technologies manufactures the world's broadest range of alternators from 4 to 11,200 kVA under the STAMFORD® and AvK® product brands. Internationally renowned for built-in quality, our alternators set the standard for ruggedness, reliability and versatility.

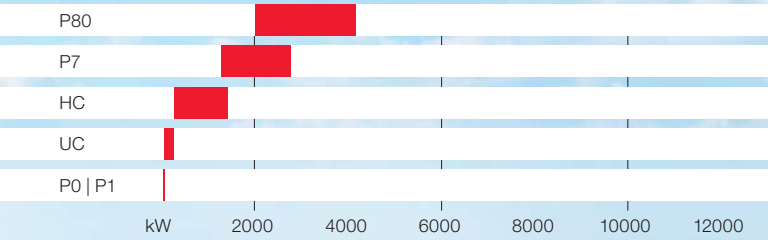
Cummins Generator Technologies uses the experience and knowledge gathered from a large and diverse number of applications worldwide to expertly provide integrated design solutions that help our customers compete more successfully throughout the world.

STAMFORD and AvK alternators are used exclusively on Cummins C Power marine generator sets and can also be matched with any Cummins auxiliary engine for a custom configuration. For more information, contact your regional Cummins Generator Technologies office by visiting **stamford-avk.com**.

AvK



STAMFORD



STAMFORD

- 2–6 pole / 1,000–3,600 rpm
- Power range: 5–4,150 kVA
- Voltage range: 220–13,800V at 50 & 60 Hz

AvK

- 4–10 pole / 600–1,800 rpm
- Power range: 650–11,250 kVA
- Voltage range: 380–13,800V at 50 & 60 Hz

STAMFORD and AvK alternators are in operation worldwide across a diverse range of application environments:

- Diesel electric propulsion systems for a variety of vessel and rig types
- PTO shaft generators for economical electrical power generation
- PTO/PTI shaft generator operating as auxiliary propulsion drive system
- Self-starting Power Take Home (PTH) shaft generators for redundant propulsion
- Auxiliary and onboard power supply
- Compliant to fixed Water Based Local Application Fire Fighting Systems (FWBLAFFS)

STAMFORD®

Compact in design, STAMFORD® alternators are easy to install and maintain for marine applications. A range of single and three phase voltages are available from either 6 or 12 wire reconnectable winding.

2/3 pitch main stator and damper windings make STAMFORD alternators suitable for parallel operation when equipped with suitable voltage regulator and quadrature droop kit.

Most generator models are fit with a Permanent Magnet Generator (PMG) to power the excitation system. The PM0/1 range is fit with an Excitation Boost System (EBS) to provide short circuit maintenance and improved motor starting.

Protection and Insulation

All marine alternators for LV and MV [P80] conform to Class H thermal insulation requirements. Open drip-proof enclosure protection according to IP23 is standard. Optional air inlet/outlet filters as well as higher IP protection modes can be supplied for certain models upon request.

Automatic Voltage Regulators

AVRs are designed and built to achieve maximum performance from STAMFORD alternators. All AVRs are encapsulated to provide protection against moisture and salt in the atmosphere.

Options

A range of accessory options are available to meet application requirements, including, but not limited to:

- Winding and bearing RTDs
- Anti-condensation heater
- Quadrature droop kit

AvK® marine alternators are made of a rigid and robust steel construction with form wound stator coils and flat copper rotor windings that can withstand high levels of vibration and load variation.

Protection and Cooling

Standard AvK design is open drip-proof in accordance with IP23 SOLAS requirements. Air inlet/outlet filters and higher protection up to IP56 can be supplied. A wide range of cooling systems allows an optimum choice for operating and environmental conditions. Options include top-mounted air-to-air (IC611 + IC616) or air-to-water (IC81W) heat exchangers.

Bearings

AvK alternators are equipped with either anti-friction or sleeve bearings subject to load, speed and application. Sleeve bearings are split type, to permit easy access for maintenance. Subject to frame size, speed and inclination they may be self-lubricated or force lubricated.

Excitation System

Our alternators are equipped with brushless excitation; the auxiliary winding supplies the automatic voltage regulator (AVR) with sufficient power to ensure short-circuit levels of > 3x rated current.

Automatic Voltage Regulator

A range of digital Automatic Voltage Regulators (AVR) are available to meet varying application requirements. Typical AVR features include:

- Voltage regulation in island mode (+/–0.5 percent)
- Reactive load sharing by static droop or cross-current compensation
- U/f characteristic for applications with floating frequency
- Under/over-excitation voltage protection
- Excitation fault monitoring
- Fast PID response for high-class regulation characteristic.

Insulation

All windings are bar-wound type and conform to either Class F or Class H thermal insulation. Increased machine life and reliability is ensured through AvK's advanced insulation system: Resin Rich and Vacuum Pressure Impregnation (VPI) ensures excellent dielectric properties, enhanced dimensional and mechanical stability as well as superior resistance against chemicals and/or moisture.

Alternator Protection

All AvK alternators are fully assembled with bearing and stator winding temperature detectors (RTDs), which can be used for protection against thermal overload.

Alternator Matching Guide
50 Hz Fixed Speed Ratings

kW	BHP	Engine Model	Page
50 Hz Fixed Speed Ratings			
91	122	6BT5.9	64
122	164	6CT8.3	66
163	219	6CTA8.3	67
164	220	QSB7	65
265	355	QSM11	68
358	480	KTA19	71
410	550	KTA19	71
433	580	QSK19	72
746	1000	KTA38	74
984	1320	QSK38	75
1096	1470	KTA50	76
1290	1730	QSK50	77
1563	2095	QSK60	78
2625	3520	QSK95	79

Alternator matches for 60 Hz auxiliary engines can be found on the next page.

STAMFORD and AvK alternators can be matched with any Cummins marine auxiliary engine for a custom configuration. All ratings are 415V and heat exchanger cooled. Other ratings are available upon request. This list matches each auxiliary engine to the appropriately sized Cummins alternator, using standard sizing calculations. For more information, contact your regional Cummins Generator Technologies office by visiting **stamford-avk.com**.

Alternator Option		415v	
STAMFORD	**AvK**	**kWe**	**kVa**
UCM274E	—	84	105
UCM274F	—	112	140
UCDM274K / S4LIM-C	—	150	187
UCDM274K / S4LIM-C	—	151	189
S4L1M-F	—	244	305
HCM534D	—	340	425
HCM534E	—	390	487
HCM534E	DSG62 M1/4	411	514
HCM634K	DSG62 L1/4	709	886
PM734C	DSG74 M1/4	935	1169*
PM734D	DSG74 M1/4	1042	1303*
PM734F	DSG74 M2/4	1226	1533*
PM734G	DSG74 L2/4	1436	1795*
LVSM804X	DSG99 K1/4	2500	3125

*Class F Temp. Rise

Alternator Matching Guide
60 Hz Fixed Speed Ratings

kW	BHP	Engine Model	Page
60 Hz Fixed Speed Ratings			
112	150	6BT5.9	64
140	188	6CT8.3	66
201	270	6CTA8.3	67
210	282	QSB7	65
317	425	QSM11	68
425	570	KTA19	71
485	650	KTA19	71
563	755	QSK19	72
970	1300	KTA38	74
1044	1400	QSK38	75
1290	1730	KTA50	76
1342	1800	QSK50	77
1899	2547	QSK60	78
3150	4224	QSK95	79

Alternator matches for 50 Hz auxiliary engines can be found on the previous page.

STAMFORD and AvK alternators can be matched with any Cummins marine auxiliary engine for a custom configuration. All ratings are 415V and heat exchanger cooled. Other ratings are available upon request. This list matches each auxiliary engine to the appropriately sized Cummins alternator, using standard sizing calculations. For more information, contact your regional Cummins Generator Technologies office by visiting **stamford-avk.com**.

Alternator Option		415v	
STAMFORD	**AvK**	**kWe**	**kVa**
UCM274E	—	103	129
UCM274F	—	129	161
S4L1M-C	—	185	231
S4L1M-C	—	193	242
S4L1M-E	—	292	365
HCM534C	—	404	505
HCM534E	—	461	576
HCM534F	DSG62 M1/4	535	669
HCM634K	DSG62 L2/4	922	1152
PM734B	DSG62 L2/4	992	1240*
PM734C	DSG74 M2/4	1226	1533*
PM734D	DSG74 M2/4	1276	1595*
PM734G	DSG74 L2/4	1796	2245*
LVSM804X	DSG99 K1/4	3000	3750

*Class F Temp. Rise

Premium Options


C Command


Centinel


Eliminator


Pre-Lube with Quick Evac


Zeus®


Cummins Inboard Joystick

Cummins offers a variety of premium options to help vessel owners and operators manage their cost of operation, reduce maintenance and tailor the engine for a specific application...

- **C Command** includes a selection of monitoring and display options that provide instantaneous access to operating information
- **CENTINEL** eliminates or extends oil change intervals by burning used oil and replacing it with clean oil
- **ELIMINATOR** is a self-cleaning centrifuge that replaces all disposable canisters on the engine
- **Pre-Lube** reduces engine wear by providing lubrication prior to start
- **Quick Evac** reduces oil change time by quickly removing used oil from the engine oil pan
- **Zeus®** pod propulsion system makes boating safer and more enjoyable by providing a seamless approach to propulsion technology, marine electronics and on-board information management
- **Cummins Inboard Joystick** is a docking system designed specifically for use with traditional inboard engines and transmissions

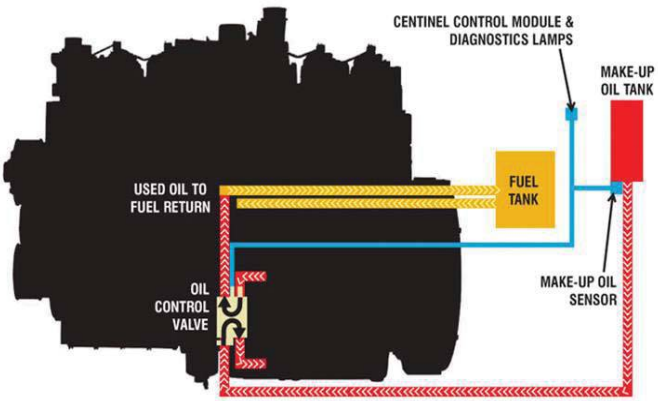
CENTINEL

Available as an aftermarket kit for K Series engines or installed as a factory option on Quantum Series MCRS engines, CENTINEL eliminates or extends oil change intervals by burning used oil and replacing it with clean oil.

The CENTINEL Advanced Engine Oil Management System automates oil changes. While the equipment is running, CENTINEL monitors the engine's duty cycle. At precise intervals, it bleeds off a small amount of used oil and sends it to the fuel tank, where it blends with diesel fuel and is burned during combustion.

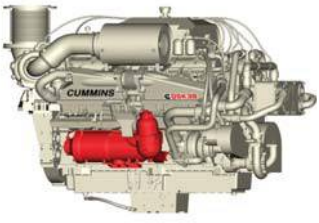
CENTINEL allows equipment to work up to 4,000 hours between service events. Depending on the duty cycle, that could eliminate 15–20 oil changes from current maintenance schedules.

- Reduces downtime and the cost of oil change service
- Reduces the risk of engine damage due to poor oil change maintenance practice



ELIMINATOR

Available on the KTA38, KTA50, and all QSK MCRS engines, ELIMINATOR is a combination full-flow and centrifugal system that incorporates a permanent stainless steel core that eliminates the need for disposable oil filters.



ELIMINATOR consists of a two-stage filter media system. The first filter screens for particles as small as 20 microns, while a centrifugal separator constantly spins, depositing the heaviest particles on a replaceable liner.

Because ELIMINATOR uses the oil pressure in the lubricating system to spin the centrifugal separator, there is no additional load on the engine, with no drain on power or fuel economy. This option lowers the cost of operation by:

- Eliminating the recurring cost and maintenance of spin-on filters
- Reducing downtime for filter changes
- Eliminating disposal cost of used filter elements
- Improving filtration and reducing component wear which can extend overhaul periods
- Extending oil change intervals when used concurrently with oil sampling and CENTINEL

ELIMINATOR satisfies most Marine Classification Society requirements for duplex filters.

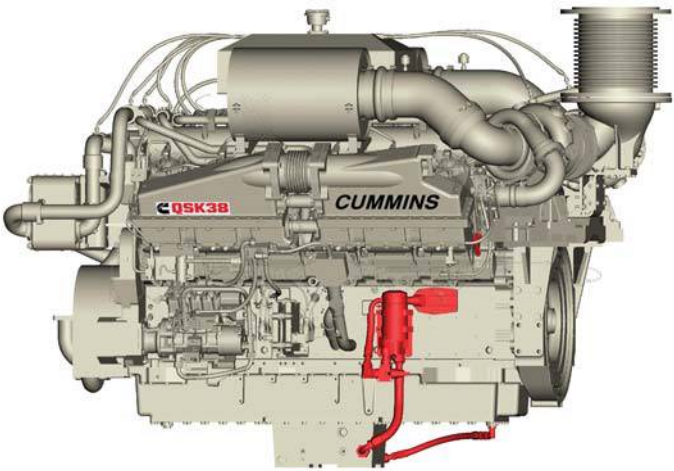
Lake Charles' pilot boat Calcasieu Pass Pilot is powered by two QSK38–M engines fit with the ELIMINATOR.

Courtesy of Gladding–Hearn Shipbuilding

Pre-Lube with Quick Evac

Available on QSK38 and QSK50 engines, Pre-Lube with Quick Evac is an engine-mounted pump with off-engine mounted controls. Pre-Lube reduces engine wear by providing lubrication prior to engine start, while Quick Evac reduces oil change time by quickly removing oil from the engine oil pan. This option is available in 24 volt DC only.

- Empties the oil sump in 60 seconds, allowing operators to consistently complete regular oil changes in 30 minutes or less
- Enables clean, fast and safe oil changes by pumping used oil directly into a containment barrel to prevent technician contact with lube oil



C Command Basic

C Command for QSK19/38/50/60 MCRS engines

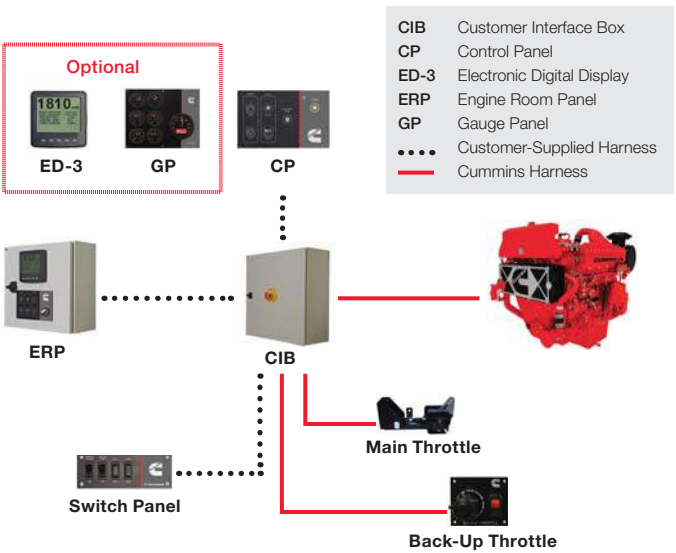
The cost-effective basic system offers the flexibility to function with or without an engine room panel and features a variety of display options to ensure engine data is easily accessible.

All connections are centralized in a customer interface box (CIB), which helps simplify vessel installation. The CIB contains all ECM connections, start/stop logic, emergency stop button and OEM connections.

Engine Room Panel (ERP) Features

- ED-3 reads all engine data from the ECM and displays information in text and graphics. Includes fault code logging with text description
- Soft buttons control start/stop as well as alarm indication and acknowledgement
- Enclosed in an IP44 rated box designed for operation in harsh engine room environments

For a list of available remote options and upgrades, see pages 132 and 133.



C Command Elite

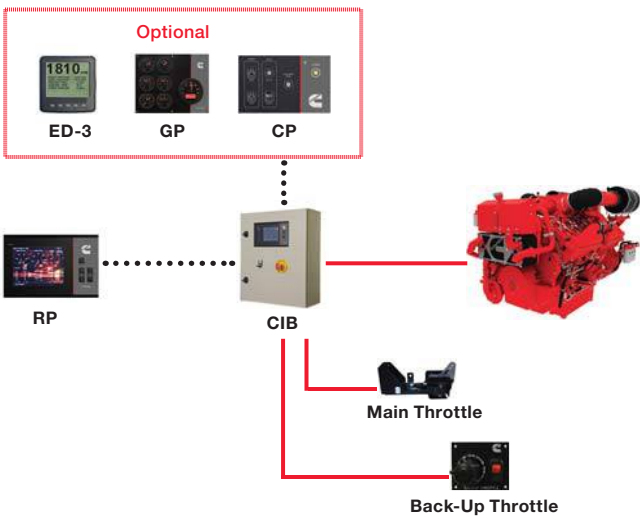
C Command for QSK19/38/50/60 MCRS engines

C Command Elite offers additional functionality and monitoring over the C Command system with the added benefit of easy-to-read, customer configured, color displays.

Customer Interface Box (CIB) Features

- Includes integral control panel
- Full color text and graphics in menu format
- Multiple languages and configurations may be saved to accommodate multinational crews
- Stores a comprehensive history of alarms and faults for more efficient troubleshooting and service scheduling, easily downloaded via Ethernet connection
- Capable of supporting customer-supplied temperature, pressure and switch inputs

For a list of available remote options and upgrades, see pages 132 and 133.



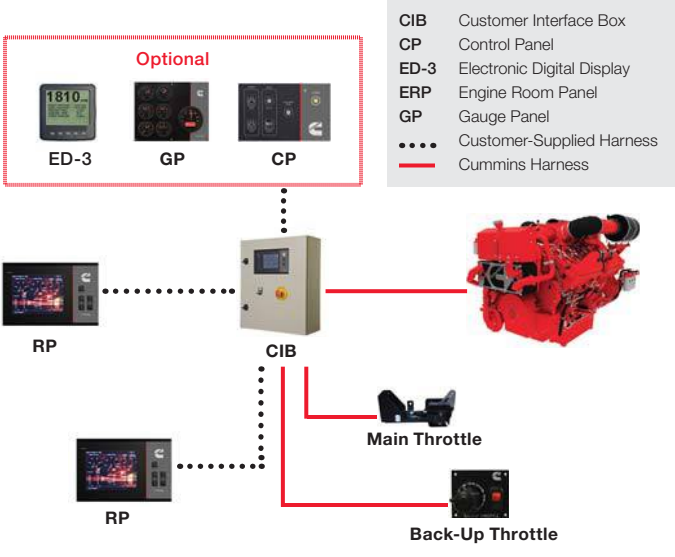
C Command Elite Plus

C Command for QSK19/38/50/60/95 MCRS engines

C Command Elite Plus utilizes the same displays for both main station and remote monitoring as the Elite system, but also includes Classification Society mandated sensors, alarms and shutdowns. The result is a globally supported, fully classed engine and electronic and safety system that protects against the substantial risk of non-compliance. The Elite Plus system is fully approved by ABS, BV, DNV–GL and LR.

C Command Elite Plus is now available for the QSK95. In addition to the above functionality, the CIB is larger to accommodate higher power capability and meets additional class requirements for this engine size. There is additional I/O available for vessel integration and customization.

For a list of available remote options and upgrades, see pages 132 and 133.



C Command HD

C Command for Mid-Range & Heavy Duty Engines

Based on C Command architecture, C Command HD and HD Elite Plus are now available for QSB7 auxiliary and QSM11 propulsion and auxiliary engines. Both systems offer simplified installation and include local and remote control options.

C Command HD, the cost-effective basic system, comes standard with digital displays and includes an engine room panel. Customers also have the choice of up to two remote control panels and two electronic digital displays.

C Command HD Elite Plus, the type-approved system, includes Classification Society mandated sensors, alarms and shutdowns. Easily integrated to vessel networks, this system comes standard with full color displays and optional remote control panels.

For a list of available remote options and upgrades, see pages 132 and 133.

The world's first hybrid tug, Foss Maritime's Carolyn Dorothy, is powered by two QSK50–Ms complemented by C Command Elite Plus panels.

Courtesy of Foss Maritime

C Command PT

C Command for K Series engines

Operators can now have all the benefits of modern engine monitoring on mechanical products with Cummins C Command PT panels. Based on C Command architecture, this modular panel system includes a selection of display options designed to enhance K Series engine performance and manage costs.

C Command PT Elite Plus includes Classification Society mandated sensors, alarms and shutdowns. The result is a globally supported, fully classed engine and safety & alarm system that protects against the substantial risk of non-compliance. Certification is available from ABS, BV, DNV, GL and LR.

Available exclusively with C Command PT Elite Plus, Cummins Fuel Consumption Monitor enables accurate, reliable monitoring within +/–3 percent while providing trip, total and instantaneous measurements on digital remote datalink.

For a list of available remote options and upgrades, see pages 132 and 133.

C Command Connect

C Command for Mid-Range and Heavy Duty Propulsion Engines

Designed for Cummins Quantum Series QSB6.7, QSC8.3, QSL9 and QSM11 marine engines, C Command Connect leverages existing engine capabilities and throttle-shift systems, including third-party systems, making it easy to upfit existing boat designs.

C Command Connect: The cost-effective basic system, includes all harnessing, user interfaces, an optional ED-4 display panel with a 3.5-inch color display, and N2K gateway capability for remote monitoring. The basic system also includes manual start/stop at the helm.

C Command Connect Premiere: The premium system, provides additional functionality and monitoring over the basic system. It includes a CIB with integrated ED-4 display panel, N2K output and alarm indication to the helm. Vessel sensor capability allows operators to monitor fuel level, gear oil pressure and temperature and rudder angle.

C Command Remote Options

Control Panel (CP)

The control panel (CP) is a soft button remote interface for engine control featuring start/stop and alarm acknowledgement. It also includes red alarm indication with buzzer and local and remote control indication. It is compatible with:

- C Command (Basic, Elite and Elite Plus)
- C Command HD (Basic and Elite Plus)
- C Command PT Elite Plus

Electronic Digital Display* (ED-3)

The ED-3 reads all engine data from the ECM and displays information in text and graphics. It includes full text alarm indication, data trending, internal buzzer and external alarm contact, as well as fault code logging with text description and service tool connection port. The ED-3 is compatible with:

- C Command (Basic, Elite and Elite Plus*)
- C Command HD (Basic and Elite Plus)
- C Command PT Elite Plus
- K Series engines with CENTRY
- Electronic Digital Display (ED-4)

Gauge Instrument Panel* (GP)

The gauge instrument panel provides fault code readout through a mini-digital display in the tachometer. This option displays coolant temperature, engine oil pressure, system voltage, exhaust stack temperature and gear oil pressure (if applicable). The GP is compatible with C Command Basic, Elite and Elite Plus*

Remote Control Panel (RP)

This remote digital interface to engine control is an 8.4" configurable touch screen featuring superior visibility even in direct sunlight. The RP can simultaneously monitor and control up to eight engines, can support as many as three remote panels and may be complemented by an ED-3 in areas where only basic monitoring is required. The RP is compatible with:

- C Command Elite and Elite Plus
- C Command HD Elite Plus
- C Command PT Elite Plus

* Not available on the QSK95

C Command Upgrades

- **Switch panel** engages electronic features, including alternate idle, engine protection override and intermediate speed control
- **Back-up throttle** provides operators with added security in the event of a main throttle failure
- **Gear oil pressure and temperature** protects marine gear from damage caused by low oil pressure and high oil temperature
- **Individual cylinder exhaust gas temperature (EGT)** is available on the QSK38, QSK50, QSK60 and QSK95 MCRS engines to detect in-cylinder temperature deviation
- **Pre-lube** on the QSK38, QSK50, QSK60 and QSK95 helps reduce friction at start-up and engine wear by providing lubrication prior to engine start

Switch panel

Back-up throttle

Zeus®

With SmartCraft innovation throughout, the Zeus® pod propulsion system provides a seamless approach to propulsion technology, marine electronics and on-board information management that makes boating safer and more enjoyable. Zeus offers dramatically improved high-speed handling and delivers up to:

- 30 percent improved fuel economy
- 15 percent faster cruise speed
- 15 percent faster top speed

Docking Without Fear: Our advanced joystick control system is incredibly intuitive and can be operated with a single turn of the wrist. One hand controls it all — from sideways tracking to spinning on a dime to precise speed control.

Enhanced Protection: Rear-facing propellers and a tunnel-mounted design protect the pod drive from underwater debris. Most floating objects will be deflected downward by the keel and skeg, away from the propellers. Should the unit come into contact with a substantial object, the skeg is designed to shear below the torpedo, minimizing damage to the drive and reducing costly repair bills.

Skyhook: With the touch of a button, our Skyhook™ feature maintains your vessel on a fixed heading within a tight area — even in strong currents and windy conditions.

Available in twin configurations on the following High Output (recreational) ratings:

					WOT knots	
Model	**kW**	**BHP**	**RPM**	**Ratios**	**Good**	**Ideal**
QSB6.7	261	350	2800	2.24, 2.06, 2.06, 1.79	25–28	29–37
QSB6.7	279	375	3000	2.24, 2.06, 2.06, 1.79	26–29	30–39
QSB6.7	312	419	3000	2.24, 2.06, 2.06, 1.79	26–29	30–39
QSB6.7	353	473	3300	2.24, 2.06, 2.06, 1.79	28–30	31–43
QSB6.7	405	542	3300	2.24, 1.95, 1.79	32–34	35–43
QSC8.3	404	543	3000	1.95, 1.79	2–31	32–40
QSC8.3	441	592	3000	1.95, 1.79	29–32	37–42
QSM11	493	661	2300	1.34	33–36	37–42
QSM11	526	705	2500	1.34	35–38	39–43

Consult Cummins for vessels close to but below good speed range.

		Without drop box		With drop box	
Weight	kg (lb)	390	(860)	417	(920)

Inboard Joystick

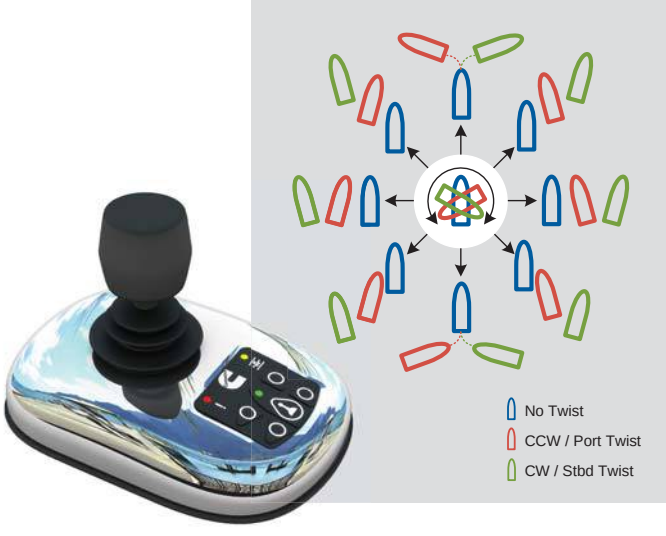
The Cummins Inboard Joystick is a joystick-controlled docking system that integrates engines, transmissions and thrusters. It is best suited for twin-engine fiberglass boats from 35–60 foot used for recreational boating. Most systems will include only a bow thruster, but a bow and stern thruster system is available. Cummins provides application guidelines and tools to help with the integration process and to ensure optimal performance of the finished system.

Inboard Joystick Features

- Cummins applications expertise ensures each vessel need is met with four thruster size options — 95kg, 160kg and 220kg
- Compatible with all Cummins engines recreational ratings
- Multiple station capability — three lever stations and up to five joystick stations

Inboard Joystick Advantages

- Inboard simplicity
- Minimum components
- Confidence at the helm
- Engines, controls, harnessing, thrusters and Cummins supplied thruster tubes supported and warranted by Cummins



Warranty

Every Cummins marine engine is backed by a comprehensive warranty that is valid and consistent worldwide. Major components, including the block, camshaft, crankshaft and connecting rods, are covered for an extended period under the base engine warranty.

Protect your investment with Encompass

With Encompass, you can extend your coverage period up to six years from engine in-service date depending on your specific engine and rating. This coverage can include parts, labor and travel. You can customize the amount of coverage required for your vessel's application. Onan Marine generator sets are also available with an extended coverage plan.

Coverage limitations and responsibilities are accessible at anytime on our website, **marine.cummins.com**. For more details, please contact your local Cummins professional.

Rating	Engine (19-60 liter)	Base Warranty
High Output	QSB, QSC, QSL, QSM	2 yr / 1000 hrs
Government-Service	QSB, QSC, QSL, QSM	2 yr / 1000 hrs
	QSK95	1 yr / Unlimited hrs
Intermittent-Duty	QSB, QSC, QSL, QSM	2 yr / 3000 hrs
	19-60 liter engines	1 yr / 3000 hrs
	QSK95	1 yr / Unlimited hrs
Medium Continuous-Duty	QSB, QSC, QSL	2 yr / 5000 hrs
	QSM	2 yr / 6000 hrs
	19-60 liter engines	1 yr / 4000 hrs
	QSK95	1 yr / Unlimited hrs
Heavy-Duty	QSB, QSC, QSL	2 yr / 6000 hrs
	QSM	2 yr / 8000 hrs
	19-60 liter engines	1 yr / 6000 hrs
	QSK95	1 yr / Unlimited hrs
Continuous-Duty	QSB, QSC, QSL	2 yr / Unlimited hrs
	QSM	2 yr / Unlimited hrs
	19-60 liter engines	1 yr / Unlimited hrs
	QSK95	1 yr / Unlimited hrs

Genuine Cummins Parts

Cummins understands how much every hour of downtime can cost you. That's why we always recommend Genuine Cummins new and ReCon® parts, built for your engine's original specifications for reliability, and durability. You aren't just replacing a worn part — you're improving the performance of your engine and your vessel.

Genuine Cummins Parts

- Designed to work with your specific engine
- Promote longer engine life
- Include the latest upgrades in materials, component design and workmanship
- Backed by the best warranty in the business

Better Parts. Better Availability.

Of course, it doesn't matter how good Genuine Cummins quality is if a part isn't close at hand when you need it. That's why Cummins marine distributors maintain a full inventory of parts for all marine engines registered in their territory, including yours. Cummins also operates parts distribution centers in strategic locations around the globe, helping to ensure that your parts arrive as quickly as possible. In critical need situations, we work hard to get the parts you need delivered to you within 24 hours.

When your vessel is offshore in a remote location and the clock is ticking, you don't want to take chances on anything less than the unmatched quality of Genuine Cummins parts.

A Better Warranty That Travels Well.

Genuine Cummins quality is the reason these parts come with a full factory warranty. Cummins new and ReCon parts warranty is comprehensive, ensuring peace of mind and financial protection. Every part is backed 100 percent for parts, labor, progressive damage and consumables, with no deductible.

Having a great warranty doesn't matter when you've got a problem 500 miles from an authorized repair shop. That's the advantage of buying a Genuine Cummins engine or part. We have a network of over 6,500 authorized parts and service locations worldwide where your warranty will be honored and the work will be completed by professional technicians who are trained and certified by Cummins. For additional warranty information or to find an authorized service location near you, visit **quickserve.cummins.com**.

Cummins ReCon® Products:

Genuine Cummins ReCon engines and parts provide you with a cost-effective, environmentally friendly, no-surprise solution that quickly puts your Cummins powered equipment back to work. Cummins ReCon products are not simply repaired or rebuilt; they are remanufactured in authorized factories around the world. Cummins offers factory remanufactured parts for all engine models. In addition Cummins remanufactures Short Blocks, Long Blocks and Heavy-Duty L10, M, N and ISX/QSX engine platforms, as well as, MidRange B, C and ISL/QSL engine platforms.

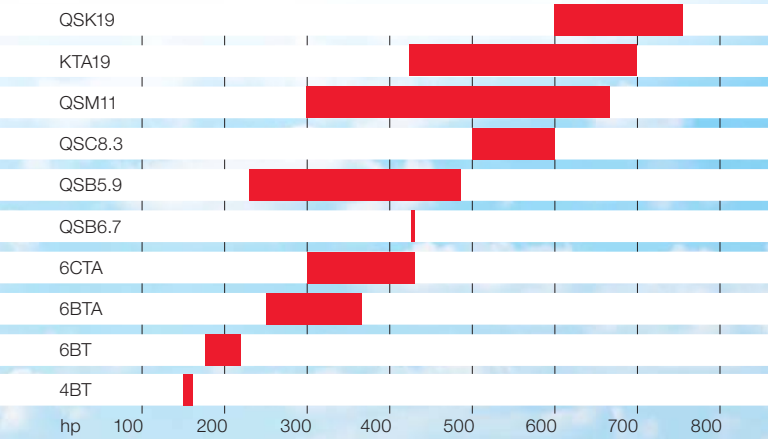
The following describes the measures Cummins takes to remanufacture its engines and parts, creating a product that is comparable to a new Cummins product.

- **Core Acceptance:** A great benefit of Cummins remanufacturing is that you can get money back for exchanging your worn out engine or part. Any Cummins authorized repair facility worldwide can perform the simple visual inspection on your old part and give you immediate credit toward its replacement.
- **Disassembly:** Engines and parts are completely disassembled with great care to protect and prepare key components for processing — right down to the last screw, nut, bolt and spring.
- **Cleaning:** Each part is carefully cleaned using the latest technology to remove debris without removing any metal, including the use of dry ice, enzymes and lasers for specialized cleaning needs.
- **Inspection:** The latest technology, including ultrasonic inspection, is just one of the many methods used to verify that every ReCon part meets original factory specifications.
- **Restoration:** Cummins uses a variety of techniques to ensure that parts meet original specifications or improved standards of performance. If a part doesn't meet specifications, it is scrapped and replaced with a new Genuine Cummins part. Any upgrades or supercessions that have taken place in the years since the original part was made will be included as part of the Cummins remanufacturing process.
- **Testing:** Validation testing using fail-safe processes verifies that the performance and reliability of the finished product meet Cummins standards.
- **Reintroduction:** Once the remanufacturing process is complete Cummins engines and parts are ready to be reintroduced into the field.

Genuine Cummins New and ReCon Parts are built to meet or exceed your engine's original specifications for performance, reliability and durability. For more information about Cummins ReCon products, please visit **cumminsgenuineparts.com** or contact your local Cummins distributor or authorized dealer.

The Smart Choice

Power Range for Cummins ReCon Products



4BT ReCon
Main Propulsion

General Specifications

Configuration	In-line, 6 cylinder, 4-stroke diesel	
Aspiration	Turbocharged/Aftercooled	
Displacement	3.9 L	239 in^3
Bore & Stroke	102 x 119 mm	4.02 x 4.72 in
Fuel System	Rotary	

ReCon Ratings

			Fuel Consumption		Emissions		
kW	**BHP**	**RPM**	**Rated L/hr (Gal/hr)**	**ISO Avg L/hr (Gal/hr)**	**IMO**	**EPA**	**EU**
Intermittent							
112	150	2800	28.8 (7.6)	N/A	—	—	—
High Output							
112	150	2800	28.8 (7.6)	N/A	—	—	—

For more information on average fuel consumption and emissions, refer to the Reference Materials section.

Product Dimensions

Length	mm (in)	707	(27.8)
Width	mm (in)	772	(30.4)
Height	mm (in)	793	(31.2)
Weight	kg (lb)	360	(794)

Dimensions may vary based on selected engine configuration.

6BT ReCon
Main Propulsion

General Specifications

Configuration	In-line, 6 cylinder, 4-stroke diesel	
Aspiration	Turbocharged/Aftercooled	
Displacement	5.9 L	359 in^3
Bore & Stroke	102 x 119 mm	4.02 x 4.72 in
Fuel System	Rotary	

ReCon Ratings

			Fuel Consumption		Emissions		
kW	**BHP**	**RPM**	**Rated L/hr (Gal/hr)**	**ISO Avg L/hr (Gal/hr)**	**IMO**	**EPA**	**EU**
Medium Continuous							
134	180	2500	N/A	N/A	—	—	—
Intermittent							
157	210	2600	44.9 (11.9)	N/A	1	—	—
High Output							
157	210	2600	44.9 (11.9)	N/A	1	—	RCD1

For more information on average fuel consumption and emissions, refer to the Reference Materials section.

Product Dimensions

Length	mm (in)	1074	(42.3)
Width	mm (in)	711	(28)
Height	mm (in)	812	(32)
Weight	kg (lb)	465	(1025)

Dimensions may vary based on selected engine configuration.

6BTA ReCon
Main Propulsion

General Specifications

Configuration	In-line, 6 cylinder, 4-stroke diesel	
Aspiration	Turbocharged/Aftercooled	
Displacement	5.9 L	359 in^3
Bore & Stroke	102 x 119 mm	4.02 x 4.72 in
Fuel System	Inline Injection Pump	

ReCon Ratings

			Fuel Consumption		Emissions		
kW	**BHP**	**RPM**	**Rated L/hr (Gal/hr)**	**ISO Avg L/hr (Gal/hr)**	**IMO**	**EPA**	**EU**
Intermittent							
194	260	2600	56.8 (15.0	N/A	1	—	—
235	315	2800	63.7 (16.8)	N/A	1	—	—
High Output							
184	247	2600	N/A	N/A	1	—	—
194	260	2600	56.8 (15.0)	N/A	1	—	RCD1
214	287	2800	N/A	N/A	1	—	—
235	315	2800	63.7 (16.8)	N/A	1	—	RCD1
265	355	3000	76.1 (20.1)	N/A	1	—	RCD1

For more information on average fuel consumption and emissions, refer to the Reference Materials section.

Product Dimensions

Length	mm (in)	1028	(40.5)
Width	mm (in)	826	(32.5)
Height	mm (in)	837	(33)
Weight	kg (lb)	469	(1035)

Dimensions may vary based on selected engine configuration.

QSB5.9 ReCon
Main Propulsion

General Specifications

Configuration	In-line, 6 cylinder, 4-stroke diesel	
Aspiration	Turbocharged/Aftercooled	
Displacement	5.9 L	359 in^3
Bore & Stroke	102 x 119 mm	4.02 x 4.72 in
Fuel System	High Pressure Common Rail (HPCR)	

ReCon Ratings

			Fuel Consumption		Emissions		
kW	**BHP**	**RPM**	**Rated L/hr (Gal/hr)**	**ISO Avg L/hr (Gal/hr)**	**IMO**	**EPA**	**EU**
Heavy Duty							
169	227	2600	42.2 (11.1)	29.6 (7.8)	—	2	—
Medium Continuous							
224	300	2600	57.3 (15.1)	38.7 (10.2)	—	2	—
Intermittent							
261	350	2800	68.1 (18.0)	45.8 (12.1)	—	2	—
Government Services							
280	375	3000	76.2 (20.1)	49.7 (13.1)	—	2	—
313	420	3000	87.6 (23.1)	N/A	—	2	—
352	472	3400	97.4 (25.7)	63.9 (16.9)	—	2	—
High Output							
169	227	2600	42.2 (11.1)	29.6 (7.8)	—	2	—
224	300	2600	57.3 (15.1)	38.7 (10.2)	—	2	—
242	325	2800	63.3 (16.7)	42.7 (11.3)	—	2	—
261	350	2800	68.1 (18.0)	45.8 (12.1)	—	2	—
280	375	3000	76.2 (20.1)	49.7 (13.1)	—	2	—
325	436	3400	90.6 (23.9)	N/A	—	2	—
352	472	3400	97.4 (25.7)	63.9 (16.9)	—	2	—

For more information on average fuel consumption and emissions, refer to the Reference Materials section.

See next page for product dimensions.

QSB5.9 ReCon
Main Propulsion

Product Dimensions

Length	mm (in)	1036	(40.8)
Width	mm (in)	836	(32.9)
Height	mm (in)	831	(32.7)
Weight	kg (lb)	658	(1450)

Dimensions may vary based on selected engine configuration.

QSB6.7 ReCon
Main Propulsion

General Specifications

Configuration	In-line, 6 cylinder, 4-stroke diesel	
Aspiration	Turbocharged/Aftercooled	
Displacement	6.7 L	408 in^3
Bore & Stroke	107 x 124 mm	4.21 x 4.88 in
Fuel System	High Pressure Common Rail (HPCR)	

ReCon Ratings

			Fuel Consumption		Emissions		
kW	**BHP**	**RPM**	**Rated L/hr (Gal/hr)**	**ISO Avg L/hr (Gal/hr)**	**IMO**	**EPA**	**EU**
Intermittent							
313	419	3000	82.2 (21.7)	55.0 (14.5)	2	3	3a
High Output							
313	419	3000	81.1 (21.4)	55.0 (14.5)	2	3	3a

For more information on average fuel consumption and emissions, refer to the Reference Materials section.

Product Dimensions

Length	mm (in)	1074	(42)
Width	mm (in)	898	(35)
Height	mm (in)	857	(34)
Weight	kg (lb)	634	(1398)

Dimensions may vary based on selected engine configuration.

6CTA ReCon
Main Propulsion

General Specifications

Configuration	In-line, 6 cylinder, 4-stroke diesel	
Aspiration	Turbocharged/Aftercooled	
Displacement	8.3 L	504.5 in^3
Bore & Stroke	114 x 135 mm	4.49 x 5.32 in
Fuel System	Inline Injection Pump	

ReCon Ratings

			Fuel Consumption		Emissions		
kW	**BHP**	**RPM**	**Rated L/hr (Gal/hr)**	**ISO Avg L/hr (Gal/hr)**	**IMO**	**EPA**	**EU**
Medium Continuous							
221	300	2500	N/A	N/A	—	—	—
Intermittent							
316	430	2600	89.0)23.4)	59.2 (15.6)	1	—	—
High Output							
316	430	2600	89.0 (23.4)	59.2 (15.6)	1	—	RCD1

For more information on average fuel consumption and emissions, refer to the Reference Materials section.

Product Dimensions

Length	mm (in)	1177	(41)
Width	mm (in)	849	(33.4)
Height	mm (in)	954	(37.5)
Weight	kg (lb)	712	(1570)

Dimensions may vary based on selected engine configuration.

QSC8.3 ReCon
Main Propulsion

General Specifications

Configuration	In-line, 6 cylinder, 4-stroke diesel	
Aspiration	Turbocharged/Aftercooled	
Displacement	8.3 L	505 in^3
Bore & Stroke	114 x 135 mm	4.49 x 5.31 in
Fuel System	High Pressure Common Rail (HPCR)	

ReCon Ratings

			Fuel Consumption		Emissions		
kW	**BHP**	**RPM**	**Rated L/hr (Gal/hr)**	**ISO Avg L/hr (Gal/hr)**	**IMO**	**EPA**	**EU**
Intermittent							
368	493	2600	96.1 (25.4)	N/A	—	2	—
Government Services							
442	593	3000	123.1 (32.5)	N/A)	—	2	—
High Output							
1368	493	2600	96.1 (25.4)	N/A	—	2	—
405	543	3000	112.7 (29.8)	N/A	—	2	—
442	593	3000	123.1 (32.5)	N/A)	—	2	—

For more information on average fuel consumption and emissions, refer to the Reference Materials section.

Product Dimensions

Length	mm (in)	1036	(40.8)
Width	mm (in)	836	(32.9)
Height	mm (in)	831	(32.7)
Weight	kg (lb)	658	(1450)

Dimensions may vary based on selected engine configuration.

QSM11 ReCon
Main Propulsion

General Specifications

Configuration	In-line, 6 cylinder, 4-stroke diesel	
Aspiration	Turbocharged/Aftercooled	
Displacement	10.8 L	661 in^3
Bore & Stroke	125 x 147 mm	4.92 x 5.79 in
Fuel System	Celect	

ReCon Ratings

			Fuel Consumption		Emissions		
kW	**BHP**	**RPM**	**Rated L/hr (Gal/hr)**	**ISO Avg L/hr (Gal/hr)**	**IMO**	**EPA**	**EU**
Continuous							
220	295	1800	55.2 (14.6)	39.4 (10.4)	—	2	—
261	350	1800	65.3 (17.2)	45.8 (12.1)	—	2	—
Heavy Duty							
298	400	2100	75.2 (19.9)	52.5 (13.9)	—	2	—
Medium Continuous							
336	450	2100	87.6 (23.1)	59.3 (15.7)	—	2	—
Intermittent							
449	602	2300	117 (30.8)	75.8 (20)	—	2	—
High Output							
220	295	1800	55.2 (14.6)	39.4 (10.4)	—	2	—
261	350	1800	65.3 (17.2)	45.8 (12.1)	—	2	—
298	400	2100	75.4 (19.9)	52.5 (13.9)	—	2	—
336	450	2100	87.6 (23.1)	59.3 (15.7)	—	2	—
449	602	2300	117 (30.8)	75.8 (20)	—	2	—
474	636	2300	128 (33.8)	N/A	—	2	—
493	661	2300	128 (33.8)	83.8 (22.1)	—	2	—

For more information on average fuel consumption and emissions, refer to the Reference Materials section.

Product Dimensions

Length	mm (in)	1329	(82.3)
Width	mm (in)	1104	(43.5)
Height	mm (in)	1012	(39.9)
Weight	kg (lb)	1188	(2620)

Dimensions may vary based on selected engine configuration.

KTA19 ReCon
Main Propulsion

General Specifications

Configuration	In-line, 6 cylinder, 4-stroke diesel	
Aspiration	Turbocharged/Aftercooled	
Displacement	19 L	1150 in^3
Bore & Stroke	159 x 159 mm	6.25 x 6.25 in
Fuel System	Pressure Time (PT)	

ReCon Ratings

			Fuel Consumption		Emissions		
kW	**BHP**	**RPM**	**Rated L/hr (Gal/hr)**	**ISO Avg L/hr (Gal/hr)**	**IMO**	**EPA**	**EU**
Continuous							
317	425	1800	N/A	N/A	—	—	—
373	500	1800	N/A	N/A	—	—	—
447	600	1800	111.1 (29.4)	N/A	—	—	—
Heavy Duty							
522	700	2100	143.0 (38.0)	N/A	—	—	—
522	700	2100	140.5 (36.1)	N/A	—	—	—
Medium Continuous							
410	550	2100	102.6 (27.1)	N/A	—	—	—

For more information on average fuel consumption and emissions, refer to the Reference Materials section.

Product Dimensions

Length	mm (in)	1877	(74)
Width	mm (in)	1003	(40)
Height	mm (in)	1905	(75)
Weight	kg (lb)	2073	(4570)

Dimensions may vary based on selected engine configuration.

QSK19 ReCon
Main Propulsion

General Specifications

Configuration	In-line, 6 cylinder, 4-stroke diesel	
Aspiration	Turbocharged/Aftercooled	
Displacement	19 L	1150 in^3
Bore & Stroke	159 x 159 mm	6.25 x 6.25 in
Fuel System	Modular Common Rail (MCRS)	

ReCon Ratings

			Fuel Consumption		Emissions		
kW	**BHP**	**RPM**	**Rated L/hr (Gal/hr)**	**ISO Avg L/hr (Gal/hr)**	**IMO**	**EPA**	**EU**
Continuous							
492	660	1800	128.1 (33.8)	N/A	—	—	—
Intermittent							
563	755	1800	148.5 (39.2)	N/A	—	—	—

For more information on average fuel consumption and emissions, refer to the Reference Materials section.

Product Dimensions

Length	mm (in)	2007	(79)
Width	mm (in)	963	(38)
Height	mm (in)	1880	(74)
Weight	kg (lb)	2189	(4825)

Dimensions may vary based on selected engine configuration.

Inland river operators have been successfully running Cummins K Series engines for decades. Now, Cummins is taking uptime to a new level with our Quantum Series engines.

These engines run cleaner and stronger, with exceptional dependability and durability. Barge, tug and towboat operators now have even more options — with ratings up to 800 hp (597 kW), our proven QSK19 is more powerful than ever before. Contact your Cummins distributor or visit **marine.cummins.com** and see how we can help keep your business pushing ahead.

Cummins®

Reference Materials

Fuel Consumption

One of the most commonly asked customer questions is, “How much fuel will that engine use in my boat?” The answer may be derived using any of the following four prediction methods:

- Advertised fuel consumption at rated power (single point)
- Average fuel consumption over a standard test cycle
- Average fuel consumption over a specific duty cycle
- Surrogate vessel comparison

The Marine Products Guide lists the average fuel consumption at rated power and over standard cycles recommended by the International Standard Organization (ISO 8178 E3 standard test cycle for propulsion applications and D2 for auxiliary applications). It represents the fuel consumption for a typical marine customer, as defined by ISO.

ISO 8178 E3 Standard Test Cycle*

Mode	% HP	% RPM	Weight Factor
1	100	100	0.20
2	75	91	0.50
3	50	80	0.15
4	25	63	0.15

* For “propeller-law operated main and propeller-law operated auxiliary engine” applications.

ISO 8178 D2 Standard Test Cycle

Mode	% HP	% RPM	Weight Factor
1	100	100	0.20
2	75	91	0.50
3	50	80	0.15
4	25	63	0.15
5	10	100	0.10

*For “constant-speed auxiliary engine” applications.

Fuel consumption values from engine control modules and displayed on instrument panels are not absolute. Tolerance varies with speed and load, but is generally less than +/–5 percent when operating within 30 percent of rated power.

Please note: fuel consumption calculations are 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) with LTA when available.

If you have any questions, please contact your local Cummins professional.

Reference Materials

Marine Emissions

IMO

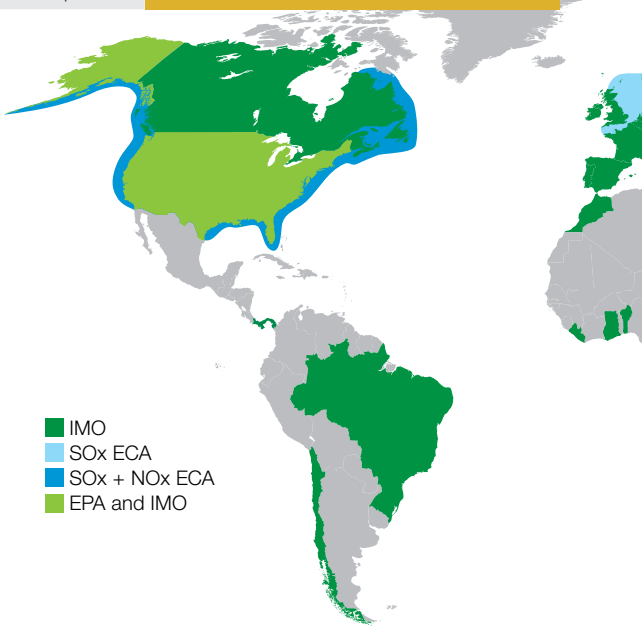
kW	HP	2017	2018	2019	2020	2021	2022
> 130	> 174	Tier II (Tier III within a NOx ECA)					

U.S. EPA

kW	HP	2017	2018	2019	2020	2021	2022
< 600	< 805	Tier 3					
≥ 600	≥ 805	Tier 4					

E.U.

kW	HP	2017	2018	2019	2020	2021	2022
19–299	25–401	Stg IIIa		Stg V			
> 299	> 401	Stg IIIa			Stg V		
Recreational Propulsion		RCD 2					

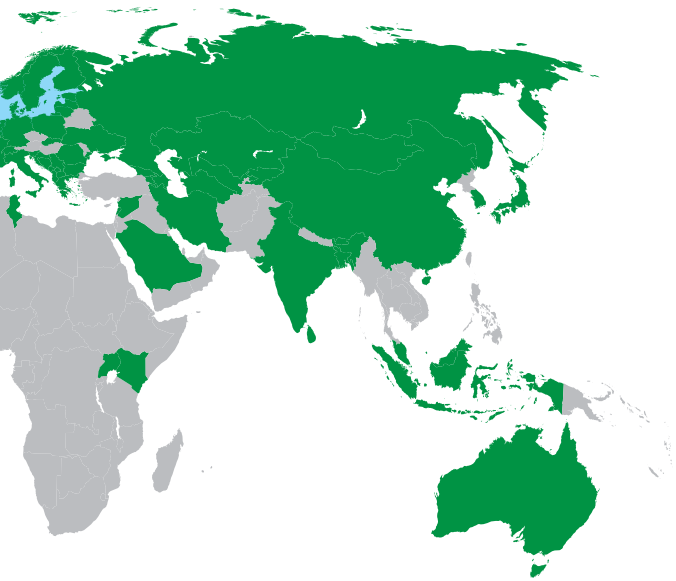


EPA: The United States Environmental Protection Agency (EPA) regulates exhaust emissions from diesel engines installed on U.S. flagged/registered marine vessels.

EU: The Nonroad Mobile Machinery Directive regulates exhaust emissions from diesel engines installed on inland waterway vessels operating in the European Union. The Recreational Craft Directive regulates noise and exhaust emissions from propulsion engines installed on recreational craft operating in the European Union.

IMO: The International Maritime Organization (IMO) regulates exhaust emissions on diesel engines above 130 kW (174 hp). Engines used exclusively in emergency applications are exempt. IMO Tier III applies only when operating within a NOx Emission Control Area. The Tier III regulation is in effect for North America and U.S. Caribbean Sea NOx ECA's for vessels built after January 1, 2016.

Certain ratings may not be available for sale in all areas due to emissions compliance. Other local certifications may be available.



Charts are displayed for reference purposes only. See the appropriate regulation for specific details and options related to emission standards and implementation dates.

Reference Materials

Product Certification: Classification Society

Cummins understands the importance of classification society certification to the commercial marine industry. Therefore, Cummins obtains type approvals from major marine classification societies worldwide including:

- American Bureau of Shipping (ABS)
- Bureau Veritas (BV)
- China Classification Society (CCS)
- DNV GL
- Korean Register of Shipping (KR)
- Lloyds Register (LR)
- Nippon Kaiji Kyokai (NK)

To achieve this certification, Cummins designs and builds products that comply with the strictest safety standards. In accordance with marine classification society rules, Cummins offers a full line of options such as independent safety and alarm systems, dual-walled fuel lines and duplex filtration to meet vessel certification requirements.

For more information on emission or marine classification society certification, please contact your local Cummins professional.

Support Resources

Cummins recognizes that it's not just about investing in engine technology. Equally important is the investment we make in our application and service capability.

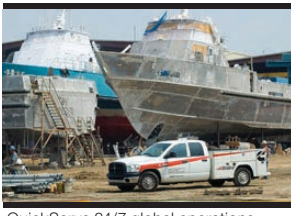
Our products are supported by a team of marine-certified distributors offering sales, service and application expertise — visit the Cummins Worldwide Service locator at **wsl.cummins.com** to find your nearest Cummins distributor. Plus, our products are backed by a comprehensive warranty that is consistent and valid at any authorized service outlet worldwide.

Our commitment to support is further evidenced by QuickServe®. This system is dedicated to performing fast, accurate maintenance and repair services using genuine Cummins new and ReCon® parts to minimize downtime and maximize productivity.

QuickServe trucks and marine-trained technicians are fully equipped to respond rapidly, performing the necessary diagnosis and repairs on-site in a timely manner.

Local and regional parts availability

Factory certified marine technicians



QuickServe 24/7 global operations

Support tools

Service Locator: **wsl.cummins.com**
For more information on your local Cummins distributor team

QuickServe® Online: **quickserve.cummins.com**
24/7 access to parts, service and repair information

Customer Assistance Center: Experienced, knowledgeable customer assistance specialists available 24 hours a day

- Call 1–800–CUMMINS within the U.S.
- Call 1–812–377–5000 outside the U.S.

Cummins Inc., a global power leader, is a corporation of complementary business units that design, manufacture, distribute and service engines and related technologies, including fuel systems, controls, air handling, filtration, emission solutions and electrical power generation systems. Headquartered in Columbus, Indiana (USA), Cummins serves customers in more than 190 countries through its network of 600 company-owned and independent distributor facilities and more than 7,200 dealer locations.

Cummins offers a complete line of propulsion and auxiliary power solutions from 75 to 3132 kw (100–4200 hp) and generator sets from four to 1240 kWe, designed specifically for the challenges of commercial, recreational and government marine applications. Our products are supported by a global team of marine-certified distributors, offering sales, service and application expertise. Proven reliability, durability and technology. Every Time.

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