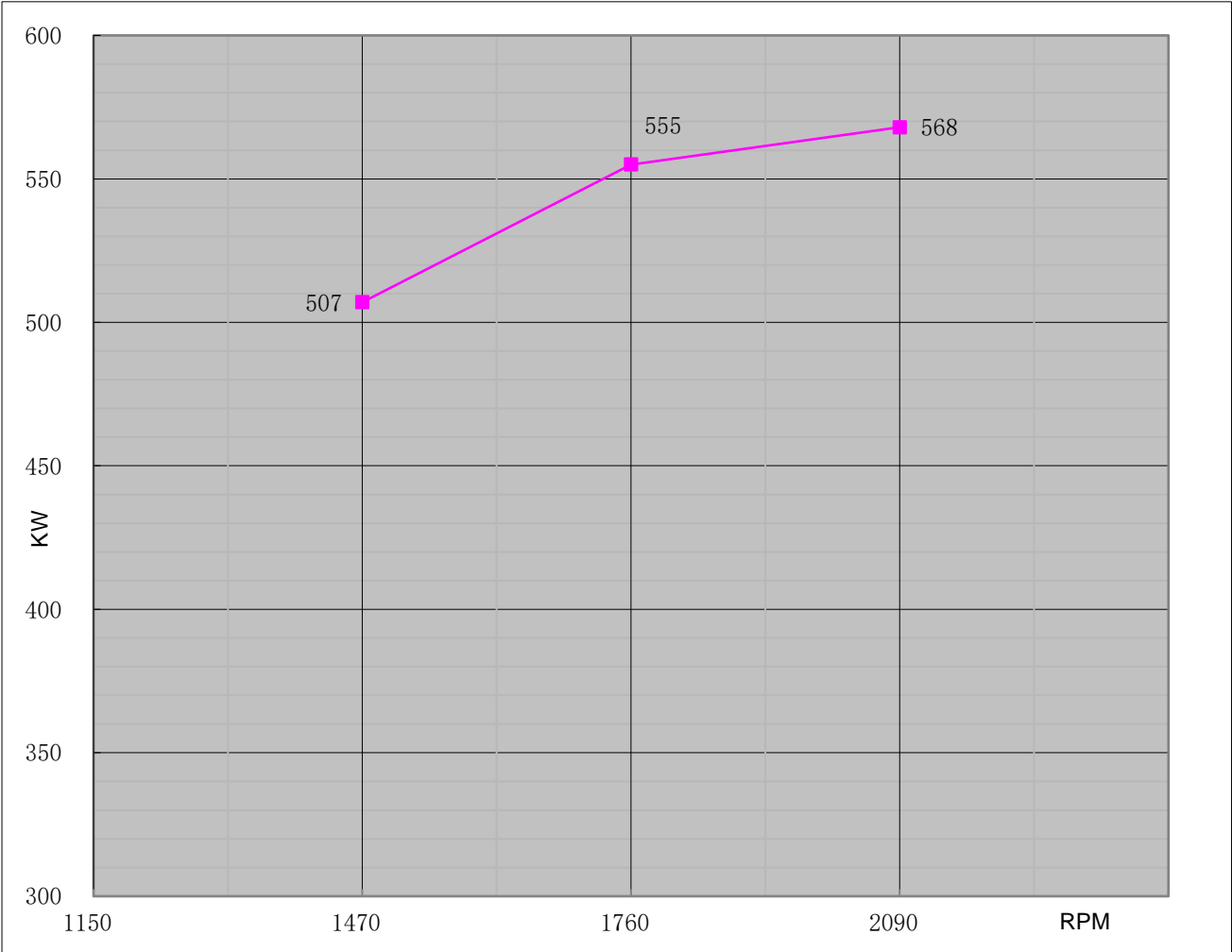




DIESEL ENGINE

Engine Model		CH12-128-E		Curve No.		C12128F	Date	2020/3/16
Displacement	21.93 L	Aspiration		Turbocharged+Water cooled		Power Standard		UL/FM
Bore	128 mm	Cylinder Qty.		12		568 KW @ 2090 r/min		
Stroke	142 mm	Fuel System		V-Type; Mechanical		762 HP @ 2090 r/min		



Torque		
Speed	Torque	
RPM	N-m	lb-ft.
1150		
1470	3296	2430
1760	3009	2219
2090	2596	1915

Output Power		
Speed	Output Power	
RPM	KW	HP
1150		
1470	507	680
1760	555	744
2090	568	762

Fuel Consumption		
Speed	Consumption	
RPM	g/KW-HR	lb/BHP-HR
1150		
1470	212	0.349
1760	215	0.353
2090	225	0.370



Engine Data Sheet

Engine Model	CH12-128-E	Date	2020/4/18
Drawing No.	CH12-128-E-00	Document No.	DS12128F
Rated Power	762 HP @ 2090 RPM	Performance Curve No.	C12128F
	568 KW @ 2090 RPM	Version	A

GENERAL ENGINE DATA

Type		4 Cycle; V-type; water cooled; 12 Cylinder	
Aspiration		Turbocharged +Water Cooled	
Bore and Stroke		mmxmm	128x142
Cylinder Liner Type		<input checked="" type="checkbox"/> Wet	<input type="checkbox"/> Dry
Displacement		L	21.927
Compression Ratio		14.6:1	
Firing Order		1-12-5-8-3-10-6-7-2-11-4-9	
Combustion System		Direct Injection	
Rotation Viewed from flywheel		Counter Clockwise	
Valves Per Cylinder		Intake :1 Exhaust :1	
Valves lashes at cold	Intake	mm	0.25
	Exhaust	mm	0.35
Charge Air Cooling Type		Raw Water	
Dry Weight Approx.		kg	1884
Dimension Approx. (L*W*H)		mm	1935*1350*1850
Flywheel/ Flywheel House Dimension		14"/ SAE 1	

EXHAUST SYSTEM

Exhaust Gas Temp.	°C	555 @ 2090rpm
Exhaust Gas Flow	m³/h	7890 @ 2090rpm
Max. Allowable Back Pressure	kpa	10
Minimum Exhaust Pipe Diameter	DN	2x125
Minimum exhaust pipe diameter is based on 6 meter of pipe, one elbow, and a silencer. Pressure drop no greater than one half the max. allowable back pressure		

AIR INTAKE SYSTEM

Air Cleaner Type	Dry Type		
Air Flow	m³/h	4566 @ 2090rpm	
Max. Allowable Air Inlet Restriction	kpa	5.5	

LUBRICATION SYSTEM

Oil Capacity	L	40	
Engine Normal Operating Sump Oil Temp.	°C	80-115	
Normal Operating Oil Pressure Range	bars	3~6	
Oil Pressure at Idle	bar	>1	

COOLING SYSTEM

Coolant Capacity - Engine + Heat Exchanger	L	68	
Thermostat Range	Start Open	°C	71
	Full Open	°C	85
Coolant Pressure Cap	bar	0.9	
Raw Water Working Pressure Range at Heat Exchanger	bar	5	
Engine Normal Operating Coolant Temp.	°C	71-95	
Engine Coolant Flow at Full Load	m³/h	42	



Engine Data Sheet

Minimum Raw Water Flow @ Engine Speed (rpm)		1470	1760	2090
Raw Water Temperatures to 16 °C (m³/h)		15	15	15
Raw Water Temperatures to 38 °C (m³/h)		20.5	20.5	20.5
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	
Recommended Battery Capacity		AH	200	
Cold Cranking Amperes @ -18°C (0°F)		CCA	1000	
Charging Alternator Output		Amps	45	
FUEL SYSTEM				
Injection Pump				
Injection Advance Angle		°	18	
Minimum Supply line Size		mm	12	
Minimum Return line Size		mm	12	
Fuel Management Control		Mechanical		
Idle Speed		rpm	800	
Governed Speed Rate		%	<10	
Engine Performance Data				
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 daa certified within 5%;				
2.TBD - To Be Determined;				
3.N/A - Not Applicable;				