

This bulletin addresses changes to the regular maintenance schedule of the Fröling FHG wood boiler. Please pay particular attention to the yellow highlighted text. **Cleaning requirements may vary depending on wood species or wood moisture content and other factors. Some cleaning intervals could be shorter or longer.**

## Maintenance before every fire

### *Cleaning of heat exchanger pipes*

- ⇒ Move the lever of the heat exchange cleaning system 5-10 times up and down before the heating-up process.



## Weekly Maintenance

Ash should be removed when the ash is at the lower row of air holes located on the base of the hanging aprons.

**NOTE: Excessive ash can cause the aprons to warp or burn out prematurely.**



### *Removing the ash*

- ⇒ Open the outer insulation door and the ignition door.
- ⇒ Using the ash scraper, scrape the ash located above the combustion chamber and let it fall through the slot into the lower combustion chamber.
- ⇒ Open the combustion chamber door.
- ⇒ Remove the ash using the rounded ash shovel.
- ⇒ Shovel the ash into a metal container that can handle hot ash and embers.
- ⇒ **Important! Leave ½" - 1" of ash on the refractory and cast iron surfaces to protect them.**
- ⇒ Use a Fire-proof container with a cover!
- ⇒ **Never use a vacuum to remove ash from the combustion or loading chamber. This may drastically shorten the life of the combustion stones.**



### *Cleaning the channels on both sides of combustion chamber*

- ⇒ Open the outer insulation door and combustion chamber door.
- ⇒ Check the passage to the left and right of the combustion chamber for ash deposits
- ⇒ The amount of ash will depend on the type of fuel used!
- ⇒ Clean the passages with a small brush and remove any fallen ash.

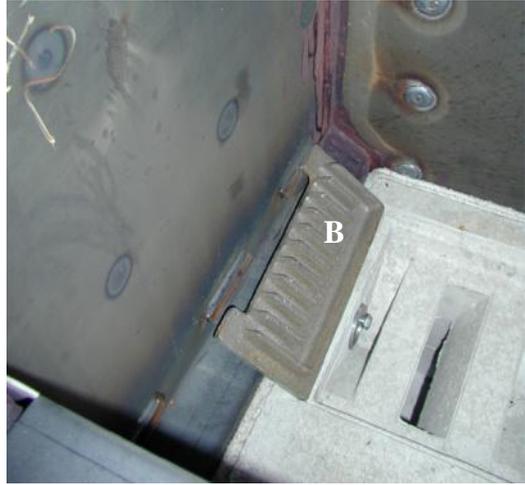


## Monthly Maintenance (after 2 full (pulp) cords burned)

### *Cleaning the grate (secondary air supply)*

- ⇒ Open the outer insulation door, load door, and ignition door.
- ⇒ Remove the ash from the top of the cast iron grates with the ash scraper.
- ⇒ Remove the grate (**B**).
- ⇒ Remove the ash deposits under the grate to ensure trouble-free secondary air flow! A vacuum can be used, but only on the area underneath the grate. Never use a vacuum to remove ash from the combustion chamber or loading chamber. This may drastically shorten the life of the refractory.
- ⇒ Important! After cleaning under the grates, add ½"-1" of ash on top of refractory and cast iron surfaces to protect them.
- ⇒ Before replacing the cast iron grates fully clean the refractory shelf that the cast iron grates rest on, assuring that the grates are flat and even.

**NOTE: Secondary air supply must never be blocked or damage may result**



## Annual Maintenance

**NOTE: Tarm Biomass recommends that annual maintenance be performed by a trained installer.**

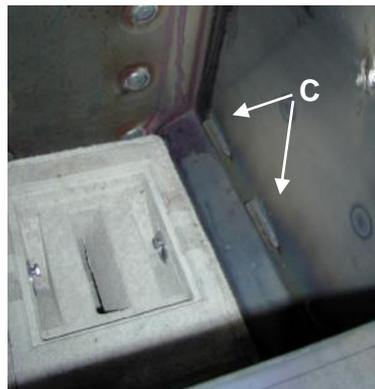
### *Cleaning flue gas pipe and flue gas sensor*

- ⇒ Mark existing mounting position carefully.
- ⇒ Release the retaining screw and remove the sensing element from the flue gas connector.
- ⇒ Clean the flue pipe between the boiler and the chimney with a chimney sweep brush.
- ⇒ Wipe off the sensing element with clean cloth.
- ⇒ Slide-in the flue gas sensing element to the marked position and secure it gently with the retaining screw.
- ⇒ Clean behind the steel aprons. Focus attention on the primary air inlets.



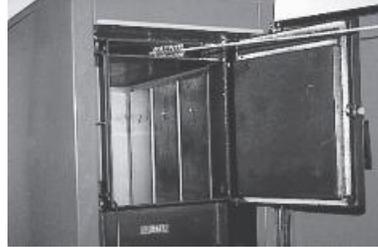
### *Checking the primary air openings*

- ⇒ Open the outer insulation door, load door.
- ⇒ Unhook the steel hanging aprons.
- ⇒ Check the primary air openings (**C**) for unobstructed air-flow.
- ⇒ If necessary, clean the openings.
- ⇒ Replace aprons.



### *Cleaning the smoke extraction duct*

- ⇒ Switch off main switch.
  - ⇒ Open the outer insulation door and load door.
  - ⇒ Clean the smoke extraction duct with a small brush.
- NOTE: take care not to push the brush into the induction fan.**

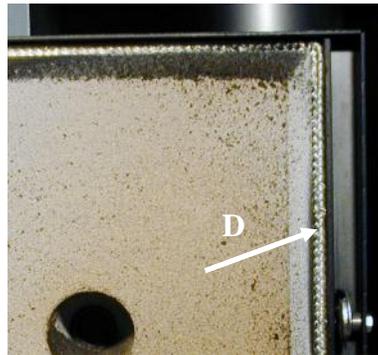


### *Checking the tightness of door gaskets*

- ⇒ Close the respective door and check its gasket.
- ⇒ Check gasket (D) for perfect alignment on the door frame
- ⇒ Check the imprint in the door gasket

**If the gasket is black at several points or the imprint is interrupted:**

- ⇒ The gasket is no longer effective.
- ⇒ Replace the gasket.

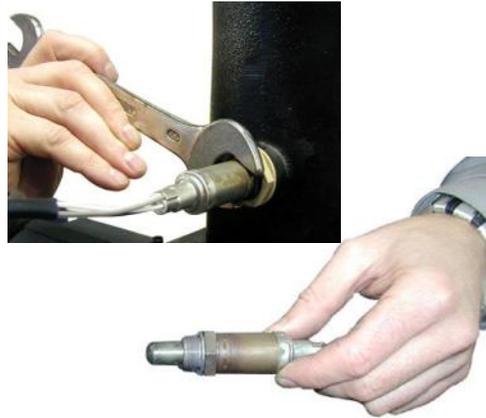


### *Cleaning the Lambda Sensor*

**WARNING!:** Lambda sensor can be extremely hot. Shut off power for ½ hour before removing the Lambda Sensor or ensure that the boiler has not run for at least ½ hour.

**WARNING:** Use only a wrench on nut surfaces. Never turn the barrel of the sensor using pliers!

- ⇒ Carefully remove the Lambda Sensor.
- ⇒ Wipe off the sensor with a clean cloth.
- ⇒ If any of the holes are plugged, tap sensor lightly on soft material to remove any internal dust. Light air can be blown on sensor (not compressed) to help remove any stubborn dust.
- ⇒ Screw the Lambda probe back into flue gas nozzle and gently tighten.



### *Cleaning the induced draft fan*

- ⇒ Visually check fan by removing inner and outer heat exchanger clean-out covers (A).

**If the draft fan needs to be cleaned please do the following:**

- ⇒ Detach the induced draft fan on the back of the boiler.
- ⇒ Clean the blower wheel with a soft brush or paint brush.

**NOTE: Do not move the balancing weights on the blower wheel!**

