



Appendix

Major components of Viborg Kraftvarme A/S

Sidst rettet:

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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