DIESEL ENGINE

Model: 8KDG-485

Prime power	440.0KW(598.0HP)/1500 rpm	460.0KW(626.0HP)/1800 rpm
Standby Power	485.0KW(660.0HP)/1500 rpm	500.0KW(680.0HP)/1800 rpm

- The engine performance is as per ISO 3046. Type of operation is based on ISO 8528.
- Prime power is available for an unlimited number of hours per year in a variable load application.
- The permissible average power output over 24 hours of operation shall not exceed 80% of the prime power rating.

Engine Specifications

V-Type, 4 stroke, water-cooled, Turbocharged, air-to-air intercooled.

Combustion type	Direct injection
Cylinders - Bore × stroke	8 - 128 × 142 mm
Displacement	14,618 cc
Firing order	1-5-7-2-6-3-4-8
Compression ratio	14.6 : 1
Dry weight	Approx. 1050 kg
Dimension(LxWxH)	1484 × 1389 × 1288 mm
Rotation	Anti-clockwise
Flywheel / Housing	SAE # 14 / # 1

Cooling System

Cooling method	Fresh water forced type
Water pump	Centrifugal, Belt driven
Water Capacity	20.0 liters (engine only)
Max. water Temp	95 degree C.
Cooling Fan	Blade 7EA - Ø 915 mm

Intake & Exhaust System

Max air restriction	Clean 2 kPa / Dirty 5 kPa
Exhaust back	Max 6 kPa

Electric System

Charging generator	27.5 V × 45 A
Starting motor	24 V × 7.0 kW
Battery	12 V x 2 x 120 Ah

Fuel System

Injection pump	Direct Injection type
Governor	Electronic type
Feed pump	Mechanical type
Injection nozzle	Multi-hole type/ 0.255 mm
Opening pressure	27+0.5MPa
Fuel filter	Single Stage, Paper

Fuel Consumption

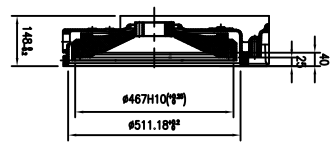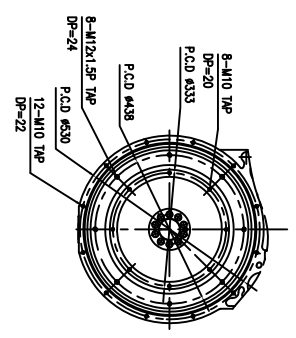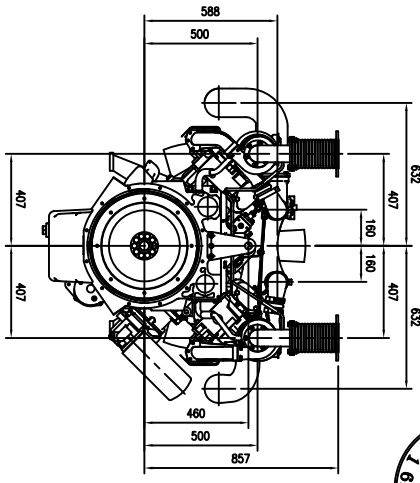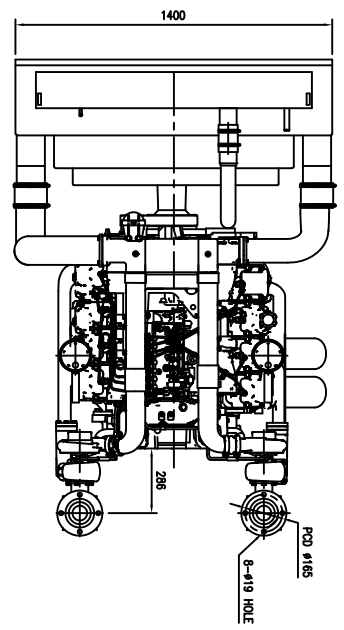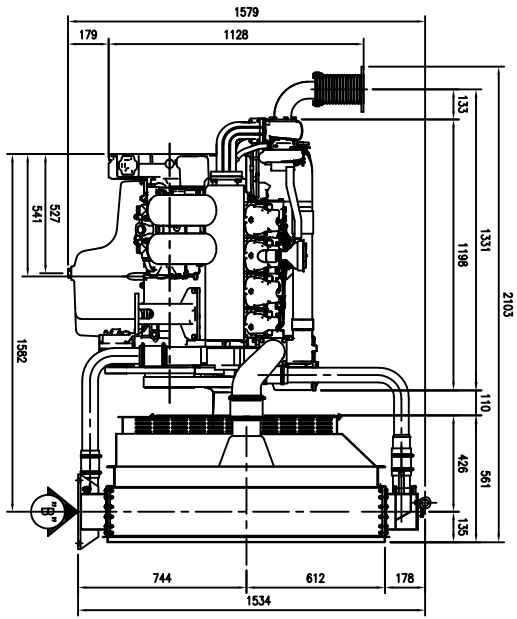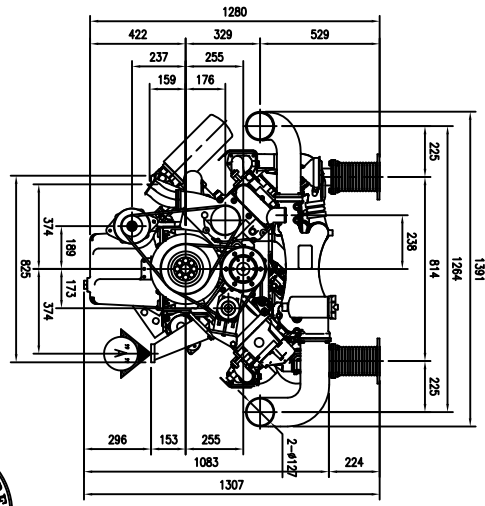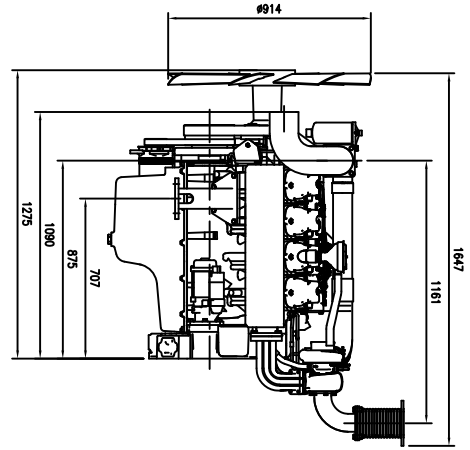|	
Prime power at 1500rpm	110.2 liters/h
Standby power at 1500rpm	121.5 liters/h
Prime power at 1800rpm	117.6 liters/h
Standby power at 1800rpm	127.8 liters/h

Lubrication System

Lub. Oil Pan Capacity	21.0 liters
Max. allowable Oil Temp	120 degree C.
Oil pressure	Min. 300 kPa Max. 650 kPa

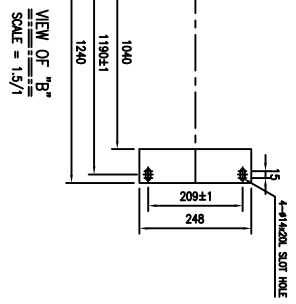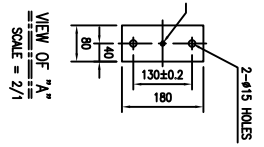## Engineering Data

Combustion Air at 1500rpm	34.8 m3/min
Exhaust Gas at 1500rpm	90.5 m3/min
Combustion Air at 1800rpm	37.1 m3/min
Exhaust Gas at 1800rpm	96.5 m3/min

Conversion Table

PS = kW × 1.3596	in. = mm × 0.0394
psi = kg/cm2 × 14.2233	
HP= PS x 0.98635	

VIEW OF "A"
SCALE = 2/1

M10 TAP HOLE
2-∅15 HOLES
80
40
130±0.2
180

VIEW OF "B"
SCALE = 1.5/1

1240
1190±1
1040
209±1
248
15
4-∅14x20L SLOT HOLE

1400
286
PCD ∅165
8-∅19 HOLE

∅914
1275
1090
875
707
1647
1161

588
500
632
407
160
160
407
632
407
407
460
500
857

1280
422
329
529
237
255
159
176
225
238
814
1264
1391
374
189
825
173
374
296
153
255
1083
1307
2-∅127
224
225

DETAIL OF FLYWHEEL HOUSING
SCALE = 1.5/1
FLYWHEEL : SAE#14
FLYWHEEL HOUSING : SAE#1

8-M12x1.5P TAP
DP=24
8-M10 TAP
DP=20
P.C.D ∅438
P.C.D ∅333
12-M10 TAP
DP=22
P.C.D ∅530

148.4
40
24
∅467H10
∅511.18

1579
179
1128
133
527
541
1331
1198
2103
1582
110
426
561
135
744
612
178
1534

FLYWHEEL : SAE#14
FLYWHEEL HOUSING : SAE#1

CUSTOMER

TITLE
KOODEC ENGINE ASSEMBLY
8KDG-485

DWG. NO.
8KDG-485

SCALE 1/25
DRAWN BY —
CHECKED BY —
APPROVAL —
CLIENT APPROVAL —
DATE '16.09.20
JOB NO. 20160920-00
CONTRACT NO. —

REV.NO.

2016.09.20 FOR REFERENCE

8KDG-485
DWG. NO.

A3
A3(385mm×272mm)