

QSB5.9 Quantum Engine Series

POWER RATINGS

Rating	HO/GS	HO	HO/GS	HO/GS	INT/HO	HO	MCD/HO	HD/HO	HOs/INT/GS
Metric hp	480	440	425	380	355	330	305	230	230
bhp	474	434	420	375	350	325	300	225	225
kW	353	324	313	280	261	243	224	168	168
Rated rpm	3400	3400	3000	3000	2800	2800	2600	2600	3000
Max Torque ft-lbs	940	927	908	898	853	830	783	670	510
Max Torque N-m	1274	1257	1231	1218	1156	1125	1062	908	691
rpm	2200	2000	2000	2000	2000	1800	1800	1600	1400

Meets EPA Tier 2 recreational and commercial emission standards.

* Preliminary data for the 480/440 hp ratings.

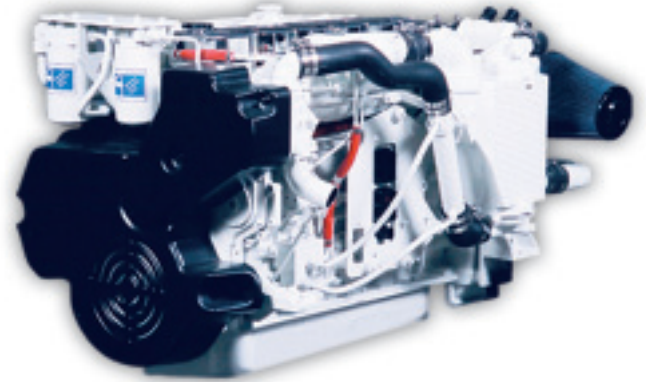
ENGINE SPECIFICATIONS

Configuration	In-line 6-cylinder, 4-stroke diesel
Bore & Stroke	102 mm x 120 mm (4.02 in x 4.72 in)
Displacement	5.9 liters (359 in ³)
Aspiration	Turbocharged/Aftercooled
Rotation	Counterclockwise facing flywheel

FEATURES AND BENEFITS

Engine Design

With its roots going back to the proven 6BTA5.9, the **QSB5.9** is providing a Quantum Leap in the marine industry by incorporating the latest diesel engine technology. A high pressure common rail fuel system virtually eliminates start up white smoke and black smoke, improves fuel economy and significantly reduces noise. The engine includes a new cylinder head with four valves per cylinder, which allows the engine to breathe easier for increased acceleration and torque. The new 425, 440, and 480 HP ratings use a larger heat exchanger than other ratings. The 440 and 480 ratings use a wastegated turbocharger. Other engine updates include a low profile center sump oil pan. The engine also includes a new water pump, oil cooler, and after-cooler.



Fuel System:

Front mounted spin on Fleetguard fuel filter

Lubrication System:

Front mounted spin on Fleetguard lube filter

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

Emissions: EPA Tier 2, IMO, and RCD compliant

Coolant System: Sea water heat exchanger cooling system available. Keel cooled cooling system also available on some ratings.

AVAILABLE ACCESSORIES

Air Intake System: Light duty or serviceable type air cleaner

Breather System: Open or closed

Engine Controls: C-Cruise Package (engine synchronization, slow idle, cruise 1 and 2, rpm +/-), back-up throttles, electronic throttle and shift

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

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

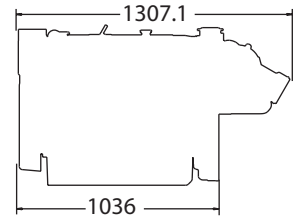
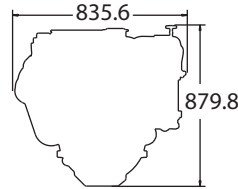


QSB5.9 Quantum Engine Series

ENGINE DIMENSIONS

Length*		Width*		Height		Weight (Dry)	
mm	in	mm	in	mm	in	kg	lb
1036	40.8	836	32.9	880	34.6	612	1350

*Does not include exhaust connection. Weights vary by rating. Length to flywheel housing.



FUEL CONSUMPTION (2.7 PROP CURVE)

Rating	QSB5.9-480 HO/GS				QSB5.9-440 HO				QSB5.9-425 HO/GS				QSB5.9-380 HO/GS			
rpm	3400	3200	3000	2800	3400	3200	3000	2800	3000	2800	2600	2400	3000	2800	2600	2400
kW	353	300	252	209	324	275	231	192	313	260	213	172	280	232	190	153
l/hr	98.8	79.4	63.2	52.4	89.9	72.6	58.5	48.6	87.6	68.1	55.2	43.8	76.2	60.6	48.1	39.5
bhp	473	402	338	280	434	368	310	257	420	349	285	230	375	311	255	205
gal/hr	26.1	21.0	16.7	13.8	23.7	19.2	15.4	12.8	23.1	18.0	14.6	11.6	20.1	16.0	12.7	10.4

Rating	QSB5.9-355 INT/HO				QSB5.9-330 HO				QSB5.9-305 MCD/HO				QSB5.9-230 HO/HD				QSB5.9-230 HOs/INT/GS			
rpm	2800	2600	2400	2200	2800	2600	2400	2200	2600	2400	2200	2000	2600	2400	2200	2000	3000	2800	2600	2400
kW	261	214	172	136	243	199	160	127	224	180	143	110	168	132	102	76.0	169	141	115	93.0
l/hr	68.1	55.2	44.3	36.2	63.3	50.8	41.6	33.5	57.3	47.0	37.9	30.8	42.2	35.7	28.7	21.6	47.3	40.0	33.0	26.8
bhp	350	287	231	183	325	266	214	170	300	242	191	148	225	177	136	102	227	188	154	124
gal/hr	18.0	14.6	11.7	9.6	16.7	13.4	11.0	8.9	15.1	12.4	10.0	8.1	11.1	9.4	7.6	5.7	12.5	10.6	8.7	7.1

Fuel consumption data represents performance along a 2.7 fixed pitch propeller curve (3.0 for HD rating). Fuel consumption has a tolerance of +/- 5% and is based on fuel of 35° API gravity at 16 °C (60 °F) having an LHV of 42, 780 KJ/KG (18,390 BTU/lb) when used at 29 °C (85 °F) and weighing 838.9 g/liter (7.001 lb/US gal). CMD has always been a pioneer in product improvement. Thus specifications may change without notice. Consult your local CMD professional for further information.

Rating Definitions

Ratings are based on ISO 8665 conditions of 100kPa (29.612 in Hg) and 25°C (77°F) and 30% relative humidity. Propeller shaft power represents the net power available after typical gear losses and is 97% of rated power. Power rated in accordance with IMCI procedures.

High Output (HO) Quantum Engines Only

Intended for use in variable load applications where full power is limited to one hour out of every eight hours of operation. This rating is for pleasure/non-revenue generating applications that operate less than 500 hours per year.

Intermittent Duty (INT)

Intended for intermittent use in variable load applications where full power is limited to two hours out of every eight hours of operation. Also, reduced power operations must be at or below 200 rpm of the maximum rated rpm. This rating is an ISO 3046 fuel stop power rating and is intended for applications that operate less than 1,500 hours per year.

Medium Continuous Duty (MCD)

Intended for continuous use in variable load applications where full power is limited to six hours out of every twelve hours of operation. Also, reduced power operations must be at or below 200 rpm of the maximum rated rpm. This rating is an ISO 3046 fuel stop power rating and is for applications that operate less than 3,000 hours per year.

Heavy Duty (HD)

Intended for continuous use in variable load applications where full power is limited to eight (8) hours out of every ten (10) hours of operation. Also, reduced power operations must be at or below 200 rpm of the maximum rated rpm. This is an ISO 3046 fuel stop power rating and is for applications that operate 5,000 hours per year or less.

Government Services (GS)

Intended for use in variable load applications where full power is limited to one hour out of every eight hours of operation. This rating is for Federal, State and local non-revenue generating applications that operate less than 500 hours per year.



Cummins MerCruiser Diesel

www.cmdmarine.com
4500 Leeds Ave. #301
Charleston, SC 29405
email: wavemaster@cummins.com
Bulletin Number: 4081898 Rev 02/07
©2007 Cummins MerCruiser Diesel