Manufacturer		Thornhill
Model		
Date		8Kw Cat
Claimed heat output	kW	8
Boiler		n

Start		13:38:58	15:19:21	16:07:28
End		14:22:05	16:02:30	16:57:15

		Nominal heat output			
Fuel:		Charge 1	Charge 2	Charge 3	**Average**
Fuel		Beech	Beech	Beech	**Beech**
Moisture	wt%	12.4	13.0	13.0	**12.8**
-		-	-	-	**-**
Total load	kg	1.55	1.54	1.59	**1.56**

	primary air secondary air tertiary air combustion air				
Conditions:					
Duration	h	0.72	0.72	0.83	**0.76**
Deviation	%	-4.2	-4.1	10.6	**1.3**
Fuel consumption	kg/h	2.16	2.14	1.92	**2.06**
Draught	Pa	12.4	12.3	12.3	**12.3**
Temperatures					
Spigot	℃				
Flue	K	222	208	207	**212**
Flue gas temperature:	℃				**237**
Boiler					
Water temperature	K				
Flow	ltr/min				
Emissions					
CO2, max	vol%	20.26	20.26	20.26	**20.26**
CO2, average	vol%	12.52	11.89	11.53	**11.95**
CO	vol%	0.07	0.05	0.05	**0.06**
CO at 13% O2	vol%	0.04	0.03	0.03	**0.04**
CO at 13% O2	mg/Nm3	555	422	410	**460**
CO, per MJ	mg/MJ	361	275	267	**300**
NOx, average	mg/Nm3	164	200	170	**178**
NOx, at 13% O2	mg/Nm3	101	130	114	**115**
NOx, per MJ	mg/MJ	66	85	74	**75**
CxHy, average	mg/Nm3	112	64	46	**73**
CxHy, at13% O2	mg/Nm3	69	41	31	**46**
CxHy, per MJ	mg/MJ	45	27	20	**30**
CO2 dilution tunnel	vol%	13.43	13.02	13.24	**13.23**
CO2 during dust collection	vol%	13.43	13.02	13.24	**13.23**
Dilution ratio	-	1.0	1.0	1.0	**1.0**
Dust measured	mg/Nm3	28	24	34	**29**
Dust in flue gas	mg/Nm3	28	24	34	**29**
Dust at 13%O2	mg/Nm3	16	14	20	**17**
Dust in flue gas	mg/MJ	10	9	13	**11**
Dust in flue gas	g/kg wood	0.2	0.2	0.2	**0.2**
		0.4	0.3	0.4	**0.4**
		7.8	7.8	7.5	**7.7**
Energiebalans					
Cp flue gas	kJ/(m3.K)	1.37	1.37	1.37	**1.37**
Cp water vapor	kJ/(m3.K)	1.53	1.53	1.53	**1.53**
Ash	% of fuel	0.70	0.70	0.70	**0.70**
Combustibles	% of ash	10	10	10	**10**
Thermal losses	%	13.6	13.4	13.7	**13.6**
Chemical losses	%	0.4	0.3	0.3	**0.3**
Loss by ash	%	0.5	0.5	0.5	**0.5**
Efficiency	%	85.5	85.8	85.6	**85.6**
Heat output (total)	kW	8.4	8.3	7.4	**8.0**
Deviation of average.	%	4.9	3.7	-7.5	**-**
Heat output room	kW				
Heat output water	kW				
Flue gas mass flow	g/s	5.5	5.7	5.3	**5.5**
Interpolation					
Claimed heat output	kW	8.0	8.0	8.0	**8.0**
Calculated test period	h	0.76	0.75	0.77	**0.76**
Required test period	h	0.75	0.75	0.75	**0.75**
Calculated heat output	kW	8.1	8.0	8.2	**8.1**