

# **TROXLER NTO OVEN** **(Asphalt Content Ignition Oven)**

## **Verify the Scale:**      Accuracy (Manual Page 6 – 15)

- The oven chamber **must** be at room temperature to verify or calibrate the scale. (The oven must be switched on but the door must be open). The elements will not switch on when the door is open.
  
- Press Menu (Main Menu)
- Press (5) – Scale Menu
- Press (3) – Verify
- The hearth plate must be on the rails in the correct position.
  
- Display – Do you want to take the scale?
- (Yes)
- Display – Enter mass value (2000 – 5000 g) e.g. 3000 g
- Enter
- Display – Place mass on scale, then press Enter – system will delay 60 seconds.
- Enter
- The oven verifies accuracy, computes % error and displays result
- To print result (Yes)
  
- Error % less than  $\pm 0,1\%$  (some say  $\pm 0,025\%$ ) is within spec and oven
- Returns to scale menu.
- Error % greater than  $\pm 0,1\%$  (some say  $\pm 0,025\%$ ) display – do you want to calibrate?
- (No) – If you don't want to calibrate or if you want to re-check
- To calibrate – Page 6 – 17 of the manual
- (Read this before you do it)

## **Important Tips:**

- We assume that the NTO is firm on the surface that it rests and was not bumped during verification.
- The NTO was installed correctly and level.
- If there are calibrated weights available use them to verify (2000 – 5000g)
- If there is an electronic balance, which is used to weigh the asphalt samples, check for a calibration tag.
- Double check the calibrated weights on the balance.
- If there are no calibration weights available – place ZDR briquettes on a tray. Spread them apart evenly on they tray, as the sample would be. Get the mass on the balance (including the tray) and use this.

- If the error is greater than  $\pm 0,025\%$  the first time press (No) – the mass that you are using may be wrong. Re-check on another balance and redo.
- I haven't had to re-calibrate an NTO scale yet.
- Make sure that the tray doesn't touch the side or back of the oven.
- If there is a breeze in the Lab you may have to close the door slightly when you verify (don't shut it).
- Always place the packing under the rails when you move or transport the NTO, so as not to damage the scale.
- If you transport long distance place packing in over chamber as well.

## **Cleaning:**

### **External:**

- Circuit breaker / power off.
- Clean with damp cloth
- Oven at room temperature

### **Chamber:**

- Clean oven function cleans by burning off residue that has collected in chamber.
- Oven is heated to a cleaning threshold temperature for an extended period.
- $\pm 2$  hours for 220 – 240 v – Model 4731
- Main Menu
- (8) Miscellaneous Menu
- Clean oven
- Chamber door must be closed and previous burn or clean cycles must be cleared before using this function.
- The oven begins to heat and when temperature threshold is reached it displays.
- Clean cycle, remaining time xx:xx please wait.
- When complete press Enter to return to Miscellaneous Menu
- If you burn samples in the morning and again later in the afternoon the oven will basically self clean while it is idling?
- If you have started a clean cycle (2 hours) and find you need to use the NTO before completed you can abort the cycle.

### **Exhaust Plenum Box**

- Clean regularly to ensure safe and efficient operation.
- Oven monitors total oven burn time, since last cleaning.
- When it reached 1050 minutes ( $\pm 35$  minutes x 30 burn cycles).

**Display:** Warning : Clean NTO Exhaust System  
See manual for details  
Press Enter

- Clean Exhaust Plenum Box when it displays this.  
At the next burn cycle when you press (Start) the display:  
***Have you cleaned the NOT Exhaust System?***  
YES – Press (Yes) the burn cycle timer starts again  
NO – Press (No) the timer is not reset but the current burn cycle goes ahead.  
The oven repeats the message until you clean the Exhaust System and press (Yes)

### **How to clean the Plenum Box**

- Oven must be cool, circuit breaker / power switch off, unplug the oven.
- Loosen the two thumbscrews that hold the access panel on the right of the oven. Place the panel aside.
- Loosen the thumbscrews that secure the Plenum access panel.  
Note: Do **not** touch the allen-screws that secure the louvers to the Plenum access panel.
- Use wet / dry vacuum cleaner with 0,6 micron or less filter to clean out soot
- Carefully remove flexible exhaust duct from ovens exhaust port. (Pull on the coupling that goes into oven).
- Carefully brush all soot from turbine blades of fan using **only : small soft bristle brush** provided. **Do not bend the turbine blades.**
- Use vacuum carefully to remove loosened soot from turbine. **Do not insert vacuum nozzle into fan intake.**
- Replace Plenum access panel and hand tighten
- Replace outer access panel.

### **Flexible Exhaust Hose:**

- Check for soot build up especially if there are bends.
- Disconnect the pipe from the NTO.
- While the vacuum cleaner is running tap on the pipe to loosen the soot.