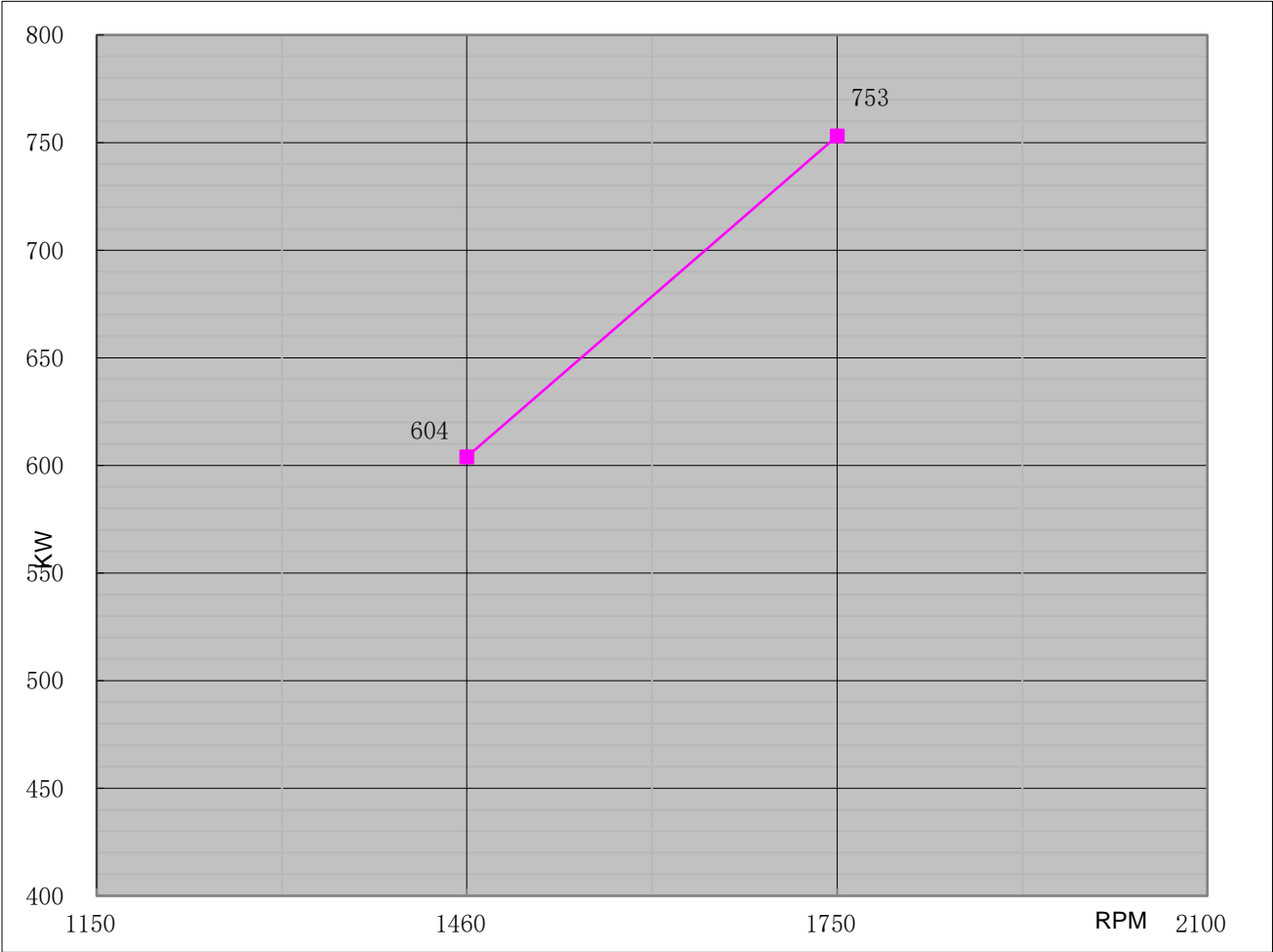




Performance Curve

Engine Model		CH12-128-EC		Curve No.		C12128CF	Date	2021/7/17
Displacement	21.93	L	Aspiration	Turbocharged+Water cooled		Power Standard		UL/FM
Bore	128	mm	Cylinder Qty.	V-Type, 12		753	KW @ 1750	r/min
Stroke	142	mm	Fuel System	Mechanical		1010	HP @ 1750	r/min



Torque		
Speed	Torque	
RPM	N-m	lb-ft.
1150		
1460	3948	2912
1750	4108	3029

Output Power		
Speed	Output Power	
RPM	KW	HP
1150		
1460	604	810
1750	753	1010

Fuel Consumption		
Speed	Consumption	
RPM	g/KW-HR	lb/BHP-HR
1150		
1460	225	0.370
1750	210	0.345



Engine Data Sheet

Engine Model	CH12-128-EC	Date	2021/7/17
Drawing No.	CH12-128-EC.00	Document No.	DS12128CF
Rated Power	1010 HP @ 1750 RPM	Performance Curve No.	C12128CF
	753 KW @1750 RPM	Version	A

GENERAL ENGINE DATA

Type		4 Cycle; V-type; water cooled; 12 Cylinder	
Aspiration		Turbocharged +Water Cooled	
Bore and Stroke		mm×mm	128x142
Cylinder Liner Type		<input checked="" type="checkbox"/> Wet	<input type="checkbox"/> Dry
Displacement		L	21.927
Compression Ratio		15:01	
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	2150
Dimension Approx. (L*W*H)		mm	2290*1440*1760
Flywheel/ Flywheel House Dimension		14"/ SAE 1	

EXHAUST SYSTEM

Exhaust Gas Temp.	°C	575 @ 1750rpm
Exhaust Gas Flow	m³/h	10080 @ 1750rpm
Max. Allowable Back Pressure	kpa	9 @ 1750rpm
Minimum Exhaust Pipe Diameter	DN	2x150
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	3564 @1750rpm	
Max. Allowable Air Inlet Restriction	kpa	5 @1750rpm	

LUBRICATION SYSTEM

Oil Capacity	L	40	
Engine Normal Operating Sump Oil Temp.	°C	80-120	
Normal Operating Oil Pressure Range	bars	2.5~6	
Oil Pressure at Idle	bar	>1	

COOLING SYSTEM

Coolant Capacity - Engine + Heat Exchanger	L	70	
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	71-98	
Engine Coolant Flow at Full Load	m³/h	40	



Engine Data Sheet

Minimum Raw Water Flow @ Engine Speed (rpm)		1460	1750
Raw Water Temperatures to 16 °C (m³/h)		17	17
Raw Water Temperatures to 38 °C (m³/h)		21	22.5
Raw Water Pipe Size	Raw Water Inlet	G2"	
	Raw Water Outlet	G2 1/2"	
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		°	21±1
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;			