CHESTER

MODEL

CH6-127-EB

Engine Specification Sheet

Model	Ratings HP (kW) @ Rated speed rpm	
	1760	2100
CH6-127-EB	382 (512)	536 (400)

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	1600
Dimension Approx. (L*W*H)	mm	2130*1170*1620
Crankshaft Centerline Height	mm	565
Oil Capacity	L	36
Coolant Capacity - Engine + Heat Exchanger	L	55

Engine Equipment	Standard	Optional
Air Cleaner	Drip proof	N/A
Alternator	24V-DC, 70Amps with Belt Guard	N/A
Coupling	Bare Flywheel	N/A
Engine Heater	220V-AC	110V-AC
Exhaust Flex Connection	DN100	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 (SS316 or Bronze)
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,8.5KW	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-EB	**Date**	**2023/12/15**
Drawing No.	CH6-127-EB.**00**	**Performance Curve No.**	**C06127B**
Rated Power	**536 HP @ 2100 RPM**	**Reference No.**	**14DS001E**
	400KW @ 2100 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			☐ Wet	☑ 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 Exhuast :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	1600
Dimension Approx. (L*W*H)			mm	2130*1170*1620
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	1979
Max. Allowable Back Pressure			kpa	7.5
Minimum Exhaust Pipe Diameter			DN	125
AIR INTAKE SYSTEM				
Air Cleaner Type			Dry Type	
Air Flow at Max. output			kg/h	1899
Air Inlet Restriction Dirty			kpa	6
Air Inlet Restriction Clean			kpa	3
LUBRICATION SYSTEM				
Oil Capacity			L	36
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	55
Thermostat Range		Start Open	℃	76
		Full Open	℃	88
Coolant Pressure Cap			bar	0.9
Max. Engine Coolant Temp.			℃	96
Engine Coolant Flow at Full Load			m^3/h	24.9
Raw Water Cooling Capacity			m^3/h	20
Raw Water Pressure			bar	2
Min. Raw Water Temp.			℃	15.6

Engine Data Sheet

Raw Water Pipe Size	Raw Water Inlet	G1 1/2"	
	Raw Water Outlet	G2"	
HEATER SYSTEM			
Wattage		W	3000
Voltage AC		V	220
ELECTRICAL SYSTEM-DC			
System Voltage(Nominal)		V	24
Starter motor		Kw	8.5
Recommended Battery Capacity		AH	180
Cold Cranking Amperes @ -18℃ (0°F)		CCA	900
Reserve Capacity (RC)		Min	360
Charging Alternator Output		Amps	70
Max. Starter Cranking Amps @4.5℃ (0°F)		Amps	337
Min. Cranking Speed Required for Unaided Cold Start		rpm	280
FUEL SYSTEM			
Injection Pump			
Injection Advance Angle		°	18
Minimum Supply line Size		mm	12
Minimum Return line Size		mm	12
Fuel Management Control		Mechanical	
Max. Fuel Consumption		g/kw,h	220
Idle Speed		rpm	600±50
Max. Governed Speed		rpm	2310
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	113
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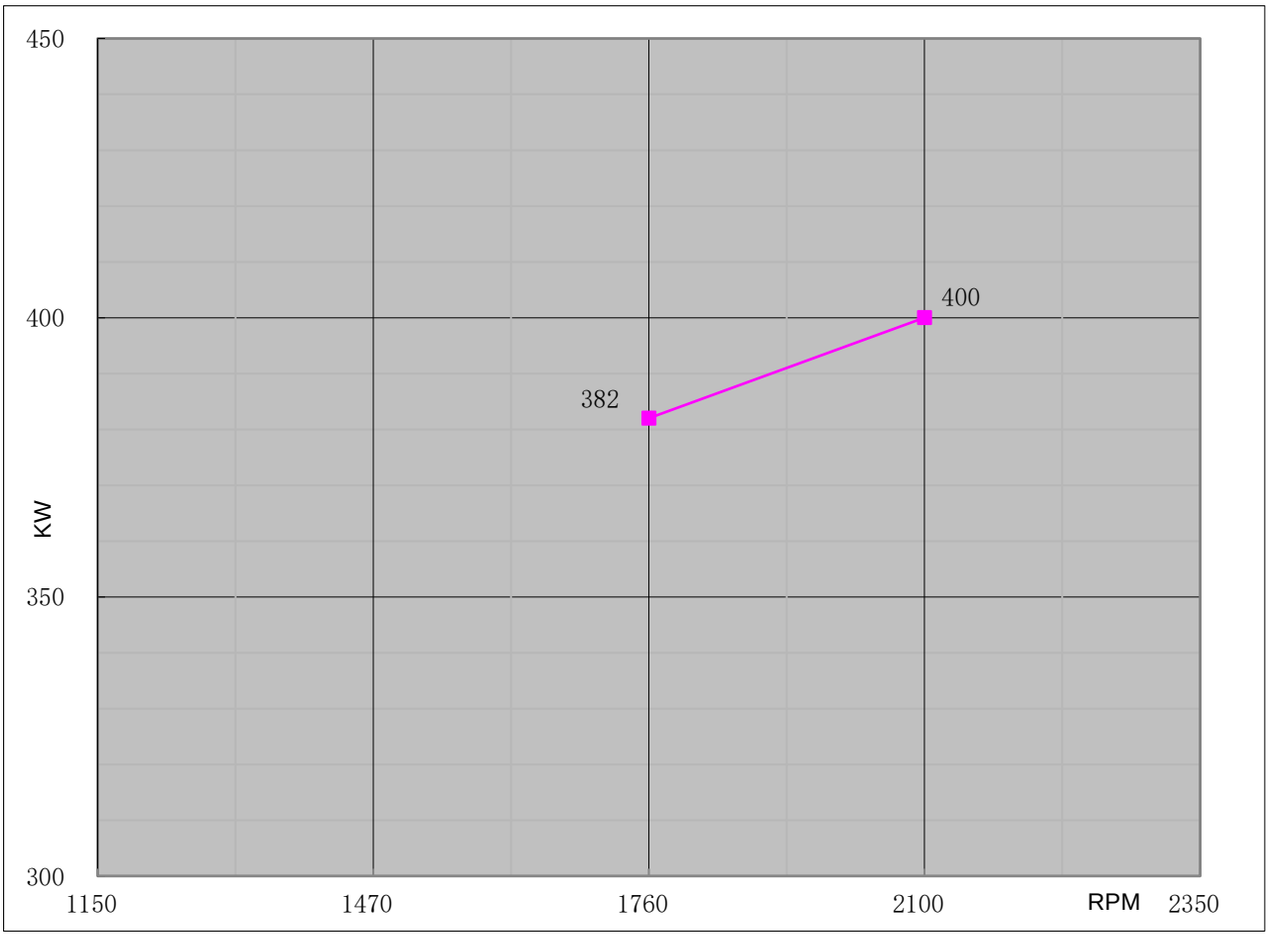
Performance Curve

Engine Model	CH6-127-EB	Curve No.	C06127B	Date	2023/12/1

Displacement	12.54 L	Aspiration	Turbocharged+Water cooled	Power Standard	UL/FM
Bore	127 mm	Cylinder Qty.	6，In-Line	400 KW @ 2100 r/min	
Stroke	165 mm	Fuel System	Mechanical	536 HP @ 2100 r/min	



Torque		
Speed	Torque	
RPM	N-m	lb-ft.
1150		
1470		
1760	2072	1528
2100	1819	1341

Output Power		
Speed	Output Power	
RPM	KW	HP
1150		
1470		
1760	382	512
2100	400	536

Fuel Consumption		
Speed	Consumption	
RPM	g/KW-HR	lb/BHP-HR
1150		
1470		
1760	200	0.329
2100	220	0.362

REV: A