

## Engine Specification Sheet



Model	Ratings HP (kW) @ Rated speed rpm	
	1470	1760
CH6-127-E	436 (325)	469 (350)

ENGINE SPECIFICATIONS		
Type	4 Cycle; In-line; water cooled; 6 Cylinder	
Aspiration	Turbocharged +Water Cooled	
Bore and Stroke	mm×mm	127×165
Displacement	L	12.54
Compression Ratio	16:1	
Combustion System	Direct Injection	
Rotation Viewed from flywheel	Counter Clockwise	
Dry Weight Approx.	kg	1455
Dimension Approx. (L×W×H)	mm	1620×1115×1465
Crankshaft Centerline Height	mm	440
Oil Capacity	L	34
Coolant Capacity - Engine + Heat Exchanger	L	50



MODEL  
**CH6-127-E**

Engine Equipment	Standard	Optional	
Air Cleaner	Drip proof	N/A	
Alternator	24V-DC, 35Amps with BeltGuard	N/A	
Coupling	Bare Flywheel	N/A	
Engine Heater	220V-AC	110V-AC	
Exhaust Flex Connection	DN150	N/A	
Exhaust Protection	Metal Guard	N/A	
Flywheel Housing	SAE 1	N/A	
Flywheel Power Take Off	SAE 14	N/A	
Fuel Connections	Flexible hoses according ISO 15540	N/A	
Fuel Filter	Full flow, cartridge type	N/A	
Governor, Speed	Constant speed, mechanical	N/A	
Heat Exchanger	Shell and Tube Type	N/A	
Instrument Panel	Build on Engine	N/A	
Junction Box	Integrated in control panel	N/A	
Lube Oil Cooler	Jacket Water Cooled	N/A	
Lube Oil Filter	Full flow, cartridge type	N/A	
Lube Oil Pump	Gear Driven, Gear Type	N/A	
Manual Start Control	Dual Manual Start Contactors	N/A	
Overspeed Control	Electronic instrument panel, test on instrument panel	N/A	
Raw Water Cooling Loop w/ Alarms	Galvanized	Seawater (All 316 SS)	
Raw Water Solenoid Operation	Automatic from Fire Pump Controller and from Engine Instrument Panel (for Horizontal Fire Pump Applications)	N/A	
Run - Stop Control	On Instrument Panel with Control Position Warning Light	N/A	
Starters	24V-DC,7.5KW	N/A	
Throttle Control	Adjustable speed control	N/A	
Water Pump	Centrifugal Type, Gear Driven	N/A	
All data is based on the engine operating with fuel system, lubricating oil pump, air cleaner, and alternator; not included are compressor, fan, optional equipment, and driven components.;Data is based on operation at SAE standard J1394 conditions of 300ft (91,4m) altitude, 29.61 in.(752mm) Hg dry barometer, and 77°F (25°C) intake air temperature, using 0# diesel fuel follow the standard GB 252-2011.			
Altitude above which output should be Limited		m (ft.)	91 (300)
Correction Factor per 305m.(1,000ft.) above Altitude Limit		3%	
Temperature above which output should be Limited		°C (°F)	25 (77)
Correction Factor per 5.6°C (10°F) above Temperature Limit		1%	
Remark:			
1.All data certified within 5%;			
2.TBD - To Be Determined;			
3.N/A - Not Applicable;			



## Engine Data Sheet

Engine Model	CH6-127-E	Date	2021/6/4	
Drawing No.	CH6-127-E.00	Performance Curve No.	C06127	
Rated Power	469 HP @ 1760 RPM	Reference No.	14DS001E	
	350 KW @ 1760 RPM	Version	A	
GENERAL ENGINE DATA				
Type		4 Cycle;In-line; water cooled; 6 Cylinder		
Aspiration		Turbocharged +Water Cooled		
Bore and Stroke		mm×mm	127×165	
Cylinder Liner Type		<input type="checkbox"/> Wet	<input checked="" type="checkbox"/> Dry	
Displacement		L	12.54	
Compression Ratio		16:01		
Firing Order		1-5-3-6-2-4		
Combustion System		Direct Injection		
Rotation Viewed from front of engine		CW		
Valves Per Cylinder		Intake :2 Exhaust :2		
Valves lashes at cold	Intake	mm	0.4	
	Exhaust	mm	0.6	
Ignition Type		Compression(Diesel)		
Charge Air Cooling Type		Raw Water		
Dry Weight Approx.		kg	1455	
Dimension Approx. (L*W*H)		mm	1620*1115*1465	
Flywheel/ Flywheel House Dimension		14"/ SAE 1		
EXHAUST SYSTEM				
Exhaust Gas Temp. at max. rating/power		℃	550	
Exhaust Gas Flow at Max. output		kg/h	2181	
Max. Allowable Back Pressure		kpa	7.5	
Minimum Exhaust Pipe Diameter		DN	150	
AIR INTAKE SYSTEM				
Air Cleaner Type		Dry Type		
Air Flow at Max. output		kg/h	2100	
Air Inlet Restriction Dirty		kpa	7	
Air Inlet Restriction Clean		kpa	3.5	
LUBRICATION SYSTEM				
Oil Capacity		L	34	
Max. Sump Oil Temp.		℃	105	
Normal Operating Oil Pressure Range		bars	3.5~5.5	
Oil Pressure at Idle		bar	>1	
COOLING SYSTEM				
Coolant Capacity - Engine + Heat Exchanger		L	50	
Thermostat Range	Start Open	℃	72	
	Full Open	℃	82	
Coolant Pressure Cap		bar	0.9	
Max. Engine Coolant Temp.		℃	96	
Engine Coolant Flow at Full Load		m <sup>3</sup> /h	30	
Raw Water Cooling Capacity		m <sup>3</sup> /h	20	
Raw Water Pressure		bar	2	



## Engine Data Sheet

	Min. Raw Water Temp.	°C	15.6
	Raw Water Pipe Size	Raw Water Inlet	G1 1/2"
		Raw Water Outlet	G2"
HEATER SYSTEM			
	Wattage	W	4500
	Voltage AC	V	220
ELECTRICAL SYSTEM-DC			
	System Voltage(Nominal)	V	24
	Starter motor	Kw	7.5
	Recommended Battery Capacity	AH	180
	Cold Cranking Amperes @ -18°C (0°F)	CCA	900
	Reserve Capacity (RC)	Min	360
	Charging Alternator Output	Amps	35
	Max. Starter Cranking Amps @4.5°C (0°F)	Amps	565
	Min. Cranking Speed Required for Unaided Cold Start	rpm	185
FUEL SYSTEM			
	Injection Pump		
	Injection Advance Angle	°	14±1
	Minimum Supply line Size	mm	12
	Minimum Return line Size	mm	12
	Fuel Management Control	Mechanical	
	Max. Fuel Consumption	g/kw,h	210
	Idle Speed	rpm	650±50
	Max. Governed Speed	rpm	1936
	Maximum allowable fuel height above fuel pump	m	3
	Governed Speed Rate	%	<10
Engine Performance Data			
	Estimated free field soud pressure level at 1 meter with full-load governed speed(Includes Noise from: exhaust; Cooling System and Driven Components)	dBa	118
	All data is based on the engine operating with fuel system, lubricating oil pump, air cleaner, and alternator; not included are compressor, fan, optional equipment, and driven components.;Data is based on operation at SAE standard J1394 conditions of 300ft (91.4m) altitude, 29.61 in.(752mm) Hg dry barometer, and 77°F (25°C) intake air temperature, using 0# diesel fuel follow the standard GB 252-2011.		
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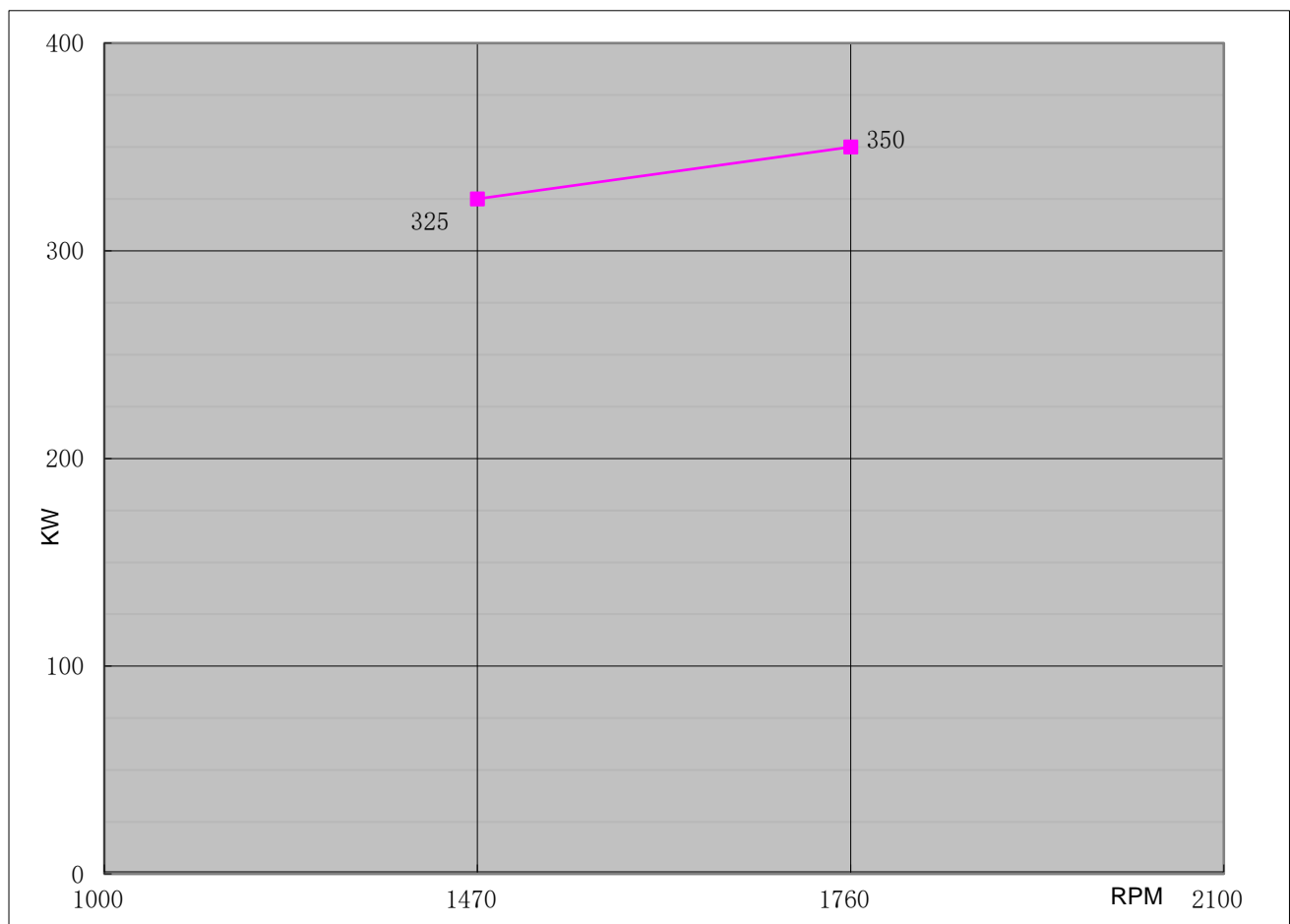
Remark:

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- 3.N/A - Not Applicable;



## Performance Curve

Engine Model		CH6-127-E		Curve No.		C06127	Date	2021/6/4
Displacement	12.54	L	Aspiration	Turbocharged+Water cooled		Power Standard		UL/FM
Bore	127	mm	Cylinder Qty.	6, In-Line;		350	KW @ 1760 r/min	
Stroke	165	mm	Fuel System	Mechanical		469	HP @ 1760 r/min	



Torque		
Speed	Torque	
RPM	N-m	lb-ft.
1000		
1470	2114	1559
1760	1899	1401
2100		

Output Power		
Speed	Output Power	
RPM	KW	HP
1000		
1470	325	436
1760	350	469
2100		

Fuel Consumption		
Speed	Consumption	
RPM	g/KW-HR	lb/BHP-HR
1000		
1470	205	0.337
1760	210	0.345
2100		

REV: A