
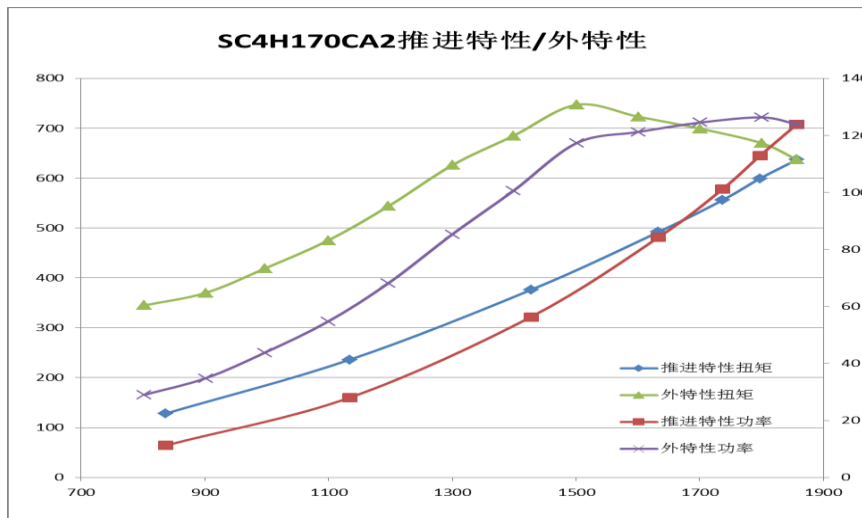


Shanghai Diesel Engine Co., Ltd.

 SDEC	SDEC SPECIFICATIONS for Marine Engine		Engine Model SC4H170CA2
			Order No H3565
Displacement	4.29L	Rated power/speed	113/1800 kW/r/min
Bore	105mm	Overload power/speed	125/1854 kW/r/min
Stroke	124mm	Oceangoing rated power/speed	110/1800 kW/r/min
Cylinder No.	4	Oceangoing overload power/speed	121/1854 kW/r/min
Fuel system	mechanical	Type	Turbocharged&intercooled

Cert: CCS



external characteristic curve			propelling characteristic curve			
speed	power	torque	speed	power	torque	fuel consumption
r/min	kW	N. m	r/min	kW	N. m	g/kw. h
1854	123.9	637	1854	123.9	637	194.6
1800	126.3	670	1800	112.8	599	197.9
1700	124.5	699	1737	101.2	556	198.1
1600	121.2	723	1633	84.2	492	190.6
1500	117.3	747	1427	56.3	376	209.5
1400	100.6	685	1134	28	236	226.8
1300	85.3	626	836	11.2	128	306.6
1200	68.2	544				
1100	54.7	475				
1000	43.8	419				
900	34.8	370				
800	29	345				

Remark: ★The measurement of rated power&speed is according to standard reference condition under ISO 8665(atmospheric pressure 100kpa, ambient temperature 25℃, Relative humidity 30%, intercooler inlet temperature 25℃),without any accessories, the guaranteed max power after running-in

★The measurement of oceangoing power&speed is according to specified environmental condition under IACS (atmospheric pressure 100kpa, ambient temperature 25℃, Relative humidity 60%, intercooler inlet temperature 32℃),without any accessories, the guaranteed max power after running-in

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★Power tolerance: the max tolerance between rated power or overload power should not above 5%

General specification

Engine model.....	SC4H170CA2
Usage	Marine Propulsion
Type.....	Turbocharged&Intercooled
Rated power/speed.....kW/r/min	113/1800 kW/r/min
Overload power/speed	125/1854 kW/r/min
Oceangoing rated power/speed	110/1800 kW/r/min
Oceangoing overload power/speed.....kW/r/min	121/1854 kW/r/min
Max torque @1500r/min.....N. m	747
Max unload stable speed.....r/min	1980
Max output power of crankshaft front end	30%
Compression Ratio.....	16:1
Average piston speed.....m/s	7.44
Ignition order.....	1-3-4-2
Net weight.....kg	540
Speed Governing Rate.....%	≤10
Min unload speed.....r/min	≤680±20
Fuel system.....	mechanical pump
Advance angle of injection.....° CA	10±0.5
Max temp of inlet fuel.....°C	43
Max temp of return fuel	89
Air intake flow	693
Exhaust flow.....kg/h	717
Exhaust temp.....°C	≤700
Cooling system.....	Seawater-fresh water double system
Open temp of thermostat	82
Full-open temp of thermostat.....°C	95
Crankshaft Rotation.....	Anticlockwise (From flywheel)
Oversize(L×W×H).....mm	971×729×1036
Max allowable air inlet restriction	4
Max allowable air outlet restriction.....kpa	10
Oil pan capacity.....L	11.4
Oil pressure under declared working condition.....MPa	0.21~0.55
Infeed	15
Incline Trim	5
&swing Rolling.....°	22.5
Pitch.....°	7.5

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★**power output interface**

flywheel house: SAE3#

flywheel: SAE11.5#

belt pulley: 4groove B type, with flange

★**seawater pump**

Rpm n=2800rpm, flow $Q \geq 20m^3/h$,

self-suction=2m,

lift H=15m

self-suction duration $\leq 90s$;

★**alternator**

rated current 35A

rated voltage 28V

connection mode: double

★**starter**

rated power: 6kW

rotation direction: clockwise(from drive end)

rated voltage: 24V

connection mode: double

★**instrument system**

low oil pressure alarm value: 0.12MPa

over speed alarm value: 2070r/min

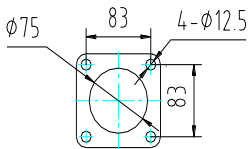
Low oil pressure stop value: 0.10MPa

over speed stop value: 2160r/min

High water temp alarm value: 95°C

High oil temp alarm value: 115°C

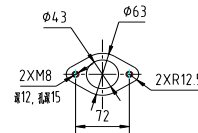
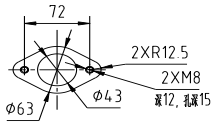
★**exhaust pipe outlet size(bellow)**



★**cooling system**

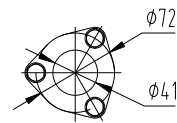
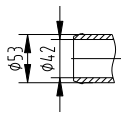
seawater inlet flange size

seawater outlet flange size

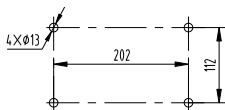


Seawater pump inlet size

seawater pump outlet size



Seawater pump install footing size



★**fuel system**

Fuel transfer pump inlet pipe size

fuel pump return pipe size

