
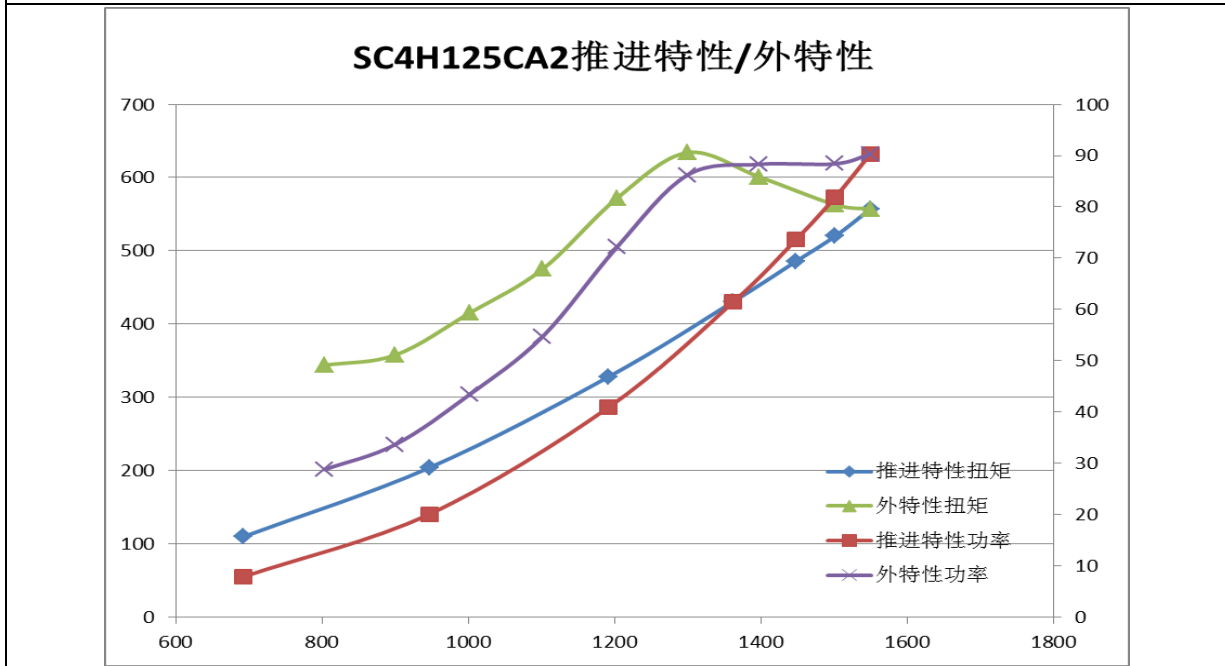


Shanghai Diesel Engine Co., Ltd.

 上柴动力 SDEC POWER	SDEC SPECIFICATIONS for Marine Engine		Engine MODEL SC4H125CA2
			Order NO. H3612
Displacement	4.29L	Rated power/speed	82/1500 kW/r/min
Bore	105mm	Overload power/speed	91/1545 kW/r/min
Stroke	124mm	Oceangoing rated power/speed	80/1500 kW/r/min
Cylinder No.	4	Oceangoing overload power/speed	88/1545 kW/r/min
Fuel system	Mechanical	Type	Turbocharged and 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
1545	90.3	557	1545	90.3	557	203.6
1500	88.4	563	1500	81.9	520	206.2
1400	88.3	601	1448	73.7	486	208.6
1300	86.2	634	1362	61.5	431	210.6
1200	72.2	572	1191	40.9	328	217.3
1100	54.7	475	946	20.1	204	239.2
1000	43.4	415	692	7.9	110	311.2
900	33.7	358				
800	28.8	344				

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

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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.....	SC4H125CA2
Usage.....	Marine Propulsion
Type.....	Turbocharged&Intercooled
Rated Power/Speed.....kW/r/min	82/1500 kW/r/min
Overload power/speed.....kW/r/min	91/1545 kW/r/min
Oceangoing rated power/speed.....kW/r/min	80/1500 kW/r/min
Oceangoing overload power/speed.....kW/r/min	88/1545 kW/r/min
Max torque @1300r/min.....N.m	634
Max unload stable speed.....r/min	1650
max output power of crankshaft front end.....	30%
Compression Ratio.....	16:1
Average piston speed.....m/s	6.2
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.....°C	89
Air intake flow.....kg/h	451
Exhaust flow.....kg/h	467
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	971×729×1036
Max allowable air inlet restriction.....kpa	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
trim.....°	5
Incline&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 $n=2800\text{rpm}$, flow $Q \geq 20\text{m}^3/\text{h}$,

self-suction=2m,

lift $H=15\text{m}$

self-suction duration $\leq 90\text{s}$;

★alternator

rated current 35A

rated voltage 28V

connection mode: double

★starter

rated power: 5kW

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: 1725r/min

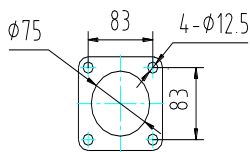
Low oil pressure stop value: 0.10MPa

over speed stop value: 1800r/min

High water temp alarm value: 95°C

High oil temp alarm value: 115°C

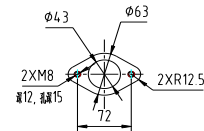
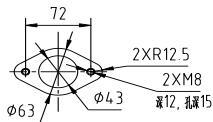
★exhaust pipe outlet size(bellow)



★cooling system

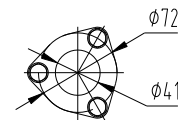
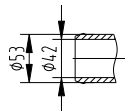
seawater inlet flange size

seawater outlet flange size

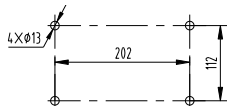


Seawater pump inlet size

seawater pump outlet size



Seawater pump install footing size



★fuel system

Fuel transfer pump inlet pipe size

fuel pump return pipe size

