

Engine Specification Sheet



Model	Ratings HP (kW) @ Rated speed rpm		
	1470	1760	2100
CH6-114-EB	244 (182)	280 (209)	305 (227)

ENGINE SPECIFICATIONS		
Type	4 Cycle; In-line; water cooled; 6 Cylinder	
Aspiration	Turbocharged +Water Cooled	
Bore and Stroke	mm×mm	114x144
Displacement	L	8.82
Compression Ratio	16.5 : 1	
Combustion System	Direct Injection	
Rotation Viewed from flywheel	Counter Clockwise	
Dry Weight Approx.	kg	1110
Dimension Approx. (L*W*H)	mm	1540*1075*1600
Crankshaft Centerline Height	mm	400
Oil Capacity	L	25
Coolant Capacity - Engine + Heat Exchanger	L	26



MODEL

CH6-114-EB

Engine Equipment	Standard	Optional	
Air Cleaner	Drip proof	N/A	
Alternator	24V-DC, 55 Amps with BeltGuard	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 2	N/A	
Flywheel Power Take Off	SAE 11.5	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 (All 316 SS)	
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, 7.5 KW	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	CH6-114-EB	Date	2019/1/21	
Drawing No.	CH6-114-EB.00	Performance Curve No.	C06114B	
Rated Power	305 HP @ 2100 RPM	Reference No.	14DS001E	
	227 KW @2100 RPM	Version	A	
GENERAL ENGINE DATA				
Type		4 Cycle; In-line; water cooled; 6 Cylinder		
Aspiration		Turbocharged +Water Cooled		
Bore and Stroke		mmxmm	114x144	
Cylinder Liner Type		<input checked="" type="checkbox"/> Wet <input type="checkbox"/> Dry		
Displacement		L	8.82	
Compression Ratio		16.5 : 1		
Firing Order		1-5-3-6-2-4		
Combustion System		Direct Injection		
Rotation Viewed from front of engine		CW		
Valves Per Cylinder		Intake :2 Exhaust :2		
Valves lashes at cold	Intake	mm (inch)	0.3	
	Exhaust	mm (inch)	0.55	
Ignition Type		Compression(Diesel)		
Charge Air Cooling Type		Raw Water		
Weight (Fuel Pump Configuration)		kg	1110	
Dimension (L*W*H)(Fuel Pump Configuration)		mm	1540*1075*1600	
Flywheel/ Flywheel House Dimension		11.5"/ SAE 2		
Torque at rated RPM		N.m	1034	
EXHAUST SYSTEM				
Exhaust Gas Temp. at max. rating/power		°C	600	
Exhaust Gas Flow at Max. Rating output		m³/h	2274	
Max. Allowable Back Pressure		kpa	10	
Minimum Exhaust Pipe Diameter		DN	100	
AIR INTAKE SYSTEM				
Air Cleaner Type		Dry Type, Disposable		
Air Flow at Max. Rating speed		m³/h	1038	
Air Inlet Restriction Dirty		kpa	6	
Air Inlet Restriction Clean		kpa	3	
LUBRICATION SYSTEM				
Oil Capacity		L	25	
Max. Sump Oil Temp.		°C	120	
Normal Operating Oil Pressure Range		bars	>2	
Oil Pressure at Idle		bar	>0.7	
COOLING SYSTEM				
Coolant Capacity - Engine + Heat Exchanger		L	26	
Thermostat Range	Start Open	°C	82	
	Full Open	°C	93	
Coolant Pressure Cap		bar	0.9	
Max. Engine Coolant Temp.		°C	98	
Engine Coolant Flow at Full Load		m³/h	14	
Raw Water Cooling Capacity		m³/h	9	



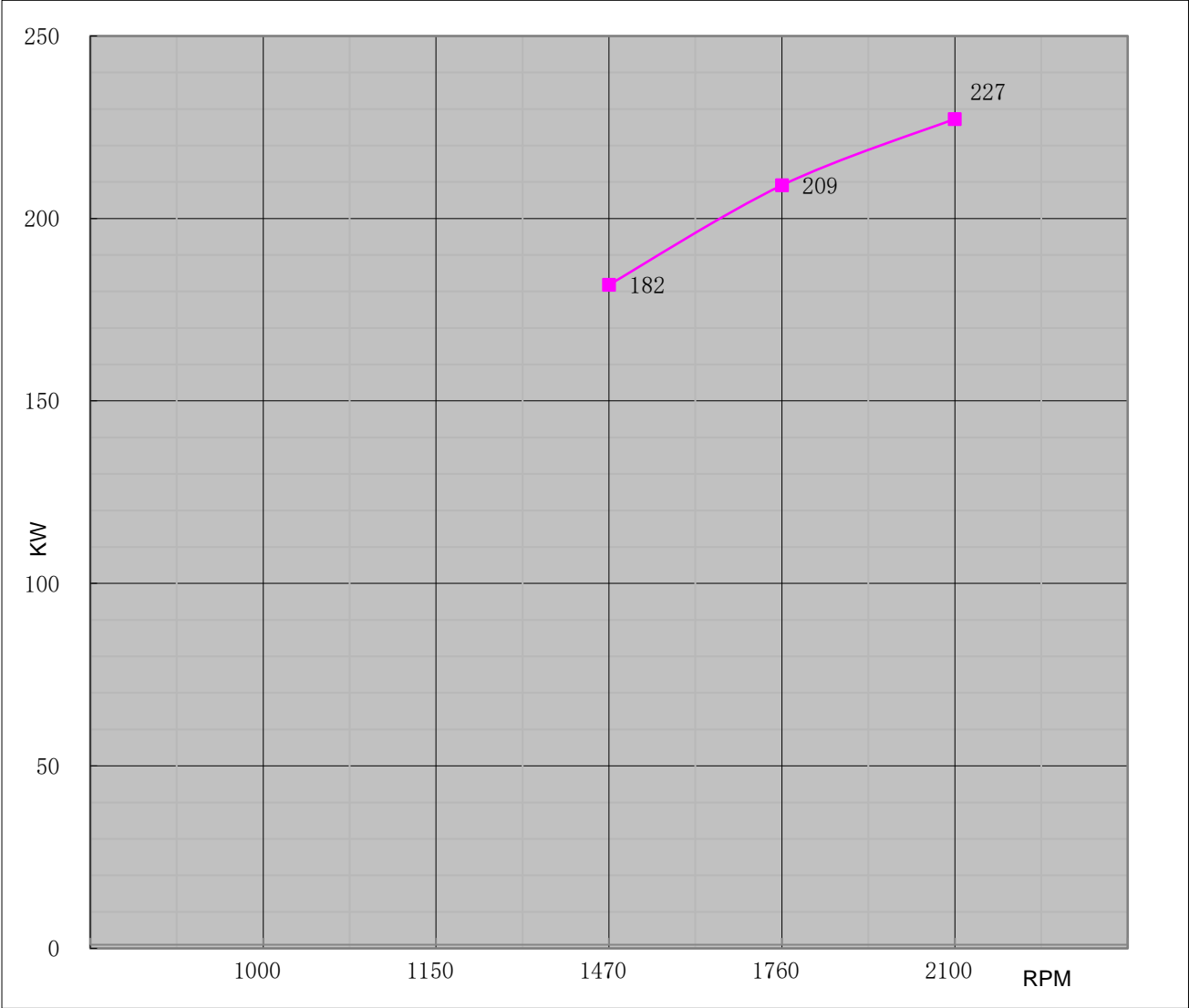
Engine Data Sheet

Raw Water Pressure		bar	2
Min. Raw Water Temp.		°C	15.6
Raw Water Pipe Size	Raw Water Inlet	G1"	
	Raw Water Outlet	G1 1/4"	
HEATER SYSTEM			
Wattage		W	2200
Voltage AC		V	240
ELECTRICAL SYSTEM-DC			
System Voltage(Nominal)		V	24
Starter motor		Kw	7.5
Recommended Battery Capacity		AH	180
Cold Cranking Amperes @ -18°C (0°F)		CCA	900
Reserve Capacity (RC)		Min	360
Charging Alternator Output		Amps	55
Max. Starter Cranking Amps @4.5°C (0°F)		Amps	320
Min. Cranking Speed Required for Unaided Cold Start		rpm	250
FUEL SYSTEM			
Injection Pump			
Injection Advance Angle		°	8.5
Minimum Supply line Size		mm	10
Minimum Return line Size		mm	10
Fuel Management Control		Mechanical	
Max. Fuel Consumption		g/kw,h	240
Idle Speed		rpm	700
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	108
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Remark:			
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DIESEL ENGINE

Engine Model		CH6-114-EB		Curve No.		C06114B	Date	2019/1/3
Displacement	8.82	L	Aspiration	Turbocharged+Water cooled		Power Standard		UL/FM
Bore	114	mm	Cylinder Qty.	6		227 KW @ 2100 r/min		
Stroke	144	mm	Fuel System	In-Line; Mechanical		305 HP @ 2100 r/min		



Torque		
Speed	Torque	
RPM	N-m	lb-ft.
1000		
1150		
1470	1181	871
1760	1135	837
2100	1034	762

Output Power		
Speed	Output Power	
RPM	KW	HP
1000		
1150		
1470	182	244
1760	209	280
2100	227	305

Fuel Consumption		
Speed	Consumption	
RPM	g/KW-HR	lb/BHP-HR
0		
1000		
1150		
1470	220	0.362
1760	230	0.378
2100	240	0.395