



CARGOINSPECT - OPREMA

D.O.O. - SKOPJE

CORPORATION FOR SUPERINTENDENCE OF GOODS

Pos. No. _____

Skopje, 13.08.2010

CERTIFICATE No. 11-653-2010/988

FOR PERFORMED INSPECTION ON AUTOMATIC FIREPLACE

1. GENERAL DATA

- 1.1. Manufacturer: Evergreen Energy Doo, Ohrid, Macedonia
1.2. Inspection Body: Cargoinspect-Oprema Doo, Skopje, Macedonia
1.3. Place and Date of Inspection: Ohrid, 09-11.08.2010

2. SUBJECT OF INSPECTION

- 2.1. Automatic fireplace fired by wood pellets, ECO SPAR - SOLARA 6kW

3. MODE OF INSPECTION

The inspection of the appliance is performed according to EN 14785 Standard - Residential space heating appliances fired by wood pellets - Requirements and test methods. The test fuel was wood pellets (compressed untreated wood), moisture content 8%, net calorific value 5.000 kcal/kg, $\phi 6\text{mm} \times 10\text{-}25\text{ mm}$. The inspection covered the following:

- 3.1. Inspection of materials, design and construction (technical documentation)
- 3.2. Visual inspection and inspection of quality of manufacture
- 3.3. Safety tests
- 3.4. Performance and functional test
- 3.5. Inspection of installation and operating instructions
- 3.6. Inspection of marking

4. INSPECTION FINDINGS

- 4.1. The mechanical and chemical analysis of the materials showed proper materials and thickness used in the construction according to Table 1 and 2 of EN 14785 Standard. The body is made of prime hot rolled steel with quality S235JRG2, according to EN 10025 Standard. Ceramic glass (temperature resistant to 750 °C is used for the glass door. Fiber ceramics is used for completing the body. The technical documentation and assembly drawings include specification of materials used in the construction of the appliance and the nominal heat output declared by the manufacturer if using recommended fuel. Measured dimensions of the appliance are 470x500x800 (mm).
- 4.2. The inspection showed good visual quality of the process of assembling and manufacturing.

This inspection has been carried out to the best of our knowledge and conscience and this certificate does not absolve the seller and/or the buyer from their contactual responsibilities. In case of cargo superintendence or inspection of goods we are responsible in accordance with the deed contract. In case of taking over of goods in accordance with principles of power of attorney, while for weight and quality guarantee transactions we are responsible in accordance with the stipulations of contracts concluded relative to such transactions.

4.3. Safety temperature test is performed according to EN 14785. The appliance met the requirements of the Standard. Electrical safety test is performed according to EN 50165, because mains operated electrical equipment is fitted as part of the appliance. The results from the test are according to the requirements in the Standard.

4.4. Performance test at nominal heat output is performed with a test period according to the requirements of EN 14785 Standard. Test environment and test assembly in accordance with standard requirements.

Flue gas temperature measured by a thermocouple located inside a suction pyrometer probe. Exhaust gas temperature at nominal heat output was 180 °C. Exhaust gas temperature at reduced heat output was 100 °C.

Flue gas sampling performed by suction pyrometer probe was measured in accordance with A.4.7 and A.4.8 (EN 14785). The average carbon monoxide (CO) concentration calculated to 13% oxygen (O₂) content in the flue gas was 0.025 %. CO concentration met the requirements of the Standard.

The efficiency was measured in accordance with A.4.7 and A.4.8 (EN 14785). The measured total efficiency at nominal heat output is 90 %. Efficiency at reduced heat output is 85 %. The efficiency met the requirements of the Standard.

4.5. Installation and user operating instructions accompany the appliance which describe the installation, operation, maintenance and, if assembled on site, the assembly of the appliance.

4.6. The marking of the appliance met the requirements of the EN 14785 Standard.

5. CONCLUSION

After performed inspection it is concluded that **Automatic fireplace fired by wood pellets, ECO SPAR SOLARA 6kW** fulfills the requirements of EN 14785 Standard. The product may be used for its purposes and has the following technical characteristics:

Model	SOLARA	Fuel type	Pellet
Nominal heat output (kW)	6	Tank capacity (kg)	12.5
Efficiency at nom. heat output (%)	90	Max fuel consumption (kg/h)	≈ 1.5
Heating volume (m ³)	≈ 130	Min. fuel consumption (kg/h)	≈ 0.4
Diameter of exhaust gas pipe (mm)	80	Exhaust gas temp. (nominal) (° C)	180
Dimensions (mm)	470x500x800	Exhaust gas temp. (reduced) (° C)	100
Max power consumption (W)	340	Weight (kg)	95
		Power supply (Voltage/Frequency)	230 V /50 Hz

* Part of this Certificate is Test Protocol No. 11-653-2010/988-TP01

Certificate is valid until **13.08.2013**


A. Stavrev
Inspector

CARGOINSPECT-OPREMA
D.O.O. SKOPJE
Quality and Quantity Inspection


D. Risteski
Director