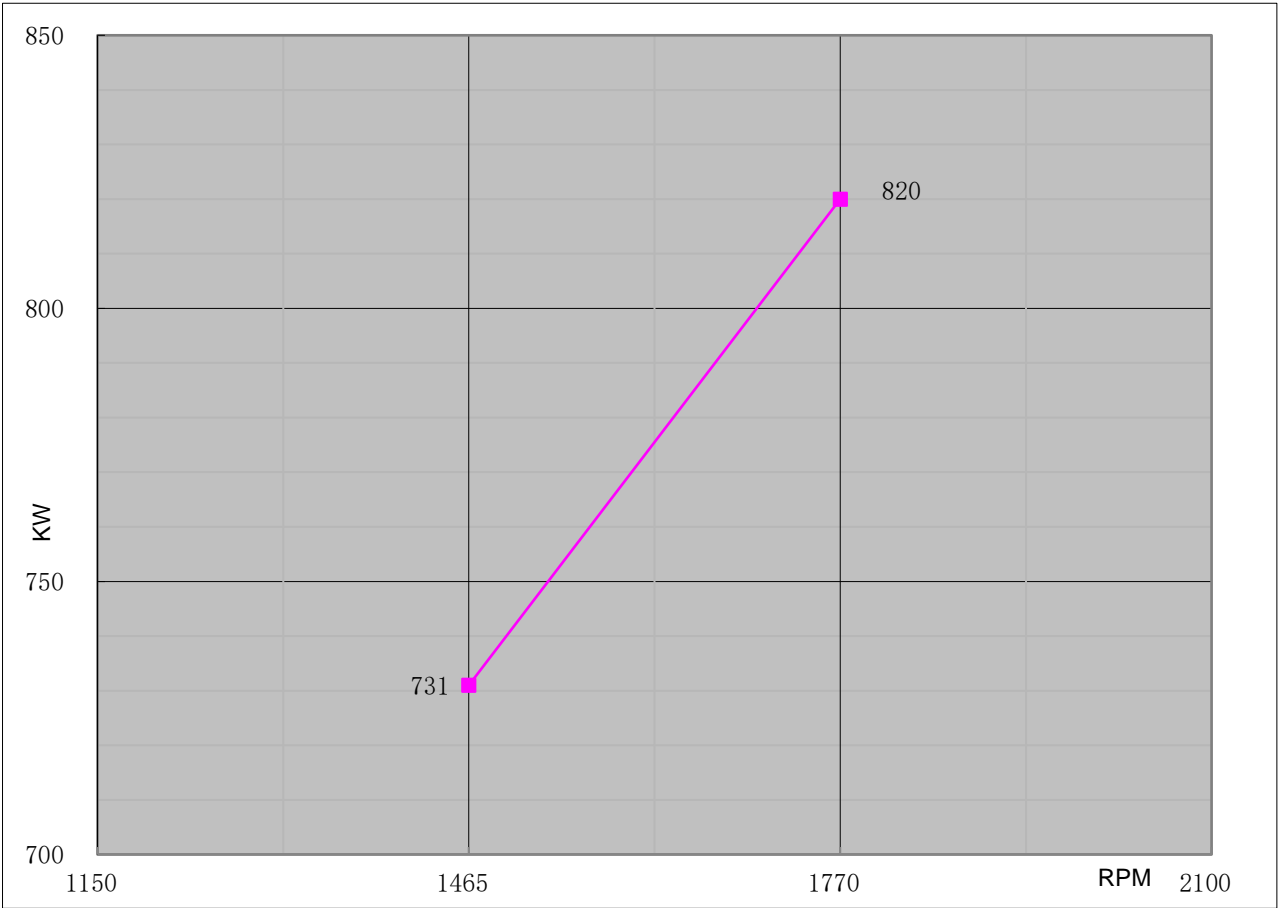




Performance Curve

Engine Model		CH12-150-E		Curve No.		C12150F		Date	2024/6/7
Displacement	31.80	L	Aspiration	Turbocharged+Water cooled		Power Standard		UL/FM	
Bore	150	mm	Cylinder Qty.	12, V-Type		820	KW @	1770	r/min
Stroke	150	mm	Fuel System	Mechanical		1100	HP @	1770	r/min



Torque		
Speed	Torque	
RPM	N-m	lb-ft.
1150		
1465	4765	3514
1770	4424	3263
2100		

Output Power		
Speed	Output Power	
RPM	KW	HP
1150		
1465	731	980
1770	820	1100
2100		

Fuel Consumption		
Speed	Consumption	
RPM	g/KW-HR	lb/BHP-HR
1150		
1465	190	0.312
1770	200	0.329
2100		

REV: A



Engine Data Sheet

Engine Model	CH12-150-E	Date	2024/6/7	
Drawing No.	CH12-150-E.00	Document No.	DS12150F	
Rated Power	1100 HP @ 1770 RPM	Performance Curve No.	C12150F	
	820KW @ 1770 RPM	Version	A	
GENERAL ENGINE DATA				
Type			4 Cycle;V- Type; water cooled; 12 Cylinder	
Aspiration			Turbocharged +Water Cooled	
Bore and Stroke			mm×mm	150×150
Cylinder Liner Type			<input checked="" type="checkbox"/> Wet	<input type="checkbox"/> Dry
Displacement			L	31.8
Compression Ratio			15.7:1	
Firing Order			A1-B2-A5-B4-A3-B1-A6-B5-A2-B3-A4-B6	
Combustion System			Direct Injection	
Rotation Viewed from flywheel			Counter Clockwise	
Valves Per Cylinder			Intake :2 Exhaust :2	
Valves lashes at cold	Intake	mm	0.3	
	Exhaust	mm	0.4	
Charge Air Cooling Type			Raw Water	
Dry Weight Approx.			kg	4050
Dimension Approx. (L*W*H)			mm	2950*1730*2070
Flywheel/ Flywheel House Dimension			18"/ SAE 0	
EXHAUST SYSTEM				
Exhaust Gas Temp.			°C	550 @ 1770rpm
Exhaust Gas Flow			kg/h	5534 @ 1770rpm
Max. Allowable Back Pressure			kpa	7.5 @1770rpm
Minimum Exhaust Pipe Diameter			DN	2x200
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			kg/h	5344 @1770rpm
Max. Allowable Air Inlet Restriction			kpa	4.5 @1770rpm
LUBRICATION SYSTEM				
Oil Capacity			L	109
Engine Normal Operating Sump Oil Temp.			°C	80-105
Normal Operating Oil Pressure Range			bars	4~6
Oil Pressure at Idle			bar	>2
COOLING SYSTEM				
Coolant Capacity - Engine + Heat Exchanger			L	180
Thermostat Range	Start Open	°C	77	
	Full Open	°C	87	
Coolant Pressure Cap			bar	0.9
Raw Water Working Pressure Range at Heat Exchanger			bar	5
Engine Normal Operating Coolant Temp.			°C	77-96
Engine Coolant Flow at Full Load			m ³ /h	29
Minimum Raw Water Flow @ Engine Speed (rpm)			1465	1770
Raw Water Temperatures to 16 °C (m ³ /h)			16	18
Raw Water Temperatures to 38 °C (m ³ /h)			19	20



Engine Data Sheet

	Raw Water Pipe Size	Raw Water Inlet	G2"
		Raw Water Outlet	G2 1/2"
HEATER SYSTEM			
	Wattage	W	2x4500
	Voltage AC	V	220
ELECTRICAL SYSTEM-DC			
	System Voltage(Nominal)	V	24
	Starter motor	Kw	10
	Recommended Battery Capacity	AH	200
	Cold Cranking Amperes @ -18°C (0°F)	CCA	1000
	Charging Alternator Output	Amps	55
FUEL SYSTEM			
	Injection Pump		
	Injection Advance Angle	°	21~22
	Minimum Supply line Size	mm	12
	Minimum Return line Size	mm	12
	Fuel Management Control	Mechanical	
	Idle Speed	rpm	725±25
	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 19147-2016.		
	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;			