



Engine Data Sheet

Engine Model	CH6-159-EC	Date	2024/7/29	
Drawing No.	CH6-159-EC.00	Performance Curve No.	C06159C	
Rated Power	527HP @ 1760 RPM	Reference No.	14DS001E	
	393KW @ 1760 RPM	Version	A	
GENERAL ENGINE DATA				
Type		4 Cycle;In-line; water cooled; 6 Cylinder		
Aspiration		Turbocharged +Coolant Cooled		
Bore and Stroke		mm×mm	159x159	
Cylinder Liner Type		<input checked="" type="checkbox"/> Wet	<input type="checkbox"/> Dry	
Displacement		L	18.9	
Compression Ratio		13.9:1		
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	0.36	
	Exhaust	mm	0.69	
Ignition Type		Compression(Diesel)		
Charge Air Cooling Type		Raw Water		
Dry Weight Approx.		kg	2400	
Dimension Approx. (L*W*H)		mm	2015*1285*2105	
Flywheel/ Flywheel House Dimension		14"/ SAE 0		
EXHAUST SYSTEM				
Exhaust Gas Temp. at max. rating/power		°C	513	
Exhaust Gas Flow at Max. output		m³/h	6116	
Max. Allowable Back Pressure		kpa	10	
Recommend Minimum Exhaust Pipe Diameter		DN	200	
AIR INTAKE SYSTEM				
Air Cleaner Type		Dry Type		
Air Flow at Max. output		m³/h	2243	
Max. Air Inlet Restriction (Dirty)		kpa	6.2	
Max. Air Inlet Restriction (Clean)		kpa	3.7	
LUBRICATION SYSTEM				
Oil Capacity		L	38	
Max. Sump Oil Temp.		°C	121	
Normal Operating Oil Pressure Range		bars	3.4~4.8	
Oil Pressure at Idle		bar	1.38	
COOLING SYSTEM				
Coolant Capacity - Engine + Heat Exchanger		L	60	
Thermostat Range	Start Open	°C	80	
	Full Open	°C	90	
Coolant Pressure Cap		bar	0.9	
Max. Engine Coolant Temp.		°C	96	
Engine Coolant Flow at Full Load		m³/h	45	
Raw Water Cooling Capacity		m³/h	18	
Raw Water Pressure		bar	2	
Min. Raw Water Temp.		°C	15.6	



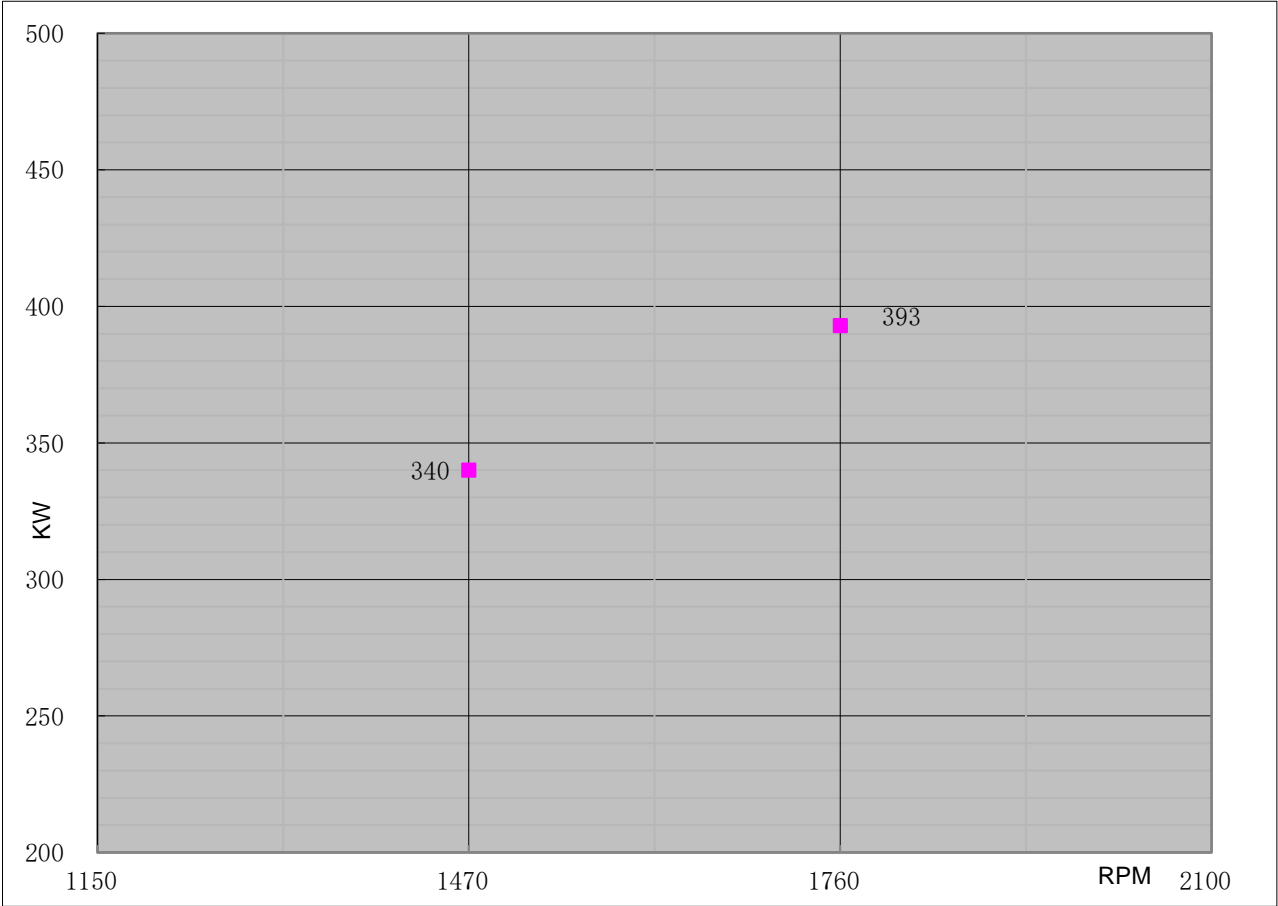
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	Raw Water Pipe Size	Raw Water Inlet	G1 1/2"	
		Raw Water Outlet	G2"	
HEATER SYSTEM				
	Wattage	W	4500	
	Voltage AC	V	220	
ELECTRICAL SYSTEM-DC				
	System Voltage(Nominal)	V	24	
	Starter motor	Kw	9	
	Recommended Battery Capacity	AH	200	
	Cold Cranking Amperes @ -18°C (0°F)	CCA	1000	
	Reserve Capacity (RC)	Min	407	
	Battery Cable	Minimum Size	mm ²	70
		Maximum Cable Length Not to Exceed	m	3.05
	Charging Alternator Output	Amps	70	
	Max. Starter Cranking Amps @4.5°C (0°F)	Amps	345	
	Min. Cranking Speed Required for Unaided Cold Start	rpm	175	
FUEL SYSTEM				
	Injection Pump			
	Injection Advance Angle	°	NA	
	Minimum Supply line Size	mm	19	
	Minimum Return line Size	mm	16	
	Fuel Management Control	Mechanical		
	Max. Fuel Consumption	g/kw,h	205	
	Idle Speed	rpm	625	
	Max. Governed Speed	rpm	1936	
	Maximum allowable fuel height above fuel pump	m	3	
	Governed Speed Rate	%	<10	
Engine Performance Data				
	Estimated free field sound pressure level at 1 meter with full-load governed speed(Includes Noise from: exhaust;Cooling System and Driven Components)	dBa	≤108	
	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;				



Performance Curve

Engine Model		CH6-159-EC		Curve No.		C06159C		Date	2024/7/29
Displacement	18.90	L	Aspiration	Turbocharged+water cooled		Power Standard		UL/FM	
Bore	159	mm	Cylinder Qty.	6, In Line		393	KW @	1760	r/min
Stroke	159	mm	Fuel System	Mechanical		527	HP @	1760	r/min



Torque		
Speed	Torque	
RPM	N-m	lb-ft.
1150		
1470	2209	1629
1760	2133	1573
2100		

Output Power		
Speed	Output Power	
RPM	KW	HP
1150		
1470	340	456
1760	393	527
2100		

Fuel Consumption		
Speed	Consumption	
RPM	g/KW-HR	lb/BHP-HR
1150		
1470	195	0.321
1760	205	0.337
2100		

REV: A