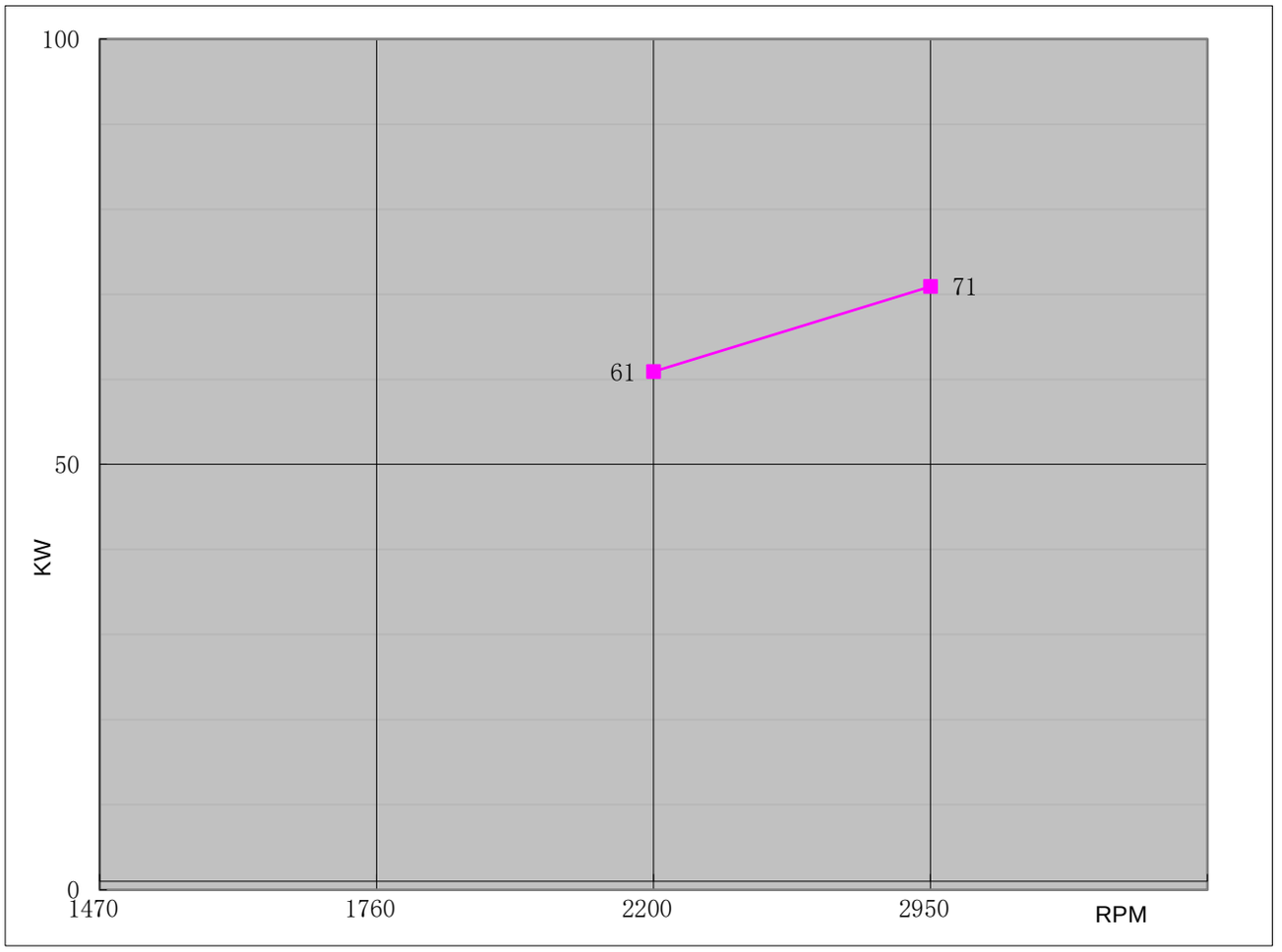
DIESEL ENGINE

Engine Model	CH4-102-EB	Curve No.	C04102BF	Date	2021/1/16

Displacement	3.86 L	Aspiration	Turbocharged	Power Standard	UL/FM
Bore	102 mm	Cylinder Qty.	4，In-Line;	71 KW @ 2950 r/min	
Stroke	118 mm	Fuel System	Mechanical	95 HP @ 2950 r/min	



Torque

Speed RPM	Torque N-m	lb-ft.
1470		
1760		
2200	264	195
2950	230	169

Output Power

Speed RPM	Output Power KW	HP
1470		
1760		
2200	61	82
2950	71	95

Fuel Consumption

Speed RPM	Consumption g/KW-HR	lb/BHP-HR
1470		
1760		
2200	240	0.395
2950	250	0.411

REV: A

Engine Data Sheet

Engine Model	**CH4-102-EB**	**Date**	**2021/1/16**
Drawing No.	**CH4-102-EB.00**	**Document No.**	**DS04102BF**
Rated Power	**95 HP @ 2950 RPM**	**Performance Curve No.**	**C04102BF**
	71 KW @ 2950 RPM	**Version**	**A**

GENERAL ENGINE DATA				
Type			4 Cycle; In-line; water cooled; 4 Cylinder	
Aspiration			Turbocharged	
Bore and Stroke			mm×mm	102x118
Cylinder Liner Type			☐ Wet	☑ Dry
Displacement			L	3.856
Compression Ratio			17:01	
Firing Order			1-3-4-2	
Combustion System			Direct Injection	
Rotation Viewed from flywheel			Counter Clockwise	
Valves Per Cylinder			Intake :1 Exhuast :1	
Valves lashes at cold		Intake	mm	0.4
		Exhaust	mm	0.4
Charge Air Cooling Type			Raw Water	
Dry Weight Approx.			kg	540
Dimension Approx. (L*W*H)			mm	1205*890*1275
Flywheel/ Flywheel House Dimension			11.5"/ SAE 3	
EXHAUST SYSTEM				
Exhaust Gas Temp.			℃	540 @ 2950rpm
Exhaust Gas Flow			m^3/h	675 @ 2950rpm
Max. Allowable Back Pressure			kpa	10
Minimum Exhaust Pipe Diameter			DN	80
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			m^3/h	550 @2950rpm
Max. Allowable Air Inlet Restriction			kpa	6 @2950rpm
LUBRICATION SYSTEM				
Oil Capacity			L	12
Engine Normal Operating Sump Oil Temp.			℃	80-120
Normal Operating Oil Pressure Range			bars	2.5~6.0
Oil Pressure at Idle			bar	>1
COOLING SYSTEM				
Coolant Capacity - Engine + Heat Exchanger			L	18
Thermostat Range		Start Open	℃	76
		Full Open	℃	86
Coolant Pressure Cap			bar	0.9
Raw Water Working Pressure Range at Heat Exchanger			bar	5
Engine Normal Operating Coolant Temp.			℃	76-95
Engine Coolant Flow at Full Load			m^3/h	10.7

Engine Data Sheet

Minimum Raw Water Flow @ Engine Speed (rpm)		2200	2950
Raw Water Temperatures to 16 ℃ (m^3/h)		4.5	4.5
Raw Water Temperatures to 38 ℃ (m^3/h)		5.3	5.3
Raw Water Pipe Size	Raw Water Inlet	G3/4"	
	Raw Water Outlet	G1"	
HEATER SYSTEM			
Wattage		W	2000
Voltage AC		V	220
ELECTRICAL SYSTEM-DC			
System Voltage(Nominal)		V	24
Starter motor		Kw	4.5
Recommended Battery Capacity		AH	150
Cold Cranking Amperes @ -18℃ (0°F)		CCA	900
Charging Alternator Output		Amps	35
FUEL SYSTEM			
Injection Pump			
Injection Advance Angle		°	11
Minimum Supply line Size		mm	10
Minimum Return line Size		mm	10
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;