CHESTER

MODEL

CH6-114-EC

Engine Specification Sheet

Model	Ratings HP (kW) @ Rated speed rpm		
	1470	1760	2100
CH6-114-EC	194 (145)	221 (165)	248 (185)

ENGINE SPECIFICATIONS		
Type	4 Cycle; In-line; water cooled; 6 Cylinder	
Aspiration	Turbocharged +Water Cooled	
Bore and Stroke	mm×mm	114x135
Displacement	L	8.27
Compression Ratio	18 : 1	
Combustion System	Direct Injection	
Rotation Viewed from flywheel	Counter Clockwise	
Dry Weight Approx.	kg	1020
Dimension Approx. (L*W*H)	mm	1505*960*1570
Crankshaft Centerline Height	mm	400
Oil Capacity	L	19
Coolant Capacity - Engine + Heat Exchanger	L	26

Engine Equipment	Standard	Optional
Air Cleaner	Drip proof	N/A
Alternator	24V-DC, 55 Amps with Belt Guard	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-EC**	**Date**	**2019/10/12**
Drawing No.	**CH6-114-EC.00**	**Performance Curve No.**	**C06114C**
Rated Power	**248 HP @ 2100 RPM**	**Reference No.**	**14DS001E**
	185 KW @2100 RPM	**Version**	**A**

GENERAL ENGINE DATA				
	Type		4 Cycle; In-line; water cooled; 6 Cylinder	
	Aspiration		Turbocharged +Water Cooled	
	Bore and Stroke		mm×mm	114x135
	Cylinder Liner Type		☑ Wet	☐ Dry
	Displacement		L	8.27
	Compression Ratio		18:01	
	Firing Order		1-5-3-6-2-4	
	Combustion System		Direct Injection	
	Rotation Viewed from front of engine		CW	
	Valves Per Cylinder		Intake :1 Exhuast :1	
	Valves lashes at cold	Intake	mm (inch)	0.3
		Exhaust	mm (inch)	0.5
	Ignition Type		Compression(Diesel)	
	Charge Air Cooling Type		Raw Water	
	Weight Approx.		kg	1020
	Dimension Approx. (L*W*H)		mm	1505*960*1570
	Flywheel/ Flywheel House Dimension		11.5"/ SAE 2	
	Max. Torque at rated RPM		N.m	939
EXHAUST SYSTEM				
	Exhaust Gas Temp. at max. rating/power		℃	600
	Exhaust Gas Flow at Max. Rating output		m^3/h	1872
	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		m^3/h	858
	Air Inlet Restriction Dirty		kpa	6
	Air Inlet Restriction Clean		kpa	3
LUBRICATION SYSTEM				
	Oil Capacity		L	19
	Max. Sump Oil Temp.		℃	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	℃	82
		Full Open	℃	93
	Coolant Pressure Cap		bar	0.9
	Max. Engine Coolant Temp.		℃	98
	Engine Coolant Flow at Full Load		m^3/h	14
	Raw Water Cooling Capacity		m^3/h	10

Engine Data Sheet

Raw Water Pressure		bar	2.5
Min. Raw Water Temp.		℃	15.6
Raw Water Pipe Size	Raw Water Inlet	G1"	
	Raw Water Outlet	G1 1/4"	
HEATER SYSTEM			
Wattage		W	2000
Voltage AC		V	220
ELECTRICAL SYSTEM-DC			
System Voltage(Nominal)		V	24
Starter motor		Kw	7.5
Recommended Battery Capacity		AH	180
Cold Cranking Amperes @ -18℃ (0ºF)		CCA	900
Reserve Capacity (RC)		Min	360
Charging Alternator Output		Amps	55
Max. Starter Cranking Amps @4.5℃（0°F）		Amps	420
Min. Cranking Speed Required for Unaided Cold Start		rpm	230
FUEL SYSTEM			
Injection Pump			
Injection Advance Angle		°	6
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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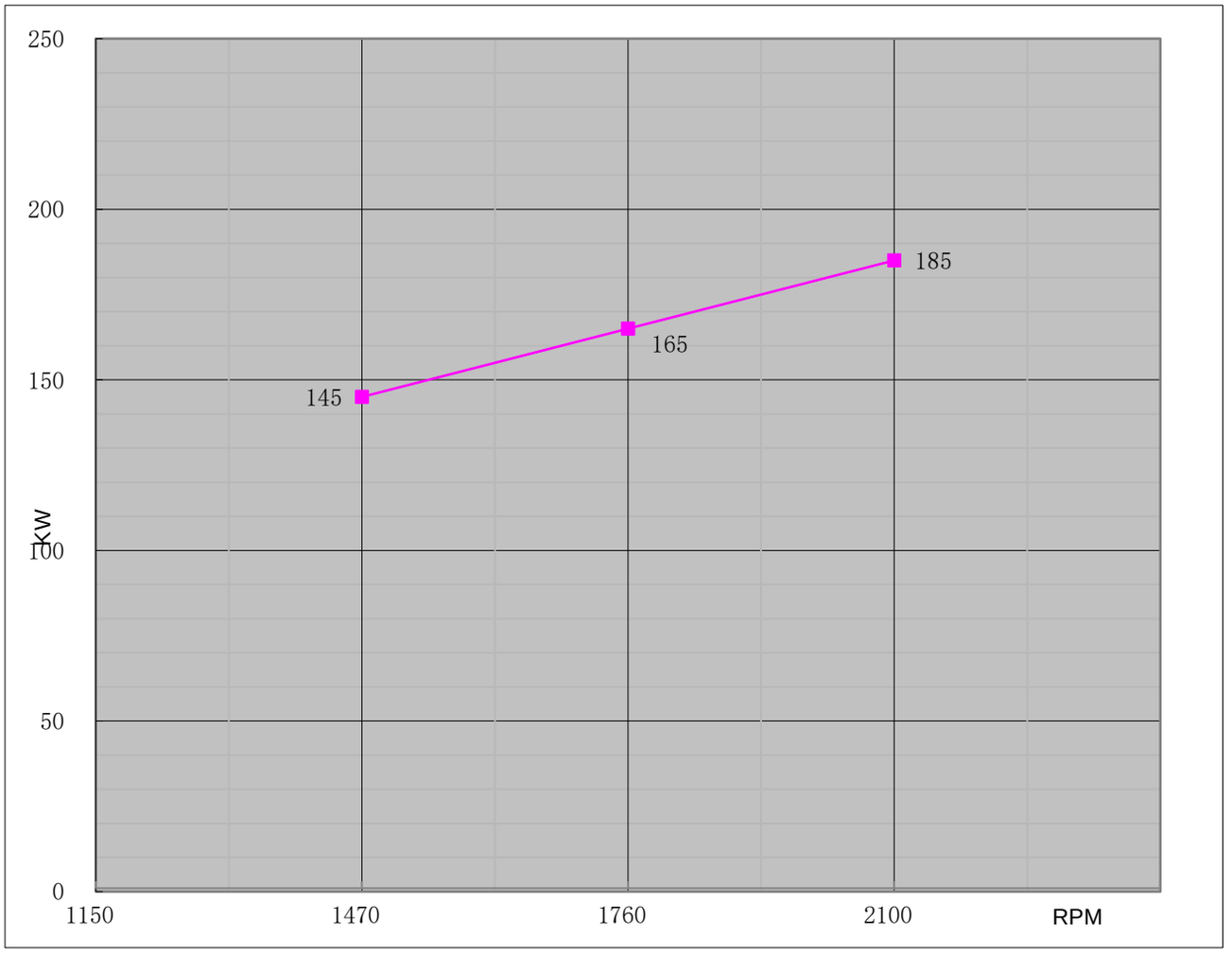
DIESEL ENGINE

Engine Model	CH6-114-EC	Curve No.	C06114C	Date	2019/9/19

Displacement	8.27 L	Aspiration	Turbocharged+Water cooled	Power Standard	UL/FM
Bore	114 mm	Cylinder Qty.	6	185 KW @ 2100 r/min	
Stroke	135 mm	Fuel System	In-Line; Mechanical	248 HP @ 2100 r/min	



Torque

Speed	Torque	
RPM	N-m	lb-ft.
1150		
1470	939	693
1760	898	662
2100	843	622

Output Power

Speed	Output Power	
RPM	KW	HP
1150		
1470	145	194
1760	165	221
2100	185	248

Fuel Consumption

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

REV: A