

TÜV Rheinland Energie und Umwelt GmbH
Test Centre for Energy Appliances

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Report No. K 591 2014 S7
Confirmation of the air quality requirements of
the non-domestic Renewable Heat Incentive
(RHI) — Reg 5A(3) and Schedule A1 from 12. 2013

Typ: E-Classic ...
Company: Central Boiler Inc

This certificate provides evidence that the tested boiler meets the air quality requirements of the non-domestic Renewable Heat Incentive (RHI) — Reg 5A(3) and Schedule A1 . It must be issued by a testing laboratory. Applicants applying for the RHI with biomass boilers must submit a certificate with their application, or alternatively, an environmental permit.

TÜV Rheinland Energie und Umwelt GmbH

Test Centre for Energy Appliances

TUV Rheinland Energie und Umwelt GmbH

Am Grauen Stein D-
51105 Köln

Telefon: 02 21 / d 52 00

Telefax*: 02 21 06- 13 49

Managing Director:

Marcus Staude

Amtsgericht Köln HRB 56171

K 591 2014 S7.docx

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1. TEST HOUSE	
a) name and address of testing laboratory	TÜV Rheinland Energie und Umwelt GmbH Am Grauen Stein 51105 Köln
b) name and signature of the person authorised by the testing laboratory to issue the certificate	Name: Reiner Verbert De . Head of Test Centre
	Signature: ver
c) date of issue of this certificate together with certificate reference number *Please see Note A	Date: 17/02/2014
	Ref: K 591 2011 TI/T2/S3 K 591 2014 E5
d) if testing laboratory is accredited to EN ISO/IEC 17025:2005, date of accreditation and accreditation number (note: if testing conducted after 24 September 2013, the testing laboratory must be EN Isonec 17025:2005 accredited)	Date: 01/02/2013
	Accreditation number: D - PL - 11120- 04- 00
2. PLANT Please see Note B	
a) name of the plant tested	E-Classic 1450 E-Classic 3200
b) model of the plant tested	E-Classic 1450
c) manufacturer of the plant tested	Central Boiler Inc. Greenbush 56726 USA
d) installation capacity* of the tested plant in kilowatts (kW) *defined in the RHI Regulations as the total installed peak heat output capacity of the	E-Classic 1450 44 kW
e) is the plant a <u>manually stoked, natural draught</u> plant? (that is, without a fan providing forced or induced draught)	Yes Manual stoked with flue gas fan

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<p>f) (i) the date the plant was tested*</p> <p>(ii) please confirm that NOx and PM have been tested on the same occasion</p> <p>*This is in reference to the emissions testing for PM and NOx, not any wider range of tests. A specific date is required.</p>	<p>9. 11, 2011</p> <p>Yes</p>				
<p>g) list of all the plants in the type-testing range* of plants to which the certificate applies, if any ¹ Please include the installation capacity of each model.</p> <p>*This must follow the ratio rules:</p> <p>If the smallest plant in the range is 500kW or less, the largest plant in the range can't be more than double the smallest.</p> <p>If the smallest plant in the range is over 500kW, the largest plant in the range can't be more than 500kW or greater than the smallest.</p>	<table> <tr> <td>E-Classic 1450</td><td>44 kW</td></tr> <tr> <td>E-Classic 3200</td><td>88 kW</td></tr> </table>	E-Classic 1450	44 kW	E-Classic 3200	88 kW
E-Classic 1450	44 kW				
E-Classic 3200	88 kW				

Auftrag Nr.:21224022

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3. FUELS	
a) types of fuels used when testing	Beech wood logs
<p>b) based on the testing, list the range of fuels that can be used in compliance with the emission limits of 30 grams per gigajoule (g/GJ) net heat input for particulate matter (PM), and 150 g/GJ net heat input for oxides of nitrogen (NOx)</p> <p>(based if relevant on classifications from EN14961 or EN303-5)</p>	<p>Ash, White with Specific Gravity (sg) of 0.63; Beech sg=0.67;</p> <p>Birch, sweet sg=0.71;</p> <p>Birch, yellow sg=0.65;</p> <p>Elm, rock sg=0.67;</p> <p>Maple, hard (black) sg=0.60; Maple, hard (sugar) sg=0.67;</p> <p>Oak, red sg=0.66;</p> <p>Oak, white sg=0.71;</p> <p>Pine Southern loaleaf SQ=0.64</p>
c) moisture content of the fuel used during testing	15,97 %

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d) maximum moisture content of the fuel which can be used with the certified plant(s) so as to ensure that the RHI emission limits are not exceeded. *This value may be obtained from ranges specified in EN 303-5 based on the fuel type(s) tested	
4. TESTS	
Confirm which requirements the emissions of NOX and PM have been tested in accordance with. <u>Either 4a or 4b should be confirmed the other should be 'not applicable'</u>	
a) if the testing was carried out in accordance with the provisions relevant to emissions of PM and NOX in either EN 303-5:1999 or EN 303-5:2012 ² , please confirm : - the test was conducted to whichever standard was current at the time of testing.	Yes
b) <u>if the</u> testing was carried out in accordance with the following requirements, please confirm: (i) testing was carried out in accordance - EN 14792:2005 in respect of NOx emissions, and; - EN 13284-1:2002 or ISO 9096:2003 in respect of PM emissions ³ ; and (ii) emissions of PM represent the average of at least three measurements of emissions of PM, each of at least 30 minutes duration: and	Not applicable

The type-testing approach enables testing laboratories to provide assurance that all boilers in a given range meet the air quality requirements, without needing to specifically test each boiler. EN303-5:1999 and 2012 explain what should be measured and when.

³ These standards explain how to make the PM and NOX measurements.

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(iii) the value for NOX emissions is derived from the average of measurements made throughout the PM emission tests.	
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c) please confirm the plant was tested at 285% of the installation capacity of the plant	
d) please confirm the test shows that emissions from the plant were no greater than 30 g/GJ PM and 150 g/GJ NOx	yes
e) measured* emissions of PM in g/GJ net heat input *this value should be from the test confirmed in 4c. Results from partial load tests are not required. This value must be in the specified units.	E-Classic 1450
f) measured* emissions of NOX in g/GJ net heat input *this value should be from the test confirmed in 4c. Results from partial load tests are not required. This value must be in the specified units.	E-Classic 1450 57,0

Note A: If details from a previously issued certificate are being transferred to this RHI emission certificate template, please note that this document must be issued by the testing laboratory as a separate certificate. So the issue date and certificate reference number should be in relation to this certificate using the RHI template, not the issue date and reference number of the original certificate.

Note B: If you are including multiple tested plants on one certificate, please ensure that all sections are completed for each tested plant, and are laid out such that it is clear which details relate to which tested plant. If a type-testing range is included as well, please show clearly which type-testing range relates to which tested plant(s), following the type-testing range ratio rules outlined in 2g.

Remarks: Initial basic test report acc. DIN EN 303-5 and documented with test reports K 591 2011 T1, dated on 29.08.2011, K 591 2011 T2, S3 dated on 22.07.2011, K 591 2014 E5 dated on 17.02.2014

Cologne, 17.02.2014

432/pom

Expert



Dipl.-Ing. A. Pomp

Test Centre for Energy Appliances

DIN- und DVGW-Laboratory

Deputy Head of Test Centre



Dipl.-Ing. R. Verbert

For all your Heating needs

COMMISSIONING CERTIFICATE

Date: - 11/08/2014

Location: - Anchor Logs Ltd, Anchor Croft Farm, Gargrave, Skipton, BD23 3NB

Contact Name: - Anchor Logs Ltd

Telephone Number: - 01756 748342

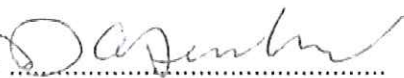
Email Address: - anchorlogs@hotmail.co.uk

Plant Type: - Central E Classic 2400

Serial Number: - 400710

- System filled and vented, corrosion inhibitor added
- Boiler fired and combustion/water temperature monitored- result all Ok

Signed: -

A handwritten signature in black ink, appearing to read 'D. Aspinall', is written over a dotted line.

For and on Behalf of GFP Home Heating

Showroom at: 114/1 16 Victoria Road, Scarborough, North Yorkshire YO11 1SL
•vel: 01723 377777 or 08000264244 Home Heating For all your Heating needs
CFP,

Website: - www.gfphomeheating.co.uk

COMMISSIONING CERTIFICATE

Date: • 24/07/2015

Location: - Anchor Logs Ltd, Anchor Croft Farm, Gargrave, Skipton, BD23 3NB


Contact Name: - Anchor Logs Ltd

Telephone Number: - 01756 748342

Email Address: - anchorlogs@hotmail.co.uk

Plant Type: - Central E Classic 3200

Serial Number: - E400921

Signed: -0.....

For and on Behalf of GFP Home Heating

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