
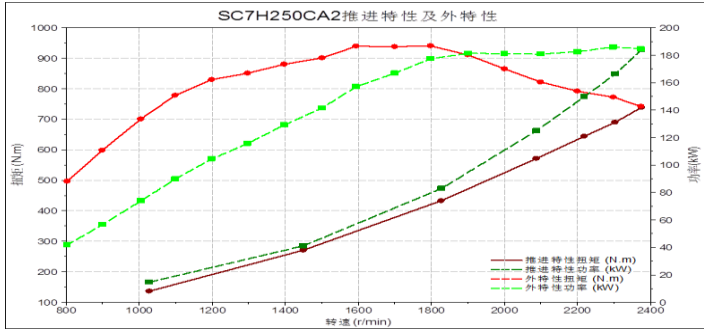


Shanghai Diesel Engine Co., Ltd.

	SDEC SPECIFICATIONS for Marine Engine		Engine model SC7H250CA2			
			Order No H3634			
Displacement	6.44L	Rated power/speed	167/2300 kW/r/min			
Bore	105mm	Overload power/speed	184/2369 kW/r/min			
Stroke	124mm	Oceangoing rated power/speed	162/2300 kW/r/min			
Cylinder No.	6	Oceangoing overload power/speed	178/2369 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
2369	184.6	742	2369	183.9	739	214.0
2300	186	772	2300	166.3	690	210.1
2200	182.5	792	2219	149.7	644	211.8
2100	180.8	822	2087	124.9	571	209.5
2000	181.1	865	1827	82.9	433	210.9
1900	181.3	911	1450	41.1	271	227.8
1800	177.4	940	1028	14.6	136	277.4
1700	166.9	938				
1600	157	939				
1500	141.5	901				
1400	129.1	880				
1300	115.7	851				
1200	104.4	830				
1100	89.7	778				
1000	73.9	701				
900	56.5	598				
800	41.7	497				
remark: ★The measurement of rated power&speed is according to standard reference condition under ISO 8665(atmospheric pressure 100kpa, ambient temperature 25°C, Relative humidity 30%, intercooler inlet temperature 25°C),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						

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pressure 100kpa, ambient temperature 25°C, Relative humidity 60%, intercooler inlet temperature 32°C), without any accessories, the guaranteed max power after running-in

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

General specification

Engine model.....	SC7H250CA2
Usage.....	Marine Propulsion
Type.....	Turbocharged&Intercooled
Rated power/speedkW/r/min	167/2300 kW/r/min
Overload power/speed.....kW/r/min	184/2369 kW/r/min
Oceangoing rated power/speed.....kW/r/min	162/2300 kW/r/min
Oceangoing overload power/speed.....kW/r/min	178/2369 kW/r/min
Max torque @1800r/min.....N.m	940
Max unload stable speed.....r/min	2530
max output power of crankshaft front end.....	30%
Compression Ratio.....	16:1
Average piston speed.....m/s	9.51
ignition order.....	1-5-3-6-2-4
Net weight.....kg	675
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.....°C	89
Air intake flowkg/h	1127
Exhaust flow.....kg/h	1166
Exhaust temp.....°C	≤700
Cooling system.....	Seawater-fresh water double system
open temp of thermostat°C	82
full-open temp of thermostat.....°C	95
Crankshaft Rotation.....	Anticlockwise (From flywheel)
Oversize(L×W×H).....mm	1287×730×1180
Max allowable air inlet restriction.....kpa	4
Max allowable air outlet restrictionkpa	10
oil pan capacity.....L	18
declared working condition oil pressure.....MPa	0.21~0.55
incline&swing	
infeed.....°	15
trim.....°	5
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 $n=3000$ rpm, flow $Q \geq 18$ m³/h,

self-suction=2m,

lift $H=17$ m

self-suction duration ≤ 90 s;

★alternator

rated current 35A

rated voltage 28V

connection mode: single

★starter

rated power: 6kW

rotation direction: clockwise(from drive end)

rated voltage: 24V

connection mode: single

★instrument system

low oil pressure alarm value: 0.12MPa

over speed alarm value: 2645r/min

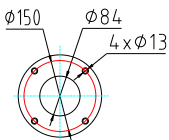
Low oil pressure stop value: 0.10MPa

over speed stop value: 2760r/min

High water temp alarm value: 95°C

High oil temp alarm value: 115°C

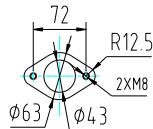
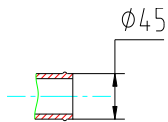
★exhaust pipe outlet size(bellow)



★cooling system

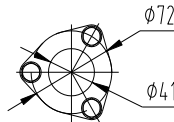
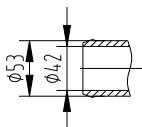
seawater inlet flange size

seawater outlet flange size

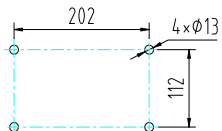


Seawater pump inlet size

seawater pump outlet size



Seawater pump install footing size



★fuel system

Fuel transfer pump inlet pipe size

fuel pump return pipe size

