Drum Balancer Upgrade

Applies to

ThermoFlex Wide II

Background

Due to the drum balancer assemblies seizing on some devices, replacement assemblies must be installed. The replacement assemblies have been redesigned and have an array of red dots on both faces.

Tools and parts

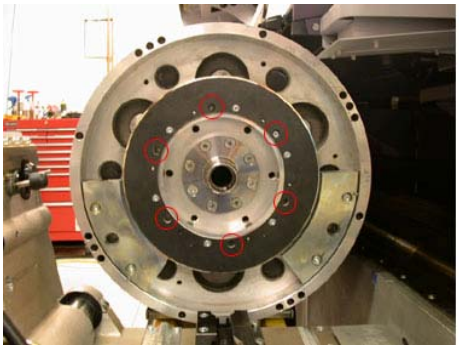
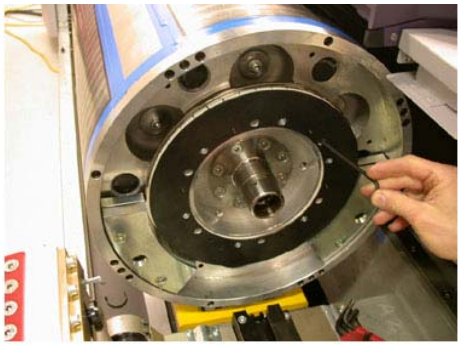
- Replacement drum balancer assembly—500-00158A
- Hex keys

Steps

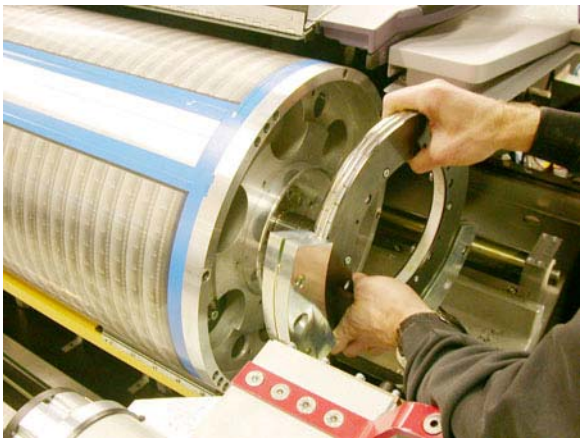
Replacing the drum balancer assemblies

1. Open the table and front panel to gain access to the drum.
2. Turn the drum brake switch to the **Brake Override** position.
3. Loosen all six cam locks by turning them counter-clockwise until the index marker is at the 12 o'clock position.
4. Spin the drum by hand and engage the drum brake by turning the drum brake switch to the **Brake Operation** position.
   The sudden deceleration should release the interface between the spindle and the drum (there should be free play on the drum pulley).
5. Remove the six fasteners securing the headstock side drum balancer—these are the deep recessed screws.
6. Release the drum brake, rotate the drum until the spindle index pin latch is accessible, and re-engage the drum brake.
7. In Service Shell, type `>>drumlift hoist up`.
8. Press the hoist **Up** switch.
   The hoist will stop when it is in contact with the drum and an audible beep is heard. Verify that the drum is supported by the hoist.
9. Type `>>tailstock unlock` .
10. Unlock the tailstock (short lever) and slide the tailstock assembly away from the drum (long lever). Now rotate the tailstock assembly out of the way.
11. Type `>>drumlift lever enable` .
12. Simultaneously release the spindle index pin latch and translate the drum towards the tailstock side. Drum translation lever motion is 'lift-rotate-lower'. While lifting the lever, you may need to wiggle to disengage the lock pin. When the lock pin disengages, you should hear a click.
13. Type `>>drumlift lever disable` .
14. Type `>>drumlift hoist down` .

15. Press the hoist **Down** switch to lower the hoist and drum into the storage position. The hoist will stop when it reaches the down position and an audible beep is heard.
16. Note the orientation and remove the red cam lock shield ring from the headstock casting.
17. Type `>>drumlift hoist up` and press the hoist **Up** switch to raise the hoist and drum.
18. To remove the tailstock side drum balancer assembly on the tailstock side of the drum, remove the six hex screws in the recessed holes (shown with the circles).

19. Pull the drum balance assembly off the drum by simultaneously pulling and rotating it.



20. Install the new drum balancer assembly.
21. Apply Loctite 242 to the six hex screws and install them to hold the new drum balancer assembly in place. Tighten the screws.
22. At the headstock side, slide the drum balancer assembly off the drum hub and onto the spindle outside diameter (OD).
23. Type `>>drumlift hoist down` and press the hoist **Down** switch to lower the drum—ensure the balancer assembly does not fall off the spindle OD.

24. Remove the balancer assembly from the spindle.
25. Type `>>drumlift hoist up`.
26. Place the headstock side balancer assembly on the spindle OD, raise the drum, and slide the balancer assembly back onto the drum hub.
27. Apply a small drop of Loctite 242 to the six hex screws and install them to hold the new drum balancer assembly in place. Tighten the screws.
    Note: Do not get any Loctite on the balancer assembly.
28. Type `>>drumlift hoist down` and lower the drum.
29. Reinstall the red cam lock shield ring onto the headstock casting. The cam lock access hole should be at approximately the 7 o'clock position.
30. Type `>>drumlift hoist up` and raise the drum.
31. Type `>>drumlift lever enable` .
32. Ensure the drum index pin is aligned with spindle index hole. Translate the drum towards the headstock side using the drum translation lever.
33. Type `>>drumlift lever disable`.
34. Rotate the tailstock back into position and fully insert into the drum pin. Lock the tailstock by flipping the lock lever into the vertical position.
35. Type `>>tailstock lock` .
36. Type `>>drumlift hoist down` and lower the hoist.
37. Disengage the drum brake to allow access to the spindle cam locks.
38. Ensure the drum to spindle interface is in intimate contact (no gap). Using the torque wrench, tighten the spindle cam locks in the sequence marked on the cam locks (the tightening sequence is very important to achieve good runout).
39. Spin the drum slowly by hand and check for interferences at the balance weight optical sensors. If the original crescent shaped masses are used, the pin lengths should be correct.
40. Turn the drum brake switch to the **Brake Operation** position and close all machine panels.
41. Test multiple balancer movements for various sheet sizes using the command `>>balancer balance` (type `>>help balancer balance` for command syntax help).

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