



Appendix

Major components of Viborg Kraftvarme A/S

Sidst rettet:

Arkiv:

Udgave: 1

Indholdsfortegnelse

1. Gasturbine	3
2. Accessory Gearbox	3
3. Torque Converter	3
4. Startmotor.....	3
5. Magn. Generator	4
6. Permanent magnet generator.....	4
7. Lufkin Gear	4
8. Gasturbine reduction gear	4
9. LP-Condensator and HP-Condensator	5
10. Generator.....	5
11. Steamturbine	5
12. BWE Boiler.....	6
13. HP-container	6
14. LP- container.....	6

Notification used for values:

Separator for thousands : . (period) ex. One thousand = 1.000
 Separator for decimals : , (comma) ex. One point six bara = 1,6 bara

1. Gasturbine

Gasturbine model/serie	: PG-6541(B)
Design memo number	: RA9082
Model List Number	: 7L6A1PB283-1
Type of operation	: Base Load
Shaft Speed	: 5114 rpm
Control	: MARK V Speedtronic
Protection	: - Overspeed - Overtemperature - Vibration - Flame detection
Base Output(Natural Gas)	: 41.326 kW
Inlet temperature	: 5 °C
Exh. Temp. natural gas/dist	: 533 °C
Pressure	: 1.013 mbar

2. Accessory Gearbox

BHS VOITH	
Serial no	: 516427/01
Type	: A619
Speeds	: 5100/3584/1 424 rpm
Oli pressure	: 1,7 bar
Weight	: 2.000 kg
Year	: 1994

3. Torque Converter

VOITH TURBO

Type	: E 6 WAT
Fabr. No.	: 210877
Load (P)	: 450 kW
Speed	: 2980 rpm
Year	: 1989

4. Startmotor

ABB INDUSTRI

Type	: HXR 450 MF2
Load (P)	: 475 kW
Displacement Factor	: 0,93
Speed	: 2979 rpm
Power	: 400 V
Current	: 766 A
Frequency	: 50 Hz
Weight	: 3.750 kg
Rating	: Continuous
Spec.	: IEC 34.3
Amb. Temp.	: 20 °C

Coolant : Water at 40 °C
 Rotor insul. : Class F
 Stator insul. : Class F
 Year : 1995

5. Magn. Generator

BRUSH

Output DC Current : 1.005 A
 Output DC Power : 251 V
 Speed : 3.000 rpm
 Field current : 6,1 A
 Field Power : 43 V
 Frame : BXJ 40.20
 Machine no. : 62042A-1P
 Rating : Continuous
 Spec: : IEC 34.3
 Ambient temperature : 20 °C
 Arm. Insulation : Class F
 Field Insulation : Class F
 Year : 1995

6. Permanent magnet generator

Speed : 3.000 rpm
 Phase/Frequency : 1/400 Hz
 Power : 200 V
 Current : 15 A
 Frame : PMX 34-10
 Machine no. : 62042A-1P
 Year : 1995

7. Lufkin Gear

Model : NFQ 24070
 Ratio : 2837 : 1
 Serial no. : 11305
 Input speed : 8.510 rpm
 Unit rating : 42.897 HP – 32 MW
 Application fact. : 1,8
 Application power : 23.803 HP – 17,5 MW

8. Gasturbine reduction gear

BHS

Serial no. : 516457/1
 Type : AD66USO
 Load (P) : 54.000 kW
 Speeds : 5.114 – 3.000 rpm
 No. of teeth : 44 / 75
 Gear ratio : 1,704
 Service factor : 1,3

Oil Pressure : 1,6 – 1,8 bar
 Weight : 11.500 kg
 Year : 1995

9. LP-Condensator and HP-Condensator

WELLMAN GRAHAM

Type : TB:U
 Size : 65/65 – 32·25

Tank

Design Pressure : FV/ 3 barg
 Design Temperature : 150/0 °C
 Test Pressure : 4,5 barg
 Volume : 14.250 l
 Weight (dry) : 44.800 kg
 Year : 1995

Nest of pipes

Design Pressure : 16 barg
 Design Temperature : 120/0 °C
 Test Pressure : 24 barg
 Volume : 8.250 l

10. Generator

BRUSH

Output : 69.412 kVA
 Speed : 3.000 rpm
 Power : 10.500 V
 Current : 3.816 A
 Displacement Factor : 0,85
 Phases/Frequency : 3/50 Hz
 Phase conn. : Star
 Exc. Power : 228 V
 Exc. Current : 914 A
 Type : Turbogenerator
 Frame : BDAX 72 – 340 PRH
 Machine no. : 62042A-1G

11. Steamturbine

Type : Allen H2 Twin 630 cylinder
 HP – steam pressure : 70 bara
 HP – steam temp. : 510 °C
 LP – steam pressure : 4 bara
 LP – steam temp. : 215 °C
 Gear Shaft output : 17 MW
 Normal speed : 8.500 rpm

12. BWE Boiler

Boiler no.	: 13040
Nominal Output	: 73 MW
HP steam	: 17,9 kg/s at 70 bara and 510 °C
LP steam	: 4,27 kg/s at 4 bara and 214 °C
Condensate temp.	: 80 °C
Year	: 1995

13. HP-container

Serial no.	: 13040
Design Pressure	: 91 bar
Design temp.	: 303 °C
Test pressure	: 119,6 bar
Capacity	: 20 m ³
Weight	: 19.050 kg
Year	: 1995

14. LP- container

No.	: 6360-01
Design Pressure	: 8 bar
Design temp.	: 176 °C
Test pressure	: 11 bar
Capacity	: 19,5 m ³
Year	: 1995