
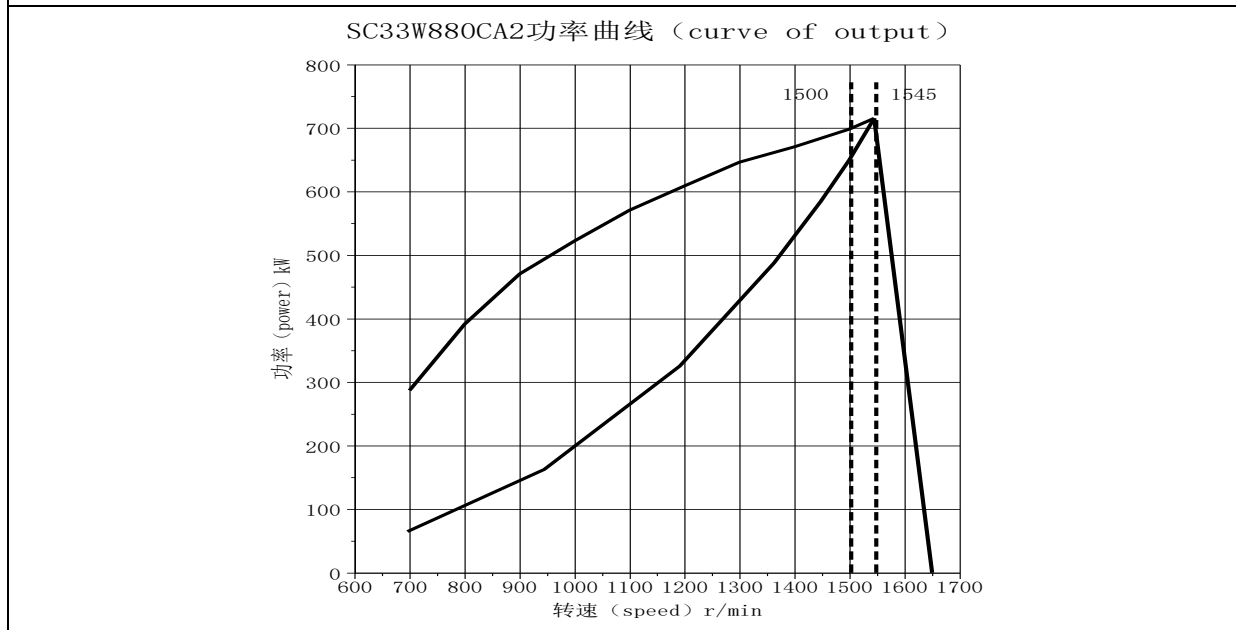


Shanghai Diesel Engine Co., Ltd.

	SDEC SPECIFICATIONS for Marine Engine		Engine model SC33W880CA2
			Order no W0036
Displacement	32.8L	Rated power/speed	650/1500 kW/r/min
Bore	180mm	Overload power/speed	715/1545 kW/r/min
Stroke	215mm	Oceangoing rated power/speed	640/1500 kW/r/min
Cylinder No.	6	Oceangoing overload power/speed	704/1545 kW/r/min
Fuel system	mechanical	Type	Turbocharged&intercooled

Cert: CCS、IMO Tier II



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	715	4419	1545	715	4419	219.7
1500	698	4445	1500	650	4138	216.3
1400	671	4575	1448	585	3856	213.2
1300	646	4746	1363	488	3416	213.4
1200	609	4843	1191	325	2608	214.3
1100	571	4955	945	162	1641	227.6
1000	522	4986	696	65	890	252.1
900	470	4988				
800	391	4670				
700	287	3912				

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 pressure 100kpa, ambient temperature 25°C, Relative humidity 60%, intercooler inlet temperature 32°C), without any

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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.....	SC33W880CA2
Usage.....	Marine propulsion
Type.....	Turbocharged&intercooled
Rated Power/Speed.....kW/r/min	650/1500
Overload power/speed.....kW/r/min	715/1545
Oceangoing rated power/speed.....kW/r/min	640/1500
Oceangoing overload power/speed.....kW/r/min	704/1545
Max torque @1000r/min.....N.m	4986
Max unload stable speed.....r/min	1650
max output power of crankshaft front end.....	50%
Compression Ratio.....	15:1
Average piston speed.....m/s	10.75
Ignition Order.....	1-5-3-6-2-4
Net Weight.....kg	3400
Speed Governing Rate.....%	≤10
min unload speed.....r/min	≤500±25
Fuel system.....	mechanical pump, dual walled fuel pipe
advance angle of injection.....° CA	20±0.5
max temp of inlet fuel°C	45
Max fuel inlet flow.....°C	5.75
Max temp of return fuel.....°C	84
Max fuel return flow.....L/min	3.85
Air intake pressure.....kpa	211
Air intake flow.....kg/h	5348
Exhaust flow.....kg/h	5506
Exhaust temp.....°C	≤550
Cooling system.....	Seawater-fresh water double system
open temp of thermostat°C	77
full-open temp of thermostat.....°C	90
Crankshaft Rotation.....	Anticlockwise (From flywheel)
Oversize(L×W×H).....mm	2551×1265×1898
Max allowable air inlet restriction.....kpa	≤550
Max allowable air outlet restrictionkpa	6
oil pan capacity.....L	11
declared working condition oil pressure.....MPa	0.35~0.55
infeed.....°	15
Incline&s trim.....°	5
wing rolling.....°	22.5
pitch.....°	7.5

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★power output interface

flywheel house:

SAE0# 16×M12 depth 20mm bore 27mm

belt pulley: 6groove C type, with flange

flywheel: SAE18# 6×M16 depth 27mm bore 35mm

★seawater pump

transmission: 2.31

rpm n=3000rpm, flow $Q \geq 27m^3/h$,

self-suction=2m; suction duration $\leq 35s$

lift H=15m;

★alternator

rated power 1500W

rated speed 3500r/min

connection mode: double

rated voltage 28V

rated current 54A

★starter

rated power: 13kW

rated voltage: 24V

rotation direction: clockwise(from drive end)

connection mode: double

★Air starting motor

rated power: 17kW

air pressure: 0.7-0.9Mpa

control voltage: DC24V

rated speed: 2100r/min

air consumption: $\leq 240L/S$

otation direction: clockwise(from drive end)

★instrument system

low oil pressure alarm value: 0.25MPa

Low oil pressure stop value: 0.20MPa

High water temp alarm value: 90°C

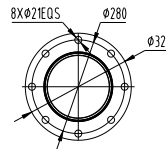
Electromagnet: DC24V N.0 type

over speed alarm value:115% rated speed

over speed stop value:120% rated speed

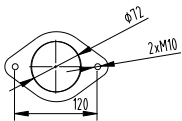
High oil temp alarm value: 110°C

★exhaust pipe outlet size(bellow)

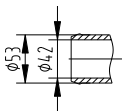


★cooling system

seawater inlet flange size

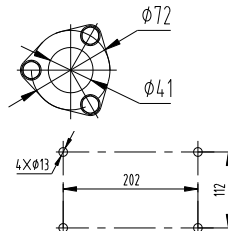


Seawater pump inlet size



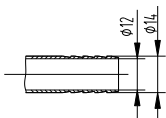
Seawater pump install footing size

Seawater pump outlet size

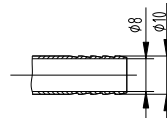


★fuel system

Fuel transfer pump inlet pipe size



fuel pump return pipe size



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